

Email and SMS, Automatic or On-Demand

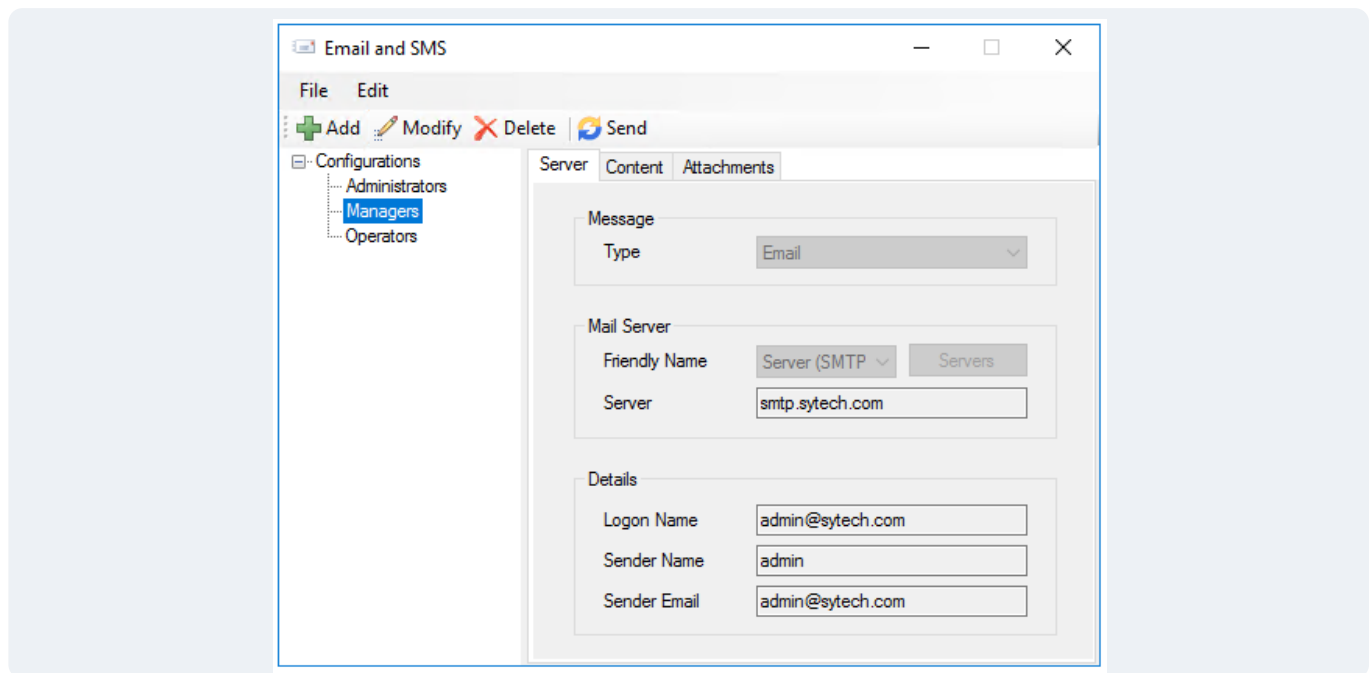
Overview

The **Email and SMS** application is used for the sending of Email and text messages, automatically or on-demand. A common use of the application is to email process reports to various departments.

The application supports all SMTP mail servers including Google's Gmail, Yahoo and Hotmail as well as other secure mail servers including Microsoft Exchange Server.

Configuration

The configuration of the Email application is opened from the **Project Explorer** under the **Tools** tab by selecting **Application, Email and SMS**.



The display consists of menu options, a left panel of configurations and a right panel showing the content of the selected configuration.

A **Configuration** requires information on the email server and also email addresses of recipients. This information is setup from the **Edit, Servers** and **Edit, Contacts** menu options. Once setup, the configuration is based on this information.

The steps required to implement **Email and SMS** are:

- Setup the Email Server and Contacts
- Design a Configuration
- Deploy a Configuration for automated emails

Set up Email Server and Contacts

Email Server

Select **Edit, Servers** to show a grid of the servers currently setup.

Click the browse pushbutton [...] in the **Friendly Name** column to add a server.

The 'Server' dialog box is titled 'Server' and has a close button (X) in the top right corner. It is divided into several sections:

- Friendly Name:** A text box containing 'Server (SMTP)'.
- Server:** A sub-section containing:
 - Server (SMTP):** A text box containing 'smtp.sytech.com'.
 - Port Number:** An empty text box with a checked 'Use Default' checkbox to its right.
 - Encryption:** A dropdown menu currently set to 'None'.
- Logon Information:** A sub-section containing:
 - Name:** A text box containing 'admin@sytech.com'.
 - Password:** A text box containing '*****'.
 - Use Anonymous:** An unchecked checkbox.
- Sender Information:** A sub-section containing:
 - Name:** A text box containing 'admin'.
 - Email:** A text box containing 'admin@sytech.com'.

At the bottom left is a 'Send Test Email' button. At the bottom right are 'OK' and 'Cancel' buttons.

The **Friendly Name** is used to identify the server. The **Server (SMTP)** is the name of the SMTP (outgoing) mail server that will be used along with the **Port Number**. If the mail server uses the default port (port 25), check **Use Default**, otherwise specify the port number.

- If the mail server is a Microsoft Exchange Server, the Server (SMTP) setting is the IP address of the Exchange Server.
- Some mail servers use encryption. Select *SSL* or *STARTTLS* depending on the mail server requirement.
- The **Logon Information** may or may not be required depending on the mail server.
- The **Sender Information** is details about who is sending the configuration. Enter a friendly **Name** (this is shown to the recipient as the sender) and a valid **E-mail** address.

If this information is not readily available to you, contact your IT department to get it.

A test email using the settings specified can be sent by clicking the **Send Test E-mail**. A message is sent to the address specified in **Sender Information** section.

Email Contacts

Select **Edit, Contacts** to show a grid of contacts currently configured. These contacts will be available during the setup of a configuration.

The 'Contacts' dialog box is titled 'Contacts' and has a close button (X) in the top right corner. It displays a table of contacts:

Friendly Name	Email	Phone	Provider
Bill S	bills@sytech.com	4134545555	AT&T
* add contact			

At the bottom right are 'OK' and 'Cancel' buttons.

The **Phone** and **Provider** are only required for text messaging. Note that if your **Provider** is not listed, it can be added using the menu option **Edit, Providers** from the main window.

To remove a contact, highlight the contact's row in the grid and press the delete key on the keyboard. Multiple rows can be selected and deleted at once.

Design a Configuration

Configurations are designed or modified by selecting the menu option **Add** or **Modify**.

The dialog consists of three tabs **Server** (mail server), **Content** (email recipients and content) and **Attachments** (email attachments).

Enter a **Name** for the configuration to reflect its settings e.g., *Managers*.

Server

Select the **Message Type**, either *Email*, *Text Message (MMS)* or *Text Message (SMS)*. The *Text Message (MMS)* option sends a text message using the Multimedia Messaging Service protocol which supports things like images and file attachments. The *Text Message (SMS)* option sends a text message using the Simple Messaging Service protocol which only supports text content and may limit the length of the message.

The **Mail Server** is defaulted to the first server defined when the servers were set up. If a different server is required, select it from the dropdown list. A new server can be defined by clicking the **Servers** button.

Content

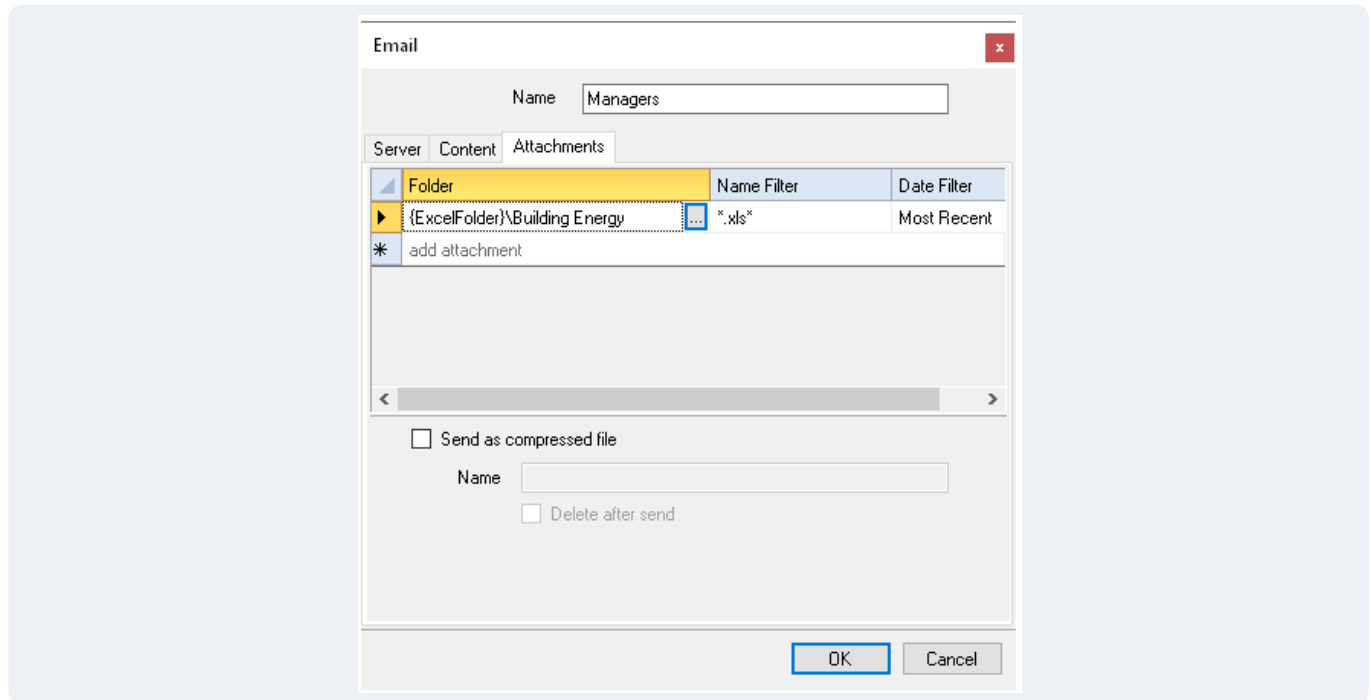
The **Content** tab is used to define the names of recipients, the subject and email content.

Use the **To...** and **Cc...** to select the email addresses of the recipients of the email. Enter a **Subject** which can be a combination of text and **Variables**. A list of variables is displayed by right-clicking on the textbox of the **Subject** and selecting **Insert Expression**.

- The **Importance** can be set to *Low*, *Normal* or *High*. This setting is only enabled if **Type** is *E-mail*.
- If **Request receipt** is checked then when the recipient receives the email they are prompted to send a return receipt indicating they have received the message. This setting is only enabled if **Type** is *E-mail*.
- The content of the email can either be **Text** or **HTML**.
- If the content is **Text**, then **Variables** and **Tag Values** can be included in the message (selected by right-clicking the textbox).
- If the content is **HTML**, then a HTML file from the Web directory of the project is selected by clicking browse [...].

Attachments

The **Attachments** tab is used to define the file attachments for an email or MMS text message.



To add a new attachment, click [...] under the **Folder** column on the bottom row in the grid. This launches the **Attachment** dialog.

Multiple attachments can be compressed into a single file by checking **Send as compressed file** and entering a **Name**. If this is not specified as a full path, it is pre-pended with `{ExcelFolder}` indicating that the compressed file is created in the *Excel* directory of the project.

The **Name** can be a combination of text and **Variables** by right-clicking the textbox.

Assigning Attachments

This dialog is used to specify either the configuration of attachments or an HTML file to use as the message body content.

The **Folder** can either be a **Project** folder (*Excel*, *Web* or *PDF*) or a **Specific** folder. When **Folder** is set to **Project**, **Subfolders** can be manually entered or selected from the drop down list.

The **Filter** determines which files from the **Folder** will be considered. The filter **Name** can be a combination of hard coded text, wildcards ("*" for multiple characters), or ("?" for a single character). Files that begin with an underscore ("_") are never considered.

Example: To attach all the *Excel* reports that start with *Flow*, set the **Filter Name** to *Flow*.xls**.

Check **Date** to filter the files on the file modified date.

Example: To attach all reports generated within the last week, set the date filter to *Within 1 week(s)*. To attach all reports generated more than 3 days ago, set the date filter to *Outside 3 day(s)*.

Validate a Configuration

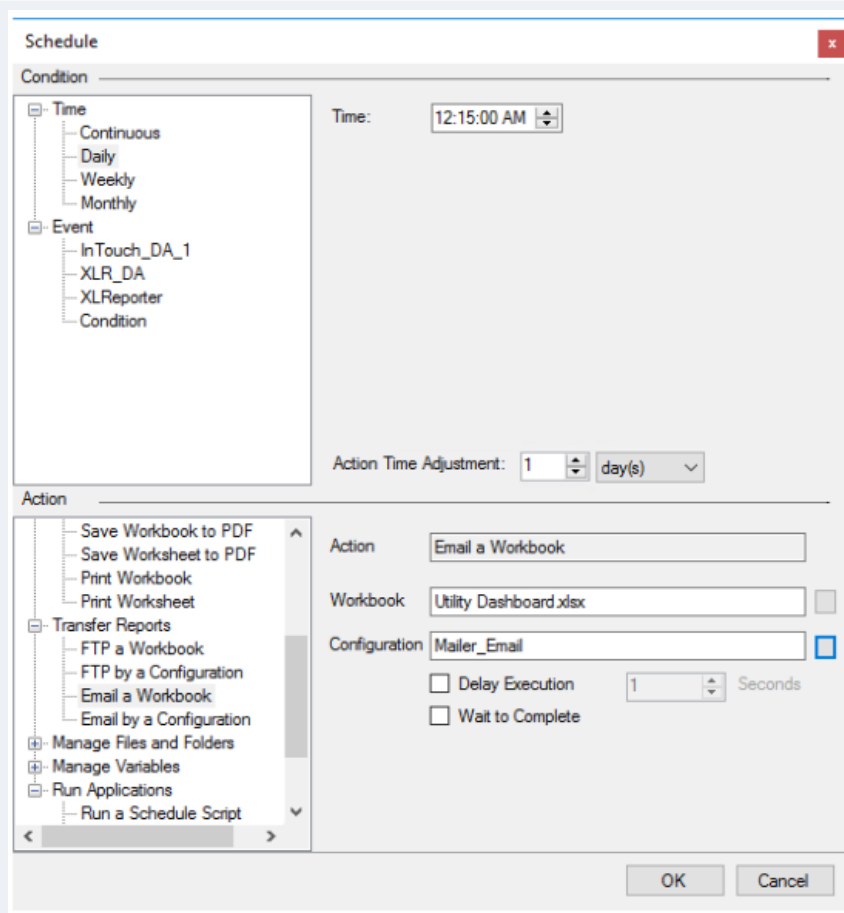
Any configuration can be validated by highlighting it from the main window and selecting **Send**. This runs the configuration and display the results.

If a configuration contains custom variables then an intermediate window will appear showing the variables used and where temporary values can be assigned.

Keyword	Value
DATE	3/20/2020
RG000	Waste Processing

Deploy a Configuration on the Project Schedule

A configuration is deployed for automatic processing on time or process events by adding an **Action** into the project **Schedule** from the **Schedule Designer**.



The **Email a Workbook** action is used to specify the attachment as the latest workbook file generated for the given **Report Template**.

The **Email by a Configuration** action is used when the message does not include an attachment, or the attachment is specified in the mail configuration itself.

For **Email by a Configuration**, if **Custom Variables** are being used (defined in **Project Explorer**, then their values can also be specified in the form *Variable=Value*).

Configurations can also be deployed from third party applications such as HMI screens, VBA macros, and the windows command line. The syntax to execute a configuration is as follows:

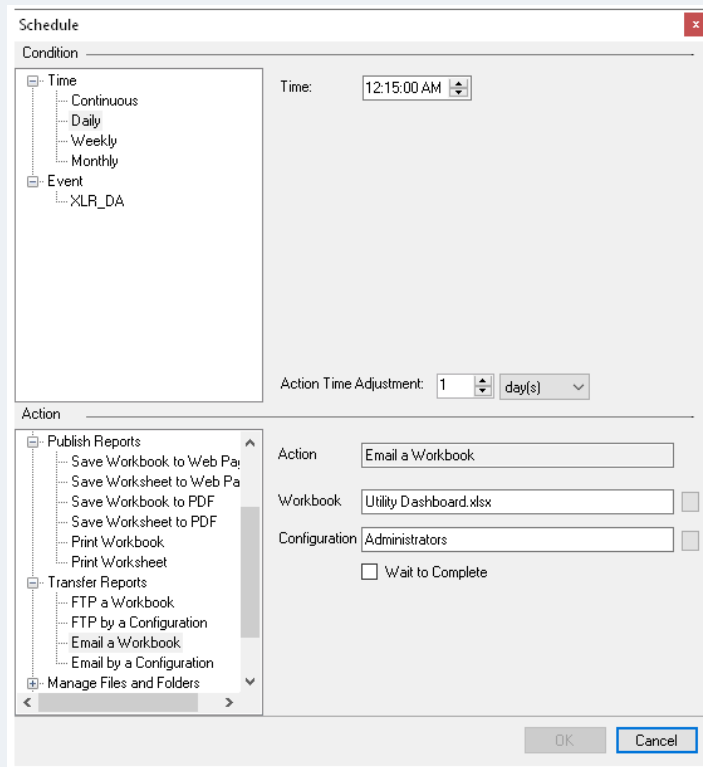
Install\bin\XMailer.exe /f Configuration

Where *Install* is the full path to the installation and *Configuration* is the name of the configuration file.

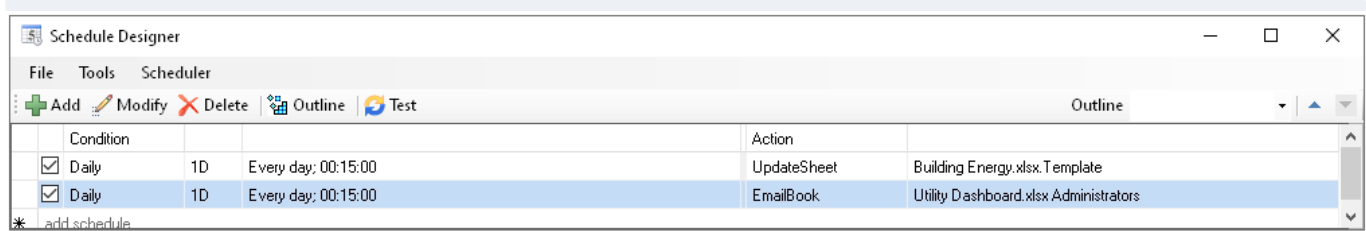
Example Scenarios

Email a Daily Report Automatically

Add a **Mail Configuration** which includes the **Contacts** required for the report. Then, add a scheduled **Email a Workbook** action into the schedule.

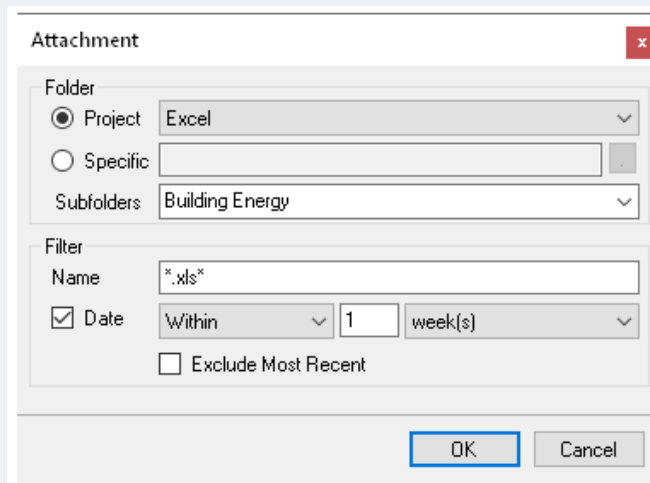


Set the time of the action to the following day at 12:15 AM using the **Action Time Adjustment** of one day. This way, all data is collected into the report before it is sent.

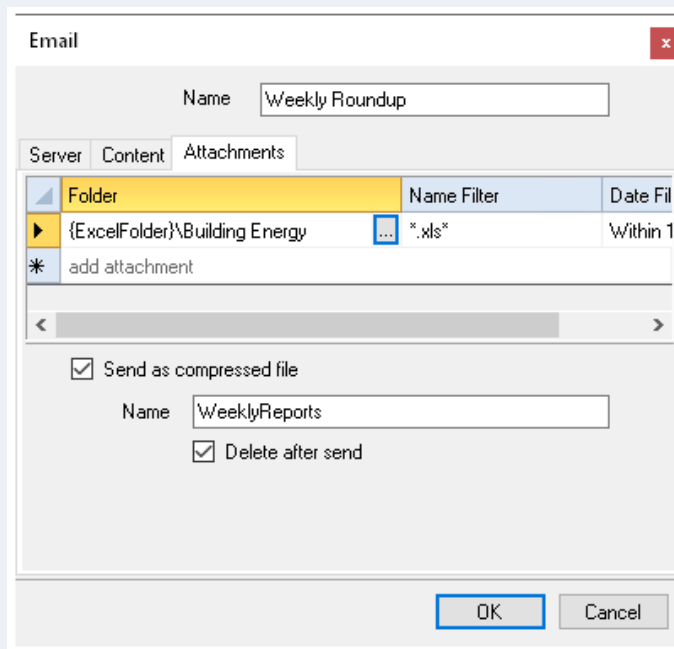


Email All Reports from the Past Week as a ZIP File

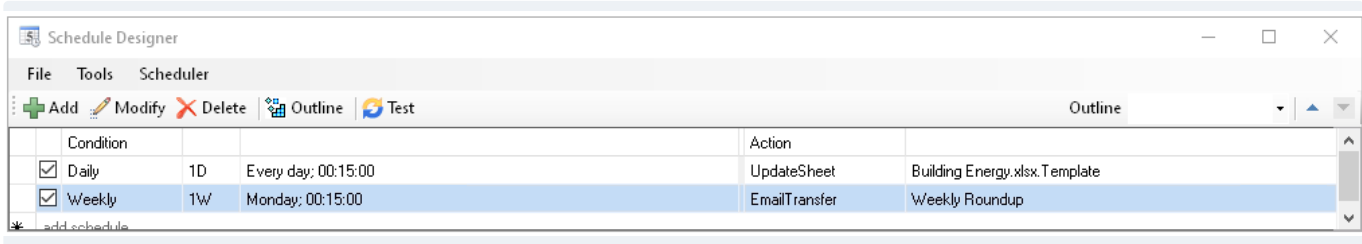
This can be accomplished using the **Filter** options in the **Attachment** tab of the configuration.



Then, in the **Attachments** tab of the **Mail Configuration Editor**, specify *Send as Compressed File*.

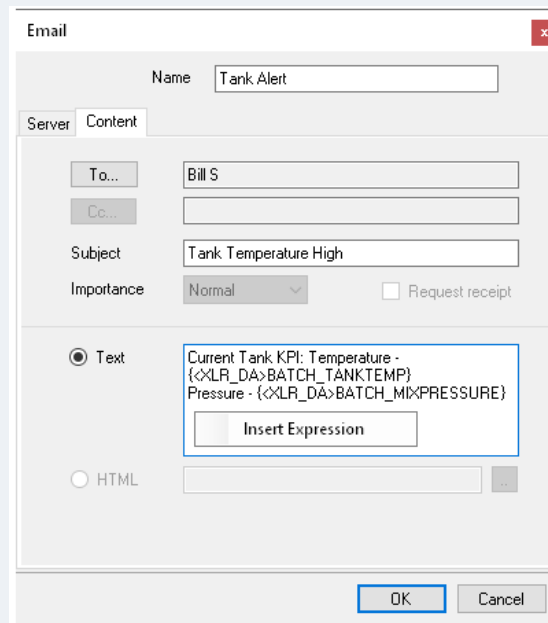


On the schedule, use the *Email by a Configuration* action. Run this configuration at the beginning of the *following* week using the **Action Time Adjustment** setting of 1 Week

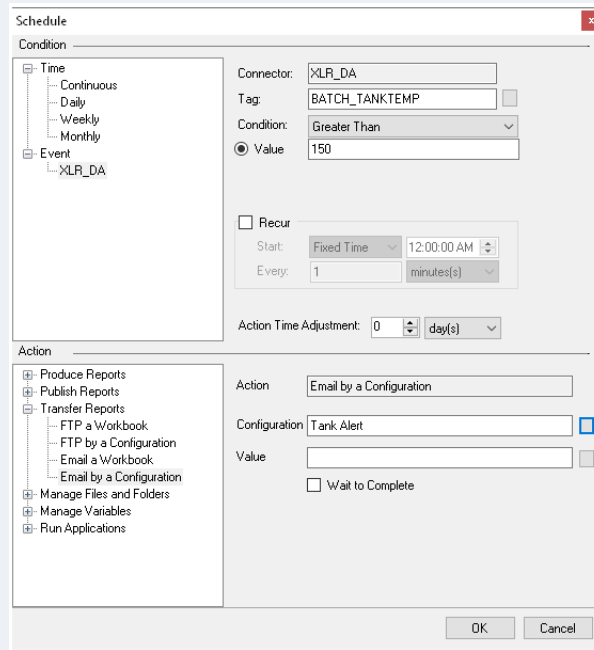


Send a Text Message when an Out-of-Tolerance KPI is Detected

This configuration sends the current tank temperature as a text message when the temperature exceeds a specified threshold. In the **Server** tab of the **Mail Configuration Editor**, specify the type as *Text Message (SMS)*. On the **Content** tab, right-click in the **Subject** or **Body** fields and select *Insert Expression* to add a **Connector Item** or a **Variable**.

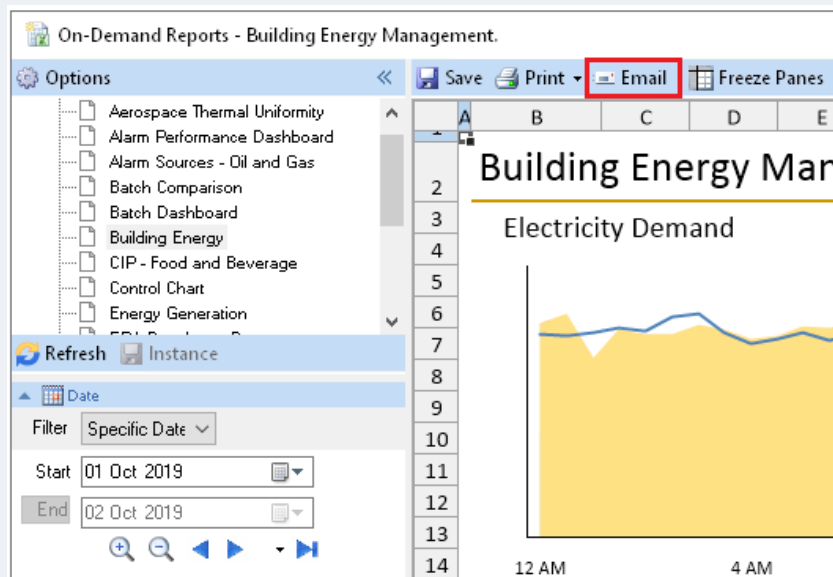


In the schedule, select an **Event Condition**, and then specify the tag and condition which triggers the text message. Use the *Email by a Configuration* action for text messages.



Email a Report Generated in the On-Demand Windows Client

To email a report from the **On-Demand Windows Client**, just design a configuration with no attachments specified. Then, from **On-Demand Reports**, use the **Email** menu at the top of the window.



When clicked, a list of Email configurations is presented. All the settings of the configuration are used and the report is attached either as an Excel workbook or PDF file.