Sage CRM
System Administrator Guide

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About this guide

This guide is for Sage CRM System Administrators who are confident end users of Sage CRM. The navigation instructions in the guide assume that you're using the Contemporary Theme.

This guide refers to *Sage CRM* but your system might have a different brand name, such as *Sage 200 Sales and Marketing*. The system works in the same way regardless of its name. The functionality that's available to you depends on the modules that you're licensed to use.

This guide has the following chapters:

Chapter	Description
Installation and upgrade	Provides information about the following: • Installing Sage CRM. • Upgrading Sage CRM. • Sage CRM server administration tasks. • Restoring Sage CRM from a backup. • Deploying Sage CRM using Citrix XenApp or Remote Desktop Services (RDS).
Configuration	Provides information about the following: • Configuring system settings. • Accessing locks. • Setting up Service Level Agreements (SLAs), Business Calendars, and Holiday Sets. • Changing the appearance of the user interface.

Chapter	Description
Users	Provides information about the following: - Adding and changing user details. - Setting up user security profiles, territories, security policies, and password policies. - Setting up teams and assigning users to them. - Viewing user activity. - Adding users in a batch process. - Setting up a new user template. - Setting default Standard Classic dashboards.
Data	Provides information about the following: - Setting up deduplication screens and match rules. - Loading data from CSV and MS Excel spreadsheet formats. - Setting up and maintaining product information. - Enabling and setting up multicurrency support. - Configuring sales forecasts. - Creating links between entities. - Configuring groups. - Creating reports.

Chapter	Description
Email and documents	Provides information about the following: - Configuring email settings and checking the status of the Email Manager service. - Setting up email templates. - Setting up email management for automatic filing of inbound and outbound emails. - Configuring Exchange Integration. - Configuring Classic Outlook Integration. - Configuring Lite Outlook Integration. - Configuring E-Marketing. - Configuring Mailchimp Integration. - Creating and editing document templates. - Configuring Document and Report settings. - Managing library storage. - Setting up Crystal Reports.

Chapter	Description
Customization	Provides information about the following: - Maintaining multiple languages and changing existing translations. - Importing components from a customized implementation. - Creating and modifying fields and field-level security. - Modifying screen layout. - Using field-level scripting to modify screens. - Customizing the layout and content of lists and grids. - Modifying and adding tabs. - Customizing the Administration work area. - Modifying and adding views. - Changing Web Services and SData access settings. - Customizing summary reports. - Creating onscreen and email notification rules. - Generating leads from a customer web site. - Setting up data for marketing campaigns, groups, and outbound call handling. - Activating predefined workflows and creating new workflows. - Creating quick notifications and escalation rules.
Mobile	Provides information about the following: - Setting up mobile apps - Setting up Mobile
Self Service	Provides information about the following: - Planning and customizing a Self Service web site - Administering Self Service

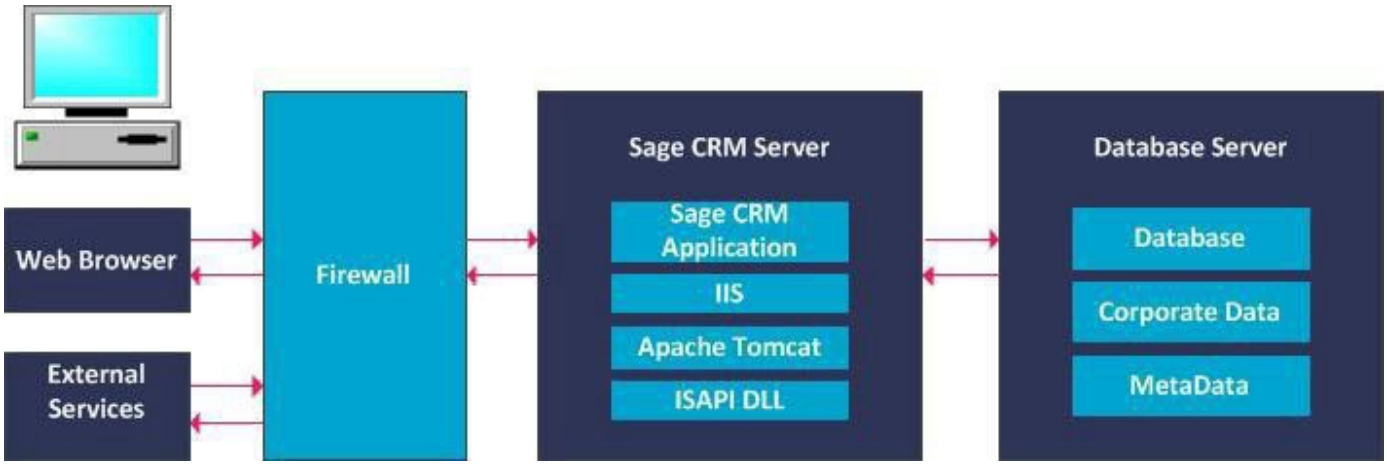
Installation and upgrade

- Before you begin
- Installation and uninstallation
- Server administration
- Upgrading
- Restoring a live environment
- Multi-server Sage CRM
- Deploying Sage CRM using XenApp or RDS

Before you begin

- **System architecture**
- **Client software considerations**
- **Server software considerations**
- **Installing a secure system**
- **Configuring a secure system**

System architecture



Sage CRM is a 32-bit application which can run on a 64-bit server. Sage CRM installations comprise of a Sage CRM server and a database server. As Sage CRM is a web-based solution, each user needs a web browser and IP connection to the Sage CRM server to access the system.

The Sage CRM server runs the following:

- IIS
- ISAPI DLL which includes HTML / Page generation objects, session / persistence manager, customizable business objects, business logic objects, security manager, and database service objects.
- Apache Tomcat which includes the interactive dashboard, SData manager, Apache POI, Exchange Sync Engine, and E-marketing. You can deploy Exchange Sync Engine on a remote server.

The database server is Microsoft SQL Server or a Microsoft Azure SQL solution.

A file share is also required to store library files, although this is generally stored on the Sage CRM server.

External services include the email server, E-marketing platform, accounting solution endpoints, and on-premises Exchange Server or cloud-based Exchange Online. Data is sent through an optional firewall from the web browser and external services to the Sage CRM server over HTTP (Internet / Intranet) and from the Sage CRM server as HTML, Java Script, Dynamic HTML and style sheets.

Sage CRM connects to the database using Microsoft Data Access Components (MDAC). The latest version of MDAC is installed as part of the Sage CRM setup if it's not already on the system.

Client software considerations

A web browser is required to use core Sage CRM features and is usually pre-installed on the client.

The following Sage CRM features require external applications to be installed on the client machine.

- Adobe Reader is required to view Sage CRM reports in Adobe PDF format. You can download Adobe Reader from **www.adobe.com**.
- Data upload and mail merge require Microsoft Office applications. Data upload accepts *.XLSX files created by Microsoft Office Excel 2007 or later, and *.CSV files. Users can save mail merge templates created in Microsoft Word as *.DOCX, *.HTM, and *.HTML files. Microsoft Word 2007 or later, or another program that can open *.DOCX files must be installed to view merged documents.
- Charts generated by Sage CRM are displayed using HTML5.

Server software considerations

The *Hardware and Software Requirements* posted on the **Sage CRM Help Center** provide an overview of supported software for a standard implementation.

You must set up the Sage CRM server and database server before you install Sage CRM. You can run Sage CRM in a virtual environment. Configuration, setup, and performance of the virtual environment are the responsibility of your IT department.

Sage CRM server

To display charts, Sage CRM uses HTML5.

You must ensure IIS is installed as a Server Role on the Sage CRM server and that ASP, ISAPI Extensions, and ISAPI Filters are selected. You can import an HTTPS server certificate into IIS to encrypt sessions between the server and a user.

1. Click **Start | All Programs | Administrative Tools | Server Manager | Roles**.
2. Select **Add Roles** and click **Next**.
3. Click **Web Server (IIS)**.
4. In the Role Services section of the Add Roles Wizard, ensure the following role services are selected.
    - Application Development | ASP .NET
    - Application Development | ASP (set Enable Parent Paths to True)

- Security | Windows Authentication (if Auto Logon is required)
- Management Tools | IIS Management Console and IIS Management Compatibility.

5. Ensure that the Anonymous Authentication Credentials are using Application Pool Identity or are hard-coded with a local administrator account. If they are not, you may experience issues when editing CRM System Settings.

Database servers

- Enable TCP/IP for SQL Server installations.
- Use a dedicated SQL Server user for Sage CRM rather than the *sa* user. Alternatively, ensure there's a back-up user with the same privileges as *sa* in SQL Server. Both measures prevent access issues if the *sa* user gets locked out of Sage CRM.
- In a high-availability environment, Sage CRM can be used with a Microsoft SQL server cluster in an active/passive configuration. This configuration provides resiliency in the database layer. You should configure a Microsoft SQL Server cluster according to Microsoft's specifications and guidelines. Provide the SQL cluster address and SQL logon credentials when prompted in the Database Server Login dialog box during the Sage CRM installation. For more information, see **Installing Sage CRM**.
- The default setting for the initial database size in Microsoft SQL Server is 0.5 GB (512 MB), but you can change it during installation.
- The Sage CRM Setup creates the following default collations in the Sage CRM database.

Collations created in Microsoft SQL Server	Collation created in a Microsoft Azure SQL solution
• English: `Latin1_General_CI_AS` • French: `French_CI_AS` • German: `Latin1_General_CI_AS` • Spanish: `Modern_Spanish_CI_AS`	English, French, German, and Spanish: `SQL_Latin1_General_CP1_CI_AS`

Installing a secure system

You should follow these best practices to minimize the risks of service interruption and data corruption:

- **Firewall**. Install a firewall if users will access the system remotely. This protects your network from the Internet, ensures only authorized traffic accesses your Sage CRM database, and protects your server from unauthorized users. You can configure rules to restrict traffic and allow traffic originating from a specific source only to protect your server from Internet attacks. You can also install a firewall in your remote sites and set up Virtual Private Networks (VPNs) to increase data security. Set mobile users as mobile firewall users so they

can access the VPN and transmit and receive data securely. Enable and configure the Windows Firewall.

- **Application security**. Follow these best practices when configuring your Sage CRM server and client machines.
    - We strongly recommend enabling HTTPS on your Sage CRM server, especially if Sage CRM is accessible outside your organization.

      HTTPS protects data from being intercepted in transit. When IIS is configured to use HTTPS, any data that is passed between the browser and the server is encrypted.
    - Assign different levels of access security to users depending on their job role.
    - Enforce strong passwords for each Sage CRM user. For more information, see **password policy recommendations provided by Microsoft**.
    - Configure HTTP response headers in IIS (`X-Frame-Options`, `X-XSS-Protection`, `X-Content-Type-Options`, and so on) to improve security and mitigate attacks such as clickjacking and cross-site scripting.
    - Keep the Sage CRM server and client machines patched to ensure the software elements that enable TLS (Transport Layer Security) are as secure as possible. TLS is a fundamental part of a secure web request.
    - Consider installing Sage CRM and SQL Server on different machines. Configure your network so that requests from the Internet cannot access the SQL Server. For example, you can place your Sage CRM server in a perimeter network (DMZ) to ensure that only web requests get to the Sage CRM server and only database requests pass into the internal network where the SQL Server resides.
- **Software**. Regularly install software updates and patches to minimize software security vulnerability. Install recognized anti-virus software. Uninstall unnecessary applications.
- **Backups**. Perform scheduled and manual backups. Establish a regular procedure for backing up the Registry and Program files. Repeat the procedure prior to major customization work or upgrades.
- **Server security**. Separate the domain controller server from the Sage CRM and database servers. In a Windows Server Systems environment, the Domain Controller (DC) serves as a gatekeeper to the domain resources by storing account information, authenticating users, and enforcing security policies. The defenses offered by a configured DC are further enhanced by placing it behind a robust firewall.
    - Use NT Challenge/Response to allow access to clients with a valid domain login.
    - Use HTTPS to secure your data sessions with client users.
    - Configure security policies on Windows Server.
    - Disable or delete unnecessary accounts, ports and services on the server. Disable unnecessary share drives.
    - Configure auditing on the server.

    - Configure encryption on Windows Server.
    - Use the IIS Lockdown and URLScan tools to harden IIS.
- **Database security**. Users do not have direct access to the Sage CRM database. Sage CRM accesses the database using a predefined logon. When a user requests data, Sage CRM connects to the database using MDAC and retrieves the required data.

  For improved security, you can configure Sage CRM to access the database using a SQL Server or Azure SQL account with limited access or rights to add, change, and delete data from every table in the database.

  Make sure that remote users cannot obtain administrator-level access to the system.

  Further database security measures include:

    - Installing only required SQL Server components.
    - Runing the SQL Server Configuration Manager and SQL Server Surface Area Configuration tools to disable unnecessary features and services.
    - Periodically assessing the server's security using the Microsoft Baseline Security Analyzer (MBSA) and SQL Server Best Practice Analyzer.
    - Changing the default port associated with the SQL Server installation or Azure SQL server to put off hackers from port scanning the server.
    - Removing the BUILTIN/Administrators group from the SQL Server Logins.

Configuring a secure system

You should follow these best practices to maximize the security of Sage CRM.

- **User authentication**. A user requires a user name and password to access Sage CRM. User passwords are encrypted in the system and in the database for maximum security. You can change a user's existing password but cannot view it. You can set the minimum length and strength of passwords, and specify the number of days before a password expires. For more information, see**Password policies** and **Security Profile fields**.
- **Security profiles and territories**. You can set up security profiles and territories to manage security access rights across the organization. A profile is a way of grouping users when defining access rights to view, update, insert, or delete records. You can further divide users rights by territory. For example, you can allow users in the Europe territory to view all opportunities in the USA territory, but not update them. Advanced policies let you define complex inter-territory security rights and exception handling. For more information, see **Security profiles** and **Territories**.
- **Field security**. You can set up field security for the Sage CRM system, individuals, teams, and security profiles. For example, you could make a field invisible to some users, allow other users to view the contents of the field but not to change them, and give other users read and write access to the contents. Or you could make it mandatory for the user to enter

a value in the field before submitting the form. For more information, see **Using field security**.

- **Company team and restricted tabs**. You can restrict user access rights to view and update information depending on company team membership. For more information, see **Security Profile fields**.

Installation and uninstallation

- **Installing Sage CRM**
- **Changing installed components**
- **Reinstalling Sage CRM**
- **Setting time zone**
- **Updating license key**
- **Uninstalling Sage CRM using the uninstall wizard**
- **Uninstalling Sage CRM manually**

Installing Sage CRM

Before you begin

- Make sure the computer on which you plan to install Sage CRM meets the *Sage CRM 2024 R2 Hardware and Software Requirements* published on the **Sage CRM Help Center**.
- Use a dedicated SQL Server user for Sage CRM rather than the **sa** user. Alternatively, ensure there's a back-up user with the same privileges as **sa** in SQL Server. Both measures prevent access issues if the **sa** account gets locked out of Sage CRM.
- Configure your firewall to allow Sage CRM access your Microsoft SQL Server.
- If you're deploying Sage CRM and Microsoft SQL Server on separate computers, you must install Microsoft SQL Client Tools on the Sage CRM server so that it can connect to Microsoft SQL Server.

Steps to install Sage CRM

Note: Install only one Sage CRM instance per server. Sage doesn't support configurations where two or more Sage CRM instances are installed on the same server.

1. Run **Setup.exe** and click **Install Sage CRM**. Step through the wizard.
2. On the License Agreement step, review and accept the software license agreement.
3. On the User Details step, enter the company names and your license key.

   You cannot register your license key more than five times. If you need to do so, contact your business partner.
4. Specify the database server on which you want to host the Sage CRM database. The database server must comply with the *Hardware and Software Requirements* published on the **Sage CRM Help Center**.

   You can select one of the following options:

   - **Connect to Microsoft SQL Server**. In the next steps, the Setup prompts you to specify an existing SQL Server on which to create the Sage CRM database. The SQL Server must have a case insensitive collation. Binary or case-sensitive collations are not supported.
   - **Connect to a Microsoft Azure SQL solution**. In the next steps, the Setup prompts you to specify an existing Azure SQL server on which to create the Sage CRM database.

You cannot use the Sage CRM Setup to select an existing database in Microsoft Azure SQL. Also the Setup does not support migrating data from an on-premise Microsoft SQL Server database to Microsoft Azure SQL.

- **Install and use Microsoft SQL Server Express**. In the next steps, the Setup prompts you to install Microsoft SQL Server Express supplied in the Sage CRM installation package. For information on the SQL Server Express sa account password, instance name, and port number, see the *Hardware and Software Requirements*

5. On the Installation name step, enter a name for your Sage CRM installation.

   We recommend that you use the default installation name: *CRM*. If you enter an alternative name, ensure it does not contain blank spaces. IIS looks in the default location for the Sage CRM home page.

   Do not use extended characters in the installation path or folder name, because they are not supported. To use extended characters, you must implement a workaround, such as running Tomcat as a service using the .NET tool **RunAsService**. This is an open source tool (**http://runasservice.sourceforge.net**) which registers a .NET Windows service that's configured to run any executable.

6. On the Choose Destination Location, specify the location where you want the Setup to create Sage CRM program files.

7. On the Database Server Login step, complete the following options:

   - **Database Server**. Specify the database server on which you want the Sage CRM Setup to create a database.

     To specify an on-premise SQL Server, enter its name or IP address.

     To specify an Azure SQL server, enter its fully qualified domain name, for example: *myserver.database.windows.net*.

   - **Port Number**. Enter the port number on which you want Sage CRM to connect to the database server.
   - **Initial Database Size (MB)** *(applies to on-premise SQL Server only)*. Enter the initial size for the database to be created and its log files. By default, the database size will grow beyond the specified initial size as required until no free disk space remains. If you want to specify the maximum database size, you need to use SQL Server Management Studio.
   - **Login ID**. Enter the user name representing the SQL Server or Azure SQL account under which Sage CRM will create and access its database on the database server.
   - **Password**. Enter the password for the user name specified in **Login ID**.

8. On the Select Setup type step, specify whether you want to add demo data to the Sage CRM database being created.

The demo data includes sample companies, leads, opportunities, cases, solutions, communications, people, territories, users, campaigns, and workflows. If you don't include demo data, you get sample workflows only.

9. On the Select install add-ons step, specify whether you want to install a sample self-service support website.
10. On the Default Currency step, specify a default currency for the Sage CRM installation.

    The default currency is displayed in a read-only format against all currency type fields in Sage CRM. If your implementation deals with multiple currencies, this forms the Base Currency against which all other currencies are calculated. If your default currency is not in the list, click **New**. Add the currency name and internationally recognized code and click **OK**. For example, *Norwegian Krone* and *NOK*. The new currency is added to the list.
11. On the HTTP Protocol and Proxy settings step, select whether you want to use HTTPS or proxy.
    - If you select **Use HTTPS** for Sage CRM connections, you must manually add a server certificate on the web server (IIS) used by Sage CRM and create an HTTPS binding for the CRM site. For more information, see **How To Set Up an HTTPS Service in IIS**.
      After you enable HTTPS, update the *HTTPPort* and *OutlookPort* entries in the Custom_Sysparams table in Sage CRM with the port you configured in the HTTPS binding settings.
    - If you select **Use proxy** for Internet access, enter the proxy server address and port and authentication details.
12. On the Start Copying Files step, review the installation settings and then complete the wizard.

    Agree to stop IIS if prompted so.

> **Note:** Make sure the time zone set in Sage CRM matches the time zone set in Windows on the computer where Sage CRM is installed. For instructions, see **Setting time zone**.

Changing installed components

You can change specific components in Sage CRM without performing a full upgrade. You can reinstall the database, registry, program files, IIS aliases, and license key. Changing the license key lets you add on Sage CRM features that weren't purchased as part of the original license, or you can increase the number of licensed users. You can use the install shield or the License Key Update application to update the license key. For more information, see **Updating license key**.

1. Run **Setup.exe** and click **Install Sage CRM**. Click **Next** to move through the installation wizard.

2. Review and accept the software license agreement.
3. Select **Change existing install of CRM**.
4. If there's more than one Sage CRM installation, select the installation you want to upgrade.
5. Select the components you want to reinstall. We recommend that you backup components that are affected before you proceed.
6. If you select **License Key**, you're prompted to enter the new license key. Any differences between your previous license and the new license are listed.
7. If you select **Database**, specify settings to connect to the database server.
8. Select **Include basic demo data** to get sample companies, leads, opportunities, cases, solutions, communications, people, territories, users, campaigns, and workflows. If you don't include demonstration data, you get sample workflows only.
9. Select optional addons. For example, Sample Self Service support site.
10. Choose a default currency. The default currency is displayed in a read-only format against all currency type fields in Sage CRM. If your implementation deals with multiple currencies, this forms the Base Currency against which all other currencies are calculated. If your default currency is not displayed on the list, click **New**. Add the currency name and internationally recognized code and click **OK**. For example, *Norwegian Krone* and *NOK*. The new currency is displayed in the list.
11. Select the protocol or proxy settings if required.
    - If you select **Use HTTPS** for Sage CRM connections, you must manually add a server certificate on the web server (IIS) used by Sage CRM and create an HTTPS binding for the CRM site. For more information, see **How To Set Up an HTTPS Service in IIS**.
      After you enable HTTPS, update the *HTTPPort* and *OutlookPort* entries in the Custom_Sysparams table in Sage CRM with the port you configured in the HTTPS binding settings.
    - If you select **Use proxy** for Internet access, enter the proxy server address and port and authentication details.
12. Click **Yes** to stop IIS and then click **Finish**.

> **Note:** Make sure the time zone set in Sage CRM matches the time zone set in Windows on the computer where Sage CRM is installed. For instructions, see **Setting time zone**.

Reinstalling Sage CRM

You can reinstall an existing Sage CRM installation. The existing installation is completely overwritten.

1. Run **Setup.exe** and click **Install Sage CRM**. Click **Next** to move through the installation wizard.
2. Review and accept the software license agreement.
3. Select **Complete Reinstall**, confirm the database server name or IP address, your SQL Server user ID, and enter your password.
4. Select **Include basic demo data** to get sample companies, leads, opportunities, cases, solutions, communications, people, territories, users, campaigns, and workflows. If you don't include demonstration data, you get sample workflows only.
5. Select optional addons. For example, Sample Self Service support site.
6. Choose a default currency. The default currency is displayed in a read-only format against all currency type fields in Sage CRM. If your implementation deals with multiple currencies, this forms the Base Currency against which all other currencies are calculated. If your default currency is not displayed on the list, click **New**. Add the currency name and internationally recognized code and click **OK**. For example, *Norwegian Krone* and *NOK*. The new currency is displayed in the list.
7. Select the protocol or proxy settings.
   - If you select **Use HTTPS** for Sage CRM connections, you must manually add a server certificate on the web server (IIS) used by Sage CRM and create an HTTPS binding for the CRM site. For more information, see **How To Set Up an HTTPS Service in IIS**.
     After you enable HTTPS, update the *HTTPPort* and *OutlookPort* entries in the Custom_Sysparams table in Sage CRM with the port you configured in the HTTPS binding settings.
   - If you select **Use proxy** for Internet access, enter the proxy server address and port and authentication details.
8. Review the current settings, and click **Yes** to stop IIS.
9. Click **Finish**.

> **Note:** Make sure the time zone set in Sage CRM matches the time zone set in Windows on the computer where Sage CRM is installed. For instructions, see **Setting time zone**.

Setting time zone

It's important that the Sage CRM time zone settings are set correctly.

1. Select **<My Profile> | Administration | System | System Behavior** and set the value of **Server time zone** to the time zone set in **Date and Time** in the Windows Control Panel on the CRM server.

2. Select **<My Profile> | Administration | Users | <user> | Users Preferences** and set the value of **Time Zone** to the time zone set in **Date and Time** in the Windows Control Panel on the user's machine. This may be different for users in different office locations, or for users who are accessing Sage CRM while traveling. Alternatively, the user can set the value in **<My Profile> | Preferences | Time Zone**.

Updating license key

You can use the License Key Update application to change the Sage CRM license key. This lets you add on Sage CRM features that weren't purchased as part of the original license, or increase the number of licensed users.

1. Go to the Sage CRM installation folder and open the **License Update** folder.

   By default, Sage CRM is installed to **%ProgramFiles(x86)%\Sage\CRM\CRM**.
2. Run **licensekeyupdate.exe**.
3. Enter the new license key.
4. Click **Next** and complete the wizard.

Uninstalling Sage CRM using the uninstall wizard

1. Click **Start | Control Panel | Uninstall a Program | Sage CRM**.
2. Click **Uninstall**. Click **Next** to move through the uninstall wizard.
3. Confirm your database server name or IP address and login ID and password.
4. If you have more than one Sage CRM installation, select the installation you want to remove from the Uninstall list.
5. If the installation is a Self Service or multi-server CRM install, click **Yes** to confirm you want to uninstall it.
6. Confirm the components that will be uninstalled.
7. Click **Yes** to stop IIS.
8. Select **View uninstall log file** to view logging information and click **Finish**. The log file is displayed. If you need to delete any files manually, details are specified in the log.

Uninstalling Sage CRM manually

The steps listed below use the default installation name (CRM) and the WINNT system directory.

1. To remove all CRM services (Escalation, Integration, Email Manager, and Indexer) and the Apache Tomcat service, run the following commands from a command prompt:
   - *%ProgramFiles(x86)%\Sage\CRM\Services\CRMIndexerService.exe /U*
   - *%ProgramFiles(x86)%\Sage\CRM\<InstallName>\tomcat\bin\service.bat remove <SageCrmInstallName>Tomcat9*
2. To unregister the eWare.dll, enter the following command from a command prompt:

   ```
   regsvr32 "%ProgramFiles(x86)%\Sage\CRM\<InstallName>\WWWRoot\eware.dll" /u
   ```

3. When the **RegSvr32** dialog box is displayed, click **Yes**.
4. To delete the CRM connection, open Internet Information Services (IIS) Manager. Expand the **Connections** tree in the left pane to open **Default Web Site** and delete the CRM entry.
5. To delete the CRM database, click **Start | Programs | Microsoft SQL Server | Enterprise Manager**. Expand the **Databases** tree in the left pane and delete the CRM entry.
6. To remove the registry entries for a single installation, open Registry Editor (*Regedit*), expand **HKEY_LOCAL_MACHINE/SOFTWARE/** and delete the **eWare** folder.
7. To remove the registry entries for multiple installations, open Registry Editor (*Regedit*), delete the appropriate registry key in the following nodes:
   - HKEY_LOCAL_MACHINE/SOFTWARE/eWare/Config
   - HKEY_LOCAL_MACHINE/SOFTWARE/eWare/Mapping
8. To delete the CRM installation directory, click **Start | Run**, run the following command from a command prompt:

   ```
   net stop iisadmin /y
   ```

   When the web service stops, go to **%ProgramFiles(x86)%\Sage\CRM\<InstallName>** and delete the folder containing Sage CRM installation files.

   Then go to **%WinDir%\system32** and delete **eware.cpl**.
9. Reboot your computer.

Server administration

- **Scheduling a database backup task**
- **Setting up a database maintenance plan**
- **Overview of manual backups**
- **Backing up the database manually**
- **Backing up the registry manually**
- **Backing up program files manually**

Scheduling a database backup task

You can schedule a task co back up Sage CRM database in Microsoft SQL Server. You should run the backup task every night and include the backup files in any server backup procedures you have, such as storage to a tape drive or remote disk.

For details, see the documentation for your version of Microsoft SQL Server published on **docs.microsoft.com**.

For information about backing up an Azure SQL database, see **Automated backups - Azure SQL Database & Azure SQL Managed Instance** on **docs.microsoft.com**.

Setting up a database maintenance plan

You should set up a database maintenance plan. For detailed information on setting up a plan for Microsoft SQL Server or a Microsoft Azure SQL solution, see **docs.microsoft.com**.

The table below illustrates a sample database maintenance plan for a Microsoft SQL Server install.

Task	Hourly	Nightly	Weekly	Monthly
Database consistency check			X	
Shrink database				X*
Reorganize indexes		X		
Rebuild indexes			X	
Update statistics		X		
Database backup – Full			X	
Database backup – Differential		X**		
Database backup – Transaction log	X			
Maintenance clean-up			X	

* Or longer – Regularly shrinking a database fragments the drive on which it is running, which reduces performance. If the database and transactional log file backups are carried out, the Shrink Database task may not be required.

** Except the night on which the full database is backed up.

Overview of manual backups

When performing an upgrade, you are prompted to let Sage CRM make an automatic backup of the database and registry. In addition to this automatic backup, we recommended you perform a manual backup of the database, registry, and program files before beginning any work on an upgrade. You should also perform a manual backup before implementing any customization work in a live environment.

A manual backup allows you to preserve a complete set of system, database, and registry files that can be stored independently of the upgrade environment. This provides added security against data loss during the upgrade procedure.

A manual backup also allows you to restore the customer's environment in-house, creating a mirror image of the customer's existing Sage CRM environment. You can then carry out the upgrade procedure and post upgrade testing in-house, or on a test server at the customer site.

Backing up the database manually

1. Ensure the location where you'll save the backup files has sufficient storage space.
2. Open the Database Administration tool and back up the database.
3. Save the restored database files to the backup folder.
4. Zip up the database backup files to save space.
5. Delete the unzipped database backup file. If you experience any difficulties when backing up the database, contact the IT administrator at the customer site.

Backing up the registry manually

1. Ensure the location in which you'll save the backup files has sufficient storage space.
2. From the desktop on the Web Server, click **Start | Run**.
3. Type *Regedit* and click **OK**. The Registry Editor opens.
4. Go to **HKEY_LOCAL_MACHINE\SOFTWARE\eWare\Config\<Install Name>**
5. Click **File | Export**.
6. Enter a file name in **File Name**, browse to the backup location and click **Save**.
7. In the Registry Editor, go to **HKEY_LOCAL_MACHINE\SOFTWARE\eWare\Mappings** and select the file that corresponds to the install you're upgrading.

8. Click **File | Export**.
9. Enter a file name in **File Name**, browse to your backup location, and click **Save**.

Backing up program files manually

1. Ensure the location where you'll save the backup files has sufficient storage space.
2. Browse to the Sage CRM install files.
3. Create a zip file containing the install name folder and all sub-folders.
4. Save the zip file to your backup location.

Upgrading

- **Test upgrades**
- **Live upgrades**

Test upgrades

- **Preparing for a test upgrade**
- **Installing backups to the test environment**
- **Performing a test upgrade**

Preparing for a test upgrade

A test environment lets you carry out trial runs of the upgrade procedure, and to test upgraded customizations, regularly used functionality, and data integrity in a controlled, non-live environment. By dealing with upgrade errors in the test environment, you minimize the likelihood of downtime when you perform a live upgrade.

To help avoid problems associated with poor upgrades, we recommended you first create a manual backup of the Sage CRM program files, registry, and database. Then set up a test environment that mirrors the live environment. The accuracy of test results decreases as the test environment diverges from the live environment. Perform a test upgrade on the test environment and test it. When you're happy with the results of the test upgrade, perform the live upgrade.

Things to consider when preparing for a test upgrade include:

- **Licensing**. A separate license key is required for the test install. Your local Sage Op-Co can provide you with a trial license key free of charge. This key can be made to mimic the live license key functionality exactly, and should include the Extensibility Module. It expires three months after installation.
- **Software Installation**. To successfully mirror the live environment, install Microsoft IIS, database management software (for example, SQL Server), and a clean install of the existing version of Sage CRM on the test server. Restore the current live database, the live registry, and the program files to the test environment.
- **Server**. The test environment should not reside on the same server as the live Sage CRM web server or database server, as variables added into a live environment increase the chance of downtime. For example, if an IIS reset is required on the test web server, and the client is running Sage CRM on the same server, the production system will be impacted.
- **Baseline testing**. When you've set up the test environment, test commonly used Sage CRM functionality and components to ensure the test environment is functioning as an exact mirror of the live environment. For example, if you generate particular reports on a daily basis, test this procedure on the test environment. If the test environment is at the customer site, have Sage CRM users perform their regular tasks on the test environment. Don't spend a lot of time testing functionality that's never used by the customer.
- **Script customizations**. If the client’s license includes the Extensibility Module, you can script any changes to Sage CRM into an ES file. Include the Extensibility Module in the test

license to ensure that customizations made in the test environment can be carried across to the upgraded live environment.

Installing backups to the test environment

Before performing a test upgrade, install the backup files to the test environment to ensure it mirrors the live environment.

1. Install a trial installation of the current version of Sage CRM. The trial key must have the same number of users and the same optional functionality as the key used in the live environment.
2. Stop IIS.
3. Restore the database backup that you've taken from the live environment. For more information, see **Restoring the database backup**.
4. Restore the registry backup. For more information, see **Restoring the registry backup**.
5. Copy the system files that you've backed up from the backup area to the test environment.
6. Re-register eware.dll. For more information, see **Reregistering the installation**.
7. Restart IIS.

Performing a test upgrade

- The procedure for performing a test upgrade is the same as the procedure for performing a live upgrade. For more information, see **Upgrading Sage CRM**.
- When the test upgrade has finished, view the upgrade log files for errors that occurred during the upgrade. For more information, see **Reviewing the upgrade log**.
- Test the upgrade to identify and correct bugs and errors. Focus your testing on frequently used functionality and components. For more information, see **Testing a live upgrade**.
- Perform the live upgrade only when you're completely satisfied that the test upgrade has been successful.

Live upgrades

- **Preparing for a live upgrade**
- **Upgrading Sage CRM**
- **Reviewing the upgrade log**
- **Upgrade scripts**

- **Testing a live upgrade**
- **Sample upgrade checklist**

Preparing for a live upgrade

- You need a valid license key for the upgraded version.
- Indexes or statistics are not removed from databases during upgrade. A database column with a statistic or index may cause an error during the upgrade process. Delete any automatically created indexes or statistics (beginning with "_dta_index_" or "_dta_stat_") that cause problems and then run a database optimization process after the install. For example, the MSSQL Database Tuning Advisor.
- Users and administrators can access Welcome Dashboards after upgrading.
    - If there were no default dashboards set in the version being upgraded, the Welcome Dashboards are displayed as the default dashboards.
    - If there were default dashboards set in the version being upgraded, the Welcome Dashboards are included in the dashboard drop-down list.
- If you plan to upgrade after office hours, retrieve the license key and test it during office hours so you can address any problems while assistance is available. To test the key, start the upgrade. If the key is not accepted, cancel the upgrade and contact your license key provider. If the key is accepted, cancel the upgrade.
- IIS is stopped during an upgrade. This affects customer sites if there are other web applications running on the same server as Sage CRM. You should install Sage CRM on a dedicated server if possible.
- Notify end users that they'll be unable to use Sage CRM during the upgrade.
- Perform a manual backup of the database, registry, and program files. For more information, see **Overview of manual backups**.
- Back up customized system views as they may be overwritten during the upgrade.
- Upgrade to the very latest Sage CRM release, up to and including the latest patch service pack.

Upgrading Sage CRM

For a list of Sage CRM versions from which you can upgrade, see the *Release Notes* posted on the **Sage CRM Help Center**.

Note: You should make a full backup of your data before upgrading. After upgrading Sage CRM, you must log on to Sage CRM as a system administrator at least once before upgrading to the next version. This is required to update the Sage CRM database correctly.

1. Run **Setup.exe** and click **Install Sage CRM**. Click **Next** to move through the installation wizard.
2. Review and accept the software license agreement.
3. Choose **Upgrade previous version of CRM**, confirm your name and company name, and enter your license key.
4. Specify settings to connect to the database server.
5. Select **Backup existing copy of the database, program files and registry** and specify the backup location for the database.
6. Select if you want to install Sample Self Service support site.
7. Select the protocol or proxy settings if required.
    - If you select **Use HTTPS** for Sage CRM connections, you must manually add a server certificate on the web server (IIS) used by Sage CRM and create an HTTPS binding for the CRM site. For more information, see **How To Set Up an HTTPS Service in IIS**.
      After you enable HTTPS, update the *HTTPPort* and *OutlookPort* entries in the Custom_Sysparams table in Sage CRM with the port you configured in the HTTPS binding settings.
    - If you select **Use proxy** for Internet access, enter the proxy server address and port and authentication details.
8. Review the current settings. Click **Next** to begin upgrading.
9. After upgrading, clear your browser cache once for an optimized view of Sage CRM.

Reviewing the upgrade log

1. Go to **%Program Files(x86)%\Sage\CRM\<InstallName>\Setup** and open **upgradelog.html**. Review the upgrade log to ensure all elements, such as views, tables, indexes, index constraints, and registry keys, have been fully upgraded. The Upgrade Summary panel lists scripts that were run during the upgrade and indicates whether they were successful. For more information, see **Upgrade scripts**.
2. Check the CRM script logs in the top left panel and click a link to view a summary report. Click **Expand All** and review each section of the report.
3. Check the SQL script logs in the bottom left panel and click a link to view the log file.
4. If errors occurred while an SQL script was running, an html file with an asterisk symbol (*) is generated. Click the html link to view a summary of the error. Manually correct any problems with a **NB must be fixed** message.

Upgrade scripts

The following scripts run when you run the upgrade install wizard:

- **CustomPages.es** updates the Sage CRM internal custom pages.
- **Custom_Captions.es** adds new captions and translations to the system.
- **updatehelplink.es** inserts all new help files content.
- **update_metadata.es** updates and cleans all metadata.
- **addConstraints.es** applies database integrity constraints.
- **views.es** runs and upgrades system views.
- **user_views.es** runs and upgrades customizable Sage CRM user views.
- **Tables.es** updates the schema, adds new tables, columns, and adjusted columns.
- **Update_indexes_mssql.sql**

Testing a live upgrade

It's a good idea to discuss testing requirements with the customer before you upgrade the system. Your post-upgrade testing should focus on the following:

- Functionality that's used frequently by the customer.
- Advanced customizations. In general, testing customer customizations should take a large amount of the allotted test time.
- Data integrity. Carry out data checks to ensure that upgraded data appears as expected.

Test Action	Success
Log on is successful	
Mail merge and document drop functionality working	
Report writer presenting in all formats (HTML, PDF, CSV, XLSX)	
Email management functioning as expected, including customizations	
Functionality regularly used by the customer working as expected	
Previous functional integration with third-party database functioning as expected	
Advanced customizations (.ASP pages) functioning as expected	
Custom icons copied to new install location	
Outlook and Exchange Integration functioning as expected	
Library location is correct	

Test Action	Success
Add/Find/Edit/Delete records for each entity working as expected	
System help functioning as expected	
Data upload functioning as expected	
Interactive dashboard loads successfully (**My CRM | Dashboard**)	
Interactive dashboard loads successfully in the Company context (**Company context | Dashboard**), and the default dashboard is the Company Summary dashboard	

Sample upgrade checklist

Test Action	Complete
Manual backup – pre-test upgrade	
Complete backup of Sage CRM database	
Complete backup of Sage CRM program files	
Complete backup of Sage CRM registry key	
Generate test environment	
Source trial license key for current version (with EM)	
Source trial license key for upgrade version (with EM)	
Install dependent third party software on test environment	
Install current Sage CRM version using trial license key	
Restore manual backup database to test environment	
Delete vSentinal out of the views in the restored Sage CRM database	
Restore Sage program files to test environment	
Confirm Windows NT security has been correctly set	
Restart IIS	
Complete base line testing (UAT test)	

Test Action	Complete
Script customizations using component manager and Zip	
Test upgrade	
Complete install shield upgrade to current version	
Upgrade to latest service pack of Sage CRM	
Upgrade logs	
Review upgrade logs for errors	
Investigate each error and document resolution or outcome	
Complete resolutions for each error	
Function testing	
Complete generic functionality testing	
Complete additional functionality testing	
Document and resolve any functional irregularities	
Client customization testing	
Complete visual scan of screen customizations	
Complete custom functionality testing	
Document and resolve any custom irregularities	
Data integrity testing	
Complete random sampling of 20 company records	
Client completes data integrity testing	
Document and resolve any data irregularities	
Freeze live system	
Estimate downtime for production system and document risks to client	
Obtain client sign off to move forward with live upgrade	
Lock users out of the Sage CRM system as server is taken offline	
Live manual backup – pre live upgrade	

Test Action	Complete
Complete backup of Sage CRM database	
Complete backup of Sage CRM program files	
Complete backup of Sage CRM registry key	
Live upgrade	
Complete install shield upgrade to current version	
Upgrade to latest service pack of Sage CRM	
Upgrade logs	
Review upgrade logs for errors	
Investigate each error and document resolution or outcome	
Complete resolutions for each error	
Live manual backup – post live upgrade	
Complete backup of Sage CRM database	
Complete backup of Sage CRM program files	
Complete backup of Sage CRM registry key	
Function testing	
Complete generic functionality testing	
Complete additional functionality testing	
Document and resolve any functional irregularities	
Client customization testing	
Complete visual scan of screen customizations	
Complete custom functionality testing	
Document and resolve any custom irregularities	
Data integrity testing	
Complete random sampling of 20 company records	
Client completes data integrity testing	
Document and resolve any data irregularities	

Restoring a live environment

If a live upgrade fails, or if there are problems with functionality in a new upgrade, we recommend that you return the customer site to the pre-upgrade live environment while any problems are addressed. This will minimize downtime at the customer site.

To restore a live environment, complete the following steps:

- **Reregistering the installation**
- **Restoring the database backup**
- **Restoring the registry backup**
- **Redirecting the website**
- **Stopping and restarting IIS**

Reregistering the installation

1. Click **Start | Run**.
2. Type *regsvr32 %ProgramFiles(x86)%\Sage\CRM\<InstallName>_backup* and click **OK**.
3. Click **OK** to complete the registration.

Restoring the database backup

1. Open the Database Administration tool.
2. Save the restored database files to the backup folder.
3. Restore the backed up database to the previously installed version. For information about restoring backed up databases, see your database administration documentation. If you experience difficulties restoring the database, contact the IT Administrator at the customer site.

Restoring the registry backup

1. On the web server desktop , click **Start | Run**.
2. Type *Regedit* and click **OK**.

3. Browse to **HKEY_LOCAL_MACHINE\SOFTWARE\eWare\Config** and click **File | Import**.
4. Browse to where you've backed up the registry, select the registry file and click **Open**.
5. Click **OK** to complete the registry import.
6. Browse to **HKEY_LOCAL_MACHINE\SOFTWARE\eWare\Mappings** and click **File | Import**.
7. Browse to where you've backed up the registry, select the mappings file and click **Open**.
8. Click **OK** to complete the mappings import.

Redirecting the website

1. Open **IIS Manager**.
2. Browse to **Sites | Default Web Site | CRM Install**.
3. Right-click the install name and click **Manage Application | Advanced Settings**.
4. Enter the path to the backed up website in **Physical Path**.
5. Click **OK**.

Stopping and restarting IIS

1. Click **Start | Administrative Tools | IIS Manager**.
2. To stop IIS, click **Stop**.
3. To restart IIS, click **Restart**.

Multi-server Sage CRM

- **Multi-server Sage CRM prerequisites**
- **Installing multi-server Sage CRM**
- **Configuring multi-server Sage CRM**
- **Load balancing in a multi-server environment**
- **Preparing for upgrading multi-server Sage CRM**
- **Upgrading multi-server Sage CRM**
- **Installing Sage CRM on the database server**
- **Installing Sage CRM on a non-database server**

Multi-server Sage CRM prerequisites

You can implement Sage CRM in a fully distributed environment, where a single database is accessible through multiple servers. Performance is enhanced due to efficient load balancing that's performed by Sage CRM or a dedicated load balancing application.

- You need a valid license that includes multi-server Sage CRM. Your license key can be used on all servers in the cluster.
- Identify the servers in the cluster on which you'll install Sage CRM and identify the database server on which the database will be created. In a typical multi-server Sage CRM environment, CRM install files are created on web/application servers and the database resides on a separate, dedicated database server.
- Identify the servers in the cluster on which CRM services such as the Indexer, Escalation, and Email Manager will run. They are installed only once and usually run on the first (primary) web server, but in a multi-server Sage CRM environment they can split across other application servers in the cluster. For example: Application server 1 (primary web server) - Email manager, Application server 2 - Indexer service, Application server 3 - Escalation service

Installing multi-server Sage CRM

Install Sage CRM on the primary web server. The first install installs the CRM database to the database server. This is the only web server on which you install the database for the multi-server Sage CRM installation. Follow the instructions in the installation wizard for a typical Sage CRM installation. Note the installation name as you'll need this when installing the other servers.

You should install only one single Replication Engine instance on the primary server. To ensure that installing subsequent nodes won't break any existing Exchange synchronizations:

1. Disable the integration from SCRM UI on the first server.
2. Install the next node.
3. Stop the **Apache Tomcat 9.0 <SageCrmInstallName>Tomcat9** Windows service.
4. To remove the Replication Engine from the new node, remove the following:
    - File **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\tomcat\webapps\<InstallName>ExchangeSyncEngine.war**
    - Folder **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\tomcat\webapps\<InstallName>ExchangeSyncEngine**
5. Start the **Apache Tomcat 9.0 <SageCrmInstallName>Tomcat9** Windows service.
6. Enable integration on the first node.

Then install Sage CRM on the other web servers in the cluster. Follow the instructions in the installation wizard for a typical Sage CRM installation. Set the installation name and database server name to the values used for the primary web server. Do not install the database on these web servers.

A Tomcat service is installed on the web server to support the Interactive Dashboard and SData features . In a multi-server CRM environment, the Tomcat service is installed in **%ProgramFiles (x86)%\Sage\CRM\<InstallName>\tomcat** on each web server in the cluster. If changes are made to custom tables on the database, the Tomcat service and the **eware.dll** on each web server reloads its metadata. Ensure the database server has enough concurrent connections to reload the sum of one DLL per web server plus one Tomcat database connection pool per web server.

For the Document Library feature to work correctly in multi-server environments, you must define a shared UNC network path with the appropriate access rights to the Library folder.

1. Click **<My Profile> | Administration | Email and Documents | Documents & Reports Configuration.**
2. Click **Change**.
3. Enter the network path in **Physical root directory for mail merged documents**.
4. Enter the network path in **Default document templates location for mail merge**.
5. Click **Save**.

Configuring multi-server Sage CRM

Database configuration settings are automatically set up when you install multi-server Sage CRM. The default database for each Sage CRM server in the multi-server environment is the name of the original Sage CRM installation. This is the database to which all the servers connect.

Any changes you make on a Sage CRM server are reflected on all other Sage CRM servers in the cluster. Metadata is refreshed on all servers if you perform any customization.

Warning: If you upgrade the SQL server on the database server, you must also upgrade the client tools on the application server. If you do not upgrade the client tools, CRM services are unable to connect to the database server and errors occur.

If you perform an IIS reset or a recycle of the application pool on the servers in the cluster, you must log on to each server in the cluster manually in order for load balancing to operate normally.

You can edit the multi-server Sage CRM configuration settings for the server on which the database is installed.

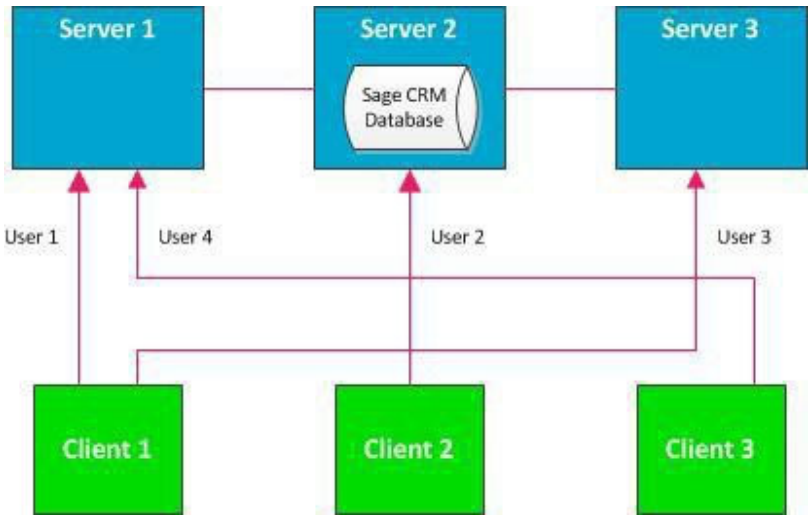
1. Click **<My Profile> | Administration | System | Database**.
2. Click **Change**.

3. Configure the fields related to multi-server Sage CRM deployments.
   For more information, see **Database fields**.
4. When finished, click **Save**.

Load balancing in a multi-server environment

If a user tries to log on to Sage CRM when load balancing is enabled, a list of available servers is obtained from the custom_sysparams table. The number of users logged on to each server is calculated, and the server with the lowest number of logged on users is identified. The Sage CRM logon page is submitted to this server and when the user is logged on, the server name is displayed in the URL.

The diagram below illustrates load balancing when four users attempt to log on to Sage CRM in a multi-server Sage CRM environment.



In this scenario, load balancing has been configured on a cluster of three servers: Server 1, Server 2, and Server 3. Each server can access the Sage CRM database which resides on Server 2. User 1 logs on from Client 1, then User 2 logs on from Client 2, then User 3 logs on from Client 1, and then User 4 logs on from Client 3.

Users are logged onto the database as follows:

- User 1 and User 4 are logged on to the Sage CRM database by Server 1.
- User 2 is logged on to the Sage CRM database by Server 2.
- User 3 is logged on to the Sage CRM database by Server 3.

Preparing for upgrading multi-server Sage CRM

- You require a valid license key to upgrade.
- Your license key can be used on all servers in the cluster.
- Before beginning an upgrade, ensure all servers (with the exception of the database server) are disconnected from the database.
- You can point multiple Tomcat servers at one database if the database provides enough connections to serve the multiple connection pools. Each Tomcat server opens a connection pool of 10 connections by default.

Upgrading multi-server Sage CRM

- Create a manual backup of the database from the database server. For more information, see **Overview of manual backups**.
- For all Sage CRM servers in the cluster, including the database server, create manual backups of the program files and the registry.
- Set up a test environment that mimics the live environment as closely as possible. For example, if there are four servers in your multi-server cluster, set up four test servers, with each one an exact (or close) copy of a live server. For more information, see **Performing a test upgrade**.
- Perform a test upgrade on the test environment.
- Test the test upgrade.
- When you're happy with the results of the test upgrade, perform a live upgrade on each Sage CRM server, starting with the database server. For more information, see **Installing Sage CRM on the database server** and **Installing Sage CRM on a non-database server**.
- Test the live upgrade. For more information, see **Testing a live upgrade**.

Installing Sage CRM on the database server

Click **Next** to step through the installation wizard.

1. Run **Setup.exe** and review and accept the Software License Agreement.
2. Select **Upgrade Previous Version of CRM**.

3. Choose the install you want to upgrade and enter your name, company name, and license key as provided by the vendor.
4. Confirm your database server name, port number and your SQL Server user ID, and enter the password for this user ID.
5. Select **Backup Existing Copy Of The Database, Program Files, And Registry**.
6. Browse to the backup location for the database.
7. Click **Yes** to stop IIS and continue the installation. When this process has finished, a dialog box is displayed to confirm where the program files, database, and registry have been backed up.
8. Click **OK**.
9. Complete all fields on the Registration page. The registration details are sent to the Sage CRM registration server as a background process. If this is not successful, the registration can be completed manually from within Sage CRM in **<My Profile> | Administration | System | License Key Details**.
10. Select **Finish** to complete the installation process. The Readme file and the Logon page are displayed.

Installing Sage CRM on a non-database server

Click **Next** to move through the installation wizard.

1. Run **Setup.exe** and review and accept the Software License Agreement.
2. Select **Upgrade Previous Version of CRM**
3. Choose the install you want to upgrade and enter your name, company name, and license key as provided by the vendor.
4. Click **Yes** and select **Backup is not Required**.
5. Click **Yes** to stop IIS and continue the installation.
6. Select **Launch Sage CRM Now** and **View Upgrade Log Files**.
7. Click **Finish**. The Sage CRM log on page is displayed in a new browser window.

Deploying Sage CRM using XenApp or RDS

For detailed information at versibouons of Citrix XenApp and Remote Desktop Services (RDS) supported by Sage CRM, see the *Hardware and Software Requirements* published on the **Sage CRM Help Center**.

- **Working with XenApp**
- **Working with RDS**

Working with XenApp

Citrix XenApp is a solution for virtual application delivery that provides users with access to Windows applications and data over any network and on any device.

> **Note:** Certain limitations apply when you deploy Sage CRM via XenApp. For more information, see the *Hardware and Software Requirements* on the **Sage CRM Help Center**.

For more information about Citrix XenApp, go to **https://www.citrix.com/products/xenapp/overview.html**.

Working with RDS

Remote Desktop Services (RDS), formerly known as Terminal Services, is a server role in Windows Server that enables users to remotely access applications hosted on a single computer over the corporate network or from the Internet.

For more information about RDS, see "**Remote Desktop Services Overview**" on **technet.microsoft.com**.

To make sure that your environment is supported, you should perform a full user acceptance testing of the application.

Configuration

- System settings
- Timings
- Themes
- Enabling Cases, Opportunities, or Campaign Management
- Show or hide information on Narrative tab
- Best practices for setting time zone

System settings

- **Configuring logging and viewing log files**
- **Configuring database settings**
- **Refreshing metadata**
- **Configuring system behavior**
- **Reviewing locks**
- **Configuring web services**
- **Configuring Quick Find**
- **Configuring Keyword Search**
- **Locking the system**
- **Configuring license key details**
- **Configuring proxy settings**
- **Checking system health**
- **Setting a custom server name for internal requests**

Configuring logging and viewing log files

1. Click **<My Profile> | Administration | System | Logging**.
2. Click **Change**.
3. Complete the **Logging fields**.
4. Click **Save**.

You can also view Sage CRM logs from the user interface:

1. From **Select log files**, choose the type of log files you want to view.
2. In the **View Log** column, click the icon to open the log file.

The following log files are available to view:

Log file type in the UI	Corresponding log file name
.Net Log	<timestamp>dotnet.log
Active Directory Import Log	<timestamp>ActiveDirectoryImportLog.log
Archived User Activity Log	<timestamp>ArchivedUserActivity.log
Component Install Log	<timestamp>componentinstall.log
Email Manager Log	<timestamp>mailmanager.log
Hibernate Framework Log	<timestamp>hibernate.log
Integration Log	<timestamp>integration.log
Mailchimp Integration Log	<timestamp>mailchimp.log
Outlook Log	<timestamp>ewareoutlooksync.log
QuickFind Instance Log	<timestamp>keywordSearch.log
SData 2.0 Log	<timestamp>sdata2.log
SData 1.0 Log	<timestamp>sdata.log
Spring Framework Log	<timestamp>spring.log
Spring Framework Social Connections Log	<timestamp>social.log
SQL Driver Log	<timestamp>sql.log
SQL Log	<timestamp>ewaresql.log
Sync Engine Log	<timestamp>syncenginesynch.log
Synchronisation Log	<timestamp>synchlog.log
System Log	<timestamp>ewaresystem.log
Territory Errors Log	<timestamp>ewareterritoryerrors.log
Tomcat CRM Log	<timestamp>crm.log
Tomcat Global Functions Log	<timestamp>gcrm.log
Tomcat Main Log	<timestamp>core.log
Tomcat Sync Functions Log	<timestamp>scrm.log

Enabling detailed logging for interactive dashboards

You can enable detailed logging on the Sage CRM server to troubleshoot issues related to interactive dashboards.

1. On a Sage CRM server, locate and open the following file:

   <Sage CRM installation folder>\tomcat\webapps\<InstallName>j\WEB-INF\classes**log4j2.xml**

   where

   - **<Sage CRM installation folder>** is the folder you specified when installing Sage CRM. By default, this is **%ProgramFiles(x86)%\Sage\CRM\CRM**.
   - **<InstallName>** is the Sage CRM installation name. By default, this is **CRM**.

   Example:

   %ProgramFiles(x86)%\Sage\CRM\CRM\tomcat\webapps\crmj\WEB-INF\classes\log4j2.xml

2. In the **log4j2.xml** file, locate the following code:

```
<logger name="com.sage.scrm" additivity="false">
    <level value="ERROR"/>
    <appender-ref ref="scrm"/>
</logger>
```

3. Set the value of the `level value` parameter to `DEBUG` and save the file:

```
<logger name="com.sage.scrm" additivity="false">
    <level value="DEBUG"/>
    <appender-ref ref="scrm"/>
</logger>
```

4. Restart the Tomcat service:
   a. Open the Services tool (services.msc).
   b. Right-click the **Apache Tomcat 9.0 <SageCrmInstallName>Tomcat9** service and select **Restart**.

> **Warning:** When the level value is set to DEBUG, it causes Sage CRM to consume more system resources. Set the level value back to ERROR when you're done troubleshooting.

Logging fields

The following table describes the Logging panel fields. For more information about logs, see **Troubleshooting**.

Field	Description
System logging level	The logging level recorded in the system log file (**%ProgramFiles (x86)%\Sage\CRM\<CRM Instance Name>\Logs\ewaresystem.log**). A new file is created daily and can be used for diagnosing problems.
SQL logging level	The logging level recorded in the SQL log file (**%ProgramFiles (x86)%\Sage\CRM\<CRM Instance Name>\Logs\ewaresql.log**). A new file is created daily and can be used for diagnosing problems. The file lists executed SQL, the duration of the execution, and errors thrown.
Query duration logging threshold (milliseconds)	When a query takes longer exceeds this duration, the number of milliseconds it will be logged.
.NET logging	The logging level recorded in the .NET log file (**%ProgramFiles (x86)%\Sage\CRM\<CRM Instance Name>\CustomDotNet\.netlog**).

Change default location of log files

By default, Sage CRM stores its log files in **%ProgramFiles(x86)%\Sage\CRM\CRM\Logs**. System administrators can use the `mklink` tool to create a directory junction for this folder and any other folder where they want to store the log files.

Note: These steps are applicable only if your Sage CRM server uses NTFS.

1. On your Sage CRM server, manually create a new folder for storing Sage CRM log files. For example:

   C:\new-logs-location

2. Stop IIS: at a comand prompt, run

   ```
   iisreset /stop
   ```

3. Rename the current folder storing the log files, for example:

   C:\Program Files (x86)\Sage\CRM\CRM\Logs-backup

4. Open the Command Prompt window as administrator.

5. Create a directory junction for the original log files folder and the new folder, for example:

```
mklink /J "C:\Program Files (x86)\Sage\CRM\CRM\Logs" C:\new-logs-location
```

6. Start IIS: at a command prompt, run

```
iisreset /start
```

7. Check the new log files location to make sure IIS has created the log files there. If so, delete the renamed log files folder (**C:\Program Files (x86)\Sage\CRM\CRM\Logs-backup**).

Configuring database settings

Changes to database settings should be carried out with care by an experienced database administrator. Incorrect changes to the configuration may prevent Sage CRM from running. Changes to most of the fields result in automatic updates to Sage CRM's Java properties to ensure features dependent on these continue to work - for example the Interactive Dashboard and Exchange Integration. If the automatic update is not successful, a message is displayed on-screen.

1. Click **<My Profile> | Administration | System | Database**.
2. Click **Change**.
3. Complete the **Database fields**.
4. Click **Save**.

Connecting to the database server using its IP address

You can configure an existing install of Sage CRM to connect to the SQL Server using its IP address rather than its name in the connection strings.

Step 1: Change the administration settings

1. Log on to Sage CRM as a system administrator.
2. Go to **<My Profile> | Administration | System | Database**.
3. Click **Change**.
4. In the **Default database server (SQL Server Only)** option, replace the database server name with its IP address.
5. Click **Save**.

Step 2: Update the database properties files

1. Open the Sage CRM installation folder.
   By default, this is **%ProgramFiles(x86)%\Sage\CRM\CRM**.
2. Locate the following files:
   - tomcat\webapps\crmj\WEB-INF**db.properties**
   - tomcat\webapps\crmExchangeSyncEngine\WEB-INF**db.properties**
3. Open and edit each **db.properties** file as follows:
   a. Under the **#SQL Server settings** element, locate the **db.url** property.
   b. In the property value, replace the database server name with its IP address.
      For example:
      `db.url=jdbc:log4jdbc:sqlserver://10.2.88.5:1433;databaseName=CRM;language=English;`
      where `10.2.88.5` is the database server IP address.
   c. Save your changes.

Database fields

Field	Description
Database user ID	This is the user ID that is used to connect to the database. This user must exist in Microsoft SQL Server or Azure SQL solution.
Database password	This is the database password in the Microsoft SQL Server or Azure SQL solution. Make sure that your password: • Does not start with an at sign (@) or dollar sign ($). • Does not contain an equal sign (=) or quotation marks ("). Sage CRM doesn't support these characters in database passwords, even though on-premises Exchange Server, cloud-based Exchange Online, or Azure SQL solution allows these characters. • Does not exceed 128 characters.

Field	Description
Use integrated Windows NT security	This check box works with Microsoft SQL Server only. When you select this check box, Sage CRM uses the IUSR account to connect to the database. Values in **Database user ID** and **Database password** are ignored. System administrators must make sure that IUSR is added as a user to Microsoft SQL Server and has access to the database.
Default database server	To specify a Microsoft Azure SQL server, enter its fully qualified domain name. For example: *myserver.database.windows.net*. To specify a Microsoft SQL Server, enter its name or IP address. For more information, see **Connecting to the database server using its IP address**.
Default database	This is the name of the database on your database server.
Query timeout (sec)	The maximum amount of time that a query is allowed run on the database server before a timeout error is displayed in Sage CRM.
Port number	SQL server port number specified during the install. The default value is 1433.

Fields that display for multi-server Sage CRM deployments:

Field	Description
Distributed CRM web server names	The names of the Sage CRM servers in the cluster, separated by semicolons.
Distributed CRM web server IP addresses	A list of IP addresses from which Sage CRM accepts incoming requests for user count. When specifying IP addresses, use a semicolon as a separator. This field accepts an asterisk (*) as a wildcard, for example: *192.0.2.**
Do load balancing	• **True**. Sage CRM performs load balancing. • **False**. A load balancing application performs load balancing.

Field	Description
DTLS server name	The name of the server on which all Table Level Scripts are performed. If this is an HTTPS server, the server name must be the name specified on the server certificate.
Fully qualified CRM web server names	The complete domain name for web servers, consisting of the hostname and domain name. An example is mymail.sage.com, where the hostname is “mymail” and the host is located in the domain “sage.com”. If any of these servers require HTTPS, the server name must be the name specified on the server certificate.

Refreshing metadata

1. Click **<My Profile> | Administration | System | Metadata**.
2. Select the items you want to refresh.
3. Click **Execute Refresh**.

Configuring system behavior

1. Select **| Administration | System | System Behavior**.
2. Select **Change**.
3. Complete the **System behavior fields**.
4. Select **Save**.

System behavior fields

Field	Description
Allow coaching in CRM	Specify whether to make on-screen coaching available to all users.
Allow external URLs in website gadgets	Select this checkbox to enable external URLs in the website gadgets. This makes Sage CRM less secure, because users can be potentially redirected to a malicious URL. Clear this checkbox to tighten Sage CRM security and prevent the users from being redirected to a malicious URL. When **Allow external URLs in website gadgets** is cleared (default), the website gadgets can only contain static URLs that begin with `#crm_server#`. This guarantees that a URL can only reference a file located on the Sage CRM server, for example: `#crm_server#/StaticContent/<HTML File Name>`
Allow mail merge to Word	Allows users to perform mail merges that create Microsoft Word documents and PDF files. When this option is set to **No**, users can only perform mail merges that create PDF files.
Allow mass operations	Specify whether the mass delete, mass update, and update territory functionality is available to the users. For example, you need to set this option to **Yes** in order to delete documents and communications from the Person or Lead records in a group.
Calendar refresh interval	Sets the refresh rate in seconds for the **Calendar** and **Calendar List** tab. To disable refresh, set this value to a blank value or **0**.
Case refresh interval	The refresh rate in seconds for the list of cases in the **Cases** tab. To disable refresh, set this value to a blank value or **0**.
Communication refresh interval	Sets the refresh rate in seconds for the list of communications in the **Communications** tab. To disable refresh, set this option to a blank value or **0**.

Field	Description
Company Notes tab shows	Specifies what to display in the **Notes** tab for a Company record. Possible values: - **Company And Person Notes**. The **Notes** tab displays the notes that were added in the context of the company and the person associated with the company. - **Company Notes Only**. The **Notes** tab displays only the notes that were added in the context of the company.
Custom server name for internal reqs	Specifies the custom server name you want to use for internal requests. The custom server name must include the protocol: *http://* or *https://*. Example: *http://localhost*
Dashboard enabled	Specifies whether to enable the Interactive Dashboard for all users.
Deduplication	Specifies whether deduplication is enabled. - **Yes** *(default for new installations)*. Deduplication is enabled. - **No**. Deduplication is disabled. For more information on deduplication, see **Deduplication**.
Deduplication rule	Specifies an operator to use in the Lead deduplication rules. Possible values: - **And**. Causes the deduplication rules to look for the same values in both the **Lead company name** *and* **Lead person last name** fields. - **Or**. Causes the deduplication rules to look for the same values in either the **Lead company name** or **Lead person last name** field.
Default area code	Sets the default area code to use in the telephone numbers.
Default country code	Sets the default international dialling country code to use in the telephone numbers.

Field	Description
Default CSV file export delimiter	Specifies the default delimiter to use in comma-separated values (CSV) files. Set this option to comma (,), semi-colon (;), or tab. When you use the **Export to File** button on, for example, the results of a company search, the created CSV file will use the delimiter set in this option. The value set in this option is also used for data uploads from CSV files. Please make sure the delimiter in the import file matches the delimiter set in user preferences. Users can override the value in this option by selecting their preferred CSV file export delimiter in **<My Profile> | Preferences**. For more information, see **CSV input/output matrix**.
Default language	Sets the default language to apply to new users added in **<My Profile> | Administration | Users**. This option also defines the language to use on the logon screen.
Default system theme	Specifies the default system theme. This theme is applied when a new user is added to the system. This theme is also applied when a user selects **Set to System Defaults** in **<My Profile> | Preferences**. This field is available only when two or more themes exist in Sage CRM. By default, a new installation of Sage CRM has only one theme (**Contemporary**). When you upgrade Sage CRM, all themes that existed in the previous version of Sage CRM remain available in the new Sage CRM version.
Detect duplicate emails	Specifies whether to prevent users from creating Person, Company, or Lead records with duplicate emails. When this option is set to **Yes**, if a user is adding or editing a Person, Company, or Lead record and tries to assign an email that is already used by another record of the same type in the system, an error occurs. That is, a Person, a Company, and a Lead record can have the same email address, but two Person records cannot.

Field	Description
Enable Sage CRM Ally	Enables or disables an AI chatbot called Sage CRM Ally for all users. The chatbot is trained on the Sage CRM official documentation and can answer questions about Sage CRM. - **Yes** (default). Enables Sage CRM Ally for all users and displays the chatbot icon in the lower right corner of the Sage CRM window. A user can select the icon to ask questions about Sage CRM. When **Yes** is selected, you can disable Sage CRM Ally for a particular user in the user preferences. - **No**. Disables Sage CRM Ally for all users, helping to improve Sage CRM performance. **Warning:** Sage CRM Ally is still in development and may give irrelevant or inaccurate answers. Always double-check the information provided by the chatbot.
External dial prefix	Sets the prefix that users in your organization dial to gain access to an outside line and call an external telephone number.
Home page URL	Displays a new button on the menu with a link to the URL.
HTML elements blocked by filter	Specifies the HTML tags you want the global XSS filter to block. This option applies only when **Use global XSS filter** is set to **Yes**.
Internal number length	Sets the length (in digits) of internal telephone numbers in your organization. This option enables Sage CRM to determine whether an incoming or outbound call is an internal or external number.
Maximum number of occurrences	Sets the maximum number of occurrences for recurring tasks and meetings. This value applies to tasks and meetings created with the Recurring Communications feature.
Opportunity refresh interval	Sets the refresh rate in seconds for the list of opportunities in the **Opportunities** tab. To disable refresh, set this value to a blank value or **0**.

Field	Description
Pipeline chart style	Sets the style to apply to pipeline charts. Possible values: • **Rectangle** • **Cylinder**
Recent list length	Sets the maximum number of entries in the Recent list. The maximum value is 40.
Search select advanced fields grid size	Sets the maximum number of entries in the Search Select Advanced lists.
Send internal reqs to actual server name	Allows you to specify a Sage CRM server name to use for internal requests. Possible options: • **Yes**. Specifies to use the actual Sage CRM server name for internal requests. • **No**. Allows you to enter a custom server name in the **Custom server name for internal reqs** field. The server name you specify is used to send internal requests in the following Sage CRM features: • Mail Merge • Data Upload • Mailchimp Integration • GCRM-based integrations • Exchange Integration
Server time zone	Sets the time zone of the Sage CRM server. There are 75 time zones to select from. The one you select defines what daylight settings are used, so you must be careful in selecting the correct zone. The zone selected must correspond exactly to the Sage CRM server setting. If you change this value, you must stop and restart IIS.

Field	Description
Show pipeline for companies/people	Specifies whether to display the opportunity and case pipeline at the company and person level. Possible values: - **Yes**. Enables users to view the opportunity and case pipeline from the company and person level. With this value set, users can view the forecasting information intended for their colleagues. - **No**. Hides the opportunity and case pipeline. Select this value to prevent users from viewing forecasting information intended for their colleagues.
Show tags	Allows you to show or hide the **Tags** element on the entities that support tags. A tag is a label a user can add to records in Sage CRM to classify them. Tags in Sage CRM work similar to hashtags in some social networks. For example, a user can create a group that includes records with the same tag or generate a report on such records. For more information about tags, see the *User Help*. Possible values: - **Yes** *default*. Displays the **Tags** element on the entities that support tags. This element enables the users to add and remove tags. - **No**. Hides the **Tags** element on the entities that support tags, but keeps the existing tags in the system. Hiding the **Tags** element prevents the users from adding or removing tags. Hiding **Tags** does not affect the reports and groups that use existing tags - they continue to work as before.
Use area code	Specifies whether to display area codes in Sage CRM.

Field	Description
Use browser session security	Allows you to control whether users can connect to their current Sage CRM session by using the same SID and access URL on a different computer. Possible values: - **Yes** (recommended). Prevents users from connecting to their current Sage CRM session by using the same SID and access URL on a different computer. Cookies must be enabled on all client computers. - **No**. Allows users to connect to their current Sage CRM session by using the same SID and access URL on a different computer. Select this value if cookies are not enabled on all client computers.
Use companies	Specifies whether to use companies in Sage CRM.
Use country code	Specifies whether to display country codes in Sage CRM.
Use Exchange Integration	Specifies whether to use Exchange Integration. Set to **Yes** to enable integration with on-premises Exchange Server or cloud-based Exchange Online. For more information, see **Enabling Exchange Integration**.
Use global XSS filter	Specifies whether to enable the cross-site scripting (XSS) filter on all Sage CRM screens. When enabled, the global XSS filter looks for and blocks the code that performs malicious actions: adds buttons on the screens, loads external content, and so on. When the filter is enabled, you can make it more strict by specifying the HTML tags you want the filter to block in the **HTML elements blocked by filter** option.
Use individuals	Specifies whether to use individuals in Sage CRM.

Field	Description
Use local help files	Select which help files display to users and system administrators when they click the **Help** button. Possible values: - **Yes**. Displays help files installed on the Sage CRM server. - **No**. Displays help files hosted in the cloud. When this value is selected, the computers from which users and system administrators access help files must be connected to the Internet. This field is available only when help files are installed on your Sage CRM server. For more information, see **Installing help files locally**.
Use opportunity items	Select one of the following: - **Quotes and Orders**. Enables the full product management feature and the **Quotes and Orders** tab within Opportunities. - **Opportunity Items**. Available only if you've upgraded from an earlier version of Sage CRM. This field is available only when there are one or more Opportunity Item records in the OpportunityItems database table. Opportunity Item is a legacy entity which has been discontinued.
User rights to see system expiry warning	Sets who can see the expiry warning message in Sage CRM. This option applies only if your Sage CRM license includes the **System Expiry** option. The expiry warning message displays after each logon when the expiry date is within thirty days or less. Possible values: - **No Admin Rights**. All users can view the expiry warning message. - **Info Manager**. Only info managers and system administrators can view the expiry warning message. - **System Admin**. Only system administrators can view the expiry warning message.

Reviewing locks

The system implements different levels of multi-user data handling to ensure each web request is handled securely, without any conflicts of data access and deadlock.

- Click **<My Profile> | Administration | System | Locks**. A list of the locks that the system is currently handling is displayed. There are three levels of locking:
    - A session lock is created when a user logs in and is maintained during the login session. It uniquely identifies the connection that the user has with the server. Any request that the user makes requires identification of the session lock. A request includes clicking a button, a hyperlink, or a contact name. Identification of the session lock is handled automatically, as each button and hyperlink generated by the system has the session lock built in.
    - Table locks and record locks prevent more than one user updating the same data at the same time. Record locks create a unique identification of the record that a user is accessing.
    - Locks work with ASP pages in Sage CRM. If more than one user is accessing a record by standard functionality or an integrated ASP page, each user is notified that another user is currently editing the record. You can switch this off using the CheckLocks property. For more information, see the *Developer Help* on the **Sage CRM Help Center**. When updating third party databases using extensibility features, the database administrator must ensure that a third party application and Sage CRM cannot update the same record at the same time.
- Click a lock hyperlink to review the **Record lock fields**.
- To delete the lock, click **Delete**.

Record lock fields

The table below summarizes the information displayed for each record lock.

Field	Description
Session Id	An identifier that indicates the session that's maintaining the lock.
Table Id	An identifier that indicates the table that's locked.
Table Name	The name of the table that's maintaining the lock.
Record Id	An identifier that indicates the record in the specified table that the lock is currently held on.

Field	Description
Created By	The user that the lock is held for.
Created Date	The date on which the lock was created.

Configuring web services

The Sage CRM web service API enables developers to manipulate records remotely with Simple Object Access Protocol (SOAP) over HTTP using XML. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

1. Click **<My Profile> | Administration | System | Web Services**.
2. Click **Change** to change the settings.
3. Change the **Web services fields**.
4. Click **Save**.

Web services fields

The table below explains the fields on the Web Services page.

Field	Description
Maximum number of records to return	The maximum number of records you want Web Services to return at one time. This limits the response sizes of requests. Pagination is available, so additional data can still be returned.
Maximum size of request	The maximum number of characters you want users to be able to send to Web Services.
Make WSDL available to all	When set to **Yes**, the WSDL file can be viewed by anyone from: *http://<CRM server name>/<CRM install name>/eWare.dll/webservices/CRMwebservice.wsdl* Users do not need to be logged in to view the file.

Field	Description
Enable web services	Set to **Yes** to enable the Web Services functionality. Set to **No** to disable web services. This setting overrides the web services setting on the External Access tab on individual entities. Please refer to **Changing external access settings** for more information.
Dropdown fields as strings in WSDL file	Default is **No**. Drop-down fields are displayed in the WSDL as enumerated types, for example comp_ status as an enumeration with the drop down values in it. When set to **Yes**, makes the enumerated types "Strings". This means that, for example, within Company there is a field called status that is of type com_type. When this option is set to **Yes**, it is still called status but its type is now "String".
Send and return all dates and times in universal time	Use UTC (standard for Coordinated Universal Time) timing and format for display of times and dates.
Accept web request from IP address	Specify the unique IP address that you want the WSDL file to be accessible from. When you do this, the **Make Web Services Available To All** field should be set to **No**.
Force web service logon	If the connection between the web service client and the service is unexpectedly broken, that client remains logged on to the server hosting the service. This means that a new client session will be blocked from logging on to the server. However, if you set the **Force web service logon** setting to **Yes**, the old instance of the client is automatically logged out when a new instance attempts to log on. By forcing new logons, this field prevents users from being "locked out" of a web service following a failed connection or unsuccessful logout.

Configuring Quick Find

Quick Find allows users to search for key terms across single-line text, email address, and URL fields on all company, people, case, opportunity, lead, solution, communication, order, quote, and

custom entity records at once. Quick Find gets data from the Quick Find service which runs as a background process. This service first builds an index of all database records and then periodically updates the index to track records that have been added or removed.

1. Click **<My Profile> | Administration | System | Quick Find**.
2. To view the current state of the service, use the following options under **Quick Find Configuration**:
   - **Quick Find service status**. Shows whether the Quick Find service is running.
   - **Last Quick Find index completed at**. Shows the date and time when Sage CRM last indexed data for Quick Find.

   You can click **Restart Quick Find** to restart the service. You might want to do so if the service has stopped or if the last indexing occurred more than 10 minutes ago. Restarting the service does not rebuild the index.
3. To configure Quick Find, click **Change** and use the following options:
   - **Maximum number of results**. Select the maximum number of records you want to appear in Quick Find results.
   - **Entities to be indexed**. Select the entities you want Sage CRM to index and include in Quick Find. You can exclude entities from Quick Find to narrow search results, reduce the size of the index and RAM usage, and improve Quick Find performance. For information about indexing a custom entity, see **Indexing a custom entity for Quick Find**.
4. Click **Save**.

Note: You can exclude individual entity fields from Quick Find. For more information, see **Editing a field**.

Indexing a custom entity for Quick Find

To add a custom entity to the Quick Find index, you must add new SQL Server indexes on the `_ Deleted` and `_UpdatedDate` fields, and include the `ID` field on the index. You can enable the PAD option to reduce fragmentation of the index over time.

The following example adds an index for a custom entity named Project.

```
CREATE NONCLUSTERED INDEX [IDX_QUICKFIND_Proj_Deleted_UpdatedDate]
ON [dbo].[Project]
(
[Proj_Deleted] ASC,
[Proj_UpdatedDate] ASC
)
INCLUDE
(
[Proj_ProjectId]
```

```
)
WITH
(
PAD_INDEX = ON
)
```

Configuring Keyword Search

Keyword Search allows users to search for keywords across specified primary entities. Users can include wildcard characters in a keyword search to search for a variety of text and characters.

1. Click **<My Profile> | Administration | System | Keyword Search**. The date and time of the last full indexing and incremental indexing of Sage CRM data is displayed.
    - A full index is undertaken when the CRM Indexer Service is started and compiled against all records in the database.
    - An incremental index includes records added to the database since the last indexing.
    - You can start and stop the CRM Indexer Service. For more information, see **Starting and stopping CRM Indexer Service**.
2. Click **Change**.
3. Change the **Keyword Search system settings**.
4. Click **Save**.

Tip: You can create a Keyword Search view for a custom entity or edit an existing Keyword Search view. For more information, see **Creating a view for Keyword Search**.

To extend Keyword Search to secondary entities, you can create a search screen. For more information, see *Creating a screen* in the *Developer Help*.

Keyword Search system settings

Field	Description
Allow Keyword Search In CRM	Select **Yes** to allow users to use Keyword Search.
Interval	Specify the gap, in minutes, between incremental indexes that track new records added to the database. Note that if the interval specified here has elapsed and an incremental index has not been compiled (because the actual service has been stopped, for example), the user of the keyword search will be warned that the tool is relying on out-of-date information.
Maximum Number of Results	Indicate the maximum number of records returned by the search. The figure cannot exceed 10,000.

Optimizing Keyword Search

Keyword Search can be impacted if you add large numbers of records to a primary entity. Some guidelines for optimizing Keyword Search in this situation are as follows:

- Remove unnecessary fields from Keyword Search views.
- Alternatively, create a new Find screen, based on a simple view containing only the fields you require.
- Ensure that your SQL database has proper indexes on the fields that are included in a Keyword Search view.
- Use a query analyzer tool (such as SQLs Dynamic Management Views) and a query optimizer tool for insight into using indexes to optimize performance.
- Test the large number of records and new indexes on a test server before implementing in production.
- Include a basic maintenance plan to rebuild indexes as part of your normal backup task.
- Configure Sage CRM to log any SQL statements that take longer than a specified time to complete, so you can test new indexes before performance becomes a problem.

Starting and stopping CRM Indexer Service

Keyword Search gets data from a Windows service, which is a system application that can be configured to start automatically. Running as a background process, this service first builds an index of all database records and then periodically updates the index to track records that have

been added or removed. If you're using a new Sage CRM installation, the Indexer Service starts automatically.

If Sage CRM is installed as an upgrade, you must manually start the Indexer Service using Microsoft Windows Services console. You manually start and stop the Indexer Service as follows:

1. In Windows, open the Control Panel.
2. Open **Administrative Tools**.
3. Click the **Services** icon. The Service console is displayed.
4. Right-click **CRM Indexer Service** and click the relevant start or stop option. Click **Properties** to define more advanced settings. For example, you can specify the startup type so the service starts automatically when the system starts.

Note: You should stop the Indexer Service if you disable Keyword Search.

Limiting CRM Indexer Service logging

To limit the amount of logging performed by the CRM Indexer Service, you can remove old log file entries using a scheduled task.

For example, you can schedule the following command using the Windows Task Scheduler to delete all search index logs that are two days old:

```
forfiles /P "%ProgramFiles(x86)%\Sage\CRM\Services\Logs" /D -2 /M *CRMSearchIndex.log /C "cmd /c
del @file"
```

Alternatively, you can use a command line zip tool to archive old files using forfiles, and then delete them as necessary.

Locking the system

This option provides a way to log all users except the System Administrator out of the system when essential maintenance tasks need to be carried out.

Before implementing a lockdown of the system, you should inform all users who might be affected of when the process will be initiated. When the locking process is complete, users still trying to interact with the system will discover that they have been logged out when they attempt to click a button that sends information to the server. Well-flagged notifications about temporary lockdowns of the system should stop users from losing data being entered through the interface.

Users cannot log back into the system until you unlock it or the maximum lockout period of three hours has elapsed.

Note: The only user who can release the lock on the system is the System Administrator who set the lock. If you have more than one user with Administration rights, they are locked out too.

1. Click **<My Profile> | Administration | System | Lock System**. The system can be locked when the icon displays as a closed padlock. The Lock System page is displayed, listing the number of users currently logged on. Ideally, there should be no users logged on if the System Administrator has provided sufficient notification of the process.
2. Click **Continue** to log off any logged on users.
3. Click **Continue** to lock the system.

Unlocking the system

1. Click **<My Profile> | Administration | System | Unlock System**. The system can be unlocked when the icon is displayed as an open padlock.
2. Click **Continue**.
3. Click **Continue**. The system is unlocked and users can log on.

Configuring license key details

1. Click **<My Profile> | Administration | System | License Key Details**.
2. Click **Change**.
3. Complete the **License key fields**.
4. Click **Save**.

License key fields

This option displays the current licensing options. All fields are read-only.

Field	Description
System License Type	Displays Named User Licensing or Concurrent User Licensing. Concurrent User Licensing is only displayed if your license includes the Logged On Users License Scheme (concurrent or mixed licensing) option.
Max Number of Concurrent Users	This field is only displayed if your license includes the Logged On Users License Scheme (concurrent or mixed licensing) option.This shows the number of users specified in license activation code.

Field	Description
Number of Named Users	This field is only displayed if your license includes the Logged On Users License Scheme (concurrent or mixed licensing) option.This shows the total number of users with a license type of Named. Please refer to **User fields** for more information on setting the license type for a user.
Max Number Of Users	Number of users specified in license activation code.
Number of Seats Available	Maximum number of users minus the Number of Active Users.
Number of Active Users	Number of users set up and enabled for use on the system. Resource, deleted or disabled users are not included in the total.
Registration Date	Date and time the product was registered with Sage CRM. If the product has not yet been registered, follow the instructions in the Manual Registration section of the page.
Options	Product options specified in license activation code.
System Expiry Date	This field is only displayed if your license includes the System Expiry option. Displays the date when your system expires. No users can log on from this date onwards, and a new license key is required. A warning is displayed after each logon when the expiry date is within thirty days or less.

Configuring proxy settings

Proxy Settings lets you set up a single generic user for proxy security for features requiring Internet access. For example, gadgets calling external Web addresses on the Interactive Dashboard.

1. Click **<My Profile> | Administration | System | Proxy Settings**. If you entered the Proxy details during the install process, the details are displayed here for editing.
2. Click **Change**.
3. Complete the **Proxy settings**.
4. Click **Save**.

Proxy settings

Field	Description
Proxy requires authentication	Select if the proxy requires authentication
Proxy user name	Proxy user name. This field is required if the first check box is selected.
Proxy domain	Proxy domain. This field is required if the first check box is selected.
Proxy address	Proxy address. This field is required if the first check box is selected.
Proxy password	Proxy password.
Proxy port	Proxy port.

Checking system health

You can check the current state of the Sage CRM components to see if they're working properly. Click **<My Profile> | Administration | System | System Health**.

Troubleshooting system health issues

A Sage CRM component can have one of the following statuses:

- The component is working properly.
- The component is not enabled.
- There are issues with the component.

If there are issues with a component, refer to the corresponding troubleshooting instructions.

Component	Sage CRM features that use the component	Troubleshooting	How health check works

Apache Tomcat	• Calendar
	• Document Drop
	• Exchange Integration
	• Features in the top bar:
	  • Quick Find
	  • Notifications ( )
	  • Favorites ( )
	  • Recent ( )
	• GCRM-based integrations
	• Interactive Dashboard
	• Mailchimp Integration
	• Mail Merge
	• SData APIs
		Apache Tomcat troubleshooting	**Apache Tomcat health check**

URL Rewrite		**URL Rewrite troubleshooting**	**URL Rewrite health check**
SData 1.1	• Document Drop • Exchange Integration • GCRM-based integrations • Interactive Dashboard • Mobile apps • SData feeds from Sage CRM consumed by other applications	**SData troubleshooting**	**SData 1.1 health check**

Component	Sage CRM features that use the component	Troubleshooting	How health check works

SData 2.0	• Calendar
	• Features in the top bar:
	  • Quick Find
	  • Notifications ( )
	  • Favorites ( )
	  • Recent ( )
		SData troubleshooting	**SData 2.0 health check**

CRM Quick Find Service	Quick Find in the top bar	**CRM Quick Find Service troubleshooting**	**CRM Quick Find Service health check**
Notifications	Notifications ( ) in the top bar	**Notifications troubleshooting**	**Notifications health check**
Exchange Synchronization	Exchange Integration	**Exchange Synchronization troubleshooting**	**Exchange Synchronization health check**
SMTP Connection	Sending emails from the built-in email client.	**SMTP Connection troubleshooting**	**SMTP Connection health check**
CRM Escalation Service	• Escalation rules • Workflows • Notifications ( ) in the top bar	**CRM Escalation Service troubleshooting**	**CRM Escalation Service health check**
CRM Indexer Service	Updating the keyword search index. For example, when a user creates a new entity record.	**CRM Indexer Service troubleshooting**	**CRM Indexer Service health check**

Apache Tomcat troubleshooting

- Use the Services tool (services.msc) on the Sage CRM server to ensure the **Apache Tomcat 9.0 <SageCrmInstallName>Tomcat9** service is running. Start or restart the service if necessary.

- To ensure the port used by Apache Tomcat is open and doesn't have any conflicting connections, run the following at a command prompt on the Sage CRM server:

  ```
  netstat -ano |find "<PortNumber>"
  ```

  where `<PortNumber>` is the port used by Apache Tomcat. This is usually port 10009.

Components that fail if Apache Tomcat fails:

- URL Rewrite
- SData 1.1 and 2.0
- CRM Quick Find Service
- Notifications
- Exchange Synchronization

URL Rewrite troubleshooting

1. URL Rewrite fails if Apache Tomcat fails. Resolving issues with Apache Tomcat may also fix URL Rewrite. For troubleshooting tips, see **Apache Tomcat troubleshooting**.
2. If issues persist, it may indicate that the URL Rewrite inbound rules were incorrectly modified or deleted. To restore the original inbound rules, you can use the Sage CRM Setup Wizard:
   a. On the Sage CRM server, start the Sage CRM Setup Wizard.
   b. Step through the wizard until you are on the **Please choose setup type** step.
   c. Select **Change existing install of CRM** and click **Next**.
   d. On the **Reinstall options** step, select **IIS Aliases**. Make sure that you clear all other check boxes.
   e. Complete the wizard. You may be prompted to enter the SQL Server login ID and password.

Components that fail if URL Rewrite fails	URL Rewrite fails if these components fail
• SData 1.1 and 2.0 • CRM Quick Find Service • Notifications • Exchange Synchronization	Apache Tomcat

SData troubleshooting

SData 1.1 and 2.0 relies on Apache Tomcat and URL Rewrite. Resolving issues with these components may also fix SData. For troubleshooting tips, see:

- **Apache Tomcat troubleshooting**
- **URL Rewrite troubleshooting**

CRM Quick Find Service troubleshooting

1. CRM Quick Find Service relies on Apache Tomcat and URL Rewrite. Resolving issues with these components may also fix CRM Quick Find Service. For troubleshooting tips, see:
    - **Apache Tomcat troubleshooting**
    - **URL Rewrite troubleshooting**
2. If issues persist, use the Services tool (services.msc) on the Sage CRM server to make sure the **CRM Quick Find Service** service is running. Start or restart the service if necessary.

Notifications troubleshooting

Notifications rely on Apache Tomcat and URL Rewrite. Resolving issues with these components may also fix Notifications. For troubleshooting tips, see **Apache Tomcat troubleshooting**.

Exchange Synchronization troubleshooting

1. Exchange Synchronization relies on Apache Tomcat and URL Rewrite. Resolving issues with these components may also fix CRM Quick Find Service. For troubleshooting tips, see:
    - **Apache Tomcat troubleshooting**
    - **URL Rewrite troubleshooting**
2. If issues persist, check to ensure that you have configured Exchange Integration correctly. For instructions, see **Setting up Exchange Integration**.

SMTP Connection troubleshooting

Make sure that:

- SMTP server specified in Sage CRM is up and running.
- SMTP port specified in Sage CRM is open and accepts connections. For example, the port may be blocked by a firewall or antivirus.

For instructions on how to specify SMTP server and port in Sage CRM, see **Configuring standard email**.

Note: The System Health feature doesn't check if the SMTP server user name and password are correct.

CRM Escalation Service troubleshooting

Use the Services tool (services.msc) on the Sage CRM server to ensure that **CRM Escalation Service** is running. Start or restart the service if necessary.

CRM Indexer Service troubleshooting

Use the Services tool (services.msc) on the Sage CRM server to ensure that **CRM Indexer Service** is running. Start or restart the service if necessary.

How health checks work

- **Apache Tomcat health check**
- **URL Rewrite health check**
- **SData 1.1 health check**
- **SData 2.0 health check**
- **CRM Quick Find Service health check**
- **Notifications health check**
- **Exchange Synchronization health check**
- **SMTP Connection health check**
- **CRM Escalation Service health check**
- **CRM Indexer Service health check**

Apache Tomcat health check

Sends an HTTP request to check if the **Apache Tomcat 9.0 <SageCrmInstallName>Tomcat9** Windows service is running. The HTTP request has the following format:

http://<LocalServerName>:<TomcatPort>/<InstallName>j/index.jsp

Where

- **<LocalServerName>** is the Sage CRM local server name stored in the **LocalServerName** record (**Parm_Name** column of the **Custom_Sysparams** database table).
- **<TomcatPort>** is the Apache Tomcat port stored in the **CRMTomcatPort** record (**Parm_Name** column of the **Custom_Sysparams** database table).
- **<InstallName>** is the Sage CRM installation name.

URL Rewrite health check

Sends an HTTP request to check if the inbound rules in the URL Rewrite feature of IIS correctly forward requests from IIS to Apache Tomcat. The HTTP request has the following format:

http://<LocalServerName>/sdata/<InstallName>j/index.jsp

Where

- **<LocalServerName>** is the local server name stored in the **LocalServerName** record (**Parm_Name** column of the **Custom_SysParams** database table).
- **<InstallName>** is the Sage CRM installation name.

SData 1.1 health check

Sends an HTTP request in the following format:

http://<LocalServerName>/sdata/<InstallName>j/sagecrm/-/$schema

Where

- **<LocalServerName>** is the Sage CRM local server name stored in the **LocalServerName** record (**Parm_Name** column of the **Custom_Sysparams** database table).
- **<InstallName>** is the Sage CRM installation name.

SData 2.0 health check

Sends an HTTP request in the following format:

http://<LocalServerName>/sdata/<InstallName>j/sagecrm2/-/$prototypes?SID=<SessionID>

Where

- **<LocalServerName>** is the Sage CRM local server name stored in the **LocalServerName** record (**Parm_Name** column of the **Custom_Sysparams** database table).
- **<InstallName>** is the Sage CRM installation name.
- **<SessionID>** is the current Sage CRM session ID.

CRM Quick Find Service health check

Sends an HTTP request using the URL specified in the **SolrEngineUrl** record (**Parm_Name** column in the **Custom_SysParams** database table) to check if the **CRM Quick Find Service** is accessible. This health check doesn't verify if Sage CRM data is being indexed properly.

Notifications health check

Sends an HTTP request in the following format:

http://<LocalServerName>/sdata/<InstallName>j/userdata?SID=<SessionID>&Action=getNotifications

Where

- **<LocalServerName>** is the Sage CRM local server name stored in the **LocalServerName** record (**Parm_Name** column of the **Custom_Sysparams** database table).
- **<InstallName>** is the Sage CRM installation name.
- **<SessionID>** is the current Sage CRM session ID.

Exchange Synchronization health check

1. Checks if Exchange Integration is enabled in **<My Profile> | Administration | System | System Behavior**.
2. Checks if the **exin_SyncEnabled** column value in the **EcngIntegration** database table is set to **ON**.
3. Sends an HTTP request in the following format:

   http://<ExchangeIntegrationEndpoint>/$service/status

   Where **<ExchangeIntegrationEndpoint>** is the value of the **exin_EndpointURL** column in the **EcngIntegration** database table.

SMTP Connection health check

1. Checks if the value of the **UseCDONTS** record (**Parm_Name** column in the **Custom_SysParams** database table) is set to **N**.
2. Verifies that the value of the **SmtpServer** record (**Parm_Name** column in the **Custom_SysParams** database table) is not blank.
3. Attempts to connect to the SMTP server using
   - SMTP server specified in the **SmtpServer** record (**Parm_Name** column in the **Custom_SysParams** database table).
   - Port specified in the **SMTPPort** record (**Parm_Name** column in the **Custom_SysParams** database table).
4. If a connection is established, sends an EHLO command to the SMTP server and waits for reply code 250.

CRM Escalation Service health check

1. Checks if the value of the **UseEscalationService** record (**Parm_Name** column in the **Custom_SysParams** database table) is set to **Y**.
2. Checks if a PID (process ID) exists for **CRMEscalationService.exe**.

CRM Indexer Service health check

1. Checks if the value of the **KeywordSearchEnabled** record (**Parm_Name** column in the **Custom_SysParams** database table) is set to **Y**.
2. Checks if a PID (process ID) exists for **CRMIndexerService.exe**.

Setting a custom server name for internal requests

You can set a custom Sage CRM server name for internal requests. This feature is useful if you want the server name used for internal requests to be different from the actual server name.

1. Click **<My Profile> | Administration | System | System Behavior**.
2. Click **Change**.
3. Set **Send internal reqs to actual server name** to **No**.
4. In **Custom server name for internal reqs**, enter the custom server name you want to use in the format *<Protocol><CustomServerName>*, where *<Protocol>* can be either *http://* or *https://*, depending on Sage CRM configuration settings.

   For example: *http://MyServerName*
5. Click **Save**.

The server name you set is used for internal requests in the following Sage CRM features:

- Mail Merge
- Data Upload
- Mailchimp Integration
- GCRM-based integrations
- Exchange Integration

Timings

- **Working with Timings**
- **Business calendars**
- **Service Level Agreements**

Working with Timings

The Timings functionality tracks the duration of a Lead, Opportunity, or a Case from when the record is opened to when it is closed. It also calculates the length of time a Lead, Opportunity, or Case spends at each stage along the way. If you open an existing Lead, Opportunity, or Case, you can review the Duration information from the Tracking tab.

For a more accurate measurement of duration, this information can be combined with a Business Calendar, which defines standard business days and work times. You can also define Holiday Sets for different regions, and set up Service Level Agreements (SLAs) which take Case Duration, Business Calendars, and Holiday Sets into account so that warnings and escalations can be triggered when a Case comes close to, or breaches a customer's SLA.

Holiday Sets affect Case duration only, they have no impact on Lead or Opportunity duration.

Business calendars

- **Creating a business calendar**
- **Recalculating lead and opportunity durations**
- **Standard Sage CRM business calendar**
- **Seven day week business calendar**
- **Creating a holiday set**

Creating a business calendar

1. Click **<My Profile> | Administration | System | Timings | Business Calendar**. The Business Calendar page is displayed showing the default business calendar.
2. Click **New**.
3. Enter a name for the calendar in **Calendar**.

4. Enter the total number of working hours in the company's day in **Total Working Hrs**. This field is important for calculating how many hours make up one working day. Let's say you operate from 9:00 to 1:00 on a Friday, and a case is logged at 9:00 on Friday morning. When you check the duration at 1:30, it's shown as four hours rather than one day. However, on Monday at 1:30 when a total of 8.5 working hours have elapsed, the duration is one day.
5. To set this Business Calendar as the default calendar used to measure elapsed time for leads and opportunities, select **Set As Default**. If another calendar has already been set as the default calendar, unselect **Default Calendar** before making another calendar the default.
6. For each day on the Week Day list, select the time at which the working day starts and the time at which the working day ends from **Day Start Time** and **Day End Time**.
7. Click **Save**.

Recalculating lead and opportunity durations

When you set a Business Calendar to be the default Business Calendar, it is automatically used to measure elapsed time for all new leads and opportunities created in the system. There can be just one default Business Calendar at a given time, which ensures that all lead and opportunity time scales created during that time are measured according to the same criteria. Elapsed time is measured in days, hours, and minutes.

You can apply a Business Calendar and a Holiday Set to SLAs. The SLA can then be applied to individual cases or entire companies. When this is done, elapsed time for the case is measured according to the SLA to which the Business Calendar and the Holiday Set apply.

The default Business Calendar, Standard Working Week, is used to calculate lead and opportunity durations for any newly created leads or opportunities. If you change the default Business Calendar, or if you set a different Business Calendar to be the default calendar, you will probably want all existing opportunity and lead durations to be updated to reflect the changes in the Business Calendar.

To recalculate lead and opportunity durations:

1. Click **<My Profile> | Administration | System | Timings | Business Calendar**.
2. Click the hypertext link of the Business Calendar you updated or set as the new default calendar.
3. Click **Update Lead Records** to update all leads to reflect the new or changed calendar or click **Update Opportunity Records** to update all opportunities.

Standard Sage CRM business calendar

This example shows elapsed time calculations for an opportunity that uses the calendar Standard Working Week as the default calendar. It consists of a five-day week, Monday to Friday. Work begins at 9:00 each day and ends at 17:30.

The opportunity goes through the following stages:

- Created on Tuesday, March 3rd at 9:00 AM.
- Progressed to stage Proposal Submitted on Tuesday, March 11th at 10:02 PM.
- Progressed to stage Negotiating on Wednesday September 19th at 17:20 PM.

When the opportunity is assigned the Standard Working Week calendar, the elapsed time between each stage of the opportunity is calculated based on that calendar.

You can view the elapsed time calculations when you open the Opportunity Summary page and select the **Tracking** tab and view the **Duration** column.

The first duration that has been calculated is 6 days, 7 hours and 17 minutes. This is the time from when the opportunity was created and to when it was progressed to Proposal Submitted. Although, the amount of days that elapsed between March 3rd and March 11th is 8 days, when the Standard Working Week calendar is taken into account (that is, five working days in the week), the elapsed time amounts to six days. In addition, hours and minutes are calculated.

Other durations have been calculated in the same way (the weekend is not counted because it is a five-day working week).

Seven day week business calendar

This example shows elapsed time calculations for an opportunity. The system's default business calendar is called Seven Day Week. It consists of a seven-day week, Monday to Sunday. Work begins at 9:00 AM each day and ends at 17:30.

The opportunity goes through the following stages:

- Created on Tuesday, March 3rd at 9:00 AM.
- Progressed to stage Proposal Submitted on Tuesday, March 11th at 10:02 PM.
- Progressed to stage Negotiating on Wednesday September 19th at 17:20 PM.

When the opportunity is assigned the Seven Day Week calendar, the elapsed time between each stage of the opportunity is calculated based on that calendar.

You can view the elapsed time calculations when you open the Opportunity Summary page and select the **Tracking** tab and view the **Duration** column.

The first duration that has been calculated is 8 days, 7 hours and 17 minutes. This is the time between when the opportunity was created and when it was progressed to Proposal Submitted.

This time, the amount of days that elapsed between March 3rd and March 11th is 8 days, and the time calculated by the system is also 8 days. This is because the elapsed time scales are based on a seven-day working week (weekends are counted as working days). As you can see, hours and minutes are also calculated.

Creating a holiday set

When defining a holiday set you specify that certain days, such as federal holidays (in the United States) or Bank Holidays (in the United Kingdom and Ireland), can be excluded when calculating how long a Case has been open. For example, if a particular Thursday is designated a Thanksgiving holiday and a case was opened on the Monday of that week, by Friday of the same week the duration for the case will indicate that four days have elapsed rather than five.

1. Click **<My Profile> | Administration | System | Timings** and click the **Holiday Set** tab. The Available Holiday Sets page is displayed with a list of existing Holiday Sets.
2. Click **New**. Alternatively, to clone an existing holiday set, click the link of the Holiday Set and click **Clone**.
3. Type a name for the holiday set in **Holiday Set**.
4. Type the name of the public holiday you want to include in the company's Holiday Set in **Holiday Name**.
5. Enter the date on which the holiday falls in **Holiday Date**.
6. Click **Add**. The holiday you added is displayed on the Existing Holidays panel and the Add New Holiday panel is available to add another new holiday to the Holiday Set.
7. Continue to add other holidays in the same way.
8. To remove an existing holiday, click **Delete** beside the holiday you want to remove.
9. Click **Save**. The Holiday Set you created is added to the list on the Available Holiday Sets page.

Service Level Agreements

- **Setting up SLAs**
- **Adding escalation rules to SLAs**
- **Applying SLAs to companies and cases**
- **SLA warning flags**
- **Updating SLA records**

Setting up SLAs

In Sage CRM, Service Level Agreements (SLAs) define the time frames in which customer cases should be resolved and the steps that should be taken to reach an appropriate solution. Typically, customers pay for different SLA agreements (Gold, Silver, Bronze, for example) depending on the level of service they require. Moreover, individual SLAs specify varying response times and actions to match the severity of the reported problem.

1. Click **<My Profile> | Administration | System | Timings | Service Level Agreement**. The list of current SLAs is displayed showing the default SLA, Gold. You can filter the list using the filter panel.
2. Click **New**.
3. On the Details panel, enter a name for the SLA. For example, Priority Customers.
4. Enter a percentage value in **Warning Percent**. This figure represents the point in time at which you want the Case to be flagged in a certain way. The point in time is based on the percentage complete of the Case in the time frame specified in the SLA.
   For example, let's say the Warning Percent specified in the SLA is 80%, and you specified in the SLA that all Cases should be closed within 30 hours. As a result, if a Case to which that SLA is assigned has not been closed within 24 hours, the Case is flagged accordingly.
5. To set the SLA as the default, select **Default SLA**. If another SLA is already specified as the default SLA, unselect it first because only one SLA can be specified as the default SLA at a given time. If SLA default is set and you create a new company, the SLA field is automatically set with default SLA. The is also true for cases except when parent company have SLA set (even if it is none then case SLA will also be none).
6. The Default SLA is used for new companies, which haven't been assigned an SLA. New cases default to the Company SLA even if it's set to "--None--". If you change the SLA on the company record, existing associated case SLAs don't change. The new or changed company SLA is only applied to new cases.
7. Select a **Business Calendar** and a **Holiday Set** to apply to the SLA.
8. For High, Low, and Medium priority Cases, specify the total amount of hours the Case should be closed in, in **Close In**.
9. From the SLA Timings in Hours panel, specify the number of hours that each stage of the Case should be closed by in **Action**. Do this for High, Low and Medium priority Cases. The Number of Action fields available depends on the number specified in **<My Profile> | Administration | Advanced Customization | Workflow & Escalation Configuration | Maximum SLA actions**.
10. Click **Save**.

Adding escalation rules to SLAs

Once an SLA has been set up and saved, you can add escalation rules to the SLA actions. A new escalation rule for SLAs is now available that can be set up to display a notification to the current assigned user if the Case is not progressed within the time specified in the SLA.

1. Click **<My Profile> | Administration | System | Timings | Service Level Agreement**.
2. Click the SLA hyperlink.
3. Click the action hyperlink. A dialog box is displayed to confirm that you want to add the rule.

4. Click **OK**. The new Workflow Rule page is displayed with the new SLA escalation rule. All fields are automatically completed, and the rule name is automatically generated according to the action number and severity you are creating the rule for.
5. Click **Save**. The escalation rule is applied to the SLA.
   You can add a notification action to the escalation rule from the current Escalation Rule tab. You must ensure the table is set to escalations and that the time column is escl_ datetime. For more information, see **Workflow** and **Quick notifications and escalation rules** for more information.
6. Edit the SQL script in **Trigger SQL Clause** if required. The default SQL sends a notification to the assigned user if the case is not progressed within the time specified in the SLA action. For example, you can add additional conditions or remove the assigned user.
7. Click **Save**.

Applying SLAs to companies and cases

Cases created for a company before that organization's SLA is specified are not updated automatically. You can, however, open old cases and apply the company's SLA to the case. After you specify an SLA for a company, all cases defined from then on are automatically assigned the organization's SLA. You can also override these automatic settings.

To apply an SLA to a company:

1. Open the Summary page of the company you want to apply the SLA to, and click **Change**.
2. Select the SLA from **SLA**.
3. Click **Save**. All cases associated with the company, whether they are high, low, or medium priority, are associated with the selected SLA.

If you decide that certain types of cases logged by this company shouldn't be associated with this SLA, apply a different SLA to individual cases. You can do this when creating a new or editing an existing case for the company. If the SLA for a company is changed afterwards, the SLA for existing cases with the company is not automatically updated. However, the SLA field on any new cases created for that company automatically default to the company's new SLA field.

To apply an SLA to a new case:

1. In the context of a Company, click the **Cases** tab and click **New Cases**.
2. Enter the case details. Do not enter anything in **SLA** and **SLA Severity**. The system completes these fields if you've selected an SLA for the company.
3. Click **Save**.

SLA warning flags

Once SLAs are set up, all cases in a user's list of current cases are flagged based on the Warning percent you specified in the SLA. The flag is included on the SLA Status column.

- A green symbol with a check mark indicates that the case is within the time specified in the SLA, it has not yet reached the warning percentage level, or that no Warning percentage has been specified in the SLA.
- A yellow symbol with a minus sign indicates that the case has reached the warning percent level without being closed.
- A red symbol with a cross symbol means that the case has not been closed within the time specified in the SLA.

If you make a change to an SLA's timings in the SLA Timings In Hours panel, flags for cases associated with the SLA may be affected—in fact, the way in which the flag is determined will change, but the flag itself may not necessarily change color immediately.

You may want to update SLA timings if, for example, you have a number of cases attached to an SLA but at a later date agree with a customer that you will solve high-priority cases in a shorter length of time than was agreed on initially.

Updating SLA records

1. Click **<My Profile> | Administration | System | Timings | Service Level Agreement**.
2. Click the SLA you want to change.
3. Click **Change** and make your changes. For example, set **Close In** for high-priority cases to *9 hours*, and set **Action 1** for high-priority cases to *1*.
4. Click **Save**.
5. Click **Update SLA Records** and click **OK**.

Themes

- **Adding a new theme**
- **Making a new theme available**
- **Changing the default theme**
- **Customizing report charts**
- **Customizing CSS of the current theme**

Adding a new theme

> **Warning:** The steps in this section are for information only. Please be aware that customizations to the Contemporary theme or newly created themes are not supported.

To add a new theme, you must copy an existing theme and rename it. Never delete or change the Contemporary theme supplied with the install.

To hide an existing theme so users cannot select it, you must remove or rename the translation for the theme. For more information, see **Making a new theme available** and **Translations list**.

Changes to the supplied theme are overwritten on upgrade. Rework custom themes on a staging site before allowing users access to the upgraded system.

1. Navigate to the **\WWWRoot\Themes** subdirectory of your Sage CRM install.
2. Copy an existing theme and rename it.
3. Create copies of all theme folders in the subdirectories of **\WWWRoot\Themes**.
4. Review and edit the copied CSS in **\WWWRoot\Themes**. The CSS contains comments to help you identify the areas you may want to change. Areas for review may include:
    - General color scheme changes. When updating the color scheme, it is recommended that instances of existing dark, mid, and light colors are replaced with equivalent shades of the new color. For example:

Color1 (hex color codes)	Panoply Blue (hex color codes)
Dark Green (#336633)	Dark Blue (#3333FF)
Mid Green (#338433)	Mid Blue (#3399CC)
Light Gray (#F2F2F2)	Light Blue (#66CCCC)

- Specific style changes. You can change style attributes in the CSS, but not the style itself or the formatting of the CSS file.
- Instances of the copied theme in paths. Check and replace with the new theme name.

5. Review and edit the following:
   - Copied style sheets in **\WWWRoot\Themes\Reports\[theme name]**. The only recommended change to **STDGRIDS.CSS** and **STDPLAIN.CSS** is to replace the dark shade with the new shade for your theme.
   - Copied **BASICHTML.XSL** file in **\WWWRoot\Themes\XSL\[theme name]**.
   - Copied **THEME.CSS** file in **\WWWRoot\Themes\InteractiveDashboard\Themes\[theme name]**.
6. Review and replace images to fit your new theme. For more information, see **Theme images**.
7. Stop and restart IIS.

Theme images

The following table describes some of the most frequently used images to review and replace for a new theme. The full set of images can be found in the \Img directory.

Location	Field Name
Logos	
..\Img\[theme name]\Logo	EWARETOPLEFT.JPG
..\Img\[theme name]\Backgrounds	TOP.JPG
Tabs	
..\Img\[theme name]\Backgrounds	TABONLEFT.GIF
	TABOFFLEFT.GIF
	TABONREPEAT.GIF
	TABOFFREPEAT.GIF
	TABONRIGHT.GIF
	TABOFFRIGHT.GIF
	TABSPACE.GIF
Coaching Captions	
..\Img\[theme name]\Icons	COACHING.GIF
..\Img\[theme name]\Buttons	COH_MINIMIZE.GIF
	COH_PROMPT.GIF
	COH_HIDEALL.GIF
Buttons	
..\Img\[theme name]\Buttons	SMALLGO.GIF

Location	Field Name
Mobile	
.\Img\[theme name]\Logo	LOGO.GIF
..\Img\[theme name]\Menu\BasicHTML	Review graphics containing mid shade of background color: MENUBUT_FIND.GIF MENUBUT_LOGOUT.GIF MENUBUT_MYCRM.GIF MENUBUT_MYDESK.GIF MENUBUT_NEW.GIF MENUBUT_REPORTS.GIF ON_MENUBUT_FIND.GIF ON_MENUBUT_LOGOUT.GIF ON_MENUBUT_MYCRM.GIF ON_MENUBUT_MYDESK.GIF ON_MENUBUT_NEW.GIF ON_MENUBUT_REPORTS.GIF

Making a new theme available

Warning: The steps in this section are for information only. Please be aware that customizations to the Contemporary theme or newly created themes are not supported.

To make a new theme available in Sage CRM, add a new translation where the Caption Family is CssThemes.

1. Click **<My Profile> | Administration | Customization | Translations**. For more information, see **Translations and help**.
2. Click **New**.
3. Enter a **Caption Code** for the new theme. For example, panoply_blue. The caption code must match the new theme name. For example, if your new stylesheet is called **PANOPLY_BLUE.CSS**, then the caption code is *panoply_blue*.

4. Enter *CssThemes* in **Caption Family**.
5. Enter *Tags* in **Caption Family Type**.
6. Enter the translations for the caption in the language fields. For example, *Panoply Blue*.
7. Click **Save**. You should empty your cache.

Changing the default theme

> **Warning:** The steps in this section are for information only. Please be aware that customizations to the contemporary theme or newly created themes are not supported.

Online Help and Self Service are not affected by themes.

1. Click **<My Profile> | Administration | System | System Behavior**.
2. Click **Change**.
3. Select a theme from **Default system theme**.
4. Click **Save**. The new theme is displayed next time you log on. If a user has selected a preferred theme, the preferred theme isn't overwritten.

Customizing report charts

FusionCharts improve the visual effect of charts in standard reports, on the interactive dashboard, and when using Chart Blocks. Features of the charts include rotation, slicing movement, and printing. You can customize FusionCharts. For example you can change the background color, or add shadow effects, background images, and logos to report charts.

- To customize FusionCharts, modify the [themename].FSN file in the Themes folder of your Sage CRM install. For more information, see **http://docs.fusioncharts.com/charts**.
- To change the background color of FusionCharts use bgColor and bgAlpha attributes.
    - **bgColor**: Sets the background color for the chart. You should use hex color codes without # symbols. To use a gradient fill, specify all the colors required for the gradient fill separated by commas.
    - **bgAlpha** Sets the alpha (transparency) for the background. The valid range is from 0-100.
- FusionWidgets allow developers to create custom charts and elements for data visualization. The widgets can be found in **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\WWWRoot\fusioncharts**. For more information, see **http://docs.fusioncharts.com/widgets**.

Note: For more information about the methods you can use to display charts on client computers, see **Chart Options panel fields**.

Customizing CSS of the current theme

You can change the look of the current Sage CRM theme by applying CSS customisations. To do so, you can either use an existing empty .css file supplied with this release (**RedefinedStyles.css**) or copy your own .css files to a Sage CRM server. If necessary, you can roll back customisations by editing or deleting your .css files.

Note that these customisations do not apply to reports and interactive dashboard layout and gadgets.

1. On a Sage CRM server, open the following location:

   <Sage CRM installation folder>\WWWRoot\Themes\custom

   where **<Sage CRM installation folder>** is the folder you specified when installing Sage CRM. By default, this is **%ProgramFiles(x86)%\Sage\CRM\CRM**.

2. Add your CSS customizations to the **RedefinedStyles.css** file in the **custom** folder. Alternatively, copy your custom .css files to that folder.
   You may need to use the `!important` rule to apply your CSS customisations.

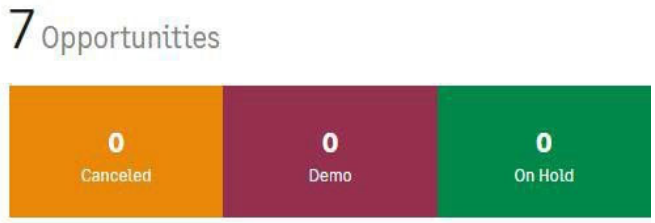
   Note: Sage CRM applies your .css files in the alphabetical order of their names, from A (first) to Z (last). As a result, if you customize a CSS element in your first file, it can be potentially overwritten by customizations in the next files.

3. Open IIS Manager and recycle the **CRM App Pool** to apply your customizations.
4. Clear browser cache on each client computer to correctly display CSS customizations.

CSS customizaton example

```
#casesegment1.casesegment {
    background: #e98709 !important;
}
```

Changes the color of the Canceled pipeline tile to amber:



Enabling Cases, Opportunities, or Campaign Management

Cases, Opportunities, or Campaign Management can be enabled in the Sage CRM license key only. If any of these items are not available in Sage CRM, request and install a new license key that enables the items you want.

For details, see **Updating license key**.

Show or hide information on Narrative tab

As a system administrator, you can control what information a user can view on the **Narrative** tab displayed for a Company.

To show or hide information in an area on the **Narrative** tab, edit the user's security profile to grant or revoke the View right in the corresponding option, as shown in the table. For more information, see **Security profiles**.

Area on Narrative tab	Controlled by View right in this security profile option
Company, Address, Relationships	Company **Note:** Revoking the View right in this security profile option makes Companies inaccessible to the user.
Communication	Communication
Sales	Opportunity
Cases	Cases

Best practices for setting time zone

Specify the same time zone in:

- **<My Profile> | Administration | System | System Behavior | Server time zone**
- The Windows Date and Time settings (timedate.cpl) on the Sage CRM server.
- Microsoft Exchange with which Sage CRM synchronizes, if any.

Warning: When you change the time zone on your Sage CRM server, this change does not apply to the existing records in Sage CRM. They continue using the previous time zone.

Make sure that each Sage CRM user has the same time zone specified in the following settings. You can set a different time zone for users in different office locations, or for users who are accessing Sage CRM while traveling.

- **<My Profile> | Administration | Users | <user> | Users Preferences | Time Zone**
- The Windows Date and Time settings (timedate.cpl) on the user's computer.

For troubleshooting steps, see **Changing the time zone**.

Users

- User management
- Configuring automatic login
- User activity
- Security management
- Team management
- Active Directory users
- User templates

User management

- **Demonstration users**
- **Setting up a new user**
- **Creating an Info Manager**
- **Editing a user**
- **Configuring user settings**
- **Self-service password recovery**
- **Reassigning records and disabling users**
- **Enabling a disabled user**
- **Deleting a user**
- **User fields**

Demonstration users

If you've installed demonstration data, the following users are created in Sage CRM. These users do not require passwords. If you have not installed demonstration data, only the admin user is created. There is a hierarchy in the demonstration data as follows.

Name	Logon ID	ID	Title	Department	Team	Manager	Profile
System Administrator	admin	1	System Admin	IS	Operations (owned by William Dolan)	NULL	Unrestricted
John Finch	finchj	2	US Sales - Eastern	US Sales - East	Direct Sales	Susan Maye	Sales Rep
Peter Johnson	johnsonp	3	UK Sales Rep	UK Sales	Direct Sales	Tim McGraw	Sales Rep

Name	Logon ID	ID	Title	Department	Team	Manager	Profile
Susan Maye	mayes	4	US and Canada Sales Manager	US Sales	Direct Sales	Simon O'Neill	Sales Manager
Kylie Ward	wardk	5	Worldwide Customer Care Manager	Customer Care	Customer Service	NULL	Customer Care Manager
Tim McGraw	mcgrawt	6	European Sales Manager	IS	Direct Sales	Simon O'Neill	Sales Manager
William Dolan	dolanw	7	Ireland Sales Representative	Ireland Sales	Direct Sales	Tim McGraw	Sales Rep
Simon O'Neill	oneills	8	Worldwide Sales Manager	Worldwide Sales	Direct Sales	System Administrator	Sales Manager
Matthew Ebden	ebdenm	9	UK Sales Rep	UK Sales	Direct Sales	Tim McGraw	Sales Rep
Hans Muller	mullerh	10	German Sales Rep	Sales - Germany	Direct Sales	Tim McGraw	Sales Rep
Wayne Parcells	parcellsw	11	US Central Sales	US Central	Direct Sales	Susan Maye	Sales Rep
Brian Little	littleb	12	US West Sales	US West Sales	Direct Sales	Susan Maye	Sales Rep
Steve Morriss	morrisss	13	Canada Sales Rep	Canada Sales	Direct Sales	Susan Maye	Sales Rep
Damien Walsh	walshd	14	Customer Care Agent - Europe	Customer Care	Customer Service	NULL	Customer Care Agent
Graham Rogers	rogersg	15	Customer Care - US	Customer Care	Customer Service	NULL	Customer Care Agent

Name	Logon ID	ID	Title	Department	Team	Manager	Profile
Dave Montana	montanad	16	Worldwide Marketing Manager	Worldwide Marketing	Marketing	NULL	Marketing Manager
Fred Jones	jonesf	17	Telemarketing Rep	Telemarketing	Telesales	NULL	TeleMarketing
Trish Simmons	simmonst	18	Telemarketing Rep	Telemarketing	Telesales	NULL	TeleMarketing
US Meeting Room	N/A	19	US Meeting Room 5th Floor	NULL	NULL	NULL	Resources
London Meeting Room	N/A	20	London Meeting Room 1st Floor	NULL	NULL	NULL	Resources

Setting up a new user

1. Click **<My Profile> | Administration | Users | New User**.
2. To create a user from a template, select a template from **User template** first. Then, fill in the **User fields** and select **Continue**.
   Otherwise, fill in the user fields without selecting a template.

   After you select **Save** or **Save & New**, you will not be able to apply a template to the user.

   > **Note:** Make sure that you enter a unique user name and email for each user.
   > A user's logon password must begin with a digit or letter. You cannot use a special character as the first character in a user's logon password.

3. Complete the **More User Details fields** and the **Security Profile fields** and click **Continue**.
4. Complete the **User Preferences fields**. If you haven't selected a template, the user preferences default to those specified in the Default User Template.
5. Click **Save**.
   - Alternatively, click **Save & New** to save the new user and display the user panel so you can add another new user. This is useful if you need to create several new users sequentially.

- Or click **Set To System Defaults** to reset user preferences to the default settings from the Default User Template.

Creating an Info Manager

An Info Manager is a type of power user who can perform some system administration tasks but cannot access the entire administration area. For example, an Info Manager can upload templates, maintain currency conversion rates, and edit Interactive Dashboard templates.

You specify Info Manager access on the user's Security panel. For more information, see **Security Profile fields**.

When you set **Administration** to **Info Manager**, the following features are available to the user assuming the license and services are enabled for these features.

Main menu area:	an Info Manager can:
Marketing, including E-marketing	Access and create standard and E-marketing campaigns
Reports	Edit and create new reports
Find	Make a saved search or advanced find available to other users
My CRM | Groups	Make a group available to other Info Managers
My CRM | Shared Documents	Edit or delete a shared document
My CRM | Dashboard	Create and change dashboard and gadget templates

You can also assign specific sub-sets of rights from **Info Admin Rights**. You can use **Ctrl + click** to select multiple sets of rights.

Info Admin Rights Selection:	**an Info Manager can work with:**
Currency	· **<My Profile> | Administration | Data Management | Currency** · **<My Profile> | Administration | Data Management | Currency Configuration**
Customize	· **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Fields**. Limited to editing selection lists on existing fields and changing field-level security. · **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | External Access** · **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Summary Report** · **<My Profile> | Administration | Customization | Primary Entities | Leads | Web to Lead** · **<My Profile> | Administration | Customization | Secondary Entities | Solutions | Field Mappings**
Data	· **<My Profile> | Administration | Data Management | Data Upload** · **<My Profile> | Administration | Data Management | Match Rules** · **<My Profile> | Administration | Data Management | Company Name Cleanup** · **<My Profile> | Administration | Data Management | Forecast** · **<My Profile> | Administration | Data Management | Manage Relationship Types**
Document Library	· **My CRM | Shared Documents | Add File**

Info Admin Rights Selection:	**an Info Manager can work with:**
Email and Template	· **<My Profile> | Administration | Email and Documents | Email Templates** · **<My Profile> | Administration | Email and Documents | Emarketing Configuration** · **<My Profile> | Administration | Email and Documents | Document Templates**
Product	· **<My Profile> | Administration | Data Management | Products**
Timings	· **<My Profile> | Administration | System | Timings**
Summary Reports	· **<My Profile> | Administration | Customization | Primary Entities /Secondary Entities | <Entity> | Summary Report**
Key Attribute Profiling	· **<My Profile> | Administration | Advanced Customization | Key Attributes**
User	· **My CRM | Groups | Mass Update** · **<My Profile> | Administration | Users | New User** · **<My Profile> | Administration | Users | Users** (view-only access to the Security tab on users) · **<My Profile> | Administration | Users | Security** · **<My Profile> | Administration | Users | Import Users** · **<My Profile> | Administration | Users | User Templates** · **<My Profile> | Administration | Users | Standard Classic Dashboards**
Workflow and Escalation	· **<My Profile> | Administration | Advanced Customization | Workflow** · **<My Profile> | Administration | Advanced Customization | Escalation** · **<My Profile> | Administration | Advanced Customization | Workflow & Escalation Configuration** · **<My Profile> | Administration | Customization | Primary Entities /Secondary Entities | <Entity> | Notifications**

Info Admin Rights Selection:	an Info Manager can work with:
Extra	Available with the Extensibility Module only. The user has access to a customized Administration area. You configure this in **<My Profile> | Administration | Advanced Customization | System Menus | AdminExtraTabs**. For more information about the Extensibility Module, see the *Developer Help* on the **Sage CRM Help Center**.

Editing a user

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the user's **Last name** and click **Find**.
3. Click the user hyperlink.
4. To change user details, click **Change**.
    a. Make your changes to the **User fields**.

    > **Note:** A user's logon password must begin with a digit or letter. You cannot use a special character as the first character in a user's logon password.

    b. Make your changes to the **More User Details fields**.
    c. Click **Save**.
5. To change user preferences, click the **User Preferences** tab and click **Edit**.
    a. Make your changes to the **User Preferences fields**.
    b. Click **Save**.
6. Users can change their preferences in **<My Profile> | Preferences**. Updated settings are immediately reflected in **<My Profile> | Administration | Users | User Preferences**.
7. To change user security profile rights, click the **Security** tab.
    a. Click the profile the user is currently associated with.
    b. Make the changes to the **Security Profile fields** and profile rights.
    c. You can view and navigate to the Security Profile assigned to a user from the Security tab. If the user has direct rights into any territories, you can edit them on this tab.
    d. You can switch a user's existing profile in **Profile name** on the **User Details** tab. For example, from Sales Manager to Marketing Manager.
    e. Click **Save**.

Configuring user settings

User configuration settings apply to all users who work with Sage CRM.

1. Click **<My Profile> | Administration | Users | User Configuration**.
2. Click **Change**.
3. Change the **User Configuration fields**.
4. Click **Save**.

Self-service password recovery

This feature enables users to reset their Sage CRM password without contacting the system administrator.

By default, self-service password recovery is disabled. When the system administrator enables this feature, a **Forgot My Password** link is added to the Sage CRM logon screen.

To reset their forgotten password, a user must enter their user name on the logon screen and then click the **Forgot My Password** link. As a result, Sage CRM sends an automated email containing a password reset link to the email address associated with the user. The user can then reset their password by clicking the password reset link in the email.

- **Enabling self-service password recovery**
- **Password recovery email templates**

Enabling self-service password recovery

To enable self-service password recovery for all users, do the following:

1. Configure Sage CRM to use HTTPS: on the Sage CRM computer, open Internet Information Server (IIS) Manager, create an HTTPS binding for the Sage CRM site, and manually add a server certificate.

   This step is required to display the **Forgot My Password** link on the Sage CRM logon screen. When a user accesses the logon screen via HTTP, the **Forgot My Password** link isn't displayed for security reasons.

2. Configure Sage CRM to send emails:

a. Go to | **Administration | Email and Documents | Email Configuration**.

b. Click **Change**.

c. Populate the following fields:

- **Outgoing mail server (SMTP)**
- **SMTP port**
- **SMTP user name**
- **SMTP password**

  For more information, see **Email/SMS settings**.

d. Click **Save**.

Password recovery email templates

You can edit the default email templates used to send password recovery emails.

Go to | **Administration | Email and Documents | Email Templates** and edit the following templates:

- English: **Forgot Password (EN)**
- Spanish: **Forgot Password (ES)**
- French: **Forgot Password (FR)**
- German: **Forgot Password (DE)**

Reassigning records and disabling users

You can disable a user who is out of the office for a prolonged period of time or who has left your organization. Communications cannot be scheduled for the user, and new opportunities or accounts cannot be assigned to the user. A disabled user doesn't appear in your user license count. The disabled user still appears in the My CRM user list so that the user's history can be reviewed, and the user's name is displayed on customer contact history information such as completed communications and closed opportunities.

You can reassign records from a disabled user to a colleague. You might do this if the user has a large outstanding workload or accounts that need careful management.

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the user's **Last Name** and click **Find**.
3. Click the user hyperlink.

4. Click one of the following options:
    - To disable the user without reassigning their records, click **Disable**. The User Details page is displayed with a blue banner showing that the user has been disabled.
    - To reassign the user's records to a colleague without disabling the user, click **Reassign**. Follow the steps below to reassign the records.
    - To reassign the user's records to a colleague and disable the user, click **Reassign and Disable**. Follow the steps below to reassign the records.
5. Ensure that the user to whom the records are reassigned has appropriate security rights. For example, the user should have access rights to the disabled user's territory.
6. Select the user or team to which the records are reassigned.
7. Select one of the following checkboxes.
    - **Companies** reassigns the Account Manager of the company to the user or team member.
    - **People** reassigns the Account Manager of the person to the user or to team member.
    - **Always reassign the records within the company/person to a single user** reassigns all child records that are related to the reassigned Company or Person records, and owned by the previous user, to the team member. People in the company who were owned by the previous user are reassigned to the team member. People who are owned by a different user are not reassigned to the team member and remain unchanged.
8. Select records and record status in the Reassign Other Records panel. For example, reassign all pending or in progress communications and all in progress opportunities. When you reassign communications, tasks are always reassigned. Appointments and email outs are reassigned only if they don't already exist for the new user.
9. Click **Go**.
10. Review the reassigned records summary, and click **Continue** to return to the User Details screen.

Enabling a disabled user

1. Click **<My Profile> | Administration | Users | Users**.
2. Select **Disabled**. A list of all disabled users is displayed.
3. Click the user hyperlink.
4. Click **Enable**.

Deleting a user

Warning: Delete a user with extreme caution and only if you've added a new user by mistake. If a user is no longer with your organization, disable the user instead of deleting the user.

If you must delete a user and the user has any related records, reassign the records first. If you don't reassign the records and then you delete the user, the records remain in Sage CRM with an untranslated code in the user name. This makes it very difficult to keep an accurate customer history.

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the user's **Last Name** and click **Find**.
3. Click the user hyperlink.
4. Click **Delete** and then click **Confirm Delete**.

User fields

- **User fields**
- **Security Profile fields**
- **More User Details fields**
- **User Preferences fields**
- **CSV input/output matrix**
- **User Configuration fields**

User fields

The table below explains the standard fields on the User panel.

Field	Description
First name	User's first name. For example, Susan.
Last name	User's last name. For example, Maye.

Field	Description
Email	Work email address. Each Sage CRM user must have a unique email address assigned. You cannot assign the same email address to two or more Sage CRM users.
User name	User's logon ID. Each user name must be unique. A user name entered with a leading or trailing space is trimmed automatically to remove these.
Password	User's logon password. The password is encrypted in the database after the first password change. A minimum password length can be defined within the Configuration settings. For more information, see **User Configuration fields**. **Note:** A user's logon password must begin with a digit or letter. You cannot use a special character as the first character in a user's logon password.
Administration	Sets the administration rights of a user. Select from: No Admin Rights—for a basic user with no access to Administration. Info Manager—has the rights to edit existing reports and add new ones, and has rights to the Marketing button. Also has limited access to Administration. The choices available in the Administration context area are dependent on the Info Admin Rights defined in Info Admin Rights field. For more information, see **Creating an Info Manager**. System Admin—has full access to Administration. From Template—assigns the administration rights set in the template selected from the User Template drop-down list.
User template	Select a predefined user template from the list of existing templates. When you select a template, all fields you specified when you created the template are applied to the current user.
Primary team	The default team that's displayed when the user clicks Team CRM. It's also the only team that's displayed if no teams have been selected in the Display Teams field.

Field	Description
Home territory	Security territory of the user. For example, USA. A user with a Home Territory of USA can access records in the USA territory, and records in subordinate territories—for example, West, East, Mid-West, South, North. If no security territories are set up, this defaults to the World Wide territory. The World Wide territory allows access to records in all territories. For more information, see **Adding records to a territory**.
Synchronize with Exchange	Read-only field available when Exchange Integration is enabled. Only visible when the user record is in view mode. When a user's mailbox has been enabled for synchronization with Exchange, the check box is selected. For more information, see **Enabling user mailboxes for synchronization**.
Resource	Set to True, the user exists in the user table and is selectable from all user selection lists in the system. However, the user does not have rights to log into the system (and does not require a user license). This means that, for example, a meeting room resource can be set up as a “user” to facilitate meeting scheduling, without using up a user license.
Show Exchange integration logs	Available when Exchange Integration in enabled. Set to **Yes** to display a new tab, Exchange Integration Logs, in My CRM. This gives the user access to their own logs, which display information on conflicts, skipped items and synchronization, specific to their Exchange mailbox.
License type	Only available in installs with Concurrent licensing. Select from Named or Concurrent. Named should be selected for users who require permanent access. For example, System Administrators and permanent staff. Select Concurrent for shift workers, part-time staff, data entry temporary staff etc.
Disabled	Read-only check box, displayed after a user is saved. Checked when a user is disabled.

Security Profile fields

The table below explains the standard fields on the Security Profile panel.

Field	Description
Profile name	The security profile assigned to the user. Select from a list of existing profiles. If no profiles are set up, this defaults to the system administrator's security profile, Profile 1. For more information, see **Adding a new security profile**.
Mobile device access	Allows access from a mobile device.
External logon allowed	Indicates whether the user can access Sage CRM from a remote location. Only available in systems with the Extensibility Module. A third-party that needs to access the COM interface, must access Sage CRM as a user with this field set to **True**. For example, a user with this privilege is required for on-premises Exchange Server or cloud-based Exchange Online to access Sage CRM for Exchange synchronization. Similarly, Self Server ASP pages need to access the system in this way.
Change p/w at next logon	Specifies whether the user much change their password the next time they log on. Once they have done so, the value of this field is automatically set back to **False**.
Password never expires	The password is only changed when the user wishes, or when the System Administrator resets it.
Cannot change p/w	The password can only be changed by the System Administrator.
Password expiry date	Automatically set by the system according to **Amount Of Days To Password Expiry** on the **User** tab within the configuration context.
My CRM lists	Sets access to lists in the My CRM area. This can be set so a user sees only their own lists of pending work in the My CRM area list or lists of all other users.
Team lists	Sets access to the Team CRM area. This can be set so a user sees their Primary and Display Teams (User's Team), all teams, or none.
Reports	· **No Reports**. The user has no access to reports. · **Personal Reports**. The user can see, run, edit, and delete their own private reports. · **Enterprise**. The user can see, run, edit, and delete any database-stored report unless it is marked as private.
Solutions	Access levels for Solutions. Security access to Solutions is controlled using this setting only not using Territory Management.

Field	Description
Forecast rights	• **For All Users In Territory**. Allows a manager to access the forecasts of other users in the same territory (or a territory below their own) by changing the user name in My CRM. • **For This User Only**. A user can only access their own forecast.
Restrict sensitive info	Specifies rights for viewing sensitive company information. • **No restriction**. The user's access to sensitive company information in tabs is not dependent on being a member of the company team. • **Must be on company team**. The user is able to view sensitive company information (Quick Look, Notes, Communications, Opportunities, Cases, and Documents tabs) only if the user is a company team member for the current company being viewed. However, if the user is the account manager for the current account, the user has unrestricted access to tabs.
Restrict updates	Specifies rights for updating sensitive company information. The settings work in conjunction with the value in **Company Team**. • **No restriction**. The user's update rights are not dependent on membership of the company team. However, territory access rights still apply. • **Must be on Company Team**. If the **Company team** field is set to **No Access** or **View Only**, the user is not allowed to update company records. This restriction is implemented by hiding the **Change** button. This setting is not dependent on team membership or territory access rights. If the **Company team** field is set to **View Only**, **Upd/Ins**, or **Upd/Ins/De**l, the user can update company records only when a member of the company team for the current company being viewed. However, if the user is the account manager for the current account, update rights are unrestricted, territory access rights permitting.
Company team	Sets access to the **Company Team** tab.
Merge persons/companies	Gives the user rights to deduplicate people and companies using the merge functionality.

Field	Description
Assign individual to company	Allows the user to associate a person with a company. Assigning a person to a company also moves all related communications, opportunities, and cases to the company.
Allow Web Service access	Enables the current user for Web Service access.
Administration	Sets the administration rights of a user. There are three types: • **No Admin Rights**. A basic user with no access to Administration. • **Info Manager**. A user with more rights than the basic user (such as creating Interactive Dashboard templates) and limited access to Administration when combined with the **Info admin rights** field. For more information, see **Creating an Info Manager**. • **System Admin**. A user with full access to Administration.
Info admin rights	One or more specific info admin rights can be selected, if **Administration** is set to **Info Manager**. For more information, see **Creating an Info Manager**.
Group access	Enables the current user to access Groups functionality. Users who have not been granted access cannot view, create, or edit groups.
Mail merge to Word	Allows the user to perform mail merges that create Microsoft Word documents and also to perform mail merges that create PDFs. If set to **No**, the user can only perform mail merges that create PDFs.

More User Details fields

The table below explains the fields on the More User Details panel.

Field	Description
Department	Department
Phone	Work phone number
Ext.	Work phone number extension
Display team	The team queues that the user can view from Team CRM.
Home phone	Home phone contact number.

Field	Description
Alternative	Alternative phone number.
Mobile	Mobile phone number.
Language	Preferred language. Each user sees the same underlying data in the database, however the buttons, field names, and captions throughout the application appear in the user's selected language. If no template is selected, this defaults to the language set in the Default User Template.
Pager	Pager number
User SMS notification	If SMS features are used and this option is set to **True**, an SMS notification message is sent to the user's mobile phone when communications are created for the user. **Mobile email address** must be correctly completed for this to work.
Mobile email address	Mobile phone email address. If the user's mobile phone email address is different from the user's normal email address, enter it here.
Forecasting - reports to	Sales manager or direct report, who should have access to the selected user's forecast.
Forecast - currency	Currency in which the forecast is calculated. If the user enters a forecast value on the Opportunity in a different currency, it's converted to the forecast currency set in **Forecast**.
Title	Title of the user.
Location	Usual office location of the user.
Desk location	Desk location or mail stop.

User Preferences fields

- **Login and session preferences**
- **Date/time preferences**
- **Number preferences**
- **Reminder preferences**
- **Email import preferences**

Login and session preferences

Field	Description
CSV file export delimiter	Sets the delimiter to use in Comma-separated Values (CSV) files. The delimiter applies when you: • Export data from Sage CRM to a CSV file. • Upload data from a CSV file to Sage CRM. In this case, the CSV file must use the delimiter you specify in this field.
Currency	Sets the currency to use in Sage CRM.
Default email address	Allows you to select the default email address to add to the **From** field on the New Email screen. This field applies only if you can send emails from two or more accounts.
Default email template	Sets the default email template. The template is used when you create a new email in Sage CRM. You can use this field to disable or reenable your email signature, if it exists. For more information, see *User Help* on the **Sage CRM Help Center**.
Default screen for company	Sets the initial tab to display when you open a Company record. You can select one of the following tabs: • **Summary** • **Interactive Dashboard**
Default tablet version	Sets how to display Sage CRM when you view it on a tablet. Possible values: • **Desktop Version**. Displays full desktop version of Sage CRM. • **Tablet Version**. Displays Sage CRM using the tablet theme.

Field	Description
Display three-line menu	Allows you to select how the main menu is displayed. Possible values: • **Always**. Moves all main menu items, both standard and custom, to the three-line menu (☰) located in the top left corner of the Sage CRM screen. Use this value when the main menu doesn't fit in the Sage CRM screen because it includes many items or item names are long. • **Automatically**. Moves all main menu items to the three-line menu (☰) on narrow screens only. Otherwise, the main menu is displayed at the top of the screen.
Email screen position	Sets how to display the New Email screen. Possible values: • **Normal**. Displays the screen in the current window. • **Popup**. Displays the screen in a new popup window.
Empty recent list for each session	Allows you to clean up or keep records in the recent list ( ) provided in the top bar. Possible values: • **Yes**. Cleans up the recent list when you log off. • **No**. Keeps records in the recent list when you log off, so that you can use them after next logon.

Field	Description
Enable Sage CRM Ally	Enables or disables an AI chatbot called Sage CRM Ally for the user. This option is available only if you have enabled Sage CRM Ally for all users in the system behavior settings. The chatbot is trained on the Sage CRM official documentation and can answer questions about Sage CRM. • **Yes** (default). Enables Sage CRM Ally for the user and displays the chatbot icon in the lower right corner of the Sage CRM window. The user can select the icon to ask questions about Sage CRM. • **No**. Disables Sage CRM Ally for the user, helping to improve Sage CRM performance. **Warning:** Sage CRM Ally is still in development and may give irrelevant or inaccurate answers. Always double-check the information provided by the chatbot.
Grid size	Sets the default maximum length of lists and grids on a page.
Line item screen position	Allows you to display the Line Item screen in Popup or Split view.
Log me in to	Sets the default initial page to display when you log on to Sage CRM or when you click the Sage CRM logo in the top left corner of the Sage CRM window..
On-screen coaching	Enables or disables on-screen coaching. Possible values. • **On**. Enables on-screen coaching. • **Off**. Disables on-screen coaching. • **Minimized**. Enables on-screen coaching and displays it minimized until you click **Maximize On-screen Coaching**. • **Customized**. Enables on-screen coaching and allows you to minimize or maximize it on a screen-by-screen basis.
Pop out list activation by	Sets a method to open pop-out lists. Possible values: • **Hover**. Hover over a menu button to open the pop-up list. • **Click**. Right-click a menu button to open the pop-up list.

Field	Description
Preferred theme	Select the theme you want to use when you log on to Sage CRM. A theme defines how the Sage CRM user interface looks. It is a combination of content layouts, icons, and user interface colors. Themes don't apply to User Help, System Administrator Help, and Self Service. **Note:** This field is available only if Sage CRM was upgraded from a previous version where existed any other themes except **Contemporary**. For more information, contact your system administrator.
Report print preview default orientation	Sets the default page orientation (portrait or landscape) used on the Report Display Options page for producing a report in PDF format.
Report print preview default page size	Sets the default page size used on the Report Display Options page for reports in PDF format. Possible values: - **Letter** - **A4**
Show cases pipeline	Allows you to display or hide the cases pipeline above the list of opportunities in **My CRM | Cases** and **Team CRM | Cases**.
Show leads pipeline	Allows you to show or hide the leads pipeline on the **Leads** tab within **My CRM** and **Team CRM**.
Show opportunities pipeline	Allows you to display or hide the opportunities pipeline above the list of opportunities in **My CRM | Opportunities** and **Team CRM | Opportunities**.
Show outbound calls In My CRM	Allows you to display or hide the **Outbound Call Lists** tab and menu item in the **My CRM** main menu.
Show solutions In My CRM	Allows you to display or hide the **Solutions** tab and menu item in the **My CRM** main menu. **Note:** This field applies only if the system administrator has given you rights to view Solutions.
Show stages with zero records	Specifies whether the cases pipeline, leads pipeline, and opportunities pipeline show stages that do not have any records. By default, set to **Yes**. This option is available only if your system administrator has configured the pipeline chart to be displayed as a rectangle.

Field	Description
Show version and license info	Allows you to show or hide information about the installed Sage CRM version, license key, and version support end date. This information is displayed at the top of the screen in the **| Administration** area. This field is available to Sage CRM administrators only. **Note:** To retrieve and display information about currently supported versions, Sage CRM requires an Internet connection . If your Sage CRM server is not connected to the Internet, we recommend that you set this field to **No**.
Sort favorites	Allows you to sort entries in the Favorites list ( ). Possible values: - **A to Z**. Sorts entries by the first word in their name, with entries that begin with an A on top. - **Oldest to newest** (default). Sorts entries by the date when they were added to the Favorites list, with the oldest entries on top.

Date/time preferences

Field	Description
Calendar end time	Specifies the time when your business day ends. Applies to the calendar and Meeting Planner.
Calendar start time	Specifies the time when your business day starts. Applies to the calendar and Meeting Planner.

Field	Description
Calendar view	Sets the initial calendar view to display when you open the calendar. Possible values: • **Agenda** • **Day** • **Month** • **Tasks** • **Week** • **Work Week** For more information about calendar views, see *User Help* on the **Sage CRM Help Center**.
Date format	Defines the format in which to display dates in Sage CRM. This field doesn't apply if you use Sage CRM on a mobile device. To configure date format on a mobile device, use the mobile device settings.
My week starts on	Specifies the first day of your work week displayed in the calendar. A work week always includes five days, including Saturday and Sunday.
Time zone	Defines the time zone for which to display dates and times in Sage CRM. The time zone you select must match your computer settings.
Use am/pm	Defines the format in which to display times in Sage CRM. Possible values: • **Yes**. Displays times in 12-hour format with am/pm. • **No**. Displays times in 24-hour format.

Number preferences

Field	Description
Decimal places	Sets the number of decimal places to be displayed. For example, *2*. **Note:** The maximum number of decimal places is 6.
Decimal point	Sets the decimal point. For example, a period (.) or a comma (,).
Thousand separator	Set the thousand separator. For example, a period (.) or a comma (,).

Reminder preferences

Field	Description
Default targets for high priority reminder messages	Specifies how to send reminders for tasks and appointments with high priority. Select methods from the list. To select multiple methods, hold down **Ctrl** and click the methods you want to select. **Note:** This field applies to tasks and appointments for which you have selected **Send Reminder Message**. For more information, see *User Help* on the **Sage CRM Help Center**.
Default targets for low priority reminder messages	Specifies how to send reminders for tasks and appointments with low priority. Select methods from the list. To select multiple methods, hold down **Ctrl** and click the methods you want to select. **Note:** This field applies to tasks and appointments for which you have selected **Send Reminder Message**. For more information, see *User Help* on the **Sage CRM Help Center**.
Default targets for normal priority reminder messages	Specifies how to send reminders for tasks and appointments with normal priority. Select methods from the list. To select multiple methods, hold down **Ctrl** and click the methods you want to select. **Note:** This field applies to tasks and appointments for which you have selected **Send Reminder Message**. For more information, see *User Help* on the **Sage CRM Help Center**.

Email import preferences

Field	Description
Default timestamp for imported emails	Sets the default timestamp to apply to the email messages you import from Microsoft Exchange Online. The timestamp selected in this option is also selected by default in **Timestamp for imported emails** on the screen where you import messages from Microsoft Exchange Online. You can change the timestamp in **Timestamp for imported emails** before you start importing messages. Possible values: - **Use email date**. Marks the imported messages with their original sent date (if the messages are outgoing) or received date (if the messages are incoming). - **Use current date**. Marks the imported messages with the current date.
Maximum number of emails to retrieve	Sets the maximum number of emails to retrieve from the folder selected in Microsoft Exchange Online. Sage CRM retrieves the newest emails first.

CSV input/output matrix

This table explains the formatting options when CSV or Excel CSV is selected as the export file format in Sage CRM.

		Input	
Export File Format	**User Preferences Delimiter**	**Contains Extended Characters**	**Delimiter**
CSV	Comma	No	Comma
CSV	Semicolon	No	Semicolon
CSV	Tab	No	Tab
CSV	Comma	Yes	Comma
CSV	Semicolon	Yes	Semicolon
CSV	Tab	Yes	Tab

Excel CSV	Comma	No	Tab

Input

Export File Format	User Preferences Delimiter	Contains Extended Characters	Delimiter
Excel CSV	Semicolon	No	Tab
Excel CSV	Tab	No	Tab
Excel CSV	Comma	Yes	Tab
Excel CSV	Semicolon	Yes	Tab
Excel CSV	Tab	Yes	Tab

Output

Encoding	Padding	Renders correctly in Excel	Example
UTF-8	No	No	Test 01,00001,”Test, 02” <CR LF>
UTF-8	No	No	Test 01;00001;Test, 02<CR LF>
UTF-8	No	No	Test 01<Tab>00001<Tab>Test, 02<CR LF>
UTF-8	No	No	Test 01,00001,”Test, 02” <CR LF>
UTF-8	No	No	Test 01;00001;Test, 02<CR LF>
UTF-8	No	No	Test 01<Tab>00001<Tab>Test, 02<CR LF>
UTF-16 LE	Yes	Yes	=”Test 01”<Tab>=”00001”<Tab>=”Test, 02”<CR LF>
UTF-16 LE	Yes	Yes	=”Test 01”<Tab>=”00001”<Tab>=”Test, 02”<CR LF>

Output			
Encoding	**Padding**	**Renders correctly in Excel**	**Example**
UTF-16 LE	Yes	Yes	=”Test 01”<Tab>=”00001”<Tab>=”Test, 02”<CR LF>
UTF-16 LE	Yes	Yes	=”Test 01”<Tab>=”00001”<Tab>=”Test, 02”<CR LF>
UTF-16 LE	Yes	Yes	=”Test 01”<Tab>=”00001”<Tab>=”Test, 02”<CR LF>
UTF-16 LE	Yes	Yes	=”Test 01”<Tab>=”00001”<Tab>=”Test, 02”<CR LF>

Tip: For Excel CSV, if a field contains <tab> or <CR LF> these characters are not present in the exported file.

User Configuration fields

The table below explains the fields on the User Configuration screen.

Field	Description
Amount of days to password expiring	Specifies the maximum Sage CRM user password age in days. When this period expires, the user must change their Sage CRM password. The default password age is 50 days.
Use dynamic password hash cost	Enables or disables optimum user password hash strength. - **Yes** (default). Enables optimum password hash strength based on the Sage CRM server hardware capabilities. Provides increased security but consumes more system resources because it increases the number of hashing rounds used to generate a password hash. - **No** (not recommended). Disables optimum password hash strength. Provides weaker security (less hashing rounds) but frees up system resources. System administrators might want to set this value to speed up the system performance. For example, when there is a significant number of simultaneous Sage CRM user logons.
Allow user preferences	Specifies whether Sage CRM users are allowed to access **<My Profile> | Preferences**.
Account lockout threshold	Specifies the number of times a user is allowed to enter an incorrect password when logging on to Sage CRM. When this number is exceeded, the user's account is locked out in Sage CRM. The system administrator can unlock the account or the user can wait until the account lockout period (if any) expires. When this field is set to **0** or left blank, the user's account is never locked out.
Account lockout duration (mins)	The number of minutes a locked-out user has to wait before trying to log on to Sage CRM again. When this field is set to **0** or left blank, the user's account remains locked out until a system administrator unlocks it. **Note:** We recommend that you set this field to 15 minutes.

Field	Description
User inactivity timeout (mins)	The inactivity period (in minutes) after which a user is automatically logged out of Sage CRM. Sage CRM uses the value in this field only if it is less than the value in **Idle Time-out (minutes)** specified for the Sage CRM application pool in Microsoft Web Server (IIS). The default idle time-out value set for the Sage CRM application pool is 120 minutes.
Use IIS auto login	• **Yes**. Enables automatic login to Sage CRM for authenticated Windows users. Users are authenticated by Web Server (IIS) and don't need to enter Sage CRM credentials when accessing Sage CRM. • **No**. Disables automatic login. For steps on how to enable or disable automatic login, see **Configuring automatic login**.
Default domain for IIS login	Specifies the NetBIOS name of the Active Directory domain whose users are automatically authenticated when **Use IIS Auto Login** is set to **Yes**. For example, a user called Susan Maye with Windows user account *mayes* in the domain *mydomain*, has a Sage CRM account name *mydomain\mayes*. If you have only one domain, enter the domain name in this field. For example, if *mydomain* is your only domain, enter *mydomain* in this field and the Sage CRM logon ID for Susan Maye is *mayes*. If you leave this field blank when **Use IIS Auto Login** is set to **Yes**, Sage CRM users are matched to their Windows user accounts using the format <servername>\<username> for their Sage CRM User name.
Plugin version	The path and name of the current Sage CRM Plugin file. The current Sage CRM Plugin resides on the Sage CRM server and is downloaded if the client-side value does not match the value specified in this field.
Auto-logout	Automatically logs a user out of Sage CRM when they close the web browser window or go to another web site.

Field	Description

Default user date format	The default date format for all Sage CRM users.
	
	For example:
	
	`mm/dd/yyyy`
	
	`Month/Day/Year`
	
	Individual users can override the default date format in their user preferences.

Use Fileit	Enables automatic filing of Outlook emails using a mail manager server filing address. For more information, see **Email Management**.
Enable security for groups	Enables Sage CRM user security profiles and policies for groups.

Configuring automatic login

If your organization uses Active Directory, you can enable automatic Sage CRM login for authenticated Active Directory users. For example, users that are logged on to their computers using their Active Directory domain user name and password. As a result, such users can access Sage CRM without entering their Sage CRM credentials.

Note: Automatic login is supported for Google Chrome and Mozilla Firefox.

- **Enabling automatic login**
- **Disabling automatic login**

Enabling automatic login

Note: Automatic login is supported for Google Chrome and Mozilla Firefox.

Sage CRM automatic login uses the Windows Authentication feature in Web Server (IIS). When Web Server (IIS) authenticates a Sage CRM user, that user is looked up in the User table in the Sage CRM database. For more information about Active Directory, see **Active Directory Domain Services** on **docs.microsoft.com**

User names and passwords in Sage CRM must correspond to their counterparts in Active Directory:

- If **Default domain for IIS login** is populated, the Sage CRM **User name** must be identical to the Windows **User name**
- If **Default domain for IIS login** is empty, the Sage CRM **User name** must be in the format **<servername>\<username>** where **<username>** is identical to the Windows **User name**
- The Sage CRM password must be identical to that user's Windows password

Complete the following steps to enable automatic login:

1. Join the Sage CRM server to the Active Directory domain where Sage CRM users reside
2. Create or edit a Windows user:
    a. On the Sage CRM server, open **Computer Management** and select **Local Users and Groups**
    b. If you are creating a new user,
        - right-click on **Users** and select **New User**
        - enter the **User name**, **Full name**, **Password**, and **Confirm password**, select **Password never expires** and click **Create**
    c. Add the user to the IIS_IUSRS group (Built-in group used by Internet Information Services.)

3. Enable IIS auto login in Sage CRM:
    a. Log on to Sage CRM as a system administrator
    b. Go to **<My Profile> | Administration | Users | User Configuration**.
    c. Click **Change**
    d. Set **Use IIS auto login** to **Yes**.
    e. *Either*
        - populate **Default domain for IIS login** with the NetBIOS name of the Active Directory domain where Sage CRM users reside

        or

        - leave the Default domain for IIS login field empty
    f. Click **Save**
4. Create or edit a user in Sage CRM:
    a. Log on to Sage CRM as a system administrator
    b. If you are creating a new user, go to **<My Profile> | Administration | Users | New User**
    c. Ensure that the Sage CRM **User name** is
        - identical to the Windows **User name** if the **Default domain for IIS login** is populated
        - in the format **<servername>\<username>** if the **Default domain for IIS login** is empty
    d. Ensure that the Sage CRM password is identical to that user's Windows password
    e. Click **Save**
5. Configure Web Server (IIS) on the Sage CRM server:
    a. Open IIS Manager (inetmgr.exe)
    b. In the console tree, expand the appropriate nodes to select the Sage CRM application. By default, it is **<ComputerName> | Sites | Default Web Site | CRM**
    c. In the details pane, under **IIS**, double-click **Authentication**
    d. Ensure that
        - **Anonymous Authentication** is enabled
        - **Windows Authentication** is enabled
    e. Reset IIS by running the `iisreset` command at a command prompt

Disabling automatic login

1. Log on to the Sage CRM server using an account that has system administrator rights.
2. Open Registry Editor (regedit.exe).

    Warning: Incorrectly editing the registry may cause irreversible damage. Back up any valued data on the Sage CRM server before making any changes to the registry.

3. Open the following registry key:

HKLM | Software | WOW6432Node | eWare | Config | /<InstallName>

where **<InstallName>** is the name of the Sage CRM installation.
By default, this is **CRM**.

4. Set the **UseIISAutologin** value to **N**.
5. Reset IIS by running the `iisreset` command at a command prompt.

Now the users need to enter their user names and passwords set in Sage CRM to log in.

User activity

- **Viewing user activity for all users**
- **Viewing user activity for an individual user**
- **Enabling locked out users to log in**
- **Archiving user activity records**
- **Running user activity reports**

Viewing user activity for all users

1. Click **<My Profile> | Administration | Users | User Activity**.
2. To see information for a specific user, click the **Find** icon beside **User** in the Filter panel and select the user's name. Click **Filter** to view the activity records specific to the selected user.
3. Click a tab to view information.
    - **All User Activity**: Summary information about all user activity. Enter a filter period to display activity records with a log on and log off within that period. If a record has a log on time in the filter period for log ons but the log off time is outside the filter period for log offs, the activity record is not displayed.
      You can further filter user activity records according to how the user logged off and the access method (such as browser type) used.
    - **Currently Logged In Users**: A list of currently logged on users. This tab is useful when you need to ensure that all users are logged out of the system, for example when you are rebalancing the territory tree. For more information, see **Rebalancing the territory tree**. In such situations, all users except the administrator user should be listed in **Inactive Users** and only the administrator should appear in **Currently Logged In Users**.
    - **Inactive Users**: A list of historical user activity records.
    - **User Summary**: Summary information about user sessions.

Viewing user activity for an individual user

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the user's **Last Name** and click **Find**.

3. Click the user hyperlink.
4. Click the **User Activity History** tab. From here, you can periodically archive the user's activity history. You can also see:
    - User login and logout time and date.
    - Session duration.
    - Logout method (manual or by automatic timeout).
    - System access method (browser and version).
5. Enter a filter period to display activity records with a log on and log off within that period. If a record has a log on time in the filter period for log ons but the log off time is outside the filter period for log offs, the activity record is not displayed. You can further filter user activity records according to how the user logged off and the access method (such as browser type) used.

Enabling locked out users to log in

When setting up user configuration, you can specify the number of times a user can try incorrectly to log on before being locked out of the system. If requested, you can enable the user to log on again.

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the locked out user's **Last Name** and click **Find**.
3. Click the user hyperlink.
4. Click **Unlock User**. The button disappears, indicating that the user can now try to log on again.

Archiving user activity records

To avoid storing a large number of user activity records, you can archive records of a specific age. Archived files are removed from your All User Activity page and filed to a CSV document, which is stored with the system log files.

1. Click **<My Profile> | Administration | Users | User Activity**.
2. Click **Archive To File**.
3. Select the age at which records are to be archived from **Records Older Than**. You can select One Month, Three Months, Six Months or 12 Months. A message is displayed to tell you how many records will be archived.

4. Click **Archive To File**. You are returned to the All User Activity page. A message is displayed indicating how many records have been archived and the name of the file to which they have been archived.

Running user activity reports

You can run a set of standard user activity reports . You can also create new reports which use the User Activity view.

The Administrator Reports category is available to System Administrators only. To allow Info Managers access this category, change the properties of the report category in Advanced Customization.

1. Click **Reports | Administrator Reports**.
2. Click the report you want to run.
3. Set the report display options and search criteria.
4. Click **Run**. The report output is displayed in a new browser window.

Security management

- **Introduction to security management**
- **Security profiles**
- **Territories**
- **Security policies**
- **Configuring password policies**

Introduction to security management

You can manage security access rights across the organization by setting up security profiles and territories. Users don't belong to either profiles or territories. Profiles and territories are set up to reflect the structure of your organization. Users are then assigned a profile and home territory depending on their position in the organization.

- **Security profile**: A profile is a way of grouping users when defining access rights to view, update, insert, and delete Sage CRM records. For example, you can create a profile called Sales with rights to view, update, and insert company, person, communication, and opportunity records and with view only rights to cases. You can assign this profile to all sales users. Any changes that you make to the profile automatically apply to all users assigned to it.
- **Territory**: You can divide user rights by territory. For example, you may want users in the Europe territory to view all opportunities within the USA territory, but not to be able to update them. Territories act as a silent filter over existing security profiles. For example, if a security profile doesn't include view rights to opportunities, a user with that profile can't see any opportunities, no matter what territory they belong to. Territories affect searching, reporting, and groups generation. To switch off the influence of territories on groups, click **<My Profile> | Administration | User Configuration** and set **Enable security for groups** to **No**.
- **Security policy**: You can set up additional security rights to handle complex inter-territory situations and exceptions. When settings on the Security Policies screen are enabled, additional options are available on the Security Profiles screen. Security policies act as logical ORs to existing security profile and territory settings.

Security profiles

- **Adding a new security profile**
- **Assigning a security profile to a user**
- **Deleting a security profile**

Adding a new security profile

When setting up profiles and territories, it's a good idea to add view rights into the territory one level above the territory of the majority of your users. For example, in the Sales Profile, which includes users with home territories of Germany, UK, and Ireland, you add view rights into companies and people in the Europe territory. Then, when the Sales Manager, whose home territory is Europe, creates a new company in the Europe territory, he can create tasks for his team against that company and they can view the task or company. When adding new companies and people into the stem, the manager's team can carry out more effective deduplication by comparing against companies created in the territory above them.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Security Profiles**. A list of existing profiles is displayed. An unrestricted profile is created for the System Administrator when Sage CRM is installed. If the unrestricted profile is changed or deleted, the System Administrator bypasses all security rights and has global access to the system.
3. Click **New Profile**.
4. Enter the name of the new profile in **Description**.
5. Click **Save**. By default, the new profile cannot access primary entities.
6. Click the new profile link to define the security profile's access rights to primary entities. Alternatively, click **Edit all rights** to edit all existing profile rights at once.
7. Select the **View, Edit, Insert, Delete** check boxes as required. You can specify rights according to profile and territory. For example, a user assigned to a Sales profile could have rights to view, edit, insert, and delete cases in their home territory of US East, but be restricted to viewing and editing cases in the territory of US West.
8. Click **Save**.

A user must have edit rights on an entity to add or edit address, phone and email, notes, and library records for that entity. For example, a user with view rights only on a company, cannot edit or add information on the **Addresses** or **Phone/email** tab of that company. Similarly, a user with view rights only on cases, cannot edit or add notes or library items on an existing case.

Assigning a security profile to a user

1. Click **<My Profile> | Administration | Users | Security | Security Profiles**.
2. Click the profile hyperlink in the Security Profile table.
3. Click **Move user into this profile**.
4. Select the user and click **Save**.

Alternatively

1. Click **<My Profile> | Administration | Users | Users**.
2. Click the user hyperlink.
3. Click **Edit** and select the profile from **Profile name**.
4. Click **Save**.

To get an overview of security rights currently applied to the user, click **<My Profile> | Administration | Users**. Click the user link and click the **Security** tab.

Deleting a security profile

1. Click **<My Profile> | Administration | Users | Security | Security Profiles**.
2. Click **Delete** beside the profile you want to delete.
3. Click **OK**.

Territories

- **Adding a new territory**
- **Assigning a territory to a user**
- **Adding records to a territory**
- **Editing a territory**
- **Deleting a territory**
- **Merging territories**
- **Moving a territory**
- **Rebalancing the territory tree**

Adding a new territory

The *Worldwide* territory is the default, highest level territory and cannot be deleted. All new territories are subordinated to the Worldwide territory.

The standard capacity for a territory structure is 16 child territories on each territory, and five territory levels deep. A complex territory structure may require the expansion of the standard capacity. If you try to add more territories than the standard capacity, you're prompted to rebalance the territory structure. Rebalancing updates the territory hierarchy and associated security rights, and allows you to continue adding territories. For more information, see **Rebalancing the territory tree**.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **New Territory**.
3. Select the parent territory from the list of the existing territories. This is the hierarchical parent of the new territory.
4. Enter the name of the territory in **New territory name**.
5. Click **Save**.

Assigning a territory to a user

When you assign a territory to a user, the user can use the access rights of their profile in that territory and in all territories subordinate to that territory.

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the user's **Last Name** and click **Find**.
3. Click the user hyperlink.
4. Click **Change** and select a territory from **Home Territory**.
5. Click **Save**.

Adding records to a territory

A **Territory** field is displayed on the summary screen of each primary entity, on most filter boxes, and on list column headings. This field shows the user's assigned home territory and all subordinated territories. When a user inserts a new record, **Territory** defaults to a territory called Default, which acts as a placeholder until the user selects a territory. If a user doesn't select a territory, or doesn't have insert rights into their own home territory, the system follows Territory rules to decide which territory to save the record in. These rules apply to territories when security policies are in use and also when security policies are not in use.

When a record is inserted in the context of …	and no Territory entry has been selected by the user, when the user saves the new record, the Territory field of the new record defaults to the territory of [1]. If the user does NOT have INSERT RIGHTS in the territory of [1], the Territory field of the new record defaults to the territory of [2]. If the user does NOT have INSERT RIGHTS in the territory of [2], the Territory field of the new record defaults to the territory of [3]. If the user does NOT have INSERT RIGHTS in the territory of [3], the Territory field of the new record will defaults to the territory of [4].			
	[1]	**[2]**	**[3]**	**[4]**
Company and Person	Company	Person	Assigned To (user's Home Territory)	Created by (user's Home Territory)
Person (only)	Person	Assigned To (user's Home Territory)	Created by (user's Home Territory)	
Company (only)	Company	Assigned To (user's Home Territory)	Created by (user's Home Territory)	
No Company and No Person	Assigned To (user's Home Territory)	Created by (user's Home Territory)		
No Assigned To	Created by (user's Home Territory)			

Editing a territory

You can change the name of an existing territory.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Edit Territory** and select the territory you want to modify from the list of territories.

3. Enter the new name in **Modified territory name**.
4. Click **Save**.

Deleting a territory

You can delete a territory that's not involved in current transactions or does not contain sub-territories. You can't delete a territory that has records assigned to it, and you can't delete the Worldwide territory.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Edit Territory** and select the territory you want to delete.
3. Click **Delete**.The territory and its child territories are deleted.

Merging territories

You can merge territories, and the information and rights associated with those territories. You might want to do this to reflect changes in your organization. Before you merge territories, ensure there are no users logged on to Sage CRM, and that you've backed up the Sage CRM database.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Merge Territory**.
3. Select the source territory that you want to move and click **Next**.
4. Select the target territory.
5. Select the checkbox to move users and user rights associated with the source territory into the target territory.
6. Click **Next** to proceed through the screens.
7. Click **Continue**.
8. Rebalance the territory tree. For more information, see **Rebalancing the territory tree**.

Moving a territory

Moving a territory to a new position in the tree structure can expand or restrict the rights of users associated with the territory. Before you move a territory, ensure there are no users logged on to Sage CRM, and that you've backed up the Sage CRM database.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Move Territory**.
3. Select the source territory that you want to move and click **Next**.
4. Select the new parent for the territory.

5. Click **Next** to proceed through the screens.
6. Click **Continue**.
7. Rebalance the territory tree structure. For more information, see **Rebalancing the territory tree**.

Rebalancing the territory tree

When you move or merge territories, or need to add more territories than the standard capacity, you must rebalance the territory tree to update the territory hierarchy and associated security rights.

> **Warning:** You cannot undo rebalancing.

Before rebalancing, back up the Sage CRM database and ensure all users are logged off Sage CRM. Inform users when rebalancing will occur and ask them to remain logged off for the few minutes that rebalancing takes. To check if all users are logged off, open the **Current Activity** tab. For more information, see **Viewing user activity for all users**. You can manually force users to log off. For more information, see **Locking the system**.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Rebalance**.
3. Click **Next**. A message is displayed when the rebalancing process has completed.
4. Click **Continue**. You can now add new territories from the New Territory page.

Security policies

- **Working with cross territory situations**
- **Allowing absolute territories in profiles**
- **Using sibling territories**
- **Using a parent territory**
- **Allowing direct rights in territories**

Working with cross territory situations

You can enable security policies to extend profile rights across territories. For example, to allow a user assign opportunities from their own territory to a user in a different territory.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Security Policies** and click **Change**.

3. Set **Use CreatedBy, AssignedTo, and Team special territories** to **Yes** and click **Save**.
4. Return to the Security area and click **Security Profiles**.
5. Select **Assigned To** from **Profile rights for**.
6. Click **Add Profile to this territory**.
7. Select the profile and click **Save**.
8. Click the profile link. You can't select Insert rights in the Assigned To territory because it's not a true territory. The record must already exist for users to have special rights outside their own territory.
9. Select **View** and **Edit** in **Assigned To | Opportunity** and click **Save**. All users associated with the Sales profile can now view and edit opportunities in their home territory or child territories and any opportunities assigned to them, unless the opportunity has a company or person assigned to it. If the opportunity has a company or person assigned to it, the user must also have at least view rights on the company or person to be able to see the opportunity.
   To edit the Sales user's Home Territory rights and Assigned To rights, click the Sales profile link. Follow these steps to set up rights where the user's Primary Team matches the team on the entity, or where the user matches the **Created By** field on the entity.

Allowing absolute territories in profiles

You can enable security policies to extend existing security profile and territory settings. The following steps give users associated with the Operations profile view only rights to opportunities in Europe.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Security Policies** and click **Edit**.
3. Set **Allow absolute territories in profiles** to **Yes** and click **Save**.
4. Return to the Security area and click **Security Profiles**.
5. Select **Europe** from **Profile rights for** and click **Add Profile to this territory**.
6. Select the **Operations** profile and click **Save**.
7. Click the Operations profile link. You can now edit the rights for the Operations profile.
8. Select **View** in **Europe | Opportunity**.
9. Click **Save**. All users associated with the Operations profile can now view opportunities in Europe and child territories. To edit the Operations User's Home Territory rights and Assigned To rights, click the Operations profile link.

Using sibling territories

You can set up rights in sibling territories. For example, you can set up all users associated with the Sales profile, whose Home Territory is at the lowest level within Europe (Germany, Benelux, UK, or Ireland) to view opportunities at the same level within the territory hierarchy.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Security Policies** and click **Edit**.
3. Set **Use the user's sibling territories** to **Yes** and click **Save**.
4. Return to the Security area and click **Security Profiles**.
5. Select **User's sibling territories** from **Profile rights for**. A list of profiles associated with user's sibling territories is displayed.
6. Click **Add Profile to this territory**. This is not a true territory, just a means of displaying access rights to the administrator.
7. Select the **Sales** profile and click **Save**.
8. Click the Sales profile link and select **View** in **User's sibling territories | Opportunity**.
9. Click **Save**. Users associated with the Sales profile, who have Germany, Benelux, UK, or Ireland as their Home Territories, can now view opportunities in any of these territories.

Using a parent territory

You can extend the rights of users associated with a profile to view opportunities in the parent territory. For example, all users associated with the Sales profile and whose Home Territory is at the lowest level within Europe (Germany, Benelux, UK, or Ireland) could view opportunities in Europe.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Security Policies** and click **Edit**.
3. Set **Use the user's parent territory** to **Yes** and click **Save**.
4. Return to the Security area and click **Security Profiles**.
5. Select **User's parent territory** from **Profile rights for**. A list of profiles associated with user's sibling territories is displayed.
6. Click **Add Profile to this territory**. This is not a true territory, just a means of displaying access rights to the administrator.
7. Select the **Sales** profile and click **Save**.
8. Click the Sales profile link and select **View** in **User's parent territory | Opportunity**.
9. Click **Save**.

Allowing direct rights in territories

You can set up a specific right for a user that extend beyond the rights of the territory to which the user is assigned. The following steps set up delete rights on opportunities for one user.

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Security Policies** and click **Change**.
3. Set **Allow users direct rights in territories** to **Yes** and click **Save**.
4. Return to the Security area and click **User Direct Rights**.
5. Select the territory in which these rights should be applied from **User rights for**.
6. Click **Add user**, select the manager, and click **Save**.
7. Click the manager name link and select **Delete** in Opportunity.
8. Click **Save**. Mike Weiss has the same rights as users associated with the Sales profile. In addition, he has rights to delete opportunities in Europe and child territories. Since these rights are specific to an individual user, you can also edit them in **<My Profile> | Administration | Users**.

Password policies

- **Configuring password policies**
- **Password Policies options**
- **Configuring a list of words that cannot be set as passwords**

Configuring password policies

1. Click **<My Profile> | Administration | Users | Security**.
2. Click **Password Policies**.
3. Select the password security profile you want to edit.
    - **Administrators**. Applies to all System Administrator users.
    - **Info Managers**. Applies to all users who have Info Admin rights.
    - **Users with no admin rights**. Applies to all users who have no administrator rights.

> **Tip:** To set user profiles, click **<My Profile> | Administration | Users | Users | User Details** and select a value in **Administration**.

4. Configure the **Password Policies options**.
5. Click **Save**.

Password Policies options

When configuring password policies, you can use the following options:

Option	Description
Minimum length of password	Sets the minimum user password length in characters. This option takes effect when a user tries to change their password. To disable all Password Policies options, set this option to **0**.
Maximum length of password	Sets the maximum user password length in characters. This option takes effect when a user tries to change their password. The value cannot exceed **200** and must be equal to or greater than the **Minimum length of password** value.
Require complex password	Makes the following characters required in user passwords: • An English uppercase letter (A-Z) • An English lowercase letter (a-z) • A digit (0-9) You can select this check box only when **Minimum length of password** is 8 characters or more.
Check user name	Prevents users, system administrators, or info managers from setting passwords that are identical to their user name spelled normally. You can select this check box only when **Minimum length of password** is 1 character or more.

Option	Description
Strong user name	Prevents users, system administrators, or info managers from setting passwords that are identical to: • Their user name spelled backwards. • Their first name spelled normally or backwards. • Their last name spelled normally or backwards. • Any word in the Dictionary.txt file, if it exists on the Sage CRM server. For more information, see **Configuring a list of words that cannot be set as passwords**. You can select this check box only when **Check user name** is selected.
Invalidate password reset link after (minutes)	Sets the validity period for password reset links generated by Sage CRM.

Configuring a list of words that cannot be set as passwords

You can prevent users setting certain words as their passwords by configuring a blacklist of such words in Sage CRM:

1. Create an empty text file named **Dictionary.txt**.
2. Populate the file with the words you don't want users to set as their passwords.
   Each line in the file must contain one word only, for example:

   ```
   password
   qwerty
   dragon
   baseball
   football
   monkey
   ```

3. Save **Dictionary.txt** and copy it to the following location on your Sage CRM server: **<Sage CRM installation folder>\WWWRoot**.

   By default, Sage CRM is installed to **%ProgramFiles(x86)%\Sage\CRM\CRM**.

4. Click **<My Profile> | Administration | Users | Security | Password Policies**.
5. Select the following check boxes:
   - **Check User Name**
   - **Strong User Name**
6. Save your changes. Now users cannot set the words in Dictionary.txt as their passwords.

Consider the following:

- All words in Dictionary.txt are case-insensitive.
- Only the exact words added to Dictionary.txt cannot be set as passwords. For example, if Dictionary.txt contains the word **baseball**, a user can still set the words **baseball1** or **llabesab** as their password.

Team management

- **Creating a new team**
- **Assigning a user to a team**
- **Setting user access to Team CRM**
- **Examples of using teams**
- **Deleting a team**
- **Team fields**

Creating a new team

A team is a group of users who perform similar roles. In a small organization, all Sales Department users might be part of the Sales Team. In a larger organization, there may be Telesales, Direct Sales, and Field Sales teams.

1. Click **<My Profile> | Administration | Users | Teams**.
2. Click **New** and complete the **Team fields**.
3. Click **Save**.

Assigning a user to a team

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the user's **Last name** and click **Find**.
3. Click the user hyperlink.
4. Click **Change**.
5. Select the team from **Primary team**.
6. Select additional teams that the user can view from **Display team**. For example, the Sales Manager may require access to the Direct Sales and Telesales teams.
7. Click **Save**.

Setting user access to Team CRM

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the user's **Last name** and click **Find**.
3. Click the user hyperlink.
4. Click **Change**.
5. Select an option from **Team lists** in the Security panel.
    - **All Teams** gives the user access to Team CRM and all team queues.
    - **User's Teams** gives the user access to Team CRM, their own team queues (Primary Team) and all team queues selected from the Display Team list.
    - **None** means Team CRM is not made available to the user.
6. Click **Save**.

Examples of using teams

You can make each user a member of one team and give the user rights to view multiple teams. Communications, opportunities, leads, and cases can be tracked by individual user and by team. You can initially assign communications to a team and later reassign them to an individual.

- **Tracking communications by team**. John Finch is a user in your organization assigned to the Telesales team. Every time John Finch creates a new Communication, the Team field defaults to Telesales. The telesales manager can use Team CRM to view all the activities for John Finch and other members of the Telesales team for the day.
- **Creating tasks for teams**. The customer service manager in your organization can use groups to set up an outbound telephone campaign to the active customer base. By leaving the User field blank, but filling in the Team field in the task details, the calls are scheduled for the whole team.
- **Assigning an opportunity to a team**. Sales opportunities can be assigned to teams. This means that the overall performance of, for example, the Direct Sales vs. the Business Partner team can be compared on a deal-by-deal basis. By tracking team performance on the Opportunity and Communication level, additional information can be extracted to improve future sales performance.
- **Reassigning unresolved cases**. Your company is in the insurance business. Cases are used to handle automobile, home, life, and travel insurance claims. Your customer service teams are set up by type of insurance. The travel claims team is overloaded after the recent holiday season, however the home insurance team has spare resources. Following a team leader meeting, the travel claims team leader clicks **<My Profile> | Team CRM | Cases**

and reassigns half of the unresolved claims to the three available claims handlers in the home insurance team by changing the user name in **Assigned To**.

Deleting a team

1. Click **<My Profile> | Administration | Users | Teams**.
2. Enter a **Team description** and click **Find**.
3. Click the team you want to delete.
4. Click **Delete** and then click **Confirm Delete**. The Team is deleted. Any opportunities, leads, cases, or communications linked to a deleted team remain, but the **Team** field is blank. You can't select the team from the context area of the screen in Team CRM.

Team fields

The table below explains the standard fields on the Team page.

Field	Description
Team description	The name of the team. For example, Direct Sales. If you change the name of a team after you've created and saved it, you must manually change the translated caption. This caption is displayed in team list drop-down fields. Click **<My Profile> | Administration | Customization | Translations** and enter *Channels* in **Caption Family**.
Broker rule	The broker rule is used when creating a task for a group. If you pick a team and don't explicitly pick a broker rule, the system uses the broker rule from the team if there is one. If there is none, the default is **Queue**. For more information, see *Scheduling an internal telesales activity* in the *User Guide*.
Owner	The name of the owner of the team.

Active Directory users

- **Importing users**
- **Reimporting users**
- **Active Directory Parameters fields**
- **Import Users fields**
- **Active Directory mapping**

Importing users

User Requirement: System Administrator

You can add users stored in Microsoft Active Directory to Sage CRM in a batch process using the Import Users wizard.

1. Click **<My Profile> | Administration | Users | Import Users**.
2. Complete the **Active Directory Parameters fields** and click **Connect**. When you've successfully connected to the Lightweight Directory Access Protocol (LDAP) server, the Active Directory List is populated.
3. Select the node containing users from the Active Directory List and click **Expand Selected Node**. Drill down to select a single or organizational group of users.
4. Click **Continue**.
5. Select the users to import by filtering or changing the selections in the list of users and click **Continue**.
6. Complete the **Import Users fields** and click **Continue**.
7. Click **View Log File** to open or save the log. You can also access the log file from **<My Profile> | Administration | System | System Logs**, and from **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\Logs**.
8. Click **Continue**.

Reimporting users

You can reimport users following changes to their details in Active Directory.

1. Ensure **Remove Existing CRM Users From The List** is not selected in the Import Users wizard.
2. Select **Overwrite Existing User Details** and complete the import. The users are re-imported. Only data in the mapped fields is overwritten. For more information, see **Active Directory mapping**. All other Sage CRM properties, including the password, remain unchanged.

Active Directory Parameters fields

The table below describes the fields on the Active Directory Parameters panel.

Field	Description
LDAP server name	Name or IP address of the Lightweight Directory Access Protocol server.
LDAP server port	Port number. If this field is left blank, then port 389 is used by default.
Active Directory user ID	This is a logon ID with access to navigate the Active Directory tree. For example, testID@testdomain or testdomain\testid. The logon is the UserPrincipalName attribute taken from the Active Directory user's properties.
Active Directory user password	Password for the logon ID specified in **the Active Directory user ID** field.

Import Users fields

The table below describes the fields and options on the Import Users, Step 2 of 4 page.

Field or Option	Description
Last Name	Contains search on the user's last name.
Email	Contains search on the email address.
Remove Existing CRM Users From The List	Selected by default. Remove selection if you want to view and select users already in Sage CRM.

Field or Option	Description
User List	List of users from the data source chosen in step 1. This list can be modified by using the Filter fields, the Select / Deselect buttons, and the check boxes next to individual users. The Select/Deselect buttons apply to the current filter. Please also note that the filtering in Step 2 applies to the data source selected in Step 1 (it is not re-querying Active Directory each time).
Licensing	Shows the number of seats available and number of users selected. In a Named User install, an error message is displayed if the number of licenses is exceeded. "Seats available" refers to the number of licenses minus the number of current active (does not include resources) users. If concurrent licensing is being used, this panel gives you the option to import users as either named or concurrent licenses. It will show the remaining seats available (total licenses minus named users). The total number of users currently selected to import includes the number of existing Sage CRM users in the system who are also in Active Directory. To clear this number down to zero: • Deselect **Remove Existing CRM Users From The List**. • Click **Find** (so that all users are displayed in the list). • Click **Deselect All**.
Generate Random Password	Random passwords are generated which follow the rules set in **<My Profile> | Administration | Users | Security | Password Policies**. Please see **Configuring password policies** for more information. This setting is not available if IIS Auto Login is enabled (from **My Profile> | Administration | Users | User Configuration**).
Include Generated Password In Welcome Email	Password will be included in the welcome email. If this is not selected, the System Administrator must notify users separately of their password. If the Generate Random Password option has been selected but the welcome email option is not selected, the System Administrator must reset the password in Sage CRM and notify users separately. This setting is not available if IIS Auto Login is enabled (from **<My Profile> | Administration | Users | User Configuration**).
Use The Same Password For All Users	Sets the same password for all users in the import.

Field or Option	Description
Password	Enter a common password for all users in the import. The password must conform to the rules set in **<My Profile> | Administration | Users | Security | Password Policies**.
Overwrite Existing User Details	Data in the mapped fields is overwritten. Please see **Active Directory mapping** for a list of the mapped fields. All other Sage CRM properties, including the password, remain unchanged.
Select User Template	Select a user template. New templates can be added in **<My Profile> | Administration | Users | User Templates**. Please see **User templates** for more information.
Resource	Read-only. All users are imported with the Resource field set to False.
Send Welcome Email To New Users	Select to send a welcome email to users. A mail server must be available and configured in **<My Profile> | Administration | Email And Documents | Email Configuration**. Please see **Email/SMS settings** for more information. If you are using Email Manager, the welcome email does not get filed by the mail manager filing service.
Select Email Template	A standard template for the welcome email is supplied. This includes "tokens" for the Sage CRM user name logon ID, password, and a link to access the system. The tokens are specially formatted so that they cannot be reused anywhere else in the system (for example, document templates). The tokens are: **%CRMUserName%** - The user display name from Step 2 of the wizard, for example, Maye, Susan. **%CRMLogin%** - The Sage CRM user name logon ID, for example, mayes. **%CRMPassword%** - The Sage CRM password. Displays "Password not available" if **Include Generated Password In Welcome Email** is deselected in Step 3, or if you have selected **Use The Same Password For All Users**. **%CRMLink%** - The URL to access Sage CRM. The template can be modified in **<My Profile> | Administration | Email And Documents| Email Templates**. Please see **Setting up email templates** for more information.

Active Directory mapping

The following table shows the mapping of Active Directory attributes to Sage CRM fields.

AD Attribute	Sage CRM Field	Required for Import	Notes
sAMAccountName	user_logon	Yes	
SN	user_lastname	Yes	If the source attribute is empty, then this is populated with the userPrincipalName.
givenName	user_firstname	No	
mail	user_ emailaddress	No	If the source attribute is empty, then this is populated with the userPrincipalName.
userPrincipalName			This attribute supports the scenarios where source fields required for the import are empty.

When an import is repeated, and the option to overwrite existing Sage CRM user data is selected, only data in the mapped fields is overwritten.

User templates

- **Changing the default user template**
- **Creating a user template**
- **Setting up a new user based on a template**
- **Changing template details**
- **Changing template user preferences**
- **Changing security profile rights for a user template**
- **Deleting a user template**

Changing the default user template

New Sage CRM installs contain a default user template where you can define baseline settings for all new users. This enables you to define a set of common characteristics that can be applied to new users, such as the default language, common security access rights, and user preference settings. You can't delete the default user template.

When you've defined the default user template, you can create other user templates based on the default template. The number of user templates you can create is not limited by your number of user licenses.

1. Click **<My Profile> | Administration | Users | User Templates**.
2. Enter *Default User Template* in **Template name** and click **Find**.
3. Click the **Default User Template** link.
4. Click the **Template Details** tab, and then click **Change**.
5. Make your changes and click **Save**.
6. Edit and save the template information in the **User Preferences** and **Security Profile** tabs.

Creating a user template

1. Click **<My Profile> | Administration | Users | User Templates**.
2. Click **New**.
3. Complete the **Template panel fields** and click **Continue**.

4. Complete the **More User Detail panel fields** and the **Security Profile fields**.
5. Click **Continue**.
6. Complete the **User Preferences fields** and click **Save**. To revert to the user preferences in the default user template, click **Set To System Defaults**.

Template panel fields

The table below explains the standard fields on the Template panel.

Field	Description
Template name	The name of the new template. For example, Sales User.
Based on template	The existing template on which the new template is based.
Primary team	The default team that's displayed when the user clicks Team CRM.
Home territory	The user's security territory. For example, USA.

More User Detail panel fields

The table below explains the fields on the More User Details panel.

Field	Description
Language	Preferred language. Each user sees the same underlying data in the database, however the buttons, field names, and captions throughout the application appear in the user's selected language.
User SMS notification	If SMS features are used, setting this to True allows a user to be sent an SMS notification message to their mobile phone when communications are created for them. The **Mobile email address** field must be correctly filled in for this to work.
Display team	The team queues that the user can view from Team CRM.
Forecasting - reports to	Sales manager or direct report, who can access the selected user's forecast. For more information, see Sales Forecasting in the *User Guide* .
Forecast - currency	The currency in which the forecast is calculated. If the user enters a forecast value on the Opportunity in a different currency, it's converted to the Forecast Currency set here. For more information, see Sales Forecasting in the *User Guide*.

Setting up a new user based on a template

If you've already set up user templates, creating new users based on the predefined templates is easy.

1. Click **<My Profile> | Administration | Users | New User**.
2. Complete the fields on the page. For more information, see **User fields**.
3. Select the template you created from the **User template** drop-down list. This completes the Administration, Primary Team and Home Territory fields automatically, according to the template settings.
4. Click **Continue**.
    - Click **Save** to go back to the Users Find page. This misses out Steps 2 and 3 of the user setup. If you're confident that all of the default settings from the selected user template are applicable to this new user, then there's no need to go through steps 2 and 3 of the new user setup.
    - Click **Save & New** to save the new user and create another new user.
    - Click **Previous** to return to the New User Setup, Step 1 of 3 page.
    - The New User Setup, Step 2 of 3 page is displayed. All the settings on this page are defaults from the user template you selected in the previous step.
5. Review the default settings, and adjust them for this specific user. You can also add user specific details, such as title, department, phone, alternative, and pager numbers. Refer to **More User Details fields** and **Security Profile fields** for an explanation of the fields.
6. Click **Continue**. The New User Setup, Step 3 of 3 page is displayed. All the settings on this page are defaults from the user template you selected in Step 1 of the new user setup.
7. Review the default settings, and adjust them for this specific user if you need to. Refer to **User Preferences fields** for more information on the fields.
8. Click **Save**.
    - Click **Save & New** to save the new user and add another new user. This is useful if you need to create several new users sequentially and you don't need to review the User Preferences in Step 3.
    - Click **Set To System Defaults** to reset the user preferences to the preferences defined in the default user template.
    - Click **Previous** to return to the New User Setup, Step 2 of 3 page.

Changing template details

1. Click **<My Profile> | Administration | Users | User Templates**.
2. Enter the **Template name**.
3. Click **Find**.
4. Click the template you want to edit, and click **Change**.
5. Make the changes to the **Template Details** page.
6. Click **Save**. The Template Details page is displayed with the updated information.

Changing template user preferences

1. Click **<My Profile> | Administration | Users | User Templates**.
2. Type in the **Template name**.
3. Click **Find**.
4. Click the template you want to make changes to, and click the **User Preferences** tab.
5. Make the changes to the User Preferences.
6. Click **Save**.

Changing security profile rights for a user template

You can view the security profile currently associated with a template from the Security Profile tab.

Change the profile currently associated with a template using **Profile name** in the **Template Details** tab. For more information, see **Changing template details**.

1. Click **<My Profile> | Administration | Users | User Templates**.
2. Enter a template name and click **Find**.
3. Click the template you want to edit, and click the **Security Profile** tab.
4. Click the profile the template is currently associated with. The Security Profiles page for the selected profile is displayed.

5. Make the changes to the **Profile Rights**. For information on security profiles and territories, see **Adding a new security profile**.
6. Click **Save**. The Security Profiles page is displayed.

Deleting a user template

1. Click **<My Profile> | Administration | Users | User Templates**. The Find screen is displayed.
2. Enter the template name and click **Find**.
3. Click the template you want to delete. The Template Details page is displayed.
4. Click **Delete**, then **Confirm Delete**. You cannot delete the default user template.

Tags

A tag is a label a user can add to records in Sage CRM to classify them. Tags in Sage CRM work similar to hashtags in some social networks. For example, a user can create a group that includes records with the same tag or generate a report on such records.

Tags are available on case, company, lead, quote, order, opportunity, person, and solution records. For more information about tags, see the *User Help*.

As a system administrator, you can perform the following tasks:

- **Showing or hiding tags in user interface**
- **Viewing and deleting tags created by users**

Showing or hiding tags in user interface

1. Select **| Administration | System | System Behavior**.
2. Select **Change**.
3. Locate **Show tags** and select one of the following:
   - **Yes** *default*. Displays the **Tags** element on the entities that support tags. This element enables the users to add and remove tags.
   - **No**. Hides the **Tags** element on the entities that support tags, but keeps the existing tags in the system. Hiding the **Tags** element prevents the users from adding or removing tags. Hiding **Tags** does not affect the reports and groups that use existing tags - they continue to work as before.
4. Select **Save**.

Viewing and deleting tags created by users

System administrators can use the **Key Attribute Profiling** feature to view and delete the tags created by users through the Sage CRM user interface. For more information about tags, see the *User Help*.

Whenever a user creates a new tag in the Sage CRM UI, that tag is added as a key attribute to the list of attributes named **ProjectTaggingList**. The tag displayed in the UI and the corresponding key attribute have the same name.

To view all tags created by users:

1. Go to **| Administration | Advanced Customization | Key Attributes**.
2. Select the **Key Attribute Lists** tab.
3. Under **List**, select **ProjectTaggingList**.

   The tags are listed as key attributes under **Entries currently in key attribute list ProjectTaggingList**. Do not delete **ProjectTaggingList**. If you do so, the Tags feature stops working.

To delete a tag, complete the below steps.

> **Warning:** When you delete a tag, it is removed from the Sage CRM UI and all the records to which it is assigned. As a result, these records no longer display in the groups and reports that use the deleted tag.

1. Select the tag (key attribute) you want to delete under **Entries currently in key attribute list ProjectTaggingList**.
2. Select **Change**.
3. Under **Selection**, select the tag you want to delete.
4. Select **Delete**, and then select **Save**.

Data

- Deduplication
- Data Upload
- Products
- Multicurrency support
- Sales Forecasts
- Related entities
- Groups
- Deleting documents and communications
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Deduplication

- **About deduplication**
- **Enabling or disabling deduplication**
- **Customizing deduplication screens**
- **Setting up match rules**
- **Creating a Company Name Cleanup replace list**
- **Creating a Company Name Cleanup remove list**

About deduplication

Deduplication prevents the users from introducing duplicate entries into the system. Deduplication enforces one or several *match rules* which check whether the value a user has entered already exists in Sage CRM. These match rules apply when a user creates a new record or edits an existing one.

If duplication has occurred, you can merge duplicate records as described in the *User Help*.

Deduplication is enabled by default for the following entities:

- **Person**. The default Person match rule checks if the **Last name** a user enters when creating or editing a Person record fully or partly matches an existing last name. For example, if a user enters *Smith*, then both *Smith* and *Blacksmith* are detected as possible duplicates. By default, deduplication checks for duplicate Person records within a company. A user is warned if there are two persons with the same name in the same company. However, a user is not warned if there are two persons with the same name in different companies.
- **Company**. The default Company match rule checks if the **Company name** a user enters when creating or editing a Company record fully or partly matches an existing company name. For example, if a user enters *Right*, then *Design Right* is detected as a possible duplicate.
- **Lead**. The default Lead match rule checks if the **Last name** and **Company name** a user enters when creating or editing a Lead record fully or partly match the last name and company name of an existing Lead record.
- **Account**. Deduplication for Account is available only when Sage CRM is integrated with a particular business management system. The default Account match rule checks if the **Account name** a user enters when creating or editing an account fully or partly matches an existing account name.

Enabling or disabling deduplication

Note: Deduplication is enabled by default on new installations.

1. Select **<My Profile> | Administration | System | System Behavior**.
2. Select **Change**.
3. Select a value in **Deduplication**.

   When deduplication is enabled, you can use **Deduplication rule** to specify an operator to use in Lead deduplication rules. See **System behavior fields** for details.
4. Select **Save**.

If you want to use deduplication on Company or Person records, you can further customize the deduplication screens and set up match rules for the entities on which you want deduplication to work.

When deduplication is enabled, two match rules are configured by default for the **Lead company name** and **Lead person last name** fields on the Lead deduplication screen so you don't need to customize this screen or set up match rules.

Customizing deduplication screens

When deduplication is enabled, a new deduplication search screen is displayed when a user clicks **New** and selects Person, Company, or Lead.

You can customize deduplication screens. For example, you can add fields from the Address, Person, and Company tables to the Company Dedupe Search Screen. This is usually a subset of core company information such as Company Name, Address 1, and Zip Code.

When deduplication is enabled, two match rules are configured by default for the Lead Company Name and Lead Person Last Name fields on the Lead deduplication screen so you don't need to customize this screen or set up match rules.

In addition, when you click **Add Contacts** in Microsoft Outlook to add contacts to Sage CRM, the match rules applied to the Sage CRM fields are applied to the corresponding Outlook fields, triggering a warning if duplication is detected.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Company | Screens**.
2. Click the **Edit** icon beside **Company Dedupe Search Screen**.

3. Add the fields that you want to appear on the screen and click **Save**. For example, the Company Name and the Address 1, and Zip Code fields. The Dedupe Search page that you created appears when you set up Match Rules.

To set up a Dedupe Search Screen for the Person entity, click **Primary Entities | Person | Screens**, and click the **Edit** icon beside **Person Dedupe Search Screen**.

Setting up match rules

Match rules determine the criteria against which the data that the user enters in the Dedupe Search Screen is compared to the records in the system.

When you're setting up match rules, you should consider the following:

- The fields that you set up match rules on are used to deduplicate when a user adds or edits the record.
- Only one match rule can be set up per table column. You must specify one type of match rule for Company Name, one for Address City.
- The fields on the Deduplication search screens are based on the AND operator. The more information the user enters into the Deduplication search screen, the less likely that the system will detect a duplicate, since ALL the search criteria entered must be met—company name AND address AND city AND postcode.

To set up the match rules for the Company Dedupe Search Screen:

1. Click **<My Profile> | Administration | Data Management | Match Rules**.
2. Select **Company** and click **Continue**.
3. Click **New**.
4. Select a value for **Match Field** and **Match Type**.
5. Click **Save**.
6. Repeat these steps to set up a match rule for each field on the Company Dedupe screen, then repeat for the Person Dedupe screen.

Match Rule	Description
Exact	For example, a user must enter *Design Right Inc.* for the system to detect a duplicate with Design Right Inc.
Starting With	For example, a user must enter *Des* or *Design* for the system to detect a duplicate with Design Right Inc.

Match Rule	Description
Contains	For example, a user could enter *Des*, *Right* or *In* for the system to detect a duplicate with Design Right Inc.
Does Not Match	For example, a user could enter *Design Right Inc.*, and the system would detect duplicates in every company except Design Right Inc.
Phonetic	For example, a user could enter *Greatecom*, and the system would detect a duplicate with Gratecom.

Creating a Company Name Cleanup replace list

You can create a list of words that replace certain words or phrases. For example, the abbreviation "&" could be replaced with the word "and" in all the new companies added. The replaced word is not physically replaced, just replaced during the deduplication process. Deduplication must be enabled for the Company Name Cleanup functionality to work.

1. Click **<My Profile> | Administration | Data Management | Company Name Cleanup**.
2. Select **Characters or Strings to Replace** from **List to view**.
3. Click **New**.
4. Type the text string you want to replace in **Details** and enter the word that replaces it in **Replace With**.
5. Click **Save**.
6. To create a replace list, continue adding rules.

   Note: The rules are applied in the order they are listed.
   Sage CRM applies the rules in the remove list first, and then applies the rules in the replace list. For more information about the remove list, see **Creating a Company Name Cleanup remove list**.
7. To remove a rule, click **Delete**.

Creating a Company Name Cleanup remove list

You can create a list of words, phrases, or punctuation on the company name field to be ignored during the deduplication process. For example, you could ignore the word "Ltd." in all new companies added as this word is not a unique part of the company name. The removed word is not physically changed in memory, just ignored for the deduplication process so that matches can be found. Deduplication must be enabled for the Company Name Cleanup functionality to work.

1. Click **<My Profile> | Administration | Data Management | Company Name Cleanup**.
2. Select **Characters or Strings to Remove** from **List to view**.
3. Click **New**.
4. Type the text string you want to remove in **Details**.
5. Click **Save**. The rule is displayed on the Characters or Strings to Remove page.
6. To create a remove list, continue adding rules.

   Note: The rules are applied in the order they are listed.
   Sage CRM applies the rules in the remove list first, and then applies the rules in the replace list. For more information about the replace list, see **Creating a Company Name Cleanup replace list**.

7. To remove a rule, click **Delete**.

Data Upload

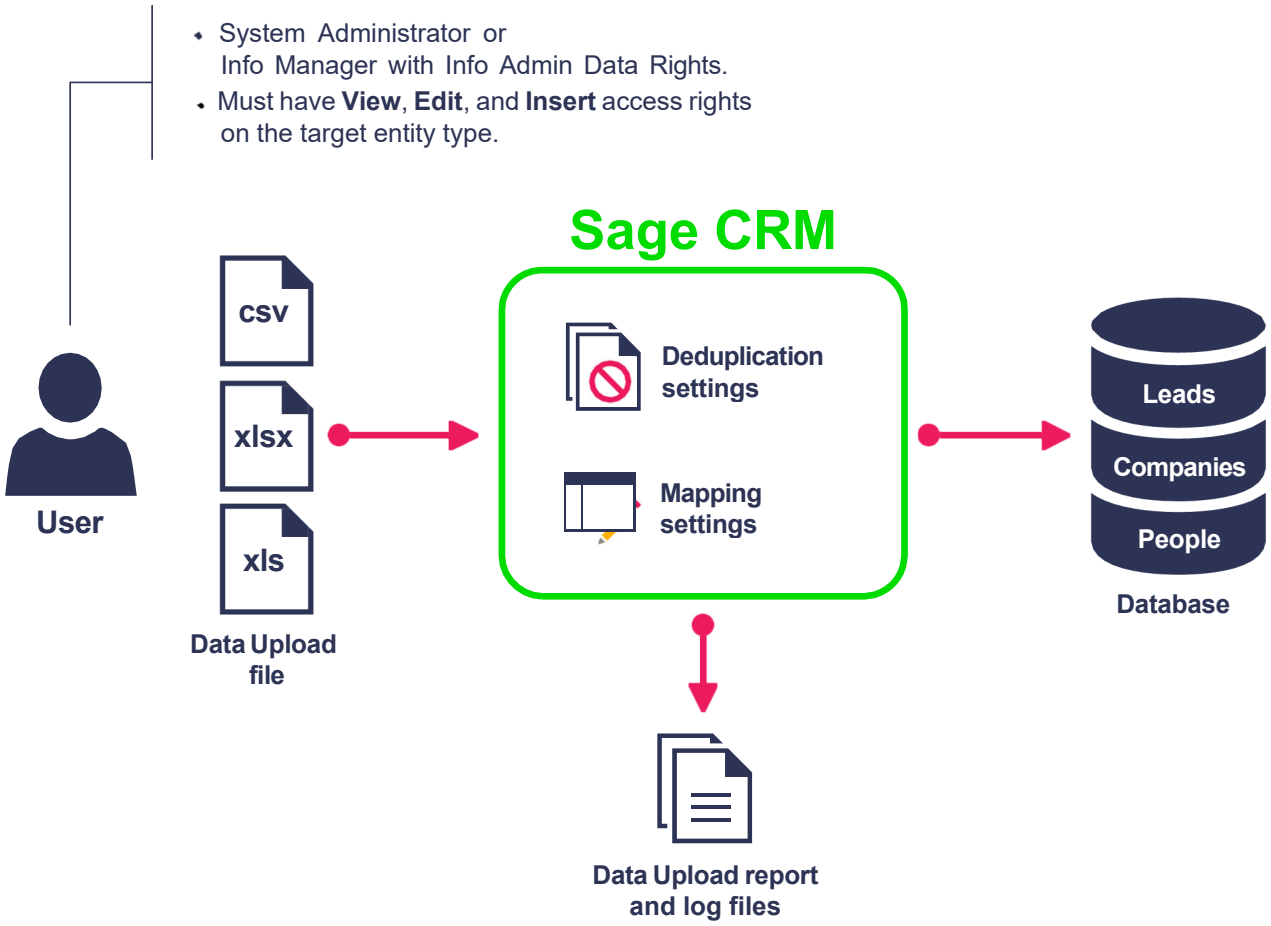
- **About Data Upload**
- **Before you begin uploading data**
- **Required security profile rights**
- **Steps to upload data**
- **User interface reference**

About Data Upload

With the Data Upload feature, you can add multiple lead, company, and person records to the Sage CRM database at once without having to enter the details of each record manually in the Sage CRM user interface.

> **Note:** When you import leads into Sage CRM, they are not automatically added into a workflow. However, if your Lead workflow is designed like the default Lead workflow with transition rules that hang from the entry state, action buttons are displayed on the Lead screen that allow users to progress leads.

Here's how Data Upload works:



Data Upload is enabled by default after Sage CRM installation. This feature is available to System Administrators and Info Managers who have Info Admin Data Rights in Sage CRM. The account used to perform data upload must have View, Edit, and Insert access rights on the target entity type.

To upload data to Sage CRM, you need to prepare a data upload file (CSV, XLS, or XLSX) containing the records you want to add, and then specify that file in the Sage CRM user interface.

The system prompts you to configure a number of Data Upload settings, including:

- **Deduplication settings**. Add rules to detect if the records you are uploading to Sage CRM already exist in the database. If they do, Sage CRM prompts you to merge your data into the existing records, overwrite the existing records with the new ones, or skip duplicate records without adding any data to Sage CRM. You can add deduplication rules only if advanced deduplication is enabled in Sage CRM. Advanced deduplication is enabled automatically if you have included demo data in your Sage CRM installation. Otherwise, advanced deduplication is disabled and you need to enable it manually in the Sage CRM system behavior settings.
- **Mapping settings**. Associate a column in your data file with a field in the Sage CRM database. During Data Upload, data from each column is inserted into the associated field in the database. A column can have only one associated field. If a column is not associated with a field, data from that column is not added to the Sage CRM database. In most cases,

Sage CRM maps file columns to database fields automatically, but you can review these mappings, change them if necessary, and add new mappings before your Data Upload begins.

Once you have configured and applied the deduplication and mapping settings, Sage CRM uses them to add your new records to the database. Sage CRM generates a report and log files that contain information about the data upload results and help you to identify and troubleshoot any issues if they occur.

Before you begin uploading data

We recommend that you create a full backup of the Sage CRM database before uploading new records. A full backup enables you to roll back any changes made by Data Upload, if necessary. If you don't have a full database backup and something goes wrong while you're uploading new records, you might have to delete them from the Sage CRM database manually.

If you don't have sufficient permissions to create full backups of the Sage CRM database, ask your database administrator to back up the database for you.

To create a full backup of the Sage CRM database, you can use Microsoft SQL Server Management Studio. In this example, we'll use Management Studio supplied with SQL Server 2014 to back up the Sage CRM database.

1. Open SQL Server Management Studio:
   at a command prompt, enter *ssms.exe*
2. Specify parameters to connect to the Microsoft SQL Server computer that hosts the Sage CRM database.
3. In the left pane (Object Explorer), expand the **Databases** node to locate the Sage CRM database.
   By default, the name of the database is *CRM*.
4. Right-click the Sage CRM database, point to **Tasks**, and then click **Back Up**.
5. In the dialog box that opens, do the following:
   a. From **Backup type**, select **Full**.
   b. Under **Backup component**, select **Database**.
   c. From **Back up to**, select **Disk**.
   d. Click **OK** and wait until Management Studio backs up the database.

Now you can add new records to the database using the Data Upload feature. You can always revert to the previous version of the database using the full backup you have created.

For more information about backing up an Azure SQL database, see **Automated backups - Azure SQL Database & Azure SQL Managed Instance** on **docs.microsoft.com**.

Required security profile rights

To upload records, the security profile assigned to your Sage CRM account must have the following minimum rights:

Entity	Minimum security profile rights to upload records
Company	Company entity: • View • Edit • Insert Person entity (person records associated with company): • View • Edit • Insert
Lead	• View • Edit • Insert
Person	• View • Edit • Insert

Steps to upload data

- **Step 1: Prepare a data upload file**
- **Step 2: Upload file to Sage CRM**
- **Step 3: Configure mapping**
- **Step 4: Configure deduplication**
- **Step 5: Preview and create records**

Step 1: Prepare a data upload file

In this step, you need to prepare a file containing the new records to upload.

To upload data, you can use one of the following formats:

- **Comma-separated values (CSV)** (recommended). Unlike Excel Workbook (XLSX and XLS) files, CSV files don't store any complex formatting, formulas, and filters that might prevent your data from uploading correctly. Make sure to use the delimiter specified in the Sage CRM system behavior settings (by default, this is a comma).
- **Excel Workbook (XLSX)** or **Excel 97-2003 Workbook (XLS)**. Your file shouldn't contain any complex formatting, formulas, filters, and errors in cell values, because they might prevent data from uploading correctly. Data Upload can work with XLSX and XLS files created by Microsoft Excel supplied with Microsoft Office 2010 or later.

The most convenient way to prepare a Sage CRM-compatible data upload file is using Microsoft Excel. For detailed information about the requirements your file must meet, see **Data upload file requirements**.

1. In Microsoft Excel, create a new blank workbook.
2. In row 1, enter the captions of the Sage CRM fields into which you want to add data. The fields you specify in your file must exist in the Sage CRM database.

   Using field captions as column headings helps Sage CRM to automatically map each file column to the corresponding field in the database. If necessary, you can review and manually change these mappings later before running your data upload.
3. Enter the records to be uploaded. For more information and examples, see **Data upload file requirements**.
4. Save the workbook as a CSV, XLSX, or XLS file.

Data upload file requirements

Regardless of what type of records you are uploading, your file must meet the requirements listed in the table below.

For requirements related to a particular entity, see the following:

- **Lead**
- **Company**
- **Person**

Requirement	Comment
The file name must be less than 60 characters long.	This excludes the file path.
Each column in the file must have a unique heading and be mapped to an existing field in the Sage CRM database.	Using actual field captions as column headings in your data upload file helps Sage CRM to automatically map each file column to the corresponding field in the database. If necessary, you can review and manually change these mappings later before running your data upload. The fields you populate don't need to be added to a Sage CRM screen, but they must exist in the Sage CRM database.
Your file must contain a valid non-empty value for each required field in Sage CRM.	Required fields are those you must fill in to create a new record in Sage CRM. Such fields are marked with a blue asterisk in the Sage CRM user interface, for example: If you don't populate each required field with a valid non-empty value, the entity record is not created in the Sage CRM database during data upload. For more information about default required fields, see - **Lead** - **Company** - **Person**

Requirement	Comment
The maximum number of rows (records) in your data upload file shouldn't exceed 5000.	If you want to upload more than 5000 records, consider creating several data upload files.
Do not upload data from the same file two or more times in a row.	This can lead to creation of duplicate records in Sage CRM. If something went wrong during your data upload, review the data upload report, logs, and errors file before retrying to upload data.
If you are using a CSV file, make sure to escape special characters in the values.	• Any values that contain a comma must be enclosed in double quotes. • Any values that contain double quotes must be escaped with another double quote.
If you are using an XLS or XLSX file, make sure it doesn't contain cells formatted as dates.	We recommend that you save your XLS or XLSX file as CSV and then uplod the CSV file to Sage CRM.
All dates in your data upload file must have an identical format.	For example, DD/MM/YYYY, MM/DD/YY, or MM/YYYY. If your file contains dates in different formats, Sage CRM won't be able to correctly process your data.
Each cell in a data upload file column can contain multiple values.	You can write information stored in a multivalued column cell to multiple fields located in the same Sage CRM database table. For more information, see **Mapping multivalued column cells**. The data format used in multivalued cells must be consistent in your data upload file. Note that Sage CRM cannot process surnames that have *Mc* or *O'* prefixes or include blank spaces.
Each record (row) in your data upload file can include multiple addresses or notes.	When adding multiple addresses to the same row, make sure to assign a different type to each of the addresses. For example, **Home** and **Business**.
If your data upload file contains values for multiselect fields, these values should not contain spaces.	We recommend that you modify the values of multiselect fields in the Sage CRM database so that they don't contain spaces. When specifying values for a multiselect field in your data upload file, use a comma as a separator.

Lead

By default, the required fields for creating a lead record are:

Field caption in the user interface	Field code in the database
Company Name	lead_companyname
Last Name	lead_personlastname
First Name	lead_personfirstname
Description	lead_description
Assigned to	lead_assigneduserid
Email	lead_personemail

In row 1 of the data upload file, enter the captions of the required Sage CRM fields and any optional fields you want to populate with values.

If you want to assign all lead records to one user, omit the **Assigned to** column in the data upload file: you can select that user later when specifying your data upload settings. For more information, see **Settings for leads**.
If you want to assign lead records to different Sage CRM users, add the following two columns to the file:
- **Assign to**. Specify the logon ID or email address of the Sage CRM user to whom you want to assign the lead record.
- **Team**. Enter the name of the primary team to which the user belongs, as it appears in the Sage CRM user interface.

Then, enter the lead records to be uploaded. Each row must contain one lead record only. Each lead record (row in the file) must include one company and one person.

Company

By default, the required fields for creating a company record are:

Field caption in the user interface	Field code in the database
Company Name	comp_name
Address 1	addr_address1
Last Name	pers_lastname
First Name	pers_firstname

In row 1 of the data upload file, enter the captions of the required and any optional Sage CRM fields you want to populate with values. Then, enter the company and person records to be uploaded.

Each row must contain one person record only. If you want to add another person associated with the same company, use a different row and enter the same company details for that person record. The first person specified for a new company in the file automatically becomes the main company contact. You can change the main company contact later in the Sage CRM user interface.

Each company you upload must have an address. If you don't map a column in the data upload file to the company address field in Sage CRM, the address of the first person specified for the company in the file becomes the company's address. If a person record in the data upload file has a business address and a home address, only the person's business address becomes the company's address.

If you specify the same address for multiple person records in your data upload file, a single record is created for the address in the Sage CRM database. Then, this address record is linked to the person records. Any updates made to that address record in Sage CRM apply to all person records linked to that address.

Person

By default, the required fields for creating a person record are:

Field caption in the user interface	Field code in the database
Last Name	pers_lastname
First Name	pers_firstname
Address 1	addr_address1

In row 1 of the data upload file, enter the captions of the required and any optional Sage CRM fields you want to populate with values. Then, enter the person records to be uploaded. Each row must contain one person record only. All data for each person record must be entered in the same row.

Step 2: Upload file to Sage CRM

Before completing the steps below, make sure that your Sage CRM account has the **Required security profile rights**.

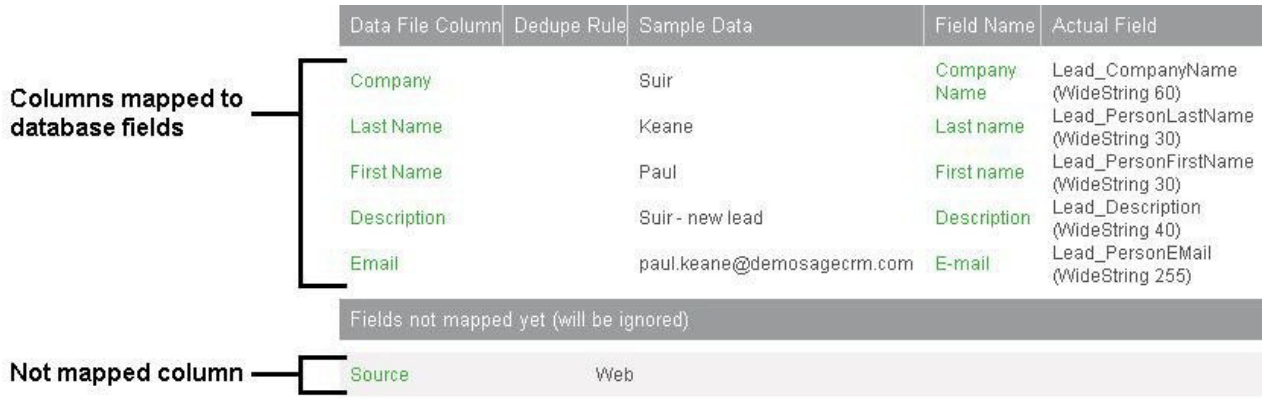
1. Log on to Sage CRM as a System Administrator or Info Manager with Info Admin Data Rights.
2. Click **<My Profile> | Administration | Data Management | Data Upload**.
3. Under **Data Upload**, click one of the following, and then click **Continue**. If you don't have the **Required security profile rights**, some or all of these options may not be available.

- **Company**. Uploads company records with linked person records.
- **Individuals**. Uploads person records not linked to any companies.
- **Lead**. Uploads lead records.

4. On the **Lead Data Upload** page, click **New**.
5. Configure the following upload options. For more information about other options you can configure on this page, see **Data upload file settings**.
   - **Data File**. Specify the data upload file you have prepared.
   - **Description**. Enter an informative description for your data upload. Sage CRM uses this description to identify your data upload in the user interface.
6. Click **Save**. If prompted, confirm that you want to copy the file to the Sage CRM server.

Step 3: Configure mapping

Once you have uploaded your data upload file to Sage CRM, a page similar to the following opens:



The upper table on the page shows the data upload file columns that are currently mapped to Sage CRM fields. Use this table to view the mappings and change them if necessary.
This table has the following columns:

- **Data File Column**. Shows column names in the data upload file. You can click a column name to change the column's mapping.
- **Dedupe Rule**. Shows the deduplication rule configured for each column. Currently this column is empty – you'll configure deduplication rules later in **Step 4: Configure deduplication**.
- **Sample Data**. Shows the first value contained in the data upload file column.
- **Field Name**. Shows the UI caption of the Sage CRM field to which the data upload file column is mapped.
- **Actual Field**. Shows the code of the Sage CRM field to which the data upload file column is mapped.

The lower table on the page lists data upload file columns not mapped to any Sage CRM fields yet. Use this table to manually map the columns. Values in the columns that remain unmapped are not added to the Sage CRM database during data upload.

To map not mapped columns

1. Under **Fields not mapped yet (will be ignored)**, click the column name.
2. Configure mapping settings. For more information, see **Mapping and deduplication settings**.
3. When you're finished, click **Save**.

To change current mappings

1. In **Data File Column** of the table (columns mapped to database fields), click the column name.
2. Change the mapping settings as necessary. For more information about the options you can use, see **Mapping and deduplication settings**.
3. When you're finished, click **Save**.

For more information on how to map columns that contain multivalued cells, see **Mapping multivalued column cells**.

Mapping multivalued column cells

If each cell in a data upload file column contains multiple values, you can map that column to multiple Sage CRM database fields. As a result, column values are inserted into the corresponding Sage CRM fields during data upload.

The fields to which you write data from multivalued cells in your data upload file must be located in the same Sage CRM database table.
The format of values in a file column must be consistent. Otherwise, Sage CRM won't be able to correctly process data in the column.

For example, if the **Last and First Name** column contains first name and last name, you can map this column to the appropriate Sage CRM fields as follows:

1. Click the column name (**Last and First Name**).
2. On the page that opens, from **Field Name**, select **--Multiple--**:
3. Next to **Field Name**, click **Edit Multiple Field Settings**.
4. On the page that opens, specify the format of values in the **Last and First Name** column:
    a. From **Select Field**, select **Person : Last Name**.
    b. Click **Add**.
    c. In **Format Mask**, enter a comma after the inserted value.
    You need to insert a comma because it is used as a value separator in the data

upload file.
Always make sure to separate values in the **Format Mask** box with the same separator that is used in your data upload file. Otherwise, Sage CRM won't be able to correctly process your data.

d. From **Select Field**, select **Person : First Name**.

e. Click **Add**.

As a result your format mask should look as follows:

```
#pers_lastname#, #pers_firstname#
```

5. Click **Save**.

Mapping territories

You can assign territories to the records being uploaded. To do so, in your data upload file, create a column (**Territory**) containing the Sage CRM territories you want to assign. Make sure the territory names in your file exactly match the territory names in Sage CRM.

Then, map the Territory column to the appropriate Sage CRM field, for example, **Lead : Territory**, **Company : Territory**, or **Person : Territory**.

If you don't assign any territory during Data Upload, the territory of your Sage CRM user account is automatically assigned to the records.

Step 4: Configure deduplication

In this step, you need to configure deduplication rules to avoid the creation of duplicate records in Sage CRM during data upload. You can configure deduplication rules only if advanced deduplication is enabled in the Sage CRM system behavior settings. When advanced deduplication is disabled, the Data Upload feature performs a simple deduplication.

We recommend that you upload data with advanced deduplication enabled. In this case, you have better control over the data that is written to the Sage CRM database. For more information, see **Enabling or disabling deduplication**.

For each data upload file column, you can configure only one deduplication rule. You can configure deduplication rules for columns containing multivalued cells in the same way as for columns containing single-valued cells.

With advanced deduplication enabled, you must configure the following minimum deduplication rules:

Entity	Deduplication rules must be configured for
Lead	• Lead company name • Person's last name
Company	• Company name • At least one person field
Person	• At least one person field

To add a deduplication rule

1. In the **Data File Column**, click the name of the column for which you want to add a deduplication rule.
2. From **Dedupe Rule**, select the value you want to use.
   For more information, see **Mapping and deduplication settings**.
3. Click **Save**.

Repeat these steps for each column for which you want to add deduplication rules.

We recommend that you configure deduplication rules as follows:

Lead
Set the **Exact Match** deduplication rule on company name, person's last name, and person's first name.

Company
Set the **Exact Match** deduplication rule on company name, company address, person's last name, and person's first name.

Person
Set the **Exact Match** deduplication rule on first name and last name.

Step 5: Preview and create records

Once you have added deduplication rules in **Step 4: Configure deduplication**, you can preview the records to be created in Sage CRM:

1. Click **Preview Data Upload** to display a list of records to be created in Sage CRM.
2. If necessary, configure how you want to process duplicates during data upload.
   For more information, see **Preview and duplicate settings**.
3. Click **Do Upload** to start your data upload and create the new records in the Sage CRM database.

When your data upload is finished, Sage CRM displays the **Data upload results**.

If your Data Upload has erroneously created redundant records with empty fields, you can use a SQL query to remove these records from the Sage CRM database. For example SQL queries, see **Removing redundant records**.

Removing redundant records

You can use a SQL query to delete redundant records that were erroneously created in the Sage CRM database. For example, redundant or incomplete records can be created if you uploaded data with advanced deduplication disabled. This section provides example SQL queries you can use to delete records whose required fields are blank.

- **Removing persons with empty fields**
- **Removing addresses with empty fields**

Removing persons with empty fields

The following query searches for and removes person records whose **Last Name** and **First Name** fields are blank.

```
PEOPLE!

update company set comp_primarypersonid=null where comp_primarypersonid
in (select pers_personid from person where pers_lastname is null and pers_firstname is null)

delete from phone where phon_phoneid in (select phon_phoneid from vPersonPhone where plink_
recordid in
(select pers_personid from Person where pers_lastname is null and pers_firstname is null))
delete from email where emai_emailid in (select emai_emailid from vPersonEmail where elink_
recordid in
(select pers_personid from Person where pers_lastname is null and pers_firstname is null))
delete from phonelink where plink_phoneid in (select phon_phoneid from vPersonPhone where plink_
recordid in
(select pers_personid from Person where pers_lastname is null and pers_firstname is null))
delete from emaillink where elink_emailid in (select emai_emailid from vPersonEmail where elink_
recordid in
(select pers_personid from Person where pers_lastname is null and pers_firstname is null))

delete from address where addr_addressid
in (select adli_addressid from address_link where adli_personid
in (select pers_personid from person where pers_lastname is null and pers_firstname is null))

delete from address_link where adli_personid
in (select pers_personid from person where pers_lastname is null and pers_firstname is null)

delete from person_link where peli_Personid
in (select pers_personid from person where pers_lastname is null and pers_firstname is null)

delete from person where pers_lastname is null and pers_firstname is null
```

Removing addresses with empty fields

The following query searches for and removes address records whose **Address 1** field is blank.

```
ADDRESSES!

update company set comp_primaryaddressid = null where comp_primaryaddressid
in (select addr_addressid from address where addr_address1 is null)

update person set pers_primaryaddressid = null where pers_primaryaddressid
in (select addr_addressid from address where addr_address1 is null)

delete from address_link where adli_addressid
in (select addr_addressid from address where addr_address1 is null)

delete from address where addr_address1 is null
```

User interface reference

This section provides descriptions of the Sage CRM fields and UI elements you can use when uploading data.

- **Data upload file settings**
- **Mapping and deduplication settings**
- **Preview and duplicate settings**
- **Data upload results**

Data upload file settings

Available data upload file settings depend on the type of records you are uploading.

- **Settings for companies and people**
- **Settings for leads**

Settings for companies and people

Option	Description
Data File	Browse to select the data upload file you want to use. When you open a previously saved data upload, this option shows the selected data upload file name and it cannot be changed. When you open a previously saved data upload that was run and generated errors or duplicate records, the following additional options are available: - **Use Data File**. Reruns data upload using the original data upload file. **Warning:** Use this option with extreme caution, as it may create duplicate records or overwrite data on your system. - **Use Error File**. Reruns data upload only for those records that generated errors during the last data upload attempt. - **Use Duplicate File**. Reruns data upload only for duplicate records that were detected during the last data upload attempt. - **View Error File**. Opens the data upload error file generated during the last data upload attempt.
Select From Existing Mappings	Allows you to reuse column to field mappings configured for previous data uploads. You can use this option if your new data upload file has the same columns as one of the files you uploaded previously. This option is available only if you have uploaded companies or people at least once.
Description	Enter an informative description for your data upload. Sage CRM uses this description to identify your data upload in the user interface.

Option	Description
File Date Format	Select the date format used in your data upload file. **Note:** All dates in your data upload file must have an identical format.
Merge Rule	Select how you want to treat duplicate records during your data upload. You can either merge duplicate records with the matching existing records or completely overwrite the matching existing records with the records from your data upload file.
Max Contacts Per Row	Specify the maximum number of person records each row of the data upload file contains. **Note:** Always keep the default value in this option.
Max Addresses Per Row	Specify the maximum number of addresses on each row of the data upload file.
Preview Rows	Specify the number of data upload file rows you want to preview before you start uploading data to Sage CRM.
Max Notes Per Row	Specify the maximum number of notes on each row of the data upload file.
Make a Group	Select this check box to create a group for your data upload in Sage CRM. The group includes all records that were created in Sage CRM during the data upload. If you select this check box, you can use the **Groups** tab in Sage CRM to view the records created by your data upload.
Overwrite Person Default Address	Replaces the person's default address with the one added to Sage CRM during data upload. When this check box is selected, the new address is also added as a company address. If there is more than one address for a person in the data upload file, the first address becomes the default one.

Option	Description
Map Selection Fields to Codes	When this option is selected, the system tries to match selection field translations from your CSV file to caption codes in Sage CRM. For example, a person title of Chief Executive Officer gets mapped to the caption code CEO, and stored in the database. If a selection does not yet exist in Sage CRM, it gets added to the database. In this case, the caption code will be the same as the selection. When this option is not selected, selection list choices entered in the CSV file as translations rather than caption codes are not added to the database. The translation, for example, Chief Executive Officer, is displayed on the person summary page for viewing, but not added to the database. This means that when you select **Change**, you must set the drop-down field to a selection that already exists in the Sage CRM database.

Settings for leads

Option	Description
Data File	Browse to select the data upload file you want to use. When you open a previously saved data upload, this option shows the selected data upload file name and it cannot be changed. When you open a previously saved data upload that was run and generated errors or duplicate records, the following additional options are available: • **Use Data File**. Reruns data upload using the original data upload file. Use this option with extreme caution, as it may create duplicate records or overwrite data on your system. • **Use Error File**. Reruns data upload only for those records that generated errors during the last data upload attempt. • **Use Duplicate File**. Reruns data upload only for duplicate records that were detected during the last data upload attempt. • **View Error File**. Opens the data upload error file generated during the last data upload attempt.
Select From Existing Mappings	Allows you to reuse column to field mappings configured for previous data uploads. This option is available only if you have uploaded lead records at least once.
Description	Enter an informative description for your data upload. Sage CRM uses this description to identify your data upload in the user interface.
File Date Format	Select the date format used in your data upload file. **Note:** All dates in your data upload file must have an identical format.
Merge Rule	Select how you want to treat duplicate records during your data upload. You can either merge duplicate records with the matching existing records or completely overwrite the matching existing records with the records from your data upload file.
Preview Rows	Specify the number of data upload file rows you want to preview before you start uploading data to Sage CRM.

Option	Description
Make a Group	Select this check box to create a group for your data upload in Sage CRM. The group includes all records that were created in Sage CRM during the data upload. If you select this check box, you can use the **Groups** tab in Sage CRM to view the records created by your data upload.
Lead Description	Enter an informative description for the lead records you are uploading.
Assign to Team	Select the team to which you want to assign the lead records being uploaded. Do not use this option if you assign lead records using columns in your data upload file. For more information about how to assign lead records to Sage CRM users, see **Lead**.
Territory	Select the territory to which you want to assign the lead records.
Assign to Users	Specify the Sage CRM user to whom you want to assign the lead records. If you want to assign lead records to different users, create and populate the appropriate columns in your data upload file (see **Lead** for details). Then, select any user in the **Assign to Users** option. As a result, the lead records are assigned to the users specified in the data upload file.
Wave Item	Select the marketing campaign wave to which you want to assign the lead records. If you are not planning to use the lead records in a marketing campaign, leave this option blank.

Mapping and deduplication settings

Option	Description
Belongs to **Note:** This option is available only when you are uploading company or person records.	Select the Sage CRM entity with which you want to associate the data upload file column. To associate a column with both Company and Person, select **Person** in this option. As a result, the column value is automatically assigned to the company record with which the person record is associated. For Phone, types Business and Fax are shared. For Email, type Business is shared. When **Belongs to** is set to **Person** and the number of contacts in the data upload file settings is set to more than one, the following additional option is available: - **Order**. Select the person record to which this field belongs.
Data Table	Select the table in the Sage CRM database to which you want to write data from the upload file column. You can select one of the following tables: - Addresses - Email - Phone - Notes If in **Belongs to** you have selected **Company** or **Person**, leave **Data Table** blank. **Note:** Alternative numbers belong to the Phone table, with the type set to Fax. When **Data Table** is set to **Address** or **Notes**, and the number or addresses or notes in the data upload file settings is set to more than one, the following additional option is available: - **Order**. Select the address or note record to which this field belongs.

Option	Description
Field Name	Select the Sage CRM field you want to populate with values from the upload file column. If each column cell includes multiple values, you can insert them into several Sage CRM fields. For more information, see **Mapping multivalued column cells**.
Match User Fields	Specify what value on the user table you want to match when you are mapping a column in your data file to a User Select field. For example, if the file you are uploading contains the full user name, you can specify "Firstname Lastname" to insert the correct User ID. **Note**: This option is available only for User Select columns.
<FieldName> Type	Allows you to assign a category to the data in the upload file column. **Note:** This option is available only when: **Belongs to** is set to **Person** or **Company** and **Data Table** is set to **Address**, **Phone**, or **Email**.

Option	Description
Dedupe Rule	Select a condition to detect duplicate records during your data upoload. You can select one of the following: - **Exact Match**. A record is detected as a duplicate if the column cell value exactly matches the value in the mapped Sage CRM field. - **Phonetic**. A record is detected as a duplicate if the column cell value phonetically matches the value in the mapped Sage CRM field. For example, an uploaded company named *Greatecom* is detected as a duplicate of an existing company named *Gatecom*. - **First Letter Match** A record is detected as a duplicate if the first character of the column cell value matches the first character of the value in the mapped Sage CRM field. For example, an uploaded company named *Design Right Inc.* is detected as a duplicate of an existing company named *Davis & Son Publishing Ltd*. - **Begins With** A record is detected as a duplicate if the column cell value begins with the same characters as the value in the mapped Sage CRM field. For example, an uploaded company named *Design Right Inc.* is detected as a duplicate of an existing company named *Des Barnes Sign Makers*. - **Contains**. A record is detected as a duplicate if the column cell value contains the string in the mapped Sage CRM field. For example, an uploaded company named *Design Right* is detected as a duplicate of an existing company named *Design Right Management*. - **Not Equal To** A record is detected as a duplicate if the column cell value does not match the value in the mapped Sage CRM field. You can use this condition when you don't want the imported value to overwrite the existing value in the mapped Sage CRM field. For example, use this condition if you want to have a single person record associated with a company record.
Save	Saves the current settings.
Clear Mappings	Clears the current mapping specified for the data file column.

Preview and duplicate settings

Option	Description
Source **Note:** You can use this option to specify the same source to all records being uploaded. If you want to specify different sources for different records, create a new column in your data upload file, enter a source for each record, and map the file column to the appropriate Sage CRM field.	Specify the source of the records being uploaded. You can select one of the following: - **Phone** - **Email** - **Alternative** - **Web** - **Letter** - **Employee** - **Customer Referral** - **Advertisement** - **Trade Press** - **Tradeshow** - **Import** To create a new source and assign it to the records, select **--New--**, and then complete the following additional options: - **Source Code**. Enter the code with which you want to identify the new source. - **Source Description**. Enter the source name (caption) to be displayed in the Sage CRM user interface.
Append To Log File	Adds new data to the existing data upload log file without overwriting its contents.
Overwrite Log File	Completely overwrites the contents of the log file with new data.

Option	Description
Process Duplicates Interactively **Note:** To use this option, you must have advanced deduplication enabled in Sage CRM.	Select this option to view and process duplicate records interactively as Sage CRM finds them during data upload. With this option selected, when Sage CRM finds a duplicate record in your data upload file, your data upload pauses and Sage CRM displays a page that lists one or more existing records that match the duplicate. On that page, you can do one of the following: - Merge the duplicate record in your file with an existing record in the Sage CRM database or overwrite the existing record completely. To do so, click the name of the existing record Sage CRM displays. The action that Sage CRM performs (merge or overwrite) depends on the **Data upload file settings** you have configured. When you merge a duplicate company record with an existing company, Sage CRM also detects any person matches according to the deduplication rules you have configured for person records. - Add the duplicate record as a new record to the Sage CRM database without overwriting or merging it with any of the existing records. To do so, click the **Add Record Anyway** button. **Warning:** Do not perform this action unless absolutely necessary, as it can lead to the creation of duplicate records in the Sage CRM database. - Skip the duplicate record without adding any data into the Sage CRM database. To do so, click the **Skip Record** button. Once you have selected one of these actions, your data upload resumes.

Option	Description
Process Duplicates in Batch **Note:** To use this option, you must have advanced deduplication enabled in Sage CRM.	Select this option to automatically copy duplicate records to a separate file and process them later. This option allows you to complete data uploads faster. With this option selected, when Sage CRM finds a duplicate record in your data upload file, it does not pause your data upload. Rather, Sage CRM copies the duplicate record to a separate file without writing the duplicate record to the Sage CRM database. The duplicate file has the same format as your original data upload file (that is, XLS, XLSX, or CSV). You can use the created duplicate file to interactively process the duplicates later by selecting the **Process Duplicates Interactively** option. When you select **Process Duplicates in Batch**, you can use the following additional option: • **Batch Size**. Recommended for slow connections. Enter the number of lines in the data upload file you want Sage CRM to process at a time. For large data upload files, the recommended value is *70*.
Preview Data	Shows how the data will look like in Sage CRM. Use this preview to verify that the mappings you have configured are correct and the data will be written to the appropriate Sage CRM fields. The first header row in the table shows the names of Sage CRM database tables to which data will be written. The second header row shows the names of Sage CRM fields to which data will be written.
Do Upload	Starts your data upload.

Data upload results

This page provides information about the number of records processed, ignored, and added, and duplicates found, if any.

You can use the following elements:

- **View Log File**. Opens the Data Upload log file. Use this file to view and troubleshoot any errors that occurred during your data upload.
- **View Error File**. Opens the automatically generated file containing records that were not uploaded to Sage CRM because of errors. This button is available only if any errors occurred during your data upload. This file has the same format as your original data upload file (that is XLS, XLSX, or CSV).
  You can fix the errors shown in the log file and use the error file to upload the records again. To do so, select the **Use Error File** radio button. This ensures that information is written to the same group you used for the original data upload.
- **View Duplicate File**. Opens the file containing the duplicate records that were not uploaded to Sage CRM. This button is available only if you have selected to process duplicates in batch in **Preview and duplicate settings** and Sage CRM found one or more duplicates during data upload. This file has the same format as your original data upload file (that is, XLS, XLSX, or CSV). You can use the created duplicates file to interactively process the duplicates later.
- **Group Created**. Indicates that a group was created in Sage CRM for your data upload. To view the created group, click the hyperlink next to this element (on the example screenshot above, this is **Import from Companies.csv**).

Before retrying your data upload, review the log, error, and duplicate files generated by Sage CRM. On a Sage CRM server, you can find these files in the following default location:

%ProgramFiles(x86)%\Sage\CRM\CRM\DataUpload

Products

- **Setting up a simple Product structure**
- **Setting up a complex pricing structure**
- **Editing a Product**
- **Deleting a Product**
- **Working with Opportunity Items**

Setting up a simple Product structure

If you use the default Product configuration settings and your system does not contain demo data, you can set up a simple Product structure. If your system contains demo data, you must deactivate all existing UOMs and Price Lists (except the Default Price List) before setting up a simple Product structure.

With the default configuration settings, you can set up Products and Product Families, and configure Products, in the following order:

1. **Setting up Products**
2. **Setting up Product Families**
3. **Configuring Products**
4. **Product configuration fields**

Setting up Products

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Click the **Products** tab and click **New**.
3. Type the name of the product in **Product name**.
4. Type the code for the product in **Product code**.
5. Click **Save** and then click **Change**.
6. Add a price for the product. You can add prices for all currencies specified on the Product Configuration tab. Users can create Quotes and Orders and add Line Items to them based on the prices and currencies included in the pricing matrix. If prices haven't been specified for Products in a particular currency, users cannot add the product (in that currency) to a Line Item.

7. Click **Save** and then click **Continue**.
8. You can continue to add several products in the same way. The list of new Products you set up is displayed.

When a user adds a Line Item with this pricing system, they select the product they want using the Product search select field, the List Price and Quoted Price fields are completed automatically.

Setting up Product Families

Product Families are used to categorize different types of products. They do not affect pricing in any way. However, they make it easier for users to find the product they want when they are creating line items, as they can first select a Product Family and then the Product they want within that family. For example, if you sell different types of software systems, you may want to categorize them into CRM Systems, Accounting Systems, and ERP Systems.

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Click the **Product Families** tab.
3. Click **New**.
4. Type the name of the Product Family in **Name** and add a description in **Description**.
5. Click **Save** and then **Continue**.
6. To create more product families, click **New**. The Product Families are displayed in a list.

Configuring Products

Product configuration settings determine how Products are set up and how end users work with them.

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Click the **Product Configuration** tab.
3. Click **Change**.
4. Make changes to the **Product configuration fields**.
5. To allow users to create quotes and orders in multiple currencies, specify the currencies in **Sales Currencies Supported**.
6. Click **Save**.

Upgrade Products on the Product Configuration page transfers existing opportunity items to the Products tab. This button is available only if Sage CRM is configured to use Opportunity Items. For details, see **System behavior fields**.

Product configuration fields

The table below explains the fields on the Product Configuration screen.

Field	Description
Use pricing lists	Allows you to create different pricing lists so that products can be sold at different prices. For example, you may want to set up a Wholesale pricing list and a Retail pricing list. If set to No, there is one price for each product. Once you have created Price Lists and applied them to Products, you cannot disable this option until you deactivate the Price Lists. Note if you set this option to No, the Price Lists tab will not be visible after you click **Save**.
Use units of measure	When set to Yes, products can be sold in single units or in different multiples, for examples packs of 6 and packs of 12. Pricing can be then applied to the Unit of Measure (UOM). If set to No, prices are applied to single products only. Note if you set this option to No, the Units of Measure tab will not be visible after you click **Save**.
Automate opportunity creation	When this option is switched on, clicking New menu button and selecting Quote or Order automatically creates an Opportunity in which the new Quote or Order resides. If it is switched off, however, users cannot create new Quotes and Orders with the New menu button, they can only create them from within an existing Opportunity.
Order level discount	When set to Yes, adds an order level discount section to the Quote and Order screen. This enables users to apply a discount to an entire order, not just to individual line items.
Sales currencies supported	Select the system currencies that products can be priced in. An Opportunity and all associated Quotes and Orders will be in the currency that was selected for the first Quote or Order created. This field is available only on accounts that support multiple currencies. To enable this field, click **Data Management | Currency Configuration** and set **Is single currency** to **No**.

Field	Description
Quote format	The format of the Quote's reference ID. This can be set up by using the following options, along with any other text and numbers you need: • #C – current user primary channel (Team) id • #H – current user primary channel name - e.g. 'Operations' • #L – current user logon - e.g. 'mayes' • #U – current user id • #O – opportunity id of the parent opportunity • #I – Orde_OrderQuoteID / Quot_OrderQuoteID • #N – number of quote / order within opportunity • #D – day part of current datetime (two digit format) • #M – month part of current datetime (two digit format) • #Y – year part of current datetime (two digit format)
Use quote format for merge document name	Allows you to append the ID of a quote to the name of a Word or PDF file generated by a mail merge. As a result, when a user completes a mail merge for a quote, the generated file name will have the following format: *<template file name>-<quote ID>.<file name extension>* This option works only when a user selects a single quote. With multiple quotes selected, Sage CRM appends a randomly generated number. Sage CRM automatically removes the following special characters from quote identifiers before appending them to file names: / \ : * ? " < > | . & '
Order format	The format of the Order's reference ID. This can be set up by using the same options as used for the Quote Format, along with any other text and numbers you need For example: ORD20#Y-0000#I would give you ORD2014-0000514, for the 514th order in the system, added in 2014.

Field	Description
Use order format for merge document name	Allows you to append the ID of an order to the name of a Word or PDF file generated by a mail merge. As a result, when a user completes a mail merge for an order, the generated file name will have the following format: *<template file name>-<order ID>.<file name extension>* This option works only when a user selects a single order. With multiple orders selected, Sage CRM appends a randomly generated number. Sage CRM automatically removes the following special characters from order identifiers before appending them to file names: / \ : * ? " < > | . & '
Default quote expiration after	Select the number of days after the day it was created that you want quotes to expire in.

Setting up a complex pricing structure

You can create a complex pricing structure by setting up Price Lists, Units of Measure (UOM), and Product Families. You should set it up by completing the tasks in the following order:

1. **Configuring Products**
2. **Setting up Price Lists**
3. **Setting up Units of Measure Families**
4. **Setting up Units of Measure**
5. **Setting up Product Families**
6. **Setting up Products in a matrix**

Setting up Price Lists

Price Lists allow you to sell the same product at different prices. For example, you might want to sell your product to wholesalers at one price and at a higher price to end users. This example illustrates how to set up two Price Lists, Wholesale and Retail.

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Click the **Price Lists** tab and click **New**.
3. Type the name of the Price List in **Name**. For example, Wholesale.

4. Type a description of the list in **Description**.
5. Click **Save** and then **Continue**.
6. Create a second Price List called Retail in the same way. Both Price Lists are displayed on the Price Lists tab.

Setting up Units of Measure Families

If you want to sell products in certain quantities you need to set up UOMs, however the UOMs must first be bundled into UOM Families. Let's say you want to sell User Licenses in quantities of 10, 20, and 50 only. You need to create a unit of measure family called User Licenses, and then create UOMs of 10, 20, and 50.

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Click the **Units Of Measure** tab and click **New**.
3. Type the name of the UOM Family in **Name**. For example, User Licenses.
4. Enter a description in **Description**.
5. When you click **Save**, the UOM Family you created is displayed on the Unit Of Measure screen.
6. To create more UOM Families, click **New**.

Setting up Units of Measure

To create a UOM as part of a UOM Family:

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Click the UOM Family.
3. Click **New UOM**.
4. Type a name for the UOM in **Name**. For example, *5 User Pack*.
5. Type a description in **Description**.
6. Type a quantity of units that are contained in this UOM in **Units**. In this example, the quantity is 5.
7. Click **Save** and add three more UOMs in the same way—10 User Pack, 20 User Pack, and 50 User Pack. The UOMs are displayed on the Unit Of Measure screen.

Setting up Products in a matrix

Once you've set up Product Families, Lists and UOMs, you can create Products and pricing within a matrix that reflects these items.

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Click the **Products** tab and click **New**.
3. Type the product name in **Product Name**. For example, CRM Standard.
4. Type the product code in **Product Code**. For example, 00010.
5. Assign a product family to the Product Family field using the Search Select Advanced buttons.
6. Select a Unit of Measure Category from **Unit Of Measure Category**.
7. Click **Save**. The Product page is displayed with panels for existing Price Lists.
   In this example, there are two Price Lists, Wholesale and Retail which lists existing UOMs. If you configured the system to use multiple currencies for Products, additional columns are available so that you can specify prices for all of the currencies.
8. Click **Edit** and enter a price for each UOM in each price lists.
9. Click **Save** and then click **Continue**.
10. Continue to create more products in this way. The new Products are displayed on the **Products** tab. The user can now begin creating a Quote and select the Pricing List to be used, for example Wholesale or Retail.

If you configured the system to use multiple currencies for Products, the user can also select the currency to be applied to the Quote or Order, and all subsequent Line Items.

When the Line Item is added to the Quote, the Product Family, Product, and Unit Of Measure can be specified. As a result, the correct price is automatically added to the List Price and Quoted Price fields. The value Quoted Price field can be changed to provide a line discount, which will be reflected in the Line Item Discount field when the item is saved.

Editing a Product

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Enter the product name in the Products Find page and click **Find**.
3. Click the product hyperlink.
4. Click **Change**.
5. Make your edits. For example, you can change the list price of an existing product in **List Price**. Users see the new price when they select the product in the future. Products already linked to opportunities at the old price aren't affected.
6. Click **Save**.

Deleting a Product

You can delete a Product that's not associated with a quote or an order. If a Product is no longer used, but is associated with a quote or an order, you can set the status to Inactive to prevent users selecting the Product in the future.

You can also delete a Product Family from the Product Families tab, if there are no Products associated with the Product Family

1. Click **<My Profile> | Administration | Data Management | Products**.
2. Enter the product name in the Products Find page.
3. Click **Find**.
4. Click the product hyperlink.
5. Click **Delete** and click **Confirm Delete**.

Working with Opportunity Items

Opportunity Items is the predecessor of the Quotes and Orders product functionality. If you've upgraded from a previous version of Sage CRM, you can use Quotes and Orders instead of Opportunity Items or continue using Opportunity Items. If you're using a newer version of Sage CRM, Opportunity Items is automatically replaced by the Quotes and Orders product functionality and Use Opportunity Items settings aren't available.

1. Click **<My Profile> | Administration | System | System Behavior**.
2. Click **Change**.
3. Select a value in **Use opportunity items**. For more information, see **System behavior fields**.
4. Click **Save**.

To transfer existing Opportunity Items to the **Products** tab, click **Upgrade Products** on the Product Configuration page. This button is available only if Sage CRM is configured to use Opportunity Items. For details, see **System behavior fields**.

Multicurrency support

- **Currency considerations**
- **Enabling multicurrency support**
- **Changing the base currency**
- **Setting up currencies and rates**
- **Setting currency preferences**

Currency considerations

Before setting up currencies and currency fields, please note the following:

- Decide on the base currency at the beginning of your implementation and do not change it.
- Decide on a process for maintaining the currency rates against the base currency—how often, and by whom. For some organizations, a quarterly update may be sufficient. Others may decide on daily or weekly.
- Currency fields allow you to specify a value and a currency. The value remains the same on the record regardless of exchange rate changes. If a customer is quoted USD 100,000 for a project, it will remain USD 100,000. This is the value stored in the database. However, a user reporting on the data in another currency may see a change in the project value, if the exchange rates have been changed since the last time the report was run.
- The converted values of currency fields are calculated by triangulation. The monetary value entered by the user is divided by the currency specified to get the value in the base currency, then multiplied by the exchange rate specified for the user's preferred currency.

Enabling multicurrency support

Multicurrency support different users to use different currencies. For example, a user in the UK can quote in Sterling, a user in Germany can quote in Euro, and a financial controller in the US can run a forecast report in US dollars. Multicurrency support is enabled by default if you install demo data during the Sage CRM installation.

1. Click **<My Profile> | Administration | Data Management | Currency Configuration**.
    - To enable multicurrency, ensure **Is single currency** is set to **No**.
    - To disable multicurrency, set **Is single currency** to **Yes**. The default currency is displayed in read-only format against all currency type fields in Sage CRM.
2. If you installed demo data and want to check which currency is the default currency, click **<My Profile> | Administration | Data Management | Currency Configuration**. The default currency is displayed in **Base currency**.

Changing the base currency

You can change the base currency to any other currency that's set up in the system.

1. Set the rate of the new base currency to *1*. You can't edit the details of the base currency.
2. Click **<My Profile> | Administration | Data Management | Currency Configuration**.
3. Click **Change**.
4. Select the new currency from **Base currency**.
5. Click **OK** and click **Save**.
6. To confirm the base currency, click **<My Profile> | Administration | Data Management | Currency**.
7. Manually change all existing exchange rates to reflect the new base.

Setting up currencies and rates

When you've defined the base currency, you can set up other currencies.

1. Click **<My Profile> | Administration | Data Management | Currency**.
2. Click **New**.
3. Complete the **Standard currency fields** and **Custom currency fields**.
4. Click **Save**.
5. If the correct description does not automatically appear when you save the currency, check that you have entered the correct symbol. If the description is still not displayed, set up a new translation using the Currency Symbol as the Caption Code. For more information, see **Translations and help**.

Standard currency fields

Field	Description
Description	Currency description. For example, USD, EUR, GBP. The currency description is maintained in **<My Profile> | Administration | Translations** using the Caption Family CurrencyCodes.
Symbol	Currency symbol. For example, $, £.
Precision	Number of decimal places to which converted values in this currency must be calculated. This setting is overridden by the Decimal Places user preference setting. For more information, see **User Preferences fields**.
Rate	Conversion rate against the base currency. When you are adding the base currency, set this to 1.

Custom currency fields

You can convert existing fields to currency fields, or add new currency fields to tables and screens. For example, you could add a new **Cost of Sale** field to the Opportunity table with a **Currency** entry type, and then add this field to the Opportunity Detail Screen. For more information, see **Fields**.

Setting currency preferences

You can set your currency preference to any currency that has been set up in Sage CRM.

1. Click **<My Profile> | Preferences**.
2. Click **Change**.
3. Set **Currency** to your preferred currency.
4. Click **Save**. A converted value is displayed beside any currency values entered. Values from currency fields are displayed as converted values in reports.

Sales Forecasts

- **Changing Forecast settings**
- **Forecast settings**

Changing Forecast settings

Sales Forecast configuration settings are applied to all Forecasts created by users.

1. Click **<My Profile> | Administration | Data Management | Forecast**.
2. Click **Change**.
3. Change the **Forecast settings**.
4. Select **Save**.

Forecast settings

The following table describes the fields on the Forecasts settings page.

Field	Description
Fiscal year start month	Select the month that your fiscal year starts in from this field. For example, if your fiscal year starts in April, your Q2 comprises July, August, and September.
Overwritable forecast	When set to Yes, the user can override the forecast figures, which is calculated automatically in the Forecasts tab.
Forecast precision	Specify the decimal place precision of forecast figures in this field.

Related entities

- **Adding new relationship types**
- **Relationship definition fields**
- **Changing relationship types**
- **Deleting relationship types**
- **Customizing related entities Search Select Advanced lists**
- **Reporting on related entities**

Adding new relationship types

> **Note:** You must be a System Administrator or an Info Manager to add new relationship types.

You can set up relationship types to reflect many-to-many reciprocal relationships between primary entities. Users can then define the relationships using the Relationships tab displayed on all primary entities.

1. Click **<My Profile> | Administration | Data Management | Manage Relationship Types**.
2. Click **New**.
3. Complete the **Relationship definition fields**.
    - Select the **Parent/Child** relationship type for relationships where there is an obvious hierarchy or a concept of "ownership" involved.
    - Select the **Sibling** relationship type where the relationship is of an "influencing" or "affecting" nature.
    - Be consistent with the naming conventions of your relationship types. It is recommended that "doing words" (verbs) using the same tense form the basis of the Relationship Name. This format helps the End User "read" the Relationship screen from the current context at the top downwards: [noun] + [verb] + [noun].
    - For example, to track the influence of Company Directors on your customer base, you could create a Parent/Child Relationship Type. The Parent Entity is the Person, who **Directs** (Relationship Name on Parent) the Company (Child Entity). The Company is **Directed By** (Relationship Name on Child) the Person.
4. Click **Save**.

Relationship definition fields

Field	Description
Relationship type	Select **Parent/Child** or **Sibling**.
Parent/sibling entity	Select the parent or sibling from a list of primary entities. For example, **Person**.
Child/sibling entity	Select the child or sibling from a list of primary entities. For example, **Company**.
Relationship name (on parent/sibling entity)	The relationship name of the parent or first sibling entity. For example, **Directs**.
Relationship name (on child/sibling entity)	The relationship name of the child or second sibling entity. For example, **Directed By**.
Description	A long description of the relationship type. For example, *Influence of directors on company*.
Display color	The color of the heading of the entities grouped into this relationship type.

Changing relationship types

Once you've set up a relationship type, you can change the names, description and display color, but not the entities.

1. Click **<My Profile> | Administration | Data Management | Manage Relationship Types**.
2. Click the relationship you want to change.
3. Click **Change**.
4. Make your changes and click **Save**.
5. Click **Continue**.

Deleting relationship types

1. Click **<My Profile> | Administration | Data Management | Manage Relationship Types**.
2. Click the relationship you want to delete.
3. Click **Delete**. A warning is displayed if relationships have already been set up using this relationship type.
4. Click **Confirm Delete**.

Customizing related entities Search Select Advanced lists

To customize Search Select Advanced lists for related entities, change translations with a caption family of SS_RelViewFields. For example, the current Search Select Advanced list for cases displays the Company Name, Case Reference ID, and Case Description. You can change this to display the first and second columns only.

1. Click **<My Profile> | Administration | Customization | Translations**.
2. Search for the caption family **SS_RelViewFields**.
3. Click the caption code hyperlink for the Search Select Advanced list.
4. Modify the language translations. For example, you could remove a column.
5. Click **Save**.

Reporting on related entities

Sample reports for related entities are included in **Reports | General**. They use the **vListRelatedEntityReportData** view to display information about related entities. You can use this view to create new views for the Company or other entities to display related entities information.

Groups

- **Technical overview of groups**
- **Configuring HTML mass emails**
- **Performing mass operations**
- **Adding group information to a tab**
- **Adding buttons to the Groups screen**

Technical overview of groups

Groups are based on SQL views that retrieve records from a specific entity. The view is generated by a query and must return the unique ID of the entity on which the view is based. You can edit an existing view or add a new view. For more information, see **Creating a view for a group**.

> **Note:** Editing a group modifies the underlying SQL query for the group.

A group can be static or dynamic:

- A **static group** stores the query that generated the group and a snapshot of the records that matched the query criteria when the group was created. Users can add additional records to the group by rerunning the query or manually adding them through the user interface.
- A **dynamic group** stores only the query that generated the group contents. Each time a user opens a dynamic group, the query is run and the group contents are refreshed.

Group information is stored as key attribute data. For more information, see **Viewing key attribute data generated by groups** and **About key attribute profiling**.

- When a user creates a static group, a piece of key attribute data is saved with the group and the group members.
- When a user performs an action against a static or dynamic group and selects a **Parent Category** value, a piece of key attribute data is saved with the action and all records affected by the action.
- You can use the key attribute data to generate reports, create a new group, or perform a follow-up action. For more information, see **Creating a report based on key attribute data**.

Viewing key attribute data generated by groups

Note: You cannot access key attribute data for a private group. For more information, see *Group fields* in the **User Help**.

1. Click **<My Profile> | Administration | Advanced Customization | Key Attributes | Categories**.
2. Scroll through **Key Attribute Categories** to display the relevant group or action information.
    - A static group is displayed as a child category of **Group Entries**. The **Key Attribute** field stored against the group member records is **Inclusion**. This allows a record added through a static group to be included or excluded when the group is used.
    - An email on a static or dynamic group is displayed as a child category of **Default Activities | Emails**. The **Key Attribute** field stored against the group members is **Activity Date** which represents the date on which the email was generated.
    - A group export on a static or dynamic group is displayed as a child category of **Default Activities | External Actions**. The **Key Attribute** field stored against the group members is **Activity Date** which represents the date on which the export was performed.
    - A task on a static or dynamic group is displayed as a child category of **Default Activities | Internal Actions**. The **Key Attribute** field stored against the group members is **Activity Date** which represents the date on which the action was performed.
    - A mail merge on a static or dynamic group is displayed as a child category of **Default Activities | Mail Merge**. The **Key Attribute** field stored against the group members is **Activity Date** which represents the date on which the merge was performed.
3. To search for a group or action enter the group or action name in **Search String** and click **Find**.

Configuring HTML mass emails

Mass emails are sent from the Sage CRM server and do not require Outlook integration. You can send mass emails as text or HTML, with file attachments and inline images.

To send mass emails as HTML and to include inline images, do the following.

1. Click **<My Profile> | Administration | Email And Documents | Email Configuration**.
2. Click **Change**.

3. Set **Send Email As HTML** to **Yes**.
4. Click **Save**.
5. Click **<My Profile> | Administration | Email And Documents | Email Aliases**.
6. Click the mailbox from which you want to send mass emails and click **Change**. If the email address from which you want to send mass emails is not listed, click **New** to create an entry for it.
7. Select **Enabled as a From address** and **Enabled as a Reply to address**. For more information, see **Setting email aliases**.
8. Click **Save**.

Performing mass operations

> **Note:** You must be a system administrator to perform mass operations.

You can simultaneously run the same operation on multiple records in a group.

For example, you can update the same field on multiple records, selectively delete records in a group, and delete documents and communications linked to Person and Lead records in a group.

- **Enabling mass operations**
- **Updating the same fields on records in a group**
- **Updating territory on records in a group**
- **Deleting documents and communications in a group**

Enabling mass operations

> **Note:** You must be a system administrator to perform mass operations.

To perform update and delete operations on multiple records in a group, you need to enable mass operations first.

1. Click **<My Profile> | Administration | System | System Behavior**.
2. Click **Change**.
3. Set **Allow mass operations** to **Yes**.
4. Click **Save**.

Updating the same fields on records in a group

Note: You must be a system administrator to perform mass operations.

You can simultaneously update the same fields in selected records within a group. For example, if four people in a group move to a new region, you can use mass update to update the **Region** field for all four records at once.

1. Ensure mass operations are enabled. For details, see **Enabling mass operations**.
2. Back up the database and ensure all users are logged out of Sage CRM. For details, see **Locking the system**.
3. Click **My CRM | Groups**.
4. Click the name the group that you want to update.
5. To exclude a record from the update, select **Exclude**.
6. Click **Mass Update**.
7. Select the fields you want to update and click **Continue**.

   Note: Search Select Advanced fields are not available for mass update.
8. Specify the new value for the field and click **Save**.
9. Click **OK** and click **Continue**.

Updating territory on records in a group

Note: You must be a system administrator to perform mass operations.

You can simultaneously update the **Territory** field on all records in a group. You can perform this action on groups containing companies, persons, cases, opportunities, or leads.

1. Ensure mass operations are enabled. For details, see **Enabling mass operations**.
2. Back up the database and ensure all users are logged out of Sage CRM. For details, see **Locking the system**.
3. Click **My CRM | Groups**.
4. Click the name of the group that you want to update.
5. Click **Update Territory**.
6. Select the new group territory from **Territory name**.

7. Click **Save**.
8. Click **GO** and click **Continue**.

Deleting documents and communications in a group

> **Note:** You must be a system administrator to perform mass operations.

You can delete documents and communications from Person and Lead records in a group. Note that in some cases Sage CRM deletes only links to documents or communications.

Your action	Result
You delete a document or communication for all of its associated Person and Lead records in Sage CRM.	Sage CRM does the following: • Permanently deletes the document. • Flags the communication as deleted. The communication is no longer visible to the users.
You delete a document or communication for some of its associated Person and Lead records in Sage CRM.	Sage CRM deletes only links to the document or communication from the records. Sage CRM keeps the document or communication and links to other records associated with the document or communication.

To delete documents and communications in a group:

1. Ensure mass operations are enabled. For details, see **Enabling mass operations**.
2. Back up the database and ensure all users are logged out of Sage CRM. For details, see **Locking the system**.
3. Click **My CRM | Groups**.
4. Click the name of the group that includes the documents and communications you want to delete.
5. To exclude Person or Lead records from the delete operation, select the **Exclude** check box next to the records.
6. Click **Mass Delete**.
7. In the dialog box that opens, select the check boxes next to the items you want to delete.
8. Click **Delete**. If prompted, confirm that you want to delete the selected items.

Adding group information to a tab

Note: You must be a system administrator or info manager with Key Attributes rights.

You can display group key attribute data on the record that it is stored against so users can view and change the data. For example, a tab containing key attribute data in the person context can display mail merges and email blasts performed against the person, and the groups to which the person belongs. You cannot access key attribute data for a private group. For more information, see *Group fields* in the **User Help**.

1. Create a new key attribute category group for the group data. For more information, see **Defining key attribute profiling category groups**.
2. To display the key attribute information on a tab in the context of a record, click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity>**.
3. Click the **Tabs** tab and click the **Edit** icon beside the tab group name.
4. Complete the **Tab Properties fields**.
    a. Set **Action** to **other**.
    b. Set **System Act** to **Key Attributes**. For more information, see **Tab customization actions**.
    c. Set **Key Attribute Category Group** to the category group you created.
    d. Click **Add**.
5. Click **Add** and then click **Save**.

Adding buttons to the Groups screen

1. Click **<My Profile> | Administration | Advanced Customization | System Menus**.
2. Click the **GroupButtons** link.
3. Use the fields on the **Properties** panel to add buttons to the screen. For more information, see **Tab Properties fields**.

    Note: Any script that you enter in **SQL** is ignored.

4. **Bitmap** lists images in the **Icons** folders. To select an image that displays as a button, ensure the image is stored in the **Icons** folders and the **Buttons** folders.

- **%ProgramFiles(x86)%\Sage\CRM\<CRM Instance Name>\WWWRoot\Themes\Img\[ThemeName]\Icons**
- **%ProgramFiles(x86)%\Sage\CRM\CRMDPP\WWWRoot\Themes\Img\Color\Icons**
- **%ProgramFiles(x86)%\Sage\CRM\<CRM Instance Name>\\WWWRoot\Themes\Img\[ThemeName]\Buttons**
- **%ProgramFiles (x86)%\Sage\CRM\CRMDPP\WWWRoot\Themes\Img\Color\Buttons**

The context available to ASP pages and .NET extensions changes according to the current user and the group that's accessed. The `Key0` value in the URL indicates which entity is in context. For example, in `http://[servername]/[installname]/CustomPages/Test.asp?SID=30356227028747&F=&J=Test.asp&Key0=4&Key4=4&Key25=111`

- Key0 = 4 indicates that the current user is in the main context.
- Key4 = 4 indicates that the current user has a user_userid of 4.
- Key25 = 111 indicates that the current user has selected the group with value 111.

Deleting documents and communications

- **Deleting all documents for a person**
- **Deleting all communications for a person**
- **Deleting all communications for a lead**
- **Mass deleting communications**

Note: You can also delete documents and communications for multiple Person and Lead records at once. For details, see **Deleting documents and communications in a group**.

Deleting all documents for a person

Note that in some cases Sage CRM deletes only links to documents.

Your action	Result
You delete documents that are not linked to any other records in Sage CRM.	Sage CRM permanently deletes the documents.
You delete documents that are linked to other records in Sage CRM.	Sage CRM deletes only links to the documents from the Person record, but keeps the underlying documents.

1. Ensure mass operations are enabled. For details, see **Enabling mass operations**.
2. Back up the database and ensure all users are logged out of Sage CRM.
3. Find and open the person whose documents you want to delete.
4. Click the **Documents** tab.
5. Click **Delete All Documents**, then **Confirm Delete**.

Deleting all communications for a person

Note that in some cases Sage CRM deletes only links to communications.

Your action	Result
You delete communications that are not linked to any other Person records in Sage CRM.	Sage CRM flags the communications as deleted and the communications are no longer visible to the users.
You delete communications that are linked to other Person records in Sage CRM.	Sage CRM deletes only links to the communications from the Person record, but keeps the communications and links to other Person records associated with the communications.

1. Ensure mass operations are enabled. For details, see **Enabling mass operations**.
2. Back up the database and ensure all users are logged out of Sage CRM.
3. Find and open the person whose communications you want to delete.
4. Click the **Communications** tab.
5. Click **Delete All Communications**, then **Confirm Delete**.

Deleting all communications for a lead

Note that in some cases Sage CRM deletes only links to communications.

Your action	Result
You delete communications that are not linked to any other Lead records in Sage CRM.	Sage CRM flags the communications as deleted and the communications are no longer visible to the users.
You delete communications that are linked to other Lead records in Sage CRM.	Sage CRM deletes only links to the communications from the Lead record, but keeps the communications and links to other Lead records associated with the communications.

1. Ensure mass operations are enabled. For details, see **Enabling mass operations**.
2. Back up the database and ensure all users are logged out of Sage CRM.
3. Find and open the lead whose communications you want to delete.
4. Click the **Communications** tab.
5. Click **Delete All Communications**, then **Confirm Delete**.

Mass deleting communications

To improve system performance, you can reduce the size of the Sage CRM database by mass deleting the communication records users no longer need.

When you do so, Sage CRM performs a hard delete on the communication records. This means the records get permanently deleted from the Sage CRM database and the only way to recover them is to restore the database from a backup.

1. Back up the Sage CRM database.

   This is required in case you want to restore the communication records you are about to delete.
2. Log on to Sage CRM under a system administrator account.
3. Go to **| Administration | Data Management | Hard Delete Communications**.
4. In **Delete all communication records last updated before**, select a date.

5. Set the following options to **Yes**:
    - **I have backed up the Sage CRM database**.
    - **I understand that the deletion is permanent**.
6. Select **Delete**.
7. When prompted, confirm that you want to permanently delete the communication records.

Note: If Sage CRM encounters an error while mass deleting communications, it rolls back the changes already made and leaves your system intact.

Reports

Note: System administrators and info managers can create and manage reports.

- **PDF report requirements**
- **Creating a report**
- **Cloning a report**
- **Charts**
- **Managing reports**

PDF report requirements

To display charts in a PDF report, Sage CRM uses HTML5.

To display extended characters in PDF reports, install the Arial Unicode MS font on the client machine.

1. Copy **arialuni.ttf** from the **%WinDir%\Fonts** folder to the **%ProgramFiles(x86)%\FOP** folder.
2. Edit the **%ProgramFiles(x86)%\FOP\fonts.bat** file. For information, read the notes in the file. Close the batch file and run it.
3. Copy the resultant XML file into the **%ProgramFiles(x86)%\FOP\Fonts** folder.
4. Add the following XML code to **%ProgramFiles(x86)%\FOP\conf\userconfig.xml**:

```
<font metrics-file="fonts/ArialUni.xml"
kerning="yes"embedfile="%systemroot%/fonts/ArialUni.ttf">
<font-triplet name="ArialUnicodeMS"style="normal" weight="normal"/>
<font-triplet name="ArialUnicodeMS"style="normal" weight="bold"/>
<font-triplet name="ArialUnicodeMS" style="italic"weight="normal"/>
<font-triplet name="ArialUnicodeMS" style="italic"weight="bold"/>
</font>
```

5. Ensure the value for the embed-file tag exists.

```
embed-file="%systemroot%/fonts/ArialUni.ttf"
```

6. Reset IIS.

Creating a report

1. Click **Reports | <Report Category>**.
2. Click **New**.
3. Complete the **Report Details panel fields**. When you select a **Source View**, the **Select Column** panel appears.
4. Use the **Select Column panel fields and buttons** to select columns for the report contents and click **Continue**.
5. Specify search criteria for the report and click **Continue**.

   > **Note:** When you select **Relative** and **Week** in the search criteria, the report doesn't return data for the last seven days. Rather, it returns data for the seven days prior to the start of the current week, which is set in the **My week starts on** option in the user preferences.

6. Complete the **Report Formatting panel fields** to define how data is displayed in the report.
7. To add a chart to the report, complete the **Chart Options panel fields**.
8. Click **Save**.

Report Details panel fields

Field	Description
Name	The name of the report. This must be unique across all users and categories.
Source View	The name of the view used for the report. A view is a virtual table that pulls data from one or more database tables and presents it in the report. For a list of views that you can use in reports, see **Report views**. If a view containing the fields that you require is not listed, you can create a new view. For more information, see **Creating a view**. When you select a view, the **Select Column** panel is displayed. For more information, see **Select Column panel fields and buttons**.
Category	The category that contains the report.

Field	Description
Report Type	• **List** displays data as a list. When you select this option, the **Auto Hyperlinking** field is displayed. • **Cross Tab** displays data as a grid. A row represents one field, a column represents another field and the intersection of rows and columns summarizes data. When you select this option, the **Cross Tab Category** field is displayed. • **Historical** displays data within a specified date range. When you select this option, the **In Range Field**, **Out of Range Field**, and **Date Partition** fields are displayed. For more information, see **Select Column panel fields and buttons**.
Report Style	The style applied to the report. **Standard with grids** displays grid lines on the chart section of a report. You can define styles and make them available from this field. For more information, see **Adding a new report style**.
Rows Per Page	The number of rows of data on each page of a list report that's displayed on screen. The report header, title, and footer are not counted as rows.
Description	A free text description of the report.
Private Report	A private report is not displayed to other users.
Auto Hyperlinking	Links are automatically created from the contents of a list report that's displayed on screen to relevant Sage CRM records. For example, a company name opens the company summary page. Hyperlinks are available on predefined fields only.
Show Original Currency Values	The currency values entered in the system are used in reports. This is available in multicurrency systems only. For more information, see **Enabling multicurrency support**. Currency fields are displayed in reports to the decimal precision defined in **Base Currency**. For more information, see **Changing the base currency**. Numeric fields are displayed in reports to the decimal precision defined in **<My Profile> | Preferences**.
Select Distinct Values	Duplicate rows are removed from the report output. For example, in a report listing companies with high priority cases, the company Design Right has two high priority cases so it appears twice. If **Select Distinct Values** is selected, Design Right appears once.

Field	Description
Filter By Current User	The report contains data that's applicable to the current user only. For example, a Communication list report displays communications scheduled for the current user only.
Filter By User's Primary Team	The report contains data that's applicable to the current user's primary team only. For example, an Opportunity list report displays opportunities assigned to current user's team only.
Filter By User's Home Territory	The report contains data that's applicable to the current user's home territory only. For example, an Opportunity list report displays opportunities in the current user's home territory only.

Select Column panel fields and buttons

Button	Description
Add to Report Contents	Displays the column in the report output.
Add to Search Criteria	Adds the column to **Search Criteria**. The user can filter the report on a column in **Search Criteria**. For example, if you use **Assigned To** as a search criteria for an opportunity report, a user can run the report and choose to display opportunities for a single sale rep or a selection of sales reps. You cannot delete fields from **Search Criteria** if the report has saved searches. For more information, see *Saving report search criteria* in the **User Help**.
Advanced Find	Uses Advanced Find and complex queries to create the report. For more information, see *Using Advanced Find* in the **User Help**.
Add to Sort On	Adds the column to **Sort On**. The report is sorted by the column in **Sort On**. If there are multiple columns, the report is sorted first by the column at the top of the list and then by the next column. **Group By** columns determine the primary sort order. **Sort On** columns determine the sort order within the group.

Button	Description
Add to Group By	Adds the column to **Group By**. Report results are grouped by the column in **Group By**. You do not need to include this column in **Report Contents** because **Group By** creates its own column as the first left hand column of the list report.
Add Key Attribute Data	Opens a window where you can specify key attribute values that are included in the report. For example, key attribute data that tracks subscribers to a partner newsletter. For more information, see **Key attribute profiling**.
Cross Tab Category	The columns that are displayed horizontally (from left to right) in a table in a cross tabular report. **Report Contents** defines the information displayed vertically in the table. This field is displayed when **Report Type** is set to **Cross Tab**. For more information, see **Report Details panel fields**.
In Range Field	The type of start date that determines the date range for a historical report. Your sales process and workflow determines which date to report on. This field is displayed when **Report Type** is set to **Historical**. For more information, see **Report Details panel fields**.
Out of Range Field	The type of end date that determines the date range for a historical report. This field is displayed when **Report Type** is set to **Historical**. For more information, see **Report Details panel fields**.
Date Partition	The sections in which historical report results are displayed. For example, results for a specific month can be divided by week. This field is displayed when **Report Type** is set to **Historical**. For more information, see **Report Details panel fields**.

Report Formatting panel fields

Field	Description
Title	The title displayed on the report and the name of the chart gadget on the interactive dashboard. If you clone a report that contains a chart, update the chart title in the cloned report.
Left Content (Header) Centre Content (Header) Right Content (Header)	The header appears at the very top of the report. It is divided into left, center, and right sections. - **Date**. Current date formatted according to the user's preferences. - **Date Time**. Current date and time formatted according to the user's preferences. - **Logo**. The logo file must be called **LOGO.JPG** for onscreen output or **PDFLOGO.JPG** (usually a higher resolution image) for Adobe PDF output. These files are in the **Reports** directory. Logos are not used in CSV or MS Excel output. - **Page Number**. The page number in HTML and Adobe reports. - **Report Title**. The title of the report. - **Time**. Current time formatted according to the user's preferences. - **User Name**. The user running the report. For more information, see **Customizing report charts**.
Show Summary Data	Displays grand totals.

Field	Description
Left Content (Footer) Centre Content (Footer) Right Content (Footer)	The footer appears at the very end of the report. It is divided into left, center, and right sections. - **Date**. Current date formatted according to the user's preferences. - **Date Time**. Current date and time formatted according to the user's preferences. - **Logo**. The logo file must be called **LOGO.JPG** for onscreen output or **PDFLOGO.JPG** (usually a higher resolution image) for Adobe PDF output. These files are in the **Reports** directory. Logos are not used in CSV or MS Excel output. - **Page Number**. The page number in HTML and Adobe reports. - **Report Title**. The title of the report. - **Time**. Current time formatted according to the user's preferences. - **User Name**. The user running the report. For more information, see **Customizing report charts**.
Group Orders	The name of each column that's included in **Group By**. For more information, see **Select Column panel fields and buttons**. - **Descending** sorts the column in descending order. - **Sorting Option** sorts drop-down list captions by the order specified in **Translations | Caption Order** (Caption Order) or by alphabetical order in the user's preferred language (Translation Order). The default is alphabetical order on Caption Code.
Sort Orders	The name of each column that's included in **Sort On**. For more information, see **Select Column panel fields and buttons**. - **Descending** sorts the column in descending order. - **Sorting Option** sorts drop-down list captions by the order specified in **Translations | Caption Order** (Caption Order) or by alphabetical order in the user's preferred language (Translation Order). The default is alphabetical order on Caption Code.
Column Formatting	For each column that's displayed in the report (except Group By columns), you can set the column total and alignment. **Types of Functions** is the column total. For numeric fields this can be **Average**, **Count**, **Maximum**, **Minimum**, or **Sum**. For non-numeric fields, this can be **Count** only.

Chart Options panel fields

The Chart Options panel allows you to add and define a chart for a report. The chart uses the same view as the rest of the report. Static charts (for example, in PDF reports) are generated on the Sage CRM server using HTML5.

Field	Description
Show Chart	Displays a chart.
Available On Interactive Dashboard	Makes the chart available in the Report Charts category on the interactive dashboard. On upgraded instances of Sage CRM, this field can be named **Available On Classic/Interactive Dashboard**. In this case, it makes the chart available on the classic and interactive dashboards.
Chart Style	The type of chart that's displayed. For more information, see **Charts**.
Show Legend	Displays the legend.
Legend Alignment	Aligns the legend to the bottom, top, left, or right.
Value	The column used for the left axis of the chart.
Label	The chart label used for the left axis. If blank, the translated field name is used.
Function	The totaling function used on the left field. Valid options for numeric fields are **Average**, **Count**, **Minimum**, **Maximum**, **Sum**, and **Value** (no totaling function). Non-numeric fields must be set to **Count** because the returned value must be numeric.
Category	The field used for the bottom axis of the chart.
Label	The caption used for the bottom axis. If blank, the translated field name is used.
Function	Allows the value of the field to be split into date ranges. This is applicable if **Category** is a date/time field. For more information, see **Report Details panel fields**.
Line	The column used for the line on a combination chart. Label
	The chart label used for the line on a combination chart.

Field	Description
Function	The totaling function used for the line on a combination chart. Valid options for numeric fields are **Average**, **Count**, **Minimum**, **Maximum**, **Sum**, and **Value** (no totaling function). Non-numeric fields must be set to **Count** because the returned value must be numeric.
Group By	Displays a separate chart for each group. This field is displayed if there is a column in **Group By**. For more information, see **Select Column panel fields and buttons**.
Multi-Bar	Displays all groups on each chart. This field is displayed if there is a column in **Group By**. For more information, see **Select Column panel fields and buttons**.
Segment 1 Lower Limit %	The starting value of the first partition in the gauge chart. This is a percentage of the target value. For example, if your target is 100%, you might set the lower limit to 33%. Set the color of the first partition in **Segment 1 Color** and the name of the partition in **Segment 1 Caption**.
Segment 2 Lower Limit %	The starting value of the second partition in the gauge chart. This is a percentage of the target value. For example, if your target is 100%, you might start the second partition at 66%. The end value of the second partition is your target which is automatically taken from your forecast for the relevant period. For more information, see Forecasts. Set the color of the second partition in **Segment 2 Color** and the name of the partition in **Segment 2 Caption**.
Segment 3 Upper Limit %	The end value of the third partition in the gauge chart. This is a percentage of the target value. For example, if your target is 100%, you might end the third partition at 133%. The starting value of the third partition is your target which is automatically taken from your forecast for the relevant period. For more information, see Forecasts. Set the color of the third partition in **Segment 3 Color** and the name of the partition in **Segment 3 Caption**.
Segment 1 Color	The color of the first partition in the gauge chart.
Segment 2 Color	The color of the second partition in the gauge chart.
Segment 3 Color	The color of the third partition in the gauge chart.
Segment 1 Caption	The name of the first partition in the gauge chart.
Segment 2 Caption	The name of the second partition in the gauge chart.

Field	Description
Segment 3 Caption	The name of the third partition in the gauge chart.

Charts

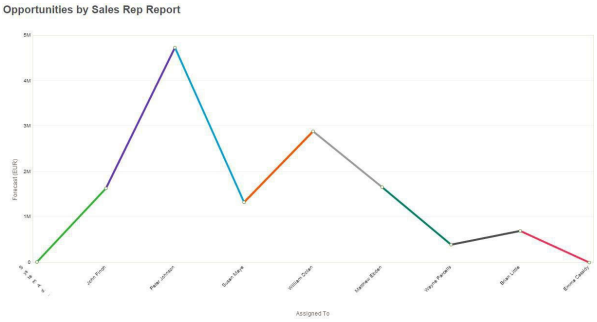
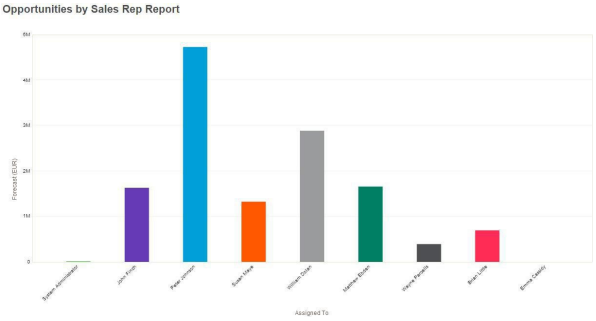
Chart Style	Example
Point Data is displayed as a series of data points.	
FastLine, Line Data is displayed as a series of data points connected by straight line segments. A FastLine chart is a type of line chart with a very large number of data points.	
Bar Data is grouped and represented by vertical rectangular bars whose lengths are proportional to the values they represent.	

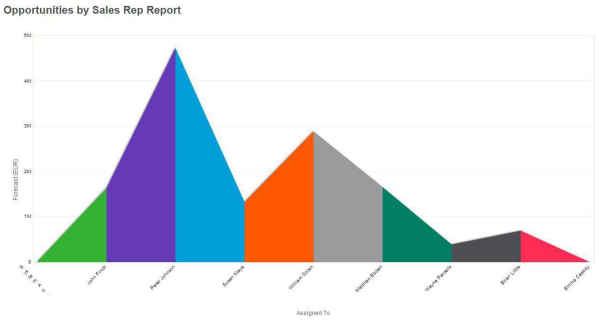
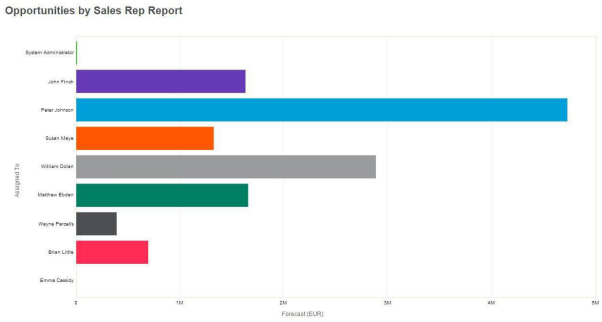
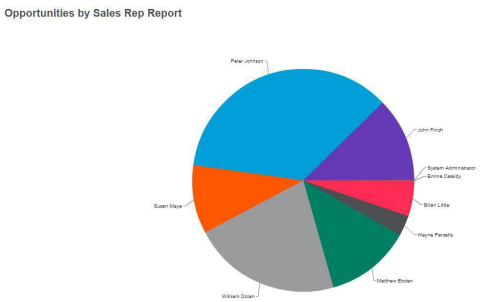
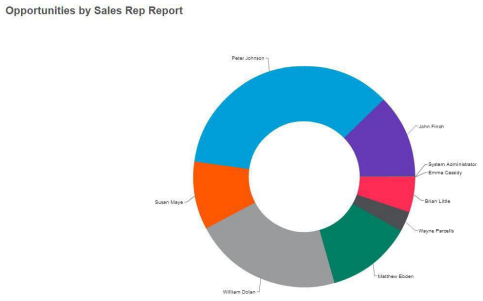
Chart Style	Example
Area Data is displayed as a series of data points connected by straight line segments. The areas between the chart axis and the line segments are emphasized with color.	
HBar Data is grouped and represented by horizontal rectangular bars whose lengths are proportional to the values they represent.	
Pie Data is represented as slices of a circle to show the relationships of parts to a whole. The arc length, central angle, and area of each slice are proportional to the quantity of data that the slice represents.	
Doughnut Data is represented as slices of a circle, with a hole in the center, to show the relationships of parts to a whole. The arc length, central angle, and area of each slice are proportional to the quantity of data that the slice represents.	

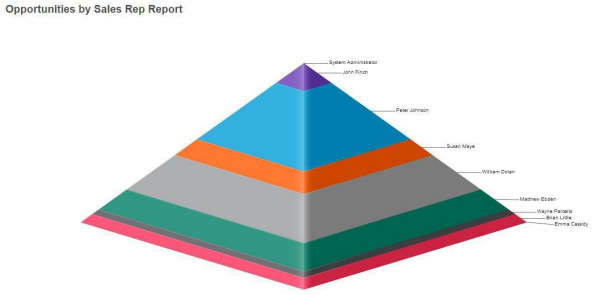
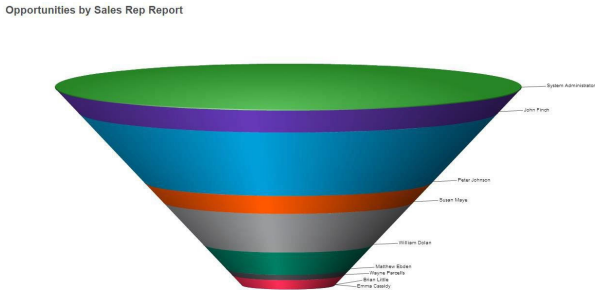
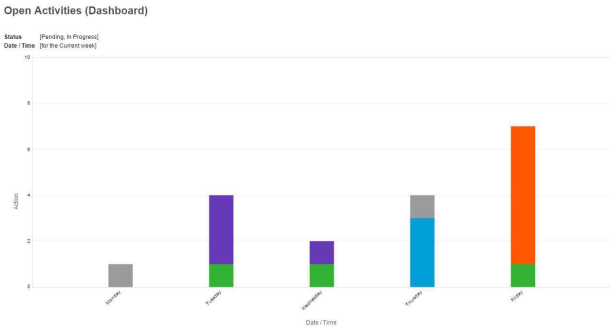
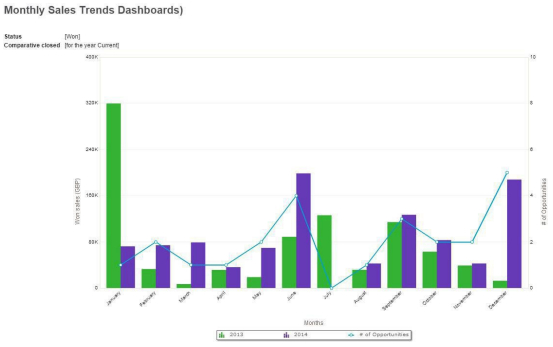
Chart Style	Example
Pyramid Data is grouped and represented as stacked sections of a triangle to show the hierarchy and quantity of data.	
Funnel Data is grouped and represented as stacked sections of a funnel to show the hierarchy and quantity of data.	
Stacked Bars are stacked on top of each other to display grouped data. It provides a wider view of data than a regular bar chart. A stacked chart is useful in an **Open Activities** activity report to show several actions that occurred on a particular day or date.	

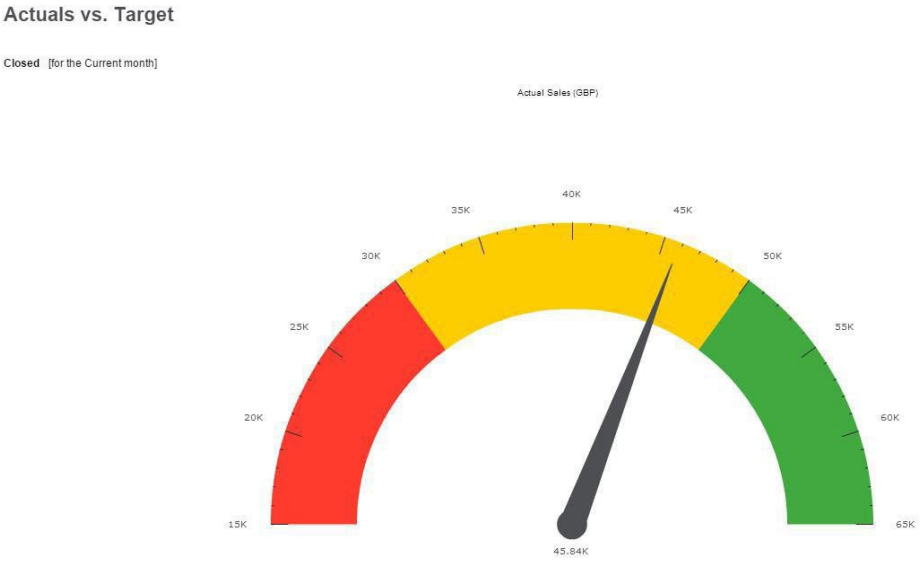
Chart Style	Example
Gauge Partitions on the chart indicate three ranges in relation to a target value; below, approaching, exceeded. The gauge needle indicates the current value. A gauge chart is useful in an **Actual vs Target** sales report to show how your actual sales compare to your forecasted sales for a particular period. You could also use a gauge chart in a customer service report to show how you're performing against your SLA target. For an example of using a gauge chart, see **Adding a gauge chart to a sales report**.	
Combination A bar chart indicates one set of data and a line chart indicates another set of data so you can get a wider view of results in one place. A combination chart is useful in a **Monthly Sales Trends** report to show information such as the revenue earned from sales and the number of sales that were closed in a particular period. You could also use a combination chart in a customer service report to show the number of cases opened compared to the number of cases closed in the system for the current year. For an example of using a combination chart, see **Adding a combination chart to a customer service report**.	

Adding a gauge chart to a sales report

Note: The account you use must have Information Manager rights.

You can use a gauge chart in many types of report. This example creates a gauge chart and adds it to an Actual vs Target Sales report. The first step is to set up a forecast because the chart uses your forecast target to create partitions. If you can't access the **Forecasts** tab, contact your system administrator. The partitions illustrate how your actual sales compare to your forecast target. Depending on how you've configured the chart, the first partition could indicate that you are very below target, the second partition could indicate that you are approaching your target, and the third partition could indicate that you've exceeded your target.

A gauge chart is also useful in a customer service report to show how you're performing against your SLA target.



1. Set up a forecast. For more information, see **Sales Forecasts**.
2. Click **Reports | Sales**.
3. Click the **Edit** icon beside **Actual vs Target**. This report uses the default source view **Sales Vs Forecast**.
4. Click **Continue**. Specify the duration on which you want to report.
5. Click **Continue**.
6. Scroll to the Chart Options panel to configure the partitions in the gauge chart.
    a. Ensure **Chart Style** is set to **Gauge**.
    b. Select the data that's used to set the gauge pointer in **Value**.
    c. Select the data that's used to set the target value in **Category**.
    d. Set the starting value of the first partition in **Segment 1 Lower Limit %**. This is a percentage of the target value. For example, if your target is 100%, you might set the lower limit to 33% so this partition indicates that you are very below target. Set the color of the first partition in **Segment 1 Color** and the name of the partition in **Segment 1 Caption**.

e. Set the starting value of the second partition in **Segment 2 Lower Limit %**. This is a percentage of the target value. For example, if your target is 100%, you might start the second partition at 66% so this partition indicates that you are approaching your target. The end value of the second partition is your target value which is automatically taken from your forecast for the relevant period. Set the color of the second partition in **Segment 2 Color** and the name of the partition in **Segment 2 Caption**.

f. Set the end value of the third partition in **Segment 3 Upper Limit %**. This is a percentage of the target value. For example, if your target is 100%, you might end the third partition at 133%. The starting value of the third partition is your target which is automatically taken from your forecast for the relevant period. So this partition indicates that you've exceeded your target. Set the color of the third partition in **Segment 3 Color** and the name of the partition in **Segment 3 Caption**.

7. Click **Save**. To run the report and view the chart, click the **Run** icon beside **Sales Vs Forecast**.

Adding a combination chart to a customer service report

You can use a combination chart in many types of report. This example creates a combination chart that reports on customer case activity and adds it to a customer service report. A bar chart displays the number of cases that each user opened and a line chart displays the number of cases that each user closed for the current year.

A combination chart is also useful in a **Monthly Sales Trends** report to show information such as the revenue earned from sales and the number of sales that were closed in a particular period.

1. Click **Reports | Customer Service**.
2. Click **New**.
3. Complete the fields to create a new list report. For more information, see **Report Details panel fields**.
   You'll need a source view that compares cases opened this year against cases closed this year. For more information, see **Creating a view for reports**.
4. Ensure **Report Contents** includes
   - **Cases: case_comparitive_year**
   - **Cases: case_comparative**
   - **Cases: case_count_closed**
   - **Cases: case_count_opened**
5. Ensure **Search Criteria** includes **Cases: Created Data**.
6. Ensure **Group By** includes **Cases: Assigned To**.
7. Click **Continue**.

8. Scroll to the Chart Options panel to configure the combination chart. For more information, see **Chart Options panel fields**.
    a. Set **Chart Style** to **Combination**.
    b. Set **Value** to **Cases: case_count_opened** and set **Function** to **Sum**.
    c. Set **Category** to **Cases: Assigned To** and set **Function** to **Value**.
    d. Set **Line** to **Cases: case_count_closed** and set **Function** to **Sum**.
    e. Set **Multi-Bar** to **No** and click **Save**.
9. Click **Save**. To run the report and view the chart, click the **Run** icon beside your new report.

Report views

The following views are available for use in reports.

Entity	Caption Code
Account	vReportAccount
Activity	vUserActivity
Activity	vUserActivitySummary
CallList	vReportCallList
Campaigns	vCampaignCommunications
Campaigns	vCampaignGeneratedOppos
Campaigns	vCampaignLeads
Campaigns	vCampaignOpportunities
Campaigns	vCampaignReturns
Campaigns	vSearchListWaveItems
Campaigns	vWaveCampaign
CaseProgress	vCaseProgress
CaseProgress	vReportCaseProgress
Cases	vReportCases
Cases	vReportSLACasesViolation
Communication	vReportCommunication

Entity	Caption Code
Company	vAtRiskCustomers
Company	vRelaCompanyCase
Company	vRelaCompanyCompany
Company	vrelacompanyperson
Company	vRelaEntitiesAll
Company	vReportCompany
Forecast	vReportForecastHistory
Lead	vCampaignLeadOppos
Lead	vLeadsConvertedToOpportunities
Lead	vReportLead
NewProduct	vNewProducts
Opportunity	vConvertedLeads
Opportunity	vDaysToCloseOpp
Opportunity	vOpportunitiesLost
Opportunity	vOpportunityPendingComms
Opportunity	vOpposClosedYearOnYear
Opportunity	vReportOpportunity
Opportunity	vSalesVsForecast
Opportunity	vTopInProgressOpportunities
OpportunityProgress	vReportOpportunityProgress
Orders	vMailMergeOrders
Orders	vOrderOppo
Person	vReportPerson
Quotes	vescalationquotes
Quotes	vMailMergeQuotes

Entity	Caption Code
Quotes	vQuoteOppos
SolutionLink	vSolutionCaseLinkReport
Solutions	vReportSolutions
Solutions	vSolutions
System	vsummarylocation
System	vsummarysalesperson
System	vsummarytaxcode
UserContacts	vReportUserContacts
Users	vReportAdmin1
WaveItems	vWaveItemLeadToOppos
WaveItems	vWaveItemWaveCampaign
Waves	vWaveItemsCampaign
Waves	vWaveLeadtoOppos
Waves	vWaves

Creating a report based on key attribute data

To create a report and report charts that use key attribute data, you first create a group that includes the data. Then you create a key attribute data view using the group SQL. Finally, you create a report based on the key attribute data view.

1. Create a group that includes the relevant key attribute data. For more information, see *Creating a group from the Groups* tab in the **User Help**.
    - You must add the key attribute data to the **Group Contents** and the **Search Criteria**.
    - To plot a chart against all data, select each option in the selection list when answering the question 'Matches any of the values'.
    - When you've saved the group, click **SQL** on the **Group Details** screen to view the underlying SQL. Copy the SQL to the clipboard.
2. Click **<My Profile> | Administration | Customization | Company**.
3. Click the **Views** tab and click **New**.

4. Create a new view and paste the group SQL into **View Script**. For more information, see **Creating a view for reports**.
    - Remove `DINSTINCT` from the first line.
    - Add `CREATE VIEW <viewname>` to the start of the SQL.
    - Ensure **Reports View** is selected.
5. Click **Reports | <Report Category>** and click **New** to build a report and create graphs using the new key attribute data view. For more information, see **Creating a report**.

Cloning a report

1. Click **Reports | <Report Category>**.
2. Click the **Edit** icon beside the report you want to clone.
3. Click **Clone**.
4. Enter a unique report name.
5. Click **Save**.
6. Make any required changes to the new report and click **Continue** to progress through the screens. For more information, see **Creating a report**.
7. Click **Save**.

Managing reports

- **Creating a report category**
- **Moving a report to a different category**
- **Translating a report name**
- **Adding a new report style**
- **Deleting a report**
- **Editing the Reports menu**
- **Configuring report settings**

Creating a report category

1. Click **Reports | All Report Categories**.
2. Click **New Report Category**.

3. Enter a name and description for the category.
4. Click **Save**.

Moving a report to a different category

1. Click **Reports | <Report Category>**. This is the category that currently contains the report you want to move.
2. Click the **Edit** icon beside the report name.
3. Select the new report category from **Category**.
4. Click **Continue**.
5. Click **Save**.

Translating a report name

You can translate a report name and description into other languages.

1. Click **<My Profile> | Administration | Customization | Translations**.
2. Enter *reportcat* in **Caption Family** and click **Find**.
3. Click the relevant **<Caption Code>** and click **Change**.
4. Make your changes in the translation fields and click **Save**.

Adding a new report style

You can copy and edit an existing report style.

1. Go to the **WWWRoot/Themes/Reports/Ergonomic** folder in your Sage CRM installation.
2. Copy and rename the *.XSL (Extensible Style-sheet Language) files, which define the existing styles for the desktop and mobile browsers. Also copy the CSS files which are referenced by the PC *.XSL files. For example, STDGRIDSPC.XSL and STDGRIDS.CSS. The *.XSL file controls the structure of the report and the *.CSS file controls the look and feel of the report.
3. Edit the files so the LINK tag in the new XSL file points to the new CSS file.
4. To create a translation for the new styles so that they appear in the **Report Style** field, click **<My Profile> | Administration | Customization | Translations**.
5. Click **New**.
6. Enter the caption code, which must be the same as the file names (without the PC).
7. Enter *ReportStyles* in **Caption Family**.
8. Enter *Choices* in **Caption Family Type**.

9. Add the translations for the languages used in your organization.
10. Click **Save**. The new style appears in the **Report Style** field. For more information, see **Report Details panel fields**.

Deleting a report

1. Click **Reports | <Report Category>**.
2. Click the **Edit** icon beside the report name.
3. Click **Delete**.
4. Click **Confirm Delete**.

Editing the Reports menu

The list of report categories in the **Reports** menu is a list of tabs. This means you can delete a report category, change the order of existing report categories, and change a report category icon. For more information, see **Tabs**.

Configuring report settings

1. Click **<My Profile> | Administration | Email and Documents | Documents and Reports Configuration**.
2. Click **Change**.
3. Update the report settings. For more information, see **Document and report settings**.
4. Click **Save**.

Tip: If you get "The size of the report is too big, use the filter criteria to reduce the size of the report" error, use the steps above to increase the value in the **Desktop size limitation (Kb)** option, and then run the report again.

Standard classic dashboards

- **Creating a standard classic dashboard**
- **Customizing the classic company dashboard**

Creating a standard classic dashboard

The classic dashboard is a legacy feature that's available for upgrade customers only.

You can set up a standard classic dashboard, which a user can access from **My CRM | Dashboard**.

1. Click **<My Profile> | Administration | Users | Standard Classic Dashboards**. A list of existing classic dashboards is displayed.
2. Click **Standard Classic Dashboard** to create a new standard classic dashboard. The Dashboard Details page is displayed.
3. Enter the name of the new dashboard, and fill in the fields:
    - **Display Contents From** - select from a list of existing standard classic dashboards to base the new dashboard on.
    - **Restrict To Team** - select from a list of teams, if you want this classic dashboard to only be available to, for example, the Direct Sales team.
    - **Set As Team Default** - select if you want this classic dashboard to be the default for the team.
4. Use the **Filter By** drop-down list to navigate to different categories of classic dashboard content.
5. Click **Add** beside the content you want to add.
    - The content is added into the Narrow or Wide column lists.
    - Use the up and **down arrows** to change the order of the classic dashboard content.
    - To remove classic dashboard content, highlight the content in the column listing, then click the minus button. Alternatively, you can navigate to the filtered list on the left-hand side of the page, where the content is stored, and click the Remove arrow.
    - Click **Clear** to clear all the dashboard content.
6. When you have finished adding the standard classic dashboard content, click **Save**. The standard classic dashboards list is displayed, showing the new dashboard you have created.

When a user logs on and selects the Dashboard tab for the first time, and selects the Classic Dashboard option, the standard classic dashboard is displayed.

The user can then decide to set this as their default classic dashboard to display every time they click the Dashboard tab, or they can set up another dashboard, and set this as their default dashboard. If multiple dashboards already exist, but no default has been set, then the system displays the first dashboard in the drop-down list to the user.

Customizing the classic company dashboard

The classic dashboard is a legacy feature that's available for upgrade customers only.

The Company Dashboard tab can be used to display a management overview of the customer account status .

When you defines a standard Classic Company Dashboard, it is displayed when the user first clicks the **Dashboard** tab in the context of a company. The user can then customize the Company Dashboard to suit their needs.

1. Click **<My Profile> | Administration | Users | Standard Classic Dashboards**. A list of existing dashboards is displayed.
2. Click **Company Dashboard** to add a new company dashboard.
3. Click **Continue**.
4. Use the **Filter By** drop-down list to navigate to different categories of dashboard content.
5. Click **Add** beside the content you want to add.
6. When you've finished adding the company dashboard content, click **Save**. The standard dashboards list is displayed.

Database

You can connect Sage CRM to a database located on your Sage CRM server or an external database server. After that, you can connect Sage CRM to a existing table in that database or create a new table and connect to it.

When you connect Sage CRM to a database table, the target database must have a field that uniquely identifies the table. A matching field with the same value must be present in the related table in Sage CRM.

For more information on how to perform database-related customizations, see the *Developer Help*.

> **Note:** To create connections to databases and database tables, you must have the Extensibility Module installed in Sage CRM.

- **Creating a new database connection**
- **Creating a new table connection**
- **Creating a new database table**

Creating a new database connection

1. Log on to Sage CRM as a system administrator.
2. Go to **<My Profile> | Administration | Advanced Customization | Tables And Databases**.
3. Click **New Database Connection**.
4. Complete the following options and click **Save**:
    - **Database Driver**. Select the type of the database to which you want to connect.
    - **Server Name (SQL Server Only)**. Enter the name of the computer that hosts the Microsoft SQL Server database to which you want to connect. This field is not required for other database types.

- **Database Name**. Enter the name of the database to which you want to connect.
- **Port Number**. Enter the port number on which you want to access the database.
- **Database Description**. Enter a friendly description with which you want to identify the database in the Sage CRM user interface.
- **User Name**. Enter the user name of the account under which you want to access the database.
- **Database Password**. Enter the password that matches the user name.

When Sage CRM connects to the database, it appears in **<My Profile> | Administration | Advanced Customization | Tables And Databases**.

Creating a new table connection

Note that you cannot create a connection to two or more external tables if all those tables contain a field with identical name.

1. Log on to Sage CRM as a system administrator.
2. Go to **<My Profile> | Administration | Advanced Customization | Tables And Databases**.
3. Click **New Table Connection**.
4. Complete the following options and click **Save**:
    - **Table Name**. Enter the name of the table to which you want to connect.
    - **Table Caption**. Enter a friendly table description you want to appear in the Sage CRM lists.
    - **Database**. Select the database that contains the table to which you want to connect.
    - **ID Field Name**. Enter the name of the table field (column) with which you want to uniquely identify the table.

To access the table, go to **<My Profile> | Administration | Customization | Secondary Entity**.Note that you cannot add views to an external table.

The table columns are displayed as fields in **<My Profile> | Administration | Customization | <external table> | Fields**. To add the fields to screen areas, such as lists and screens, go to **<My Profile> | Administration | Customization | <external table>**.

Creating a new database table

1. Go to **<My Profile> | Administration | Advanced Customization | Tables And Databases**.
2. Click **Create Table**.
3. Complete the following options and click **Save**:
    - **Table Name**. Enter a name for the new table. Make sure the name does not contain spaces.
    - **Table Caption**. Click in this text box to enter a table caption. By default, the table caption is identical to the value you entered in **Table Name**. You can edit the default table caption if necessary.
    - **ID Field Name**. Enter the name of the table field (column) with which you want to uniquely identify the table. Use the following format: *<ColumnPrefix>_<TableName>ID*. This field is required to use the table like a normal Sage CRM table with screens, lists, and so on.
    - **Column Prefix**. Enter a prefix for the columns in the table. A column prefix is usually three to four characters long. Do not include an underscore.
      Column prefix example: `newt`.
    - **Description Field**. Enter a description to use this table as a lookup. When you configure a selection entry type, the table is listed in **Existing Lookups**.
      Enter a description for tables with small amounts of rarely changing data only because the records are loaded into memory. The user must ensure that metadata is refreshed whenever changes are made to the table so that changes are reflected in the drop-down list.
      If the table contains a large (approximately 1,000+) number of records, Sage CRM may time out when loading.
    - **Company Id Field**. Enter name of the table field that holds identity values to link the new table to the Company entity. Use the following format: *<ColumnPrefix>_<FieldName>*.
    - **Person Id Field**. Enter the name of the table field that holds identity values to link the new table to the Person entity. Use the following format: *<ColumnPrefix>_<FieldName>*.
    - **User Id Field**. Enter the name of the table field that holds identity values to link the new table to the User entity. Use the following format: *<ColumnPrefix>_<FieldName>*.
    - **Workflow Id Field**. Enter the name of the table field that's used to identify workflows. Use the following format: *<ColumnPrefix>_<FieldName>*.

- **Top Level Entity**. To make the table a Primary entity, select **Yes**. Otherwise, select **No**.
- **Allow Web Service Access**. To allow Web Service access to the table, select **Yes**. Otherwise, select **No**.
- **Read-only SData**. To allow SData Provider to access the table, select **Yes**. Otherwise, select **No**.

The following columns are automatically included in the new table. If you entered a value in **Company Id Field**, **Person Id Field**, or **User Id Field**, the corresponding ID field is created in the table.

Column	Description
Newt_NewTableId	Stores the unique ID for records.
Newt_CreatedBy	Stores the user who creates a new record.
Newt_CreatedDate	Stores the date when new records are created.
Newt_UpdatedBy	Stores the user who updates a record.
Newt_UpdatedDate	Stores the date when a record is created.
Newt_Timestamp	Stores the time when a record is created.
Newt_Deleted	Stores the date when a record is deleted.

Email and documents

- **Importing contacts and email messages from Exchange Online**
- **Email**
- **Exchange Integration**
- **Mailchimp Integration**
- **Document templates**
- **Library**
- **Allowing file name extensions for upload**
- **Getting OAuth 2.0 client ID and secret for Entra ID**
- **Getting OAuth 2.0 client ID and secret for Gmail**

Importing contacts and email messages from Exchange Online

System administrators can configure Sage CRM to allow users to connect to their organizational Exchange Online account and import data into Sage CRM.

With this feature, Sage CRM users can:

- Import email messages from the connected organizational Exchange Online account and file them against Company, Person, Opportunity, Case, or any custom entity that has communications.

  > **Note:** To enable the import of email messages for custom entities created with a pre-2023 R1 version of Sage CRM, you need to complete additional steps in **Enabling pre-2023 R1 custom entity for email import**.

- Import contacts from the connected organizational Exchange Online account and store them in Sage CRM as Person or Lead records. If the company associated with the contact exists in

Sage CRM, the contact is imported as a Person record. Otherwise, the contact is imported as a Lead record.

This feature replaces the Classic and Lite Outlook Integration. Enabling this feature automatically disables the Classic or Lite Outlook Integration if it is enabled in Sage CRM.

See also:

- **Steps to enable import of contacts and email messages**
- **Enabling pre-2023 R1 custom entity for email import**
- **Changing number of folders shown for Exchange Online account**
- **OAuth 2.0 settings for importing contacts and email messages**

Steps to enable import of contacts and email messages

1. Create and configure an application in Microsoft Entra ID to obtain an OAuth 2.0 client ID and secret value. See **Getting OAuth 2.0 client ID and secret for Entra ID**.
2. Go to **| Administration | Email and Documents | OAuth 2.0 Settings for Importing Contacts and Emails**, select **Change**, and enter the client ID and secret value you obtained in step 1. See **OAuth 2.0 settings for importing contacts and email messages**.

   This enables the import of contacts and emails and allows the users to authenticate against Entra ID and connect to their organizational Exchange Online accounts.
3. Enable email import for a custom entity by activating read-only SData external access:
   a. Go to **| Administration | Customization | <custom entity name>**.
   b. Open the **External Access** tab, select **Change** and set **Read-only SData** to **Yes**.
   c. Select **Save**.
4. Enable write access to the comm_caseid field of Communication. This is required so that users and info managers could view the Case into which an email is imported.
   a. Go to **| Administration | Customization | Communication**.
   b. In the **Field Name** column, locate **comm_caseid**.
   c. In the row where **comm_caseid** is located, select the edit button ( ) in the **Field Security** column.
   d. In the **Write Access** column, select **Allow**, and select **Continue**.
5. Set the maximum file size for each attachment that can be imported together with emails. Attachments exceeding this maximum file size are not imported.

a. Go to | **Administration | Email and Documents | Documents & Reports Configuration**.

b. Set the maximum file size in the **File size limitation (MB)** option. For details, see **Document and report settings**.

6. Complete these optional tasks if necessary:

   - **Enabling pre-2023 R1 custom entity for email import**.
   - **Changing number of folders shown for Exchange Online account**

7. Instruct the Sage CRM users to connect to their organizational Exchange Online account as follows. Note that users cannot connect to personal Microsoft accounts.

   a. Go to | **Preferences**.

   b. Do one of the following:

      - If you are connecting to your email account for the first time, select **Connect to Email Account**. This button is available only if your system administrator has enabled the import of contacts and email messages.
      - If you are already connected to an email account and would like to switch to a different account, select **Switch Email Account**.

   c. When prompted, enter the user name and password for the organizational Exchange Online account from which to import data.

When their organizational Exchange Online account is connected, the users can import data into Sage CRM:

- To import and file email messages, open a record and select **Import Emails**.
- To import contacts, go to the **Contacts** tab, and select **Import Contacts**.

Enabling pre-2023 R1 custom entity for email import

You need to complete the following steps to display the **Import Emails** button for each custom entity created with a pre-2023 R1 version of Sage CRM.

For custom entities created with Sage CRM 2023 R1 and later, the **Import Emails** button displays automatically.

1. On a Sage CRM server, go to **<Sage CRM installation folder>\WWWRoot\CustomPages\<EntityName>**.

   Where <EntityName> is the name of the custom entity for which you want to enable email import.

   The default Sage CRM installation folder is **%ProgramFiles(x86)%\Sage\CRM\CRM**

2. Open the **<EntityName>Summary.asp** file in a code editor.

3. Locate the following line of code:

```
CRM.AddContent(Container.Execute(record));
```

4. Immediately above this line, insert the following code:

```
recObj = CRM.FindRecord("Custom_Tables", "Bord_Name='" + Entry.Title + "'");

if ((true) && (recObj('Bord_HasCommunication') != undefined)) {
    recObjOAuth = CRM.FindRecord("UserSettings", "USet_Key = 'EMC_AuthAccessToken' and USet_
UserId = '"+CRM.GetContextInfo('User', 'User_UserId')+"'");

if ((true) && (recObjOAuth.RecordCount > 0)) {
        Container.AddButton(CRM.Button("ImportEmails", "", CRM.URL(1362) +
"&ImportMode=0&EntName=" + Entry.Title + "&EntIdField=" + recObj('Bord_IdField')));
    }

}
```

5. Save your changes.

Changing number of folders shown for Exchange Online account

When a user imports email messages from their Exchange Online account, the **Email folder** field in the Sage CRM UI shows 250 folders maximum by default.

You can increase this limit as follows:

1. Connect SQL Server Management Studio to the Sage CRM database and run the following query:

```
update custom_sysparams set parm_value = '{number of folders}' where parm_name =
N'ImportedEmailFoldersRetrievalSize'
```

   Replace `{number of folders}` with the actual maximum number of folders you want the **Email folder** field to display.

2. In Sage CRM, go to **| Administration | System | Metadata**.

3. Select **Refresh system parameters**, and then select **Execute Refresh**.

You can use these steps to decrease the maximum number of folders displayed in the UI. Note that the minimum value you can set is 250.

OAuth 2.0 settings for importing contacts and email messages

Sage CRM uses the client ID and secret value entered on this screen for importing contacts and email messages only.

Field	Description
OAuth 2.0 client ID	The public identifier of the application through which you want to enable access to Exchange Online mailboxes.
Client secret value	The client secret value corresponding to the OAuth 2.0 client ID.

Email

- **Introduction to email**
- **Standard Sage CRM email**
- **Email Management**

Introduction to email

- **Standard Sage CRM email functionality** lets users send and record emails using the embedded email editor. Sage CRM creates communication records for outbound emails.
- **Email Management functionality** is an optional extra to Standard Sage CRM email. It is a Windows service that runs as a background process on the Sage CRM server and processes inbound and outbound emails according to predefined business rules. It's installed automatically with a Sage CRM installation but must be set up and customized.

Standard Sage CRM email functionality

Standard Sage CRM email lets users do the following.

- Send emails directly from Sage CRM to companies and people stored in the Sage CRM database, and to other Sage CRM users using the embedded email editor.
- Send emails from the **Communications** tab in the context of a Person, Company, Lead, Opportunity, Case, or Solution. Send emails from the Solutions Summary page that automatically include the solution details in the email body.

  Use **Send Email** to send an email using the embedded email editor. The specified mail server handles the transfer of the message.
- Automatically create an Email Out communication record, which is linked to the customer record. When the user clicks **Send Email**, a communication record is created that includes the email content and attachments.
  - Use the embedded email editor in different modes. Specify how the editor is displayed to users by changing their preferences. For more information, see Preferences in the *User Guide*.
  - Use the embedded email editor to create and customize email templates. Templates can include merge fields, such as #pers_firstname#.
  - Set up From and Reply To email addresses, for example sales@*domain*.com. In addition, you can specify which Sage CRM users have rights to use each of the email addresses.

- Send mass emails in HTML format to group recipients.
- Automatically create and update consent records by sending consent emails to persons or leads.

Email Management functionality

Email Management is included in standard Sage CRM functionality but must be set up and configured.

Email Management lets users do the following.

- Forward or BCC an email to the Mail Manager Server filing address and to other email addresses, such as support@*domain*.com. Any email arriving at one of the email addresses defined in Email Management is subjected in Sage CRM to the rules in the associated template and rulesets. These rules specify where the email record is stored in Sage CRM.
- Forward inbound emails to any mail system. This automatically files the email with the correct customer record in Sage CRM.
- Save attachments to filed emails in the Library tab of the corresponding Sage record.
- Specify multiple email addresses to file different types of inbound and outbound emails. For example, info@*domain*.com.
- Customize business rules in Sage CRM, by associating customized rulesets with each email address.
- Associate each email address with a script template. For more information, see **Working with script templates**.You can script templates using Email Objects. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

For information about the basic use of Email Management, see *Filing Inbound and Outbound Emails* in the *User Help*.

Standard Sage CRM email

- **Configuring standard email**
- **Enabling and configuring consent emails**
- **Email/SMS settings**
- **Establishing a secure email connection using TLS**
- **Setting email aliases**
- **Setting up email templates**

- **Translating reply and forward header text**
- **Enabling OAuth 2.0 in email configuration**

Configuring standard email

The options you select on the Email Configuration screen do not affect incoming emails because messages are not delivered directly to the Sage CRM system. Instead, they are delivered to your chosen mail server and read using the mail client. For example, emails are delivered to Microsoft Exchange (server) and read using Microsoft Outlook (client).

If you're running the Email Management Server you can forward emails to the Mail Manager Server Filing Address for filing. For more information, see **Email Management**.

1. Click **<My Profile> | Administration | Email And Documents | Email Configuration**.
2. Click **Change** and specify the **Email/SMS settings**.
3. To enable the embedded email editor, ensure **Use CRM's embedded email editor** is set to **Yes**.
4. To use the Internal SMTP mail client to deliver emails, select **SMTP** from **Send mail using**. Enter the IP address of your SMTP mail server in **Outgoing mail server (SMTP)** and the SMTP port (25) in **SMTP port**. Ensure port 25 is open and allows the transfer of messages.

   > **Note:** It is necessary to enable SMTP Client Authentication for each user
   > See **Enable SMTP AUTH for specific mailboxes**

5. To use CDOSYS to deliver emails, select **CDOSYS** from **Send mail using**. Enter the IP address of your SMTP mail server in **Outgoing mail server (SMTP)** and the SMTP port (25) in **SMTP port**. Ensure that the Simple Mail Transfer Protocol (SMTP) service is running in Windows services.
   - Click **Start | All Programs | Administrative Tools | IIS Manager**.
   - Click **Deliver Email to SMTP Server** and enter the configuration details of your SMTP mail server. This means that the email is delivered immediately to an online SMTP server.
   - Alternatively, select **Store email in pickup directory** to store the email on disk where it can be retrieved for later delivery.
6. To allow users send emails in HTML format, set **Send email as HTML** to **Yes**.
7. To specify that standard Sage CRM outbound filing is used to file emails, set **Outbound emails should be filed by** to **CRM**. A copy of the email is stored in the communication record saved against the company or person to whom the email was sent.
8. Click **Save**.

Enabling and configuring consent emails

- **Enabling consent emails**
- **Modifying the consent email templates**
- **Configuring a URL to open from a consent email**

Enabling consent emails

To enable consent emails, a system administrator must do the following:

- Configure standard email in Sage CRM. For details, see **Configuring standard email**.
- Ensure that Sage CRM is accessible from outside of your corporate network.

Modifying the consent email templates

Sage CRM provides two built-in templates for creating consent emails:

- **Lead Consent Email**. Creates consent emails for leads.
- **Person Consent Email**. Creates consent emails for persons.

To modify these templates:

1. Go to **<My Profile> | Administration | Email And Documents | Email Templates**.
2. Click the template you want to modify.
3. Modify the template as necessary.

   By default, the template body contains two hyperlinks pointing at the following URLs:

URL (http:// or https://)	Description
%CRMSubmitConsentLink%	When a recipient clicks this hyperlink, the consent record status is changed to **Consented**. If Sage CRM is accessible externally via a Fully Qualified Domain Name (FQDN), you must change this URL to the following alternate format: <server public address>/<instance name>/eware.dll/SubmitConsent?consentId=%CRMConsentId% In this format, replace the <server public address> and <instance name> placeholders with the actual Sage CRM server address and Sage CRM instance name. Example: http://myserver.mydomain.com/crm/eware.dll/SubmitConsent?consentId=%CRMConsentId%
%CRMSubmitConsentLink%&status=1	When a recipient clicks this hyperlink, the consent record status is changed to **Withdrawn**. If Sage CRM is accessible externally via a Fully Qualified Domain Name (FQDN), you must change this URL to the following alternate format: <server public address>/<instance name>/eware.dll/SubmitConsent?consentId=%CRMConsentId%&status=1 In this format, replace the <server public address> and <instance name> placeholders with the actual Sage CRM server address and Sage CRM instance name. Example: http://myserver.mydomain.com/crm/eware.dll/SubmitConsent?consentId=%CRMConsentId%&status=1

Warning: Do not delete these hyperlinks, because they are used to update the status of the corresponding consent record in Sage CRM.

4. Click **Save**.

Configuring a URL to open from a consent email

When a recipient clicks a link in a consent email, the default confirmation page opens. You can change this behavior and redirect the recipient to any URL you want. For example, it can be a custom confirmation page, a thank you page, or any website.

1. Go to **<My Profile> | Administration | Email and Documents | Email Configuration**.
2. Click **Change**.
3. In **Consent Response URL**, enter the URL you want to open from consent emails. Use the format *http://<your URL>* or *https://<your URL>*.

   You can set only one URL for all links in a consent email. If this option is blank, the default confirmation page opens.
4. Click **Save**.

Email/SMS settings

Field	Description
Use CRM's embedded email editor	Enables the embedded email editor. Displays **Send Email** on all Communications tabs and activates the embedded email editor when the user clicks an email hyperlink in Sage CRM. The default value is Yes.
Use OAuth 2.0 for	Select the mail service for which you want to enable OAuth 2.0 authentication. For instructions on how to set up OAuth 2.0, see **Enabling OAuth 2.0 in email configuration**.
OAuth 2.0 client ID	The public identifier of the app for which you want to use OAuth 2.0. Sage CRM uses this identifier to access the specified outgoing mail server only.
Client secret value	The client secret value corresponding to the OAuth 2.0 client ID. Sage CRM uses this secret value to access the specified outgoing mail server only.

Field	Description
Send mail using	Enables you to select a method for sending emails. - **Internal SMTP**: Sage CRM acts as the SMTP client to the Outgoing mail server. You must specify the Outgoing mail server IP address and SMTP port. A limitation of this option is that the email is always recorded as a sent communication even in cases when the email has not been dispatched by the mail client. To overcome this, users can cc themselves when emailing companies and contacts so they can cross-reference communications with emails that have arrived in their mailbox. - **CDONTS/CDOSYS**: You must specify the Outgoing mail server IP address and SMTP port, and set the CDOSYS options in IIS. You can access copies of sent emails listed in C:\Inetpub\mailroot\badmail to check for problems with email delivery. **Note:** In Windows terminology CDONTS is now called CDOSYS. The functionality is the same from the user's perspective.
Send email as HTML	Set to **Yes** to send HTML emails.
Outbound emails should be filed by	**CRM**: The standard Sage CRM outbound filing stores a copy of the email in the communication record saved against the company or person the email was sent to. **Email Management Server**: The Mail Management Server Filing address is BCCed on all outbound emails. The outbound email is filed according to the business rules applied to the BCC email address in the associated script file or the rulesets defined in Sage CRM.

Field	Description
Mail Manager Server filing address	The email address of the mailbox that Email Management runs on. For example, CRMmailmanager@*domain*.com.
Mail Manager Server filing address prefix	The prefix that's added between the mailto recipient and the Mail Manager Server Filing Address for mailto tags. The default value (&bcc=) puts the Mail Manager Server Filing Address in the BCC line of the email.
Outgoing mail server (SMTP)	The name or IP address of the mail server if you're using Internal SMTP.
SMTP port	Change the default value only if your Email Server Port differs from 25.
Use TLS for SMTP	Select this checkbox to establish a connection to the mail server using Transport Layer Security (TLS). For supported TLS versions, see the *Hardware and Software Requirements*.
SMTP user name	The user name used to connect to the target SMTP server. If the target SMTP server uses basic authentication, populate both **SMTP user name** and **SMTP password**. If the target SMTP server uses OAuth authentication, populate **SMTP user name** only and keep **SMTP password** blank.
SMTP password	The password used to connect to the target SMTP server that uses basic authentication.
SMS domain name	The SMS gateway that receives messages from the incoming mail folder of an email server. The address format it recognizes to send as the SMS message is <phone number>@<SMS domain>. For example 086122346@sms.*domain*.com.

Field	Description
SMTP server for SMS messaging	The name of the mail server or IP address of the machine on which it is installed. It's used to receive the emails to be sent as SMS messages.
Use TLS for SMS	Select this checkbox to send SMS messages using TLS. For supported TLS versions, see the *Hardware and Software Requirements*.
Use SMS features	Enables SMS features. You must restart Sage CRM to enable SMS.
SMS from address	Any valid email address. It's used by the Send SMS workflow action. If this field is blank, the workflow rule tries to use the logged on user's email address. If the logged on user's address is not available, **SMS from address** is not populated.
Consent response URL	Specify a custom URL to open when a recipient clicks a link in a consent email. For example, you can use this option to redirect recipients to a custom confirmation or thank you page. You can set only one URL for all links in a consent email. If this option is blank, the default confirmation page opens.

Establishing a secure email connection using TLS

Transport Layer Security (TLS) establishes a secure connection from Sage CRM to a mail server. It lets you use Sage CRM with public mail services that require a secure connection such as Exchange Online, hosted Exchange, and Gmail.

There are some points to consider when using TLS with Sage CRM:

- You need the connection details for your mail server. Default SMTP over TLS details for Exchange Online and Gmail are as follows:
  - Exchange Online: smtp.office365.com:587
  - Gmail: smtp.gmail.com:465
- If you're using Gmail, you might need to generate a per-application password to use SMTP. See **https://security.google.com/settings/security/apppasswords**.

- If you're using Exchange Online, consider the daily send limits.
- Ensure your antivirus software and firewall allow outbound SMTP from the CRM web server.

Note: For supported TLS versions, see the *Hardware and Software Requirements*.

To use TLS with standard Sage CRM email:

1. Click **<My Profile> | Administration | Email and Documents | Email Configuration**.
2. Click **Change**. The **Email/SMS settings** screen opens.
3. Enter your SMTP username and password.
4. Select **Use TLS for SMTP** to enable TLS support for the mail server.
5. Enter your SMS domain name and SMTP server for SMS messaging.
6. Select **Use TLS for SMS**.
7. Click **Save**.

To use TLS with Email Management:

1. Configure TLS for standard email. See the steps above.
2. Click **<My Profile> | Administration | Email And Documents | Email Management Server Options**.
3. Click **New**. You must set up options on the outbound email mailbox first. For more information, see **Configuring Email Management**.
4. Select **Use TLS for POP** and **Use TLS for SMTP**.
5. Click **Save**.

Setting email aliases

You can specify a list of Sage CRM accounts that can be used for sending emails. These accounts can be restricted to particular teams or individual users. For example, the support@*domain*.com email address can be made available only to users in the Customer Service Team and a number of specified users.

1. Click **<My Profile> | Administration | Email And Documents | Email Aliases**.
2. Click **New**.
3. Enter the address to send emails from in **Email Address**.
4. Enter the name that the recipient sees in **Display Name**.
5. To allow emails be sent from the specified email address, select **Enabled as a From address**.

- Select the teams that can send emails from this address from **Restrict to Teams**. For example, select **Customer Service** and **Operations** to allow only users in the Operations and Customer Service teams to send emails from the address.
- Select individual people who can send emails from this address from **Restrict to Users**.

6. To allow replies be sent to this email address, select **Enabled as a Reply to address**.
   - Select the teams to which reply emails are sent from **Restrict to Teams**. For example, a reply to an email sent from support@*domain*.com is sent to the Customer Service Team.
   - Select individual people to whom reply emails are sent from **Restrict to Users**.
7. Click **Save**.

Users can send emails from the address set up on the From and Reply To Email Addresses screen. For more information about sending emails, see the *User Guide*.

Setting up email templates

You can use the embedded email editor to set up email templates to save time and effort. You may need to enable the embedded email editor, as described in **Configuring standard email**.

1. Click **<My Profile> | Administration | Email and Documents | Email Templates**.
2. Click **New**.
3. Enter a name in **Template Name**.
4. Restrict the use of the template to a specific context by selecting an entity from **For entity**. The selected entity defines the merge fields you can add to the template.

   For example, when selecting **Person**, you can only add the merge fields that are available in the views used in the context of Person, such as `#pers_firstname#`, `#comp_name#`, and `#user_firstname#`.

   Entities and related views:

Entity	View
Cases	vSummaryCase, vsearchlistuser
Communication	vCommunication, vsearchlistuser

Entity	View
Company	vSummaryCompany, vsearchlistuser
Lead	vSummaryLead, vsearchlistuser
Opportunity	vSummaryOpportunity, vsearchlistuser
Order	vSummaryOrder, vsearchlistuser
Person	vSummaryPerson, vsearchlistuser
Quote	vSummaryQuote, vsearchlistuser
Solutions	vsolutions, vsearchlistuser

5. Select a **From** address. Your email address is the default value. Other options depend on what your System Administrator has configured and your permissions. If this field is set to **None**, the email comes from the user who's currently logged on.
6. Type and format the email content.
   - To specify merge fields, ensure you select the entity to which the merge fields relate from **For Entity**.
   - You can include HTML content in the email body. For more information, see Groups in the User Guide.
   - To attach a global document, use the **Search Select Advanced** icons to locate the file, select the file and then click **Upload attachment**.
   - To attach a local file, click **Browse**, navigate to the file, and click **Upload attachment**.
   - To add an inline image, browse to the file and click **Upload Inline Image**. To do this, you must select **Yes** in **<My Profile> | Administration | Email and Documents | Email Configuration | Send Email As HTML**.
   - To remove an attachment, click **Delete**.
   - To format the content of the email, use the text editor buttons. For more information, see *Using text editor buttons* in the **User Help**.

- If you insert or edit a table in your email template, you can resize the width of the table columns. Hover over the border of the column you want to resize. When the pointer becomes a double-headed arrow ( ), click and drag the border to resize the column width.

7. Click **Save**. The new template is added to the list of available templates and is available for reuse. All the values and content you entered in the template, including attachments, are part of the template.

Translating reply and forward header text

When a user replies to an email or forwards an email in Sage CRM, the original email body and header are automatically included in the new email.

There are four translatable templates for this information, with the following caption codes:

- replytemplate
- replytemplatehtml
- forwardtemplate
- forwardtemplatehtml

To modify these templates, click **<My Profile> | Administration | Customization | Translations**.

Configuring SMTP and POP3 for Exchange Online (Office 365)

You can use Exchange Online as an SMTP and POP3 server with Sage CRM. Exchange Online requires the use of TLS with SMTP / POP3. This is supported natively by Sage CRM.

1. Log into Outlook Web Access (OWA) at **login.microsoftonline.com**.
   a. Open mail POP and IMAP settings.

      At the time of writing, these settings were available at the following URL:

      https://outlook.office.com/owa/?path=/options/popandimap

   b. Note the server name and ports. Typically, you need SMTP settings for sending emails and POP settings for Email Manager. The default settings are as follows:

Protocol	Server name	Port
SMTP	smtp.office365.com	587
POP3	outlook.office365.com	995

2. In Sage CRM, go to **<My Profile> | Administration | Email and Documents | Email Configuration**.
    a. Enter the server name and port.
    b. To send emails to Exchange Online, select **Use TLS for SMTP**.

       For supported TLS versions, see the *Hardware and Software Requirements*.
3. Click **<My Profile> | Administration | Email and Documents | Email Management Server Options** and select **Use TLS for POP**.
4. Sage CRM automatically negotiates the correct version of TLS with Exchange Online.
5. Grant your Sage CRM SMTP user the SendAs right. For more information, see **Granting the SendAs right**.

Enabling OAuth 2.0 in email configuration

You can set up email configuration to use OAuth 2.0 for connecting to an Outlook or Gmail mailbox.

We presume that you have already set up your email configuration to use Outlook or Gmail. If not, complete the steps in **Configuring standard email**.

> **Note:** If you have Microsoft Office 365 credentials cached on the Sage CRM server, you may encounter errors while completing the below steps. To avoid errors, we recommend that you either complete the steps in an incognito tab of your web browser or clear your web browser's cache.

To enable OAuth 2.0 for Gmail or Outlook:

1. Open a web browser on your Sage CRM server and enter the Sage CRM access URL.

   For example: *https://myserver/crm*
2. Log on to Sage CRM as a system administrator and go to **| Administration | Email and Documents | Email Configuration**.
3. Click **Change**.
4. In **Use OAuth 2.0 for**, select the mailbox type.
5. Obtain client ID and secret for your mailbox. For details, see:
    - **Getting OAuth 2.0 client ID and secret for Entra ID**
    - **Getting OAuth 2.0 client ID and secret for Gmail**
6. Return to **Email Configuration** and paste the client ID and secret into **OAuth 2.0 client ID** and **Client secret value**, respectively.

7. Click **Save**.

   When prompted, do the following:

   - Sign in to the Microsoft Azure or Google account that owns the mailbox.

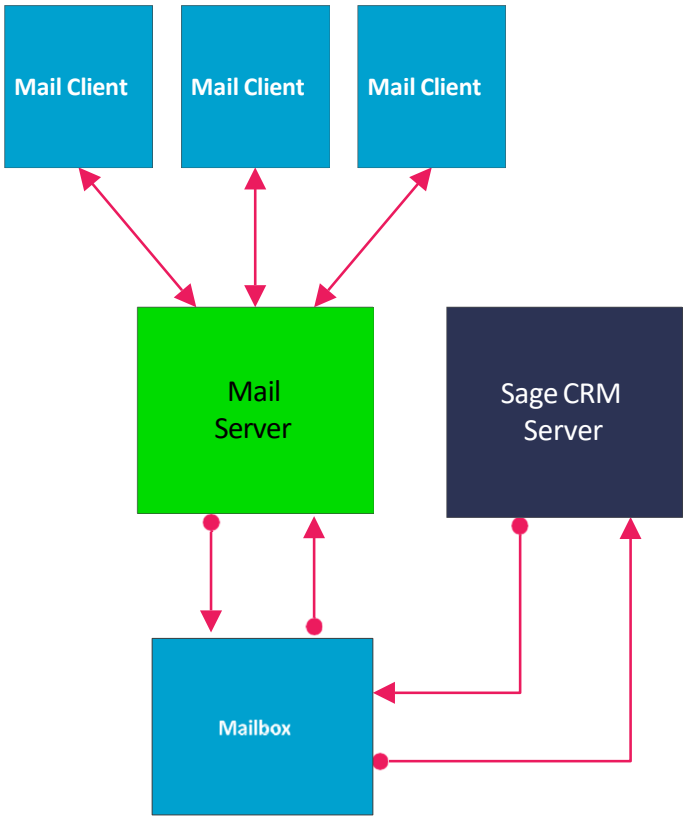
     > **Note:** When signing in to the Google account, you may receive a warning that your app isn't verified. If so, click **Advanced** and select the option to go to your app.

   - Allow the app you've created to access the Microsoft Azure or Google account.

Email Management

- **Email Management overview**
- **Managing the Email Management service**
- **Configuring Email Management**
- **Working with script templates**
- **Adding rulesets to Email Management**
- **Enabling OAuth 2.0 for a mailbox in Email Management**

Email Management overview



Email Management processes emails as follows.

- The user sends an email to a specified email address. For example, info@*domain*.com.
- The Email Management service accesses the mailbox.
- The service reads each email in the mailbox.

For each email read, the following happens.

- The Email Management service reads the custom script into memory and builds the user defined rulesets if they have been defined in the system. For more information, see **Adding rulesets to Email Management**.
- The rulesets are inserted into the script file as JavaScript. Rulesets are already built into the defalut Communication.js script.
- A number of ready-built Objects are passed into the script file, including one to access email.

- The script is executed internally from the application and actions are taken on the email. For example, a new communication is generated that includes information from the email.
- Attachments are saved in the Sage CRM Library.
- The email is deleted from the mailbox.
- If the script fails, the script and error information is written to the daily log file. You can access the log file from the main system directory.

  For example: **%ProgramFiles(x86)%\Sage\CRM\Services\logs\<yyyymmdd><InstallName>MailManager.log**

  Alternatively, click **View Log Files** on the Email Management Server Options screen. Emails that cause the system to fail internally are saved in a rogue email folder in **%ProgramFiles(x86)%\Sage\CRM\Services\CustomPages\Scripts**.
- You can modify the script to connect to an external database.
- Each mailbox is accessed and controlled by its own thread within the application.

Managing the Email Management service

The Email Management service is automatically installed on the Sage CRM server during a Sage CRM installation. The service applies to all Sage CRM installations that are configured for Email Management regardless of which installation it was registered on. Do not move the service from the folder in which it was registered. If you have problems starting the Email Management service, you may need to install it manually.

There should be just one eWareEmailManager.exe on the server.

- **Installing the Email Management service**
- **Uninstalling the Email Management service**

Installing the Email Management service

If you have problems starting the Email Management service, you may need to install it manually.

1. Click **Start | Run** and type *cmd*. The DOS prompt window is displayed.
2. Navigate to the folder where the eWareEmailManager.exe file is saved and type *eWareEmailManager /i*.
3. Click **Enter**. A pop-up box confirms that the application is installed.

Uninstalling the Email Management service

1. Click **Start | Run** and type *cmd*. The DOS prompt window is displayed.
2. Navigate to the folder where the eWareEmailManager.exe file is saved and type *eWareEmailManager/u*.
3. Click **Enter**. A pop-up box confirms that the service is uninstalled.

Configuring Email Management

1. Go to **<My Profile> | Administration | Email And Documents | Email Configuration** and click **Change**.
    - To configure the Email Management server to file outbound emails, select **Email Management** from **Outbound emails should be filed by**.
    - Enter the email address of the mailbox to which outbound emails are sent in **Mail Manager Server filing address**. Email Management can run on this mailbox and file outbound emails. This email address must be unique and used for Email Management only. The mailbox cannot be used for any other purpose and it cannot be a person's private mailbox.
    - Ensure the value in **Mail Manager Server filing address prefix** is correct. For more information, see **Email/SMS settings**.
2. Click **Save**.
3. Go to **<My Profile> | Administration | Email And Documents | Email Management Server Options** and click **New**. You must set up options on the outbound email mailbox first. All emails in the mailbox are filed according to these options by default or if the conditions specified in any rulesets are not met.
    - Select **Enabled** to activate Email Management on the mailbox.
    - Enter the Mail Manager Server Filing Address in **Email address**. This is the address you specified in step 1.
    - Set values for the remaining **Email Management Server Options**.
4. Click **Save**.You can then set up Email Management Server Options on other mailboxes. For example, support@domain.com.
5. Click **<My Profile> | Administration | Email and Documents | Advanced Email Management Server Options** and click **Change**.
    - Enter the user name and password of a Sage CRM user with access rights to the database in **Manager logon** and **Manager password**. We recommend using the System Administrator.
    - Set values for the remaining **Advanced Email Management Server Options**.
6. Click **Save**.

7. To further customize Email Management, you can set up rulesets and customize script templates. For more information, see **Adding rulesets to Email Management** and **Working with script templates**.

Email Management Server Options

Field	Description
Enabled	Enables Email Management on the mailbox. Allows you to maintain a list of multiple addresses, activating and deactivating them as required. For example, specialoffers@*domain*.com is required in the last month of each quarter, but should not be available in other months.
Mailbox access method	The method used to access the mailbox. Values are POP and MAPI.
Email address	The email address of the mailbox on which Email Management is enabled. If you're configuring options for the outbound email mailbox, enter the Mail Manager Server Filing Address. This is the address you specified in **<My Profile> | Administration | Email and Documents | Email Configuration**.
Use OAuth 2.0 for	Select the mail service for which you want to use OAuth 2.0 authentication. For instructions on how to set up OAuth 2.0, see **Enabling OAuth 2.0 for a mailbox in Email Management**.
OAuth 2.0 client ID	The public identifier of the app for which you want to enable OAuth 2.0. Sage CRM uses this identifier for the Email Management feature only.
Client secret value	The client secret value corresponding to the OAuth 2.0 client ID. Sage CRM uses this secret value for the Email Management feature only.
POP server/MAPI profile name	The name of the POP server used for incoming emails, or the MAPI profile name. To check this name on the Sage CRM server, right-click the Microsoft Outlook menu option, and click **Properties | Show Profiles**. The default profile is MS Exchange Settings.

Field	Description
POP3 port	The port that POP3 can use to send emails.
Use TLS for POP	Select this checkbox to receive emails from the POP email account using TLS.
POP account name/MAPI mailbox name	The user name of the POP email account or the MAPI mailbox name. To check this name on the Sage CRM server, right-click the Microsoft Outlook menu option, and click **Properties | Show Profiles**. Select the MAPI Profile Name and click **Properties**. The mailbox name is specified in **Mailbox**.
POP/MAPI password	The password for the POP or MAPI server.
SMTP server	The name of your SMTP server used for outgoing emails. This field is not required for MAPI.
SMTP port	The port that SMTP can use to send emails.
Use TLS for SMTP	Select this checkbox to send emails to the SMTP server using TLS. For supported TLS versions, see the *Hardware and Software Requirements*.
SMTP user name	The user name for the SMTP server, if required by the Mail Administrator.
SMTP password	The password for the SMTP server, if required by the Mail Administrator.
Administrator email address	The email address to which service messages are sent when the service starts or if there's a problem with the service.
CRM user	The Sage CRM user that Email Management considers to be the logged on user. For example, when Cases and Communications are created, this user is specified as the user who created them.
Template	The script file used to process the email. Script files are shipped as part of Email Management and allow you to specify various ways to handle emails. For more information, see **Email Management and objects**.
Default ruleset assigned user	The default user to which the Case or Communication is assigned.
Default ruleset assigned team	The default team to which the Case or Communication is assigned.

Field	Description
Default ruleset action	The default action. For example, the Track Case action means that most emails are filed as cases and assigned a Case ID but if the email already contains a Case ID, a Communication is filed to track the case.
Feedback on success	Sends information about successful emails to the administrator.
Feedback on failure	Sends information about failed emails to the administrator.

Advanced Email Management Server Options

Field	Description
Manager logon	The logon name of a Sage CRM user with access rights to the database. For example, the Admin user.
Manager password	The password of a Sage CRM user with access rights to the database.
Debug	Sets the level of debugging. Set to **Yes** to poll the mail server every 20 seconds and send information to a log file in the Sage CRM install directory. For example, **%ProgramFiles(x86)%\Sage\CRM\Services\logs\<yyyymmdd><InstallName>mailmanager.log** You should set to **Yes** when you first set up and test the service. Set to **No** to poll the mail server less frequently and send less detailed information. You should set to No after testing for improved performance. You can access the log file The script is emailed to the administrator specified in **Manager logon** and the section where the script failed is highlighted.
Polling interval	The polling interval (in minutes) at which Email Manager services poll a specified mailbox.

Additional Steps for MAPI

You can configure the Email Management server to use Messaging Application Programming Interface (MAPI).

- Ensure Microsoft Outlook is installed.
- Navigate to your Services folder and double-click the **Email Manager service**.
- On the Email Manager Properties dialog box, click the **Log On** tab.
- The service runs under a local system account by default (for POP). Change this to the domain account with permissions for all mailboxes you want Email Management to access and run on.

MAPI is Microsoft's proprietary messaging API and is enabled by default by Microsoft Exchange.

Email status

To see if the Email Management service is currently running, and to view the number of outbound emails and bad email, click **<My Profile> | Administration | Email and Documents | Email Status**.

Working with script templates

Script templates specify how emails are handled. You can associate a template with specific mailboxes and you can use Email Objects to customize the script templates. For example, to change the way in which email attachments are saved.

For more information about working with Email Objects, see **Email Management and objects** and **Customizing script templates using objects**.

Two script templates are provided with Email Management:

- Communications.js (Communications template) is deployed by default when you set up Email Management. For information about email handling when you are using the Communications template, see **Working with the Communications template**.
- Support.js (Support template) is for use in a customer support environment. For information about email handling when you are using the Support template, see **Working with the Support template**.

There are three core functions are at the base of both Communications.js and Support.js that run in the following order: BeforeMainAction, MainAction, AfterMainAction.

BeforeMainAction and AfterMainAction are declared in the script file. MainAction is not declared. The MainAction function is generated from the rules defined on the Rules input form in Sage CRM. The function should never be declared in any JavaScript file used with Email Management. If you require any complex functionality, it can be coded into the BeforeMainAction or AfterMainAction functions.

We recommend that you use one of these scripts. However, if neither are suitable, you can write a new script. Please contact your Certified Sage CRM Consultant before writing new scripts. You must implement new scripts in a test environment before installing them on a live system.

Working with the Communications template

When the default Communications template is used for Email Management, all emails sent to the default mailbox are filed in the Sage CRM database as communications and all corresponding email attachments are filed in the CRM Library tab.

When an email is received in the specified mailbox, the email database table is checked for all people associated with the email address. If only one person is associated with the email address (even if it's a private and business type), a communication is created for that person, and it's also associated with the Sage CRM user. If an associated person cannot be found or if multiple people are associated with the address, the email database table is checked for an associated company. A communication is created for the company and it's also associated with the Sage CRM user.

Outbound email

For each outbound email, a communication is created with a communication link to each recipient in the Sage CRM database. If no match is found, the email is saved as a completed communication against the Sage CRM user only. The sender must be a valid Sage CRM user with an email address in the Sage CRM database, and the specified Mail Manager Server Filing Address must be in the **BCC** field.

When the email is successfully sent, the customer receives the email, a communication is recorded in Sage CRM, and the email handling details are added to the log file. Depending on the polling interval that you've configured in **Advanced Email Management Server Options**, the communication might not appear in Sage CRM immediately.

Inbound email

For emails received by users and forwarded to the Mail Manager Server Filing Address, this email address must be the only address in the **To** field. The original sender's email address must be the first email address contained in the body of the email that's forwarded to the mailbox. Email Management recognizes the first address in the body as the original sender's address and files the email with this customer record. A communication record is created against the customer record containing details of the email forwarded from the Sage CRM User.

Attachments to emails

Attachments to emails are stored with the communication record created when Email Management filed the inbound or outbound email.

For information about using Email Management, see *Filing Inbound and Outbound Emails* in the *User Help*.

Working with the Support template

Use the Support template (Support.js) with Email Management to handle emails effectively in a customer service environment.

This example uses a mailbox on the company's email server called support@*domain*.com. Customers can log customer service issues using this mailbox. The example describes what happens when an email is received by support@*domain*.com from a person or company in the Sage CRM database.

1. Kieran O'Toole, a person in the Sage CRM database, sends an email to support@*domain*.com to log a customer service issue.
2. An auto reply is sent to Kieran telling him that a case has been logged. It includes a Case ID. If Kieran's email already contained a Case ID, a new case would not be created.
3. A case is created and logged for the Customer Service Team. The case is included in the list of cases associated with Kieran O'Toole. It is also listed in **Team CRM | Customer Service**, because Customer Service is specified in **Default Ruleset Assigned Team**. For more information, see **Adding rulesets to Email Management**.
4. Two communications are recorded against Kieran, one to acknowledge receipt of his email (Email In) and another to signal that an auto reply was sent (Email Out). The Email Out communication is also included in **Team CRM | Customer Service**.
5. When Kieran replies to the email he received from support@domain.com to say that he has managed to get the software up and running, an Email In communication is recorded against Kieran and also in **Team CRM | Customer Service**.

Email Management and objects

1. When the Email Management service starts, is started up it creates a Sage CRM Object and logs in to Sage CRM using registry entries.
2. Using the Sage CRM Object, the Email Management service queries the custom_ emailaddress table. This table holds information about each service for the install.
3. The data is read in and the specified Script file is read in. Another Sage CRM Object is created and logged onto using the Sage CRM User logon ID. Using the email account information, the mailbox is logged onto and the emails are read. An interface object to the email is created. This is called the MsgHandler Object.
4. Using the From address in the email, the database is queried to:
   - Check if the email belongs to a user. A UserQuery CRM Query Object is created, which runs the following script.

     ```
     SELECT * FROM vUsers WHERE user_emailaddress = FromAddress
     OR user_mobileemail = FromAddress
     ```

   - Check if the email belongs to a company. A CompanyQuery CRM Query Object is created, which runs the following script.

     ```
     SELECT * FROM vCompanyEmail WHERE elink_recordid = comp_companyid AND emai_
     Emailaddress = FromAddress
     ```

- Check if the email belongs to a person. A PersonQuery CRM Query Object is created, which runs the following script.

```
SELECT * FROM vPersonEmail WHERE elink_recordid = pers_Personid AND emai_
emailaddress = FromAddress
```

5. All the Objects mentioned are passed into the script context and the specified actions are performed.

Customizing script templates using objects

You can customize the features of Email Management using the following objects. For detailed descriptions of the methods and properties of each object, see the *Developer Help* on the **Sage CRM Help Center**.

- **MsgHandler Object**: The MsgHandler Object provides basic access to the Email Object and functionality for the system. It is the top level object within the scripting. It is passed into the script at run time.
- **Email Object**: The Email Object provides access to the email itself through its properties and methods. This object is passed into the script by default as the Email Object but can also be accessed from the MsgHandler Object as follows:

```
myemail = MsgHandler.msg
```

- **AddressList Object**: Part of the Email Object, this object provides access to the To, CC and BCC lists of addresses. You can access this object as follows:

```
myaddresslist = email.CC;
```

- **MailAddress Object**: This object provides access to an individual address from the AddressList Object. You can return an individual MailAddress object as follows:

```
myaddress = email.CC.Items(1);
```

- **AttachmentList Object**: This object provides access to the email attachments. You can access this Object as follows:

```
myAttachmentList = email.Attachments;
```

- **Attachment Object**: This object provides access to an individual attachment. You use the AttachmentList Object's "items" property to access this object.

```
myAttachment = email.Attachments.Items(1);
```

Adding rulesets to Email Management

You can set up rulesets so that specific actions are applied to particular emails. Rulesets consist of multiple rules and an action to be performed when the conditions in one or more of the rules are met. This action overrides the default email handling action. You can create any number of rulesets and each ruleset can have a maximum of three rules.

For example, you could specify that all emails coming into the support@*domain*.com mailbox are filed in **Team CRM | Customer Service** according to the Track Case action by default. But any emails from companies of type Competitor or Industry Analyst should be handled in a different way. To do this, you can apply a new ruleset to the support@*domain*.com mailbox.

1. Click **<My Profile> | Administration | Email and Documents | Email Management Server Options**.
2. Click the hypertext link of the Email Management service and click **Add Ruleset**.
3. Complete the **Rules Panel fields**.
4. Add up to two more rules for this ruleset. Use **And** to separate rules when both rules must be true for an action to be performed. Use **Or** to separate rules when the action is performed if either of the rules are true.
5. Select the action that's performed if the rules are met. If the rules are not met, the default actions are performed. For example, create a communication.
6. Select the Sage CRM user and the team that the action is recorded against from **Assigned User** and **Assigned Team**. For example, a Communication is created if a rule is satisfied, and it is assigned to the marketing manager and the Marketing Team.
7. Click **Save** and then click **Continue**.

Rules Panel fields

Field	Description
Ruleset Description	A description of the Ruleset.
Column Name	The database column on which the Rule acts.
Operator	The operator used in the Rule. For example, Equal To, Not Equal To.
Value	A value that corresponds to the selected column name.
Rule Execution Order	The order in which the Ruleset is executed. For example, if you have defined three Rulesets, you can specify a specific order or execution.

Field	Description
Enabled	Enables the Ruleset.
Exit Rule	Performs the associated action when this Ruleset is executed, but does not execute any other Ruleset.

Enabling OAuth 2.0 for a mailbox in Email Management

You can set up Email Management to use OAuth 2.0 for connecting to an Outlook or Gmail mailbox.

We presume that you already have an Outlook or Gmail mailbox configured in Email Management. If not, complete the steps in **Configuring Email Management**.

> **Note:** If you have Microsoft Office 365 credentials cached on the Sage CRM server, you may encounter errors while completing the below steps. To avoid errors, we recommend that you either complete the steps in an incognito tab of your web browser or clear your web browser's cache.

To enable OAuth 2.0 for a mailbox:

1. Open a web browser on your Sage CRM server and enter the Sage CRM access URL.

   For example: *https://myserver/crm*

2. Log on to Sage CRM as a system administrator and go to **| Administration | Email and Documents | Email Management Server Options**.Click the name of the Gmail or Outlook mailbox for which you want to enable OAuth 2.0, and then click **Change**.
3. In **Use OAuth 2.0 for**, select the mailbox type.
4. Obtain client ID and secret for your mailbox. For details, see:
   - **Getting OAuth 2.0 client ID and secret for Entra ID**
   - **Getting OAuth 2.0 client ID and secret for Gmail**
5. Return to **Email Management Server Options** and paste the client ID and secret into **OAuth 2.0 client ID** and **Client secret value**, respectively.
6. Click **Save**.

   When prompted, do the following:

   - Sign in to the Microsoft Azure or Google account that owns the mailbox.

     > **Note:** When signing in to the Google account, you may receive a warning that your

app isn't verified. If so, click **Advanced** and select the option to go to your app.

- Allow the app you've created to access the Microsoft Azure or Google account.

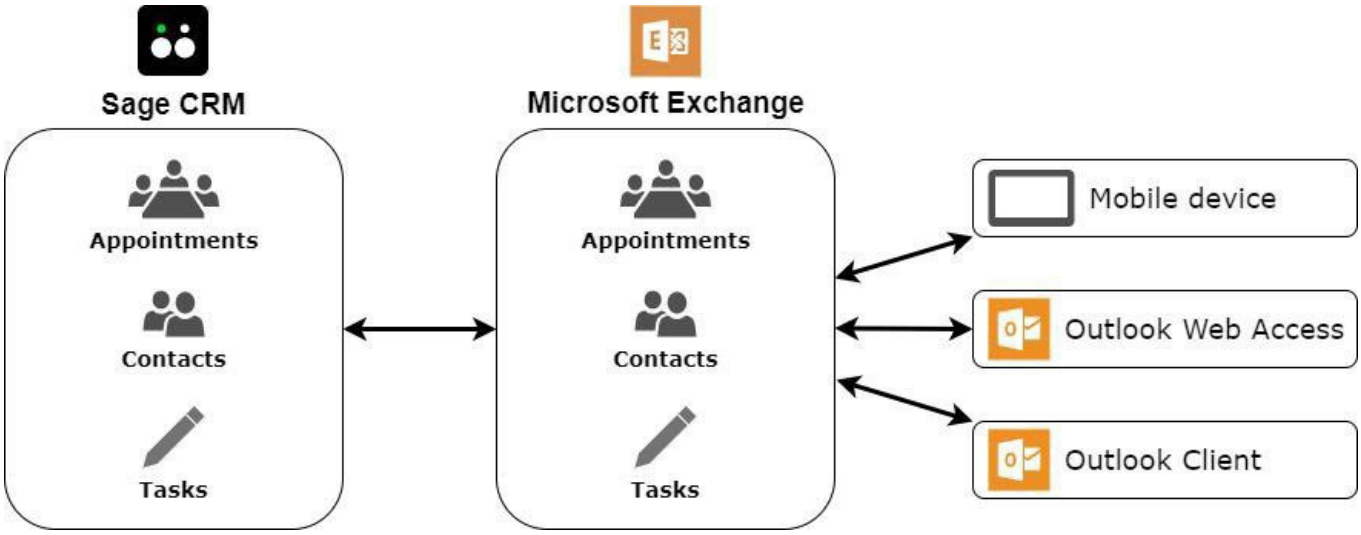
Exchange Integration

- About Exchange Integration
- Setting up Exchange Integration
- Synchronizing Exchange and Sage CRM

About Exchange Integration

- Exchange Integration overview
- Duration of an initial synchronization
- Synchronizing appointments
- Synchronizing tasks
- Synchronizing contacts

Exchange Integration overview



Sage CRM Exchange Integration is an integration between Sage CRM and on-premises Exchange Server or cloud-based Exchange Online. There is no synchronization to individual Outlook clients. The synchronization runs in the background and does not require user triggers; it continues even when Outlook clients are closed. A single, impersonated Exchange user is used to access all users' mailboxes so different credentials are not required for each mailbox.

Warning: You must enable Basic authentication so Exchange Integration can access Exchange data.

Appointments, tasks, and contacts can be synchronized between Sage CRM and Exchange. This functionality is supported if the user is working in the Outlook client, Outlook Web Access, or using a mobile device that connects to Exchange. For example, if a sales manager schedules meetings for field sales people in Sage CRM, the sales people receive information about the meetings on their smart phones without needing to synchronize or open their laptops and launch Outlook desktop client. This means that vital Sage CRM information is available in real time to users who are on the move.

How to enable Exchange Integration

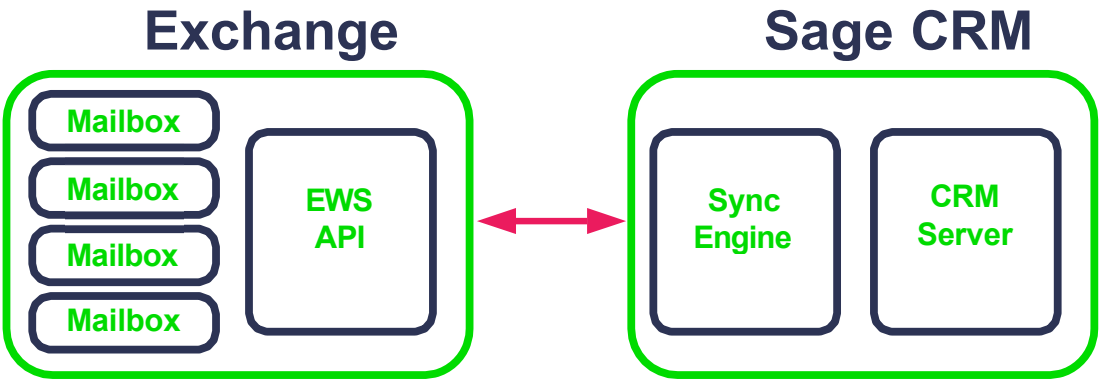
Task	Help
Back up the on-premises Exchange Server before integrating with Sage CRM.	
Ensure you are using a version of on-premises Exchange Server with access to the EWS API that supports impersonated users.	See the *Hardware and Software Requirements* on the **Sage CRM Help Center**.
Expose the EWS virtual directory so an impersonated user can read the schema from the EWS endpoint.	**Configuring Exchange**
Set up an Exchange impersonated user mailbox to access the mailboxes of other Exchange users.	**Configuring Exchange**
Enable Basic authentication so Exchange Integration can access Exchange data.	**Configuring Exchange**
Create a connection from Sage CRM to the Sync Engine and from the Sync Engine to Exchange so data can be synchronized between applications.	**Creating a connection to Exchange**

How to synchronize Exchange and Sage CRM

Task	Help
Select the Sage CRM user mailboxes that you want to synchronize with Exchange.	**Enabling user mailboxes for synchronization**
Change the rules that are used to synchronize data between Sage CRM and Exchange to suit your particular business requirements if necessary.	**Setting Exchange synchronization options**

Task	Help
Enable Exchange Integration	**Enabling Exchange Integration**
Enable Exchange synchronization	**Enabling Exchange synchronization**
View synchronization logs to find out more about synchronization errors and how to resolve them.	**Working with synchronization errors**

Exchange Integration environment



The Exchange environment consists of the Mailbox server and the Exchange Web Services (EWS) API. The Exchange impersonated user reads schema from the EWS endpoint. Schema are made available by enabling Anonymous authentication and disabling Windows authentication on the EWS virtual directory. Data is made available by enabling Basic authentication in the Exchange Administration Center (EAC). On its own, Basic authentication is not a secure authentication method, so we recommend that you use Secure Sockets Layer (HTTPS) to secure the connection between Sage CRM and Exchange.

The Sync Engine synchronizes between endpoints. It obtains a batch of resource changes from a source endpoint (CRMJ) and applies it to a target endpoint (EWS). These records are stored on the EcngIntegration table.

The Sync Engine communicates with EWS using SOAP over HTTP(S) and it communicates with Sage CRM using HTTP(S) (SData and specialized services). It can be deployed on a remote server.

When the Sync Engine synchronizes data from Exchange to Sage CRM, Sage CRM performs deduplication and conflict management. Records are inserted, updated, or deleted in Sage CRM.

When the Sync Engine synchronizes data from Sage CRM to Exchange, the Sync Engine performs deduplication, inserts, updates, deletes on the mailboxes.

Exchange Integration terminology

- **Sync resource**. A record representing a single record that is synchronized and stored in the EcngSyncResource table. Each record has a unique UUID, references to the base Sage CRM entity, and details of when the record was synchronized.
- **Sync state**. The state of a record on the EWS side of the integration. Used to check for changes on the Exchange side of the integration.
- **Feed**. An XML structure used to transfer changes to resources on the CRMJ endpoint. It contains many entries.
- **Entry**. A subset of a feed that contains changes to a specific resource. For example, contacts.
- **Tick**. The incremental value for a resource type that's incremented every time a resource is modified and indicates the version of the data. It is stored in EcngSyncDigestEntry.
- **Digest**. The synchronization state of a resource. It's similar to a tick, but applicable to individual entities. It is stored in EcngSyncDigestEntry.

Exchange Integration database tables

- **EcngIntegration**. Contains configuration information about the Exchange synchronization including the EWS URL, usernames and passwords.
- **EcngLocalEntityMapping**. Contains mappings from Exchange items to Sage CRM entities (for example, Appointment to Communication), the synchronization direction, and views used.
- **EcngLocalFieldMapping**. Contains mappings from Sage CRM fields to Exchange fields, and the field XML data types. You cannot customize or add anything to this table.
- **EcngSyncDigestEntry**. Contains two entries for each synchronized resource; task, contact, appointment. Contains one entry for the Sage CRM endpoint and one for the Exchange endpoint with a Tick value for each.

Duration of an initial synchronization

The first synchronization between Sage CRM and user mailboxes takes longer than subsequent syncs because data has not yet synchronized from one system to the other and therefore the volume of data to synchronize is greater. Also, the sync engine’s deduplication process is more active because there's a higher possibility that the same records exist in both Sage CRM and Exchange. For example, if Sage CRM and Exchange were previously used independently for calendar management, the same appointments might exist in each system. For more information on initial synchronization, please check the latest release notes and community articles.

We recommend that an initial synchronization is performed during Sage CRM and Exchange downtime because large volumes of data are transferred and may impact performance.

The time it takes to complete an initial synchronization depends on:

- The number of user mailboxes synchronized
- The volume of data synchronized
- The sync direction for each entity synchronized
- The number of potential duplicates detected by the sync engine
- The size and complexity of the Sage CRM database
- The hardware specifications of the Sage CRM server and on-premises Exchange Server

Synchronizing appointments

- **Synchronizing appointments terminology**
- **Synchronized calendar data**
- **Appointment synchronization rules**
- **Stub appointments**
- **Appointment field mappings**

Synchronizing appointments terminology

- **Organizer**. The organizer of an appointment is the user who creates the appointment in Exchange. The exception is where an appointment is created in a shared calendar. For example, an assistant creates a meeting for a manager using the manager's shared calendar. In this case, because the manager owns the calendar, the manager is the organizer. The organizer must always attend the event. The organizer's copy of an Exchange appointment is the only reliable version of the appointment and it's the version that's synchronized to Sage CRM.
- **Sync user**. When configuring Exchange Integration, you must flag the mailboxes that will synchronize with Sage CRM. A user with an Exchange mailbox that's been configured to synchronize is called a Sage CRM sync user.
- **Meeting**. An appointment with more than one attendee is a meeting.
- **Required attendees**. All Sage CRM users (including resource users, but excluding the organizer) and external attendees added to the appointment in Sage CRM appear as required attendees on the appointment in the organizer's Exchange mailbox.
- **External attendees**. The External attendees feature in Sage CRM communications sends an Exchange meeting request to all invitees both internal and external to the Sage CRM database or your own Exchange environment.

Synchronized calendar data

Appointments are synchronized between Sage CRM and the default Exchange calendar only. Appointments are not synchronized between Sage CRM and any secondary Exchange calendars. The

Sync Engine synchronizes the following calendar items between Sage CRM and Exchange if appointments are set to synchronize bi-directionally.

- All single (non-recurring) appointments and meetings that have not yet synchronized and have an End Date within the last 14 days or at any date in the future from the time the synchronization occurs.
- All recurring appointments that have not yet synchronized and where the end date of the recurrence pattern of the master occurrence is within the last 14 days or at any date in the future from the time the synchronization occurs.
- All single and recurring appointments that have already been synchronized and have been modified in either system since the last synchronization occurred.
- All single and recurring appointments that have already been synced and have been deleted in either system since the last synchronization occurred are deleted in the other system.
- During synchronization, private appointments in Sage CRM become private appointments in Exchange and visa versa.
- All required and optional attendees (including resource users, but excluding the organizer) whose email address matches a Sage CRM user email address and whose Response is Accepted, Tentative or Unknown, appear as Sage CRM users in the User selection list on the Sage CRM appointment. The appointment in Sage CRM is linked to the Sage CRM users.
- Any attendees whose email address matches a Sage CRM user email address and whose Response is Declined is not added to the appointment in Sage CRM.

Some calendar items cannot be synchronized between Sage CRM and Exchange.

- The following are not synchronized from Exchange to Sage CRM:
    - Recurring appointments with no end date.
    - Recurring appointments where the number of occurrences in the series exceeds the maximum number of allowable occurrences in Sage CRM. You can configure this number.
    - Yearly recurring appointments where a relative day of the week has been specified in the recurrence pattern. For example, day, weekday, or weekend-day.
- The following are not synchronized from Sage CRM to Exchange.
    - Single or recurring appointments where the organizer of the appointment has not been configured to synchronize with Exchange.
    - Recurring appointments with a daily recurrence pattern of “occurs every...”. This type of recurrence pattern is available in Sage CRMprior to Exchange Integration only.

Warning: When a synchronized field on an Appointment is updated, a new request is sent to all attendees. This is particularly important to note when adding confidential information to an Appointment.

Appointment synchronization rules

- The Sync Engine uses the following rules to determine whether calendar items should be synchronized from an enabled Exchange mailbox to Sage CRM:
    - If the organizer of the appointment or meeting is the mailbox owner, the item is synchronized to Sage CRM as a normal Sage CRM appointment.
    - If the organizer is not the mailbox owner, this is an invitee copy of the original meeting. In this case, if the organizer is a Sage CRM Sync User, this invitee copy is not synchronized to Sage CRM. It is ignored and the organizer's copy is synchronized from the organizer's mailbox to Sage CRM when the Sync Engine synchronizes with the organizer's mailbox.
    - If the organizer is not the mailbox owner, this is an invitee copy of the original meeting. In this case, if the organizer is not a Sage CRM Sync User, there's no way to retrieve the organizer's copy of the meeting. For more information, see **Stub appointments**.
- The Sync Engine uses the following rules to determine whether calendar items should be synchronized from Sage CRM to Exchange:
    - A single or recurring appointment which satisfies the date range rules is synchronized from Sage CRM to the mailbox of the organizer of the Sage CRM appointment.
    - The Sync Engine instructs Exchange to send out meeting requests, or updates to a meeting, to the relevant invitees on the meeting. A Send Update method pushes the organizer's copy to all invitees as per normal Exchange/Outlook behavior.

  Sage CRM doesn't synchronize anything to the invitee mailboxes. It synchronizes to the organizer mailbox and Exchange handles all meeting request operations to ensure the Exchange calendars of all attendees contain the meeting. This means that an appointment or meeting that synchronizes from Sage CRM to Exchange is identical to an appointment or meeting that's created directly in the Exchange mailbox and all complex messaging rules are implemented by Exchange and are not compromised by Sage CRM.

Stub appointments

When a meeting is created in the organizer's calendar in Exchange, an identical copy of the meeting is created as a tentative event in the calendar of each invitee. Each invitee can change their copy but the changes are visible to that invitee only and are not visible to the organizer or any other invitee.

To ensure that a user's Outlook/Exchange calendar mirrors their Sage CRM calendar, all invitee copies are synchronized to Sage CRM as separate Stub appointments. Each invitee sees their associated stub appointment only; the appointment is read-only but can be deleted. The exception to this is where the invitee forwards their copy of the meeting to other people. In this case, the organizer receives an email about the new invitees and the meeting in the organizer's calendar is updated to include them. The original invitees are notified about the new invitees only if the organizer sends a meeting update.

An invitee cannot remove other invitees from their copy of the meeting. Any changes that an invitee makes to their copy of the meeting are temporary; whenever the organizer modifies the meeting and sends out an update, all existing invitee copies are overwritten by the organizer's copy.

Appointment field mappings

Outlook/Exchange Field	Sage CRM Field (Translation)	Sage CRM Field (Column)
Subject	Subject	comm_subject
Location	Location	comm_location
Details/Body	Details	comm_note
Start Time	Date/Time	comm_datetime
End Time	End Time	comm_todatetime
All Day Event	All day event	comm_isalldayevent
Organizer	Organizer	comm_organizer
Attendees	User / External Attendee	comm_userid / cmli_ externalpersonid
Private	Private	comm_private
Importance	Priority	comm_priority
Reminder	Reminder	comm_notifydelta
Appended to Appt Body	CRM Info	Translation caption code OTL_ AppointmentDetails See **Include CRM Info In Body** in **Synchronization management fields**.
Occurrence	The Exchange master record recurrence pattern/range maps to the Sage CRM master record recurrence pattern/range.	

Synchronizing tasks

If tasks are set to synchronize bi-directionally between Sage CRM, the Sync Engine synchronizes tasks that have been modified or created within the last 14 days from when the initial synchronization was started.

Tasks are owned by one user only so synchronization occurs between Sage CRM and the Exchange mailbox of the task owner. Mass tasks (tasks generated against groups or lists) are not synchronized and are not included in the skipped items log.

The table below lists task field mappings.

Outlook/Exchange Field	Sage CRM Field (Translation)	Sage CRM Field (Column)
Subject	Subject	comm_subject
Details/Body	Details	comm_note
Start Date	Start Date/Time	comm_todatetime
Due Date	Due Date/Time	comm_datetime
Owner	User	comm_userid
Private	Private	comm_private
Reminder	Reminder Date/Time	comm_notifytime
Priority	Priority	comm_priority
Status	Status	comm_status
% Complete	Percent Complete	comm_percentcomplete
Date Completed	Completed Time	comm_completedtime
Appended to Task Body	CRM Info	Translation caption code OTL_ TaskDetails

The table below lists task status mapping when synchronizing from Exchange to Sage CRM.

Outlook/Exchange	Sage CRM
Not Started	Pending
In Progress	In Progress
Waiting On Someone Else	Pending
Deferred	Pending
Completed	Complete

The table below lists task status mapping when synchronizing from Sage CRM to Exchange.

Sage CRM	Outlook/Exchange
Pending	Not Started
In Progress	In Progress
Complete	Completed
Canceled	Not Started

Synchronizing contacts

If contacts are set to synchronize bi-directionally between Sage CRM, the Sync Engine synchronizes contacts from **My CRM | Contacts** for users who have been flagged to synchronize. Updates and deletes to linked contacts are synchronized from Exchange to Sage CRM. Contacts are not shared by Exchange mailboxes, but contacts from many mailboxes can be linked to one person record in Sage CRM.

The table below lists contact field mappings.

Exchange Field	Sage CRM Field (Translation)	Sage CRM Field (Column)
Title	Salutation	pers_ salutation
First	First Name	pers_firstname
Middle	Middle	pers_ middlename
Last	Last Name	pers_lastname
Suffix	Suffix	pers_suffix
Company	Company	comp_name Sage CRM to Exchange sync only.
Job Title	Title	pers_title
Web Page Address	Website	pers_website

Exchange Field	Sage CRM Field (Translation)	Sage CRM Field (Column)
Department	Department	pers_ department
Email	Email Address / Business	emai_ emailaddress / link_persemai
Email 2	Email Address / Private	emai_ emailaddress / link_persemai
Street	Combines Address 1, Address 2, Address 3, and Address 4	addr_address1 addr_address2 addr_address3 addr_address4
City	City	addr_city
State/Province	State	addr_state
Zip/Postal Code	Zip Code	addr_postcode
Country/Region	Country	addr_country
Mailing Address	Default Address	Check box Sage CRM to Exchange sync only. When a contact is synchronized from Sage CRM to Exchange, the Exchange address that's associated with the default Sage CRM address is set as the Mailing Address.

Exchange Field	Sage CRM Field (Translation)	Sage CRM Field (Column)
(Phone numbers) Business	Phone / Business	Split across phon_ countrycode, phon_ areacode, phon_number, where the phon_type = Business.
Business Fax	Phone / Alternative	Split across phon_ countrycode, phon_ areacode, phon_number, where the phon_type = Fax.
Home	Phone / Home	Split across phon_ countrycode, phon_ areacode, phon_number, where the phon_type = Home.
Mobile	Phone / Mobile	Split across phon_ countrycode, phon_ areacode, phon_number, where the phon_type = Mobile.

Exchange Field	Sage CRM Field (Translation)	Sage CRM Field (Column)
Pager	Phone / Pager	Split across phon_ countrycode, phon_ areacode, phon_number, where the phon_type = Pager.

Setting up Exchange Integration

- **Deploying the Sync Engine on a remote server**
- **Deploying the Sync Engine in a multi-server environment**
- **Configuring Exchange Server**
- **Creating a connection to Exchange Server**
- **Configuring OAuth 2.0 and Exchange Online (Office 365)**
- **Granting the SendAs right**

Deploying the Sync Engine on a remote server

You can deploy the Sync Engine on a different machine to the Sage CRM server.

1. Download and install a supported Tomcat version on the remote server.

   For supported Tomcat versions, see the *Hardware and Software Requirements* published on the **Sage CRM Help Center**.

2. Stop the Tomcat service (**Apache Tomcat 9.0 <SageCrmInstallName>Tomcat9**) on the Sage CRM server.
3. Move the following from the Sage CRM server to the remote server hosting Tomcat:
   - File **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\tomcat\webapps\<InstallName>ExchangeSyncEngine.war**
   - Folder **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\tomcat\webapps\<InstallName>ExchangeSyncEngine**

   Example:

Source folder on the Sage CRM server	Target folder on the remote server
%ProgramFiles(x86)%\Sage\CRM\<InstallName>\tomcat\webapps\	<TomcatInstallationFolder>\webapps

4. Start the Tomcat service on the Sage CRM server.
5. Go to **<TomcatInstallationFolder>\webapps** on the remote server.
   - Check that **<InstallName>ExchangeSyncEngine\WEB-INF\db.properties** contains valid parameters for connection to the database.
   - Check that **ExchangeSyncEngine\WEB-INF\syncengine.properties** contains valid parameters for a connection to the Sage CRM endpoint. For example: `syncengine.configurationurl=http://2K8X64CRMX86001/sdata/crmj`
6. Restart the Tomcat service on the remote server. A restart is required because properties have been changed.
7. Install the rewriter module so Sage CRM can access the CRMRewriter.
   - Copy the **CRMRewriter** folder from the Sage CRM server (**%ProgramFiles (x86)%\Sage\CRM\Services\IISUtils**) to the remote server.
   - On the remote server, add an SData application to IIS, which points to the **CRMRewriter** folder.
   - In the **CRM.Rewriter.rules** file, remove all lines except the line containing: `RewriteRule ^(/sdata/test.html)/sdata/Default.aspx?r=$1 [R,NC]` and for example, `RewriteRule ^/sdata/[install name]ExchangeSyncEngine/(.*)$ http://[remote server name]:10009/[install name]ExchangeSyncEngine/$1?%{QUERY_STRING} [P]`.
   - In the **CRM.Rewriter.rules** file change the line: `RewriteRule ^/sdata/[install name]ExchangeSyncEngine/(.*)$ http://pl-crm70-vm:10009/[install name]ExchangeSyncEngine/$1?%{QUERY_STRING} [P]` to match the Exchange Sync Engine folder and port that Tomcat uses.
   - Restart IIS and check that the rewriter module works. For example, the following URL should return an unauthorized access page: `http://localhost/sdata/[install name]ExchangeSyncEngine/$service/status`.
8. Check that the Sync Engine is visible from the Sage CRM server. For example, the following URL should return an unauthorized access page: `http://<sync engine host name>/sdata/<appname>ExchangeSyncEngine/$service/status`.
9. Create a connection to Exchange using the Sync Engine deployed on the remote server. These steps are described in **Creating a connection to Exchange**.

Deploying the Sync Engine in a multi-server environment

A multi-server environment is a Sage CRM configuration with more than one Sage CRM server. Users are load balanced onto different Sage CRM servers based on rules defined in a hardware or software load balancer.

In this type of environment, it's important that the Sync Engine runs on only *one* of the Sage CRM servers. If there are multiple Sage CRM servers, with an individual exchange Sync Engine deployed on each, there would be issues with conflicting Exchange synchronization resources and there could also be performance issues if each Sync Engine tried to perform a synchronization every few minutes.

In multi-server environments, you should install only one Sync Engine instance on the primary server in a group. To ensure that installing subsequent servers won't break the existing Exchange synchronization, do the following.

1. Disable the integration from the Sage CRM UI on the first server.
2. Install the next node.
3. Remove the Replication Engine from the new node.
    a. Stop the **Apache Tomcat 9.0 <SageCrmInstallName>Tomcat9** Windows service.
    b. Remove the file **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\tomcat\webapps\<InstallName>ExchangeSyncEngine.war**
    c. Remove the folder **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\tomcat\webapps\<InstallName>ExchangeSyncEngine**
    d. Start the **Apache Tomcat 9.0 <SageCrmInstallName>Tomcat9** Windows service.
4. Enable integration on the first node.

Configuring Exchange Server

> **Note:** Ensure the user's Sage CRMemail address matches the impersonated user's primary SMTP address in Exchange. Also ensure the user is included in the global address list in Exchange.

You must prepare on-premises Exchange Server to ensure that Sage CRM Exchange Integration works correctly.

1. Complete the prerequisites to configure Exchange Impersonation. For more information, see the latest articles on **msdn.microsoft.com**.
    - Enable Client Access Server (CAS) on on-premises Exchange Server. This performs several functions including exposing the EWS virtual directory.

- Set up domain administrator credentials, or other credentials with the permission to create and assign roles and scopes.
- Install Remote PowerShell on the computer from which you run commands.

2. Set up an Exchange impersonated user mailbox to access the mailboxes of other Exchange users if you have not already done so.
3. Run the following cmdlet in the Exchange Management Shell. This applies the **ApplicationImpersonation** role to the Exchange impersonation user so that it can access other mailboxes.

```
New-ManagementRoleAssignment –Name:<any name> –Role:ApplicationImpersonation –
User:<impersonation user name here>
```

For more information about the Exchange Management Shell, see **Using the Exchange Management Shell** on **msdn.microsoft.com**.
For complete information about the `New-ManagementRoleAssignment` cmdlet, run the following command in the Exchange Management Shell:

```
Get-Help New-ManagementRoleAssignment -Full
```

Alternatively, to manually enable a user for impersonation using EAC, add the **ApplicationImpersonation** admin role in permissions and add the mailbox used for impersonation to this role.

4. Using Outlook Web Access, log on as the impersonation user to initialize the account.
5. Click **Servers | Virtual directories | EWS | Authentication** and enable Basic authentication in the Exchange Administration Center (EAC). Basic authentication is how Sage CRM authenticates with EWS. On its own, Basic authentication is not a secure authentication method so we recommend that you use Secure Sockets Layer (HTTPS) for the connection between Sage CRM and Exchange to secure the connection.

Warning: If your Exchange hosting provider does not support Basic authentication on the EWS virtual directory and supports Windows authentication only, you cannot configure Exchange Integration because Sage CRM does not support Windows authentication.

Creating a connection to Exchange Server

You must create a connection from Sage CRM to the Sync Engine and from the Sync Engine to Exchange.

1. Click **<My Profile>| Administration | Email and Documents | Exchange Integration | Connection Management**.
2. Click **New**.
3. Complete the **Exchange connection fields**.
    a. Enter a value in **Exchange Web Service URL**, **Exchange user name**, **Domain**, and **Password** for an Exchange impersonation user.
    b. Enter a value in **CRM user name** for the Sage CRM user with full administrator rights who is used to communicate between Sage CRM and the Sync Engine.
    c. To deploy the Sync Engine remotely, select **No** in **Use default Sync Engine location** and select the checkboxes. For more information, see **Deploying the Sync Engine on a remote server**.
4. Click **Save**.
5. Click **Continue**. The Exchange Connection and User Mailbox Management tabs are displayed.
6. Select the user mailboxes that you want to enable for synchronization and review the synchronization options. For more information, see **Enabling user mailboxes for synchronization** and **Synchronization management fields**.

Exchange connection fields

Field	Description
Exchange type	Select the type of Exchange to which you want to connect.
Application (client) ID	Enter the application (client) ID you were provided with when registering Sage CRM in Microsoft Entra ID. For details, see **Configuring OAuth 2.0 and Exchange Online (Office 365)**.
Exchange Web Service URL	Exchange Web Services (EWS) URL of on-premises Exchange Server or cloud-based Exchange Online. HTTP and HTTPS are supported. For example, https://myserver/ews/exchange.asmx You must enter the correct EWS endpoint, and not the link to the EWS WSDL definition file. To use Office 365, enter https://outlook.office365.com/EWS/Exchange.asmx **Note:** Use this tool to test your EWS connection: **https://testconnectivity.microsoft.com**
Exchange user name	User name of an Exchange mailbox that has access to the mailboxes at the EWS endpoint that you want to synchronize with. This is Exchange exposed by the EWS API.

Field	Description
Domain	Windows domain of the Exchange account specified in **Exchange user name**.
Password	Password of the Exchange account specified in **Exchange user name**.
CRM user name	User name of the Sage CRM user with full administrator rights that's used to communicate between Sage CRM and the Sync Engine.
Use default Sync Engine location	When the connection is saved and established, the Sync Engine is deployed by default to **%ProgramFiles (x86)%\Sage\CRM\<InstallName>\Tomcat\Webapps** directory of the Sage CRM installation. To deploy the Sync Engine in an alternative location, set this field to **No**. For more information, see **Deploying the Sync Engine on a remote server**. If you change the default port for Sage CRM on IIS to any port other than port 80, and want to set up Exchange Integration, you must set this field to **No** and enter the server name and port number separated by a colon(:) in **Sync Engine Location**.
Sync Engine Location	The SData URL of the remotely deployed server. This field is displayed only if you set **Use Default Sync Engine Location** to **No**.
Allow Non-Organizers to Edit Linked Organizer Appointments	**Yes** allows users with the appropriate security/territory rights to edit appointments in Sage CRM which are linked to appointments in the organizer mailbox. **No** allows only the (Exchange) organizer of the appointment to edit the appointment in Sage CRM.
Logging Level	**Full logging** writes all errors, skipped items, conflicts, and all other logging regarding the synchronization to the log files. Log files are saved in: ..\Program Files\Sage\CRM\[Install Name]\Logs\Exchange Integration. You can view log files in **<My Profile> | Administration | Email and Documents | Exchange Integration | Logging**. Users with rights to view their own log files can view them in **My CRM | Exchange Integration Logs**. For more information, see **Working with Exchange Integration logs**.
Send updates to past appointments	**Yes** sends an update to all attendees of a meeting that occurred in the past whenever a user makes a change to the meeting information.

Configuring OAuth 2.0 and Exchange Online (Office 365)

Before you begin

To obtain OAuth 2.0 client ID and secret to access a mailbox in the Outlook web app, complete these additional steps first.

1. Sign in to the **Outlook web app.**

   Use the account that owns the mailbox for which you are configuring OAuth 2.0.
   The account must have administrator privileges in Outlook.

2. In Outlook settings, go to **POP and IMAP** and make sure that **Let devices and apps use POP** is set to **Yes**.

3. If necessary, save your changes.

Step 1: Obtain OAuth 2.0 client ID and secret

1. Sign in to the **Microsoft Entra admin center** as an administrator.

2. Go to **App registrations**.

3. Register a new application:

   a. Select **New registration.**

   b. Enter a descriptive name for the application.

   c. Under **Supported account types**, select **Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)**

      Sage CRM does not support other options under **Supported account types.**

   d. Under **Redirect URI (optional)**, select **Public client/native (mobile & desktop)** and enter the following URI(s):

      ```
      https://{server name}/{install name}/custompages/oauth/callback.html
      ```

      If your Sage CRM server is accessible on the internet, also add:

      ```
      https://{server FQDN}/{install name}/custompages/oauth/callback.html
      ```

In these URIs:

{install name} is the name of your Sage CRM installation. It must be all lowercase.
{server name} is the name of the Sage CRM server. It must be all lowercase.
{server FQDN} is the fully qualified domain name of the Sage CRM server. It must be all lowercase.

e. Select **Register**

f. Copy the application (client) ID and store it in a file

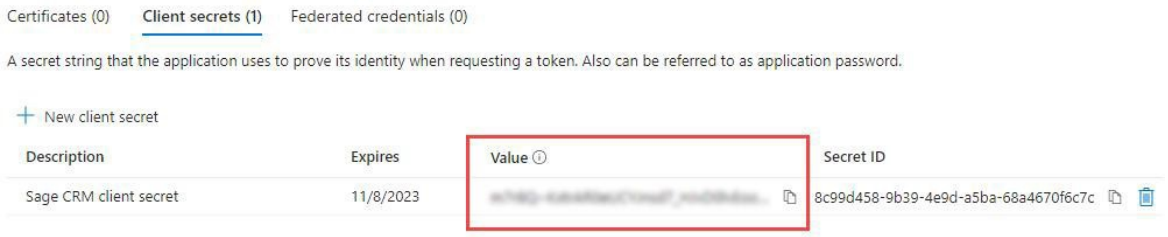
4. Obtain a secret for your application:

a. Go to **Certificates & secrets**

b. Click **New client secret**, type a description and select an expiry option

c. Click **Add**

d. In the **Value** column, copy the client secret value and store it in a file:



5. Grant the following **Microsoft API permissions**:

   Type: **Application**

   Contacts.Read
   Contacts.ReadWrite

   Type: **Delegated**

   Application.Read.All
   Calendars.Read
   Calendars.Read.Shared
   Calendars.ReadWrite
   Contacts.Read
   Contacts.Read.Shared
   Contacts.ReadWrite
   Contacts.ReadWrite.Shared
   Directory.ReadWrite.All
   EWS.AccessAsUser.All
   IMAP.AccessAsUser.All
   Mail.Read
   MailboxSettings.Read
   offline_access
   OnPremDirectorySynchronization.ReadWrite.All
   openid
   Organization.Read.All
   POP.AccessAsUser.All
   SMTP.Send
   User.Read
   User.Read.All

6. Grant the following **Office 365 Exchange Online permissions**:

   Type: **Delegated**

   EAS.AccessAsUser.All
   EWS.AccessAsUser.All
   Tasks.Read
   Tasks.Read.Shared
   Tasks.ReadWrite
   Tasks.ReadWrite.Shared

Step 2: Create a connection from Sage CRM to Exchange Online

Note: If you have Microsoft Office 365 credentials cached on the Sage CRM server, you may encounter errors while completing the below steps. To avoid errors, we recommend that you either complete these steps in an incognito tab of your web browser or clear your web browser's cache.

1. Log on to Sage CRM as a System Administrator
2. Go to **<My profile> | Administration | System | System Behavior** and click **Change**
3. Select **Yes** for **Use Exchange Integration** is set to **Yes**
4. Click **Save**
5. Go to **<My profile> | Administration | Email and Documents | OAuth 2.0 Settings for Importing Contacts and Emails** and click **Change**
6. Enter the **OAuth 2.0 client ID** and **Client secret value** you obtained in Step 1
7. Click **Save**
8. Go to **<My profile> | Administration | Email and Documents | Exchange Integration | Connection Management** and click **New**
9. Complete the **Exchange Connection Settings**:
   - For **Exchange type**, select **Exchange Online (Office 365)**
   - For **Exchange Web Service URL**, enter the following:

     ```
     https://outlook.office365.com/EWS/Exchange.asmx
     ```

   - For **Application (client) ID**, enter the **OAuth 2.0 client ID** you obtained in Step 1
   - For **CRM user name**, enter a Sage CRM user with system administrator rights
10. Click **Save**
11. Click **Continue**

Step 3: Enable user mailboxes for synchronization

1. Log on to Sage CRM as a System Administrator
2. Go to **<My profile> | Administration | Email and Documents | Exchange Integration | Connection Management** and select the **User Mailbox Management** tab. A list of Sage CRM users is displayed

3. Click **Change**

   This button is displayed only if the synchronization process is disabled

4. Select the **Synchronize** checkbox beside the user mailboxes that you want to synchronize with Exchange

   We strongly recommend that you enable all Sage CRM users for Exchange synchronization to ensure a seamless integration

5. Click **Save**
6. Click **Continue**

Step 4: Enable Exchange synchronization

1. Log on to Sage CRM as a System Administrator
2. Go to **<My profile> | Administration | Email and Documents | Exchange Integration | Synchronization Management** and click **Change**
3. Select **Yes** for **Sync Appointments**
4. Click **Save**
5. Click **Enable**. The synchronization status changes in **In Progress**

Step 5: Instruct Sage CRM users to connect to their Exchange Online accounts

Every Sage CRM user must do the following:

1. Log out of their Microsoft Exchange account
2. Clear the browser cache completely
3. Login to Sage CRM
4. Go to **<My profile> | Preferences**
5. Select **Connect to Email Account** or **Switch Email Account**
6. Enter the email account details when prompted and validate if required
7. Click **Continue**
8. Select the **Contacts** tab to confirm the connection
9. Select **Import contacts** and select the contact(s) you want to import into Sage CRM

Granting the SendAs right

a. **Granting the SendAs right to an SMTP user**

b. **Granting SendAs right to a group**

c. **Granting SendAs right to all mailboxes**

Granting the SendAs right to an SMTP user

To send emails from Sage CRM as any user, you must enable the SendAs right on Exchange using PowerShell.

> **Note:** PowerShell is installed on your client. You don't need to install the Exchange remote PowerShell tools.

1. Allow all PowerShell scripts to run:

```
Set-ExecutionPolicy Unrestricted
```

2. Run the following command:

```
$LiveCred = Get-Credential
```

3. When prompted, enter the credentials for an Exchange administrator. The Exchange connection URL shown below (`https://ps.outlook.com/powershell/`) is for Exchange Online, but you can substitute your own Exchange CAS server, or an Exchange instance hosted by a third party.

```
$Session = New-PSSession -ConfigurationName Microsoft.Exchange -ConnectionUri
https://ps.outlook.com/powershell/ -Credential
$LiveCred -Authentication Basic -AllowRedirection Import-PSSession $Session Enable-
OrganizationCustomization
```

   This command may take a few moments to complete.

4. When you're connected to the Exchange instance, you can grant the SendAs right in one of the following ways:

- Add the Exchange users to an Active Directory group or distribution group and grant the SendAs right to the group. This is a good option if you plan to do something else with these users. See **Granting the SendAs right to an SMTP user**.
- Grant the SendAs right on all mailboxes. This approach is quick but applicable only for smaller organizations where all users use Sage CRM. See **Granting the SendAs right to an SMTP user**.

Note: Use the pipe operator (|) to get an array of mailbox objects and send them to your command. This allows you to quickly grant the SendAs right over a large number of mailboxes, without selecting them all individually.

Granting SendAs right to a group

1. Create a distribution list called *CRM Users* containing two Exchange users who also use Sage CRM. The user email addresses in the example below are `ebdenm@panoply-tech.com` and `mayes@panoply-tech.com`.

```
New-DistributionGroup -Name "CRM Users" -IgnoreNamingPolicy "ebdenm@panoply-
tech.com","mayes@panoply-tech.com" |
%{ Add-DistributionGroupMember -Identity "CRM Users" -Member $_ }
```

2. Run the following command to list the members of the distribution group:

```
Get-DistributionGroupMember "CRM Users"
```

   This returns the members:

```
Name RecipientType
-------- ----------------------------
ebdenm UserMailbox
mayes UserMailbox
```

3. Send the members of the distribution group to the `Get-Mailbox` command and forward the array of resolved mailboxes to the `Add-MailboxPermission` cmdlet. The mailbox for the Sage CRM SMTP user is `crmuser@panoply-tech.com`:

```
Get-DistributionGroupMember "CRM Users" | Get-Mailbox | Add-MailboxPermission -User
crmuser@panoply-tech.com -AccessRights FullAccess
```

4. Set the SendAs permissions:

```
Get-DistributionGroupMember "CRM Users" | Get-Mailbox | Add-RecipientPermission -
AccessRights SendAs -Trustee crmuser@panoply-tech.com
```

Granting SendAs right to all mailboxes

Run the following commands. Do not filter by the distribution group:

```
Get-Mailbox | Add-MailboxPermission -User crmuser@panoply-tech.com -AccessRights FullAccess
```

```
Get-Mailbox | Add-RecipientPermission -AccessRights SendAs -Trustee crmuser@panoply-tech.com
```

Synchronizing Exchange and Sage CRM

- **Enabling user mailboxes for synchronization**
- **Setting Exchange synchronization options**
- **Enabling Exchange Integration**
- **Enabling Exchange synchronization**
- **Staggering the initial synchronization**
- **Working with synchronization errors**
- **Working with Exchange Integration logs**
- **Viewing synchronization statistics**

Enabling user mailboxes for synchronization

You must select the Sage CRM user mailboxes that you want to synchronize with Exchange. Exchange Integration does not support synchronization with public mailboxes or with mailboxes that have been exposed to Exchange through federation trust.

> **Note:** Exchange Integration does not use users' licenses when carrying out a synchronization, so the number of users enabled for the integration can be greater than the number of concurrent licenses.

1. Click **<My Profile> | Administration | Email and Documents | Exchange Integration | Connection Management**.
2. Click the **User Mailbox Management** tab. A list of all Sage CRM users (excluding Disabled, Deleted, Resource users, or any users without an email address) is displayed.
3. Click **Change**. This button is displayed only if the synchronization process is disabled.
4. Select the **Synchronize** checkbox beside the user mailboxes that you want to synchronize with Exchange. We strongly recommend that you enable all Sage CRM users for Exchange

synchronization to ensure a seamless integration. Synchronization does not occur until the synchronization is enabled.

5. Click **Save**. The Sync Engine checks the connection to the user mailboxes through the impersonation user.
   - Where a connection to a mailbox is successful, an Enabled icon is displayed in the Synchronization column.
   - Where a connection to a mailbox is unsuccessful, a Failed icon is displayed in the Synchronization column.
   - If two email addresses in Sage CRM map to one primary email address in Exchange, the first connection is successful but the second connection is successful. See the log files for more information about failed connections.

Setting Exchange synchronization options

The rules that are used to synchronize data between Sage CRM and Exchange are based on the default Exchange synchronization management settings where appointments, tasks, and linked contacts are synchronized in both directions during Exchange Integration. You can change the values of these settings to suit your particular business requirements.

1. Click **<My Profile> | Administration | Email and Documents | Exchange Integration | Synchronization Management**.
2. If the connection is currently enabled, click **Disable**. The Connection Status must be disabled to make changes to Exchange synchronization options.
3. Click **Change**.
4. Change the values in the **Synchronization management fields**.
5. Click **Save**.

Synchronization management fields

All Synchronization Management fields are global and apply to all mailboxes involved in the synchronization. All fields on the **Status** panel are read-only.

Field	Description
Exchange Web Service URL	Exchange Web Services URL that was specified when setting up the connection to Exchange.
Connection Status	**Disabled** when a connection is first set up or if the connection has been temporarily disabled. For example, when you are enabling additional user mailboxes for synchronization.

Field	Description
Current Sync State	**Blank** when the connection is disabled. **In Progress** when the synchronization is enabled and in progress. **Waiting to Sync** when the synchronization is enabled but not currently in progress. For example, a synchronization has just finished and another is due in five minutes.
Last Sync Status	The status of the most recent synchronization. **Blank** when the connection was never enabled or a synchronization is in progress. **Success** when no errors were encountered during the last synchronization. **Fail** when the number of standard errors during the last synchronization was greater than the value in **Max Errors Allowed** or a fatal error occurred. **Success with Errors** when the number of standard errors in the last synchronization was less than or equal to the value in **Max Errors Allowed**. **Interrupted** when you disabled the synchronization process while it was in progress.
Last Sync Time	Date and time that the most recent synchronization started.
Next Sync Time	Date and time of the next scheduled synchronization. This is the time that the last synchronization finished + the synchronization interval (minutes).
Errors in Last Sync	The number of errors in the last synchronization .
Conflicts in Last Sync	The number of conflicts in the last synchronization. This is not dependent on the selected logging level.
Skipped Items in Last Sync	The number of skipped items in the last synchronization. This is not dependent on the selected logging level.

Field	Description
Sync Appointments	**Yes** synchronizes appointments in the direction defined in **Appointment Sync Direction**. For information about fields that are synchronized, see **Appointment field mappings**. **No** never synchronizes appointments.
Sync Tasks	**Yes** synchronizes tasks in the direction defined in **Task Sync Direction**. For information about fields that are synchronized, see **Synchronizing tasks**. **No** never synchronizes tasks.
Sync Contacts	**Yes** synchronizes contacts in the direction defined in **Contact Sync Direction**. For information about fields that are synchronized, see **Synchronizing contacts**. **No** never synchronizes contacts.
Appointment Sync Direction	This field is disabled if **Sync Appointments** is set to **No**.
Task Sync Direction	This field is disabled if **Sync Tasks** is set to **No**.
Contact Sync Direction	This field is disabled if **Sync Contacts** is set to **No**. There is no **Exchange to CRM Only** option because unlinked Exchange contacts are never synched to Sage CRM.
Appointment Conflicts	Determines which version is used when there's a duplicate or conflict on an appointment record. This field is disabled if **Appointment Sync Direction** is set to one-way (either **Exchange to CRM Only** or **CRM to Exchange Only**) or **Sync Appointments** is set to **No**.
Task Conflicts	Determines which version is used when there's a duplicate or conflict on a task record. This field is disabled if **Task Sync Direction** is set to one-way (either **Exchange to CRM Only** or **CRM to Exchange Only**) or **Sync Tasks** is set to **No**.

Field	Description
Contact Conflicts	Determines which version is used when there's a duplicate or conflict on a contact record. This field is disabled if **Contact Sync Direction** is set to one-way (**CRM to Exchange Only**), or **Sync Contacts** is set to **No**.
Archived Appointment Policy (days)	Appointments deleted in Exchange, either deliberately or as a result of archiving, are received by Sage CRM as delete requests. It is not desirable to automatically delete the appointments in Sage CRM just because they are archived by Exchange so this field enables you to set an archived appointment policy. The default value is 180. Using the default value, if a delete request comes from Exchange on an appointment where the End Date is 180 days or older, the appointment is not deleted, but the link to Exchange is deleted. If the appointment is deleted in Exchange and the End Date is within 180 days, the appointment is deleted in Sage CRM. You can enter zero and blank values, but we don't recommend that you use these. Using zero, if a delete request comes from Exchange on any appointment regardless of its age, the appointment is not deleted, but the link to Exchange is deleted. Using **blank**, if a delete request comes from Exchange on any appointment regardless of its age, the appointment is deleted. This field is disabled if **Appointment Sync Direction** is set to **CRM to Exchange Only**.

Field	Description
Archived Recurring Appointment Policy (days)	The default value is 180. Using the default value, if a delete request comes from Exchange on a series of appointments where the End Date of the last occurrence in the series is 180 days or older, the series is not deleted, but the link to Exchange is deleted. If the series of appointments is deleted in Exchange and the End Date of the last occurrence in the series is within 180 days, the series is deleted in Sage CRM. You can enter zero and blank values, but we don't recommend that you use these. Using zero, if a delete request comes from Exchange on a series of appointments regardless of its age, the series is not deleted, but the link to Exchange is deleted. Using **blank**, if a delete request comes from Exchange on a series of appointments regardless of its age, the series is deleted. This field is disabled if **Appointment Sync Direction** is set to **CRM to Exchange Only**.
Archived Task Policy (days)	The default value is 180. Using the default value, if a delete request comes from Exchange on a task where the Last Modified Date is 180 days or older, the task is not deleted, but the link to Exchange is deleted. If the task is deleted in Exchange and the Last Modified Date is within 180 days, the task is deleted in Sage CRM. You can enter zero and blank values, but we don't recommend that you use these. Using zero, if a delete request comes from Exchange on any task regardless of its age, the task is not deleted, but the link to Exchange is deleted. Using **blank**, if a delete request comes from Exchange on any task regardless of its age, the task is deleted. This field is disabled if **Task Sync Direction** is set to **CRM to Exchange Only**.
Sync Interval (minutes)	Number of minutes between the end of the last synchronization and the start of the next synchronization. The default value is 5. Set this field to zero to start the next synchronization as soon as the last synchronization ends.

Field	Description
Response Timeout (seconds)	Number of seconds that Sage CRM waits for a response from the Exchange Web Services endpoint or the Sync Engine before returning a fatal error. The default value is 300. If timeouts occur for the first synchronization, increase this value for the first synchronization and then decrease the value. If subsequent synchronizations result in timeouts, increase this value for normal operation to suit your environment.
Max Errors Allowed	Number of standard errors allowed before the synchronization fails. The default value is 100.
Include CRM Info in Body	**Yes** displays the top content (related company and person) of an appointment in the appointment body in Exchange. You can customize the top content that's included in the body in **<My Profile> | Administration | Translations (caption code OTL_AppointmentDetails, OTL_TaskDetails)**. The setting does not apply to tasks because top content is always included in tasks. **No** allows a user to edit the Regarding panel fields on a Communication record. This field is disabled if **Sync Appointments** is set to **No**.
Expand Distribution Lists	**Yes** synchronizes a meeting invitation or appointment scheduled for a distribution list in Exchange to Sage CRM as an appointment for each member of the list.

Enabling Exchange Integration

1. Click **<My Profile> | Administration | System | System Behavior**.
2. Click **Change**.
3. Select **Yes** from **Use Exchange Integration**.
4. Click **Save**.

When Exchange Integration is enabled, the following happens:

- The **Exchange Integration** option is displayed in **<My Profile> | Administration | Email and Documents**.

- The **Synchronize with Exchange** checkbox and **Show Exchange integration logs** field are displayed in **<My Profile> | Administration | Users | Users | <user>**. For more information, see **User fields**.

Enabling Exchange synchronization

Only default calendar, task list and contacts folders are synchronized. Sub-folders aren't synchronized so you should save any data that you don't want to synchronize with Sage CRM in sub-folders.

1. Click **<My Profile> | Administration | Email and Documents | Exchange Integration | Synchronization Management**.
2. Click **Enable**.The synchronization status changes to **In Progress**.

When the synchronization has completed, the synchronization status changes to **Waiting** before the next sync is due.

Staggering the initial synchronization

If you have large volumes of data and user mailboxes, you could consider a staggered approach to the initial synchronization. This example describes a staggered approach to the initial synchronization of 210 user mailboxes, 30 mailboxes at a time.

1. Click **<My Profile> | Administration | Email and Documents | Exchange Integration | Connection Management | User Mailbox Management** and flag users 1-30 to synchronize.
2. Click **<My Profile> | Administration | Email and Documents | Exchange Integration | Synchronization Management** and trigger an initial synchronization for these 30 users only. When the initial synchronization for these users is finished, disable the synchronization.
3. Flag users 31 – 60 to synchronize and re-enable the synchronization. This triggers an initial synchronization for users 31 – 60 and a subsequent synchronization for users 1 – 30.
4. When this synchronization is finished, disable the synchronization.
5. Flag users 61 – 90 to synchronize and re-enable the synchronization. This triggers an initial synchronization for users 61 – 90 and a subsequent synchronization for users 1 – 60.
6. When this synchronization is finished, disable the synchronization.

Working with synchronization errors

You should monitor the synchronization to ensure there are no errors:

- Use HTTP Debugger to capture synchronization traffic.
- View the synchronization status page. For more information, see **Viewing synchronization statistics**.
- Monitor the log files. For more information, see **Working with Exchange Integration logs**.

Types of error

Sage CRM handles the following scenarios as standard errors. They are logged according to the specified logging level

- **Data Sync Error**. Data is synchronized from Exchange to Sage CRM or Sage CRM to Exchange, but Sage CRM or Exchange cannot process the create/update/delete for a contact/task/appointment. For example, because non-numeric characters have been synchronized to an Integer field. Each failed create/update/delete from either Sage CRM or Exchange is added to the overall error count for a specific synchronization.
- **Cannot Connect to Mailbox**. During the course of a synchronization, Sage CRM cannot connect to a specific Exchange mailbox that has been flagged to synchronize with Sage CRM. The Sage CRM user mailbox is flagged with a red X in the User Mailbox Management list and the Last Sync column displays the last time a synchronization was successfully started for the user. Sage CRM doesn't attempt to reconnect to the mailbox during the current synchronization. It does attempt to connect during the next synchronization.

Sage CRM handles the following scenarios as fatal errors and stops all activity for the current synchronization. Fatal errors are logged according to the specified logging level and synchronization is attempted at the next scheduled synchronization time.

- No response from EWS endpoint or Sync Engine within the time specified in Response Timeout.
- Sage CRM cannot connect with the EWS URL. For example, due to an authentication problem.
- Sage CRM is connected to Exchange but not to any of the flagged mailboxes.
- Sage CRM cannot connect to the Sync Engine or vice versa.

Troubleshooting steps

When trying to identify the cause of an error, do the following:

- Establish if the error occurs on all mailboxes, or only certain mailboxes. To do this, disable all users except the problem user, and test with specific synchronization types.
- Investigate if the error occurs during a specific type of synchronization. For example, when synchronizing contacts from Sage CRM to Exchange, or when synchronizing tasks from Exchange to Sage CRM. If it occurs when synchronizing from Exchange to Sage CRM, check

the SCRM and Exchange Sync Engine logs. If it occurs when synchronizing from Sage CRM to Exchange, check the CXF and Exchange Sync Engine logs.

- Investigate if the synchronization causes the Exchange Sync Engine to stop responding. Check the Tomcat service logs for a crash.
- Check all relevant logs. An issue with data synchronization is not necessarily a fault in the Sync Engine. Errors reported by the Sync Engine could be caused by errors on one of the endpoints.

Working with Exchange Integration logs

You can view Exchange Integration logs in **<My Profile> | Administration | Email and Documents | Exchange Integration | Logging**. You can view log files for each user (User logs) or for all user mailboxes and the whole configuration (Generic logs).

You can also view the logs from the Sage CRM installation in **%ProgramFiles(x86)%\Sage\CRM\<InstallName>\Logs\Exchange Integration**.

Users with rights to view their own log files can view them in **My CRM | Exchange Integration Logs**.

Setting logging levels

You set the logging level for the logs in the table below in **<My Profile> | Administration | Email and Documents | Exchange Integration | Connection Management**. For more information, see **Exchange connection fields**.

Log File	Description
User folder	Logs activity information and skipped items on individual mailboxes and errors that occur on a single mailbox.
Generic folder	Logs errors and activity not associated with a specific mailbox. The exchangeConfiguration log is most likely to contain errors the occur on a webapp level.
Exchange Configuration Log	Contains all activity on the configuration of the Exchange Integration for any given day including connecting to the Sync Engine, connecting to the EWS endpoint, and connecting to specific mailboxes. The file name for this log is **[date]ExchangeConfigurationLog.log**.

Log File	Description
Exchange Conflicts	Contains all conflicts for the Exchange Integration for any given day, for all mailboxes involved in a synchronization that day. The file name for this log is **[date]ExchangeConflictLog.log**. Also available as a user log, **User Conflicts [date][username]_ ConflictLog.log**.
Skipped Items - CRM to Exchange	Contains all skipped items when synchronizing from Sage CRM to Exchange for the Exchange Integration for any given day, for all mailboxes involved in a synchronization that day. The file name for this log is [*date*]SkippedItemsCRMToExchange.log. Also available as a user log, **User Skipped Items - [date] [username]_SkippedItemsCRMToExchange.log**.
Skipped Items - Exchange to CRM	Contains all skipped items when synchronizing from Exchange to Sage CRM for the Exchange Integration for any given day, for all mailboxes involved in a synchronization that day. The file name for this log is **[date]SkippedItemsExchangeToCRM.log**. Also available as a user log, **User Skipped Items - [date] [username]_SkippedItemsExchangeToCRM.log**.
Sync Activity - CRM to Exchange	Contains all sync activity and sync-related errors for any given day for all mailboxes involved when synchronizing from Sage CRM to Exchange. The file name for this log is **[date]SyncActivityCRMToExchange.log**. Also available as a user log [**date][username]_SyncActivityCRMToExchange.log**.
Sync Activity - Exchange to CRM	Contains all synchronization activity and synchronization-related errors for any given day for all mailboxes involved when synchronizing from Exchange to Sage CRM. The file name for this log is **[date]SyncActivityExchangeToCRM.log**. Also available as a user log **[date][username]_ SyncActivityExchangeToCRM.log**.

You set the logging level for the logs in the table below in the **log4j.properties** file in the **exchangesyncengine webapp WEB-INF** folder.

Log File	Description
Exchangesynchronisation - log4j.properties file	High level activity log that displays the number of records to be processed. In general, it indicates if an error response is retrieved from EWS or CRMJ.
Exchangesyncengine	Logs activity (including GETs and POSTs), HTTP error codes if received, and stack traces.
Exchangesyncdefault	Logs all synchronization activity. This displays everything that occurs in sequence.
Exchangesynch	Logs errors that occur on individual synchronization items going to CRMJ or EWS.
Exchangesyncenginestacktrace	Logs stack traces caused by exceptions. This is a useful starting point.

Logging tips

- Don’t enable DEBUG logging on any webapp until you've identified the general area where the problem is occurring.
- If you're unsure which area is causing the error, archive logs and generate a new set of standard logs.
- If you believe an error is returned by Exchange, or the error is caused by data sent to Exchange, enable the general, inbound, and outbound CXF logs.
- If you believe the error is occurring in the CRMJ webapp, examine the CRMJ log files.

Viewing synchronization statistics

Open a web browser and navigate to
`http://<servername>/sdata/<installname>ExchangeSyncEngine/$service/status?html`

The following information about the Exchange Integration synchronization is displayed:

- Synch Engine Status
    - Heatbeat date
- Syncrhonization Statistics
    - Source Endpoint
    - Target Endpoint
    - Resource
    - Sync Digest Time

- Sync Source Time
- Sync Target Time
- Sync Result Time
- Items Count

Mailchimp Integration

- **About Mailchimp**
- **Steps to integrate Sage CRM and Mailchimp**
- **Mailchimp audience fields automatically added by Sage CRM**
- **Adding users to Mailchimp**
- **Adding custom field to Mailchimp audience**
- **Deleting custom field from Mailchimp audience**
- **Preventing users from creating records with the same email address**
- **Disabling Mailchimp Integration**

About Mailchimp

Mailchimp is an email marketing solution that's integrated with Sage CRM to let you create online campaigns, send emails, and track results.

Here's how it works.

1. The system administrator logs on to Sage CRM and integrates Sage CRM with Mailchimp. This involves creating a Mailchimp account and adding a Mailchimp API key and Audience ID to Sage CRM so they can communicate with each other.
2. The system administrator specifies how frequently campaign statistics are synchronized from Mailchimp to Sage CRM.
3. The system administrator grants Mailchimp access rights to Sage CRM users.
4. The user logs on to Sage CRM and sends information about the Sage CRM contacts to be used in a new Mailchimp campaign to the Mailchimp server.
5. The user creates a Mailchimp campaign. This involves designing a template, adding text, and specifying a recipient group.
6. The user sends the emails, schedules them to be sent at a specified time, or saves the campaign for future use.
7. The Mailchimp server sends campaign emails to the specified recipient group.
8. The recipient interaction with the campaign email (opens, clicks, unsubscribes) is returned to the Mailchimp server. The recipient can chose to opt out from the campaign.

9. Data from all campaigns is synchronized from the Mailchimp server to Sage CRM. Communication records are created in Sage CRM for each recipient. Recipients who have opted out are flagged and do not receive any further campaign emails.
10. The user receives the campaign analysis data.

The number of emails you can send depends on your Mailchimp pricing plan. For more information, see **mailchimp.com/pricing**.

Steps to integrate Sage CRM and Mailchimp

1. Go to **| Administration | Email and Documents | Mailchimp Integration**.
2. **Create a Mailchimp account**.
3. **Get the Mailchimp API key** and enter it in **Mailchimp API key**. Sage CRM uses this key to communicate with Mailchimp.
4. **Get the Mailchimp Audience ID** and enter it in **Audience ID**. Sage CRM uses this ID to send subscriber information to Mailchimp.
5. In **Email builder**, select the email builder that you plan to use for creating emails and email templates in Mailchimp. For more information, see **About Mailchimp's Email Builders** in the Mailchimp Help.

   > **Warning:** You must use the selected email builder in Mailchimp. If you use a different email builder, your Mailchimp integration may stop working. If you switch email builder in Mailchimp, you must also change it in the Mailchimp integration settings in Sage CRM.

6. Configure the following options:
   - **Communications and opt-out results**. Select how often to synchronize communications and opt-out results from Mailchimp to Sage CRM for each email recipient. View the date and time of last synchronization below **Last communications sync**.
   - **Campaign results**. Select how often to synchronize campaign statistics from Mailchimp to Sage CRM. View the date and time of last synchronization below **Last campaign sync**.
7. Select **Save**.

   Sage CRM is integrated with Mailchimp for your Sage CRM account.
8. Enable Mailchimp for specific users as described in **Adding users to Mailchimp**.

> **Note:** If you're re-enabling a disabled Mailchimp integration, go to **| Administration | Email and Documents | Mailchimp Integration**, select **Edit**, and then select **Enable**.

When Sage CRM is integrated with Mailchimp, you can use the below additional secondary entities and associated views to customize the Sage CRM UI or create reports.

Secondary entity	Associated view	View type
MailChimpBounced Provides fields that relate to emails that were marked as hard bounces by Mailchimp.	vMailChimpBounced	Core
MailChimpCampaign Provides fields that relate to a Mailchimp campaign.	vContactMailchimpCampaigns vMailChimpCampaign	Core System
MailChimpClicksByEmail Provides fields that relate to the number of times an individual link in a Mailchimp email was clicked by the recipients.	vMailChimpClicksByEmail	Core
MailChimpClicks Provides fields that relate to the total number of times that all links in your Mailchimp emails were clicked by the recipients.	None	None

Secondary entity	Associated view	View type
MailChimpErrorGroup Provides fields that relate to the errors raised for a Mailchimp group.	MailchimpErrorGroup	Core
MailChimpOpens Provides fields that relate to the number of times all emails in your Mailchimp campaign were opened.	vMailChimpOpens	Core
MailChimpSegments Provides fields that relate to a Mailchimp campaign segment.	vMailChimpSegments	Core
MailChimpUnsubscribed Provides fields that relate to the number of recipients who unsubscribed from a Mailchimp campaign.	vMailChimpUnsubscribed	Core

Creating a Mailchimp account

Do one of the following:

- In Sage CRM, click **<My Profile> | Administration | Email and Documents | Mailchimp Integration** and click **create a Mailchimp account** in the coaching caption.
- Follow the steps in the **How to Create an Account** topic in the Mailchimp Help.

Note: When a user creates a new Mailchimp campaign in Sage CRM, they must log on to Mailchimp. They can log on using the administrator account details that you used when creating the Mailchimp account. If you don't want them to use the administrator log on details, you can create another user in Mailchimp with Manager rights. This type of user can send Mailchimp campaigns.

Getting a Mailchimp API key

Note: For steps on how to find or generate an API key, see **About API Keys** in the Mailchimp Help.

As part of the integration process between Sage CRM and Mailchimp, you must find and specify an API key. Sage CRM uses this key to communicate with Mailchimp. Before you can get the API key, you must first create a Mailchimp account. For more information, see **Creating a Mailchimp account**.

After you've integrated Sage CRM and Mailchimp, you can change the API key. If you change it to another API key on the existing Mailchimp account, all campaigns remain active. However, if you change it to an API key on a different account, all campaigns are disabled and campaign statistics are not updated automatically or manually. You can't revert to the old API key. This means that if campaigns are disabled, you can't re-enable them.

Getting a Mailchimp Audience ID

Note: For steps on how to find your Audience ID, see **Find Your Audience ID** in the Mailchimp Help.

As part of the integration process between Sage CRM and Mailchimp, you must find and specify an Audience ID. Sage CRM uses this ID to send subscriber information to Mailchimp. Before you can get the Audience ID, you must first create a Mailchimp account. For more information, see **Creating a Mailchimp account**.

After you've integrated Sage CRM and Mailchimp, you can change the Audience ID. If you change it to another Audience ID on the existing Mailchimp account, all campaigns remain active. However, if you change it to an Audience ID on a different account, all campaigns are disabled and campaign statistics are not updated automatically or manually. You can't revert to the old Audience ID. This means that if campaigns are disabled, you can't re-enable them.

Note: The default audience in a new Mailchimp account may contain fields that are not supported by Sage CRM, for example, **Address**. Sage CRM only supports fields whose type is `text`. Make sure to remove all unsupported fields from your audience.

Sage CRM automatically adds a number of fields to your Mailchimp audience. For details, see **Mailchimp audience fields automatically added by Sage CRM**.

Mailchimp audience fields automatically added by Sage CRM

When Mailchimp integration is enabled, Sage CRM automatically adds the below 13 fields (merge tags) to your Mailchimp audience and maps them to the listed Sage CRM fields. You cannot delete these fields from the Mailchimp audience. If you try to do so, Sage CRM automatically restores the fields next time a group is synchronized from Sage CRM to Mailchimp.

Mailchimp field name (merge tag)	Mapped Sage CRM field name
COM_EMAIL **Field label:** Company email **Field type:** Text	comp_emailaddress
COM_SECTOR **Field label:** Company sector **Field type:** Text	comp_sector
COM_WEB **Field label:** Company website **Field type:** Text	comp_website
COMPANY **Field label:** Company name **Field type:** Text	• **When a contact is Company:** comp_name • **When a contact is Lead:** lead_companyname

Mailchimp field name (merge tag)	Mapped Sage CRM field name
EMAIL Mailchimp automatically adds this field and uses it to uniquely identify a contact. This field is not counted towards the number of fields in your Mailchimp audience. **Field label:** Email address **Field type:** Email	- **When a contact is Company:** comp_emailaddress - **When a contact is Lead:** lead_personemail - **When a contact is Person:** pers_emailaddress
FNAME **Field label:** First name **Field type:** Text	- **When a contact is Lead:** lead_personfirstname - **When a contact is Person:** pers_firstname
LEA_COUNTR **Field label:** Lead company country **Field type:** Text	lead_companycountry
LNAME **Field label:** Last name **Field type:** Text	- **When a contact is Lead:** lead_personlastname - **When a contact is Person:** pers_lastname
PER_DEPART **Field label:** Person department **Field type:** Text	pers_department
PER_EMAIL **Field label:** Person email **Field type:** Text	- **When a contact is Lead:** lead_personemail - **When a contact is Person:** pers_emailaddress
PER_SALUTA **Field label:** Salutation **Field type:** Text	- **When a contact is Lead:** lead_personsalutation - **When a contact is Person:** pers_salutation

Mailchimp field name (merge tag)	Mapped Sage CRM field name
PER_TITLE **Field label:** Person title **Field type:** Text	pers_title
TERRITORY **Field label:** Territory **Field type:** Text	• **When a contact is Company:** comp_secterr • **When a contact is Lead:** lead_secterr

Note: If your Mailchimp pricing plan allows, you can manually add more fields to your Mailchimp audience. For more information, see **Adding custom field to Mailchimp audience**.

Adding users to Mailchimp

When you've integrated Sage CRM and Mailchimp, you can configure users' settings so they can create and send campaign emails from Mailchimp.

1. Click **<My Profile> | Administration | Users | Users** and search for the user that you want to configure.
2. Click the Last Name hyperlink.
3. Click **Change**.
4. Select **Yes** from **Enable Mailchimp** and click **Save**.

When a user creates a new Mailchimp campaign in Sage CRM, they must log on to Mailchimp. They can log on using the administrator account details that you used when creating the Mailchimp account. If you don't want them to use the administrator log on details, you can create another user in Mailchimp with Manager rights. A Manager can create and send campaigns, import lists, and view reports.

1. In Mailchimp, click your profile name to open the **Account Panel** and click **Account**.
2. Click the **Settings** drop-down and select **Users**.
3. Click **Invite a User**.
4. Enter the email address of the Sage CRM user that you've enabled for Mailchimp.
5. Select **Manager**.

6. Enter an invitation message.
7. Select the **reCAPTCHA** checkbox.
8. Click **Send Invite**. The email recipient can create a username and password for their new Mailchimp account. For more information, see **Manage User Levels in Your Account**.

Adding custom field to Mailchimp audience

By default, Sage CRM automatically adds a number of fields to your Mailchimp audience. If your Mailchimp pricing plan allows, you can manually add a custom field to your Mailchimp audience to include more information in your campaign.

First, you need to add your custom field to the group in Sage CRM that is linked to your Mailchimp audience. Then, manually create the corresponding field in the Mailchimp audience. When naming the field in Mailchimp, use the initial ten characters of the corresponding Sage CRM field name. This is required so that Sage CRM automatically matches these fields and sends data to the correct Mailchimp field.

> **Note:** If your group in Sage CRM contains several fields whose first ten characters are identical, Sage CRM matches the field that takes the highest position in the group.

1. In Sage CRM, go to **My CRM | Groups**.
2. Locate and open the group linked to your Mailchimp audience.
3. Select **Change** and step through the wizard to add a new field to the group contents.

   Take note of the name of the field you're adding. To do so, on the screen where you're adding the field to the group contents, point to the field caption. The tooltip that appears shows the field name, for example:

4. In your Mailchimp audience, add the corresponding field. For instructions, see **Add and delete fields in the audience settings** in the Mailchimp Help.

   When naming the field in Mailchimp, use the first ten characters of the corresponding field name in Sage CRM, so that Sage CRM automatically matches these fields. The matching is case-insensitive.

The field type in Mailchimp must be `text` because Sage CRM passes data to Mailchimp as text.

An example of automatically matched fields:

Field name in Sage CRM	Corresponding field name (merge tag) in Mailchimp
comp_ mycustomfield	comp_mycus

As a result, Sage CRM populates the value of the field you've added to the Mailchimp audience.

Deleting custom field from Mailchimp audience

You can delete a custom field you've added to your Mailchimp audience. For instructions, see **Add and delete fields in the audience settings** in the Mailchimp Help.

> **Note:** You cannot delete the Mailchimp audience fields automatically added by Sage CRM. If you try to do so, Sage CRM restores these fields next time data is synchronized to Mailchimp.

Preventing users from creating records with the same email address

Mailchimp identifies records by email address. If a group sent to Mailchimp contains two or more records with the same email address, Mailchimp rejects the group.

To ensure that a Person, Company, or Lead record being added to the system has a unique email address, system administrators can enable the detection of duplicate email addresses.

With the detection of duplicate email addresses enabled, if a user is adding or editing a Person, Company, or Lead record and tries to assign an email that is already used by another record of the same type in the system, an error occurs.

For example, a Person record and a Lead record can have the same email address, but two Person records cannot.

To enable the detection of duplicate email addresses:

1. Go to **<My Profile> | Administration | System | System Behavior**
2. Click **Change**.
3. Set **Detect duplicate emails** to **Yes**.
4. Click **Save**.

Disabling Mailchimp Integration

1. Click **<My Profile> | Administration | Email and Documents | Mailchimp Integration**.
2. Click **Disable**. Data from all campaigns is no longer automatically synchronized from Mailchimp to Sage CRM and users can't manually synchronize the data for individual campaigns.

To re-enable the Mailchimp Integration, click **Enable**. The **Opt out of E-Marketing** checkbox on a Company, Lead, or Person record indicates whether the contact has unsubscribed from a Mailchimp campaign. If you disable and then re-enable the Sage CRM and Mailchimp Integration, this checkbox is no longer displayed. You must perform a metadata refresh in order to display it.

Document templates

A user performs a mail merge using a document template and a Sage CRM record. As the system administrator, you can upload a template to the global shared templates folder in the library so it's available to all users. For more information, see **About the library**.

- **Configuring document settings**
- **Setting default quick quote or quick order template**
- **Uploading a shared template**
- **Editing a shared template**
- **Adding current date to a mail merge view**
- **Appending quote or order ID to Word or PDF file name**
- **Deleting a shared template**

Configuring document settings

If your users perform mail merge with a large number of records or a large number of users perform mail merge at the same time, you should change the default mail merge settings.

1. Click **<My Profile> | Administration | Email and Documents | Documents and Reports Configuration**.
2. Click **Change**.
3. Update the mail merge settings. For more information, see **Document and report settings**.
4. Click **Save**.

Document and report settings

Note: To enable mail merge for a new custom entity, you must use the Advanced Customization Wizard to create the entity, and select **Has Communication** and **Has Library**. The wizard creates a new view called vMailMerge[entityname]. For more information, see **Entity parameters**.

Field	Description
Apache FOP parameter string	Apache FOP (Formatting Objects Processor) is a third-party component used by Sage CRM to generate reports in the PDF format. This option specifies the parameters used when calling Apache FOP. • %1 and %2 are placeholders for the source and destination file names and should not be removed. • *-q* enables quiet mode, which suppresses information messages. Error messages are still displayed.
Apache FOP path and file name	The full path to the Apache FOP executable file.
Allow executable files to be uploaded	To allow the upload of executable files, set this option to **Yes** and add the file name extensions of executable files to **Allow file name extensions for upload**. To detect an executable file, Sage CRM checks the file's header to determine its true type. This makes Sage CRM capable of detecting an executable file even if its file name extension has been changed.
Allowed file name extensions for upload	Populate this option with the file name extensions that can be uploaded to Sage CRM. Omit full stop from the file name extensions. Use a comma as a separator. The default value in this option is: doc, docx, rtf, xls, xlsx, ppt, pptx, pdf, csv, xml, txt, jpg, jpeg, bmp, gif, png, svg, zip If a file name extension in this option belongs to an executable file, you must also set **Allow executable files to be uploaded** to **Yes**. Sage CRM treats the following file types as executable: com, cpl, dex, dll, exe, fon, mz, scr, sys, iec, ime, rs, tsp
Default document templates location for mail merge	The path to the directory where mail merge templates are stored.

Field	Description
Desktop size limitation (KB)	The size limit in kilobytes of the report for desktop clients. This is an approximation; it counts the size of the XML rather than the HTML output. It prevents very large reports running and taking all the bandwidth. If you regularly run large reports, you should set this to 60 MB (61 440 Kb). It must not exceed 120 MB (122 880 Kb).
Export to file available on search/groups	The type of users that can view the **Export Group to file** action button. For more information, see **Export Group to File**.
File size limitation (MB)	The size limit for each file that can be uploaded. The value in this option applies when a user: - Selects the **Add File** button or uses the **Drop files here to attach them** area to upload files. - Selects the **Import Emails** button to import emails with attachments. When an email attachment exceeds the file size limit set in this option, the email is imported without the attachment.
File upload limitation	The maximum number of files per upload. For example, set to *10* to allow a user upload up to 10 files in a single transaction. The value in this option applies when a user selects the **Add File** button or uses the **Drop files here to attach them** area to upload files.
HTTP port	The web server port number.
Impersonated user	The login ID of the local machine administrator which Sage CRM uses to save files to the server. The impersonated user login ID and the impersonated user domain are required for a valid logon.
Impersonated user domain	The domain of the impersonated user.
Impersonated user password	The password of the impersonated user.
Mail merge timeout	The maximum amount of time, in seconds, that Sage CRM waits for a mail merge to complete before a timeout error is displayed. If users frequently receive timeout errors during mail merges, you can increase this value. The default value is 300 seconds (5 minutes).

Field	Description
Max mail merge memory (MB)	The maximum amount of memory allocated to the mail merge process. The default setting is 1024MB (1GB) but can be increased. The amount of memory required for mail merge depends on the number of records merged and the size of the template (the number of graphics and amount of text).
Max mail merges allowed	The number of users who can perform concurrent mail merges. The default is 5. If you increase this value, you must also increase the value of **Max mail merge memory** because more memory is required.
Number of concurrent processes	The number of mail merge and Excel report generation processes that are carried out concurrently. New processes can start before the previous process has completed. For example, one user's mail merge runs at the same time as another user's Excel report output. Set to *1* to carry out processes sequentially.
Physical root directory for mail merged documents	The path to the directory where mail merge documents are stored. The path must end in a backslash (\).
Mobile size limitation	The size limit in kilobytes of the report for mobile clients. This is an approximation. It counts the size of the XML rather than the HTML output. It prevents very large reports running and taking all the bandwidth.
Report generator maximum memory (MB)	The maximum amount of memory allocated to the report generation process. The default setting is 1024MB (1GB).
Reports admin override	Possible values: - **Yes**. Administrators can run a report of any size. - **No**. The value in **Desktop size limitation** is used when a report is run. Use **No** if you regularly run large reports.
Reports build timeout	The maximum amount of time, in seconds, that Sage CRM waits for a report to build before a timeout error is displayed.

Field	Description
Reports export visible for non admin users	Possible values: • **Yes**. All users can export reports to PDF or spreadsheet format and view reports on screen. • **No**. Only a user with info manager or full system administrator rights can export reports to PDF or spreadsheet format. All users can view reports on screen. This setting relates to reports run from the **Reports** menu and does not affect summary reports. Enable access to summary reports in **Summary reports enabled**.
Reports query timeout	The maximum amount of time, in seconds, that Sage CRM waits for a report to run before a timeout error is displayed.
Root directory for reports	The path to the directory where reports are stored.
Send email available on search/groups	The type of users that can view the **Send Email** action button. For more information, see **Send Email**.
Stream images from memory	Possible values: • **Yes** (default). An image produced by a graphic, chart, or organizational chart is retained in memory and streamed to the client. • **No**. An image produced by a graphic, chart, or organizational chart is saved to the server's hard disk and then relayed to the client. This option is disabled by default.
Summary reports enabled	Possible values: • **Yes**. Summary reports are available. • **No**. Summary reports are not available.

Setting default quick quote or quick order template

Sage CRM includes a default quick quote template and default quick order template. You can change the default to another template.

1. Click **<My Profile> | Administration | Email and Documents | Document Templates**.
2. Click the quote or order template hyperlink.
3. Select **Quick Template**.
4. Make any other required changes. For more information, see **Shared Template Details**.
5. Click **Save**.

Uploading a shared template

You can upload a new Word (.docx) or HTML (.htm or .html) template and make it available to users.

1. Click **<My Profile> | Administration | Email and Documents | Document Templates**.
2. Upload the template:
   - To upload a template through Windows Explorer, click **Add File**, navigate to the file and click **Open**. When using Safari, you can add a single file. In other browsers, you can add multiple files at once.
   - To upload a template using drag and drop, drag single or multiple files from the current location to the **Drop files here** area. In Safari, drag files to the **Add File** button.

   The file is listed in **File(s)**. A green check mark indicates that it was uploaded successfully. A red cross indicates that it wasn't uploaded. To upload successfully, a file must comply with the system file size, type, and number of files settings that you've configured in **Document and report settings**.
3. Configure the **Shared Template Details**.
4. Click **Save**. Users can access the template when carrying out a mail merge. If you're uploading an HTML template that you've created in Sage CRM, the original filename is used followed by a number in parentheses.

Shared Template Details

The table below describes the fields on the Shared Template Details page.

Field	Description
Type	The type of template. • Use **Quote** for a quote template. • Use **Order** for an order template.
Category	The area of business relevant to the template.
Owner	The owner or author of the template. This must be a Sage CRM user.
Team	Users belonging this team can access the template. **None**: The template is available to all users.
Status	The current status of the template.
Language	The language in which the template is written.
Active	**Yes**: Users can select the template. **No**: Users cannot select the template but the template is available in **<My Profile> | Administration | Email and Documents | Document Templates**.
Entity	The context in which the template is available. For example, if set to **Opportunity**, the template is available when a user belonging to the team specified in **Team** performs a mail merge in the context of an opportunity. **None**: The template is unavailable.
Description	A short description of the template. Complete this field to help users select the most relevant template.
Quick Template	The template is used as the default quick quote or quick order template.

Editing a shared template

A number of sample templates are included in the shared templates list. These templates form the basis of mail merges.

You can edit a Word template that's included in the **Shared Templates** list. You can also edit a HTML template if you have HTML experience. Use a text editor to open .htm and .html files. Be aware that incorrect changes to the HTML code can result in templates no longer working properly.

1. Click **<My Profile> | Administration | Email and Documents | Document Templates**.
2. Click the template link.

3. Click **View Attachment** to open the Word template and save it on your local machine.
4. Make your changes to the Word template, then save and close it. For more information, see *Creating a Word template* in the **User Help**. To get the exact merge field name in Sage CRM, click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Fields**.
5. Note the template name and location.
6. Return to Sage CRM and click **Delete** to delete the existing template.
7. Click **Add File** and upload the new version of the template. For more information, see **Uploading a shared template**.

Adding current date to a mail merge view

To add a current date field to a mail merge template, you must add it to the entity mail merge view and the entity search view. This example adds the current date field to the Cases entity.

1. Click **<My Profile> | Administration | Customization | Cases | Views**.
2. Click **vMailMergeCase** and click **Change**.
3. Add the following line to the script in **View Script** and then click **Save**.

```
CAST(DAY(GETDATE()) AS VARCHAR(2)) + ' ' + DATENAME(MM, GETDATE()) + ' ' + CAST(YEAR
(GETDATE()) AS VARCHAR(4)) AS CurrentDate
```

   The updated script is as follows:

```
CREATE VIEW vMailMergeCase AS SELECT RTRIM(ISNULL(Pers_PhoneCountryCode, '')) +
' ' + RTRIM(ISNULL(Pers_PhoneAreaCode, '')) + ' ' + RTRIM(ISNULL(Pers_PhoneNumber, ''))
AS Pers_PhoneFullNumber, RTRIM(ISNULL(Pers_FaxCountryCode, '')) + ' '
+ RTRIM(ISNULL(Pers_FaxAreaCode, '')) + ' ' + RTRIM(ISNULL(Pers_FaxNumber, ''))
AS Pers_FaxFullNumber, RTRIM(ISNULL(Pers_FirstName, '')) + ' '
+ RTRIM(ISNULL(Pers_LastName, '')) + '[FAX: +' + RTRIM(ISNULL(Pers_FaxCountryCode, '1'))
+
'(' + RTRIM(ISNULL(Pers_FaxAreaCode, '')) + ')' + RTRIM(ISNULL(Pers_FaxNumber, '')) + ']'
AS Pers_EmailFaxNumber, Case_CaseId, Comp_CompanyId, Pers_PersonId, Pers_Salutation,
Pers_LastName, Pers_FirstName, Pers_MiddleName, Pers_Title, Pers_PhoneCountryCode,
Pers_PhoneAreaCode, Pers_PhoneNumber, Pers_FaxCountryCode, Pers_FaxAreaCode,
Pers_FaxNumber, Pers_EmailAddress, Pers_PrimaryUserId, Pers_SecTerr, Pers_CreatedBy,
Pers_ChannelId, Comp_Name, Comp_PrimaryUserId, Comp_Secterr, Comp_CreatedBy,
Comp_ChannelId, Addr_Address1, Addr_Address2, Addr_Address3, Addr_Address4,
Addr_Address5, Addr_City, Addr_State, Addr_Country, Addr_PostCode, Case_AssignedUserId,
Case_SecTerr, Case_CreatedBy, Case_ChannelId, CAST(DAY(GETDATE()) AS VARCHAR(2)) + ' ' +
DATENAME(MM, GETDATE()) + ' ' + CAST(YEAR(GETDATE()) AS VARCHAR(4)) AS CurrentDate
FROM Cases LEFT JOIN vPersonPE ON Case_PrimaryPersonId = Pers_PersonId
LEFT JOIN vCompanyPE ON Case_PrimaryCompanyId = Comp_CompanyId
LEFT JOIN Address ON Comp_PrimaryAddressId = Addr_AddressId
WHERE Case_Deleted IS NULL
```

4. Click **vSearchListCase** and click **Change**.
5. Add the following line to the script in **View Script** and then click **Save**.

```
CAST(DAY(GETDATE()) AS VARCHAR(2)) + ' ' + DATENAME(MM, GETDATE()) + ' ' + CAST(YEAR
(GETDATE()) AS VARCHAR(4)) AS CurrentDate
```

   The updated script is as follows:

```
CREATE VIEW vSearchListCase AS SELECT RTRIM(ISNULL(Pers_FirstName, '')) +
' ' + RTRIM(ISNULL(Pers_LastName, '')) AS Pers_FullName, RTRIM(ISNULL(Pers_
PhoneCountryCode, ''))
+ ' ' + RTRIM(ISNULL(Pers_PhoneAreaCode, '')) + ' ' + RTRIM(ISNULL(Pers_PhoneNumber, ''))
AS Pers_PhoneFullNumber, RTRIM(ISNULL(Pers_FaxCountryCode, '')) + ' '
+ RTRIM(ISNULL(Pers_FaxAreaCode, '')) + ' ' + RTRIM(ISNULL(Pers_FaxNumber, ''))
AS Pers_FaxFullNumber, vPersonPE.*, Cases.*, vCompanyPE.*, Address.*, CAST(DAY(GETDATE())
AS VARCHAR(2)) + ' ' + DATENAME(MM, GETDATE()) + ' ' + CAST(YEAR(GETDATE())
AS VARCHAR(4)) AS CurrentDate FROM Cases LEFT JOIN vCompanyPE ON
Case_PrimaryCompanyId = Comp_CompanyId LEFT JOIN vPersonPE ON
Case_PrimaryPersonId = Pers_PersonId LEFT JOIN Address ON
Pers_PrimaryAddressId = Addr_AddressId WHERE Case_Deleted IS NULL
```

6. You can customize the field name. For more information, see **Modifying language translations**. For example:
   - **Caption Code**: CurrentDate
   - **Caption Family**: ColNames
   - **Caption Family Type**: Tags
   - **UK Translation**: Current Date (DD MM YYYY)
   - **US Translation**: Current Date (MM DD YYYY)

Mail merge views

> **Note:** To enable mail merge for a new custom entity, you must use the Advanced Customization Wizard to create the entity, and select **Has Communication** and **Has Library**. The wizard creates a new view called vMailMerge[entityname]. For more information, see **Entity parameters**.

The table below shows the mail merge view for each entity. The fields in each view are listed in **Insert Sage CRM Field** when a user creates a template or performs a mail merge. You can customize existing mail merge views but you cannot use a new mail merge view with a different name. For more information, see **Editing a view**.

The quote and order mail merges make use of additional views to display line items.

Entity	View Name
Company Summary	vMailMergeCompany
Person Summary	vMailMerge
Case Summary	vMailMergeCase
Solution Summary	vMailMergeSolution To perform a successful solution mail merge using vMailMergeSolution, ensure the solution is linked to a case.
Lead Summary	vLeadMailMergeSearchFields
Opportunity Summary	vMailMergeOpportunity
Quote Summary	vMailMergeQuotes and vMailMergeChildrenQuotes
Order Summary	vMailMergeOrders and vMailMergeChildrenOrders

vMailMergeChildrenQuotes

```
CREATE VIEW vMailMergeChildrenQuotes AS SELECT QuoteItems.*, NewProduct.* FROM QuoteItems Left
Outer Join NewProduct ON QuIt_ProductId = Prod_ProductId  WHERE Quit_Deleted IS NULL
```

vMailMergeChildrenOrders

```
CREATE VIEW vMailMergeChildrenOrders AS SELECT OrderItems.*, NewProduct.* FROM OrderItems Left
Outer Join NewProduct ON OrIt_ProductId = Prod_ProductId  WHERE Orit_Deleted IS NULL
```

Appending quote or order ID to Word or PDF file name

You can configure Sage CRM to automatically append a quote or order identifier to the name of a Word or PDF file generated by a mail merge. As a result, when a user completes a mail merge for a quote or order, the generated file name will have the following format:

<template file name>-<quote or order ID>.<file name extension>

To configure this behaviour:

1. Go to **| Administration | Data Management | Products**.
2. Select the **Product Configuration** tab.

3. Select **Change** and set the following options to **Yes**:
    - **Use quote format for merge document name**
    - **Use order format for merge document name**
4. Select **Save**.

Consider the following limitations:

- Sage CRM automatically removes the following special characters from quote and order identifiers before appending them to file names:

  / \ : * ? " < > | . & '

- This feature works only when a user selects a single quote or order. With multiple quotes or orders selected, Sage CRM appends a randomly generated number.

Deleting a shared template

1. Click **<My Profile> | Administration | Email and Documents | Document Templates**.
2. Click the template link.
3. Click **Delete** and click **Confirm Delete**.

Library

- **About the library**
- **Library item types**
- **Deleting library items**
- **Viewing the library size**

About the library

The library stores files that are created through mail merge, directly uploaded to Sage CRM, and email attachments. For more information, see **Library item types**.

Users access library files through the **Document** tab on various entity summary screens. You can configure access to uploaded files by team or territory.For more information, see *Documents* in the **User Help**.

On a Sage CRM server, the default location of library files is **%ProgramFiles (x86)%\Sage\CRM\<InstallName>\Library**. You can configure the library location in **Document and report settings** and move it to a separate server if necessary.

> **Note:** The library location path you specify in **Document and report settings** must end in a backslash (\).

Each file in the library has a corresponding record in the library table that describes the file name and provides the interface to find and retrieve the file. You can use the properties of the `libr_status` to specify if the file can be downloaded for viewing or editing. The **Status** is displayed on the **Details** panel of the relevant document.

Library item types

Library Item Type	Description
Orphan Documents	Library items which used to be associated with entities (Communication, Company, Person, Opportunity, etc.). If the communication was deleted but the library item was not deleted, then the library item has no parent record, and cannot be accessed via the user interface. Deleting orphaned records should represent a "quick win" in terms of freeing up storage capacity.
Shared Documents	Documents which have been uploaded to **My CRM | Shared Documents**. Any images that are uploaded in the mail merge process.
Document Templates	Templates which have been uploaded to **<My Profile> | Administration | Email and Documents | Document Templates**.
Global Library	Library items which are attached to entities (Communication, Company, Person, Opportunity etc.).

Deleting library items

1. Click **<My Profile> | Administration | Email and Documents | Library Management | Library Management**.
2. Select the items you want to delete from **Library Items**.
    - You can sort on any column to find and group related items.
    - Use **View** to filter the list by library item type.
    - The checkbox in the table header beside **File name** selects or deselects all library items matching the view filter, not just the library items displayed on the current page.
3. Click **Delete**. The library items are permanently deleted. The storage pipeline adjusts to show the updated storage capacity.

Viewing the library size

Library Management provides a simple user interface to manage your library storage. It lets you view the storage limit for your Sage CRM system, and delete library items to improve your storage efficiency.

Click **<My Profile> | Administration | Email and Documents | Library Management**.

- The pipeline-style graphic displays library item types and the Sage CRM database size.
- Excess displays if you are currently exceeding your storage limit.

Allowing file name extensions for upload

System administrators can configure an allowlist to restrict the file types that users can upload to Sage CRM. If a file name extension is missing from the allowlist, the upload of the file is blocked.

These restrictions apply when a user:

- Uses the **Add File** button or **Drop files here to attach them** area to upload files on the **Shared Documents** tab or attach files to a calendar task, email message, or communication.
- Selects the **Import Emails** button to file emails against a record in Sage CRM.

> **Warning:** This new feature replaces the blocklist **File extension restrictions**, which has been discontinued. During upgrading to Sage CRM 2023 R1 or later, the Sage CRM Setup does not transfer the file name extensions from the blocklist **File extension restrictions** to the new Sage CRM installation. You need to transfer these restrictions manually.

To allow file name extensions for upload:

1. Go to **| Administration | Email and Documents | Documents & Reports Configuration**.
2. Configure the following options:
   - **Allowed file name extensions for upload**
   - **Allow executable files to be uploaded**

   See the descriptions of these options in **Document and report settings**.

Getting OAuth 2.0 client ID and secret for Entra ID

This topic explains how to obtain OAuth 2.0 client ID and secret for the Sage CRM features that need to authenticate against Microsoft Entra ID to access an Exchange Online account or a mailbox in Outlook web app.

Before you begin

If you want to obtain OAuth 2.0 client ID and secret to access a mailbox in Outlook web app, complete these additional steps first.

1. Sign in to **Outlook web app**.

   Use the account that owns the mailbox for which you are configuring OAuth 2.0. The account must have administrator privileges in Outlook.

2. In Outlook settings, go to **POP and IMAP** and make sure that **Let devices and apps use POP** is set to **Yes**.

3. If necessary, save your changes.

Steps to obtain OAuth 2.0 client ID and secret

1. Sign in to the **Microsoft Entra admin center** as an administrator.
2. Go to **App registrations**.
3. Register a new application:
   a. Select **New registration**:
   b. Enter a descriptive name for the application.
   c. Under **Supported account types**, select **Accounts in any organizational directory (Any Microsoft Entra ID tenant - Multitenant)**.

      Sage CRM does not support other options under **Supported account types**.

   d. Under **Redirect URI (optional)**, select **Web** and enter the following URIs:

      ```
      https://{server name}/{install name}/custompages/oauth/callback.html
      ```

      If your Sage CRM server is accessible on the internet, also add:

      ```
      https://{server FQDN}/{install name}/custompages/oauth/callback.html
      ```

      In these URIs:

      - *{install name}* is the name of your Sage CRM installation. It must be all lowercase.
      - *{server name}* is the name of the Sage CRM server. It must be all lowercase.
      - *{server FQDN}* is the fully qualified domain name of the Sage CRM server. It must be all lowercase.

e. Click **Register**.

f. Copy the application (client) ID and store it in a file.

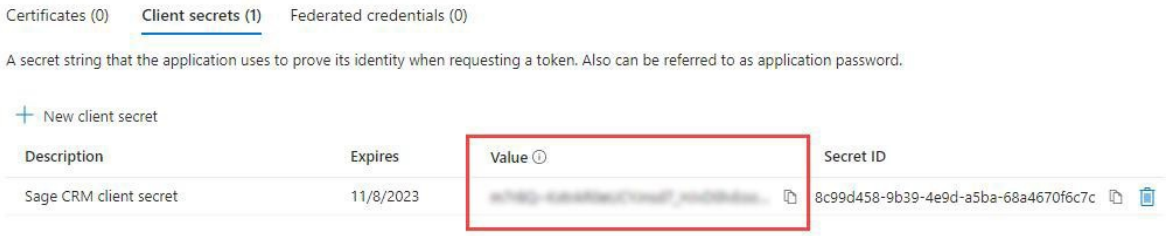
4. Obtain a secret for your application:

   a. Go to **Certificates & secrets**.

   b. Click **New client secret**, type a description and select an expiry option.

   c. Click **Add**.

   d. In the **Value** column, copy the client secret value and store it in a file:



5. Go to **API permissions** and add the Microsoft Graph delegated permissions required for the Sage CRM feature you want to use:

Sage CRM feature	Required Microsoft Graph permissions
• Standard email • Email Management	• IMAP.AccessAsUser.All • POP.AccessAsUser.all • SMTP.Send
Import of contacts and email messages	• Contacts.Read • Contacts.Read.Shared • IMAP.AccessAsUser.All • Mail.Read • Mail.Read.Shared • Mail.ReadWrite • Mail.ReadWrite.Shared • POP.AccessAsUser.All • SMTP.Send

Enter the obtained client ID and secret in Sage CRM. For details, see:

- **Enabling OAuth 2.0 in email configuration**
- **Enabling OAuth 2.0 for a mailbox in Email Management**
- **Steps to enable import of contacts and email messages**

Getting OAuth 2.0 client ID and secret for Gmail

This topic explains how to obtain OAuth 2.0 client ID and secret for the Sage CRM features that need to authenticate against Gmail to access a mailbox.

1. Make sure that less secure app access is disabled in the Google account that owns the Gmail mailbox for which you are configuring OAuth 2.0.

   You can disable less secure app access in the **security options of the Google account**.

   For more information, see **Less secure apps & your Google Account** in **Google Account Help**.

2. Sign in to **Google Cloud Platform**, go to **APIs & Services**, and create a new project.
3. Go to **OAuth consent screen**, select **External**, and click **Create** to create an app.
4. On the **OAuth consent screen** step, fill in the required fields, then save and continue.
5. On the **Scopes** step, add the **openid** scope, then save and continue to complete the remaining steps.
6. Go to **Credentials** and obtain client ID and secret:
   a. Click **Create credentials** to select **OAuth client ID**.
   b. In **Application type**, select **Web application**.
   c. Provide an informative name for your application.
   d. In **Authorized redirect URIs**, add the following URI:

      https://<server FQDN>/<install name>/custompages/oauth/callback.html

      Where:

      - *<server FQDN>* is the fully qualified domain name of the Sage CRM server. It must be all lowercase.
      - *<install name>* is the name of your Sage CRM installation. It must be all lowercase.

   e. Click **Create**.
   f. Copy the client ID and secret that display and store them in a file.

Use the obtained client ID and secret to enable OAuth 2.0 for the Gmail mailbox in Sage CRM.

Customization

Warning: Customizations that you make to Sage CRM impact system metadata. For this reason, you should lock Sage CRM and notify users before you begin any customization work. For more information, see **Locking the system**.

- **Translations and help**
- **Component Manager**
- **Entities**
- **Fields**
- **Screens**
- **Lists and grids**
- **Tabs**
- **Views**
- **External access**
- **Summary reports**
- **Text editor fonts**
- **Web leads**
- **Key attribute profiling**
- **Workflow**
- **Quick notifications and escalation rules**
- **Supported SQL tokens**

Translations and help

- **Changing the user language**
- **Modifying language translations**
- **Adding new languages**
- **Translation Details fields**
- **Managing help**

Changing the user language

You can support the use of different languages on the same system.

The language used in the screens is defined in each user profile. To change the language the user works in:

1. Click **<My Profile> | Administration | Users | Users**.
2. Enter the user's Last Name and click **Find**.
3. Click the user link, and click **Change**.
4. Select the required language from **Language**.
5. Click **Save**.

Modifying language translations

Translations let you adapt standard field names and selection lists to suit your company terminology. There are three ways to maintain language translations. Decide what you want to achieve and use the best method to suit your objective.

- **Inline translation** is useful when renaming field names in one or multiple languages.
- **Field customization** is useful when you're changing the translations of selection lists in one language.
- **Translations list** is useful when you're adding translations for selection lists in multiple languages.

Warning: You should not add or delete translation records on the Translations page as doing so has far-reaching effects on your system. You should use this functionality only if you've completed a Developer training course.

For more information about changing the text in coaching captions, see **Customizing onscreen coaching**.

Inline translation

Inline translation lets you rename fields in one or multiple languages. To enable inline translation mode:

1. Click **<My Profile> | Administration | Customization | Translations**.
2. Select **Inline Translation Mode**. All field names that can be translated in this mode are displayed with an underscore and asterisk after the name.
3. Click the asterisk next to the caption field. The Translation page is displayed in a new window. **Caption Context** helps translators get as close as possible to the original intended meaning of the word.
4. Enter the new translations and click **Save**.
5. Click **<My Profile> | Administration | Customization | Translations**.
6. Unselect **Inline Translation Mode**.

Field customization

Field customization lets you change the translations of selection lists in one language.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Communication | Fields**.
2. Click **Selection** in the **Field Type** column of the field you want to change.
3. Select the selection.
4. Enter the new translation in **Change Translation**. The language defaults to the language of the active user.
5. Click **Update** and click **Save**.
6. To view the translation, create a new task and click **Action**.

Translations list

Translations list lets you add translations for selection lists in multiple languages. This example adds French, German, and Spanish translations

1. Click **<My Profile> | Administration | Customization | Translations**.
2. Enter the selection list name in the current language field and click **Find**. For example, to search for the Pending selection list item when the language of the current user is US English, type *Pending* in **US Translation**.
3. Click **Find**.
4. Click the relevant selection list item. For example to add translations for the selection list item Pending in the communications Status field, click **Pending** for the Comm_Status caption family.
5. Click **Change**.
6. Enter the translations.
7. Click **Save**. The translations take immediate effect.

Adding new languages

You can add new languages that are included in the User Language selection list and the Translation Details page.

1. Click **<My Profile> | Administration | Customization | Translations**.
2. Click **Add New Language**.
3. Enter the details of the new language (ISO codes are preferred for the Language Code).
4. Click **Save**.

Translation Details fields

Warning: You should not add or delete translation records on the Translations page as doing so has far-reaching effects on your system. You should use this functionality only if you've completed a Developer training course.

The following table explains the standard fields on the Translation Details page.

Field	Description
Caption Code	The system code that is stored—not what the user sees on the screen. For example, LetterOut. This stays the same regardless of the language translation. It is set up when the selection choices are defined. For more information, see **Fields**.
Caption Family	The Caption Family groups the code. For example, LetterOut, LetterIn, PhoneOut, PhoneIn all belong to the Caption Family Comm_Action.
Caption Family Type	The Type of Caption Family. For example, for a selection list the family type is Choices.
Caption Order	The order the caption appears in the selection list.
Caption Context	Can be used to add free text to a custom caption to give it more meaning. This provides context information for translators less familiar with the system.
US Translation	The US English translation for the Caption Code.
UK Translation	The UK English translation for the Caption Code.
French Translation	The French translation for the Caption Code.
German Translation	The German translation for the Caption Code.
Spanish Translation	The Spanish translation for the Caption Code.

Managing help

- **Installing help files locally**
- **Switching between local and web help**
- **Customizing help links**
- **Adding field-level help**
- **Customizing onscreen coaching**

Installing help files locally

By default, help files are not installed together with Sage CRM. When a user clicks the **Help** button, Sage CRM displays help files hosted on dedicated web servers. To access these help files, client computers must have access to the Internet. You can change this default behavior at any time by installing help files locally on your Sage CRM server.

For example, you need to do so if:

- Client computers in your environment have limited or no access to the Internet.
- You want to customize the Sage CRM help files.

If your environment includes multiple Sage CRM servers, you need to install help files only on one of them. Other Sage CRM servers will automatically get access to the help files once they are installed.

After installing help files locally, you can always switch back to using help hosted on web servers.

To install help files:

1. Locate the Sage CRM Help Setup file in the root of the Sage CRM Setup package.

   The Help Setup file name has the following format:

   SageCRM_<VersionNumber>_HelpSetup.exe

   where <VersionNumber> is the Sage CRM version the setup is for.
2. Copy the Help Setup file to the Sage CRM server on which you want to install help.
3. Run the file and complete the Setup Wizard. You will be prompted to enter administrative credentials for the Sage CRM database.

Sage CRM help files are installed to the following locations:

Help	Location on a Sage CRM server
User Help	**<Sage CRM installation folder>\WWWRoot\Help\EN\Main Menu**
System Administrator Help	**<Sage CRM installation folder>\WWWRoot\Help\EN\Administration**

Where **<Sage CRM installation folder>** is the folder you specified when installing Sage CRM. By default, this is **%ProgramFiles(x86)%\Sage\CRM\CRM**.

Local help files include context-sensitive help, which users can access by clicking the **Help** button in the Sage CRM UI. The language in which context-sensitive help is displayed depends on the user's language preference. For more information, see **Setting up a new user**. If the help file in the user's chosen language has not been installed, help is displayed in system default language.

After installing help files, you can edit the files or replace them completely.

Sage CRM help is created using Madcap Flare. If you have the expertise and licenses to create a customized help project which mirrors the Sage CRM help file structure, you can replace parts or all of the standard Sage CRM help with your customized project. Alternatively, you can create help using the help authoring tool of your choice and replace part or all of the standard Sage CRM help.

If you use a customized project, ensure the following:

- The default initial file for the *User Help* and *System Administrator Help* is named **Default.htm** and located in the corresponding folder (**Main Menu** or **Administration**) specified in the table above. Sage CRM looks for that file if no context-sensitive link has been set.
- The help content files are HTM files located in the corresponding folder (**Main Menu** or **Administration**). Only files meeting these criteria can be selected from the Inline Translation tool used to set up the context-sensitive links. For more information, see **Customizing help links**.

Note: We recommend that you back up the local help files before modifying them. Sage CRM is delivered with new help files and context-sensitive links with each release. Custom local help files and links are preserved on upgrade.

Switching between local and web help

When help files are installed locally on your Sage CRM server, you can select which help files are displayed to users and system administrators when they click the **Help** button.

Possible options are:

- Local help files installed on your Sage CRM server.
- Help files hosted on dedicated web servers.

To select which help files are displayed:

1. Log on to Sage CRM as a system administrator.
2. Click **<My Profile> | Administration | System | System Behavior**.
3. Click **Change**.
4. In **Use local help files**, select a value. For more information, see **System behavior fields**.
5. Click **Save**.

Customizing help links

In Sage CRM, each mode represents a unique help link. For example, the help link on the Company Summary page in view mode is different to the help link in edit mode. This means you can set up a help link specific to viewing, changing, or deleting the record.

1. Click **<My Profile> | Administration | Customization | Translations**.
2. Select **Inline Translation Mode**.

3. Navigate to the page where you want to change the existing help link.
4. Click the **Help** action button. A list of existing help files is displayed in a new browser window. The help file currently linked to the page is highlighted in the list. The list of files displayed here is filtered to display any *.HTM file in **..WWWRoot\HELP\EN\Main Menu\Content\User** or **..WWWRoot\HELP\EN\Administration\Content\Administrator**. To link the page to a custom help page, ensure the help page is saved in one of these folders.
5. Select the help file and click **Save**.
6. Click **<My Profile> | Administration | Customization | Translations**, and clear **Inline Translation Mode**. When the user clicks the Help button on the page where you changed the link, the new help page is displayed.

Adding field-level help

Field-level help displays tooltips for fields when you hover on them. The tooltip for the field is displayed on all screens in Edit mode where the field is displayed. This includes search screens where the field is present. The tooltip cannot be accessed from touch-screen devices.

1. Identify the field name where you want field-level help to be displayed. For example, pers_ suffix.
2. Click **<My Profile> | Administration | Customization | Translations**.
3. Click **New**.
4. Add the new translation. The caption code must match the column name. For example, with **pers_suffix**, the caption family must be set to **ColHelpText**, and the caption family type to **Tags**.
5. Type the text for the field tooltip in the language translation fields.
6. Click **Save**. A question mark icon is displayed beside the field. Hover over the question mark icon to view the help text.

Customizing onscreen coaching

Onscreen coaching is displayed in a panel on Sage CRM screens. It provides general information and tips about the screens to users. You can add new coaching text, modify existing captions, or copy text initially intended for one screen and use it in a different context.

1. Enable coaching captions in **<My Profile> | Administration | System | System Behavior | Allow Coaching In CRM**.
2. Click **<My Profile> | Administration | Customization | Translations**.

3. Select **Inline coaching captions editing**. A new **Add /Edit Coaching Text** link is displayed at the top of every screen. This link lets you add or edit the coaching text for the current screen.
4. Navigate to the screen where you want to add new on-screen coaching text.
   For example, click **New | Company**. Enter a name in **Company Name** and click **Enter Company Details**.
5. Click **Add/Edit Coaching Text** at the top of the screen. The Onscreen coaching page is displayed in a new window.
6. Select **Create new on-screen coaching text**.
   - To re-use text from another screen, select **Re-use existing on-screen coaching text**. Any changes you make to the coaching text appear on all other screens that use this text.
   - To re-use text from another screen, select **Clone existing on-screen coaching text**. Any changes you make to the coaching text does *not* appear on other screens.
7. Enter the text you want to display in the onscreen coaching and click **Save**. You can use basic HTML bold and bullet list commands to customize the way your onscreen coaching text is displayed. The updated coaching caption is displayed at the top of the screen.
8. Click **<My Profile> | Administration | Customization | Translations**.
9. Unselect **Inline Coaching Captions Editing**. The **Add/Edit Coaching Text** link is removed from all screens.

Component Manager

- **Introduction to Component Manager**
- **Managing components**

Introduction to Component Manager

Component Manager allows customizations made on one Sage CRM system to be saved, transferred, and applied to another Sage CRM system. It enables Sage CRM developers to package and reuse implementation-specific customizations in future implementations.

The Extensibility Module is required to record changes and create a component. For more information on recording and creating components, see the *Developer Help* on the **Sage CRM Help Center**.

Components supplied to you may contain full details of any of the following areas:

- Field Customizations.
- Field Security—where the update applies to "Everyone".
- Screen Customizations—including Field Level Scripting and Custom Content.
- View Customizations.
- List Customizations.
- Tab Customizations—including System Menus and Menu Buttons.
- Block Customizations—including Dashboard blocks.
- Table and Database connections.
- TableScript Customizations.
- Translations—including inline translation mode, field customization method and translations list method.
- Reports—creation of new reports and modification of existing ones.
- Most Workflow Customizations.
- Button Groups.
- Interactive Dashboards.

Customization script files, such as ASP pages, will be included automatically if they are directly referred to (for example, by a newly created tab). However, when an ASP page is updated, or when a file that is indirectly referred to is added (for example, an "include file" in an ASP page), then

these files must be manually copied to the component folder. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

Managing components

- **Preparing to install component**
- **Uploading and installing component**
- **Removing component from user interface using uninstall option**
- **Removing component manually**

Note: The Component Manager doesn't provide functionality to edit installed components. Once a component is installed, the metadata it contains is merged with the rest of Sage CRM metadata. After that, the Component Manager can no longer identify and segregate the metadata of an installed component added to the system.

Preparing to install component

Before installing a component, make sure that:

- The component is in a .zip file.

  A .zip file can contain more than one component. When you upload such a .zip file, all components contained in the file become available for installation.

- Copy the .zip file to an easily accessible location.

Note: By default, you can install a component only once. To allow multiple installs of a component, open the component .ecf file and set `multipleinstalls` to *Y*.

The Component Manager doesn't provide functionality to edit installed components. Once a component is installed, the metadata it contains is merged with the rest of Sage CRM metadata. After that, the Component Manager can no longer identify and segregate the metadata of an installed component added to the system.

Uploading and installing component

1. Click **<My Profile> | Administration | Customization | Component Manager**.

   Sage CRM lists the installed components.

2. In the **Add Component** panel, browse to select the .zip file of the component you want to install.
3. Select **Upload New Component**.

   The component is added to the **Available components** list.
4. In the **Available components** list, select the component you want to install.

   You can select **View Details** to display information about the component. Ensure you select the latest download of the component. If you've installed the component before, the latest version has a number after the name.
5. Select **Install Component**.
   - Complete all fields.
   - Set **Apply All Changes** to **Yes** to overwrite existing customizations made by installing previous components. For more information, see the *Developer Help* on the **Sage CRM Help Center**.
   - Select **Preview Install** to view the script that will be executed when the component is installed. You can export the script to a .csv file.
6. Select **Install Component** and then select **OK**.

   The Component Manager loads the new information, recreates the views, and reloads the metadata.

   When the component is installed, you can select **View Log File** to view detailed information about the install. Alternatively, select **<My Profile> | Administration | System | Logging**.
7. Select **Continue**. The component is displayed in the list of installed components.

Note: The Component Manager doesn't provide functionality to edit installed components. Once a component is installed, the metadata it contains is merged with the rest of Sage CRM metadata. After that, the Component Manager can no longer identify and segregate the metadata of an installed component added to the system.

Removing component from user interface using uninstall option

A component may provide an uninstall option, for example, a **Check this to uninstall the <component name>** check box. You can use this option to remove the custom elements the component has added to the Sage CRM user interface.

The uninstall option does not roll back the changes the component has made to the Sage CRM database. For information on how to remove these changes, see **Removing component manually**.

To remove the elements a component has added to the user interface:

1. Back up the system.
2. Select **<My Profile> | Administration | Customization | Component Manager**.
3. Select the component from the **Available components** list.
4. Select **Install component**.
5. Select **Check this to uninstall the <component>**.
6. Select **Install component**.

Removing component manually

> **Warning:** Back up the system before removing a component.

You can use this method to remove any component, including components that provide an uninstall option.

Before removing a component, you need to understand what changes the component has made to the system. You can do so by:

- Studying the code in the .es file of the component.
- Learning about the component from the developer who created it.

A component can create or update the below-listed items. Use this specific order to remove or roll back the changes.

1. Translations
2. Workflows
3. Reports
4. Table-level scripts
5. Container block items
6. Tab groups
7. Fields on screens
8. Lists and grids
9. Screen objects
10. Table columns
    If you delete a table column, remove the fields it defines from all the screens in Sage CRM.
11. Table views

12. Tables
    If you delete a table, remove the fields it defines from all the screens in Sage CRM.
13. Database links

For more information on how to delete or update these items, see this help and the *Developer Help* on the **Sage CRM Help Center**.

How to find out which database tables were modified by component

A component can change data in the database tables whose names are prefixed with `Custom_`. For example: `Custom_Captions`, `Custom_Tables`, `Custom_Tabs`.

When a component modifies a database table row, it adds its name to the `<prefix>_Component` column for that row. Here `<prefix>` is the standard prefix used for all column names in the table. For example, in the `Custom_Screens` table, the prefix is `SeaP`.

You can run the following SQL query to check whether any component modified data in the `Custom_Screens` table:

```
SELECT * FROM [CRM].[dbo].[Custom_Screens] WHERE [SeaP_Component] IS NOT NULL
```

Calendar

- **Creating a custom action for tasks and appointments**
- **Changing appointment color for a user**
- **Customizing calendar list**

Creating a custom action for tasks and appointments

- **Step 1: Add new custom action to the database**
- **Step 2: Assign an icon to the custom action**

Step 1: Add new custom action to the database

1. Click **<My Profile> | Administration | Customization | Communication**.
2. In the **Field Caption** column, locate **Action** and then in the **Field Type** column click **Selection**.
3. Create a new custom action:
    a. In **Add Translation**, type the action name.
    b. In **Code**, type the action code.
    c. Click **Add** and then click **Save**.

Step 2: Assign an icon to the custom action

You can create custom icons and assign them to custom actions.

1. Create your action icon and save it as a .gif file.
   The name of your .gif file must be identical to the code of the custom action to which you want to assign the icon.
    - Keep the graphic file size small. Large graphic files may impact system performance.
    - Make sure your icon is square. Sage CRM may scale the icon down, so if the icon is not square, it can be distorted.

2. Copy your .gif file to the following location on the Sage CRM server:

   <Sage CRM installation folder>\WWWRoot\Themes\Img\Ergonomic\Choices\Comm_Action

   The default, Sage CRMinstallation folder is **%ProgramFiles(x86)%\Sage\CRM\CRM**

3. Press F5 to refresh the calendar in your web browser.
   Now all tasks and appointments for which you selected you custom action are displayed with the new icon.

Changing appointment color for a user

You can change the default color in which appointments assigned to a particular user are displayed in the **Team CRM** calendar.

1. Create a JavaScript file named **responsiveTeamCalendarUserColors.js**.
2. Add the following code to the file:

```
SageCRM = SageCRM || {};
SageCRM.CUSTOM_TEAM_CALENDAR_USER_COLORS = {

// Map user IDs to colors.
"<user ID>" : "<color>",
};
```

   Where

   `<user ID>` is the Sage CRM user ID.

   `<color>` is the color in which you want the appointments to be displayed.
   Use hex color code, for example `#00DC00`.

   You can add as many `"<user ID>" : "<color>"` pairs as you like. Use a comma as a separator.

3. Save and copy the file to the following folder on the Sage CRM server:
   <Sage CRM installation folder>\WWWRoot\js\custom

   By default, Sage CRM is installed to:
   %ProgramFiles(x86)%\Sage\CRM\CRM

4. Reset IIS on the Sage CRM server.
   You can do so by running the `iisreset` command at a command prompt.

Customizing calendar list

You can change the appearance of the **My CRM | Calendar List** tab. For example, you can add or remove columns, change the horizontal alignment of values in each column, and set the default list sorting mode.

1. Log on to Sage CRM as a system administrator.
2. Go to **<My Profile> | Administration | Customization | Communication**.
3. Click **Lists**.
4. Click **Calendar List**.
5. Use options on the page to add, remove, or update columns in the **Calendar List**.

   For detailed information, see the table below.
6. When you're done, click **Save**.

Option	Description
Desktop HTML List Contents	Shows the fields that are currently displayed as list columns in the **Calendar List** tab. To remove a column from the tab: 1. Select the corresponding field in the list. 2. Click **Remove**. To change the properties of a column: 1. Select the corresponding field in the list. 2. Configure options under **Properties**. 3. Click **Update**.

Option	Description
Field	Select the field you want to add to the **Calendar List** as a column. You can add only the following field types: - Checkbox - Date Only - Date & Time - Email Address - Integer - Multiline Text - Numeric - Phone Number - Selection - Text - User Select - WWW URL Other field types are not supported even though they are present in the list. When you add a field whose type isn't supported, that field doesn't appear in the **Calendar List**. **Tip:** To see the type of a field, go to **<My Profile> | Administration | Customization | Communication | Fields** tab.
Hyperlink to	Select the entity to which you want to hyperlink entries in the column. For example, you can hyperlink a Person record to the corresponding Person or Company record.
Alignment	Select how you want to horizontally align values in the list column. Possible values: - **Centre** - **Left** - **Right**

Option	Description
Show Heading	Display or hide the field caption in the column heading. Possible values: • **Yes**. Shows the field caption in the column heading. • **No**. Shows an empty column heading.
Default Order By	Enable or disable the default sorting of the list by the column. Possible values: • **Yes**. Sorts the list in the ascending order using the column values. • **No**. Disables sorting by the column. **Note:** Ensure you sort the list by one column only.

Entities

- **Creating custom entity**
- **Modifying custom entity**
- **Making custom entity available for reassignment**
- **Enabling deduplication for custom entity**
- **Changing custom entity logo**
- **Creating report view for entity**
- **Optimizing custom entity list for faster loading**

Creating custom entity

You can create custom entities in your Sage CRM environment. To do that, you need to download, install, and use the Advanced Customization Wizard. This wizard is distributed as an optional Sage CRM component. It helps you to configure the various parameters of your custom entity.

1. **Download the Advanced Customization Wizard .zip file** from the **Sage CRM Partner Community**.
   Make sure you download the wizard for your version of Sage CRM.
2. In Sage CRM, install and start the Advanced Customization Wizard:
   a. Log on to Sage CRM as a system administrator.
   b. Click **<My Profile> | Administration | Customization | Component Manager**.
   c. Under **Add Component**, specify the Advanced Customization Wizard .zip file you downloaded in step 1 of this procedure.
   d. Click **Upload new component**.
   e. Under **Available Components**, click to select **Advanced Customization Wizard**, and then click **Install Component**. After its installation, the Advanced Customization Wizard remains listed under **Available Components**. This allows you to use the wizard to create custom entities in the future.
3. On the Component Parameters, Step 1 of 2 screen, specify parameters for the entity being created.
   For more information about these parameters, see **Entity parameters**.
   Optionally, you can click **Preview Install** to view the configured entity parameters and export them to a Comma-delimited values (.csv) file.
4. When you are finished, click **Install Component** and wait until entity creation completes.
   In this step, the following screen elements are created:

- Name and status fields
- Search, entry, summary, and top content screens
- A grid for the new entity
- A tab group with a tab that contains a custom summary screen

Other screen elements depend on how you configured the entity parameters in step 3 of this procedure.

5. When prompted, click **Continue** to finalize entity creation.

Entity parameters

Parameter	Description
Entity Name	Enter the name for the new custom entity you want to create. This name identifies the following: • Entity table in the Sage CRM database. • Entity caption in the Sage CRM user interface. The name you enter must: • Include 26 characters or less. • Be different from the existing names of tables in the Sage CRM database.
Entity Column Prefix	Enter the four letter prefix you want to add to the names of columns in the entity table. Do not include an underscore. The prefix must follow the applicable identifier rules configured on the database server.

Parameter	Description
Tag with Component Name	Allows you to script out and further customize new entities. The value in this text box has the following format: *<EntityName>_Component* A new component with this name is added to **Existing Components**. When creating a new custom entity, you can select this component and click **Preview Script** to view the changes involved in creating the entity. You can set this component as the currently recording component and further customize the entity. For example, you can script out the entire customization. For more information, see Scripting customizations in the *Developer Help* on the **Sage CRM Help Center**.
Add to My CRM	When selected, creates a custom list and a custom tab for the **My CRM** work area. Displays a list of new entity records associated with a user.
Add to Find	When selected, makes the custom entity available for search in Sage CRM. Selecting this check box creates a custom search entry screen and a corresponding search results list.
Add to Team CRM	When selected, creates a custom list, an ASP page that displays the list, and a custom tab for the **Team CRM** work area. Displays a list of all new entity records associated with a team.
Has Companies	When selected, creates a company tab and adds a corresponding custom company list to the tab group. This enables you to view a list of associated companies for all new entity records, and link existing companies to the new entity using a **Link** button. To set up deduplication for companies in this scenario, see **Enabling deduplication for custom entity**.

Parameter	Description
Has Accounts	When selected, creates an account tab and adds a corresponding custom account list to the tab group. This enables you to view a list of associated accounts for all new entity records, and link existing accounts to the new entity using a **Link** button. This check box is only available if Integration is set up.
Owned by Companies	When selected, adds a custom tab to the Company tab group. This custom tab displays a list of associated new entity records for a company.
Allow Web Service Access	When selected, enables the new entity for Web Services. For more information, see Web Services in the *Developer Help* on the **Sage CRM Help Center**.
Has People	When selected, creates a people tab and adds a corresponding custom people list to the tab group. This enables you to view a list of all associated people for all new entity records, and link existing people to the new entity using a **Link** button. To set up deduplication for people in this scenario, see **Enabling deduplication for custom entity**.
Owned by People	When selected, adds a custom tab to the People tab group. This custom tab displays a list of associated new entity records for a person.
Allow Read-only SData Access	When selected, enables the new entity for SData. For more information, see SData in the *Developer Help* on the **Sage CRM Help Center**.
Has Opportunities	When selected, creates an opportunities tab and adds a corresponding custom opportunities list to the tab group. This allows you to view all the associated opportunities for all new entity records.
Has Leads	When selected, creates a lead tab and adds a corresponding custom leads list to the tab group. This allows you to view all the associated leads for all new entity records.

Parameter	Description
Owned by Leads	When selected, adds a custom tab to the Leads tab group. This custom tab displays a list of associated new entity records for a lead.
Has Cases	When selected, creates a cases tab and adds a corresponding custom cases list to the tab group. This allows you to view associated cases for all new entity records.
Owned by Cases	When selected, adds a custom tab to the Cases tab group. This custom tab displays a list of associated new entity records for a case.
Has Communications	When selected, creates a communications tab and adds a corresponding custom communications list to the tab group. This allows you to view associated communications for all entity records. Select this check box to perform mail merges from the context of the newly created entity.
Has Library	When selected, creates a library tab and adds a corresponding custom library list to the tab group. This enables you to view all associated library entries for all new entity records. Select this option to perform mail merges from the context of the newly created entity.
Owned by Orders	When selected, adds a custom tab to the Orders tab group. This custom tab displays a list of associated new entity records for an order.
Owned by Quotes	When selected, adds a custom tab to the Quotes tab group. This custom tab displays a list of all the associated new entity records for a quote.
Workflow	When selected, creates a workflow for the custom entity and enables default workflow rules for the new entity.
Has Workflow Progress	When selected, creates a progress table for the custom entity table and allows you to add progress notes for custom entity records.

Parameter	Description
Deduplication	When selected, creates a deduplication screen for the new entity so you can set deduplication rules in Sage CRM. To set up a deduplication screen for a new entity that has People or has Companies, see **Enabling deduplication for custom entity**.
For Dot Net	When selected, creates an entity for which you can write a .NET module instead of using ASP pages. The entity is created with metadata in the usual way but as ASP pages are not created, you must use the .NET DLL to customize the entity.
Owned by Accounts	When selected, adds a custom tab to the Account tab group. This custom tab displays a list of associated new entity records for an account. This check box is only available if Integration is set up.
Owned by Opportunities	When selected, adds a custom tab to the Opportunities tab group. This custom tab displays a list of associated new entity records for an opportunity.

ASP files and metadata generated for custom entities

When you use the Advanced Customization Wizard to create a new custom entity, the wizard may generate the following:

- **ASP files**
- **Metadata**

ASP files

The Advanced Customization Wizard generates custom ASP files for the custom entity depending on the component parameters you configure for the entity.

These ASP files are stored in the following location:

<Sage CRM installation folder>\WWWRoot\CustomPages\<EntityName>

The default Sage CRM installation folder is **%ProgramFiles(x86)%\Sage\CRM\CRM**.

File name	Description
<Company><EntityName>.asp	Lists new entity records owned by a particular entity. For example, Company, if you select **Owned By Companies** on the Component Parameters screen. A similar file can be generated for People, Leads, Opportunities, Cases, Accounts, Quotes, and Orders.
<EntityName><Person>.asp	Displays the new entity's people, if you select **Has People** on the Component Parameters screen. A similar file can be created for Communications, Case, Lead, Opportunity, Company, Library, and Accounts.
<EntityName>Channel.asp	Lists new entity records associated with a Team on the **Team CRM** area, if you select **Add To Team CRM** on the Component Parameters screen.
<EntityName>Summary.asp	Provides the summary page for new entity records.
<EntityName>Find.asp	Enables you to search for the new entity records if you select **Add To Find** on the Component Parameters screen.
<EntityName>ToDo.asp	Lists new entity records associated with a user on the **My CRM** area, if you select **Add To My CRM** on the Component Parameters screen.
<EntityName>Dedupe.asp	Displays the custom dedupe screen if you select **Deduplication** on the Component Parameters screen. If **Deduplication** is cleared, this file redirects you to <EntityName>New.asp.
<EntityName>Conflict.asp	Lists conflicts that dedupe entrygroup finds.
<EntityName>Library.asp	Enables you to link library items to the new entity.

File name	Description
<EntityName><Company>Link.asp	Enables you to create links between the entity records and other companies or people.
<EntityName>New.asp	Enables you to create new entity records.
<EntityName>WF.asp	Enables you to create a workflow for the new entity.
<EntityName>ProgressList.asp	Enables you to progress the new entity record.

Metadata

The Main Entity Wizard generates metadata for the new main entity depending on the component parameters you configure for the entity. You can view the metadata in Enterprise Manager (for example, in the Custom_Tables table) and in Sage CRM (**<My Profile> | Administration | Customization | <Entity>**).

Metadata	Description
<EntityName>SearchBox	The entry screen used for search selects and finds on new entities.
<EntityName>NewEntry	The entry screen used to create new entity records.
<EntityName>BoxDedupe	The deduplication screen for the custom entity, if you selected Deduplication on the Parameter Info screen.
<EntityName>TopContent	The context area for the new entity records.
<EntityName>SummaryScreen	The summary screen for new entity records
<EntityName>SearchBox	The search screen for finding new entity records.
<EntityName>Grid	The grid used for search selects and finds on new entity records.
<EntityName>UsersGrid	The grid used to list new entity records for a particular User.
<EntityName>ChannelGrid	The grid used to list new entity records for a particular Team.

Metadata	Description
MainEntity<EntityName>Grid	The grid used to list new entity records for a particular main entity, if you selected Owned By <MainEntity> on the Parameter Info screen.
<EntityName>	The tab group for the new entity.

Example: Creating custom entity named Project

This example illustrates how to create a new entity called Project.

The Project entity

- Is owned by the Company entity.
- Can have People or Cases associated with it.
- Is available in the **My CRM** and **Team CRM** work areas.
- Is searchable in Sage CRM.
- Has workflow enabled.

1. Install and start the Advanced Customization Wizard.
   For step-by-step instructions, see **Creating custom entity**.
2. On the Component Parameters, Step 1 of 2 screen, use the following required options:
   - **Entity Name**. Enter *Project*. A new database table called Project is created in Sage CRM. The word Component is appended to the entity name and Project_Component is automatically entered in **Tag With Component Name**.
   - **Entity Column Prefix**. Enter *proj*. This prefix identifies standard fields created for the new entity. For example, the Project entity includes information about project manager names stored in a field called proj_manager. The underscore character (_) is automatically inserted in the field name.
3. Select the following optional check boxes:
   - **Owned by Companies**. Indicates that each Project record must be associated with a company.
   - **Has People**. Enables users to associate people with Project records.
   - **Has Cases**. Enables users to associate cases with Project records.
   - **Add to My CRM**. Makes Project records available in the **My CRM** work area.
   - **Add to Team CRM**. Makes Project records available in the **Team CRM** work area.
   - **Add to Find**. Enables users to search for Project records in Sage CRM.
   - **Workflow**. Makes the Workflow screen available for Project records.

- **Workflow Progress**. Makes the Workflow Progress screen available for Project records.

4. Click **Install Component**. When the component is installed, the Project entity becomes available in **<My Profile> | Administration | Customization**.

Modifying custom entity

To modify custom entity screens, fields, lists, and tabs created by the Advanced Customization Wizard, click **<My Profile> | Administration | Customization | <Entity>**.

Depending on the options you select on the Parameter Info screen, an entity progress table may be available. For example ProjectProgress. You can customize this in the same way as a typical progress table.

Making custom entity available for reassignment

When a custom entity is available for reassignment, administrators and info managers can reassign entity records of that type associated with one user to another user or team of users.

When you create a custom entity, it is automatically added to the Reassign User Records page. Also the **Status** field (proj_status) that is used as a filter is automatically added to the new table.

To prepare the custom entity for reassignment, the administrator has to edit or add the necessary values of the **Status** field, as follows:

1. Log on to Sage CRM as a system administrator.
2. Click **<My Profile> | Administration | Customization | <Entity> | Fields**.
3. In the **Field Caption** column, locate **Status**.
4. In the **Field Type** column, click **Selection** for the **Status** caption.
5. On the screen that opens, edit or add values in the **Selection** list as appropriate. These are the values that can be selected in the **Status** field for the entity. For more information, see Field Customization in the *System Administrator Help*.
6. When you are finished, click **Save**.

Enabling deduplication for custom entity

If your custom entity has associated Companies or Persons, and you want to display a deduplication page when you create a Company or Person from within the context of the custom entity, do one of the following:

- To enable deduplication if the entity has Companies, open **<EntityName>Company.asp** and change the action from *140* to *1200*.
- To enable deduplication if the entity has Persons, open **<EntityName>Person.asp** and change the action from *141* to *1201*.

From

```
CRM.URL(141)+"&Key-1="+iKey_CustomEntity+"&PrevCustomURL="+List.prevURL+"&E=Accounts", 'Person',
'insert'));
```

To

```
CRM.URL(1201)+"&Key-1="+iKey_
CustomEntity+"&PrevCustomURL="+List.prevURL+"&E=Accounts",  'Person', 'insert'));
```

Tip: For more information about URL, see Url(Action) in the *Developer Help* on the **Sage CRM Help Center**.

Changing custom entity logo

A custom entity created with the Advanced Customization Wizard is assigned a default logo, which is stored in the following files:

Advanced Customization Wizard 2023 and later	**Pre-2023 version of Advanced Customization Wizard**
• <EntityName>.svg • related_<EntityName>.svg • small_<EntityName>.svg	• <EntityName>.gif • related_<EntityName>.gif • small_<EntityName>.gif

On a Sage CRM server, you can find these files in:

<Sage CRM installation folder>\WWWRoot\Themes\Img\Ergonomic\Icons

Note: By default, Sage CRM is installed to **%ProgramFiles(x86)%\Sage\CRM\CRM**

You can change the default logo for all custom entities:

1. Create your custom logo.
2. Depending on the Advanced Customization Wizard version you used to create custom entities, save your logo as .svg or .gif files with the above-listed names.
3. Copy the files to the above location to overwrite the files stored there.

   As a result, all custom entities use your new logo.

Creating report view for entity

You can create a report view for an entity and select the tables and columns to be included in a report. For example, a report view for an entity named Project could display all cases associated with a project, the person who logged the cases, case status, case priority, and case description.

1. Log on to Sage CRM as a system administrator.
2. Click **<My Profile> | Administration | Customization | <Entity>**.
   The entity must correspond to the main database table you reference in the view.
3. Click the **Fields** tab to see the entity columns that you can include in the view.
   Each entity also has a hidden unique identifier that's used for SQL joins.

Table	Unique ID
Project	proj_projectid
Cases	case_caseid

4. Click the **Views** tab and then click **New**.
5. Use the following options:
   - **View Name**. Enter a name for the view. The name must start with the letter **v** and be a single word, no blank spaces allowed. Example: *vProjectCaseView*
   - **Reports View**. Select this check box to make the view available when creating a new report.
   - **Description**. Enter an informative description of the view.
   - **Translation**. Enter a translation for the view. This is what the user sees on the screen when the view is selected from the drop-down list.
   - **View Script**. Enter or edit the script in this text box as necessary.
6. Enter SQL query for the new view. The columns in the `SELECT` statement are included in the

report.

```
CREATE VIEW vProjectCaseView AS SELECT proj_name, case_caseid, case_openedby, case_
priority, case_status, case_description FROM PROJECT INNER JOIN cases ON proj_projectid =
case_projectid SQL script for the new report view
```

7. Click **Save**.

The new view is listed in Source View on the Report Options, Step 1 of 2 page when you create a new report.

Optimizing custom entity list for faster loading

Note: This option is not supported for standard entities.

By default, Sage CRM looks for data related to a custom entity list in all database columns. You can configure Sage CRM to look for data only in those database columns that are added to your custom entity list. As a result, your list will load faster.

1. Click **<My Profile> | Administration | Customization | <Custom Entity> | Lists**.
2. Do one of the following:
   - To optimize an existing list, click the **Change** icon ( ) beside it.
   - To create and optimize a new list, click **New**.
3. Set **Use all SQL columns in query** to **No**.

   When this option is set to **Yes** or **--None--**, Sage CRM looks for data in all database columns.
4. Click **Save**.

If you get an error when your list is loading, a list column in your customization might be missing from the SQL query that loads list. To resolve this issue, add the column to the list but make it hidden:

1. Click **<My Profile> | Administration | Customization | <Custom Entity> | Lists**.
2. Click the list name.
3. From **Field**, select the column you want to add. In most cases, this is the column mentioned in the error message you get when the list is loading.
4. Click **Add**.
5. In the list under **Desktop HTML List Contents**, click the column you've just added.

6. In **CreateScript**, enter the following:

```
Hidden = true;
```

7. Click **Save**.

Fields

- **Creating a field**
- **Editing a field**
- **Deleting a field**
- **Using field security**
- **Customizing mappings**

Creating a field

You can create a new field and add it to a screen. For example, to track the overall relationship of a customer to your company, you can add a Relationship field to the Company table.

1. Click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity>**.
2. Click the **Fields** tab.
3. Click **New**.
4. Complete the **Field properties**.
5. Click **Save**.
6. If you've created a selection field, the Maintain Lookup Selections screen is displayed and you can create values for the selection list.
    a. Enter the code and translation for a list value and click **Add**. The code must be unique and should consist of text rather than numbers.
    b. To change the position of a value in the list, select the value and use the **Up** and **Down** arrows to reposition it.
    c. Click **Save**.
7. Add the field to the relevant screen. For more information, see **Adding field to screen**.

Field properties

The tables below explain the standard fields on the Change Database Field Properties screen, non-standard fields that are displayed depending on the Entry Type you select, and the different Entry Types.

Standard fields

Field	Description
Entry Type	Defines how the user inputs information to the field. Additional fields are displayed on the Change Database Field Properties screen depending on the Entry Type you specify. See the table below for details.
Column Name	The field name in the database. The naming convention is the table abbreviation_field name, for example comp_relationship. Do not use extended characters in the column name.
Caption	The field name on the screen. For example, Relationship.
Max Length	The maximum length of the field.
Entry Width	The width of the field.
Default	The default entry for the field. If the value of **Entry Type** is **Search Select Advanced**, you can set **Default** to search within the current entity, person, company, or custom entity. For example, if your search entity is Opportunity, and you want the search to show only opportunities in the current Company context, set **Default** to **Search With Current Company**. If you leave this field blank, the search doesn't filter on the current context.
Exclude from Quick Find	Quick Find allows users search for key terms across all company, people, case, opportunity, lead, solution, communication, order, quote, and custom entity records at once. It searches text, email, and URL fields. You can exclude an individual entity field from Quick Find to narrow the range of results, reduce the size of the index and RAM requirements, and shorten the time to return results. You can also exclude an entity from Quick Find. For more information, see **Configuring Quick Find**.

Non-standard fields

Field	Description
Lookup Type	**Create New Lookup**: You must create a new list of selection field values. **Use Existing Lookup**: You can use an existing list of selection field values.
Lookup Width Px	The width of the selection list.

Field	Description
Selection Height	The height of the selection list. For example, set this to zero to create a drop-down selection list when the number of selection values is greater than zero. Set this to 10 to create a drop-down selection list when the number of selections is greater than 10. If this field is set to 10 and the list has only three entries, the selection list is displayed as one long list, rather than a drop-down list.
Search SQL	An SQL filter clause that's applied to the search. For example, to create a field that allows a user to select only opportunities of type Consulting, enter *oppo_type = 'Consulting'* to restrict the available results. If both **Default** and **Search SQL** are blank, no restrictions are applied and a user can select any returned record.
Search Entity	The default entity that Search Select Advanced fields search. You can customize Search Entity defaults in **<My Profile> | Administration | Translations**. For example, to change the default search field on the Case entity from Description to Reference ID, change the translation in **SS_ViewFields** from **Case_Description** to **Case_ReferenceId**.
View Field	Additional columns that are displayed in the Search Select Advanced search results. For example, a Person field could also list the related business phone number.
Tied Fields	The entity that the Search Select Advanced field can search in addition to the default search entity. For example, to allow a user choose a case or an opportunity from a Search Select Advanced (SSA) field, create an SSA field for Case and another SSA field for Opportunity. Tie case to the Opportunity SSA field and add the Opportunity SSA field to the screen. For an example of this in Sage CRM, see the **Regarding** field on the Communication entity. It allows a user carry out a Search Select Advanced on opportunities or cases.

Field	Description
Restrictor Fields	A field that restricts the searched values for the current Search Select Advanced field. Use this field if there's a relationship between this entity and another SSA field on the same table. For example, if the value of **Restrictor** is **Company** for a Person SSA field, when a user adds a new case and selects the company, the Person SSA field shows only the people in that Company. This works because there's a relationship between Person and Company whereby a person belongs to a company.
Linked Fields	Fields that are populated based on the value that a user selects in the SSA field. For example, if a Phone field is added as a linked field to a Person SSA field, the Phone field is populated with the phone number of the person selected in the Person field. You must declare the Linked field in the form "'Select Field=Form Field". For example, to select a company's default SLA on the Cases screen, create a field called ColP_LinkedField. The SSA field "Case_primarycompanyid" is declared with the linked field value as "Comp_SLAID=Case_SLAID" where Comp_SLAID is the field used in the select and Case_SLAID is the actual field on the form. On selecting any Company using SSA, the default SLA is automatically selected in the SLA drop-down on the screen. You can link to multiple fields using a comma to separate each field. There are some restrictions: do not use a semicolon to separate the fields as this breaks functionality. And don't link to a field that's used in the WHERE clause of the view as this causes the drop-down list to be blank.
Search On All View Fields	Allows users to search on all columns listed in **View Field**.

Entry types

Entry Type	Description
Text With Check Box Search	A text field that has radio buttons when used on a search screen or as a search field in a report or group. The radio buttons translations are Has Value, Is Empty, or Either. You can customize the translations for the radio buttons in **<My Profile> | Administration | Customization | Translations**.
Product	A list of products. You set up products in **<My Profile> | Administration | Customization | Secondary Entities | Products**. For more information, see **Products** .
Intelligent Select	A selection list populated with predefined selections. If the number of entries in the selection list is greater than the selection height, the user can search first and then select. Use this entry type only when the number of entries in the list is unmanageable for a simple Selection.
Multi-select	A selection list that allows a user to select more than one option. You can add multi-select fields to all screen types, and use them in reports and groups. Sage CRM treats multiple selections as logical ORs. If you run a report using two search criteria, records that meet both OR either criteria are returned.
Date Only	Date field. A user can enter a date or use the calendar. You can set a default system date of Current Date Plus Delta (in minutes) or Current Date. Date Only fields are not time zone adjusted.
Currency	A user can enter an amount and select a currency from a list. You define the currency list in **<My Profile> | Administration | Data Management | Currency**. Currency values can be a maximum of 15 digits long, including the decimal point and places).
Search Select Advanced	Allows a user to search for records on an entry screen. A user can enter a few letters in a field, click the SSA icon, and select an option from the search result hyperlinks beneath the field. For example, the SSA field on Cases tab in the context of a Solution.
Minutes	Duration (in minutes) of cases and opportunities as they move from one stage to another. You must specify the fields that flag the Start Time and End Time. For example, **Duration** on the Case Tracking tab.
Currency Symbols	A list of all currencies in the system.

Entry Type	Description
User Group Select	Allows a user to select an existing static or dynamic group and link it to a record. The record is not added to the group.
Text	Free text in a single line. For example, **Company Name**.
Stored Proc	Initiates a stored procedure.
Check Box	Check box. For example, **Private** on the Communications entry screen. When used on a search screen, the check box is converted into radio button options: 'Has Value', 'Is Empty,' or 'Either'. You can customize translations for these options in **<My Profile> | Administration | Customization | Translations**.
Phone Number	Phone number. The value is displayed as a hyperlink. CTI-enabled users can click the value to make an outbound call.
Multiline text	Multiple lines of free text. For example, **Problem Details** on the Case entry screen.
Email address	A link to send an email. For example, **Email** on the Person Summary screen.
WWW URL	WWW URL. For example, **Website** on the Company entry screen.
Selection	A selection list populated with predefined selections. For example, **Action** on the Communications entry screen.
User Select	A list of users. For example, **Assigned To** on the Case entry screen.
Team Select	A list of teams. For example, **Team** on the Opportunity entry screen.
Integer	Numerical value. For example, **Certainty** on the Opportunity entry screen.
Numeric	Money value. For example, **Revenue Generated** on the Opportunity table. Numeric values can be a maximum of 15 digits long, including decimal point and places.
Date & Time	Calendar and time. For example, **Date & Time** on the Communication entry screen.

Editing a field

1. Click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity>**.
2. Click the **Fields** tab.
3. To change the values of a selection field, click **Selection** in **Field Type**. The Maintain Lookup Selections screen is displayed.
    a. Select the value that you want to change in **Selection** and enter the new translation in **Change Translation**.
    b. Enter the new code in **Code**. The code must be unique and should consist of text rather than numbers.
    c. Click **Update**.
    d. To change the position of a value in the list, select the value and use the **Up** and **Down** arrows to reposition it.
    e. Click **Save**.
4. To change field properties, click the field that you want to edit. For more information, see **Field properties**.
5. Click **Save**.
6. If you've changed the value of **Entry Type** to a selection field that's not based on an existing lookup, the Maintain Lookup Selections screen is displayed and you can create values for the selection list. For more information, see **Creating a field**.

Deleting a field

You can delete any new fields that you've added. However, you must be careful when updating the database. Ensure all users are logged off Sage CRM when a field deletion is taking place, and that a backup of the database is available. Deleting a field is not reversible. If you make a mistake, you should restore the database backup.

It is recommended that you make major changes to fields and screens on a test system before implementing them in a live environment. Failing to do so may cause unexpected behavior in the system.

1. Click **<My Profile> | Administration | Customization | Primary Entities | <Entity> | Fields**.
2. Click the field name link.

3. Click **Delete**. If the field is used in reports, scripts, views, groups, escalations, notifications, workflow, tab SQL, or dashboards, you are refused permission to delete it. If the field is not used anywhere in the system, or is used in screens, lists or searches, you are asked to confirm that you want to delete the field.
4. Click **Confirm Delete**.

Using field security

- **Working with field security**
- **Accessing field security**
- **Adding security types for a field**

Working with field security

Field security allows you to define how users can access fields associated with a screen. For example, you can make a field invisible to some users, allow others to view the contents of the field but not change them, and grant other users both read and write access. In addition, you can make it mandatory for a user to enter a value in a field before submitting the form.

You can supplement field security with JavaScript by adding code in the scripting boxes available on the Screens tab when customizing an entity. For more information on field-level scripting, see **Using generic JavaScript in field level scripting**.

Field security changes apply immediately, and to all logged on users. There's no need to reset IIS, to carry out a metadata refresh, or require users to log off and back on.

- If you use field-level security to restrict rights, you must check whether possible conflicts can arise. For example, ensure that a user isn't required to enter a value into a field for which they don't have read access.
- If checkboxes in the Read and Write Access columns are cleared, this means a default *denial* of access rights to connected security types. For example, if all checkboxes in the Everyone row are cleared, all profiles, teams, or users are denied read and write access to that field. However, a user can access the field or change its contents if a security type that applies to that user is added to the list and the relevant **Allow** checkboxes are selected.
- If one user is denied read access to a field, security considerations mean that the contents of this field are excluded from keyword searches performed by *all* users. For more information, refer to **System behavior fields**.

Accessing field security

You can view the current field security settings for an entity.

1. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <Entity>**.
2. Click the **Edit** icon in the **Field Security** column beside the field you want to review.
3. The access rights to this field for "Everyone" are defined by default. There's an **Allow** and **Deny** checkbox for Read Access and Write Access.

When you select a checkbox, you can also affect the other checkboxes in the row. For example, when you select **Allow** in the Write Access section, **Allow** in the Read Access section is automatically selected. When you select **Deny** in the Read Access section, the checkboxes in the Write Access section become unavailable, indicating that write access is irrelevant when a field is not viewable. In addition, the **Required** checkbox, which indicates that the field must contain a value for the form to be successfully submitted, is also inactive in this situation because a field that cannot be viewed cannot be marked as required.

Adding security types for a field

You can set field security on an entity for all users, an individual user, a team, a security profile, or a combination of these security types.

For example, you could set up new security types for a user called Susan Maye and for the Sales Manager Profile on the Company SLA field. The following table lists the security types that could affect Susan Maye's rights to view or change the SLA field:

Security Type	Example
Everyone	Everyone
Profile	Sales Manager Profile
Team	Direct Sales
User	Susan Maye

Susan Maye is a member of the Direct Sales team and has been assigned the Sales Manager Profile. Susan Maye as an individual user might have write access for the SLA field. However, if either the Direct Sales team or the Sales Manager Profile are denied write access, Susan Maye's personal settings are overridden and she cannot change the value contained by the SLA field. Susan Maye's access to the SLA field is ultimately defined by the "Everyone" rights that apply to every user in the system.

1. Click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity>**.
2. Click the **Edit** icon in the **Field Security** column beside the field you want to review.
3. Click **New**.

4. Select **User** from **Select Security Type**, and highlight the user for whom you want to define field security.
5. Click **Save**. The Modify Field Security page is displayed, showing the new security type for the individual user. The **Allow** check boxes in the Read Access and Write Access columns are selected by default.
6. Select **Deny** in the Write Access column to restrict the user's access of the field to view (Read) only.
    - If you set a user's read and write access to **Allow**, and Everyone's rights are set to **Deny**, the individual user's rights are also denied, even if they are displayed as allowed.
    - If you set a user's read and write access to **Deny**, and Everyone's rights are set to **Allow**, the individual user's rights are still denied. This is because security types work to define access rights to *restrict* access only. In other words, although security type A can deny read or write access for type B, it does not enable access if the type B has already been denied. If Susan Maye's Write Access has already been set to Deny, even if Everyone's access is set to Allow on Read and Write, Susan Maye will not be able to change the field's value.
7. Click **New**.
8. Click **Profile** and select the profile for which you want to define field security.
9. Click **Save** and click **Continue** to return to the **Fields** tab.

Customizing mappings

- **Working with lead mappings**
- **Mapping leads to opportunities**
- **Mapping leads to companies and people**
- **Working with solution mappings**

Working with lead mappings

Mappings can be created from fields on the Lead table to fields on the Opportunity table. The mappings take effect when the lead is converted to an opportunity.

Currently, a number of fields are converted automatically when a lead is converted to an opportunity, for example the Description field. See the table at the end of this section for the default mappings.

To customize Lead to Opportunity mappings, click **<My Profile> | Administration | Customization | Primary Entities | Leads | Fields**, and click **Mappings**.

Mappings can also be created from fields on the Lead table to fields on the Company and Person tables. The mappings take effect when the lead is matched to a company and a new company record is created.

Currently, a number of fields are converted automatically when a lead is matched to a new company. For example, the Lead Company Name maps to the Company Name. See the table at the end of this section for the default mappings.

Lead to Company mappings can be customized by matching the field names with the same prefix. Person, Address, and Phone mappings must use the same set of hardcoded fields. For more information, see **Mapping leads to companies and people**.

If you create any new, corresponding mapping in **<My Profile> | Administration | Customization**, the default system mapping is overwritten.

The table below lists the default system mappings.

Lead Field	Maps to
lead_description	oppo_description
lead_source	oppo_source
lead_mainproductinterest	oppo_product
lead_details	oppo_note
lead_waveitemid	oppo_waveitemid
lead_companyname	comp_name
lead_companywebsite	comp_website
lead_companyrevenue	comp_revenue
lead_companyemployees	comp_employees
lead_personlastname	pers_lastname
lead_personfirstname	pers_firstname
lead_personsalutation	pers_salutation
lead_persontitle	pers_title
lead_personemail	Company Business email (Emai_EmailAddress with Emai_Type = 'Business')
lead_ personphonecountrycode	Company Business phone country code (Phon_Countrycode with phon_type 'business')

Lead Field	Maps to
lead_personphoneareacode	Company Business phone area code (Phon_Areacode with phon_ type ‘business’)
lead_personphonenumber	Company Business phone number (Phon_Number with phon_type ‘business’)
lead_personfaxcountrycode	pers_faxcountrycode
lead_personfaxareacode	pers_faxareacode
lead_personfaxnumber	pers_faxnumber
lead_companyaddress1	addr_address1
lead_companyaddress2	addr_address2
lead_companyaddress3	addr_address3
lead_companyaddress4	addr_address4
lead_companycity	addr_city
lead_companypostcode	addr_postcode
lead_companystate	addr_state
lead_companycountry	addr_country

Mapping leads to opportunities

1. Click **<My Profile> | Administration | Customization | Primary Entities | Lead | Fields**.
2. Click **Mappings**. If you've already created mappings, they're displayed in a list. System mappings are not listed.
3. Click **New**.
4. Select the **Lead Custom Field Name** that you want to map from and the **Mapped Opportunity Field** that you want to map to. You can map only fields of the same type to one another. For example, character fields to character fields or integer fields to integer fields.
5. Click **Save**. The mapping is displayed on the list of mappings. To change it, select the mapping hypertext link.
6. Continue to create as many mappings as you require.

7. To view the effect of the mappings you created, create a new lead and convert it to an opportunity.

Mapping leads to companies and people

To map a field from Lead to Company, name the lead table field lead_companyXXXX and the company table field comp_XXXX. The field types don't have to be the same. This applies when you are transferring fields from the Lead Company Details area to the company.

However, when mapping from Lead to Person, you must use the following hardcoded values.

- lead_personlastname
- lead_personfirstname
- lead_persontitle
- lead_personsalutation

The same is true for address information:

- lead_companyaddress1
- lead_companyaddress2
- lead_companyaddress3
- lead_companyaddress4
- lead_companycity
- lead_companystate
- lead_companycountry
- lead_companypostcode

These fields get mapped to the address for the company.

The phone, alternative phone, and email fields are all set to map to the standard phone, alternative phone, and email fields. Only hardcoded values can be used for these fields.

Finally, for all of the above to work, the field you are transferring must be on the Entry Screen for both the lead and, for example, the company. For example, to transfer data from lead_companyXXXX to comp_XXXX, comp_XXXX must be on the company entry screen and the lead screen. If you leave it off the company entry screen, you do not get the comp_XXXX data transferred.

To map a field from the Lead to the Company:

1. Look up a field on the company table, which is not currently mapped to the lead. For example, the new field comp_relationship. For more information, see **Creating a field**.
2. Make a note of the field name. For example, comp_relationship.

3. Click **<My Profile> | Administration | Customization | Primary Entities | Lead | Fields**.
4. Add a new field called *lead_companyrelationship*. You should enable the mapping to the company field by selecting comp_relationship as the Lookup Family.
5. Click **<My Profile> | Administration | Customization | Primary Entities | Lead | Screens**.
6. Click **Lead Company Screen** and add the new field to the screen.
7. Click **<My Profile> | Administration | Customization | Primary Entities | Company | Screens**.
8. Click **Company Entry Screen** and add the new field to the screen.
9. Create a new Lead record and match it to a new Company. The new field and the field selection are carried over to the Company page.

Note: For security reasons, mapping the **Territory** (lead_secterr) field of a Lead to a Person or Company isn't supported out of the box.

Working with solution mappings

You can map fields on the Case table to fields on the Solutions table. The mappings take effect when a Solution is created in the context of a Case.

1. Click **<My Profile> | Administration | Customization | Secondary Entities | Solutions | Fields**.
2. Click **Mappings**. Alternatively, click the **Field Mappings** tab.
3. Select the case fields to be mapped from and the solutions fields to be mapped to. For example, case_description to soln_description.
4. To display the mapped field on the search screen when you link an existing Solution to a Case, select **Include In Search**.
5. Click **Add**.
6. When you've finished mapping the fields, click **Continue**.
7. To view your mappings, open a Case, click the **Solutions** tab, and click **New Solution**. The field mappings you created are displayed on the **Solution Details** page.

Screens

- **Customizing Sage CRM login screen**
- **Adding field to screen**
- **Adding checkbox to screen**
- **Editing screen layout**
- **Inline customization of screen**
- **Maintain Screen Definition fields**
- **Advanced screen customization**
- **Customizable screens**

Customizing Sage CRM login screen

You can do the following:

- Display and position your custom logo on the login screen.
- Change the background of the entire login screen, its top area (where the Sage logo is located), its middle area (where the login form is located), or its bottom area.

To perform these customizations, you can use the preconfigured .css and .js files supplied with Sage CRM.

1. On a Sage CRM server, locate the following files:

File name	Location
custom-logon.css Use this file to change the background color of the login screen and to position your custom logo.	<Sage CRM installation folder>\WWWRoot\Img\logon\css **Note:** By default, Sage CRM is installed to **%ProgramFiles(x86)%\Sage\CRM\CRM**.
ChangeLogonLogo.js Use this file to specify the name of the file that stores the custom logo you want to display on the login screen. You can store your custom logo in a .gif, .jpeg, .png, or .svg file. The file name can include the following characters only: A-Z, a-z, 0-9, underscore (_), full stop (.), and hyphen (-).	<Sage CRM installation folder>\WWWRoot\Img\logon\js

2. Edit the **custom-logon.css** and **ChangeLogonLogo.js** files to set the desired background color and specify the name of your custom logo file if necessary. For details, see the annotations in the files.
3. Save your changes.
4. If you want to display a custom logo, copy your custom logo file to <Sage CRM installation folder>\WWWRoot\Img\logon\gif.

   Make sure that the name of your custom logo file contains alphanumeric characters only.
5. Copy the edited **custom-logon.css** and **ChangeLogonLogo.js** files to the following locations. Skip copying **ChangeLogonLogo.js** if you don't need to display a custom logo.

File name	Copy to
custom-logon.css	<Sage CRM installation folder>\WWWRoot\Themes\custom
ChangeLogonLogo.js	<Sage CRM installation folder>\WWWRoot\js\custom

Now you can open the Sage CRM login screen to view your customizations.

Note: When you upgrade Sage CRM, the Sage CRM Setup does not replace or modify the **custom-logon.css** and **ChangeLogonLogo.js** files in the locations you copied them to.

Adding field to screen

1. Click **<My Profile> | Administration | Customization | Primary Entities | <Entity>**.
2. Click the **Screens** tab.
3. Click the screen you want to customize.
4. Select the new field from **Field**.
5. Define the position, height, and width and click **Add**. For more information, see **Maintain Screen Definition fields**. The new field appears in the Screen Contents list.
6. Highlight the new field and use the up and down arrows to move it within the **Screen Contents** list. Position the new field next to the field it should precede or follow.
7. Click **Update**.
8. Click **Save**.

Adding checkbox to screen

This example adds a new Address Type to the Address screen. It does *not* require the creation of a new field. There's no field called **Type** on the Person or Address table. This information is held in a special link table.

1. Click **<My Profile> | Administration | Customization | Translations**. The Translations Find page is displayed.
2. Enter the translation of an existing address type in **Translation** and click **Find**.
3. Click the caption code link.
4. Make a note of the details and click **Cancel**. This returns you to the Translations Find page.
5. Click **New**.
6. Create a new translation for the new address type called Delivery, ensuring that the caption family is set as **Link_CompAddr** and the caption family type is **Links**.
7. Click **Save**. The new Address Type checkbox is displayed on the Address screen.

To add a new Person Type check box to the Person screen, follow the same steps using **Link_CompPers**. You can add new email and phone types in the same way, using the caption families: **Link_CompPhon**, **Link_PersPhon**, **Link_CompEmai**, and **Link_PersEmai**.

Editing screen layout

1. Click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Screens** and click the screen you want to customize. Alternatively, use **Inline customization of screen**.
2. To add a new field to the screen, add the field to the list of **Screen Contents**.
3. To change the position of an existing field on the screen, select the field in the **Screen Contents** list and use the up and down arrows to reposition it.
4. To position a field on a new line, change the on-screen position of the field.
5. Click **Update**.
6. Click **Save**.

Inline customization of screen

Use inline customization to quickly view a screen before and after you customize it. Inline customization is also a useful way to find out the name of a screen.

1. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <any entity> | Screens**.

   You can select any primary or secondary entity. Inline customization will be enabled for all entities.
2. Select **Inline Customization**.
3. Open the screen you want to customize.
4. In the top left corner, click **Customize Screen**.

   In the window that opens, the name of the screen being customized is displayed in parenthesis in the top left corner.
5. Make your changes and click **Save**.
6. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <any entity> | Screens** and clear **Inline Customization** to return to normal mode.

Maintain Screen Definition fields

The table below explains the standard fields in the Maintain Screen Definition page. For more information about JavaScript and Sage CRM's Client-Side API library of functions, see **Advanced**

screen customization.

Field	Description
Field	List of fields that can be added to the screen.
Position	Position on the screen. Select New Line or Same Line from the list.
Hyperlink To	Creates a link to another screen.
Height	Height of the field on the screen in rows.
Width	Width of the field on the screen in columns.
Create Script	You can enter JavaScript which is executed on the server side when the input form is created.
OnChange Script	JavaScript can be entered, which is executed on the client side as the user changes information on the page. You can enter generic JavaScript and/or Sage CRM's Client-Side API library of functions.
Validate Script	You can enter JavaScript which is executed on the server side when the user clicks **Save**.
Custom Content	You can enter HTML or generic JavaScript and/or Sage CRM's Client-Side API library of functions.

Advanced screen customization

You can change the way fields behave on a screen.

- **Field security**. A codeless way of securing access rights to fields across all screens.
- **Scripting using the Sage CRM Client-Side API**. A simple, upgrade-proof set of client-side functions which can be called from the OnChange Script field attached to an individual field, or via the Custom Content field associated with a screen or list. This can be most powerfully used to change the appearance of fields on a screen to make user input faster and easier. A basic conceptual knowledge of coding is helpful, but not essential. Scripts using the Client-Side API can all be maintained in a single location in the ..WWWROOT\JS\CUSTOM folder of your Sage CRM install. Maintaining and updating scripts in this way offers significant time and quality improvements over adding scripts to individual fields or screens. This is the recommended method for carrying out client-side scripting in Sage CRM. Some simple examples are included in the *System Administrator Help*. For more information, see the *Developer Help* on the **Sage CRM Help Center**.
- **Scripting using generic JavaScript**. Add JavaScript (client-side and server-side) to fields on a screen to, for example, refine field access conditions or validate a field value in

a form. Combined with the Extensibility Module, you get access to the complete CRM Object/Block model including properties and methods for each field. For more information, see the *Developer Help* on the **Sage CRM Help Center**. Customizations added using this method must be carefully checked during a test upgrade and may require modification to work in future versions. A good knowledge of JavaScript is essential. You can apply generic JavaScript and/or the Sage CRM Client Side API to the Workflow actions listed below.

- Set Column Value
- Display Fields for Amendment
- Reset Column Value

Customizing screens with client-side API

The Sage CRM client-side API functions give you customization capabilities across three main areas of screen and list customization. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

- **Field Level functions** - changing the way specific fields on a page behave. For example, setting a background color or hiding a field.
- **Page Level functions** - changing the way parts of a screen behave. For example, setting an error message, or adding a Print button to a screen.
- **Advanced functions** - these can be used in conjunction with other API calls, for example, to make date comparisons.

> **Note:** Client-side scripting is a tool for easily customizing the appearance of CRM screens and lists to suit the way your users work. It is not a substitute for effective data validation or security on your system. This should be still be handled by the existing security features of Sage CRM.

You can add the functions in the following areas:

- **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Screens | OnChange Script**. Use this field if you want the event to occur only when a specific field is changed. For example, displaying a warning message to the user when the company name is changed. However, you may find it easier to add all your code for a screen in the Custom Content field, and then reference a specific function from the OnChange Script field associated with a particular field.
- **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Screens | Custom Content**. The code is activated when the whole screen is in Edit (or View) mode. Code in the Custom Content field must be enclosed in <script></script> tags.

- **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Lists | Custom Content**. The code is activated when the list or grid is viewed.
- In an external .JS file in the ..WWWROOT\JS\CUSTOM folder of your install. JavaScript files placed in this folder are automatically included on most CRM screens - the Interactive Dashboard and the Logon screen are not included. This means that you can put all your custom functions in a centralized .JS file. Then, to apply the code to a specific area of CRM, just reference the function from one of the places mentioned above. This makes it easier to keep the customizations in a central location with fewer changes to the CRM screens.

You should follow these basic guidelines.

- If you are adding the code in **Custom Content**, it must be enclosed with <script></script> tags in this format:

```
<script>
crm.ready(function()
{
// Add your script here
});
</script>
```

- If you are adding the code in **OnChange Script**, it does not need to be enclosed with <script></script>.
- Use single quotes only in the OnChange Script field. This also applies to the OnChange Script field in Workflow Customization actions Set Column Value, Reset Column Value, and Display Fields for Amendment.
- If you want to try the sample code, please remove any special character formatting which will interfere with the code before pasting into CRM. Pasting into Notepad or a similar text editor before copying and pasting for use with Sage CRM is a good way to do this.
- Make sure the first character of the Client-Side API function is lower case. For example, crm.markRequiredFields.

Adding text effects to specific fields

This example adds highlight, bold, and italic effects to two fields on the Company Entry Screen.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Company | Screens**.
2. Click the **Edit** icon beside **Company Entry Screen**.

3. Add the following script to **Custom Content**:

```
<script>
crm.ready(function()
    {
        crm('comp_name').bold().highlight();
        crm('comp_type').italic().underline();
    });
</script>
```

4. Click **Save**.

Adding highlights to all required fields

This example adds a pink highlight color on all required fields on the Company Entry Screen.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Company | Screens**.
2. Click the **Edit** icon beside **Company Entry Screen**.
3. Add the following script to **Custom Content**:

```
<script>
crm.ready(function()
    {
        crm.markRequiredFields('pink');
    });
</script>
```

4. Click **Save**.

Adding a Print button to a page

This example adds a Print button to the Lead Summary screen.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Lead | Screens**.
2. Click the pencil icon beside **Lead Custom Screen**.
3. Add the following script to **Custom Content**:

```
<script>
crm.ready(function()
    {
        crm.addButton('print');
    });
</script>
```

4. Click **Save**.

Note: This script prints the contents of the HTML `<div>` element whose ID is `EWARE_MID`. All other elements of the HTML page are not printed.

Changing a field value based on another field value

This example changes the Team assigned to an Opportunity depending on the type of opportunity. It's similar to the Field Level Scripting **OnChange Script** example, but uses the client-side API instead, and adds pink highlight on **Team** to alert the user to the change.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Opportunity | Screens**.
2. Click the **Edit** icon beside **Opportunity Detail Screen**.
3. Select **Opportunity: Type** from the Screen Contents panel.
4. Add the following script to **OnChange Script**. The first part of the script checks to see if the channelid field is present on the screen.

```
if(crm('oppo_type').val() == 'Mix')
    {
        crm('oppo_channelid').val(4);
    }

else if(crm('oppo_type').val() == 'Consulting')
    {
        crm('oppo_channelid').val(3);
    }

else
    {
        crm('oppo_channelid').val(2);
    }

crm('oppo_channelid').highlight('pink');
```

5. Click **Update** and then click **Save**.
6. Add a new opportunity and select **Consulting** from the Type list. A team value, in this case Customer Service, automatically fills the Team field. If you change the opportunity type to Mix, a different team value, in this case Marketing automatically fills the Team field, which is highlighted is pink.

Display a message to the user if a check box is left blank

This example displays a message to the user if the E-marketing opt-out check box isn't selected.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Company | Screens**.
2. Click the **Edit** icon beside **Company Entry Screen**.
3. Select **comp_optout** from the Screen Contents panel.

4. Add the following script to **OnChange Script**.

```
if (crm('comp_optout').val() == false)
    {
        crm.infoMessage('This company will not receive any E-marketing communications');
    }

else
    {
        crm.infoMessage(false);
    }
```

5. Click **Update** and then click **Save**.
6. Add a new company and leave **Opt-out of E-marketing communications** blank. A message is displayed to the user.

Adding HTML and generic JavaScript to custom content

As well as adding scripting customizations using the Client-Side API into the Custom Content field, you can add HTML and generic JavaScript content to an individual page. For example, you can use **Custom Content** to add HTML text to create a link at the top of a screen, or to generate a JavaScript button that pops up an alert box.

The Custom Content is generated at the beginning of the page, so whatever you create appears first in the screen or panel.

For example, add the following HTML text to the Custom Content field of the Company Summary screen. This generates a button to open a web page where you can search on company information. The button is displayed in the top left of the Company Summary panel.

```
<input type=button value="Company Information" name=Test onclick="window.open
('http://www.sagecrm.com')">
```

When you view a related record summary screen, the new button appears in the Company panel.

Using generic JavaScript in field level scripting

You use the normal JavaScript syntax in the Sage CRM Field Level Scripting environment. The only difference is that you do not need to include the scripting <script></script> or <% %> tags. You can use JavaScript server-side scripts and client-side scripts.

There is no limit to the size of the script that you can enter in the Create, Validate and OnChange fields, although for larger scripts it may be easier to include the script in an ASP page in the **..WWWRoot\CustomPages** folder of the Sage CRM install. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

Server-side

- Create Script. This script is run on the server when the screen is created.
- Validate Scripts. This script is run on the server when the user clicks **Save** on the screen.

Client-side

An OnChange script runs on the browser whenever a user changes the field to which the script is attached.

1. Click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity>**.
2. Click the **Screens** tab.
3. Click the **Edit** icon beside the screen containing the field you want to attach the script to.
4. Enter OnChange scripts in **CreateScript**, **OnChangeScript**, and **ValidateScript** fields.

There's a difference in syntax between server-side scripts and client-side scripts. This is because server-side scripts have access to the current CRM Object's fields and properties, whereas client-side scripts have access to the HTML Document Object Model (DOM). For more information on the CRM Object, see the *Developer Help* on the **Sage CRM Help Center**.

Objects accessible in CRM scripting

Script Type	Objects Available
Create Script	CRM Object Model, properties and methods (current context). CurrentUser object and Value property (the value the user is submitting).
Validate Script	CRM Object Model, properties and methods (current context). CurrentUser object and Value property, as well as Valid property and ErrorStr method.
OnChange Script	HTML DOM properties and methods as well as CurrentUser object and Value property. The Current User and Value are the only CRM Object properties you can reference from the client side.

Server-side JavaScript (Create, Validate)

Server-side scripts are executed on the Sage CRM server. Server-side JavaScript extends the core language by supplying objects for running JavaScript on a server. For example, server-side extensions allow an application to communicate with a relational database, provide continuity of

information from one invocation to another of the application, or perform file manipulations on a server.

Within server-side scripts you can refer to the complete CRM object model, so you refer directly to entries within the current context. As these scripts are run on the server you are limited to actions that do not output information to the client.

You attach Create Scripts to the field in a screen that the script is to act on when the screen is created. These scripts are commonly used for automatically setting fields based on input information.

The Validate Script also has access to the following properties:

- **Valid**. Set to false to mark the current entry as invalid.
- **ErrorStr**. Returns the string in the error content (red bar at top of screen).
- **Values**. Contains the value the user is submitting.

Client-side JavaScript (OnChange)

Client-side scripts are loaded and run on the user's browser. Client-side JavaScript extends the core language by supplying objects to control a browser and its DOM. For example, client-side extensions allow an application to place elements on an HTML form and respond to user events, such as mouse clicks, form input, and page navigation.

You attach OnChange scripts to the field that the user is going to change (not the field you want the change action to occur on). The properties that are available are the same as for the HTML DOM. The CurrentUser object is available client side in system generated screens.

If you view the source code of the HTML page you can view any changes you are making to the Sage CRM objects.

Adding field level scripts using JavaScript

You can view the properties of the individual fields that you can use in Create and Validate scripts from **<My Profile> | Administration | Customization**, by selecting the entity from the Customization home page and then the Fields tab.

Clicking on the field name's hyperlink displays some of the properties you can access and change using JavaScript. The most important property is the field name—in this case, "comp_ relationship"—that enables you to access the field and its associated properties in code.

In addition, you can define access rights to a field using the Field Security feature, which you select from the Fields tab for an entity.

The Modify Field Security Screen allows you to use check boxes to indicate whether particular security types (an individual user, a team, a security profile, or "Everyone") has read/write access to a field.

The JavaScript code written by an administrator cannot grant either read or write access to a user if it is denied on this screen.

Field-level scripts should use a single quoted character (') instead of a double quoted character ("). For example, case_channelid=rec('user_primarychannelid'); instead of case_channelid=rec("user_primarychannelid");. Double quoted characters (") in field-level scripts may cause issues when installing scripted components.

Create script examples

Example 1

You can add a Create Script, which automatically sets the Company Status to None when a user, whose Primary Team is Direct Sales, creates a new company. You must attach Create Scripts to the field that they are to act on.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Company**.
2. Click the **Screens** tab. A list of customizable screens for the Company entity is displayed.
3. Click the Company Entry Screen.
4. Highlight **Company : Status**.
5. Enter the following script into **CreateScript**. This script assumes that the primarychannelid (primary team id) for the Direct Sales team is equal to 1.

```
if(CurrentUser.user_primarychannelid==1)
    {
        DefaultValue='None';
    }
```

> **Note:** The DefaultValue property can only be set when a new record is created, or in a field created by a workflow action.

6. Click **Update** and then click **Save**.
7. Log off and back on as any user whose Primary Team is Direct Sales. Note that you do not need to log off for the script to be activated, but you need to be in the Direct Sales team to see the effect.
8. Select **New** to create a new company. **Status** is automatically set to **None**.

Example 2

This example adds a Create Script, which automatically sets a new company type to Competitor and makes this field read only when William Dolan (DolanW) creates the company.

1. Click the Company Entry Screen.
2. Highlight **Company:Type**.

3. Enter the following script in **CreateScript** :

```
if(Values("Act")==1200)
    {
        if (CurrentUser.user_logon=='DolanW')
            {
                DefaultValue='Competitor';
                ReadOnly=true;
            }
    }
```

> **Note:** The `if(Values("Act")==1200)` statement checks that the System Action is being used. This is required to make the script apply during insertion only. Without this statement, the script will work for updates, which means that the field in the screen is always locked down as read only for the user. This script assumes that deduplication is enabled. Check in **<My Profile> | Administration | System | System Behavior** that **Deduplication**is set to **Yes**.

4. Click **Update** and then click **Save**.
5. Log on as William Dolan. When you create a new company, the Type field is automatically set to Competitor and is read only.

Example 3

This example adds a Create Script, which removes the Archive selection item from the Company Status list when the System Administrator (Admin) creates a new company.

1. Click **Company Entry Screen**.
2. Highlight **Company: Status**.
3. Enter the following script in **CreateScript**:

```
if(CurrentUser.user_logon=='Admin')
    {
        RemoveLookup('Archive');
    }
```

4. Log in as the system administrator. When you create or update a new company, the Archive option is no longer available on the Status list.

> **Note:** The scripts in Examples 2 and 3 work in conjunction with whatever access settings may have been defined in the Field Security interface because in both cases the scripts are restricting access to the fields rather than widening it. In contrast, a script that specifies write access to a field depending on the user's ID will not take effect if that user has already been denied access in the Field Security interface.

OnChange script examples

Example 1

You can add an OnChange Script, which changes the Team assigned to an Opportunity depending on the type of opportunity. You must attach the OnChange Script to the field that you want to change.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Opportunity**.
2. Click the **Screens** tab.
3. Click the **Edit** icon beside **Opportunity Detail Screen**.
4. Highlight **Opportunity: Type** within the Screen Contents panel.
5. Type the following script in **OnChangeScript**. The first part of the script checks to see if the channelid field is present on the screen.

```
if (typeof(oppo_channelid)!='undefined')
    {
        if(oppo_type.value=='Mix')
            {
                oppo_channelid.value='4';
            }

        else if(oppo_type.value=='Consulting')
            {
                oppo_channelid.value='3';
            }

        else
            {
                oppo_channelid.value='2';
            }
    }
```

6. Click **Update** and then click **Save**.
7. Add a new opportunity and select **Consulting** from **Type**. A team value, in this case Customer Service, automatically fills the **Team** field. If you change the opportunity type to Mix, a different team value, in this case Marketing automatically fills the **Team** field.

Example 2

You can add an OnChange Script, which changes the company status to Inactive when the company type is changed to Partner. You can use "this.value" in place of the actual field name when the script is being attached to the actual field that is changing.

1. Click the **Company Entry Screen**.
2. Highlight **Company: Type** and enter the following in **OnChangeScript**. When you create or

edit a company type and change the company type to Partner, the **Status** field automatically defaults to Inactive.

```
if (this.value == 'Partner')
    {
        comp_status.value = 'Inactive';
    }
```

Example 3

You can add an OnChange Script, which disables the **Company Revenue** field when the **Company Type** is set to **Partner**.

1. Click the **Company Entry** Screen.
2. Highlight **Company: Type**.
3. Enter the following script in **OnChange**:

```
if (this.value == 'Partner')
    {
        comp_revenue.disabled='true';
    }
```

4. Click **Update** and then click **Save**.
5. Open a company and change the type to **Partner**. The **Company Revenue** field is disabled.

Example 4

You can add an OnChange Script, which hides the company revenue field for companies with more than 500 employees. This example also shows how you can use the visibility property of the HTML DOM.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Company | Screens**.
2. Click the Company Entry Screen.
3. Highlight **Company: Employees**.
4. Enter the following script in **OnChangeScript**.

```
if(this.value =='501+')
    {
        comp_revenue.style.visibility = 'hidden';
    }

else comp_revenue.style.visibility = 'visible'
```

5. Click **Update** and then click **Save**. When you create a new company and select 501+ from the Employees list, the **Revenue** field is automatically hidden. The above script hides the

Revenue (comp_revenue) field when the user selects 501+. It will not be run if the field is already set to 501+.

6. To make this customization complete, you can add a Create script to the comp_revenue as follows, and the field then remains hidden:

```
if (Values('comp_revenue')=='501+')
    {
        Hidden=true;
    }
```

Validate script examples

Example 1

This example adds a Validate Script, which checks the validity of the Opportunity Certainty field. If the field value is set to less than 25%, it expects the Opportunity Priority to be set to Low. If this is not the case, a validation error message is displayed to the user.

Note: You must attach Validate Scripts in the field you want the valid error to show up against.

1. Click **<My Profile> | Administration | Customization**.
2. Select **Opportunity Progress** from **Secondary Entities**.
3. Click the **Screens** tab.
4. Click **Opportunity Status Box**.
5. Select **OpportunityProgress: Priority** in the Screen Contents panel.
6. Type the following script in **Validate Script**.

```
if (Values('oppo_certainty')<25 && Values('oppo_priority')!='Low')
    {
        Valid=false;
        ErrorStr="please set the priority to Low";
    }
```

7. Click **Update** and then click **Save**.
8. Add a new opportunity, set the Priority to 20 and click **Save**. A validation error is displayed to the user with the error you specified.

Example 2

You can add a Validate Script, which validates that every customer who is buying a License is assigned a Customer Reference ID that begins with the letter 'L'. Otherwise it displays an error message.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Opportunity**, and click the **Screens** tab.
2. Click **Opportunity Detail Screen**.
3. Select **Opportunity : Customer Ref**.
4. Enter the following script in **ValidateScript**:

```
custref=Values('oppo_customerref')+'';
if ((Values('oppo_type')=='License') && (custref.charAt(0)!='L'))
    {
        ErrorStr='!'+custref+'The customer reference must begin with L';
        Valid=false;
    }
```

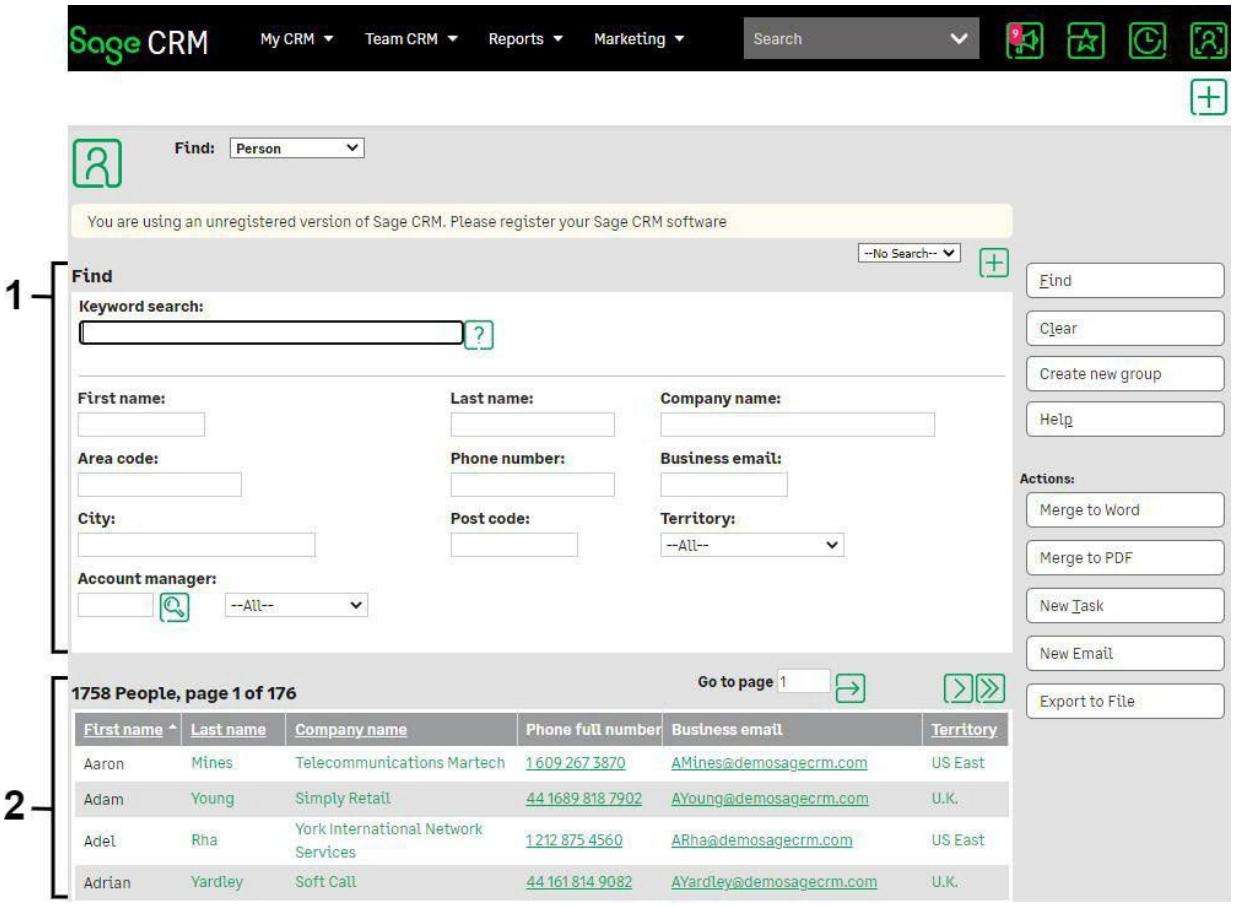
5. Click **Update** and then click **Save**.
6. Create a new opportunity, select **License** from **Type**, enter a customer reference number beginning with any letter except L.
7. Click **Save**. The error displayed indicates that this type of opportunity must be assigned a customer reference beginning with L.

Customizable screens

- **Search screen**
- **Dedupe search screen**
- **Entry screen**
- **Summary screen**
- **Filter screen**
- **Phone and email screen**
- **Login screen**

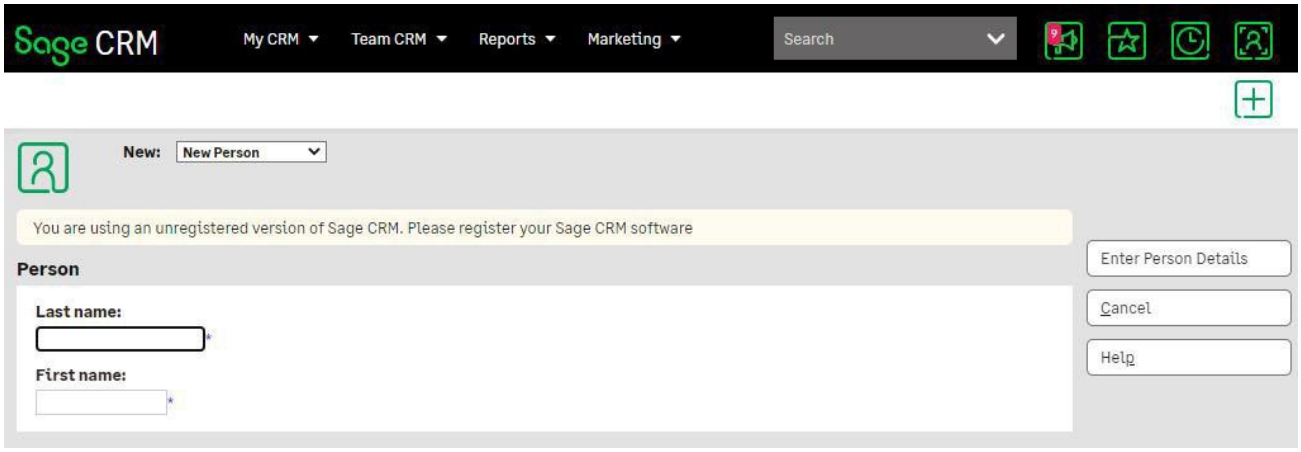
Search screen

This type of screen is displayed when a user clicks the **Search arrow** and then clicks **<Entity>**. The screenshot below shows the Person search screen. There are two customizable panels (blocks) on a search screen; the search box (1), and the results list or grid (2).



Dedupe search screen

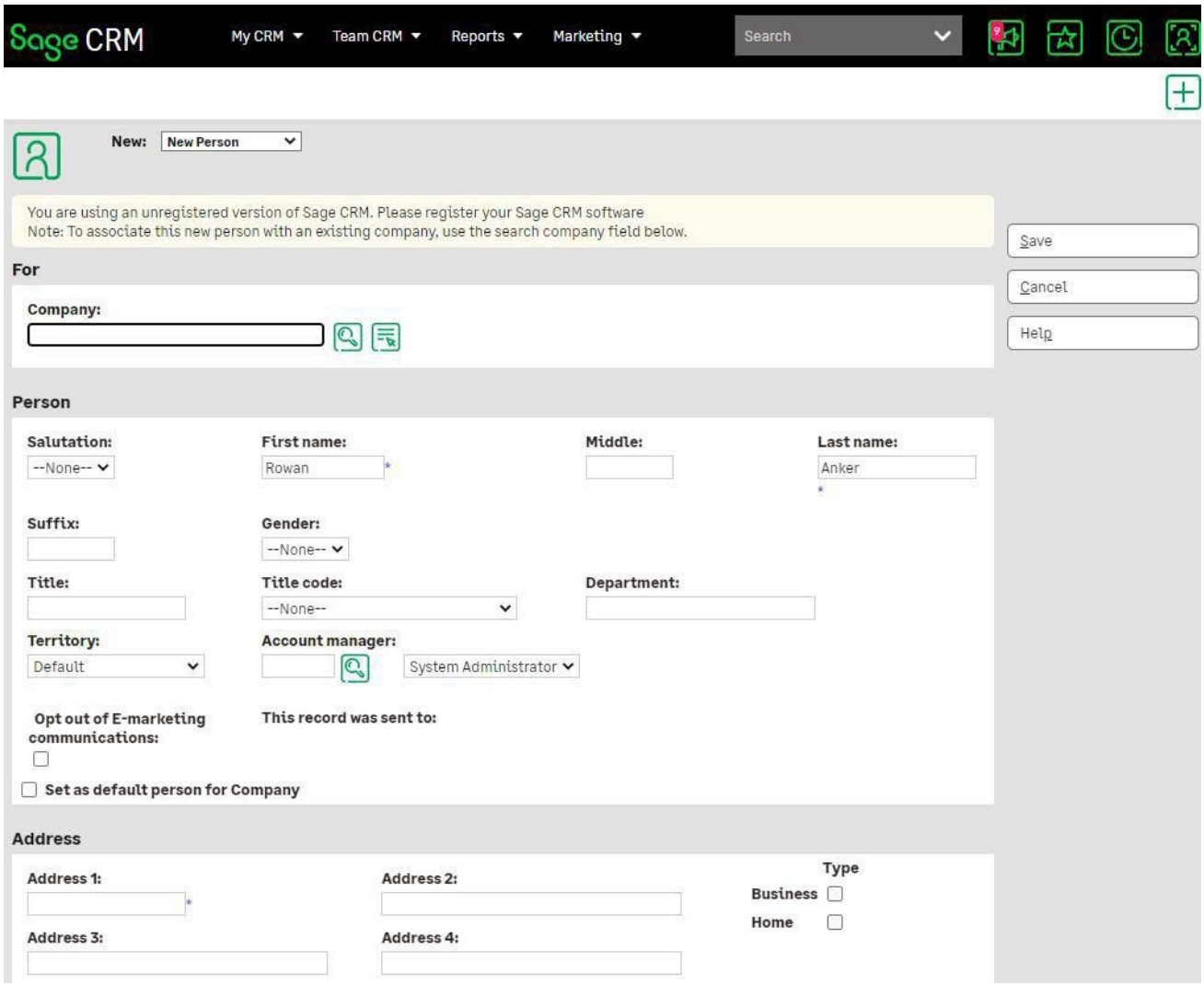
This type of screen is displayed when a user clicks **New | New <Entity>** when **<My Profile> | Administration | System | System Behavior | Deduplication** is set to **Yes**. The screenshot below shows the Person dedupe search screen.



Entry screen

This type of screen is displayed when a user clicks **New | New <Entity>** and passes the Dedupe search screen. It can include a **Web Picker** panel that lets the user link the new record to an existing company or person record. The screenshot below shows the Person entry screen.

> **Note:** This type of screen is similar to the Quote or Order Free Text Item screen.

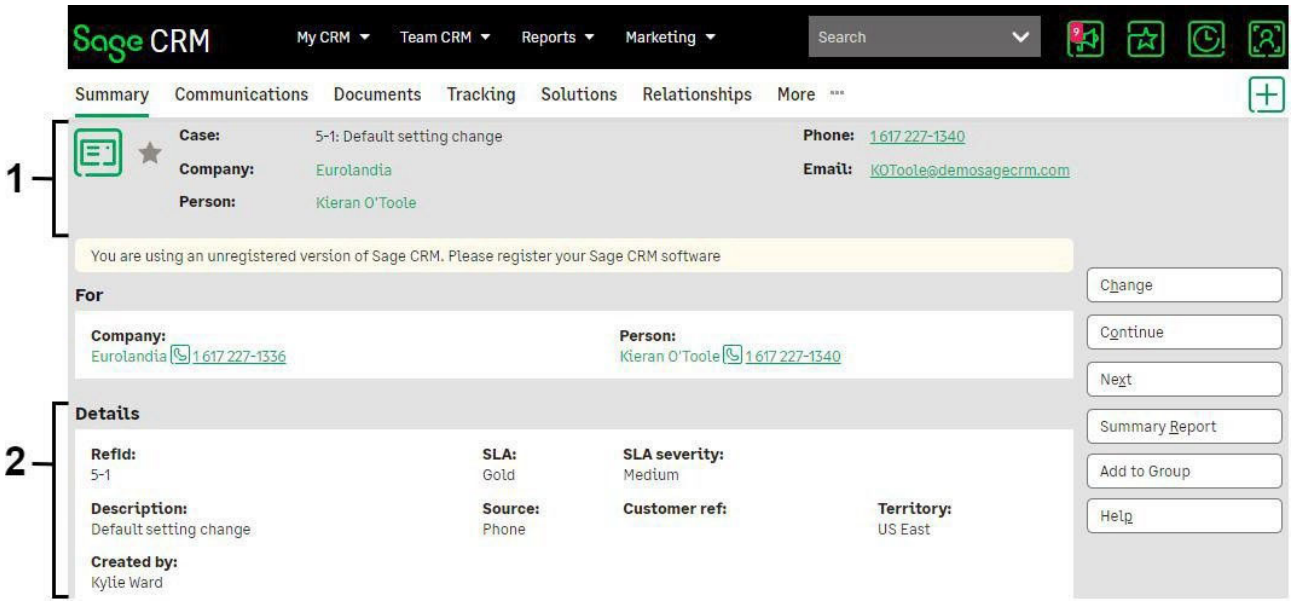


Summary screen

This type of screen is displayed when a user opens an entity record. It contains several panels such as the **Top content panel** (1) and a **Detail box panel** (2). The existing fields on the Top content panel are always displayed so you cannot change them but you can add new fields to the panel.

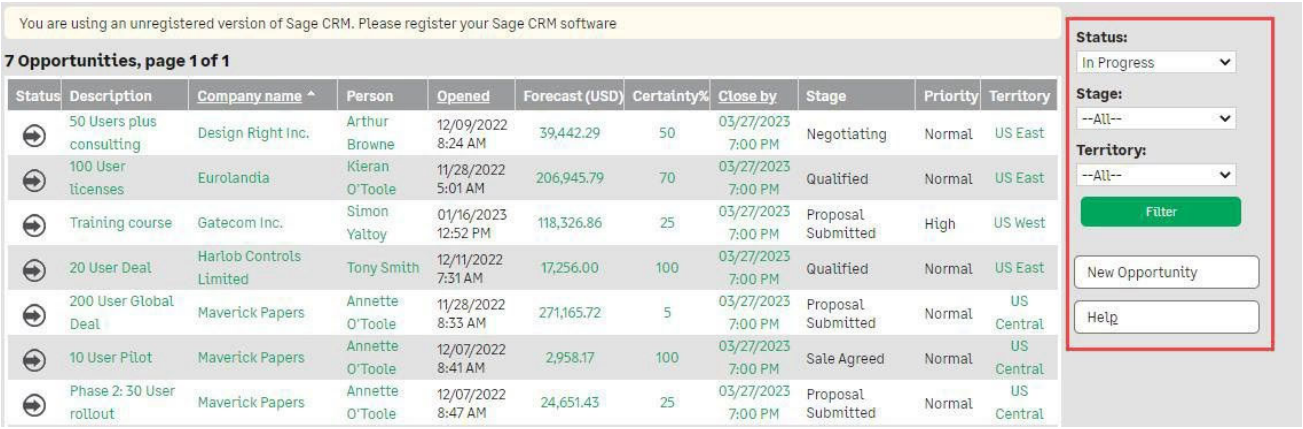
> **Note:** This type of screen is similar to the Communication details screen.

The screenshot below shows the Case summary screen.



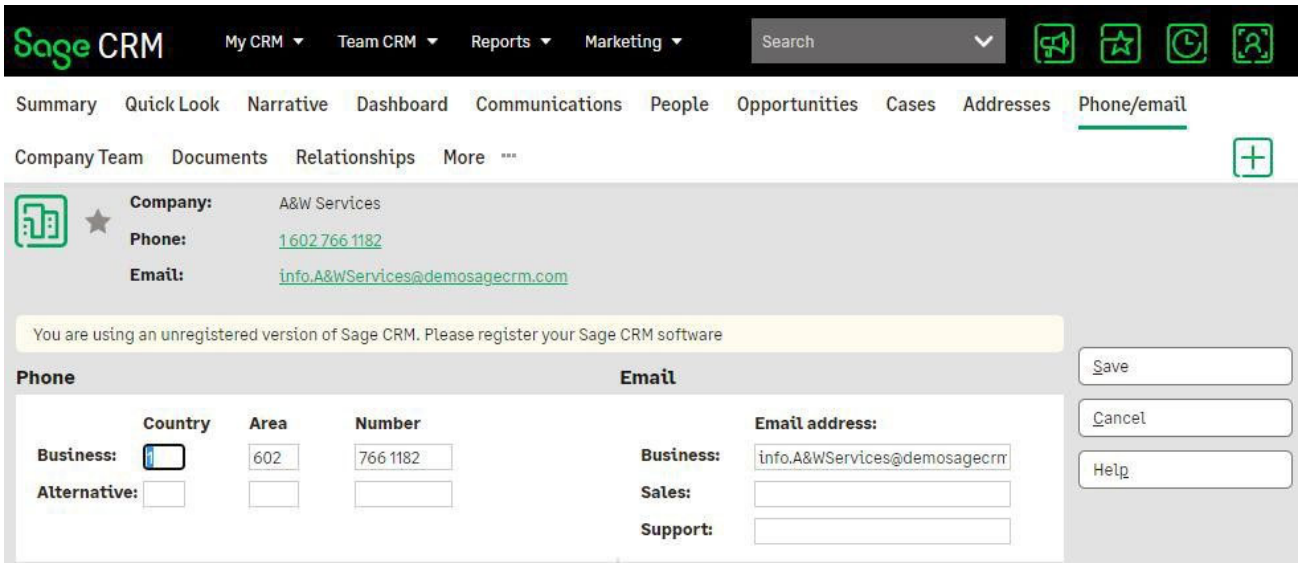
Filter screen

This type of box is displayed when a user clicks **My CRM | <Entity>**. The screenshot below shows the Opportunities filter screen.



Phone and email screen

These panels are displayed when a user opens a company or a person record and clicks the **Phone/Email** tab. The screenshot below shows the **Phone panel** and **email panel** for a Company record.



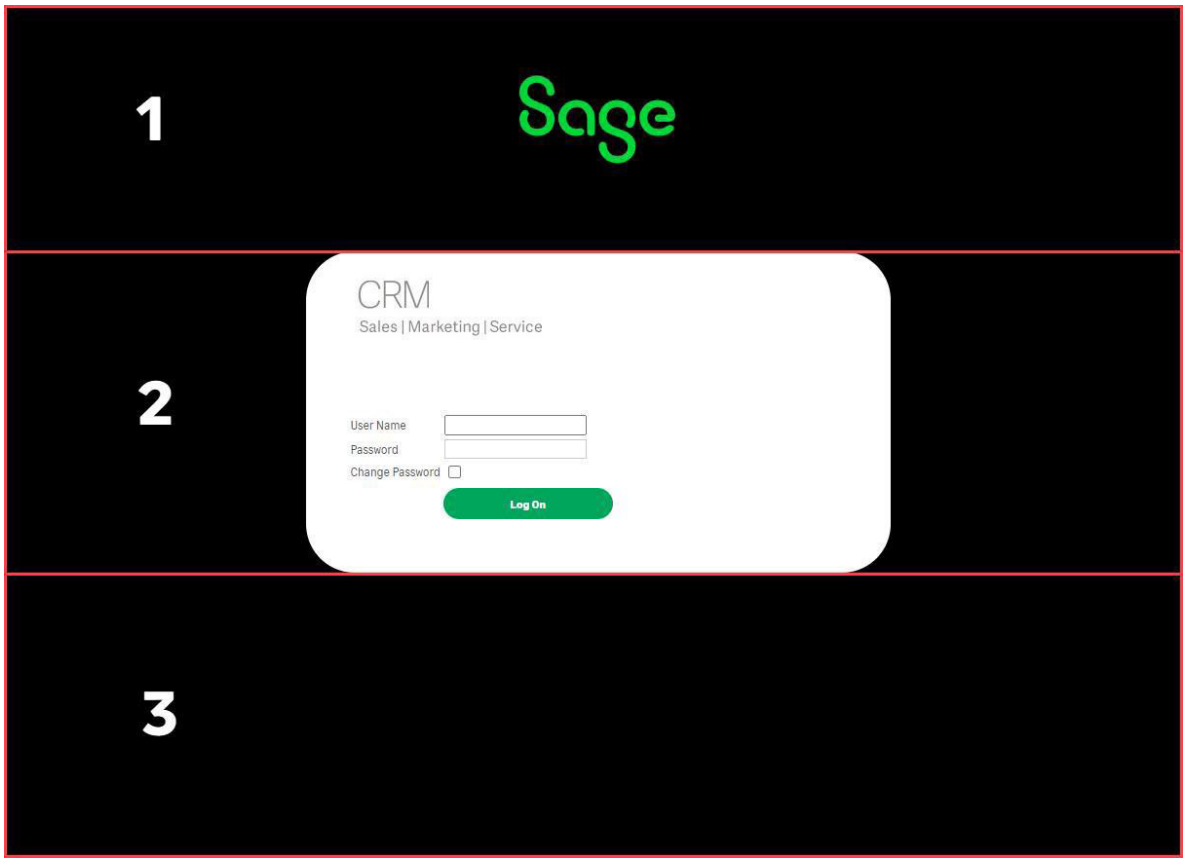
You cannot customize phone and email screens directly, but you can add new phone and email types.

- To display **Country Code** and **Area Code** fields:
  a. Click **<My Profile> | Administration | System | System Behavior**.
  b. Click **Change**
  c. Set **Use country code** and **Use area code** to **Yes**.
  d. Click **Save**.
- To add a phone number or email type for a company or person:
  a. Click **<My Profile> | Administration | Customization | Translations**.
  b. Click **New**.
  c. Enter *Link_<entity prefix><phone or email prefix>* in **Caption Family**. For example, to add a mobile type, enter *Mobile* in **Caption Code**, *Links* in **Caption Family Type**, and *Link_PersPhon* in **Caption Family**.
  d. Click **Save**.
- To change an existing type:
  a. Click **<My Profile> | Administration | Customization | Translations**.
  b. Enter the translation that you want to change and click **Find**.
  c. Make your changes. For example, change *Toll Free* to *Help Line* or change *Support* to *Tech Support*.
  d. Click **Save**.

Login screen

This is the screen where users and system administrators log in to Sage CRM.

You can display your custom logo anywhere on this screen. You can also change the background color of the following areas:



- **1**. The top of the screen where the Sage logo is displayed.
- **2**. The middle of the screen where the login form is displayed.
- **3**. The bottom of the screen.

For instructions, see **Customizing Sage CRM login screen**.

Lists and grids

- **Inline customization of lists and grids**
- **Editing a list or grid layout**
- **Advanced list customization**
- **List Definition fields**
- **Customizable lists**

Note: You can reduce load times for custom entity lists. For instructions, see **Optimizing custom entity list for faster loading**.

Inline customization of lists and grids

Inline customization enables you to see how a list or grid looks like before and after your changes. While customizing a list or grid, you can also find out its name.

Lists are displayed when you select a tab within the context of company, case, lead, opportunity, solution, or person.

Grids are used to display the results of a search for a person, lead, case, or opportunity, and so on. Grids are also displayed on the **Company Quick Look** tab.

To change a list or grid using inline customization:

1. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <any entity> | Lists**.

   You can select any primary or secondary entity. Inline customization will be enabled for all entities.

2. Select **Inline Customization**.
3. Open the list or grid you want to customize.
4. In the top left corner of the list or grid, click **Customize List**.

   In the window that opens, you can view the name of the list or grid being customized in parenthesis in the top left corner.

5. Make your changes and click **Save**.

6. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <any entity> | Lists** and clear **Inline Customization** to return to normal mode.

Editing a list or grid layout

1. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities| <Entity> | Lists**.
2. Click the list or grid that you want to edit.
3. Select a new column from the **Field** list.
4. Complete the relevant **List Definition fields** and click **Add**. The new column appears in **List Contents**.
5. To edit an existing column, select it in **List Contents** and change the List Definition fields.
6. Use the up and down arrow buttons to reposition the field.
7. Click **Update**.
8. Click **Save**.

Advanced list customization

You can attach Create Scripts to individual columns on grids. The script is run on the server when the list is being created. For more information, see **Adding a Create script to a list or grid**.

All CRM Object Model properties and methods (current context) can be accessed. Also, the CurrentUser object and Value property (the value the user is submitting) can be accessed.

The following grid column properties can be accessed with Create Scripts:

- `Visible ( )`
- `Alignment ( )`
- `AllowOrderBy ( )`
- `CustomActionFile ( )`
- `CustomIdField ( )`
- `JumpEntity ( )`

- `ShowHeading ( )`
- `ShowSelectAsGif ( )`

You can attach HTML and JavaScript content to an entire list or grid in the Custom Content field. For more information, see **Adding custom content to a grid or list**.

Adding a Create script to a list or grid

This example adds a Create Script to the Opportunity List, which hides the Company Name column if the company context is present.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Opportunity | Lists**.
2. Click the **Opportunity List** hypertext link.
3. Click the column that you want to attach the Create Script to, in this example Company: Company Name.
4. Add the following Create Script to **Create Script** and click **Update**.

```
if(CRM.GetContextInfo("company","comp_name"))
    {
        Visible = false;
    }
```

5. Click the **Opportunities** tab in the context of a company. The Company Name column is no longer visible.
6. Click **My CRM | Opportunities**. The Company Name column is still visible.

Adding custom content to a grid or list

This example shows how to add highlighting to a list of quotes returned from a search. The highlight is applied to different parts of the grid depending on the quote value being over 1000, 10000, and where the quote is active.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Quotes | Lists | Quotes Grid**.
2. Add the following script in **Custom Content**.

```
<script>
crm.ready(function()
```

```
    {
        crm.grids('0').rows(':gt(0)',true) .filterWhere('quot_grossamt','ge','1000')
.highlightCell('yellow');
        crm.grids('0').rows(':gt(0)',true) .filterWhere('quot_grossamt','ge','10000')
.highlightCell('#E8D7FD');
        crm.grids('0').rows(':gt(0)',true) .filterWhere('quot_status','eq','Active')
.highlightCell('green');

    });
</script>
```

3. **Save**. When you search for a quote, the resulting list shows different highlighting on the list items.

List Definition fields

Field	Description
Field	The field whose values the column displays.
Allow Order By	Enables or disables the ordering of the list entries by the selected field. To specify the default sort order, use **Order By Desc**. Possible values: • **Yes**. Enables the ordering of the list entries. When you select **Yes**, the users can click the column header to specify the ascending or descending sort order. An up or down arrow beside the column header indicates the current sort order. • **No**. Disables the ordering of the list entries.
Hyperlink To	Specifies the entity or item the selected field relates to.
Order By Desc	Specifies the default sort order (ascending or descending) for the list entries. This option applies only when **Default Order By** is set to **Yes**. Possible values: • **Yes**. Sets the default sort order to descending. • **No**. Sets the default sort order to ascending.

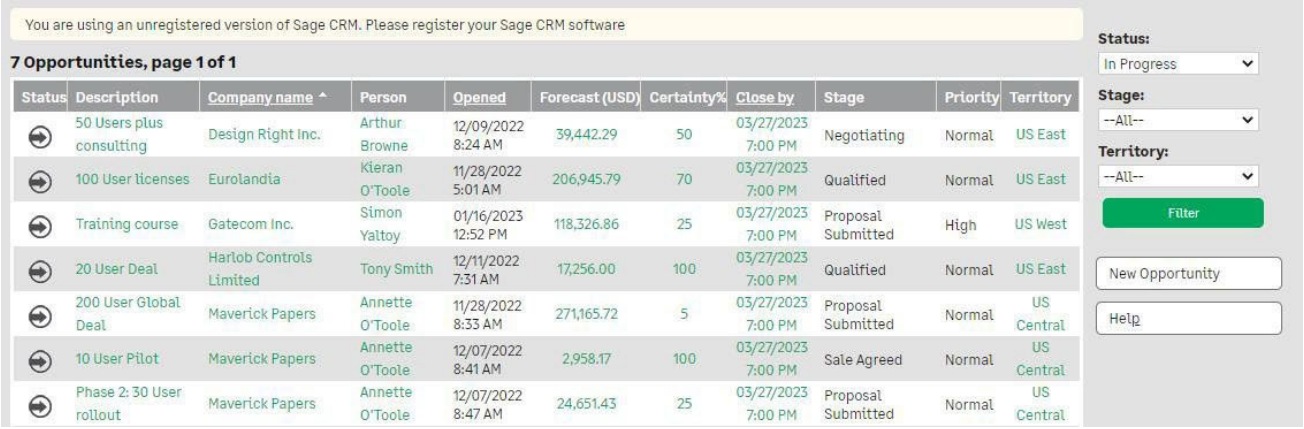
Field	Description
Alignment	Specifies the alignment for values in the column. Possible values: - **Left** - **Center** - **Right**
Show Heading	Displays the corresponding field name as the column header.
Show Select As Gif	Displays the icon instead of the description. Applicable to predefined drop-down lists only.
Default Order By	Makes the selected field the default one for ordering the list entries. With this value set to **Yes**, when a user opens the list, it gets automatically ordered by the values in this field. Set this value to **Yes** for only one field in a list. Possible values: - **Yes**. Enables the default ordering of the list entries by this field. With this value selected, you can also use **Order by Desc** to set the default order (ascending or descending). - **No**. Disables the default ordering of the list entries by this field.
Create Script	Allows you to enter a script to run on the server when the list or grid is created. For more information, see **Advanced list customization**.
Custom Content	Generic JavaScript, HTML, and/or Sage CRM Client-Side API functions to run when the list or grid is created. For more information, see **Advanced screen customization**.

Customizable lists

- **Entity list**
- **Entity grid**
- **Address list**

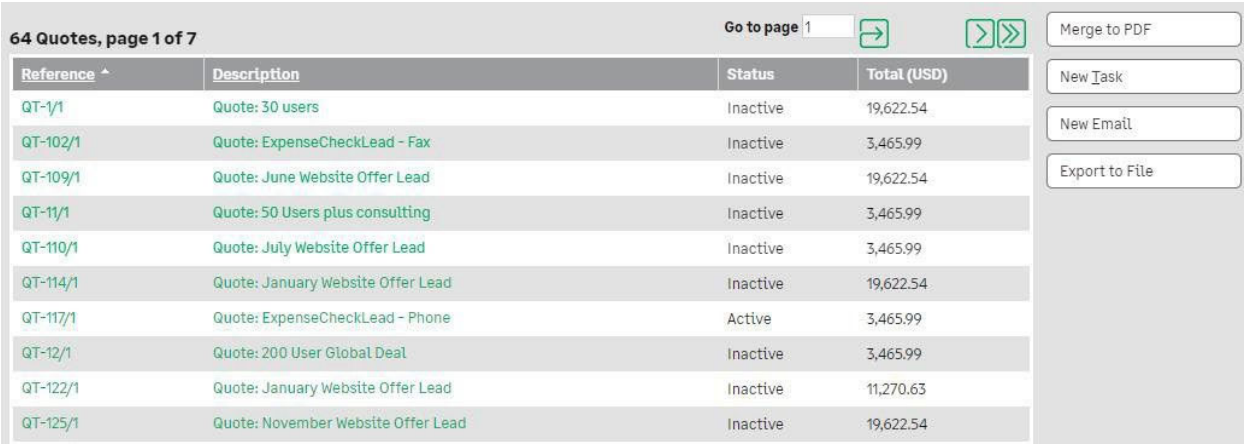
Entity list

This type of list is displayed when a user clicks the **My CRM | <Entity>**. The screenshot below shows the Opportunities list.



Entity grid

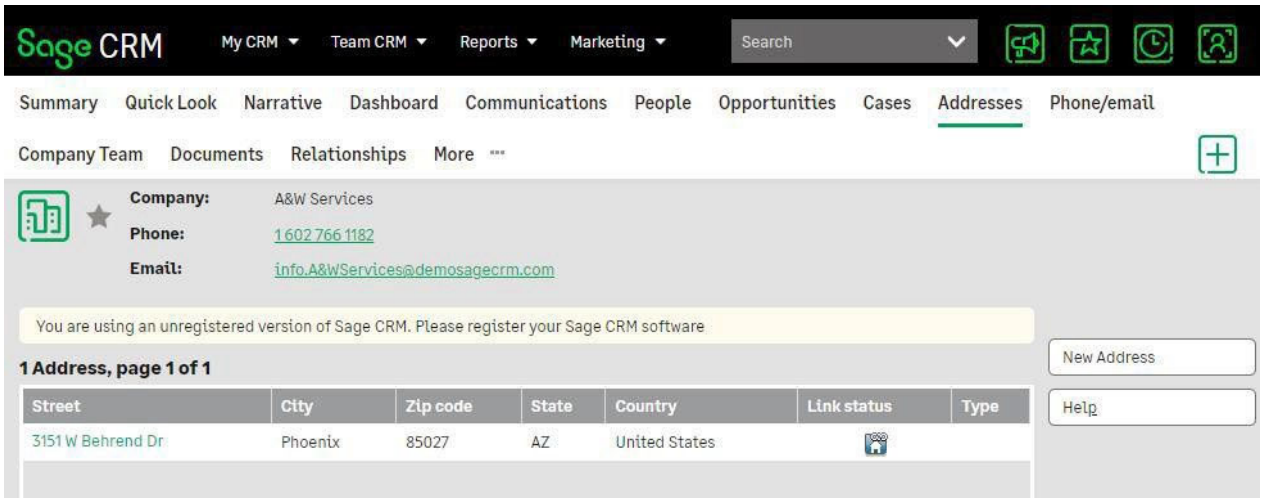
This type of grid is displayed when a user clicks the **Search arrow** and **<Entity>**, and then clicks the **Find** button. The screenshot below shows the Quote Items grid.



Warning: Do not change the first four columns (Line #, Synch Status, Line Type, and Product Name) in Line Items grid.
Default sorting is by Line #, so deleting this column causes sorting problems. Removing the Product Name removes the hyperlink to the line item details.

Address list

This type of list is displayed when a user opens a company or person record and clicks the **Addresses** tab. The screenshot below shows the Address list on a company.



Tabs

- **Adding a new tab**
- **Changing the ordering in a tab group**
- **Removing a tab from a tab group**
- **Editing system menu tab groups**
- **Tab customization actions**
- **Tab Properties fields**

Adding a new tab

1. Click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity>**.
2. Click the **Tabs** tab.
3. Click the **Edit** icon beside the tab group name.
4. Select the type of information that will be displayed on the tab from **System Act**. For more information, see **Tab customization actions**.
5. Enter the new tab name in **Caption**.
6. Complete the **Tab Properties fields**.
7. Click **Add** and click **Save**. The new tab is displayed in the context of the entity.

Changing the ordering in a tab group

You can customize tabs for primary and secondary entities. To change the order of tabs in a tab group:

1. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <Entity>**.
2. Click **Tabs**.
3. Click the **Edit** icon beside the tab group you want to reorder.
4. Select the tab you want to reposition in **Tab Group Contents** and use the up and down

arrows to move the tab.

5. Click **Update** and **Save**.

Removing a tab from a tab group

You can customize tabs for primary and secondary entities. To remove a tab from a tab group:

1. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <Entity>**.
2. Click **Tabs**.
3. Click the **Edit** icon beside the tab group you want to edit.
4. Select the tab you want to delete in **Tab Group Contents**.
5. Click **Delete** and **Save**.

Editing system menu tab groups

The System Menu administration area contains a tab group for each Administration homepage, and the Administration main menu.

1. Click **<My Profile> | Administration | Advanced Customization | System Menus**.
2. Click the **Edit** icon beside the tab group you want to change.
    - Main Menu drives the buttons that appear on the right-hand side of the screen including **Find**, **New**, and **Log Off**.
    - User includes the tabs displayed within the My CRM context.
    - Channel includes the tabs displayed within the Team CRM context.
    - Reports includes the report categories available from Reports.
    - Groups that correspond to the tabs within individual administration areas. For example, the EntityTabs tab group contains the standard tabs that are displayed in **<My Profile> | Administration | Customization** when you select an entity to customize it. These tabs are Fields, Screens, Lists, Tabs, Blocks, TableScripts, and Views.
3. Make the changes you require, such as **Removing a tab from a tab group** or **Changing the ordering in a tab group**.
4. Click **Save**.

You can customize Button Groups in **<My Profile> | Administration | Advanced Customization** if you have the Extensibility Module. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

Tab customization actions

To choose the type of screen that's displayed when a user selects a tab, select an action from **System Act** (on the Customize Tabs screen) when you create the tab. Note that if you have the Extensibility Module you will first need to select Other from the Action field before these System Actions are displayed. Screens include standard Sage CRM screens and lists, and screens you created in **<My Profile> | Administration | Customization**. If you have the Extensibility Module you can even display Web pages or custom files you created using ASP pages. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

It is important that you review all the System Actions available to you. Selecting certain actions saves you the time and effort of creating an ASP page each time you want to run a standard Sage CRM screen or list.

Each option in the list corresponds to a standard Sage CRM screen, list, or screen area except customfile and customurl, which display custom files and Web pages, respectively.

- **List actions**
- **Related List actions**
- **Summary actions**
- **Entry actions**
- **Edit and Progress actions**
- **Find actions**
- **Tab actions**
- **Other actions**

List actions

Use List actions to display lists from a tab. In most cases, the action name is intuitive. For example, addresslist displays a list of addresses, caselist displays a list of cases, and leadlist displays a list of leads. Displayed lists are associated with the entity in which the tab was created. So if you add addresslist to the Person tab group, the displayed list contains People addresses. However, if you add addresslist to the Cases tab group, the list is blank because address are not typically linked to cases.

Related List actions

Related List actions preceded the Related Entities functionality. Most Related List actions are not used in the standard system. They remain to ensure that customized systems that use them can upgrade successfully. If your system currently uses Related List actions, consider migrating to the

Related Entities functionality after upgrading to 6.2 or above. For more information, see **Adding new relationship types**.

Use Related List actions to establish relationships between entities. You can add a new tab to any entity and build a list of related cases, communications, companies, opportunities, or people.

Available Related List actions are outlined below:

- relatedcaselist—not used in the system.
- relatedcommunicationlist—not used in the system.
- relatedcompanieslist—not used in the system.
- relatedopportunitieslist—not used in the system.
- relatedpersonlist—used in the Communications tab group's Related Person tab.

Summary actions

Use Summary actions to build a screen that displays a summary of the call, case, communication, company, lead, opportunity, person, SLA, solution, wave, or waveitem. For example, callsummary displays a summary of calls.

Entry actions

Use Entry actions to build a screen that displays an entry screen from which you can create a new call, case, communication, company, lead, opportunity, person, SLA, solution, wave, or waveitem. For example, newcommunicationedit displays the New Communication Edit tab. Users typically click a **New** button to view any an entry screen.

Edit and Progress actions

Use Edit actions to build a screen that displays an edit screen from which users can make changes to a case, leads, opportunities. Use Progress actions to allow users to progress cases, leads and opportunities to the next Stage in their life cycle, making changes to details if required. For example, communicationedit displays the Details tab for a communication.

- **editcommunication**. Not used in the system but works in the same way as communicationedit.
- **lead progress**. Not used in the system.
- **oppoprogress**. Not used in the system.

Find actions

Use Find actions to build a screen that displays a Find screen from which users can search for cases, communications, companies, leads, opportunities, people, and solutions. For example, casesearch displays a Find Case tab. Users typically click a **Find** button and a context to perform a search within the system.

Tab actions

Use Tab actions to display screen areas. For example, casesolutionstab displays the Solution tab for a Case.

Other actions

Use other actions to build screens.

Action	Description
campaign report	Displays a campaign's report.
companymarketing	Displays the company marketing screen.
companyorgchart	Not used in the system but can be used to display a company organizational chart.
componentadd	Not used in the system but can be used to display the Component Manager screen for adding new components.
componentinstall	Not used in the system but can be used to display the Component Manager screen for installing components.
componentscript	Not used in the system but can be used to display the Component Manager screen for scripting components.
Key Attributes	Displays a screen with dynamic data.
exclude	Displays the Exclude from Call List outbound call handling screen.
gotthrough	Displays the Contact Introduction outbound call handling screen.
grouplistbrowser	Displays records listed in a Groups screen.
logout	Displays the Logout screen.
makecalls	Display the Introduction outbound call handling screen.

Action	Description
myeware	Displays the Dashboard screen.
personcampaign	Not used in the system but can be used to display a list of campaigns related to a person.
personorgchart	Not used in the system but can be used to display an organizational chart for a company.
personmarketing	Displays marketing information for a person.
phoneemail	Displays a person or company phone/email list.
quicklook	Not used in the system but can be used to display the person or company quick look screen, depending on the context you add it to.
replacecall	Displays the Replace call outbound call handling screen.
reportexecute	Runs a report.
territoryadmin	Not used in the system but can be used to display the Territory Administration area.
territoryprofiles	Not used in the system but can be used to display the Security Profiles area.
transfercall	Not used in the system but can be used to display the Transfer Call Outbound Call Handling screen.
userprefs	Displays the Preferences screen.
workflowlist	Displays a list of available workflows.
workflowrules	Displays a list of available workflow rules.

Tab Properties fields

The following table describes the fields on the **Properties** panel of the **Tabs** page.

Field	Description
Caption	The tab name of the tab.
Action	Only displayed if you have the Extensibility Module. Select Other from this field in order to display the list of system actions.
System Act	See **Tab customization actions**.
SQL	Enter SQL in this field to restrict use of the tab. You can restrict tabs to specified users or groups of users. For example, user_userid=4 or user_userid=5 to restrict the tab to certain users. Don't use this format to restrict several tabs because the database is queried separately for each restricted tab. Instead, use the following script to query Sage CRM: U:4,5—to limit the tab to users whose ID is 4 or 5, for example. C:4,5— to restrict the tab to certain teams, for example teams with a Channel ID of 4 or 5. T:— to restrict the tab to territories, using the Territory ID (terr_territoryid). For example: T: -2097151993 You can also restrict the availability of the tab so that it only appears when the company is a customer: comp_type = 'Customer' As you are not limited to data in the current context, this clause can be entered in the User tab group. It hides the Opportunity tab unless the user has any Opportunities assigned to them: exists (select * from opportunity where oppo_assigneduserid = user_userid)
Bitmap	If you're creating a button that links to a custom page, select a GIF from the list. If you have created your own graphic using a GIF editor, copy it to the ...\wwwroot\Img\Menu directory so that it is displayed as one of the choices.
Sensitive	Select **Yes** or **No** from the **Sensitive** tab to restrict the tab to specific users.

Views

- **Introduction to view customization**
- **Creating a view**
- **Editing a view**
- **Deleting a view**
- **Tips and troubleshooting**

Introduction to view customization

A view is a virtual table that pulls data from one or more existing database tables and presents it in an alternative way. A view does not store data. Sage CRM uses views to return records in response to user searches and to display relationships between different entities. For example, a view can list all cases associated with a particular company and assigned to a specific user.

There are three types of views in Sage CRM:

- **Core views** cannot be edited or deleted.
- **System views** can be edited but it's not recommended to edit most system views because this can adversely affect system behavior. Mail merge, group, report, and keyword search views are commonly edited, but do so carefully as changes can affect several areas of Sage CRM. You can make system views available to reports, groups, and keyword searches.
- **User views** are views that you create. You can edit and delete user views. You can make user views available to reports, groups, and keyword searches and expose them for SData.

To customize views you need:

- Experience of SQL views, tables, databases, and data relationships.
- Basic SQL scripting skills.
- A backup of your Sage CRM system and any system views that you customize. Views may be overwritten on upgrade.
- A test system to test your view customizations before implementing them on your live system (optional).

When you create a new view or modify an existing view, ensure all SELECT statements on primary entities in the view retrieve the **_secterr** column, the **_assigneduserid** (or equivalent) column, and the **_channelid** (or equivalent) column for each primary entity referenced in the view. To do

this, select the column explicitly or select all columns from the relevant primary entities. If you do not select the columns, an SQL error may occur in the Sage CRM UI when the view is executed.

Warning: You should create new views from within Sage CRM only. If you create a view outside Sage CRM using a database tool, you must update the metadata table Custom_Views so the new view is listed in the Sage CRM UI and this is not recommended.

Creating a view

Note: When you create a new view, ensure all SELECT statements on primary entities in the view retrieve the **_secterr** column, the **_assigneduserid** (or equivalent) column, and the **_channelid** (or equivalent) column for each primary entity referenced in the view. To do this, select the column explicitly or select all columns from the relevant primary entities. If you do not select the columns, an SQL error may occur in the Sage CRM UI when the view is executed.

- **Creating a view for reports**
- **Creating a view for a group**
- **Creating a view for Keyword Search**
- **Creating a view for Advanced Find**
- **Creating a view for SData access**

Creating a view for reports

1. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <Entity> | Views**.
2. Click **New**.
3. Enter a view name that starts with "v" and contains a single word with no spacing. For example, *vSimpleCaseView*.
4. To make the view available when creating a new report, select **Reports View**.
5. Enter a short description and a translation for the view. The translation is displayed on screen when the user selects the view.
6. Enter SQL in **View Script** and include the relevant unique identifier fields. For more information, see **Unique identifier fields**.

```
CREATE VIEWvSimpleCaseView AS SELECT comp_name, comp_status, comp_type, case_description,
pers_firstname, pers_lastname, case_secterr, comp_secterr, pers_secterr, comp_
primaryuserid, comp_channelid, pers_primaryuserid, pers_channelid, case_assigneduserid,
```

```
case_channelid FROM company INNER JOIN cases ON comp_companyid = case_primarycompanyid
INNER JOIN person ON case_primarypersonid = pers_personid
```

The columns in the SELECT statement are available in the report. You can concatenate fields and use functions on the data to manipulate the data further.

You can include derived or calculated fields in a report view. The following example creates a derived field called **pers_fullname** by concatenating the **pers_firstname** and **pers_lastname** fields.

```
SELECT rtrim("pers_firstname") +' '+rtrim(pers_lastname) as "pers_fullname", ..... from
person;
```

To control how the field appears in reports, ensure it's described in the **custom_edits** and **custom_captions** metadata tables. Create an extra field on the main table of the view. In the example above, create a new field on the person table called **pers_fullname**. This field doesn't hold data, but creating the field with the same name as your derived field creates the necessary metadata. You can then use the metadata to control the field's display properties and UI captions.

7. Click **Save**. The view is available to use in a report. For more information see **Creating a report**.

Creating a view for a group

1. Click **<My Profile> | Administration | Customization | Primary Entities** or **Secondary Entities | <Entity> | Views**.
2. Click **New**.
3. Enter a view name that starts with "v" and contains a single word with no spacing. For example, *vSimpleCaseView*.
4. To make the view available when creating a new group, select **Groups View**.
5. Enter a short description and a translation for the view. The translation is displayed on screen when the user selects the view.
6. Enter SQL for the view in **View Script** and include the relevant unique identifier fields. For more information, see **Unique identifier fields**. The following example creates a new case view available for use when creating company and person groups.

```
CREATE VIEW vSimpleCaseView AS SELECT case_caseid, comp_companyid, comp_name, comp_
status, comp_type, case_description, pers_personid, pers_firstname, pers_lastname, case_
secterr, comp_secterr, pers_secterr, comp_primaryuserid, comp_channelid, pers_
primaryuserid, pers_channelid, case_assigneduserid, case_channelid FROM company
INNER JOIN cases ON comp_companyid = case_primarycompanyid INNER JOIN person ON case_
```

```
primarypersonid = pers_personid
```

7. Click **Save**. The view is available to use in a group. For more information see *Creating a group* in the **User Help**.

Warning: A view must return one row per ID field. If the view returns duplicate rows, it is not listed in the **Source View** drop-down when creating a group.

Unique identifier fields

When creating a view for a report or group, you must include unique identifier fields. For example, to make the view available for a group of company records, include the company unique identifier.

The **View** tab for an entity lists the columns that you can include in a new view. The **Fields** tab for an entity lists the fields that can be included in a view.

Table	Unique ID
Cases	case_caseid
Opportunity	oppo_opportunityid
Company	comp_companyid
Lead	lead_leadid
Person	pers_personid
Order	Orde_OrderQuoteID
Quote	Quot_OrderQuoteID

Each table has a hidden unique identifier that you can use to create SQL joins between tables. Each table exists in relationships and foreign keys link the tables together.

Child Table	Foreign Key	Parent Table	Unique ID
Cases	case_primarycompanyid	Company	comp_companyid
Cases	case_primarypersonid	Person	pers_personid
Cases	case_assigneduserid	User	user_userid
Company	comp_primarypersonid	Person	pers_personid

Child Table	Foreign Key	Parent Table	Unique ID
Company	comp_primaryaddressid	Address	addr_addressid
Company	comp_primaryuserid	User	user_userid
Person	pers_companyid	Company	comp_companyid
Person	pers_primaryaddressid	Address	addr_addressid
Person	pers_primaryuserid	User	user_userid
Opportunity	oppo_primarycompanyid	Company	comp_companyid
Opportunity	oppo_primarypersonid	Person	pers_personid
Opportunity	oppo_assigneduserid	User	user_userid
Orders	orde_contactid	Person	pers_personid
Orders	orde_opportunityid	Opportunity	oppo_opportunityid
Orders	orde_associatedid	Quotes	quot_orderquoteid
Quotes	quot_contactid	Person	pers_personid
Quotes	quot_opportunityid	Opportunity	oppo_opportunityid
Quotes	quot_associatedid	Orders	orde_orderquoteid

Creating a view for Keyword Search

A user can specify the entities on which a Keyword Search is performed. Keyword Search uses an *any words* search technique. This returns records containing all words listed in a search term if the words appear in the record text fields or in the text fields of any associated entity record specified in the Keyword Search view.

The following table lists predefined Keyword Search views.

Entity	Unique Identifier
Case	vKeywordSearchListCases
Company	vSearchListCompany
Lead	vKeywordSearchListLead
Opportunity	vKeywordSearchListopportunity

Entity	Unique Identifier
Person	vSearchListPerson
Communication	vSearchListCommunication
Orders	vOrders
Quotes	vQuotes

You can specify only one Keyword Search view per entity to avoid returning the same record twice in a single set of search results. You can edit an existing Keyword Search view. For more information, see **Editing a view**.

To create a Keyword Search view for a custom entity:

1. Click **<My Profile> | Administration | Customization | <Entity>**.
2. Click the **Views** tab and click **New**.
3. Enter a name in **View Name** and move the cursor to another field. The start of the script is automatically added to **View Script**.
4. Select **Keyword Search View**. This makes the view available when carrying out a Keyword Search.
5. Enter a short description of the view in **Description**.
6. Enter a translation for the view in **Translation**.
7. Enter SQL in **View Script**.
8. Click **Save**.

Tip: When creating a Keyword Search view, you must include fields that allow security policies to work. For example, a Keyword Search view on Person should include pers_primaryuserid and pers_secterr. You should also include fields from other tables that complete the business object. For example, a Keyword Search view on Person should include fields from the Person, Company, Address, Phone, and Email tables.

Creating a view for Advanced Find

Users can use Advanced Find to perform complex database searches across cases, communications, companies, leads, opportunities, orders, people, quotes, and solutions. You can create enhanced searches based on a WHERE clause, and you can extend the selection criteria using AND and OR clauses.

To create an Advanced Find view for a custom entity:

1. Click **<My Profile> | Administration | Customization | <Entity>**.
2. Click the **Views** tab and click **New**.
3. Enter a view name in **View Name** and move the cursor to another field. The start of the script is automatically added to **View Script**.
4. Enter a short description of the view in **Description**.
5. Select **Groups View**.
6. Enter a translation for the view in **Translation**.
7. Enter SQL in **View Script**. The SQL below creates a view called vSearchListproject for a custom entity called Project.

```
CREATE VIEW vSearchListproject AS SELECT RTRIM(ISNULL(Pers_FirstName, '')) + ' ' + RTRIM
(ISNULL(Pers_LastName, '')) AS Pers_FullName, RTRIM(ISNULL(Pers_PhoneCountryCode, ''))
+ ' ' + RTRIM(ISNULL(Pers_PhoneAreaCode, '')) + ' ' + RTRIM(ISNULL(Pers_PhoneNumber, ''))
AS Pers_PhoneFullNumber, RTRIM(ISNULL(Pers_FaxCountryCode, '')) + ' ' + RTRIM(ISNULL
(Pers_FaxAreaCode, '')) + ' ' + RTRIM(ISNULL(Pers_FaxNumber, '')) AS Pers_FaxFullNumber,
Project.*, vCompanyPE.*, vPersonPE.* FROM Project LEFT OUTER JOIN vCompanyPE ON Proj_
CompanyId = Comp_CompanyId LEFT OUTER JOIN vPersonPE ON Proj_PersonId = Pers_PersonId
WHERE Proj_Deleted IS NULL
```

8. Click **Save**.

Next, you must add the translations to the custom_edits metadata table so the custom entity is included on the Advanced Find screen. The steps below add translations for a custom entity called Project.

1. Click **<My Profile> | Administration | Customization | <Entity> | Translations**.
2. Add *Project* in **Caption Code**.
3. Add *AdvFindEntities* in **Caption Family**.
4. Add *Choices* in **Caption Family Type**.
5. Add *Project* in **US Translation**.
6. Add *Project* in **UK Translation**.
7. Click **Save**.

Creating a view for SData access

SData (Sage Data) is a Sage Standard which enables desktop, server, and web-based Sage applications to communicate with each other as well as third-party applications and the Web. SData is built on top of leading industry standards including HTTP, XML, REST, and Atom/RSS.

In Sage CRM SData "feeds" can be consumed in a read-only format by Sage CRM via the Interactive Dashboard and by third-party applications.

The view in this example includes a derived field, oppo_daysopen, to show how long an opportunity has been open. When created as an SData view, this can easily be made available to the users via

the Interactive Dashboard. The SData view could also be used by a third-party application which supports SData feeds.

Note: SData views are not affected by the SData setting on the External Access tab. In this example, the Read-only SData setting on the **<My Profile> | Administration | Customization | Primary Entities | Opportunity | External Access** tab can be set to Yes or No. The view is still available for access.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Opportunity | Views**.
2. Click **New**.
3. Enter the **View Name**. For example *vOppoDatesOpen*.
4. Select **SData View**.
5. Enter a description and translation.
6. Enter SQL for the new view. For example, change the existing:

```
CREATE VIEW vOppoDatesOpen AS SELECT * FROM OPPORTUNITY
```

   to:

```
CREATE VIEW vOppoDatesOpen AS SELECT
  RTRIM(ISNULL(Pers_FirstName, '')) + ' ' + RTRIM(ISNULL(Pers_LastName, '')) AS Pers_
FullName, Pers_PersonId, Pers_CreatedBy, Pers_SecTerr,   Pers_PrimaryUserId, Pers_
ChannelID,
  epd_pers.epd_EmailAddress as Pers_EmailAddress,
  Comp_Name, Comp_CompanyId, Comp_CreatedBy, Comp_SecTerr, Comp_PrimaryUserId, Comp_
ChannelID,
  epd_comp.epd_EmailAddress as Comp_EmailAddress,
  Chan_ChannelId, Chan_Description,
  datediff(day, getdate(),oppo_opened) as oppo_daysopen,
  Opportunity.*,
 (COALESCE(Oppo_Forecast, 0) * COALESCE(Oppo_Certainty, 0)) / 100 AS Oppo_Weighted
FROM Opportunity
  LEFT JOIN Person ON Pers_PersonId = Oppo_PrimaryPersonId
  LEFT JOIN CRMEmailPhoneData epd_pers ON epd_pers.epd_EntityID = 13 AND epd_pers.epd_
RecordID = Pers_PersonID
  LEFT JOIN Company ON Comp_CompanyId = Oppo_PrimaryCompanyId
  LEFT JOIN CRMEmailPhoneData epd_comp ON epd_comp.epd_EntityID = 5 AND epd_comp.epd_
RecordID = Comp_CompanyID
  LEFT JOIN Channel ON Oppo_ChannelId = Chan_ChannelId
WHERE Oppo_Deleted IS NULL
```

7. Click **Save**.
8. To test the view on the Interactive Dashboard, click **My CRM | Dashboard** and open a dashboard.
9. Click **Modify Dashboard | Add New Gadget | SData Feed**.

10. Select **CRM SData Provider** and click **Next**.
11. Select the new view you created, and click **Next**.
12. Select the columns to display on the gadget and complete the gadget wizard steps.

The SData view you created is represented in a new gadget on the user's landing page. The URL to make the view available to another application would take the following format:

```
http://myserver/sdata/{install  name}j/sagecrm/-/vOppoDatesOpen
```

Editing a view

Note: When you edit a view, ensure all SELECT statements on primary entities in the view retrieve the **_secterr column**, the **_assigneduserid** (or equivalent) column, and the **_channelid** (or equivalent) column for each primary entity referenced in the view. To do this, select the column explicitly or select all columns from the relevant primary entities. If you do not select the columns, an SQL error may occur in the Sage CRM UI when the view is executed.

Changing a view may affect several areas of Sage CRM.

This example adds the **case_description** field to the case mail merge view.

1. Click **<My Profile> | Administration | Customization | Primary Entities | Cases | Views**.
2. Click the **vMailMergeCase** view.
3. Click **Change**. **View Script** contains the SQL used to create the view.
4. Find **Case_CaseId** and add the new field after **Case_CaseId**. This section of the script changes from:

   ```
   Case_CaseId, Comp_CompanyId
   ```

   to:

   ```
   Case_CaseId, Case_Description, Comp_CompanyId
   ```

5. Click **Save**. If you make a syntax mistake, you can't save the changes.

Deleting a view

You can delete user views. Deleting a view may affect several areas of Sage CRM.

1. Click **<My Profile> | Administration | Customization.**
2. Click the entity to which the view belongs.
3. Click the **Views** tab.
4. Select the hypertext link of the view you want to delete.
5. Click **Delete** to delete the view.

Tips and troubleshooting

- You can use a tool called Query Analyzer to write SQL for your view customizations and verify that the data you want returned is what you expect. You can also copy and paste sections of SQL that you have verified into Sage CRM.
- If you are using SQL Server with Enterprise Manager, the Create View feature gives you a helpful graphical way to build SQL for a view. This SQL can then be copied and used in Sage CRM. Test the SQL on a test system first.
- If your SQL is invalid, Sage CRM displays an error message and the SQL is not saved to the database.
- Sage CRM security (such as territories and profiles) works on top of a view. For example, data returned to you in Query Analyzer is different to data returned to the user from the customized view in Sage CRM. This is due to security restrictions applied to the results in Sage CRM.
- Do not use `TOP` in your view select statement.
- Using `JOIN ON` rather than `WHERE primary_key = foreign_key` type syntax, is the preferred method for joining tables.

External access

- **Changing external access settings**
- **External access fields**

Changing external access settings

1. Click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | External Access**.
2. Click **Change**.
3. Make the changes you require to **External access fields**.
4. Click **Save**.

External access fields

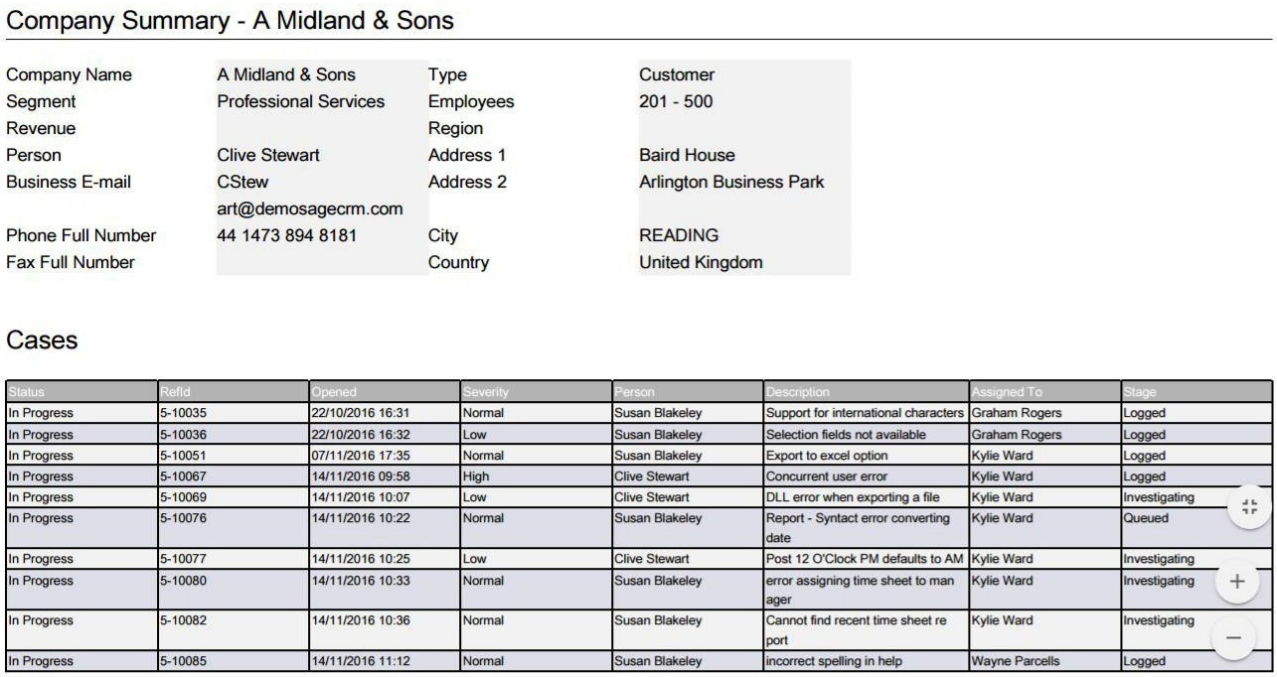
The table below explains the fields on the External Access tab.

Field	Description
Read-only SData	Enabled by default. Select Yes or No to enable or disable an entity for Sage Data (SData) access. This setting exposes Sage CRM entities so that they can be read and queried by third-party applications using ATOM feed technology on the SData standard. For more information on working with SData, see the *Developer Help* on the **Sage CRM Help Center**.
Web Services	Enabled by default on primary entities. Select Yes or No to enable or disable an entity for Web Services access. The Enable Web Services setting accessed from **<My Profile>	Administration	System	Web Services** overrides settings on individual entities. For more information on working with Web Services, see **Web services fields** and the *Developer Help*.

Summary reports

A summary report shows an overview of customer information. It's displayed when a user opens a company, person, opportunity, or case record and clicks the **Summary** tab, and then clicks **Summary report**.

The screenshot below shows the Company summary report.



Company Summary - A Midland & Sons

Company Name	A Midland & Sons	Type	Customer
Segment	Professional Services	Employees	201 - 500
Revenue		Region	
Person	Clive Stewart	Address 1	Baird House
Business E-mail	CStew art@demosagecrm.com	Address 2	Arlington Business Park
Phone Full Number	44 1473 894 8181	City	READING
Fax Full Number		Country	United Kingdom

Cases

Status	RefId	Opened	Severity	Person	Description	Assigned To	Stage
In Progress	5-10035	22/10/2016 16:31	Normal	Susan Blakeley	Support for international characters	Graham Rogers	Logged
In Progress	5-10036	22/10/2016 16:32	Low	Susan Blakeley	Selection fields not available	Graham Rogers	Logged
In Progress	5-10051	07/11/2016 17:35	Normal	Susan Blakeley	Export to excel option	Kylie Ward	Logged
In Progress	5-10067	14/11/2016 09:58	High	Clive Stewart	Concurrent user error	Kylie Ward	Logged
In Progress	5-10069	14/11/2016 10:07	Low	Clive Stewart	DLL error when exporting a file	Kylie Ward	Investigating
In Progress	5-10076	14/11/2016 10:22	Normal	Susan Blakeley	Report - Syntact error converting date	Kylie Ward	Queued
In Progress	5-10077	14/11/2016 10:25	Low	Clive Stewart	Post 12 O'Clock PM defaults to AM	Kylie Ward	Investigating
In Progress	5-10080	14/11/2016 10:33	Normal	Susan Blakeley	error assigning time sheet to man ager	Kylie Ward	Investigating
In Progress	5-10082	14/11/2016 10:36	Normal	Susan Blakeley	Cannot find recent time sheet re port	Kylie Ward	Investigating
In Progress	5-10085	14/11/2016 11:12	Normal	Susan Blakeley	incorrect spelling in help	Wayne Parcells	Logged

- **Header content** is summary information from the current entity. To customize header information, click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Summary Report | Edit Summary Content**.
- **List output** is information from the entities linked to the current entity. To customize the layout of a list, click **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Summary Report | <List>**.

Text editor fonts

You can change the default font, the default style, and the inline font that are used in the Sage CRM text editor. The text editor uses styles to ensure consistency in documents created in Sage CRM.

- To change the default font for text to which a style has not been applied, open **\CRM\WWWRoot\ckeditor\contents.css** and edit the body section at the top of the file. The following example changes the default font to Courier New.

```
body
    {
        /* Font */
        /* font-family: sans-serif, Arial, Verdana, "Trebuchet MS"; */
        font-family: Courier New, monospaced;
        font-size: 12px;

        /* Text color */
        color: #333;

        /* Remove the background color to make it transparent */
        background-color: #fff;
        margin: 20px;
    }
```

- To set the default style selected in the text editor toolbar, open **\CRM\WWWRoot\ckeditor\config.js** and add code to the `CKEditor.editorConfig` section. The following example changes the default style to Courier New.

```
config.font_defaultLabel = 'Courier New, monospaced;';
config.fontSize_defaultLabel = '16px';
config.fontSize_sizes =
'8/8pt;9/9pt;10/10pt;11/11pt;12/12pt;14/14pt;16/16pt;18/18pt;20/20pt;22/22pt;24/24pt;26/2
6pt;28/28pt;36/36pt;48/48pt;72/72pt';
config.font_names = 'Courier New, monospaced;' +
'Helvetica, Arial, sans-serif;' +
'Times New Roman/Times New Roman, Times, serif;' +
'Verdana';
```

- To apply a default style to the text when the text editor is opened, open **\CRM\WWWRoot\ckeditor\config.js** and add a new section after the `CKEditor.editorConfig` section.

```
CKEDITOR.on('instanceReady', function(evt)
    {
        if (evt.editor.getData() === "")
```

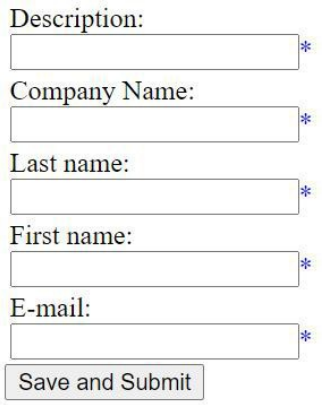
```
        {
            evt.editor.setData('<span style="font-family: Courier New, monospaced;font-
size:16px;">&shy;</span>');
        }
    });
```

- To view the changes, clear the cache in users' browsers.

Web leads

You can configure Sage CRM to record leads submitted by users through your website. To do so, enable web leads in Sage CRM, copy the automatically generated HTML code that implements a web form for submitting leads, and insert the code into your website.

The default web form looks similar to the following. You can customize the form if necessary.



When a user enters lead details in this web form and selects **Save and Submit**, the form sends a query that inserts the lead details into the Sage CRM database. Leads submitted via this form have their **Source** field set to **Web**.

After a user submits a lead through your web form, you can redirect the user to a URL of your choice. This URL is called *return URL*. You can implement multiple web forms for submitting leads, each having its own return URL.

For more information about web leads, see:

- **Enabling and configuring web leads**
- **Customizing web form for submitting leads**
- **Overriding default return URL in web forms**
- **Web to Lead configuration settings**

Enabling and configuring web leads

By default, web leads are disabled. To enable and configure web leads:

1. Go to **<My Profile> | Administration | Customization | Lead**.
2. Click the **Web to Lead** tab, and then click **Change**.
3. Use the **Web to Lead configuration settings** to enable and configure web leads.

   You can enable or disable web leads, configure the default return URL for your web forms, and set up a whitelist of IP addresses from which you want to accept web leads.
4. When you are done, click **Web Lead HTML** to generate and display the HTML code that implements a web form for submitting web leads.
5. Copy the HTML code and insert it into your website.

Note: When you change the Sage CRM install name, the HTML code implementing the web form becomes invalid. Make sure to regenerate the HTML code after changing the Sage CRM install name.

Customizing web form for submitting leads

To add or remove fields from the web form for submitting leads, customize the standard Web Lead screen:

1. Go to **<My Profile> | Administration | Customization | Lead**.
2. Click the **Screens** tab.
3. Click **Web Lead Screen**.
4. Add or remove fields as necessary.
5. Click **Save**.
6. Regenerate HTML code for the updated web form:
   a. Click the **Web To Lead** tab.
   b. Click **Web Lead HTML**.
   c. Copy the HTML code and paste it to your web page.

Overriding default return URL in web forms

When you have two or more web forms for submitting leads, you can configure a different return URL for each form. For example, if you have web forms in different languages and would like to redirect users to a web page in their language after they submit a lead.

To do so, override the default redirect URL in the HTML code for each web form.

1. In the HTML code implementing your web form, locate the following element:

   ```
   <input type="hidden" name="WebLeadReturnURL" id="WebLeadReturnURL" value="">
   ```

   If this element is missing (for example, you used an old Sage CRM version to generate the HTML code), manually add the following code between the `</TABLE>` and `</FORM>` tags:

   ```
   </TABLE>
   <input type=hidden name=_HIDDENlead_source value="Web">
   <input type="submit" value="Save and Submit">
   <input type="hidden" name="RuleID" id="RuleID" value="">
   <input type="hidden" name="WebLeadReturnURL" id="WebLeadReturnURL" value="">
   </FORM>
   ```

2. In the `value` attribute of the element whose ID is `WebLeadReturnURL`, enter the URL to which you want to redirect users after they submit a lead. Prefix the URL with *http://* or *https://*.

   Example:

   ```
   <input
   type="hidden" name="WebLeadReturnURL" id="WebLeadReturnURL" value="http://www.mywebsite.com"
   >
   ```

   Note: When the `value` attribute in this element is empty, the form uses the default return URL defined in the **Web to Lead configuration settings**.

3. Save your changes.

Web to Lead configuration settings

Field	Description
Web Lead Enabled	Select this check box to enable web leads.
Only accept web leads from the following IP addresses	Set up a whitelist of safe IP addresses from which you want to accept web leads. Use a semicolon (;) as a separator. Web leads originating from any other IP address will not be accepted.

Field	Description
Default Return URL	Enter the URL to which you want to redirect the user after they submit a lead through the web form. You can override this URL in the HTML code implementing the web form. If you have multiple web forms, this allows you to configure an individual return URL for each form. For details, see **Overriding default return URL in web forms**.

Key attribute profiling

- **About key attribute profiling**
- **Adding fields to key attribute profiling categories**
- **Creating a key attribute profiling category**
- **Defining key attribute profiling category groups**
- **Deleting a key attribute profiling category**
- **Designing a key attribute profiling structure**
- **Displaying key attribute profiling data**
- **Recovering a key attribute profiling category**
- **Setting up key attribute profiling lists**

About key attribute profiling

Key attribute profiling provides Sage CRM users with a method for setting up dynamic sets of data associated with People, Companies, Opportunities, Cases, and Leads.

For example, you need to store address details for a new company because all companies have an associated address. If you need to store more address information than the standard fields provide for, you can add new fields to the address or company tables.

However, you may also want to record company-specific information, such as which companies attended your roadshows, who attended, and when they attended. Some companies may not have any data in this section as they never went to the roadshows, some companies will have attended many roadshows, and some companies will have only attended one roadshow. This is ideal for key attribute profiling data.

To capture this using key attribute profiling data:

1. Design a key attribute profiling structure, which is a tree structure of categories.
2. Create a key attribute profiling category.
3. Define key attribute profiling category groups.
4. Set up key attribute profiling lists.
5. Add fields to the categories, which will record the data you want to collect.
6. Create a category group tab to display the key attribute profiling data to the user.

Also key attribute profiling is used to implement the Tags feature in the Sage CRM user interface. For more information, see the *User Help*.

Adding fields to key attribute profiling categories

1. Click **<My Profile> | Administration | Advanced Customization | Key Attributes**.
2. Select the category to which you want to add fields in **Key Attribute Categories**.
3. Click **Edit Fields**.
4. Complete the **Category fields and field types** and click **Add**. The fields vary depending on the Field Type that you specify. For example, the **Key Attribute List** field is displayed only when **Field Type** is set to **Selection**.
5. When you've added all the fields for this category, click **Save**.

Creating a key attribute profiling category

1. Click **<My Profile> | Administration | Advanced Customization | Key Attributes | Categories**.
2. Select the category that your new categories are subordinate to from **Key Attribute Categories**. If this is the first category you're creating, select **All Categories**.
3. Enter a name in **Category Name**.
4. Select the category type. For example, to allow the user enter information more than once within this category, select **Multiple Instance Data Category**.
5. Click **Add**. The new category is displayed in **Key Attribute Categories**.
6. Select the category you want the new category to be subordinate to, and add the rest of the categories.

Category fields and field types

The following tables explain category fields and field types

Field Name	Description
Field Name	Name of the field.
Field Type	Check boxes, Text, Selection, Date/Time, and more. See table below for more detail. The Field Type defines how the information is added into the system.
New Line	Positions the field on a new line.
Required	Defines if the field is mandatory. If no data is added to any of the fields in the same category as the required field—including the required field—then nothing is stored and no validation error is raised. However, if any field in the category contains data, the required field is mandatory.
Max Length	Defines the maximum length of, for example, a text field.
Entry Width	Defines the length of the field displayed on the screen.
Key Attribute List	If the Field Type has been set to Selection, the key attribute list must be specified here.

Field Type	Description
Blank	Non-data field. Appears on the screen as '-'. It is used to align columns and insert offsets.
Label	Non-data field. Displays the text from the Field Name on the screen as a label. The user is not prompted to input any data.
Text	Free text in a single line.
Multiline Text	Multiple lines of free text.
Email Address	Hyperlinked email address.
WWW URL	Hyperlinked Web site address.
Selection	List predefined within the Key Attribute Lists tab.
Integer	Integer value.
Numeric	Numerical value.

Field Type	Description
Date & Time	Calendar and time.
Checkbox	Check box.
Phone Number	Phone Number fields are displayed as hyperlinked values on the screen. This allows CTI-enabled users to make outbound calls by clicking the value of the field.
Currency	Allows a user to enter an amount and select a currency from a list.

Defining key attribute profiling category groups

Category Groups specify the data that appears on a Key Attribute Profiling screen. You need to define one structure of categories only, but it's useful to define multiple category groups so you can reuse different sets of categories relevant to the data you want to collect.

You can specify a group as static or dynamic. A static group is stored automatically under the Group Entries heading, which forms part of the Key Attribute Categories list. A dynamic group appears in this list only after an action, such as a mail merge, mass email, or task, has been run against it.

1. Click **<My Profile> | Administration | Advanced Customization | Key Attributes | Category Groups**. A list of existing Category Groups is displayed.
    - General Category Groups. This is the default.
    - Call Handling Category Groups
    - Activity Category Groups
2. Ensure **General Category Groups** is selected.
3. Click **New**.
4. Add the **Name** and **Description**.
5. Use the arrows to move categories from **Key Attribute Categories** to **Categories Within Group**. When you move a parent category, its child categories are also moved.
6. Use the arrows on **Categories Within Groups** to change the order in which categories appear on the Key Attribute Profiling screen.
7. Click **Save**.

Default activities

When you create a group, you can run actions or activities against it, for example, mail merge, mass email, or task. You can also create these under Wave Activities.

When you set up actions against a group, you are presented with a default communication screen. At the end of the communication screen a list of categories is displayed, filled from the Activity Category Groups. Each of these hard coded Activity Category Groups is initially filled with a Default Activity Category. They appear under the System Categories category off the All Categories directory.

The Administrator can go in via **<My Profile> | Administration | Key Attributes | Category Groups** and change the contents of the Activity Category Group, but this deletes the Category Group. It is set up in this way because the administrator has no other way to define what appears on that communication screen from the user side, so they cannot specify a different Activity Category Group. All they can do is edit the existing one.

When the activity is saved, a new Category is created under the parent selected from the Category displayed, and all of the people in the group that the action is run against are linked to a piece of Key Attribute Data (the date of the action). Not only can you tell who is on a group, but you can tell who had what actions run against them. You can also fill in a number of other fields on the category and use these to store feedback information.

Deleting a key attribute profiling category

1. Click **<My Profile> | Administration | Advanced Customization | Key Attributes | Categories**.
2. Highlight the category you want to delete on the Key Attribute Categories list. You cannot delete or deactivate the All Categories top category.
    - If there is no data in this category, click **Delete** on the Category Details panel. The category is removed from the Key Attribute Categories list.
    - If there is data in this category, click **Deactivate**. The category is hidden from the Key Attribute Categories list until reactivated.

Designing a key attribute profiling structure

Before you build a structure of categories, create an outline design of the data, field types and key attribute lists you need. This helps you identify common key attribute lists, so you have to build them only once.

Example category types are:

- Parent Category : No Data Held
- Single Instance Data Category
- Multiple Instance Data Category

For example, when recording training information about people at customer sites, you want to record the results of multiple evaluation forms, so the Evaluation Form Feedback category is flagged as a Multiple Instance Data Category. The other categories are Single Instance Data Categories, because data is stored directly within the categories.

You should also identify fields that are common to multiple categories.

For example, if you are collecting information about home appliances purchased, you may initially think of the following categories and fields:

All Categories

Washing Machine

Vacuum Cleaner

Fridge

You can quickly identify that each category has three fields in common; Manufacturer, Price, and Warranty Expiration. Instead of creating these fields under each category, you can create a higher level parent category first called "Home Appliances", which has these three fields associated with it. Then, when you create "Washing Machine", "Vacuum Cleaner" and "Fridge" as child categories of Home Appliances, they automatically inherit the three common fields, and all you have to add under each child category is the Model key attribute list for each appliance type:

All Categories

Home Appliances

Washing Machine

Vacuum Cleaner

Fridge

Adding fields to the parent level category after the child categories are created does not automatically add the new fields to the categories below. If you add a field to the parent level and then add a new child category, the child category inherits the existing and new fields.

Key Attribute Categories do not store default values. If there is no selection, nothing is stored, so you can't report on empty check boxes. For this reason, you should use a “Yes” or “No” selection instead of a check box.

Displaying key attribute profiling data

To display key profiling data to the user, add a new tab to an existing tab group.

1. Click **<My Profile> | Administration | Customization | Primary Entities | <Entity>**.
2. Click **Tabs**.

3. Select the tab group that you want to customize.
4. Enter the name of the new tab in the **Properties** panel.
5. Select **Key Attributes** from **Action**.
6. Select **Category Group**
7. Add an SQL statement to display the tab only when certain criteria are met. For example, the following statement displays the tab if the person works for a company where the **Company Type** field is set to Customer.

```
pers_companyid = (SELECT comp_companyid FROM company WHERE comp_companyid = pers_
companyid AND comp_type = 'customer')
```

8. Click **Add** and then click **Save**.

Recovering a key attribute profiling category

1. Click **<My Profile> | Administration | Advanced Customization | Key Attributes | Categories**.
2. Select **Show Deactivated**. Deactivated categories are displayed with an asterisk (*) beside the category name.
3. Select the category you want to reactivate.
4. Click **Reactivate**.
5. Click **Continue**.

Setting up key attribute profiling lists

You should set up key attribute lists before adding the fields to the categories you have set up.

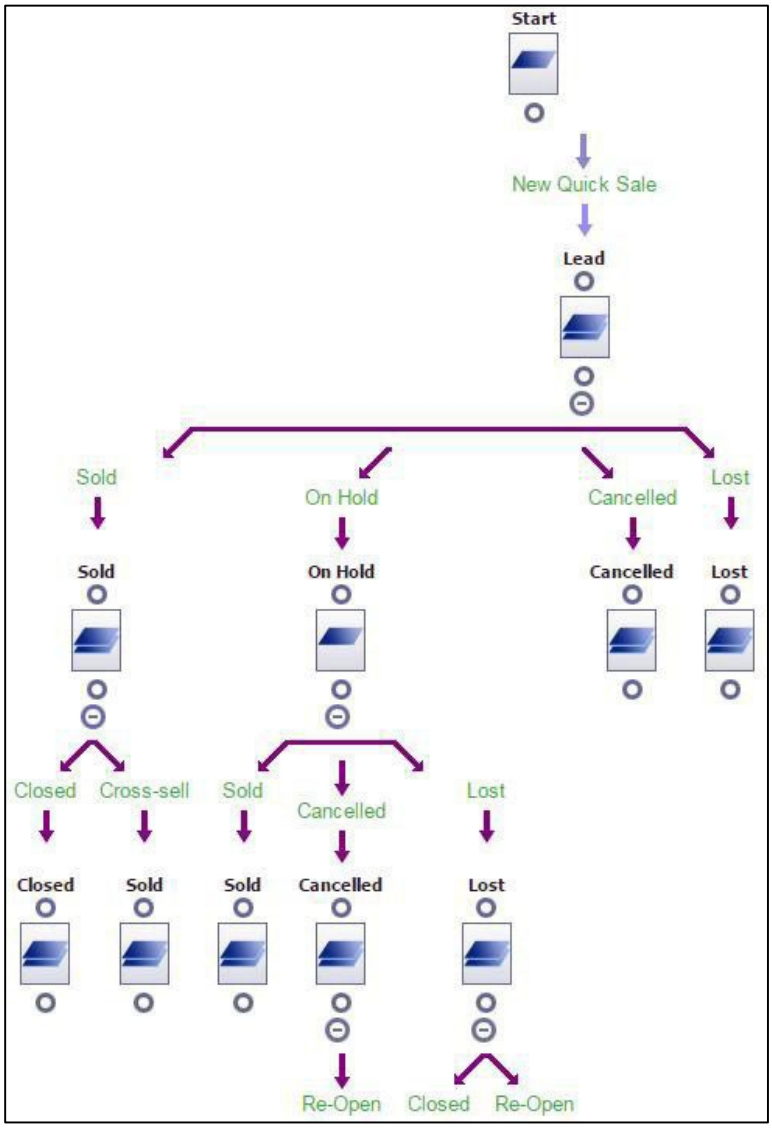
1. Click **<My Profile> | Administration | Advanced Customization | Key Attributes | Key Attribute Lists**.
2. Enter the list name in **New List Name**. The name can be a generic description of the list rather than map exactly to the field name, since you can reuse the key attribute list if it applies to a number of fields. For example, questionnaire answers such as Poor, Average, Good, Very Good, Excellent, are reused a number of times, linked to separate fields. A generic description for this reusable list could be Rating.
3. Click **Add List**. The Maintain Lookup Selections page is displayed. For more information, see **Fields**.
4. Add Codes and Translations for the selections.

5. Click **Save**. The Key Attribute Lists page is displayed.
   Not Currently In Use indicates the list has not yet been linked to a category in **Key Attribute Categories**. When a list is linked to a category, this area is headed: Key Attribute Used In, and a list of all branches in the tree where the list is used is displayed.
6. Follow the same procedure to add more lists.
7. To edit existing selections, click **Change**.

Workflow

- **About workflow**
- **Configuring workflow for entity**
- **Building a workflow**

About workflow



Workflow automates business processes using a predefined set of business rules and actions. A workflow guides the user through a business process, checking, tracking, and validating information, and triggering actions. It's a great way to reduce administration overhead, ensure consistency, and benchmark performance.

For example, you could apply a workflow rule to opportunities to automatically generate a follow-up call whenever a quote is issued to a customer. Or you could apply a workflow rule to cases to send an email to the customer service supervisor if a case remains at the Investigating stage for more than twenty-four hours.

> **Tip:** Workflows should support business processes, not replicate them. Workflows that are too prescriptive actually prevent people from getting the most out of Sage CRM rather than helping them to complete their tasks.

You can apply workflow to company, person, communication, lead, opportunity, case, solution, campaign, wave, and wave item records. You can also apply workflow to custom entities. To apply workflow to an external table, you must create a shadow table in Sage CRM. The data is retrieved from the external table in the ASP pages associated with the workflow rules. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

> **Note:** When you import leads into Sage CRM, they are not automatically added to a workflow. When a lead is converted to an opportunity, it is not automatically added to an opportunity workflow; it must be progressed using the default **Accept** and **Reject** action buttons.

A workflow consists of states, rules, and actions.

- A **state** is the current resting place for a record in the workflow process. The user sees a predefined set of business actions based on the record's current state in the workflow. For more information, see **Workflow states**.
- A **rule** determines the actions that are performed on the record in a specific state and often move the record to another state. For more information, see **Workflow rules**.
- An **action** is the execution of the rule when the user selects the workflow rule, or when conditions are met to validate the rule. For more information, see **Workflow actions**.

Sage CRM has a graphical workflow tree that uses loops and branches and lets you view a visual representation of the states and rules in your workflow as you build it.

Setting up workflow

Task	Help
Conduct an analysis of your business processes and produce a flow diagram that outlines your workflow and lists the actions you need.	For sample questions to help you identify your business processes, see the Implementation Workbook on the **Sage CRM Help Center**.
Enable your system for workflow and activate workflow for the required entities.	**Configuring workflow for entity**
Complete all field, list, and screen customizations.	**Fields** **Lists and grids** **Screens**
Customize the **Stage** and **Status** list selections for opportunities, cases, leads, and solutions if necessary. These fields often help define the state of a record at different points in the workflow. Adding more selections to these fields does not affect existing workflows unless you explicitly build in behavior to use the new selections. Do not delete list selections because the workflow relies on the **In Progress** status. Rename the translations for list selections instead.	**Editing a field**
Check the GIF files. If you change the **Stage** and **Status** lists, you may lose the GIF file representation of the values. To fix this, edit or update the GIF file in the Img subdirectory of Sage CRM. The GIF file name must exactly match the untranslated code of the list selection.	

Building a workflow

Task	Help
Create a new workflow using the graphical workflow tree.	**Creating a workflow**
Create workflow states.	**Creating a workflow state**
Create workflow rules and add actions to the rules.	**Creating a workflow rule**

Task	Help
Add states and rules to the workflow and activate the workflow so you can test it and then make it available to users.	**Adding states and rules to a workflow**

Workflow states

A state is the current resting place for a record in the workflow process. The user sees a predefined set of business actions based on the record's current state in the workflow. The current workflow state is stored in a column on the entity record.

Entry states define entry points into the workflow. The Start state in the workflow tree is an entry state by default. Usually, a primary rule hangs off this state to create a new entity, which automatically becomes part of the workflow. alternatively, you can hang transition rules from the entry state so users can add existing records to the workflow. For more information, see **Workflow rules**.

Duplicate states represent branching and looping in a traditional flow-chart and allow you to define alternate paths in the workflow. For example, a lead in the Quick Sale Workflow can be progressed directly to Sold, or put On Hold and then progressed to Sold.

Workflow rules

A workflow rule determines the actions that are performed on the record in a specific state and often move the record to another state. There are several types of workflow rule. For information about the actions that can work with each type of workflow rule, see **Workflow actions**.

- Use **primary rules** at the beginning of a workflow to create a new case, opportunity, solution, or lead record that's automatically part of the workflow. The primary rule replaces the standard **New** button which is displayed when workflow is deactivated. For consistency in the UI, you can set the rule **Label** to *New <entity>* and set **Alternative Image for Rule** to *New.gif*. You generally use column change actions with primary rules. Primary rules are represented by light purple arrows in the workflow tree.

  > **Note:** If your workflow creates a new record that has a dedupe search or an inbuilt system action, you must hang a transition rule rather than a primary rule from the entry state. For example, NewCompany, NewIndividual.

- Use **transition rules** to connect one workflow state to the next. Transition rules are displayed to the user as workflow action buttons. A transition rule linked to a workflow entry state lets a user add a record to a workflow. For example, transition rules allow a user to add an existing lead record to a lead workflow. Similarly, transition rules allow a user to

add an opportunity that's been progressed from a lead to an opportunity workflow. Transition rules are represented by purple arrows in the workflow tree.

- Use **conditional rules** to create two sets of actions. One set is executed when the JavaScript condition is true, the other set is executed when the condition is false. The JavaScript condition on a Conditional Rule is evaluated when the user clicks the workflow rule button. This means that conditional rules always show as long as other conditions (for example, Restrict to Team) are true. The advantage of a conditional rule is that it's always displayed to the user as a reminder. Also, when the user selects the rule and the conditions are not met, a message can be displayed stating the reason. Conditional rules are represented by two purple arrows in the workflow tree; one arrow has a green tick (True), the other arrow has a red cross (False).
- Use **escalation rules** to add actions that occur when certain conditions are met. You specify conditions as SQL WHERE clauses in the rule. You can also use escalation rules outside the context of workflow. For more information, see **About quick notifications and escalation rules**. Escalation rules are represented by blue arrows in the workflow tree.

  Note: You can specify a time limit on each stage of a case workflow to act as an SLA with a warning limit. To do this, create a field on Cases that stores the start date of each stage (for example, case_startstage) and ensure the date is entered when the case moves to a new stage. You can base escalation rules on the value in the date field. To record the duration of each stage, set up specific fields for each stage (for example, case_startstage1, case_stage1duration, case_startstage2, case_stage2duration) and use **Execute SQL Statement** workflow actions to update these values.

- Use **global rules** to add actions that are always available and do not move the workflow into another state. Global rules always hang from the Start state. For example, use a global rule to allow the user to edit an opportunity at any point in the opportunity's life cycle. If the user makes changes to certain opportunity details, the opportunity is not progressed to a different state. Global rules are represented by blue arrows with a purple circle in the workflow tree.

Note: To change the name of an existing workflow rule, you must change the translation for all languages in **<My Profile> | Administration | Customization | Translations**.

Workflow actions

There are two types of workflow actions.

- **User driven actions** use JavaScript to check the data condition. These actions require the user to interact with the workflow screen and require a request from the browser. You can use these actions with transitional, conditional, and global workflow rules because these

rules are driven by the user.

- **Time driven actions** use SQL to check the data and time condition. You can use these actions with escalation rules because these rules are time based and fire automatically in the server without a request from the browser.

The table below shows which workflow actions can be used with each type of workflow rule.

Action	Primary	Transitional	Global	Conditional	Escalation
Column Change Actions					
Set Column Value	Y	Y	Y	Y	Y
Reset Column Value	Y	Y	Y	Y	Y
Display Field for Amendment	Y	Y	Y	Y	N
Show Message on Screen	Y	Y	Y	Y	N
Follow-up Actions					
Create Task	N	Y	Y	Y	N
Create Appointment	N	Y	Y	Y	N
Create Opportunity	N	Y	Y	Y	N
Create Case	N	Y	Y	Y	N
Create Lead	N	Y	Y	Y	N
Create Solution	N	Y	Y	Y	N
Create Word Merge Document	N	Y	Y	Y	N
Create PDF Merge Document	N	Y	Y	Y	N
Execute SQL Statement	Y	Y	Y	Y	Y

Action	Primary	Transitional	Global	Conditional	Escalation
Run Stored Procedure	Y	Y	Y	Y	Y
Informative Actions					
Show Notification on Screen	N	N	N	N	Y
Send Email	Y	Y	Y	Y	Y
Send SMS Message	Y	Y	Y	Y	Y
Campaign Actions					
Create Task for Group	N	Y	Y	Y	N
Create Document for Group	N	Y	Y	Y	N
Export Group to File	N	Y	Y	Y	N
Create Outbound Call List	N	Y	Y	Y	N

Y = Action can be used with this type of rule.

N = Action cannot be used with this type of rule.

Set Column Value

Use **Set Column Value** to insert a specified value into a column on the current table. For example, when an opportunity is created, set the opportunity **Certainty%** field to *25*.

The table below describes **Set Column Value** fields on the **New Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Column	The column to be updated. For example, oppo_certainty.
Value	The value to be entered in the column. If the column to be updated is a date field, set **Value** to *0* to set the field to the current date/time. Use an integer to set the date/time to an offset (in minutes) from the current date/time. For example, *30* = 30 minutes from now, *10080* = 7 days from now, and *129600* = 90 days (3 months) from now. You can use ## symbols to add information from the related entity. For more information, see **Using the ## and # symbols**.
Attribute	The attribute of the field on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
New Line	The position of the field on the screen for this workflow rule. If you leave this blank, the field is displayed on the same line as the previous field.
Row Span	The number of rows over which the field is displayed. If you leave this blank, the field is displayed on one row.
Col Span	The number of columns over which the field is displayed. If you leave this blank, the field is displayed over one column.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Create Script	Add a field-level script using JavaScript that's executed when the progress screen is displayed to the user. The scripting applies to the workflow rule to which the action is linked. For more information about field-level scripting, see **Advanced screen customization**.
OnChange Script	Add a field-level script that's executed when a user changes the value on the progress screen. The scripting applies to the workflow rule to which the action is linked. You can use generic JavaScript and/or Sage CRM's client-side API library of functions. For more information, see **Advanced screen customization**.

Field	Description
Validate Script	Add a field-level script using JavaScript that's executed when a user saves changes made to the progress screen. The scripting applies to the workflow rule to which the action is linked.

Reset Column Value

Use **Reset Column Value** to insert a value from one field into another field. For example, you can assign an opportunity from its current owner to the person who created the opportunity.

The table below describes **Reset Column Value** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Column	The column to be updated. For example, oppo_certainty.
Value	The value to be entered in the column. If the column to be updated is a date field, set **Value** to 0 to set the field to the current date/time. Use an integer to set the date/time to an offset (in minutes) from the current date/time. For example, *30* = 30 minutes from now, *10080* = 7 days from now, and *129600* = 90 days (3 months) from now. You can use ## symbols to add information from the related entity. For more information, see **Using the ## and # symbols**.
Attribute	The attribute of the field on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
New Line	The position of the field on the screen for this workflow rule. If you leave this blank, the field is displayed on the same line as the previous field.
Row Span	The number of rows over which the field is displayed. If you leave this blank, the field is displayed on one row.
Col Span	The number of columns over which the field is displayed. If you leave this blank, the field is displayed over one column.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.

Field	Description
Create Script	Add a field-level script using JavaScript that's executed when the progress screen is displayed to the user. The scripting applies to the workflow rule to which the action is linked. For more information about field-level scripting, see **Advanced screen customization**.
OnChange Script	Add a field-level script that's executed when a user changes the value on the progress screen. The scripting applies to the workflow rule to which the action is linked. You can use generic JavaScript and/or Sage CRM's client-side API library of functions. For more information, see **Advanced screen customization**.
Validate Script	Add a field-level script using JavaScript that's executed when a user saves changes made to the progress screen. The scripting applies to the workflow rule to which the action is linked.

Display Field for Amendment

Use **Display Field for Amendment** to display the current value of a field on the workflow progress screen. The field value can be blank.

The table below describes **Display Field for Amendment** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Column	The field to be displayed.
Attribute	The attribute of the field on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
New Line	The position of the field on the screen for this workflow rule. If you leave this blank, the field is displayed on the same line as the previous field.
Row Span	The number of rows over which the field is displayed. If you leave this blank, the field is displayed on one row.
Col Span	The number of columns over which the field is displayed. If you leave this blank, the field is displayed over one column.

Field	Description
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Create Script	Add a field-level script using JavaScript that's executed when the progress screen is displayed to the user. The scripting applies to the workflow rule to which the action is linked. For more information about field-level scripting, see **Advanced screen customization**.
OnChange Script	Add a field-level script that's executed when a user changes the value on the progress screen. The scripting applies to the workflow rule to which the action is linked. You can use generic JavaScript and/or Sage CRM's client-side API library of functions. For more information, see **Advanced screen customization**.
Validate Script	Add a field-level script using JavaScript that's executed when a user saves changes made to the progress screen. The scripting applies to the workflow rule to which the action is linked.

Show Message on Screen

Use **Show Message on Screen** to display an onscreen message to the user. This message can provide instructions or help to the user during the workflow.

The table below describes **Show Message on Screen** fields on the **New Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Message	The message text. This can be text or a translatable code on the translations table. **Capt_Family** must be *ActionText* and **Capt_FamilyType** must be *Tags*.
Attribute	The attribute of the field on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
New Line	The position of the field on the screen for this workflow rule. If you leave this blank, the field is displayed on the same line as the previous field.

Field	Description
Row Span	The number of rows over which the field is displayed. If you leave this blank, the field is displayed on one row.
Col Span	The number of columns over which the field is displayed. If you leave this blank, the field is displayed over one column.
Order	The order in which the field is placed on the workflow progress screen

Create Task

Use **Create Task** to prompt the user to schedule a task as part of a workflow process, or to automatically create a task with predefined values and no user input. You can use this action only with records that have been created and attached to a workflow. This means you cannot use it with primary rules.

The table below describes **Create Task** fields on the **New Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Get Default User From	The user assigned to the task. You can use the # symbol to add information about the current user. For more information, see **Using the ## and # symbols**. If you've specified a user in **User**, leave this blank.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
Label for new task	The label that's attached to the task. You can use it in JavaScript conditions on future workflow rules to test the values of fields on the communication. For example, *Display the Closed workflow rule when Status of related communication labeled "XYZ" is Complete*.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Action	The type of action. For example, Phone Out.

Field	Description
Subject	Subject of the action. For example, Customer Service Call. You can use ## symbols to add information about the related entity. For example, *Customer Service Call for opportunity #oppo_opportunityid# closed on #oppo_closed#*, displays the opportunity ID and the Date/Time the opportunity was closed. For more information, see **Using the ## and # symbols**. You should use a unique subject to make it easy for users to differentiate a large number of similar records in a list in Sage CRM or in Outlook, if you're using Exchange Integration.
Details	The task details.
Status	The status of the task.
Priority	The priority of the task.
Private	Specifies that the task is private. A private task is not displayed in the Team calendar.
Created By	The user who created the task. This is the current user.
Created Date	The date on which the task is created. This is the current date.
Percentage Complete	The percentage of the task that's completed. The user enters this value.
Completed Time	The percentage of time allocated to the task that's completed. The user enters the value.
User	The user assigned to the task. If this is blank, the user in **Get Default User From** is used.
Onscreen Reminder	Displays an onscreen reminder notification to the user assigned to the task.
Reminder	The time before the task at which a reminder is sent.
Send Reminder Message	Sends a reminder to the user assigned to the task. Reminder formats and priorities are set up in the user's **Reminder Preferences**.
Team	The team assigned to the task.
Current Time Offset	The number of minutes between the time at which the action is executed and the time at which the action is recorded. This is useful if users are working in a different time zone to the current time zone.

Create Appointment

Use **Create Appointment** to prompt the user to schedule an appointment as part of a workflow process, or to automatically create an appointment with predefined values and no user input. You can use this action only with records that have been created and attached to a workflow. This means you cannot use it with primary rules.

The table below describes the **Create Appointment** fields on the **New Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Get Default User From	The user assigned to the appointment. You can use the # symbol to add information about the current user. For more information, see **Using the ## and # symbols**. If you've specified a user in **User**, leave this blank.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
Label for new appointment	The label that's attached to the appointment. You can use it in JavaScript conditions on future workflow rules to test the values of fields on the communication. For example, *Display the Closed workflow rule when Status of related communication labeled "XYZ" is Complete*.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Action	The type of action. For example, Meeting.
Subject	The subject of the action. For example, Customer demo. You can use ## symbols to add additional information about the related entity. For example, *Customer demo for opportunity #oppo_opportunityid# closed on #oppo_closed#*, displays the opportunity ID and the Date/Time the opportunity was closed. For more information, see **Using the ## and # symbols**. You should use a unique subject to make it easy for users to differentiate a large number of similar records in a list in Sage CRM or in Outlook, if you're using Exchange Integration.

Field	Description
Details	The appointment details.
Status	The status of the appointment.
Priority	The priority of the appointment.
Private	Specifies that the appointment is private. A private appointment is not displayed in the Team calendar.
Created By	The user who created the appointment. This is the current user.
Created Date	The date on which the appointment is created. This is the current date.
Percentage Complete	The percentage of the appointment that's completed. The user enters this value.
Completed Time	The percentage of time allocated to the appointment that's completed. The user enters this value.
User	The user assigned to the appointment. If this is blank, the user in **Get Default User From** is used.
Reminder	The time before the appointment at which a reminder is sent.
Send Reminder Message	Sends a reminder to the user assigned to the appointment. Reminder formats and priorities are set up in the user's **Reminder Preferences**.
Team	The team assigned to the appointment.
Current Time Offset	The number of minutes between the time at which the action is executed and the time at which the action is recorded. This is useful if users are working in a different time zone to the current time.

Create Opportunity

Use **Create Opportunity** to prompt the user to create a new opportunity as part of a workflow process, or to automatically create an opportunity with predefined values and no user input. You can use this action only with records that have been created and attached to a workflow. This means you cannot use it with primary rules.

The table below describes the **Create Opportunity** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Get Default User From	The user assigned to the opportunity. You can use the # symbol to add information about the current user. For more information, see **Using the ## and # symbols**. If you've specified a user in **Assigned To**, leave this blank.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
Label for new opportunity	The label that's attached to the opportunity. You can use it in JavaScript conditions on future workflow rules to test the values of fields on that opportunity.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Description	A short description of the opportunity.
Source	The source of the opportunity. For example, Web, Referral.
Type	The type of opportunity or general area of product interest. For example, Services, Consulting.
Customer Ref	Customer reference code.
Details	Details of the opportunity. You can use ## symbols to add information about the related entity. For example, *Upsold from #case_description#*. For more information, see **Using the ## and # symbols**.
Closed	The actual date on which the opportunity closed.
Competitors	A list of competitors for the opportunity.
Current Time Offset	The number of minutes that are added to the time at which the action is executed. This is used to calculate the date and time displayed in the opportunity **Opened** fields.
Stage	The stage of the opportunity.
Status	The status of the opportunity.

Field	Description
Forecast	The forecasted value of the opportunity.
Certainty %	The percentage certainty that the opportunity will close.
Assigned To	The user assigned to the opportunity. If this is blank, the user in **Get Default User From** is used.
Team	The team assigned to the opportunity.
Priority	The priority of the opportunity.
Close By	The forecasted close date.

Create Case

Use **Create Case** to prompt the user to create a new case as part of a workflow process, or to automatically create a case with predefined values and no user input. You can use this action only with records that have been created and attached to a workflow. This means you cannot use it with primary rules.

The table below describes the **Create Case** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Get Default User From	The user assigned to the case. You can use the # symbol to add information about the current user. For more information, see **Using the ## and # symbols**. If you've specified a user in **Assigned To**, leave this blank.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
Label for new case	The label that's attached to the case. You can use it in JavaScript conditions on future workflow rules to test the values of fields on the communication. For example, *Display the Closed workflow rule when Status of related communication labeled "XYZ" is Complete*.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.

Field	Description
RefId	The issue log ID.
Found In	The product version in which the problem was found.
SLA	The SLA that's applied to the case.
SLA Severity	The severity of the SLA applied to the case.
Description	A short description of the problem.
Area	The area of the product that's affected by the problem.
Source	How the problem was raised.
Customer Ref	The customer's own reference identifier.
Fix In	The product version in which the problem will be fixed.
Created By	The person who logged the case.
Current Time Offset	The number of minutes that are added to the time at which the action is executed. This is used to calculate the date and time displayed in the case **Opened** fields.
Severity	The priority of the case.
Assigned To	The user assigned to the case. If this is blank, the user in **Get Default User From** is used.
Team	The team assigned to the case.
Stage	The stage of the case.
Status	The status of the case.
Problem Type	The type of problem.
Solution Type	The type of solution.
Problem Details	A detailed description of problem.
Solution Details	A detailed description of solution.
Closed	The date the case is closed.

Create Lead

Use **Create Lead** to prompt the user to create a new lead as part of a workflow process, or to automatically create a lead with predefined values and no user input. You can use this action only

with records that have been created and attached to a workflow. This means you cannot use it with primary rules.

The table below describes the **Create Lead** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Get Default User From	The user assigned to the lead. You can use the # symbol to add information about the current user. For more information, see **Using the ## and # symbols**. If you've specified a user in **Assigned To**, leave this blank.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
Label for new lead	The label that's attached to the lead. You can use it in JavaScript conditions on future workflow rules to test the values of fields on that opportunity.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Stage	The stage of the lead.
Status	The status of the lead.
Priority	The priority of the lead.
Assigned to	The user assigned to the lead. If this is blank, the user in **Get Default User From** is used.
Team	The team assigned to the lead.
Rating	The lead rating.
Company Name	The name of the company.
Web Site	The company URL.
Industry	A lead's industry.
Annual Revenue	The approximate revenue of the company.
No. of Employees	The approximate number of employees in the company.

Field	Description
Last name	The lead contact's surname.
First name	The lead contact's first name.
Salutation	The lead contact's salutation.
Title	The lead contact's job title.
Email	The lead contact's email address.
Country Code	The lead contact's phone country code.
Area Code	The lead contact's phone area code.
Phone Number	The lead contact's phone number.
Alternative Country Code	Country code for the lead contact's alternative phone number.
Alternative Area Code	Area code for the lead contact's alternative phone number.
Alternative Number	The lead contact's alternative phone number.
Address 1	First line of address.
Address 2	Second line of address.
Address 3	Third line of address.
Address 4	Fourth line of address.
City	Address city.
Zip Code	Address zip or postal code.
State	Address state or county.
Country	Address country.

Create Solution

Use **Create Solution** to prompt the user to create a new solution as part of a workflow process, or to automatically create a solution with predefined values and no user input. You can use this action only with records that have been created and attached to a workflow. This means you cannot use it with primary rules.

The table below describes the **Create Solution** fields on the **Workflow Action Details** screen.

Field	Description
Type	The type of action to be performed.
Get Default User From	The user assigned to the solution. You can use the # symbol to add information about the current user. For more information, see **Using the ## and # symbols**. If you've specified a user in **Assigned To**, leave this blank.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
Label for new solution	The label that's attached to the solution. You can use it in JavaScript conditions on future workflow rules to test the values of fields on the solution.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Reference Id	The issue log ID.
Area	The area of the product that's affected by the solution.
Description	A short description of the solution.
Details	Details of the solution. You can use ## symbols to add information from the related entity. For example, *Related to #case_referenceid#*. For more information, see **Using the ## and # symbols**.
Team	The team assigned to the solution.
Stage	The stage of the solution.
Status	The status of the solution.
Assigned To	The user assigned to the solution. If this is blank, the user in **Get Default User From** is used.

Create Word Merge Document

Use **Create Word Merge Document** to perform a merge that creates a Word document when the progress screen fields are completed. The merge is performed in the same way as a document merge outside the workflow process. A copy of the merged Word document is saved in the library. You can use this action only with records that have been created and attached to a workflow. This means you cannot use it with primary rules.

The table below describes **Create Word Merge Document** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Value	The name of the document to be merged. If you leave this blank, the user can select a template when performing the merge.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.

Create PDF Merge Document

Use **Create PDF Merge Document** to perform a merge that creates a PDF document when the progress screen fields are completed. The merge is performed in the same way as a document merge outside the workflow process. A copy of the merged PDF document is saved in the library. You can use this action only with records that have been created and attached to a workflow. This means you cannot use it with primary rules.

The table below describes **Create PDF Merge Document** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Value	The name of the document to be merged. If you leave this blank, the user can select a template when performing the merge.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.

Execute SQL Statement

Use **Execute SQL Statement** to execute customized business logic. For example, use Execute SQL Statement in campaigns to delete all communications for a wave item.

Warning: Do not use this workflow action unless you are an SQL expert and have tested your workflow extensively in a non-live environment. Poorly constructed or erroneous SQL could have a seriously detrimental impact on your system.

Field	Description
Type	The action to be performed.
SQL Statement	The SQL clause to be executed. You can use ## symbols to add information from the related entity. For more information, see **Using the ## and # symbols**. You can use multiple statements separated by semi-colons. However, you cannot declare a variable in one statement and use it in another statement.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Show Confirmation Message	Displays a message that allows the user cancel the action before execution. You should set this to **Yes**. You can set up the message as a translation where **Capt Family** is *ExecSql*, **Capt FamilyType** is *Tags*, and **Capt Code** is the same name as the workflow action.

Run Stored Procedure

Use **Run Stored Procedure** to insert a default value in a field as part of a workflow process. The stored procedure performs complex calculations and can update other records in the database.

Warning: Do not use this workflow action unless you are an SQL expert and have tested your workflow extensively in a non-live environment. Poorly constructed or erroneous SQL could have a seriously detrimental impact on your system.

Field	Description
Type	The action to be performed.
Column	The value that the stored procedure returns is inserted in this column.

Field	Description

Value	The name of the stored procedure. The stored procedure must already be created on the database.
	
	You must use the following parameters in the stored procedure. The stored procedure should always return `(1)`.
	
	`CREATE PROCEDURE [xxx]`
	`@table_name nvarchar (50),`
	`@identity_name varchar (50),`
	`@id_no int,`
	`@logon_no int,`
	`@return_value varchar(20)`
	`OUTPUT AS SELECT`
	`@return_value = '999' RETURN (1)`
	
	- @table_name: The table name of the workflowed entity.
	- @identity_name: The table ID. For example, Case_CaseId.
	- @id_no: The current record ID.
	- @logon_no: The current user ID.
	- @return_value: The value that's inserted in the field you specified in **Column**.
	
	You can use the Cast method to change return_value to a different datatype (int or nchar). For example:
	
	`CREATE PROCEDURE wf_addFreeNote`
	`@table_name nvarchar (50),`
	`@identity_name varchar (50),`
	`@id_no,@logon_no int,`
	`@return_value varchar(20)`
	`OUTPUTASSELECT @return_value = Cast (@logon_no as varchar)`
	`RETURN (1)`

Show Notification on Screen

Use **Show Notification on Screen** with escalation rules to display an onscreen notification to the user as part of the workflow process. For example, you can use this action to notify a user that they've been assigned a new web lead. You can use this action with escalation rules only.

The table below describes **Show Notification on Screen** fields on the **New Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Column	The table field to be updated. This field is required.
Table	The table or view on which the action is executed.
Message	The content of the notification message. You can use ## symbols to add information about the related entity. For more information, see **Using the ## and # symbols**. This can be text or a translatable code. **Capt_Family** must be *ActionText* and **Capt_FamilyType** must be *Tags*.

Send Email

Use **Send Email** to send an email that's automatically filed against the corresponding entity and displayed on the **Communications** tab as part of the workflow process.

You can use this action on person, company, case, opportunity, solution, and custom entity (with communications) records. You must specify a notification email address in **Workflow and escalation settings**.

> **Warning:** For any email feature to work, your IT department must set up an email server and configure Sage CRM to connect to it.

The table below describes **Send Email** fields on the **Workflow Action Details** screen.

Field	Description
Template	The email template.
From	The sender's email address. If you leave this field blank, the name and email address in **Notify email name** and **Notify email address** are used. For more information, see **Workflow and escalation settings**.
To	The recipient's email address. You can use the # symbol to add information about the current user. For example, #oppo_assigneduserid#. The user's email address must be correct. For more information, see **Using the ## and # symbols**.
CC	The CC recipient's email address.

Field	Description
BCC	The BCC recipient's email address.
Subject	The subject of the email. You can use ## symbols to add information about the related entity. For more information, see **Using the ## and # symbols**.
Choose Field to insert into the Email	Inserts Sage CRM merge fields. The list of available fields depends on the table or view on which the workflow rule is based. You can see this on the workflow rule screen.
Do not file this communication	Emails sent from a workflow using the template are not filed.
Email Contents	You can use ## symbols to add information about the related entity. For more information, see **Using the ## and # symbols**. For example, to add links to Sage CRM records, use the following tags: `#recordanchor#`Text goes here`#recordanchorend#` After clicking the link, a user must log on to Sage CRM to open the record. This ends any current active Sage CRM session.

Send SMS Message

Use **Send SMS Message** to send messages to a user's phone as part of the workflow process. For example, to notify an opportunity owner of a change in opportunity status.

> **Warning:** You need an SMS gateway to use this action and other SMS features of Sage CRM. Contact your IT department to set this up.

The table below describes **Send SMS Message** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
SMS to Number	The recipient of the message. You can enter a mobile telephone number or use the ## symbols to send the message to a user such as the opportunity owner. For more information, see **Using the ## and # symbols**. The user's mobile phone number must be correctly set up in the User table.

Field	Description
SMS Subject	The subject of the message. You can use ## symbols to add information about the related entity. For more information, see **Using the ## and # symbols**.
SMS Body	The contents of the message. You can use ## symbols to add information about the related entity. For more information, see **Using the ## and # symbols**.

Create Task for Group

Use **Create Task for Group** to prompt the user to select a group and schedule a task as part of the workflow process. You typically use this action with rules associated with wave items in the Campaign Management module. For example, this action allows the user or campaign manager to set up an outbound telemarketing action for a list of prospects.

The table below describes **Create Task for Group** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Get Group From	A prefiltered list of groups. For example, Walt_Groups, displays only those groups linked to the current Campaign Wave Item.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
Label for new task	The label that's attached to the task. You can use it in JavaScript conditions on future workflow rules to test the values of fields on the communication. For example, *Display the Closed workflow rule when Status of related communication labeled "XYZ" is Complete*.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Exclude Previous Recipients	Displays the **Exclude Previous Recipients** checkbox on the workflow progress screen. If the user selects this checkbox, the new task is scheduled only for people who meet the group criteria and who've not yet had a task created for them.

Field	Description
Action	The type of action. For example, Phone Out.
Subject	Subject of the action. For example, Customer Service Call. You can use ## symbols to add information about the related entity. For example, *Customer Service Call for opportunity #oppo_opportunityid# closed on #oppo_closed#*, displays the opportunity ID and the Date/Time the opportunity was closed. For more information, see **Using the ## and # symbols**. You should use a unique subject to make it easy for users to differentiate a large number of similar records in a list in Sage CRM or in Outlook, if you're using Exchange Integration.
Details	The task details.
Status	The status of the task.
Priority	The priority of the task.
Private	Specifies that the task is private. A private task is not displayed in the Team calendar.
Created By	The user who created the task. This is the current user.
Created Date	The date on which the task is created. This is the current date.
Percentage Complete	The percentage of the task that's completed. The user enters this value.
Completed Time	The percentage of time allocated to the task that's completed. The user enters this value.
User	The user assigned to the task. If this is blank, the user in **Get Default User From** is used.
Onscreen Reminder	Displays an onscreen reminder notification to the user assigned to the task.
Reminder	The time before the task at which a reminder is sent.
Send Reminder Message	Sends a reminder to the user assigned to the task. Reminder formats and priorities are set up in the user's **Reminder Preferences**.
Team	The team assigned to the task.

Field	Description
Current Time Offset	The number of minutes between the time at which the action is executed and the time at which the action is recorded. This is useful if users are working in a different time zone to the current time zone.

Create Document for Group

Use **Create Document for Group** to prompt the user to select a group and carry out a mail merge as part of the workflow process. You typically use this action with rules associated with wave items in the Campaign Management module. For example, this action allows the user or campaign manager to set up and send a mail shot to a list of prospects.

The table below describes **Create Document for Group** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Value	The name of the document to be merged. If you leave this blank, the user can select a template when performing the merge.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Get Group From	A prefiltered list of groups to choose from. For example, Walt_ Groups displays only those groups linked to the current Campaign Wave Item.
Exclude Previous Recipients	Displays the **Exclude Previous Recipients** checkbox on the workflow progress screen. If the user selects this checkbox, the new document is created only for people who meet the group criteria and who've not yet received the mail.

Export Group to File

Use **Export Group to File** to prompt the user to select a group and export it to a CSV file or delimited text file as part of the workflow process.

The table below describes **Export Group to File** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Value	A prefiltered list of groups. For example, Walt_Groups displays only those groups linked to the current Campaign Wave Item.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.
Label for new task	The label that's attached to the task. You can use it in JavaScript conditions on future workflow rules to test the values of fields on the wave item or related entity.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Exclude Previous Recipients	Displays the **Exclude Previous Recipients** checkbox on the workflow progress screen. If the user selects this checkbox, the exported group contains only those records that meet the group criteria and who've not yet been exported.

Create Outbound Call List

Use **Create Outbound Call List** to prompt the user to create an outbound call list as part of a workflow process.

The table below describes **Create Outbound Call List** fields on the **Workflow Action Details** screen.

Field	Description
Type	The action to be performed.
Group ID field name	A prefiltered list of groups to choose from. For example, Walt_Groups displays only those groups linked to the current Campaign Wave Item.
Attribute	The attribute of the button on the screen. Select **Hidden** to automatically execute the action with predefined values without displaying it to the user.

Field	Description
Label for new task	The label that's attached to the outbound call list. You can use it in JavaScript conditions on future workflow rules to test the values of fields on the wave item or related entity.
Order	The order of the field on the screen for this workflow rule. Set the order of a field to move it to a different position on the screen and use **New Line** to move the field to a different line.
Exclude Previous Recipients	Displays the **Exclude Previous Recipients** checkbox on the workflow progress screen. If the user selects this checkbox, a call list is created only for people who meet the group criteria and who've not yet been called.

Configuring workflow for entity

The availability of workflow depends on the entity, as follows:

- **Cases, solutions, opportunities, leads**. Have workflow enabled by default and are supplied with preconfigured workflows. You can disable or enable workflow for these entities through the Sage CRM user interface.

  The status area on the summary screens for these entities is part of workflow. To update the status fields in this area, a user must progress the record through the workflow. If you disable workflow for these entities, a user needs to use a **Progress** button rather than the workflow actions, and a user can enter values in the status area.

  In addition to the standard preconfigured workflow for opportunity, Sage CRM provides a ready-to-use *Quick Sale Workflow*. It is designed for products that don't require a complex sales cycle and can be sold in a few steps. For steps on how to activate the Quick Sale Workflow, see **Editing a workflow**.

- **Campaigns, companies, people**. Have workflow disabled by default. You can enable workflow for these entities through the Sage CRM user interface. Then, you can create your own workflows for these entities.

  Sage CRM provides sample campaign, wave, and wave item workflows. Their names are prefixed with *Sage*.

- **Quotes, orders**. Have workflow disabled by default. To enable workflow for these entities, you need to run a SQL query in Microsoft SQL Management Studio. Then, you can create your own workflows for quotes and orders.

- **Custom entity**. When creating a custom entity, you can define whether it has workflow enabled. You need to create your own workflows for a custom entity.

Note: If you're using escalation rules in or outside your workflow, you must configure escalation settings. For more information, see **About quick notifications and escalation rules**.

To enable or disable workflow through user interface

These steps apply to cases, campaigns, companies, leads, opportunities, people, and solutions.

1. Go to **| Administration | Advanced Customization | Workflow & Escalation Configuration**.
2. Select **Change**.

3. Enable or disable workflow for the required entities. You can also configure escalation rules and notifications.

   For details, see **Workflow and escalation settings**.

4. Select **Save**.

5. Create, edit, or delete a workflow as described in **Building a workflow**.

To enable or disable workflow for quotes and orders

1. Open Microsoft SQL Server Management studio and connect to the Sage CRM database.

2. Do one of the following:

   - To enable workflow, run this query:

     ```
     update Custom_SysParams set Parm_Value = 'Y' where parm_name = 'workflowquotes';
     update Custom_SysParams set Parm_Value = 'Y' where parm_name = 'workfloworders';
     update Custom_SysParams set Parm_Value = 'Y' where parm_name = 'allowworkflowforQA';
     ```

   - To disable workflow, run this query:

     ```
     update Custom_SysParams set Parm_Value = 'N' where parm_name = 'workflowquotes';
     update Custom_SysParams set Parm_Value = 'N' where parm_name = 'workfloworders';
     update Custom_SysParams set Parm_Value = 'N' where parm_name = 'allowworkflowforQA';
     ```

     Disabling workflow for quotes and orders doesn't delete existing workflows.

3. Go to **| Administration | System | Metadata**, select **Refresh system parameters**, and then select **Execute Refresh**.

4. Create, edit, or delete workflows as described in **Building a workflow**.

   Your workflow for quotes or orders must always start with a transitional rule.

   When a user creates a quote or an order, it affects other Sage CRM database tables such as `PricingList` and `Currency`. This means that your workflow for a quote or an order becomes active only after a record is created in the system.

Workflow and escalation settings

The table below describes the fields on the **Workflow & Escalation Configuration** screen.

Field	Description
Workflow for cases	Possible values: • **Yes**. Enables workflow for cases. • **No**. Disables workflow for cases.
Workflow for solutions	Possible values: • **Yes**. Enables workflow for solutions. • **No**. Disables workflow for solutions.
Workflow for opportunities	Possible values: • **Yes**. Enables workflow for opportunities. • **No**. Disables workflow for opportunities.
Workflow for leads	Possible values: • **Yes**. Enables workflow for leads. • **No**. Disables workflow for leads.
Workflow for campaigns	Possible values: • **Yes**. Enables workflow for campaigns. • **No**. Disables workflow for campaigns.
Workflow for companies	Possible values: • **Yes**. Enables workflow for companies. • **No**. Disables workflow for companies.
Workflow for people	Possible values: • **Yes**. Enables workflow for people. • **No**. Disables workflow for people. Sage CRM does not include a sample workflow for people, so you must create your own workflow.

Field	Description
Escalation	Possible values: • **Yes**. Enables escalation. This value also enables the following: ◦ All escalation rules in and outside workflow, including the default escalation rules supplied with Sage CRM. ◦ The **Reminder** field on the **Enter New Task** and **Enter New Appointment**. ◦ Quick notifications. See **About quick notifications and escalation rules**. ◦ Escalation rules in **| Administration | Timings | Service Level Agreements**. You must enable each escalation rule individually. See **About quick notifications and escalation rules**. • **No**. Disables escalation.
Notify interval (sec)	Sets one of the following: • If you're not using the CRM Escalation Service, sets the minimum interval (in seconds) between the server polling clients for notification reminders or escalation rules. • If you are using the CRM Escalation Service, sets the minimum interval between polling is 5 minutes (300 seconds) by default. The value set in **Interval** on an individual rule overrides the value set in **Notify interval**.
Notification display count	Sets the number of notifications to display to a user at once. For example, if you set **Notification display count** to *20* and a user has 100 notifications, the number displayed beside the **Notifications** icon on the top bar is 100. When the user clicks the icon, 20 notifications are displayed. When the user clicks **Close All**, the next 20 are displayed.

Field	Description
Escalation engine tuned for	Possible values: • **System Performance**. Sage CRM processes notifications at the polling rate set in **Notify interval**. • **Immediate Delivery**. Sage CRM processes the notification when the communication or associated entity record is created or edited, and every time the system polls at the polling rate set in **Notify interval**.
Notify email name	Sets the sender name that appears on a notification email. For example, when an unsolved case is escalated and an email is sent to the team leader as part of a case workflow, this is the name in the **From** field of the email. For more information, see **Send Email**. When **Notify email name** and **Notify email address** are blank, Sage CRM uses the email address of the current user.
Notify email address	Specifies a valid email account from which to send notification emails. For more information, see **Send Email**. When **Notify email name** and **Notify email address** are blank, Sage CRM uses the email address of the current user.
Default targets for high priority reminder messages	Sets the targets to which high priority reminder messages are sent. Options are desktop email, mobile email, and SMS.
Default targets for normal priority reminder messages	Sets the targets to which normal priority reminder messages are sent. Options are desktop email, mobile email, and SMS.
Default targets for low priority reminder messages	Sets the targets to which low priority reminder messages are sent. Options are desktop email, mobile email, and SMS.
Maximum SLA actions	Sets the number of action fields that are available when setting up SLAs. This number typically corresponds to the number of stages in the Cases workflow. The default value is 5.

Field	Description
Use Escalation Service	Possible values: • **Yes**. The CRM Escalation Service runs escalation rules even when no user is logged on to Sage CRM. This is a Windows service that you turn on in **Control Panel | Administrative Tools | Services**. • **No**. The Web server runs escalation rules but only when a user is logged on to Sage CRM. For more information about the Escalation Service, see **About quick notifications and escalation rules**.

Building a workflow

- **Creating a workflow**
- **Editing a workflow**
- **Creating a workflow state**
- **Creating a workflow rule**
- **Adding states and rules to a workflow**
- **Deleting a workflow**

Creating a workflow

1. Click **| Administration | Advanced Customization | Workflow**.
2. Click **New Workflow**.
3. Enter a description.
4. Leave **Enabled** unchecked. You can't edit a workflow that's enabled.
5. Click **Save**. The workflow design page displays one default entry state from which you can build your workflow tree.
6. Click **New State** to add a state to the workflow. For more information, see **Creating a workflow state**.
7. Click **New Rule** to add a rule to the workflow. For more information, see **Creating a workflow rule**.
8. You can add states and rules to the workflow now or later. For more information, see **Adding states and rules to a workflow**.
9. Click **Preview List** to see a script preview of the workflow. You can use this script to create a component. **Preview List** is displayed only if you have the Extensibility Module. For more information, see the *Developer Help* on the **Sage CRM Help Center**.

10. Click **Continue** to return to the workflow design screen. The new workflow is displayed in the list of workflows.

> **Note:** You should fully test workflows in a test environment before you enable workflows on your production system.

Editing a workflow

1. Select **| Administration | Advanced Customization | Workflow**.
2. Select the workflow you want to edit.

   Before editing the workflow, you can select the rules under **Available Rules** to view their details and underlying actions. To do so, you don't need to disable the workflow.
3. To modify the workflow description, select **Change Workflow**.
   a. Enter a new description.
   b. Select **Save**.
4. To change the workflow states and rules, select **Edit Workflow**.

   This disables the workflow, so that you can make your changes.
5. To delete a state or rule from the **Available States** palette or from the **Available Rules** palette, select the state or rule in the palette. You cannot delete a state or rule that's used in a workflow tree.
   a. Select **Delete**.
   b. Select **Confirm Delete**.
   c. Select **Continue**.
6. Drag new states and rules to the tree. For more information, see **Adding states and rules to a workflow**.
7. To remove a state or rule from the workflow tree, drag and drop the state or rule from the workflow tree to the bin icon. Select **OK**.

   When you remove a state or rule, all states and rules hanging from it are also removed.
8. Select **Save** to save any changes you've made.
9. Select **Activate Workflow** to activate the workflow.

   Test all workflows on a Sage CRM test installation before enabling them on your production system.
10. Select **Cancel** to return to the list of workflows.

Creating a workflow state

1. Select | **Administration | Advanced Customization | Workflow**.
2. Select the workflow to which you want to add a new state.
3. Select **New State**.
4. Enter a name and description for the state. Select **Entry State** if this is an entry state for the workflow. For more information, see **Workflow states**.
5. Select **Save**.

   The new state is displayed on the **Available States** palette.
6. Add other states if necessary and then select **Save**.

Creating a workflow rule

1. Select | **Administration | Advanced Customization | Workflow**.
2. Select the workflow to which you want to add a rule.
3. Select **New Rule**.
4. To clone an existing rule, ensure the rule is available for cloning. For more information, see **Making a workflow rule available for cloning**.
   a. Select a rule from **Clone an existing rule**.
   b. To use the rule actions, select **Yes** from **Choose to clone the actions associated with the Rule**.
   c. Enter a rule name.
   d. Select **Rule Enabled**.
   e. Select **Save**.
5. To create a new rule, complete the **Workflow rule fields** and select **Save**. Ensure the rule is enabled.

   > **Note:** If all workflow actions in your rule are marked as hidden, the rule moves to the next state without displaying the tracking notes option.
6. To add actions to the rule, select the rule in the **Available Rules** palette.

   If you add actions to a workflow rule that uses a .NET DLL or ASP page, the actions are not executed. The .NET method or ASP page is executed instead.
   a. Scroll to the end of the screen and click **New**.
   b. Select the action you want to add. Not all workflow actions are compatible with each workflow rule. For a list of actions that work with each rule type, see **Workflow actions**.

c. Complete the action fields. For more information, see the relevant action in **Workflow actions**.

d. Select **Save**. The action is listed in the **Workflow Actions for this Rule** table.

7. Select **Save** to return to the workflow tree and add the rule to a workflow. For more information, see **Adding states and rules to a workflow**.

Making a workflow rule available for cloning

1. Click **| Administration | Advanced Customization | Workflow**.
2. Click the workflow that contains the rule you want to clone.
3. Click the rule in the **Available Rules** palette.
4. Select **Available For Cloning**
5. Click **Save**.

Workflow rule fields

Tip: You can set workflow conditions using the **Restricted to Team**, **JavaScript Condition**, and **Trigger SQL Clause** fields on a rule, and by adding JavaScript to the **Create Script**, **OnChange Script**, and **Validate Script** fields on some actions. You can also use field security to set access right to individual fields on a screen. For more information, see **Adding security types for a field**.

Field	Description
Clone an existing rule	The existing rule that the new rule is based on.
Clone the actions associated with the Rule	Clones the actions of the existing rule selected in **Cone an existing rule**.

Field	Description
Table or view	**Table**:The entity table that's checked to see if the rule conditions are met. **View**: The table view that's checked to see if the rule conditions are met. Views let you customize the set of fields within the JavaScript condition. There may be significant performance improvements if you use a view that includes only relevant records rather than performing a whole table scan. If you select **View**, ensure the correct entity is displayed in **Table**. A workflow update action occurs only on the table on which the workflow is based. To update multiple tables at once, use an ASP page or an Execute SQL workflow action.
Rule Name	The name of the new rule.
Available for Cloning	Includes the new rule in the **Available for Cloning** list so you can base other rules on this rule and its associated actions.
Rule Enabled	Enables the rule. You must enable the rule if you want to add it to a workflow.
Type	The type of workflow rule. For more information, see **Workflow rules**.
Alternative Image for Rule	The image that's displayed in the UI if this rule is visible to the end user. The default image is a small green bullet (WORKFLOWDEFAULT.GIF) followed by the rule name. To add a new GIF, ensure it's saved in ...WWWRoot\Themes\Img\[*theme name*]\Buttons in the Sage CRM install and select it from this drop-down.
Restricted to Team	Restricts the rule to users who belong to this primary team. This is the most simple way of limiting access to the rule. To restrict the rule to members of two teams, or to create more complex restrictions, use JavaScript in **Javascript condition**.
Order	The order in which the field appears on screen when progressing a workflow rule.

Field	Description
Interval	The interval (in minutes) at which the rule runs. You can use this field to fire rules repeatedly within a certain time frame. For example, for high priority cases you could specify that a reminder email is sent between 7am and 9am every day to the assigned user. If a specific rule takes longer to fire than other rules, it's a good idea to specify a value in this field. This value overwrites the value in **Notify Interval** in **Workflow & Escalation Configuration**. For more information, see **Workflow and escalation settings**.
.NET	Calls a .NET assembly and displays the **Method Name** field. Enter the . NET DLL name in **Custom File Name** and the method in **Method Name**. Use a DLL to execute custom business logic. If you add actions to a workflow rule that uses a .NET DLL, the actions are not executed. The .NET method is executed instead. You cannot link a .NET DLL to an escalation rule.
Custom File Name	The name of the custom file that's linked to the new rule. The custom file must be saved in the CustomPages subdirectory of your Sage CRM install. If you add workflow actions to a workflow rule that uses a .NET DLL or ASP page, the workflow actions are not executed. The .NET method or ASP page is executed instead. You cannot link a .NET DLL or ASP page to an escalation rule.
Method Name	The name of the .NET method that's called. If you add actions to a workflow rule that uses a .NET DLL, the actions are not executed. The .NET method is executed instead. You cannot link a .NET DLL to an escalation rule.

Field	Description

Javascript condition	The JavaScript condition that determines if the workflow button for the rule is displayed. The workflow button is hidden when the condition is false, and is displayed when the condition is true.
	
	Rule actions occur only when this JavaScript condition is met. You can use # codes in JavaScript conditions. For more information, see **Using the ## and # symbols**.
	For example, you can specify that a specific person must approve a quote, or that an opportunity forecast must be above $10,000 to progress from a lead to a qualified prospect.
	JavaScript conditions can reference fields from any entity created by the workflow using one of the following actions with a label:
	
	• **Create Task**
	• **Create Opportunity**
	• **Create Case**
	• **Create Solution**
	• **Create Lead**
	
	For example, you can set up a rule using **Create Task** with **Attribute** set to **Hidden** that creates a communication with a label. Then you can create a JavaScript condition that references the communication label and executes only when the field value is *Complete*.
	
	The following JavaScript condition limits access to the workflow button to the Support team (ID 1) and Operations team (ID 5). These IDs are taken from the Channel table in the demo data.
	
	`var intTeamID = CurrentUser.user_primarychannelid;`
	`if (intTeamID == 1 || intTeamID == 5)`
	`{`
	`Valid = true;`
	`}`
	`else`
	`{`
	`Valid = false;`
	`}`

Field	Description
Trigger SQL Clause	A condition in the form of an SQL WHERE clause. Escalation rule actions occur only when the condition is met. The WHERE term is assumed so you don't need to add it to this field. You can use # codes within SQL trigger clauses conditions. For more information, see **Using the ## and # symbols**. When you create a notification rule, the user must be able to dismiss and snooze the notification. The WHERE clause must include ‘ and xxxx_datetimefield < #T’, and the action must use the same ‘xxxx_datetimefield’ name. When the user dismisses the notification, the field specified in the action is set to null. When the user snoozes the notification, the field specified in the action is set to the current time plus the number of snooze minutes. When you create an email rule, you must include a stop clause so the email is sent only once. Add a field to the table to flag if the email has been sent. The WHERE clause must include ‘and xxxx_emailsent = null’. In addition to the email action, add a field action to Set Column Value that sets xxxx_emailsent to Y. For more information, see **Trigger clause examples**.

JavaScript condition examples

The predefined workflows for cases, solutions, opportunities, and leads contain examples of Javascript conditions.

Entity name	Rule name	Example script
Opportunity	Reassign	`Valid = (oppo_stage != 'Closed');`
Cases	Reassign	`Valid = ((case_stage!='Closed') && (case_stage != 'Logged') && (case_stage!='Investigating'));`
Lead	Reassign Lead	`Valid=(lead_status == 'In Progress');`
Lead	Edit Lead	`Valid=(lead_status == 'In Progress');`

You can directly reference the fields of the workflowed record and return the field value. You cannot directly reference the fields of other records that are in context of the workflowed record. Instead, you can use `CRM.GetContextInfo()` to reference these fields and get data that's in context of the workflowed record.

You can use these techniques on custom entities to reference the fields of the workflowed record and return the field value.

The following is an example JavaScript condition on a custom entity called Project:

```
if (proj_stage != 'Planning')
    {
        Valid = false;
    }
```

The following is an example JavaScript condition on a custom entity called Project that's a child of Company:

```
if (proj_stage == 'Planning' && CRM.GetContextInfo("company","comp_type")=='Customer')
    {
        Valid = false;
    }

else
    {
        Valid = true;
    }
```

Using the ## and # symbols

You can use ## symbols in workflow actions to add information from the related entity or the user table.

- You can use ## symbols in the JavaScript Conditions of primary, transition, conditional, and global rules, and the Trigger SQL Clause of escalation rules to define conditions. When you use ## symbols in a condition or statement, actual database values are substituted when the metadata is parsed. For example, the following SQL statement compares the actual Campaign Wave Activity ID with the value in a Communications Wave Activity field.

  ```
  UPDATE Communication SET Comm_Deleted=1 WHERE Comm_WaveItemId=#WaIt_WaveItemId#
  ```

- If you use ## symbols in the body of an email, SMS, onscreen message, or notification, the translations are used.
- You can use the # symbol before certain letters to run internal function calls that return a concrete value. For example, the following script uses #T and #U to compare the current

time and user with the values of fields containing escalation information.

```
Escl_DateTime<#T And Escl_UserID=#U AND Upper(RTRIM(comm_status))=N'PENDING'
```

Code	Returned value
#U	Current logged on user as an ID.
#L	Current logged on user as a string.
#C	Current logged on team as an ID.
#D	Current logged on team as a string.
#T	Current time.
#R	Recent list information.
#O	Current opportunity ID.

Adding states and rules to a workflow

1. Select **| Administration | Advanced Customization | Workflow**.
2. Select the workflow to which you want to add the states and rules.
3. Select **Edit Workflow**. This disables the workflow, so that you can make your changes.
4. Drag and drop states from the **Available States** palette onto the lower drop circle of the rules to build the workflow tree. For example, Lead, Prospect, Quoted, Negotiation, Contract, Closed.
   - If the state you need doesn't already exist, click **New State** to create it. For more information, see **Creating a workflow state**.
   - The first state follows on from the Start state and a transition rule is automatically created to link the two states. The name of the transition rule is **[name of the source state] to [name of the destination state]**.
   - If you drop the same state onto the tree more than once, the state icon changes to indicate a duplicate state. If you hover over one occurrence of the state, the duplicate states are highlighted.
5. To turn a transition rule into a different type of rule, click the rule, update the **Workflow rule fields** and click **Save**.
6. Drag a rule from the **Available Rules** palette onto the lower drop circle of the first state.
   - If the rule you need doesn't already exist, click **New Rule** to create it. For more information, see **Creating a workflow rule**.

- When you drop a conditional rule onto a state, the list of rule actions is divided in two. The actions on the left are executed when the condition is True and the actions on the right are executed when the condition is False. It's a good idea to add a **Show Message on Screen** action to the list of False actions, to tell the user why the workflow isn't progressing to the next state.
- You can drop more than one transition rule onto a state to let the user determine which rule is applied to the record.
- You can drop enabled rules only. You enable a rule in the **Workflow rule fields**.
- You must ensure that all rules on the workflow lead to a valid state.

7. Click **Save** to save the workflow tree.
8. Click **Activate Workflow** to activate the workflow. You should fully test all workflows on a Sage CRM test installation before you enable them on your production system.

Deleting a workflow

1. Go to **| Administration | Advanced Customization | Workflow**.
2. Select the workflow you want to delete.
3. Select **Delete**.
4. Select **Confirm Delete**.
5. Select **Continue** to return to the workflow design screen.

Quick notifications and escalation rules

- **About quick notifications and escalation rules**
- **Creating a quick notification**
- **Working with predefined escalation rules**
- **Enabling an escalation rule**
- **Creating an escalation rule**

About quick notifications and escalation rules

You can set up quick notifications and escalation rules to ensure that users never miss important information.

For example, a sales manager could use quick notifications and escalation rules configured for each sales representative based on their targets and dates. The manager could identify leads that must be followed up within one week to meet KPIs and generate automatic reminders for their sales reps to follow up with these leads.

A customer service manager might use onscreen notifications to share product information such as special offers and release dates, or to share critical real-time data so the team can be pro-active about resolving cases and identifying upsell opportunities.

Differences between quick notifications and escalation rules

You define quick notifications on the **Notifications** tab of a main entity. A quick notification can contain up to five conditions and is used outside the context of workflow. If some or all of the conditions are satisfied, a notification message is displayed onscreen or sent by email. Quick notifications are simple and quick to define and don't require knowledge of SQL. Instead, you define the WHERE clause using simple UI tools. When you save a quick notification, all necessary records are automatically created in the database workflow tables. Quick notifications are user based.

Escalation rules are usually more complex than quick notifications and can be used in a workflow or outside the context of workflow. In general, you use an escalation rule to create a notification that contains more than five conditions or contains a complex trigger SQL clause. If some or all of the conditions are satisfied or the clause is triggered, a notification message is displayed

onscreen or sent by email, values are updated, or SQL is executed. If an escalation rule is included in a workflow, it's applied only to records in the correct state. Escalation rules are time based.

The conditions in quick notifications and escalation rules are expressed using SQL. They are governed by the same escalation mechanism and their behavior is logged in the escalation log and SQL log.

Setting up quick notifications

Task	Help
For quick notifications to work, you must enable **Workflow & Escalation Configuration | Escalation**. This setting also enables the **Reminder** field for new tasks and appointments.	**Workflow and escalation settings**
You can specify how many quick notifications are displayed on screen at once.	**Workflow and escalation settings**
Create a quick notification and specify what happens when the conditions of the rule are met.	**Creating a quick notification**

Setting up escalation rules

Task	Help
To use the Escalation service to run escalation rules, you must first turn the service on in **Control Panel | Administrative Tools | Services** and then enable the service in **Workflow & Escalation Configuration | Use Escalation Service**.	**Workflow and escalation settings**
For escalation rules to work, you must enable **Escalation** in **Workflow & Escalation Configuration | Escalation**.	**Workflow and escalation settings**
When escalation rules are activated, you must enable each rule individually.	**Enabling an escalation rule**
You can specify how often new escalations are triggered and how many notifications are displayed on screen at once.	**Workflow and escalation settings**

Task	Help
Predefined escalation rules display onscreen notifications to the system administrator but you can configure then to send the information to a different user.	**Working with predefined escalation rules**
You can define a new escalation rule outside the context of workflow.	**Creating an escalation rule**
You can create escalation rules and use the escalation table for custom entities. To do this, you must manage the data in the escalation table with table level scripts and build a custom view based on existing escalation rules. For example, you could use a `PostInsertRecord()` event function to insert a record into the escalation table.	**Introduction to view customization** *Table and entity level scripts* in the *Developer Help*

Creating a quick notification

1. Click **<My Profile> | Administration | Advanced Customization | Workflow & Escalation Configuration**.
2. Ensure **Escalation** is set to **Yes**.
3. Click **<My Profile> | Administration | Customization | Primary Entity | <Entity>**.
4. Click the **Notifications** tab.
    - To display the notification on screen, click **New On Screen Notification**. The message is displayed for the specified user when the conditions you add to the rule are satisfied.
    - To send the notification by email, click **New Email Notify**. An email is sent to the user you specify when the conditions you add to the rule are satisfied.
5. Complete the **Notifications fields**.
6. Click **Save**.

Quick notification fields

Field	Description
Notification Name	The name of the notification rule.
Enabled	Enables the rule.
And / Or All	**And**: The notification is created only when all the specified conditions are met. **Or**: The notification is created when one of the specified conditions is met.
Field	The field (database column) on which the condition script is executed.
Condition	The operator that's used in the condition script.
Value	The value of **Field** that's used in the condition script.
Choose Field to insert into the Notification	Click a merge field to include it in the notification message.
Notify User	The user who is notified when the conditions are met.
Notification Message	The notification text that's displayed to the user. This is a required field. You can insert merge fields from **Choose Field to insert into the Notification**. You can format the message using HTML tags such as to force new lines, or <b> and .
Template	The email template used for email notifications. Templates usually contain standard content and field codes.
From	The email address from which the email notification is sent. If you leave this field blank, the name and email address in **Notify email name** and **Notify email address** are used. For more information, see **Workflow and escalation settings**.
Reply to	The email address to which replies are sent. This field is available only if you have permission to send emails from other accounts.
To	The email recipients. To add a recipient to the **To**, **CC**, or **BCC** fields, select the recipient in the search box on the right side of the screen and click the green left arrow beside the **To**, **CC**, or **BCC** field. You can add only one recipient at a time.

Field	Description
CC	The recipients who receive a copy of the email.
BCC	The recipients who receive a blank carbon copy of the email.
Subject	The email subject.
Choose Field to insert into the Email	Click a merge field to include it in the email message.
Email message	The email text that's displayed to the user. This is a required field. You can insert merge fields from **Choose Field to insert into the Email**. You can format the message using HTML tags such as to force new lines, or <b> and .

Working with predefined escalation rules

Predefined escalation rules display onscreen notifications to users. For example, the Communication Reminder escalation rule sends an onscreen reminder to users associated with a task or meeting that the event will occur soon. For more information, see **Predefined escalation rules**. By default, the notifications are sent to the current user but you can send the information to a different user. You need the user ID to do this.

1. To find a user ID, click **<My Profile> | Administration | Users | Users.**
2. Search for the relevant user and click the user link in the search results. The URL at the top of the screen contains the user ID.
3. Click **<My Profile> | Administration | Advanced Customization | Escalation**.
4. Enter search criteria in the Filter fields. The following example finds all enabled escalation rules for lost opportunities.
   - Select **Opportunity** in **Table Name**.
   - Enter *Lost* in **Rule Name**.
   - Enter *Y* in **Rule Enabled**.
5. Click **Filter**.
6. Click the rule.
7. Add the user ID to the start and end of the SQL trigger clause. The following example sends the information to a user with ID 5.

```
vNotificationOpportunity.User_rollupto = 5  AND vNotificationOpportunity.oppo_
opportunityid in (select WkIn_CurrentRecordId from dbo.WorkflowInstance where WkIn_
WorkflowId = 10 AND WkIn_CurrentStateId = 53 AND WkIn_CurrentEntityId = 10)   AND ((Escl_
```

```
EscalationId is NULL ) OR (Escl_WorkflowRuleId <> 10163) OR ((Escl_WorkFlowRuleId
= 10163) AND Escl_Datetime < #T AND Escl_UserId = 5))
```

8. To use the rule, select **Rule Enabled** if it's not already selected.
9. Click **Save**.

Predefined escalation rules

Escalation rule	Description
Quarterly Quota Remaining	Notify a sales user at the end of each month about the percentage and amount of their remaining quota for the quarter.
Daily Quota Remaining	Notify a sales user daily about the percentage and amount of their remaining quota for the month.
Pipeline Update	Notify a sales user every two weeks about the value of their pipeline for this quarter, compared to their forecast total for the quarter.
Opportunity Close Date Approaching	Notify the assigned user of an opportunity that the opportunity close date is in five days.
Unassigned Lead	Notify sales managers when a new lead has been unassigned for more than five days.
High Value Opportunity Won	Notify sales team members and sales managers when a high value deal is won. The system administrator can configure the high value opportunity amount.
High Value Opportunity Created	Notify sales managers and send them an email when a high value opportunity is created. This uses **Total Quote Value** on the opportunity. The system administrator can configure the high value opportunity amount.
Quote Discount Value too large	Notify sales managers and send them an email when a quote line item discount exceeds 40%.
Unassigned Opportunity	Notify sales managers when a new opportunity has been unassigned for more than five days.
Lost Opportunities	Notify the sales manager when a deal has been lost.

Escalation rule	Description
Order repricing notification	Notify a sales user when the total of an order changes.
Quote repricing notification	Notify a sales user when the total of a quote changes.
Order Synch error notification	Notify a user when there's an error synchronizing an order with the BMS application.
Quote Synch error notification	Notify a user when there's an error synchronizing a quote with the BMS application.
Account Synch error notification	Notify a user when there's an error synchronizing an account with the BMS application.
Exchange Integration Notification	Notify a user when the system administrator has enabled them to automatically synchronize with Microsoft Exchange.
Email Blast Failure Notice	Notify a sales user when an E-marketing email blast is not successfully sent.
Campaign Over Budget	Notify a sales user when an E-marketing campaign has exceeded the approved budget limit.
Campaign Close To Budget	Notify a sales user when an E-marketing campaign exceeds 90% of the approved budget limit.
Backup Failure Notice	Notify a system administrator when a Sage CRM backup fails.
Backup Completed Notice	Notify a system administrator when a Sage CRM backup successfully completes.
Mailchimp audience upload message	Notify a user when a Sage CRM group of contacts is successfully uploaded to the Mailchimp audience.
Communication Reminder	Notify the assigned user of a communication task that the due date is approaching.
Quote Expiry	Notify the assigned user of a quote that the quote expiry date is in five days.
Email Reminder	Notify the assigned user of an email task that the due date is approaching.

Enabling an escalation rule

When escalation rules are activated, you must still enable each rule individually.

1. Click **My Profile> | Administration | Advanced Customization | Escalation**.
2. Click the escalation rule.
3. Select **Rule Enabled** and click **Save**.

Creating an escalation rule

To create an escalation rule that's outside the context of workflow:

1. Configure escalation rule behavior. For more information, see **Configuring workflow for entity**.
2. Click **<My Profile> | Administration | Advanced Customization | Escalation**.
3. Click **New**.
4. To clone an existing rule, ensure the rule is available for cloning. For more information, see **Making an escalation rule available for cloning**.
    a. Select the rule from **Clone an existing rule**.
    b. If you want to use the rule actions, select **Yes** from **Choose to clone the actions associated with the Rule**.
    c. Enter a **Rule Name**.
    d. Select **Rule Enabled**.
    e. Click **Save**.
5. To create a completely new rule, complete the **Escalation rule fields**. Ensure the rule is enabled.
6. Click **Save**. The new escalation rule is displayed on the Escalation screen.
7. To add actions to the rule, click the rule link. If you add actions to a workflow rule that uses a .NET DLL or ASP page, the actions are not executed. The .NET method or ASP page is executed instead.
    a. Scroll to the end of the screen and click **New**.
    b. Click the action you want to add. For a list of actions that work with escalation rules, see **Workflow actions**.
    c. Complete the action fields. For more information, see the relevant action in

Workflow actions.

d. Click **Save**.

8. Continue to add actions and click **Save** when you are finished.

Escalation rule fields

Field	Description
Clone an existing rule	The existing rule that the new rule is based on.
Clone the actions associated with the rule	Clones the actions of the existing rule selected in **Cone an existing rule**.
Table or view	**Table**: The table that's checked to see if the rule conditions are met. **View**: The table view that's checked to see if the rule conditions are met. Views let you customize the set of fields within the JavaScript condition. It's good practice to base escalation rules on views rather than tables to reduce the number of records that are checked. If you select **View**, ensure the correct entity is displayed in **Table**.
Rule name	The name of the new rule.
Available for cloning	Includes the new rule in the **Available for cloning** list so you can base other rules on this rule and its associated actions.
Rule enabled	Activates the rule.
Type	A read only field that's set to **Escalation Rule**.
Alternative image for rule	The image that's displayed in the UI if this rule is visible to the end user. The default image is a small green bullet (WORKFLOWDEFAULT.GIF) followed by the rule name. To add a new GIF, ensure it's saved in ...WWWRoot\Themes\Img\[*theme name*]\Buttons in the Sage CRM install and select it from this drop-down.
Restricted to team	Restricts the rule to users who belong to this primary team.
Order	The order in which the field appears on screen when progressing a workflow rule.

Field	Description
Interval	The interval (in minutes) at which the escalation rule runs. If a specific escalation rule takes longer to fire than other rules, it's a good idea to specify a value in this field. This value overwrites the value in **Notify Interval** in **Workflow & Escalation Configuration**. For more information, see **Workflow and escalation settings**.
.NET	Not applicable to escalation rules.
Custom file name	Not applicable to escalation rules.
Method name	Not applicable to escalation rules.
Trigger SQL clause	A condition in the form of an SQL WHERE clause. Rule actions occur only when the condition is met. The WHERE term is assumed so you don't need to add it to this field. You can use # codes within SQL trigger clauses conditions. For more information, see **Using the ## and # symbols**. When you create a notification rule, the user must be able to dismiss and snooze the notification. The WHERE clause must include ‘ and xxxx_datetimefield < #T’, and the action must use the same ‘xxxx_datetimefield’ name. When the user dismisses the notification, the field specified in the action is set to null. When the user snoozes the notification, the field specified in the action is set to the current time plus the number of snooze minutes. When you create an email rule, you must include a stop clause so the email is sent only once. Add a field to the table to flag if the email has been sent. The WHERE clause must include ‘and xxxx_emailsent = null’. In addition to the email action, add a field action to **Set Column Value** that sets xxxx_emailsent to Y. For more information, see **Trigger clause examples**.

Trigger clause examples

The following are examples of SQL that you can enter in **Trigger SQL Clause**.

- In the SQL below, #L indicates that notifications are used only if the user is DolanW.

```
CmLi_Comm_NotifyTime<#T AND cmli_comm_userid=#U AND Comm_Status='Pending' AND #L =
'DolanW'
```

- In the SQL below, #C indicates that the user is notified if team is their current team. It also checks that team is null, as Team may not be a mandatory field.

```
CmLi_Comm_NotifyTime<#T AND cmli_comm_userid=#U AND Comm_Status='Pending' AND Comm_
ChannelID = #C OR Comm_ChannelID IS NULL)
```

- The SQL below specifies that the escalation rule runs only between 7am and 6pm, and does not run on weekends.

```
(... existing SQL triggering clause) AND datepart(hour, current_
timestamp)<'18' AND datepart(hour, current_timestamp)>'7' AND DATENAME(WEEKDAY, GETDATE
()) <> 'Saturday' AND DATENAME(WEEKDAY, GETDATE()) <> 'Sunday'
```

- The SQL below notifies a user if a record has been stuck at a certain stage for 14 days.

```
DATEDIFF(day,case_updateddate, getdate())>14 AND (case_stage=<1> OR case_stage=<2>) AND
case_assigneduserid=#U
```

- The SQL below is taken from the Email Reminder escalation rule. It uses a stop clause (CmLi_SMSMessageSent) to prevent the rule firing repeatedly. The email message is sent only when the field is null. When the email is sent, the field is set to Y which prevents the rule firing again.

```
(CmLi_Comm_NotifyTime<#T) AND (UPPER(RTRIM(Comm_Status))=UPPER(RTRIM(N'Pending'))) AND
(CmLi_SMSMessageSent IS NULL) AND (UPPER(RTRIM(Comm_SMSNotification))=UPPER(RTRIM(N'Y')))
```

Making an escalation rule available for cloning

1. Click **<My Profile> | Administration | Advanced Customization | Escalation**.
2. Click the rule that you want to clone.
3. Select **Available For Cloning**.
4. Click **Save**.

Supported SQL tokens

In the Sage CRM user interface, you can use the following SQL tokens:

SQL token	Description	Supported for escalation rules?	Supported for quotes and orders?
#U	Current user ID.	Yes	Yes
#L	Current user logon name.	Yes	No
#T	Current system date and time.	Yes	No
#C	Team ID of the current user.	Yes	Yes
#D	Team name of the current user.	Yes	No
#O	Current opportunity ID.	No	Yes
#N	Current version of order or quote.	No	Yes

When a token is supported for escalation rules, it can be used in the **Trigger SQL Clause** field.

When a token is supported for quotes and orders, it can be used in the **Quote format** and **Order format** fields.

Mobile

- About Mobile
- Setting up Mobile

About Mobile

Sage CRM Mobile allows you to work online using a web browser on any mobile device, such as a smartphone or tablet. Each device has a string of text called a user agent that describes the device to Sage CRM. The user agent contains the version of browser and operating system that's on the device. Sage CRM interprets the user agent and based on mappings that you've set, it displays the associated UI theme on the mobile device. A UI theme is like a style sheet that defines how Sage CRM appears on a particular mobile device. There are two predefined themes. For more information, see **Creating a new mobile theme**.

- Smartphones and tablets map to the Sage CRM Mobile theme.
- IE mobile devices and Blackberries map to the Sage CRM Classic Mobile theme.

Setting up Mobile

- **Prerequisites for Sage CRM Mobile**
- **URLs for accessing Sage CRM Mobile**
- **Enabling a user for Sage CRM Mobile**
- **Mapping a user agent**
- **Defining a user agent**
- **Creating a new mobile theme**
- **Customizing screens for Sage CRM Mobile**
- **Customizing a classic dashboard**
- **Making entities read-only**
- **Setting a default tablet view**

Prerequisites for Sage CRM Mobile

Sage CRM server

- The license key you specify during Sage CRM installation must allow the use of Sage CRM Mobile.
- Configured access URLs for mobile users, so that they could access Sage CRM from inside and outside your corporate network. Make sure the users know the URLs they need to use.
- Mobile device access must be enabled for users who want to use Sage CRM Mobile. For more information, see **Enabling a user for Sage CRM Mobile**.
- User agents must be mapped to the appropriate UI themes (devices).
  For more information, see **Mapping a user agent**.
- Screens for Sage CRM Mobile should be customized as required.
  For more information, see **Customizing screens for Sage CRM Mobile**.
  The Classic dashboard, if it's available, should be customized for improved viewing on mobile devices.

If Exchange Integration is configured in Sage CRM, updates are reflected in the tasks, appointments, and contacts accessed using Sage CRM Mobile on most devices.

Mobile devices

Must be connected to your corporate network or the Internet.

Firewall

If a firewall is used in your organization, ensure that it allows traffic directed to the Sage CRM server via the Internet. For more information about server security, see the *Installation and Upgrade Guide* posted on the **Sage CRM Help Center**.

URLs for accessing Sage CRM Mobile

Your network administrator must set up URLs for all mobile users so they can access Sage CRM Mobile from inside or outside the corporate network.

- The URL for accessing Sage CRM from inside the corporate network is the same as the URL for accessing Sage CRM from your desktop and is typically in the format **http://yourserver/yourapp**.
- The URL for accessing Sage CRM from outside the corporate network typically includes your company's IP address or domain name. The URL is normally in the format **http://companyipaddress/yourapp**.

Enabling a user for Sage CRM Mobile

1. In Sage CRM, click **<My Profile> | Administration | Users | Users**.
2. Enter the user's last name and click **Find**.
3. In search results, click the last name of the user you want to enable for Sage CRM Mobile.
4. Click **Change**.
5. Set **Mobile Device Access** to **True**.
6. Click **Save**.

Mapping a user agent

In most cases, Sage CRM automatically maps each user agent to a UI theme.
However, if a user agent is not automatically mapped to a UI theme, you must configure the mapping manually:

1. In Sage CRM, click **<My Profile> | Administration | Advanced Customization | Devices**.
2. Click **View unassigned user agents**.
3. Under **User Agents**, click the user agent you want to map.
4. Under **Devices**, click the device (UI theme) to which you want to map the user agent.
5. Click **Save**.

Defining a user agent

If you want to map a new user agent that's not yet listed in Sage CRM, you must first define the user agent and then map it to the most appropriate UI theme.

When a new device attempts to connect to Sage CRM, it sends its user agent and Sage CRM adds it to the list of defined user agents if it isn't already included. But suppose you don't yet have the device; each of your users will get one next month, and you need to configure Sage CRM in preparation. Because the device can't send its user agent, you must obtain the user agent from the Internet and enter it into Sage CRM.

1. In Sage CRM, click **<My Profile> | Administration | Advanced Customization | Devices**.
2. Click the UI theme to which you want to map the user agent.
3. Enter the user agent in **Type a new user agent, then click add**.
4. Click **Add**. The user agent is mapped to the UI theme (device).

Creating a new mobile theme

In Sage CRM, there are two predefined Sage CRM mobile themes.
A mobile theme is called a device in the Sage CRM UI.

- Smartphones and tablets map to the Sage CRM Mobile theme.
- IE mobile devices and Blackberries map to the Sage CRM Classic Mobile theme.

You can create a new theme by modifying an existing theme (device). For example, you might want to create an iOS theme and map all user agents for old versions of iOS to it.

1. In Sage CRM, click **<My Profile> | Administration | Advanced Customization | Devices**.
2. Click the theme (device) you want to modify.
3. Complete the following **Device** fields, and then click **Save**:

Field	Description
Administrative Description	Enter the theme description for system administrators.
User Description	Enter the theme description to be displayed to the users in the Sage CRM user interface.

Field	Description
XSL File Name	Enter the name of the Extensible Stylesheet Language (XSL) transformation file that converts Sage CRM output to a format compatible with the mobile device. For each device, a set of files is created in a folder in the following location: **<Sage CRM installation folder>\WWWRoot\Themes\XSL**
Based On Device	Specifies the existing theme (device) on which the new theme is based. Use this list only if the device is not present in the **Devices** list located in **<My Profile> | Administration | Customization | <Entity> | Screens**.
HTTP Accepts	Specifies the unique markup language used by the target device.
HTTP Content Type	Specifies the markup language used by Sage CRM to reply to the device.
Supports HTML Frames	Specifies whether the device supports HTML frames.
Device Image Extension	Specifies the image file name extension to use with the device. For example, .jpg, .gif, .png.
Device Code Page	Specifies the character set to use with the device. For example, shiftjs or UTF-8.
Device Max Rows	Specifies the maximum number of rows that can appear in a grid.
Device CSS File	Specifies the Cascading Style Sheets (CSS) file to associate with the device.
Browser Type	Specifies the browser type supported by the device. HTML 4 delivers the normal desktop UI to the device. If you want Sage CRM to assign a browser type, select **Other**.

Customizing screens for Sage CRM Mobile

You can customize mobile screens, lists, and tabs for Sage CRM Mobile. Ensure that the customized UI is optimized for the smaller screen size of many mobile devices. If you add too many fields to a screen, it may look crowded and be difficult for users to work with. Before you begin customizing, you must select the correct device type.

The only supported actions on mobile are `runtabgroup` and `runblock`.

The following example adds a Company ID field to link a communication with a company on Sage CRM Mobile.

1. In Sage CRM, click **<My Profile> | Administration | Customization | Communication**.
2. Click the **Screens** tab.
3. From **Devices**, select the mobile theme.
4. In the **Screen Caption** column, click **Custom Communication Detail Box**.
5. From **Field**, select **Comm_Link : Company** and click **Add**.
6. Click **Save**.
7. Log in to Sage CRM using a mobile device and browse to **New | Communication** to see the new field.

Customizing a classic dashboard

Note: Classic dashboards are available for upgrade customers only.

You can modify a classic dashboard for Sage CRM Mobile. For example, you might want to limit the content available to mobile users. First, you must make a classic dashboard available to mobile users. You can then create or modify a classic dashboard in the usual way.

To make a classic dashboard available to mobile users:

1. In Sage CRM, click **My CRM | Dashboard | Go To The Classic Dashboard**.
2. From **Dashboard**, select a classic dashboard.
3. Click **Edit Dashboard Details**.
4. Select **Set As Mobile Dashboard** and click **Save**.

You can make specific dashboard blocks available to mobile users on their classic dashboards. The Extensibility Module is required for block customization.

To make a specific dashboard block available to mobile users:

1. In Sage CRM, click **<My Profile> | Administration | Customization | <Entity> | Blocks**.
2. In the **Block Name** column, click the block you want to enable for mobile users.
3. Select **Available To Mobile** and click **Save**.

Making entities read-only

You can make companies, people, cases, opportunities and leads read-only on mobile devices. You might do this if a workflow that's configured on the entity would be affected by an update from a mobile device.

1. Use a text editor such as Notepad to open this JavaScript file:
   <Sage CRM Installation Folder>\WWWRoot\SmartPhone\sageiphone.js
2. Update the values in the Start Configurable Section. The accepted values are *true* or *false*.

```
/************************************
* Start Configurable Section
************************************/

// set to false if you do not want users to be able to change opportunities
var updateOpportunities = true;

// set to false if you do not want users to be able to change cases
var updateCases = true;

// set to false if you do not want users to be able to change leads
var updateLeads = false;

// set to false if you do not want users to be able to change companies
var updateCompanies = true;

// set to false if you do not want users to be able to change people
var updatePeople = true;

/************************************
* End Configurable Section
************************************/
```

Setting a default tablet view

There are two Sage CRM views available for a tablet:

- **Tablet view**. Displays Sage CRM optimized for iPad or Android Tablets with 10" or 7" screens.
- **Desktop view**. Displays the same look and feel as Sage CRM on Desktop. The Desktop view uses the Sage CRM fully featured UI.

To display the Interactive Dashboard on a tablet, you must use the Desktop view.

You can set a default tablet view for specific users.

1. In Sage CRM, click **<My Profile> | Administration | Users | Users**.
2. Enter the user's last name and click **Find**.
3. In the **Last Name** column, click the user for whom you want to set a default tablet view.
4. Click the **User Preferences** tab.
5. Click **Change**.
6. Set **Default Tablet Version** to either **Desktop Version** or **Tablet Version**.
7. Click **Save**. The selected view is displayed the next time the user logs on to Sage CRM from a tablet.

Self Service

- Getting started with Self Service
- Self Service web site
- Self Service security
- Administering Self Service

Getting started with Self Service

- **Self Service prerequisites**
- **Installing Self Service**
- **Setting up Self Service**

Self Service prerequisites

To run Sage CRM Self Service you need:

- Sage CRM installed on the same server with a valid Self Service license key.
- The same server software as for a typical Sage CRM installation. Refer to the System Administrator Guide for more information.
- You may need to install the Extensibility Module, depending on the functionality you want to implement on your web site. For more information, see **Customizing Self Service web site**.

Installing Self Service

During the Sage CRM installation you need to specify if you want to install a demo Self Service web site. Select the **Sample Self Service Support site** check box to install the site and use it as a template for the Sage CRM Self Service Web site. For more information on the demo Self Service Web site, see **Planning your Self Service web site**.

When you install Sage CRM Self Service, the following takes place by default:

- A new database called CRMSelfService is created, which contains the Visitor table, an important table for storing visitor details.
- A new option called **Self Service** becomes available on the **Administration | System** home page. This enables you to configure Sage CRM for Self Service and to maintain Self Service visitor information.
- A Self Service tab becomes available when you are in the Person and Company context. This allows People and Companies in Sage CRM to be enabled for Self Service and lets you assign a Self Service logon ID and password to them.

Setting up Self Service

Once Self Service has been installed, there are a number of tasks that need to be carried out manually before Sage CRM Self Service is fully functional. Steps include:

- **Planning your Self Service web site**.
- Configuring **Self Service security**.
- Configuring **Self Service administration settings**.

Self Service web site

- **Planning your Self Service web site**
- **Understanding basic Self Service architecture**
- **Customizing Self Service web site**

Planning your Self Service web site

1. Draw up design specifications for the look and feel of the web site, as well as for the functionality the customer requires on the site.
2. Review the corporate Web site and determine whether you can reuse any web pages, logos, and other images. This will enable you to reflect the look and feel of the corporate web site on your Self Service site.
   The level of functionality you can include on your Self Service web site and the extent to which you can customize depends on whether you have the Extensibility Module. The functionality available with and without the Extensibility Module is discussed in **Customizing Self Service web site**.
3. You may want to use the demo Self Service web site as a template to create your web site. You selected the Sample Self Service Support Site check box during the Sage CRM installation.

The demo site is typically created in: **%ProgramFiles(x86)%\Sage\CRM\CRMSelfServiceDemo**

It is also available on the IIS Web server under Default Web Site.

> **Tip:** We advise that a production system runs the Self Service web application under a secured web site (not the Default Web Site).

It contains ASP pages that reference Sage CRM blocks, image files, and include files (including the eWaress.js file). These files create the basic Self Service functionality. You will need to carry out further customization according to your implementation requirements.

> **Note:** Before setting up a Self Service Web site, why not take a look at the Web to Lead feature in Sage CRM. The Web to Lead feature allows you to include HTML on a customer web site that will allow users of the customer Web site to create leads on the Sage CRM server. For more information on the Web to Lead feature, see the *System Administrator Help*.

Understanding basic Self Service architecture

Please read this topic before you start customizing the Self Service web site.

Accessing the Self Service web site

Registered Self Service users (that is, People or Companies registered in the Sage CRM system) can log onto the Self Service site, view relevant information, and perform functions, such as reporting a problem or requesting product information. An identifier in Sage CRM Self Service that enables access and rights on a per user basis will authenticate them to perform functions. Visitor information is stored on the Self Service database in the visitors table.

Ewaress.js file

The Sage CRM Self Service application server should be run remotely from the Sage CRM database server. For example, a customer service case entered in the Sage CRM system can be viewed on the Self Service web site. For more information, see the *Installation and Upgrade Help* on the **Sage CRM Help Center**.

The eWaress.js file is the component behind this functionality. This file works in the same way as a typical Sagecrm.js file, but it is also responsible for establishing the link between the Sage CRM database and the Self Service database, thus ensuring that the databases can communicate with each other.

It is important to note that the eWaress.js file (rather than the Sagecrm.js file) is referenced in all Self Service ASP pages. For more information on the Sagecrm.js and eWaress.js files, see the *Developer Help* on the **Sage CRM Help Center**.

Customizing Self Service web site

The functionality available in the Self Service web site and the extent to which you can customize it depends on whether you have the Extensibility Module.

> **Note:** The Self Service web site is a series of HTML based web pages, so you can add any standard HTML field types, for example, text entry fields, drop-down lists, and radio buttons. However, you will not be able to add Sage CRM-specific field types, such as search select advanced fields.

Without the Extensibility Module

Without the Extensibility Module, you are limited to customizing a number of specific blocks. This may be sufficient, depending on implementation requirements. The blocks are accessible from one of the following locations in Sage CRM:

- **Administration | Customization | <Entity> | Lists**
- **Administration | Customization | <Entity> | Screens**

Please see the table below for a description of the Screen and List blocks you can customize without the Extensibility Module. The table describes some of the blocks referenced in the Self Service demo web site.

Block name	Block type	Description
sscaselist	List Object	Displays a list of cases for visitors.
sscaseentry	Screen Object	Enables visitors to register new cases via the Web site.
ssopportunityentry	Screen Object	Enables visitors to create new opportunities in Sage CRM, via the Web site.

You customize Self Service screens and lists from Administration | Customization in the normal way. Please refer to the Administrator Help for more information on screen and list customization.

Example: Linking Problem Details to the Case Summary page

You can customize the sscaselist so that the problem details link to the case summary on the Self Service Web site. To do this:

1. Click **Administration | Customization | Cases | Lists** .
2. Click the **ssCaselist** hyperlink.
3. Select **Cases: Problem Details** from the available Desktop HTML List Contents.
4. Select **CaseProgress : Problem Details (case_problemnote)** from **Field**.
5. Set the **Hyperlink To** field to **Custom Jump**.
6. Make sure the **Custom File** field is set to **casedetail.asp** and the Custom ID field is set to **case_caseid**.
7. Click the **Update** button.
8. Click **Save**.

Note: The options **Allow Order By**, **Order By Desc**, and **Default Order By** are not allowed for columns. They should be set to **No** or left blank.

With the Extensibility Module

With the Extensibility Module, you can use the complete set of Sage CRM blocks to add extra functionality to your Self Service web site.

You reference the blocks in ASP pages in the same way as you do within standard Sage CRM. One difference, however, is that you reference the eWaress.js file (rather than the Sagecrm.js include file) on all ASP pages.

Using the Sage CRM interface and ASP pages, you can create new blocks for Self Service or use existing Sage CRM blocks and restrict them to show less information. You can set screens to be editable or read-only, restricting what different users can do on the page. User passwords can be allocated at Person or Company level. For more information about Sage CRM blocks, refer to the *Developer Help* on the **Sage CRM Help Center**.

Typical functionality that you can add to the Self Service site using ASP pages includes:

- Enabling visitors to view product information via the web site.
- Enabling visitors to view their visitor profiles and edit them via the web site.
- Creating leads based on the information typed by the visitor.
- Contacting visitors directly by the customer service department.

Self Service security

Sage CRM offers a number of security and access options at the application level:

- **Server Level Security**. Sage CRM supports all industry server security standards, and there are a number of methods available to secure the Self Service server.
- **Hyper Text Transfer Protocol Secure (HTTPS)** can be employed to secure data sessions with client users. When an HTTPS session commences, the server sends its public key to the browser. In turn, the browser uses this key to send a randomly generated key back to the server. As a result, there is a secret key exchange for the session. When IIS uses HTTPS, Sage CRM is aware of this and when the client attaches any documents to a form in Sage CRM it sends through the encrypted sessions.
- **A firewall** can be used to restrict unauthorized access to the database. Firewalls are commonly employed to give users secure access to the Internet and, at the same time, separate a company's Web server from its internal network. Various types of firewall are available, including packet filter, proxy server, NAT (network address translation), and firewalls that adhere to stateful inspection technology standards.

Sage CRM Self Service can run behind a firewall in order to protect the server from malicious attacks and to allow only certain types of interactions to take place. The Sage CRM Self Service server can be physically separated from the Sage CRM server, and a firewall can be installed around the Sage CRM server.

- **Database Level Security**. Sage CRM Self Service users do not have direct access to the database. The Sage CRM Self Service pages opened by the user send requests via IIS to the eWare DLL to access the database.
- **Network Security**. Sage CRM supports all industry standard network encryption protocols.

Administering Self Service

- **Self Service administration settings**
- **Modifying Visitor list**
- **Configuring Self Service**
- **Removing inactive visitors**

Self Service administration settings

To access the Self Service administration settings in Sage CRM, click **<My Profile> | Administration | System | Self Service**.

The page that opens contains the following tabs:

- **Visitor List**. Allows you to view a list of registered and anonymous visitors and view and edit visitor profiles. For more information, see **Modifying Visitor list**.
- **Self Service Configuration**. Allows you to specify database connection settings. For more information, see **Configuring Self Service**.
- **Visitor Maintenance**. Allows you to remove inactive visitors to keep your Visitor list short. For more information, see **Removing inactive visitors**.

Modifying Visitor list

The visitor list page lets you manage your visitor list, ensuring that it does not get too long or unmanageable.

1. Click the **Visitor List** tab. You can view a list of visitors to the Self Service web site.
2. To search for a particular visitor, end the visitor's last name.
3. To view and edit visitor details, click the visitor's name hyperlink. When you click the Person hyperlink, the Person Summary page opens. You can view and edit visitor profiles. The type of information that you can view depends on your Sage CRM implementation.

Configuring Self Service

The fields on the Self Service Configuration tab are set by default when you install Self Service. You might need to change them if you make changes to the Sage CRM or Self Service database configurations.

1. Click **<My Profile> | Administration | System | Self Service**.
2. Click the **Self Service Configuration** tab.
3. Click **Change** and make your changes to the Self Service fields described below.
4. Click **Save**.

The table below describes the standard fields on the Self Service Configuration tab.

Field	Description
Database driver	The type of driver on which the Self Service database sits.
Database server	The name of the server on which the Self Service database sits.
Database name	The name of the Self Service database.
Database user name	The ID of the user who will be used to connect to the Self Service database.
Database password	The password of the user who will be used to connect to the Self Service database.
Enterprise database driver	The type of driver on which the Sage CRM database sits.
Enterprise database server	The name of the server on which the Sage CRM database sits.
Enterprise database name	The name of the Sage CRM database.
Enterprise user name	The ID of the user who will be used to connect to the Sage CRM database.
Enterprise password	The password of the user who will be used connect to the Sage CRM database.
Session expires in (hrs)	How long the Self Service session lasts for until the user is logged out.

Removing inactive visitors

Suppose you want to remove all visitors who have not visited your Self Service web site in the past six months from the Visitor list.

To remove visitors from the Visitor list:

1. Open the **Visitor Maintenance** tab.
2. Enter a value in **Delete visitors who have not visited in more than <value> months**.
3. If you want to delete anonymous visitors only, select the **Anonymous visitors only** check box.
4. Click **Delete**. When prompted, confirm that you want to delete visitors.

Troubleshooting

- System configuration
- Groups
- Email and documents
- System customization
- Mobile
- Installation

System configuration

- **Changing the time zone**
- **Viewing Quick Find logs**
- **Restarting the Quick Find service**
- **Reinstalling the Quick Find service**
- **Changing the Quick Find service port**
- **Rebuilding the Quick Find index**
- **Restarting the CRM Indexer Service**

Changing the time zone

Issue	Resolution
When changing the time zone in **| Preferences**, an error occurs stating that the selected time zone is not available. This error is caused by the fact that Microsoft uses inconsistent time zone names across different versions of Windows. As a result, in some cases the time zone caption in Sage CRM doesn't match the time zone name in Windows, and Sage CRM cannot find and set the time zone.	Update the caption of the time zone in Sage CRM, so that it matches the time zone name in Windows: 1. On your Sage CRM server, look up the Windows name of the time zone you want to set: a. Open an elevated command prompt. b. Enter the following command to view a list of all time zone names: `tzutil /l` c. Copy the name of the time zone you want to set in Sage CRM and store it in a text file. 2. Update the time zone caption in Sage CRM: a. Go to **| Administration | Customization | Translations**. b. Search for the **TimezoneDeltaUTC** caption family. c. In the list of search results, locate the time zone you want to set and click its caption code. d. Click **Change** . e. Paste the time zone name you saved in step 1c into the text box containing the time zone caption in the relevant language. f. Click **Save**. Now you can set the time zone in Sage CRM.

Viewing Quick Find logs

The Quick Find log for a particular Sage CRM installation is called **yyyymmddkeywordSearch.log** and is located in **%ProgramFiles(x86)%\Sage\CRM\<CRM Instance Name>\Logs**.

Quick Find service logs are located in **\CRM\Services\Logs\QuickFind**.

To set logging levels, modify the level for the `keyWordSearch` logger in

<Sage CRM installation folder>\tomcat\webapps\<InstallName>j\WEB-INF\classes**log4j2.xml**

Where

- **<Sage CRM installation folder>** is the folder you specified when installing Sage CRM. By default, this is **%ProgramFiles(x86)%\Sage\CRM\CRM**.
- **<InstallName>** is the Sage CRM installation name. By default, this is **CRM**.

The most useful settings are `DEBUG` and `ERROR`.

Restarting the Quick Find service

If an error occurs when you restart the Quick Find service from **<My Profile> | Administration | System | Quick Find**, you can restart the service on the server using the Services Control Panel, or by running the following commands from a command prompt:

```
net stop SageCMRQuickFindService
```

```
net start SageCRMQuickFindService
```

If you can restart the service from the Services Control Panel or the command prompt but not from Sage CRM, the Sage CRM user account probably does not have the Start/Stop Windows Services permission, or cannot access **net.exe**.

Note: Restarting the service does not rebuild the index.

Reinstalling the Quick Find service

To reinstall the Quick Find service, go to **CRM\Services\QuickFind\bin** and run **SageCRMQuickFind-install-svc.cmd** as a user with local administrator rights. This removes the Windows service and recreates it using settings in the .cmd file. The service starts when it's recreated.

Changing the Quick Find service port

You can change the port used by the Quick Find service if it's used by another application on the Sage CRM web server.

By default, the Quick Find service listens on port 8983 on localhost. The Quick Find service is bound to localhost so it does not respond to requests originating from a different Sage CRM web server. This is necessary because the filtering of Quick Find results is carried out in another part of Sage CRM.

To change the port:

1. In Management Studio, configure the port and hostname in the `SolrEngineUrl` entry on the **Custom_Sysparams** table.

   ```
   UPDATE Custom_SysParams SET Parm_Value = N 'http://<hostname>:<port>/solr/' WHERE Parm_
   Name = N 'SolrEngineUrl'
   ```

   This entry contains a URL endpoint for the Quick Find service, such as `http://localhost:8983/solr/`

   Do not bind the Quick Find service to any IP address that's accessible remotely. On a multi-server installation of Sage CRM, each CRM web server hosts its own instance of the Quick Find service.

2. In Sage CRM, click **<My Profile> | Administration | System | Metadata**.
   - Select **Refresh system parameters**.
   - Click **Execute Refresh**.
3. Use Notepad to open the Quick Find service installer file: **\CRM\Services\QuickFind\bin\SageCRMQuickFind-install-svc.cmd**. Configure the port and other options and save your changes.
   - The Quick Find port parameter is in the `QUICKFIND_PORT` parameter setting.
   - The host / IP address is in the `QUICKFIND_HOST` parameter.
   - It is strongly advised that you do not change the `QUICKFIND_HOST` variable from localhost to a port accessible remotely from the Sage CRM web server.
4. Double-click **SageCRMQuickFind-install-svc** and run it as a local administrator. Alternatively, run it as a local administrator from a command prompt. The Quick Find service is stopped, uninstalled, and reinstalled with the new settings.
5. If you encounter an error starting the service, check the logs in **\CRM\Services\Logs\QuickFind**.

Rebuilding the Quick Find index

If the Quick Find index is corrupted, you can rebuild it by adding and removing an entity in **<My Profile> | Administration | System | Quick Find**.

> **Warning:** Rebuilding the full index can consume significant system resources if a large amount of data is added to the index.

To manually rebuild the index:

1. Stop the Quick Find service using the following command:

```
net stop SageCRMQuickFindService
```

2. Delete the **\CRM\QuickFind** directory.
3. Clear the value for the `SolrLastIndexScan` entry in the **Custom_Sysparams** table.
4. Restart the Sage CRM Tomcat service, or refresh the system parameter and tables and columns metadata in **<My Profile> | Administration | System | Metadata**.
5. Start the Quick Find service using the following command:

```
net start SageCRMQuickFindService
```

6. If the index is not rebuilt and **\CRM\QuickFind** is not recreated, do the following:
   - Start the Quick Find service from the Services Control Panel. For more information, see **Restarting the Quick Find service**.
   - Check the keywordSearch.log in **\CRM\Logs**.
   - Ensure the `ServerNames` value in the **Custom_Sysparams** table is correct. The Quick Find service starts on the first server in the list.

Restarting the CRM Indexer Service

The CRM Indexer Service that's used for Keyword Search stops. A message is displayed stating that the keyword search index has not been updated recently and the results may be incorrect.

1. Reset IIS.
2. Restart Sage CRM.
3. If the message persists, initialize the indexing service in one of the following ways:
   - Put field-level security on any primary entity text field. For example, deny rights. You can take the field-level security off the field immediately.
   - Select a Keyword Search view. For example, **vSearchListCompany**. Unselect the **Keyword Search** checkbox for the view and save. Then reselect the **Keyword Search** checkbox and save again.
   - Delete the **FullText.ix** folder from the Library. After a default interval of five minutes, the indexer service starts to build a full index. You can specify the gap between incremental indexes in **<My Profile> | Administration | System | Keyword Search | Interval**.

Groups

- **Exporting groups**

Exporting groups

Issue	Solution
An error occurs when exporting a group to a text file	1. Open the **db.properties** file in **%ProgramFiles (x86)%\Sage\CRM\<CRM Instance Name>\tomcat\webapps\crmxxj\WEB-INF**. 2. Locate the jdbc settings and ensure the server name in the settings matches the CRM server name rather than local host name.
A *Services not available* error is written to **scrm.log** when exporting a group.	1. Disable the antivirus software or firewall. 2. Run the **startup.bat** file in **%ProgramFiles (x86)%\Sage\CRM\<CRM Instance Name>\tomcat\bin**. 3. If prompted, give Java or Tomcat permission to run.
A group is exported to a CSV file but the exported file doesn't automatically open or your browser doesn't prompt you to open the file.	Ensure your browser doesn't block pop-up windows.

Email and documents

- **Email Management**
- **Formatting an email in Outlook**
- **Exchange Integration**
- **Mail merge**
- **Mailchimp Integration**

Email Management

- **Email Management not filing outbound emails**
- **Email Management creating two communications**
- **CDOSYS not sending emails out**

Email Management not filing outbound emails

If you can send emails from Sage CRM but Email Management doesn't file them as communications (or cases) in the Sage CRM database, do the following:

1. Ensure that you've configured the Mail Manager Filing Address and set a prefix in **<My Profile> | Administration | Email and Documents | Email Configuration**.
2. Check that you've created an entry for the Email Management Filing Address in **<My Profile> | Administration | Email and Documents | Email Management Server Options**.
3. To check that outbound email is sent to the Mail Manager Filing Address mailbox, disable Email Management on this mailbox. To do this, open the Email Management Filing Address entry in **Email Management Server Options** and deselect **Enabled**.
4. Send an email from Sage CRM and check the Mail Manager Filing Address mailbox for the email.
5. To re-enable Email Management on the mailbox, open the Email Management Filing Address entry in **Email Management Server Options** and select **Enabled**.
   If Email Management is running on the mailbox and reading emails successfully, the email you sent disappears from the mailbox. If it doesn't disappear, recheck the Email Management Filing Address, specifically the Email Account logon and password.
6. To enable debugging, click **<My Profile> | Administration | Email and Documents | Email Configuration**and select **Yes** from **Debug**.
7. Check the log file (**yyyymmdd<installname>MailManager.log**) in **...\Program Files\Sage\CRM\Services\Logs**.
   If a *cannot log* message is displayed in the file, the Email Account logon and password you specified for the Email Management Filing Address are incorrect.
8. Check the RogueMails folder to ensure there's no erroneous formatting in the email (which can be generated by a bug in an email server or client). The folder is located in **...\Program Files\Sage\CRM\Services\CustomPages\Scripts\RogueMail**.

Email Management creating two communications

Email Management creates two communications in Sage CRM for each email it files if you're using the Communication template and you've set **Default Ruleset Action** to **Create a Communication**.

To stop Email Management creating two communications for each email it files:

1. Click **<My Profile> | Administration | Email and Documents | Email Management Server Options.**
2. Set **Default Ruleset Action** to **None**.

CDOSYS not sending emails out

If you select **CDONTS/CDOSYS** from **<My Profile> | Administration | Email and Documents | Email Configuration | Send Mail Using** but can't send outbound emails, do the following:

1. To ensure CDOSYS is installed, open IIS and look for a **Virtual Server** folder. This folder is present only if CDOSYS is installed.
2. To check that CDOSYS is running, open IIS, right-click the **Default SMTP Virtual Server Folder** and click **Start**.
3. Open the **CDOSYS BadMail** folder. If there are emails in this folder, emails are not getting from the CDOSYS SMTP server to the mail server, or are being bounced back. If this is the case, open the emails to find the error.
    - The **From** address may not be configured for emails that are sent as notifications from Sage CRM. To correct this, click **<My Profile> | Administration | Advanced Customization | Workflow** and configure **Notify Email Name** and **Notify Email Address** .
    - The **To** address might not be configured. This is also possible for emails that are sent as notifications or from workflows. Check the bad email to see where it's coming from, then configure the email address.
4. Open the **CDOSYS Queue** and **Pickup** folders. If there are emails in these folders, CDOSYS is not running, or the mail server is not relaying emails. Ensure the mail server is configured to relay emails from the Sage CRM server.
5. To ensure that CDOSYS can find the mail server, open IIS Manager, right-click **Default SMTP Server** and select **Properties | Delivery/Advanced**. Enter the IP address of the mail server in **Smart Host** and restart CDOSYS.
6. Check that the mail server allows relaying. If it doesn’t, emails can be delivered to internal company mailboxes but not to external mailboxes. Ask the mail server administrator to enable relaying.

Formatting an email in Outlook

When a user files an email in Microsoft Outlook and then opens the email in Sage CRM, the email body may contain incorrect formatting such as extra paragraphs, lines, and spaces.

This issue is caused by the default settings in the CKEditor configuration file. As a result, CKEditor overrides the original Outlook formatting and extra paragraphs, lines, and spaces may appear in filed emails.

CKEditor is a third-party component used by Sage CRM to process emails. For more information about the CKEditor configuration file, go to **http://docs.ckeditor.com/#!/guide/dev_configuration**.

To fix this issue, edit the CKEditor configuration file on your Sage CRM server:

1. Locate the **Config.js** file.
   Below is the default location of the file:
   %ProgramFiles(x86)%\Sage\CRM\CRM\WWWRoot\ckeditor
2. Open **Config.js** in a text editor such as Notepad.
3. To prevent the insertion of extra paragraphs, add the following code immediately above the line `config.toolbar = "Full";:`

   ```
   config.autoParagraph = false;
   ```

4. To prevent the insertion of extra spaces and disable default CKEditor styling, append the following code to the file:

   ```
   config.allowedContent =
       {
           $1:
               {
                   elements: CKEDITOR.dtd,
                   attributes: true,
                   styles: true,
                   classes: true
               }
           };

   config.contentsCss=[];
   ```

5. Save your changes and close the file. As a result, the **Config.js** file should look as shown in **Sample Config.js file**.
6. Open IIS Manager and restart the Sage CRM web site.

Sample Config.js file

After you've edited the **Config.js** file as described in **Formatting an email in Outlook**, the file should look as follows:

```
CKEDITOR.editorConfig = function( config )
    {
        config.autoParagraph = false;
        config.toolbar = "Full";
        config.disableNativeSpellChecker = false;
        config.resize_enabled = false;
        config.fillEmptyBlocks = false;
        config.pasteFromWordRemoveFontStyles = false;
        config.pasteFromWordRemoveFontStyles = false;
        config.extraAllowedContent = 'img(*){*}[*]';
        config.toolbar = [

            {
                name: 'document',
                groups: [ 'mode', 'document', 'doctools' ],
                items: [ 'Source', '-', 'Preview', 'Print', 'Templates']
            },
            {
                name: 'clipboard',
                groups: [ 'clipboard', 'undo' ],
                items: [ 'Cut', 'Copy', 'Paste', 'PasteText', 'PasteFromWord', '-', 'Undo',
'Redo' ]
            },
            {
                name: 'editing',
                groups: [ 'find', 'selection', 'spellchecker' ],
                items: [ 'Find', 'Replace', '-', 'SelectAll']
            },
            {
                name: 'basicstyles',
                groups: [ 'basicstyles', 'cleanup' ],
                items: [ 'Bold', 'Italic', 'Underline', 'Strike', 'Subscript', 'Superscript', '-
', 'RemoveFormat' ]
            },
            {
                name: 'links',
                items: [ 'Link', 'Unlink', 'Anchor' ]
            },
            {
                name: 'insert',
                items: [ 'Table', 'HorizontalRule', 'SpecialChar', 'PageBreak', 'Maximize' ]
            },
            '/',
            {
                name: 'paragraph',
                groups: [ 'list', 'indent', 'blocks', 'align', 'bidi' ],
                items: [ 'NumberedList', 'BulletedList', '-', 'Outdent', 'Indent', '-',
'Blockquote', 'CreateDiv', '-', 'JustifyLeft', 'JustifyCenter', 'JustifyRight', 'JustifyBlock',
'-', 'BidiLtr', 'BidiRtl' ]
            },
            {
                name: 'styles',
                items: [ 'Styles', 'Format', 'Font', 'FontSize' ]
```

```
            },
            {
                name: 'colors',
                items: [ 'TextColor', 'BGColor' ]
            }
        ];

config.fontSize_sizes =
'8/8pt;9/9pt;10/10pt;11/11pt;12/12pt;14/14pt;16/16pt;18/18pt;20/20pt;22/22pt;24/24pt;26/26pt;28/2
8pt;36/36pt;48/48pt;72/72pt';
config.allowedContent =
    {
        $1:
        {
            elements: CKEDITOR.dtd,
            attributes: true,
            styles: true,
            classes: true
        }
    };

config.contentsCss=[];
```

Exchange Integration

- **Connecting to Exchange**
- **Using a non-default IIS port**
- **Synchronizing contacts**
- **Impersonating the requested user**
- **Enabling logs to identify errors**

Connecting to Exchange

Issue	Solution
No impersonation rights	The Exchange user name specified in Exchange connection settings requires impersonation rights in Exchange. Check the user rights in Exchange.
Cannot access EWS URL	If the EWS URL cannot be accessed, the connection cannot be set up. Paste the EWS URL into a browser and check it can be accessed using the impersonation user's username and password.
Wrong authentication settings on EWS folder	If the EWS folder in IIS on Exchange has the wrong authentication settings, the connection cannot be set up. For more information, see *Configuring Exchange* in the ***System Adminstrator Help***.
Tomcat is not running	The Tomcat service is required to establish the Exchange connection and to run the Sync Engine. If the Tomcat service is not running, errors usually occur in other areas of Sage CRM that rely on this service. For example, the Interactive Dashboard. Restart the Tomcat service if it has stopped. Alternatively, you can schedule a Tomcat service restart.
jdbc.properties or syncengine.properties contain incorrect server or port information	The jdbc.properties file contains the wrong server name or port number, or the syncengine.properties file contains the wrong server name. These files are typically located in **..\Program Files\Sage\CRM\[installname]\tomcat\webapps\ [installname]ExchangeSyncEngine\WEB-INF**.

Using a non-default IIS port

If you change the default port for Sage CRM on IIS to any port other than port 80 and then set up Exchange Integration, the following error is displayed.

CRM is attempting to establish a connection with the Sync Engine. Please wait.

The Exchange connection could not be saved as CRM was unable to connect to the Sync Engine.

To resolve this issue:

1. Click **<My Profile>| Administration | Email and Documents | Exchange Integration | Connection Management**.
2. Set **Use Default Sync Engine Location** to **No**.
3. Enter the server name and port number separated by a colon (:) in **Sync Engine Location**. For example, *http://SERVER:8080/sdata/crmExchangeSyncEngine/crmExchange/-/*.

Synchronizing contacts

When you enable contact synchronization in Exchange Integration, the contacts are added to the **EcngSyncResource** table. They are then moved to the **EWSSyncResource** table and the number of contacts decreases as they're processed.

However, running the following SQL statement shows that x number of records have been added to the **EcngSyncResource** table but they have not been successfully moved to the **EWSSyncResource** table.

```
SELECT * FROM EcngSyncResource WITH (NOLOCK) WHERE exsr_UUID NOT IN (SELECT EWRS_UUID FROM
EWSSyncResource WITH (NOLOCK)) AND exsr_Deleted IS null AND exsr_processed = 0 AND exsr_
EndpointID IN (6009,6014)
```

To troubleshoot this issue, update one of the contacts before performing a synchronization to check if it processed. Also check the log files for any errors or conflicts when processing the records.

Note: The **exsr_NoUpdateToRecord** column is set to **1** during Exchange synchronization if the record has not been updated since the last synchronization session.

Impersonating the requested user

Sage CRM is unable to send emails from certain users, or it can only send emails to email addresses that are on the same domain as the sender, or all emails sent from Sage CRM appear to be from the same address.

This issue can be caused by the Sage CRM SMTP user having insufficient rights on the Exchange mail server to send emails using a different email address.

To send emails from Sage CRM as any user, you must enable the SendAs right on Exchange using PowerShell. For detailed information, see *Granting the SendAs right to an SMTP user* in the **System Administrator Help**.

Enabling logs to identify errors

Enable the following logs to help identify the cause of Exchange Integration failures.

- Use the **IIS log** to check if a request reached IIS Web Server. Enable this log in IIS Manager.
- Use the **Tomcat access log** to establish if the request reached Tomcat server. To enable this:
  a. Open **<installed instance dir>\tomcat\conf\server.xml**.
  b. Change

```
<!-- <Valve className="org.apache.catalina.valves.AccessLogValve"
directory="logs"prefix="localhost_access_log." suffix=".txt" pattern="common"
resolveHosts="false"/> -->
```

  to

```
<Valve
className="org.apache.catalina.valves.AccessLogValve" directory="logs" prefix
="localhost_access_log." suffix=".txt" pattern="common" resolveHosts="false"/>
```

- Use the detailed **Sync Engine log** to view detailed information about what happened in the Sync Engine, including detailed information about requests made from Sync Engine. To enable this:
  a. Open **<installed instance dir>\tomcat\webapps\<Sync Engine folder>\WEB-INF\log4j.properties**.
  b. Change

```
# defaultLog - default catch-all log4j.rootLogger=ERROR, defaultLog
```

  to

```
log4j.logger.httpclient.wire.header = DEBUG
log4j.logger.org.apache.commons.httpclient = DEBUG
# defaultLog - default catch-all
log4j.rootLogger = ALL, defaultLog
```

Mail merge

- **Performing a mail merge**
- **Using custom merge fields**
- **Creating a quote or order mail merge**
- **HTML content removed in text editor**

Performing a mail merge

Issue	Solution
Mail merge fails because Tomcat is not running.	The Tomcat service is required to perform a mail merge. If the Tomcat service is not running, errors usually occur in other areas of Sage CRM that rely on this service. For example, the Interactive Dashboard. Restart the Tomcat service if it has stopped. Alternatively, you can schedule a Tomcat service restart.
Mail merge fails when a large number of records are merged.	• Reduce the size of the mail merge template by resizing images or changing images to GIF format. • Reduce the number of records that are merged at once. For example, perform a merge on all person records with names beginning with A-L and then perform a second merge on all person records with names beginning with M-Z.

Mail merge fields that are not included in a group's **Group Content** list are not merged when performing a mail merge on a static or dynamic group.	This issue can occur on upgraded versions of Sage CRM. Run the following query:
	`UPDATE Custom_SysParams SET Parm_Value ='N'`
	`WHERE parm_name = 'AllowDupRecs'`
	And then perform a metadata refresh.

Mail merge fails and an SQL error 208 is displayed.	The number of columns in a view exceeds 1024 columns. Remove fields from the view and perform the mail merge again. **Test this on a local test environment before you implement it on the production server.** For more information, see *Optimizing a custom entity list for faster loading* in the **System Administrator Help**.

Using custom merge fields

An error can occur when a custom merge field is detected in a mail merge template but can't be found in the mail merge view.

To resolve this error, ensure the view contains all custom merge fields that are used in the mail merge.

Creating a quote or order mail merge

Errors can occur when performing a mail merge from a quote or order if the opportunity is not assigned to a company and person. The template contains merge fields from the company and person entity, but the opportunity doesn't contain the required information.

To resolve these errors, select a company and person for the opportunity.

HTML content removed in text editor

Users can paste content from Microsoft Word or HTML source code into the text editor. By default, the Advanced Content Filter in the text editor removes disallowed HTML tags or HTML styling information that's not recognized by the text editor. The most typical issue is that style tags and attributes are removed and default fonts are used instead.

1. To disable the Advanced Content Filter, open **config.js** in the **<Sage CRM installation folder>\WWWRoot\ckeditor** directory.
2. Add the following line to set the `allowedContent` property to `True`.

```
CKEDITOR.editorConfig = function (config) {
    config.toolbar = "Full";
    config.disableNativeSpellChecker = false;
    config.resize_enabled = false;
    config.fillEmptyBlocks = false;
    config.pasteFromWordRemoveFontStyles = false;
    config.pasteFromWordRemoveFontStyles = false;
    // config.extraAllowedContent = 'img(*){*}[*]';
    config.allowedContent = true;
    config.toolbar = [
        { name: 'document', groups: ['mode', 'document', 'doctools'], items: ['Source',
'-', 'Preview', 'Print', 'Templates'] },
        { name: 'clipboard', groups: ['clipboard', 'undo'], items: ['Cut', 'Copy',
'Paste', 'PasteText', 'PasteFromWord', '-', 'Undo', 'Redo'] },
        { name: 'editing', groups: ['find', 'selection', 'spellchecker'], items: ['Find',
'Replace', '-', 'SelectAll'] },
        { name: 'basicstyles', groups: ['basicstyles', 'cleanup'], items: ['Bold',
'Italic', 'Underline', 'Strike', 'Subscript', 'Superscript', '-', 'RemoveFormat'] },
        { name: 'links', items: ['Link', 'Unlink', 'Anchor'] },
        { name: 'insert', items: ['Table', 'HorizontalRule', 'SpecialChar', 'PageBreak',
'Maximize'] },
        '/',
```

```
        { name: 'paragraph', groups: ['list', 'indent', 'blocks', 'align', 'bidi'],
items: ['NumberedList', 'BulletedList', '-', 'Outdent', 'Indent', '-', 'Blockquote',
'CreateDiv', '-', 'JustifyLeft', 'JustifyCenter', 'JustifyRight', 'JustifyBlock', '-',
'BidiLtr', 'BidiRtl'] },
        { name: 'styles', items: ['Styles', 'Format', 'Font', 'FontSize'] },
        { name: 'colors', items: ['TextColor', 'BGColor'] }
    ];
    config.fontSize_sizes =
'8/8pt;9/9pt;10/10pt;11/11pt;12/12pt;14/14pt;16/16pt;18/18pt;20/20pt;22/22pt;24/24pt;26/2
6pt;28/28pt;36/36pt;48/48pt;72/72pt';
};
```

3. Run *iisreset* at the command prompt to restart IIS on the Sage CRM server.
4. Clear the browser cache on all users' machines.

Mailchimp Integration

Issue	Solution
When you send a group to Mailchimp, the Sage CRM notifications area displays *Merge Max Limit Exceeded*. This message indicates that your list in Mailchimp includes one or more merge fields that are not supported by Sage CRM. Sage CRM only supports merge fields of type `text`. The only exception is the EMAIL field. For details, see **Mailchimp audience fields automatically added by Sage CRM**.	Open your audience in Mailchimp and remove all fields whose type is not `text`. Make sure to keep the EMAIL field.

System customization

- **Updating the name of a workflow rule**
- **Creating a lead using Web to Lead**

Updating the name of a workflow rule

When you update the name of a workflow rule, it is not updated in the user interface.

When you create a workflow rule, Sage CRM inserts the rule name in both the **Translation** and the **Caption Code** fields. If you update a workflow rule name in **<My Profile> | Administration | Advanced Customization | Workflow**, only the **Caption Code** field is updated. To update the **Translation** field, do the following.

1. Click **<My Profile> | Administration | Customization | Translations**.
2. Enter *WorkflowRule* in **Caption Family**.
3. Enter *<your new workflow rule>* in **Caption Code**.
4. Click **Find**.
5. Click the caption code and click **Change**.
6. Enter the new workflow rule name in the **Translations** fields and click **Save**.

Creating a lead using Web to Lead

When you create a lead using Web to Lead, the Lead workflow action buttons are not displayed. Web to Lead automatically tries to save the lead in the Lead workflow and is unable to find a primary rule.

> **Note:** When you create a new lead directly in Sage CRM, the Lead workflow action buttons are displayed.

1. Open the Lead workflow.
2. Open the primary rule (probably called **New Lead**) and ensure **Table or view** is set to **Lead**.

Mobile

- **Configuring SSA fields on a mobile device**
- **Using Sage CRM Mobile**

Configuring SSA fields on a mobile device

When you specify a restrictor field for an SSA field in **<My Profile> | Administration | Customization | Primary Entities / Secondary Entities | <Entity> | Restrictor Fields**, the restrictor field is not applied on a mobile theme.

You must also specify the restrictor field in the relevant mobile theme file.

1. Open the relevant mobile theme file using a text editor.
   - **WWWRoot\mobile\lib\ssa\ssarestrictors.js**
   - **WWWRoot\tablet\ssa\ssarestrictors.js**
   - **WWWRoot\mobile\SmartPhone\ssa\ssarestrictors.js**
2. Add the following line to the file:

   ```
   <ssa field containing the restriction>:['<field containing the filter value>','<field that's filtered>']
   ```

   For example:

   ```
   oppo_erpaccountid:['oppo_primarycompanyid','werp_companyid']
   ```
3. Save the file.

Using Sage CRM Mobile

If you experience problems while using Sage CRM Mobile from a smartphone or tablet, check the following troubleshooting tips.

Issue	Resolution
Sage CRM Mobile is not displayed	Ensure that the user agent for the mobile device is correctly mapped to the device in Sage CRM. The user agent might either be unassigned to a theme (device), or assigned to a different theme (device). For more information, see *Mapping a user agent* in the **System Administrator Help**.
Devices link is not available in Advanced Customization area	The mobile license for Sage CRM is not installed. Contact your Business Partner about obtaining a license key with the mobile option.
Sage CRM Mobile is not displayed when Sage CRM is accessed through a link on the home screen	The mobile device sends a different user agent when a link is accessed from the home screen. Check unassigned user agents for a mobile device user agent, and map it to the correct theme (device).
Mobile device cannot locate the Sage CRM web server	Ensure that the Sage CRM installation is either publicly accessible or that the smartphone is connecting to a VPN which can access your Sage CRM account.
Default logon screen displayed instead of the Sage CRM Mobile screen	Sage CRM metadata has not yet been loaded. For example, due to an IIS reset. When you log on, Sage CRM Mobile is displayed as expected.

Installation

- **Running Sage CRM on Windows Server Essentials**
- **Resetting the database logon password**
- **Starting the CRM Indexer Service**
- **Uninstalling services**
- **Re-installing services**
- **Redirector errors**

Running Sage CRM on Windows Server Essentials

After installation, complete the following steps to run Sage CRM on Windows Server Essentials.

1. Click **Control Panel | User Accounts** and disable User Account Control.
2. Launch Sage CRM.
3. If a service unavailable error occurs, set the bitness64 precondition in %windir%\system32\inetsrv\config\host.config.

   Change:

   ```
   <add name="PasswordExpiryModule"image="C:\Windows\system32\RpcProxy\RpcProxy.dll" />
   ```

   To:

   ```
   <add name="PasswordExpiryModule"image="C:\Windows\system32\RpcProxy\RpcProxy.dll"
   preCondition="bitness64"/>
   ```

4. Reset IIS.
5. Launch Sage CRM. If an internal server error occurs, run the following command to turn off HTTP compression.

   ```
   %windir%\system32\inetsrv\appcmd.exe set config -section:system.webServer/httpCompression
   /-[name='xpress']
   ```

6. Reset IIS.
7. Launch Sage CRM.

Resetting the database logon password

If you need to change the database logon password, first change it in the SQL Server and then in Sage CRM. For instructions on how to reset the database logon password in a Microsoft Azure SQL solution, see **Authorize database access to SQL Database, SQL Managed Instance, and Azure Synapse Analytics** on **docs.microsoft.com**.

1. In SQL Server, click the appropriate server.
2. Click the **Security** folder and then click **Logins**.
3. Right-click the relevant login, click **Properties** and change the password.
4. Go to the **Management** folder and right-click **SQL Server Agent**.
5. Click **Properties | Connection** and enter the new password.
6. Stop and start IIS. At the command prompt, type the following:

```
net stop iisadmin /y
net start w3svc
net start msftpsvc
```

7. Log on to Sage CRM with system administrator rights.
8. Click **<My Profile> | Administration | System | Database** to view the login ID used to access the database.
9. Click **Change**, enter a new password, and click **Save**.

Starting the CRM Indexer Service

The CRM Indexer Service feeds data to the CRM Keyword Search function. The service starts automatically but if it has been stopped and you want to start it again, you can do so manually.

1. Click **Control Panel | Administrative Tools | Services**.
2. Right-click **CRM Indexer Service** and click **Start**.

Uninstalling services

If the Email Management Service and the Escalation Service are not correctly uninstalled when you restore a live environment, complete the following steps:

1. Click **Start | Run** and type *cmd*.
2. Browse to the folder where **EwareEmailManager.exe** is saved, type *eWareEmailManager /u*, and press **Enter**.
3. Browse to the folder where **CRMEscalationService.exe** is saved, type *CRMEscalationService /u*, and press **Enter**.

Re-installing services

To re-install the previous version of Email Management Service and the Escalation Service when you restore a live environment, complete the following steps:

1. Click **Start | Run** and type *cmd*.
2. Browse to the folder where **EwareEmailManager.exe** is saved, type *eWareEmailManager /i* and press **Enter**.
3. Browse to the folder where **CRMEscalationService.exe** is saved, type *CRMEscalationService /i* and press **Enter**.

Glossary

A

Action Button

Action buttons are usually found on the right-hand side of the screen. They help you add and change information and perform different tasks within the system. The action buttons available to you change depending on where you are. Examples of Action buttons are: Change, Delete, Confirm Delete, New Task, New Appointment.

Advanced Find

Allows users to create enhanced search queries based on complex SQL statements using WHERE, AND, and OR clauses.

Apply Filter button

The apply filter button allows you to restrict lists of information by a predefined set of criteria.

C

Campaign

A campaign is a planned rollout of marketing activities in phases, or Waves. Each phase can in turn be made up of several actions or Wave Activities. Each action can in turn be made up of individual communications between your company and its target audience. For example, a campaign called West Coast Lead Generation aims to generate leads in a specific geography.

Case

A case is a customer service issue. These issues can range from a technical problem to a customer complaint. A case keeps track of the issue from the initial logging through to resolution. Multiple communications (or tasks) can be linked to one case.

Combination

A bar chart indicates one set of data and a line chart indicates another set of data so you can get a wider view of results in one place. A combination chart is useful in a Monthly Sales Trends report to show information such as the revenue earned from sales and the number of sales that were closed in a particular period.

Communication

Communication refers to a task or meeting. The specific types of communication are determined as action types. For example, Letter In, Letter Out, Phone In, Phone Out, Demo.

Company Team

A Company Team is a group of users linked to a company for the purpose of tracking account management responsibilities.

Context Area

The context area displays a summary of the information you are currently focused on. Example: If you are working in the context of a person, their name appears on the top of your screen. Within the same context area you can see their company, phone number, and email address. You can quickly move from the context area of a person to the company they work for by clicking on the Company link within the context area.

D

Dashboard

The Dashboard is a customizable page that contains information most relevant to your daily work. For example, a list of the companies you most often work with.

Document Drop

The Document Drop feature provides a short cut for linking documents, emails and other types of files from another application to customer data in CRM.

Documents Tab

The Documents tab is available within the context of a person, company, opportunity, case, or solution. It stores a link to a document.

F

Favorites

Click the Favorites icon on the top bar to display a list of your favorite Sage CRM records that you can access quickly. You can favorite a company, person, case, opportunity, lead, solution, communication, order, quote, or custom entity record.

Find page

The Find page is displayed when the user clicks Search | <Entity>. There is a Find page for companies, people, opportunities, leads, solutions, cases, and communications.

Forward and Back buttons

The Forward and Back buttons take you one step back or one step forward from your current position in the system. While using the system, they are intended as a replacement for the Forward and Back buttons within your Web browser window.

G

Gauge

Partitions on the chart indicate three ranges in relation to a target value; below, approaching, exceeded. The gauge needle indicates the current value. A gauge chart is useful in an Actual vs Target sales report to show how your actual sales compare to your forecasted sales for a particular period.

Groups

Groups allow users to create collections of records within CRM. Groups can be static or dynamic.

K

Keyword Search

To search for keywords across specified primary entities, click the Search arrow and click Keyword Search. You can include wildcard characters to search for a variety of text and characters.

L

Lead

A lead represents unqualified information received from your corporate Web site, trade shows, and purchased mailing lists.

Line Item

Line items are products that your customer is interested in buying. They are linked to the opportunity and selected through the Quotes or Orders tab.

M

Mailchimp

An email marketing solution that's integrated with Sage CRM to let you create online campaigns, send emails, and track results.

Menu button

Menu buttons are found on the left-hand side of the screen. They help you navigate to commonly used pages. Menu buttons remain the same regardless of the company or individual or any other context you are working in. However, one user may see a different set of menu buttons to another, since access to these is set up in the user profile. Examples of Menu buttons are: New, Find, Team CRM.

My CRM

The My CRM button shows a series of tabs all containing information related to the logged in user. Depending on the user's rights, the My CRM areas of others can also be viewed by selecting another person from the context area of the screen.

N

Next and Previous arrows

The Next and Previous arrows appear when a list of information extends to more than one page. Clicking on the left- or right-pointing arrows will display the previous or next page respectively. The outer arrows take you to the first or last page within a set of pages.

Notifications

Click the Notification icon on the top bar to display a list of active notifications. Notifications are usually reminders for tasks or appointments, or system alerts set up by the user or the system administrator.

O

Opportunity

An opportunity refers to a sales opportunity. Opportunities track sales interest from the initial qualified lead through to closing the deal.

Outbound Call List

Outbound Call Lists are used for high volume telemarketing activities, where calls are not preallocated to individual users, and a Communication record is only created when a successful contact is made.

P

Panel

A panel groups related information for easier viewing. One page of information can be divided into a number of panels.

Progress button

The progress button is available in the context of leads, opportunities, solutions, and cases when the workflow functionality is not in use. It can be accessed from the lead, opportunity, solution, or case summary page. It allows users to change the Stage, Status and other data relating to the lead, opportunity, solution, or case. It also allows users to add a tracking note, which forms part of the history of the lead, opportunity, solution, or case "life cycle".

Q

Quick Find

You can enter key terms in Search on the top bar to search all company, people, case, opportunity, lead, solution, communication, order, quote, and custom entity records at once.

Quick Look

The Quick Look tab shows you the most recent communications, opportunities and cases associated with a company or person.

R

Recent list

Click the Recent icon on the top bar to display a list of records you viewed recently. This list saves company, person, opportunity, quote, order, lead, case, solution, campaign, and group records.

Relationships

The Relationships tab is available within the context of all main entities. You can show links between different types of information. For example, you can set up a relationship between a company and its directors, or between an opportunity and the people influencing it. Your System Administrator defines the different Relationship Types that can be set up from each tab.

S

Shared Documents

The My CRM | Shared Documents tab lists all the Shared Documents and Templates you have access to.

SLA

SLA stands for Service Level Agreement. A Service Level Agreement is made between your organization and a customer to set standards for customer service case resolution times. Service level agreements can be linked to companies and to individual customer service cases.

SMS

SMS stands for Short Messaging Service. If this feature is activated for your system, SMS is used to notify users via their mobile phone or other wireless device of events taking place. For example, you can receive a reminder of an upcoming meeting via SMS messaging. It can also be used in conjunction with workflow to notify users of new leads, overdue cases, or closed opportunities.

Solution

Solutions are the "cleaned and approved" basis of a knowledge base. Solutions can be accessed by internal CRM users, as well as customers and partners via a self service Web site. Solutions are a separate entity from Cases, but they can be linked to multiple cases—and a case can be linked to multiple solutions.

Sort

You can change the sort order of any list by clicking on the underlined column heading.

Stacked chart

Bars are stacked on top of each other to display grouped data. It provides a wider view of data than a regular bar chart. A stacked chart is useful in an Open Activities activity report to show several actions that occurred on a particular day or date.

T

Tab

Tabs are like folder dividers. The information found in each folder section is determined by the current context. For example, if the person "Anita Chapman" has been zoomed in on in the context area, selecting the Quick Look tab will display the most recent interactions your company has had specifically with Ms Chapman.

Tabs menu

The tabs menu provides quick access to main entities in Sage CRM. It's available on all screens in Sage CRM. Depending on your screen's size, the tabs menu can be found: Just under the top menu in Sage CRM. If there are too many tabs on the menu, some of them will be grouped down under a More heading. By clicking the <insert symbol image> icon at the top-left hand-side of the screen.

Team

A team is a group of users who perform similar roles. Tasks (communications), opportunities, leads, and cases can all be assigned to a team. A user can be a member of one team. This is called their Primary Team. A user can also have rights to view information in multiple teams.

Tracking note

Tracking notes are used in the context of leads, opportunities, cases, and solutions to make free text notes on the progress of the lead, opportunity, solution, or case.

V

Validation error

A validation error message appears on the screen when an incomplete or incorrect new entry has been made in the system. The user must fill in required fields that are empty, or correct an invalid entry, such as numbers in a text-only field. These fields are highlighted with a question mark and cross mark, respectively.

W

Wave

A Wave is a phase of a marketing campaign. Each wave can be made up of several actions or Wave Activities. Each action can in turn be made up of individual communications between your company and its target audience. For example, a campaign called West Coast Lead Generation aims to generate leads in a specific geography. The campaign consists of three different Waves: 1) Raise Awareness; 2) Product Launch at Tradeshow; 3) Qualify Interest.

Wave Activity

A Wave Activity is a type of action within a wave of a marketing campaign. Each wave activity can be made up of individual communications between your company and its target audience. For example, a campaign called West Coast Lead Generation aims to generate leads in a specific geography. The campaign consists of three different Waves: 1) Raise Awareness; 2) Product Launch at Tradeshow; 3) Qualify Interest. The first wave is made up of two different wave activities: "Flyer Mailing" and "Newsletter Mailing". The second wave is made up of the following two wave activities: "Invitation with Response Card" and "Response Card Follow-up", and so on.

Wild Card

The % wild card helps you complete unspecific searches. The % (percentage) symbol, means "contains". For example, typing "%software" in the Company Name field of the company Find page returns a list of all companies, which contain the word "software" in their company name.

Workflow

Workflow automates your company's business processes using a predefined set of rules and actions.