

Email and SMS, Automatically or On-Demand

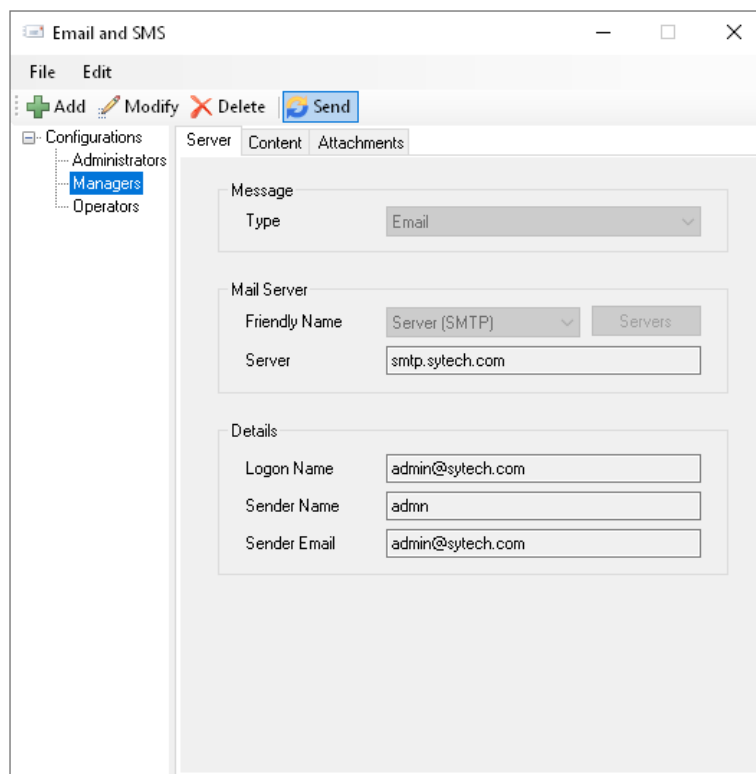
Overview

The **Email and SMS** application is used for the sending of Email and SMS (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 divided into several sections:

- Friendly Name:** Server (SMTP)
- Server:** Server (SMTP) smtp.sytech.com, Port Number (empty), Use Default (checked), Encryption None
- Logon Information:** Name admin@sytech.com, Password (masked), Use Anonymous (unchecked)
- Sender Information:** Name admn, Email admin@sytech.com

A 'Send Test Email' button is highlighted with a blue box. 'OK' and 'Cancel' buttons are at the bottom right.

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.

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

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

The **Phone** and **Provider** are only required for SMS. 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 screenshot shows a dialog box titled "Email" with a close button in the top right corner. Below the title bar, there is a text field labeled "Name" containing the text "Managers". Below this, there are three tabs: "Server", "Content", and "Attachments". The "Server" tab is selected. Under the "Server" tab, there are three sections: "Message" with a "Type" dropdown menu set to "Email"; "Mail Server" with a "Friendly Name" dropdown menu set to "Server (SMTP)", a "Servers" button, and a "Server" text field containing "smtp.sytech.com"; and "Details" with "Logon Name" (admin@sytech.com), "Sender Name" (adm), and "Sender Email" (admin@sytech.com) text fields. At the bottom of the dialog are "OK" and "Cancel" buttons.

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* or *Text 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.

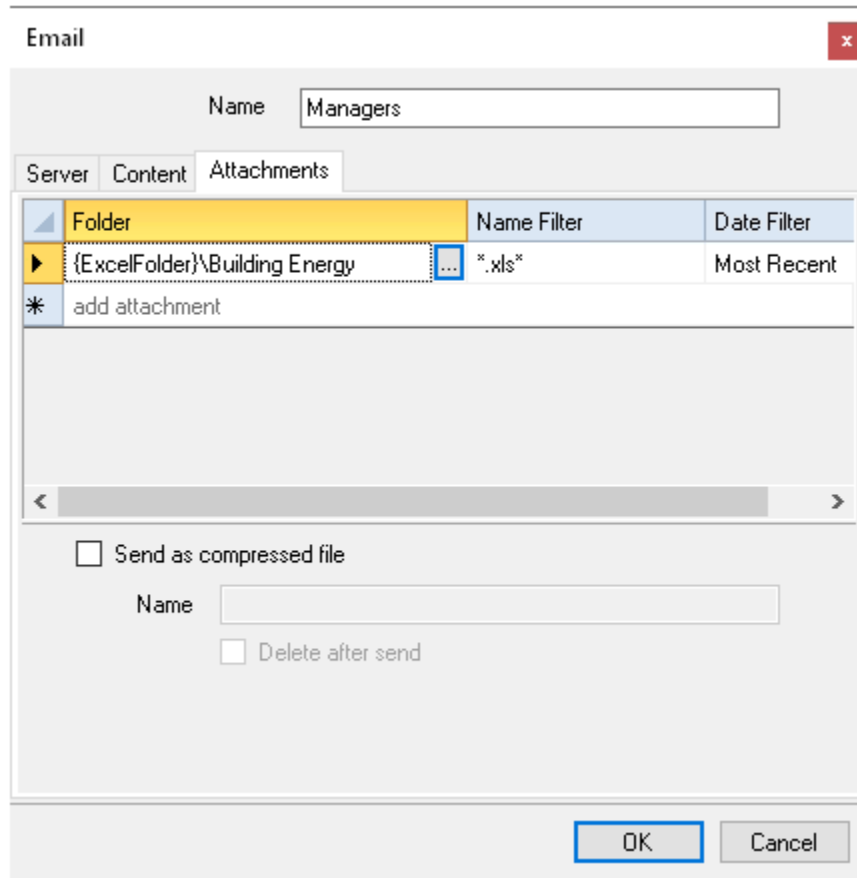
The image shows a dialog box titled "Email" with a close button in the top right corner. The "Name" field contains the text "Managers". Below this are three tabs: "Server", "Content", and "Attachments", with "Content" being the active tab. Under the "Content" tab, there are several fields: "To..." with the value "Bill S", "Cc..." with the value "Jim S", "Subject" with the value "Report for {DATE}", and "Importance" set to "Normal" with a dropdown arrow. To the right of the "Importance" field is a checkbox labeled "Request receipt" which is unchecked. Below these fields are two radio buttons: "Text" (which is selected) and "HTML". The "Text" radio button is associated with a large text area containing the text "This is the report from plant {RG000}". The "HTML" radio button is associated with a smaller text area and a browse button "...". At the bottom of the dialog box are two buttons: "OK" and "Cancel".

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. This tab is not visible when **Type** is set to *Text Message*.



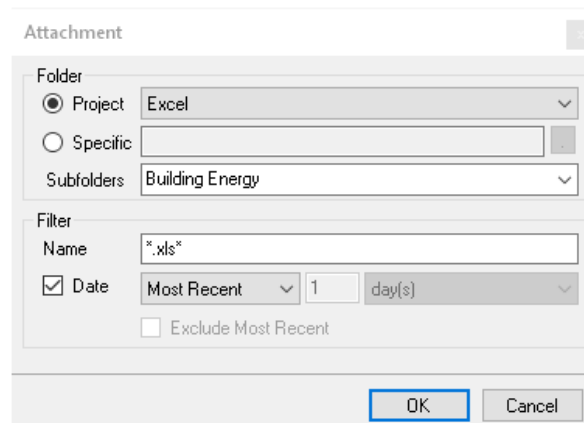
To add a new attachment, click [...] under the **Folder** column on the bottom row in the grid. This launches the **Attachment** dialog.

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 Values	
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**.

Schedule

Condition

Time: 12:15:00 AM

Action Time Adjustment: 1 day(s)

Action

Action: Email a Workbook

Workbook: Utility Dashboard.xlsx

Configuration: Administrators

Wait to Complete

OK Cancel

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:

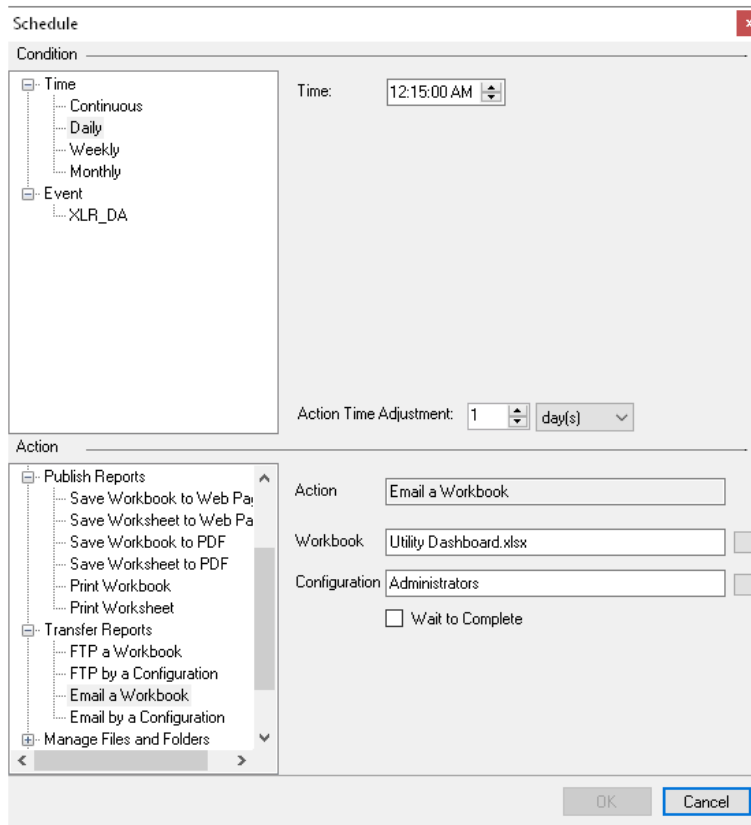
Install\bin\XMailer.exe /f Configuration

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.



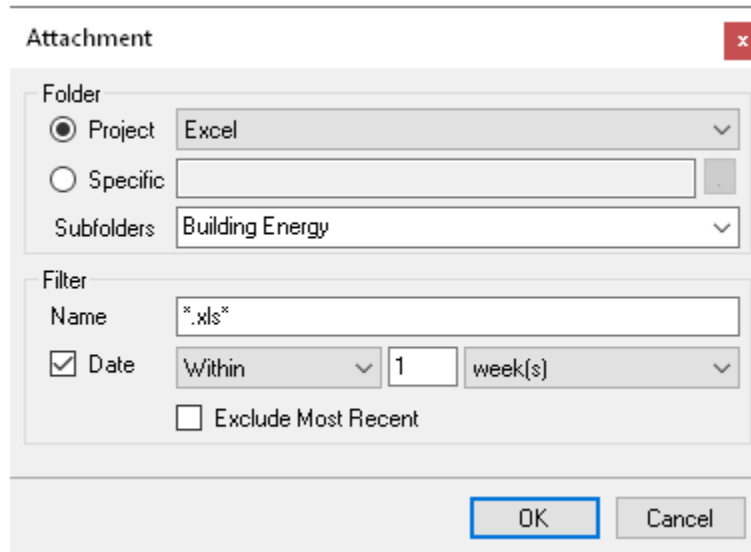
Set the time of the action to the following day at 12:15 AM using the **Action Time Adjustment** of one day. This way, all data is collected into the report before it is sent.

	Condition			Action	
<input checked="" type="checkbox"/>	Daily	1D	Every day; 00:15:00	UpdateSheet	Building Energy.xlsx Template
<input checked="" type="checkbox"/>	Daily	1D	Every day; 00:15:00	EmailBook	Utility Dashboard.xlsx Administrators

* _add.schedule

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.

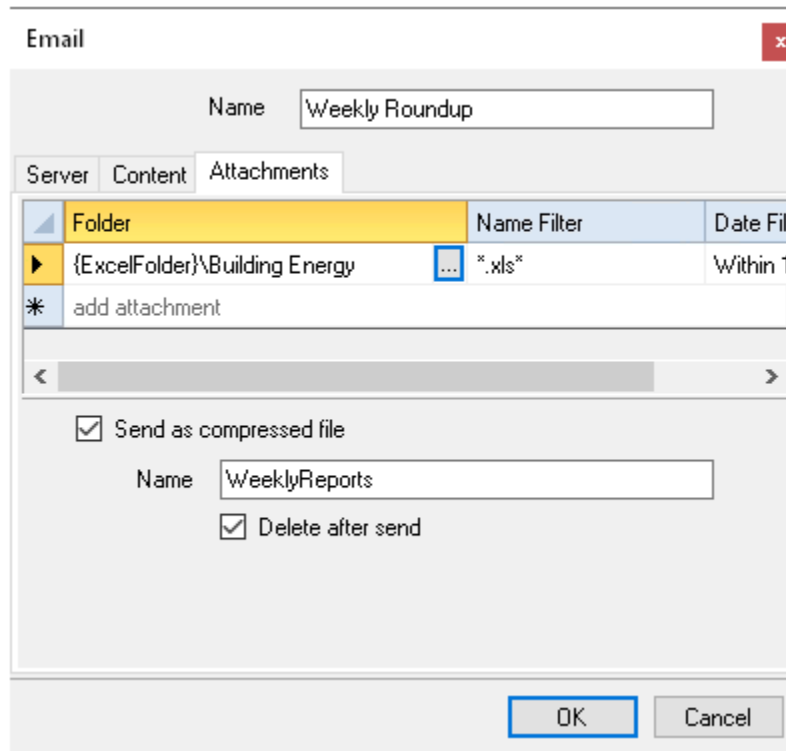


The **Attachment** dialog box is shown with the following settings:

- Folder:** Project: Excel; Specific: (empty); Subfolders: Building Energy
- Filter:** Name: *.xls*; Date: Within 1 week(s); Exclude Most Recent

Buttons: OK, Cancel

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



The **Mail Configuration Editor** **Attachments** tab is shown with the following settings:

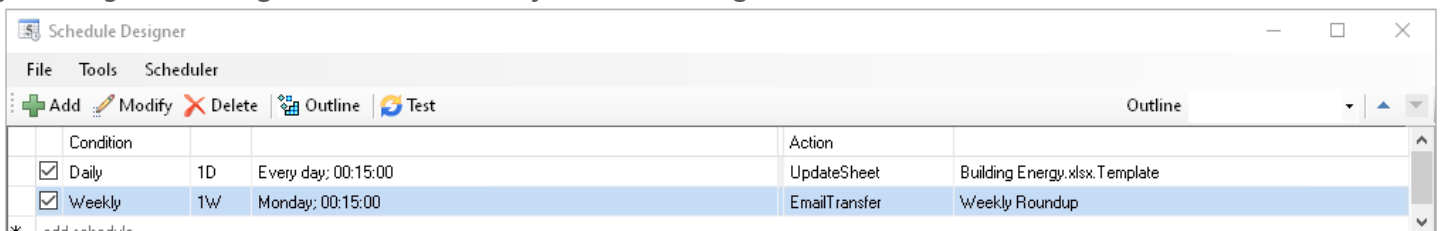
- Name:** Weekly Roundup
- Attachments Table:**

Folder	Name Filter	Date Filter
{ExcelFolder}\Building Energy	*.xls*	Within 1
* add attachment		

- Send as compressed file
- Name:** WeeklyReports
- Delete after send

Buttons: OK, Cancel

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*.



The **Schedule Designer** window shows the following schedule configuration:

Condition	Action
<input checked="" type="checkbox"/> Daily 1D Every day; 00:15:00	UpdateSheet Building Energy.xlsx Template
<input checked="" type="checkbox"/> Weekly 1W Monday; 00:15:00	EmailTransfer Weekly Roundup

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*. On the **Content** tab, right-click in the **Subject** or **Body** fields and select *Insert Expression* to add a **Connector Item** or a **Variable**.

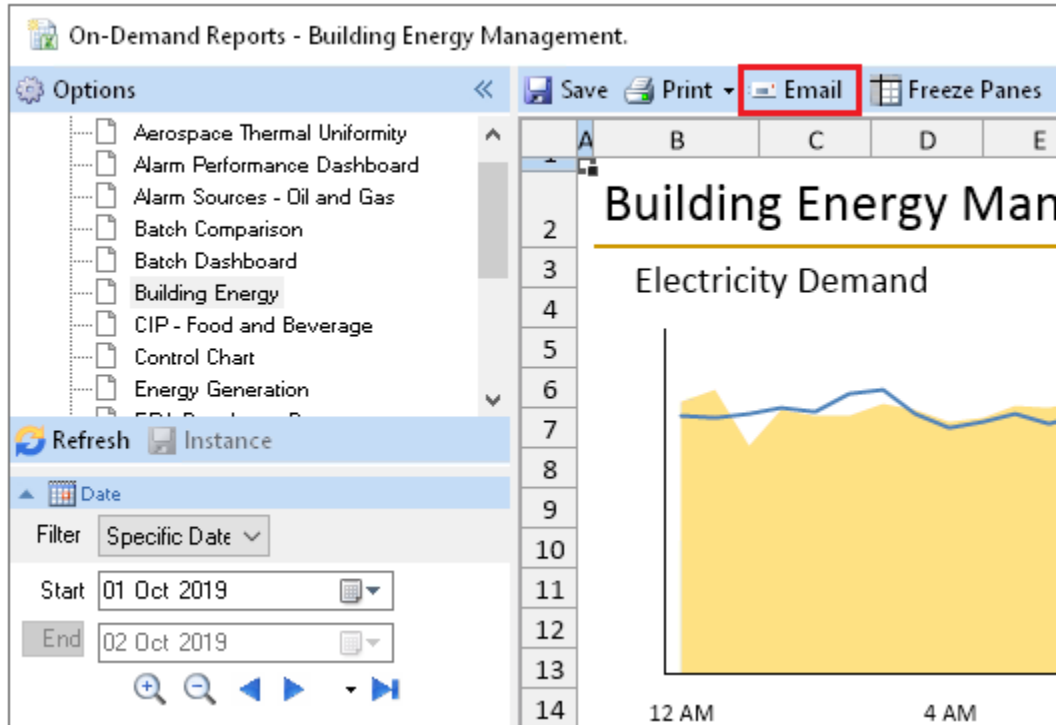
The screenshot shows the 'Email' dialog box with the 'Content' tab selected. The 'Name' field is 'Tank Alert'. The 'To...' field is 'Bill S'. The 'Subject' field is 'Tank Temperature High'. The 'Importance' is set to 'Normal'. The 'Text' radio button is selected, and the body text is 'Current Tank KPI: Temperature - {<XLR_DA>BATCH_TANKTEMP} Pressure - {<XLR_DA>BATCH_MIXPRESSURE}'. An 'Insert Expression' button is highlighted with a blue box. The 'OK' button is also highlighted with a blue box.

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.

The screenshot shows the 'Schedule' dialog box. The 'Condition' section is expanded to show 'Event' > 'XLR_DA'. The 'Connector' is 'XLR_DA', the 'Tag' is 'BATCH_TANKTEMP', and the 'Condition' is 'Greater Than' with a value of '150'. The 'Recur' section is unchecked. The 'Action' section is expanded to show 'Email by a Configuration', with the 'Configuration' field set to 'Tank Alert'. The 'OK' button is highlighted with a blue box.

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.