CRD

User Manual

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Contents

I. Prerequisites for CRD

All of the following prerequisites must be met in order to successfully install and use CRD. If any of the following requirements are not met, some or all of CRD's functionalities will not work as designed.

> ***IMPORTANT:*** *You must be logged on to your server or PC as the LOCAL ADMINISTRATOR during installation. You can use the software as a normal user after installation is complete, but we highly recommend that you carry out the installation process as a LOCAL ADMINISTRATOR in order to ensure trouble-free use afterwards.*

Operating System - (New Installation)

Please ensure at least **ONE** of the following 32 or 64 bit Operating Systems is in place with all the latest service packs and/or updates installed. Operating systems listed below is a prerequisite when installing CRD on a new server.

- Windows 8
- Windows 8.1
- Windows 10
- Windows Server 2012
- Windows Server 2012R2
- Windows Server 2016

Operating System - (Updating CRD)

Please ensure at least **ONE** of the following 32 or 64-bit Operating Systems are in place with all the latest service packs and/or updates installed. Operating systems listed below is a pre-requisite when updating a currently installed CRD instance.

- Windows 7
- Windows 8
- Windows 8.1
- Windows 10
- Windows Server 2008
- Windows Server 2008R2
- Windows Server 2012
- Windows Server 2012 R2
- Windows Server 2016

Operating System - Additional

Please ensure **ALL** of the following are in place:

- .NET Framework 4.6.1

  You may have multiple versions of .NET Framework installed. However, 3.5 and 4.6.1 must be installed as it has components that other versions do not have.

- UAC is switched off during installation(Windows 10, Windows Server 2008)
- Primary Drive Disk Space
  - **Minimum:** 20 GB free
  - **Recommended:** 200 GB total
- Installed Memory/RAM
  - **Minimum:** 4 GB
  - **Recommended:** 8 GB

    Disk space and Memory/RAM requirements will vary based on report outputs.

Crystal Reports - Main

Please ensure that ONE of the following Developer or Developer Advanced Editions of Crystal Reports is in place:

- Crystal Reports 8.5xx
- Crystal Reports 9.xx
- Crystal Reports 10.xx
- Crystal Reports XI (11.xx)
- Crystal Reports XIR2 (115.xx)
- Crystal Reports 2008 (12.xx)
- Crystal Reports 2011 (13.xx)
- Crystal Reports 2013 (13.xx)
- Crystal Reports 2016 (13.xx)

  Crystal Reports 2013 and newer use 13.xx runtimes. Please see the last section of this document for important information about Crystal Reports.

Crystal Reports - Additional

Please ensure **ALL** of the following are in place:

- All available Service Packs for your version
- All Hotfixes for your version

Microsoft Office

If you will use extended Output functions (e.g. Email, Excel Bursting, Document Properties, etc.), please ensure that **ONE** of the following is in place with all of the latest updates and fixes installed:

- Outlook/Excel/Office 2007 32 Bit Version Only
- Outlook/Excel/Office 2010 32 Bit Version Only
- Outlook/Excel/Office 2013 32 Bit Version Only
- Outlook/Excel/Office 2016 32 Bit Version Only
- Outlook/Excel/Office 365

Microsoft Exchange

If you use Exchange to process email, please ensure that the following is in place:

- Any version of Exchange released after January 2006 (Exchange 2007, Exchange 2010, etc)

Integration with other versions of Exchange may work even if the latest service packs are not installed, but some functionality may error or be unavailable. For best results, please ensure you have applied the latest service pack and all updates.

SMTP Server

If you use SMTP to process email, please ensure that **ALL** of the following are in place:

- You must know your mailbox security credentials.
- Your server must allow relaying.
- The IP address of the CRD server is whitelisted on the mail server

  If you do not know your mailbox security credentials or are unsure if your server allows relaying, please contact your Email Administrator.

Windows NT Service Scheduler

CRD installs a background application scheduler by default. However, if you wish to use the Windows (NT) Service scheduler, you can do so by going to **Options** > **Scheduling** and clicking the **radio button** next to *Use NT Service*.

Prior to using the NT Service Scheduler, you must ensure **ALL** of the following:

- The Windows Service user has full security rights to the mailbox to be used (if you will be emailing reports).
- The above user has full security rights to network files and folders (if you are reading reports across the network and if you are exporting to network folders).
- The above user has full security rights to any FTP location you may be exporting to.
- The above user has **Log on as service** rights on the local PC.
- The above user has **Act as part of the operating system** rights on the local PC.

- The above user is a **local administrator** (or a member of the local administrator group) of the PC.

User Account Controls & Anti-Virus Software

During the installation process, it is imperative that both User Account Controls (UAC) and the anti-virus on the server are turned **off**.

> *Most issues resulting in CRD not installing properly are because the Anti-virus flags the CRD installer as malware, and the installation cannot complete successfully. Please ensure that you or your IT personnel are available to disable these features until the installation is complete.*

Once the installation is finished, these can be turned back on.

Important Information about Crystal Reports

Listed below are a few important pieces of information you should know regarding CRD and Crystal Reports:

- Whilst CRD will read and schedule reports which are written in earlier versions of Crystal, it uses the components (DLLs, exes etc.) found in Crystal Developer or Developer Advanced editions to read current and older reports. It will not modify or upgrade your reports to the newer version. It will simply read them.
- Make sure you visit the SAP website and update your installation of Crystal with **ALL** the service packs and Hotfixes that have been released for your version of Crystal Reports.
- CRD may not be able to schedule some reports that were written in versions of Crystal earlier than 8.5.
- It is your responsibility when installing Crystal Reports editions and components to ensure that you are licensed to use these components within your organization. It is also your responsibility to ensure that you do not exceed the number of licenses you have bought from SAP. Please read your Crystal Reports License very carefully.
- More about Crystal Runtimes

II. Before installing CRD

Download the latest version from: https://go.christiansteven.com/download-crd-now-lpf

- Please ensure that **ALL** of the prerequisites listed on the CRD Prerequisites page have been met. This ensures that CRD runs as expected. Failure to meet the listed prerequisites may result in errors occurring.
- Except for trial users, Installation and Configuration of CRD on a new server are **not** part of normal technical support. If assistance is needed or requested during the CRD installation or configuration process, Professional Services can help for a nominal consultation fee.
- A reboot of the CRD server will be required after installation is complete.

III. Preparing for the Installation

*These steps must be completed **prior** to running the CRD installer.*

After downloading and extracting the latest build/version of CRD, perform the following steps:

User Account Control

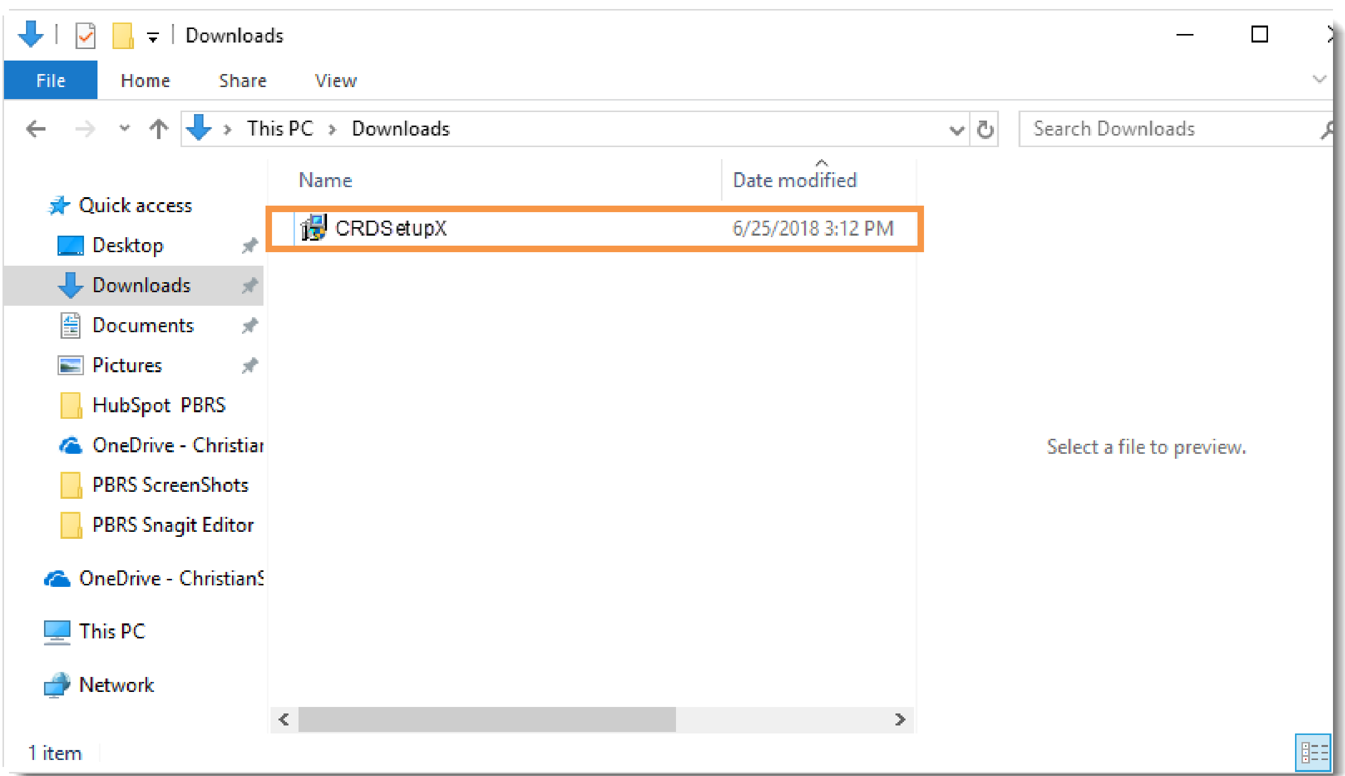
- If you are installing CRD for the first time on this server, turn off the User Account Control (UAC). You can turn it back on once the installation of CRD has completed.

Unblock the CRD installer

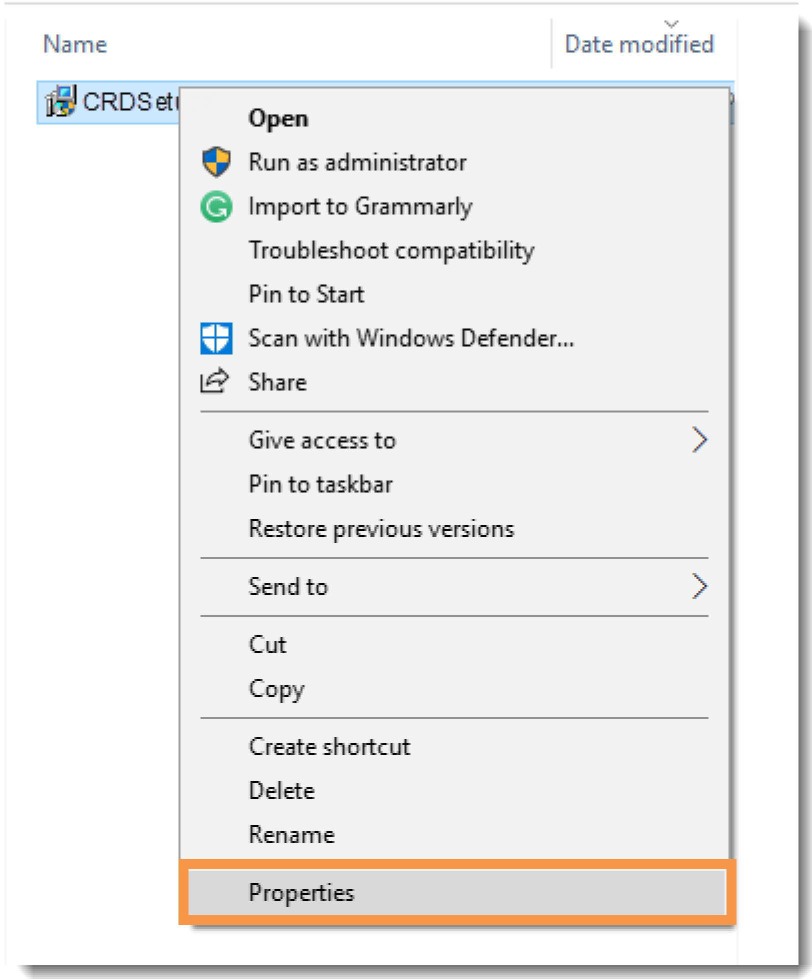
- Open the appropriate **CRD version/build folder.**

This is most likely located in your Downloads folder.

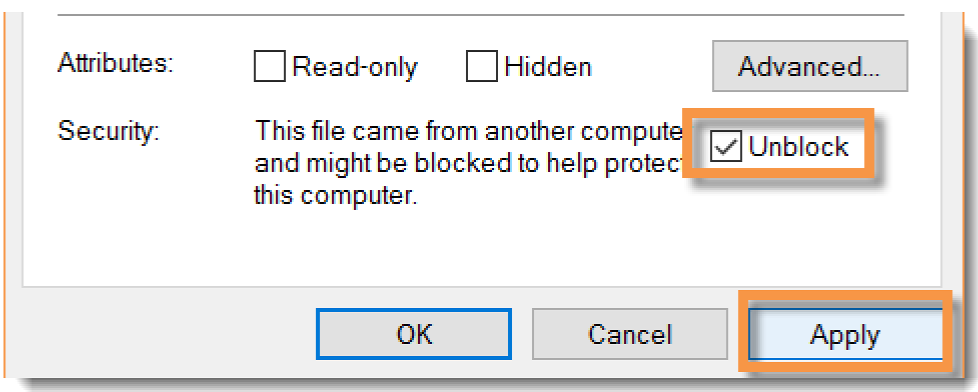
- Highlight and then right-click the **CRDSetup** file.



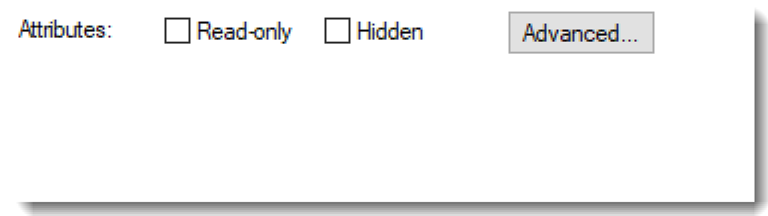
- Click **Properties**.



- On the *General* tab, click **Unblock** in the lower right corner.



If Unblock is not present, the CRD installer is already unblocked.

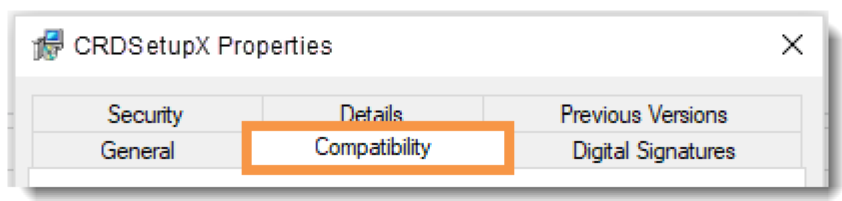


Some security features, such as Windows SmartScreen, can block certain files or flag them as potentially unwanted. If the CRD installer is run without being unblocked, CRD will not run properly.

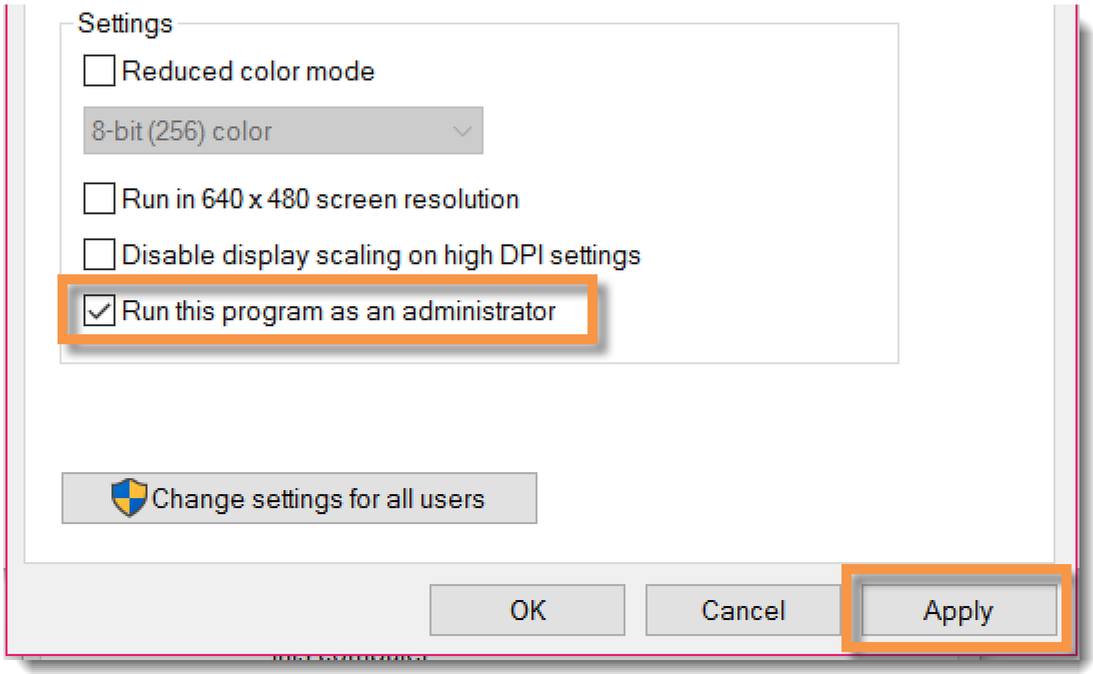
- Click **Apply**.
- Click **OK**.

Change the Compatibility Settings

- On the Properties window for the CRDSetupX that you opened in the previous step, click the **Compatibility tab**.



- In the *Settings* section at the bottom of the window, ensure that **Run this program as an administrator** has a check next to it. If it does not, check it.



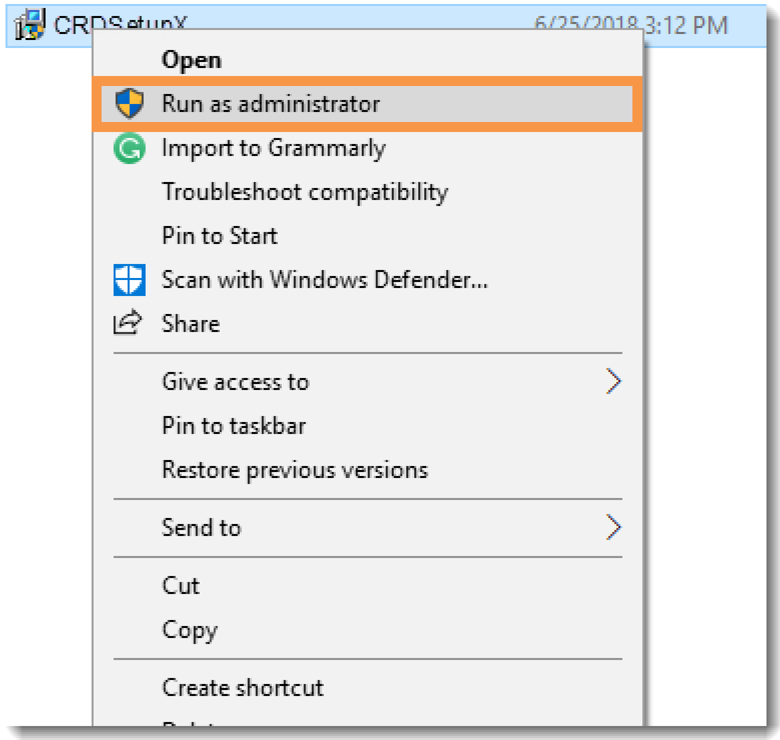
- Click the **Apply** and **OK**.

  You must perform this step even if you are logged in as an Administrator or have Administrative rights on this computer.

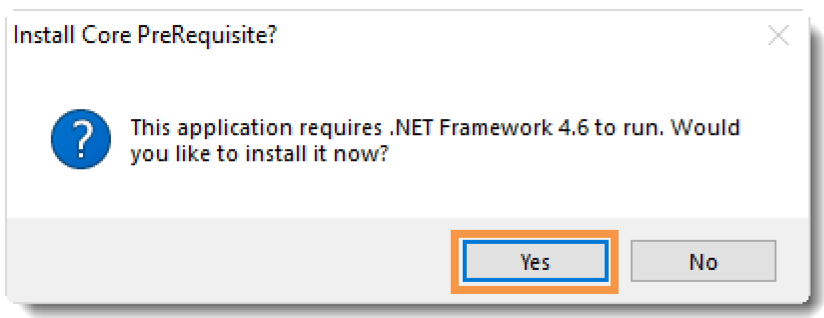
Beginning the Installation

To install the latest build/version of CRD, perform the following steps:

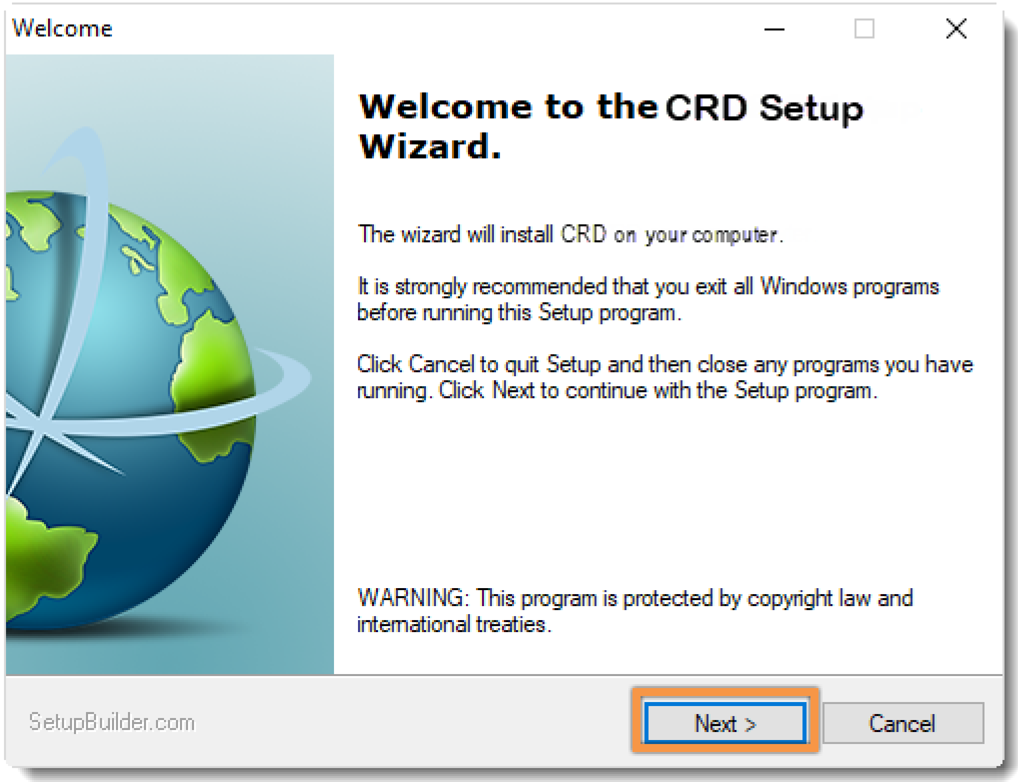
- Right-click the **CRDSetupX** and select **Run as Administrator**.



- Click on the **Yes** on the *Install Core PreRequisite?* pop-up window.



- Click **Next** on the Welcome message.



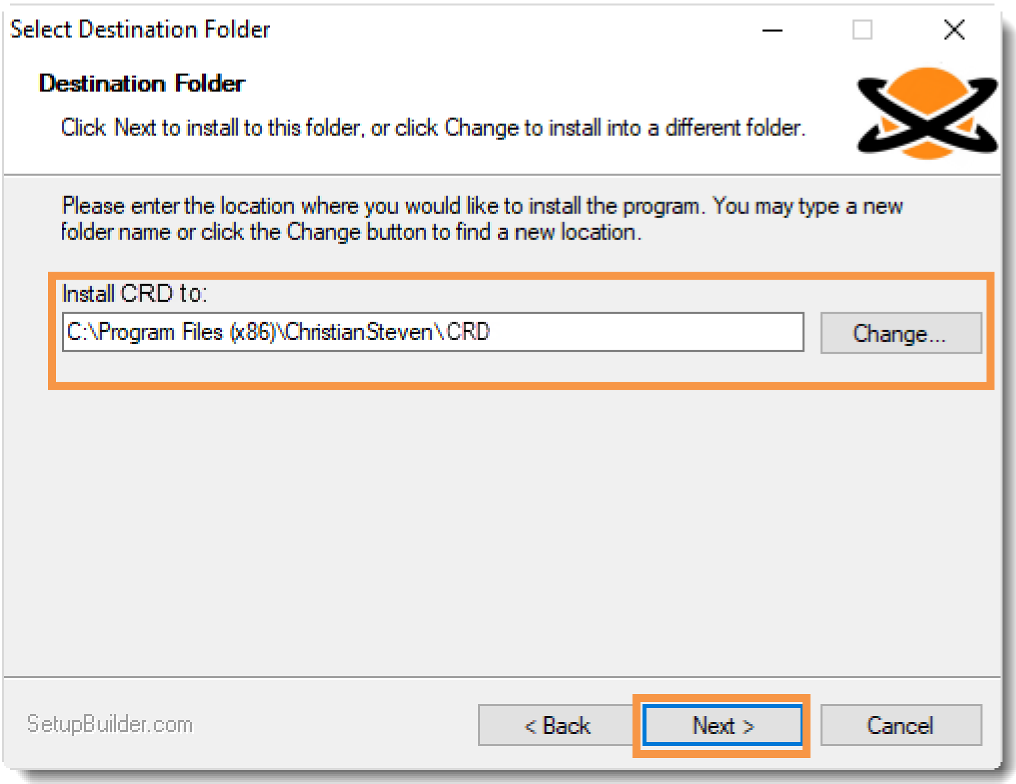
- Carefully read the License Agreement.

Once you have fully read and understand the License Agreement, click the radio button next to **I accept the terms in the license agreement**. Then, click **Next**.

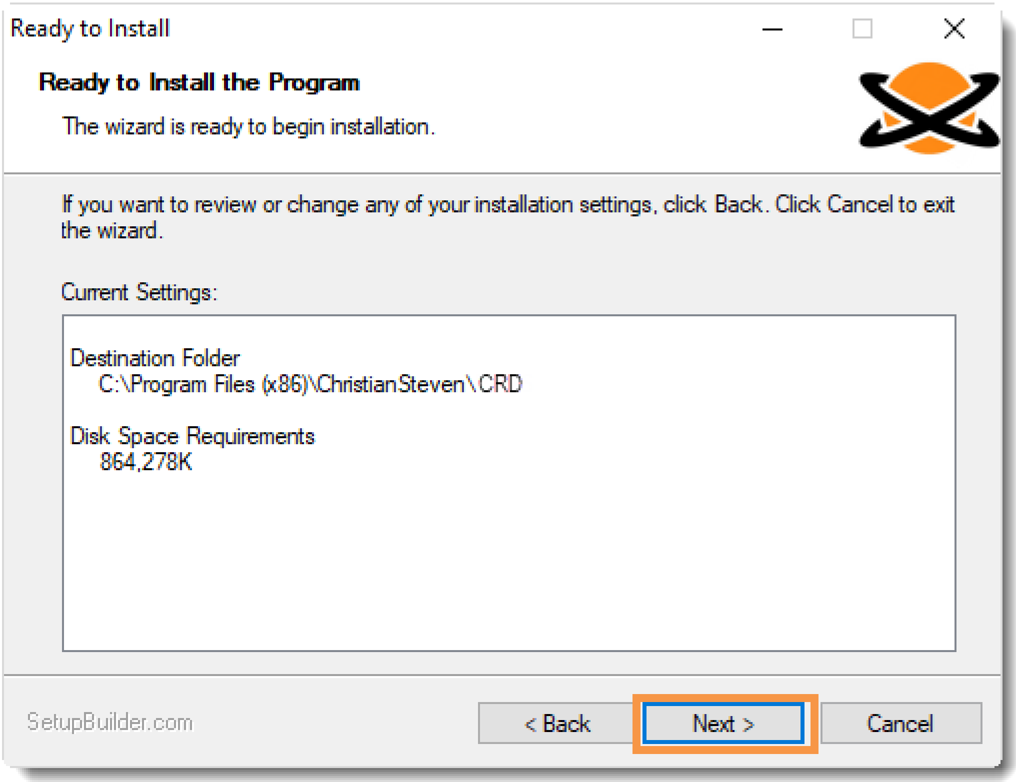
> *If you do not accept the terms of the license agreement, you will not be able to proceed with the installation.*

- Now, you will see the *Select Destination Folder* screen. You can choose to leave the default destination folder that is currently listed or select your own. Click **Next**.

Leaving the default destination as the destination folder is recommended.

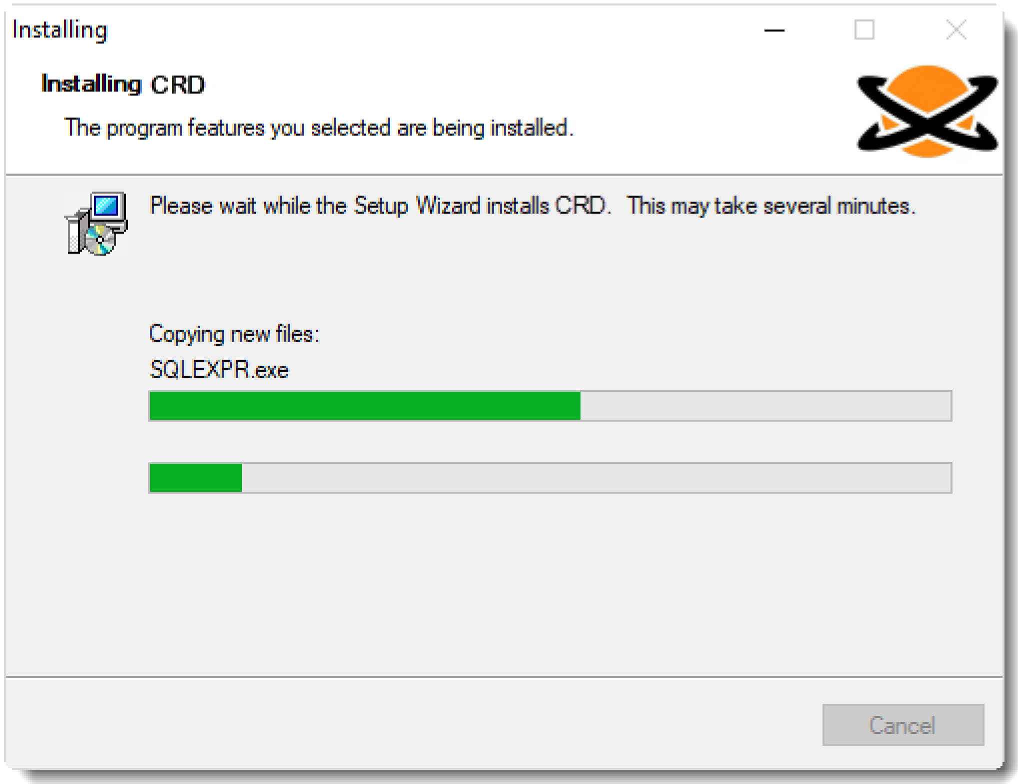


- You should now see a *Ready to Install* window detailing the current settings for the CRD installation. These details include the destination folder you chose in Step 10, as well as the Disk Space Requirements for the CRD installation.
- Click **Next**.

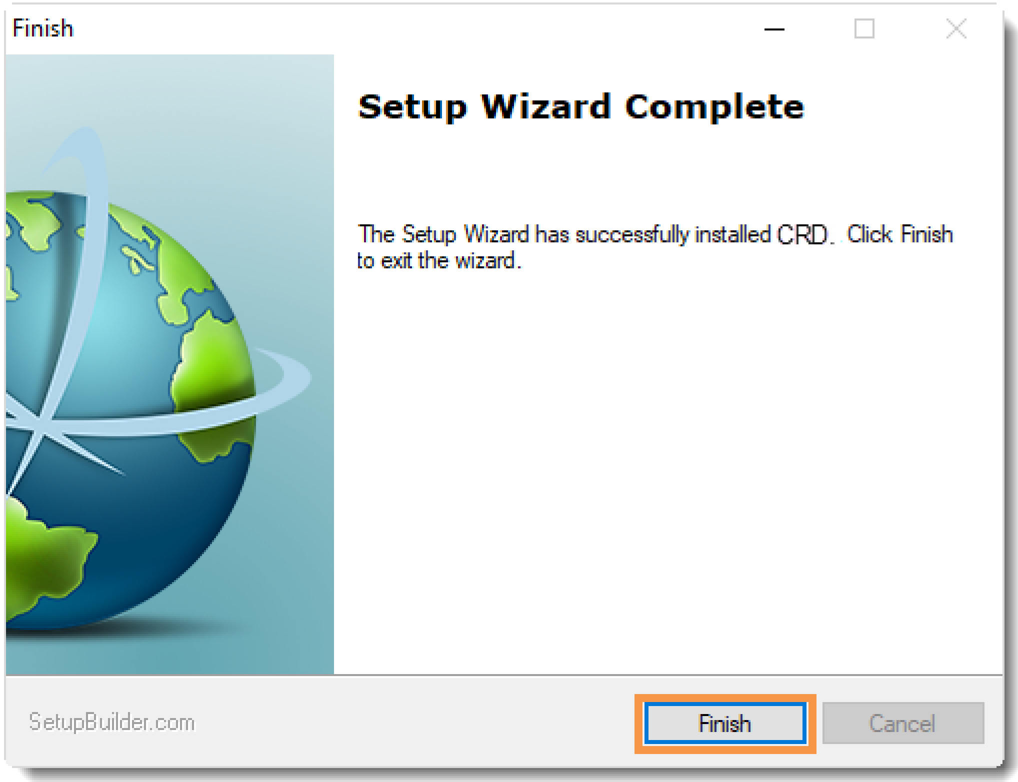


The Disk Space Requirements will vary from build to build. This is only the amount of disk space that is required for the installation/components of CRD.

- Allow the CRD installation to complete. You do not need to click anything during this process.

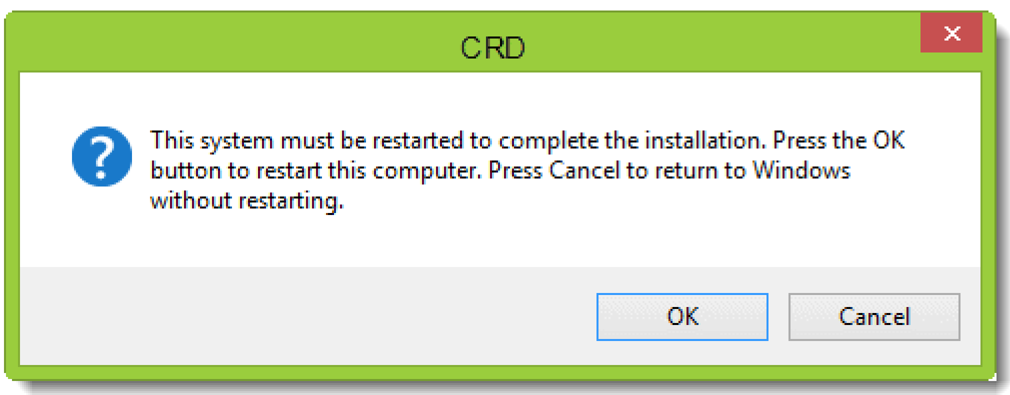


- When the *Setup Wizard Complete screen* appears, click **Finish**.



- At this time, you may see a pop-up stating that you will need to restart your computer in order to complete the CRD installation. Click **OK**.

  Should you not receive this message (below) you will need to manually reboot the server at this time.



CRD is now successfully installed on this server.


Recently added
Extend my Trial
Suggested
You're almost there
Finish phone setup
A
Access 2016
Acrobat Reader DC
Adobe Photoshop Express: Image E...
New
Alarms & Clock
C
Calculator
Calendar
Camera
Microsoft Store
Microsoft Edge
Sway
Skype
Code Writer
Microsoft Re...
Tips
Sticky Notes
PBRS
CRD

Database Installation

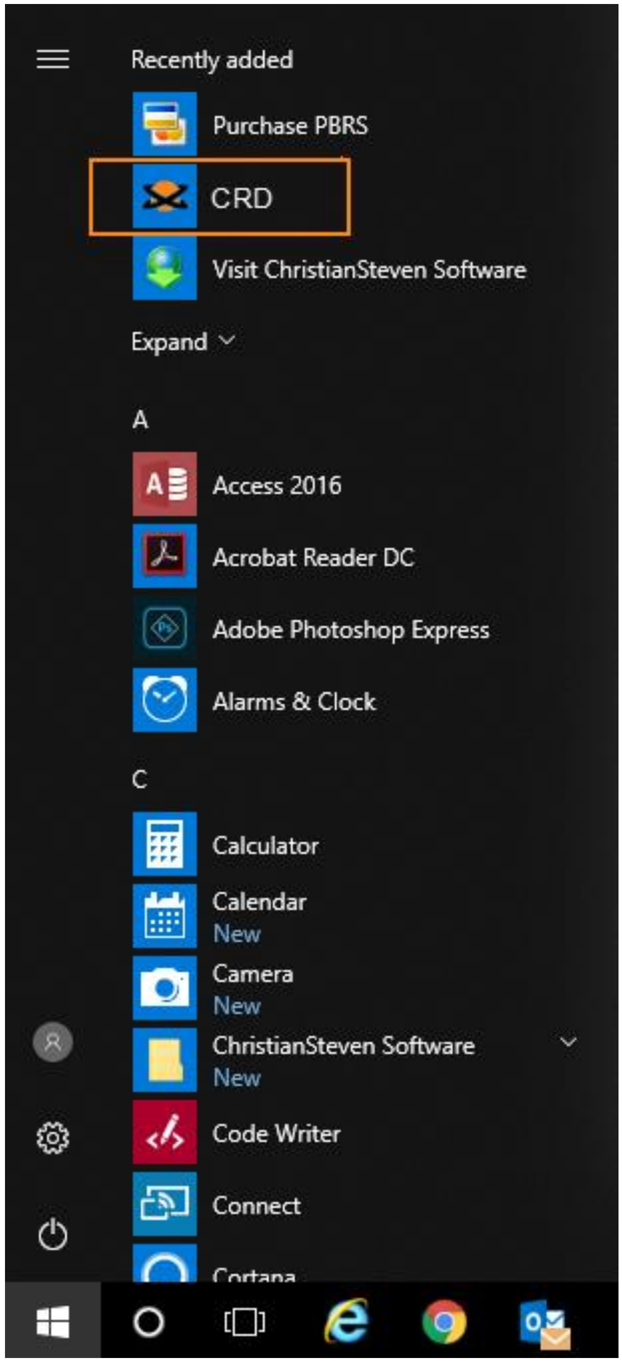
The first time you open CRD, you will need to configure the CRD database. This is where CRD will store the information regarding the schedules you set up within the software.

Select how you want to install the CRD database to proceed with the database installation steps.

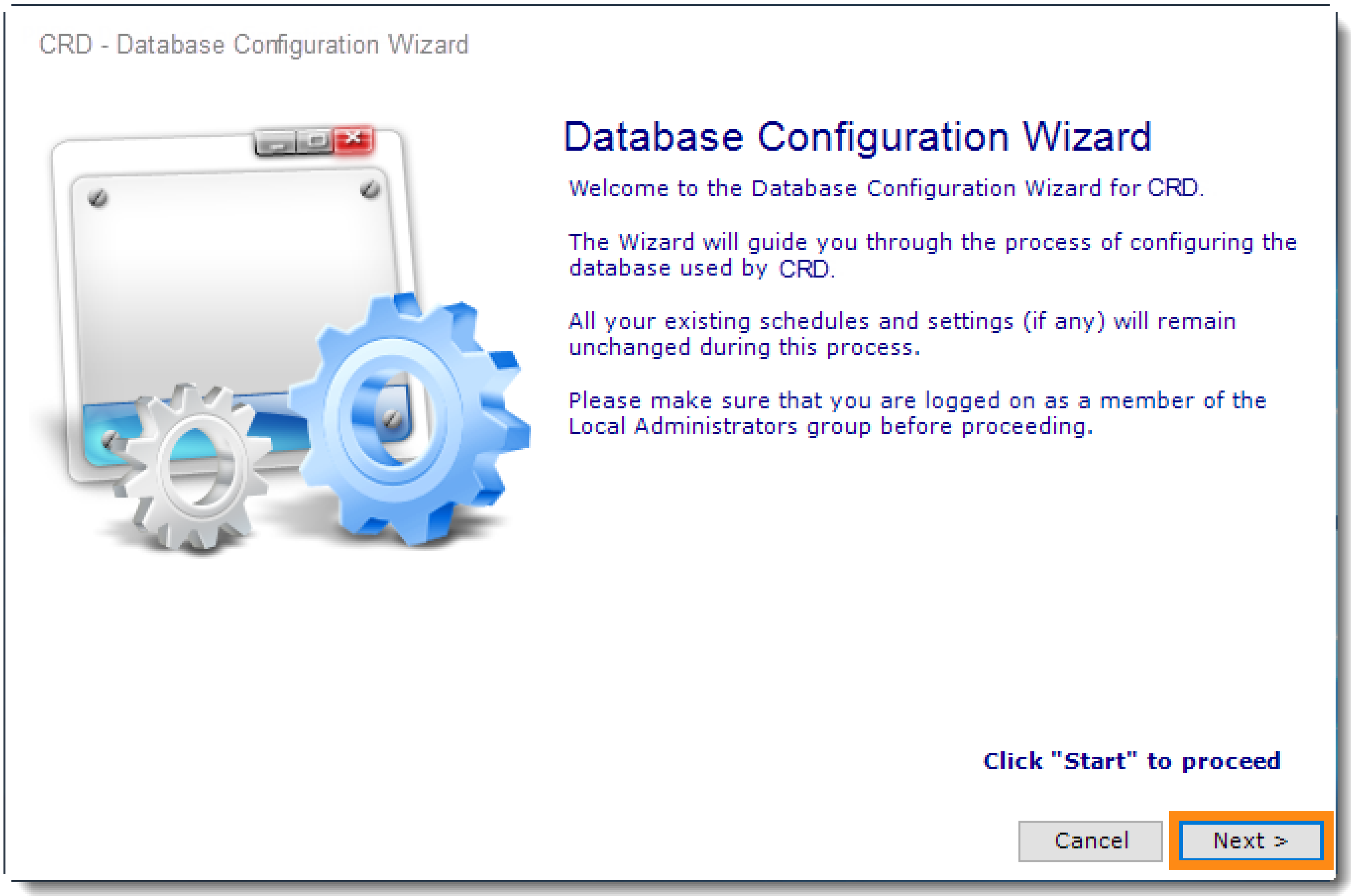
- Option 1: Default CRD Database Installation.
- Option 2: Use my existing databse server.

Default CRD Database Installation

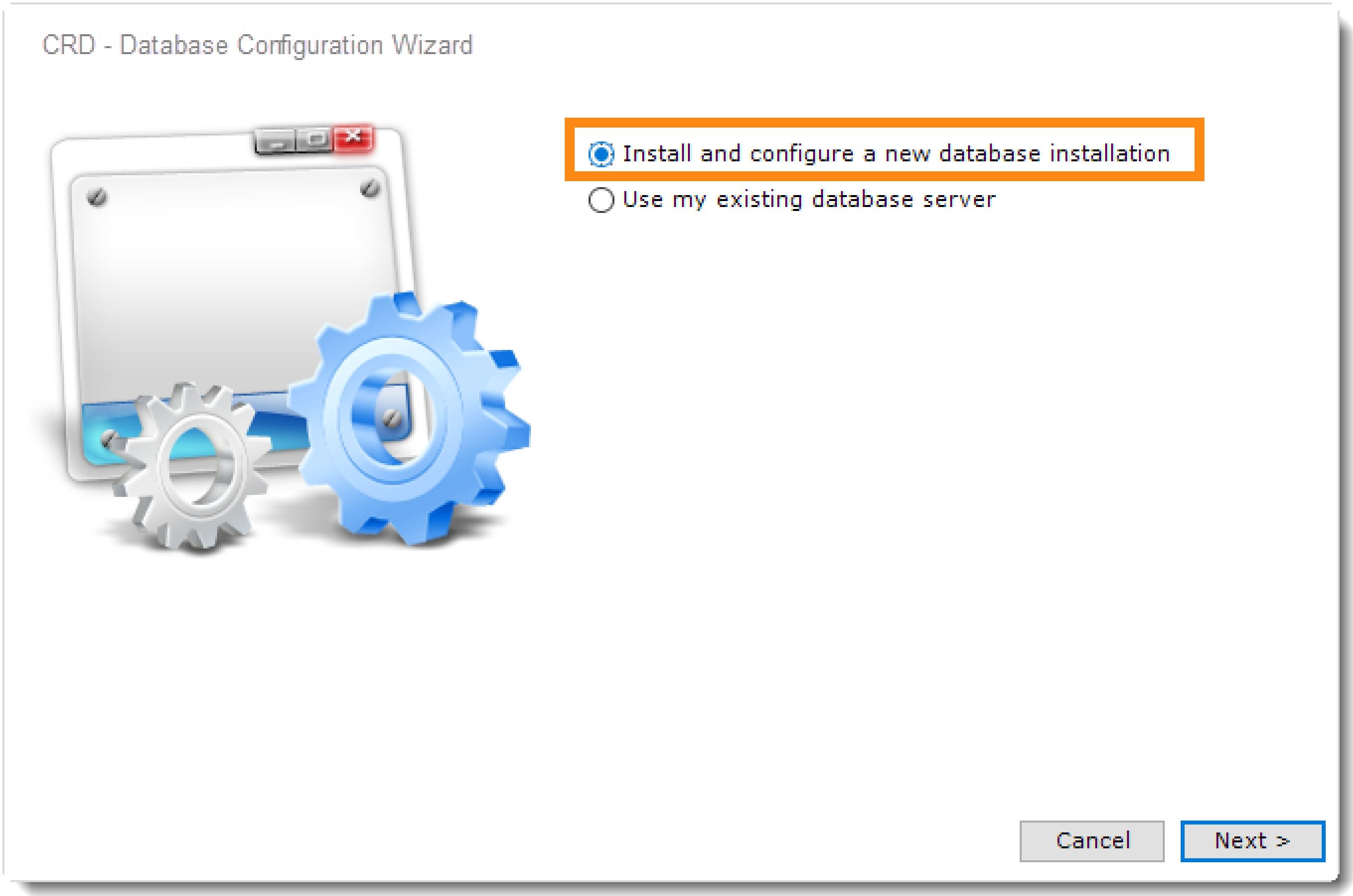
- Open CRD.



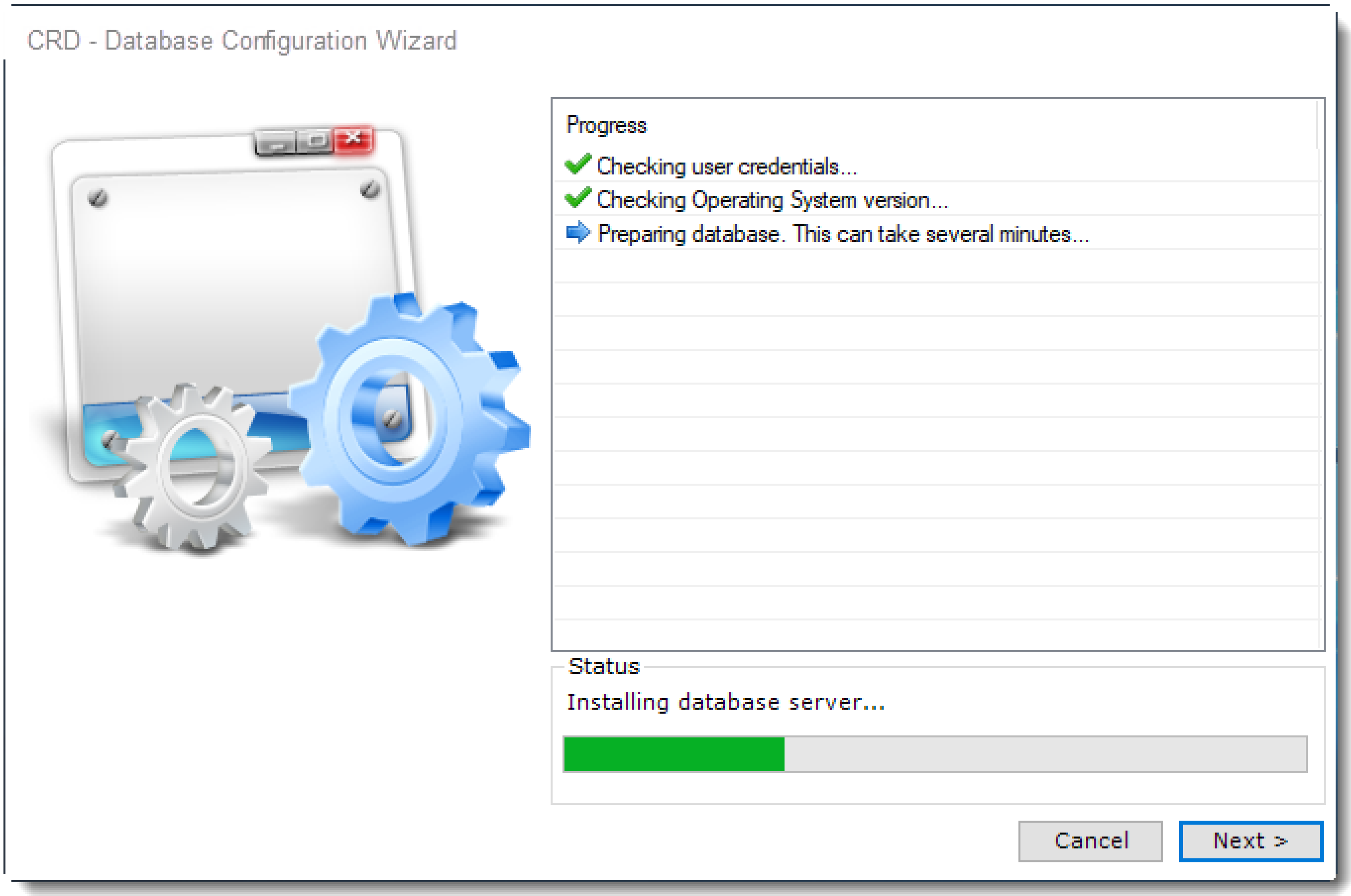
- You should now see a *Database Configuration Wizard* pop up. Click **Next**.



- Select **Install and configure a new database installation** and click on the **Next**.

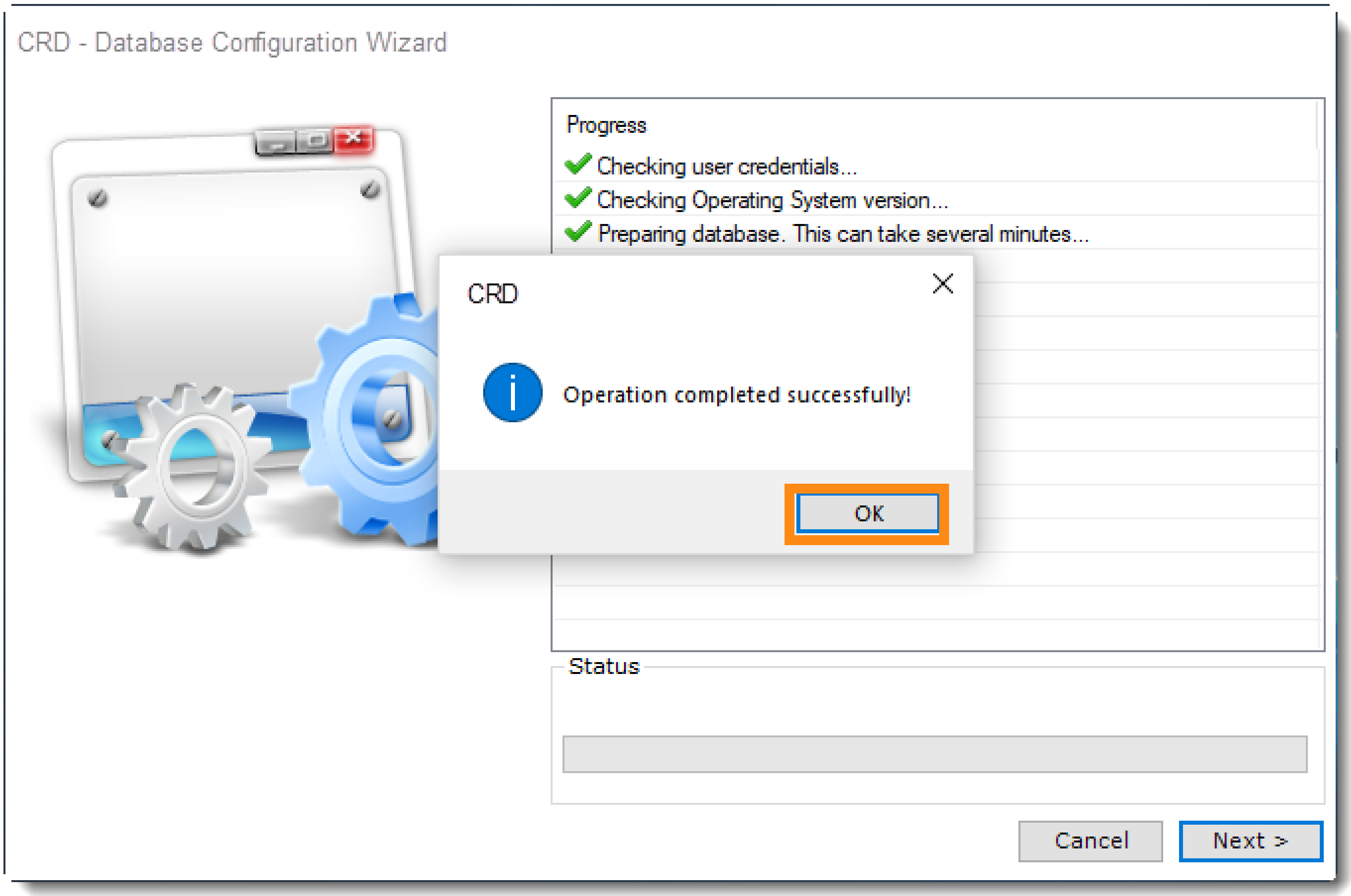


- The database will now be created. This process can take up 20 minutes.

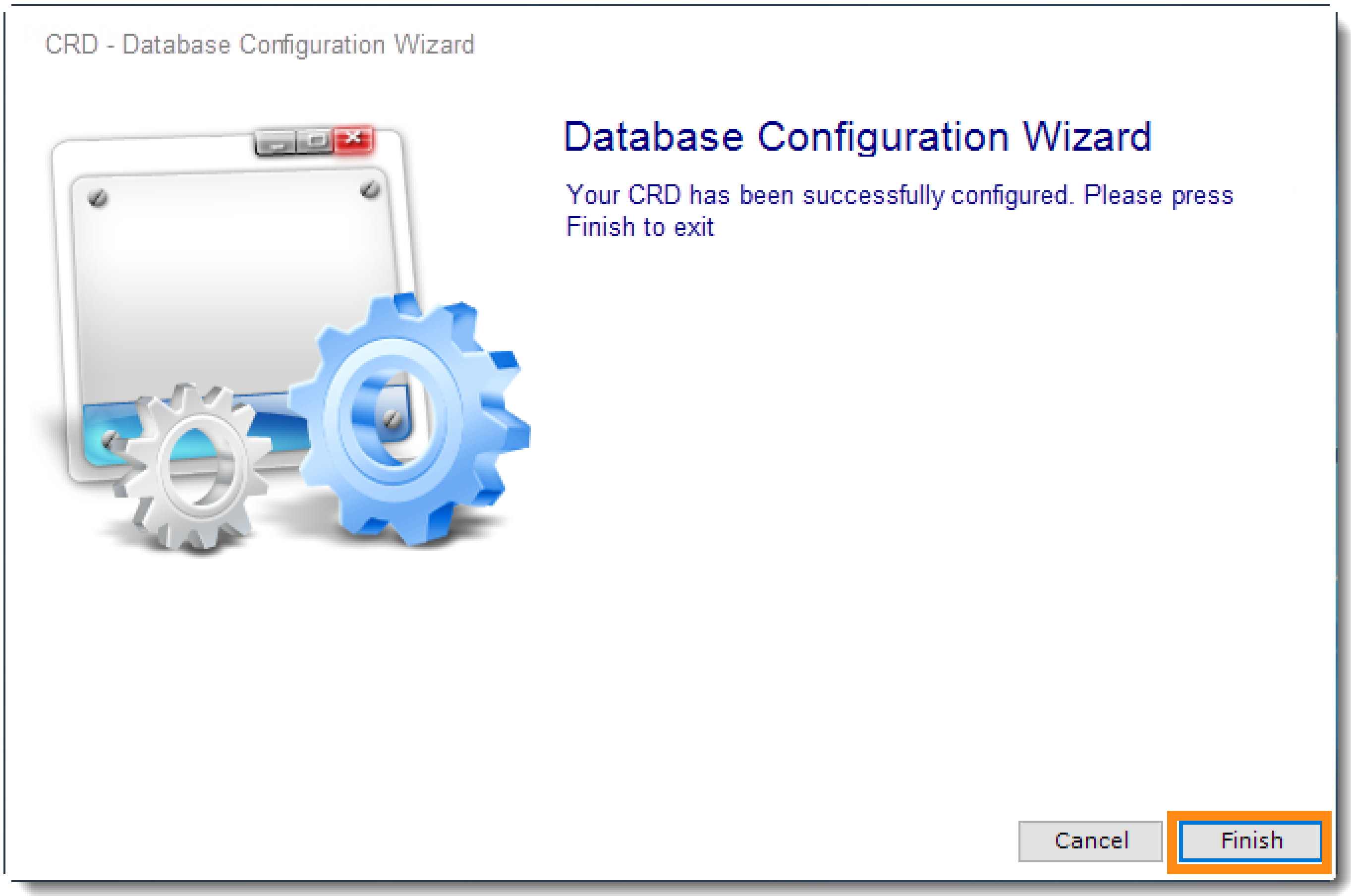


If the configuration fails, CRD will offer to install a local Access database. CRD will operate in this instance. However, advanced users will likely prefer to run CRD using the SQL Server install. If the configuration fails and you would like to use the SQL Server install, verify that you have met all the CRD prerequisites.

- If successful, pop-up will appear: *Operation completed successfully*. Click **OK**.



- Click **Finish** to complete the database configuration.

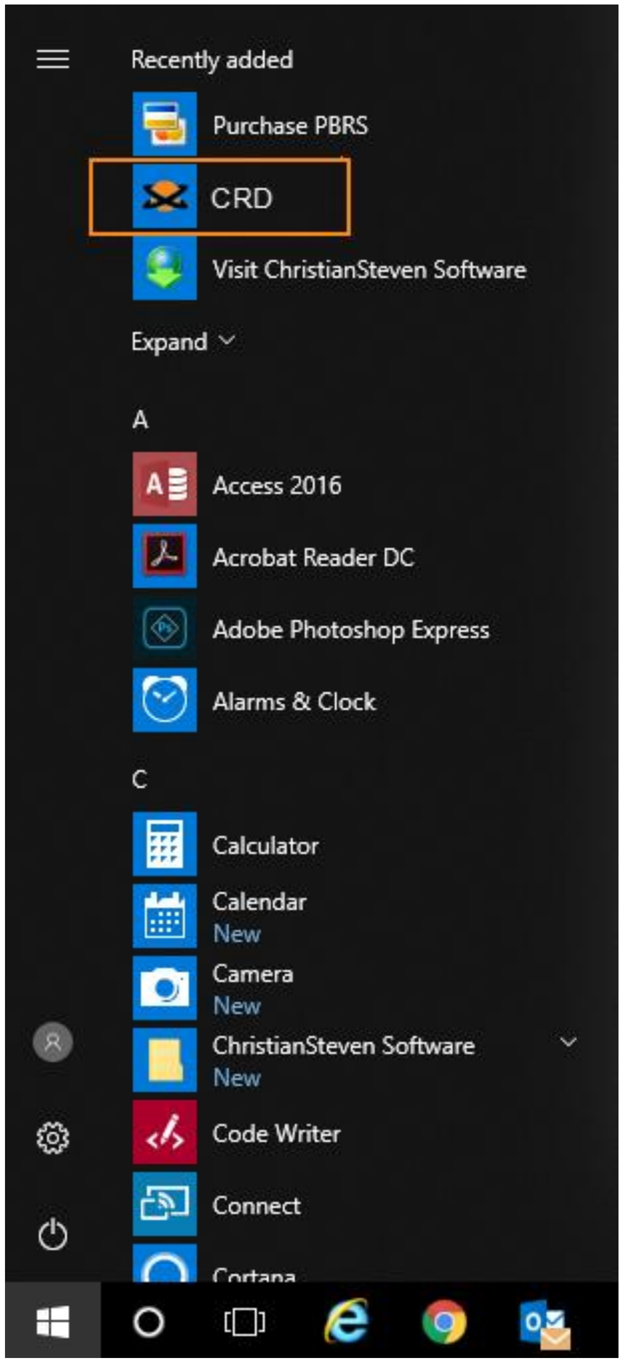


The CRD installation and database configuration is now complete.

Use My Existing Database Server

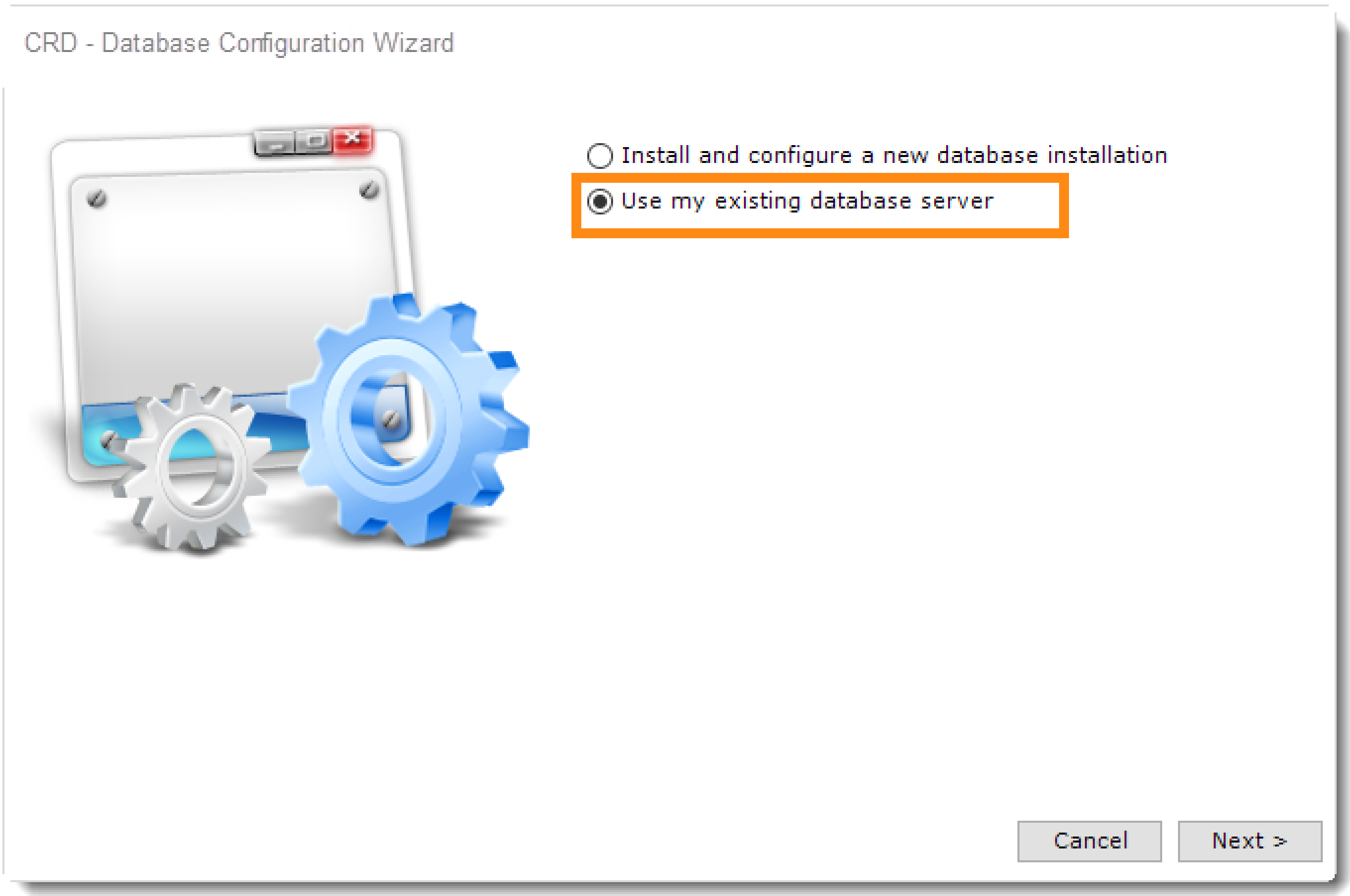
You will need to have your SQL Server name and a SQL Server account (username and password) which have read/write/create permissions.

- Open CRD.

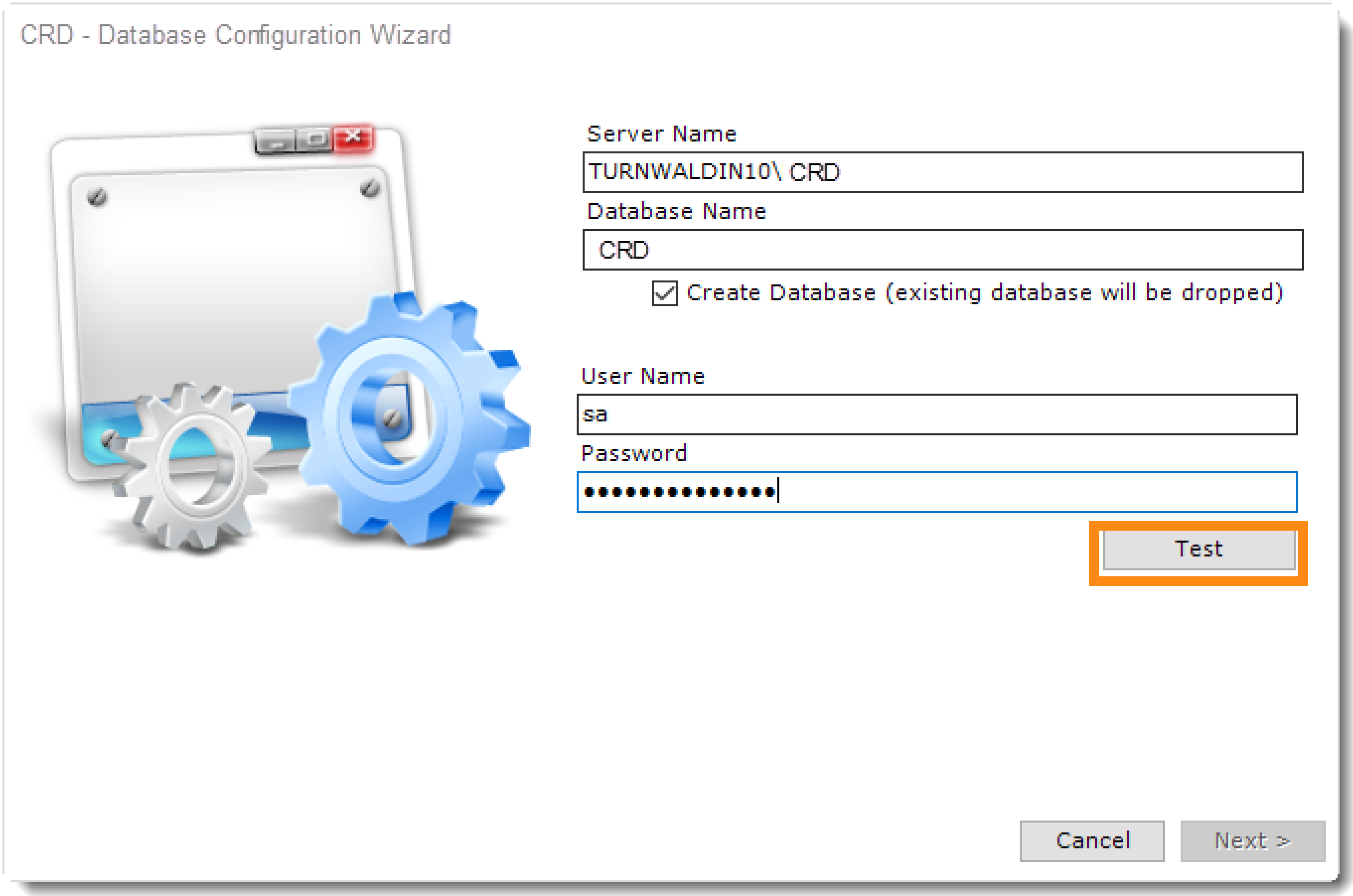


- You should now see a Database Configuration Wizard pop up. Click **Next.**

- Select *Use my existing database server* and click on the **Next**.

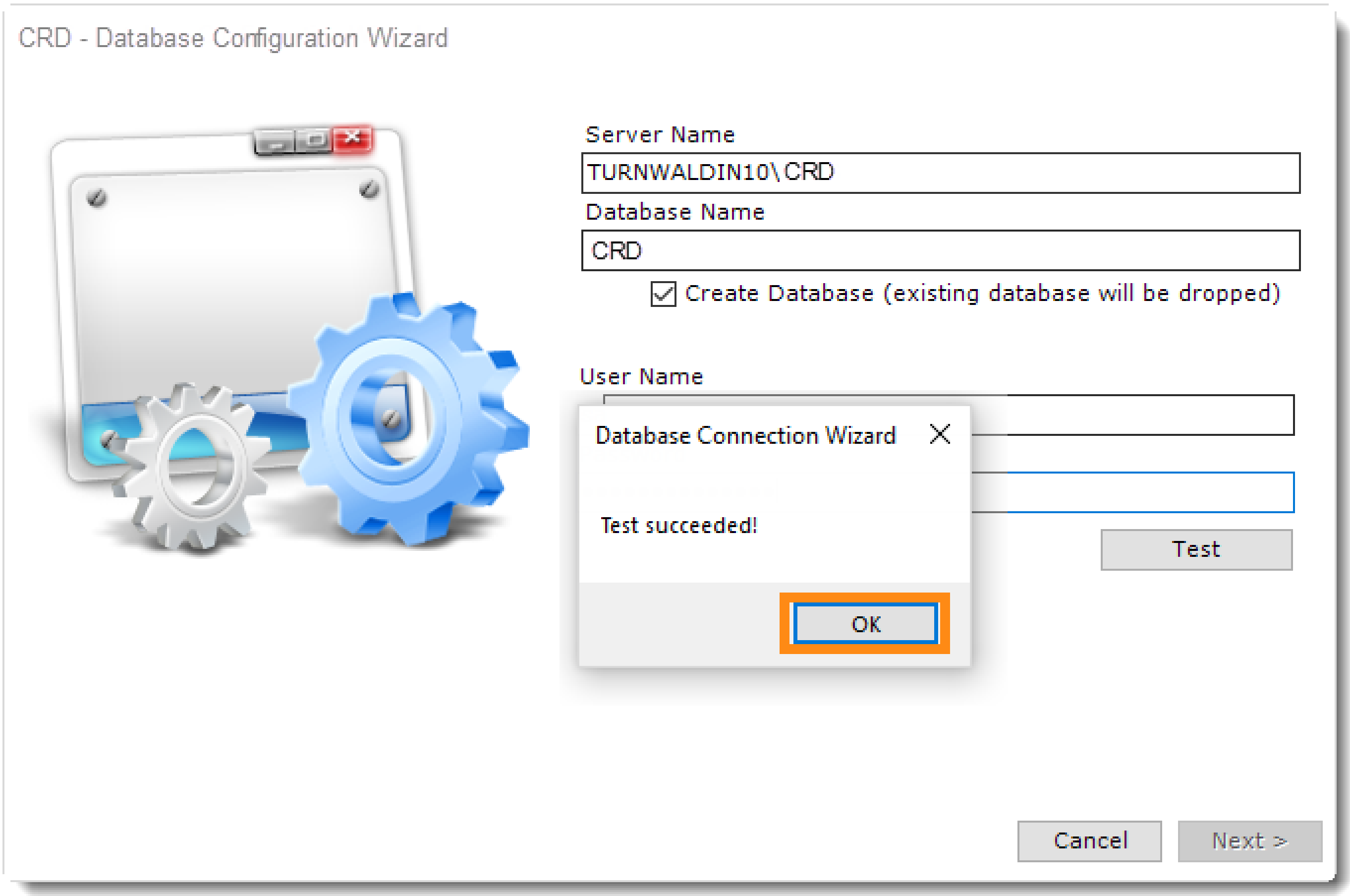


- Enter the details of your SQL Server, check the option *Create Database (existing database will be dropped)* and enter the credentials of your SQL Server account. Click **Test.** Once CRD can successfully connect to your SQL Server, click **Next.**

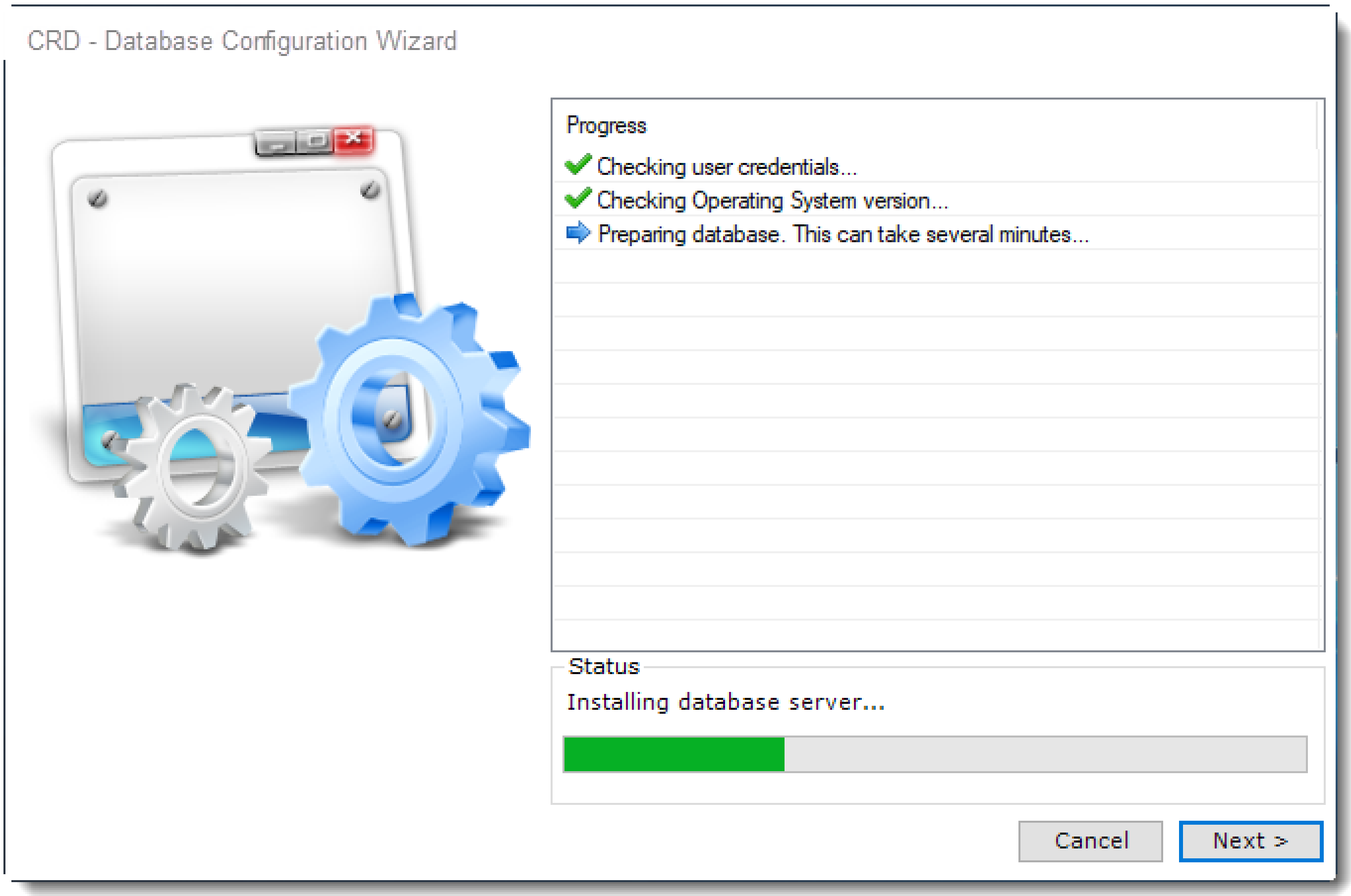


The SQL Server credentials must have permissions to read/write/create.

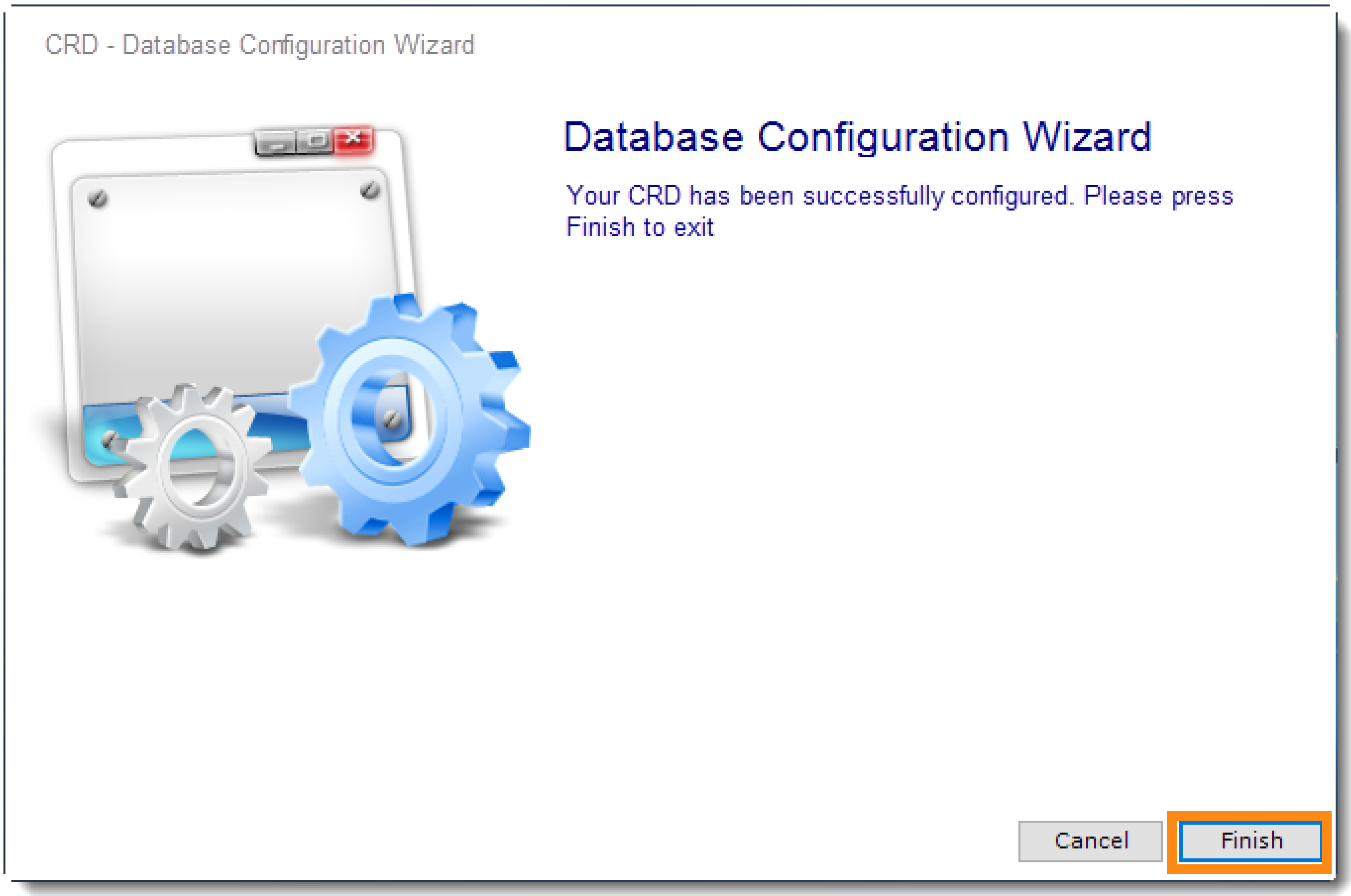
- Click **OK**.



- The database is now being created within your own database server.



- Click **Finish** when the process is complete.



CRD is now configured to store the scheduling information in a database on your server.

IV. Welcome to CRD

Each time you use CRD, you will be required to login. Your security credentials determine what you can and cannot do and what schedules you can see.

The first time you log in to CRD, you **must** create an Administrator account.

Once you are logged on as an Administrator, you can use the User Manager to:

- Set up additional Administrators and Users.
- Set PBRS to log on automatically using a specified user.
- Assign specific folders and schedules to specific users.
- And so much more!

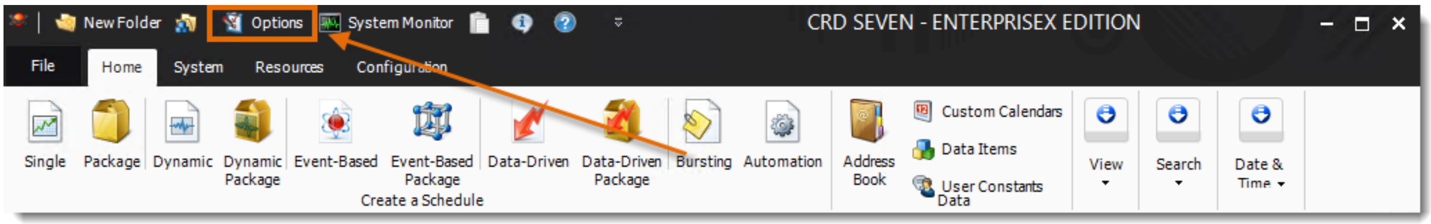
To create an Administrator account, simply fill in the required information in the fields listed on the *Create Admin User* portion of the Welcome screen (shown below).

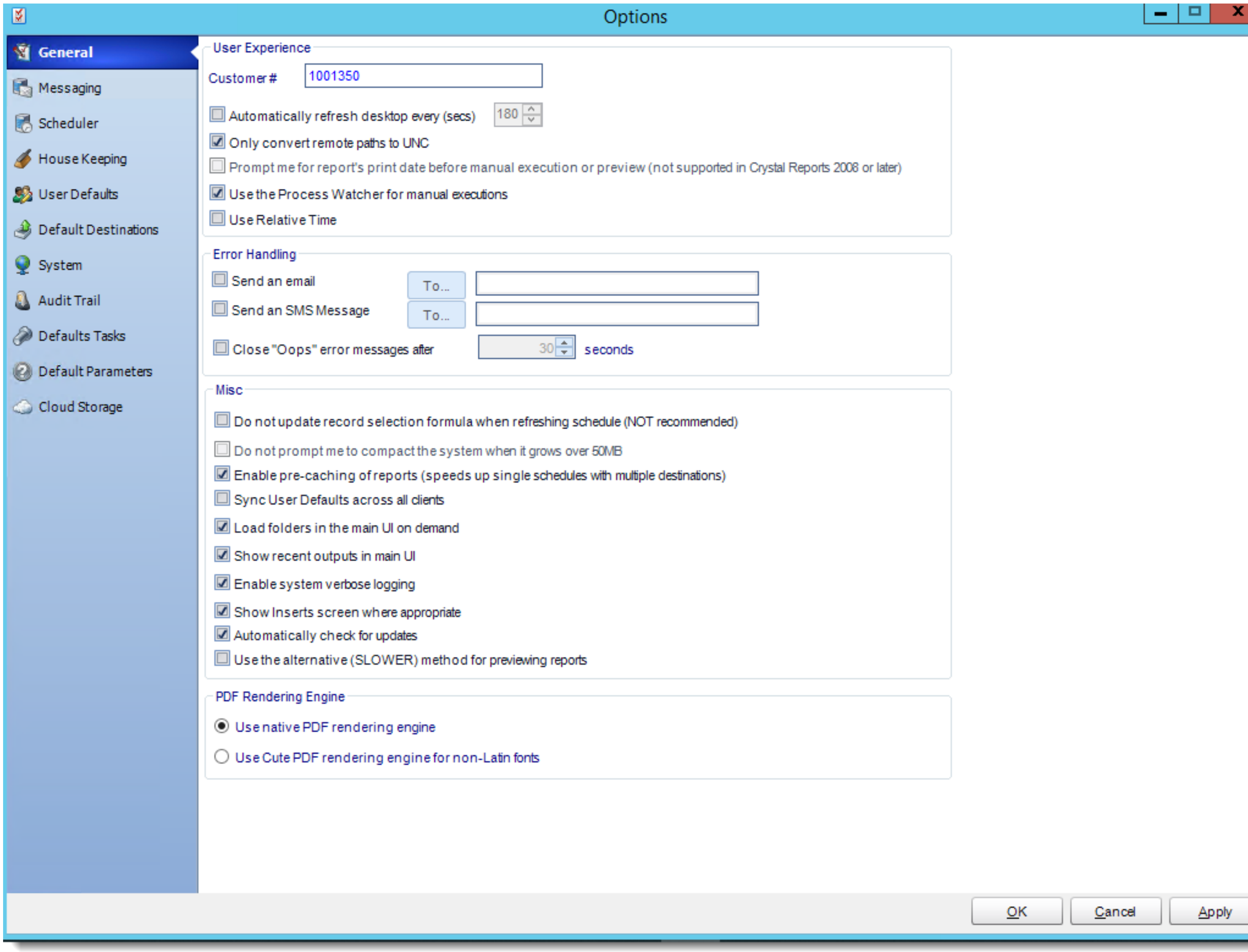
IMPORTANT*: Make note of the username and password you set up as the Administrator. You will need these again to use CRD. If you forget the administrator credentials, you will have to log a support ticket with our Technical Support Help Desk in order to have the password reset.*

Options

The Options module allows you to change and customize configuration settings that are used by CRD. Example: Messaging, Scheduling, and more.

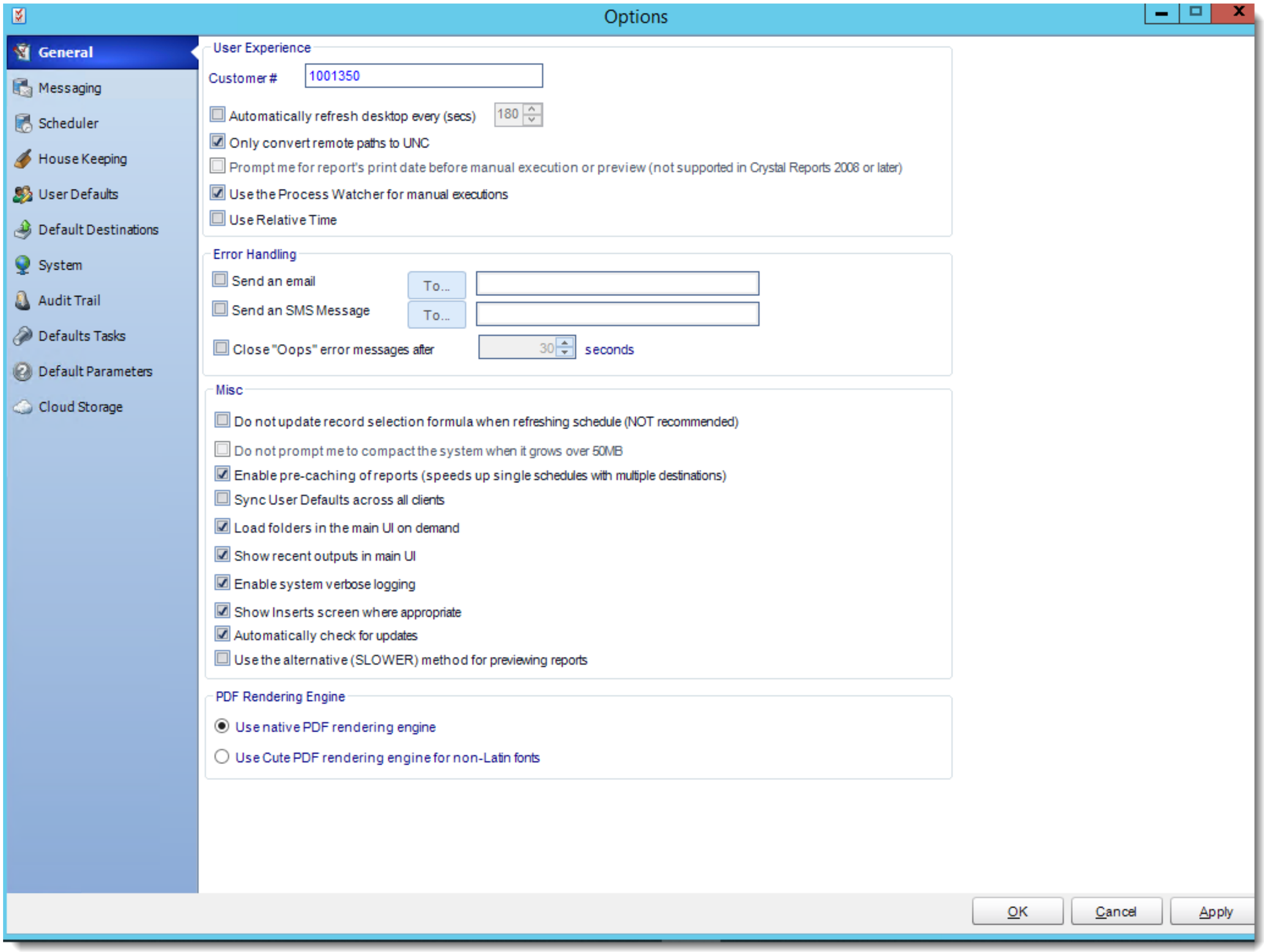
- Go to **Options**.





General

In CRD, you have the option to configure many different aspects of how the software performs. You can access these configuration options by clicking the Options button at the top of CRD. The first tab is labeled "General".

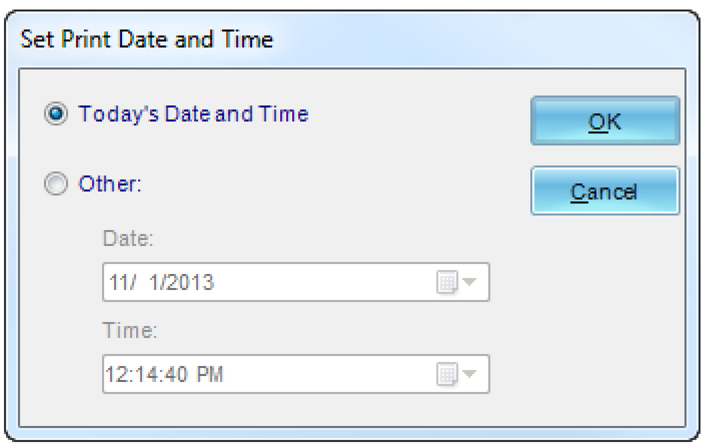

Options
General
Messaging
Scheduler
House Keeping
User Defaults
Default Destinations
System
Audit Trail
Defaults Tasks
Default Parameters
Cloud Storage
User Experience
Customer #
1001350
Automatically refresh desktop every (secs)
180
Only convert remote paths to UNC
Prompt me for report's print date before manual execution or preview (not supported in Crystal Reports 2008 or later)
Use the Process Watcher for manual executions
Use Relative Time
Error Handling
Send an email
To...
Send an SMS Message
To...
Close "Oops" error messages after
30
seconds
Misc
Do not update record selection formula when refreshing schedule (NOT recommended)
Do not prompt me to compact the system when it grows over 50MB
Enable pre-caching of reports (speeds up single schedules with multiple destinations)
Sync User Defaults across all clients
Load folders in the main UI on demand
Show recent outputs in main UI
Enable system verbose logging
Show Inserts screen where appropriate
Automatically check for updates
Use the alternative (SLOWER) method for previewing reports
PDF Rendering Engine
Use native PDF rendering engine
Use Cute PDF rendering engine for non-Latin fonts
OK
Cancel
Apply

User Experience

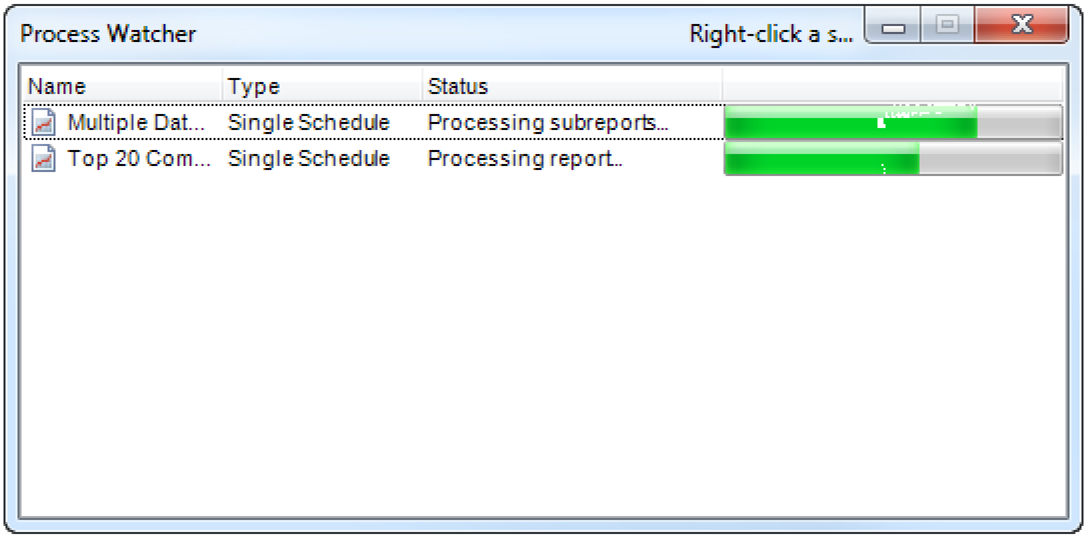
- **Customer #:** The value that should be listed here is your individual customer number, which is provided by ChristianSteven when you purchase CRD. It identifies you in our billing and tech support system and allows you to log support tickets through CRD itself. Once you receive your customer number from ChristianSteven, you should input it here (if it is not already listed).

  > *If you are using the free trial version of CRD, no value will be listed here and this field will be left blank until you purchase CRD. If you are experiencing issues with CRD during your free trial, contact your Sales Manager. You will be unable to log a support ticket through CRD.*

- **Automatically Refresh Desktop:** When viewing the CRD desktop (especially when using Detail option), this option will refresh the screen at the interval of seconds you specify. This will allow you to see an up to date status of your schedules at a glance without having to refresh the system manually.
- **Only convert remote paths to UNC:** This setting instructs CRD only to convert remote paths to UNC. This option helps prevent any path resolution problems you may otherwise have. Local paths are not affected if you are a system administrator. (network or shared paths)
- **Prompt me for reports print date…**: This setting instructs CRD to prompt you for the print date for the report when carrying out manual execution of schedules or when previewing reports. You can then choose between today's date or another date you specify.



- **Use the Process Watcher for manual executions:** The Process Watcher is a monitoring facility for manually executed schedules.



- **Use Relative time**: This setting lets you select whether timings should be displayed and saved in the time zone of the scheduler or the time zone of the user(if they are different).

Error Handling

The Error Handling section tells CRD what to do when CRD encounters a problem. You can choose between the following options:

- **Send an Email:** Choose to be notified by email if a report fails to run successfully. You can specify any email address in this field as long as it is valid.
- **Send an SMS**: Choose to receive an SMS text message on your cellphone if a report fails to run successfully. This can be any phone number as long as it is valid.
- **Close Oops Messages after X Seconds**: Automatically close any error messages after a specified amount of time.

> *An error log file is stored in the installation folder (typically, Program Files\Christiansteven\CRD). You can also view the log file from the System Monitor.*

Misc

- **Do not update record selection…:** CRD stores a copy of your Crystal report locally. If you make changes to the source file, you will need to refresh the local copy (See "Refresh"). CRD will not only refresh the report structure, but will also replace the record selection formula. If you have made local changes to the record selection formula, then check this option if you DO NOT want CRD to replace the local record selection formula.
- **Do not prompt me to compact..:** The compacting process reduces the size of the database, and re-indexes the records, repairing any corrupted records in the process. Similar to a 'Compact & Repair' in Access
- **Enable pre-caching of reports…:** Pre-caching is effective when there are multiple destinations in a single schedule. When switched on the report is exported once and

then CRD works on the result locally to produce the various formats required by the different destinations.

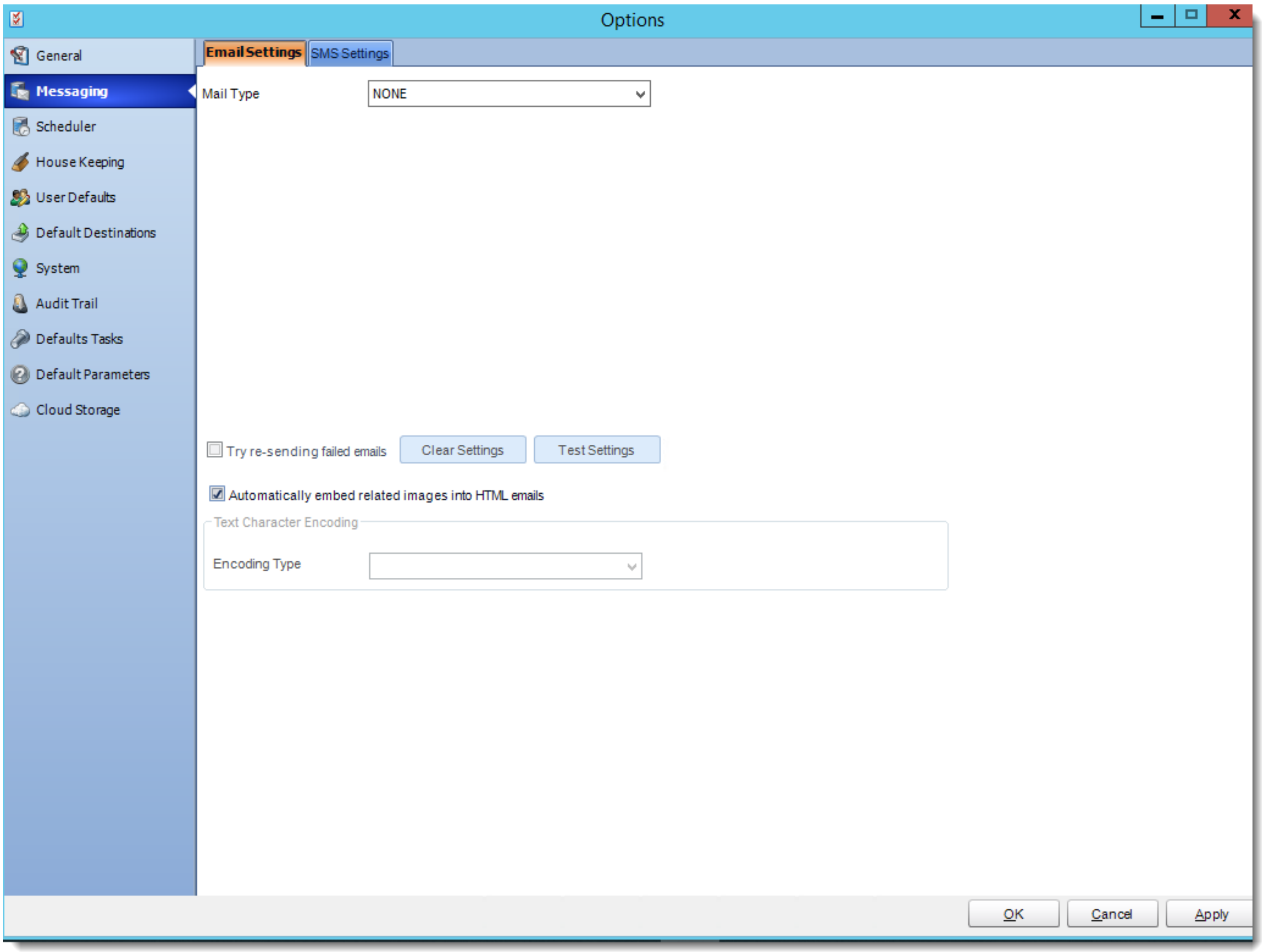
> *If your report takes a long time to complete e.g. 1 hr, then the second and third destinations could end up having different data if the database was updated during that time. Switching on Pre-caching ensures that all destinations receive identical data in their report.*

- **Sync User Defaults across all clients:** If you have multiple installations of CRD and all of them are connected to the same database, you can select this checkbox to sync the User Defaults on this installation of CRD with the other installations.
- **Load folders in the main UI on demand:** Opens schedules located within folders more quickly.
- **Show recent outputs in main UI:** Recent outputs selected will show in the main User Interface.
- **Enable system verbose logging**: Verbose logging allows CRD to record more details regarding schedules, outputs, files, errors, etc. It is especially helpful should CRD experience issues where technical support or Development would need to troubleshoot. Having this enabled does not impact user functionality in any way. Unless otherwise advised, please leave this option checked.
- **Show insert screen where appropriate:** Unchecked this option will require the user to right click to activate the Insert menu.
- **Automatically check for updates:** Checking this option will ensure that CRD automatically checks for and alerts you when an update is available. If you do not have this option checked in CRD, you will need to manually check for updates to CRD by following our Product Info & Updates blog.
- **Use the alternative (SLOWER) method for previewing reports:** Renders the report as PDF for preview purposes.

PDF Rendering Engine

- **Use native PDF rendering engine:** Crystal Rendering will be used to create PDF.
- **Use Cure PDF rendering engine for non-Latin fonts:** Use Print Driver to create PDF.

Messaging



Options
General
Messaging
Scheduler
House Keeping
User Defaults
Default Destinations
System
Audit Trail
Defaults Tasks
Default Parameters
Cloud Storage
Email Settings
SMS Settings
Mail Type
NONE
Try re-sending failed emails
Clear Settings
Test Settings
Automatically embed related images into HTML emails
Text Character Encoding
Encoding Type
OK
Cancel
Apply

Email Settings

When you click on the Messaging tab in CRD's Options window, you will see that you have two separate messaging options (shown on the tabs): Email Settings and SMS Settings. On this page, we will discuss the various email options available to you when using CRD and how to set them up.

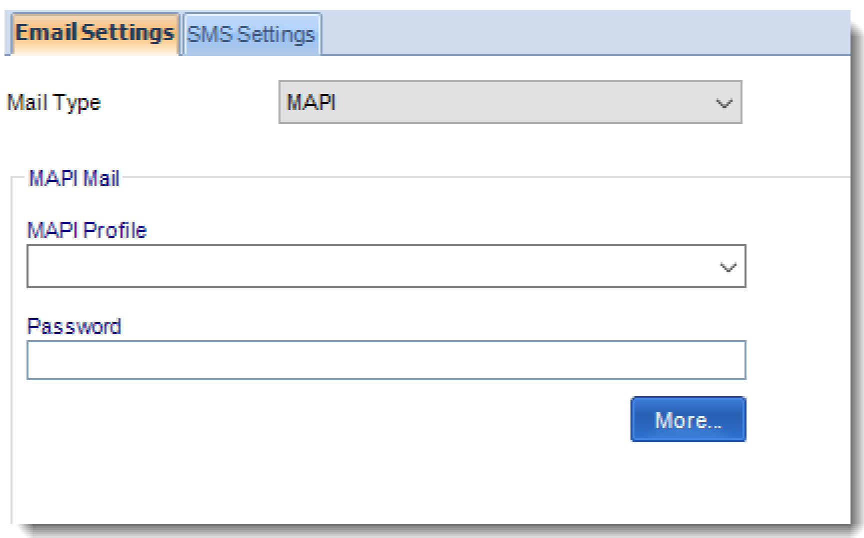
> *No separate server is required in order for CRD to send e-mail. However, if you are unfamiliar with your organization's e-mail settings, you may want to have a system administrator set these for you.*

MAPI

You should choose MAPI from the Mail Type drop down if your organization uses a MAPI compliant system (such as Outlook or Exchange). In order to utilize the MAPI mail type, you will need to install the Collaboration Data Objects component from your Outlook or Office installation disk.

Once the CDO component is installed, you may need to register them again.

> *To verify whether or not you already have the Collaboration Data Objects installed, click the Housekeeping tab on the far left. Then, under the Components tab, verify that Collaboration Data Objects is listed. If it is not, you will need to install them.*



To use the MAPI mail type, use the following credentials:

- **MAPI Profile:** Enter the name of your MAPI Profile.
- **Password:** Enter your password.

The MAPI Profile is how CRD will communicate with your email system, global address book, and other email functions. Depending on the version of Windows you are running, it may also communicate with your security rights and the service packs you have installed. The drop-down may not show the list of profiles which exist on your PC.

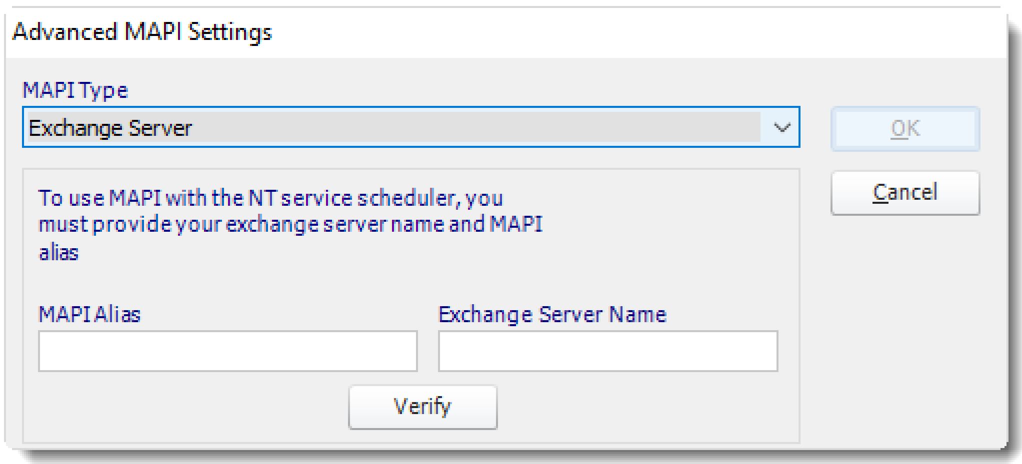
If you are unsure of your MAPI Profile name, you can find it by going to Windows Control Panel > Mail and taking a look to see what your default profile is set to be. Then, simply type this profile's name into the field. More often than not, the profile name will be Outlook or MS Exchange Settings, but this is not always the case.

In the MAPI Section, click on the **More...** The More button allows you to specify additional settings for the MAPI messaging. You can choose to set CRD to use the Exchange Server, to email reports using Exchange or Office 365, or to use Stand-Alone Outlook.

Setting CRD to use Exchange Server

If you would like to set CRD to run from just the Exchange Server, perform the following:

- From the drop-down menu, select **Exchange Server**.



- Once you select the Exchange Server option, enter in the MAPI Alias and your Exchange Server Name in the applicable fields.
- Click **Verify.**

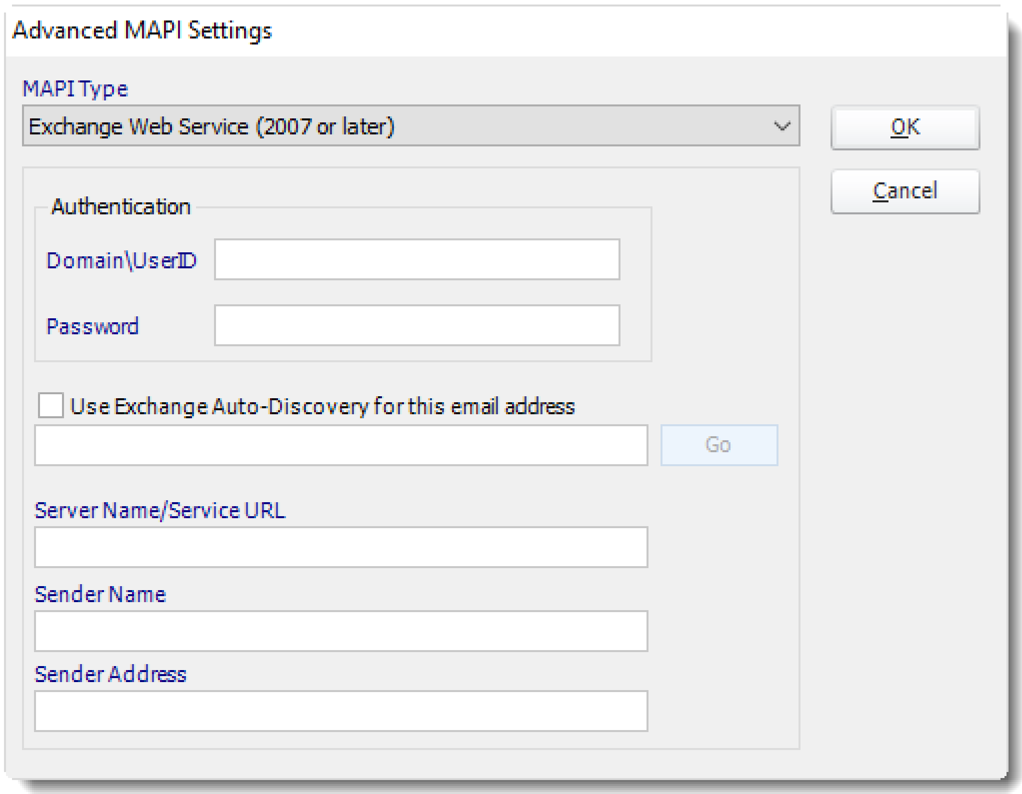
You must verify the MAPI Alias and Exchange Server Name or you will be unable to save the settings.

- Click **OK** to return the main messaging settings page.
- Skip to the **Test Settings** section at the bottom of this page to complete the Email Settings configuration.

Setting CRD to use the Exchange Web Service

If you would like to set CRD to use the Exchange Web Service, perform the following:

- From the drop-down menu, select **Exchange Web Service (2007 or later)**.



- Enter the following credentials:
  - **Domain\UserID:** Domain and User ID

    Office 365 users should enter their full email address in this field instead.
  - **Password:** Enter your password.
  - **Use Exchange Auto-Discovery:** This will enable you to automatically gather your exchange server settings. Enter your **Email Address**, click **Go**, and CRD should return the following settings:
- **Server Name/Service URL:** The name of your exchange server.
- **Sender Name:** Your sender name.
- **Sender Address:** Your sender address.
- If the settings are correct, click **OK** to save. You can test these settings on the main setup screen.
- Check the box next to *Use currently logged in user to send emails during manual execution* if you would like CRD to use the currently logged in Windows account (rather than the MAPI profile you are currently inputting) for emails that are sent when a schedule is manually executed.
- Skip to the **Test Settings** section at the bottom of this page to complete the Email Settings configuration.

Setting CRD to use Stand-Alone Outlook

If you want CRD to interface directly with your Outlook profile, select Stand-Alone Outlook from the drop-down menu.

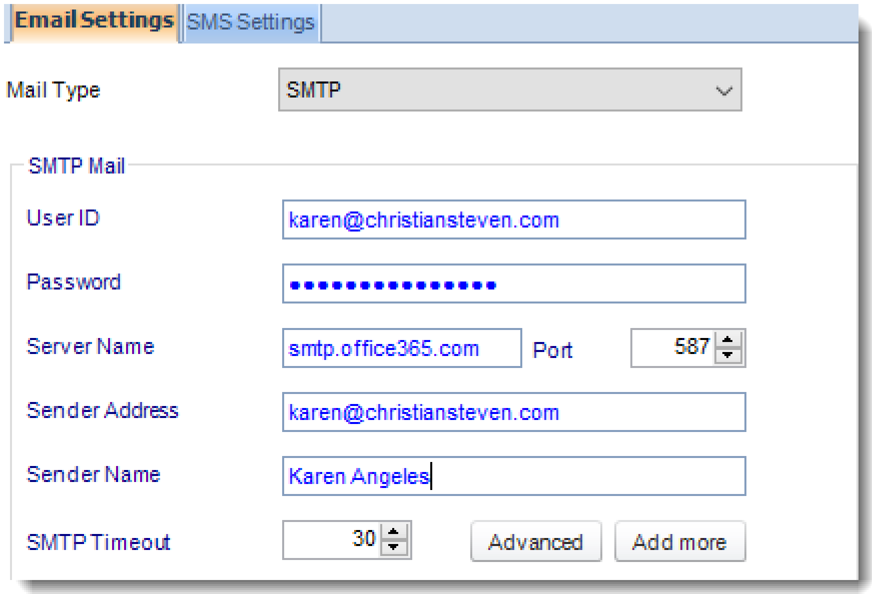
- Click **OK**. There is no need to enter in any additional credentials.

  Using this option, CRD will not send emails if you are not logged into the server with Outlook open. This is the case even if you are running CRD as an NT service.

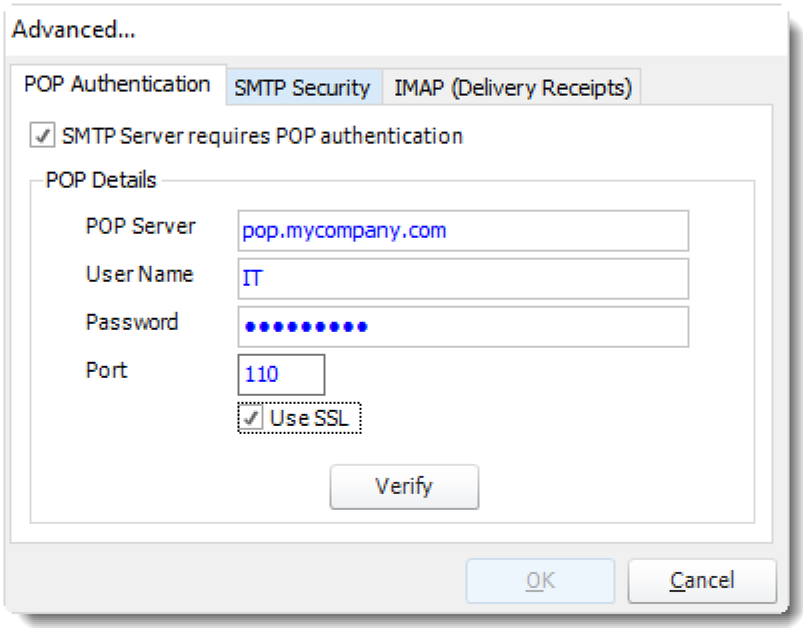
Skip to the **Test Settings** section at the bottom of this page to complete the Email Settings configuration.

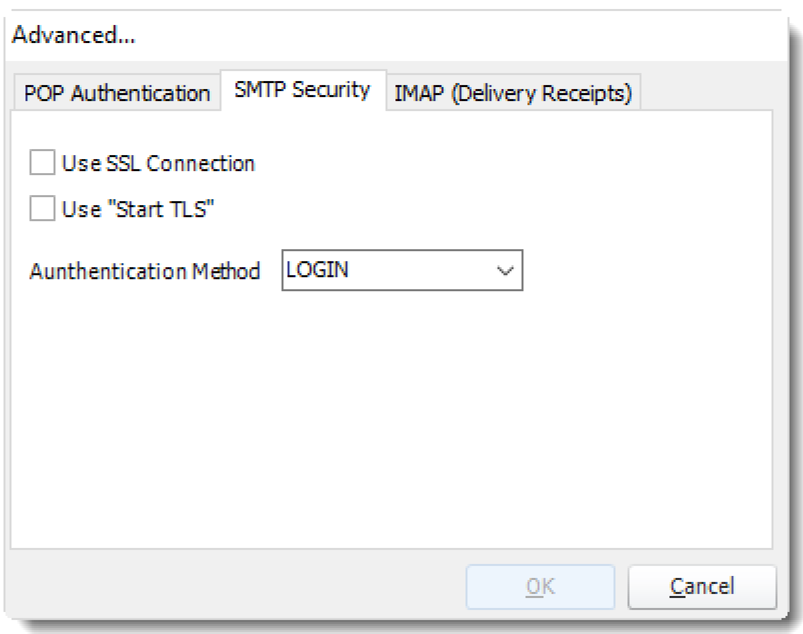
SMTP

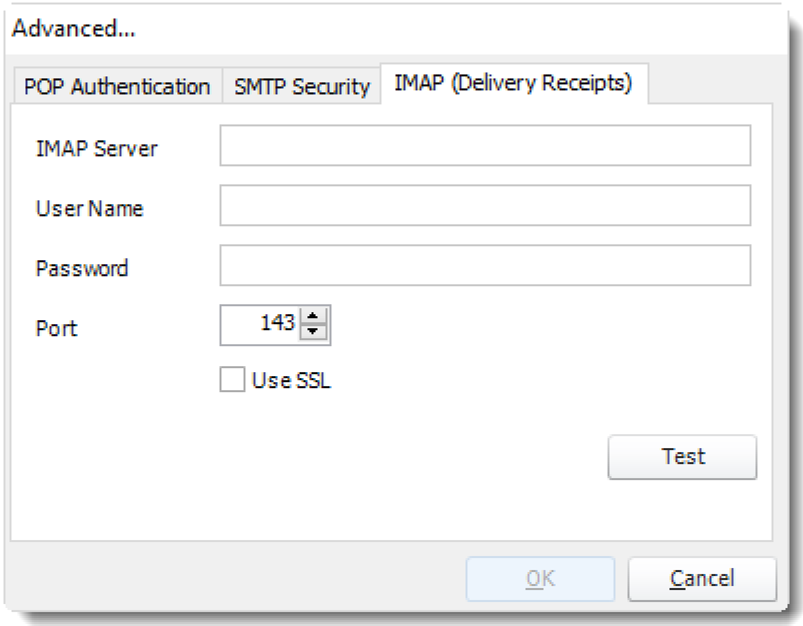
If you wish to connect to an SMTP mail server, perform the following:



- Then enter the following credentials:
  - **User ID:** Enter the User ID provided by your email administrator.
  - **Password:** Enter the password provided by your email administrator.
  - **Server name:** Enter your SMTP server details. You can use the mail server name or the IP address.
  - **Sender Address:** When the email is received, this will be the From address displayed.
  - **Sender Name:** When the email is received, this will be the displayed Sender Name.
  - **SMTP Timeout:** Use this to determine how long CRD will wait for a connection from your SMTP server before declaring a failure. The default is 30 seconds, but you may need to adjust this depending on your preference.
- If you would like to set up options such as *POP before SMTP* (if they are required by your SMTP server) or to set your server settings for Read Receipts, click **Advanced**. Then, select the appropriate option from the drop down and enter the requested credentials.


Advanced...
POP Authentication
SMTP Security
IMAP (Delivery Receipts)
SMTP Server requires POP authentication
POP Details
POP Server
pop.mycompany.com
User Name
IT
Password
Port
110
Use SSL
Verify
OK
Cancel


Advanced...
POP Authentication
SMTP Security
IMAP (Delivery Receipts)
Use SSL Connection
Use "Start TLS"
Aunthentication Method
LOGIN
OK
Cancel



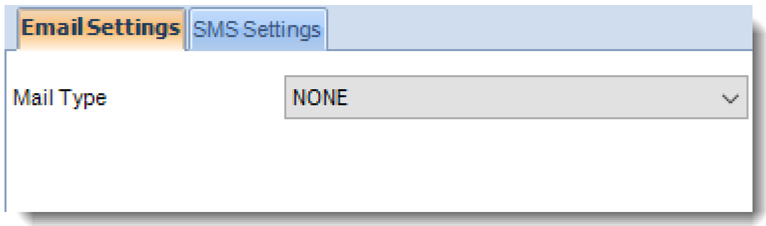
*You **must** select **Verify** or **Test** after entering the relevant credentials in the Advanced pop-up window. If you do not verify or test the settings, you will not be able to save them.*

- If you would like CRD to notify you when an invalid email address is entered, check the box next to **Throw an error if an invalid email is detected**.
- Skip to the **Test Settings** section at the bottom of this page to complete the Email Settings configuration.

NONE

If you will not be using CRD to send emails, perform the following:

> *This does not affect other aspects of CRD. You will still be able to use CRD to print, export to folder, or export to an FTP destination, etc.*

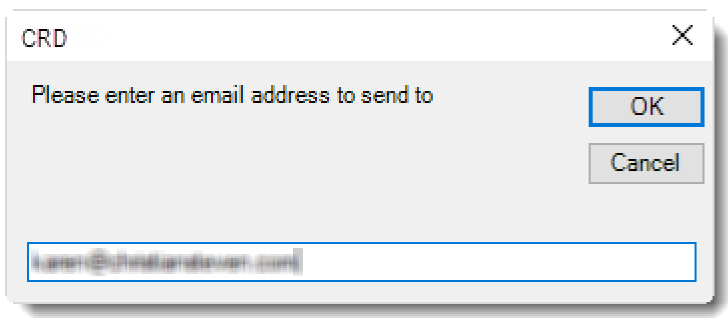


Test Settings

In this section, we will test your Mail Type settings to verify they work as expected. Testing the settings ensures that CRD will not encounter errors when trying to send out emails while running schedules. To test the settings, perform the following:

Verify the settings work

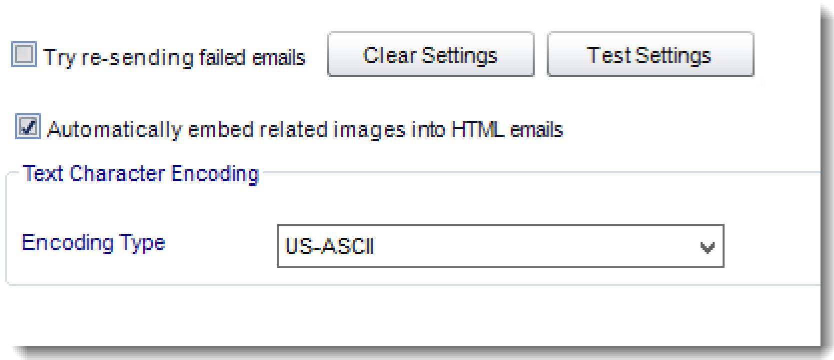
- Click **Test Settings**



- Enter an email address to send the test email to.
- Click **OK**.
- You should receive a pop-up stating "*Email sent successfully!*".
- Click **OK**.

> *If you receive an error message, verify that your server information is listed correctly.*

Check the appropriate options



- If you wish to clear the currently entered mail settings and start over, click **Clear Settings**.
- If you would like CRD to keep trying to send emails after they've failed to send once, click the checkbox next to **Try re-sending failed emails**.
- If you would like CRD to **Automatically embed related images into HTML emails**, verify the checkbox next to this option is checked.

  By default, CRD will automatically embed an image if the link is placed in the body of an HTML email. Keep this box checked if you wish for this to occur. If you would rather the image link be placed in the HTML email body (rather than the image itself), then uncheck this box.

- If you would like to change the **Text Character Encoding**, select the appropriate choice from the drop-down.

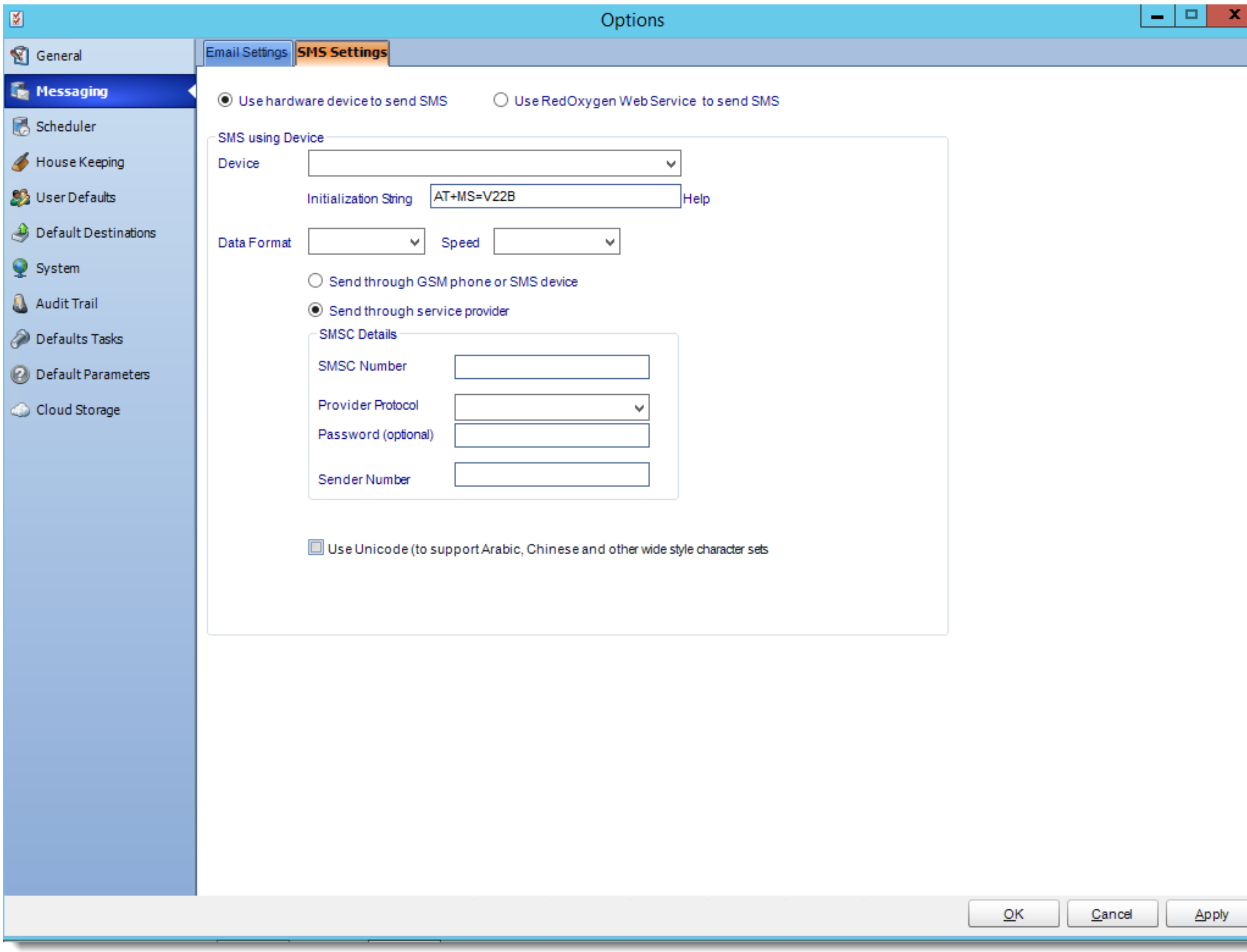
  Encoding is used by Operating Systems to determine how to display emails on the recipient's PC. **US-ASCII** *is standard for most languages. However, if you are using Japanese characters, then you should select* **ISO-2022-JP**.

- Click **Apply** at the bottom of the *Options* window.

SMS Settings

CRD sends SMS messages using three different methods: A direct connection to a cell phone or GSM modem, a modem connected to a phone line, or the Red Oxygen SMS Gateway. Here is how to configure it.

Now that you've configured your Email Settings for CRD, let's look at the methods CRD uses to send SMS messages and how to configure your SMS (text messages) settings.



How SMS Works

CRD sends SMS messages using three different methods: A direct connection to a cell phone or GSM modem, a modem connected to a phone line, or the Red Oxygen Web Service.

Direct Connection to a Cell Phone or GSM Modem

If you have a cell phone connected to a COM port on your PC, CRD can interface directly with the cell phone and send messages.

> *Information located on this page may indicate that SMS could be received by CRD. However, this function has not been enabled in our software. The SMS component within CRD can only send SMS. It cannot receive and process SMS messages.*

You can use a GSM Modem or GSM Phone for sending SMS messages. However, we recommend a dedicated GSM modem instead of a GSM phone; a GSM modem is more reliable and faster.

CRD supports the majority of the GSM modems available on the market (although we strongly recommend WaveCom Fastrack GSM Modems) and supports most 'business' GSM phones (i.e. GSM phones that support the AT+C command set).

As mentioned previously, there are many GSM modems and GSM phones available today, and we do support most of these devices. The SMS component manufacturer has successfully tested the following GSM Modems and GSM phones with CRD:

GSM modems and GSM phones that were successfully tested				
Brand	Type	Send	Receive	Comments
Ericsson	Ericsson T18s	True	True	
	Ericsson T28s	True	True	
	Ericsson T39	True	True	
Itegno	Itegno	True	True	Use modem driver and Modem)
Nokia	Nokia 30	True	True	
	Nokia 3310	False	False	
	Nokia 3330	False	False	
	Nokia 3410	False	False	
	Nokia 5110	False	False	
	Nokia 5190	False	False	
	Nokia 5210	False	False	

	Nokia 6110	False	False
	Nokia 6150	False	False
	Nokia 6190	False	False
	Nokia 6210	True	True
	Nokia 6220	True	True
	Nokia 6310	True	True
	Nokia 6310i	True	True
	Nokia 6600	True	True
	Nokia 7600	True	True
	Nokia 8910	True	True

Siemens	Siemens C25	True	True
	Siemens C35	True	True
	Siemens C45	True	True
	Siemens M35	True	True
	Siemens M45	True	True
	Siemens MC35	True	True
	Siemens S35	True	True
	Siemens TC35	True	True

Sony Ericsson	Sony Ericsson T310	True	True	
	Sony Ericsson T610	True	True	
	Sony Ericsson T630	True	True	
	Sony Ericsson T68	True	True	
WaveCom	WaveCom Fastrack M1206B	True	True	Use 'Standard 56000 bp
	WaveCom Fastrack M1306B	True	True	Use 'Standard 56000 bp
	WaveCom Integra	True	True	

Whilst we have provided information here on the phones which have been tested, ChristianSteven Software makes no guarantee that CRD will work with any of the above phones or any other phones. We do not advise or train on the installation of GSM modems and phones. For more information, please speak to your telephone system administrator and refer to the user manuals and manufacturer of your phone or GSM modem.

Direct Connection to a Cell Phone or GSM Modem

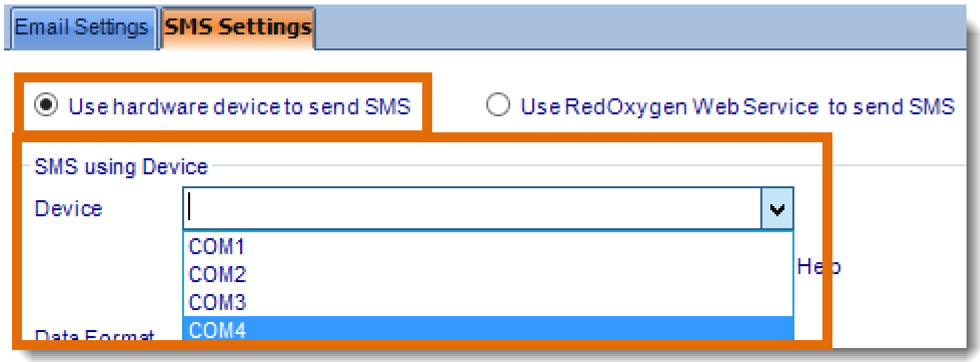
If you have a cell phone connected to a COM port on your PC, CRD can interface directly with the cell phone and send messages.

Information located on this page may indicate that SMS could be received by CRD. However, this function has not been enabled in our software. The SMS component within CRD can only send SMS. It cannot receive and process SMS messages.

You can use a GSM Modem or GSM Phone for sending SMS messages. However, we recommend a dedicated GSM modem instead of a GSM phone; a GSM modem is more reliable and faster.

CRD supports the majority of the GSM modems available on the market (although we strongly recommend WaveCom Fastrack GSM Modems) and supports most 'business' GSM phones (i.e. GSM phones that support the AT+C command set).

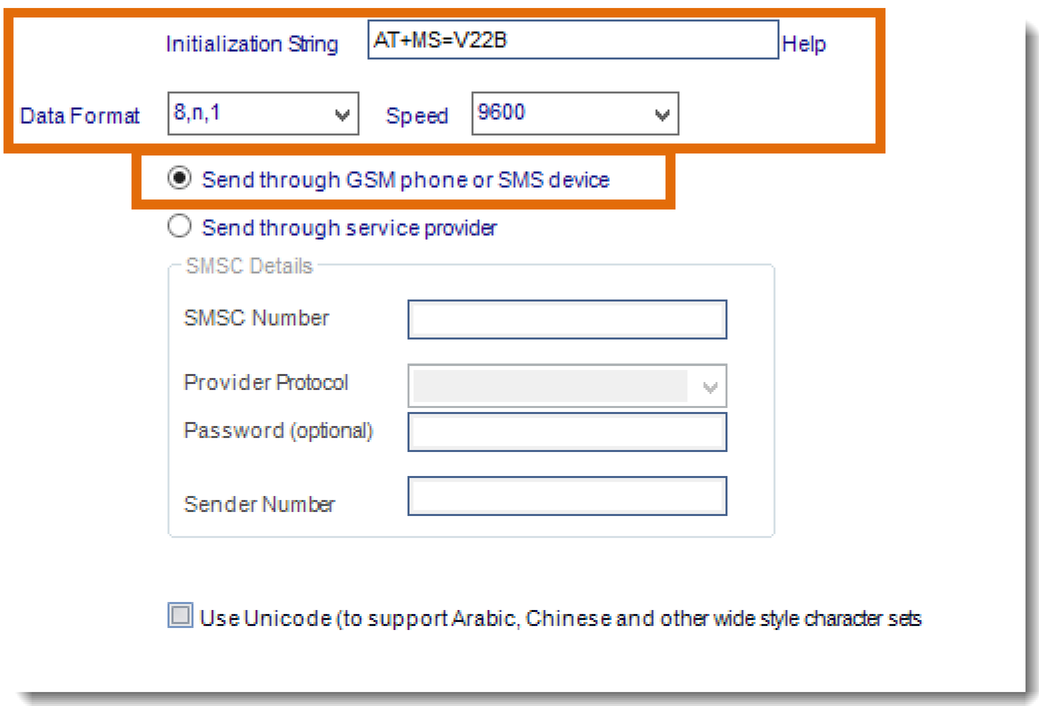
- To set up a direct connection to a cell phone or GSM modem, perform the following:
- Click **Use hardware device to send SMS**.
- From the Device drop-down select your **modem or COM port.**



- Enter or confirm the relevant **initialization string**, **data format**, and **speed**.

  You may find relevant settings for your specific service provider on the SMS Service Provider Information chart located at the bottom of this page. Alternatively, you can speak with your SMS provider or view your GSM modem or phone's user manual.

- Click **Send through GSM phone or SMS device**.



- If you use Arabic, Chinese, or other wide style character sets, check *Use Unicode*. Otherwise, leave this box unchecked.
- Click **Apply** then **OK** at the bottom of the Options window.

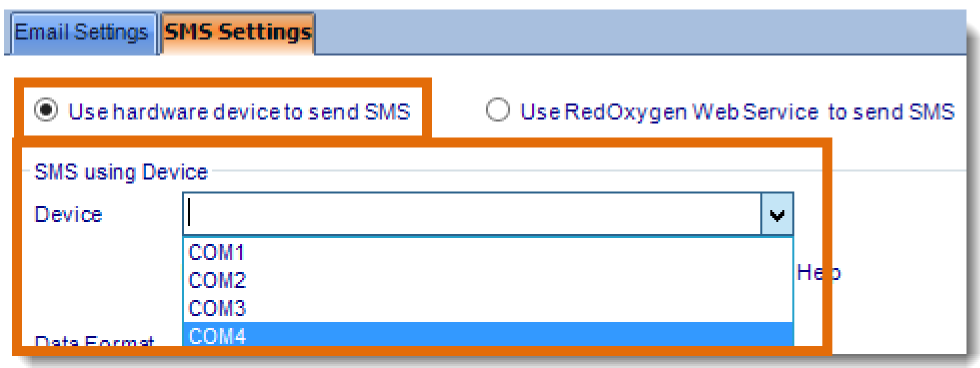
Modem Connected to a Phone Line

Your cell phone company should have provided you with a special telephone number (SMSC Number). When this number is dialed, an SMS device connects to the line, and CRD sends the required information to your provider. A normal cell phone works by sending texts to the SMSC number programmed in the phone.

If you use an SMSC dial-in provider to send SMS messages, you just need a standard Hayes compatible modem. Because SMSC centers operate at low speed, you don't need a fast modem. A Standard 96000 bps modem is already sufficient. When moving through the instructions below, ensure you set your modem to use the speed required by your service provider.

Information located on this page may indicate that SMS could be received by CRD. However, this function has not been enabled in our software. Even if this function were enabled in CRD itself, when using an SMSC dial-in provider, you can only send SMS messages.

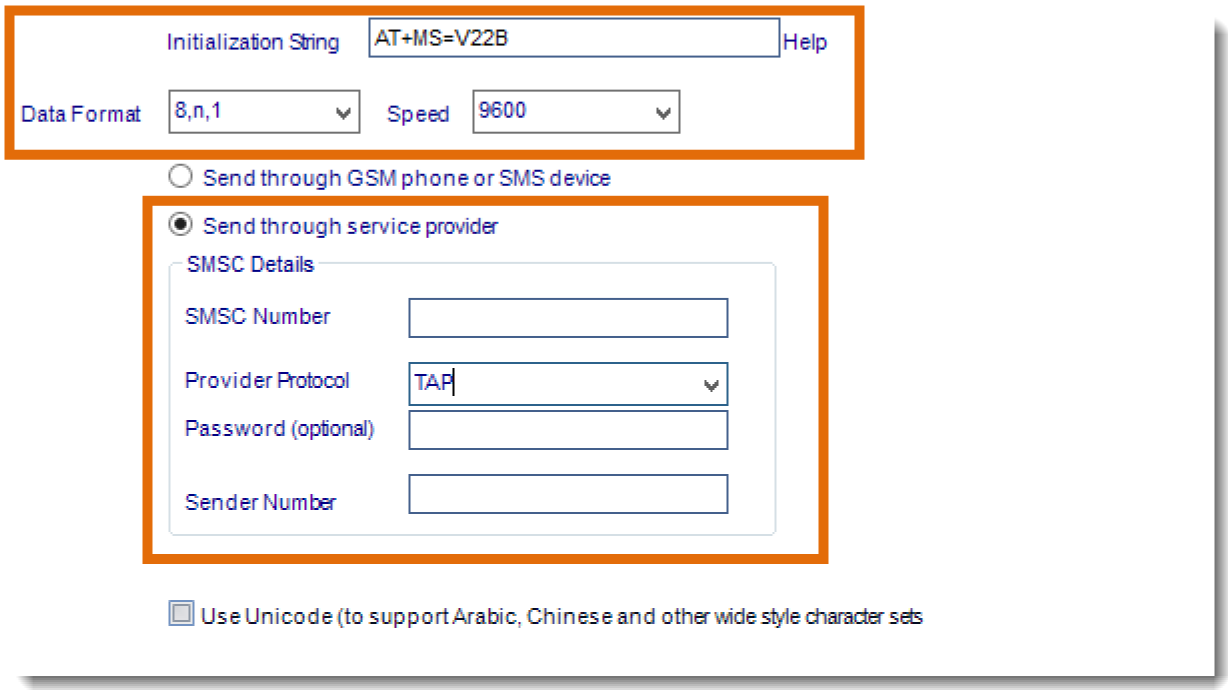
- To set up a direct connection to a cell phone or GSM modem, perform the following:
- Click **Use hardware device to send SMS**.
- From the Device drop-down select your **modem or COM port.**



- Enter or confirm the relevant **initialization string**, **data format**, and **speed**.

You may find relevant settings for your specific service provider on the SMS Service Provider Information chart located at the bottom of this page. Alternatively, you can speak with your SMS provider or view your GSM modem or phone's user manual.

- Click **Send through service provider.**



- Enter in the relevant **SMSC Number, Provider Protocol, Password** (if necessary), and **Sender Number**.

  You may find relevant settings for your specific service provider on the SMS Service Provider Information chart located at the bottom of this page. Alternatively, you can speak with your SMS provider or view your GSM modem or phone's user manual.

- If you use Arabic, Chinese, or other wide style character sets, check *Use Unicode*.
- Click **Apply** then **OK** at the bottom of the Options window.

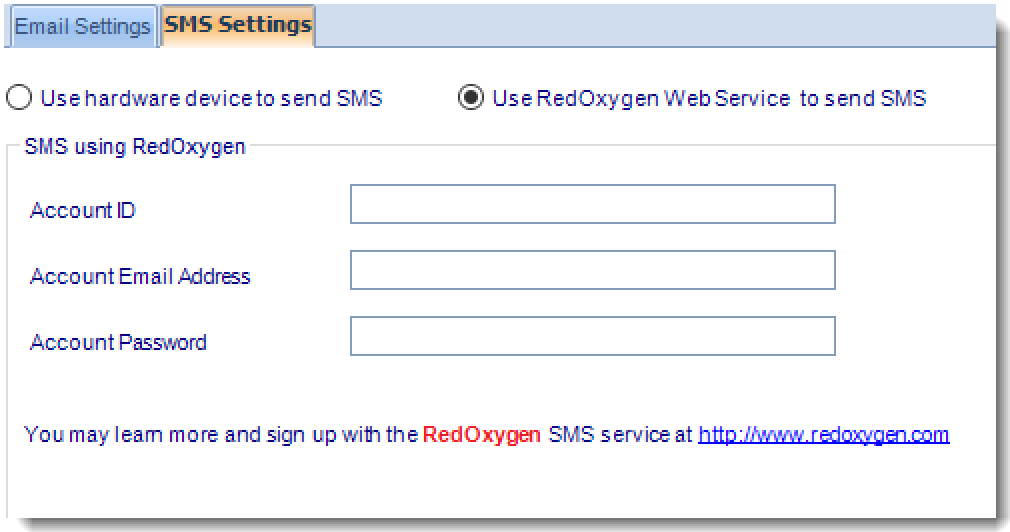
Red Oxygen Web Service

Red Oxygen is a 3rd party text messaging provider. If you (or your company) have a Red Oxygen account, it can be connected with CRD to send text messages. If you do not have an account or need more information, please visit Red Oxygen.

The most basic plan is all that is necessary in order for CRD to use this feature. However, pricing and plans can vary depending on your required SMS traffic. Please refer to Red Oxygen for further details.

RedOxygen is not a ChristianSteven Product and is not supported by our technical support team. CRD is simply compatible with this product. For troubleshooting of Red Oxygen, please refer to Red Oxygen support.

- To connect your RedOxygen account, perform the following:
- Click *Use RedOxygen Web Service to send SMS*.



- Enter in your **Red Oxygen Account ID, Email Address,** and **Password**.
- Click **Apply** then click **OK** at the bottom of the Options window. From now on when CRD sends text messages, it will send them via RedOxygen.

SMS Service Provider Information

There are many service providers offering pager/SMS services today. At time of publication, we were provided with a list of service providers and the settings they require. However, we cannot guarantee that all of the service providers mentioned below are working fine, or that CRD will work with your service provider.

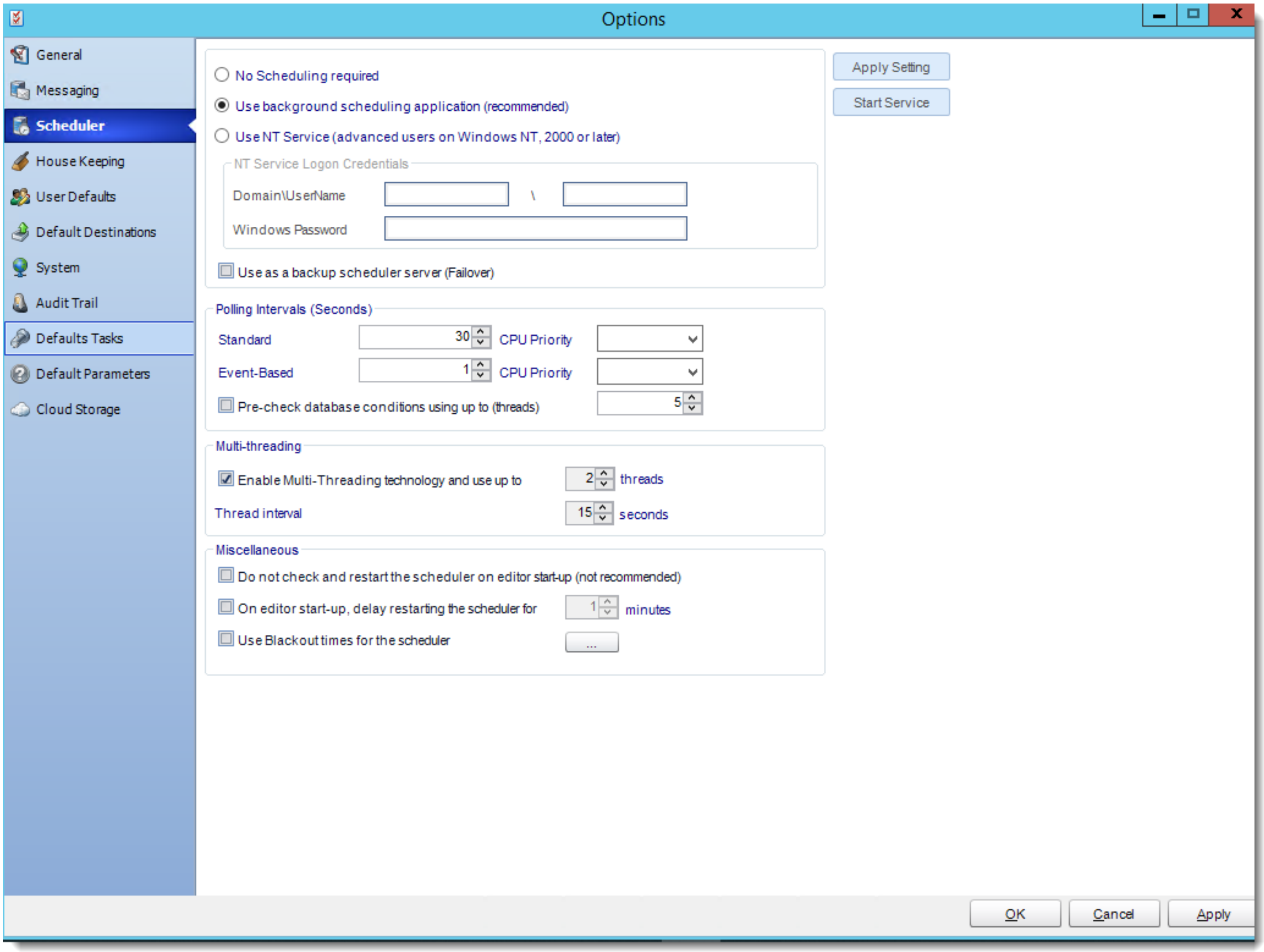
For more up to date information, please speak to your own SMS service provider.

Country	Provider	Phone (SMSC #)	Protocol	Modem speed	Modem settings (databits,parity, stopbits)	Password	Comments
Australia	Link	0738326002	TAP	1200	8,n,1		
	Orange	+61 394175949	TAP	9600	8,n,1	REQUIRED	
	Telstra	125107	TAP No EOT	1200	7,e,1	mnmail	
Austria	AirPage	06883322111	TAP	1200	7,e,1		
	CallMe	090066911	TAP	1200	7,e,1		
	Mobilkom	090066914	TAP	2400	Unknown		
Belgium	Mobistar	0495955205	UCP	2400	8,n,1		Not accepting messages to foreign countries.
	Proximus	0475161621	TAP	2400	8,n,1		Accepting messages to local and foreign countries. Foreign addresses must have format like this: 4412345678. Not accepted: 004412345678
Canada	Cantel	5148620630	TAP	1200	7,e,1		Not accepting SMS messages to outside countries
	PageNet1	4167159999	TAP	1200	7,e,1		
	PageNet2	4167912499	TAP	1200	7,e,1		
	Telus	14032532266	TAP	1200	7,e,1		
Denmark	TeleDanmark Mobil	90131201	UCP	1200	8,n,1		
Finland	Sonera	209801	TAP	1200	8,n,1		
Germany	D1 Alpha	01712092522	TAP	2400	8,n,1		
	D2	1722278020	UCP	2400	8,n,1		
	E-Plus	01771167	TAP	2400	7,e,1		
	TelMI	016601010101	TAP	1200	7,e,1		
Iceland	Landssími Íslands	05665395	TAP	2400	8,n,1		
	Landssími Íslands	9541010	UCP	1200	8,n,1		

Ireland	Eircell	0312607000	TAP	1200	7,e,1		
	Esat Digifone	03868525352	TAP	2400	8,n,1		
	Ireland Esat Digifone	868525352	TAP	1200	8,n,1		
Netherlands	KPN	0653141414	UCP	1200	8,n,1		
New Zealand	Telecom Paging	0264001283	TAP	1200	7,e,1		
	Telecom Paging	043844476	TAP	1200	7,e,1		
Norway	N,Telenor,UCP	096890060	UCP	1200	8,n,1		
	NetCom	092000890	TAP	1200	7,e,1		
	Telenor Mobil PS	096890050	TAP	1200	7,e,1		
Portugal	TMN	962113000	UCP	1200	8,n,1		
Sweden	Telia	0740930000	UCP	1200	8,n,1		
Switzerland	Telepage Private	0740900003	TAP	1200	7,e,1		
	Telepage Swiss	0740900103	TAP	1200	7,e,1		
UK	BT EasyReach	09011130000	TAP	1200	7,e,1		
	BT Pager	08457581354	TAP	1200	7,e,1		
	Cellnet	7860980480	TAP	300	8,n,1		
	Hutchison	0941100400	TAP	1200	7,e,1		
	One2One	07956201072	TAP	1200	7,e,1		
	One2One	07958879889	TAP	1200	7,e,1		
	Orange Fleet	07973100601	TAP	1200	8,n,1		
	PageOne	0640900199	TAP	1200	7,e,1		
	VodaZap	07666699699	TAP	2400	8,n,1		

USA	AirTouch	8003260038	TAP	1200	7,e,1		
	Ameritech	13125149243	TAP	2400	7,e,1		
	Bellsouth	18008682835	TAP	300	7,e,1		
	Cellone	18888787727	TAP	1200	7,e,1		
	MetroCall	18009171168	TAP	1200	7,e,1		
	Mobile Comm	18009464644	TAP	1200	7,e,1		
	Mobile Media	18006225742	TAP	1200	7,e,1		
	NexTel1	18013016683	TAP	1200	7,e,1		
	NexTel2	13129076683	TAP	1200	7,e,1		
	PageMart	180084649499	TAP	1200	7,e,1		
	PageNet	18007208398	TAP	1200	7,e,1		
	SkyTel	16013600504	TAP	1200	7,e,1		
	SkyTel	18007596366	TAP	1200	7,e,1		
	Sprint PCS	18886561727	TAP	1200	7,e,1		
	USA Mobile	18005899776	TAP	1200	7,e,1		
	VoiceStream	18009378941	TAP	1200	7,e,1		

Scheduler



The Scheduler is the key function that determines when and how tasks are triggered. Rather than using Windows Task Scheduler, CRD uses ChristianSteven's proprietary scheduler to execute tasks. This creates a far more reliable, dedicated scheduling system.

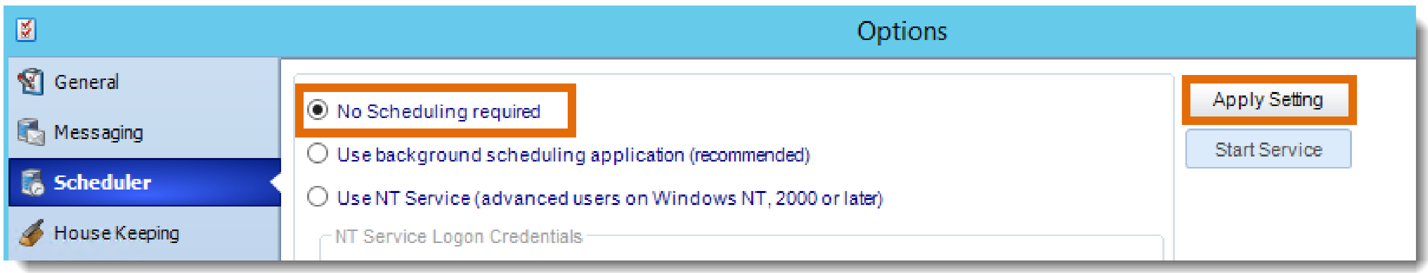
Within CRD, the following scheduling options are available:

- No Scheduling required
- Use background scheduling application (recommended)
- Use NT Service (advanced users on Windows NT, 2000 or later)

No Scheduling required

CRD can be used as an ad-hoc report managing tool with no scheduling. If you do not want any automated scheduling, select this option. However, this means you will need to execute each schedule manually. This option is also used to uninstall any previously installed scheduling services. To choose this options, perform the following:

- Click the radio button next to No Schedule Required.
- Click Apply Setting. This will uninstall any previously installed Schedulers and apply the new settings.



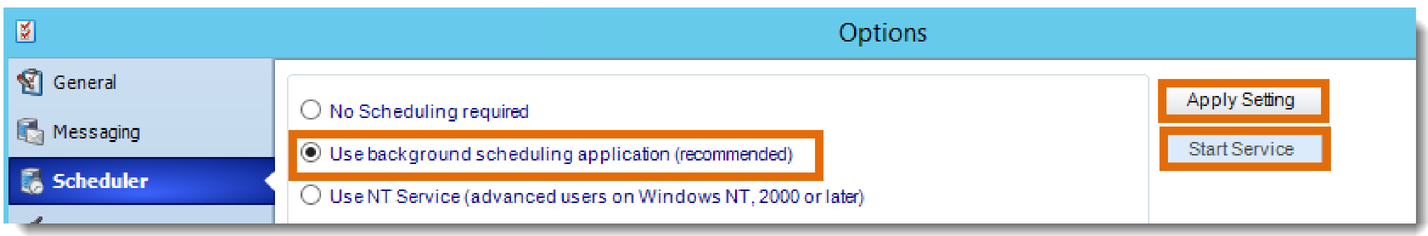
Use Background Scheduling application (recommended)

The background application scheduler is a windows application which monitors CRD and fires off reports when they become due.

> *The background scheduler is an application independent of CRD. Therefore, it will stop working if the user logs off or the server is shut down. If you want to be able to log off the server without stopping CRD scheduling, then you must install and use the Windows (NT) Service Scheduler.*

To use the background application scheduler, perform the following:

- Select the radio button next to Use background scheduling application (recommended).
- Click Apply Setting.
- Click Start Service to start the scheduler.
- Click Apply at the bottom right of the *Options* window.



Use NT Service (advanced users on Windows NT, 2000 or later)

The NT service is a Windows service. It installs into the Windows "Services" control panel. As this is a windows service, it will continue to run scheduled reports even when there is no user logged on to the PC.

> *The server MUST be powered on in order for the NT Service to work. If the server is not on, the NT Service cannot run and schedules will not kick off as scheduled.*

IMPORTANT

Prior to selecting the NT Service option as your Scheduler, you must ensure that the following pre-requisites have been met:

- You are logged onto the server as the NT Service user
- The above listed NT Service user has the following windows security rights on the PC you are installing it on:
    - Act as part of the operating system
    - Log on as a service.
    - Is a member of the Local Administrators security group
- If you are using MS Exchange Server, the above listed NT Service user must have full rights to the designated email account.

These security requirements are required by Windows. If you are unsure how to set up Windows security settings, your system administrator will be able to help.

WARNING

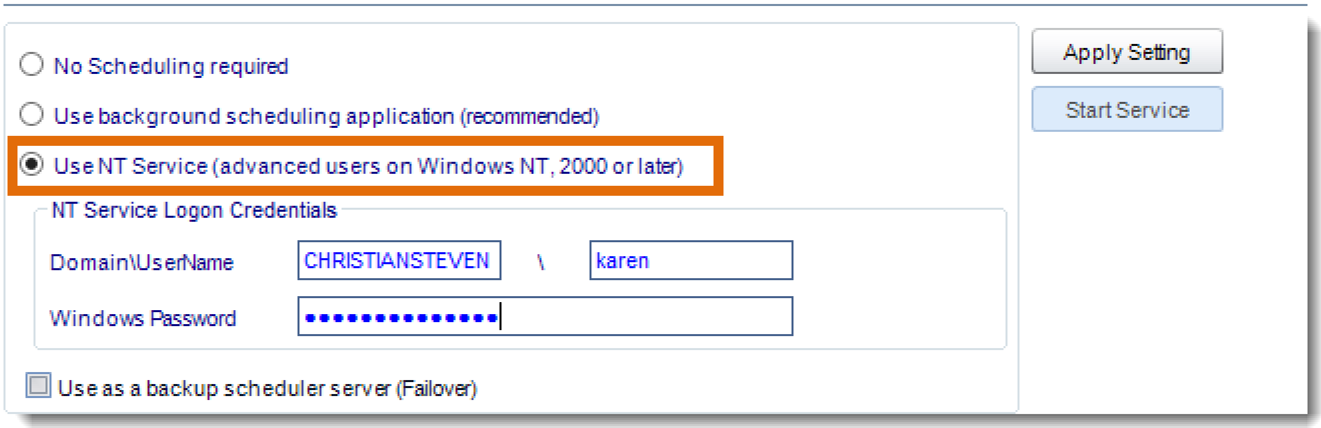
> *Installing the NT service, and other configuration activities in CRD, must* NOT *be done by remote control using Windows XP remote capabilities, or Terminal services. These applications do not save the settings on the PC, only in the virtual "session" you are using at the time. The correct security requirements are therefore not passed to the service or CRD, and this will cause sporadic results (e.g. Service not polling, or schedules executing at wrong times or on wrong dates). If you must use remote control, we recommend PC Anywhere or VNC.*

Setting up the NT Service

Once you have ensured that the above pre-requisites have been met, perform the following:

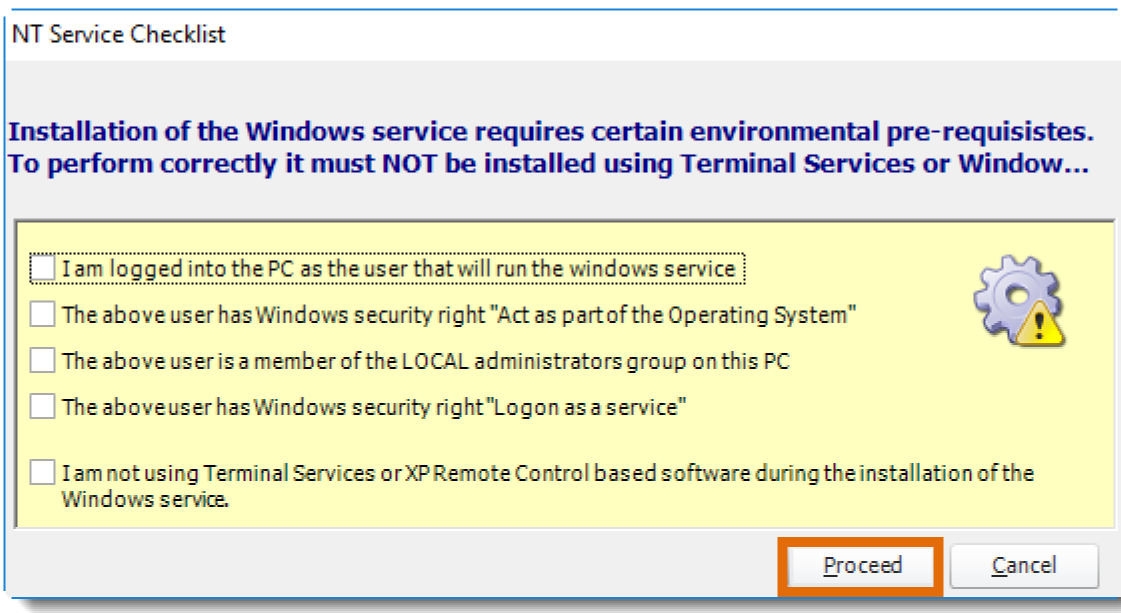
- Select the radio button next to **Use NT Service (advanced users on Windows NT, 2000 or later).**
- Enter the following credentials:
- **Windows Domain:** Type in the Domain name. If you are using MS Exchange Server, then this must be your network domain so that CRD can connect to your Exchange server.
- **Windows User Name:** Enter the username for the above user.
- **Windows Password:** Enter the password for the above user.

- Click **Apply Setting.**



- Verify that each of the requirements listed on the *NT Service Checklist* window have been met. If so, check each of the boxes and click Proceed.

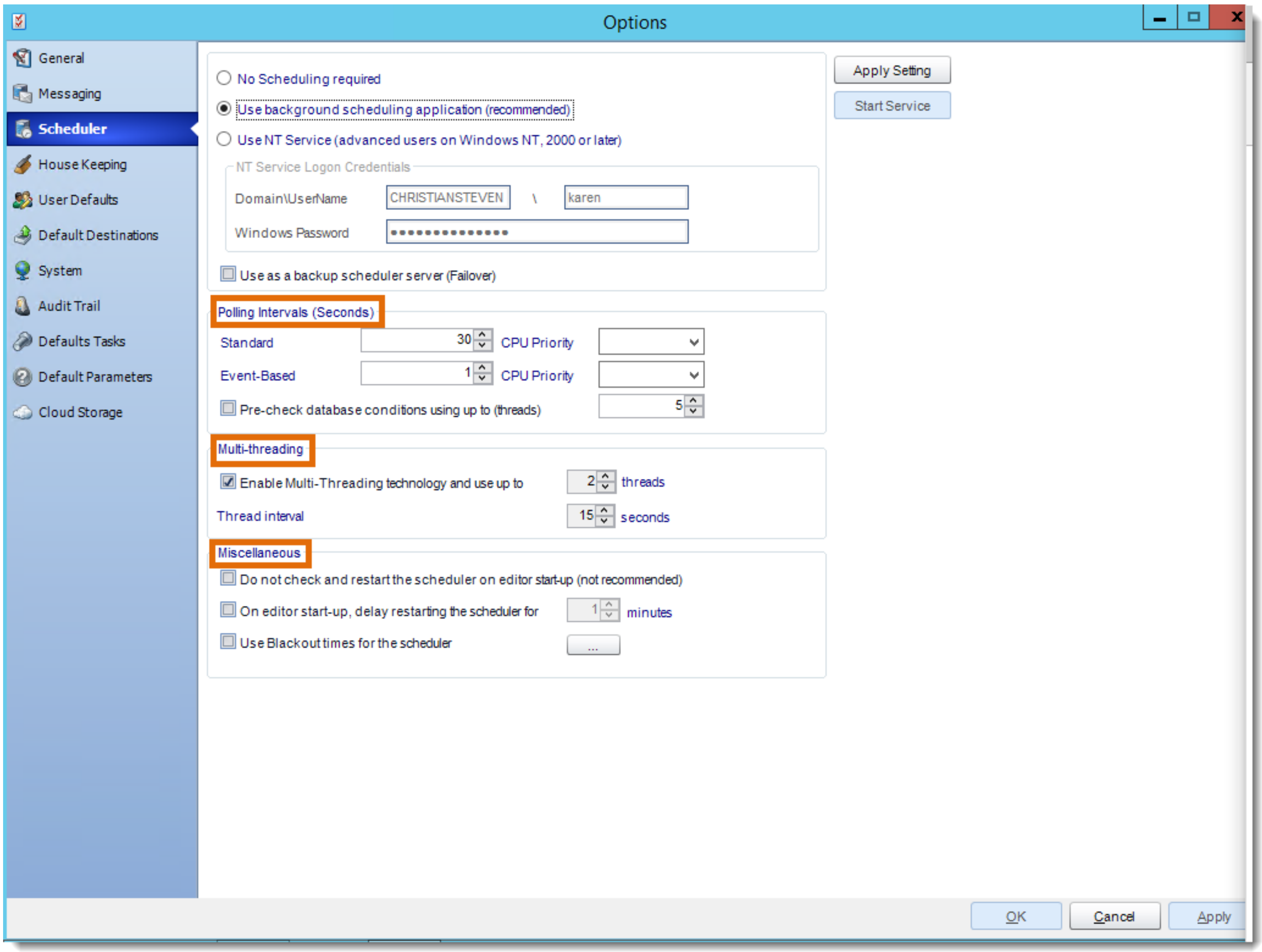
  If you have not completed the listed requirements and/or do not check all of the boxes, you will be unable to continue setting up the NT Service.



- If you have configured CRD to use MAPI mail, you will be prompted to select the type of email system you are using with CRD: Stand Alone Outlook, Exchange Server, or Exchange Web Service. Once you have selected the appropriate option from the drop-down menu, click OK.

- The NT Service will now install. Once completed, the service will be visible in the windows "Services" control panel and will be known as *CRD*. You should also see *CRD Monitor*. This is a monitoring service which ensures that the CRD service is continually running.
- If it is not already grayed out, select **Start Service.**
- Click **Apply** at the bottom right of the *Options* window, if available.

  If any of the above credentials are changed (e.g. the password is changed or times out), **the service will stop running***. Under these circumstances, you will have to uninstall it and re-install it ensuring you enter the new credentials correctly. We recommend that your system administrator ensures that the NT user's credentials never change and never time out.*



- **Use as Backup Scheduler:** CRD's Fail over module can shunt the processing load from a failing server to a backup server. This option guarantees that your schedules will execute even if the primary server is non-functioning.
  - The primary server must have its scheduler active.
  - The primary CRD server must have its database stored in an ODBC compliant database.
  - The intended backup installation must be connected to the ODBC compliant database.

Polling Intervals

- **Standard:** The schedule polls the CRD schedule database at regular intervals to see if there are any schedules to execute. The polling interval defines how often you wish scheduler to check.
- **Event Based:** Event-Based Schedules run on their own thread.
- **Pre-Check Database conditions using multiple threads:** Using Multi-threading technology, CRD will check multiple conditions for multiple schedules using up to 5 threads. This option can increase the speed at which CRD runs Event Based Schedules.

Multi-Threading

- This section allows up to 8 reports to be exported simultaneously.

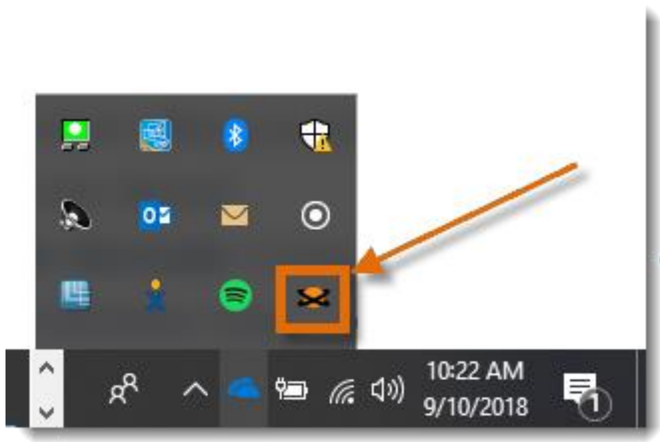
> *System resources will be shared, so this will not always mean that reports will take 1/8 the normal time.*
>
> *EXAMPLE: You have 4 reports. Each one takes 15 minutes to export. Using a single thread, it would take 1 hour to complete the export. Using multiple threads, you would expect it to take 15 minutes for all 4. However, the sharing of your system resources by 4 reports may result in each report taking longer than 15 minutes and the total time for 4 reports may be more than 15 minutes, but it will be less than an hour.*

Miscellaneous

- **Do not check and restart:** Used if multiple people are logging into the server while using background scheduling.
- **On editor start-up, delay restarting:** When logging into server should scheduler be delayed to restart.
- **Use blackout times for scheduler:** Set days and times when you do not want the scheduler to run.

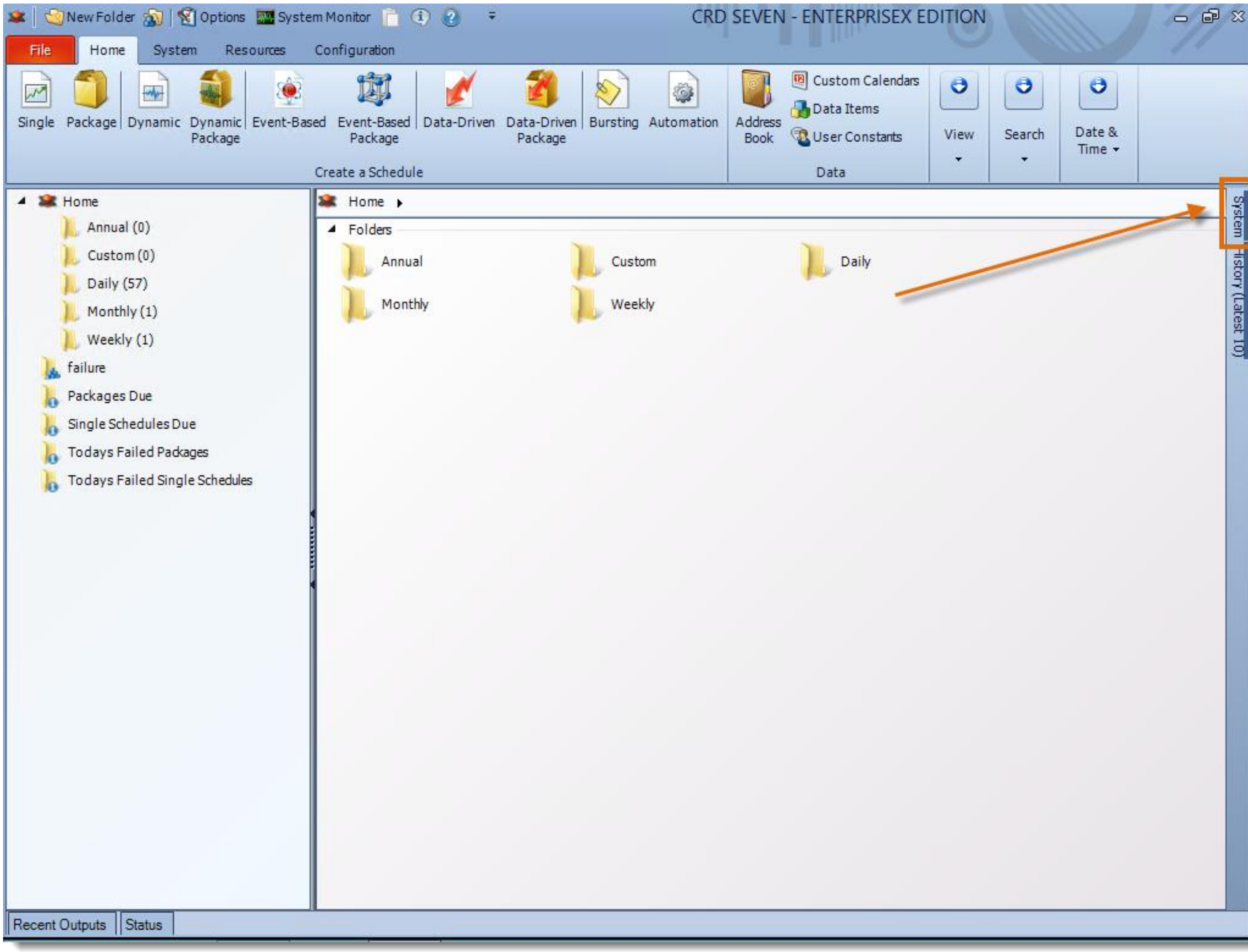
CRD/Scheduler Agent

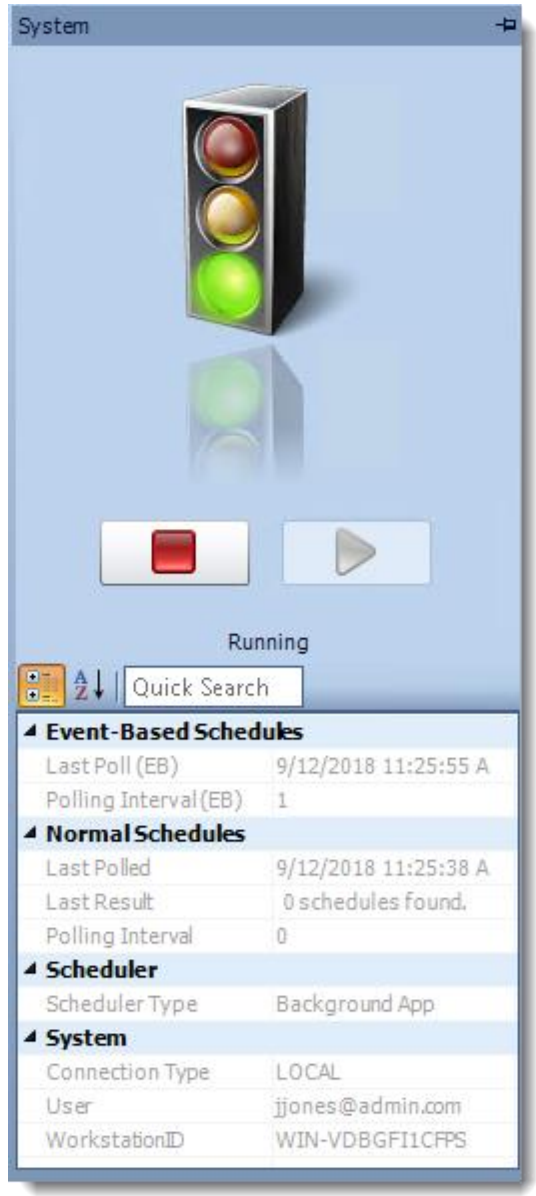
Once you have successfully set up the scheduler you will be using, you will gain access to the CRD/Scheduler Agent, which gives you easy access to many scheduling options. The CRD/Scheduler Agent appears as a red and white bell icon that is visible in the system tray (next to the clock) when the Scheduler is running. It looks like this:



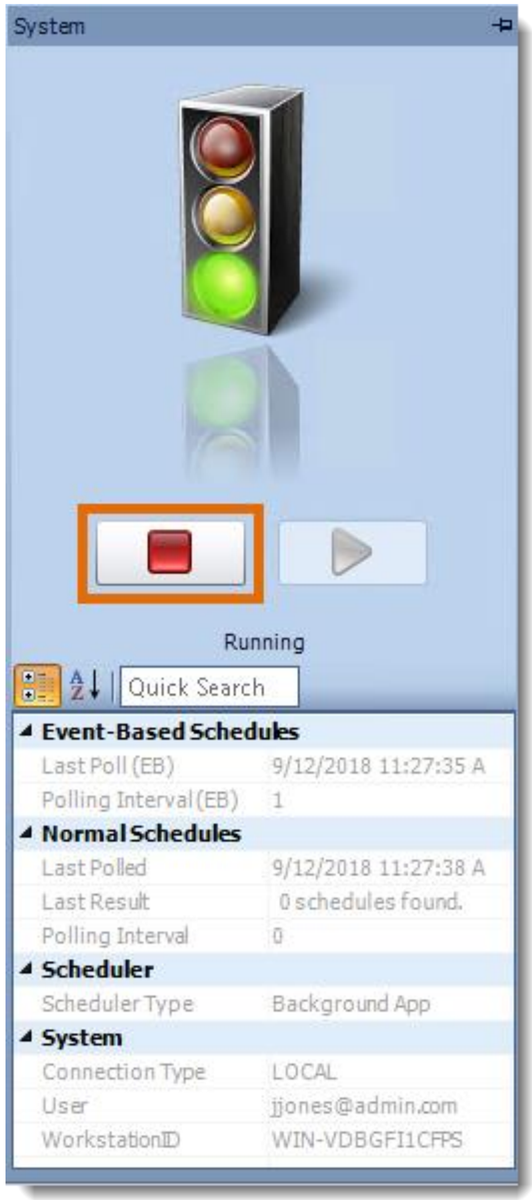
Double clicking this icon will bring up the full Scheduler Agent.

The full Scheduler Agent is also available within CRD on the right-hand side of the screen (after you click System).


New Folder
Options
System Monitor
CRD SEVEN - ENTERPRISEX EDITION
File
Home
System
Resources
Configuration
Single
Package
Dynamic
Dynamic Package
Event-Based
Event-Based Package
Data-Driven
Data-Driven Package
Bursting
Automation
Create a Schedule
Address Book
Custom Calendars
Data Items
User Constants
Data
View
Search
Date & Time
Home
Annual (0)
Custom (0)
Daily (57)
Monthly (1)
Weekly (1)
failure
Packages Due
Single Schedules Due
Todays Failed Packages
Todays Failed Single Schedules
Folders
Annual
Custom
Daily
Monthly
Weekly
System
History (Latest 10)
Recent Outputs
Status

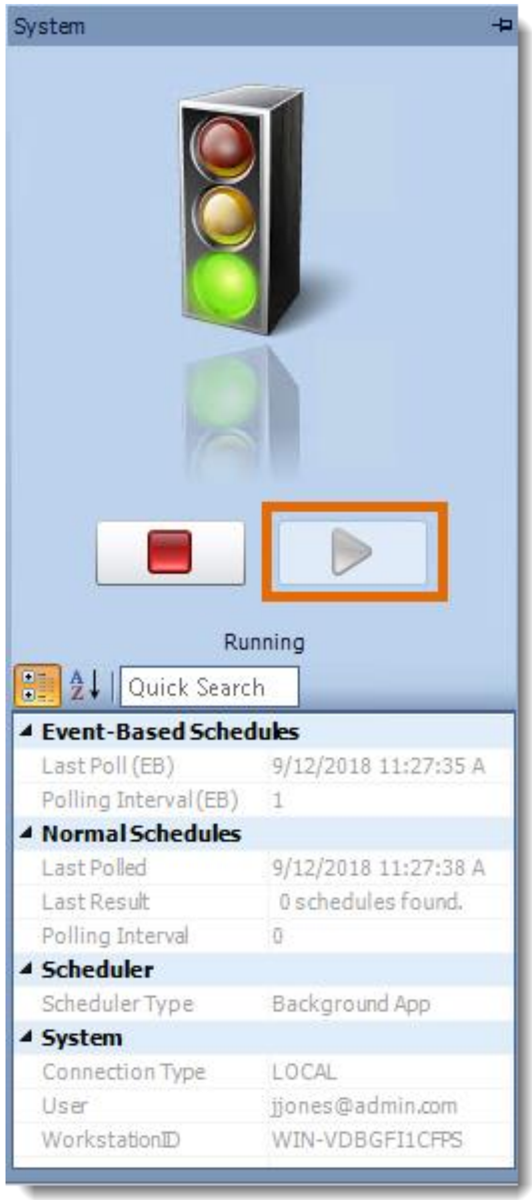


- **Stopping the Scheduler:** To stop the scheduler using the Agent, open the scheduler agent, and click the **Stop** button. The stop light will switch to yellow then red. This will stop the scheduler and no reports or task will execute. If you open CRD, the scheduler will automatically restart.



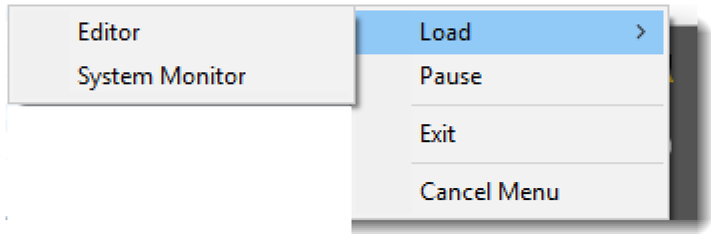
You can turn off the automatic restart of the Scheduler using the instructions listed in the Miscellaneous section above.

- **Starting the Scheduler:** To start the Scheduler using the Agent, open the Scheduler Agent, and click the **Start** button. The light will switch from red to yellow to green. Once enabled, your schedules will resume their normal running.



You can also review other system information such as the polling interval, the number of schedules found during the last poll, and the type of Scheduler the system is using.

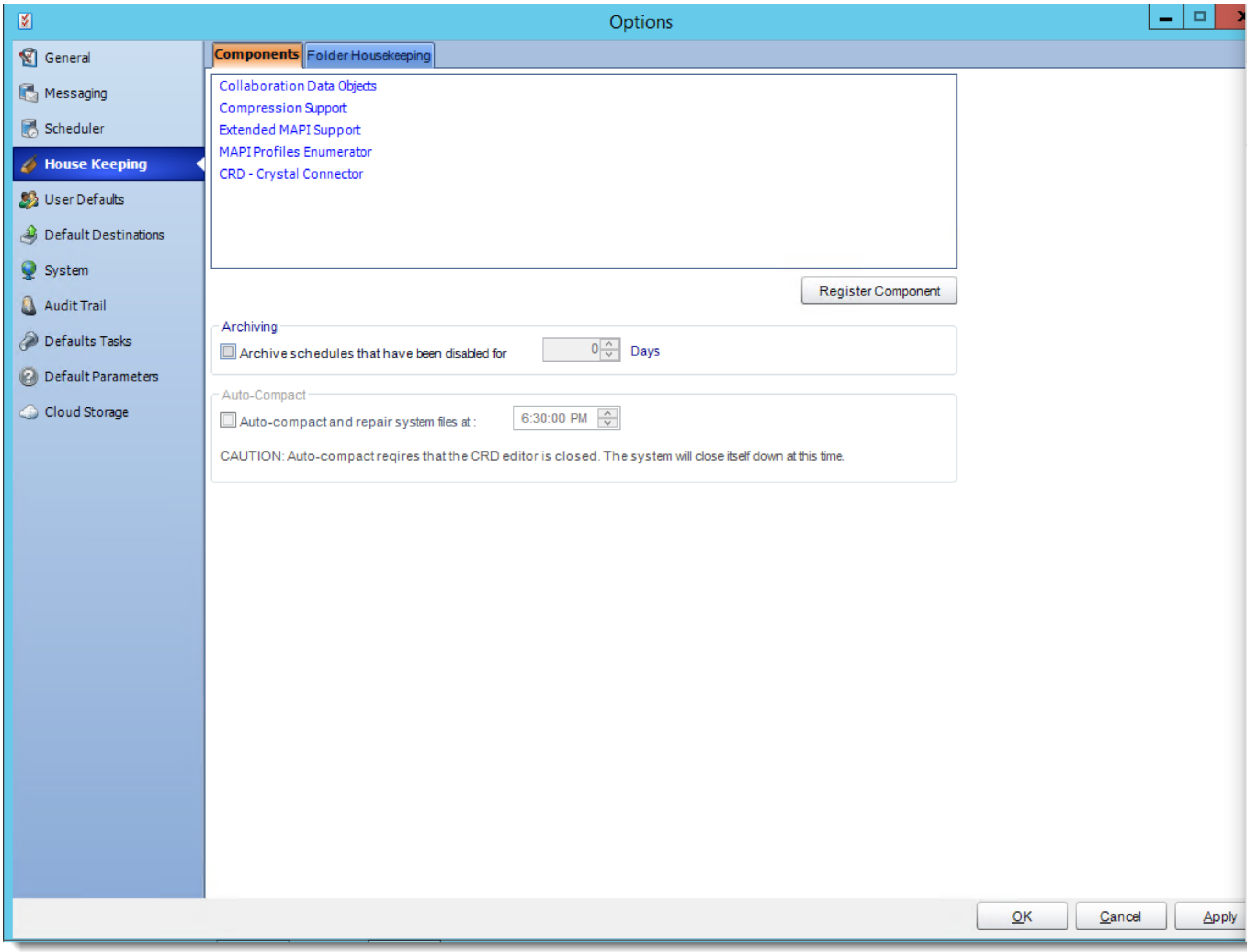
If you do not wish to open the CRD/Scheduler Agent, right-click the system tray icon to gain access to the following functions:



- **Load Editor:** Opens CRD
- **Load System Monitor:** Opens just the CRD System Monitor.
- **Pause:** Pause the schedule.
- **Exit:** Closes the CRD/Scheduler Agent.
- **Cancel Menu:** Cancel the schedule.

House Keeping

In this section, we will talk about the various housekeeping options available to you in CRD: Components and Folder Housekeeping. These options allow you to manage settings that help you manage the resources CRD works with.



Components

From time to time, the main DLLs required to run CRD successfully will need to be re-registered into your system registry. This need may arise as a result of the install or uninstall process of other applications you may be running on your PC.

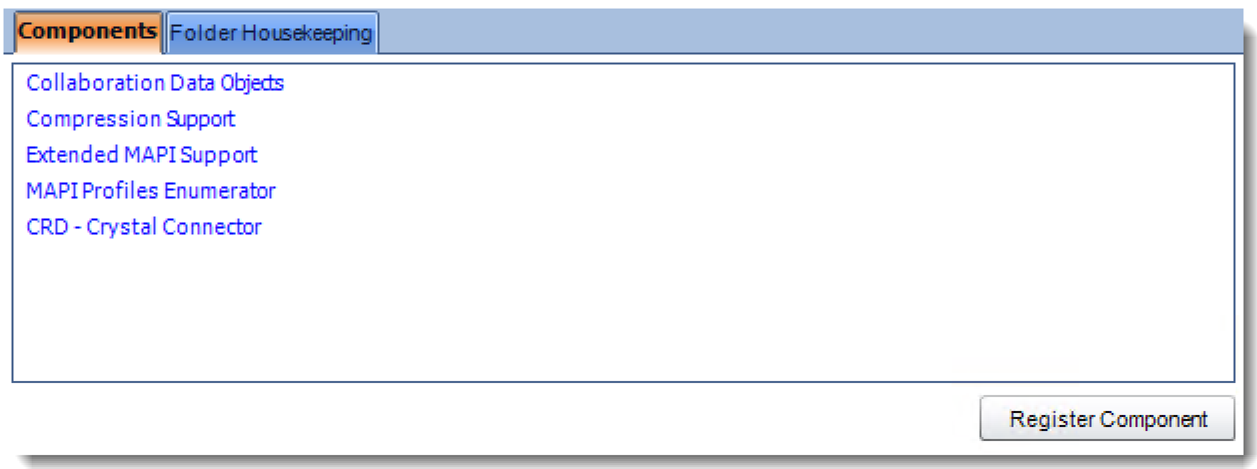
IMPORTANT

During the component re-registering process, you must ensure that you are logged into the PC as the Local Administrator in order to ensure that you have full security rights to the complete system registry.

- To re-register a component, perform the following:
- Click Components.
- From the list that presents, select the component you wish to re-register.

  Depending on the version of CRD you have, you may not have all components in the list. Do not worry. Only components relevant to the version of CRD you are running will appear.

- Click **Register Component.**



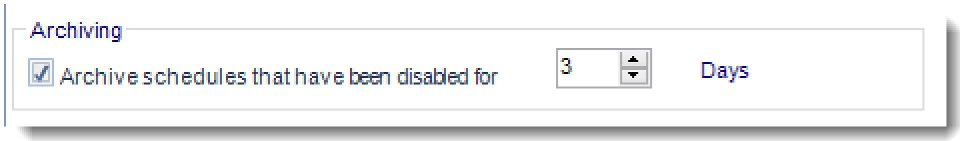
- Once the component has been re-registered, restart the PC to ensure that the new settings are stored by Windows.

Archiving

CRD allows you the option to move disabled schedules to an Archive folder. Schedules moved to the Archive folder can be enabled again and moved to other folders, but this option keeps folders neat and easier to manage.

- To enable archiving, perform the following:
- Check *Archive schedules that have been disabled for*.
- Specify the number of days a disabled schedule can remain at its current location before being moved to the archive folder.

- Click Apply at the bottom right of the Options window.

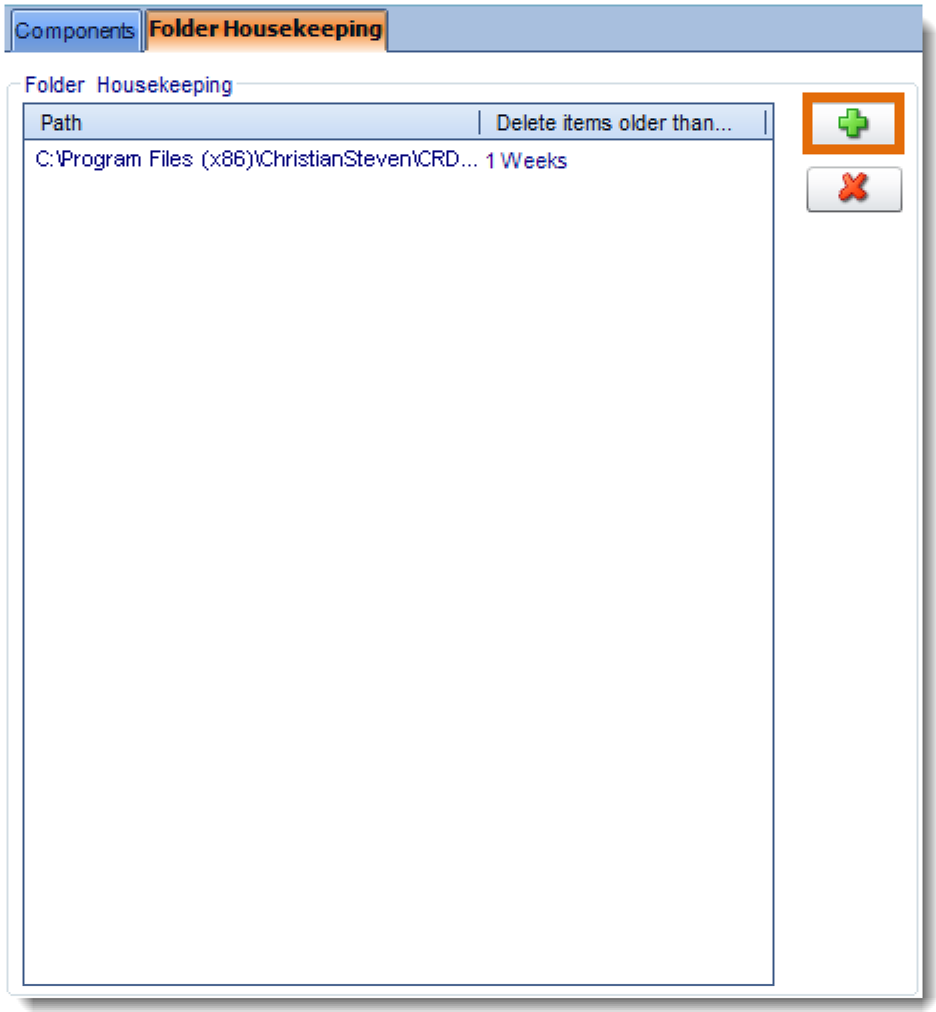


Folder Housekeeping

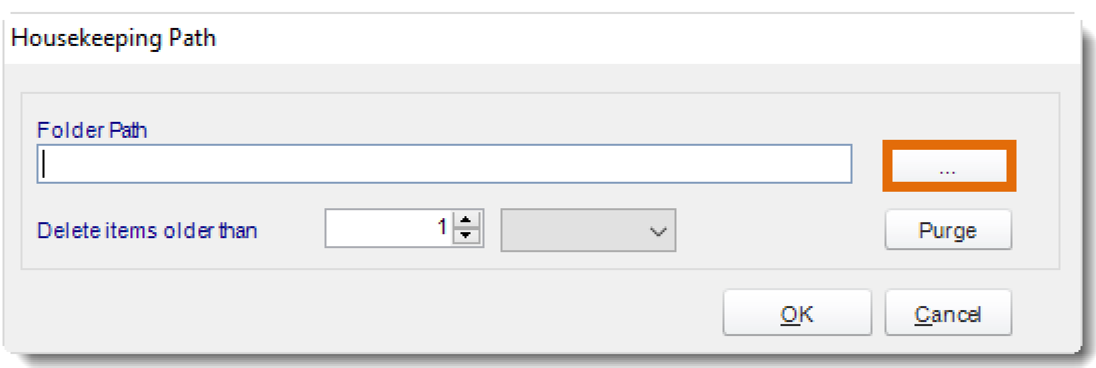
Folder housekeeping is a great way to stop your destination folders from getting too full. Different from the folder housekeeping option found in a schedule, this option can monitor any folder and delete items older than a specified time. Folder Housekeeping is run using the system maintenance thread which runs every 5 to 10 minutes.

To enable Folder Housekeeping, perform the following:

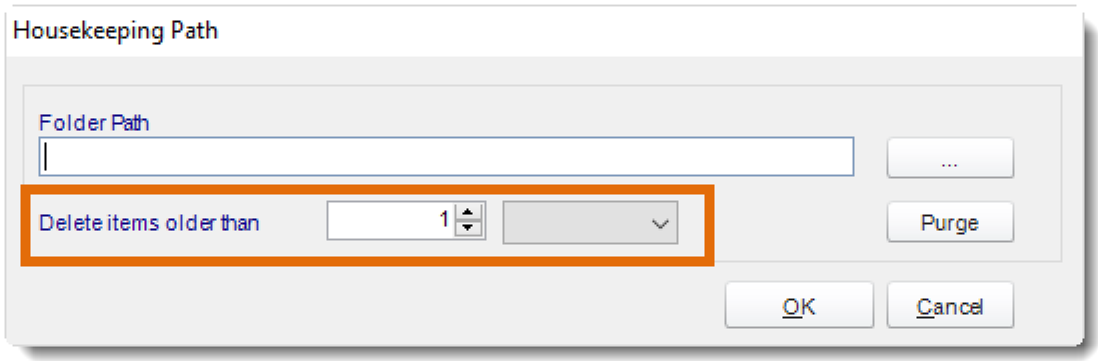
- Click **green plus button** to add a new folder path.



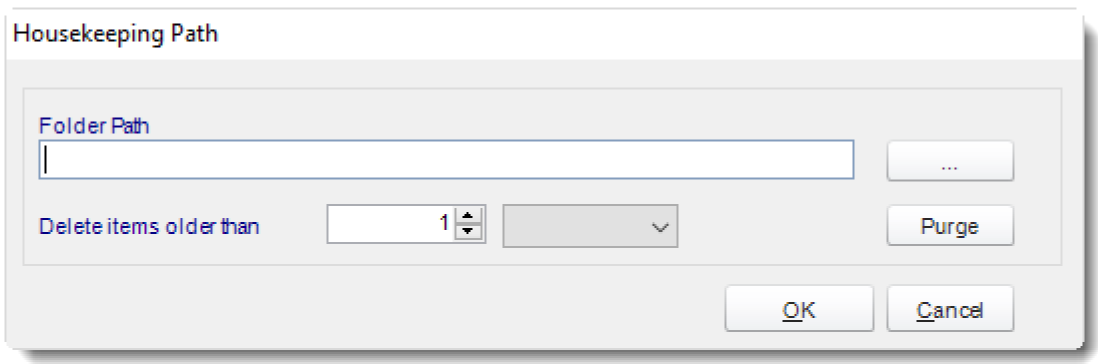
- Click **(...) button** and navigate to the specific folder you wish to monitor.



- Once you have selected the folder you wish to monitor, indicate how old items in the folder should be before they are deleted.



- If you want to immediately delete all items in the folder that are older than the specified value, click **Purge**. Otherwise, click **OK.**

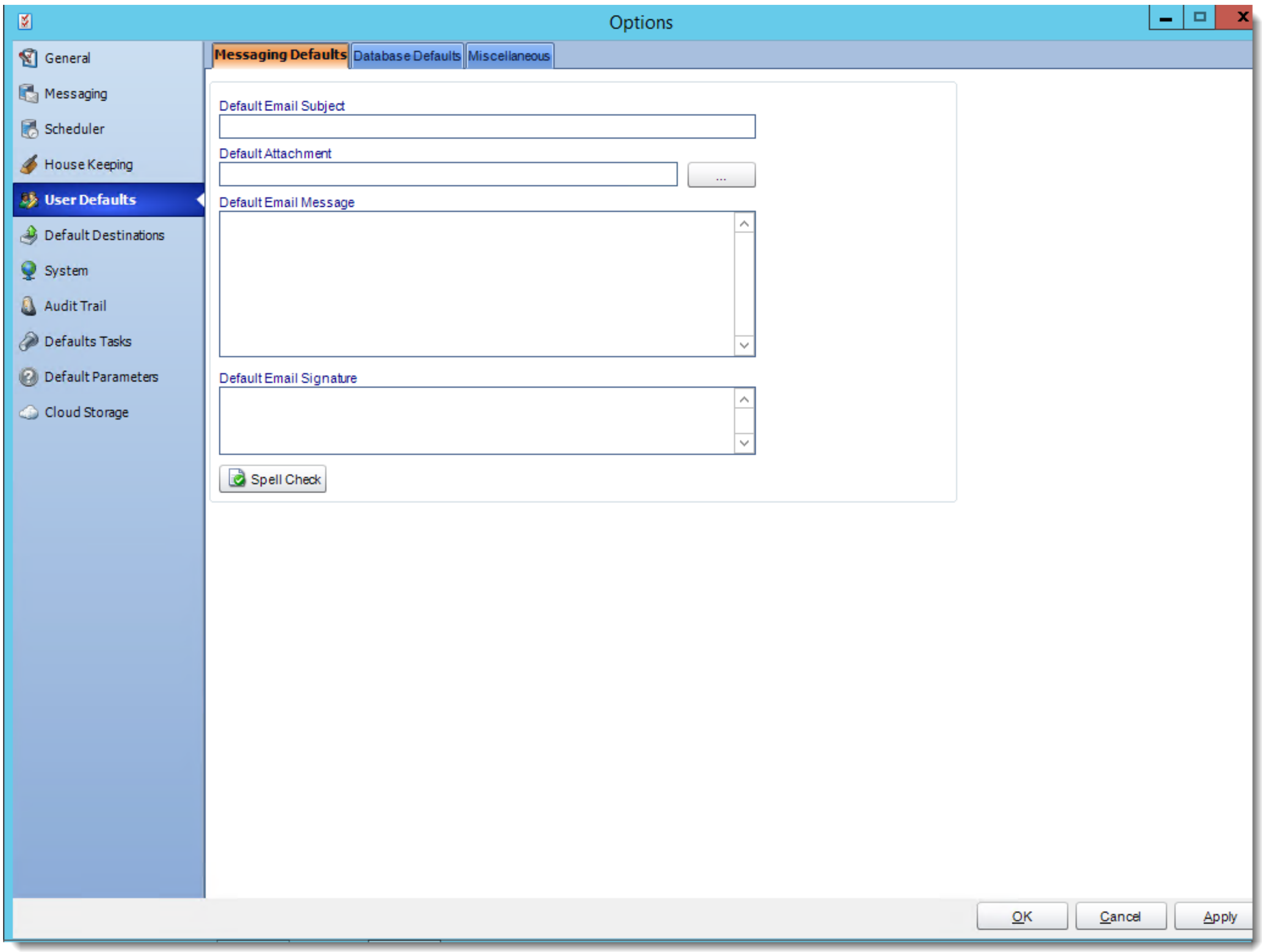


- Click **Apply** at the bottom of the Options window.

  You can delete a housekeeping item by selecting the folder path, then clicking the red X button.

User Defaults

User Defaults are a set of preferences & values that can be reused across the application e.g Email templates, Database logon credentials etc. Here is how to access and set them up.

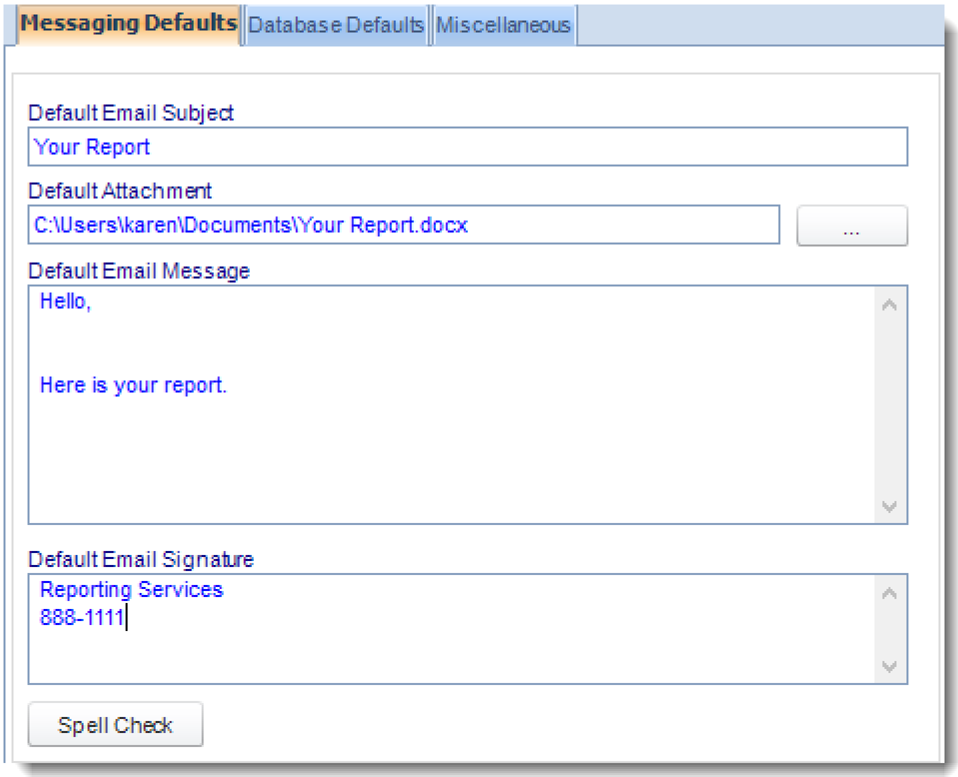


When you first open CRD's User Defaults window, you will see three tabs: Messaging Defaults, Database Defaults, and Miscellaneous.

Messaging Defaults

Using the Messaging Defaults tab, you can set up a standard email message or signature. Then, you can use that message and signature as the email text for scheduled reports (via the use of an Insert).

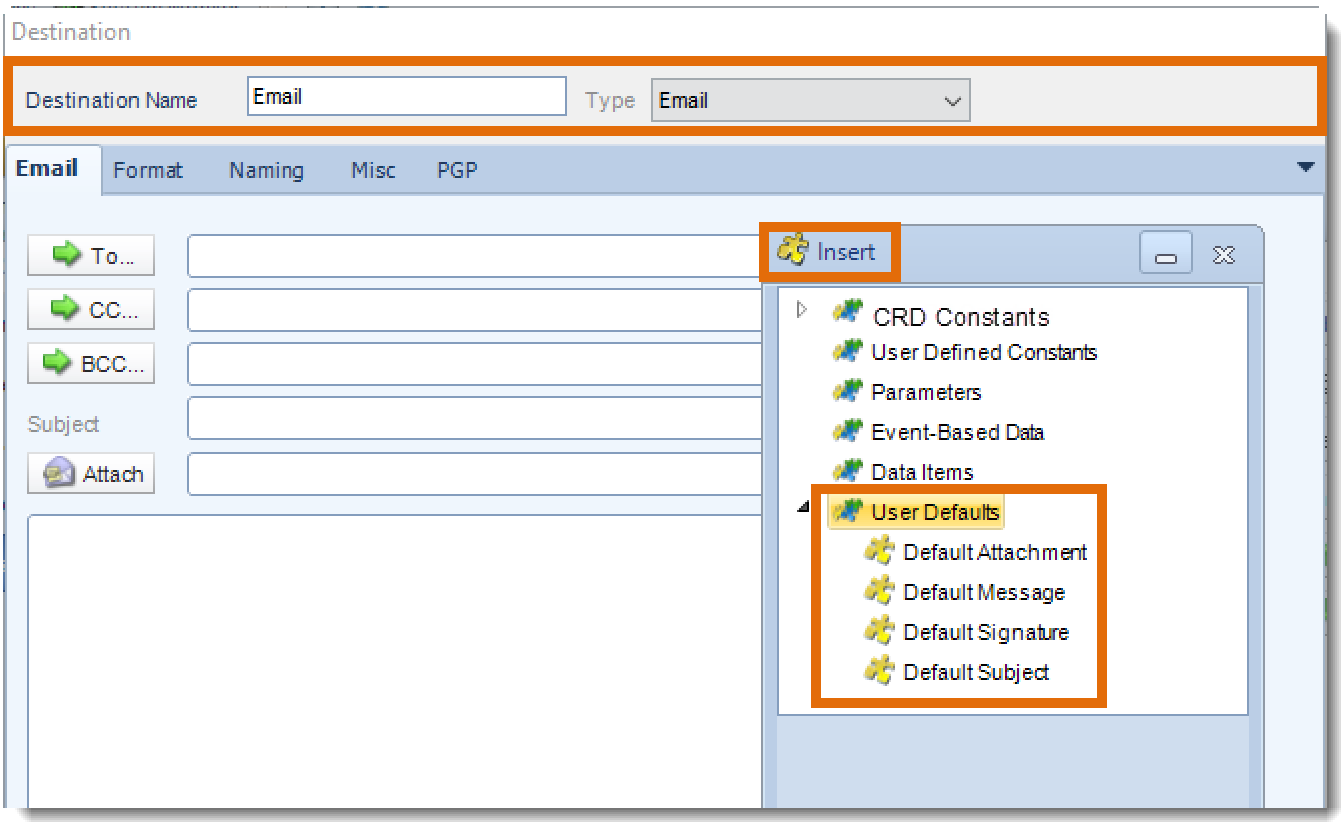
- To set a default Email Subject, Email Message, or Email Signature, simply enter the text you wish to use in the applicable field.



- To set a default Attachment, click **(...) button** and select the appropriate file. Then, click **Open**.
- Once the Messaging Defaults have been set, click **Apply**.

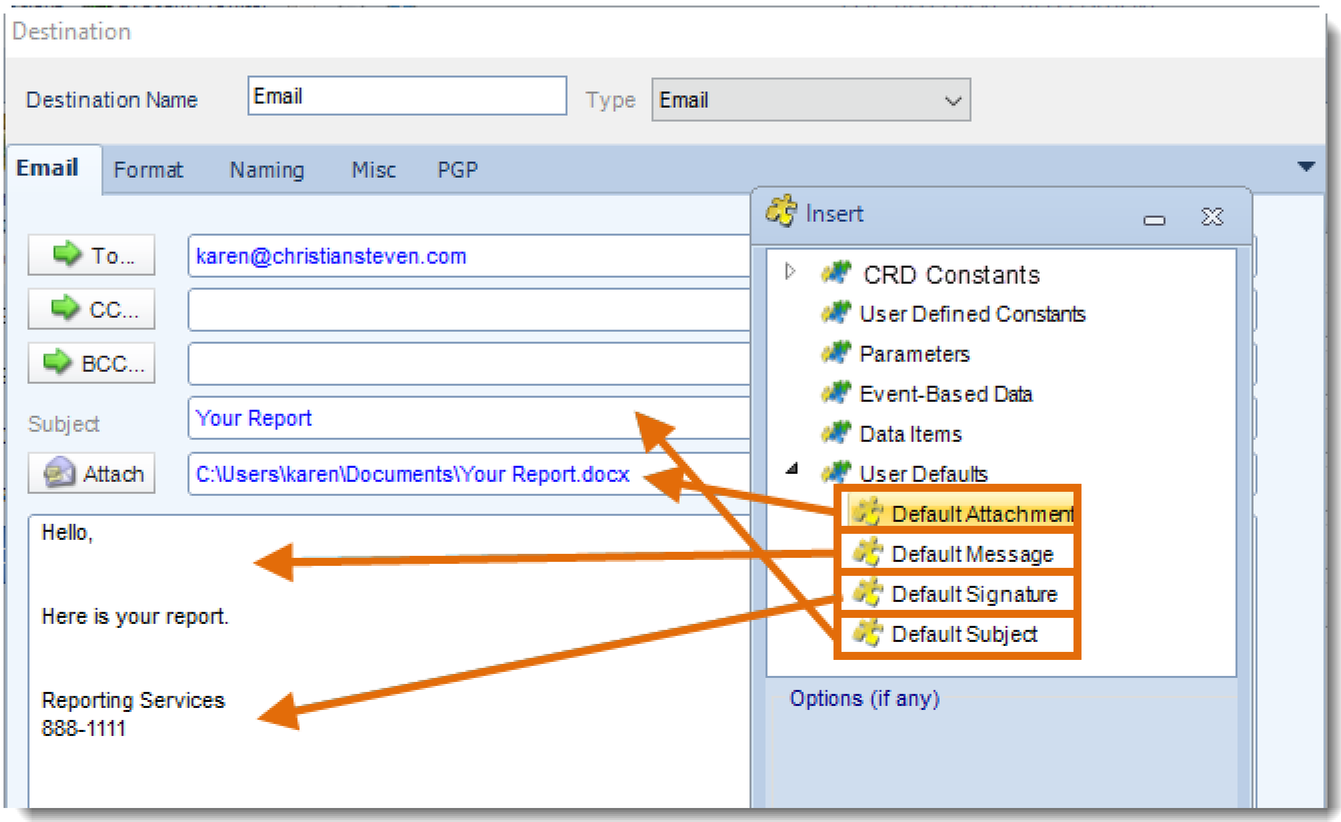
How to use Messaging Defaults?

Once you have set Messaging Defaults in the *Options* window, they can be used in the email output of your schedule. Defaults are applied on a schedule by schedule basis by using the User Defaults inserts on the **Email Destination** window.



To use the Messaging Defaults inserts, perform the following:

- In your email output section, go to **User Defaults** in the **Inserts Menu**.
- Drag and drop the default item to the appropriate field.

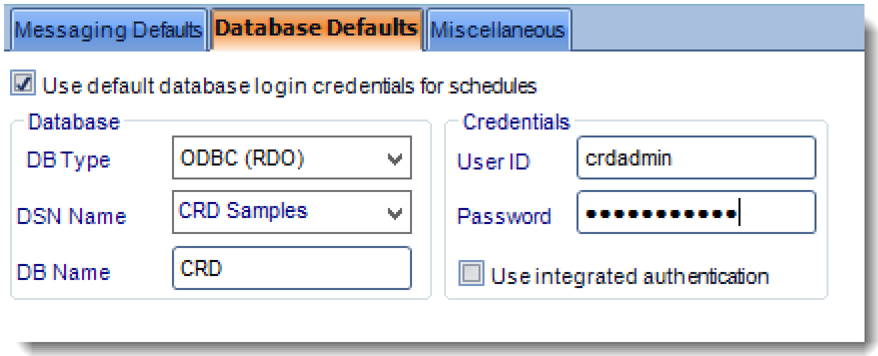


- You can then edit the default message if needed.

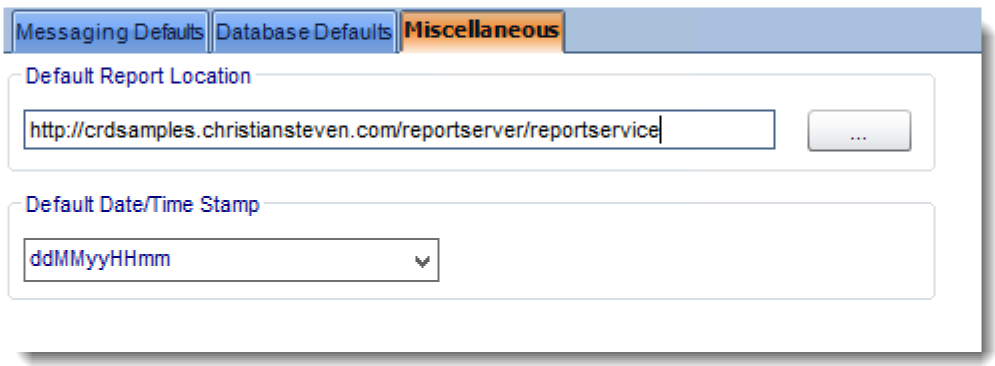
  For each schedule, you can overwrite the default email text and enter your own. For more information on how to do this, see the Export to Email page.

Database Defaults

If your reports all log into the same database, you can store the database credentials here and save having to enter them into each and every schedule.



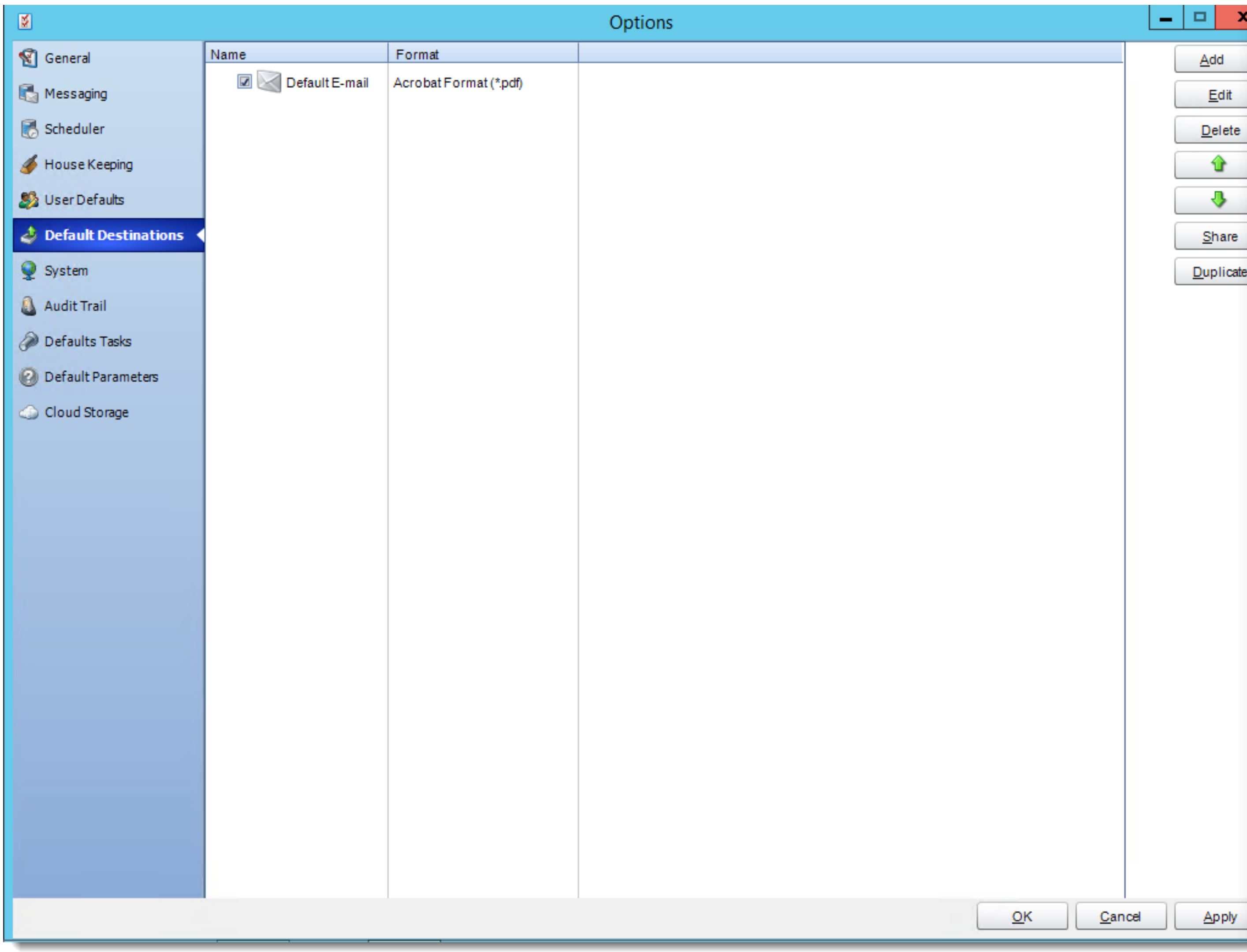
Miscellaneous



- **Default Report Location:** When a path is entered here, CRD will always take you to this folder when you are browsing for a report.
- **Default Date Stamp:** will be what is used when you select to append a date/time stamp of a report destination. If this field has a value, this default format will be prefilled in the Append date/time to report output field when it is selected, saving you from having to select a format each time you write a schedule.

Default Destinations

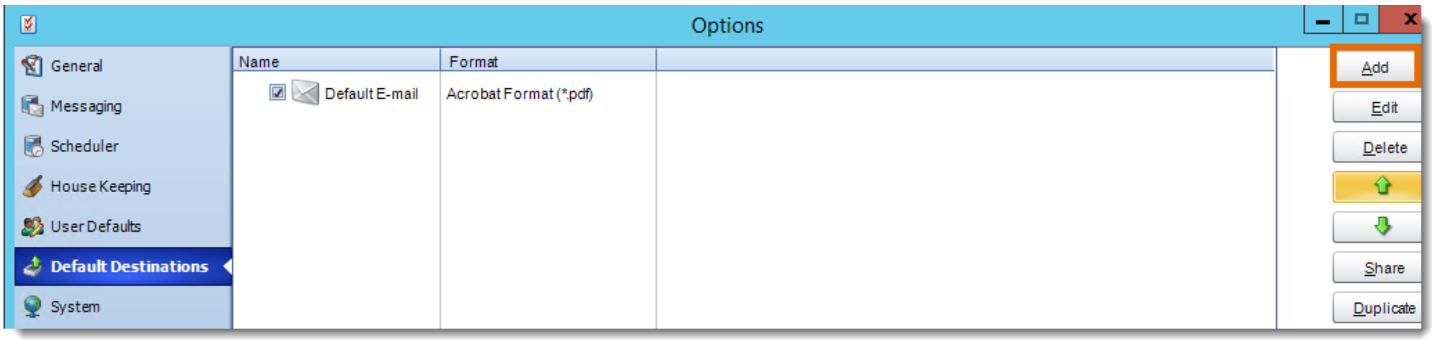
Default destinations are destinations which can be reused each time you create a schedule (without having to enter the same destination information over and over again).



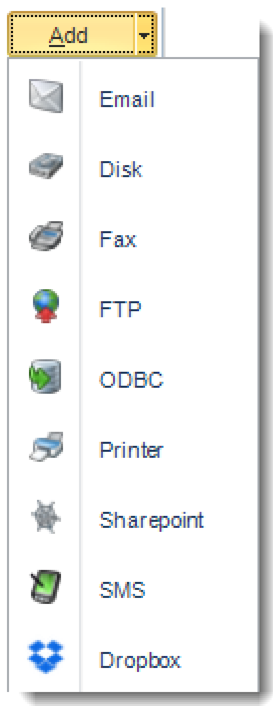
Adding a Default Destination

To add a Default Destination, perform the following:

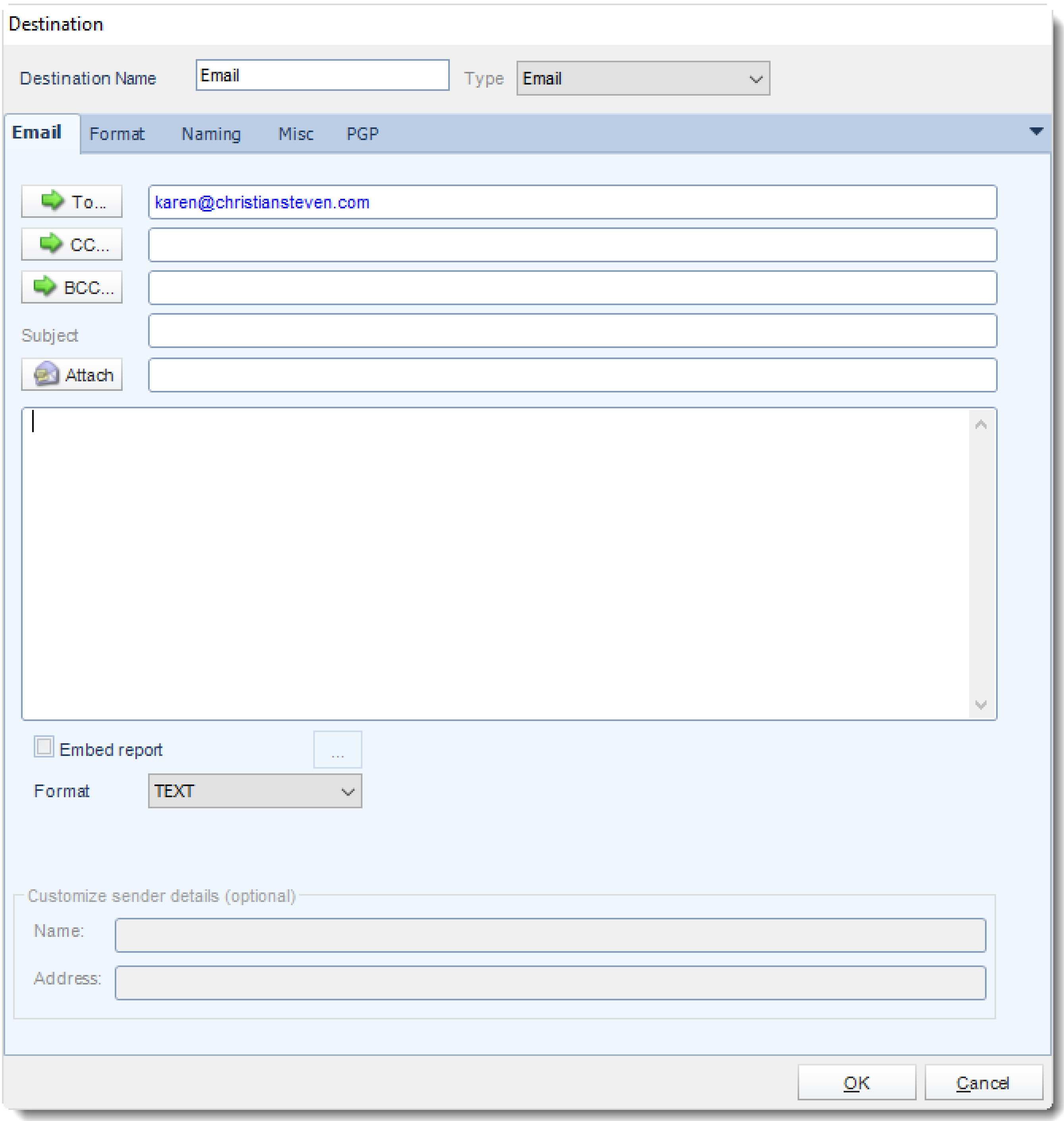
- Click Add.

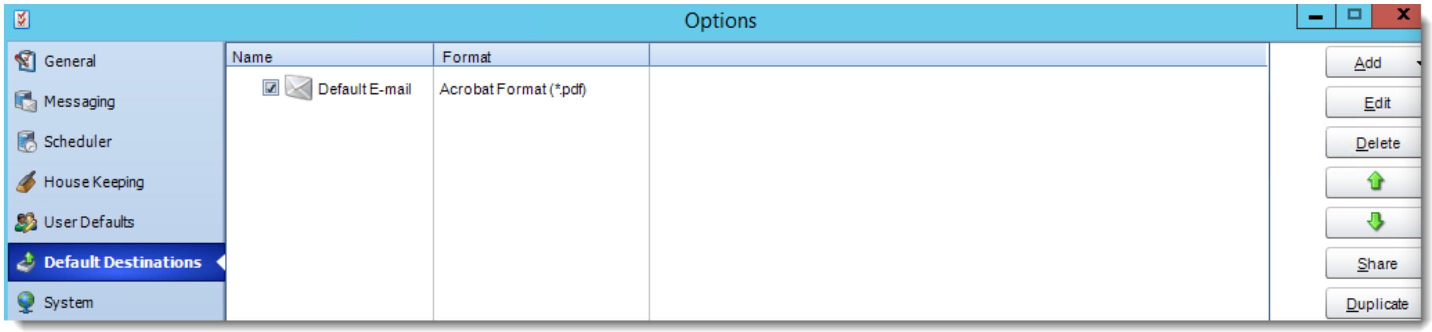


- Select the Type of Destinations from the drop-down list.



- Enter the name you wish the destination to be called, click **OK** on the Destination window. Then, click **Apply.**


Destination
Destination Name
Email
Type
Email
Email
Format
Naming
Misc
PGP
To...
karen@christiansteven.com
CC...
BCC...
Subject
Attach
Embed report
Format
TEXT
Customize sender details (optional)
Name:
Address:
OK
Cancel

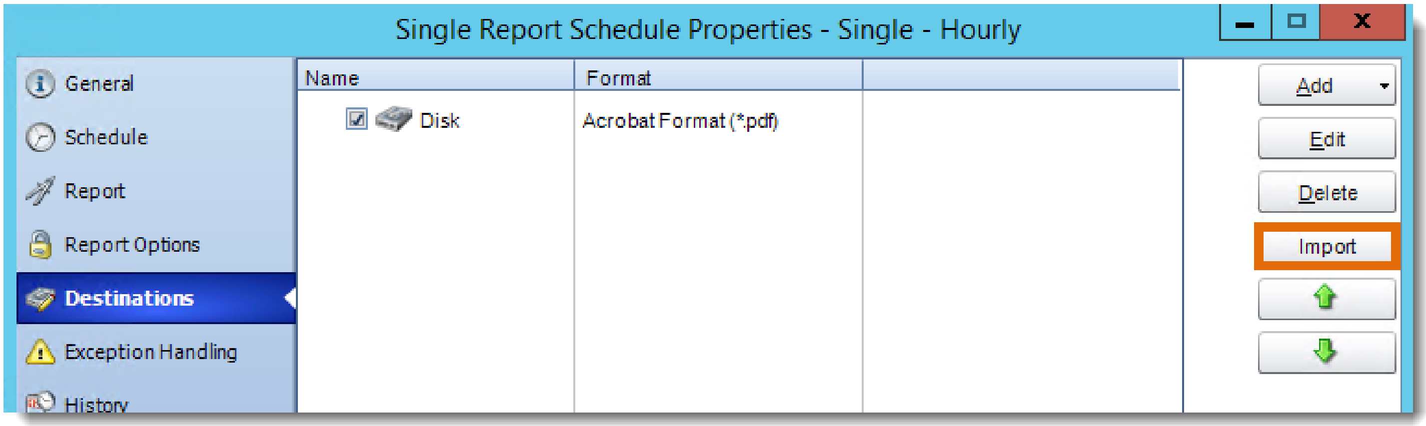


- The Default Destination has been successfully created.

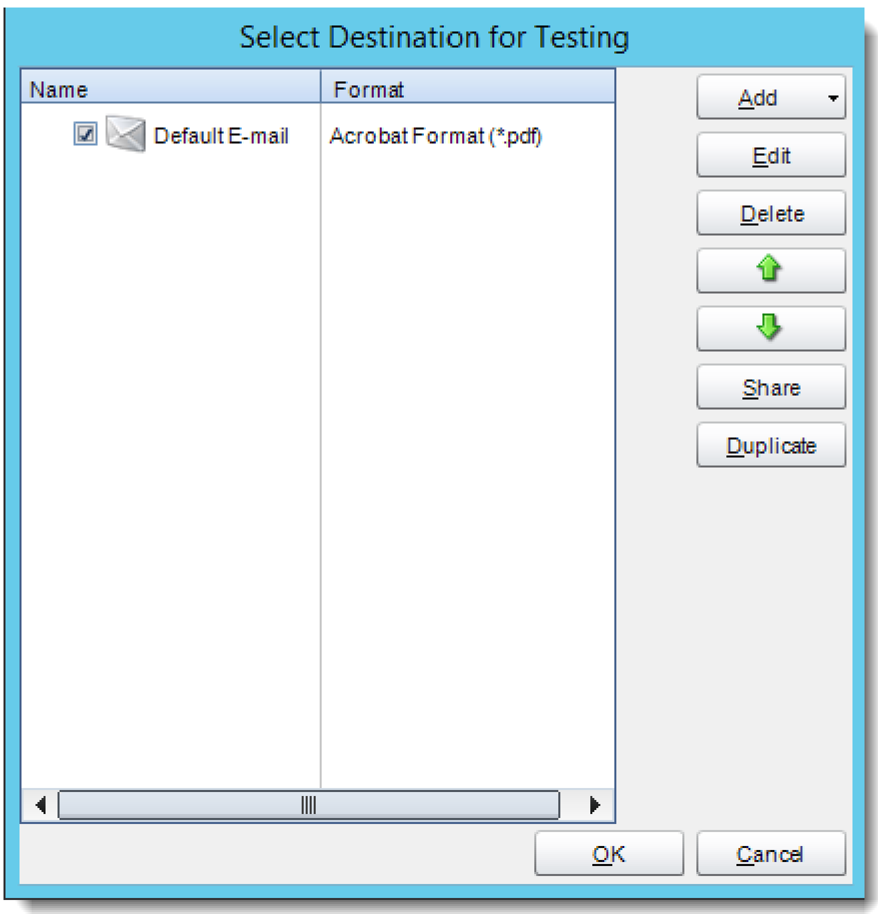
Using a Default Destination

To add the Default Destination to a schedule, perform the following:

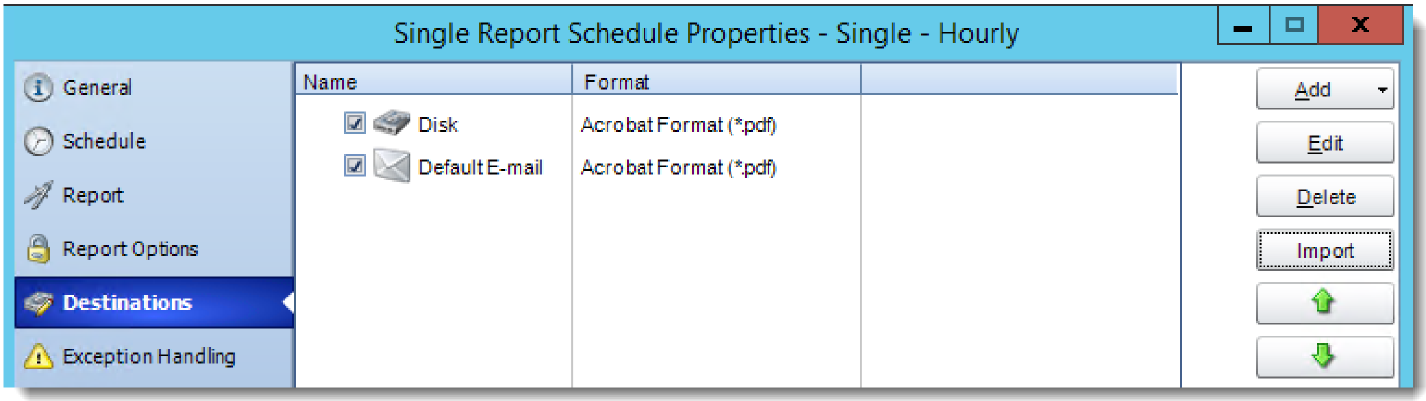
- Navigate to the Destinations tab of the *Schedule Properties* and click Import



- Select the Default Destination you wish to use and click OK.



- Click **OK.**



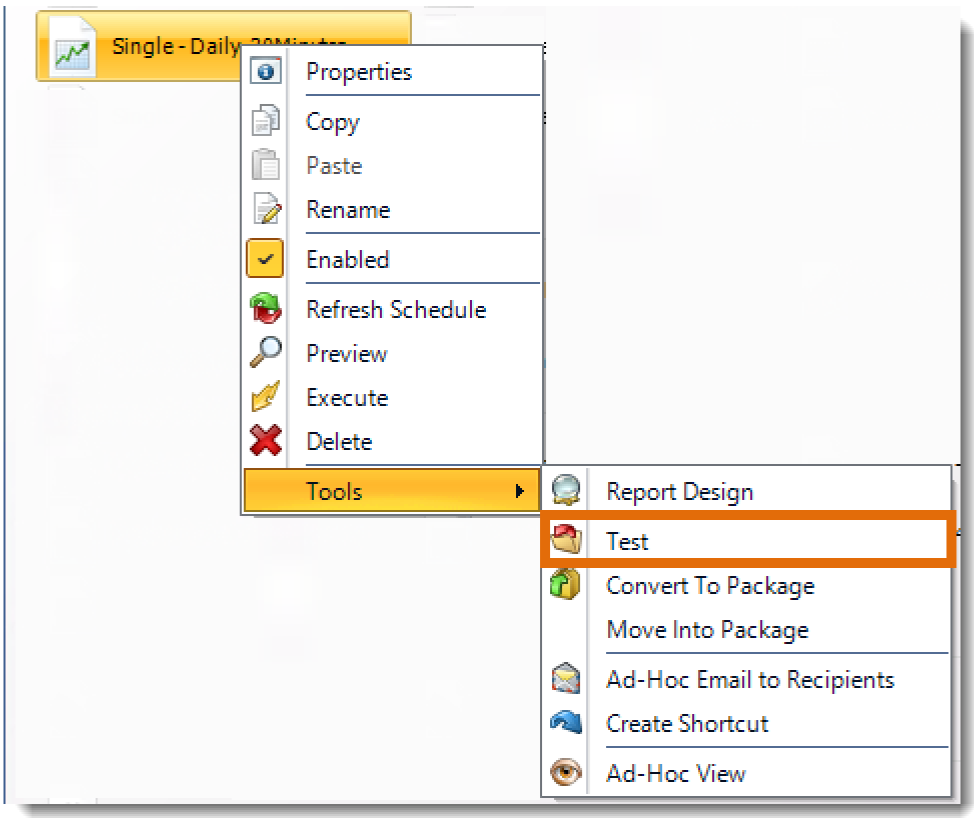
This report will now use the specified default destination without the need to set up the destination specifics.

Testing Using a Default Destination

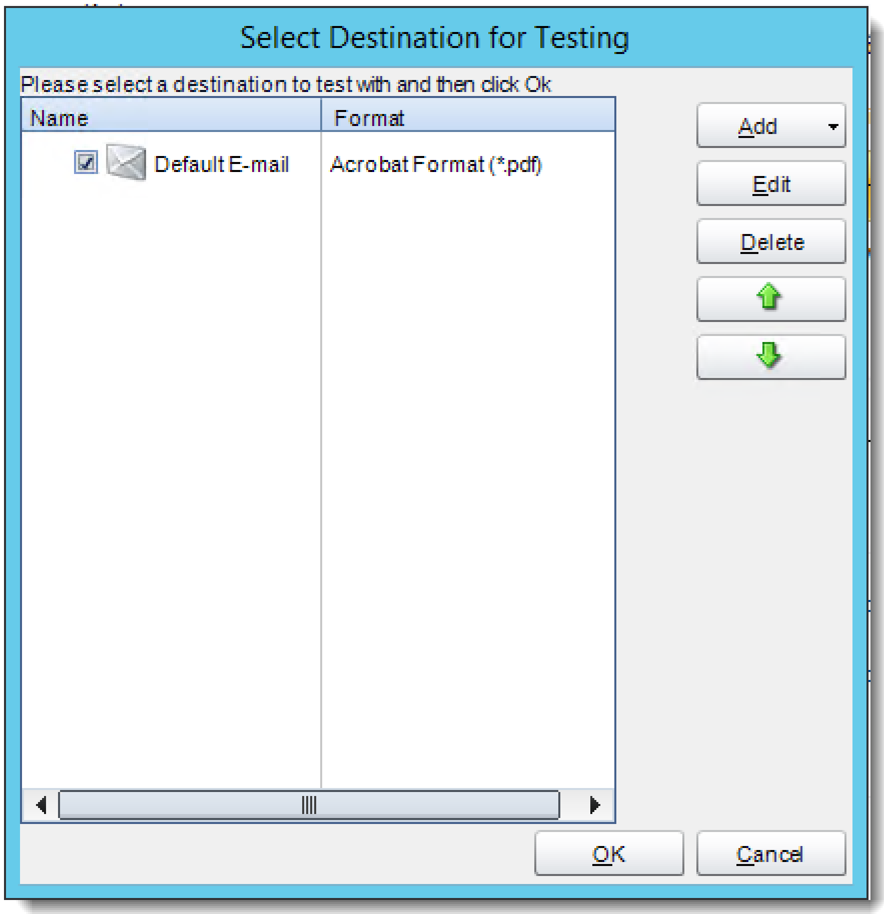
One of the features of CRD is the ability to set up specific default destinations for testing purposes (such as a test folder on the server's C: drive or a testing e-mail address).

To test a schedule using a default destination instead of the schedule's actual destination, perform the following:

- Right-click on the schedule you wish to test.
- Click **Tools**. Then, click **Test**.



- Click the destination you wish to use from the list of Default Destinations that pops up. Then, click **OK.**



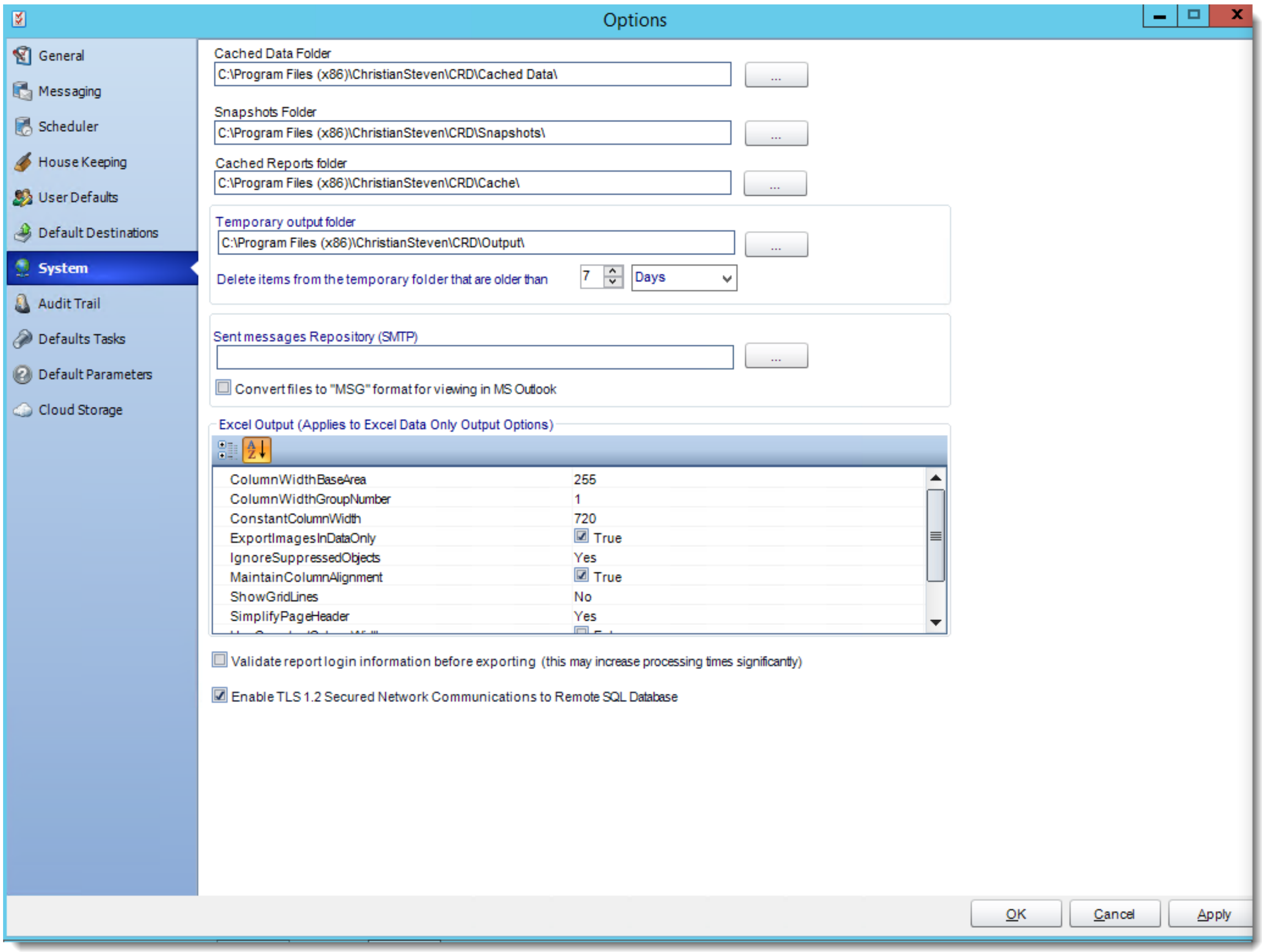
- Once you click OK, the schedule will automatically execute to the test destination, and you will receive a success or failure message.

Sharing Default Destinations

Default Destinations can be assigned to specified user groups. These groups are created in the User Manager. If you want to "pre-make" a destination so that a certain group of users can only have schedules export to that location, you can find how to assign them that default destination.

System

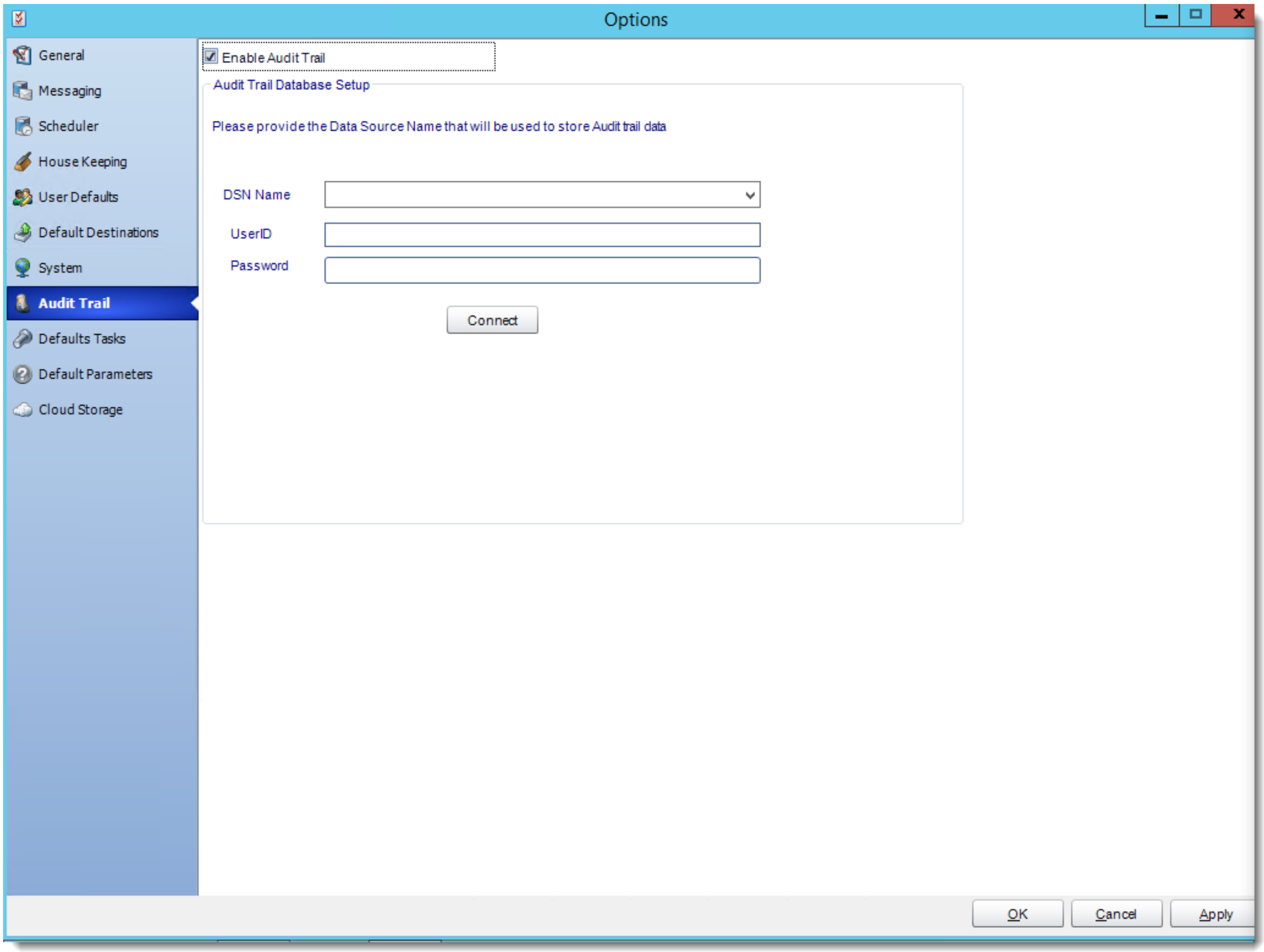
The System tab located on the Options window is where you can configure the the default folder locations that are used by CRD.



- **Cached Data Folder:** CRD stores information which is used by event-based and other schedules.
- **Snapshots folder:** This is where Snapshots will be stored.
- **Cached Reports Folder:** CRD stores copies of your report files (*.rpt) and executes these copies. The copies are cached in this folder.
- **Temporary Output Folder:** CRD uses this folder to store temporary files. To automatically clear down this folder so that your PC does not run out of disk space, you can set how long the items in the temporary folder should be kept.
- **Sent Messages Repository (SMTP):** CRD will use this folder to store information on your sent email messages via your configured SMTP server.
- You can also set CRD to convert the files to *.msg format for viewing in MS Outlook. Please note that the files are converted on the fly on viewing them from the sent messages section in the System Monitor.
- *If you do not check the box next to "convert files to MSG format", sent messages will save to this folder as .eml files. However, if you navigate to the Email Log in the System Monitor and click on one of the entries, the .eml file will be converted to a .msg file so that it can be viewed successfully.*
- **Excel Output:** Additional format options for excel outputs can edited here.
- **Validate report login information:** This will confirm the login credentials are correct before the schedules are exported to their destination.

Audit Trail

An audit trail is a chronological record of changes that have been made to a database or file. CRD can be configured to create an audit trail that will be stored in a given database. This is how to set it up.



An audit trail is a chronological record of changes that have been made to a database or file. CRD can be configured to create an audit trail that will be stored in a given database.

> *Audit information is not stored in CRD and you must create and designate an external ODBC compliant database for storage.*

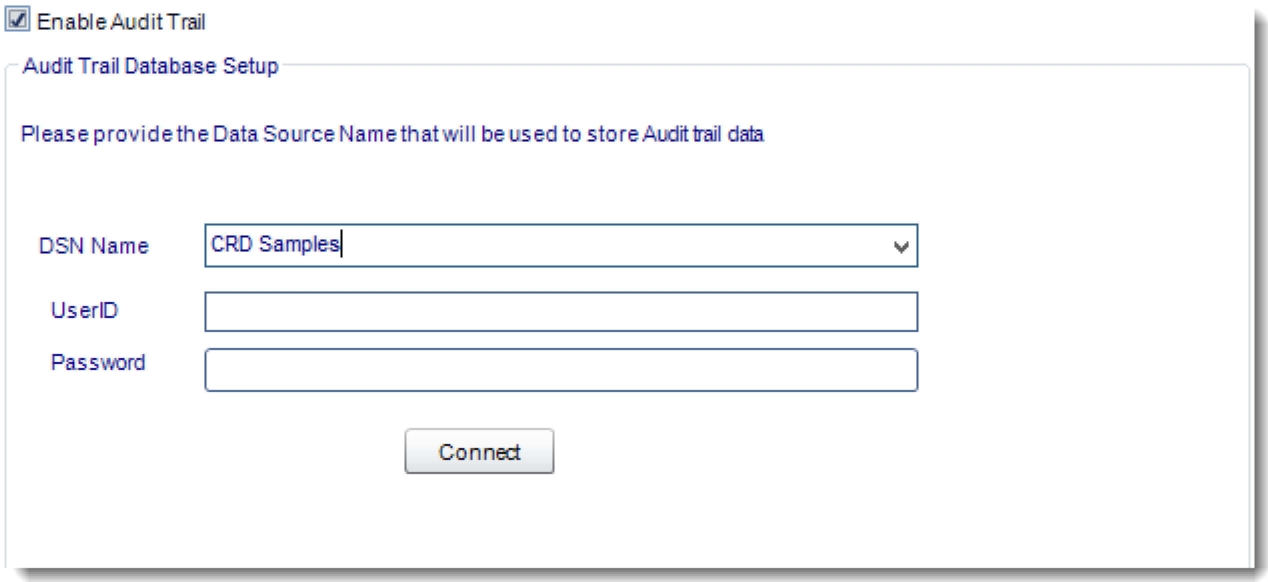
The audit trail will display which users have executed, refreshed, or edited schedules.

This audit trail will show common activities, such as which user executed a given schedule, what the user did, the schedule that was manipulated, and the type of schedule.

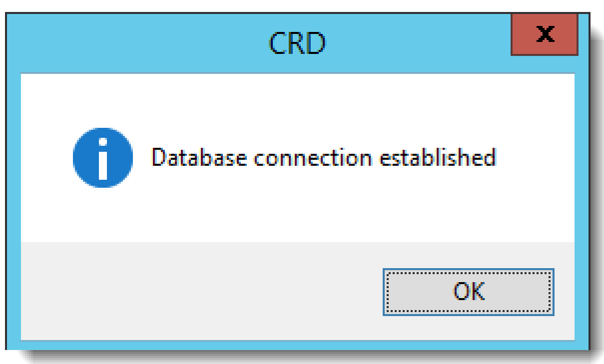
Enabling the Audit Trail

To allow CRD to create an audit trail, perform the following:

- On the **Audit Trail** tab of the *Options* window, check the box next to **Enable Audit Trail**. This will enable the Database Setup fields to be modified.
- Enter the database name and applicable credentials into the **DSN Name**, **UserID**, and **Password** fields. Then, click **Connect**.



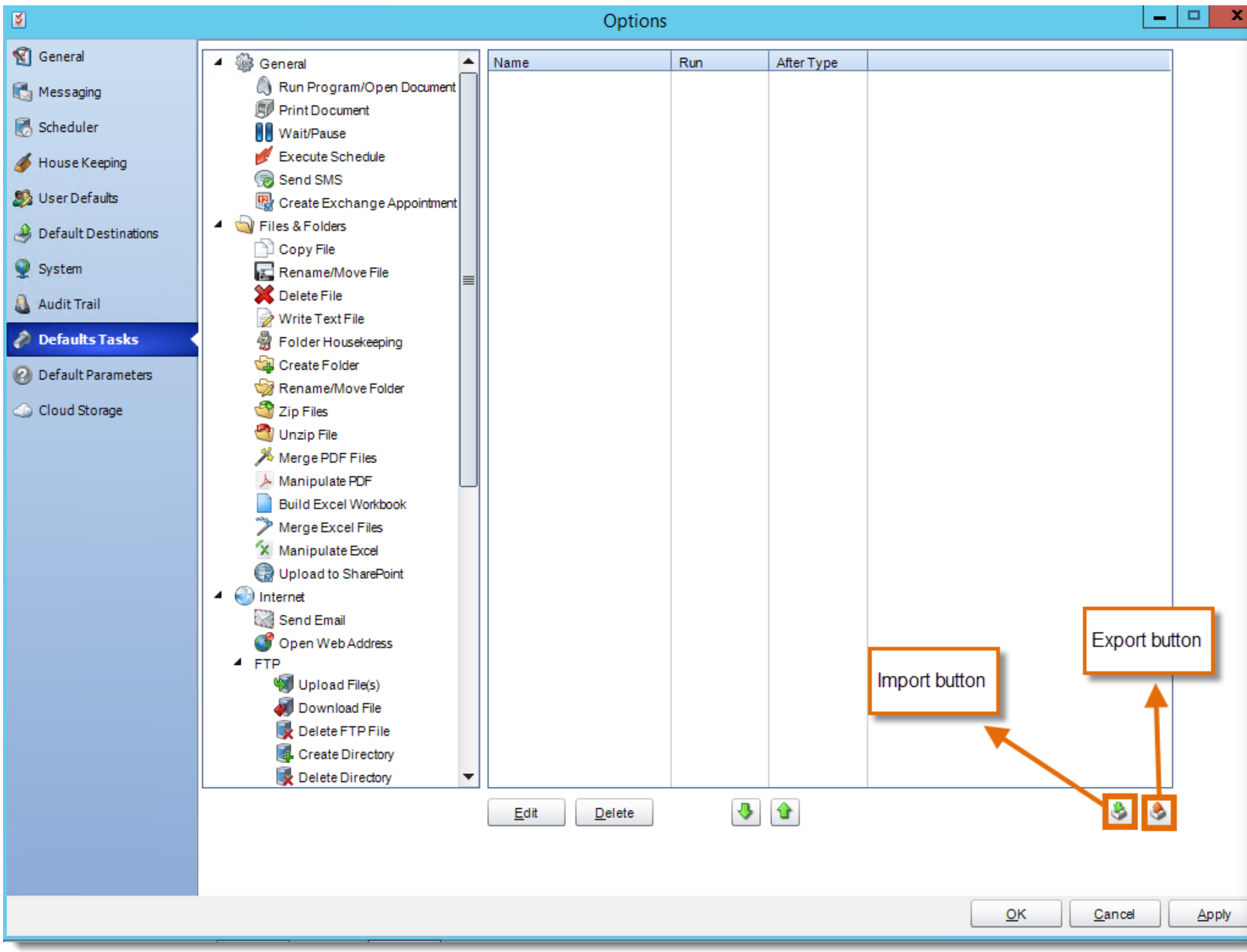
- If successful, a pop-up will appear:*Database connection established*. Click **OK**



- Click **Apply** then at the bottom of the *Options* window to save these settings.

Default Tasks

Default tasks are custom tasks which can be reused each time you create a schedule (without having to create the same custom task over and over again). This is how to set them up



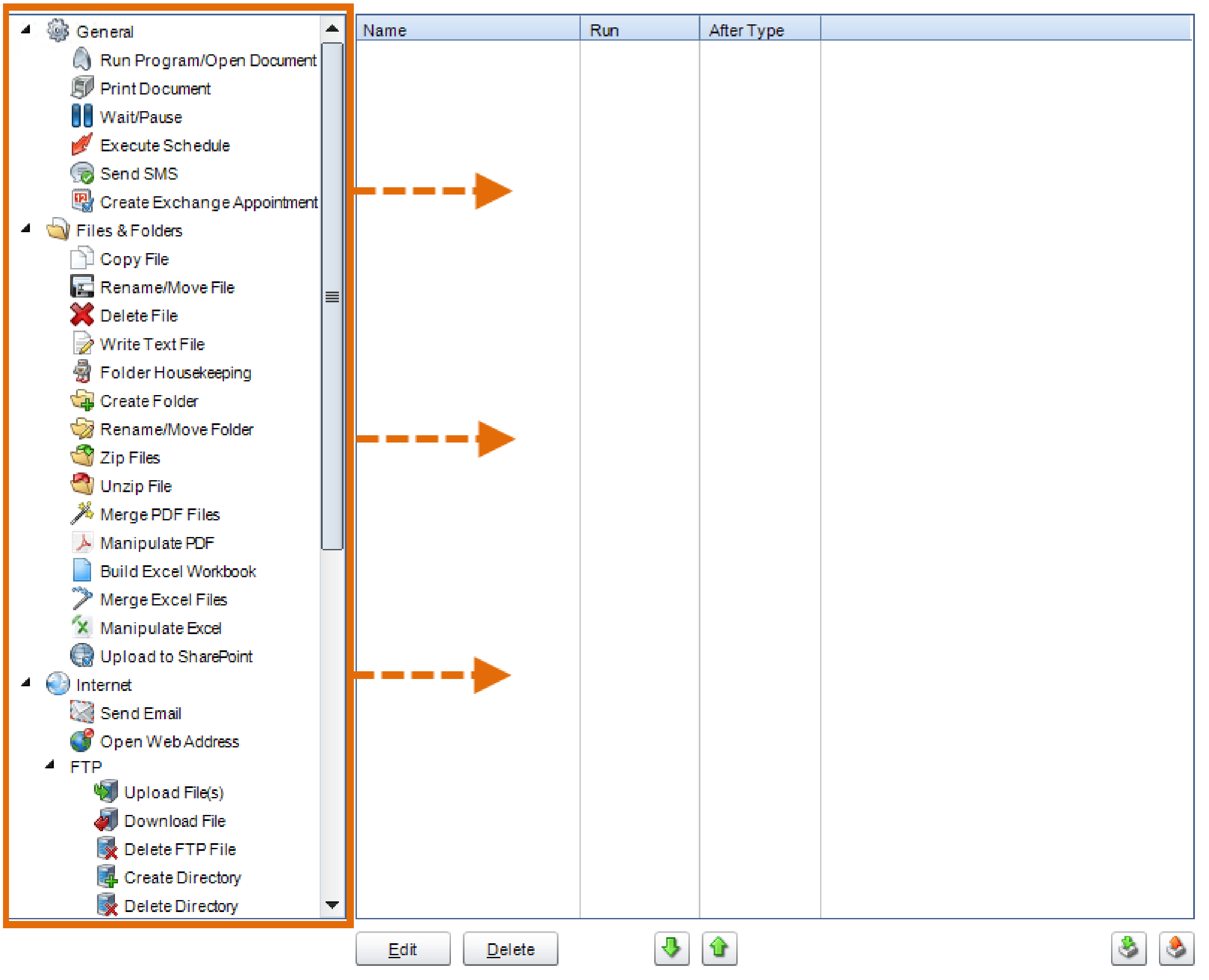
Default tasks are custom tasks which can be reused each time you create a schedule (without having to create the same custom task over and over again).

You can use the Default Tasks tab to create and store a copy of those most used custom tasks for easy insertion into schedules.

Creating a Default Task

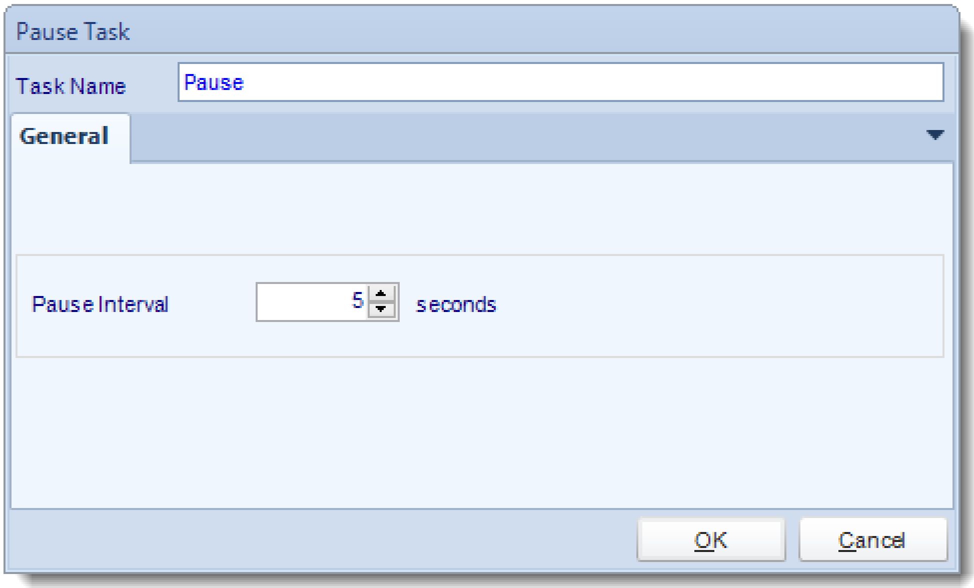
To create a default task, perform the following:

- From the list of custom tasks, select the one you want to use. Then, drag and drop it into the list.

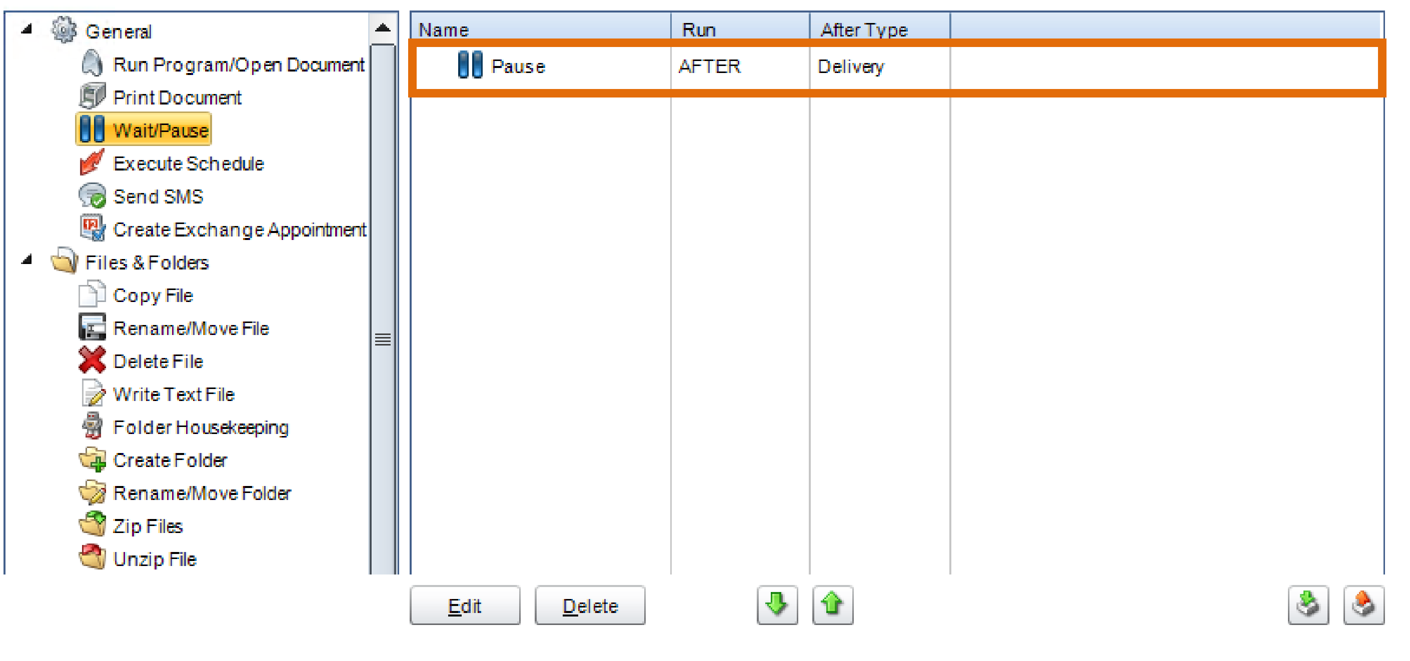


This will pop up a window that will allow you to set up the default custom task.

The picture shown below may differ from the pop-up window you see. This window varies based on the type of custom task you select.



- Once you have created the default task, it will display in the Custom Tasks window. Click **Apply**.



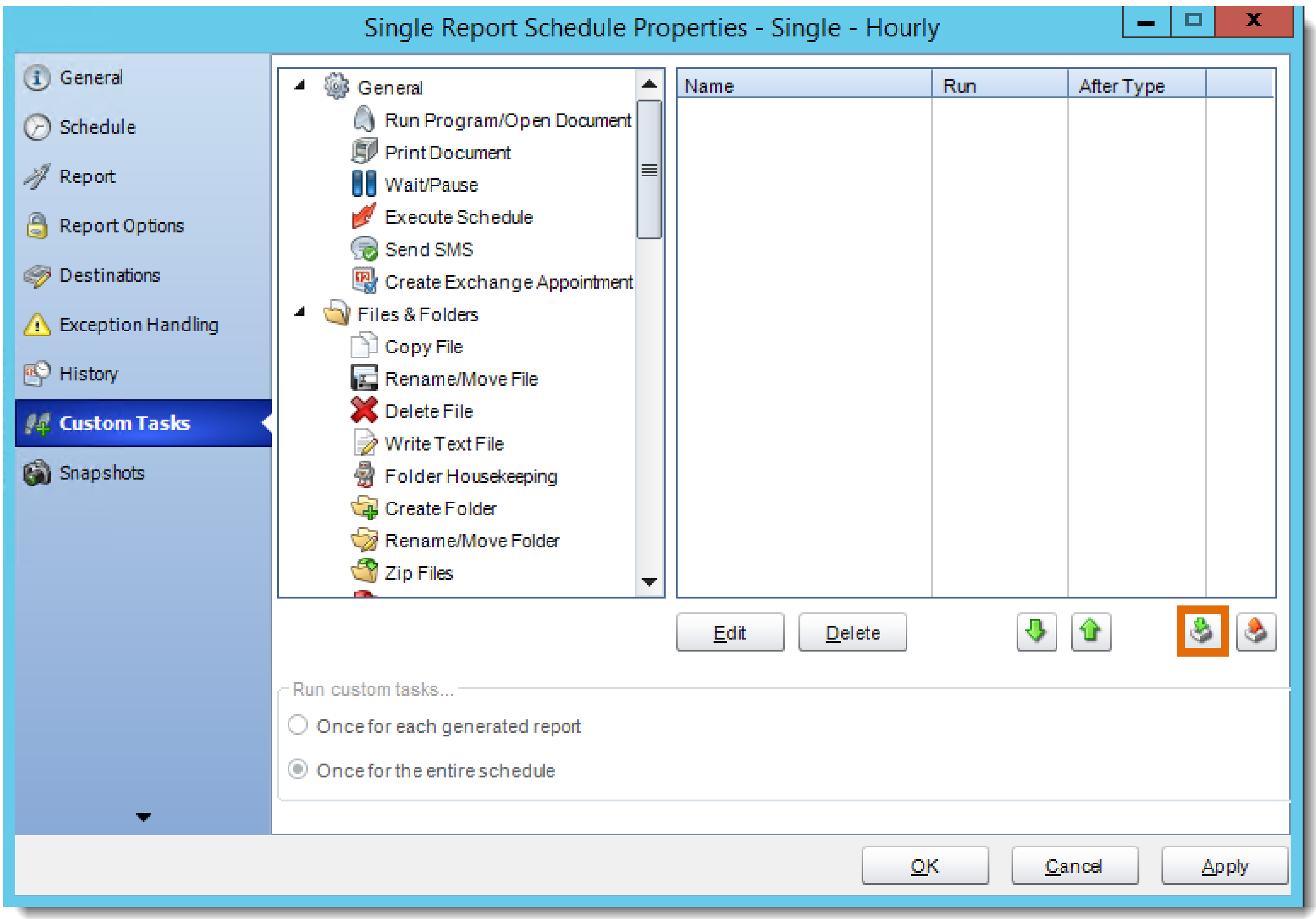
Importing a Default Task into a Schedule

To import a default task, perform the following:

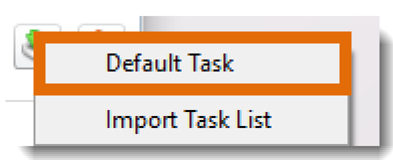
Navigate to the **Tasks** tab of the schedule you wish to add the default task to.

This can be done by right-clicking the schedule, selecting Properties, and then clicking Tasks.

- Click **Import.**

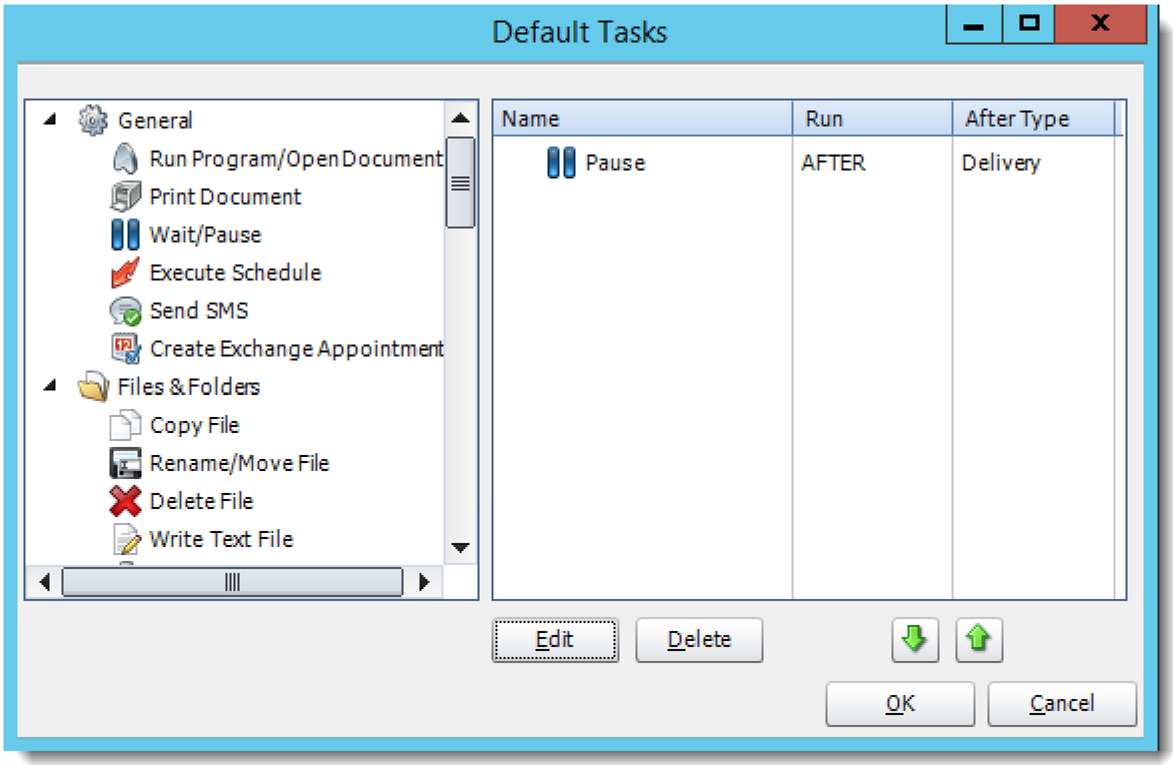


- From the context menu, select **Default Task**.



- From the list that displays, click on the default task you would like to add to this schedule. Then, click **OK**.

  You can create additional default tasks in this window as well.

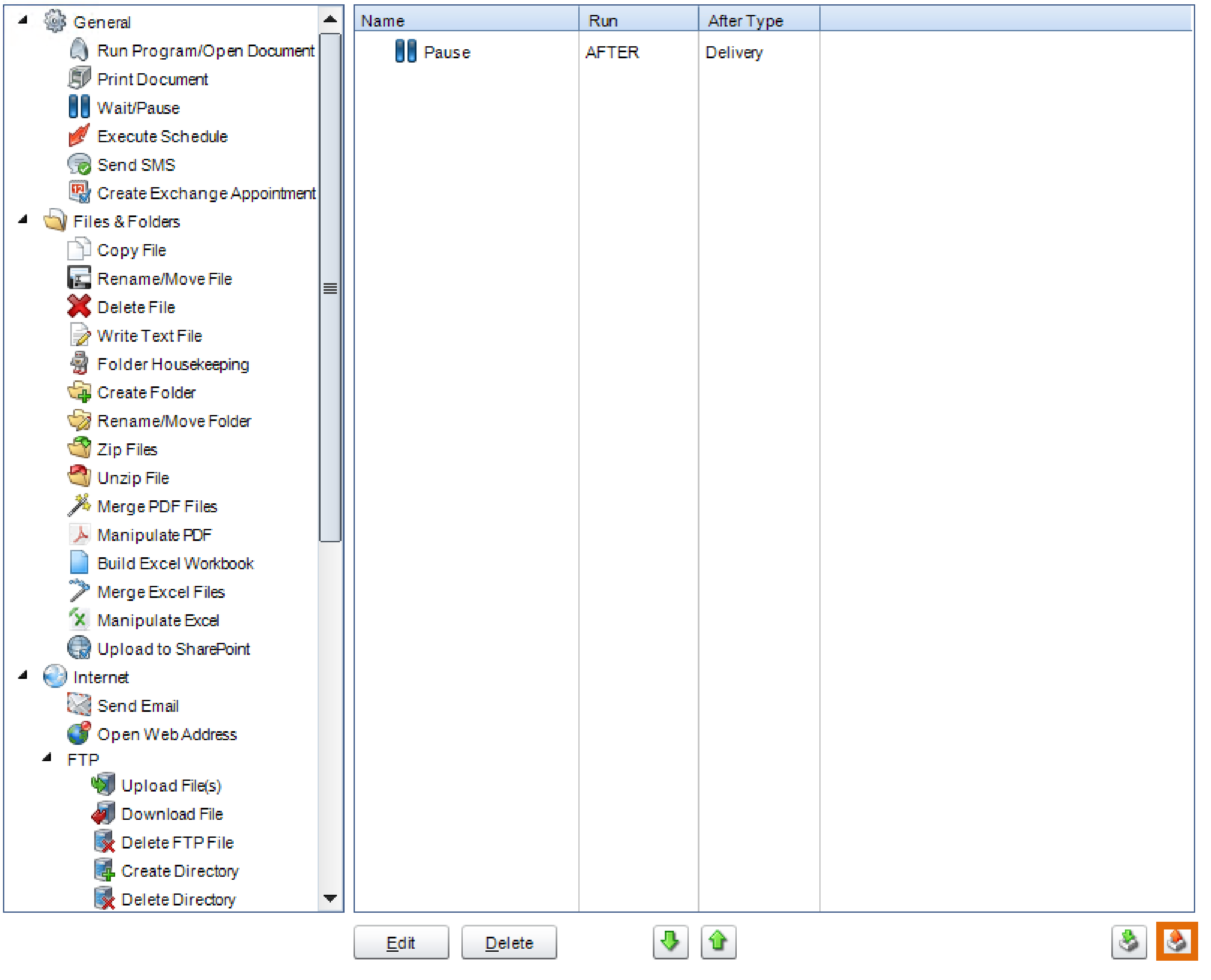


- The default task will now be added to the schedule as a custom task. Click **Apply**.

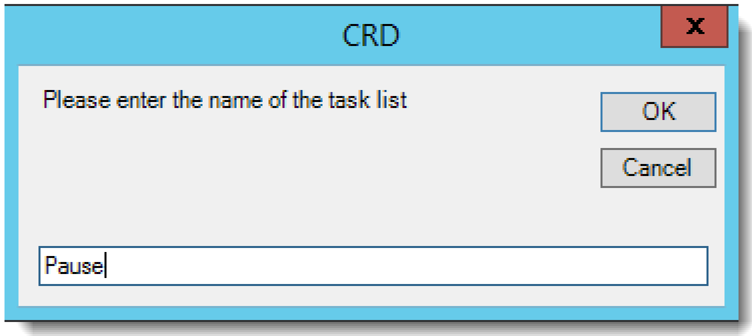
How to Create a Task List

Task Lists are a great way to import multiple task groups into a schedule. To create a Task List, perform the following:

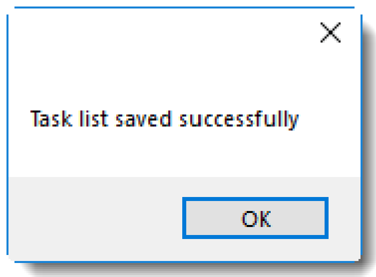
- On the Default Tasks tab of the Options window, select **Export**.



- Enter a name for this task list. Then, click **OK.**



- If the default task list was created successfully, you will see a success message. Click **OK.**



- The Task list is now saved and can be imported into a schedule.

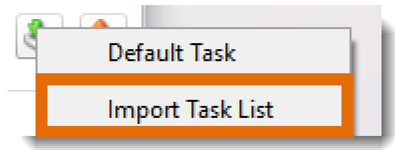
Importing a Default Task List

To import a default task list, perform the following:

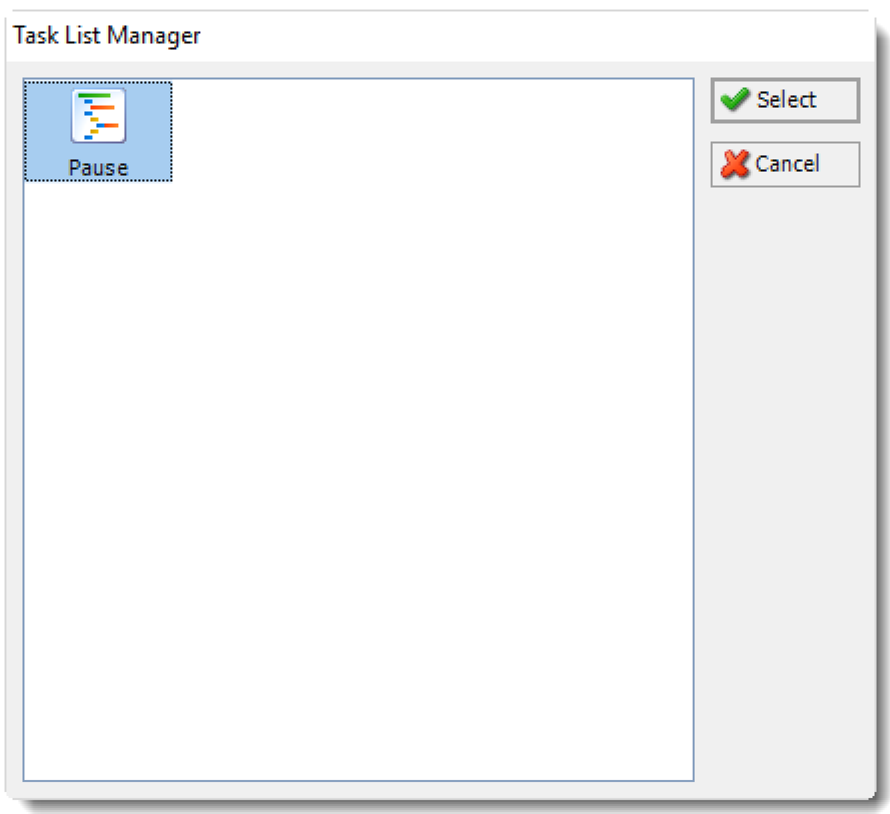
- Navigate to the Custom Tasks tab of the schedule you wish to add the default task to.

  This can be done by right-clicking the schedule, selecting Properties, and then clicking Tasks.

- Click **Import**.
- Click **Import Task List**.

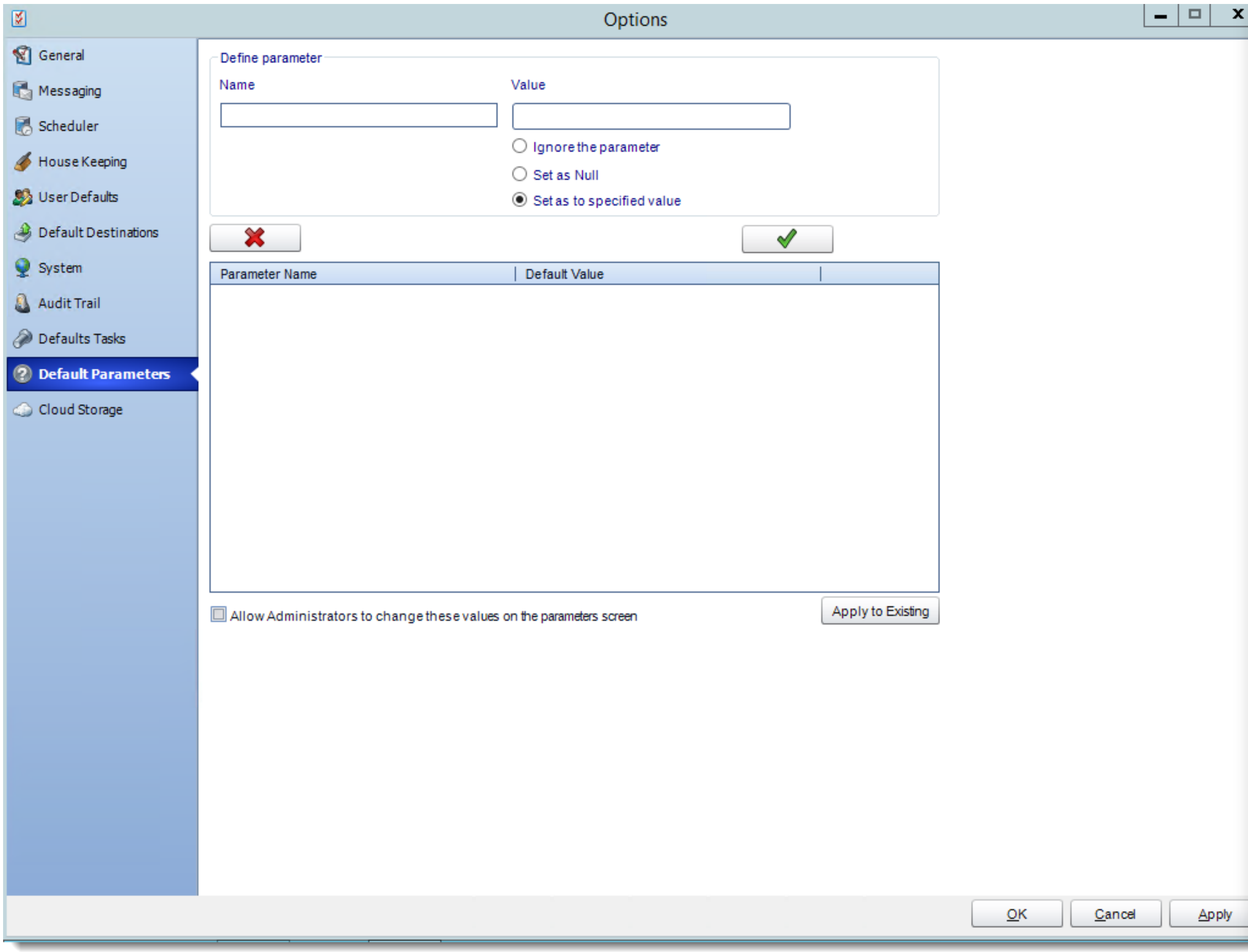


- From the list that appears, click the task list you wish to import for this schedule. Then, click **Select.**



- All tasks associated with that task list will now be added to the schedule. Click **Apply**.

Default Parameters



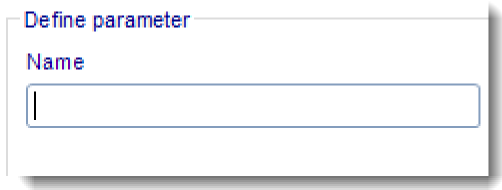
The Default Parameters tab allows you to set default values for specific parameters that you can then assign to any of your schedules.

Default Parameters are useful for CRD environments where users are assigned schedules with specific parameter settings that need not be tampered with.

Creating a Default Parameter

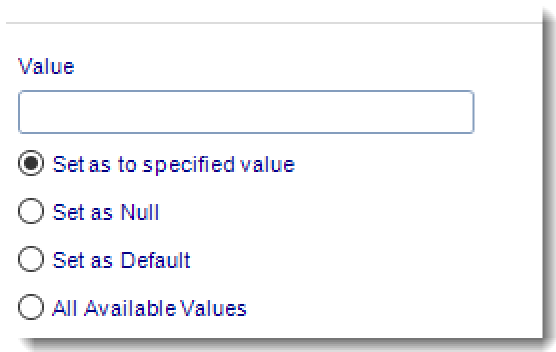
To create a default parameter, perform the following:

- On the **Default Parameters** tab, enter the name of the parameter in the *Define parameter - Name* field.

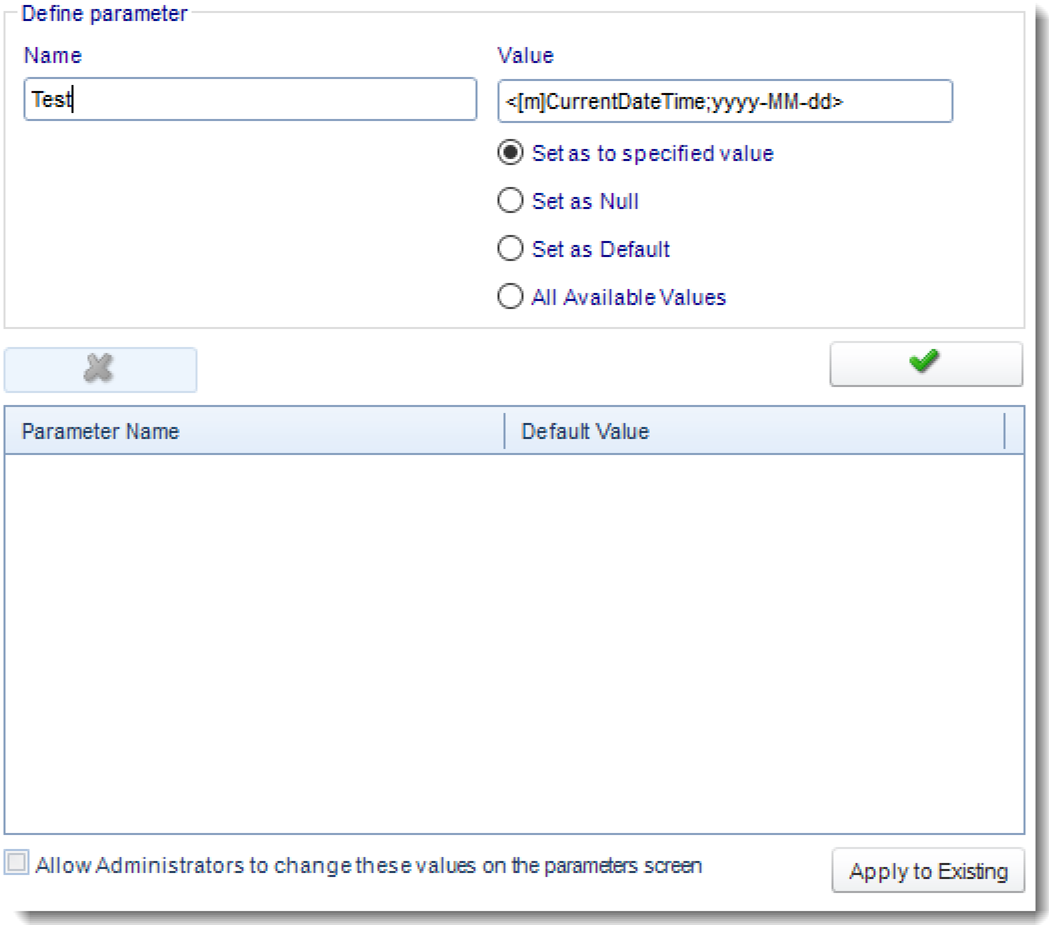


- For the value, choose one of the following options:
  - **Ignore the parameter** specified.
  - Set its value to **Null.**
  - Set it to a value **you specify** in the *Value* field.

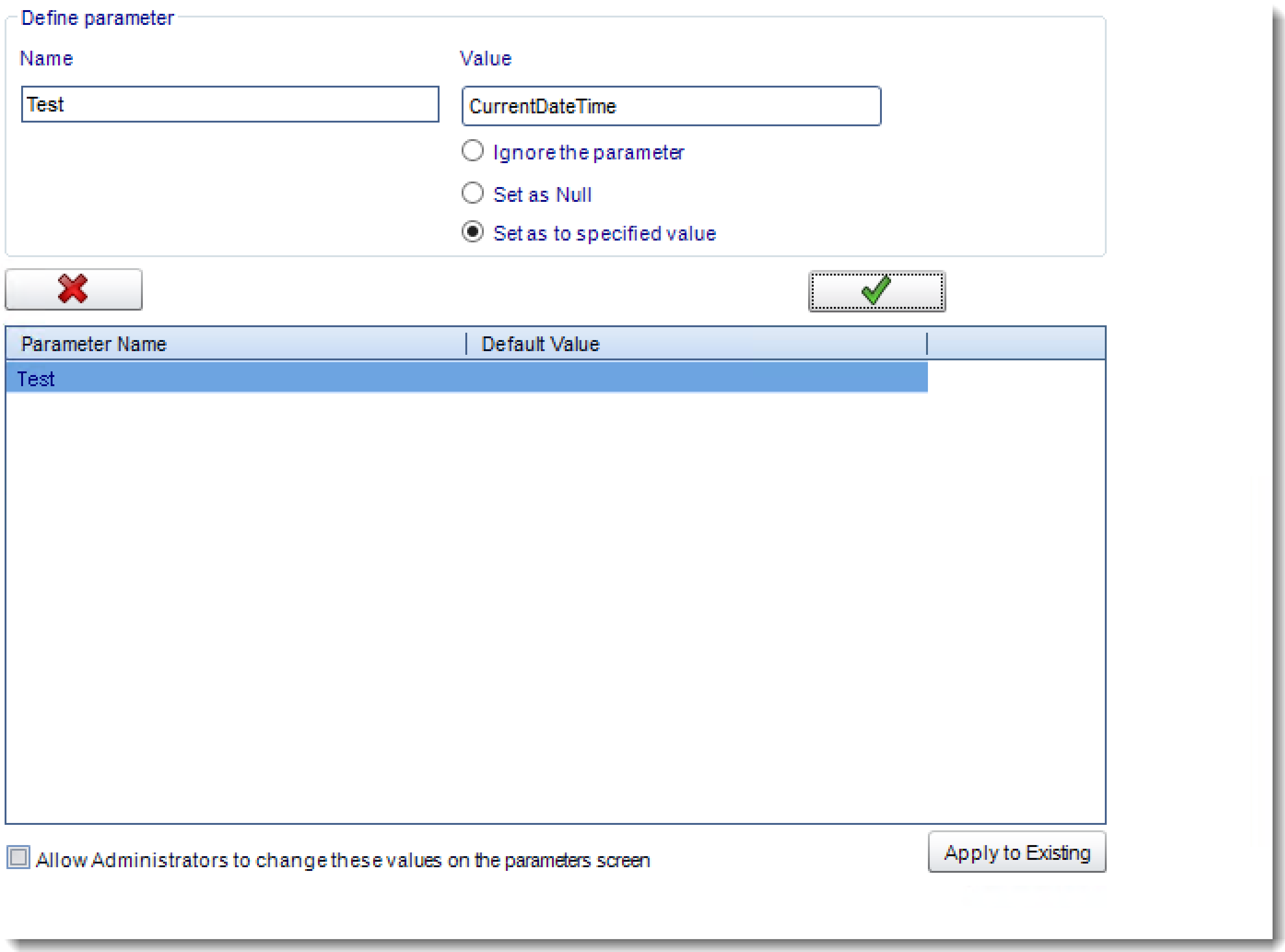
    You can also drag and drop values from the inserts menu (i.e. date parameters or data items) into the Value field.



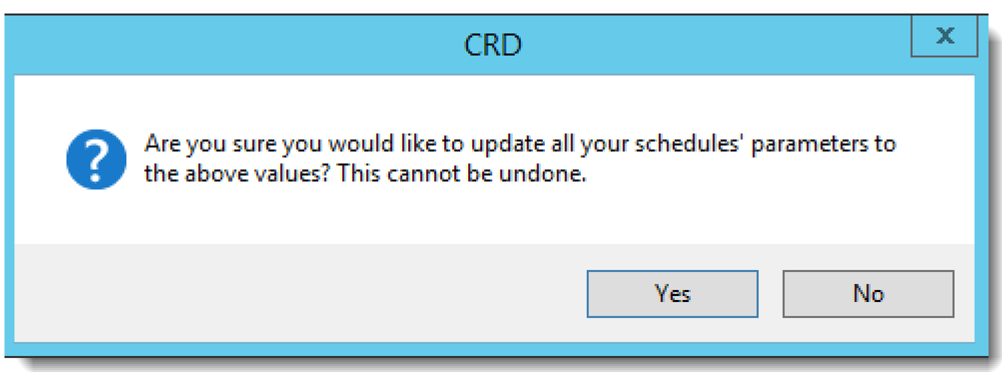
- Once you are satisfied with the parameter name and value, click the **Check mark** to add it to the Default Parameter list.



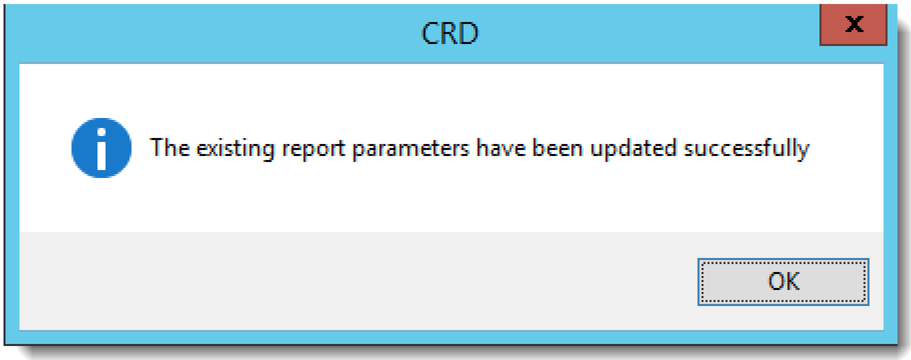
- Repeat steps 1-3 for the remaining parameters you wish to set.
- Once you have finished entering in parameters, decide if you would like administrators (or those with similar admin rights) to be able to edit the default parameter values you just set.
    - If you do, check the box next to **Allow Administrators to change these values on the parameters screen.**
- If you would like to apply these default parameter values to all your currently existing schedules, click **Apply to Existing.**



- Click **Yes.**

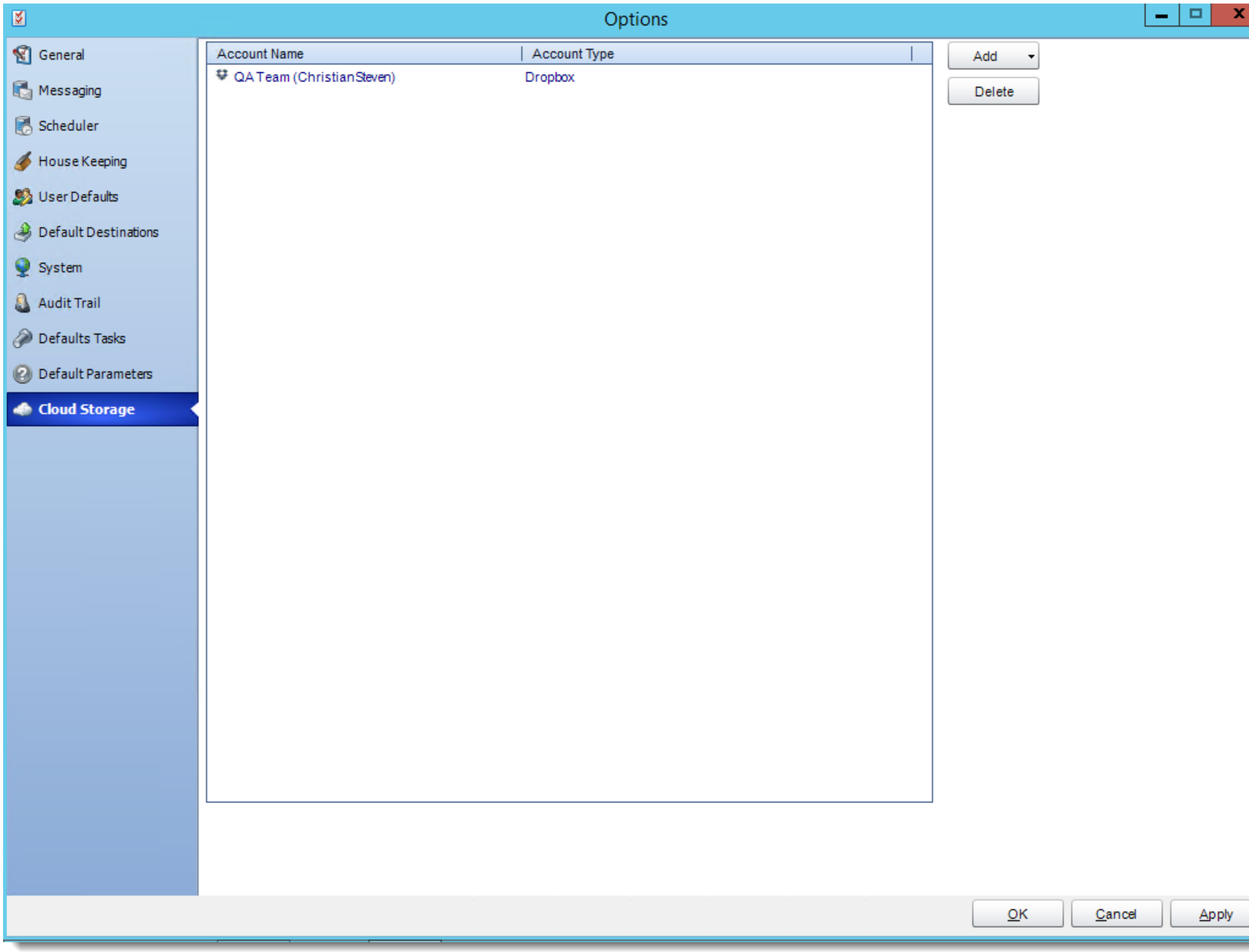


- Click **OK.**



- Click **Apply**.
- When reports are added to schedules, the parameters specified will now automatically have the default values you configured.

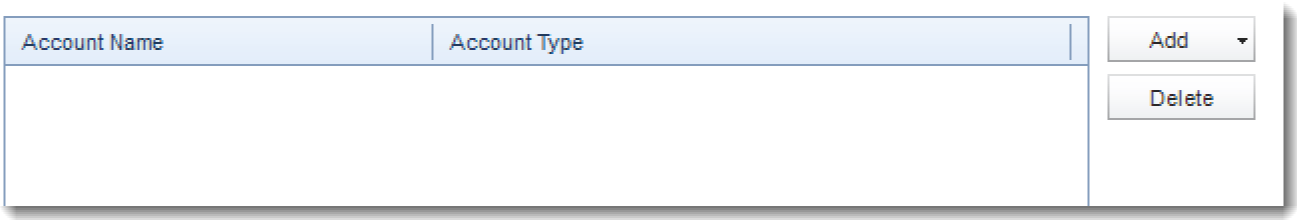
Cloud Storage

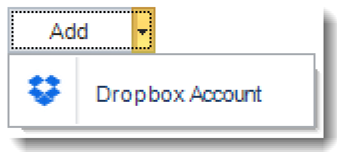


With the Cloud Storage tab, you can export reports to cloud services such as Dropbox. Adding the cloud storage options on this tab will allow you to use them as a destination for reports to export to when you create schedules in CRD.

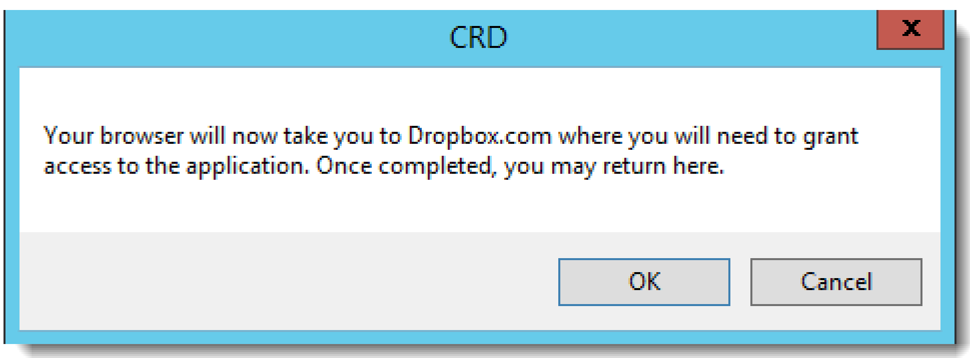
To add a Dropbox account, perform the following:

- Click **Add**.

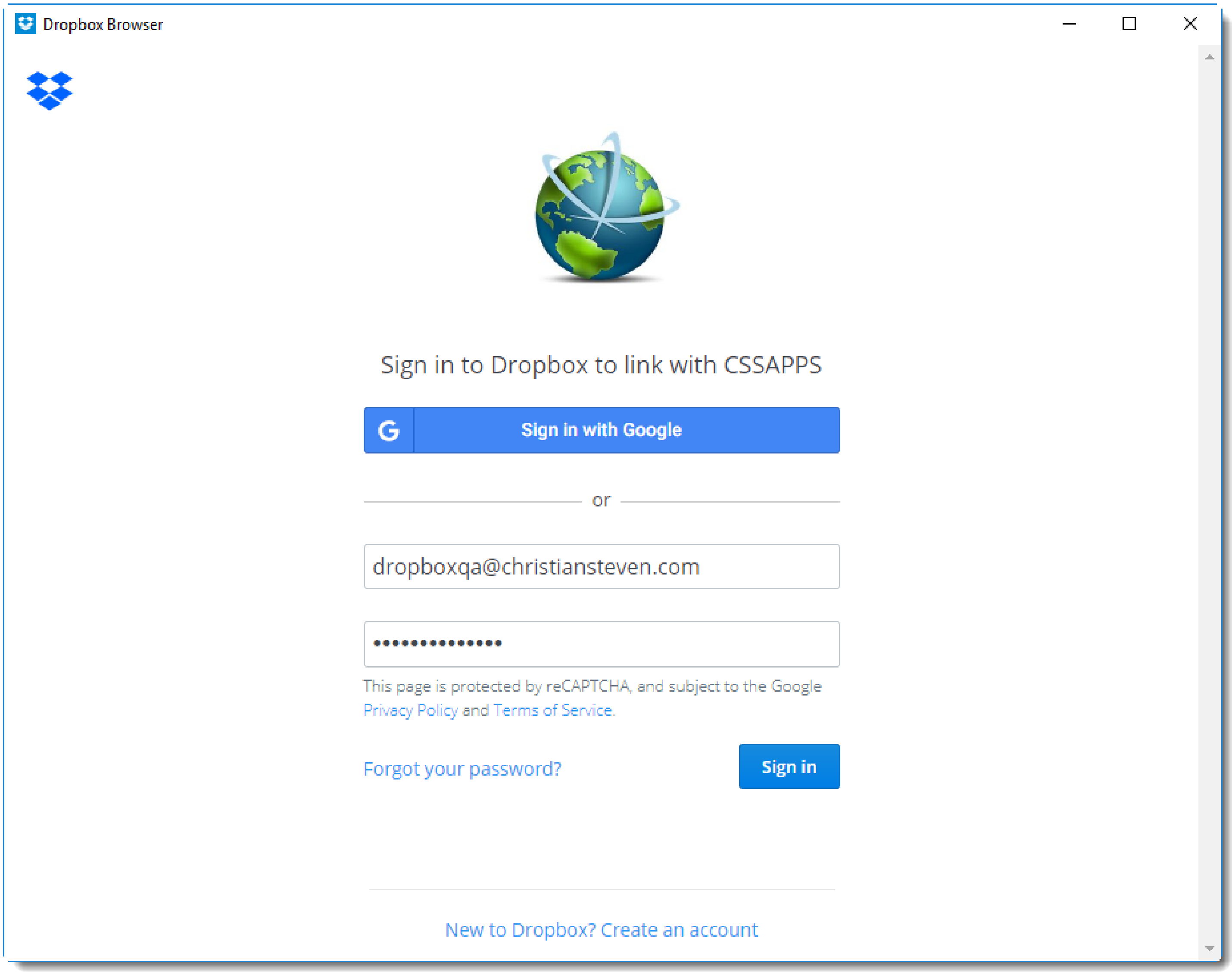




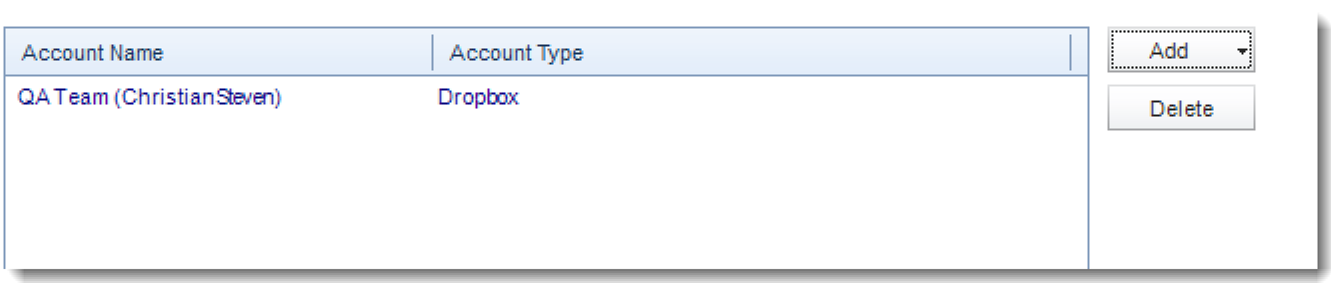
- You will see a pop-up advising you that you will now be redirected to Dropbox.com to grant access to CRD. Click **OK**.



- On the dropbox.com browser window that opens, **sign-in to your Dropbox account.**



- Navigate back to CRD. You should now see your Dropbox account listed under the Account Name/Account Type section.

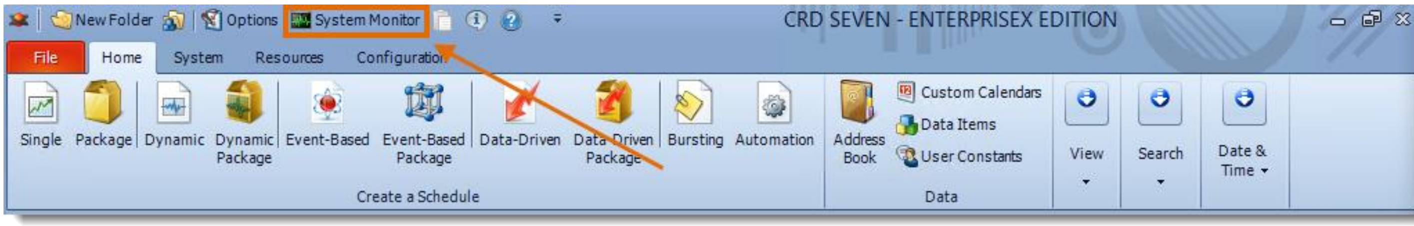


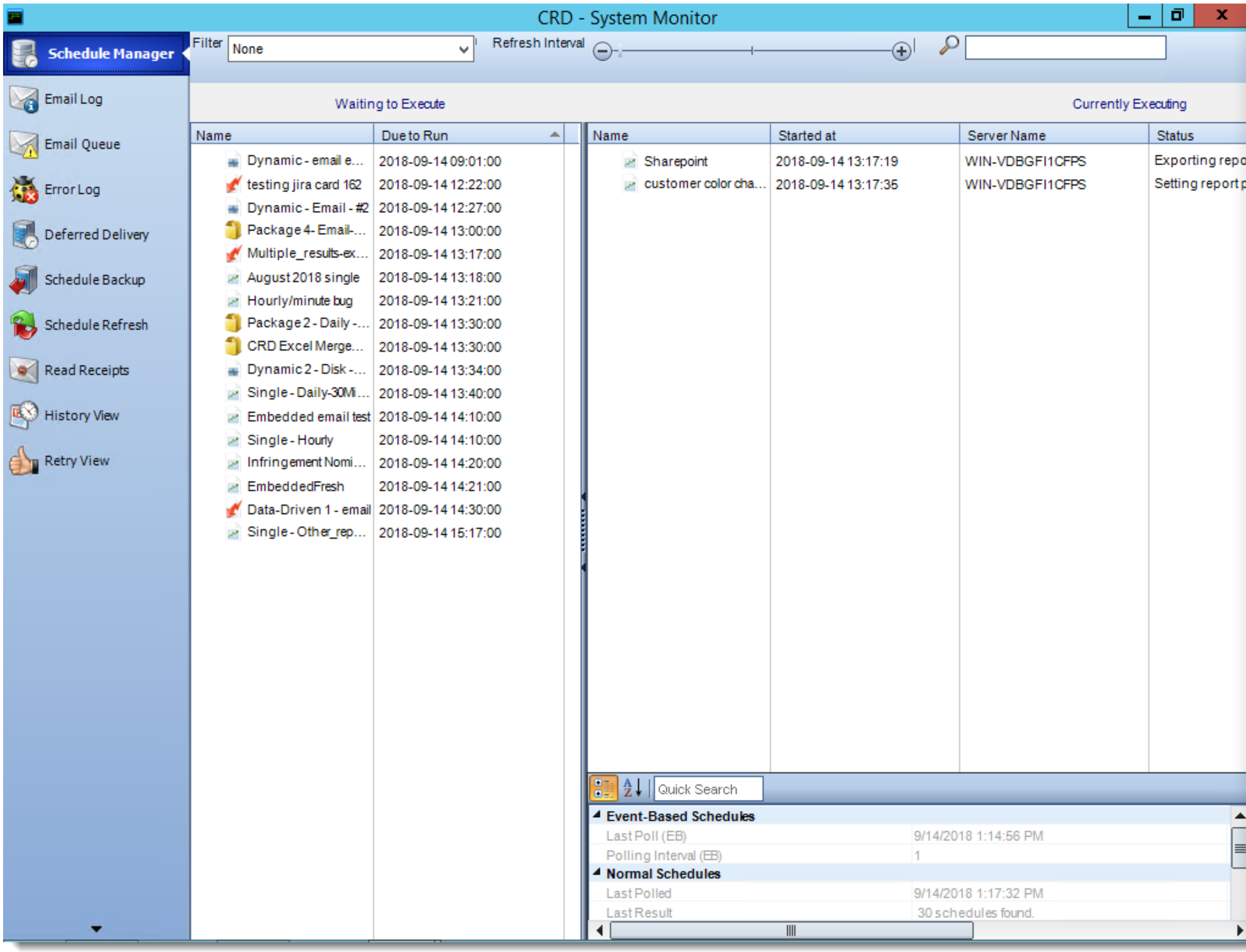
- Click **Apply.**

System Monitor

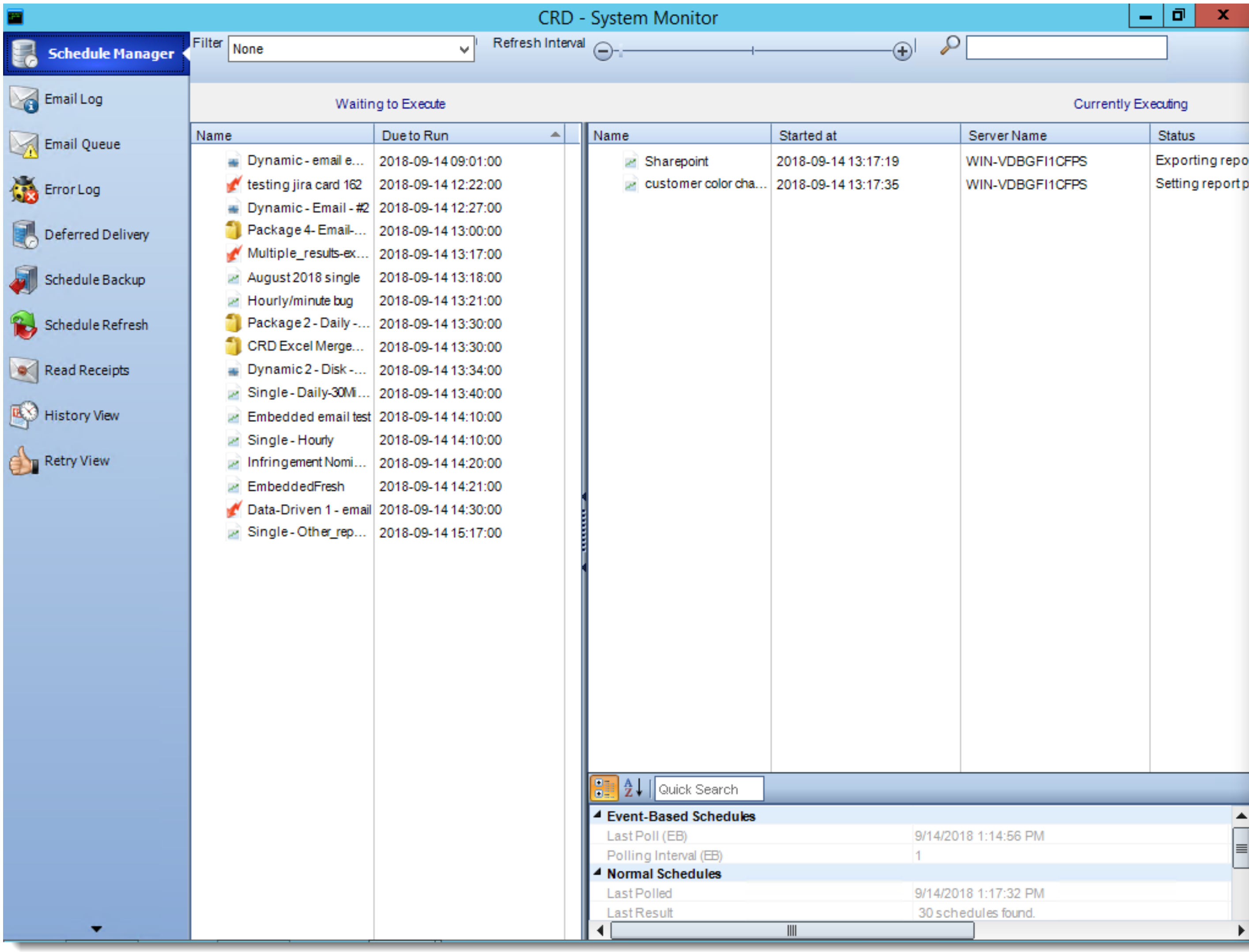
The System Monitor is used to view scheduling and other system events and processes. Here's where to find it.

- Go to System Monitor.

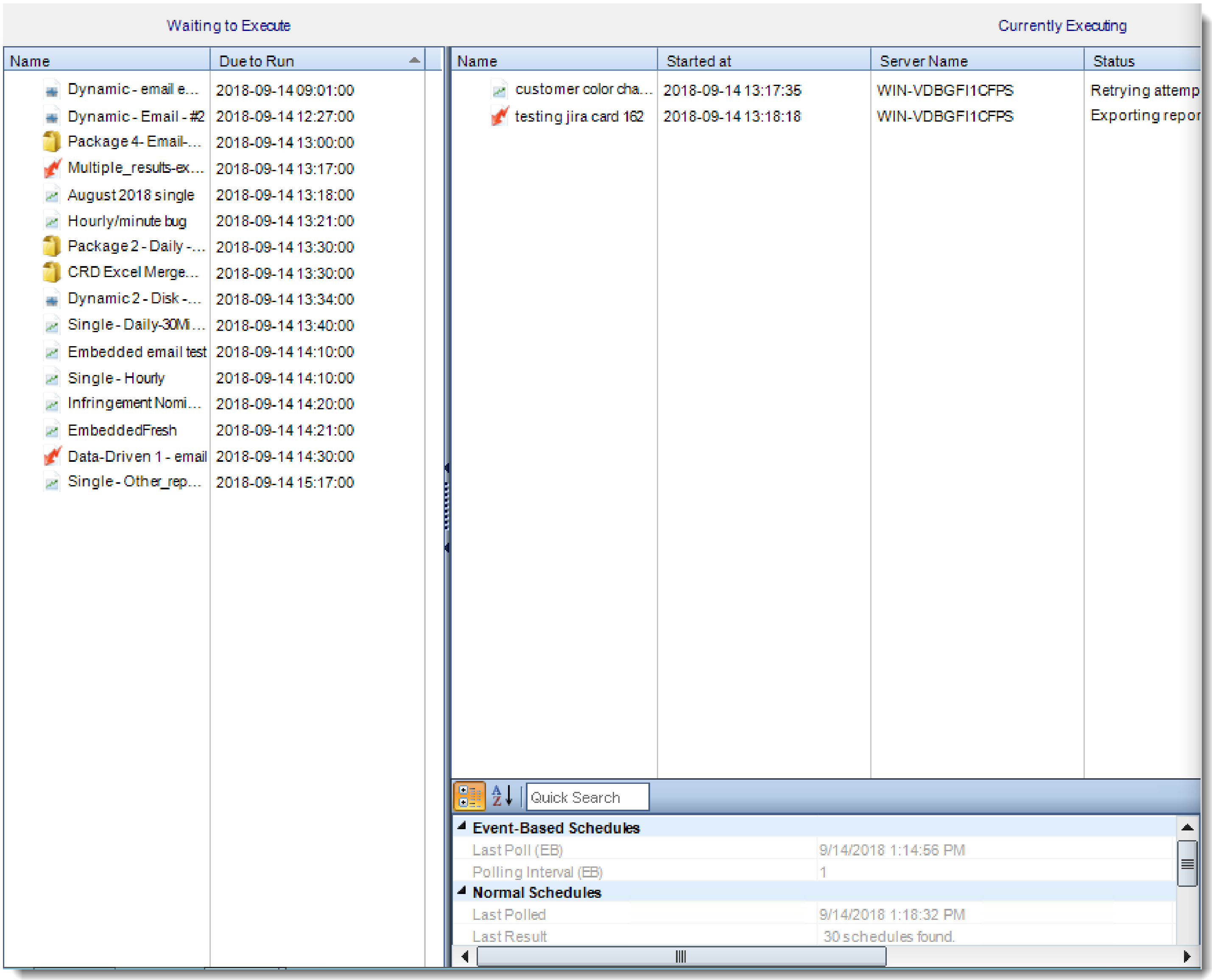



CRD - System Monitor
Schedule Manager
Email Log
Email Queue
Error Log
Deferred Delivery
Schedule Backup
Schedule Refresh
Read Receipts
History View
Retry View
Filter
None
Refresh Interval
Waiting to Execute
Currently Executing
Name
Due to Run
Dynamic - email e...
2018-09-14 09:01:00
testing jira card 162
2018-09-14 12:22:00
Dynamic - Email - #2
2018-09-14 12:27:00
Package 4 - Email-...
2018-09-14 13:00:00
Multiple_results-ex...
2018-09-14 13:17:00
August 2018 single
2018-09-14 13:18:00
Hourly/minute bug
2018-09-14 13:21:00
Package 2 - Daily -...
2018-09-14 13:30:00
CRD Excel Merge...
2018-09-14 13:30:00
Dynamic 2 - Disk -...
2018-09-14 13:34:00
Single - Daily-30Mi...
2018-09-14 13:40:00
Embedded email test
2018-09-14 14:10:00
Single - Hourly
2018-09-14 14:10:00
Infringement Nomi...
2018-09-14 14:20:00
EmbeddedFresh
2018-09-14 14:21:00
Data-Driven 1 - email
2018-09-14 14:30:00
Single - Other_rep...
2018-09-14 15:17:00
Name
Started at
Server Name
Status
Sharepoint
2018-09-14 13:17:19
WIN-VDBGFI1CFPS
Exporting repor
customer color cha...
2018-09-14 13:17:35
WIN-VDBGFI1CFPS
Setting report pa
Quick Search
Event-Based Schedules
Last Poll (EB)
9/14/2018 1:14:56 PM
Polling Interval (EB)
1
Normal Schedules
Last Polled
9/14/2018 1:17:32 PM
Last Result
30 schedules found.

Schedule Manager

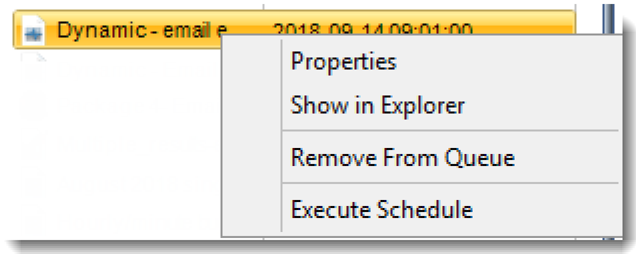


- The schedule manager will show currently executing schedules as well as any schedules scheduled to run (based on filter selected). From here you can remove a schedule from the waiting to execute or currently executing section. You can also go to the properties of a schedule by right-clicking the schedule.



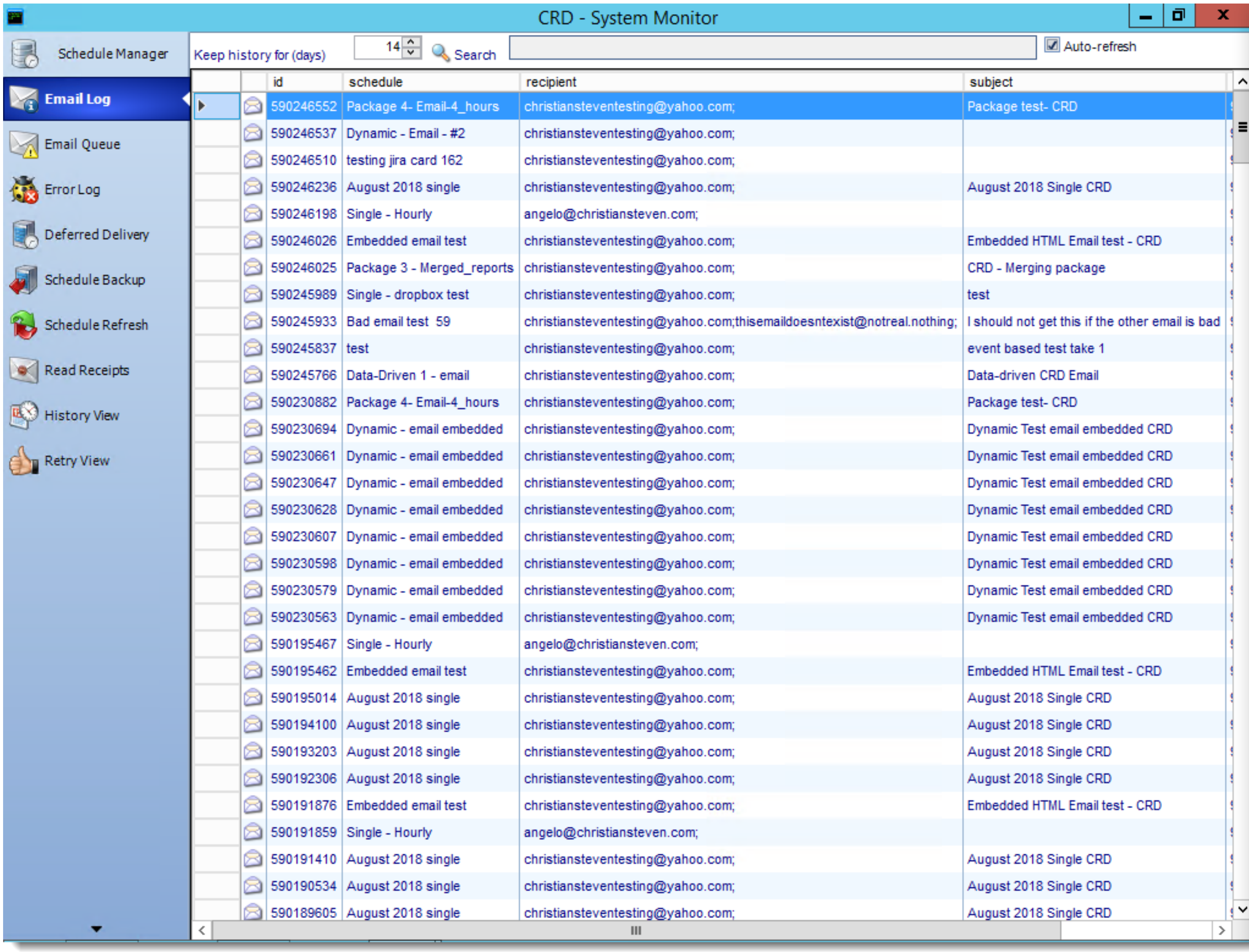
- **Executing:** This screen will display the schedules that are currently executing.
- **Waiting in Queue:** This screen will show the schedules that are waiting in the queue to be executed. You can also group the schedules by Schedule Type.
- **Refreshing the Display:** You can adjust the refresh interval of the schedule manager by using the Refresh Interval scroller which has a range of 2 to 60 seconds.
- **Managing Processes**: The Schedule manager also displays the Process ID which you can use to identify matching processes in the Windows Task Manager.

Context Menu



- **Properties:** Select the schedule, right-click and select "Open Schedule properties". This opens the schedule properties.
- **Show in Explorer:** Select the schedule, right-click and select "Show the schedule in Explorer. This shows the schedule in the CRD Explorer.
- **Remove From Queue:** Select the schedule, right-click and select "Remove from Queue". The schedule is removed from the queue.
- **Execute Schedule:** Select the schedule, right-click and select "Execute Schedule". The schedule is executed right away if it was waiting.

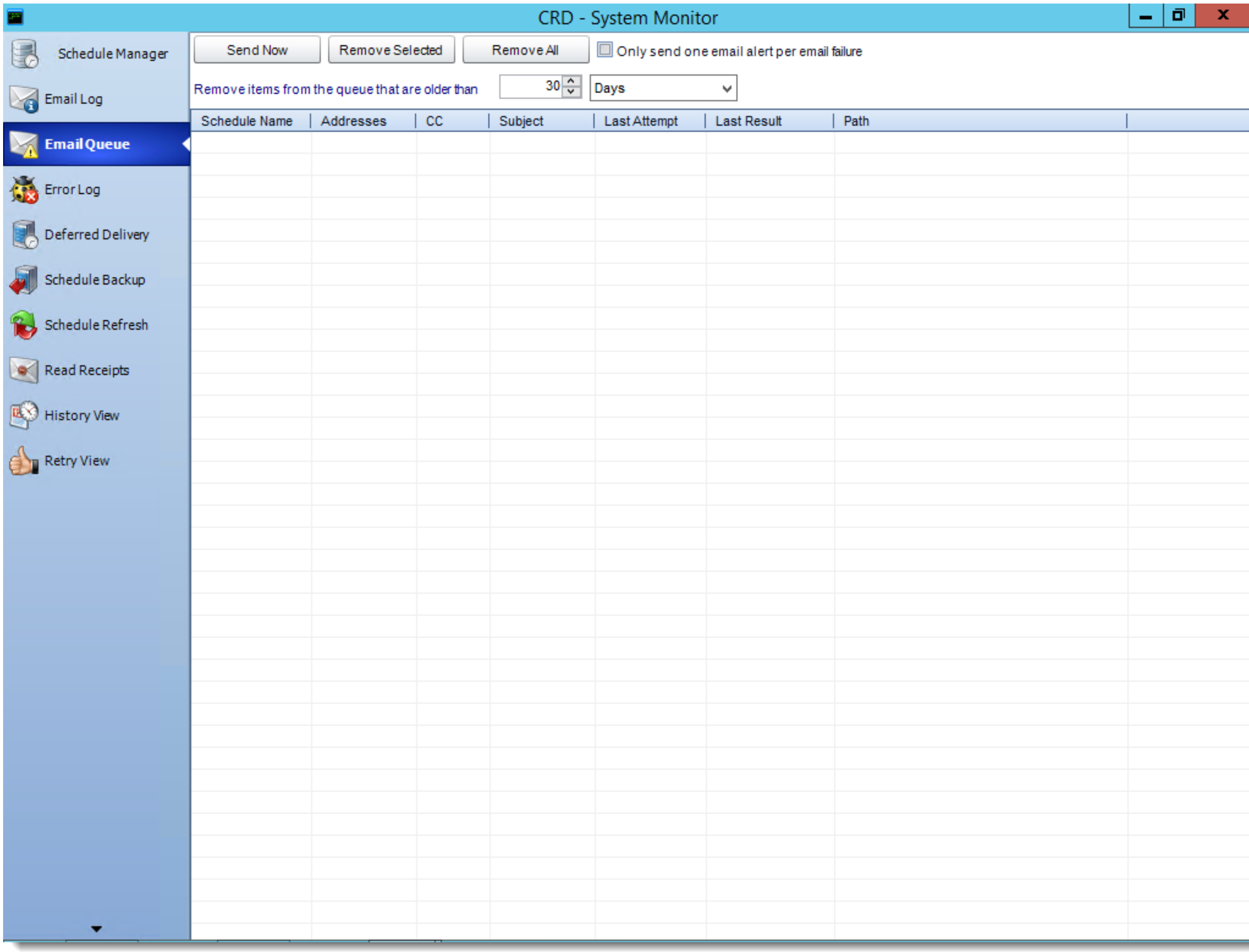
Email Log



- The email log will show a list of all emails which have been delivered successfully. You can double click on an email to bring it up in an email client as well as search for a specific email using the search field.

  This functionality works for emails sent by SMTP. For Exchange or Office 365 setups, successful emails will be shown in the "Sent Items" folder of the email account that was used to send the email.

Email Queue

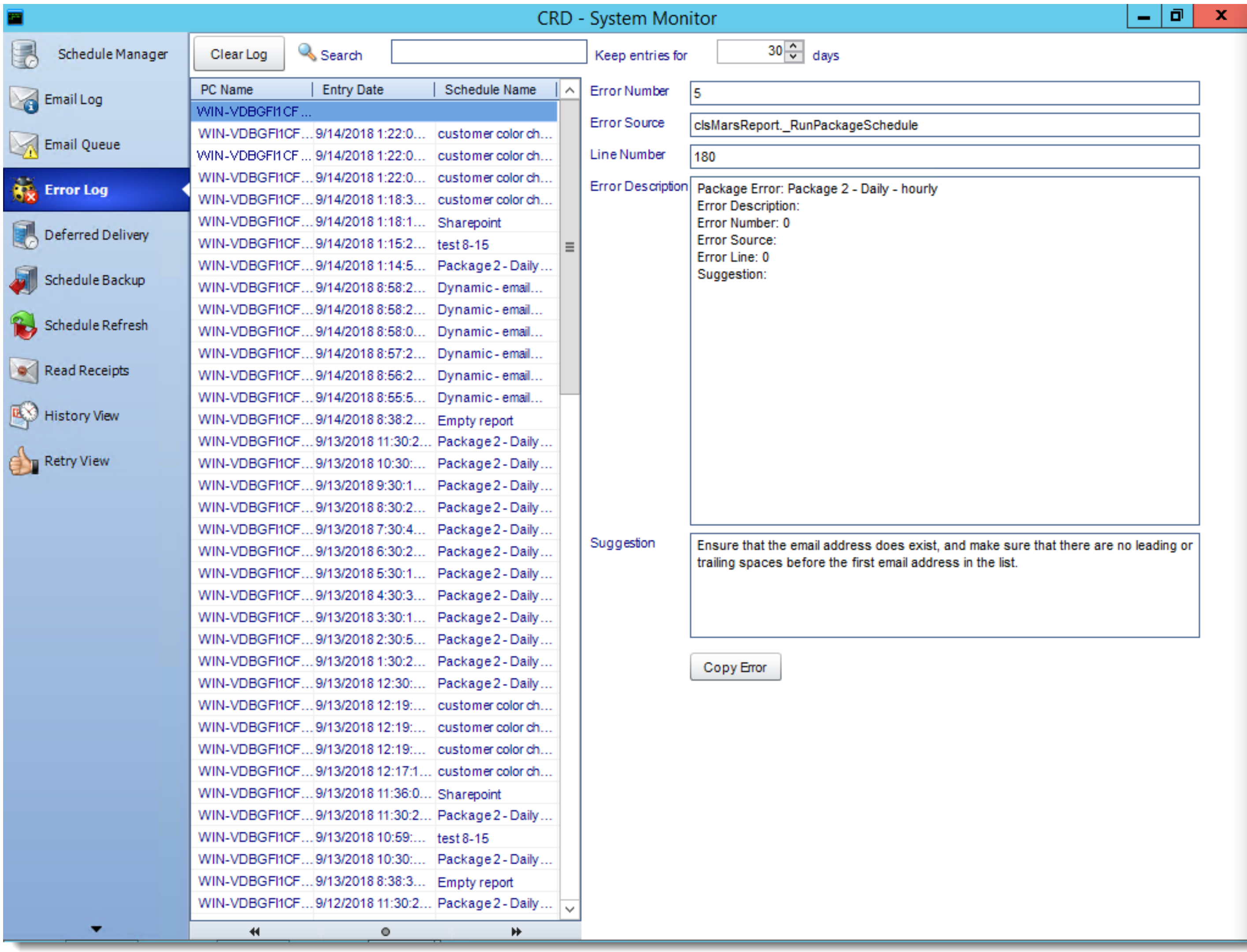


This screen shows a list of all failed emails. If "Resend Failed Emails" has been checked in Options, then CRD will keep retrying the email until it is manually removed from the queue. As an example, if an email address has been misspell (.cmo instead of .com). The queue will show when the last attempt was, and what the result was.

- **Send Now**: Select a message, and click this button to attempt an immediate delivery.
- **Remove Selected**: Select a message and click on this button to delete it from the list.
- **Remove All**: Click this button to clear the queue.
- **Only send one email alert per email failure:** This works in conjunction with the "Try resending failed emails" in Options (Tools > Options). If a message cannot be sent and CRD is configured to notify you of any email failure, this makes sure an alert is sent to you only once and not every time the email fails due to the configured retry.

- **Remove items from the Queue that are older than**: Use this option to perform housekeeping on the email queue.

Error Log

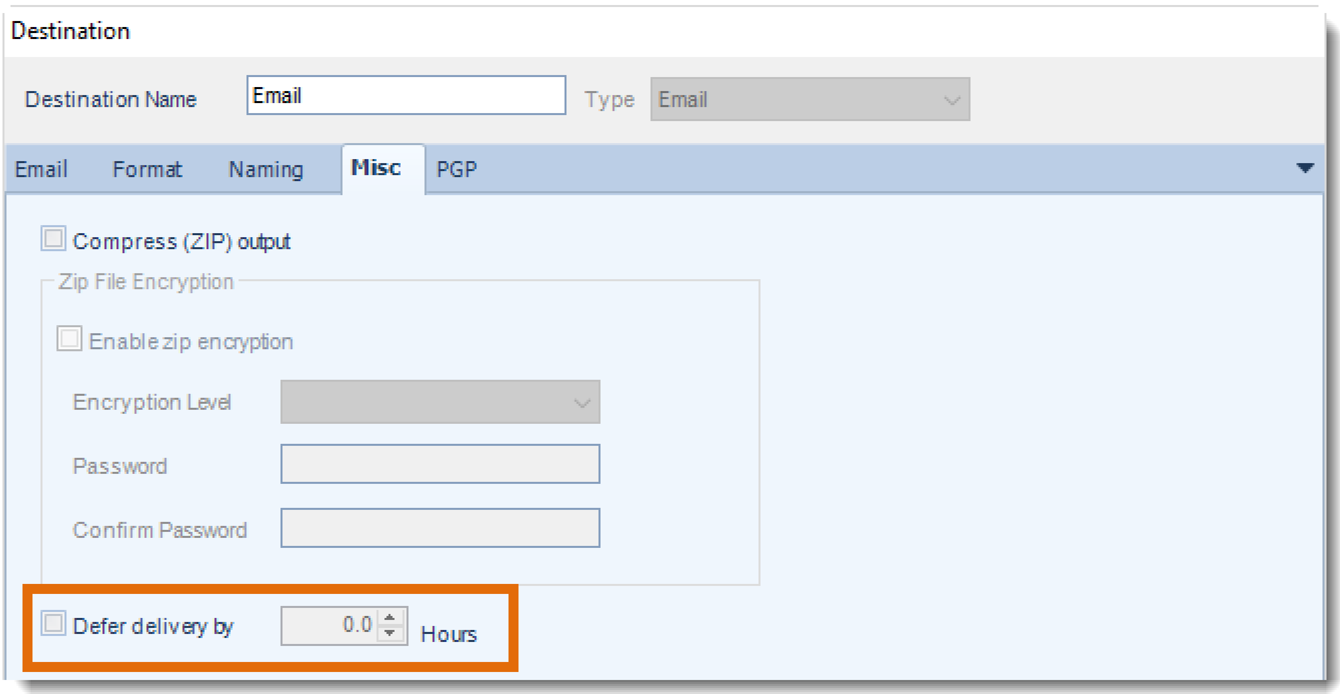


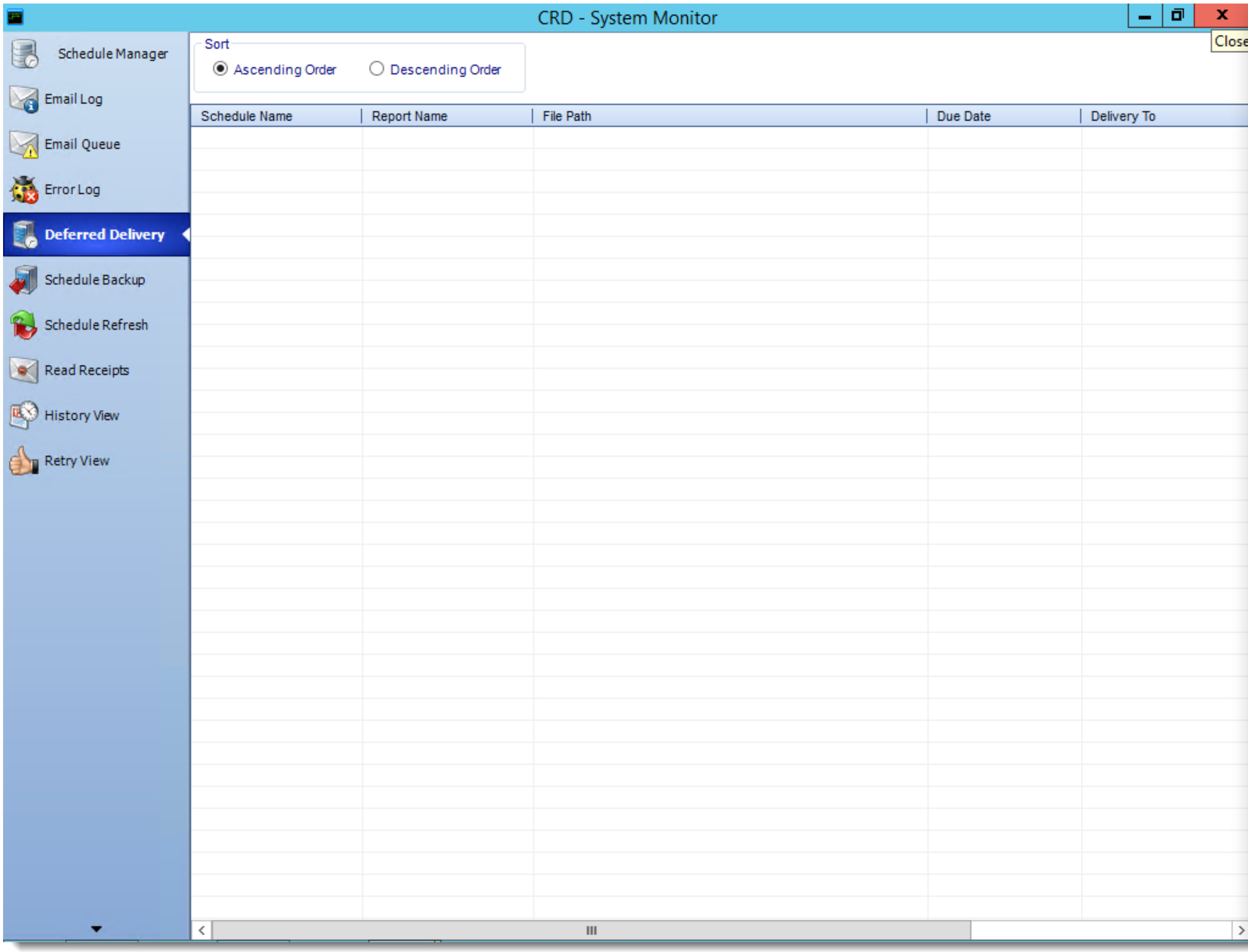
- The error log enables you to view any errors that have been encountered by the system.
- You can filter out the entries displayed by using the search field to specify the keywords to filter by.
- To view the details of an entry simply select it and the details will be shown in the opposite pane.
- This can be very useful for troubleshooting purposes. You can also easily copy the details of a selected error using the "Copy error" button.

Deferred Delivery

Deferring your Reports

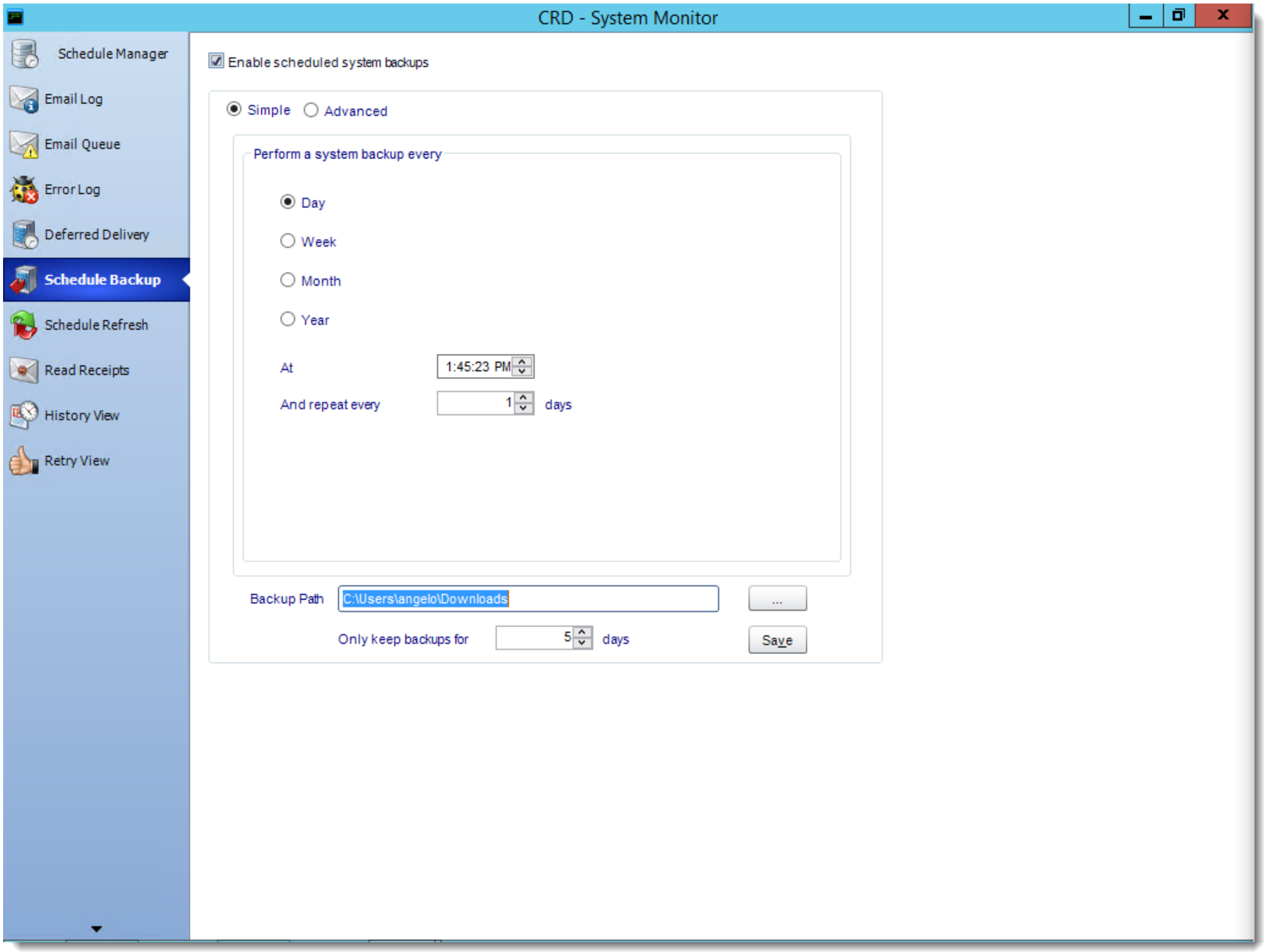
- In any scheduled output, go to Destination and select Misc.
- Check the Deferred delivery box and indicate the length of the delay before delivery.





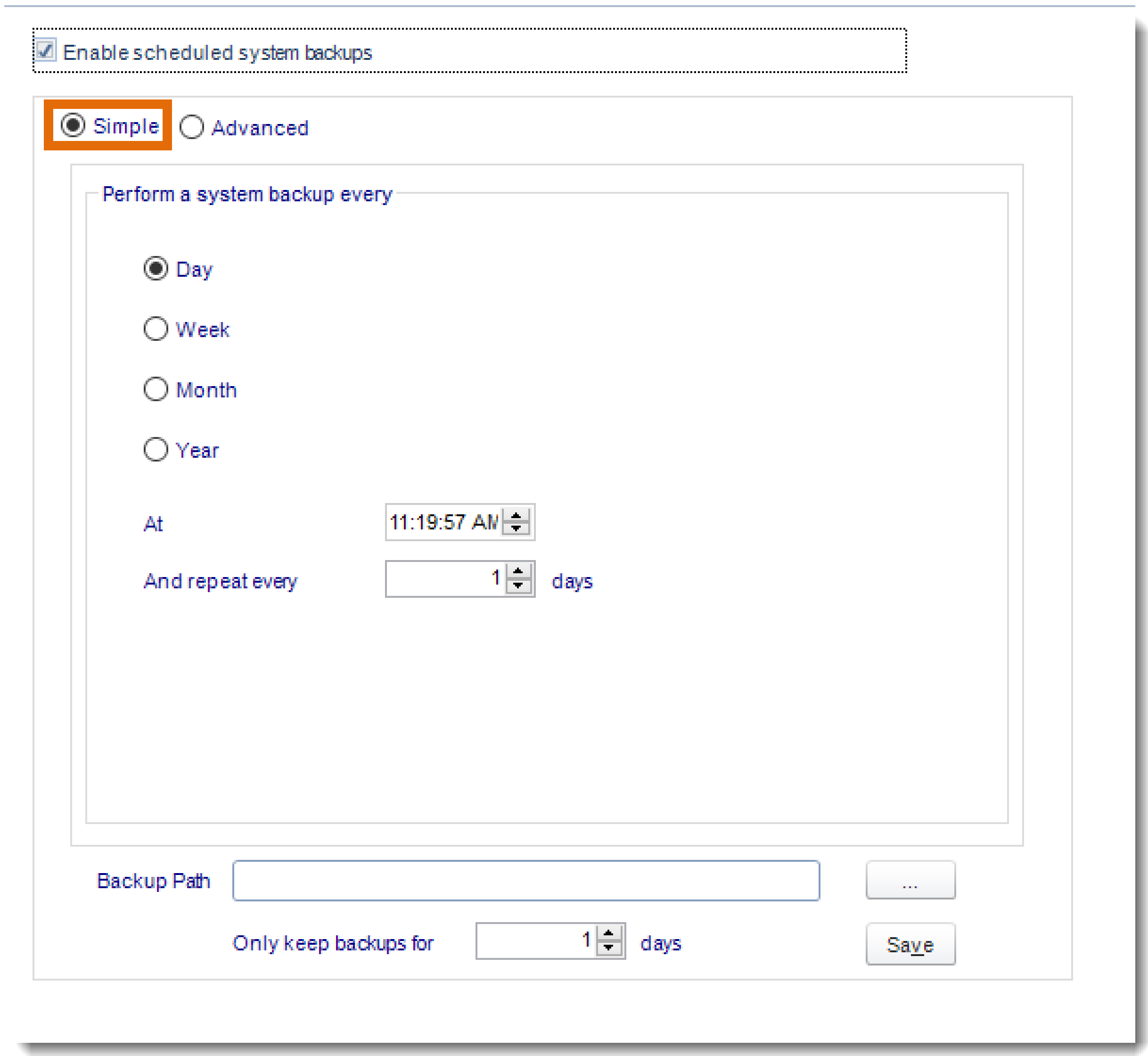
This contains a list, and other information, of the reports which have been deferred for delivery.

Schedule Backup



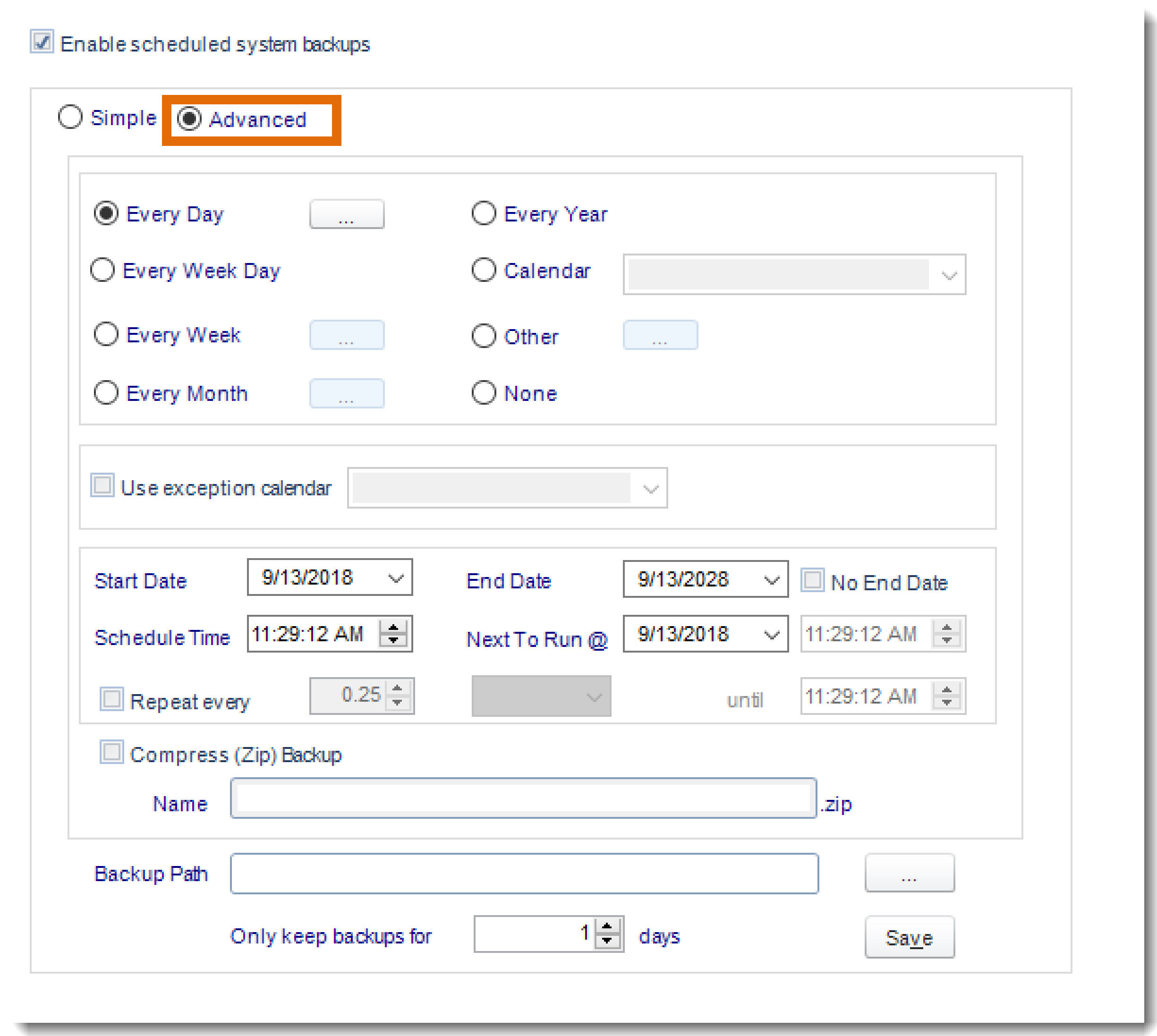
As much as is possible try to schedule backups at times when you do not have schedules running. This is important as backups may cause delays to your schedule execution.

Simple

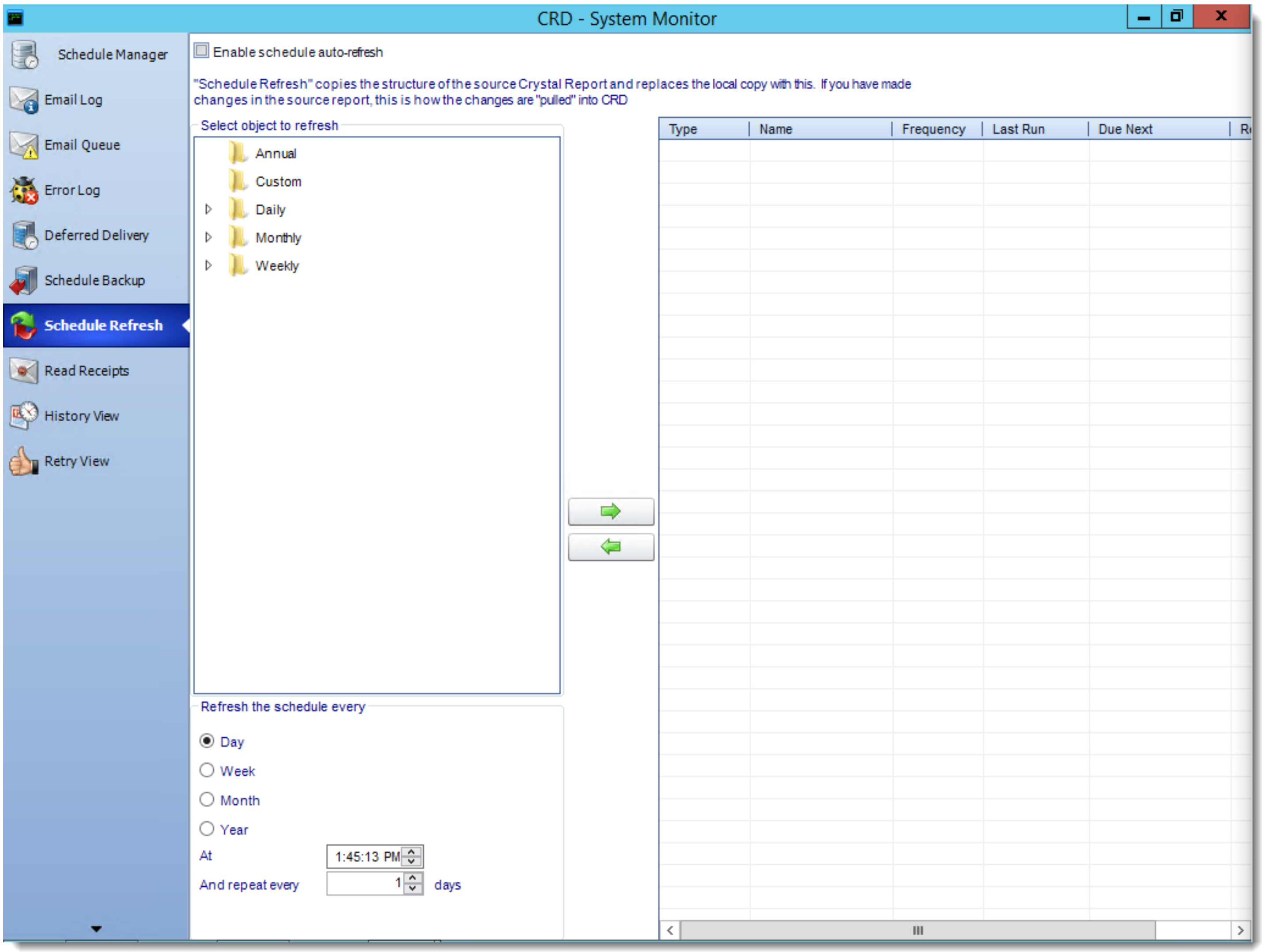


Enable scheduled system backups
Simple
Advanced
Perform a system backup every
Day
Week
Month
Year
At
11:19:57 AM
And repeat every
1
days
Backup Path
...
Only keep backups for
1
days
Save

Advanced

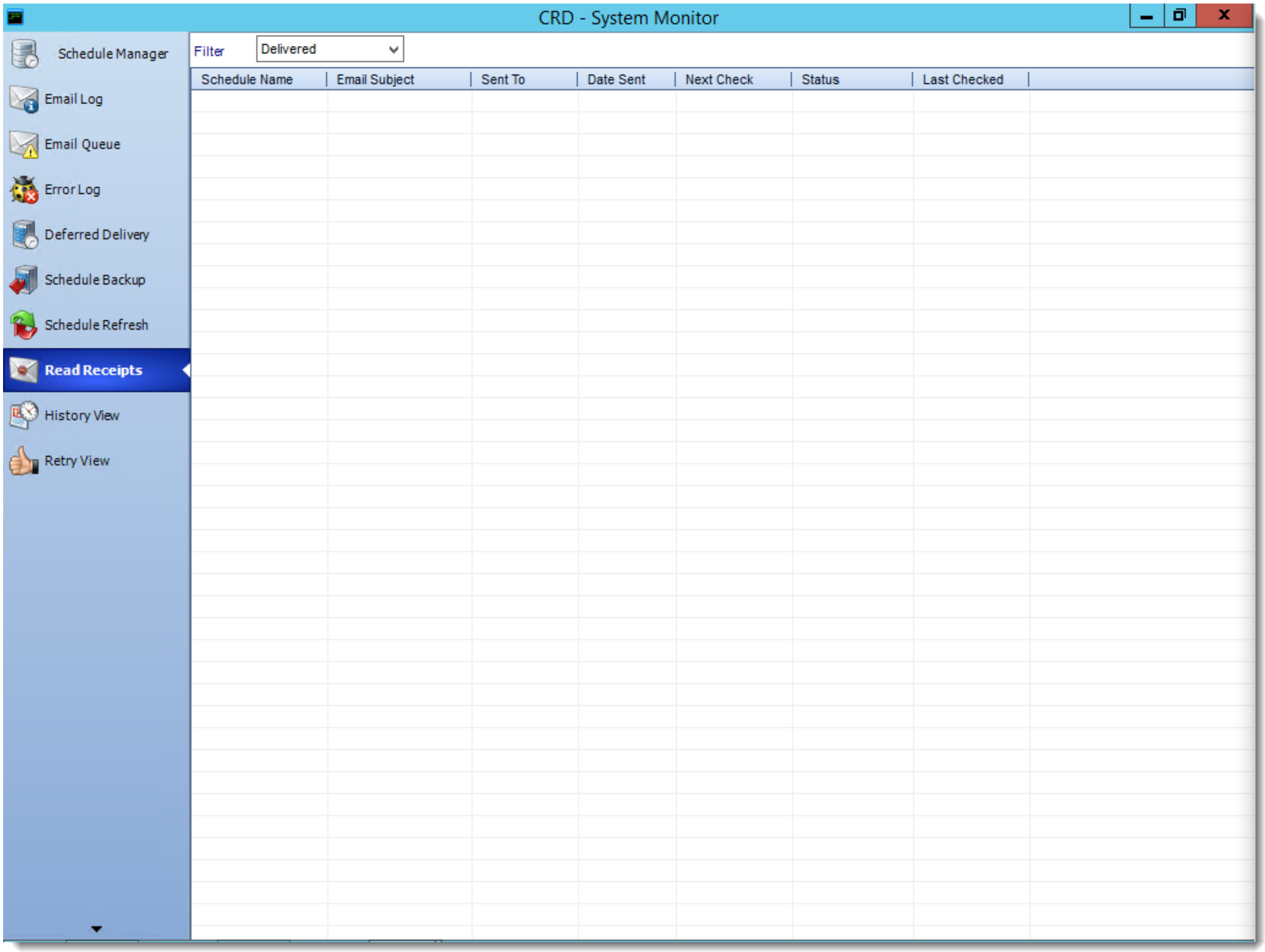

Enable scheduled system backups
Simple
Advanced
Every Day
Every Year
Every Week Day
Calendar
Every Week
Other
Every Month
None
Use exception calendar
Start Date
9/13/2018
End Date
9/13/2028
No End Date
Schedule Time
11:29:12 AM
Next To Run @
9/13/2018
11:29:12 AM
Repeat every
0.25
until
11:29:12 AM
Compress (Zip) Backup
Name
.zip
Backup Path
Only keep backups for
1
days
Save

Schedule Refresh



- Use this option to create automated Schedule Refreshes. You can add individual schedules or whole folders to the list.

Read Receipts



Read Receipts Enable you to confirm that the recipient has read an email after it has been sent. Tasks can be executed once or repetitively until the read receipt has been confirmed by CRD. Read Receipts can be used in most Email Destinations.

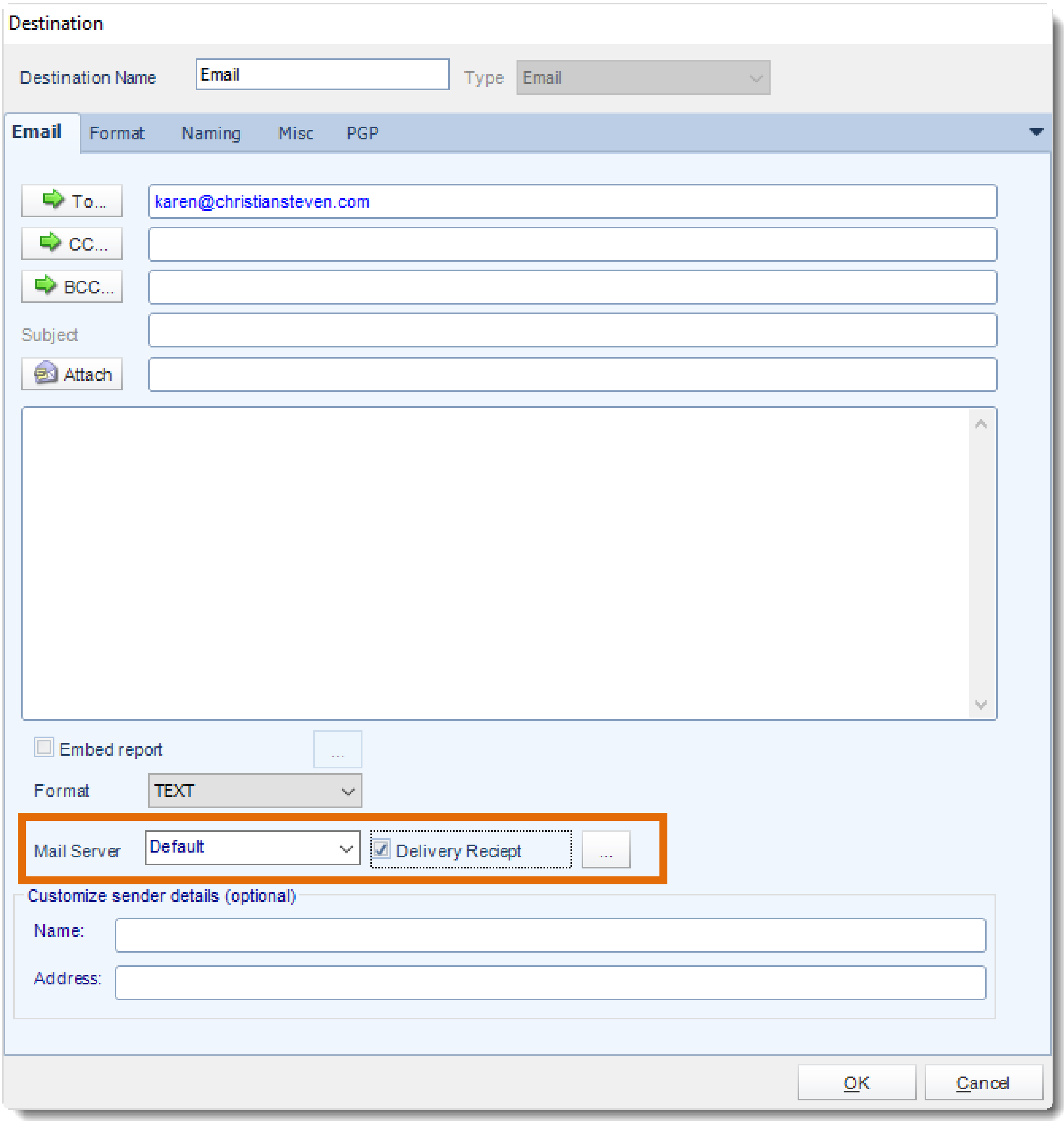
Read Receipts can only be used Exchange email settings.

All emails that are waiting for a read receipt are displayed here. Clicking on filter you can separate your read receipts by delivered, pending or received.

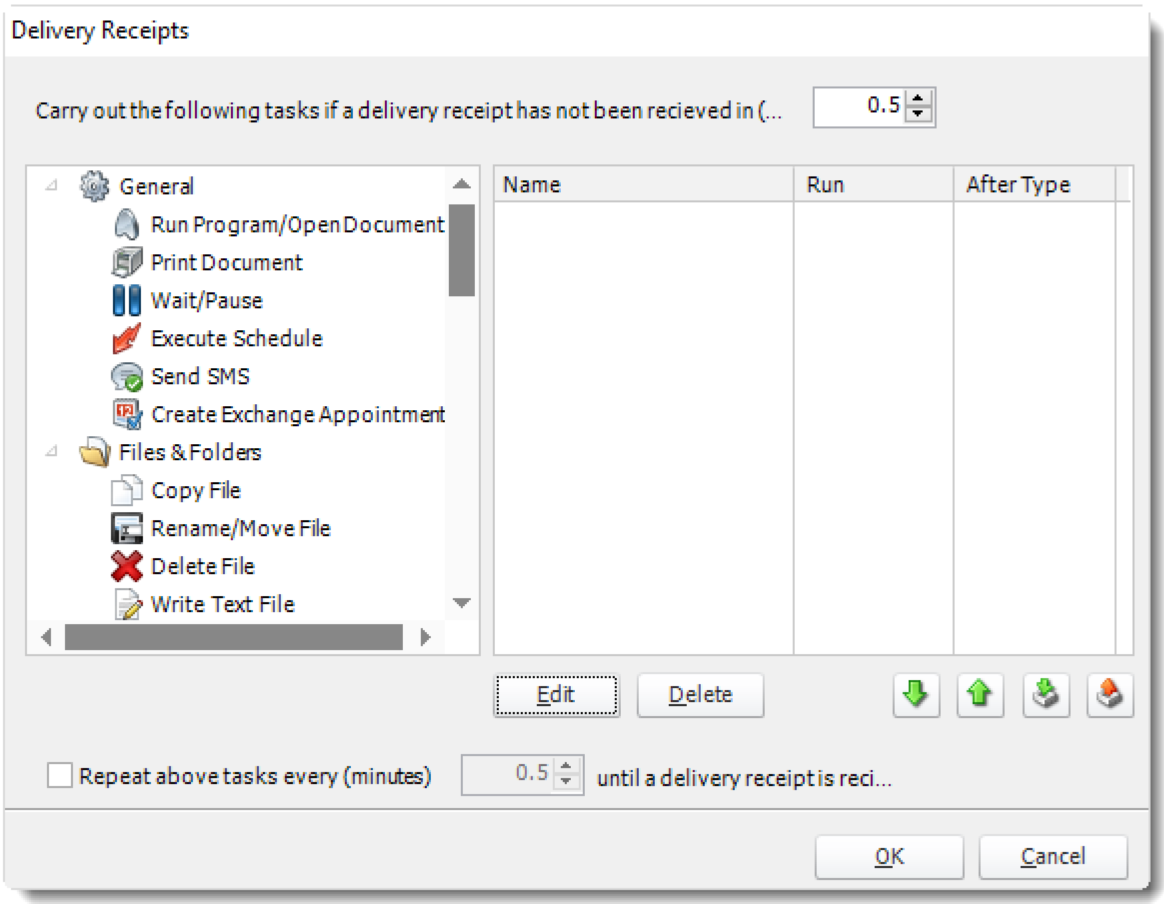
When the email is sent, you will receive a delivery receipt. Once confirmation that the email has been read is received, you will be notified via email as well.

Setting Up Read Receipts

- To set up Read Receipts for an email, click on the associated schedule and go to **Destination.**
- Double click **Email.**
- Check **Delivery Receipt** and this enables read receipts for this email destination.



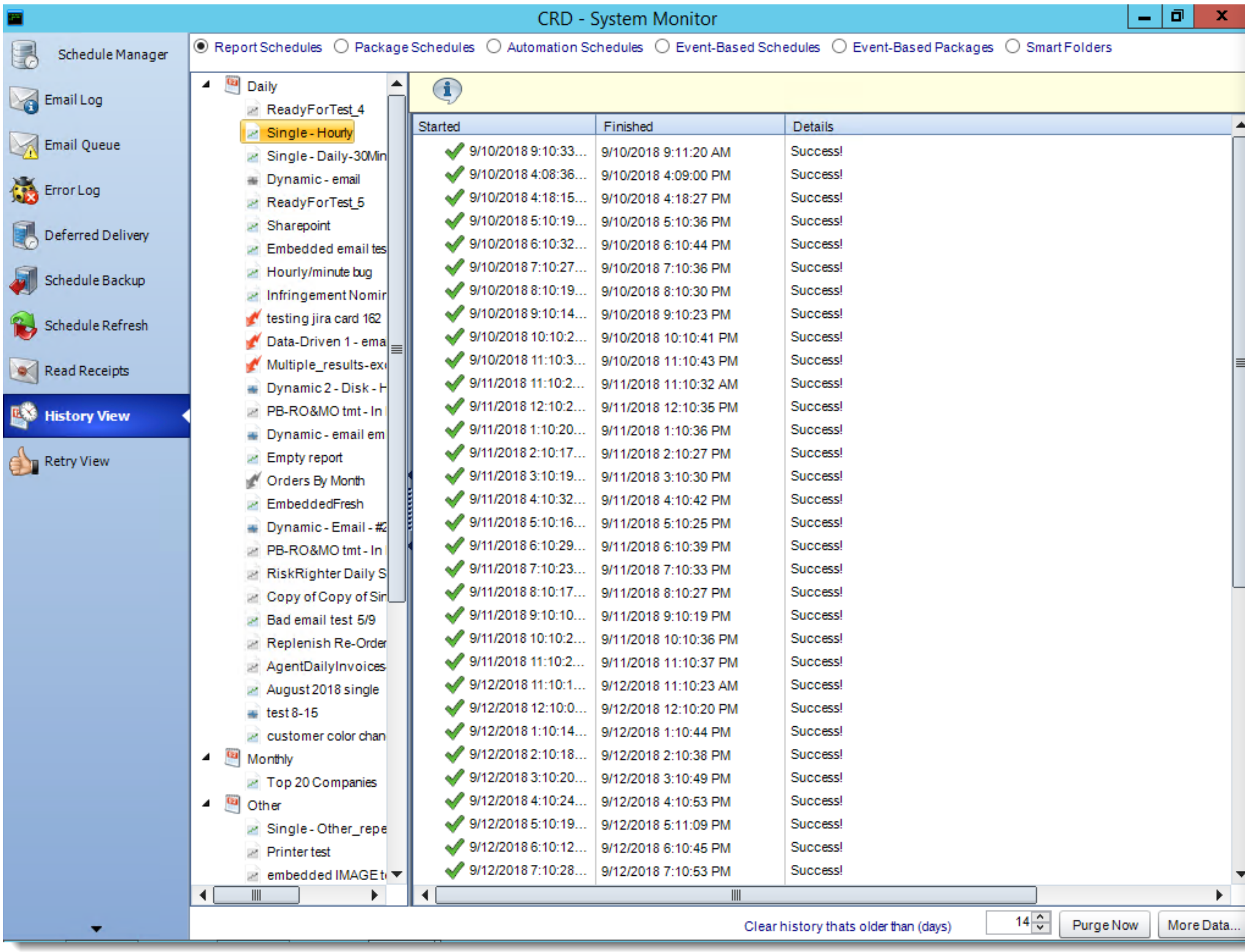
- By clicking the triple dots box, you can review additional read receipt options.



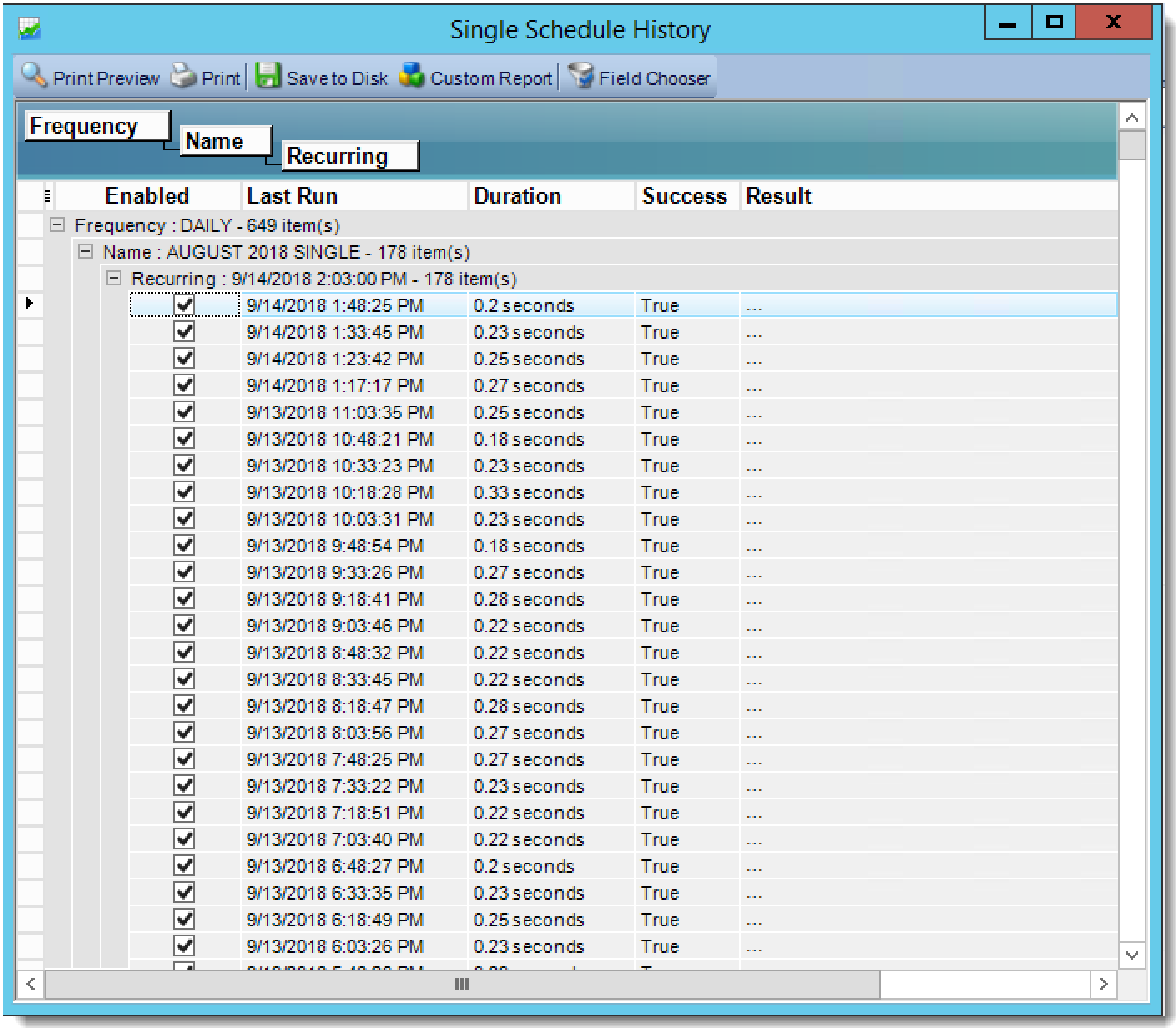
- Click **OK** and then, click **Apply**.
- If a read receipt has not been received within a specified amount of time, custom tasks can be executed as a result.
- In schedules that send multiple emails (i.e. a Dynamic Schedule), a read receipt is triggered for each of the emails sent by the schedule.
- Repeat above tasks every X minutes: Any task you have created will be executed at a determined interval until a read receipt is received.

History View

This screen shows you a history of all schedules (static and dynamic). If one destination out of many fails, the schedule will be marked as a "Partial Success." Expanding the node will reveal which reports or destinations failed.

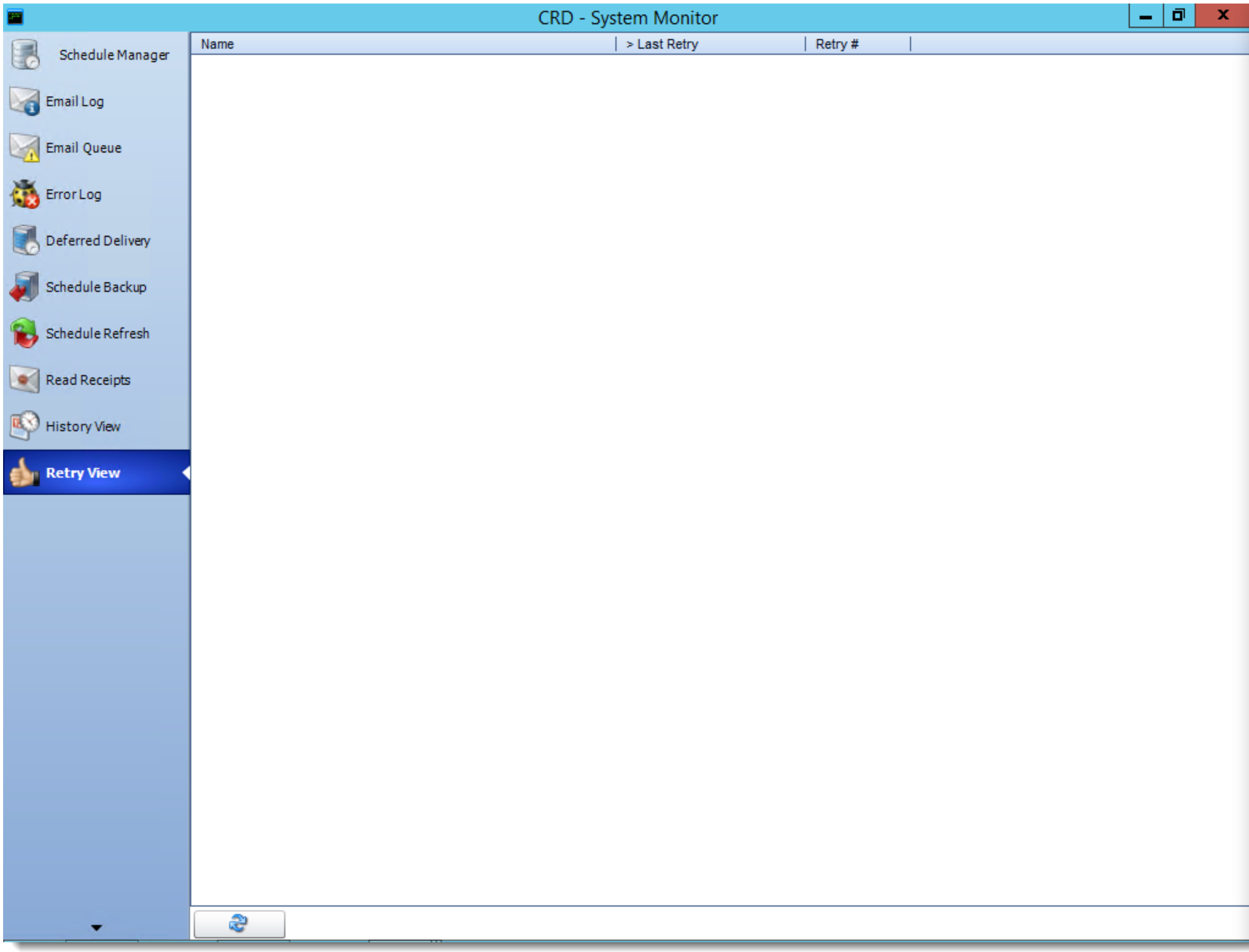


- Click **More data** to print, save or manipulate this as a custom report.



Enabled	Last Run	Duration	Success	Result
☑	9/14/2018 1:48:25 PM	0.2 seconds	True	...
☑	9/14/2018 1:33:45 PM	0.23 seconds	True	...
☑	9/14/2018 1:23:42 PM	0.25 seconds	True	...
☑	9/14/2018 1:17:17 PM	0.27 seconds	True	...
☑	9/13/2018 11:03:35 PM	0.25 seconds	True	...
☑	9/13/2018 10:48:21 PM	0.18 seconds	True	...
☑	9/13/2018 10:33:23 PM	0.23 seconds	True	...
☑	9/13/2018 10:18:28 PM	0.33 seconds	True	...
☑	9/13/2018 10:03:31 PM	0.23 seconds	True	...
☑	9/13/2018 9:48:54 PM	0.18 seconds	True	...
☑	9/13/2018 9:33:26 PM	0.27 seconds	True	...
☑	9/13/2018 9:18:41 PM	0.28 seconds	True	...
☑	9/13/2018 9:03:46 PM	0.22 seconds	True	...
☑	9/13/2018 8:48:32 PM	0.22 seconds	True	...
☑	9/13/2018 8:33:45 PM	0.22 seconds	True	...
☑	9/13/2018 8:18:47 PM	0.28 seconds	True	...
☑	9/13/2018 8:03:56 PM	0.27 seconds	True	...
☑	9/13/2018 7:48:25 PM	0.27 seconds	True	...
☑	9/13/2018 7:33:22 PM	0.23 seconds	True	...
☑	9/13/2018 7:18:51 PM	0.22 seconds	True	...
☑	9/13/2018 7:03:40 PM	0.22 seconds	True	...
☑	9/13/2018 6:48:27 PM	0.2 seconds	True	...
☑	9/13/2018 6:33:35 PM	0.23 seconds	True	...
☑	9/13/2018 6:18:49 PM	0.25 seconds	True	...
☑	9/13/2018 6:03:26 PM	0.23 seconds	True	...

Retry View

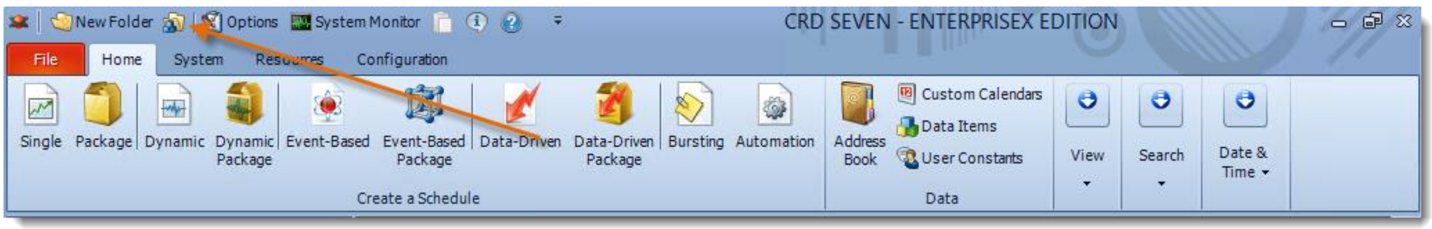


- This screen shows you a list of schedules that have failed. If the schedule is set to retry the schedule will continue to show in the list until the schedule is successful or the set retry amount has passed.

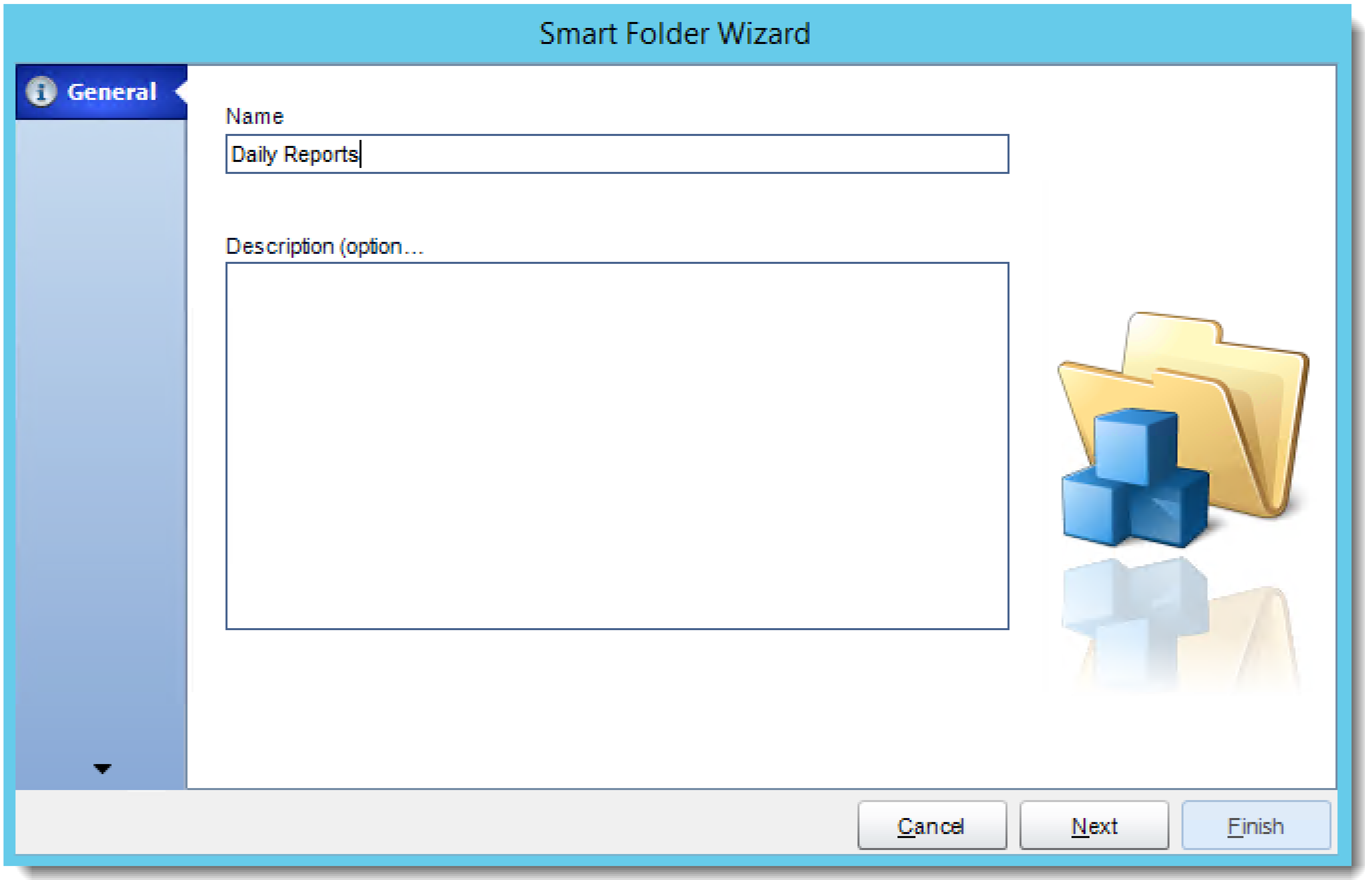
Smart Folder

Smart folders are an easy way to group existing schedules together without re-organizing your original folder structure.

- Go to **Smart Folder.**

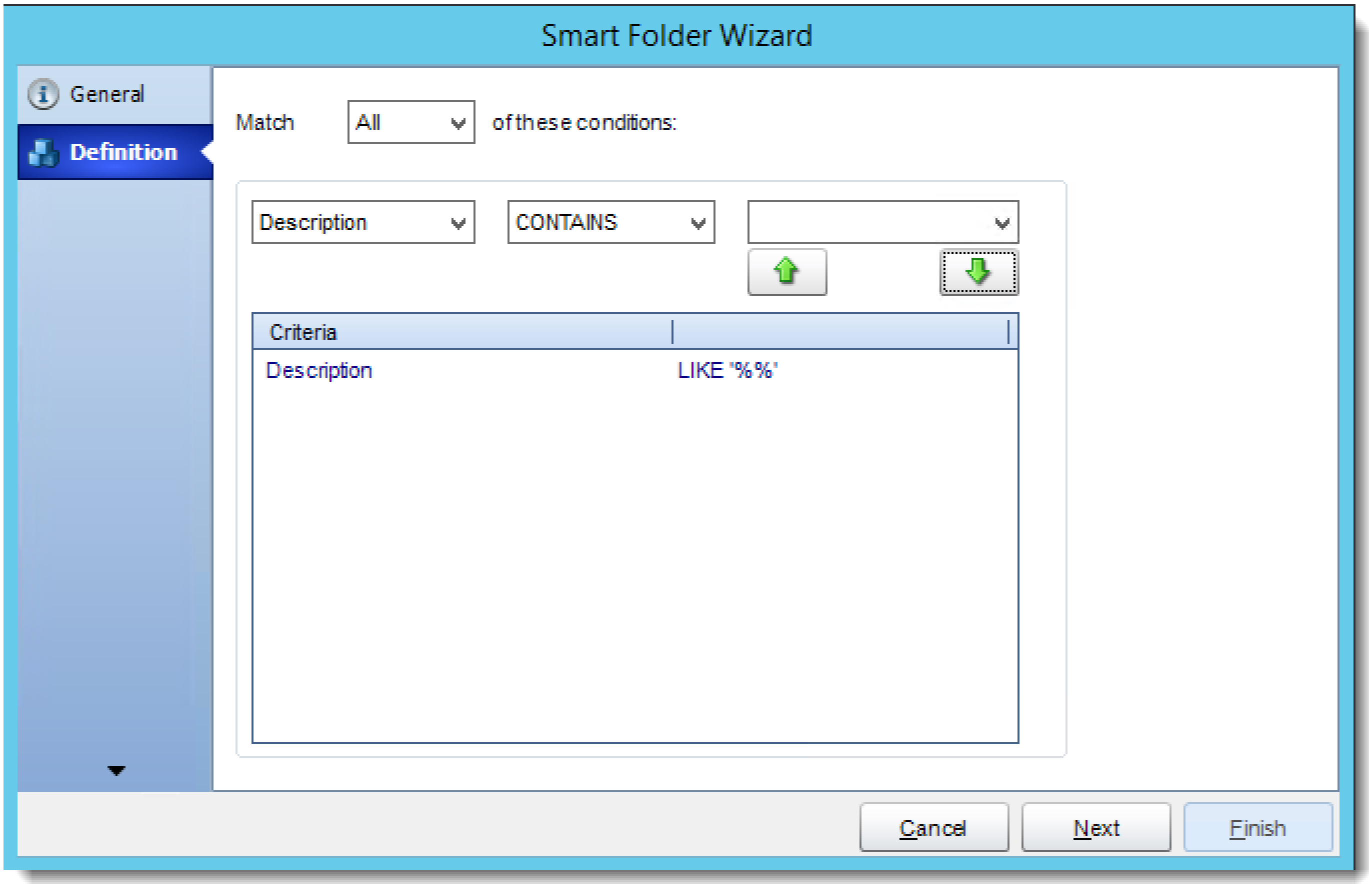


General Wizard



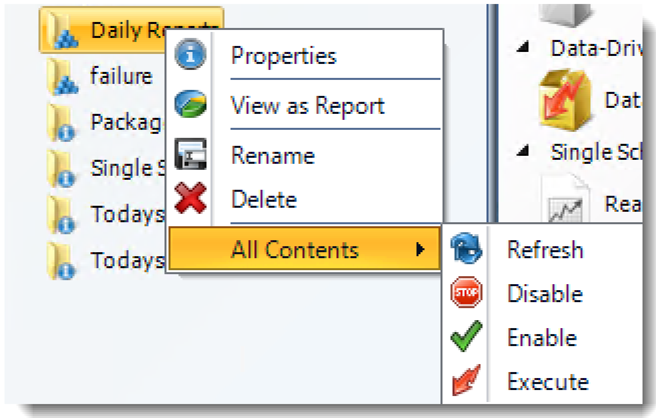
- **Name:** Type in a name for the Smart Folder.
- **Description(optional):** Type in a description to help you identify what this Smart Folder is set up for.

Definition Wizard



- Set up any other conditions required and click **Finish.**
- All schedules which fulfill these conditions will be shown in the folder.

Smart Folder Context Menu

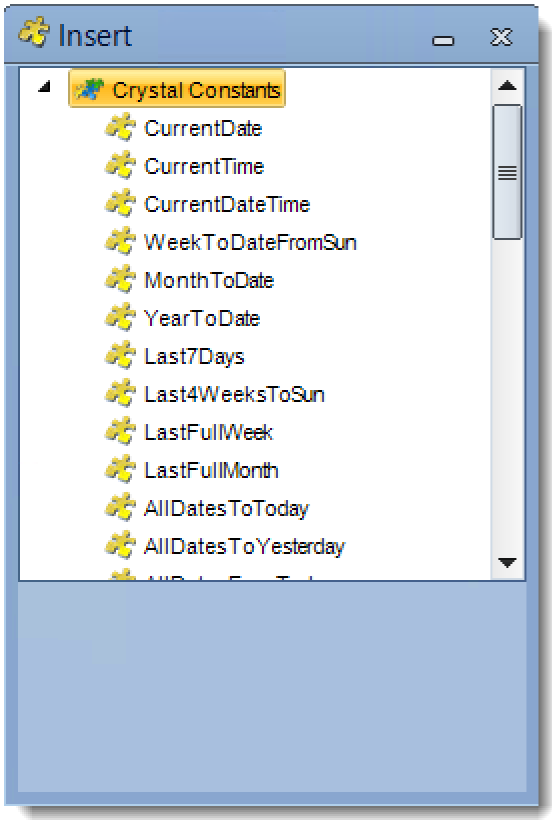


Right-Click on a schedule to see the following actions:

- **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
- **View as Report:** To view the contents of a smart folder as a report.
- **Rename:** Rename the folder.
- **Delete:** Selecting this option will delete the folder.
- **Refresh:** This will refresh the schedules in the folder.
- **Disable:** It will disable all the schedules in the folder.
- **Enable:** It will enable all the schedules in the folder.
- **Execute:** This button will execute all schedules immediately.

Insert Menu

The Inserts module, which pops up automatically, gives you the ability to drag and drop constants, variables, user constants and data items into almost any field in CRD.



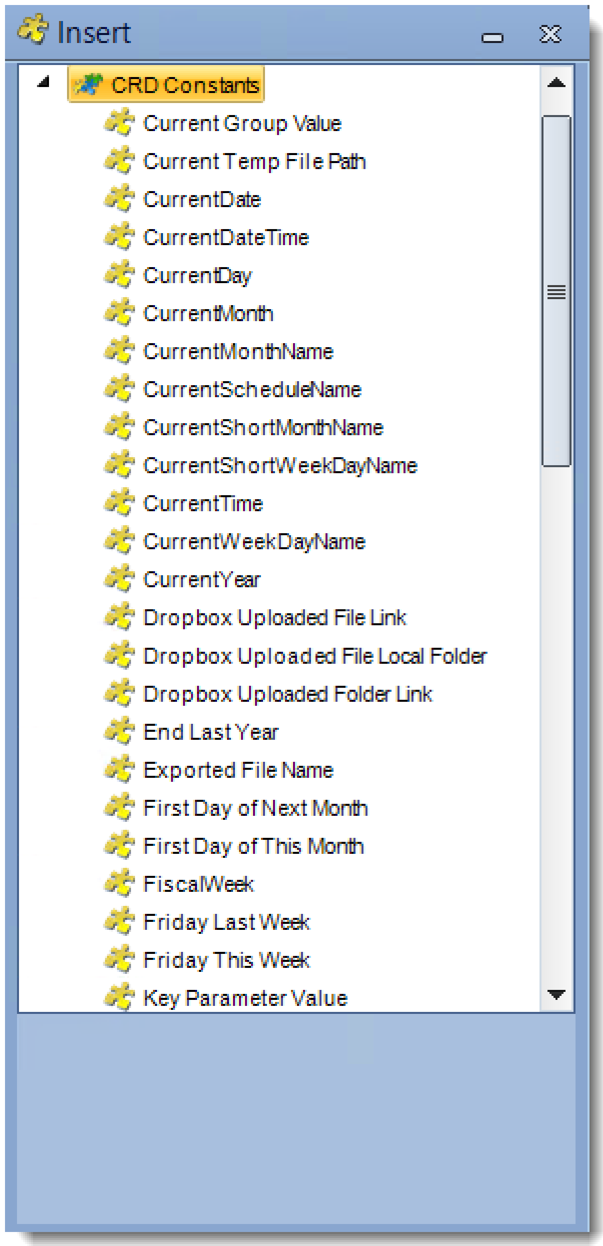
Inserts is arguably one of the most versatile features in CRD. This feature enables the advanced schedule types to work, deals with variety of parameters, and customizes outputs for recipients.

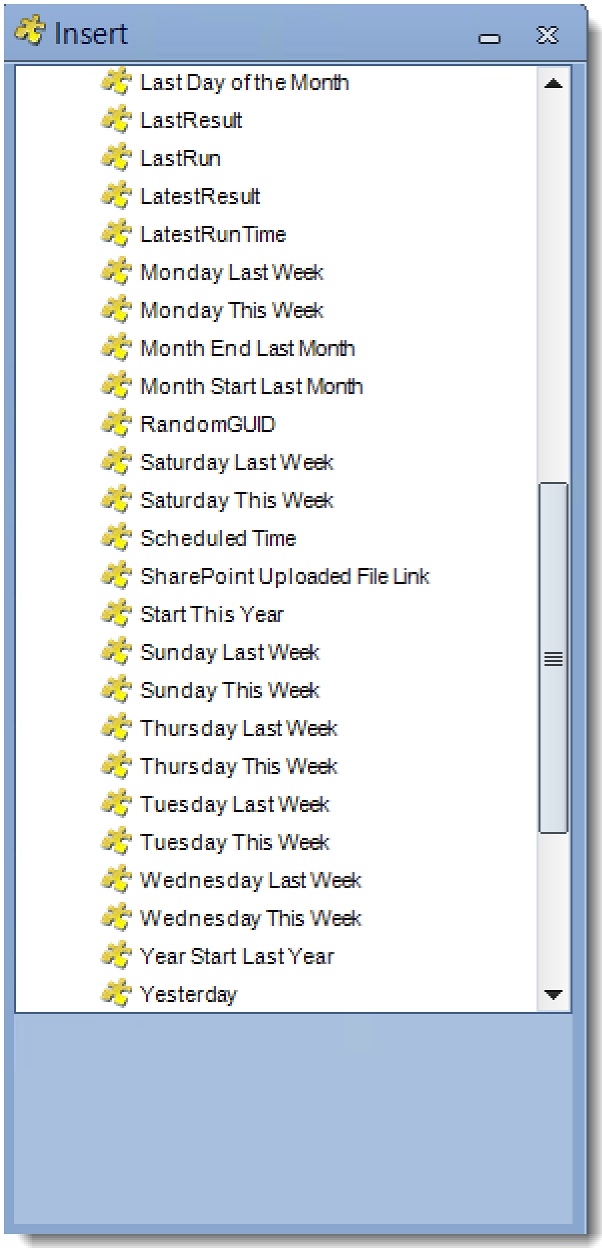
- The insert function is activated in two ways:
  1. CRD will automatically launch the insert module at points where it can be used. (e.g. in a wizard's parameter screens).
  2. In the field into which you wish to insert a function, right-click and select **Insert**.

The following types of constants are available:

- Crystal Constants (@@Crystal Constants)
- CRD Constants (@@CRD Constants)
- User Defined Constants (@@User Defined Constants)

CRD Constants



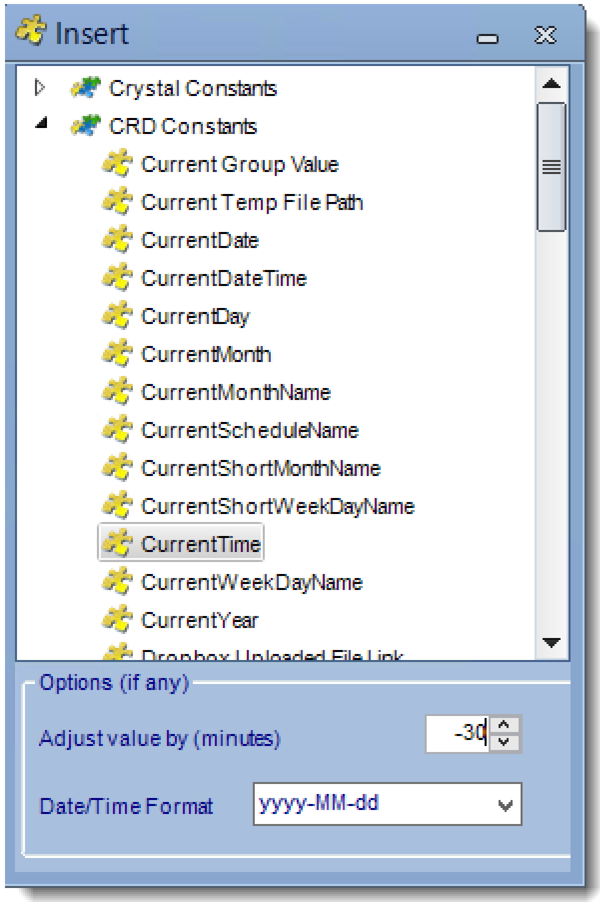


To use CRD constants, select **@@CRD Constants** from the **Type** list and then select the constant you want from the resulting **Name** list. Here is a list of constants to choose from:

- **Current Group Value**: Return the current group value.
- **Current Temp File Path**: Return to the temp file path.
- **CurrentDate**: Returns the current date.
- **CurrentDateTime**: Returns the current date and time.
- **CurrentDay**: Returns the current day date.
- **CurrentMonth**: Returns the current month number.
- **CurrentMonthName**: Returns the current month name.

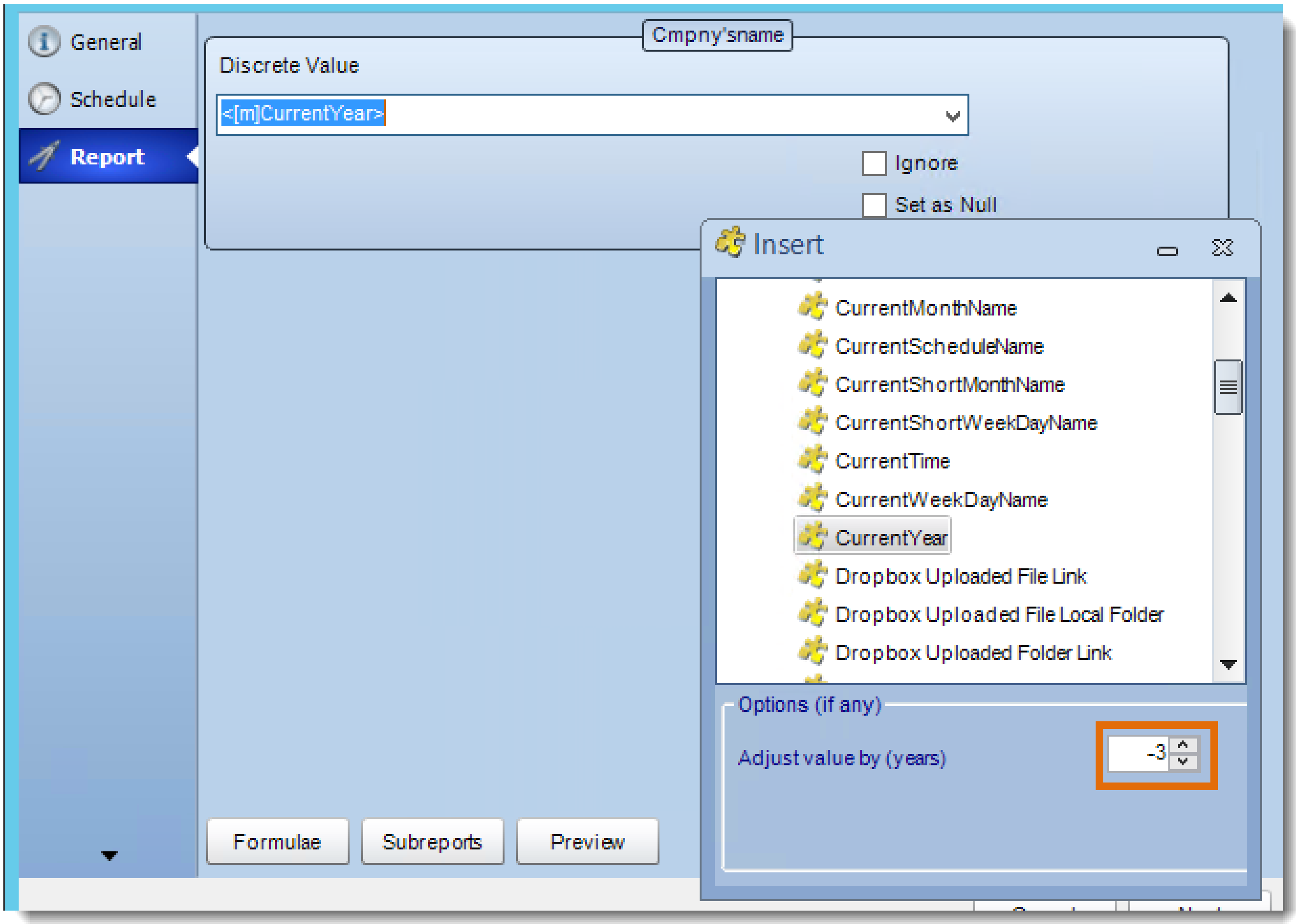
- **CurrentScheduleName**: Returns the name of the current schedule or package.
- **CurrentShortMonthName**: Returns the name of the short month.
- **CurrentShortWeekDayName**: Returns the name of the short week.
- **CurrentTime**: Returns the current time.
- **CurrentWeekDayName**: Returns the day name of the day the schedule is run.
- **Current Year**: Returns the current year.
- **End Last Year**: Returns the date of the last day of last year.
- **Exported File Name**: Returns to the name of the exported file.
- **First Day of the Next Month**: Returns to the first day of the next month.
- **First Day of this Month**: Returns to the first day of the current month.
- **FiscalWeek**: Returns to the fiscal week.
- **Friday Last Week**: Returns the date for last Friday.
- **Friday This Week**: Returns the date for this Friday.
- **Key Parameter Value**: Returns the current key parameter value in use by a dynamic schedule.
- **Last Day of the Month**: Returns to the last day of the month.
- **LastResult**: Returns to the last result.
- **Last Run**: Returns to the last run of the schedule or package.
- **LastestResult**: Returns to the latest result of the schedule or package.
- **LatestRunTime**: Returns to the latest run time of the schedule or package.
- **Monday Last Week**: Returns the date for last Monday.
- **Monday This Week**: Returns the date for this Monday.
- **MonthEndLastMonth**: Returns the date of the last day of last month.
- **MonthStartLastMonth**: Returns the date of the first day of last month.
- **SaturdayLastWeek**: Returns the date for last Saturday.
- **SaturdayThisWeek**: Returns the date for this Saturday.
- S**chedule Owner**: Returns to the schedule owner.
- **Scheduled Time**: Returns to the scheduled time.
- **StartThisYear**: Returns the date of the first day of this year.
- **SundayLastWeek**: Returns the date for last Sunday.
- **SundayThisWeek**: Returns the date for this Sunday.
- **ThursdayLastWeek**: Returns the date for last Thursday.
- **ThursdayThisWeek**: Returns the date for this Thursday.
- **TuesdayLastWeek**: Returns the date for last Tuesday.
- T**uesdayThisWeek**: Returns the date for this Tuesday.
- **WednesdayLastWeek**: Returns the date for last Wednesday.
- **WednesdayThisWeek**: Returns the date for this Wednesday.
- **Year Start Last Year**: Returns the date of the first day of last year.
- **Yesterday**: Returns the date of before.

For certain CRD constants, you can adjust the constant's value by a certain increment (days, hours, minutes etc).

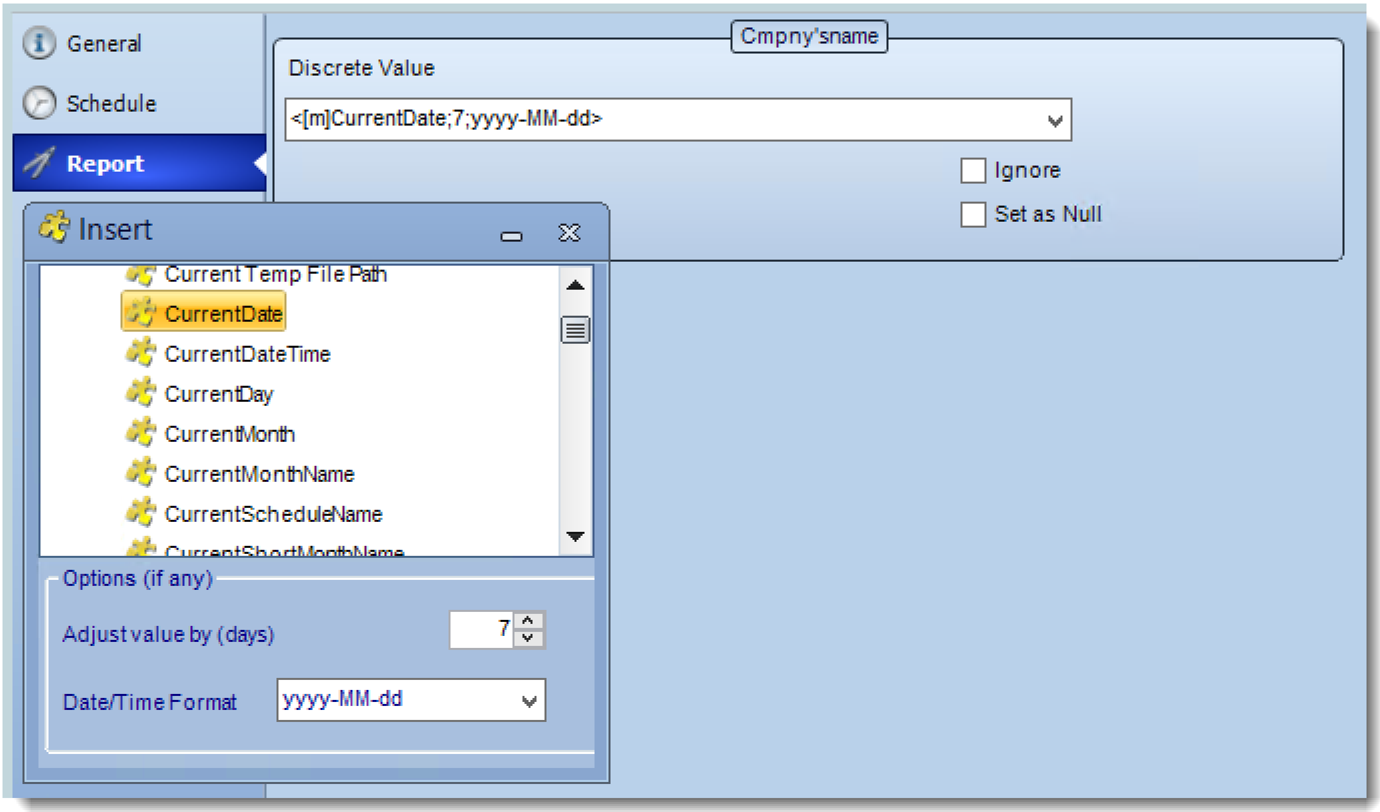


- A key use for this feature is in date/time parameters.

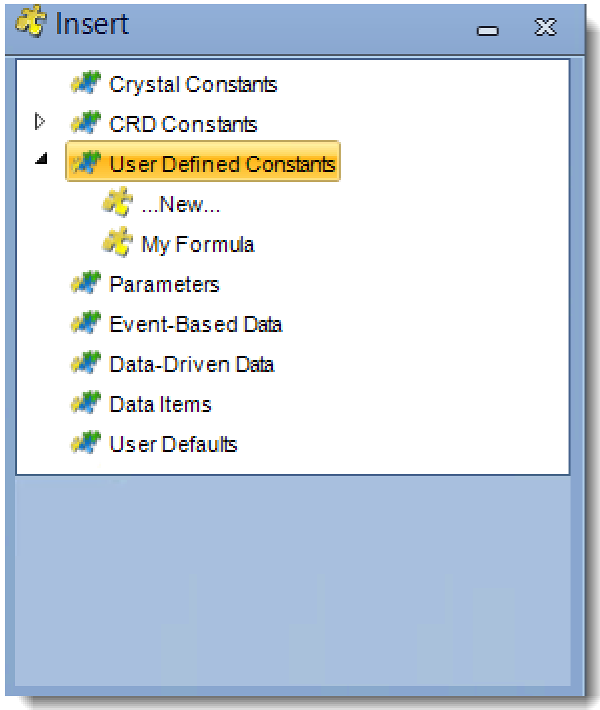
For example:

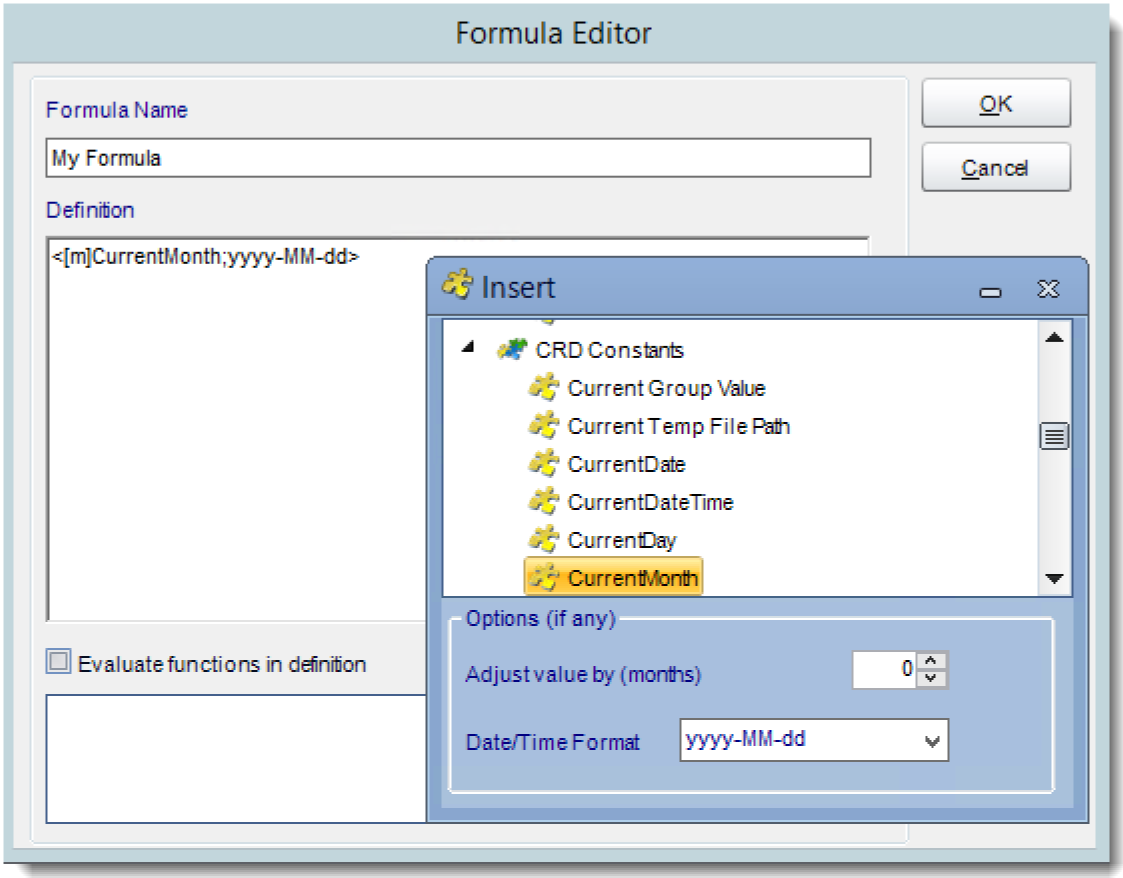


- You can adjust a single date value by years.


General
Schedule
Report
Cmpny'sname
Discrete Value
<[m]CurrentDate;7;yyyy-MM-dd>
Ignore
Set as Null
Insert
Current Temp File Path
CurrentDate
CurrentDateTime
CurrentDay
CurrentMonth
CurrentMonthName
CurrentScheduleName
Options (if any)
Adjust value by (days)
7
Date/Time Format
yyyy-MM-dd

User Defined Constants

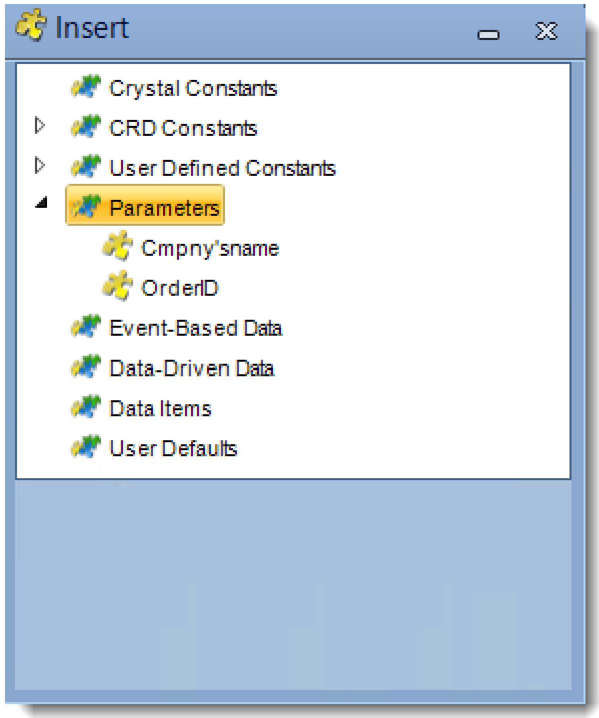




To use User Defined Constants, select @@**User Defined** Constants from the **Type** list and then select the constant you want from the resulting **Name** list. Or select **New** to create a new constant. You can insert other constants and create a new formula of your own.

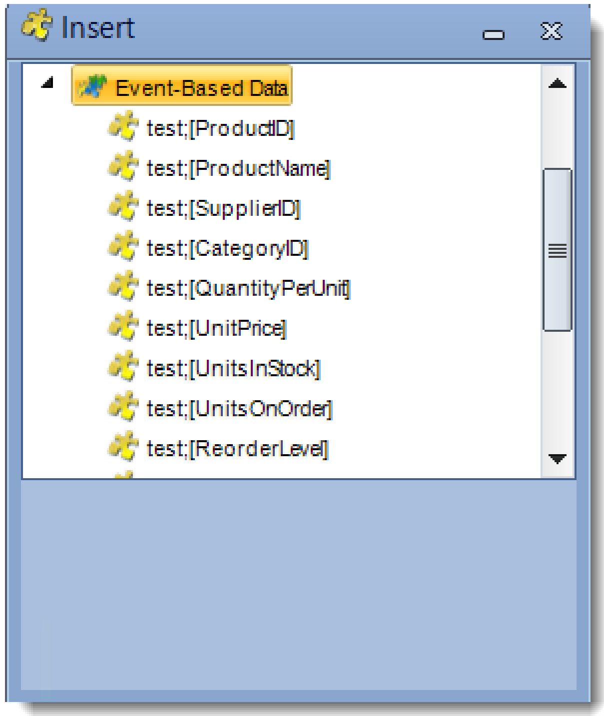
For more information about *User Constants Data*, click here.

Parameters



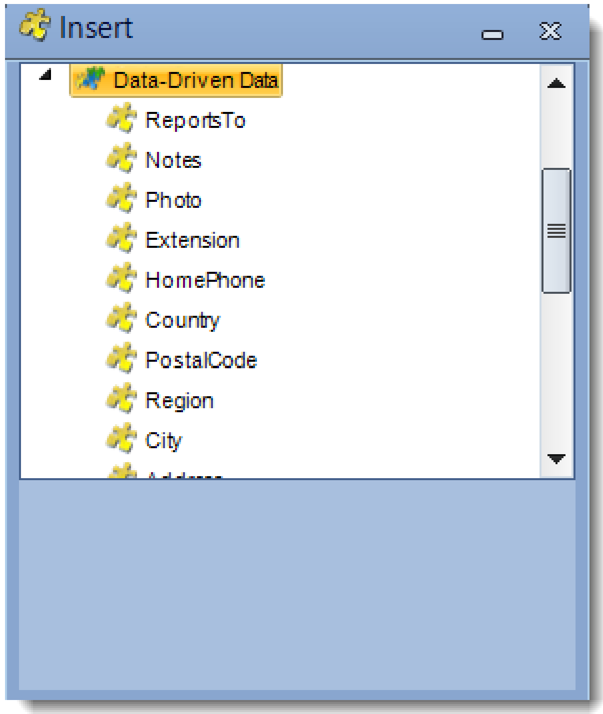
- Use these to insert the current report parameter value into an email, report name, etc.

Event-Based Data



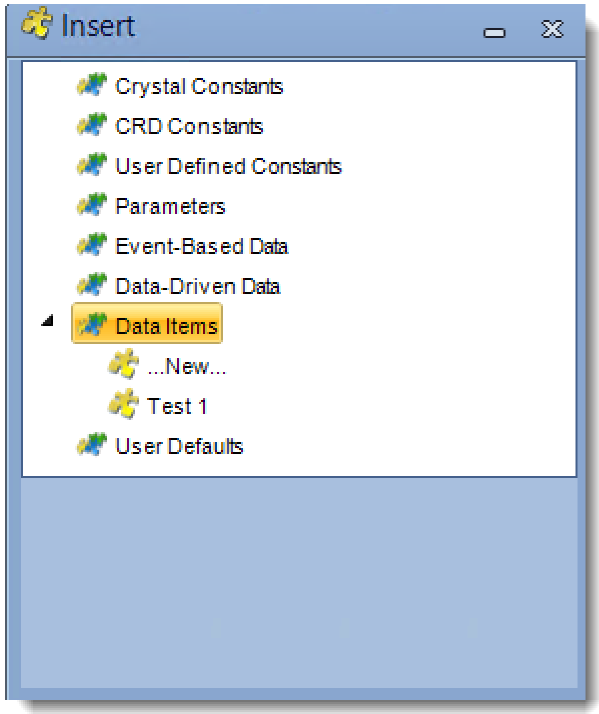
- Used with event-based schedules.
- Data from the database record or email body which triggered off the event can be inserted into emails, reports etc.
- For instructions on how to parse the body of an email, see the last section of this page.

Data-Driven Data



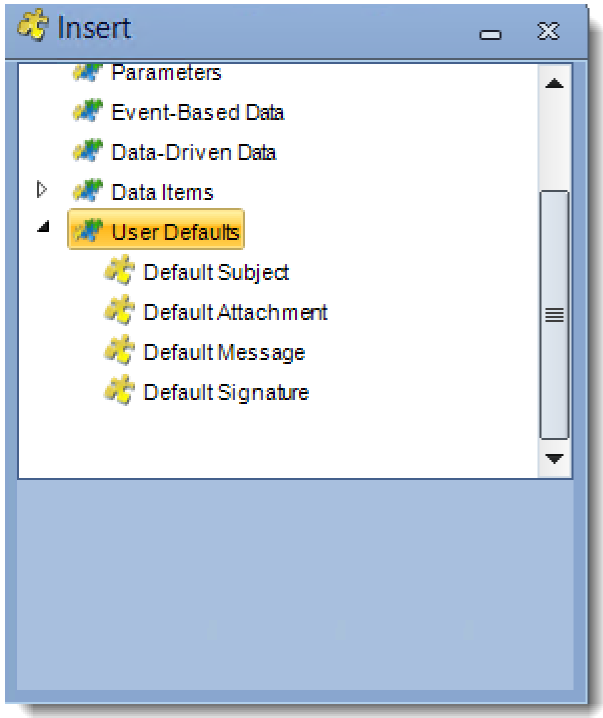
- Used with data-driven schedules. Data from the data driver can be inserted in all possible areas to drive the schedule.

Data Item



- Construct a SQL statement to collect the information from a database field. Selecting this option will bring up the Data Items Module.
- Here you can pick an already existing SQL script, or construct a new one to query a database and return a specified value.

User Defaults

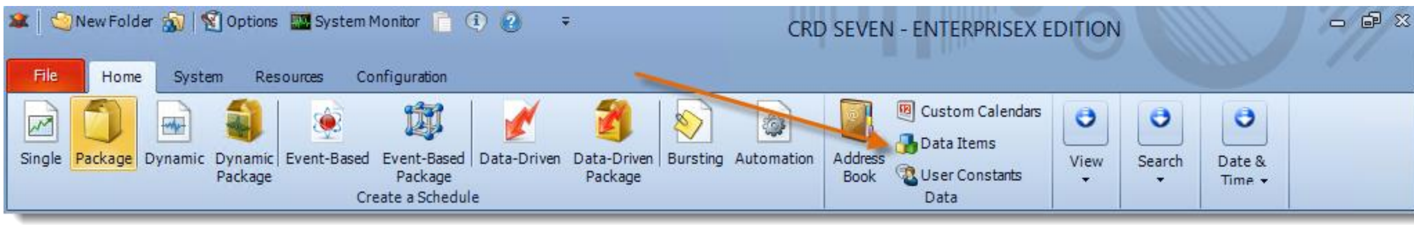


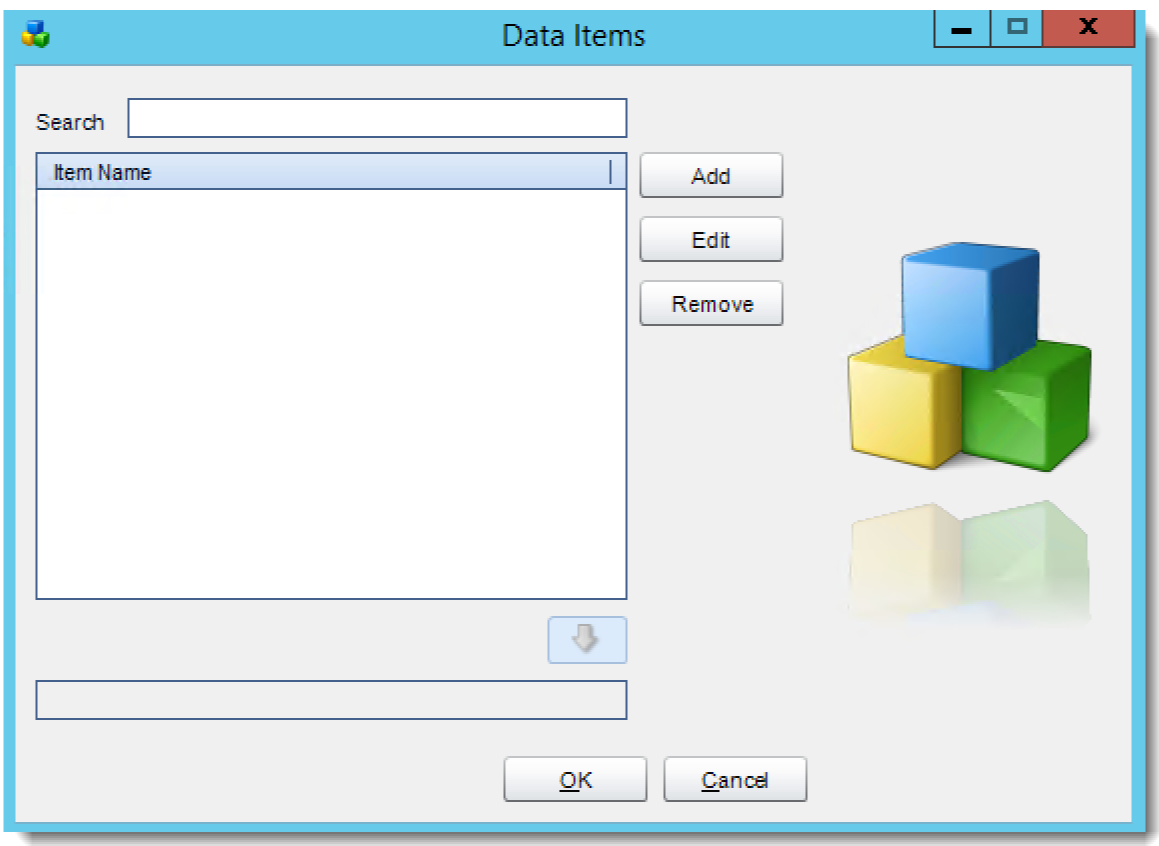
- **Default Attachment:** This will insert the attachment in the Default Attachment field from the User Defaults menu (in Options).
- **Default Message:** This will insert the wording in the Default Message field from the User Defaults menu (in Options).
- **Default Signature:** This will insert the wording in the Default Signature field from the User Defaults menu (in Options).
- **Default Subject:** This will insert the wording in the Default Subject field from the User Defaults menu (in Options).
- For more information on User Defaults, click here.

Data Items

The Data Items button provides the ability to set up a number of data queries that CRD will then store and allow you to call up for use when required.

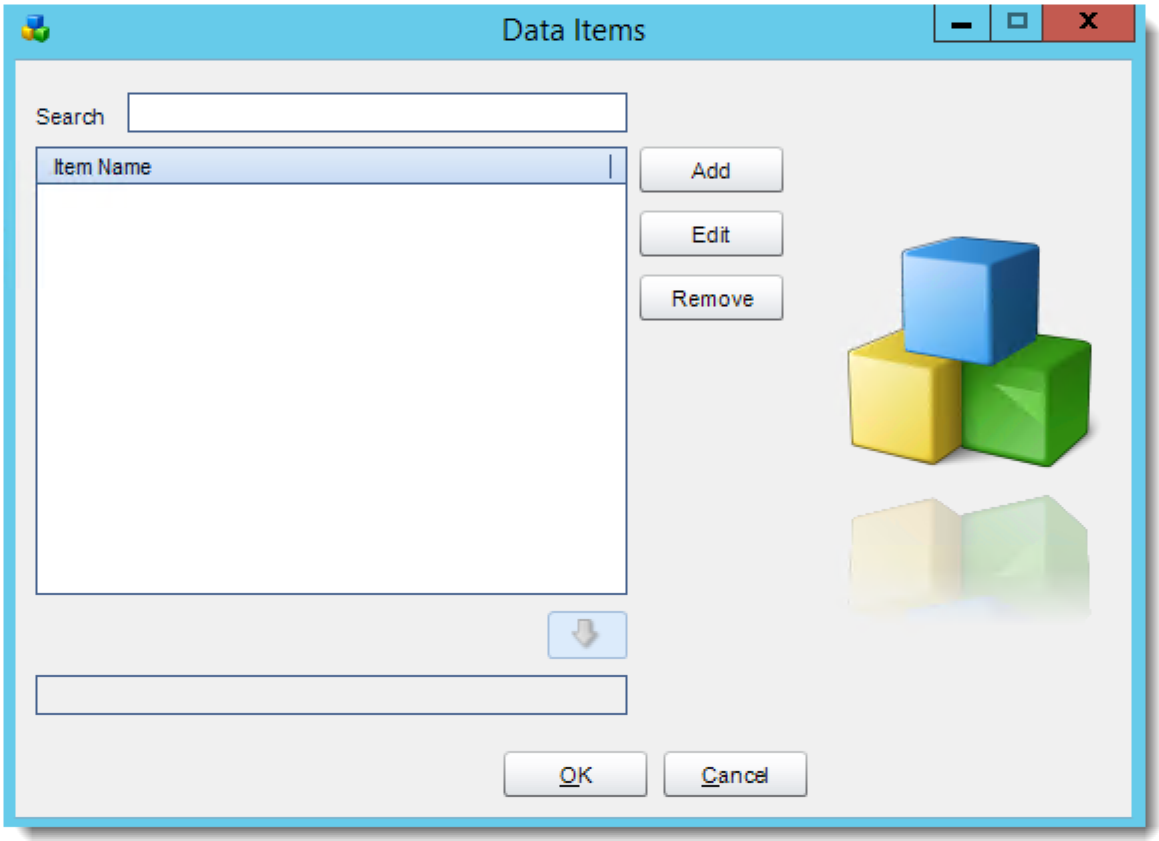
- Go to **Data Items.**



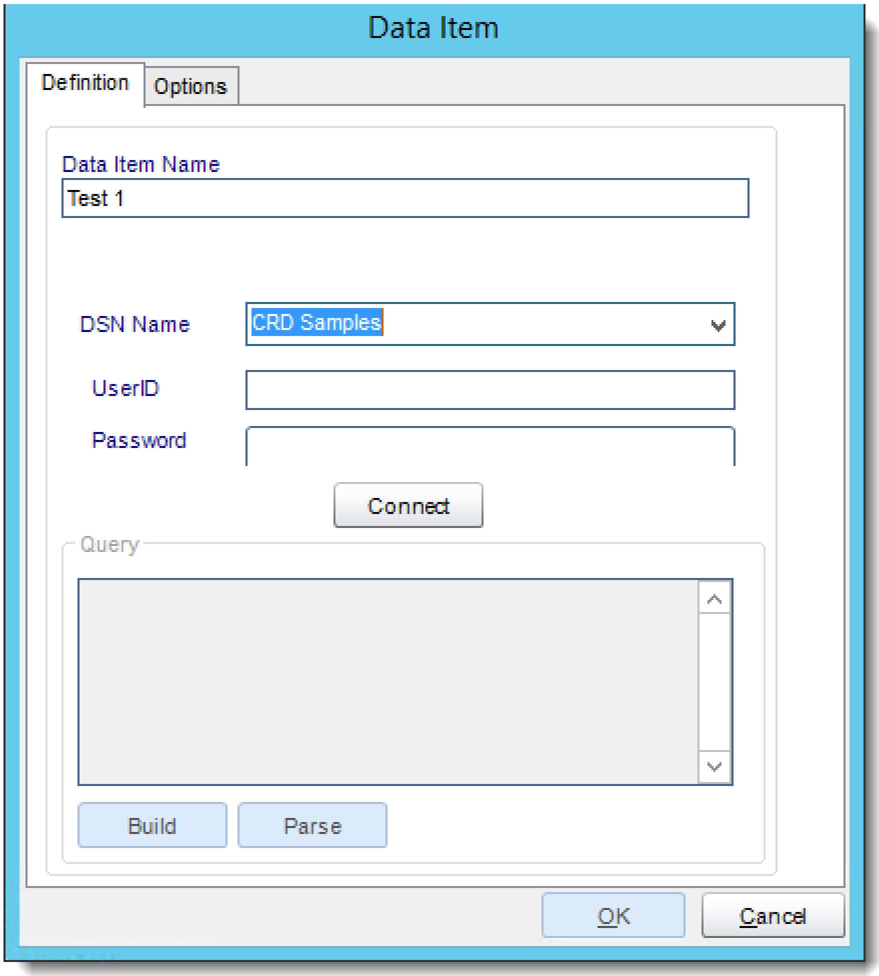


Create a new Data Item

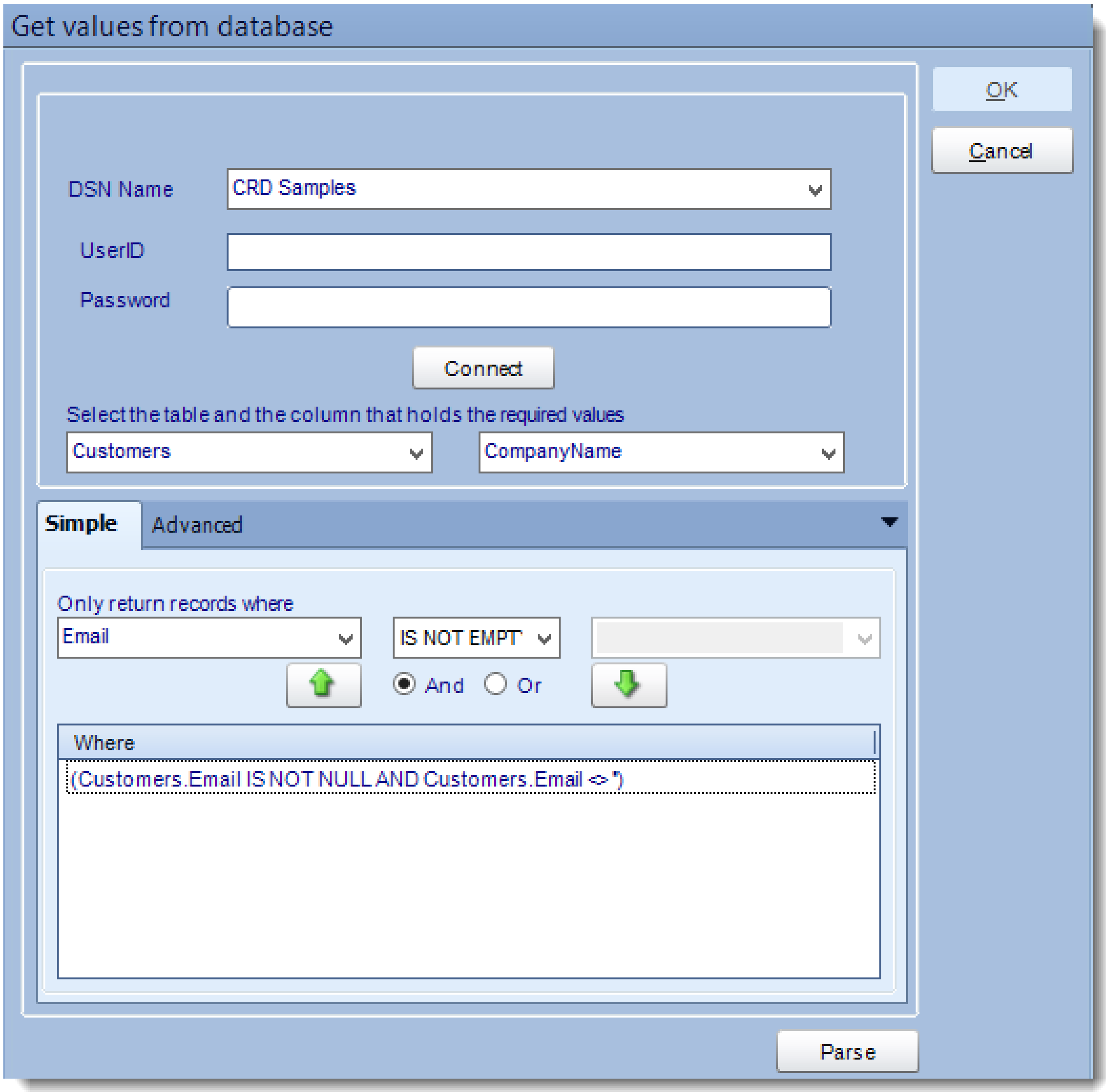
- Click Add.

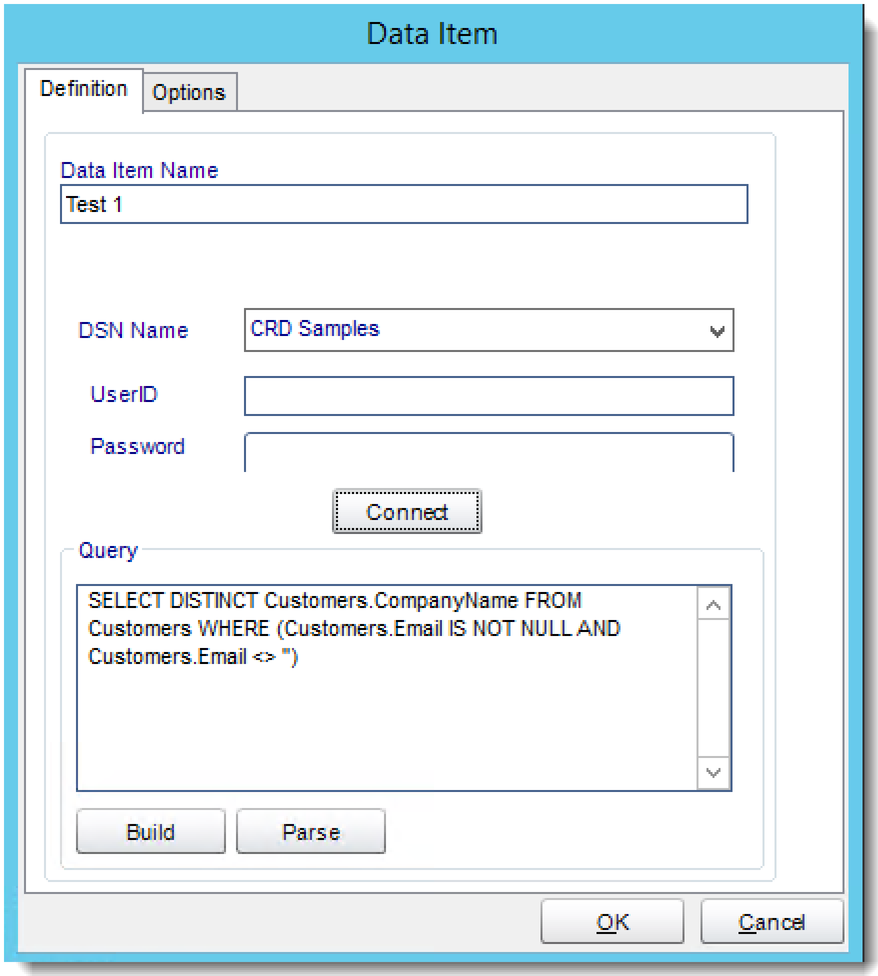


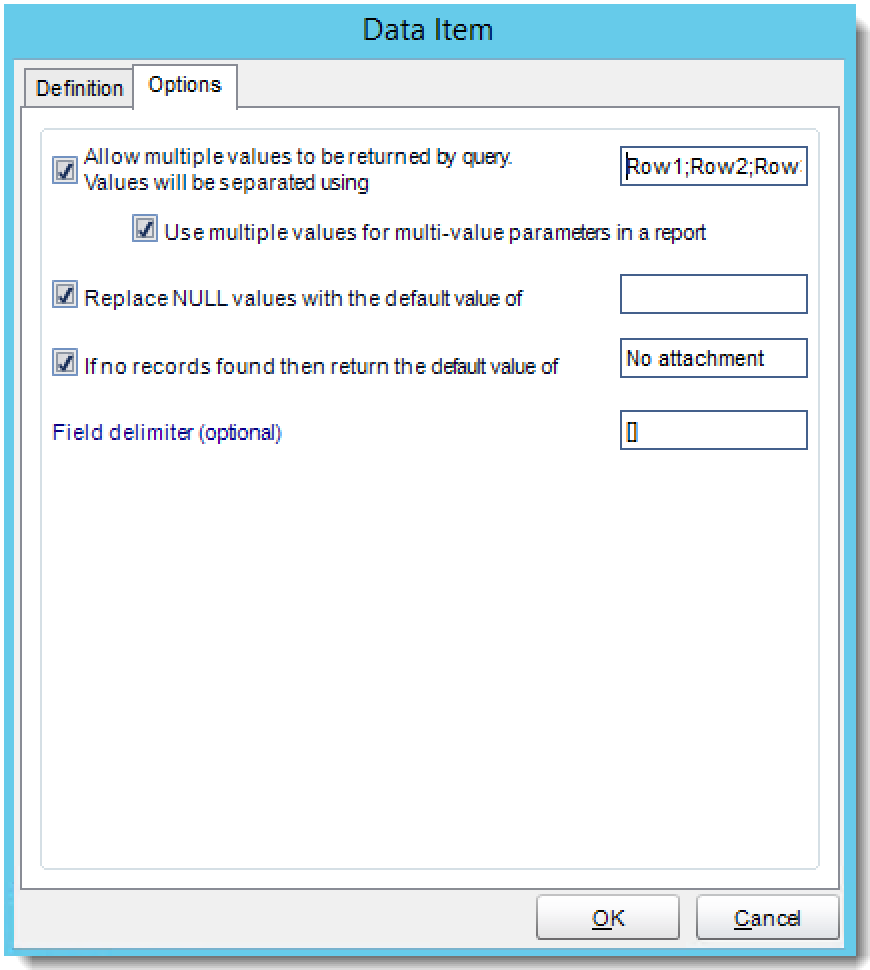
- Enter a name for the new data item.
- Select a DSN, provide any necessary credentials and click Connect.



- You will then be presented with the Get Values from Database module where you can build a query using the intuitive simple setup wizard, or paste in your own query in the Query field.


Get values from database
OK
Cancel
DSN Name
CRD Samples
UserID
Password
Connect
Select the table and the column that holds the required values
Customers
CompanyName
Simple
Advanced
Only return records where
Email
IS NOT EMPT
And
Or
Where
(Customers.Email IS NOT NULL AND Customers.Email <> '')
Parse


Data Item
Definition
Options
Data Item Name
Test 1
DSN Name
CRD Samples
UserID
Password
Connect
Query
SELECT DISTINCT Customers.CompanyName FROM Customers WHERE (Customers.Email IS NOT NULL AND Customers.Email <> '')
Build
Parse
OK
Cancel

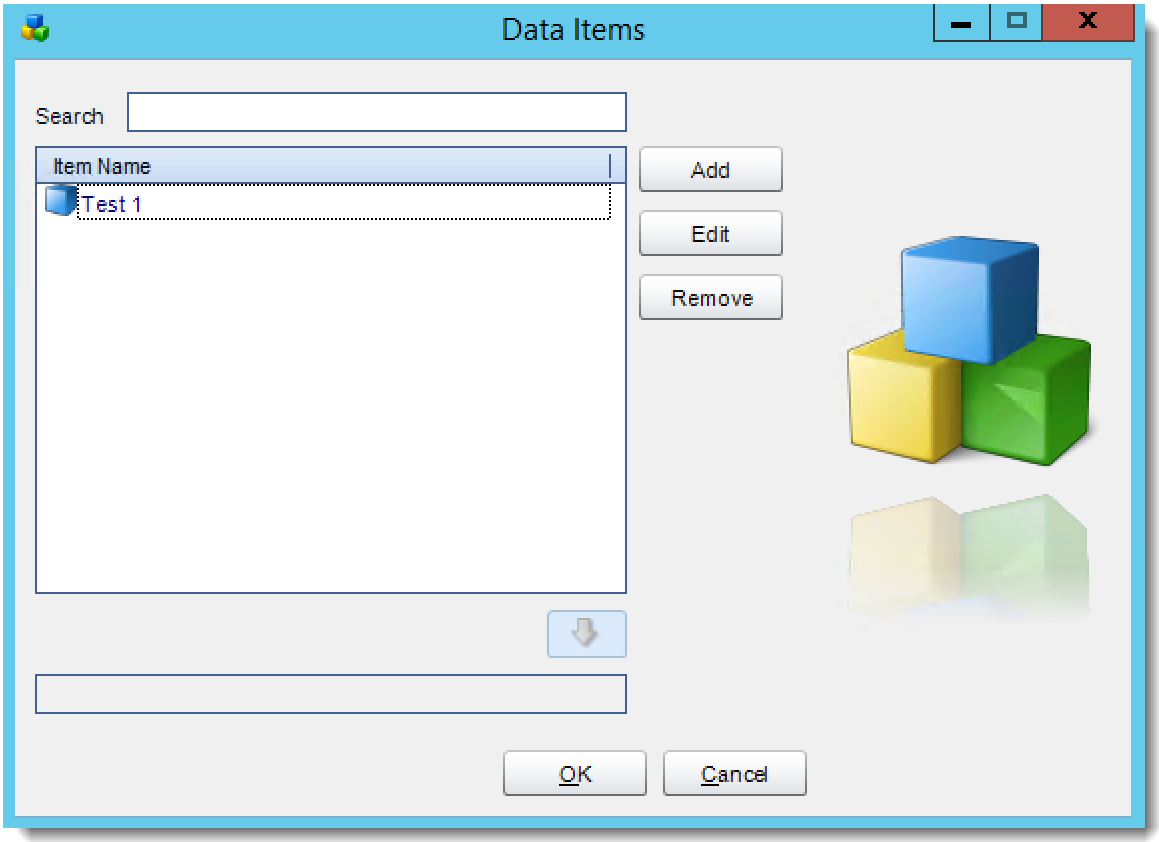


Options

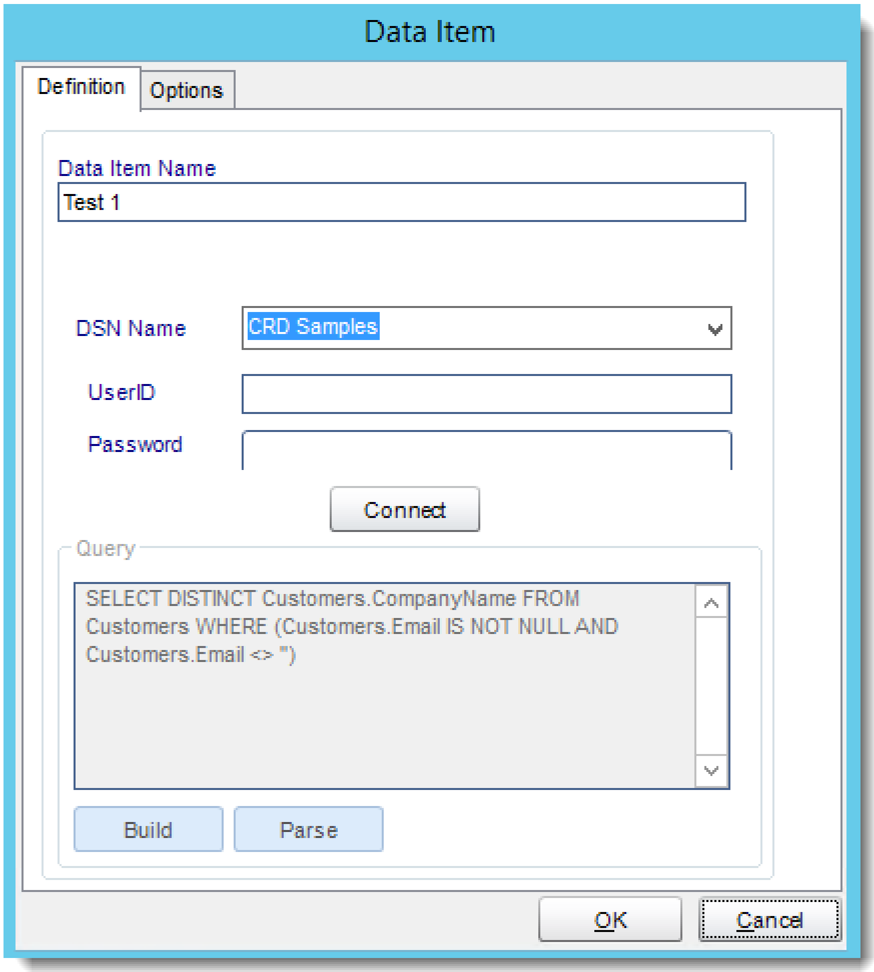
- Allow multiples values to be returned by query: This option will separate different values.
- Replace NULL values with the default value of: This option will pass multiple values into Crystal Parameters.
- If no records found then returned the default value of: This options is to write a description for the records that will appear in blank.
- Field delimiter (optional): The fields will be surrounded with the special characters that you desired.

The Data Item is successfully created.

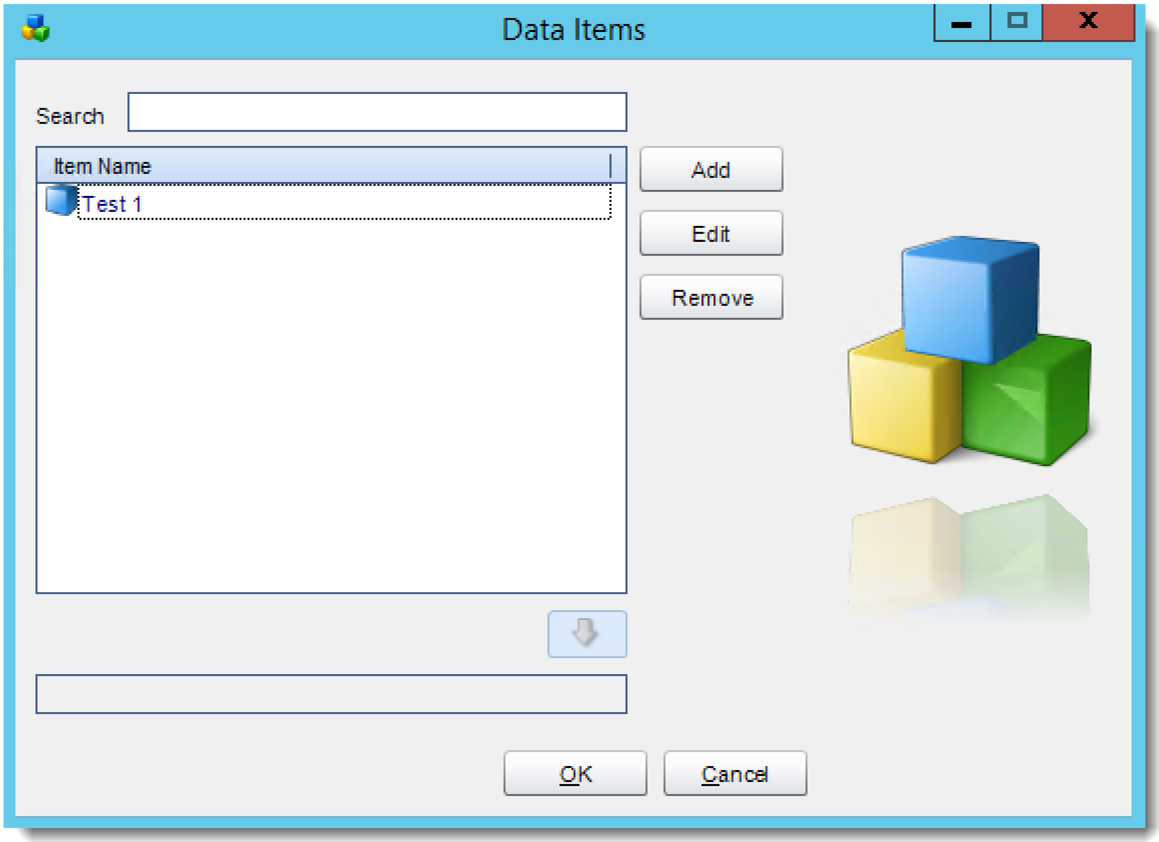
Edit a Data Item



- Select a data item and click Edit.
- You will be presented with the Get Values from Database module where you can modify the query using the intuitive simple setup wizard, or paste in your own query.


Data Item
Definition
Options
Data Item Name
Test 1
DSN Name
CRD Samples
UserID
Password
Connect
Query
SELECT DISTINCT Customers.CompanyName FROM Customers WHERE (Customers.Email IS NOT NULL AND Customers.Email <> '')
Build
Parse
OK
Cancel

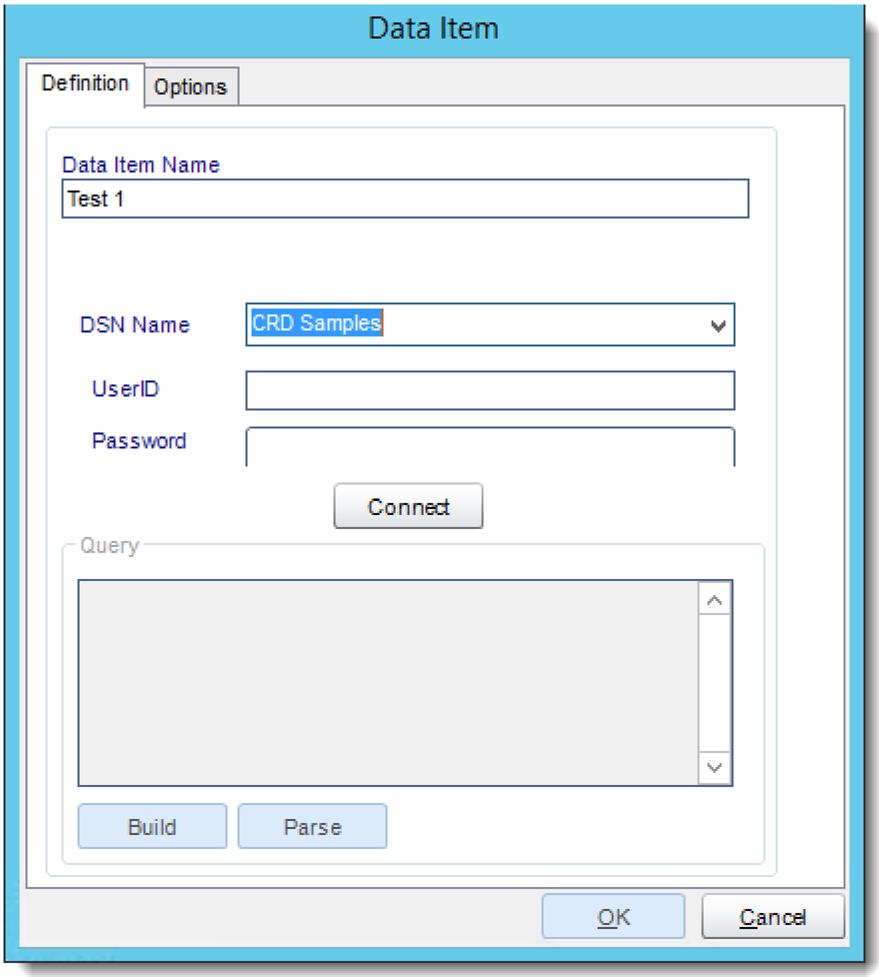
Remove a Data Item



- Select a data item and click Remove.

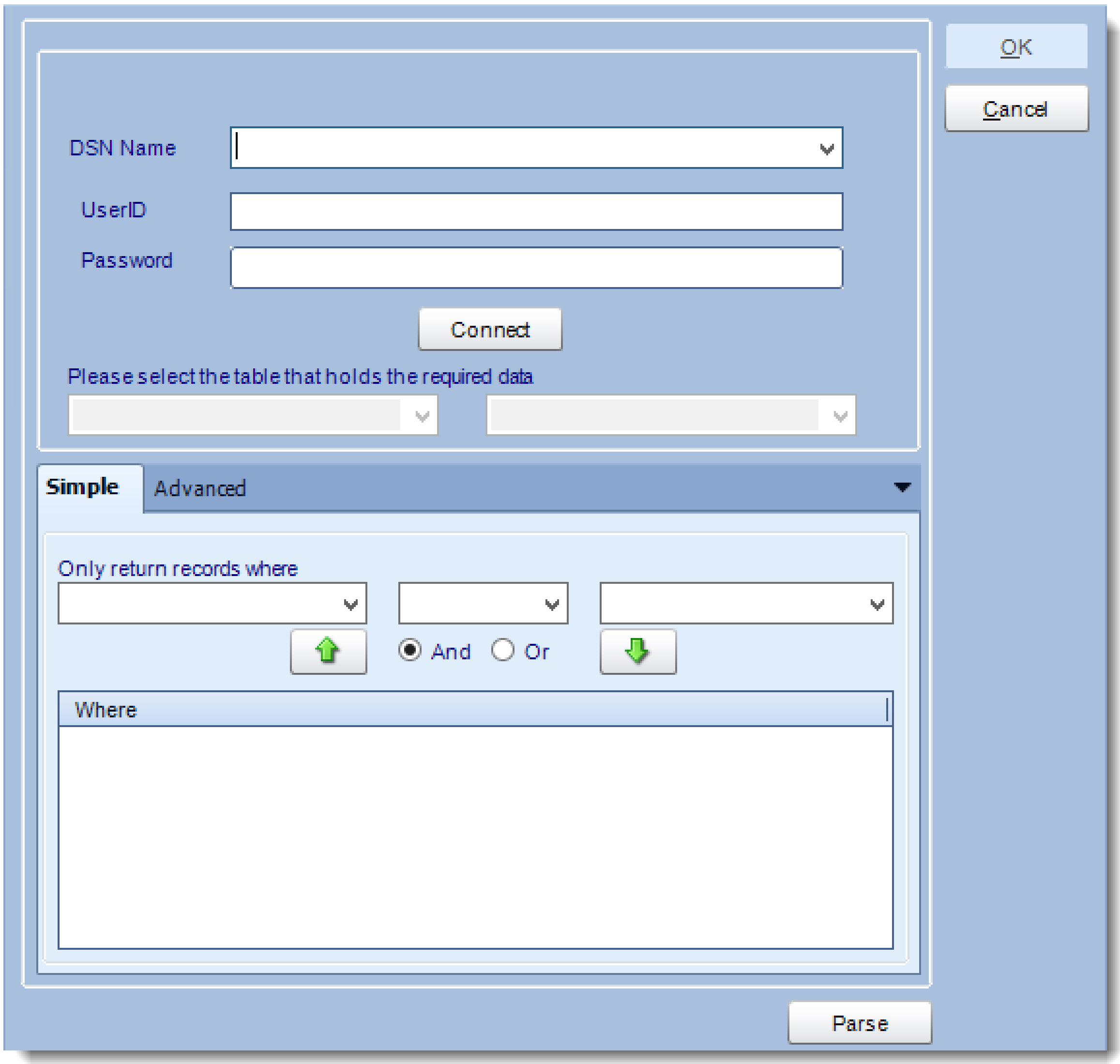
Using Data Items

- With the Insert Menu, you can insert data items into various fields in CRD.
- If you have several data items, you can use the search field to quickly locate the data item you need.



Get Values from Database

The "Get Values From Database" interface helps you to connect to and build queries to extract the information you need from a database. It is used in various parts of CRD where database information is needed.



- **DSN Name:** Drop down and select a DSN.

We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

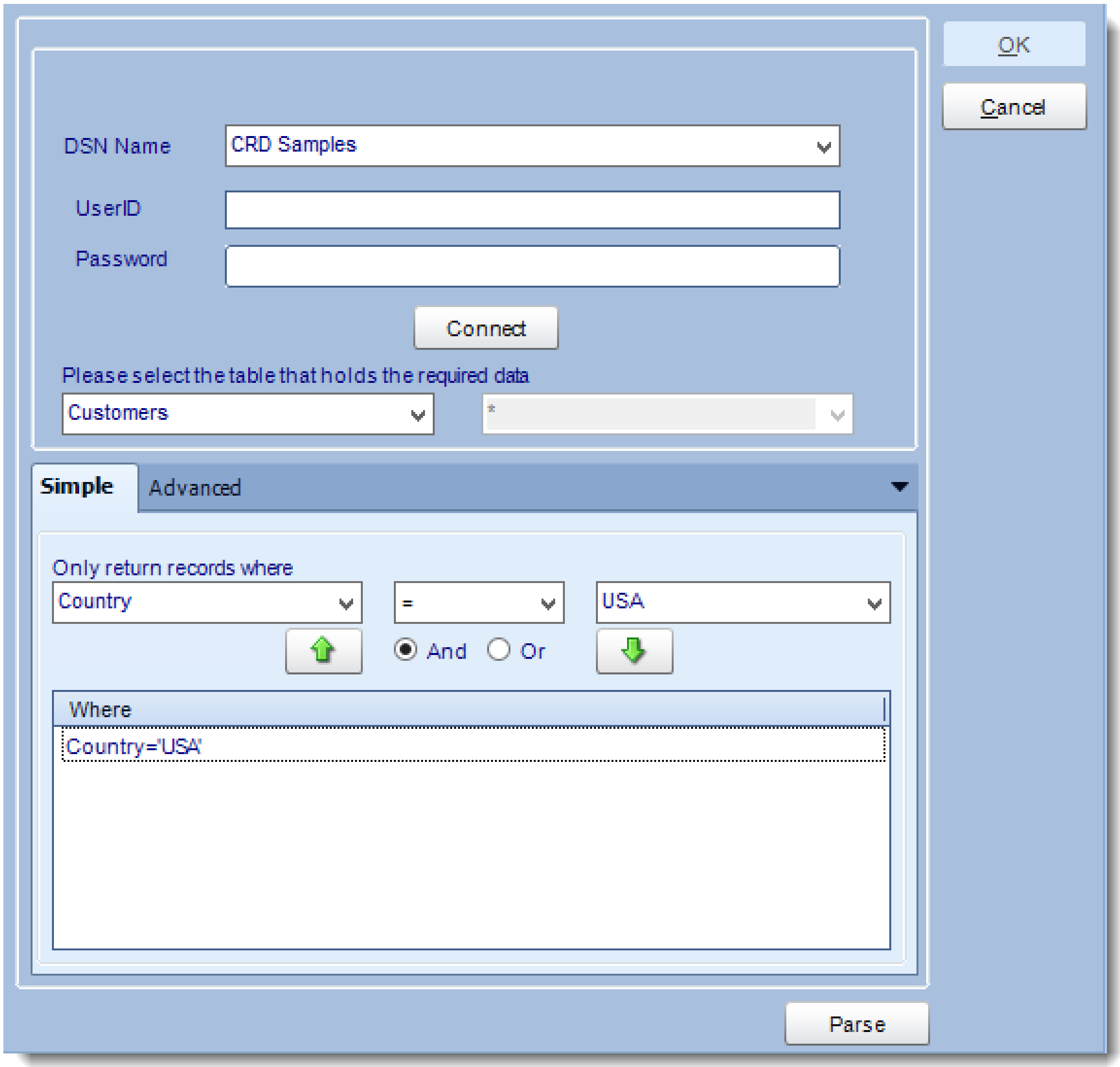
When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs.

When using Windows Authentication, make sure that the CRD NT Service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

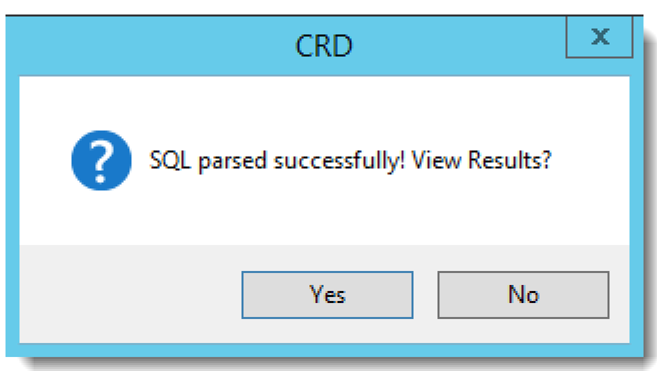
When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database
- **Password:** Enter the password associated with the above user.
- Click **Connect** to connect to the data source.

Select the table from the database that holds the required data. You can refine your selection query by using the simple or advanced tabs.



- Click **Parse**
- CRD will display a list of results. Based on your Criteria CRD will use the returned data to run the report.



- Click **Yes**

Query Results (13 records found)

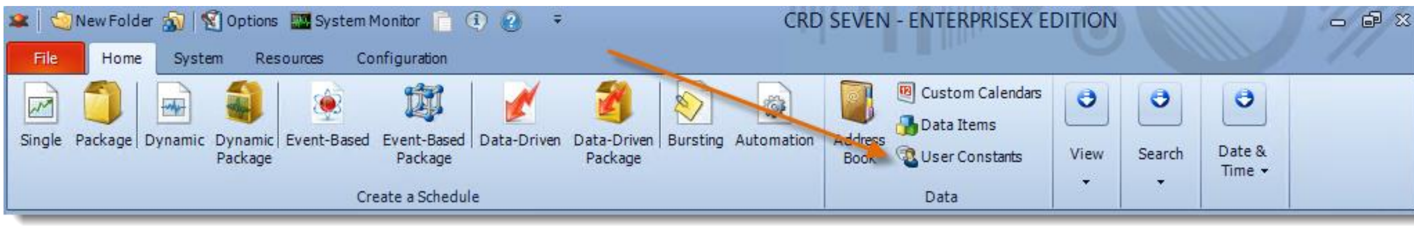
Cust...	CompanyName	ContactName	Con...	Add...	City	Reg...	Pos...
GREAL	Great Lakes Food Market	Howard Snyder	Marke...	2732...	Eugene	OR	97403
HUNGC	Hungry Coyote Import Store	Yoshi Latimer	Sales...	City C...	Elgin	OR	97827
LAZYK	Lazy K Kountry Store	John Steel	Marke...	12 Or...	Walla...	WA	99362
LETSS	Let's Stop N Shop	Jaime Yorres	Owner	87 Pol...	San F...	CA	94117
LONEP	Lonesome Pine Restaurant	Fran Wilson	Sales...	89 Chi...	Portland	OR	97219
OLDWO	Old World Delicatessen	Rene Phillips	Sales...	2743...	Ancho...	AK	99508
RATTC	Rattlesnake Canyon Grocery	Paula Wilson	Assist...	2817...	Albuq...	NM	87110
SAVEA	Save-a-lot Markets	Jose Pavarotti	Sales...	187 S...	Boise	ID	83720
SPLIR	Split Rail Beer & Ale	Art Braunschweiger	Sales...	P.O. B...	Lander	WY	82520
THEBI	The Big Cheese	Liz Nixon	Marke...	89 Jef...	Portland	OR	97201
THECR	The Cracker Box	Liu Wong	Marke...	55 Gri...	Butte	MT	59801
TRAIH	Trail's Head Gourmet Provisioners	Helvetius Nagy	Sales...	722 D...	Kirkland	WA	98034
WHITC	White Clover Markets	Karl Jablonski	Owner	305 -...	Seattle	WA	98128

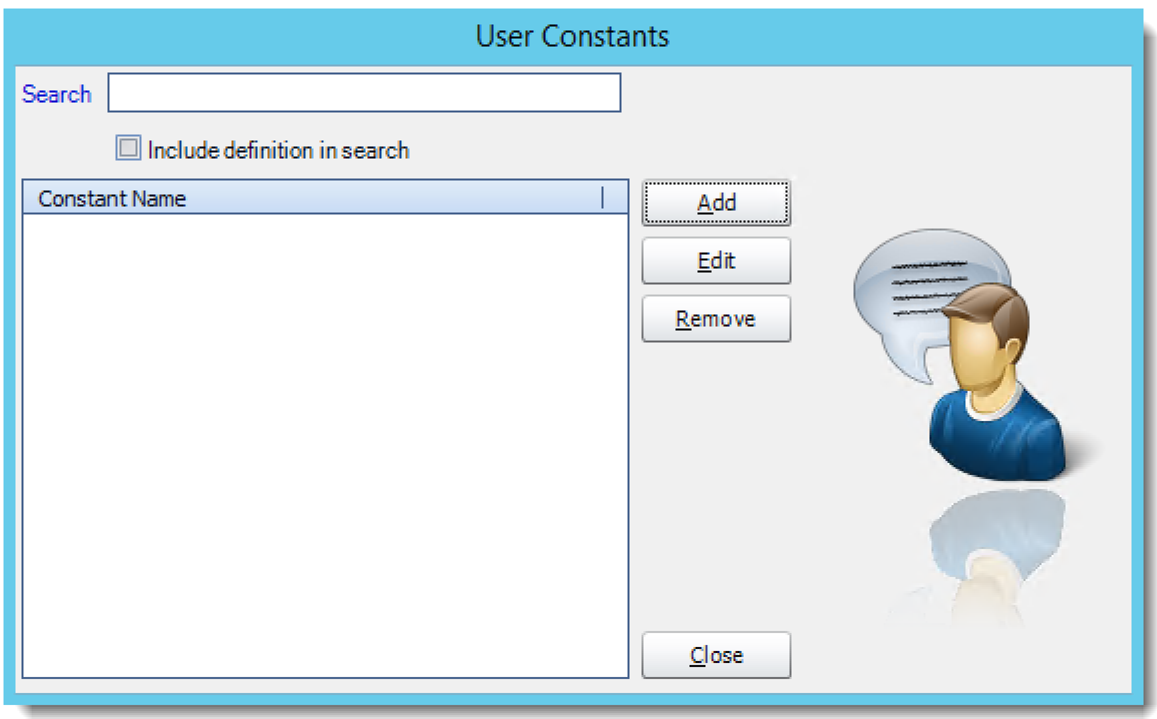
OK

User Constants

User constants allow you to compose and create your own set of constants. This can be useful in reducing the amount of work you would need to do.

- Go to User Constants Data.





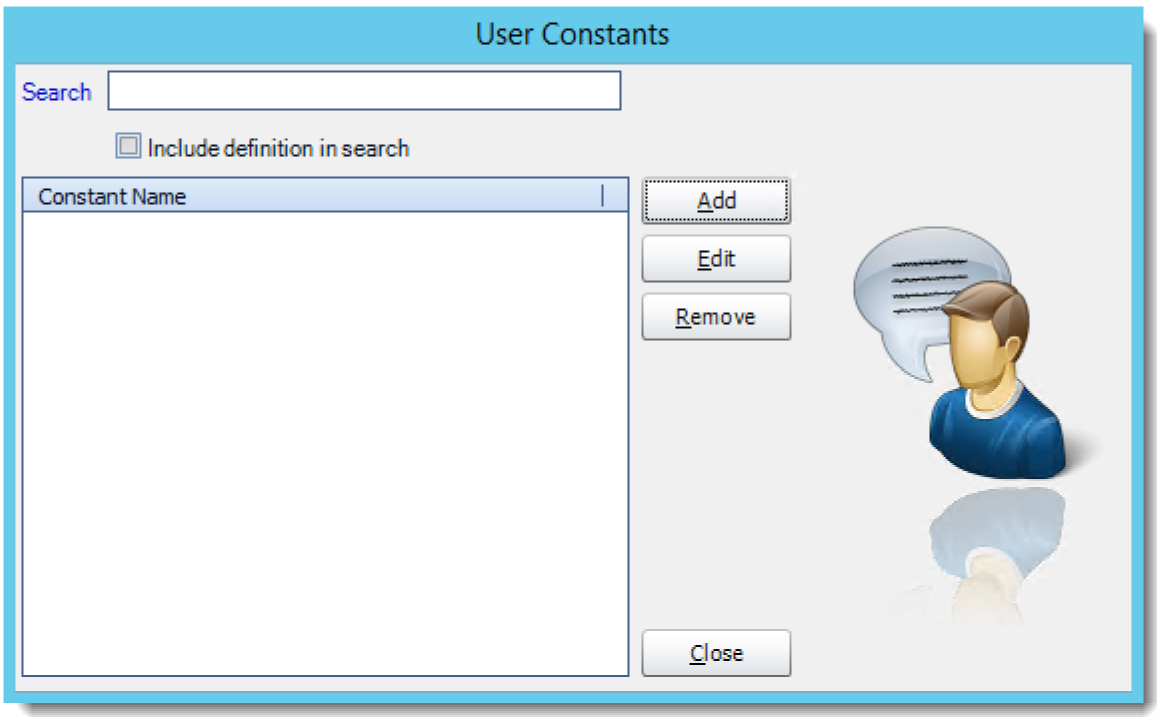
- User constants allow you to compose and create your own set of constants. This can be useful in reducing the amount of work you would need to do.

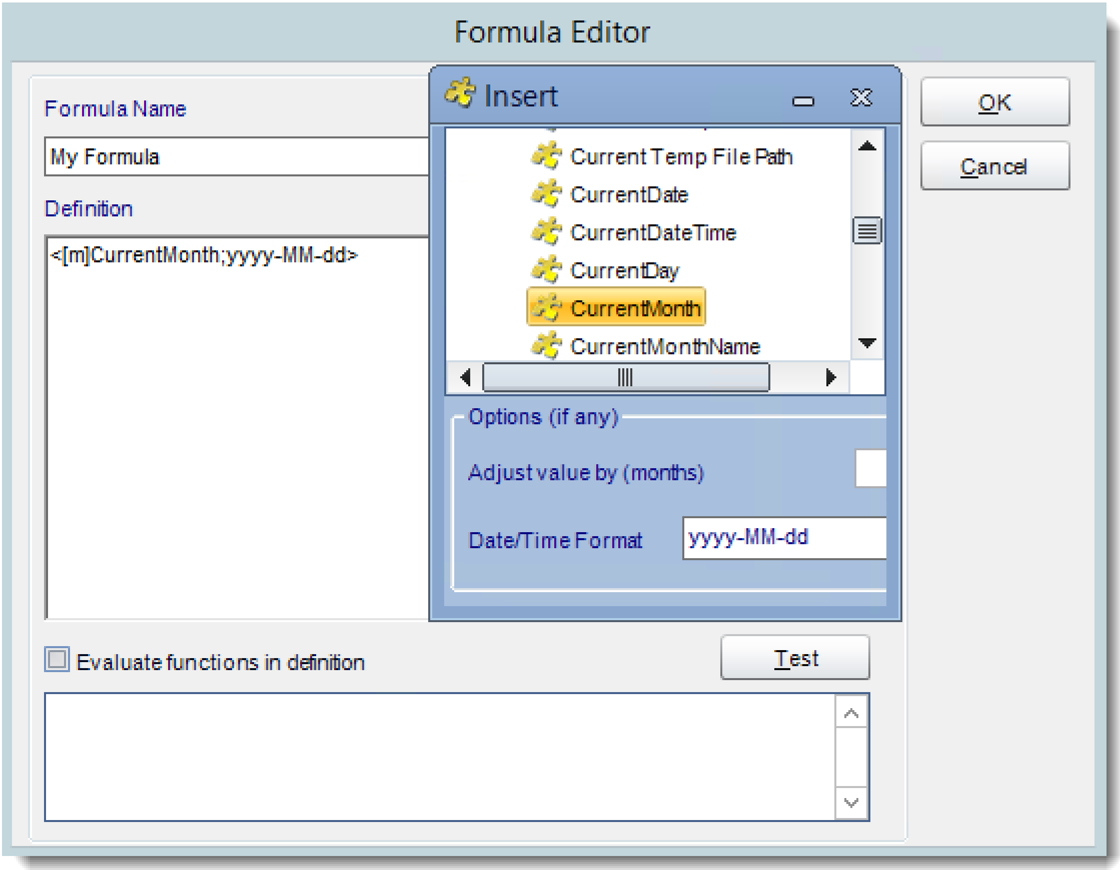
  For example, if you have to use several constants to create a report name following a naming convention that is in use in your organization you can create a single User constant that combines these in the format you require and use this constant instead.

- The User Constants module is accessible from the Advanced Toolbar and from the *New...*drop down item for the @@User Defined Constants in the Insert Menu.
- This module allows you to create your own constants using your own formulas.
- You can use the Insert Menu to enter other constants such as the CRD Constant for the CurrentDateTime above.
- From the initial screen, you can search and for an existing constant with the option to include the definition of the constant in the search. The matched constants are updated as you type.

Adding a New User Constants Data

- Click Add.

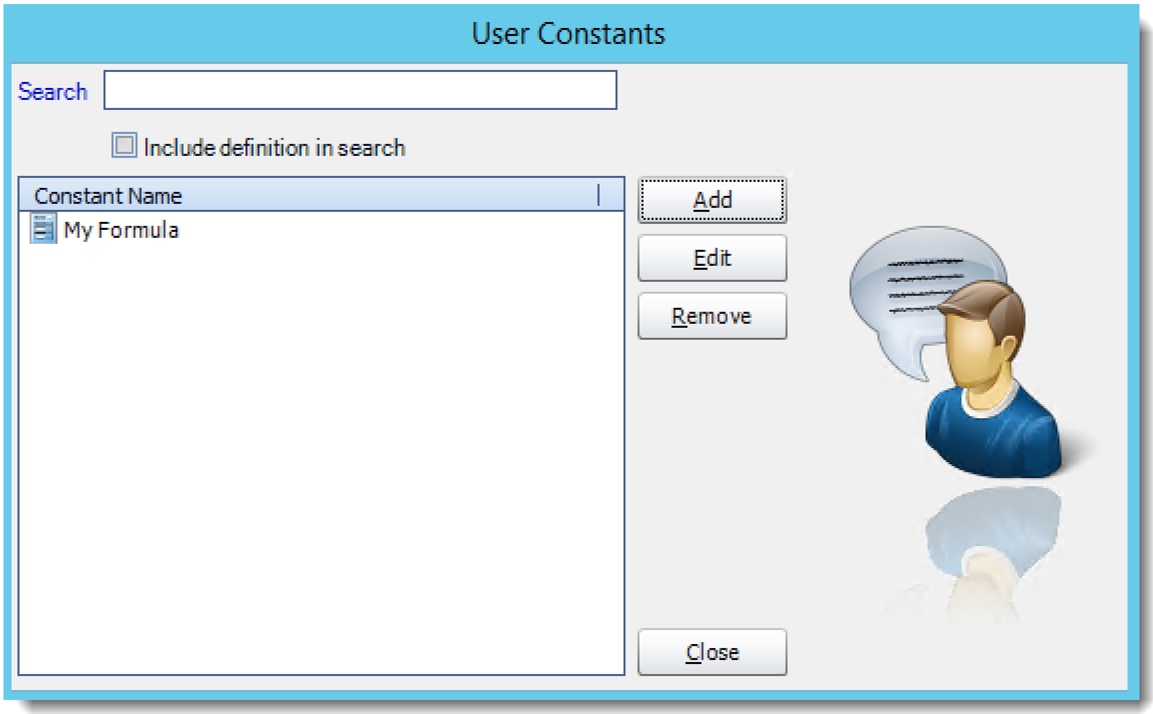




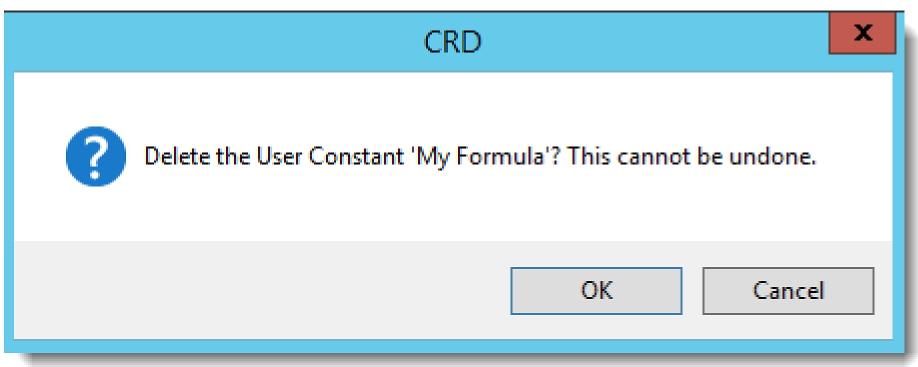
- **Formula Name:** The name of the constant.
- **Definition:** The definition of the formula.
- Click **Test** and then click **OK**.

This will then be available for use under the @@User Defined Constants name in the Insert Menu.

Remove a User Defined Constant



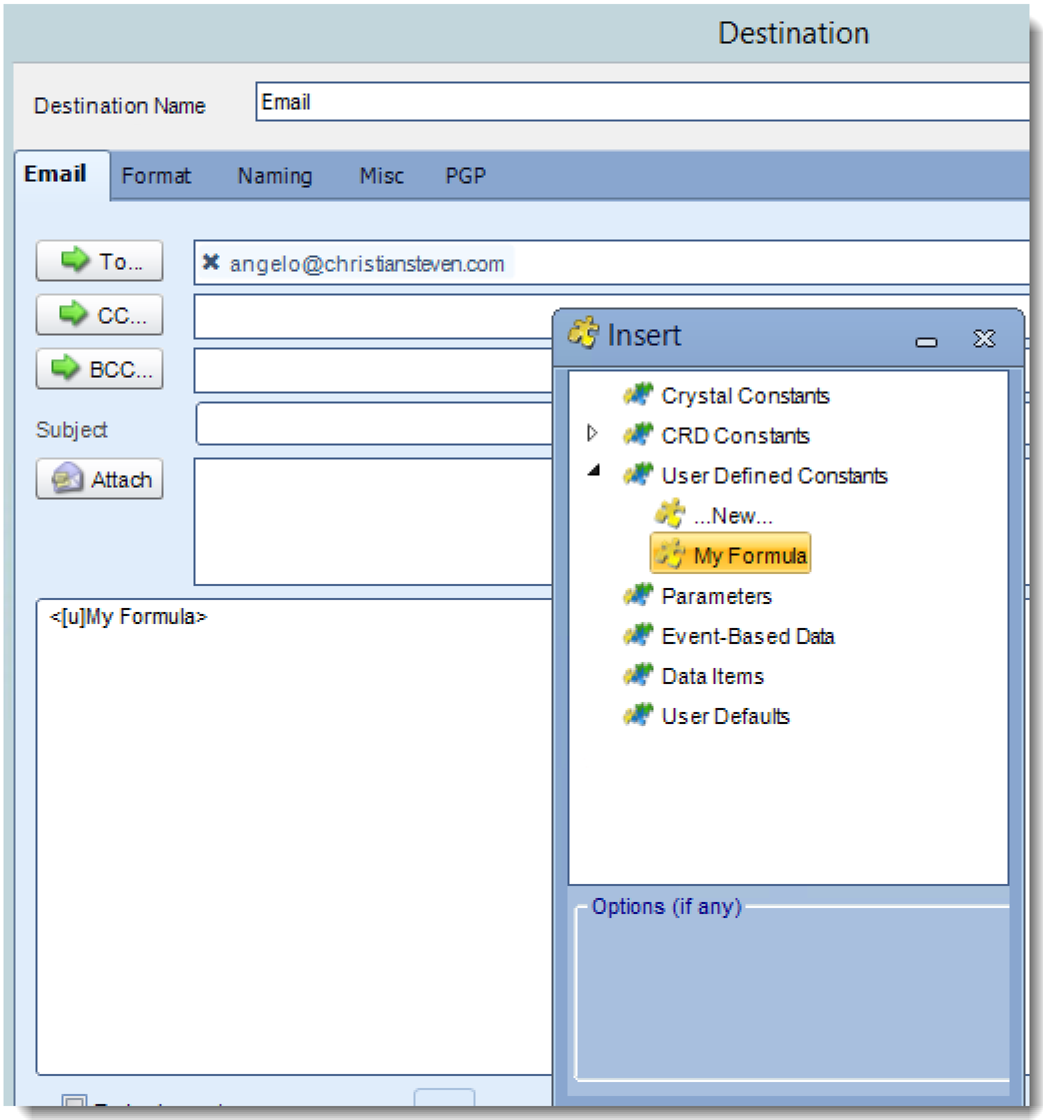
- Select the User Defined Constant.
- Click **Remove**.

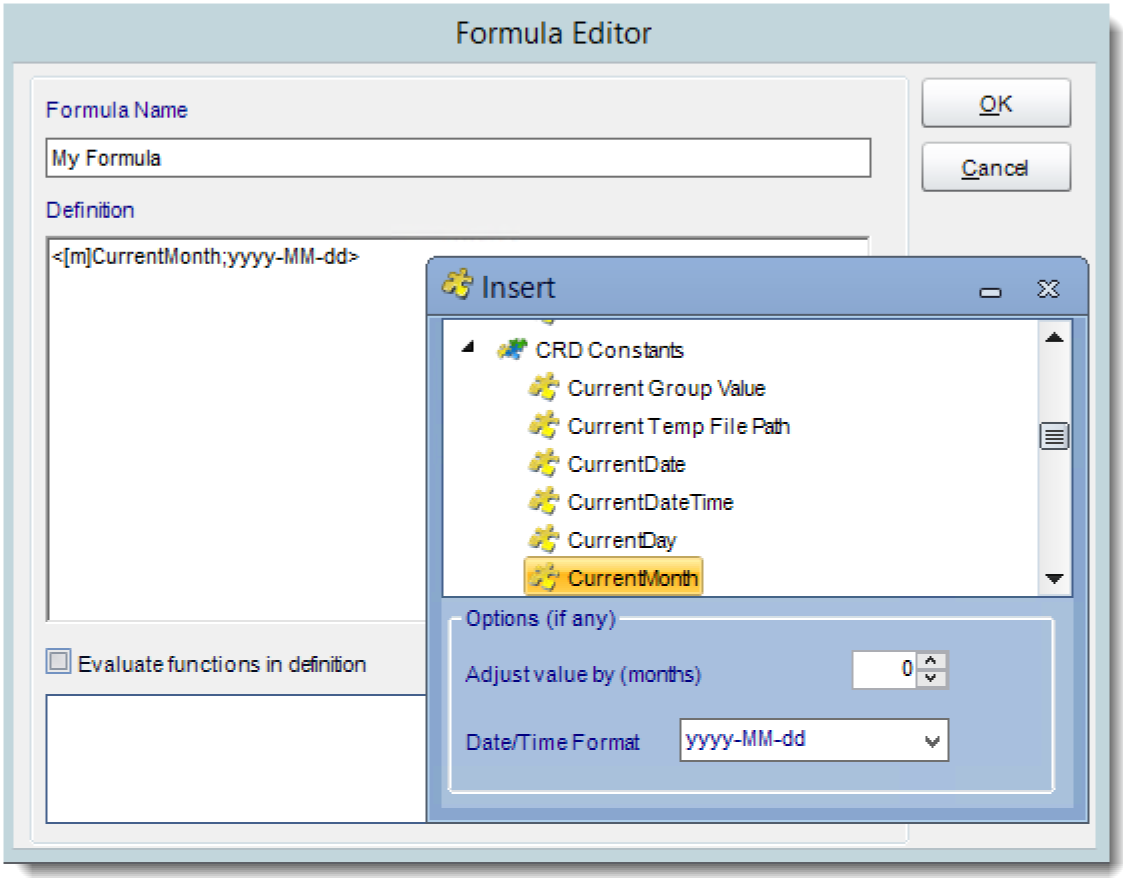


- Click OK.

Inserting User Constants

To insert a user constant, use the inserts feature where available. Select User Constants, then simply drag and drop your desired constant to the desired field.

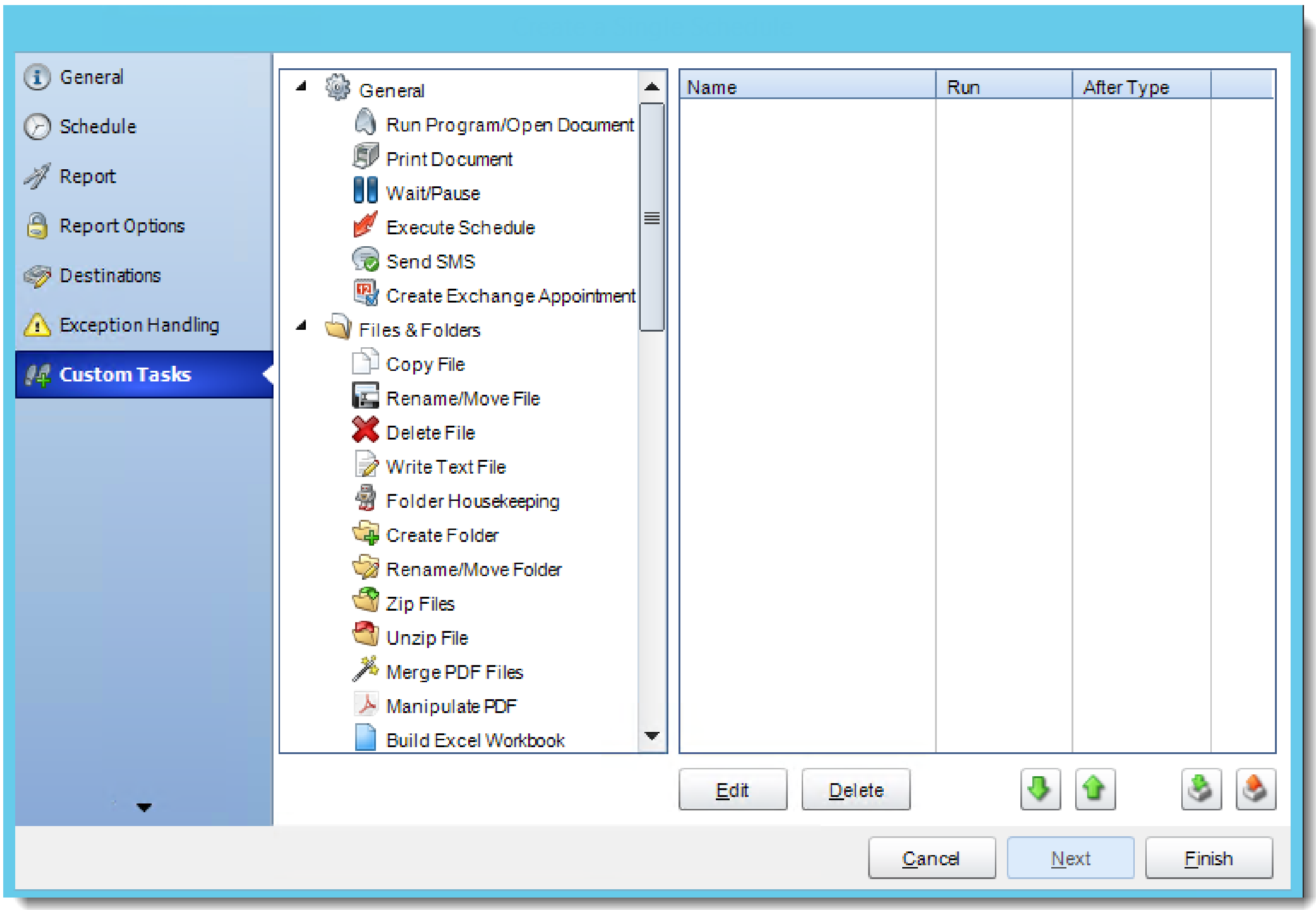



Formula Editor
Formula Name
My Formula
Definition
<[m]CurrentMonth;yyyy-MM-dd>
OK
Cancel
Insert
CRD Constants
Current Group Value
Current Temp File Path
CurrentDate
CurrentDateTime
CurrentDay
CurrentMonth
Options (if any)
Adjust value by (months)
0
Date/Time Format
yyyy-MM-dd
Evaluate functions in definition

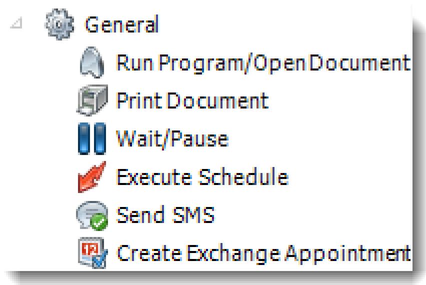
Custom Task

The Custom Tasks module allows you to write a series of automation actions (macros) which can be set to run before a report is run, after a report is run, or both. (Not applicable to Automation Schedules).

- In the Schedule Wizard, go to **Custom Task.**



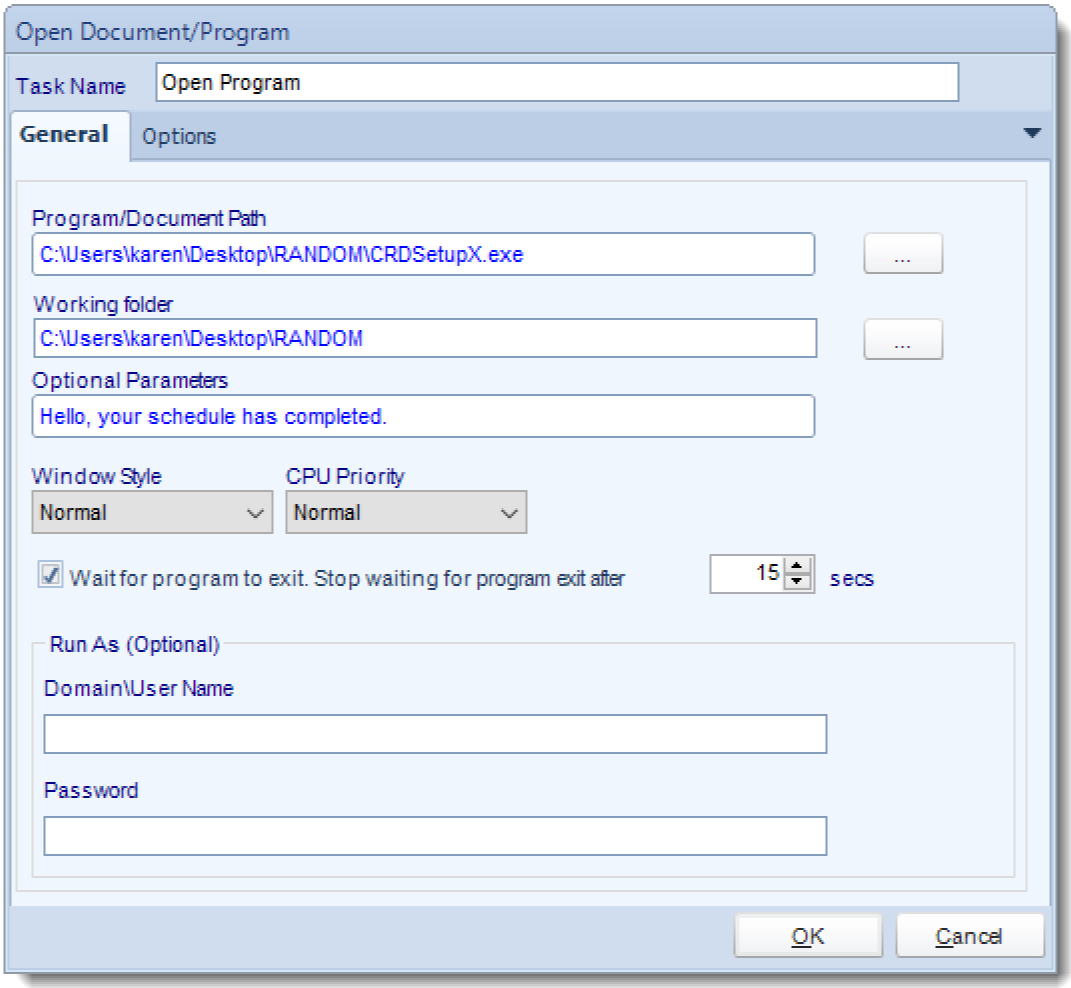
General



- With General Tasks, you can perform basic tasks such as printing documents, waiting, or executing other schedules.

Run Program/Open Document

General

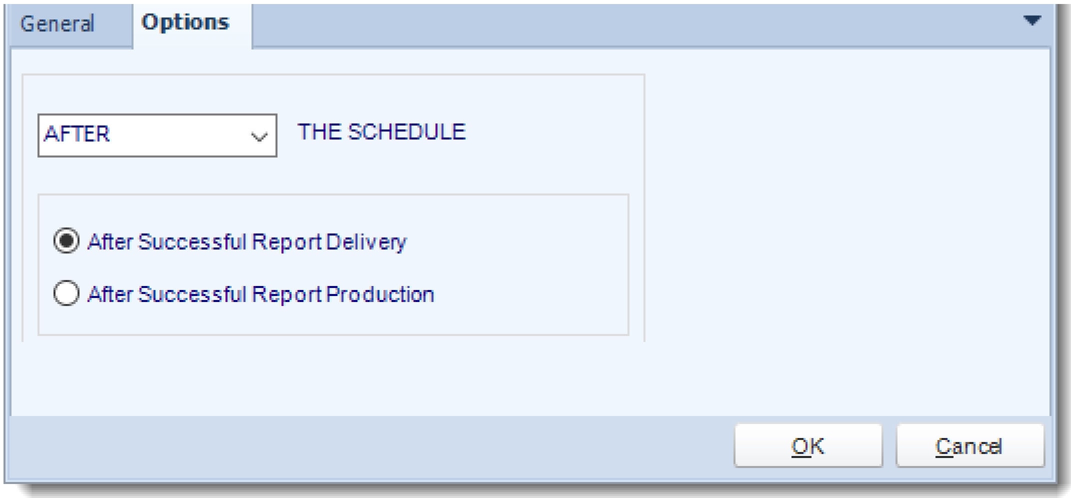


Use this task to open a document or run a program or batch file.

- **Task Name:** Enter a name for the task
- **Program/Document Path:** Browse to find the path of the program or document
- **Working Folder:** Browse to find the path of the working folder.
- **Optional Parameter:** Enter any arguments or parameters
- **Windows Style:** Choose from Normal, Minimized, Maximized or Hidden.

You can further instruct CRD to wait for the program to exit or to stop waiting for the program after a specified amount of time.

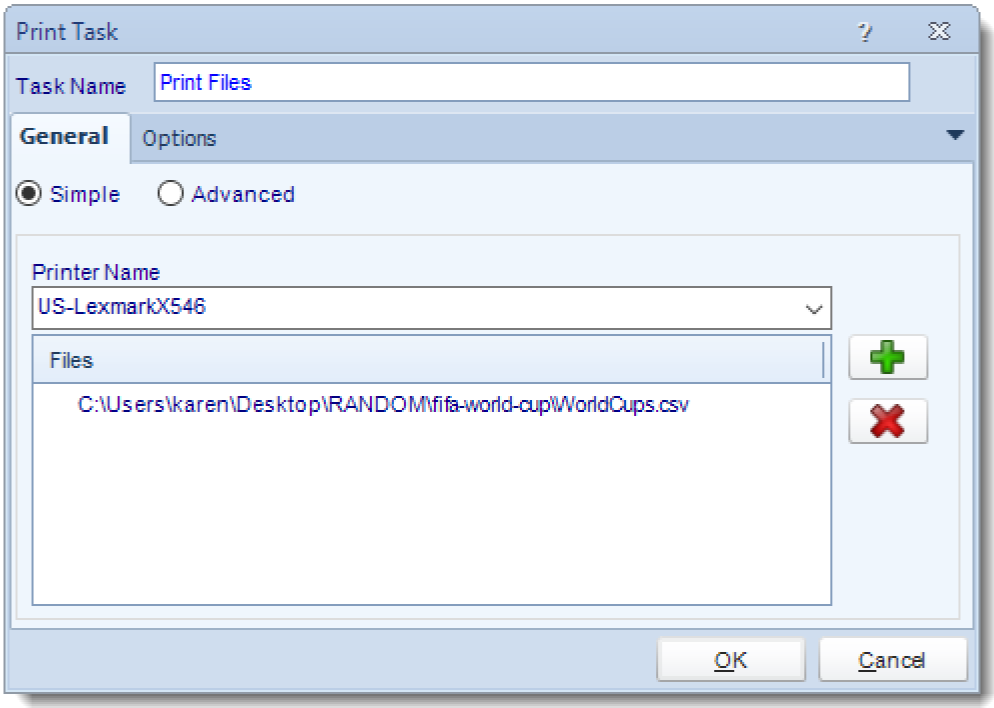
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

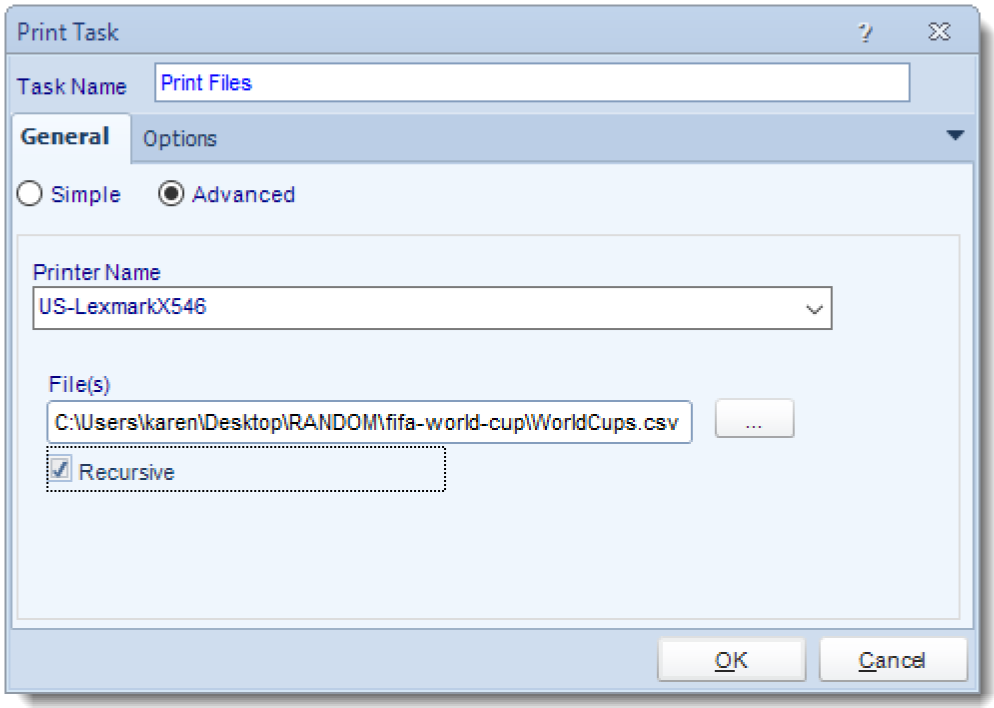
Print Document

General



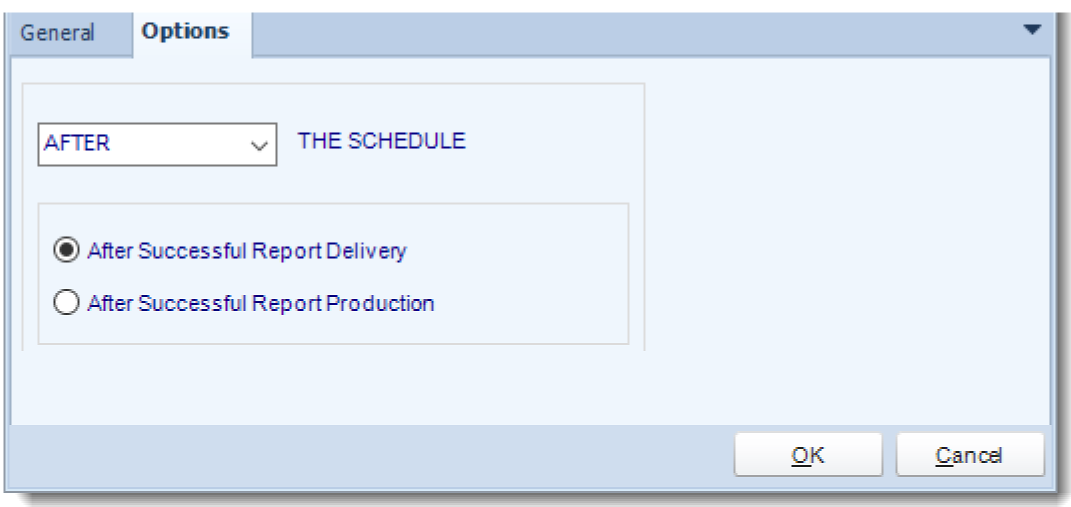
Use this task to print documents to a specified printer.

- **Task Name:** Enter a name for the task
- **Printer Name:** Select a printer or print driver from the list.
- Click **(+)** button to browse for files to add to the printing list.



- **Printer Name:** Select a printer or print driver from the list.
- **Files:** Use the **(…)** to browse for the file(s) to be printed
- **Recursive:** Print all folder and/or documents in that path.

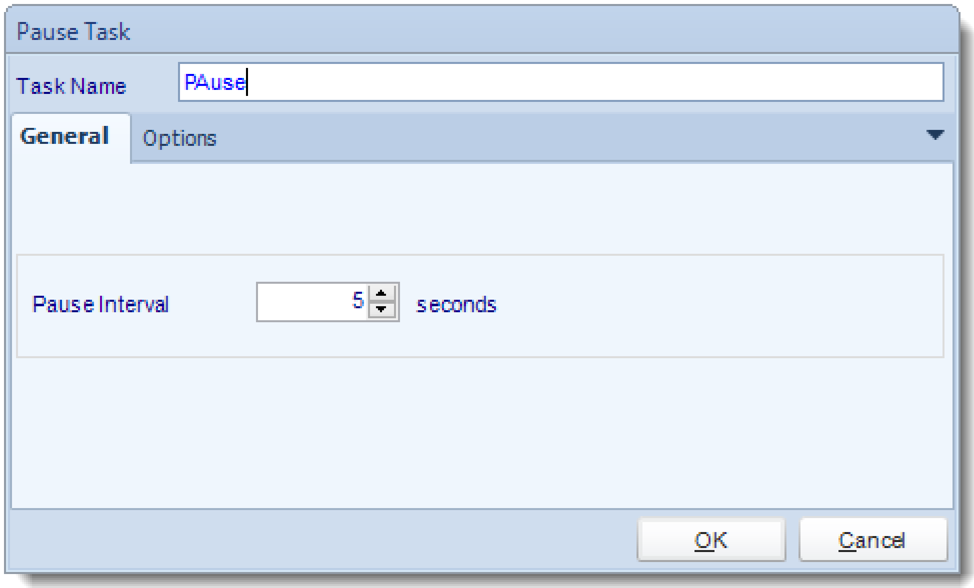
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Wait/Pause

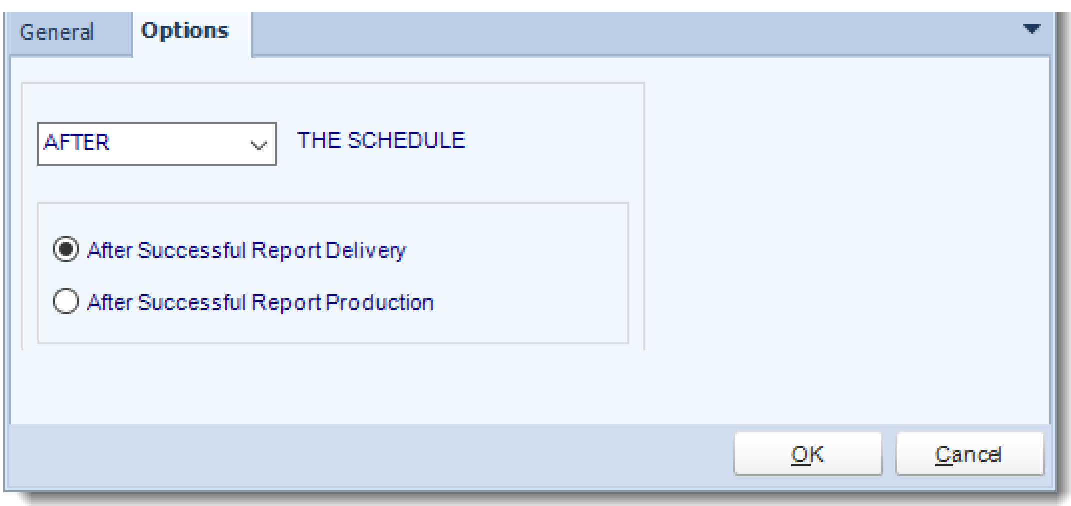
General



Use this task to create pauses between tasks to ensure that one task is fully complete before the next task in the list is started.

- **Task Name:** Enter a name for the task.
- Select the pause interval to suit your requirements.

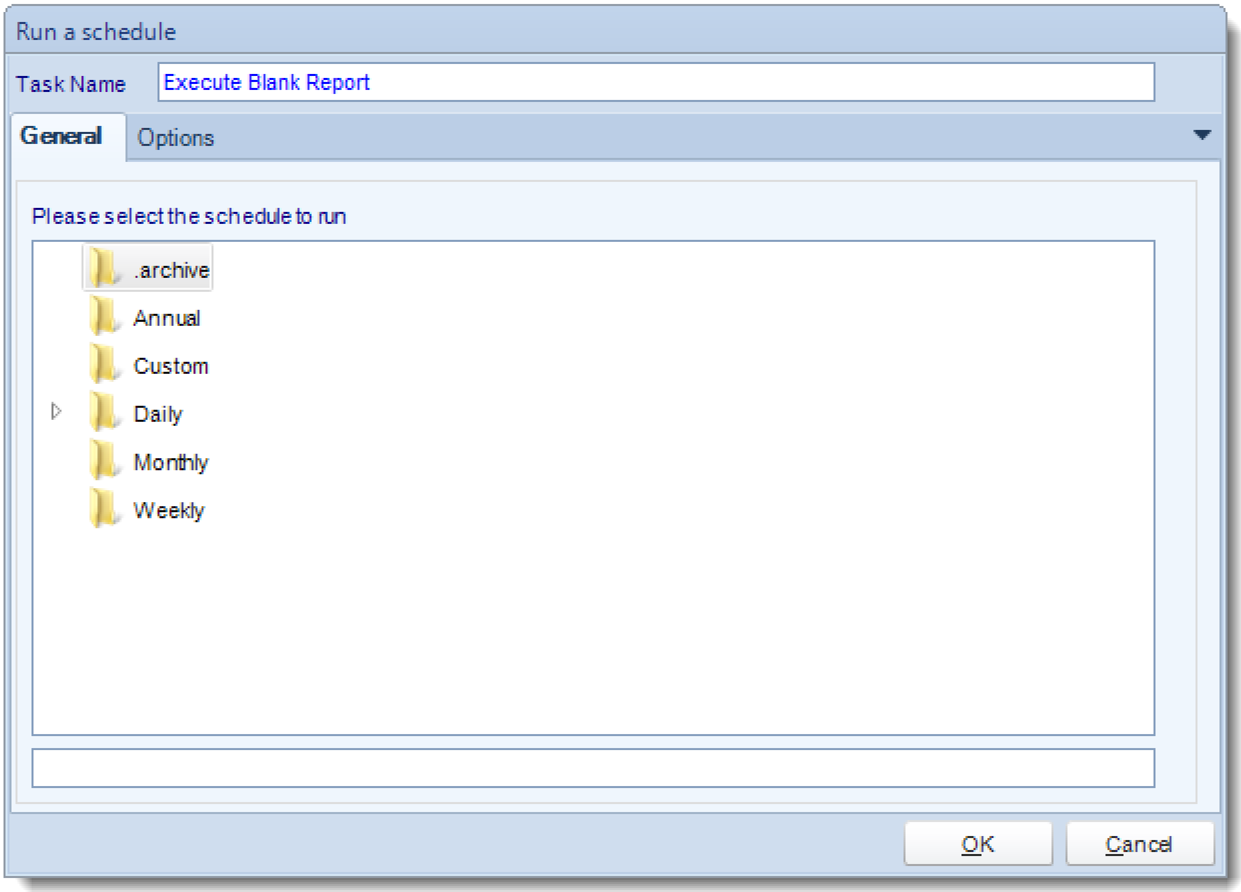
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

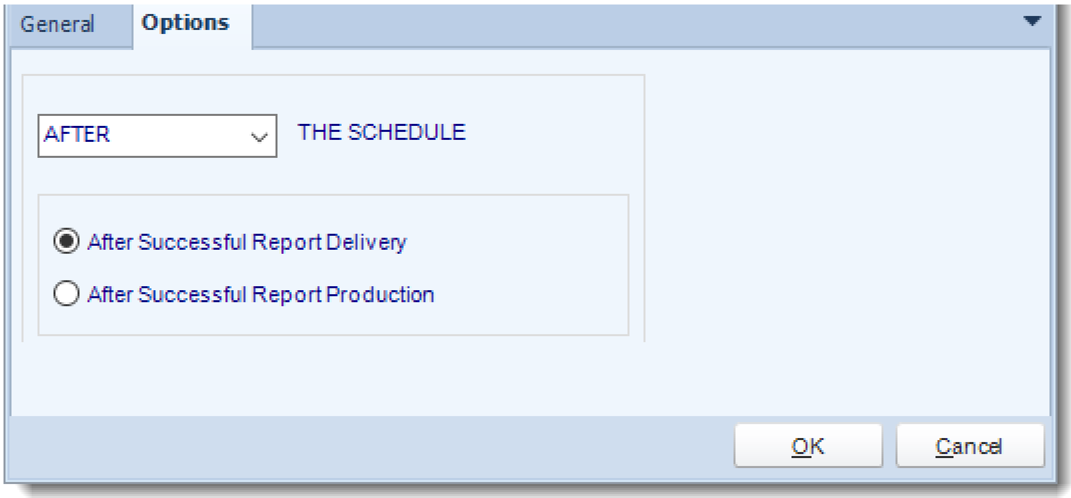
Execute Schedule

General



- This is a useful facility for "chaining" schedules together. Simply select the schedule you want to run from the list and click **OK**.
- **Task Name:** Enter a name for the task.

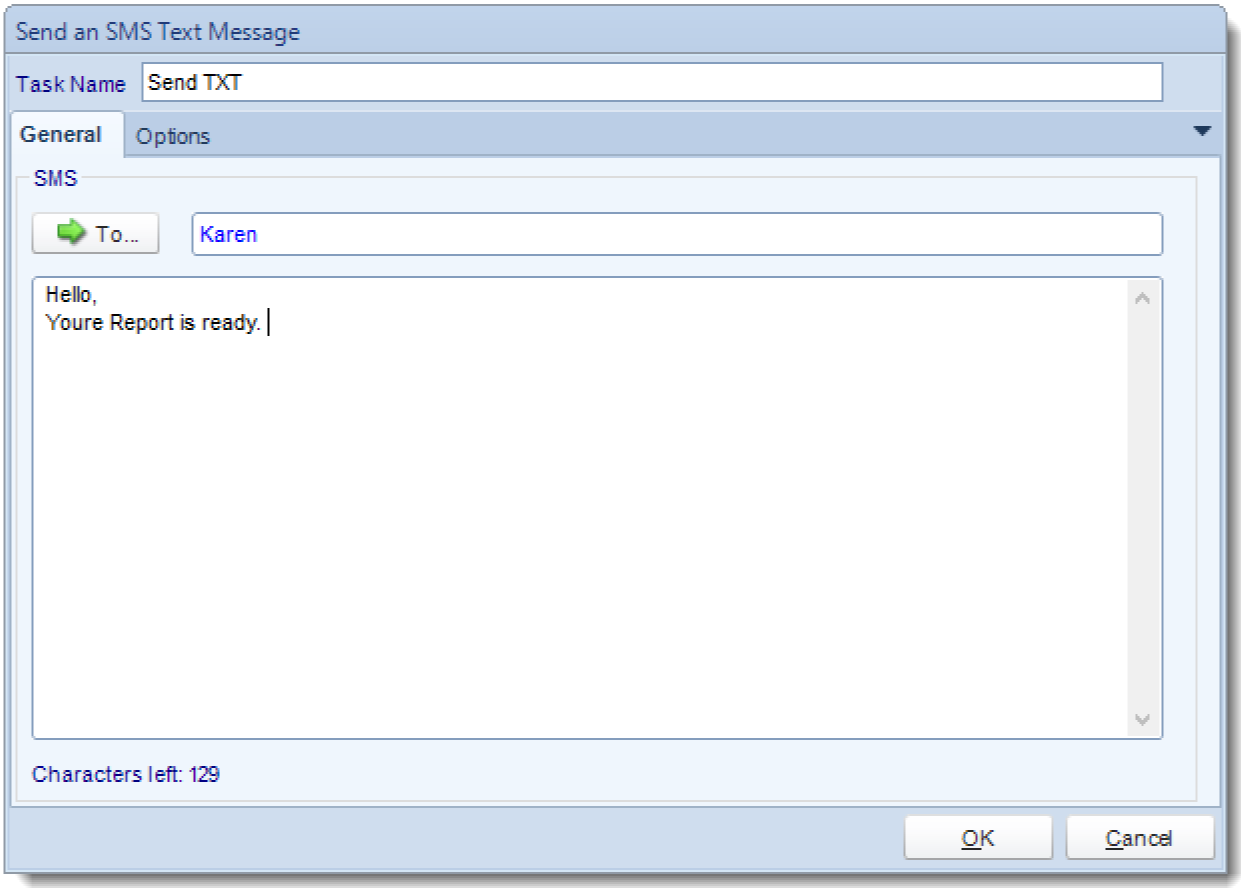
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

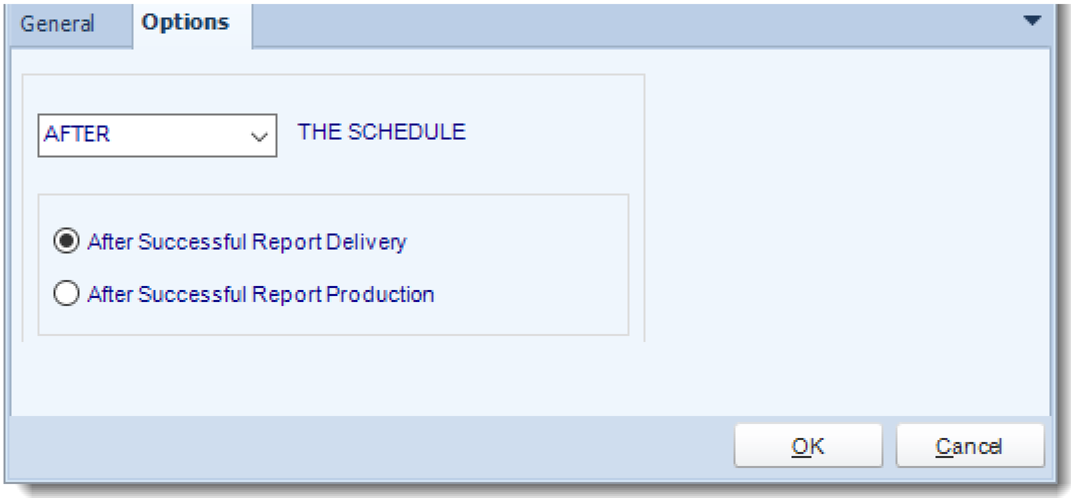
Send SMS

General



- You can send SMS messages using this task. You will need to make sure your SMS messaging configuration in Options is functional.

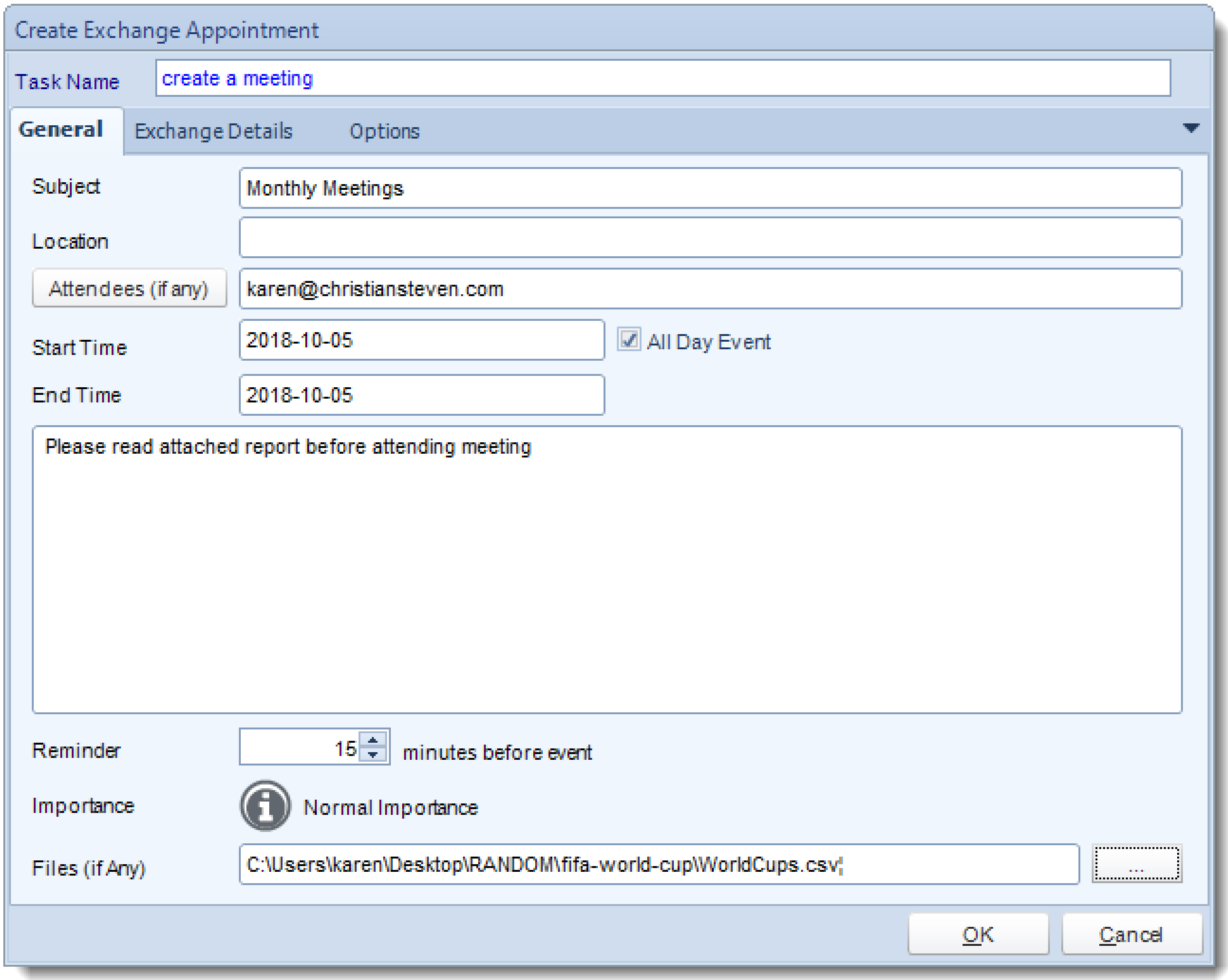
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Create Exchange Appointment

General

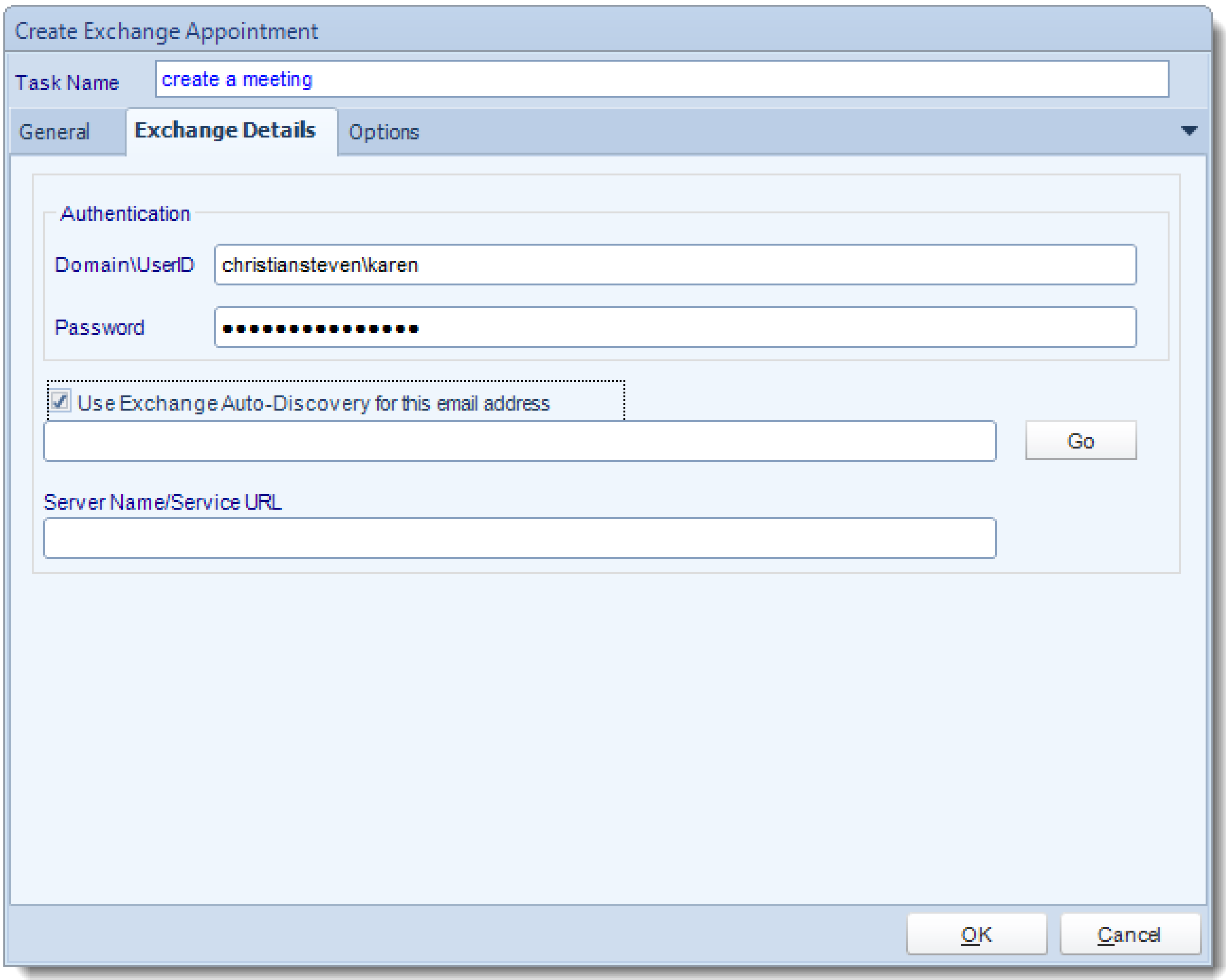


Use this task to send a meeting request to one person or a group of people.

- **Task Name**: Give the task a name.
- **Subject:** Give the meeting request a title.
- **Location:** Where is the meeting going to be.
- **Attendees:** Enter the email address of required attendees, use inserts to enter email addresses or click on Attendees to being up different Address book options.
- **Start Time:** Start time of the meeting.
- **End Time:** End time of the meeting.
- **All Day Event**: Check this if the meeting is to last all day.

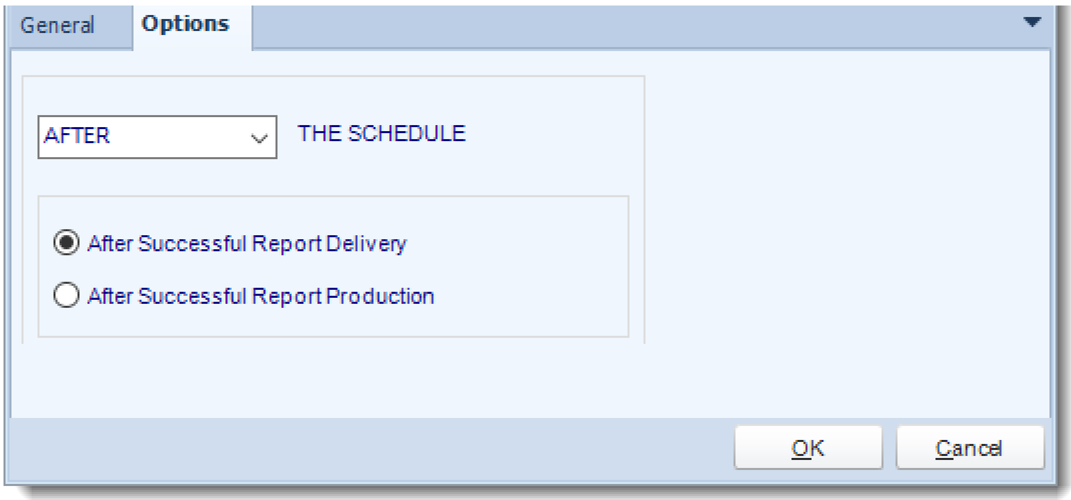
- **Blank Space:** Free type any additional information about the meeting here. You can use inserts to help compose the meeting request.
- **Reminder:** Set a meeting reminder.
- **Importance:** set an importance level to the meeting if required.
- **Files:** Attach any files required for the meeting here, this may be reports etc.

Exchange Details



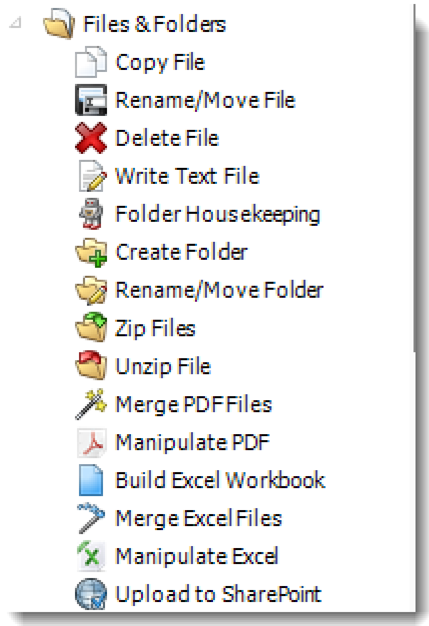
- You have the option to use the same email address as the one who is connected to the CRD.

Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

File & Folders

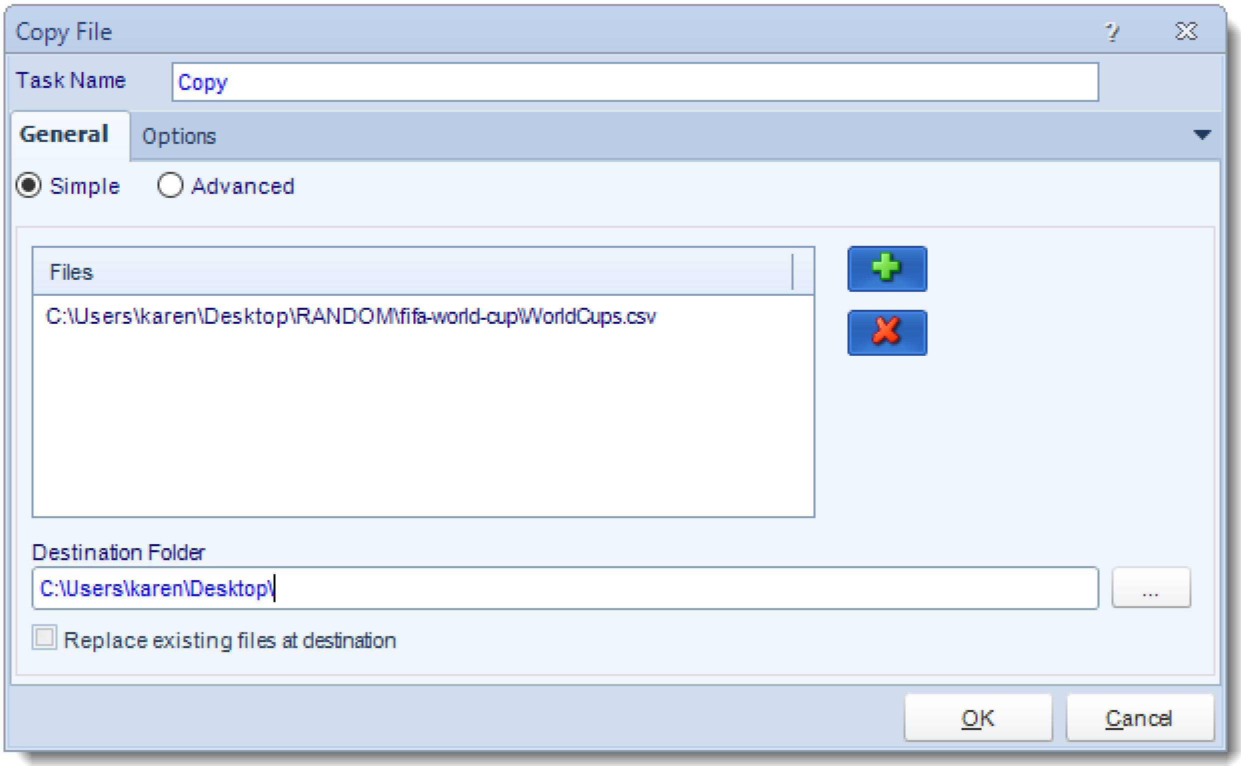


- With these tasks you can automatically move and delete files, merge PDF or Excel files, even upload files to SharePoint.

Copy File

General

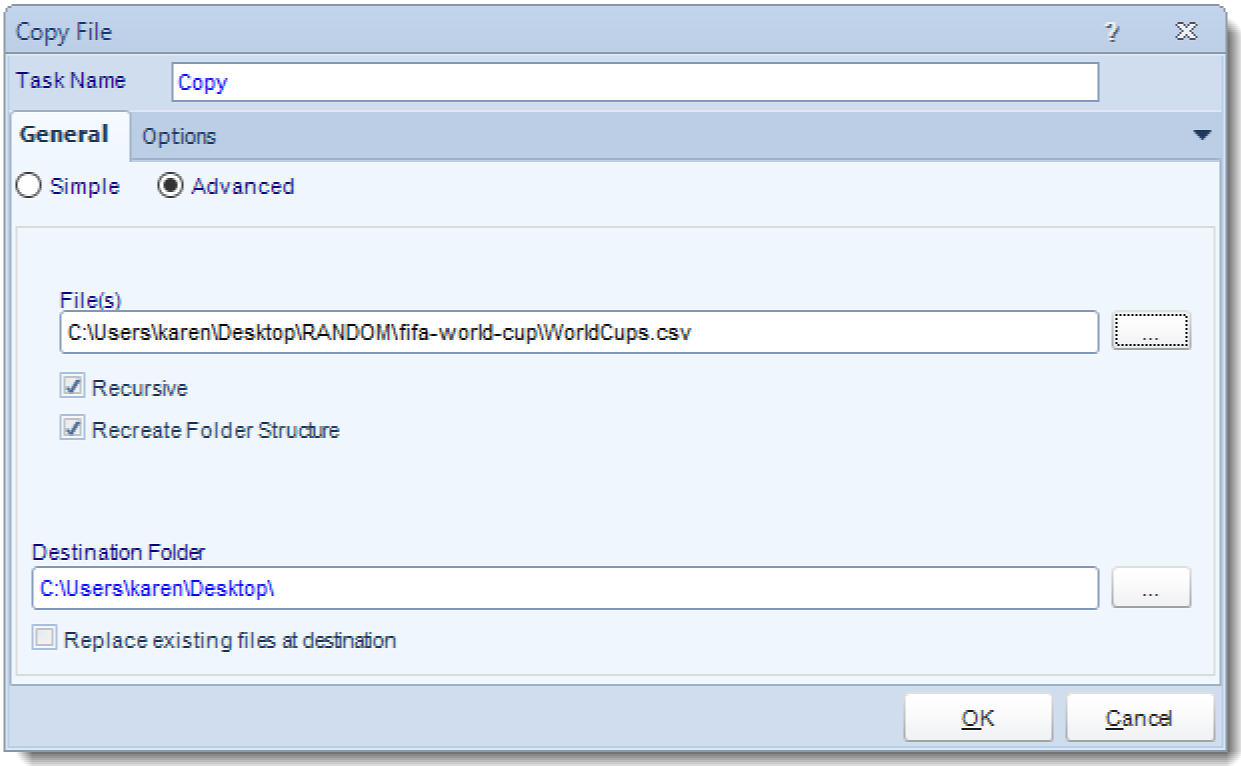
Use this task to copy one or more files from one location to another.



- **Task Name:** Enter a name for the task.
- **Files:** Click **(+)** to browse and select files.
- **Destination Folder:** Browse to select the destination folder.

  Tip: You can use Insert Menu *to dynamically choose the destination folder.*

- **Replace existing files at destination:** Check this option if the file being copied is to replace an existing file at the specified destination.

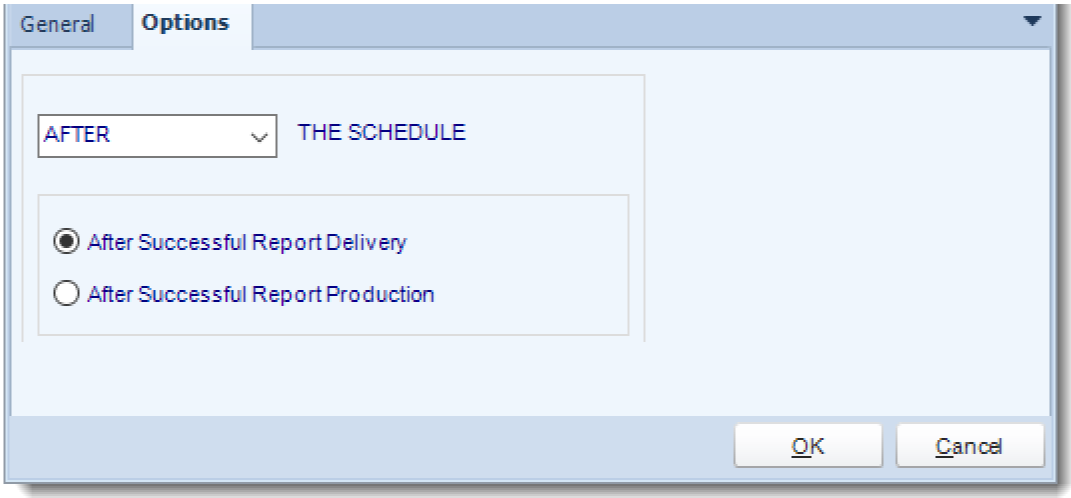


- **Task Name:** Enter a name for the task.
- **Files:** Use **(…)** to browse and select files.
- **Recursive:** Copy all folder and/or documents in that path.
- **Recreate Folder Structure:** Recreate the folder structure.
- **Destination Folder:** Browse to select the destination folder.

  Tip: You can use Insert Menu *to dynamically choose the destination folder.*

- **Replace existing files at destination:** Check this option if the file being copied is to replace an existing file at the specified destination.

Options

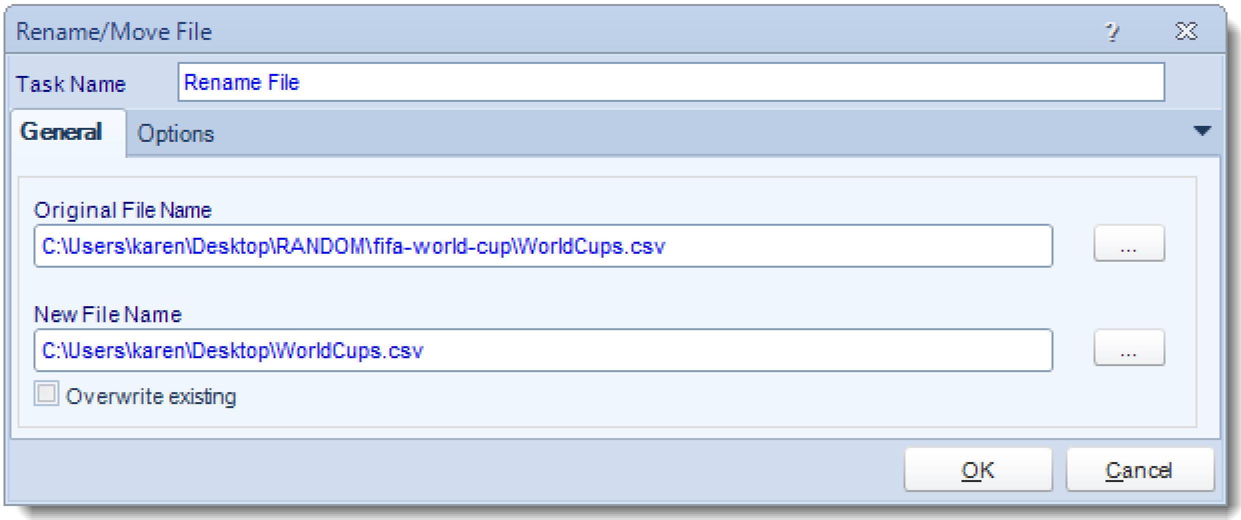


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Rename/Move File

General

Use this task to move a file. Keep the old name, or rename it by simply typing in a new name. Check to overwrite existing.

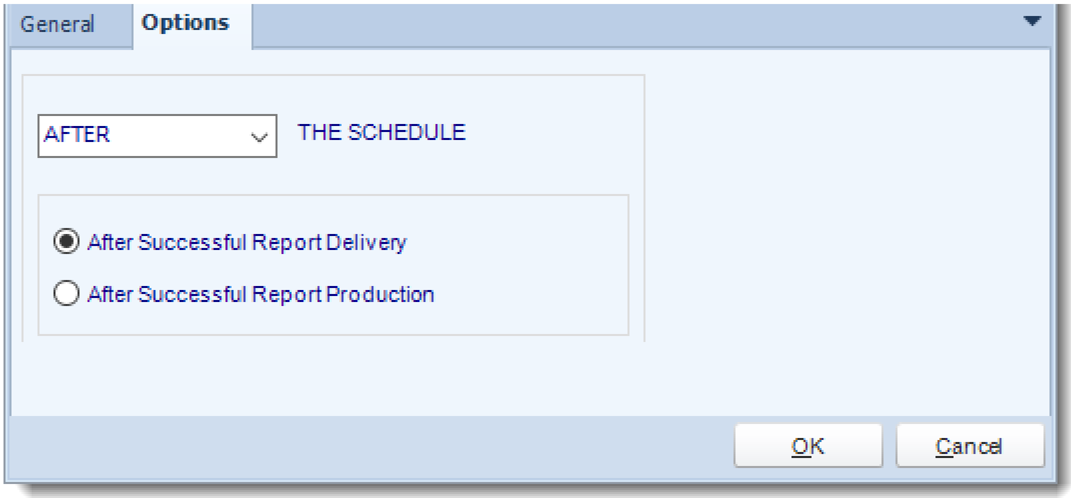


- **Task Name:** Give the task a name
- **Original File Name:** Use **(…)** to browse to the file that needs to be moved or renamed
- **New File Name:** Use **(…)** to navigate to the location where the new file will be moved to. Here is where you would also enter the new name for the file.

  Tip: Use Insert Menu to rename the file or navigate to a folder destination

- **Overwrite Existing:** Check this option if the new file is going to overwrite an existing file at the specified location.

Options

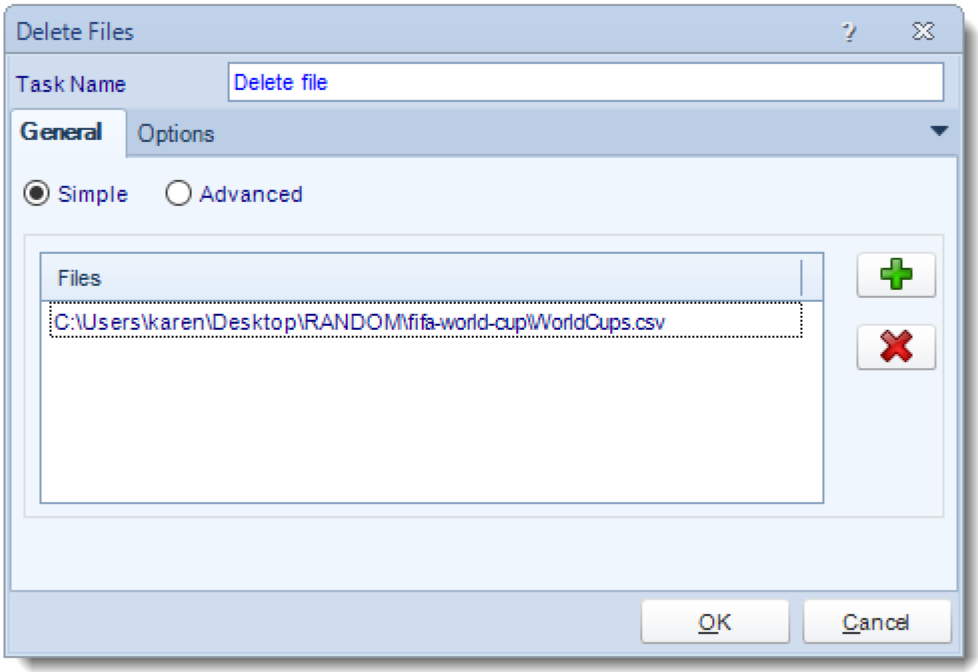


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Delete Files

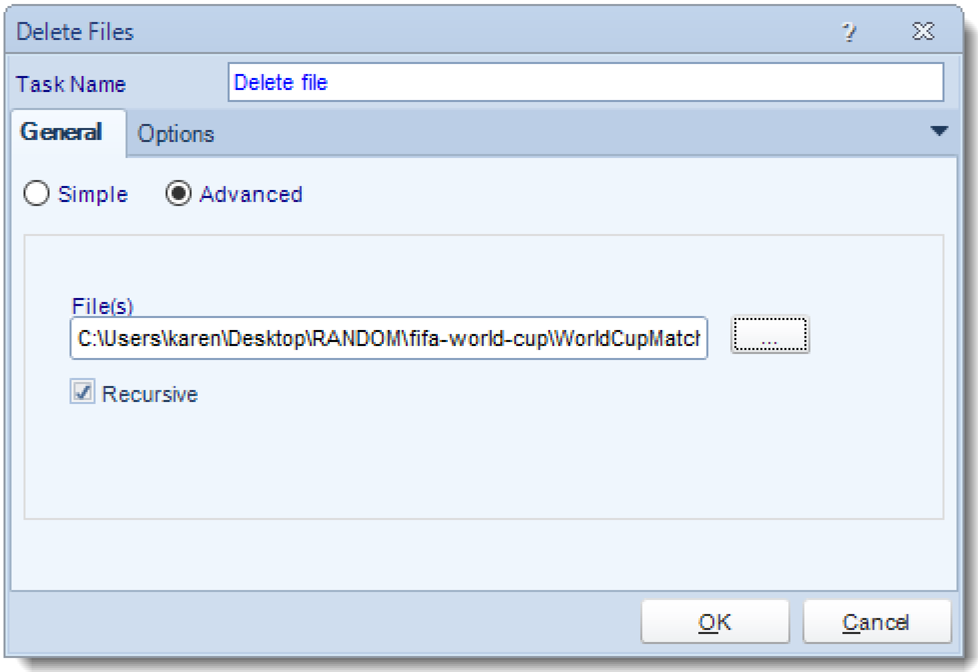
General

Use this task to delete old files. This may be used as an alternative to folder housekeeping.



- **Task Name:** Give the task a name.
- **Files:** Use **(+)** button to navigate to the required file.

  Tip: You can use Insert Menu *for the file name if required.*

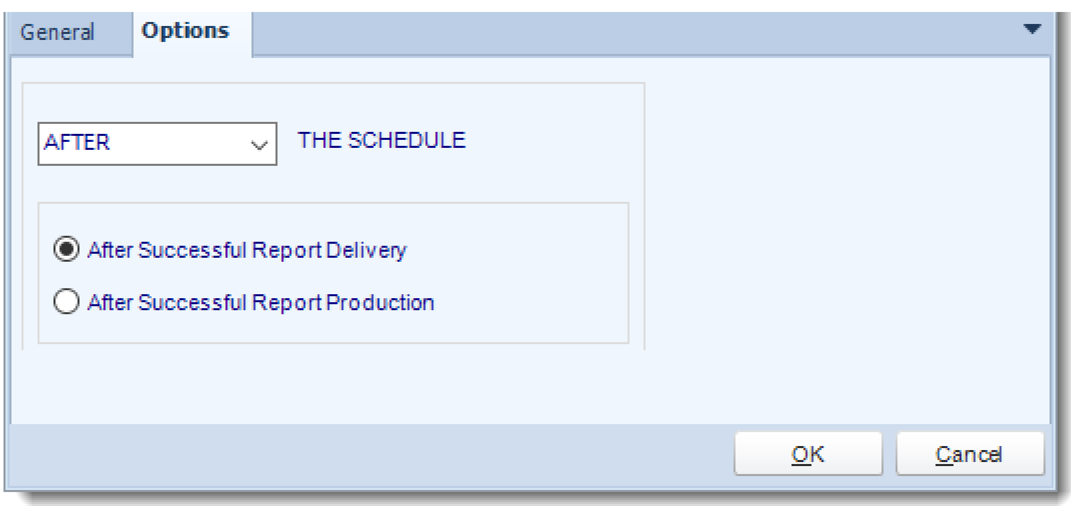


- **Task Name:** Give the task a name.
- **Files:** Use (**+**) button to navigate to the required file.

  Tip: You can use Insert Menu for the file name if required.

- **Recursive:** Delete all folder and/or documents in that path.

Options

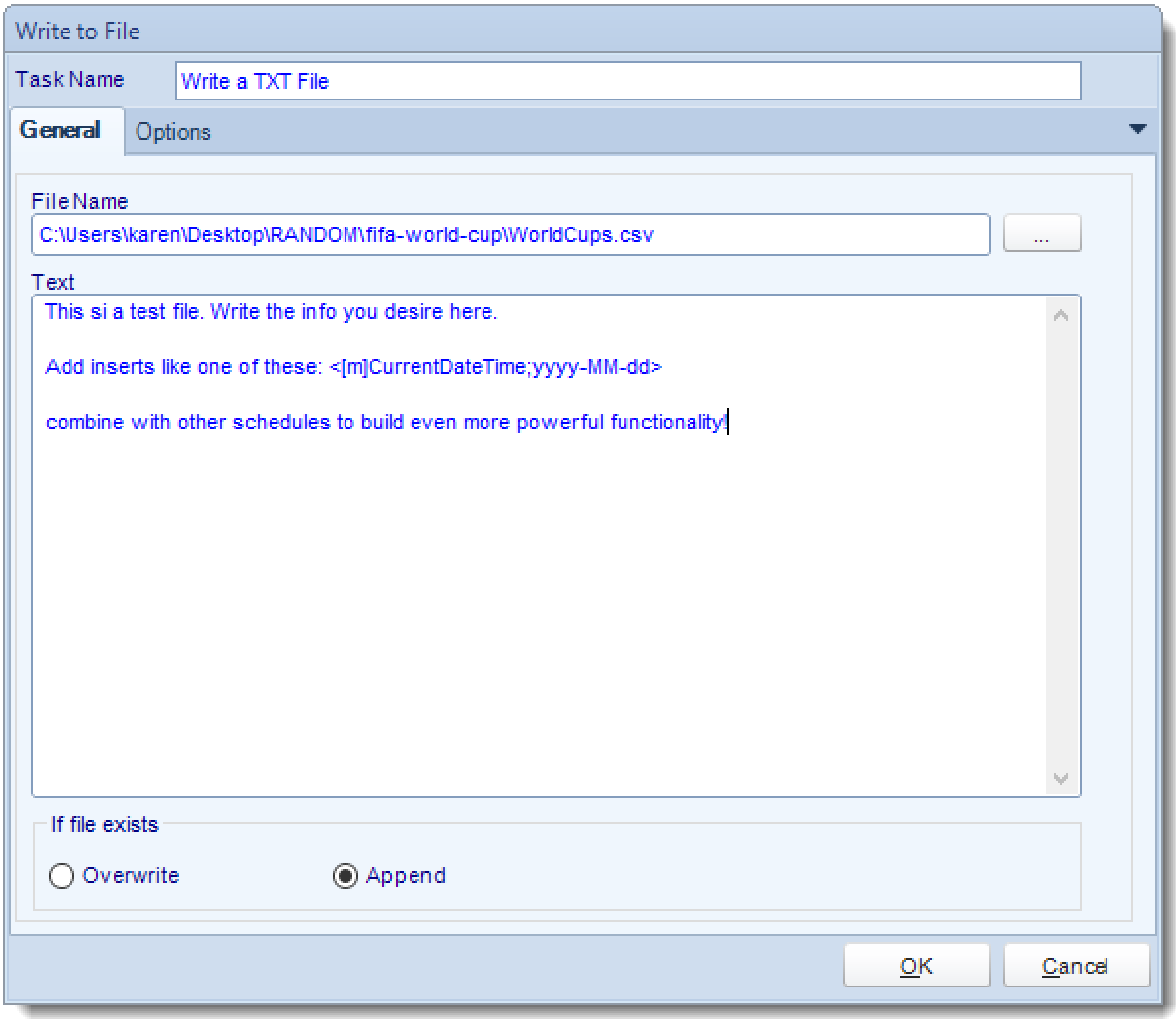


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Write Text File

General

Use this task to create or write to existing text files, or append information and create your own log file.



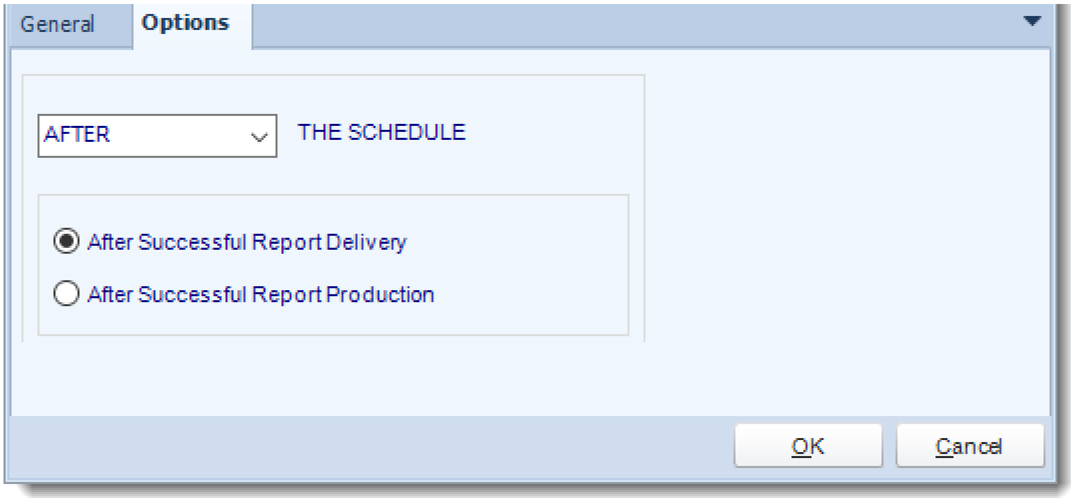
- **Task Name:** Give the task a name.
- **File Name:** Use **(…)** button to navigate to the file that is going to be written to.
- **Text:** Create the text that you want to write to the desired file.

  Tip: Use Insert Menu *to insert constants or database values.*

- If the File exists…
  - **Overwrite:** If this option is selected then the desired file will be overwritten with the text file and content above.

- **Append:** Select this option to add the text to an existing file.

Options

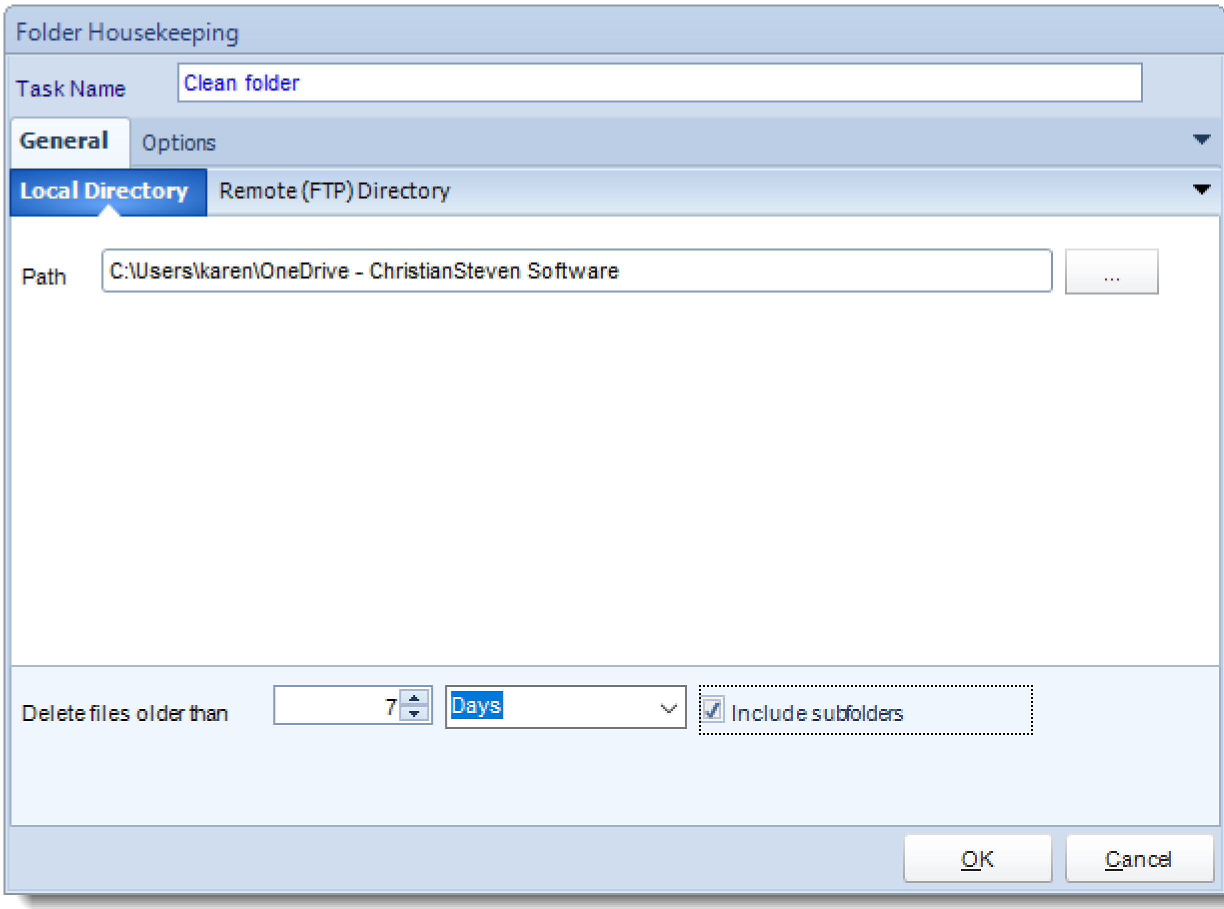


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

General

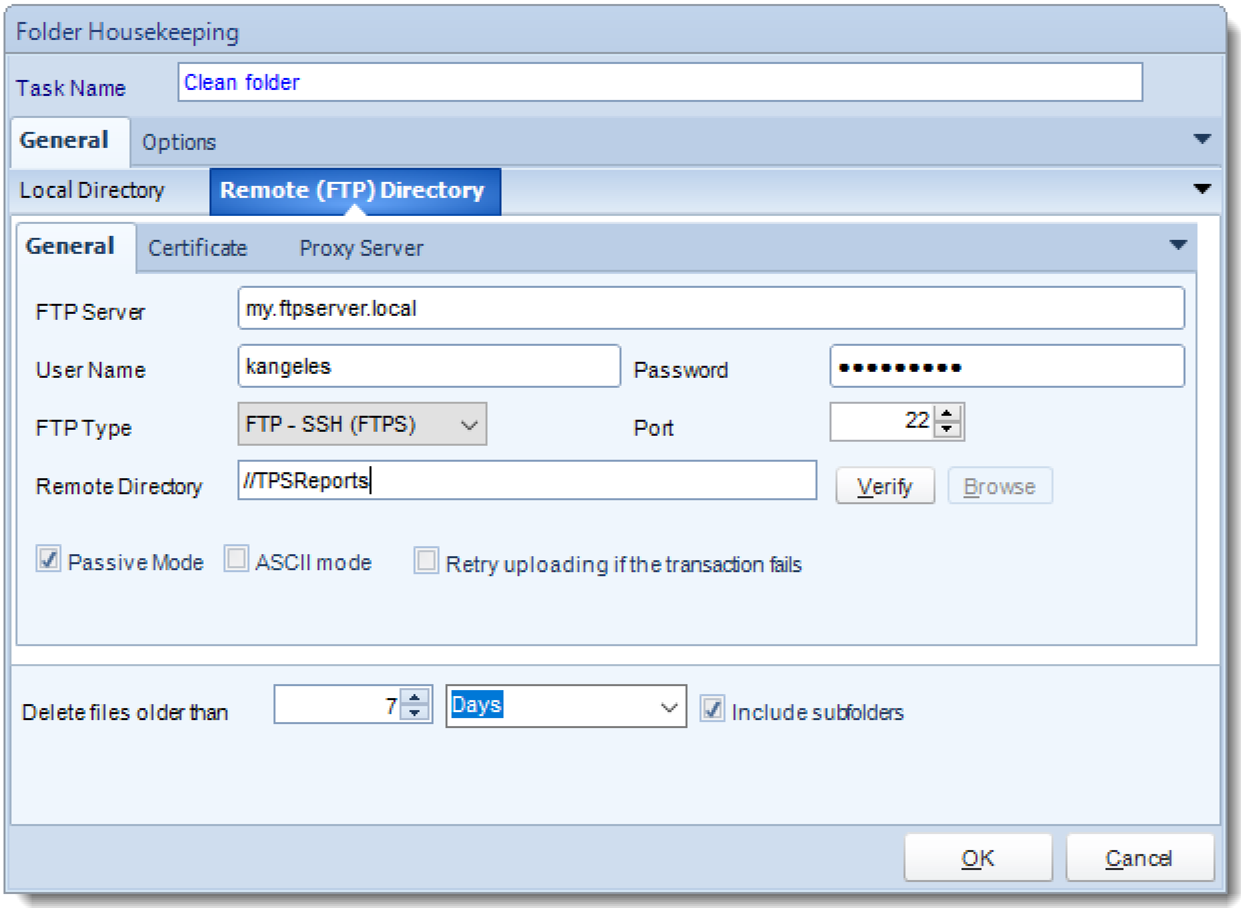
Local Directory

- Use this task to regularly clear our folders. Sometimes folders used for report outputs can get very large.

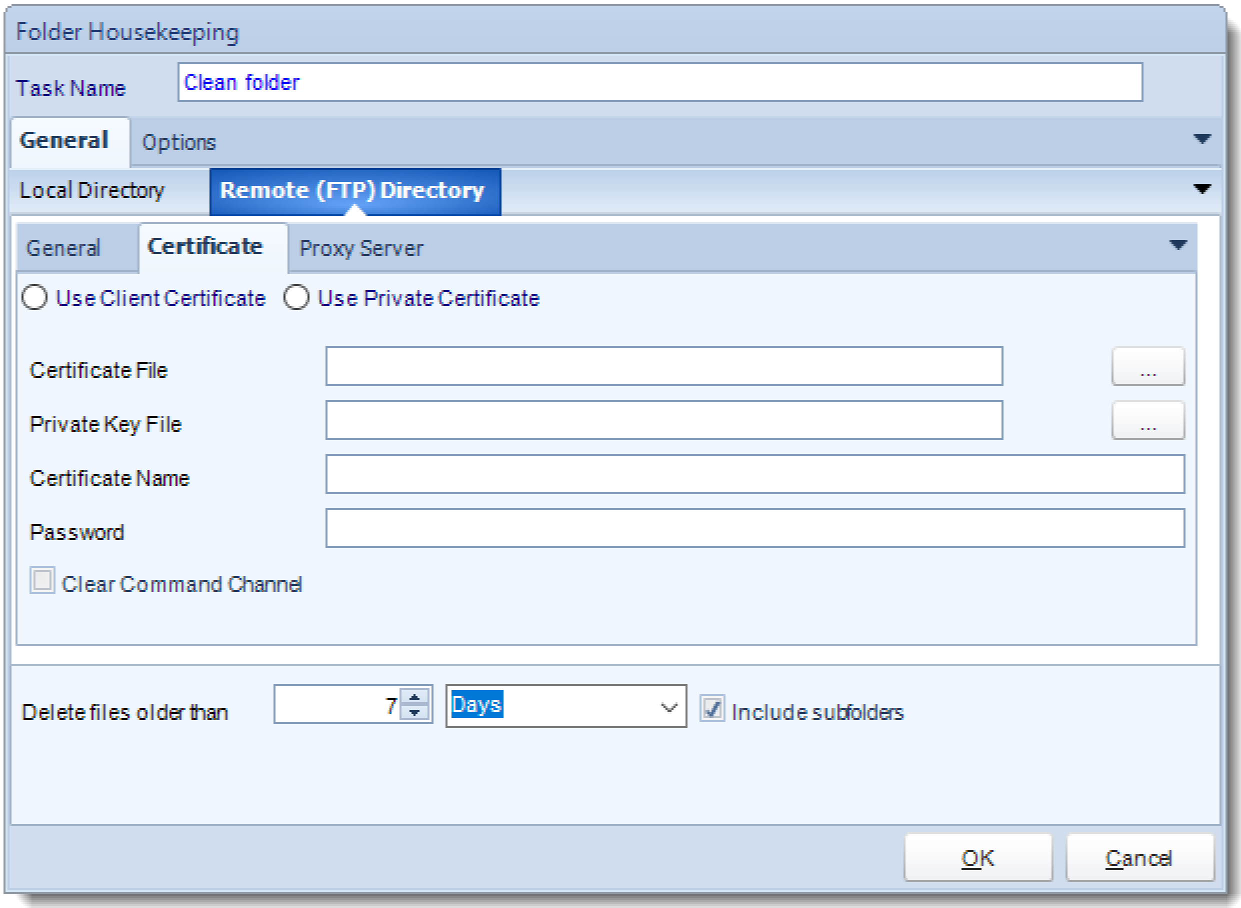


- **Task Name:** Give the task a name.
- **Local Directory:** Use **(…)** to navigate to the folder containing the files that need to be purged.
- **Delete files older than:** Select the desire file life span that will be deleted.
- **Include Subfolders**: Clean any subfolders that contain files older than the specified amount of time.

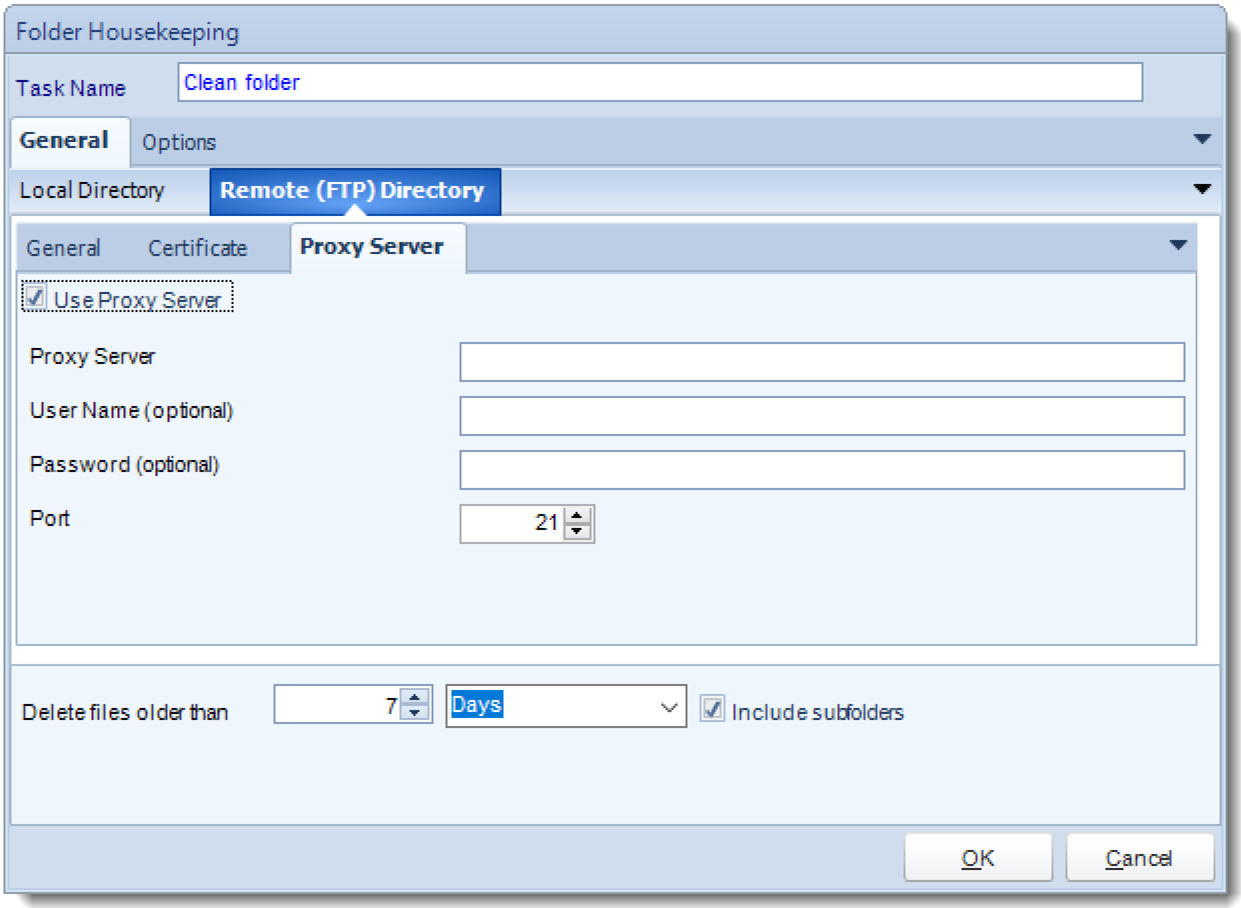
Remote (FTP) Directory



- **Task Name:** Give the task a name.
- **FTP Server:** Enter your FTP Server details and authentication credentials.
- **Remote Directory:** Browse or enter the folder path for the directory that will be purged.
- **Delete files older than**: Select the desire file life span that will be deleted.
- **Include Subfolders:** Clean any subfolders that contain files older than the specified amount of time.

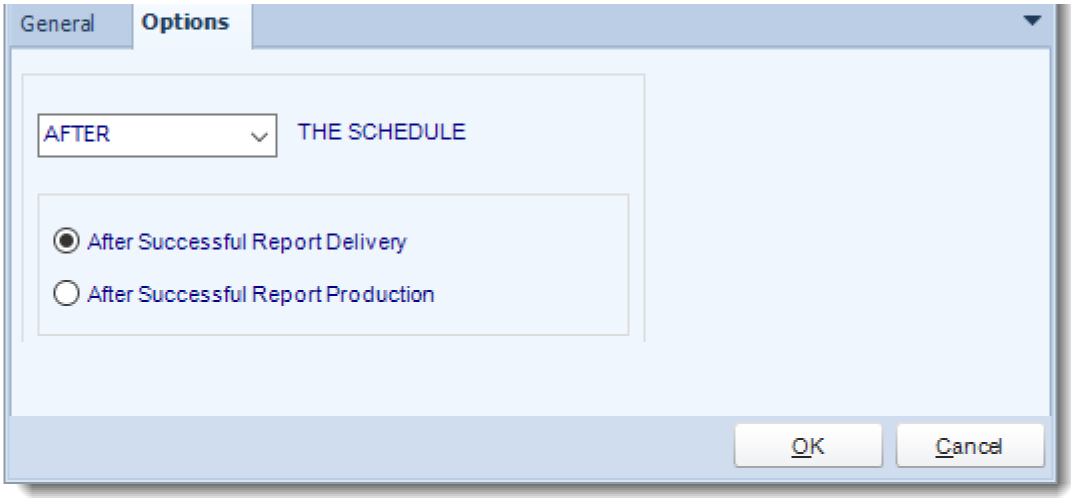


- You can set Certificate Settings where applicable.



- You can also set Proxy Server details where required. Please make sure to contact you Network Administrator to verify if these are needed.
- For more on Folder Housekeeping, click here.

Options

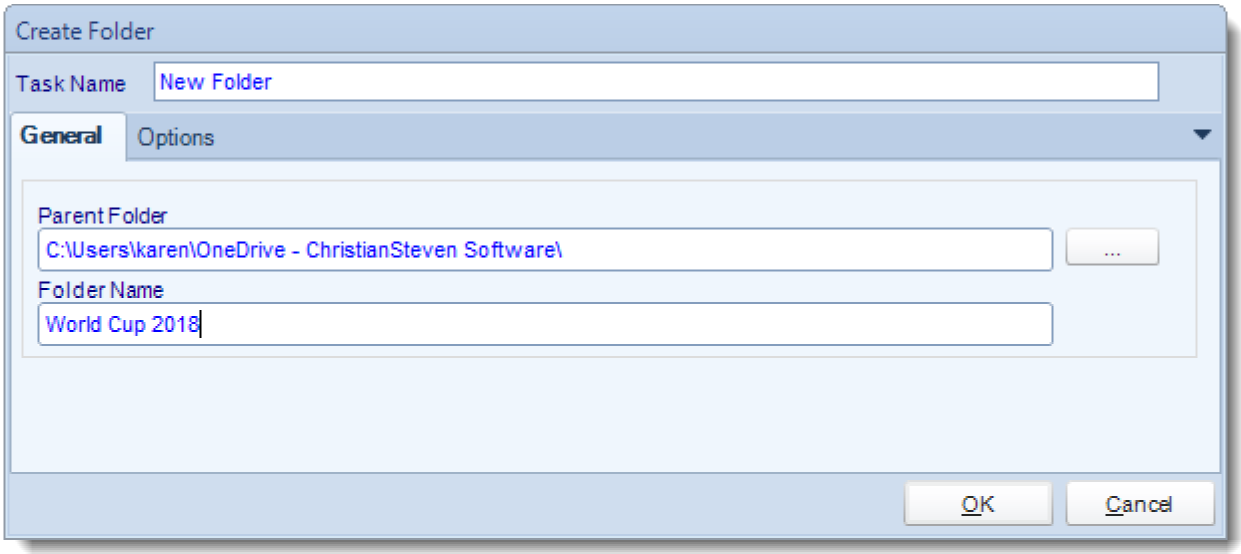


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Create Folder

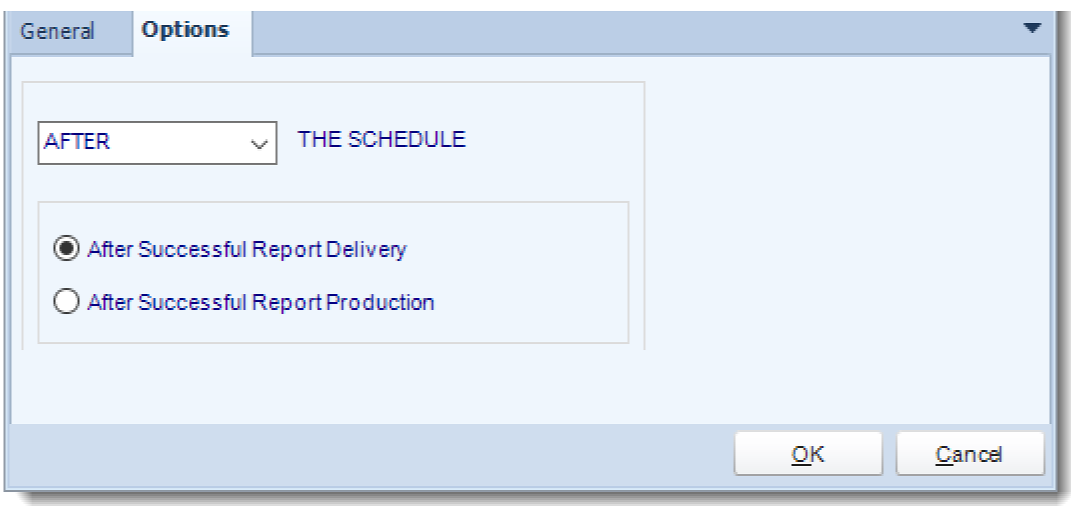
General

Use this task to create a new folder. Simply browse for the parent folder, and then tell CRD what the new folder name should be.



- **Task Name:** Give the task a name.
- **Parent Folder:** Use **(…)** button to browse to the parent folder.
- **Folder Name:** Enter the name of the new folder that will be created.

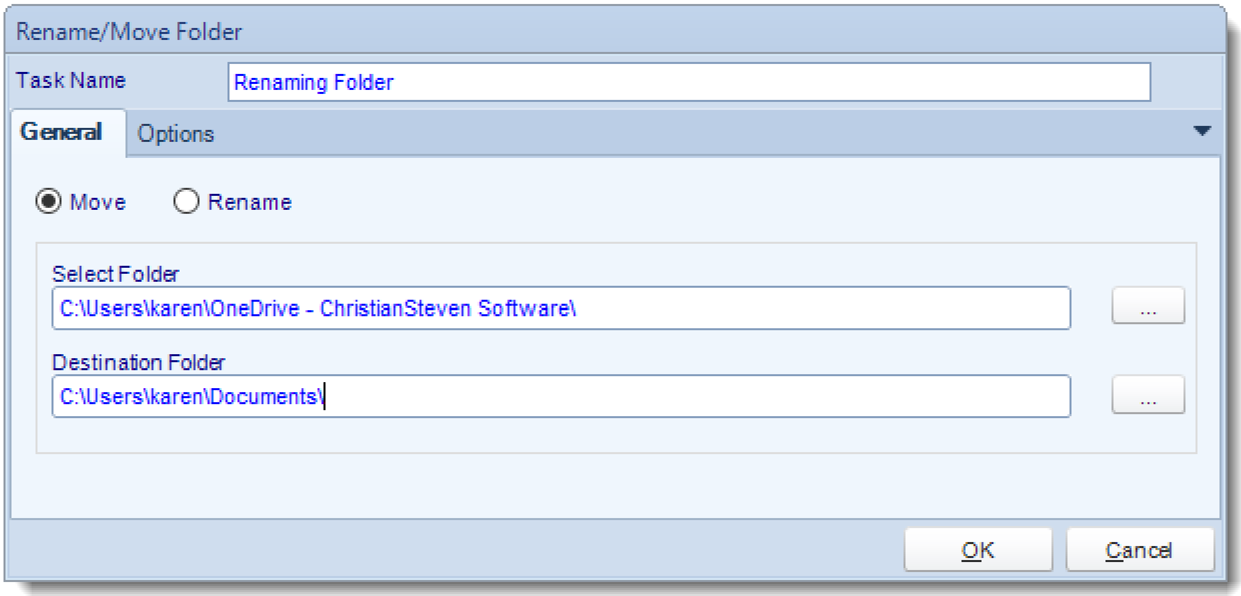
Options

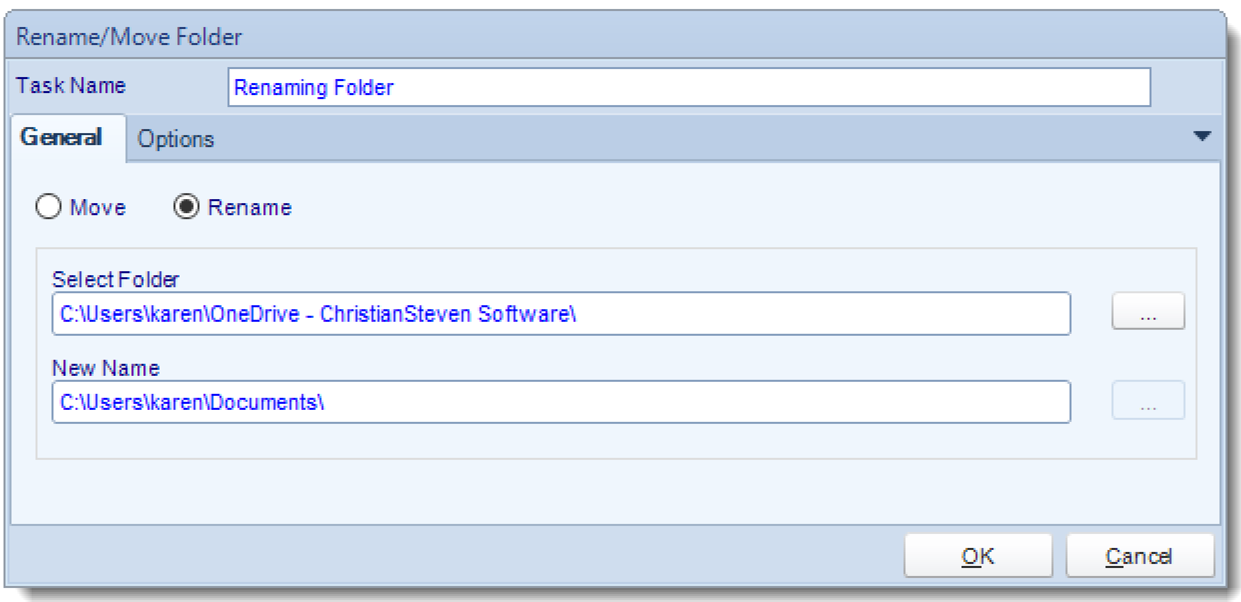


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Rename/Move Folder

General

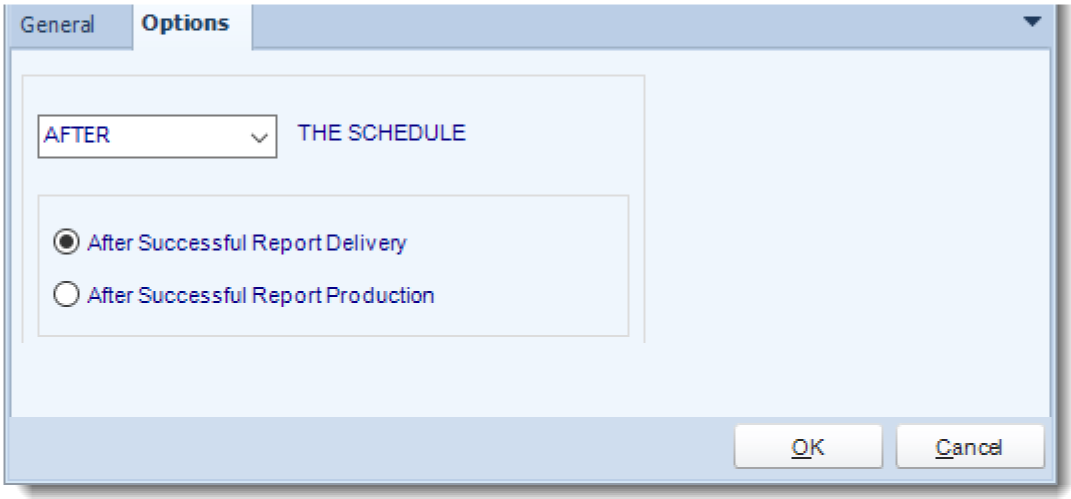




- **Task Name:** Give the task a name.
- **Move:** Click this option to move the folder.
- **Rename:** Click this option to rename a folder.

- **Select Folder:** Use **(…)** button to browse to the folder you want to move.
- **Destination Folder:** Use **(…)** button to browse to the location of the new folder.
- **New Name:** Type the new name for the folder.

Options



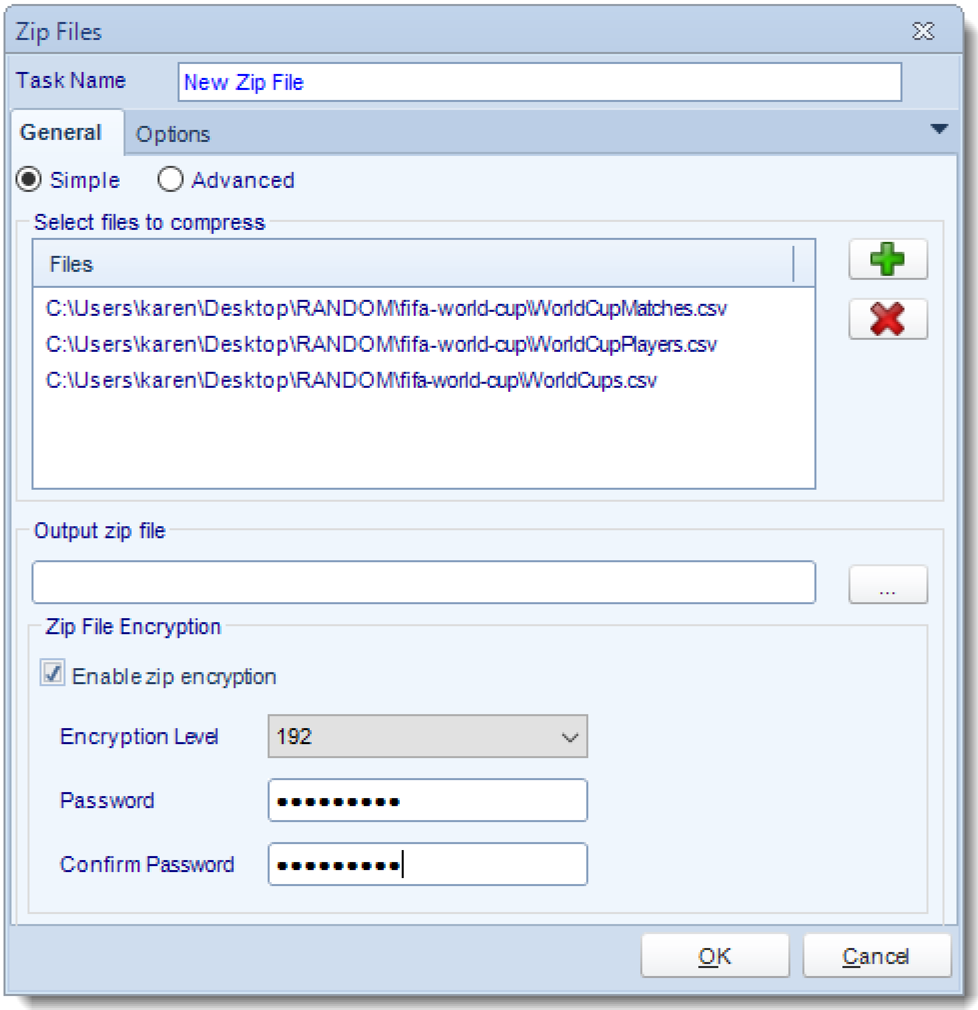
- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Zip Files

General

Simple

Use this option if you need to zip single files from multiple locations.



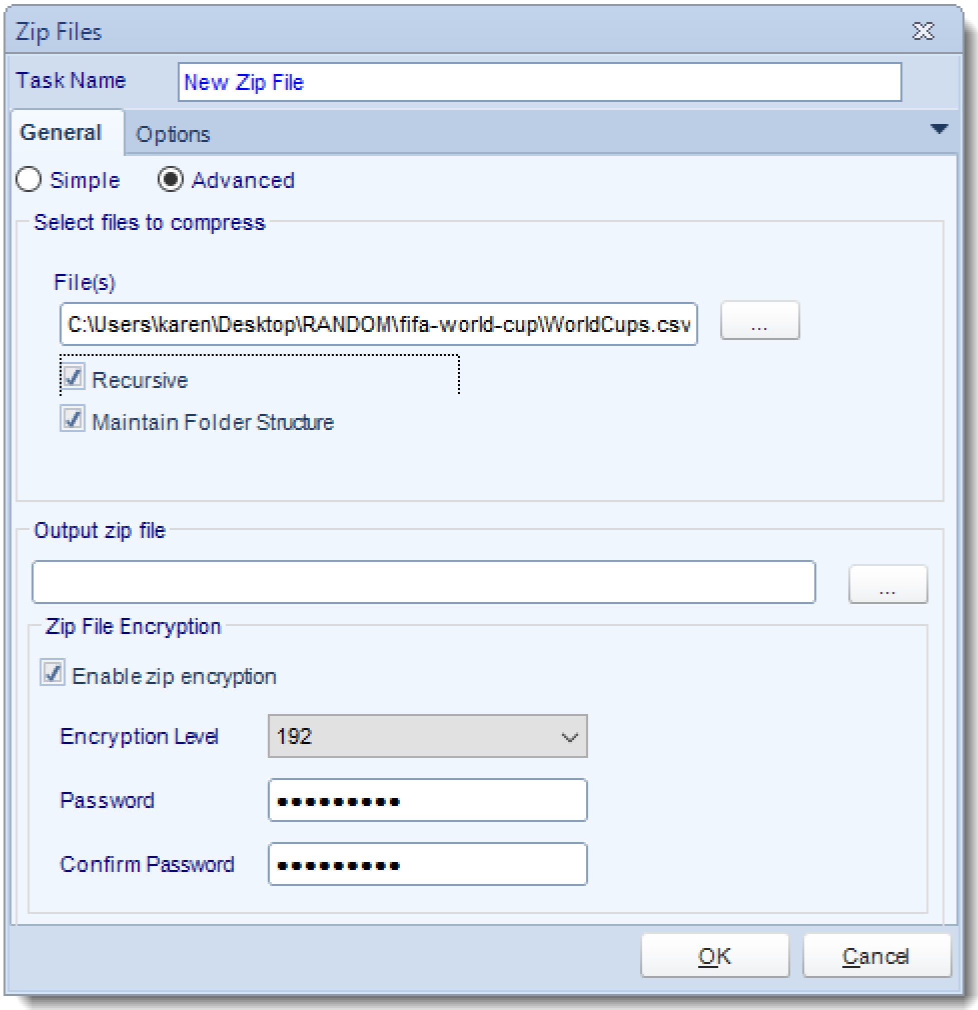
- **Task Name:** Give the task a name.
- **Files:** Use **(+)** button to select the required files. You can either select a file or specify a path including wildcards e.g. *.* to select all files.
- **Output Zip File:** Give the outputted zip file a name.

  Tip: Use Insert Menu *in the file name*

- **Zip File Encryption:** Enter the desired Encryption details.

Advanced

Use this option if you need to zip files in the same folder.

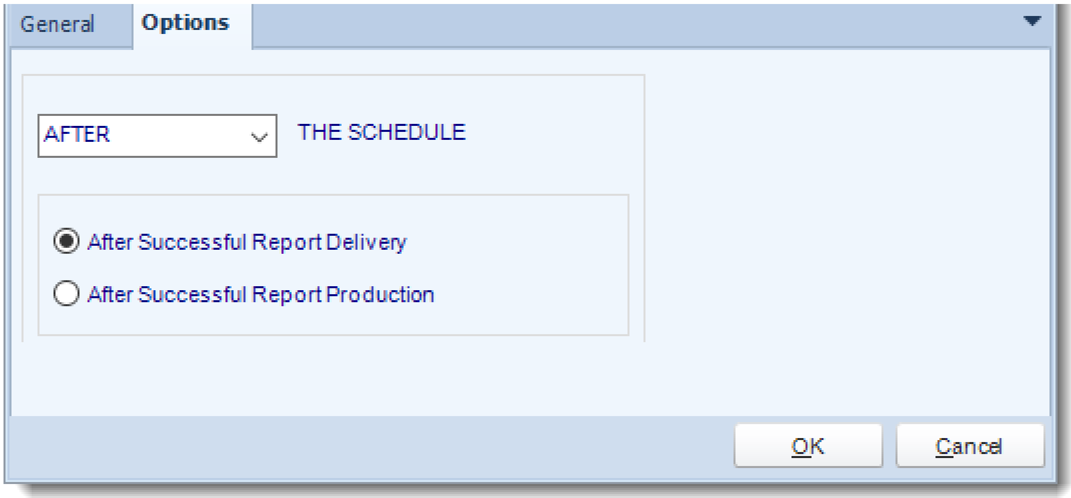


- **Task Name:** Give the task a name.
- **Files:** Use **(+)** button to select the required files. You can either select a file or specify a path including wildcards e.g. *.* to select all files.
- **Recursive**: This will search the folder and all sub folders.
- **Maintain Folder Structure:** Select this to ensure files of the same name are not overwritten and have the folder structure maintained. This is useful when using wildcards.
- **Output Zip File:** Give the outputted zip file a name.

  Tip: Use Insert Menu *in the file name.*

- **Zip File Encryption:** Enter the desired Encryption details.

Options

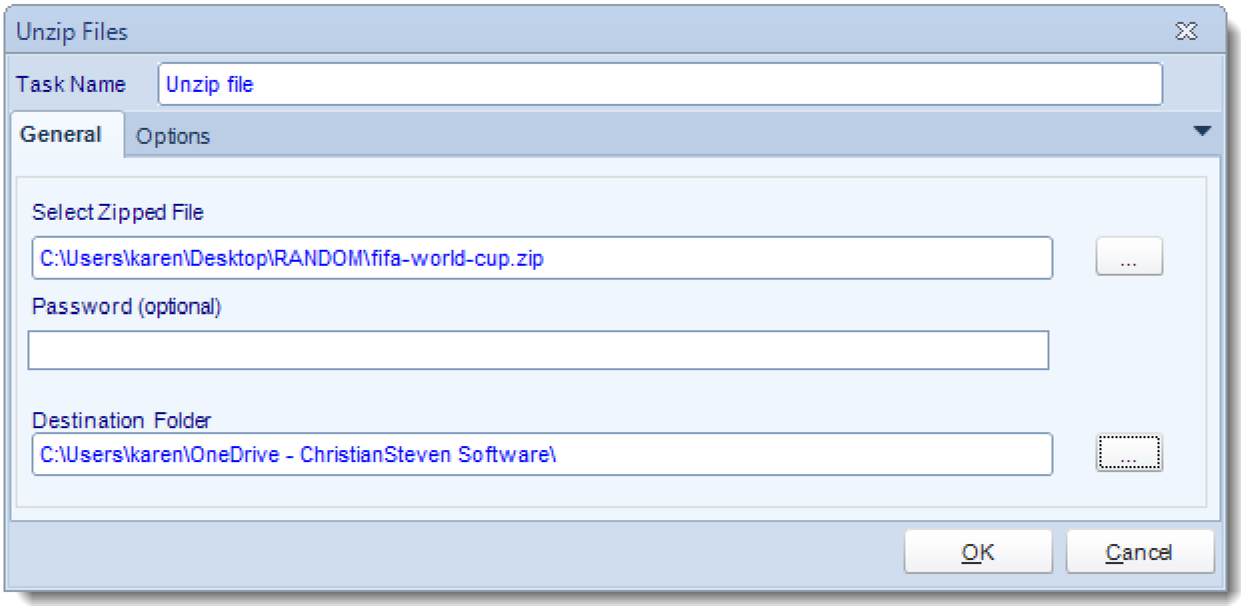


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Unzip File

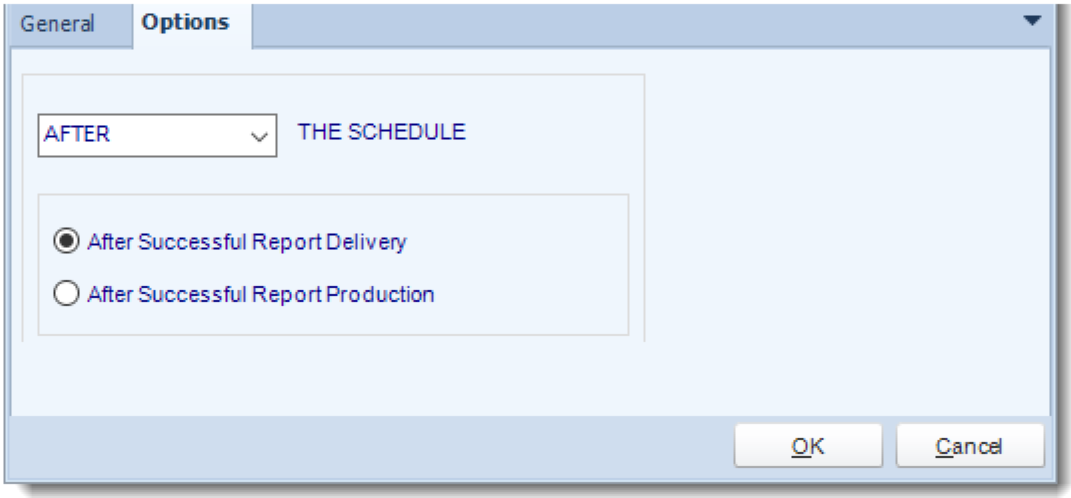
General

Use this task to unzip a selected zip file to a specified folder.



- **Task Name:** Give the task a name.
- **Select Zipped File:** Use **(…)** button to select the required zip file that is to be extracted out.
- **Password:** If your file requires a password enter it here. If your .zip file requires a password, you can enter the password into the Password field.
- **Destination Folder:** Use **(…)** button to navigate to the required folder where the extracted files will be stored.

Options

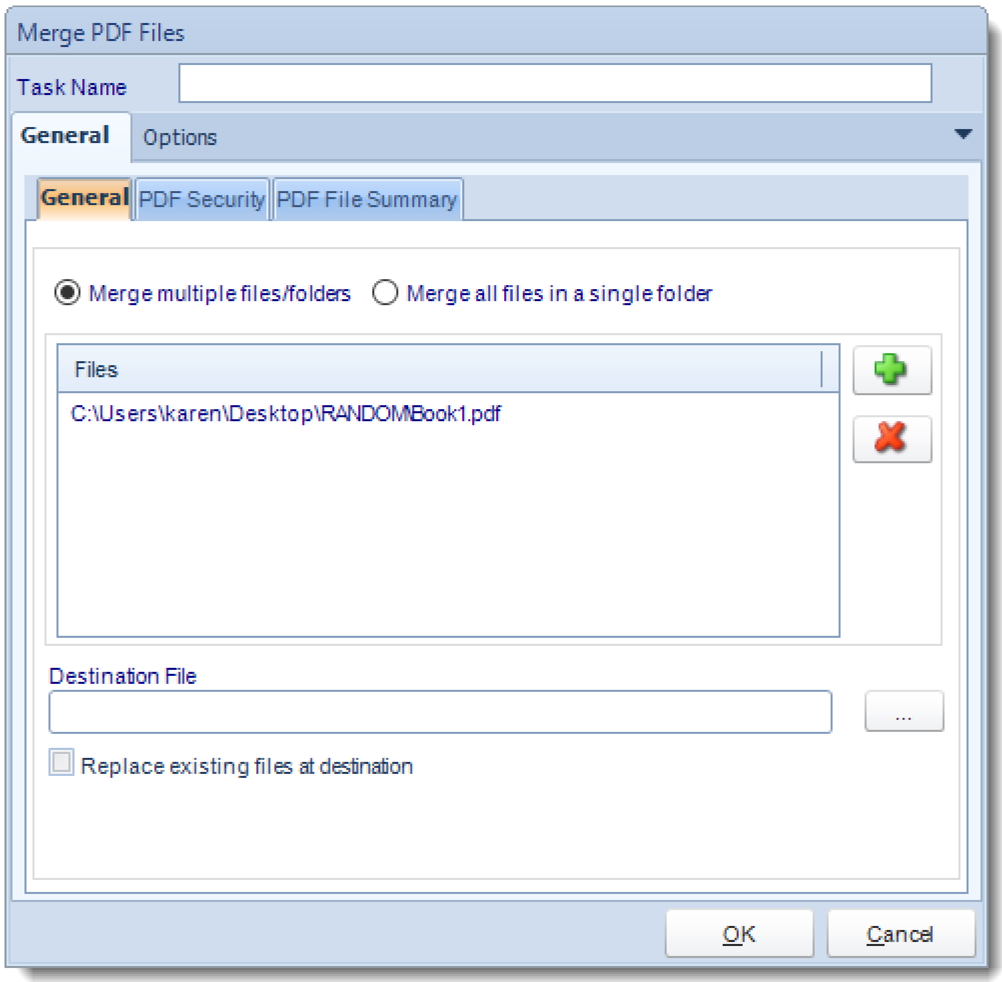


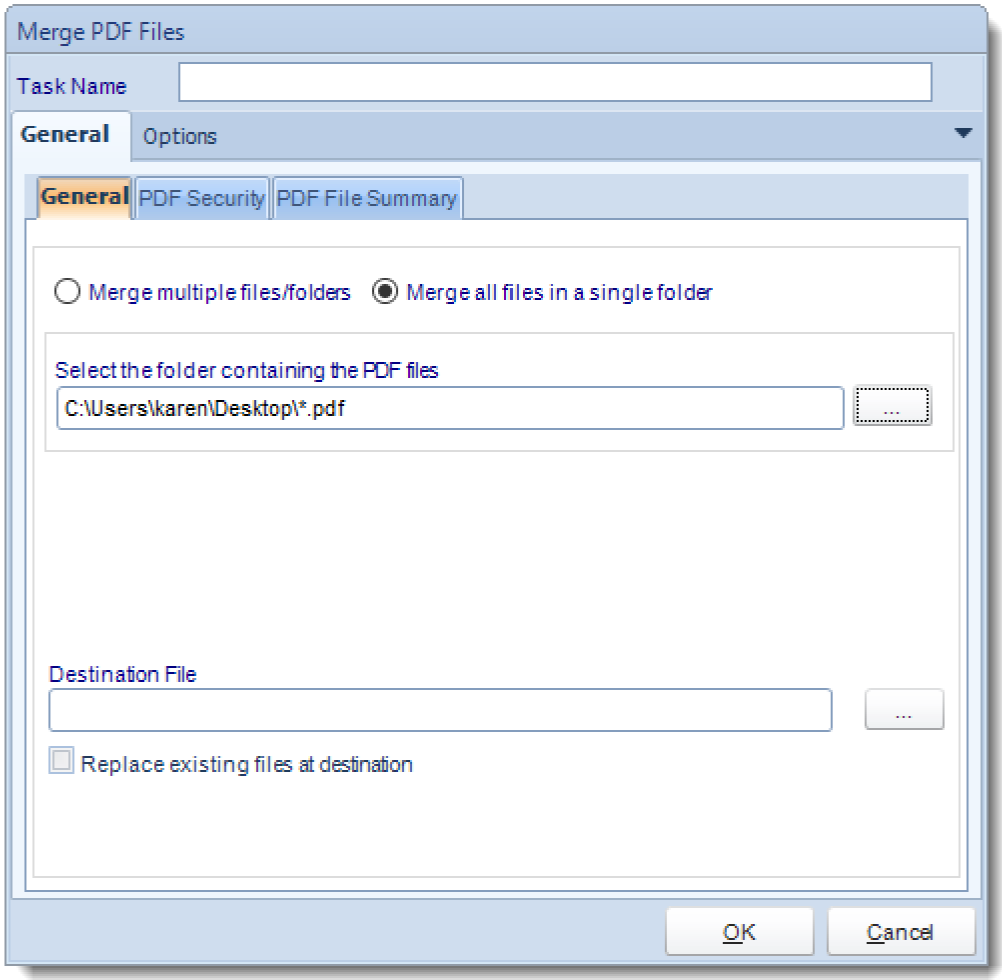
- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Merge PDF Files

General

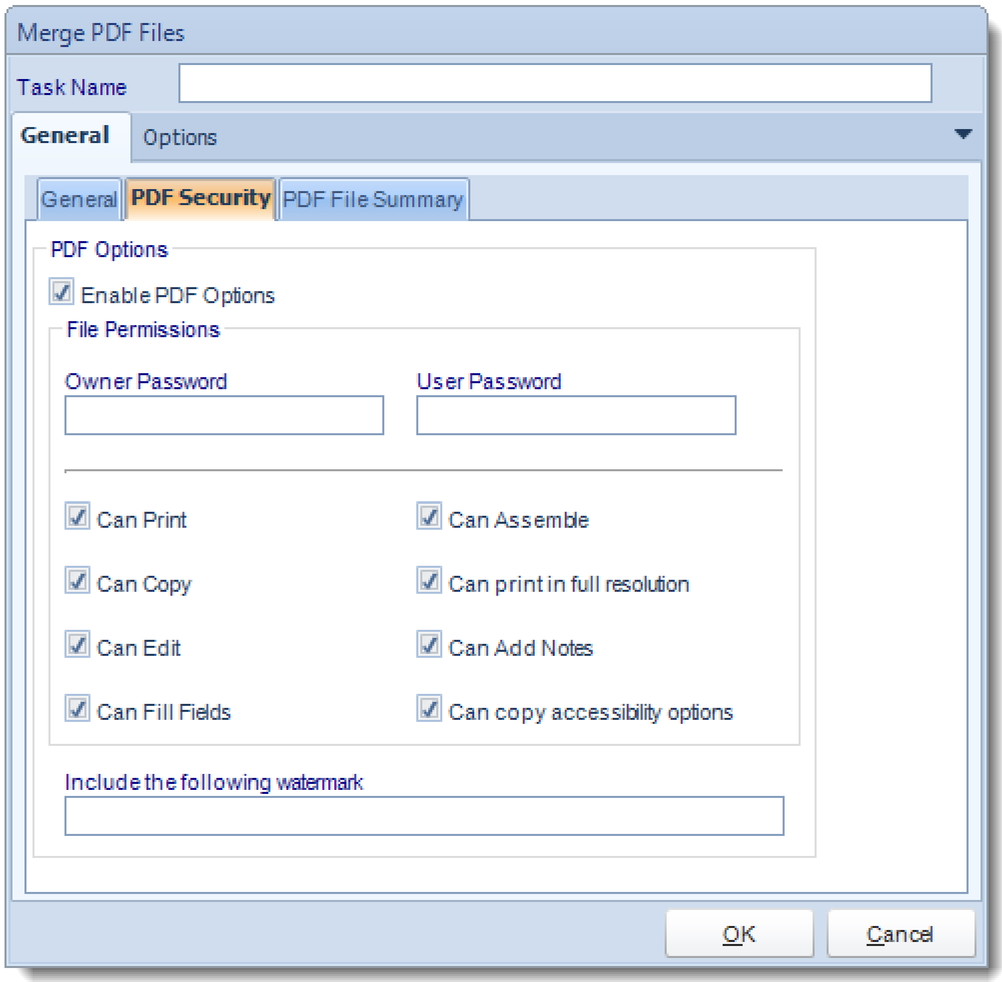
Use this task to merge PDF files. You can select individual PDF files or a folder containing multiple PDF files.





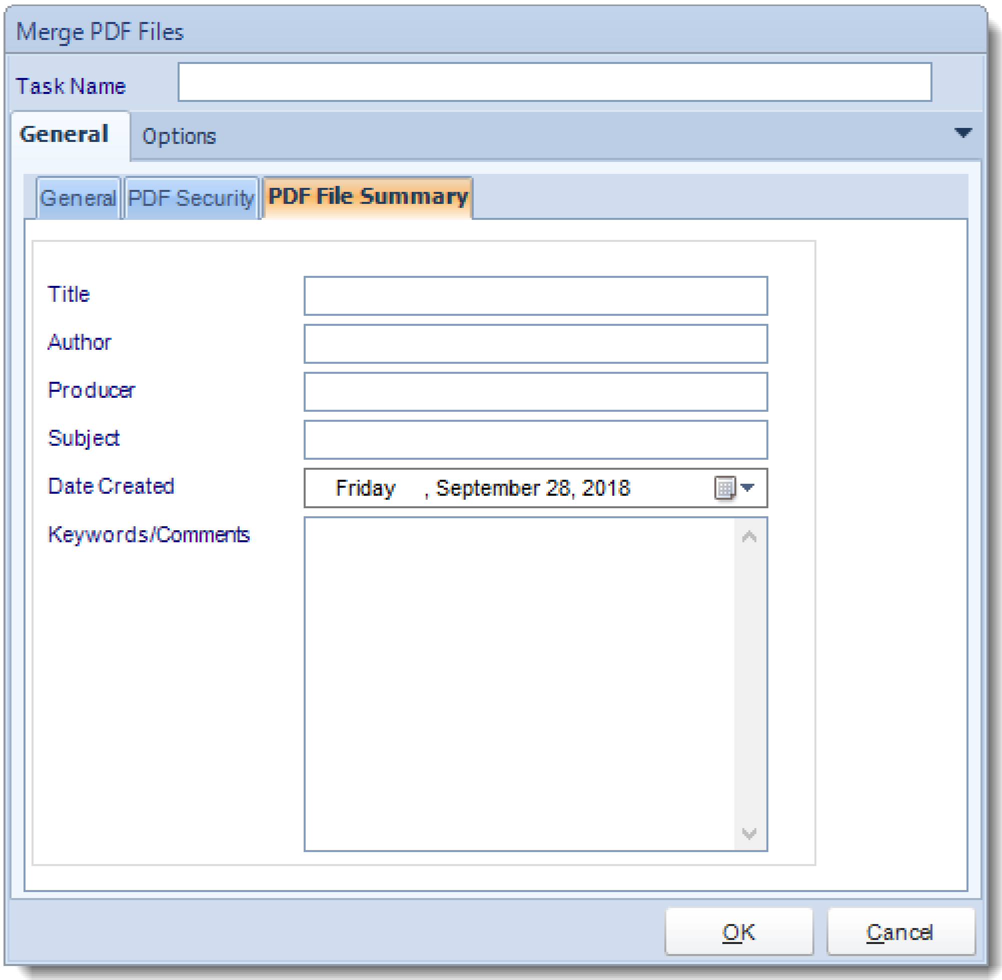
- **Task Name:** Give the task a name.
- **Merge Multiple Files/Folders:** Select this option to merge files located in different folders.
- **Merge all files in a single folder:** Use this option to merge all files stored in the same folder.
- **Destination File:** Select a destination file that the merged file will be saved to.
- **Replace existing files at destination:** Check this option will delete any existing files at the specified location and replace them with these ones.

PDF Security



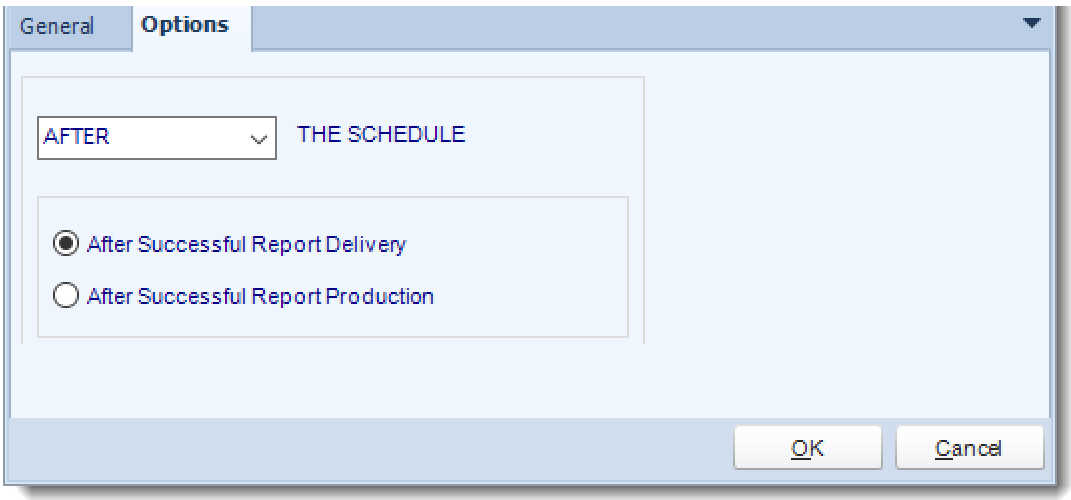
- **Enable PDF Options:** Check this option to be able to set Passwords and user permissions.
- **Include the following watermark:** Type the required watermark here, for example: confidential.

PDF File Summary



- **PDF File Summary:** Any information written here will overwrite the existing file summary

Options

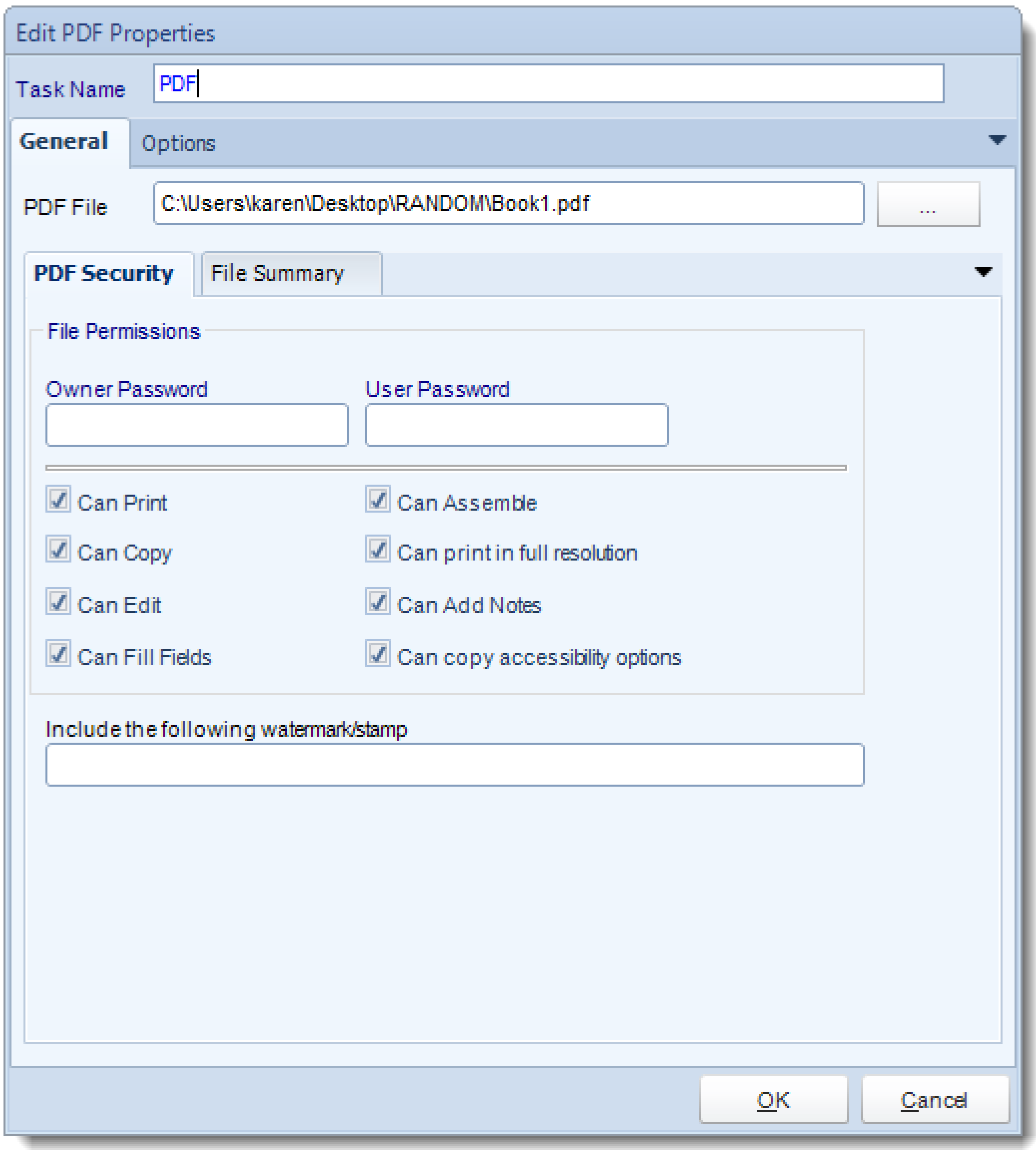


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

General

Use this task to change the PDF Security and File Summary of a PDF file.

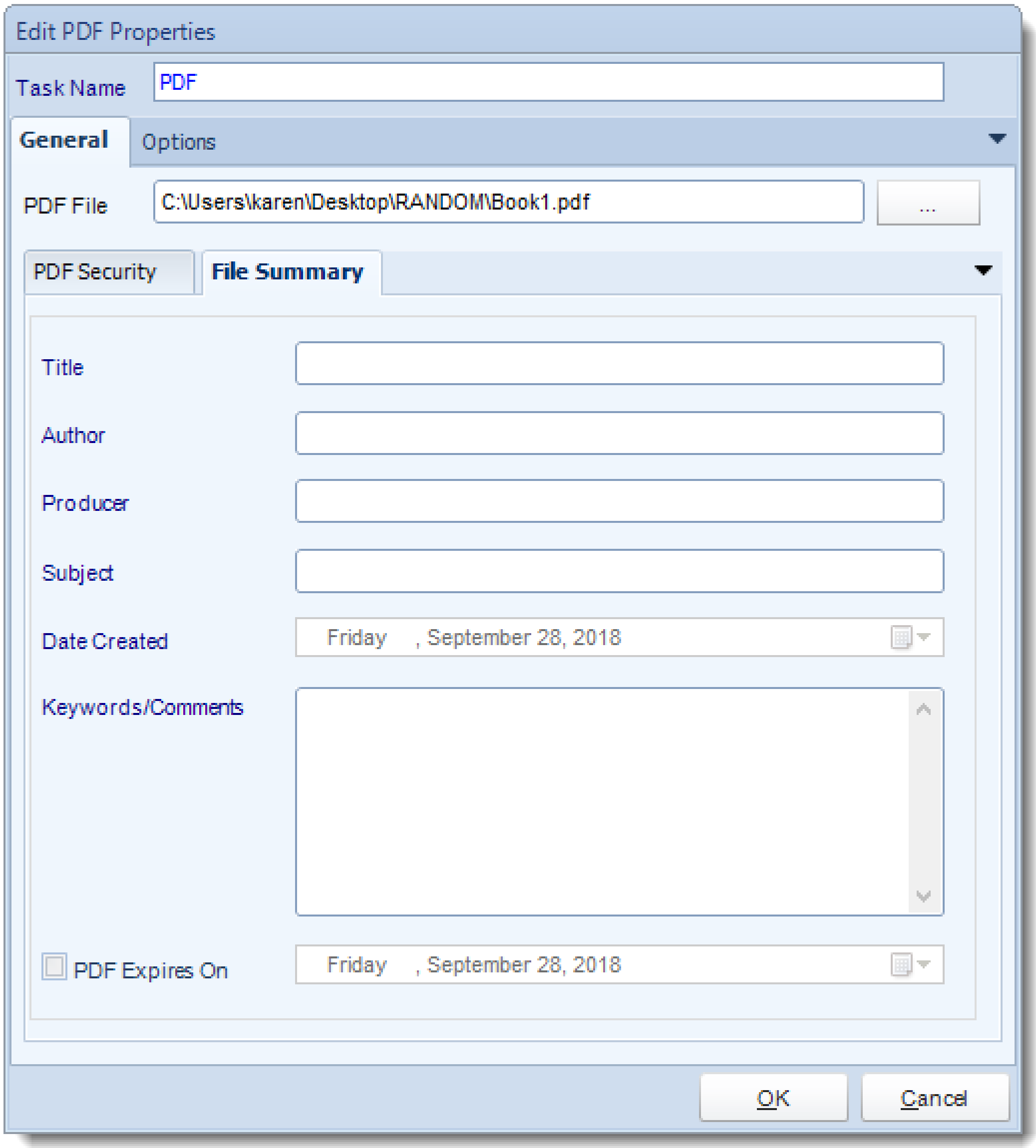
PDF Security



- **Task Name:** Give the task a name.
- **PDF File:** Use **(…)** button to browse to the PDF file that you want to manipulate.
- **Enable PDF Options:** Check this option to be able to set Passwords and user permissions.

- **Include the following watermark:** Type the required watermark here, for example: confidential.

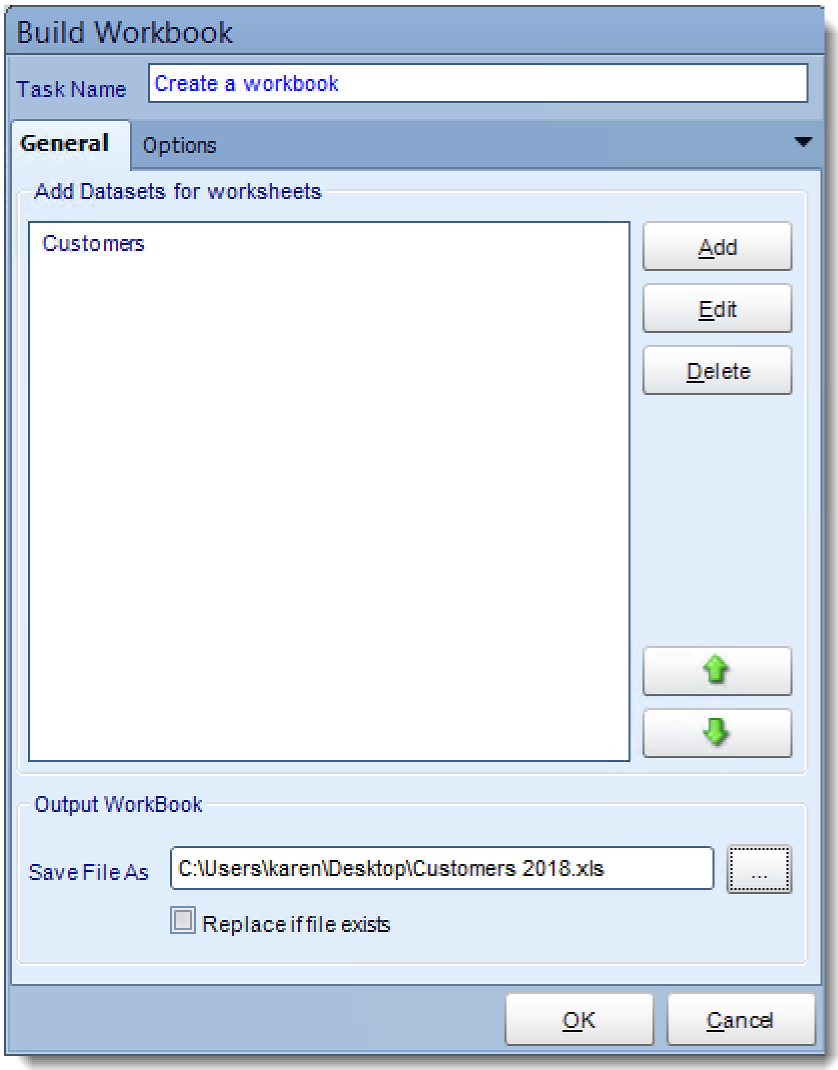
File Summary



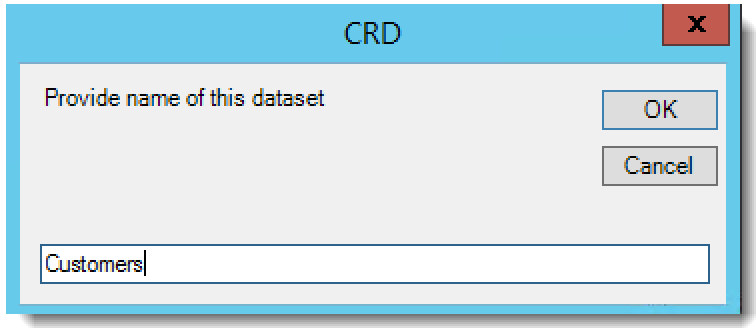
- **PDF File Summary:** Any information written here will overwrite the existing file summary.

Build Excel Workbook

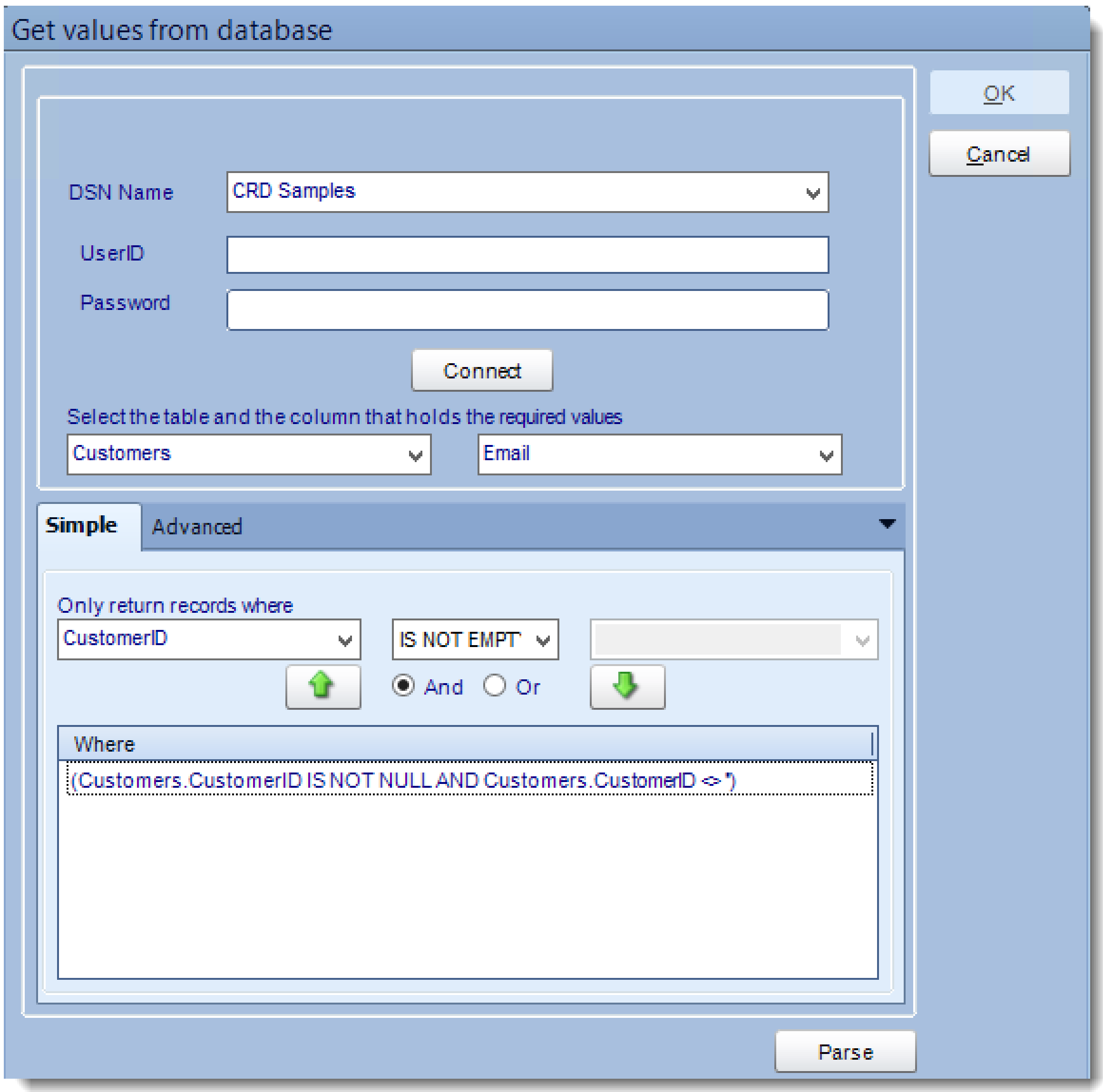
General



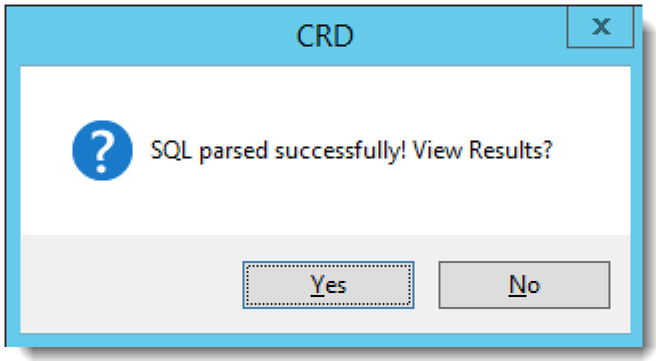
- **Task Name:** Give the task a name.
- **Save File As:** Use **(…)** button to navigate to the folder where the workbook will be stored.
- **Replace if File exists:** Check this option if this workbook is going to be replacing one that already exists.
- **Edit:** Edit a Data set for a workbook.
- **Delete:** Deletes a data set from the workbook.
- **Add a Database:**
  - Click **Add.**



- Click **OK.**
- Name the Data set.

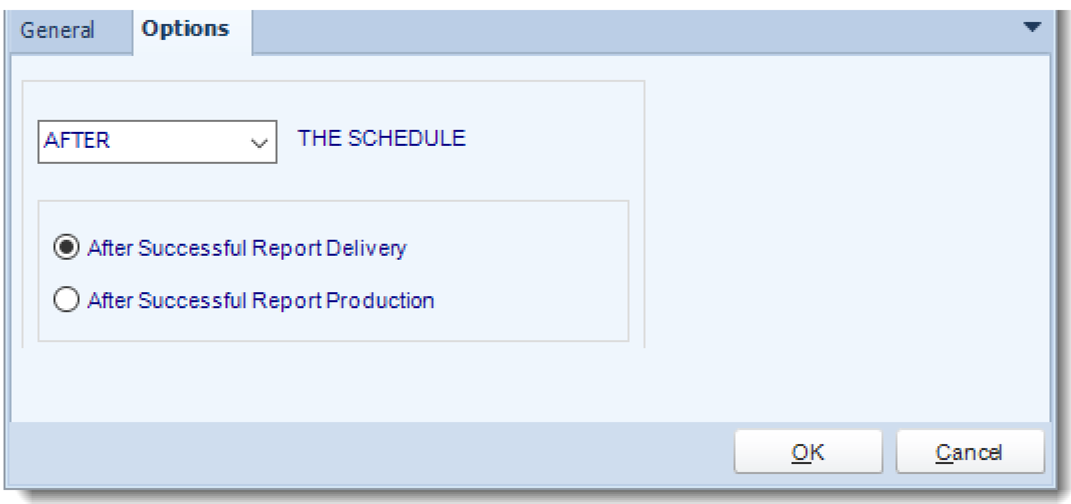


- Use the Query Tool to pull the data from your data source.
- Click **Parse** to review your query results.



- Click **Yes**.
- Continue to add data sets until you have completed your workbook.

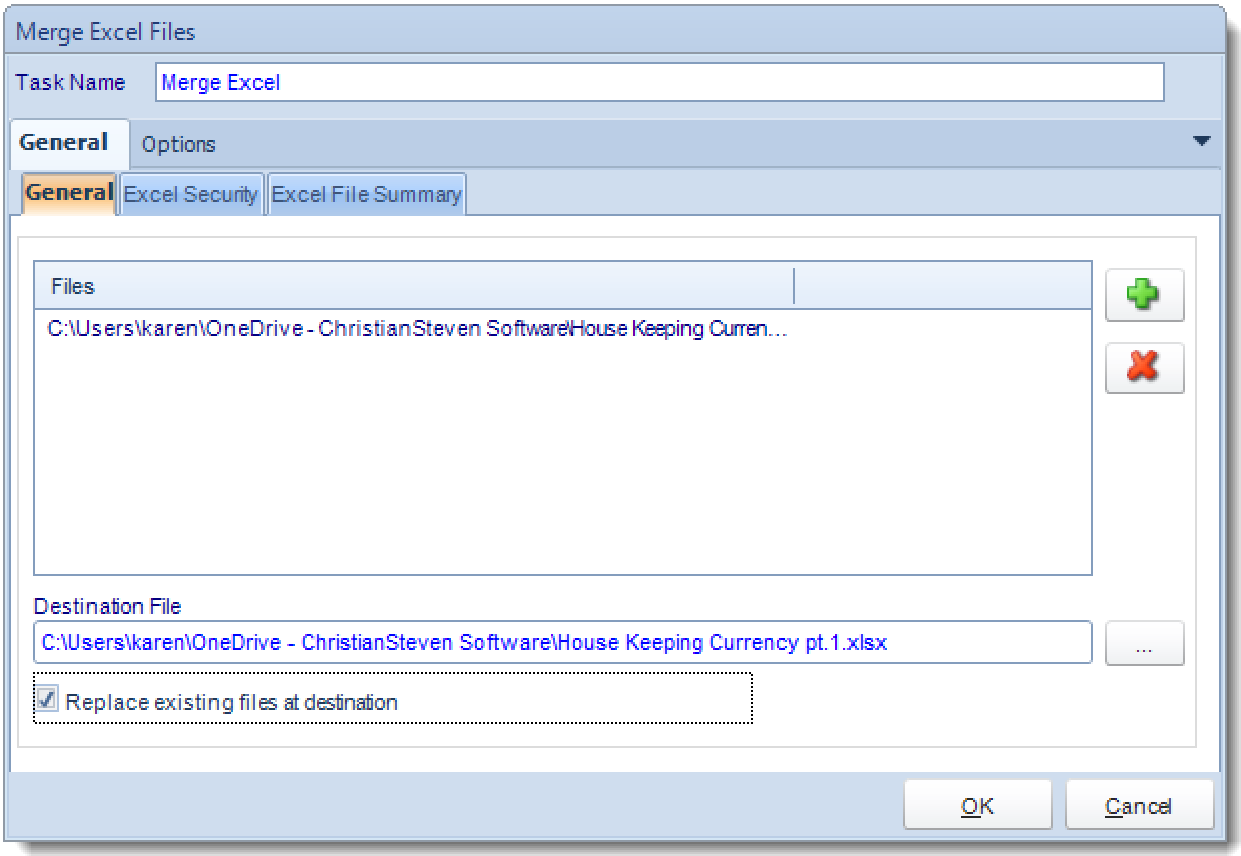
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Merge Excel Files

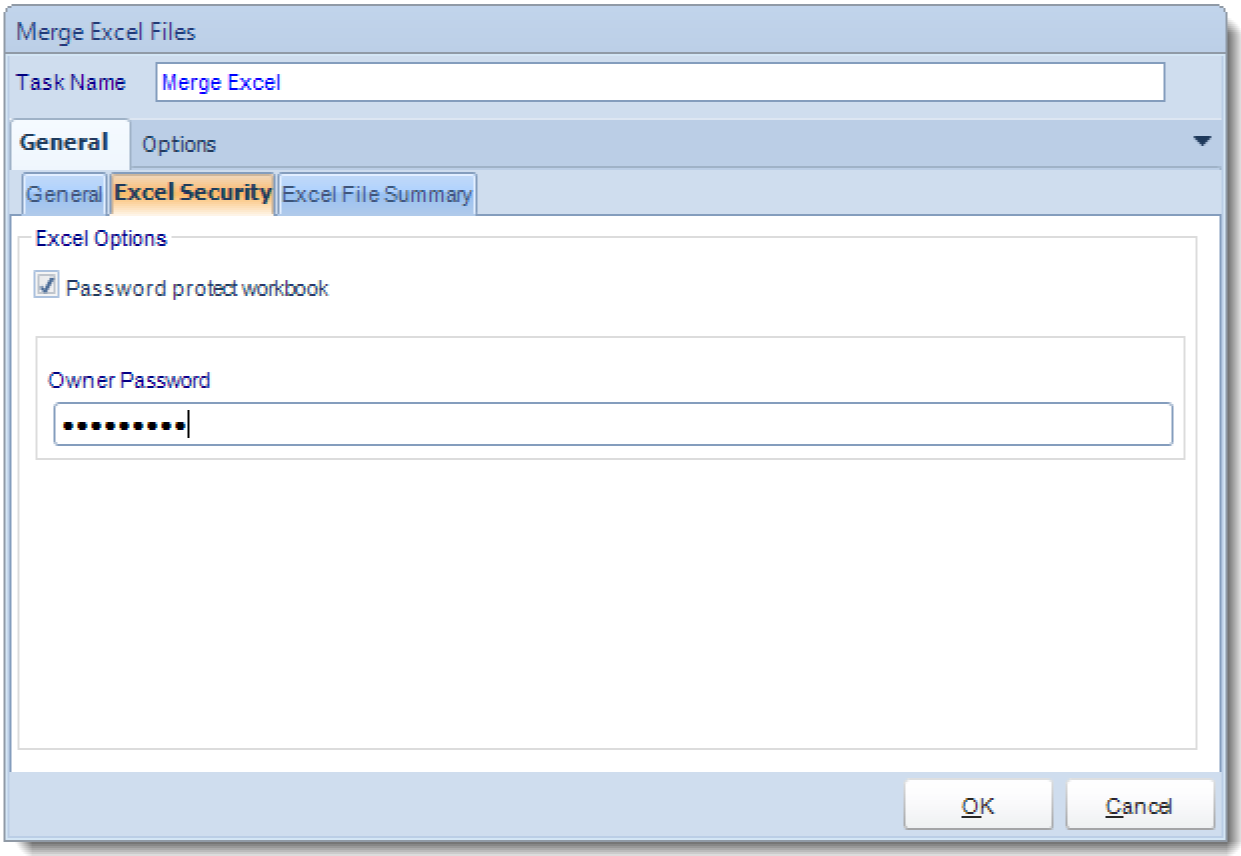
General



With this task, you can merge multiple Excel files into a single workbook.

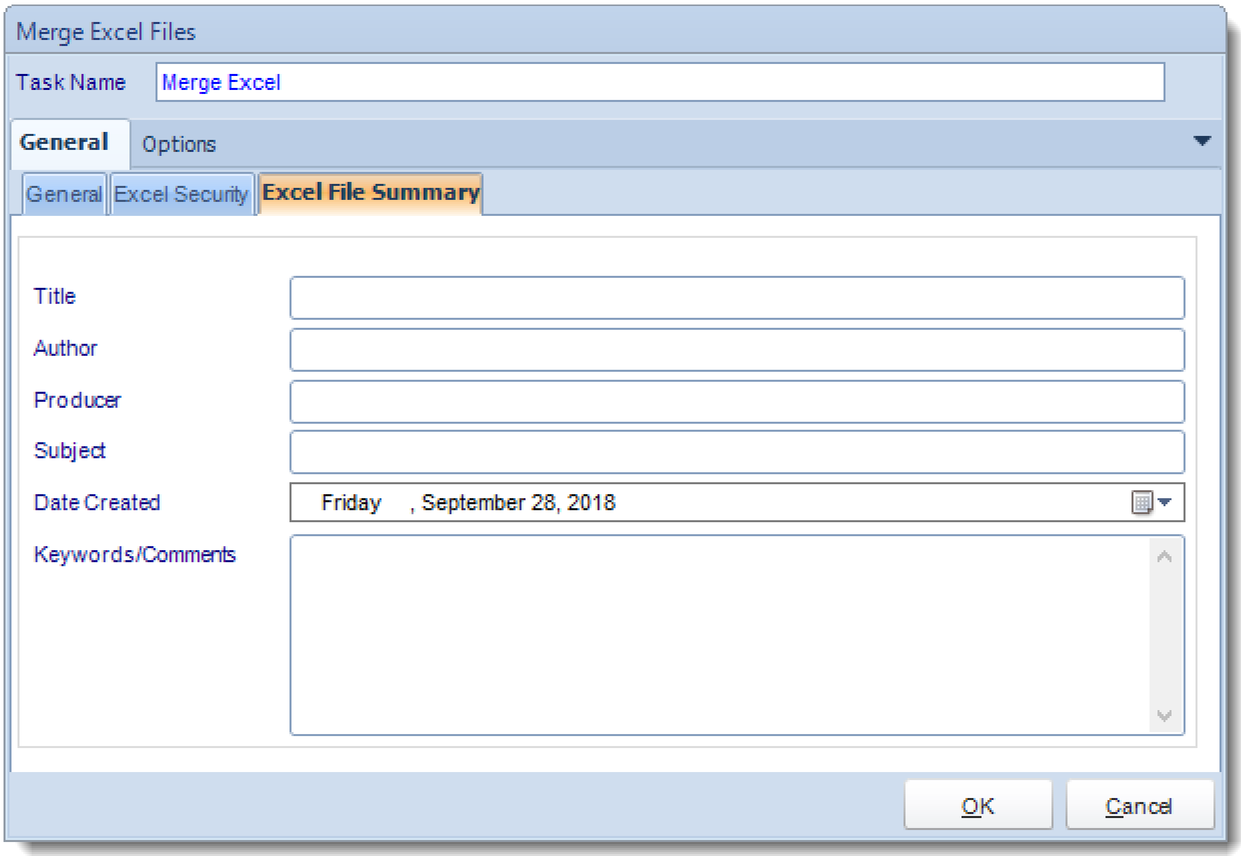
- **Add Files:** Use **(+)** button to add Excel files that need to be merged.
- **Delete Files:** Use **(X)** button to remove any Excel files that you don't want to be merged.
- **Destination File:** Use **(…)** button to browse to the destination folder where the merged files will be stored.
- **Replace existing files at destination:** Check this option to replace the file at the destination if it already exists.

Excel Security

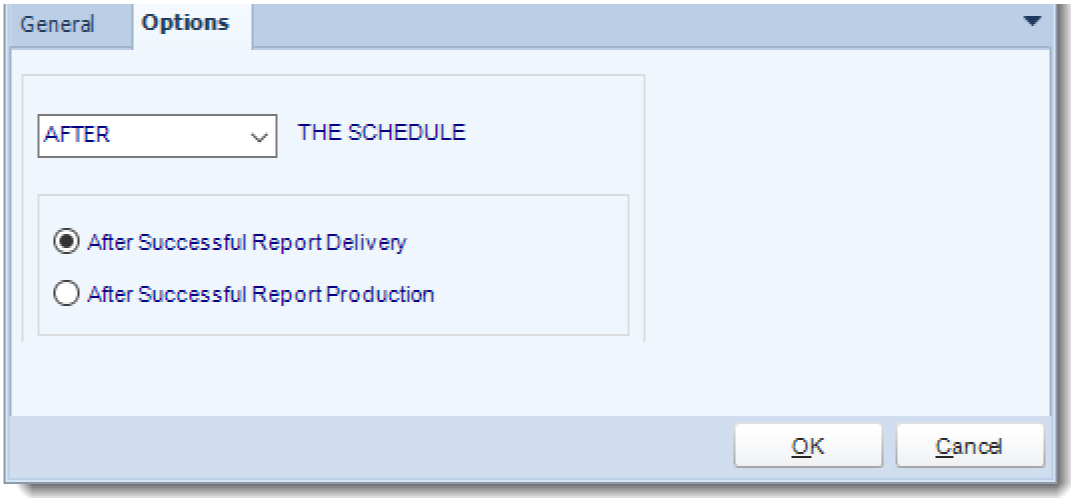


- **Password Protect Workbook:** Check this option to enable to password field.
- **Owner Password:** Enter a password for the Excel file.

Excel File Summary



Options



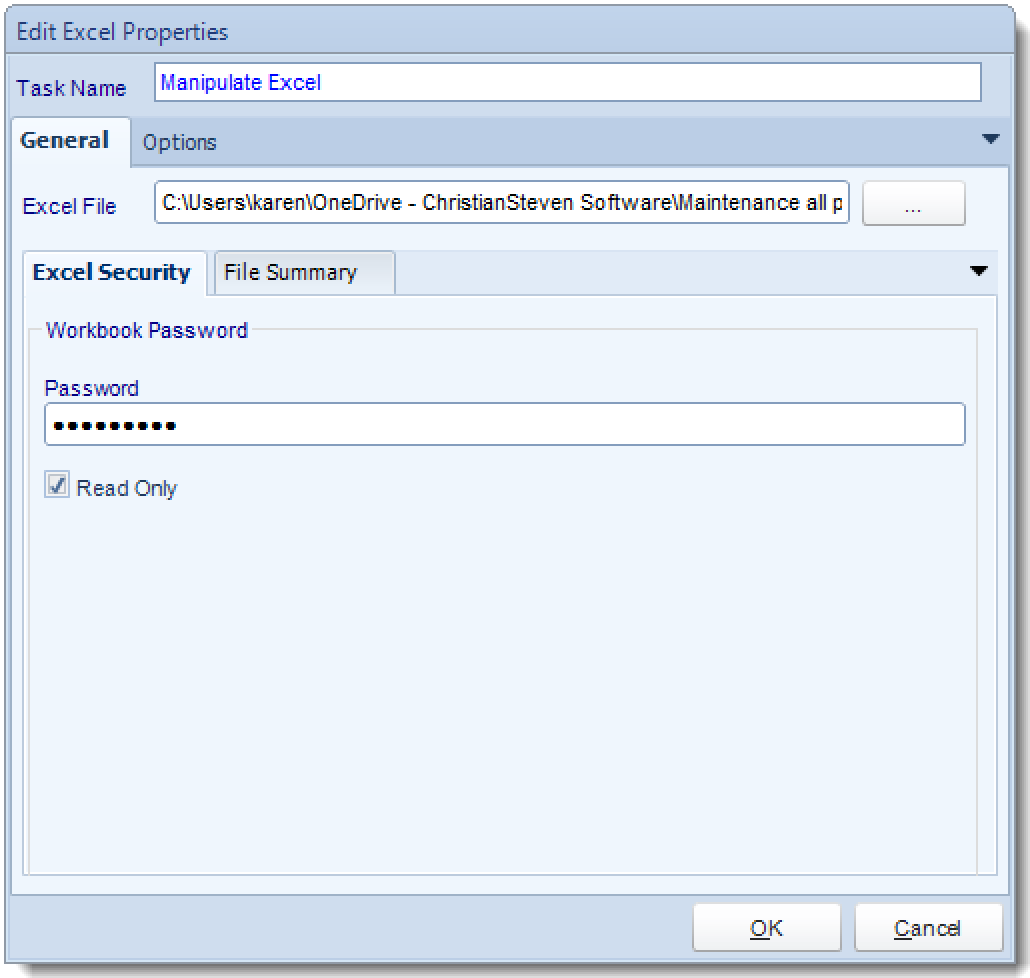
- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Manipulate Excel

General

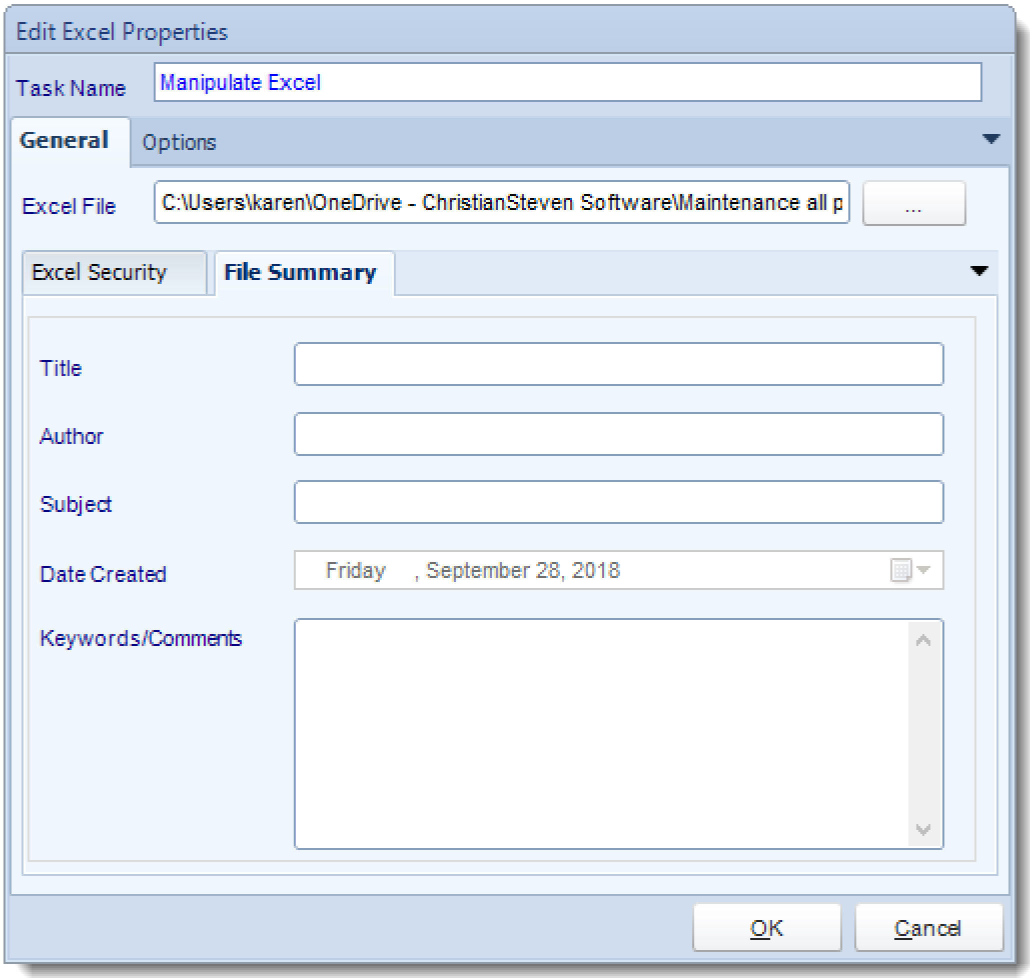
Use this task to edit the file security and the file summary of an excel file.

Excel Security



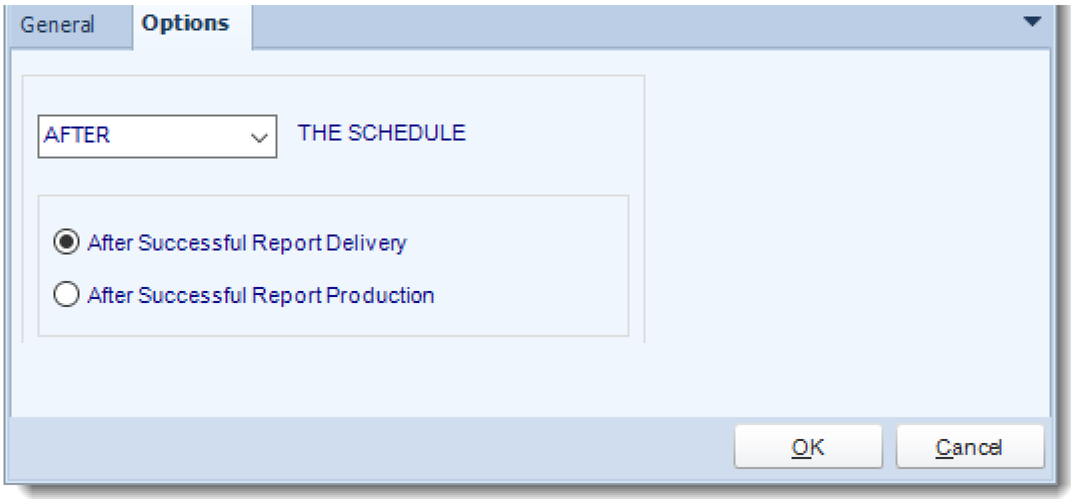
- **Password:** Enter a Password for the Excel File.
- **Read Only:** Check this option if the Excel file will be read only.

File Summary



- **File Summary:** Any information written here will overwrite the existing file summary of the excel file.

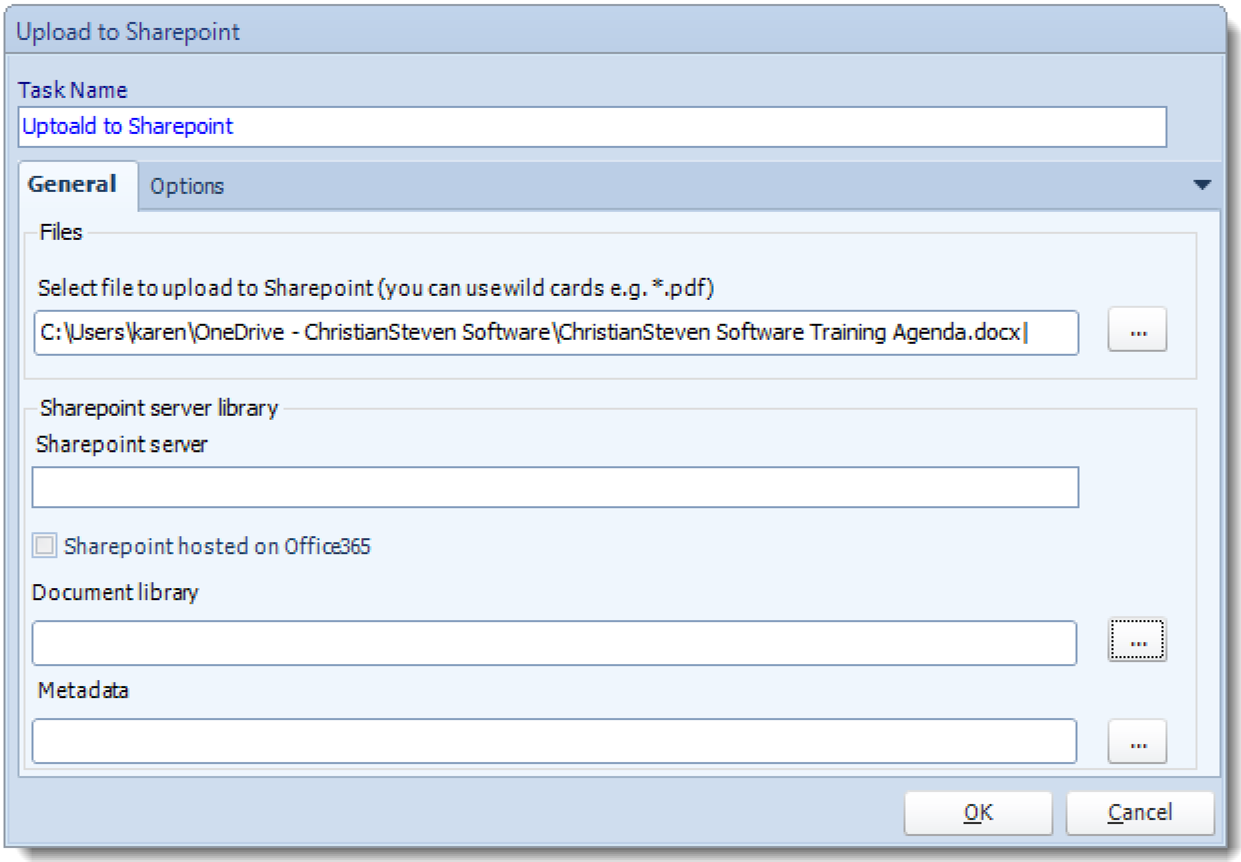
Options



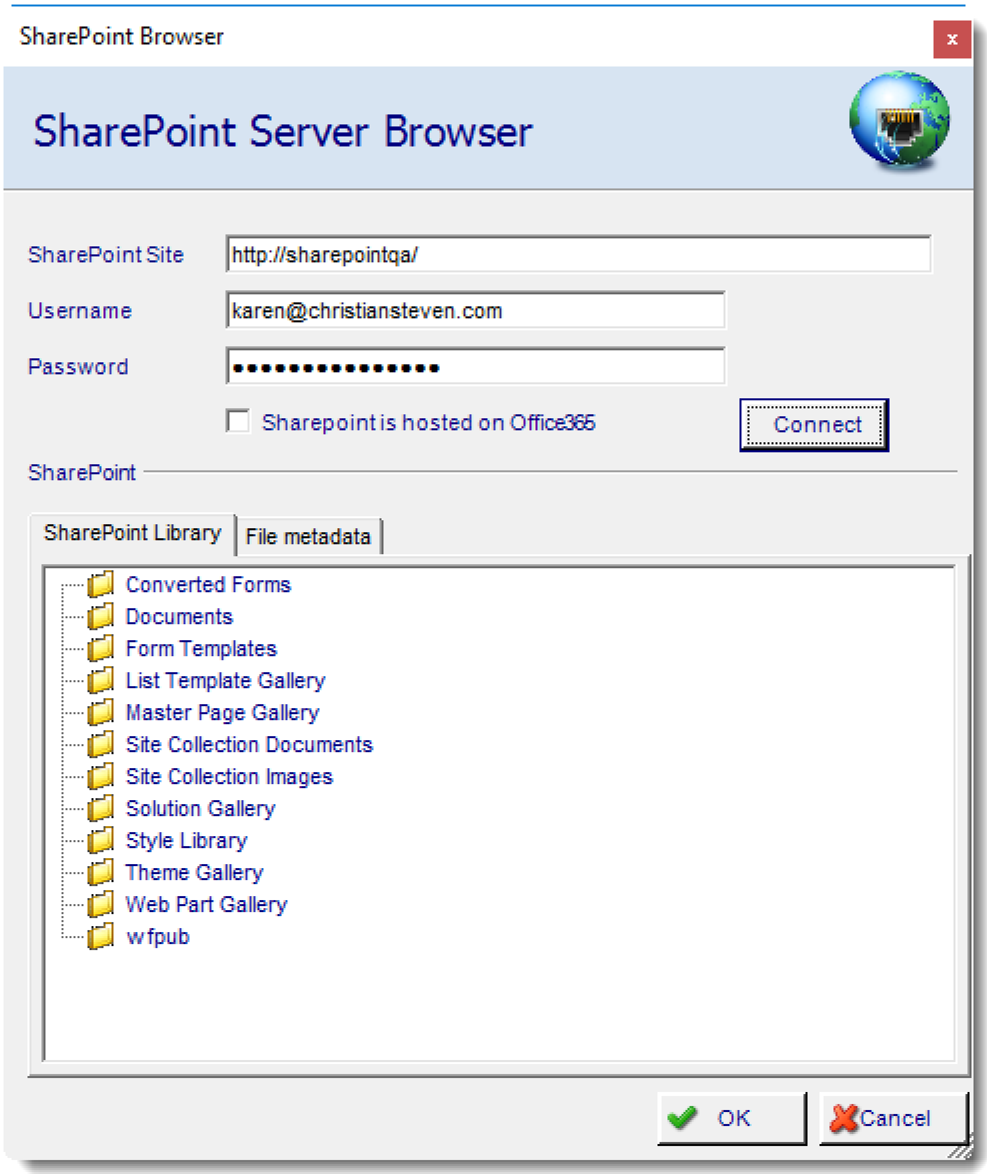
- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Upload to SharePoint

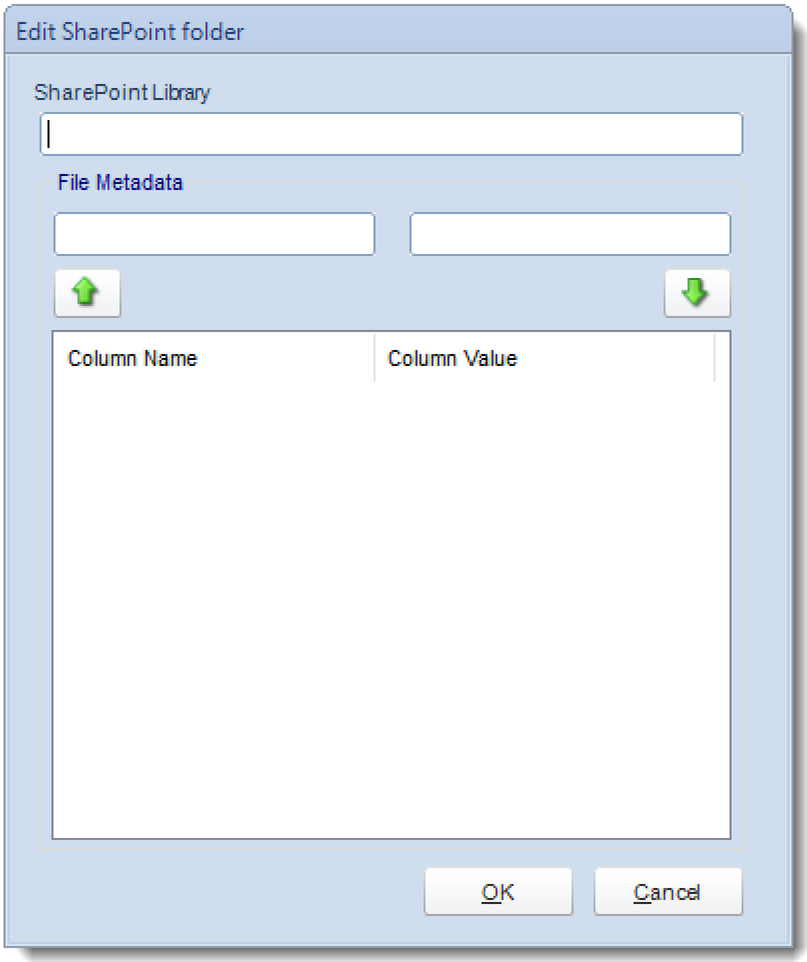
General



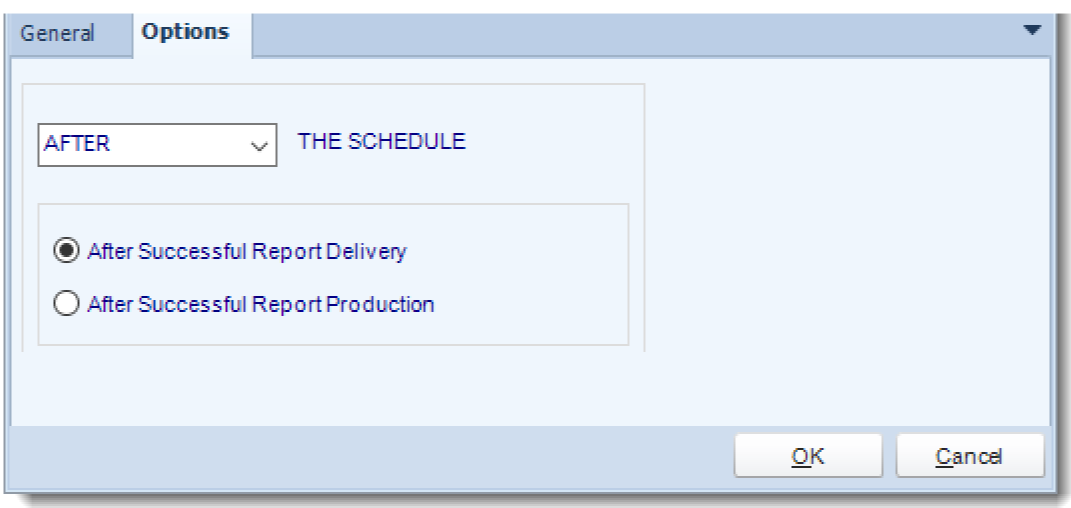
- **Task Name:** give the task a name.
- **Files:** Use **(…)** button to navigate to the files that you want to export to the SharePoint Server.
- **SharePoint Server Library:** It will appear the SharePoint Site.
- **SharePoint hosted on Office 365:** Check this option if the SharePoint Server is hosted on office 365.
- **Document Library:** Use **(…)** button to open the SharePoint Connection Window.



- **SharePoint Server Browser:** Complete the SharePoint Information and navigate to the required Document library.
- **Metadata:** File Metadata Can be uploaded as well. Simply add the column names and values as needed.

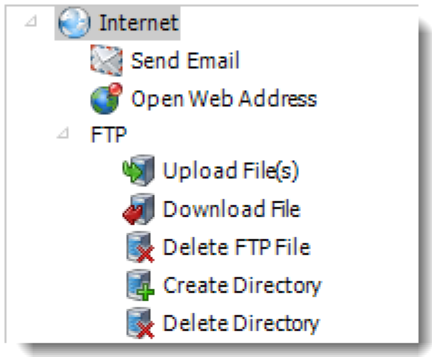

Edit SharePoint folder
SharePoint Library
File Metadata
Column Name
Column Value
OK
Cancel

Options


General
Options
AFTER
THE SCHEDULE
After Successful Report Delivery
After Successful Report Production
OK
Cancel

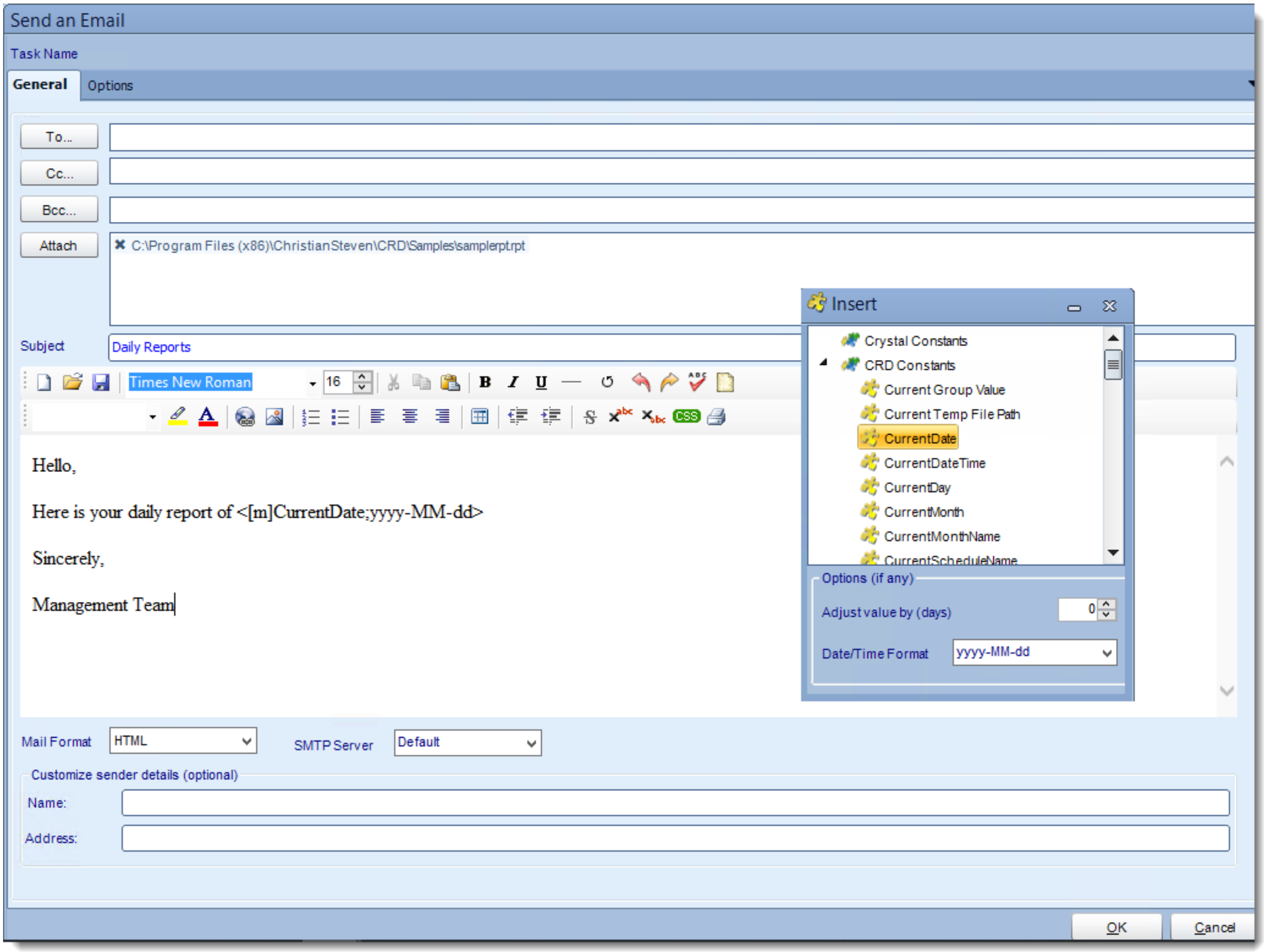
- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Internet

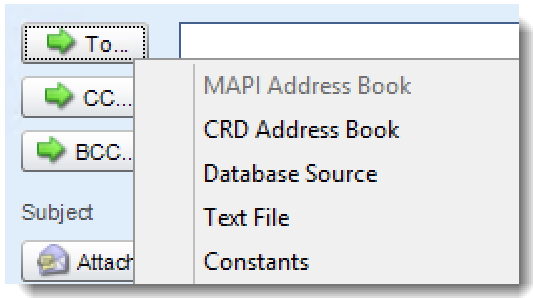


The internet module enables you to automate web related tasks. Auto Downloading links, uploading files via FTP, and sending emails can be accomplished here.

General



- **Task Name:** Give the task a name.
- **To, CC, and BCC:**



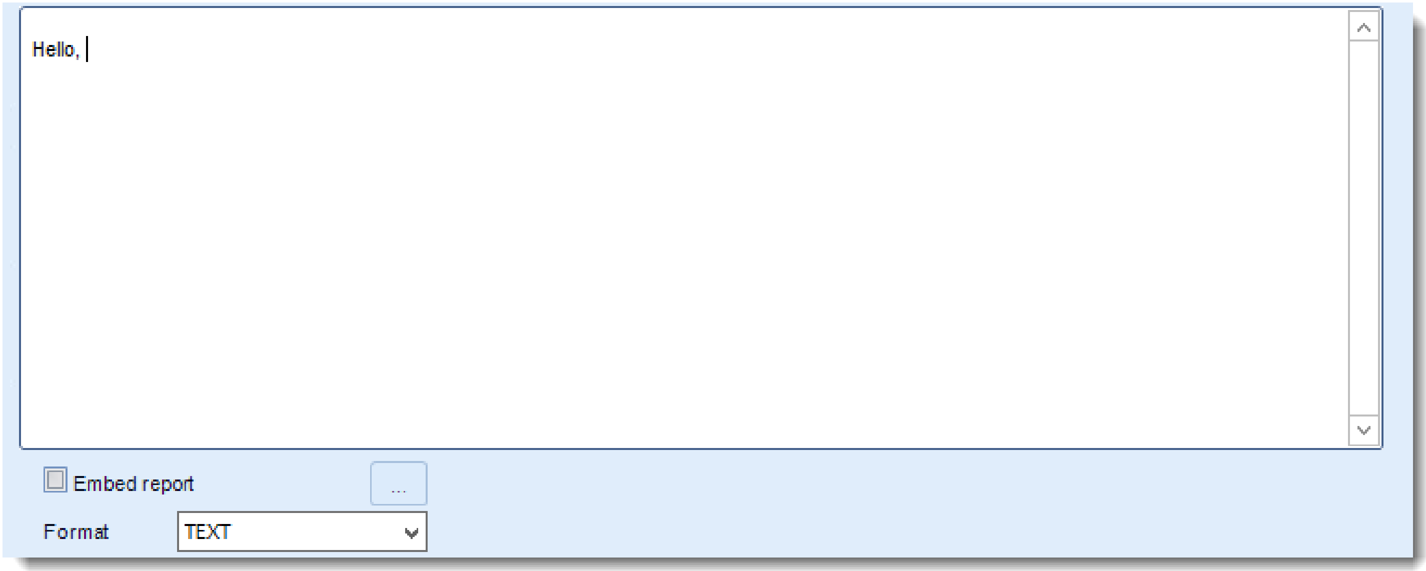
- Choose from:
  - **MAPI (Outlook) address book (Only available if you are using MAPI)**: Select one or more email addresses or groups.
  - **CRD Address Book**: Select one or more email addresses or groups.
  - **Database Source**: Build a SQL query to pick the email address or addresses from a database.
  - **Text File:** Store your email addresses as a standard mailing list in a text file (Format: no delimiters, each email address on a new line)
  - **Constants**
  - Or simply type in the email address.

    You can use "Inserts" at any time if required. For more information about Inserts, click here.

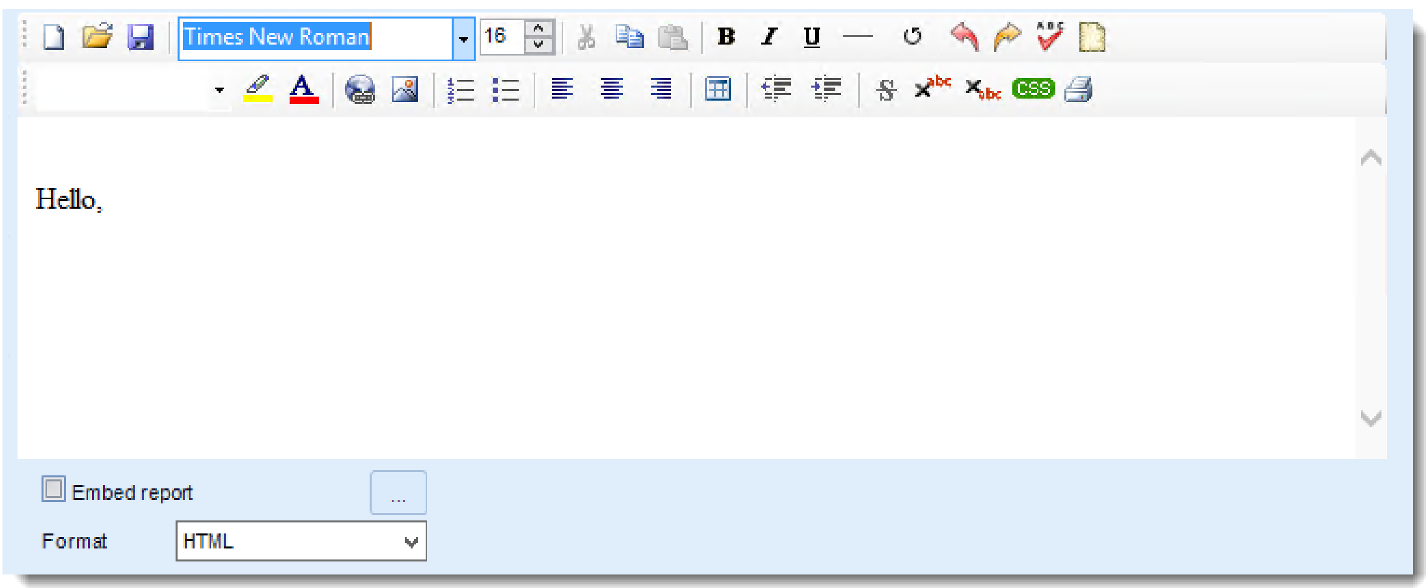
- **Subject:** Enter a subject Or right-click and select Insert to insert constants, database values and defaults. For more information on Insert function, click here.
- **Attach:** Click to select an attachment. Or right-click and select Insert to insert constants, database values and defaults. For more information on Insert function, click here.

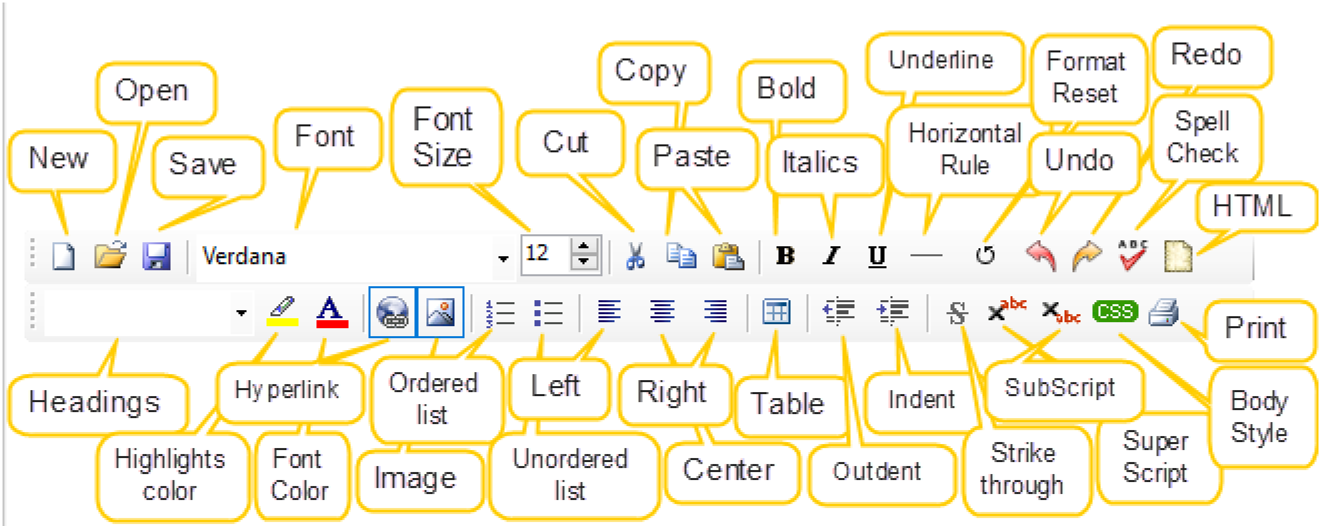
  Hint: Web addresses can be attached as well.

- **Body**: Type in your email. Or right-click and select Insert to insert constants, database values and email defaults. For more information on Insert function, click here.
- **Mail Format:** Choose from HTML or Text.
- **Text Format:** In this format it will be just plain message.

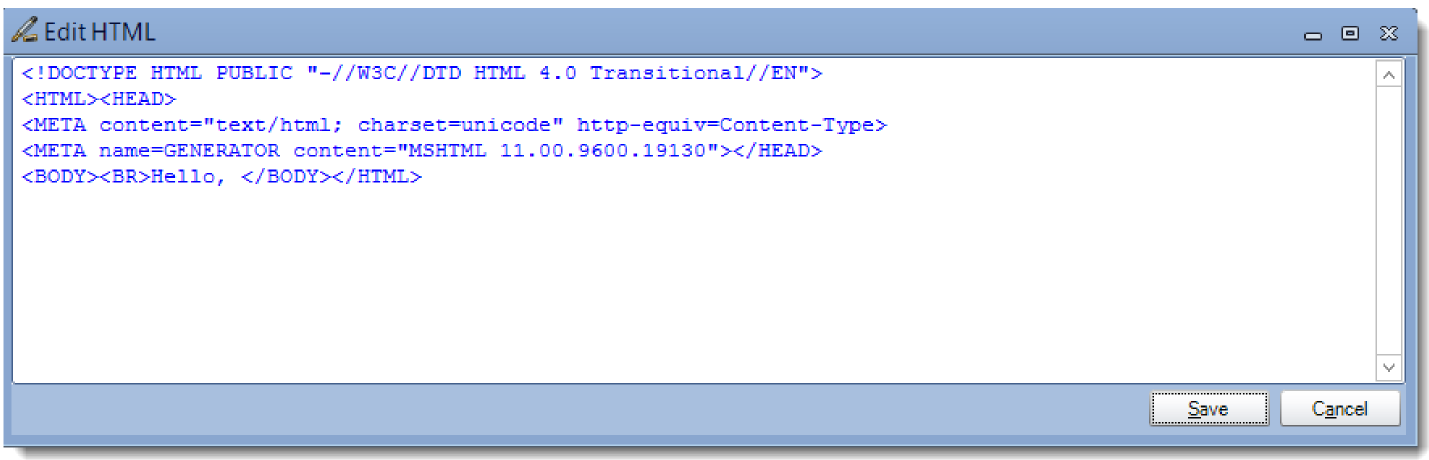


- **HTML Format:** In this format you can format the message.

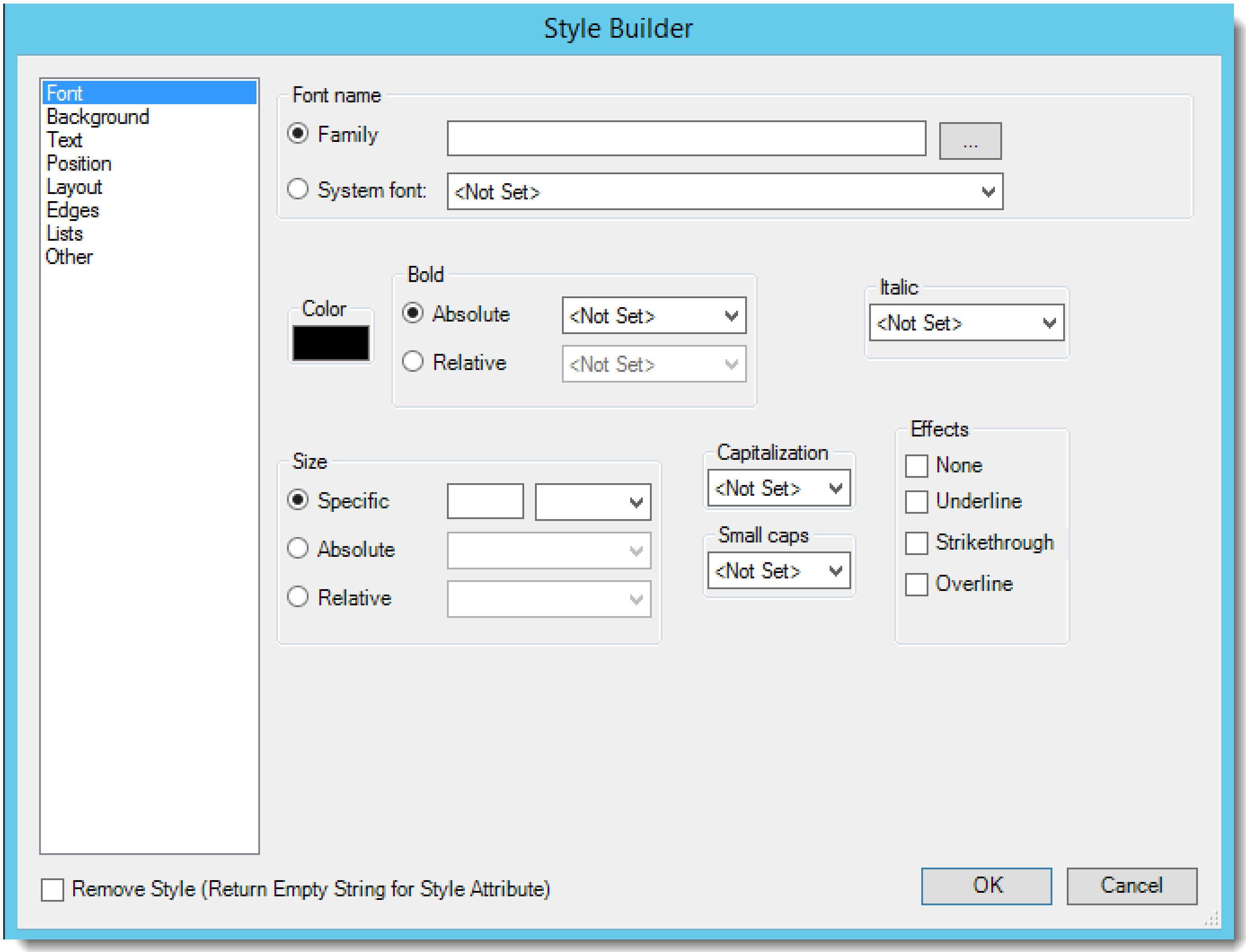




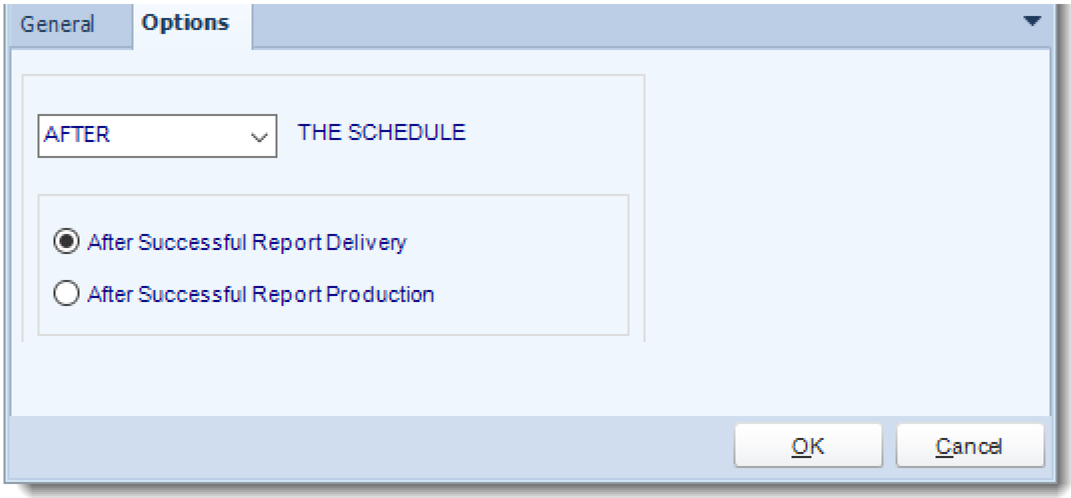
- You can enter HTML tags by click the **HTML** icon.



- **Body Style (CSS):** If you want to specify the format that you want, click **CSS** and you may choose the type of format and change setting accordingly.


Style Builder
Font
Background
Text
Position
Layout
Edges
Lists
Other
Font name
Family
...
System font:
<Not Set>
Color
Bold
Absolute
<Not Set>
Relative
<Not Set>
Italic
<Not Set>
Size
Specific
Absolute
Relative
Capitalization
<Not Set>
Small caps
<Not Set>
Effects
None
Underline
Strikethrough
Overline
Remove Style (Return Empty String for Style Attribute)
OK
Cancel

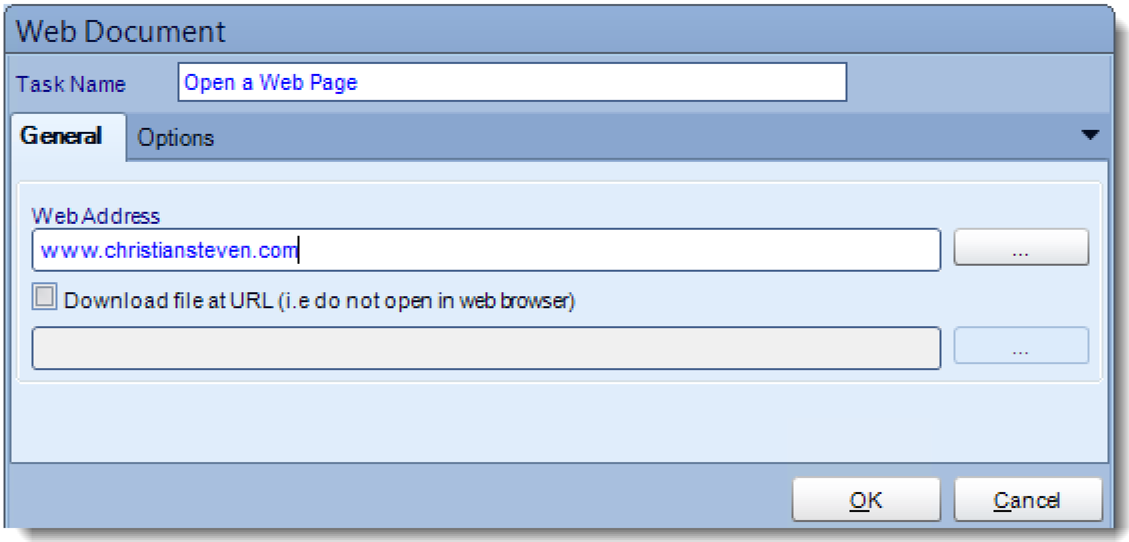
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Open Web Address

General



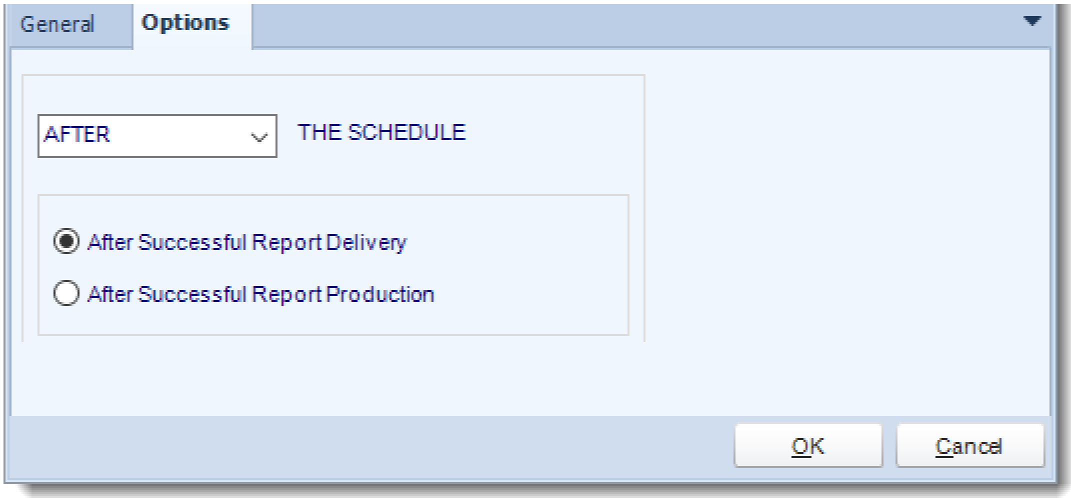
Use this task to open a web page.

- **Task Name**: Give the task a name.
- **Web Address:** Enter the Web address of the website that you want to open.

  Tip: If you are not sure the full address, click the browse button. This will start your web browser. Navigate to the page you wish. Exit your browser and the page name will populate the field automatically.

- **Download file at URL:** Use this option to download a file from a website instead of opening a web page.

Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

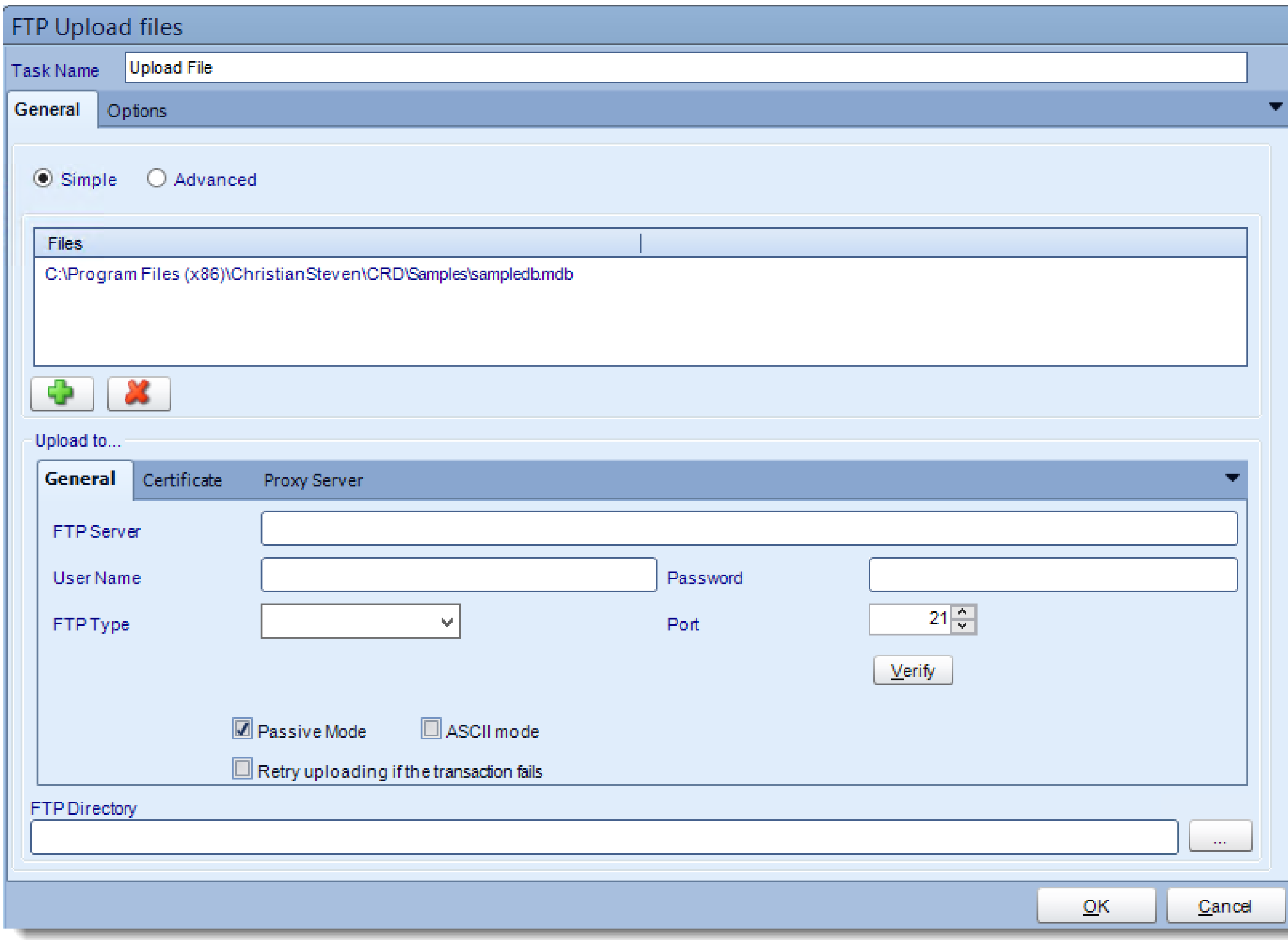
FTP

Use these options to upload and download files from the FTP server. Other options available here are to create directories and delete directories.

FTP - Upload File(s)

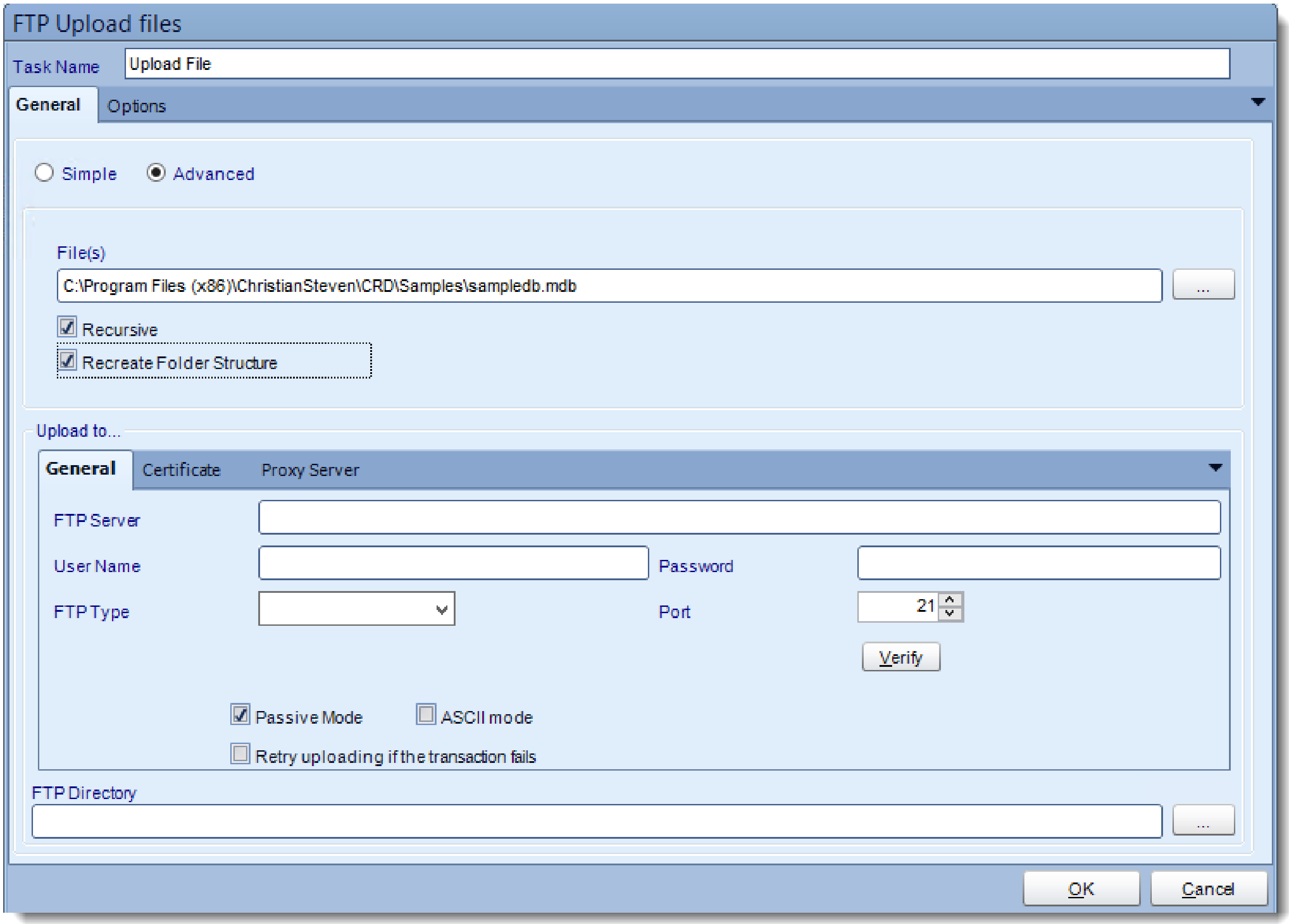
General

Simple



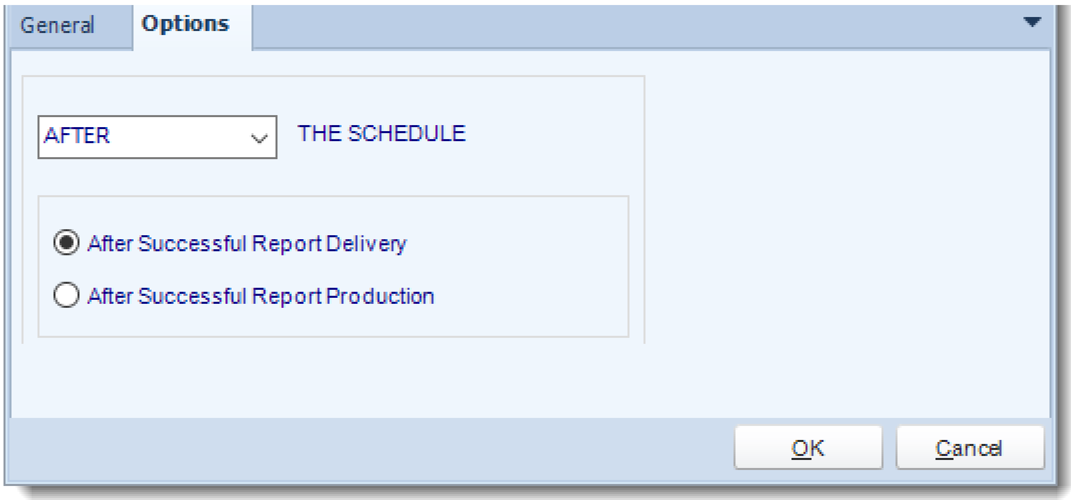
- **Task Name:** Give the task a name.
- Use **(+)** button to add files you would like to upload.
- **FTP Server:** Enter your FTP Credentials.
- **FTP Directory:** Click the browse button to connect to the server, navigate to the folder you wish to upload the files to.

Advanced



- Use the Advanced view to use wildcards when selecting file(s) to be uploaded.
- **Files:** Use the browse button to add files you would like to upload.
- **Recursive:** This will search the folder and all sub folders.
- **Maintain Folder Structure:** Select this to ensure files of the same name are not overwritten and have the folder structure maintained. This is useful when using wildcards
- **FTP Server:** Enter your FTP Credentials.
- **FTP Directory:** Click the browse button to connect to the server, navigate to the folder you wish to upload the files to.

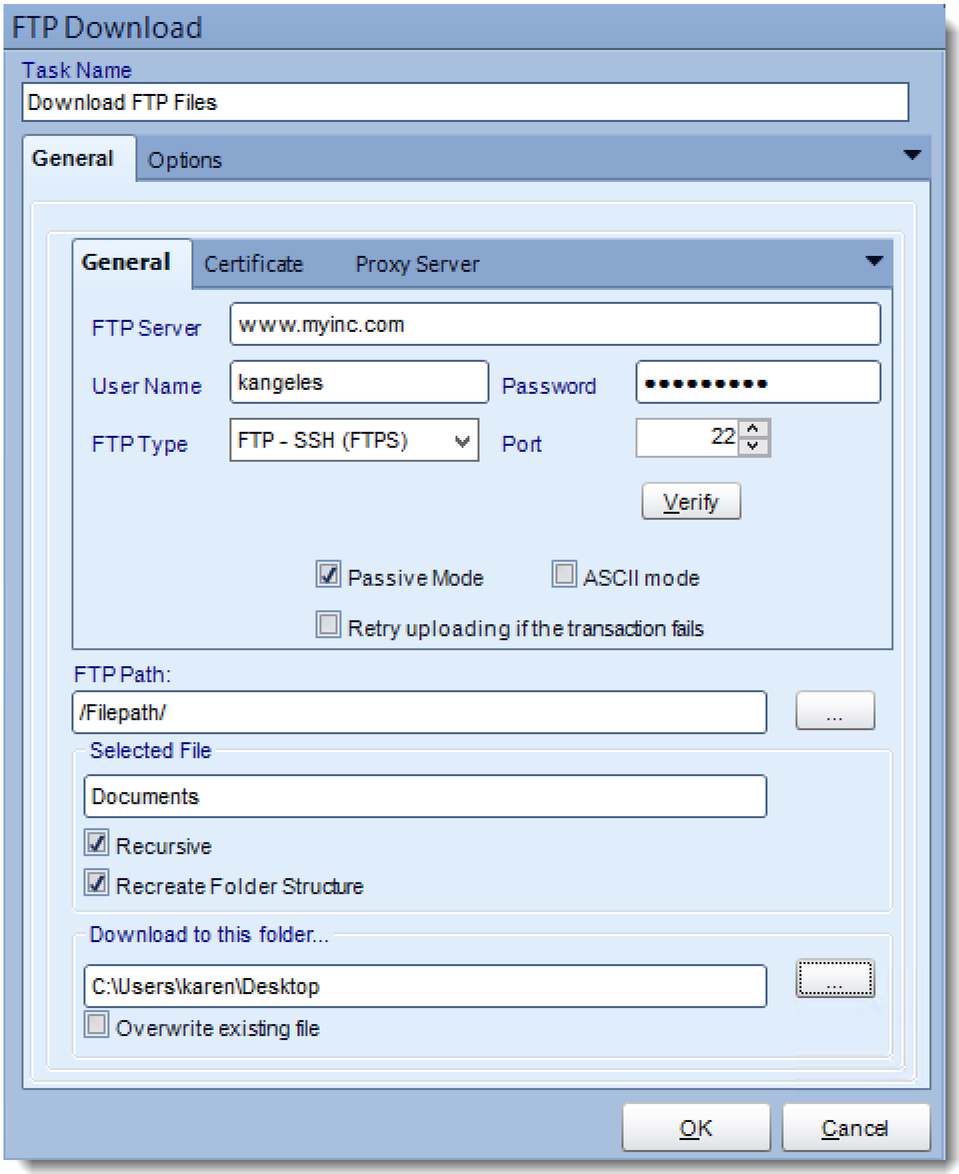
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

FTP Download File

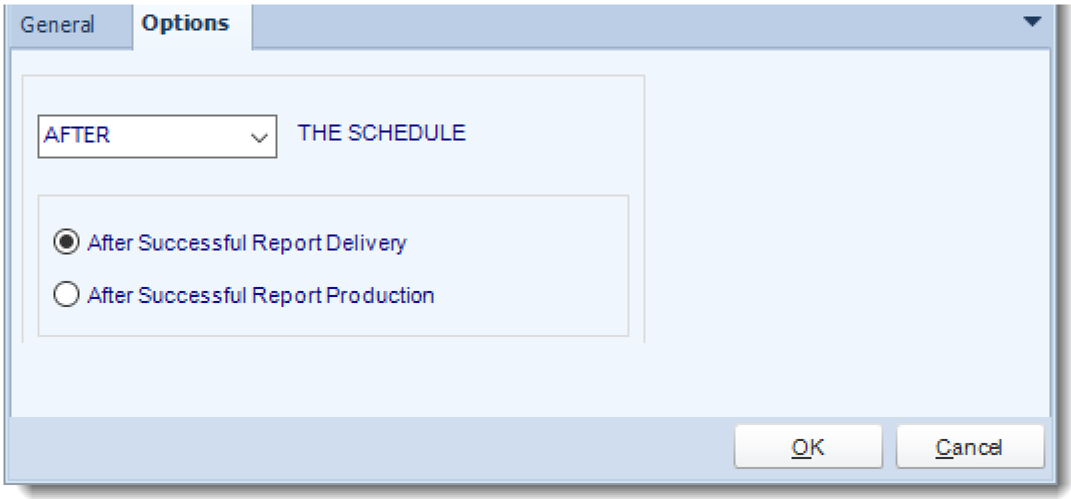
General



- **Task Name:** Give the task a name
- **FTP Server:** Enter your FTP Credentials.
- **FTP Path:** Click the browse button to select the FTP path.
- **Selected File:** Select a file or folder or use wildcards to select the files to download.
- **Recursive:** This will search the folder and all sub folders.
- **Maintain Folder Structure**: Select this to ensure files of the same name are not overwritten and have the folder structure maintained. This is useful when using wildcards

- **FTP Directory:** Click the browse button to connect to the server, navigate to the folder you wish to upload the files to.
- **Download to this folder:** Specify which folder the files should be downloaded to.

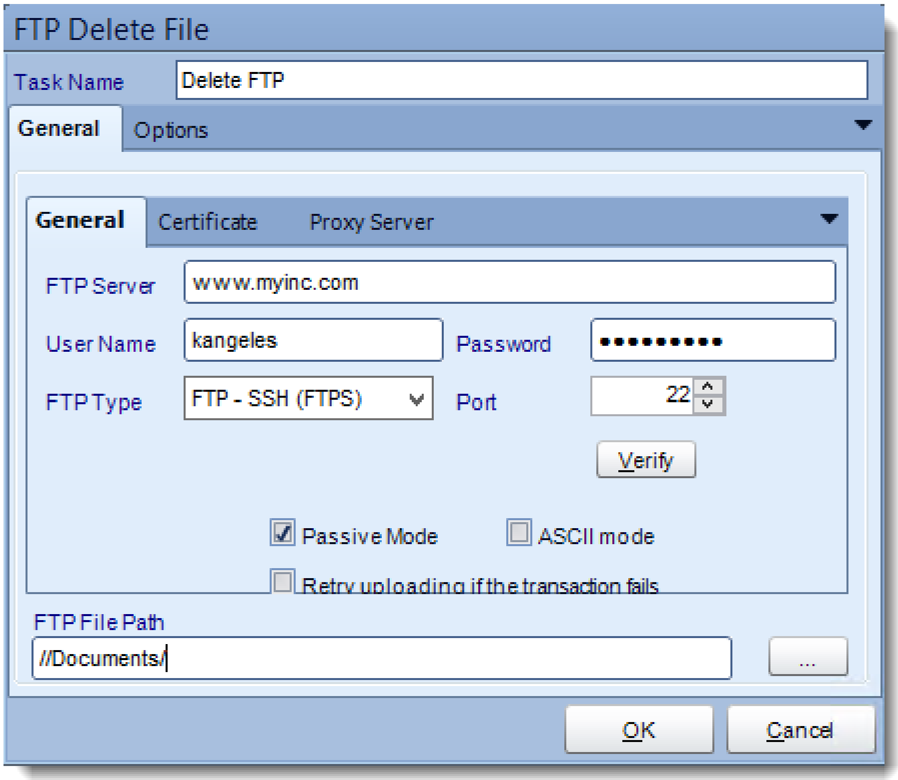
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Delete FTP File

General

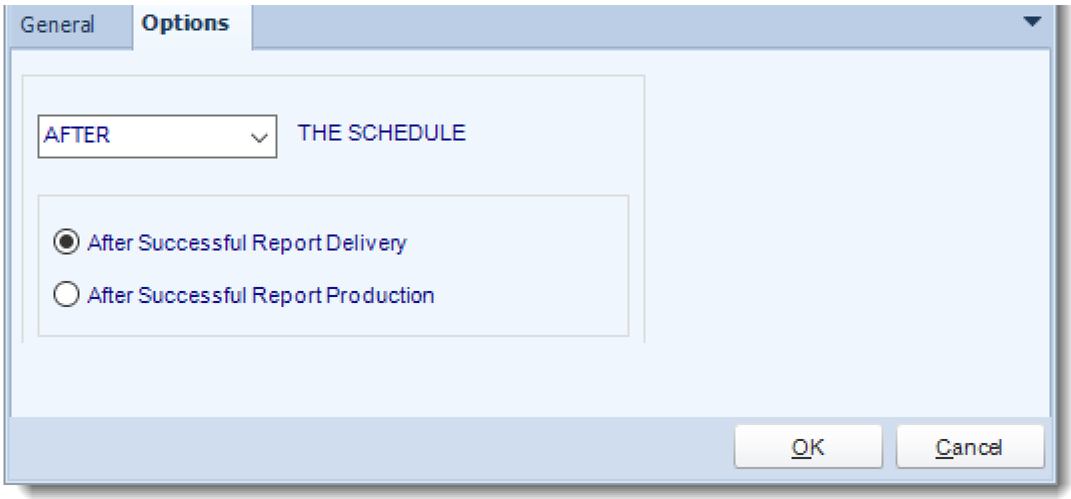


Use this task to delete a file on an FTP server.

- **Task Name:** Give the task a name.
- **FTP Server:** Enter your FTP Credentials.
- **Retry uploading if the transaction fails:** this option will retry uploading if the transaction fails automatically.
- **FTP File Path:** Use (...) button to navigate to the files that you want to be deleted.

  *Tip: You can right click and insert Constants and database values. You may also use wildcards e.g. my*abc*. When doing this please remember that most FTP server are case sensitive.*

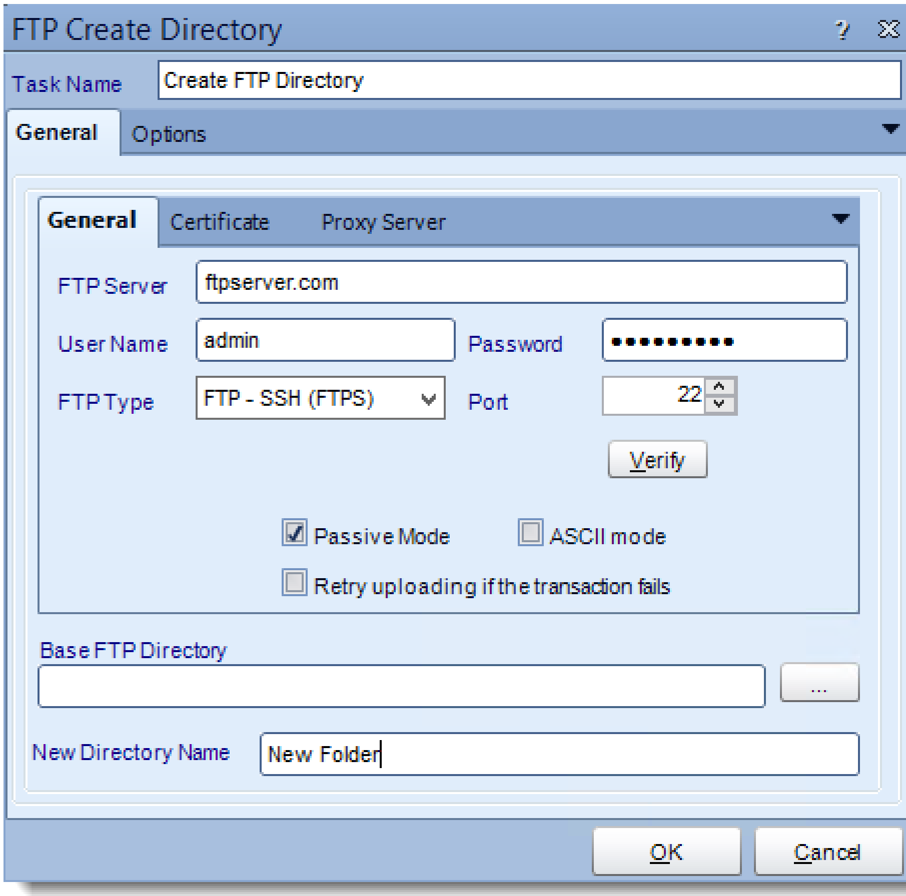
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

FTP Create Directory

General



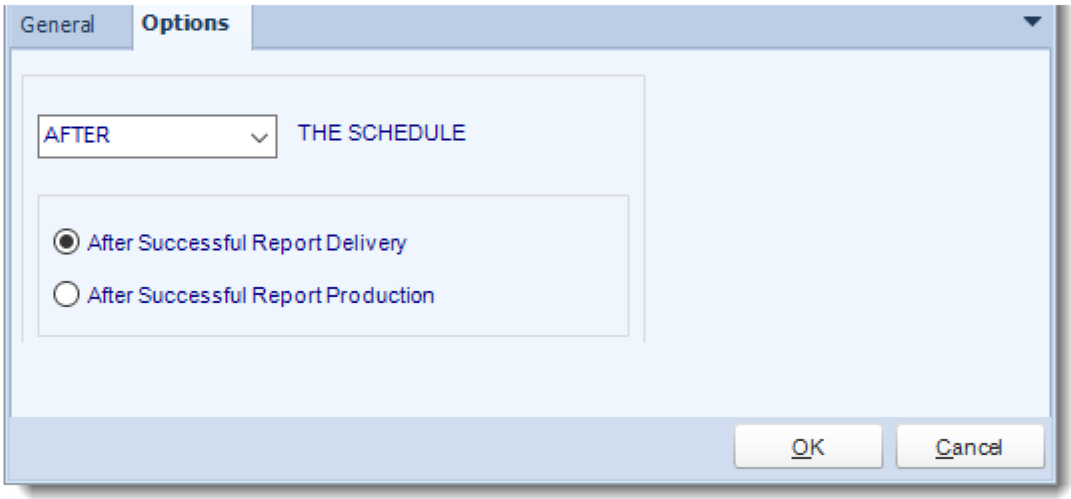
Use this task to create a folder on an FTP server.

- **Task Name:** Give the task a name.
- **FTP Server:** Enter your FTP Credentials.
- **Retry uploading if the transaction fails:** This option will retry uploading if the transaction fails automatically.
- **Base FTP Directory:** Use **(…)** button to locate the base FTP Directory.

  Tip: Leave this empty to select the root directory.

- **New Directory Name:** Specify the name of the directory to create.

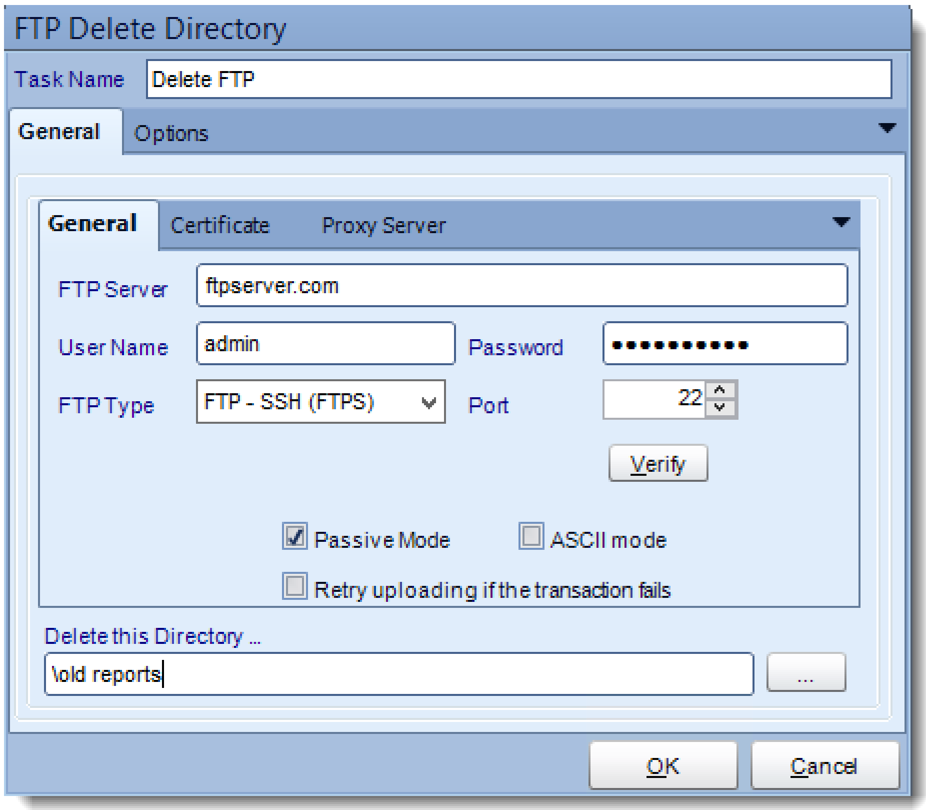
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

FTP - Delete Directory

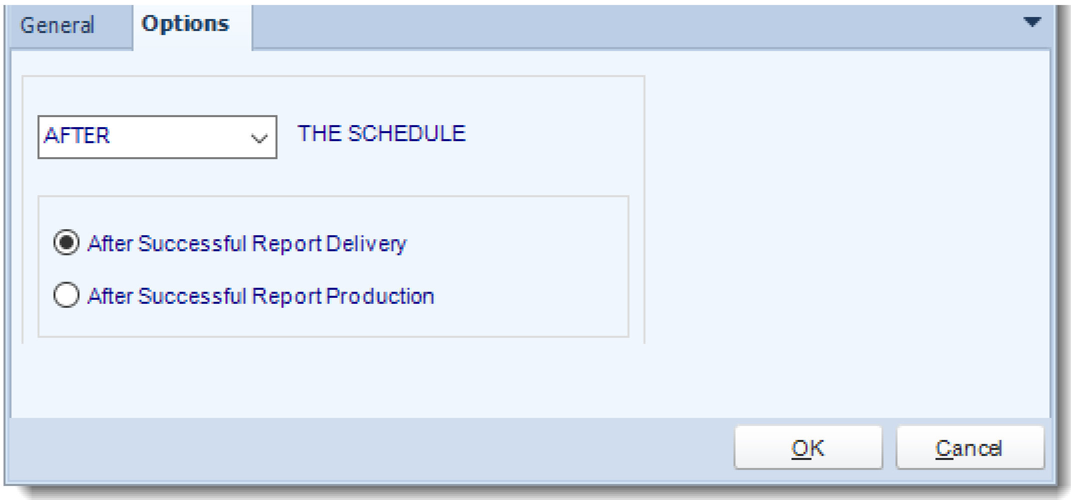
General



Use this task to delete a directory on an FTP server.

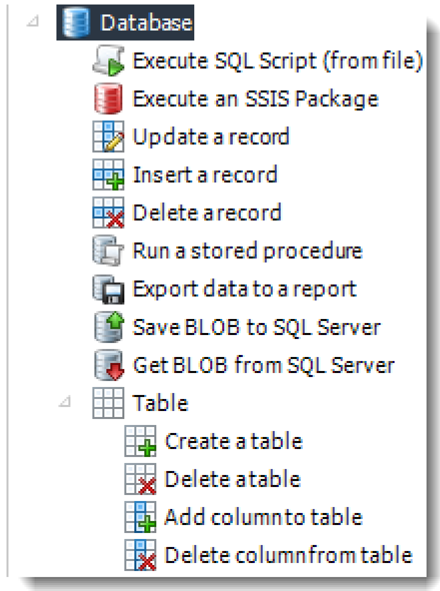
- **Task Name:** Give the task a name.
- **FTP Server:** Enter your FTP Credentials.
- **Retry uploading if the transaction fails:** This option will retry uploading if the transaction fails automatically.
- **Delete this Directory:** Specify the name of the directory to create.

Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Database

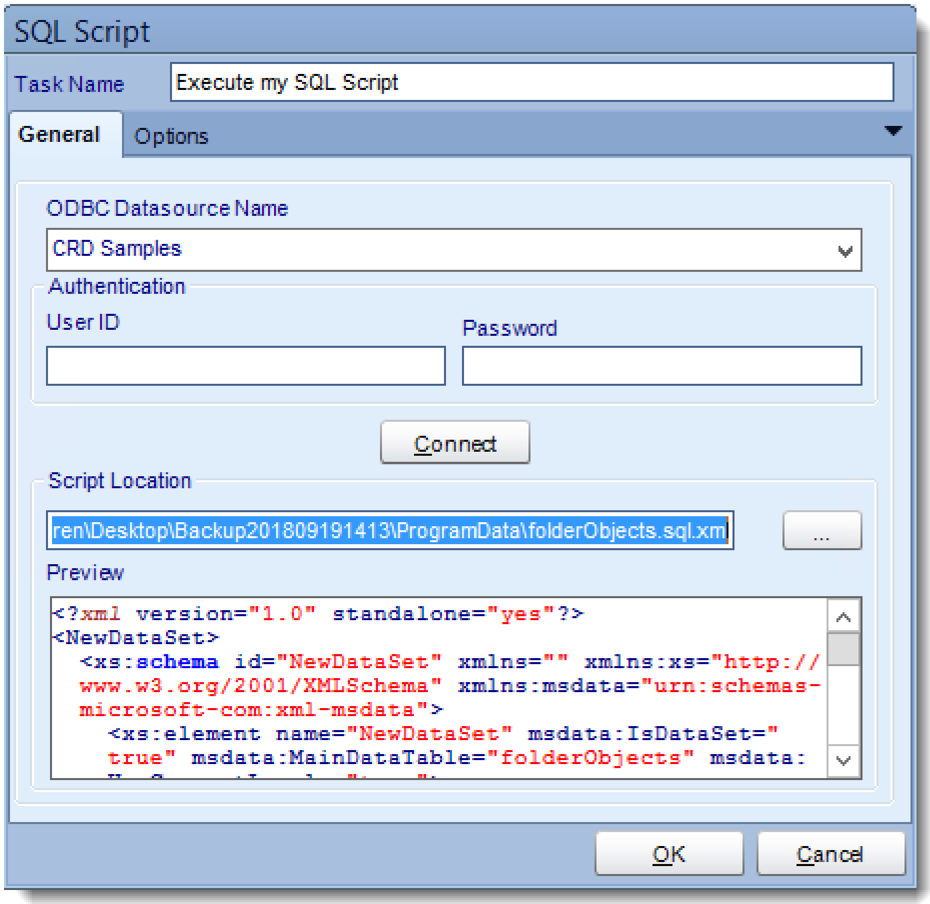


One of the most powerful features in CRD, The Database module forms a core part of CRD's Data integration capabilities.

With the ability to automatically update databases, create tables, and edit records, you can automate thousands of database processes.

> *Tip: Combine the Database Tasks with the Event Based Schedule to create database alerts and data migration processes.*
>
> *IMPORTANT: These tasks will make modifications to database tables which, in some cases, may be irreversible. Please ensure that you review the resulting scripts and test them thoroughly on a Test system before committing them to your production (live) system.*
>
> *Make sure you take a full backup of your database before any testing.*

Execute SQL Script (from file)



General

- **ODBC Datasource Name:** Drop down and select a DSN.

  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

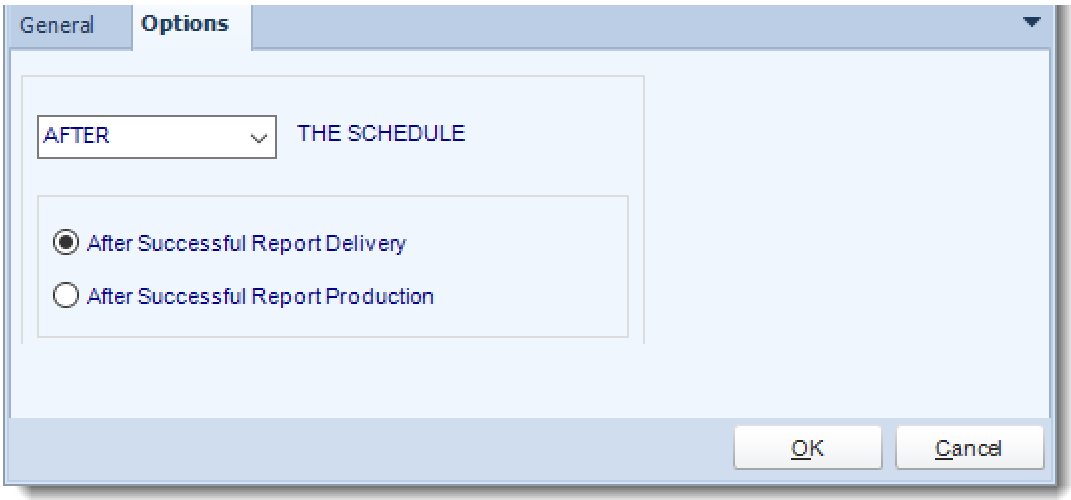
  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- **Script Location:** Browse to locate the script.
- Click **OK** to save the script.

Options

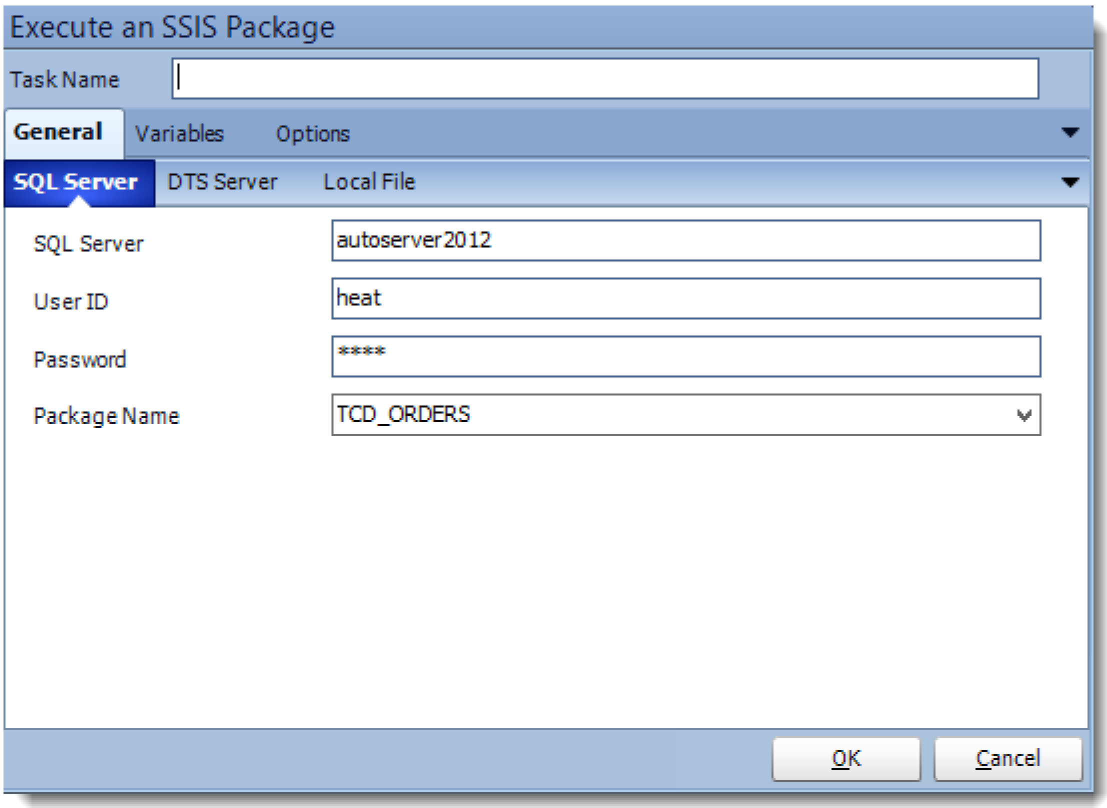


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

General

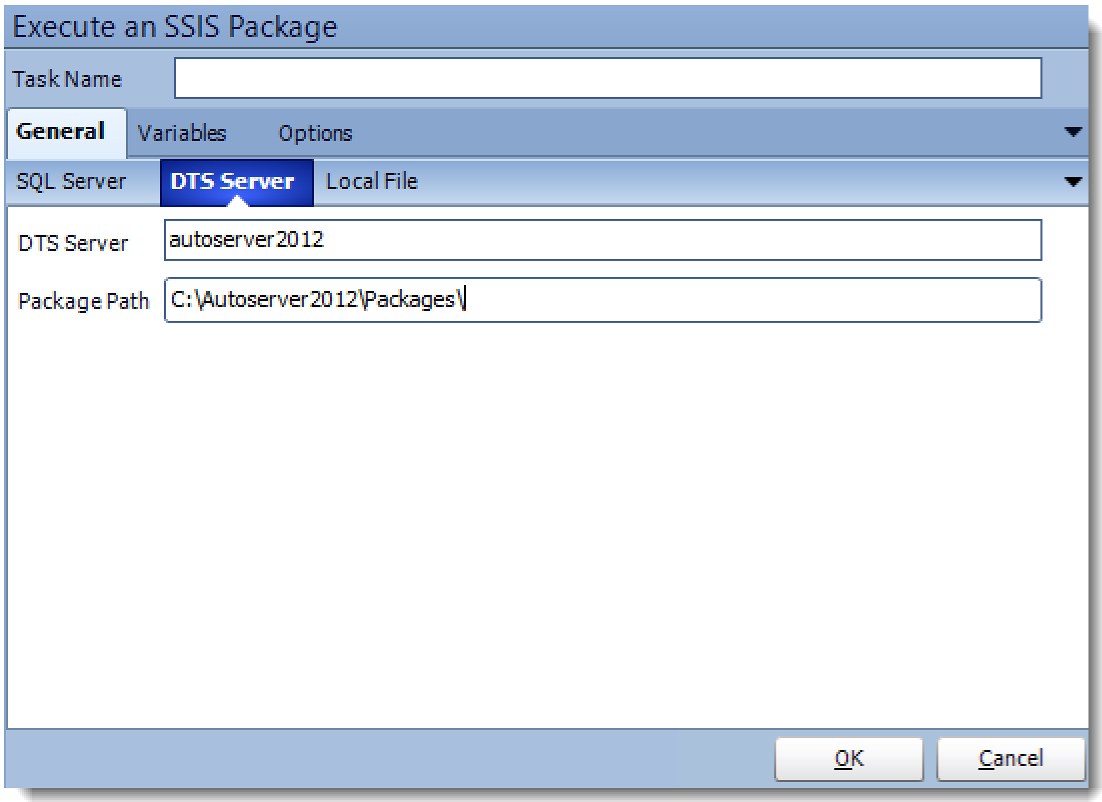
SQL Server

*IMPORTANT: CRD requires SQL Server Integration Services Standard or Enterprise X86 (32bit) installed on the CRD server. ***64bit is not supported****



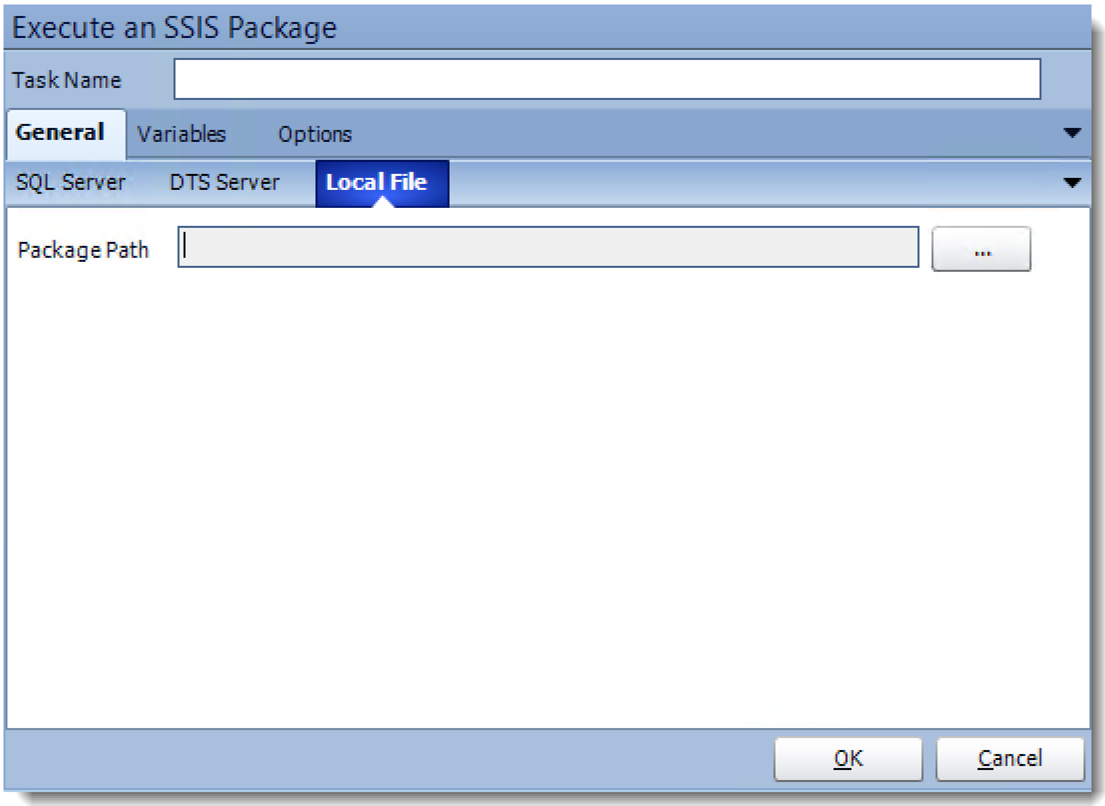
- **Task Name:** Give the task a name.
- **SQL Server:** Enter the SQL Server credentials.
- **Package Name:** Select the package from the drop down list.
- Click **OK** to save.

DTS Server



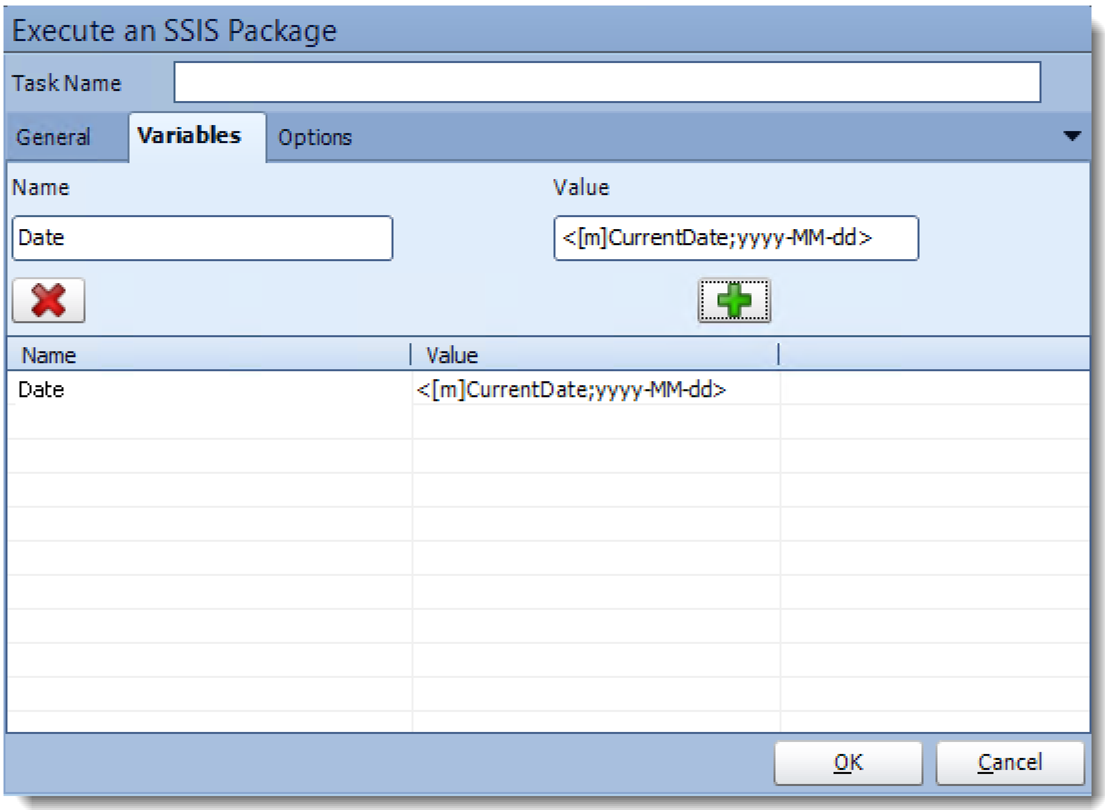
- **DTS Server:** Enter the DTS Server credentials.
- **Package Path:** Write down the package location.
- **Package Name:** Select the package from the drop down list.
- Click **OK** to save.

Local File



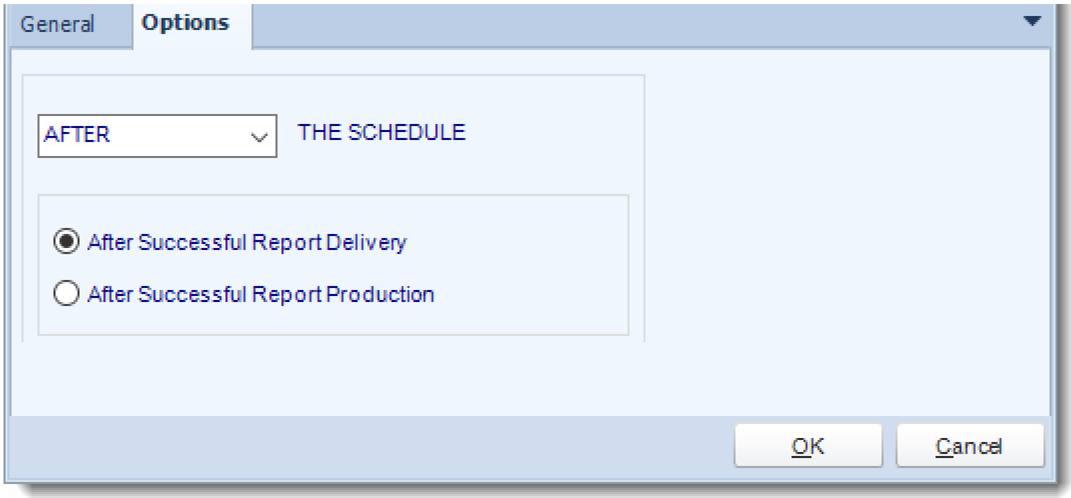
- **Package Path:** Click **(...)** to search the package location.
- **Package Name:** Select the package from the drop down list.
- Click **OK** to save.

Variables



- Add and delete variables for the SSIS package.

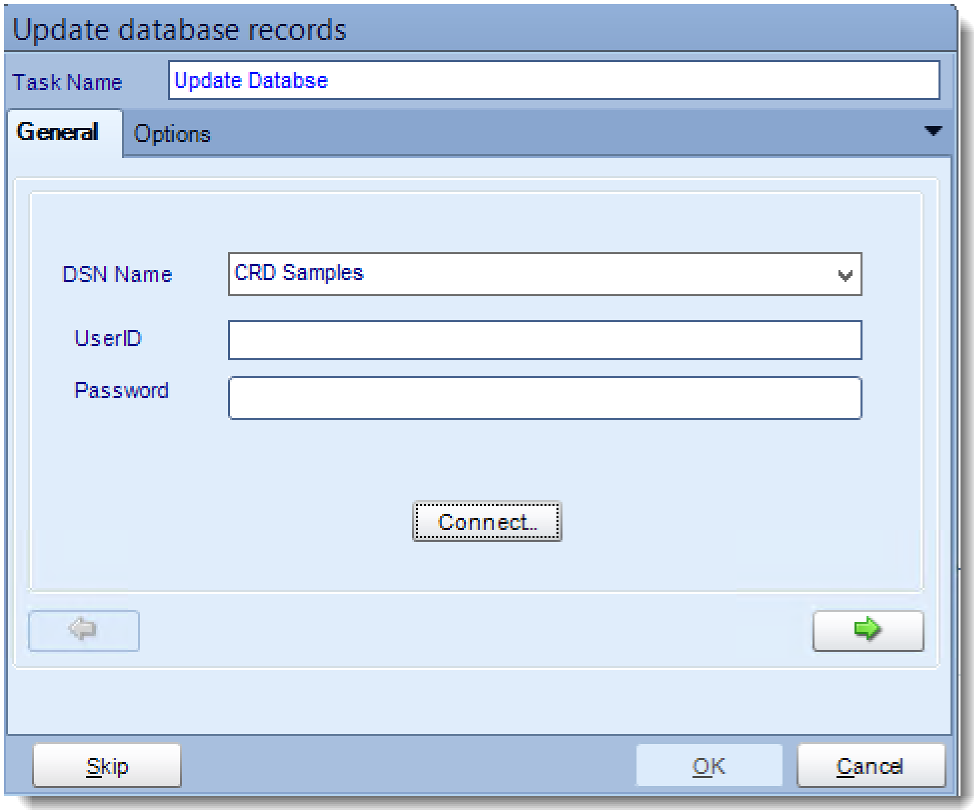
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Update a record

General



- **ODBC Datasource Name:** Drop down and select a DSN.

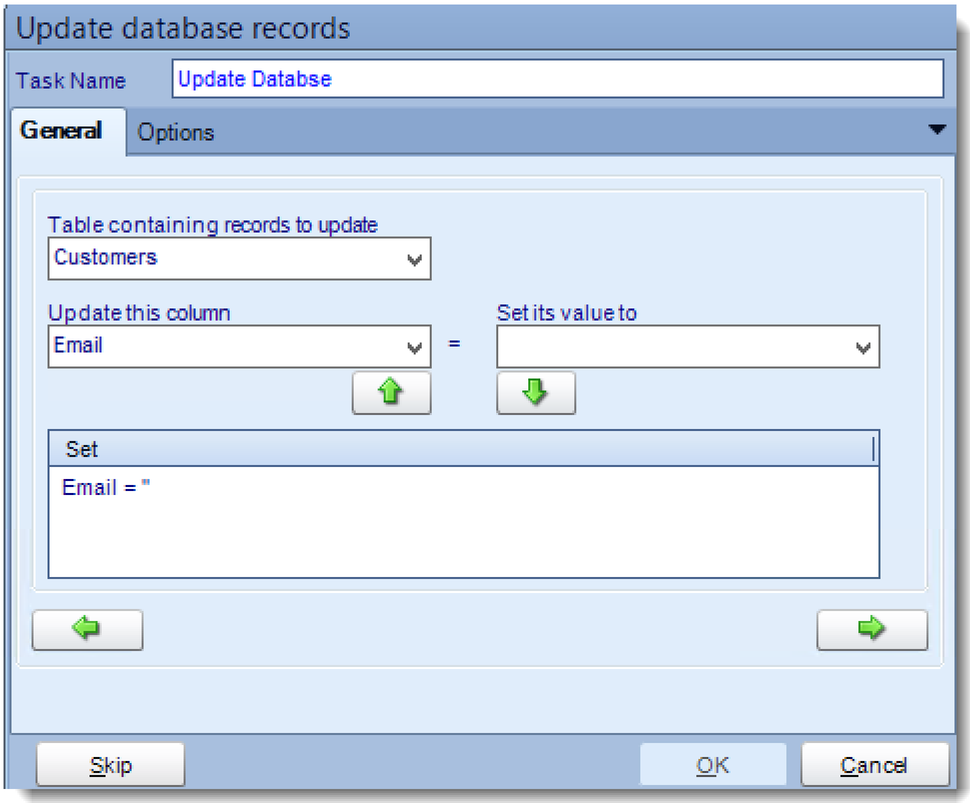
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

  When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

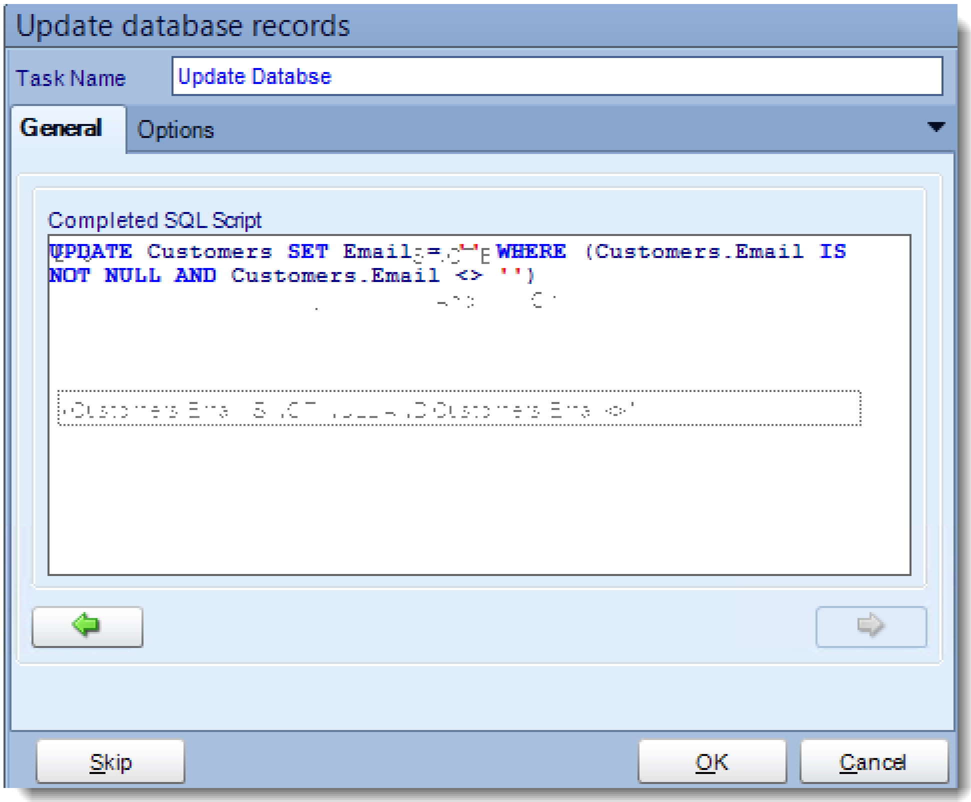
- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Click **green arrow** to continue.



- **Table:** Select the table containing the record you wish to update.
- **Update this column:** Select the Column you wish to update.
- **Set its value to:** Enter the new value.

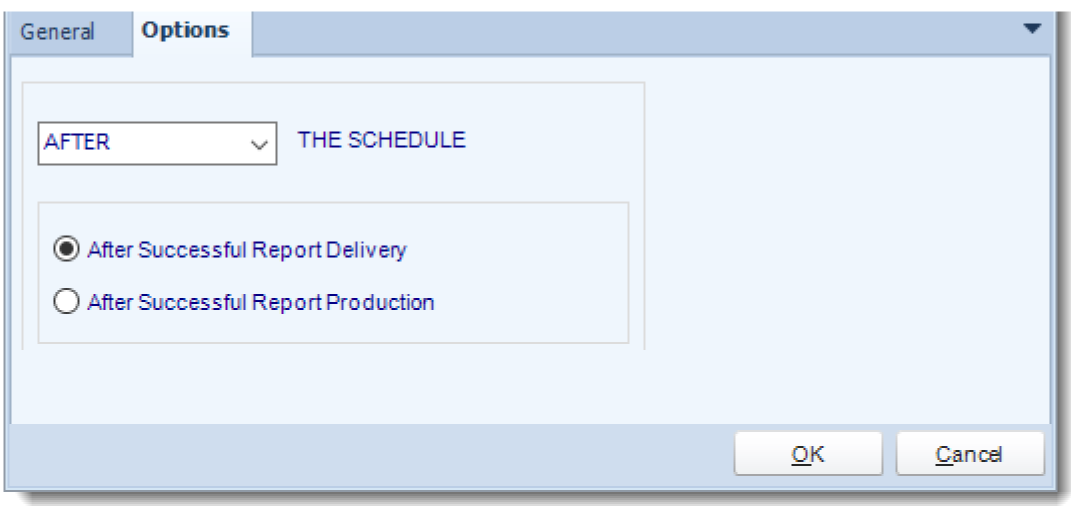
Tip: Use Event or Data Driven data to update multiple records in the table. It is as easy as drag and drop!

- Click **green down arrow** to add the change.
- Click **green right arrow** to continue.



- Review the completed script and make any modifications manually where required.
- Click **OK** to save the task.

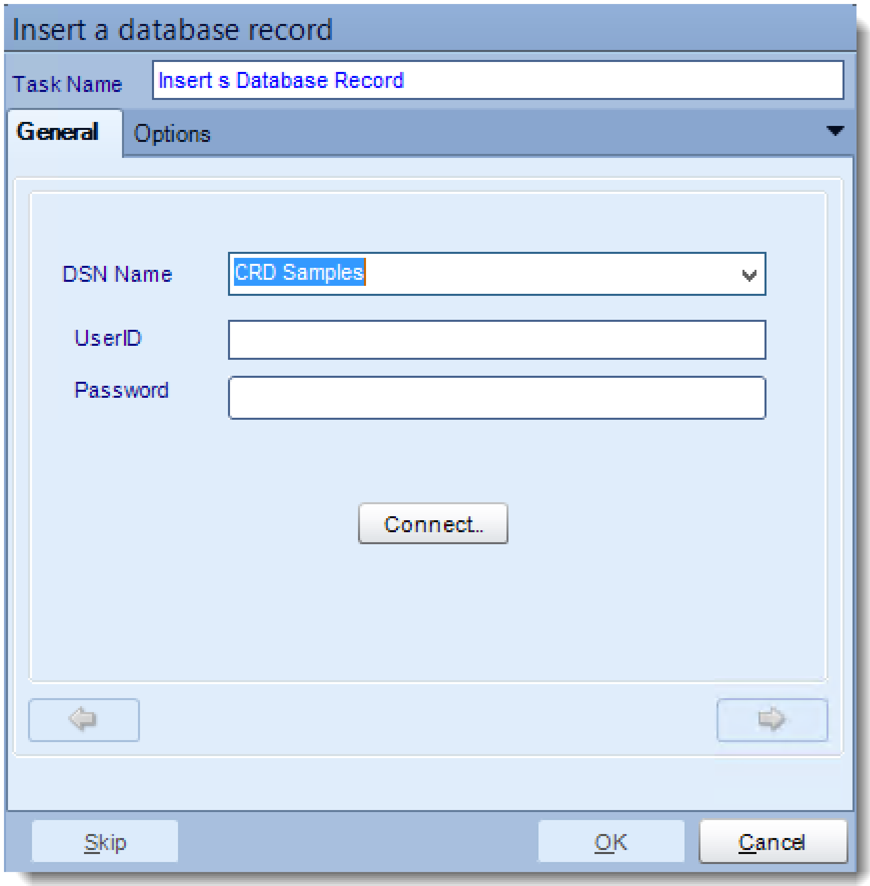
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Insert a record

General



- **ODBC Datasource Name:** Drop down and select a DSN.

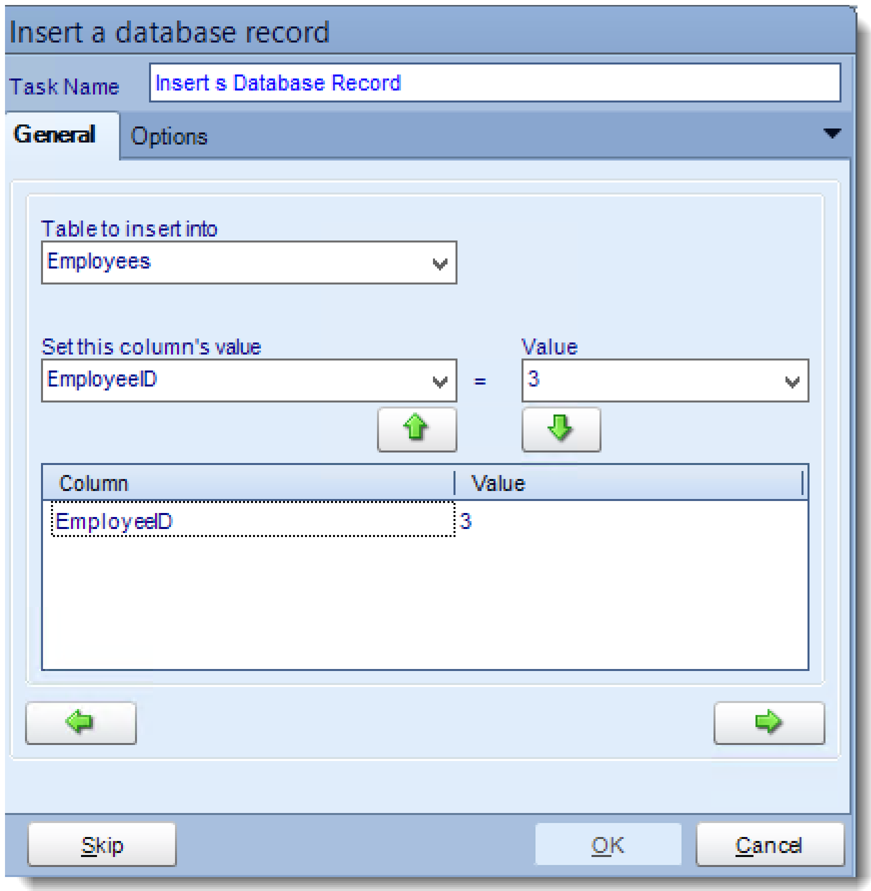
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

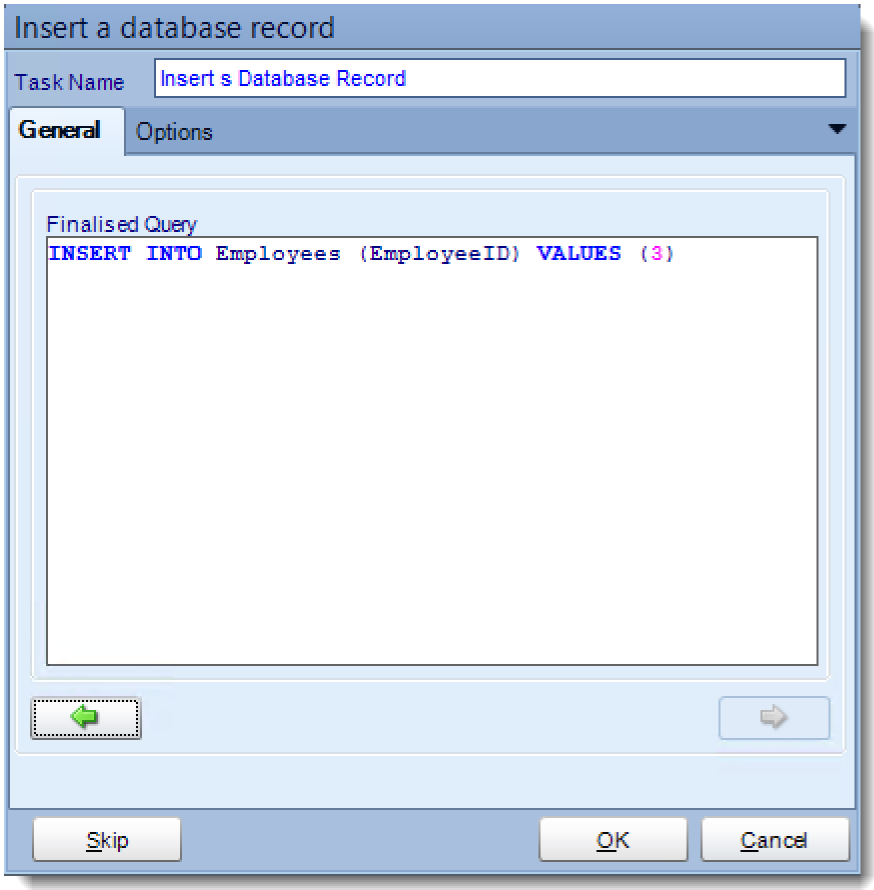
  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Click **green arrow** to continue.

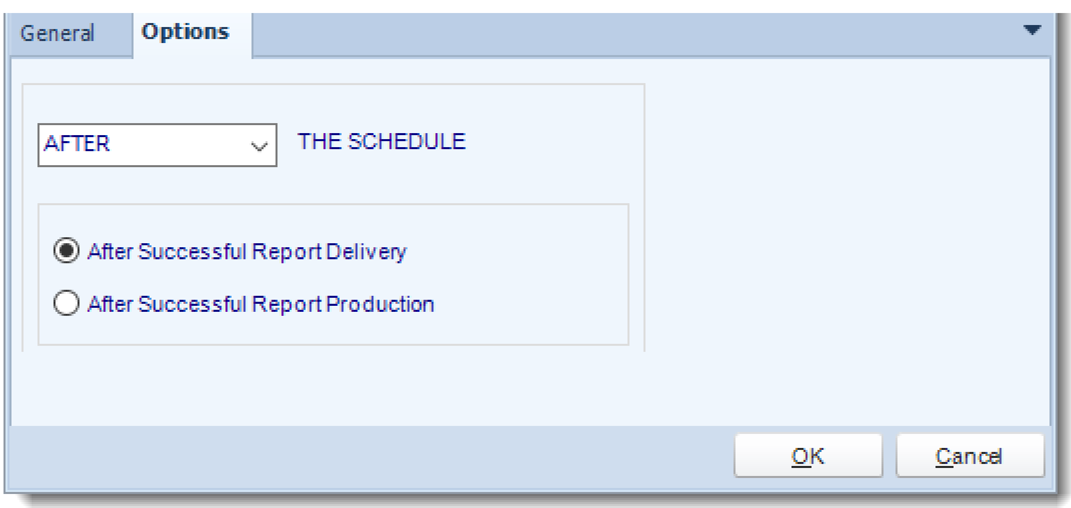


- **Table:** Select the table to insert the record.
- **Column Value:** Select a column.
- **Value:** Provide a value.
- Click **green down arrow** to add to the list.
- Click **green right arrow** to continue.



- Review the SQL statement and make modifications manually where required.
- Click **OK** to save the task.

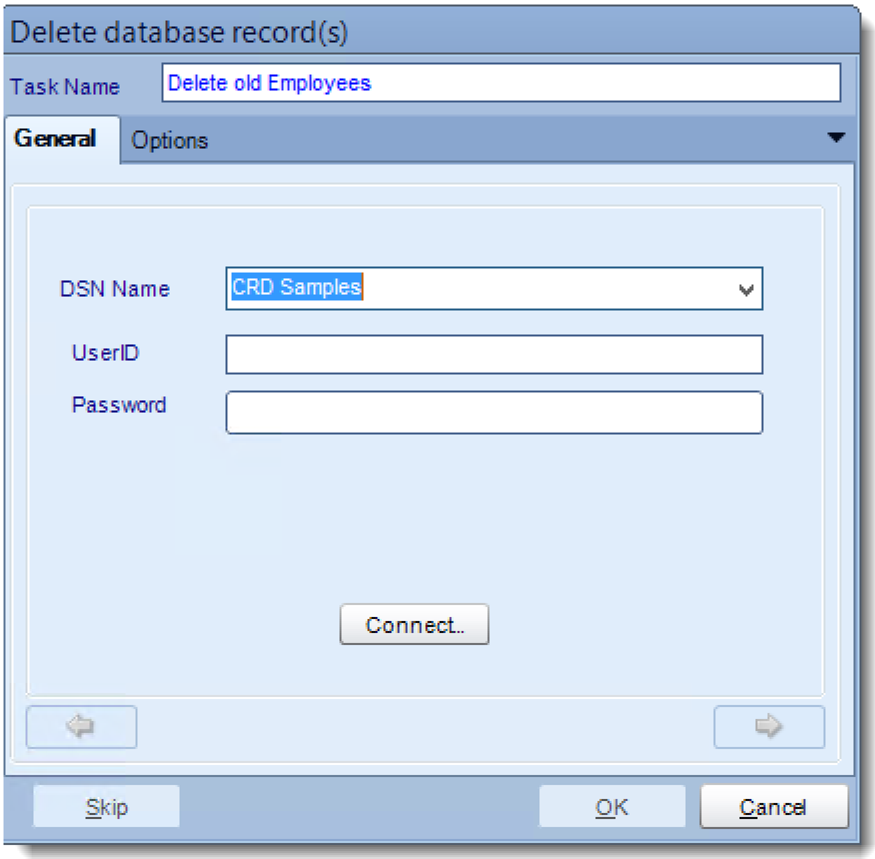
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Delete a record

General



- **ODBC Datasource Name:** Drop down and select a DSN.

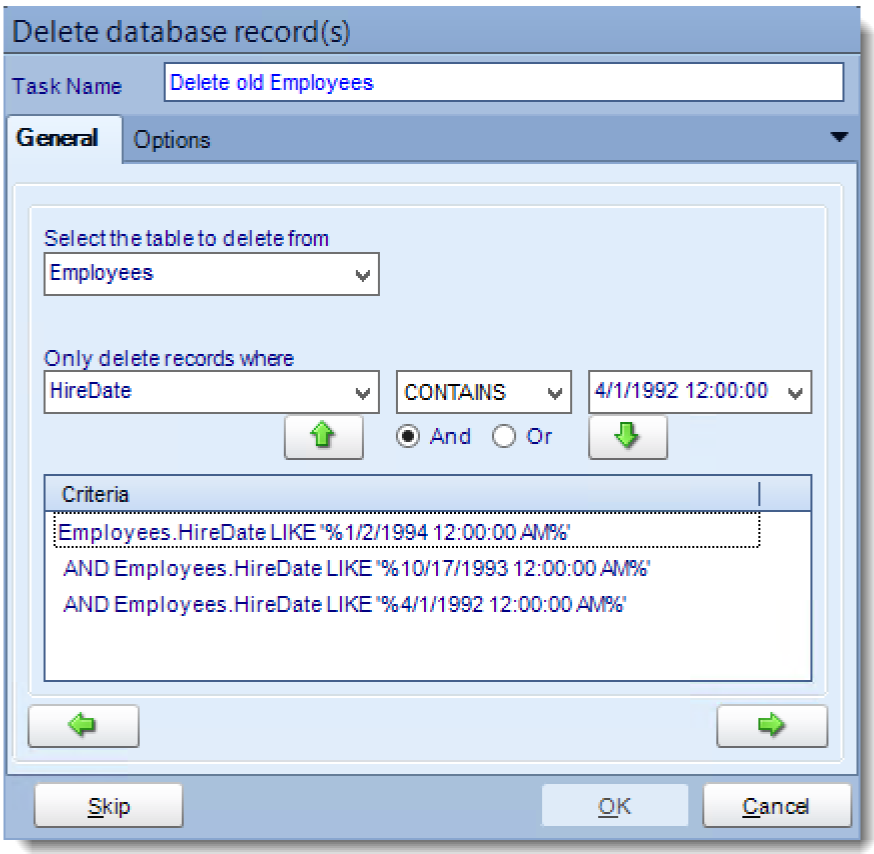
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

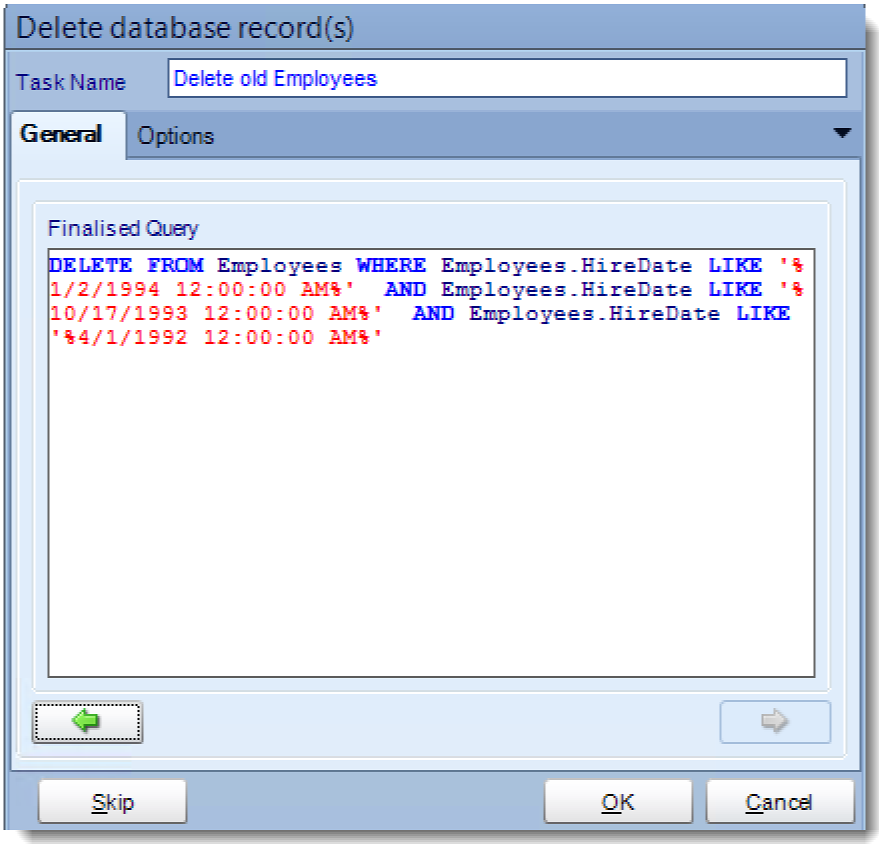
  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you *are logged in, automated scheduling will fail if the Service user has not got rights to the database.*

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Click **green arrow** to continue.

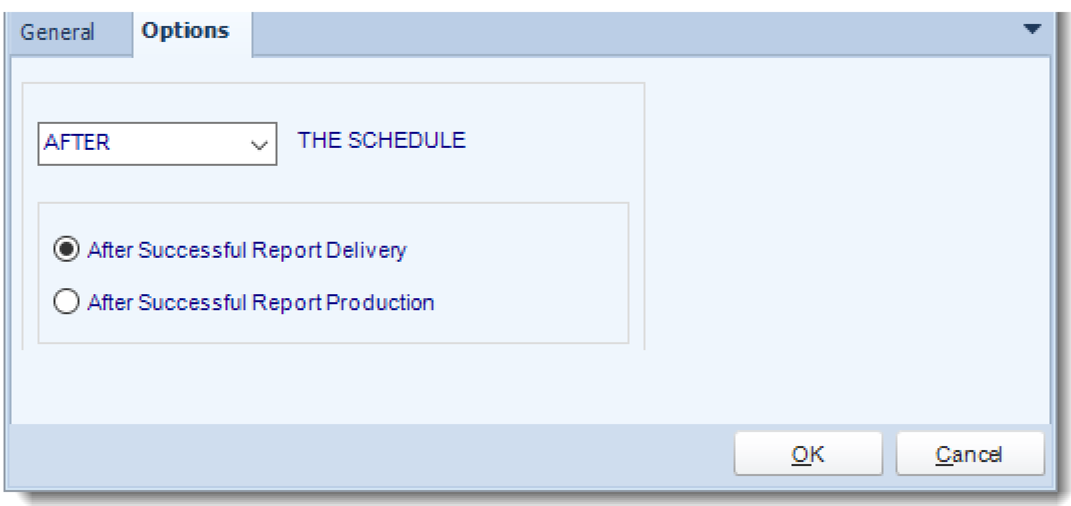


- **Table:** Select the table to insert the record.
- **Column Value**: Select a column.
- **Value:** Provide a value.
- Click **green down arrow** to add to the list.
- Click **green right arrow** to continue.



- Review the SQL statement and make modifications manually where required.
- Click **OK** to save the task.

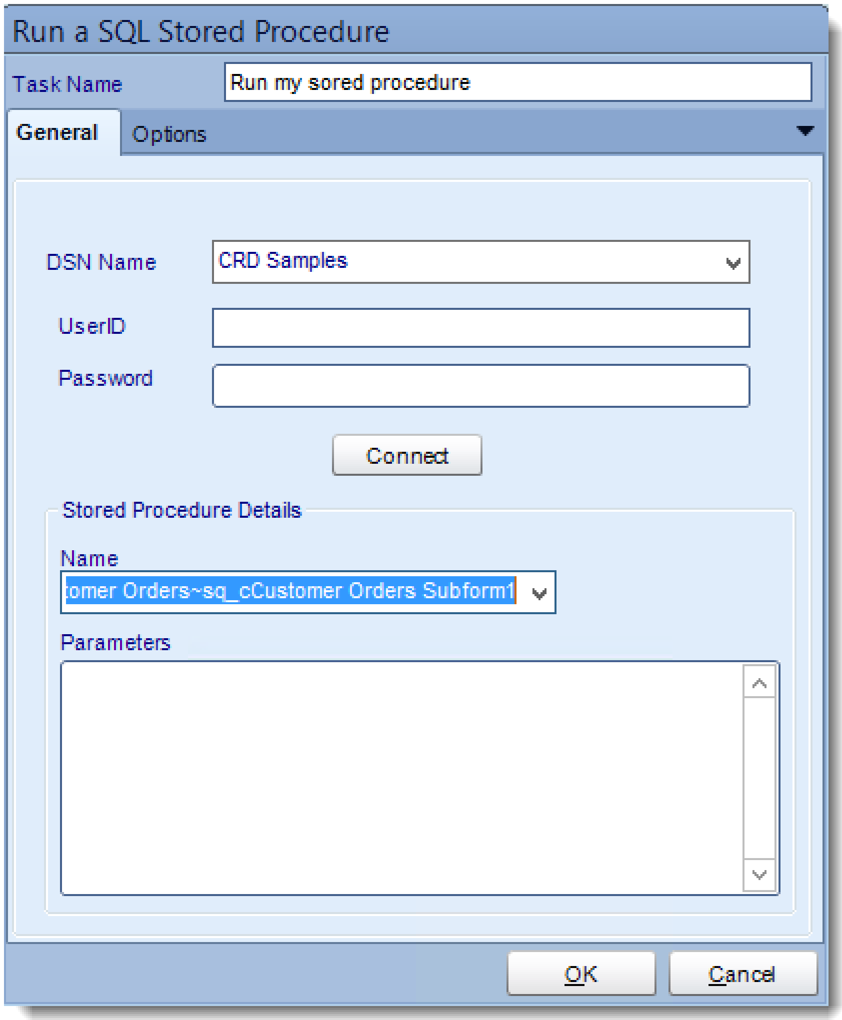
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Run a stored procedure

General



- **ODBC Datasource Name:** Drop down and select a DSN.

  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of *security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.*

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Select a Stored Procedure from the list and enter any required parameters.

  For example, if you would normally run your stored procedure by using the query

  execute myproc para1 para2 para3

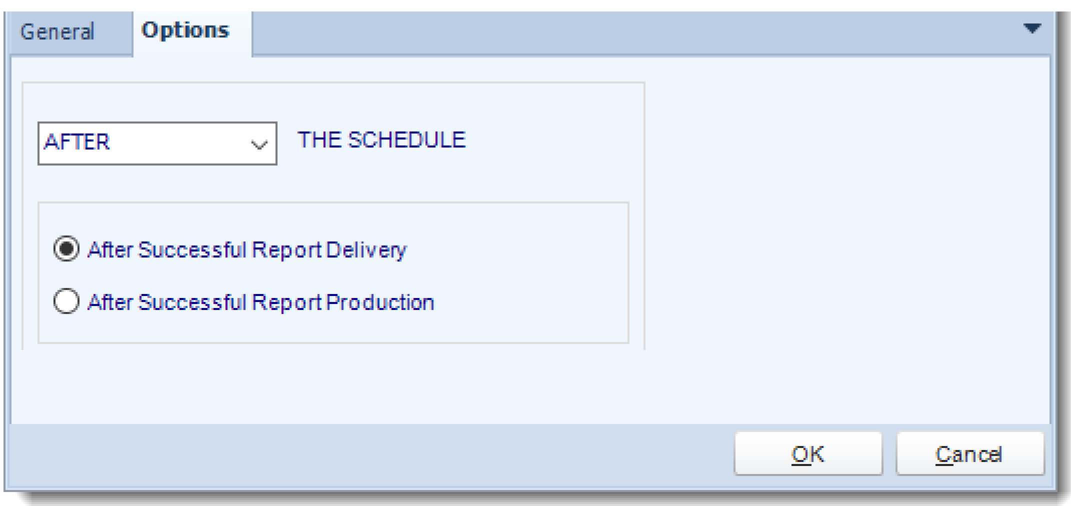
  then

  Connect to the database and select "myproc" from the list.

  Enter in the parameters box: para1 para2 para3

- Click **OK** to save.

Options



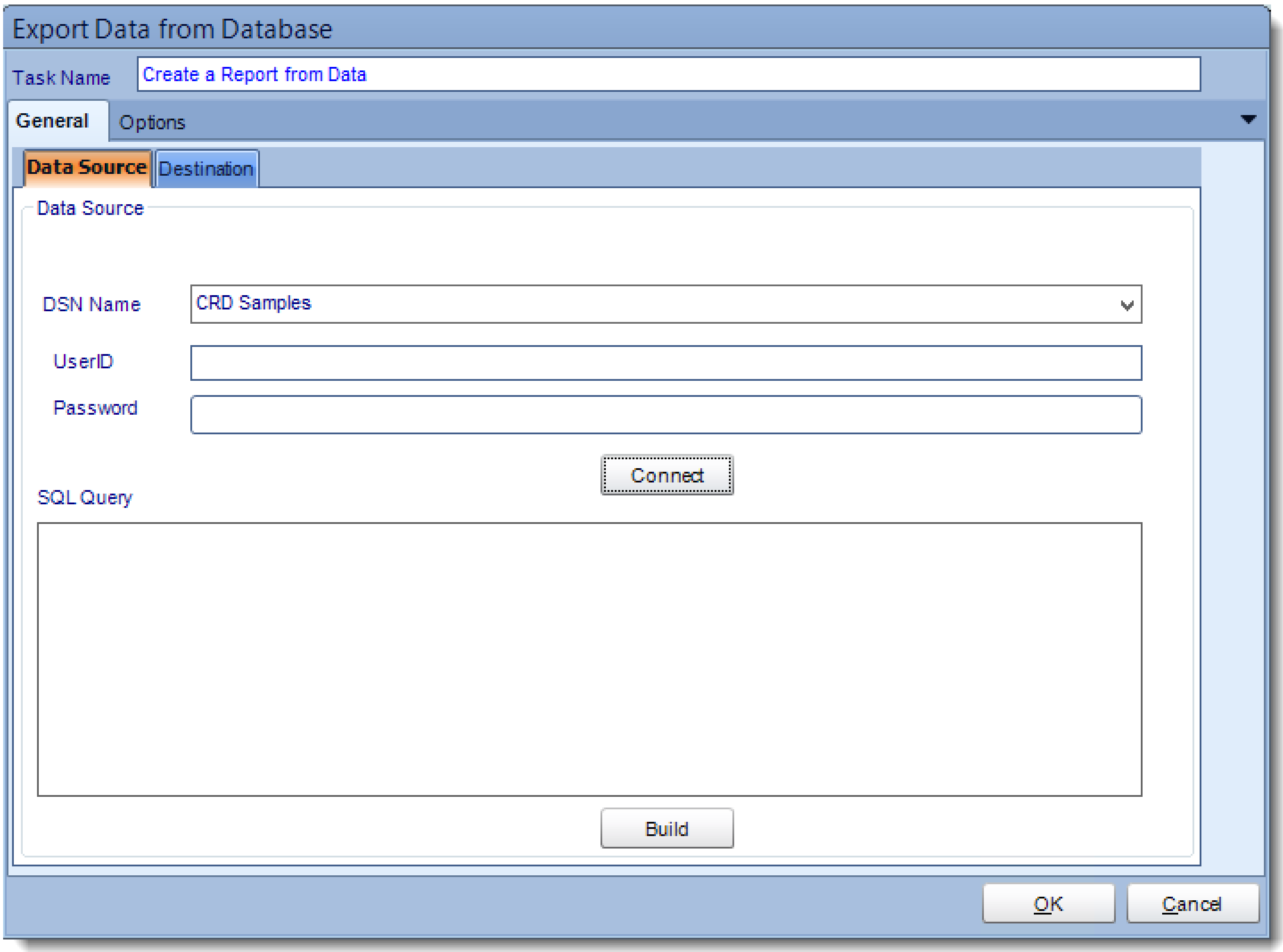
- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Export data to a report

General

With this task, you can pull data directly from a data source and in any output format, then deliver the report to a destination.

Data Source



- **ODBC Datasource Name:** Drop down and select a DSN.

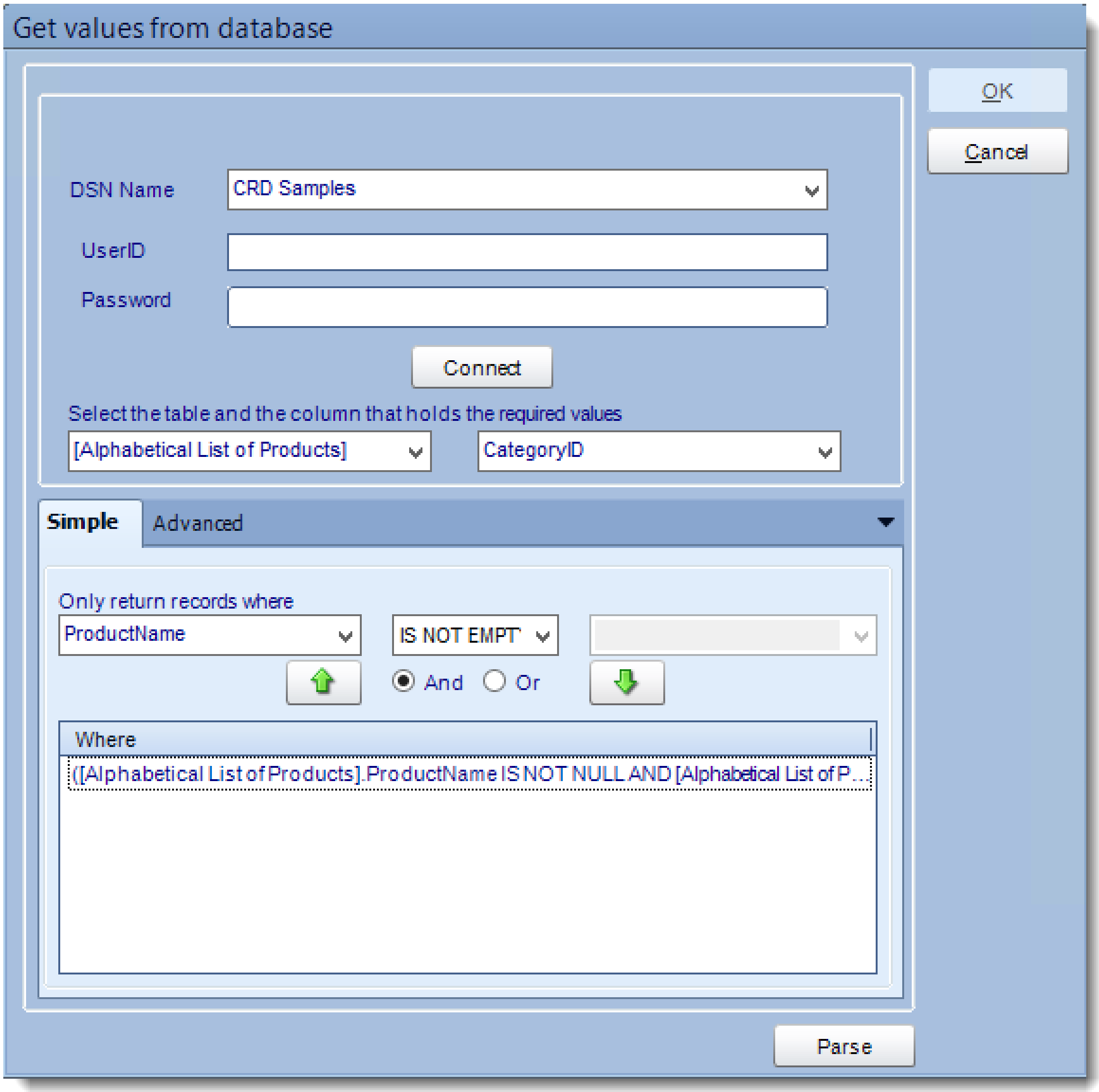
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

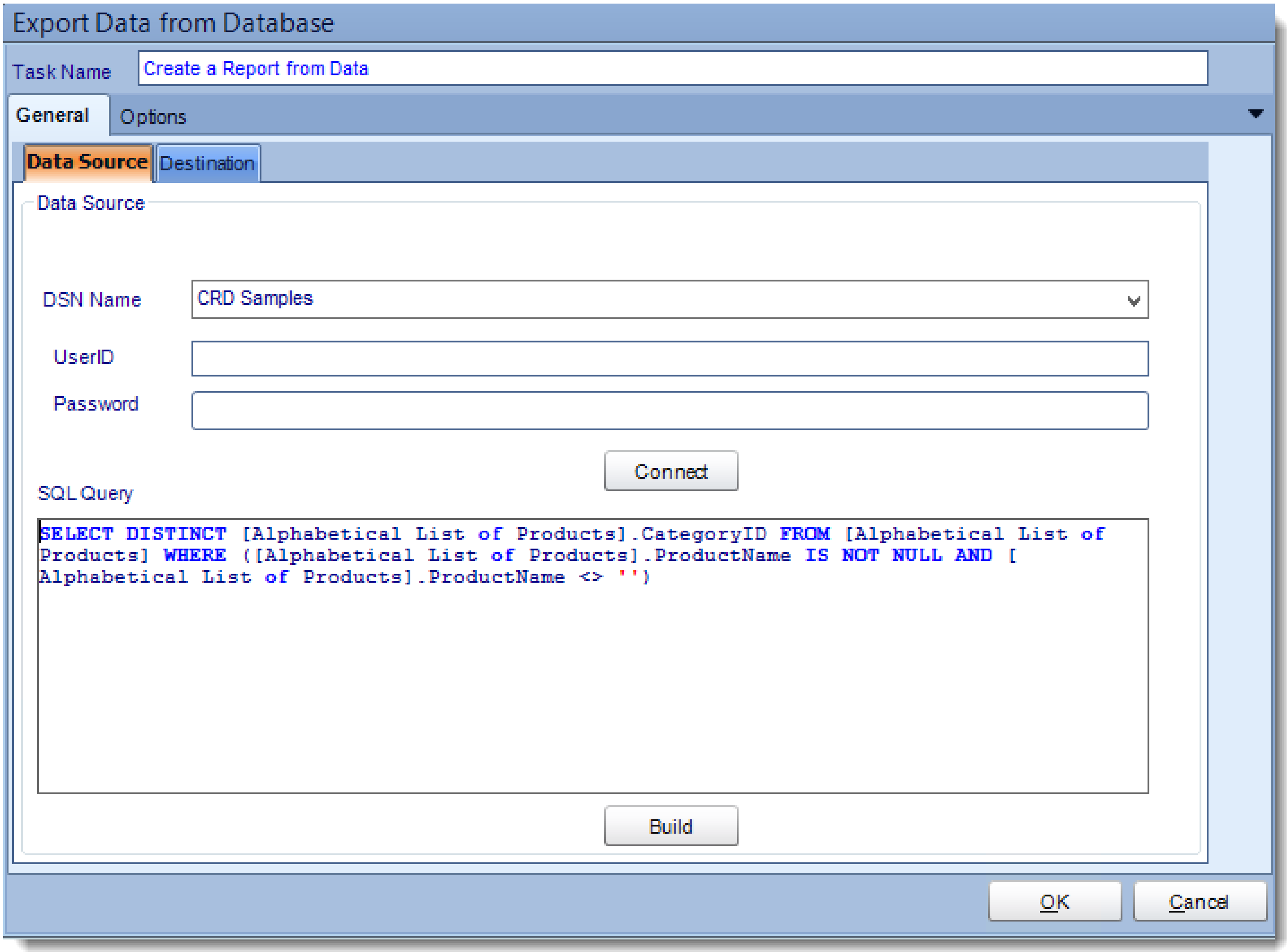
When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

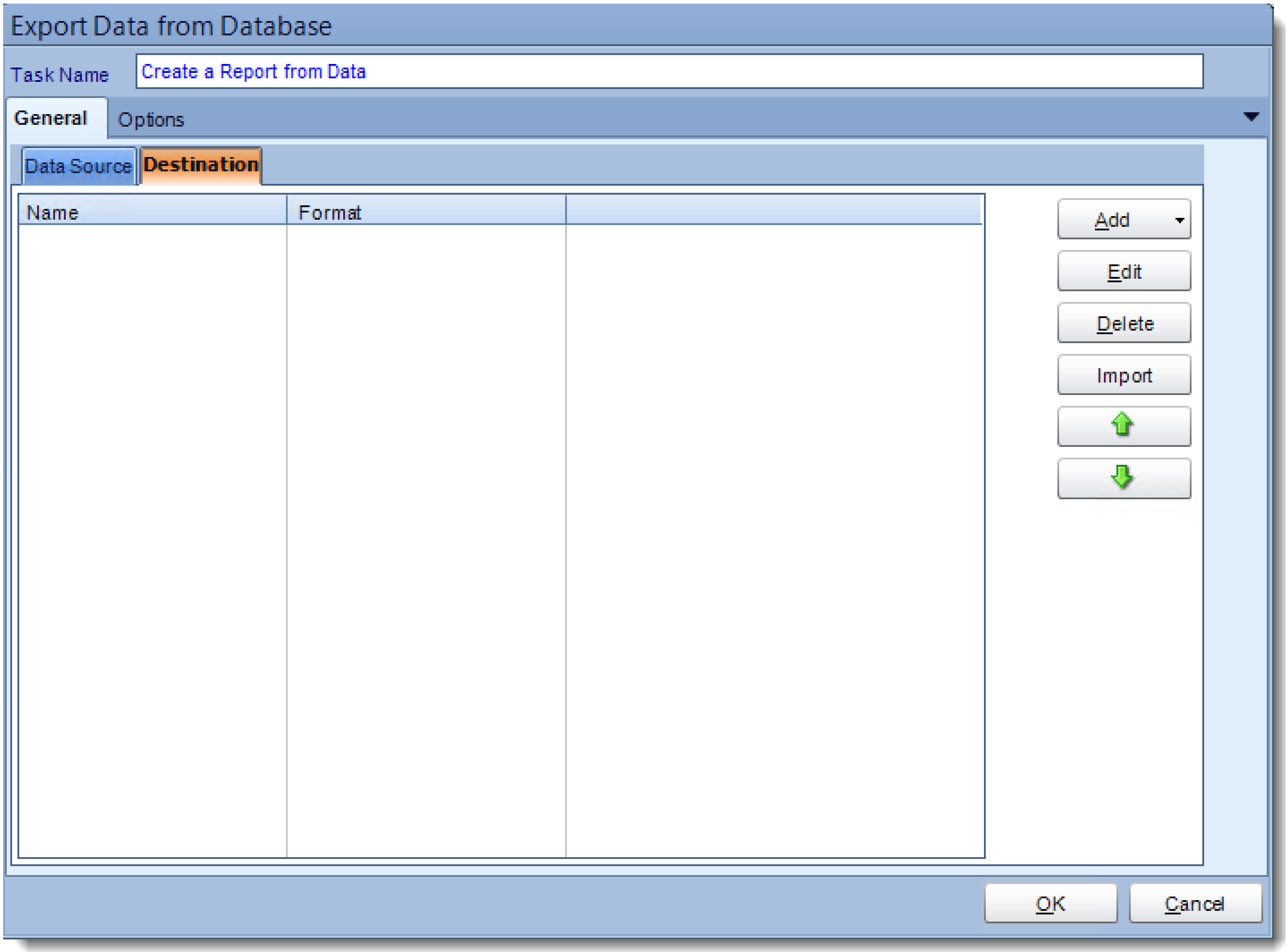
- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.



- Build your query using the Query Tool.
- **Parse:** Test the Query.

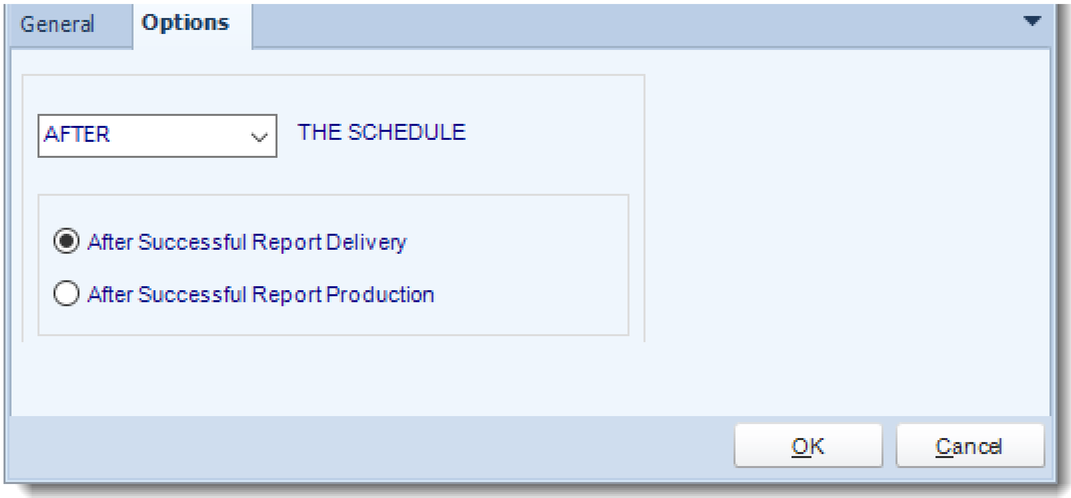

Export Data from Database
Task Name
Create a Report from Data
General
Options
Data Source
Destination
Data Source
DSN Name
CRD Samples
UserID
Password
Connect
SQL Query
SELECT DISTINCT [Alphabetical List of Products].CategoryID FROM [Alphabetical List of Products] WHERE ([Alphabetical List of Products].ProductName IS NOT NULL AND [Alphabetical List of Products].ProductName <> '')
Build
OK
Cancel

Destination



- Go to the Destination Tab. There you can add a destination for the report.
- For more information of Destination, click here.
- Form more information of Output Formats, click here.

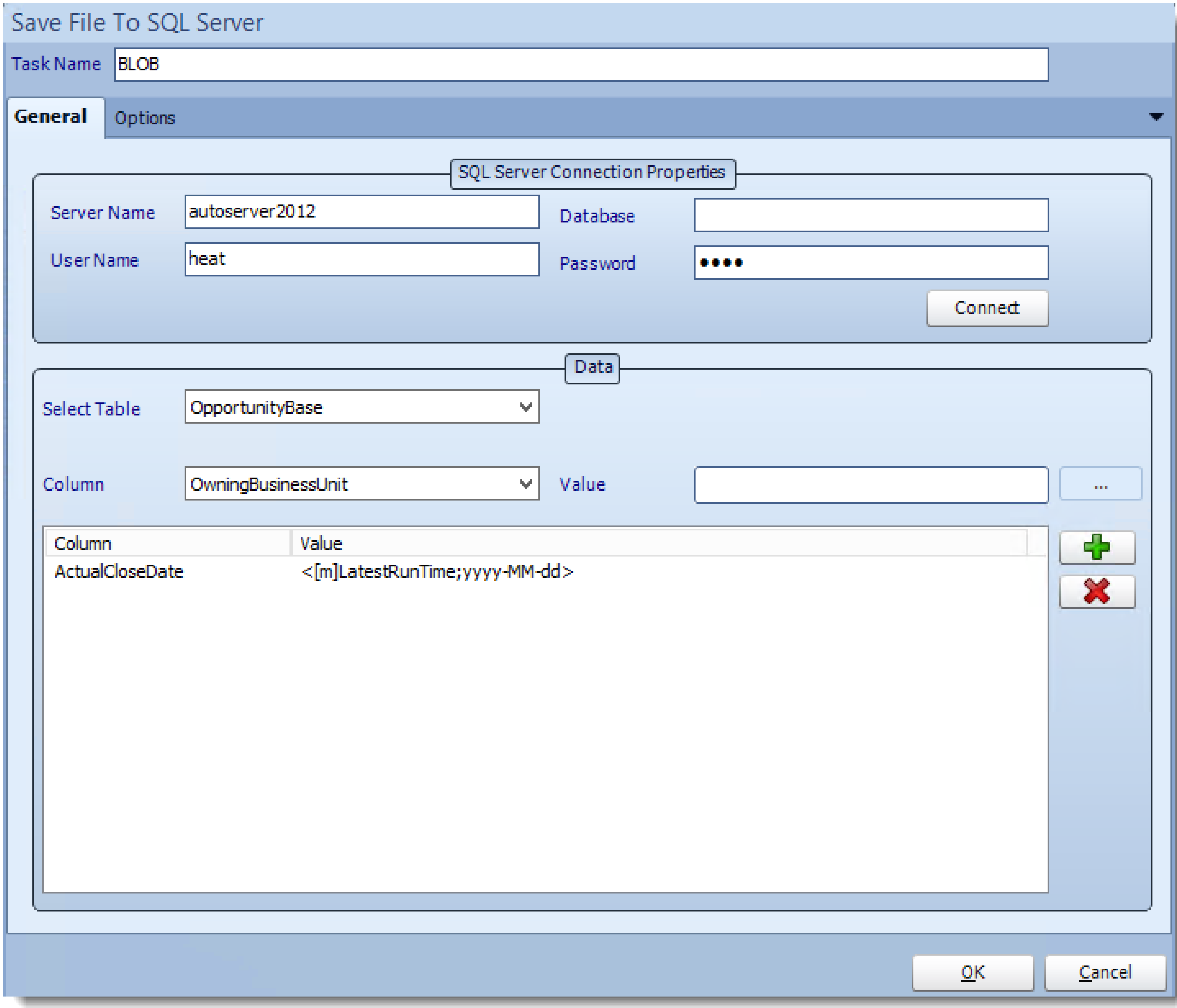
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Save BLOB to SQL Server

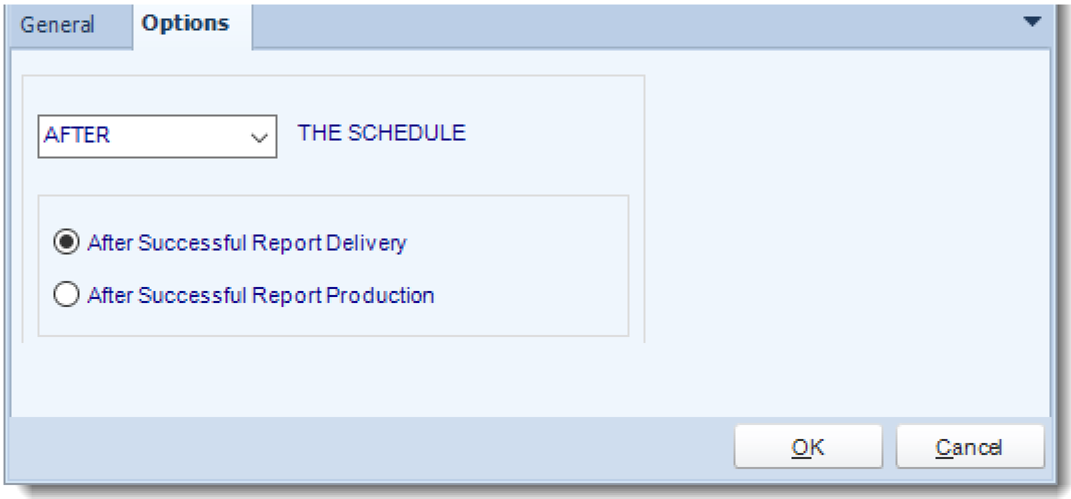
General



- **Task Name:** Give the task a name.
- **SQL-Server Connection properties:** Enter the SQL Server credentials.
- **Table:** Select the table from the drop down list.
- **Column:** Select the column.
- **Value:** set the value of the column.

- Use **(+)** to add more columns a values as required.
- Click **OK** to save.

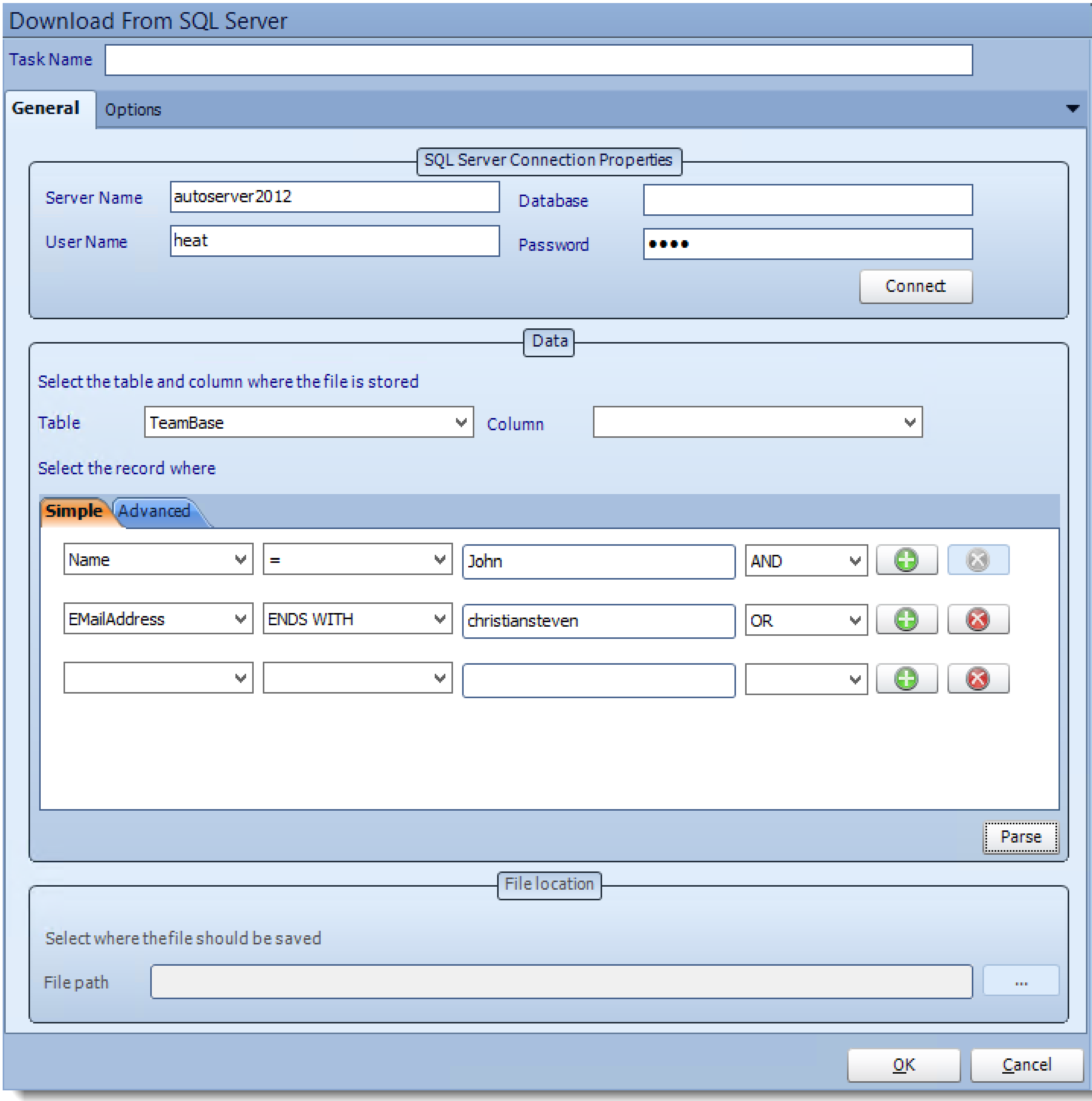
Options

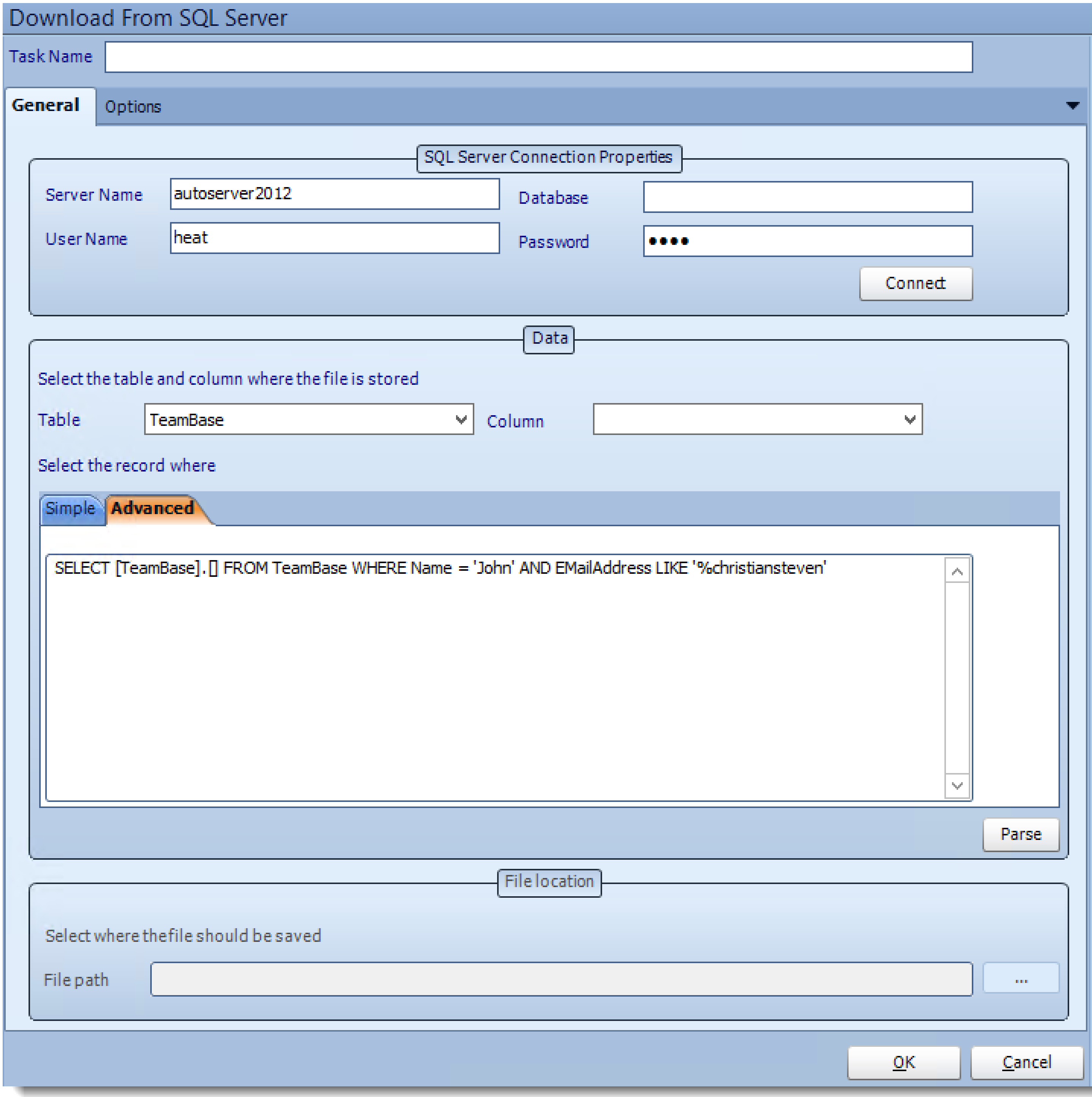


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Get BLOB from SQL Server

General

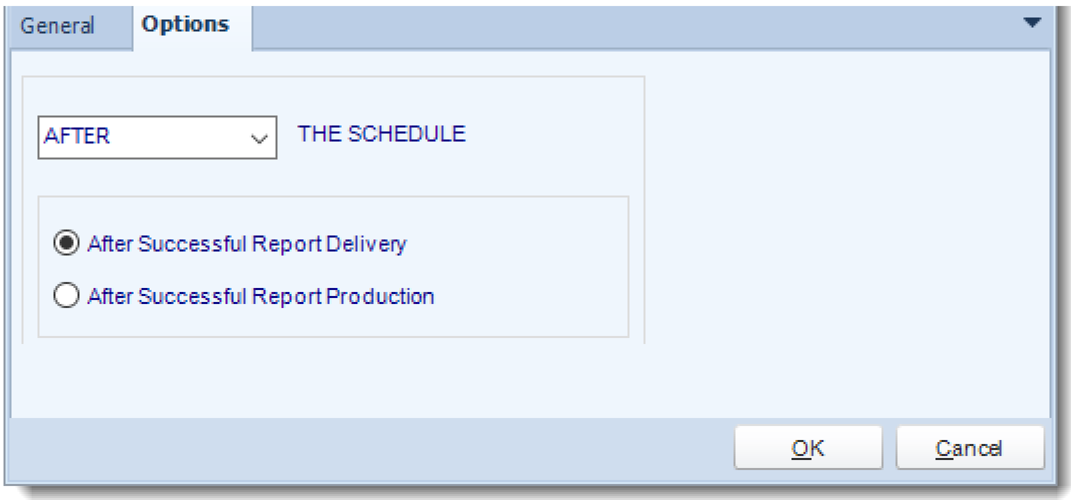




- **Task Name:** Give the task a name.

- **SQL-Server Connection properties:** Enter the SQL Server credentials
- **Table:** Select the table from the drop down list.
- **Column:** Select the column.
- **Records:** Define which records are to be downloaded from the table using a SQL Query.
- **Parse:** Test the query, ensure the correct data is being shown.
- **File path:** Use **(…)** button to navigate to the folder where the data is to be stored.

Options

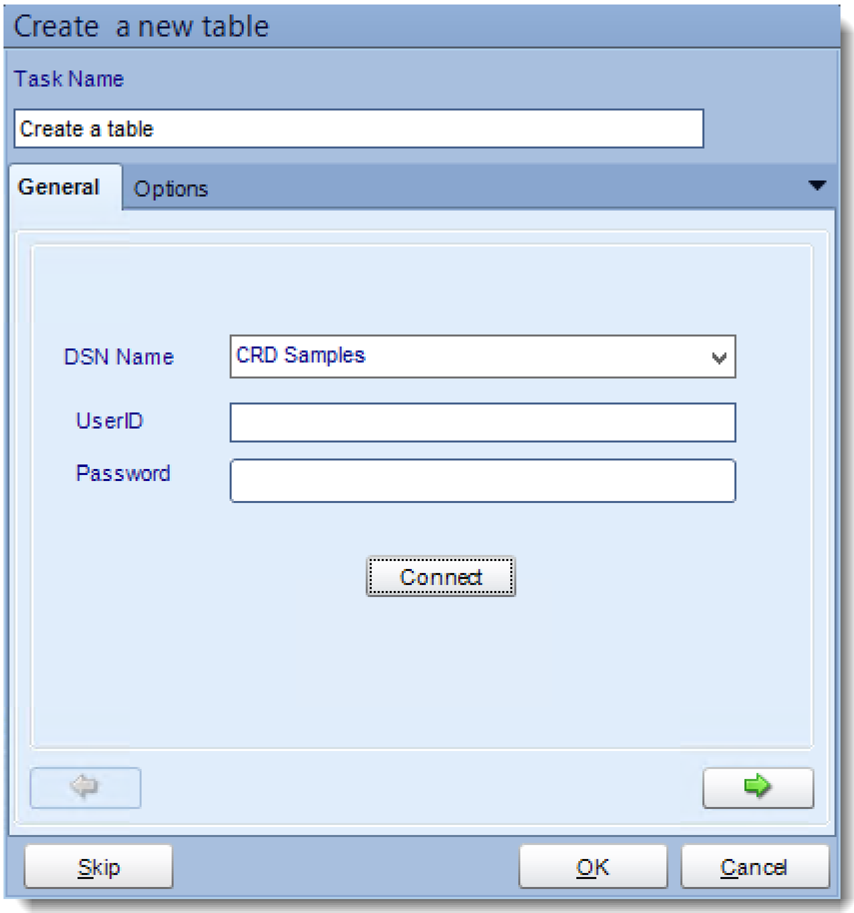


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Table

Create a table

General



- **ODBC Datasource Name:** Drop down and select a DSN.

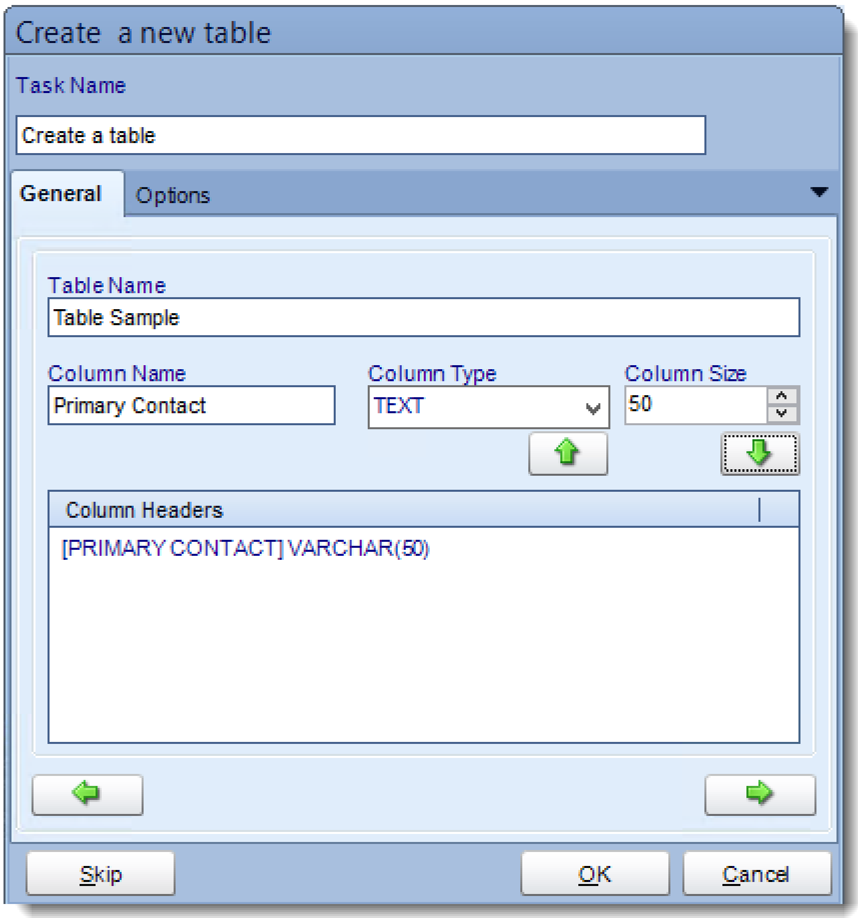
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

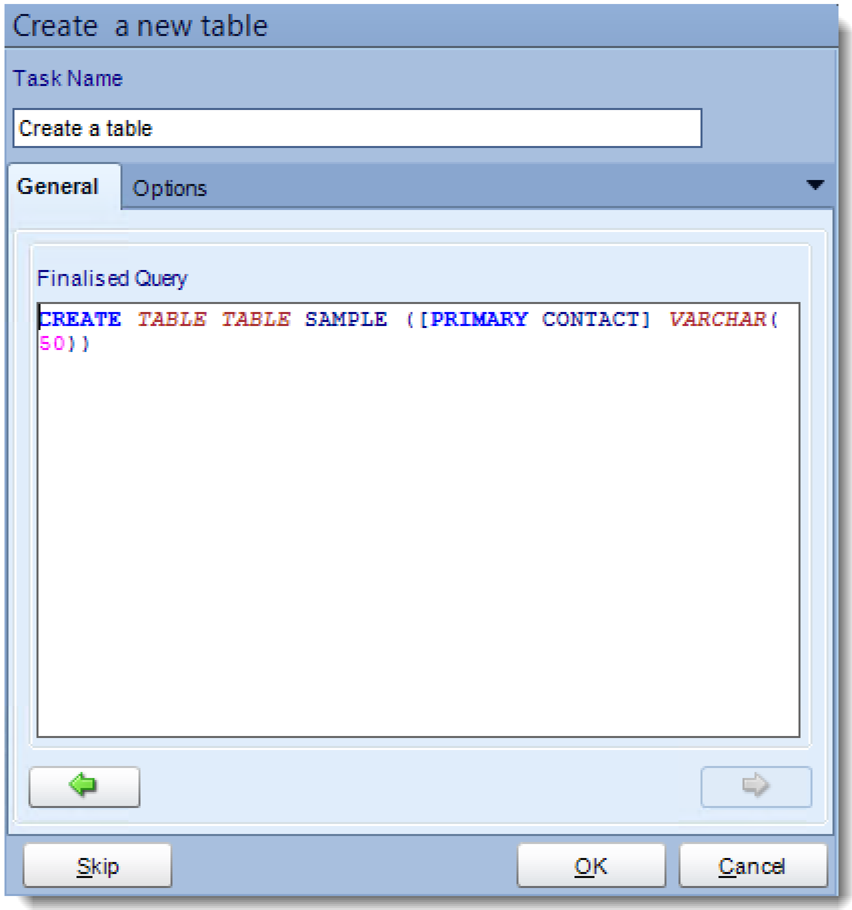
  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you *are logged in, automated scheduling will fail if the Service user has not got rights to the database.*

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Click **green arrow** to continue.

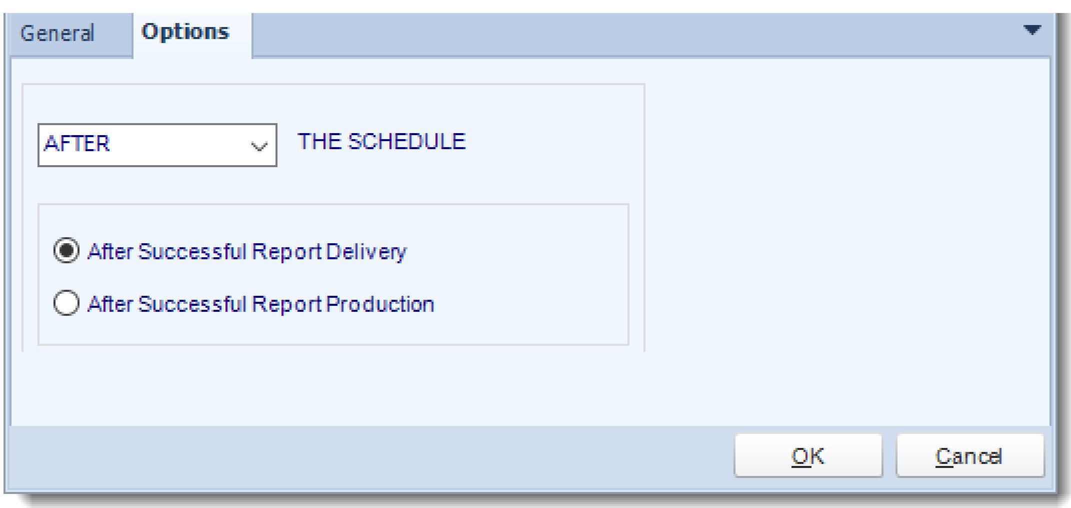


- **Table Name:** Give the new table a name.
- **Column Name:** Give the column a name.
- **Column Type:** What type of data will be written in the column.
- **Column Size:** How many character allowed in column.
- Click **down arrow** to save the column information. Continue adding as many columns as required.



- Review the final script and make manual adjustments if required.
- Click **OK** to continue.

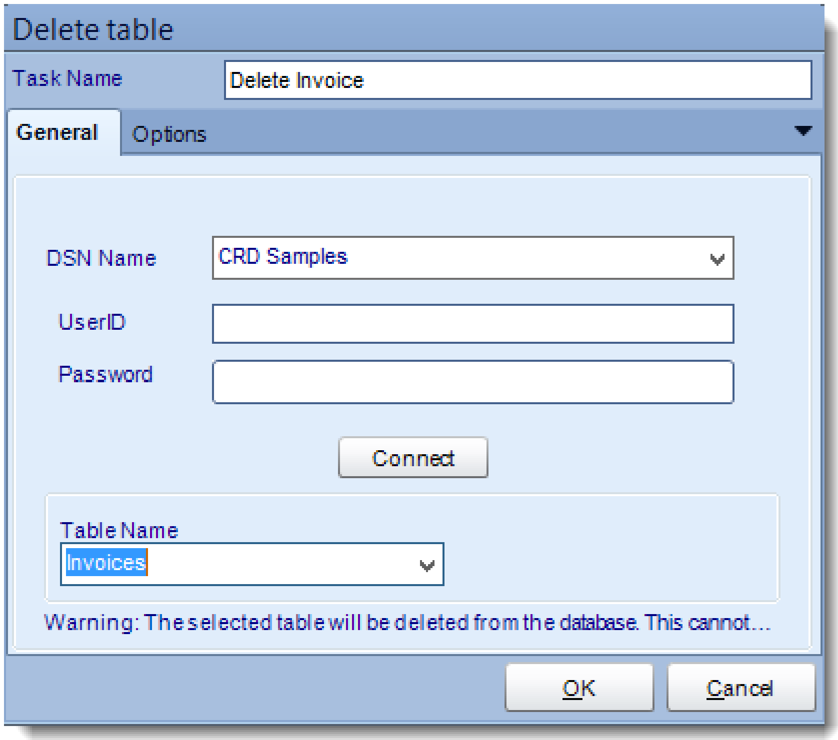
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Delete a table

General



- **ODBC Datasource Name:** Drop down and select a DSN.

  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

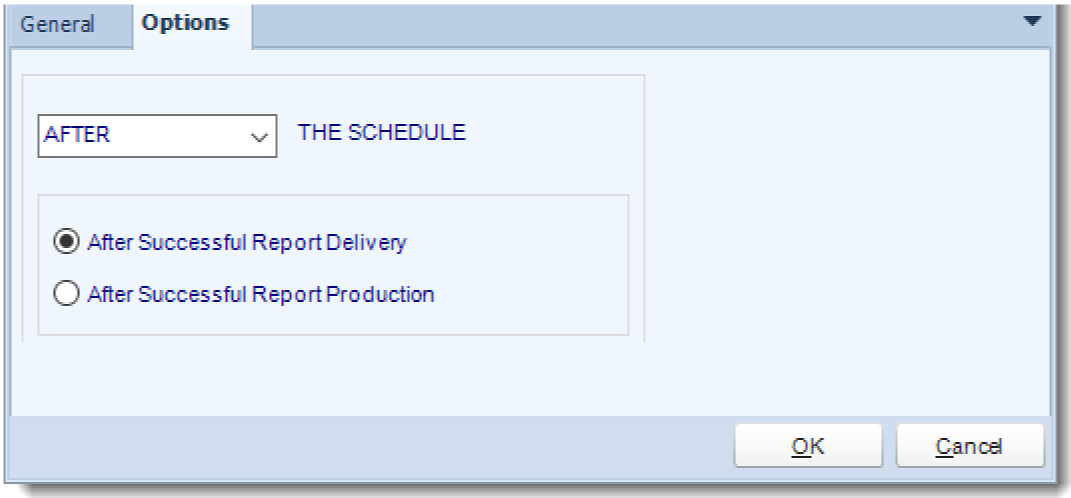
  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- **Table Name:** Select the table you wish to delete from the list.
- Click **OK** to save.

**Important* This operation CANNOT be undone. Be sure of your settings before you commit to this task. It is highly recommended that you backup up database as well.*

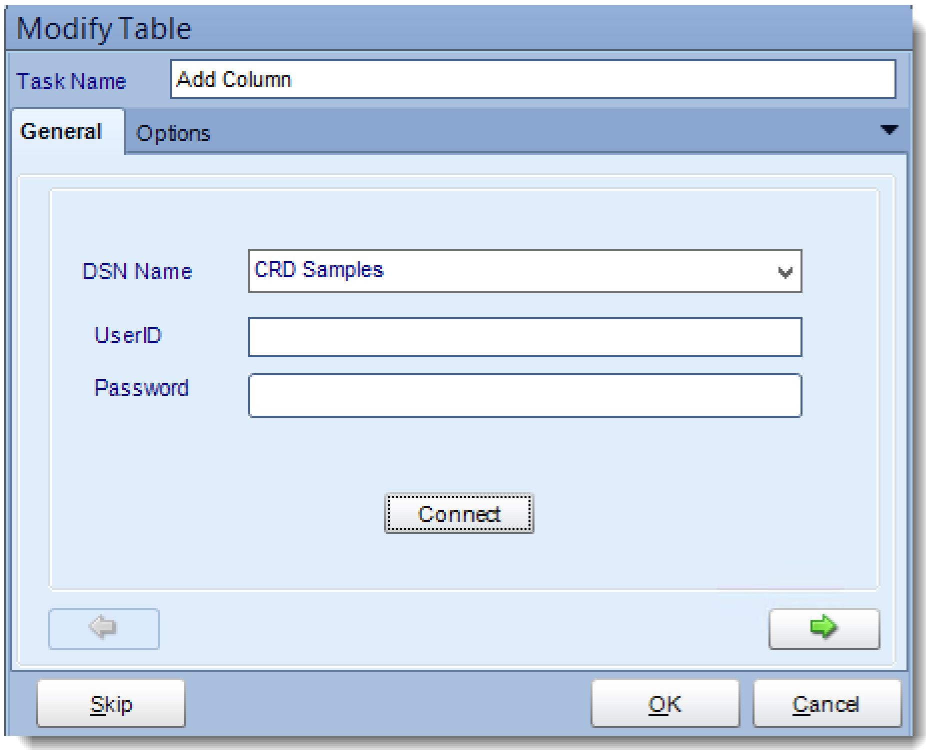
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Add column to table

General



- **ODBC Datasource Name:** Drop down and select a DSN.

  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

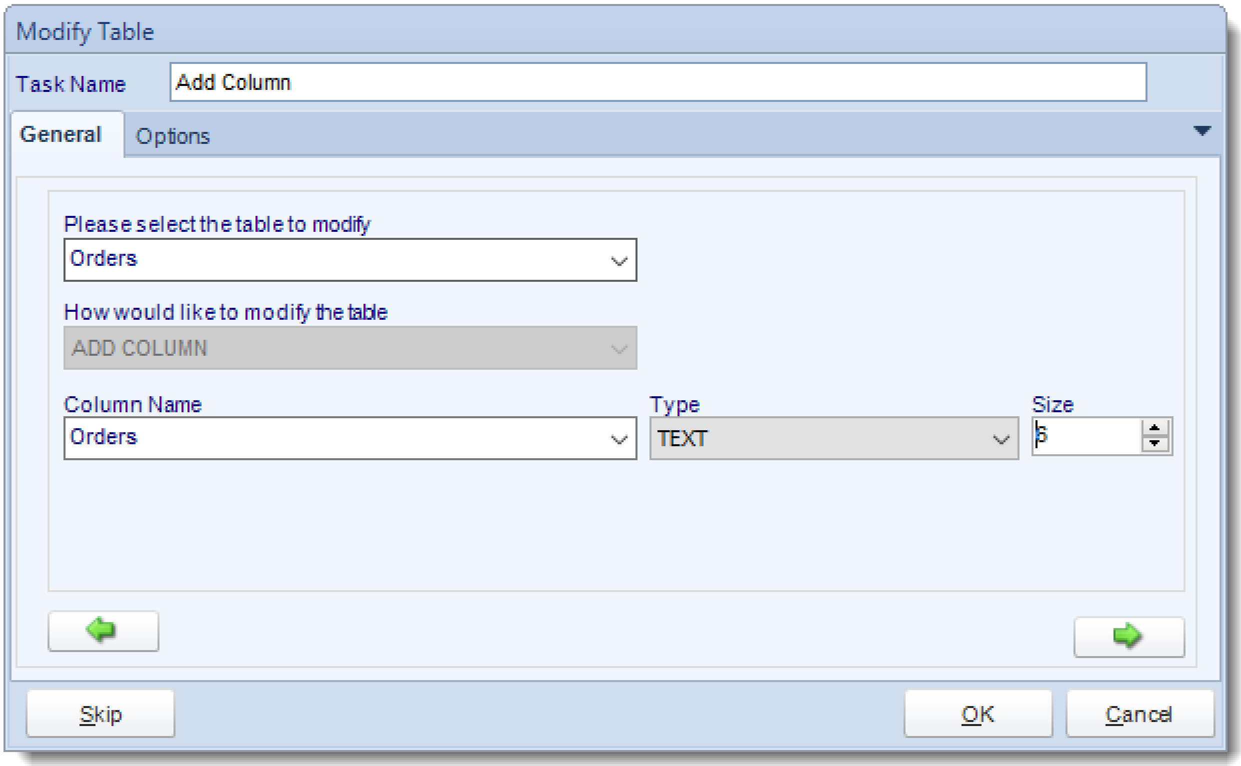
  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

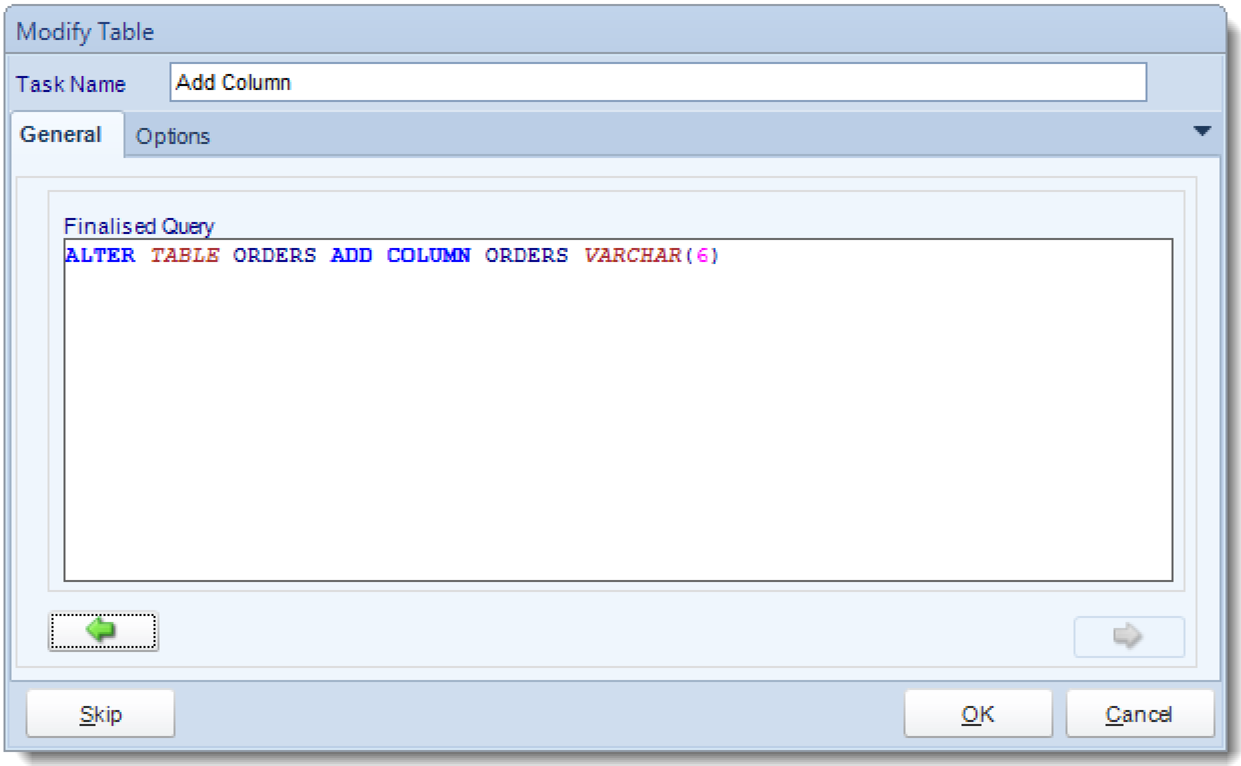
  When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database.

- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Click **green arrow** to continue.

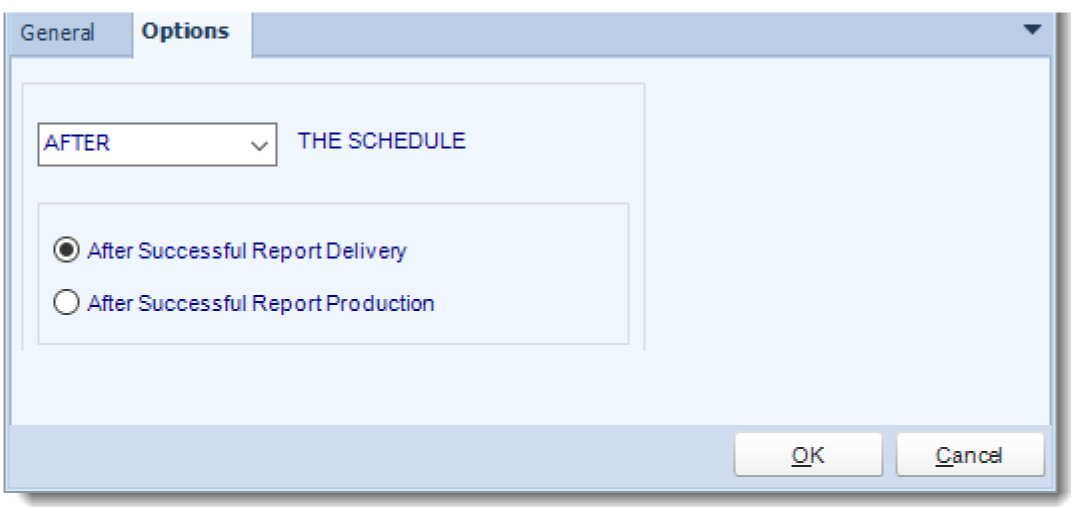


- **Task Name:** Give the task a name.
- **Table to Modify:** Select the Table that you need to modify.
- **How to modify the Table:** Select ADD COLUMN.
- **Column Name:** Give the column a name.
- **Type:** Select the type of data that will be written in the column.
- **Size:** How many characters should be allowed in the column.
- Click **green arrow** to continue.



- Review the script and make modifications manually if required.
- Click **OK** to save.

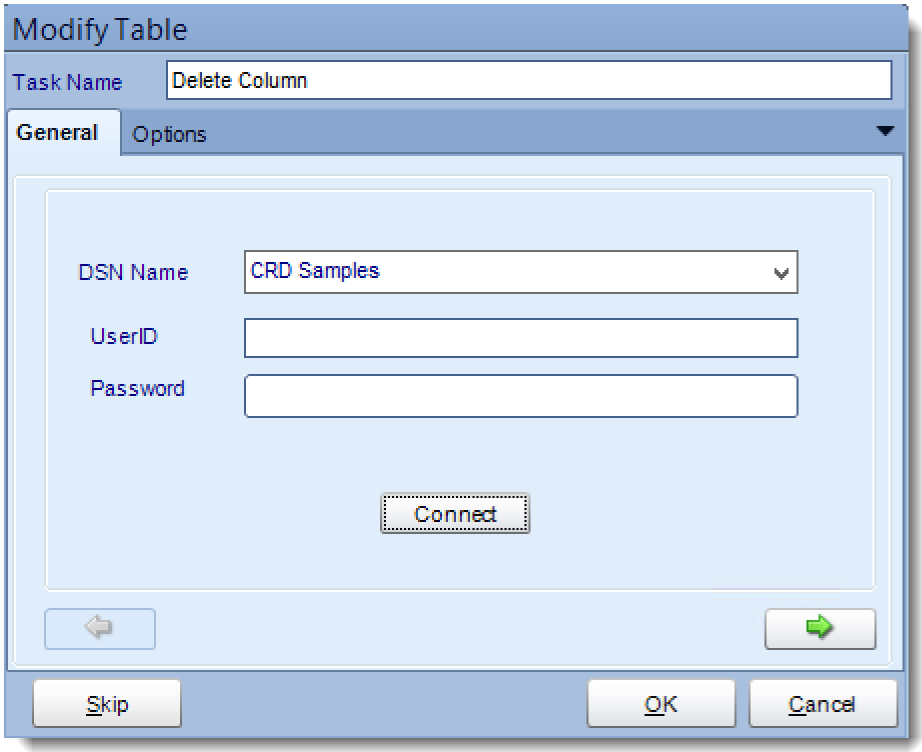
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Delete column from table

General



- **ODBC Datasource Name:** Drop down and select a DSN.

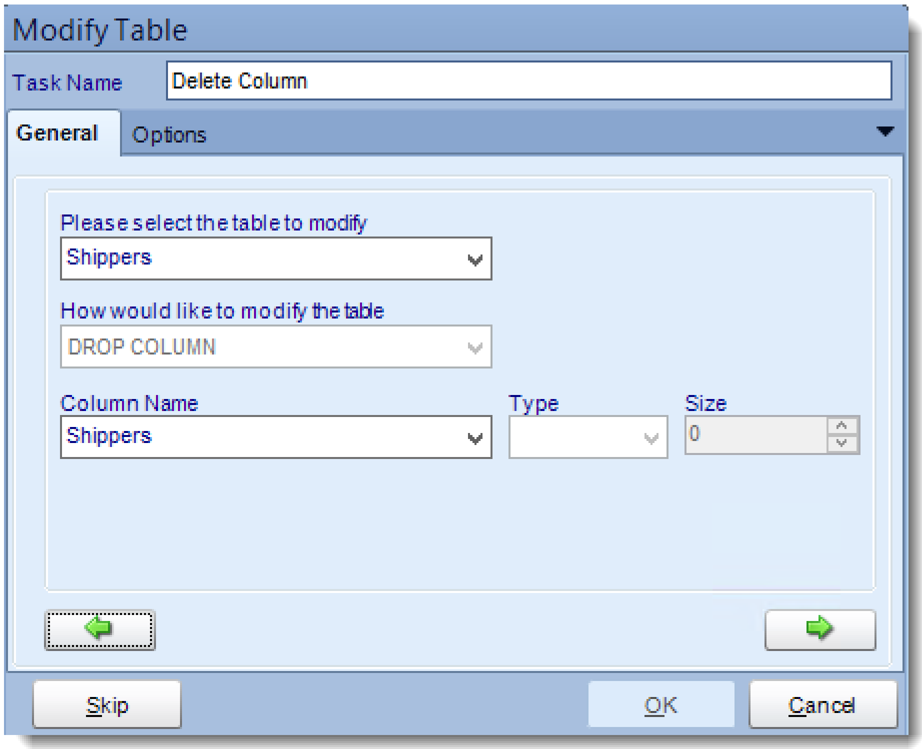
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

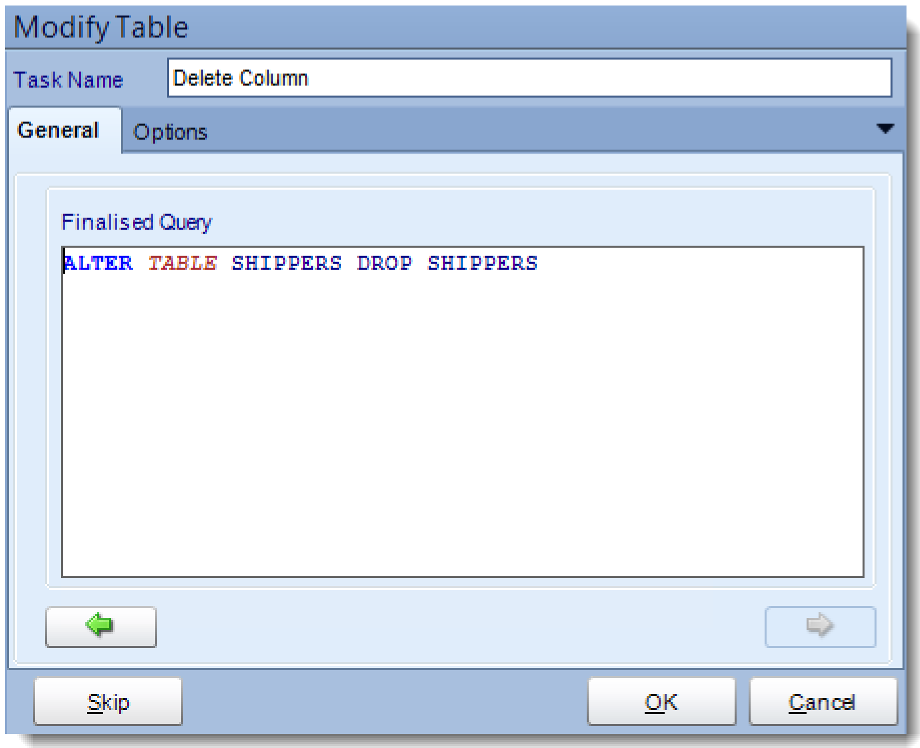
  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

  When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Click **green arrow** to continue.

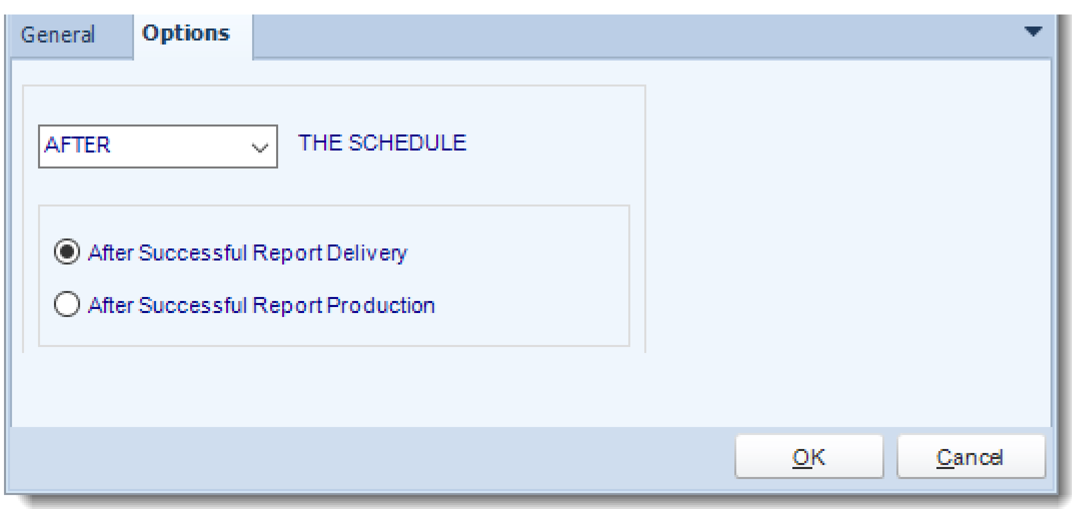


- **Task Name:** Give the task a name.
- **Table to Modify**: Select the Table that you need to modify.
- **How to modify the Table:** Select DROP COLUMN.
- **Column Name:** Select the column that needs to be deleted.
- **Type:** This will be greyed out.
- **Size:** This will be greyed out.
- Click **green arrow** to continue.



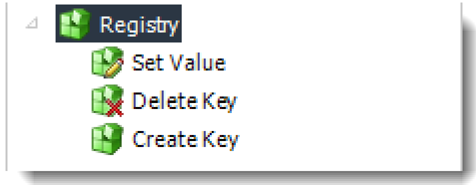
- Review the script and make modifications manually if required.
- Click **OK** to save.

Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

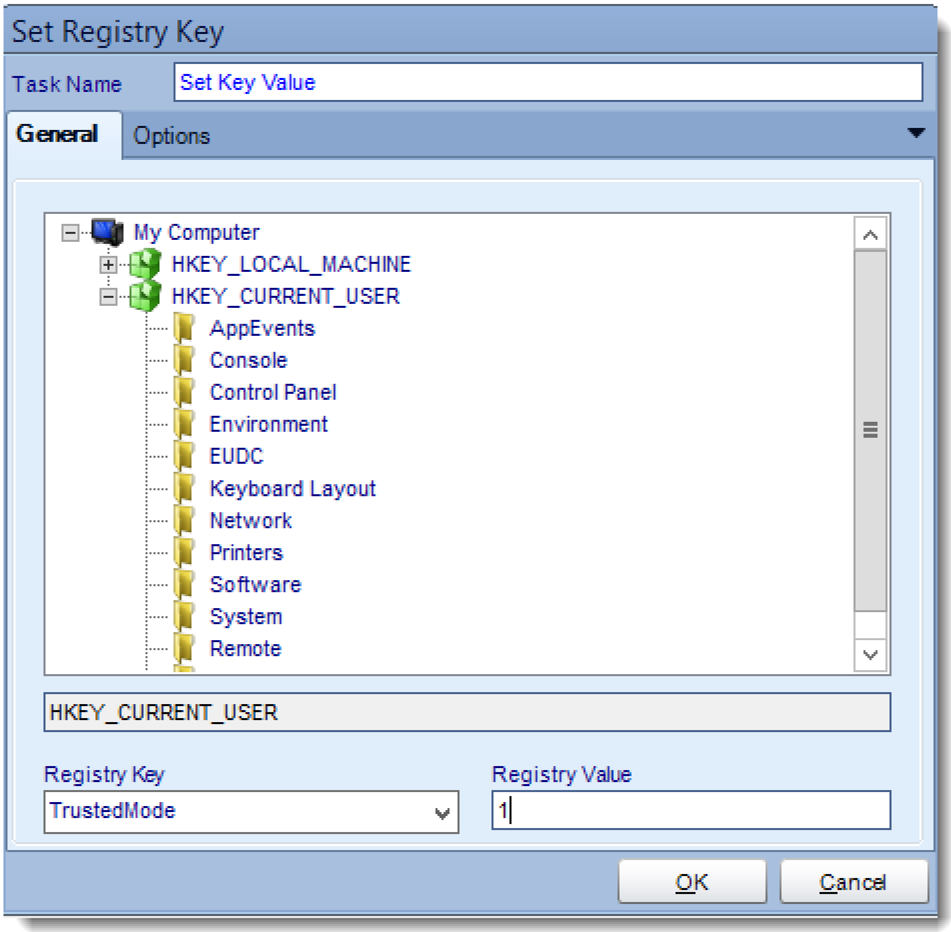
Registry



Registry Tasks enable you to create registry keys, set values, and more. This a powerful module and only those knowledgeable of windows and their systems should use this functionality.

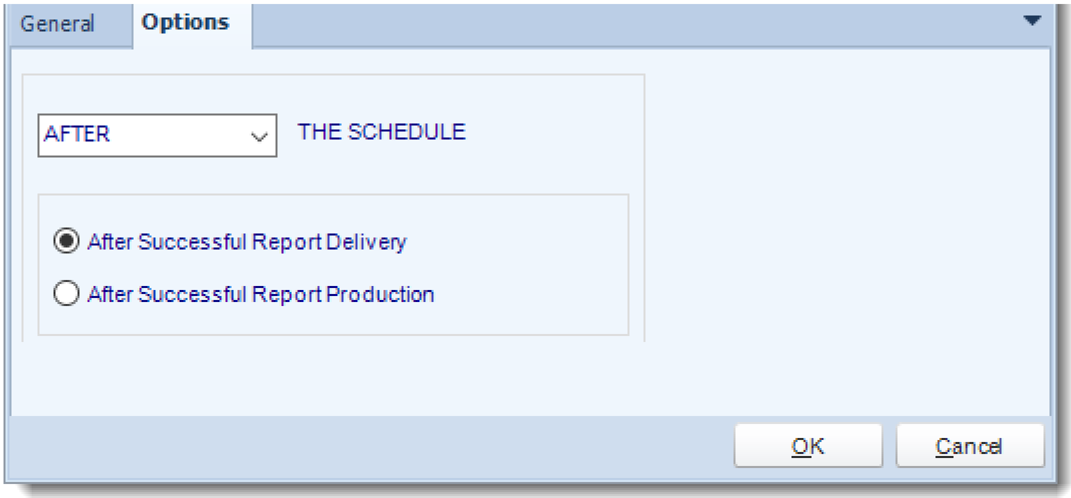
Set Value

General



- **Task Name:** Give the Task a name.
- **Registry Key:** Select the registry key from the drop down menu.
- **Registry Value:** Enter the new value.
- Click **OK** to save.

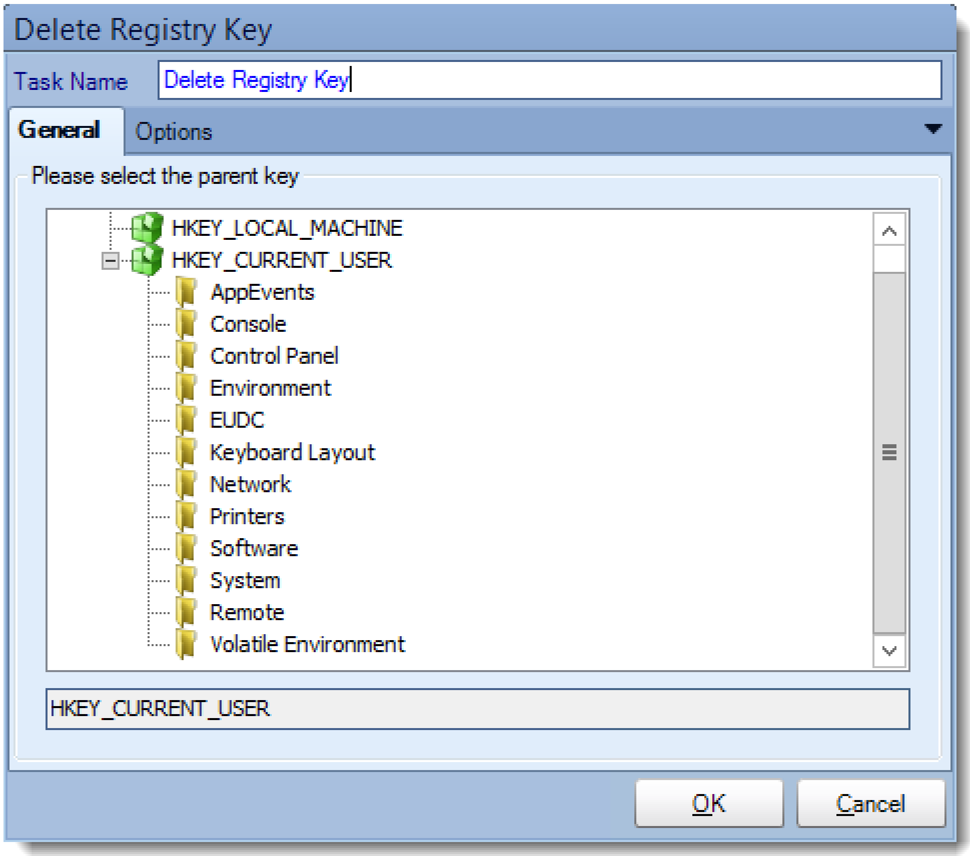
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

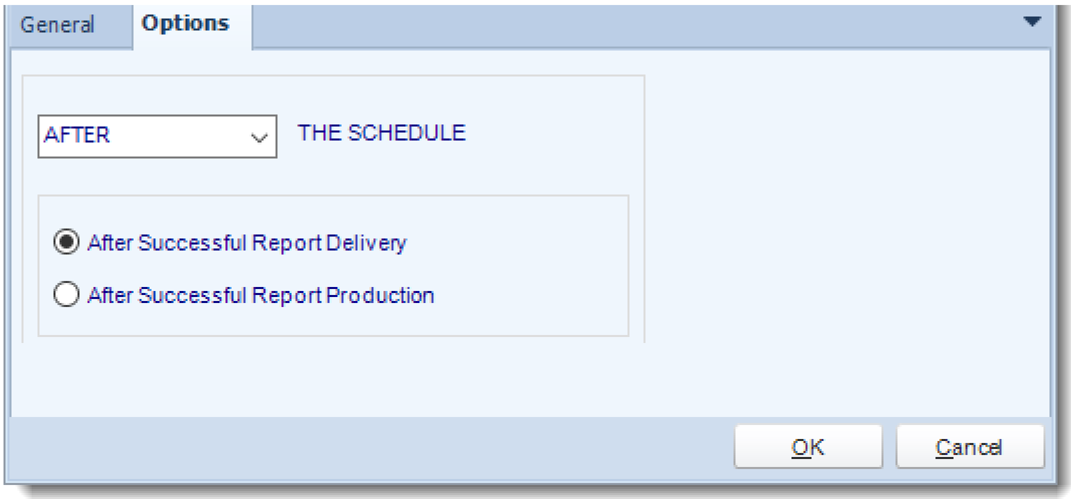
Delete Key

General



- **Task Name:** Give the Task a name.
- **General:** navigate to the key that needs to be deleted.
- Click **OK** to save.

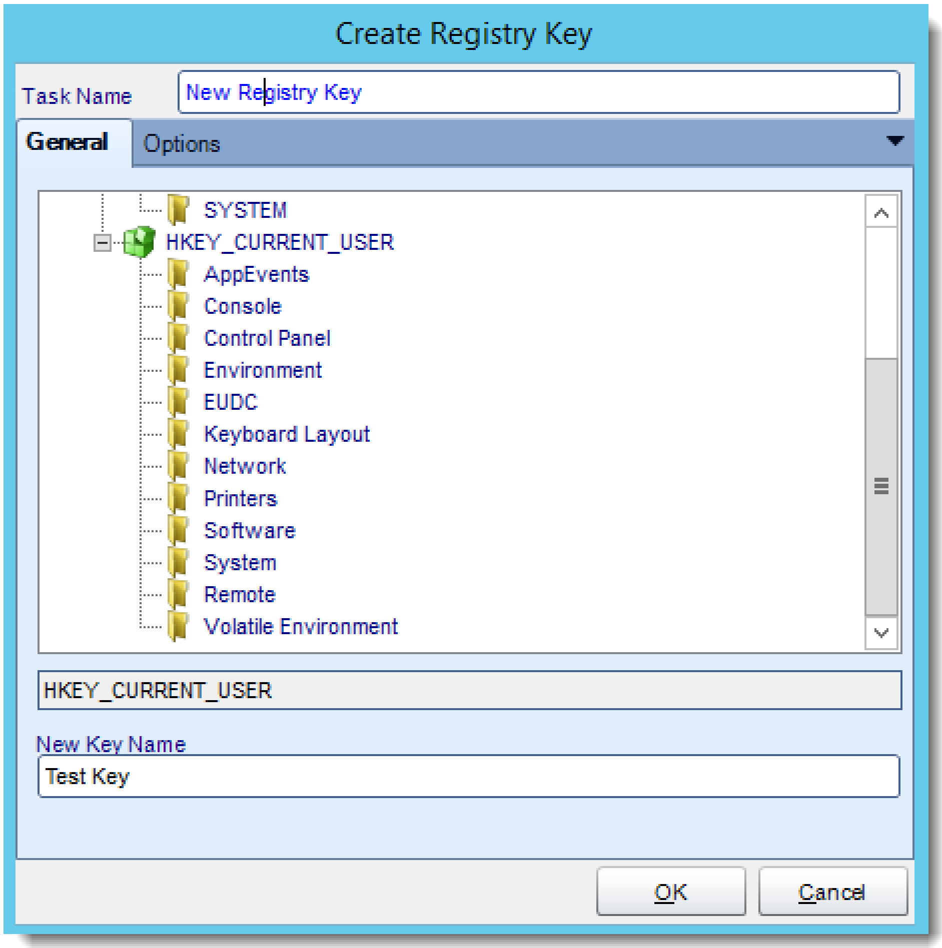
Options



- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

Create Key

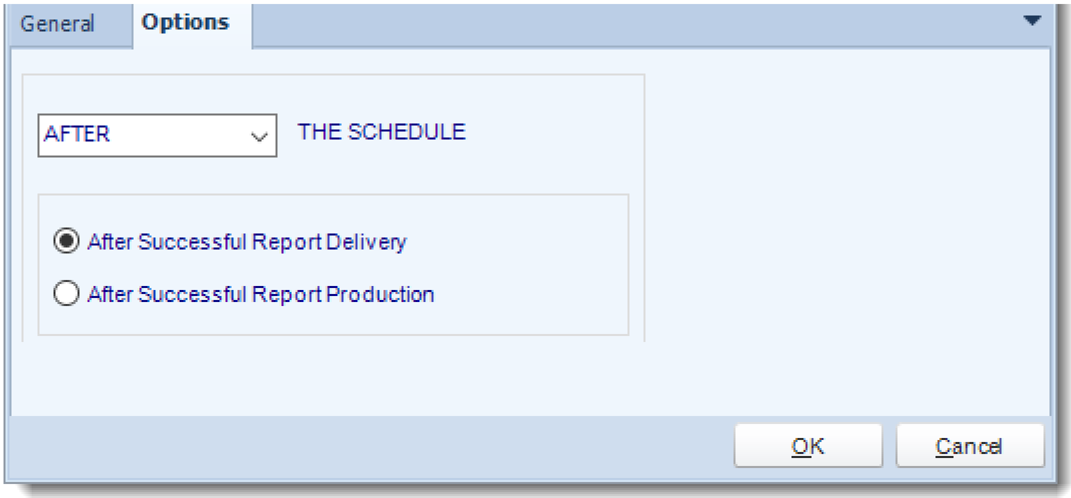
General



- **Task Name:** Give the Task a name
- Navigate to the base key you would like to add a sub-key to.
- **New Key Name:** Enter the name for the new key
- Click **OK** when you are done.

Hint: To create a new key and assign it a value, you must first create the key, then use the Set Value task to set the value for this new key.

Options

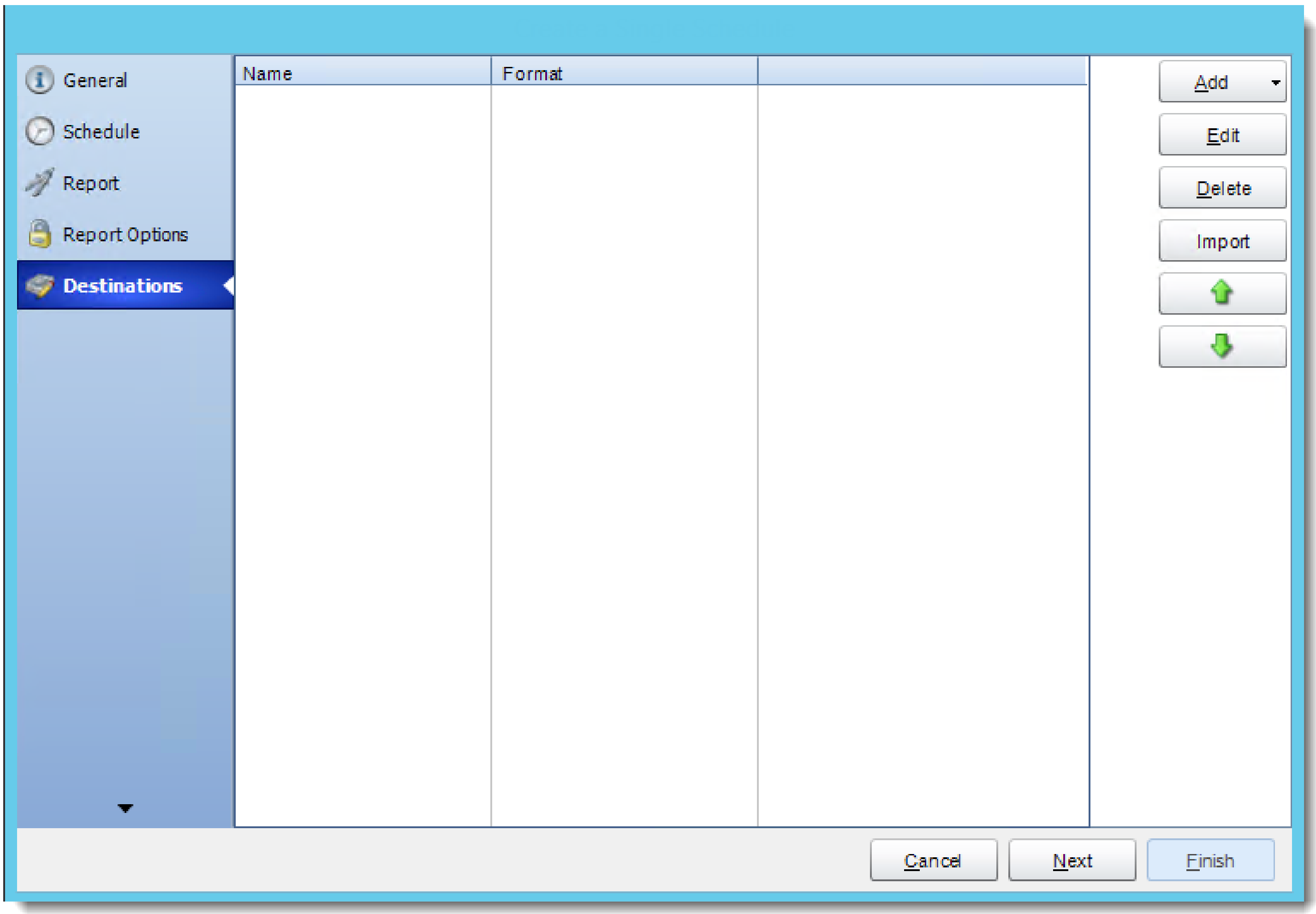


- In this section, you have the option to run this task before, after or you can choose both the schedules executes.

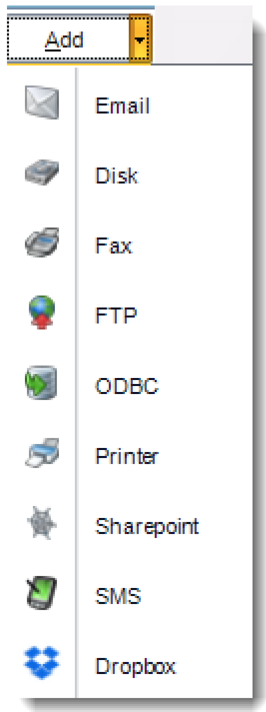
Destinations

The Destinations tab allows you to determine where you would like your Crystal reports to be delivered.

- In the Schedule Wizard, go to **Destinations.**



- **Add:** Click here to add a destination. You have several options which are: Email, Disk, Fax, FTP, ODBC, Printer, Sharepoint, SMS, and Dropbox.



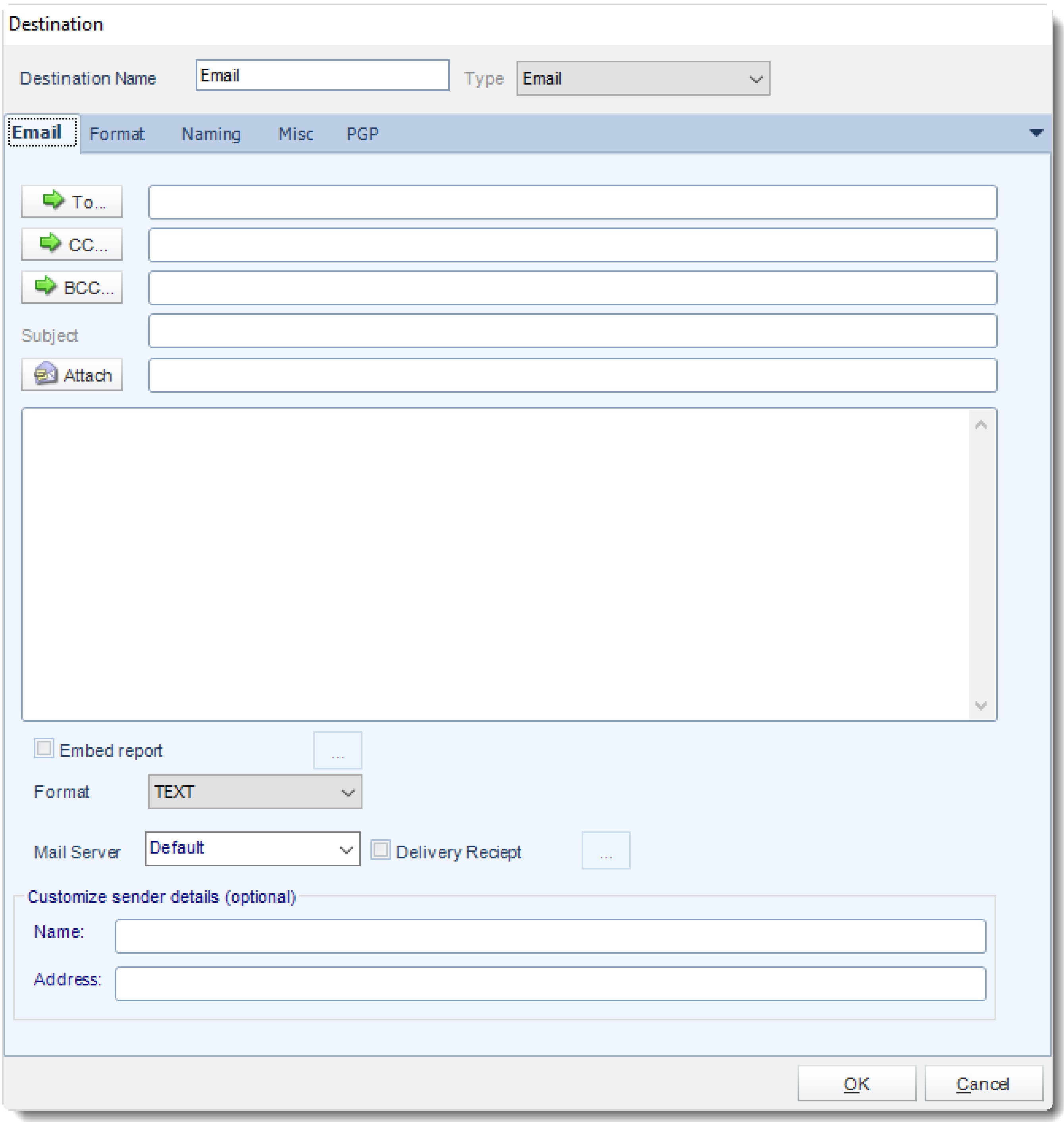
- **Edit:** Select a destination and click to edit it's properties. Or simply double-click on the destination.
- **Delete:** Select a destination and click this button to delete it.
- **Import:** click here to import from the list of default destinations.

Types of Destination

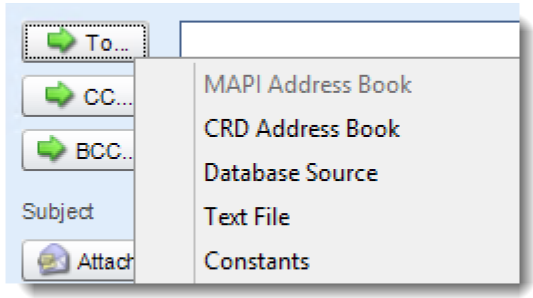
To manage each Destination:

- Email
- Disk
- Fax
- FTP
- Printer
- SharePoint
- SMS
- Dropbox

Email Destination



To, CC, and BCC:



Choose from:

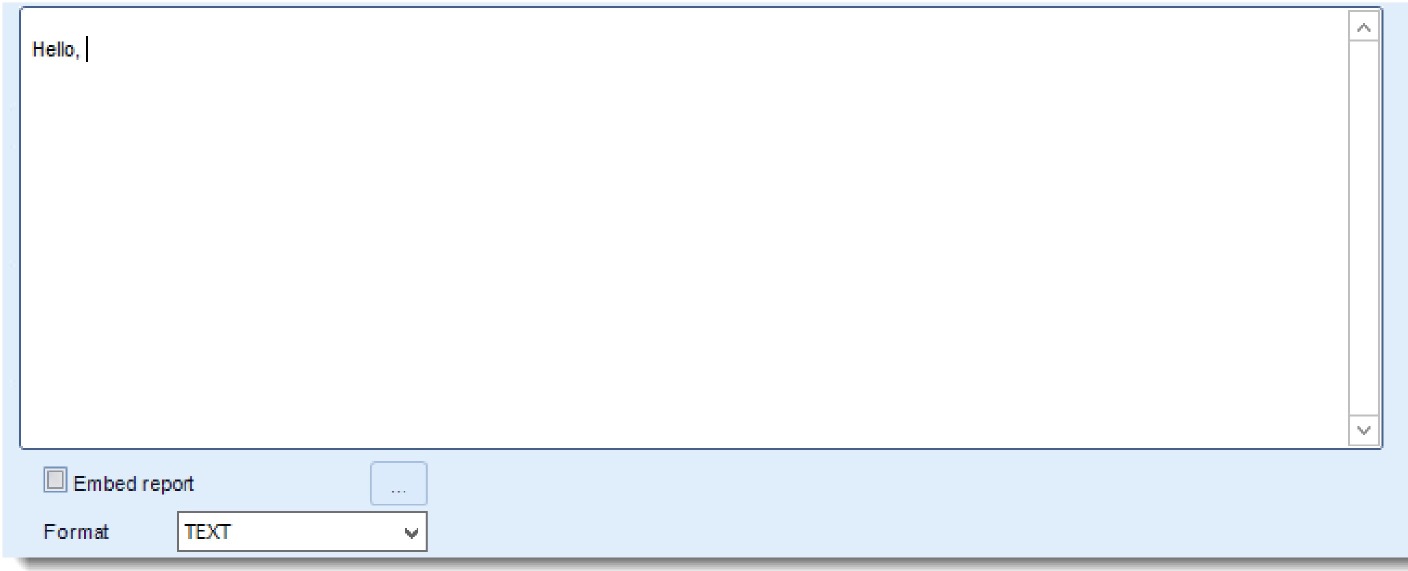
- **MAPI (Outlook) address book (Only available if you are using MAPI)**: Select one or more email addresses or groups.
- **CRD Address Book**: Select one or more email addresses or groups.
- **Database Source**: Build a SQL query to pick the email address or addresses from a database.
- **Text File:** Store your email addresses as a standard mailing list in a text file (Format: no delimiters, each email address on a new line)
- **Constants**
- Or simply type in the email address.

  You can use "Inserts" at any time if required. For more information about Inserts, click here.

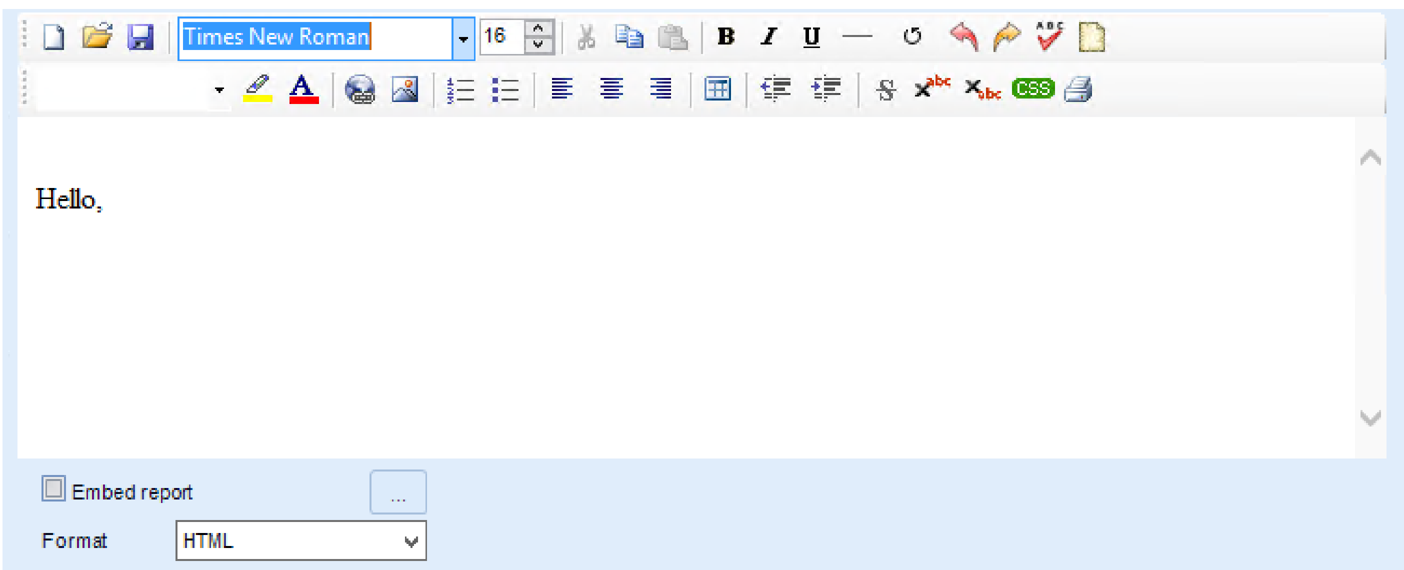
- **Subject:** Enter a subject Or right-click and select Insert to insert constants, database values and defaults. For more information on Insert function, click here.
- **Attach:** Click to select an attachment. Or right-click and select Insert to insert constants, database values and defaults. For more information on Insert function, click here.

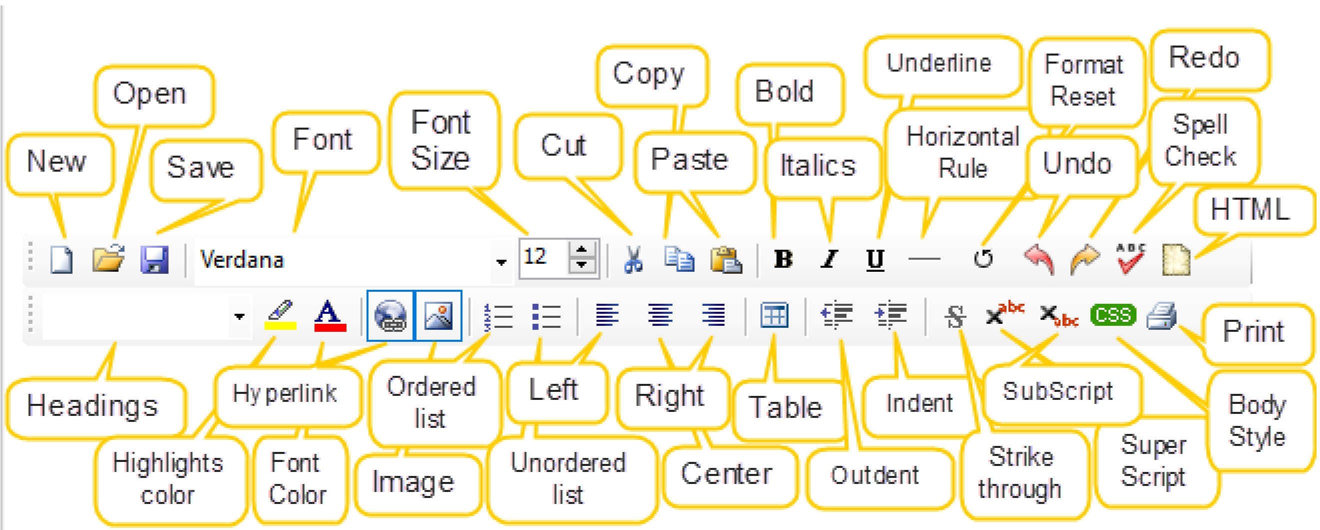
  Hint: Web addresses can be attached as well.

- **Body**: Type in your email. Or right-click and select Insert to insert constants, database values and email defaults. For more information on Insert function, click here.
- **Mail Format:** Choose from HTML or Text.
- **Text Format:** In this format it will be just plain message.

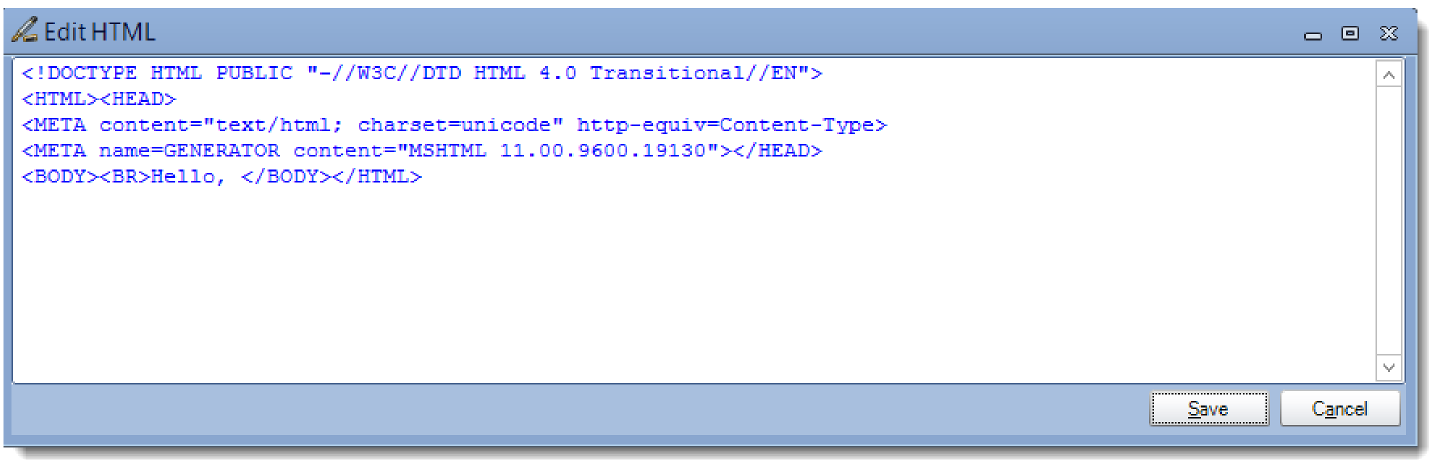


- **HTML Format:** In this format you can format the message.

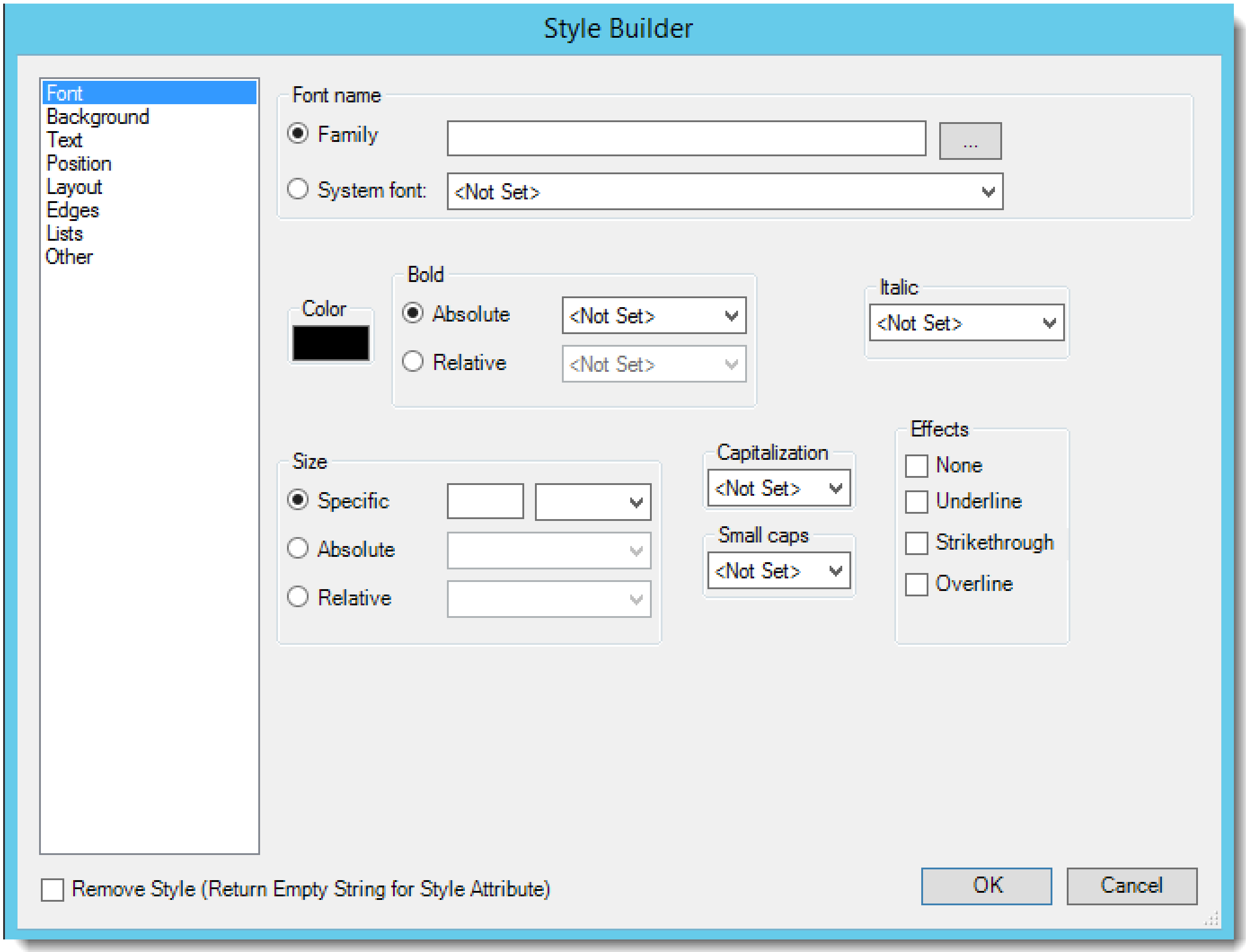




- You can enter HTML tags by click the **HTML** icon.



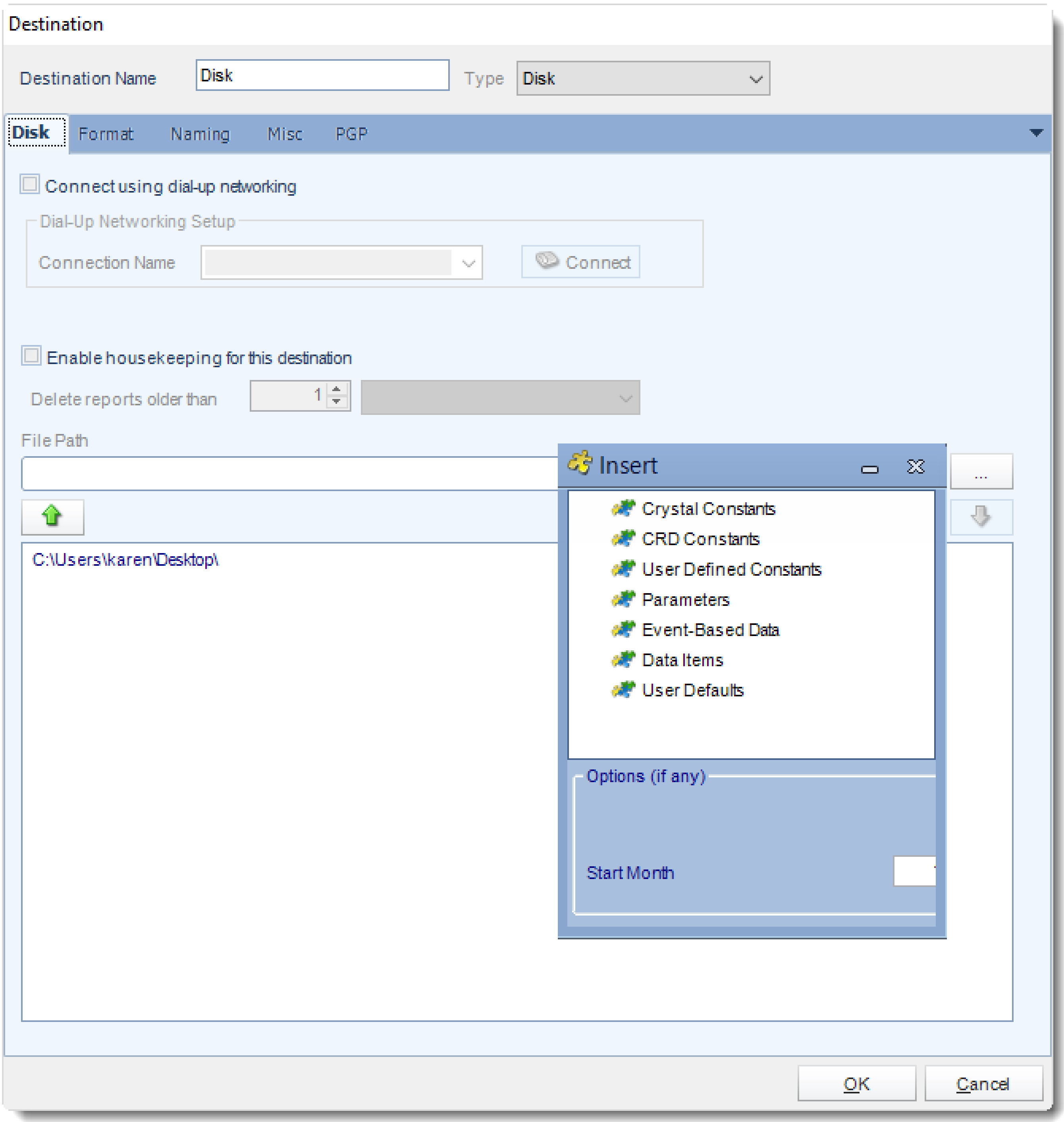
- **Body Style (CSS):** If you want to specify the format that you want, click **CSS** and you may choose the type of format and change setting accordingly.



- **Embed Report:** Check this option to embed the report into the email body. When using MAPI messaging you can only embed reports in Text format. To embed reports in HTML format you will need to change your messaging type to SMTP.
- You can click **(...) button** to edit the output format options as required.
- By default, if a report is embedded in the email body, there will be no attachment.
- If you are uncertain whether the recipient can read html formatted mails, you can click **Include Attachment** so that the recipient receives an additional attachment of the same report in any other format e.g. a PDF, word document, etc.
- **Mail Server:** This can be changed if the email is to be sent from a different server than the default one that was originally set up.
- **Delivery receipt:** Check this option if a delivery receipt is required. Use it if you require Custom Actions to be used once a receipt has been/has not been received.
- **Customize Sender Details:** This is where the name of the sender and the sender email may be changed. For example, it could be set to Donotreply@mycompany.com.

Disk Destination

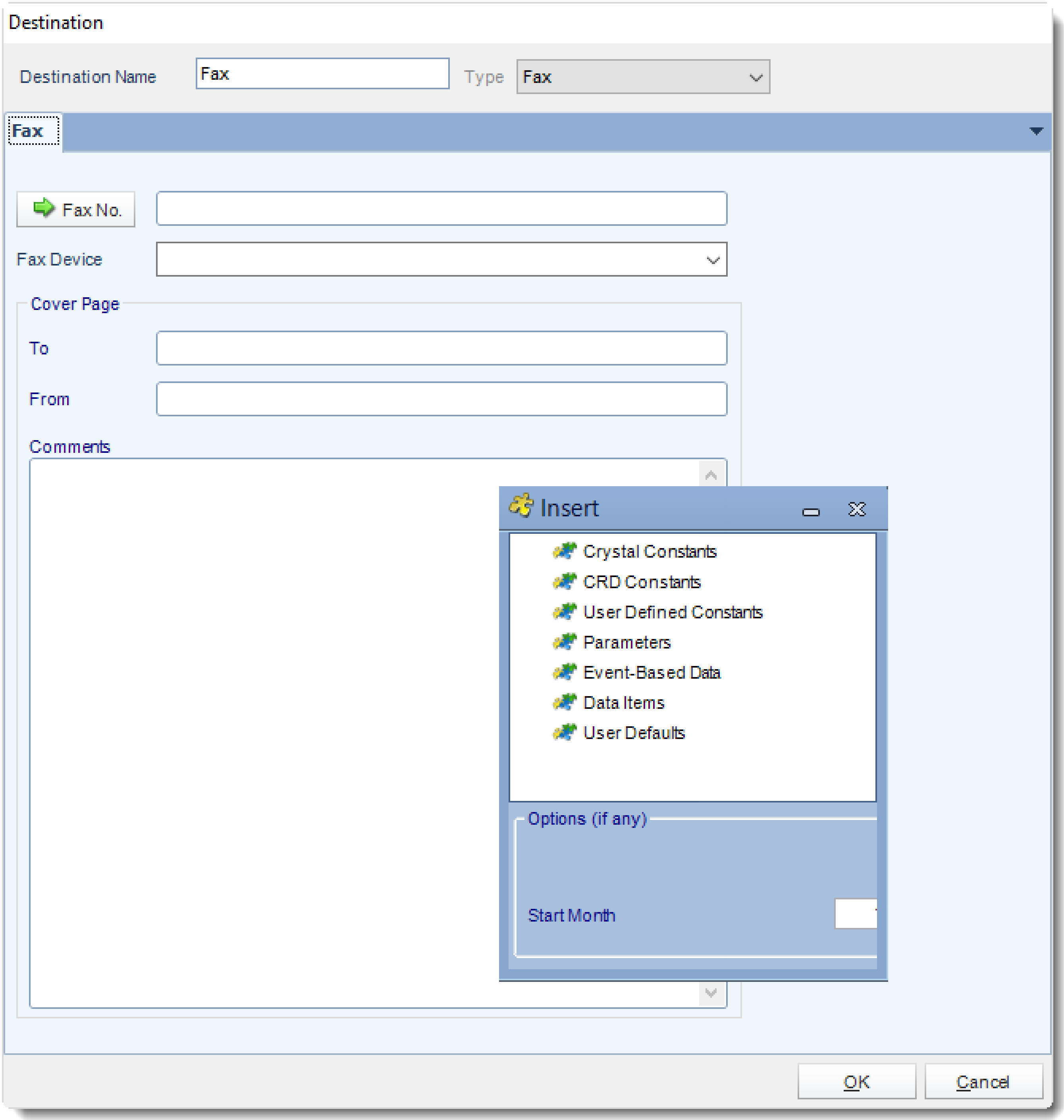
The Disk Destination allows you to send exports of Crystal reports directly to local or network folders.



- **Destination Name:** Give the destination a name.
- **Connect using dial-up networking:** Select this option if you wish to connect to the destination network using Dial-Up Networking or RAS. Select an already existing connection from your existing Windows connections list.

- **Destination Directory:** Browse to select a folder, or type in a path.
- **Enable Housekeeping for this destination:** Check this option if you want to delete reports on a regular basis which are older than a specified date.
- **Insert:** You can insert constants, formulas and database field values instead of a static "typed in" value.
- Right-click in the above field to expose the Inserts menu.

Fax Destination



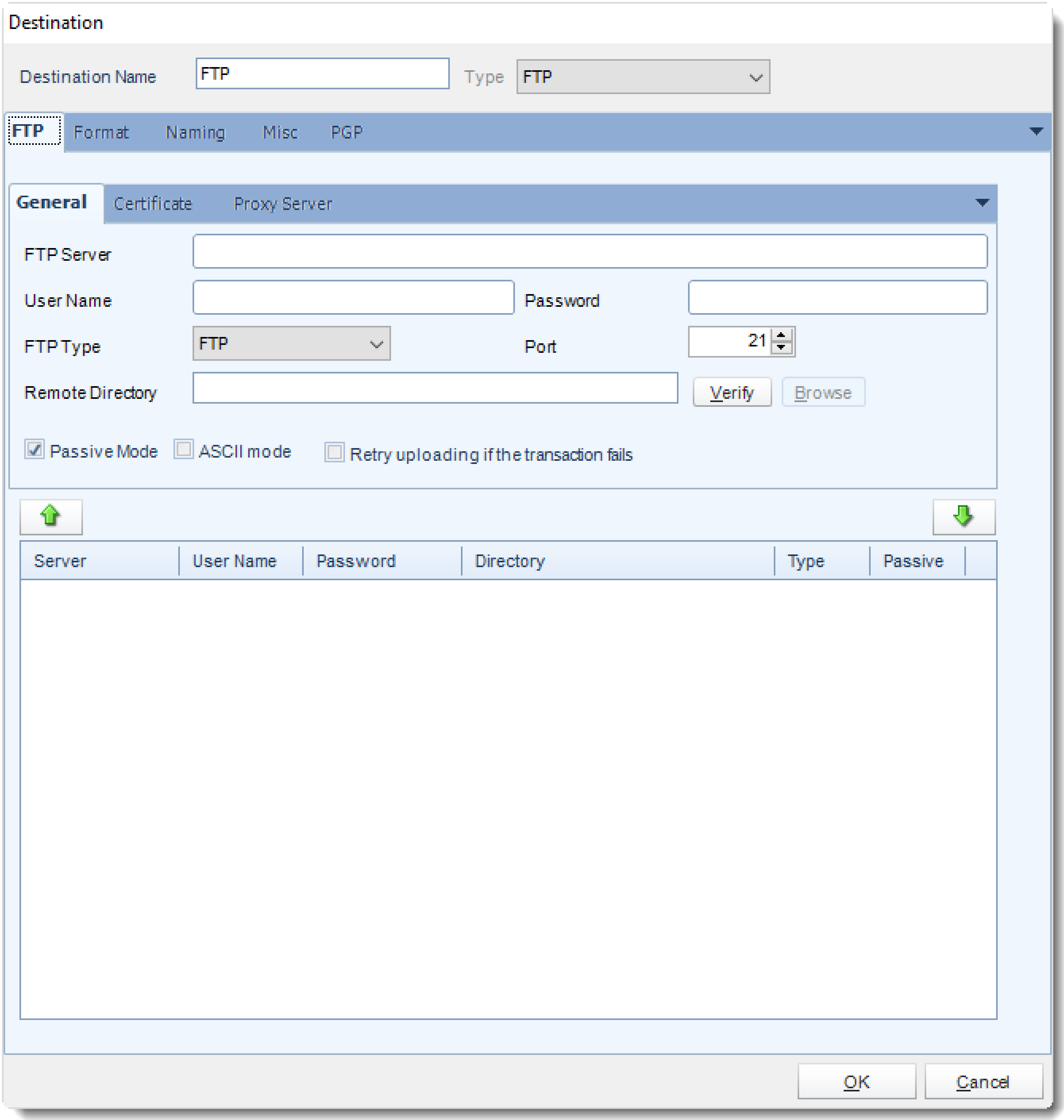
- **Destination Name:** Give the destination a name.
- **Fax No:** Click to select a FAX number from the address book, or type one in the space provided.

- **Cover Page:** Enter details as required.

  In order to send a FAX, CRD requires a V90 Voice Fax Modem installed.

- You can use Insert Menu in the fax destination as well. It can be used to customize the cover page for each recipient in Data-driven Schedule. Time, date, and user constants can be inserted as well.

FTP Destination

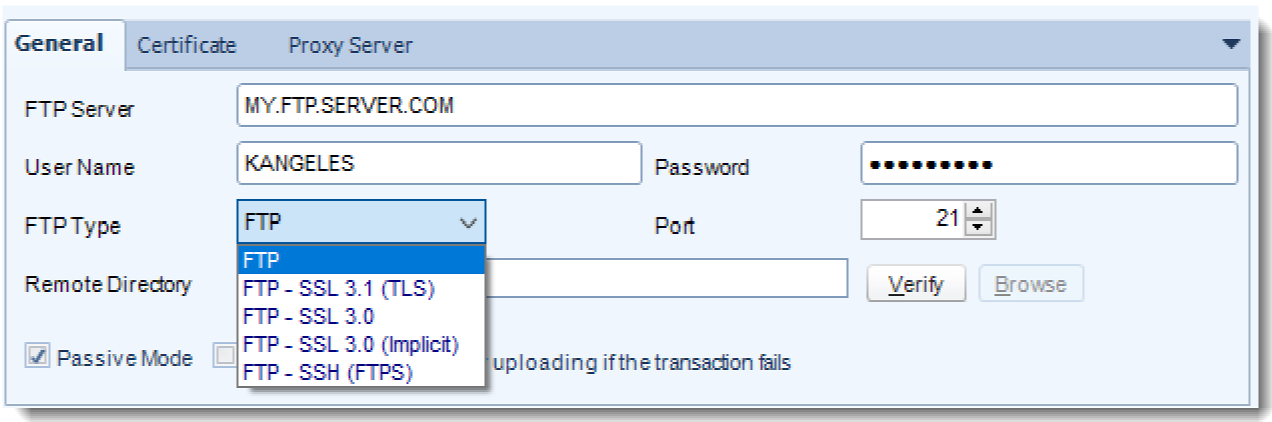


FTP

General

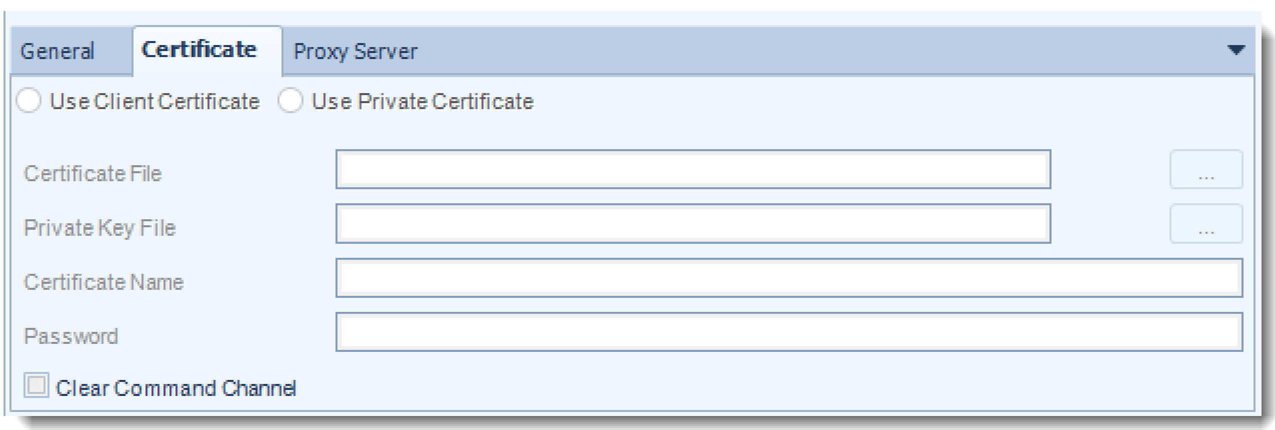
- **Destination Name:** Give the destination a name.
- **FTP Server:** Type in the FTP server address.
- **FTP Username:** Type in the FTP server user name.
- **FTP Password:** Type in the FTP password.
- **FTP Type:** There are several types of FTP that are supported.

You can also choose whether to use passive or active mode FTP sessions.



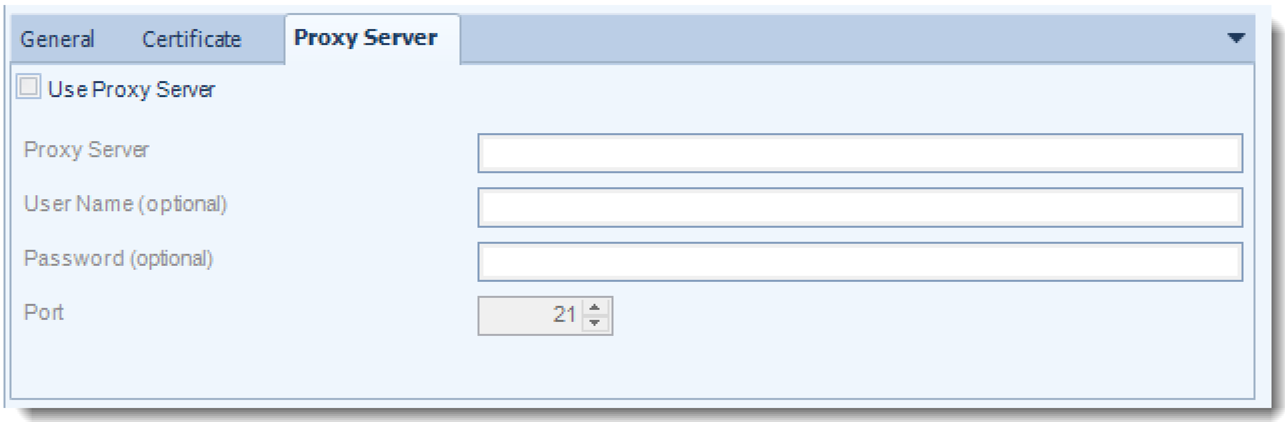
- **Remote Directory:** Enter the directory, or leave blank for the root directory
- **Verify:** Click **Verify** to test your connection.

Certificate



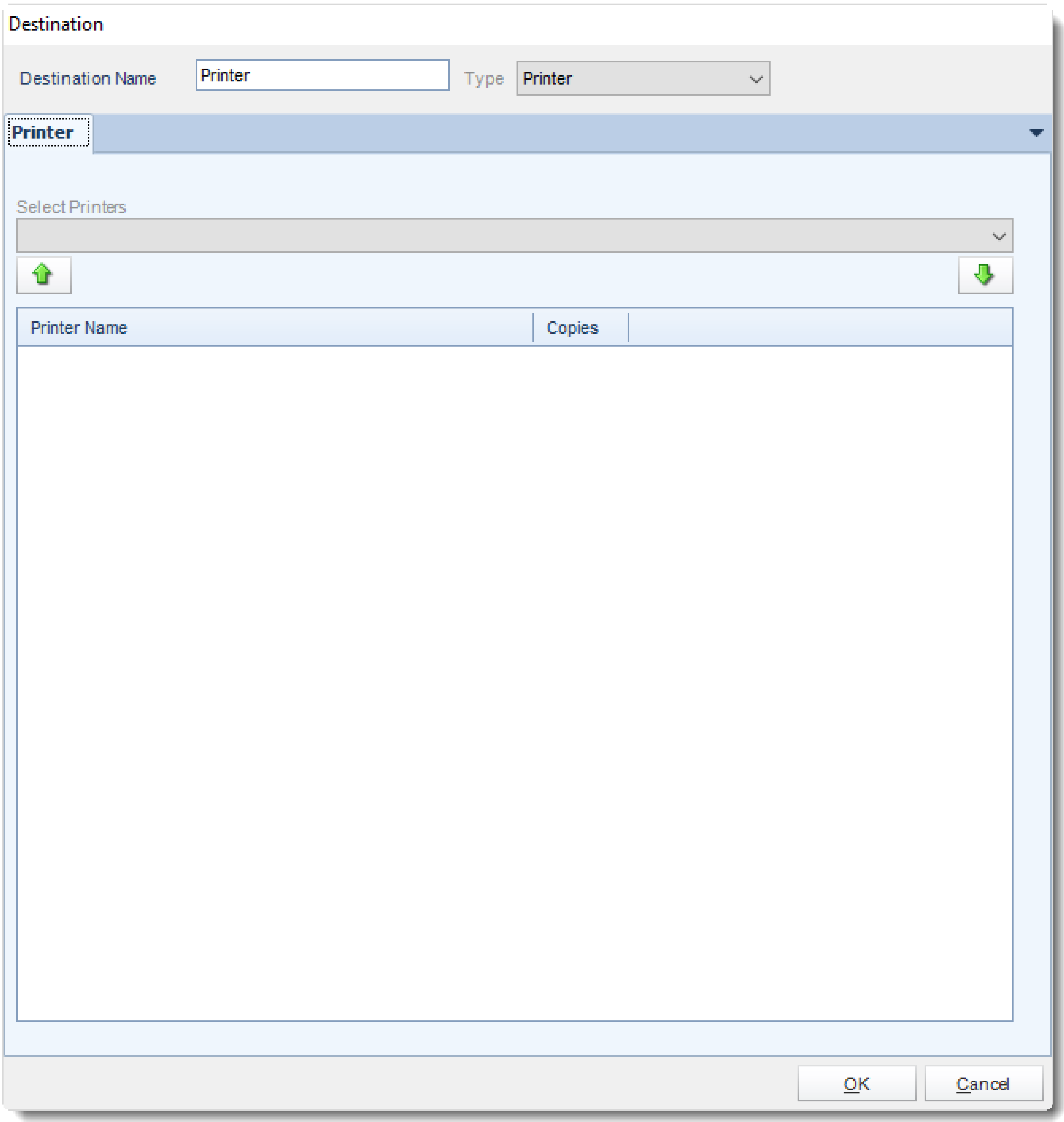
- You can set Certificate Settings where applicable.

Proxy Server



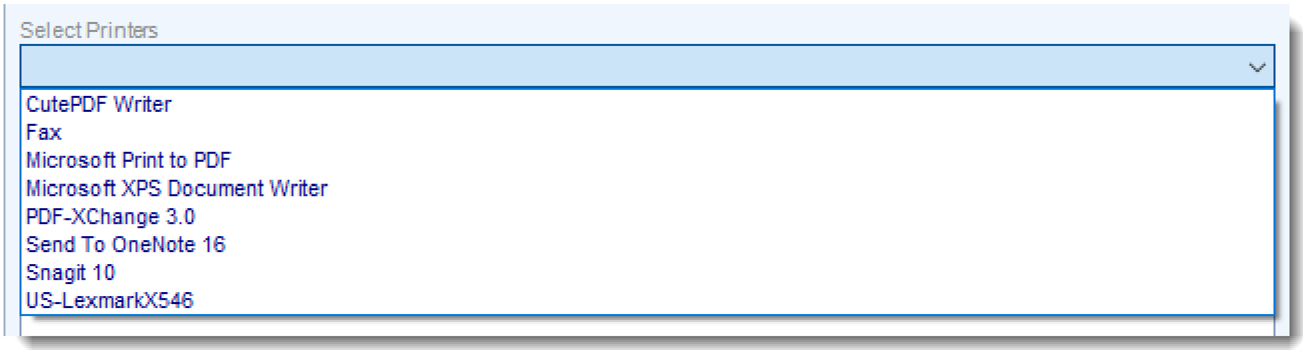
- You can also set Proxy Server details where required. Please make sure to contact you Network Administrator to verify if these are needed.

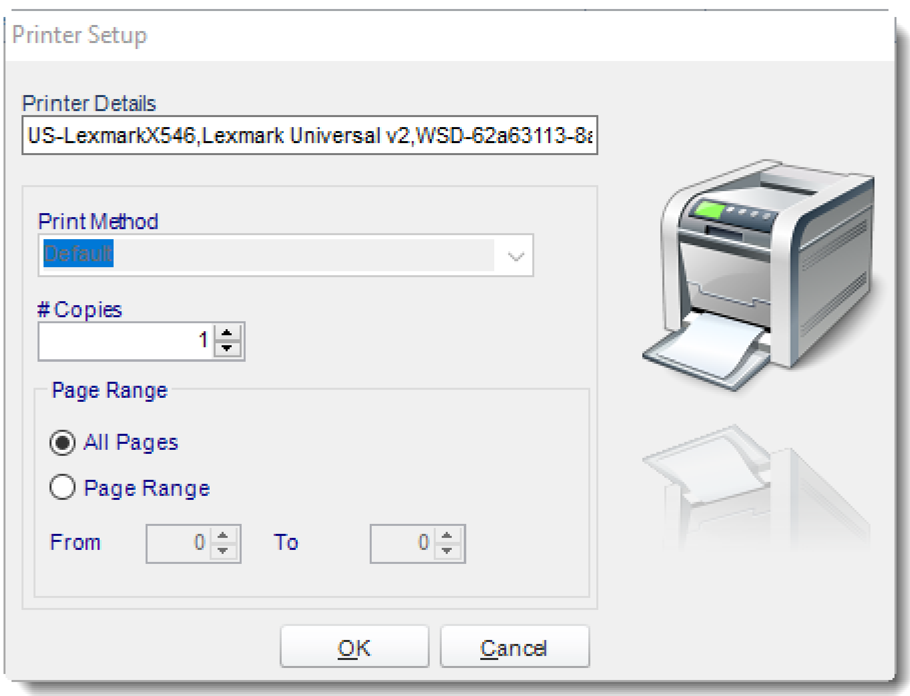
Print Destination



You can schedule a report to export to a printer or any other print drivers you have installed on the PC e.g. FAX print drivers.

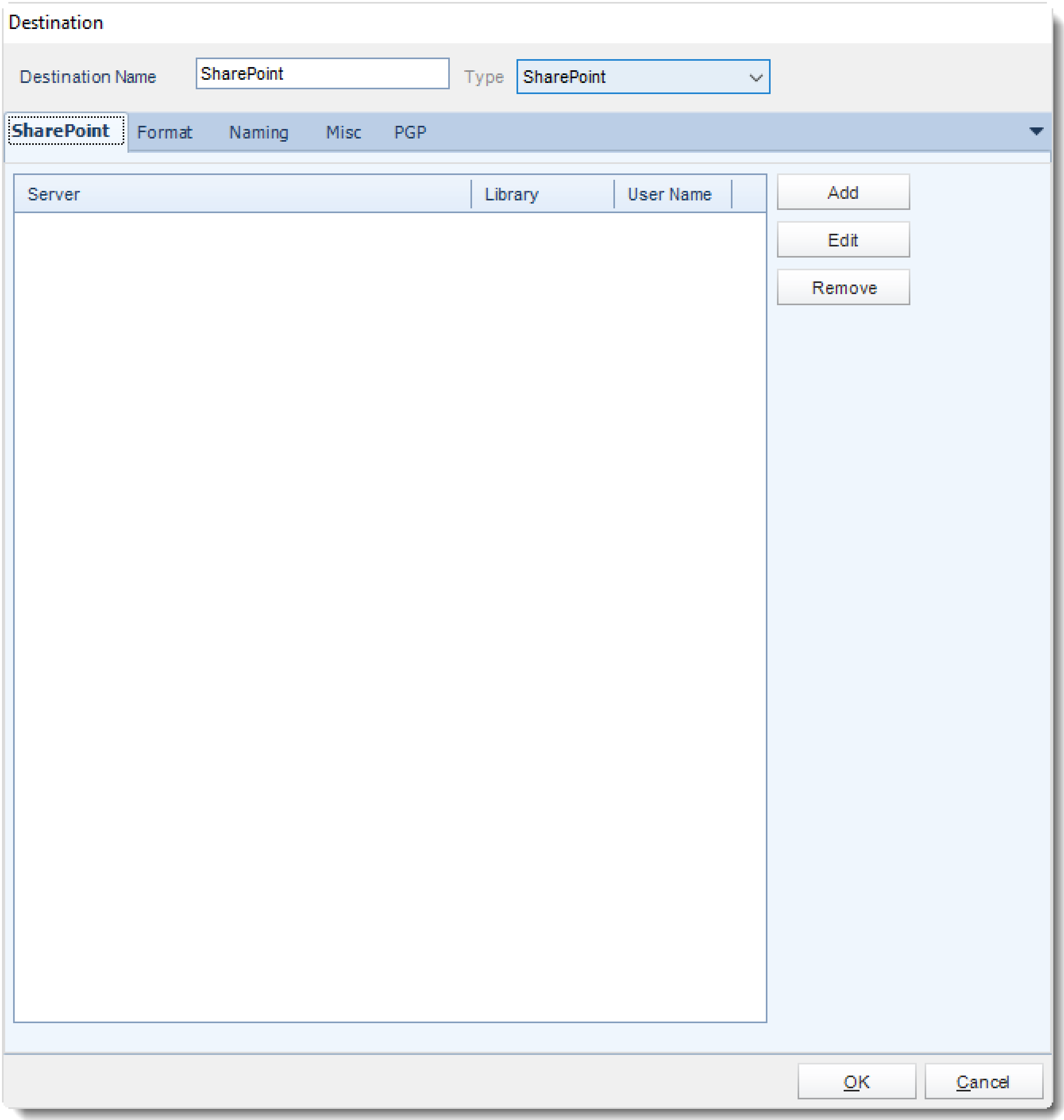
- **Destination Name:** Give the destination a name.
- **Select Printers:** Select a printer from the dropdown list. Click **arrow down button** to add to the list.





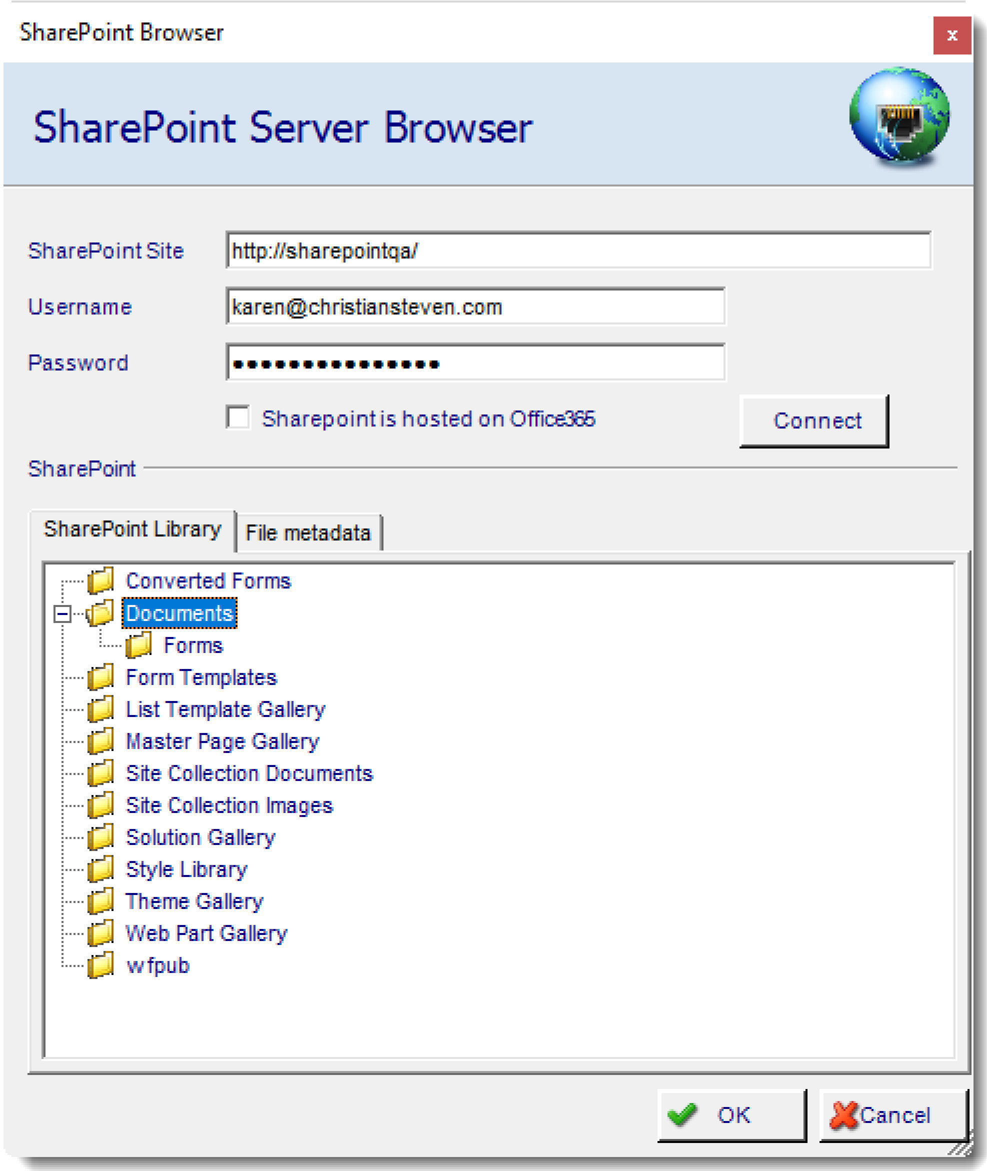
- Click **OK** when completed.

SharePoint

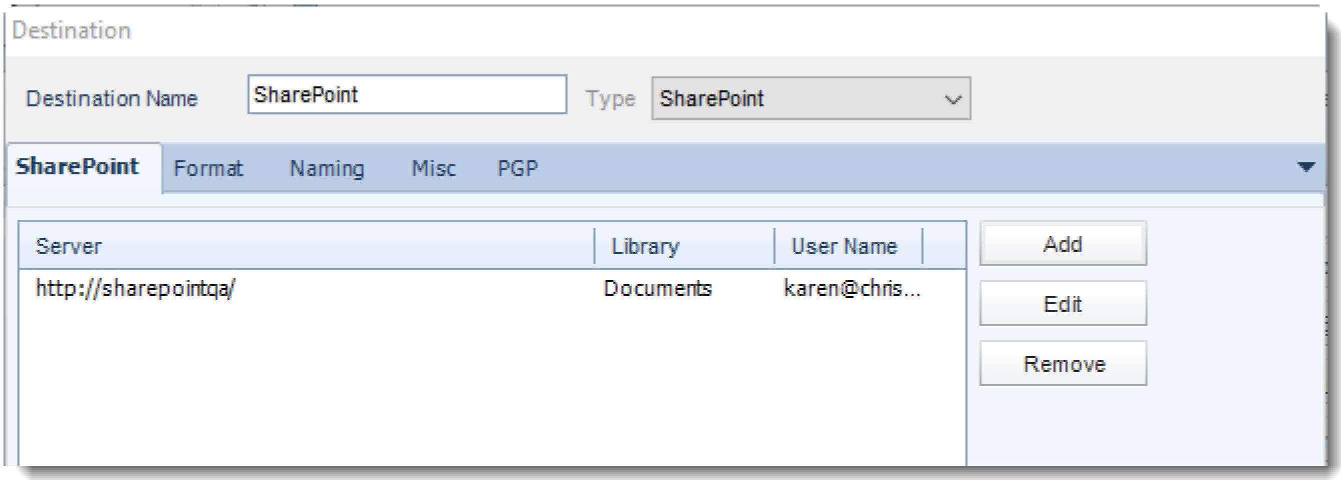


- Exporting to SharePoint allows you to deliver report output to a SharePoint Library.
- You can also select a configured location and click the Edit or Remove to edit or remove the destination respectively.

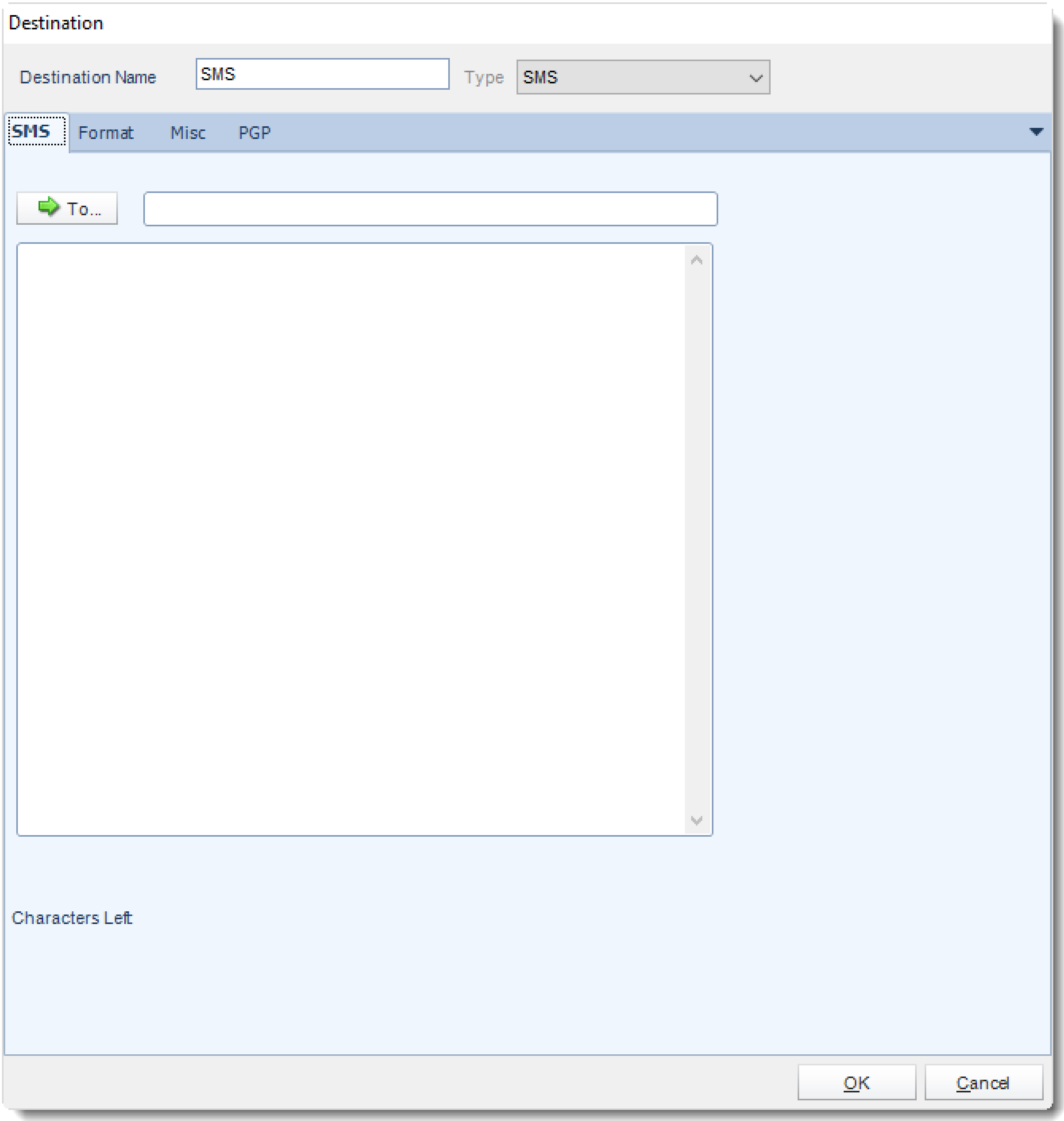
- Click the **Add** to specify a location to export to.



- **SharePoint Site:** Enter the path for your SharePoint Site.
- **Domain/Username:** Enter the Domain and username required to connect to the site.
- **Password:** Enter the password for the username specified above.
- Click **Connect** to connect to the site, once connected you can browse and select the SharePoint Library and path to export to.
- Click **OK** to save the destination.


Destination
Destination Name
SharePoint
Type
SharePoint
SharePoint
Format
Naming
Misc
PGP
Server
Library
User Name
http://sharepointqa/
Documents
karen@chris...
Add
Edit
Remove

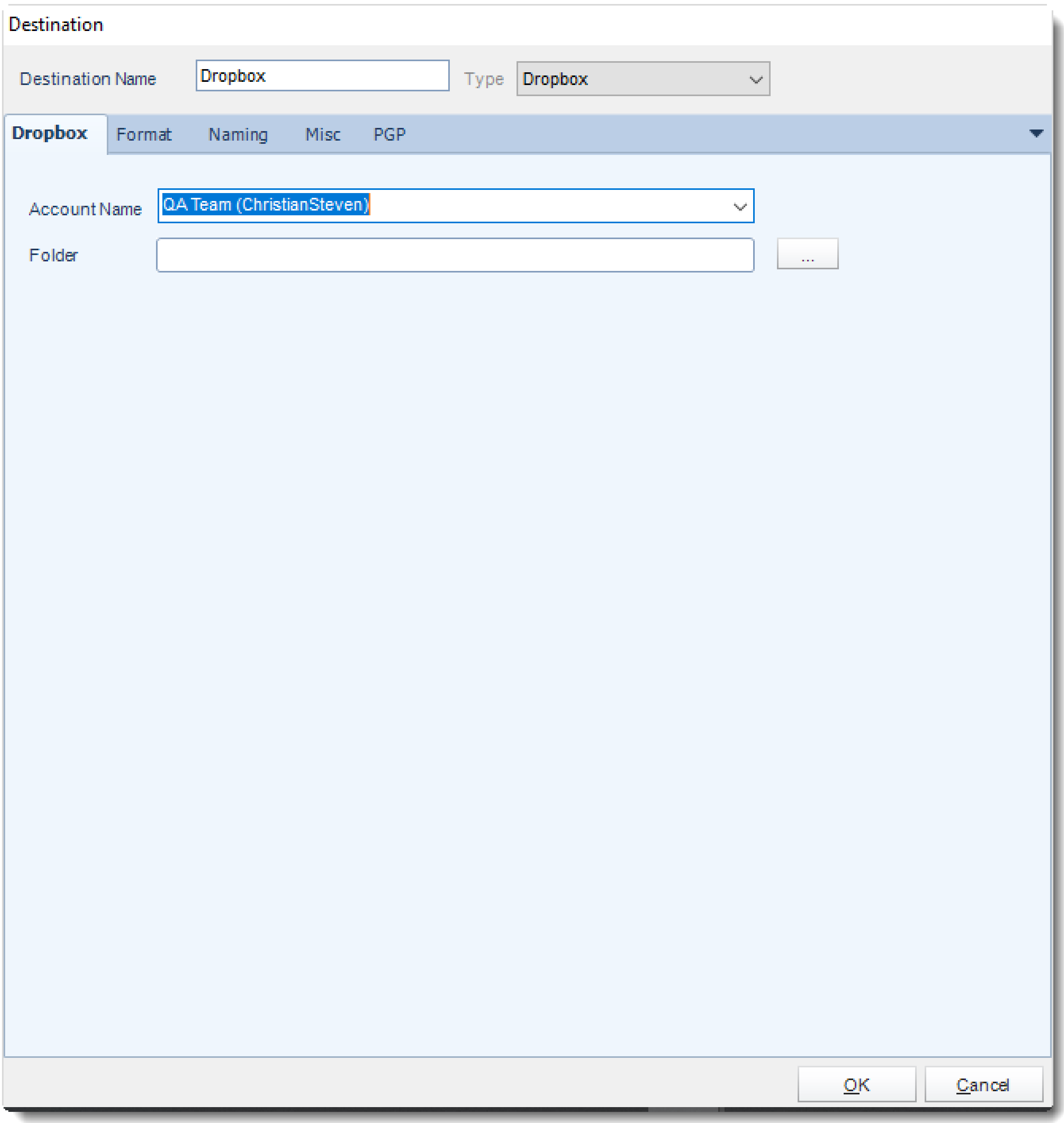
SMS Destination



- **Destination Name:** Give the destination a name.
- **To:** Click to select a Cell Phone number from the address book, or type one in the space provided.
- **Cover Page**: Enter a short introductory message (if required).

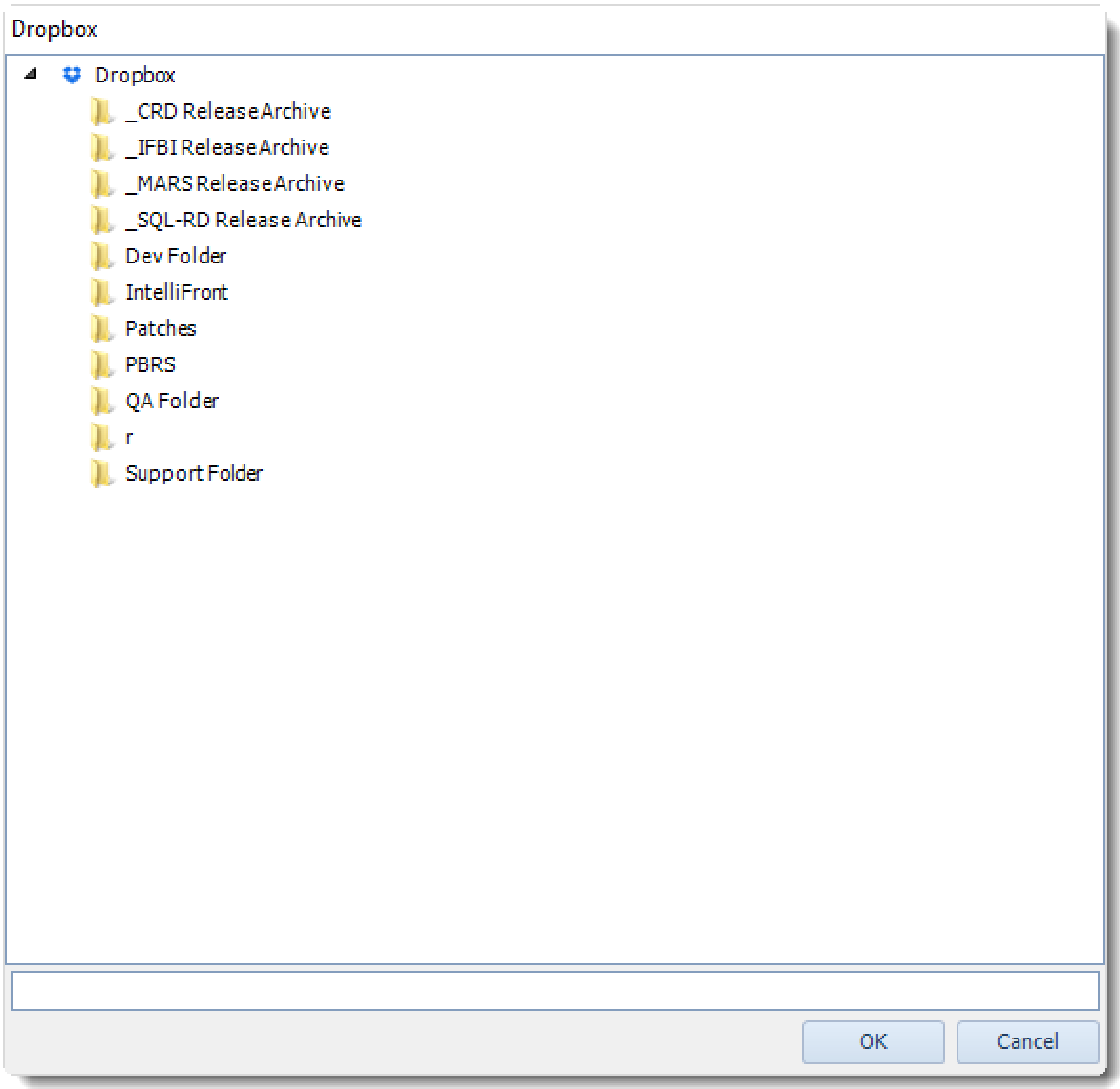
- Please see SMS Configuration for setting up the SMS destination.

Dropbox

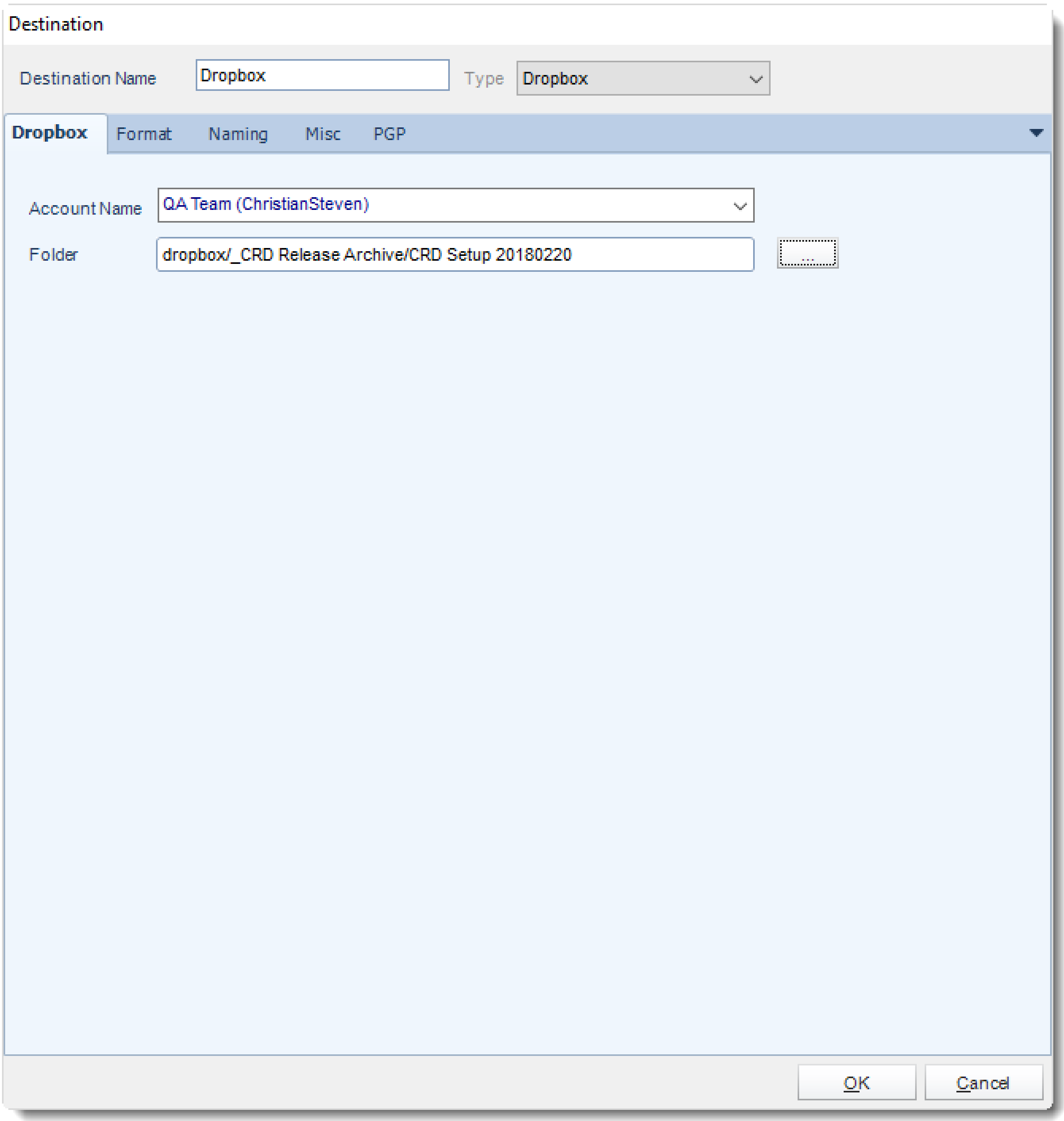


- Dropbox allows you to send the report via Dropbox which can be accessed on any server with the user credentials.

- A Dropbox account must be set up in Options settings at Cloud Storage section before using as a destination.
- Select the Account name.
- Click **(...)** to search the folder.



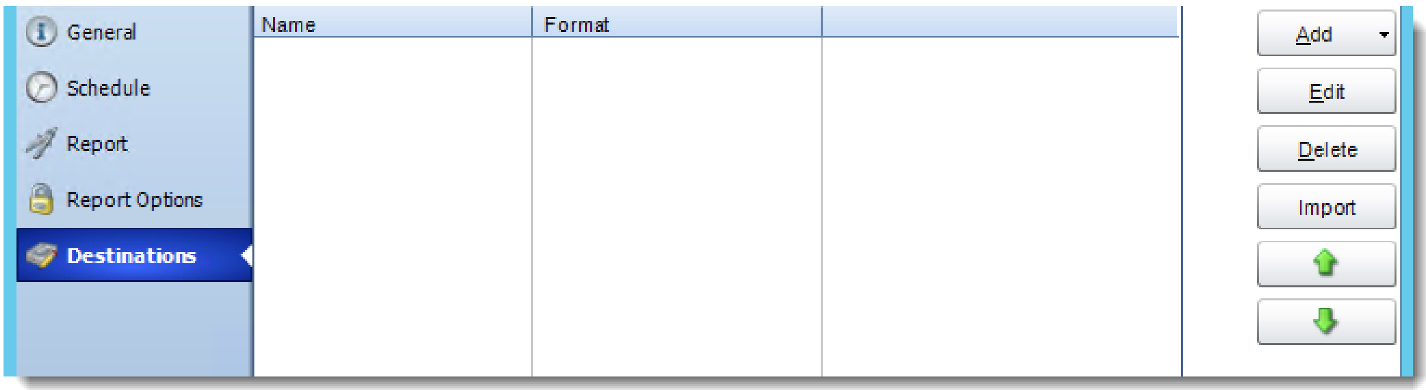
- Click **OK.**


Destination
Destination Name
Dropbox
Type
Dropbox
Dropbox
Format
Naming
Misc
PGP
Account Name
QA Team (ChristianSteven)
Folder
dropbox/_CRD Release Archive/CRD Setup 20180220
...
OK
Cancel

Output Formats

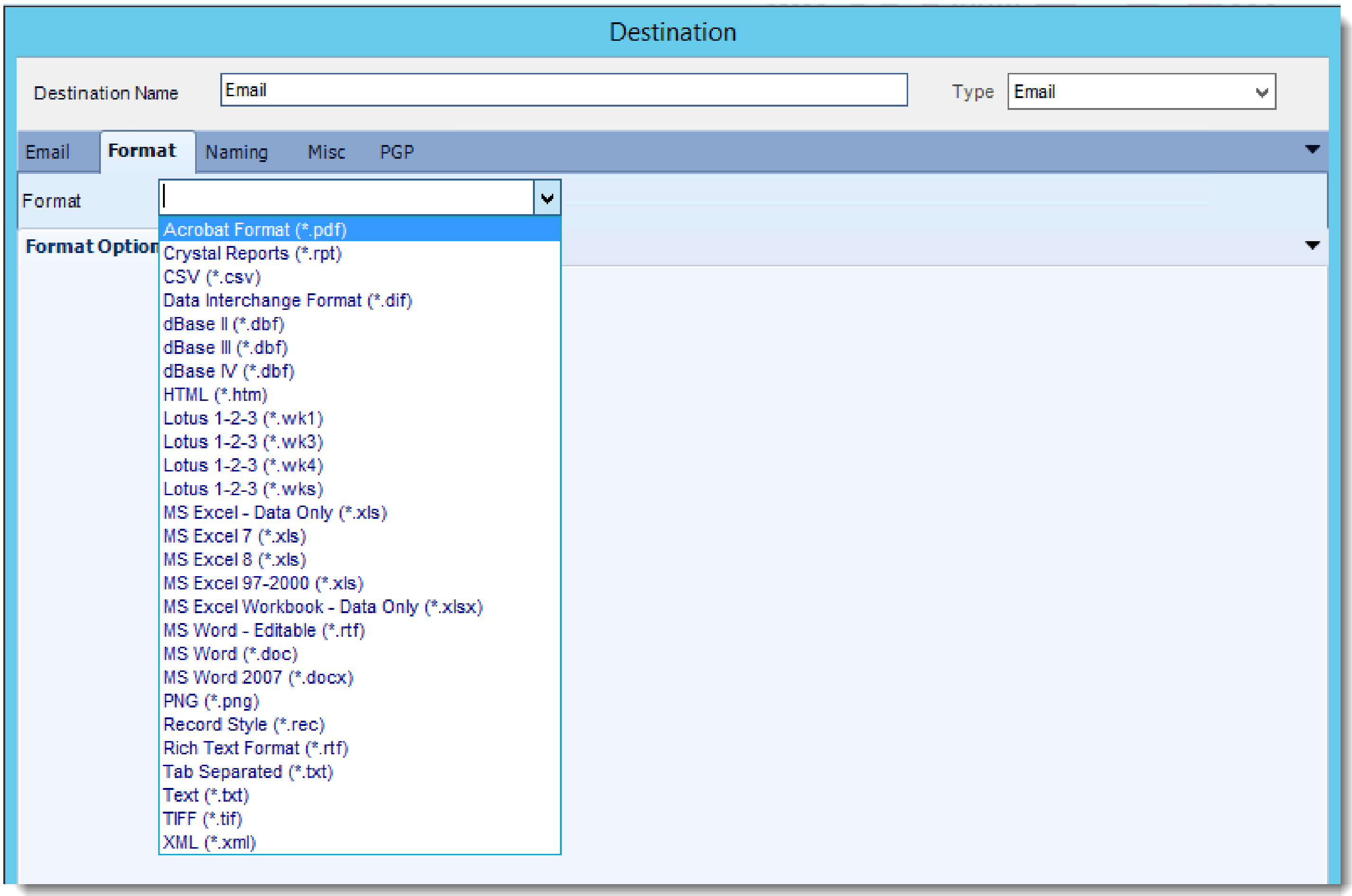
Reports may be exported to the following formats. Some formats have advanced options to help provide richer functionality and greater customization of the exported report.

- Go to **Destination**



- Select the **type of destination.**
- Select **Format.**

Must of the Destination have the Format section in order to select the output format and select the desired properties of this output.



To manage each section:

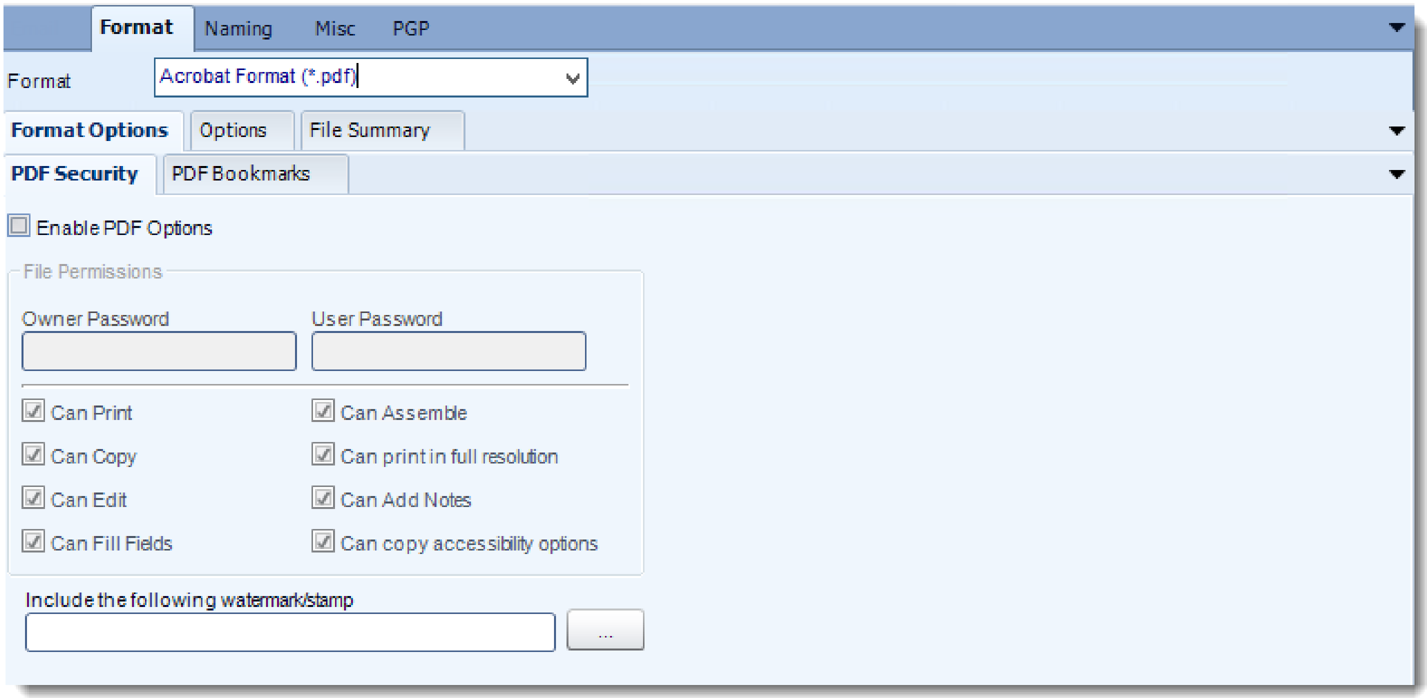
1. Acrobat Format (*.pdf)
2. Crystal Reports (*rpt)
3. CSV (*.csv)
4. Data Interchange Format (*.dif)
5. dBase II (*.dbf)
6. dBase III (*.dbf)
7. dBase IV (*.dbf)
8. HTML (*.htm)
9. Lotus 1-2-3 (*.wk1)
10. Lotus 1-2-3 (*.wk3)
11. Lotus 1-2-3 (*.wk4)
12. Lotus 1-2-3 (*.wks)
13. MS Excel - Data Only (*.xls)
14. MS Excel 7 (*.xls)
15. MS Excel 8 (*.xls)
16. MS Excel 97-2000 (*.xls)

17. MS Excel Workbook - Data Only (*.xlsx)
18. MS Word - Editable (*.rtf)
19. MS Word (*.doc)
20. MS Word 2007 (*.docx)
21. PNG (*.png)
22. Record Style (*.rec)
23. Rich Text Format (*.rtf)
24. Tab Separated (*.txt)
25. Text (*.txt)
26. TIFF (*.tif)
27. XML (*.xml)

Acrobat Format (*.pdf) outputs for Crystal Reports

Export Crystal reports to PDF & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.

- To export to Acrobat Format (*.pdf) in Crystal Reports follow the following steps:



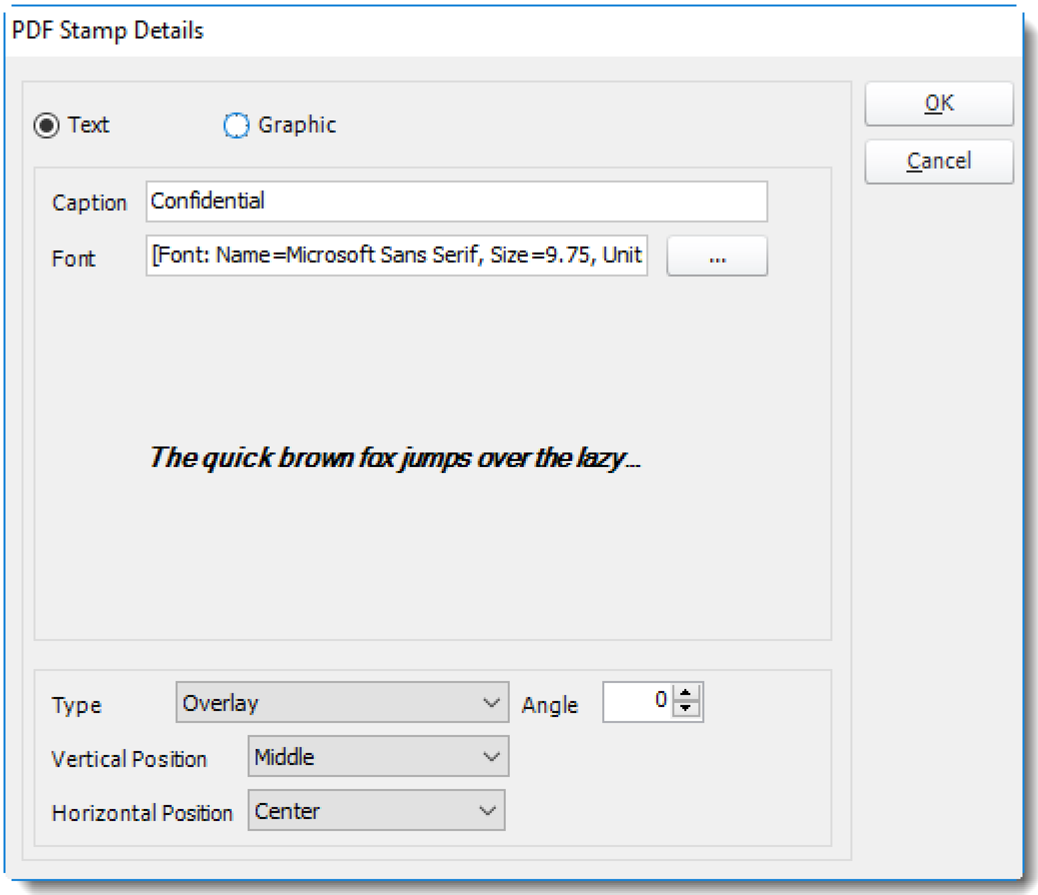
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

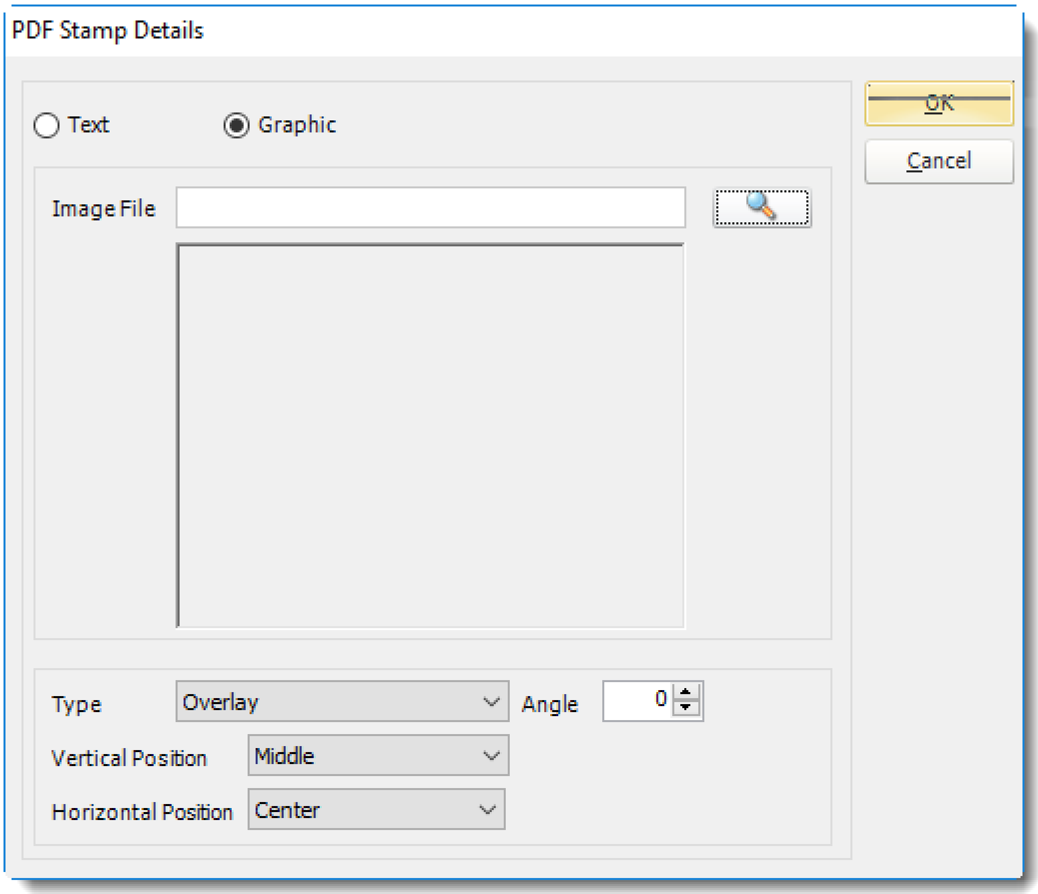
Format Options

- CRD can export your report in PDF Format. Additionally, you can customize your PDF output by using the options below.
- Enable PDF options: You can enable extra PDF options. If you choose not to use the options, a standard pdf file will be exported.
- File Permissions: Enter passwords and select the options you require. Files will be encrypted using pdf 128 Bit encryption. The resulting files can only be opened with versions of Acrobat which can handle this level of encryption e.g. Acrobat 6 and above.

- Include the following watermark/stamp: You can include a watermark or stamp to be inserted in the PDF document. Click (...) button for more options.



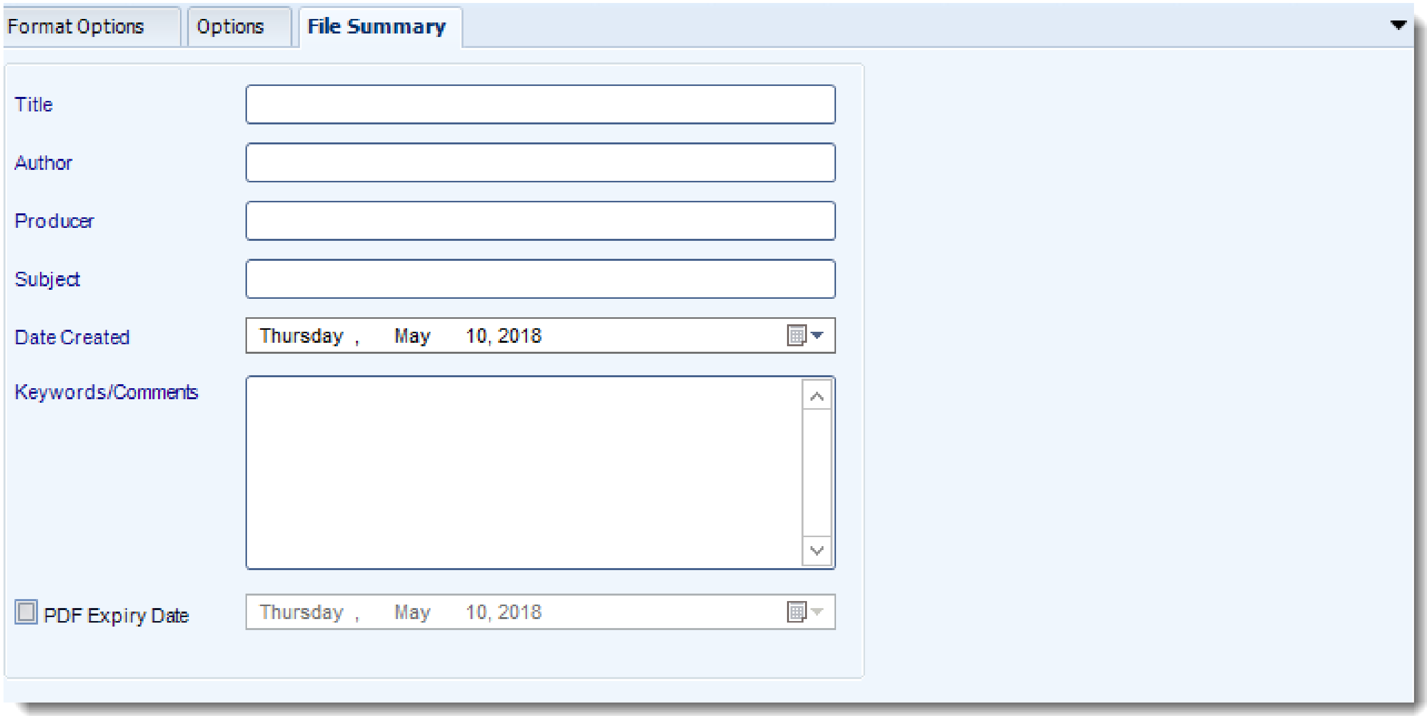
- Your Watermark can be a graphic such as a corporate logo.



Options

- Use this option to select to export all pages or just a selection.

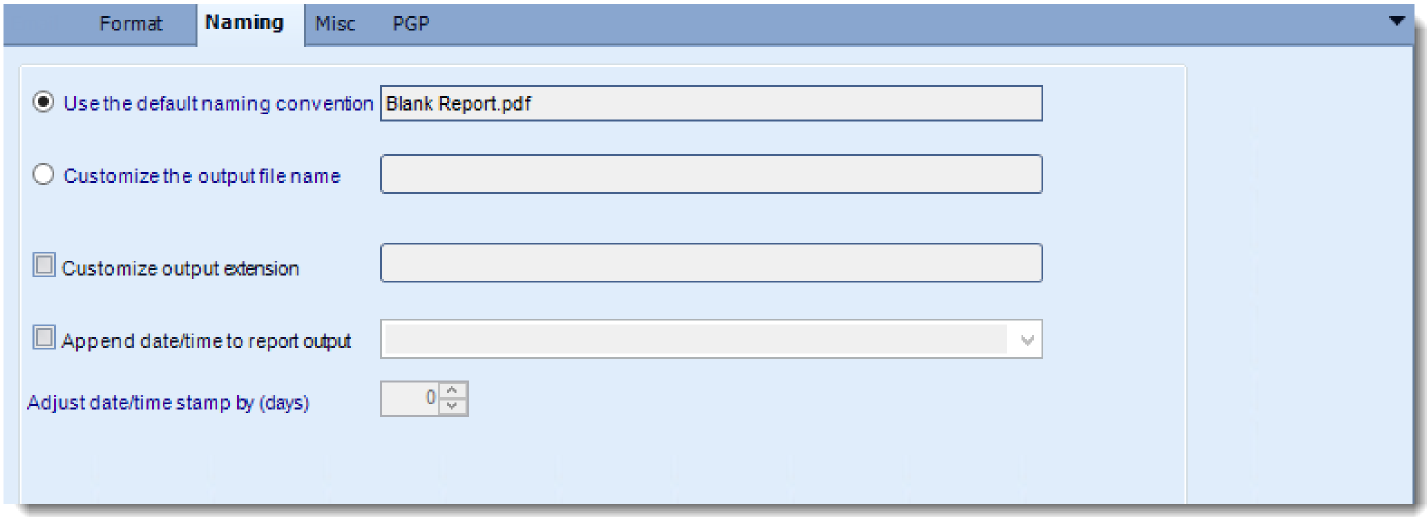
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

Naming

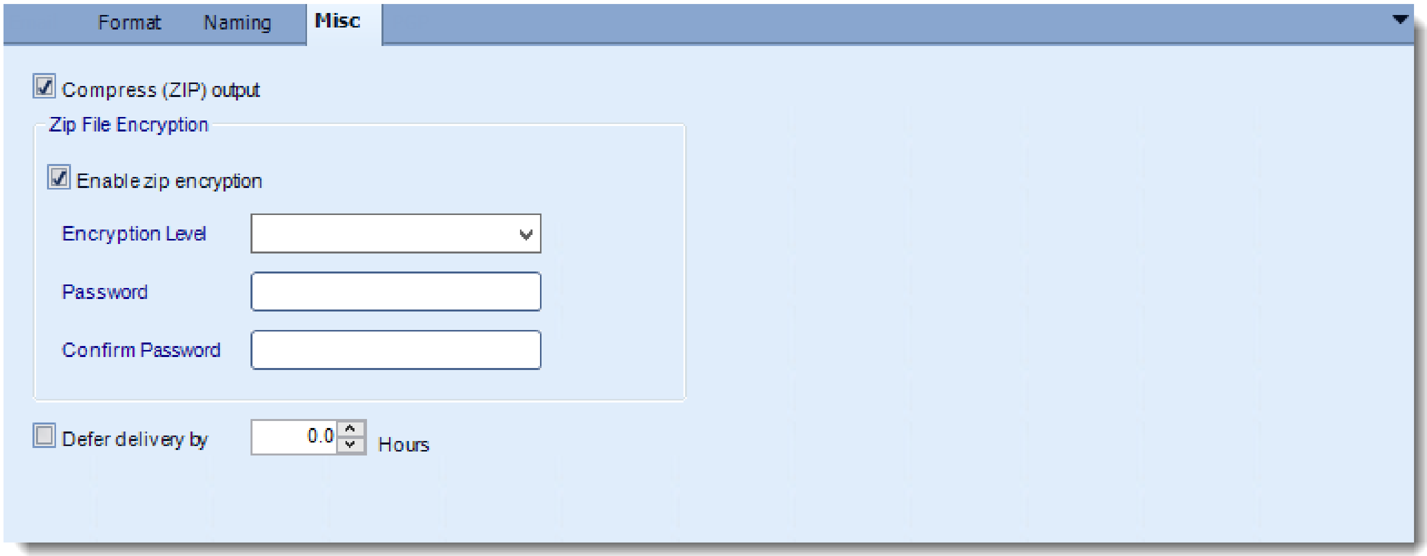
These options determine how the exported file will be name:



This is the option where you named the output file.

- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name**: Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

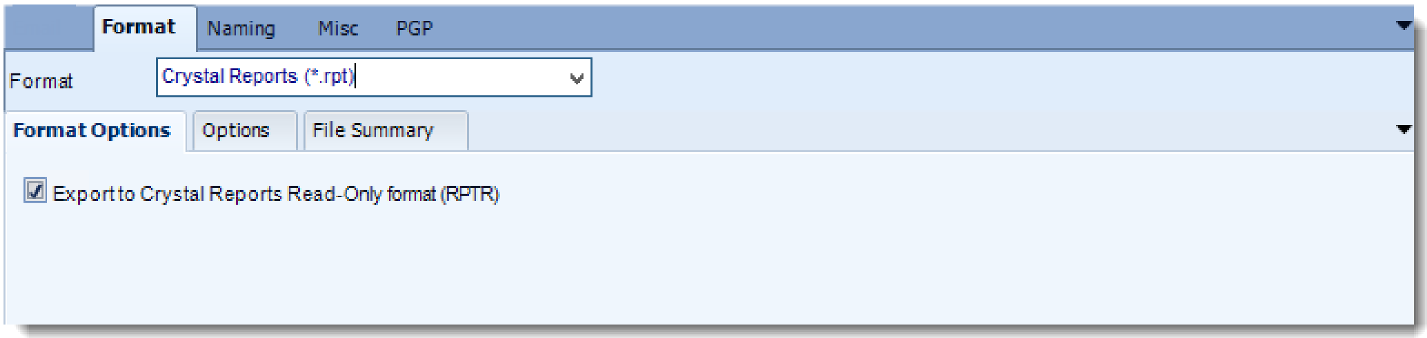
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption:** Check the option to encrypt and password protect the zip file.
- **Defer Delivery: The** report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to <u>Deferred Delivery</u>

Crystal Report (*rpt) outputs for Crystal Reports.

Export Crystal reports to Crystal Reports format & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.



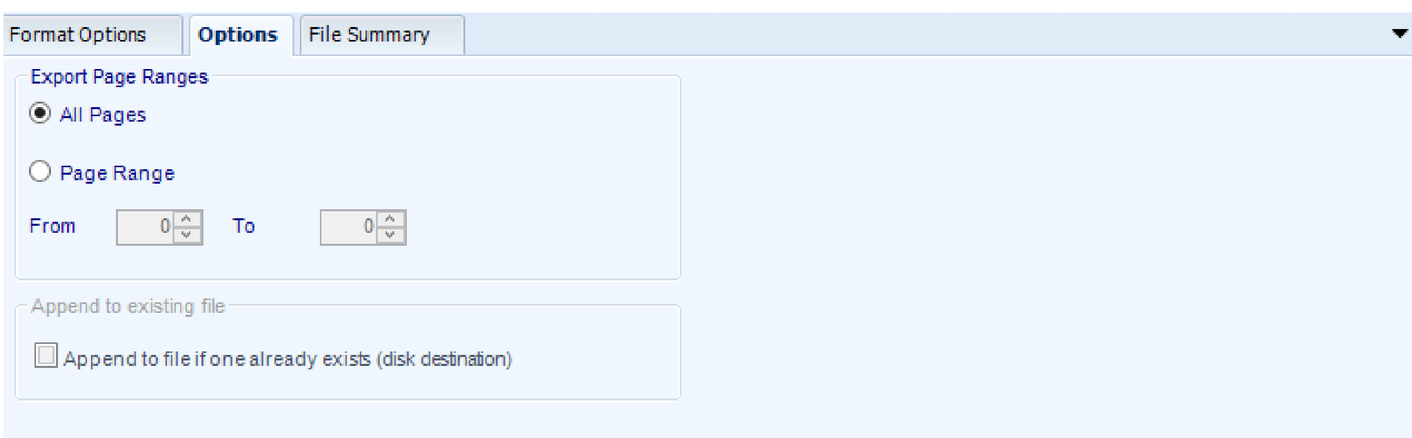
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Format Options

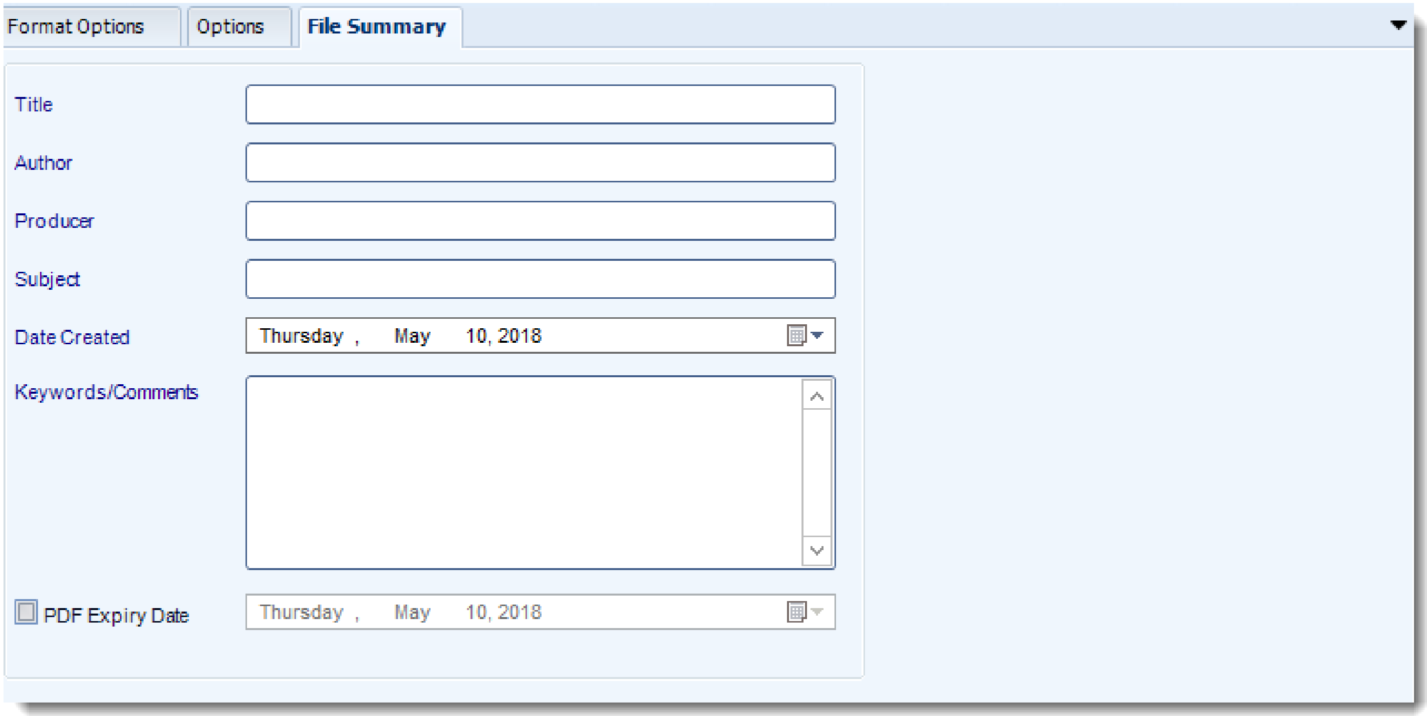
- **Crystal Reports Read Only Format (RPTR):** If you are using Crystal Reports 2011 or above, you can select Read Only format. If you intend to make "drill downs" view able in your report, this option can be selected.

Options



- Use this option to select to export all pages or just a selection.

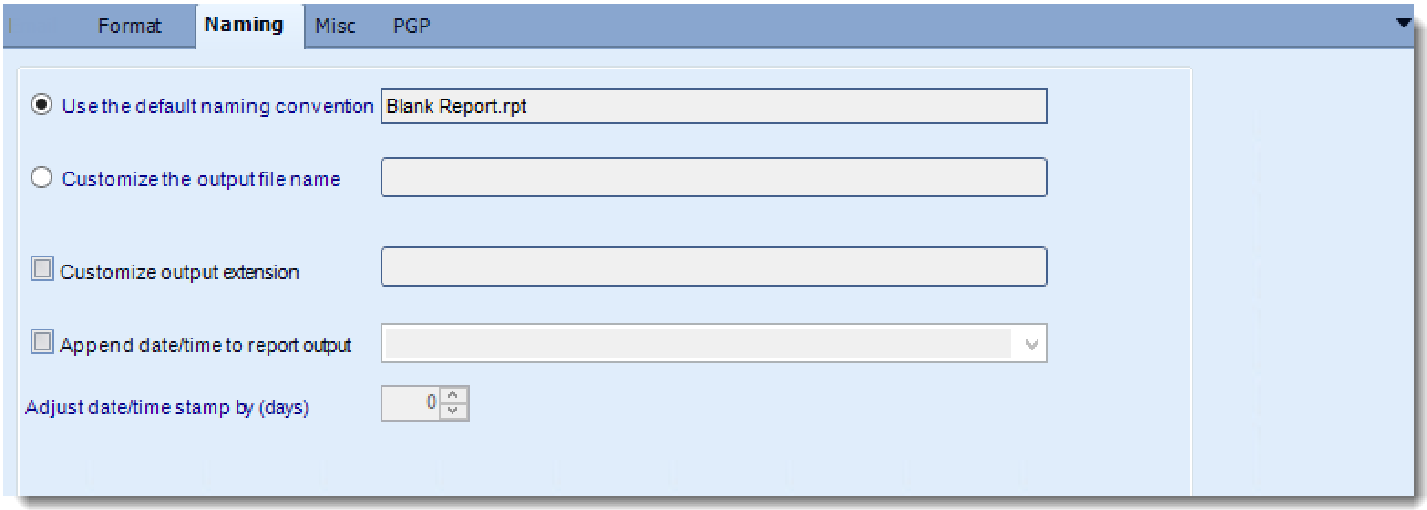
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

Naming

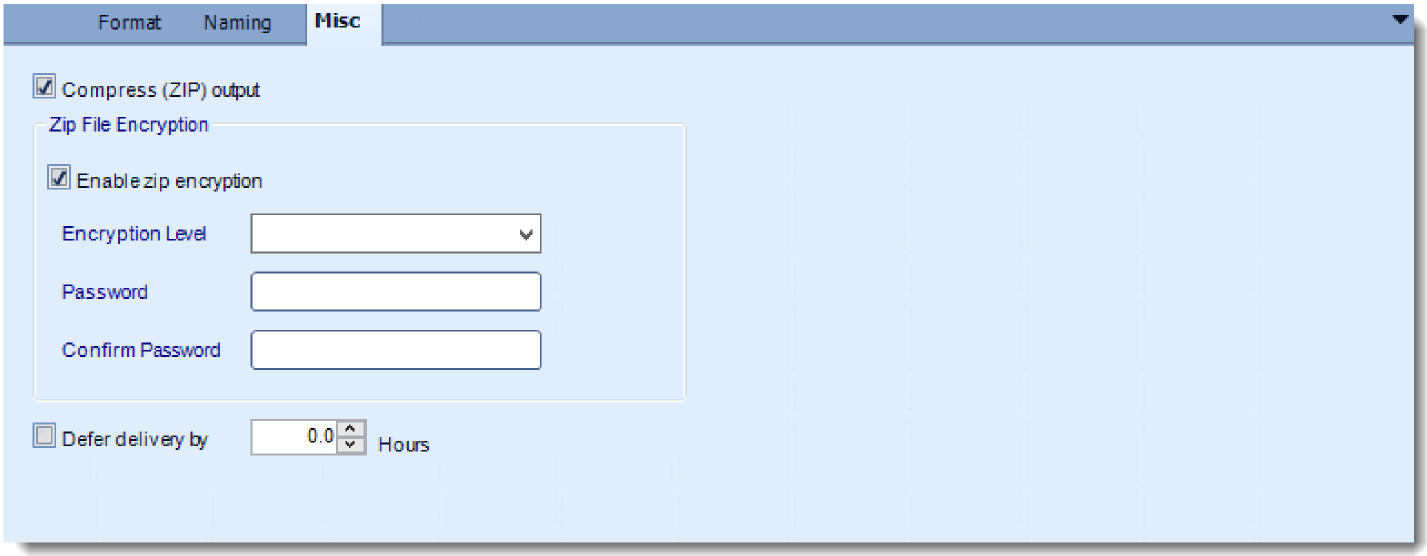
These options determine how the exported file will be name:



This is the option where you named the output file.

- **Default Naming Convention**: CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension**: Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc

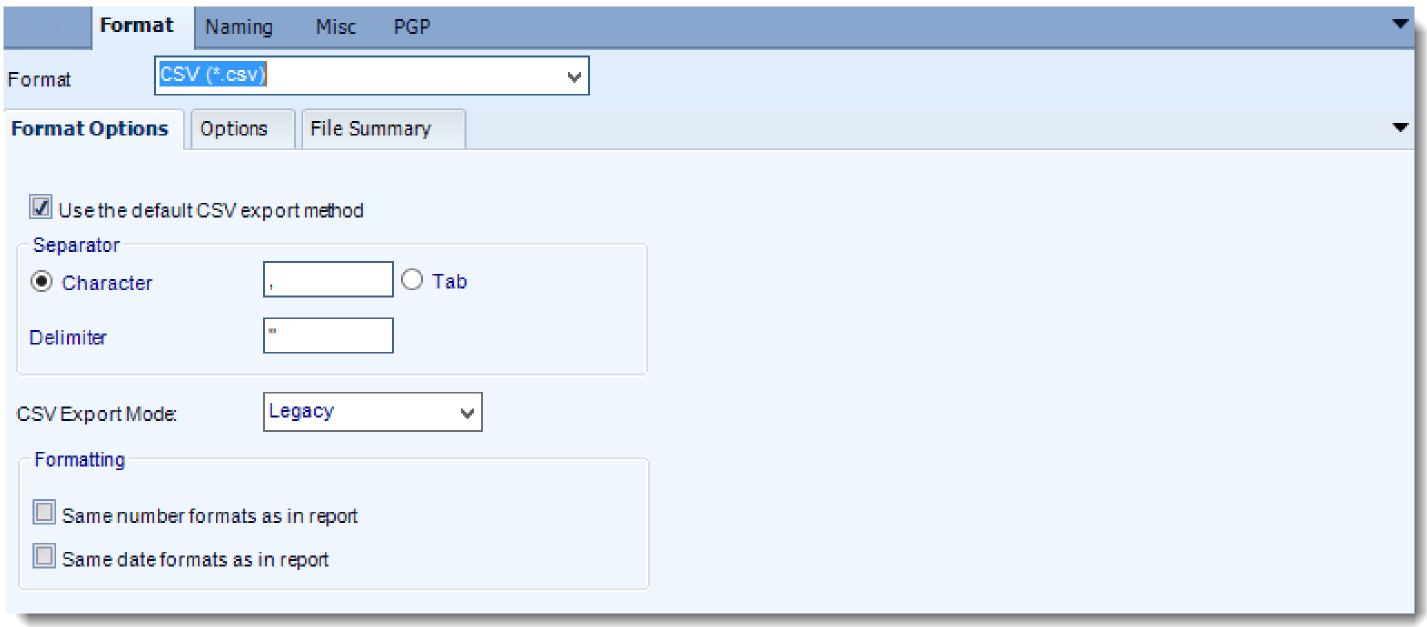


- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption:** Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

CSV (*.csv) outputs in Crystal Reports

CSV is a simple file format used to store tabular data, such as a spreadsheet. CRD lets you customize them before delivery. Here's how.

- To export CSV outputs in Crystal reports, follow these steps:



Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

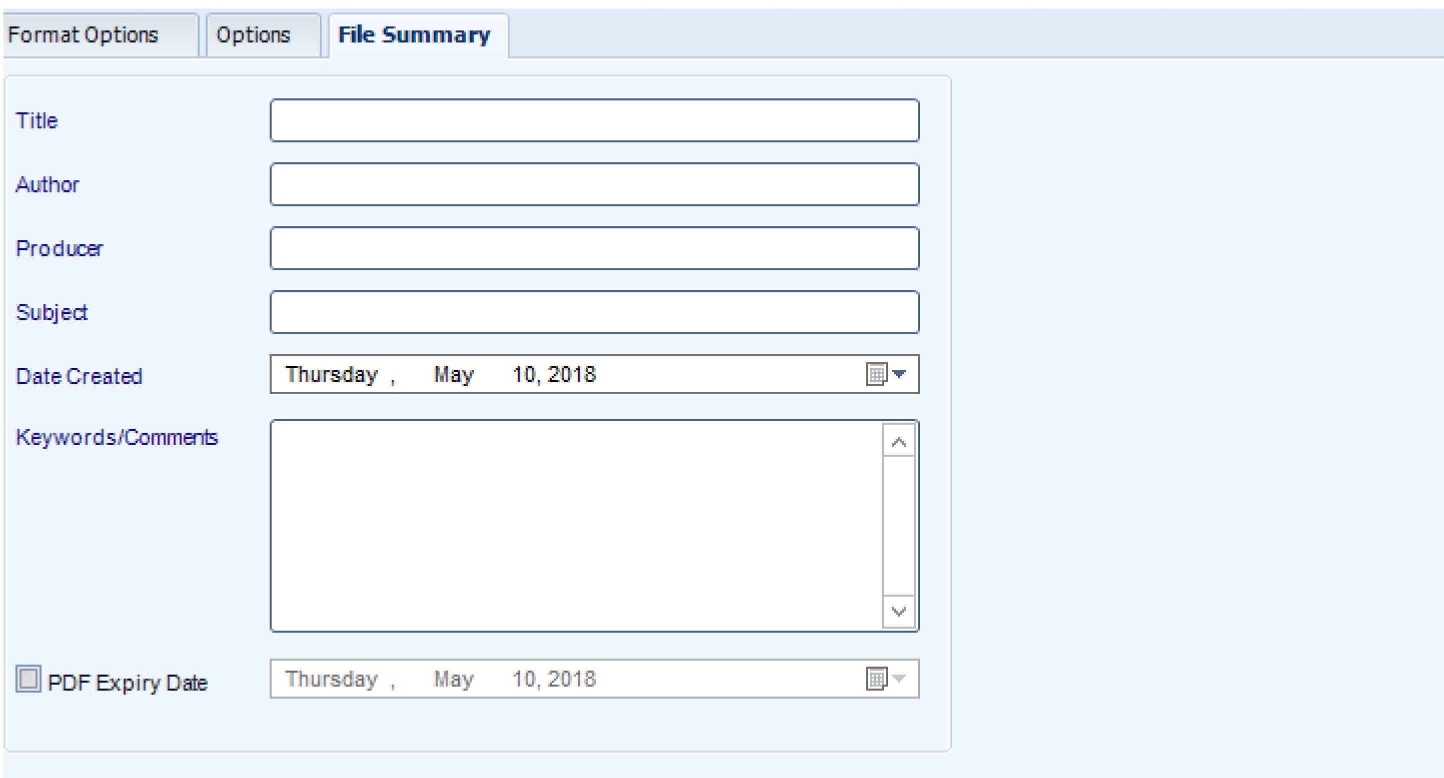
Format Options

- **Use the default CSV export method:** Select this option to use the default CSV export method.
- You can enter any character or use tab as separator.
- You can enter any character as Delimiter.
- **CSV Export Mode**
  - **Legacy:** Available for Crystal Versions below Crystal 2008.
  - **Standard:** Only available for Crystal Versions 2008 and above.
- Select your required formatting options.

Options

- Use this option to select to export all pages or just a selection.

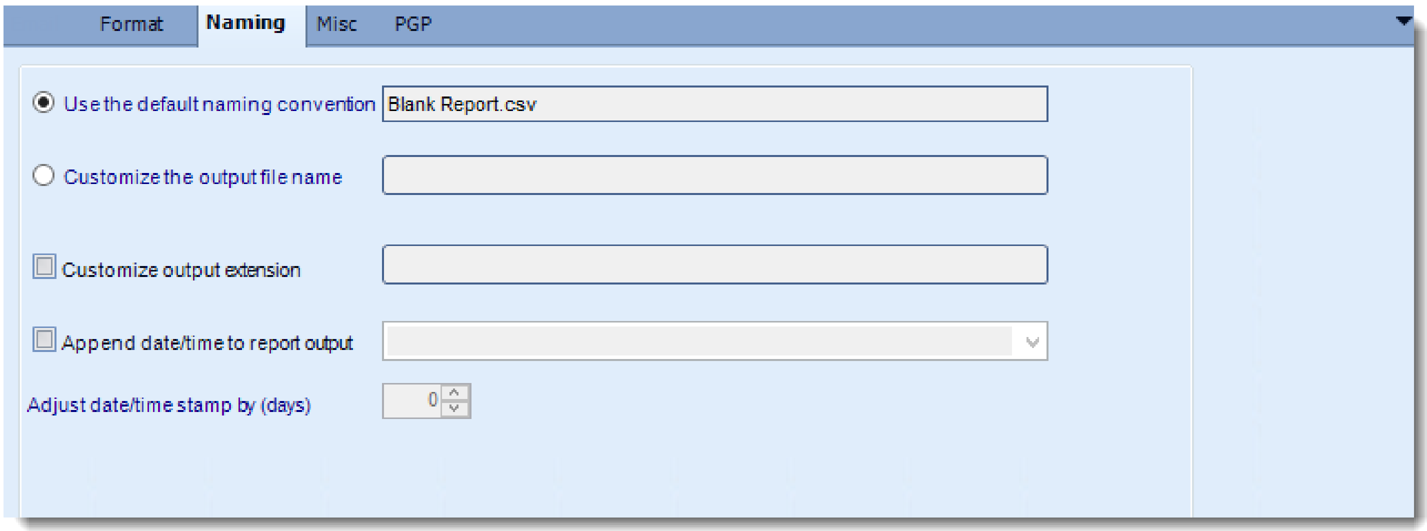
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

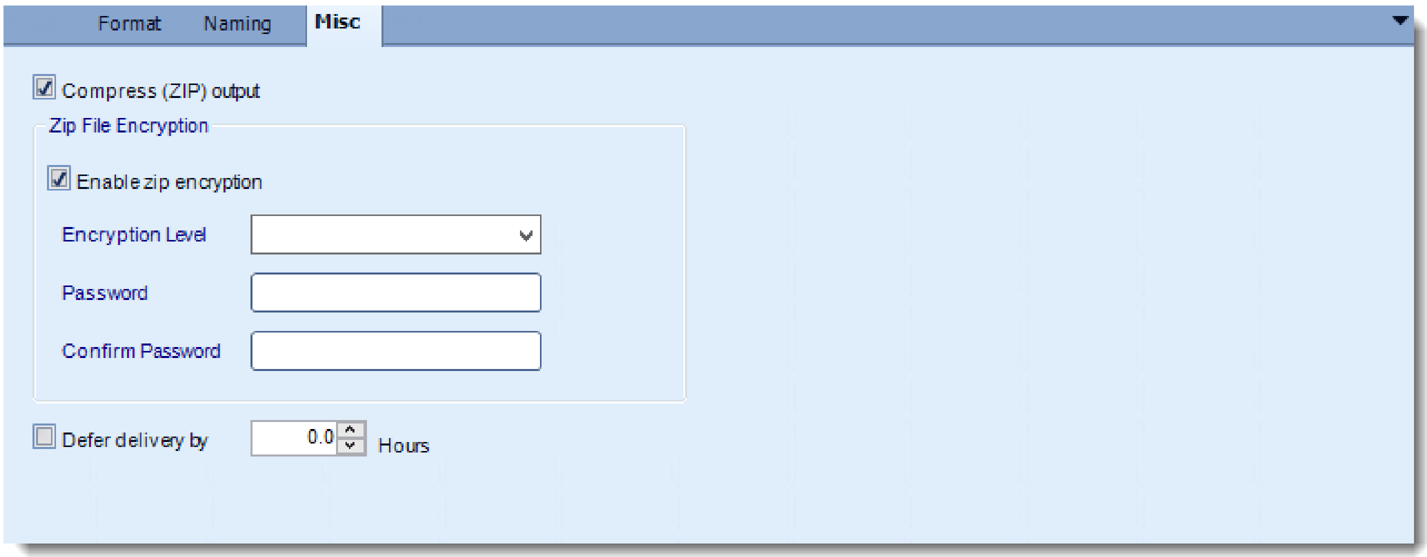
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

Data Interchange Format (*.dif) for Crystal reports

Data Interchange Format (.dif) is a text file format used to import/export single spreadsheets between spreadsheet programs. Export Crystal reports to DIF & automatically deliver them to an FTP site, send them in emails, and more.

- To export Data Interchange Format, follow these steps:

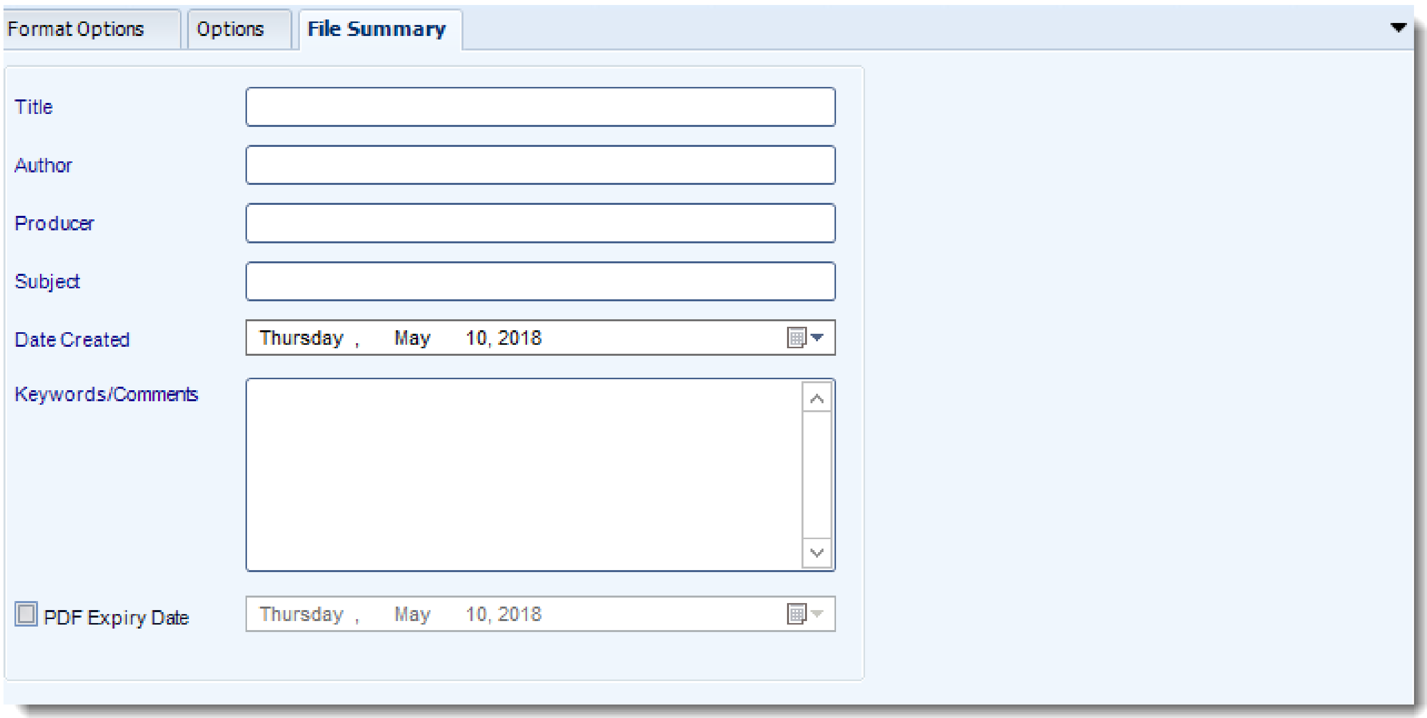
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options

- Use this option to select to export all pages or just a selection.

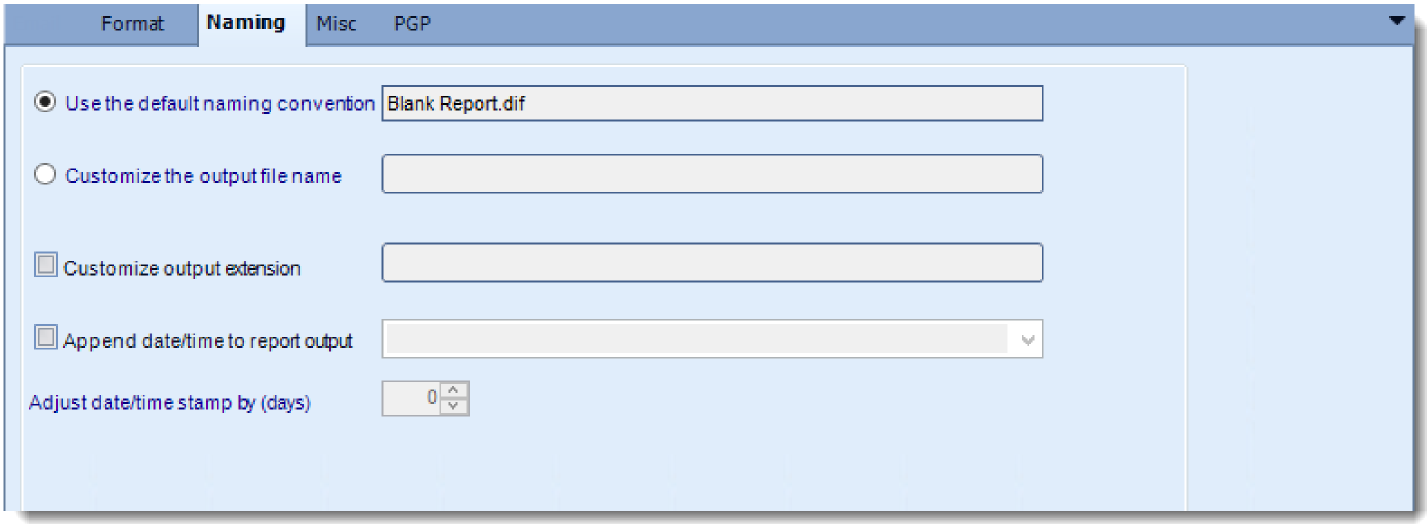
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

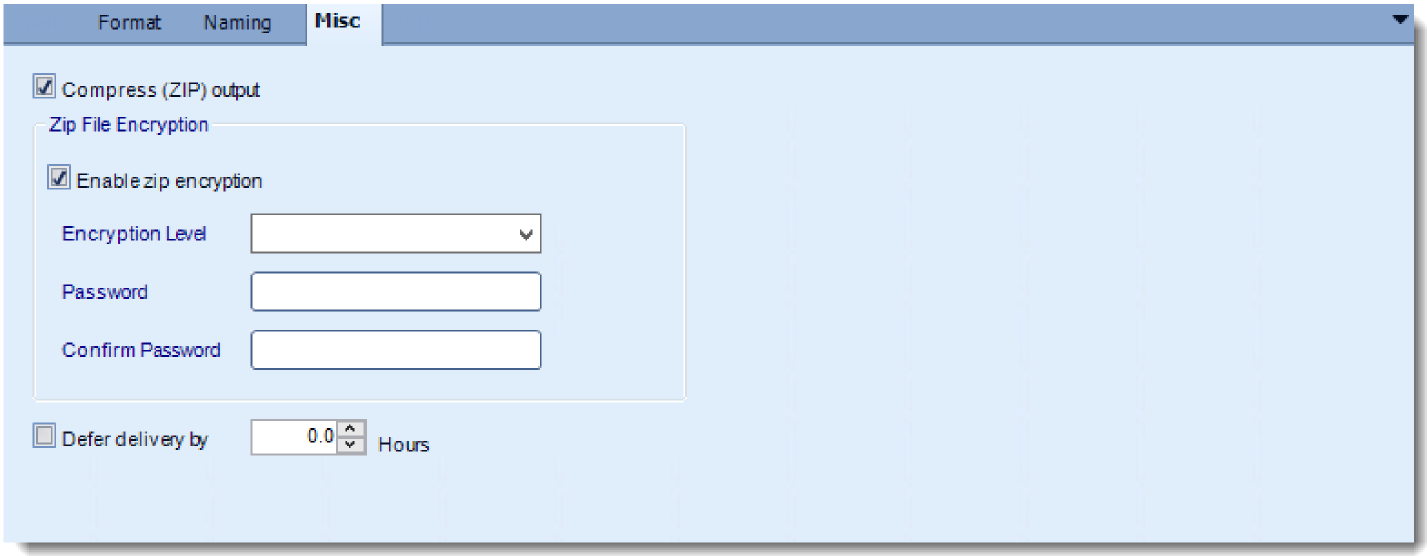
Naming

These options determine how the exported file will be name:



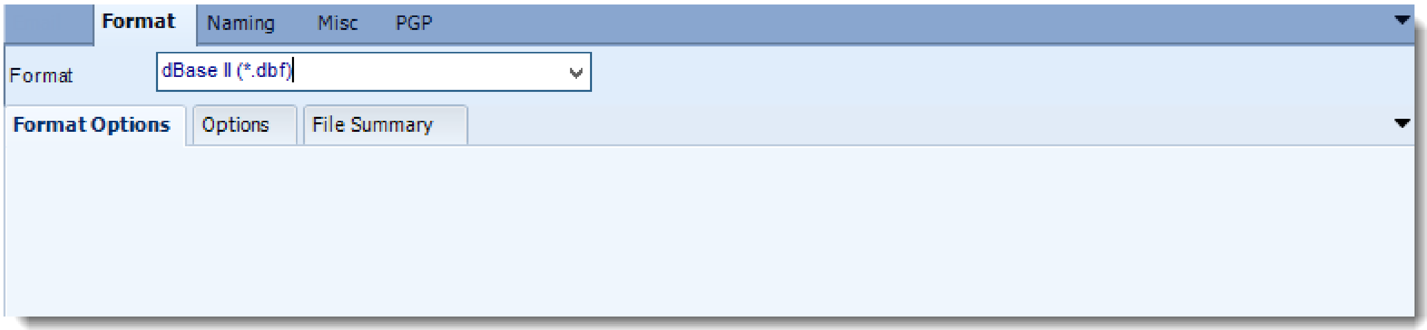
- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption:** Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to <u>Deferred Delivery</u>

dBase II (*.dbf) outputs for Crystal Reports



Export Crystal reports to dBase & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

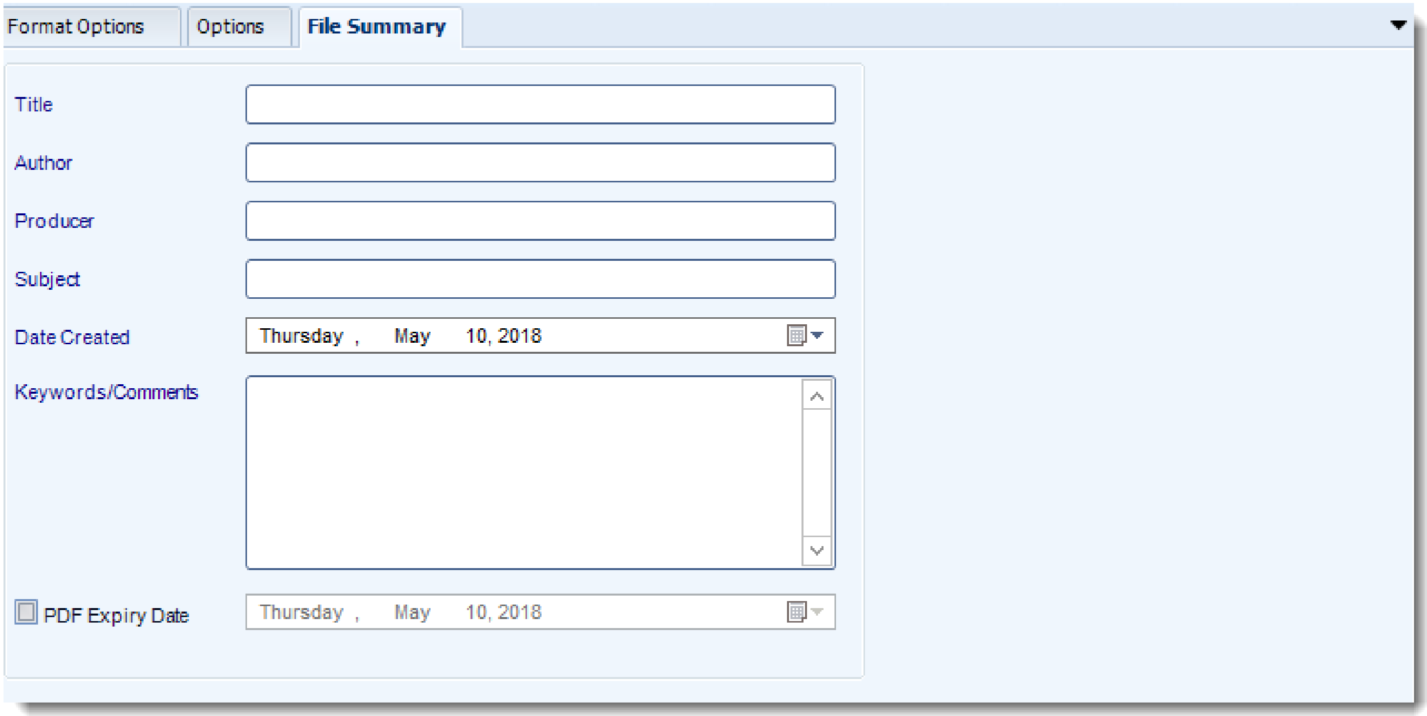
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options

- Use this option to select to export all pages or just a selection.

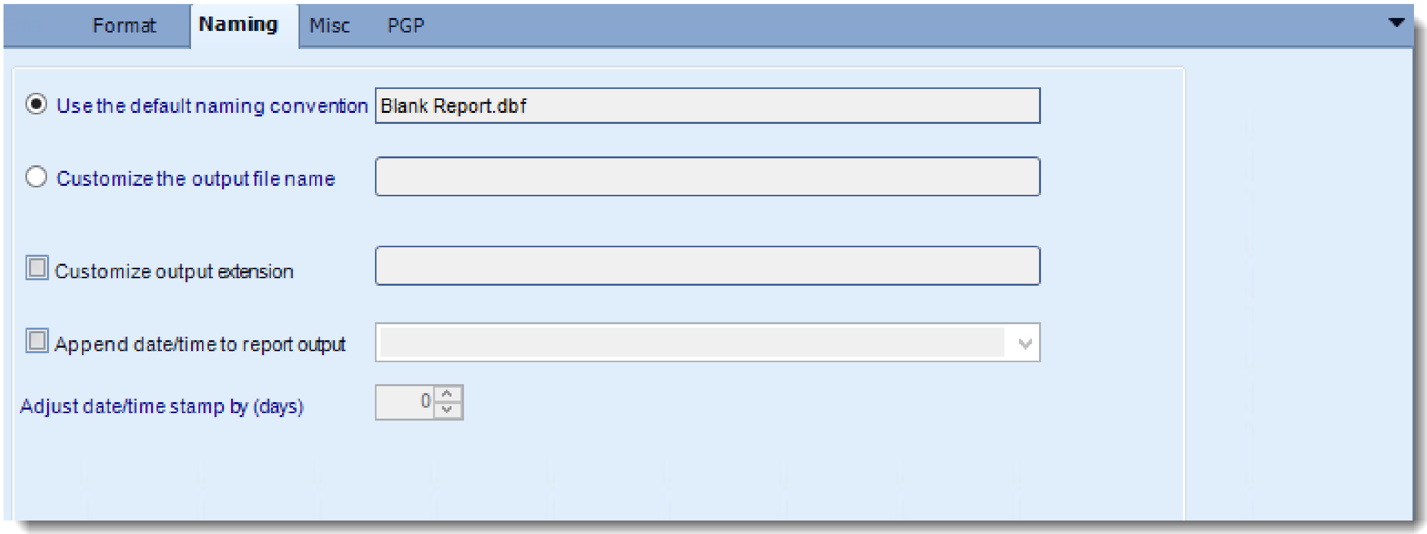
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

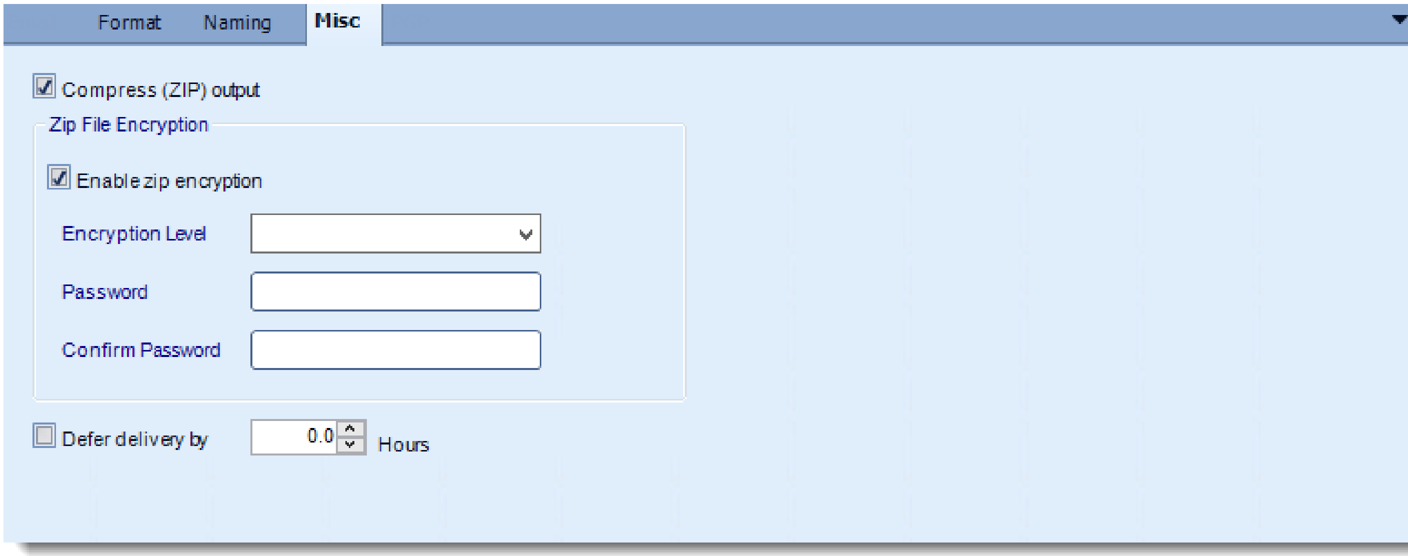
Naming

These options determine how the exported file will be name:



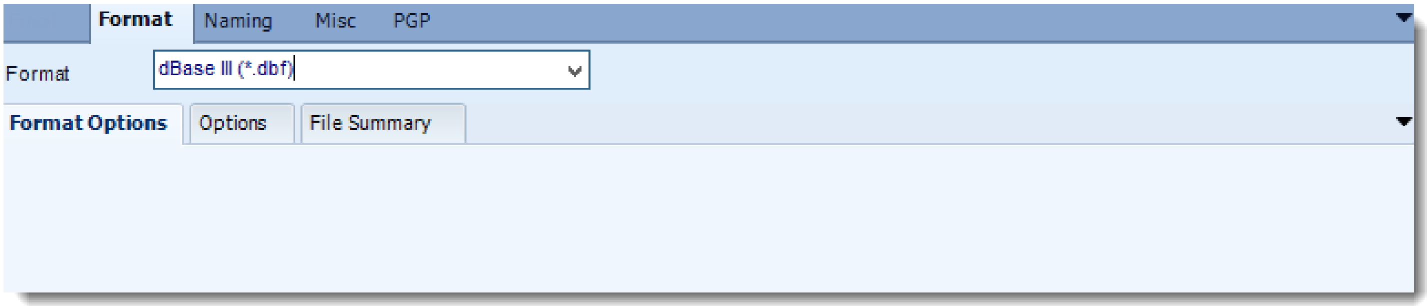
- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

dBase III (*.dbf) outputs for Crystal Reports



Export Crystal reports to dBase & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

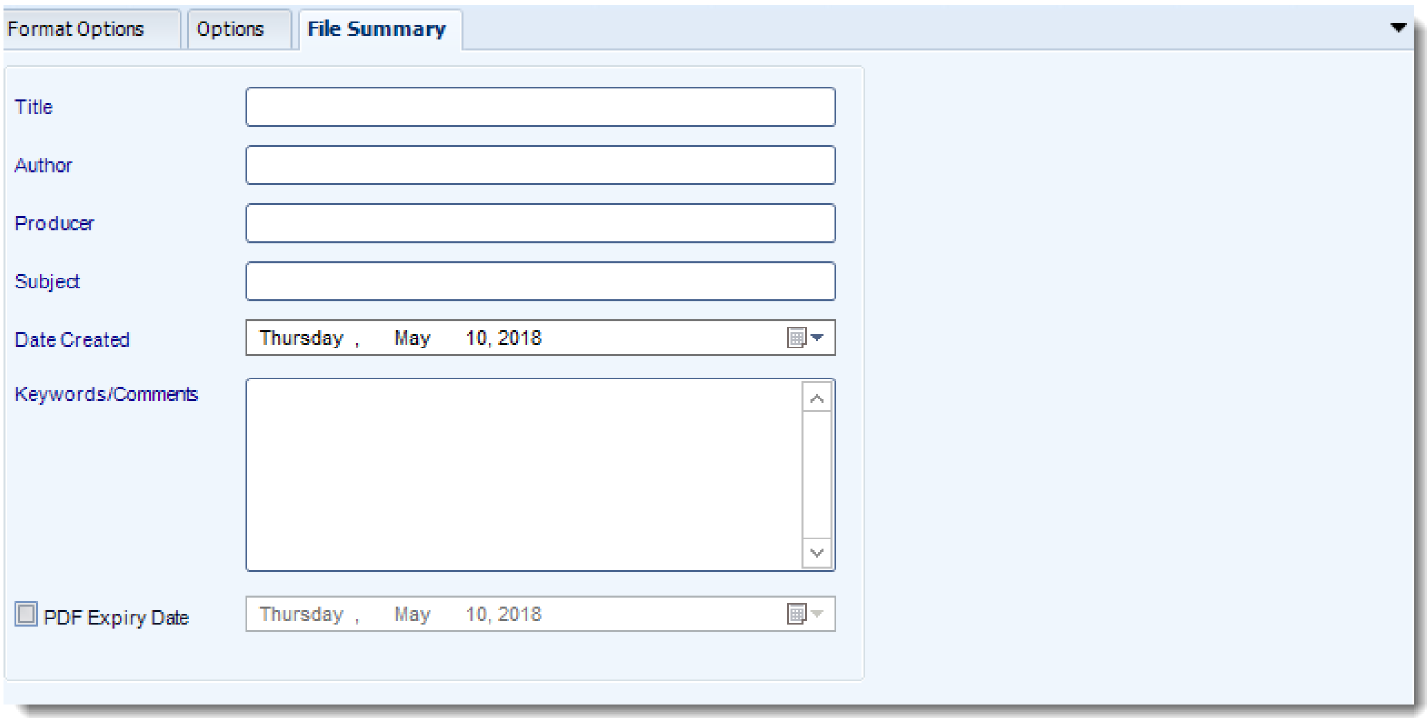
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options

- Use this option to select to export all pages or just a selection.

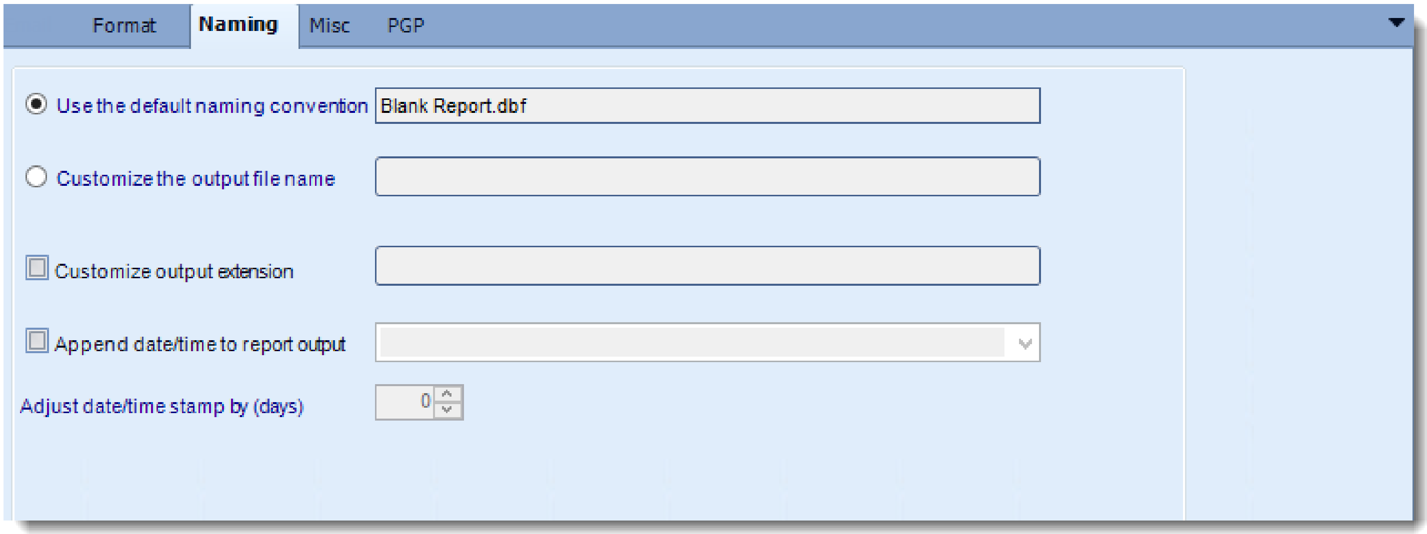
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

Naming

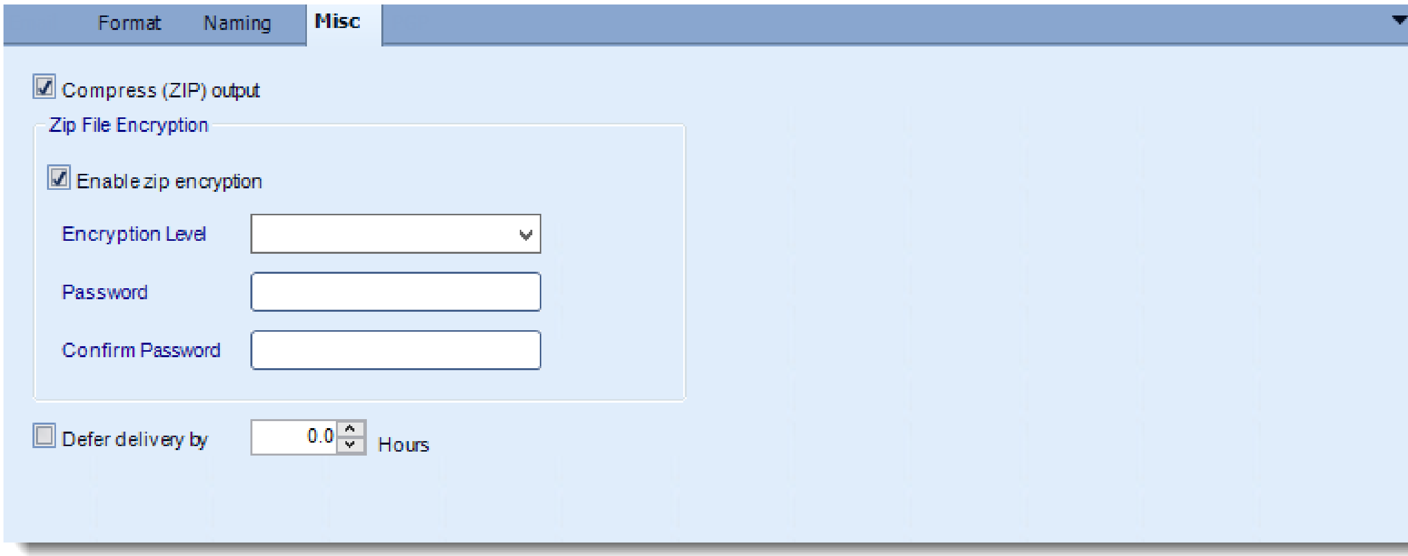
These options determine how the exported file will be name:



This is the option where you named the output file.

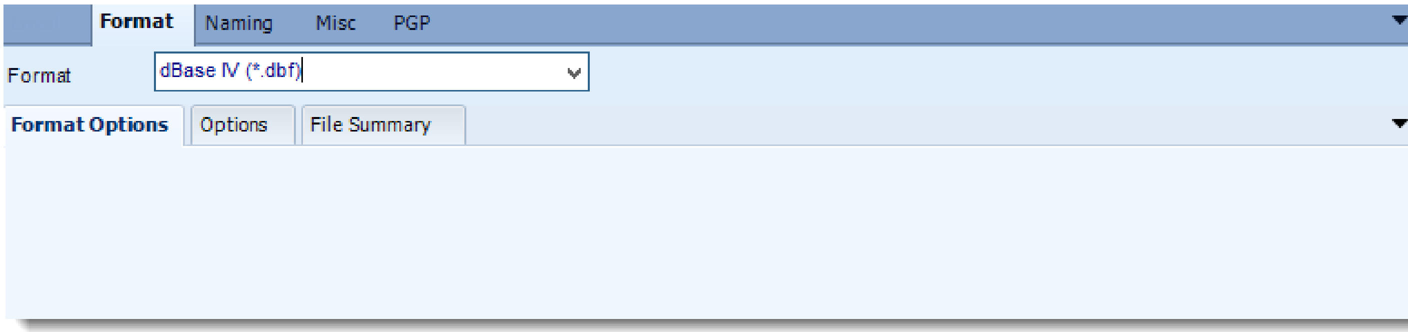
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

dBase IV (*.dbf) outputs for Crystal Reports



Export Crystal reports to dBase & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

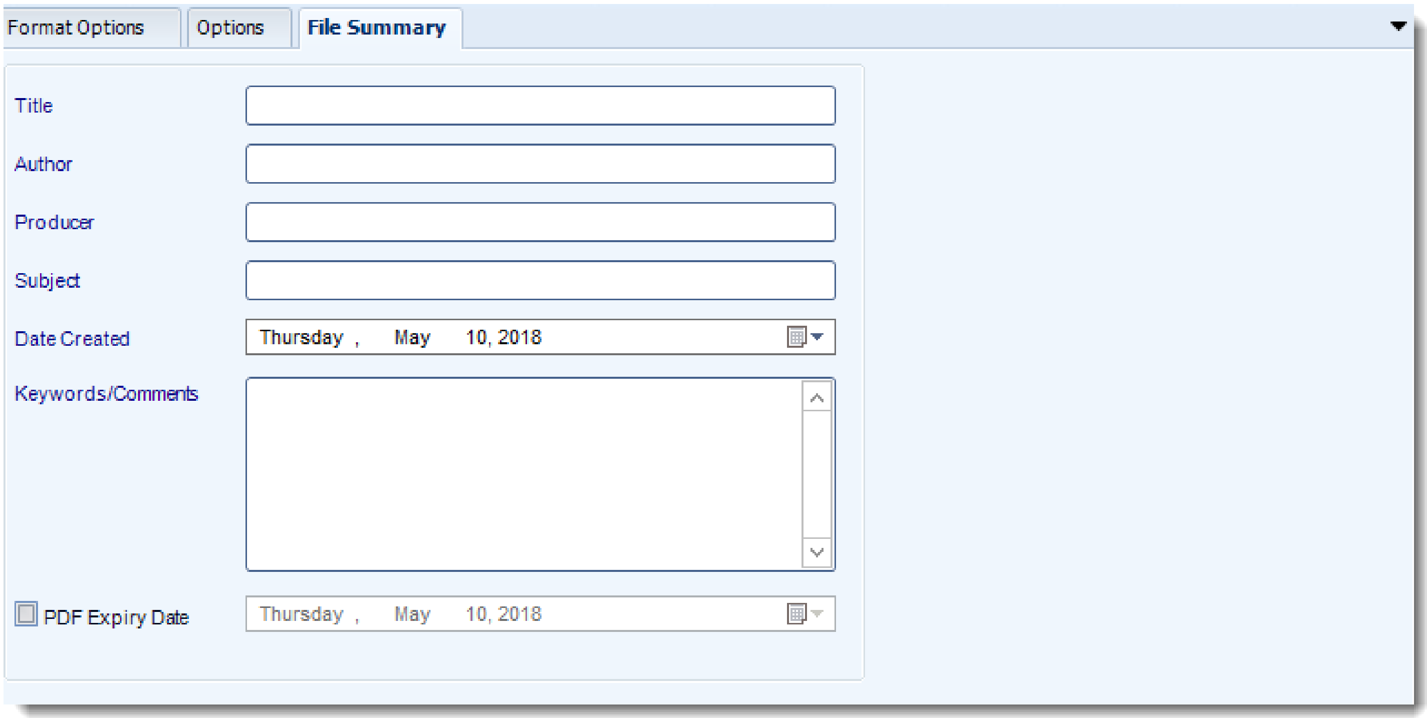
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options

- Use this option to select to export all pages or just a selection.

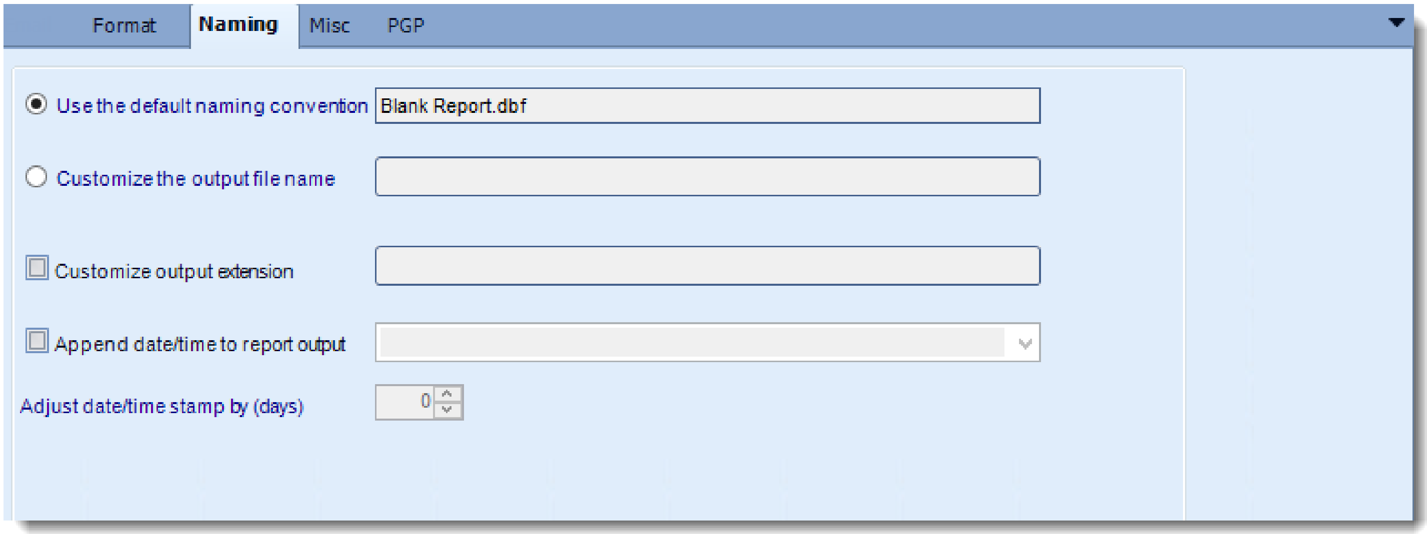
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

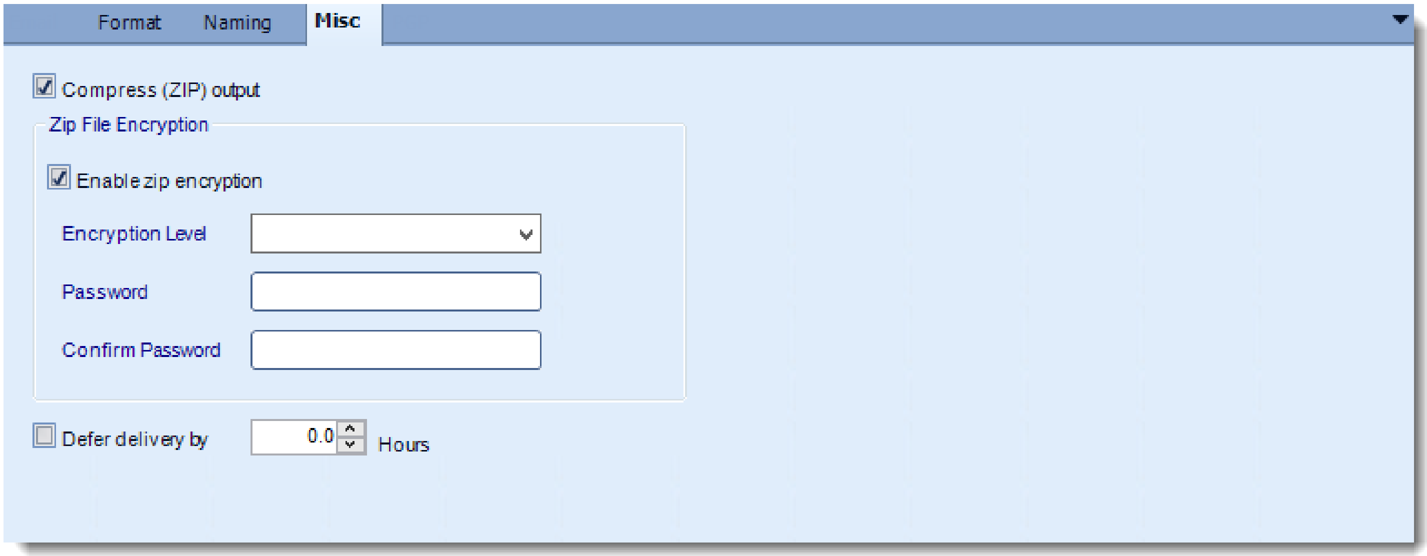
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

HTML (*.htm) outputs for Crystal Reports

HTML is the standard markup language for creating web pages and web applications. Export Crystal Reports to HTML & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

- To export HTML (*.htm) in Crystal Reports follow these steps:

Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

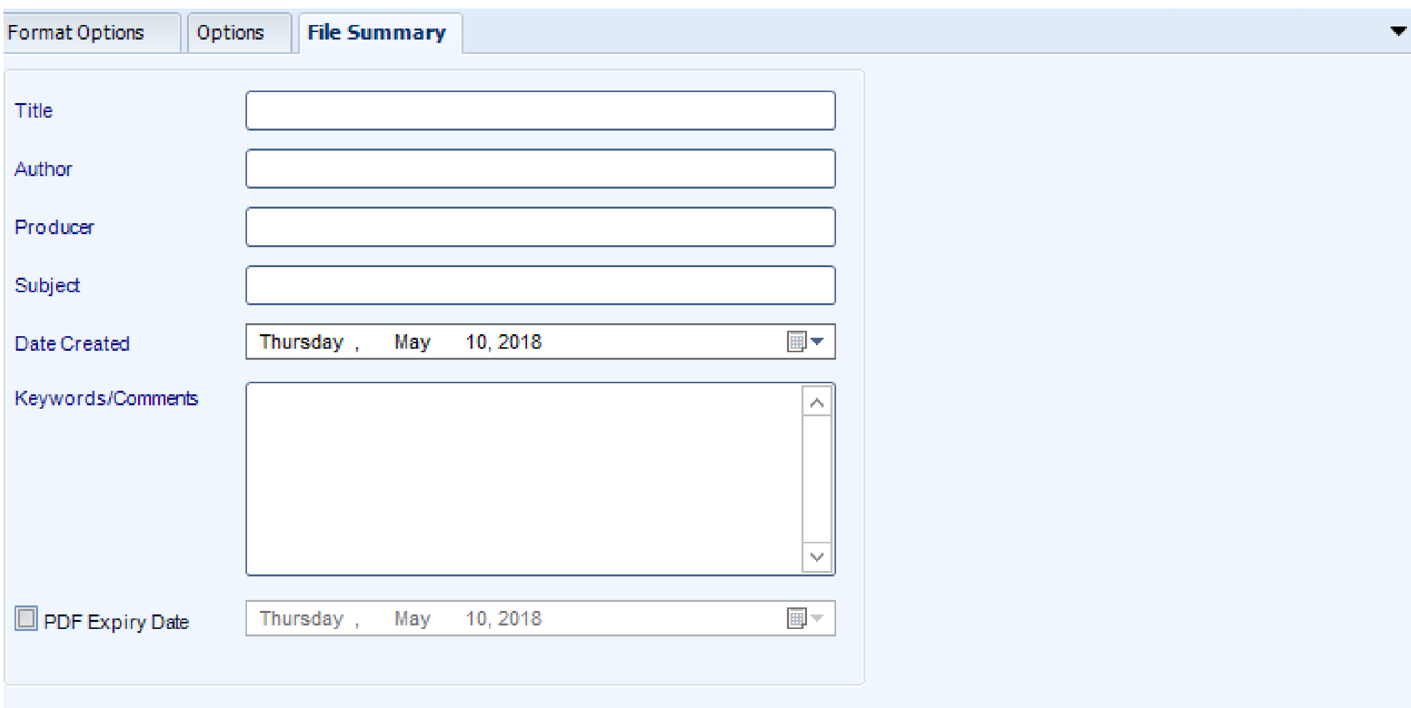
Format Options

- **Separate html files:** If HTML format is selected, CRD will create a single html export. Check this option if you want to split this into the standard multiple page format which Crystal Reports produces when a manual export is performed. (Only available if HTML format is selected).
- **Page Navigator:** Check this option if you require page navigation at the bottom of each exported HTML page.

Options

- Use this option to select to export all pages or just a selection.

File Summary

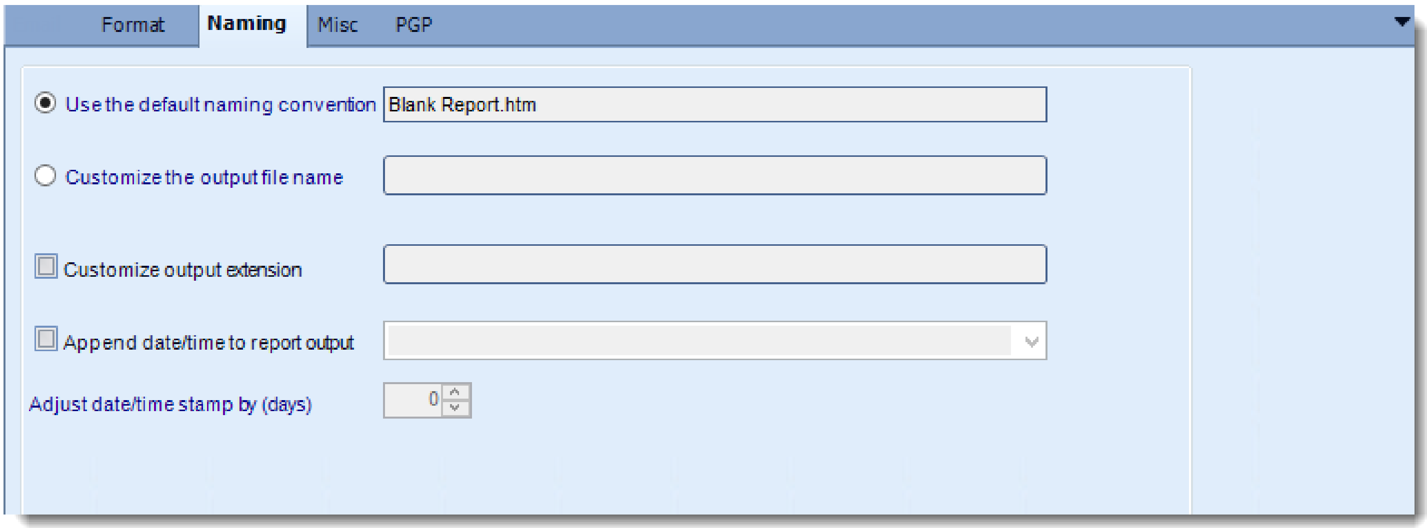


- Determine file summary by filling in the required properties as illustrated above.

- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

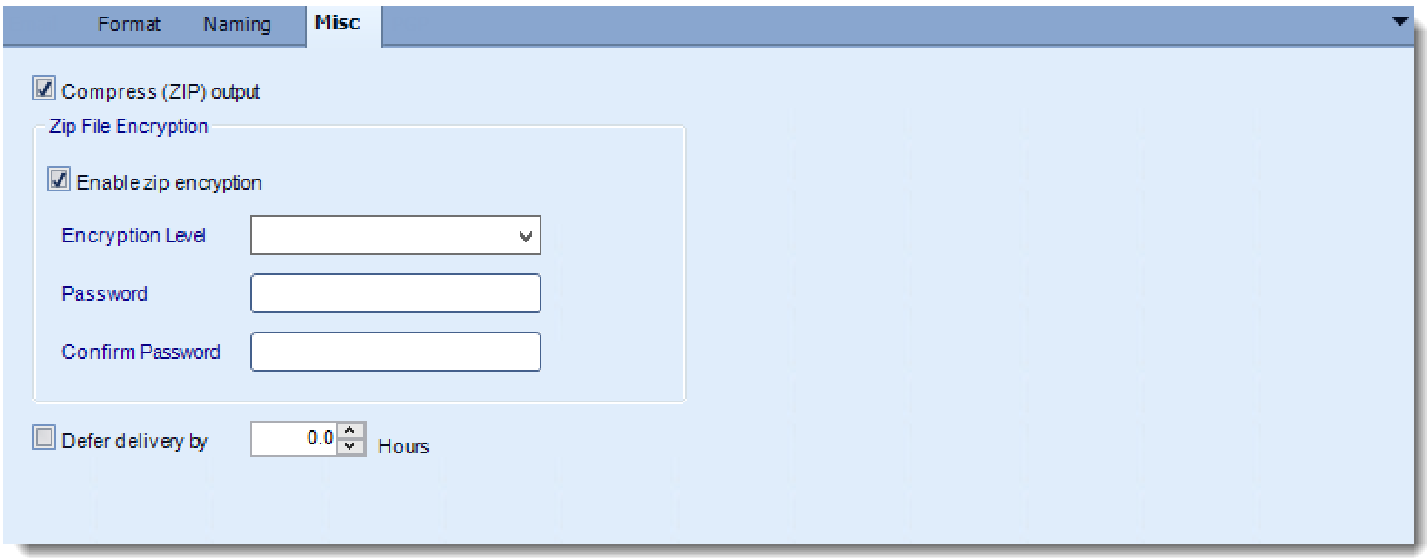
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

Lotus 1-2-3 (*.wk1) outputs for Crystal Reports

Export Crystal reports to Lotus 1-2-3 & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

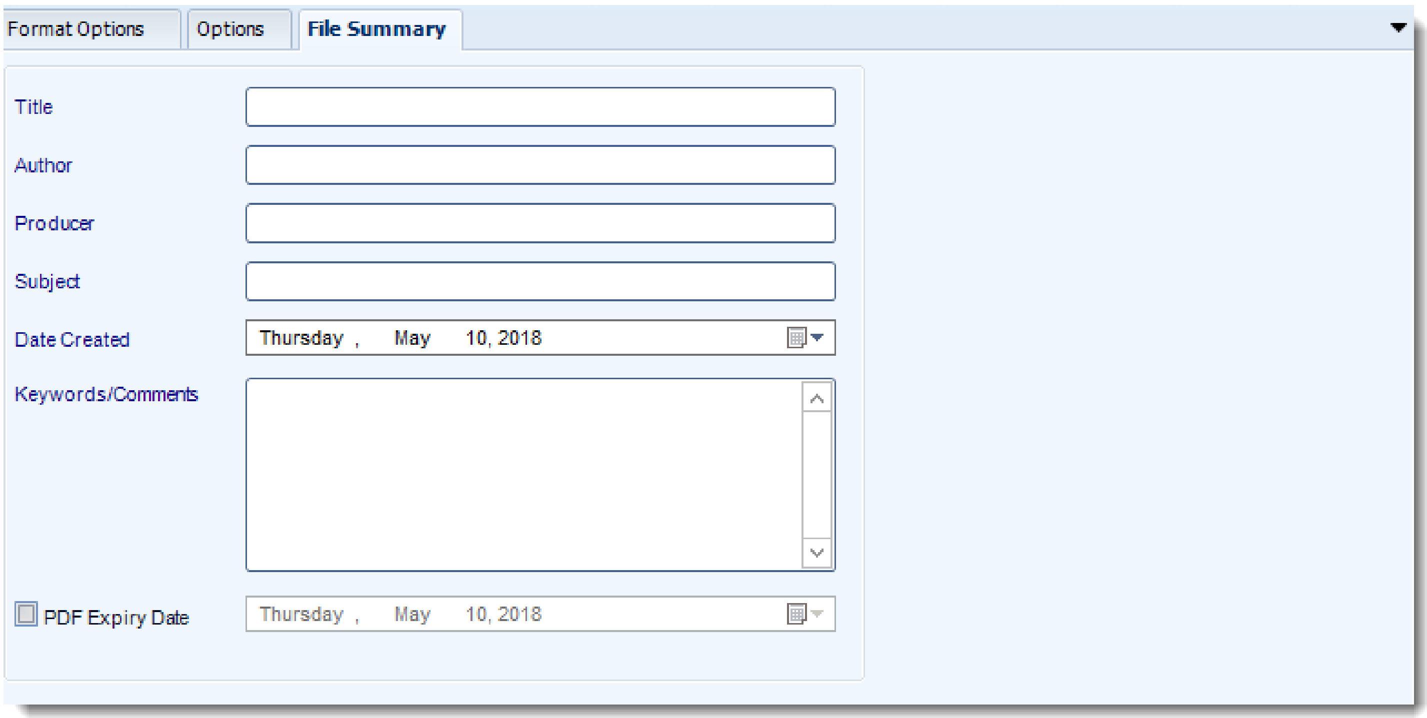
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options

- Use this option to select to export all pages or just a selection.

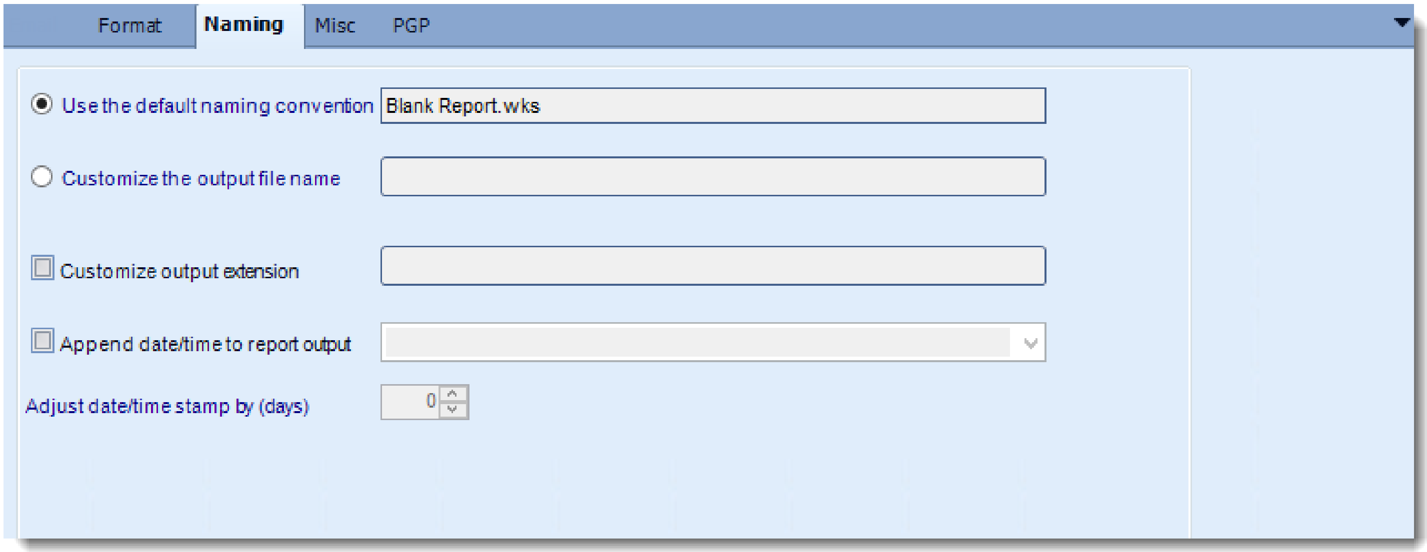
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

Naming

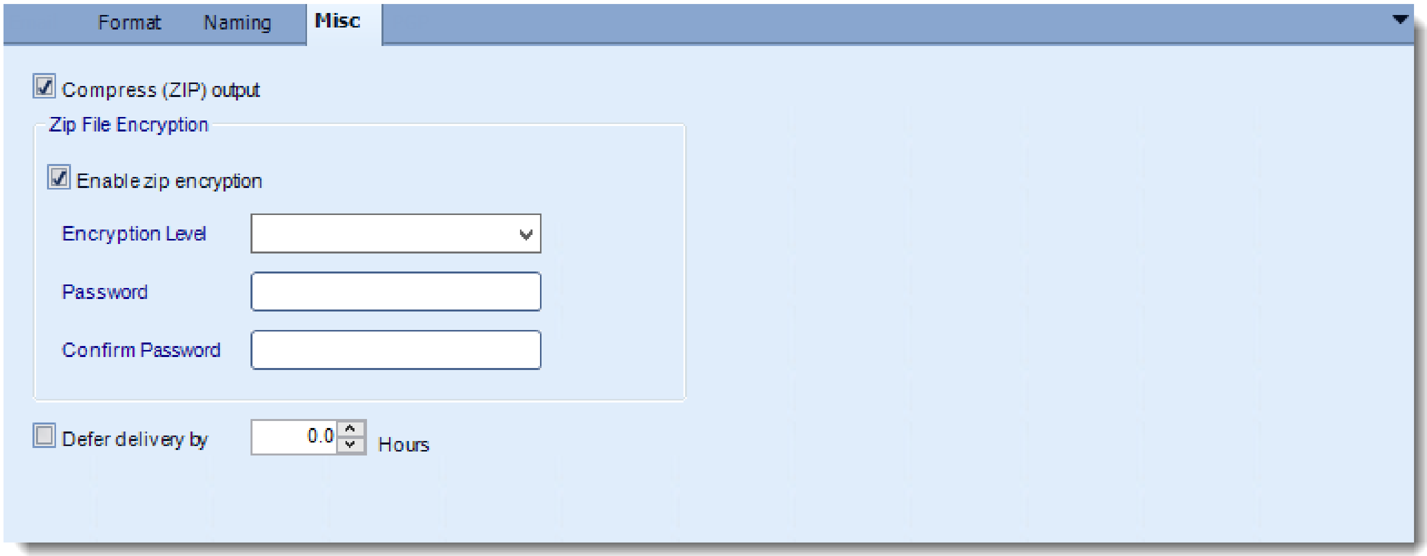
These options determine how the exported file will be name:



This is the option where you named the output file.

- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

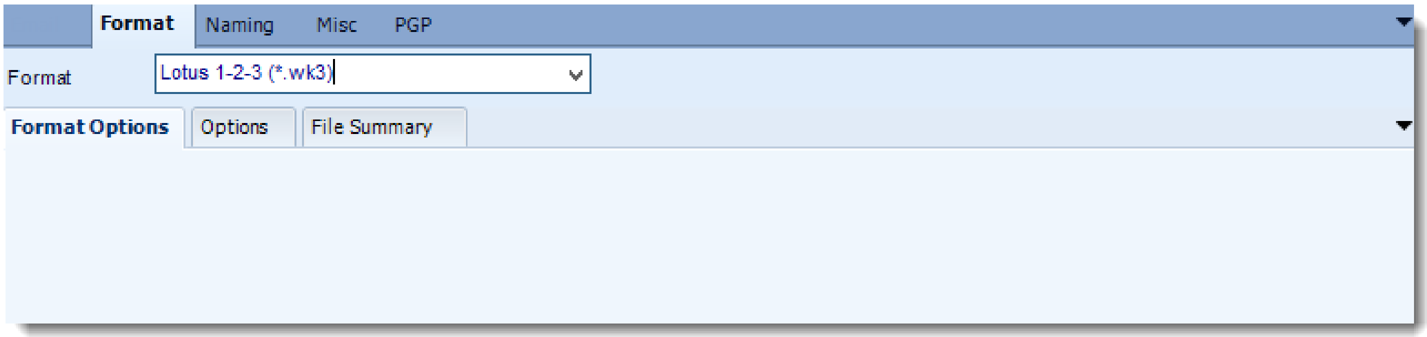
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to <u>Deferred Delivery</u>

Lotus 1-2-3 (*.wk3) outputs for Crystal Reports

Export Crystal reports to Lotus 1-2-3 & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.



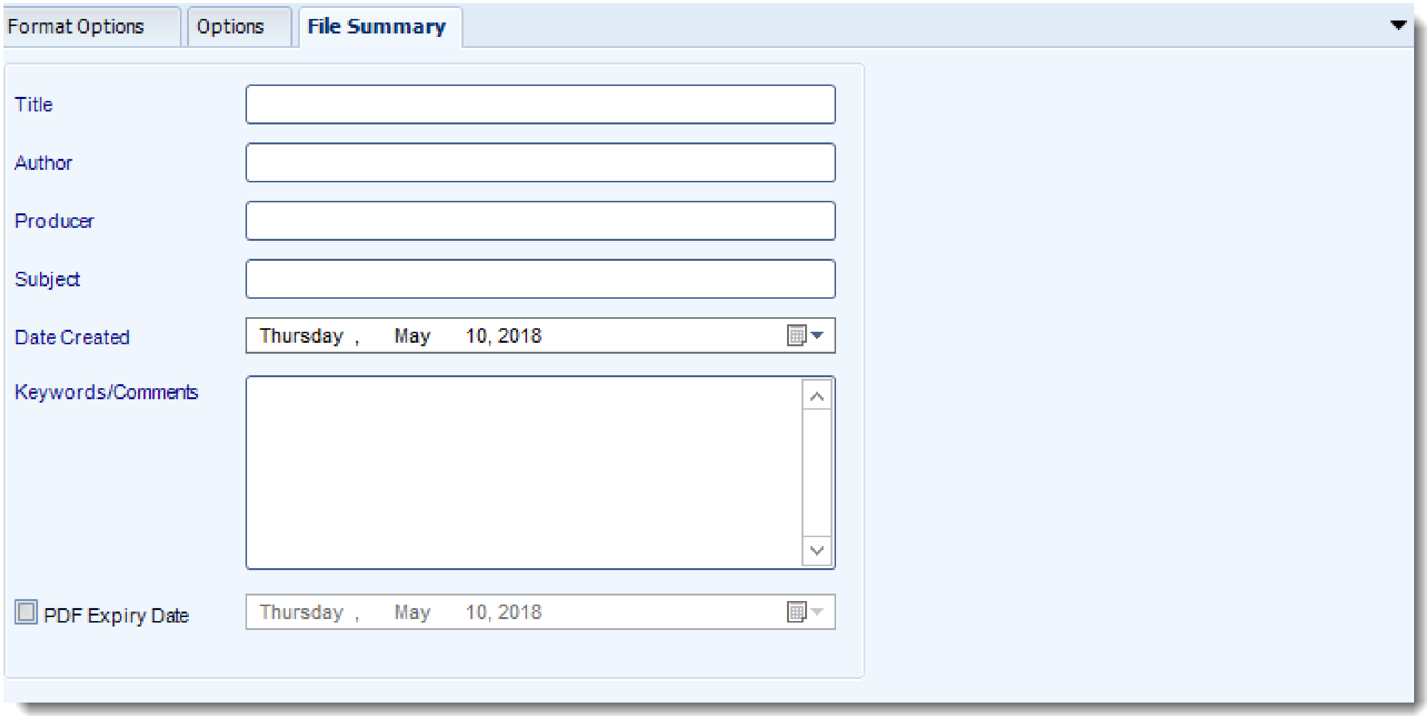
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options

- Use this option to select to export all pages or just a selection.

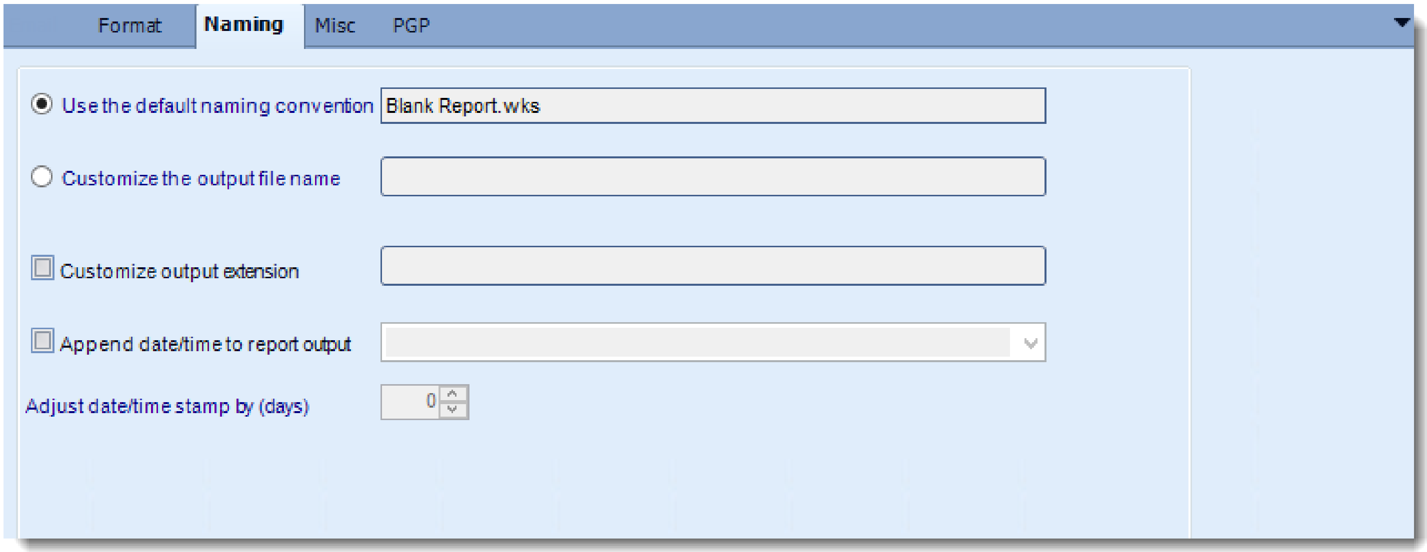
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

Naming

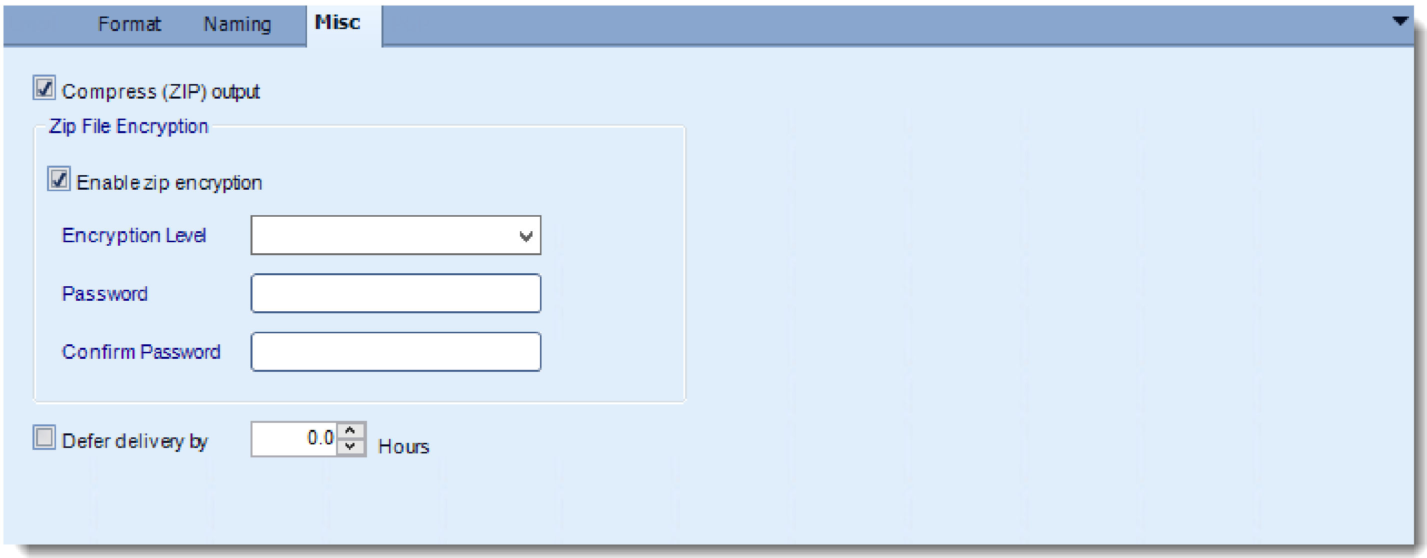
These options determine how the exported file will be name:



This is the option where you named the output file.

- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

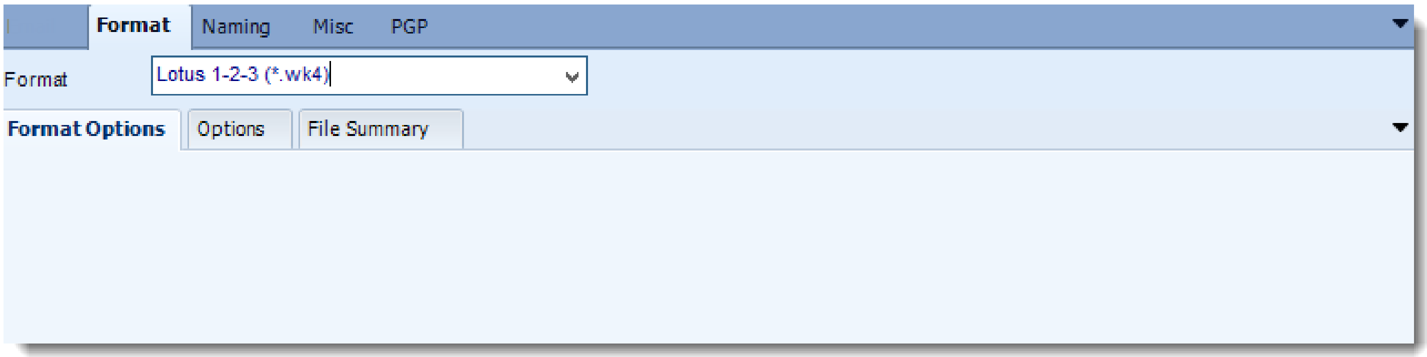
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

Lotus 1-2-3 (*.wk4) outputs for Crystal Reports

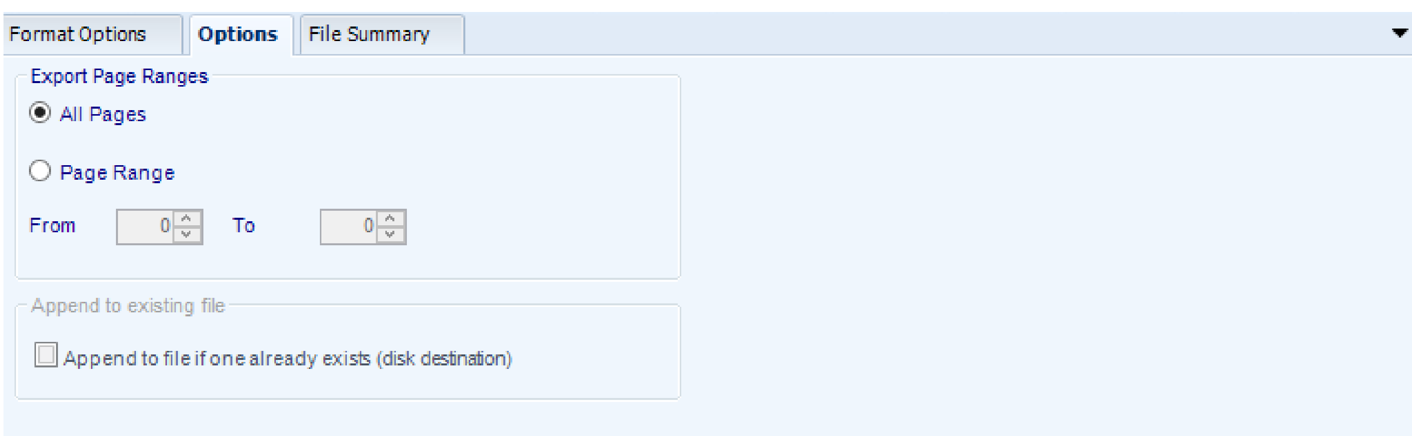
Export Crystal reports to Lotus 1-2-3 & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.



Format

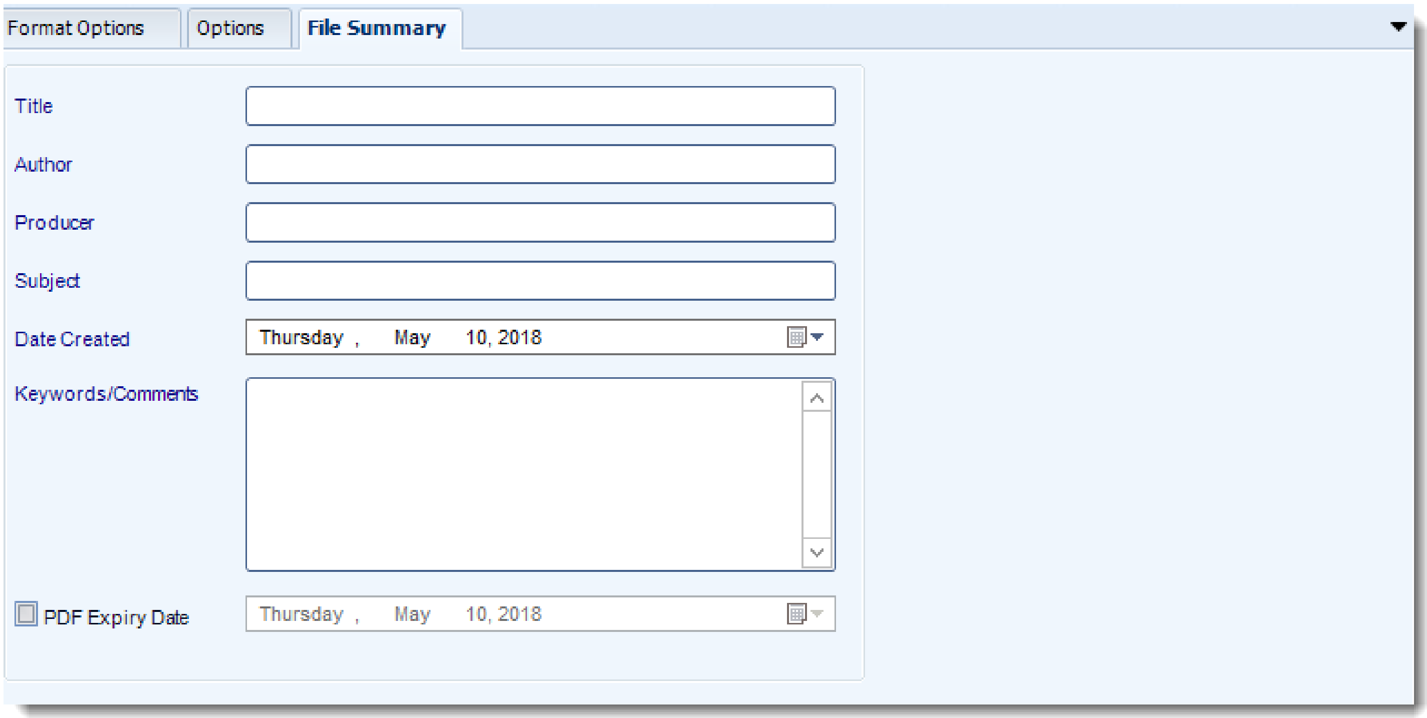
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options



- Use this option to select to export all pages or just a selection.

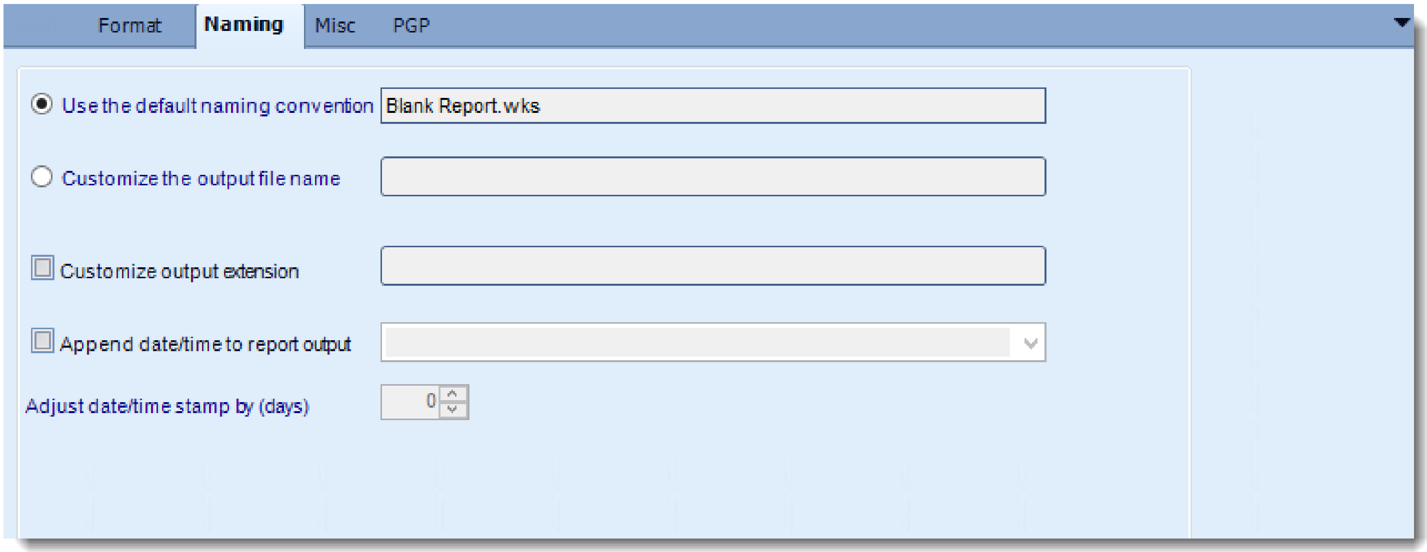
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

Naming

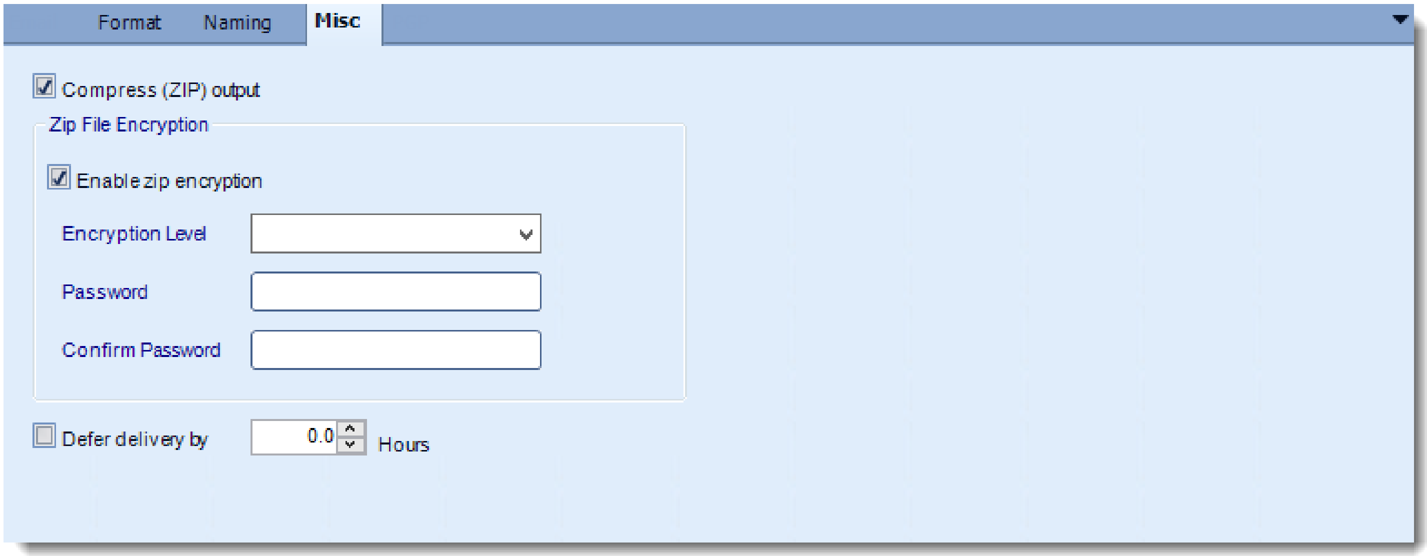
These options determine how the exported file will be name:



This is the option where you named the output file.

- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

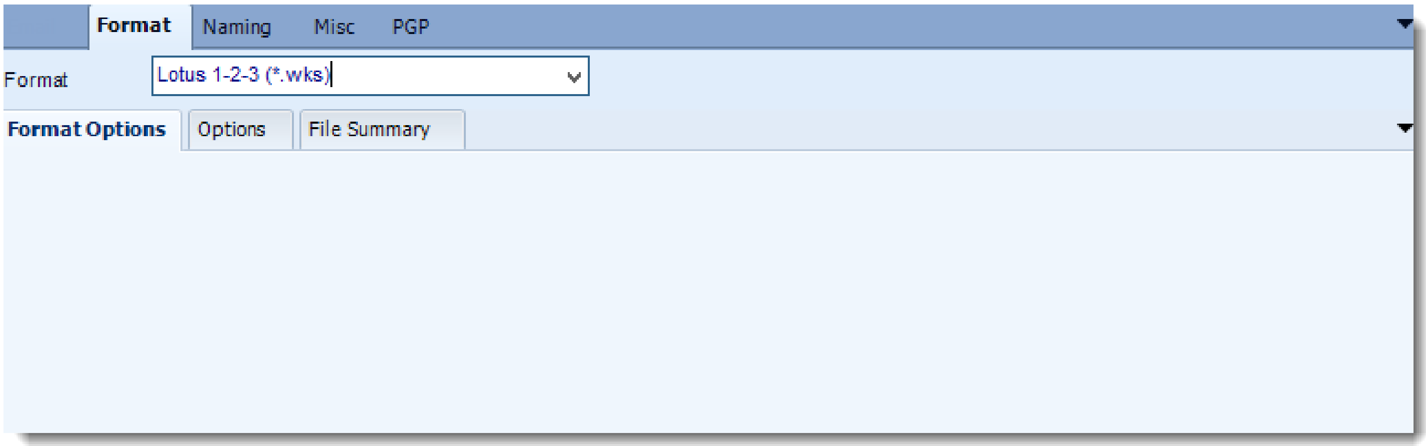
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

Lotus 1-2-3 (*.wks) outputs for Crystal Reports

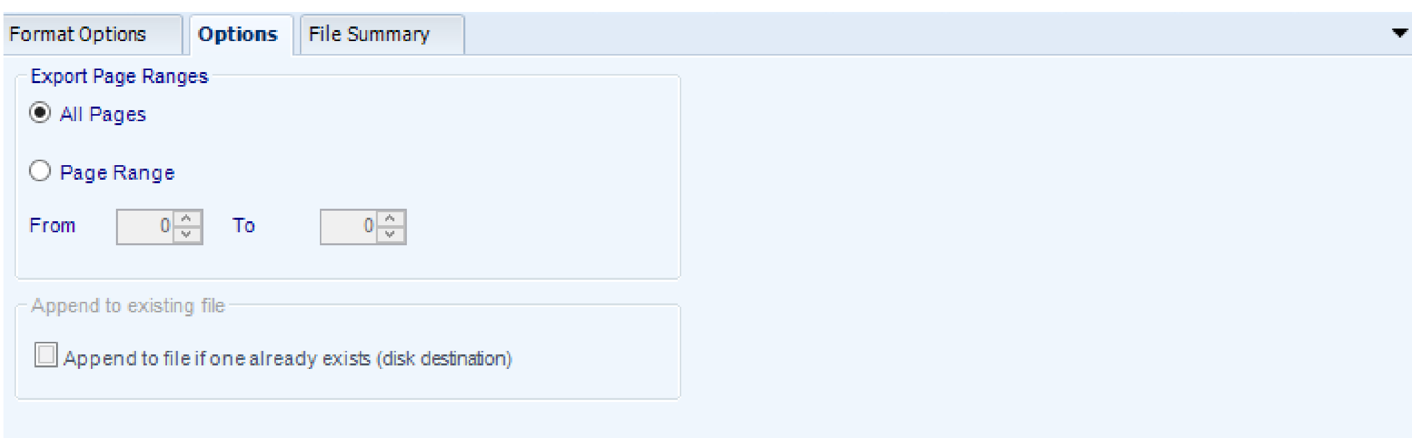
Export Crystal reports to Lotus 1-2-3 & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.



Format

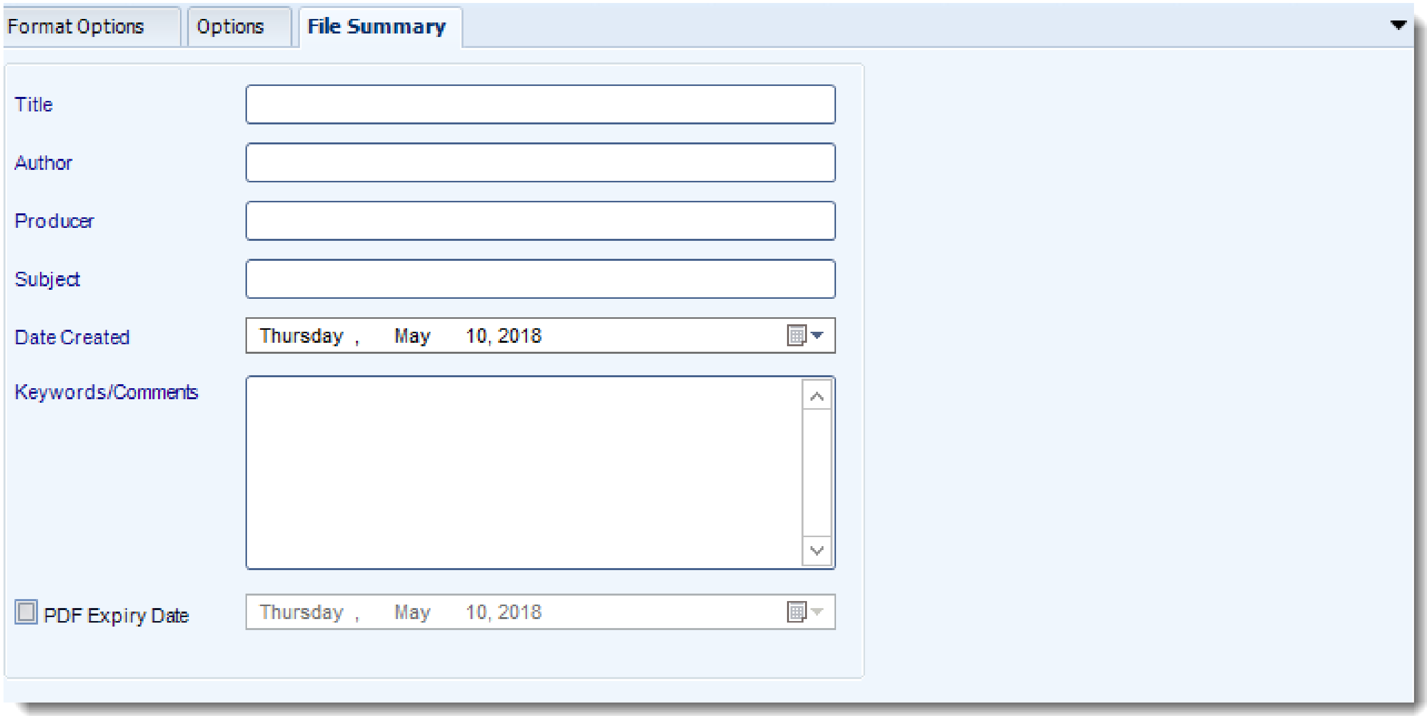
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options



- Use this option to select to export all pages or just a selection.

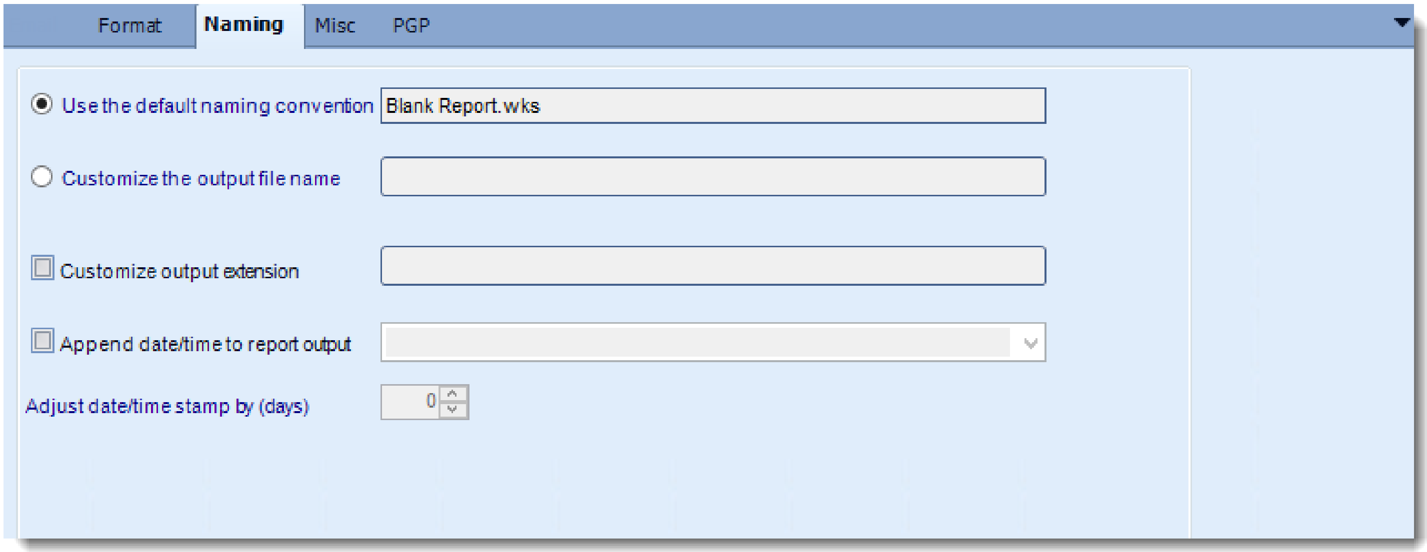
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

Naming

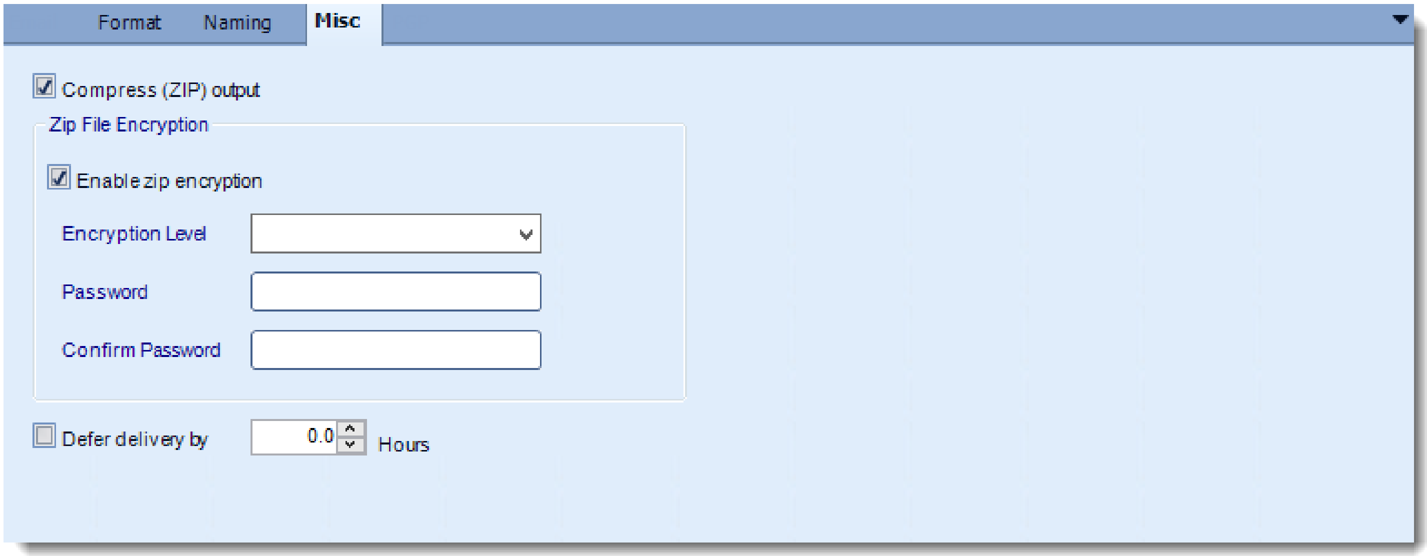
These options determine how the exported file will be name:



This is the option where you named the output file.

- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
- If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
- You can track which reports ran and when they ran by looking at what the report is named.

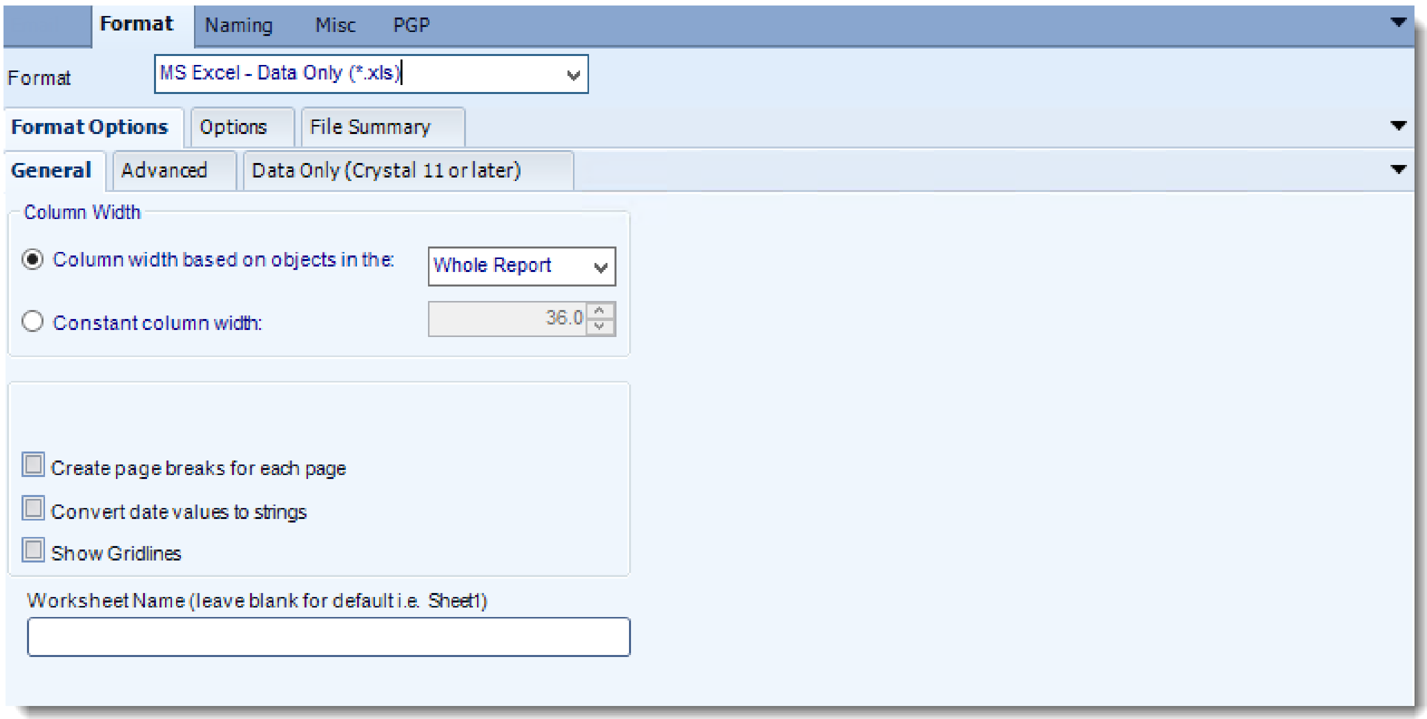
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

MS Excel - Data Only (*.xls) outputs for Crystal Reports

Export Crystal reports to Excel & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.



Format

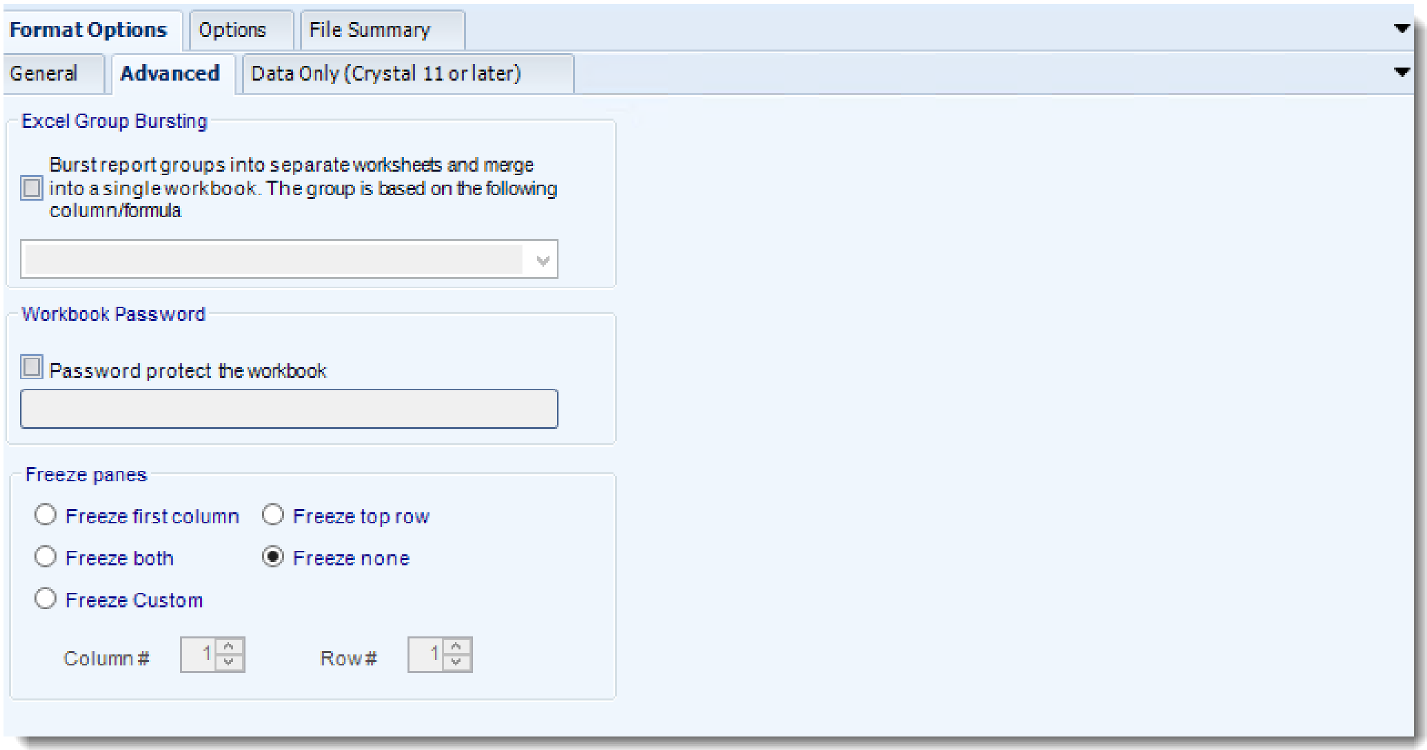
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Format Options

General

- The general options are self explanatory.
- Excel option require that you have MS Office 2000 or above installed and you have applied the very latest service pack for your version of MS Office.
- When Crystal exports reports to excel it names the worksheet "Sheet 1". Enter a new name in the indicated field if you wish to overwrite this.

Advanced



- **Excel Group Bursting:** This facility enables you to burst each resulting report group into an individual worksheet, and present your report as a number of worksheets in a single workbook. Simply check the option and tell CRD what database column or Crystal formula your group is based on.
- Each group value will be listed as separate tab in your work book.

  Group values must be within Group Header of your Report.

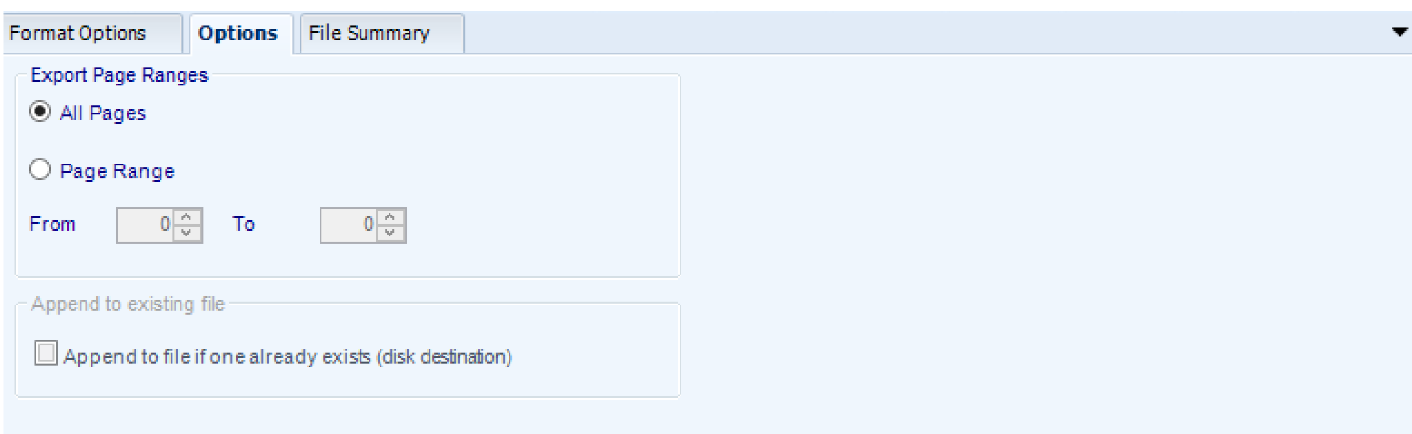
  This feature is not related to the Bursting Schedule. In order to burst a report completely, please see Bursting Schedule

- **Workbook Password:** Password protect your workbook by checking this option and entering the desired password.
- **Freeze Panes:** This option 'freezes' the first column/row of the worksheet. The frozen column/row will remain visible as the user scrolls through the worksheet. By default this is set to *Freeze None*.

Data Only (Crystal 11 or later)

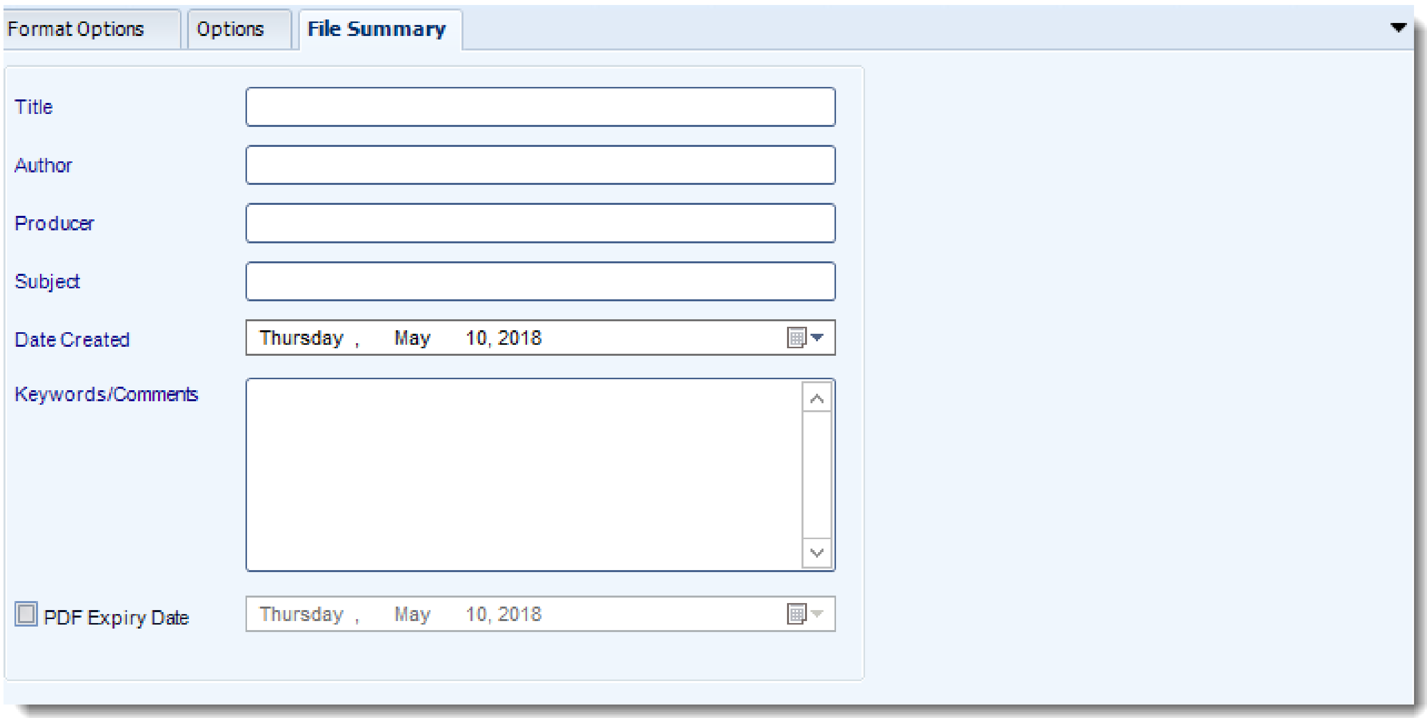
- This feature is available if you are running Crystal 11 runtimes or later.

Options



- Use this option to select to export all pages or just a selection.

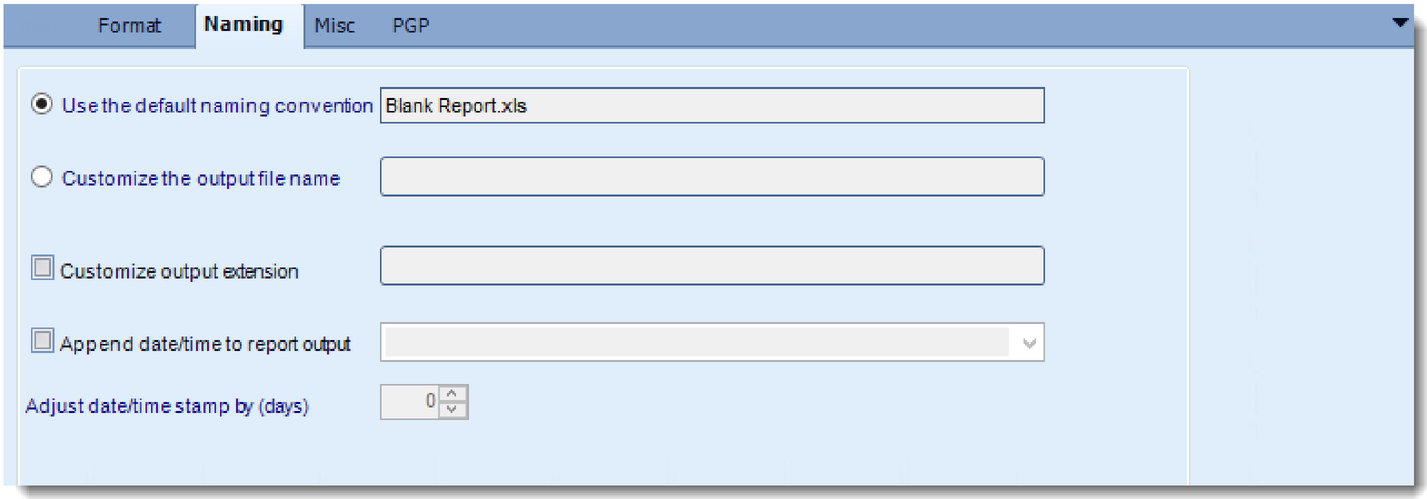
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

Naming

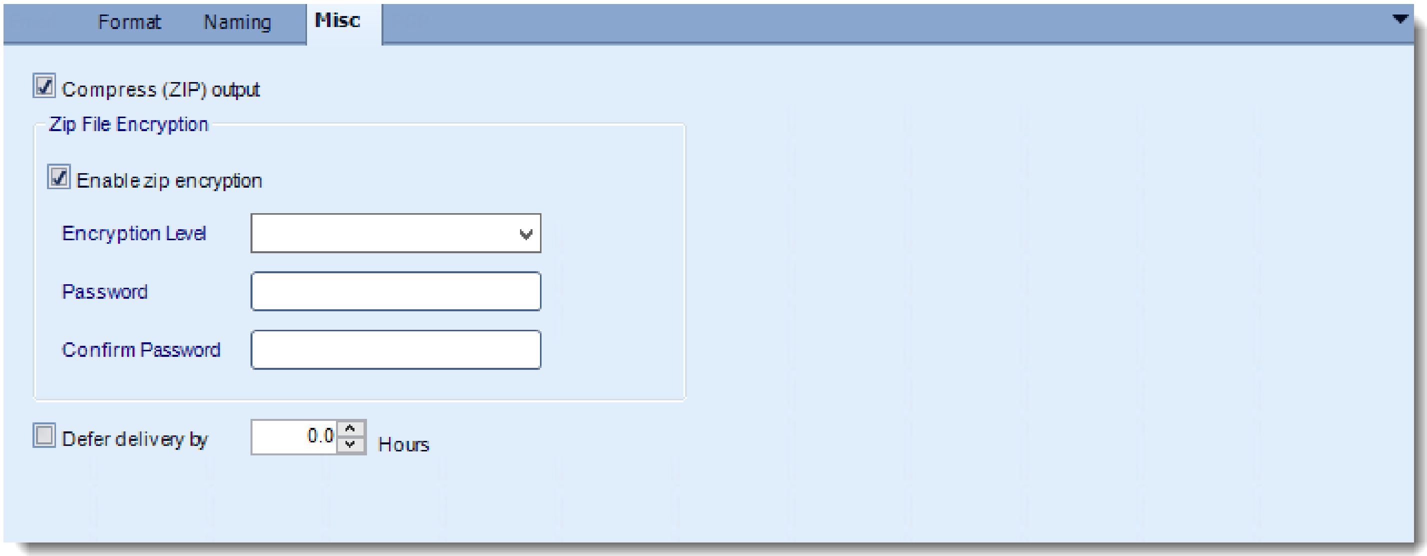
These options determine how the exported file will be name:



This is the option where you named the output file.

- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

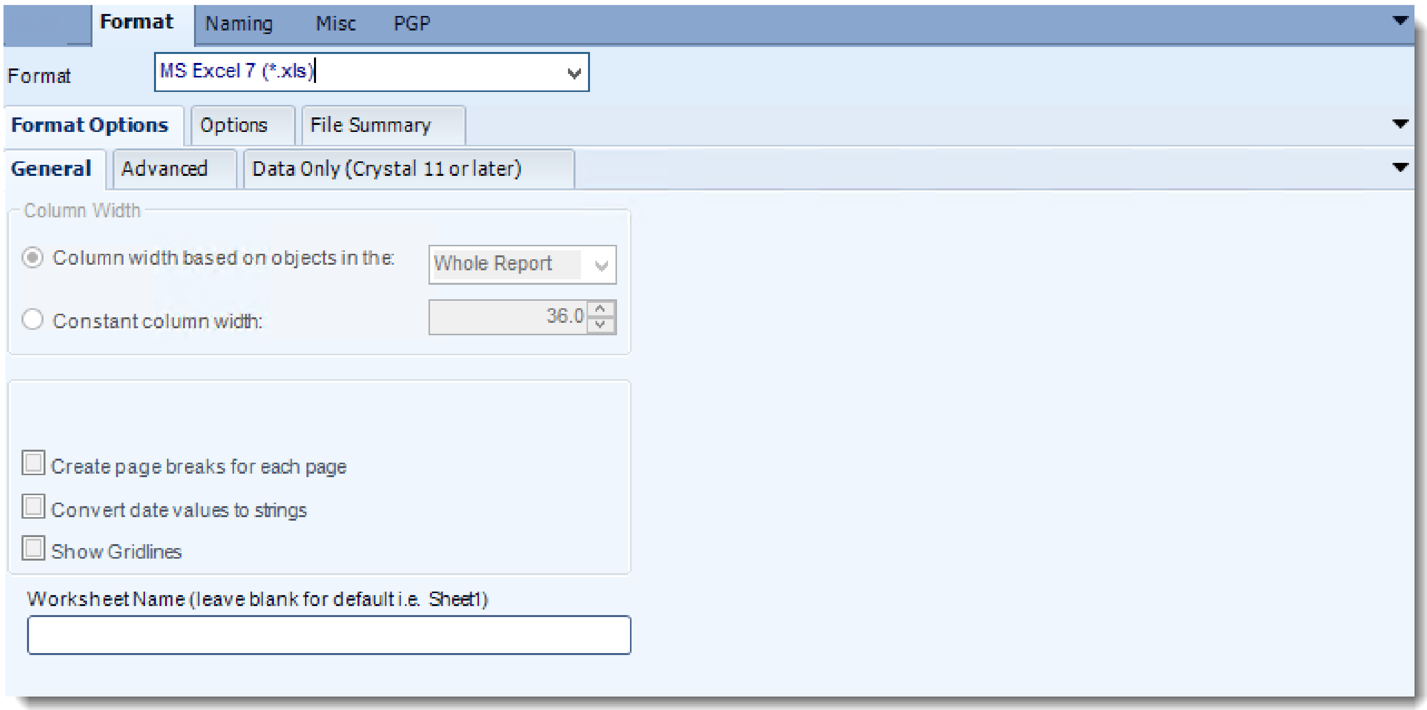
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

MS Excel 7 (*.xls) outputs for Crystal Reports

Export Crystal reports to Excel & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.



Format

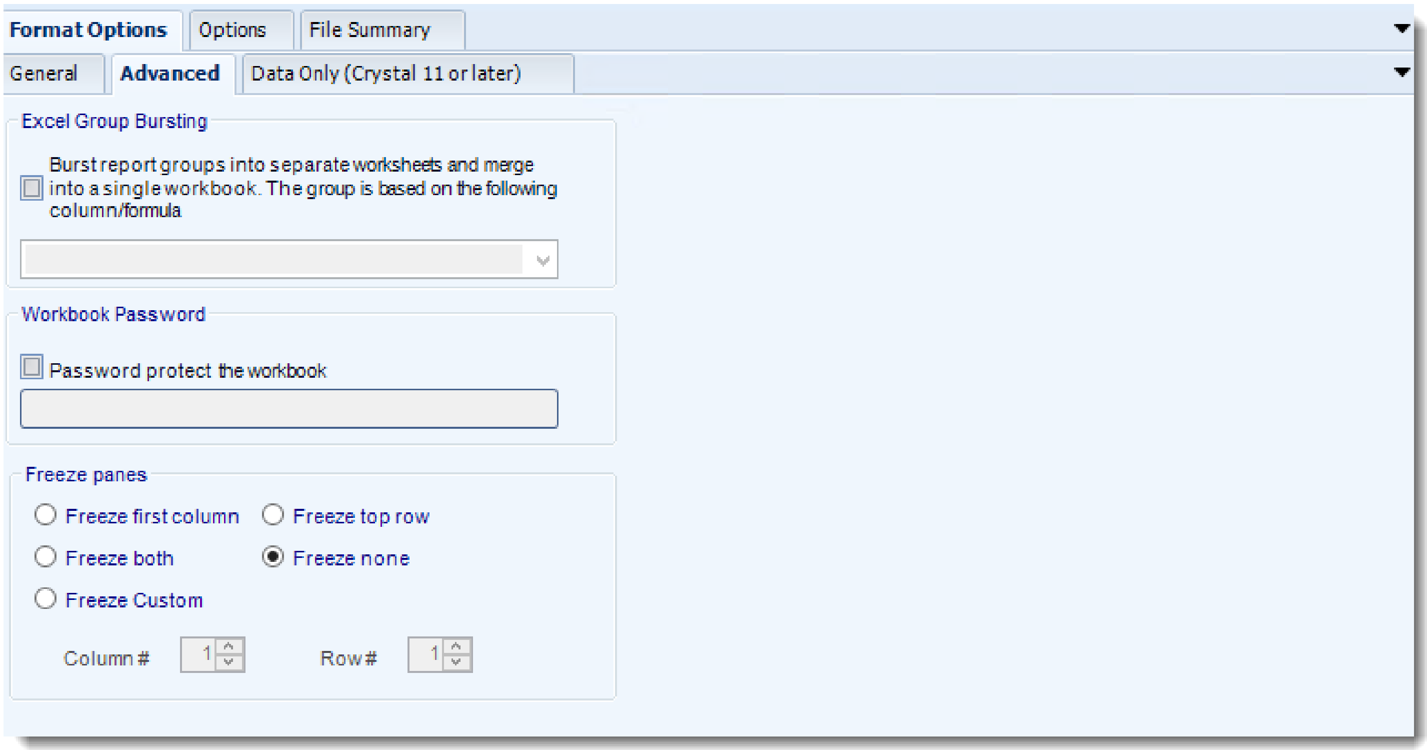
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Format Options

General

- The general options are self explanatory.
- Excel option require that you have MS Office 2000 or above installed and you have applied the very latest service pack for your version of MS Office.
- When Crystal exports reports to excel it names the worksheet "Sheet 1". Enter a new name in the indicated field if you wish to overwrite this.

Advanced



- **Excel Group Bursting:** This facility enables you to burst each resulting report group into an individual worksheet, and present your report as a number of worksheets in a single workbook. Simply check the option and tell CRD what database column or Crystal formula your group is based on.
- Each group value will be listed as separate tab in your work book.

  Group values must be within Group Header of your Report.

  This feature is not related to the Bursting Schedule. In order to burst a report completely, please see Bursting Schedule

- **Workbook Password:** Password protect your workbook by checking this option and entering the desired password.
- **Freeze Panes:** This option 'freezes' the first column/row of the worksheet. The frozen column/row will remain visible as the user scrolls through the worksheet. By default this is set to *Freeze None*.

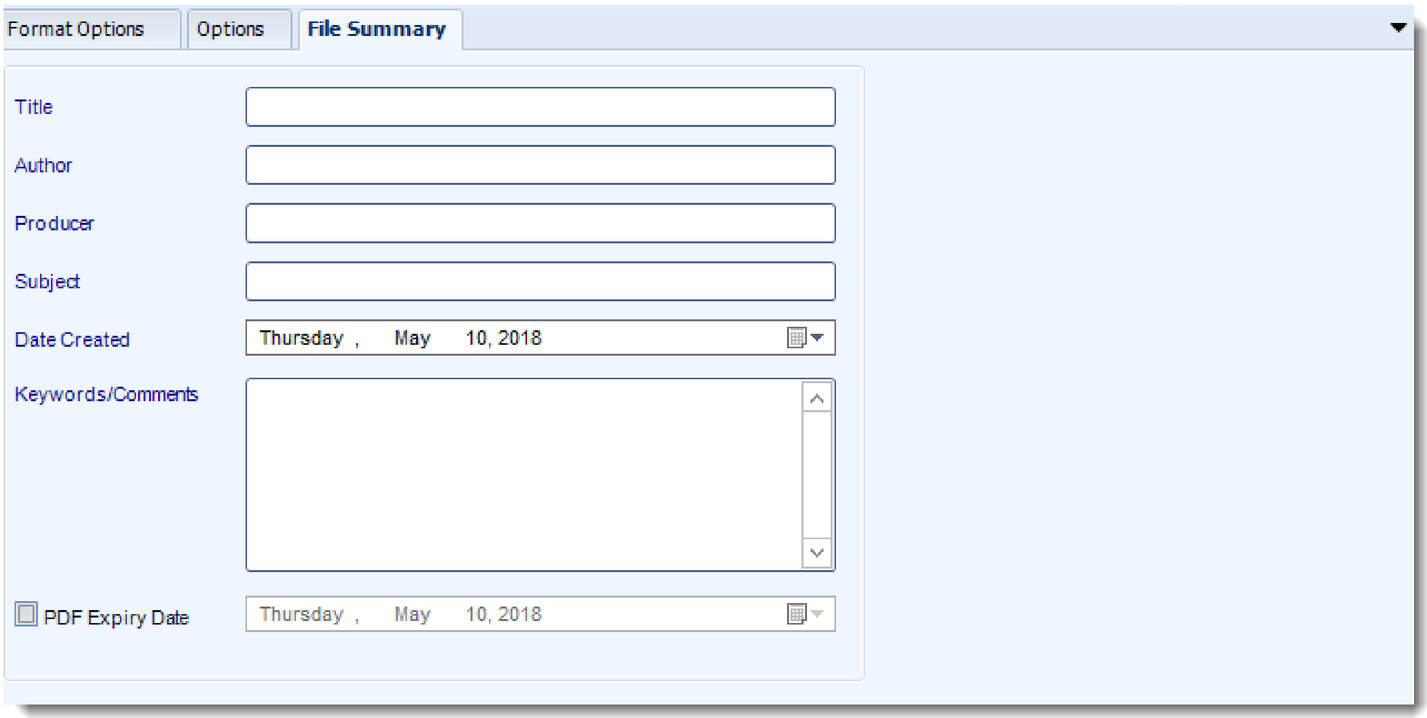
Data Only (Crystal 11 or later)

- This feature is available if you are running Crystal 11 runtimes or later.

Options

- Use this option to select to export all pages or just a selection.

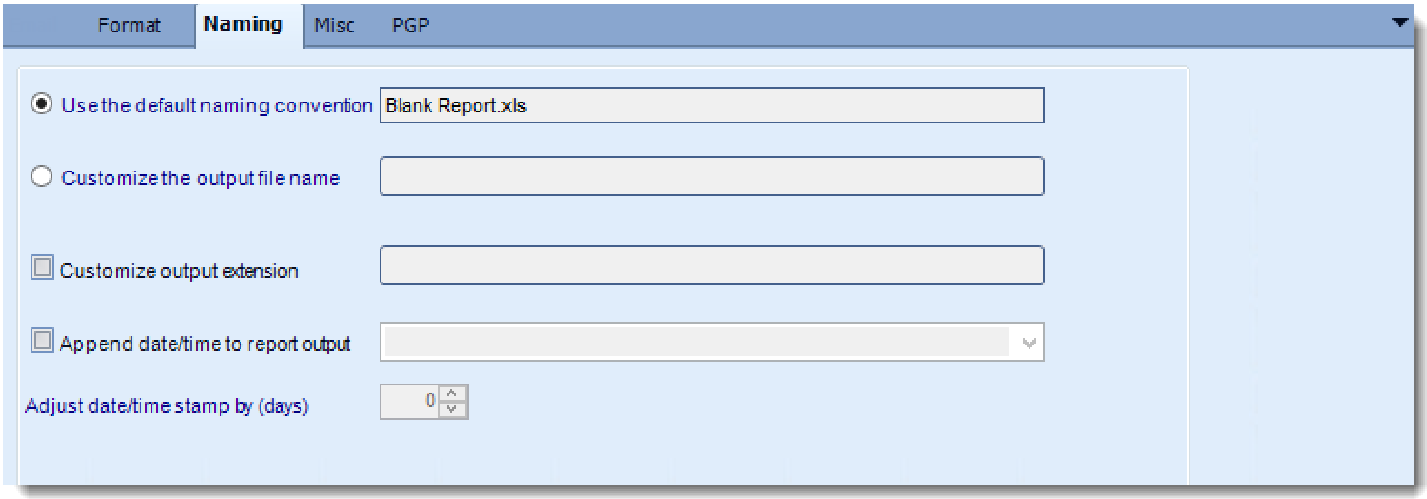
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

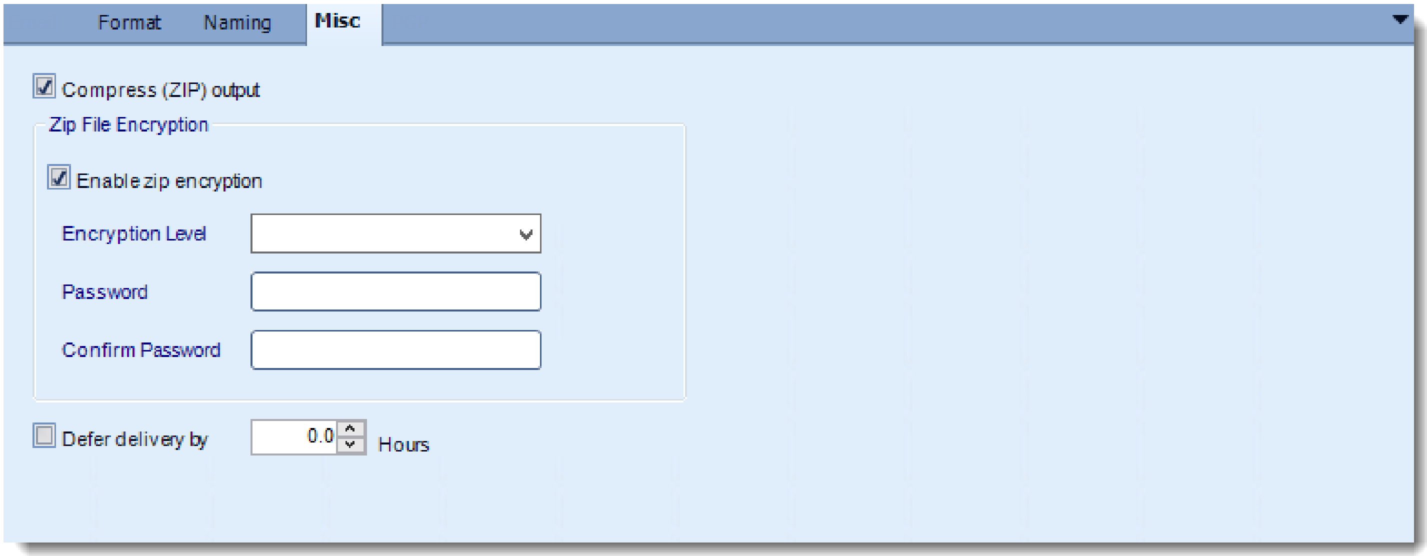
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

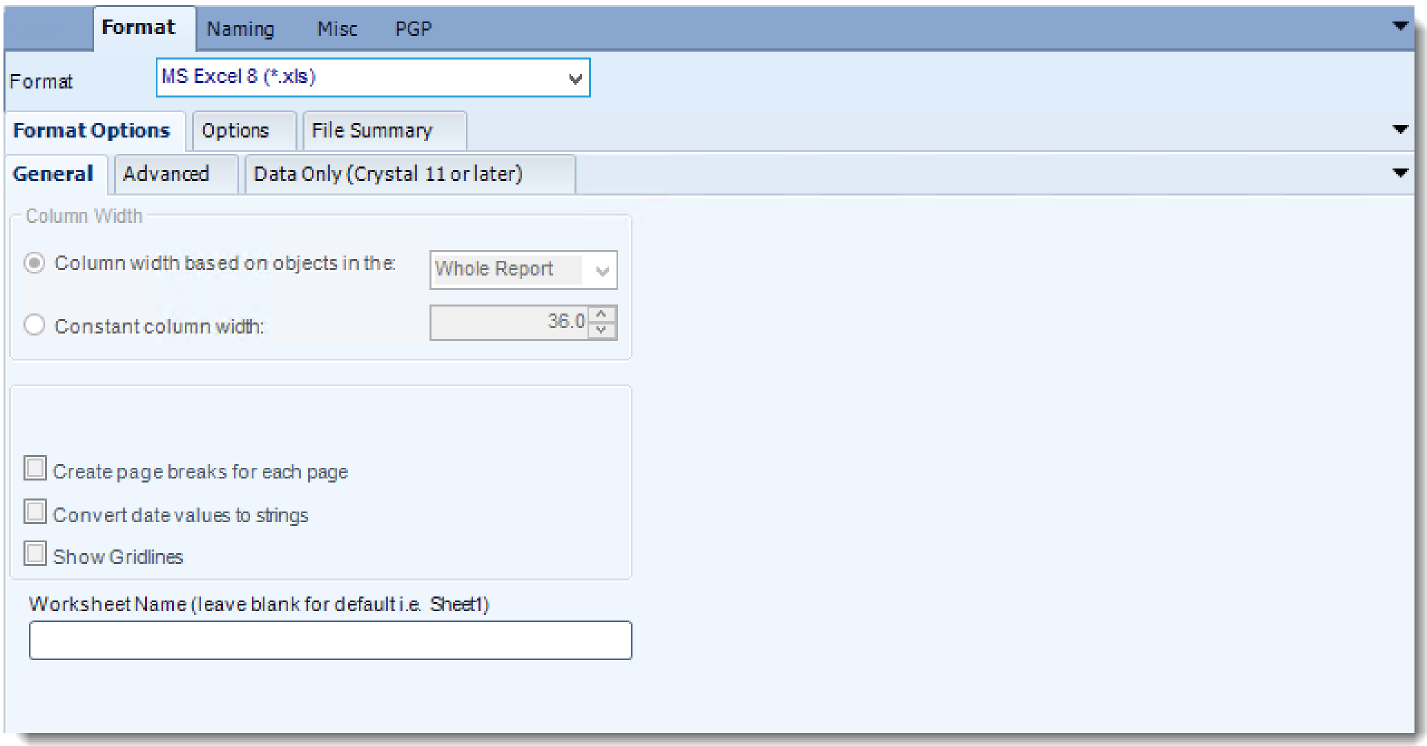
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

MS Excel 8 (*.xls) outputs for Crystal Reports

Export Crystal reports to Excel & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.



Format

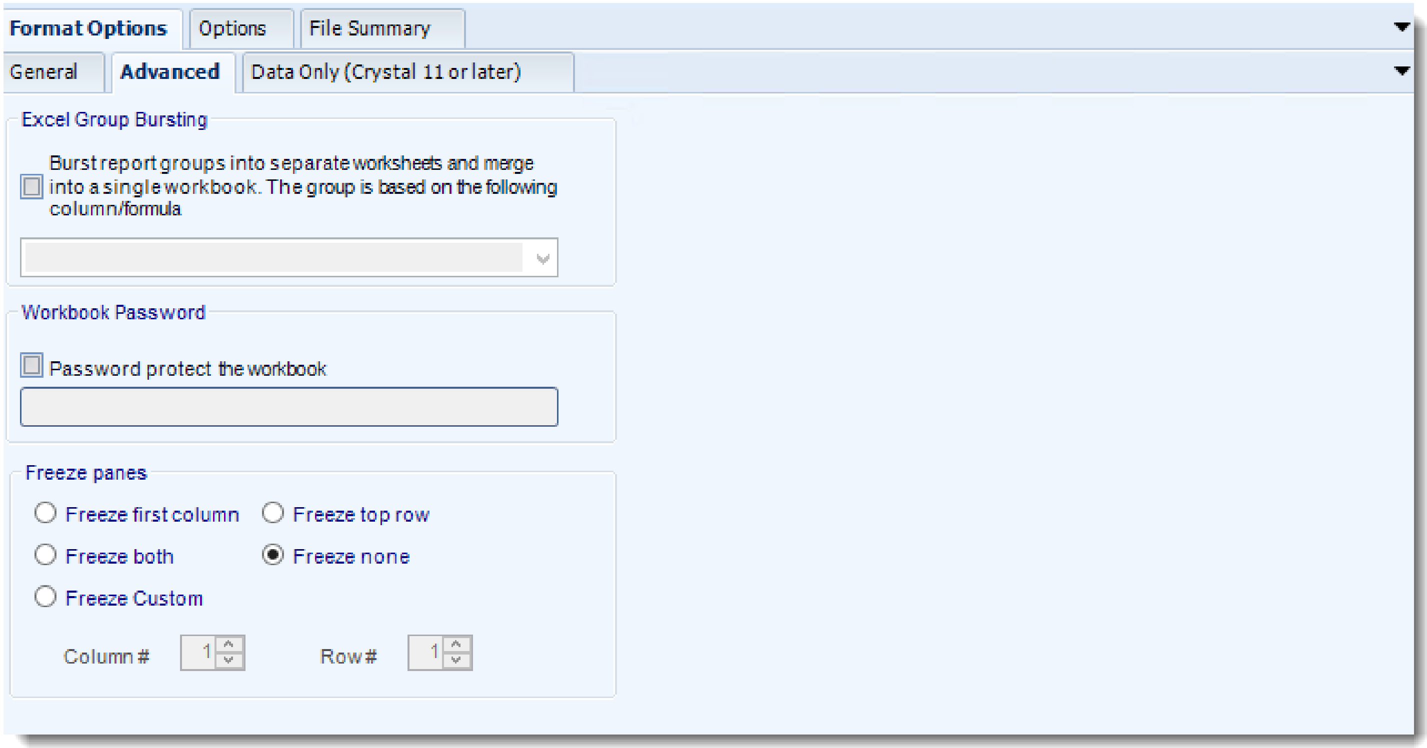
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Format Options

General

- The general options are self explanatory.
- Excel option require that you have MS Office 2000 or above installed and you have applied the very latest service pack for your version of MS Office.
- When Crystal exports reports to excel it names the worksheet "Sheet 1". Enter a new name in the indicated field if you wish to overwrite this.

Advanced



- **Excel Group Bursting:** This facility enables you to burst each resulting report group into an individual worksheet, and present your report as a number of worksheets in a single workbook. Simply check the option and tell CRD what database column or Crystal formula your group is based on.
- Each group value will be listed as separate tab in your work book.

  Group values must be within Group Header of your Report.

  This feature is not related to the Bursting Schedule. In order to burst a report completely, please see Bursting Schedule

- **Workbook Password:** Password protect your workbook by checking this option and entering the desired password.
- **Freeze Panes:** This option 'freezes' the first column/row of the worksheet. The frozen column/row will remain visible as the user scrolls through the worksheet. By default this is set to *Freeze None*.

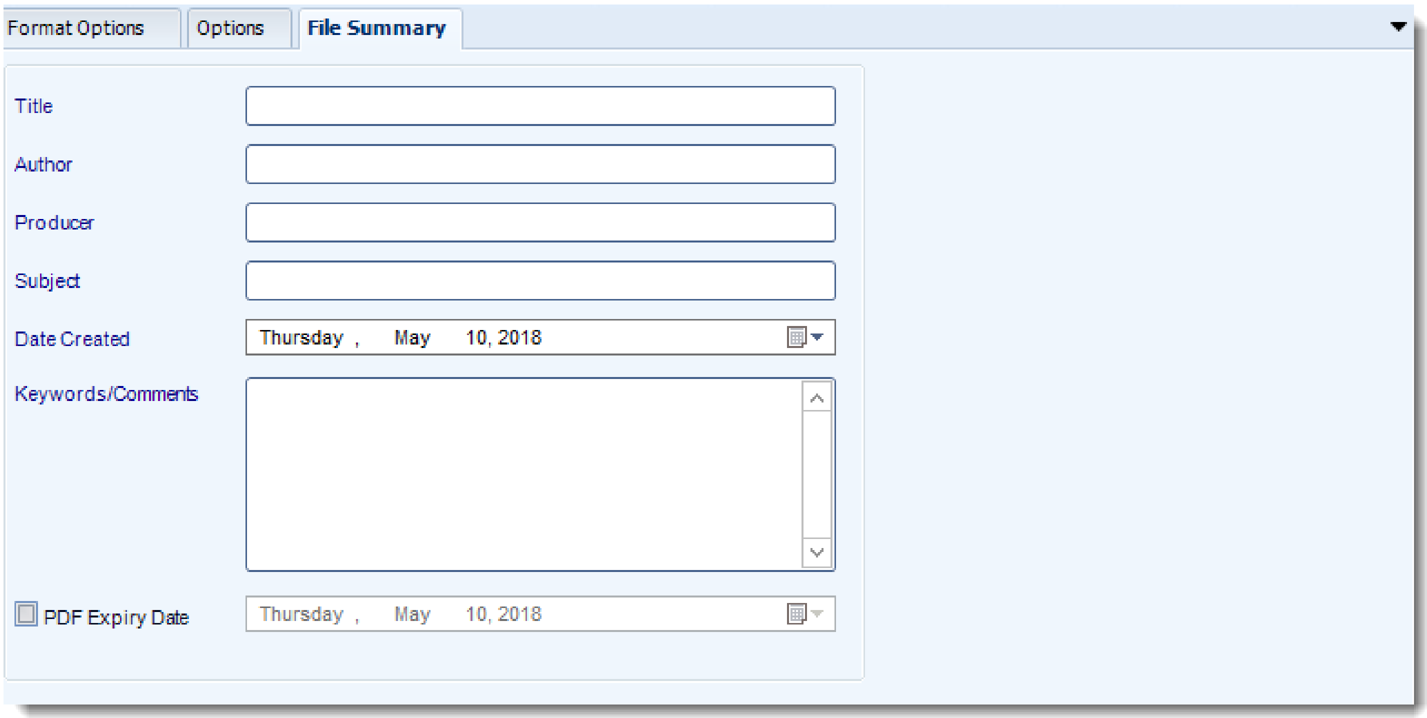
Data Only (Crystal 11 or later)

- This feature is available if you are running Crystal 11 runtimes or later.

Options

- Use this option to select to export all pages or just a selection.

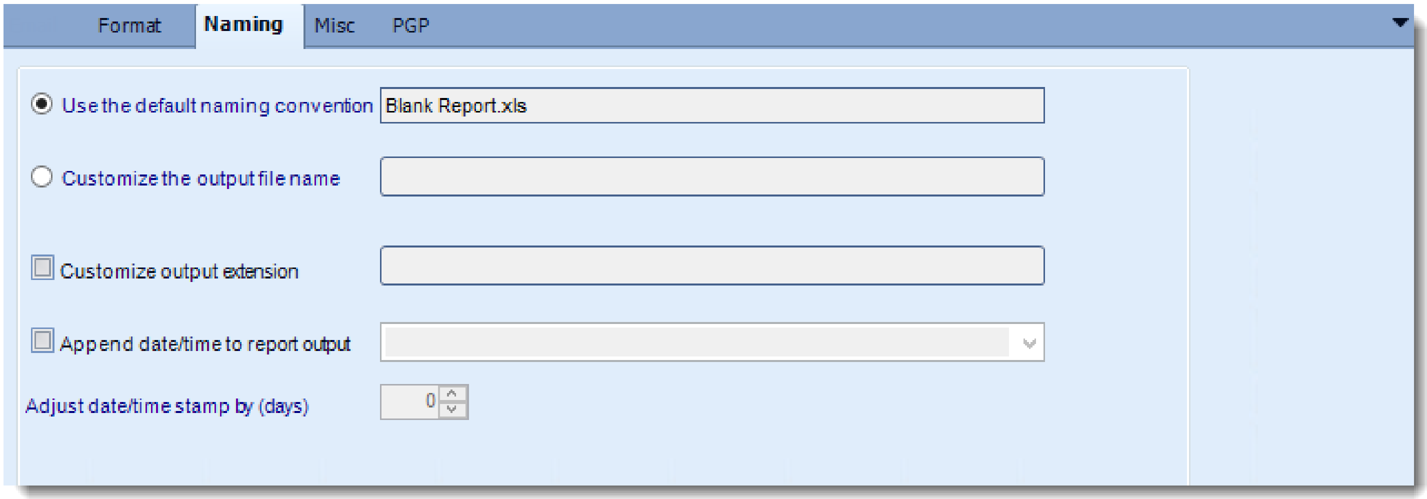
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

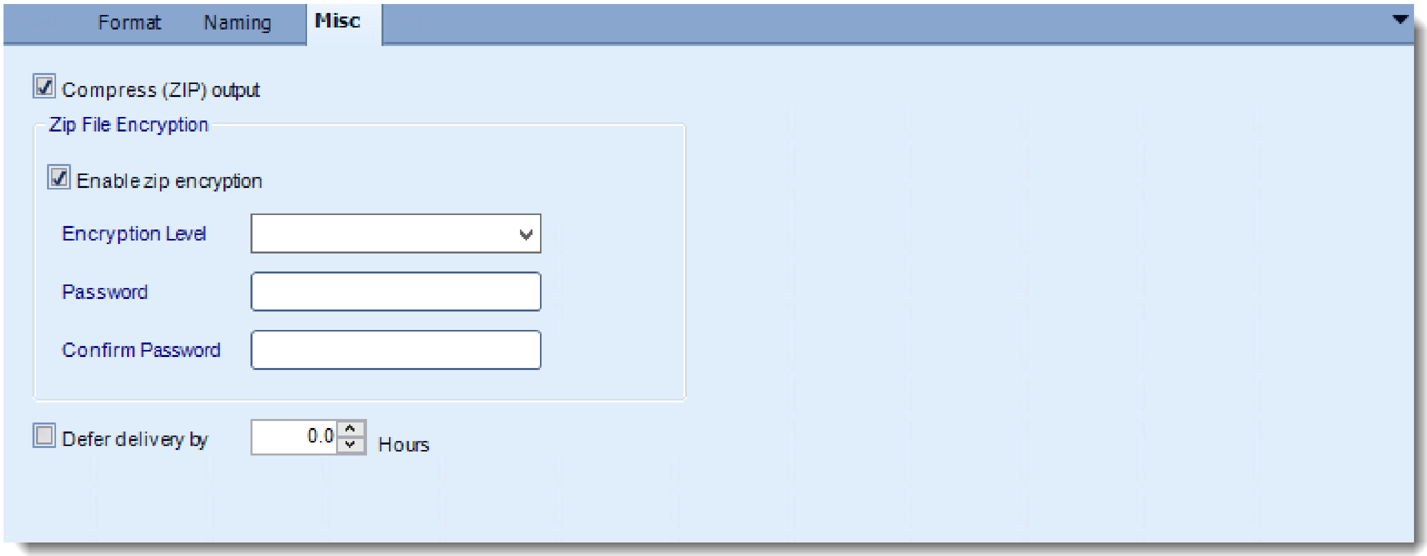
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

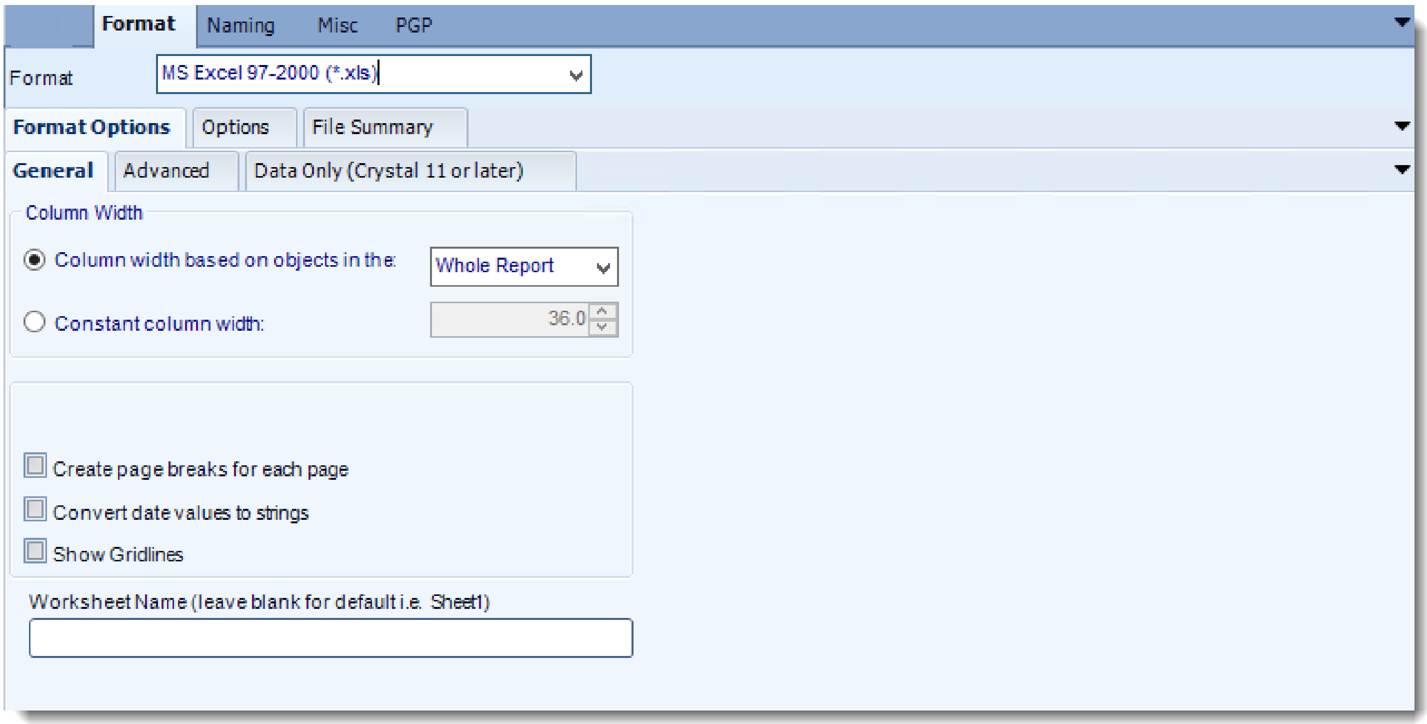
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

MS Excel 97-2000 (*.xls) outputs for Crystal Reports

Export Crystal reports to Excel & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.



Format

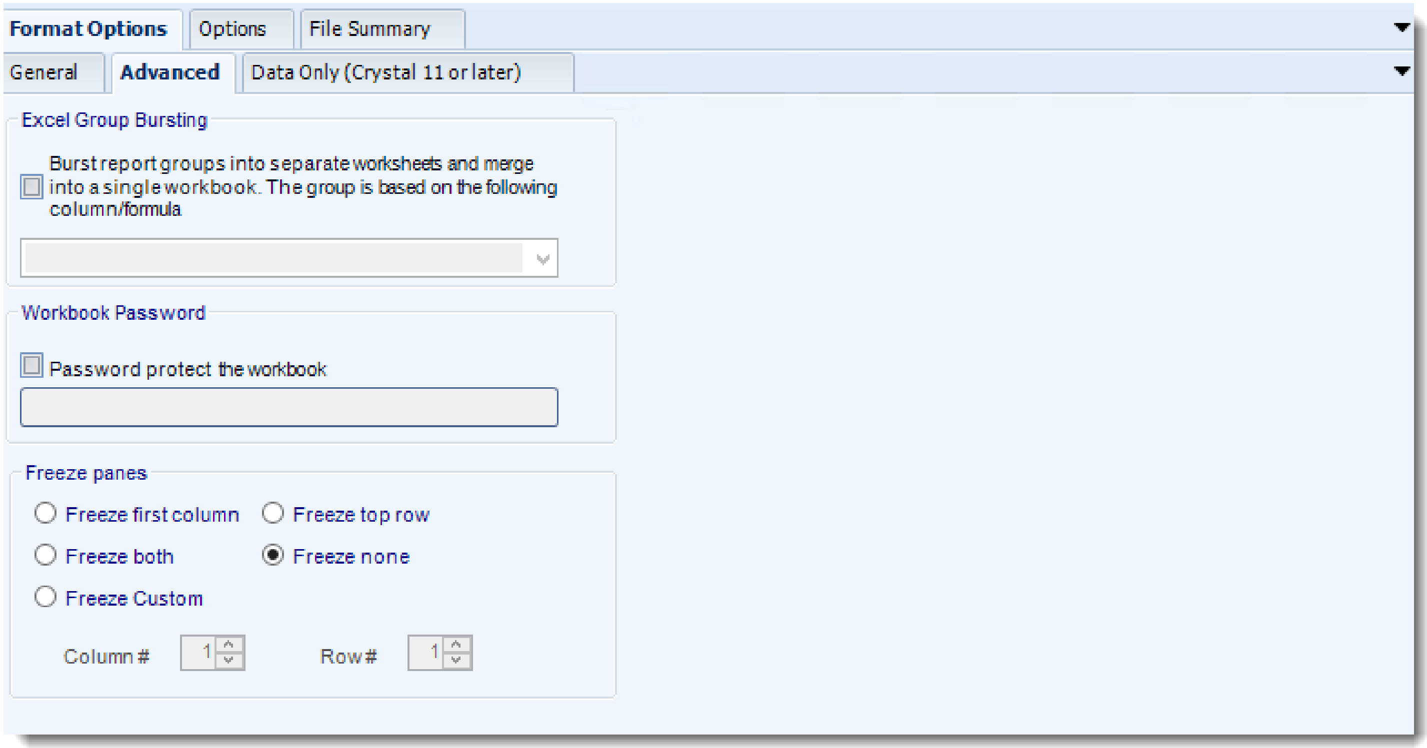
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Format Options

General

- The general options are self explanatory.
- Excel option require that you have MS Office 2000 or above installed and you have applied the very latest service pack for your version of MS Office.
- When Crystal exports reports to excel it names the worksheet "Sheet 1". Enter a new name in the indicated field if you wish to overwrite this.

Advanced



- **Excel Group Bursting:** This facility enables you to burst each resulting report group into an individual worksheet, and present your report as a number of worksheets in a single workbook. Simply check the option and tell CRD what database column or Crystal formula your group is based on.
- Each group value will be listed as separate tab in your work book.

  Group values must be within Group Header of your Report.

  This feature is not related to the Bursting Schedule. In order to burst a report completely, please see Bursting Schedule

- **Workbook Password:** Password protect your workbook by checking this option and entering the desired password.
- **Freeze Panes:** This option 'freezes' the first column/row of the worksheet. The frozen column/row will remain visible as the user scrolls through the worksheet. By default this is set to *Freeze None*.

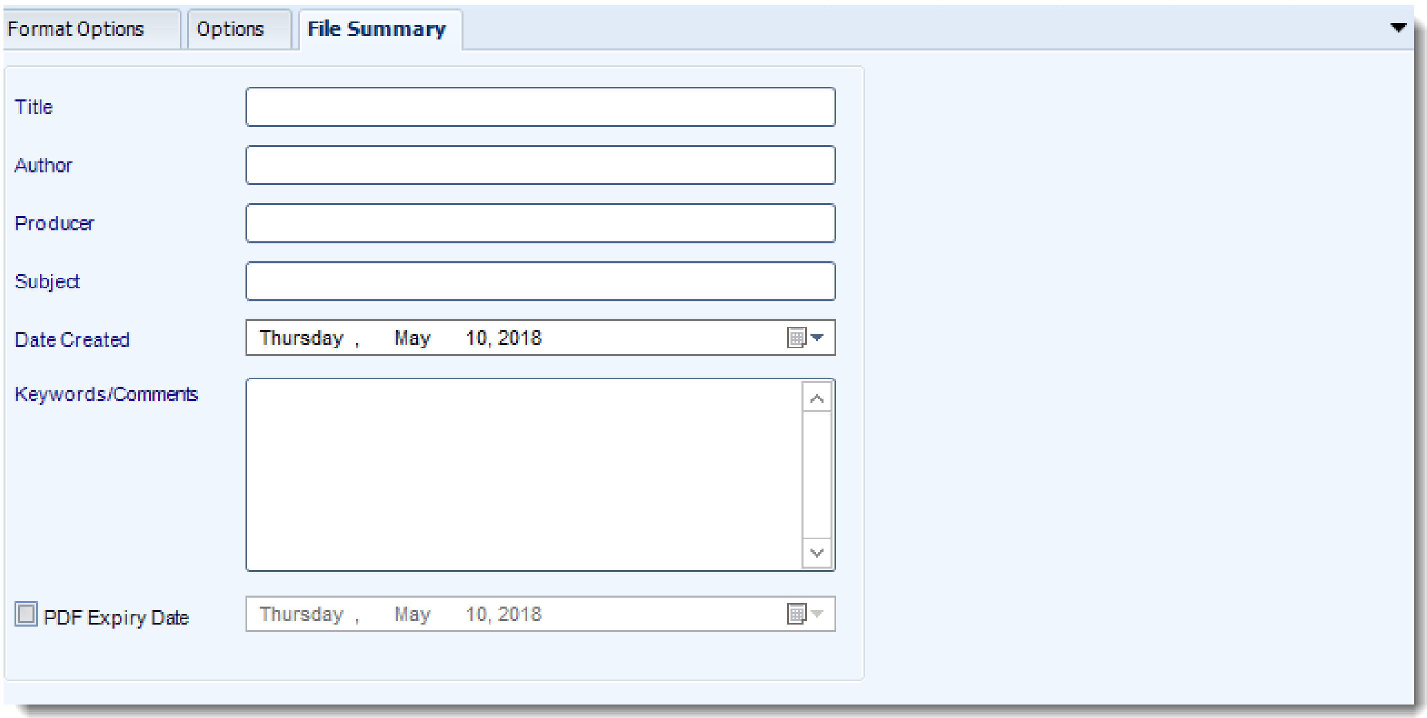
Data Only (Crystal 11 or later)

- This feature is available if you are running Crystal 11 runtimes or later.

Options

- Use this option to select to export all pages or just a selection.

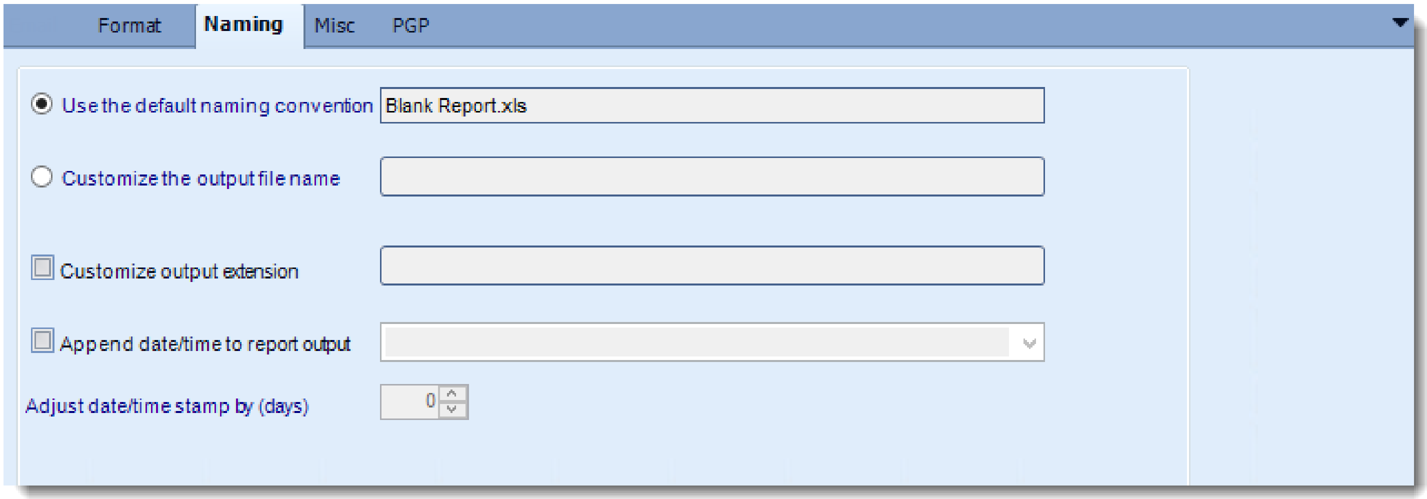
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

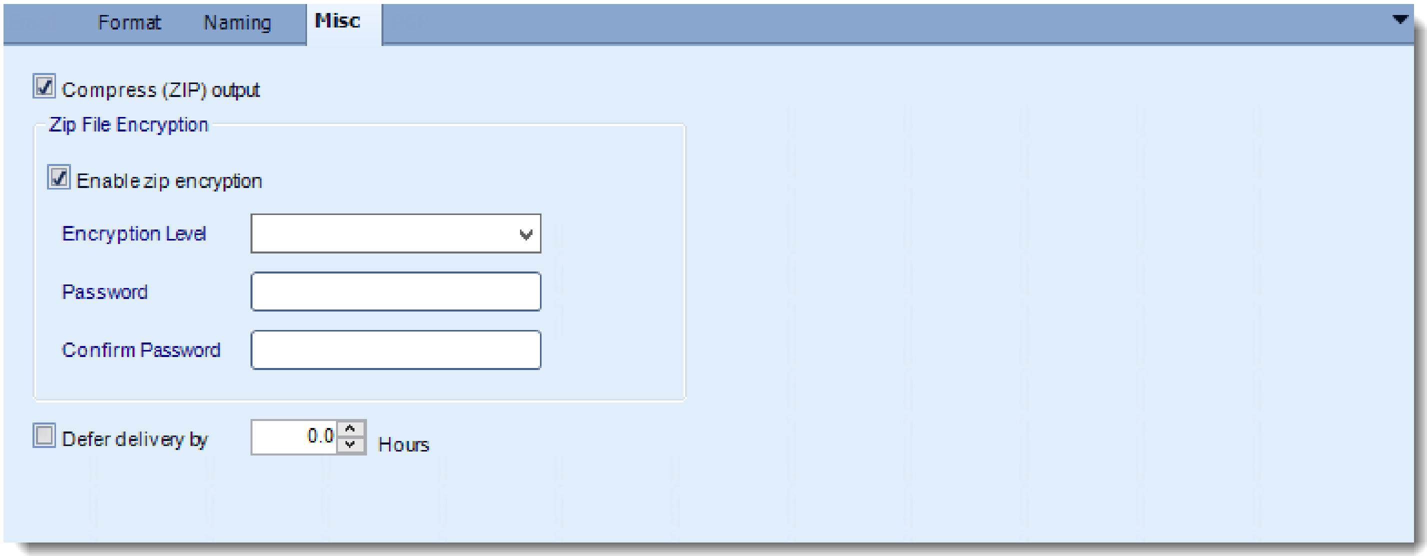
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

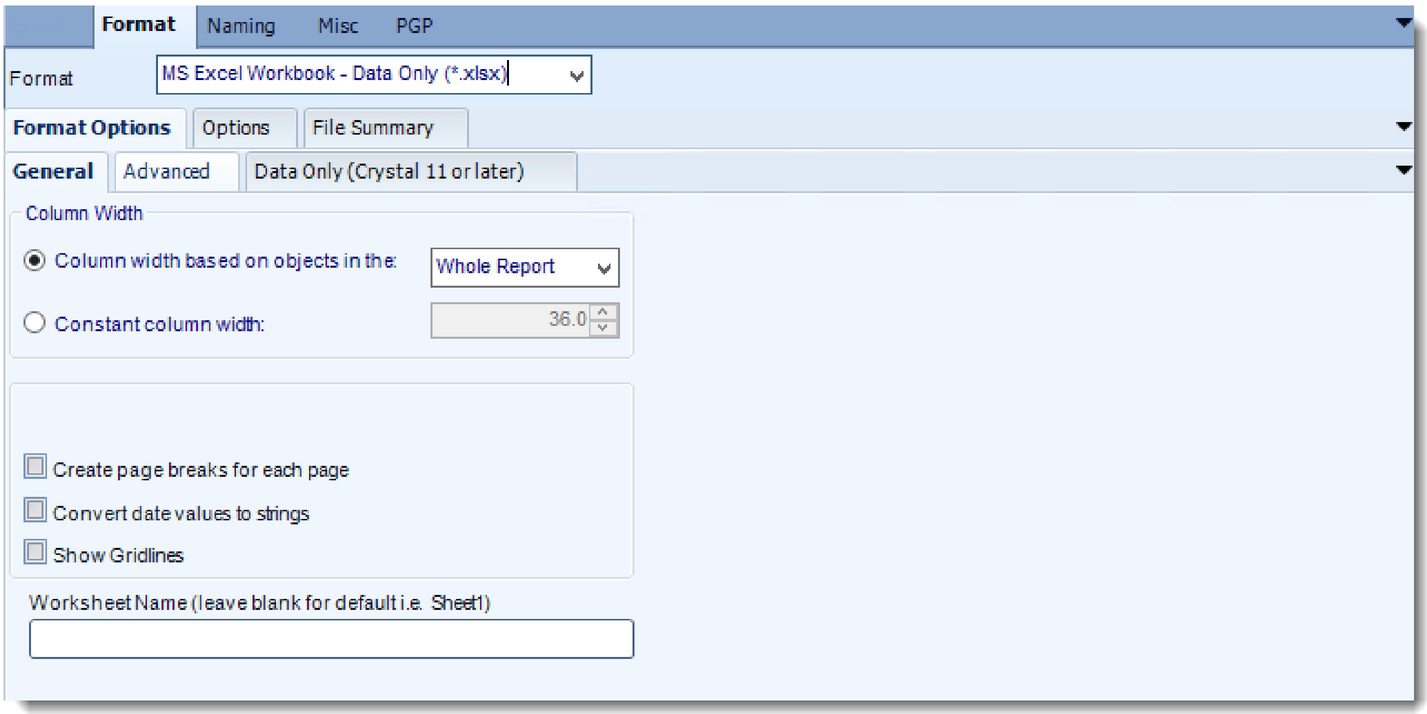
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

MS Excel Workbook - Data Only (*.xlsx) outputs for Crystal Reports

Export Crystal reports to Excel & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.



Format

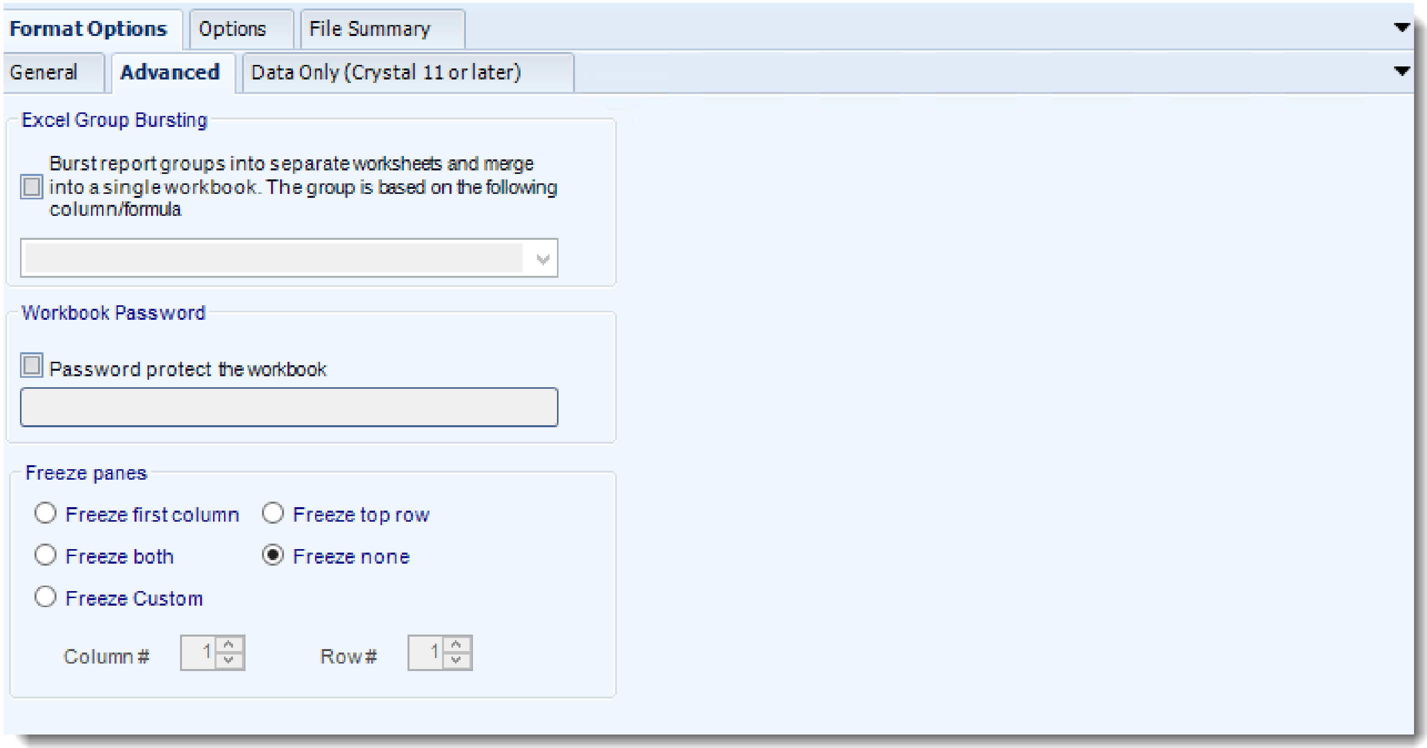
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Format Options

General

- The general options are self explanatory.
- Excel option require that you have MS Office 2000 or above installed and you have applied the very latest service pack for your version of MS Office.
- When Crystal exports reports to excel it names the worksheet "Sheet 1". Enter a new name in the indicated field if you wish to overwrite this.

Advanced



- **Excel Group Bursting:** This facility enables you to burst each resulting report group into an individual worksheet, and present your report as a number of worksheets in a single workbook. Simply check the option and tell CRD what database column or Crystal formula your group is based on.
- Each group value will be listed as separate tab in your work book.

  Group values must be within Group Header of your Report.

  This feature is not related to the Bursting Schedule. In order to burst a report completely, please see Bursting Schedule

- **Workbook Password:** Password protect your workbook by checking this option and entering the desired password.
- **Freeze Panes:** This option 'freezes' the first column/row of the worksheet. The frozen column/row will remain visible as the user scrolls through the worksheet. By default this is set to *Freeze None*.

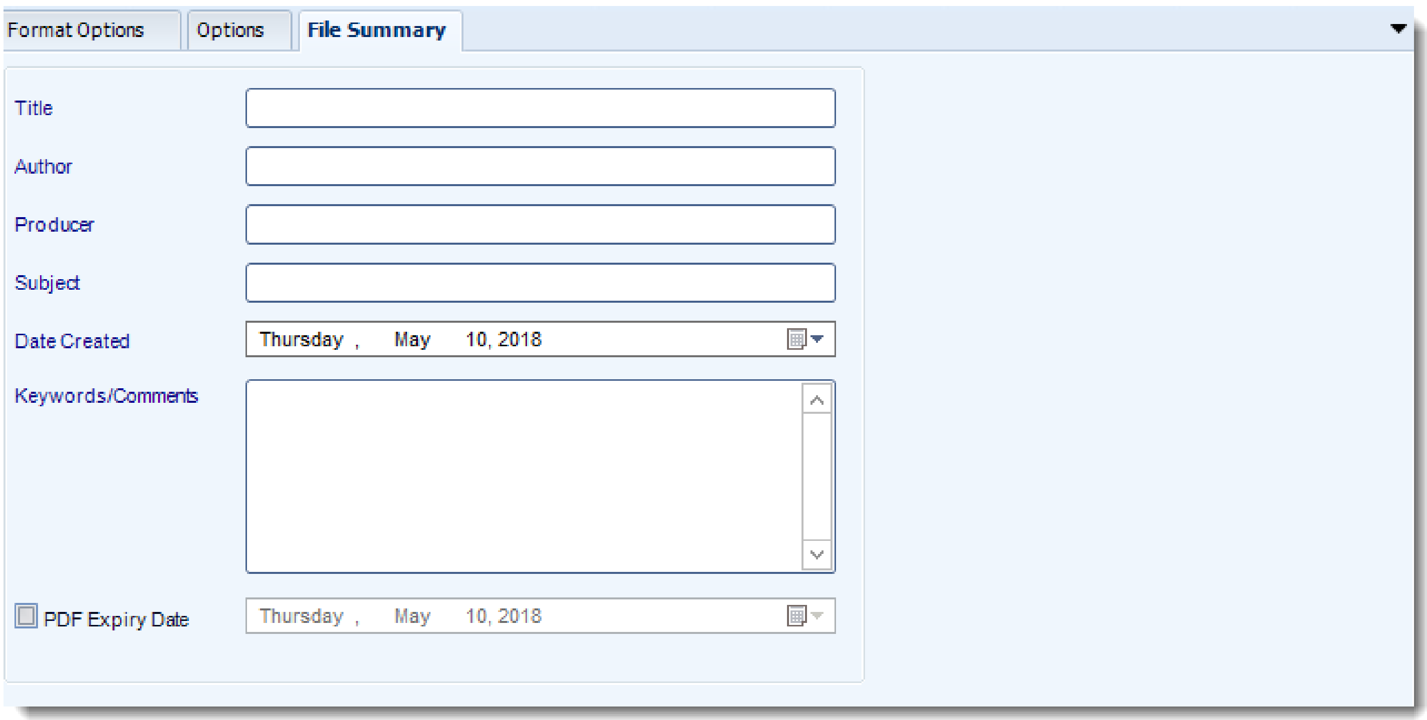
Data Only (Crystal 11 or later)

- This feature is available if you are running Crystal 11 runtimes or later.

Options

- Use this option to select to export all pages or just a selection.

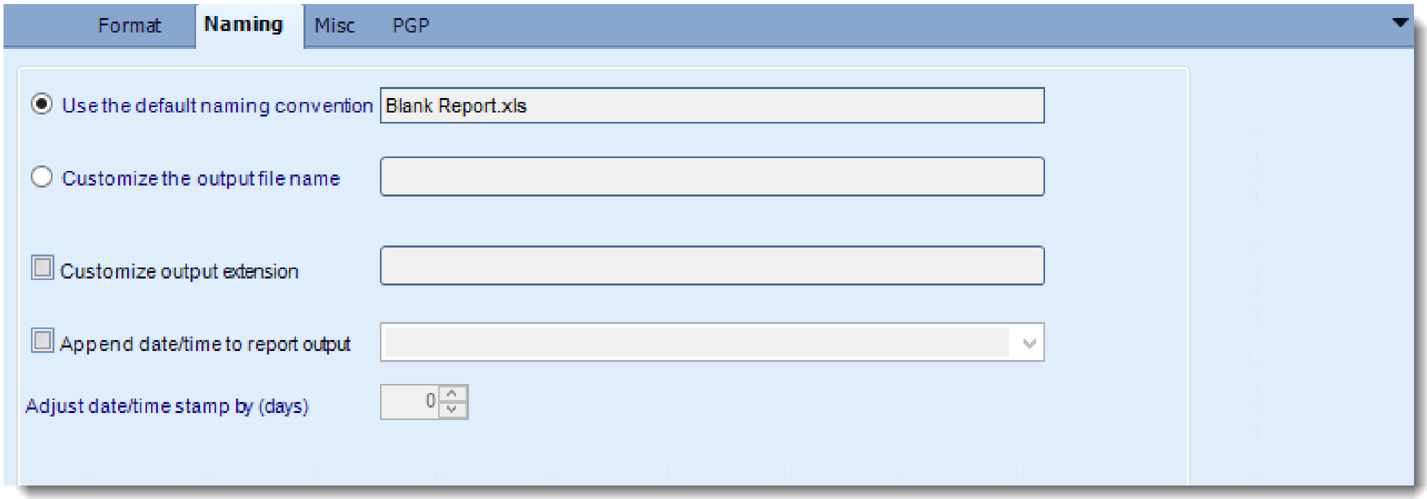
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

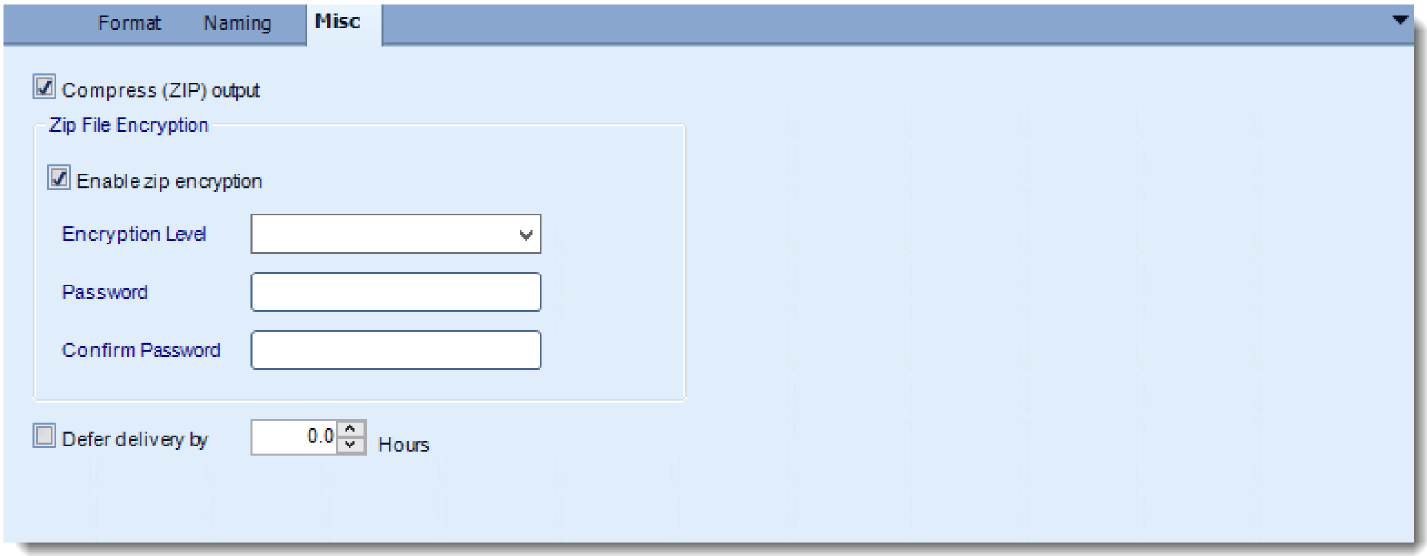
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

Misc

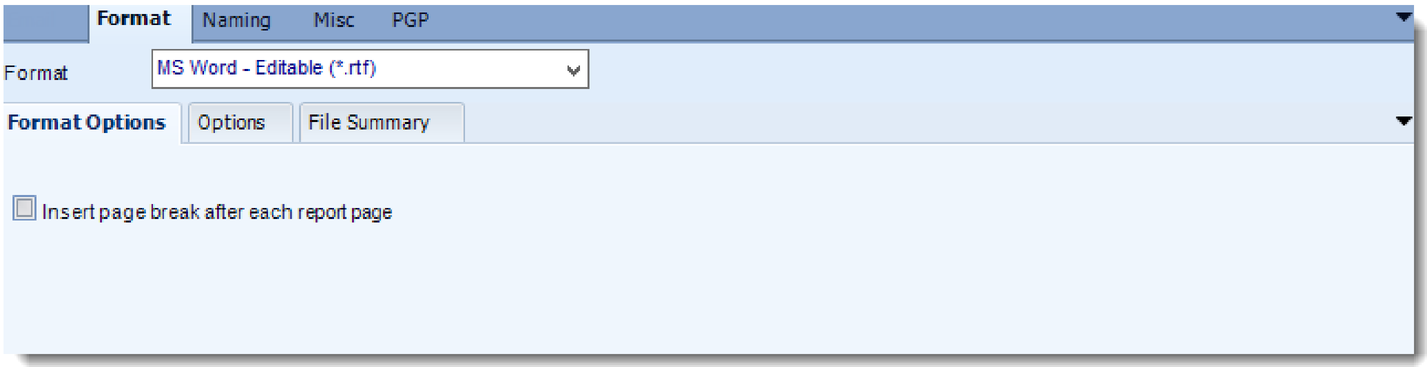


- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

MS Word - Editable (*.rtf) outputs for Crystal Reports

Export Crystal reports to MS Word & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.

- To export MS Word - Editable (*.rtf) for Crystal, follow these steps:



Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

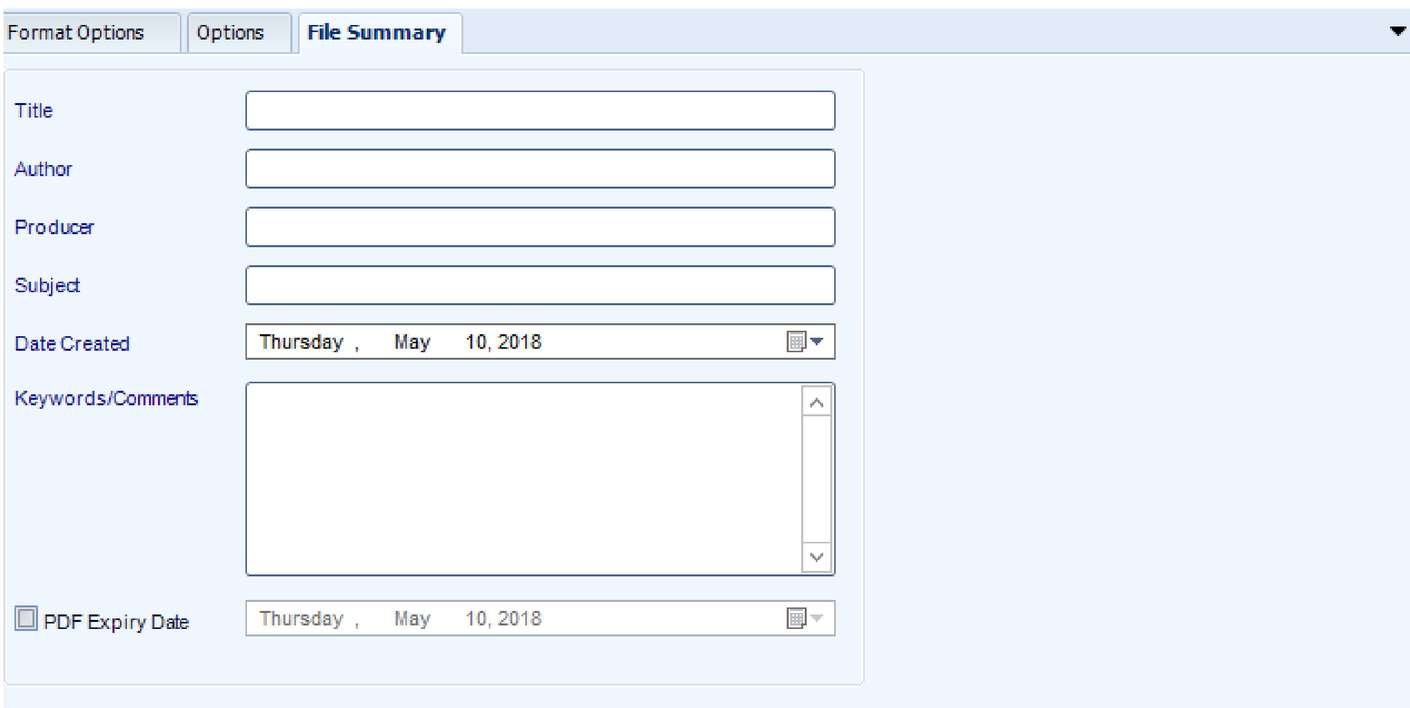
Format Options

- CRD will place breaks after each report page. This prevents multiple report pages being place on a single page in MS Word.

Options

- Use this option to select to export all pages or just a selection.

File Summary

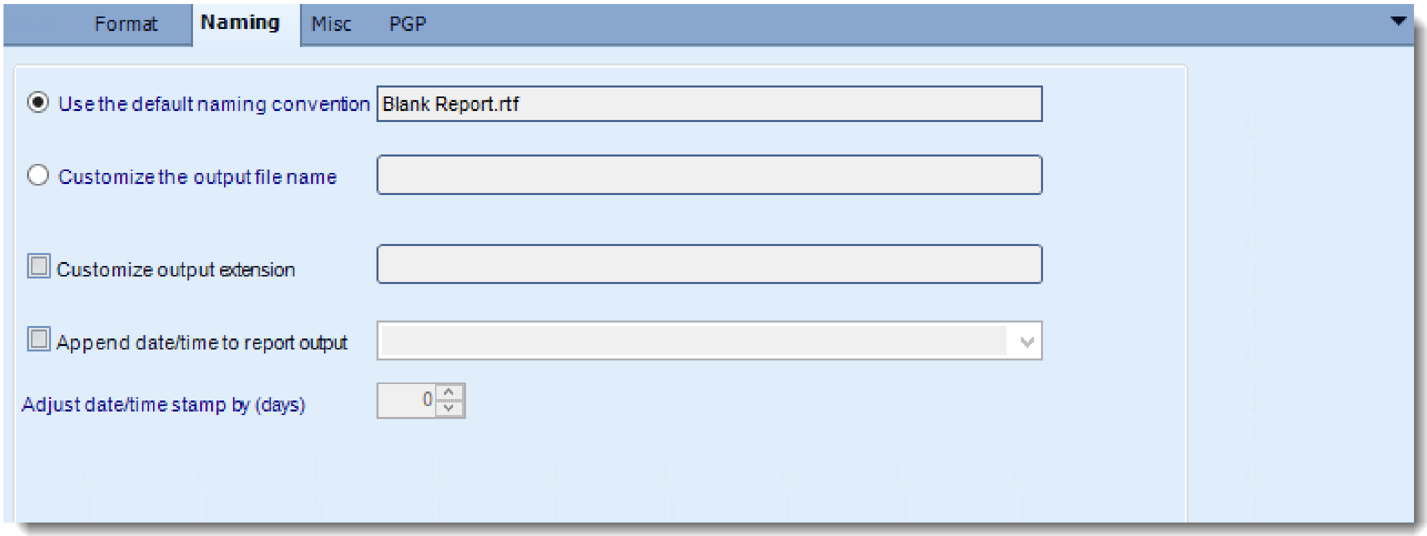


- Determine file summary by filling in the required properties as illustrated above.

- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

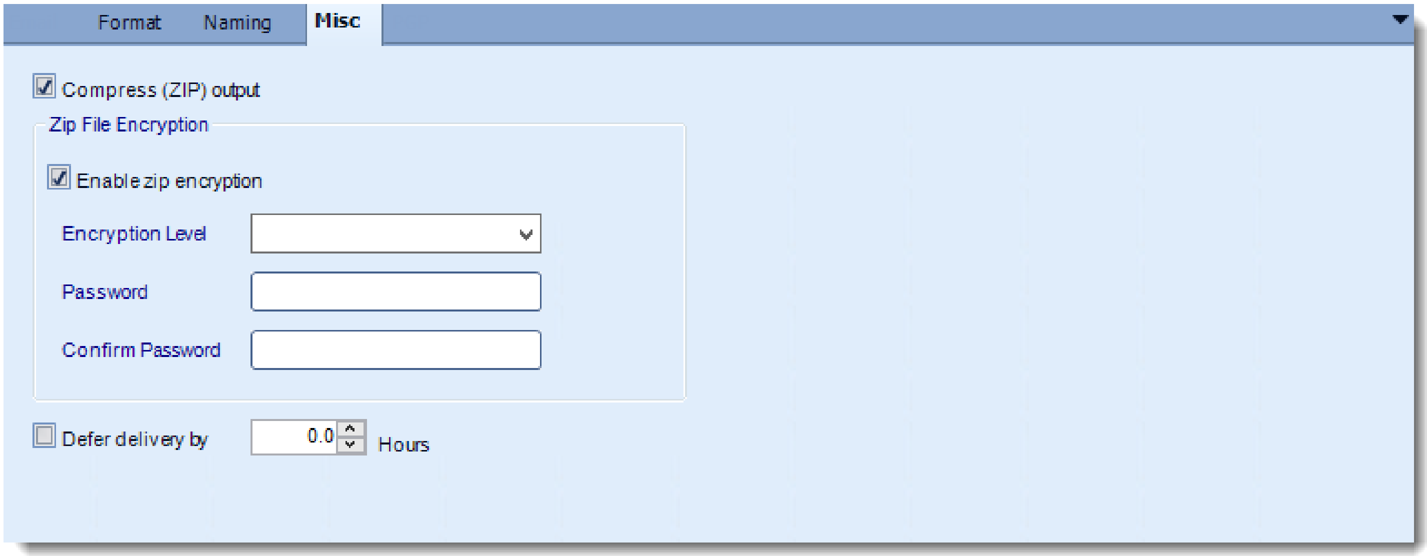
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to <u>Deferred Delivery</u>

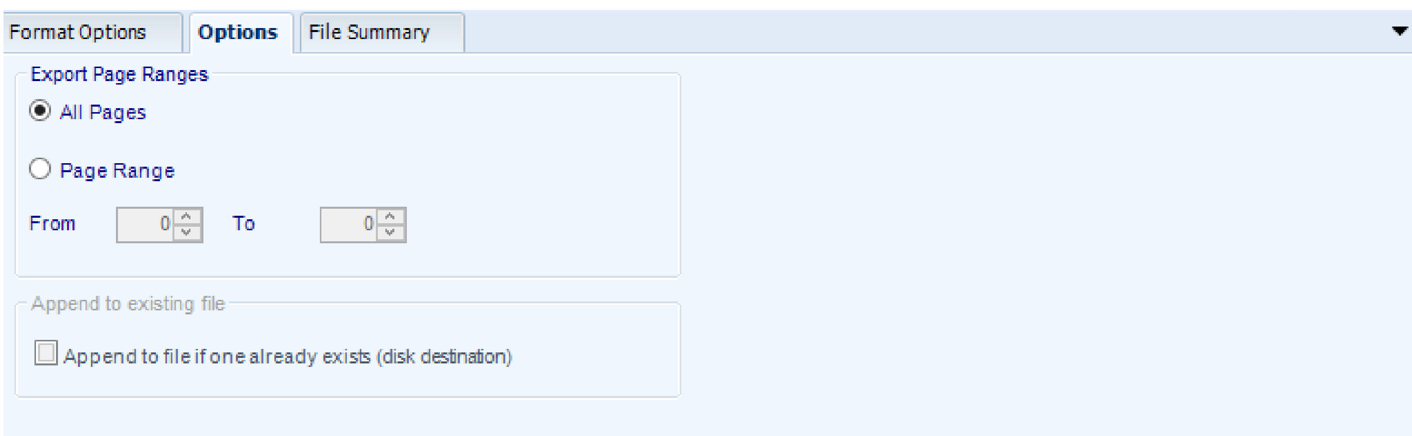
MS Word (*.doc) outputs for Crystal Reports

Export Crystal reports to MS Word & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.

Format

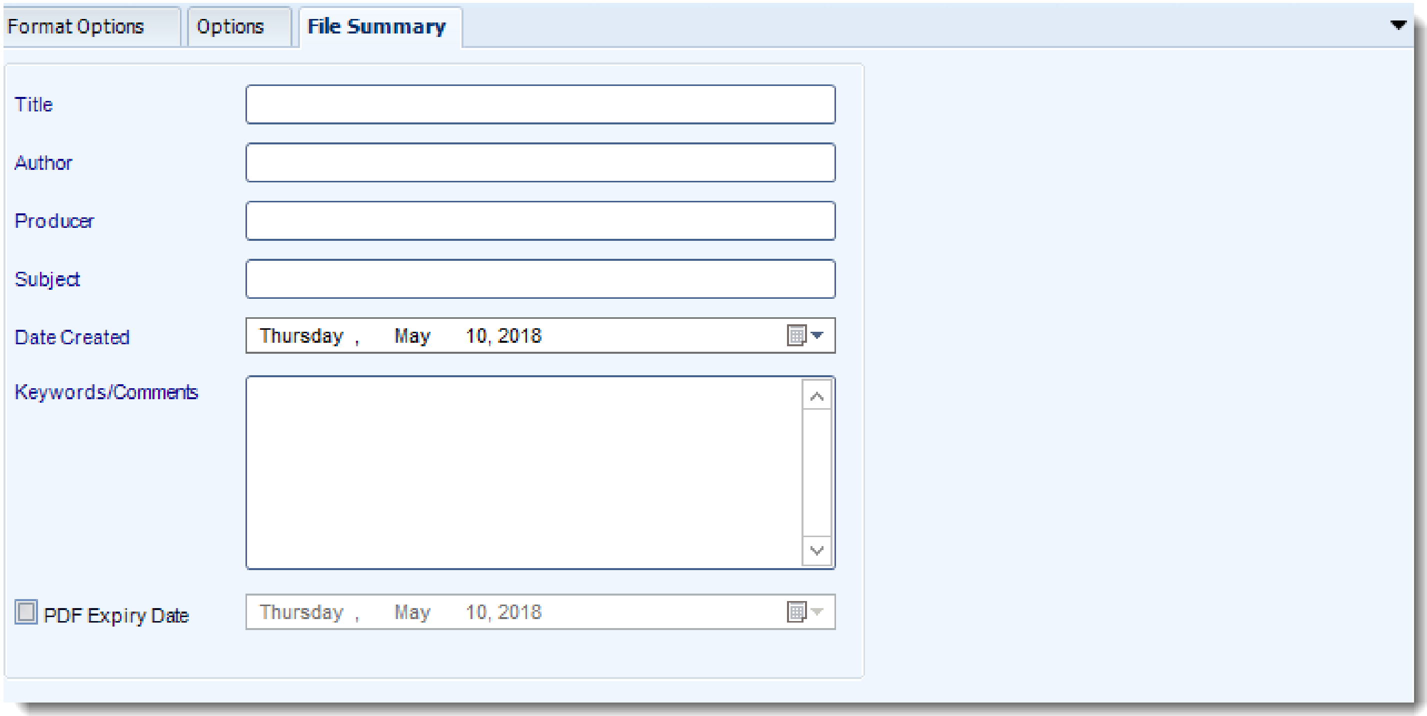
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options



- Use this option to select to export all pages or just a selection.

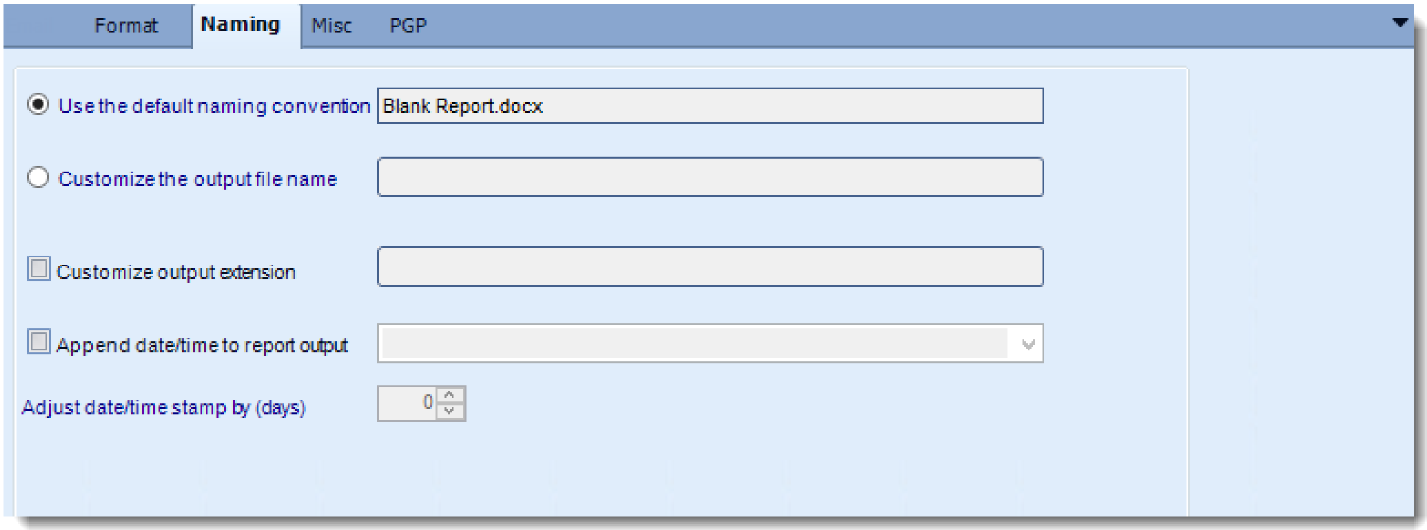
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

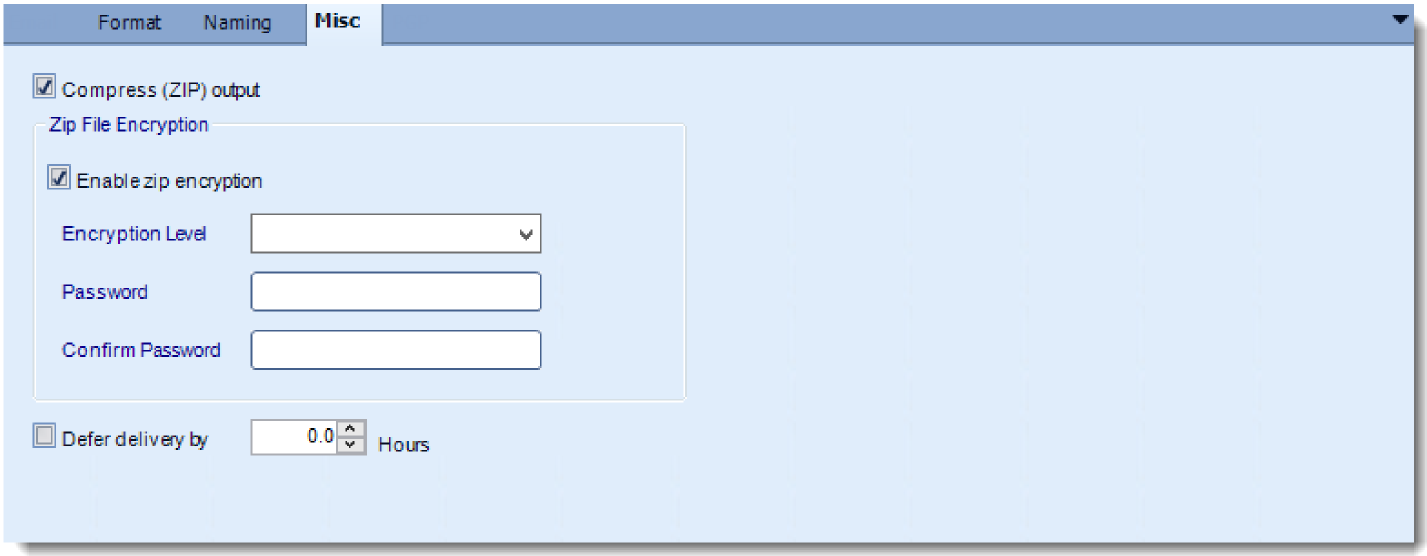
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

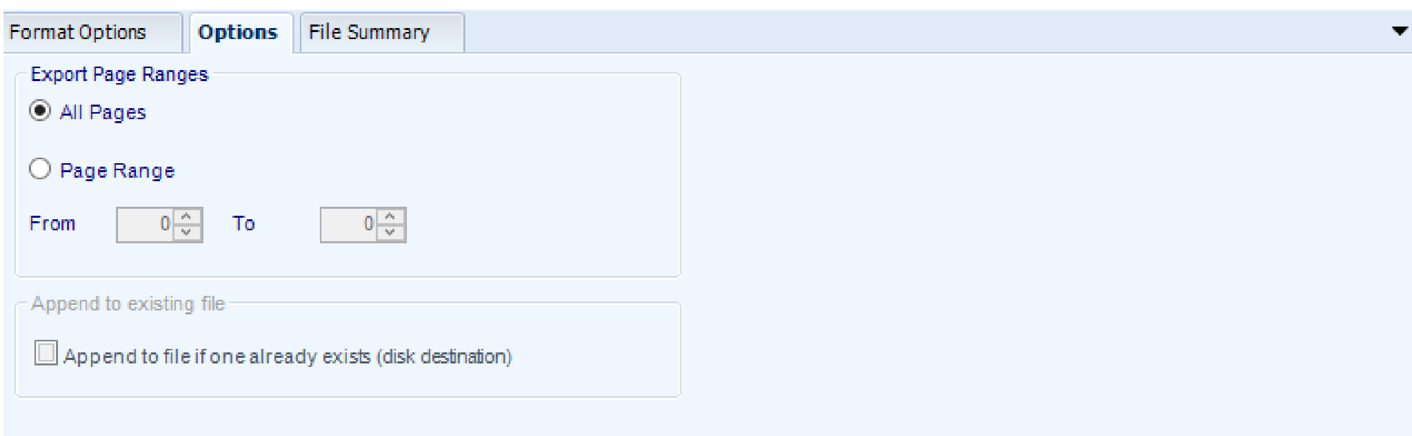
MS Word 2007 (*.docx) outputs for Crystal Reports

Export Crystal reports to MS Word & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations. CRD lets you customize them before delivery. Here's how.

Format

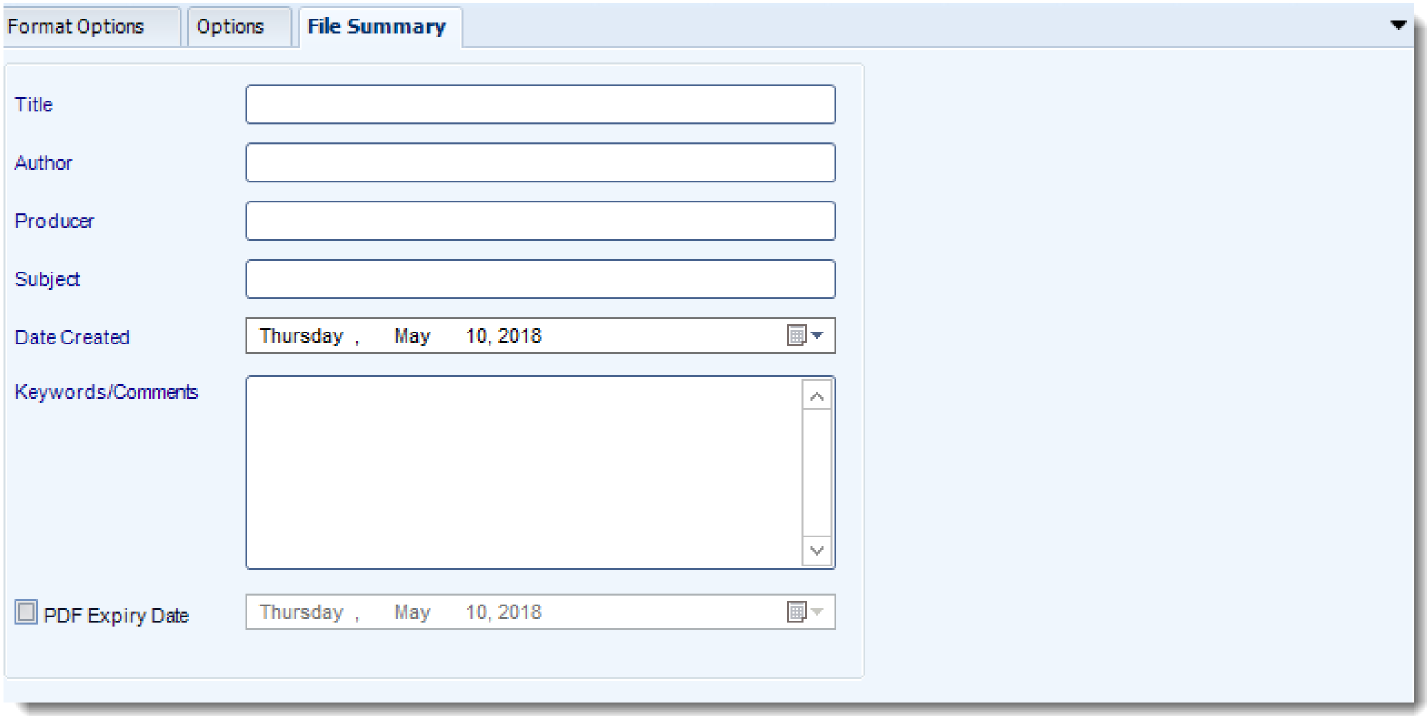
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options



- Use this option to select to export all pages or just a selection.

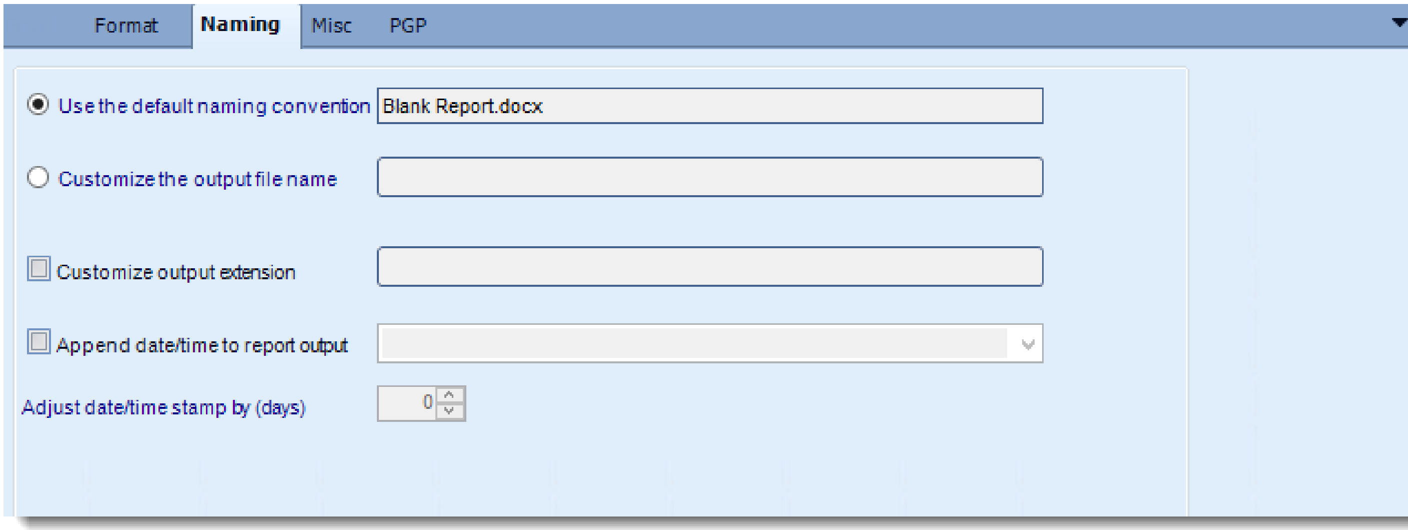
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

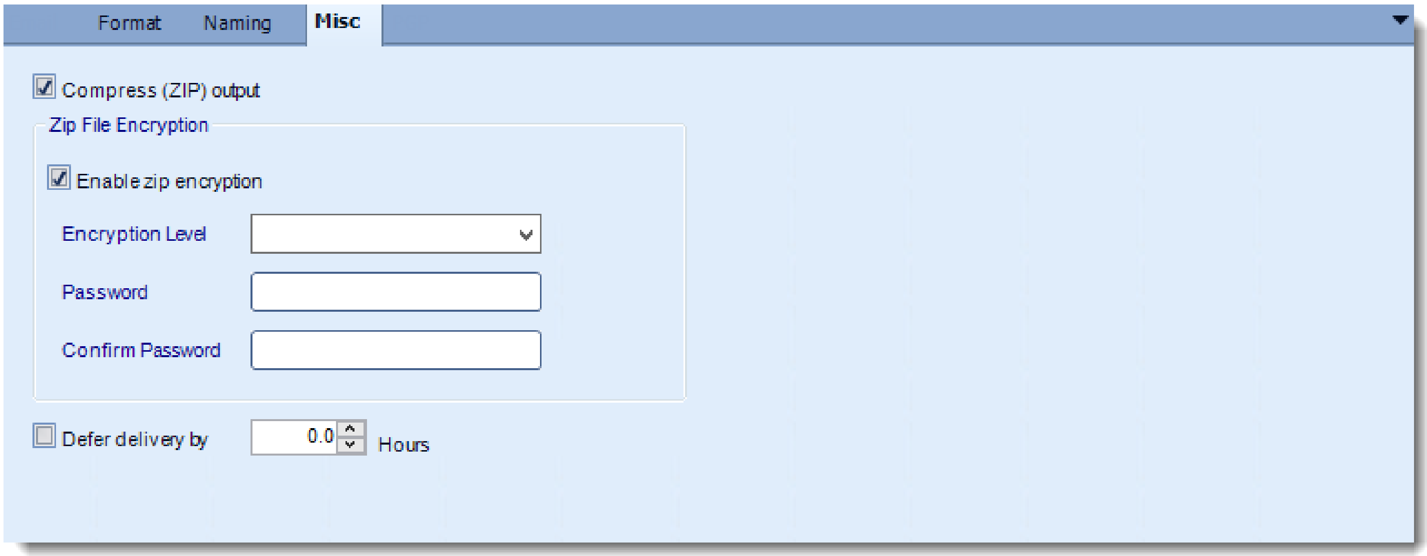
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

PNG (*.png) outputs for Crystal Reports

PNG's compression is among the best that can be had without losing image information. Export Crystal reports to PNG & automatically deliver them to an FTP site, embed them in an email body, or deliver them in a PDF or DOCX document.

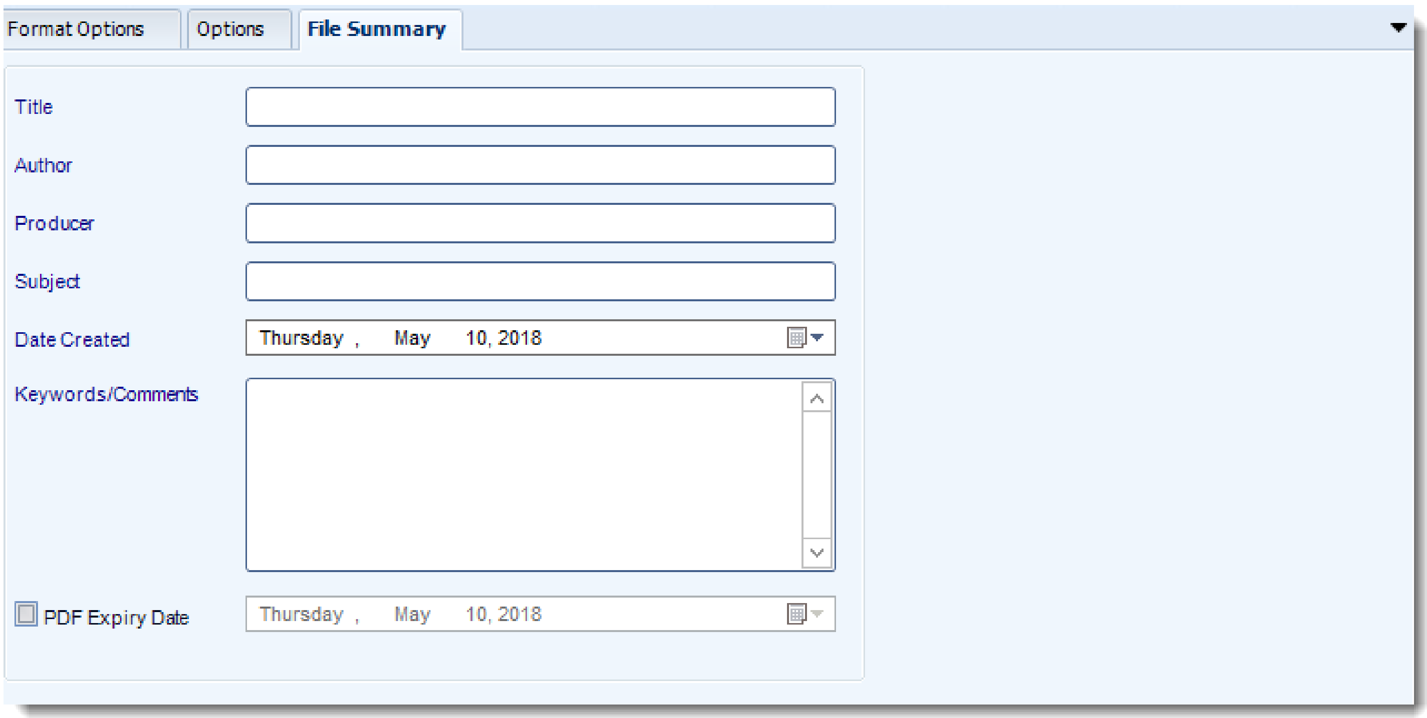
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options

- Use this option to select to export all pages or just a selection.

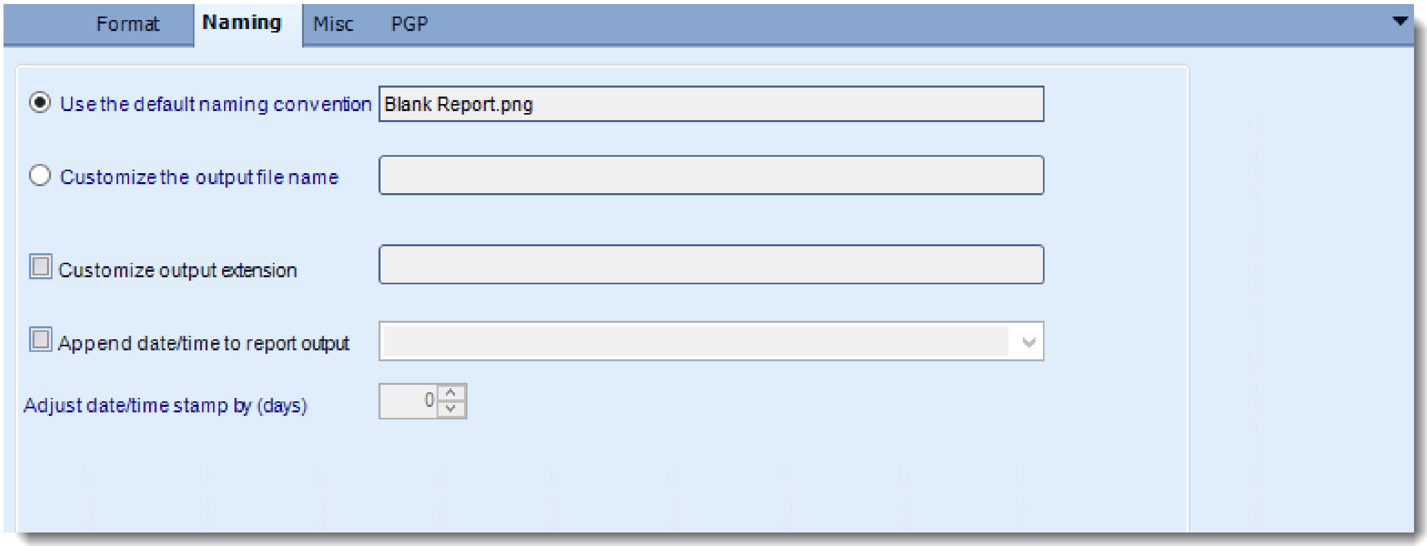
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

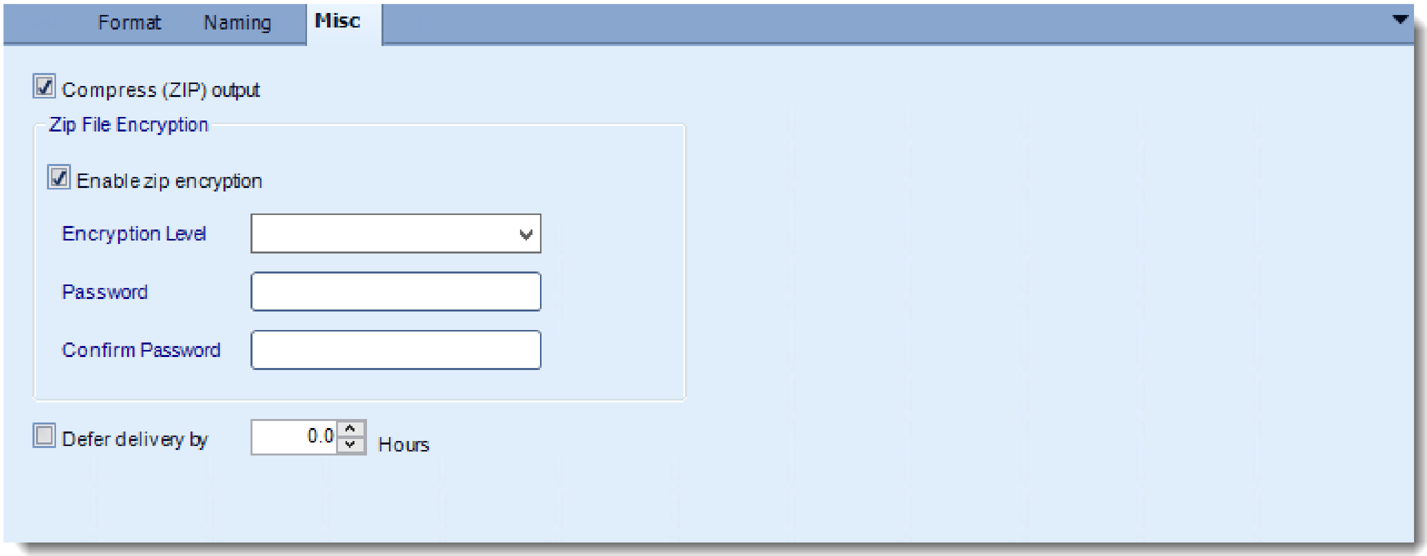
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

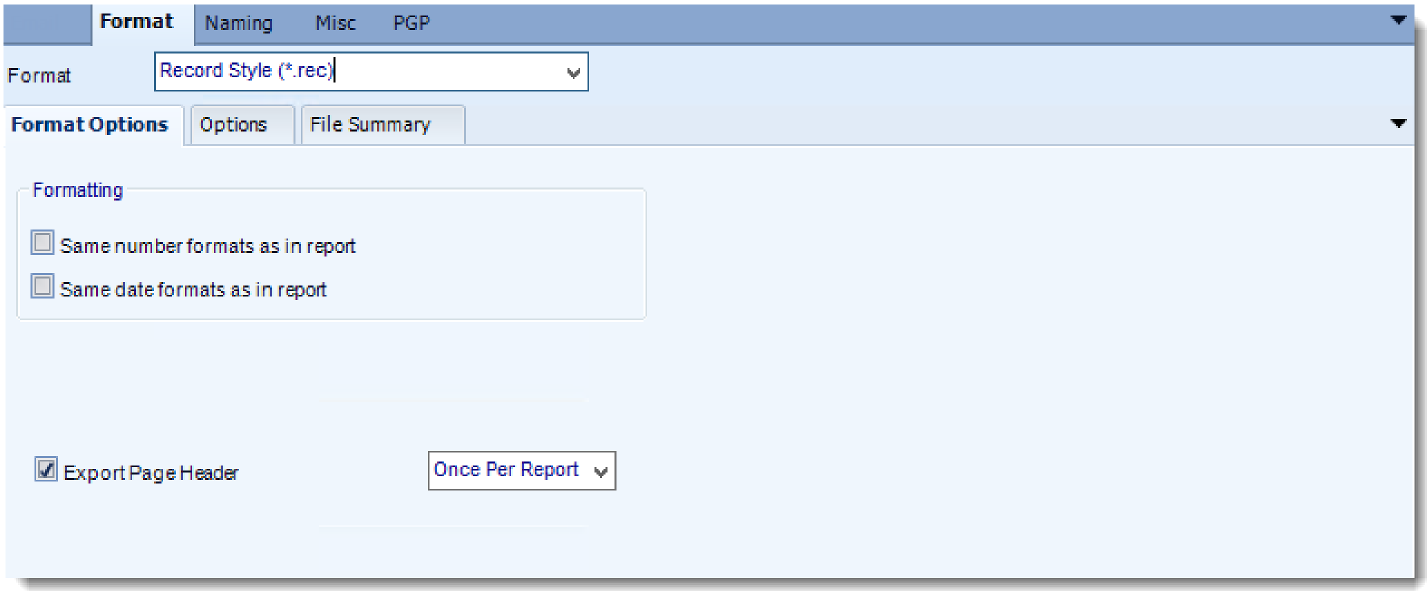
Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

Record Style (*.rec) outputs for Crystal Reports

Export Crystal reports to Record Style & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.



Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

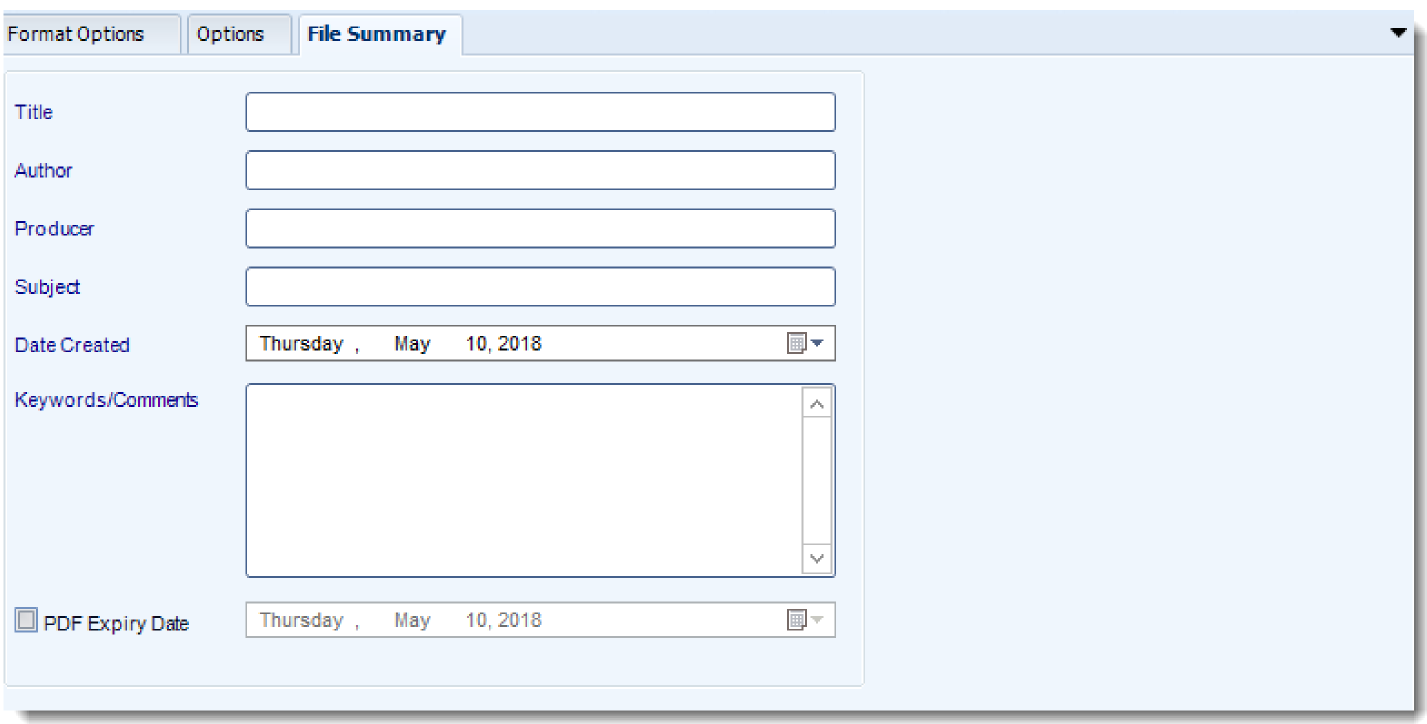
Format Options

- You can select to use the default CSV export method which uses the same method used by Crystal Reports.
- You can specify if you want the number and date formats to default to the ones specified in the report.

Options

- Use this option to select to export all pages or just a selection.

File Summary

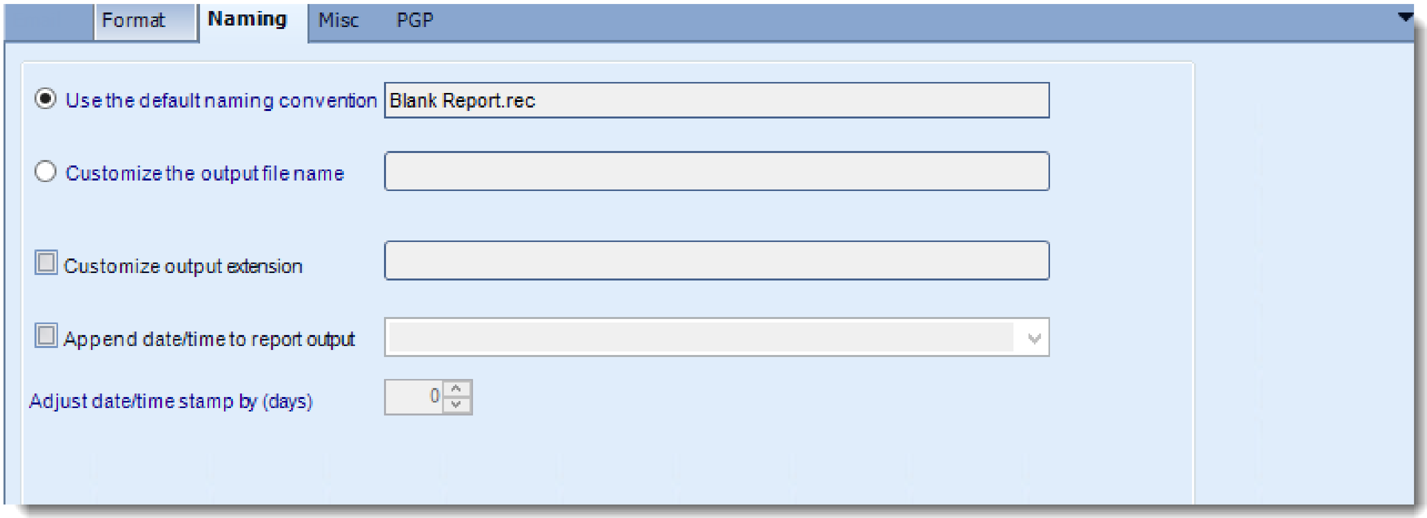


- Determine file summary by filling in the required properties as illustrated above.

- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

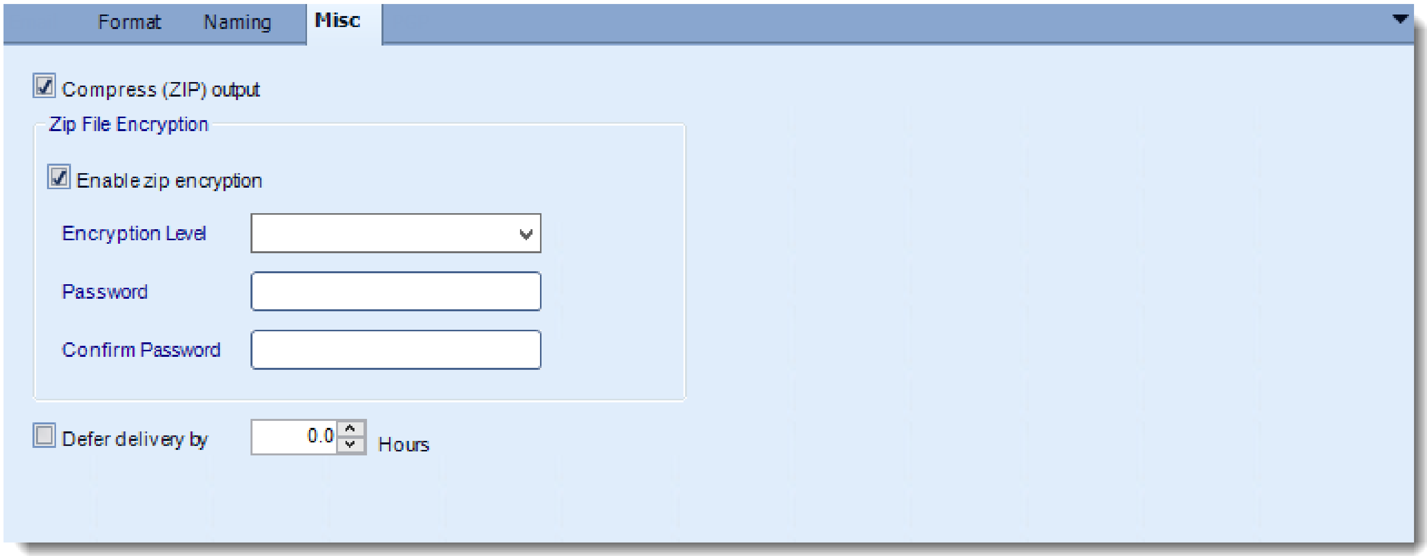
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc

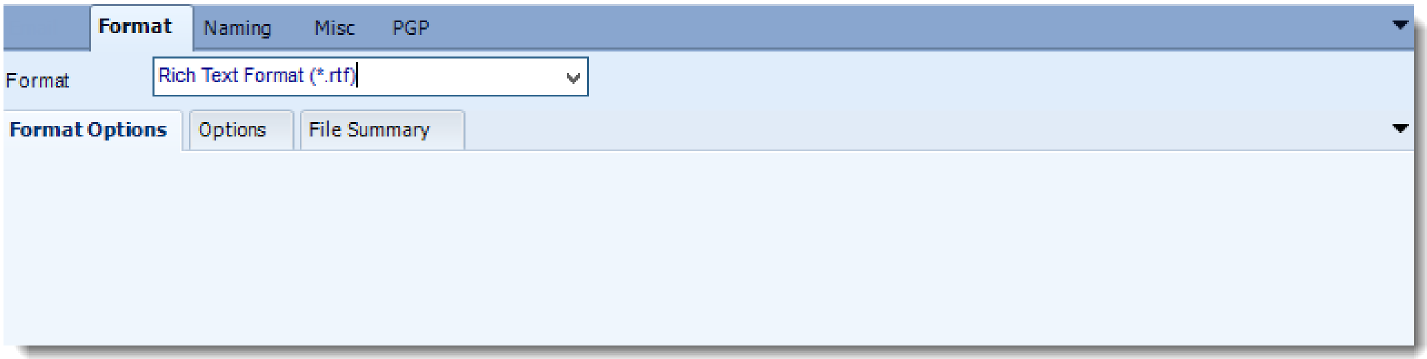


- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

Rich Text Format (*.rtf) outputs for Crystal

RTF is a text file format used by Microsoft products, such as Word and Office. Export Crystal reports to RTF & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

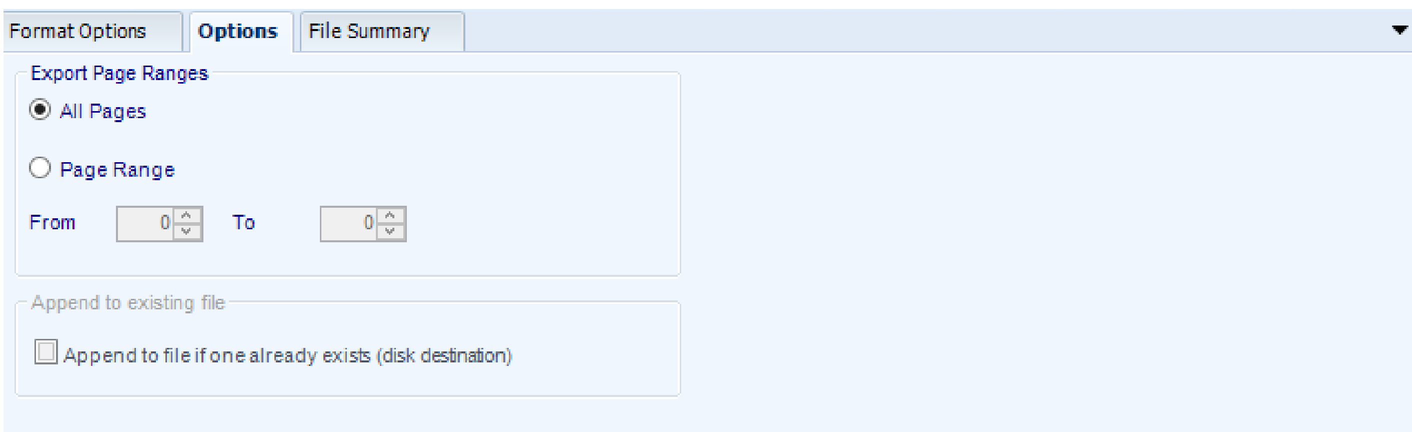
- To export Rich Text format in Crystal, follow these steps:



Format

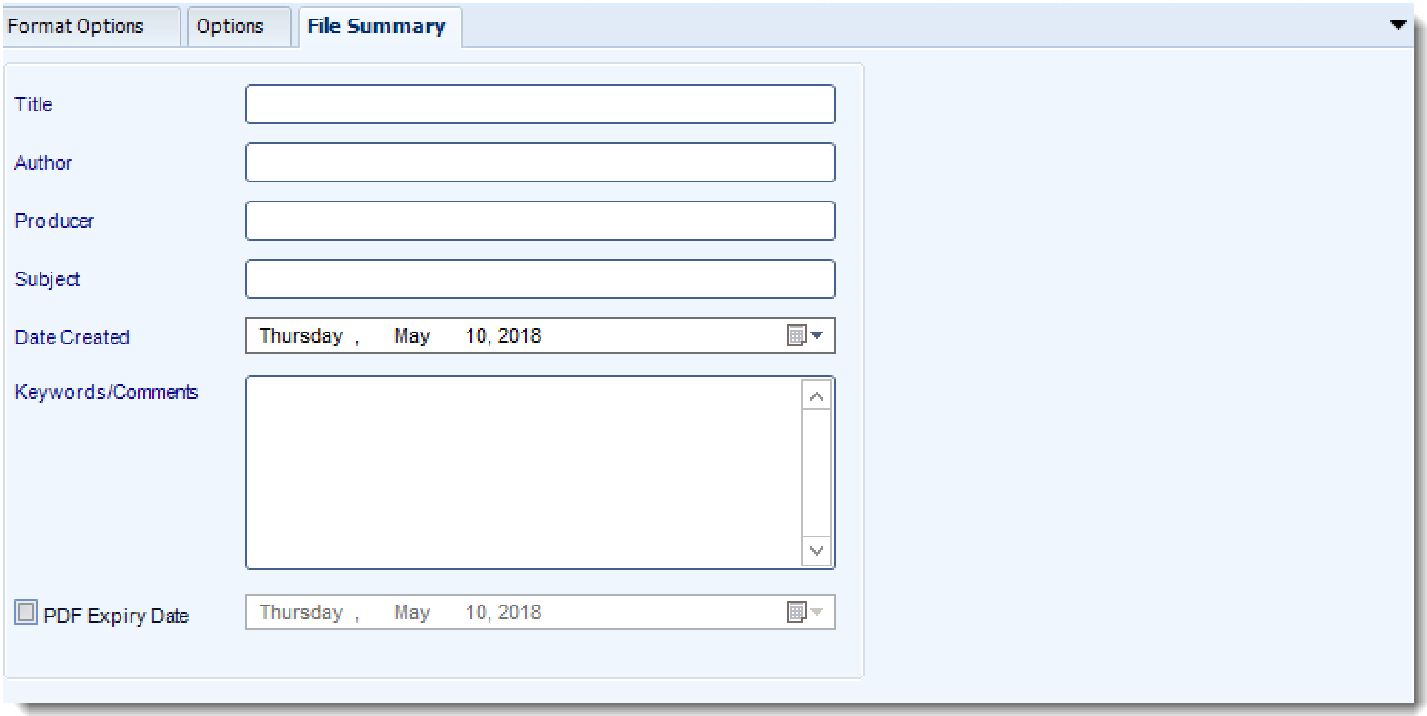
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options



- Use this option to select to export all pages or just a selection.

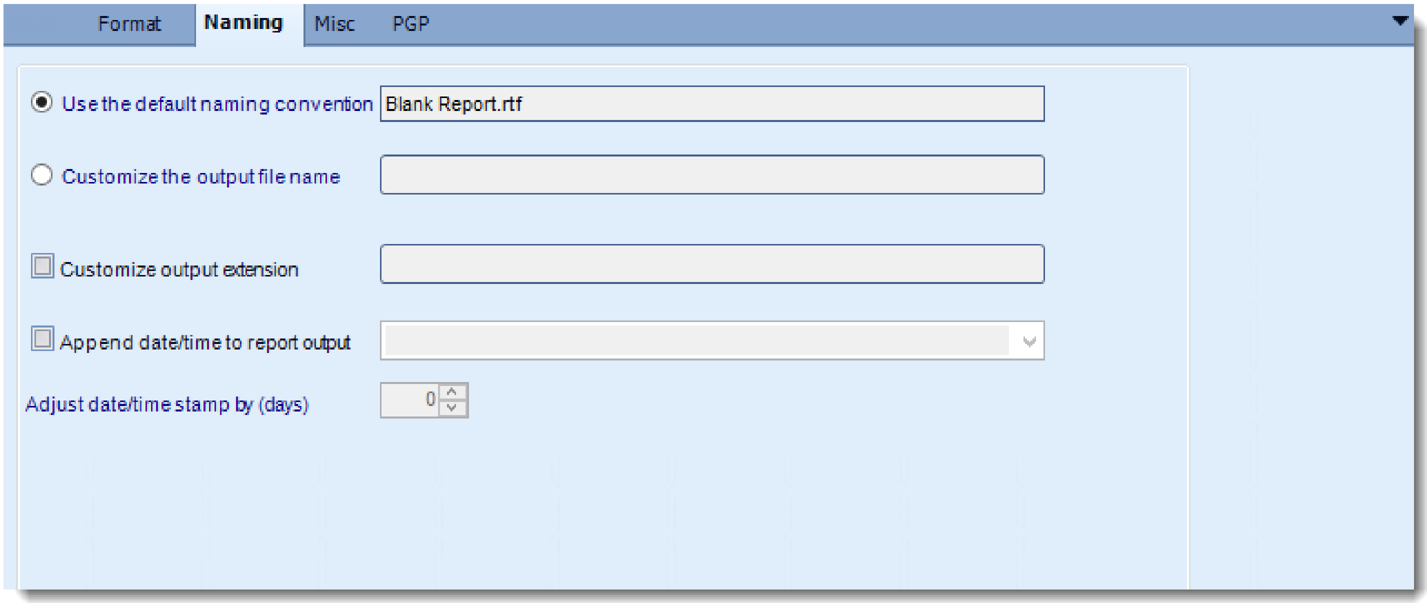
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

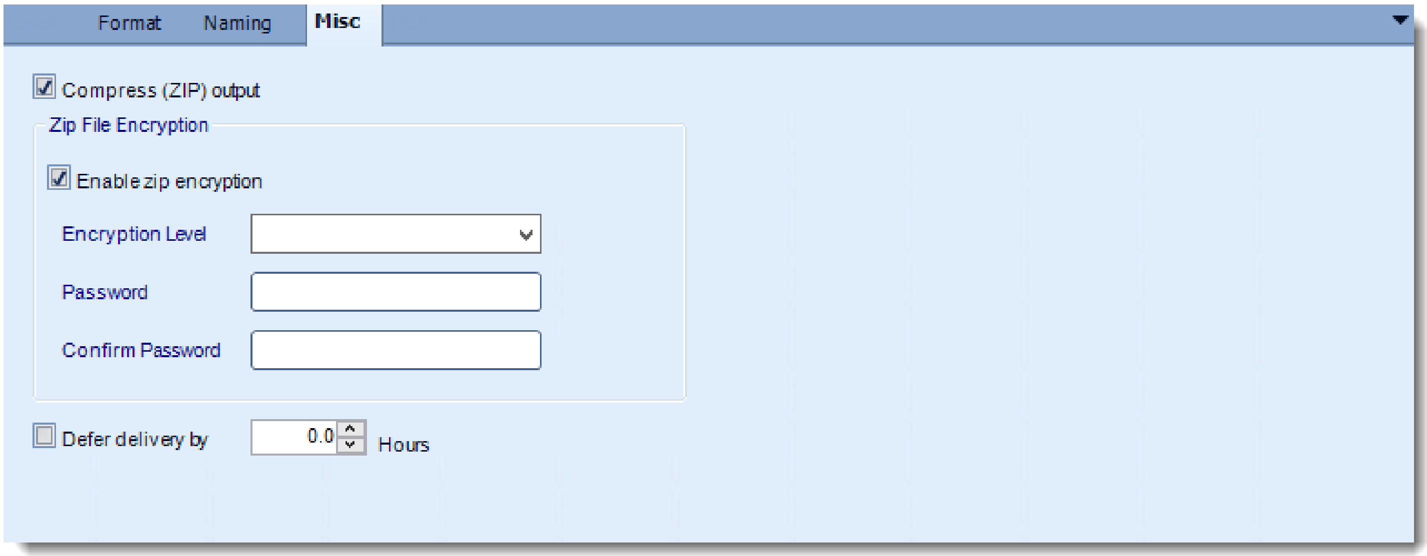
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc

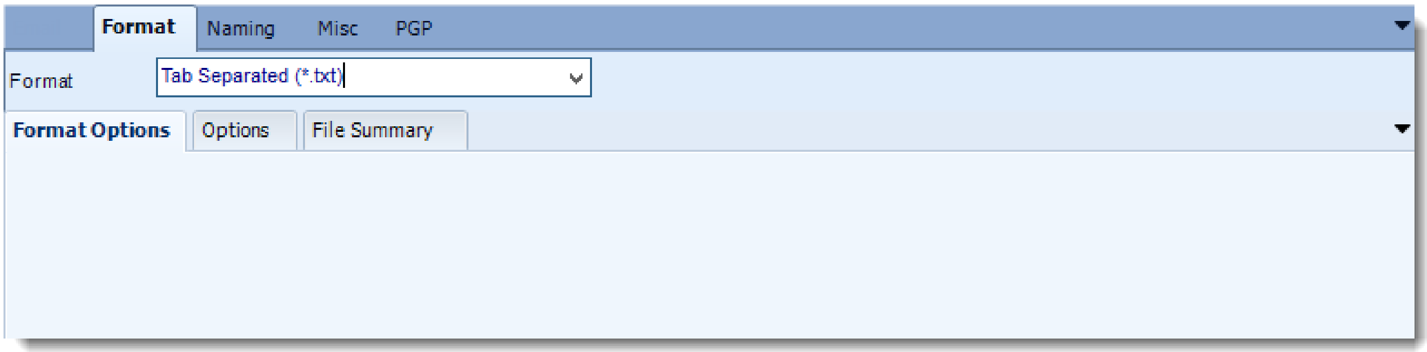


- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

Tab Separated (*.txt) outputs for Crystal

Export Crystal reports to TXT & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

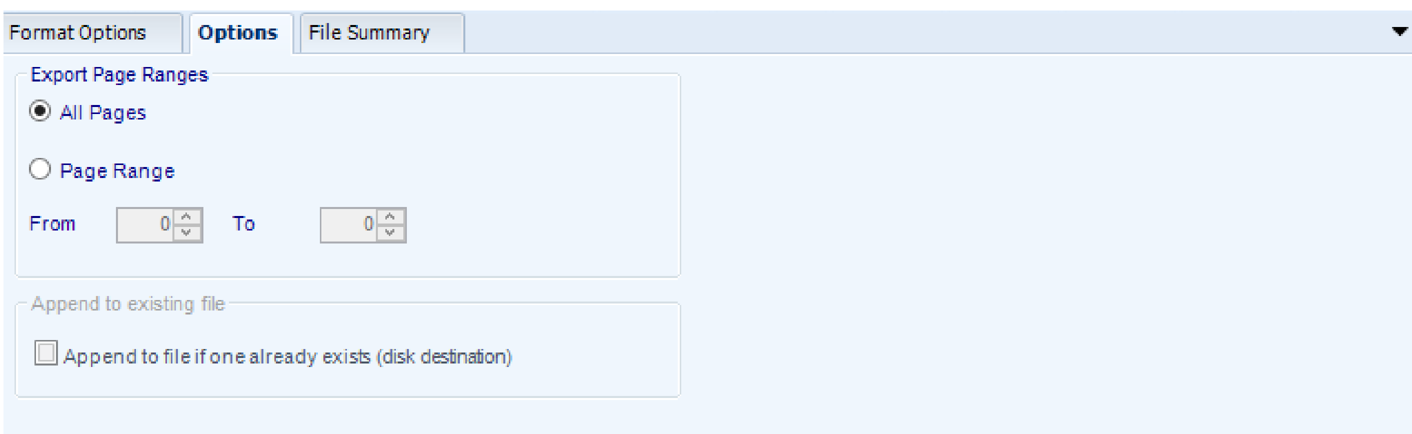
- To export Tab Separated format in Crystal, follow these steps:



Format

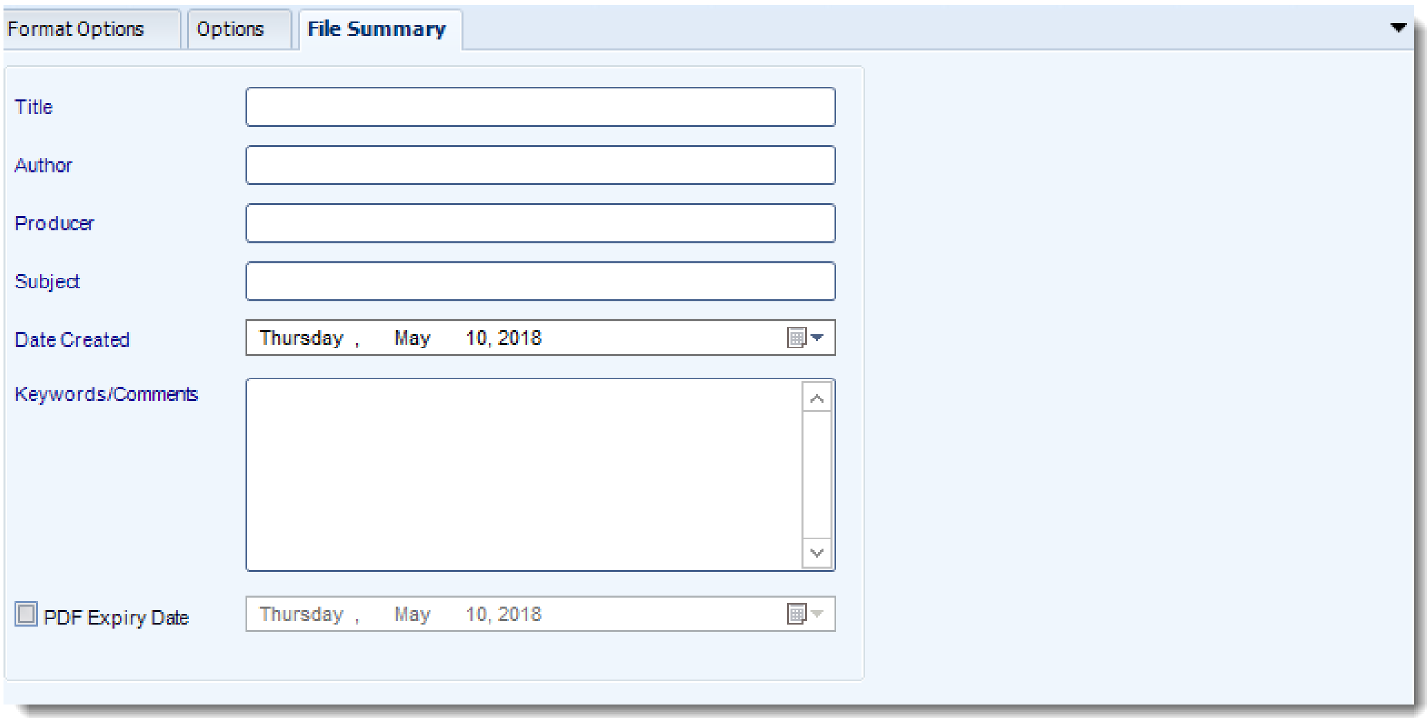
The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options



- Use this option to select to export all pages or just a selection.

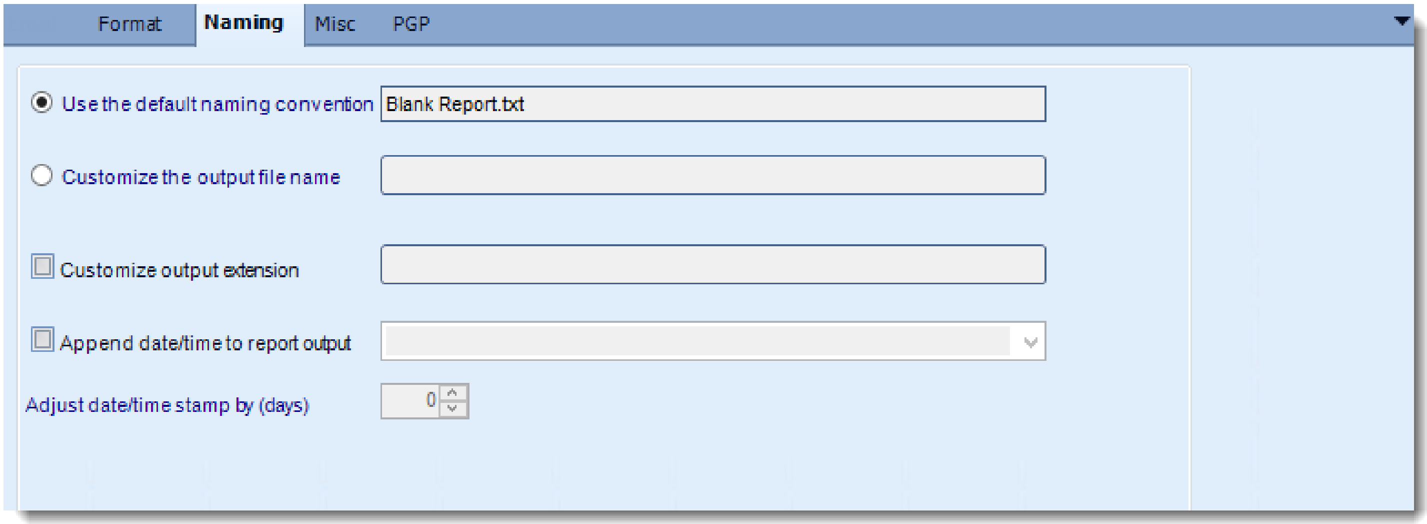
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

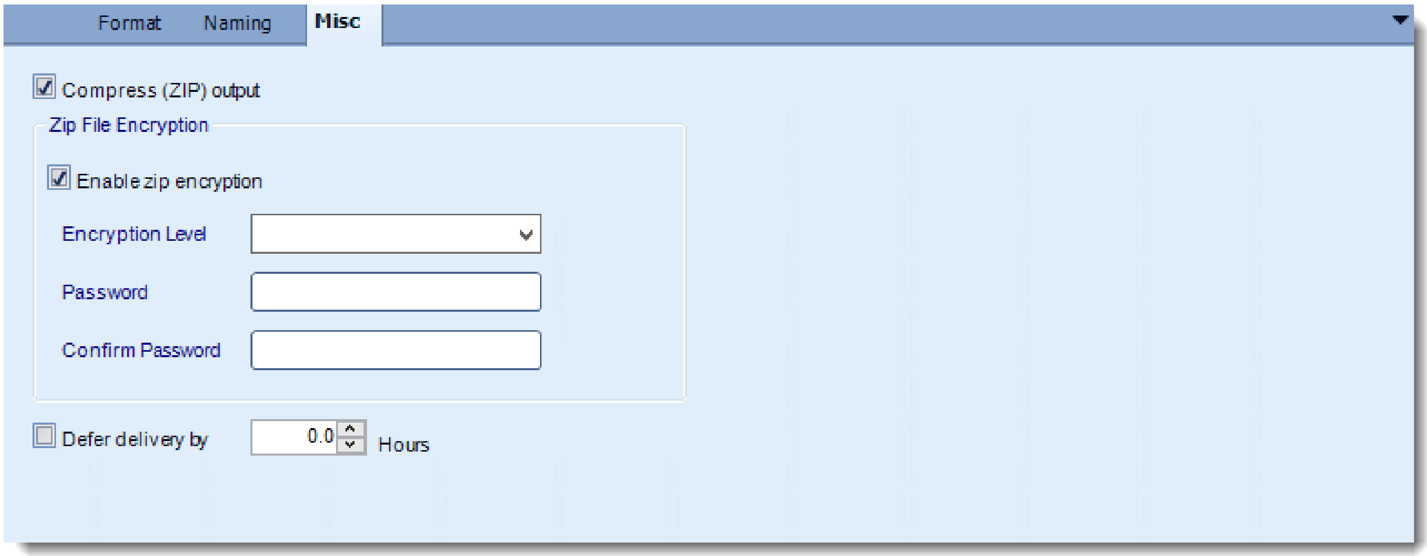
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc

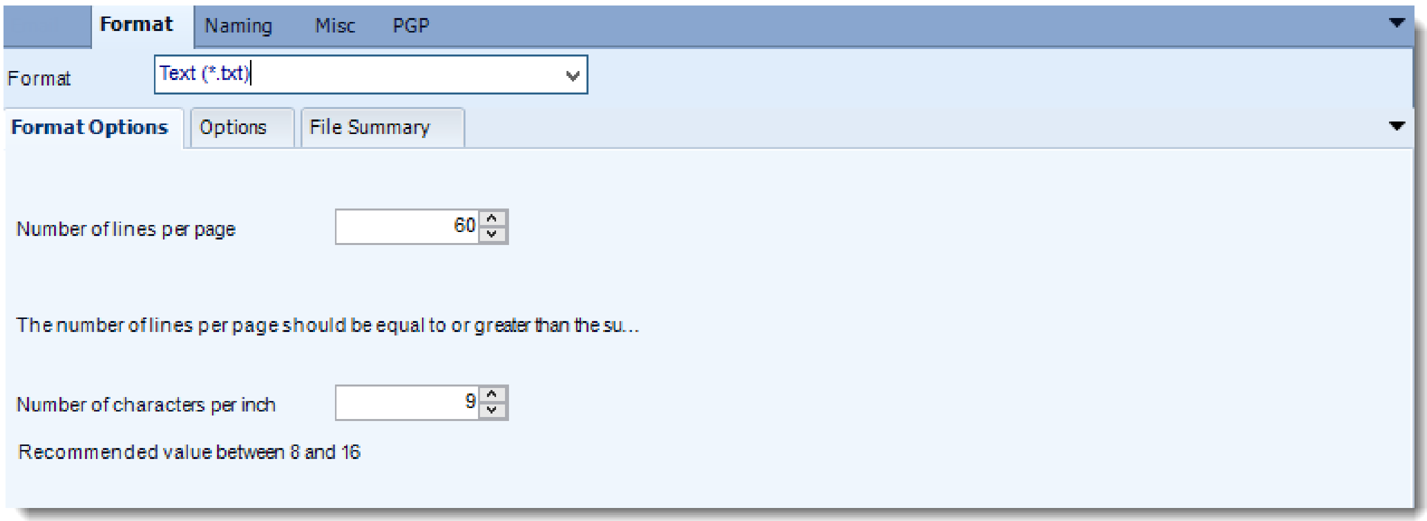


- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

Text (*.txt) outputs for Crystal Reports

Export Crystal reports to TXT & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

- To export Text format in Crystal Reports, follow these steps:



Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

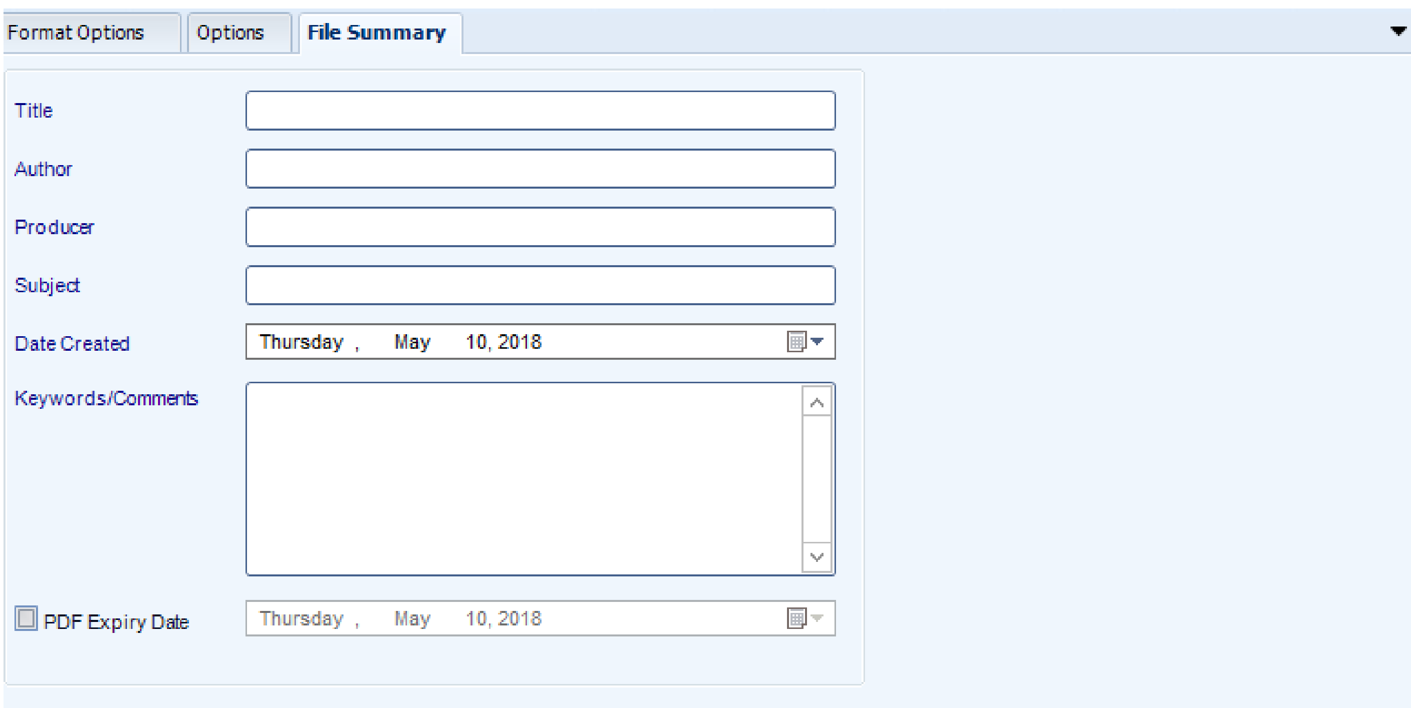
Format Options

- You can set the number of lines per page for the exported text file. Please note that the number of lines should be equal to or greater than the sum of the lines of page header section and page footer section plus 1.0.
- Do not paginate.
- You can also set the Number of characters per inch.

Options

- Use this option to select to export all pages or just a selection.

File Summary

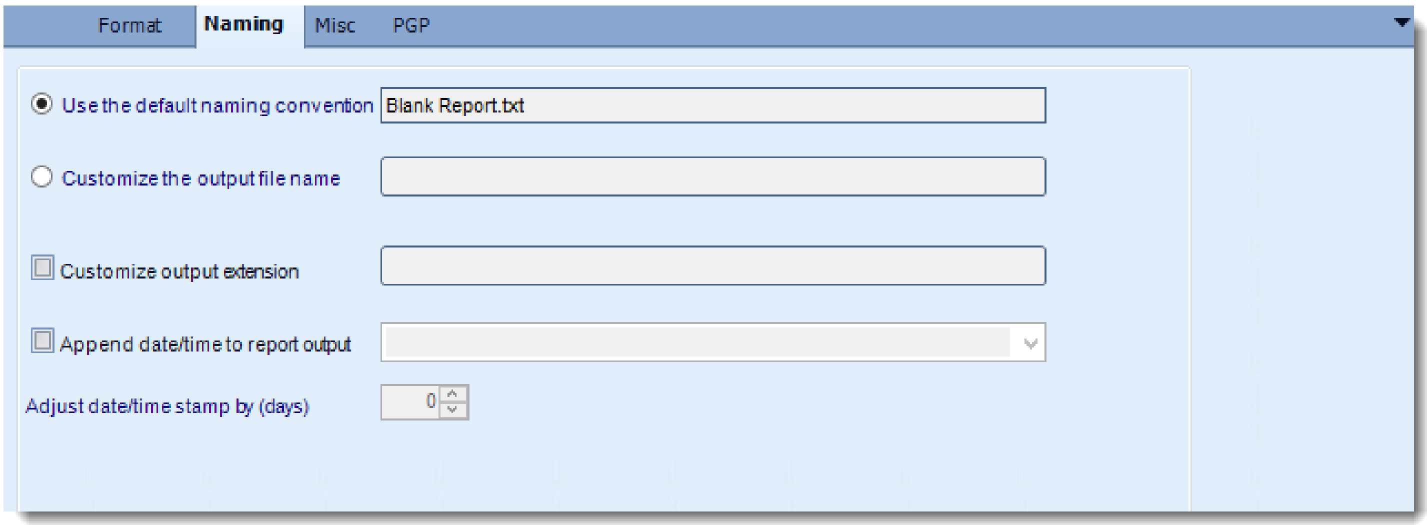


- Determine file summary by filling in the required properties as illustrated above.

- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

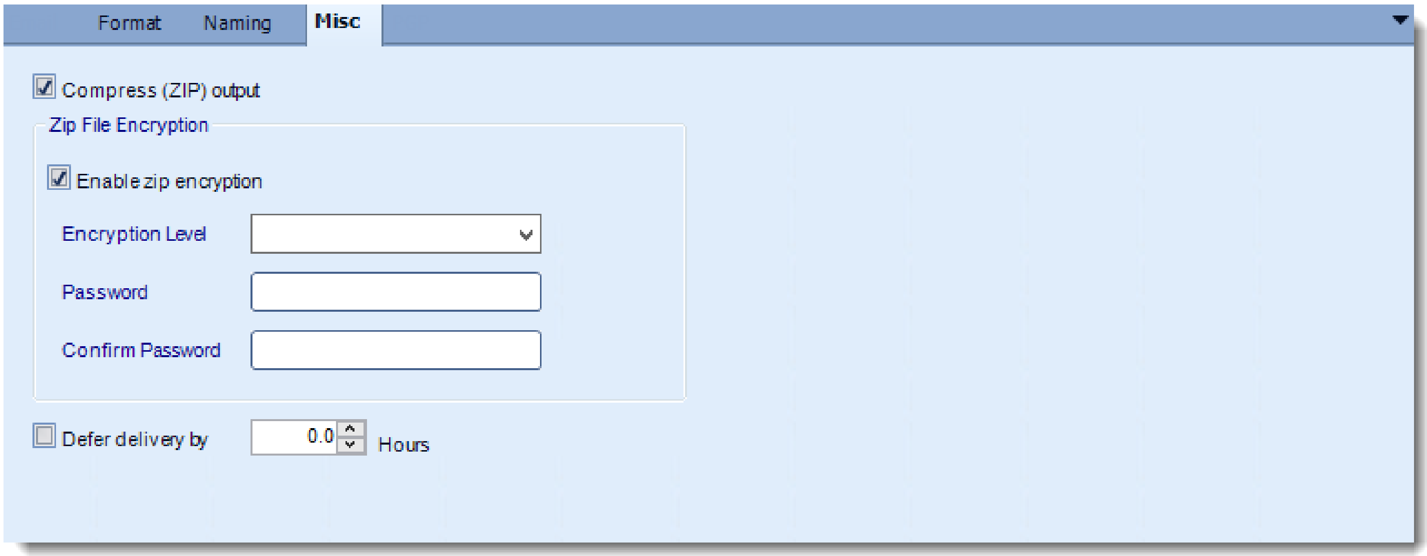
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc

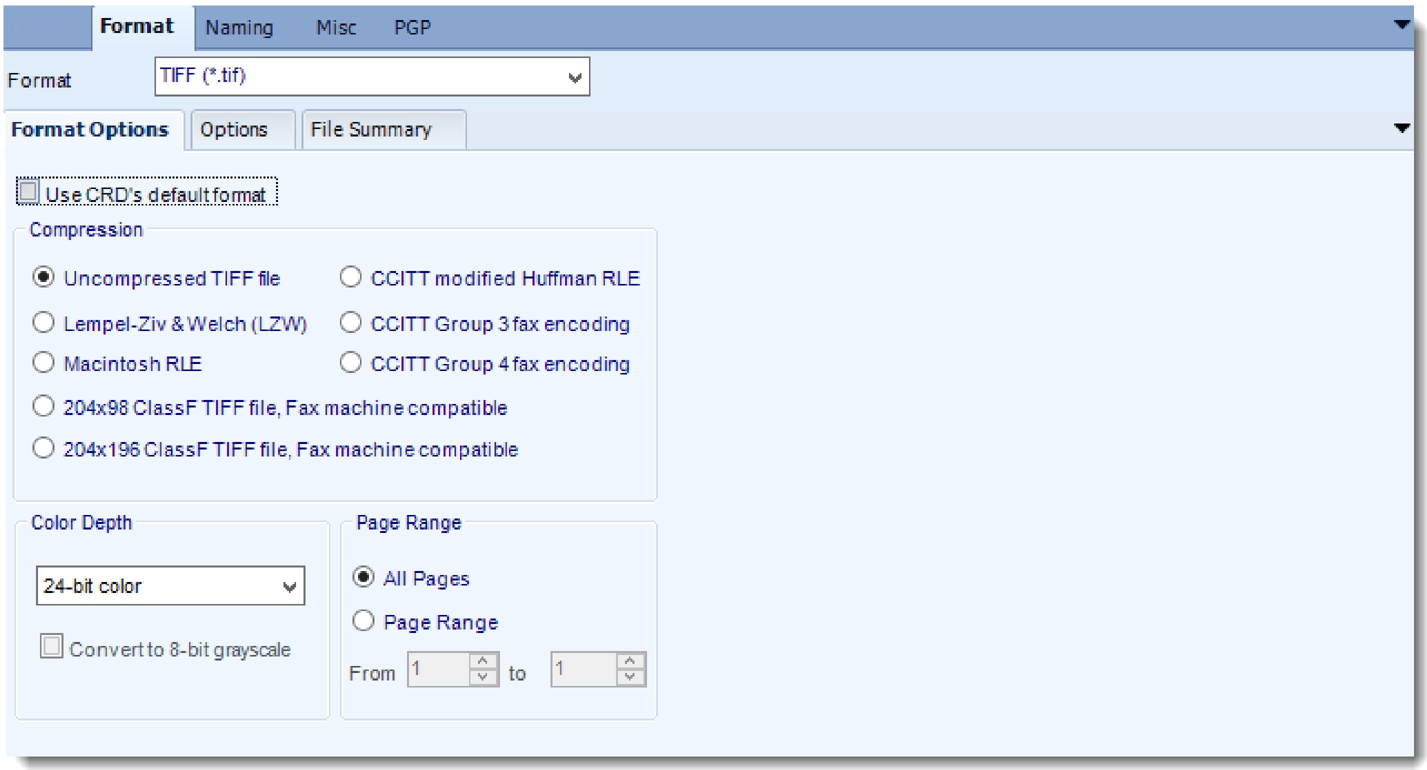


- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
  - For more information, go to Deferred Delivery

TIFF (*.tif) outputs for Crystal Reports

The TIFF format is perhaps the most versatile and diverse bitmap format in existence. Export Crystal reports to TIFF & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

- To export TIFF in Crystal Reports, follow these steps:



Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

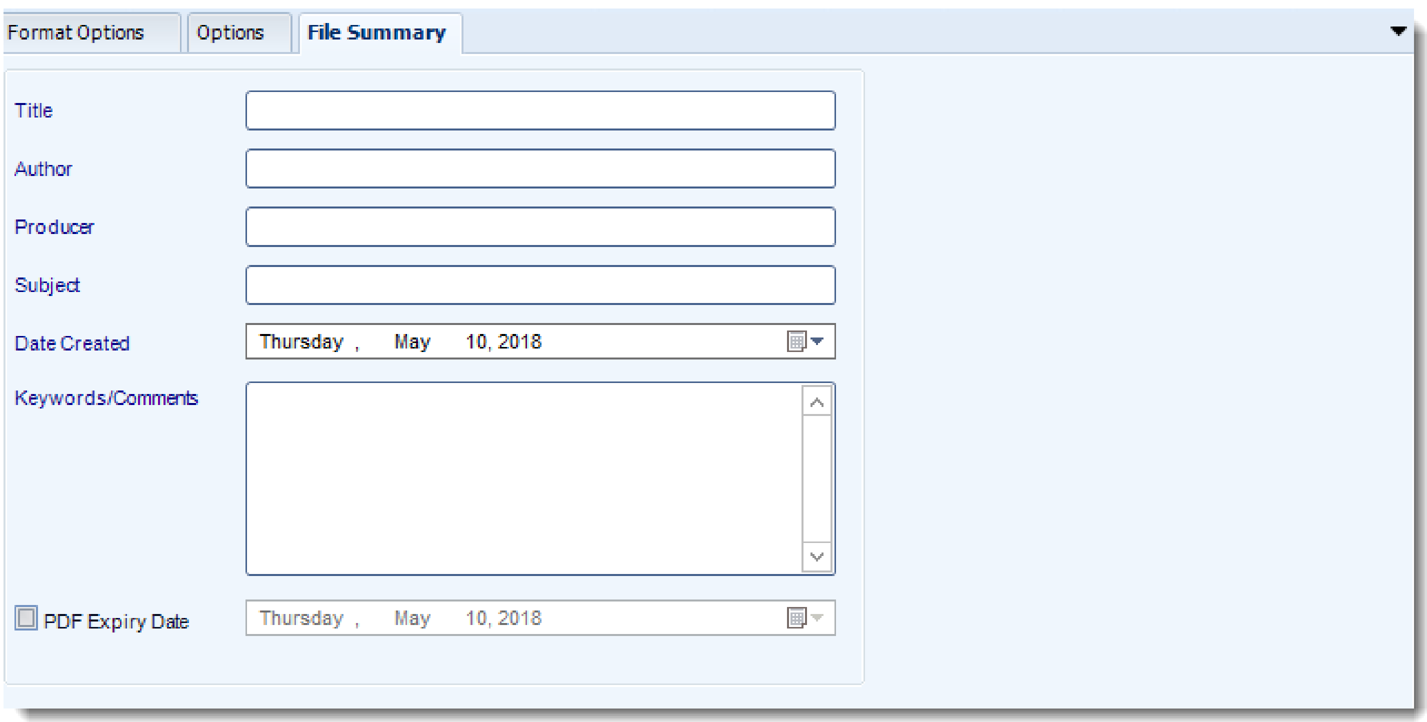
Format Option

- You can use CRD's default formatting options for TIFF (.tif) files or specify your own settings for the output.

Options

- Use this option to select to export all pages or just a selection.

File Summary

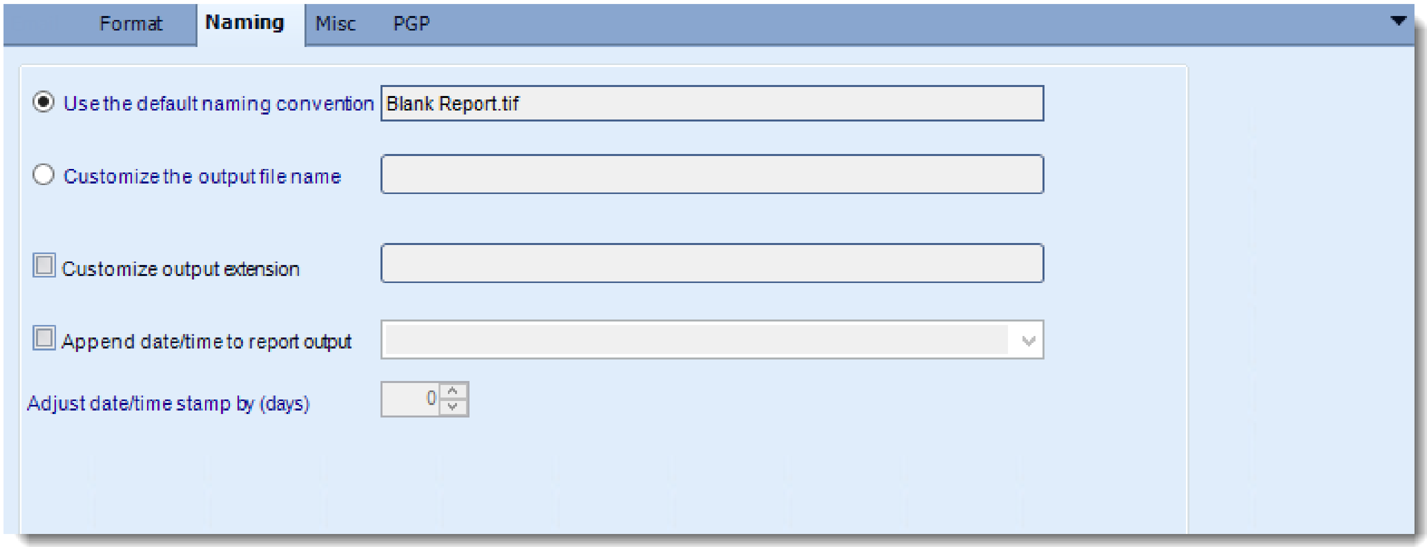


- Determine file summary by filling in the required properties as illustrated above.

- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

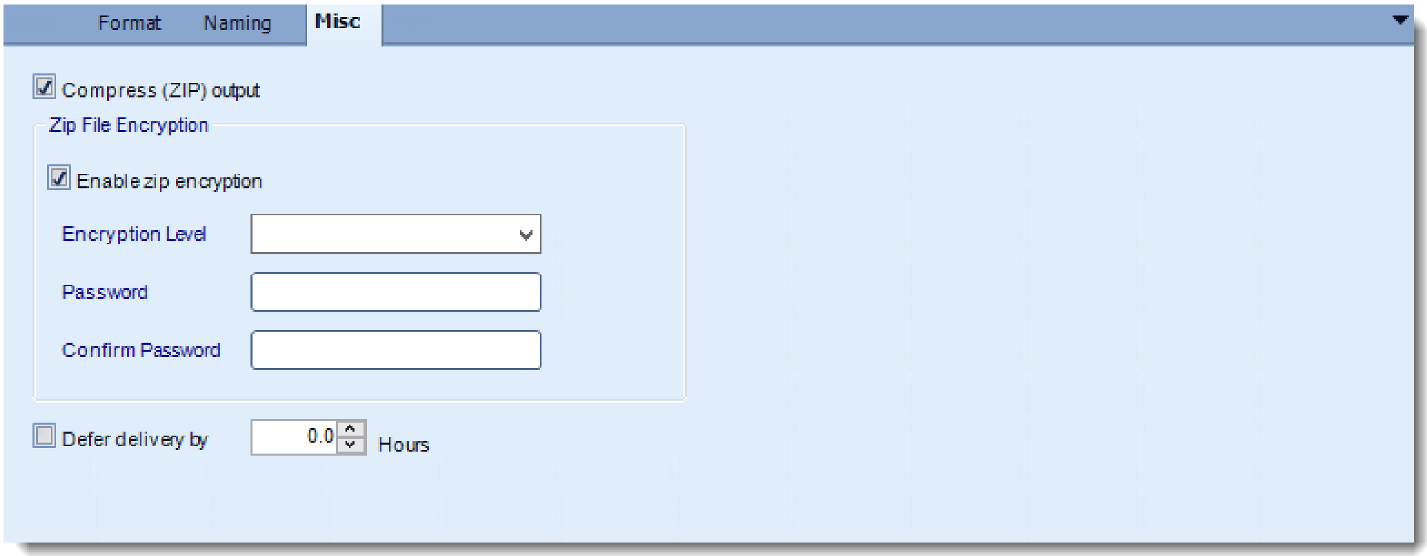
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

Misc

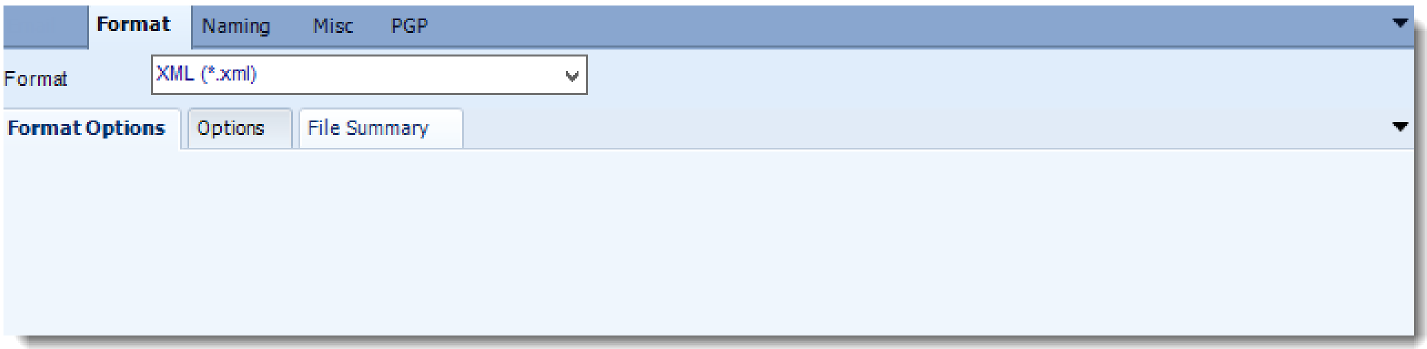


- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

XML (*.xml) outputs for Crystal

Export Crystal reports to XML & automatically deliver them to an FTP site, send them in emails, or deliver them to any number of other destinations.

- To export XML outputs in Crystal, follow theses steps:



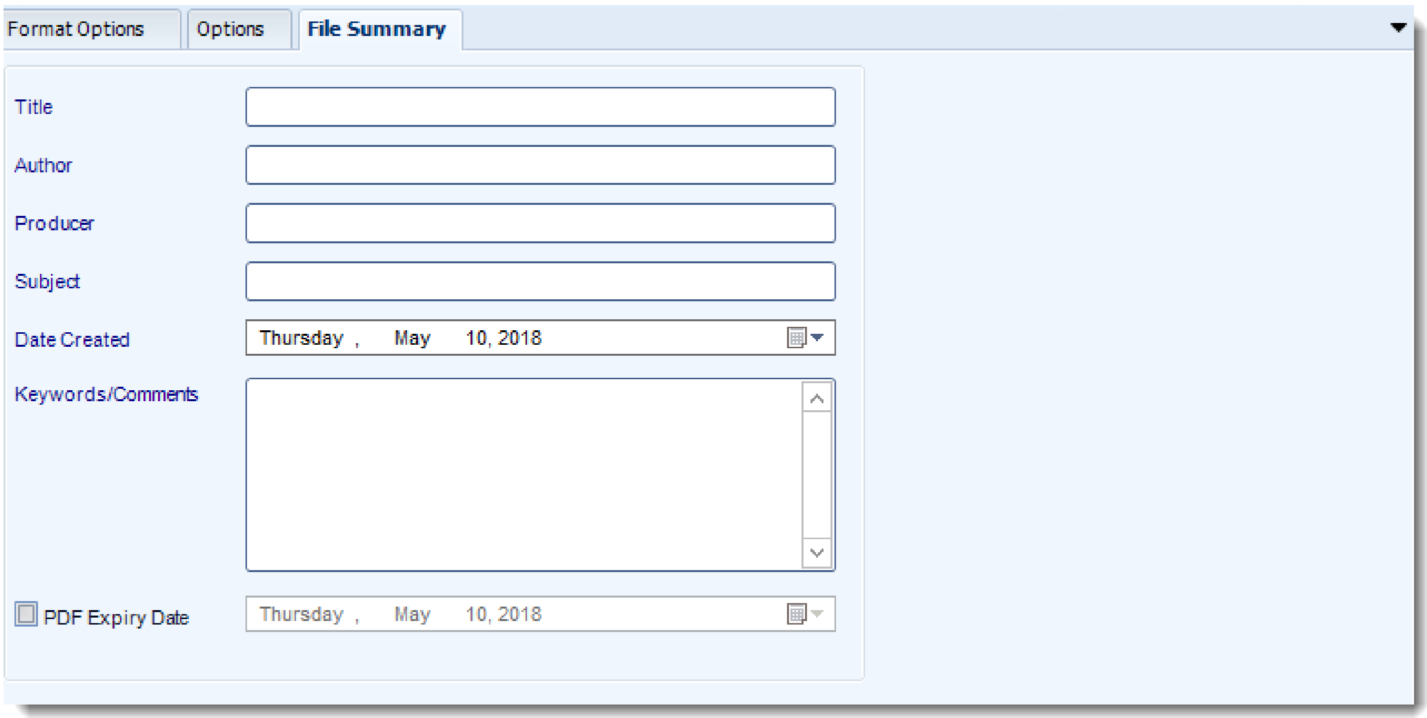
Format

The output format is selected as part of the Destinations setup for each destination type. The tab above can be found in the Destinations section of a schedule.

Options

- Use this option to select to export all pages or just a selection.

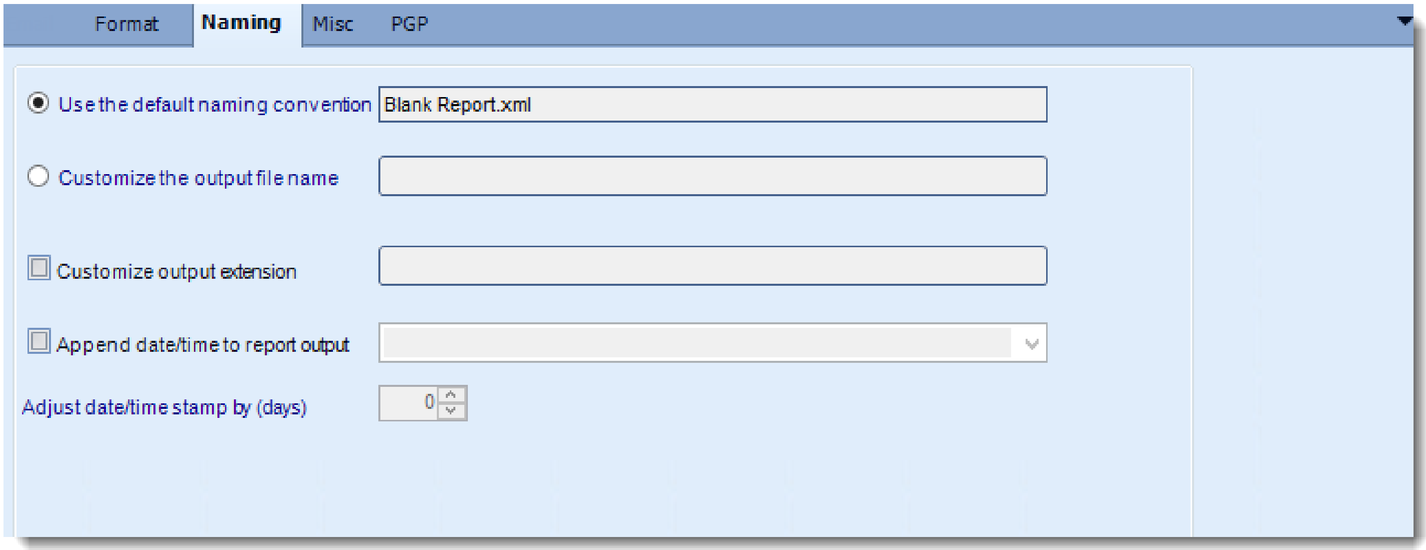
File Summary



- Determine file summary by filling in the required properties as illustrated above.
- If properties are not filled in or are left blank, the original properties which exist in the exported report will be preserved. To overwrite these with a blank, enter a space in the field you wish to overwrite.

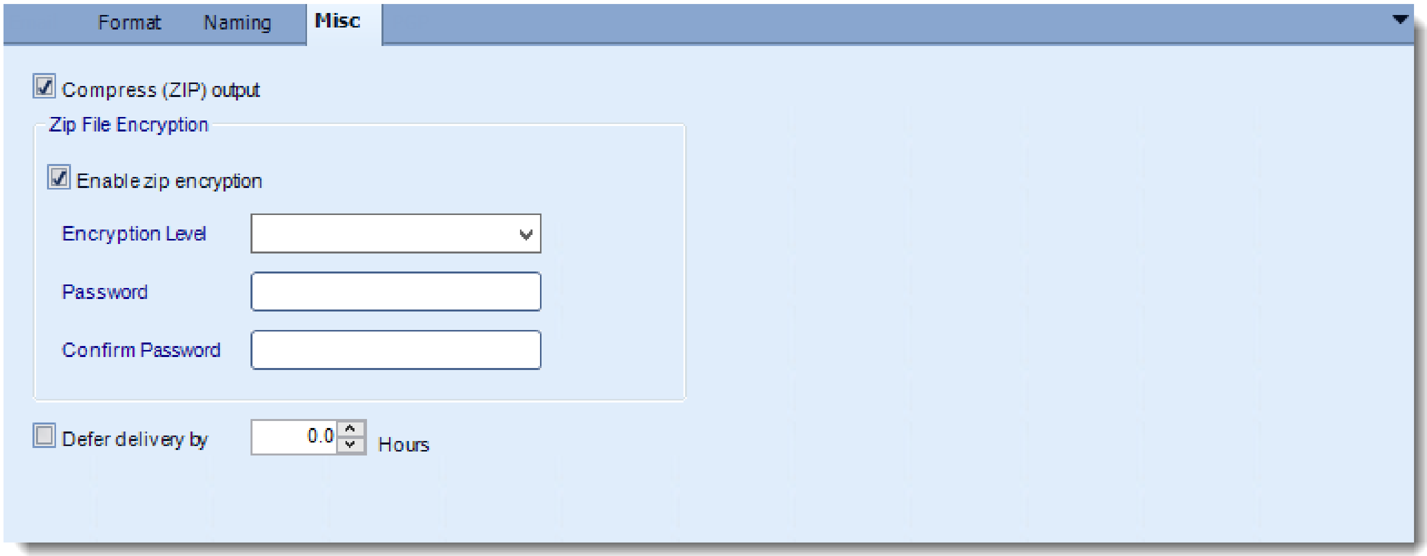
Naming

These options determine how the exported file will be name:



- This is the option where you named the output file.
- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format extension, e.g. Catalog Report.pdf.
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another already existing system you may have. You may also right-click and use the Insert Function to insert a value.
- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

Misc



- **Compress (ZIP) Output:** Zips the output. Ability to use .zip encryption as well.
- **Zip File Encryption**: Check the option to encrypt and password protect the zip file.
- **Defer Delivery:** The report will be generated at the scheduled time, but will not be delivered to the specified destination until later.
    - For more information, go to Deferred Delivery

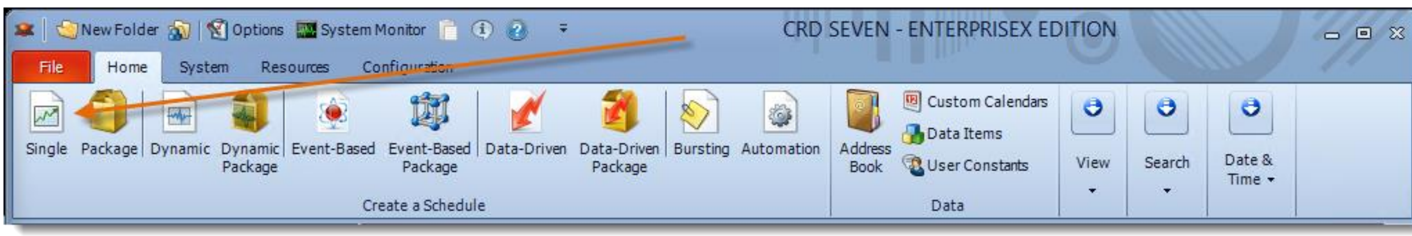
Single Reports Schedule for Crystal Reports.

The Single Schedule is the simplest and easiest way to schedule a report for delivery. It involves defining the report you wish to schedule, determine its timing, selecting parameters (if any), and setting the destination (s) of the report.

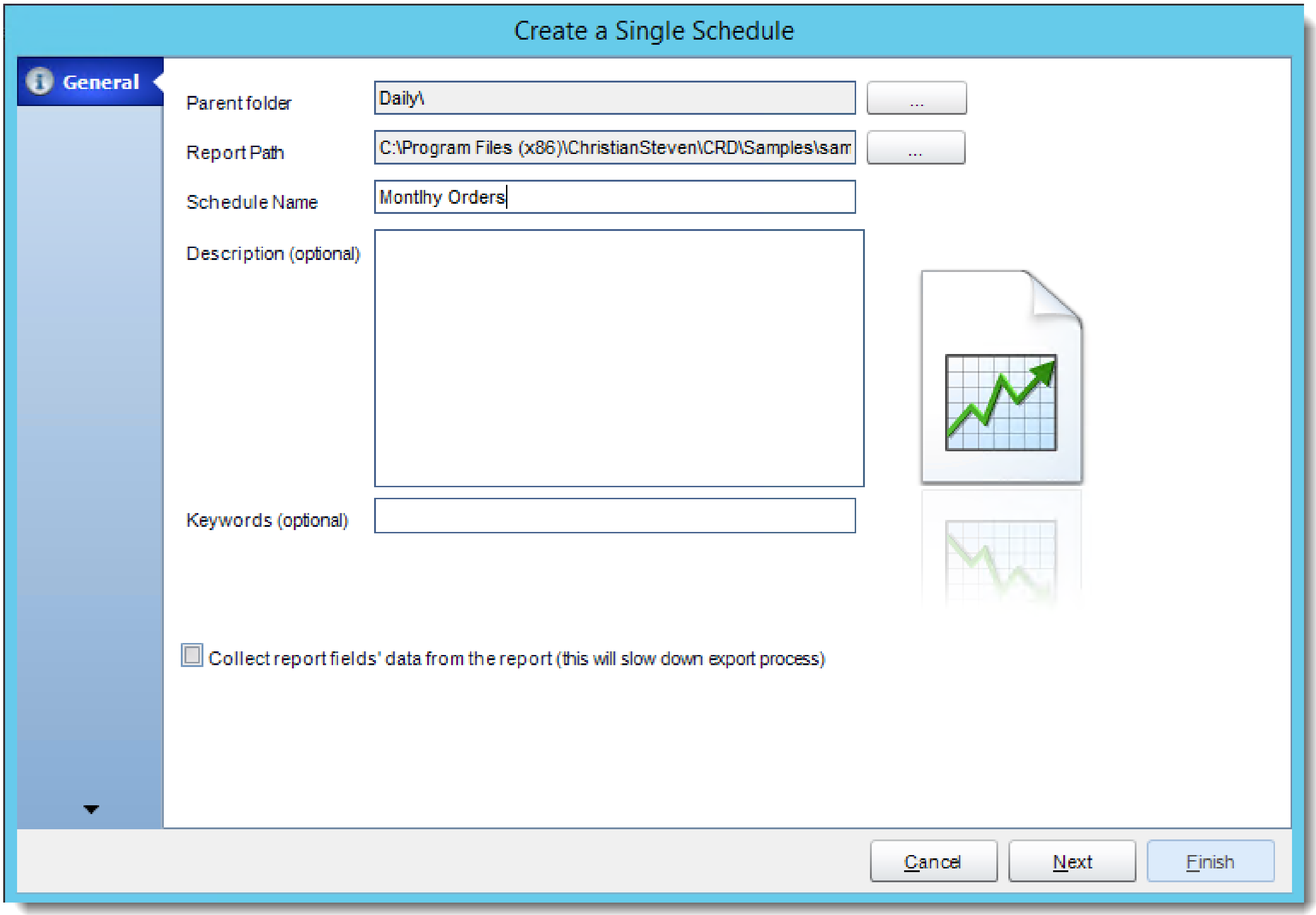
> *Example: Jamie is a reports developer that must send a daily report to management detailing the number of support tickets currently open. She requires a report to be sent in PDF format at 8:30AM to three individuals.*

How to Create a Single Schedule Report for Crystal Reports?

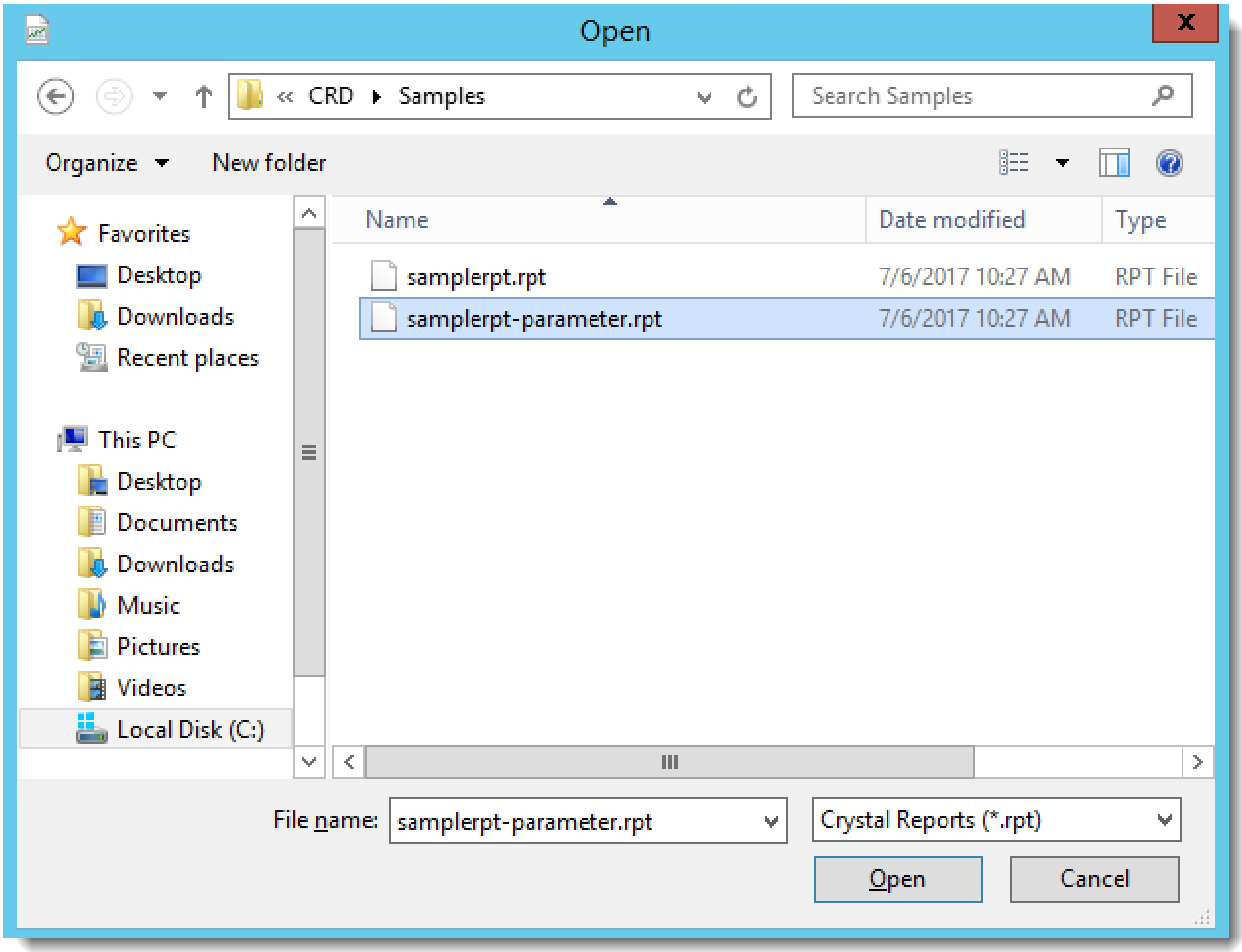
- Go to **Single.**



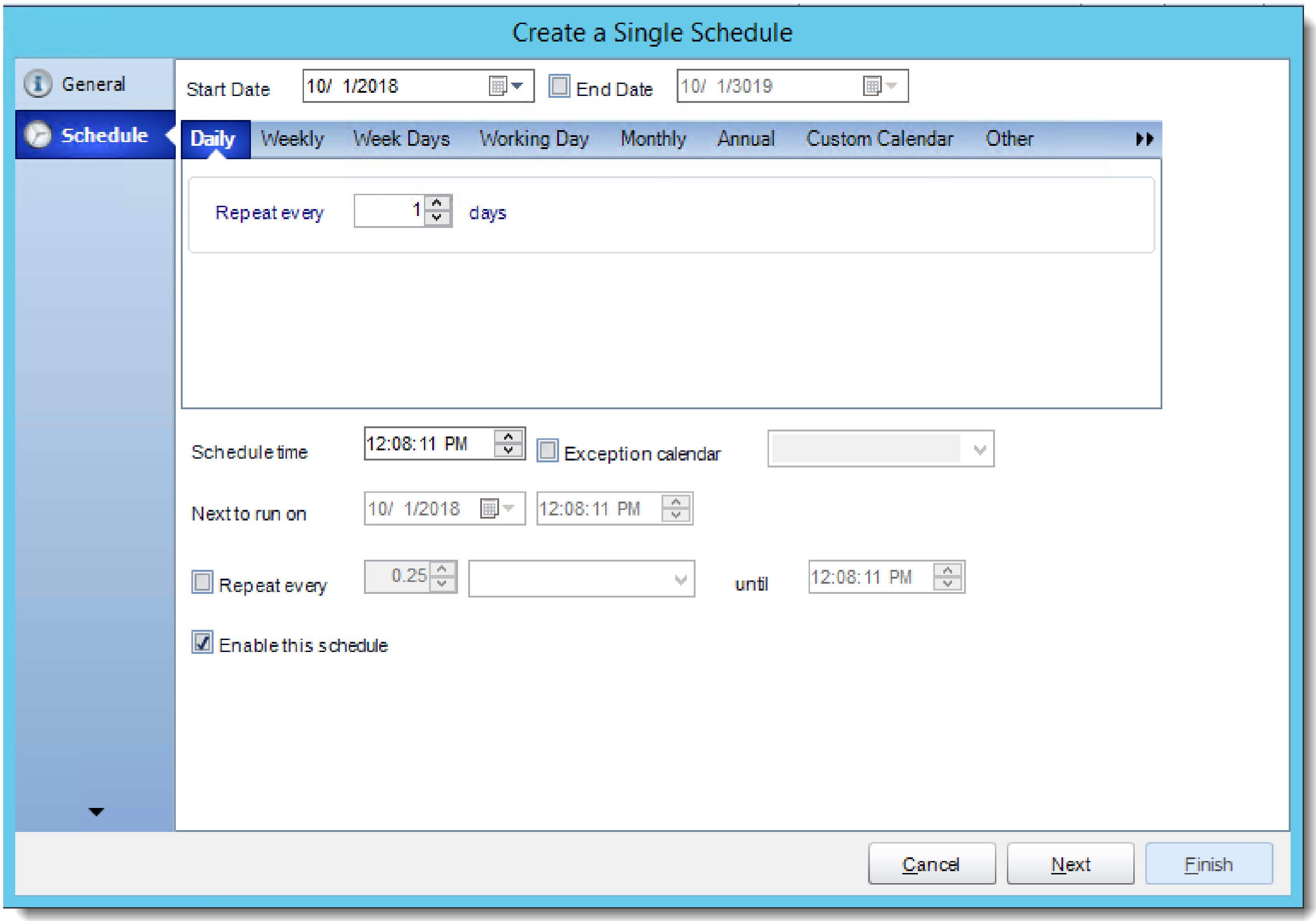
General Wizard



- **Parent Folder:** Select the folder where you wish the schedule to be stored. These are CRD specific folders.
- **Report Path:** Select the Crystal report that needs to be scheduled. A crystal report can only be added if the CRD server can reach the report path.



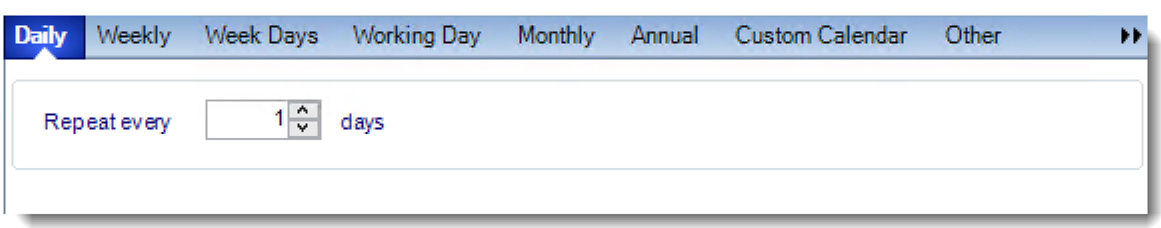
- **Schedule Name:** Name the schedule.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.
- **Collect report fields data from the report**: Refers to pulling data from a field for use in the scheduling system. Please see Inserts for more information.



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
  - **Sub options:** Repeat every X Days.

    Example: Run the schedule every 3 days.

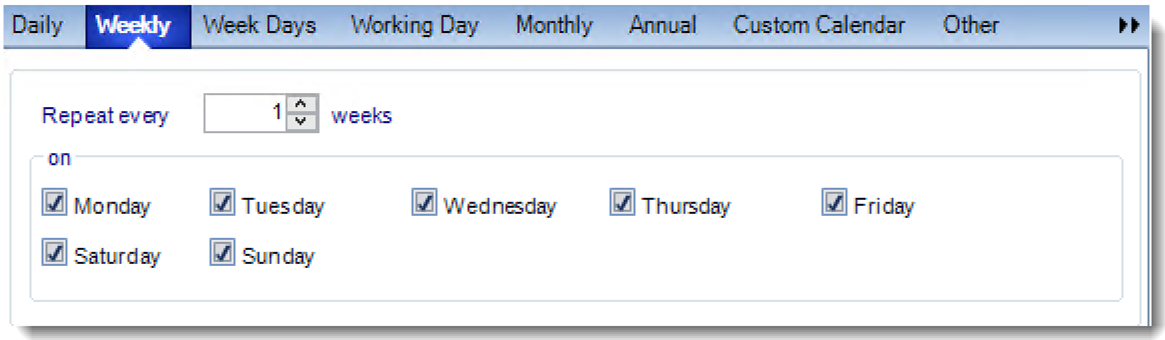


- **Weekly:** Run a report on a weekly time frame.
  - **Sub options:** Repeat every X weeks.

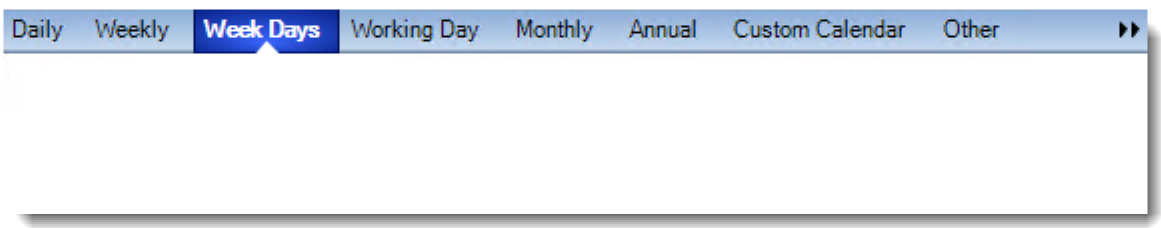
    Example: Run the schedule every 2 Weeks.

  - **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

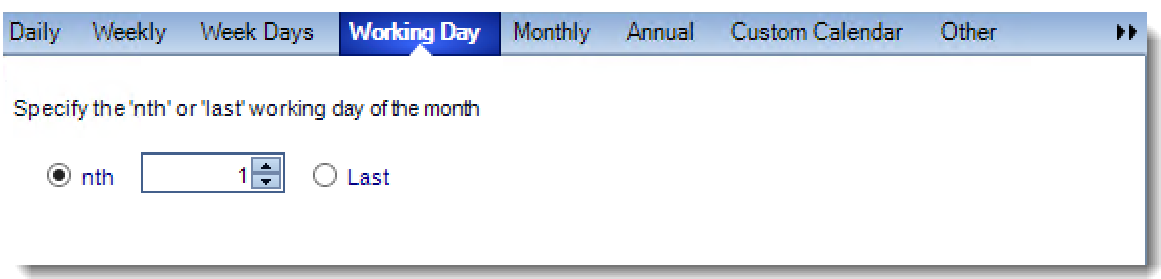
    Example: Run every Monday, Wednesday, and Friday.



- **Week Days:** Run the schedule Monday through Friday.

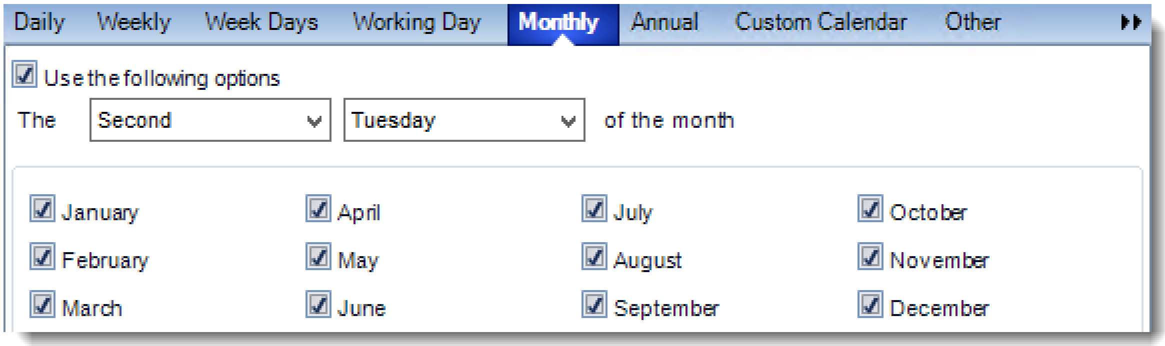


- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.

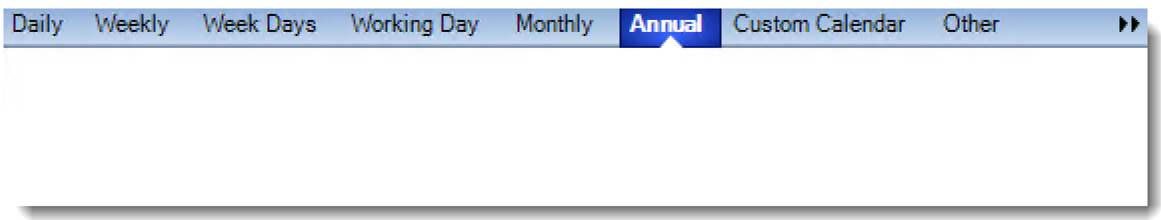


- **Monthly:** Run the schedule on a monthly time frame.

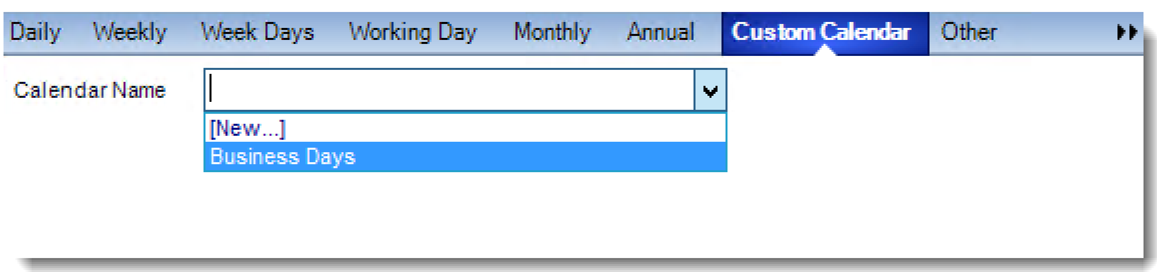
- ○ **Use the following options:** Checking this box will enable you to select frequency options such as the “last Thursday of the month.” Also you can include or exclude specific months from the schedule.



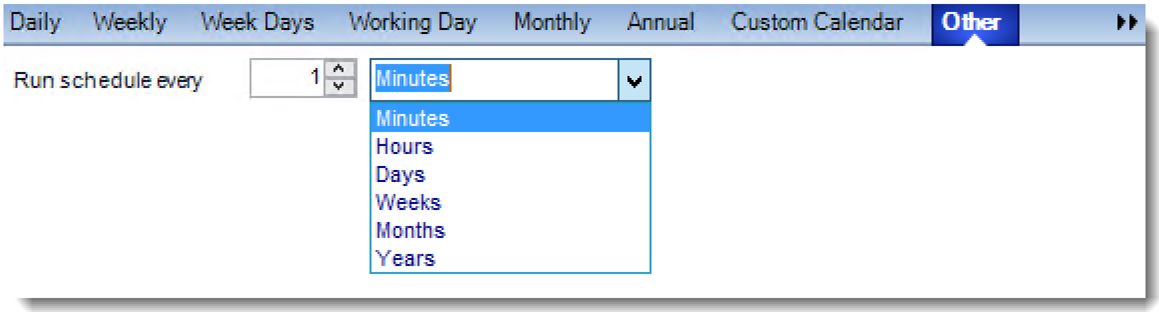
- **Annual:** Run the schedule every year at a specified time.



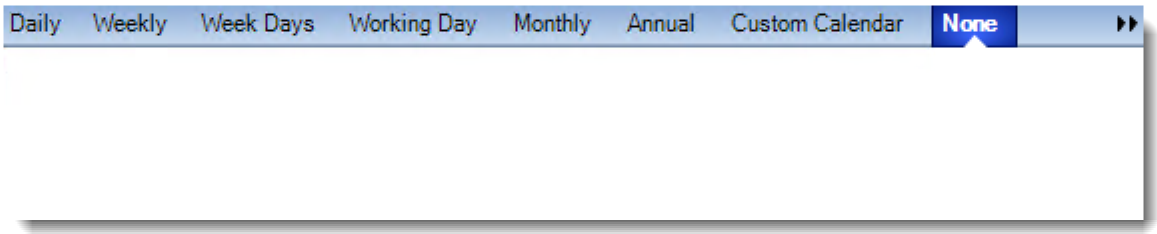
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
  - ○ Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.

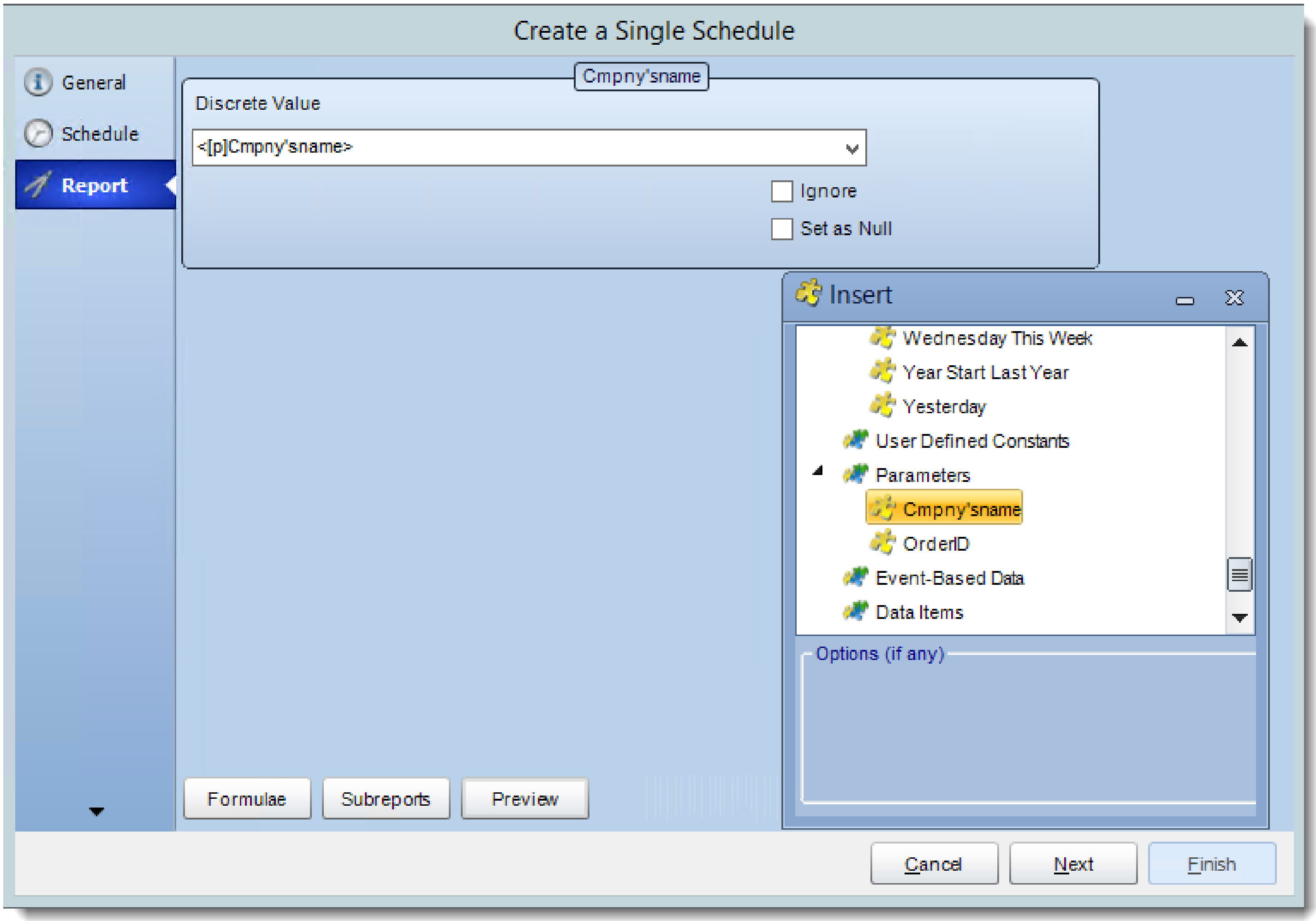


- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

  For example, you can set up a daily package to run every day at 8 am, *and to run every hour until* 5 pm.

- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

Click **Next** to continue to the next wizard section.



- In this section, you will determine the parameters for your report (if any) and select options for your subreport. If your report has no parameters, you may skip this section by clicking next.
- There are 3 requirements in order for CRD to detect your Crystal Report parameters and their parameter values:
  1. The parameter must be in use in the report.
  2. The parameter must be visible.
  3. The parameter must be set to be prompted at runtime.
- If these three requirements are achieved, you should see the parameters in your report listed in this screen.
- For each parameter, select from the drop down list the value the report must use. In a single schedule, only one parameter value can be run at a time per parameter. You can type a value into the field as well.

- **Set as Null:** Set no value for this parameter.
- **Ignore:** Do not run this parameter, ignore it at runtime.
- **Insert Menu:** You can insert constants, formulas and database field values instead of a static "typed in" value. Right-click in the parameters field to expose the Insert menu.

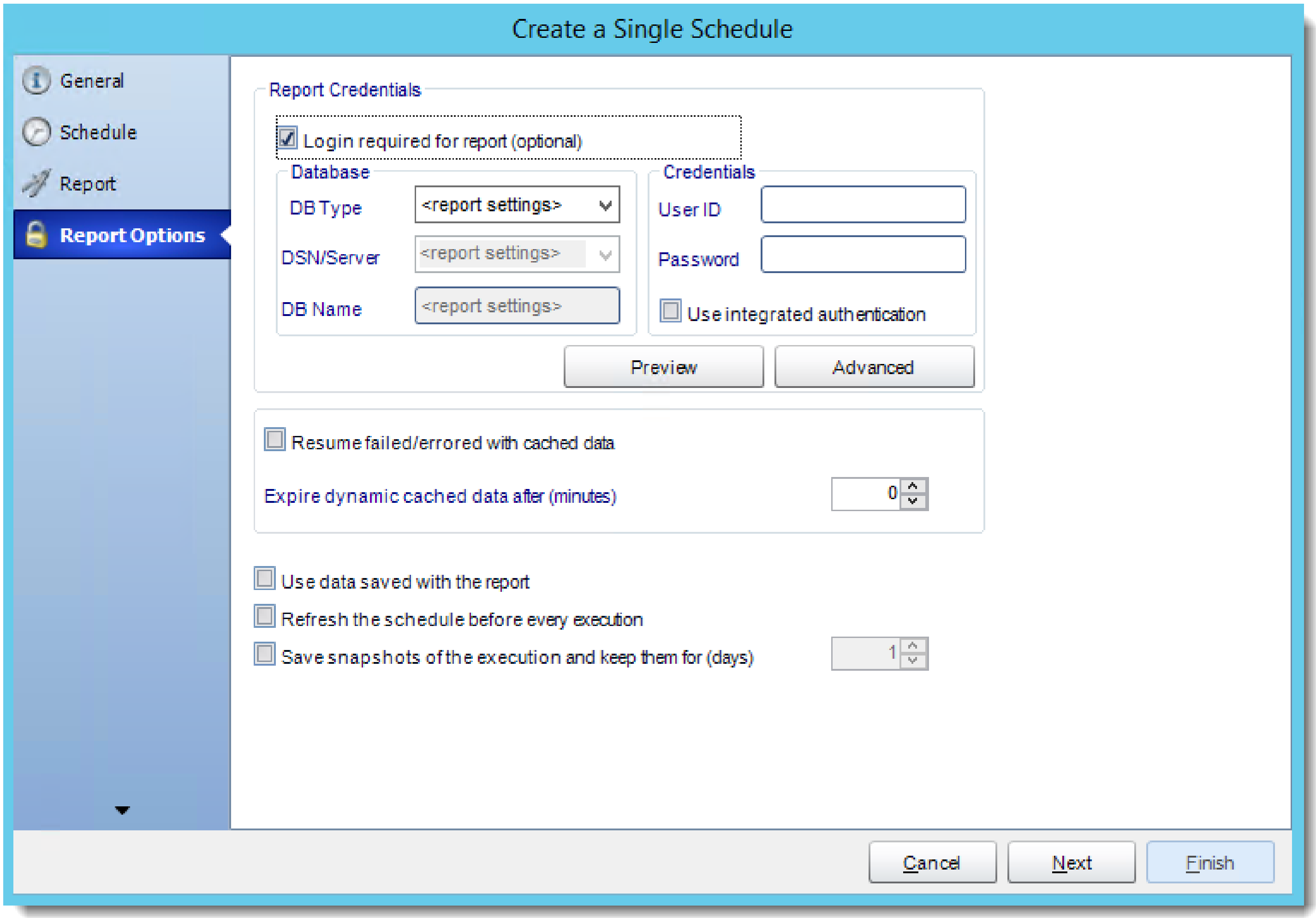
  To enable a report parameter to run for a date constant (Current Date, Yesterday etc.), select CRD Constants from the insert window, then drag and drop your desired constant to the parameter field.

- **Selecting Date Parameters via Calendar:** If your report contains a date parameter, you can either manually enter dates as described earlier in this topic, or select the desired date from the built in calendar. Simply click in the date parameter field to open the calendar. Select the desired date. Click OK.
- If the parameter is also a time parameter, this can selected as well. The buttons below enable you to preview the report, adjust formulae, and review sub reports. You can re-query the report for parameters as well.
- **Formulae:** View edit and Parse the Record Selection Formulae.
- **Subreports**: set parameters, authenticate, and re-query sub report parameters.
- **Preview:** Shows you a preview of the report.

  The preview function only works if Crystal Reports is installed on the PC.

Click **Next** to continue to the next wizard section.

Report Options Wizard



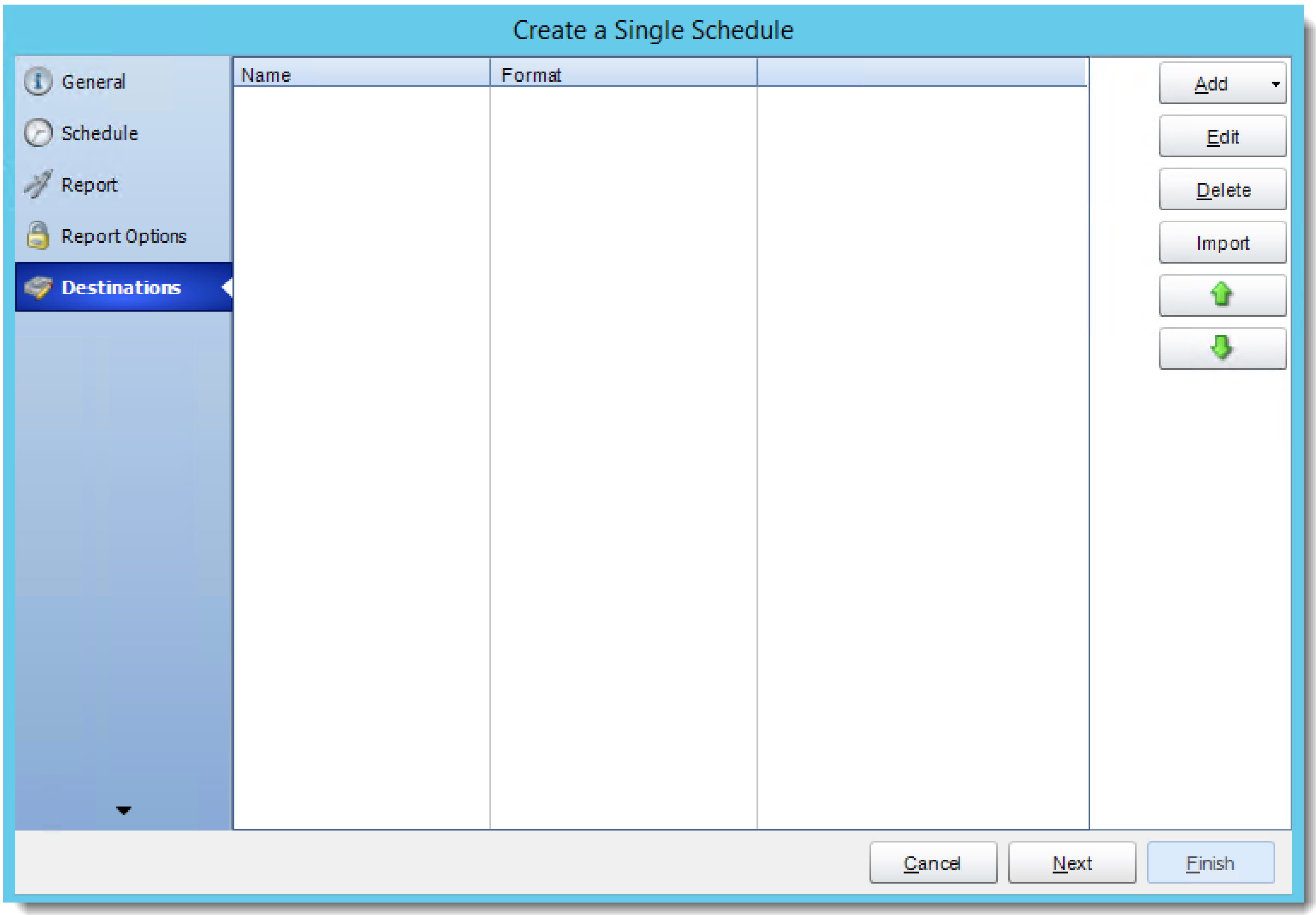
- **Database Login:** If the database requires logon credentials, check this option and enter the required username and password. If credentials are not required, uncheck the option and continue as normal (default). All values are optional. You only need to enter a value if your database, security, networking or infrastructure require it.
- **DB Type:** Select the type of Database.
- **Server Name:** Enter the server name of the database.
- **DB Name:** Enter the name of the database.
- **Credentials:** Enter the User ID and Password for the Database. Clicking on the Advanced tab, you can set logins for each table.
- **Advanced**: Enables you to specify credentials at the table level. Double click the table to set its login information.

- **Resume failed/errored with cached data**: If the schedule fails, resume the schedule from where it left off. You can then select how long should the cached data should be kept.
- **Use data saved with the report:** By default, CRD will always attempt to run the report using the very latest data in your database. If your report is saved "with data" and you want CRD to simply export the data in the report, then check this option.
- **Refresh the schedule:** This refreshes the schedule before every execution.
- **Save snapshots of the execution and keep them for (days):** Keep a copy of the report for how many days.

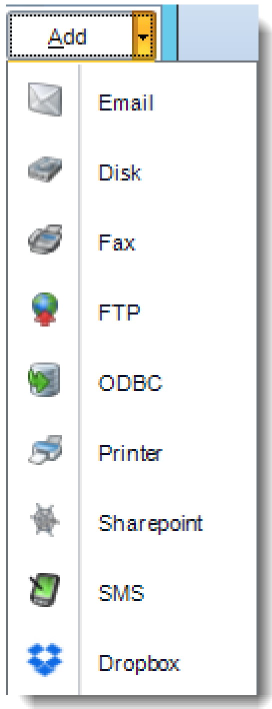
Click **Next** to continue to the next wizard section.

Destination Wizard

In this section, you will decide where your schedule will be delivered. The list in the center will display the list of destinations you have added to the schedule. You can organize the various destinations' order by clicking on the green up and down arrows.

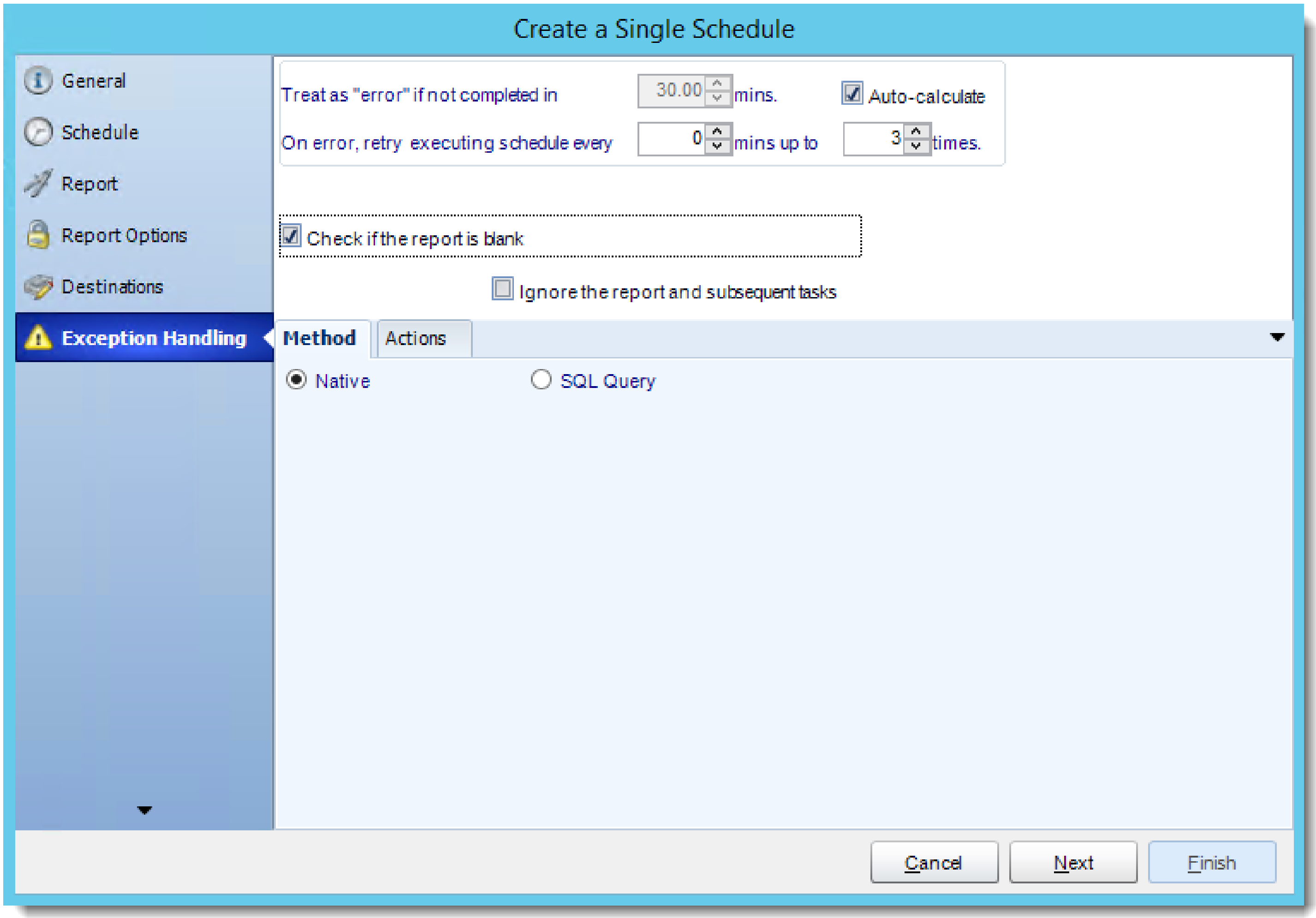


- **Add:** Click here to add a destination. You have several options which are: Email, Disk, Fax, FTP, ODBC, Printer, Sharepoint, SMS, and Dropbox.



- **Edit:** Select a destination and click to edit it's properties. Or simply double-click on the destination.
- **Delete:** Select a destination and click this button to delete it.
- **Import:** click here to import from the list of default destinations.
- For more information about Type of Destinations, click here.
- For more information about Output Formats, click here.

Click **Next** to continue to the next wizard section.



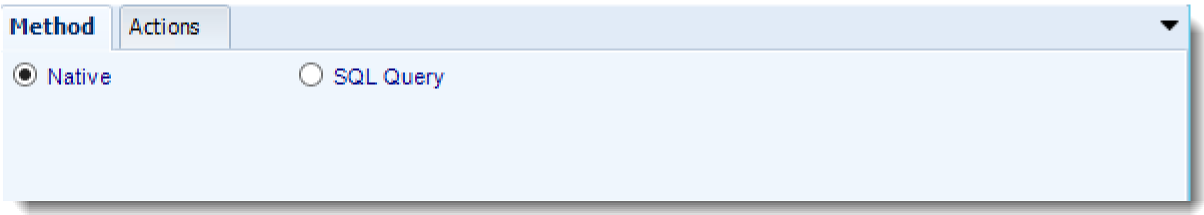
- **Treat as "error" if not completed in X minutes:** If a report takes longer than the specified amount of time to run, this option will treat the schedule as an error and follow the appropriate action. The "Auto-calculate" option instructs CRD automatically determine how long a schedule should take to run the report. If it takes longer than the calculated amount of time, then it is an error.

  If manually determining the error timing, please double check the run time of the report in order to get the correct time estimate.

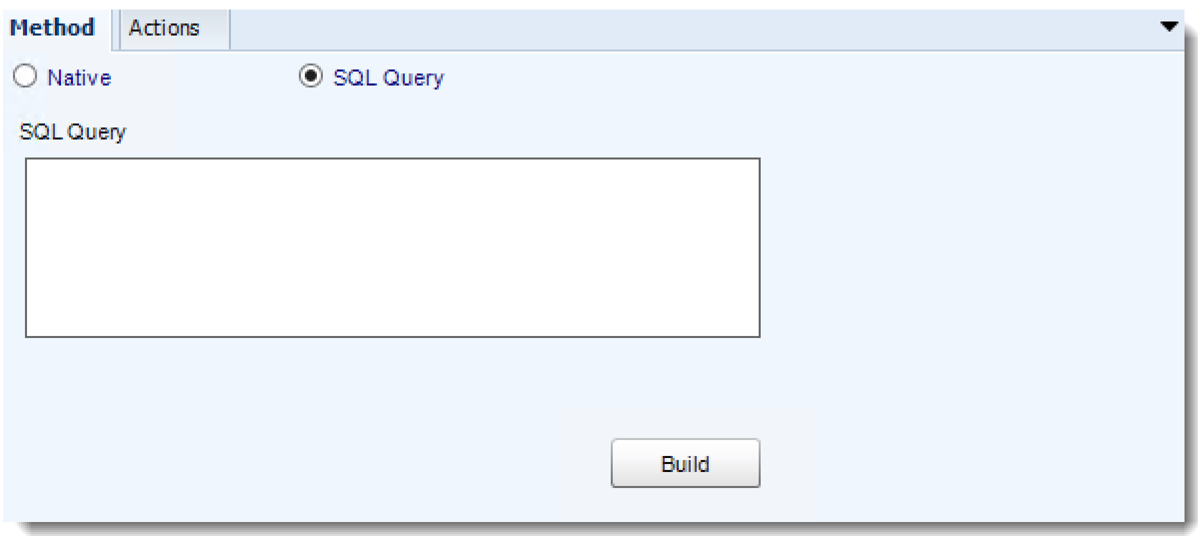
- **On error, retry executing schedule every:** If set to 0, CRD will deem the schedule as "Failed" the first time it encounters an error. The schedule will not run again until its next scheduled time. Change the value to tell CRD how many times you want it to retry running the report before declaring it as "Failed."

- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.
- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

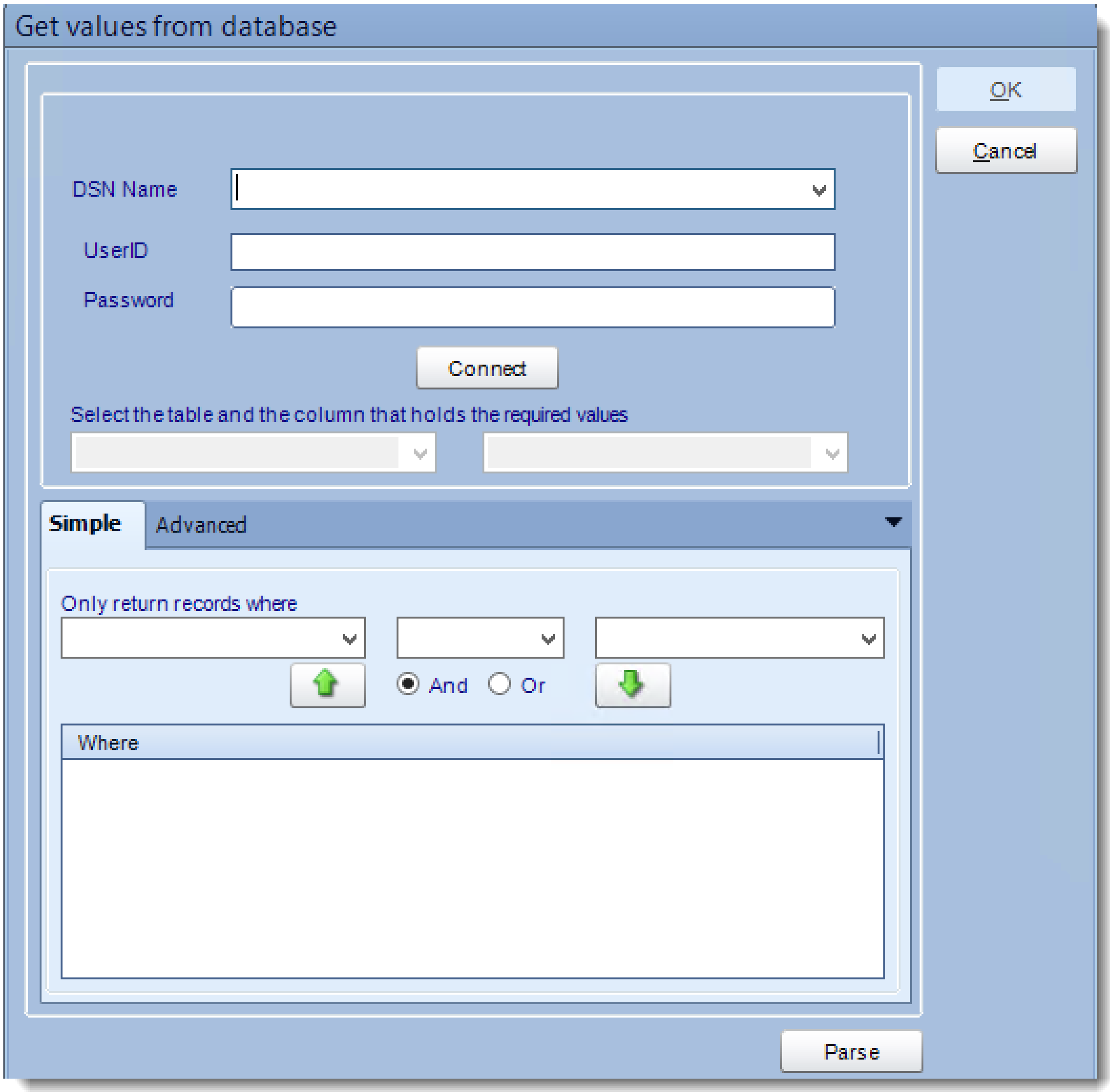
Method



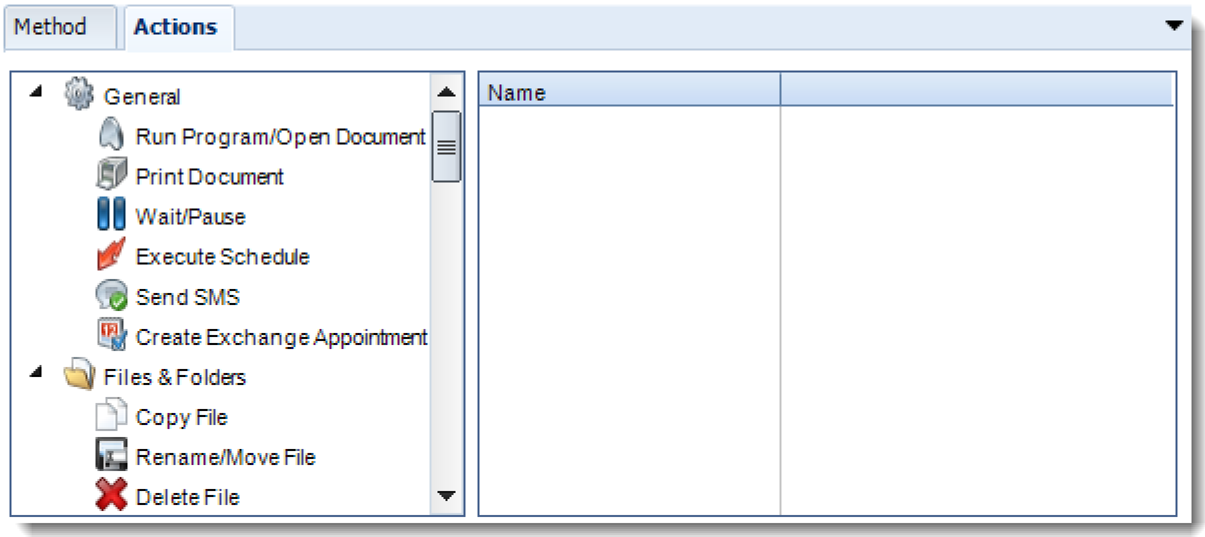
- Select the Method that will determine whether a report is blank.
  - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



  - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, <u>click here.</u>


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

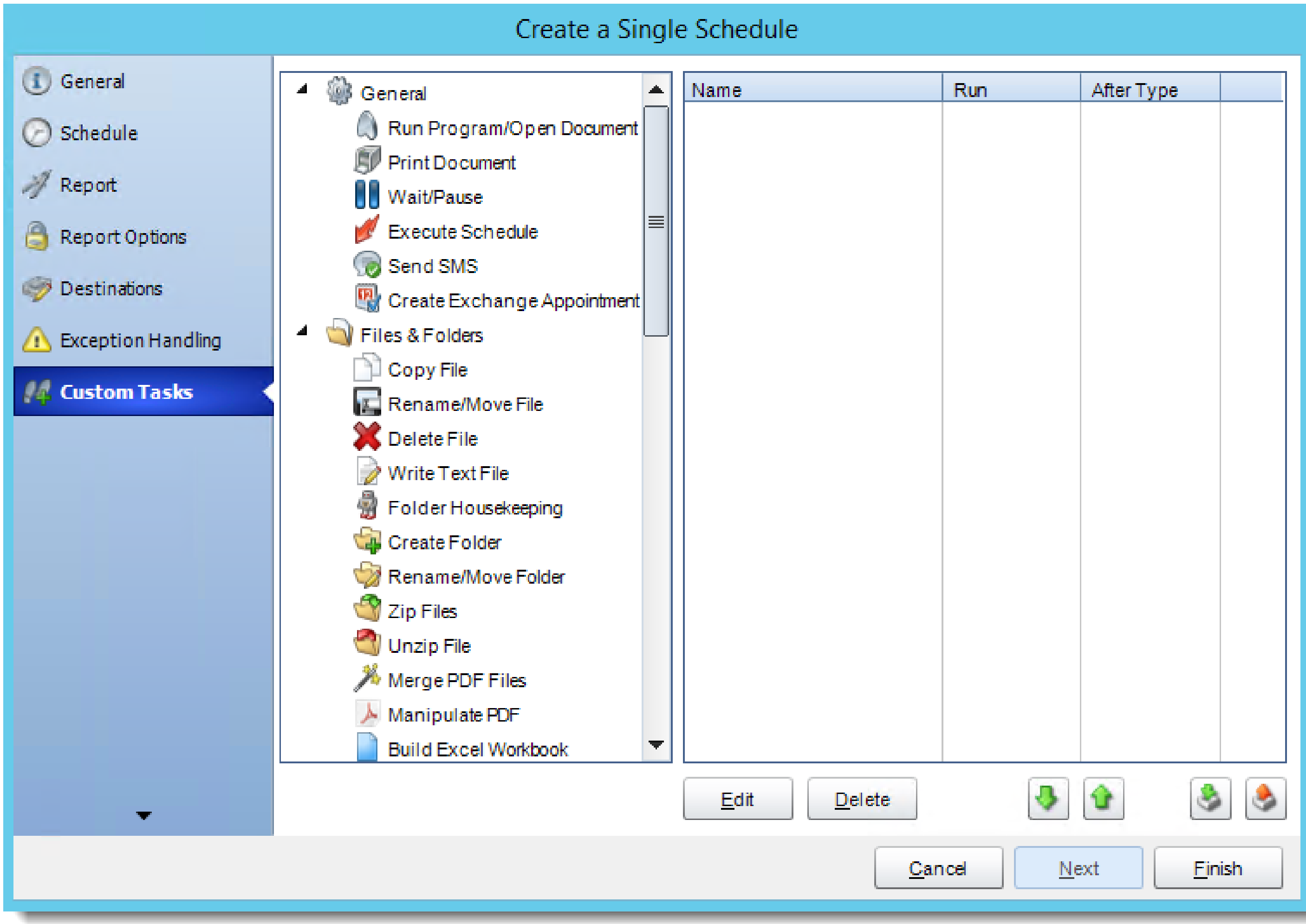


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

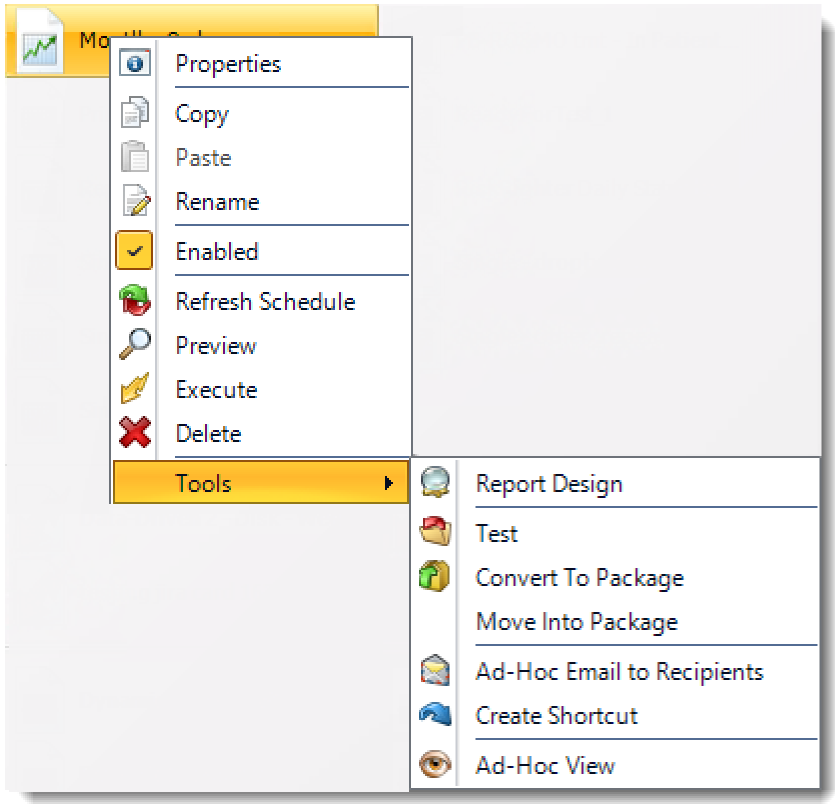
Click **Next** to continue to the next wizard section.

Custom Tasks Wizard



- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- If you have no desire to add a Custom Task, you can click **finish** to complete the schedule.

Single Report Schedule Context Menu

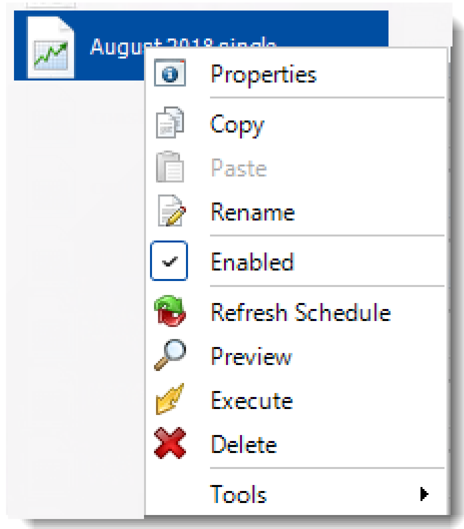


Right-Click on a schedule to see the following actions:

- **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
- **Copy:** Use this to copy the schedule. Right-click in the "white space" of the folder you wish to copy it to and select Paste button.
- **Rename:** Rename the package.
- **Enabled:** Schedules are enabled when there is a check icon beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check icon. Disabled schedules will not run until they are enabled again.
- **Refresh:** When a schedule is first created, CRD caches (saves) a copy of the report. All executions of the scheduled are performed using this copy. If you make changes to your master report, you must select this option in order to pull the changes into CRD.
- **Preview:** Preview the report before execution.
- **Execute:** This button will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers
- **Delete:** Selecting this option will delete the schedule.
- **Report Design:** Preview the report Design.
- **Test:** Use this option to test the schedule and export it to selected "test" destinations.

- **Convert To Package:** This button will move this report into a package. The package will have the name of the single schedule report.
- **Move into a package:** use this option to move the report into an existing package.
- **Ad-Hoc Email to Recipients:** Select this option to send an ad-hoc email to all recipients of this package. You can use this to alert recipients to a planned system outage, or any other useful information.
- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.
- **Ad-Hoc View:** This button allows you to preview the report.

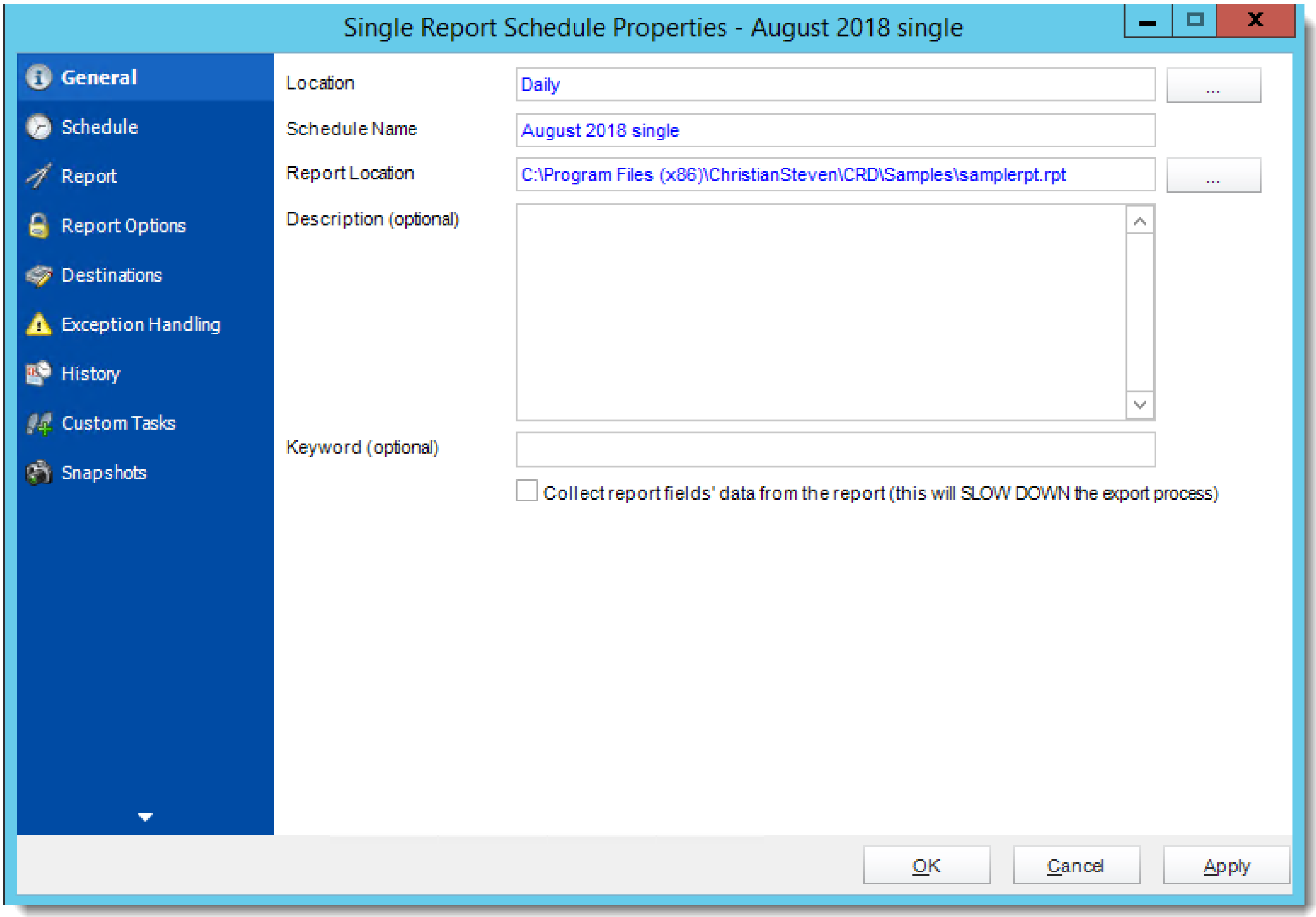
Single Reports Schedule Properties



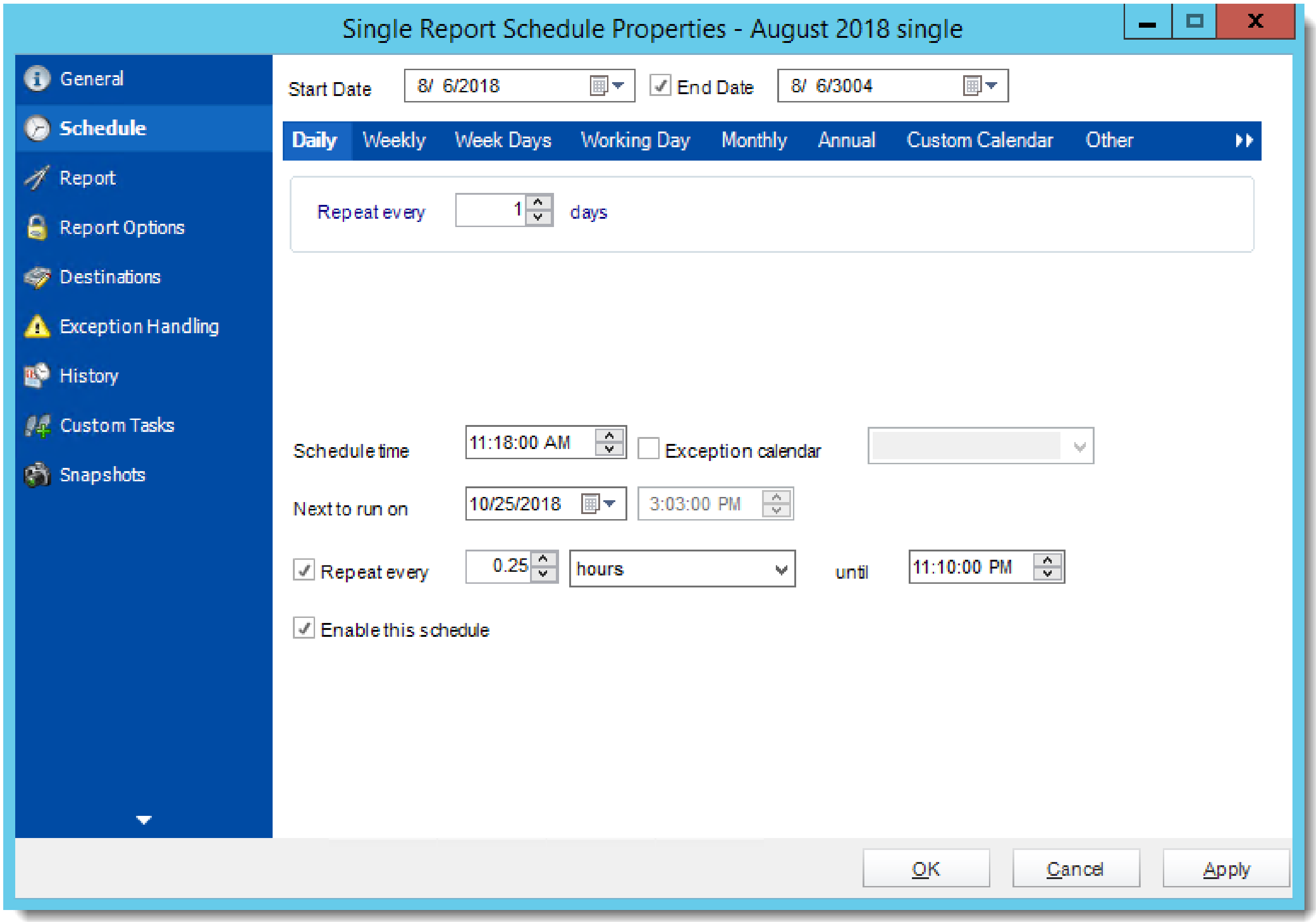
To access your schedule properties, right click on a schedule and select properties.

Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

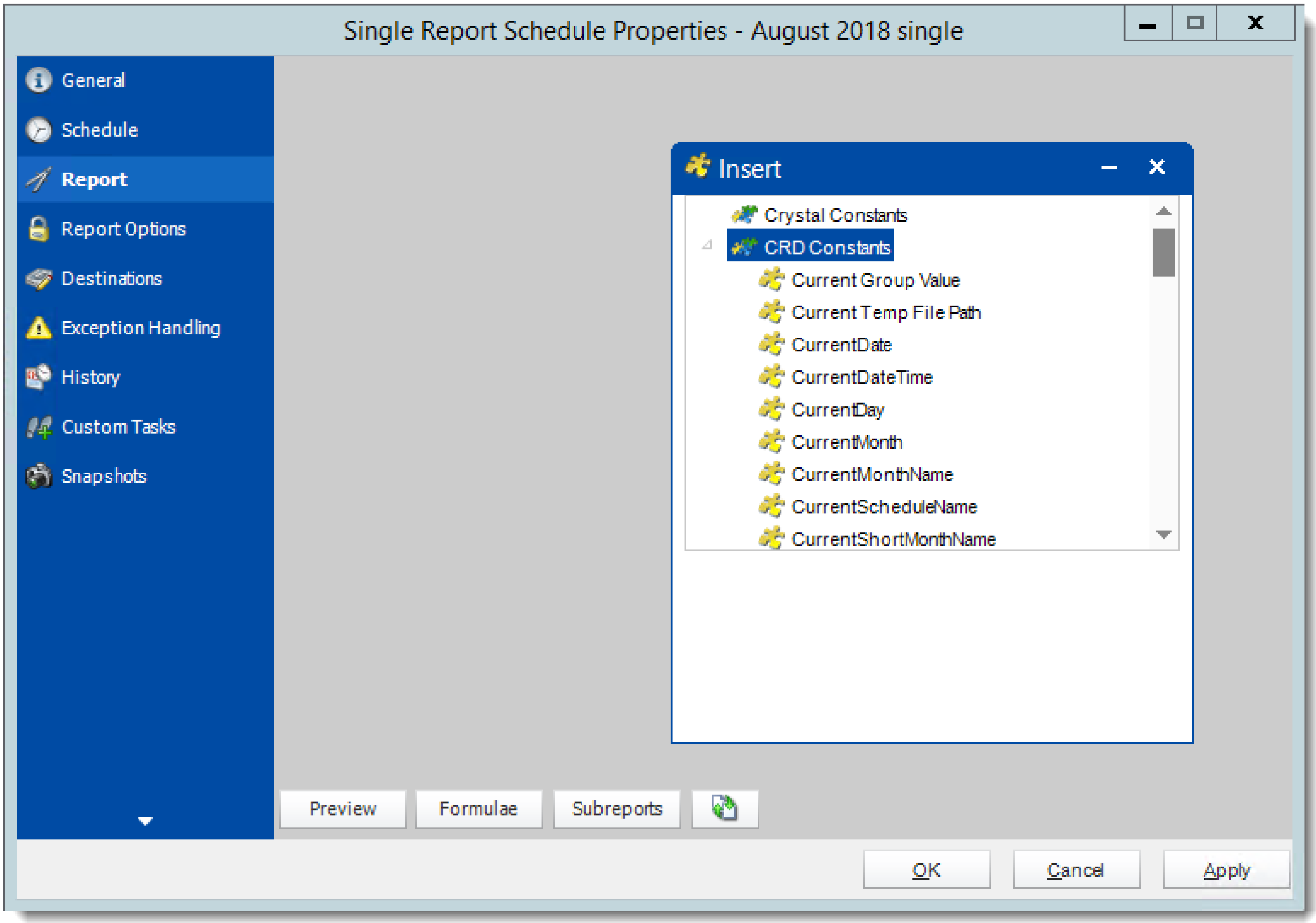
General: You can edit the general information of your schedule from here.



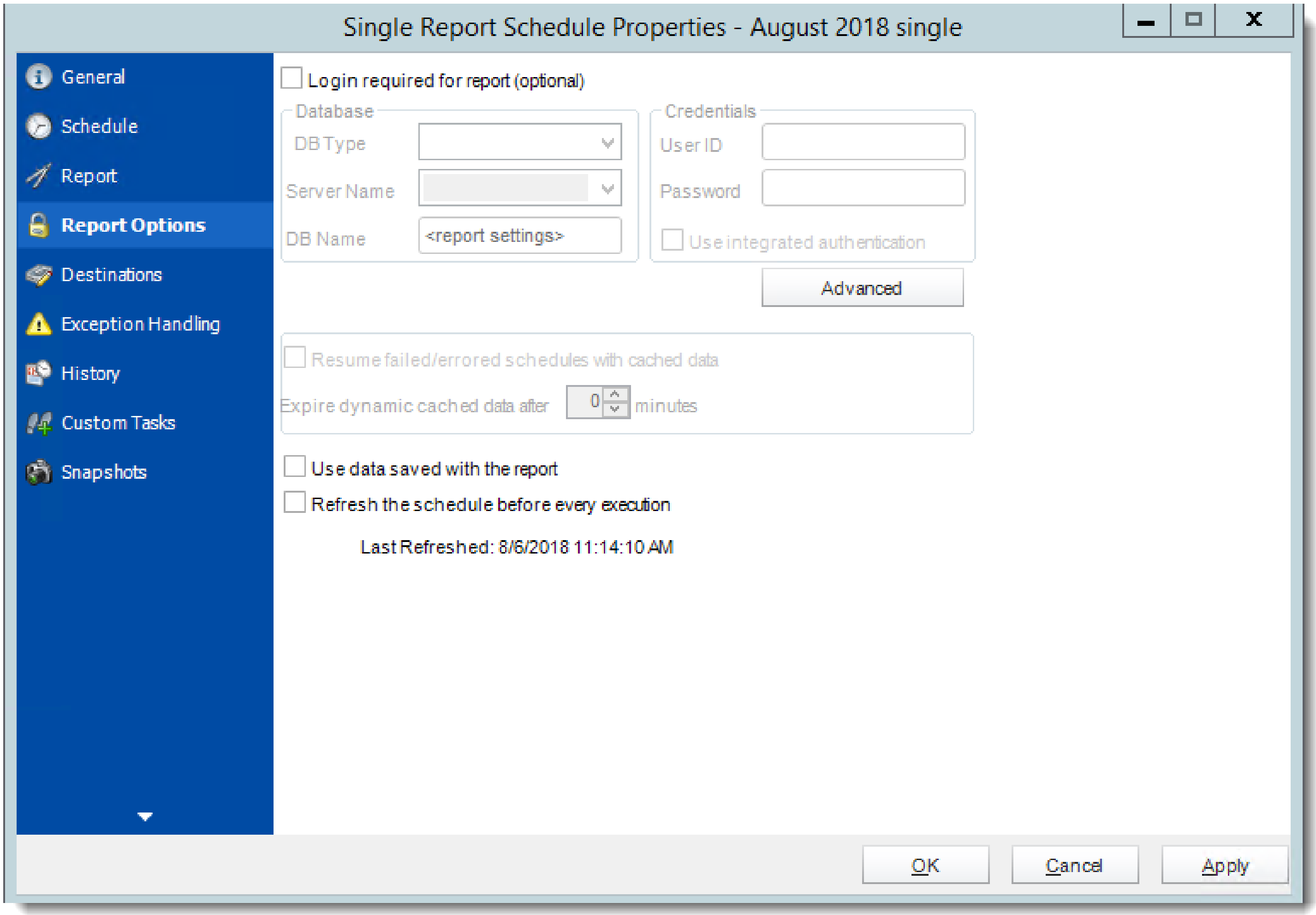
Schedule: You can edit your schedule time from here.



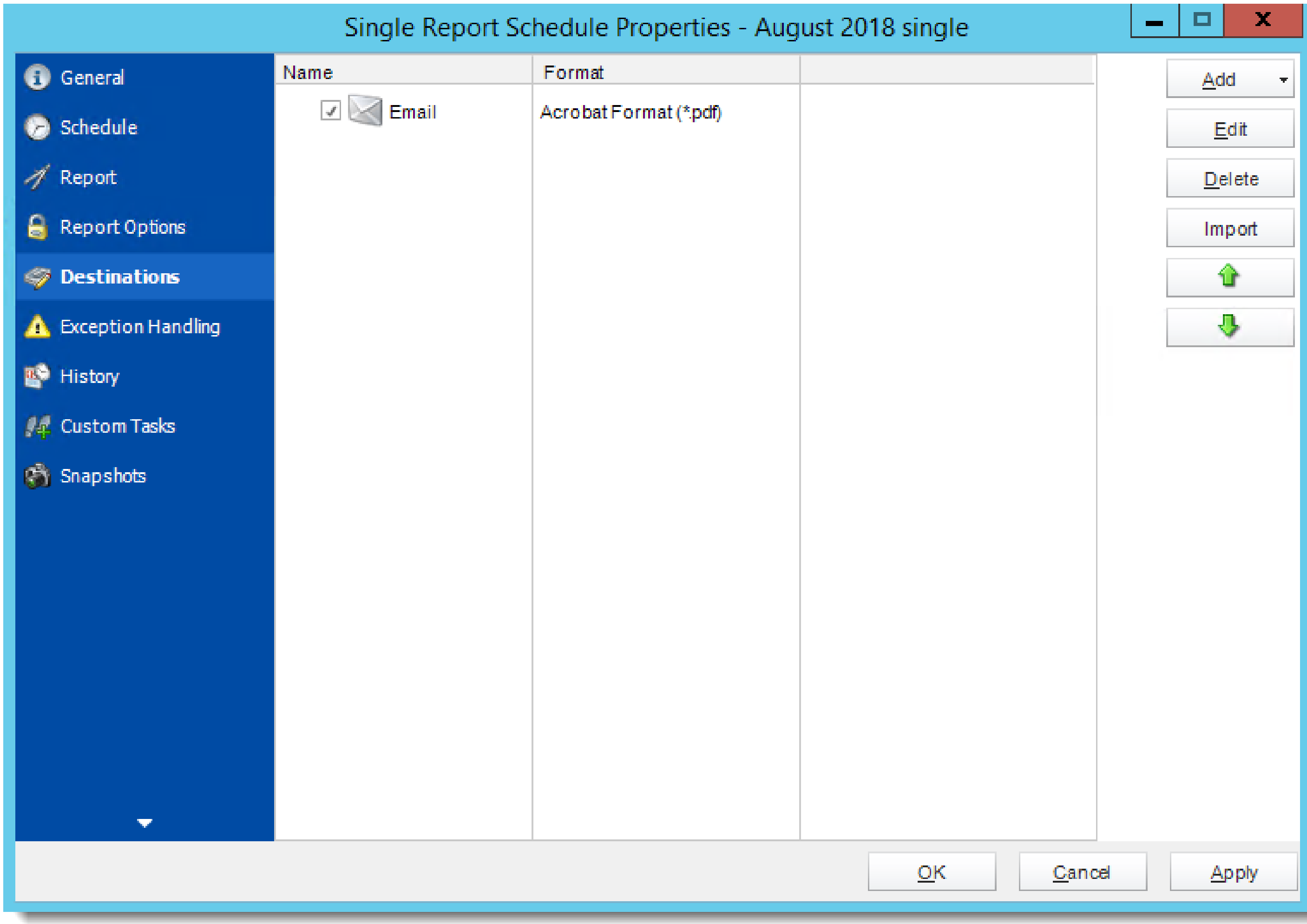
Report: You can add, delete, or delete parameters from here.



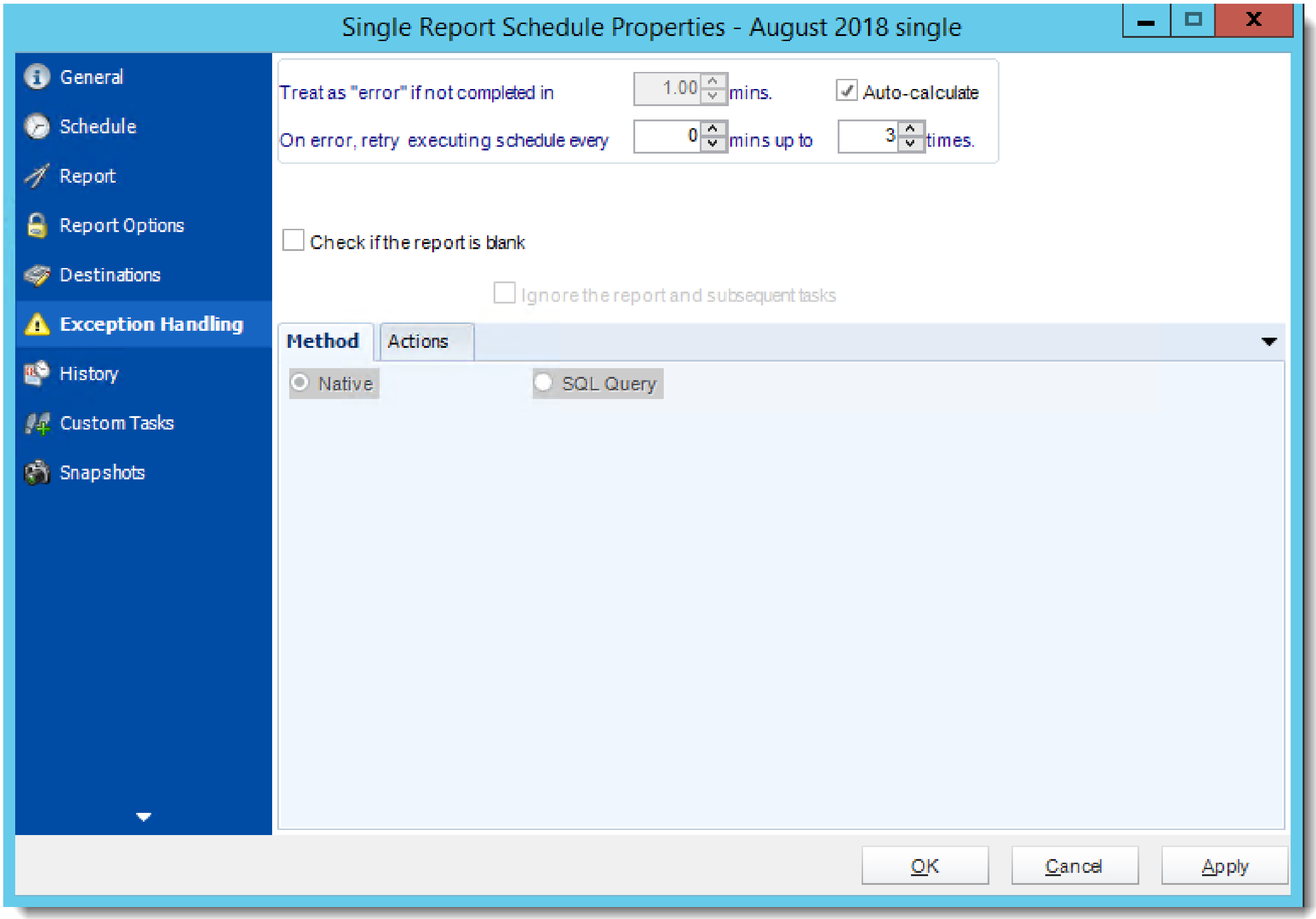
Report Options: You can edit your report options from here.



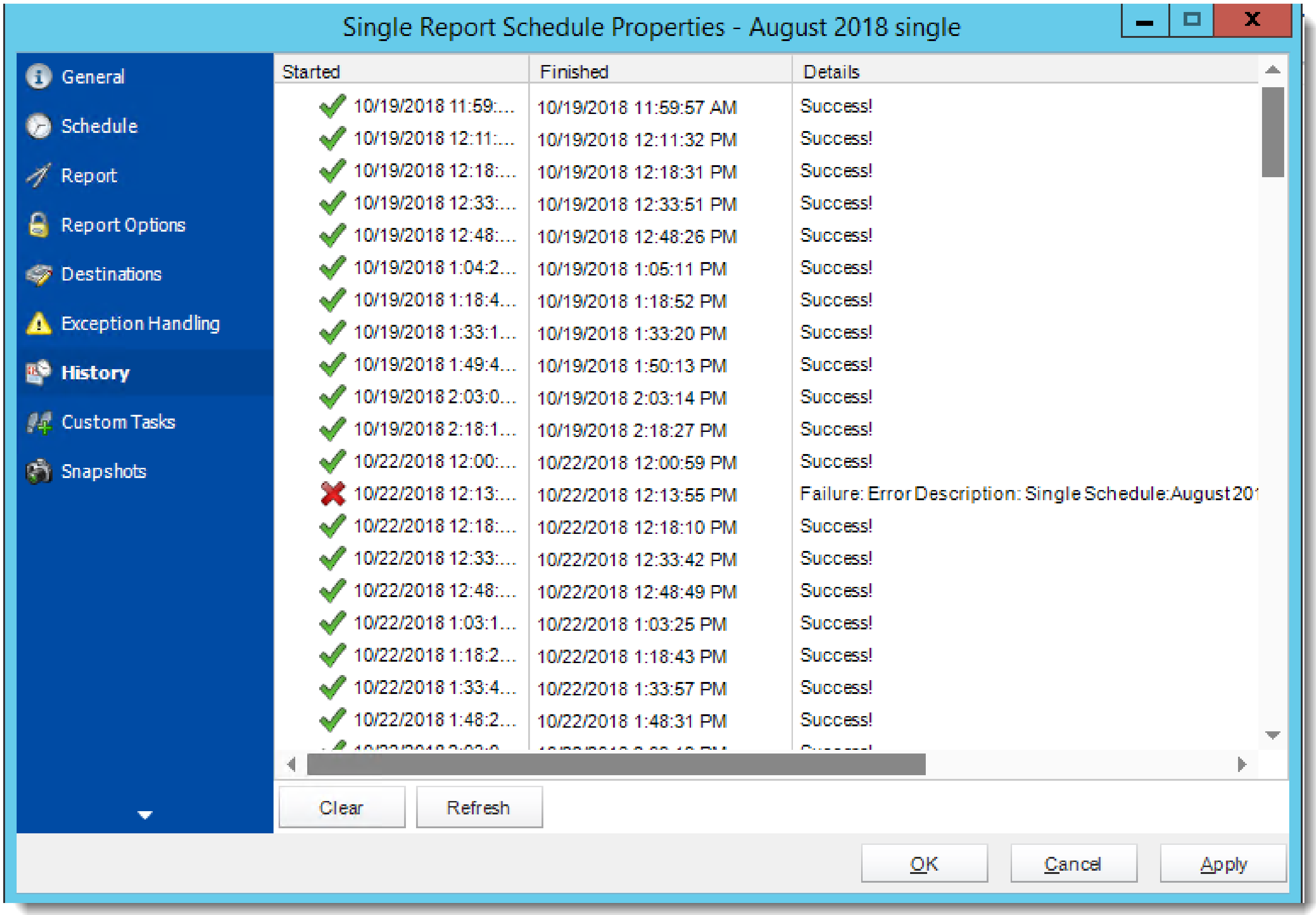
Destinations: You can add, edit, or delete destinations from here.



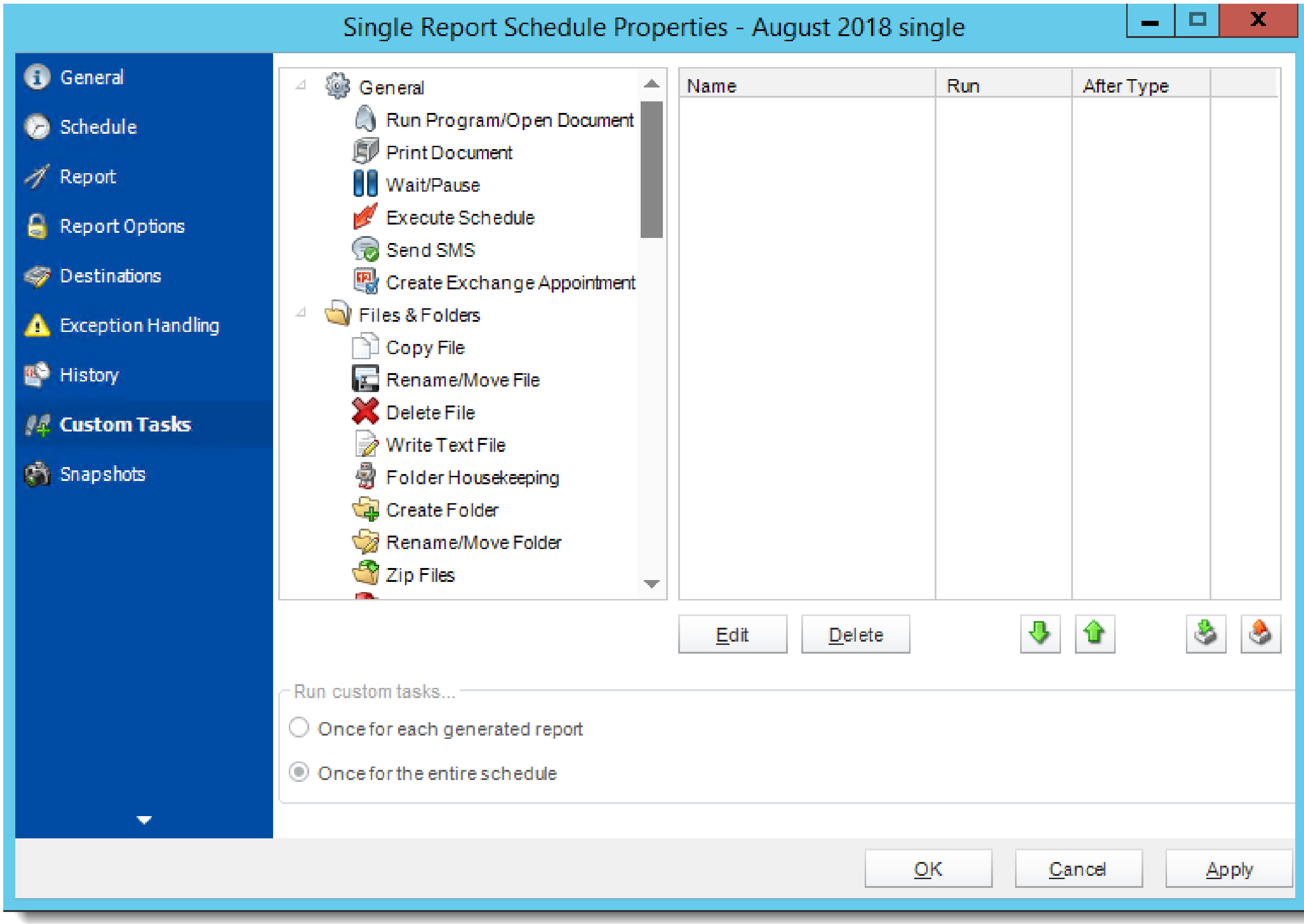
Exception Handling: You can edit exception handling from here.



History: Review the schedules history. Successes, failures, and other data is located here.

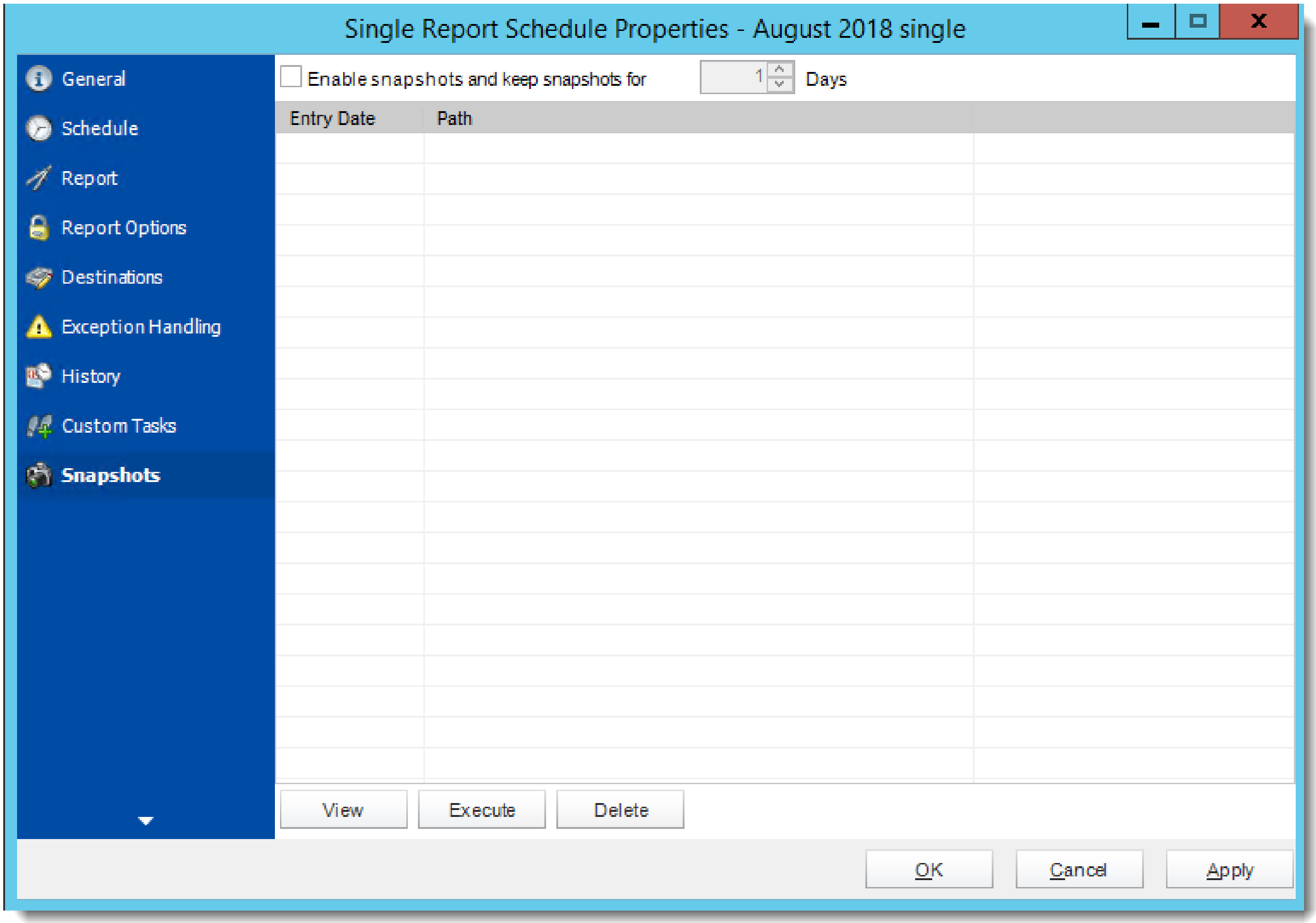


Custom Tasks: You can add, edit, or delete tasks from here.



Snapshots: A snapshot is a copy of each report a schedule or a package generates. Keeping snapshots enables you to resend past reports without generating them afresh - especially if the data has changed in the meantime.

Simply select the number of days to keep the snapshots.



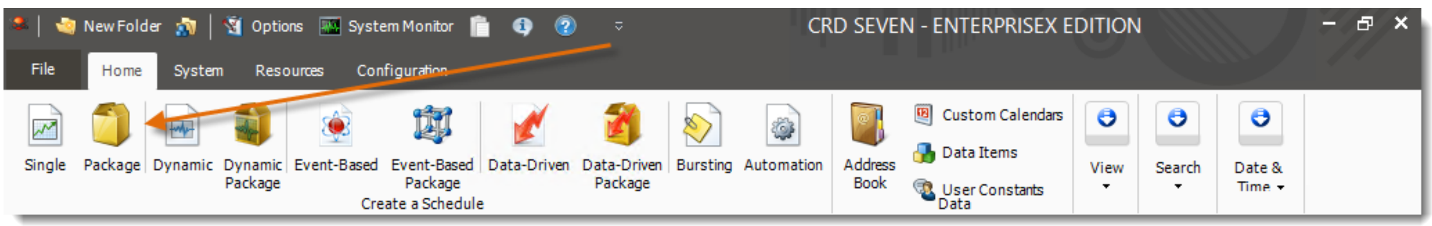
Package Report Schedule for Crystal Reports.

The purpose of the wizard will be to guide you through the process of setting up a number of reports to be generated at defined intervals and delivered to one or more defined destinations - together.

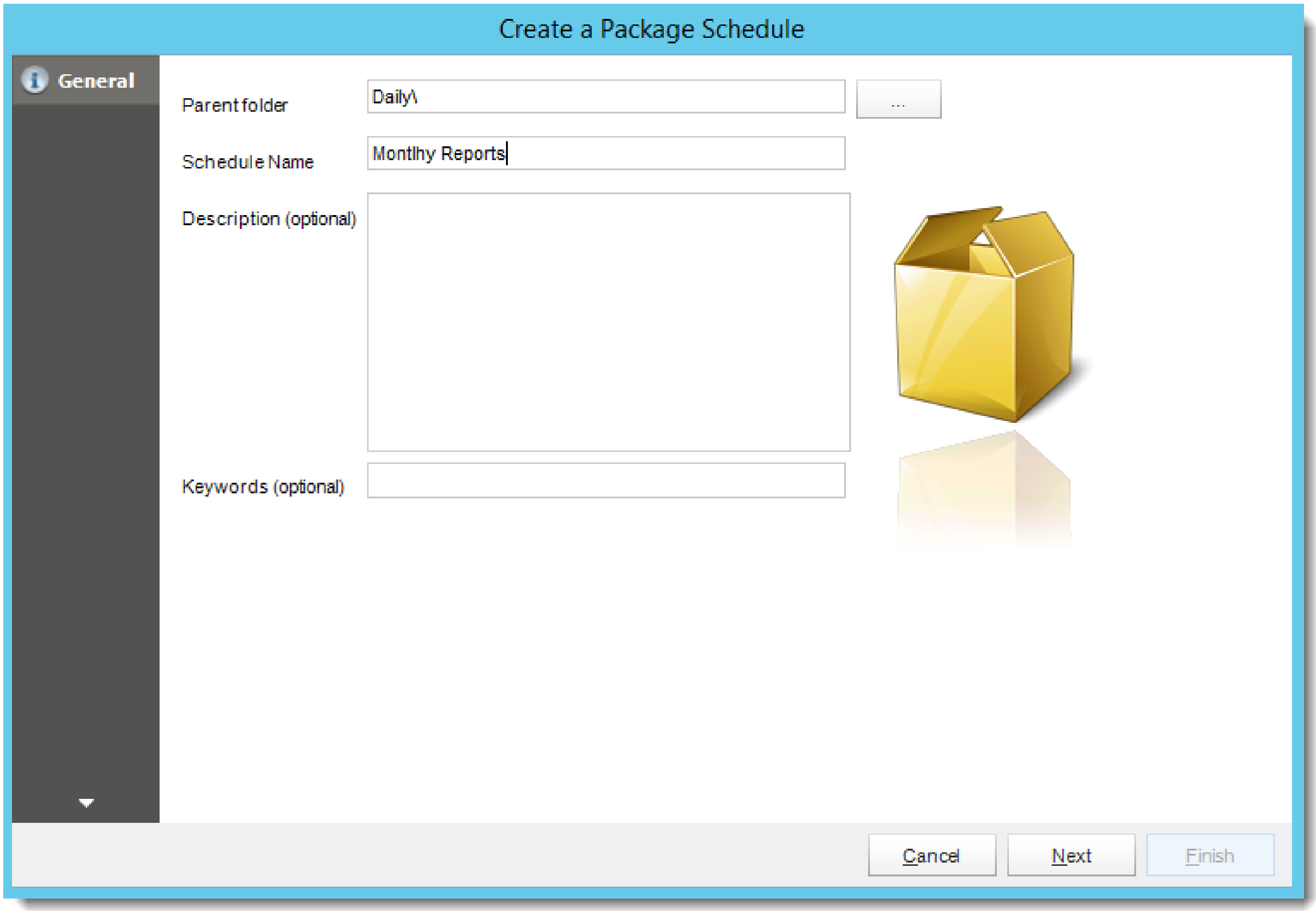
> *Example: Your entire monthly report pack (consisting of a number of reports) can be sent to a recipient with all reports attached to the single email. You can also zip up the reports into a single zip file, or export them out to a single Excel workbook, or export & merge them into a single PDF file*.

How to Create a Package Schedule Report for Crystal Reports?

- Go to **Package**.



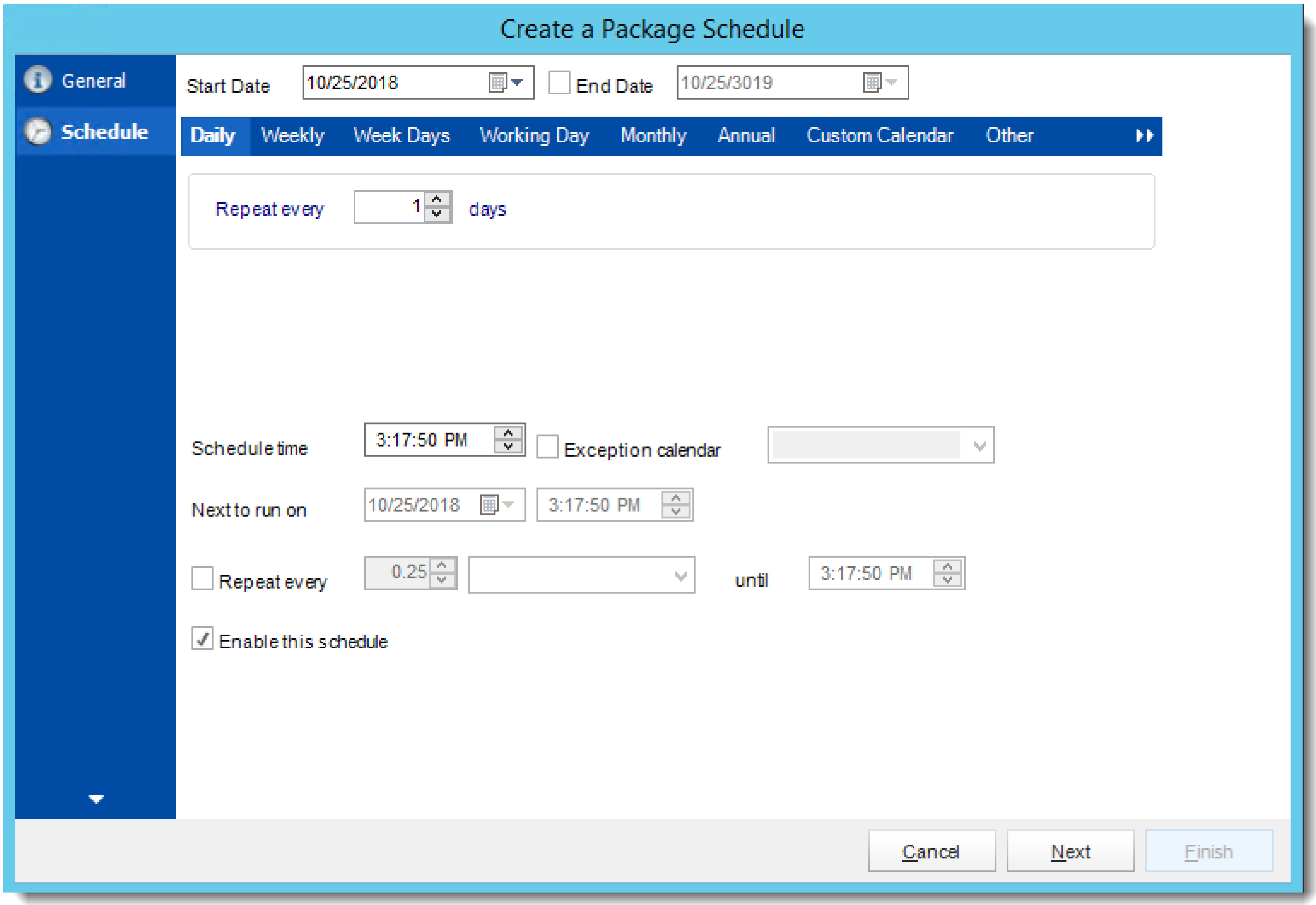
General Wizard



- **Parent Folder:** The CRD folder where the package is stored.
- **Schedule Name:** The name of the package.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.

Click **Next** to go to the next wizard section.

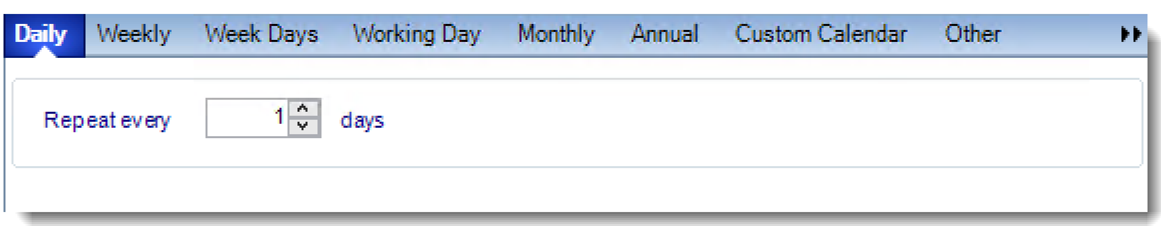
Schedule Wizard



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
    - **Sub options:** Repeat every X Days.

      Example: Run the schedule every 3 days.

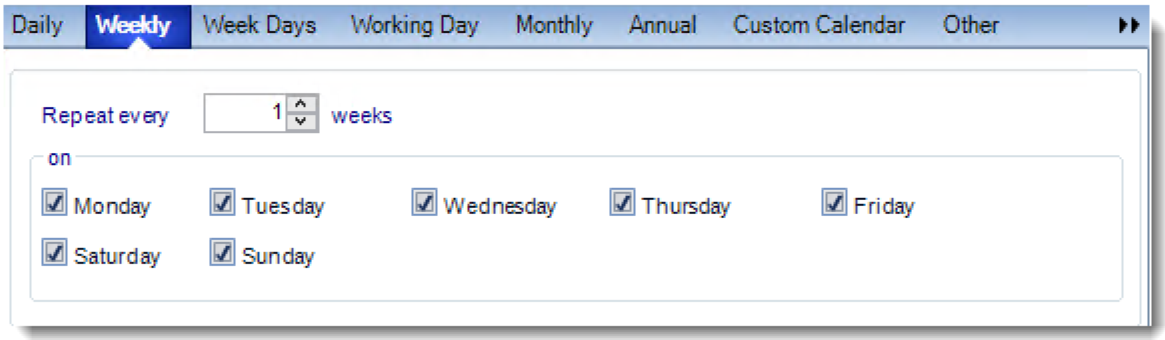


- **Weekly:** Run a report on a weekly time frame.
    - **Sub options:** Repeat every X weeks.

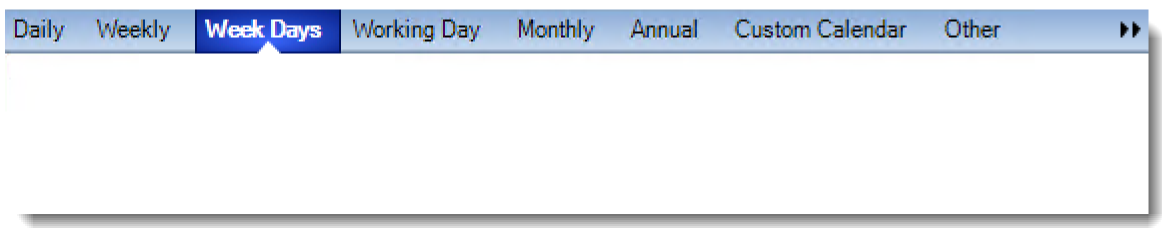
      Example: Run the schedule every 2 Weeks.

    - **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

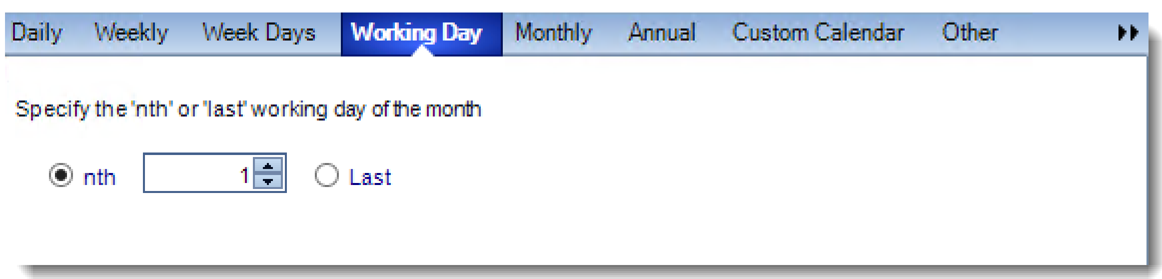
      Example: Run every Monday, Wednesday, and Friday.



- **Week Days:** Run the schedule Monday through Friday.

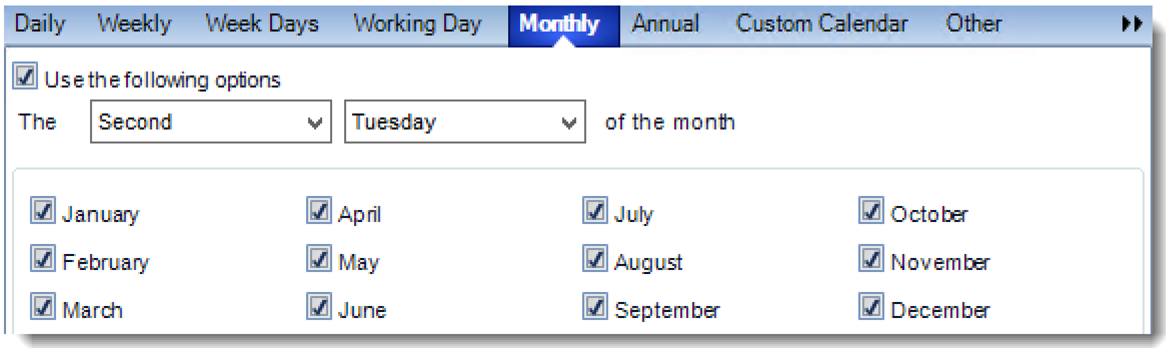


- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.

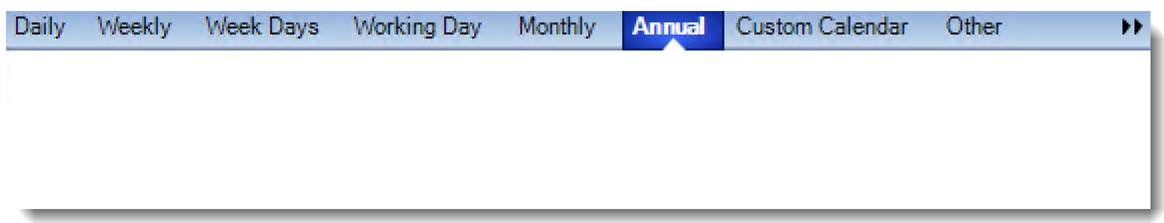


- **Monthly:** Run the schedule on a monthly time frame.

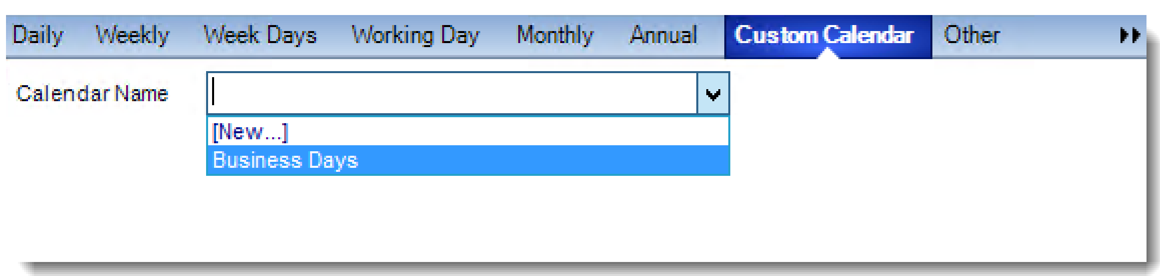
- **Use the following options:** Checking this box will enable you to select frequency options such as the “last Thursday of the month.” Also you can include or exclude specific months from the schedule.



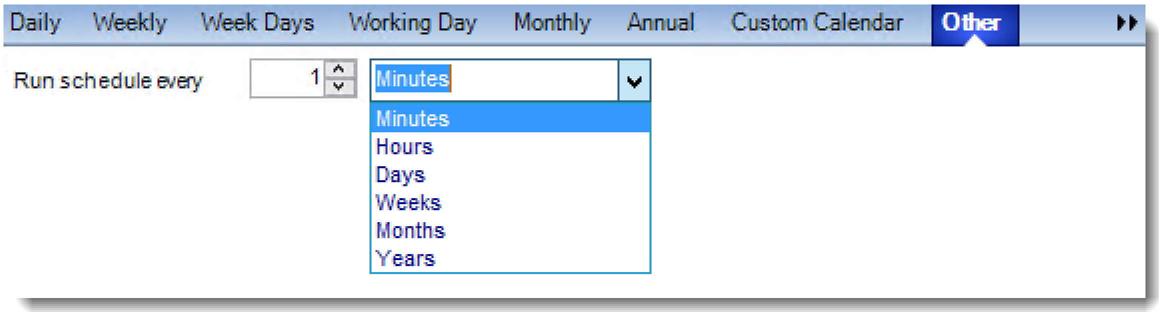
- **Annual:** Run the schedule every year at a specified time.



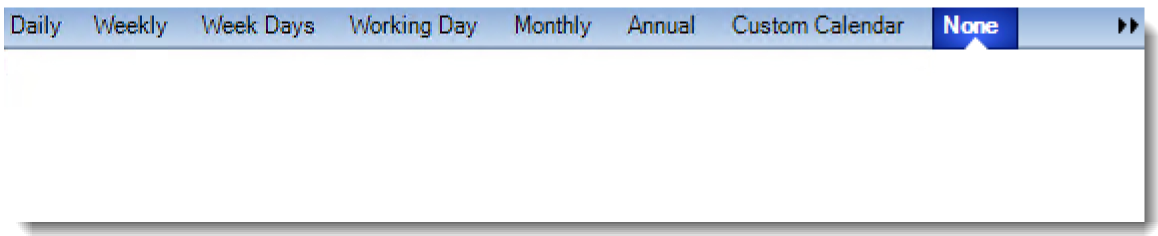
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
    - Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.



- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

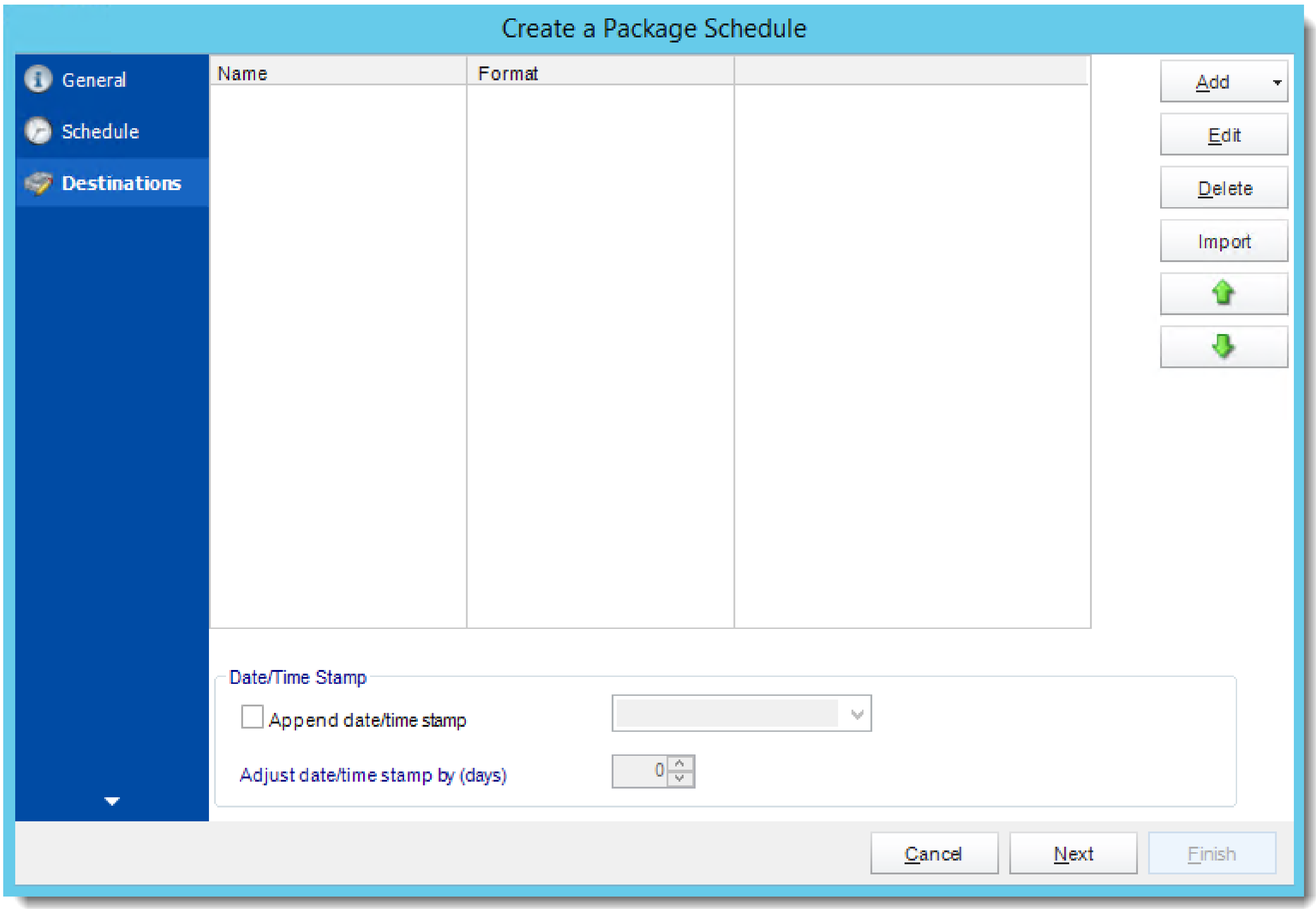
  For example, you can set up a daily package to run every day at 8 am*, and to run every hour until* 5 pm*.*

- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

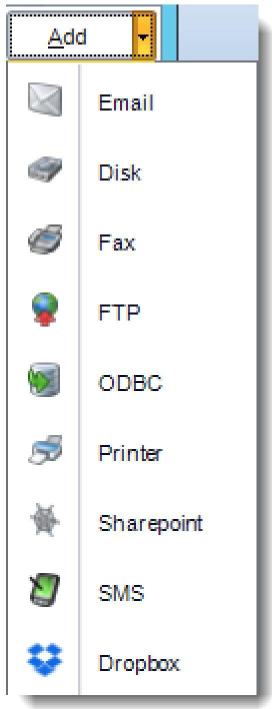
Click **Next** to continue to the next wizard section.

Destination Wizard

In this section, you will decide where your schedule will be delivered. The list in the center will display the list of destinations you have added to the schedule. You can organize the various destinations' order by clicking on the green up and down arrows.

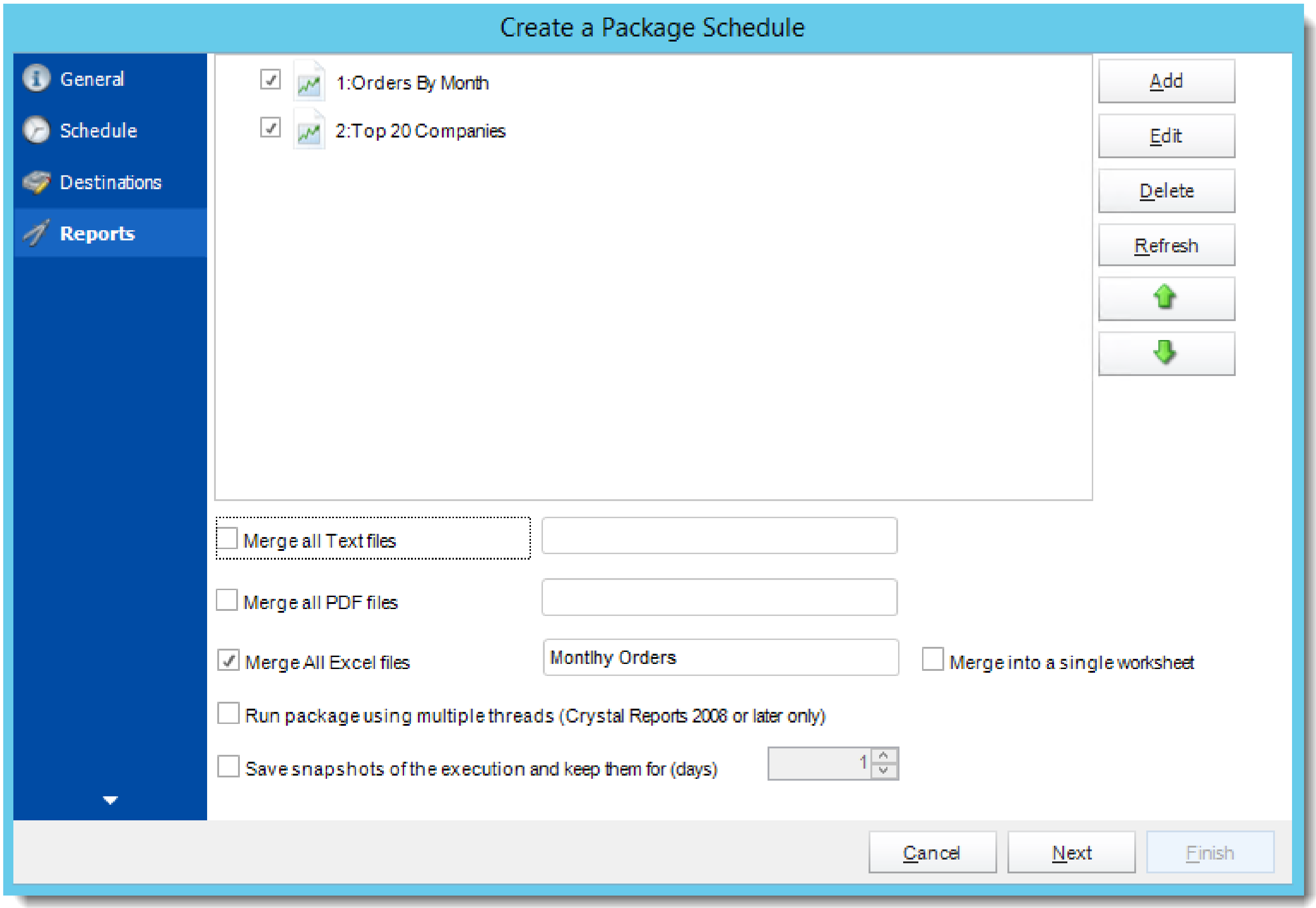


- **Add:** Click here to add a destination. You have several options which are: Email, Disk, Fax, FTP, ODBC, Printer, Sharepoint, SMS, and Dropbox.



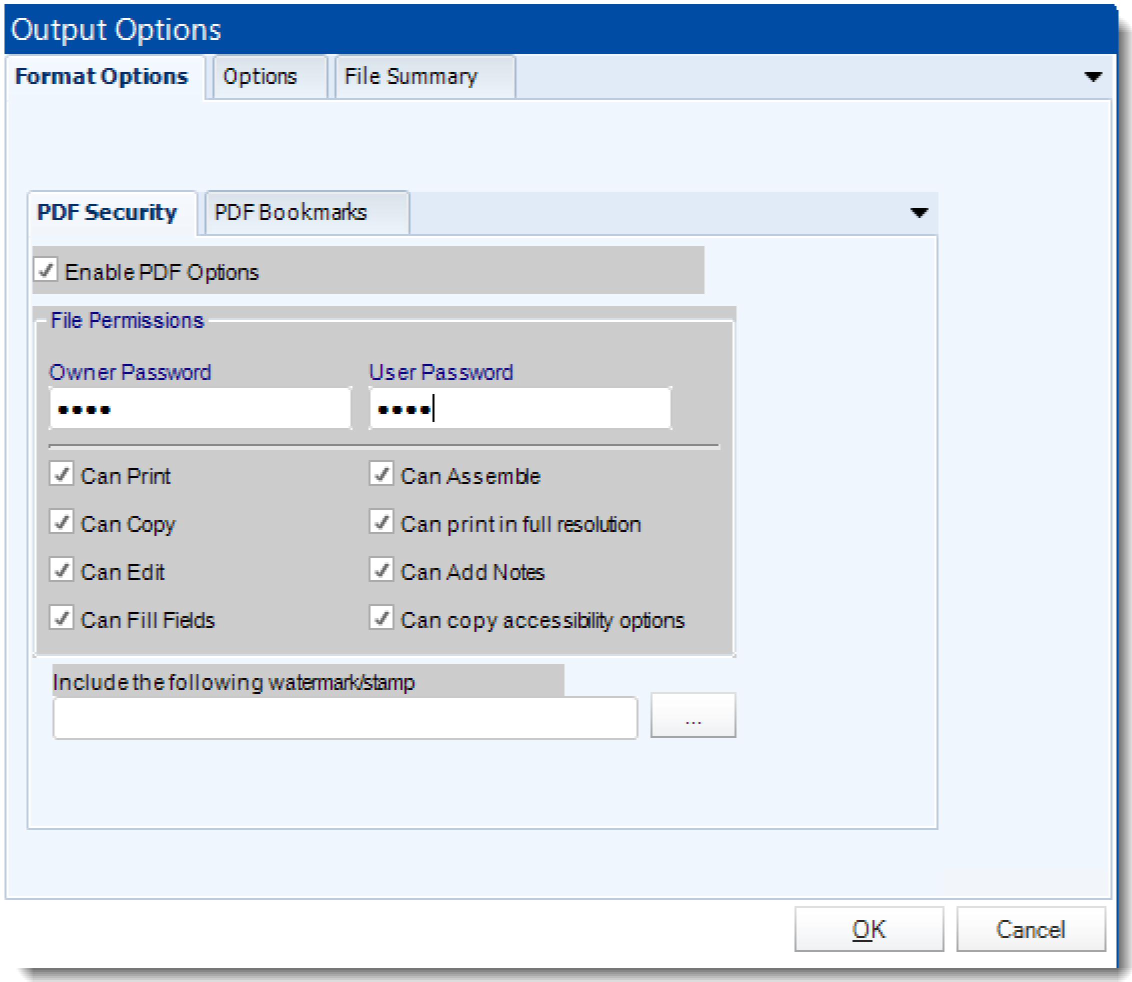
- **Edit:** Select a destination and click to edit it's properties. Or simply double-click on the destination.
- **Delete:** Select a destination and click this button to delete it.
- **Import:** click here to import from the list of default destinations.
- For more information about Type of Destinations, click here.
- For more information about Output Formats, click here.

Click **Next** to continue to the next wizard section.

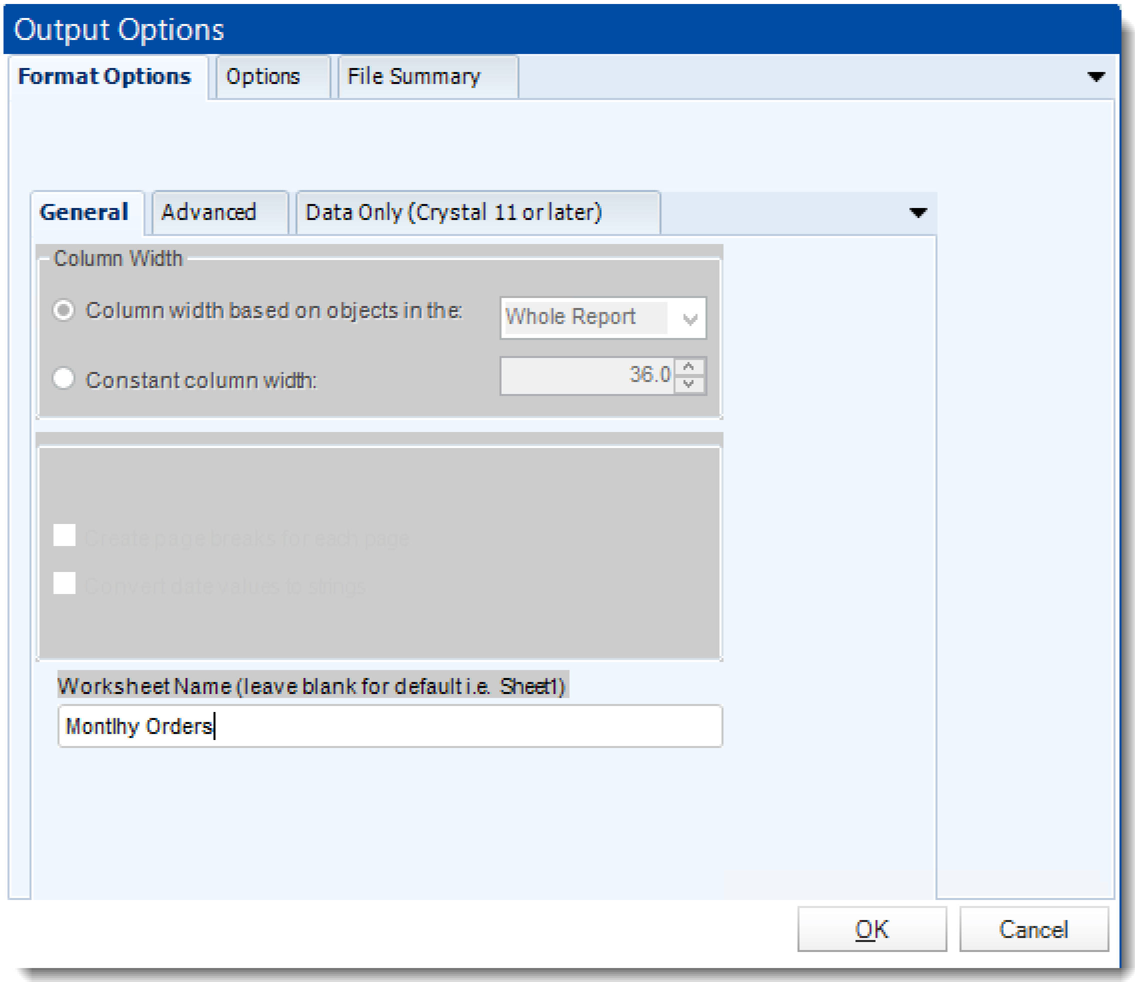


A package may be created with no constituent reports and then the reports can be added later. However, you may also add reports at this stage in the wizard - and amend, delete or add some more later.

- **Merge all Text Files:** Check this option to merge all text files and give the file a name.
- **Merge all PDF Files:** Merge PDF outputs into a single PDF file. The reports will appear in the merged PDF in the order they are displayed in the package schedule. Checking this box will bring up additional PDF Options.



- **Merge all Excel Files:** CRD will then merge all excel outputs in the package into a single excel file.



- **Run Package using Multiple threads:** This allows up to 8 reports to be exported simultaneously.
- Each report in the package can run concurrently.
- See <u>Multi-threading</u> for more info.
- **Enable snapshots and keep them for (days):** Keep a copy of the report for how many days.

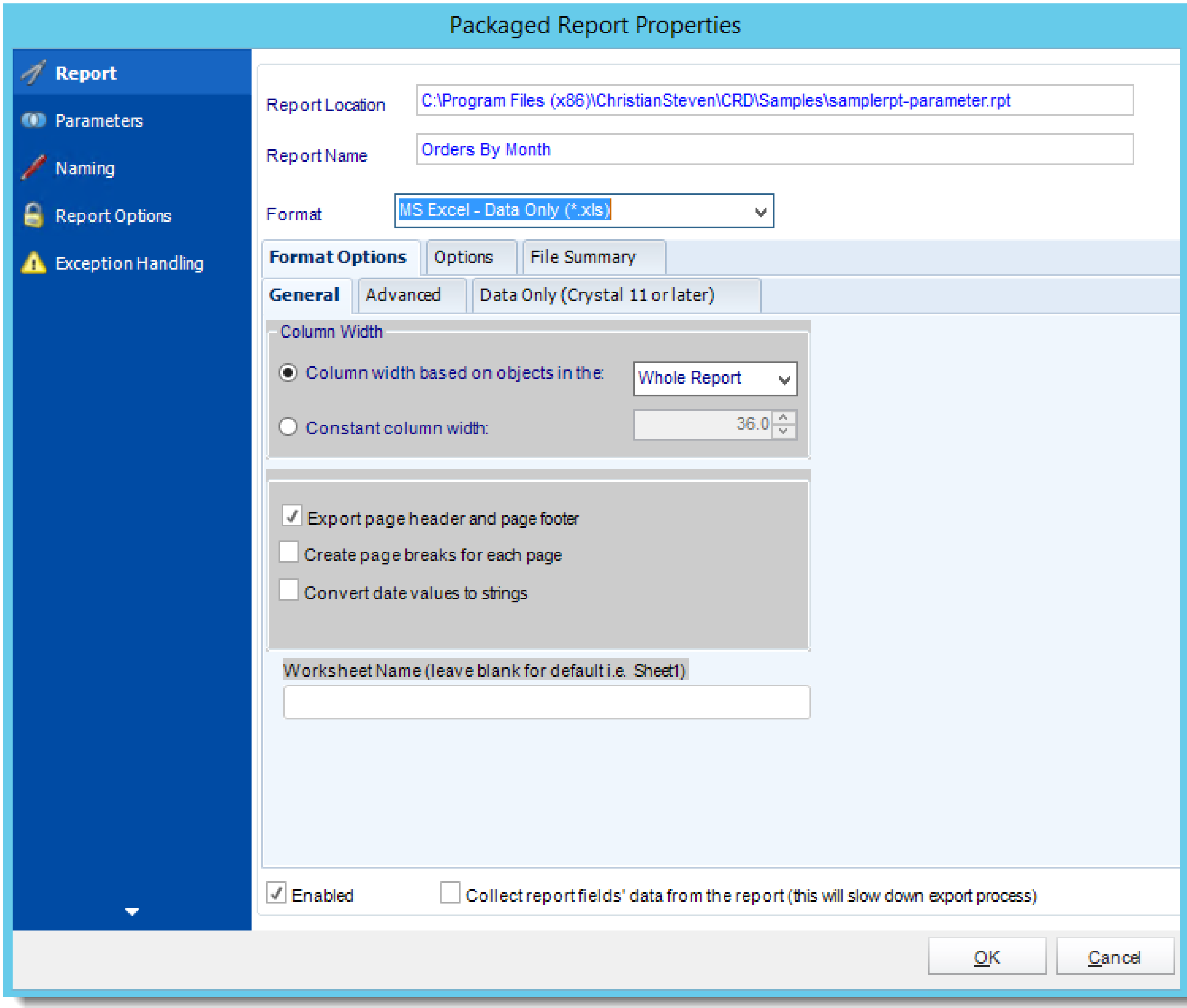
  System resources will be shared so this will not always mean that reports will take 1/4 the normal time.

  Example: You have 4 reports. Each one takes 15 minutes to export. Using a single thread, it would take 1 hour to complete the export. Using multiple threads, you would expect it to take 15 minutes for all 4. However, the sharing of your system resources by 4 reports may result in each report taking longer than 15 minutes and the total time for 4 reports may be more than 15 minutes, but it will be less than an hour

- Click **Add**
- Package Report Properties will appear.

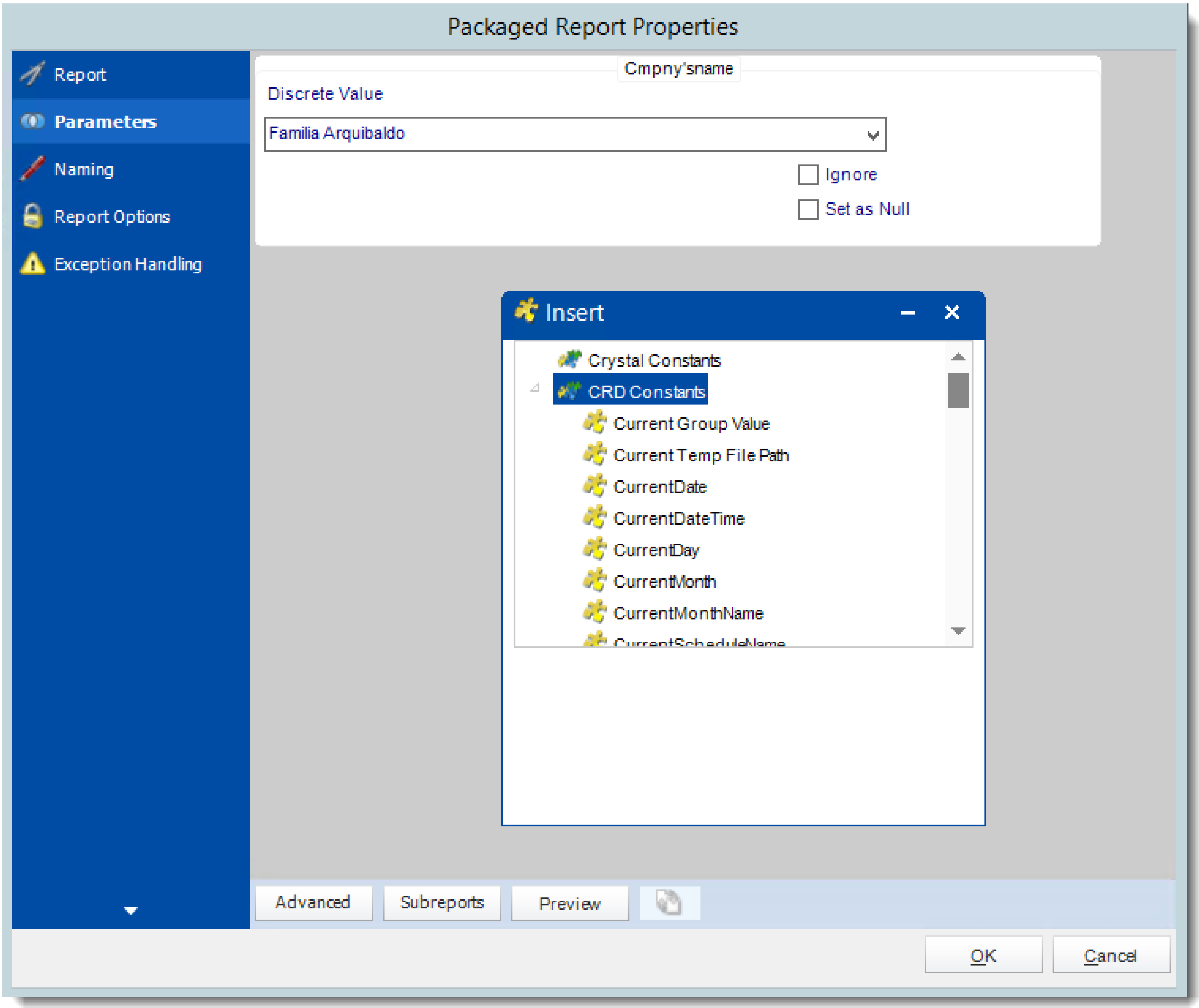
Package Report Properties

Report Wizard



- **Report Location:** Select the Crystal report that needs to be scheduled. A crystal report can only be added if the CRD server can reach the report path.
- **Report Name:** Write in the name of the package.
- **Format:** Select the output format for the report.

Parameters



- In this section, you will determine the parameters for your report (if any) and select options for your subreport. If your report has no parameters, you may skip this section by clicking next.
- There are 3 requirements in order for CRD to detect your Crystal Report parameters and their parameter values:
  1. The parameter must be in use in the report.
  2. The parameter must be visible.
  3. The parameter must be set to be prompted at runtime.

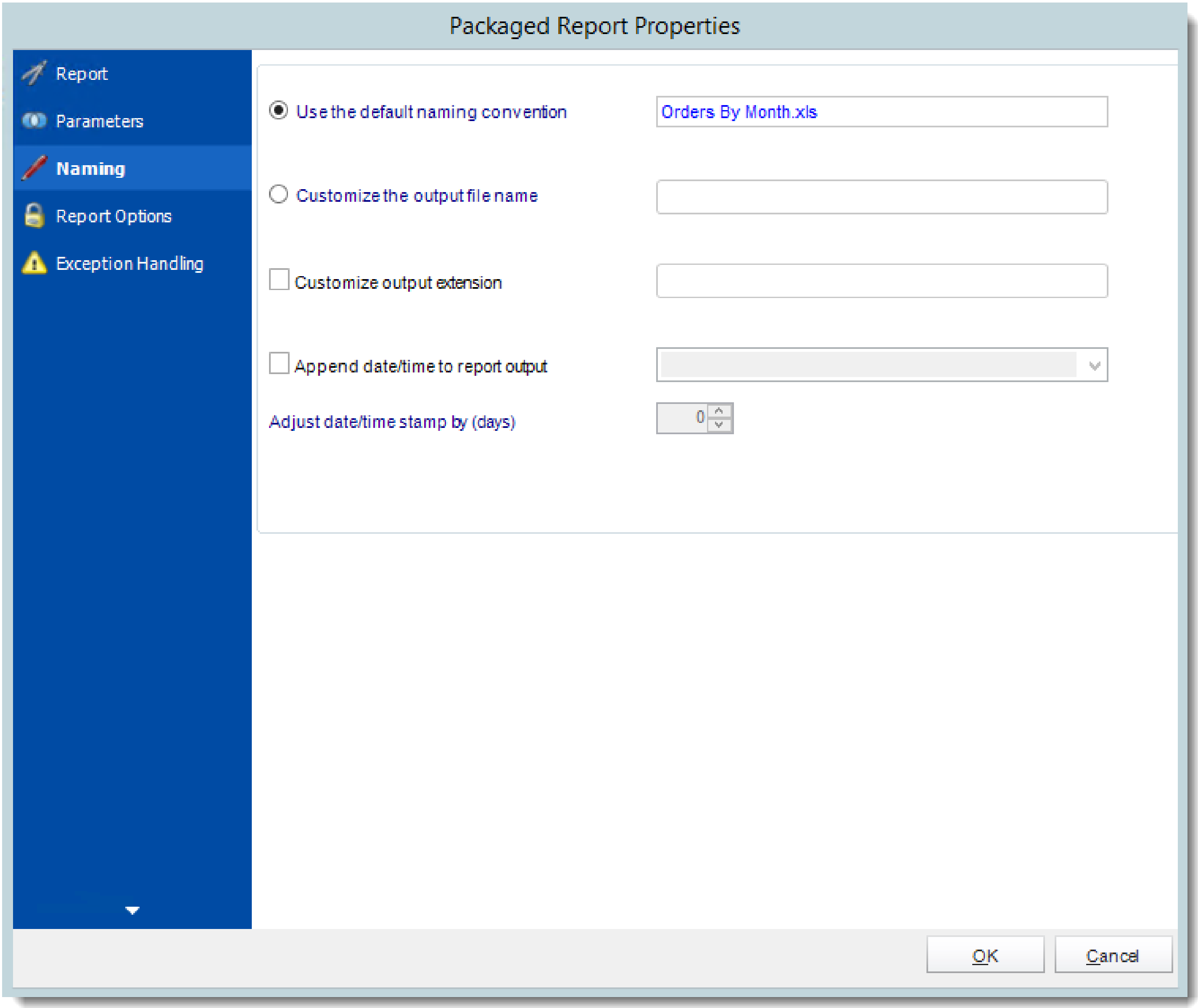
- If these three requirements are achieved, you should see the parameters in your report listed in this screen.
- For each parameter, select from the drop down list the value the report must use. In a single schedule, only one parameter value can be run at a time per parameter. You can type a value into the field as well.
- **Set as Null:** Set no value for this parameter.
- **Ignore:** Do not run this parameter, ignore it at runtime.
- Insert Menu**:** You can insert constants, formulas and database field values instead of a static "typed in" value. Right-click in the parameters field to expose the Insert menu.

  To enable a report parameter to run for a date constant (Current Date, Yesterday etc.), select CRD Constants from the insert window, then drag and drop your desired constant to the parameter field.

- **Selecting Date Parameters via Calendar:** If your report contains a date parameter, you can either manually enter dates as described earlier in this topic, or select the desired date from the built in calendar. Simply click in the date parameter field to open the calendar. Select the desired date. Click OK.
- If the parameter is also a time parameter, this can selected as well. The buttons below enable you to preview the report, adjust formulae, and review sub reports. You can re-query the report for parameters as well.
- **Formulae:** View edit and Parse the Record Selection Formulae.
- **Subreports**: set parameters, authenticate, and re-query sub report parameters.
- **Preview:** Shows you a preview of the report.

  The preview function only works if Crystal Reports is installed on the PC.

Naming

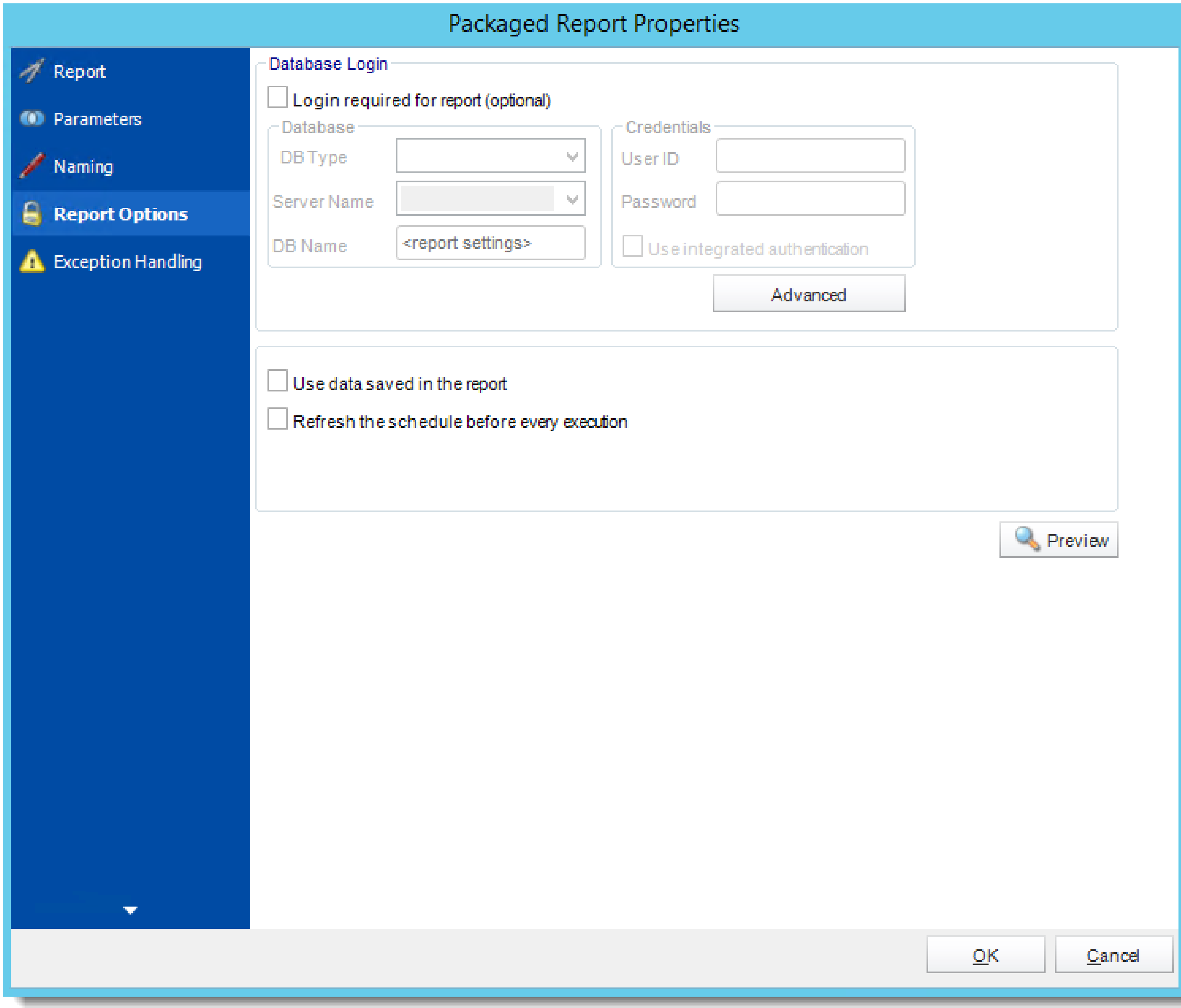


- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format *extension,* e.g. *Catalog Report.pdf.*
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another

already existing system you may have. You may also right-click and use the Insert Function to insert a value.

- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

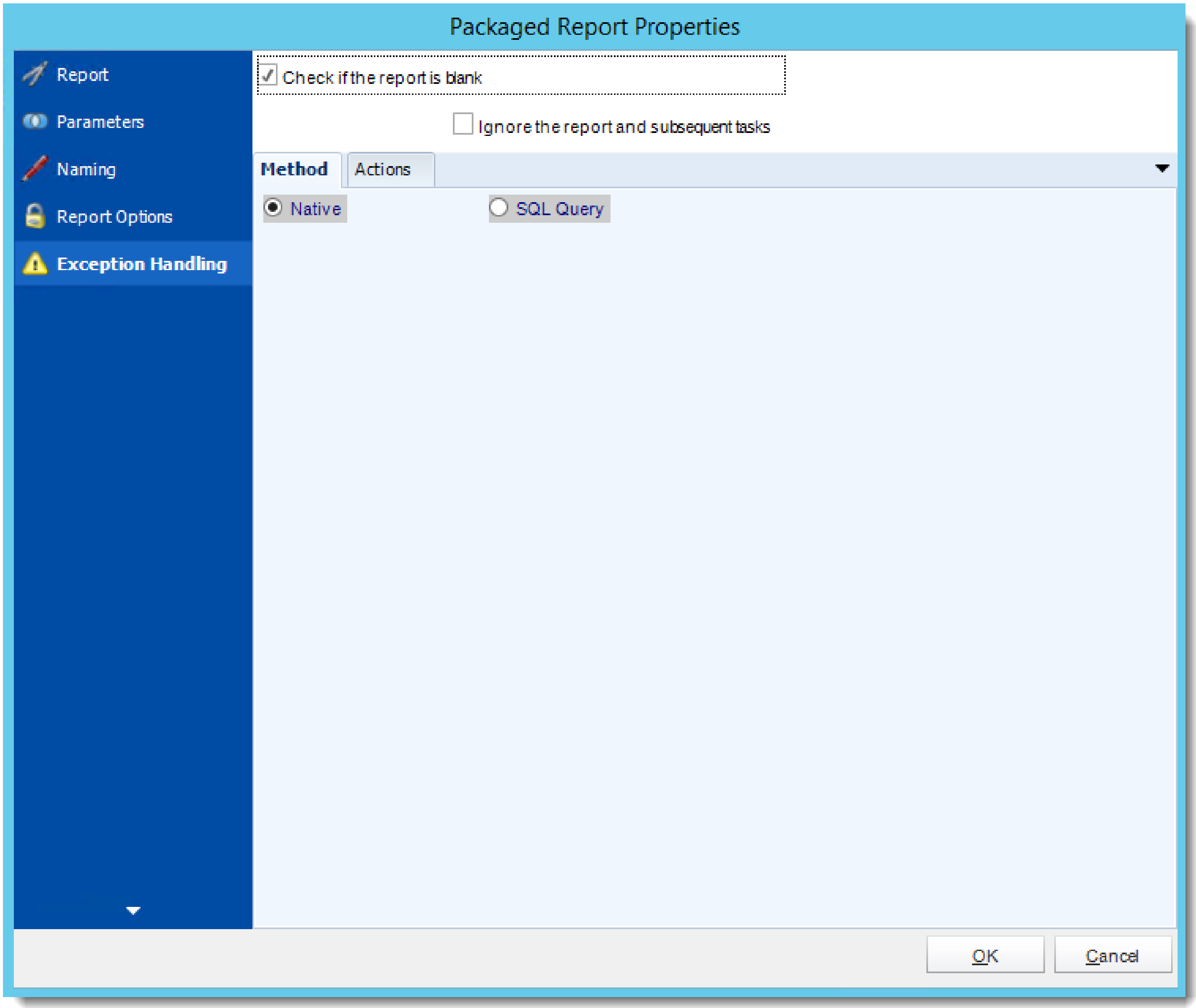
Report Options



- **Database Login:** If the database requires logon credentials, check this option and enter the required username and password. If credentials are not required, uncheck the option and continue as normal (default). All values are optional. You only need to enter a value if your database, security, networking or infrastructure require it.
- **DB Type:** Select the type of Database.
- **Server Name:** Enter the server name of the database.
- **DB Name:** Enter the name of the database.

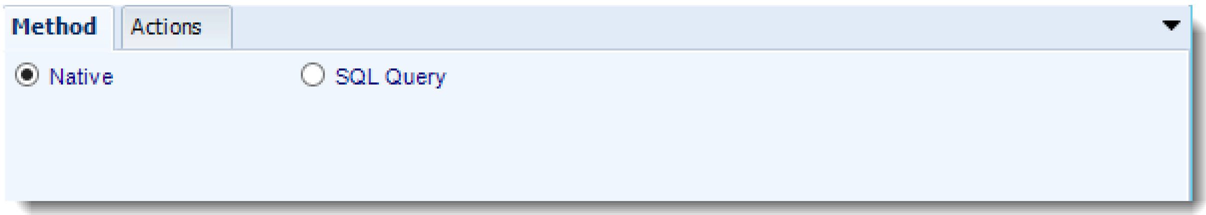
- **Credentials:** Enter the User ID and Password for the Database. Clicking on the Advanced tab, you can set logins for each table.
- **Advanced**: Enables you to specify credentials at the table level. Double click the table to set its login information.
- **Use data saved with the report:** By default, CRD will always attempt to run the report using the very latest data in your database. If your report is saved "with data" and you want CRD to simply export the data in the report, then check this option.
- **Refresh the schedule:** This refreshes the schedule before every execution.

Exception Handling

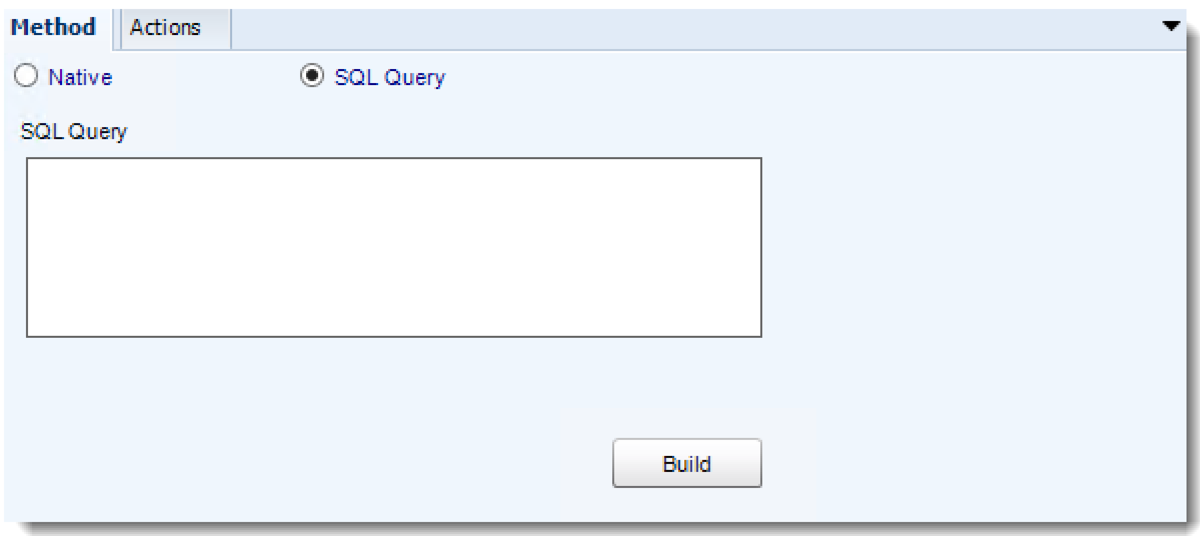


- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.
- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

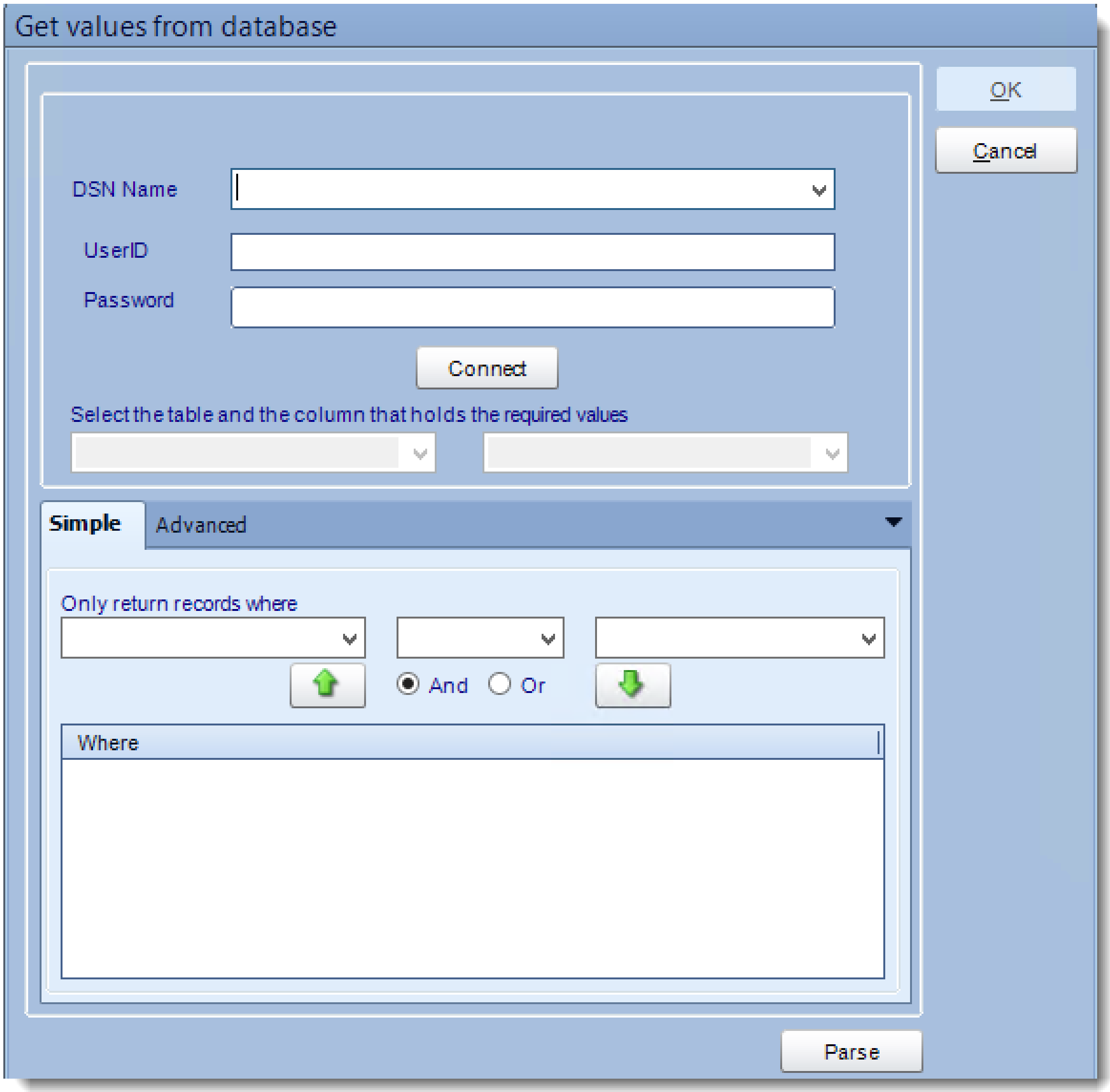
Method



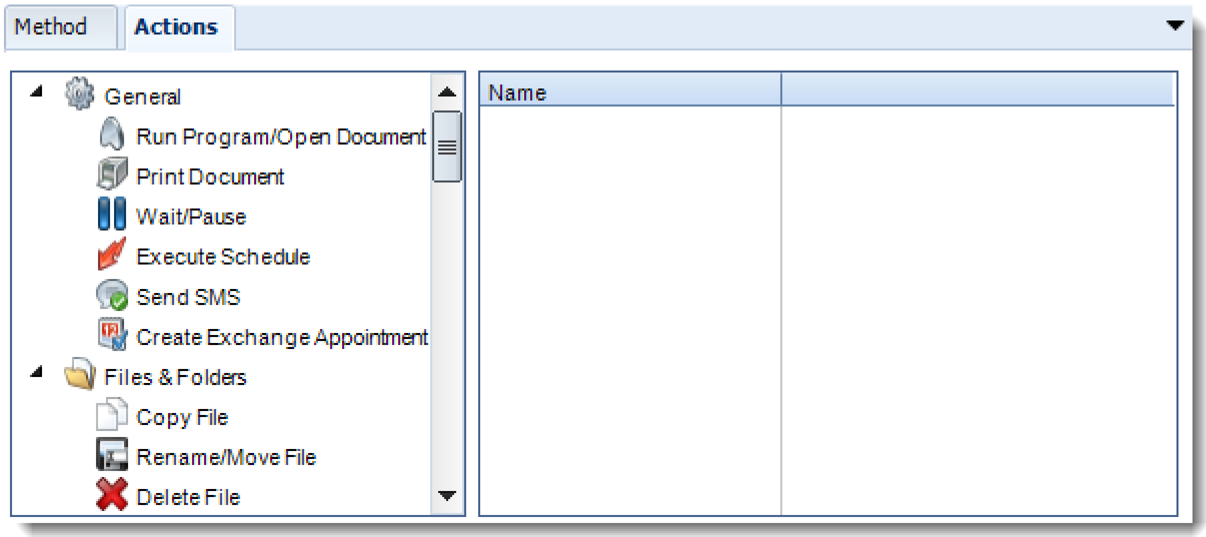
- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



-
    - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

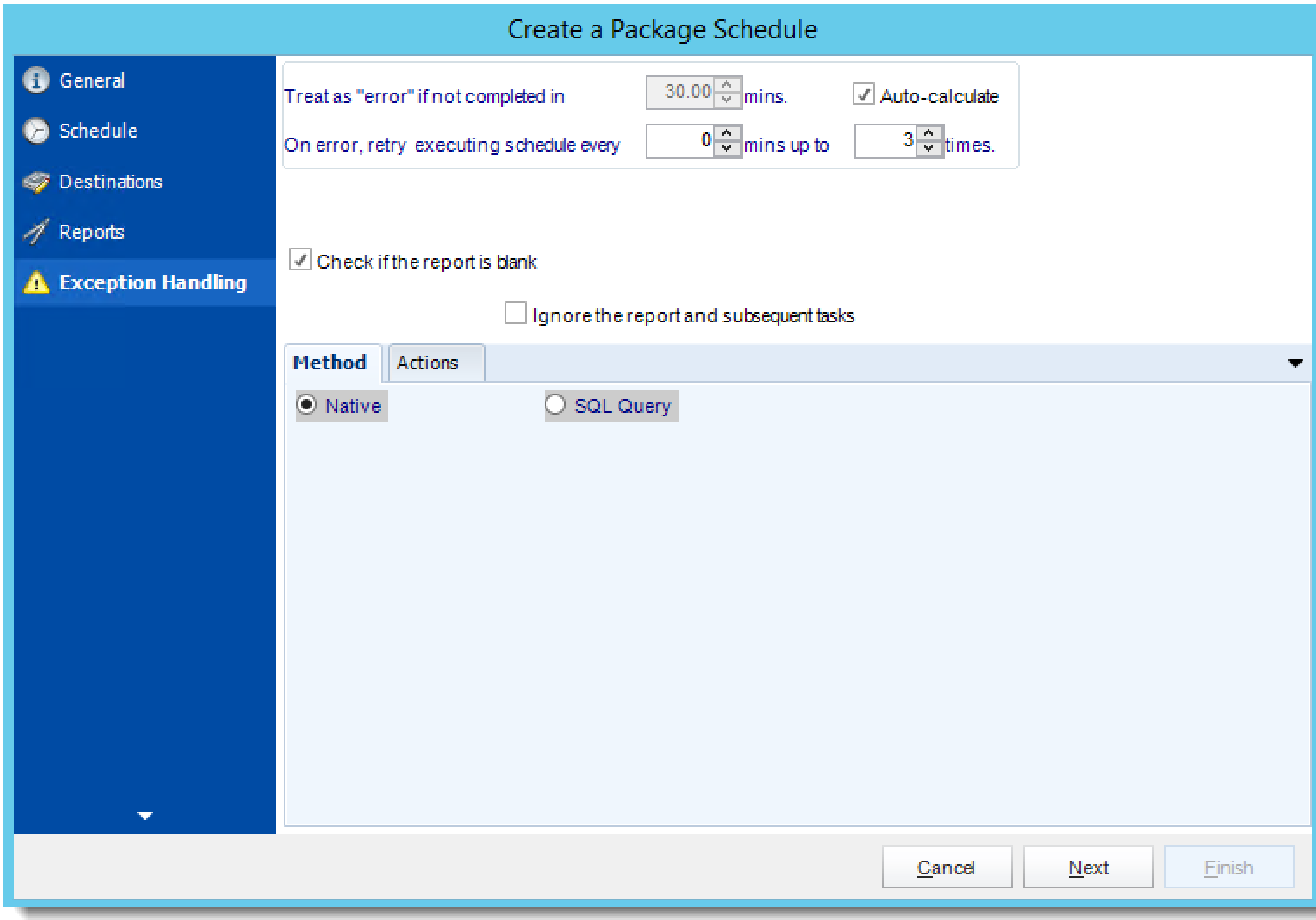


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

Click **OK.**

Exception Handling Wizard



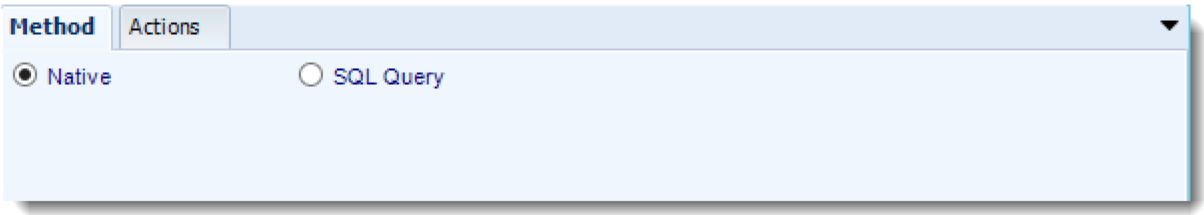
- **Treat as "error" if not completed in X minutes:** If a report takes longer than the specified amount of time to run, this option will treat the schedule as an error and follow the appropriate action. The "Auto-calculate" option instructs CRD automatically determine how long a schedule should take to run the report. If it takes longer than the calculated amount of time, then it is an error.

  If manually determining the error timing, please double check the run time of the report in order to get the correct time estimate.

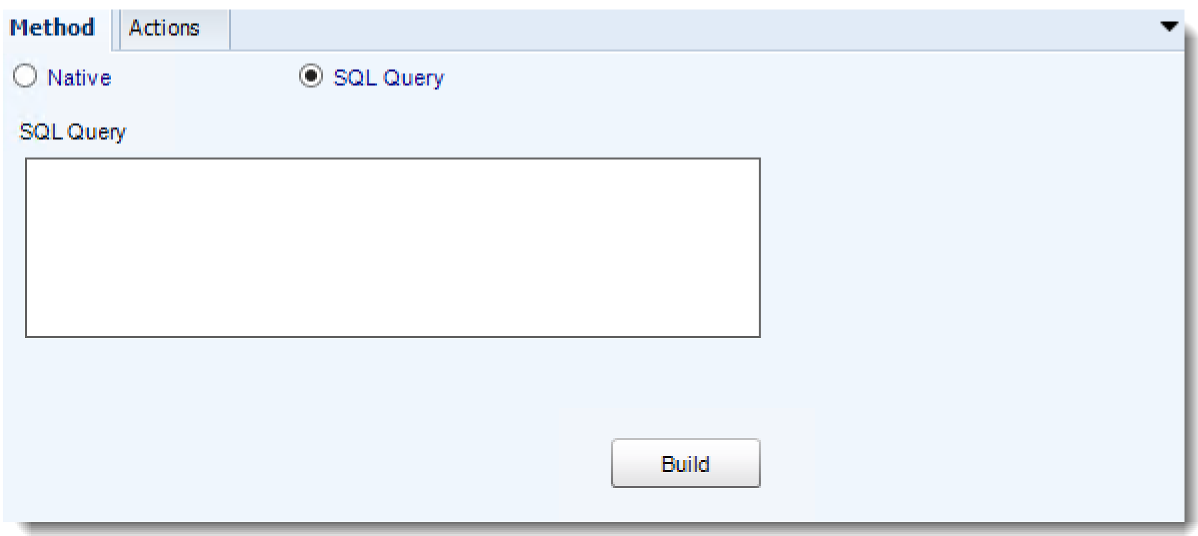
- **On error, retry executing schedule every:** If set to 0, CRD will deem the schedule as "Failed" the first time it encounters an error. The schedule will not run again until its next scheduled time. Change the value to tell CRD how many times you want it to retry running the report before declaring it as "Failed."

- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.
- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

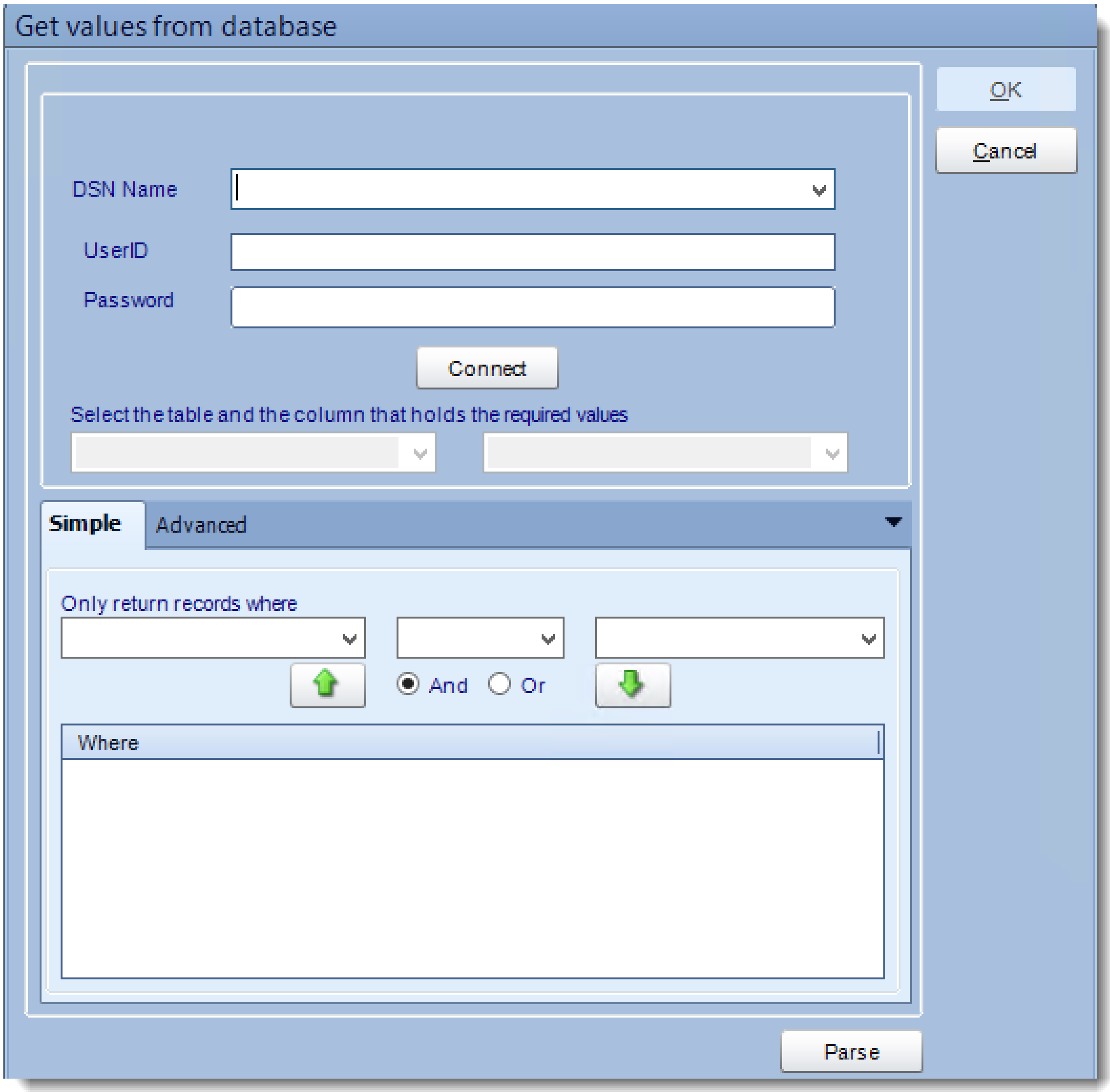
Method



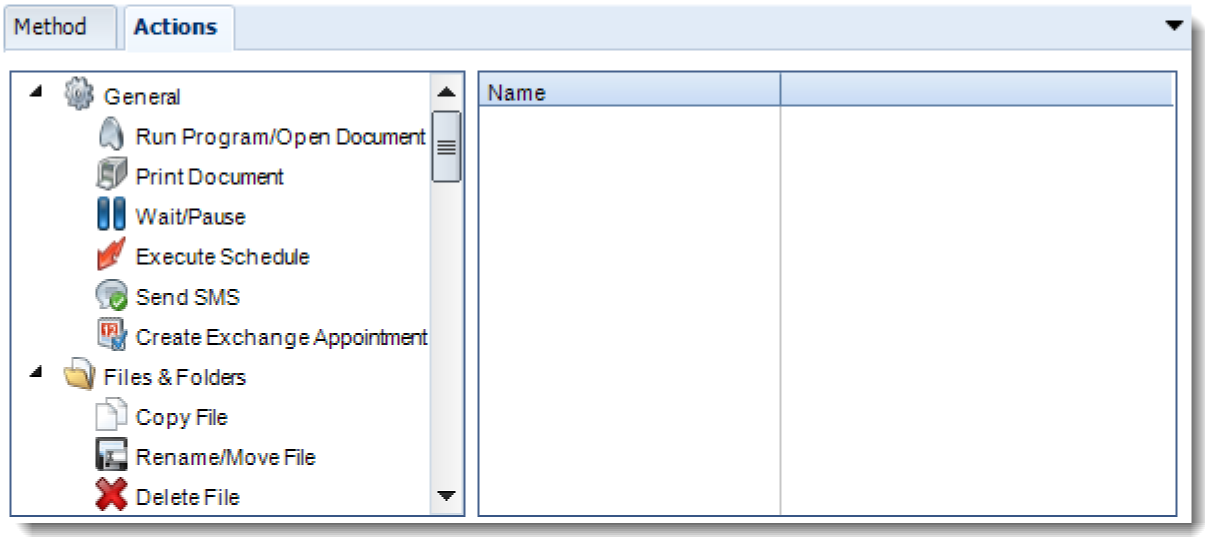
- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



- **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

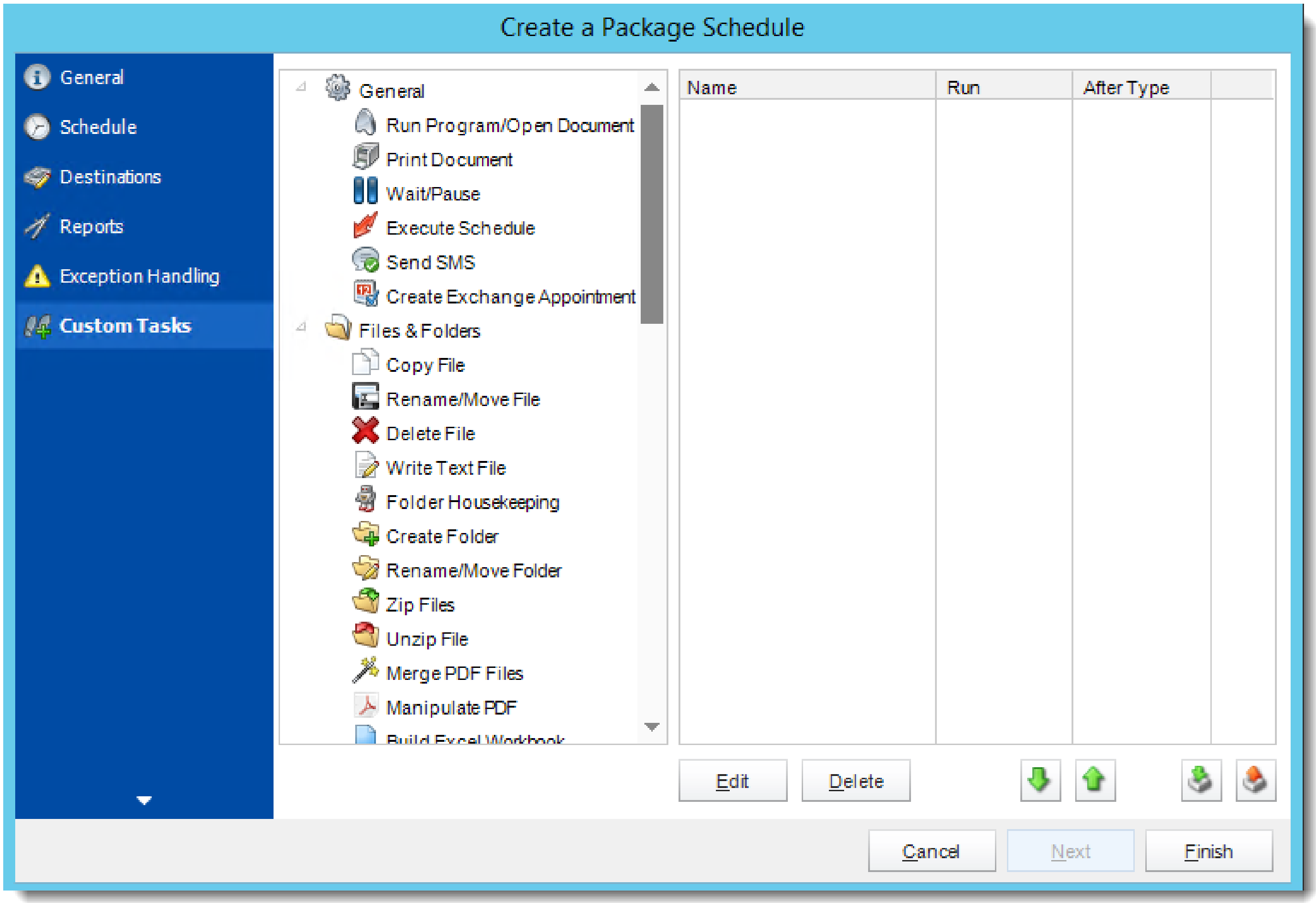


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

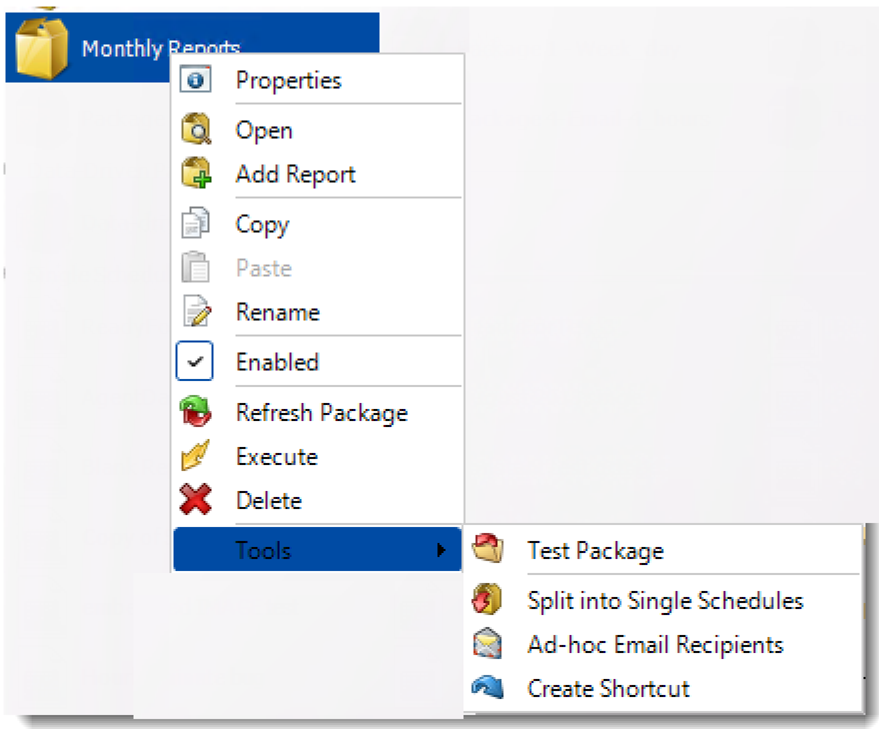
Click **Next** to continue to the next wizard section.

Custom Tasks Wizard



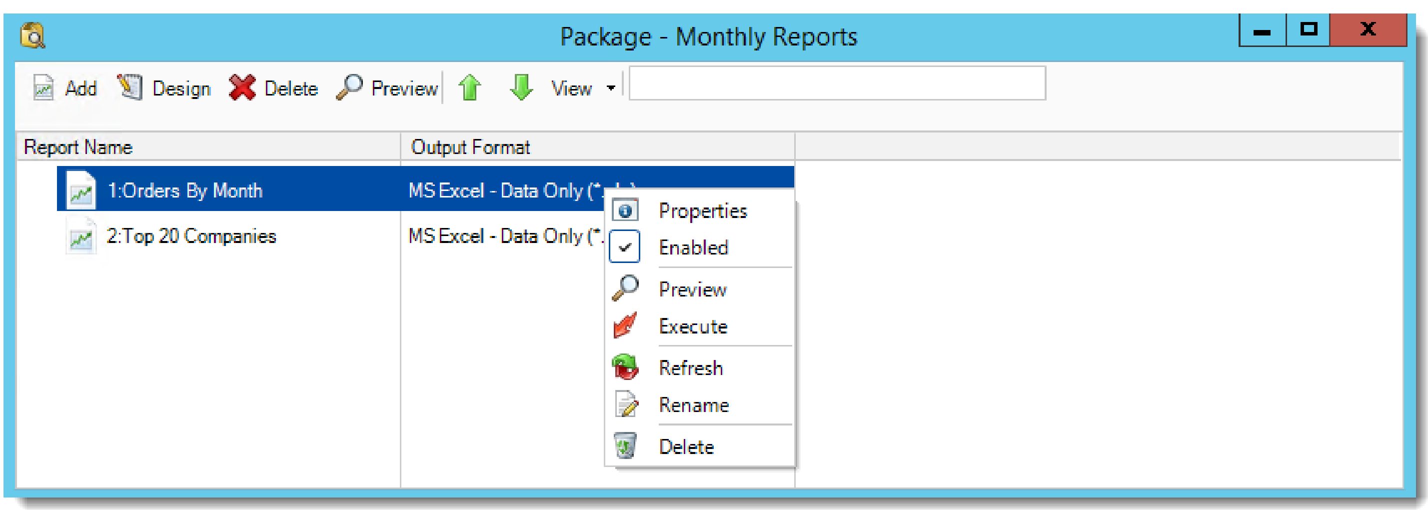
- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, <u>click here.</u>
- If you have no desire to add a Custom Task, you can click **finish** to complete the schedule.

Package Schedule Report Context Menu



Right-Click on a schedule to see the following actions:

- **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
- **Open:** This will open the package and show its constituent reports.



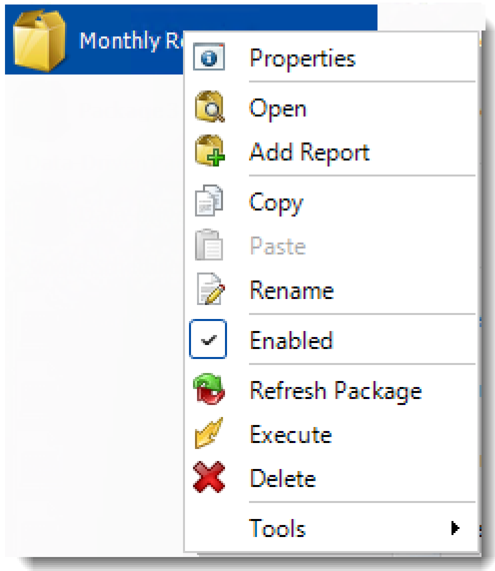
  - You can right-click on each of the constituent reports to see the context-sensitive menu shown in the picture above.

- **Enabled:** Use this to enable or disable the constituent report.
    - **Refresh:** Pulls through changes to just that report which were made outside CRD.
    - **Rename:** Renames the selected report.
    - **Preview:** Generates a preview of the selected report.
    - **Delete:** Deletes the selected report from package.
    - **Properties:** Displays the configuration properties of just that report.
- **Add Report:** Use this to add one or more reports to an existing package.
- **Copy:** Use this to copy the schedule. Right-click in the "white space" of the folder you wish to copy it to and select Paste button.
- **Rename:** Rename the package.
- **Enabled:** Schedules are enabled when there is a check icon beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check icon. Disabled schedules will not run until they are enabled again.
- **Refresh:** When a schedule is first created, CRD caches (saves) a copy of the report. All executions of the scheduled are performed using this copy. If you make changes to your master report, you must select this option in order to pull the changes into CRD.
- **Execute:** This button will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers .
- **Delete:** Selecting this option will delete the schedule.
- **Test Package:** Use this option to test the schedule and export it to selected "test" destinations.
- **Split into Single Schedules:** This will split all the constituent reports in the package into Single Report Schedules.

  This process will automatically delete the package once the splitting process is completed.

- **Ad-Hoc Email to Recipients:** Select this option to send an ad-hoc email to all recipients of this package. You can use this to alert recipients to a planned system outage, or any other useful information.
- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.

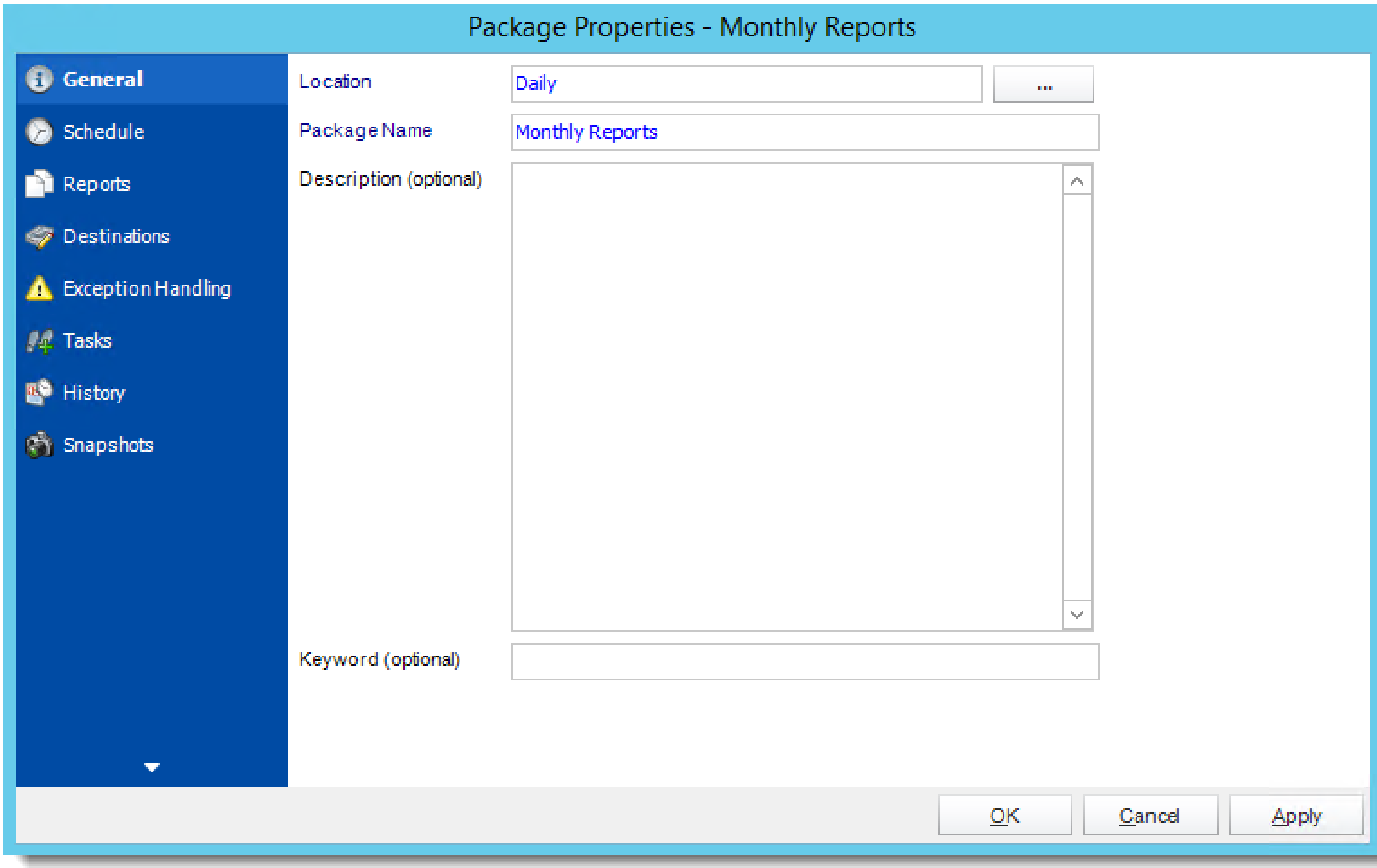
Package Report Schedule Properties



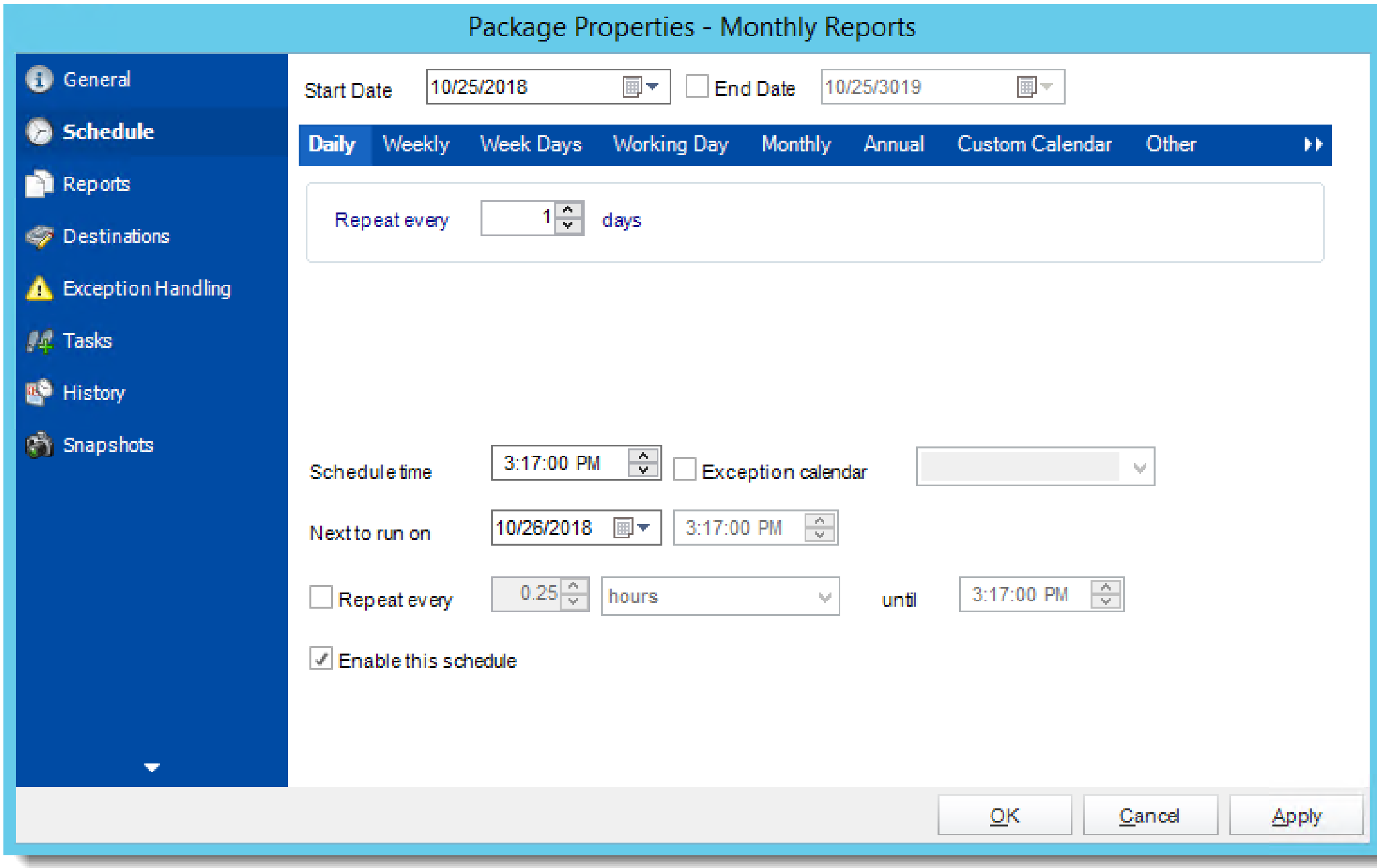
To access your schedule properties, right click on a schedule and select **properties**.

Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

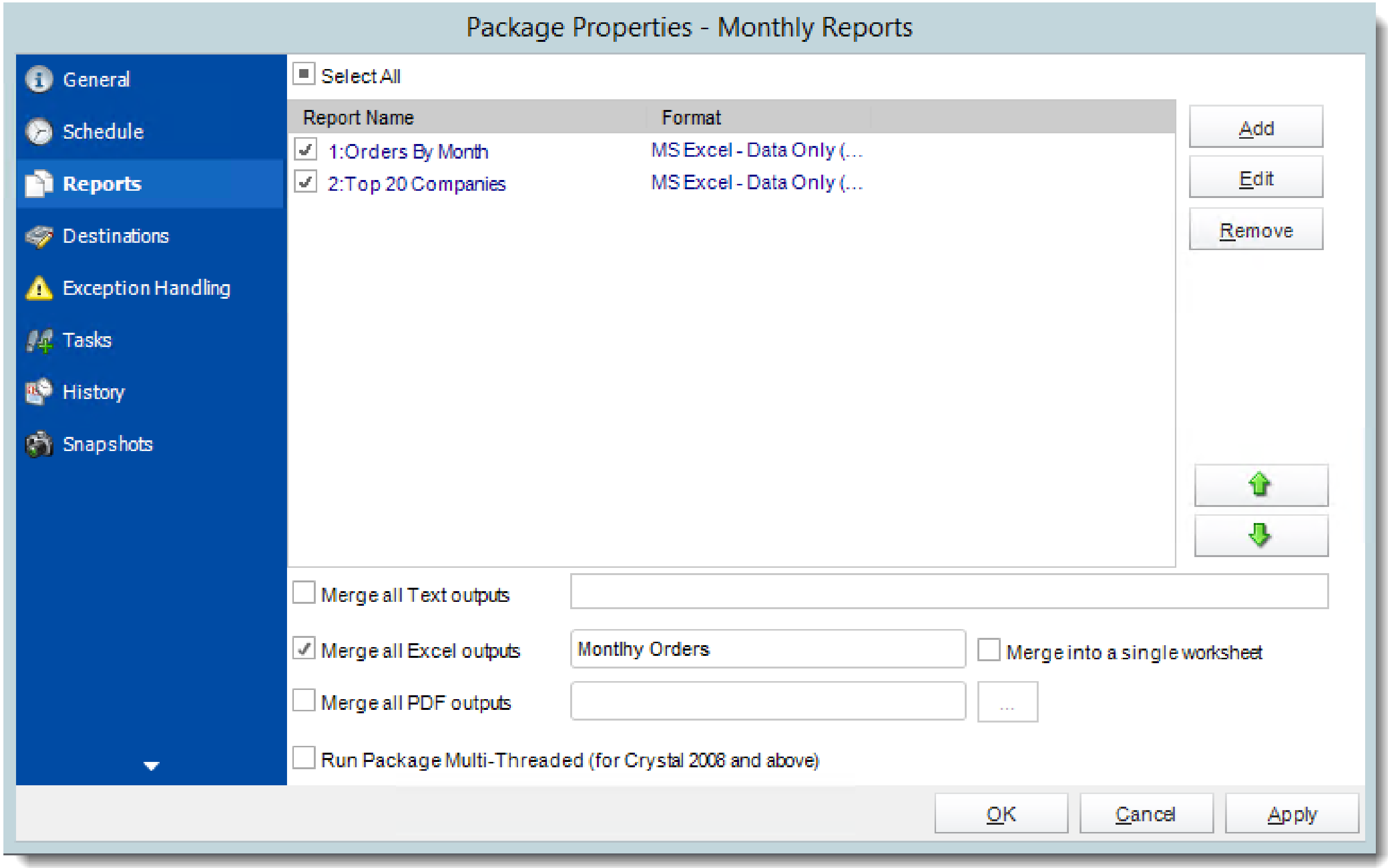
General: You can edit your package general information from here.



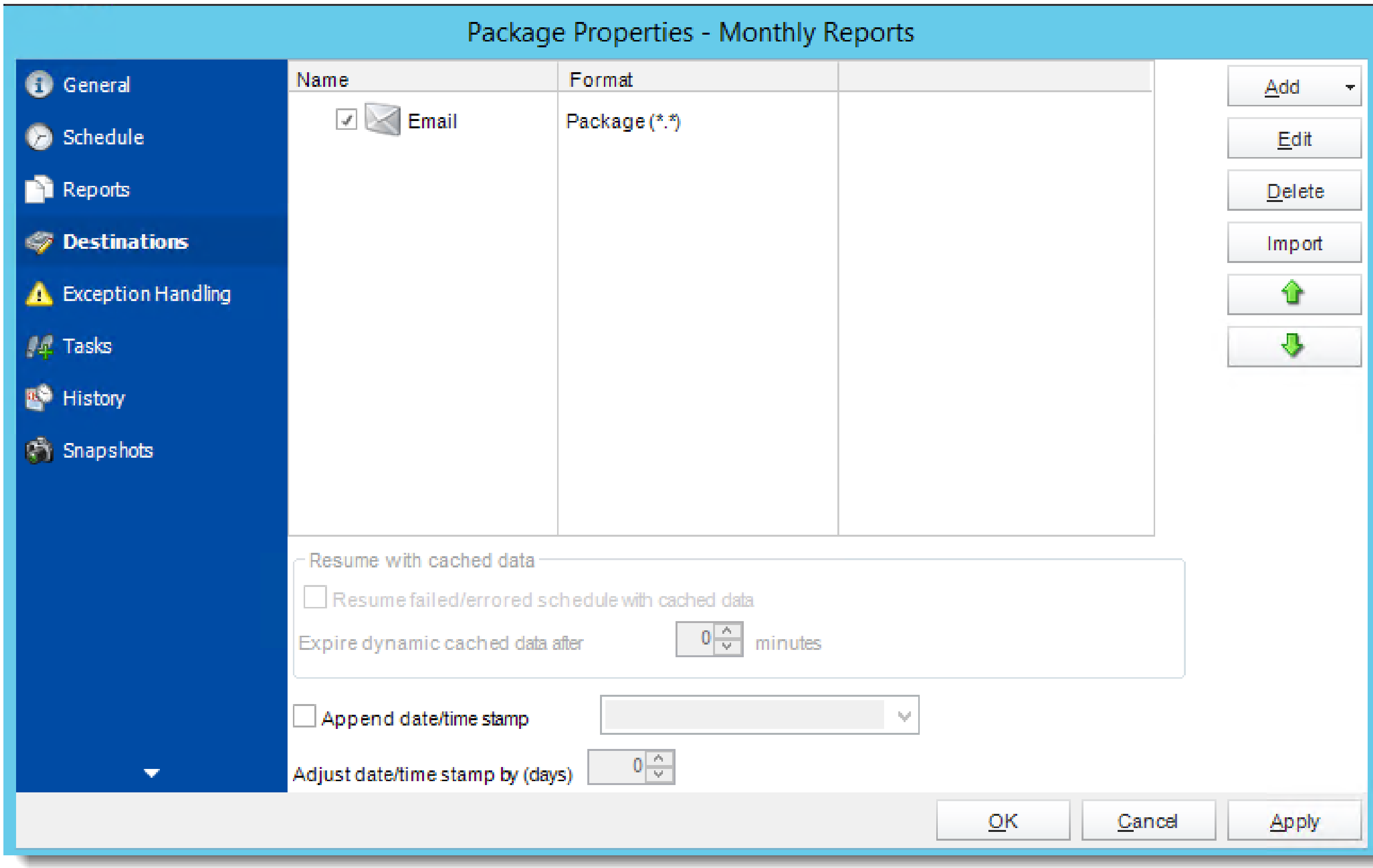
Schedule: You can edit your schedule time from here.



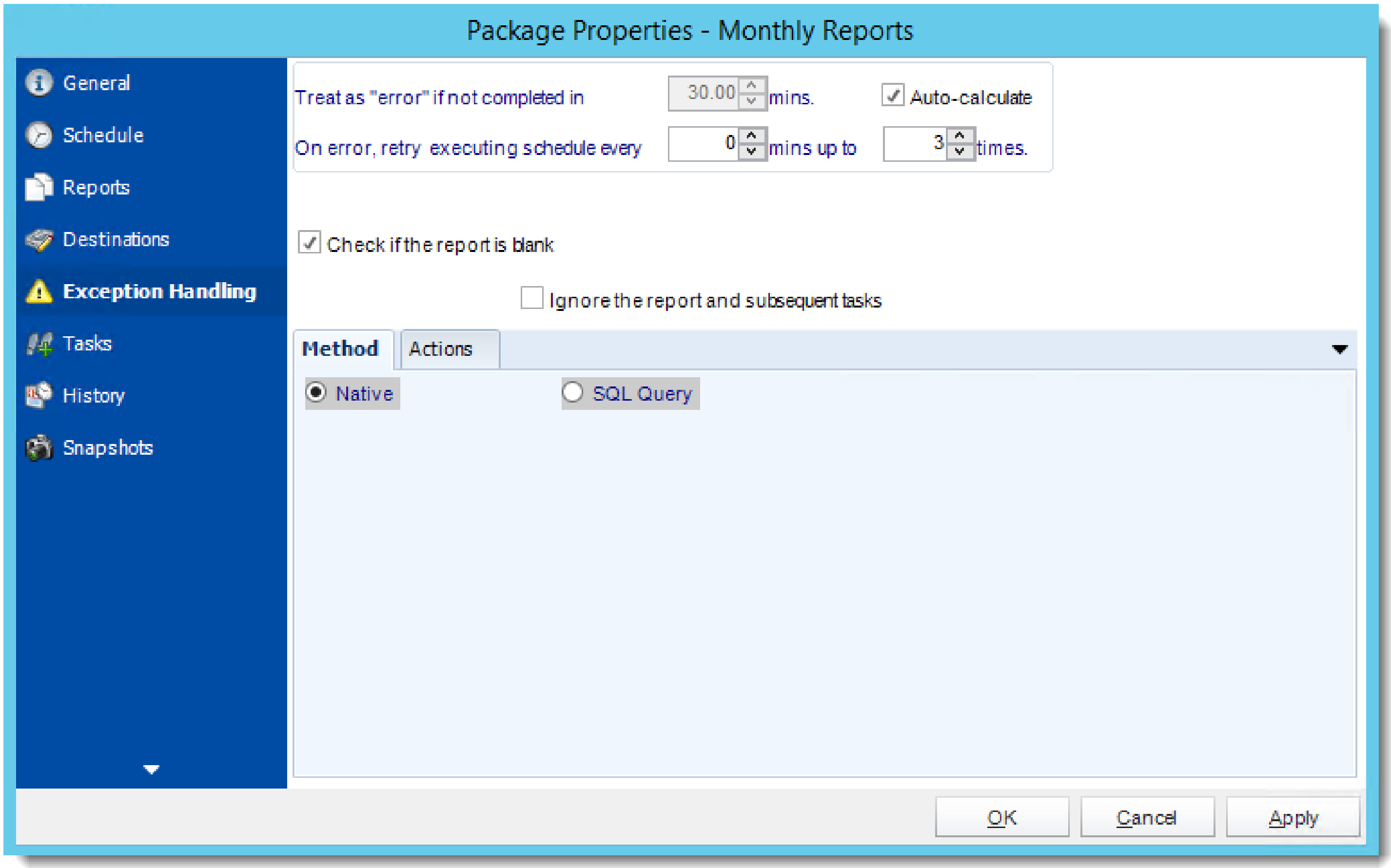
Reports: You can add, delete, or edit reports for you package from here.



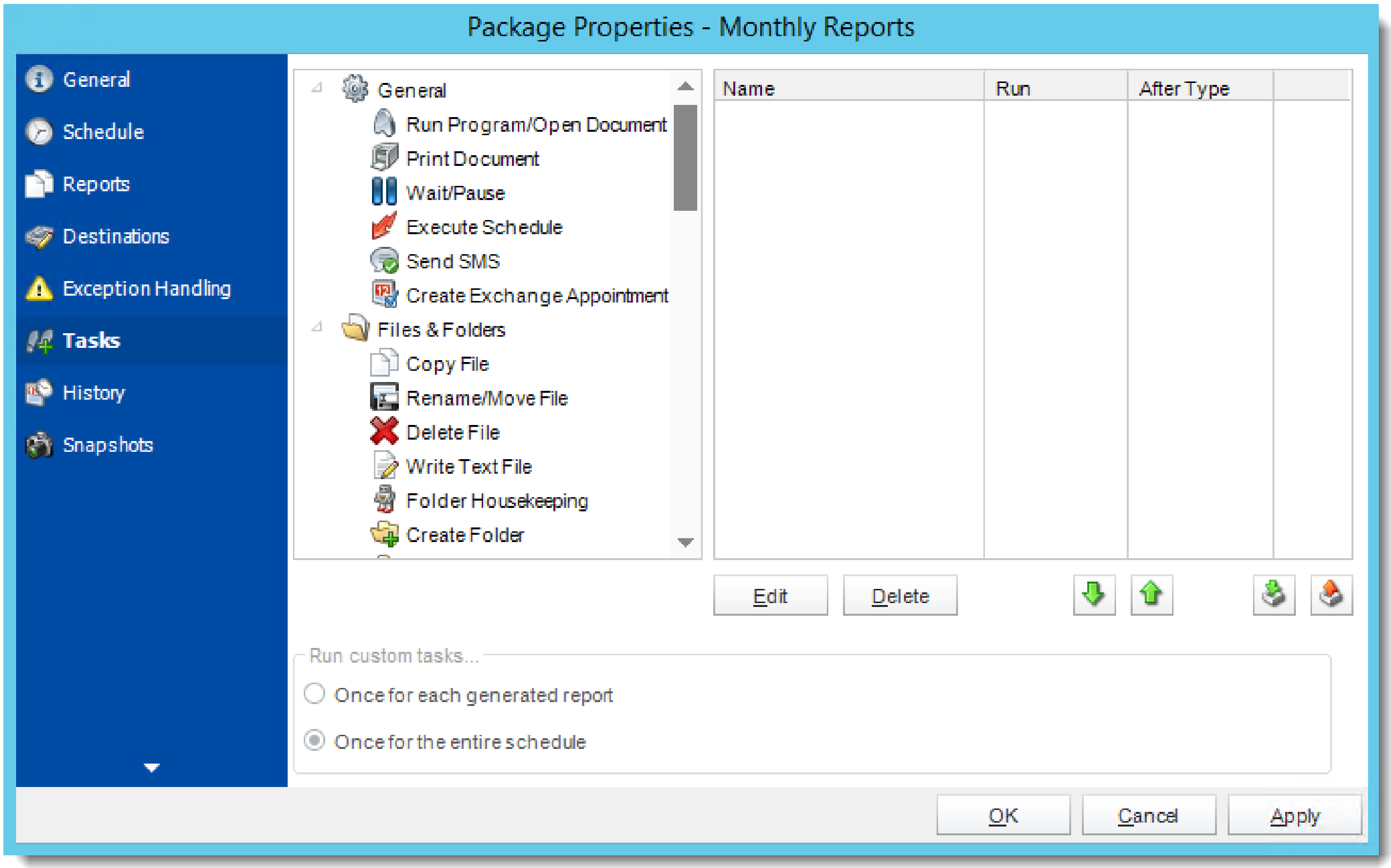
Destinations: You can add, edit, or delete destinations from here.



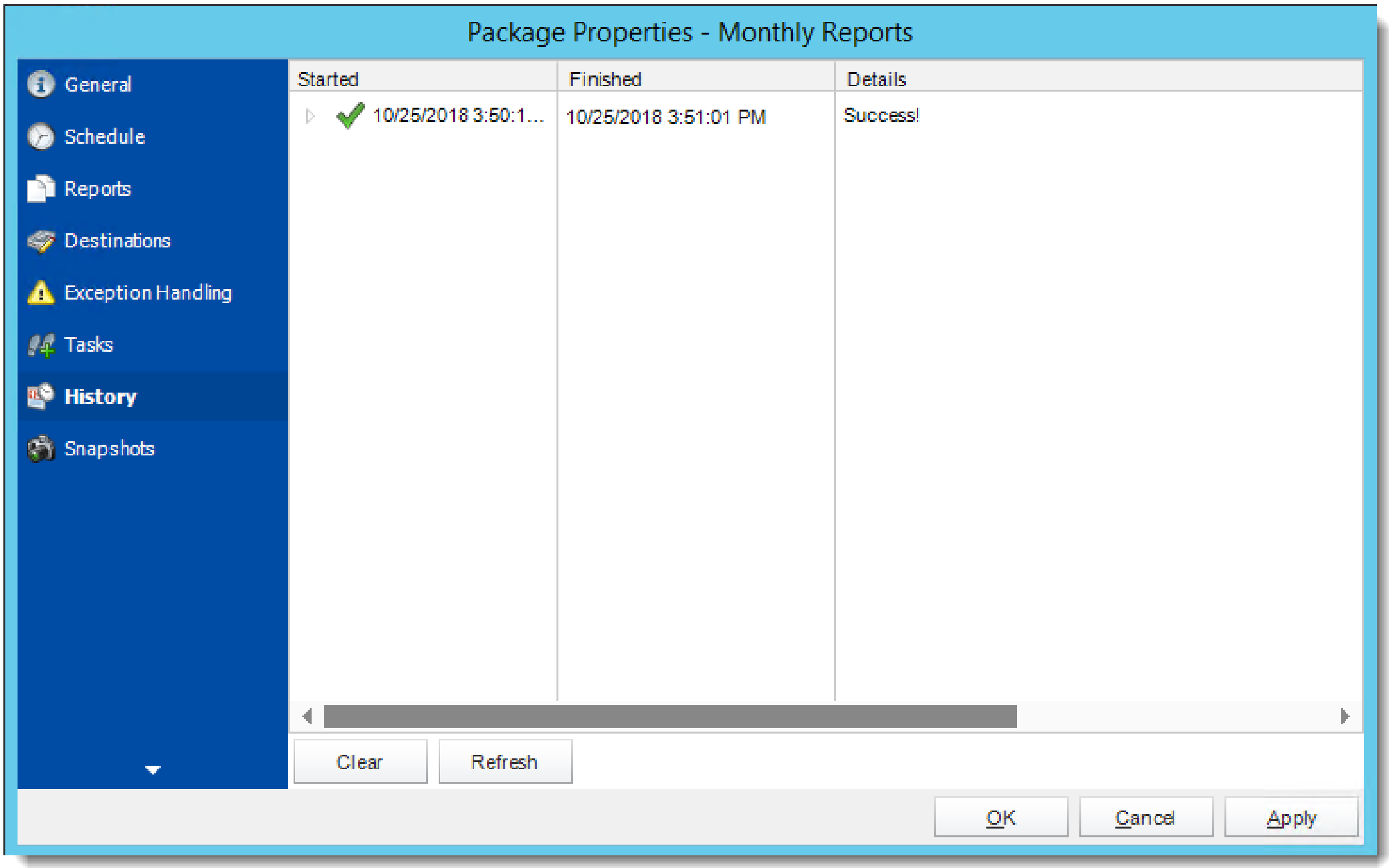
Exception Handling: You can edit exception handling from here.



Tasks: You can add, delete, or edit tasks from here.

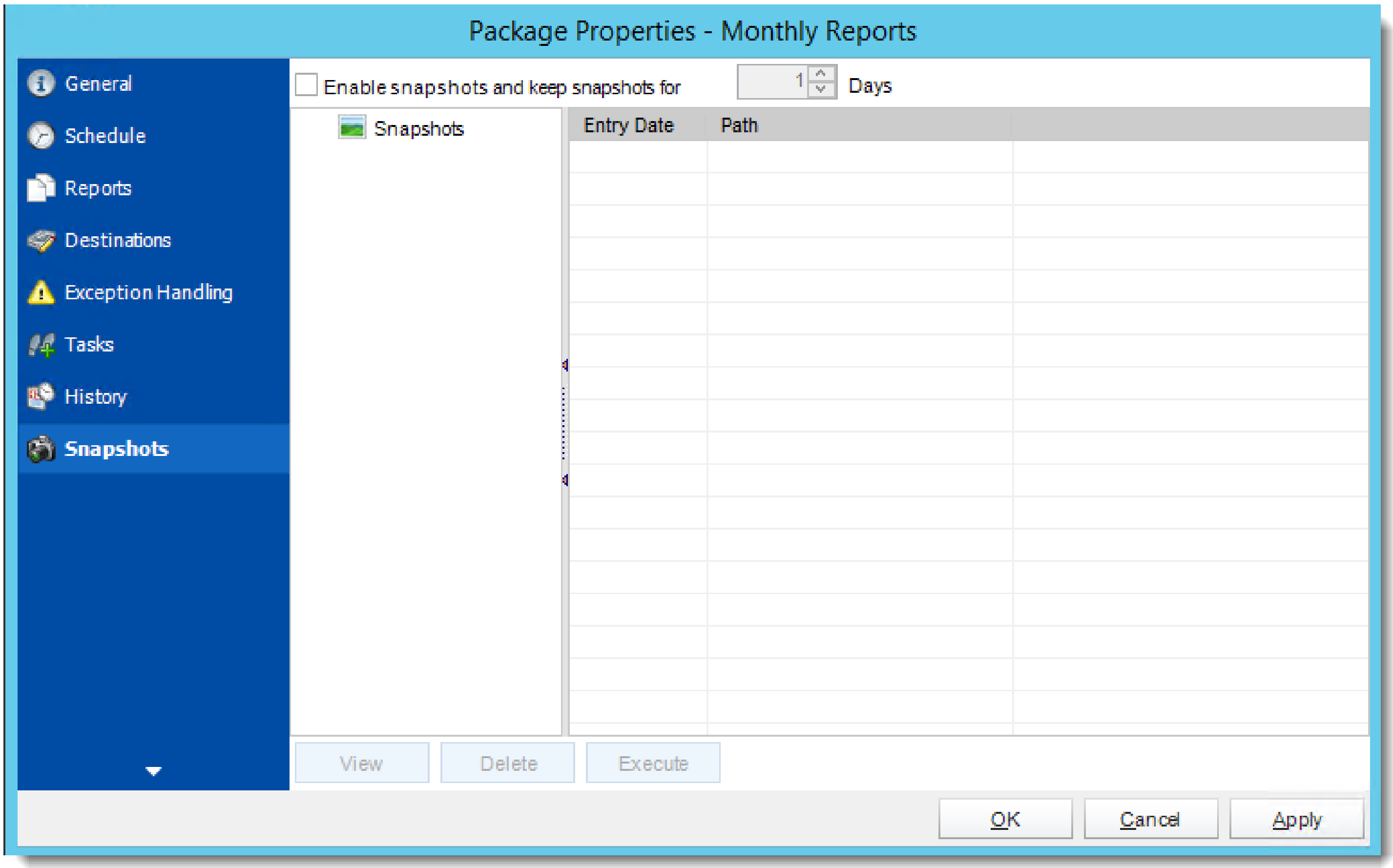


History: Review the schedules history. Successes, failures, and other data is located here.



Snapshots: A snapshot is a copy of each report a schedule or a package generates. Keeping snapshots enables you to resend past reports without generating them afresh - especially if the data has changed in the meantime.

Simply select the number of days to keep the snapshots.



Dynamic Schedules for Crystal Reports

A dynamic schedule allows you to send multiple instances of the same report, For each instance, CRD will automatically enter the required parameter values, export the report and deliver it to the required destination. Dynamic Schedules can be used in a variety of scenarios.

Dynamic Schedule Scenario

This powerful mechanism can only really be described with an example:

> *The Springfield Donut Company has 1500 stores worldwide. Ray is the Crystal Reports guru at Head Office. He has to send each store manager a report of their weekly statistics every Monday. He does not want to write 1500 static report schedules.*
>
> *To make matters worse, stores which are not doing well are regularly closed off, and new stores are being brought on-line weekly.*
>
> *And that's not all. It has just been announced that SDC has just acquired a rival company and 800 new stores are coming on board tomorrow morning.*
>
> *It's the middle of summer, so 2 of Ray's 3 staff are on vacation. He has a meeting with the Chairman in 3 hours, and, if he can demonstrate that everything will be in place and running by 5pm today, he will get a $25,000 bonus.*
>
> *Ray is not looking forward to writing 800 new single report schedules.*
>
> *"What I need", he thinks to himself, "is a single dynamic schedule which will reel through the database, populate the StoreId parameter automatically, run the report for that store, email it to the store manager using the email address in the database, and repeat the above actions for every store in the database.*
>
> *I need this to happen automatically every Monday at 0100 hours."*

To resolve the issue illustrated above:

Start by writing a report with a single parameter called StoreID. Write the report so that when a StoreID is entered into this parameter, the resulting report is populated by that store's sales information only. We will call StoreID the **Key Parameter.**

Make sure that a database table somewhere (ODBC compliant) has some of the other information we will need e.g. the email address to email each store's report to, or the folder you want to export it to, or the printer you would like the report to print out on. For example:

StoreID	Email	Printer	Folder
1991	johnb@springfiled.com	\\mynetwork\printer1	\\myserver\myfolder\1991\
1992	amyh@springfield.com	\\mynetwork\printer6	\\myserver\myfolder\1992\

The values can be stored in the same database or even the same table, but are typically stored in a different database e.g. HR database as these are maintained on a daily basis and are therefore more likely to be right. It also takes a lot of mundane administration work from you!

In simple terms here is what CRD will do with a dynamic schedule:

It will look at a list of StoreIDs defined by you. *e.g. Select StoreID from mytable where closeddown <> 'T' (Don't be scared, the wizard will walk you through setting up SQL queries)*

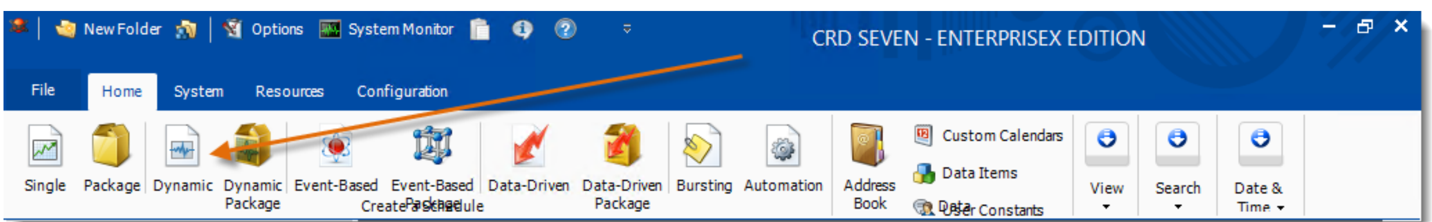
It will pick the first StoreID in the list and enter it into the report.

The report will begenerated for that store.

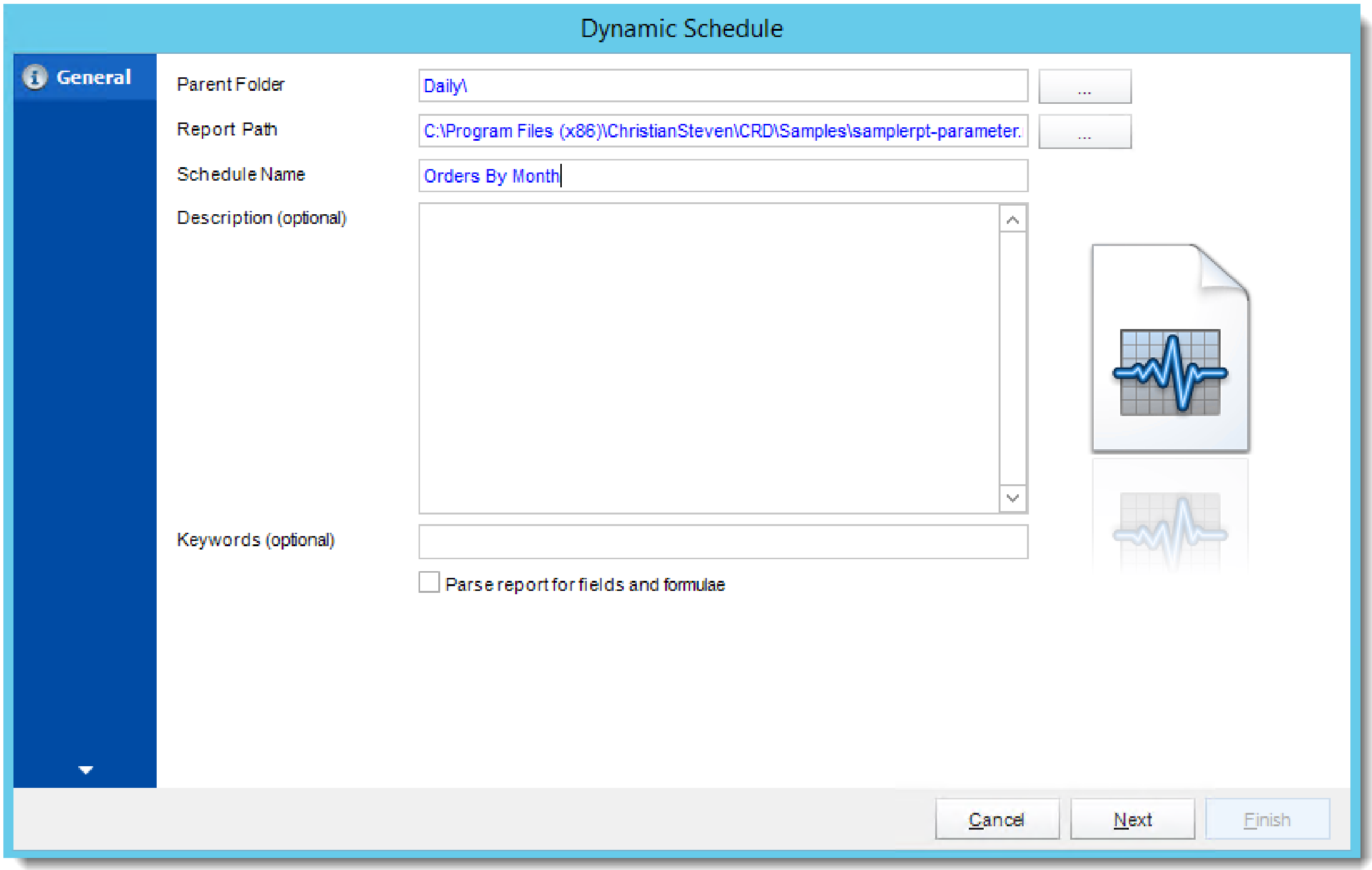
The generated report will now be delivered to the specified email address and CRD knows this because you will tell CRD where to get the email address *e.g. select email from anothertable where StoreID = [StoreID]*

How do I create Dynamic Schedule for Crystal Reports?

- Go to **Dynamic**

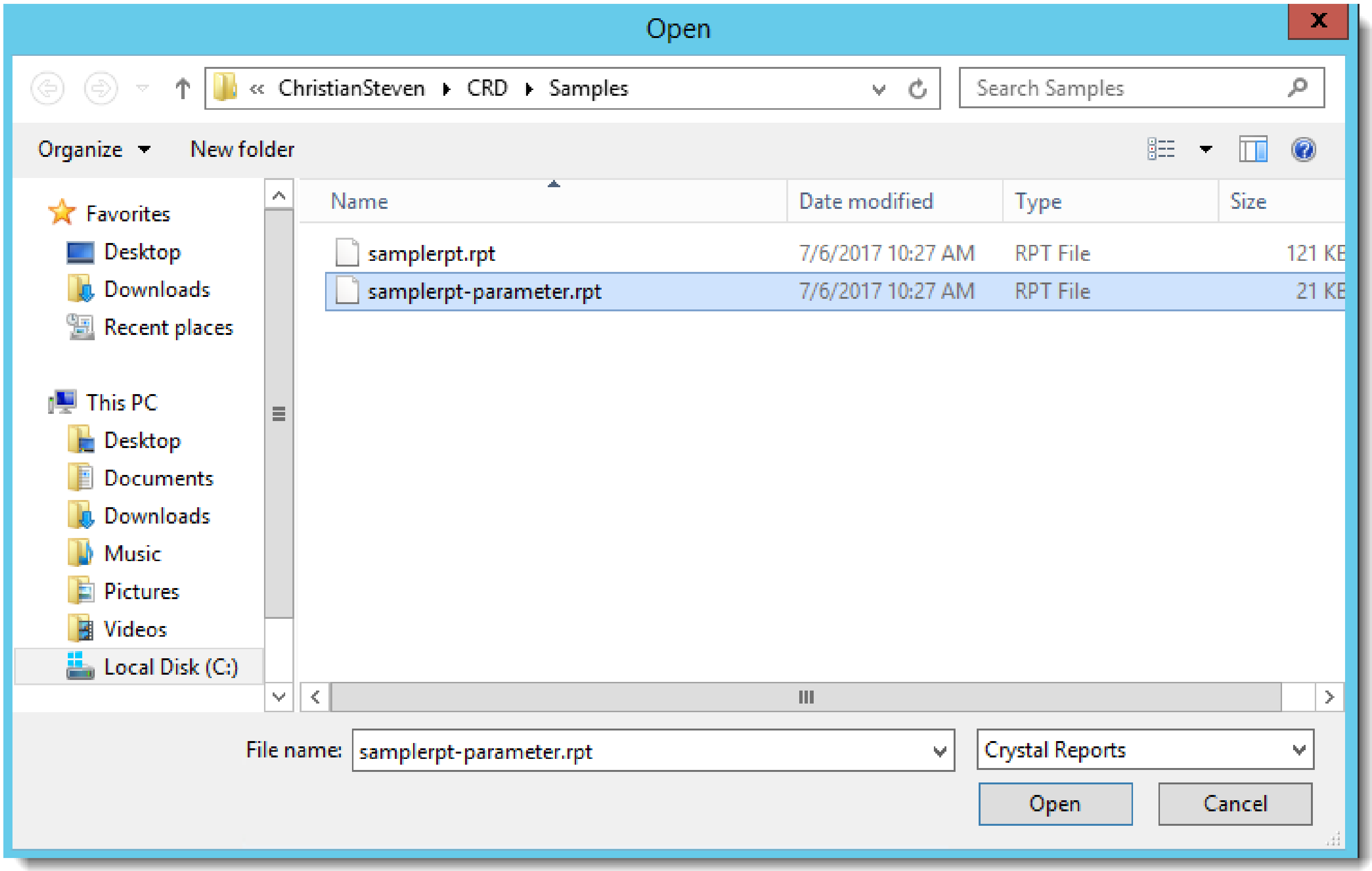


General Wizard



- **Parent Folder:** Select the folder where you wish the schedule to be stored. These are CRD specific folders.
- **Report Path:** Select the Crystal report that needs to be scheduled. A crystal report can only be added if the CRD server can reach the report path.

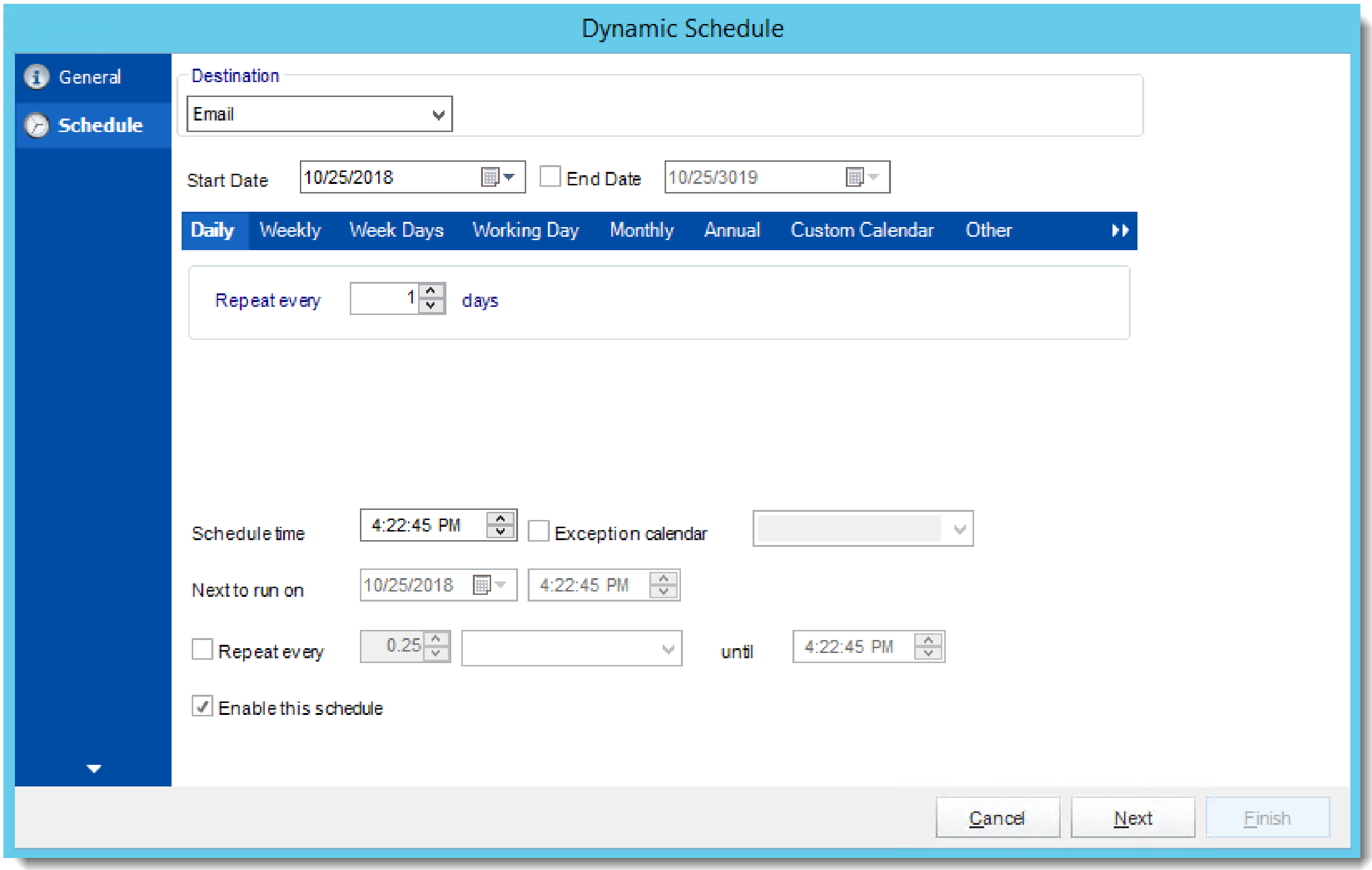
.



- **Schedule Name:** Name the schedule.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.

Click **Next** to continue to the next wizard section.

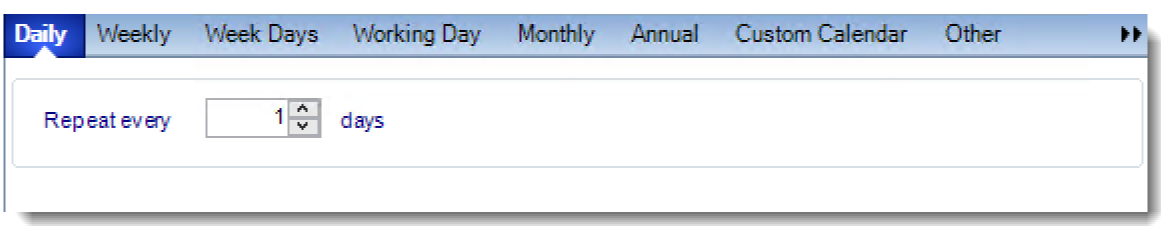
Schedule Wizard



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
  - **Sub options:** Repeat every X Days.

    Example: Run the schedule every 3 days.

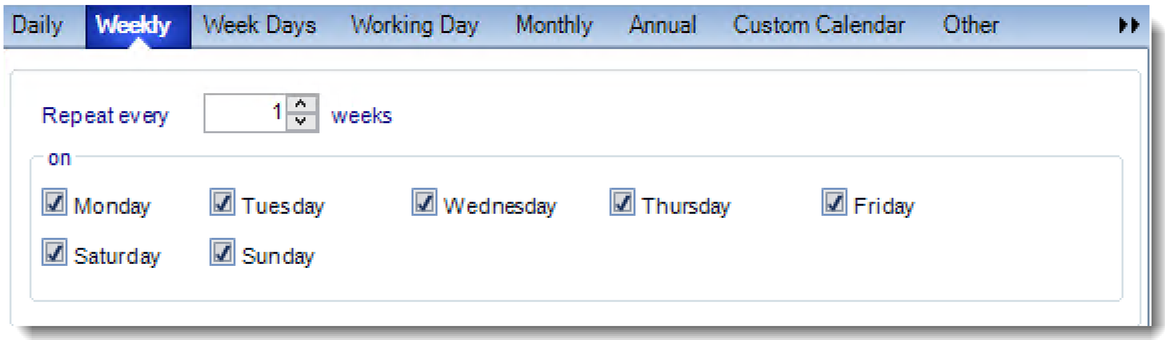


- **Weekly:** Run a report on a weekly time frame.
  - **Sub options:** Repeat every X weeks.

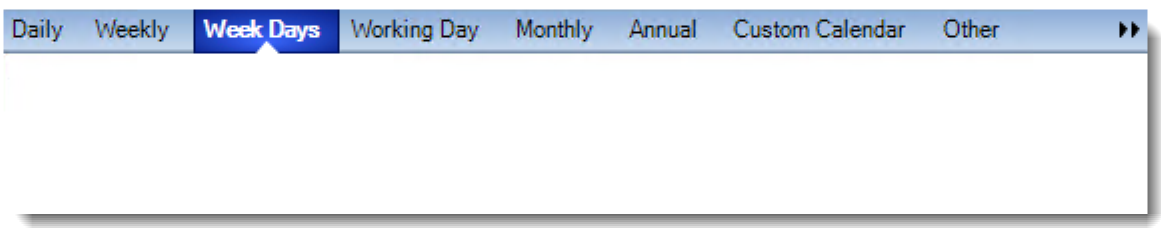
Example: Run the schedule every 2 Weeks.

- **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

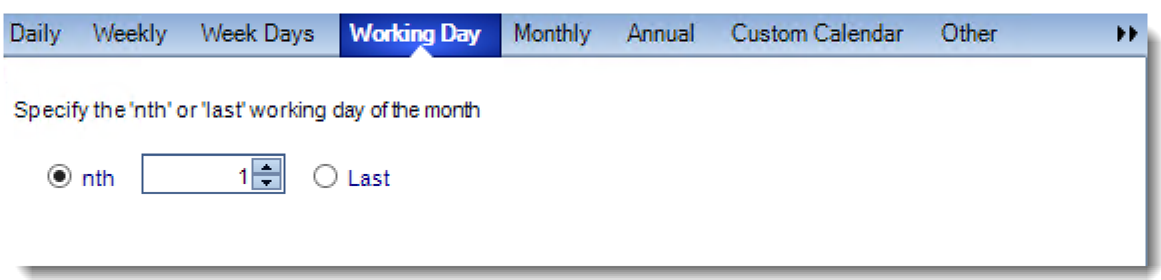
  Example: Run every Monday, Wednesday, and Friday.



- **Week Days:** Run the schedule Monday through Friday.

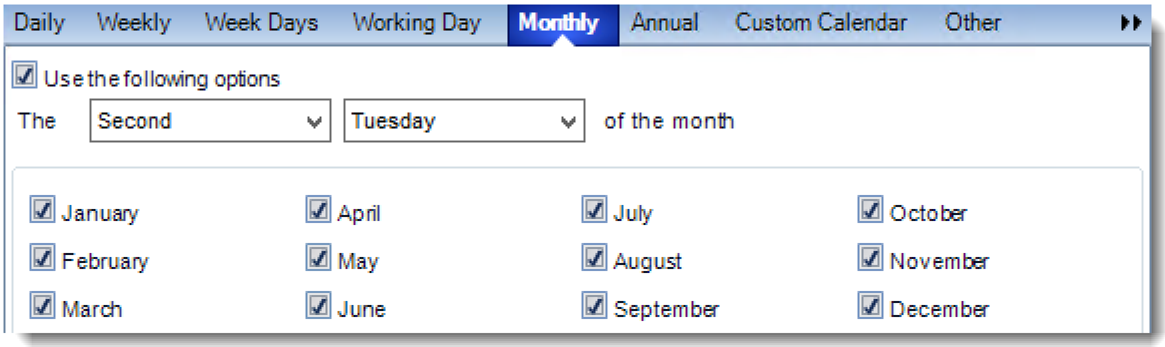


- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.

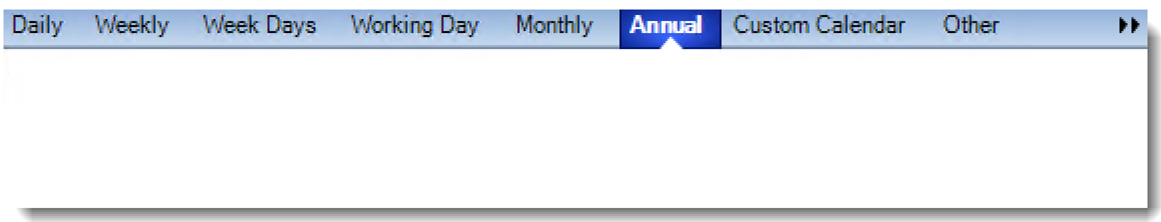


- **Monthly:** Run the schedule on a monthly time frame.

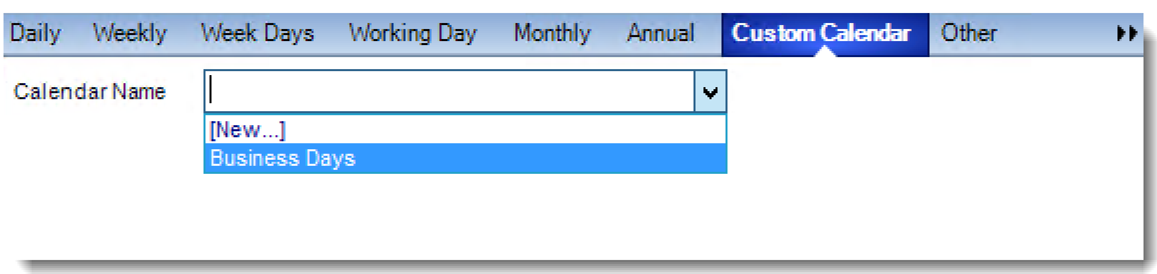
- **Use the following options:** Checking this box will enable you to select frequency options such as the “last Thursday of the month.” Also you can include or exclude specific months from the schedule.



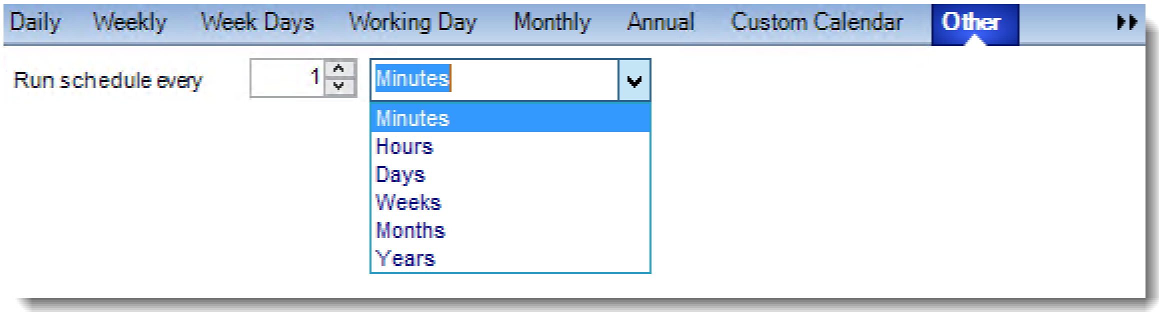
- **Annual:** Run the schedule every year at a specified time.



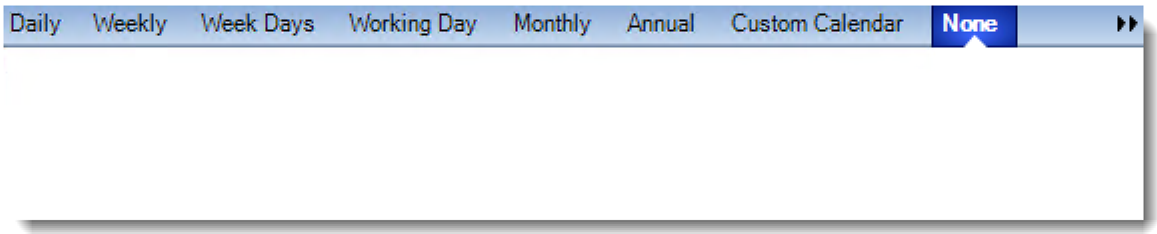
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
  - Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.



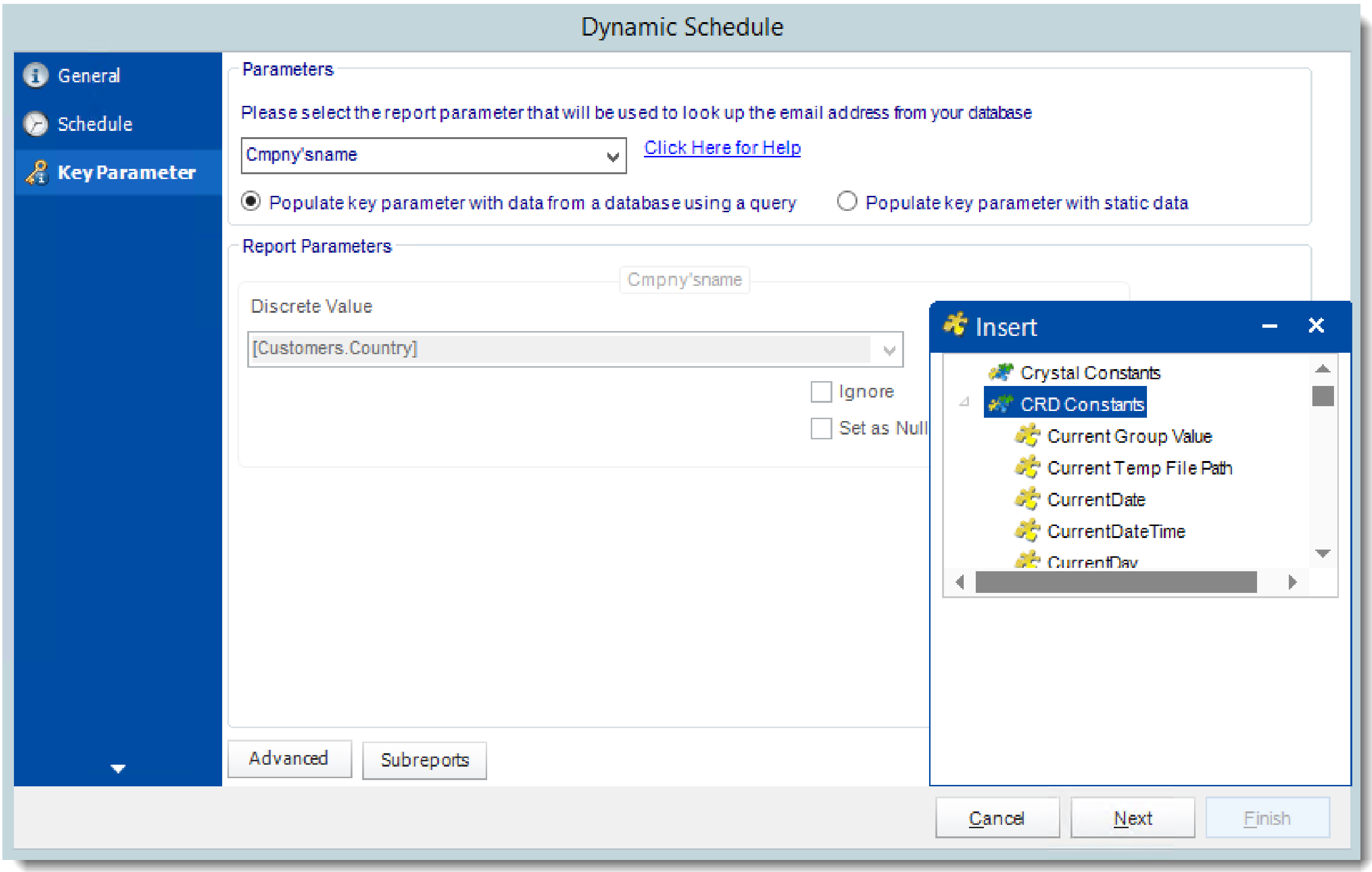
- **Destination:** Select how you would like your report to be delivered. This will also determine some of the options that will show up later in the process. For example, if you select email, you will be asked for email address later.
- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

  For example, you can set up a daily package to run every day at 8 am, *and to run every hour until* 5 pm.

- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

Click **Next** to continue to the next wizard section.

Key Parameter Wizard



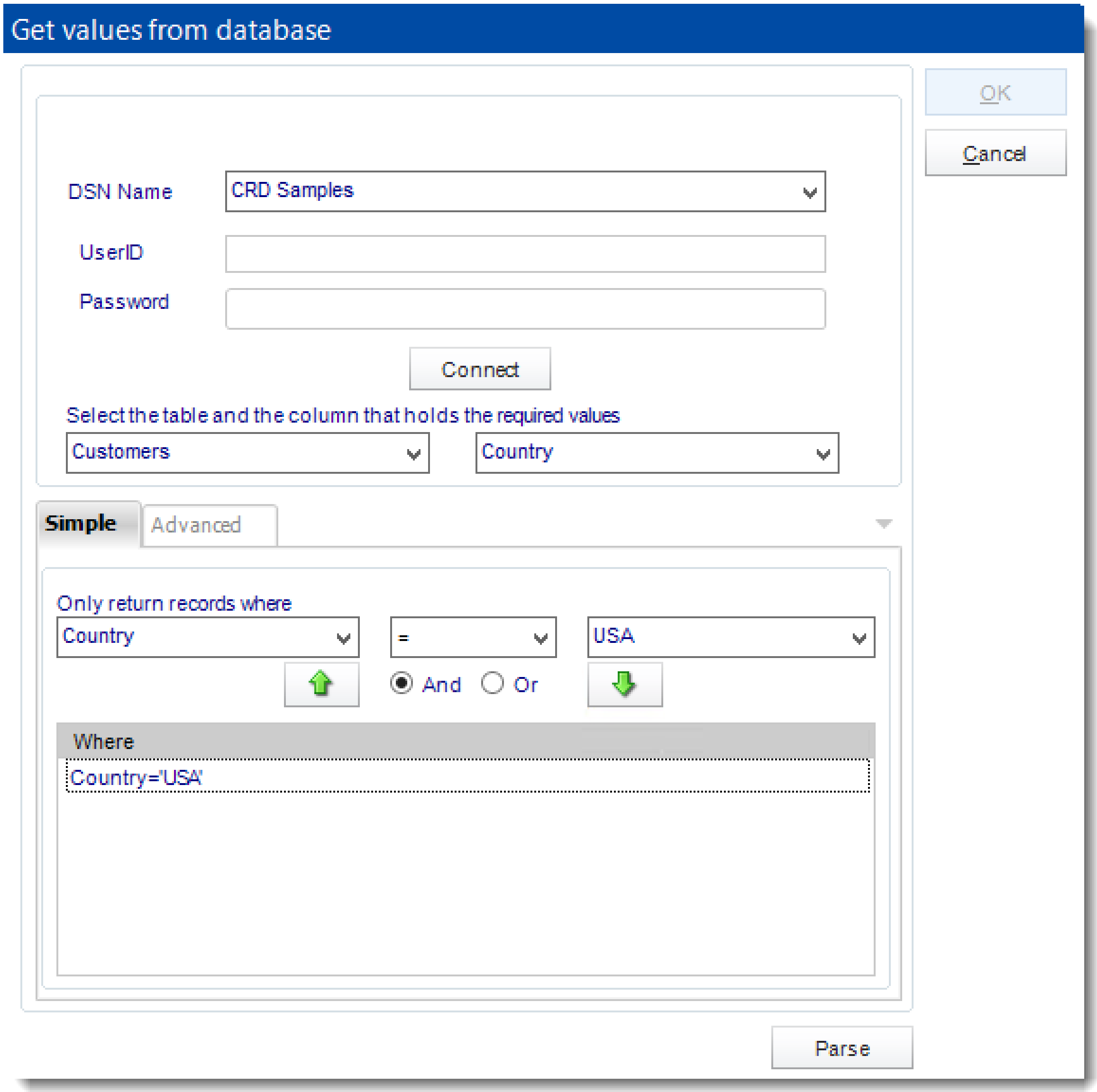
On the Key Parameter tab, you will begin by selecting the report parameter that will hold the unique value being "looked up" by your database.

The key parameter is the parameter in your report which will help CRD identify the email address, printer or folder to export to. In the example, Ray's key parameter is "[?StoreID:]" as the email address for each store is stored against the StoreID.

- **Set the Report parameter:** Select from the drop down list which parameter will be used to look up your destination. Values in this parameter will be used to look up both the appropriate destination and also generate a unique report for each value.
- **Populate key parameter with data from a database:** This is the most common option for users creating dynamic schedules. CRD will use a query to automatically feed key parameter values into your report based on a table.
    - The use of this option is better explained with an example.

    Ray wants to run the report for a large number of stores. Normally, he would print a list of all the StoreID that needed a report. He would then run the report, enter one

ID, export and email the report. He would move to the next store in the list and do the same again. For CRD to automate RAY's actions, CRD will need a list of StoreIDs which it will reel through - producing a unique report for each store and sending it to the corresponding email address. Using this option, Ray can build the list of stores the report should run for. In short, the list of parameter values which CRD should use to run the report.



- You should now notice your report parameter being populated with an insert. This means CRD will reel through your table, pull the Key parameter values and feed them into your report. A unique file will be generated for each value.

CRD will only run the report for values found in your query, not all values found in your report. Therefore, only the data in you system must be maintained rather than CRD!

  - **Set as Null:** Set no value for this parameter.
  - **Ignore:** Do not run this parameter, ignore it at runtime.
  - <u>Insert Menu</u>**:** You can insert constants, formulas and database field values instead of a static "typed in" value. Right-click in the parameters field to expose the Insert menu.

  To enable a report parameter to run for a date constant (Current Date, Yesterday etc.), select CRD Constants from the insert window, then drag and drop your desired constant to the parameter field.

- **Populate key parameter with static data:** This option would be chosen if you **DO NOT** want CRD to feed multiple parameters in to the report via database. Rather, one parameter value will be chosen, and it will run for a changing list of recipients.
  - The use of this option is better explained with an example.

  Ray wants to run the report against the same StoreID. He cannot use a Static schedule as, unfortunately, the store's email address changes weekly. This would mean he would have to edit the static schedule and enter a new email address each time the email changed.

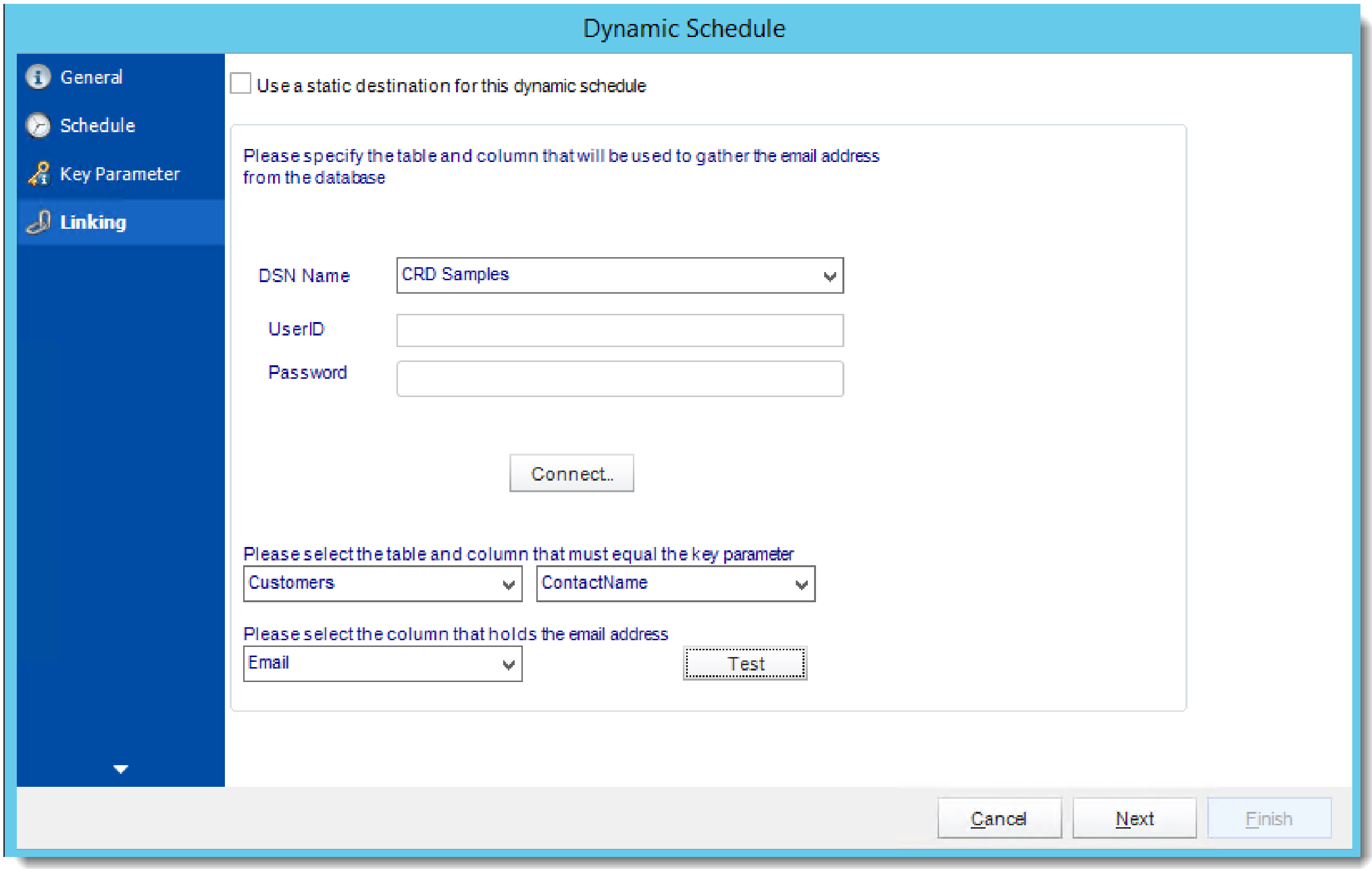
  So he writes a Dynamic schedule and uses this option to enter a static StoreID e.g. [?StoreID:] = "1991". The report will now always run for StoreID number 1991 only, but the email address it will be sent to will be the value entered in the database against this store at the time the schedule is run.

  If the database is maintained daily, then the report will always be sent to the latest email address.

- **Advanced:** Use the advanced tab to write your own query.

Click **Next** to continue to the next wizard section.

Linking Wizard



In this Section we will establish a link between the key parameter values we have selected earlier, and the location of the corresponding destination information.

- **Use static destination:** This will export all your report to a single destination e.g. a folder.
- **DSN Name:** Drop down and select a DSN.

  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the *database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.*

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database
- **Password:** Enter the password associated with the above user.
- **Connect:** Connect to the Database

Here is where Ray connects to the database and tells CRD where it will find the StoreID value, and what the corresponding email address is.

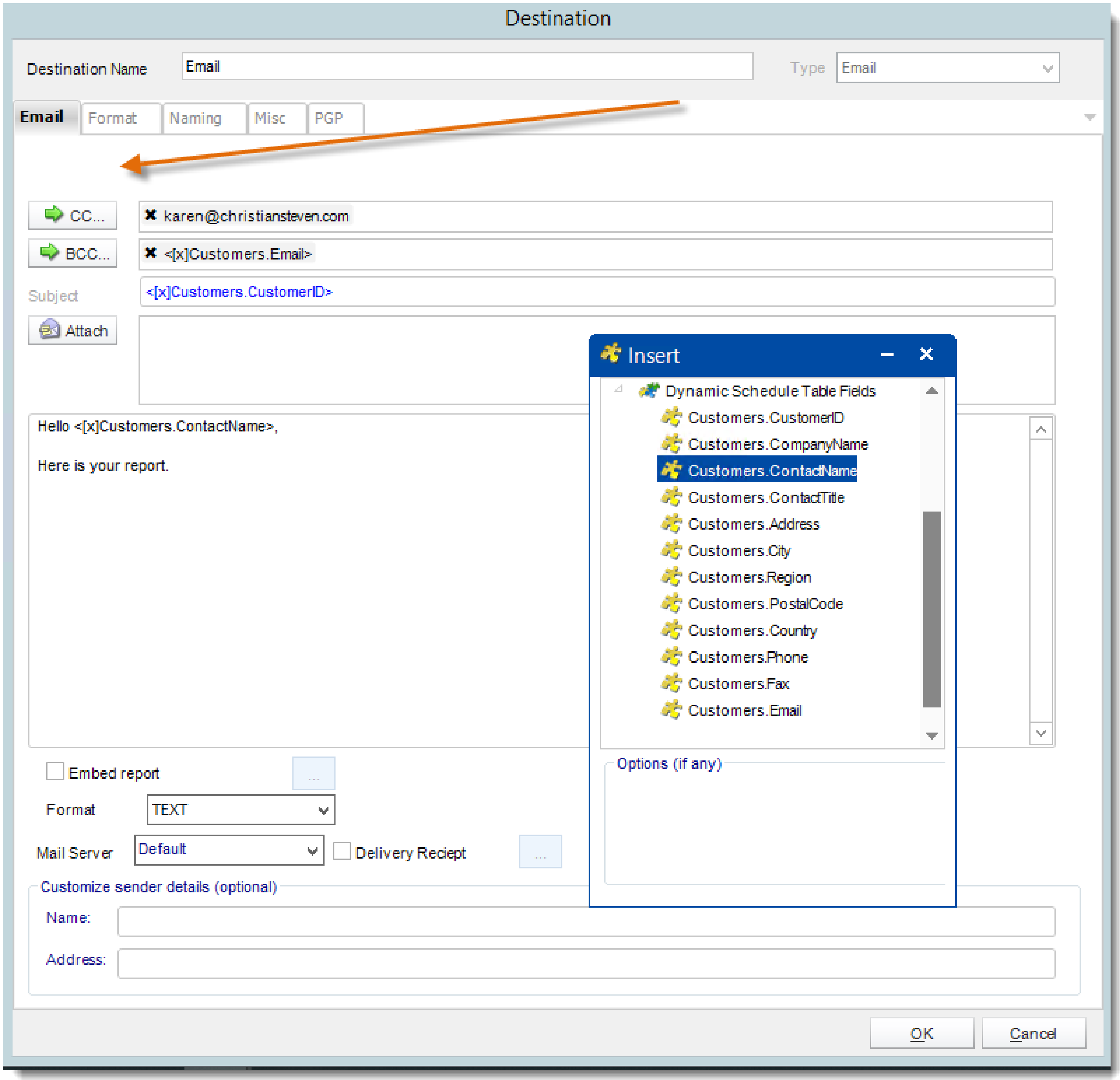
Select the table name (e.g. ContactInfo) and the column in that table (e.g. StoreID) which matches the parameter value (StoreID) which you determined in the previous step.

- Select the column in the table that holds the email address (or folder path or printer name) that corresponds to the above parameter value.

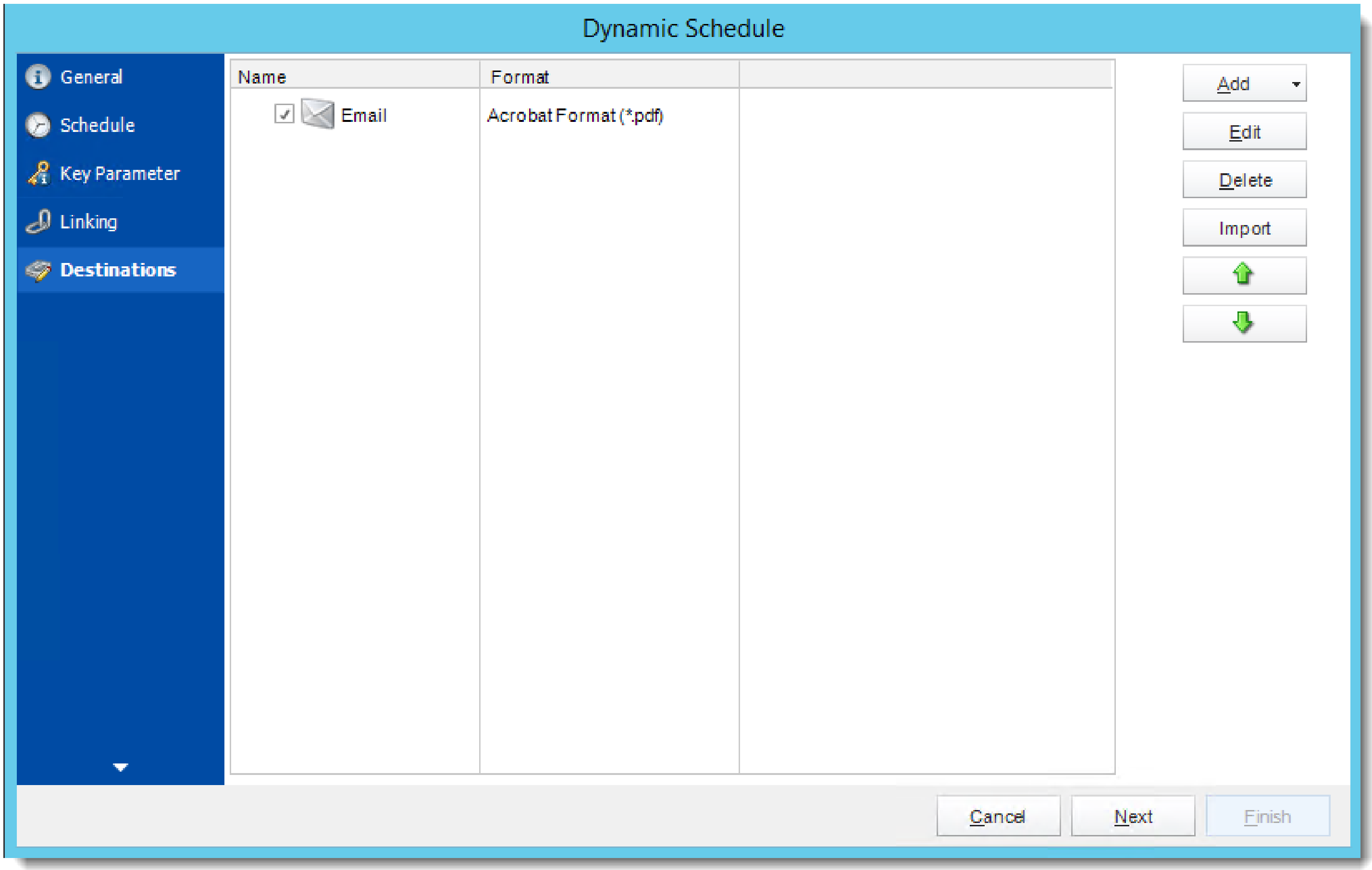
Click **Next** to continue to the next wizard section.

Destination Wizard

Under the Destinations tab, the destination that you chose previously under the Schedule section will now automatically pop-up. Secondly there is no ‘To’ address because this information is being retrieved from a database. The reason for this is that since the destination type was defined in the previous step.

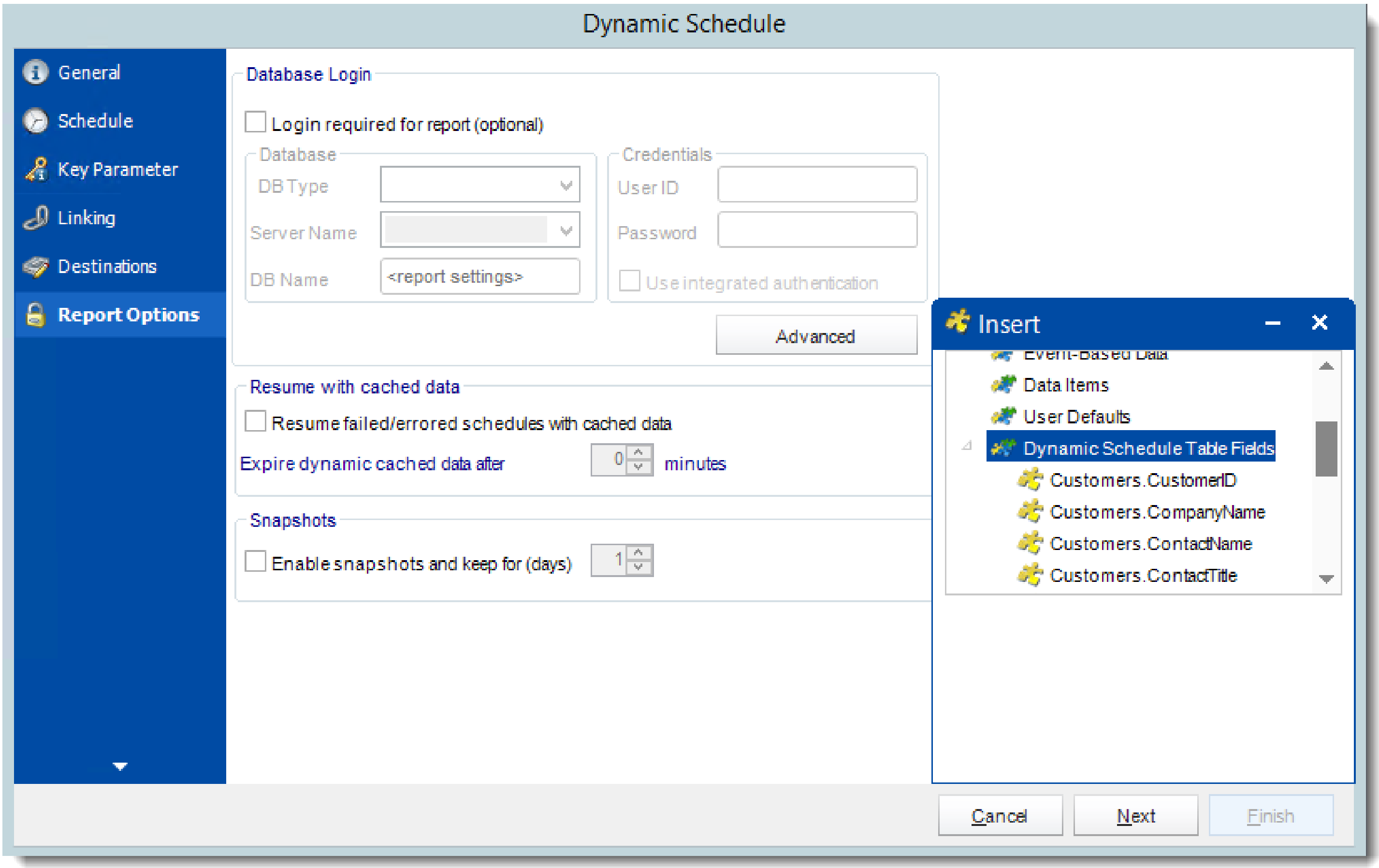


- Use the Inserts Function to customize the email subject and body as desired. Simply drag and drop Dynamic Table Fields from your Inserts list.
- Select the format for your report.



Click **Next** to continue to the next wizard section.

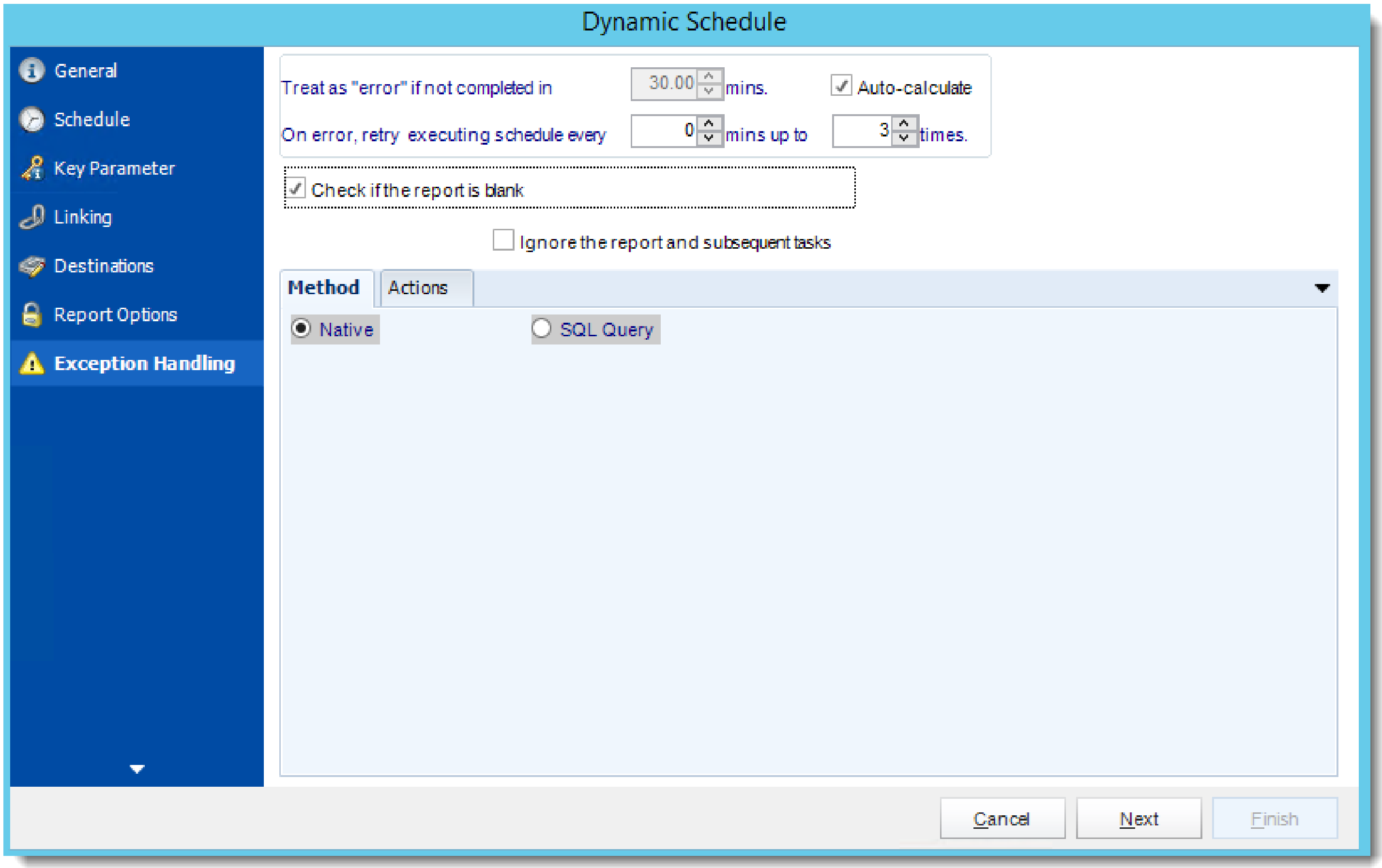
Report Options Wizard



- **Database Login:** If the database requires logon credentials, check this option and enter the required username and password. If credentials are not required, uncheck the option and continue as normal (default). All values are optional. You only need to enter a value if your database, security, networking or infrastructure require it.
- **DB Type:** Select the type of Database.
- **Server Name:** Enter the server name of the database.
- **DB Name:** Enter the name of the database.
- **Credentials:** Enter the User ID and Password for the Database. Clicking on the Advanced tab, you can set logins for each table.
- **Advanced**: Enables you to specify credentials at the table level. Double click the table to set its login information.
- **Resume failed/errored with cached data**: If the schedule fails, resume the schedule from where it left off. You can then select how long should the cached data should be kept.
- **Save snapshots of the execution and keep them for (days):** Keep a copy of the report for how many days.

Click **Next** to continue to the next wizard section.

Exception Handling Wizard



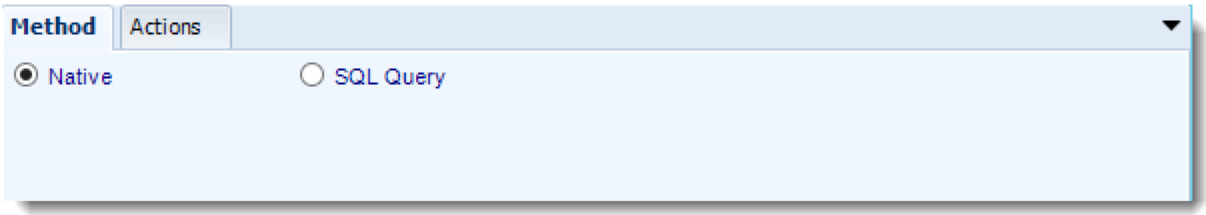
- **Treat as "error" if not completed in X minutes:** If a report takes longer than the specified amount of time to run, this option will treat the schedule as an error and follow the appropriate action. The "Auto-calculate" option instructs CRD automatically determine how long a schedule should take to run the report. If it takes longer than the calculated amount of time, then it is an error.

  If manually determining the error timing, please double check the run time of the report in order to get the correct time estimate.

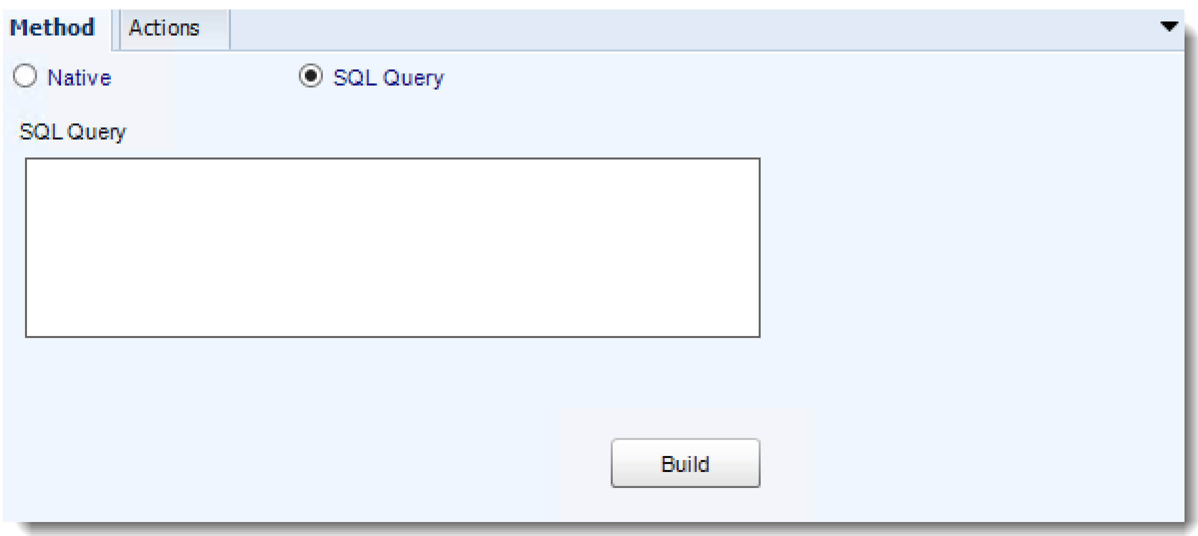
- **On error, retry executing schedule every:** If set to 0, CRD will deem the schedule as "Failed" the first time it encounters an error. The schedule will not run again until its next scheduled time. Change the value to tell CRD how many times you want it to retry running the report before declaring it as "Failed."

- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.
- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

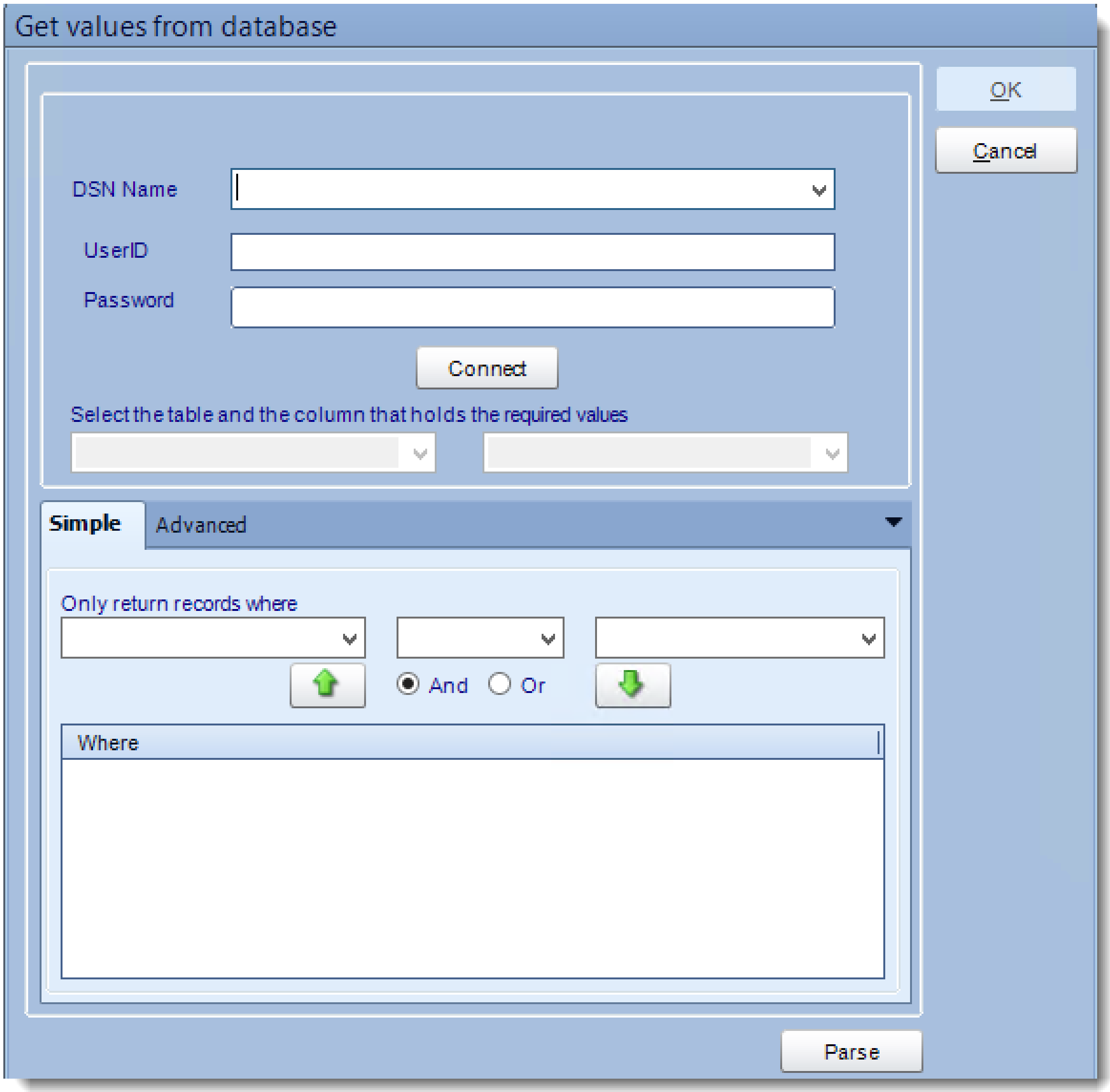
Method



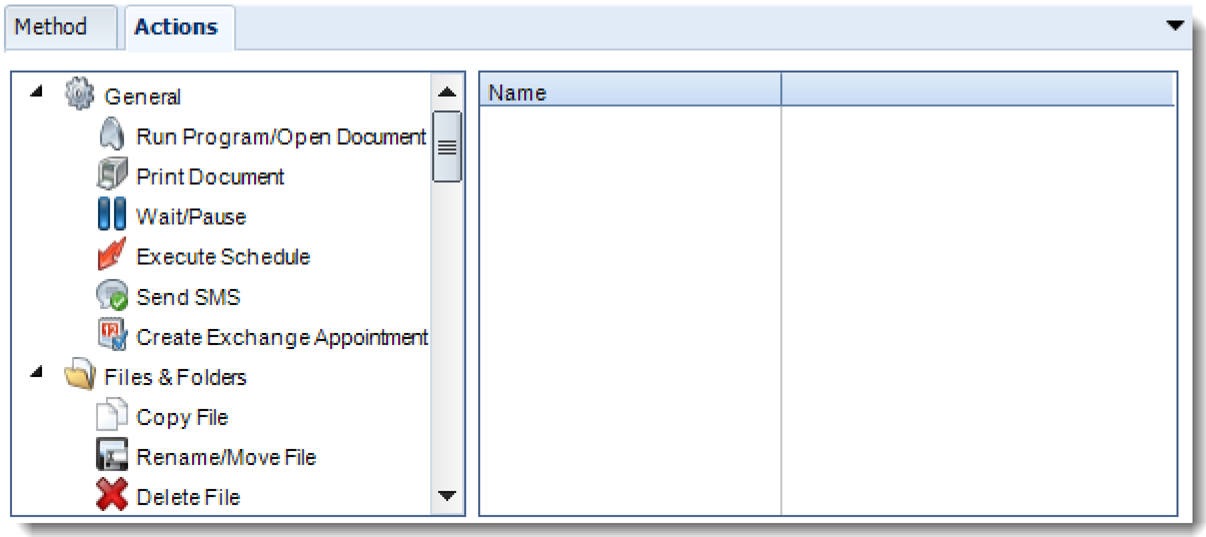
- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



    - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

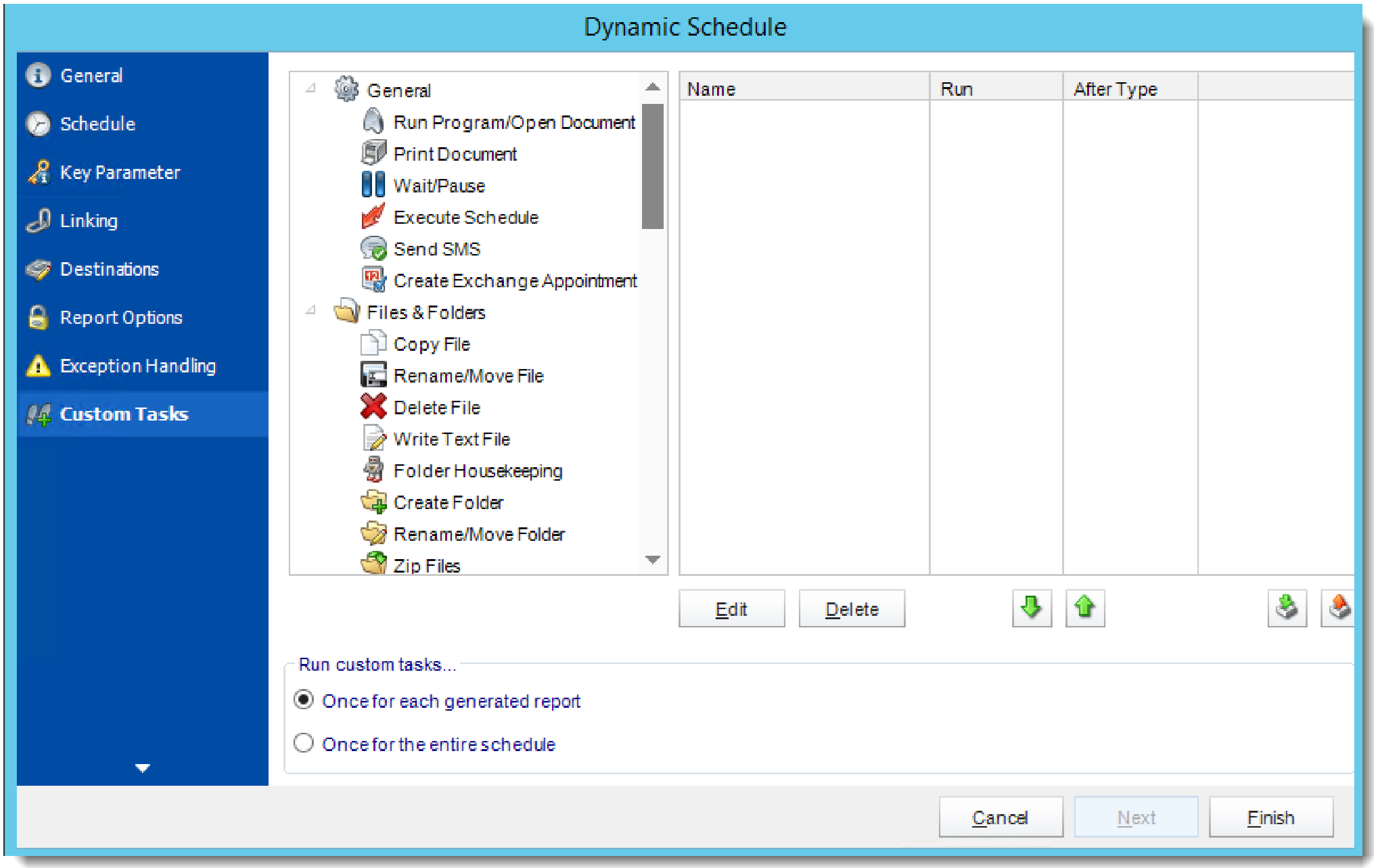


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

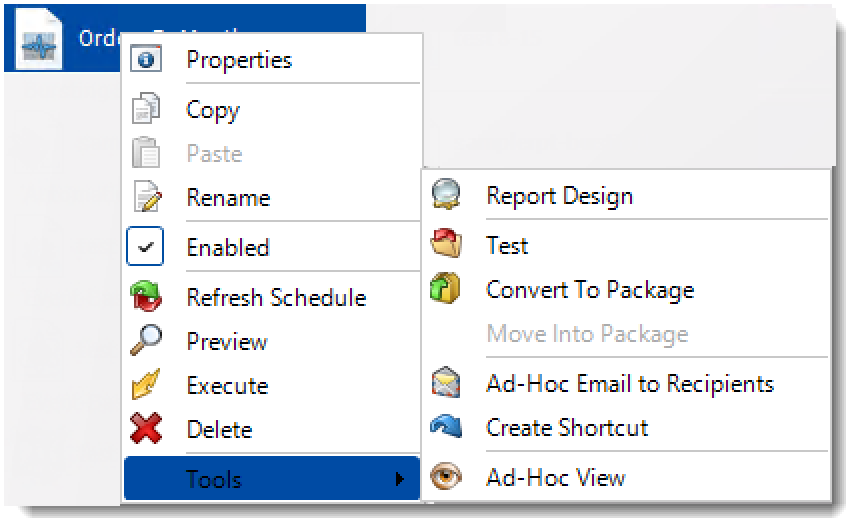
Click **Next** to continue to the next wizard section.

Custom Tasks Wizard



- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- **Once for each generated report:** Each task will be ran for each successfully generated report within the schedule.
- **Once for the entire schedule:** Each task will be ran once when the schedule has completed successfully.
- If you have no desire to add a Custom Task, you can click **finish** to complete the schedule.

Dynamic Schedule Context Menu

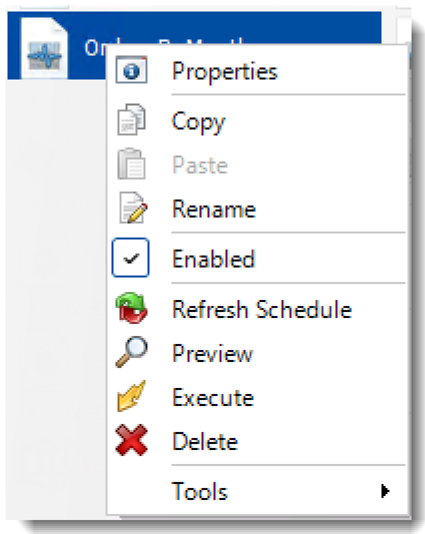


Right-Click on a schedule to see the following actions:

- **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
- **Copy:** Use this to copy the schedule. Right-click in the "white space" of the folder you wish to copy it to and select Paste button.
- **Rename:** Rename the package.
- **Enabled:** Schedules are enabled when there is a check icon beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check icon. Disabled schedules will not run until they are enabled again.
- **Refresh:** When a schedule is first created, CRD caches (saves) a copy of the report. All executions of the scheduled are performed using this copy. If you make changes to your master report, you must select this option in order to pull the changes into CRD.
- **Preview:** Preview the report before execution.
- **Execute:** This button will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers
- **Delete:** Selecting this option will delete the schedule.
- **Report Design:** Preview the report Design.
- **Test:** Use this option to test the schedule and export it to selected "test" destinations.
- **Convert To Package:** This button will move this report into a package. The package will have the name of the single schedule report.
- **Move into a package:** use this option to move the report into an existing package.
- **Ad-Hoc Email to Recipients:** Select this option to send an ad-hoc email to all recipients of this package. You can use this to alert recipients to a planned system outage, or any other useful information.

- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.
- **Ad-Hoc View:** This button allows you to preview the report.

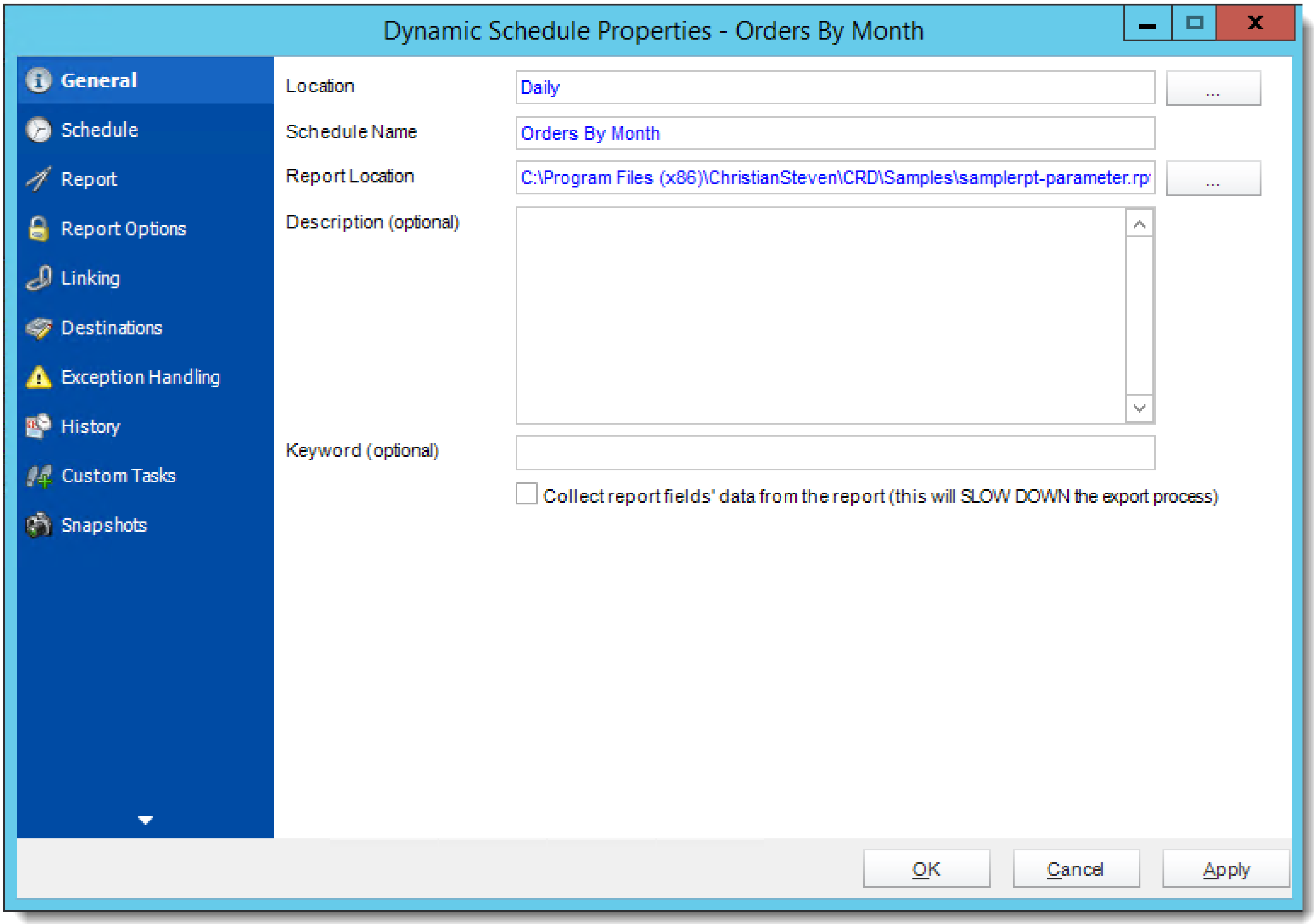
Dynamic Schedule Properties



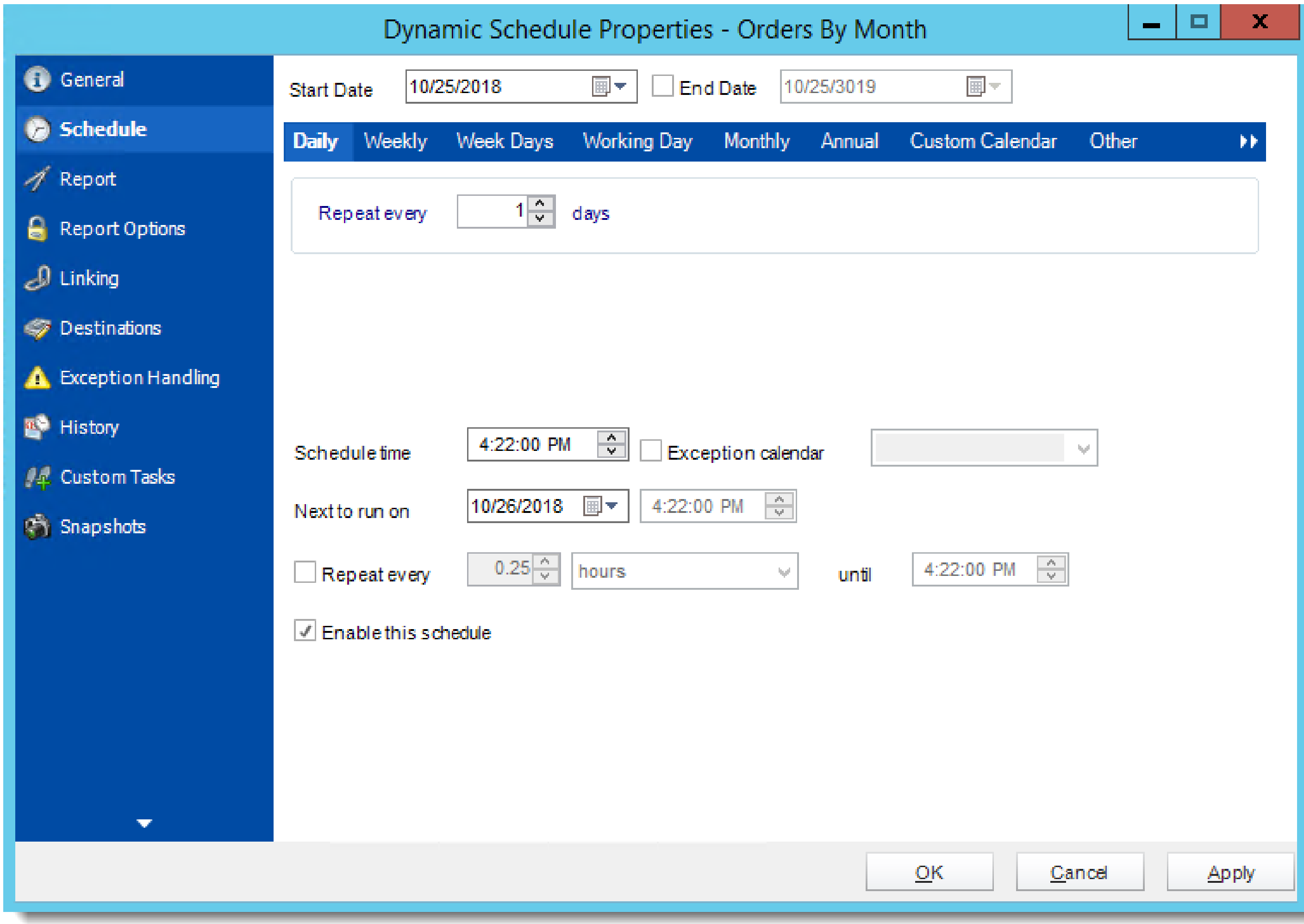
To access your schedule properties, right click on a schedule and select **properties**.

Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

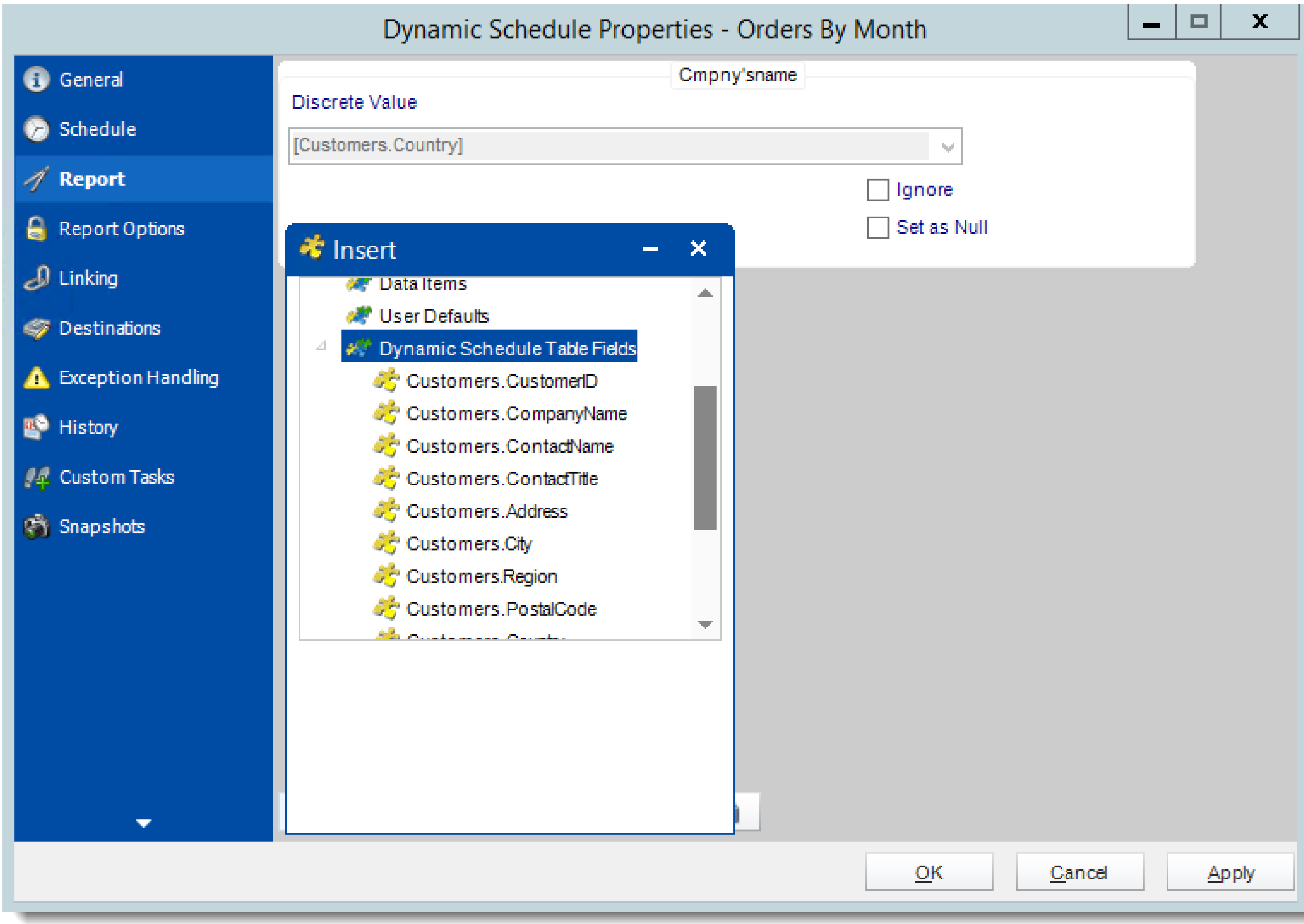
General: You can edit general information of you schedule from here.



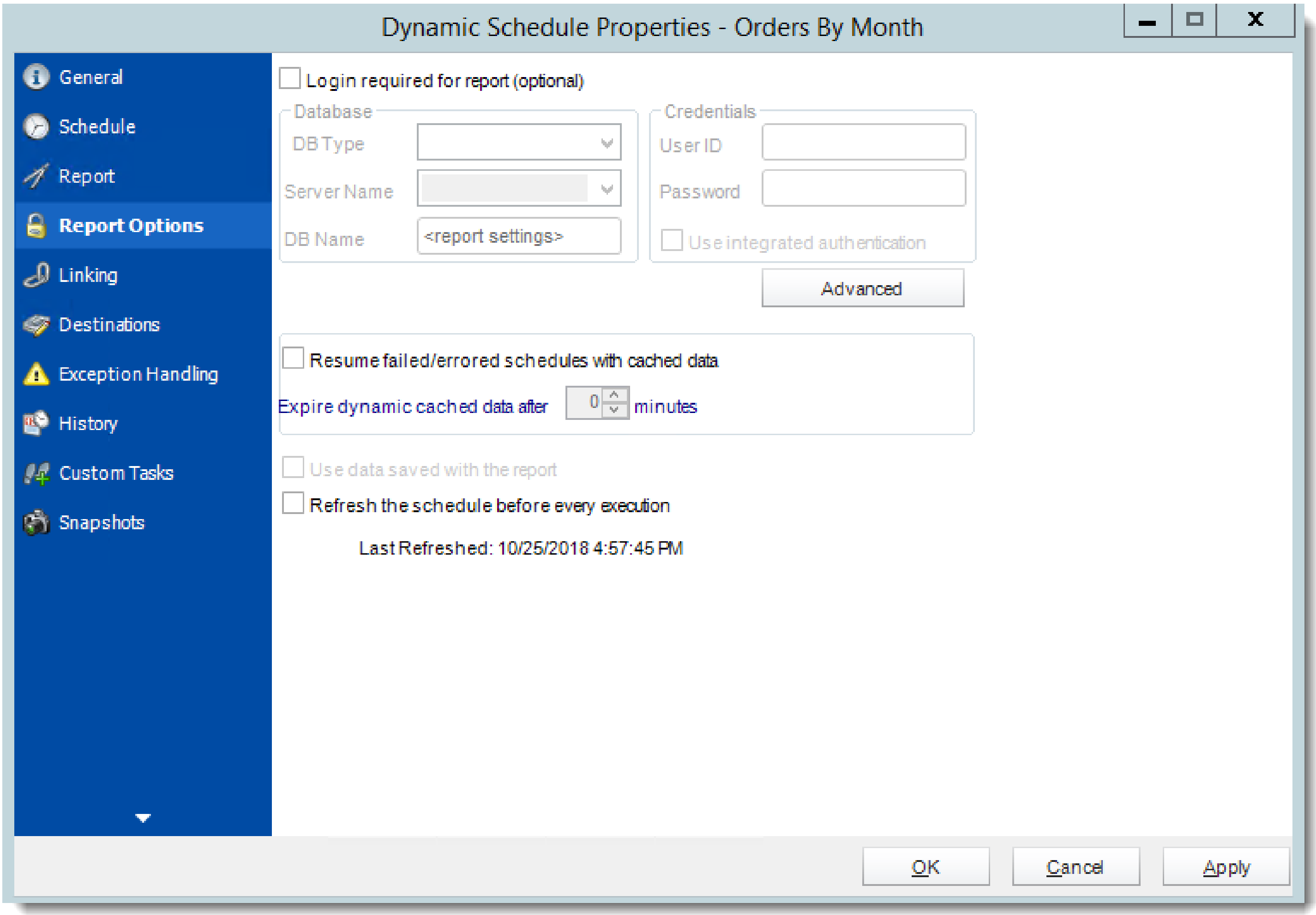
Schedule: You can edit the schedule time from here.



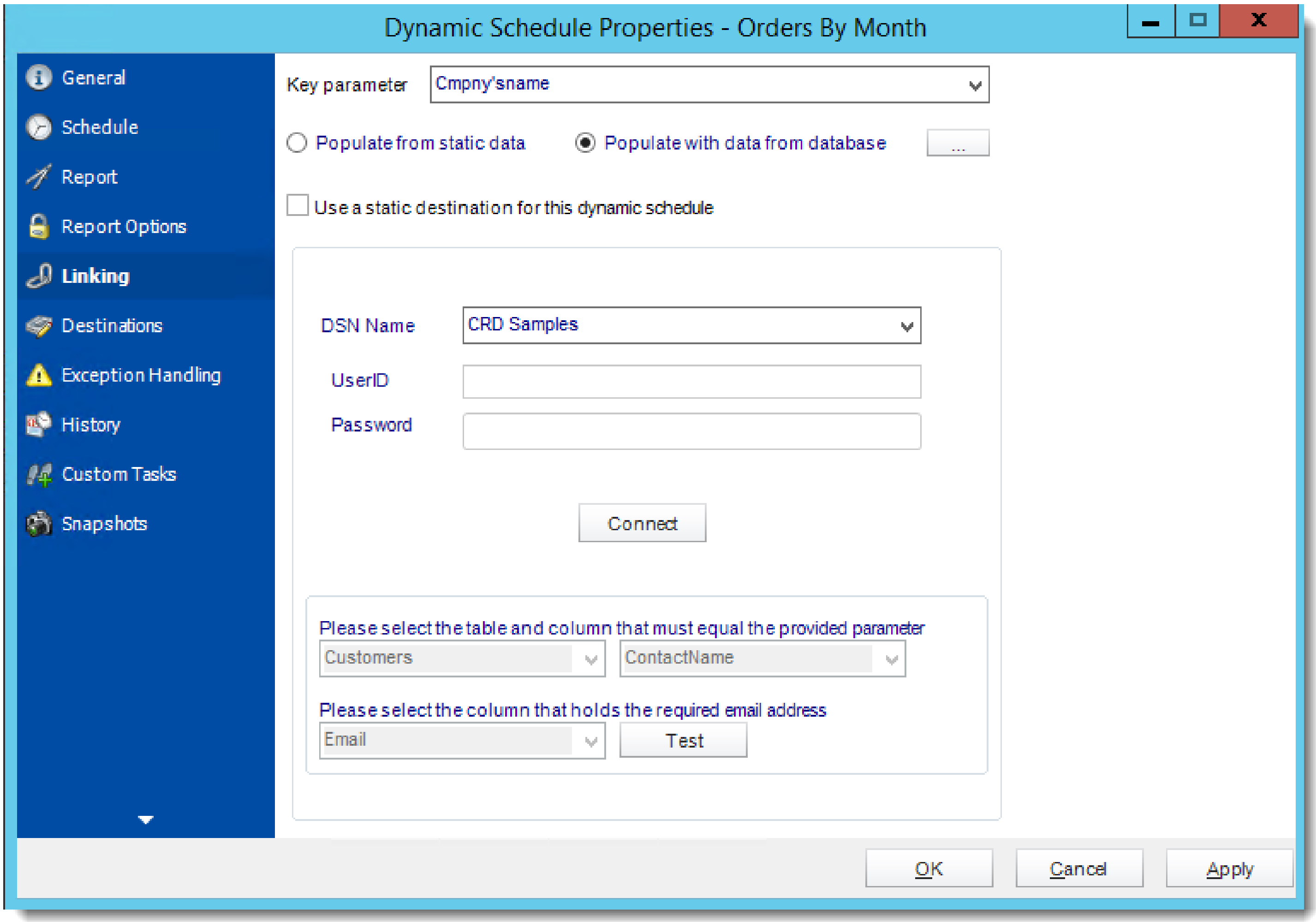
Report: You can add, edit, or delete parameters from here.



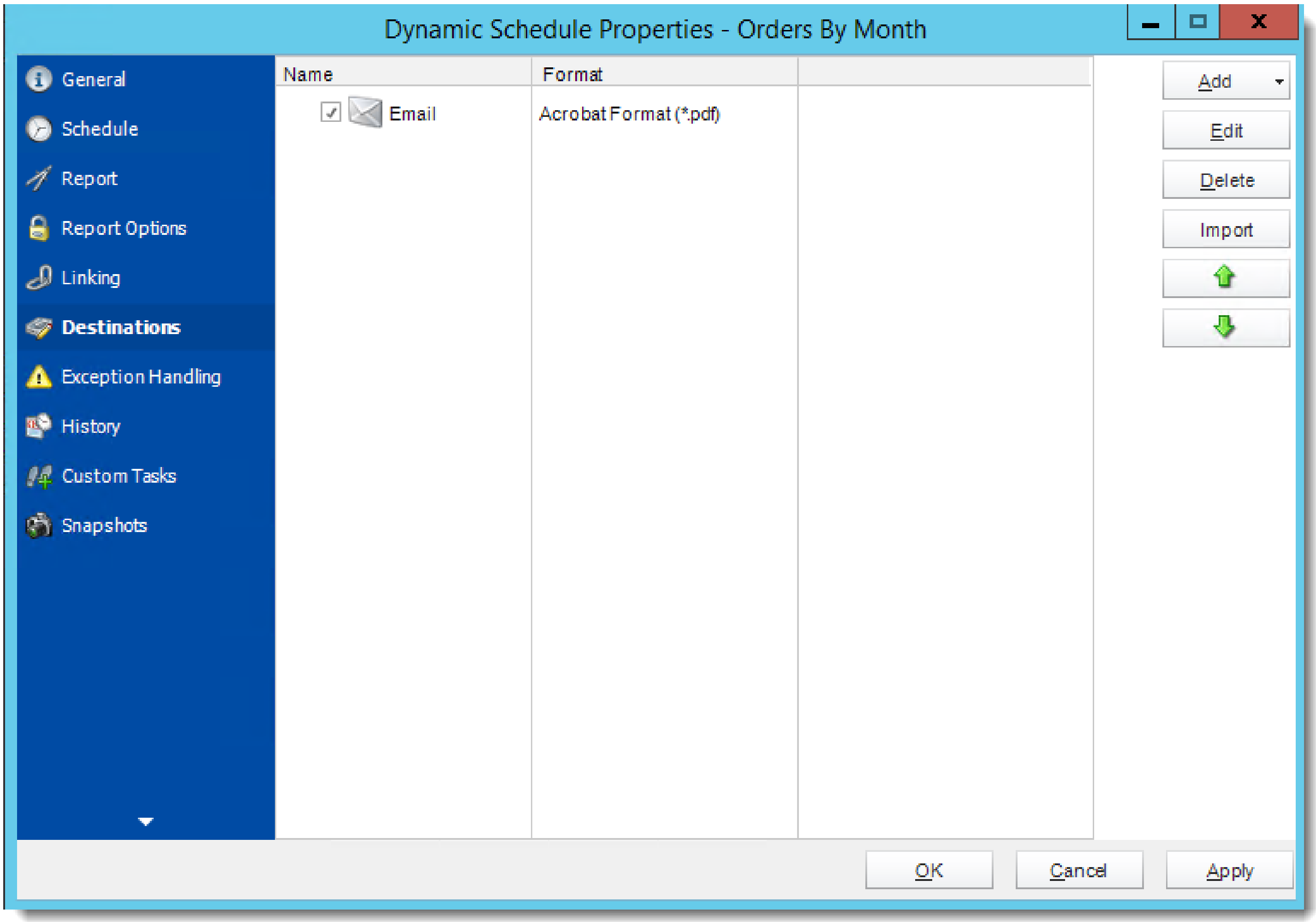
Report Options: You can edit report options from here.



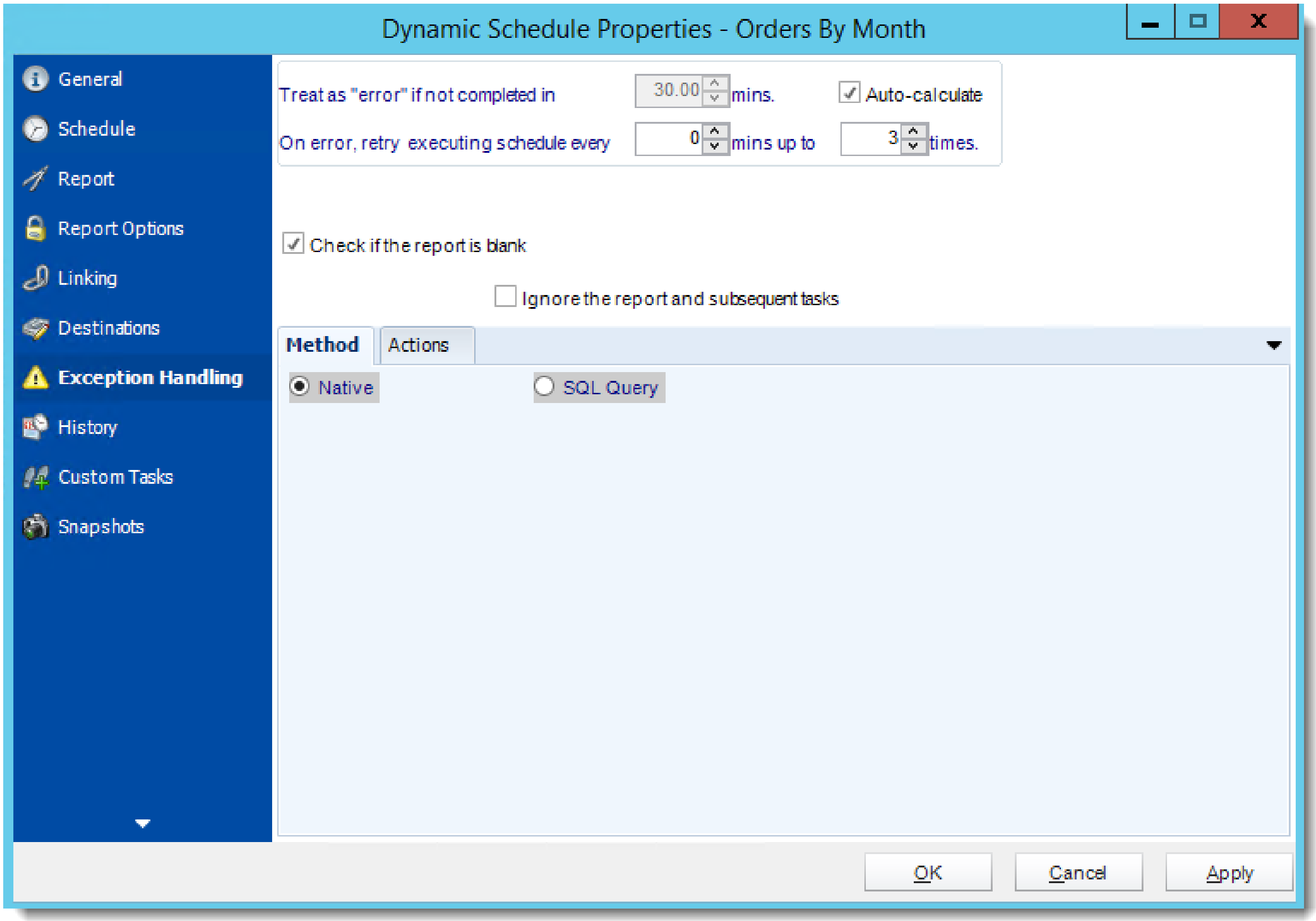
Linking: You can edit linking options from here.



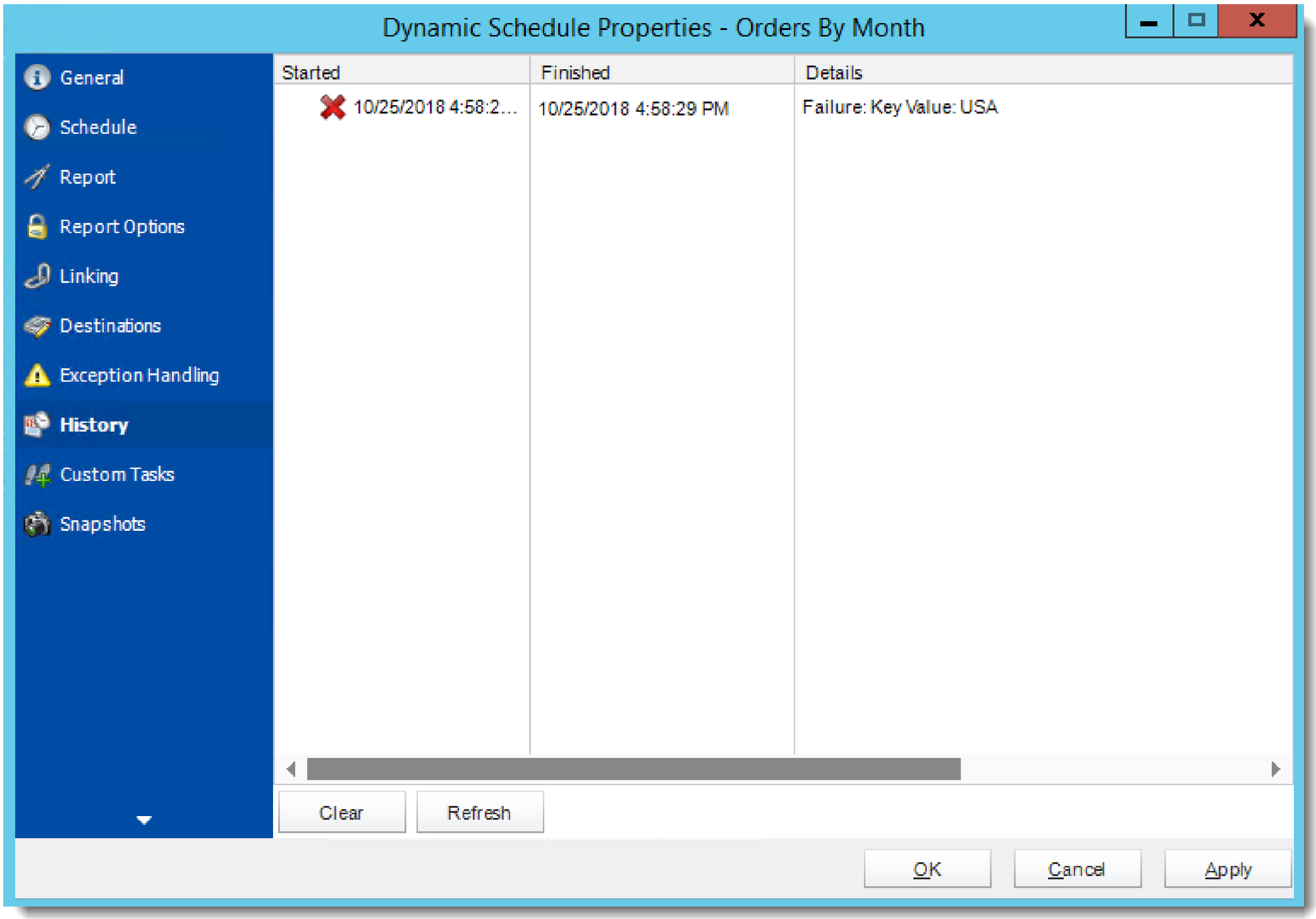
Destinations: You can add, edit, or delete destinations from here.



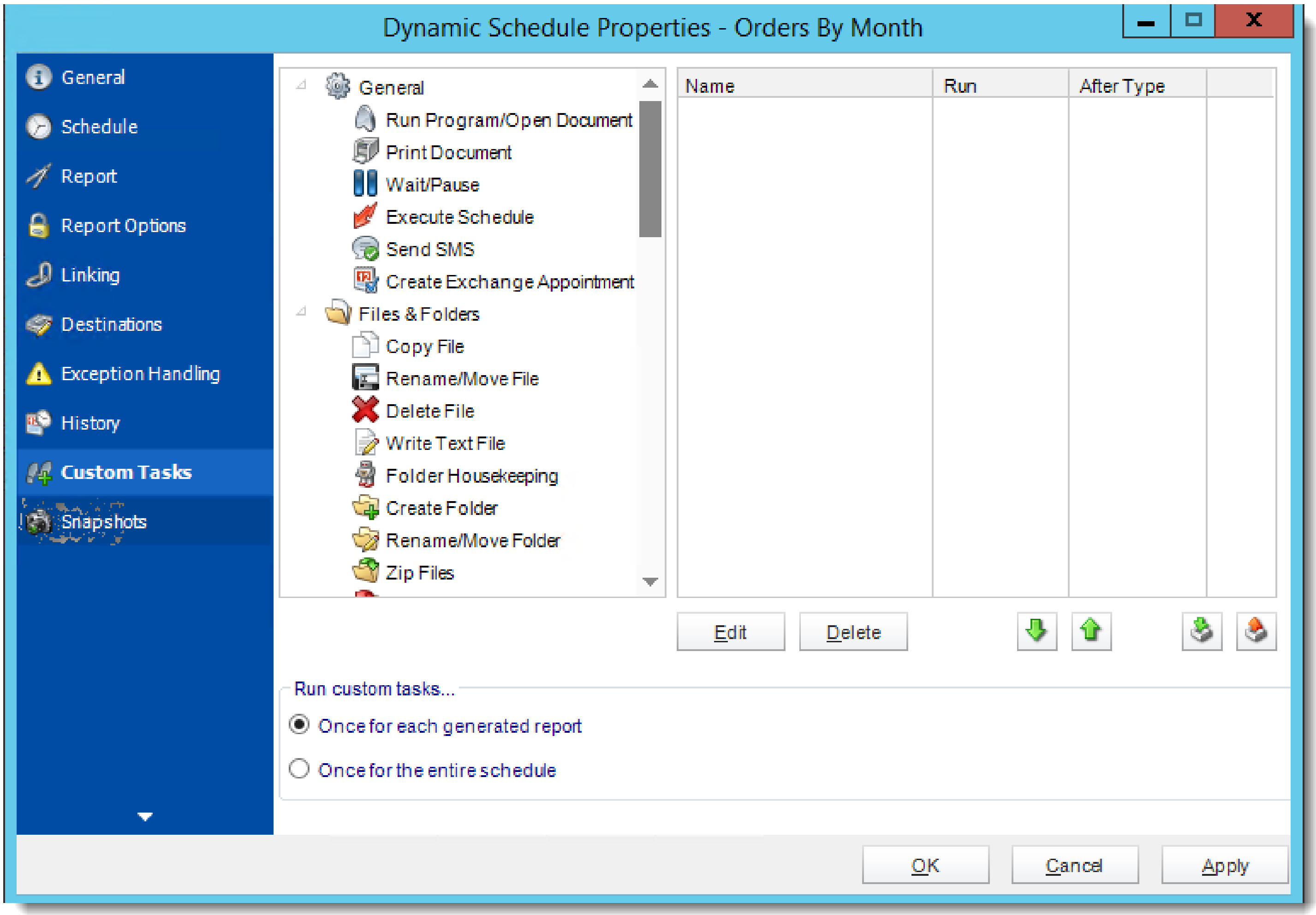
Exception Handling: You can edit exception handling from here.



History: Review the schedules history. Successes, failures, and other data is located here.

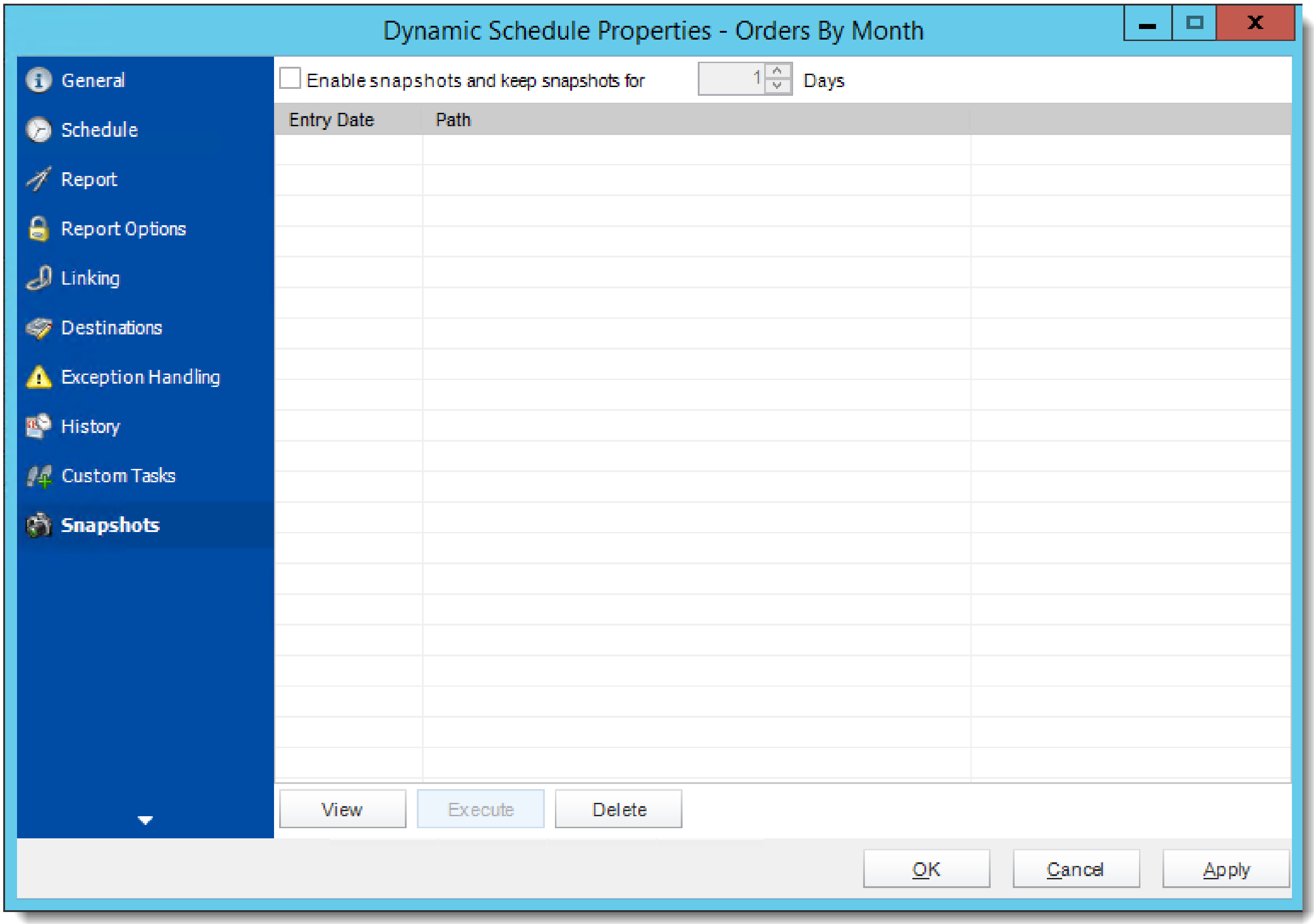


Custom Tasks: You can add, edit, or delete tasks from here.



Snapshots: A snapshot is a copy of each report a schedule or a package generates. Keeping snapshots enables you to resend past reports without generating them afresh - especially if the data has changed in the meantime.

Simply select the number of days to keep the snapshots.



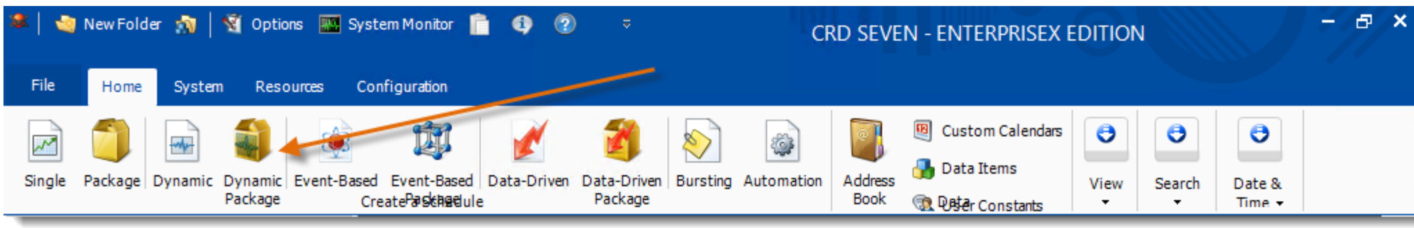
Dynamic Package for Crystal Reports

Dynamic Package Schedules allow you to create packages of at least two reports which share a common key parameter. This allows you to create a package of reports to be delivered to a unique destination.

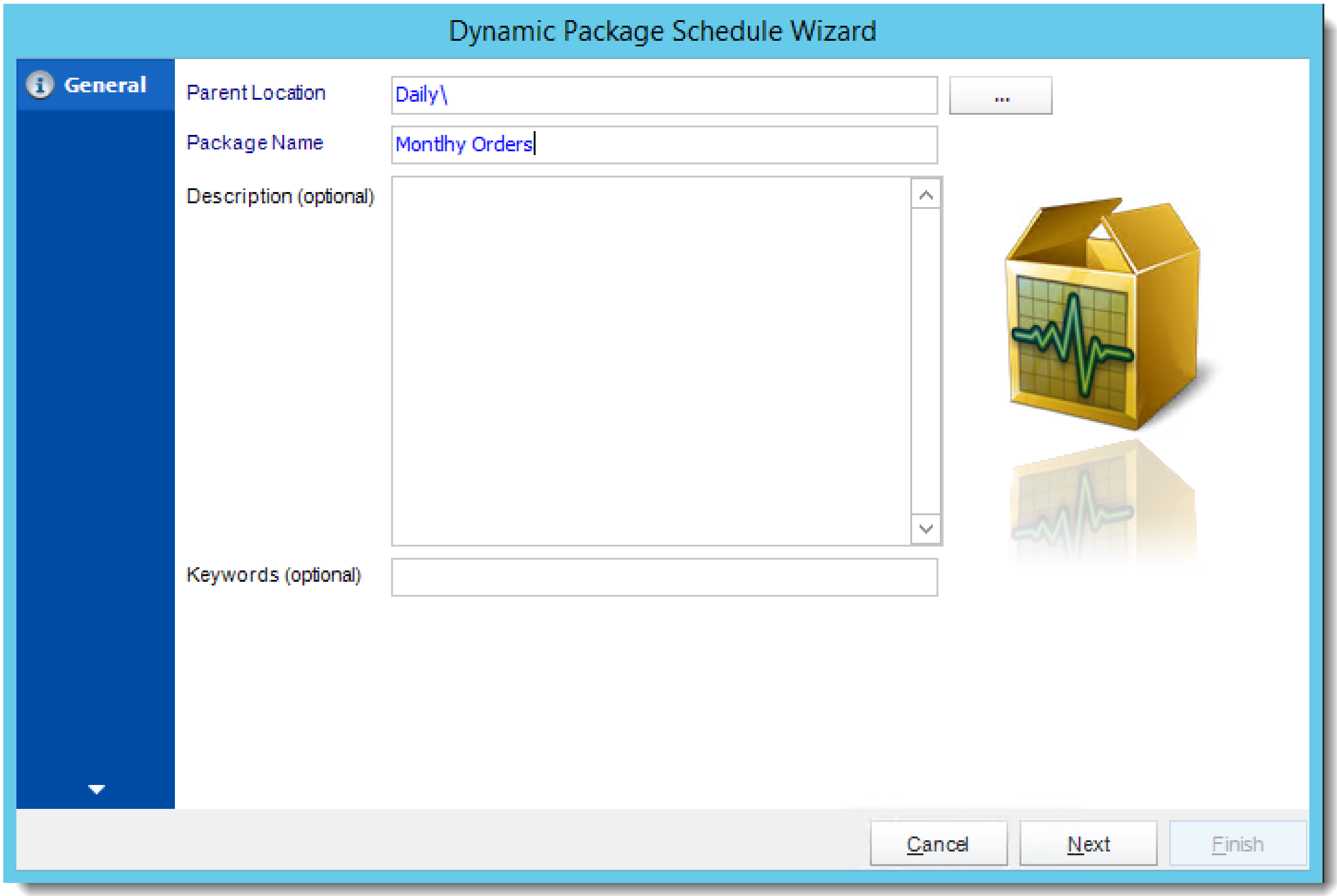
Example: We will create a Dynamic Package to deliver the Marketing and Sales reports for clients and deliver this set to a unique destination.

How to Create a Dynamic Package Report for Crystal Reports?

- Go to **Dynamic Package.**



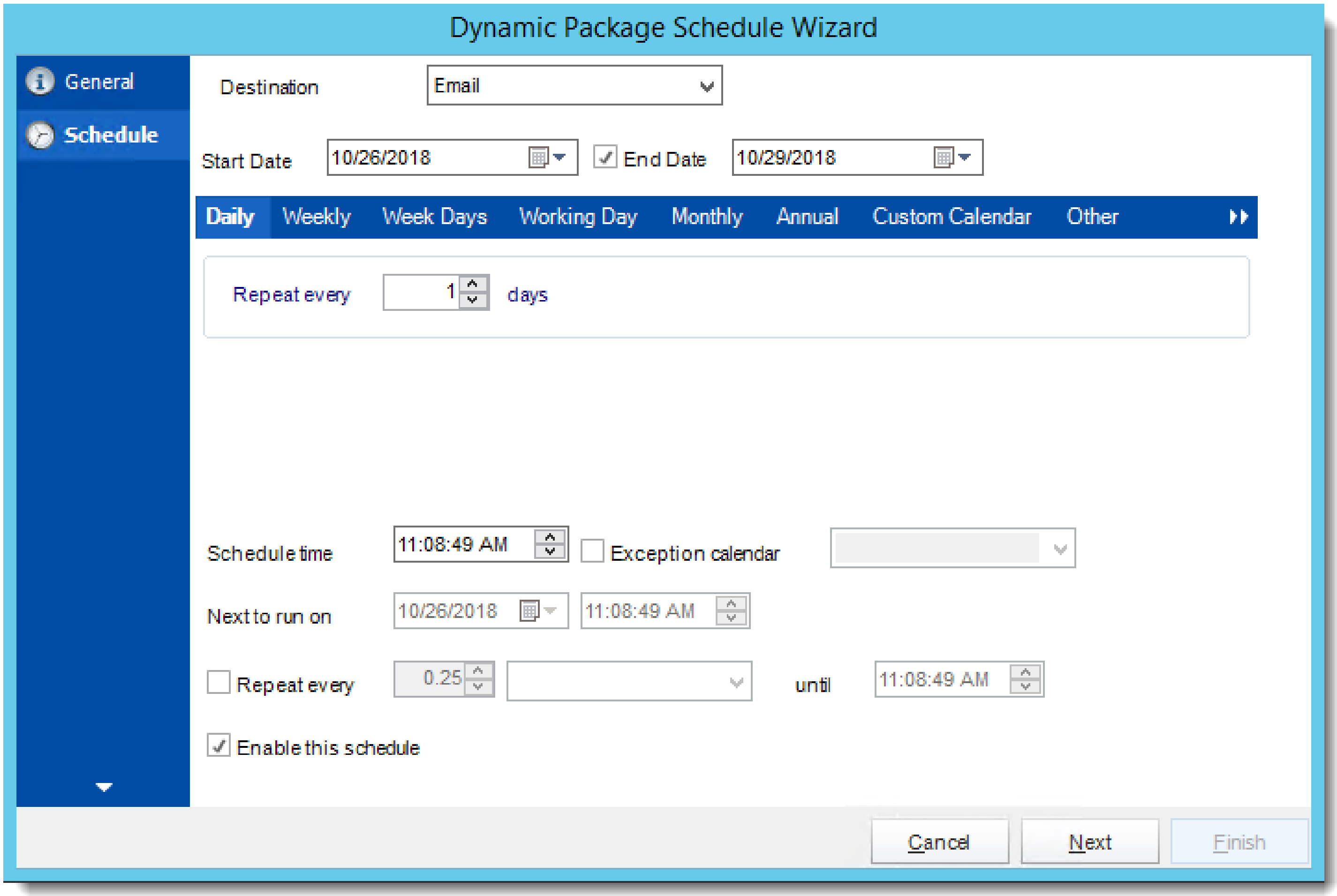
General Wizard



- **Parent Location:** The CRD folder where the package is stored.
- **Schedule Name:** The name of the package.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.

Click **Next** to go to the next wizard section.

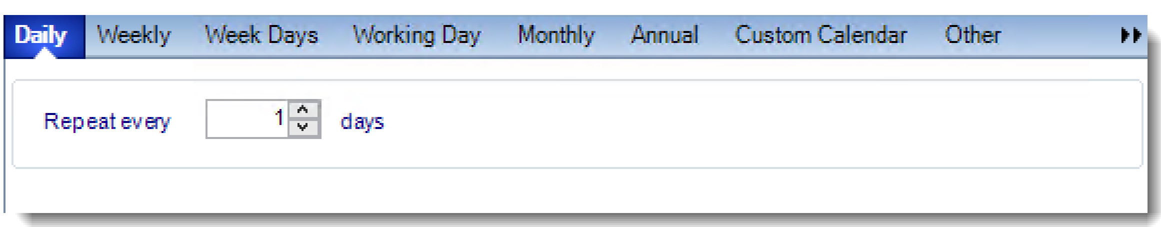
Schedule Wizard



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
    - **Sub options:** Repeat every X Days.

      Example: Run the schedule every 3 days.



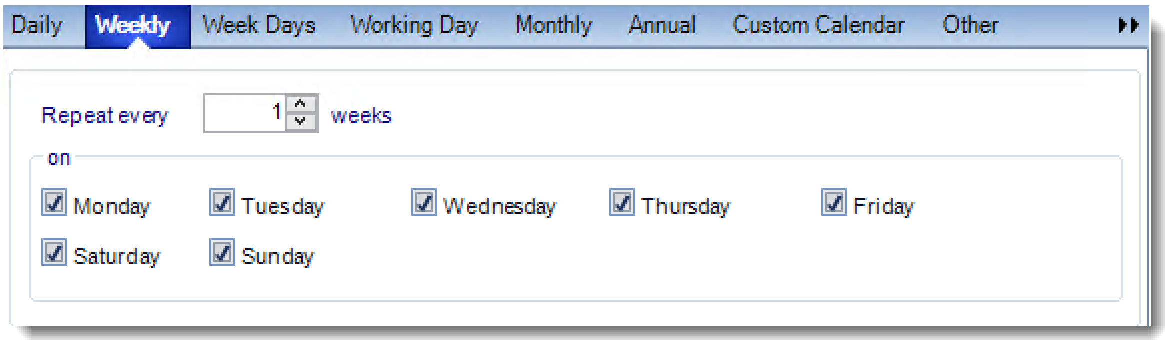
- **Weekly:** Run a report on a weekly time frame.

- **Sub options:** Repeat every X weeks.

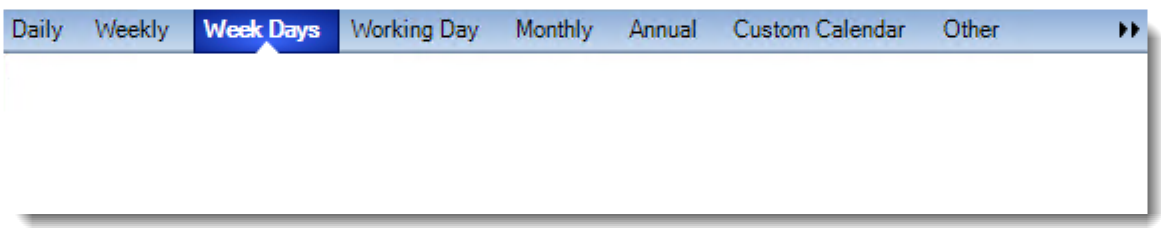
  Example: Run the schedule every 2 Weeks.

- **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

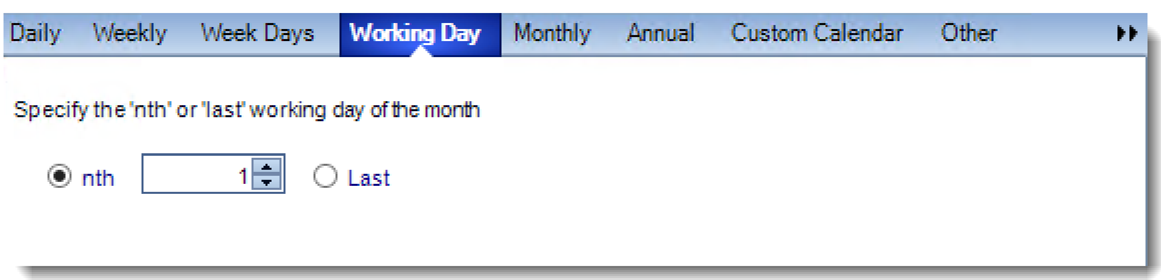
  Example: Run every Monday, Wednesday, and Friday.



- **Week Days:** Run the schedule Monday through Friday.

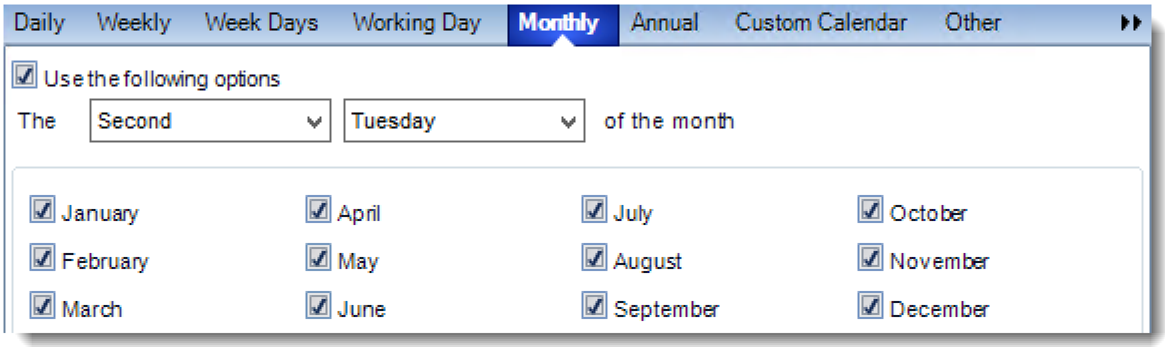


- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.

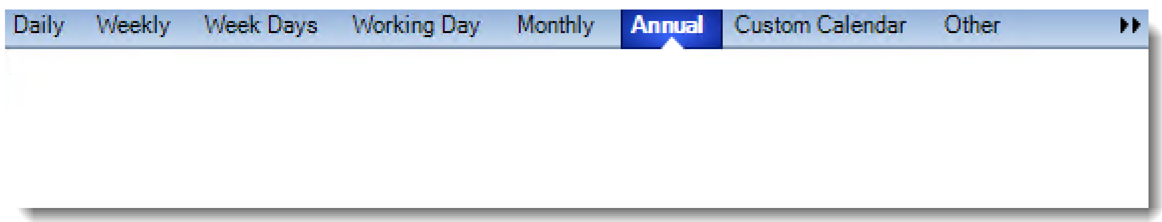


- **Monthly:** Run the schedule on a monthly time frame.

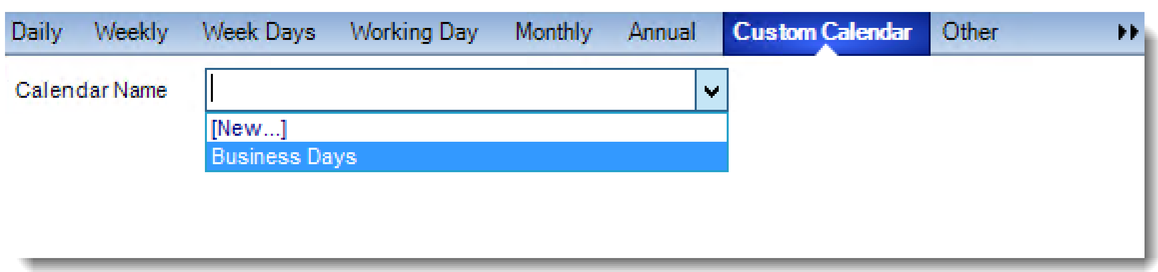
- **Use the following options:** Checking this box will enable you to select frequency options such as the “last Thursday of the month.” Also you can include or exclude specific months from the schedule.



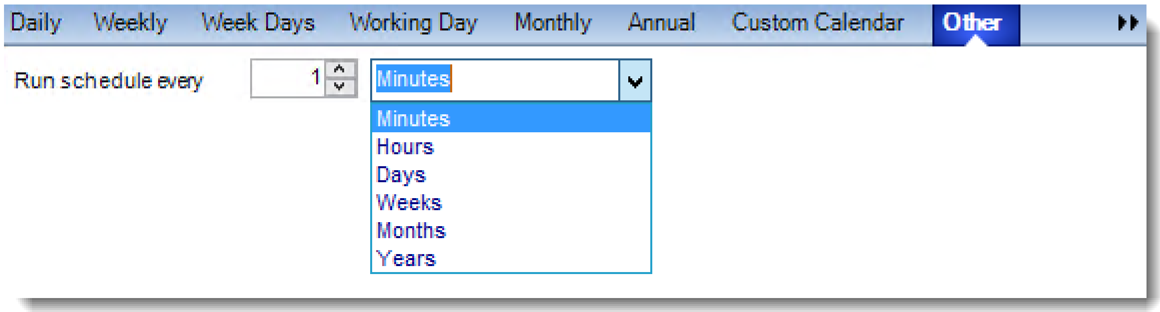
- **Annual:** Run the schedule every year at a specified time.



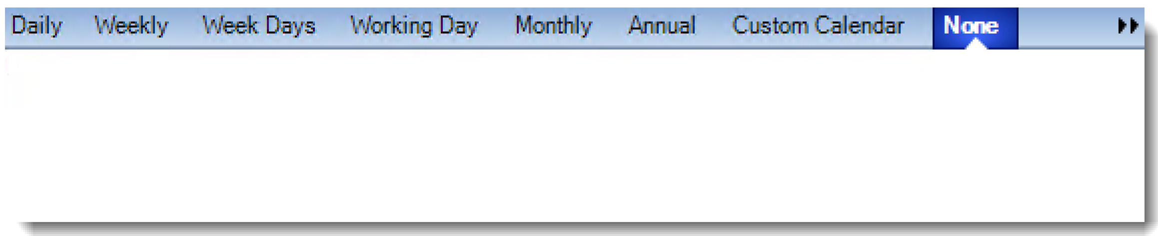
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
  - Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.

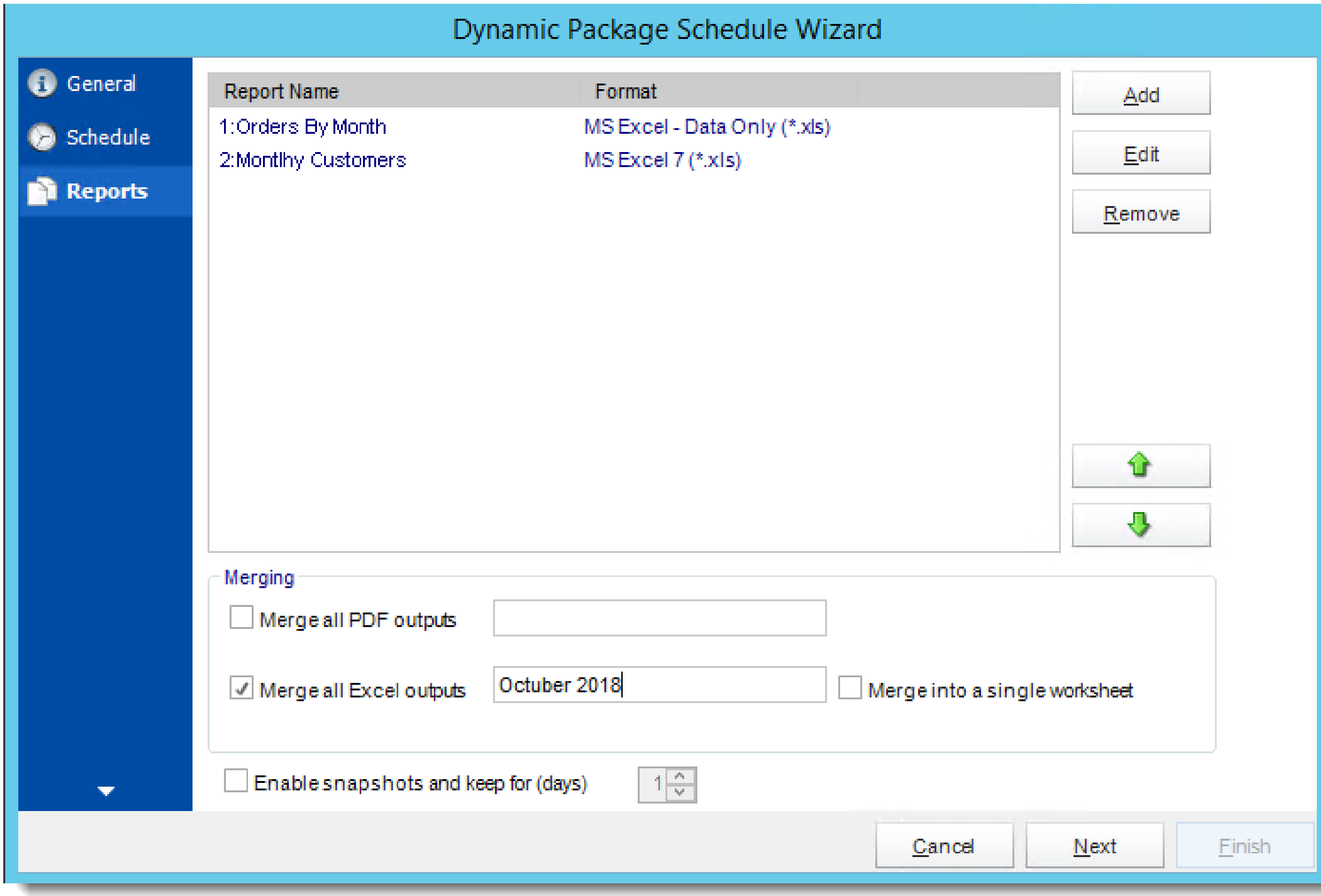


- **Destination:** Select how you would like your report to be delivered. This will also determine some of the options that will show up later in the process. For example, if you select email, you will be asked for email address later.
- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

  For example, you can set up a daily package to run every day at 8 am*, and to run every hour until* 5 pm*.*

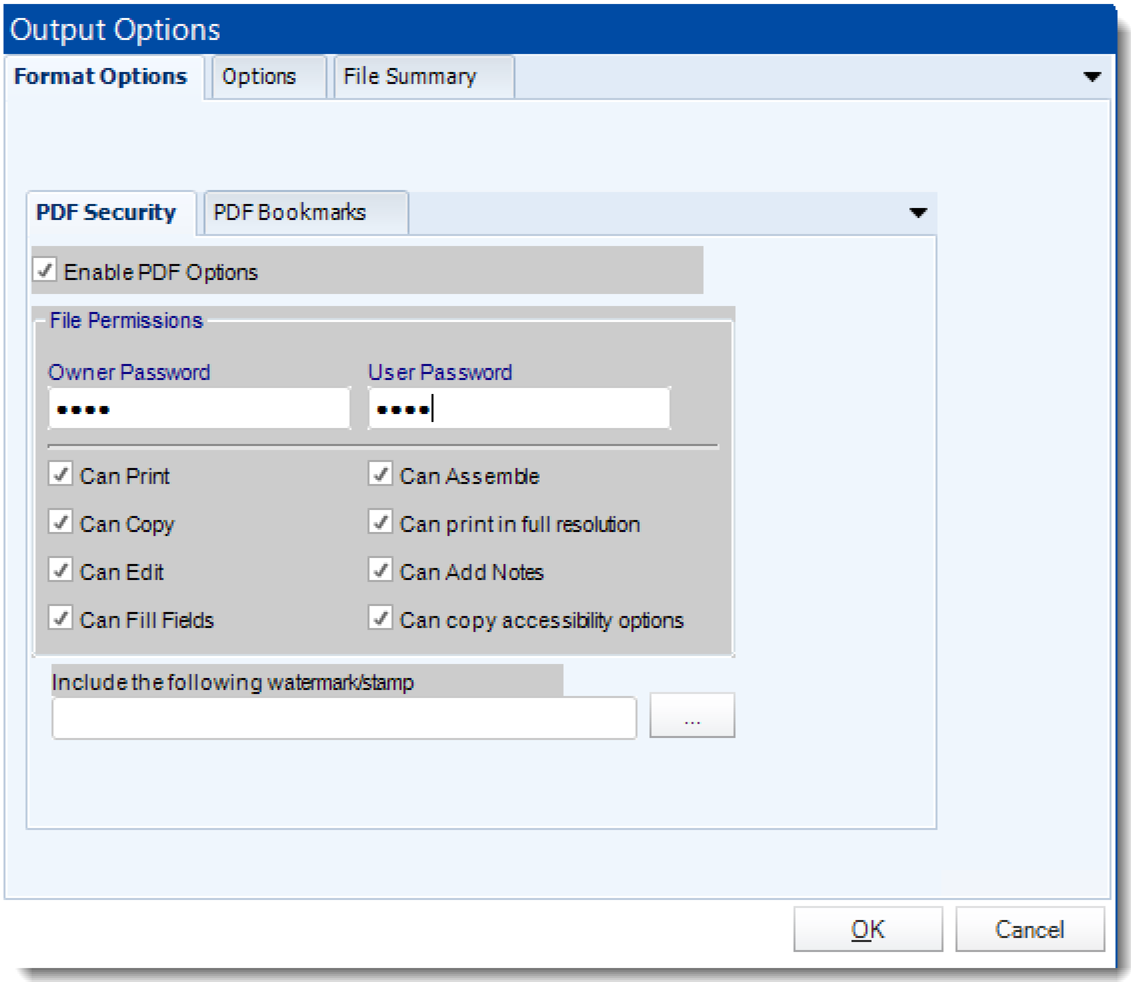
- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

Click **Next** to continue to the next wizard section.

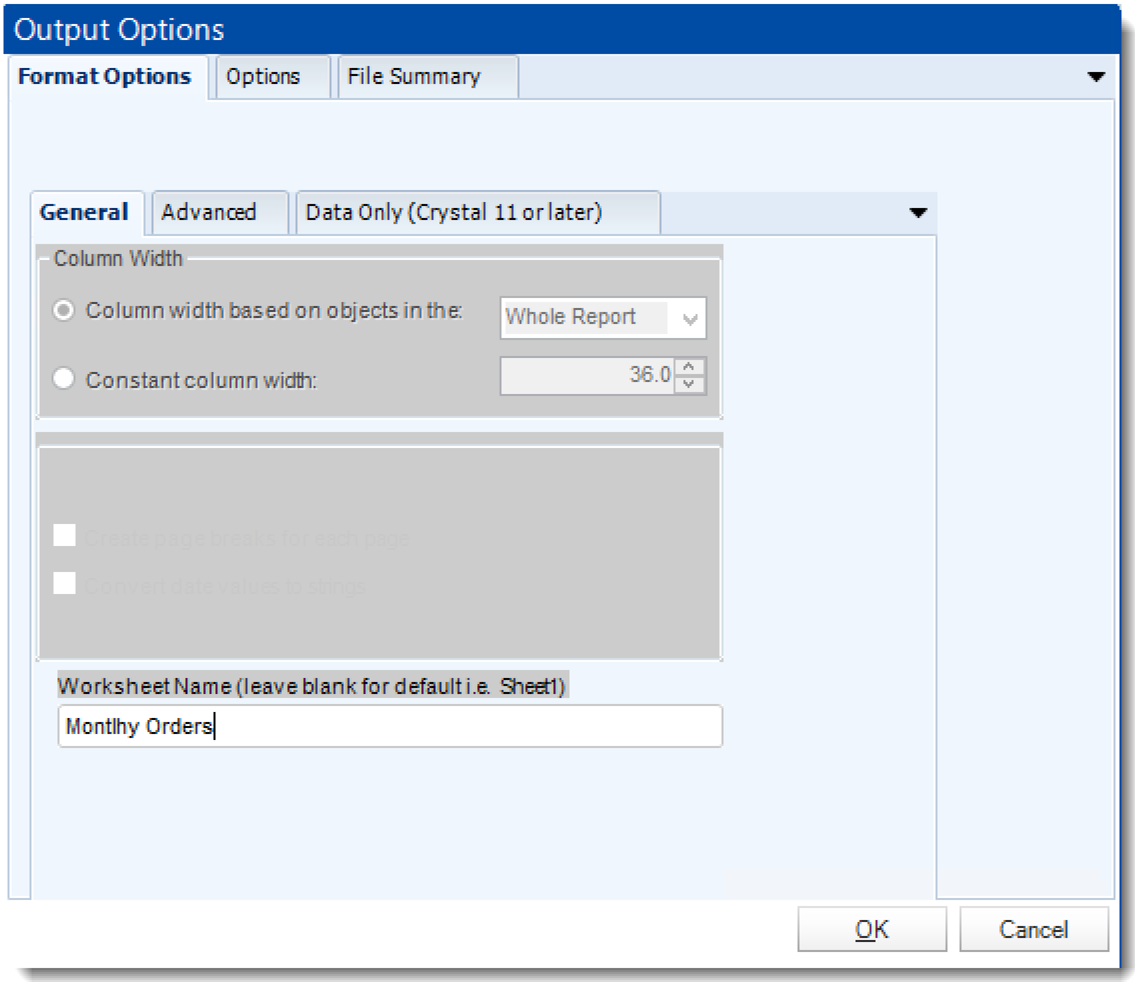


A package may be created with no constituent reports and then the reports can be added later. However, you may also add reports at this stage in the wizard - and amend, delete or add some more later.

- **Merge all PDF Files:** Merge PDF outputs into a single PDF file. The reports will appear in the merged PDF in the order they are displayed in the package schedule. Checking this box will bring up additional PDF Options.



- **Merge all Excel Files:** CRD will then merge all excel outputs in the package into a single excel file.



- **Run Package using Multiple threads:** This allows up to 8 reports to be exported simultaneously.
- Each report in the package can run concurrently.
- See Multi-threading for more info.
- **Enable snapshots and keep them for (days):** Keep a copy of the report for how many days.

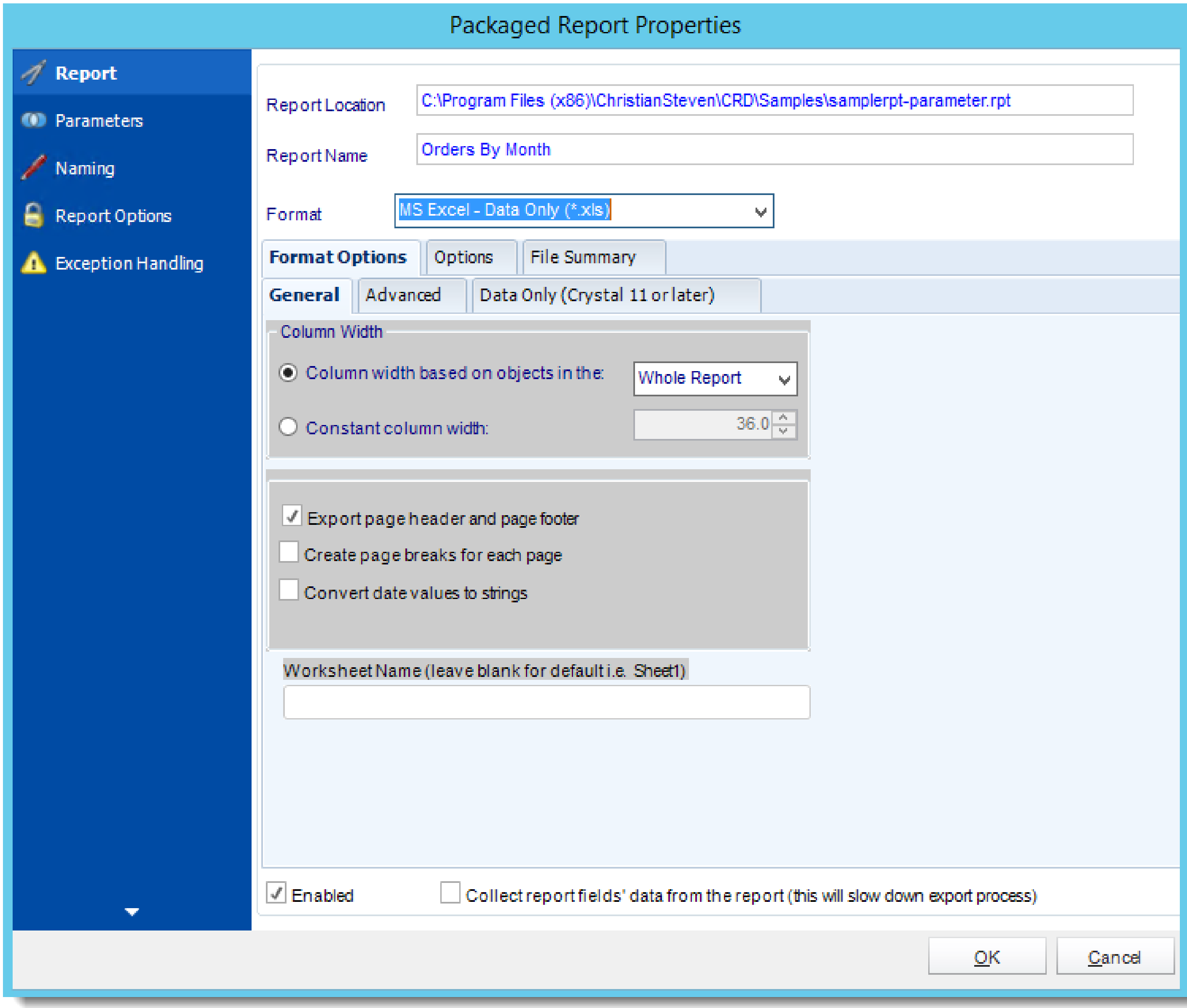
  System resources will be shared so this will not always mean that reports will take 1/4 the normal time.

  Example: You have 4 reports. Each one takes 15 minutes to export. Using a single thread, it would take 1 hour to complete the export. Using multiple threads, you would expect it to take 15 minutes for all 4. However, the sharing of your system resources by 4 reports may result in each report taking longer than 15 minutes and the total time for 4 reports may be more than 15 minutes, but it will be less than an hour

- Click **Add**
- Package Report Properties will appear.

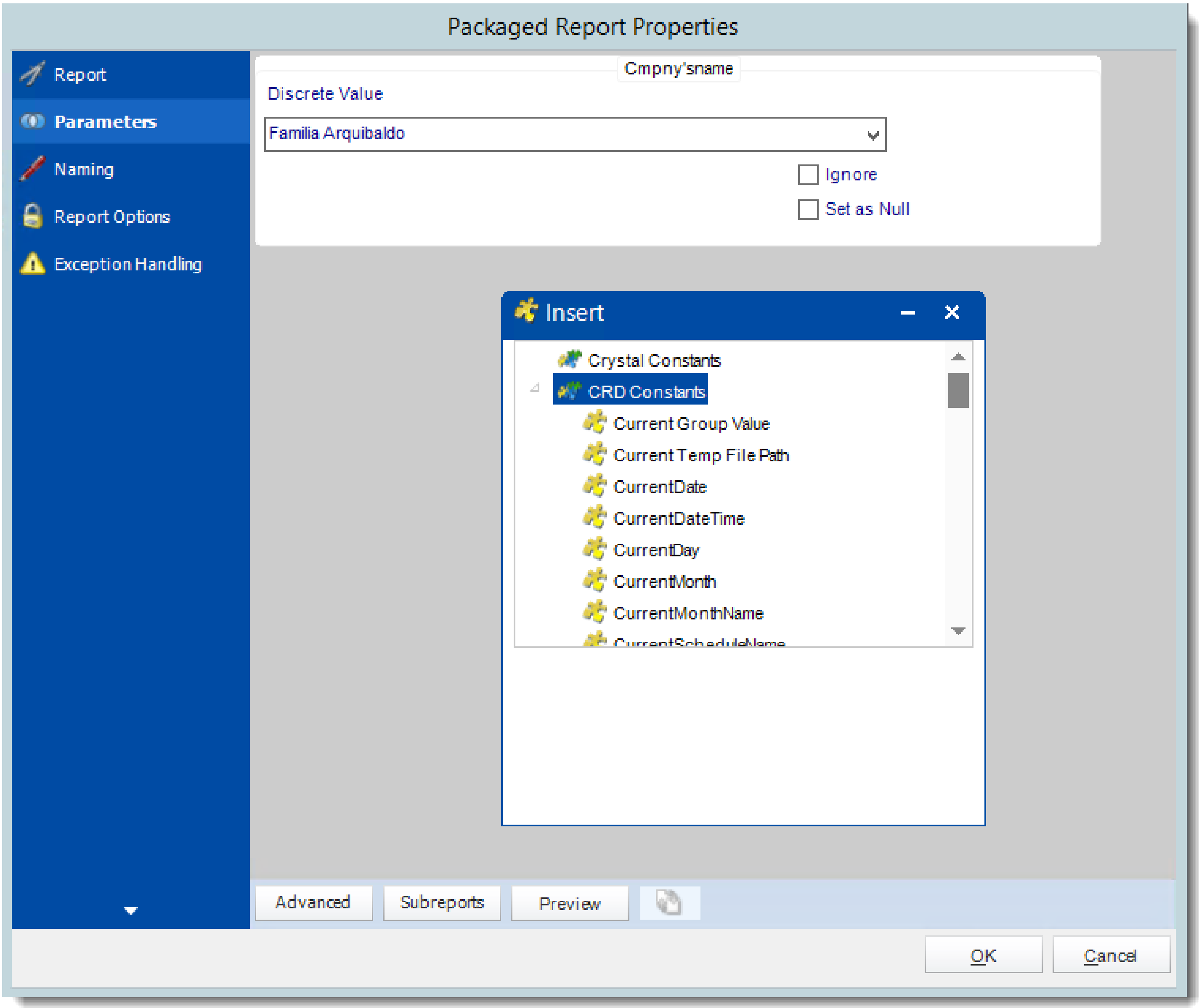
Package Report Properties

Report Wizard



- **Report Location:** Select the Crystal report that needs to be scheduled. A crystal report can only be added if the CRD server can reach the report path.
- **Report Name:** Write in the name of the package.
- **Format:** Select the output format for the report.

Parameters



- In this section, you will determine the parameters for your report (if any) and select options for your subreport. If your report has no parameters, you may skip this section by clicking next.
- There are 3 requirements in order for CRD to detect your Crystal Report parameters and their parameter values:
  4. The parameter must be in use in the report.
  5. The parameter must be visible.
  6. The parameter must be set to be prompted at runtime.

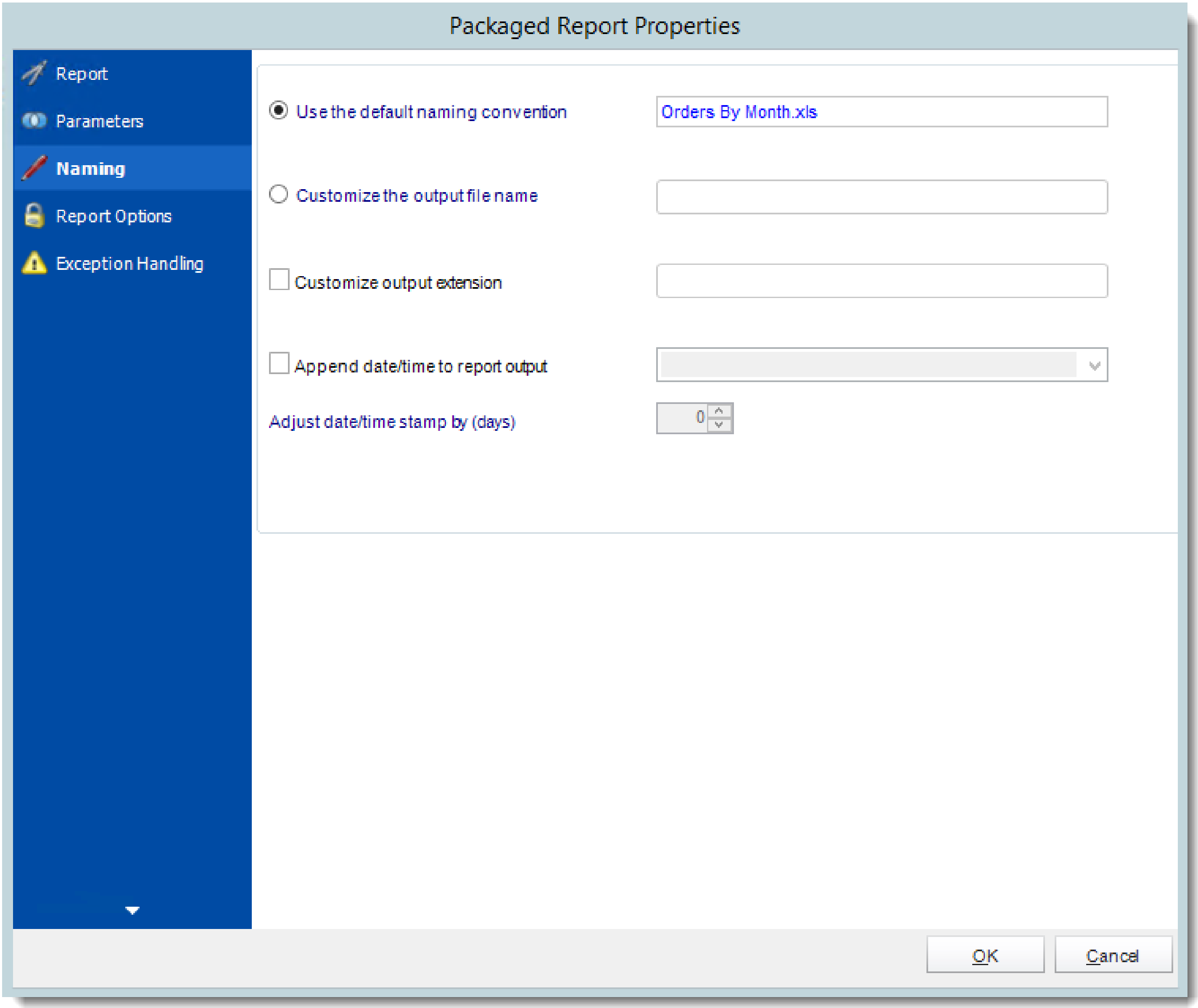
- If these three requirements are achieved, you should see the parameters in your report listed in this screen.
- For each parameter, select from the drop down list the value the report must use. In a single schedule, only one parameter value can be run at a time per parameter. You can type a value into the field as well.
- **Set as Null:** Set no value for this parameter.
- **Ignore:** Do not run this parameter, ignore it at runtime.
- Insert Menu**:** You can insert constants, formulas and database field values instead of a static "typed in" value. Right-click in the parameters field to expose the Insert menu.

  To enable a report parameter to run for a date constant (Current Date, Yesterday etc.), select CRD Constants from the insert window, then drag and drop your desired constant to the parameter field.

- **Selecting Date Parameters via Calendar:** If your report contains a date parameter, you can either manually enter dates as described earlier in this topic, or select the desired date from the built in calendar. Simply click in the date parameter field to open the calendar. Select the desired date. Click OK.
- If the parameter is also a time parameter, this can selected as well. The buttons below enable you to preview the report, adjust formulae, and review sub reports. You can re-query the report for parameters as well.
- **Formulae:** View edit and Parse the Record Selection Formulae.
- **Subreports**: set parameters, authenticate, and re-query sub report parameters.
- **Preview:** Shows you a preview of the report.

  The preview function only works if Crystal Reports is installed on the PC.

Naming

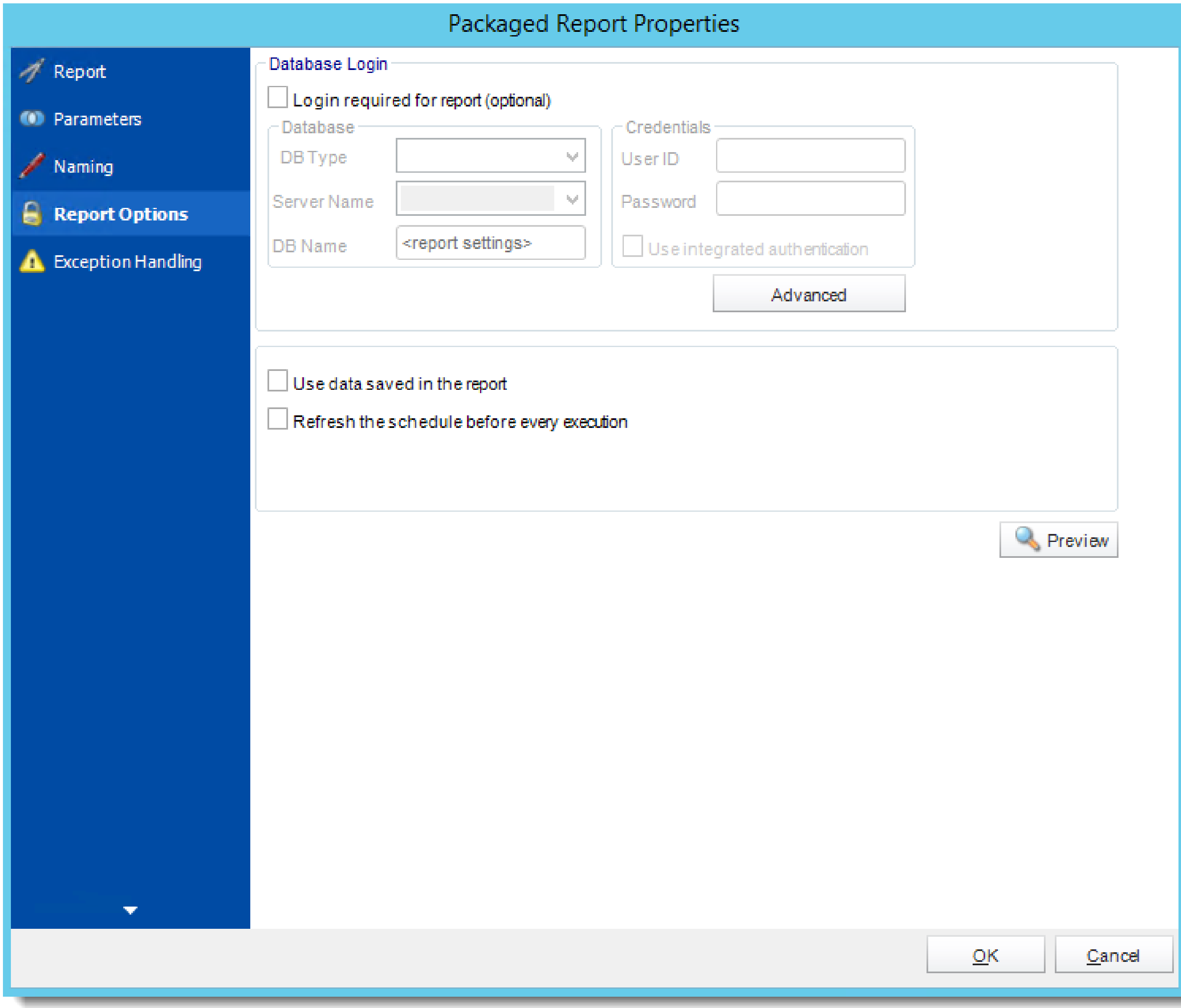


- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format *extension,* e.g. *Catalog Report.pdf.*
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another

already existing system you may have. You may also right-click and use the Insert Function to insert a value.

- **Append date/time:** This is useful for the following reasons:
    - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
    - You can track which reports ran and when they ran by looking at what the report is named.

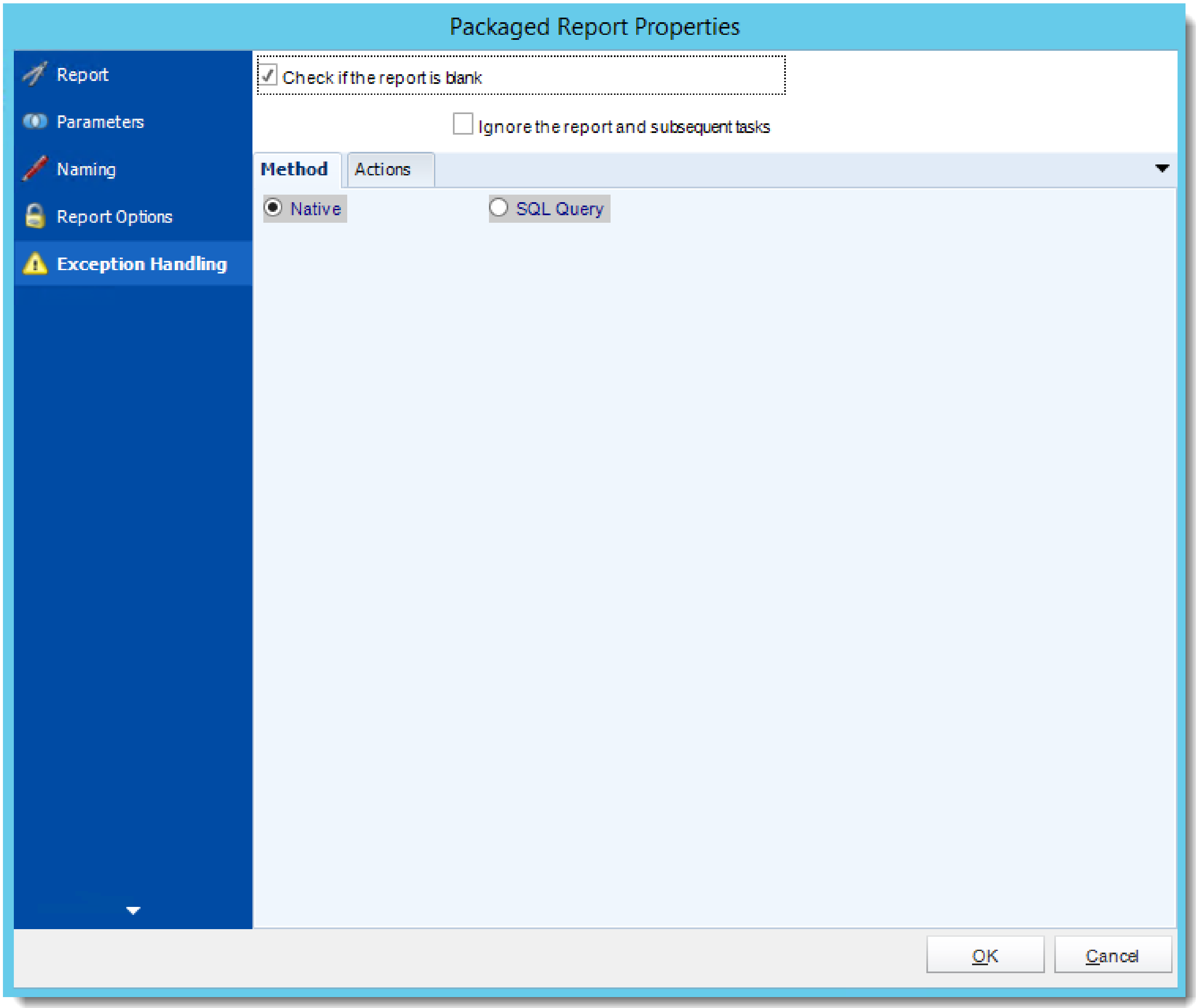
Report Options



- **Database Login:** If the database requires logon credentials, check this option and enter the required username and password. If credentials are not required, uncheck the option and continue as normal (default). All values are optional. You only need to enter a value if your database, security, networking or infrastructure require it.
- **DB Type:** Select the type of Database.
- **Server Name:** Enter the server name of the database.
- **DB Name:** Enter the name of the database.

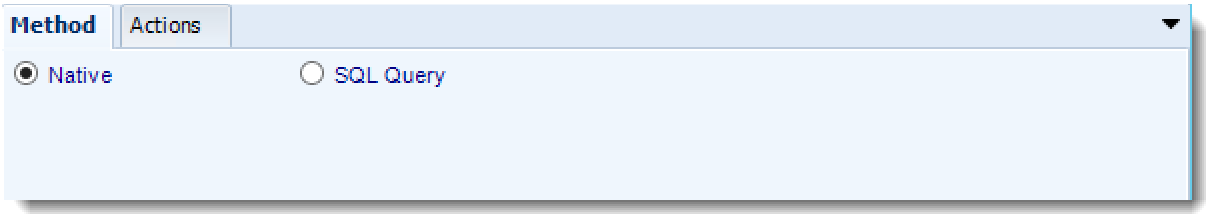
- **Credentials:** Enter the User ID and Password for the Database. Clicking on the Advanced tab, you can set logins for each table.
- **Advanced**: Enables you to specify credentials at the table level. Double click the table to set its login information.
- **Use data saved with the report:** By default, CRD will always attempt to run the report using the very latest data in your database. If your report is saved "with data" and you want CRD to simply export the data in the report, then check this option.
- **Refresh the schedule:** This refreshes the schedule before every execution.

Exception Handling

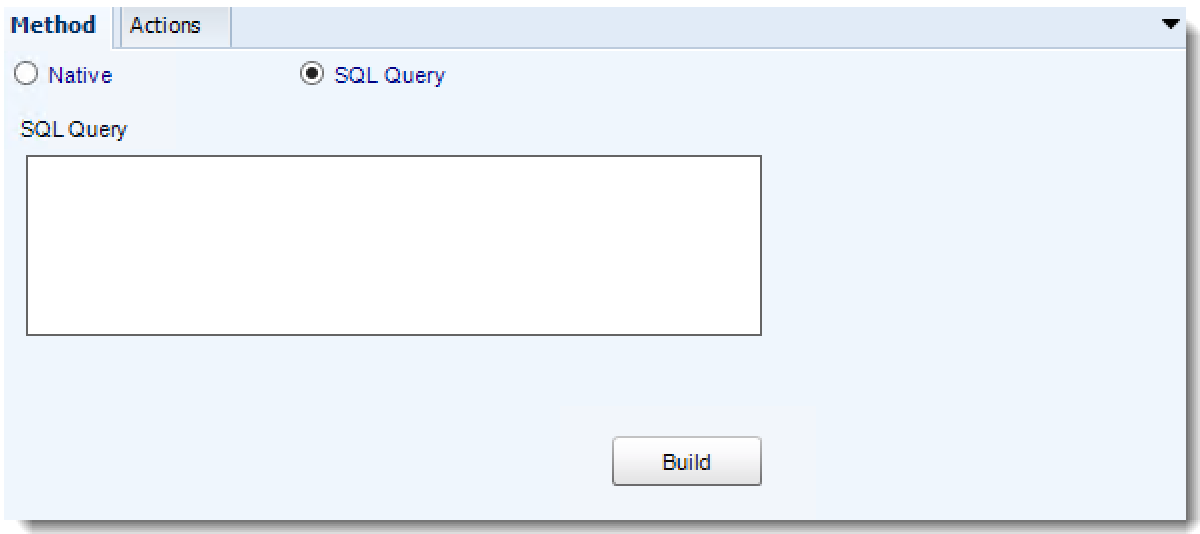


- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.
- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

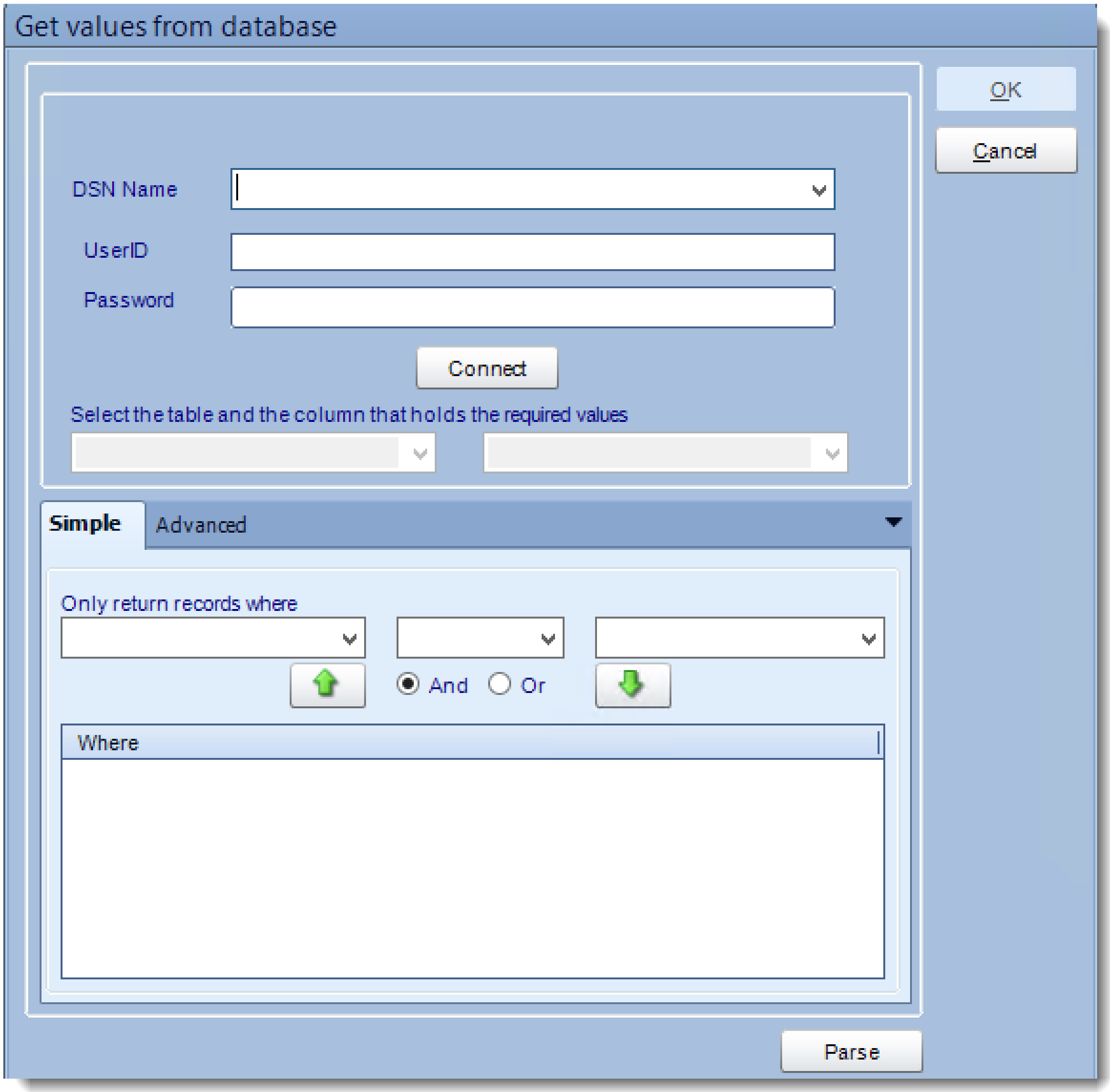
Method



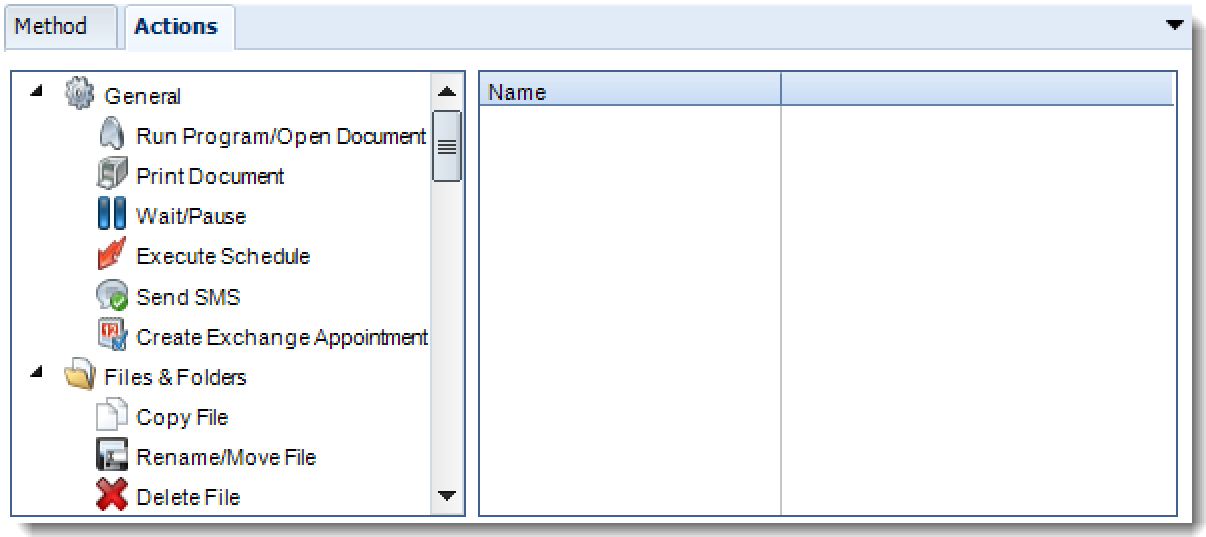
- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



-
    - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

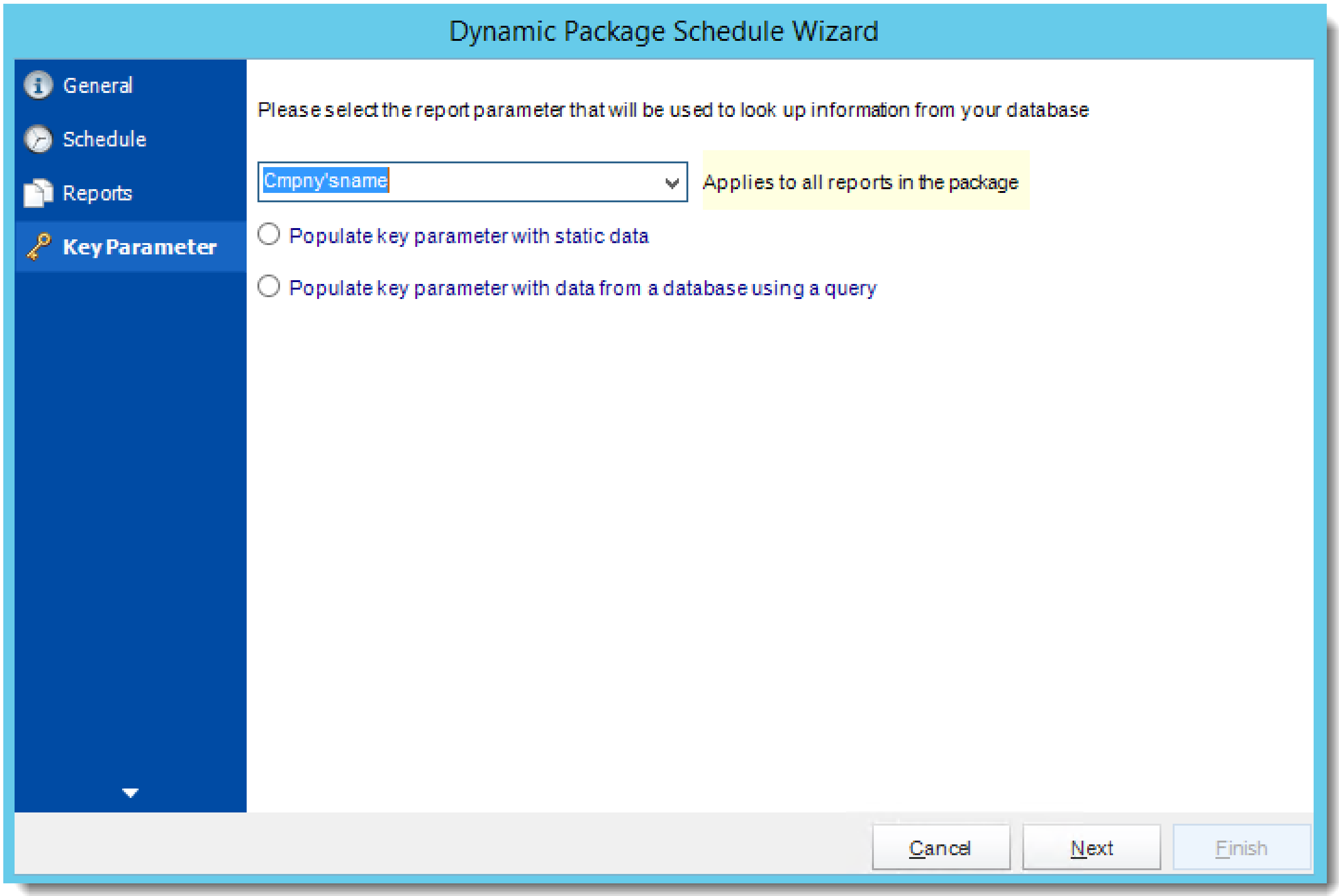


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

Click **OK.**

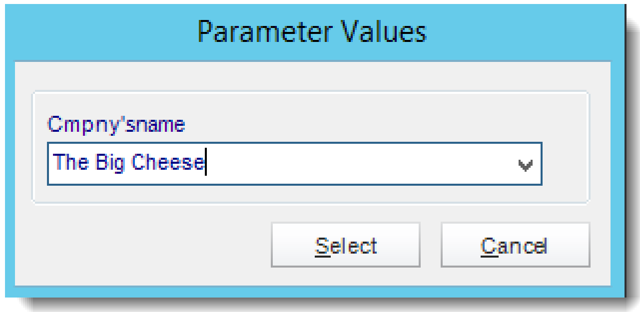
Key Parameter Wizard



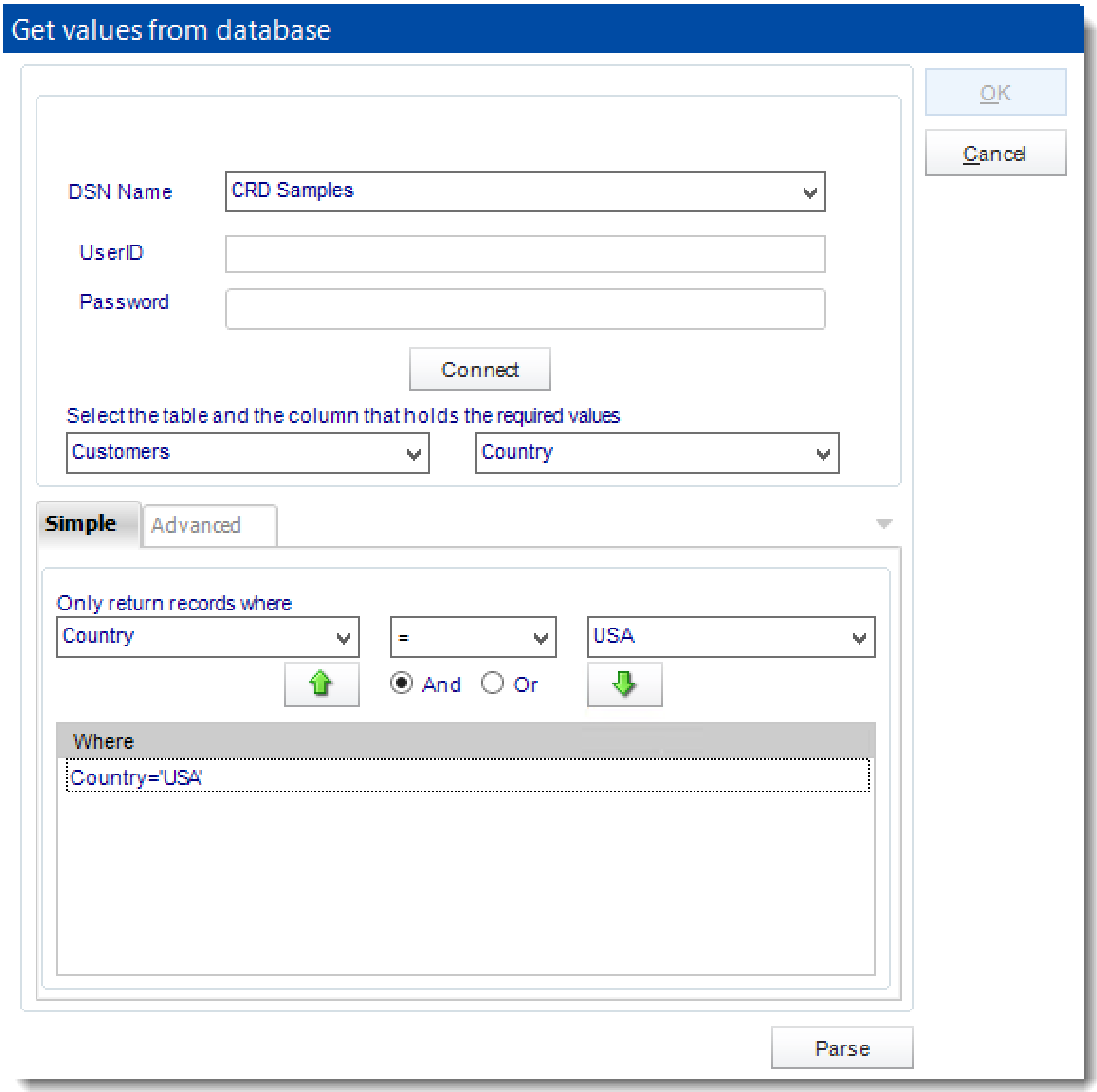
In this section, you will determine the parameters for your report.

On the Key Parameter tab, you will begin by selecting the report parameter that will hold the unique value being "looked up" by your database.

- **Populate the key parameter with static data:** This option would be chosen if you **DO NOT** want CRD to feed multiple parameters in to the report via database. Rather than dynamically populating the key parameter, all reports in the package will run for a specific parameter.



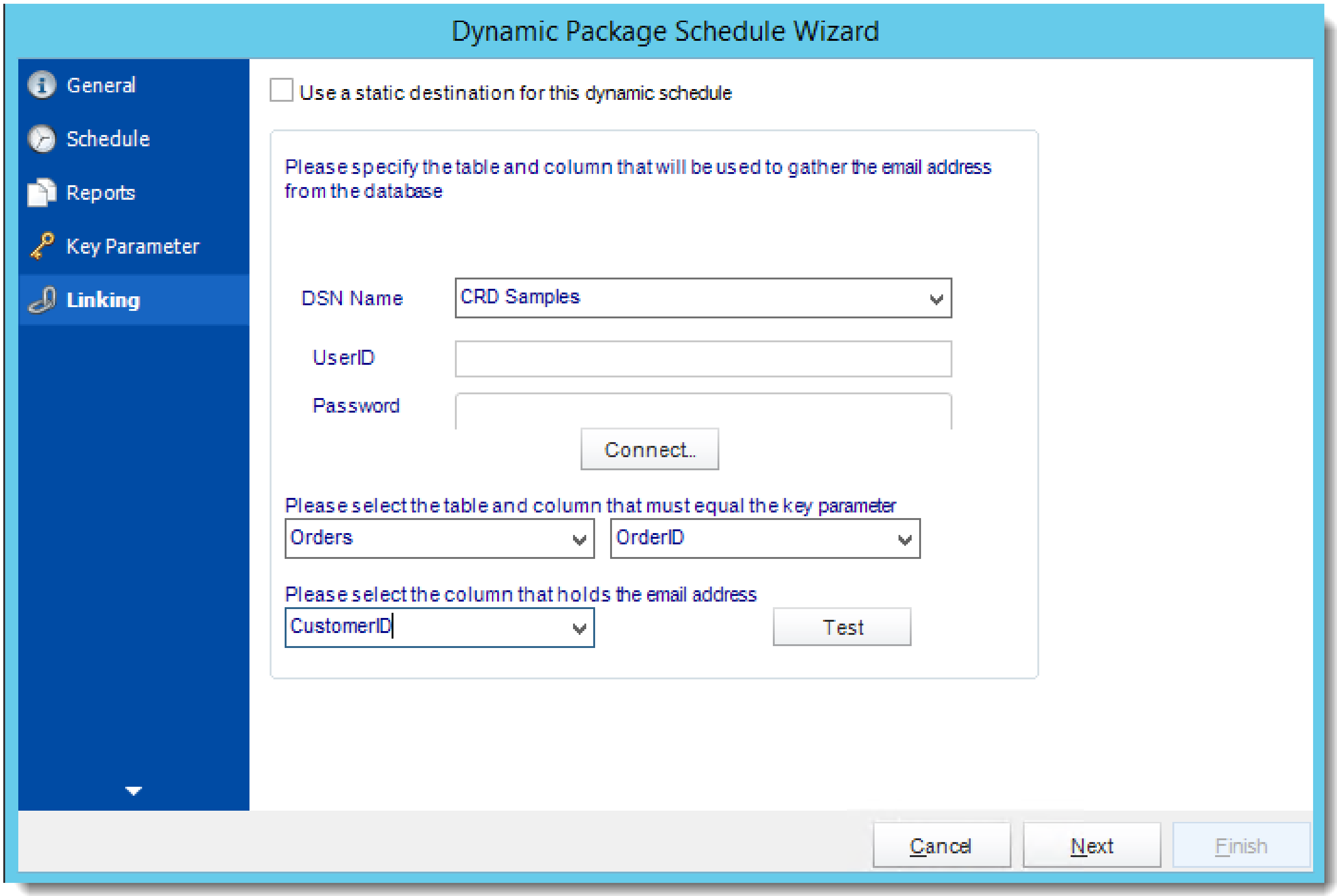
- **Populate key parameter with data from a database:** This is the most common option for users creating dynamic schedules. CRD will use a query to automatically feed key parameter values into your report based on a table. Get values from database will appear.



Notice that the field in the report and the column in the database can be different. Either way, the parameter values must match the values in your report.

Click **Next** to continue to the next wizard section.

Linking Wizard



In this Section we will establish a link between the key parameter values we have selected earlier, and the location of the corresponding destination information.

- **Use static destination:** This will export all your report to a single destination e.g. a folder.
- **DSN Name:** Drop down and select a DSN.

  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the

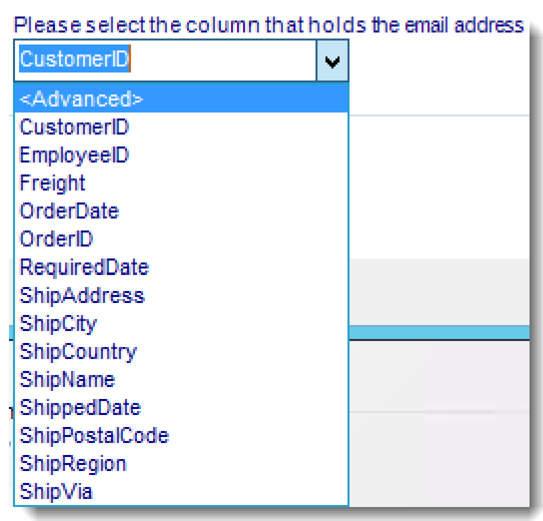
CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

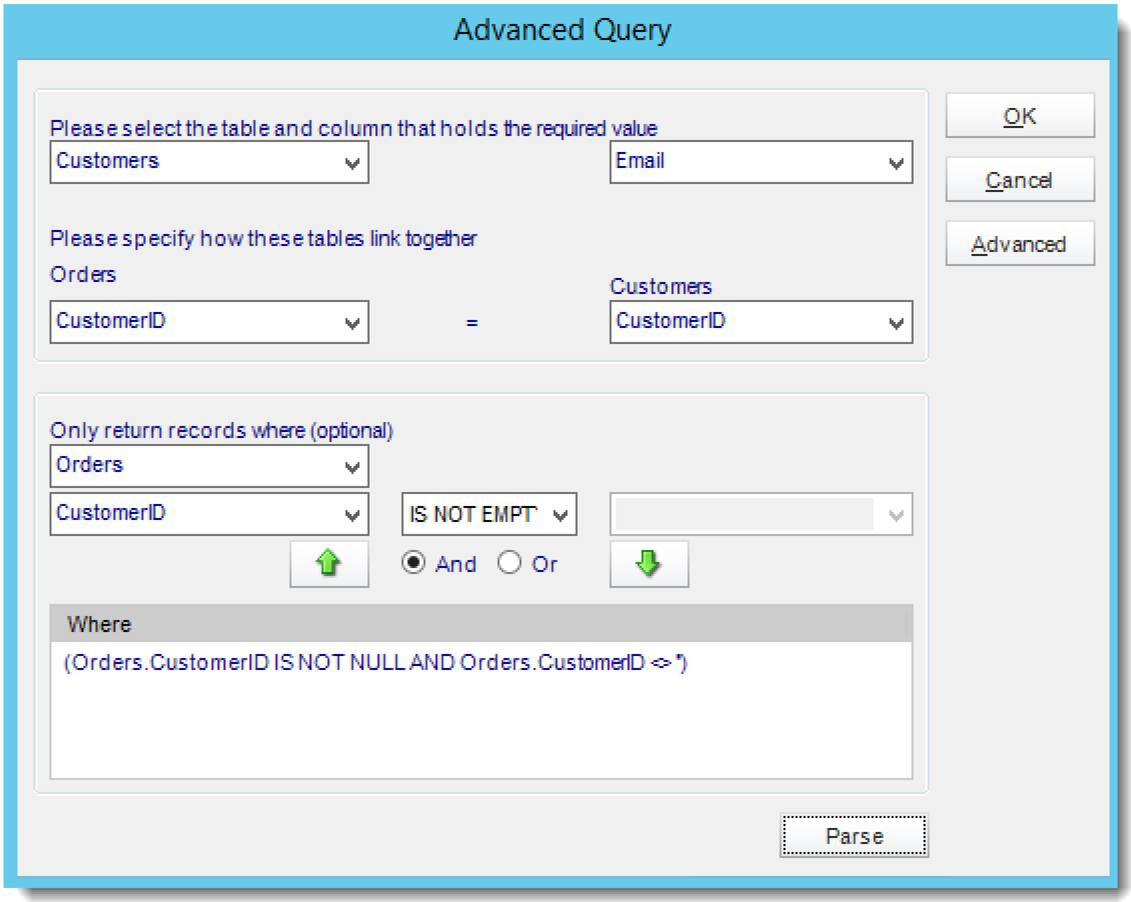
When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

- **UserID:** Enter the User ID CRD should use to log on to the database
- **Password:** Enter the password associated with the above user.
- **Connect:** Connect to the Database
- Select the table name and the column in that table which matches the parameter value which you determined in the previous step.
- Select the column in the table that holds the email address (or folder path or printer name) that corresponds to the above parameter value.

Advanced Functionality

- To achieve the above advanced functions, select Advanced from the dropdown list shown below.





- This functionality is for advanced users only.

  The screen is structured in a standard format which will be familiar to database programmers and people who are familiar with SQL or boolean statements.

  For more information on how to write SQL statements, please see your database administrator.

  You can build your database query visually using the form provided, as shown above.

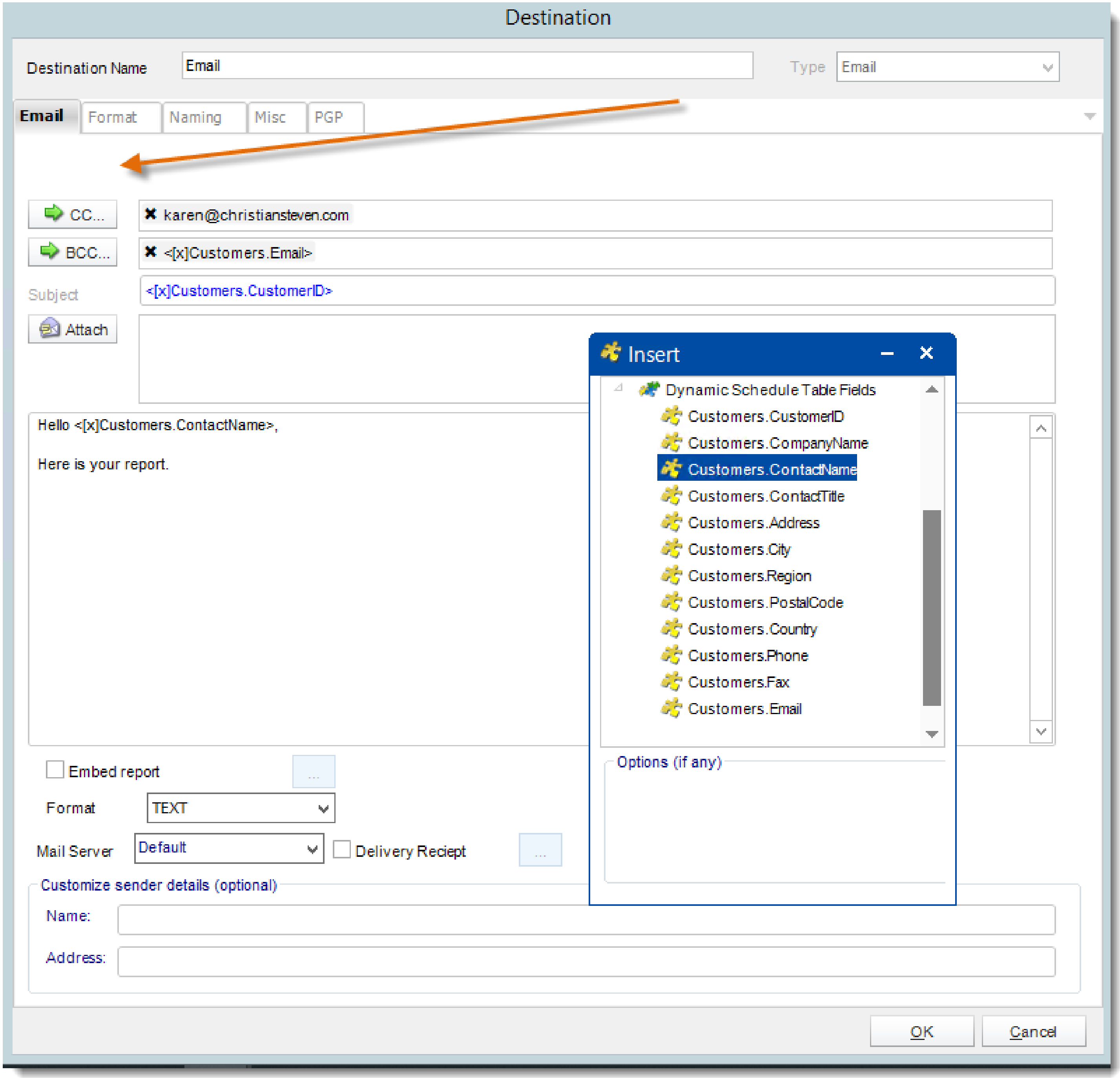
  If you are fluent in SQL, you may wish to enter your SQL statement manually.

  Click to see the advanced interface. Here we can add the extra limiting criteria. You can type directly in the "Edit Query" box and enter the SQL statement.

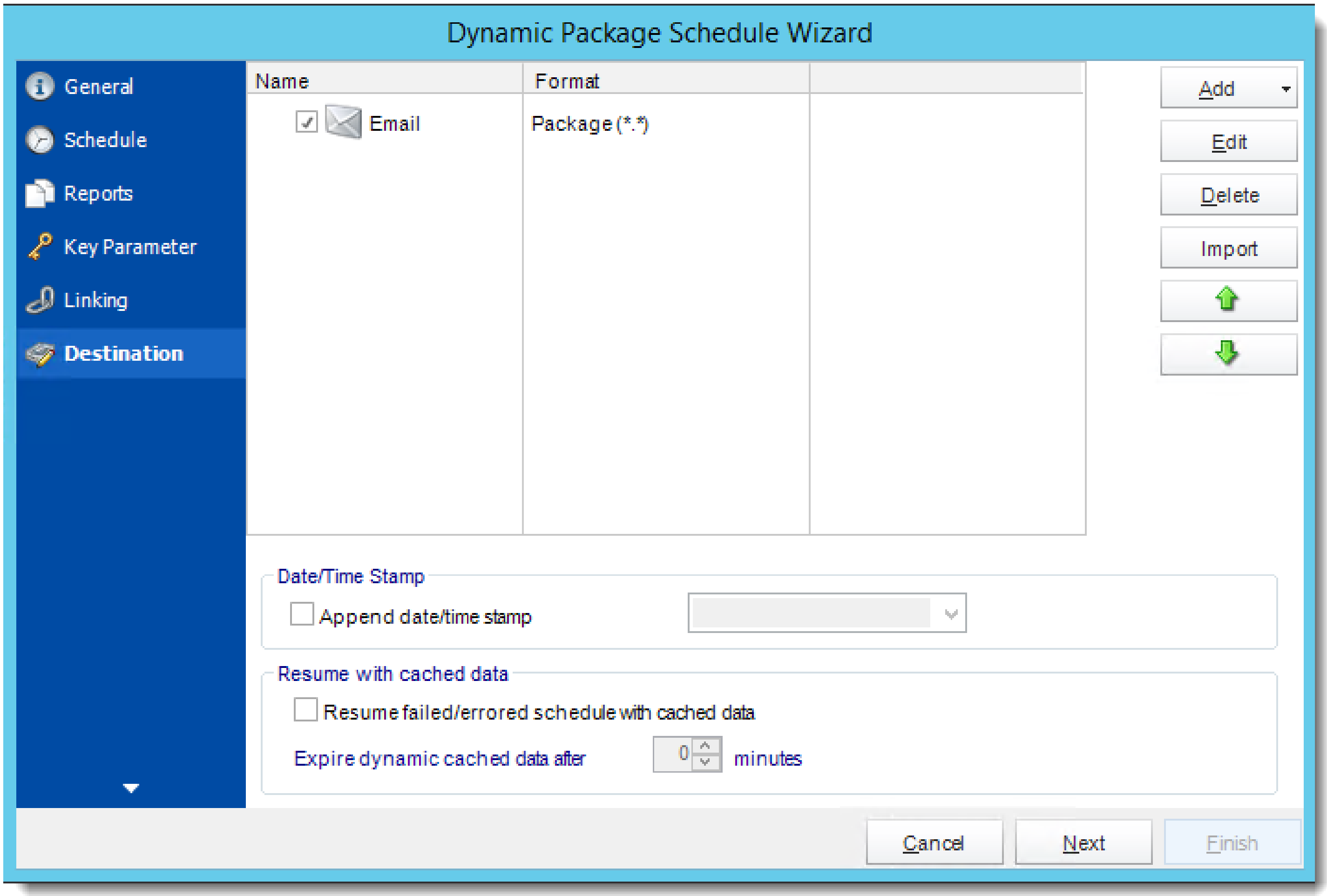
Click **Next** to continue to the next wizard section.

Destination Wizard

Under the Destinations tab, the destination that you chose previously under the Schedule section will now automatically pop-up. Secondly there is no ‘To’ address because this information is being retrieved from a database. The reason for this is that since the destination type was defined in the previous step.

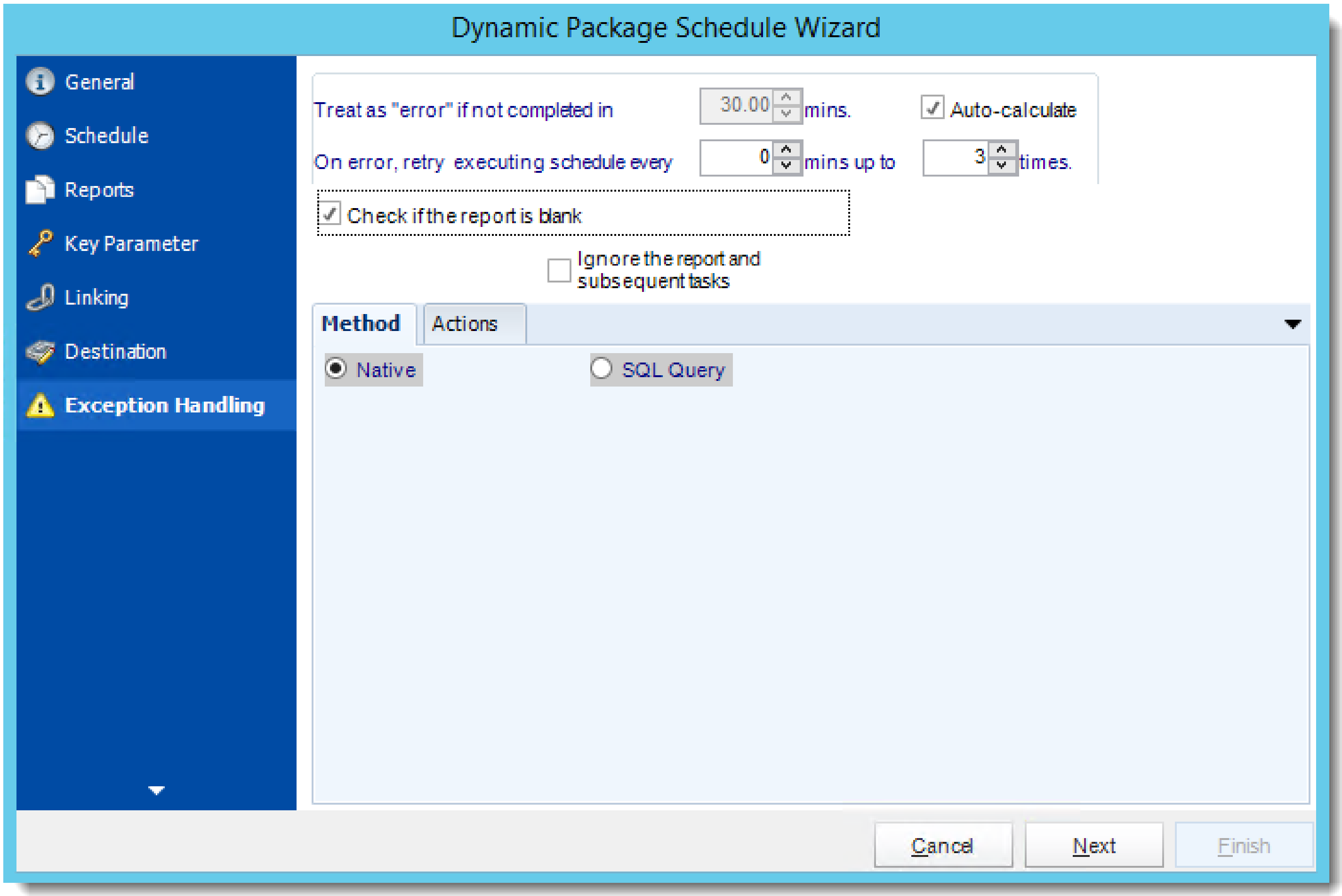


- Use the Inserts Function to customize the email subject and body as desired. Simply drag and drop Dynamic Table Fields from your Inserts list.
- Select the format for your report.



Click **Next** to continue to the next wizard section.

Exception Handling Wizard



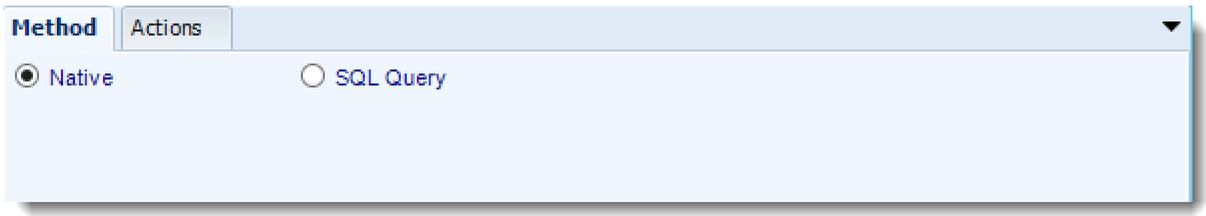
- **Treat as "error" if not completed in X minutes:** If a report takes longer than the specified amount of time to run, this option will treat the schedule as an error and follow the appropriate action. The "Auto-calculate" option instructs CRD automatically determine how long a schedule should take to run the report. If it takes longer than the calculated amount of time, then it is an error.

  If manually determining the error timing, please double check the run time of the report in order to get the correct time estimate.

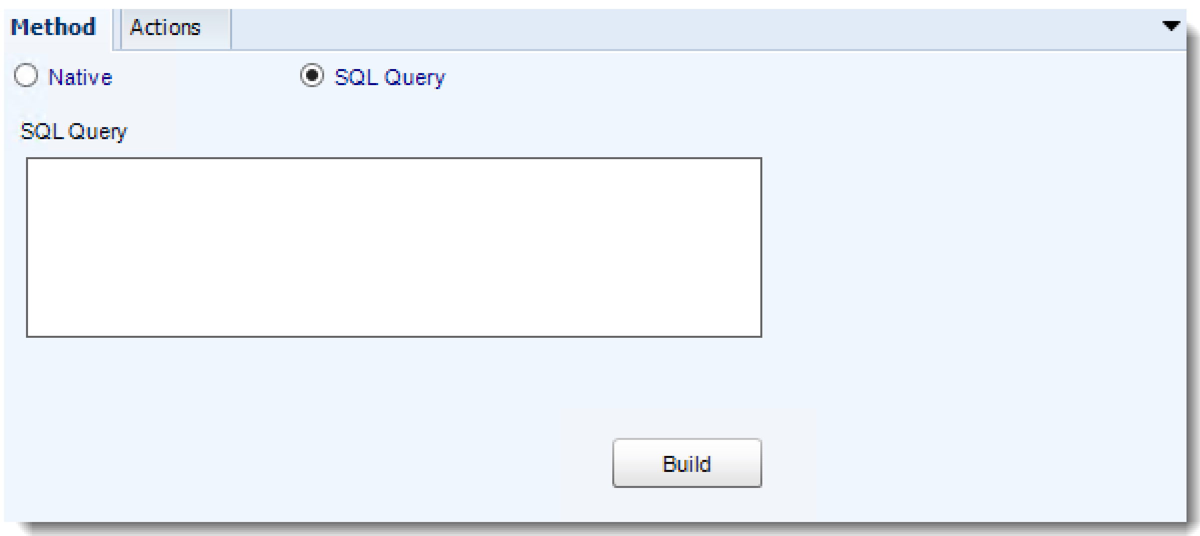
- **On error, retry executing schedule every:** If set to 0, CRD will deem the schedule as "Failed" the first time it encounters an error. The schedule will not run again until its next scheduled time. Change the value to tell CRD how many times you want it to retry running the report before declaring it as "Failed."
- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.

- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

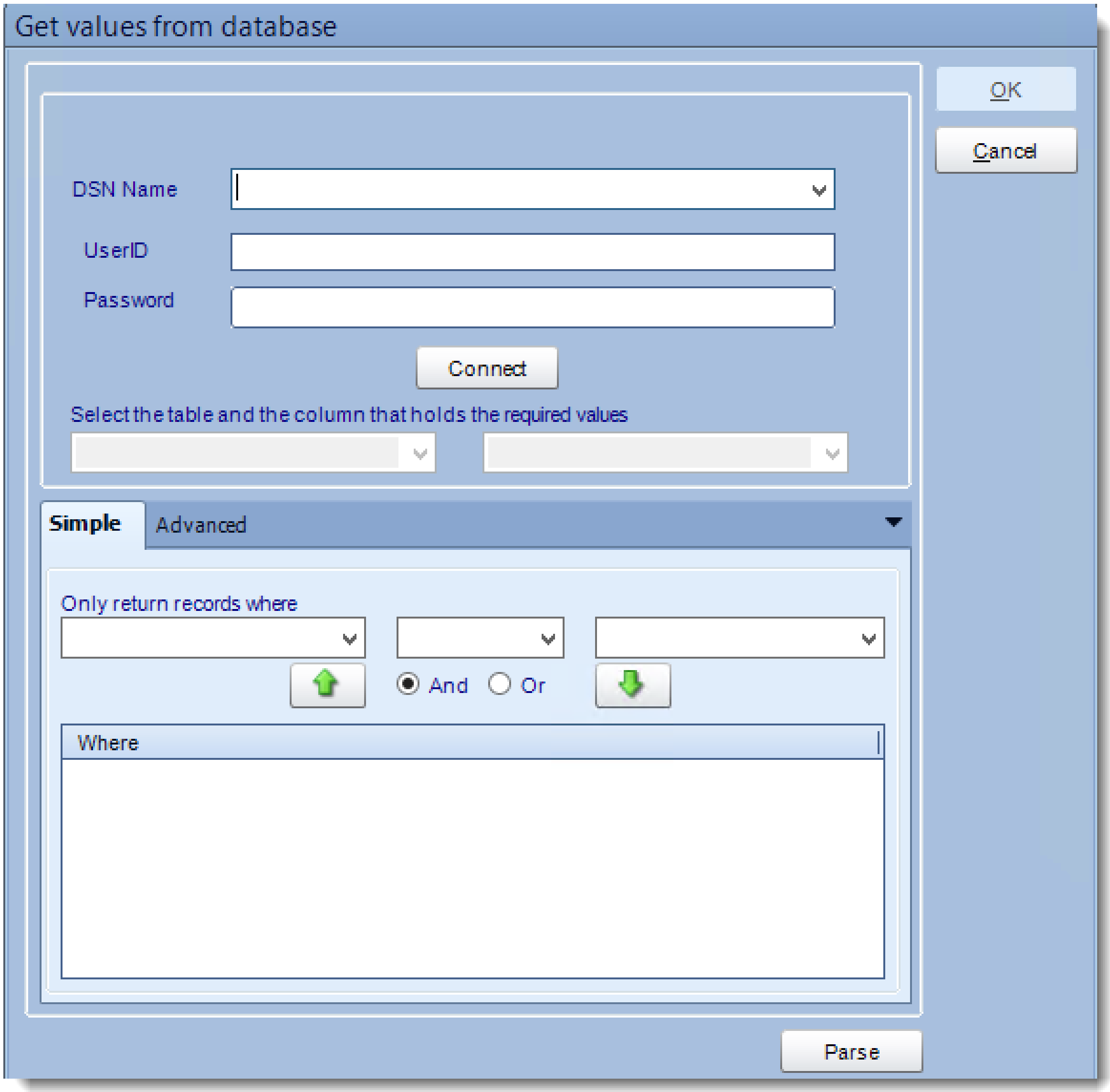
Method



- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



-
    - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.



Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
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Where
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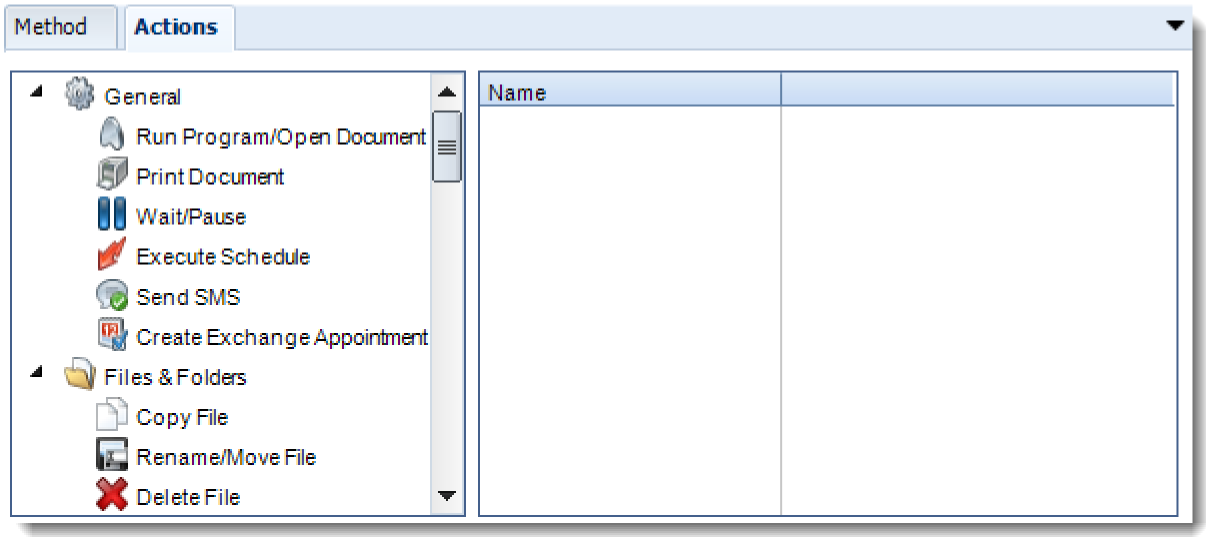
Actions

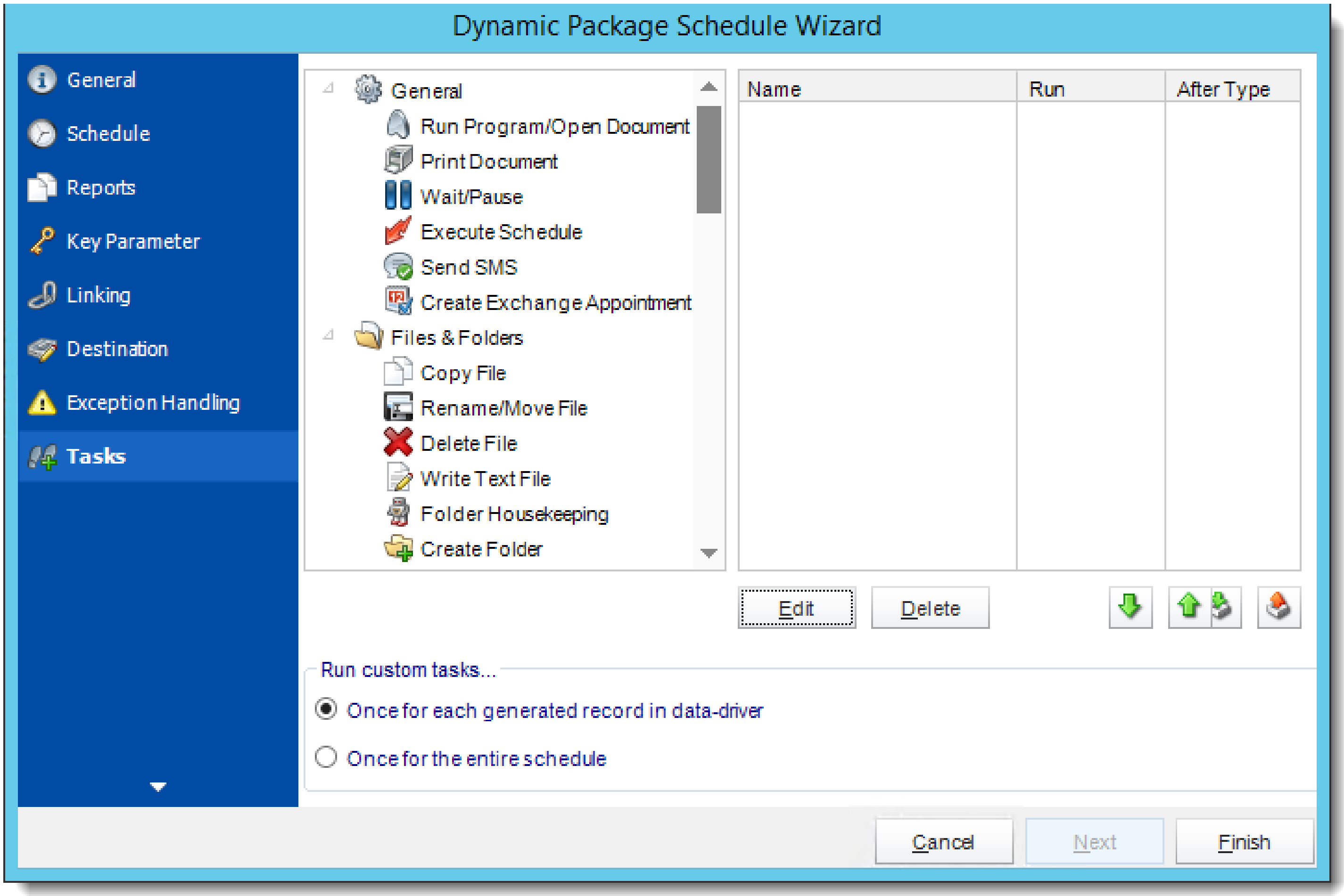


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

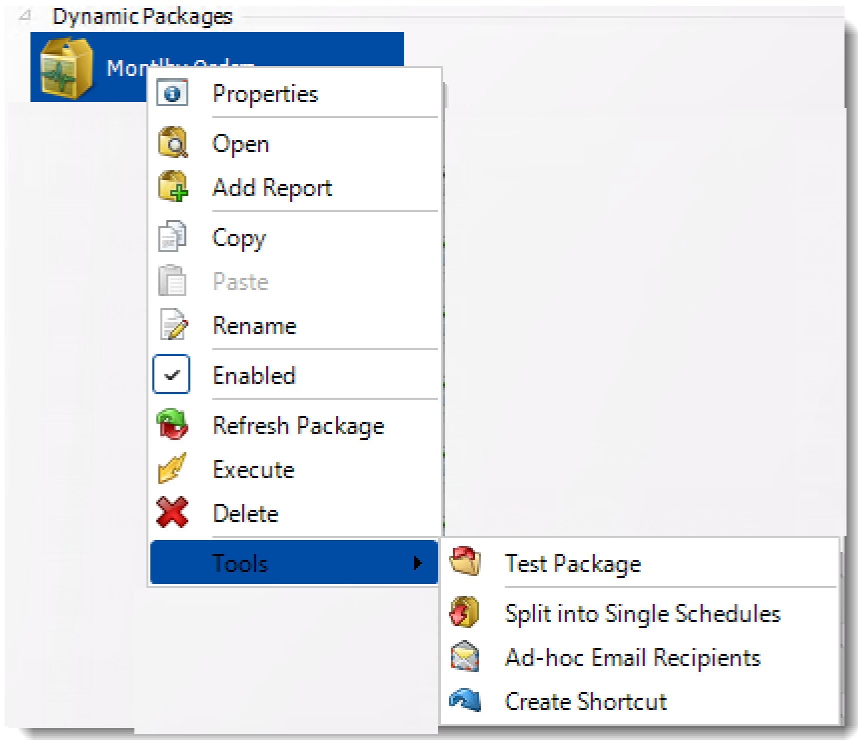
Click **Next** to continue to the next wizard section.

Custom Tasks Wizard



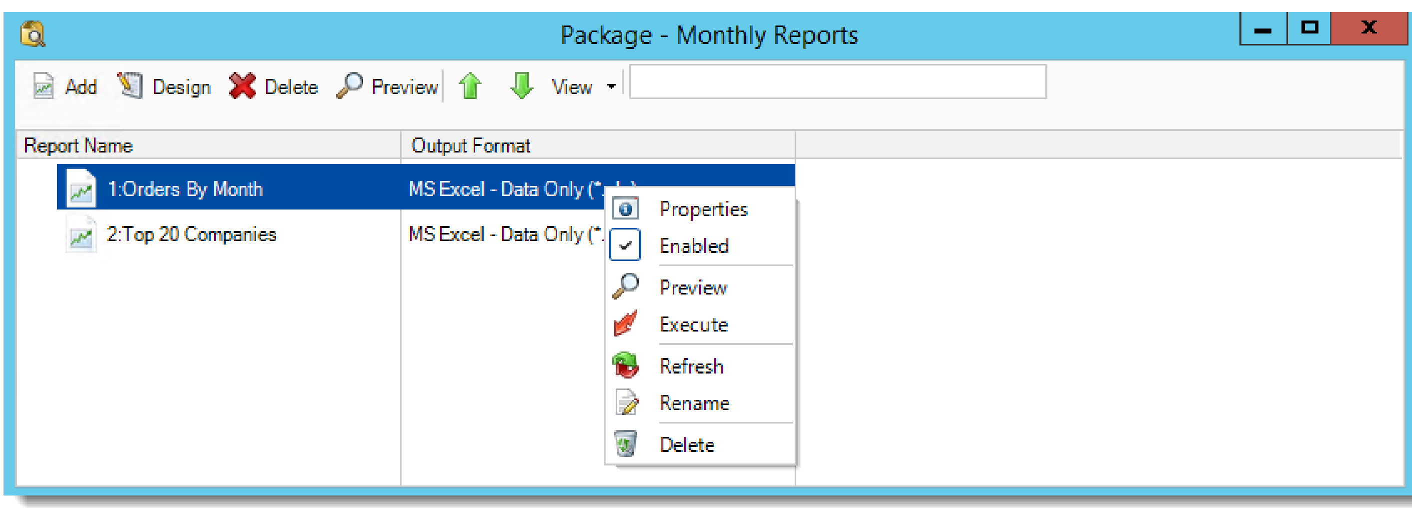
- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- **Once for each generated report:** Each task will be ran for each successfully generated report within the schedule.
- **Once for the entire schedule:** Each task will be ran once when the schedule has completed successfully.
- If you have no desire to add a Custom Task, you can click **finish** to complete the schedule.

Dynamic Package Schedule Context Menu



Right-Click on a schedule to see the following actions:

- **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
- **Open:** This will open the package and show its constituent reports.



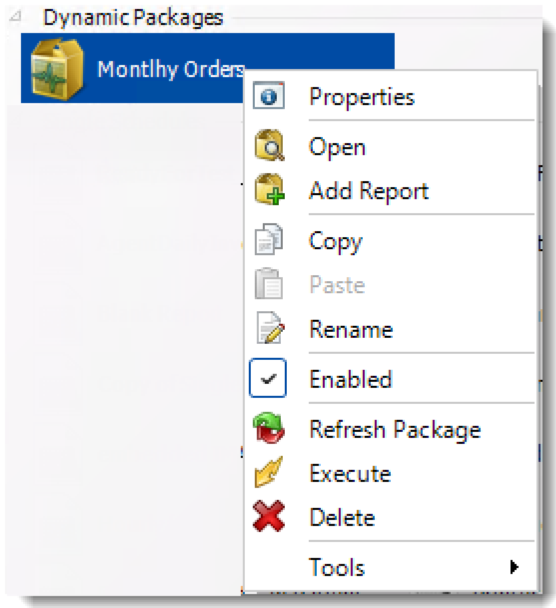
  - You can right-click on each of the constituent reports to see the context-sensitive menu shown in the picture above.

- **Enabled:** Use this to enable or disable the constituent report.
    - **Refresh:** Pulls through changes to just that report which were made outside CRD.
    - **Rename:** Renames the selected report.
    - **Preview:** Generates a preview of the selected report.
    - **Delete:** Deletes the selected report from package.
    - **Properties:** Displays the configuration properties of just that report.
- **Add Report:** Use this to add one or more reports to an existing package.
- **Copy:** Use this to copy the schedule. Right-click in the "white space" of the folder you wish to copy it to and select Paste button.
- **Rename:** Rename the package.
- **Enabled:** Schedules are enabled when there is a check icon beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check icon. Disabled schedules will not run until they are enabled again.
- **Refresh:** When a schedule is first created, CRD caches (saves) a copy of the report. All executions of the scheduled are performed using this copy. If you make changes to your master report, you must select this option in order to pull the changes into CRD.
- **Execute:** This button will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers .
- **Delete:** Selecting this option will delete the schedule.
- **Test Package:** Use this option to test the schedule and export it to selected "test" destinations.
- **Split into Single Schedules:** This will split all the constituent reports in the package into Single Report Schedules.

  This process will automatically delete the package once the splitting process is completed.

- **Ad-Hoc Email to Recipients:** Select this option to send an ad-hoc email to all recipients of this package. You can use this to alert recipients to a planned system outage, or any other useful information.
- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.

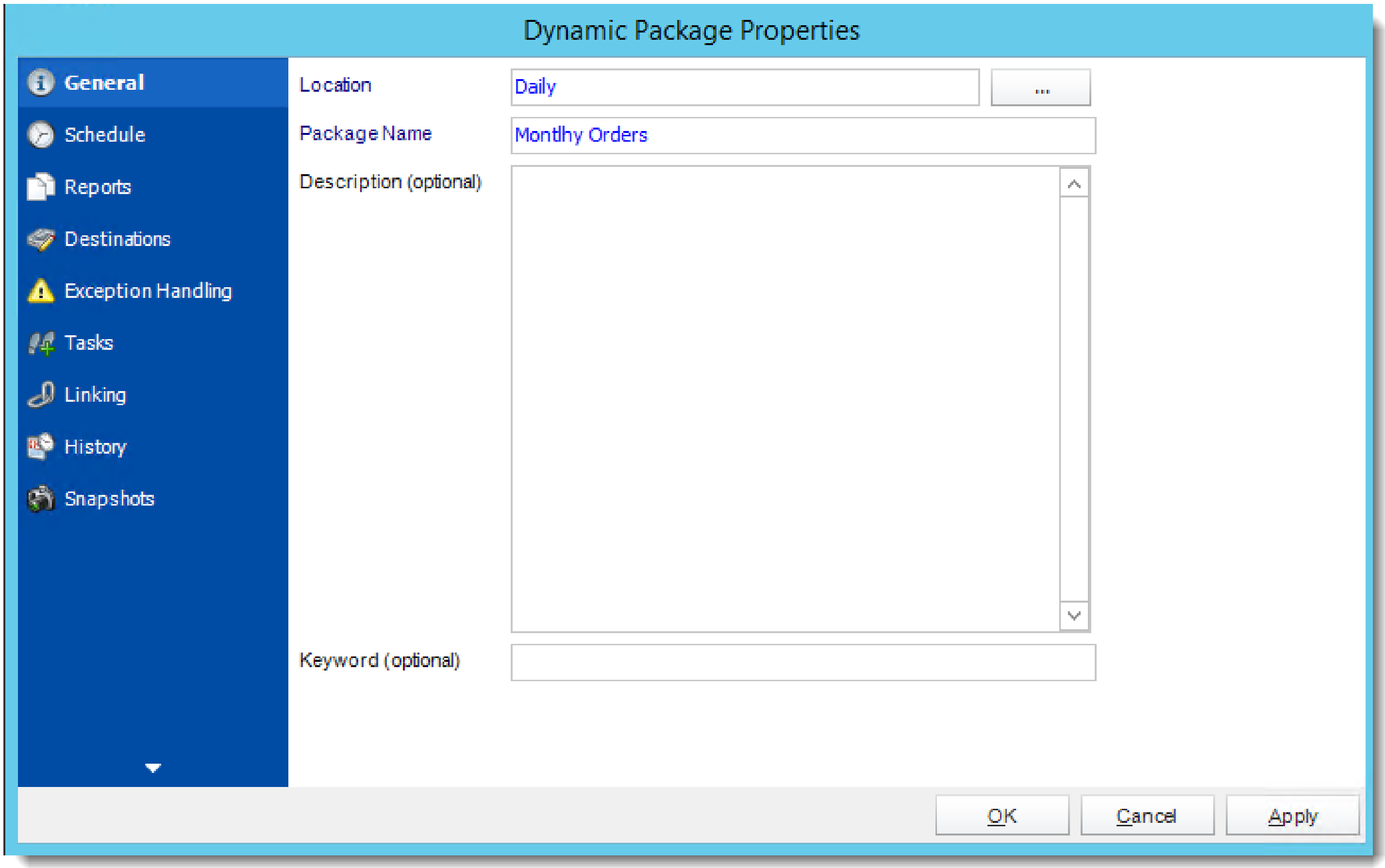
Dynamic Package Report Schedule Properties



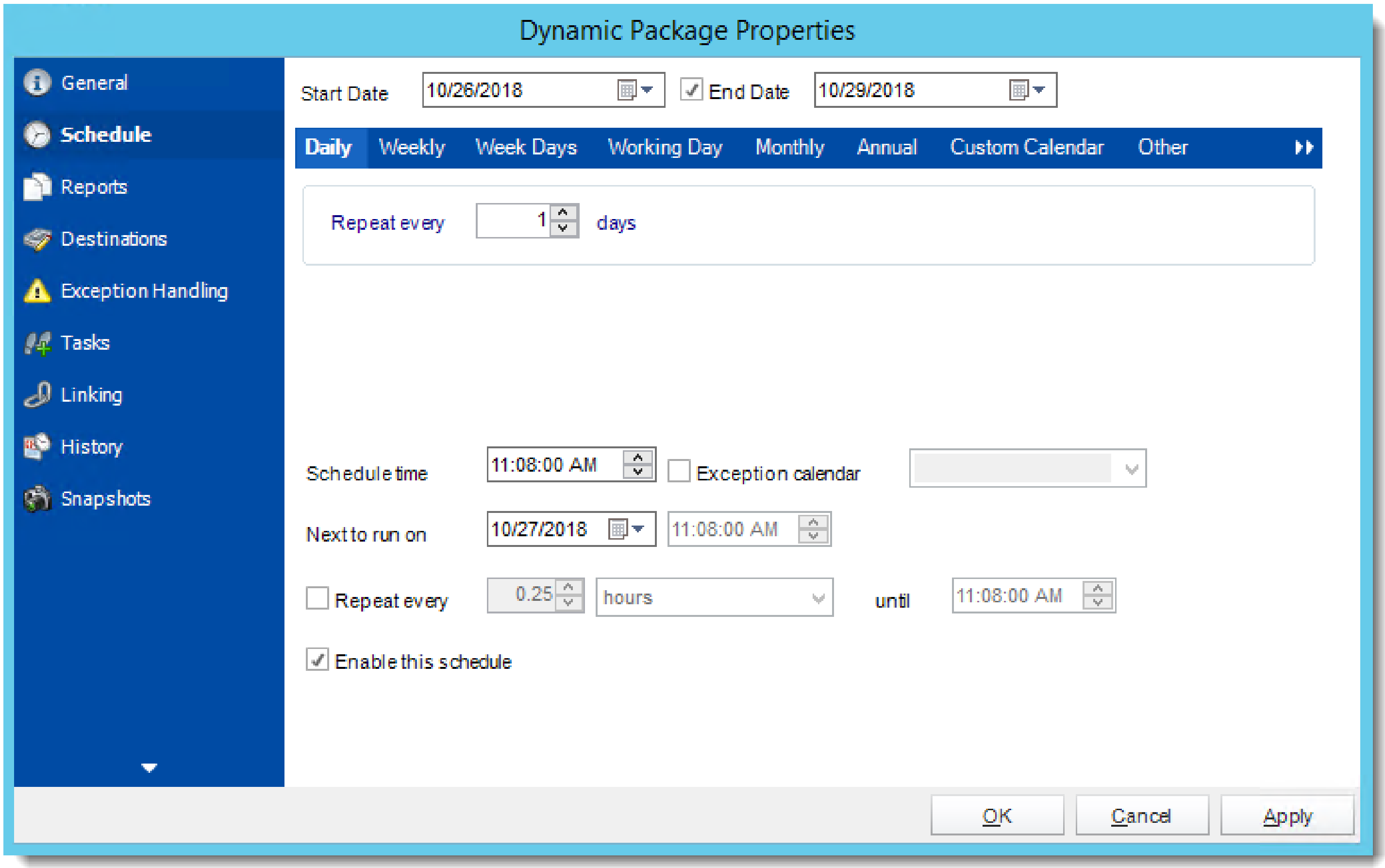
To access your schedule properties, right click on a schedule and select **properties**.

Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

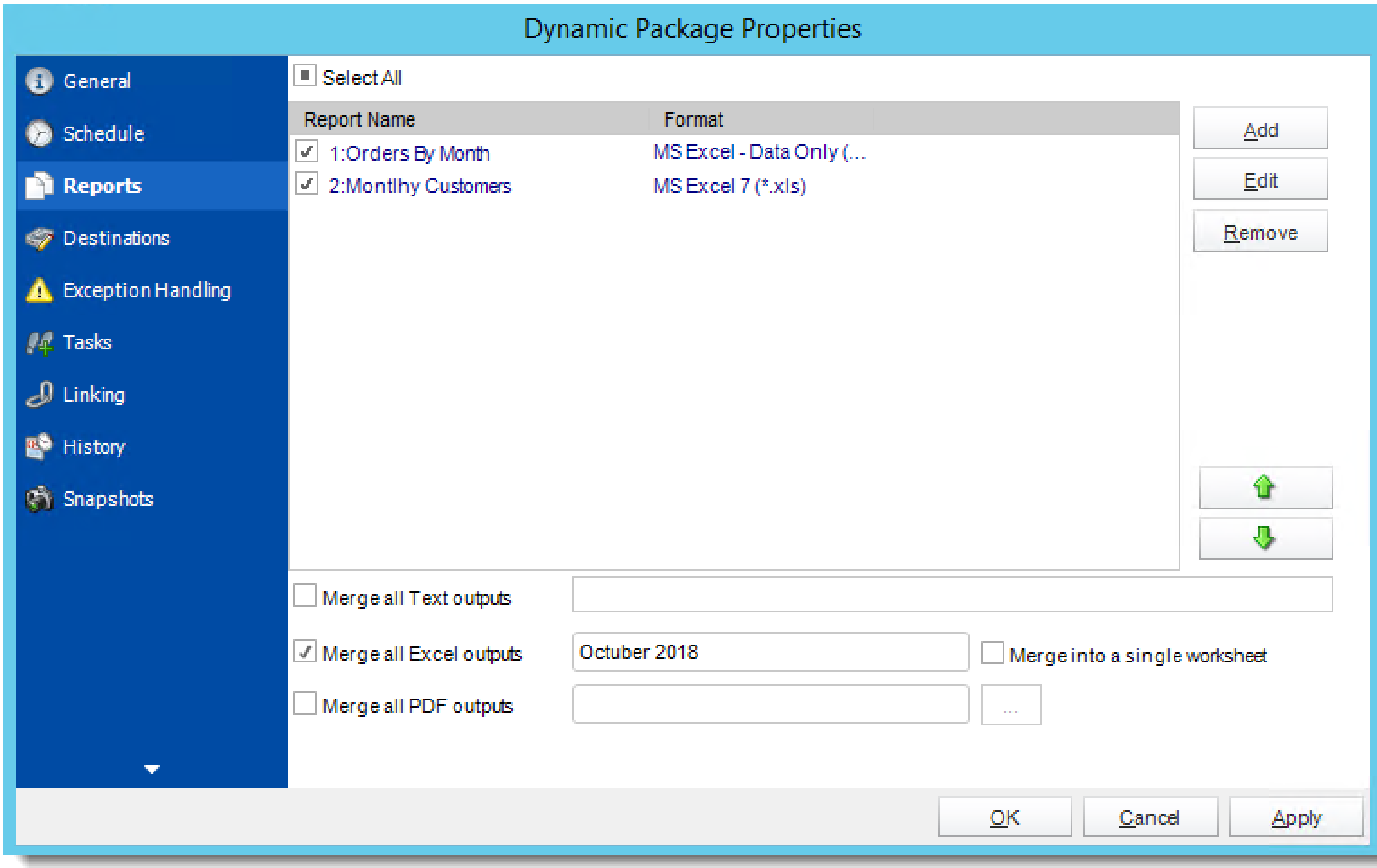
General: You can edit package general information from here.



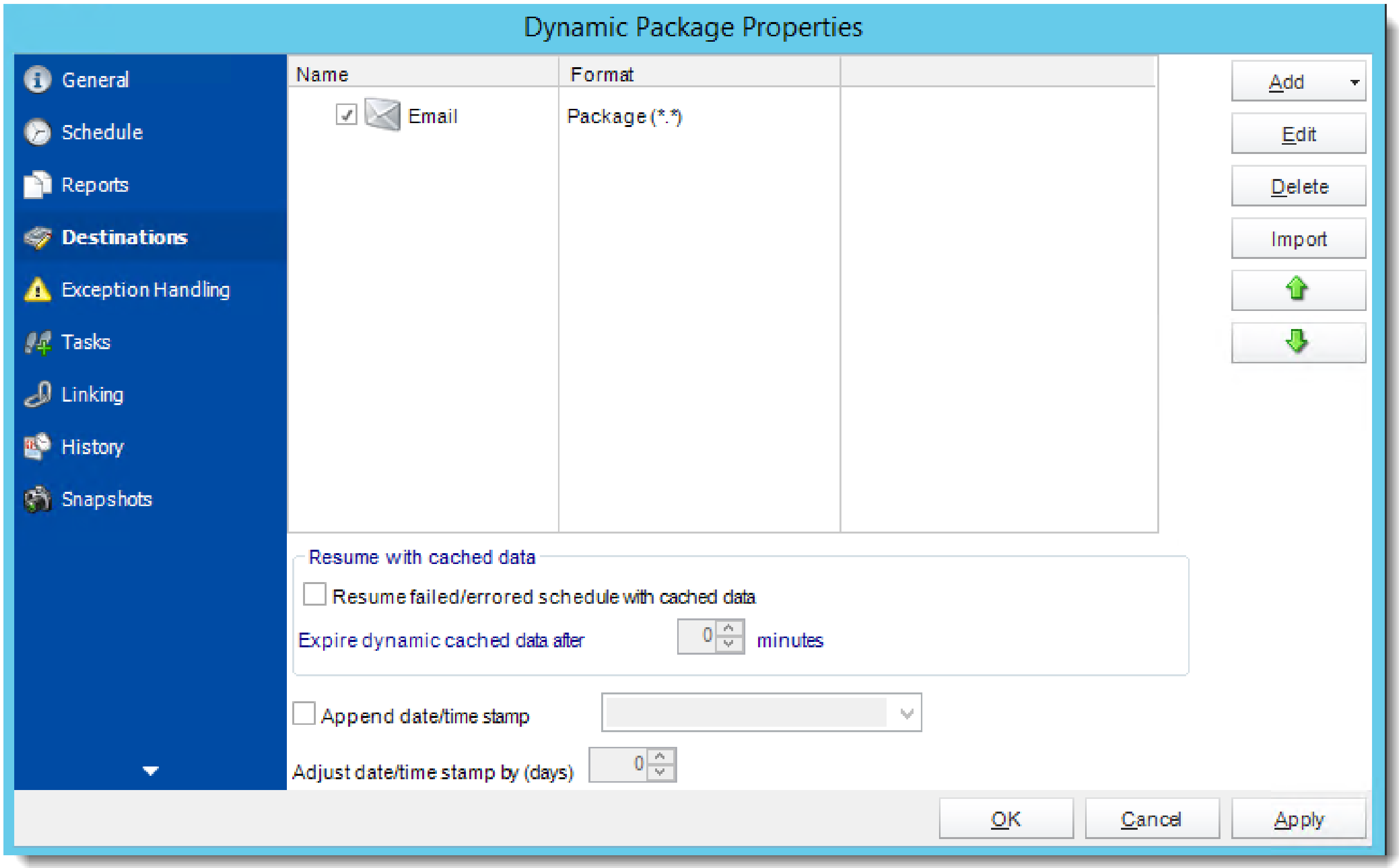
Schedule: You can edit the schedule time from here.



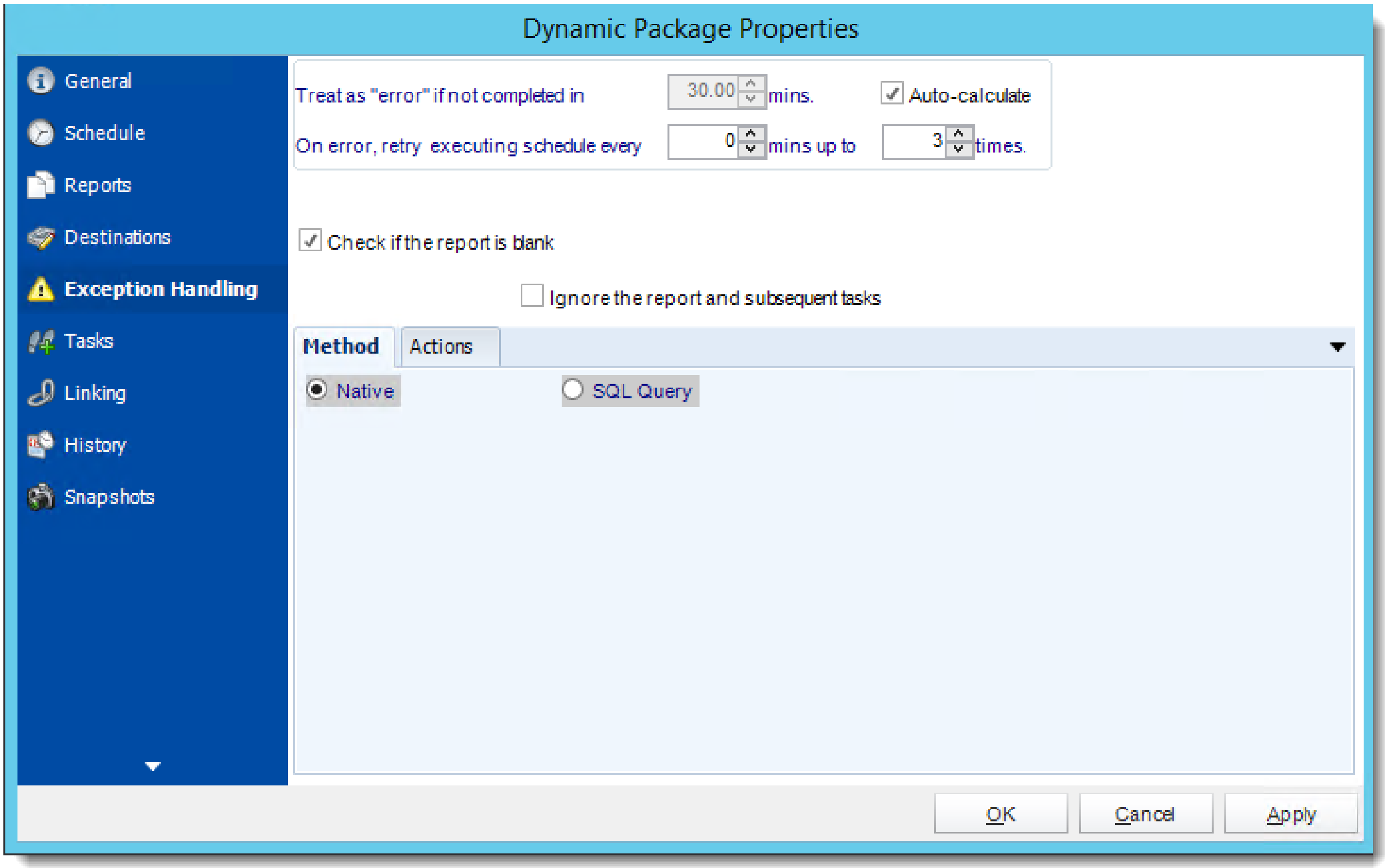
Reports: You can add, edit, or delete reports from here.



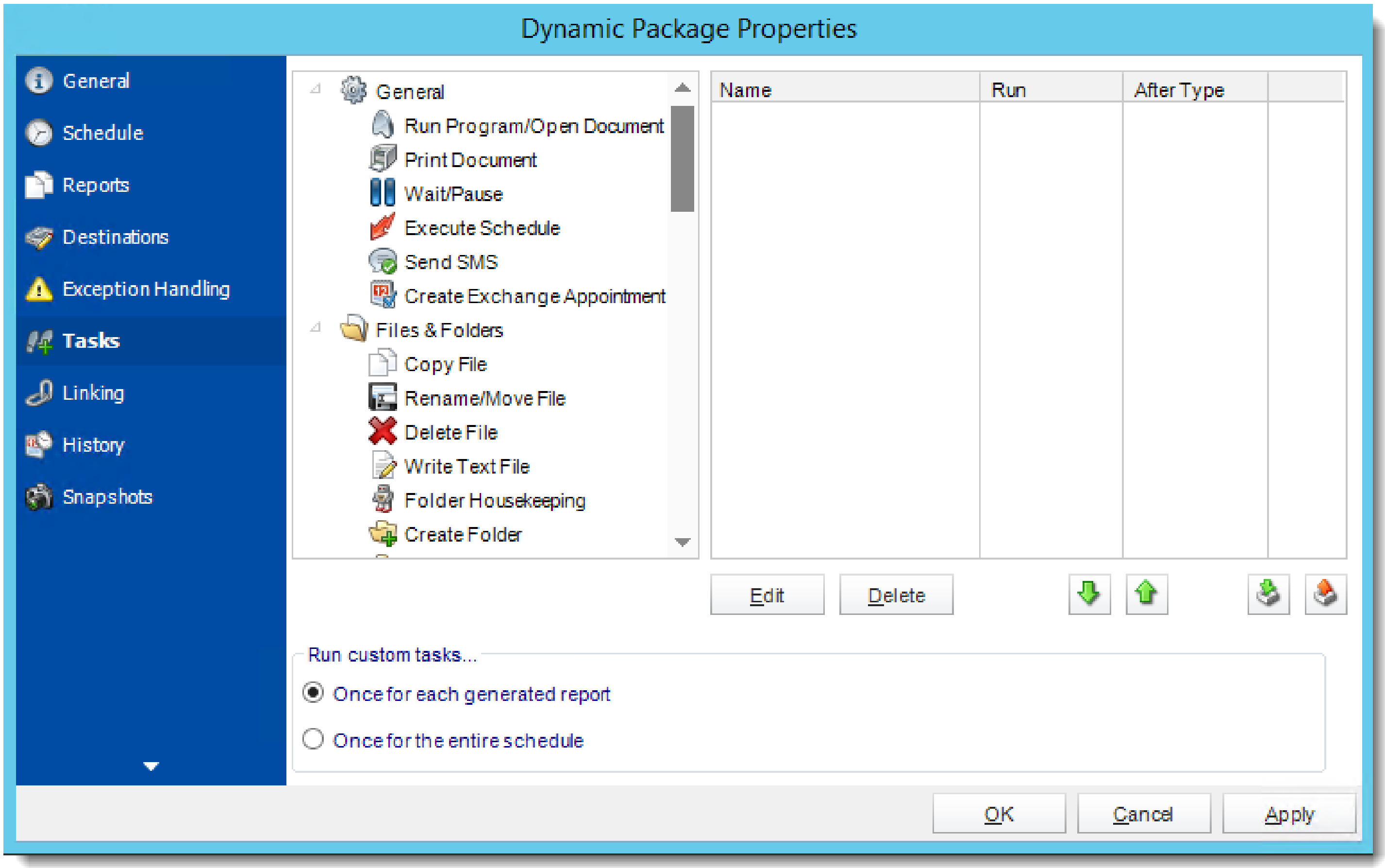
Destinations: You can add, edit, or delete destinations from here.



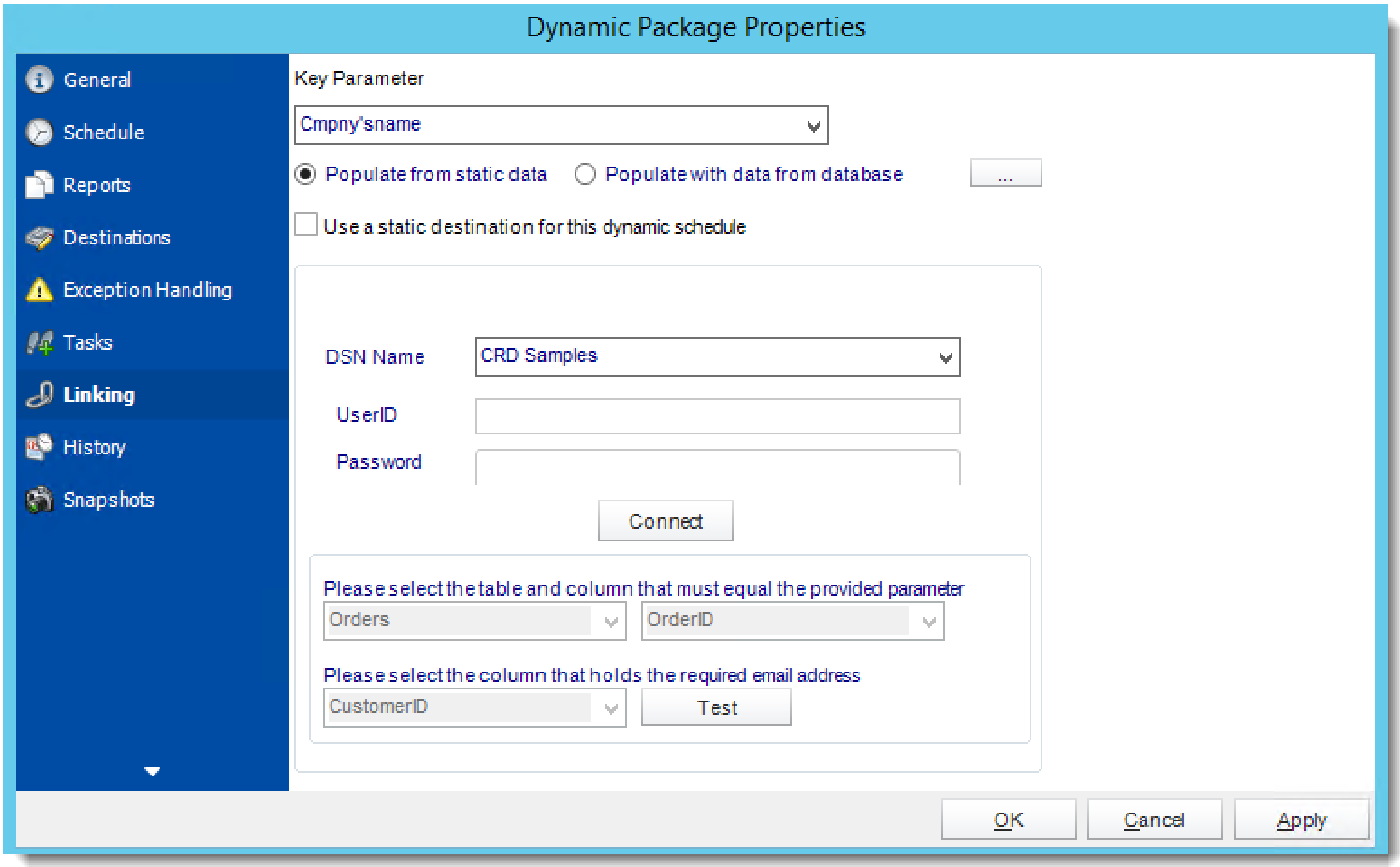
Exception Handling: You can edit exception handling from here.



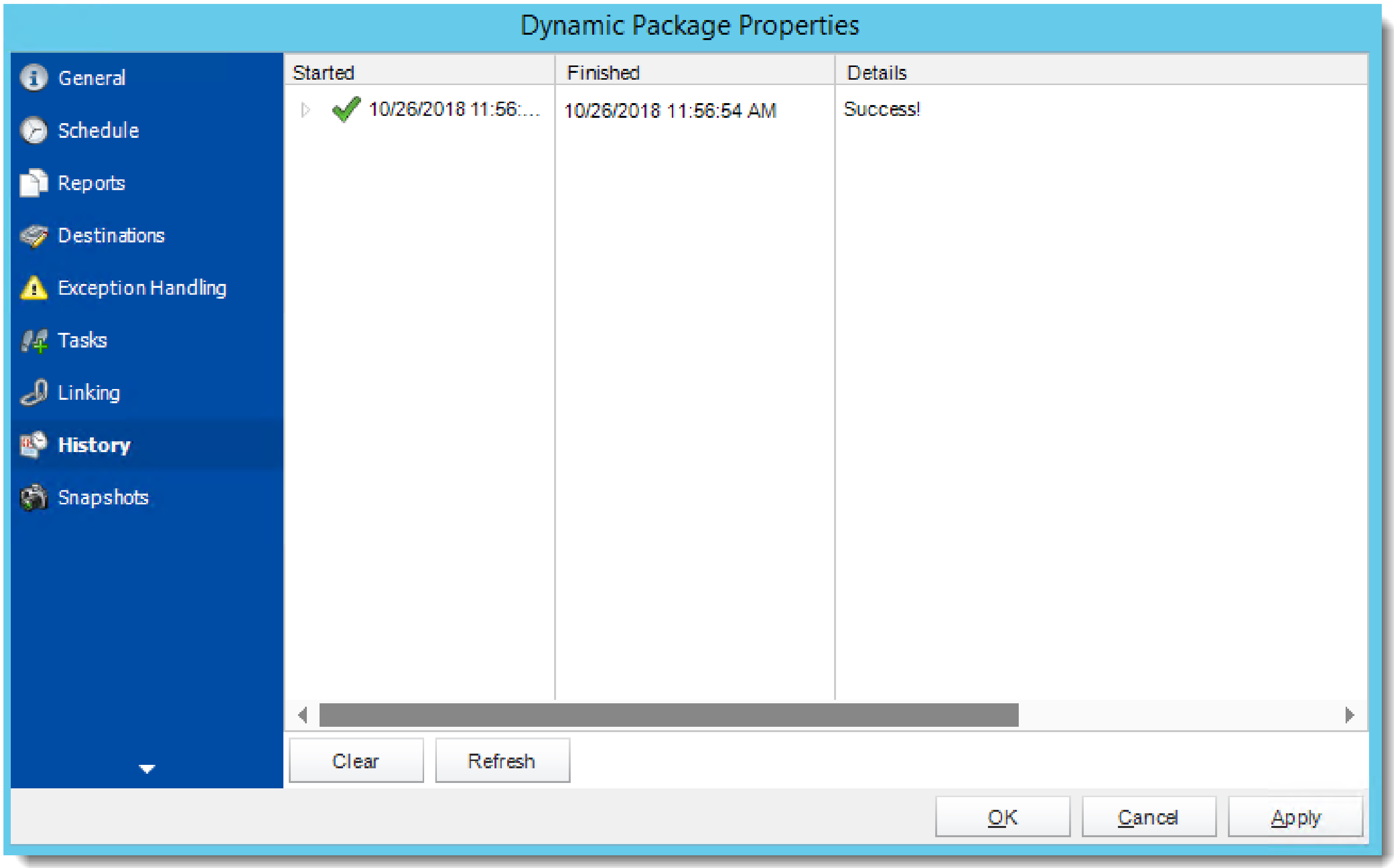
Tasks: You can add, edit, or delete tasks from here.



Linking: You can edit linking options from here.

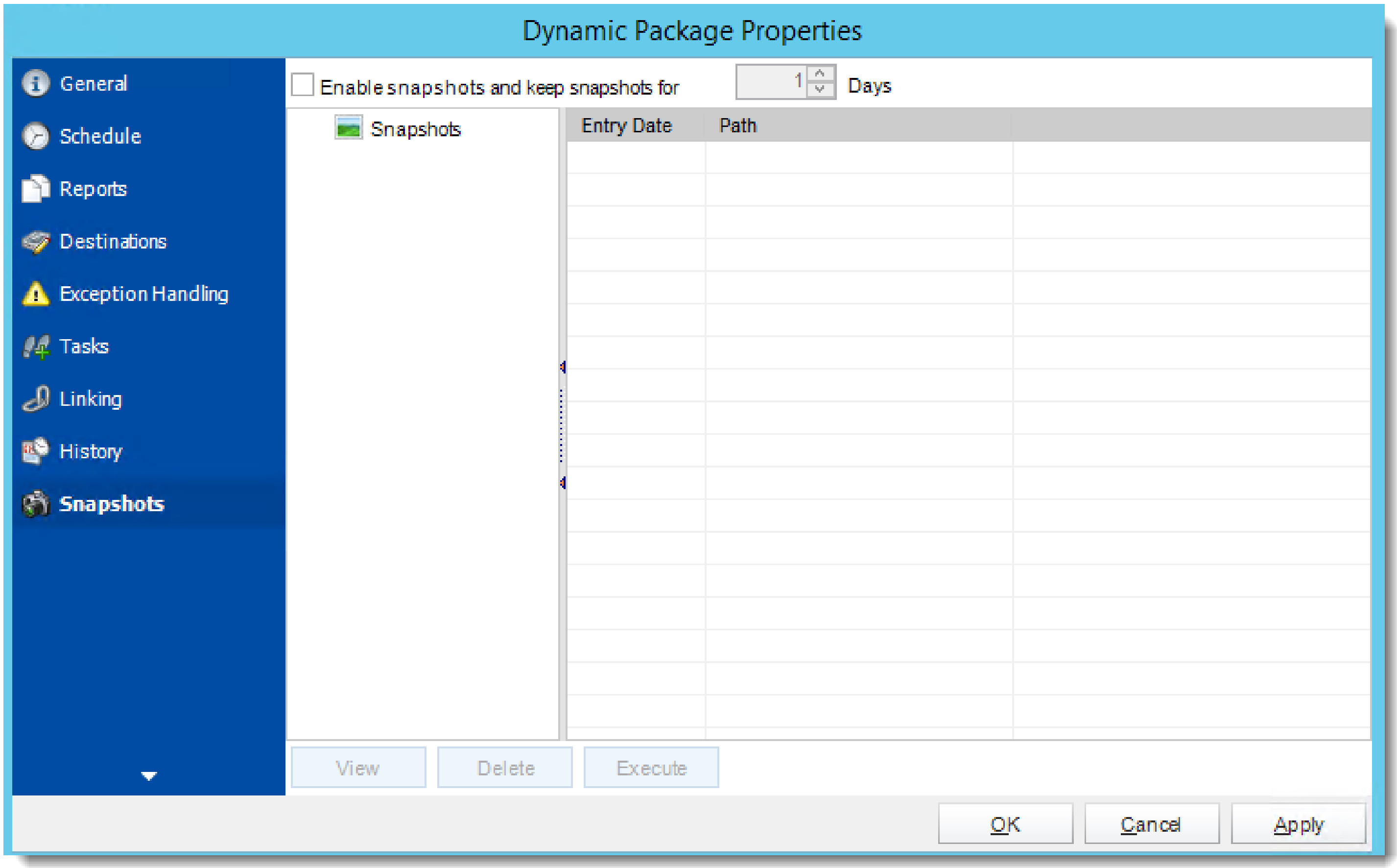


History: Review the schedules history. Successes, failures, and other data is located here.



Snapshots: A snapshot is a copy of each report a schedule or a package generates. Keeping snapshots enables you to resend past reports without generating them afresh - especially if the data has changed in the meantime.

Simply select the number of days to keep the snapshots.



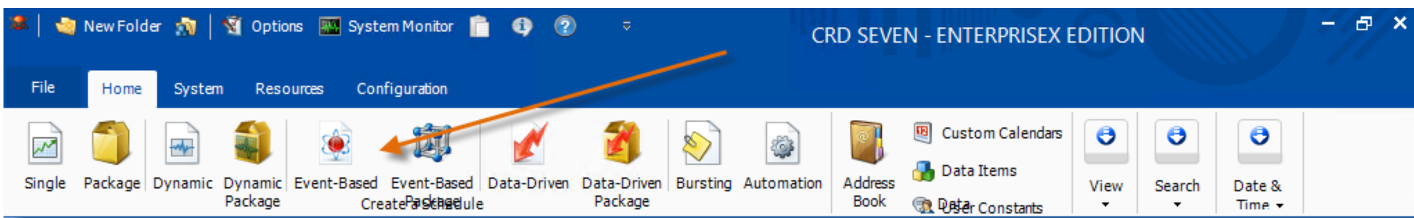
Event Based Schedule for Crystal Reports.

Event-Based Schedules give you the ability to run any already existing schedule (enabled or disabled) when an event occurs. The purpose of the wizard will be to guide you through the process of setting up an Event-Based Schedule. Use this schedule on its own, or in addition to a regular time based schedule for the same report.

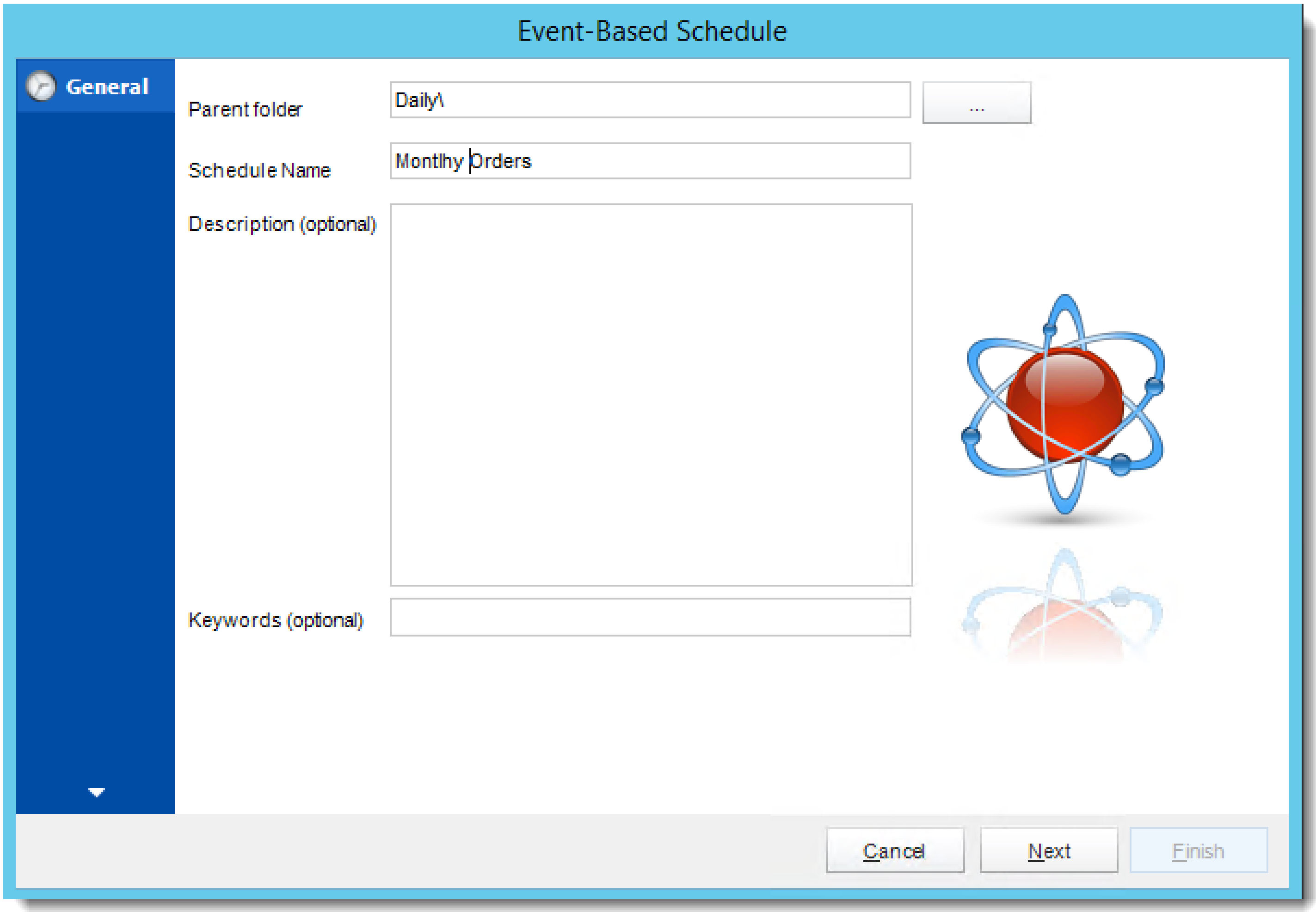
With Event Based Schedules you can unlock the power of CRD's process scheduling engine. Combine Event Based schedules with Custom tasks to automate processes such as updating databases, server management, or system alerts.

How to Create a Event Based Schedule for Crystal Reports?

- Go to **Event Based.**



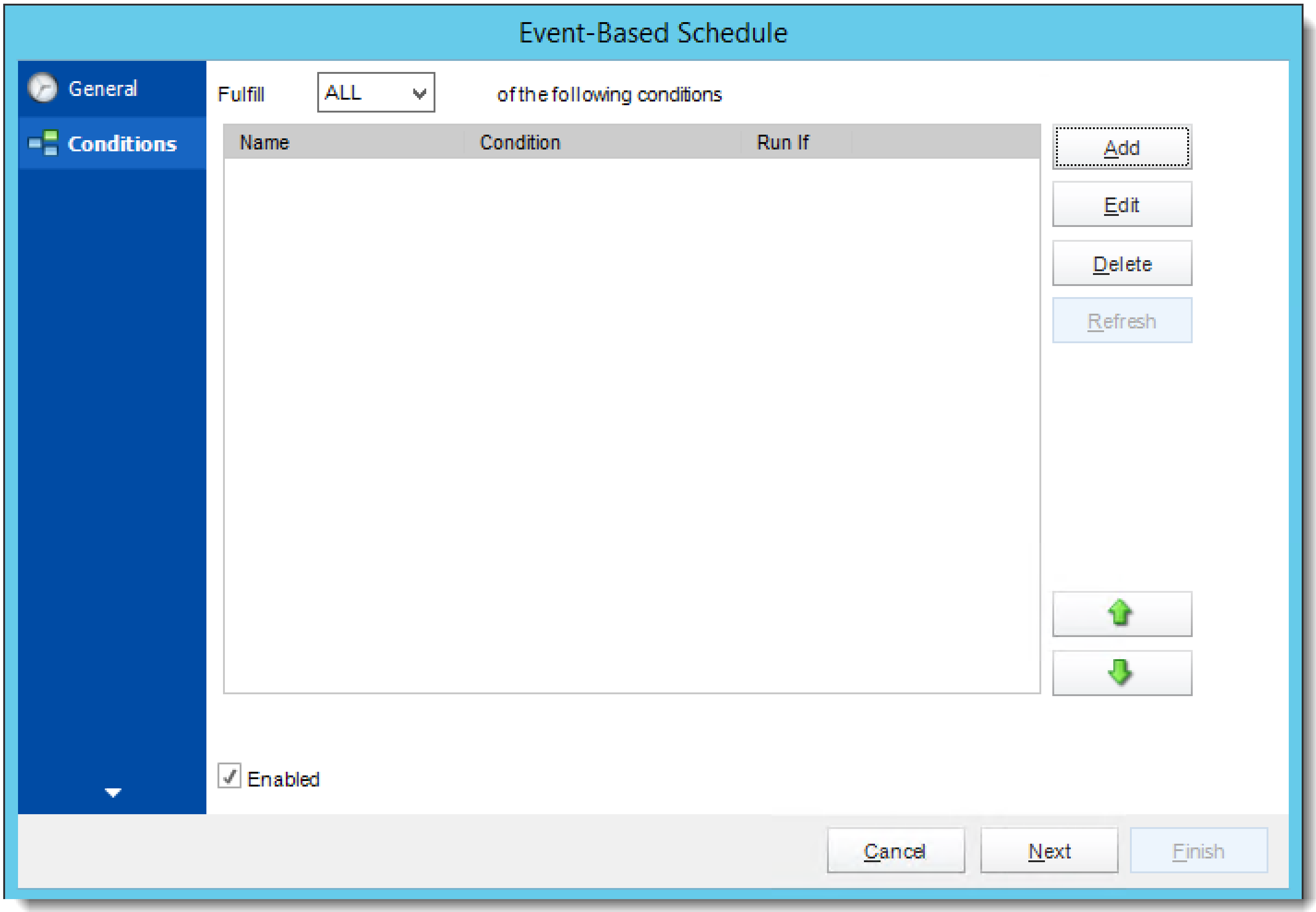
General Wizard



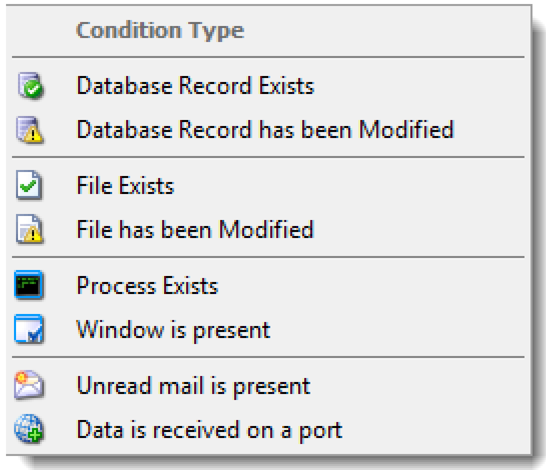
- **Parent Folder:** The CRD folder where the package is stored.
- **Schedule Name:** The name of the package.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.

Click **Next** to go to the next wizard section.

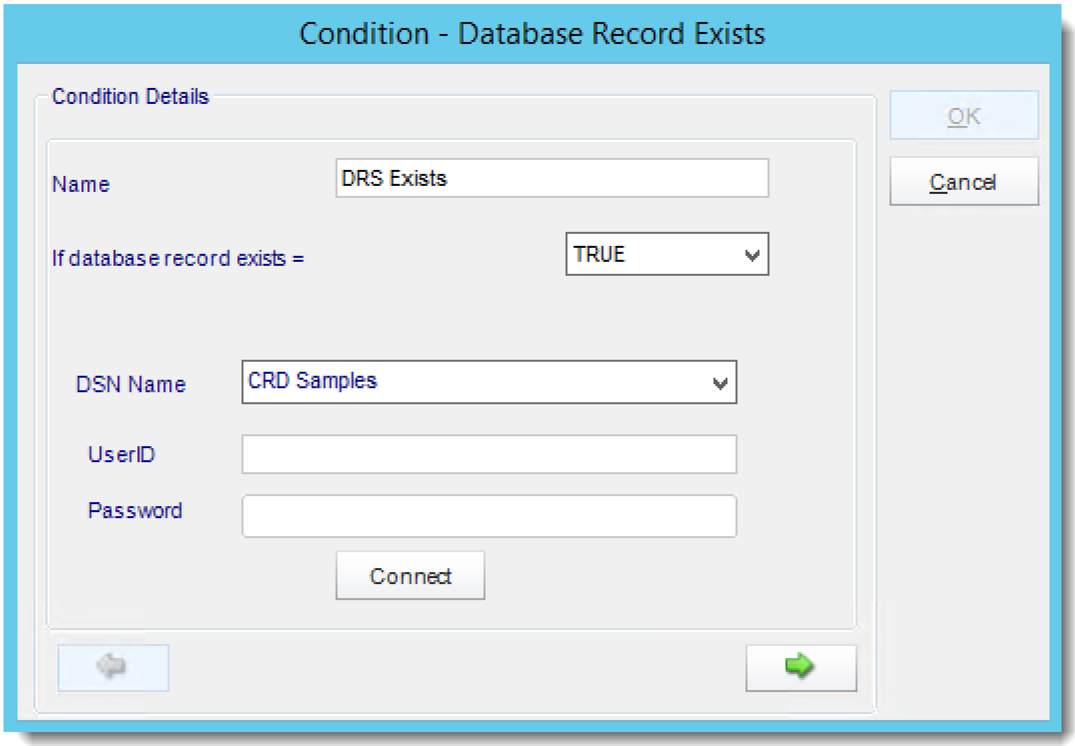
Conditions Wizard



- **Fulfill:**
  - **ANY:** The schedule will work if ANY of the conditions are met.
  - **ALL:** The schedule will only work if ALL of the specified conditions are met.
- **Enabled:** Check this option to enable or disable the schedule.
- Click **Add** to see all the Conditions type.


Condition Type
Database Record Exists
Database Record has been Modified
File Exists
File has been Modified
Process Exists
Window is present
Unread mail is present
Data is received on a port

Database Record Exists



- This condition will cause the schedule to be executed if a database record exists.
- If set to **True,** the schedule will be executed if the record exists e.g. when it is created.
- If set to **False**, the condition will be executed if the record does not exist.
- **ODBC DSN Name:** Drop down and select a DSN.

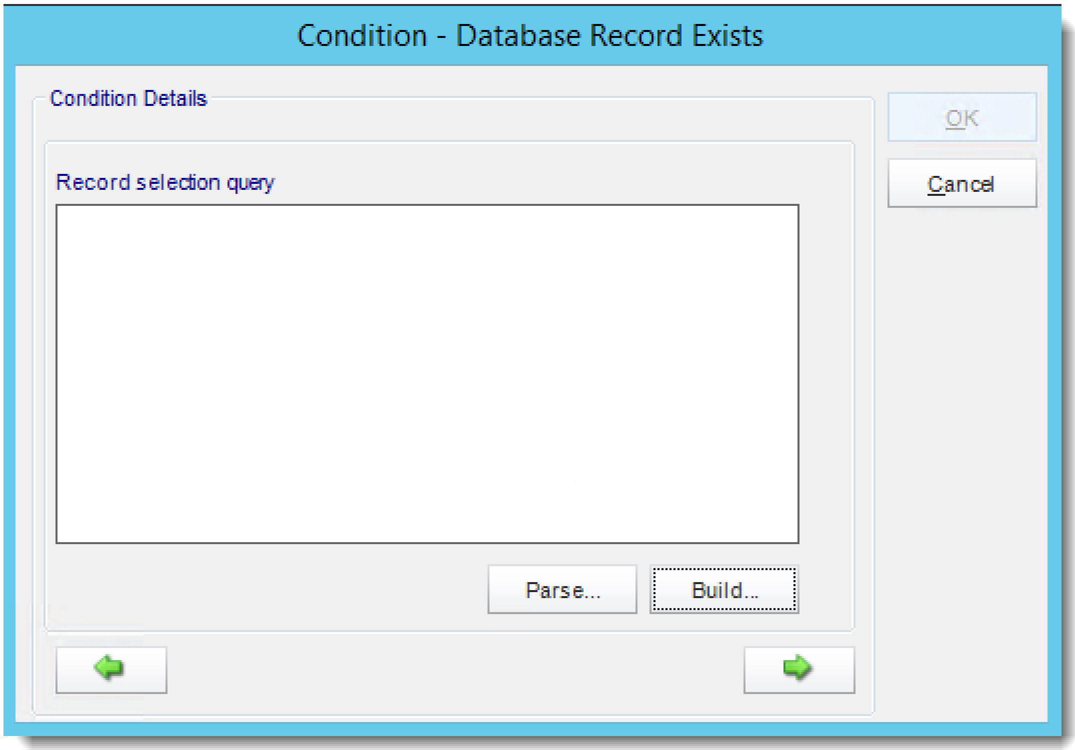
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

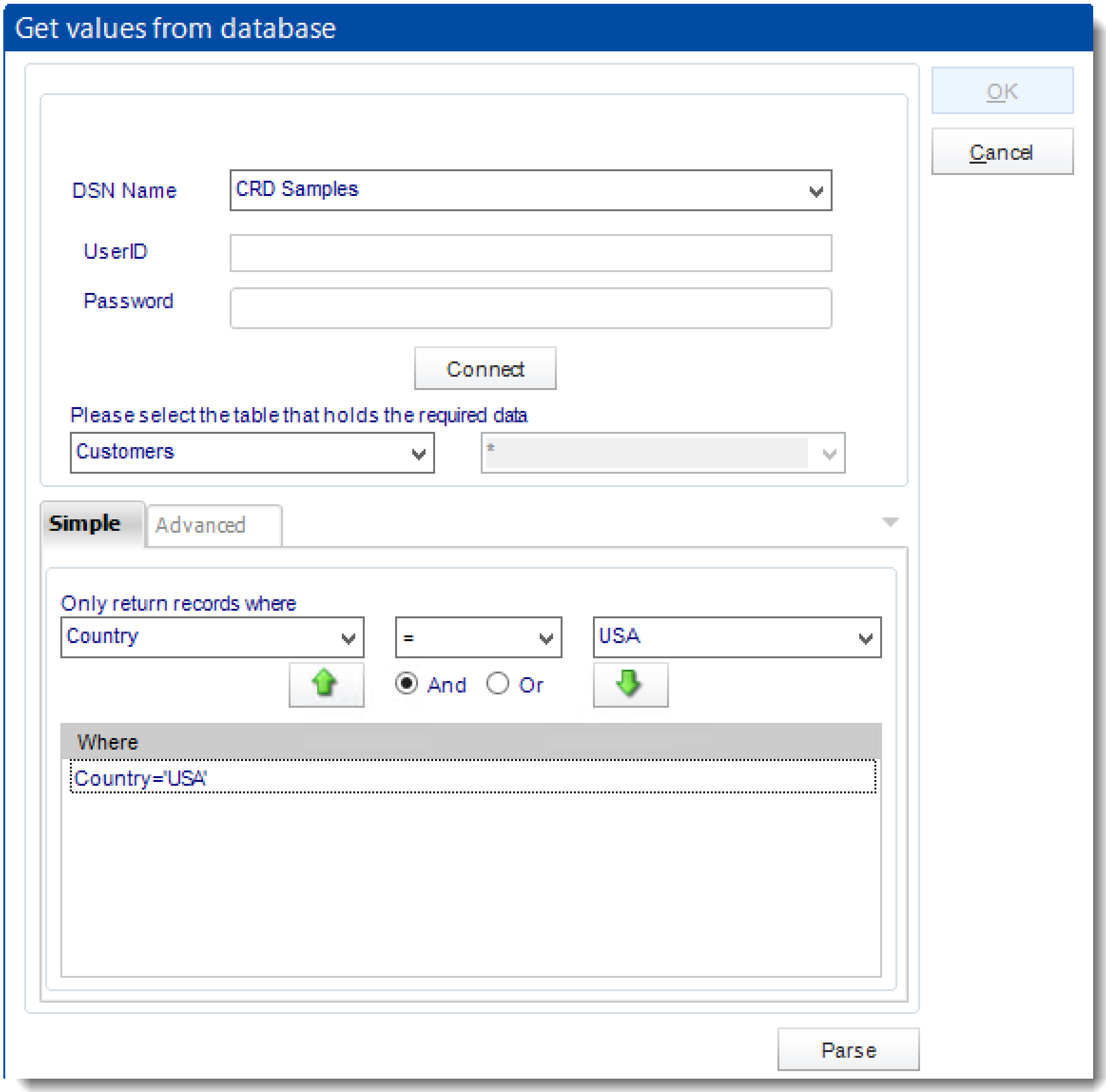
  When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

  When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

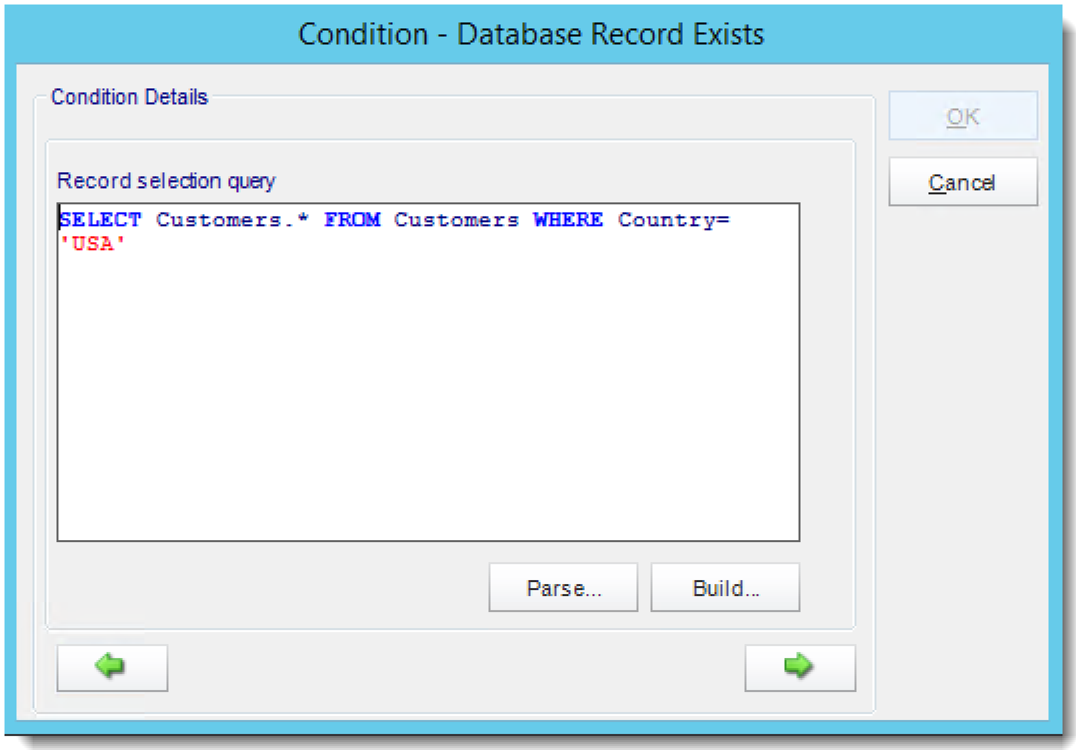
- **UserID:** Enter the User ID CRD should use to log on to the database
- **Password:** Enter the password associated with the above user.
- Click **green arrow** to continue.



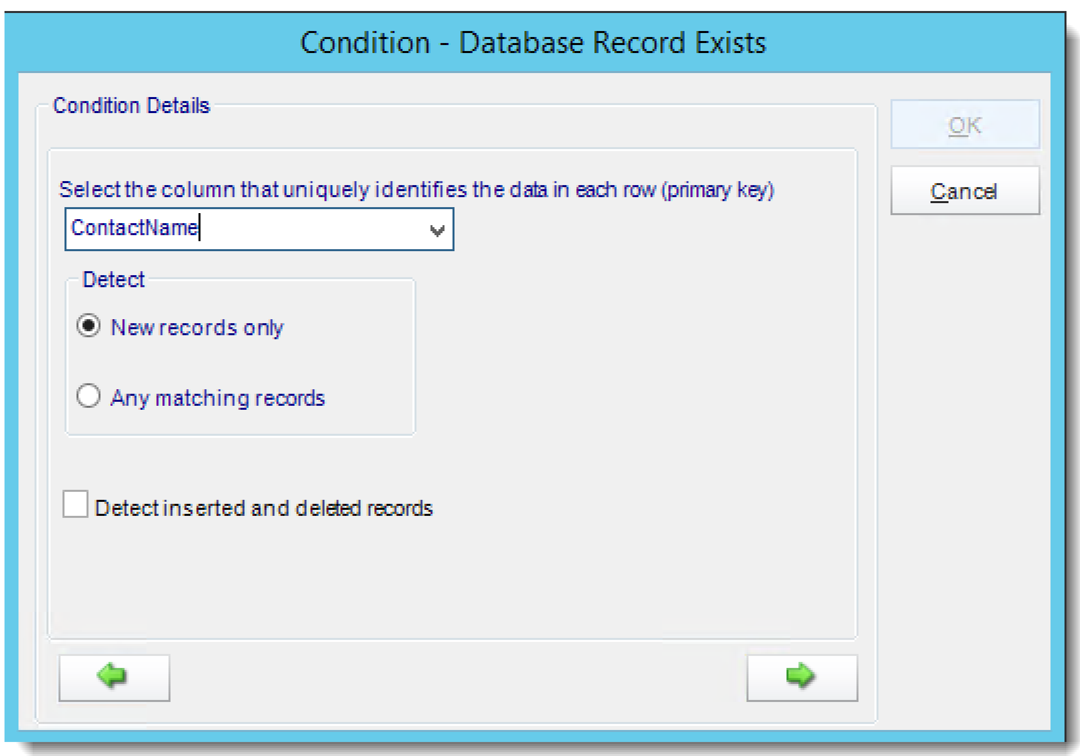
- Click **Build.**



- **ODBC Datasource Name:** Drop down and select a DSN.
- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Select the table from the database that holds the required data. You can refine your selection query by using the simple or advanced tabs.
- Click **Parse.**
- For more information of "Get Values From Database" interface, click here.



- Click **green arrow** to continue.



- Select the Column that identifies the data in each row. This must be unique. It is typically referred to as the Primary key.
- **Detect - New Records Only:** The schedule will only act on records that were created after you wrote the schedule and the schedule will only be fired once for each record. After the first run, it is deemed not to be new anymore and the schedule will not fire.
- **Detect - Any Matching Records:** If this option is selected you should ensure that your query limits the returned values to just the record you are after. You must also write a custom action to update the database so that this record no longer fulfills the condition once the schedule has been executed, otherwise the schedule will continue to run each time it finds the same record.

For example:

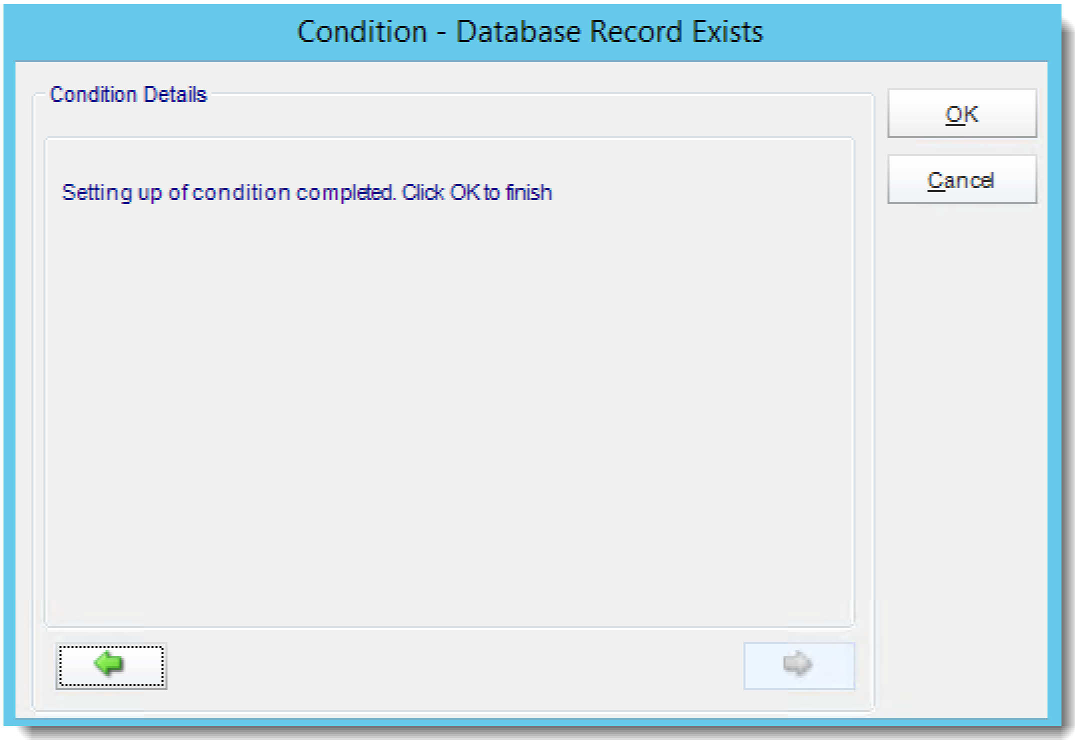
The schedule should execute when a new sale over $1000 is entered: Select order id from sale stable where amount >= 1000

Now limit the query further by adding a second condition: Select order id from sale stable where amount >= 1000 and schedule sent <> 'T'

The schedule will only execute if it finds a sale over $1000 and the schedule sent field is not "t".

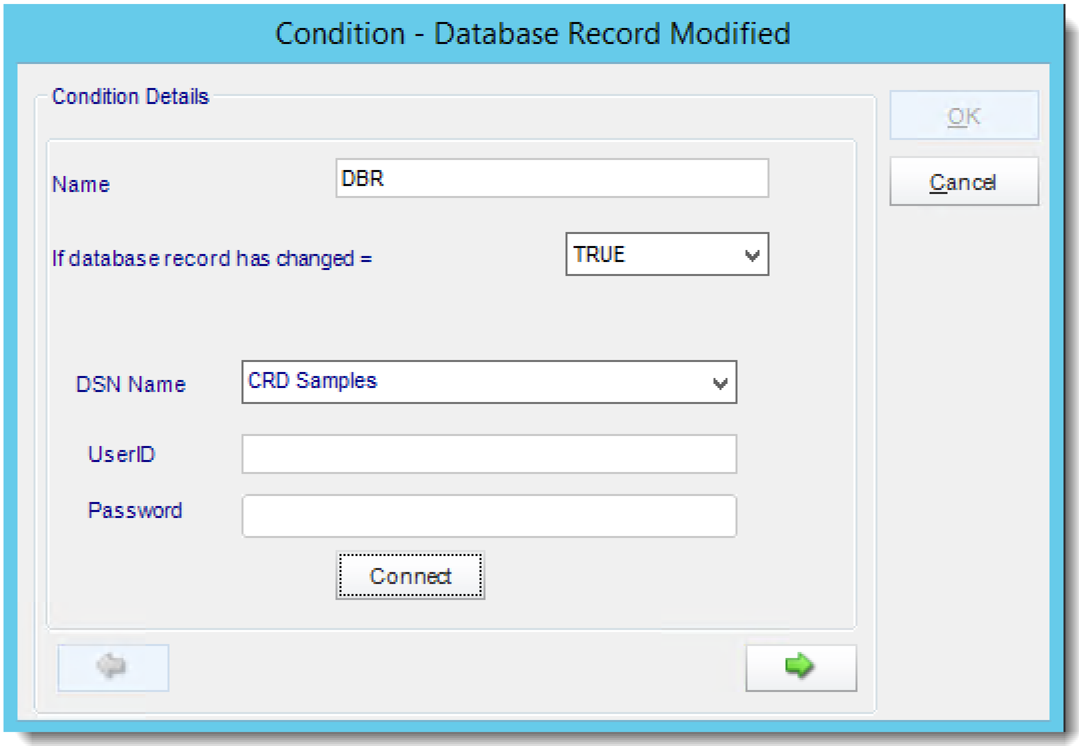
Now write a custom Task to update the database record and set schedule sent to 'T'. Update sale stable set schedule sent = 'T' where amount >= 1000 and schedule sent <> 'T'

- When the schedule has executed, it will mark the record and thus ensure that the schedule does not repeat itself each time CRD polls the database.
- Click **green arrow** to continue.

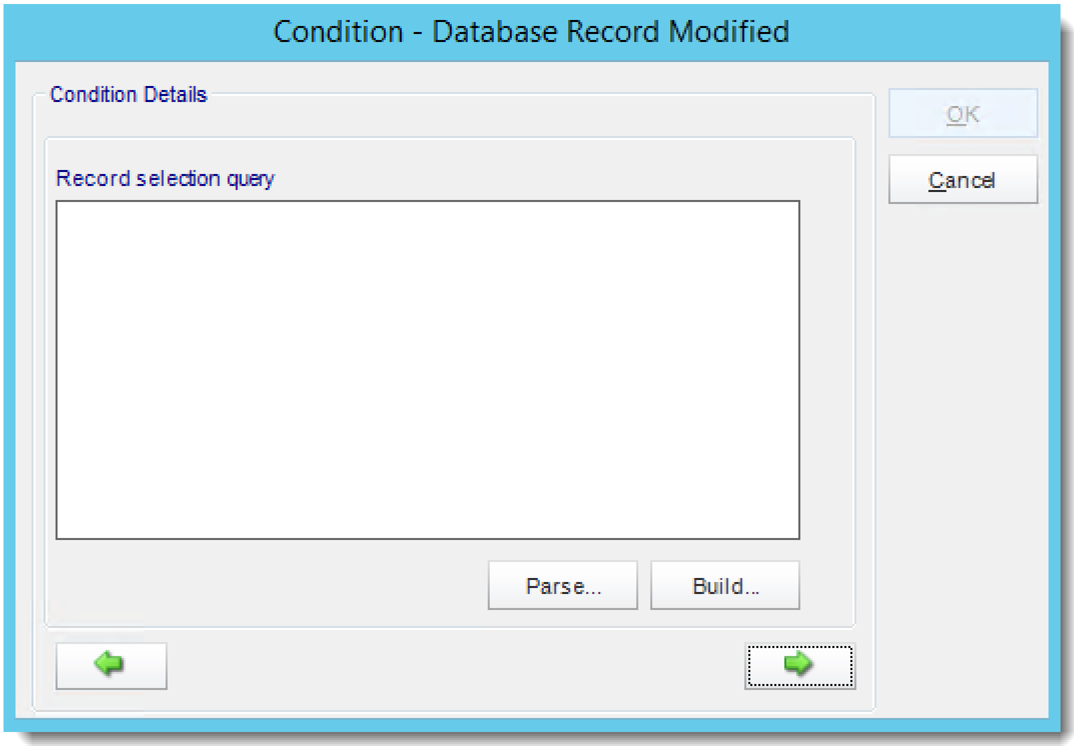


- Click **OK.**

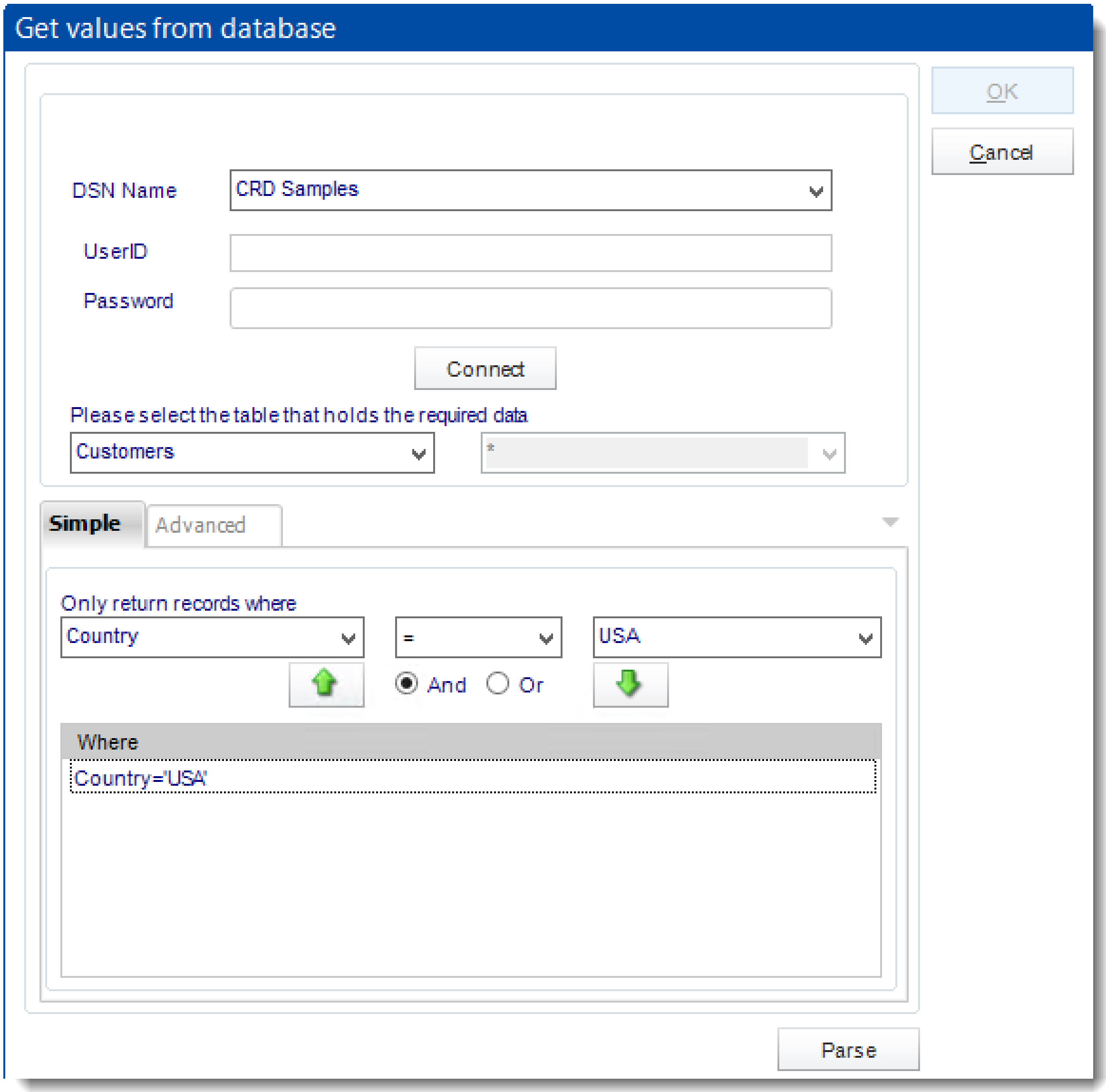
Database Record Has Been Modified



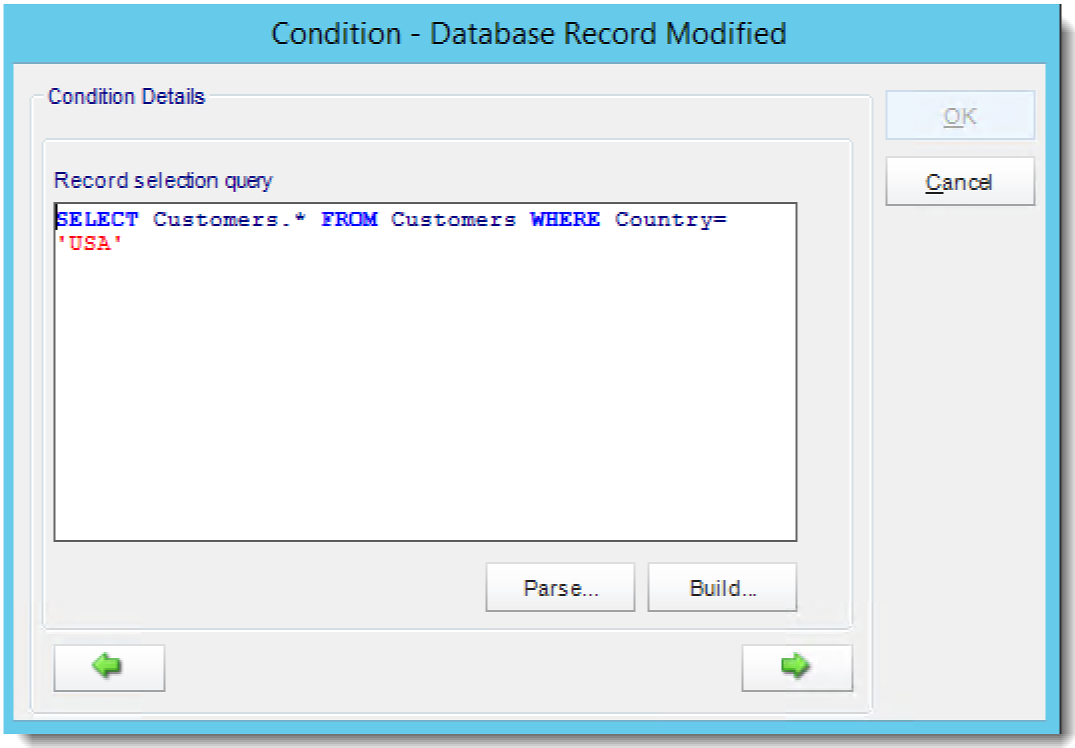
- This condition will cause the schedule to be executed if a database record exists.
- If set to **True,** the schedule will be executed if the record exists e.g. when it is created.
- If set to **False,** the condition will be executed if the record does not exist.
- **ODBC DSN Name:** Drop down and select a DSN.
- **UserID:** Enter the User ID CRD should use to log on to the database
- **Password:** Enter the password associated with the above user.
- Click **green arrow** to continue.


Condition - Database Record Modified
Condition Details
Record selection query
Parse...
Build...
OK
Cancel

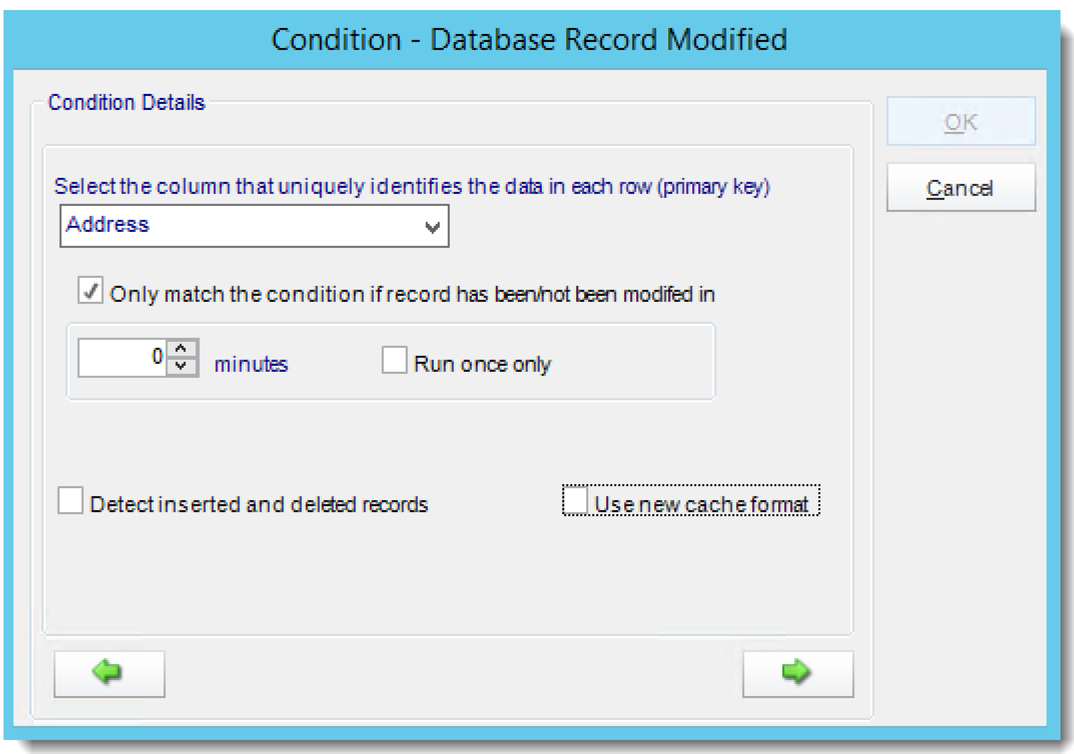
- Click **Build.**



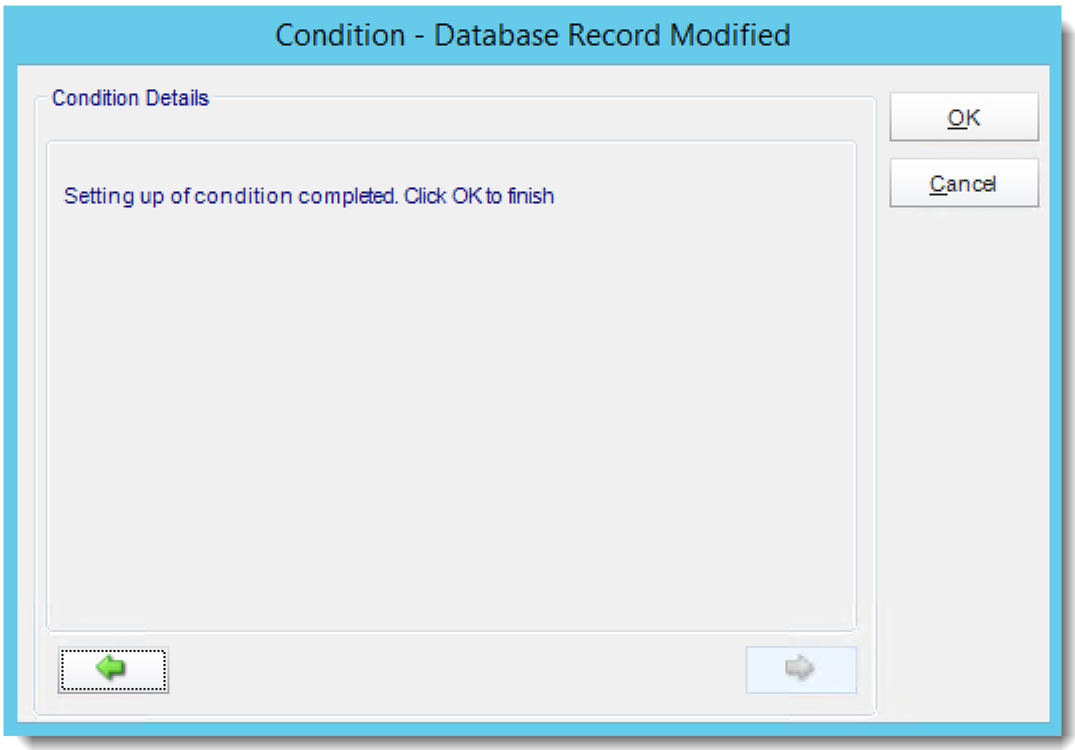
- **ODBC Datasource Name:** Drop down and select a DSN.
- **UserID:** Enter the User ID CRD should use to log on to the database.
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Select the table from the database that holds the required data. You can refine your selection query by using the simple or advanced tabs.
- Click **Parse.**
- For more information of "Get Values From Database" interface, click here.



- Click **green arrow** to continue.

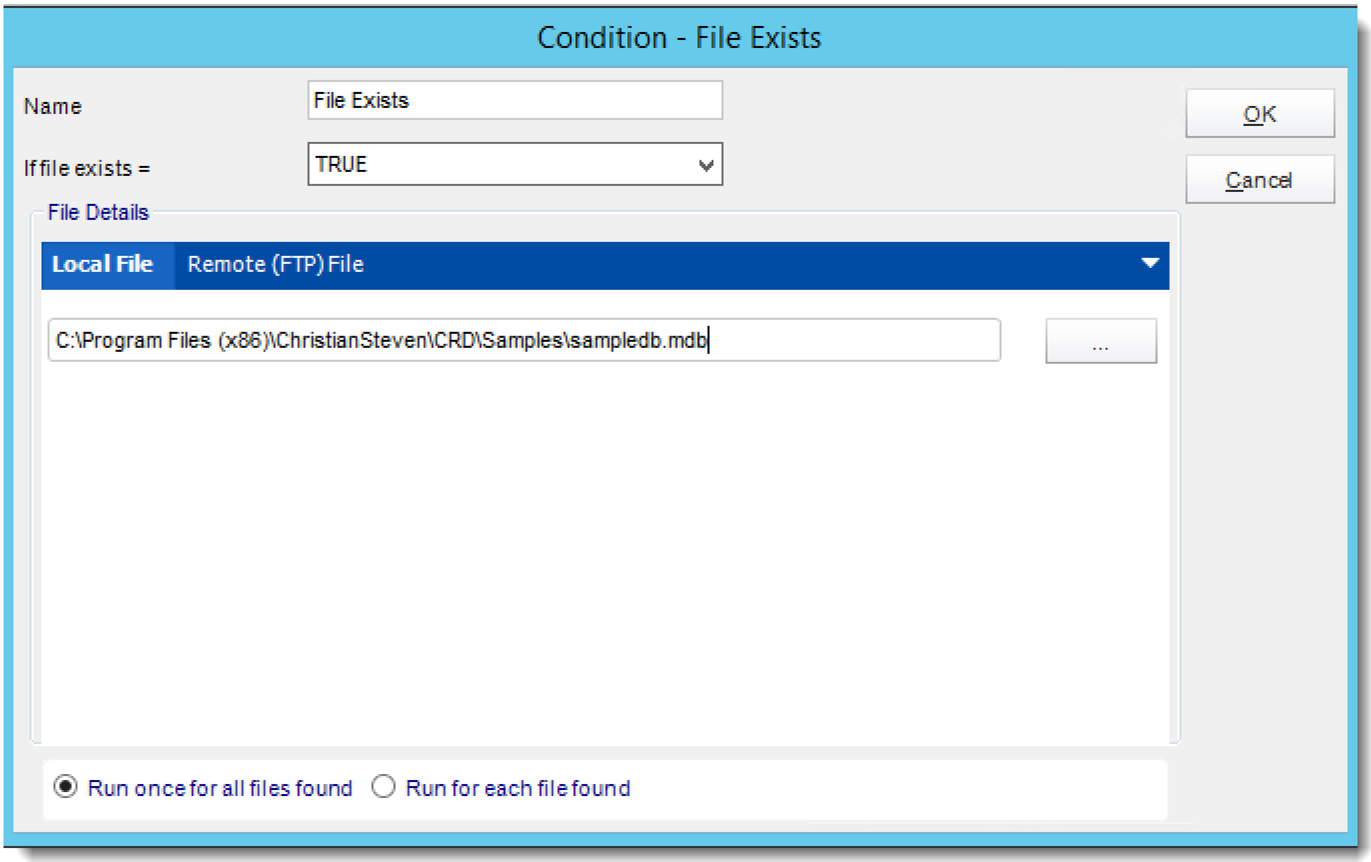


- Select the Column that identifies the data in each row. This must be unique. It is typically referred to as the Primary key.
- **Detect Inserted and deleted Rows:** CRD will monitor for inserted and deleted rows as well as data that has been modified.
- **If Database Record has been / has not been modified**: Check for records that have been / have not been changed within a set time frame.
- Click **green arrow** to continue.



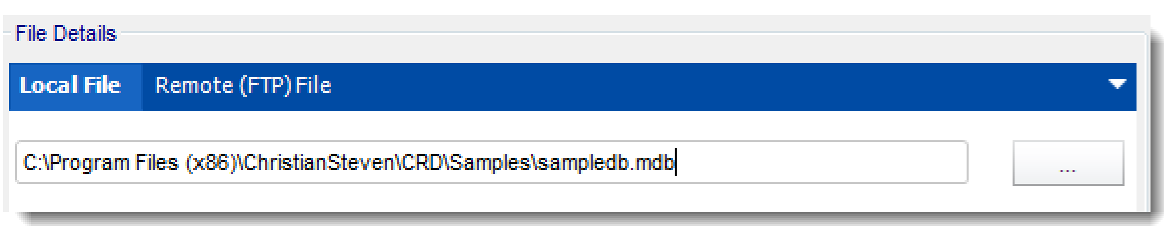
- Click **OK.**

File Exists

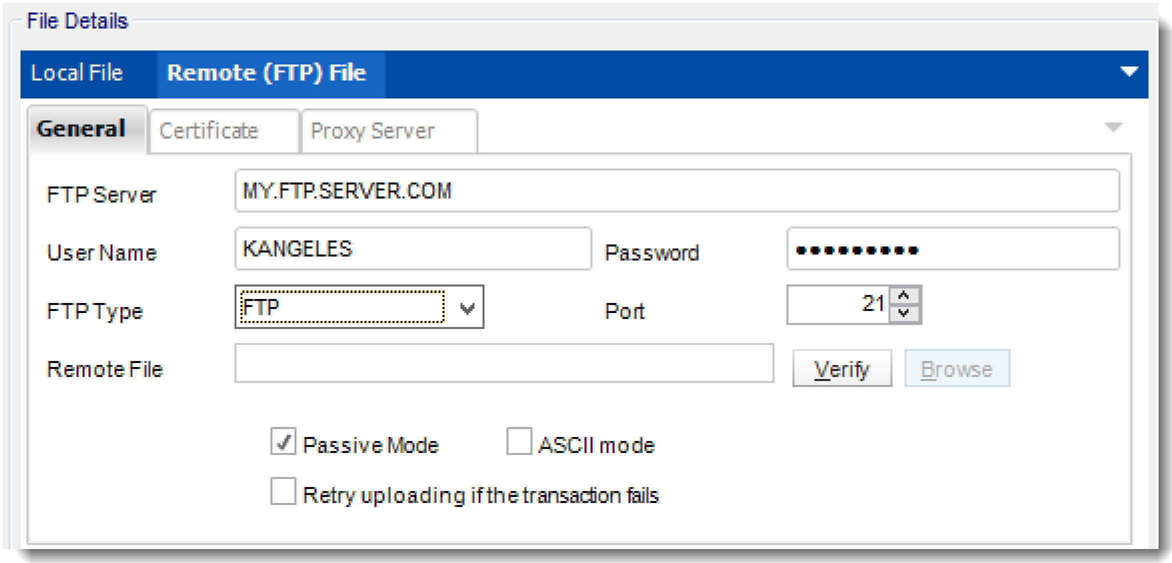


- This condition will cause the schedule to be executed if a file exists.
- If set to **True**, the schedule will be executed if the file exists e.g. when it is created.
- If set to **False**, the condition will be executed if the file does not exists e.g. if it is deleted.
- **Run once for all files found:** The schedule will perform the specified actions once for each file found that matches the criteria.
- **Run for each file found**: The schedule will perform the specified actions ONCE only irrespective of how many files are found.
- **File Details:**
    - **Local File:** Monitor for files on Local File.

    Hint: You can use the insert menu to create an ever changing file name.



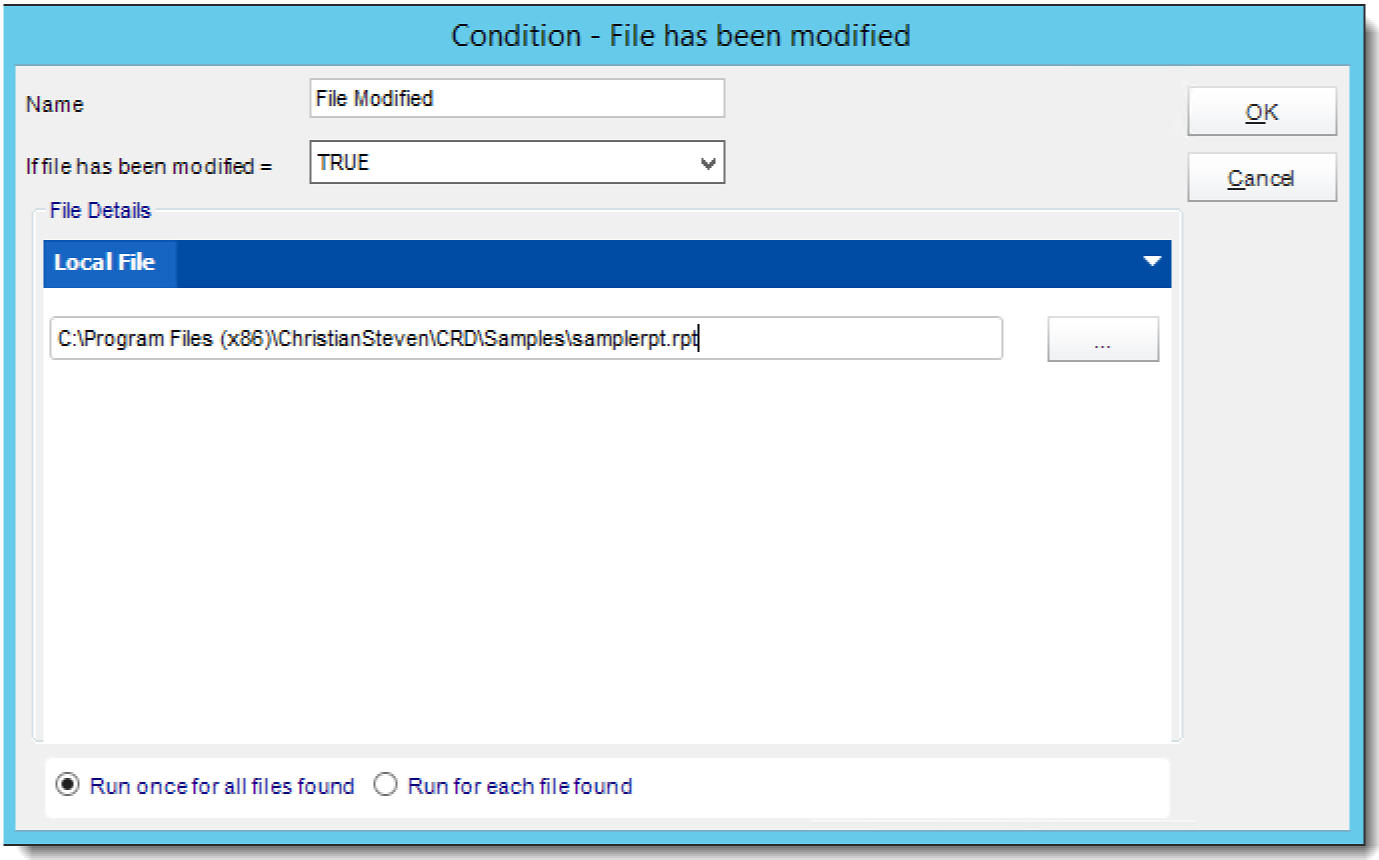
- **Remote (FTP) File:** Event Based Schedule can also monitor for files on an FTP server.



- Enter the FTP Server Information.
- **Verify:** Authenticate to the server and enter the path where the file should be located.

  Hint: Combine this feature with Custom Actions FTP and FTP Folder Housekeeping to set up automatic FTP maintenance.

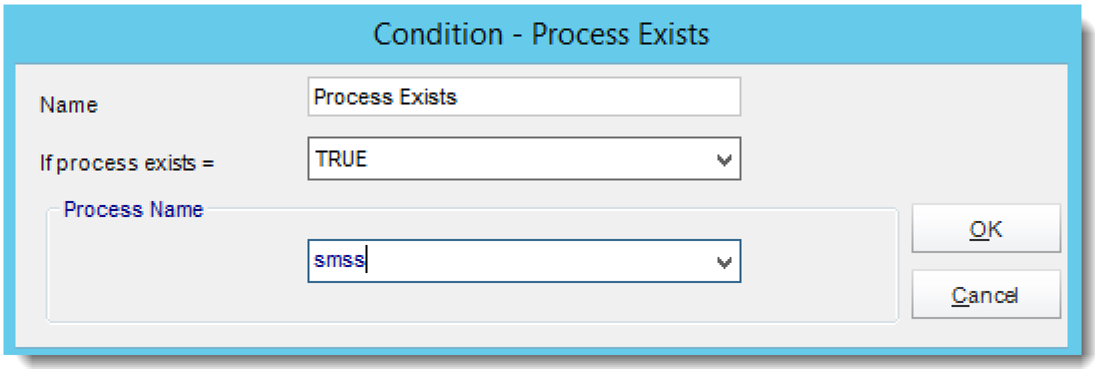
File has been modified



- This condition will cause the schedule to be executed if a file has been modified.
- If set to **True**, the schedule will be executed if the file exists e.g. when it is created.
- If set to **False**, the condition will be executed if the file does not exists e.g. if it is deleted.
- **Run once for all files found:** The schedule will perform the specified actions once for each file found that matches the criteria.
- **Run for each file found:** The schedule will perform the specified actions ONCE only irrespective of how many files are found.

  Hint: You can use the insert menu to create an ever changing file name.

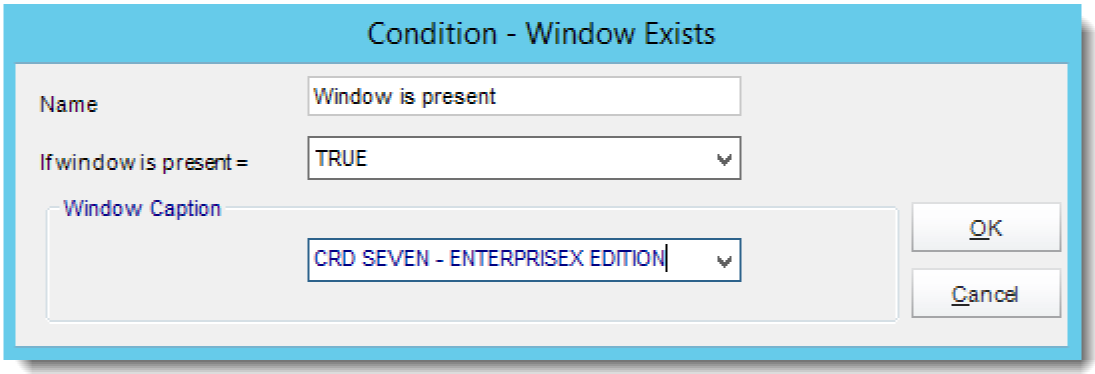
Process Exists



- This condition will cause the schedule to be executed if a process exists.
- If set to **True**, the schedule will be executed if the process exists.
- If set to **False**, the condition will be executed if the process does not exist.
- Type the name of the process in the drop down box or use the drop down arrow to select from a list of currently running processes.

  Tip: Try setting up the schedule that will monitor for certain key processes on your server. If those process are not running then CRD can automatically restart them.

Window is Present

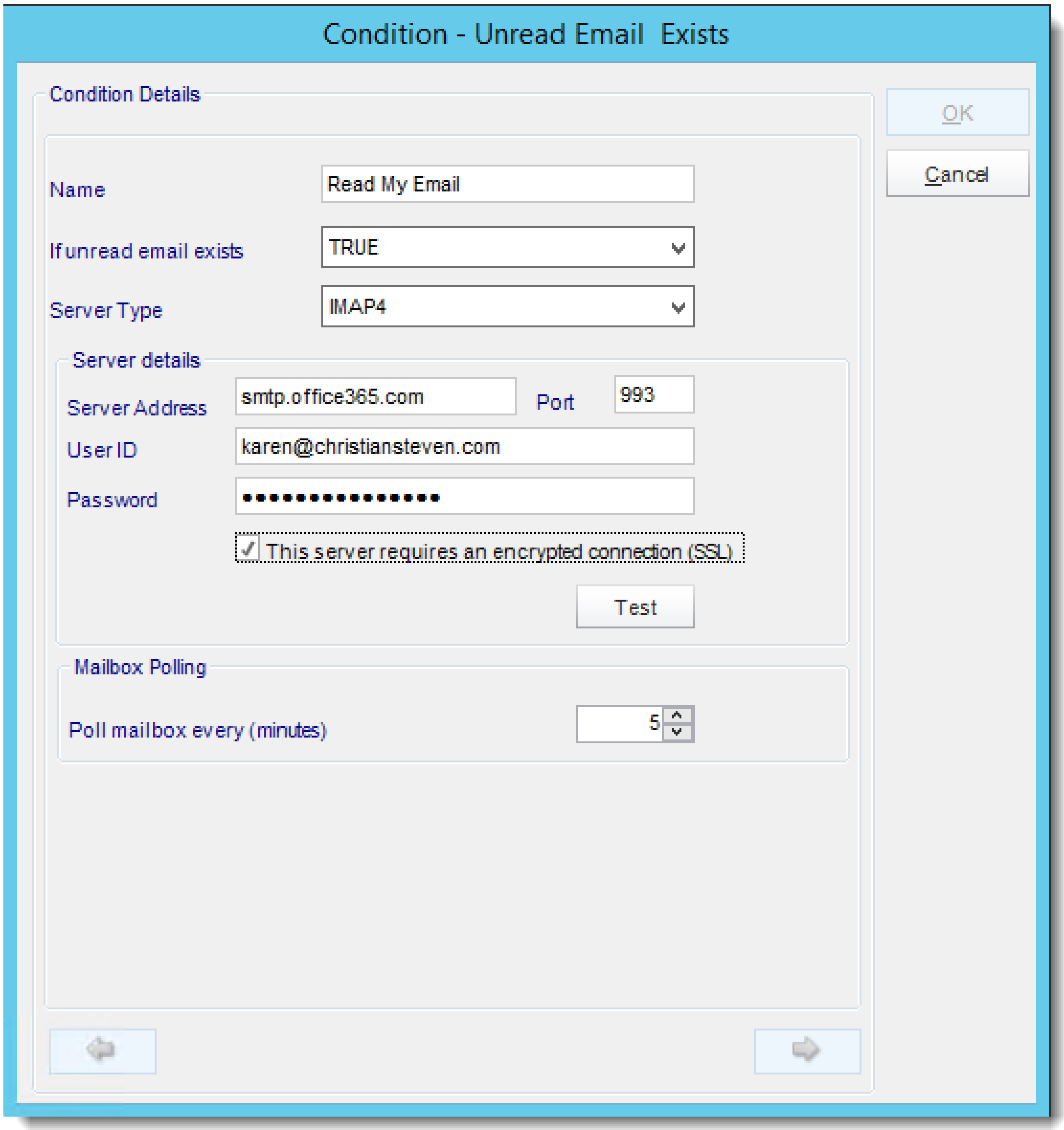


- This condition will cause the schedule to be executed if a window is present.
- If set to **True**, the schedule will be executed if the window is present.
- If set to **False**, the condition will be executed if the window is not present
- Type in the window name, or use the drop down to pick from a list of currently open windows.

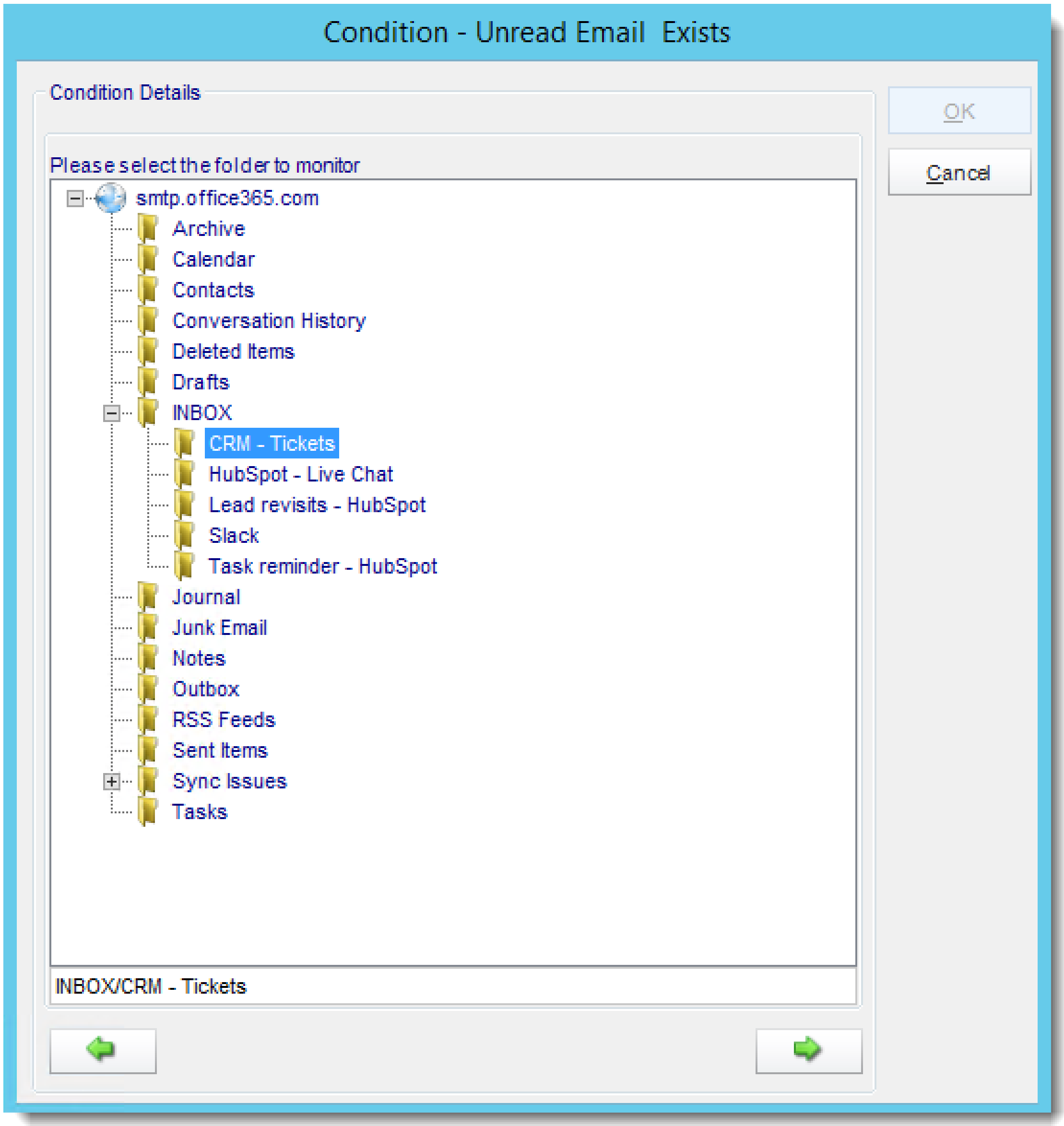
  Tip: Try setting up the schedule that will monitor for certain open Windows on your server. If those process are running then CRD can automatically stop them.

Unread Email is present

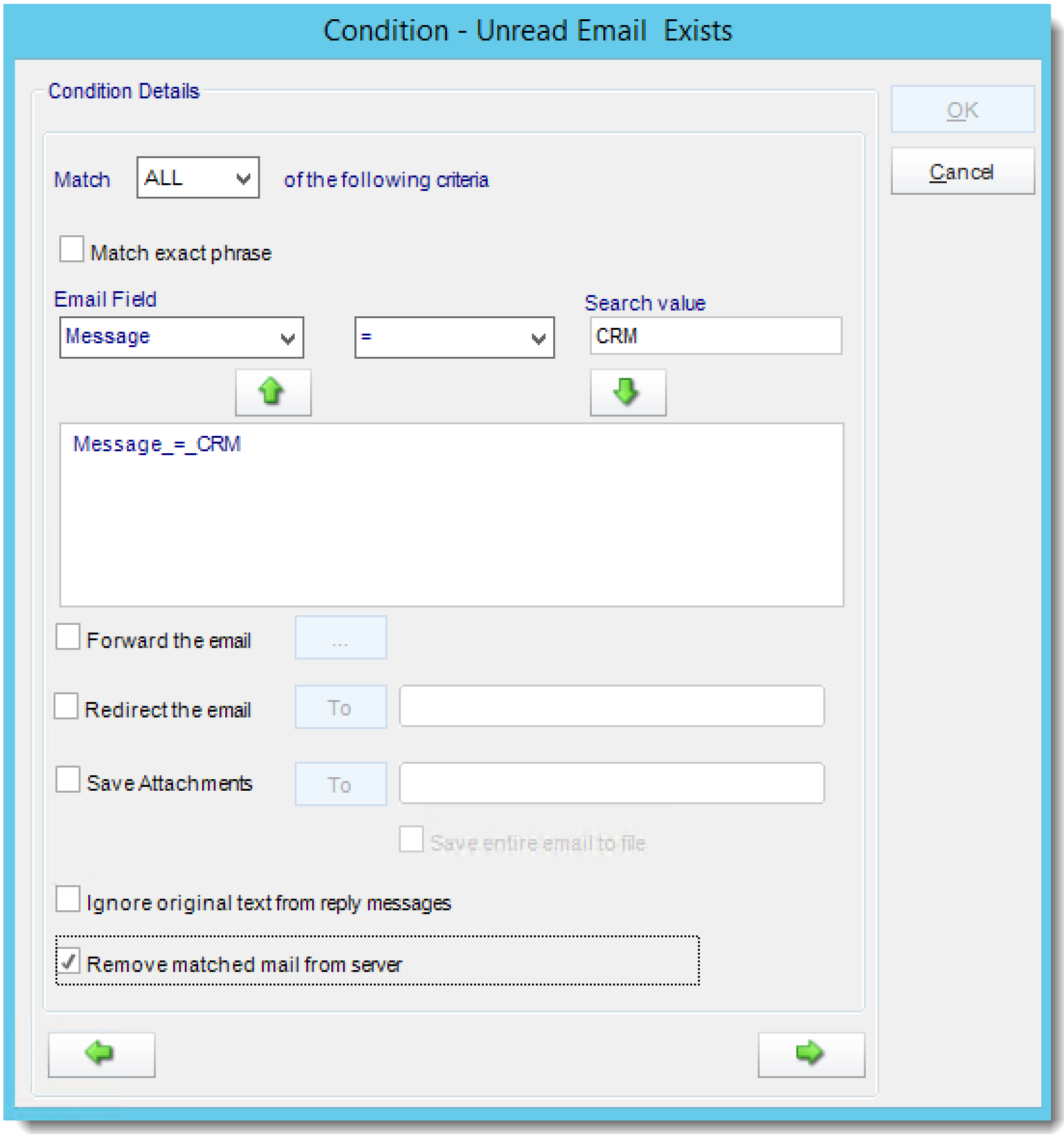
Users can send report requests to a specified email address. CRD will read the email, and, if the conditions are met, fire off the specified report.



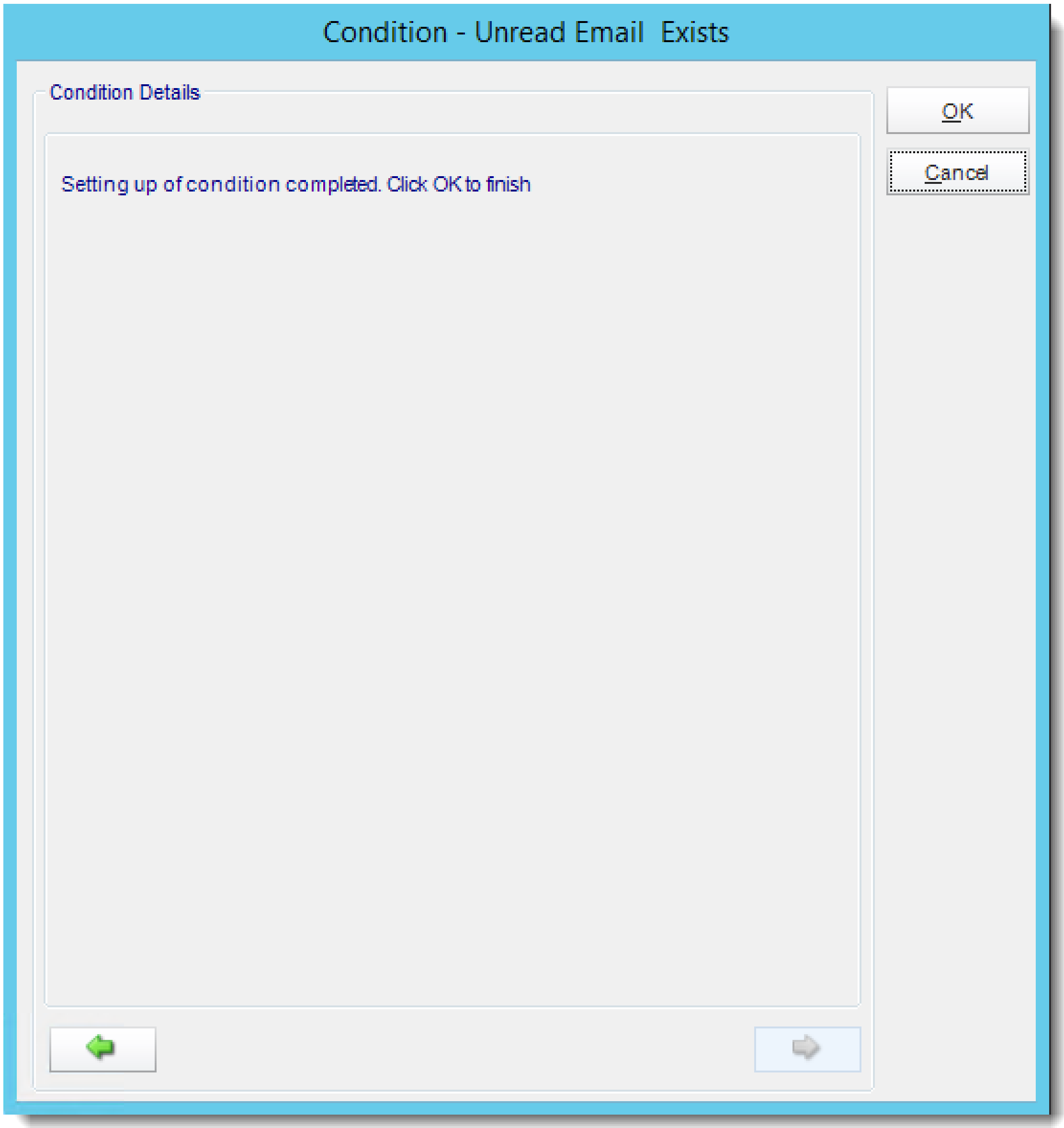
- Fill in your server credentials.
- Click **Test.**
- If you have entered them correctly, the green arrow will become available.



- Select the folder that will be monitored.



- Specify the condition. Select the email fields to determine what would meet your requirements.
- **Forward the Email:** Forward the email to another address.
- **Redirect the Email:** Send the incoming mail directly to another address instead of keeping it in the inbox.
- **Save Attachments**: Pull attachments from the email and save them directly to a folder.
- **Remove Matched mail from Server:** Choose to clear the email from the inbox once CRD has processed it.
- If you do use this function with the condition set to false, then be sure to remove the found email from the mailbox so that the report doesn't get fired off again (each time read emails are found).


Condition - Unread Email Exists
Condition Details
OK
Cancel
Setting up of condition completed. Click OK to finish

- Click **OK.**

How to parse the values in the body of an email and insert them into CRD fields?

- For an "Unread Email" event, CRD can read the body text of the email and place selected values into Event-based constants.
- You can also use the "Exact Match" option which will match the Case of the email text. In addition, when this option is used, spaces before and after the phrase are NOT removed and form part of the matching string.

Here is an example:

Mary has an email which will contain values, and she wants the values to update a database. Here's how she would set it up in CRD.

Firstly, CRD will expect the email text to be in the format [Constant]:[Value]. Here is how Mary will set up her email:

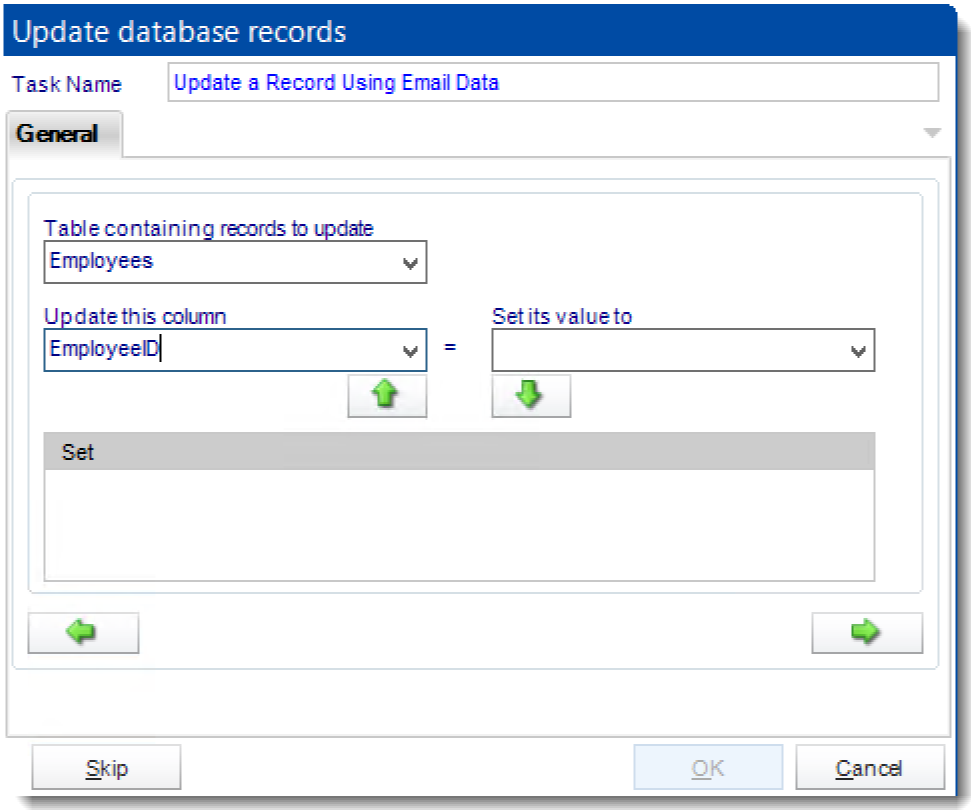
EmployeeID: xxxxx

EmployeeName:yyyyy

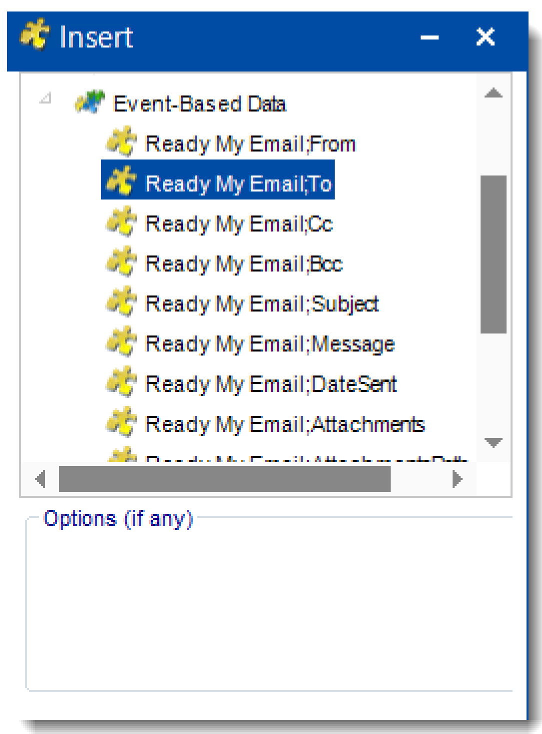
EmployeeStartDate:zzzzzzzz

As you can see, the required constant is on the left of the colon (:) and the required data is on the right.

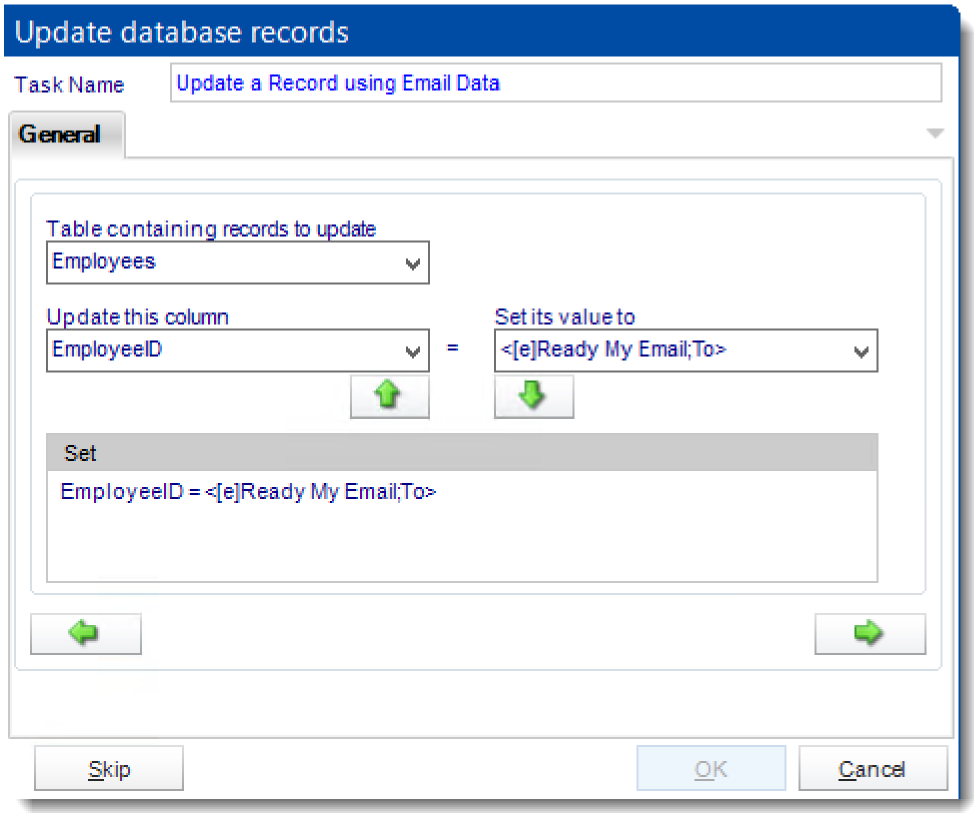
To insert the data into her database, Mary uses an "Update a database" custom task as shown below:



- She inserts Event-Based Constants, selecting a Custom Constant:



- She types in the Custom Field Descriptor:
- When she drags the Insert, "<[e]Read my Email;To>" is placed in the field:

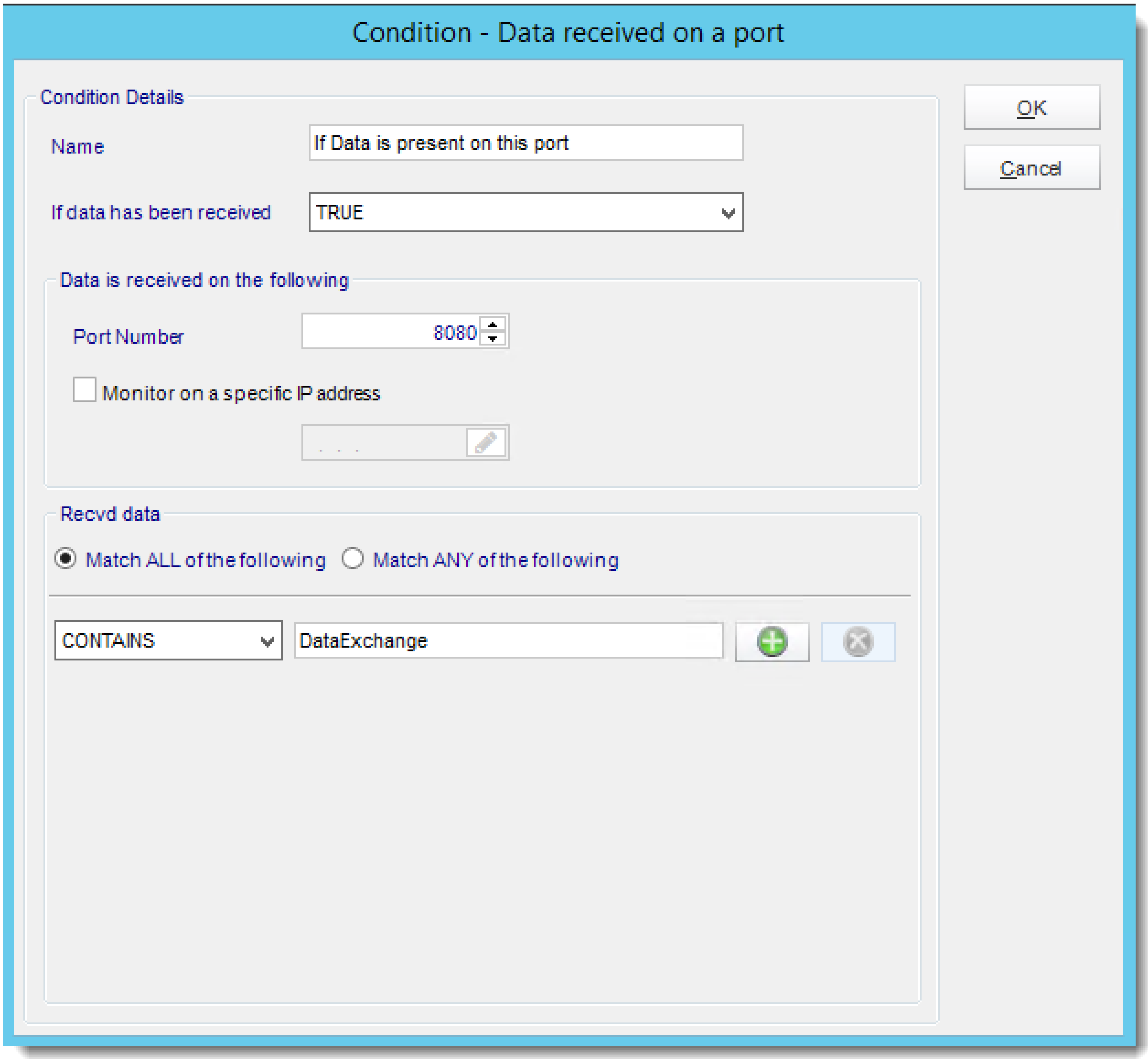


- She clicks **down arrow** to add the statement to the list. And repeats the process for all the custom constants she will need to parse the email.
- The above instruction tells CRD to read the email body text and to place the value to the right of "EmployeeID:" in the database.

The colon (:) is only required in the email body. It is not used as part of the definition process above, but CRD will automatically read the value to the left of the colon and apply the data to the right of the colon.

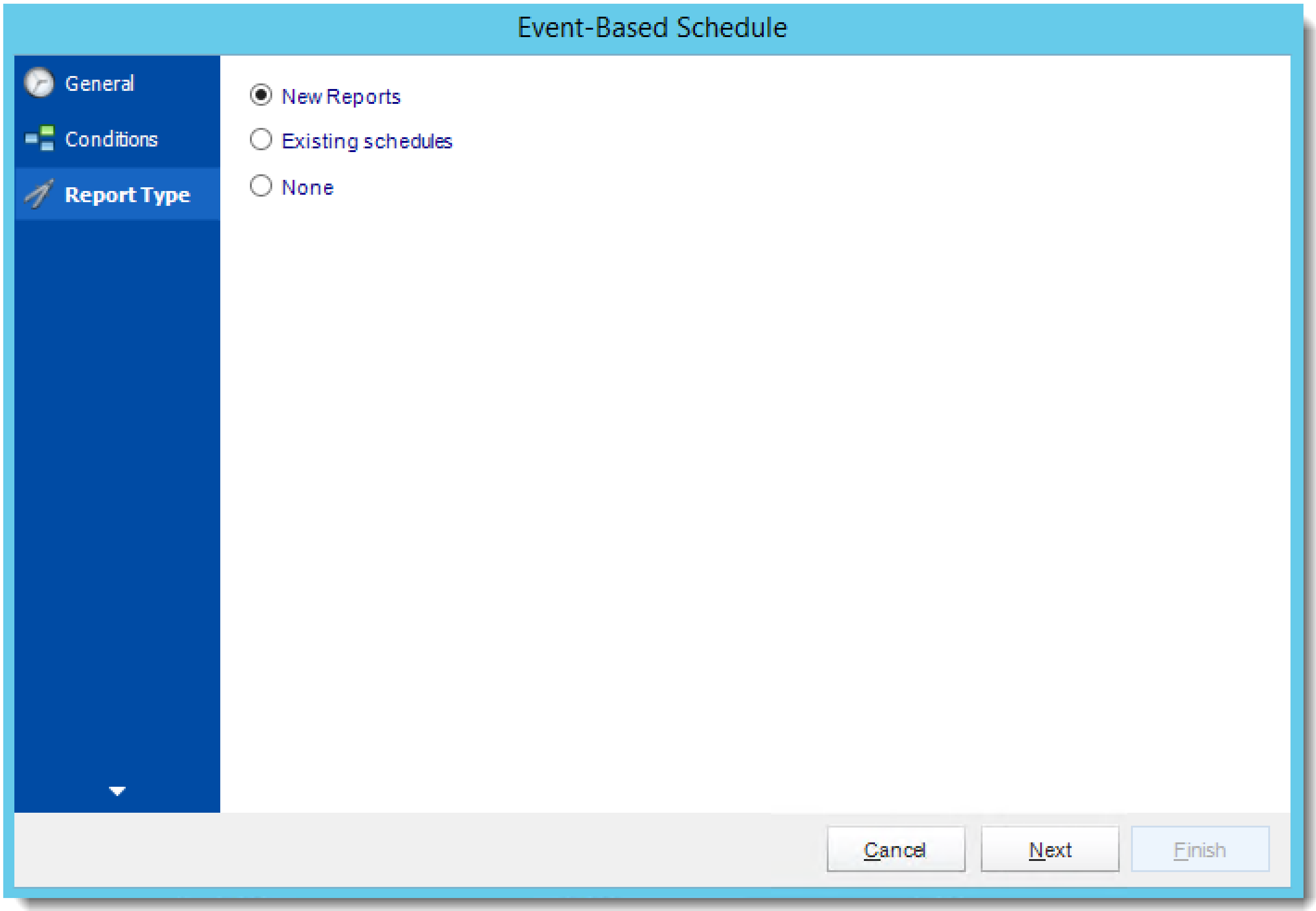
Tip: Use email body parsing to customize other tasks! Pull information from one email and send an email using the data. Use it to create new database records, and much more!

Data received on a port



- **Name:** Name the Condition.
- **If data has been received:** Select true if you wish to monitor for data in the given port, or false if you wish to monitor for the absence of data in the given port.
- Data is received on the following:
    - **Port Number:** Enter the port number that will be monitored.
    - **Monitor on a Specific IP address:** enter the IP address that will be monitored.
- **Received Data:** Select the data criteria using the lower menu. CRD will monitor for this data for any data matching your criteria.

Report Type Wizard



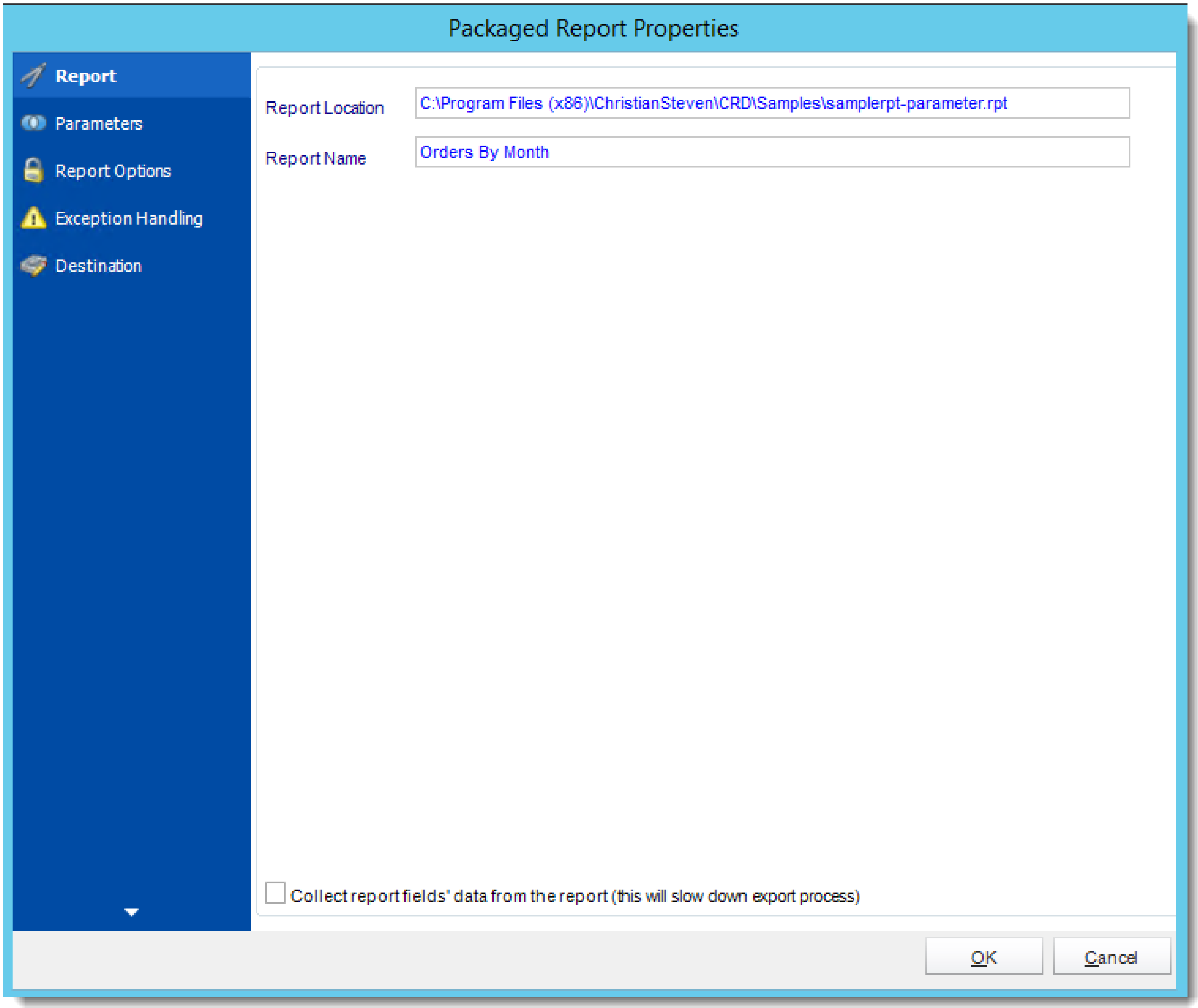
- **New Reports:** Display a screen where you can create a new reports schedule.
  - To add a new Crystal Report, click here.
- **Existing Schedules:** Displays a list of existing schedules in CRD for you to choose from.
- **None:** Select this option if no schedules are to be ran if the conditions are met and only Customs Actions will be used.

New Reports

- Click **Add**.
- Report Properties will appear.

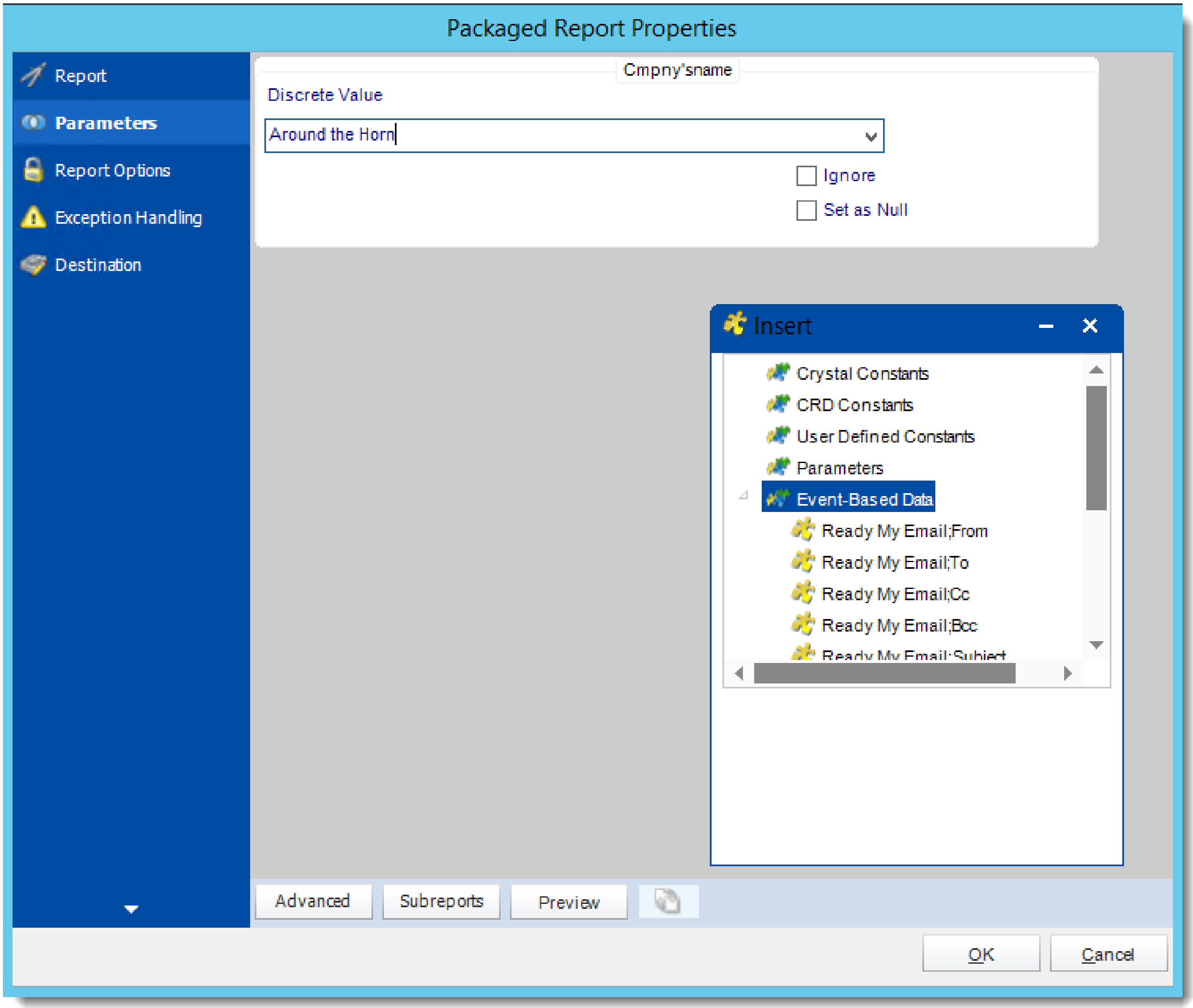
Report Properties

Report Wizard



- **Report Location:** Select the Crystal report that needs to be scheduled. A crystal report can only be added if the CRD server can reach the report path.
- **Report Name:** Write in the name of the package.

Parameters



- In this section, you will determine the parameters for your report (if any) and select options for your subreport. If your report has no parameters, you may skip this section by clicking next.
- There are 3 requirements in order for CRD to detect your Crystal Report parameters and their parameter values:

1. The parameter must be in use in the report.
2. The parameter must be visible.
3. The parameter must be set to be prompted at runtime.

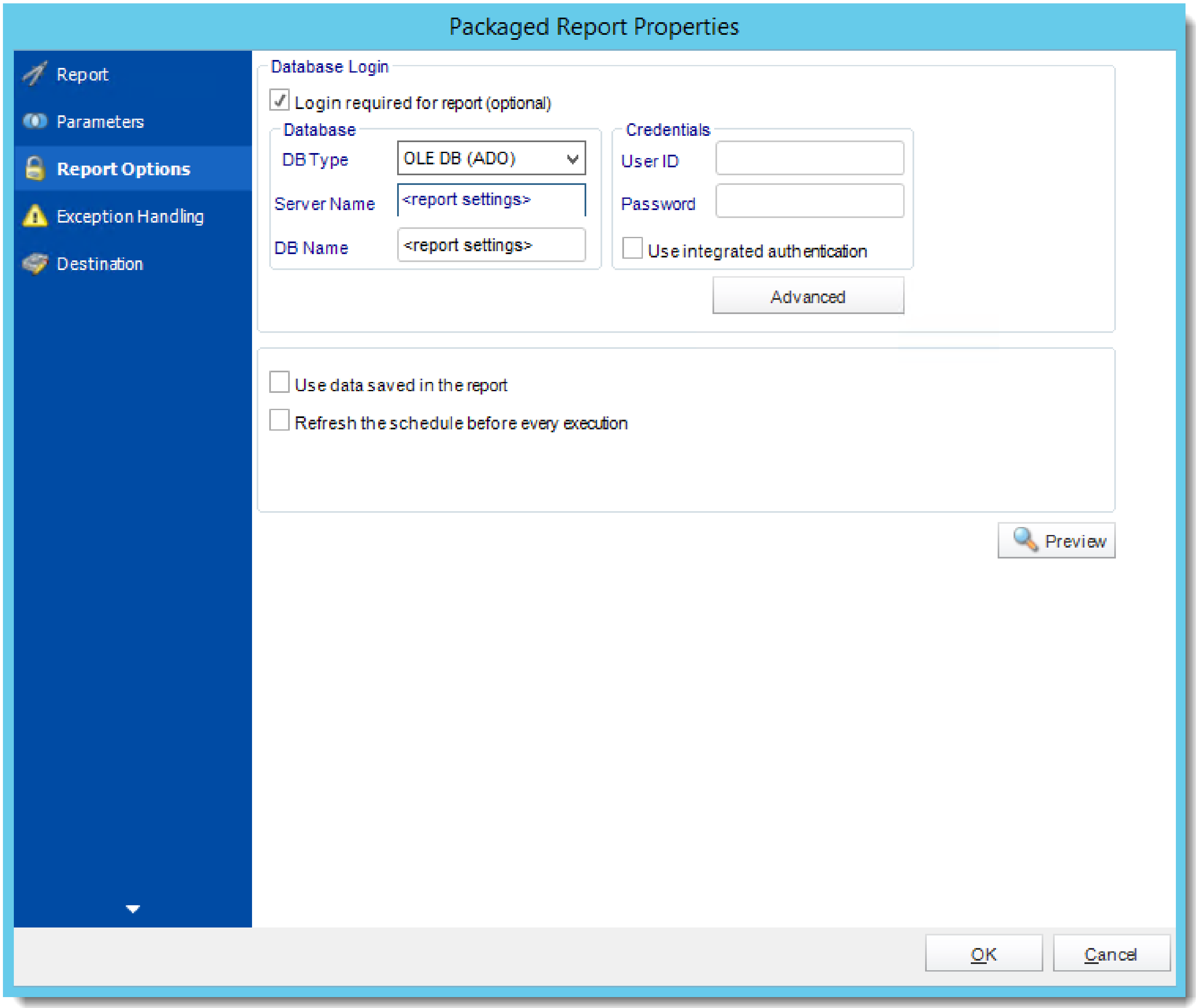
- If these three requirements are achieved, you should see the parameters in your report listed in this screen.
- For each parameter, select from the drop down list the value the report must use. In a single schedule, only one parameter value can be run at a time per parameter. You can type a value into the field as well.
- **Set as Null:** Set no value for this parameter.
- **Ignore:** Do not run this parameter, ignore it at runtime.
- <u>Insert Menu</u>**:** You can insert constants, formulas and database field values instead of a static "typed in" value. Right-click in the parameters field to expose the Insert menu.

  To enable a report parameter to run for a date constant (Current Date, Yesterday etc.), select CRD Constants from the insert window, then drag and drop your desired constant to the parameter field.

- **Selecting Date Parameters via Calendar:** If your report contains a date parameter, you can either manually enter dates as described earlier in this topic, or select the desired date from the built in calendar. Simply click in the date parameter field to open the calendar. Select the desired date. Click OK.
- If the parameter is also a time parameter, this can selected as well. The buttons below enable you to preview the report, adjust formulae, and review sub reports. You can re-query the report for parameters as well.
- **Formulae:** View edit and Parse the Record Selection Formulae.
- **Subreports**: set parameters, authenticate, and re-query sub report parameters.
- **Preview:** Shows you a preview of the report.

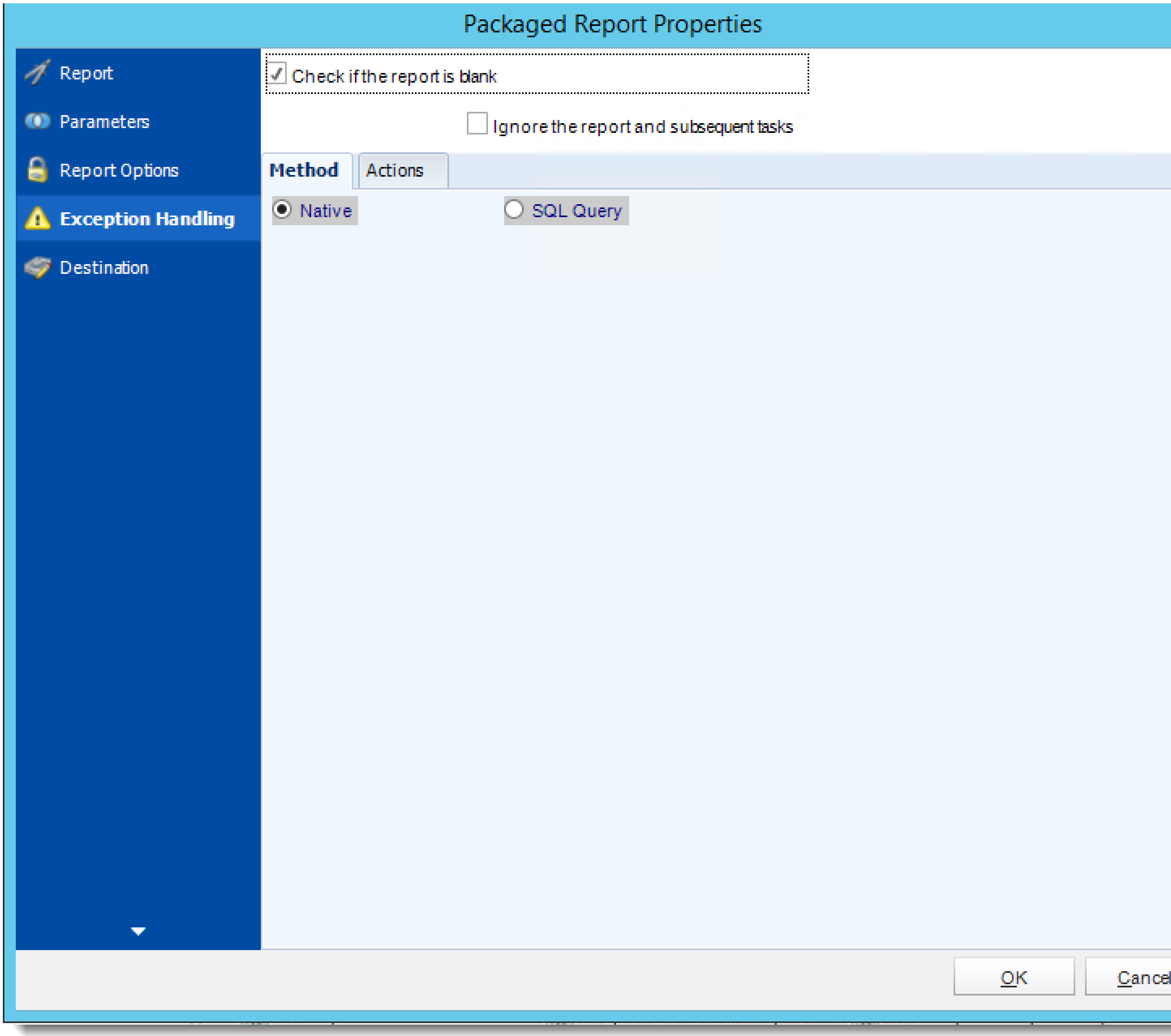
  The preview function only works if Crystal Reports is installed on the PC.

Report Options



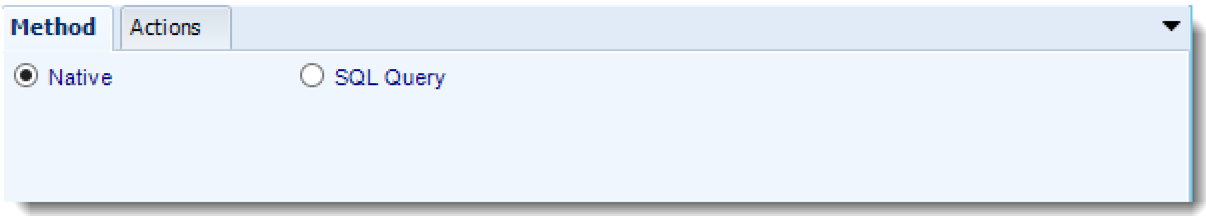
- **Database Login:** If the database requires logon credentials, check this option and enter the required username and password. If credentials are not required, uncheck the option and continue as normal (default). All values are optional. You only need to enter a value if your database, security, networking or infrastructure require it.
- **DB Type:** Select the type of Database.
- **Server Name:** Enter the server name of the database.
- **DB Name:** Enter the name of the database.

- **Credentials:** Enter the User ID and Password for the Database. Clicking on the Advanced tab, you can set logins for each table.
- **Advanced**: Enables you to specify credentials at the table level. Double click the table to set its login information.
- **Use data saved with the report:** By default, CRD will always attempt to run the report using the very latest data in your database. If your report is saved "with data" and you want CRD to simply export the data in the report, then check this option.
- **Refresh the schedule:** This refreshes the schedule before every execution.

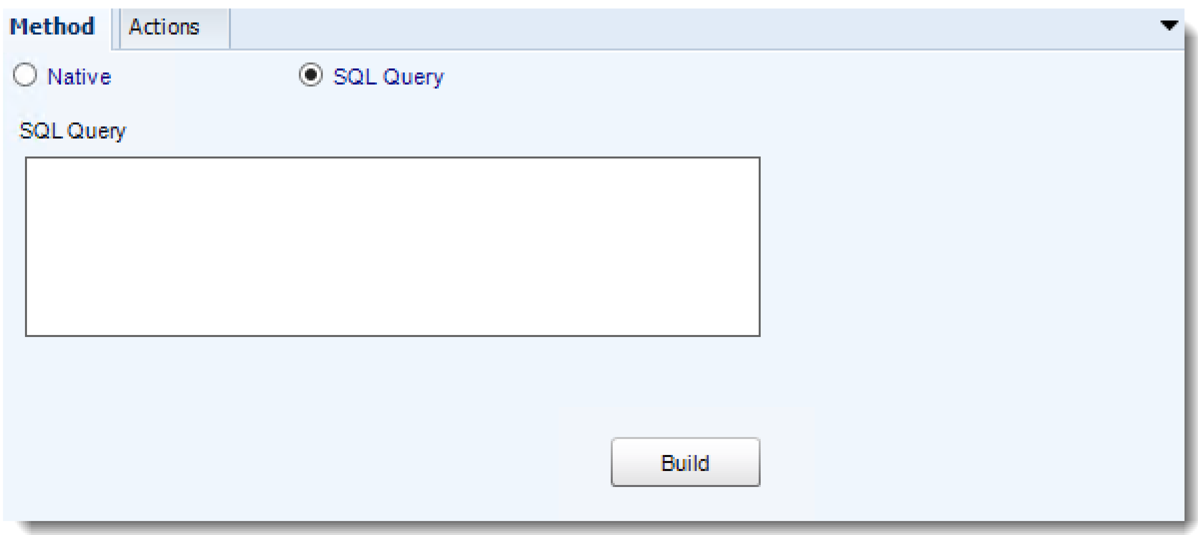


- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.
- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

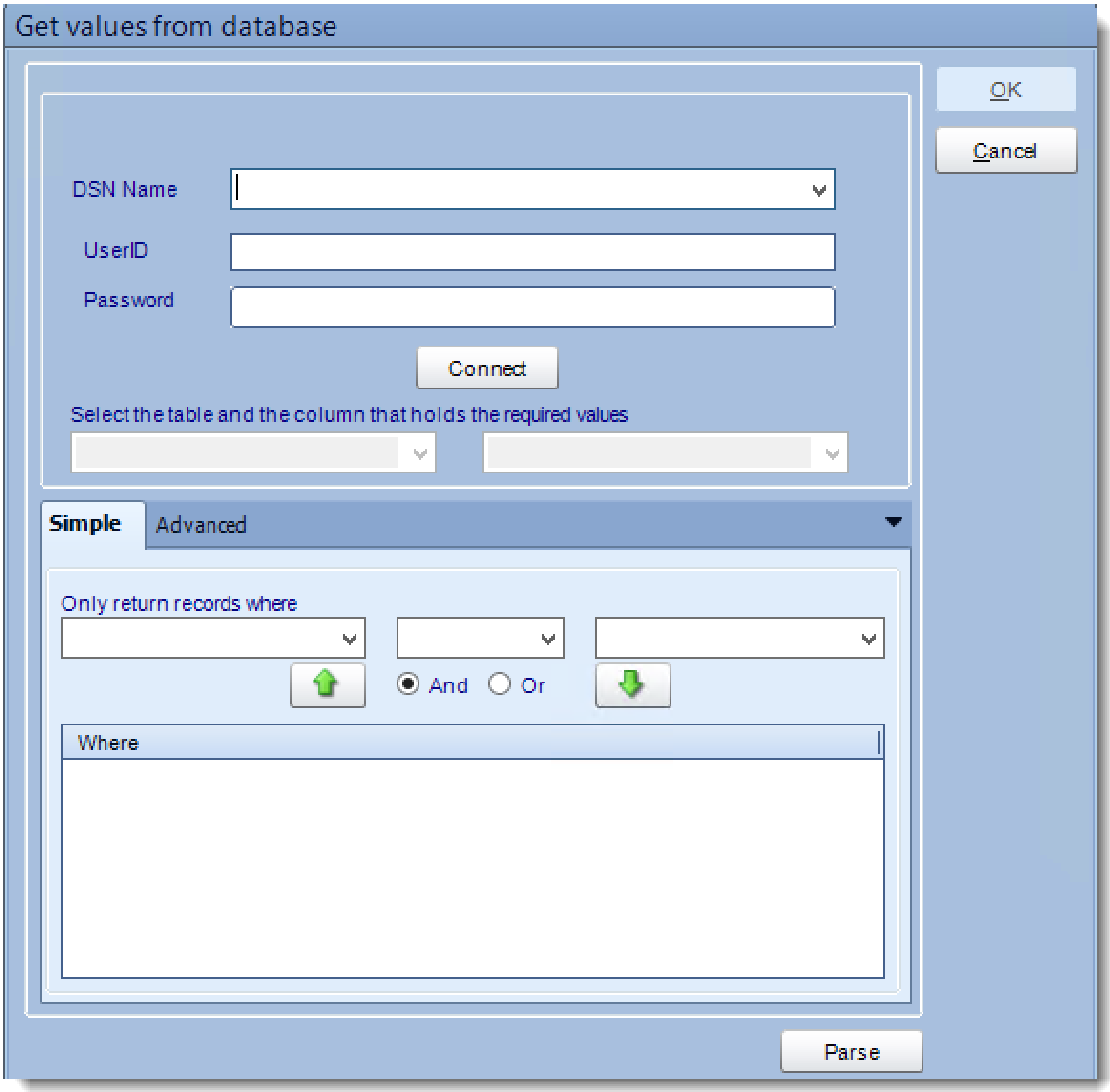
Method



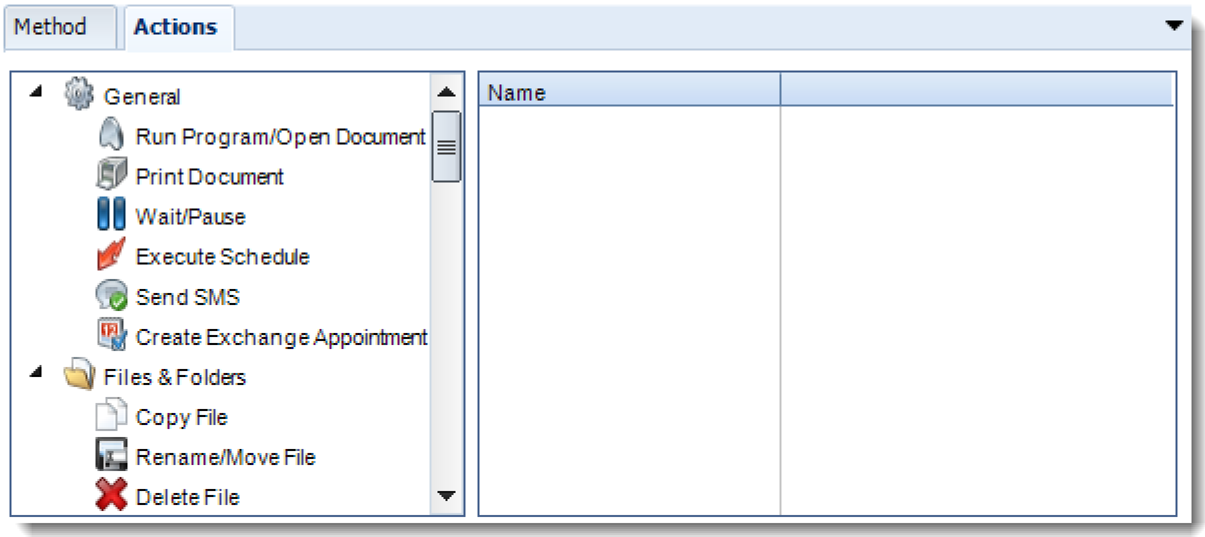
- Select the Method that will determine whether a report is blank.
- **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



- **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

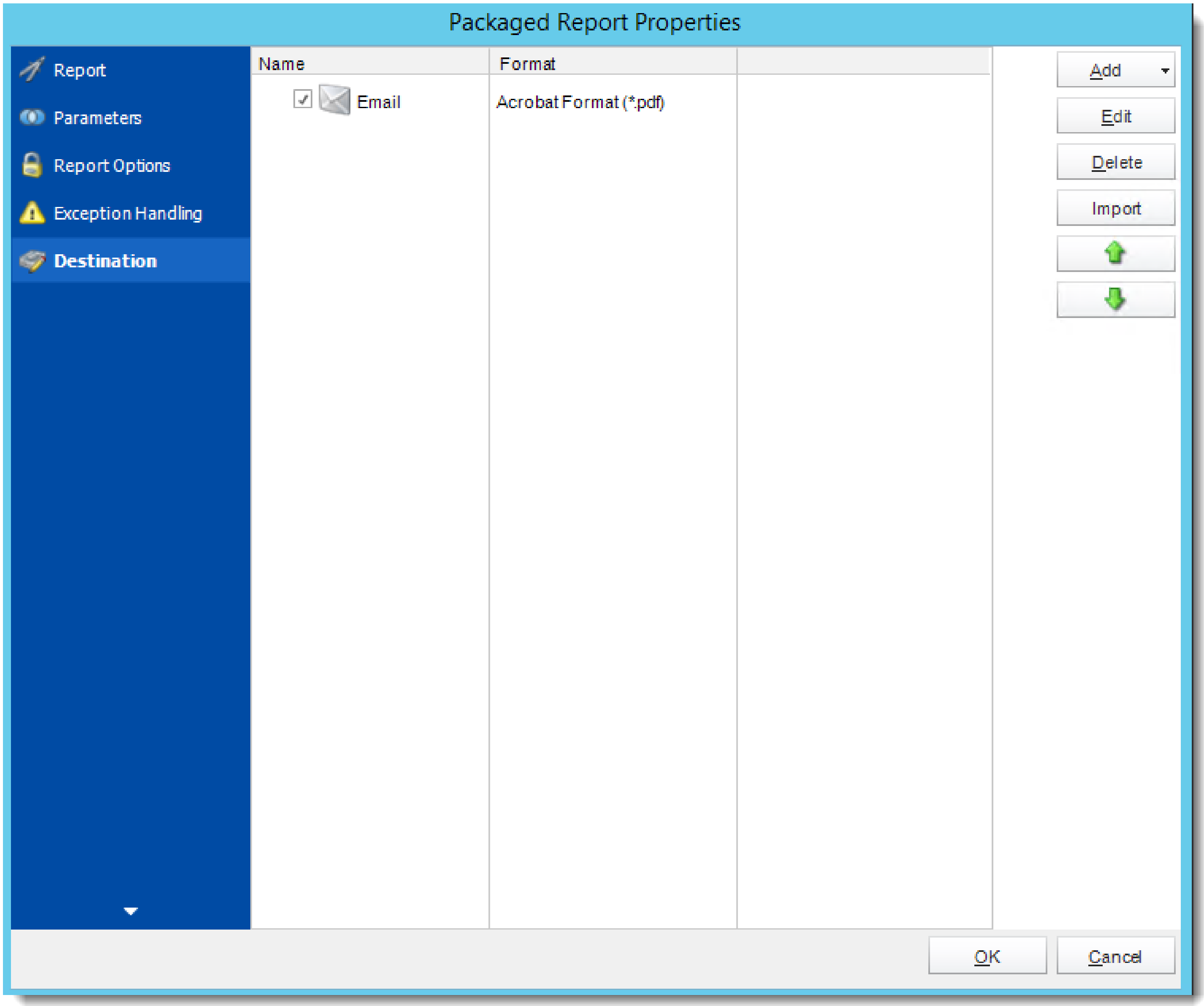
Actions



- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

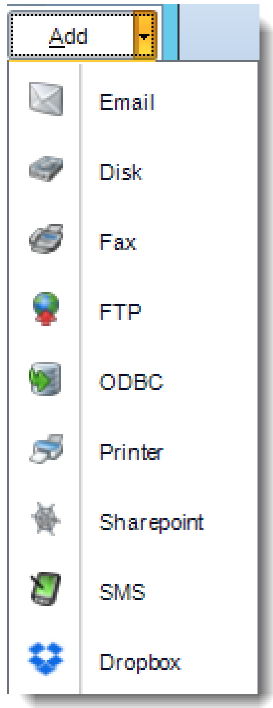
Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

Destination



- In this section, you will decide where your schedule will be delivered. The list in the center will display the list of destinations you have added to the schedule. You can organize the various destinations' order by clicking on the green up and down arrows.

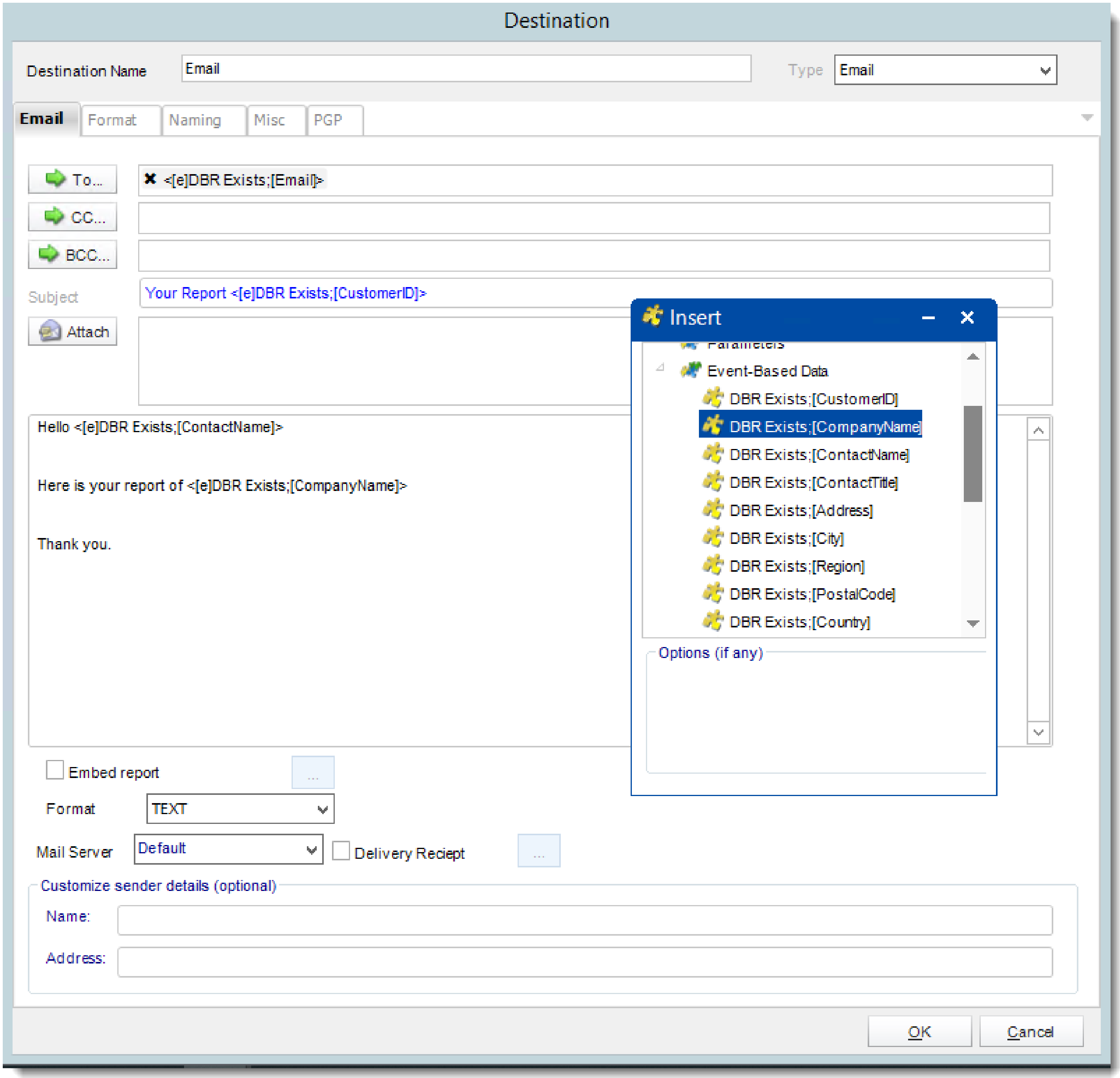
- **Add:** Click here to add a destination. You have several options which are: Email, Disk, Fax, FTP, ODBC, Printer, Sharepoint, SMS, and Dropbox.



- **Edit:** Select a destination and click to edit it's properties. Or simply double-click on the destination.
- **Delete:** Select a destination and click this button to delete it.
- **Import:** click here to import from the list of default destinations.
- For more information about Type of Destinations, click here.
- For more information about Output Formats, click here.
- Click **OK.**

Customize Recipient Messaging

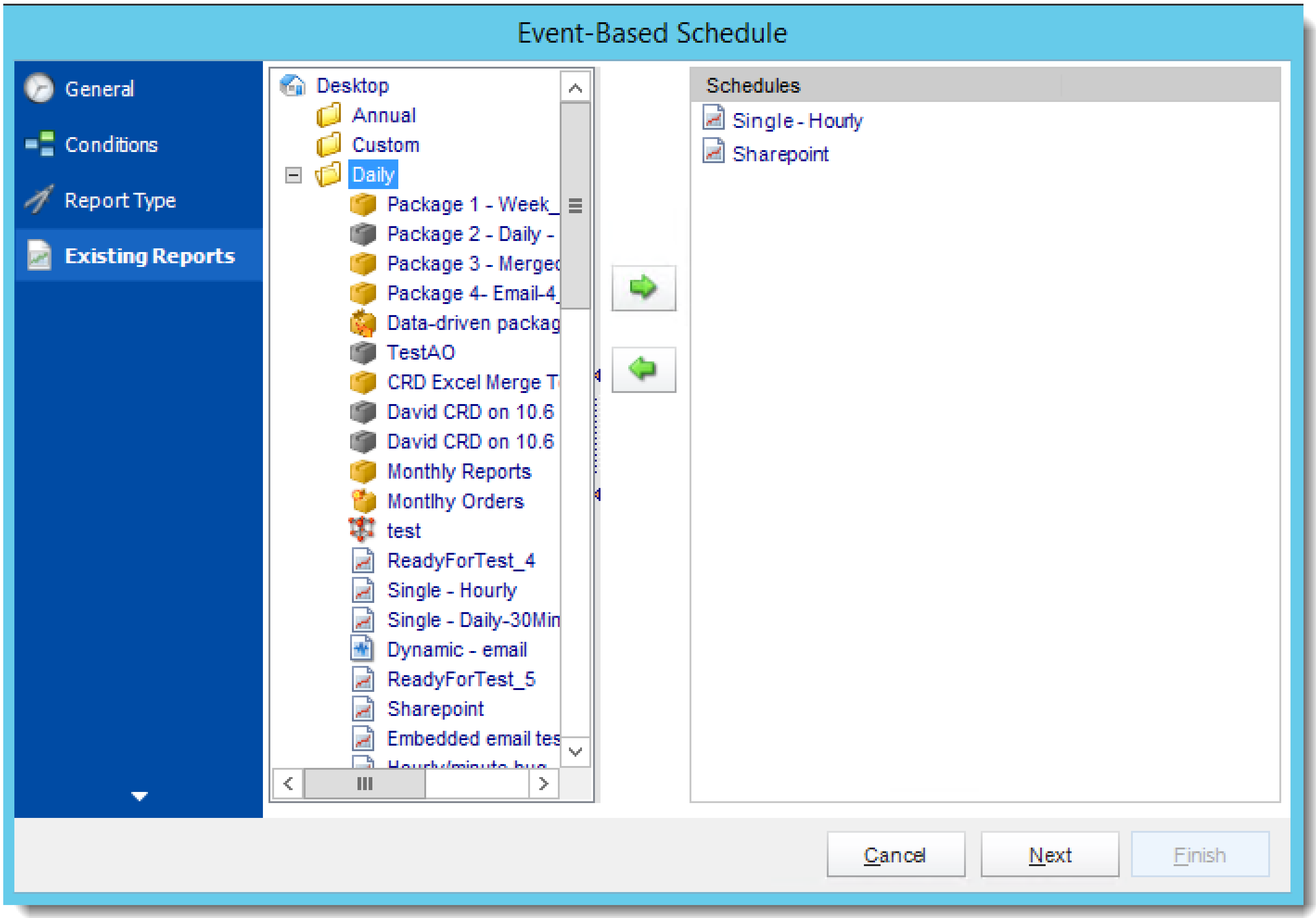
You can also customize the messaging the recipient receives. Using Event Based Data Inserts, CRD will automatically pull data from the record that triggered the schedule and use it to customize the subject, body or report format.



- Simply drag and drop fields from your table to the desired position.

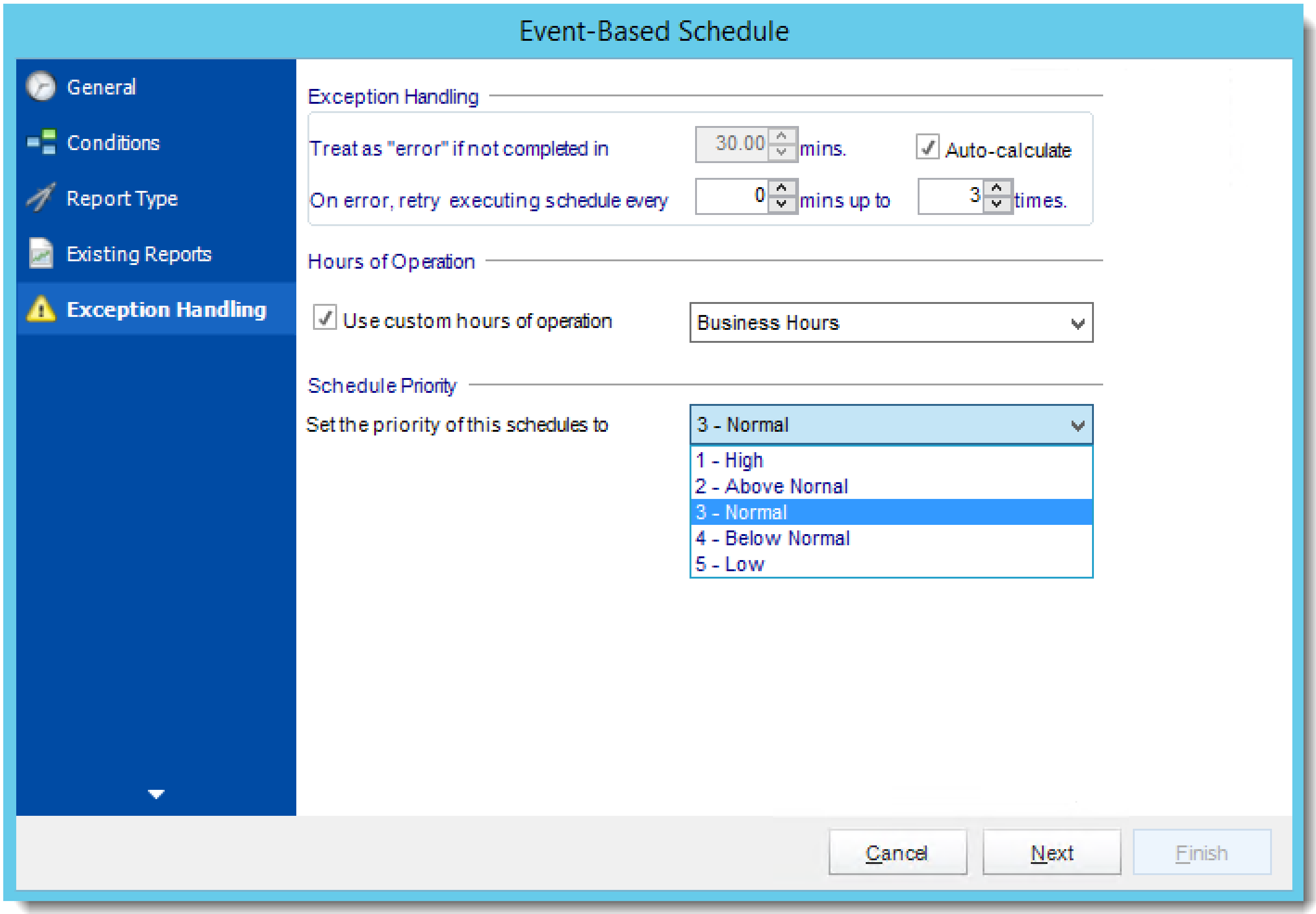
For example, to customize an email greeting, type the greeting, and add the recipients name as shown above.

Existing Reports



- A list of existing schedules will be displayed in the left hand pane.
- Click on the schedule that needs to run if the conditions are met and use the green arrow to select it.
- Schedules that are going to run if the conditions are met are shown in the right hand pane.

Click **Next** to continue.



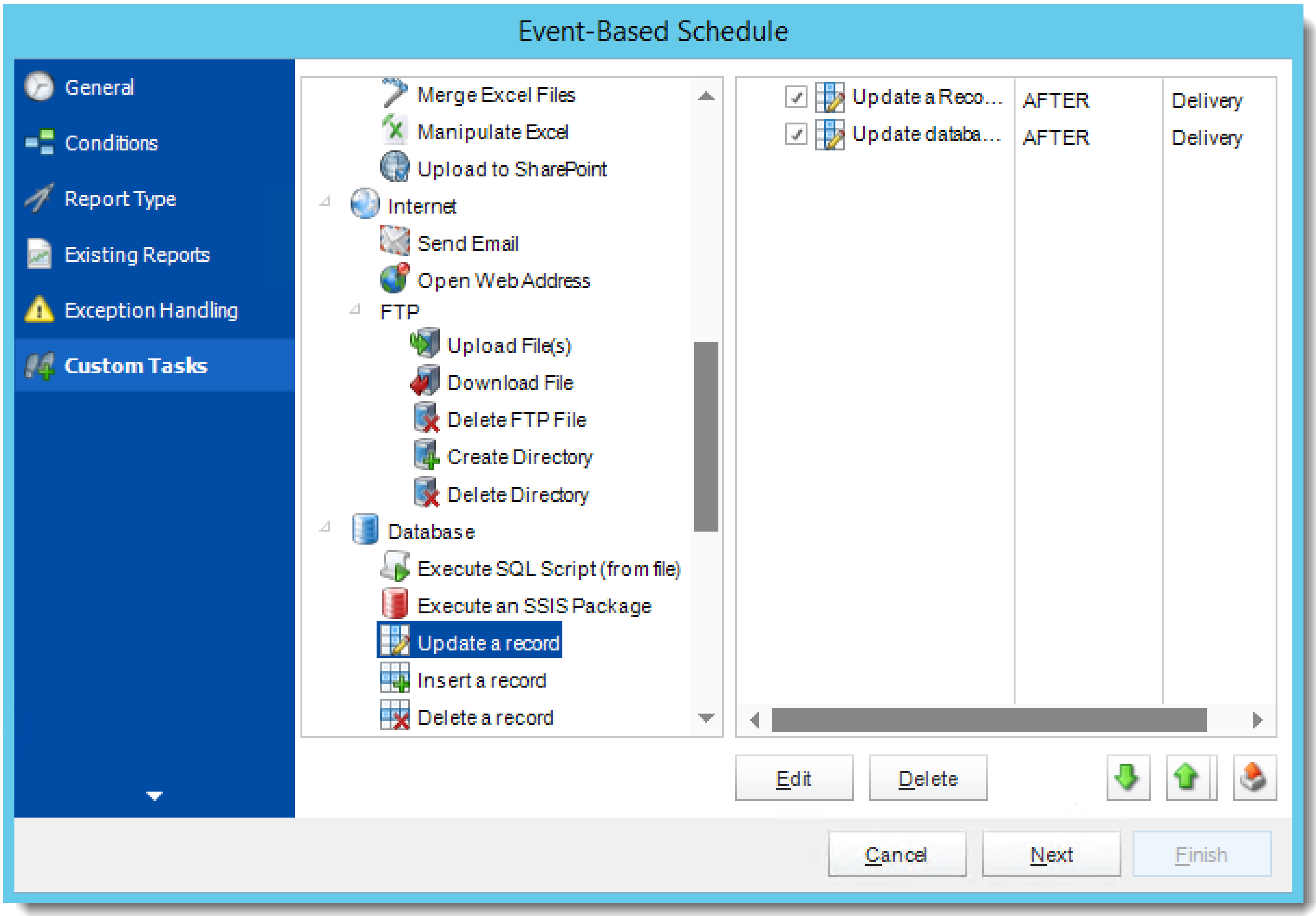
- Reports fail for any number of reasons - database connectivity issues, database busy, network issues and more. This screen gives you the ability to tell CRD what to do if it encounters an error.
- **Treat as "error" if not completed in X minutes:** If a report takes longer than the specified amount of time to run, this option will treat the schedule as an error and follow the appropriate action. The "Auto-calculate" option instructs CRD automatically determine how long a schedule should take to run the report. If it takes longer than the calculated amount of time, then it is an error.

  If manually determining the error timing, please double check the run time of the report in order to get the correct time estimate.

- **On error, retry executing schedule every:** If set to 0, CRD will deem the schedule as "Failed" the first time it encounters an error. The schedule will not run again until its next scheduled time. Change the value to tell CRD how many times you want it to retry running the report before declaring it as "Failed."

- **Hours of Operation:** Event based schedules can poll 24 hours a day if required. Checking this option will allow you to set a specific time frame for when the event based schedule should run.
- **Schedule Priority:** Set the priority level of the schedule. This will come into play when other schedules are running at the same time. If the priority is set to High then the event based schedule will take priority over other schedules in the queue.
- If the priority level is set to low then it will be at the bottom of the queue and the other schedules will be ran first.

Click **Next** to continue to the next wizard.

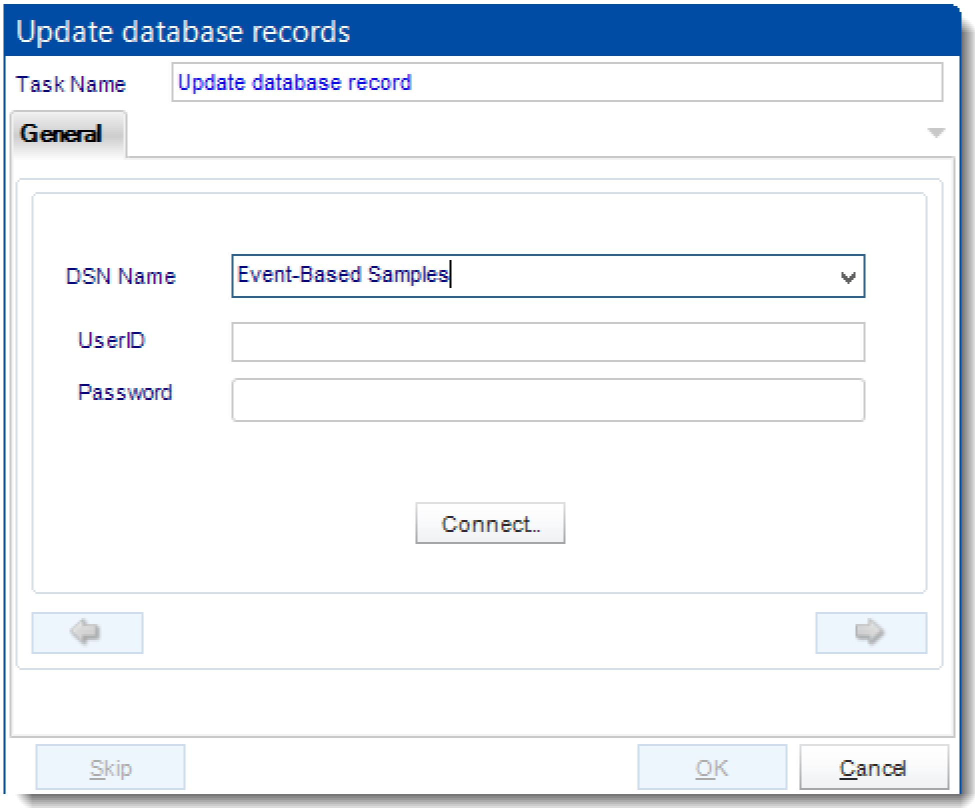


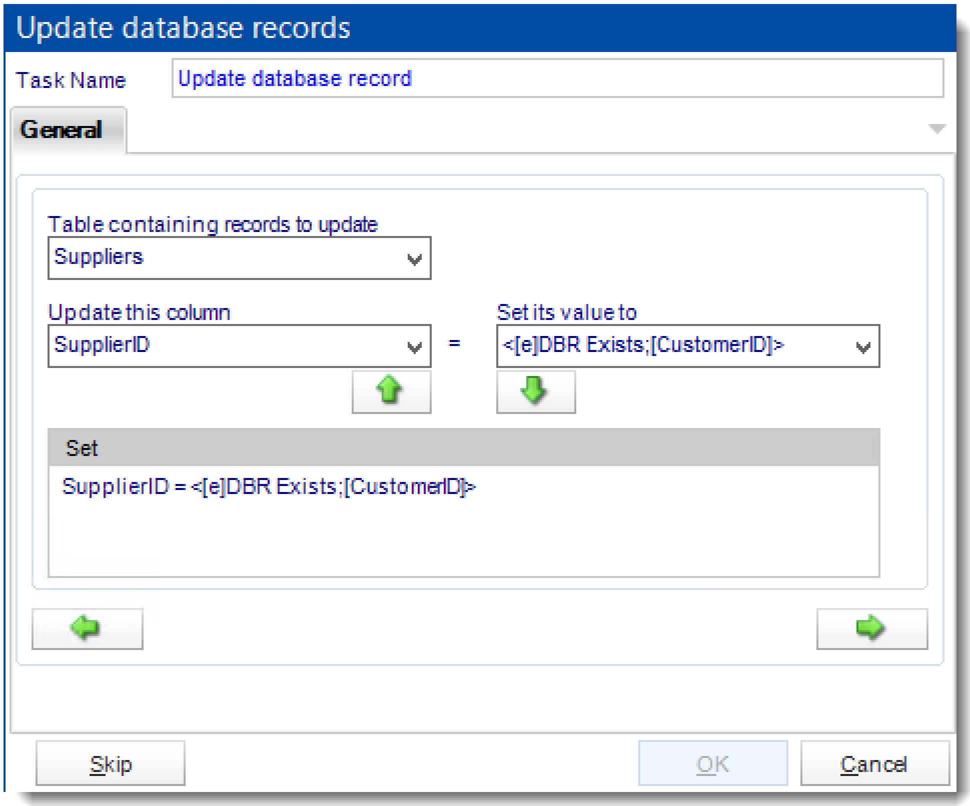
- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- If you have no desire to add a Custom Task, you can click **Next**.
- In Event Based Schedule, you can select a custom task to run as a result of any of the conditions being met.

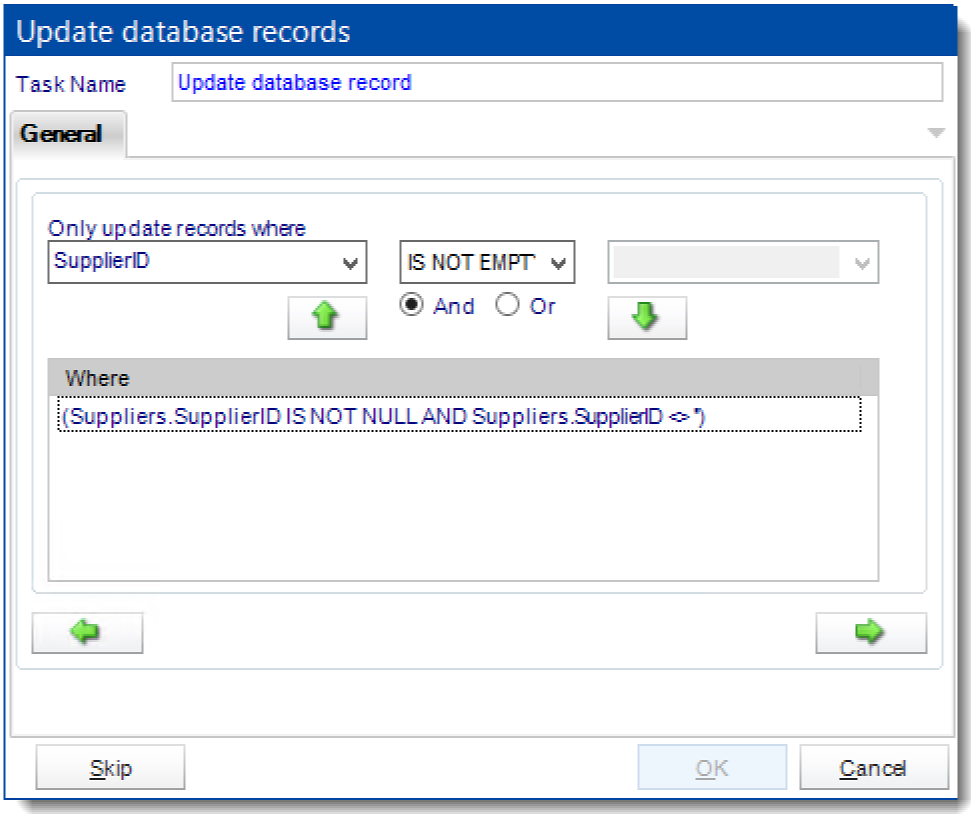
For Example:

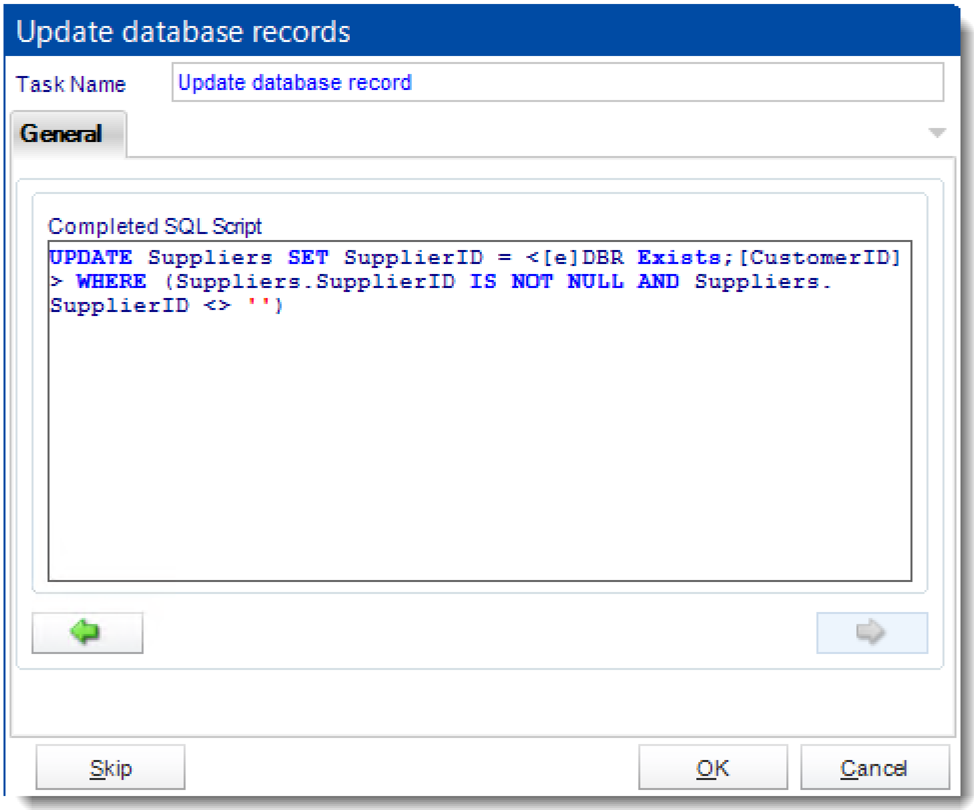
Select the DSN name you want to update.

Hint: In Event Based, you can select another DSN to run tasks.


Update database records
Task Name
Update database record
General
DSN Name
Event-Based Samples
UserID
Password
Connect..
Skip
OK
Cancel

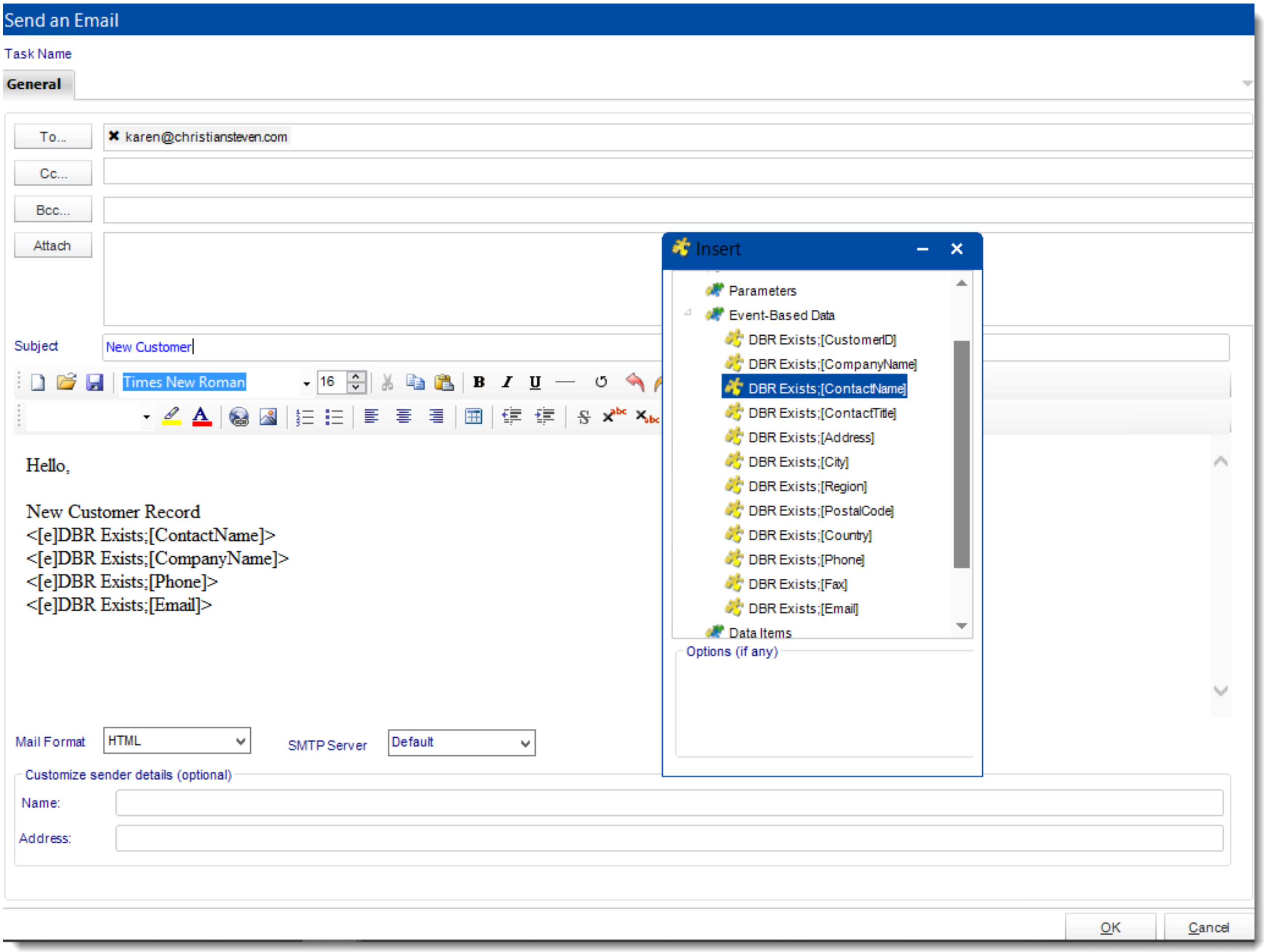

Update database records
Task Name
Update database record
General
Table containing records to update
Suppliers
Update this column
SupplierID
=
Set its value to
<[e]DBR Exists;[CustomerID]>
Set
SupplierID = <[e]DBR Exists;[CustomerID]>
Skip
OK
Cancel


Update database records
Task Name
Update database record
General
Only update records where
SupplierID
IS NOT EMPT
And
Or
Where
(Suppliers.SupplierID IS NOT NULL AND Suppliers.SupplierID <> '')
Skip
OK
Cancel



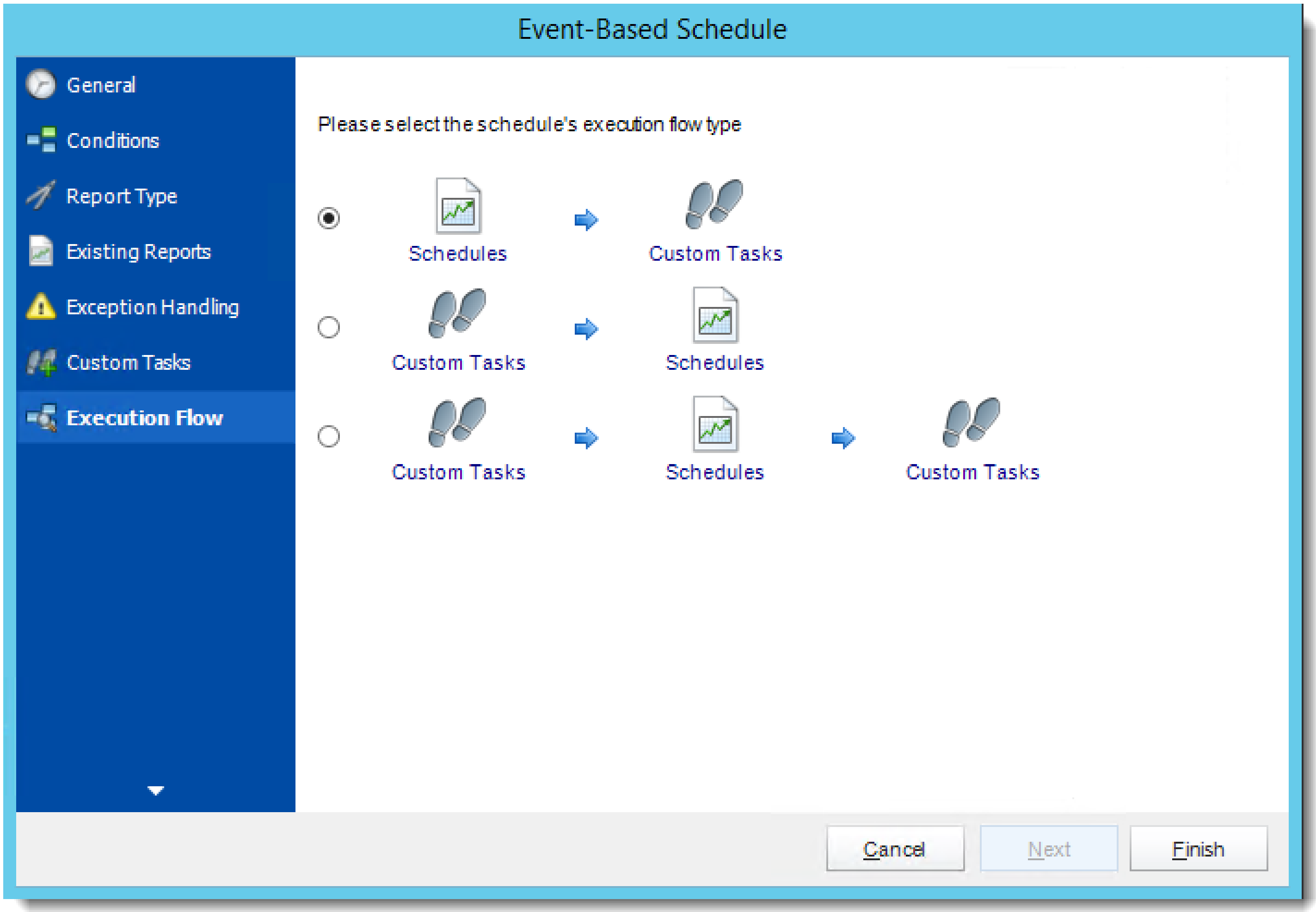
Hint: When sending an email you can use Event Based inserts to reference the condition that triggered the email.

For Example:



After adding all the required Custom Actions, click **Next** to continue.

Execution Flow



If you have schedules AND tasks being executed as part of the event based schedule you can determine the order.

For Example:

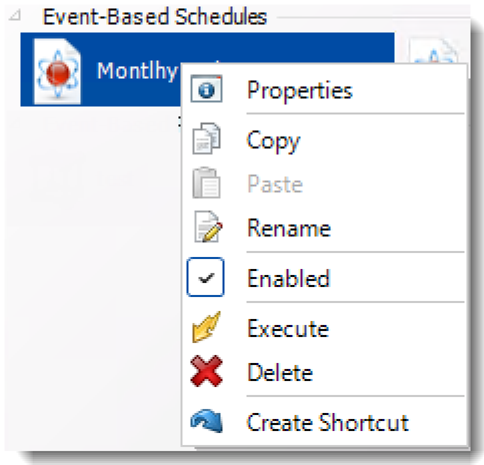
Run Schedules then the Custom Actions

OR

Run the Custom Actions first, then the schedules, the run the Custom Actions again.

Click **Finish.**

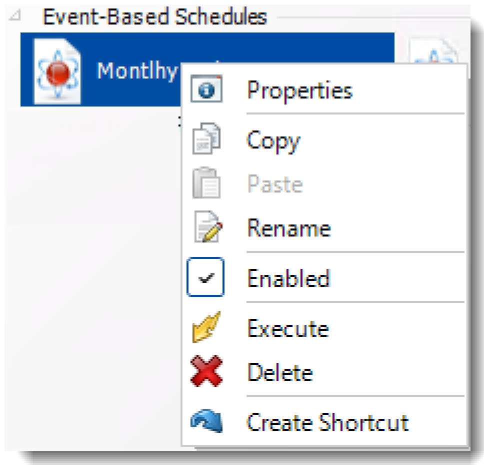
Event Based Schedule Context Menu



Right-Click on a schedule to see the following actions.

- **Properties:** Access the schedule set up for editing. Or you can just double click on the schedule.
- **Copy:** Use this to copy an existing schedule. You can then paste it into another folder or the same folder. Simply open the folder you wish to paste to, right-click in the "white" space and select "Paste". Follow the on-screen instructions to complete the process.
- **Paste:** Paste a previously copied schedule.
- **Rename:** Rename a schedule.
- **Enabled:** Schedules are enabled when there is a check beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check. Disabled schedules will not run till they are enabled again.
- **Execute Schedule:** This will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. This only moves on if the schedule is run automatically by one of the schedulers.
- **Delete Schedule:** Selecting this option will delete the schedule.
- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.

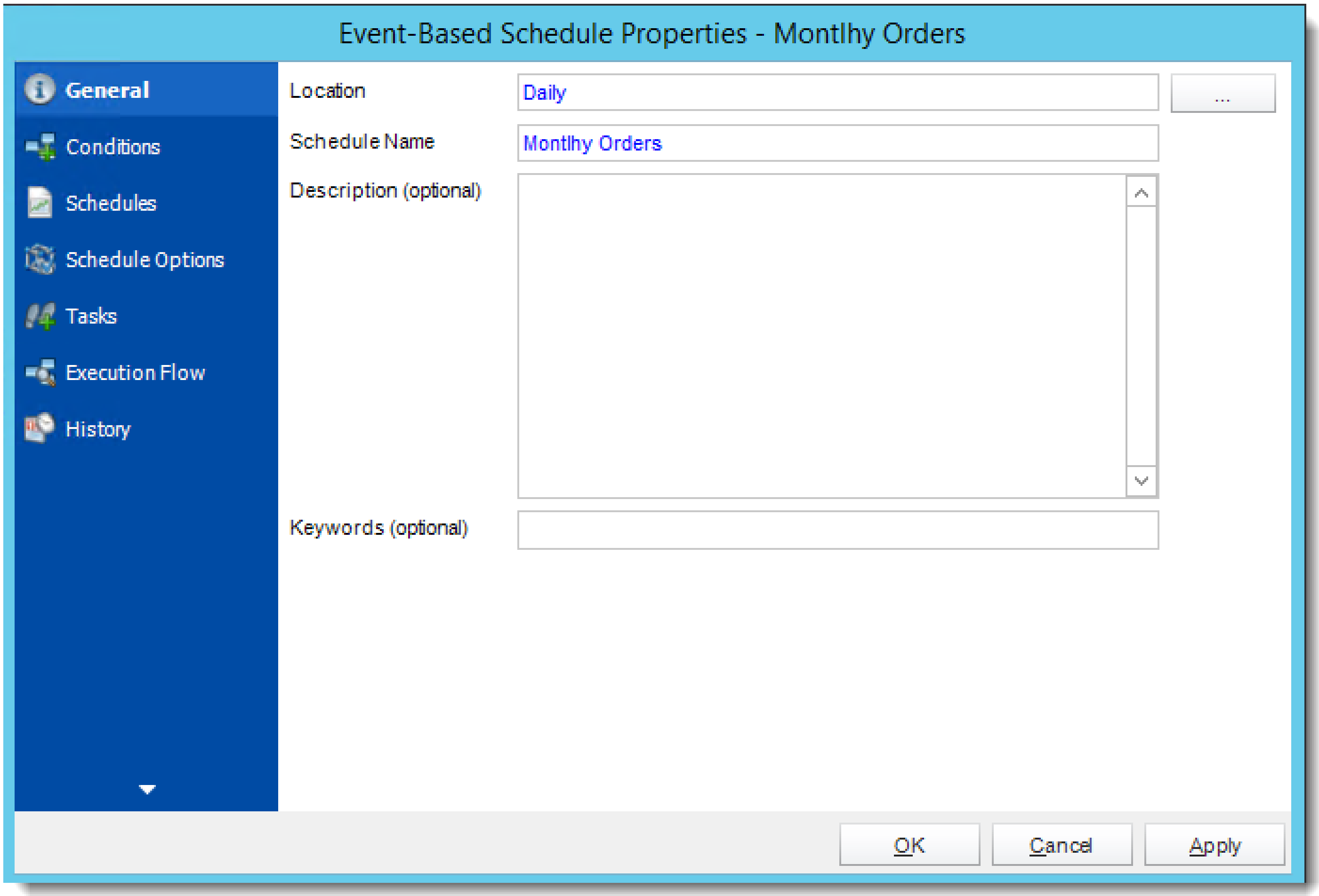
Event Based Schedules Properties



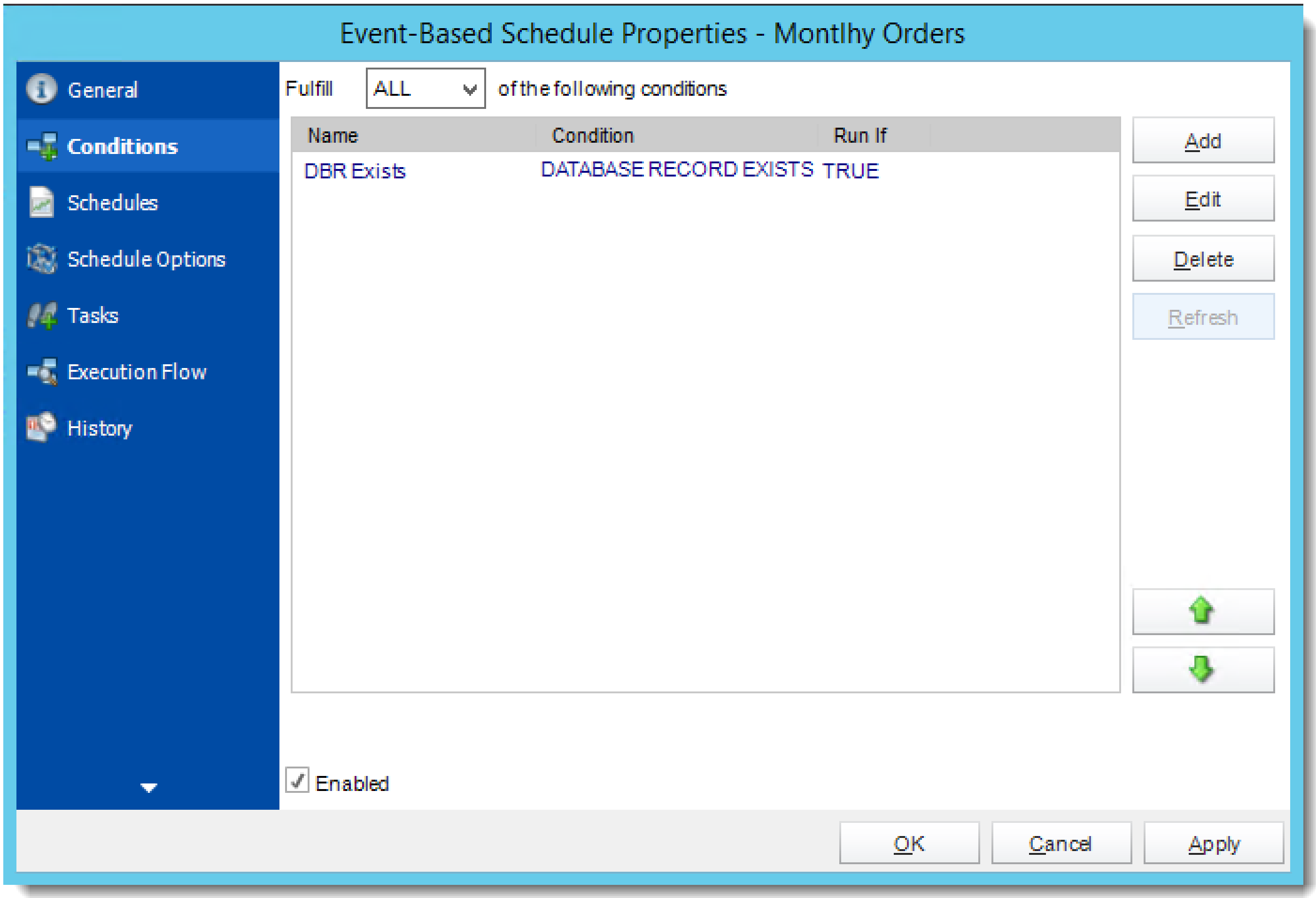
To access your schedule properties, right click on a schedule and select properties.

Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

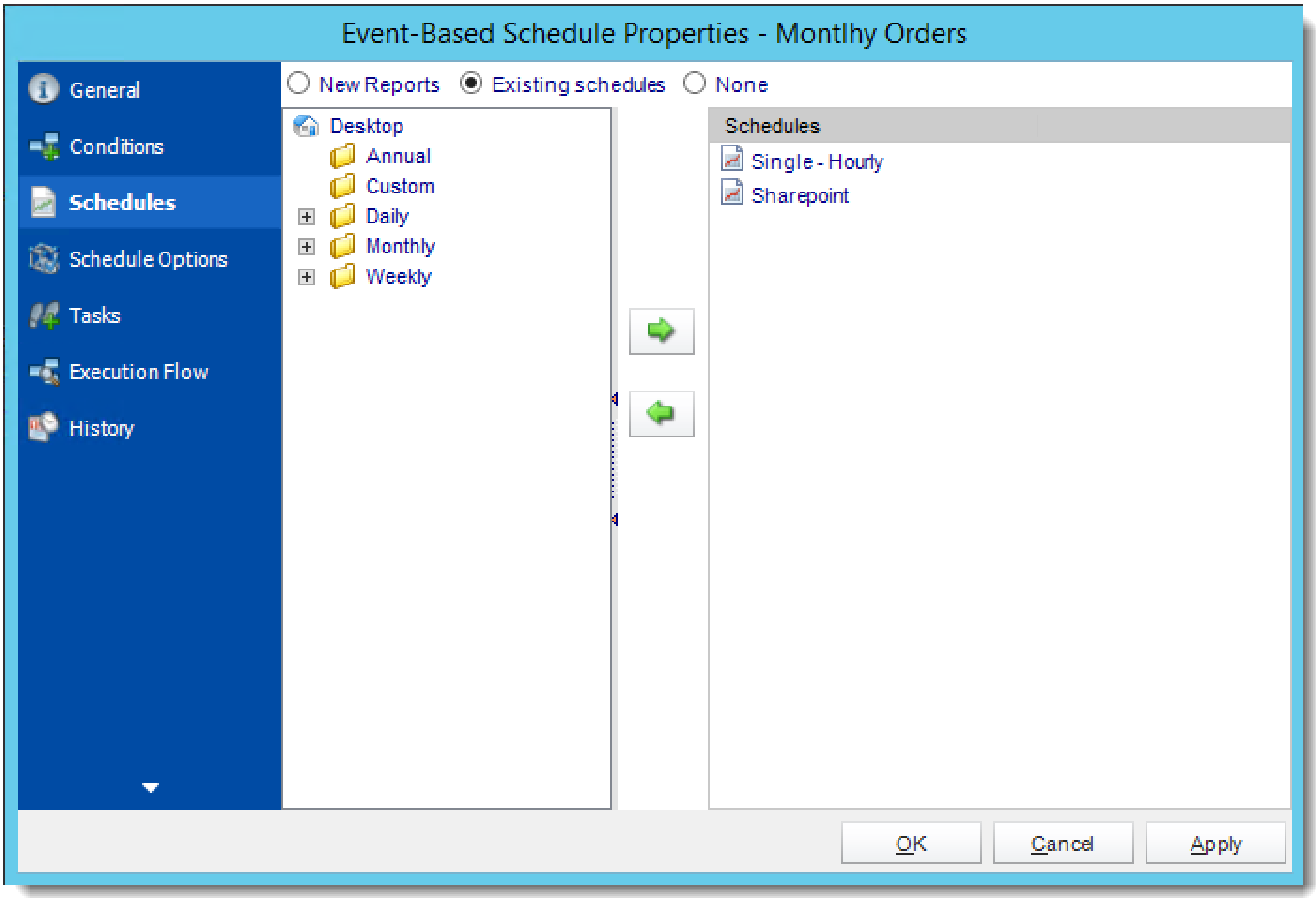
General: You can edit general information from here.



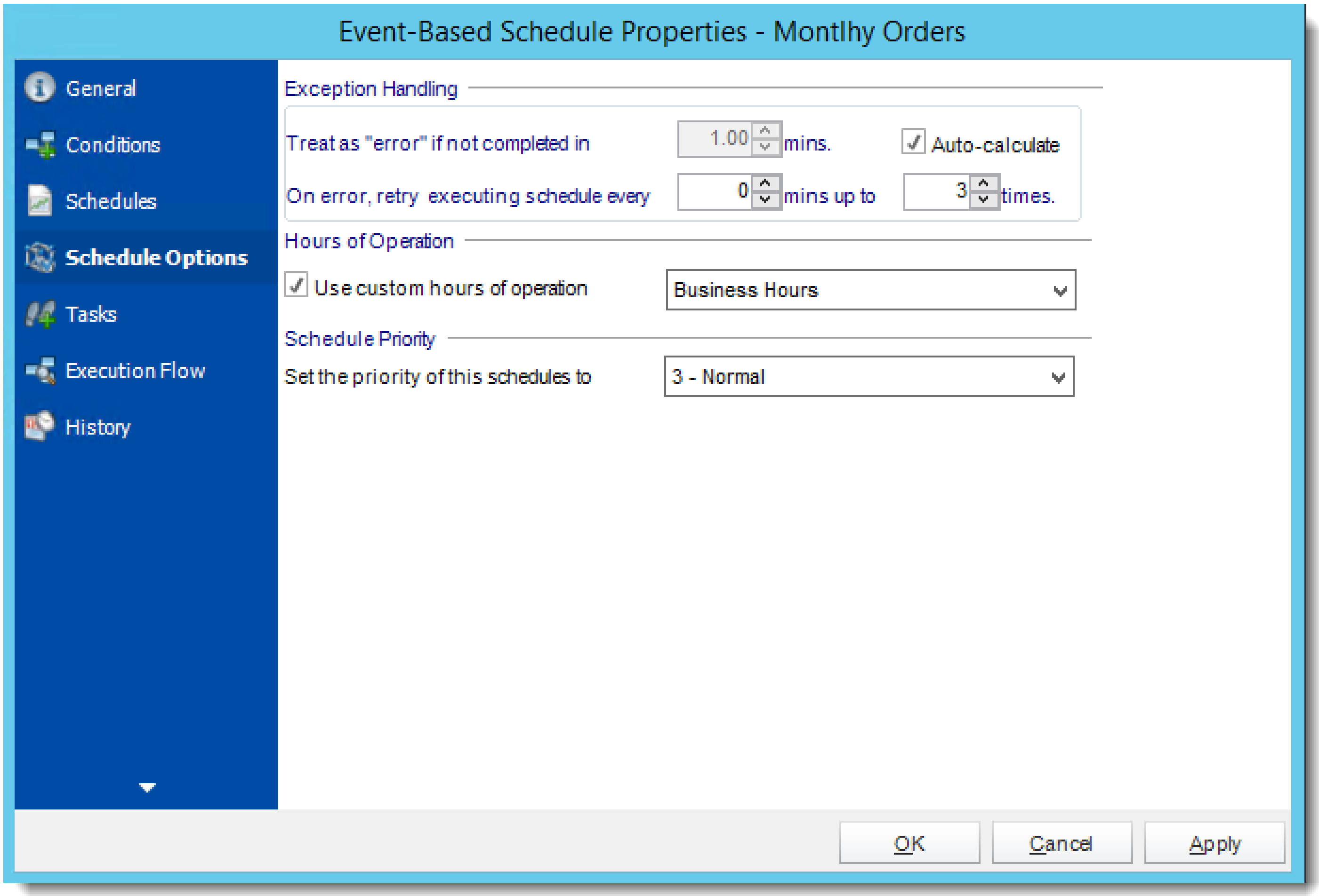
Conditions: You can add, edit, or delete conditions type from here.



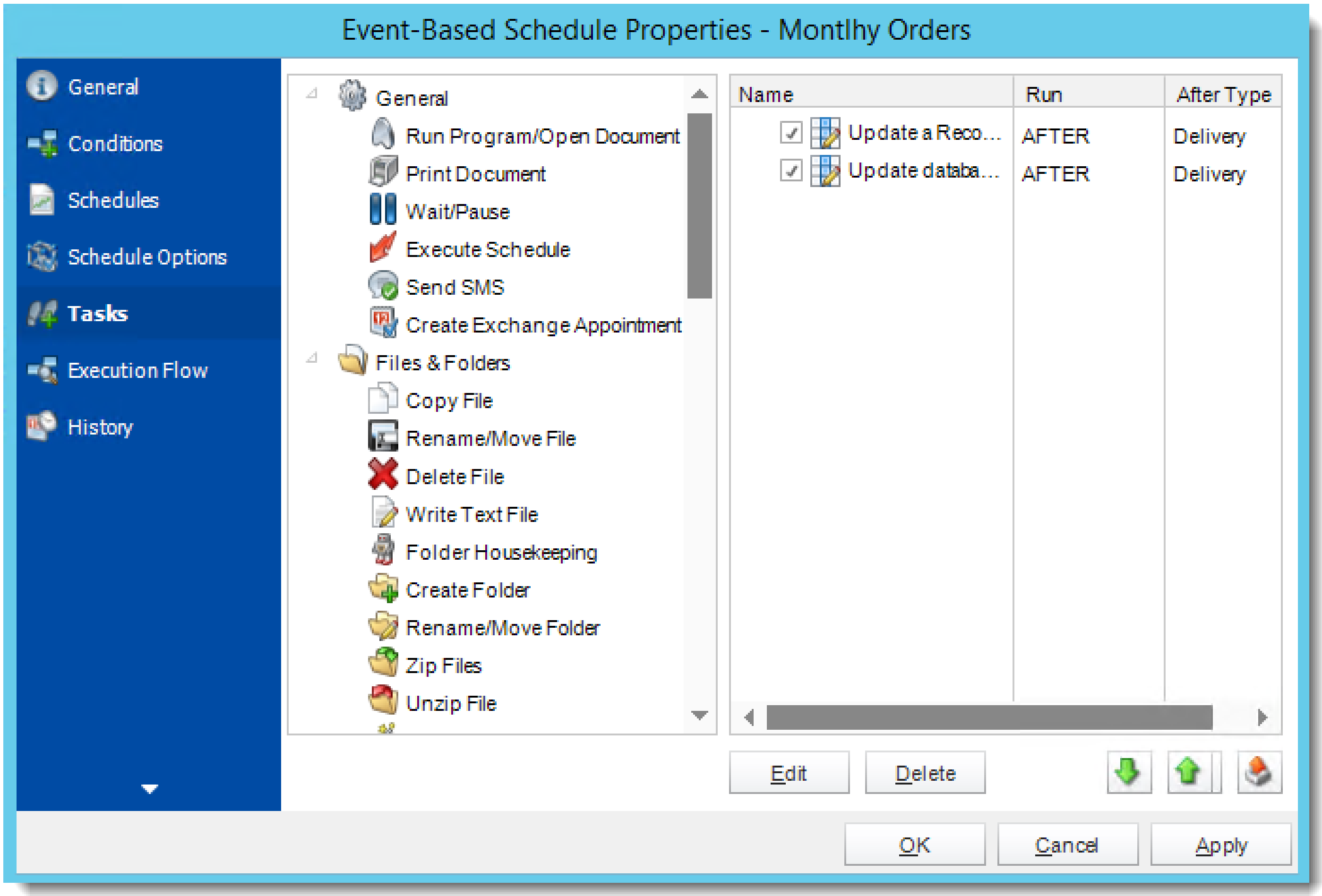
Schedules: You can add and delete reports from here.



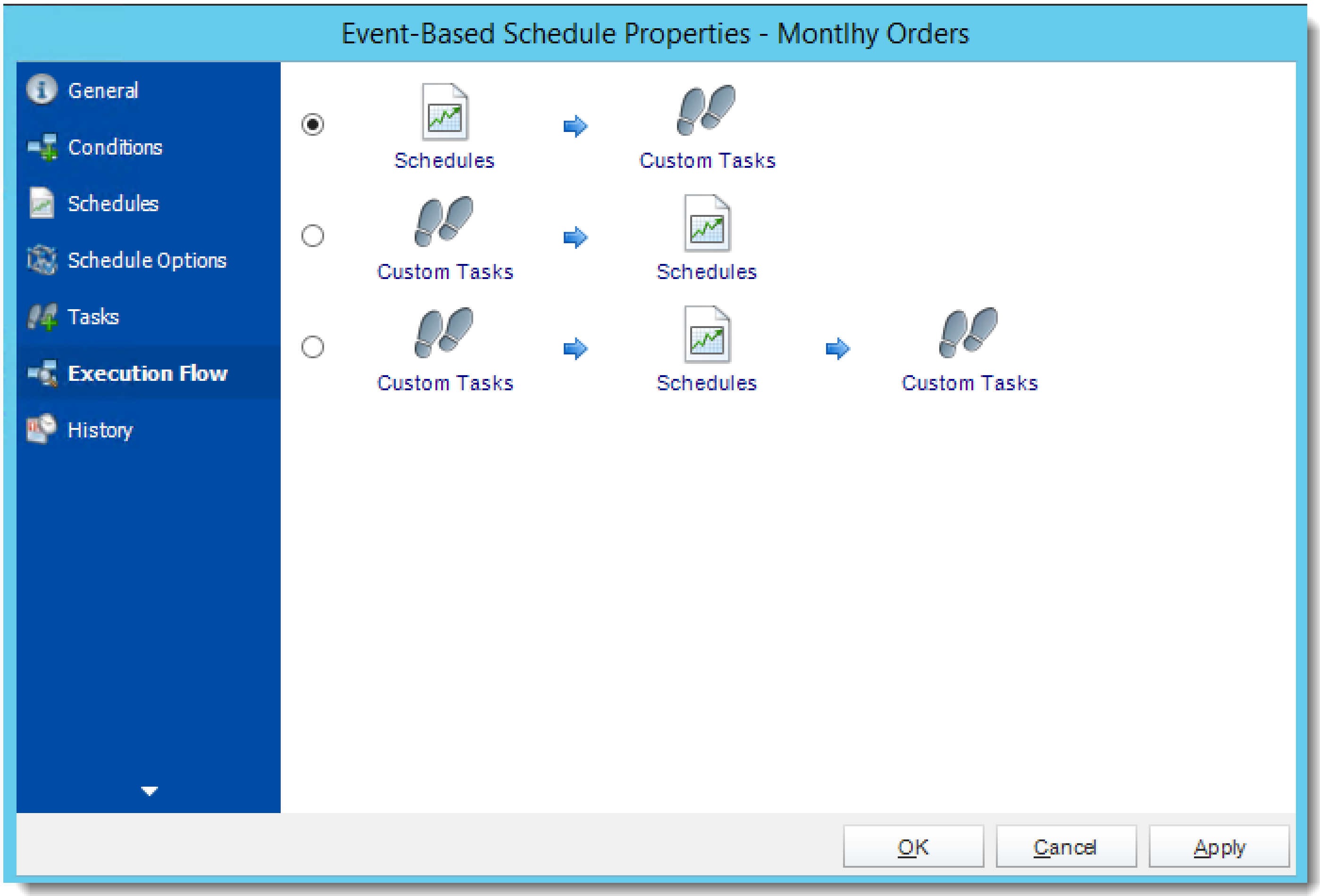
Schedule Options: You can edit exception handling and schedules options from here.



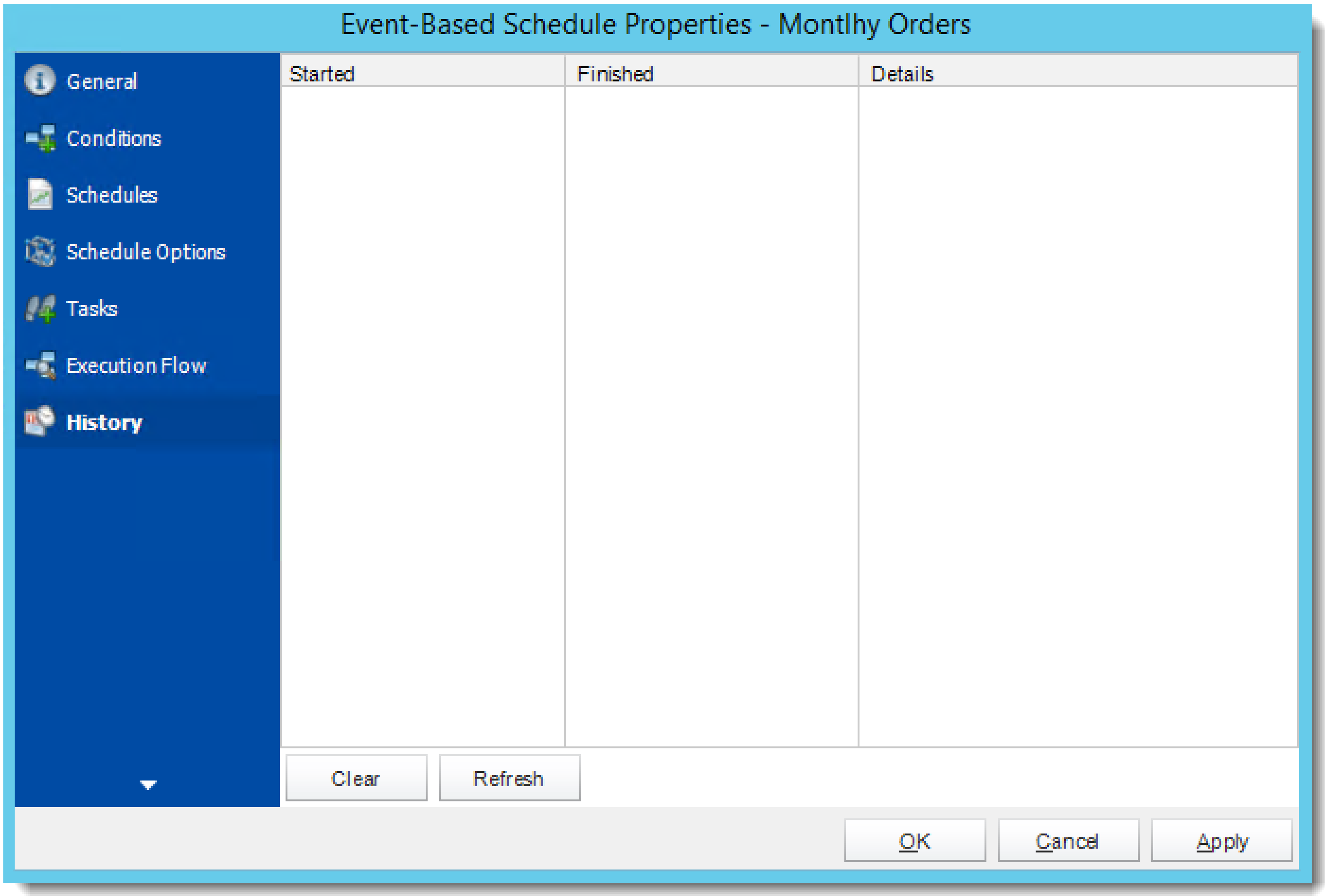
Tasks: You can add, edit, or delete tasks from here.



Execution Flow: You can edit the execution flow from here.



History: Review the schedules history. Successes, failures, and other data is located here.

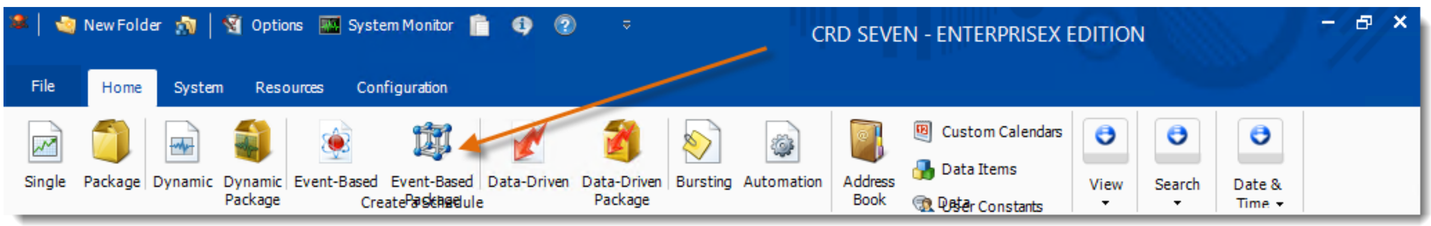


Event Based Packages for Crystal Reports

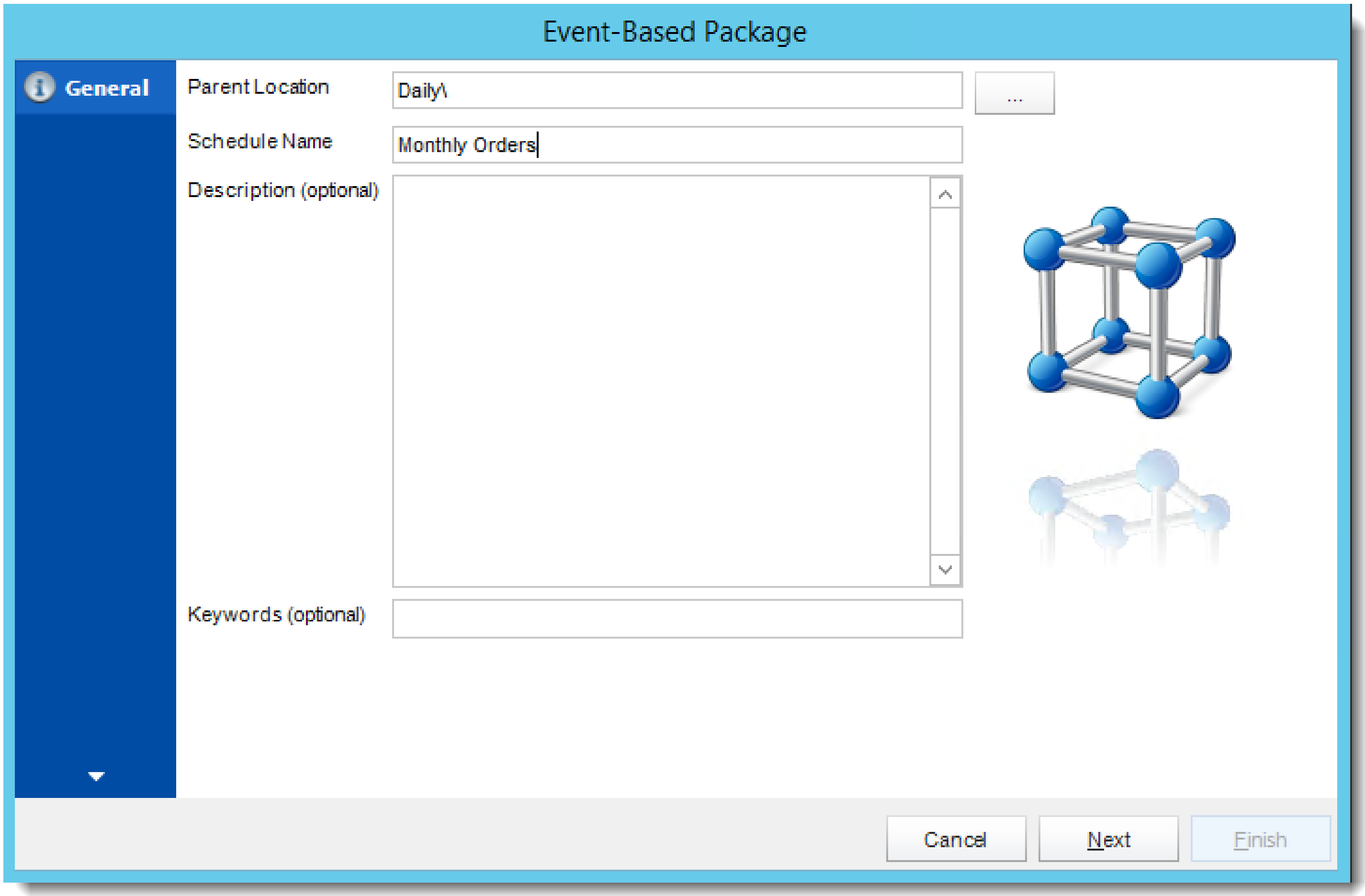
An Event Based Package Schedule allows you to run several Event Based schedules at the same time. It also allows you to determine the timing and order of execution of the Event Based schedules in the package.

How do I create Event Based Package in CRD?

- Go to **Event Based Package.**



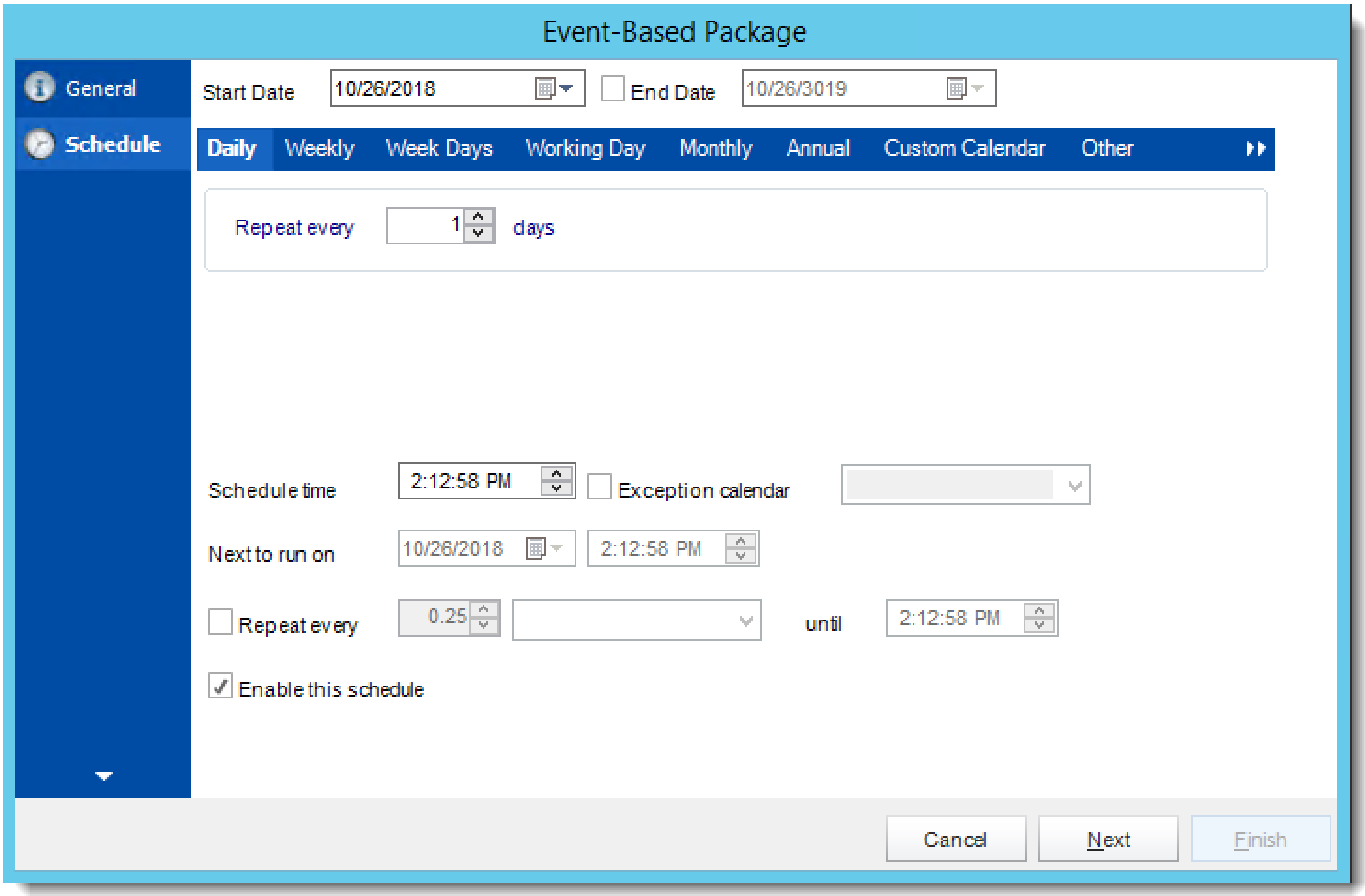
General Wizard



- **Parent Location:** The CRD folder where the package is stored.
- **Schedule Name:** The name of the package.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.

Click **Next** to go to the next wizard section.

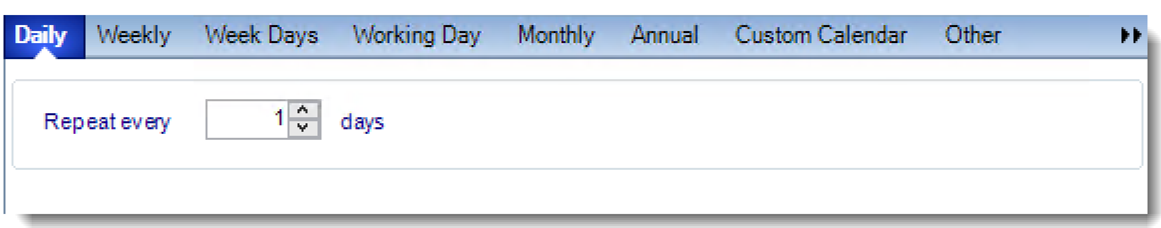
Schedule Wizard



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
    - **Sub options:** Repeat every X Days.

      Example: Run the schedule every 3 days.

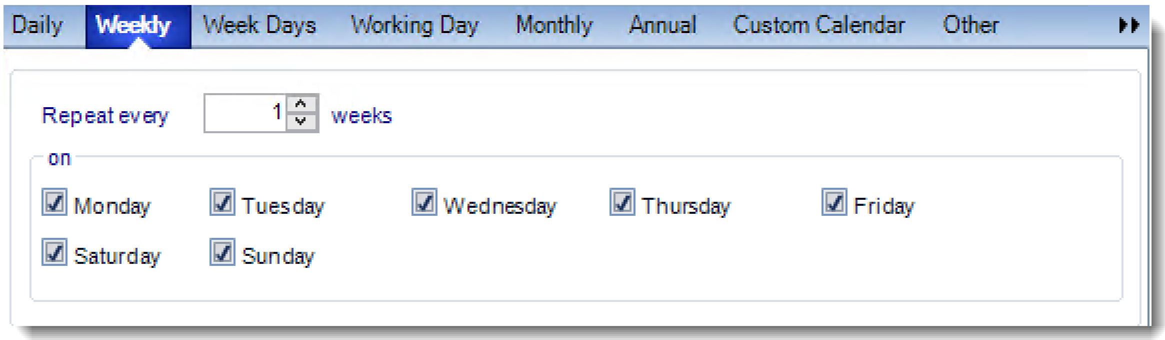


- **Weekly:** Run a report on a weekly time frame.
    - **Sub options:** Repeat every X weeks.

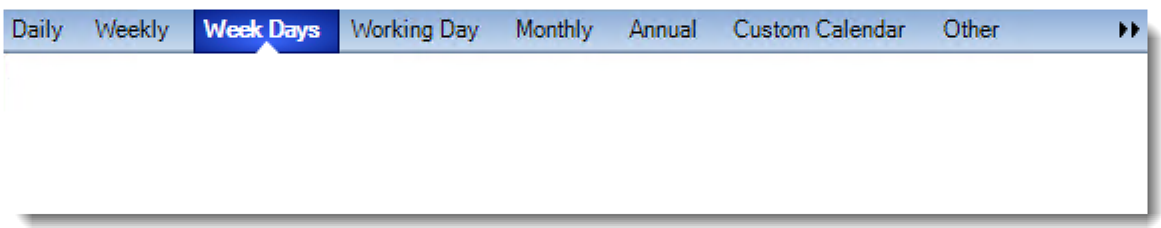
Example: Run the schedule every 2 Weeks.

- **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

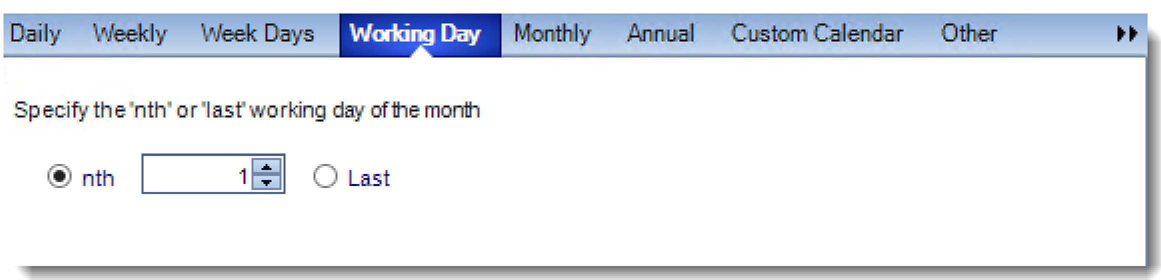
  Example: Run every Monday, Wednesday, and Friday.



- **Week Days:** Run the schedule Monday through Friday.

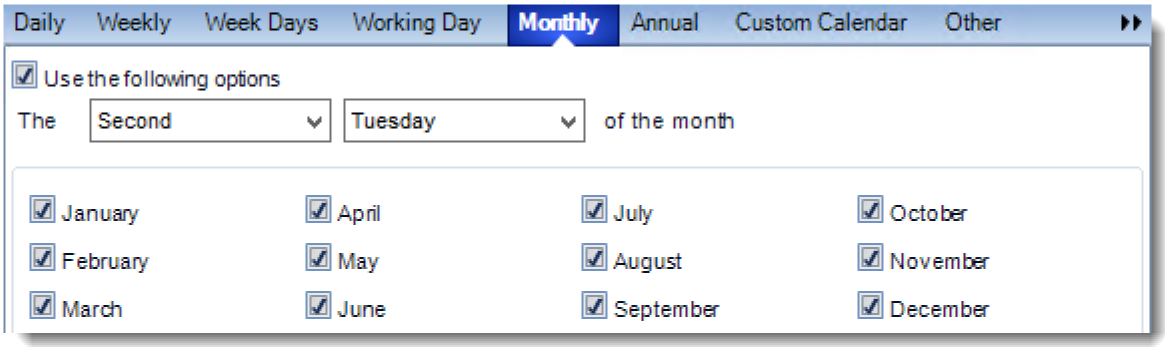


- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.

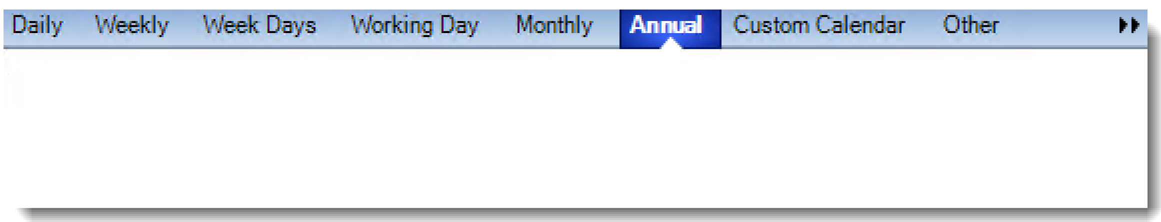


- **Monthly:** Run the schedule on a monthly time frame.

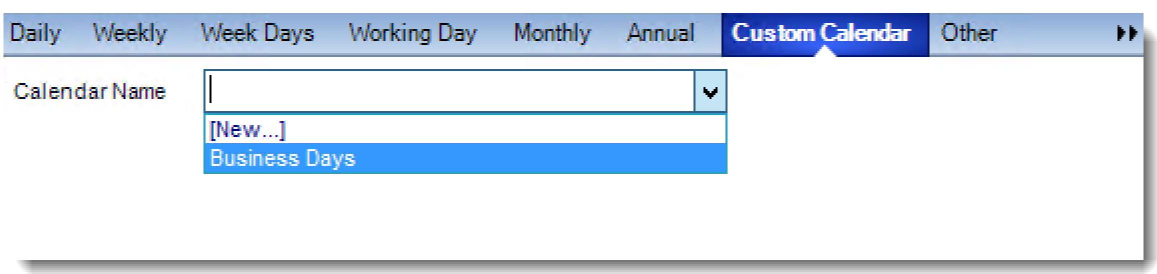
- **Use the following options:** Checking this box will enable you to select frequency options such as the “last Thursday of the month.” Also you can include or exclude specific months from the schedule.



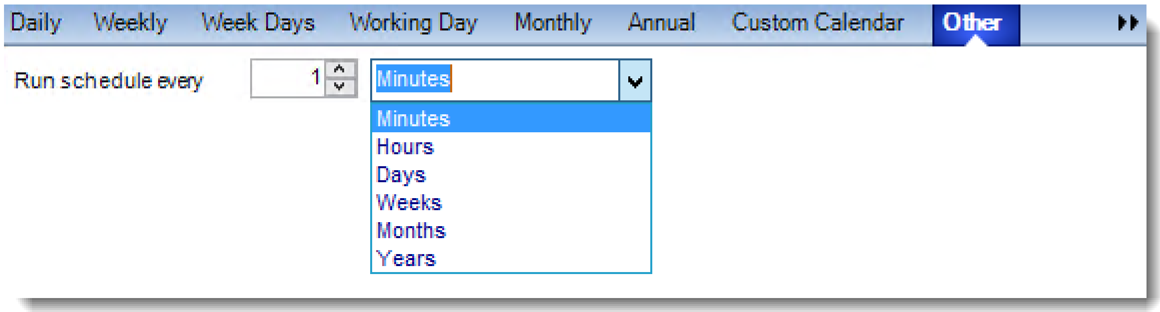
- **Annual:** Run the schedule every year at a specified time.



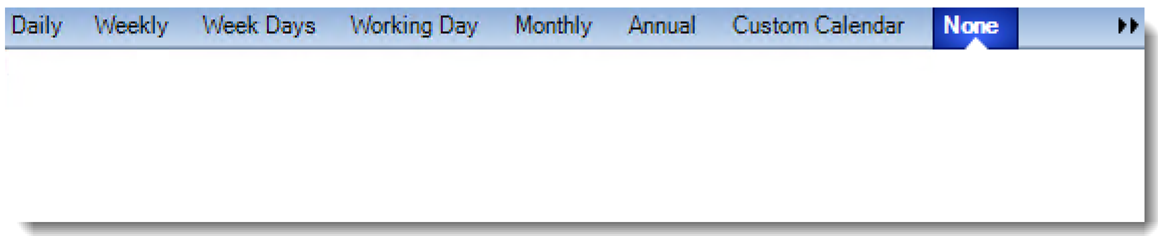
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
  - Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.

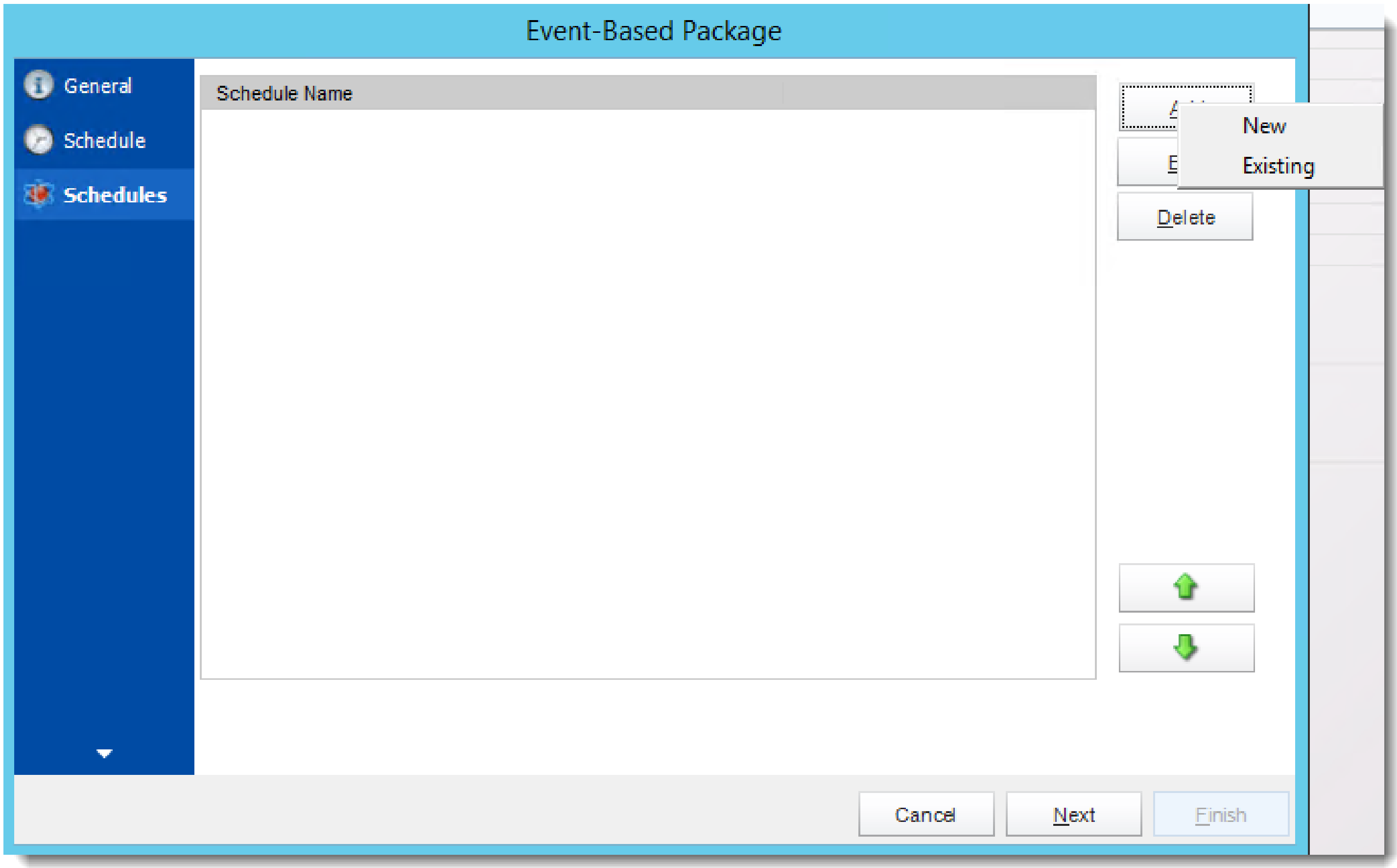


- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

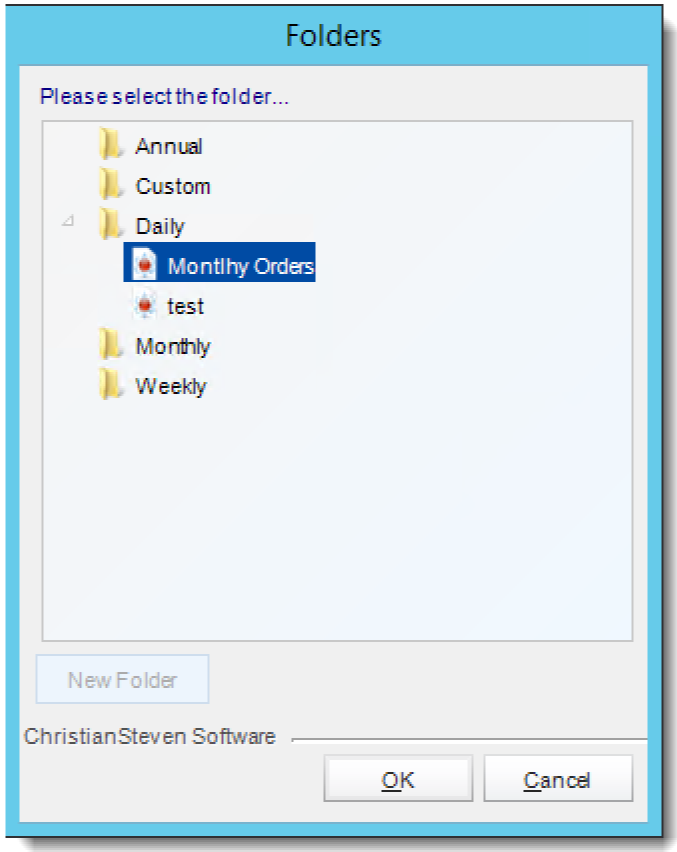
  For example, you can set up a daily package to run every day at 8 am*, and to run every hour until* 5 pm*.*

- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

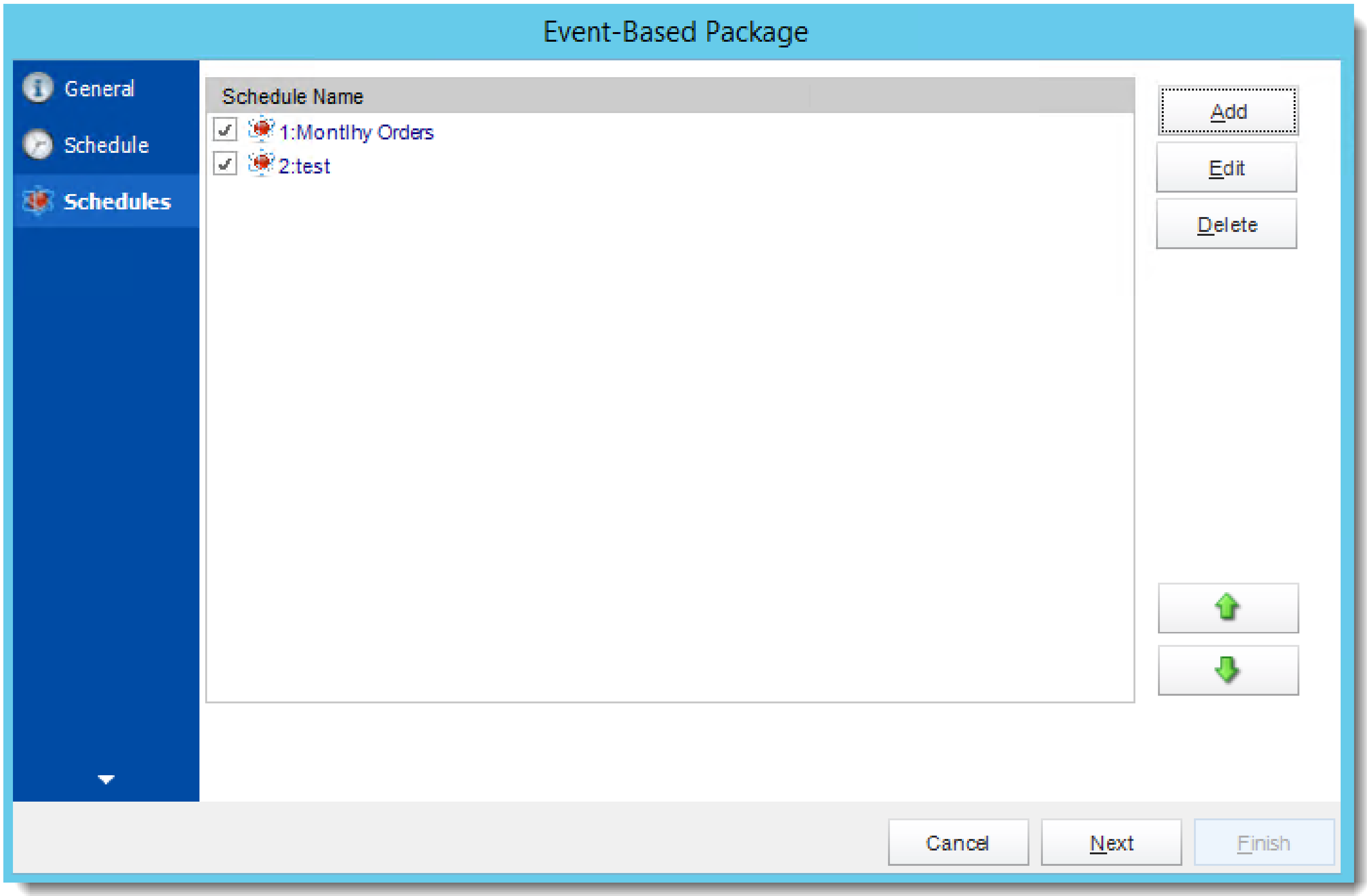
Click **Next** to continue to the next wizard section.



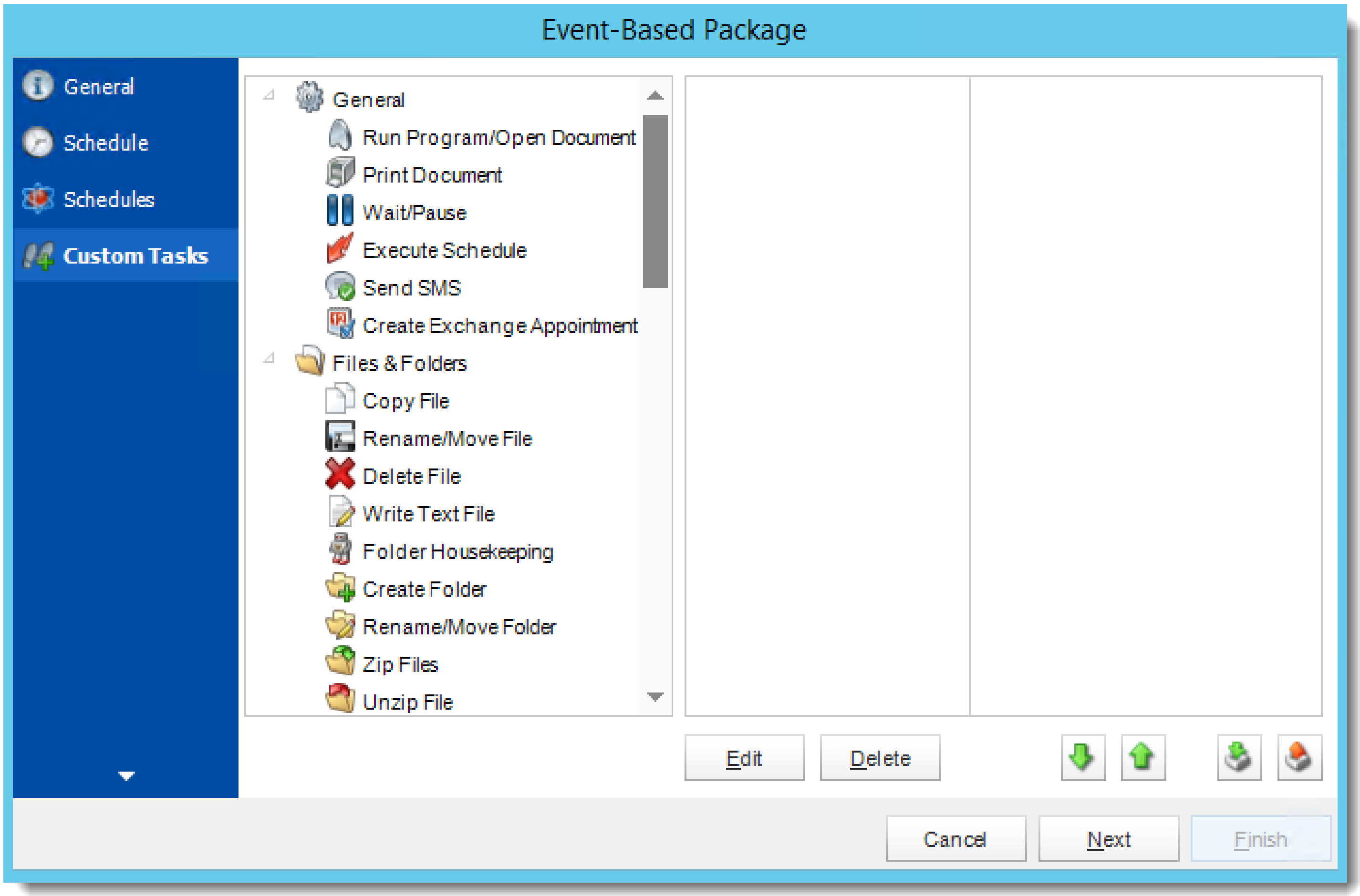
- Click **Add.**
- New Reports
    - Display a screen where you can create a new reports schedule.
    - To add a new Event Based Report, click here.
- Existing Schedules
    - Displays a list of existing schedules in CRD for you to choose from.



- Select the schedule and click **OK.**

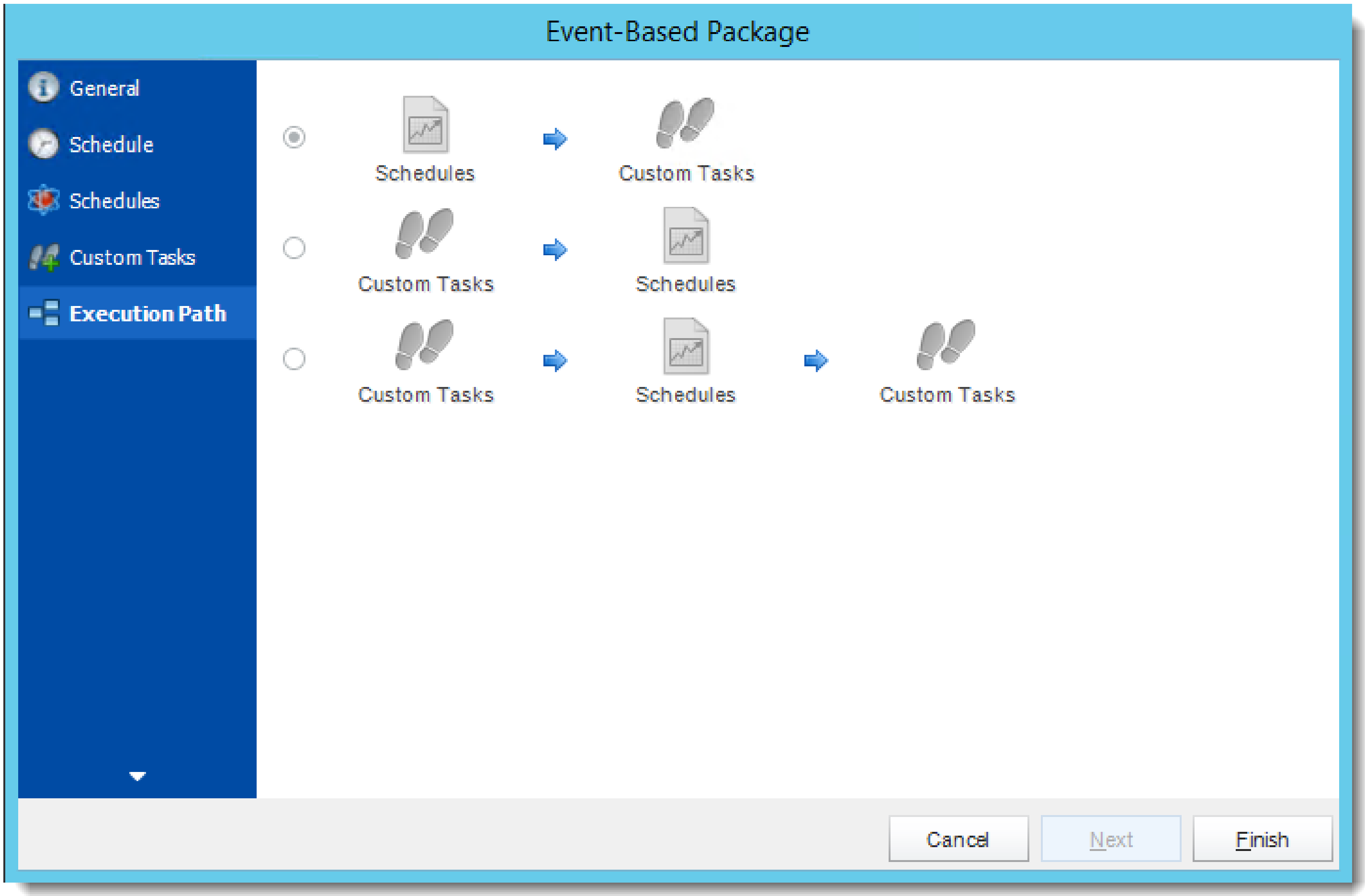

Event-Based Package
General
Schedule
Schedules
Schedule Name
1:Montlhy Orders
2:test
Add
Edit
Delete
Cancel
Next
Finish

Custom Tasks Wizard



- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- If you have no desire to add a Custom Task, click **Next.**

Execution Path Wizard



If you have schedules AND tasks being executed as part of the event based schedule you can determine the order.

For Example:

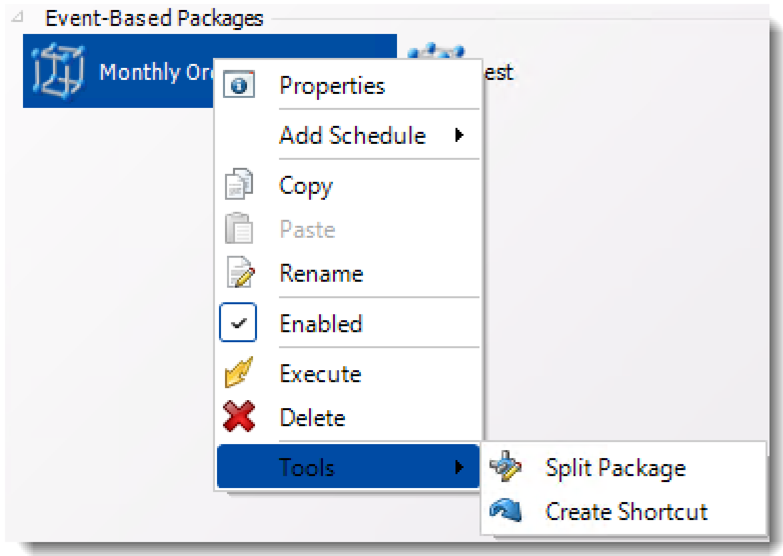
Run Schedules then the Custom Actions

OR

Run the Custom Actions first, then the schedules, the run the Custom Actions again.

Click **Finish.**

Event Based Package Schedule Context Menu

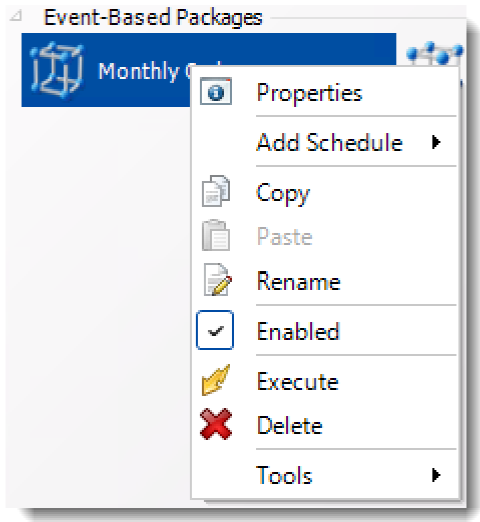


- Right-Click on a schedule to see the following actions:
- **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
- **Add Schedule:** You may add new reports or existing.
- **Copy**: Use this to copy an existing schedule. You can then paste it into another folder or the same folder. Simply open the folder you wish to paste to, right-click in the "white" space and select "Paste". Follow the on-screen instructions to complete the process.
- **Paste:** Paste a previously copied schedule.
- **Rename:** Rename a schedule.
- **Enabled:** Schedules are enabled when there is a check beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check. Disabled schedules will not run till they are enabled again.
- **Move**: Use this option to move the report into an existing package.
- **Execute**: This button will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers .
- **Delete:** Selecting this option will delete the schedule.
- **Split Package:** This will split all the constituent reports in the package.

  This process will automatically delete the package once the splitting process is completed.

- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.

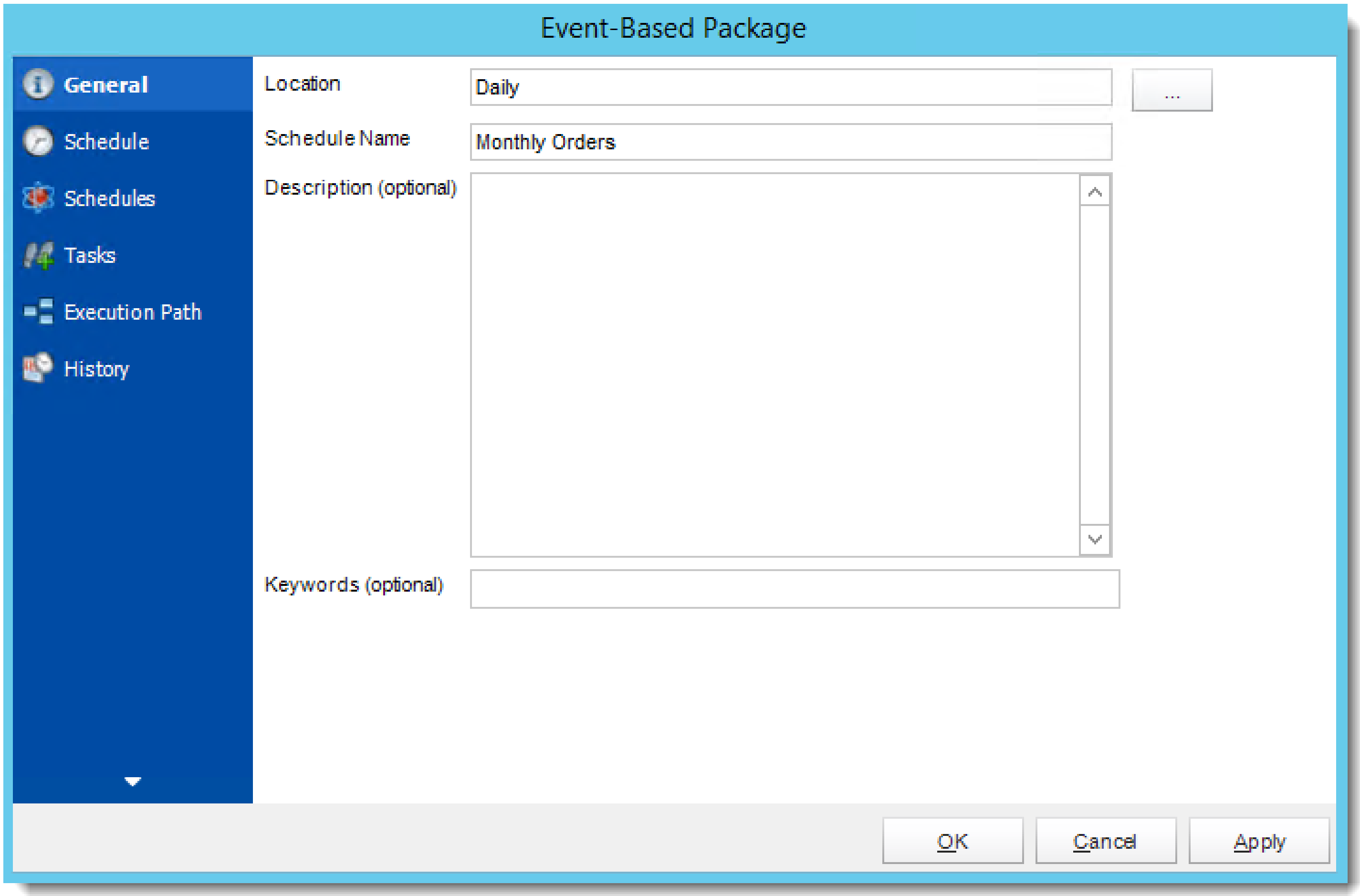
Event Based Package Properties



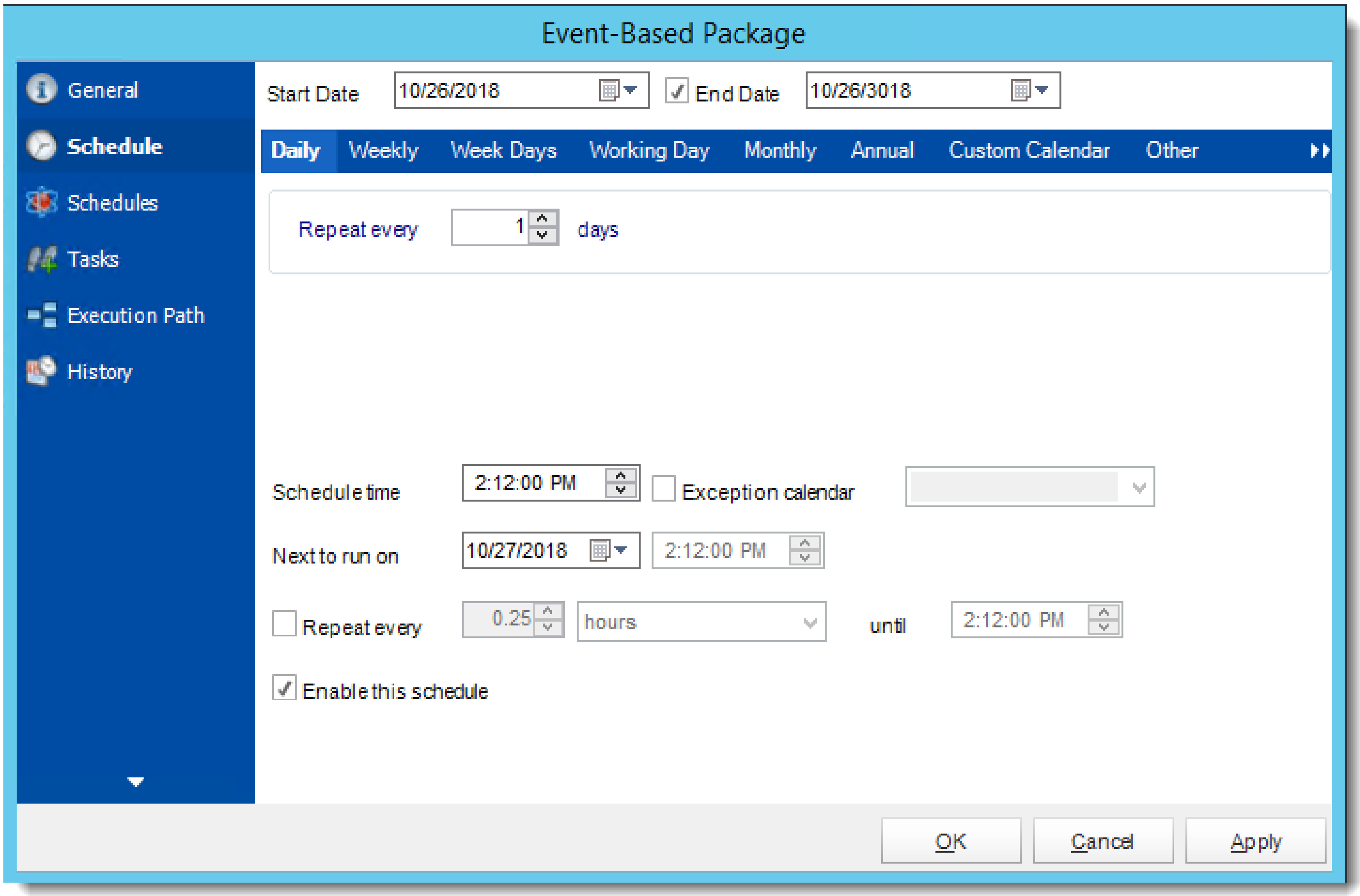
To access your schedule properties, right click on a schedule and select properties.

Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

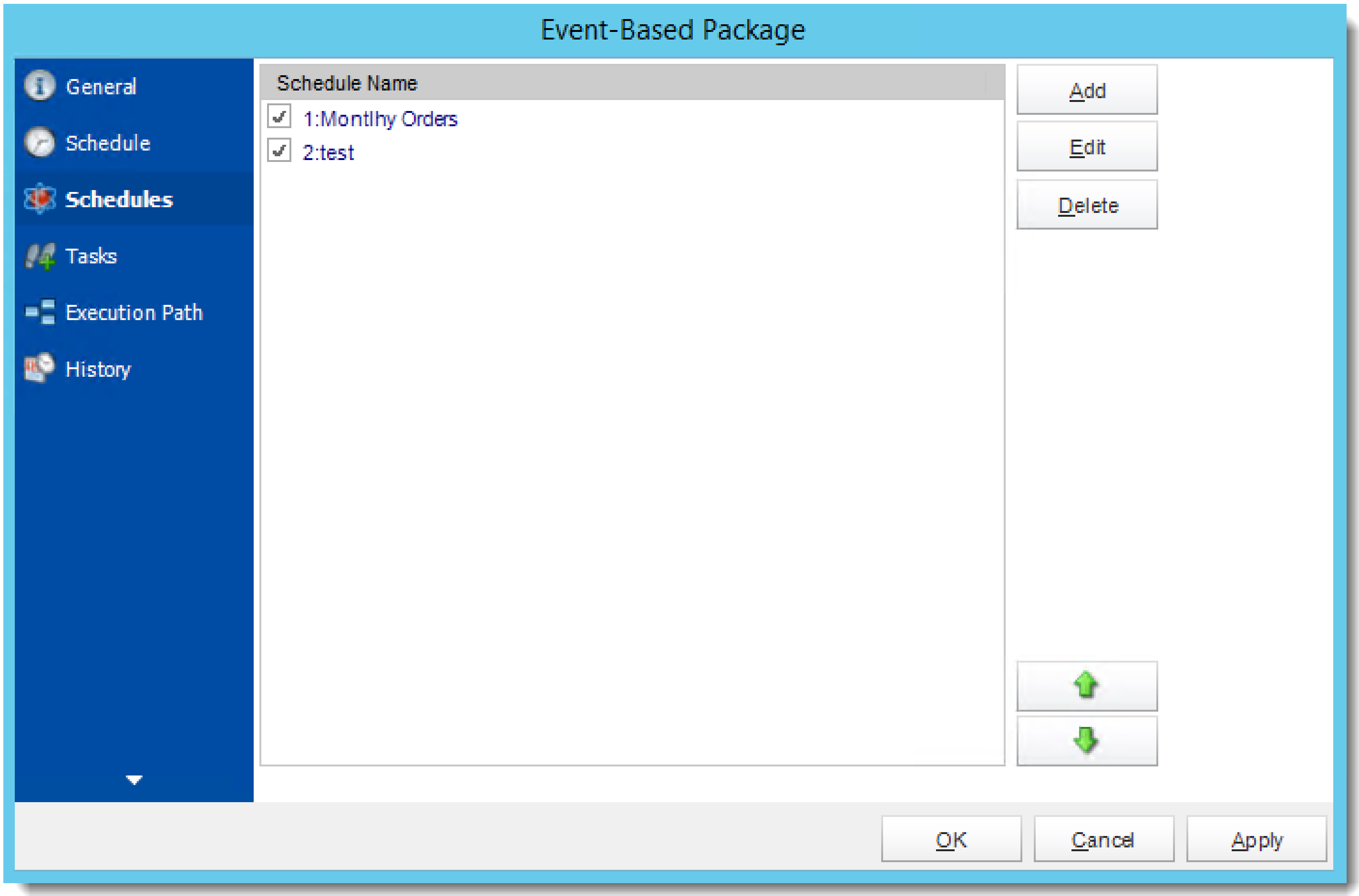
General: You can edit the general information from here.



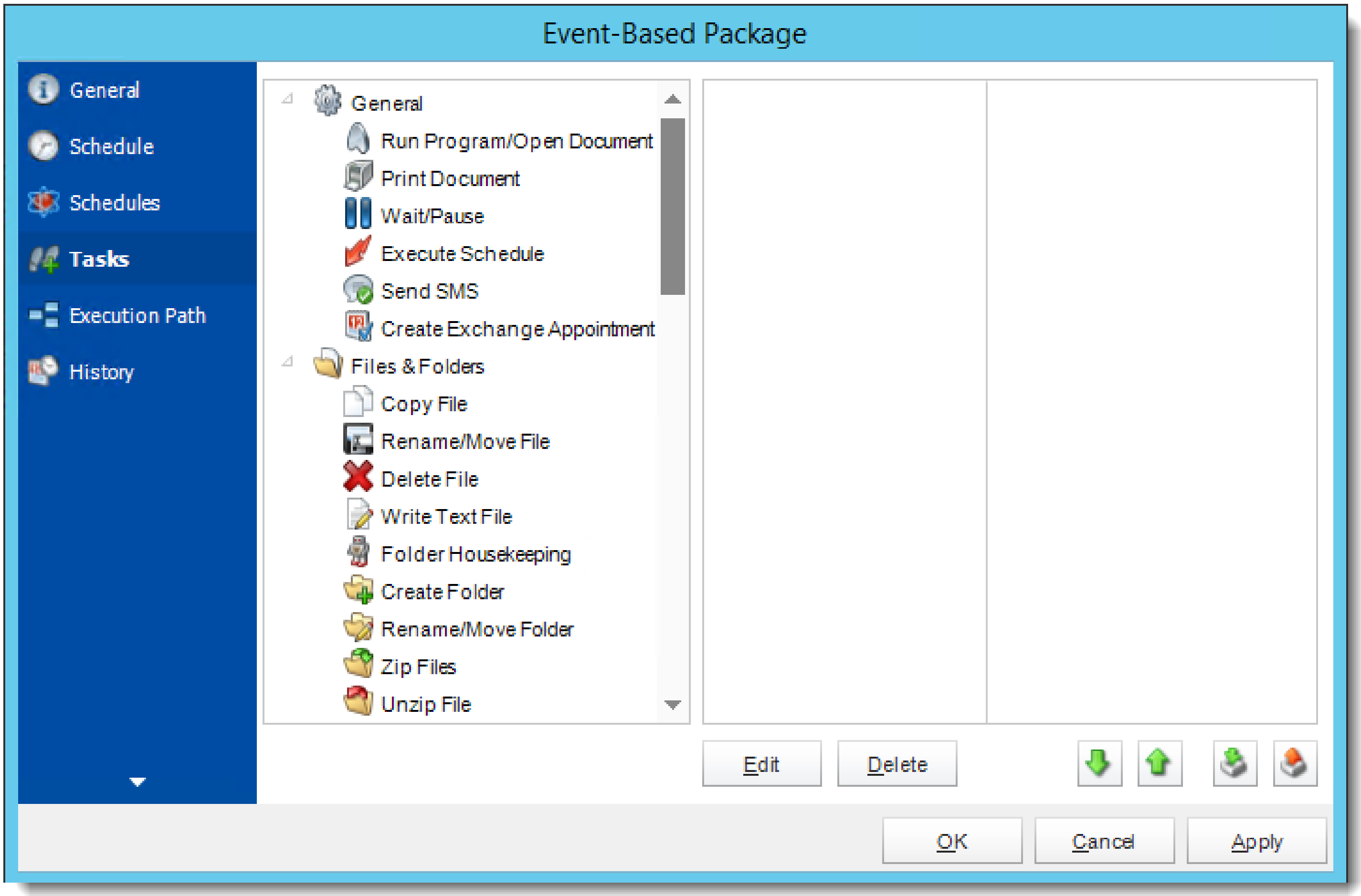
Schedule: You can edit the schedule time from here.



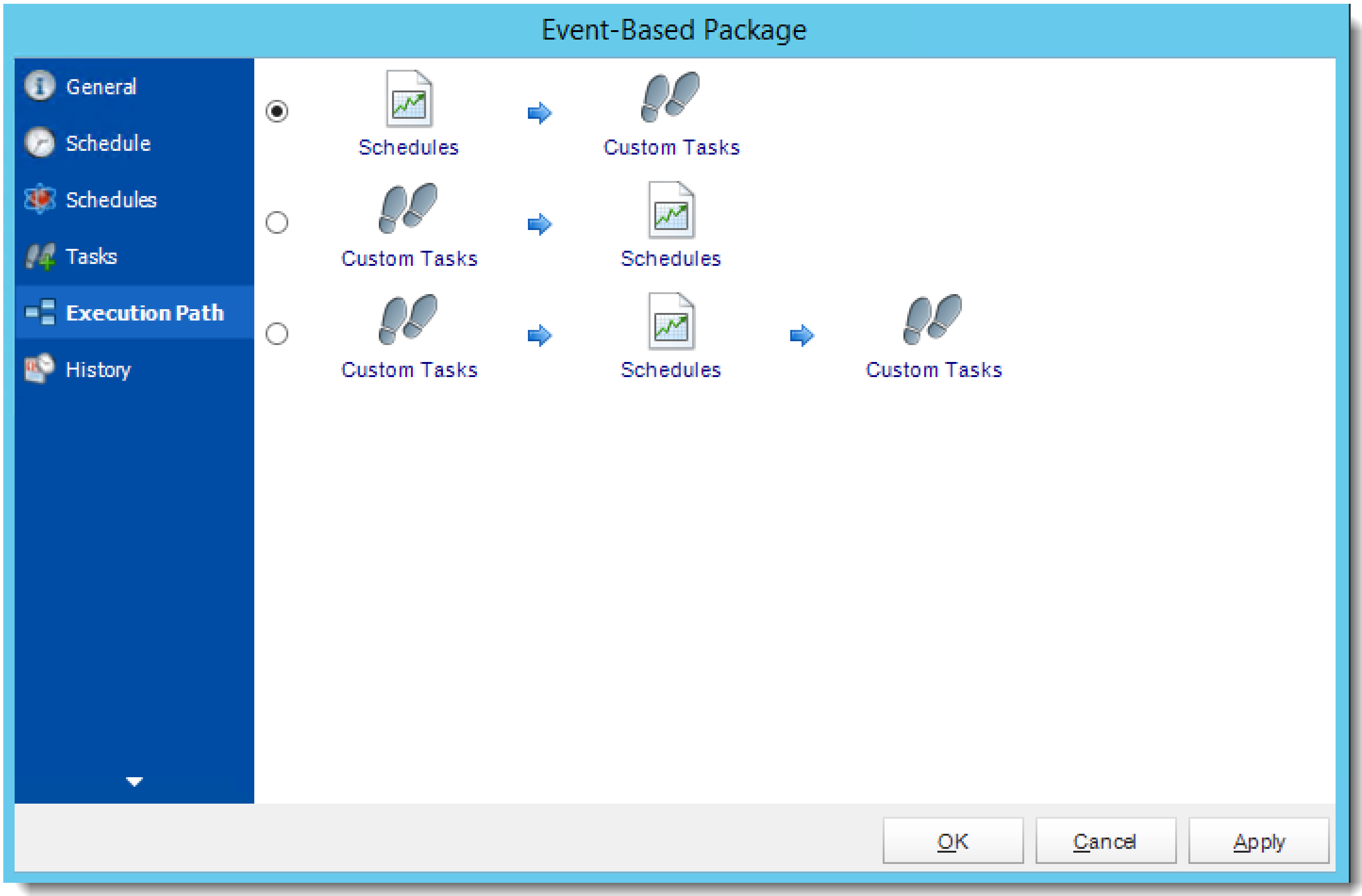
Schedules: You can add, edit, or delete reports from here.



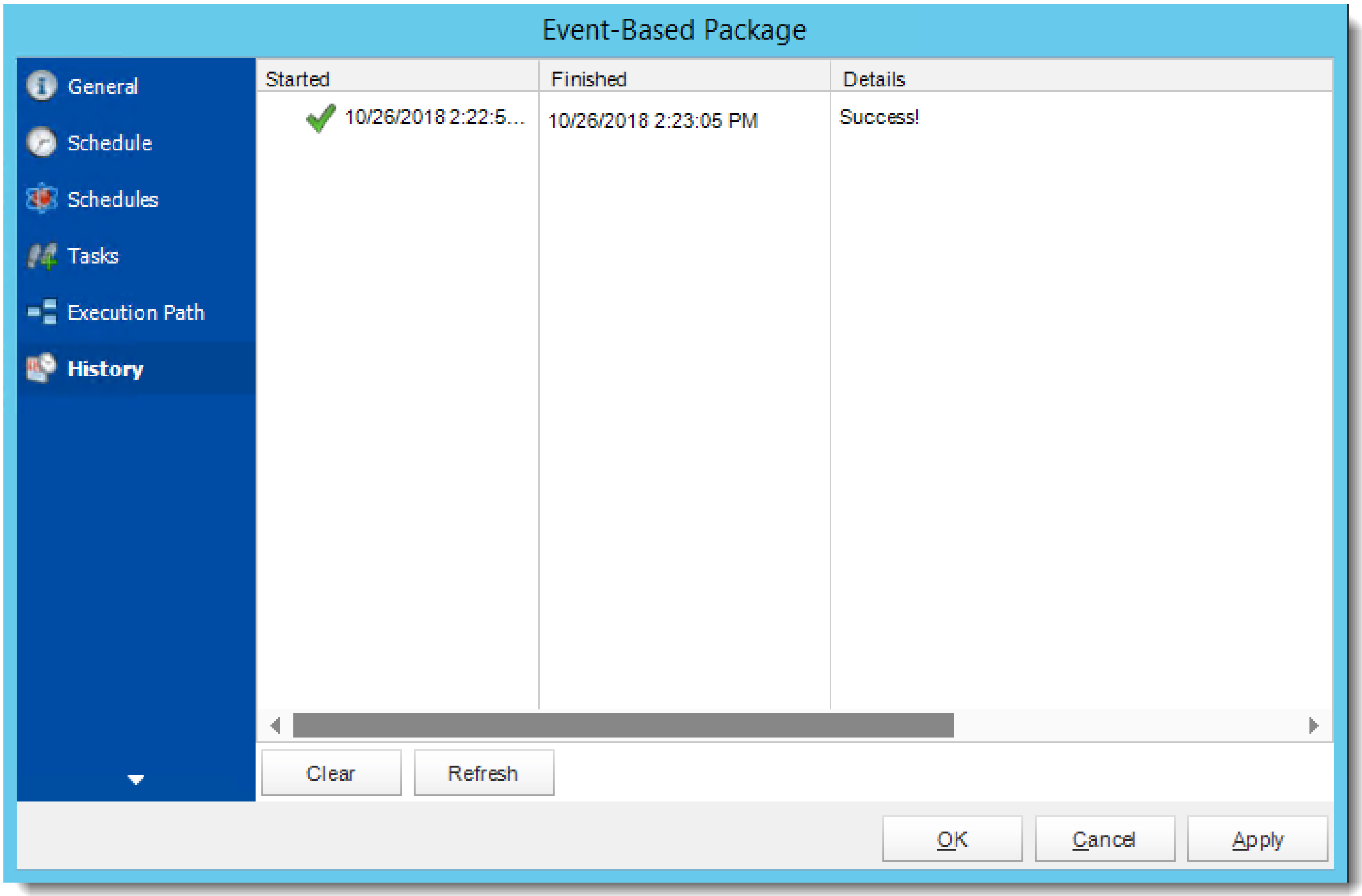
Tasks: You can add, edit or delete tasks from here.



Execution Path: You can edit the execution path from here.



History: Review the schedules history. Successes, failures, and other data is located here.



Data-Driven Schedules for Crystal Reports.

A data-driven schedule allows you to drive all variables of your reporting requirements (parameters, destinations, output formats, etc.) from database tables and queries at run time. You can also use static text and default values should you wish. You can use Data Driven schedules for a number of scenarios.

Here are some examples:

Distribute a report to a fluctuating list of recipients. For example, you can distribute a report throughout a large organization where recipients vary from one month to the next, or use other criteria that determines group membership from an existing set of users. E.g. select * from mytable where firstname = 'john' will generate the report and distribute only for records where the recipient's first name is John.

Filter the report output using report parameter values that are retrieved at run time. For example, the parameter value returned from the table for Last Name will be "Doe" for John Doe and "Smith" for John Smith.

Determine the delivery type and report format dynamically at run time. For example, John Smith gets the report as a PDF file by email with a customized email body and John Doe gets the report as an excel spreadsheet by FTP upload to his web server.

The following simple example will illustrate the process of creating a Data-Driven Schedule.

Scenario: You have a report which has a large number of parameter and destination combinations. Representing the combinations in a table may look something like the example below (Yellow = parameters)

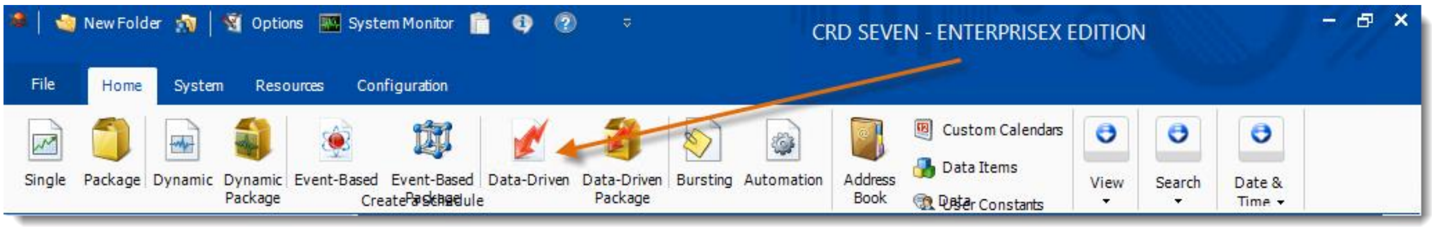
Region	Area	Country	Secto	FirstName	LastName	email	disk	printer	FTPServer	FTPFolder
Americas	North	United States	1	John	Doe	jdoe@mycompany.com				
Americas	North	United States	2	John	Doe		\\myserver\myreports\jdoe			
Americas	North	United States	3	John	Doe	jdoe@mycompany.com	\\myserver\myreports\jdoe			
Americas	North	Canada	1	Peter	Crimble			HP2003sUpstairs		
Americas	South	Brazil	34	Jorge	Minola		\\myserver\myreports\jdoe		myftpserver.com	jminola
Asia	Asia	India	2	Anil	Maharaja	mmaharaja@mycompany.com				
Asia	Pacific	Japan	3	John	Wu	jwu@mycompany.com			myotherftpserver.co	jwu

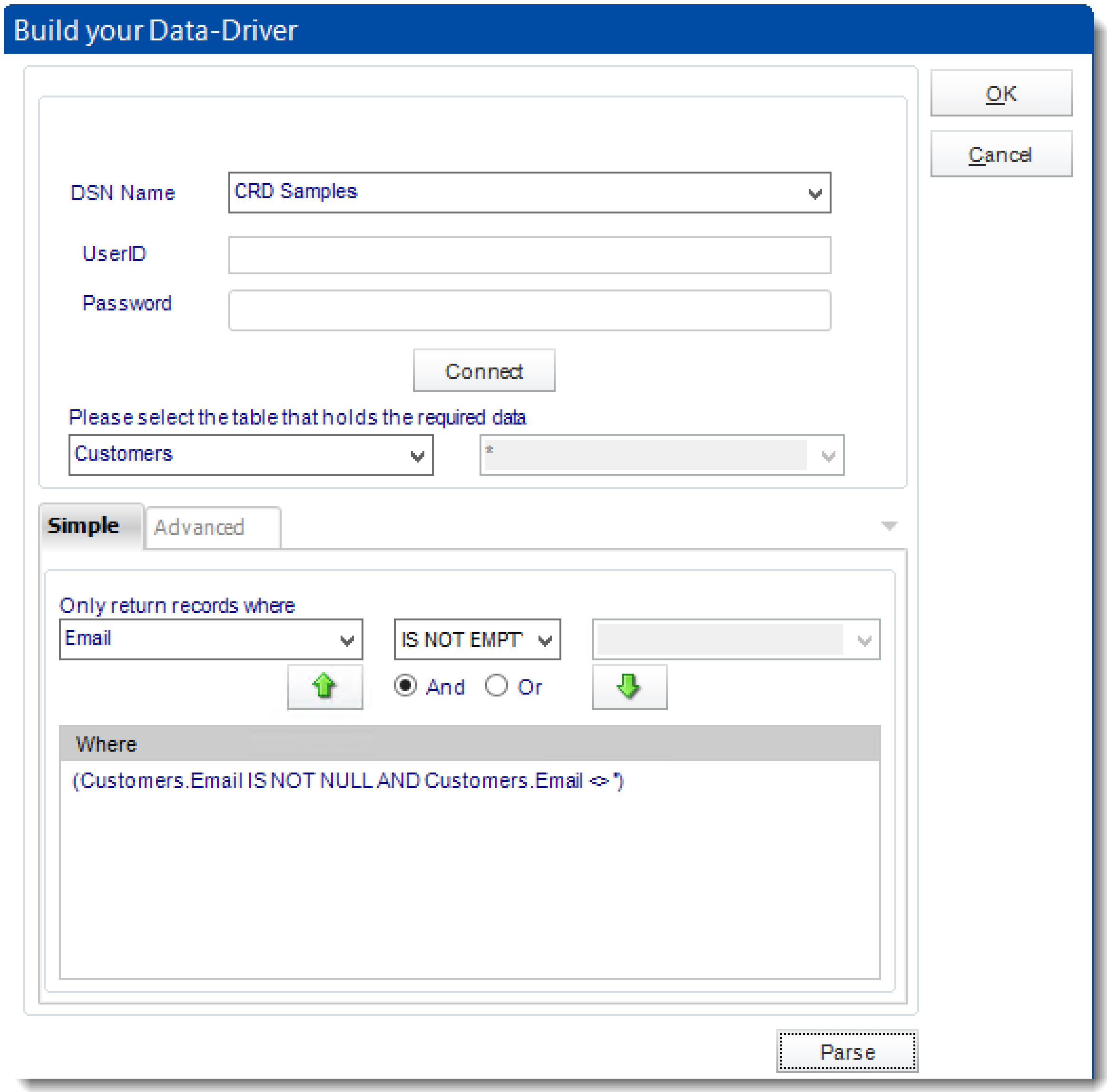
- You need to have the report run once for each record. The parameter values entered in the table above should populate the parameters in the report and the report should be delivered to the destinations shown in the table.
- Please note that with the above data when the schedule runs, the following will occur:
    - John Doe will receive only one email for the reports from sectors 1 and 3. He will also get the reports from sectors 2, 3 and 34 delivered to his reports disk location.
    - Peter Crimble will have his report printed on the Printer he specified.
    - Jorge Minola will have a copy of his report sent to John Doe to the disk location he specified and a copy uploaded to his FTP server and folder.

- Anil Maharaja will receive an email as requested.
- John Wu will have his report delivered to his email and FTP server as requested.

How do I create Data-Driven Schedule for Crystal Reports?

- Go to **Data-Driven.**





Building a Data Driver Wizard

The Data Driver is where you set up the source for data for your data driven reports. If your data source or data selection criteria changes this is where you will need to make any required changes.

- **ODBC DSN Name:** Drop down and select a DSN.

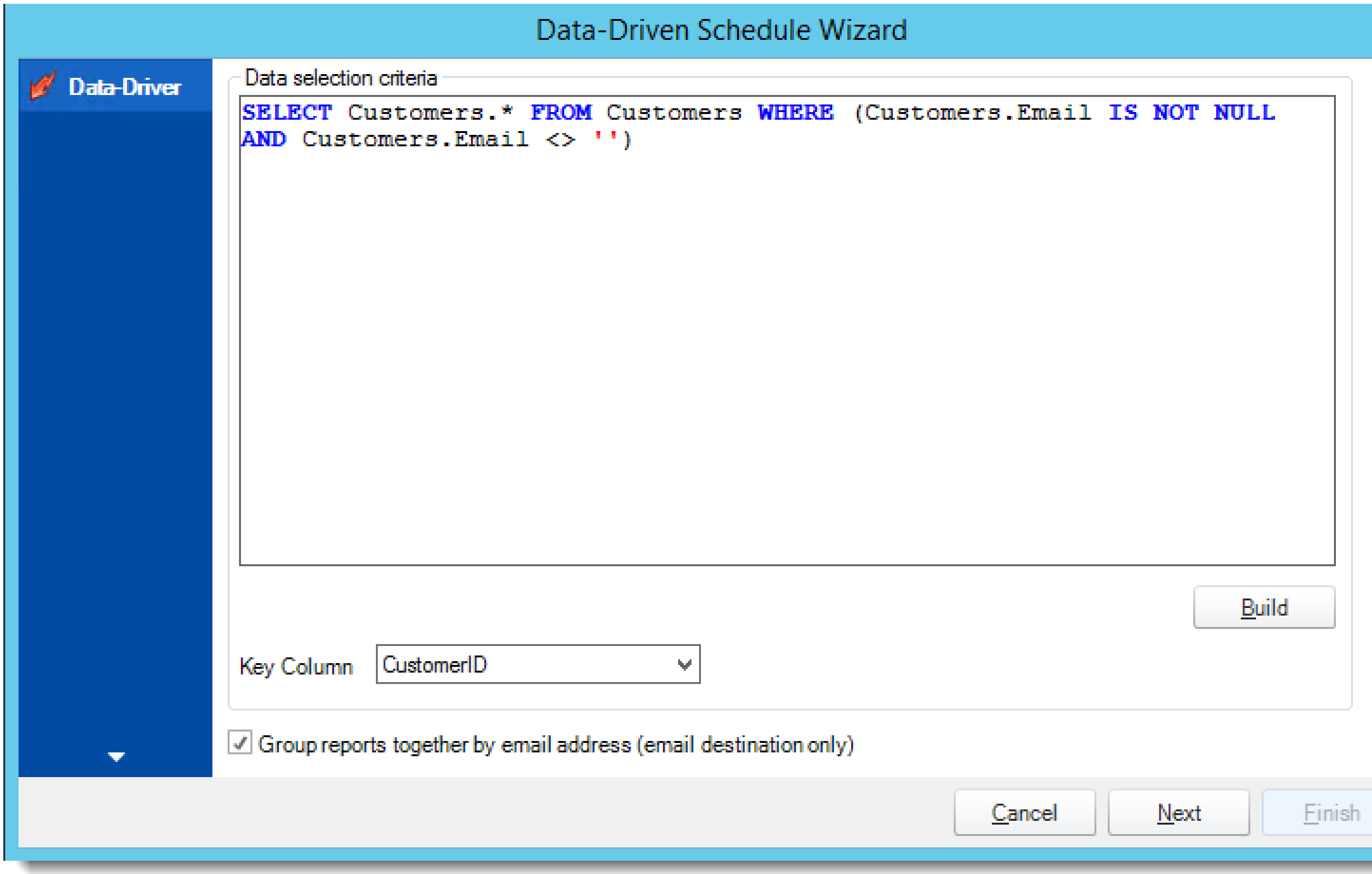
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

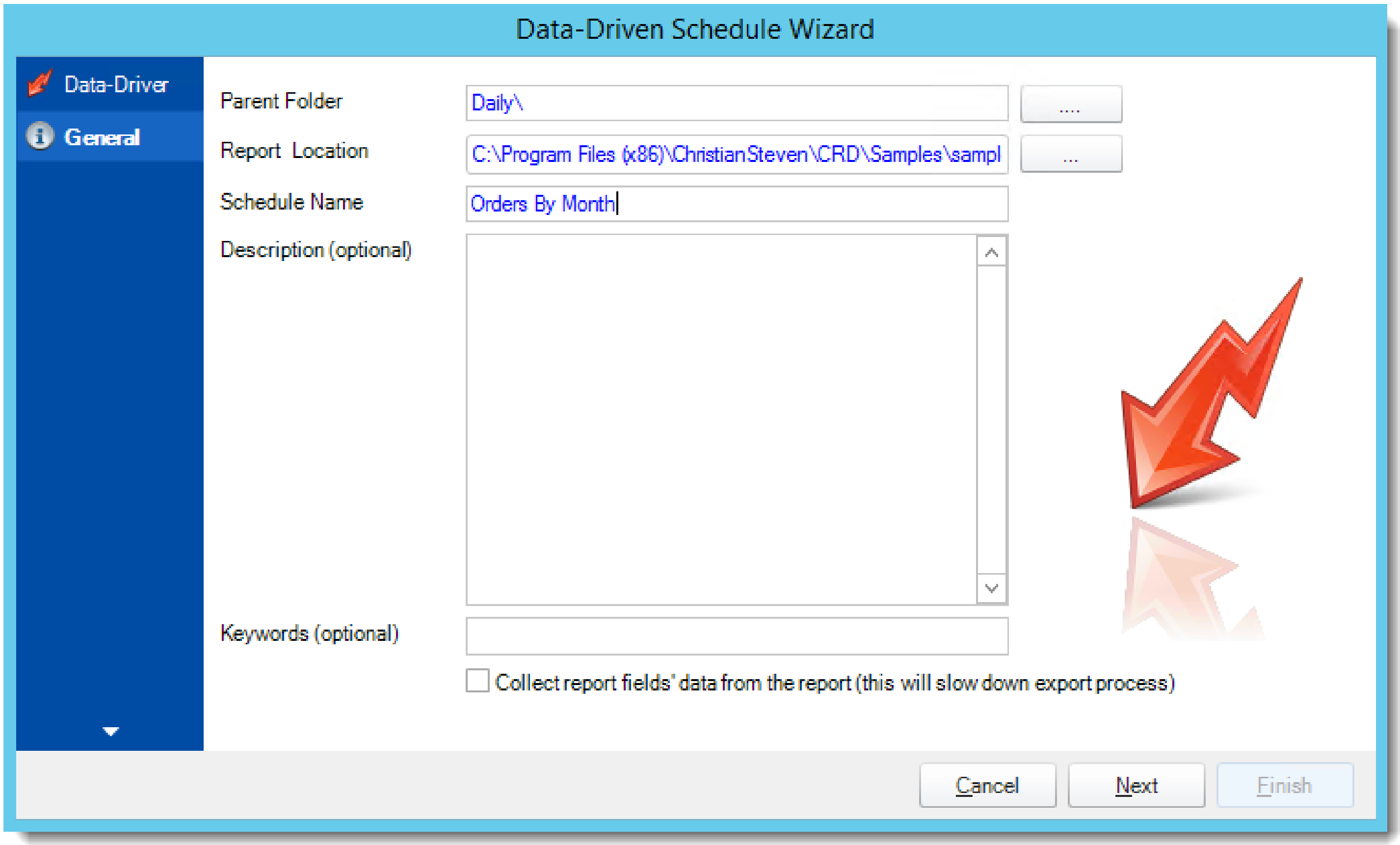
- **UserID:** Enter the User ID CRD should use to log on to the database
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Select the table from the database that holds the required data. You can refine your selection query by using the simple or advanced tabs.
- Click **Parse.**
- For more information of "Get Values From Database" interface, click here.
- Click **OK.**



- Click **Build** to specify the data selection criteria. This will return you to the Build Data Driver tool.
- **Key Column:** Select the key column for the data that is returned for the reports. The information that drives the schedule is required to have a key column so that each row in the table is uniquely identified by the value in this column. The key column is there as an identifier which is used to troubleshoot in cases where there is a problem with one of the records.
- **Group reports by email address:** You can instruct CRD to group reports that are sent to the same email address. Please note that enabling this option disables the ability to embed the reports in the email body for email destinations.

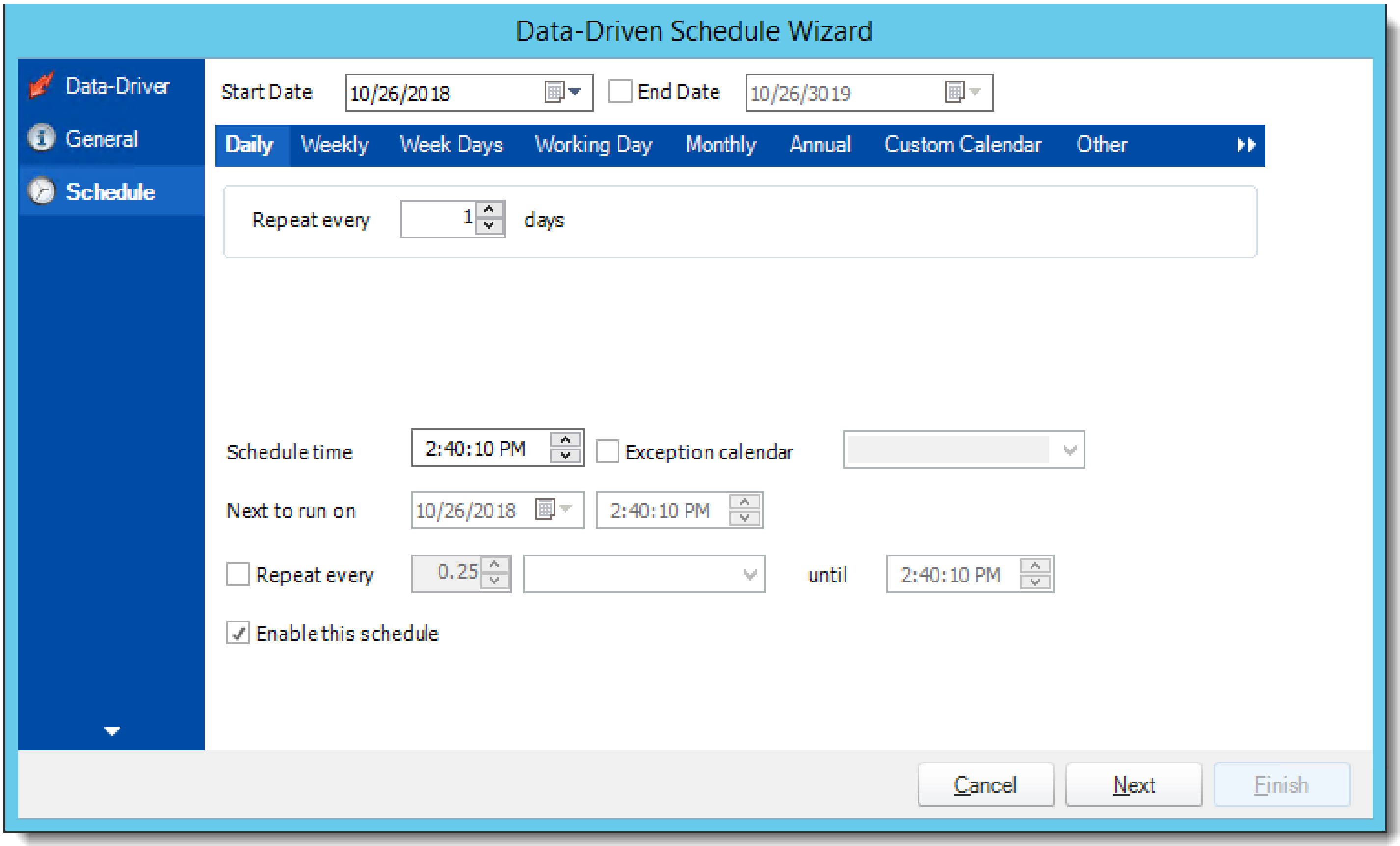
Click **Next** to continue to the next wizard section.

General Wizard



- **Parent Folder:** The CRD folder where the package is stored.
- **Report Location:** Select the Crystal report that needs to be scheduled. A crystal report can only be added if the CRD server can reach the report path.
- **Schedule Name:** The name of the package.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.

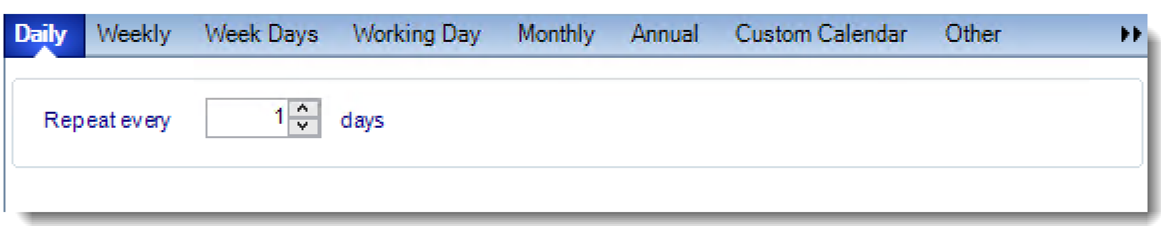
Click **Next** to go to the next wizard section.



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
    - **Sub options:** Repeat every X Days.

      Example: Run the schedule every 3 days.

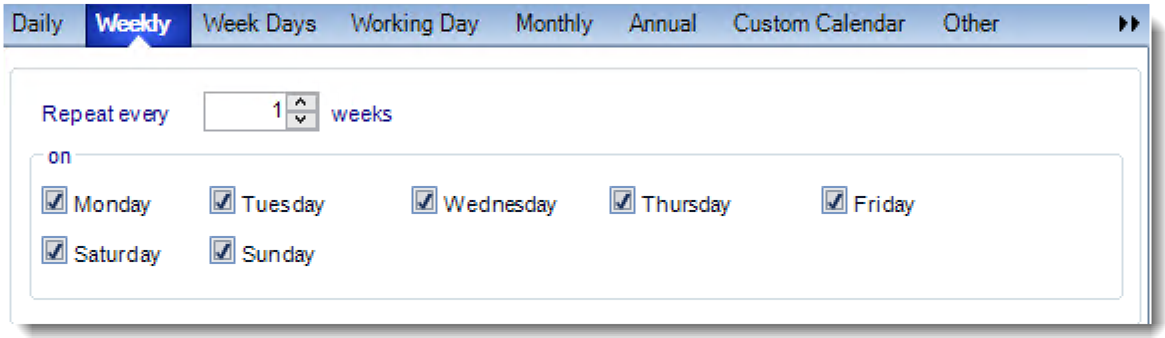


- **Weekly:** Run a report on a weekly time frame.
    - **Sub options:** Repeat every X weeks.

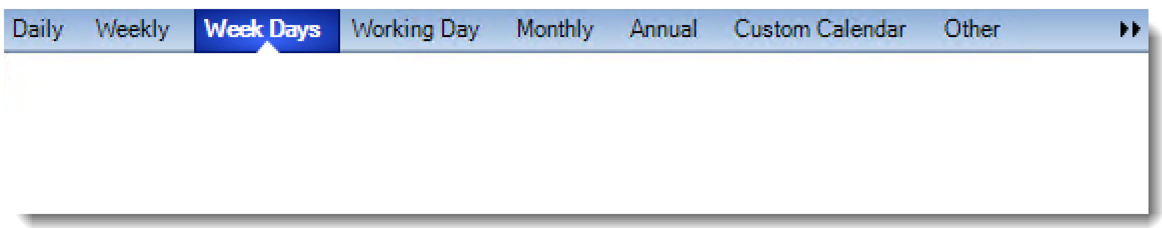
      Example: Run the schedule every 2 Weeks.

- **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

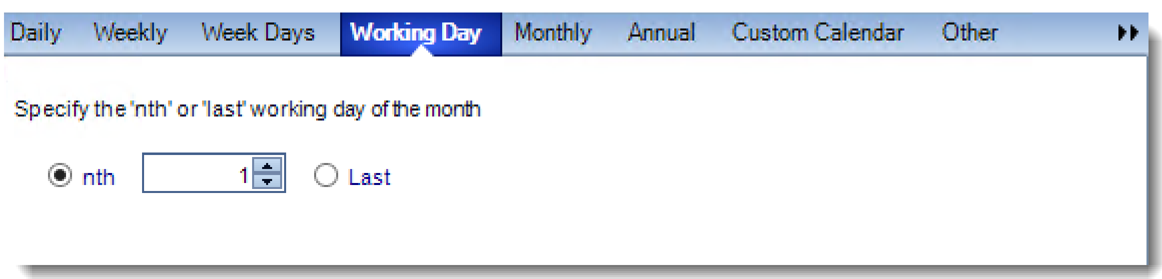
  Example: Run every Monday, Wednesday, and Friday.



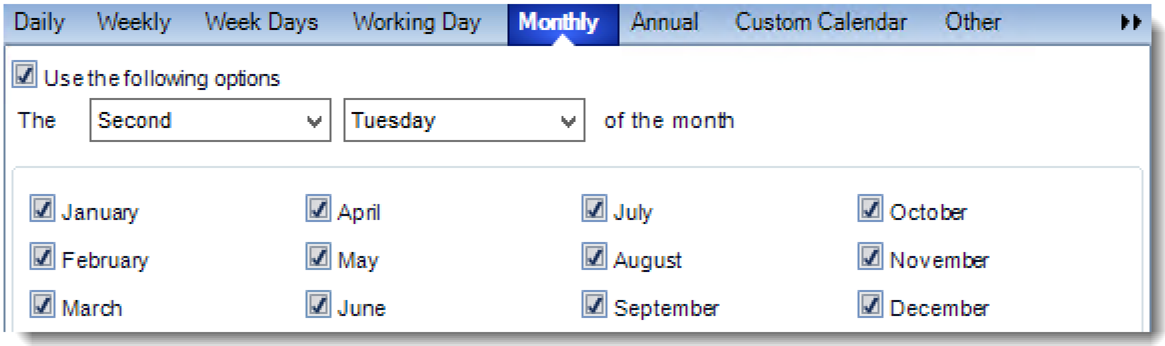
- **Week Days:** Run the schedule Monday through Friday.



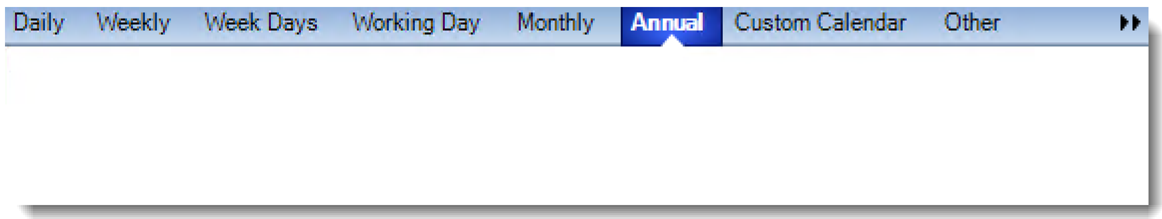
- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.



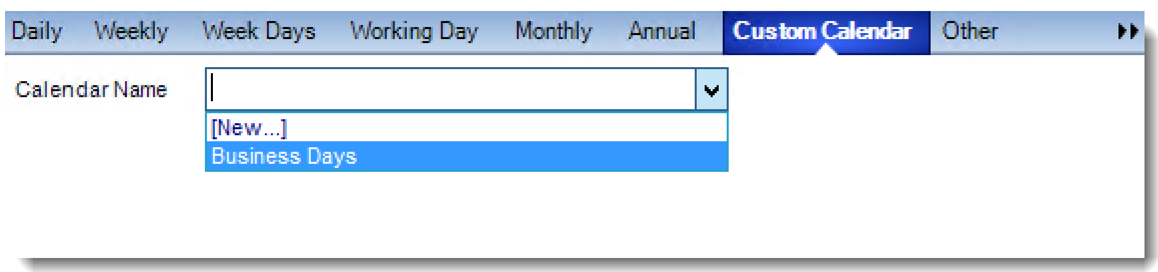
- **Monthly:** Run the schedule on a monthly time frame.
  - **Use the following options:** Checking this box will enable you to select frequency options such as the "last Thursday of the month." Also you can include or exclude specific months from the schedule.



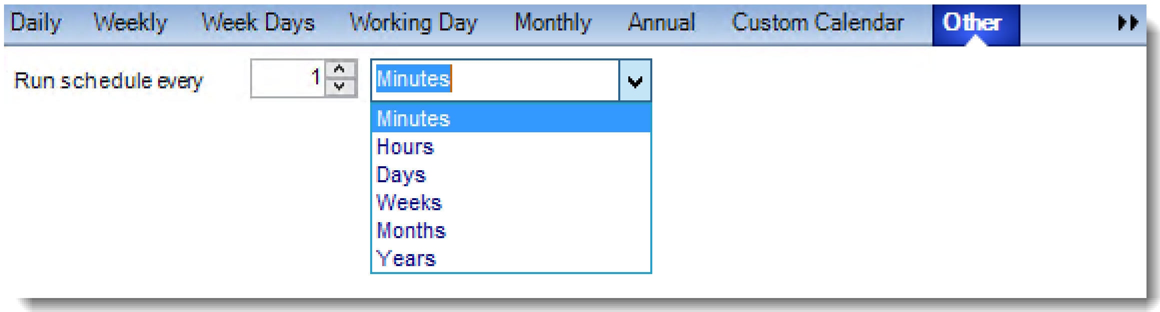
- **Annual:** Run the schedule every year at a specified time.



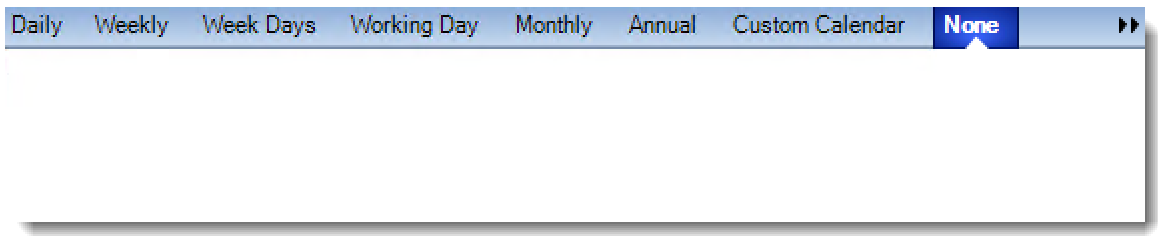
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
    - Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.



- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

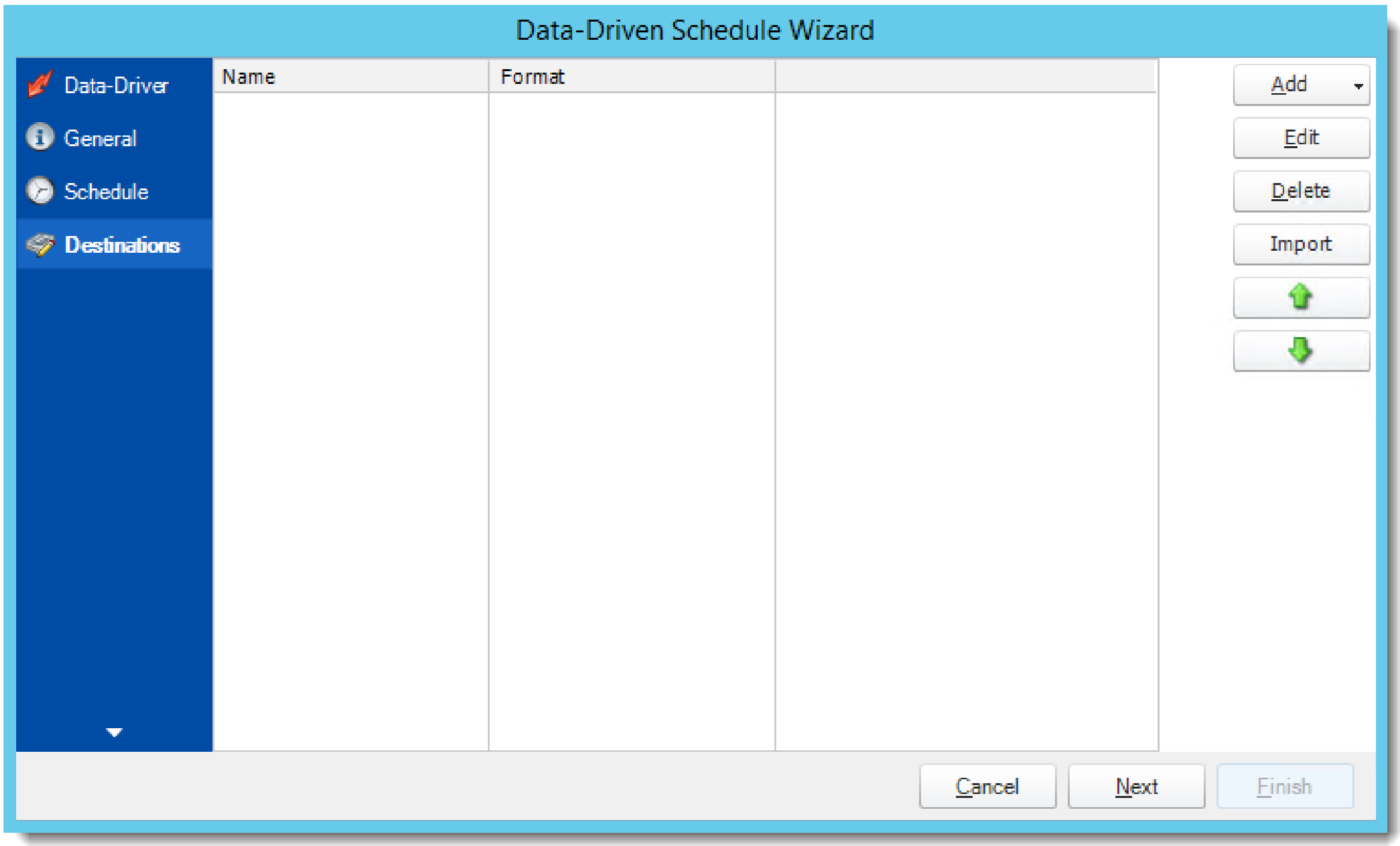
  For example, you can set up a daily package to run every day at 8 am*, and to run every hour until* 5 pm*.*

- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

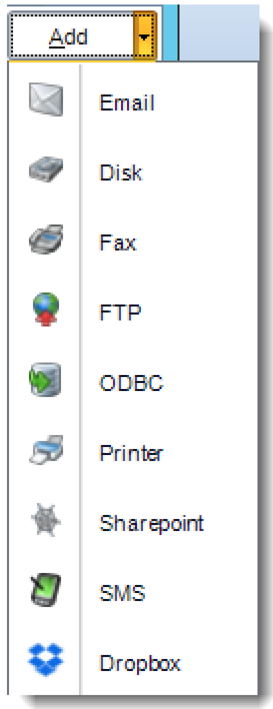
Click **Next** to continue to the next wizard section.

Destination Wizard

In this section, you will decide where your schedule will be delivered. The list in the center will display the list of destinations you have added to the schedule. You can organize the various destinations' order by clicking on the green up and down arrows.



- **Add:** Click here to add a destination. You have several options which are: Email, Disk, Fax, FTP, ODBC, Printer, Sharepoint, SMS, and Dropbox.



- **Edit:** Select a destination and click to edit it's properties. Or simply double-click on the destination.
- **Delete:** Select a destination and click this button to delete it.
- **Import:** click here to import from the list of default destinations.
- For more information about Type of Destinations, click here.
- For more information about Output Formats, click here.

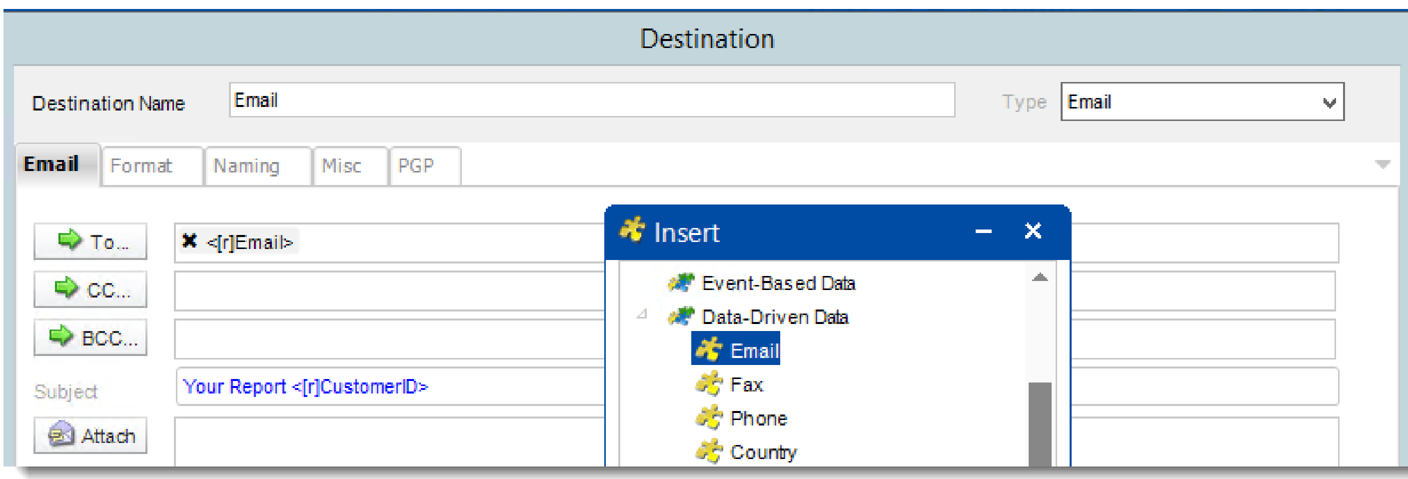
Customizing the Destination

With the Data Driven Schedule, you can determine the delivery method of your report based on your data. In your table, specify the delivery method by creating a column for each delivery type (FTP, SharePoint, Email etc.). For each record specify their email, fax number, and so on.

Region	Area	Country	Sectc	FirstName	LastName	email	disk	printer	FTPServer	FTPFolder
Americas	North	United States	1	John	Doe	jdoe@mycompany.com				
Americas	North	United States	2	John	Doe		\\myserver\myreports\jdoe			
Americas	North	United States	3	John	Doe	jdoe@mycompany.com	\\myserver\myreports\jdoe			
Americas	North	Canada	1	Peter	Crimble			HP2003sUpstairs		
Americas	South	Brazil	34	Jorge	Minola		\\myserver\myreports\jdoe		myftpserver.com	jminola
Asia	Asia	India	2	Anil	Maharaja	mmaharaja@mycompany.com				
Asia	Pacific	Japan	3	John	Wu	jwu@mycompany.com			myotherftpserver.co	jwu

Tip: For email destinations, simply add a semicolon after an email address to send the same instance of the report to another email address.

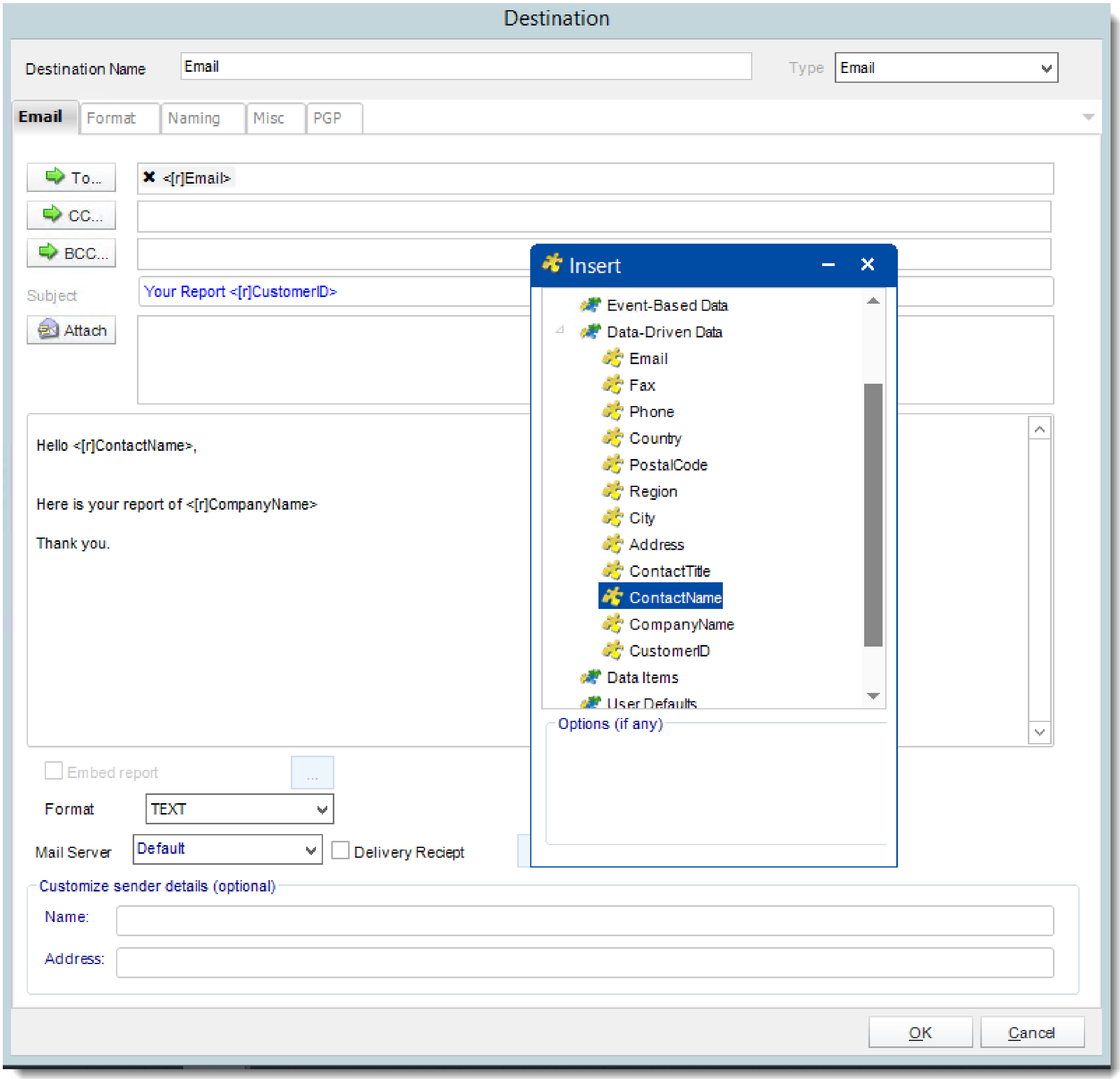
- Data driving the Report's Distribution
- As mentioned above, CRD will pull delivery data from your database.
- In this example, we will be using email addresses found in the table.
- With Data Driven inserts, simply drag and drop the field that indicates your desired destination (email in this case).



- Now CRD will deliver a unique report based base on a corresponding email address.

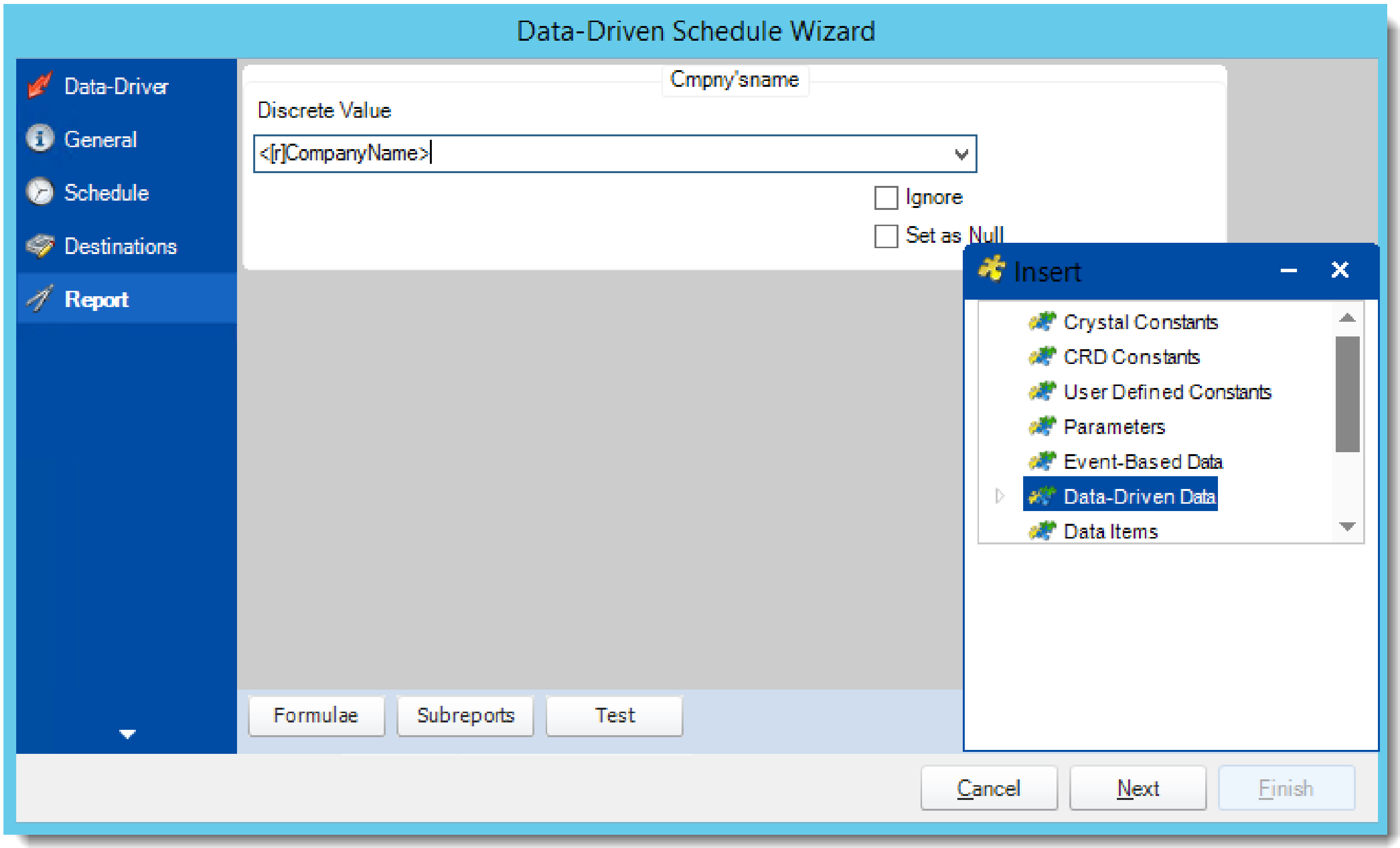
Customize Recipient Messaging

You can also customize the messaging the recipient receives. Using Data Driven Inserts, CRD will automatically pull data from your table and use it to customize the subject, body or report format.



- Simply drag and drop fields from your table to the desired position.
- For example, to customize an email greeting, type the greeting, and add the recipients name as shown above.

Click **Next** to continue to the next wizard section.



- In this section, you will determine the parameters for your report (if any) and select options for your subreport. If your report has no parameters, you may skip this section by clicking next.
- Drag and drop your Data Driven inserts into the desired parameter fields. If you do not wish to enter data driven value in your parameter, you can still manually type a value or select them from the dropdown box.
- Repeat this process for all the parameters in your report.
- There are 3 requirements in order for CRD to detect your Crystal Report parameters and their parameter values:
  1. The parameter must be in use in the report.
  2. The parameter must be visible.
  3. The parameter must be set to be prompted at runtime.
- If these three requirements are achieved, you should see the parameters in your report listed in this screen.
- For each parameter, select from the drop down list the value the report must use. In a single schedule, only one parameter value can be run at a time per parameter. You can type a value into the field as well.

- **Set as Null:** Set no value for this parameter.
- **Ignore:** Do not run this parameter, ignore it at runtime.
- **Insert Menu:** You can insert constants, formulas and database field values instead of a static "typed in" value. Right-click in the parameters field to expose the Insert menu.

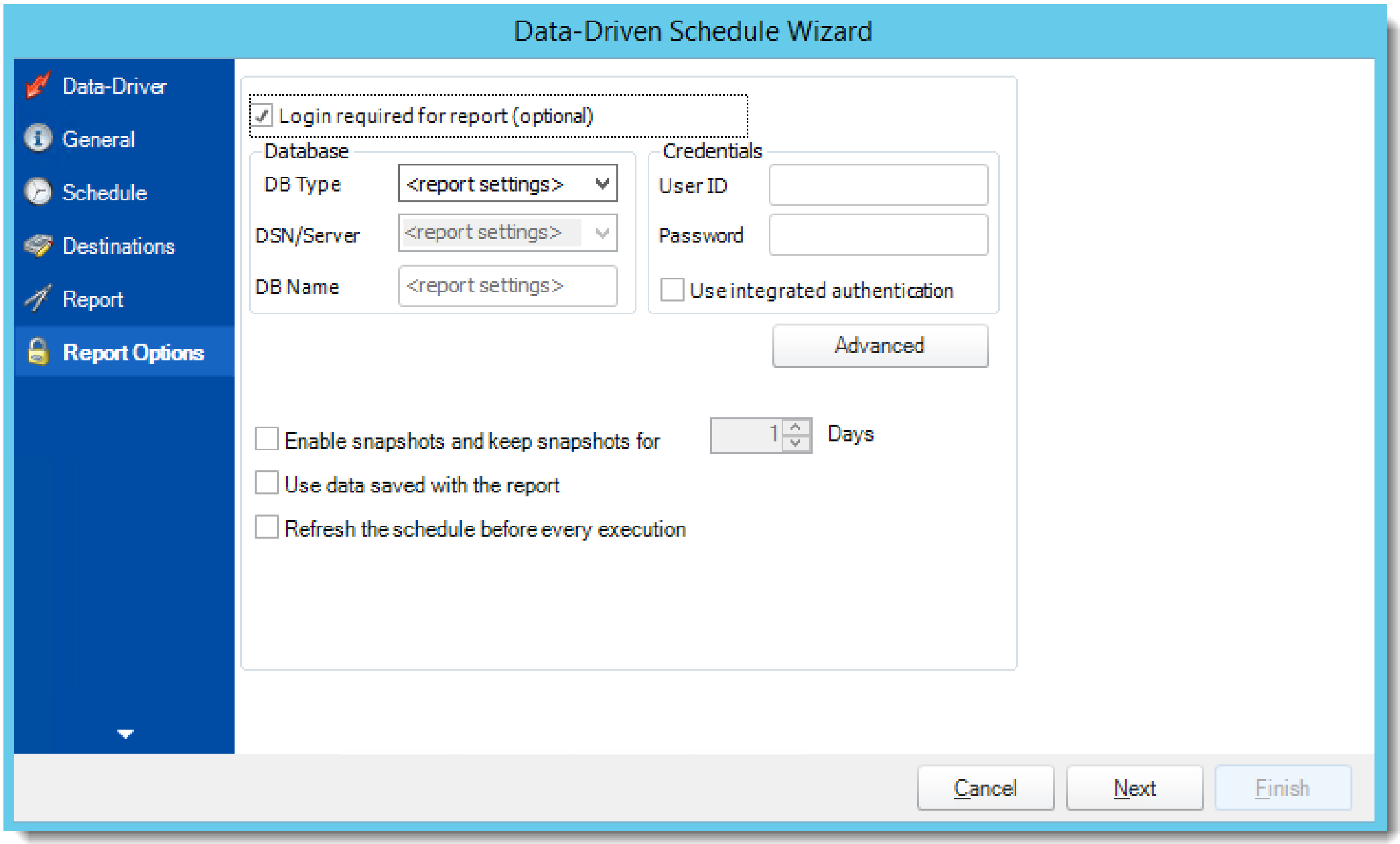
  To enable a report parameter to run for a date constant (Current Date, Yesterday etc.), select CRD Constants from the insert window, then drag and drop your desired constant to the parameter field.

- Selecting Date Parameters via Calendar: If your report contains a date parameter, you can either manually enter dates as described earlier in this topic, or select the desired date from the built in calendar. Simply click in the date parameter field to open the calendar. Select the desired date. Click OK.
- If the parameter is also a time parameter, this can selected as well. The buttons below enable you to preview the report, adjust formulae, and review sub reports. You can re-query the report for parameters as well.
- **Formulae:** View edit and Parse the Record Selection Formulae.
- **Subreports:** set parameters, authenticate, and re-query sub report parameters.
- **Preview:** Shows you a preview of the report.

  The preview function only works if Crystal Reports is installed on the PC.

Click **Next** to continue to the next wizard section.

Report Options Wizard

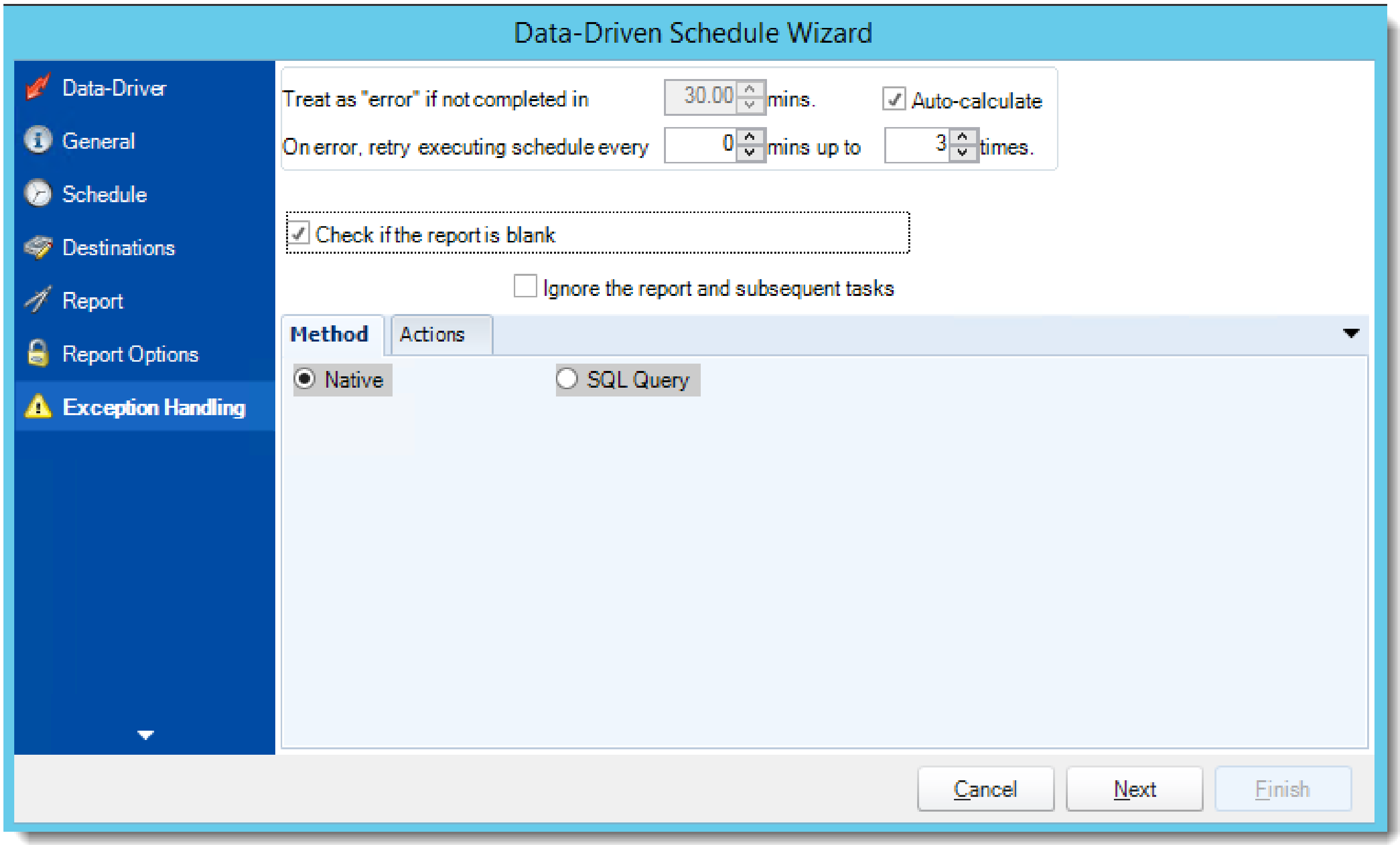


- **Database Login:** If the database requires logon credentials, check this option and enter the required username and password. If credentials are not required, uncheck the option and continue as normal (default). All values are optional. You only need to enter a value if your database, security, networking or infrastructure require it.
- **DB Type:** Select the type of Database.
- **Server Name:** Enter the server name of the database.
- **DB Name:** Enter the name of the database.
- **Credentials:** Enter the User ID and Password for the Database. Clicking on the Advanced tab, you can set logins for each table.
- **Advanced:** Enables you to specify credentials at the table level. Double click the table to set its login information.
- **Resume failed/errored with cached data:** If the schedule fails, resume the schedule from where it left off. You can then select how long should the cached data should be kept.
- **Use data saved with the report:** By default, CRD will always attempt to run the report using the very latest data in your database. If your report is saved "with data" and you want CRD to simply export the data in the report, then check this option.

- **Refresh the schedule:** This refreshes the schedule before every execution.
- **Save snapshots of the execution and keep them for (days):** Keep a copy of the report for how many days.

Click **Next** to continue to the next wizard section.

Exception Handling Wizard

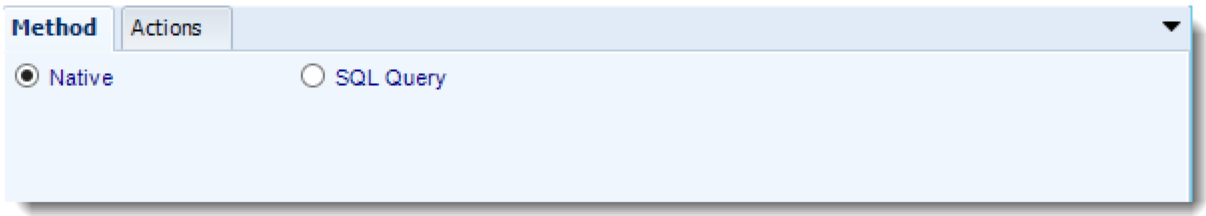


- **Treat as "error" if not completed in X minutes:** If a report takes longer than the specified amount of time to run, this option will treat the schedule as an error and follow the appropriate action. The "Auto-calculate" option instructs CRD automatically determine how long a schedule should take to run the report. If it takes longer than the calculated amount of time, then it is an error.

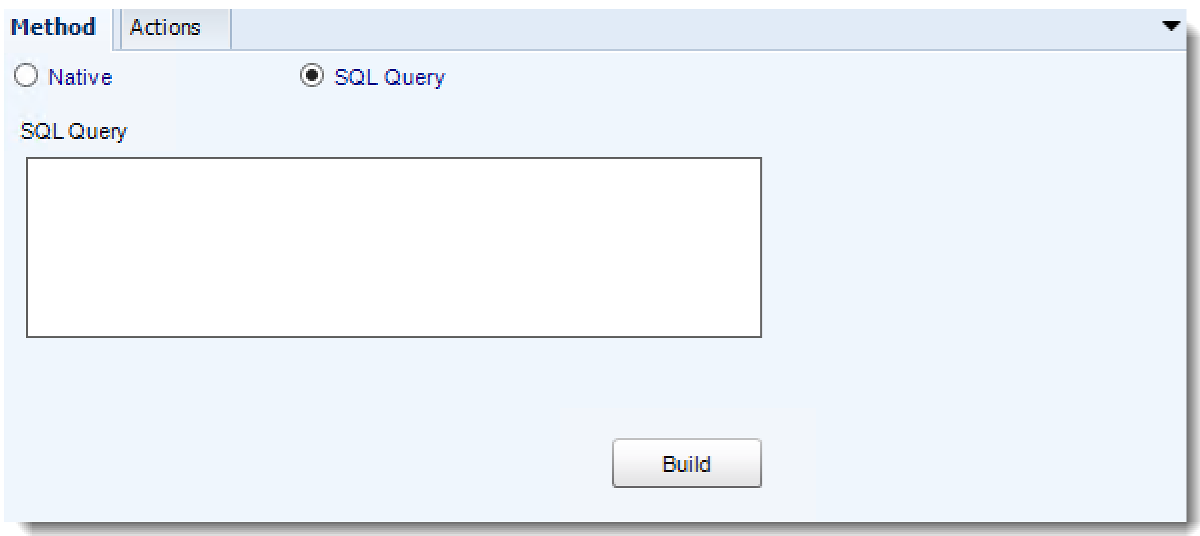
  If manually determining the error timing, please double check the run time of the report in order to get the correct time estimate.

- **On error, retry executing schedule every:** If set to 0, CRD will deem the schedule as "Failed" the first time it encounters an error. The schedule will not run again until its next scheduled time. Change the value to tell CRD how many times you want it to retry running the report before declaring it as "Failed."
- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.
- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

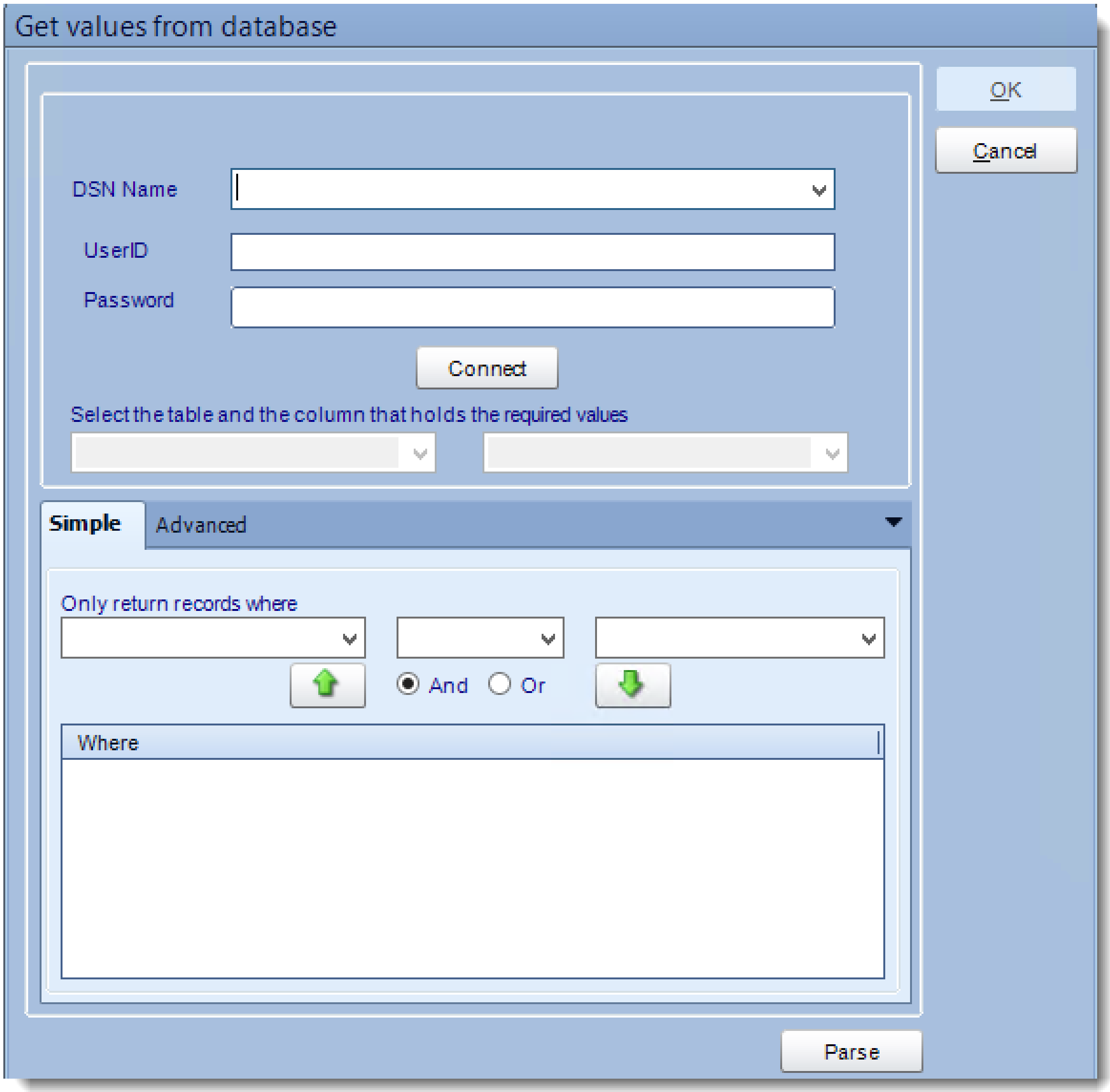
Method



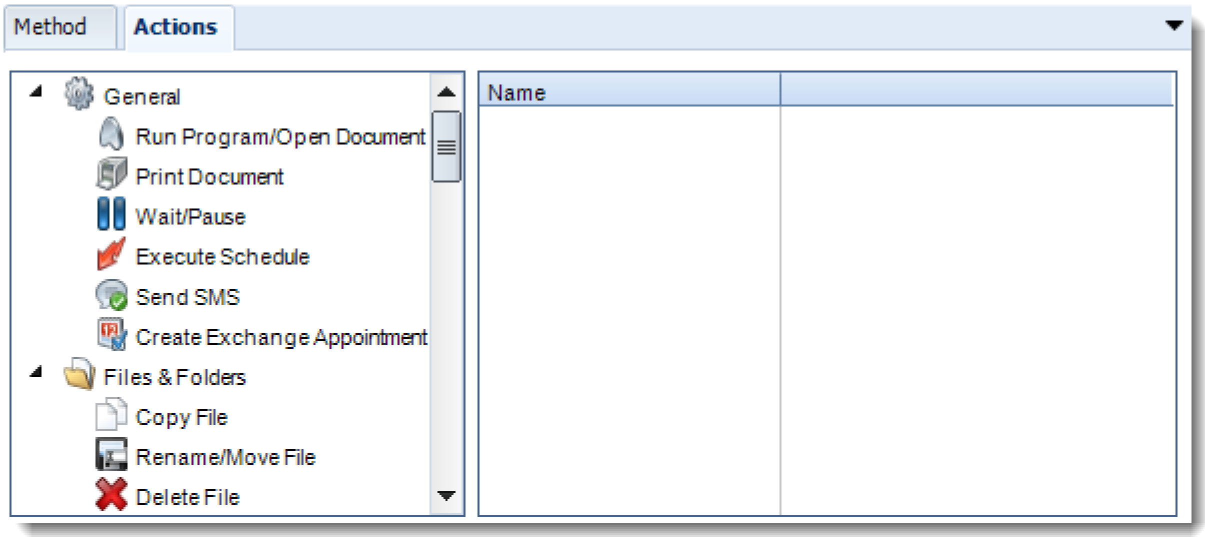
- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



-
    - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

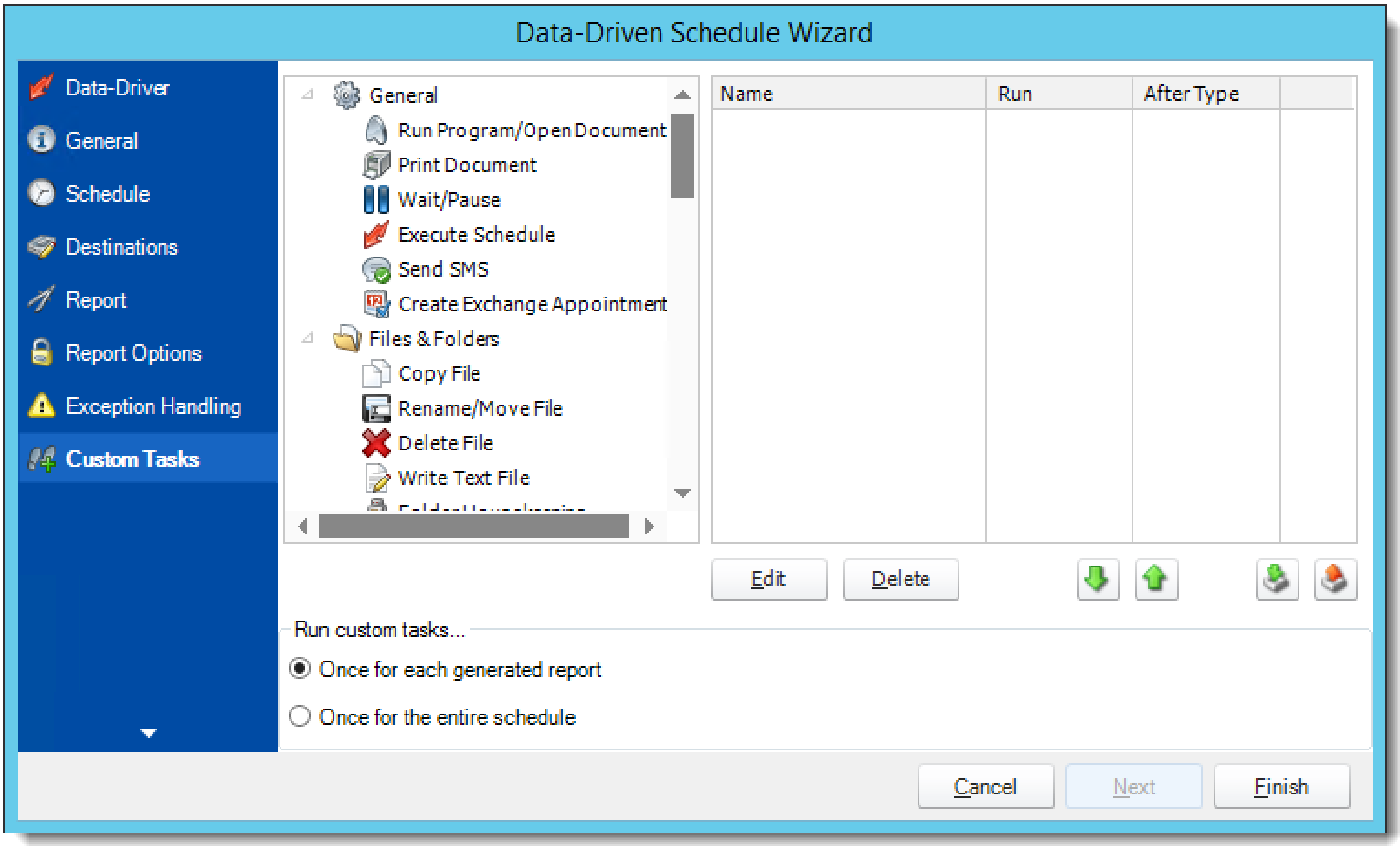


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

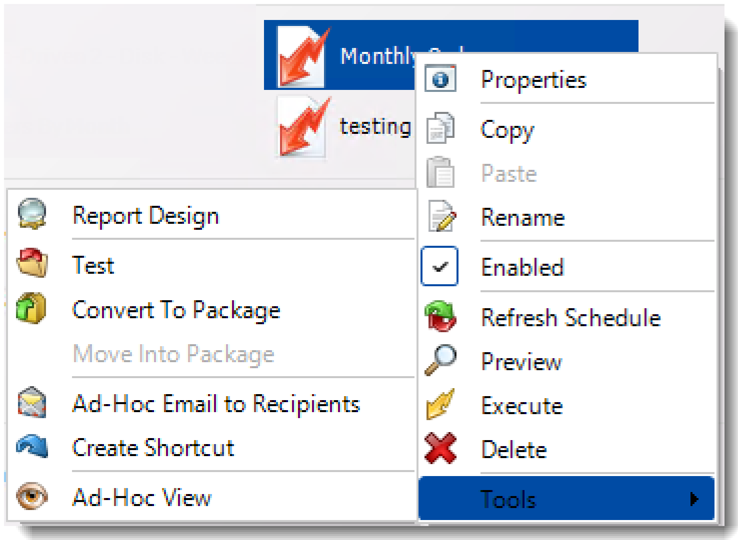
Click **Next** to continue to the next wizard section.

Custom Tasks Wizard



- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- If you have no desire to add a Custom Task, you can click **finish** to complete the schedule.

Data-Driven Schedule Context Menu

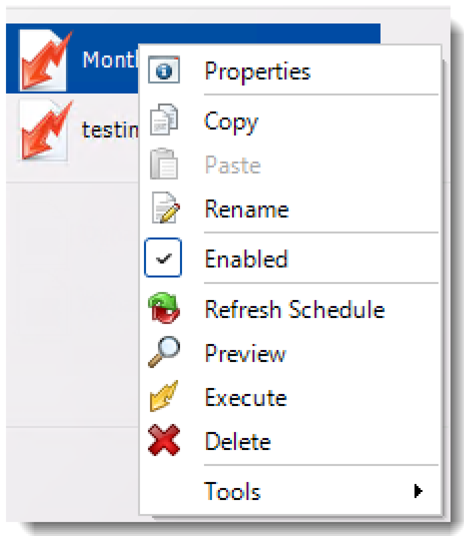


Right-Click on a schedule to see the following actions:

- **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
- **Copy:** Use this to copy the schedule. Right-click in the "white space" of the folder you wish to copy it to and select Paste button.
- **Rename:** Rename the package.
- **Enabled:** Schedules are enabled when there is a check icon beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check icon. Disabled schedules will not run until they are enabled again.
- **Refresh:** When a schedule is first created, CRD caches (saves) a copy of the report. All executions of the scheduled are performed using this copy. If you make changes to your master report, you must select this option in order to pull the changes into CRD.
- **Preview:** Preview the report before execution.
- **Execute:** This button will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers
- **Delete:** Selecting this option will delete the schedule.
- **Report Design:** Preview the report Design.
- **Test:** Use this option to test the schedule and export it to selected "test" destinations.
- **Convert To Package:** This button will move this report into a package. The package will have the name of the single schedule report.
- **Move into a package:** use this option to move the report into an existing package.
- **Ad-Hoc Email to Recipients:** Select this option to send an ad-hoc email to all recipients of this package. You can use this to alert recipients to a planned system outage, or any other useful information.

- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.
- **Ad-Hoc View:** This button allows you to preview the report.

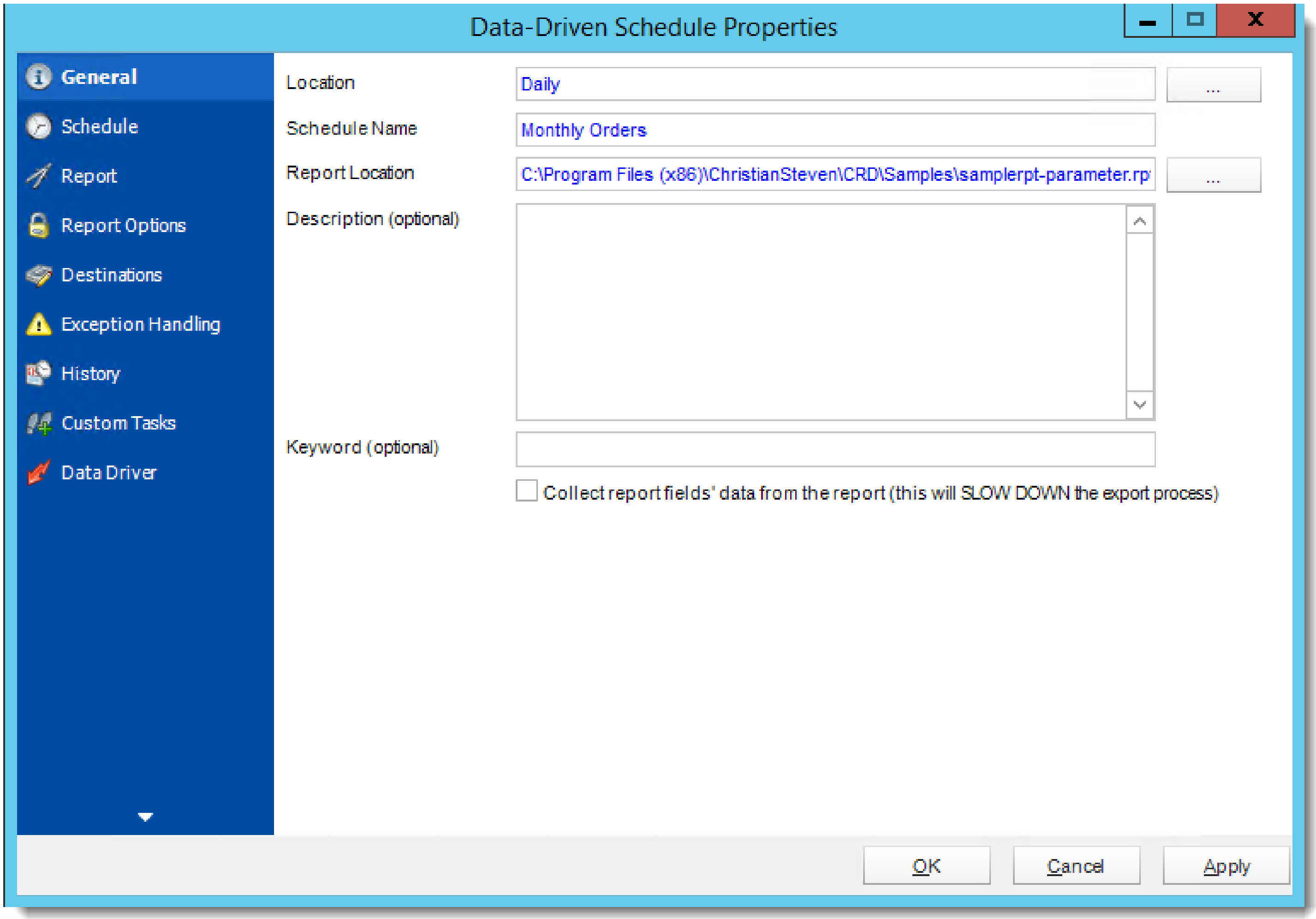
Data Driven Schedule Properties



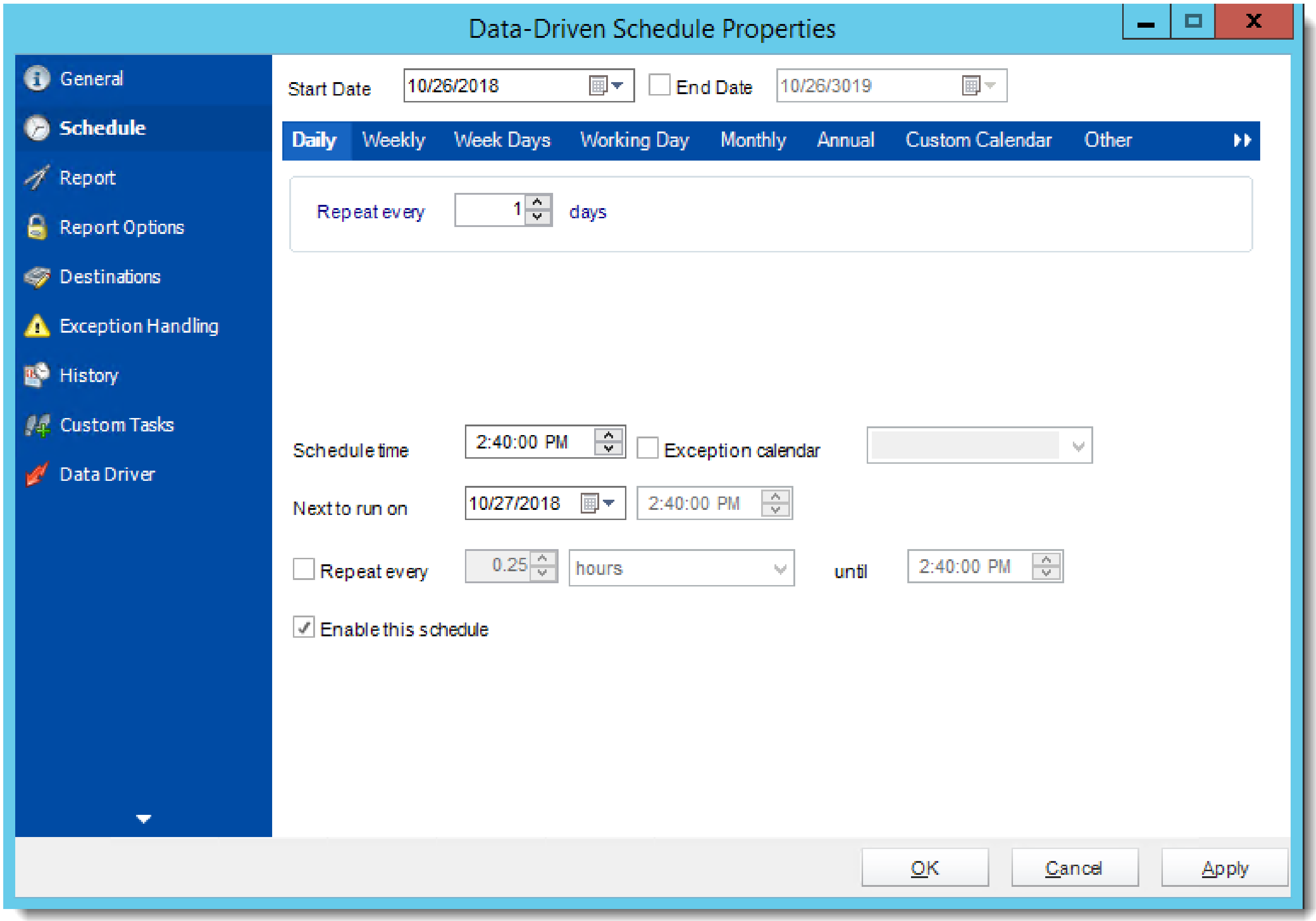
To access your schedule properties, right click on a schedule and select **properties**.

Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

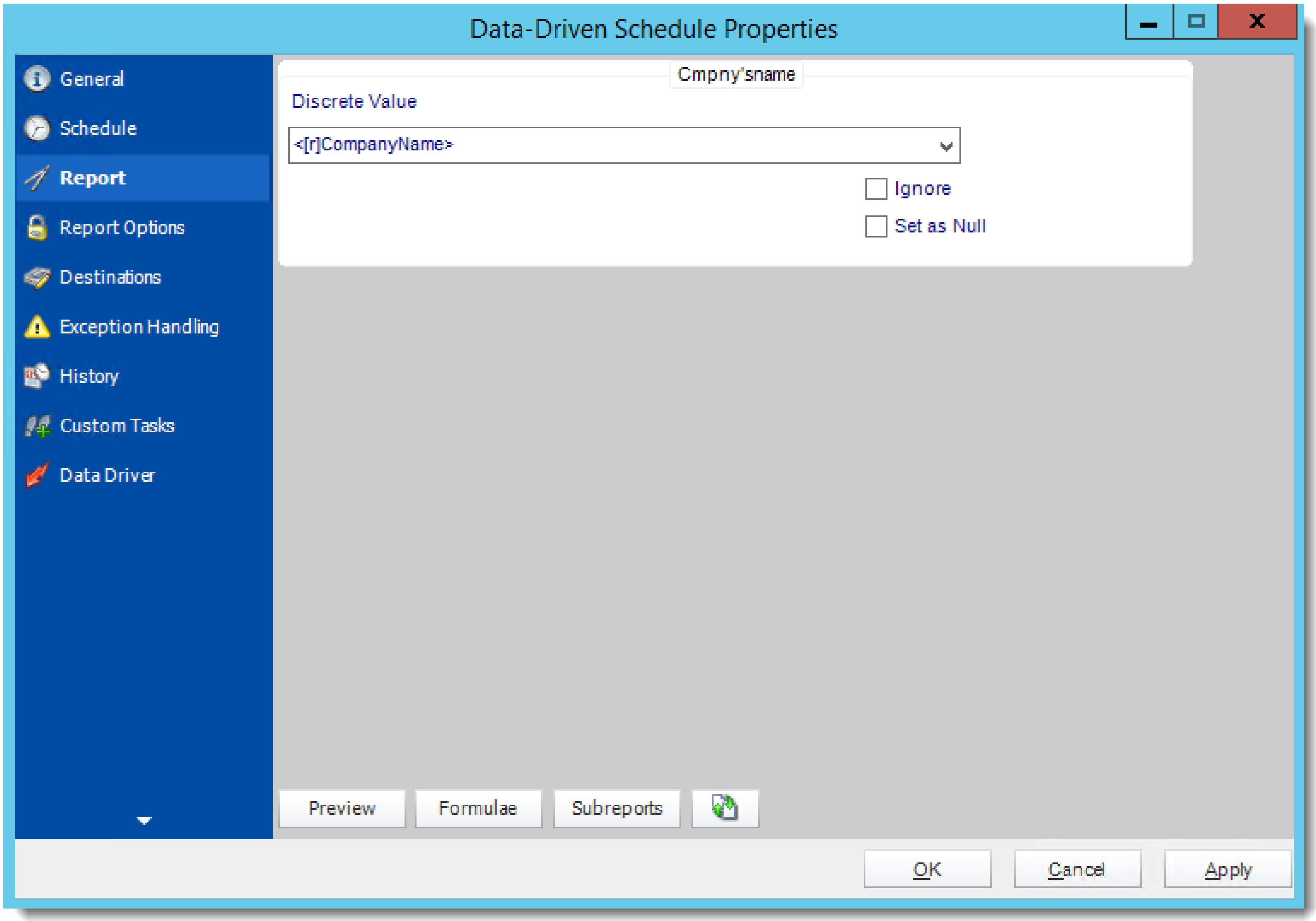
General: You can edit general information from here.



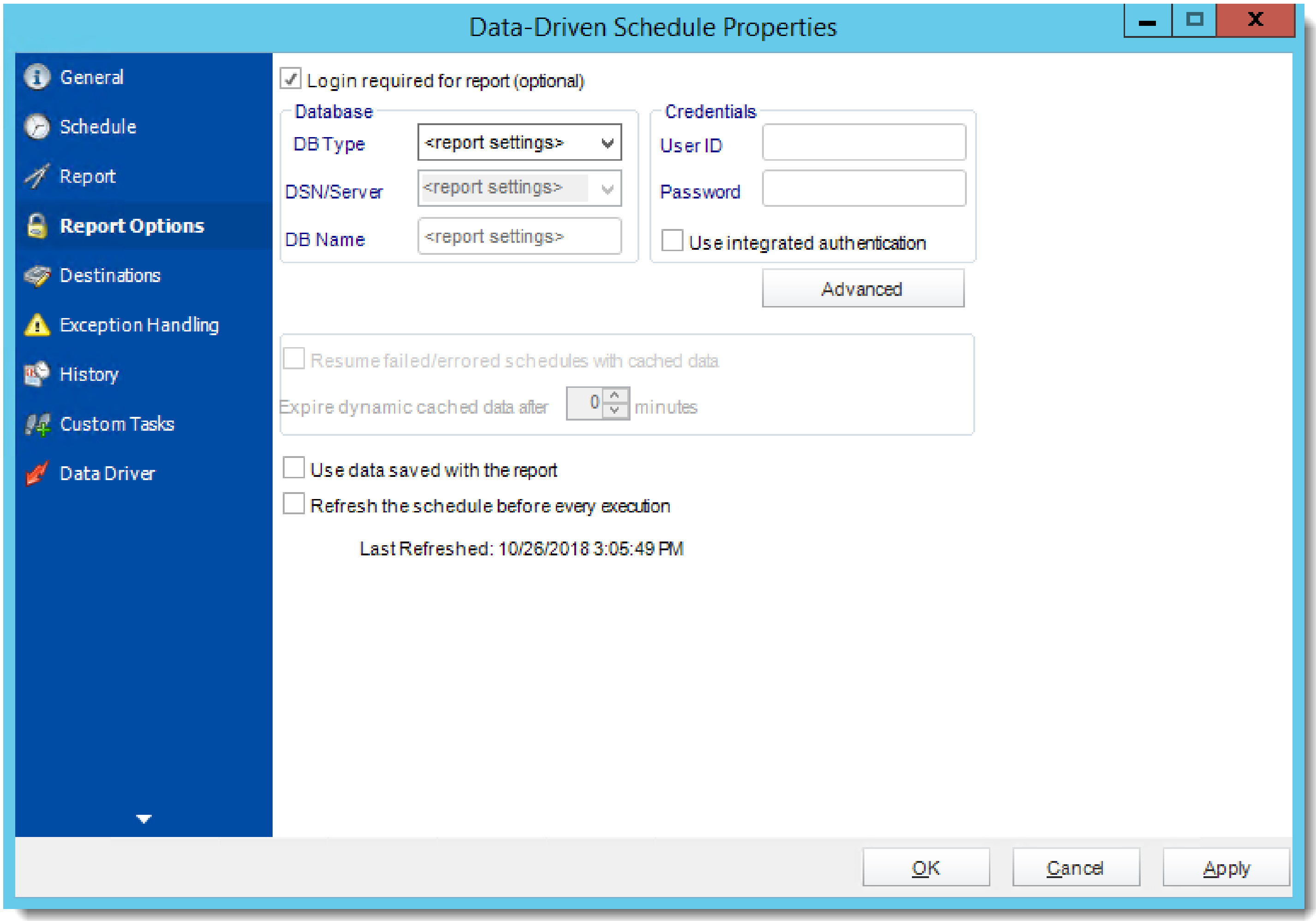
Schedule: You can edit the schedule time from here.



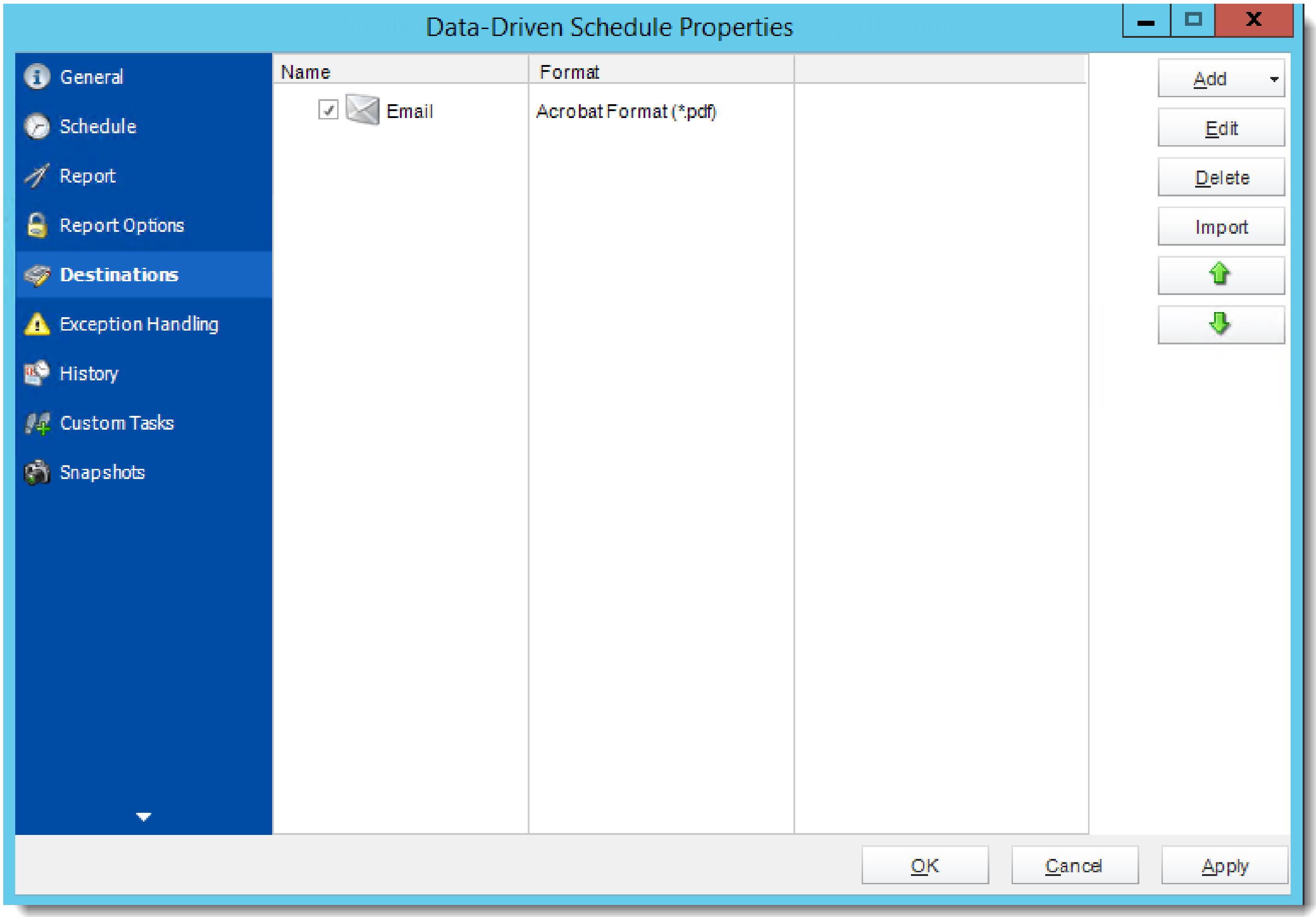
Report: You can add, edit, or delete parameters from here.



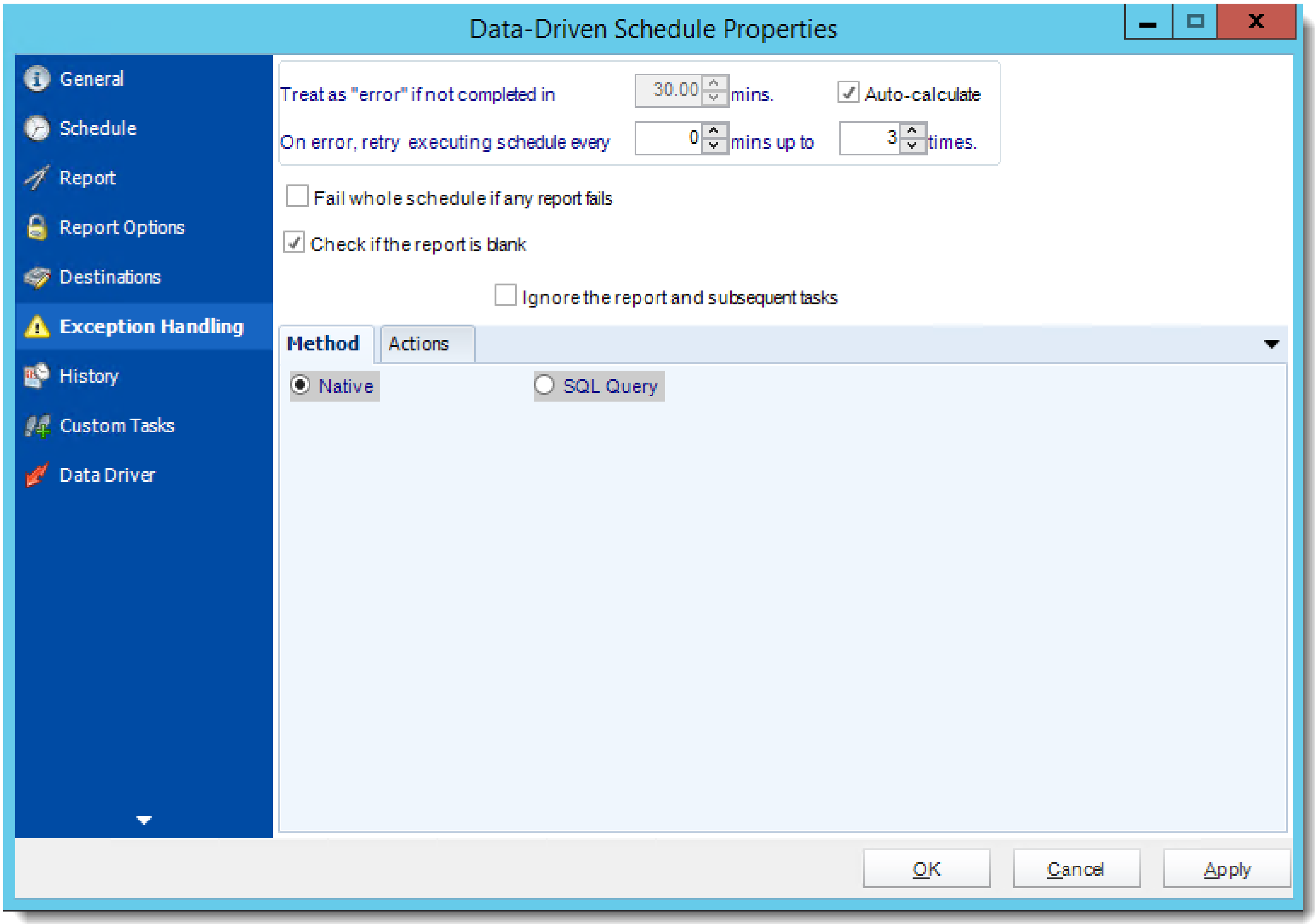
Report Options: You can edit report options from here.



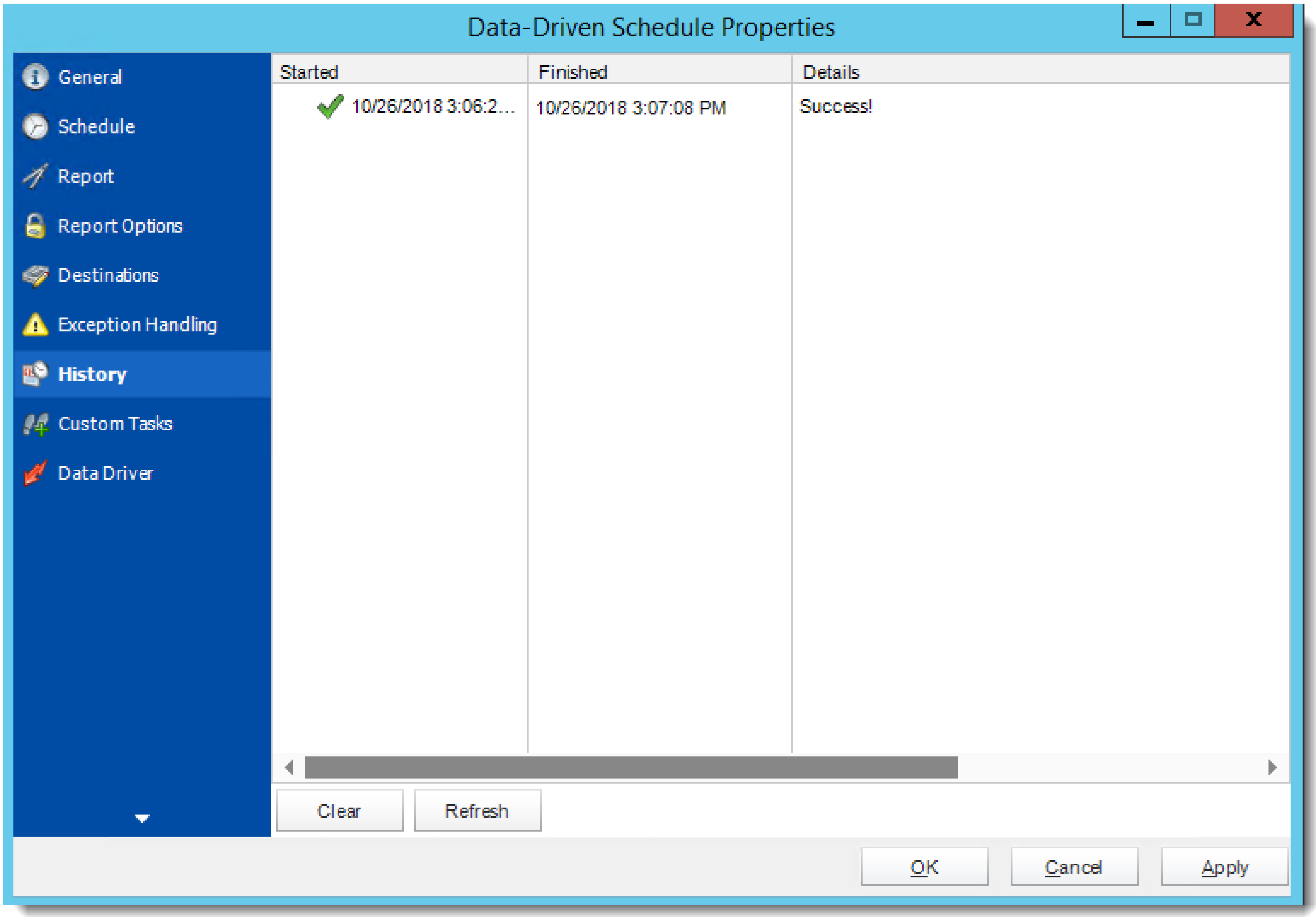
Destinations: You can add, edit, or delete destinations from here.



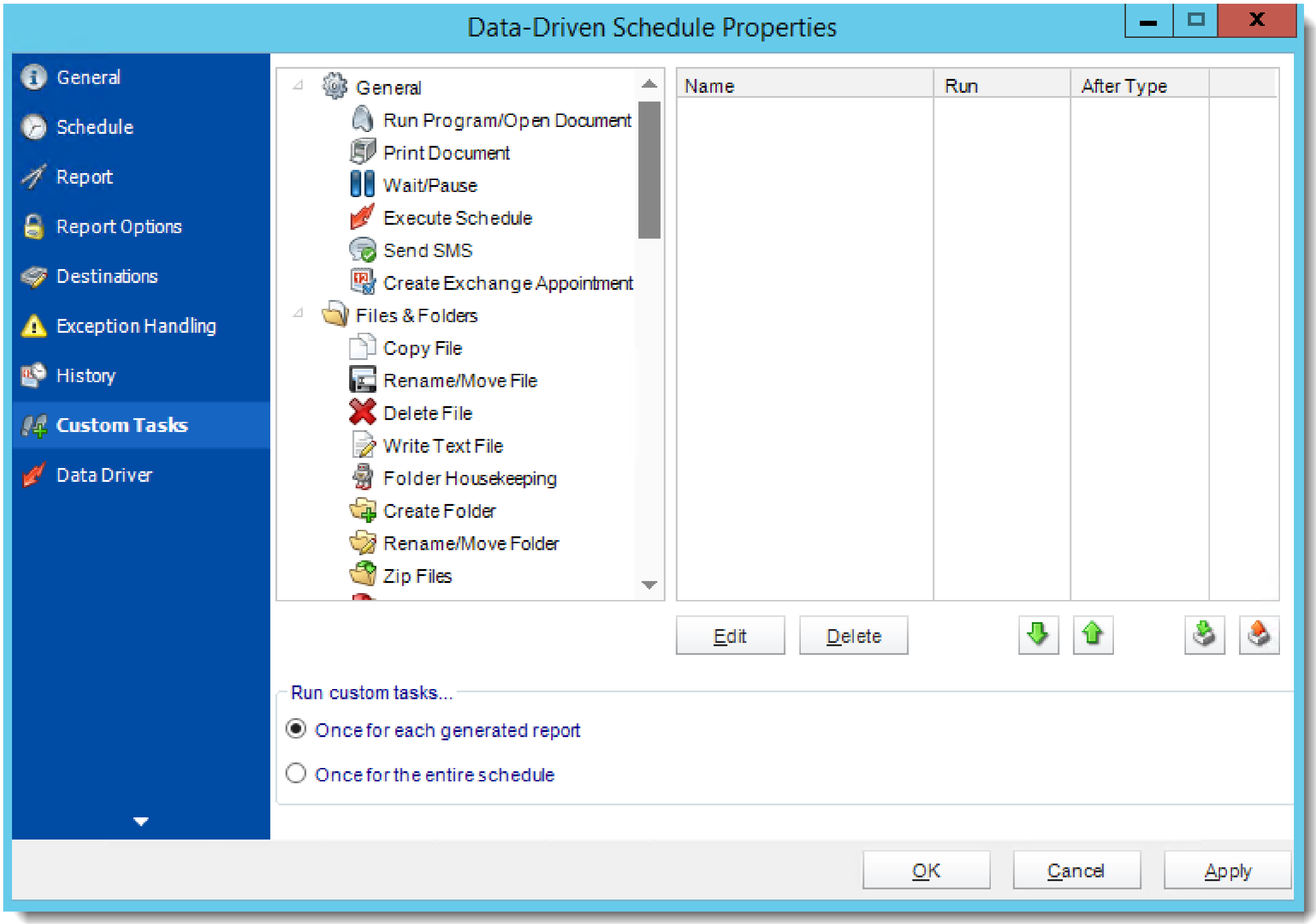
Exception Handling: You can edit exception handling from here.



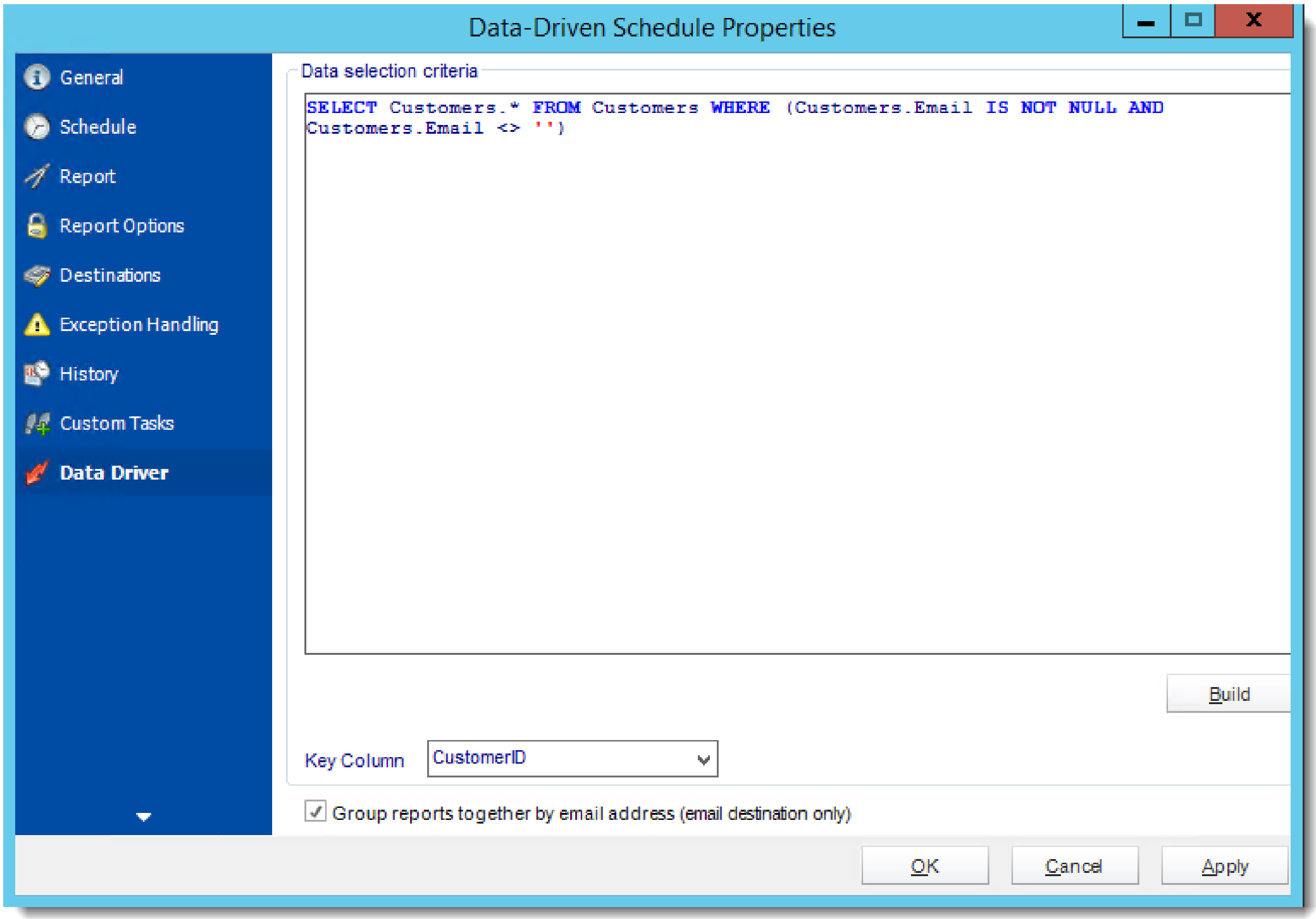
History: Review the schedules history. Successes, failures, and other data is located here.



Custom Tasks: You can add, edit, or delete tasks from here.



Data Driver: You can edit Data Driver from here.

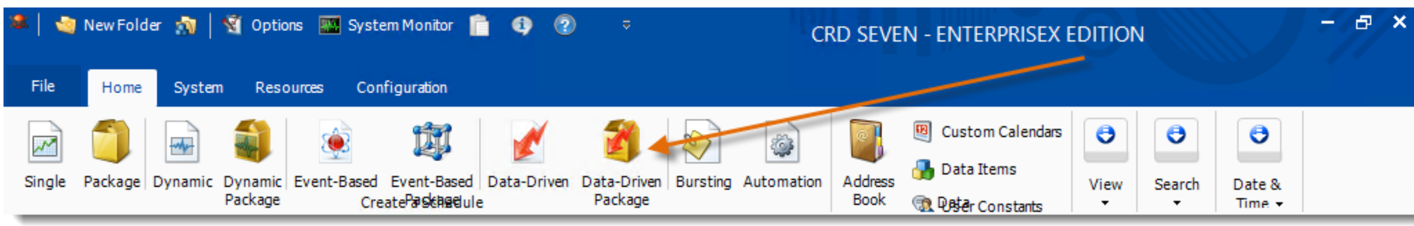


Data-Driven Package for Crystal Reports.

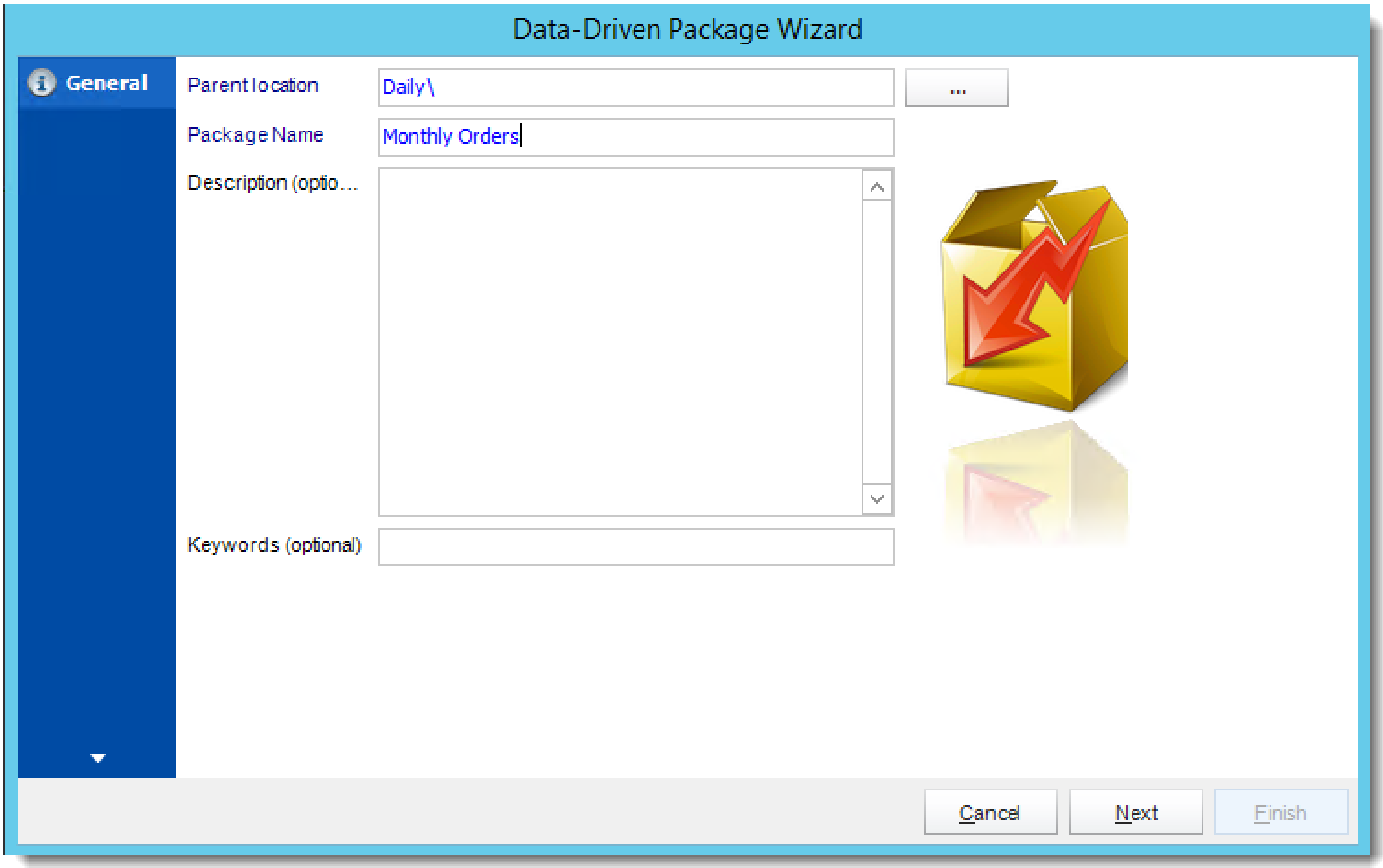
Unlike a Data Driven Schedule, a Data Driven Package will determine the data driver further into the schedule. A Data-Driven Package allows you to send a package of reports to an individual or group from one schedule.

How to Create a Data-Driven Package Schedule Report for Crystal Reports?

- Go to **Data-Driven Package**



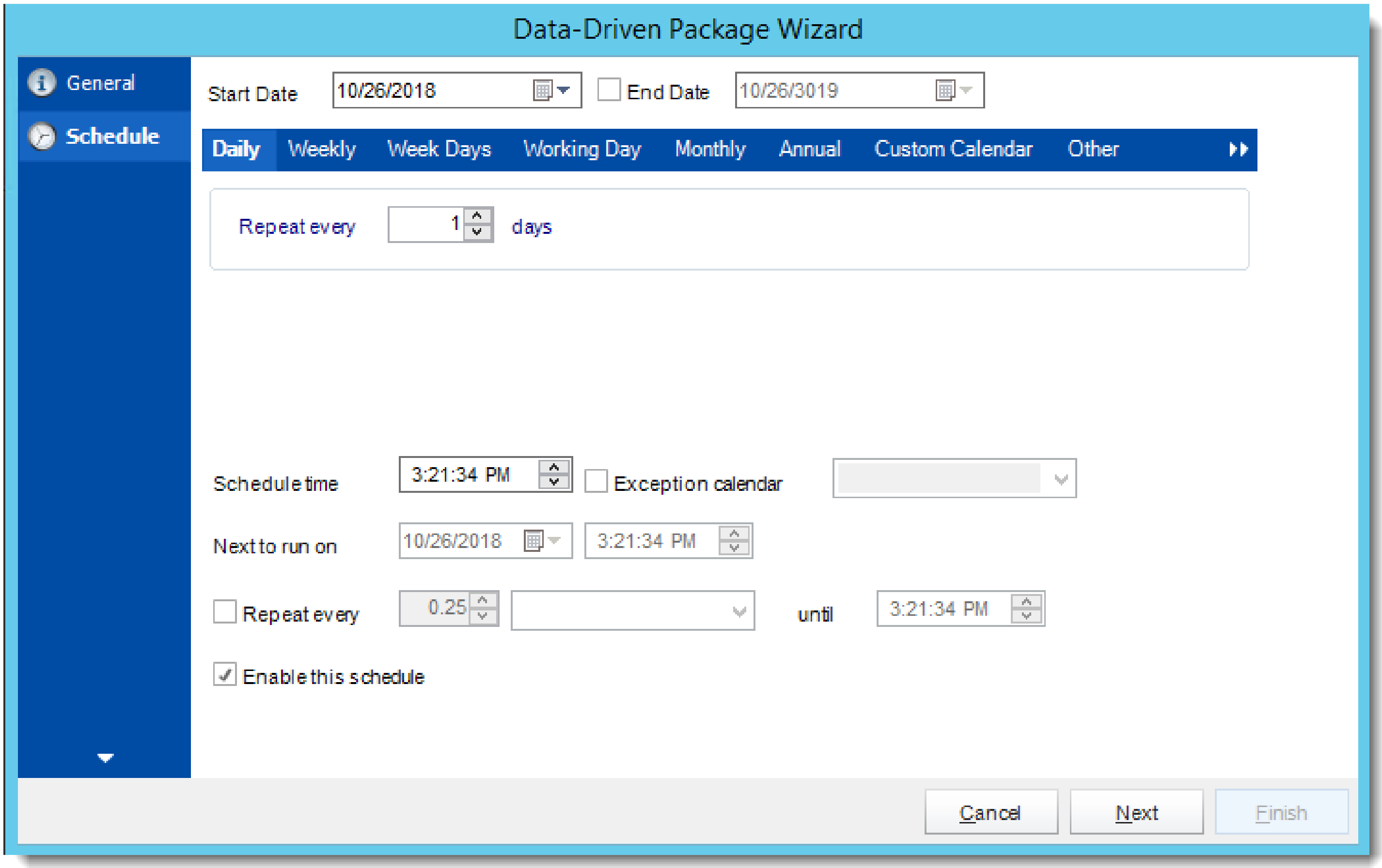
General Wizard



- **Parent Location:** The CRD folder where the package is stored.
- **Package Name:** The name of the package.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.

Click **Next** to go to the next wizard section.

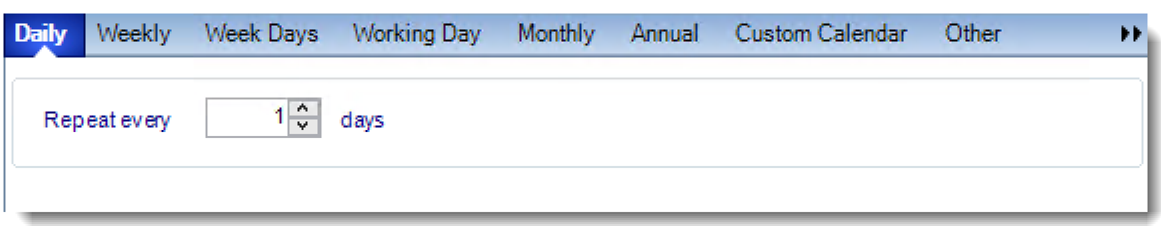
Schedule Wizard



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
    - **Sub options:** Repeat every X Days.

      Example: Run the schedule every 3 days.

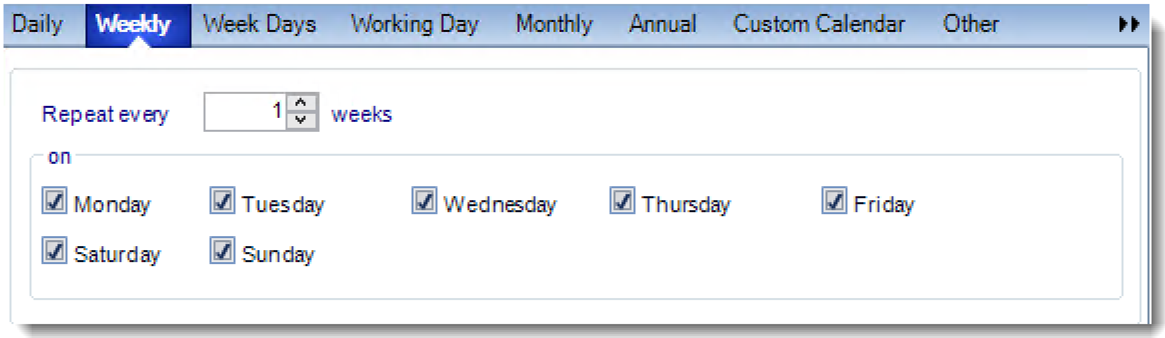


- **Weekly:** Run a report on a weekly time frame.
    - **Sub options:** Repeat every X weeks.

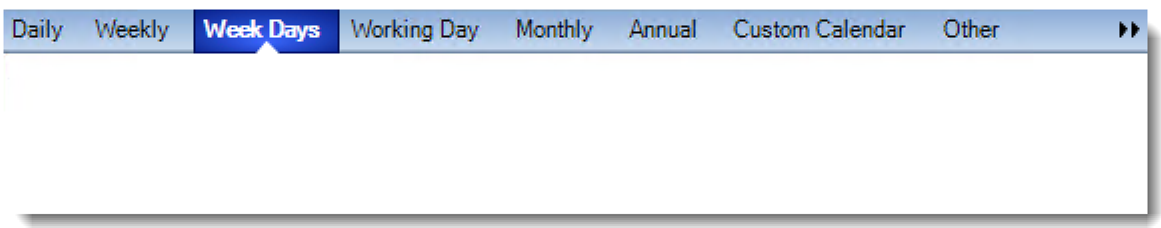
Example: Run the schedule every 2 Weeks.

- **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

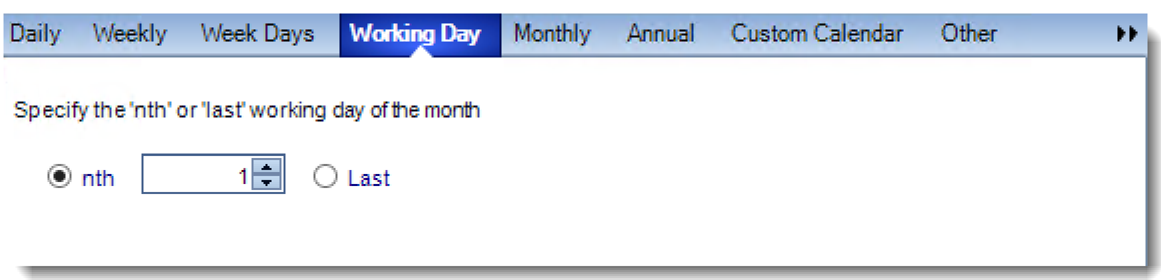
  Example: Run every Monday, Wednesday, and Friday.



- **Week Days:** Run the schedule Monday through Friday.

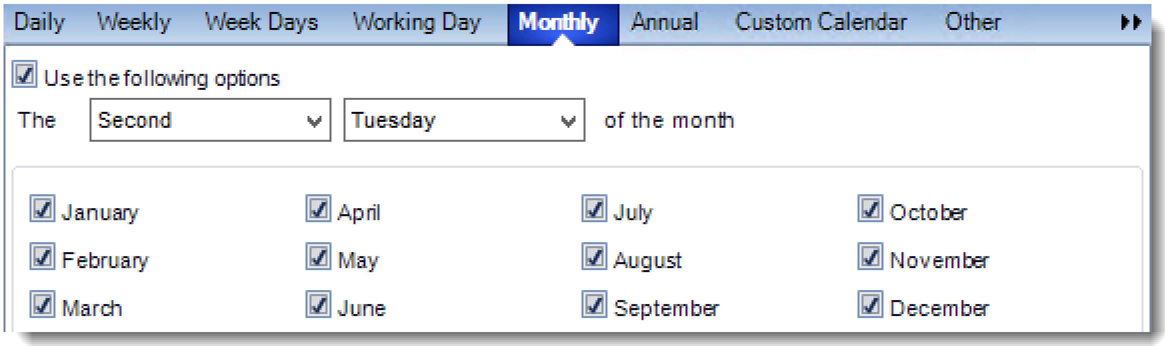


- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.

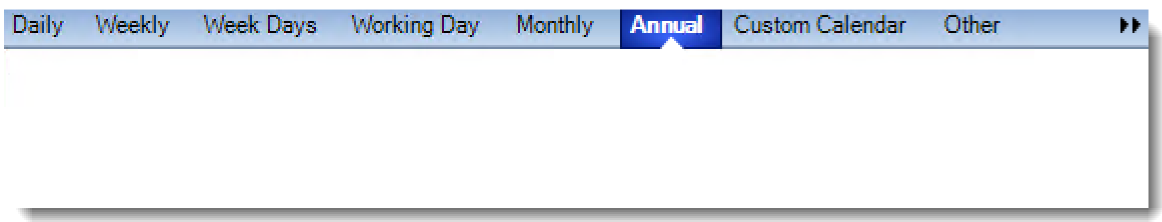


- **Monthly:** Run the schedule on a monthly time frame.

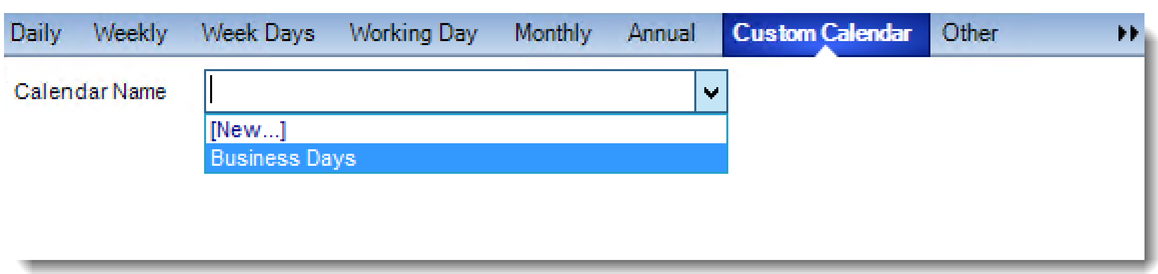
- **Use the following options:** Checking this box will enable you to select frequency options such as the “last Thursday of the month.” Also you can include or exclude specific months from the schedule.



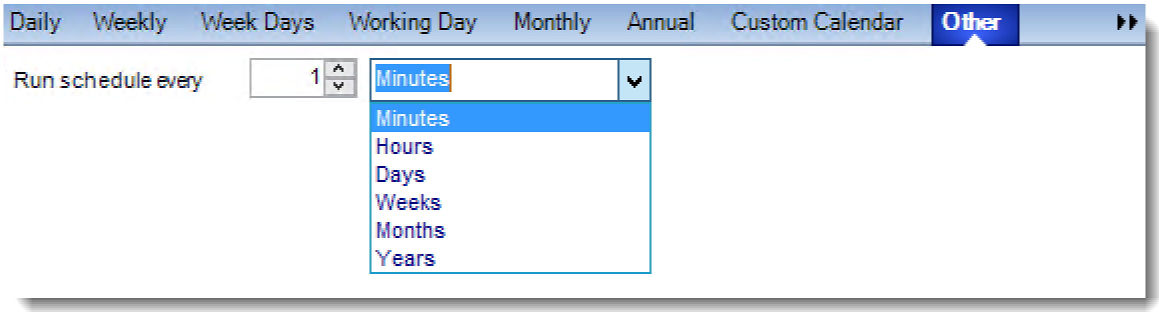
- **Annual:** Run the schedule every year at a specified time.



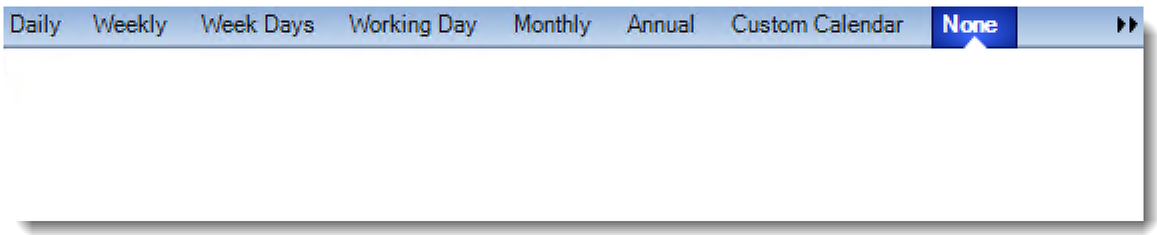
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
  - Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.

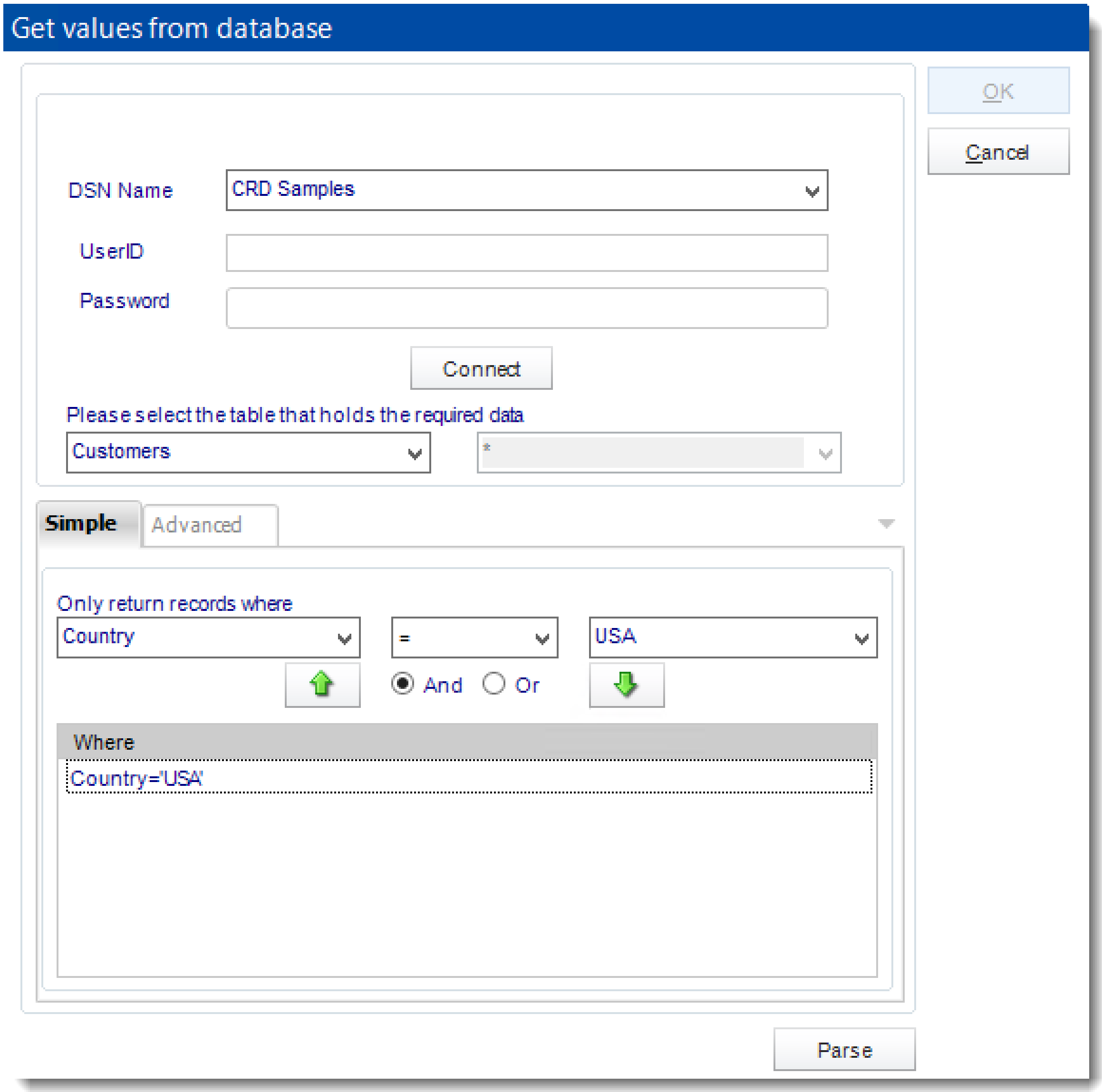


- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

  For example, you can set up a daily package to run every day at 8 am*, and to run every hour until* 5 pm*.*

- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

Click **Next** to continue to the next wizard section.



- The Data Driver is where you set up the source for data for your data driven reports. If your data source or data selection criteria changes this is where you will need to make any required changes.
- **ODBC DSN Name:** Drop down and select a DSN.

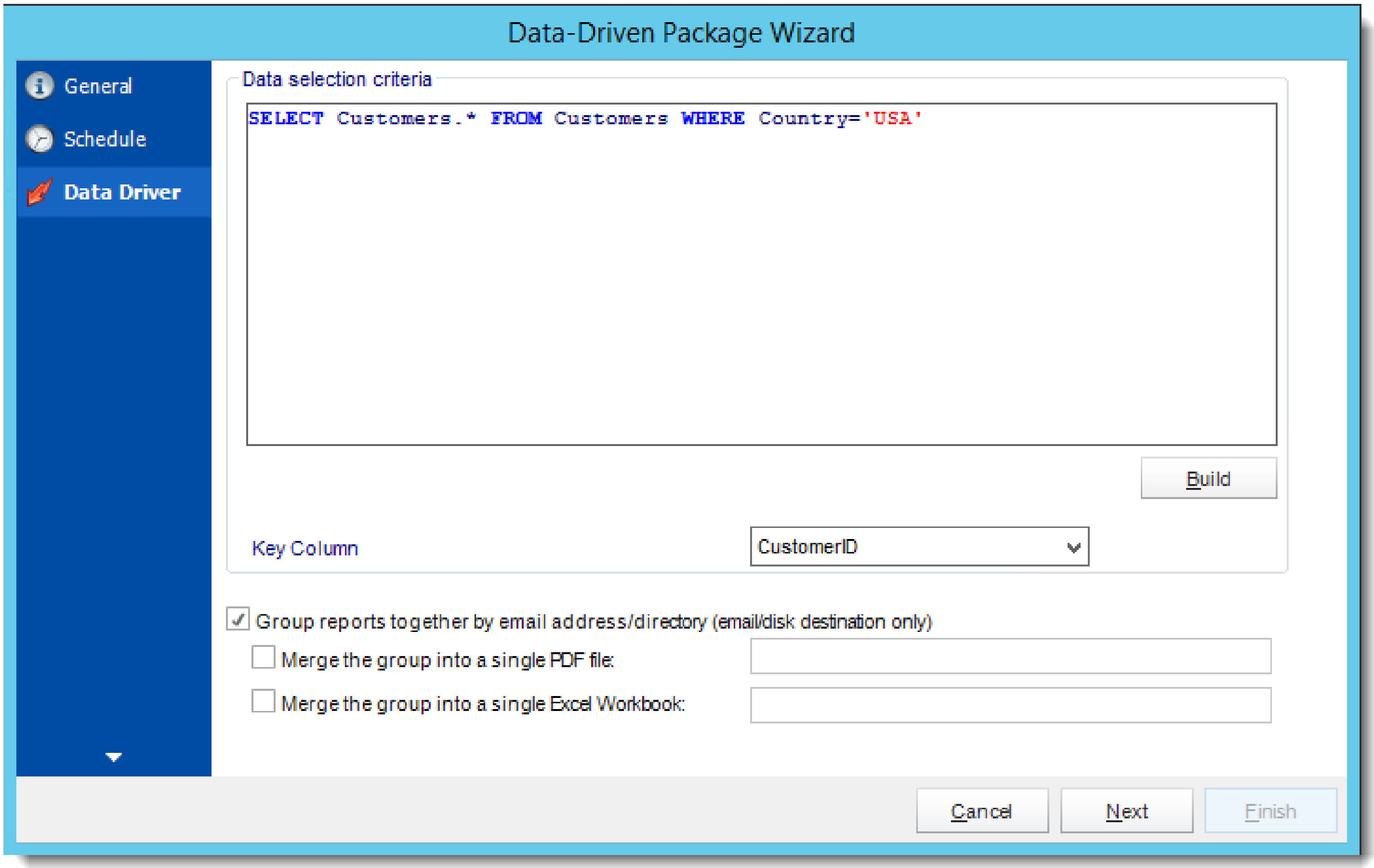
  We strongly recommend System DSNs so that the DSN is visible to CRD even when the user associated with the DSN is logged off.

  All communication to databases (including Access databases) is done through ODBC, so you must setup a system DSN to the database before you can use this facility.

When setting up DSNs we recommend (if possible) that you use Windows Authentication (Trusted Connection). This ensures that your username and password are not required to be stored in CRD (more secure) and overcomes a large number of security restrictions which Windows places on DSNs. When using Windows Authentication, make sure that the CRD NT service user (or background application service user) has full rights to the database otherwise, though you will connect when you are logged in, automated scheduling will fail if the Service user has not got rights to the database.

When setting up a DSN to a SQL server, you must ensure that the "Default Database" setting is set to the database you are connecting to (Windows defaults this to "Master").

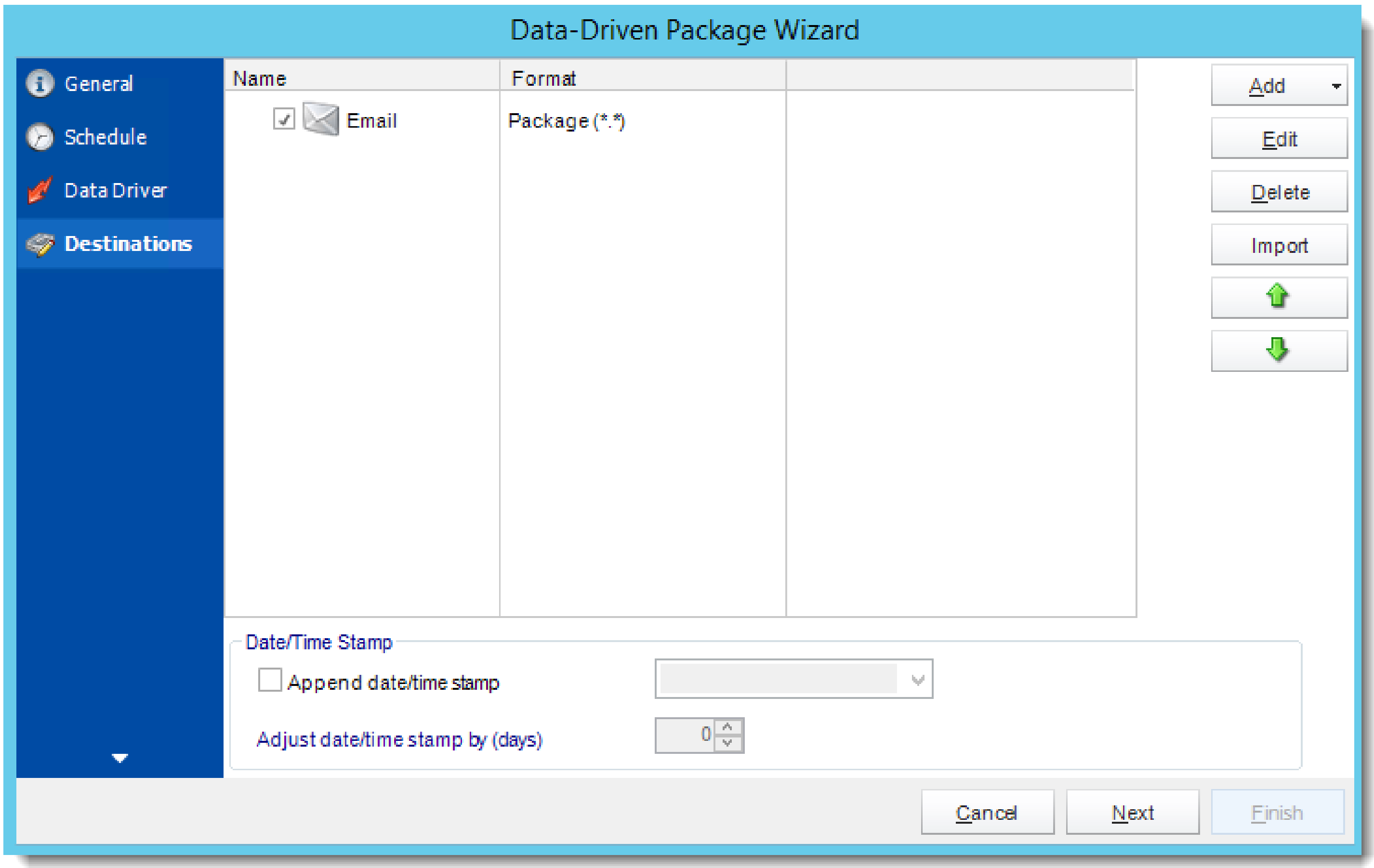
- **UserID:** Enter the User ID CRD should use to log on to the database
- **Password:** Enter the password associated with the above user.
- **Connect:** Click Connect to connect to the Database.
- Select the table from the database that holds the required data. You can refine your selection query by using the simple or advanced tabs.
- Click **Parse.**
- For more information of "Get Values From Database" interface, click here.
- Click **OK.**



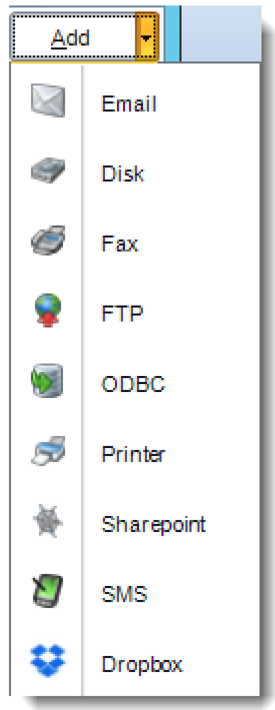
- Click **Build** to specify the data selection criteria. This will return you to the Build Data Driver tool.
- **Key Column:** Select the key column for the data that is returned for the reports. The information that drives the schedule is required to have a key column so that each row in the table is uniquely identified by the value in this column. The key column is there as an identifier which is used to troubleshoot in cases where there is a problem with one of the records.
- **Group reports by email address:** You can instruct CRD to group reports that are sent to the same email address. Please note that enabling this option disables the ability to embed the reports in the email body for email destinations.
- **Merging Multiple Reports:** Where the reports are grouped you can also instruct CRD to optionally merge the output of the grouped reports into a single file (PDF and MS Excel formats only). Selecting each option will bring up the options for the output format that you can further customize.

Destination Wizard

In this section, you will decide where your schedule will be delivered. The list in the center will display the list of destinations you have added to the schedule. You can organize the various destinations' order by clicking on the green up and down arrows.



- **Add:** Click here to add a destination. You have several options which are: Email, Disk, Fax, FTP, ODBC, Printer, Sharepoint, SMS, and Dropbox.



- **Edit:** Select a destination and click to edit it's properties. Or simply double-click on the destination.
- **Delete:** Select a destination and click this button to delete it.
- **Import:** click here to import from the list of default destinations.
- For more information about Type of Destinations, click here.
- For more information about Output Formats, click here.

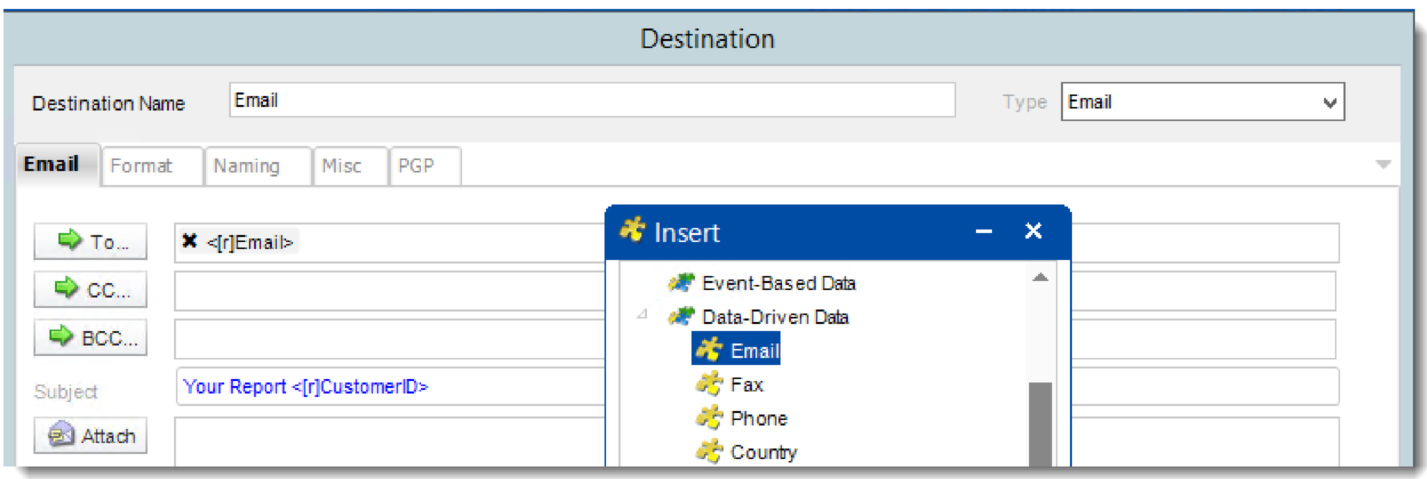
Customizing the Destination

With the Data Driven Schedule, you can determine the delivery method of your report based on your data. In your table, specify the delivery method by creating a column for each delivery type (FTP, SharePoint, Email etc.). For each record specify their email, fax number, and so on.

Region	Area	Country	Sectc	FirstName	LastName	email	disk	printer	FTPServer	FTPFolder
Americas	North	United States	1	John	Doe	jdoe@mycompany.com				
Americas	North	United States	2	John	Doe		\\myserver\myreports\jdoe			
Americas	North	United States	3	John	Doe	jdoe@mycompany.com	\\myserver\myreports\jdoe			
Americas	North	Canada	1	Peter	Crimble			HP2003sUpstairs		
Americas	South	Brazil	34	Jorge	Minola		\\myserver\myreports\jdoe		myftpserver.com	jminola
Asia	Asia	India	2	Anil	Maharaja	mmaharaja@mycompany.com				
Asia	Pacific	Japan	3	John	Wu	jwu@mycompany.com			myotherftpserver.coi	jwu

Tip: For email destinations, simply add a semicolon after an email address to send the same instance of the report to another email address.

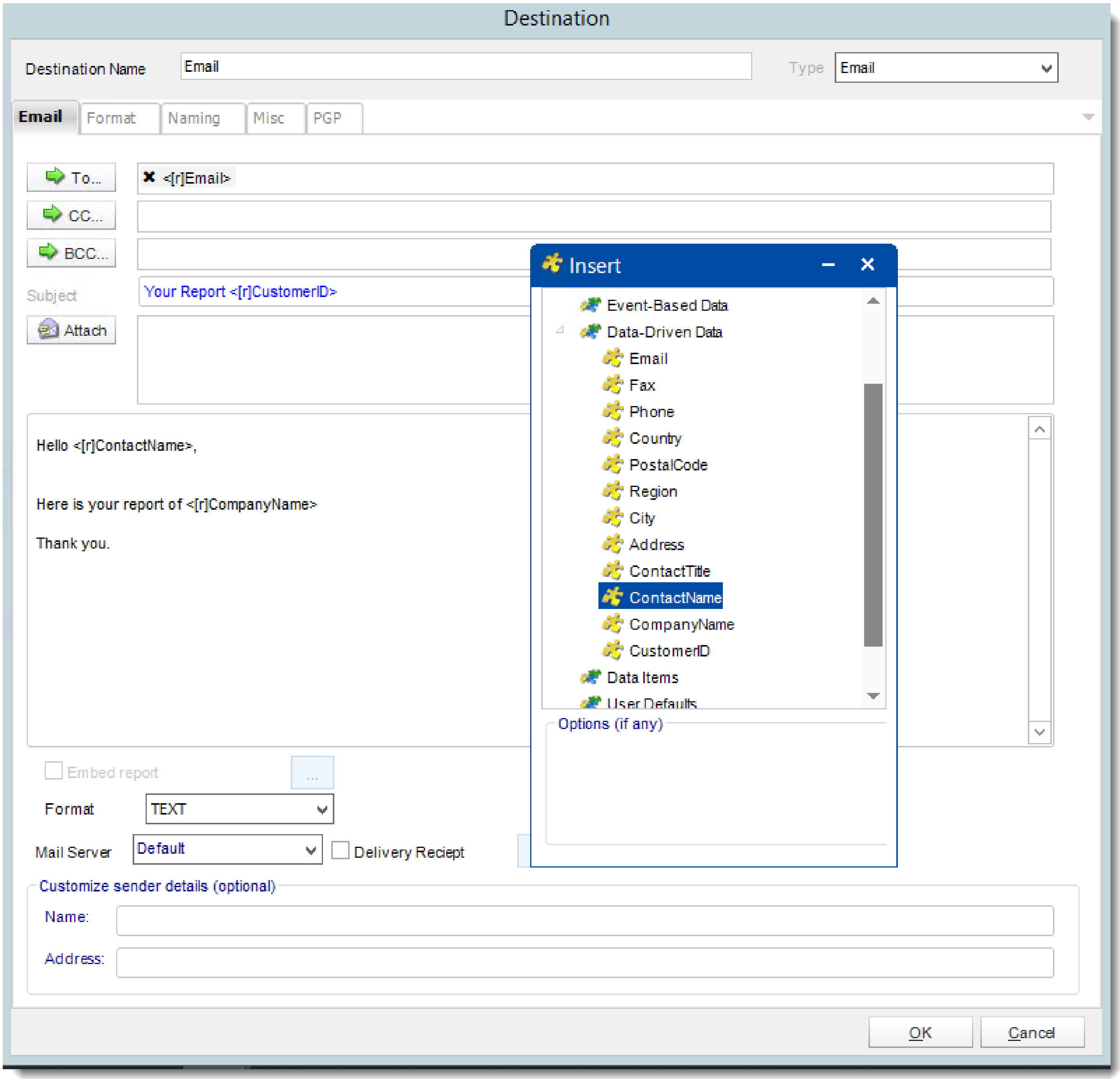
- Data driving the Report's Distribution
- As mentioned above, CRD will pull delivery data from your database.
- In this example, we will be using email addresses found in the table.
- With Data Driven inserts, simply drag and drop the field that indicates your desired destination (email in this case).



- Now CRD will deliver a unique report based base on a corresponding email address.

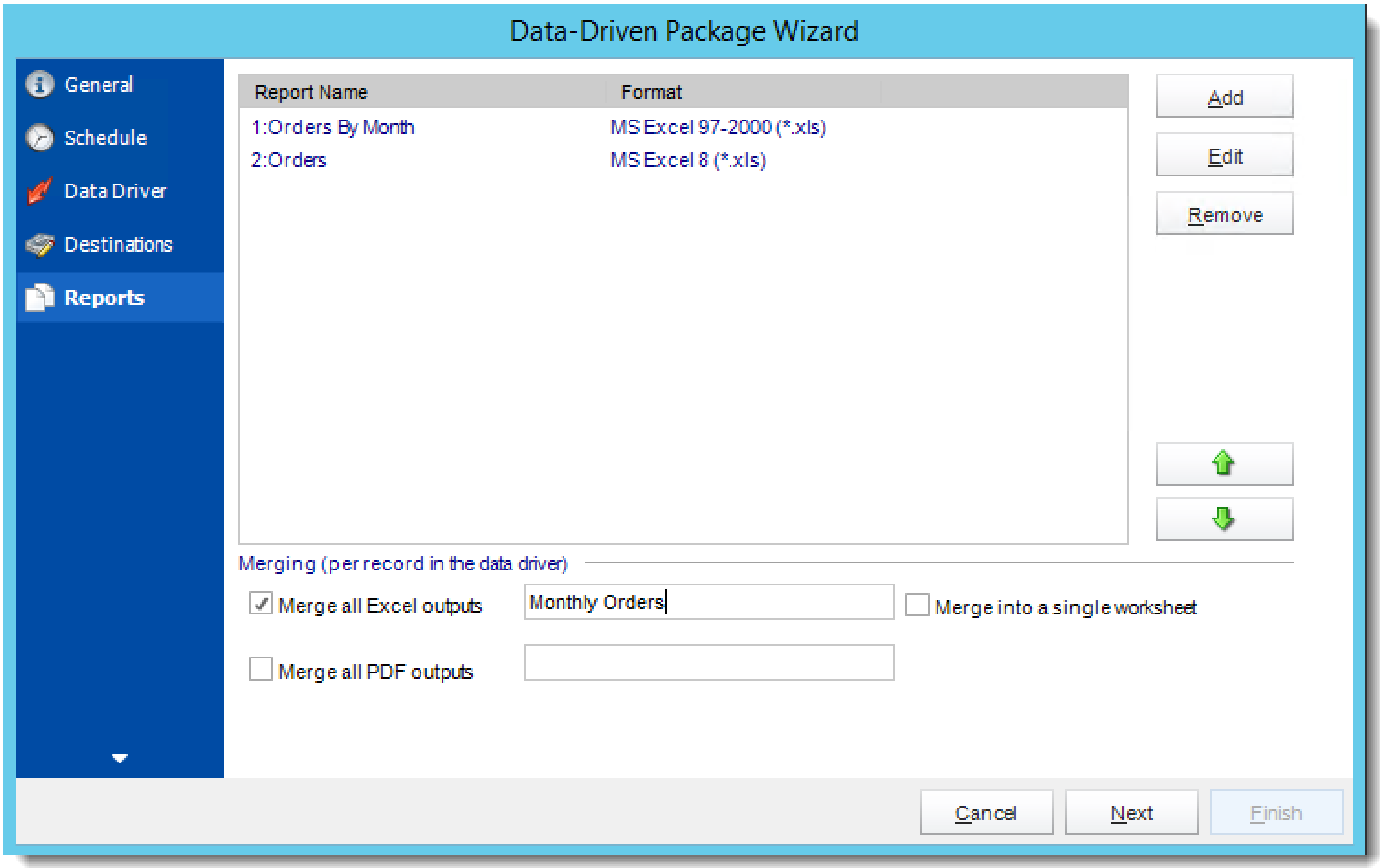
Customize Recipient Messaging

You can also customize the messaging the recipient receives. Using Data Driven Inserts, CRD will automatically pull data from your table and use it to customize the subject, body or report format.



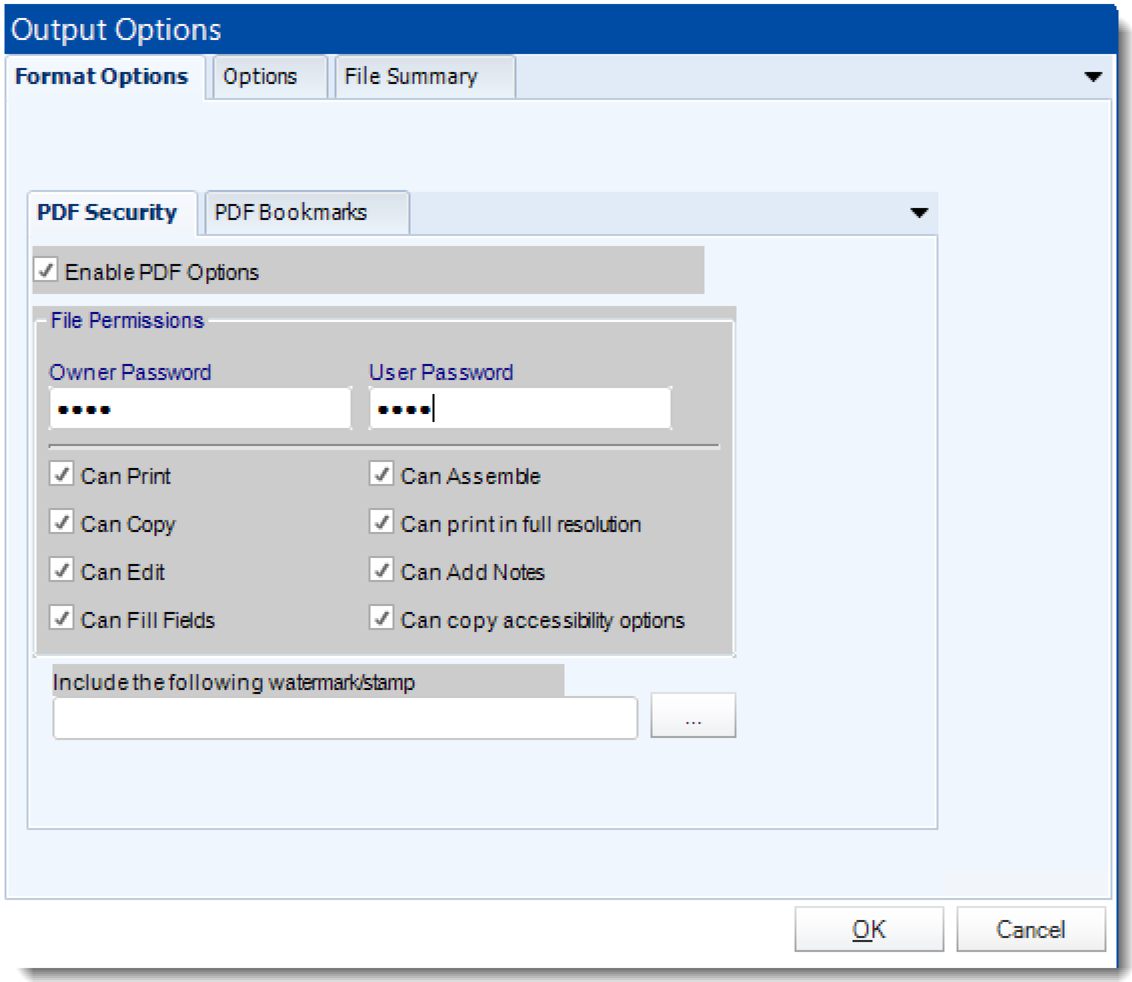
- Simply drag and drop fields from your table to the desired position.
- *For example, to customize an email greeting, type the greeting, and add the recipients name as shown above.*

Click **Next** to continue to the next wizard section.

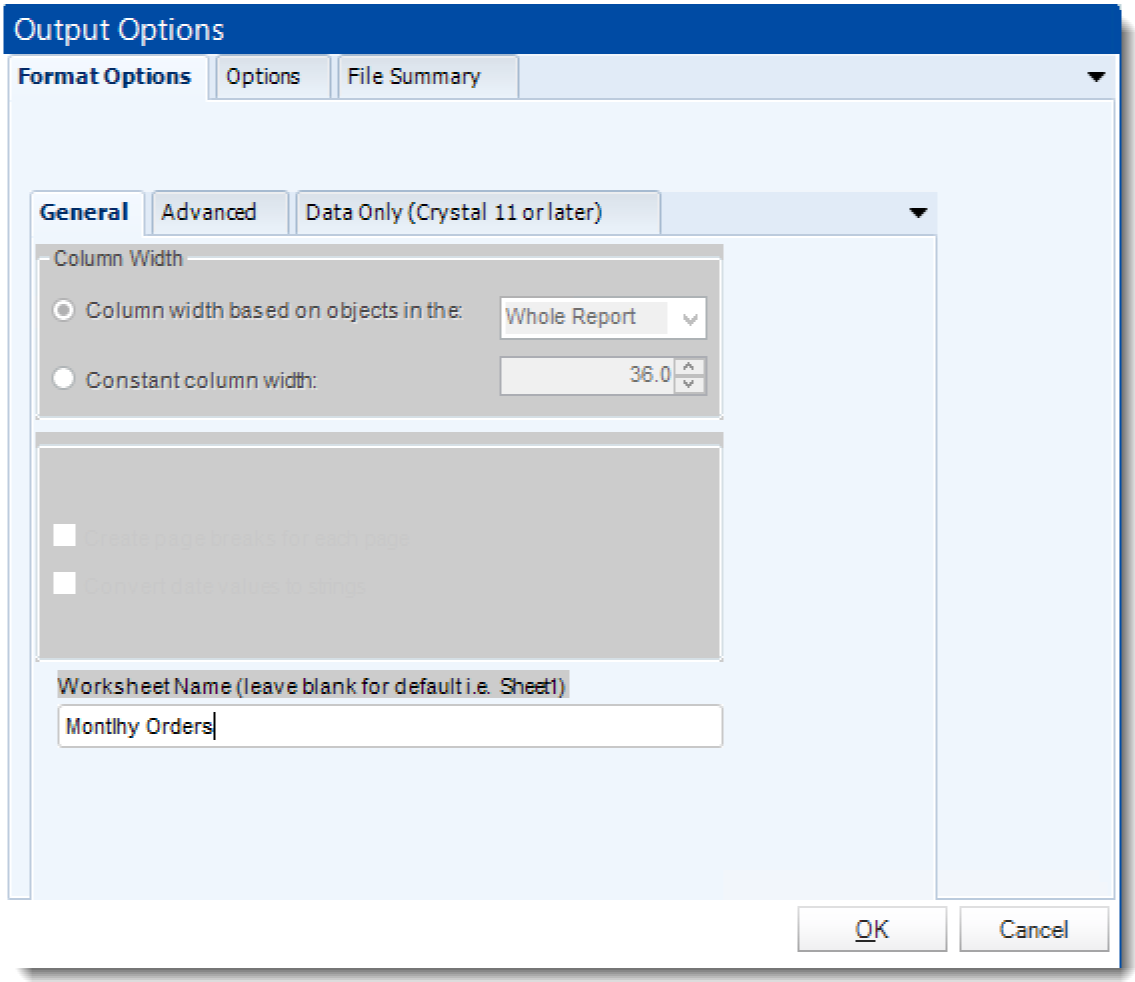


A package may be created with no constituent reports and then the reports can be added later. However, you may also add reports at this stage in the wizard - and amend, delete or add some more later.

- **Merge all PDF Files:** Merge PDF outputs into a single PDF file. The reports will appear in the merged PDF in the order they are displayed in the package schedule. Checking this box will bring up additional PDF Options.



- **Merge all Excel Files:** CRD will then merge all excel outputs in the package into a single excel file.



- **Run Package using Multiple threads:** This allows up to 8 reports to be exported simultaneously.
- Each report in the package can run concurrently.
- See Multi-threading for more info.
- **Enable snapshots and keep them for (days):** Keep a copy of the report for how many days.

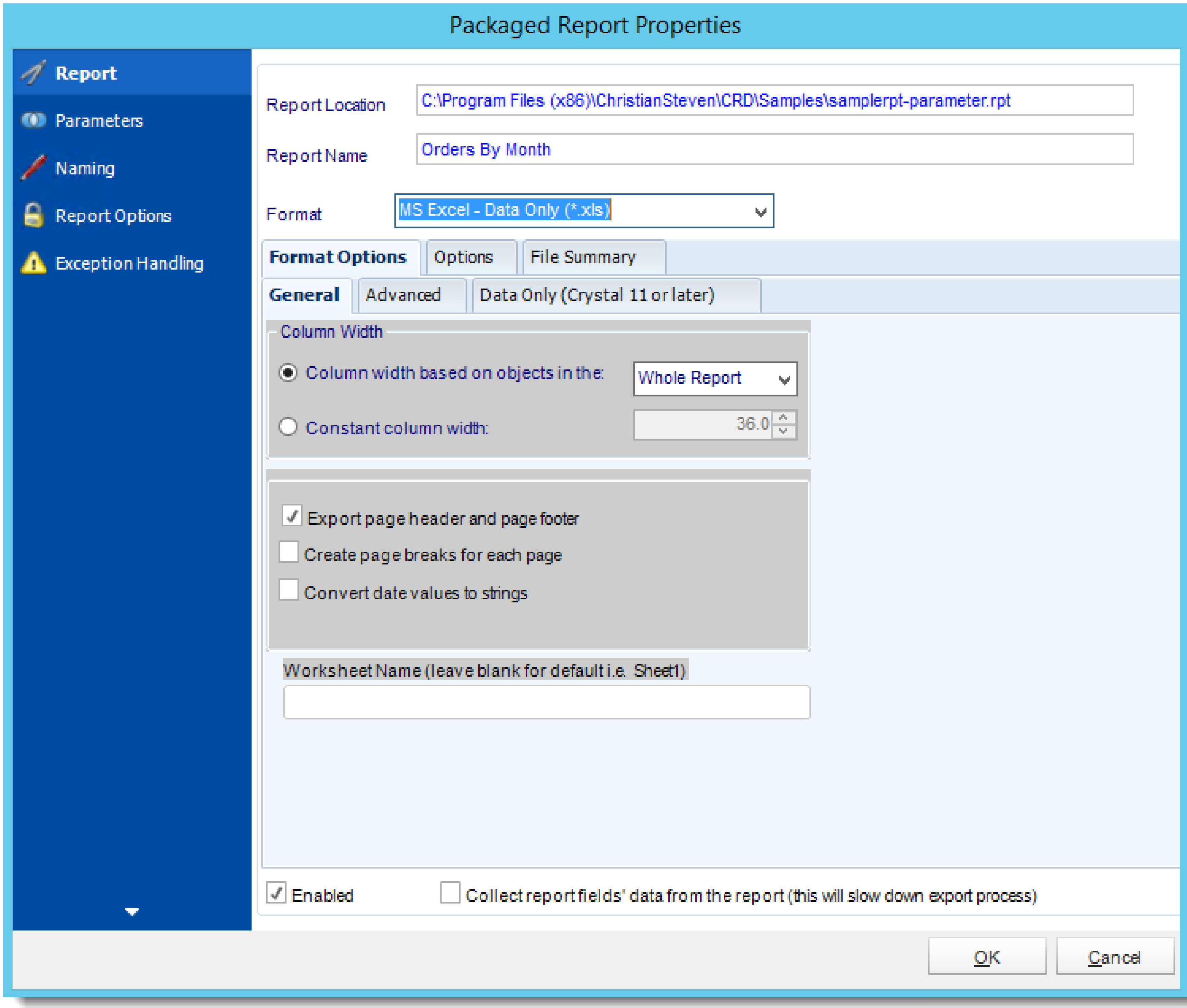
  System resources will be shared so this will not always mean that reports will take 1/4 the normal time.

  Example: You have 4 reports. Each one takes 15 minutes to export. Using a single thread, it would take 1 hour to complete the export. Using multiple threads, you would expect it to take 15 minutes for all 4. However, the sharing of your system resources by 4 reports may result in each report taking longer than 15 minutes and the total time for 4 reports may be more than 15 minutes, but it will be less than an hour

- Click **Add**
- Package Report Properties will appear.

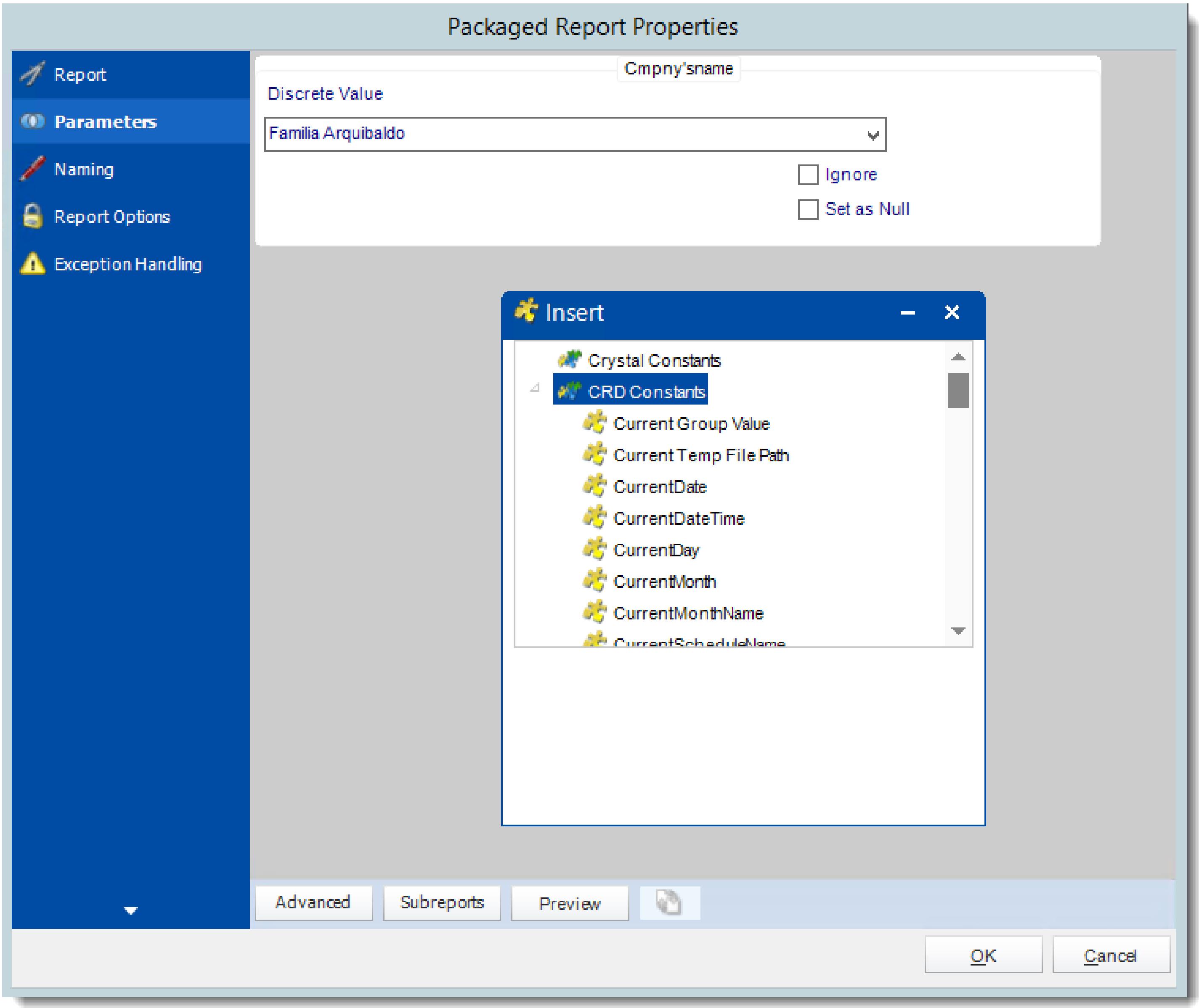
Package Report Properties

Report Wizard



- **Report Location:** Select the Crystal report that needs to be scheduled. A crystal report can only be added if the CRD server can reach the report path.
- **Report Name:** Write in the name of the package.
- **Format:** Select the output format for the report.

Parameters



- In this section, you will determine the parameters for your report (if any) and select options for your subreport. If your report has no parameters, you may skip this section by clicking next.
- There are 3 requirements in order for CRD to detect your Crystal Report parameters and their parameter values:
  7. The parameter must be in use in the report.
  8. The parameter must be visible.
  9. The parameter must be set to be prompted at runtime.

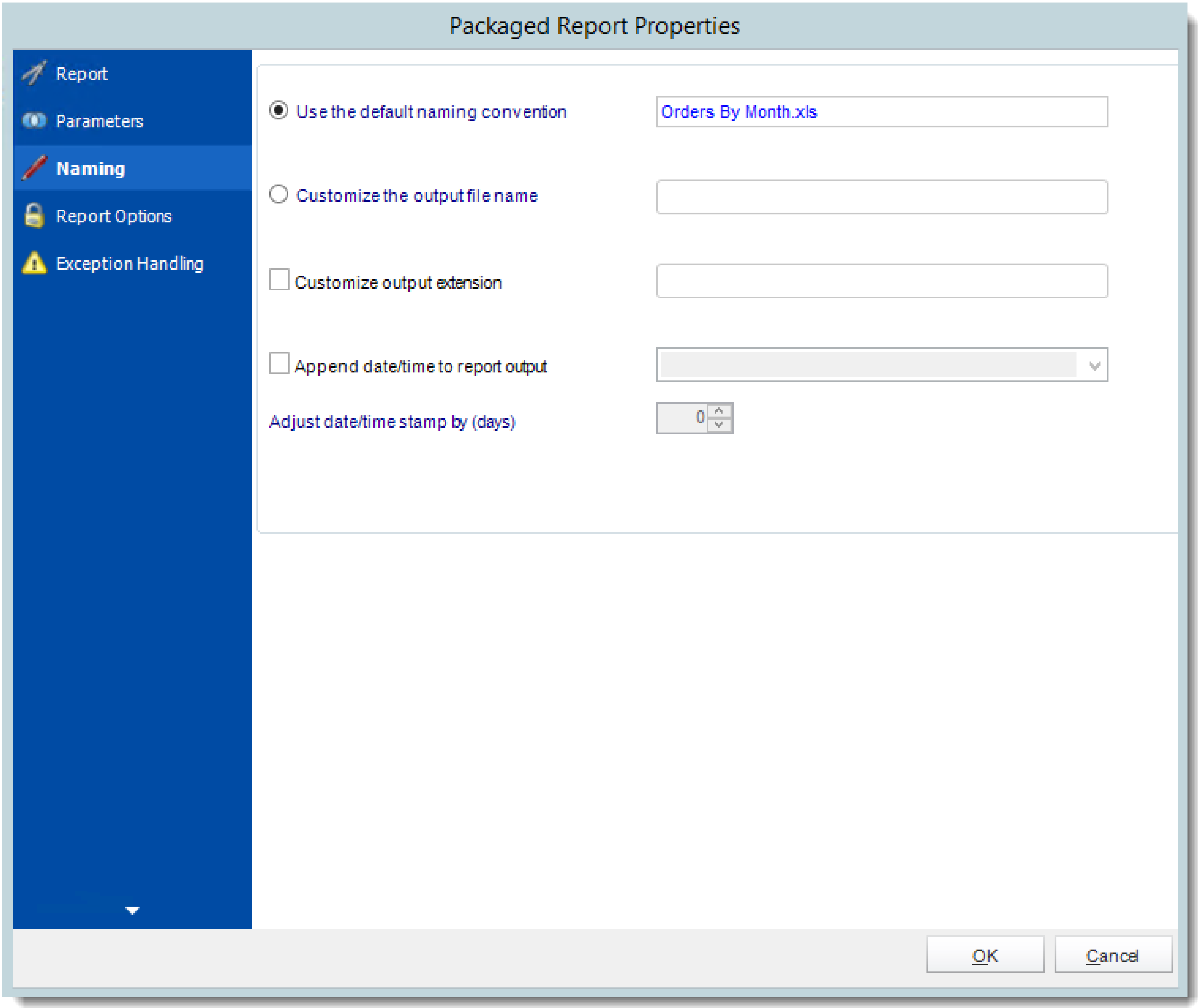
- If these three requirements are achieved, you should see the parameters in your report listed in this screen.
- For each parameter, select from the drop down list the value the report must use. In a single schedule, only one parameter value can be run at a time per parameter. You can type a value into the field as well.
- **Set as Null:** Set no value for this parameter.
- **Ignore:** Do not run this parameter, ignore it at runtime.
- Insert Menu**:** You can insert constants, formulas and database field values instead of a static "typed in" value. Right-click in the parameters field to expose the Insert menu.

  To enable a report parameter to run for a date constant (Current Date, Yesterday etc.), select CRD Constants from the insert window, then drag and drop your desired constant to the parameter field.

- **Selecting Date Parameters via Calendar:** If your report contains a date parameter, you can either manually enter dates as described earlier in this topic, or select the desired date from the built in calendar. Simply click in the date parameter field to open the calendar. Select the desired date. Click OK.
- If the parameter is also a time parameter, this can selected as well. The buttons below enable you to preview the report, adjust formulae, and review sub reports. You can re-query the report for parameters as well.
- **Formulae:** View edit and Parse the Record Selection Formulae.
- **Subreports**: set parameters, authenticate, and re-query sub report parameters.
- **Preview:** Shows you a preview of the report.

  The preview function only works if Crystal Reports is installed on the PC.

Naming

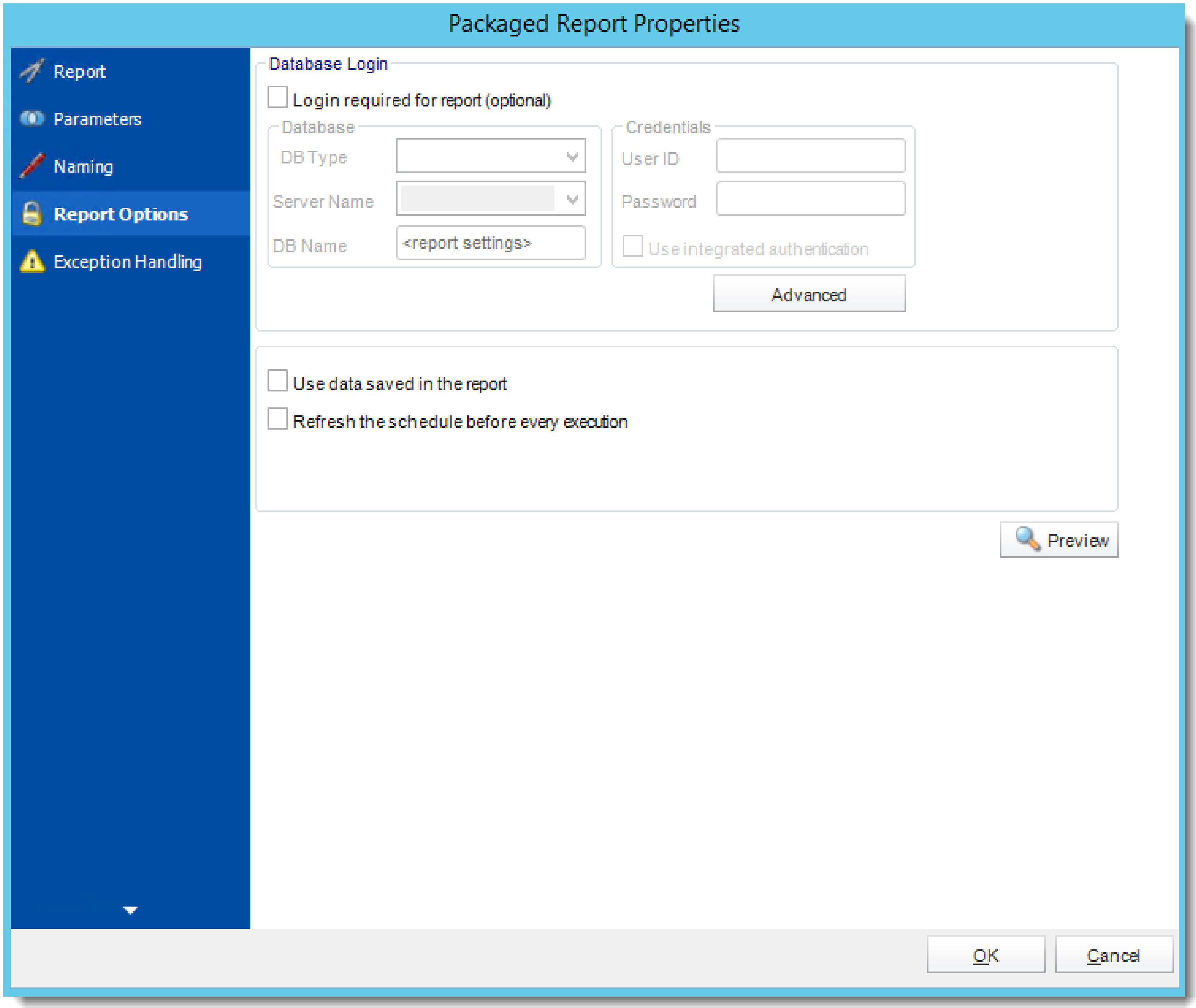


- **Default Naming Convention:** CRD will name the output file in the following format: reportname.format *extension,* e.g. *Catalog Report.pdf.*
- **Customize the output file name:** Choose your own filename or right-click and use the Insert Function to insert a value.
- **Customize output extension:** Choose your own extension. This is useful for system integration. For example, the default extension for a character separated file is "CSV," but you can give your export an extension of "txt" so that the file can be read by another

already existing system you may have. You may also right-click and use the Insert Function to insert a value.

- **Append date/time:** This is useful for the following reasons:
  - If the filename is the same each time, and it is being exported to the same folder each time, then it will be overwritten by the latest one each time. By appending date and time to the filename, each file remains unique, and no files are overwritten.
  - You can track which reports ran and when they ran by looking at what the report is named.

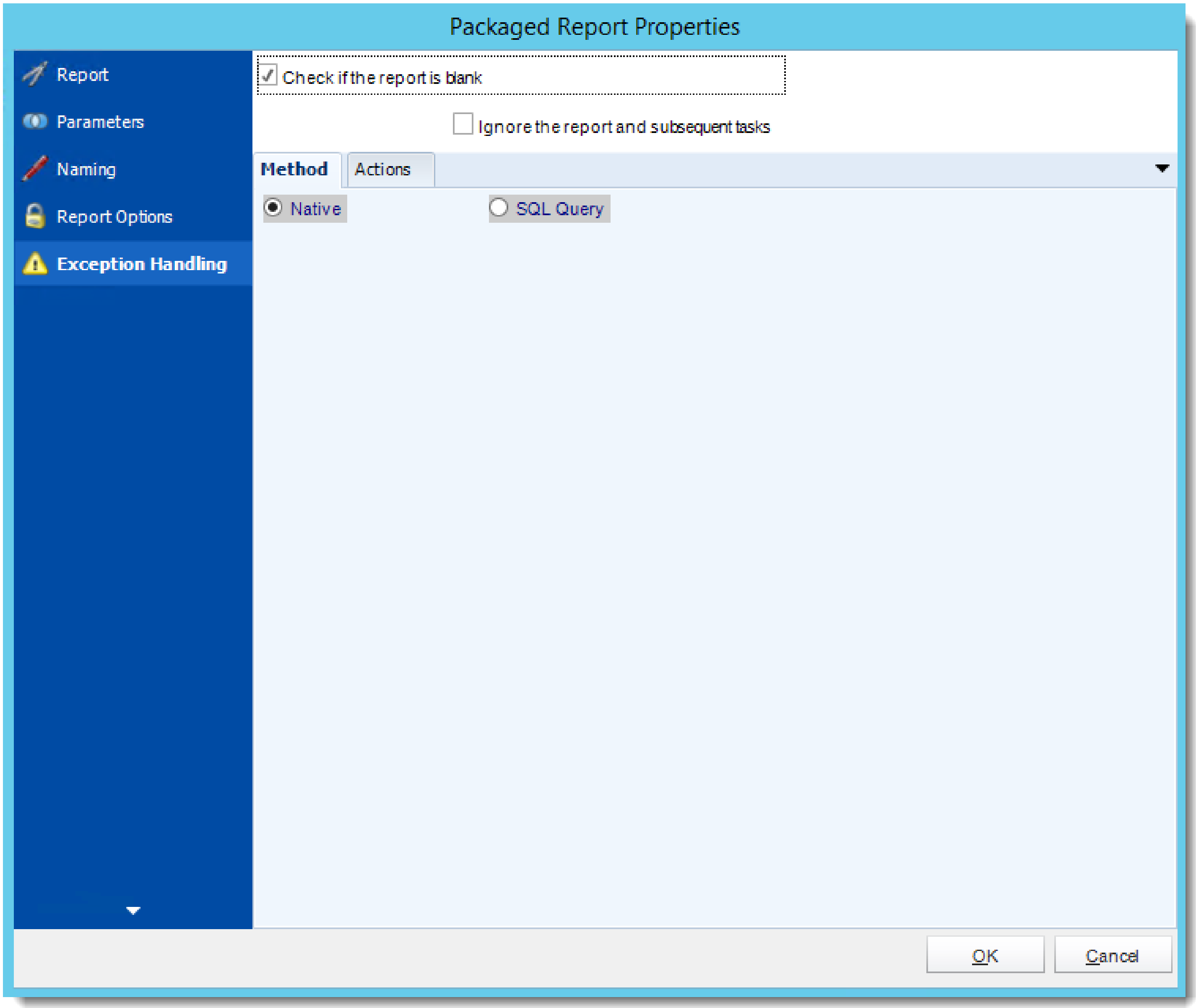
Report Options



- **Database Login:** If the database requires logon credentials, check this option and enter the required username and password. If credentials are not required, uncheck the option and continue as normal (default). All values are optional. You only need to enter a value if your database, security, networking or infrastructure require it.
- **DB Type:** Select the type of Database.
- **Server Name:** Enter the server name of the database.
- **DB Name:** Enter the name of the database.

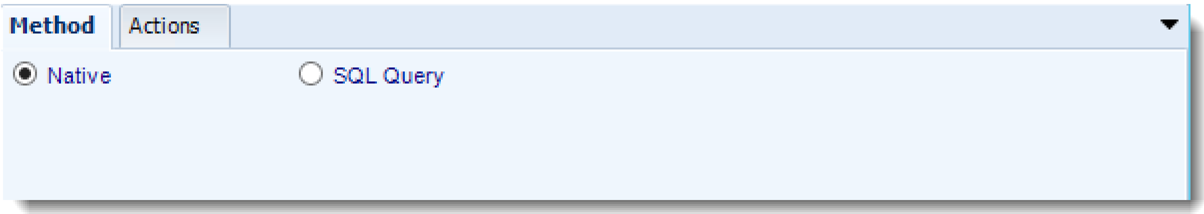
- **Credentials:** Enter the User ID and Password for the Database. Clicking on the Advanced tab, you can set logins for each table.
- **Advanced**: Enables you to specify credentials at the table level. Double click the table to set its login information.
- **Use data saved with the report:** By default, CRD will always attempt to run the report using the very latest data in your database. If your report is saved "with data" and you want CRD to simply export the data in the report, then check this option.
- **Refresh the schedule:** This refreshes the schedule before every execution.

Exception Handling

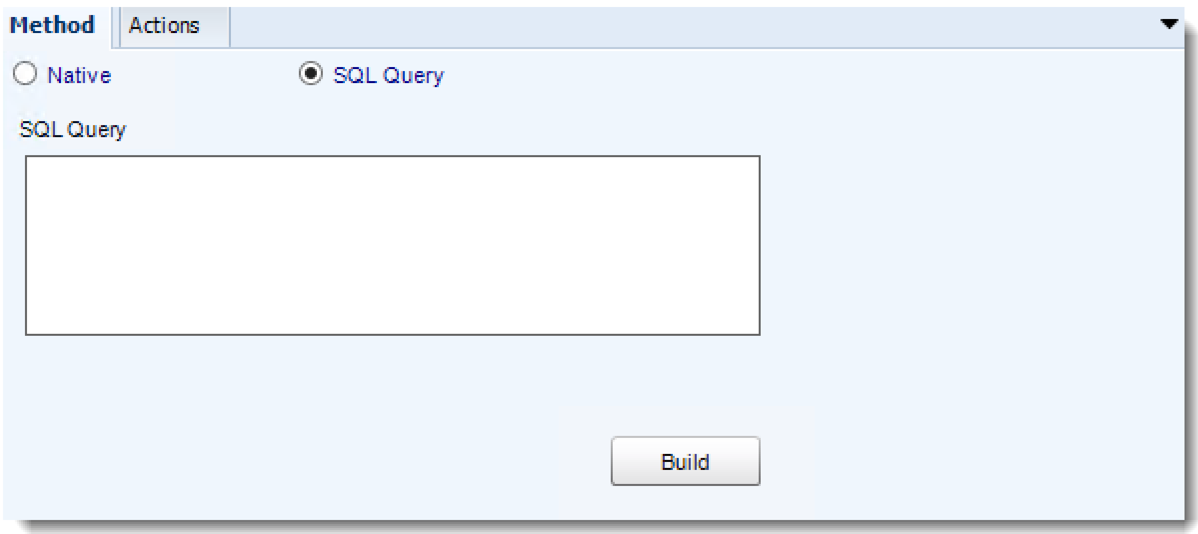


- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.
- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

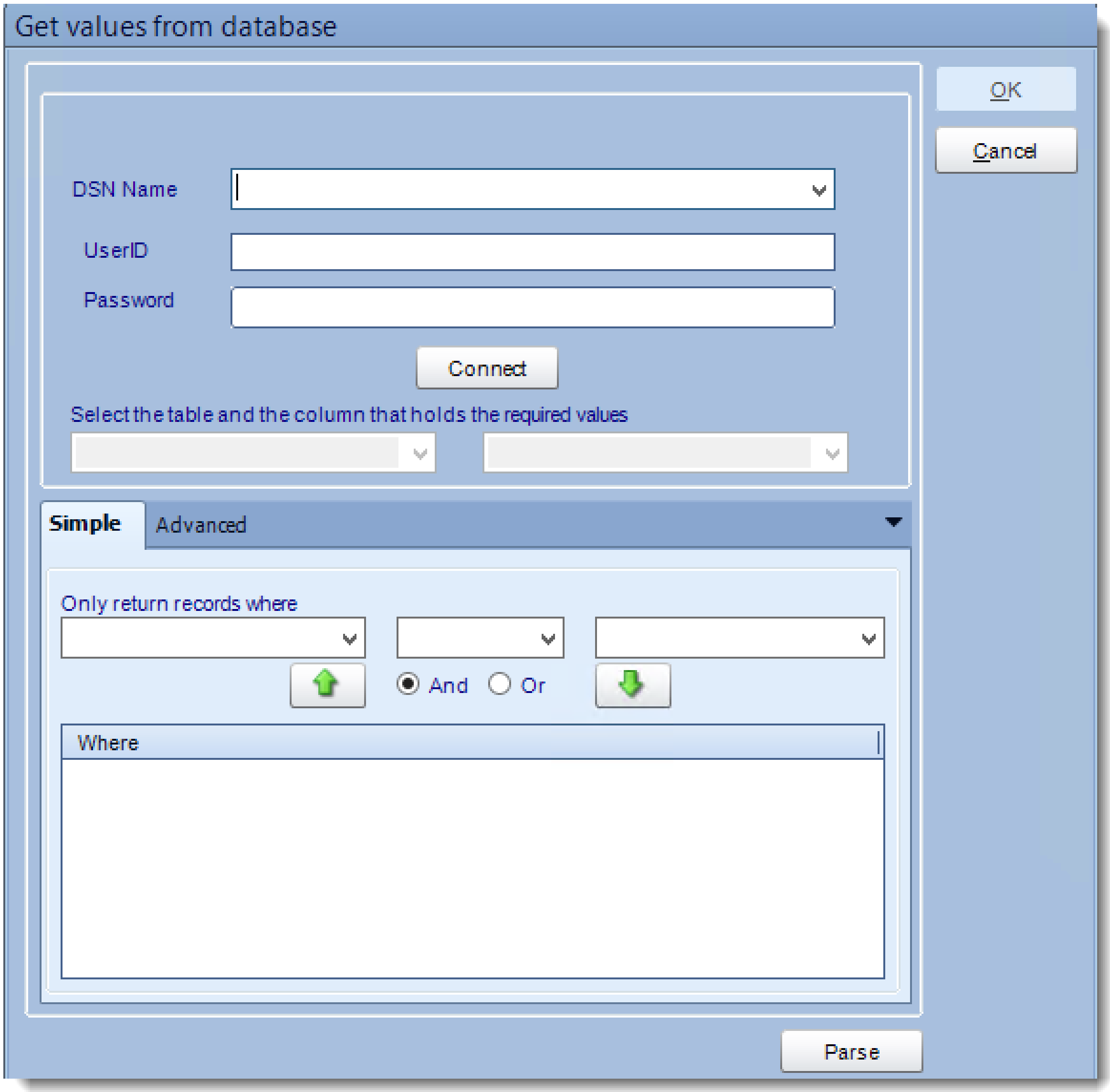
Method



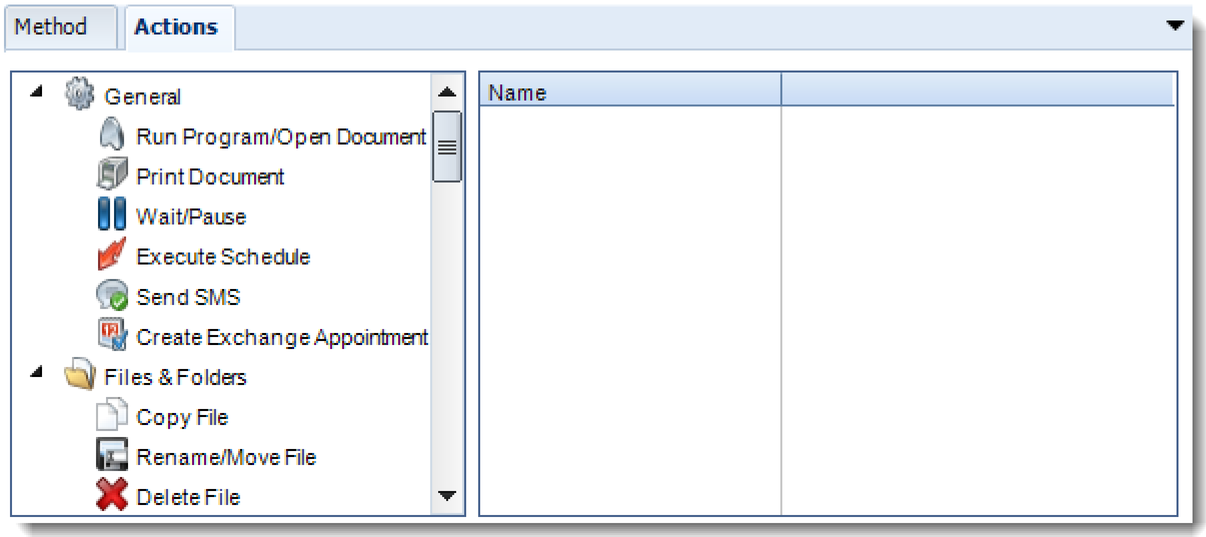
- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



-
    - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

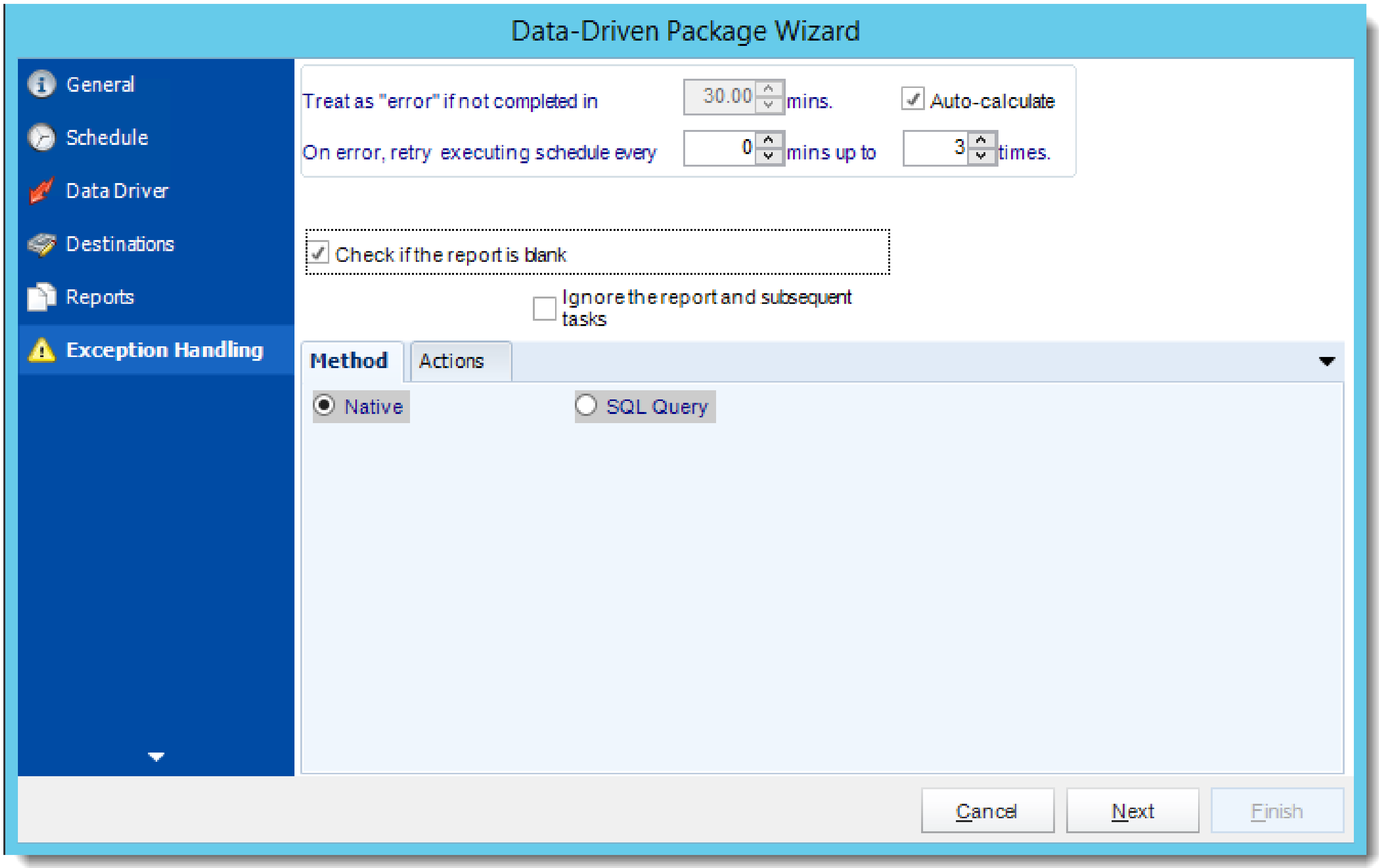


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

Click **OK.**

Exception Handling Wizard



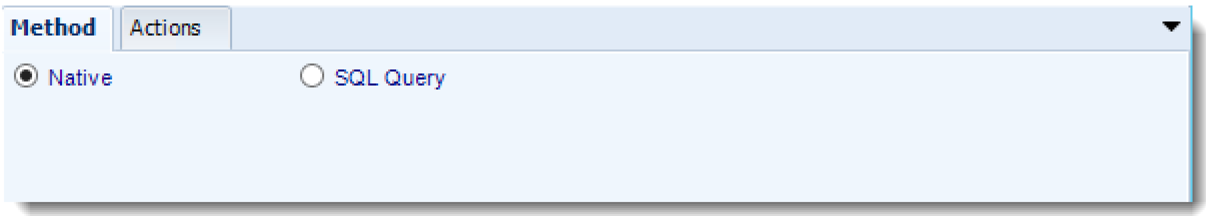
- **Treat as "error" if not completed in X minutes:** If a report takes longer than the specified amount of time to run, this option will treat the schedule as an error and follow the appropriate action. The "Auto-calculate" option instructs CRD automatically determine how long a schedule should take to run the report. If it takes longer than the calculated amount of time, then it is an error.

  If manually determining the error timing, please double check the run time of the report in order to get the correct time estimate.

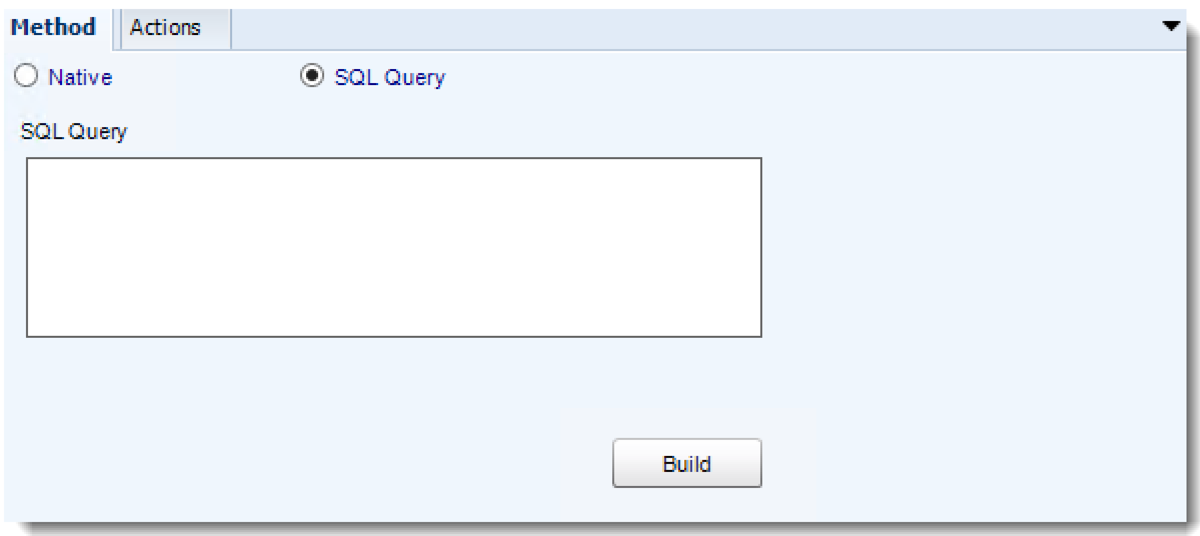
- **On error, retry executing schedule every:** If set to 0, CRD will deem the schedule as "Failed" the first time it encounters an error. The schedule will not run again until its next scheduled time. Change the value to tell CRD how many times you want it to retry running the report before declaring it as "Failed."
- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.

- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

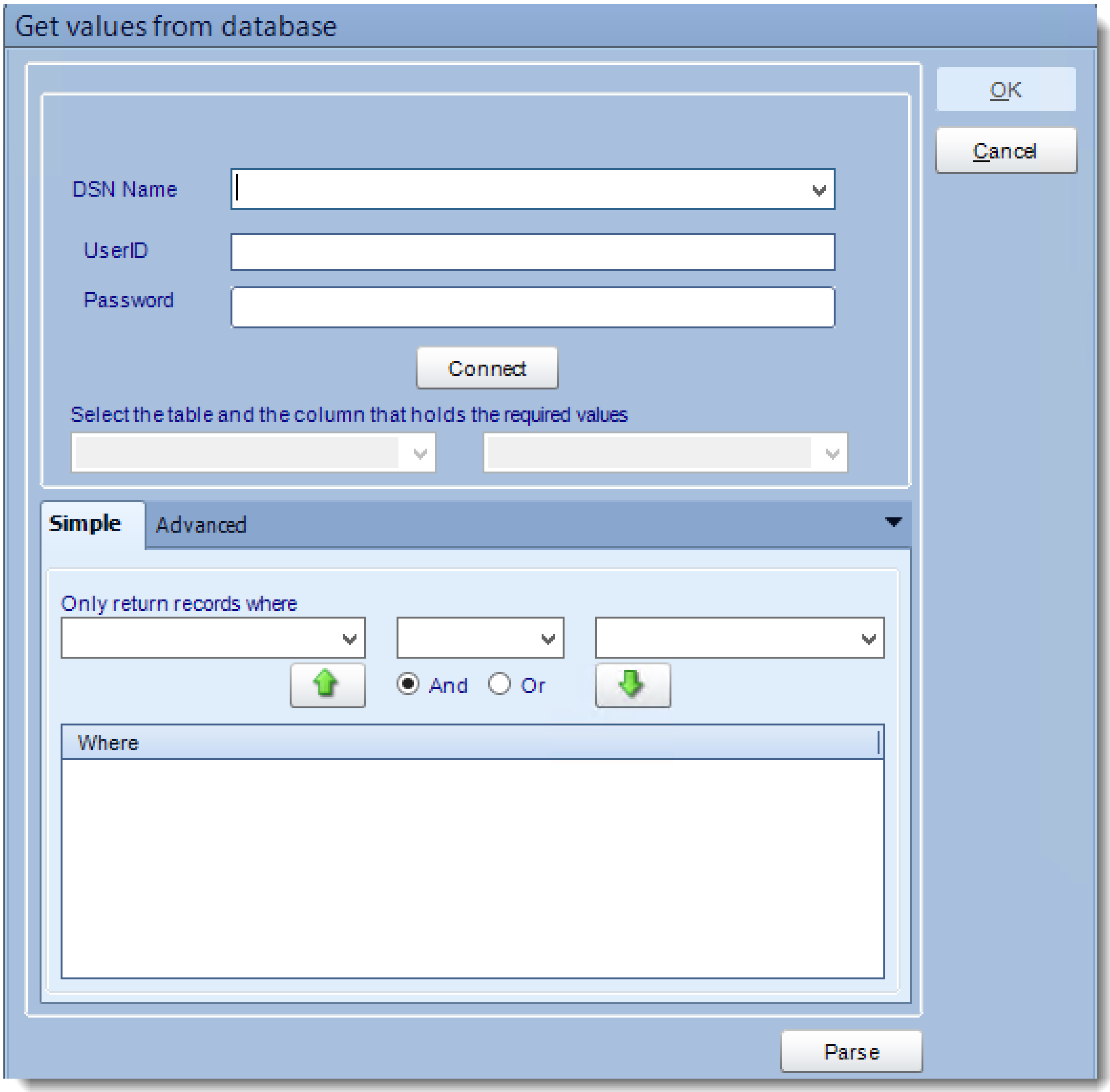
Method



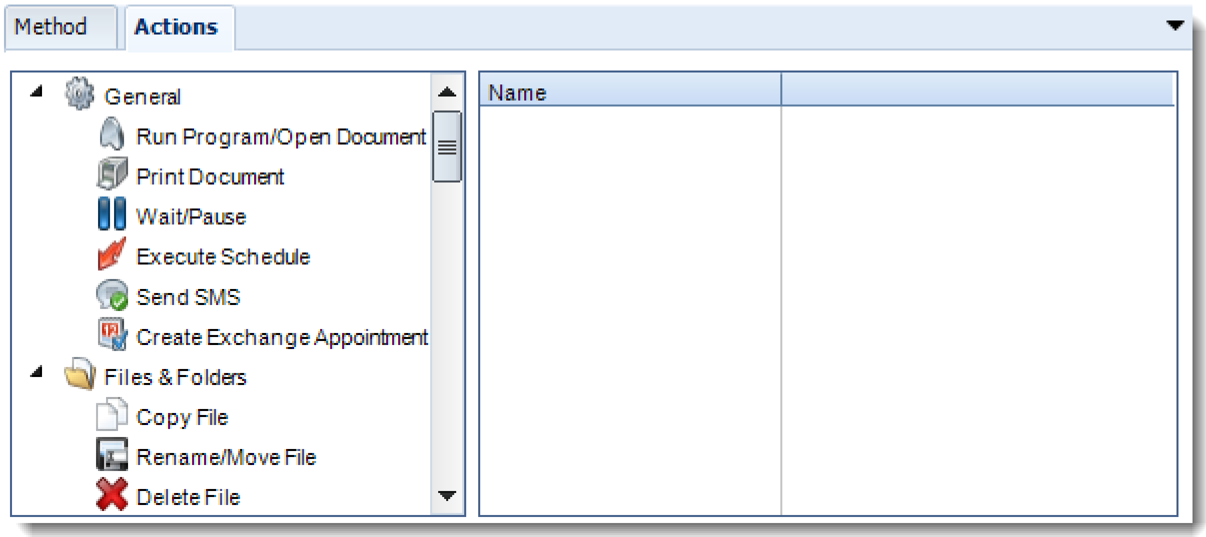
- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



    - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

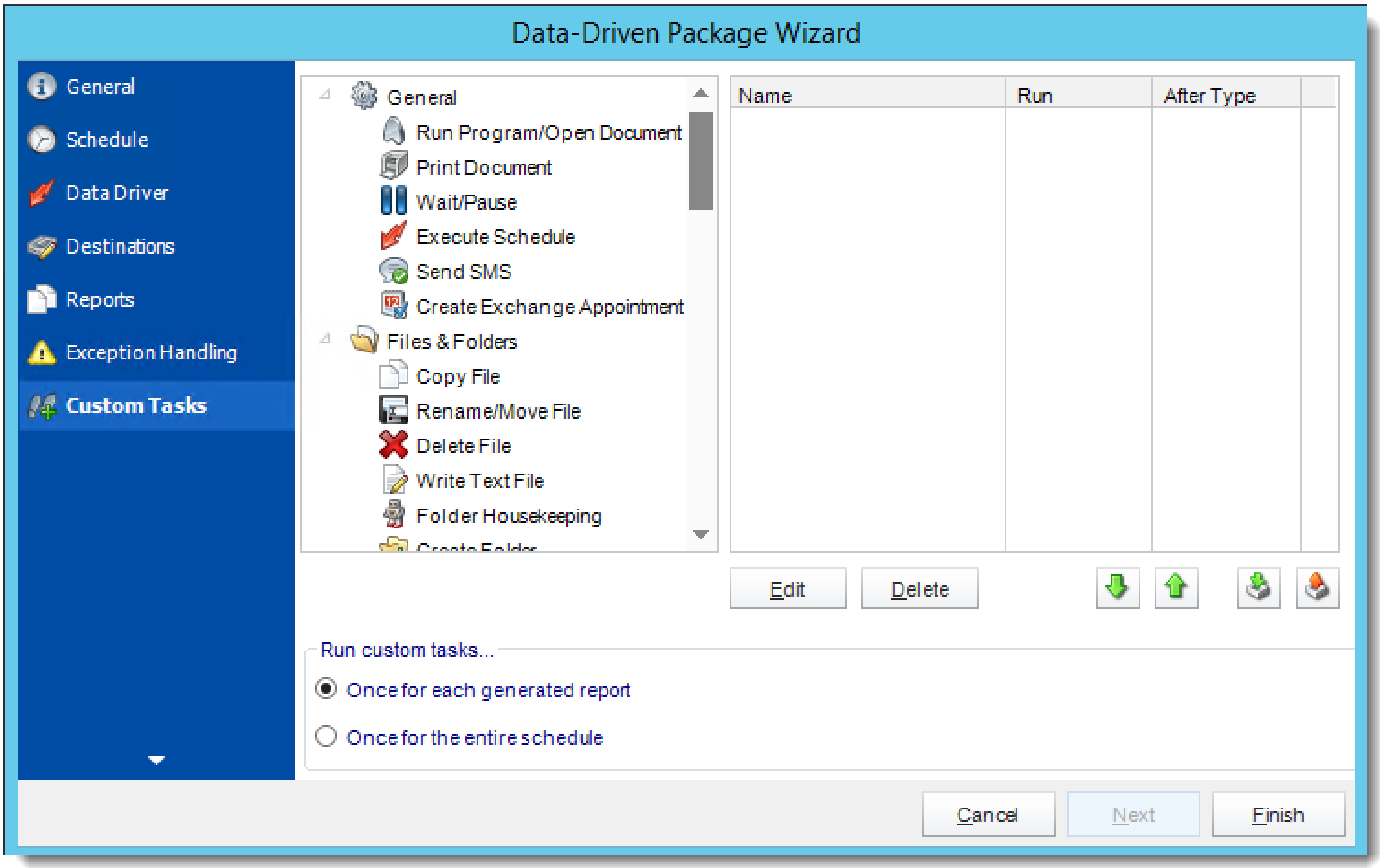


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

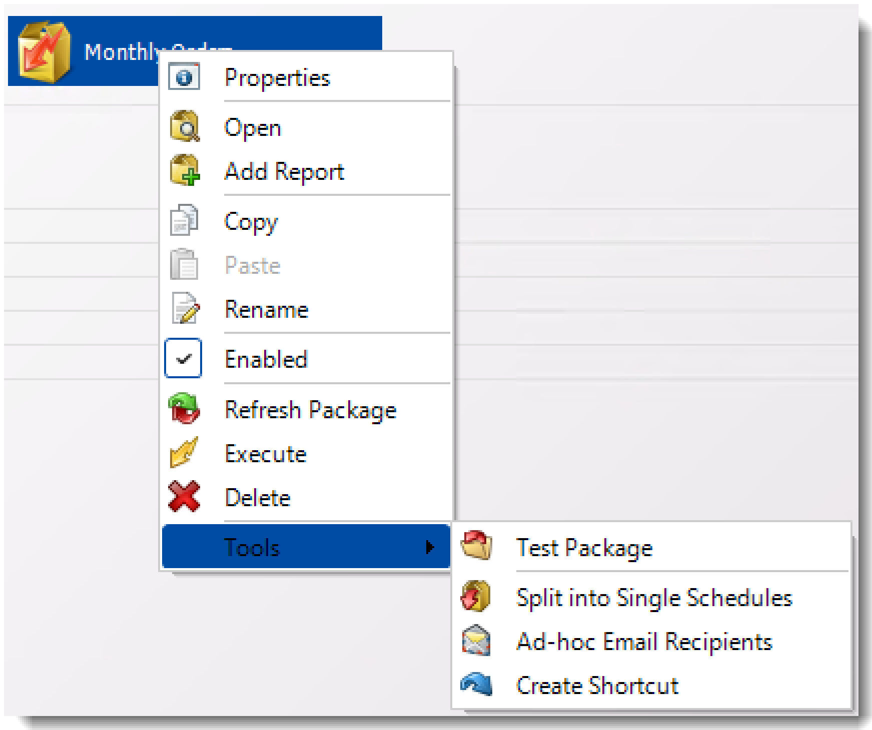
Click **Next** to continue to the next wizard section.

Custom Tasks Wizard

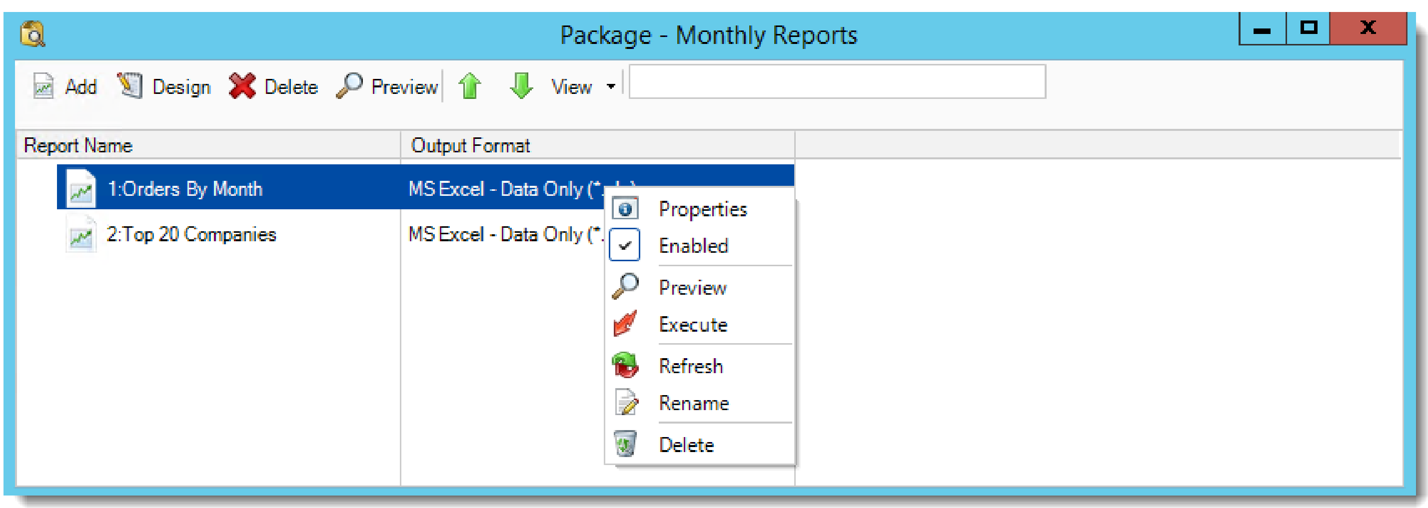


- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- If you have no desire to add a Custom Task, you can click **finish** to complete the schedule.

Data Driven Package Context Menu



- Right-Click on a schedule to see the following actions:
- **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
- **Open:** This will open the package and show its constituent reports.



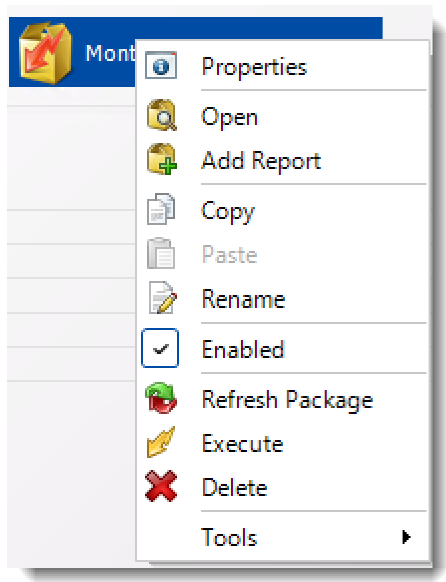
  - You can right-click on each of the constituent reports to see the context-sensitive menu shown in the picture above.
  - **Enabled:** Use this to enable or disable the constituent report.

    - **Refresh:** Pulls through changes to just that report which were made outside CRD.
    - **Rename:** Renames the selected report.
    - **Preview:** Generates a preview of the selected report.
    - **Delete:** Deletes the selected report from package.
    - **Properties:** Displays the configuration properties of just that report.
- **Add Report:** Use this to add one or more reports to an existing package.
- **Copy:** Use this to copy the schedule. Right-click in the "white space" of the folder you wish to copy it to and select Paste button.
- **Rename:** Rename the package.
- **Enabled:** Schedules are enabled when there is a check icon beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check icon. Disabled schedules will not run until they are enabled again.
- **Refresh:** When a schedule is first created, CRD caches (saves) a copy of the report. All executions of the scheduled are performed using this copy. If you make changes to your master report, you must select this option in order to pull the changes into CRD.
- **Execute:** This button will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers .
- **Delete:** Selecting this option will delete the schedule.
- **Test Package:** Use this option to test the schedule and export it to selected "test" destinations.
- **Split into Single Schedules:** This will split all the constituent reports in the package into Single Report Schedules.

  This process will automatically delete the package once the splitting process is completed.

- **Ad-Hoc Email to Recipients:** Select this option to send an ad-hoc email to all recipients of this package. You can use this to alert recipients to a planned system outage, or any other useful information.
- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.

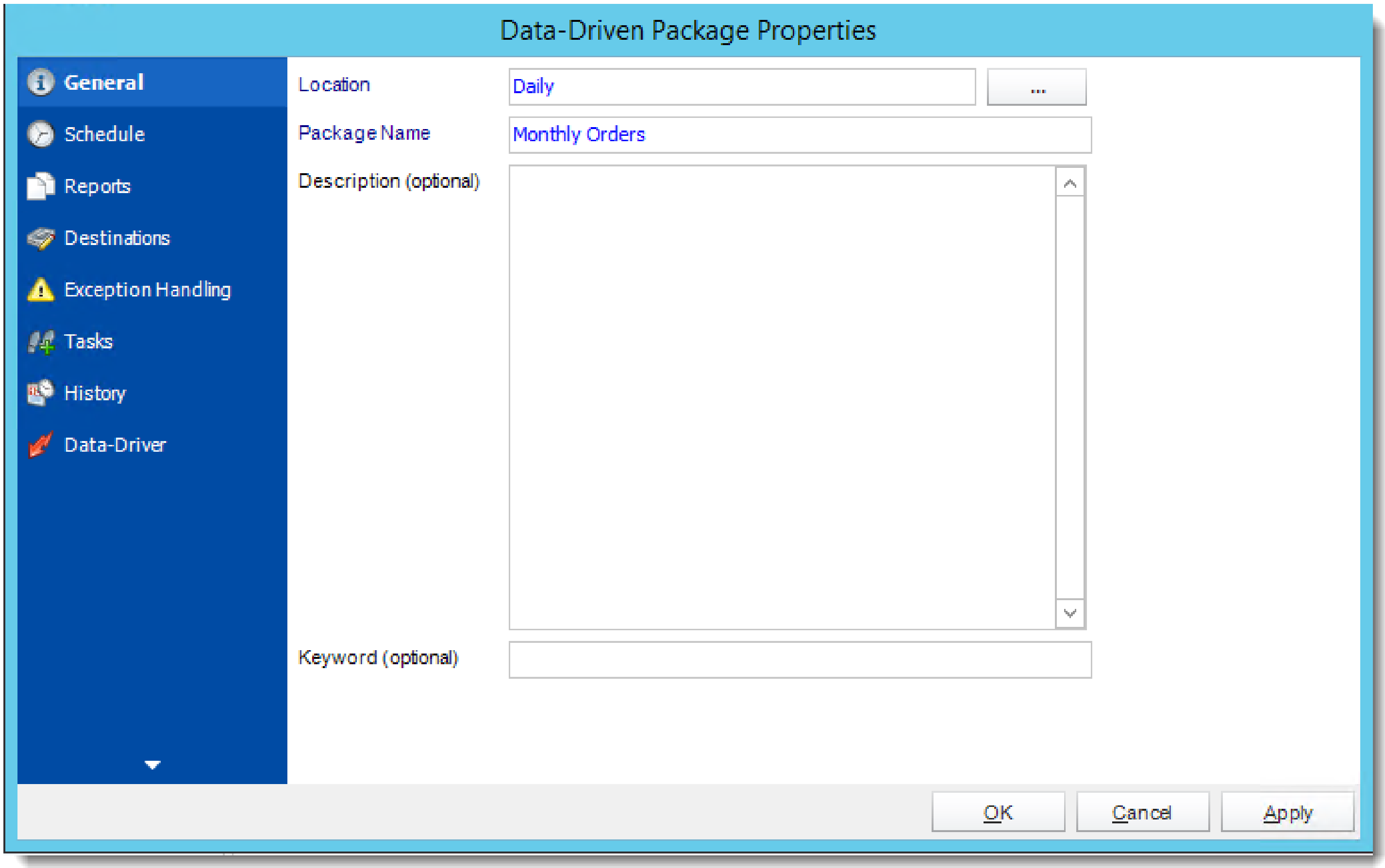
Data Driven Package Properties



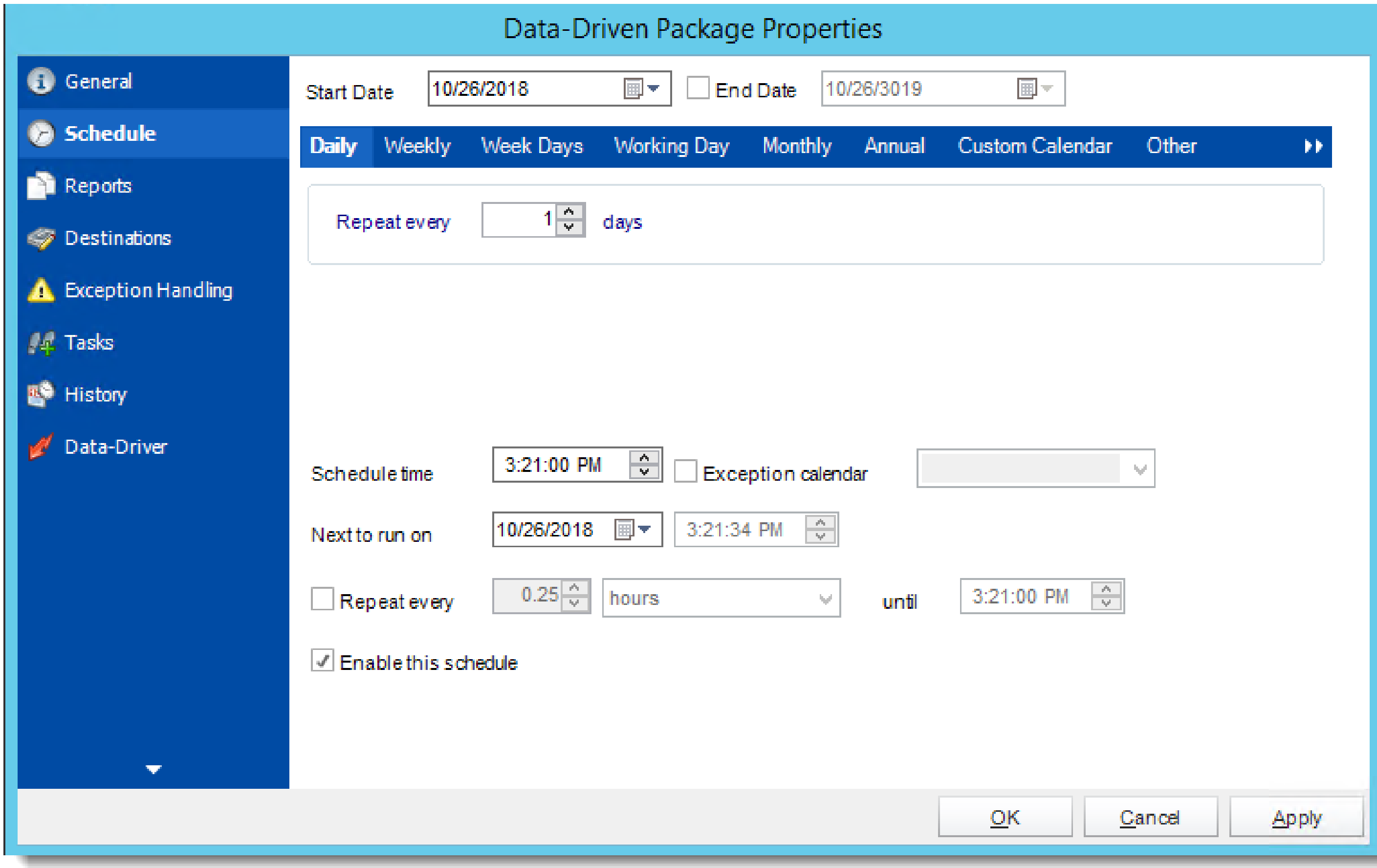
To access your schedule properties, right click on a schedule and select **properties**.

Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

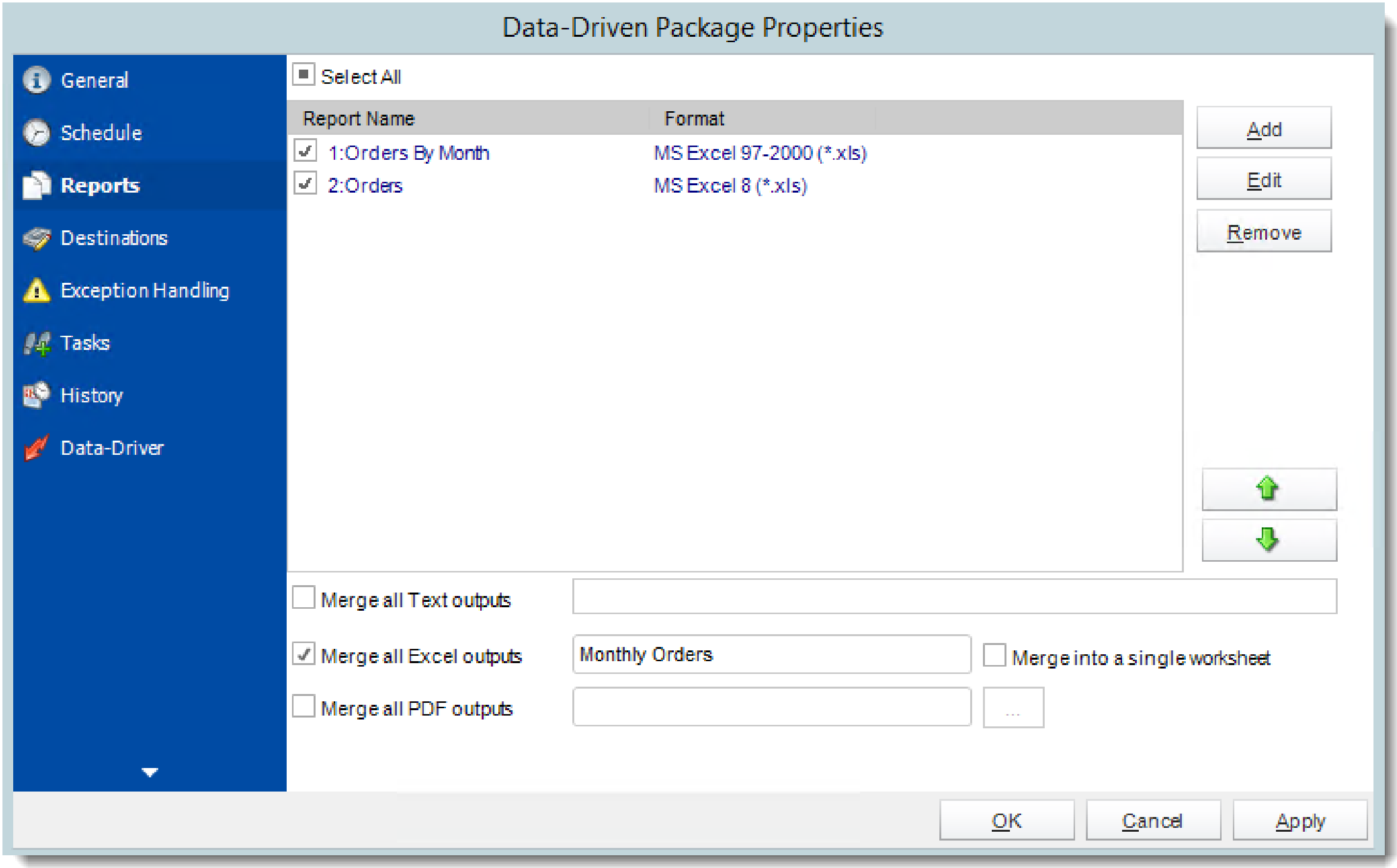
General: You can edit package general information from here.



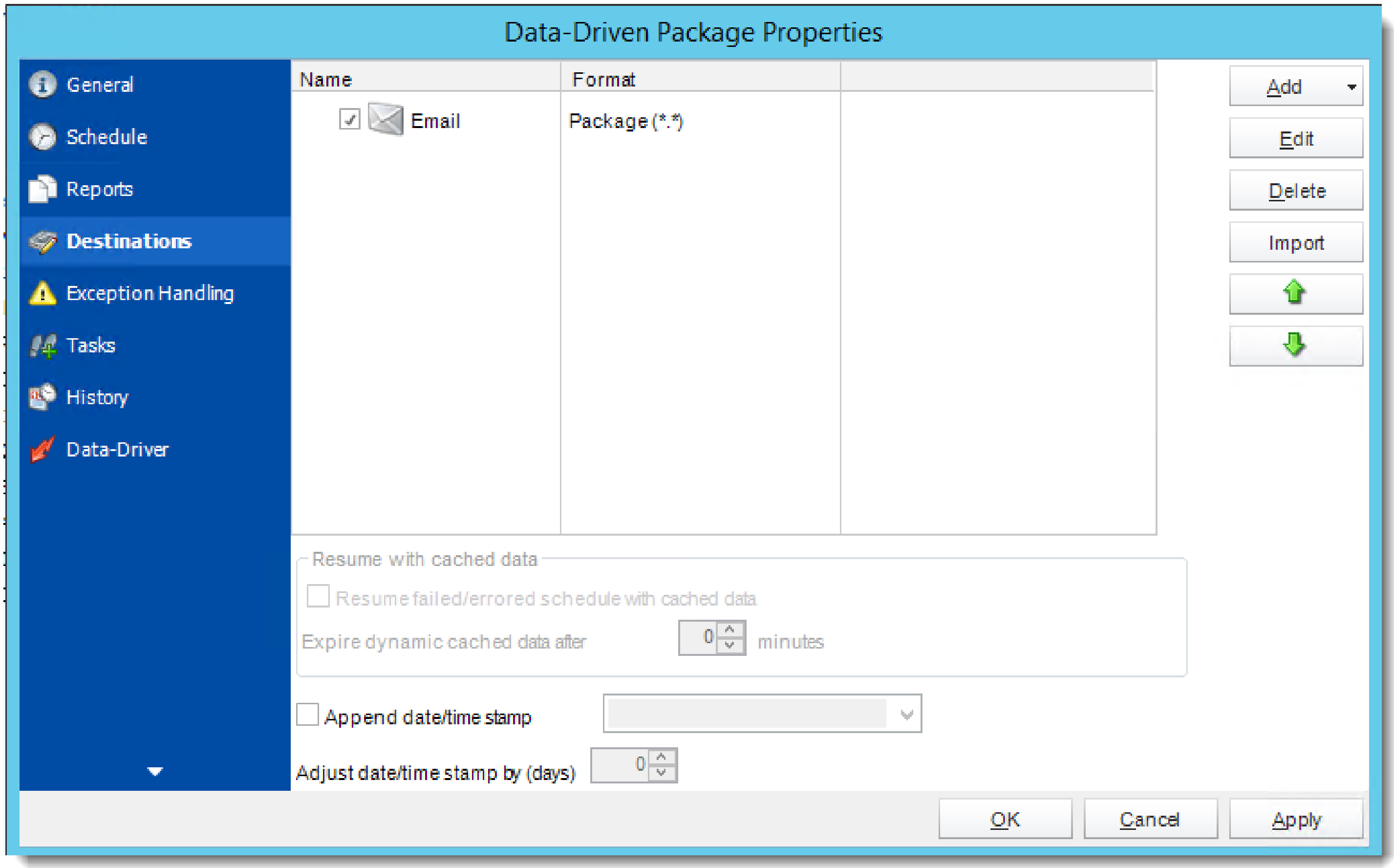
Schedule: You can edit the schedule time from here.



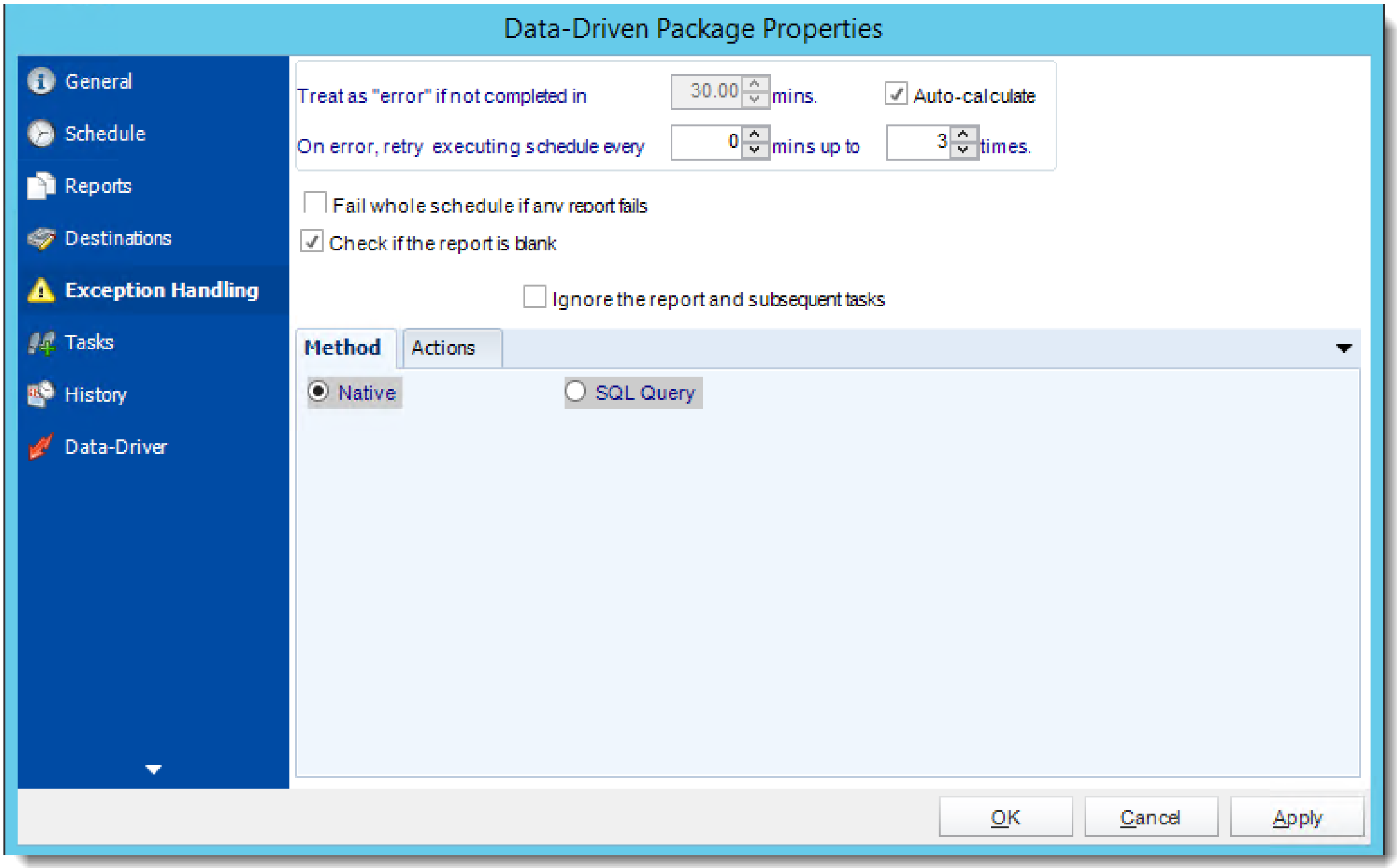
Reports: You can add, edit, or delete reports from here.



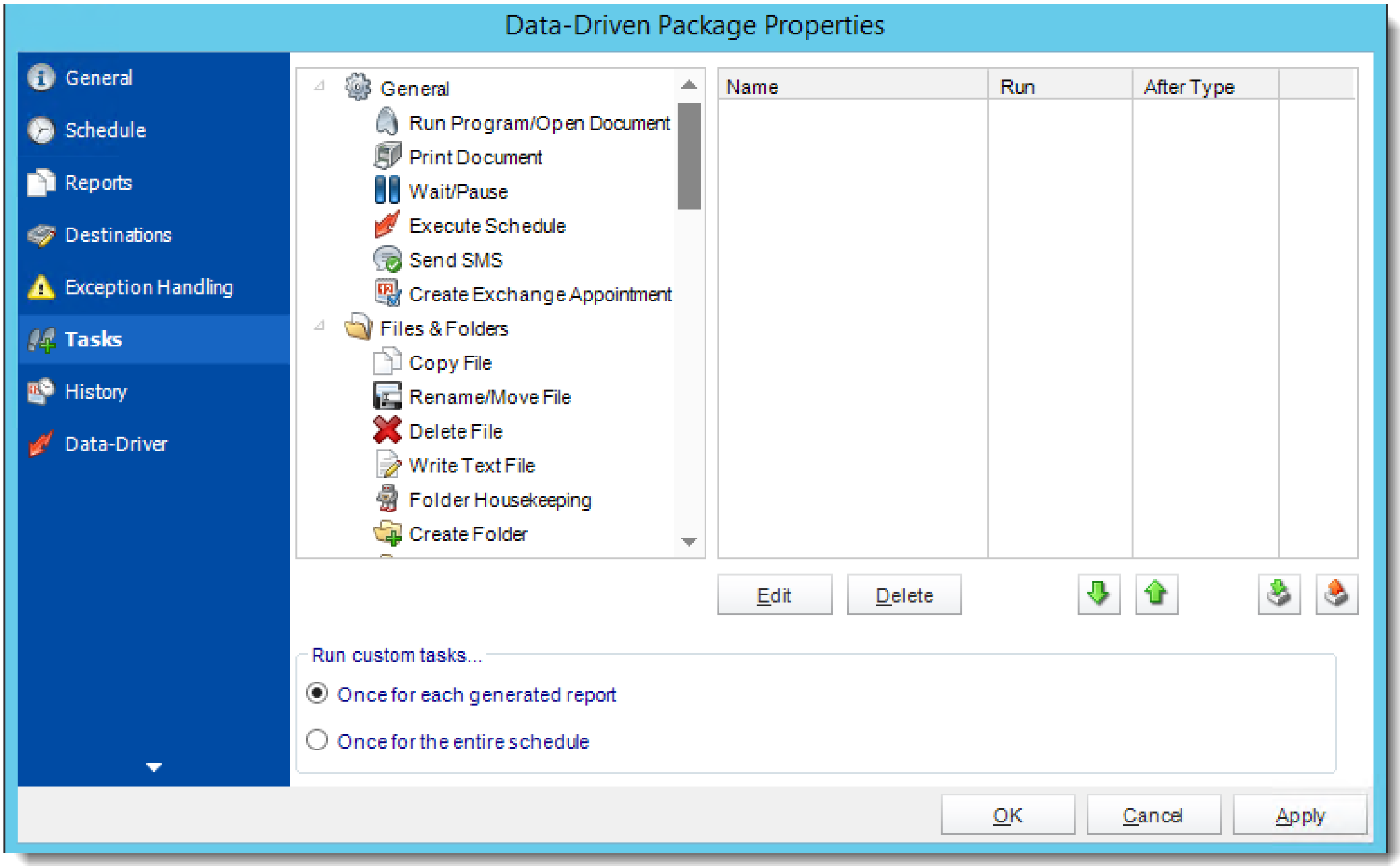
Destinations: You can add, edit, or delete destinations from here.



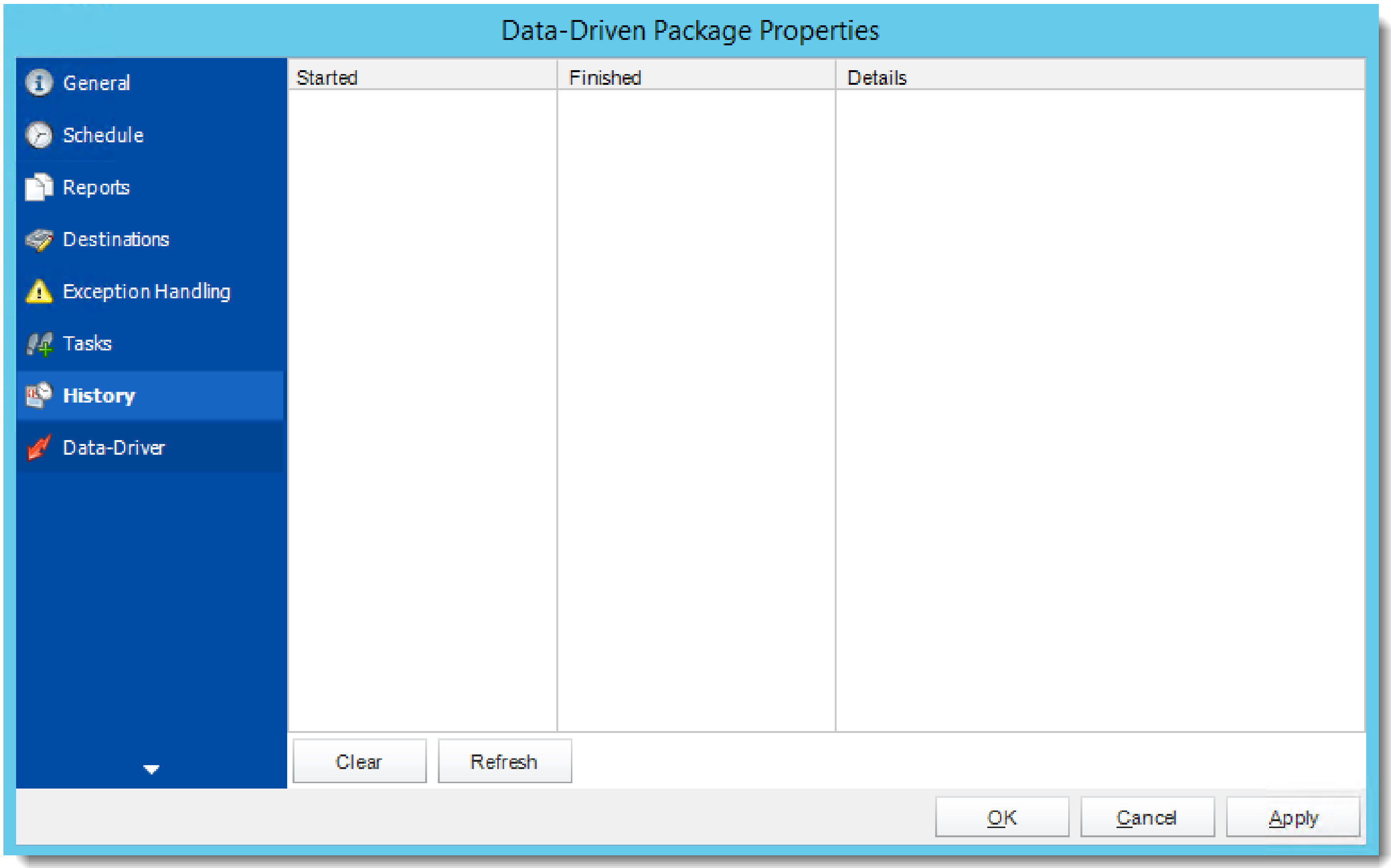
Exception Handling: You can edit exception handling from here.



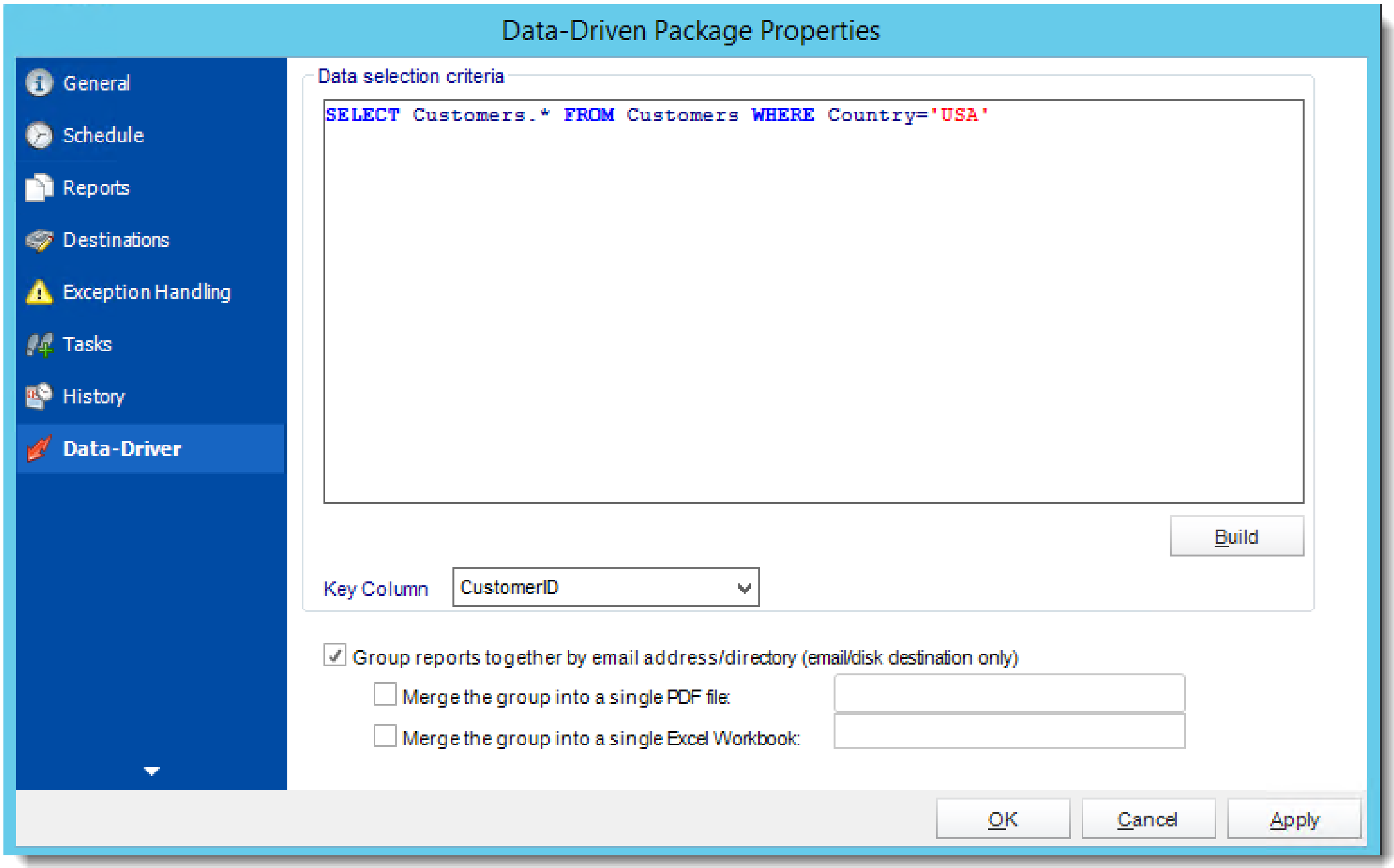
Tasks: You can add, edit, or delete tasks from here.



History: Review the schedules history. Successes, failures, and other data is located here.



Data-Driver: You can edit Data Driver from here.



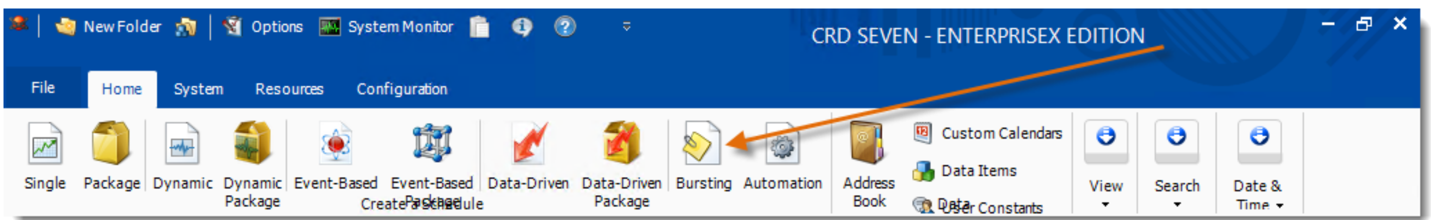
Bursting Schedules for Crystal Reports.

Bursting schedules are specifically designed to burst individual groups in a report and deliver each group to a different destination. For example, you can tell CRD to burst a sales report into individual groups based on "Department" and to email each department's group to the head to that department.. The purpose of the wizard will be to guide you through the process of setting up a single report to be generated at defined intervals and delivered to one or more defined destinations.

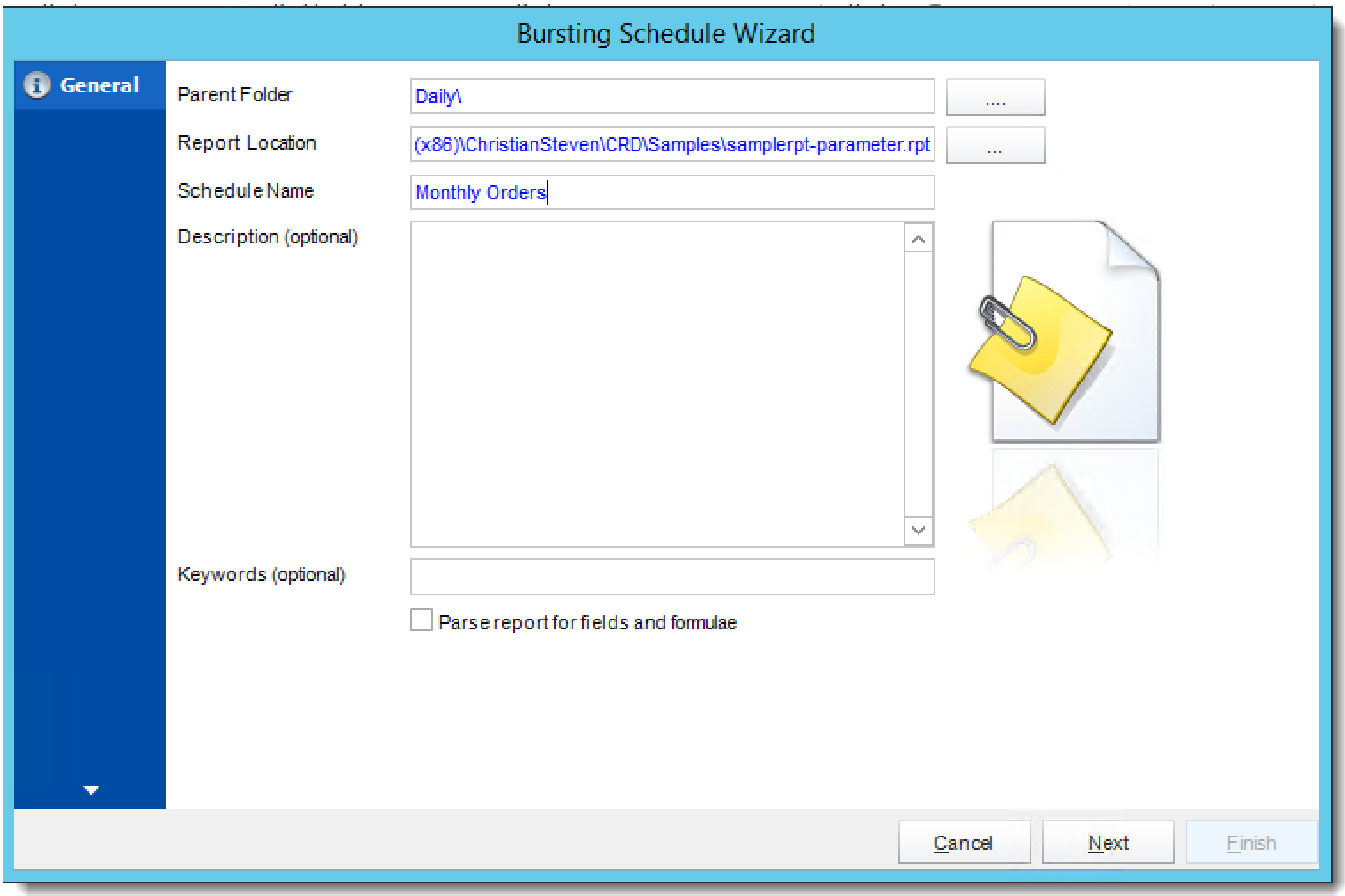
> *Example: Management now wants Khan to break a report up by customer so they can more closely detail the customer's order profile. Rather than changing the report, or writing a new one, he can automatically burst the different groups*

How do I create a bursting schedule for Crystal Reports?

- Go to **Bursting.**

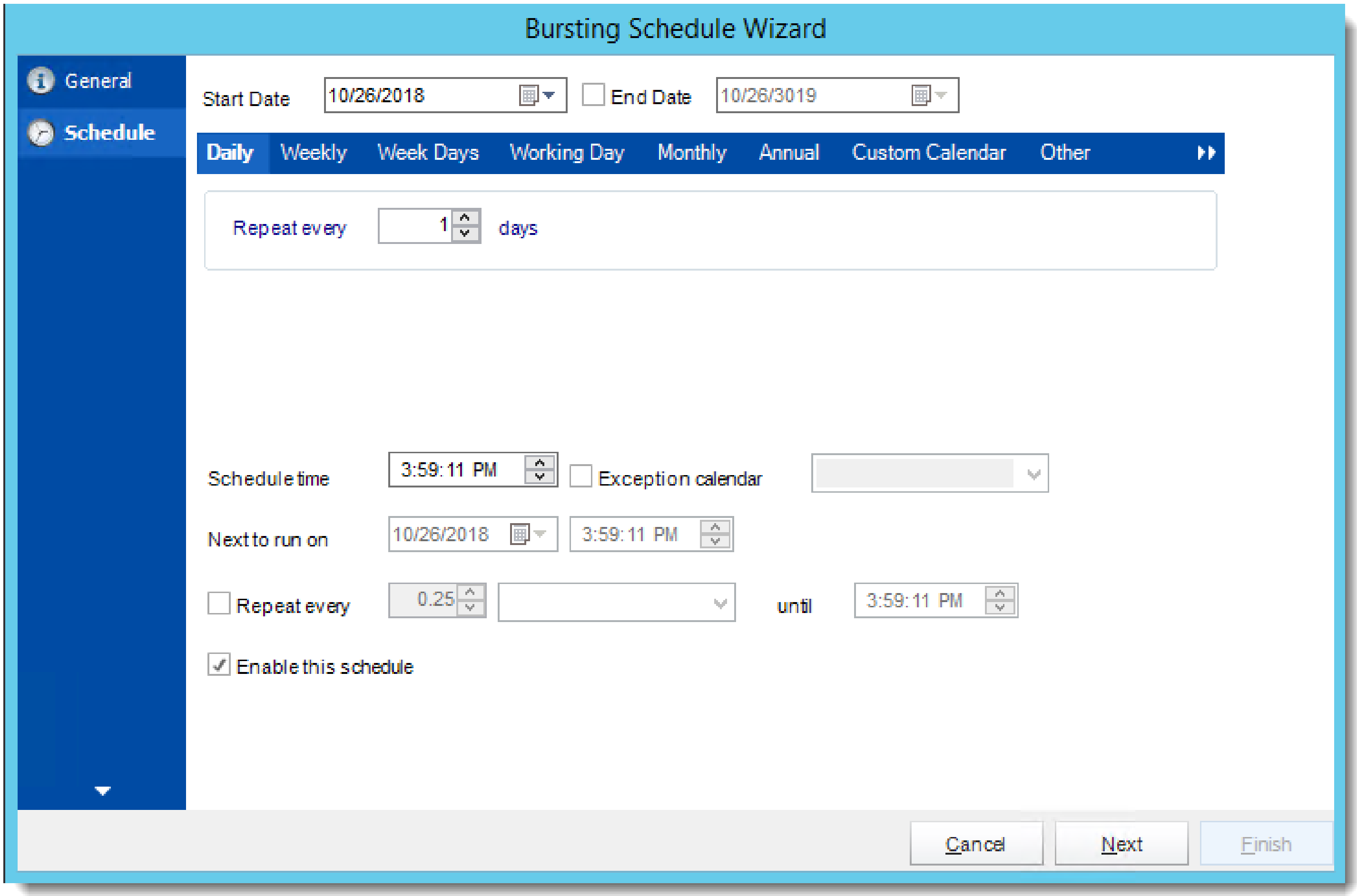


General Wizard



- **Parent Folder:** Select the folder where you wish the schedule to be stored. These are CRD specific folders.
- **Report Path:** Select the Crystal report that needs to be scheduled. A crystal report can only be added if the CRD server can reach the report path.
- **Schedule Name:** Name the schedule.
- **Description:** Add a Description to the schedule to help identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to categorize this schedule.

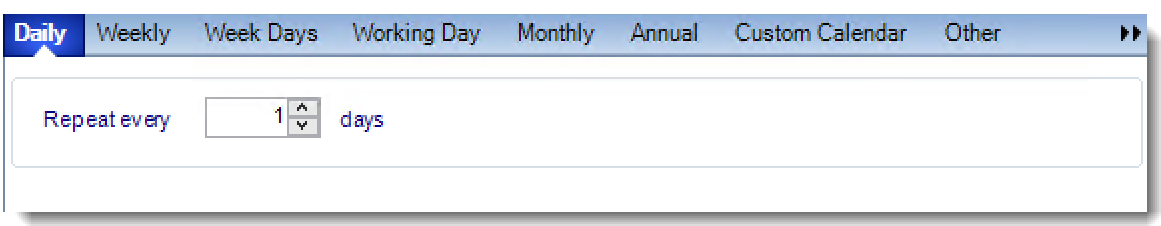
Schedule Wizard



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
    - **Sub options:** Repeat every X Days.

      Example: Run the schedule every 3 days.



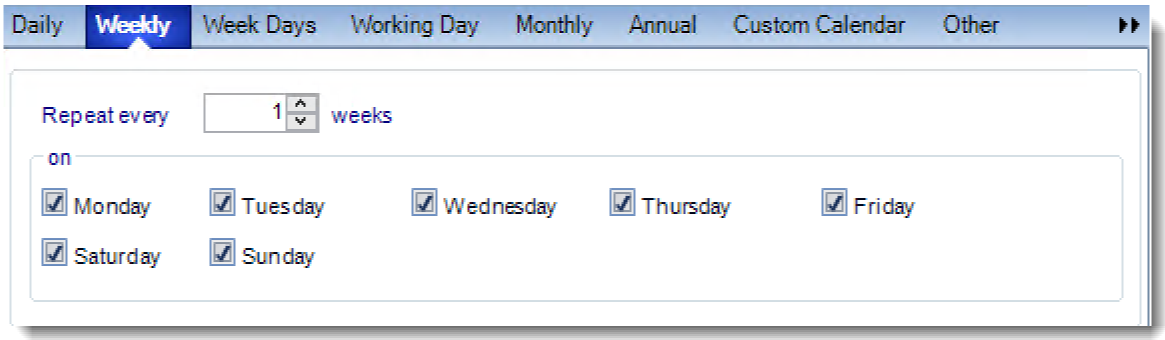
- **Weekly:** Run a report on a weekly time frame.

- **Sub options:** Repeat every X weeks.

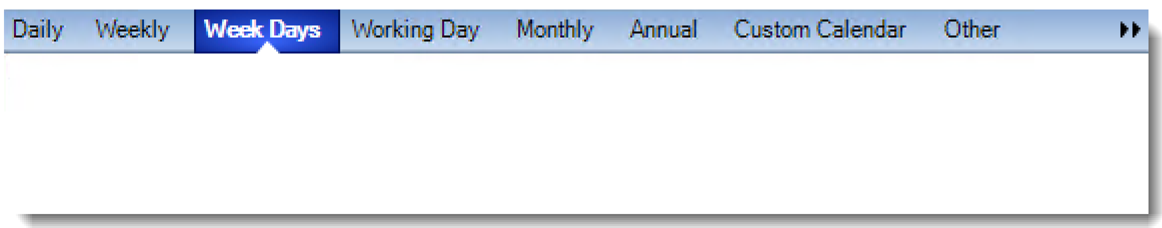
  Example: Run the schedule every 2 Weeks.

- **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

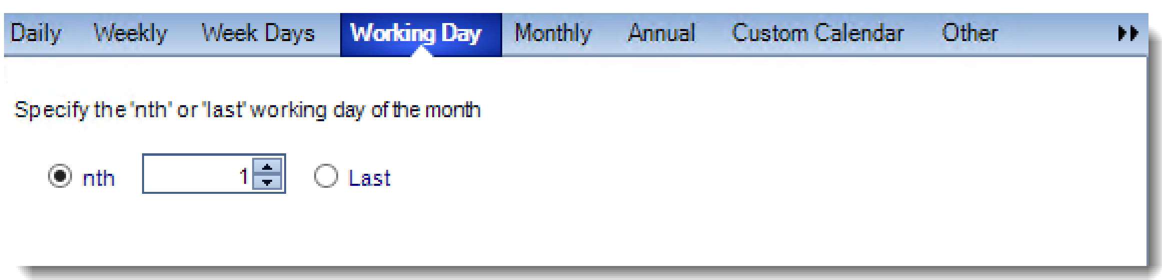
  Example: Run every Monday, Wednesday, and Friday.



- **Week Days:** Run the schedule Monday through Friday.

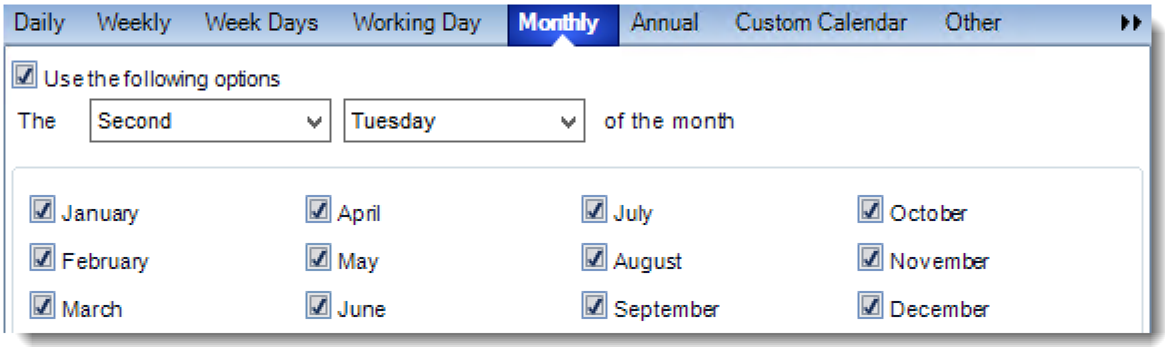


- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.

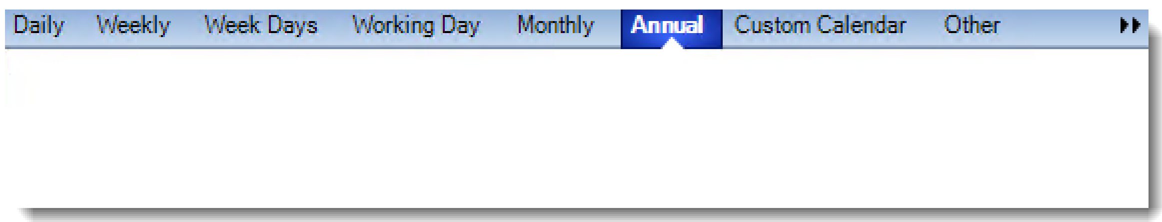


- **Monthly:** Run the schedule on a monthly time frame.

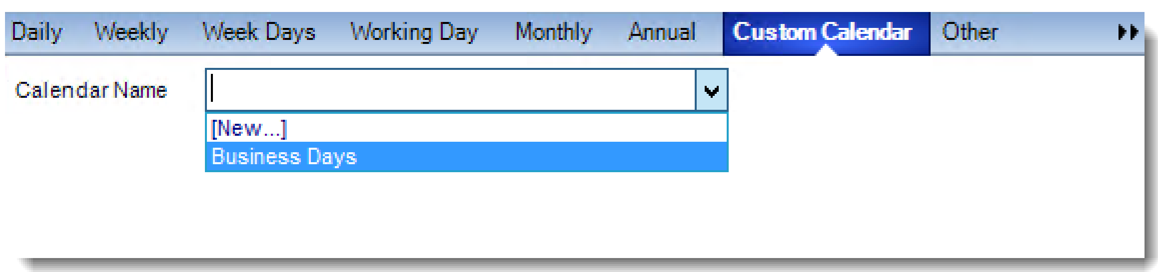
- **Use the following options:** Checking this box will enable you to select frequency options such as the "last Thursday of the month." Also you can include or exclude specific months from the schedule.



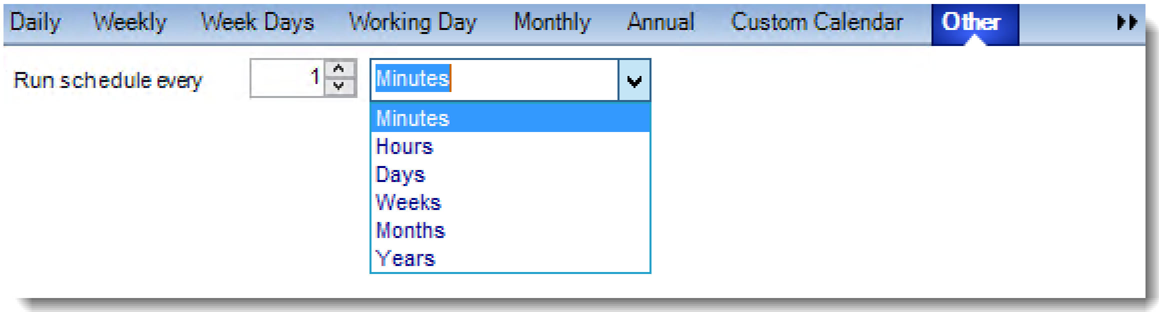
- **Annual:** Run the schedule every year at a specified time.



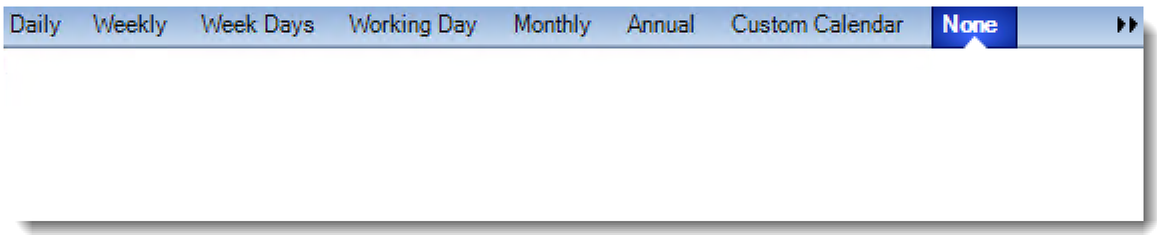
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
  - Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.

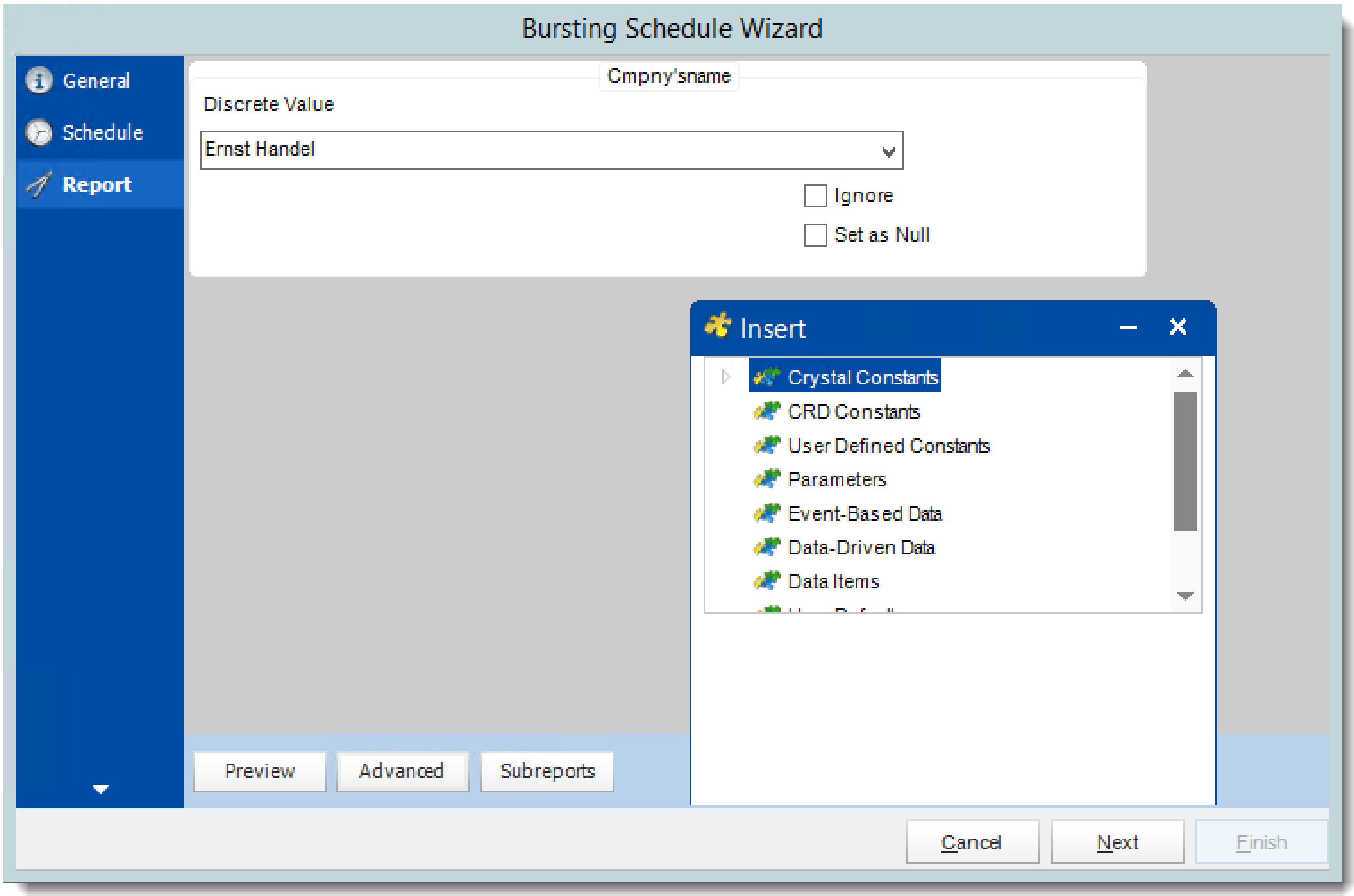


- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

  For example, you can set up a daily package to run every day at 8 am, *and to run every hour until* 5 pm*.*

- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

Click **Next** to continue to the next wizard section.



- In this section, you will determine the parameters for your report (if any) and select options for your subreport. If your report has no parameters, you may skip this section by clicking next.
- There are 3 requirements in order for CRD to detect your Crystal Report parameters and their parameter values:
  1. The parameter must be in use in the report.
  2. The parameter must be visible.
  3. The parameter must be set to be prompted at runtime.
- If these three requirements are achieved, you should see the parameters in your report listed in this screen.
- For each parameter, select from the drop down list the value the report must use. In a single schedule, only one parameter value can be run at a time per parameter. You can type a value into the field as well.
- **Set as Null:** Set no value for this parameter.
- **Ignore:** Do not run this parameter, ignore it at runtime.

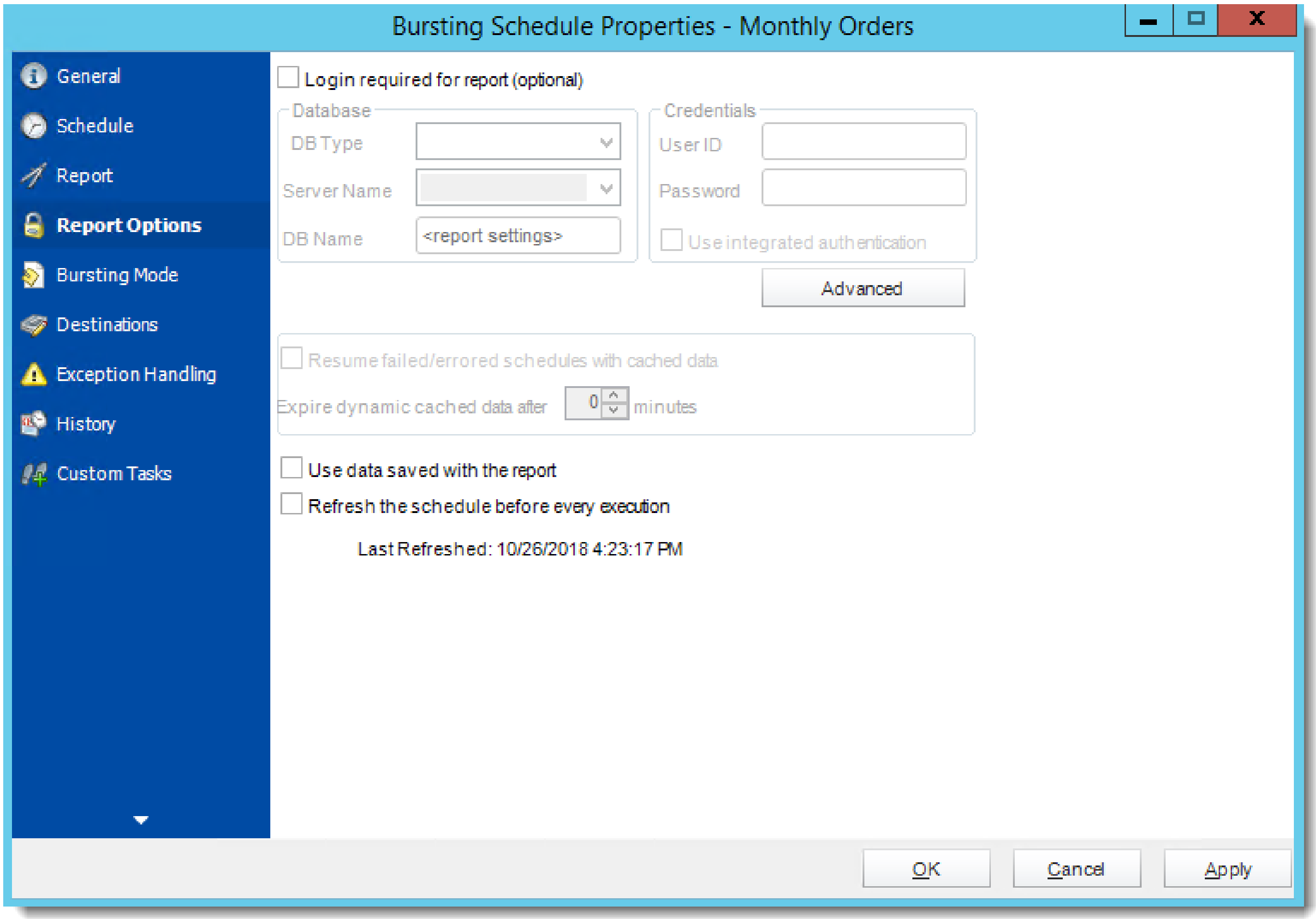
- Insert Menu**:** You can insert constants, formulas and database field values instead of a static "typed in" value. Right-click in the parameters field to expose the Insert menu.

  To enable a report parameter to run for a date constant (Current Date, Yesterday etc.), select CRD Constants from the insert window, then drag and drop your desired constant to the parameter field.

- **Selecting Date Parameters via Calendar:** If your report contains a date parameter, you can either manually enter dates as described earlier in this topic, or select the desired date from the built in calendar. Simply click in the date parameter field to open the calendar. Select the desired date. Click OK.
- If the parameter is also a time parameter, this can selected as well. The buttons below enable you to preview the report, adjust formulae, and review sub reports. You can re-query the report for parameters as well.
- **Formulae:** View edit and Parse the Record Selection Formulae.
- **Subreports**: set parameters, authenticate, and re-query sub report parameters.
- **Preview:** Shows you a preview of the report.

  The preview function only works if Crystal Reports is installed on the PC.

Click **Next** to continue to the next wizard section.

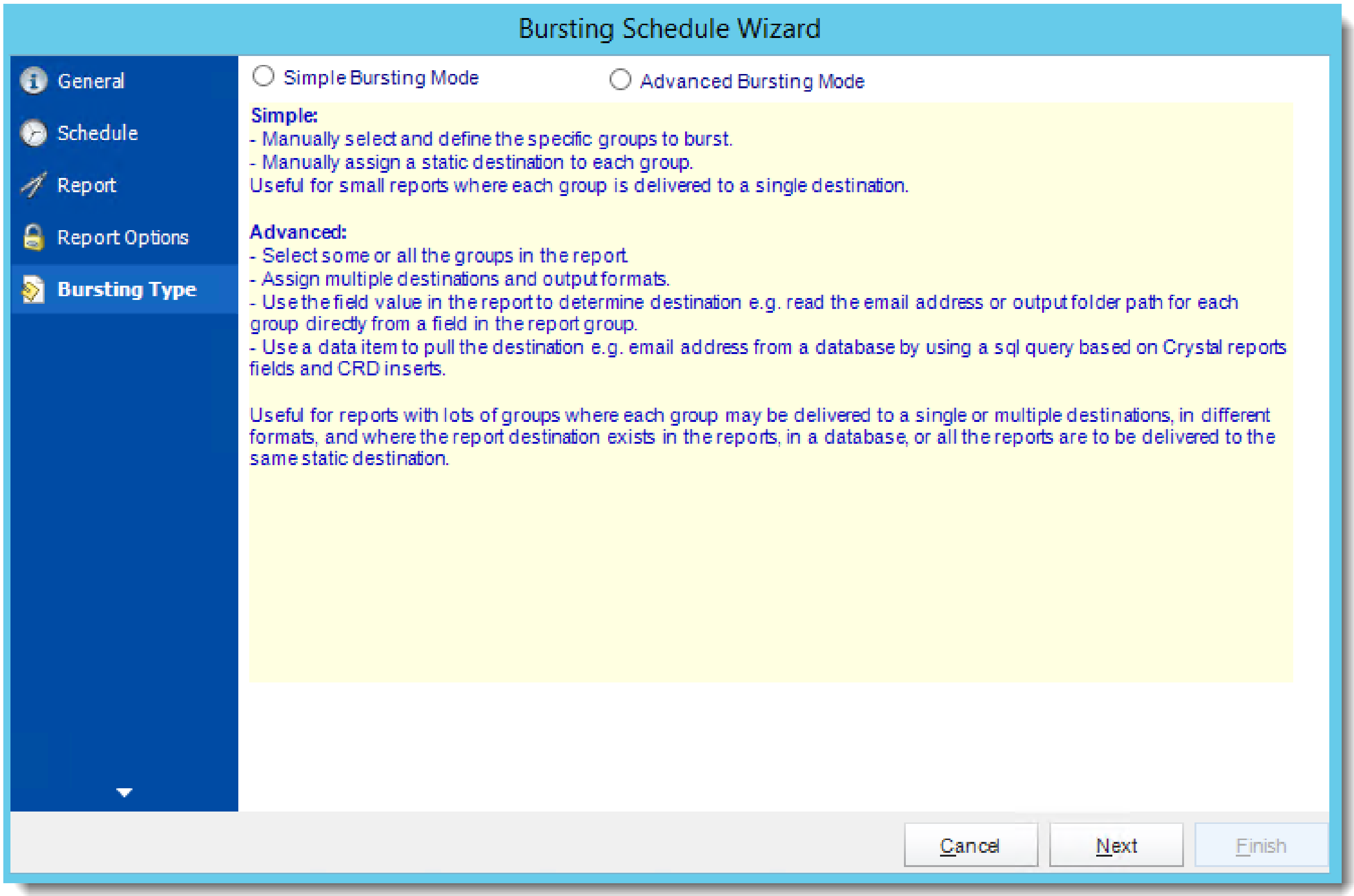


- **Database Login:** If the database requires logon credentials, check this option and enter the required username and password. If credentials are not required, uncheck the option and continue as normal (default). All values are optional. You only need to enter a value if your database, security, networking or infrastructure require it.
- **DB Type:** Select the type of Database.
- **Server Name:** Enter the server name of the database.
- **DB Name:** Enter the name of the database.
- **Credentials:** Enter the User ID and Password for the Database. Clicking on the Advanced tab, you can set logins for each table.
- **Advanced**: Enables you to specify credentials at the table level. Double click the table to set its login information.

- **Resume failed/errored with cached data**: If the schedule fails, resume the schedule from where it left off. You can then select how long should the cached data should be kept.
- **Use data saved with the report:** By default, CRD will always attempt to run the report using the very latest data in your database. If your report is saved "with data" and you want CRD to simply export the data in the report, then check this option.
- **Refresh the schedule:** This refreshes the schedule before every execution.
- **Save snapshots of the execution and keep them for (days):** Keep a copy of the report for how many days.

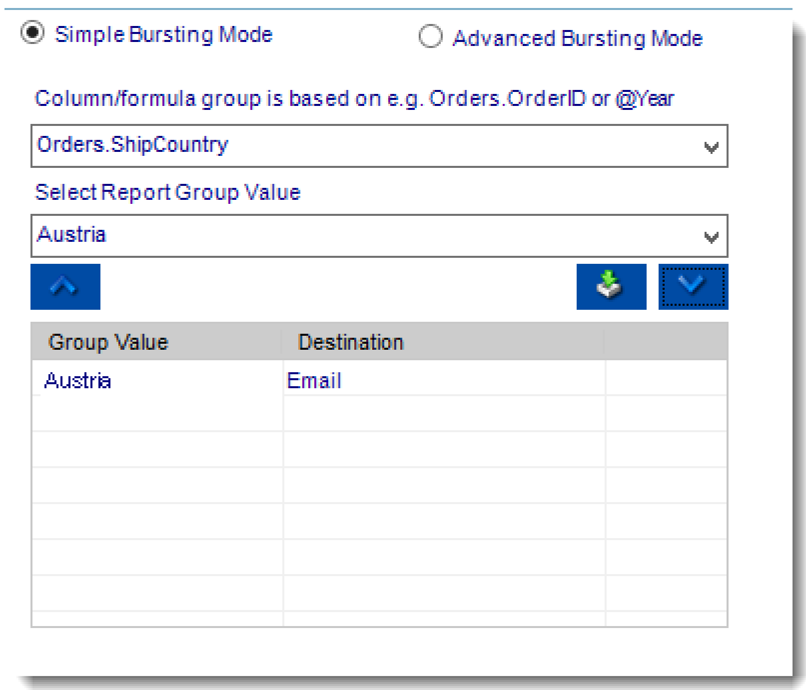
Click **Next** to continue to the next wizard section.

Bursting Type Wizard

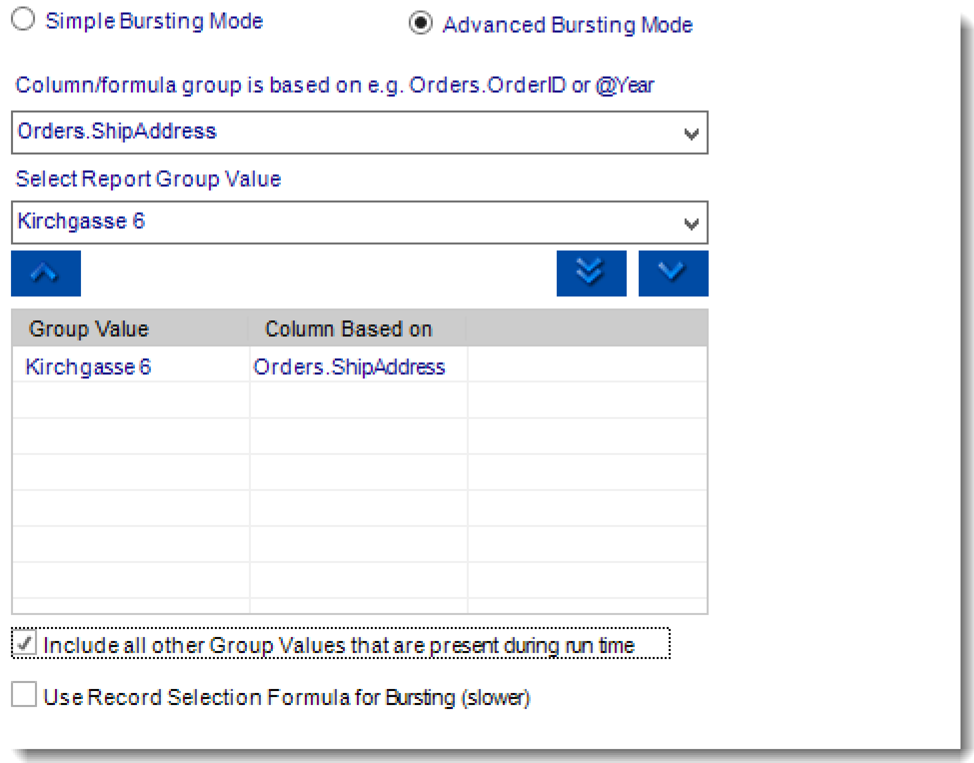


Simple Bursting

- Manually select and define the specific group to burst
- Manually assign a static destination to each group
- Useful for small reports where each group is delivered to a single destination
- Once selected you are prompted to specify what group you will be bursting on.
- Click the **down blue arrow**.
- This will bring up the destination setup screen. Set up a destination for the selected group. When this is completed, the group and its destination are added to the list, and you may choose another group and determine a destination for it. A destination has to be determined for each group in your report.
- You can use the button to add Default Destinations for a selected group.
- Then select specific group values, hit the down arrow and complete a custom destination for every group you want to send the report to. Once you have all the values you want, click **Next.**

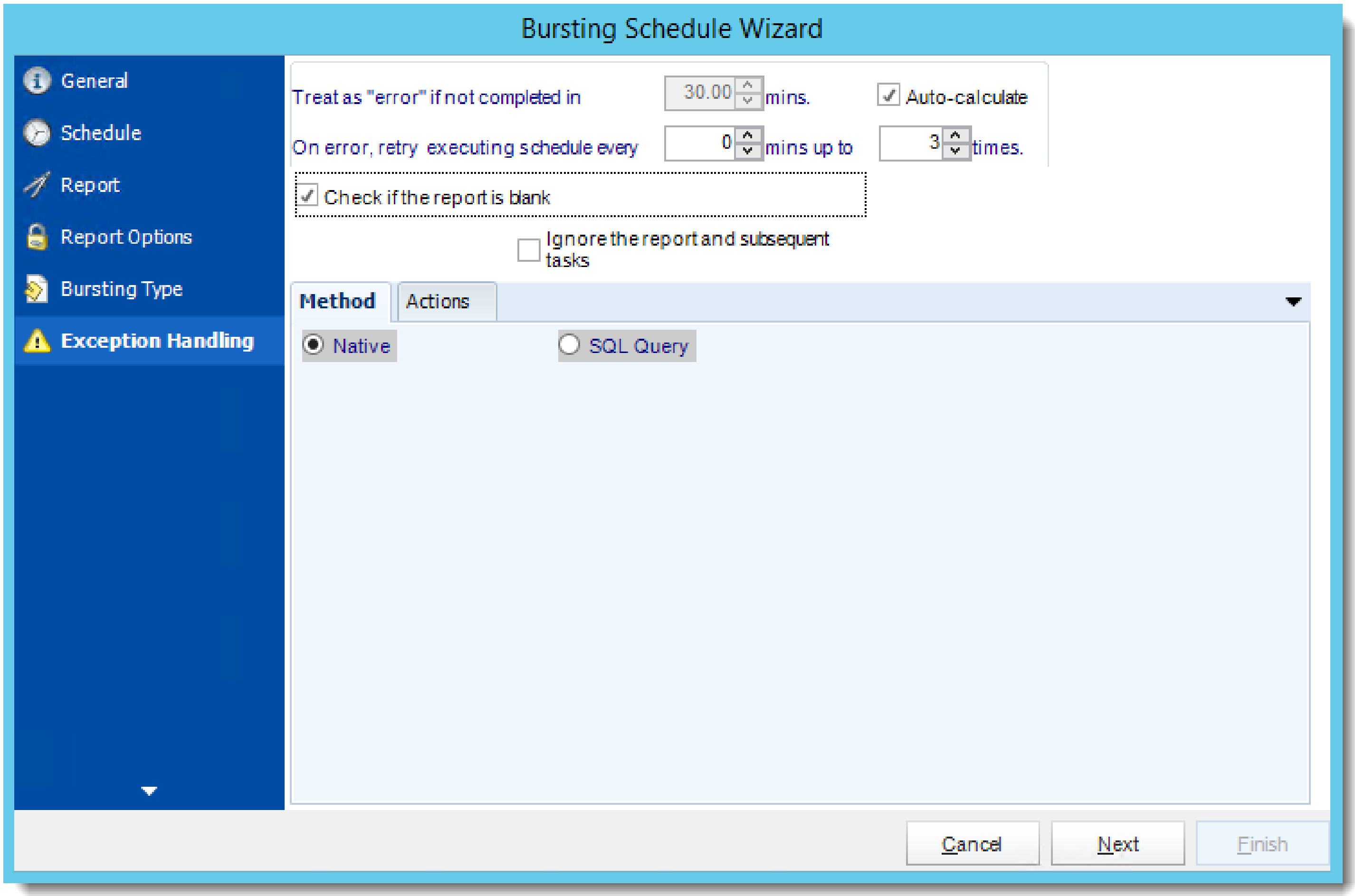


- Select some or all of the groups in the report.
- Assign multiple destinations and output formats
- Use the field value in the report to determine destination e.g. read the email address or output folder path for each group directly from a field in the report group
- Use a data item to pull the destination e.g. email address from a database by using a SQL query based on Crystal Reports field and CRD inserts
- Useful for reports with lots of groups where each group may be delivered to a single or multiple destinations, in different formats, and where the report destination exists in the reports, in a database, or all the reports are to be delivered to the same static destination.
- On selecting the advanced bursting mode option you will be promoted to instruct CRD enable Crystal Reports Fields parsing for the destinations. (*This will only work if the destination are contained in the report*)
- You can select groups individually and add them to the list for bursting by clicking the single down arrow. You can add all the available groups by clicking the double down arrow. If you need to remove any groups from the list you can select the group and click the up arrow to remove the selected group(s).



Click **Next** to continue to the next wizard section.

Exception Handling Wizard



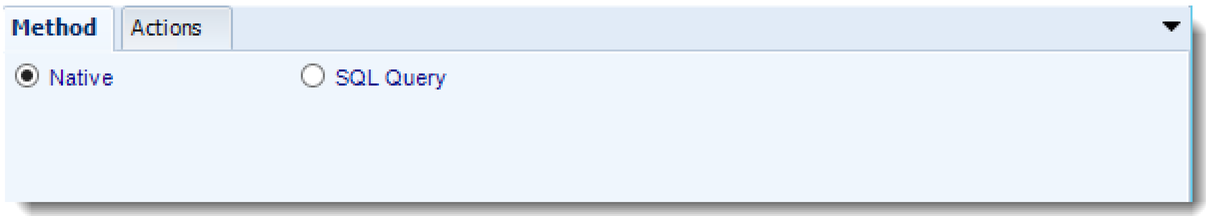
- **Treat as "error" if not completed in X minutes:** If a report takes longer than the specified amount of time to run, this option will treat the schedule as an error and follow the appropriate action. The "Auto-calculate" option instructs CRD automatically determine how long a schedule should take to run the report. If it takes longer than the calculated amount of time, then it is an error.

  If manually determining the error timing, please double check the run time of the report in order to get the correct time estimate.

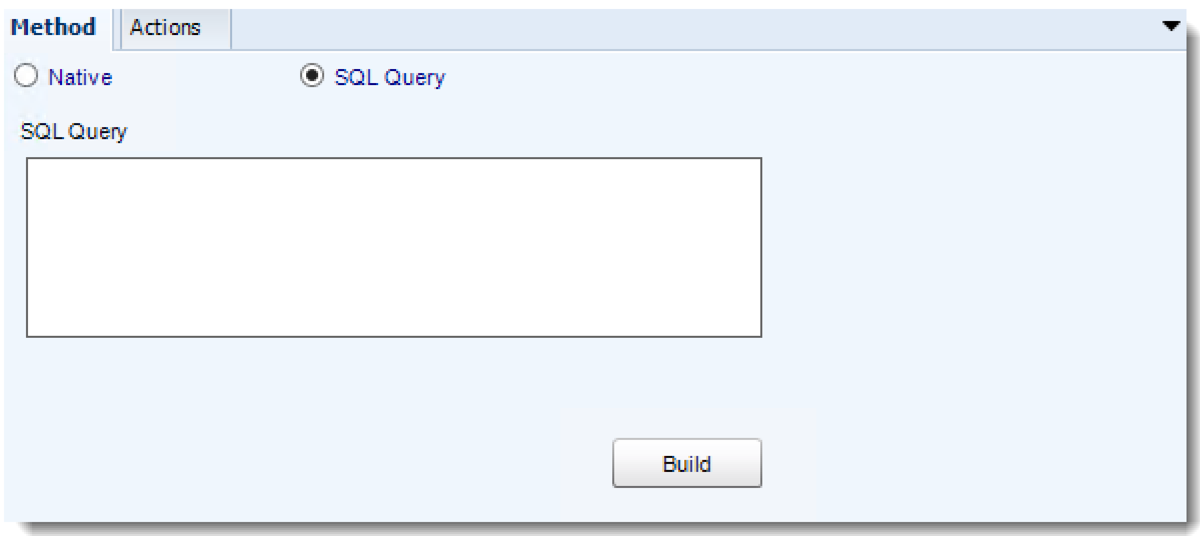
- **On error, retry executing schedule every:** If set to 0, CRD will deem the schedule as "Failed" the first time it encounters an error. The schedule will not run again until its next scheduled time. Change the value to tell CRD how many times you want it to retry running the report before declaring it as "Failed."
- **Check if the Report is Blank:** If a report is blank because it genuinely returned no data, recipients can misconstrue this as an error with the scheduler. This option allows you to identify genuine empty reports and instruct CRD on what to do with them.

- **Ignore the report and subsequent tasks:** if the report is blank, do not send the report. The report will not be delivered to the destination. No custom tasks will be run.

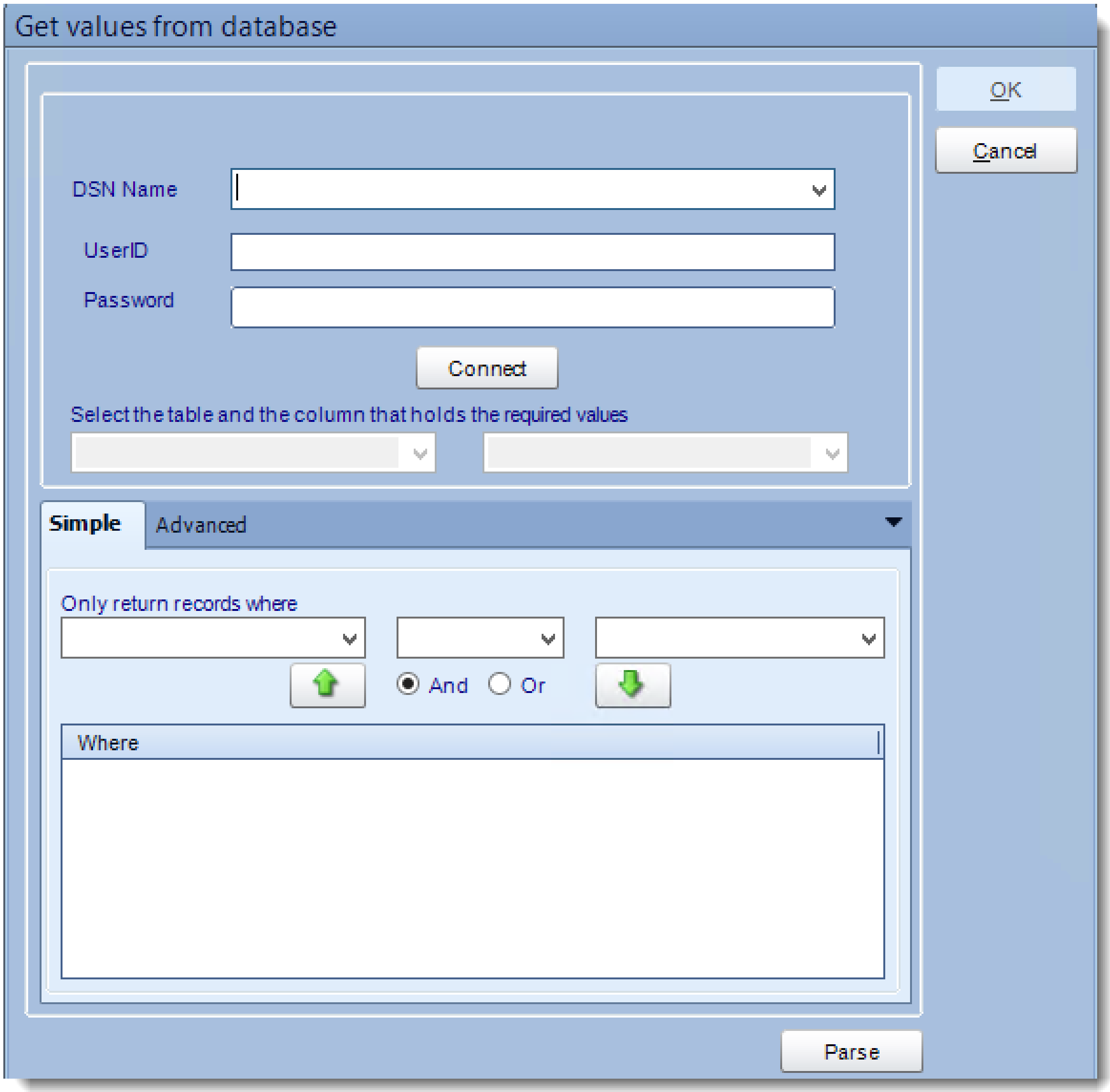
Method



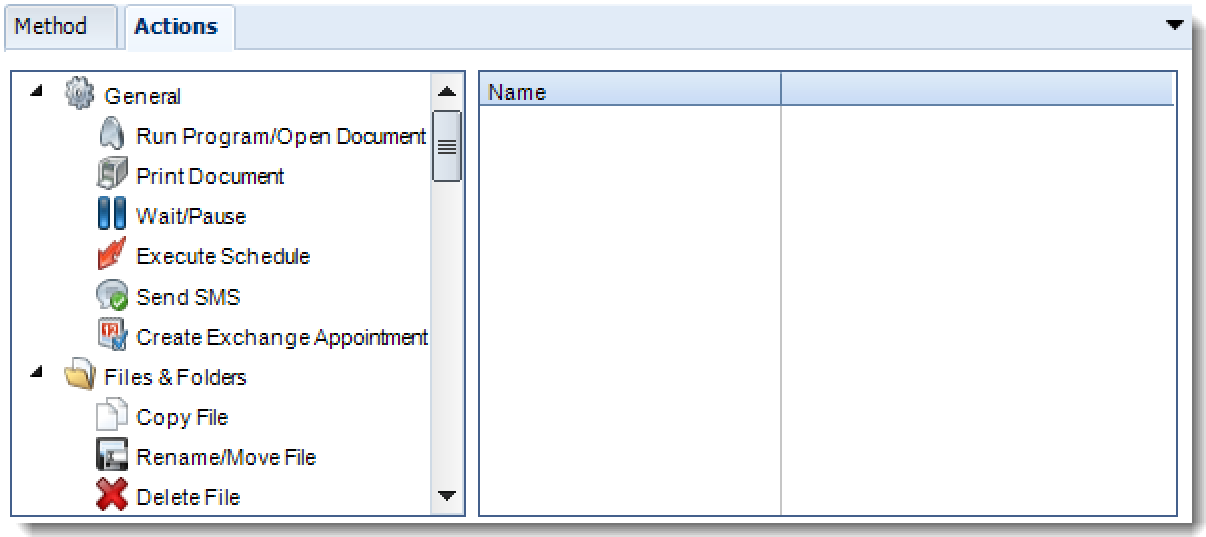
- Select the Method that will determine whether a report is blank.
    - **Native:** CRD will check to see if the report returns any data. If not, the report is considered blank.



-
    - **SQL Query:** Select this option to use a user made query that will determine if the report is blank. If the query returns no results, the report is blank.
- Click **Build.**
- Get values from a database window will appear. For more information about Get values from database, click here.


Get values from database
OK
Cancel
DSN Name
UserID
Password
Connect
Select the table and the column that holds the required values
Simple
Advanced
Only return records where
And
Or
Where
Parse

Actions

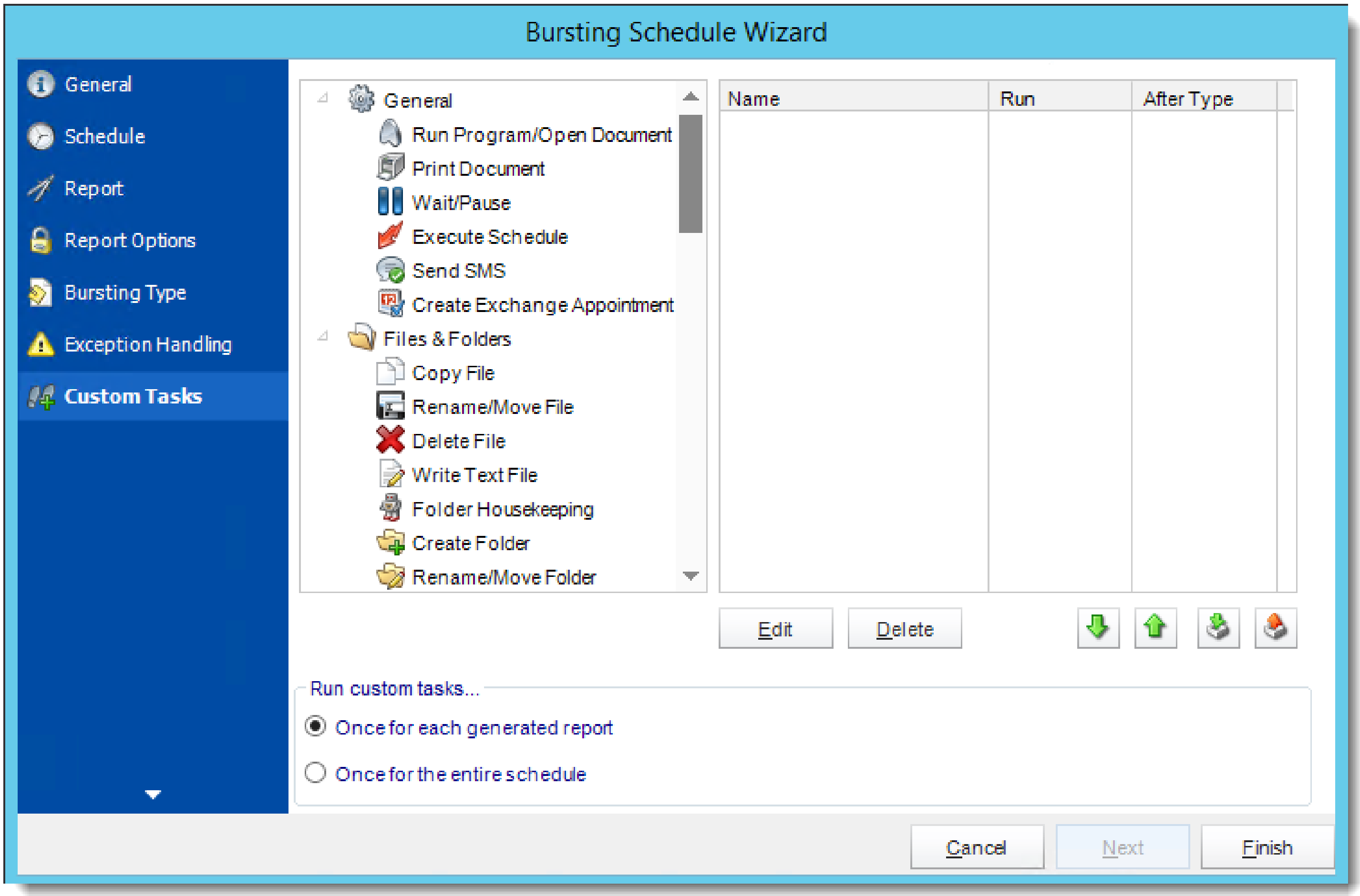


- Select an action from the task list. This task will be executed in the event that a schedule is blank.
- For more information about tasks, click here.

Tip: You can send a notification if a report is considered blank instead of sending the report. Simply select "check if a report is blank" then select "Ignore the report." In the actions tab, select "Send Email" from the list. Compose your email and save.

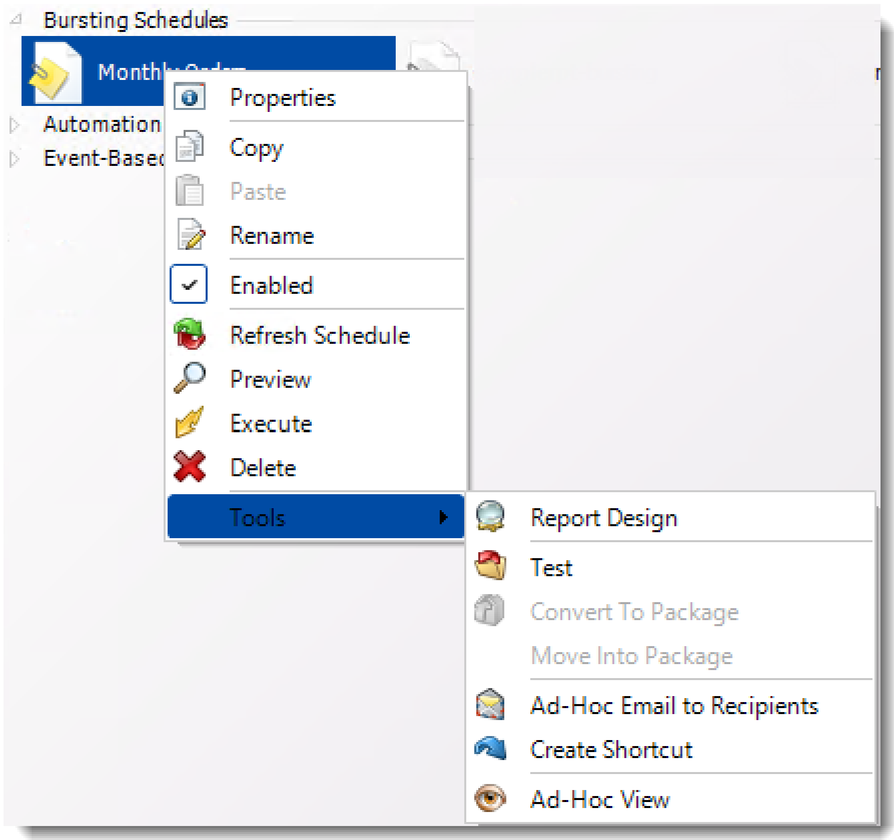
Click **Next** to continue to the next wizard section.

Custom Tasks Wizard



- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- If you have no desire to add a Custom Task, you can click **finish** to complete the schedule.

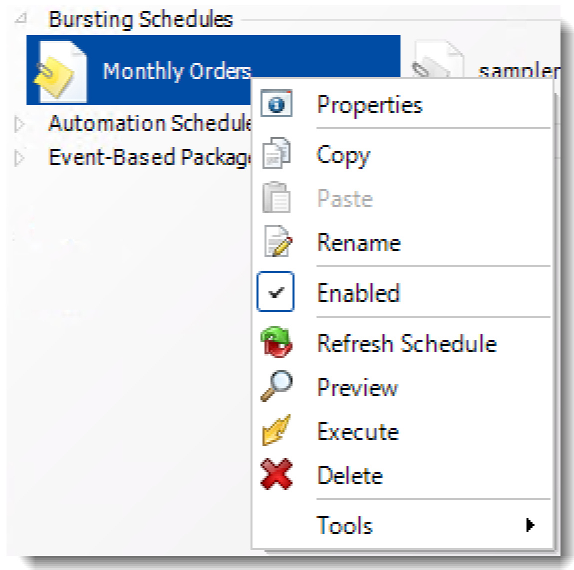
Bursting Schedule Context Menu



- Right-Click on a schedule to see the following actions:
  - **Properties:** Edit the schedule from here. Or you can just double click on the schedule.
  - **Copy:** Use this to copy the schedule. Right-click in the "white space" of the folder you wish to copy it to and select Paste button.
  - **Rename:** Rename the package.
  - **Enabled:** Schedules are enabled when there is a check icon beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check icon. Disabled schedules will not run until they are enabled again.
  - **Refresh:** When a schedule is first created, CRD caches (saves) a copy of the report. All executions of the scheduled are performed using this copy. If you make changes to your master report, you must select this option in order to pull the changes into CRD.
  - **Preview:** Preview the report before execution.
  - **Execute:** This button will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers
  - **Delete:** Selecting this option will delete the schedule.
  - **Report Design:** Preview the report Design.
  - **Test:** Use this option to test the schedule and export it to selected "test" destinations.

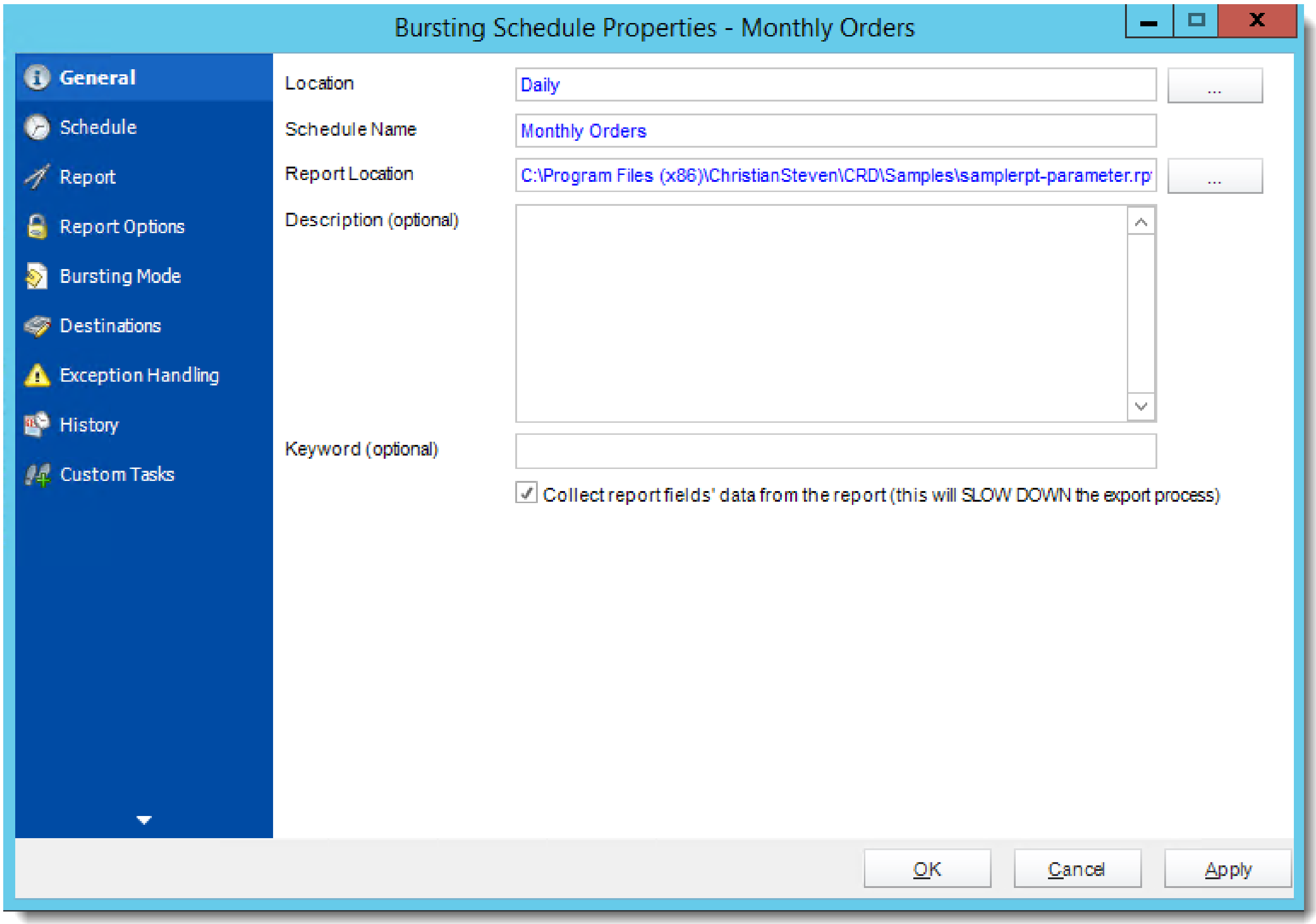
- **Convert To Package:** This button will move this report into a package. The package will have the name of the single schedule report.
- **Move into a package:** use this option to move the report into an existing package.
- **Ad-Hoc Email to Recipients:** Select this option to send an ad-hoc email to all recipients of this package. You can use this to alert recipients to a planned system outage, or any other useful information.
- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.
- **Ad-Hoc View:** This button allows you to preview the report.

Bursting Schedule Properties

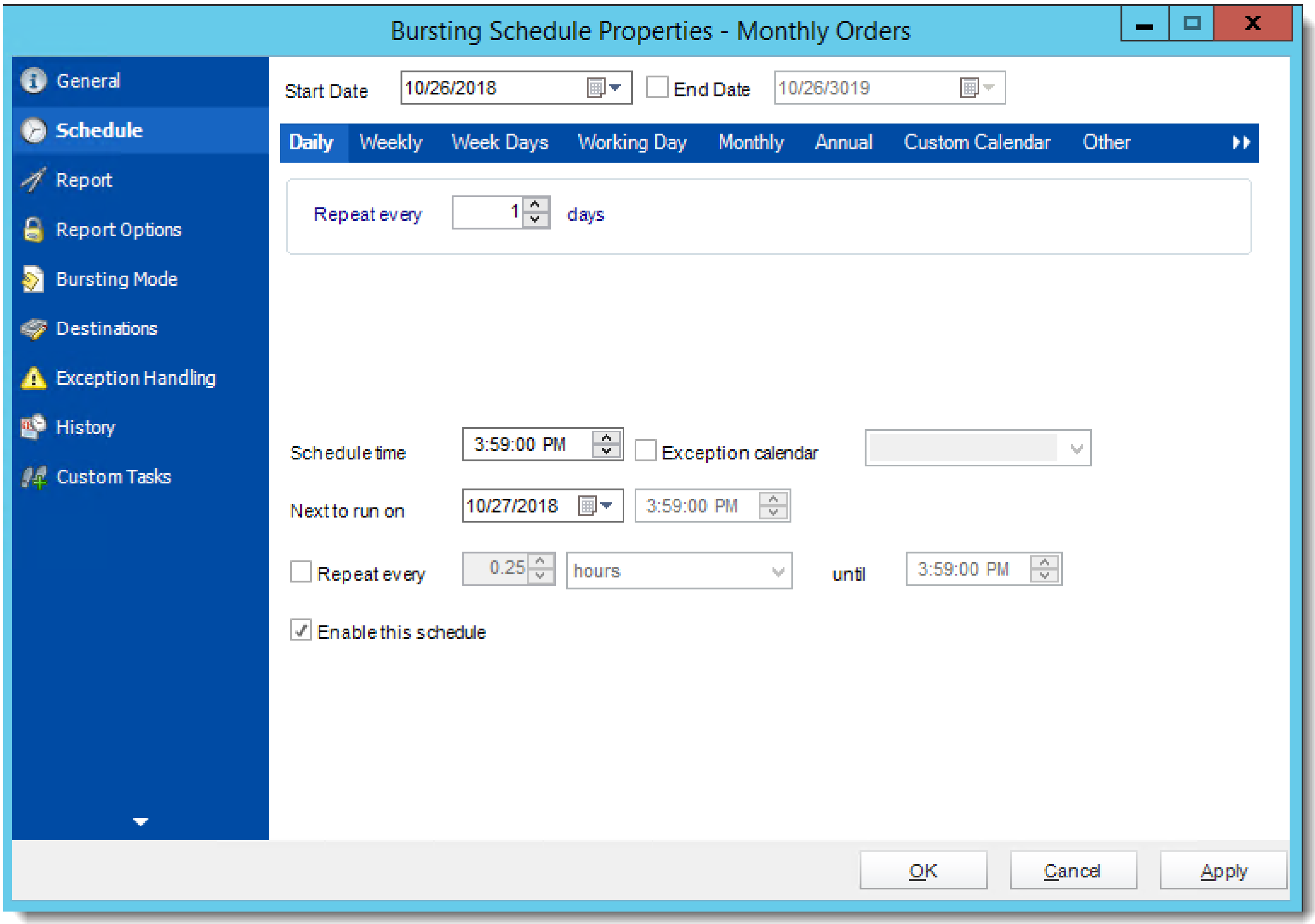


- To access your schedule properties, right click on a schedule and select properties.
- Similar to the schedule wizard, you adjust settings to your schedule such as timing, error handling, or custom tasks.

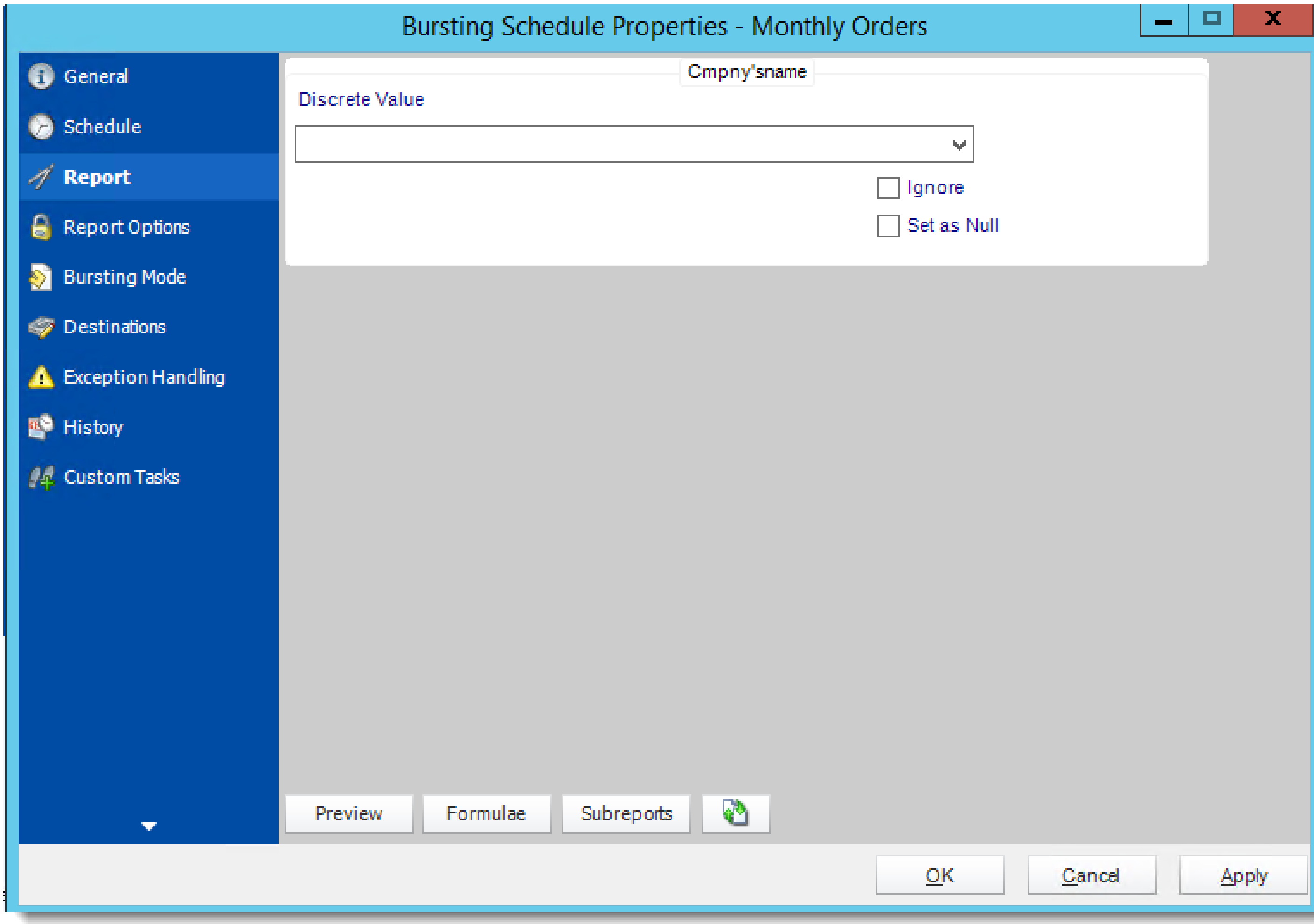
- **General:** You can edit general information from here.



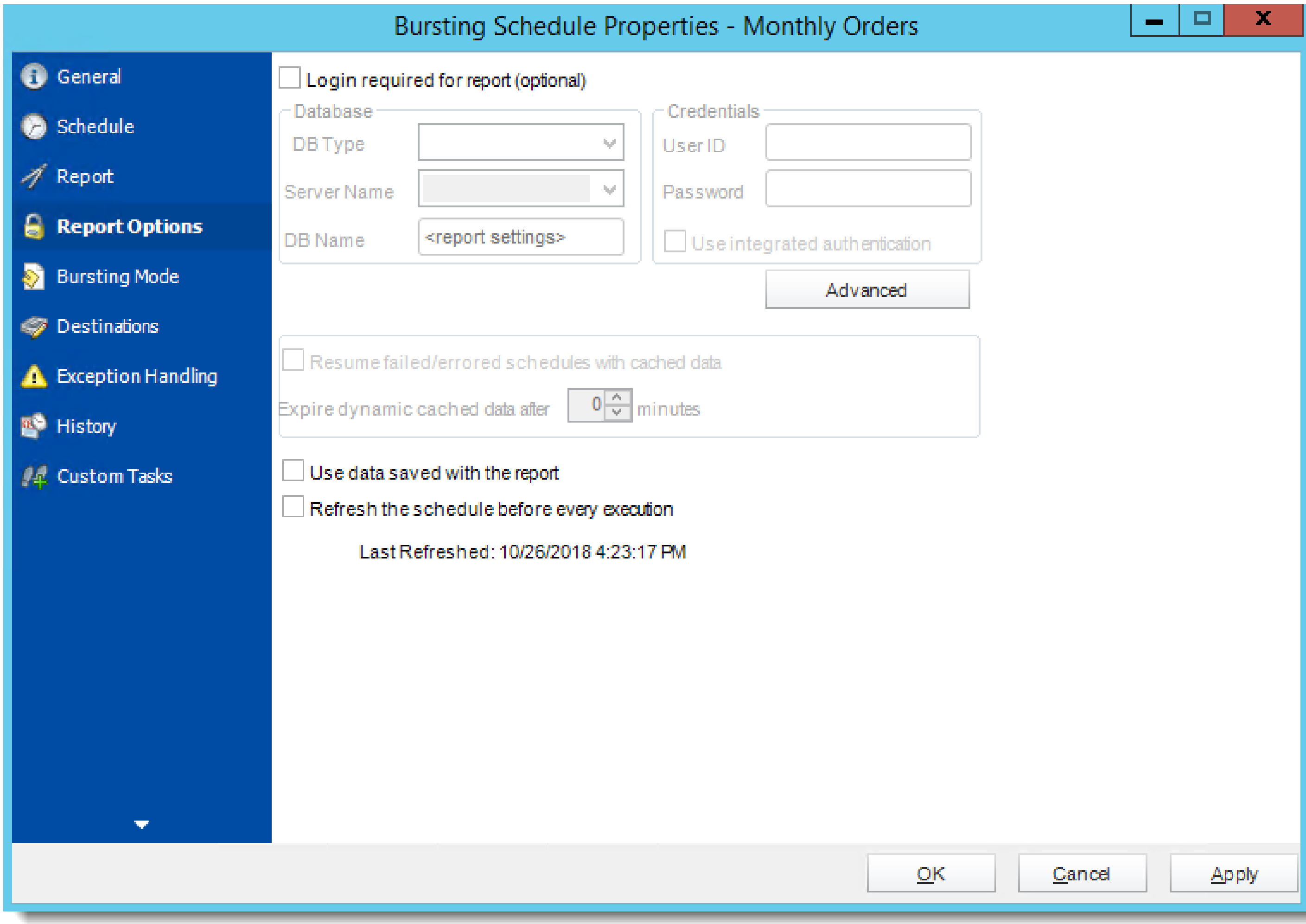
- **Schedule:** You can edit the schedule time from here.



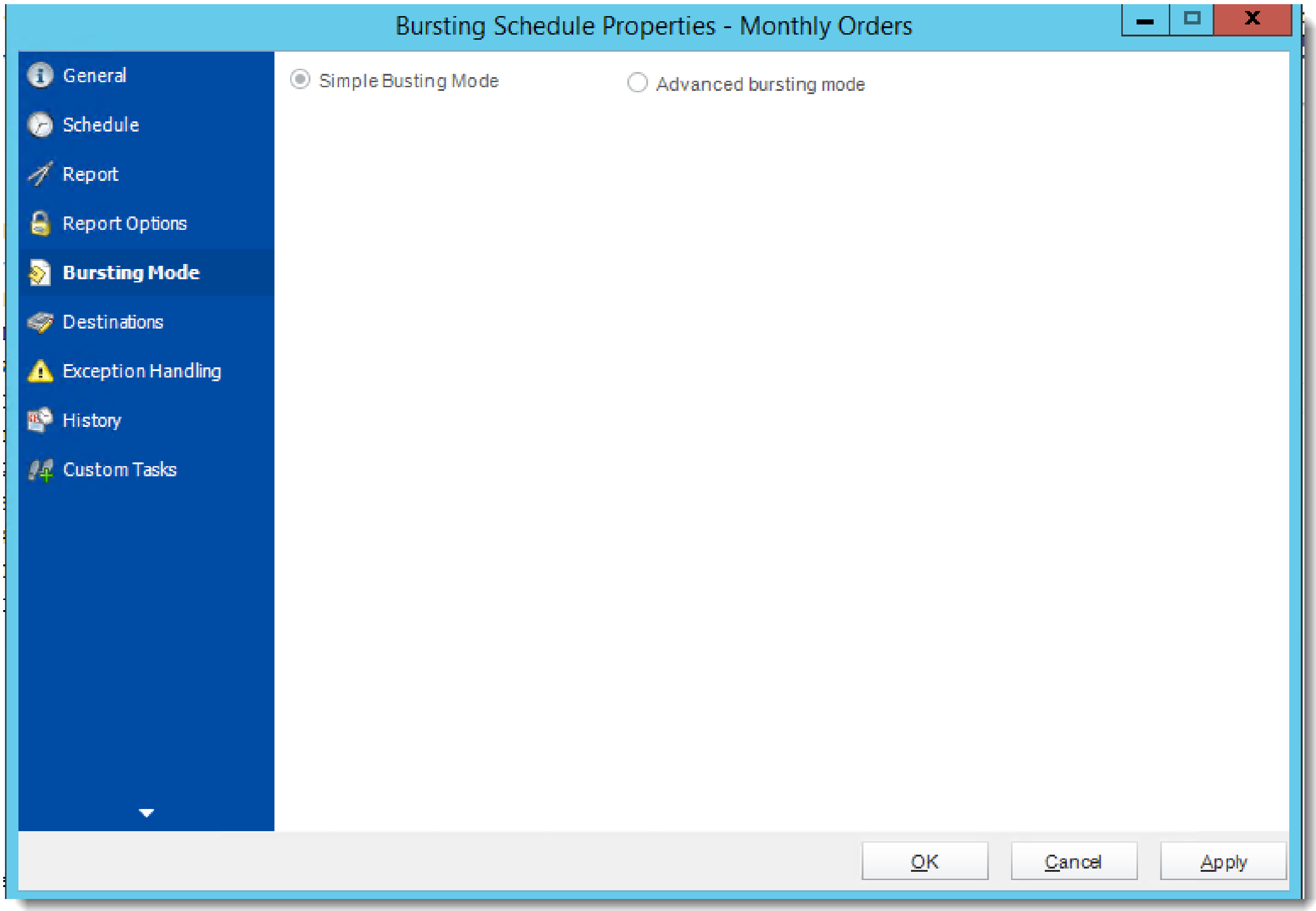
- **Report:** You can add, edit, or delete parameters from here.



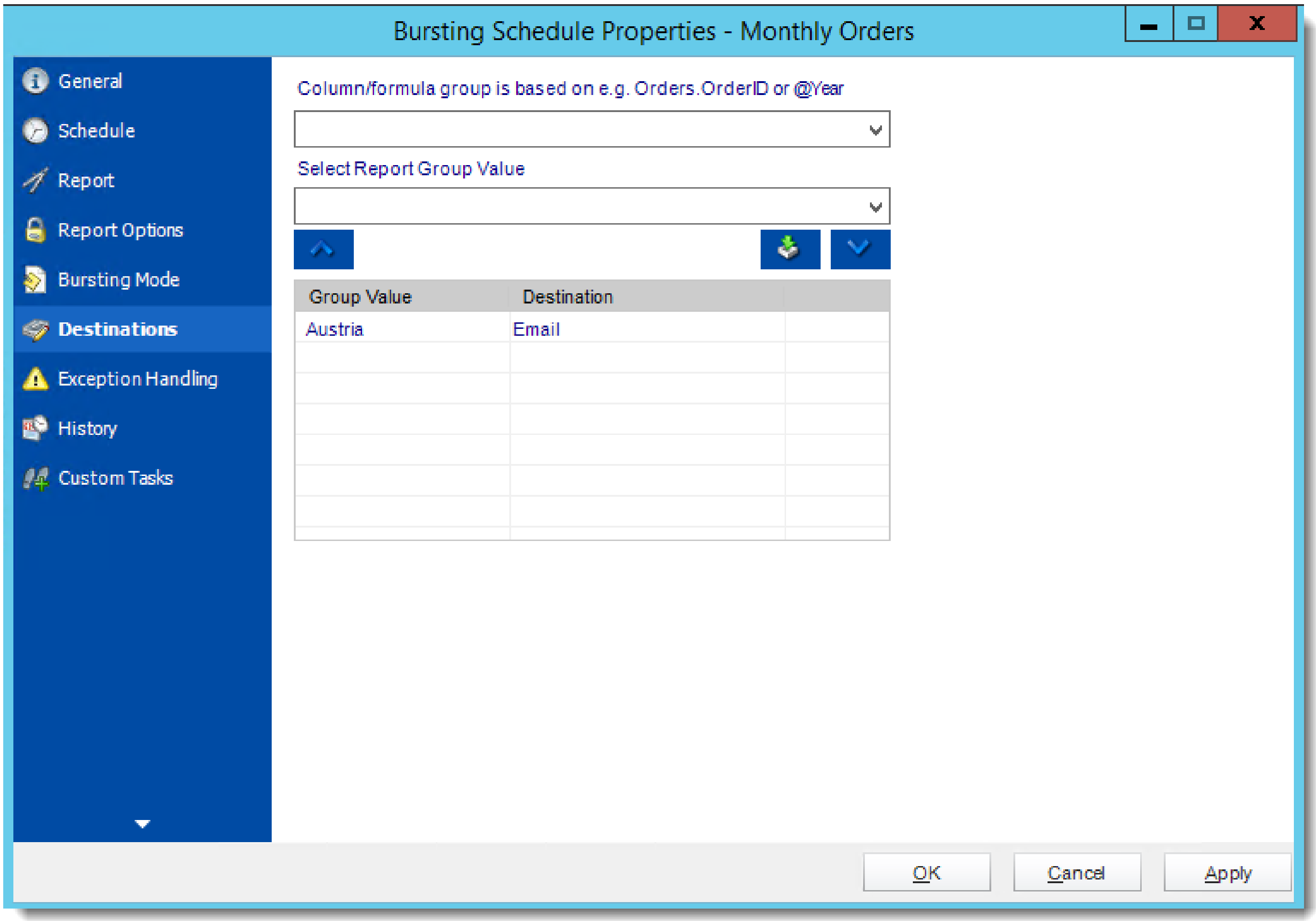
- **Report Options:** You can edit report options from here.



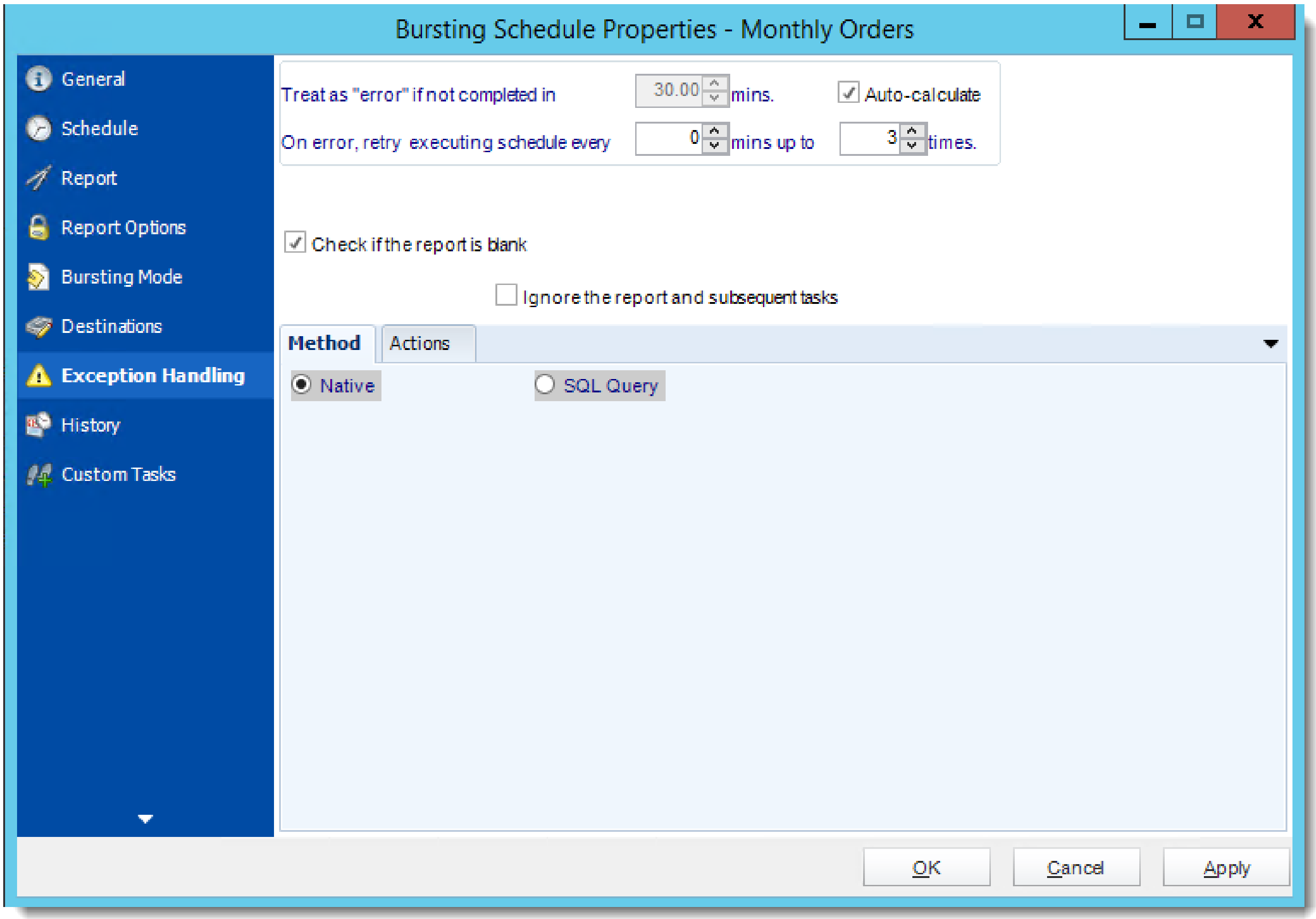
- **Bursting Mode:** You can view bursting mode from here.



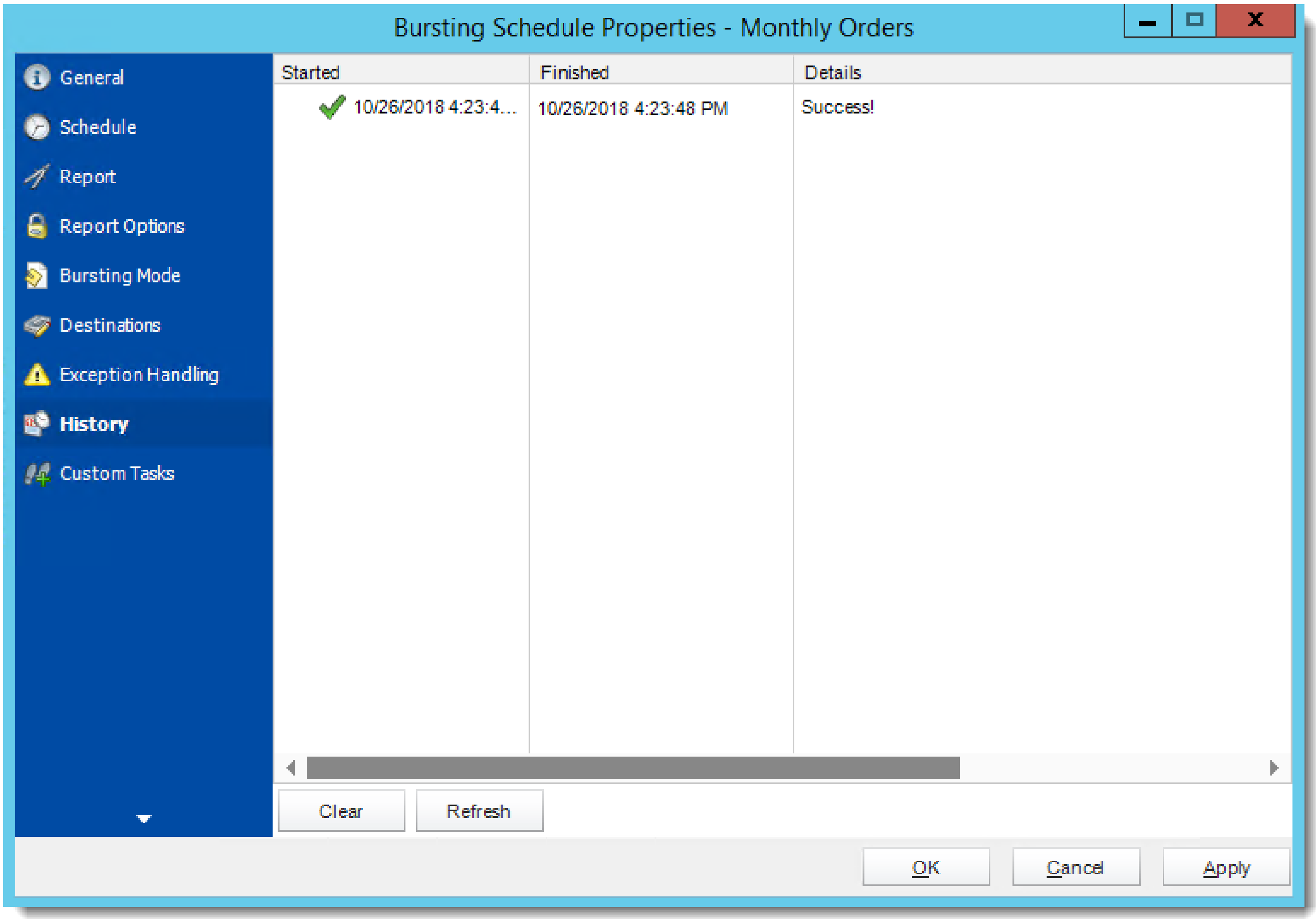
- **Destinations:** You can add, edit, or delete destinations from here.



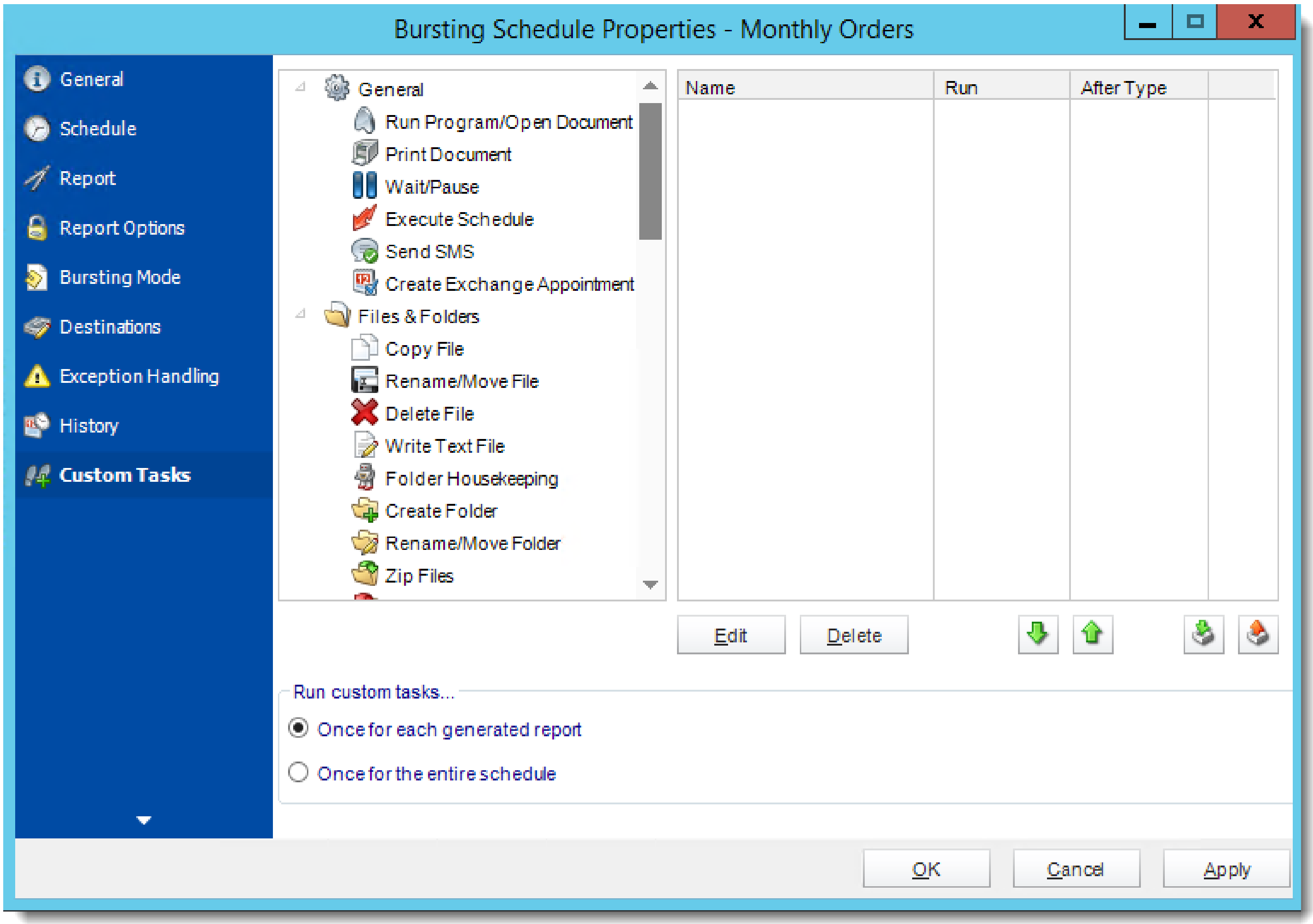
- **Exception Handling:** You can edit exception handling from here.



- **History:** Review the schedules history. Successes, failures, and other data is located here.



- **Custom Tasks:** You can add, edit, or delete tasks from here.



Automation Schedule

Automation Schedules give you the ability to write automated processes using CRD' standard Custom Actions.

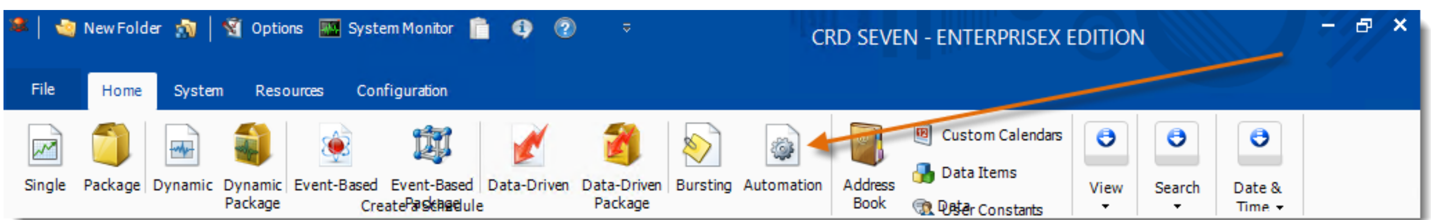
Automation Schedules make up the Business automation arm of CRD. Beyond reporting, you can automatically update databases, set registry keys, move files, and even create reports directly from database data.

Combine multiple tasks to automate database maintenance, integration, or as an automated way to communicate. Combine these functions with other schedules such as the Event based Schedule to unlock even more powerful functionality.

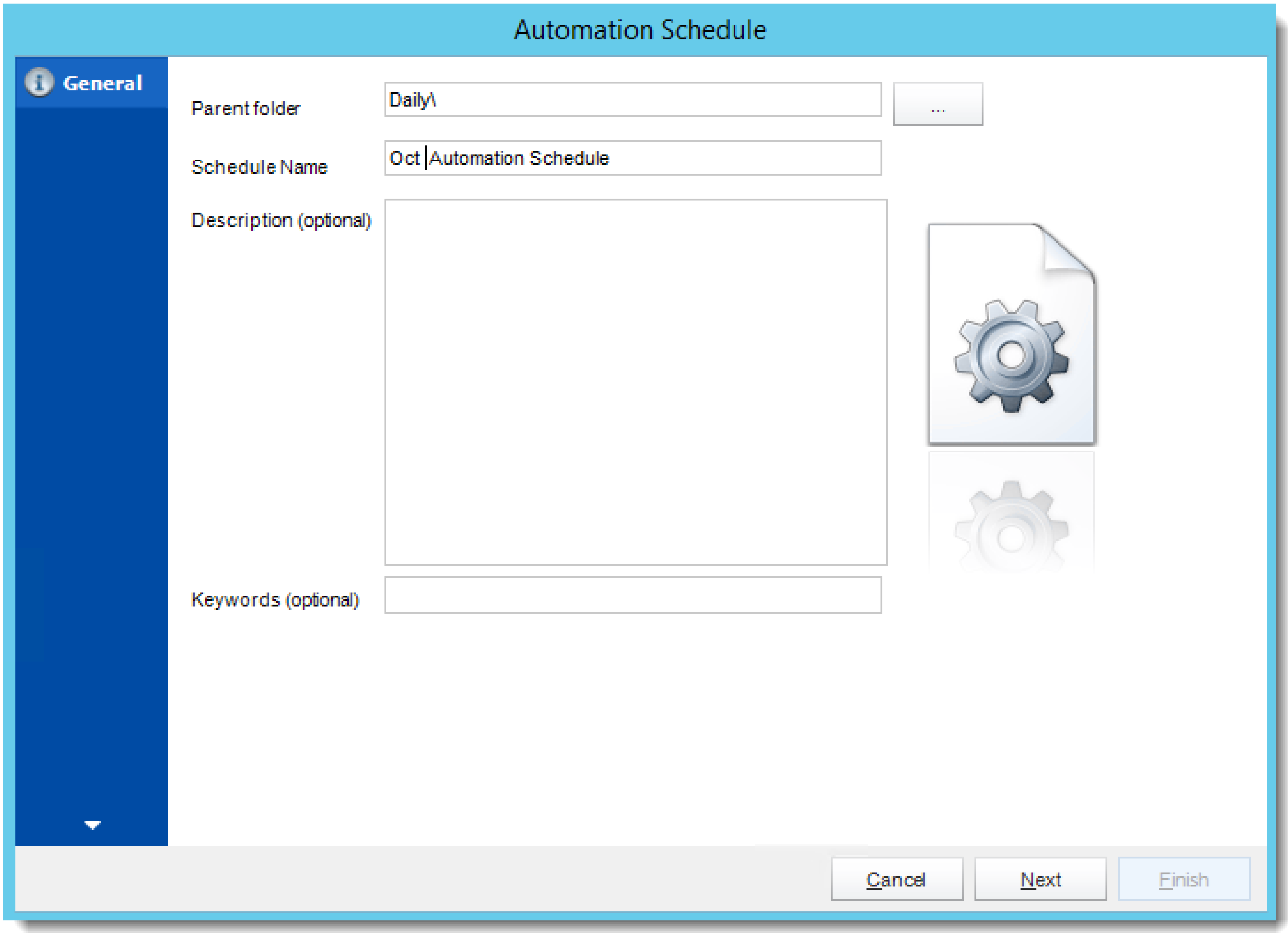
To combine automation tasks with a schedule type, use a custom task. Custom tasks are usually created toward the end of a Report schedule Wizard.

How do I Create a Automation Schedule?

- Go to **Automation**.

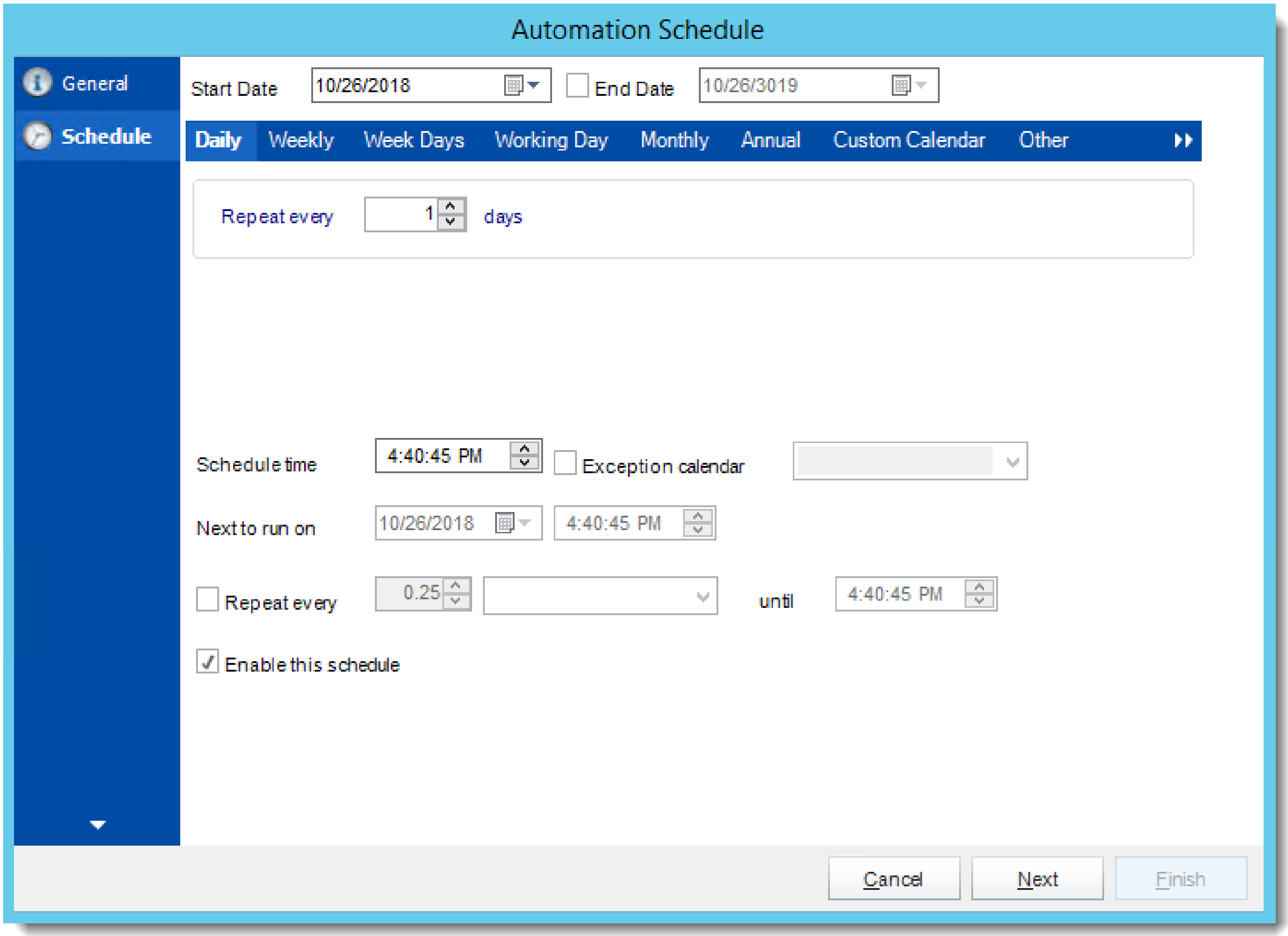


General Wizard



- **Parent Folder:** The CRD folder where the package is stored.
- **Schedule Name:** The name of the package.
- **Description:** Add a Description to the schedule to better identify it.
- **Keyword (optional):** Enter some keywords which can be used later by Smart Folders to identify this schedule.

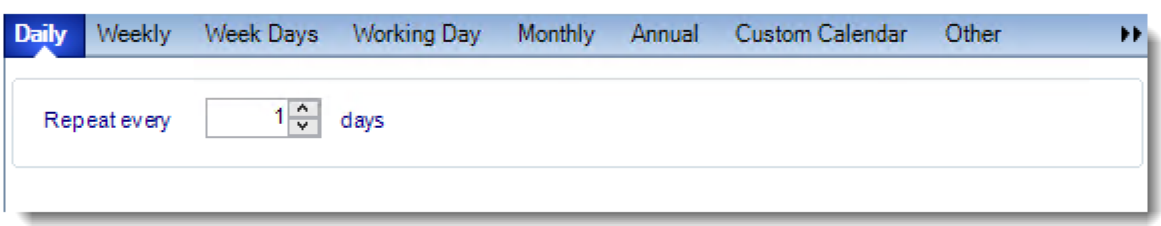
Click **Next** to go to the next wizard section.



In this section, you will decide when the report will execute. There are a variety of options:

- **Daily:** Run a report every day or at a frequency of days.
    - **Sub options:** Repeat every X Days.

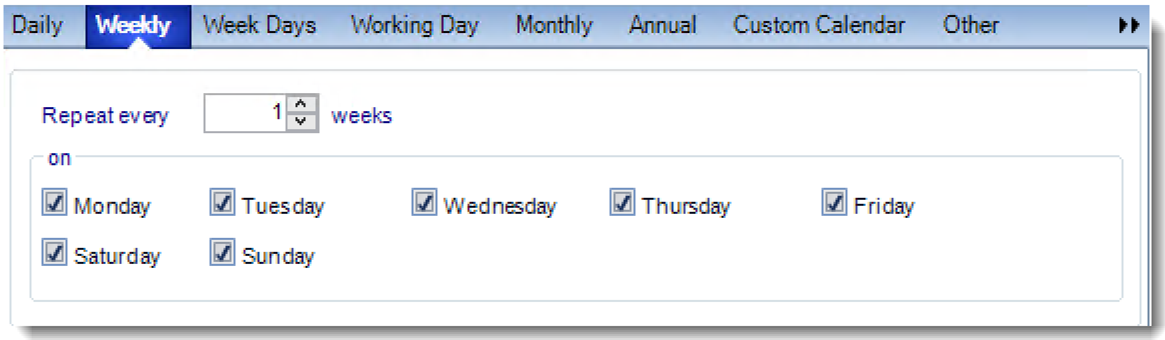
      Example: Run the schedule every 3 days.



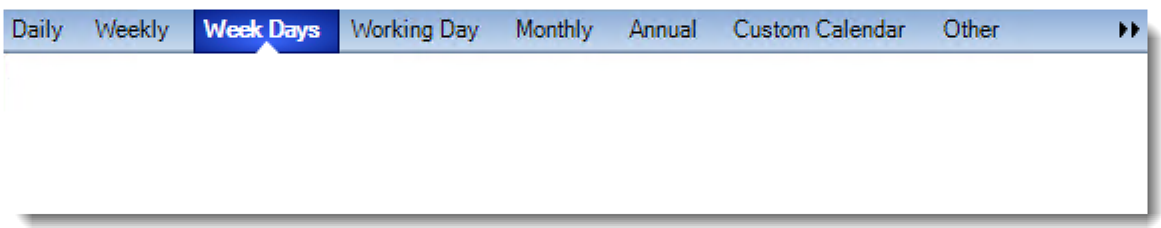
- **Weekly:** Run a report on a weekly time frame.
  - **Sub options:** Repeat every X weeks.

    Example: Run the schedule every 2 Weeks.
  - **On:** Select the specific days of the week the schedule will run. If only once a week,select only the day of the week it will run.

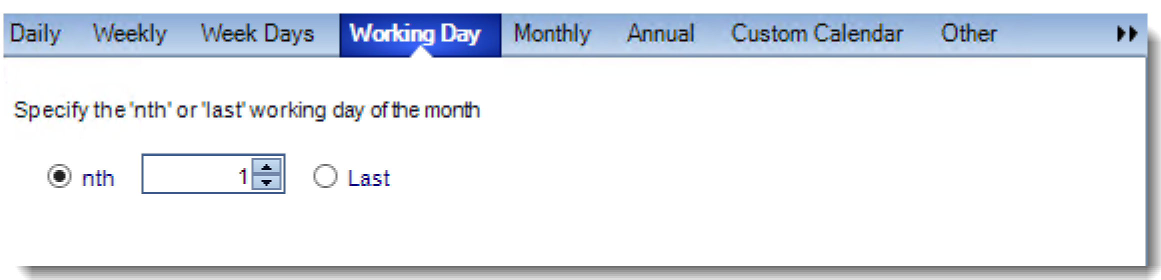
    Example: Run every Monday, Wednesday, and Friday.



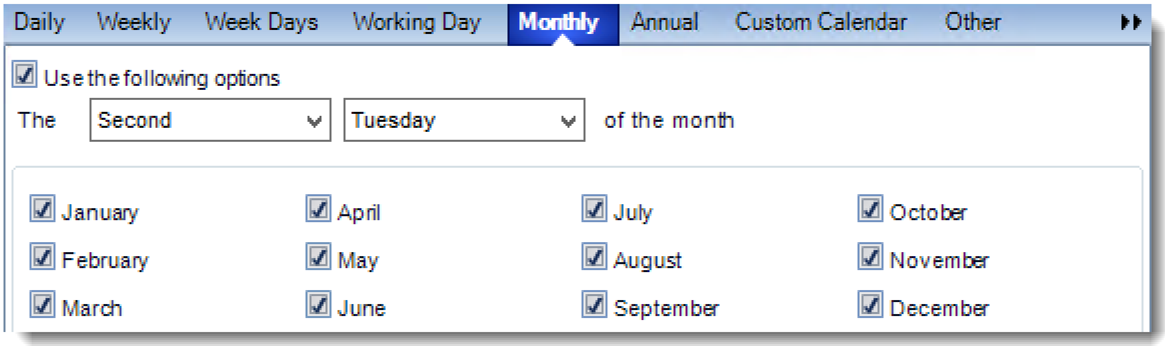
- **Week Days:** Run the schedule Monday through Friday.



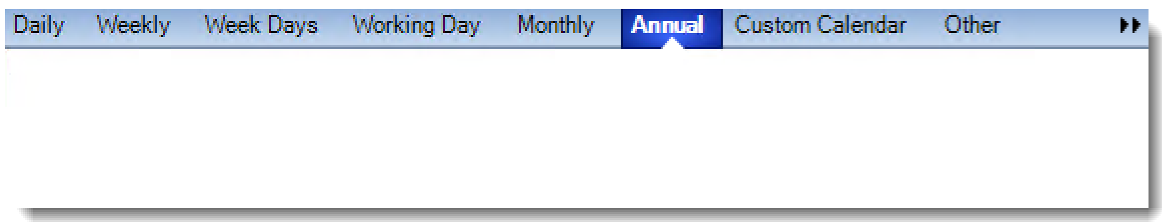
- **Working Day:** Run the schedule starting on a specific day of the month. Indicate which day of the month the schedule will run. E.G. run the schedule on the 4th working day of the month.



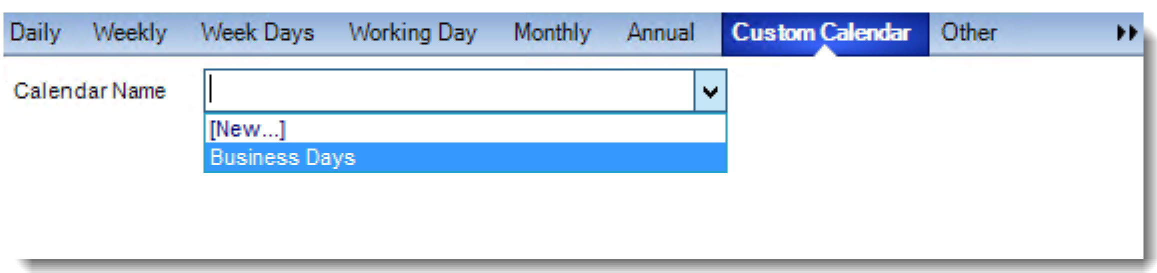
- **Monthly:** Run the schedule on a monthly time frame.
    - **Use the following options:** Checking this box will enable you to select frequency options such as the "last Thursday of the month." Also you can include or exclude specific months from the schedule.



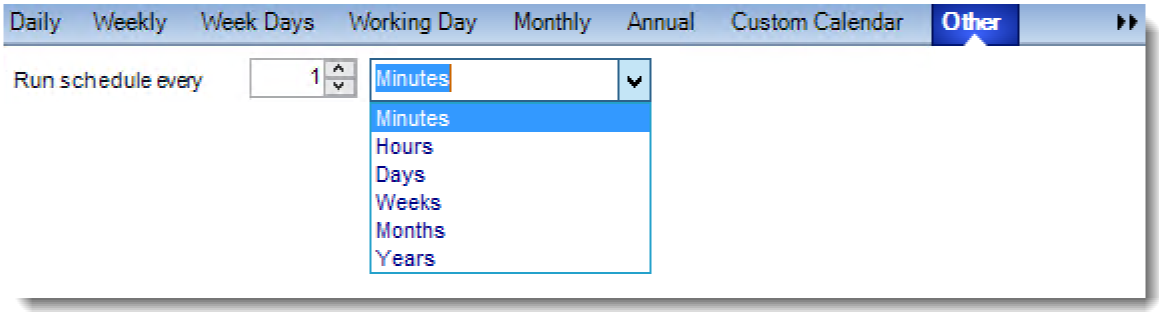
- **Annual:** Run the schedule every year at a specified time.



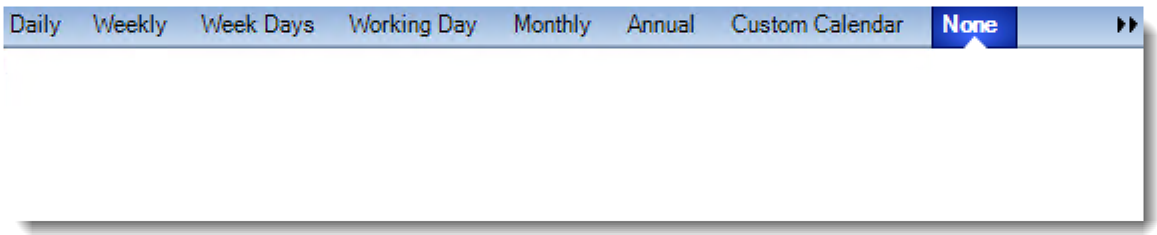
- **Custom Calendar:** Select the custom Calendar you wish to use. You can create a new custom calendar from the menu as well. Please see Custom Calendars for more information.



- **Other:** Other scheduling options.
    - Run Schedule every X Minutes, hours, days, weeks, months, years.



- **None:** No scheduling is required for this item.



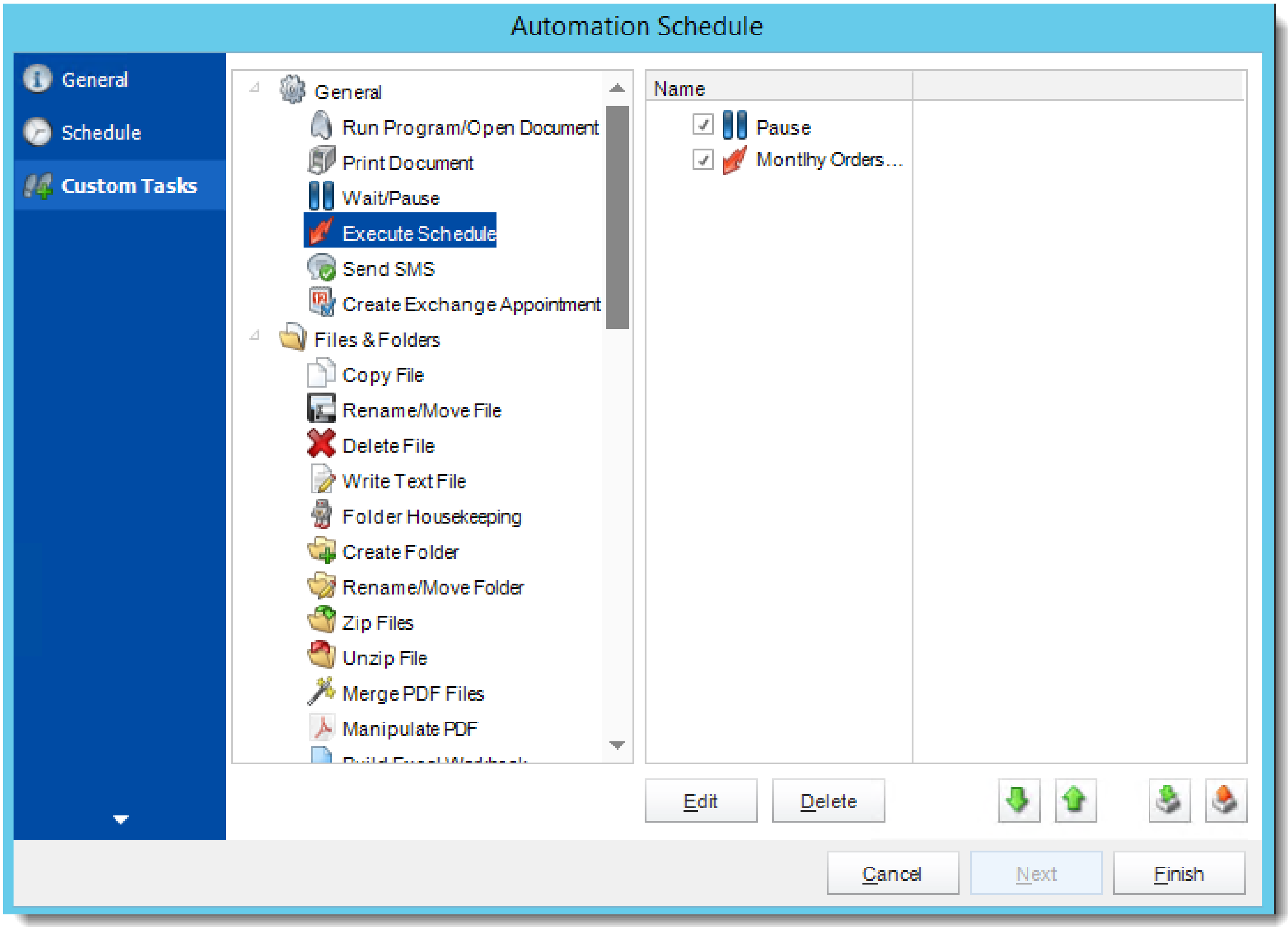
- **Start Date:** Enter the desired starting date for the schedule. This section can be the current date (providing schedule time has not already passed) or a date in the future.
- **End Date:** If the schedule is due to end after a certain date enter that here. If the schedule is to run indefinitely, then leave it blank.
- **Schedule time:** On the Next Run date, the package will run at this time.
- **Exception Calendar:** Choose a calendar that will instruct the schedule to NOT run on those specified days. Please see Custom Calendars for more information.
- **Next to run on:** The package will next run on this date.
- **Repeat Every:** Rerun the package every x minutes from the scheduled time until your specified time.

  For example, you can set up a daily package to run every day at 8 am*, and to run every hour until* 5 pm*.*

- **Until:** After this date, there will be no automated scheduling of this package.
- **Enable this Schedule:** Uncheck this option to Disable the package. Disabled packages are not deleted, but they do not execute automatically. You can re-start the automatic scheduling at a later date by checking this option again. Or right-clicking this schedule from the main screen and selecting Enable.

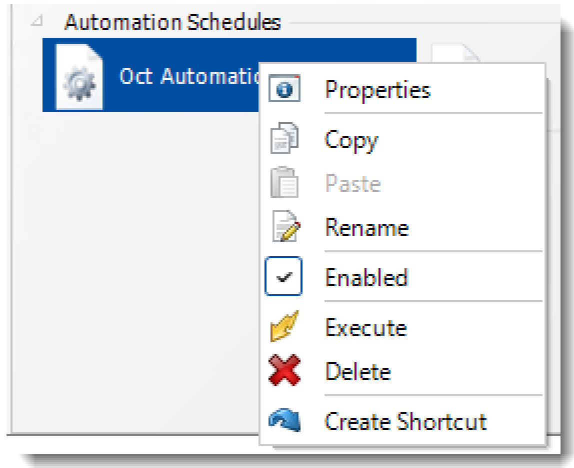
Click **Next** to continue to the next wizard section.

Custom Tasks Wizard



- In the section you have the option of setting up custom tasks. Custom tasks are business process automation tools that can be auto triggered before or after a report runs.
- For more information on Custom Tasks, click here.
- If you have no desire to add a Custom Task, you can click **finish** to complete the schedule.

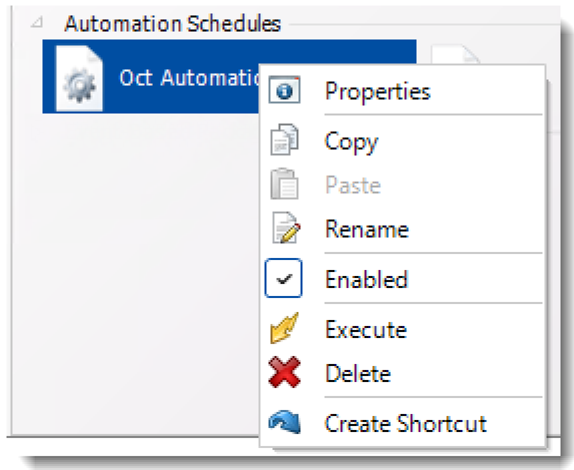
Automation Schedule Context Menu



To access the schedule's context Menu right click on the schedule

- **Properties:** Selecting this option will bring up the "Properties" module containing configuration information for that schedule.
- **Copy:** Use this to copy an existing schedule. You can then paste it into another folder or the same folder. Simply open the folder you wish to paste to, right-click in the "white" space and select "Paste". Follow the on-screen instructions to complete the process.
- **Paste:** Paste a previously copied schedule
- **Rename:** Rename a schedule
- **Enabled:** Schedules are enabled when there is a check beside this option. To stop a schedule from running, or to "pause" it for a while, select this option to remove the check. Disabled schedules will not run till they are enabled again.
- **Execute Schedule:** This will execute the schedule immediately. Note that the next run date and time is not moved on as a result of a manual execution. They only move on if the schedule is run automatically by one of the schedulers.
- **Delete Schedule:** Selecting this option will delete the schedule.
- **Create Shortcut:** Use this option to create a shortcut you can save in any location on your PC. Execute the shortcut to execute the schedule in CRD.

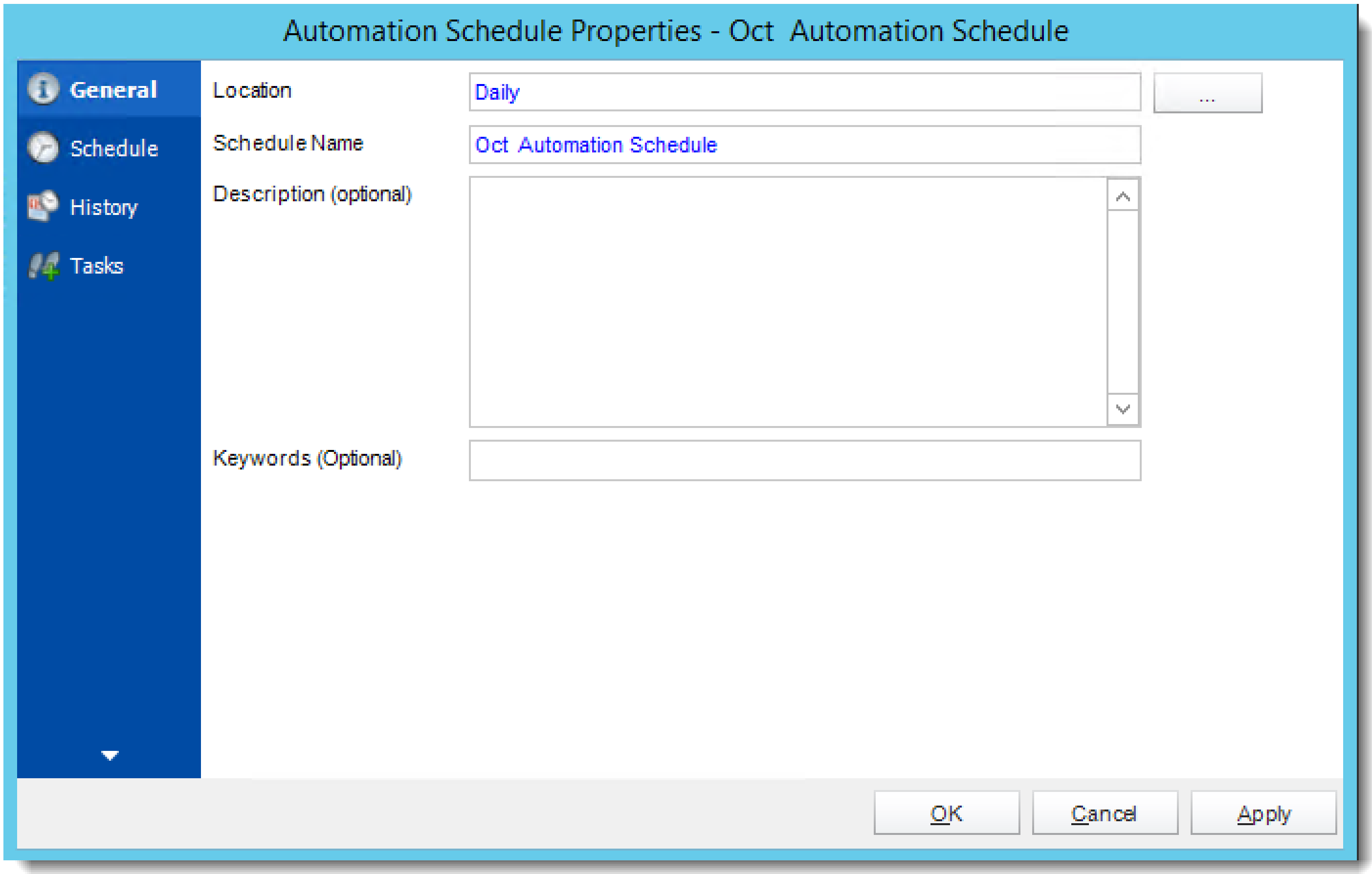
Automation Schedule Properties



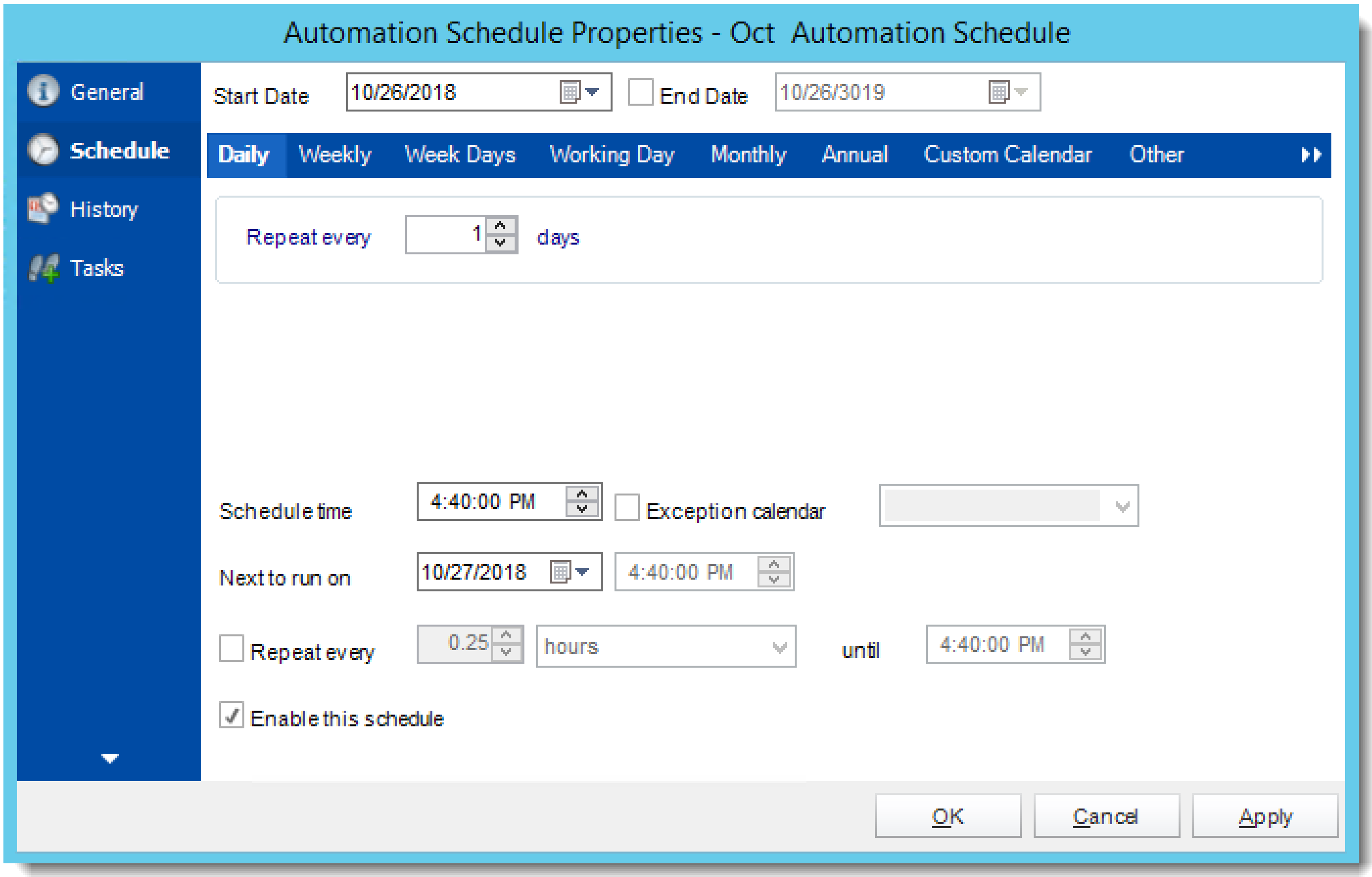
To access your schedule properties, right click on a schedule and select **properties**.

Similar to the schedule wizard, you adjust settings to your schedule such as timing or custom tasks.

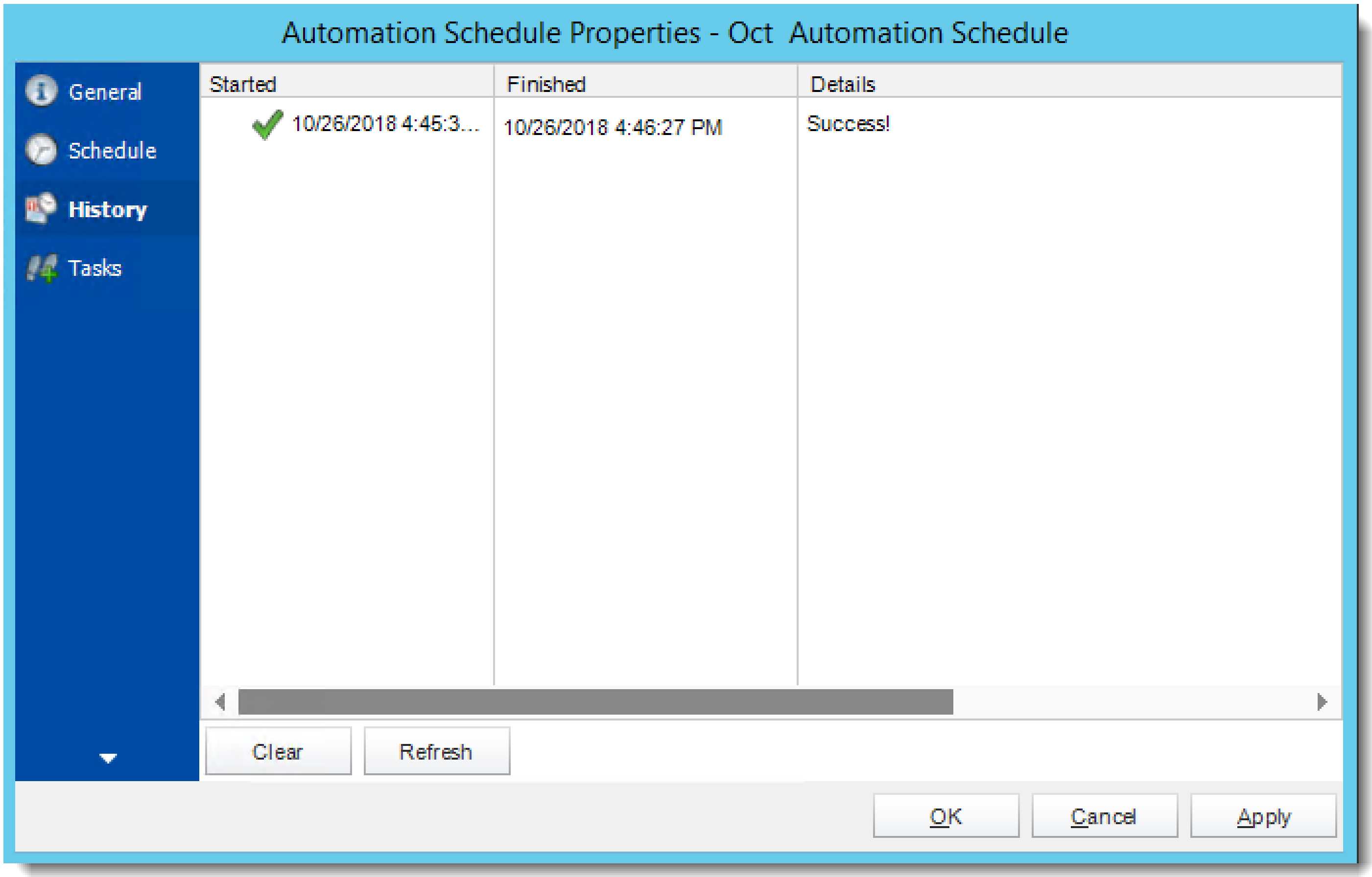
General: You can edit the general information from here.



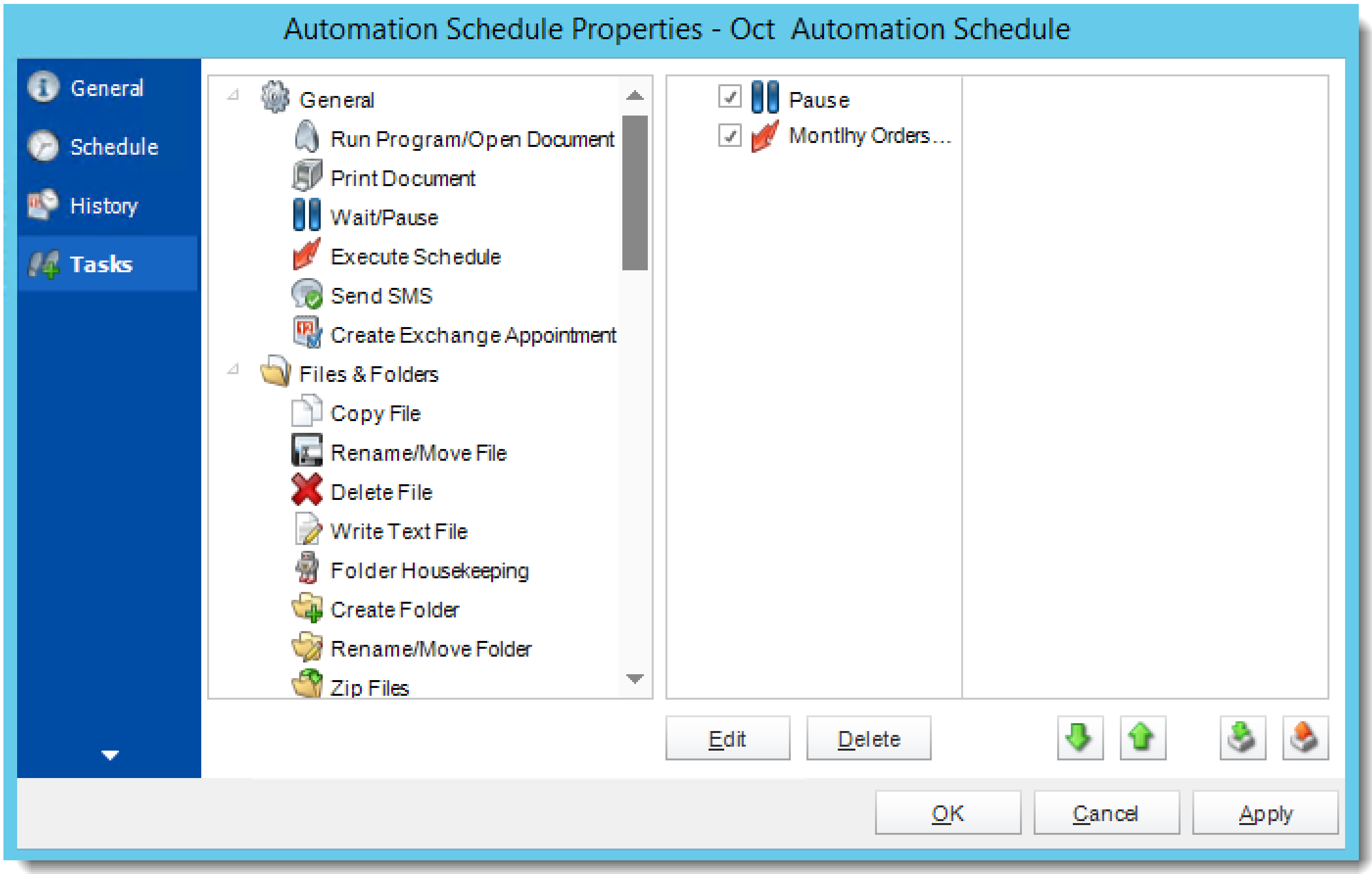
Schedule: You can edit the schedule time from here.



History: Review the schedules history. Successes, failures, and other data is located here.



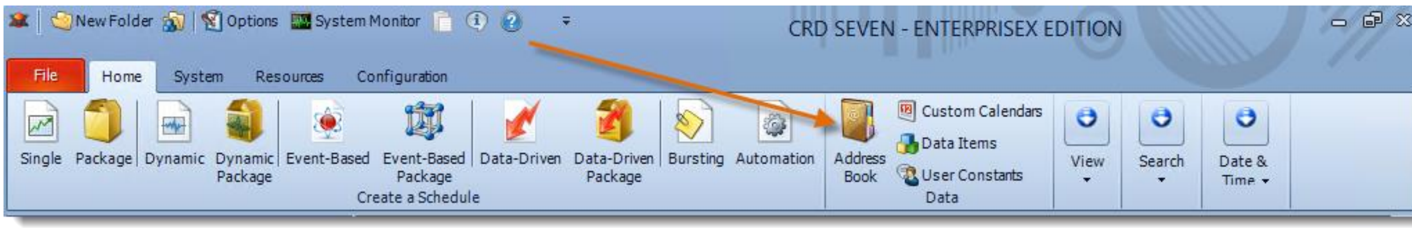
Tasks: You can add, edit, or delete tasks from here.

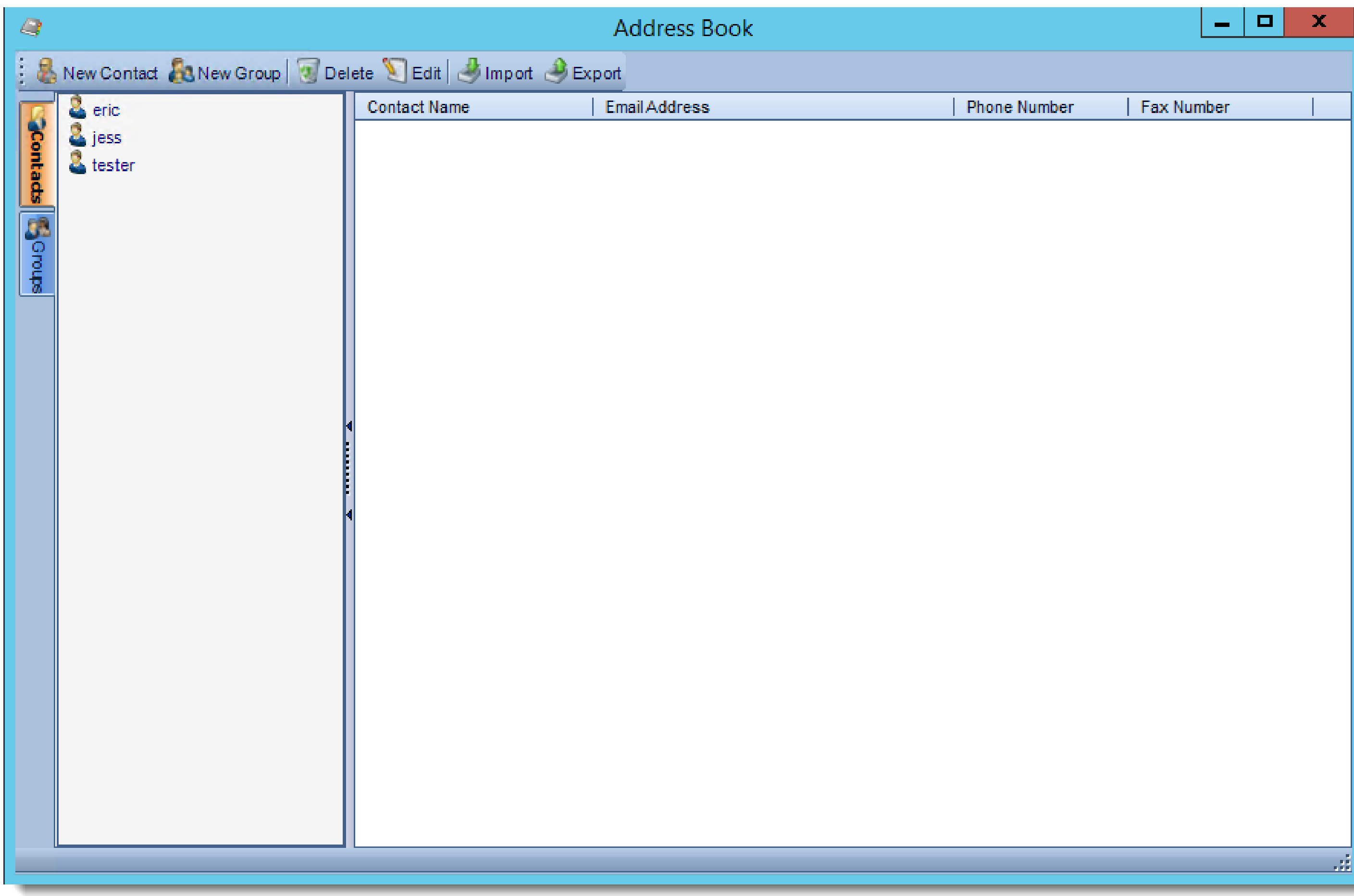


Address Book

The Address Book in CRD allows you to create and store contacts for later use by CRD schedules. You can also create contact groups and easily add or remove contacts as needed.

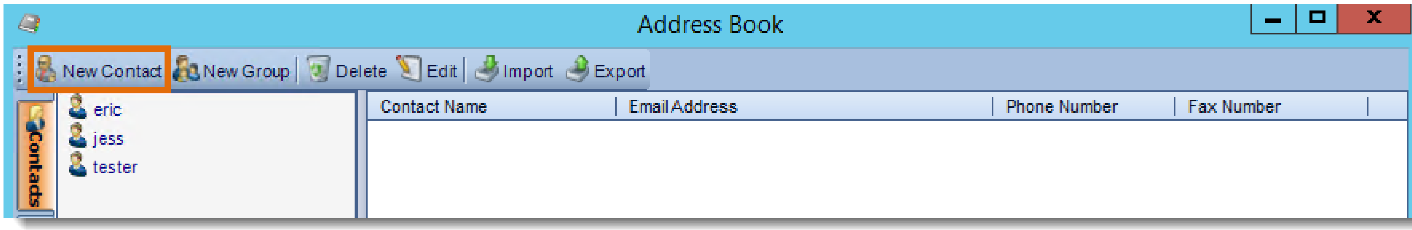
- Go to **Address Book**



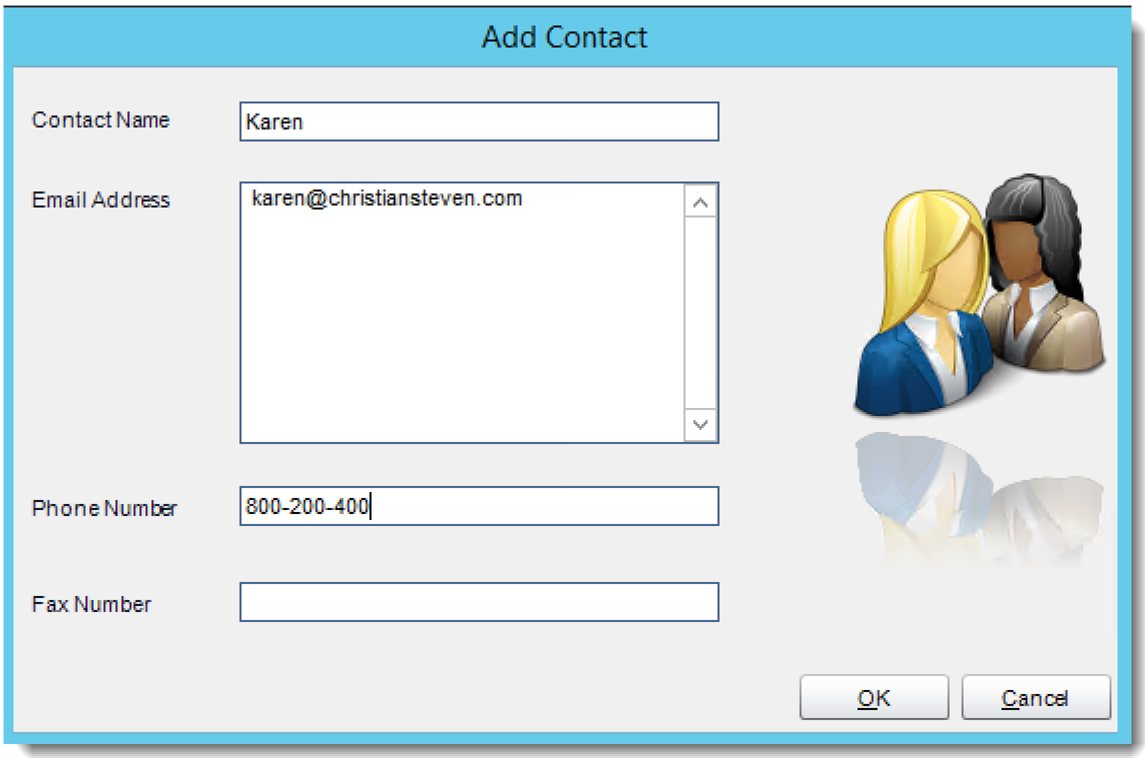


New Contact

- Click **New Contact**

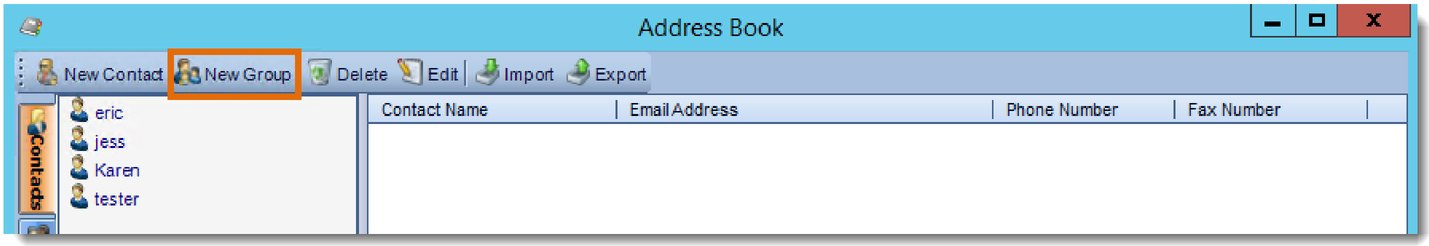


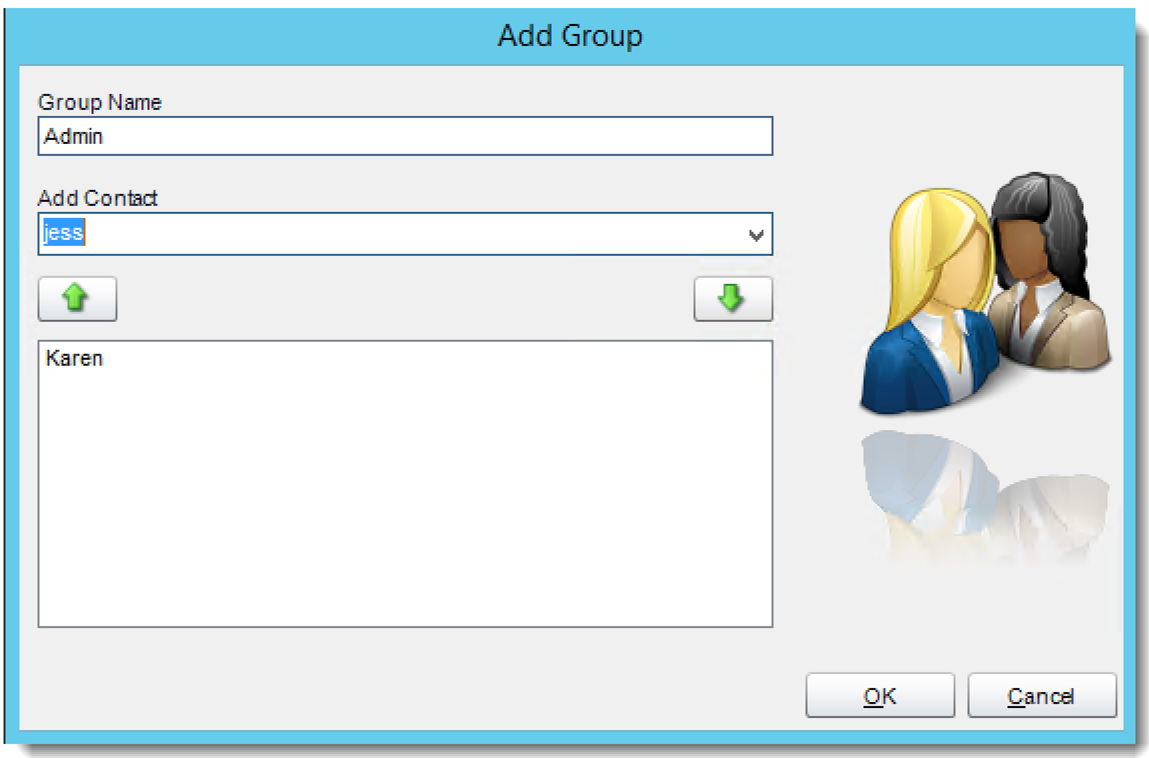
- Enter the contacts details and click **OK** to save.



New Group

- Click **New Group**

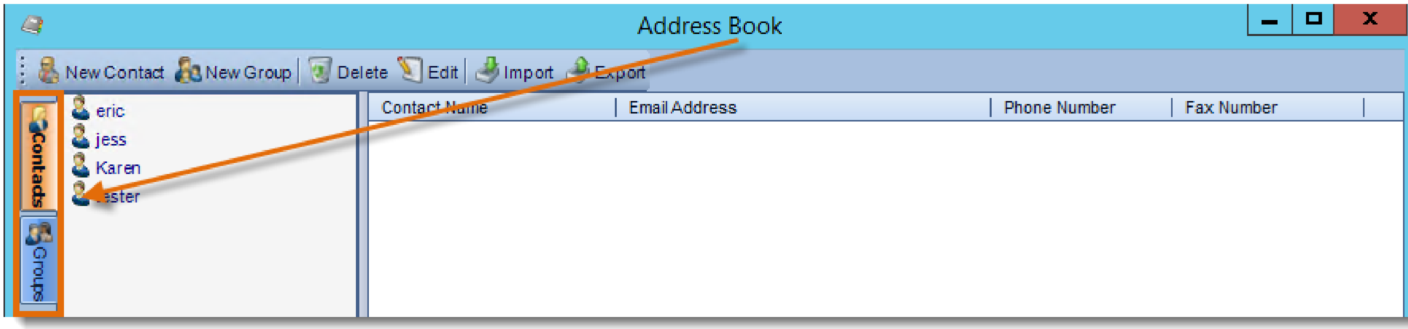


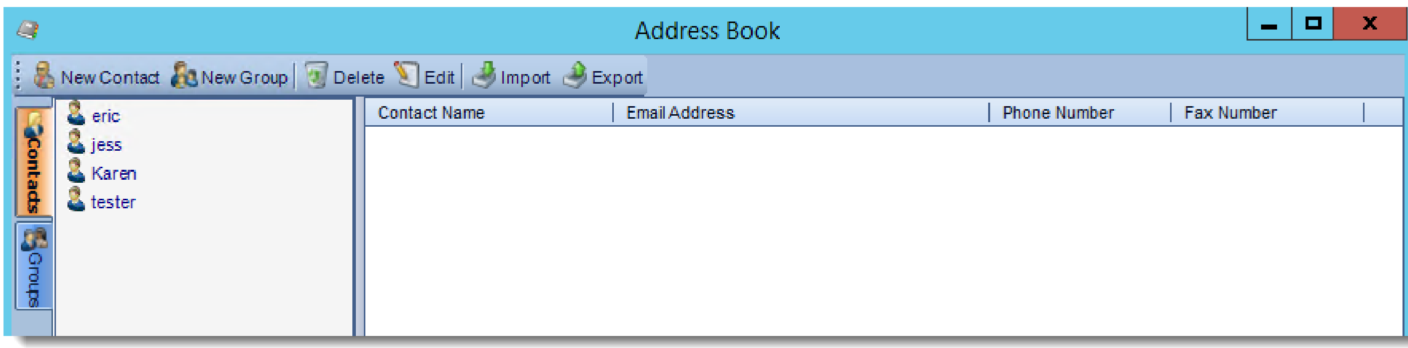


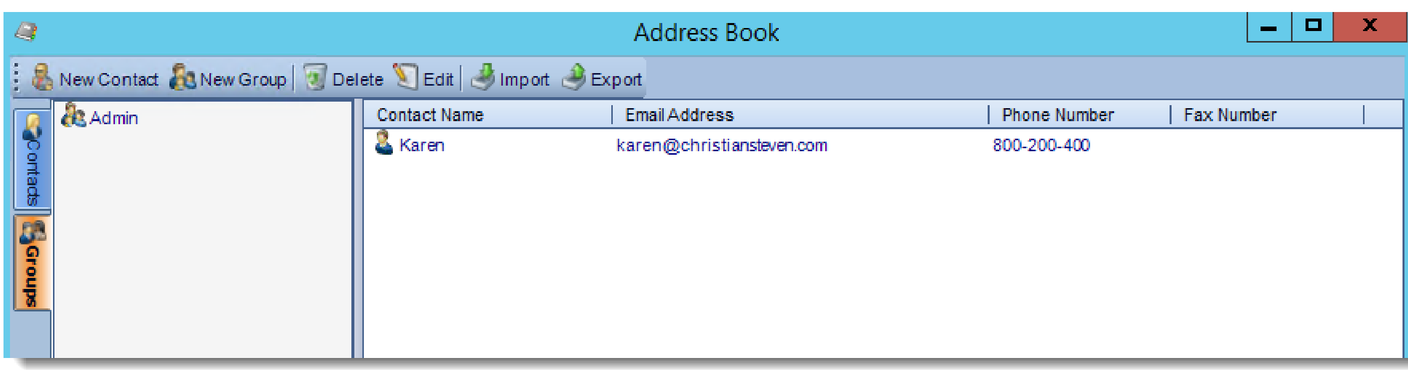
- **Group Name:** Enter a name for the Group
- **Add Contact:** Select the name from the drop down list and click **down arrow** button to add to the group.
- Click **OK** to save.

Menu tab

- You can switch between your groups and contacts by using the tab on the left.





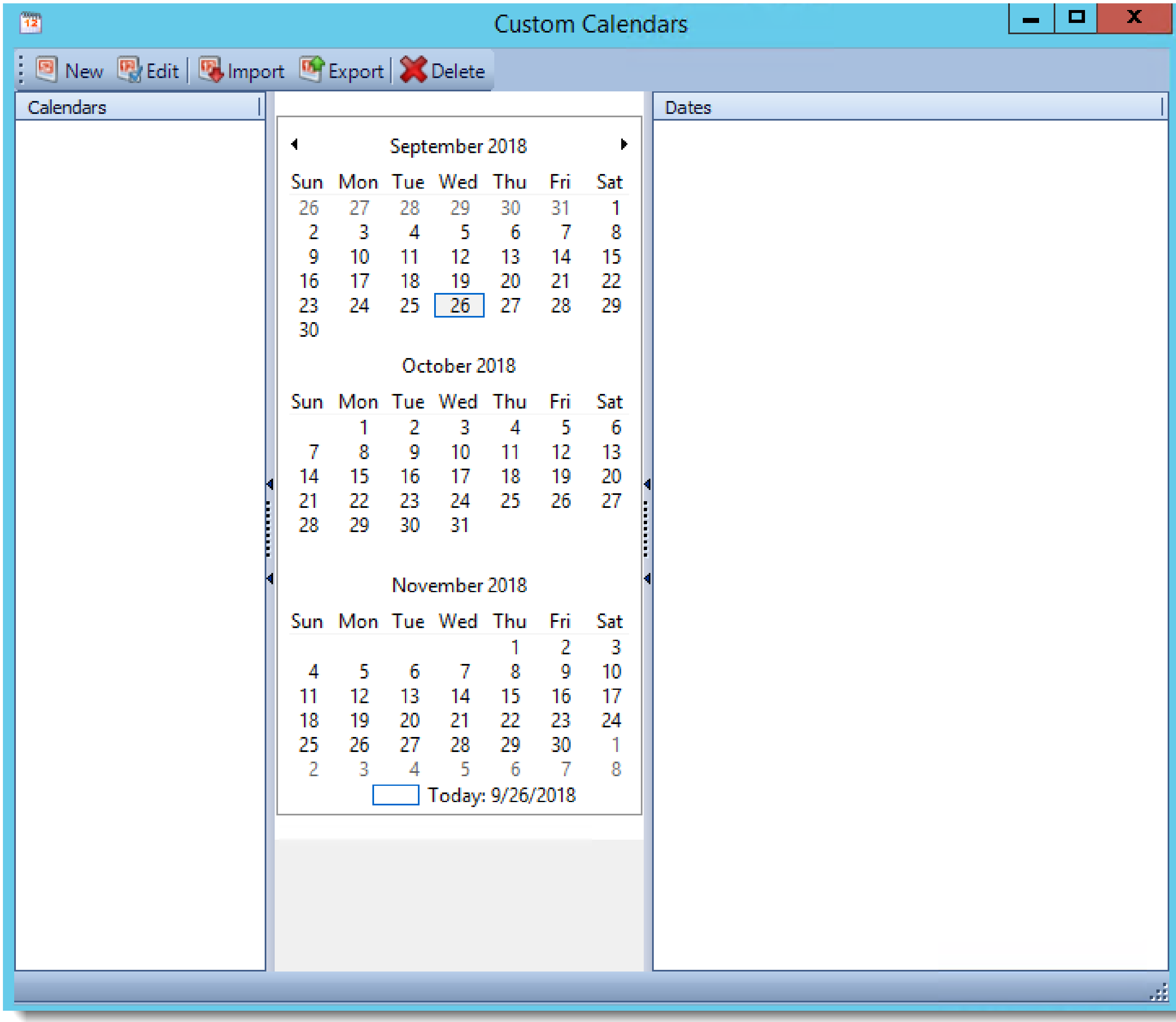


- **Delete:** Select a contact or group and click this button to delete.
- **Edit:** Select a contact or group and click this button to edit or simply double-click the contact or group.
- **Import:** Click this button to import a previously exported address book.
- **Export:** Click this button to export your address book.

Custom Calendars

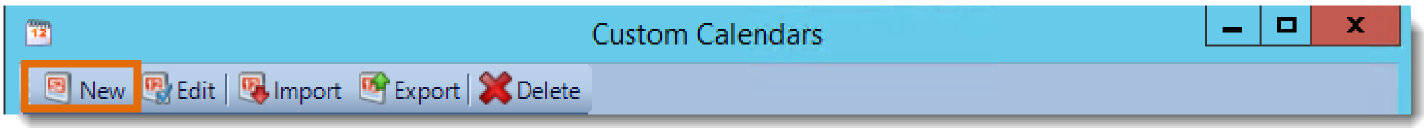
You can create your own scheduling frequencies with "Custom Calendars". This is where the scheduling frequency required doesn't follow an existing standard pattern.

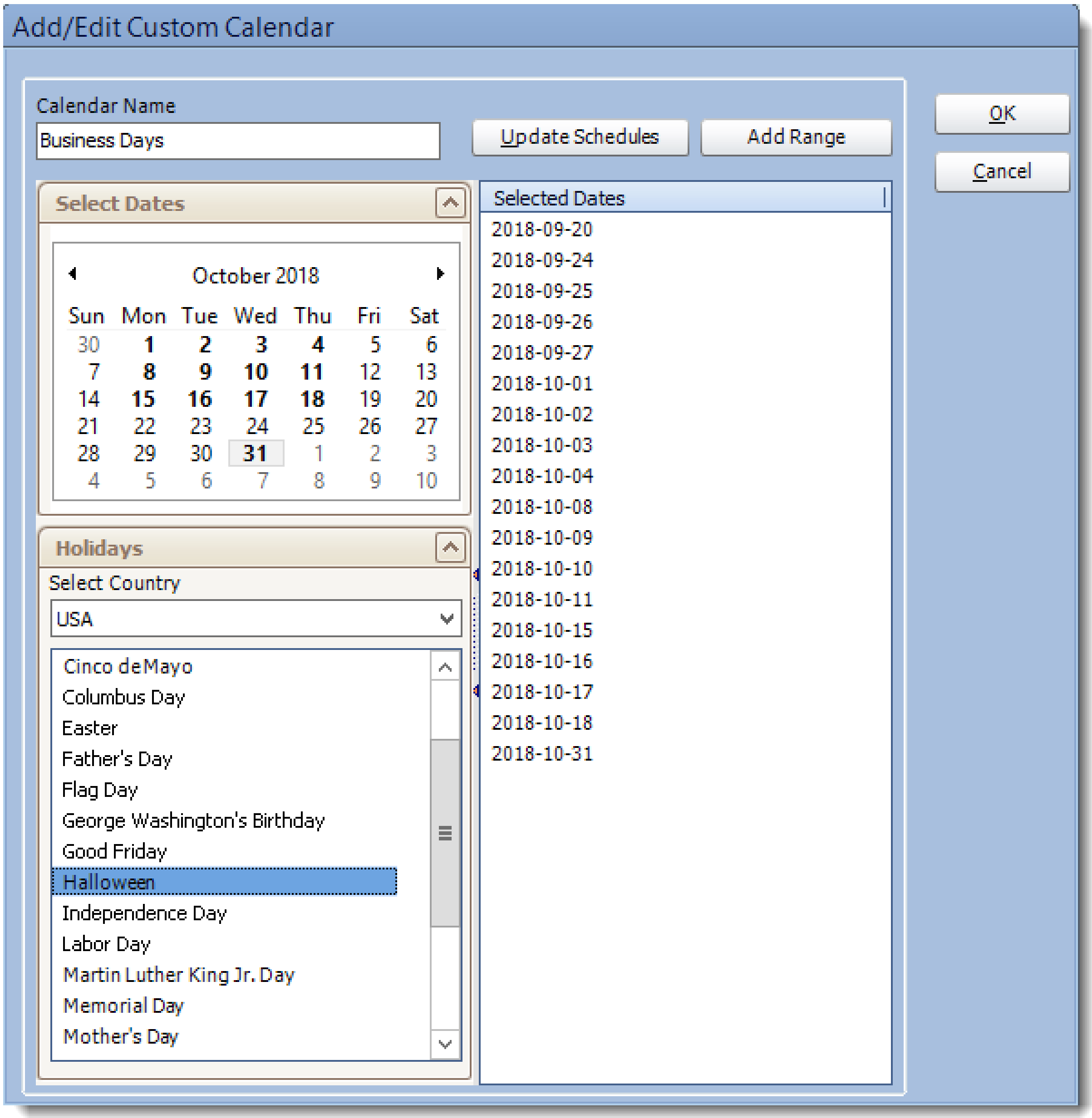
- Go to **Custom Calendars.**


Custom Calendars
New
Edit
Import
Export
Delete
Calendars
September 2018
October 2018
November 2018
Sun Mon Tue Wed Thu Fri Sat
Today: 9/26/2018
Dates

New Calendar

- To create a calendar:
- Click **New.**
- Type in a name for the new calendar.
- Click the dates you wish scheduling to occur, click on a date again to remove it from the selection.
- Click **OK** to save.





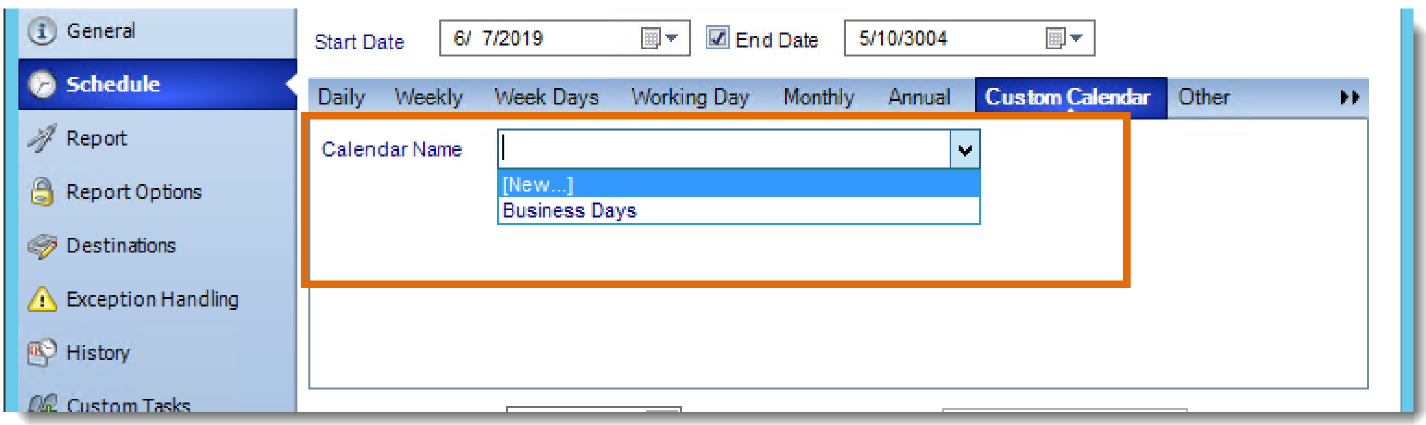
- **Update Schedules:** Use this button to update all schedule which use this calendar. The schedules will be updated with the new calendar information. If this function is not used, the schedules will retain the old calendar information.

Menu tab

- **Edit:** Select the calendar you wish to edit and click this button.
- **Import:** Use this button to import a calendar.
- **Export:** Use this button to export a calendar.
- **Delete:** Select the calendar from the list and click this button.

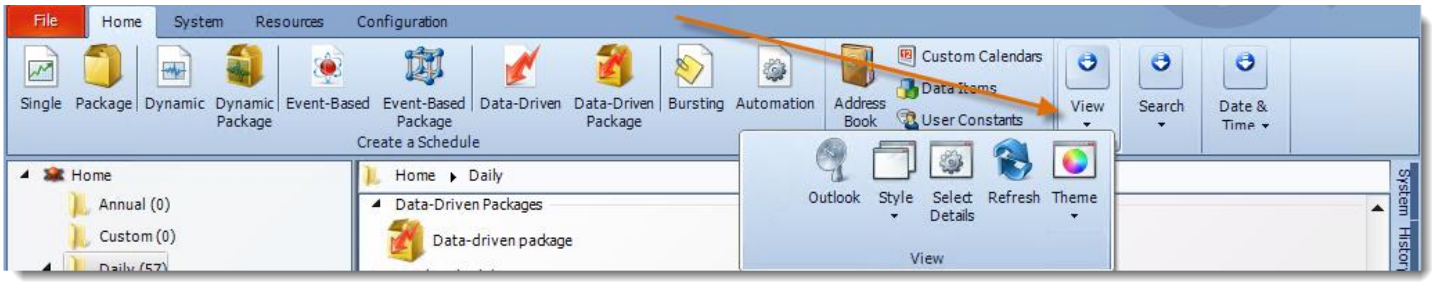
Applying a Calendar to a Schedule

- In your schedule go to **Schedule.**
- Click **Custom Calendar**
- Select a calendar from the drop down list.



- All schedules in use by a custom calendar are now disabled when the calendar ends. If a user adds more dates to the calendar the option is now available to re-enable all schedules that use the affected calendar.

View – Home

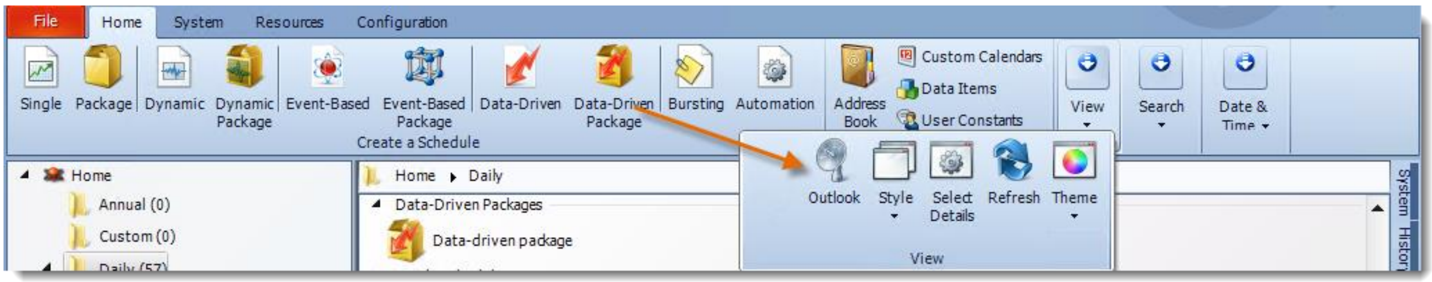


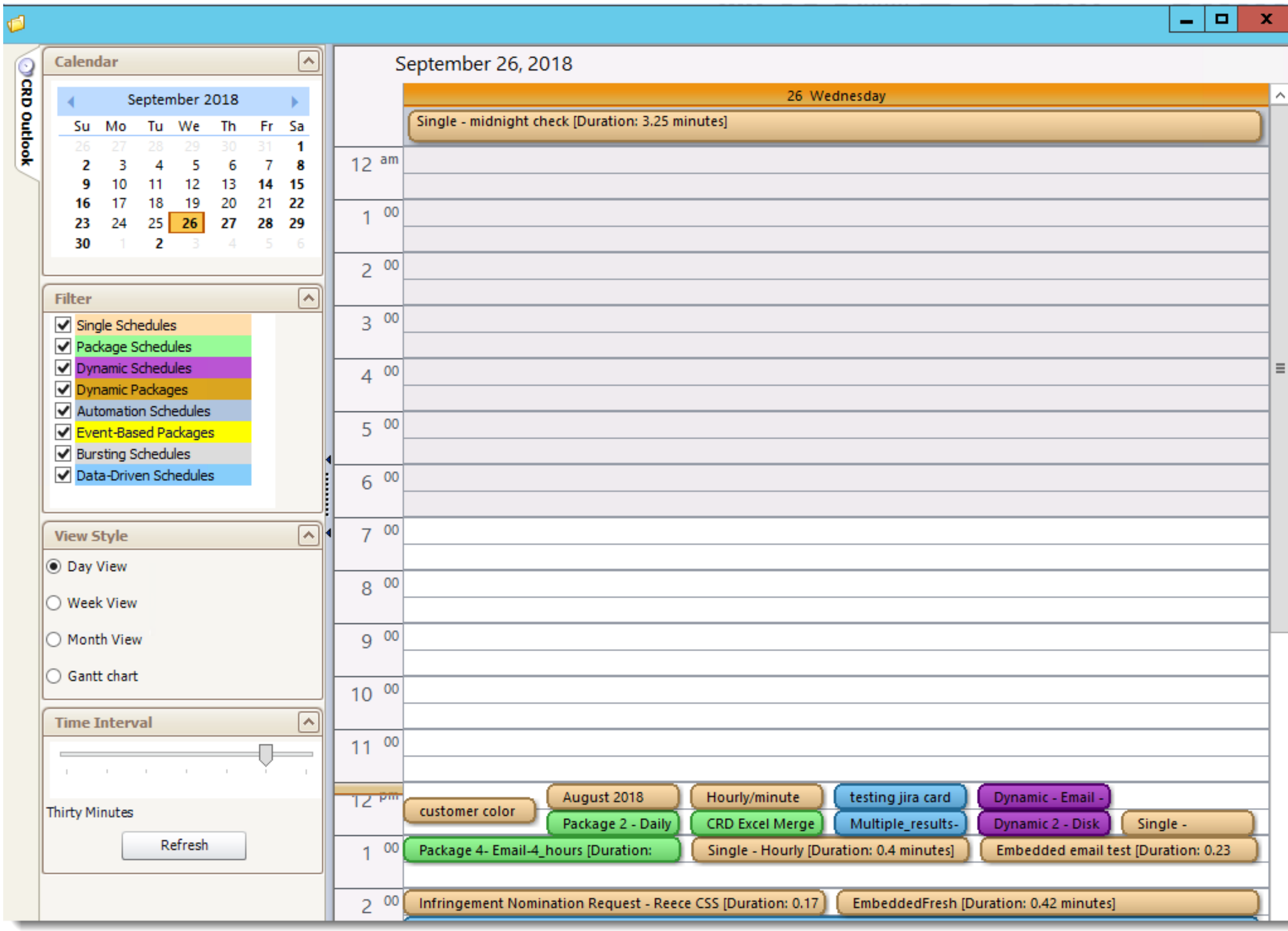
In the View section you can see the following options:

- Outlook
- Style
- Select Details
- Refresh
- Theme

CRD Outlook

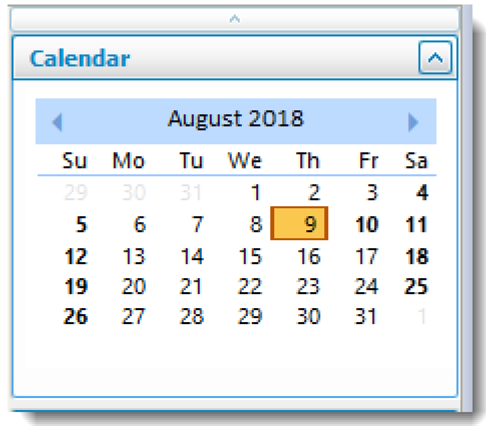
- Go to **Outlook.**





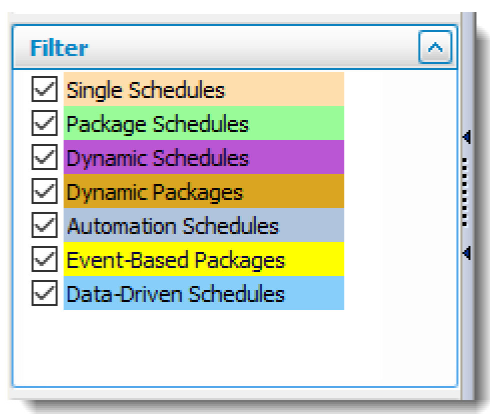
- CRD Outlook is an interface in CRD that allows you to view your schedules in several different ways.
- The CRD Outlook view is divided into left and right panes. The left pane contains options and controls which affect the view that is presented in the main viewing pane on the right.

The Calendar



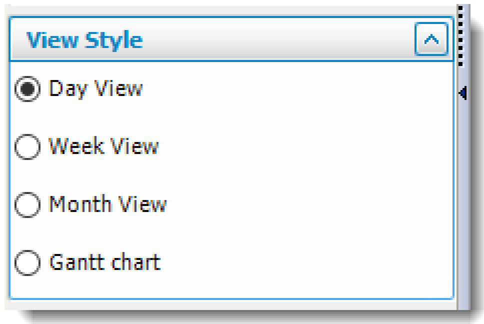
- The first section in the left pane is the Calendar section.
- This allows you to navigate to any desired date by clicking on the date. A selected date has its background grayed and the current date is highlighted with a red border.
- Selecting a range of dates in the calendar item displays that range in the right hand pane with the selected view style.
- You can move through the months and eventually years by clicking on the left and right buttons on <Month> <Year> display area or click any greyed out dates for the next or previous month.
- You can collapse and expand the Calendar or any section by clicking the arrow toggle in the top right hand corner of the section.

The Filter



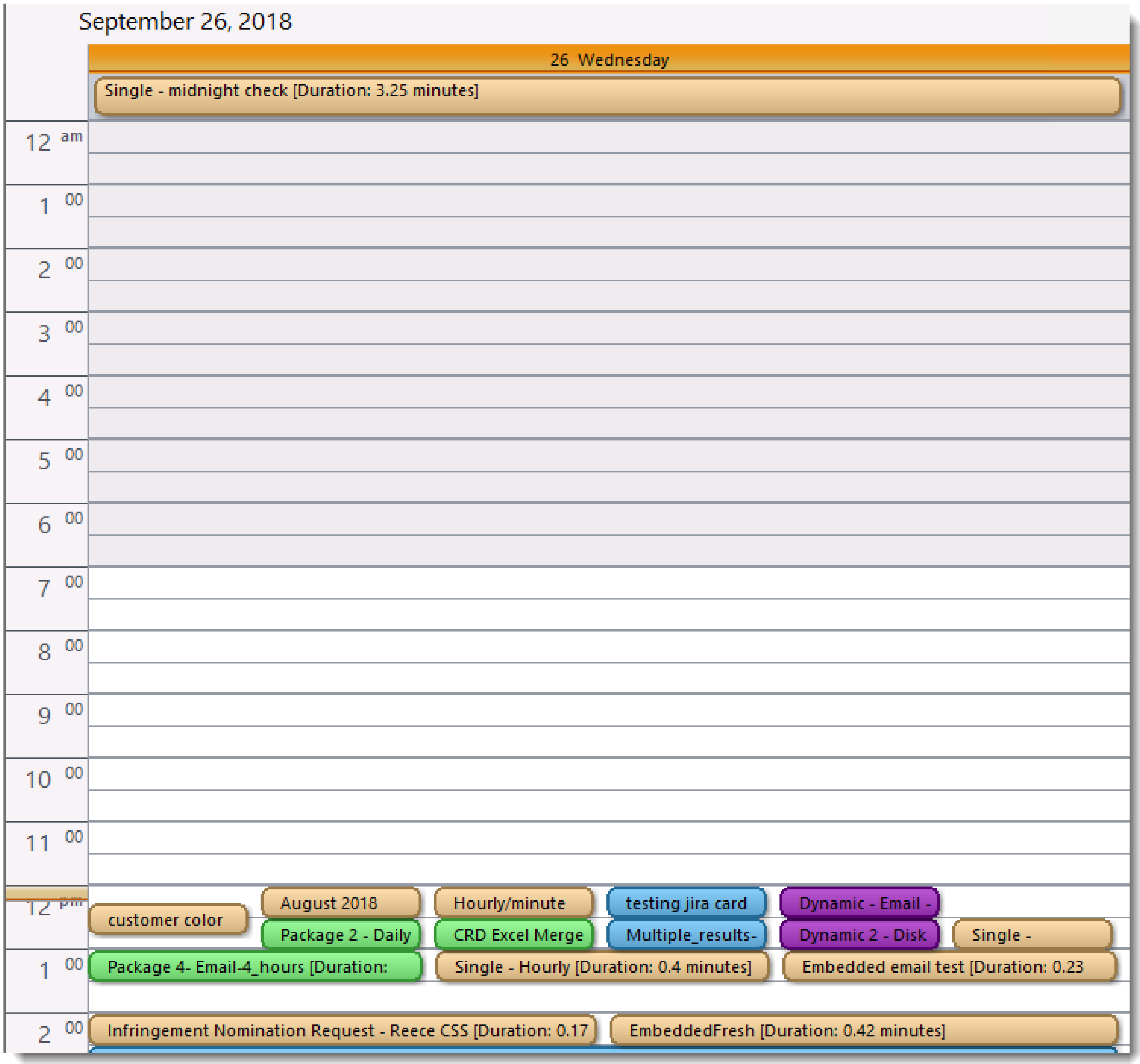
- The Filter section allows you to select the types of schedules for which information will be presented in the main viewing pane.
- For example, the selection shown in the figure above will mean the current view on the right will present information on all types of schedules that are available.

The View Style



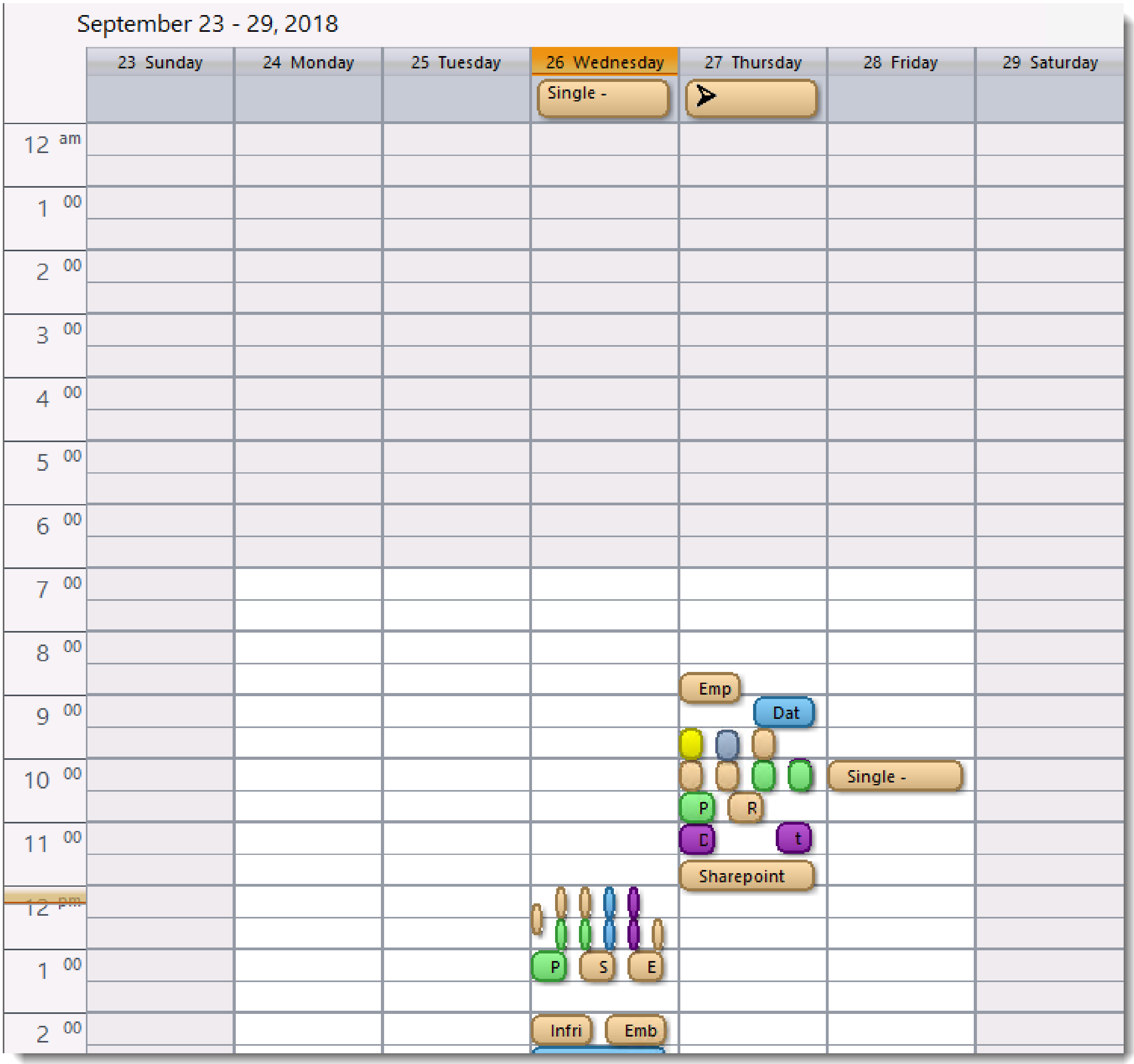
- The view style allows you to change the view that is presented in the viewing pane on the right.

Day View



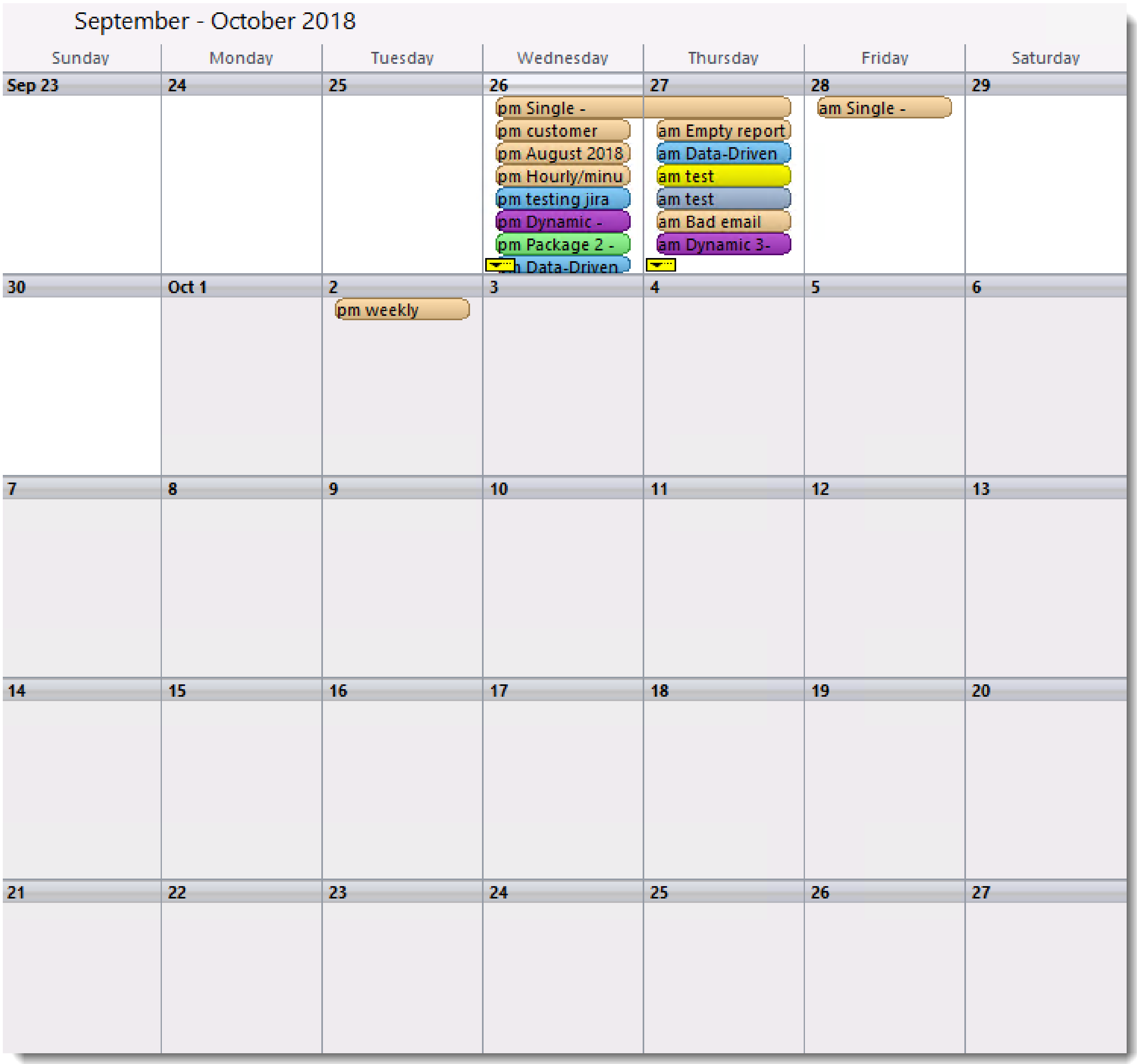
- This shows you information on schedules for the hours between 12:00am and 11:59pm for the day that you have selected in the Calendar section.
- You can select a schedule and move it to change the scheduled times.

Week View



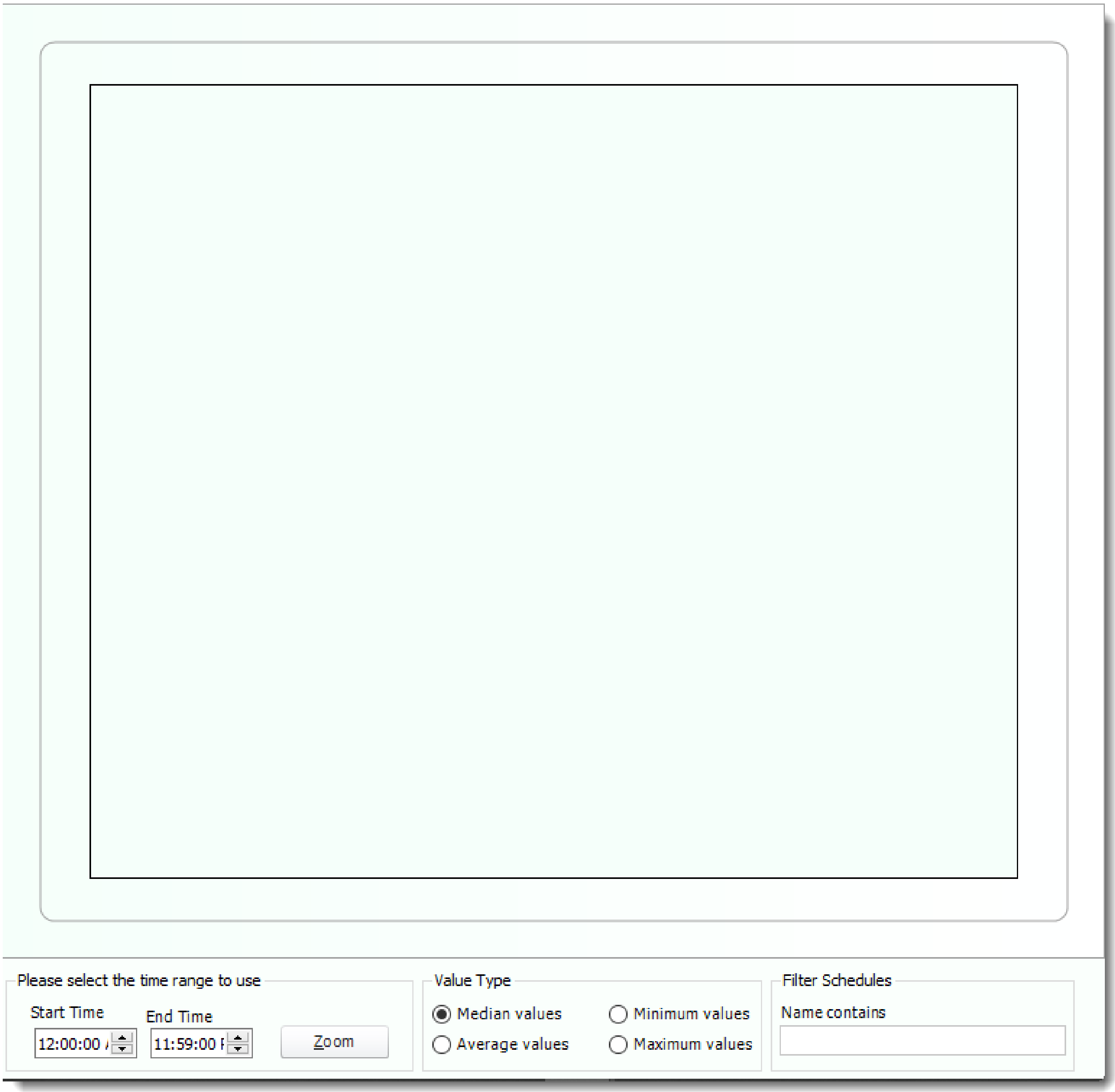
- This shows you information on schedules that fall in the week that contains the day you have selected in the Calendar tool. The Current day if it is in this week is highlighted in orange.

Month View



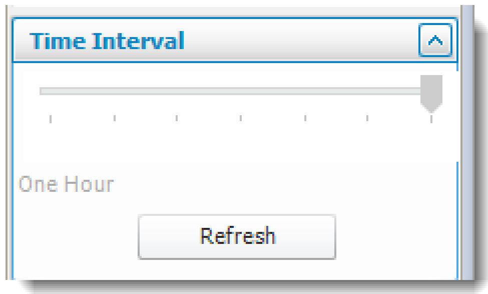
- The Month view shows by default the information on selected schedules for the current month. You can also scroll through to other months in this view in a 2 year range.

The Gantt chart



- The Gantt view allows you to view the schedules in a Gantt chart which you can further modify using the options below the chart.

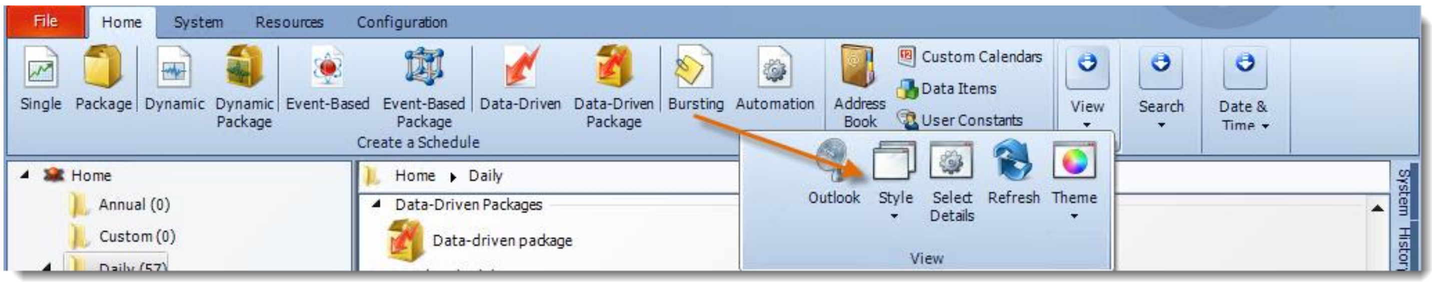
Time Intervals

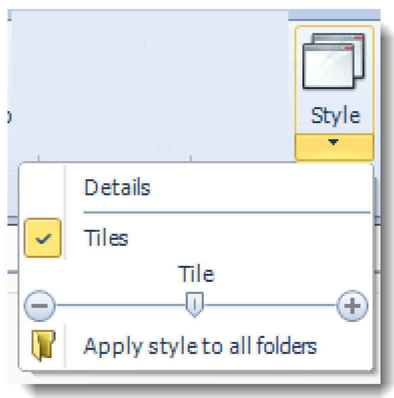


- You can use the time interval section while in the Day view to view schedule with the desired granularity. The time interval ranges from 5 minutes to one hour.
- Click **Refresh** to apply the selected interval to the view.

Style

- Go to **Style.**

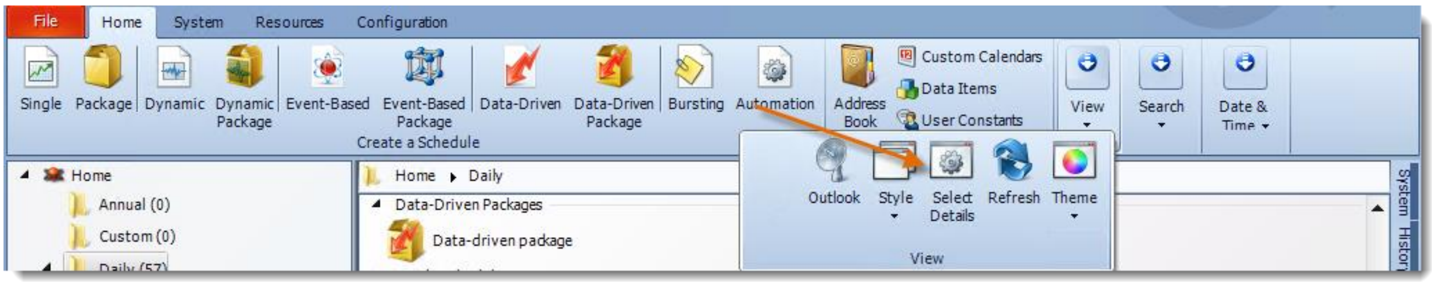


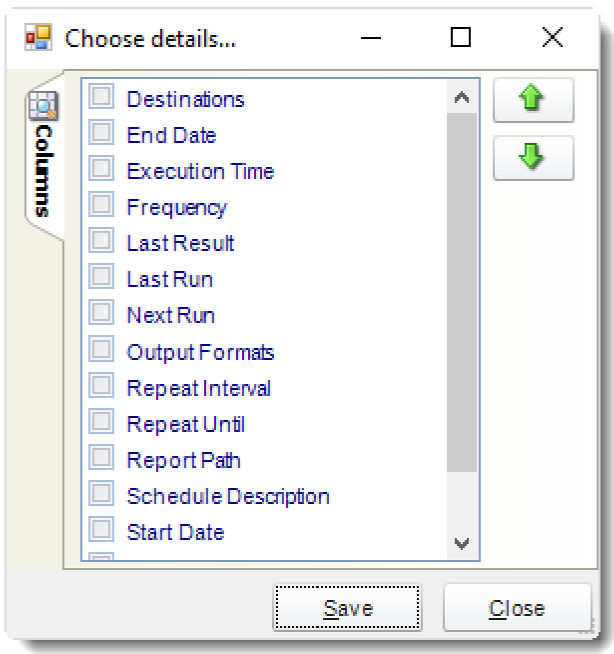


- Switch between list view and tile view for your schedules.
- Use the sliding bar to adjust the level of detail displayed for each schedule.

Select Details

- Go to **Select Details.**

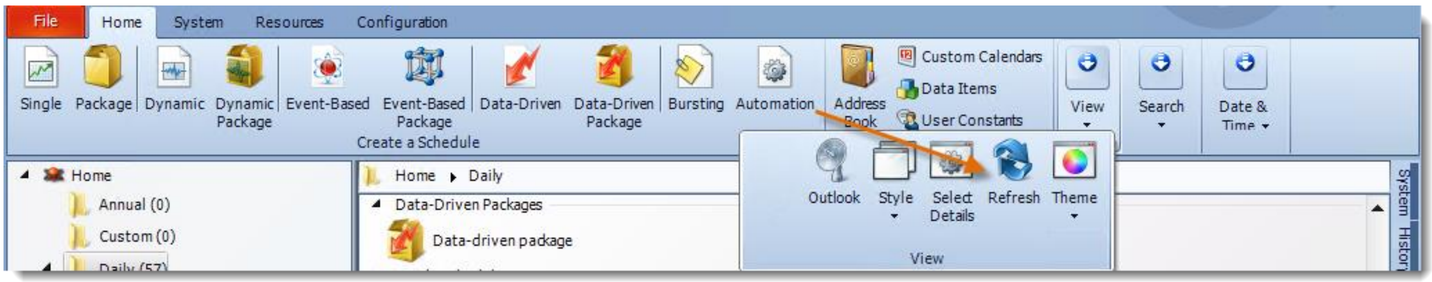




- Check the properties you would like to see when using Detail view.
- Use the arrows to determine the order the columns will be shown.

Refresh

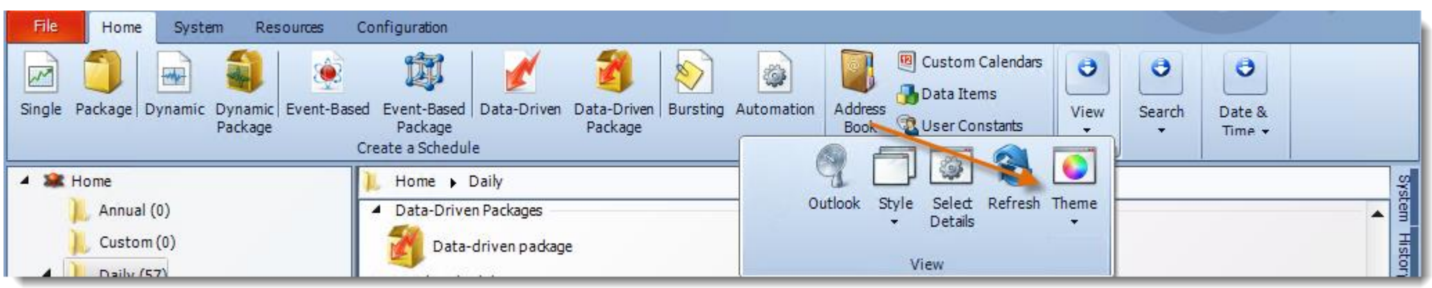
- Go to **Refresh.**



- Refresh the screen to show the latest schedule information.

Theme

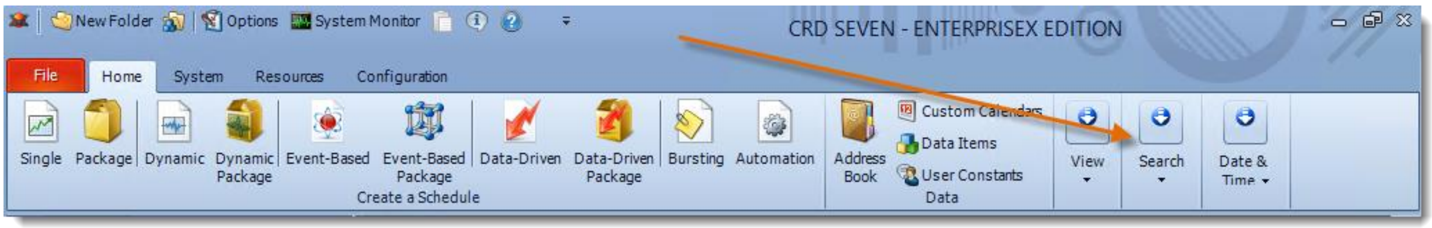
- Go to **Theme.**

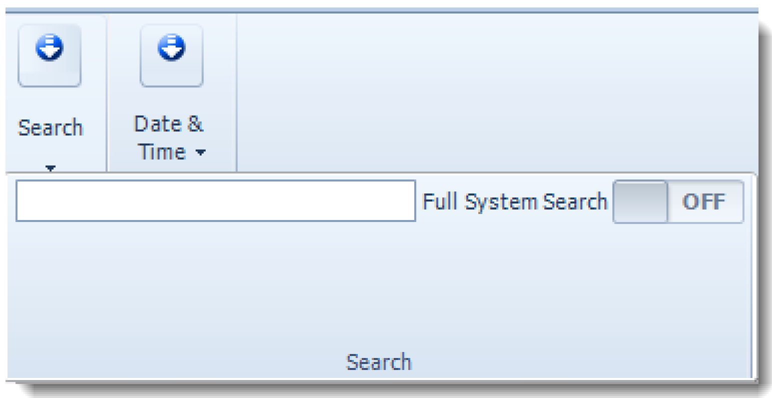


- Select the color scheme for CRD. Pick the one that best fits your tastes.

Search

- Go to **Search.**



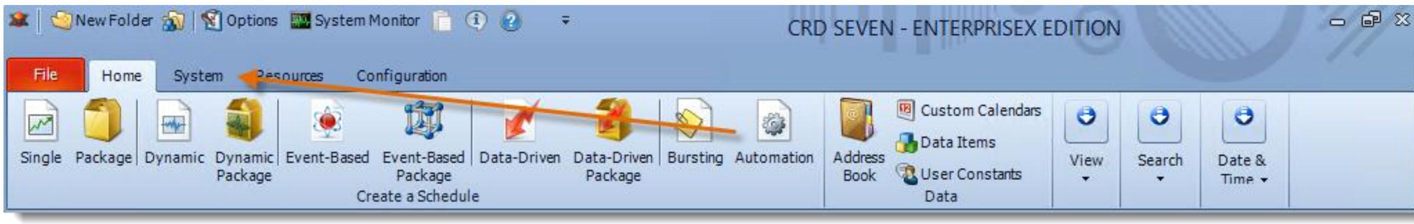


- Use search to find a specific schedule.

  Tip: Search looks for a schedule in the highlighted folder. to search all schedules, create a Smart Folder *that encompasses every schedule, then use search to find the schedule.*

User Manager

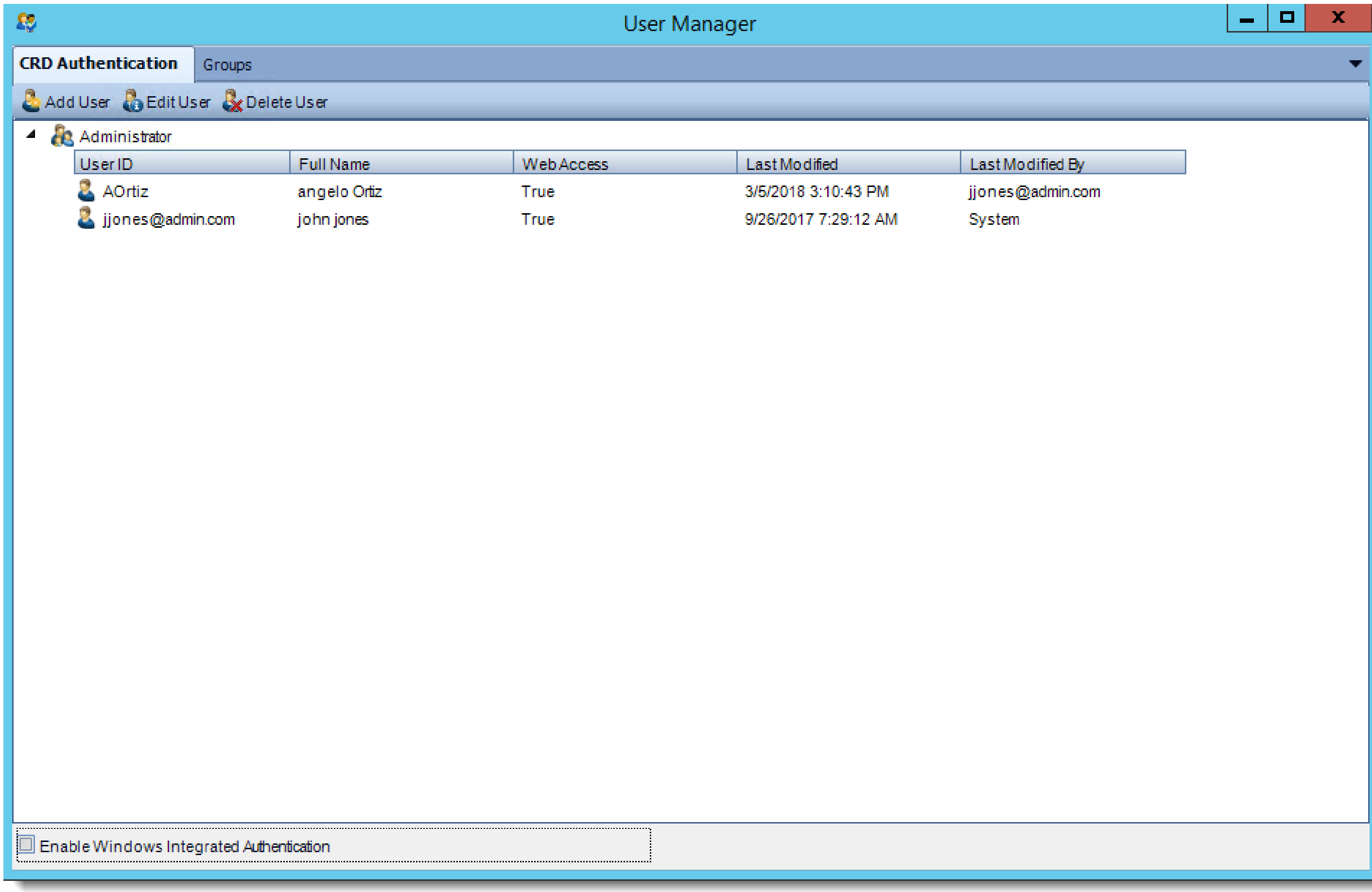
- Go to **System.**



- Select **User Manager.**

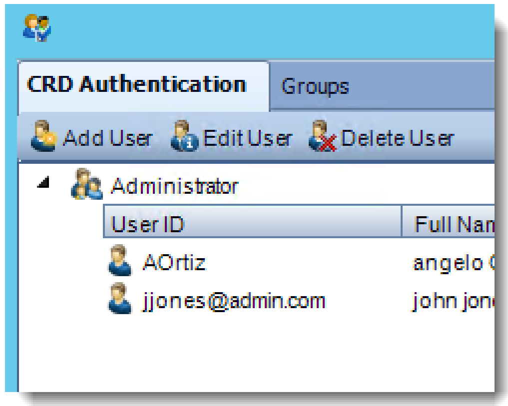
What is user management?

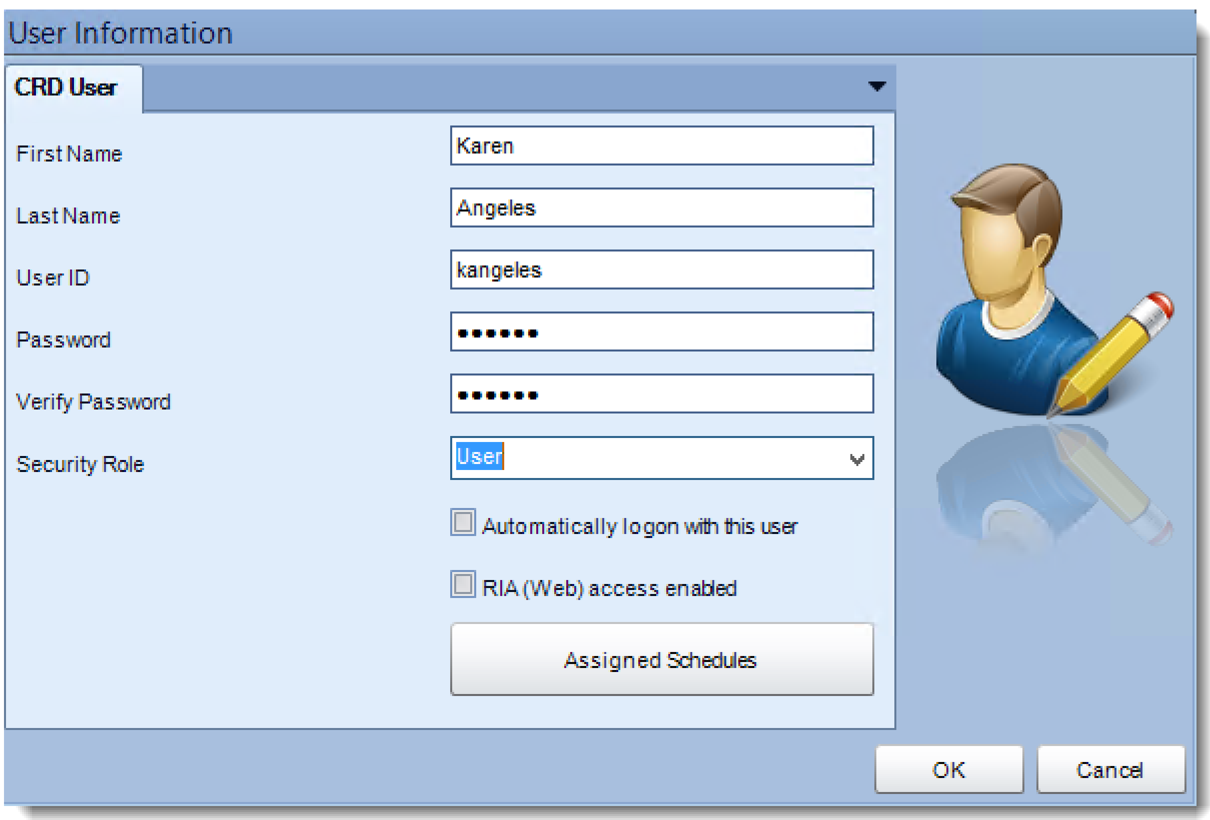
- The principle behind the user management is simple:
- Administrators are able to view and manipulate all schedules
- Users can only see and manipulate schedules they have created.
- Create Group policies to determine what user can/cannot access in CRD.
- Create Group policies to determine what user can/cannot access in CRD.


User Manager
CRD Authentication
Groups
Add User
Edit User
Delete User
Administrator
User ID
Full Name
Web Access
Last Modified
Last Modified By
AOrtiz
angelo Ortiz
True
3/5/2018 3:10:43 PM
jjones@admin.com
jjones@admin.com
john jones
True
9/26/2017 7:29:12 AM
System
Enable Windows Integrated Authentication

How to set up a user

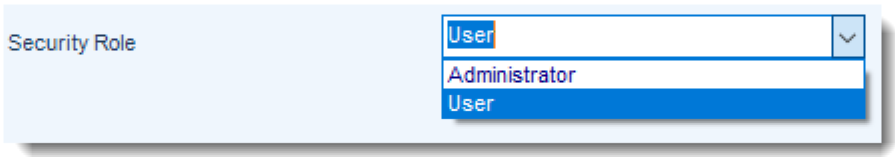
- Click **Add User**.





- **First Name:** Enter the user's first name.
- **Last Name:** Enter the user's last name.

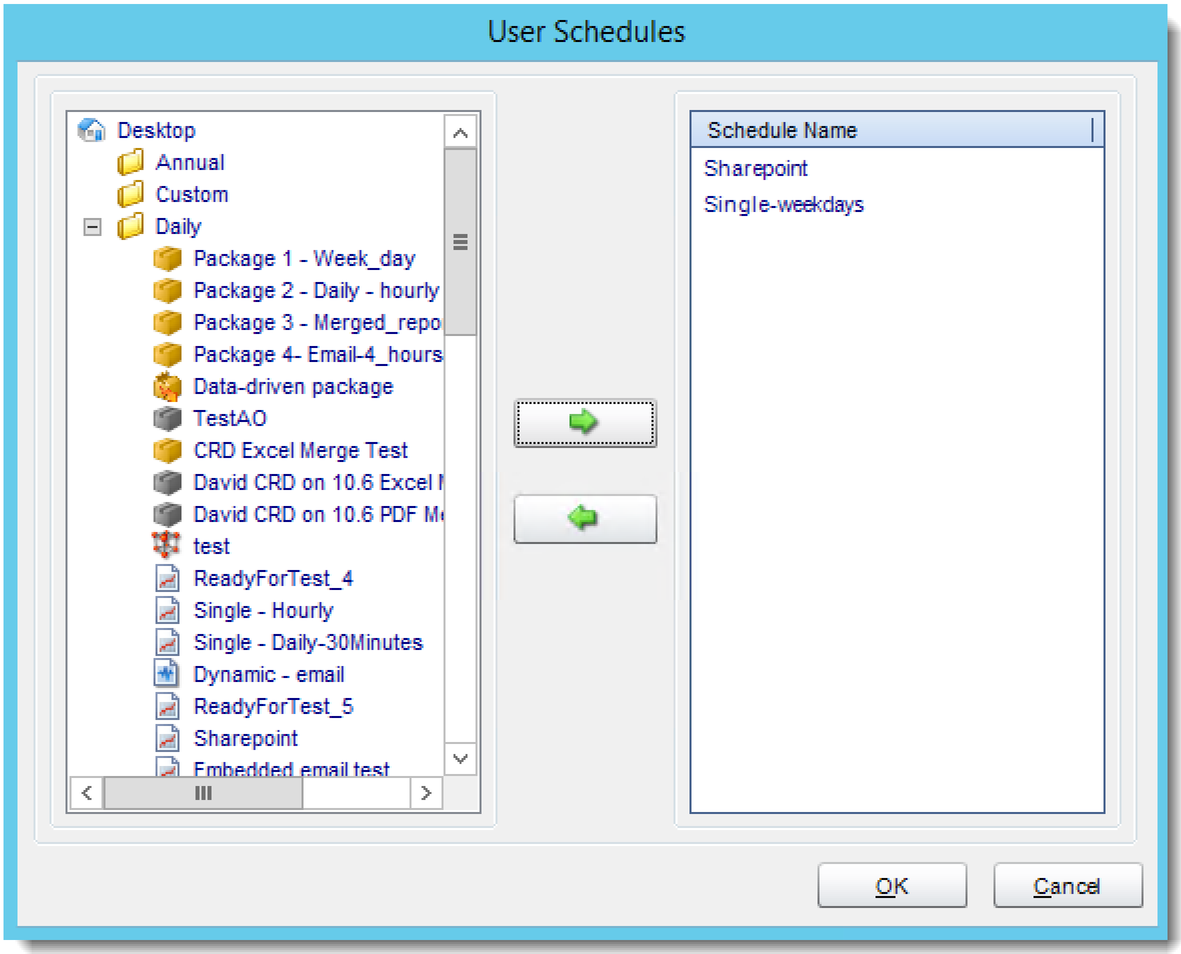
- **User ID:** Enter a suitable username for the user.
- **Password:** Create here the password for the user.
- **Verify Password:** verify the user's password.
- **Security Role:** Select a security role.



- **Apply:** Click Apply to create the new user.
- **Automatically logon with this user:** When this option is checked, CRD will always logon using this user's credentials. When CRD starts, the splash screen will show this user and the system will automatically log in after 10 seconds. You can interrupt the automatic logon process by typing in a different username and password and manually log on as a different user.

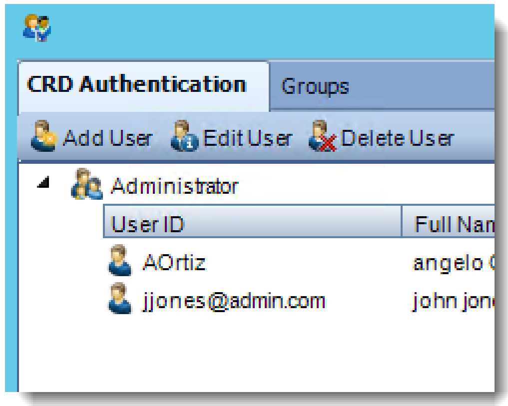
Assigned Schedules

- Select the schedule or folder from the left hand pane and assign it to this user by clicking the **green button.**


User Schedules
Desktop
Annual
Custom
Daily
Package 1 - Week_day
Package 2 - Daily - hourly
Package 3 - Merged_repo
Package 4- Email-4_hours
Data-driven package
TestAO
CRD Excel Merge Test
David CRD on 10.6 Excel
David CRD on 10.6 PDF M
test
ReadyForTest_4
Single - Hourly
Single - Daily-30Minutes
Dynamic - email
ReadyForTest_5
Sharepoint
Embedded email test
Schedule Name
Sharepoint
Single-weekdays
OK
Cancel

Amending a user's details

- Click on the user.
- Select **Edit User.**

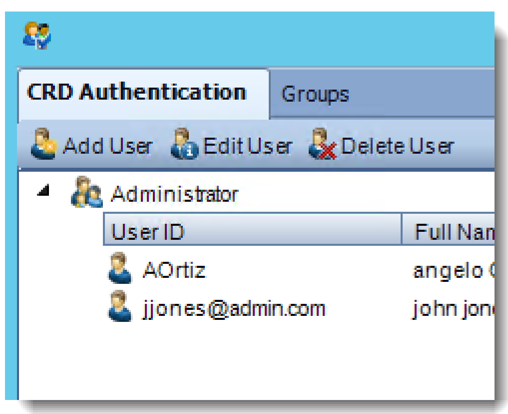


- Overwrite the existing details with the new details.
- Click **OK.**

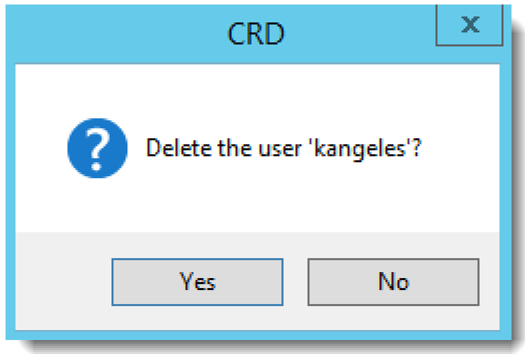
You can also double-click on the user.

Deleting a user

- Click on the user.
- Click **Delete User**

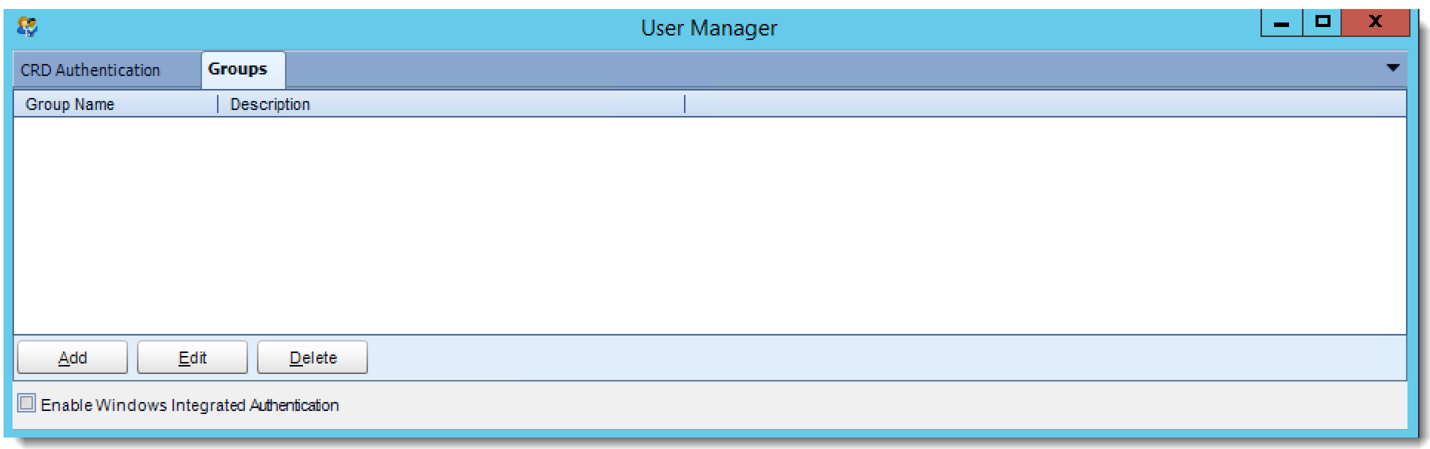


- Click **Yes.**



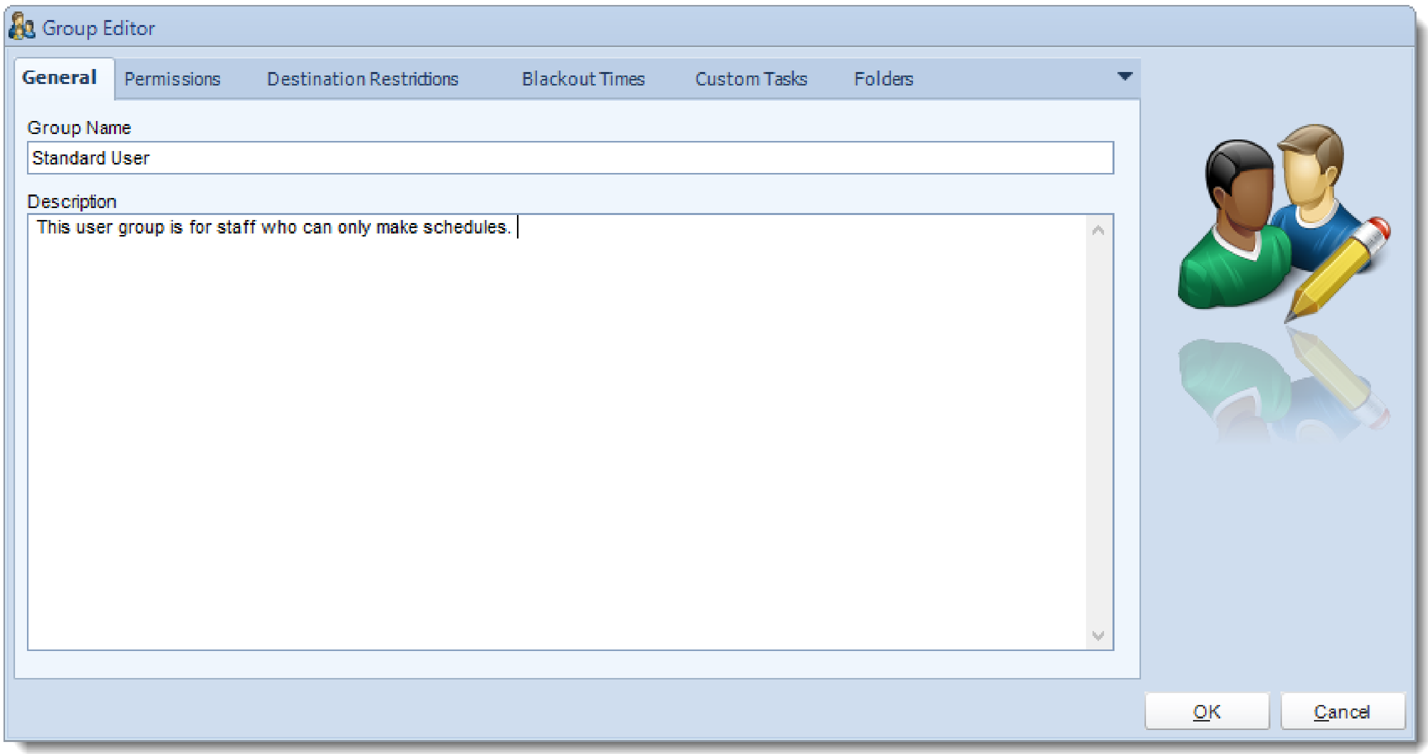
Security Roles

- CRD comes with the Administrator and User security roles. Roles help you to easily manage which functionality is available to people who will be using CRD.
- You can create new roles by creating groups.
- Click **Add** to create a new group.



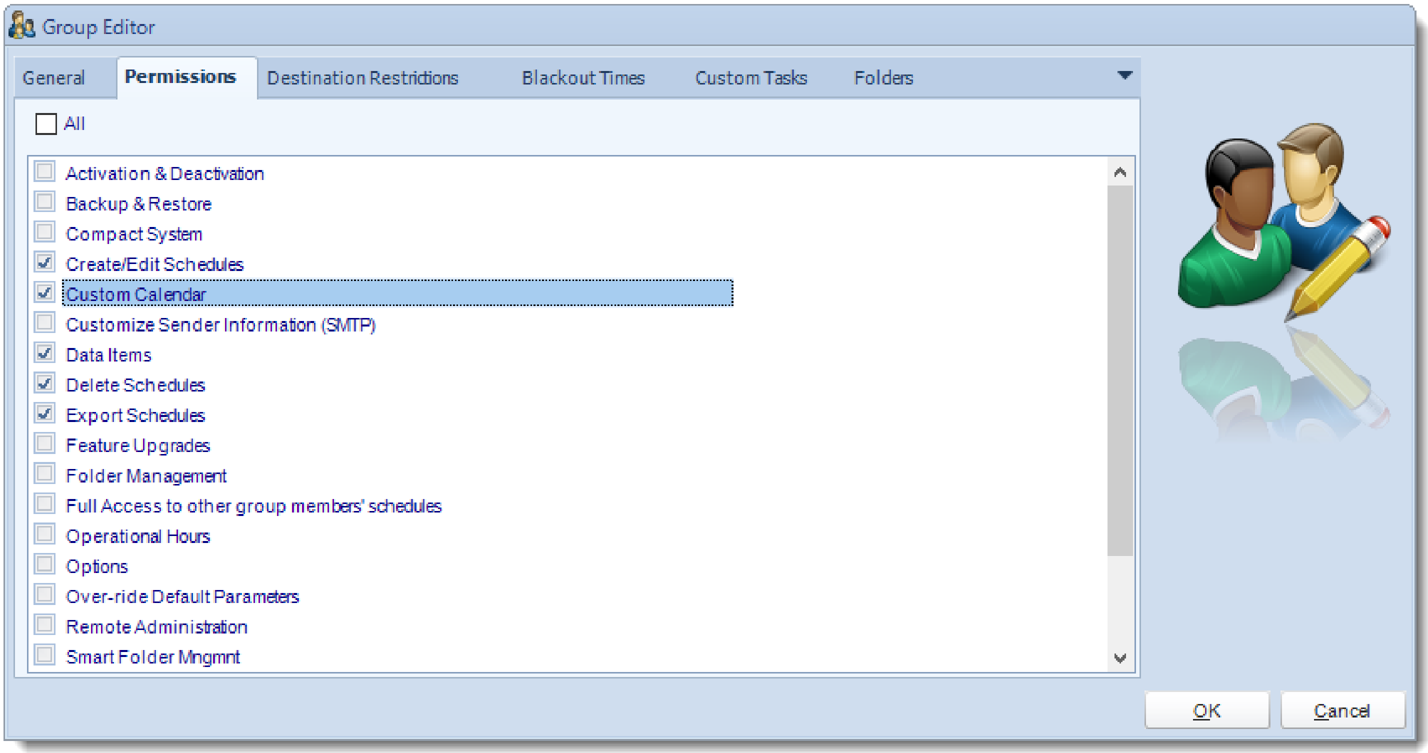
Creating a New User Group

By placing users into different groups, you can determine what they can and cannot access in CRD. Restrict access to certain functionality, activation/deactivation and even assign blackout times.

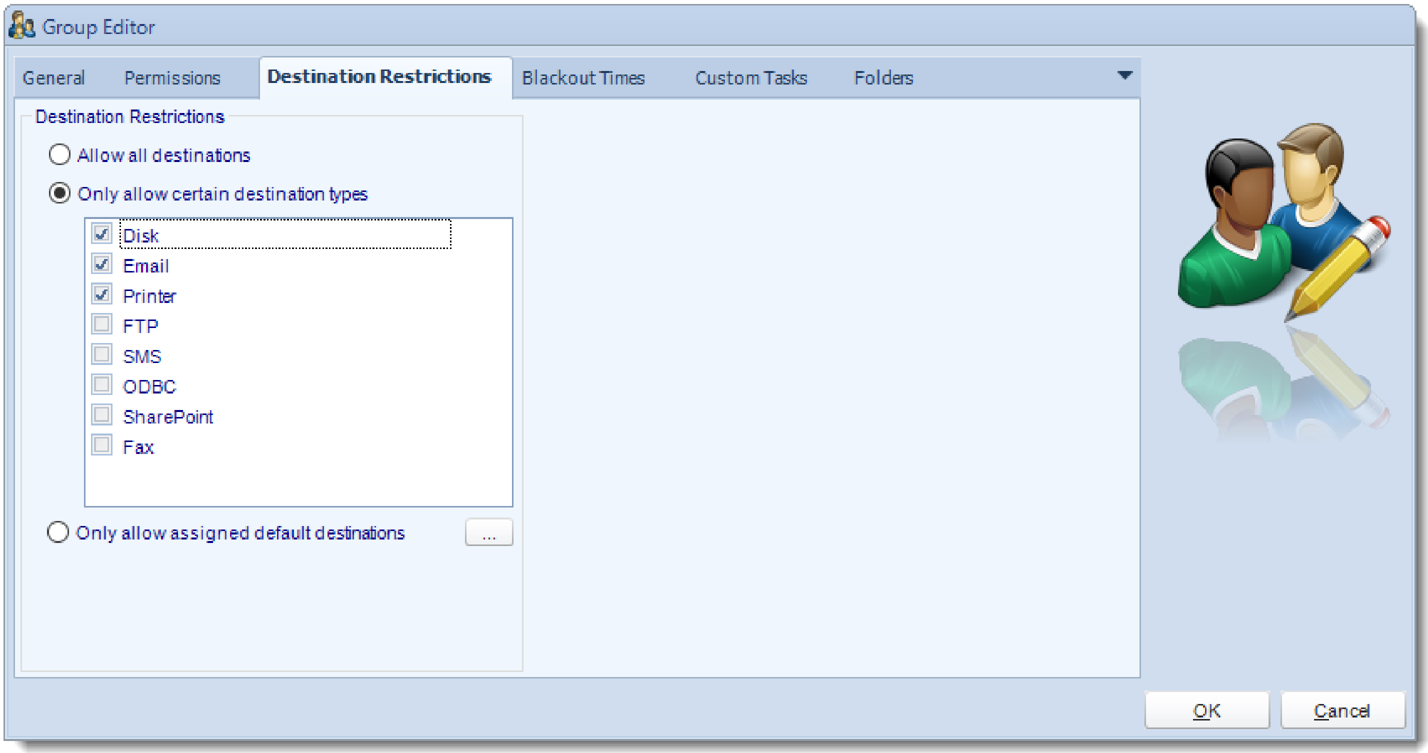


Permissions

In the Permissions Tab, you can then specify access to system features such as operational hours, or the options menu. Check the boxes to indicate whether the group has access to these features.



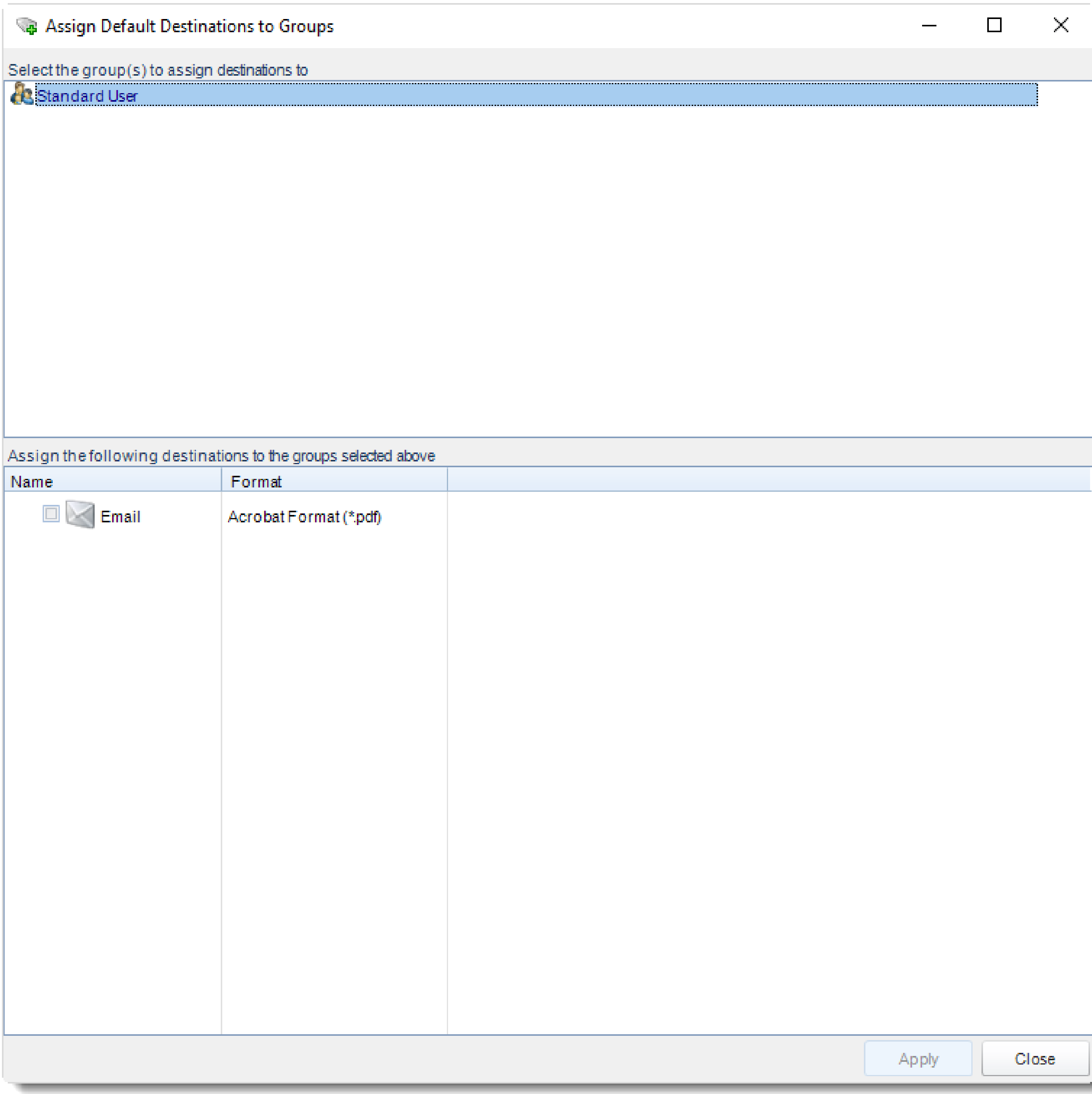
Destinations Restrictions



You can also restrict what destinations the group has access to.

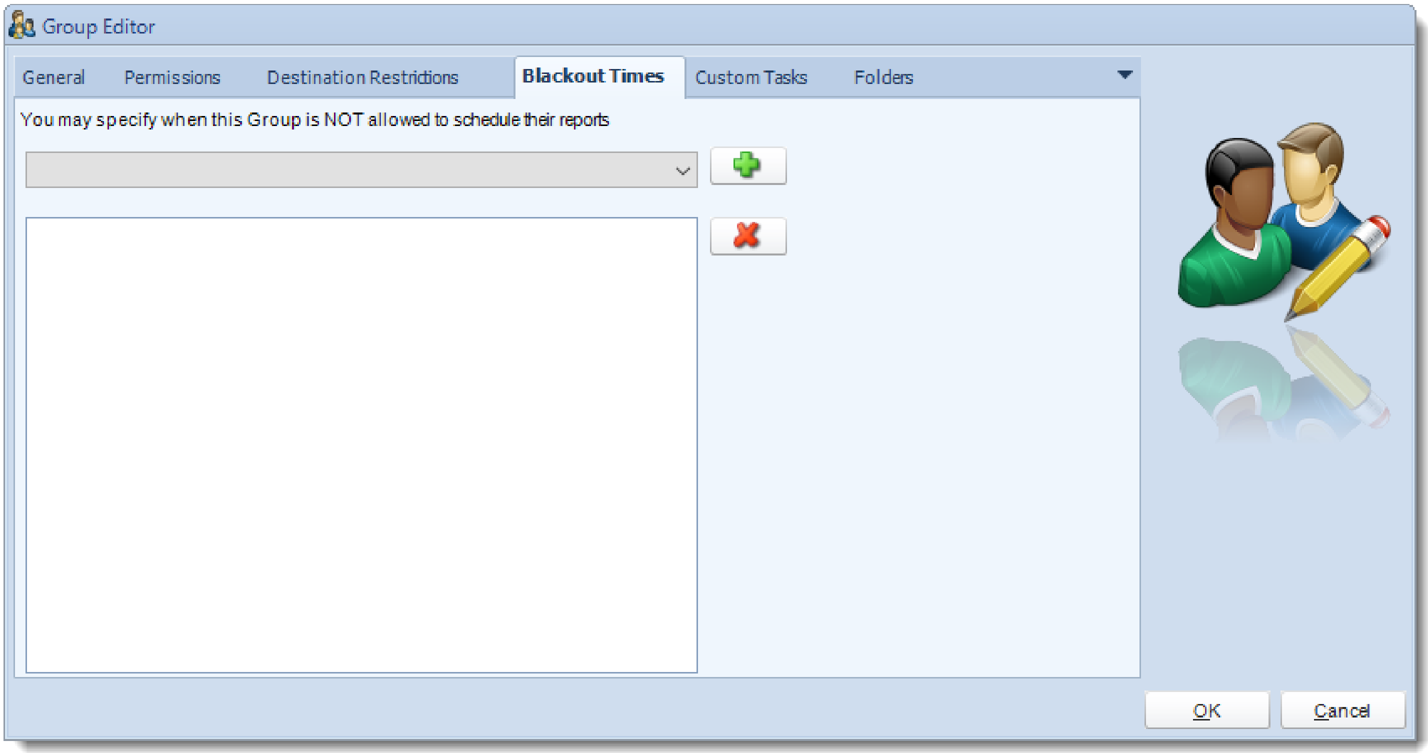
- **Allow all destinations:** This group can access all destinations.
- **Only allow certain destination types:** Check the boxes to indicate which destinations the group has access to.
- **Only allow assigned default destinations:** Use only default destinations (created in the Options menu) and assign them to a specified group as shown below. See: Default Destinations

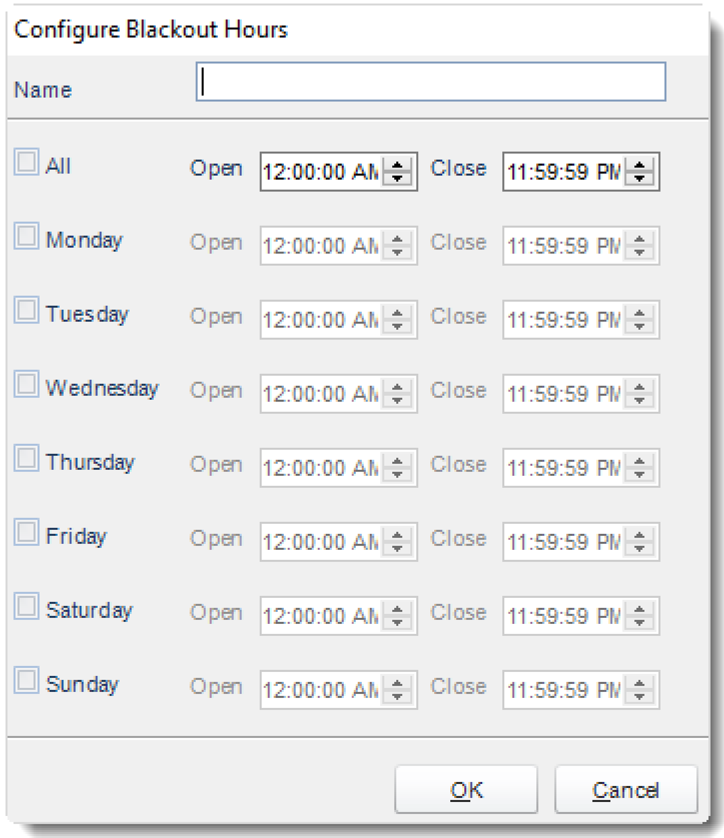
  Pre-create destinations in this manner and assign these destinations to the specific group. Perfect for avoiding giving out sensitive logon information such as FTP or SharePoint site info.


Assign Default Destinations to Groups
Select the group(s) to assign destinations to
Standard User
Assign the following destinations to the groups selected above
Name
Format
Email
Acrobat Format (*.pdf)
Apply
Close

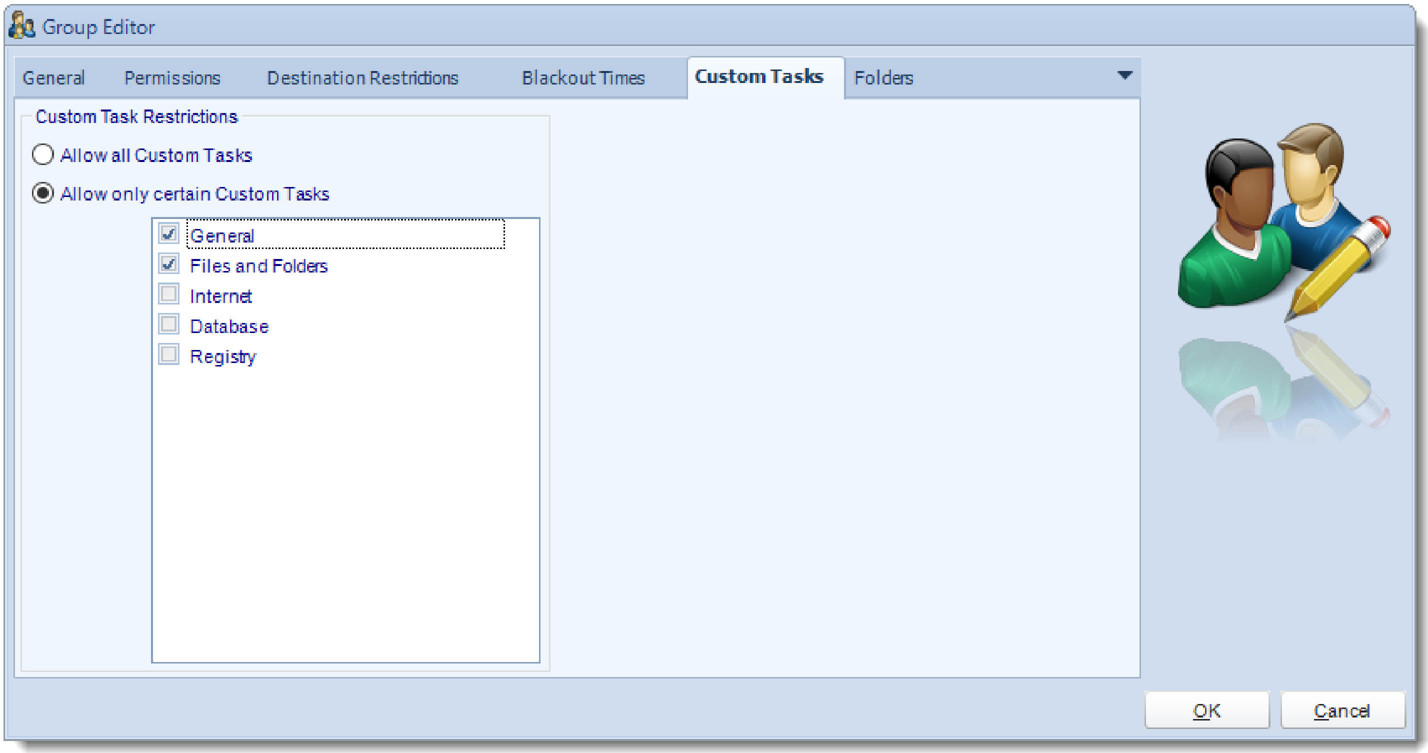
Blackout Times

Set Blackout Times to prevent users from scheduling reports during a certain time frame. Use Operational Hours to build time frames.




Configure Blackout Hours
Name
All
Open
12:00:00 AM
Close
11:59:59 PM
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday
OK
Cancel

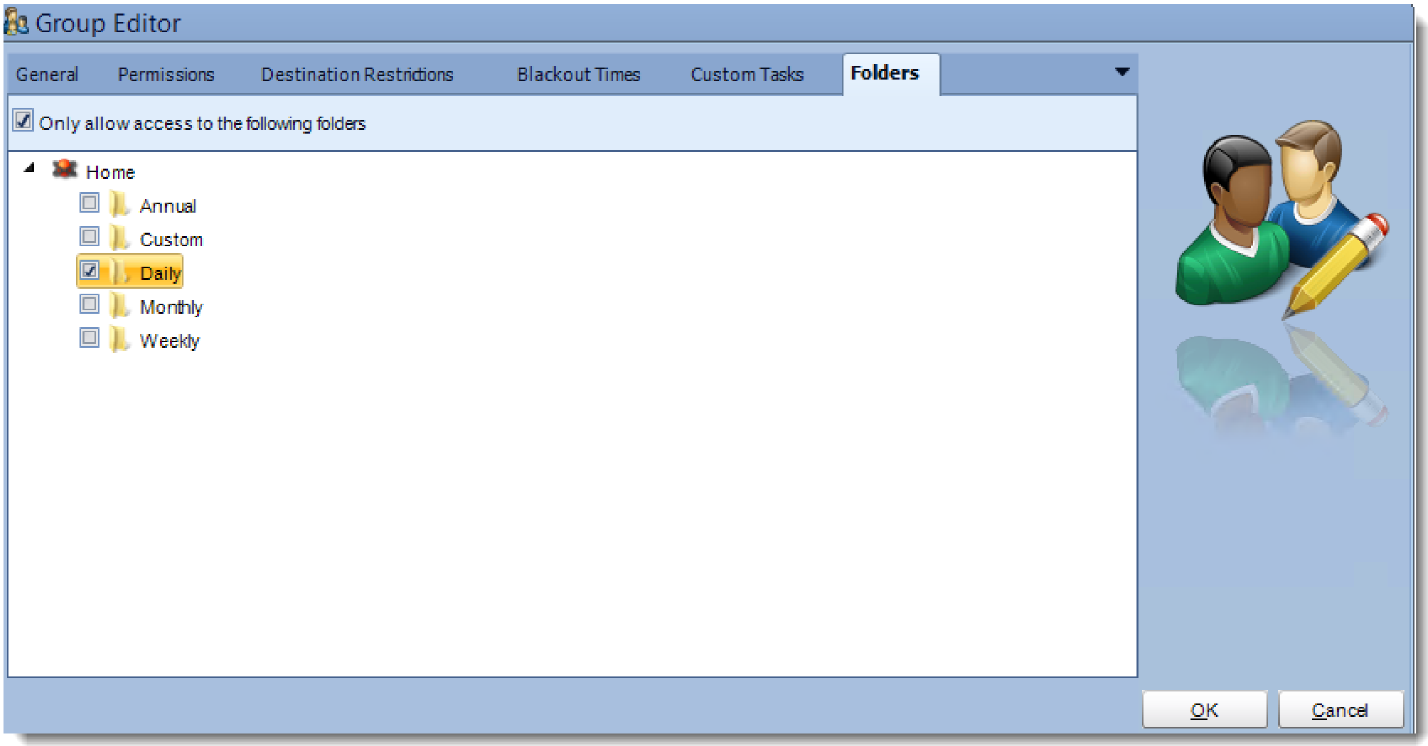
Custom Tasks



- **Allow all Custom Tasks:** All users in this group can use custom tasks.
- **Allow Certain Custom Tasks:** Specify which task types this group has access to.

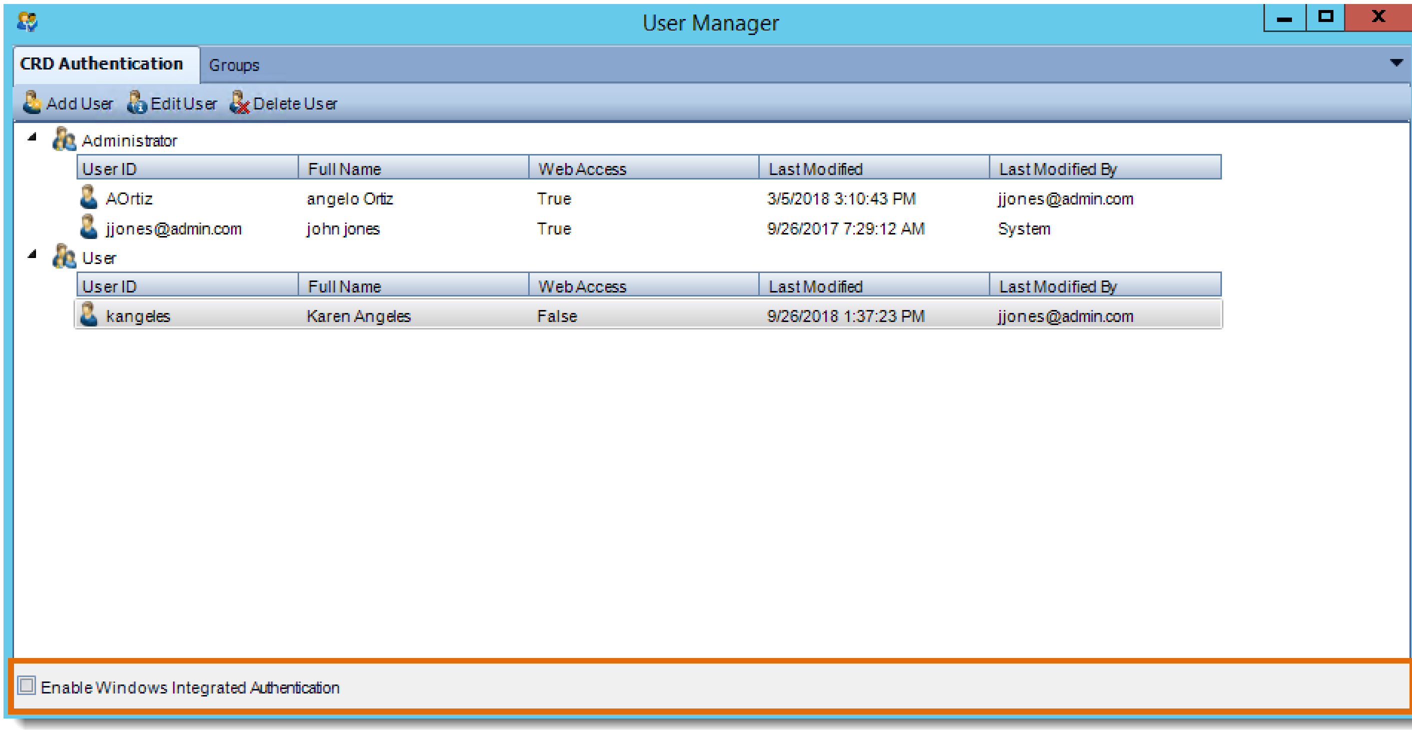
Folders

Allow the Group to have access to the folders.



- After you finish click **OK.**

Enable Windows Integrated Authentication

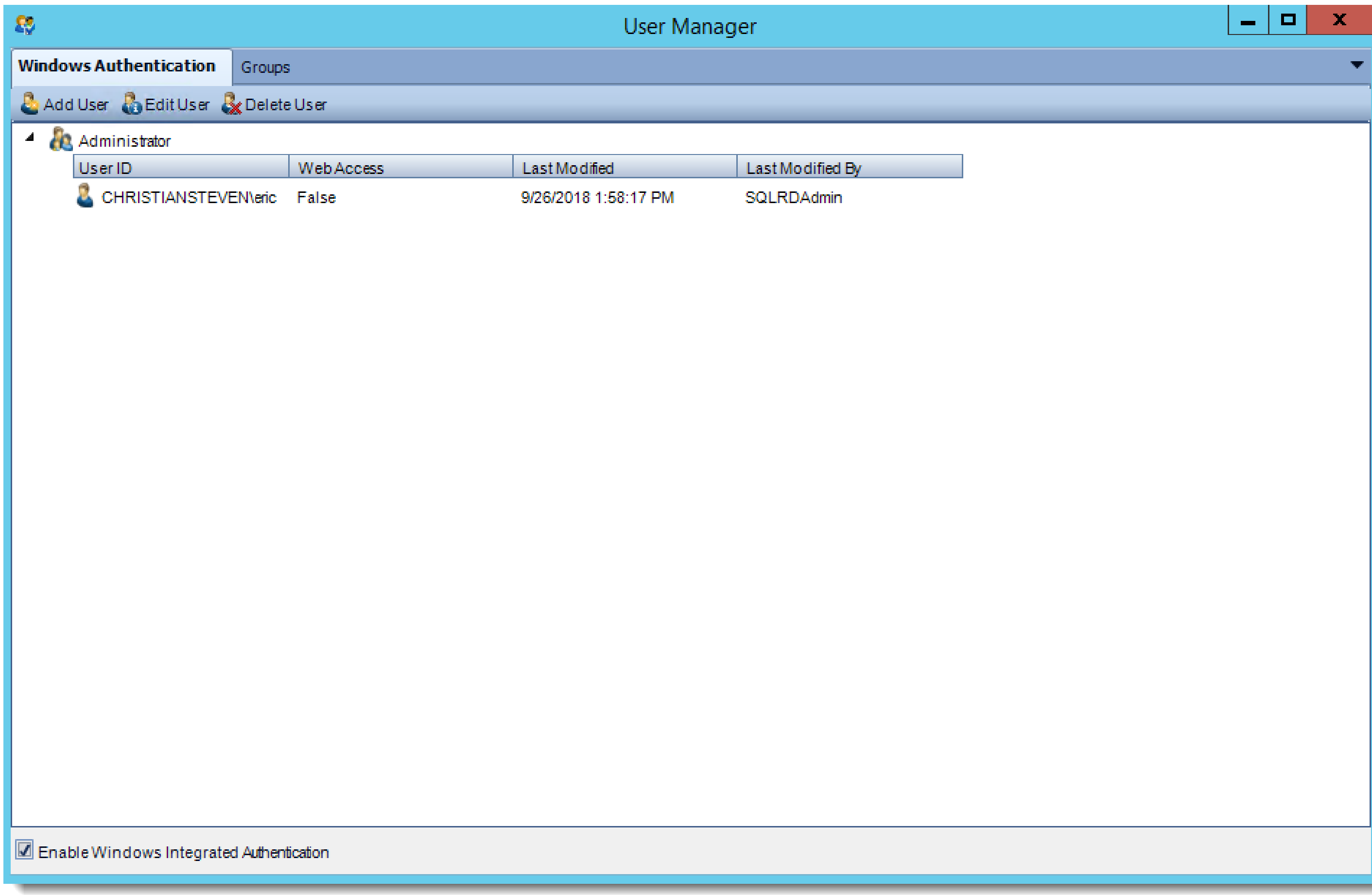


- You will now be able to assign new and existing users to the newly defined security role as below.

Windows Authentication

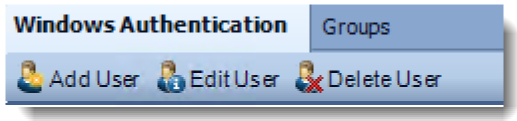
To enable Windows Authentication check the box in the lower left hand corner of the User Manager.

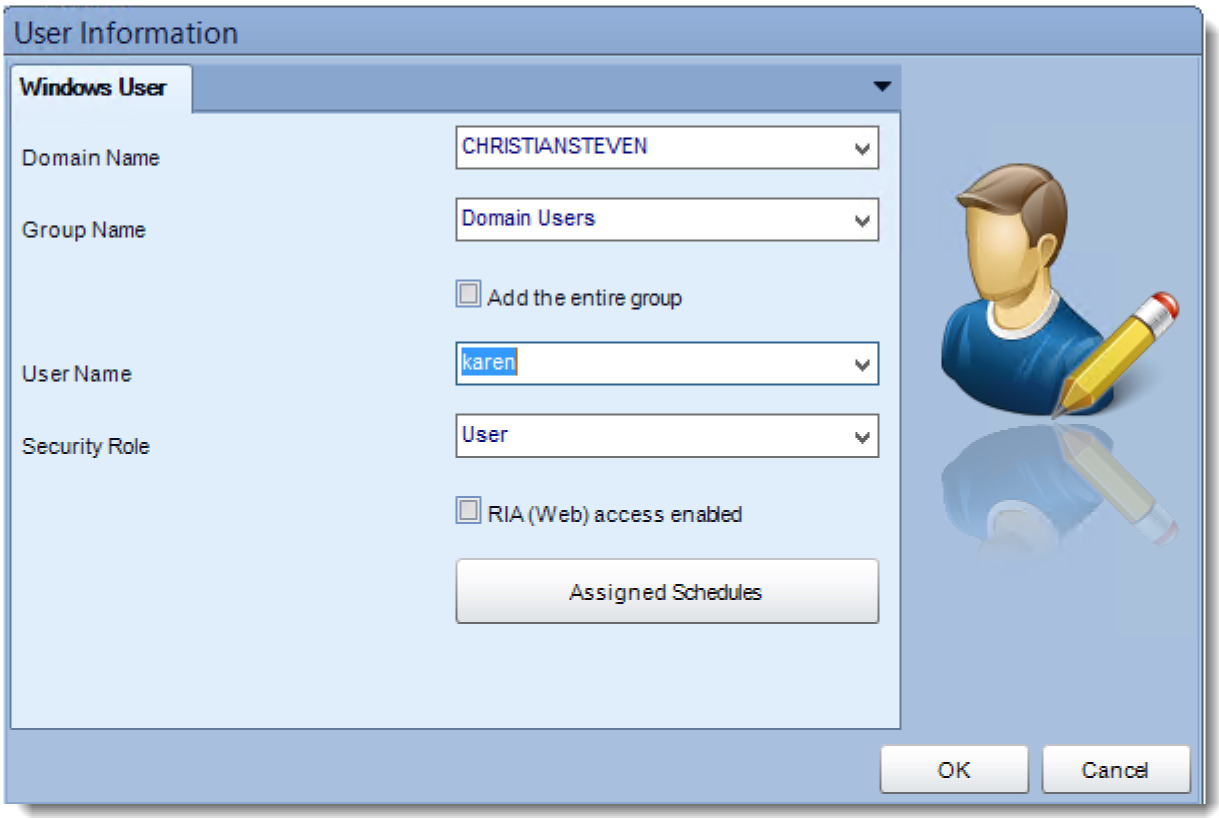
Windows Authentication allows you to use Windows Authentication to log in to CRD. This can help save time in creating new users for CRD. Security roles created in CRD can also be applied to users under Windows authentication.



Add User

- Add Active Directory users as CRD users.





- **Domain Name**: Enter the domain name.
- **Group Name:** You can select from the drop down list the group where the user(s) are located.
- **Add the entire group:** All users in the user group will be added to CRD.

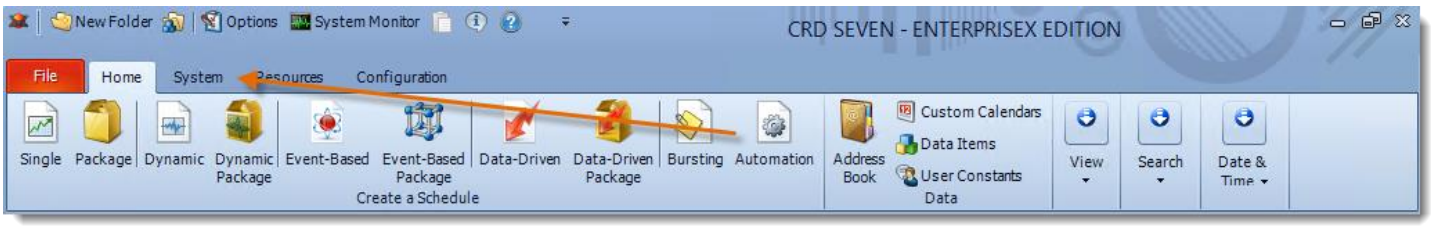
  Users added in this manner WILL NOT be displayed as individual users in the Users list in the User Manager.

- **Security Role:** Assign a CRD specific group to the user. The user will then take on the permissions allotted in the user group. User Groups can be created in the Groups Tab.
- **Assigned Schedules:** Assign schedules to the added user/group. Learn more about assigning schedules near the top of this topic.

SMTP Servers

You can set up a number of SMTP servers and select from the list of existing servers when creating schedules. You can also set some as "backup" servers to be used when your "primary" SMTP server is unavailable.

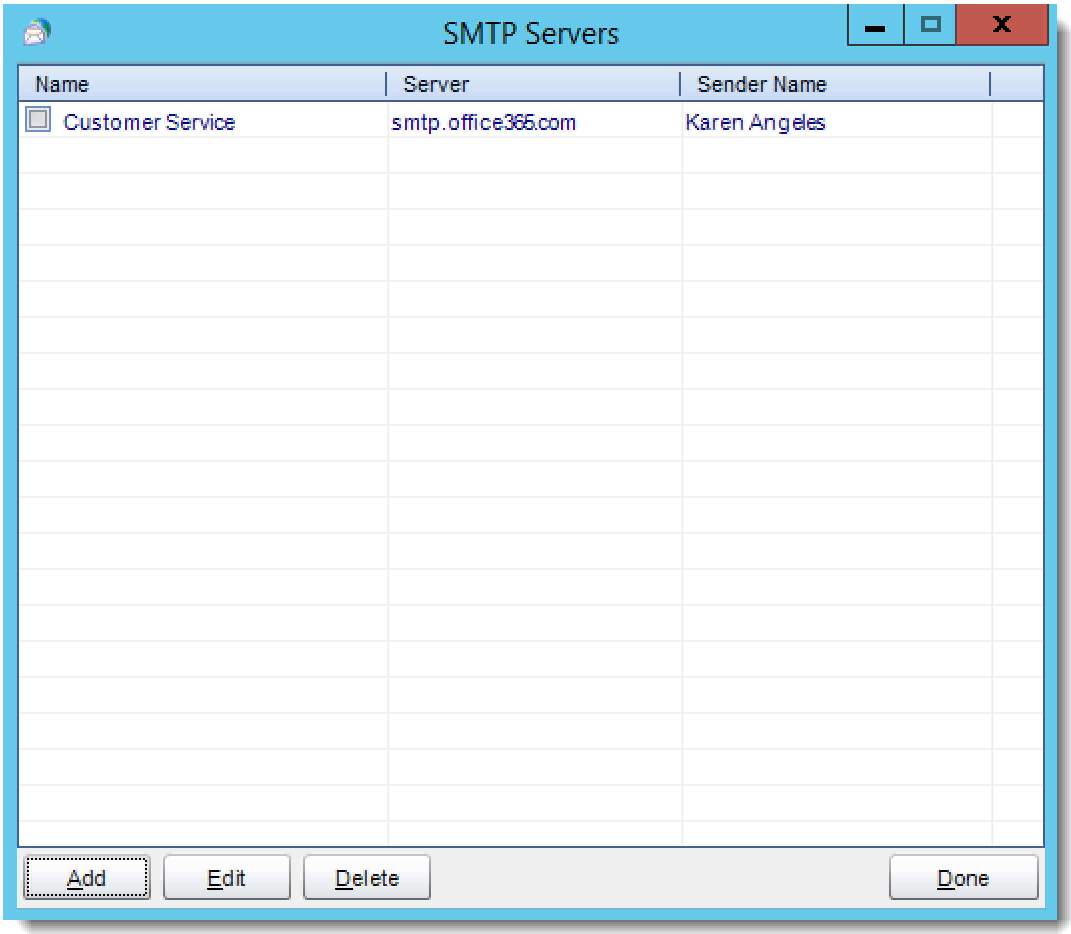
- Go to **System.**



- Select **SMTP Servers.**

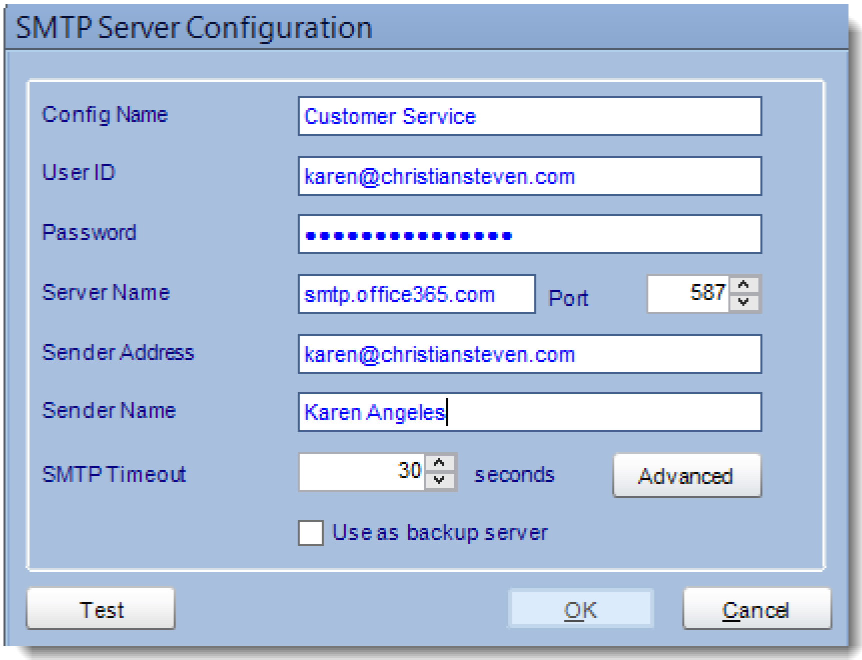
You can set up a number of SMTP servers and select from the list of existing servers when creating schedules. This allows you to use a different SMTP server for each schedule should you wish. This is useful if you want the "From" name and email address to be different for different recipients.

> *Example: Reports and Alerts sent to customers come from the Customer Services Email Account; Alerts And Reports Relating to IT come from the IT Department's Account*

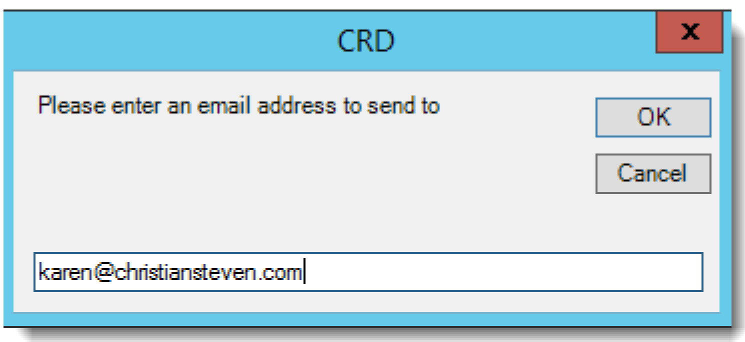

SMTP Servers
Name
Server
Sender Name
Customer Service
smtp.office365.com
Karen Angeles
Add
Edit
Delete
Done

Add Server

- Click **Add.**



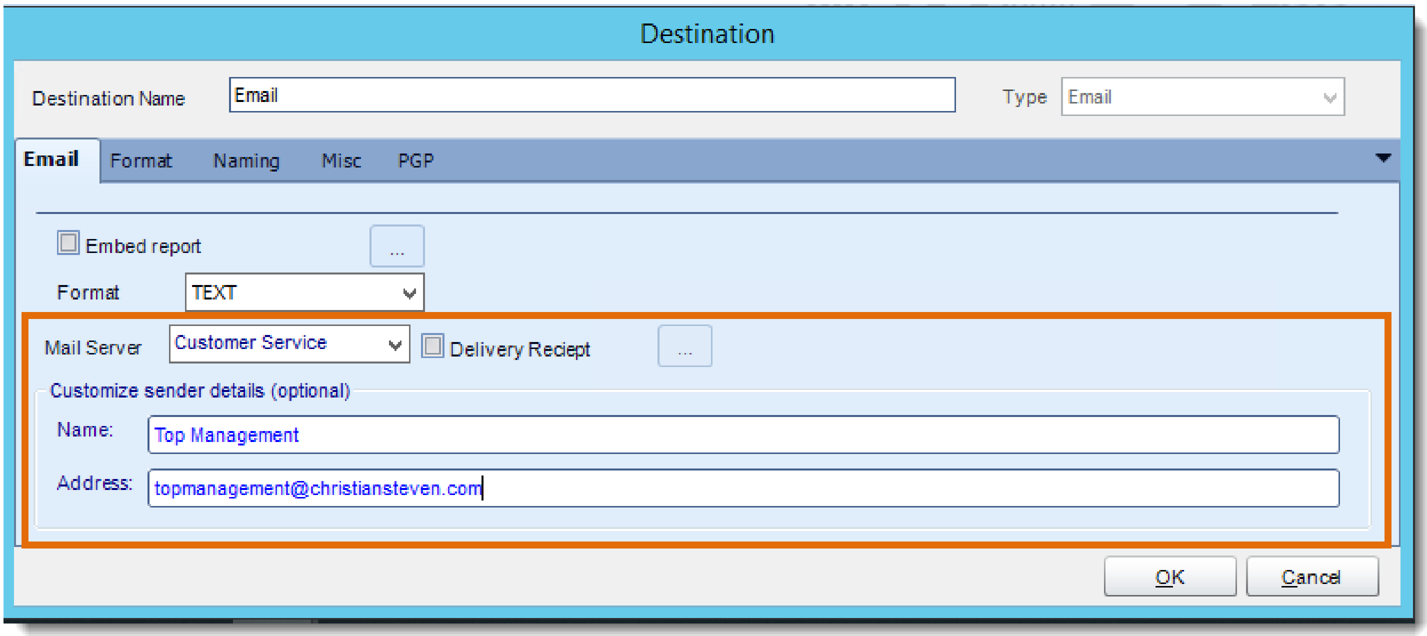
- As stated above, you can set this account to be a backup email server.
- Click **Test** to confirm that the settings are correct.



- Click **OK** to continue.

Sending Through Another SMTP Account or Customize Sender Details

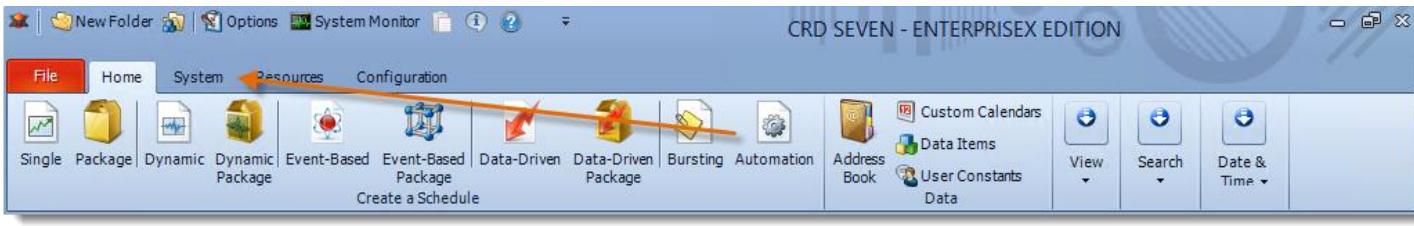
- In any schedule in **Email Destination**, you can customize the sender's details. Rather than the email appearing to come from a CRD user, it can appear to come from any individual you desire.
- **Mail Server** to use an added SMTP account simply select it from the drop down box.



Operation Hours

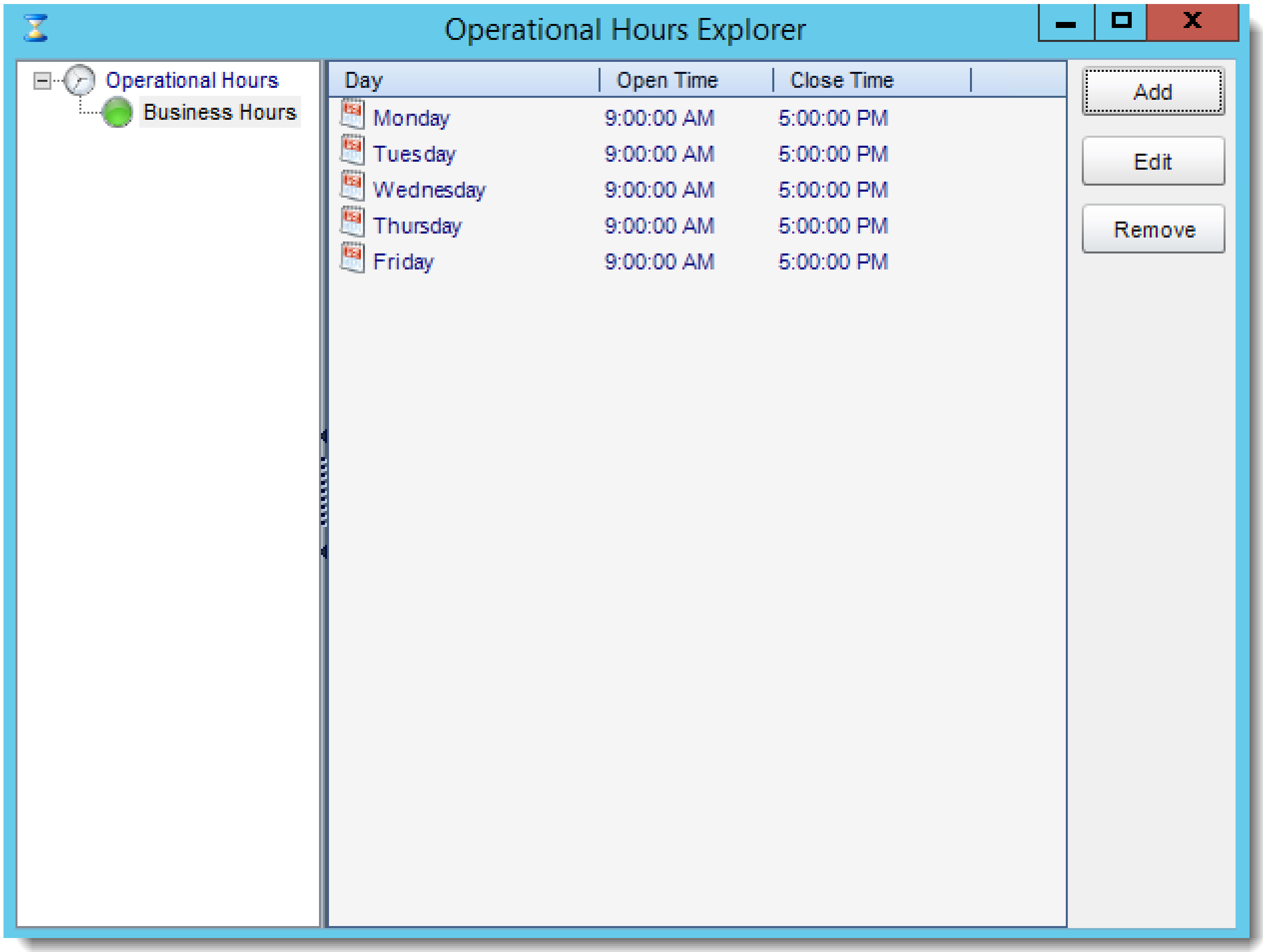
Event-based schedules poll the event-source continuously. But you may want it to be "live" only at certain times. Operational Hours allow you to setup times during which an event is will trigger an Event-Based schedule.

- Go to **System**.



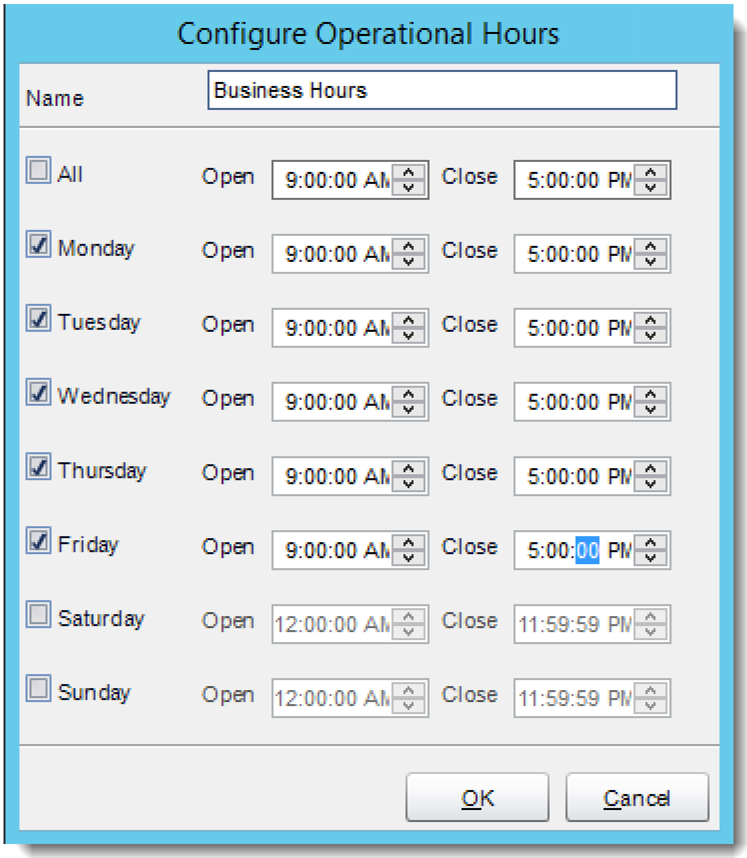
- Select **Operation Hours**.

Operational Hours allow you to setup times during which an event is allowed to trigger an Event-Based schedule. If an event occurs during operational hours, the scheduled tasks will execute. For example, if you only wanted CRD to monitor your database in the overnight hours, then this option would be quite useful.


Operational Hours Explorer
Operational Hours
Business Hours
Day
Open Time
Close Time
Monday
9:00:00 AM
5:00:00 PM
Tuesday
9:00:00 AM
5:00:00 PM
Wednesday
9:00:00 AM
5:00:00 PM
Thursday
9:00:00 AM
5:00:00 PM
Friday
9:00:00 AM
5:00:00 PM
Add
Edit
Remove

Add Operational Hours

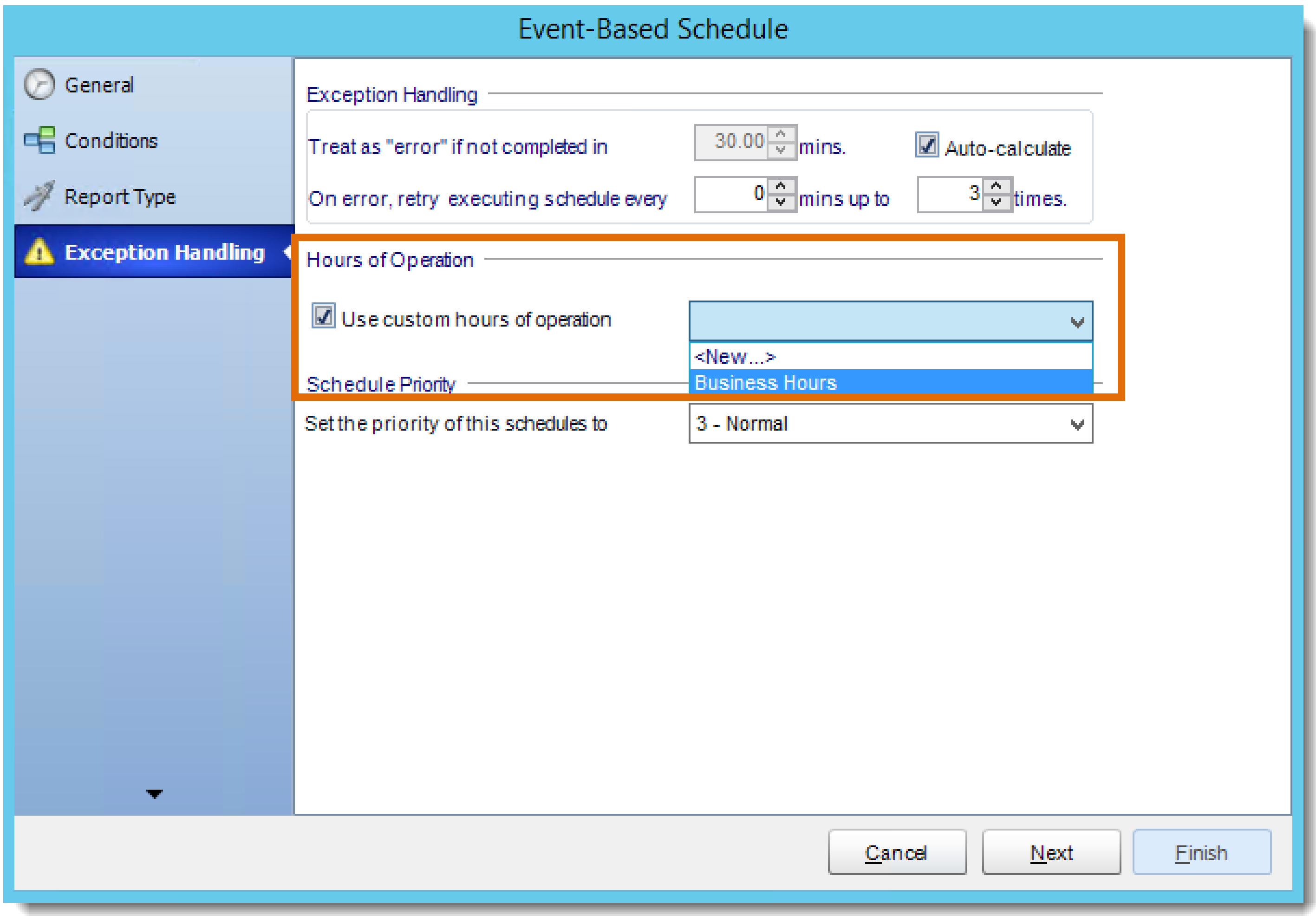
- Click **Add**.



- Once you have specified the hours, click **OK** to save them.
- Select the operational hours and click **Edit** to edit existing operational hours.

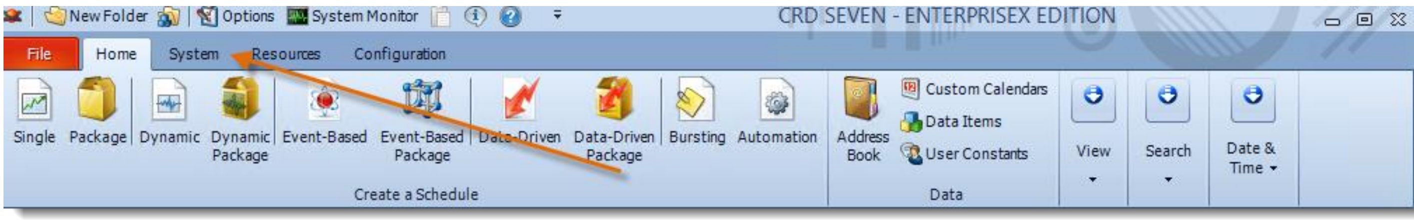
Applying Operational Hours

- Any defined operational hours will now be available for use with Event-Based Schedules.
- Go to **Exception Handling** of your Event Based Schedule.
- Select your Hours of Operation.



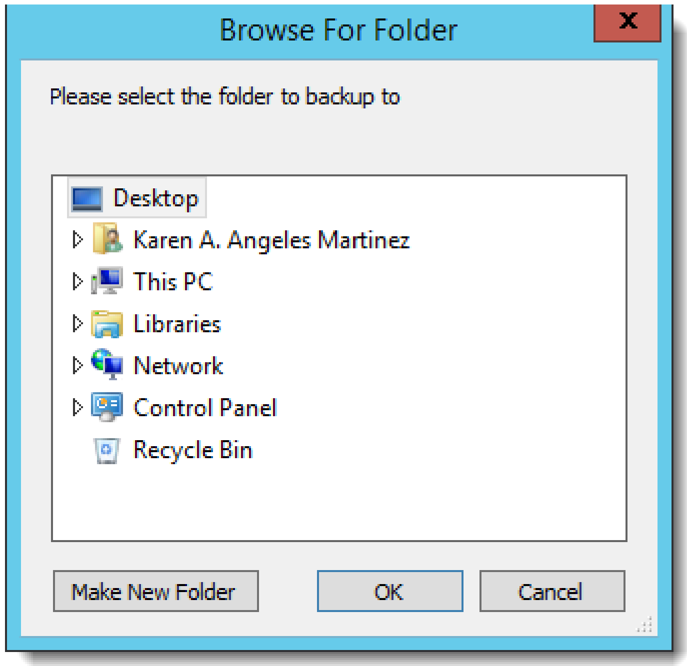
Backup

- Go to **System**.

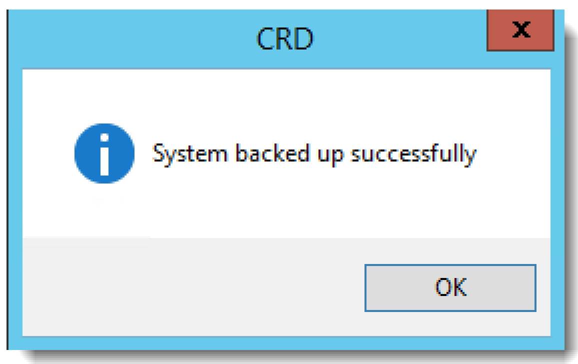


- Select **Backup**.

- Select **Backup**.
- Select the folder where the backup will be stored and click **OK**.



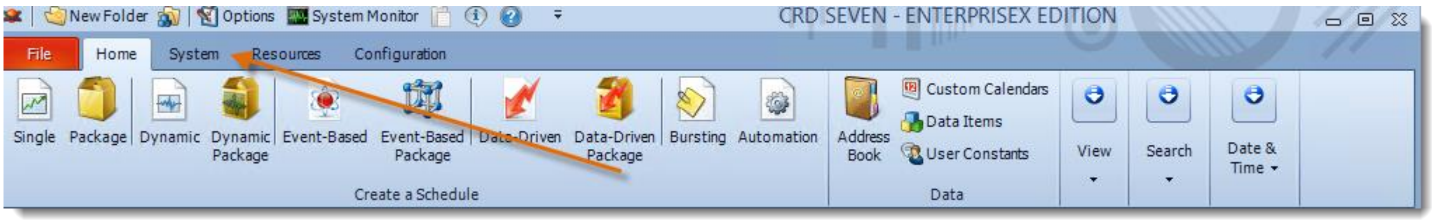
- CRD will now backup the necessary data files.



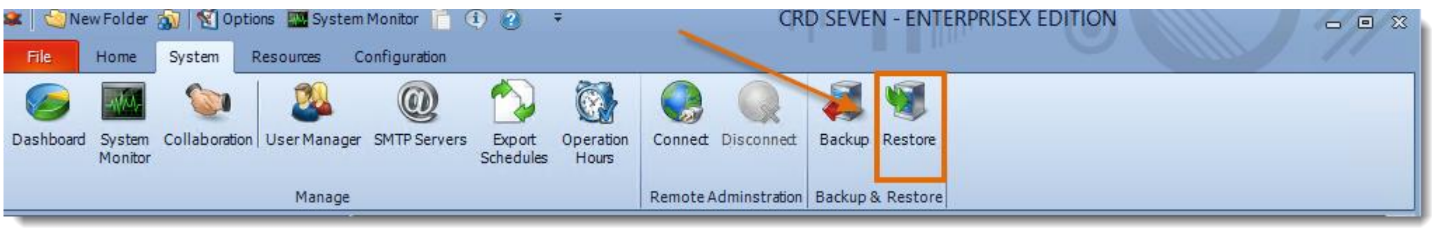
- You can schedule backups to happen at frequent intervals automatically. To do this, go to Scheduled Backup.

Restore

- Go to **System.**



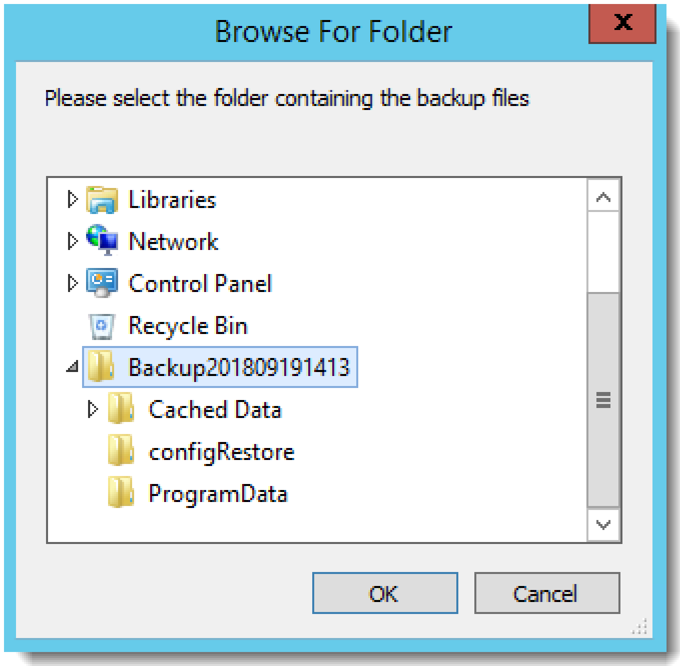
- Select **Restore**.



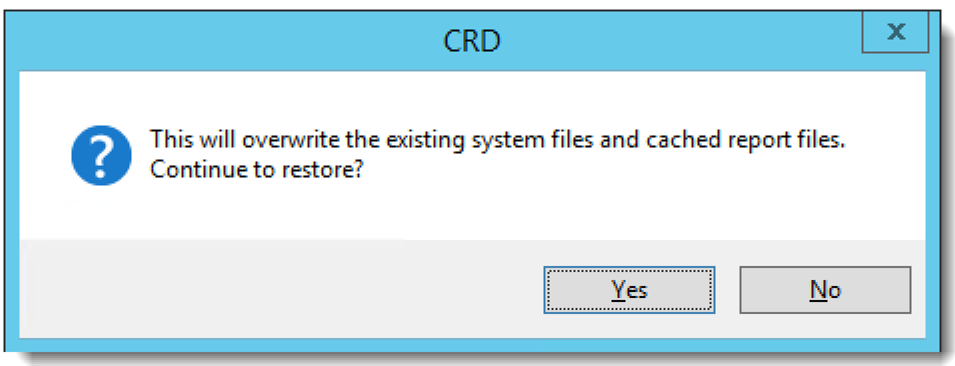
- This option will restore your CRD system and files to a previous backup. Simply select the folder where the previous backup is stored.

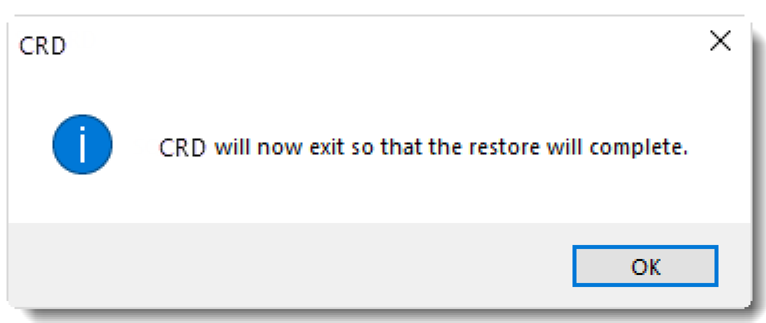
  When the system is restored, anything that happened after the backup was created will be wiped out.

- Browse for the folder where the restore can be found.



- CRD will load the Backup and restore the system settings.





- After the restore, all of your schedules and cached reports will appear.

If you have changed certain defaults and system paths, please make sure you're point CRD to these paths.

About CRD

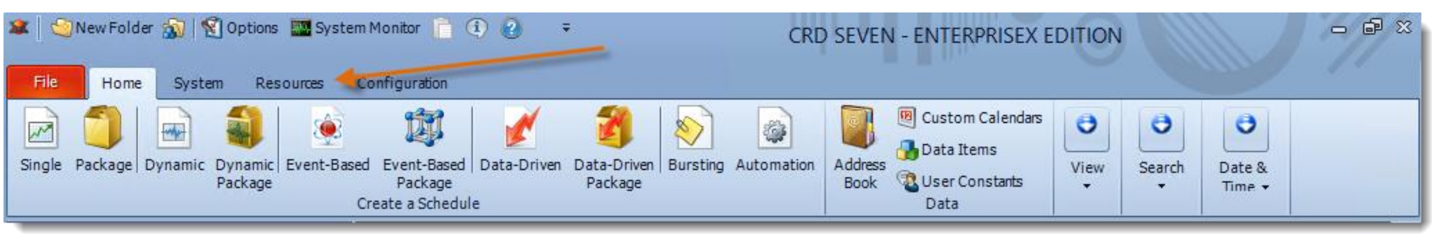
Important

- Please ensure you activate your software with the most recent license key provided to you. Failure to do so may result in issues with the use or functionality and usability of CRD.
- You must have internet access in order to activate CRD If you do not have internet access, you will need to perform a manual deactivation/activation. Please open a support ticket and we will help you with this process

Applying the New License Key

- Each year after renewing your Annual Maintenance, you will receive a new license key for your CRD installation. This license key authenticates to our servers and gives your server "permission" to run CRD for another year. Because our records update each time you receive a new license key, you must update the license key the software uses in order for the application to continue functioning as expected without any interruption to your service. To update the license key to the most recent version, perform the following steps.

- Go to **Resources**.



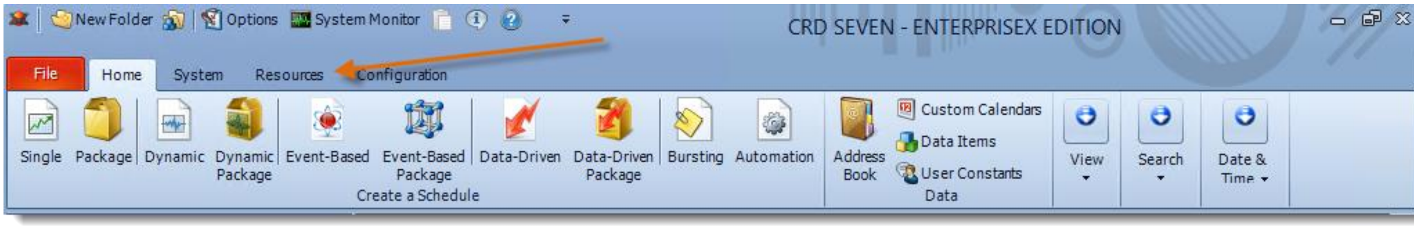
- Select **About CRD.**

- **First and Last Name:** Your first and last name goes here.
- **Company Name:** Enter Your Company Name
- **Customer Number:** Enter your provided customer number here.
- **License key:** Enter your license key here. To enter your license key, click Enter License. The license key field will now be accessible; enter your license key EXACTLY as it appears in your documentation.

  If the incorrect license key is entered, CRD will fail to update properly.

Demos

- Go to **Resources.**



- Select **Demos**.

- Clicking the *Demos* button will open ChristianSteven's YouTube Channel in your web browser.
- You can also see our latest videos on the latest videos page on our website.

Check for Updates

- Go to **Resources.**

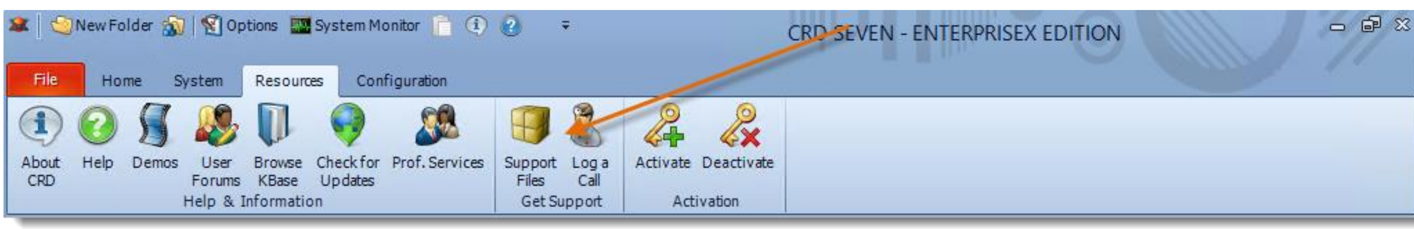
- Select **Check for Updates.**

- Check ChristianSteven servers for the newest CRD version.

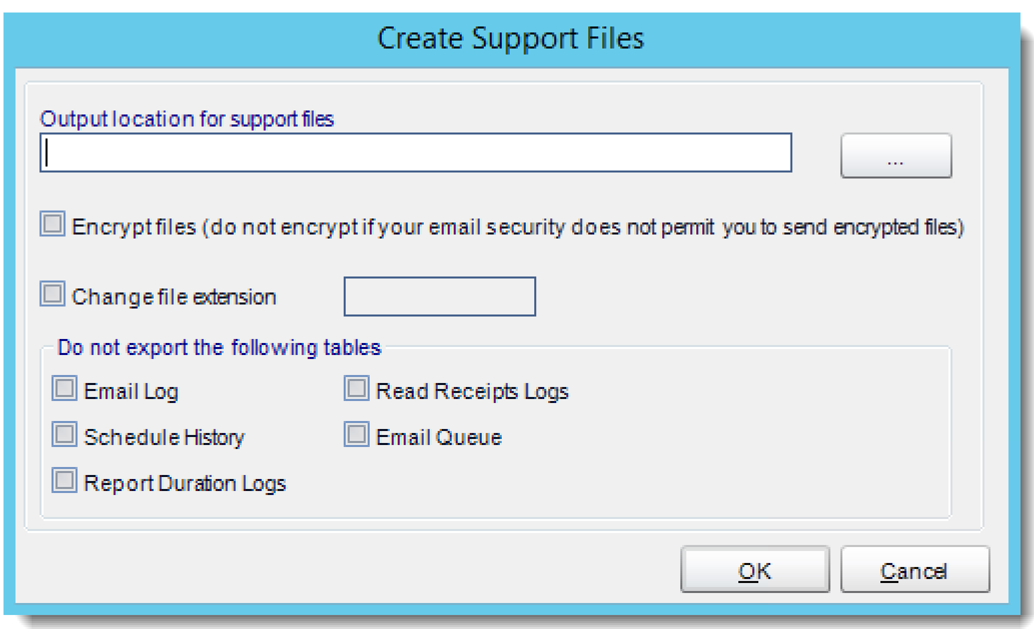
Support Files

- Go to **Resources.**

- Select **Support Files.**



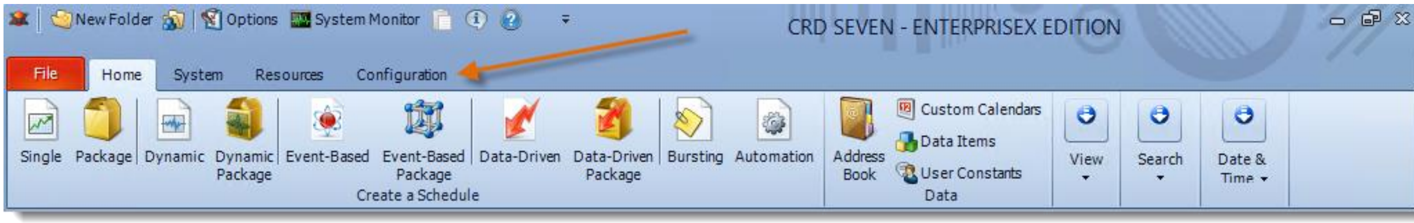
- Click **Support Files** to begin the process.



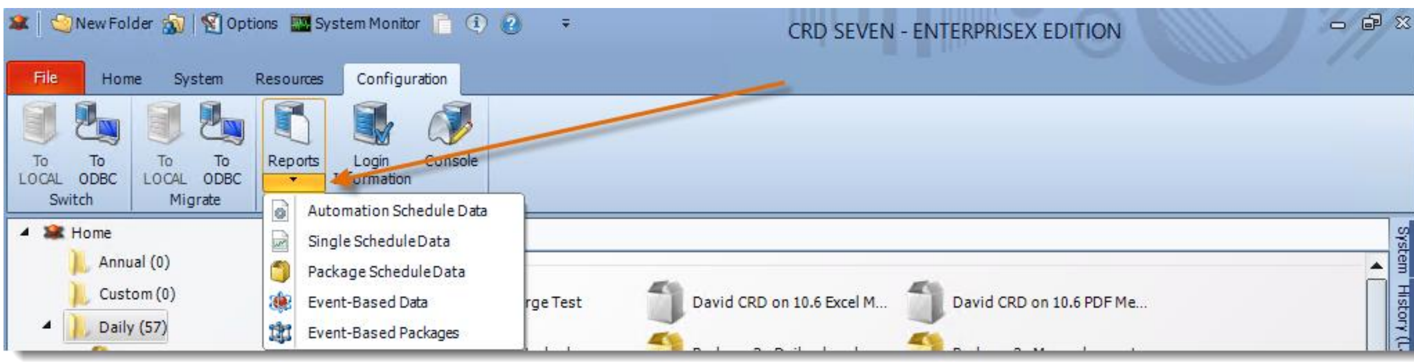
- When this window appears, select the output location for your support files. By default it will create a .zip file with the following filename: Product_Customer#(i.e. CRD_12345678)
- You do not need select the other options listed. However, if there is information you do not wish to share, you want to keep the file size low, or you need to change the file extension for security reasons, you can do so.
- Click **OK**
- Now you can:
    - Send the support files zip via email.
    - Attach it to the support form.
    - Upload it to a file service e.g wetransfer.com, Google Drive, Dropbox etc, and send us the link.

Reports

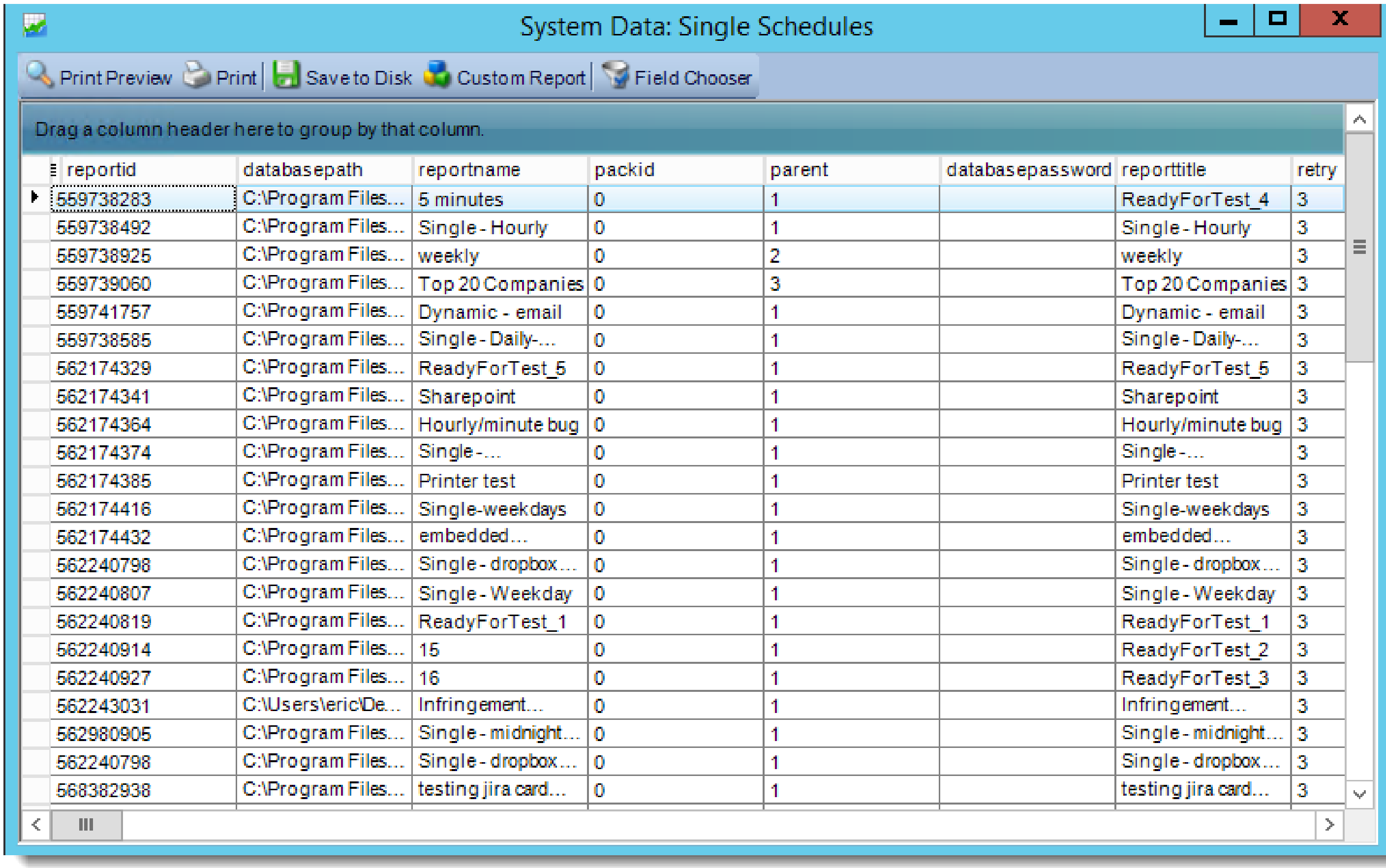
- Go to **Configuration**



- Select **Reports**



- This tool exports system data for each type of schedule. You can preview the data, print or save it disk, choose fields to export and create custom reports.



System Data: Single Schedules

Print Preview | Print | Save to Disk | Custom Report | Field Chooser

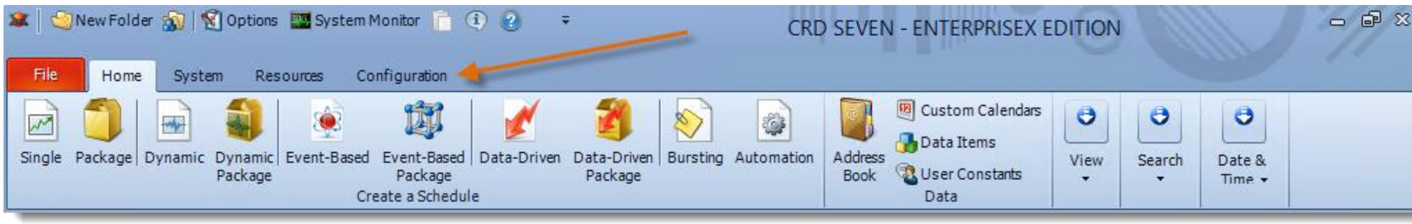
Drag a column header here to group by that column.

reportid	databasepath	reportname	packid	parent	databasepassword	reporttitle	retry
559738283	C:\Program Files...	5 minutes	0	1		ReadyForTest_4	3
559738492	C:\Program Files...	Single - Hourly	0	1		Single - Hourly	3
559738925	C:\Program Files...	weekly	0	2		weekly	3
559739060	C:\Program Files...	Top 20 Companies	0	3		Top 20 Companies	3
559741757	C:\Program Files...	Dynamic - email	0	1		Dynamic - email	3
559738585	C:\Program Files...	Single - Daily-...	0	1		Single - Daily-...	3
562174329	C:\Program Files...	ReadyForTest_5	0	1		ReadyForTest_5	3
562174341	C:\Program Files...	Sharepoint	0	1		Sharepoint	3
562174364	C:\Program Files...	Hourly/minute bug	0	1		Hourly/minute bug	3
562174374	C:\Program Files...	Single -...	0	1		Single -...	3
562174385	C:\Program Files...	Printer test	0	1		Printer test	3
562174416	C:\Program Files...	Single-weekdays	0	1		Single-weekdays	3
562174432	C:\Program Files...	embedded...	0	1		embedded...	3
562240798	C:\Program Files...	Single - dropbox...	0	1		Single - dropbox...	3
562240807	C:\Program Files...	Single - Weekday	0	1		Single - Weekday	3
562240819	C:\Program Files...	ReadyForTest_1	0	1		ReadyForTest_1	3
562240914	C:\Program Files...	15	0	1		ReadyForTest_2	3
562240927	C:\Program Files...	16	0	1		ReadyForTest_3	3
562243031	C:\Users\eric\De...	Infringement...	0	1		Infringement...	3
562980905	C:\Program Files...	Single - midnight...	0	1		Single - midnight...	3
562240798	C:\Program Files...	Single - dropbox...	0	1		Single - dropbox...	3
568382938	C:\Program Files...	testing jira card...	0	1		testing jira card...	3

Login Information

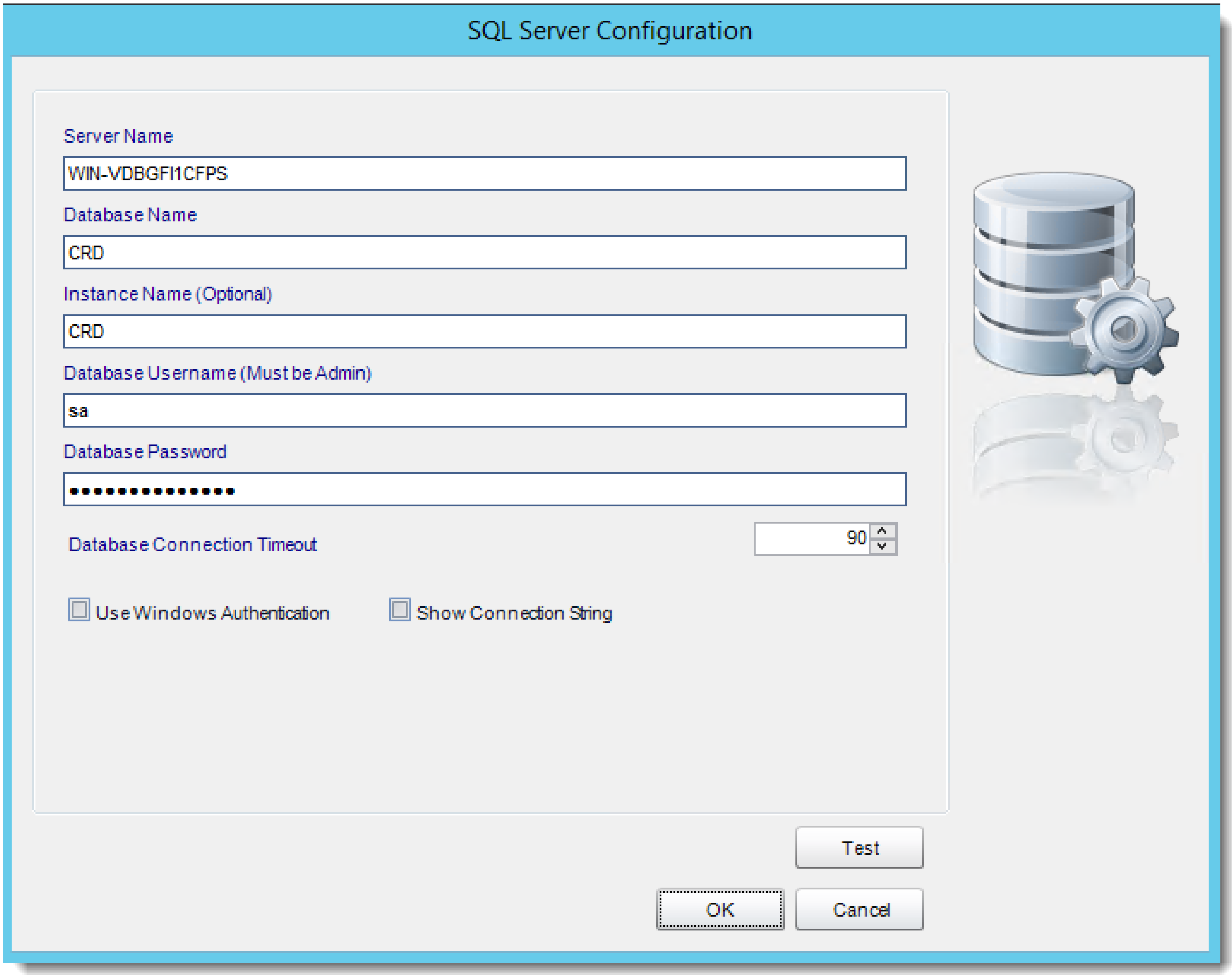
At some point, you might want to change the logon credentials of the CRD database, or point your CRD application to a different CRD database. Here's how to do this.

- Go to **Configuration.**



- Select **Login Information.**

- Select this option to change or update the logon information required by your database.


SQL Server Configuration
Server Name
WIN-VDBGFI1CFPS
Database Name
CRD
Instance Name (Optional)
CRD
Database Username (Must be Admin)
sa
Database Password
Database Connection Timeout
90
Use Windows Authentication
Show Connection String
Test
OK
Cancel