

Version 25



Trapeze

Enterprise Asset Management

Reporting

Administrator Guide

Trade Secret | February 2025

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Technical Support

Trapeze provides several ways to connect with the Customer Care team. Please provide detailed information to the representative. If you are reporting an issue by e-mail, include any error messages, screen shots of your problem, and steps to replicate the issue.

Customer Care is available Monday through Friday, 8:00 a.m. to 8:00 p.m., Eastern Standard Time.

Toll-Free Telephone: 1-877-411-8727

E-mail: cc@trapezegroup.com

FTP Site: <https://ftps.trapezegroup.com/>

Web Site: <https://collaborate.trapezegroup.com>

The website provides access to Trapeze Collaborate which offers resources to implement and operate the software, search knowledge, participate in communities, log/track service requests, sign-up for release alerts, view product health recommendations, and download updates or documentation. For secure access to Collaborate, contact Customer Care through the website or by calling the number above.

Product Compatibility

Refer to the latest [Product Compatibility](#) information on Trapeze Collaborate for requirements including operating system information, databases, Crystal reports, network protocol, HTTP servers and browsers that are supported.

Reporting - Administrator Guide

Version 25.x

February 2025

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1. Overview

The Reporting module makes it easier to take data stored in your database and reformat it into information that can assist in effectively managing operations. At the same time, it opens up the visibility into your operations to the entire organization by publishing professional reports over a zero-client, browser interface. The Reporting module will provide standardized reports as well as accessibility to real-time data and report automation.

Requirements

Application 25.x

Web Modules 25.x

Crystal Reports 2020 SP4

Use the installer to create a deployment and install updated Application Server and Web Modules server files (including report related files), before proceeding with instructions in this guide. For detailed information and procedures on using the Installer, refer to the *Administrator Guide*.

- ✔ Crystal Reports Runtime installation files are no longer distributed with the system. Crystal Reports Runtime must now be downloaded from the Customer Care site. Download and install Crystal Runtime before continuing with Reporting install and configuration.

The machine on which the Reporting module is installed must meet the following requirements:

- CR 2020 (RAS) installed. If RAS is not installed, follow the directions in the [RAS Installation Instructions](#) section. Follow typical installation procedures to install Crystal.
 - ❗ To use this version of the Reporting modules, you must upgrade the Crystal Reports Runtime components to Crystal Reports version 2020 SP4. Uninstall any previous designers and re-install the SP4 designer.
 - ❗ Important: This Enterprise Asset Management software version cannot be run on the same server box (or VM) concurrently with prior versions of this application.
- Update for Visual C++ 2013 and Visual C++ Redistributable Package
- CR 2020 Developer license key. This can be requested from the Support department, and is recommended, but not required, for the Reporting module to work.
- Web Modules base portal installed and configured. Refer to the *Administrator Guide* for Web Modules installation and configuration instructions.

Assumptions

This guide assumes familiarity with workflows and configuration of the application.

- ✔ User-defined required fields that do not appear in the Web Modules will return validation messages.
- ✔ Reporting does not support the use of Crystal Report SQL Commands.
- ❗ Special characters cannot be placed into the Web Modules fields or unanticipated results may occur. This would include any character that cannot be typed with a standard keyboard.
- ❗ Do not use the browser's **Back** button in the Web Modules as unanticipated results may occur.
- ❗ Do not open or use the same instance of the web portals in multiple browser windows or tabs. This can cause errors or unexpected performance issues.

2. Product Architecture

The Reporting module uses a Crystal Reports (CR) Advanced engine to deliver reports content to end-users over a standard web browser interface. This product requires the Web Modules base portal to function.

Reporting Module Report Content Editor Workstations

The Reporting module is the engine for presenting existing reports through a browser. To edit the standard Crystal Reports report files or to create your own report files, the Crystal Reports Developer is required.

The individuals in your organization who require the ability to edit or create reports are considered report content editors. The workstations they use must be configured specifically for this purpose.

Please refer to Crystal documentation for the report content editor work station prerequisites and materials required to install Crystal Reports.

Connectivity requirements for the report content editor workstations are as follows:

- To edit existing reports or to create new reports which are accessible through the Reporting module, a report content editor workstation must have network file connectivity to the subdirectory on the Web modules server that contains the standard **.rpt** and **.xml** files. Such connectivity is not required when creating local, standalone reports that are not for general consumption or published in Web Modules.
 - To execute any reports using the Crystal Reports client, the report content editor workstation must also have connectivity back to the database server. This connectivity must be open database connectivity (ODBC) for the reports to run properly. Please see the [ODBC Connections for Windows 64-Bit](#) section, for information about ODBC connections.
-  When executing a report from the Reporting module, if red Xs display where the navigation buttons should be, perform the following steps:
- i. Grant authenticated users and ASP.NET modify rights to **reportviewer.aspx** file in the **<install path>\web\Reporting** reporting directory.
 - ii. Install and review the Crystal 2020 sample reports that are provided with the Crystal 2020 OEM Embedded edition.
 - iii. Ensure all crystalreportviewer14 settings are accurate.
 - iv. Ensure the report application server is running.

Font Package Installation for use in Crystal Reporting:

Azalea font package is shipped with EAM for use in Crystal reporting. This has a new installer that will require the old font package to be uninstalled before the new font package is installed.

To install:

1. Stop all EAM Windows services, IIS app pools, and the Crystal RAS service (Only if running on RAS server, not applicable for workstations)
2. Run PowerShell as admin.
3. Change the current directory to where the InstallAzaleaC39ToolsFonts.ps1 script is currently located.

For example: cd "C:\Trapeze\EAM\Production\Reporting\Bar Code Font\InstallAzaleaC39ToolsFonts"

4. Execute PowerShell script InstallAzaleaC39ToolsFonts.ps1.

For example: .\InstallAzaleaC39ToolsFonts.ps1

5. Enter 1 in the options menu. Once complete, you may close PowerShell
6. Start all EAM Windows services, IIS app pools, and the Crystal RAS service (Only if running on RAS server, not applicable for workstations)

To uninstall:

1. Stop all EAM Windows services, IIS app pools, and the Crystal RAS service (Only if running on RAS server, not applicable for workstations)
2. Run PowerShell as admin.
3. Change the current directory to where the InstallAzaleaC39ToolsFonts.ps1 script is currently located.

For example: cd "C:\Trapeze\EAM\Production\Reporting\Bar Code Font\InstallAzaleaC39ToolsFonts"

4. Execute PowerShell script InstallAzaleaC39ToolsFonts.ps1

For example: \InstallAzaleaC39ToolsFonts.ps1

5. Enter 2 in the options menu. Once complete, you may close PowerShell
6. Start all EAM Windows services, IIS app pools, and the Crystal RAS service (Only if running on RAS server, not applicable for workstations)

3. Upgrading and Installing a Reporting Instance

The *Administrator Guide* outlines preliminary steps required for upgrading or installing the Web Modules and the Reporting module. Ensure that the Web Modules have been installed and configured before installing the Reporting module. This guide provides the additional steps required to upgrade or install the Reporting module.

- ✔ Certain views and reports are dependent on the installation of the Shop Activity module first. If you have licensed Shop Activity, please install and configure it prior to installing the Reporting module.

If you are upgrading to CR 2020 from an older version of Crystal Reports:

Only follow these steps if you already have an installed instance of Reporting version 1.6.x or greater.

- Uninstall all previous versions of Crystal if you will be running the RAS server and Runtime on the same machine. Multiple versions of Crystal Embedded RAS cannot be run on the same server.
 -  If the RAS is on a separate server from the web environment, it is acceptable to leave a previous version of Crystal in place.
- Install Crystal 2020 Embedded RAS and Runtime components (license keys required).
- After installing and configuring CR2020, be sure to delete the following files if they exist:
`<Deployment Location>\Web\Bin\FAReportingCR9.dll -or- FAReportingCRXI.dll`

Reporting Setup Installer Steps

The following process must be done if you are installing Web Modules as 64-bit.

To follow the below procedures, you must have already started the installer, started the installation process on the Reporting module, and finished the steps in the Configurator.

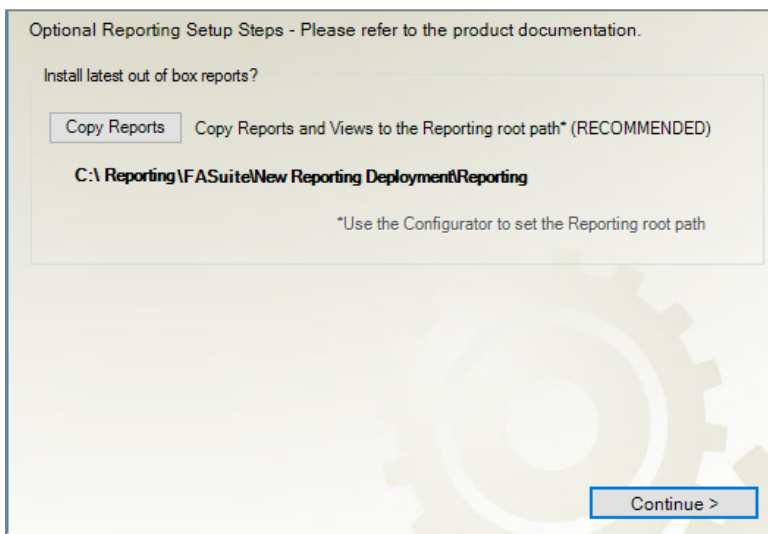


Note: If you have DLL-driven custom reports, the DLL must be placed in the WebModules\Web\bin.

To set up Reporting:

1. If you have not already done so, stop the Microsoft web service.

After exiting the Configurator, the Reporting Setup Installer displays.

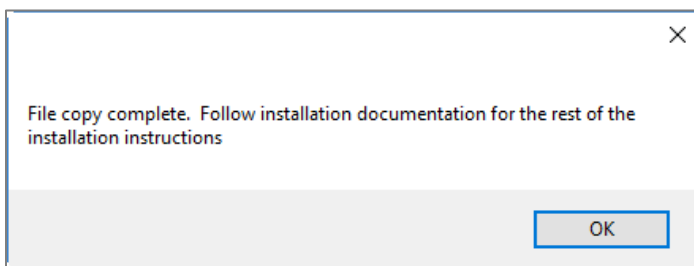


2. Click **Copy Reports**.



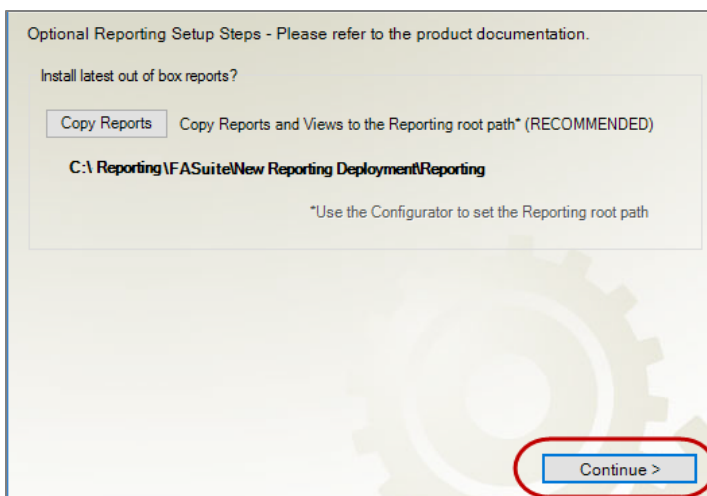
The installer will copy over the base files and the Reporting and Scheduling modules (if checked).

The files are copied and a dialog displays when file copying is complete.

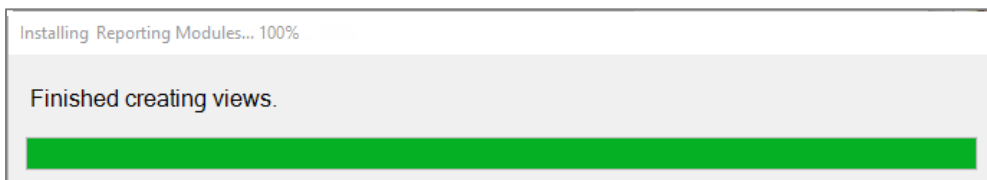


3. Click **OK** on the dialog.

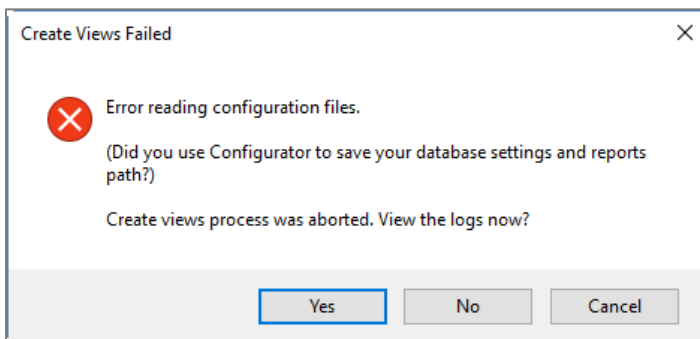
4. On the Reporting Setup Installer, click **Continue**.



The system creates the Reporting views.



5. If a Create Views Failed dialog displays, click **Yes** to review the logs.



*The **ReportingSetup** folder opens.*

6. If **sqlerr.log** exists, review it to determine the cause of the error. Then look at the **reporting-views-errors.log** to review the errors.

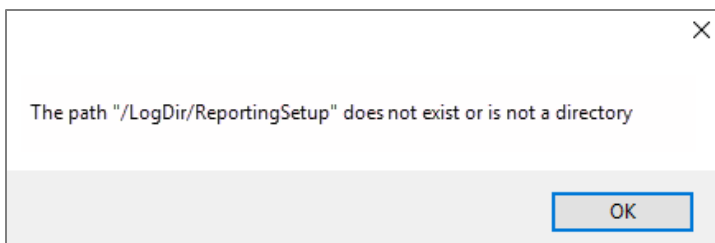
Name	Date modified	Type	Size
reporting-views.log	11/20/2017 1:31 PM	Text Document	1 KB
reporting-views-errors.log	11/20/2017 1:31 PM	Text Document	1 KB
sqlerr.log	11/20/2017 1:35 PM	Text Document	1 KB

7. Review the log. If the errors that exist match the ones in the log below, this is expected. Proceed to the next step.

```

12/01/2011 16:30:34 =====
If encountered errors while creating views, find the details below:
12/01/2011 16:31:50 =====
Error creating view: QEquipmentHistoricalCost
Path: C:\Assetworks\FASuite\Reporting\FAQuery\AdHocQueryviews.xml
ORA-00904: "EQ_COST_DATA_VIEW"."FISCAL_YEAR": invalid identifier
12/01/2011 16:32:01 =====
Error creating view: QEquipmentModel
Path: C:\Assetworks\FASuite\Reporting\FAQuery\AdHocQueryviews.xml
ORA-00942: table or view does not exist
12/01/2011 16:32:32 =====
Error creating view: QWeightCode
Path: C:\Assetworks\FASuite\Reporting\FAQuery\AdHocQueryviews.xml
ORA-00936: missing expression
12/01/2011 16:32:34 =====
Error creating view: QTelematicsSymptomLookup
Path: C:\Assetworks\FASuite\Reporting\FAQuery\AdHocQueryviews.xml
ORA-00942: table or view does not exist
12/01/2011 16:32:34 =====
Error creating view: QTelematicsAlertAction
Path: C:\Assetworks\FASuite\Reporting\FAQuery\AdHocQueryviews.xml
ORA-00942: table or view does not exist
12/01/2011 16:32:34 =====
Error creating view: QTelematicsAlert
Path: C:\Assetworks\FASuite\Reporting\FAQuery\AdHocQueryviews.xml
ORA-00942: table or view does not exist
    
```

8. Click **OK** if a dialog displays that indicates the path does not exist or is not a directory.



The setup is complete.

4. Configuration

When the installation is complete, you need to verify the Viewer Component is properly installed by completing the following procedure.

There is a known issue that occurs where Crystal Reports will no longer display after filtering when a version of .NET 4.6.x or newer is installed.

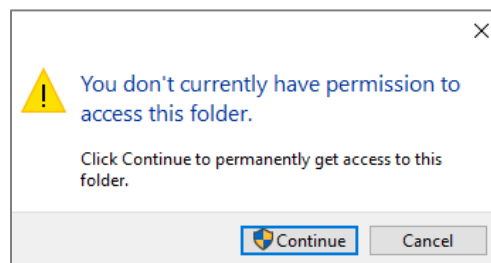
To fix this issue:

1. Find the new URL being used by Crystal Reports:

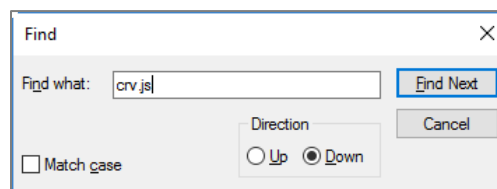
- i. Open C:\inetpub\logs\LogFiles\W3SVC1.



Note: You may get pop-ups stating you do not currently have access to these folders. Click Continue to continue to open this folder.



- ii. Open today's log (for example **u_exXXXXX.log**).
 - iii. Search for **crv.js**.



- iv. The URL displays. It should look similar to the following:

GET/aspnet_client/system_web/4_7_2053/crystalreportviewers14/js/crviewer/crv.js

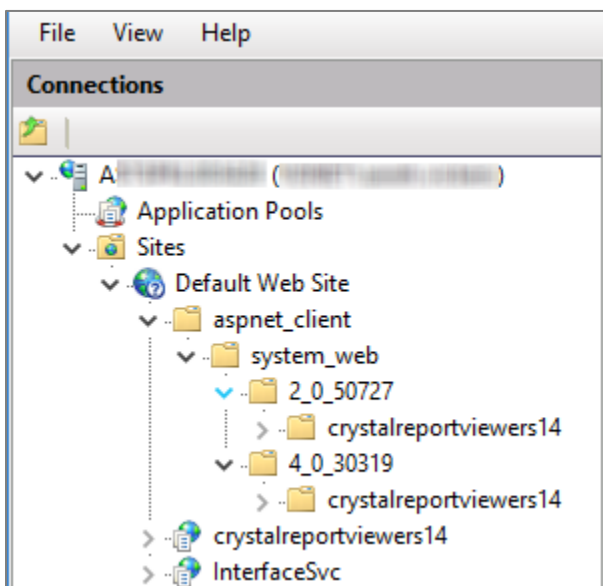
2. In C:\inetpub\wwwroot\aspnet_client\system_web, create a new folder called **4_x_XXXXX** (this will match the error log, for example **4_7_2053** as in the example directly above), and copy the *crystalreportviewers14* into the folder.
 3. Restart RAS.



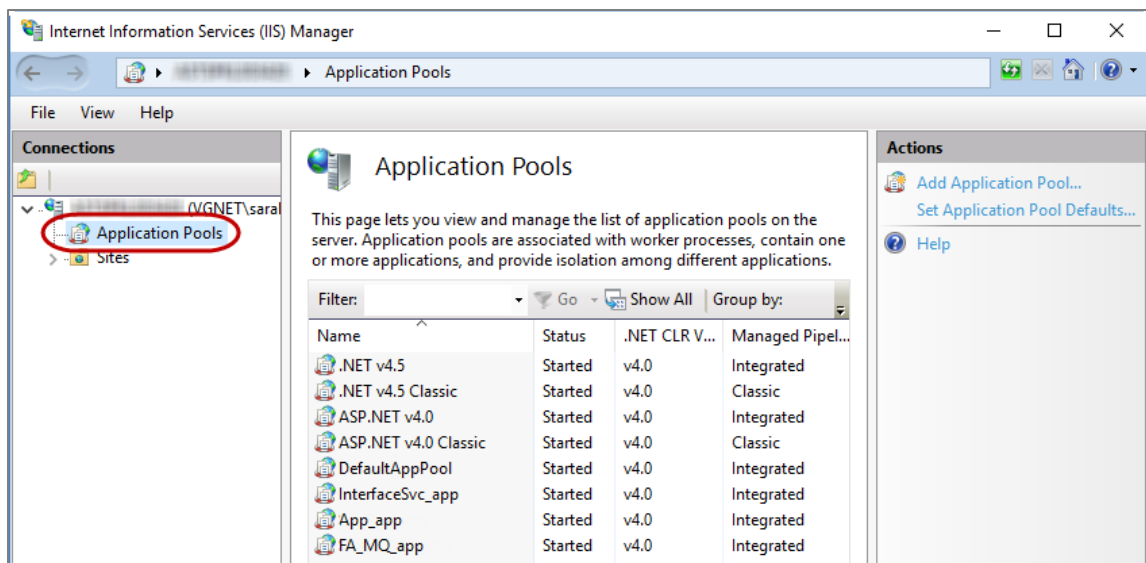
Important: If the above process does not work, contact Customer Support.

Configuring IIS

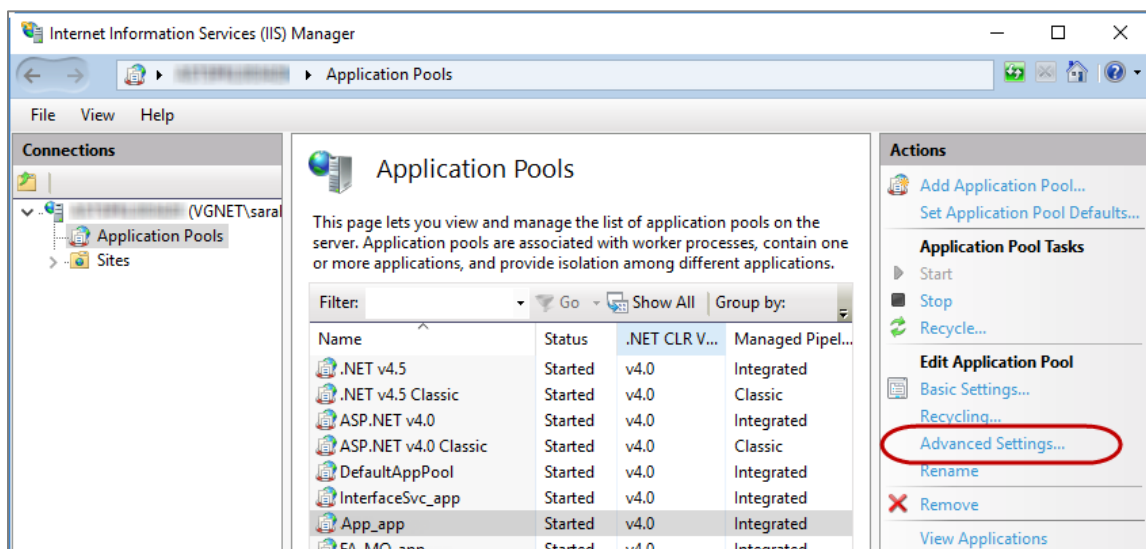
1. Open the IIS Manager.
 2. Under the Default Web Site, verify that under *aspnet_client/system_web/4_0_30319* the *crystalreportviewers14* folder exists.
 - If the folder (example *4_0_30319*) does not exist, create this folder and copy the *crystalreportviewers14* into the folder.
 - If the folder (example *4_0_30319*) does exist but does not have the *crystalreportviewers14* folder, copy that folder into the *4_0_30319* directory from the *2_0_50727* directory.
-  If the file does not exist there or it is not the correct *crystalreportviewers14* folder, then copy this folder from the *X:\Program Files (x86)\Business Objects\common\4.0* folder into the *4_0_30319* directory.



3. Click **Application Pools**.



4. Select the application pool your Web Modules will run under and click **Advanced Settings**.



The Advanced Settings pop-in displays.

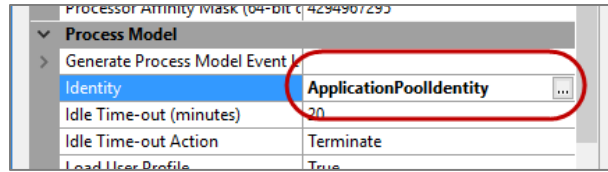
- Set the **Set Enable 32-Bit Applications** setting to **False**.

- For the Identity field, you can leave this as ApplicationPoolIdentity if any user can use the application. However, if your web application requires you to run under a specific user, you must change the **Identity** setting.

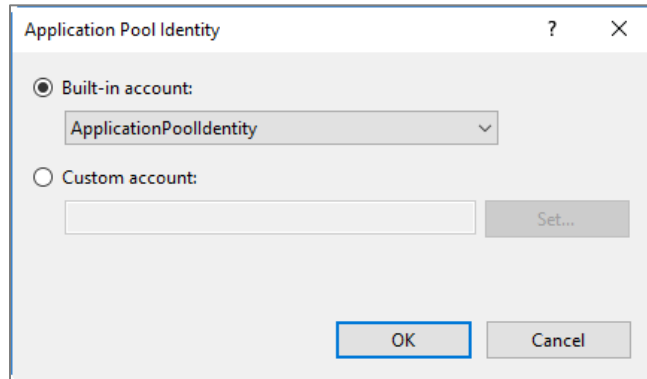
 **Note:** If an **Access Denied** error shows on the front page of the Reporting module, you may have to set the Identity setting to a user account that does have access to the remote server.

To change the identity:

- Click the chooser button in the field to the right of **Identity**.

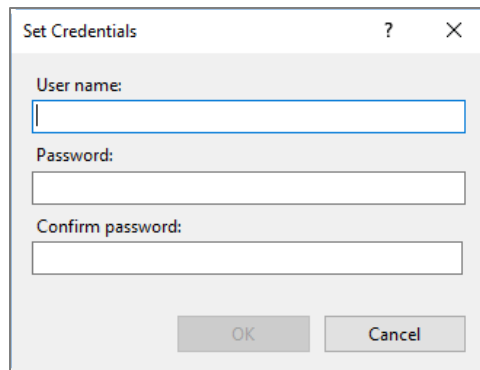


- ii. The Application Pool Identity pop-in displays.



- iii. Click **Custom Account** option.

- iv. Click **Set**.



- v. Enter the machine username and password for the user and click **OK**.

7. On the Application Pool Identity pop-in, click **OK**.

8. In the Advanced Settings pop-in, click **OK**.

Adding a Reporting Tab to Web Modules

To make the functions of the Reporting Module available to the Web Modules users, add a tab to your Web Modules installation for the Reporting Module definition.



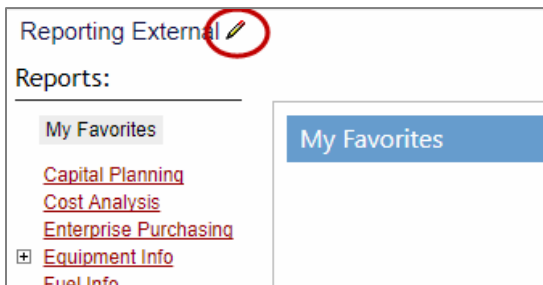
Refer to the *Administrator Guide: Section 3. Web Modules Configuration* section for detailed instructions on adding new tabs and configuring security access for those tabs.

Defining the Report Creator User Group

Users in your report creator group have the right to upload newly created reports to the Web Modules Reporting server, and to publish and unpublish reports for general consumption. You may elect to declare an existing user group as the Web Modules report creator group, or to create a new user group specifically for report creators.

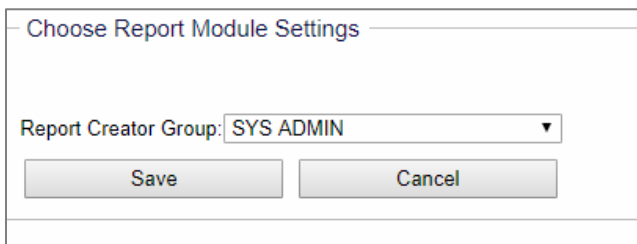
To declare which user group will serve as your report creator group:

1. Open the Reporting tab and click the edit pencil next to the module title bar.

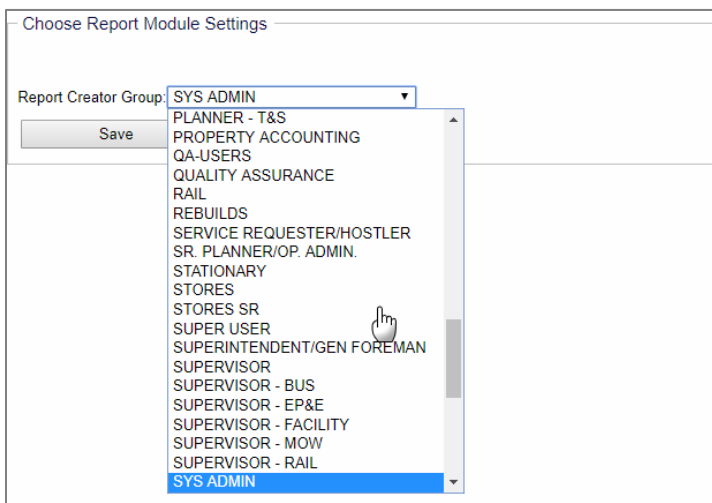


 The pencil icon is only displayed for Administrators that have appropriate rights.

The Choose Report Module Settings page displays.



2. Click the drop-down menu to choose the user group to assign as the Report Creator Group.



3. Click **Save**.

*Once this is set, all users who belong to that user group (with rights to the Reporting tab) will have the ability to add or remove reports to or from the directory structure, publish the added reports, and unpublish reports. Report creators are also able to view and run all reports in Web Modules. There are no restrictions applied to report creators within the Reporting module with regards to the data they can see or report against. If a report creator attempts to run a report from a different portal, they may receive an **Access Denied** error.*

- ✔ It is important to consider the users in a group when identifying the report creator group as they will have access to reports that may show sensitive data.

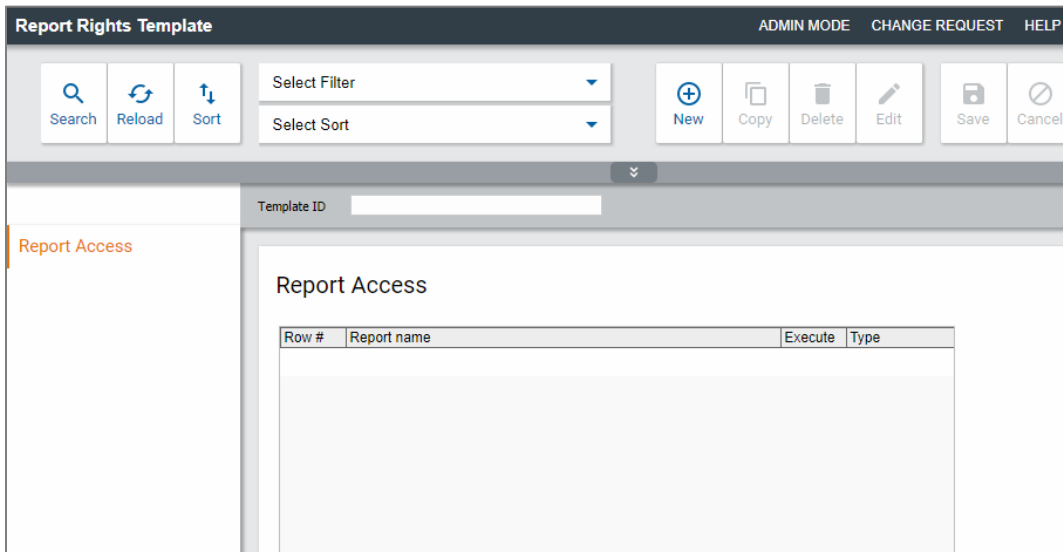
User Group Access Rights

Use the Report Rights Template screen to create a template for report access rights. The user group will have access to execute reports according to the checked items in the Report Access tab.

 **Note:** Reports must be published to display on the Report Rights Template screen to assign rights.

To create a report rights template:

1. Open the Report Rights Template (Reports Access) screen.



2. Click **New**.
3. Enter a new **Template ID**.

4. Check the boxes next to the reports the users will need to be able to execute.

Report Access

Row #	Report name	Execute	Type
70	FA-CAPITALPROJECTAPPROVALS	☒	CRYSTAL
71	FA-CAPITALPROJECTFORASSET	☒	CRYSTAL
72	FA-CAPITALPROJECTFUNDING	☒	CRYSTAL
73	FA-CAPITALPROJECTMASTERDETAILS	☒	CRYSTAL
74	FA-CAPITALPROJECTSUMMARY	☒	CRYSTAL
75	FA-CAPPLANBUDGETOVERVIEW	☒	CRYSTAL
76	FA-CAPPROJCOSTTOPLANCOMP	☒	CRYSTAL
77	FA-CAPPROJWORKHISTORY	☒	CRYSTAL
78	FA-CAWOLIST	☒	CRYSTAL
79	FA-CAWOLIST-DEPT	☒	CRYSTAL

5. When done selecting reports, click **Save**.

To assign a report rights template to a user group:

1. Open the User Groups screen.
2. Open the record for the user group being assigned report rights and click **Edit**.
3. On the Rights Templates tab, enter the name of the template or use choice-list to select the report rights template to assign to the user group.

Rights Templates

Rights templates for

Screens		▼ 🔍
Controls		▼ 🔍
Location access		▼ 🔍
Department access		▼ 🔍
Report access		▼ 🔍

4. Click **Save**.

Creating a Test Environment

You may create a test reporting environment side-by-side with your production reporting environment. This allows you to create and view reports running from your test database without affecting performance of your production system. To do this, you must install another instance of Web Modules. Use the following procedures.

To create a test reporting environment:

1. Install a new instance of the Web Modules base portal and install all applicable modules by following the steps in the *Installation and Access Guide*.



Be sure to create a unique website alias and use the Configurator to create the new site and directory path.

2. Configure Crystal RAS to point to the most parent folder where your Report files exist. For example, if you are running a single RAS server, and you have two deployments, one for test (deployment name is **Test**), and one for production purposes (deployment name is **Production**), then you would have the following paths with reports:

Example 1

- **C:\[CompanyName]\[ProductName]\Test\Reporting** (a test environment example)
- **C:\[CompanyName]\[ProductName]\Production\Reporting** (a production environment example)

The RAS should be configured to read from: **C:\[CompanyName]\[ProductName]** because this is the common parent path. This way, RAS knows about both sets of reports and can serve either of them up to users.



If you upgraded from a prior version of the asset management application (such as version 6.3) then you could have paths as follows:

Example 2

- **C:\[CompanyName]\[ProductName]\Reporting** (a test environment example)
- **C:\[CompanyName]\[ProductName]** (a production environment example)

The RAS, in this case would be configured to read from:

C:\[CompanyName]\[ProductName].

Either example above is fine, but you must set the report server to read starting with the common parent path.

5. Integrating the Scheduler Module with Reports (Optional)

The Scheduler module allows your organization to schedule reports to run automatically, save their output to PDF format, and email their results to a distribution channel.

To integrate the Scheduler Module with Reports, you must follow the instructions in the *Scheduler Administrator Guide* based on your particular organization's Web Modules setup.

- ✔ When installing/upgrading the Scheduler module, be sure to install or upgrade the latest version of the Reporting module.

6. Reporting Logo Editor

The Reporting Logo Editor tool is used to update the header logos that are used in the Crystal reports.

The tool may be used in the following ways:

1. During an install, once default reports have been copied, the tool will automatically run and update reports.
2. After an install, it can be manually run from the Configurator via the Reporting tab.

Logo size:

Because the space available for the logo is limited on the report, the header logo must be no larger than the following size:

- Size of header image – 304 px by 35 px, 96 dpi
- Only .jpg files are supported. The tool will allow a user to select any image type, but it gets converted to .jpg and saved to images\logo.
- ✔ Custom logos need to be tested on report copies to make sure the display is maintained. Most reports are compact and leave little extra space. If a logo is too large, it may alter the display of the reports. Once a report has been altered and saved, there is no way to get it back. **Be sure to save a report copy if you are testing a logo.**

Running the Reporting Logo Editor

If the Reporting folder is on the RAS server, you may skip this section, as long as you ensure the Central Configuration Manager points to your reporting directory in order for reporting to work properly.

If using a shared network folder as the Root Path to reports, ensure the following:

- The computer that has the Reporting folder has access to the RAS server.
- The RAS server has access to the computer with the Reporting folder.
 - The Report folder may have to be shared if it exists on a different server/computer.
 - Refer to the appropriate Configuring RAS Environment section in [8 RAS Installation Instructions](#) to ensure the report directory is set up correctly, or to fix as necessary.
 - In the Configurator, define a **Root Path** and **Report Server** (necessary for the tool to run properly).

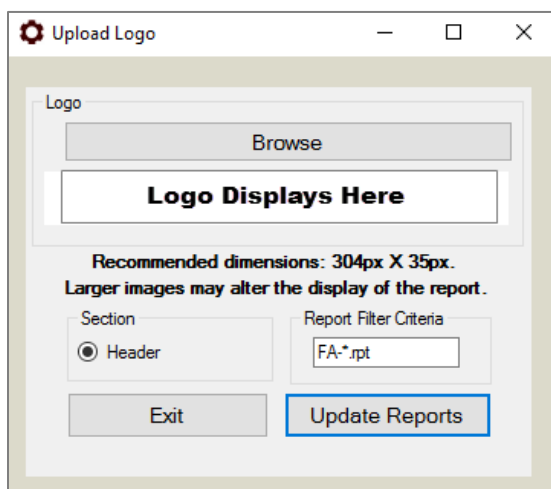
Using the Report Logo Editor

To use the Report Logo Editor, complete the following steps:

1. Navigate to the \bin folder of the installation (`<DatabaseName>\WebModules\Web\bin`)
2. Double-click the ReportingLogoEditor.exe to update the header logo.



If this is a new install, both the header and footer logos will be updated. If this is not a new install and you would like to modify the footer logo, contact customer support.



3. Click **Browse** to select a logo.

4. When you have found the image, double-click the image file, or select the file and click **Open**.

The selected image will be copied to InfoCenter\images\logos.

5. Select **Header** as the section you would like to update.
6. Enter a **Report Filter Criteria**.
 - By default this filter is **FA-*.rpt** which will only update out-of-the-box reports.
 - To update all reports, update the filter to ***.rpt**.
7. Click **Update Reports**.
 - This uses the RAS server to open, modify, and save each report that is found. Time may vary depending on the network, as well as the RAS server.

Additional Notes

Any errors found when updating a logo will be written to the reporting Logo.log file in the **LogDir** directory.

- If the **Access denied** error occurs, check directory setting for files you can access, this can be due to the following:
 - The user cannot access the RAS server.
 - Ensure the computer has appropriate access permissions to the RAS server.
 - The RAS server cannot access the network folder.
 - Check the Central Configuration Manager Reporting directory on the RAS server.
 - Ensure the reporting folder is shared.
- If the **Buffer too small for string or missing null byte is reported** error occurs, note the following:
 - There is an existing bug in the CrystalDecisions DLL that prevents saving a report with more than 511 characters in the Summary Info, Comments field of the report. The reports are written to the log, and need to be manually updated by opening the reports in Crystal Designer and then saving them.

Command Line Arguments

The Reporting Logo Editor can be run via command line arguments. This should not require any input from the user after start and should replace both the header and footer images in the report. The following table describes the command line arguments

Argument	Description	Example
EAMUser	Allows the user to replace the footer image on a report.	ReportingLogoEditor.exe EAMUser
run	Automatically runs the tool with default parameters. Will replace both the header and footer.	ReportingLogoEditor.exe run
ras	The connection string to the Crystal ReportApplicationServer.	ReportingLogoEditor.exe ras localhost
reportpath	The path to where reports will be.	ReportingLogoEditor.exe reportpath C:\dev\Reports\trunk_ms

7. ODBC Connections for Windows 64-Bit

✔ This ODBC step is needed if Reporting module is used for Windows 64-bit. When setting up ODBC connections on Windows 64-bit, make sure you use the 32-bit ODBC Datasource Administrator. The Web Modules require 32-bit ODBC definitions. To do this, follow the steps below:

1. Create a shortcut to Windows 32-bit ODBC Datasource Administrator.

- i. Open the Windows File Explorer.
- ii. Navigate to <system drive>\Windows\SysWOW64.

For example: C:\Windows\SysWOW64.

- iii. Perform a search for **odbcad32.exe** (this is the ODBC Data Source Administrator program).
- iv. Once the search has found the file:
- v. Right-click **odbcad32.exe**.
- vi. Click **Send to -> Desktop** (this will create a shortcut).
- vii. Check the Windows desktop to see the new shortcut.
- viii. Rename it to **ODBC 32-bit**.

2. Use the shortcut to launch Windows 32-bit ODBC Data Source Administrator.

3. In the ODBC Data Source Administrator dialog box that appears:

- i. Click the **System DSN** tab.
- ii. Click **Add** to create an ODBC definition.
- iii. Complete the remaining steps to set up the ODBC connections as listed in the *Installation and Access Guide: Appendix A. Create ODBC Connection, Windows 64-bit ODBC Connections*.

8. RAS Installation Instructions

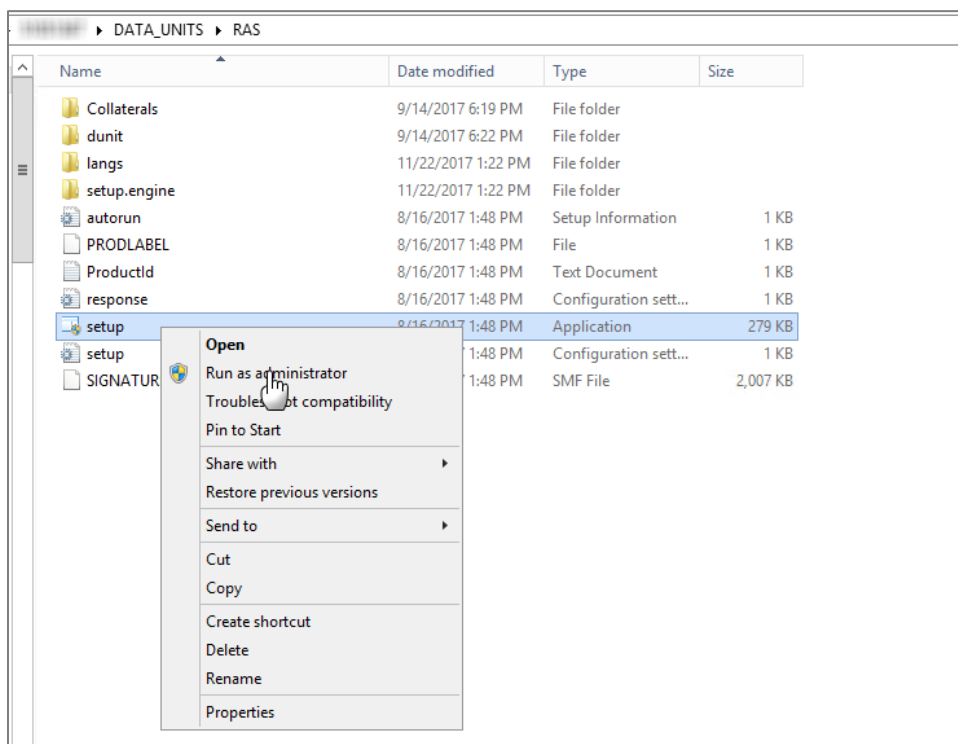
Be sure to remove any old versions of RAS before installing the new version.

Install the RAS OEM server

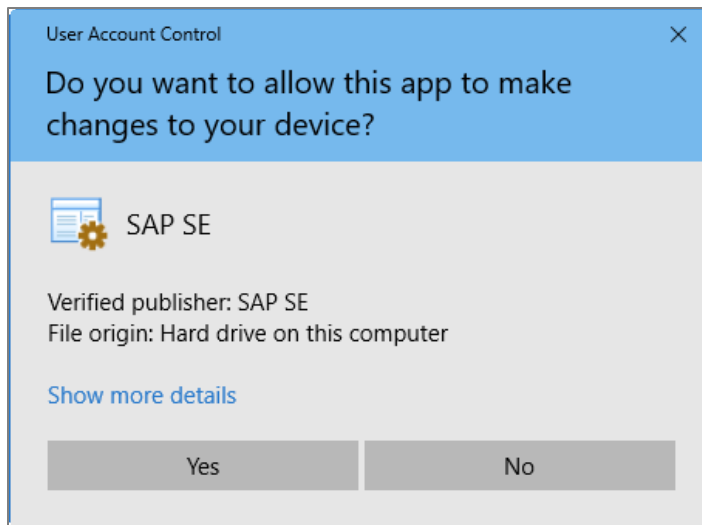
1. Open the RAS install folder.

 Note: The RAS installation files can be downloaded from the Customer Care site.

2. Navigate to DATA_UNITS -> RAS folder.
3. Double-click, or right-click on the application setup.exe file and click **Run as Administrator**.



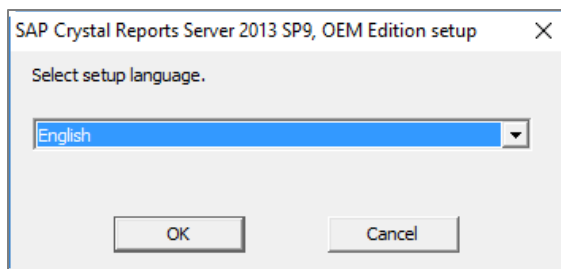
A verification pop-up displays.



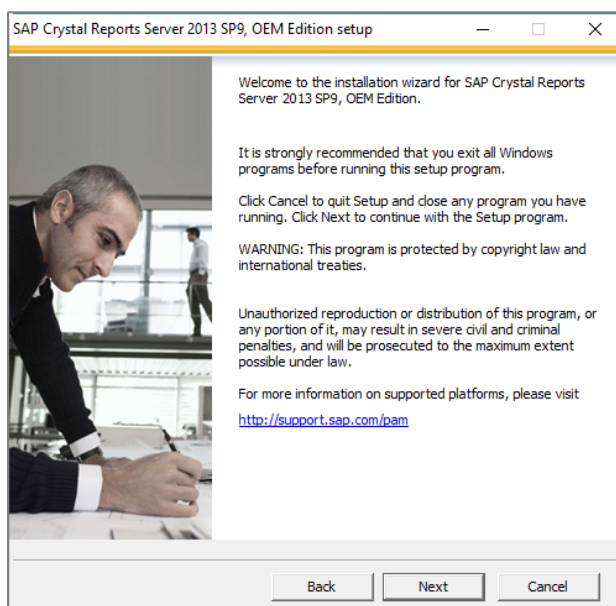
4. Click **Yes** to allow the program to make changes.

The language setup displays.

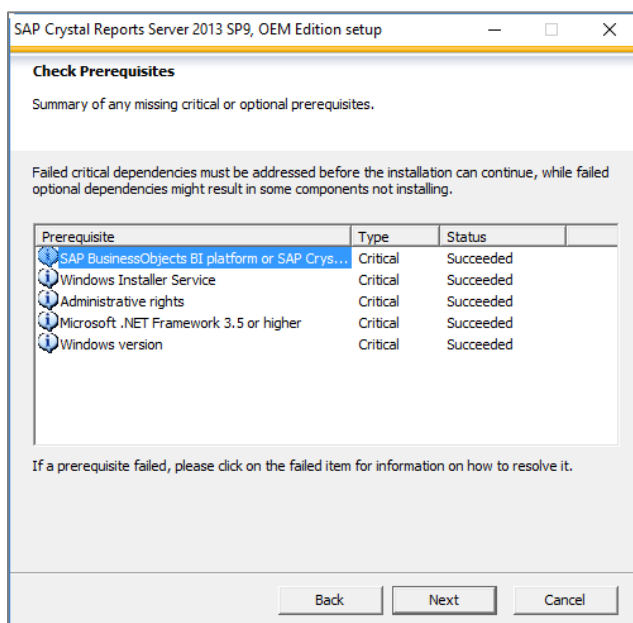
5. Choose the appropriate language and click **OK**.



6. On the Crystal Reports Server setup screen, click **Next**.

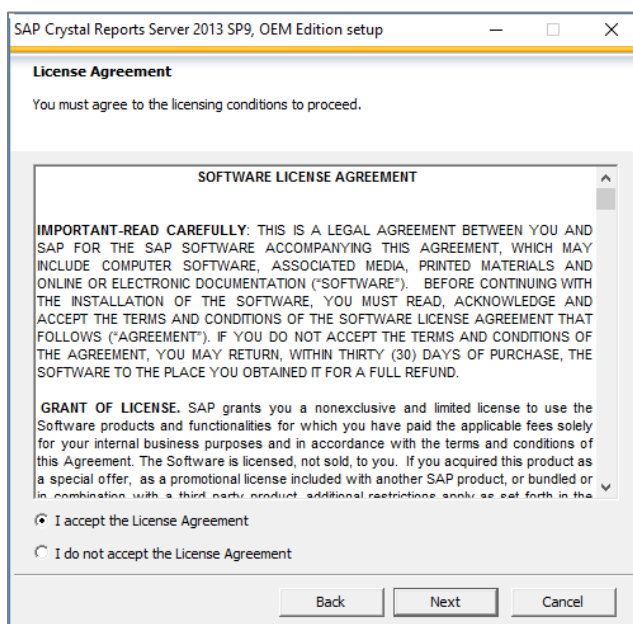


7. The Check Prerequisites page displays a list of requirements for the system. If all appropriate prerequisites are met, click **Next**. Otherwise resolve the issues listed and repeat the above steps.



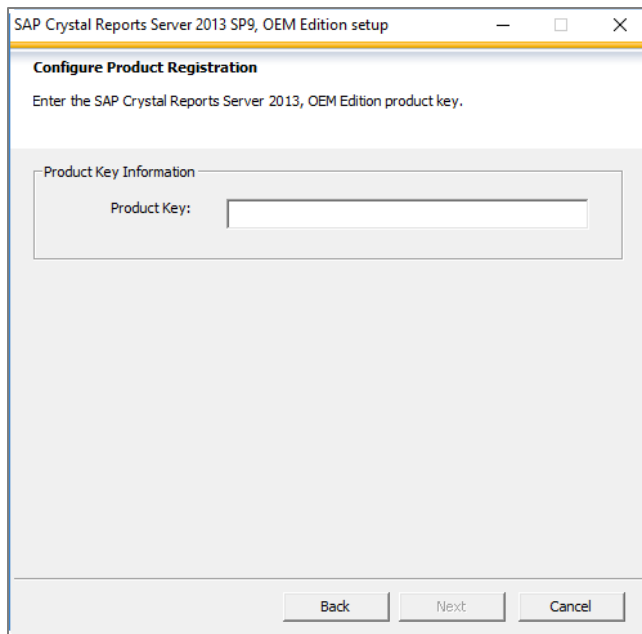
8. Select the **I accept the License Agreement** radio button, then click **Next**.

 **Note:** The Next button is greyed out until you accept the agreement.



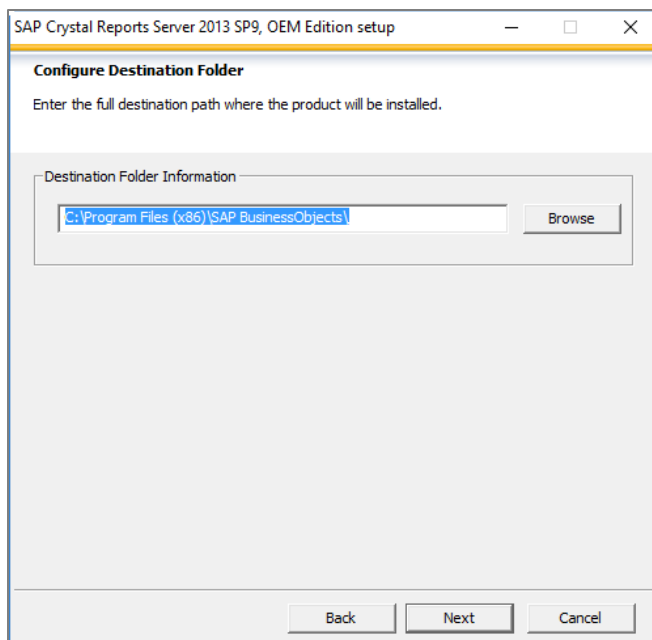
9. Enter in the Crystal RAS product key and click **Next**.

 **Note:** The **Next** button is greyed out until you enter the number.

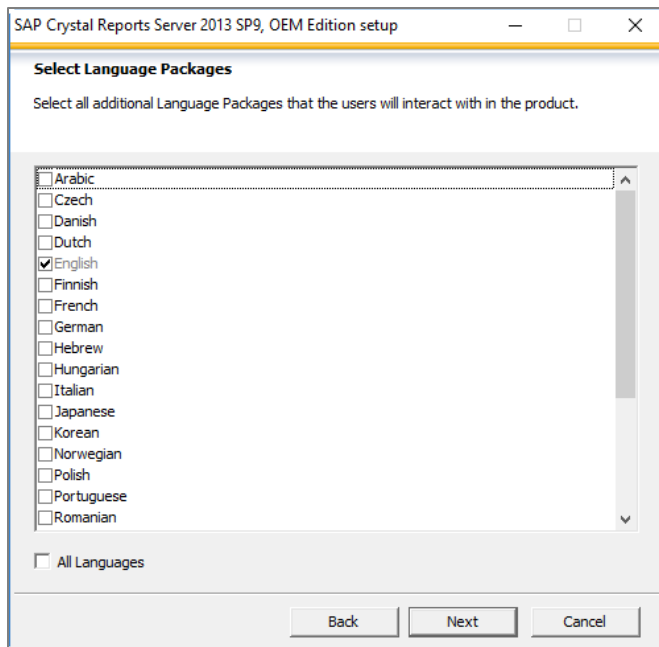


10. A default file location is auto-filled in the Destination Folder Information section.

- i. If this location is acceptable, click **Next**.
- ii. If a new location is needed, select a new location using the **Browse** button, and then click **Next**.

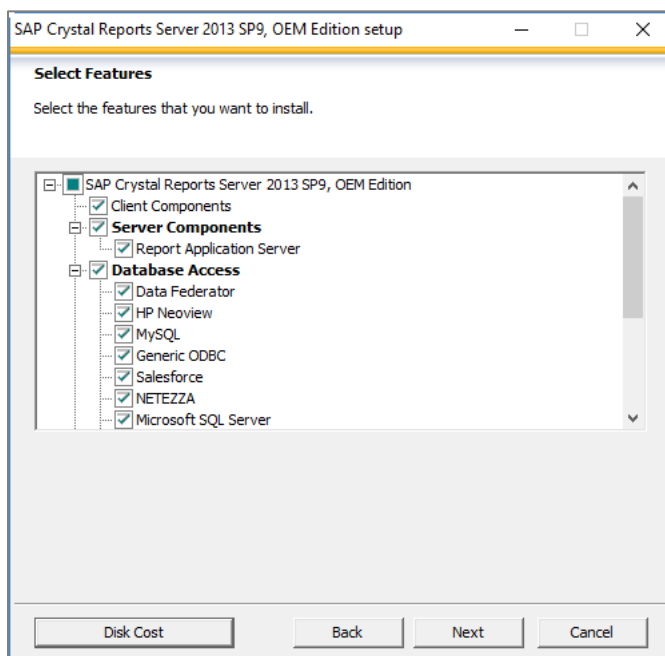


11. The correct language package should already be selected in the Select Languages Packages page. If this is not true, then select the correct language package and click **Next**.

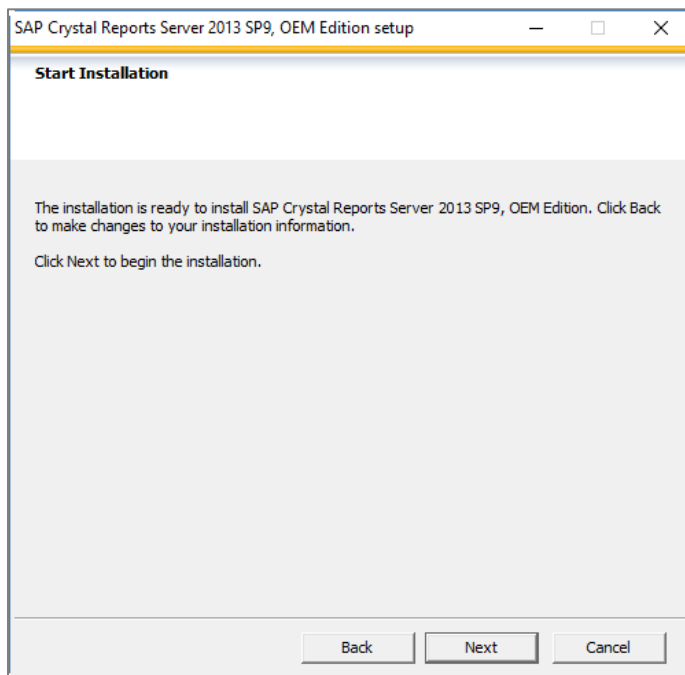


12. On the Select Features page, perform the following actions:

- To view extra information on the space needed for this application, click **Disk Cost**.
- Scroll down and check the box next to SAP Crystal Reports .Net SDK which is under Developer Components.
- Leave remaining default features selected and click **Next**.

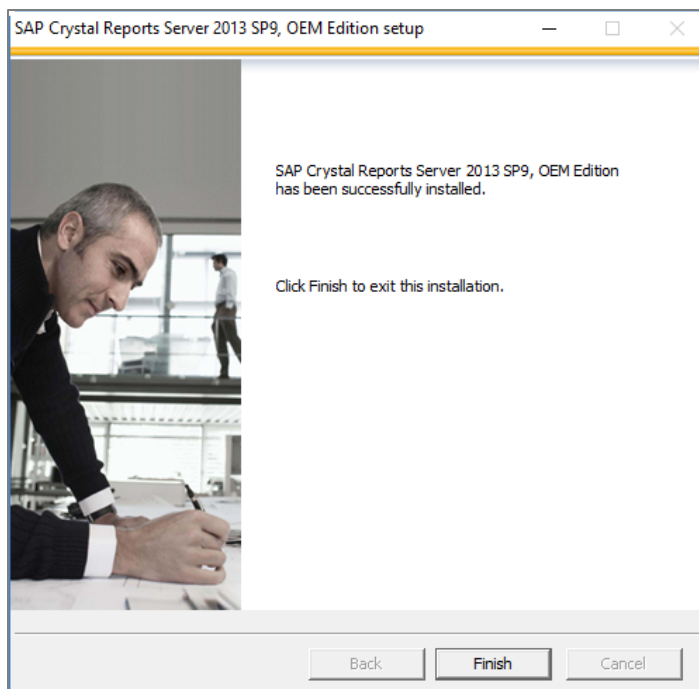


13. To start the installation, click **Next** on the Start Installation page.



The installation starts. This may take several minutes to install the application. After the installation is done, the last page of the setup displays.

14. Click **Finish** on the final window to close the installer.

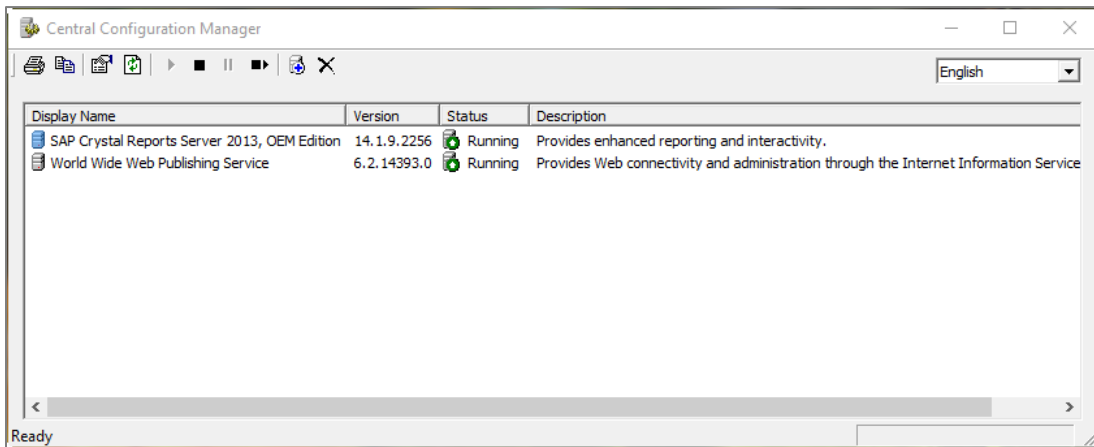


Configuring RAS environment

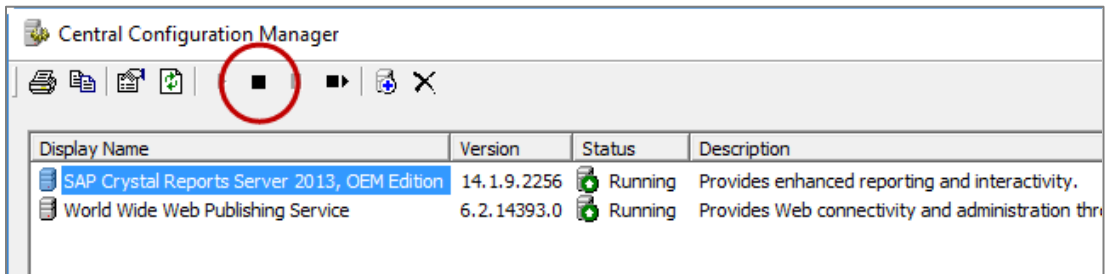
The configuration for the RAS environments, both regular and embedded mostly follow the same process. Any difference is noted in the following process.

1. Open the Central Configuration Manager application.

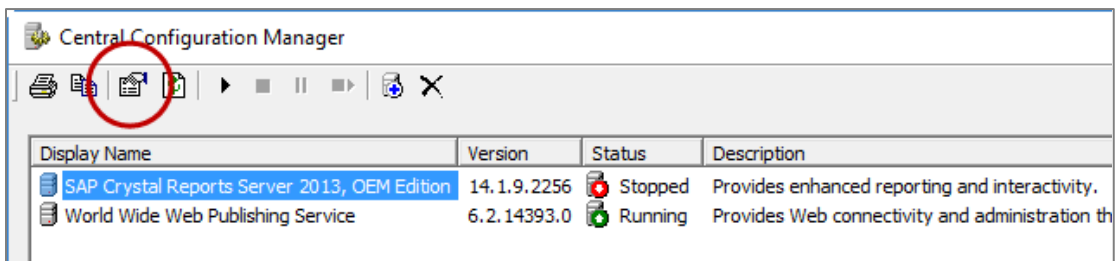
The Central Configuration Manager displays.



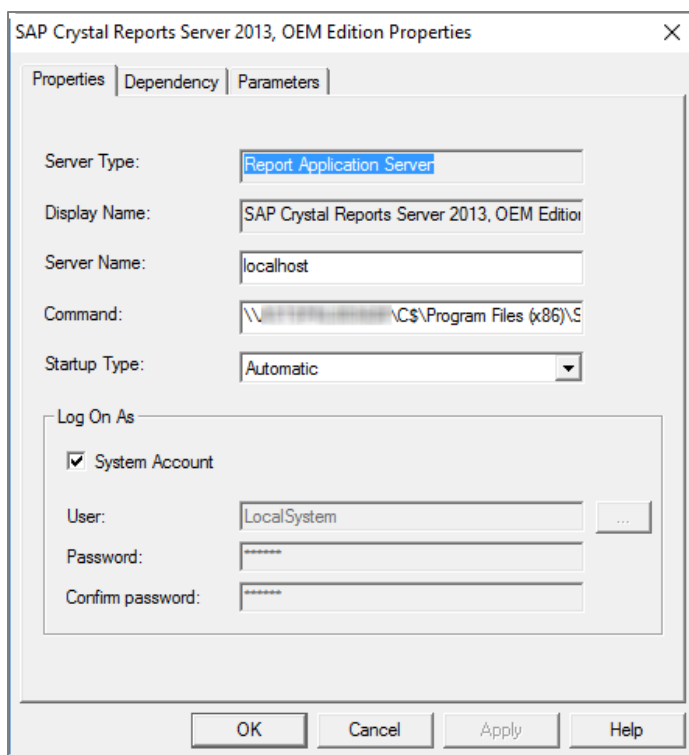
2. If the SAP Crystal Reports Server 2020, OEM Edition is not selected, click the file to select that item.
3. Click the **Stop** button.



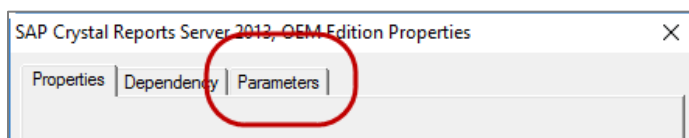
4. With the file still selected, click the SAP Crystal Reports Server 2020, OEM Edition and click the **Properties** button.



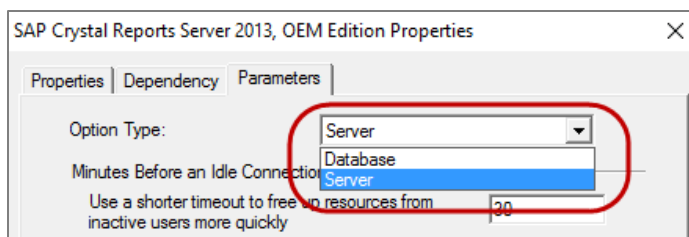
The Properties window displays.



5. Click **Parameters** to open the Parameters tab.



6. Click the Option Type drop-down and select **Server**.



Server information displays.

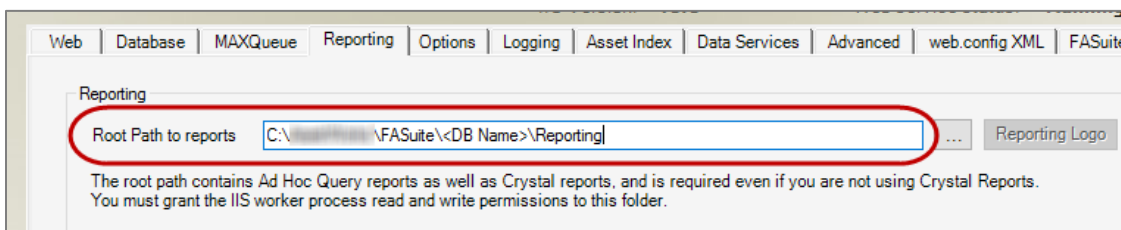
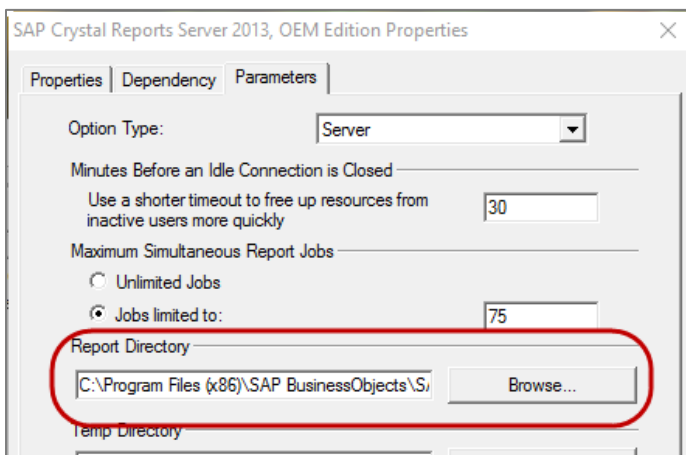
7. In the Report Directory Path, the information entered here is different depending on whether you are using an environment where reporting is installed on a separate server, or using an OEM embedded server on the same server reports are installed on.
 - If you are using RAS on a different server than where Reporting is installed, enter in the file path to the shared reports directory.

For example: C:\Program Files (x86)\SAP BusinessObjects\SAP BusinessObjects Enterprise XI 4.0\Samples\En\Reports\

- If you are using Crystal Reports Server OEM Embedded, click **Browse** to browse to the directory where reports are located, and click **OK** to use that location.



When the RAS is on the same server as the web modules, the directory can be the exact reporting path, or a parent directory that contains the reporting directory..



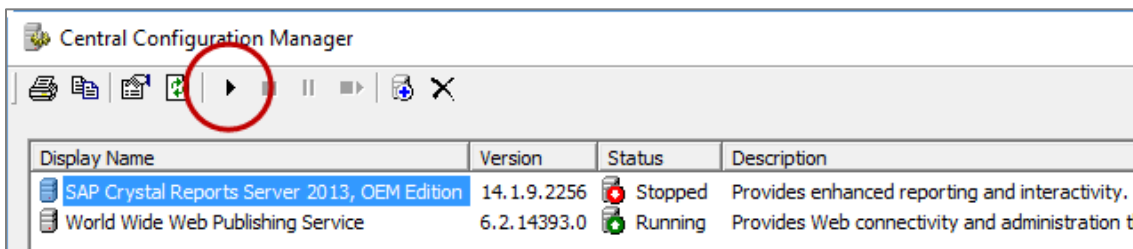
8. Open the **Properties** tab again, and in the **Log On As** section, check the **System Account** checkbox to set the default user as the system account.



You may need to uncheck **System Account** and set the **Log On As** to a user that has proper permissions if the system account user does not have the necessary rights.

9. Click **OK**.

10. With the file still selected in the Central Configuration Manager, click the **Start** button.



The server status is returned to a status of Running.

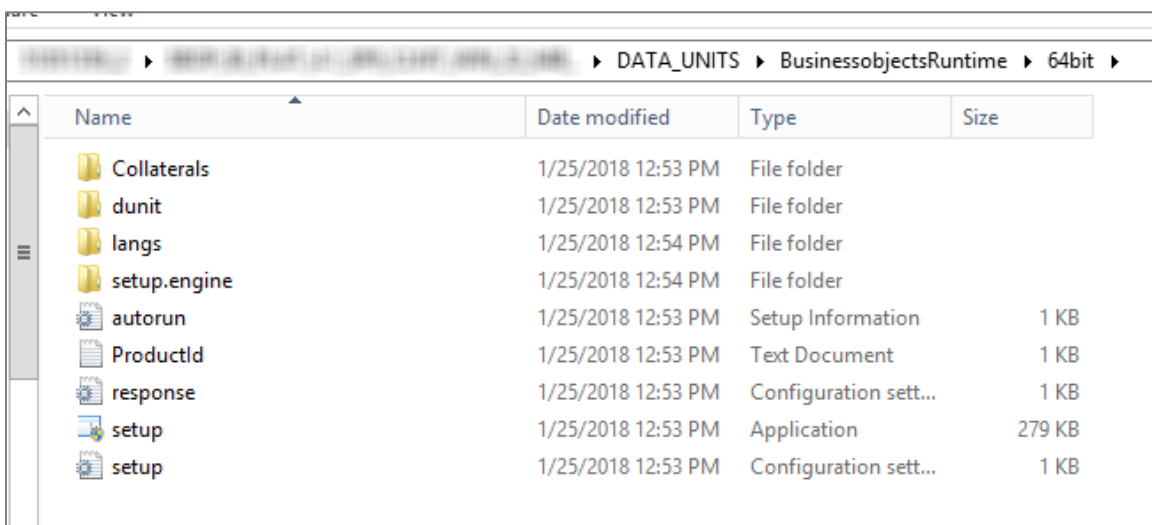
11. Close the Central Configuration Manager.

Installing the Client Runtime components

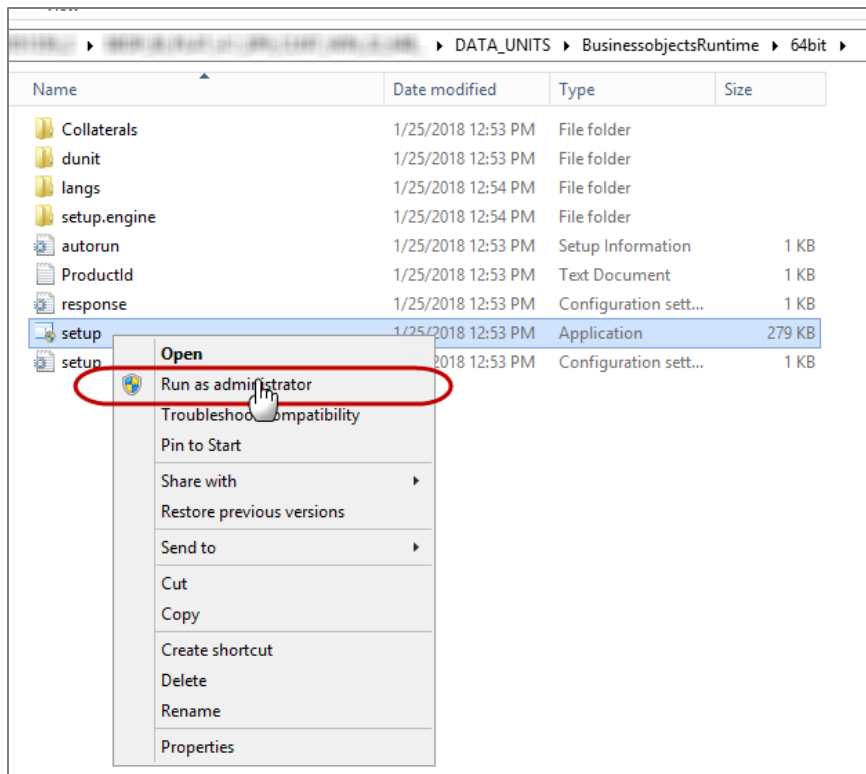
1. Open the Client Runtime components folder.

 **Note:** The Client Runtime installation files can be downloaded from the Customer Care site.

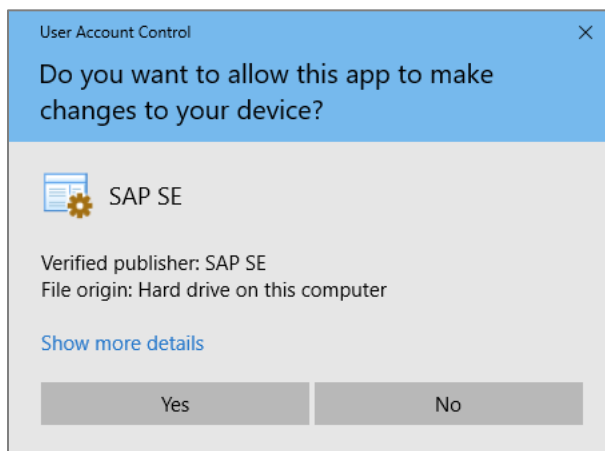
2. Navigate to DATA_UNITS -> BusinessobjectsRuntime -> <your version>.



3. Right click the setup.exe and select **Run as administrator**.

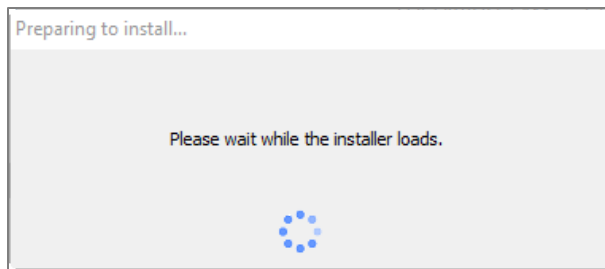


A verification pop-up displays.



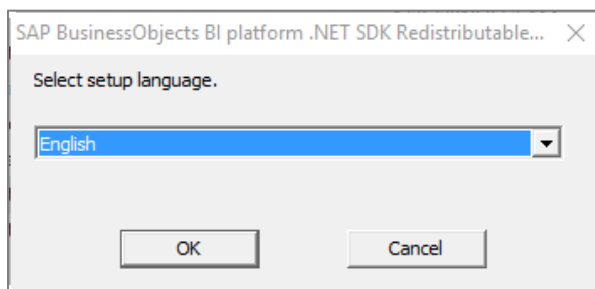
4. Click **Yes** to allow the program to make changes to your computer.

The installer starts.

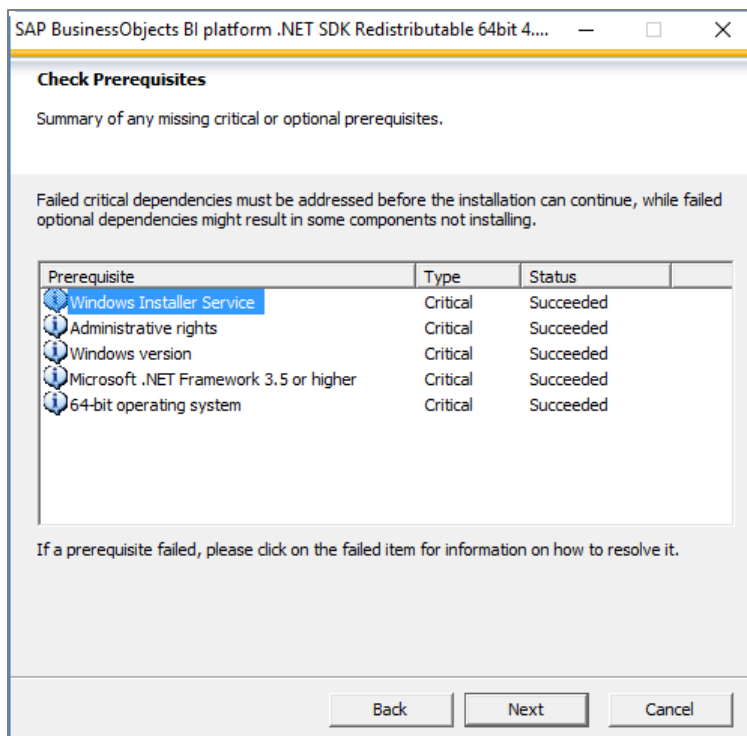


Then, the language setup displays.

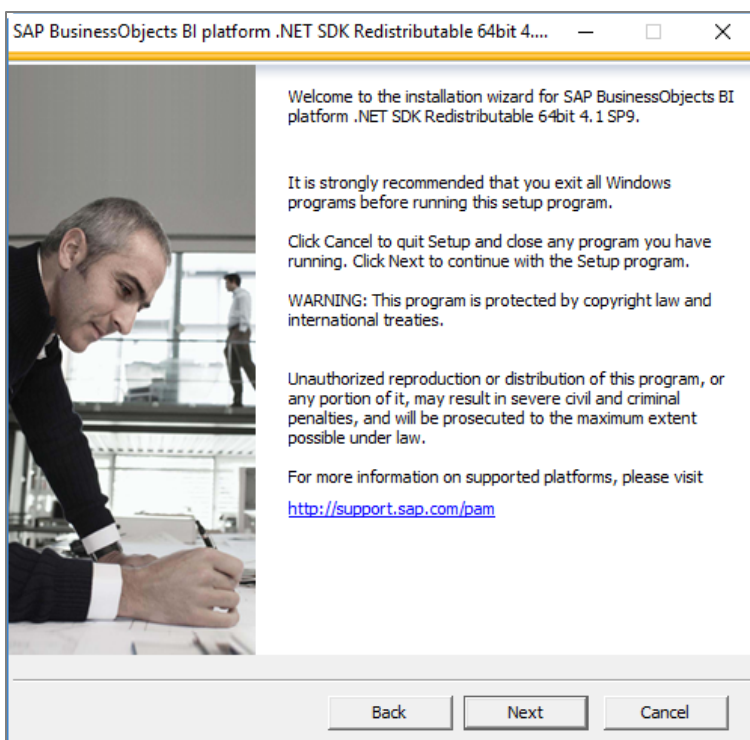
5. Select the correct language and click **OK**.



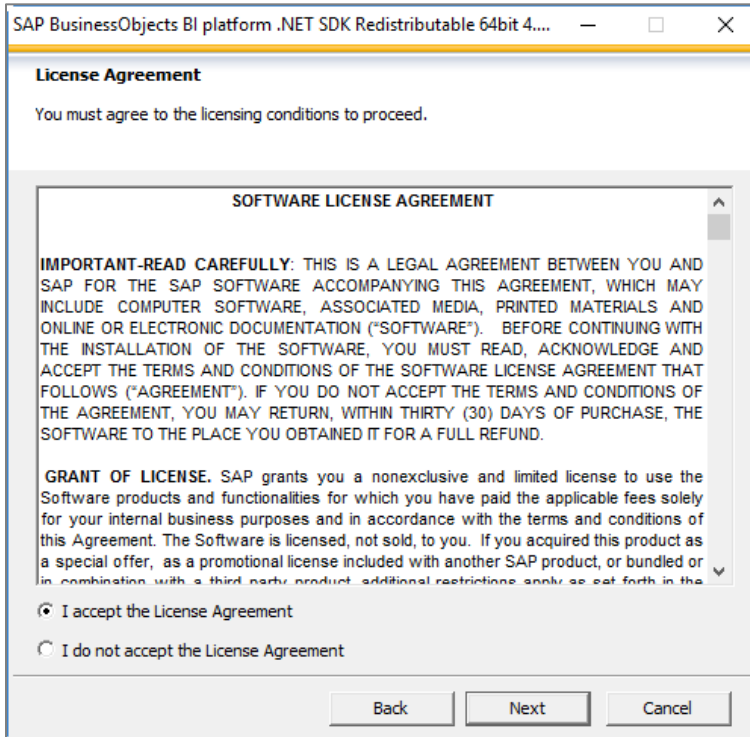
6. If all appropriate prerequisites are met, click **Next**. Otherwise, resolve the issues listed, repeat the above steps, and click **Next**.



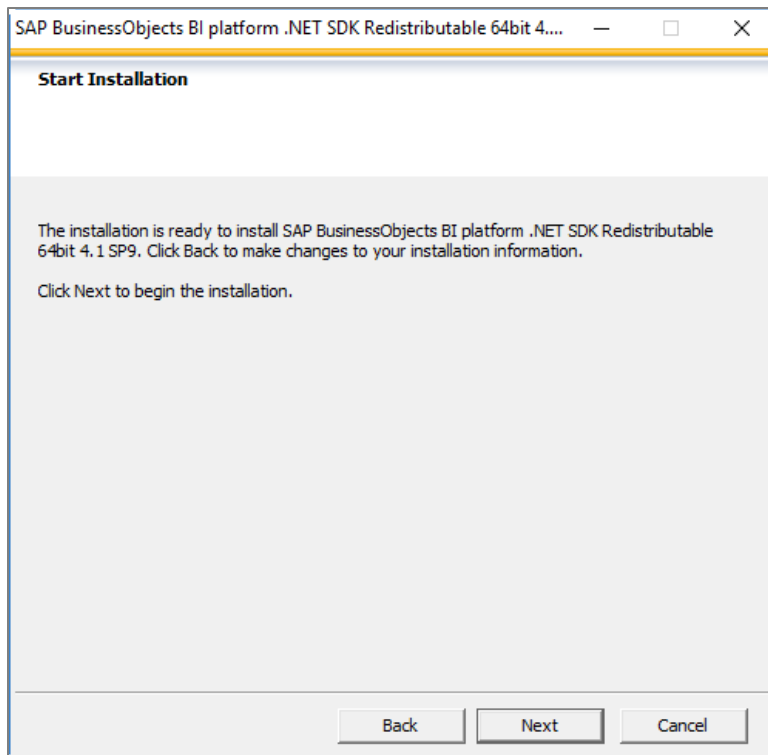
7. On the welcome page, click **Next**.



8. Select the **I accept the License Agreement** option, then click **Next**. The **Next** button is greyed out until you accept the license agreement.

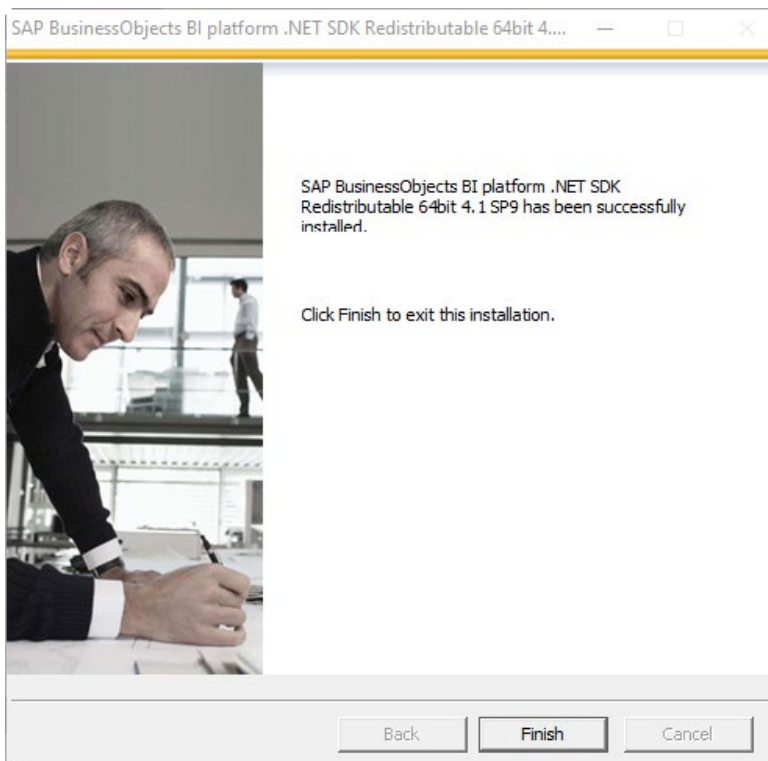


9. On the Start Installation page, click **Next**.



The installation starts. This may take several minutes to install.

10. After the installation is complete, click **Finish**.



Scaling RAS

If you are seeing any of the following symptoms, there are options available for scaling the Crystal RAS vertically. Please reach out to your Customer Care team to assist you with this process.

- RAS becoming unresponsive and needing to be recycled
- RAS crashing
- Large numbers of errors in RAS logs (see temp folder path in RAS settings) indicating "Max records limit reached"