

Supercharge Excel Add-Ins with XLReporter

Overview

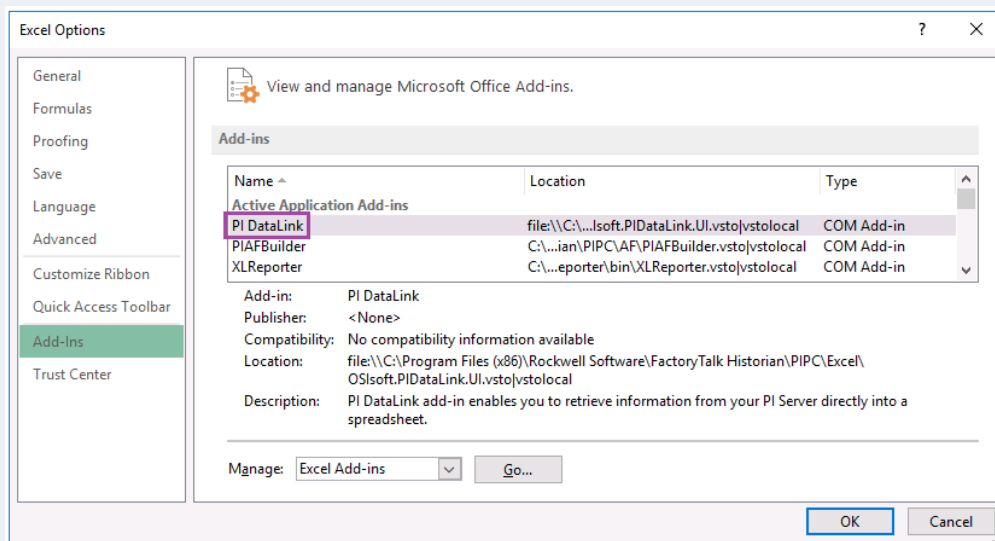
Many historians are packaged with an Excel add-in to display process data such as tag values and alarms in an Excel workbook. The add-in provides Historian functions that require input from cell locations to produce results in workbook "arrays". The operation is manually intense, difficult to automate, and the final workbooks cannot be easily distributed because of the specialized Historian functions.

XLReporter provides a layer of capability that can automate a workbook managed by an Excel add-in. It drives the input parameters to produce reports automatically, removes element that are specific to the Historian and then distribute the results in various formats to a number of devices such as server, printer and mobile.

Prerequisites

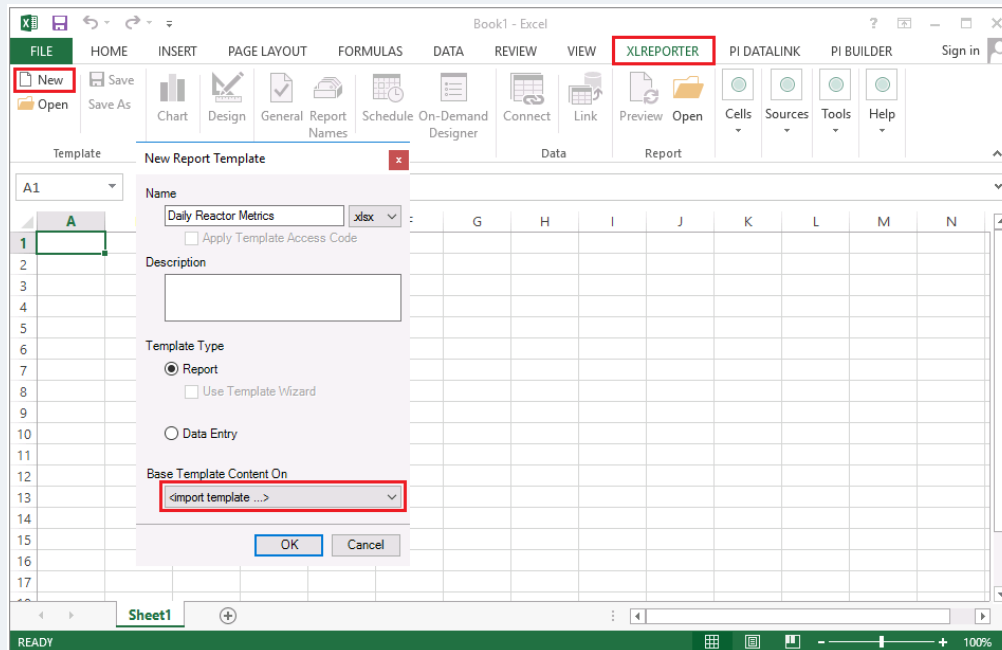
It is assumed that a workbook has already been developed using the Excel add-in. This will be used in the next section.

In addition, determine the add-in **Name** as displayed in Excel. To access the **Add-In Manager**, in Excel, open **File, Options, Add-Ins**.



Template Design

The first step is to import the workbook that was developed using the add-in function into the **XLReporter** design studio in Excel.

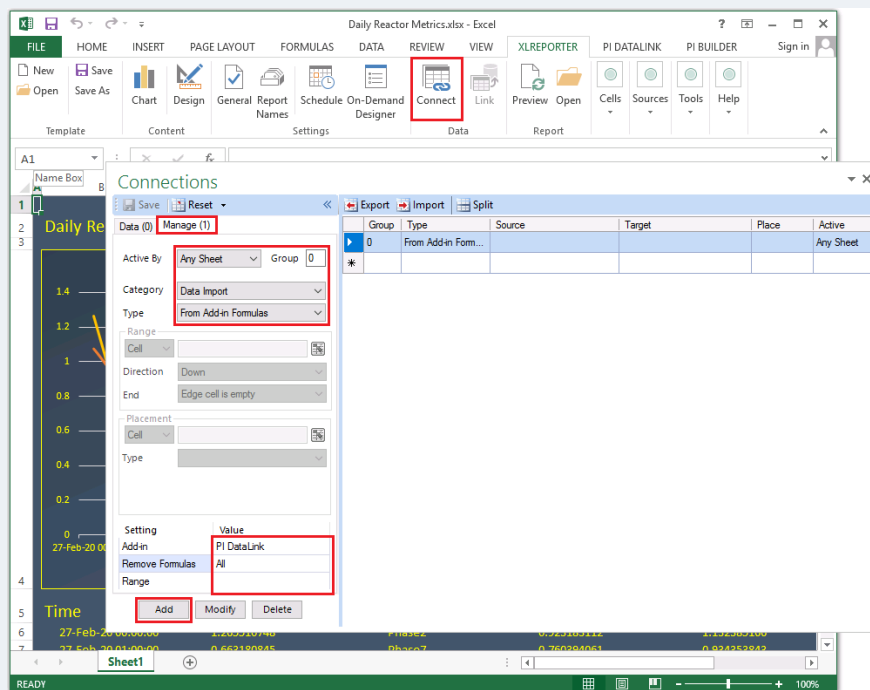


On the **XLReporter** tab, select **New Template**. Under **Base Template Content On**

- Choose *<import template...>*, and select the workbook file to import.

Management Connection

This connection will remove the add-in formula from the workbook after the report has been updated.



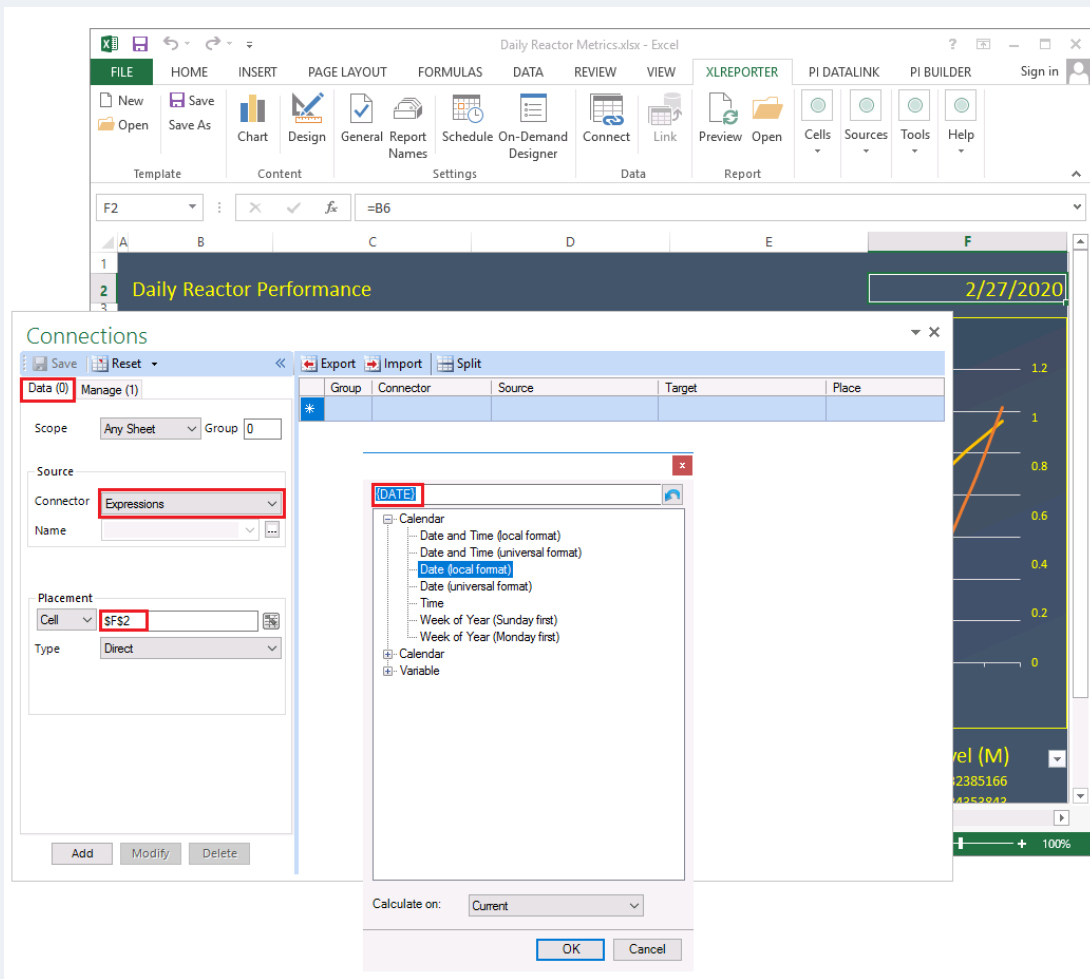
From the **XLReporter** tab, open the **Connect** menu. Select the **Manage** tab.

- Set **Category** to *Data Import*
- **Type** to *From Add-In Formulas*.
- Set **Add-In** to the **Name** of the add-in noted previously.

- Set **Remove Formulas** to *All* and leave **Range** as default (entire sheet).
- Click **Add** to add the connection to the template.

Manage Input Values

Usually, add-ins get their input from cell locations e.g., start and end time of the report. **XLReporter** can be configured to update these input cells automatically using an **Expression**.



From the **Connections** menu, select the **Data** tab.

- Set **Connector** to *Expressions*.
- Open the browser [...] for **Name** and select the appropriate date/time expression.
- Set the **Placement Cell** to the cell which requires the expression.
- Click **Add** to add the connection to the template.

Report Names

When a report is produced from the template, it will be named according to the **Report Names** setting. The name can be a combination of fixed text, date/time values and tag values.

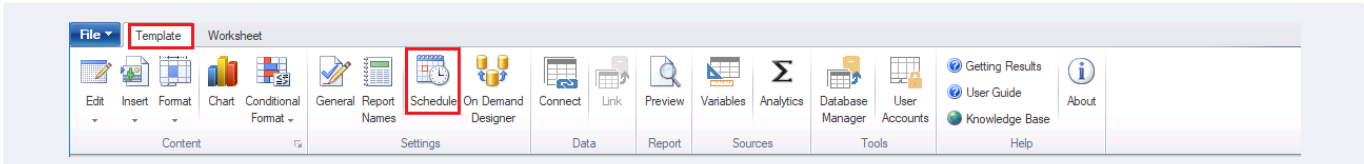
Template	Folder	Report	Over
WORKBOOK			
Daily Reactor Metrics		Daily Reactor Metrics(YYYY)-(MM)-{DD}	No
WORKSHEET			
•			
Sheet1			

From the **XLReporter** tab, open the **Report Names** menu.

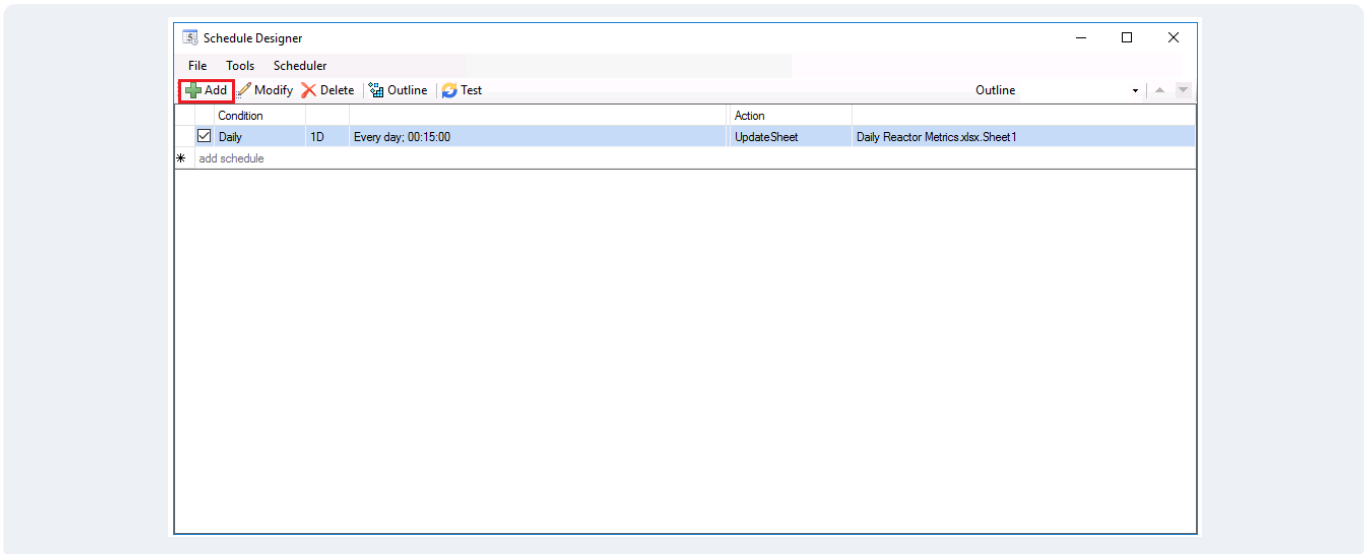
- Select **Modify**.
- Use the browser [...] for **Name** to set a date and time expression that will determine the name of the file when the report is updated.
Select an expression that matches the time period of the report. If the report contains data relative to the current day, for example, select *Year-Month-Day*.

Schedule Design

The **Schedule Designer** is used to configure a schedule to process the template automatically and in the background. Combined with the **Report Names** settings, this allows the reports to be saved to unique files every month, day, hour, and so on.

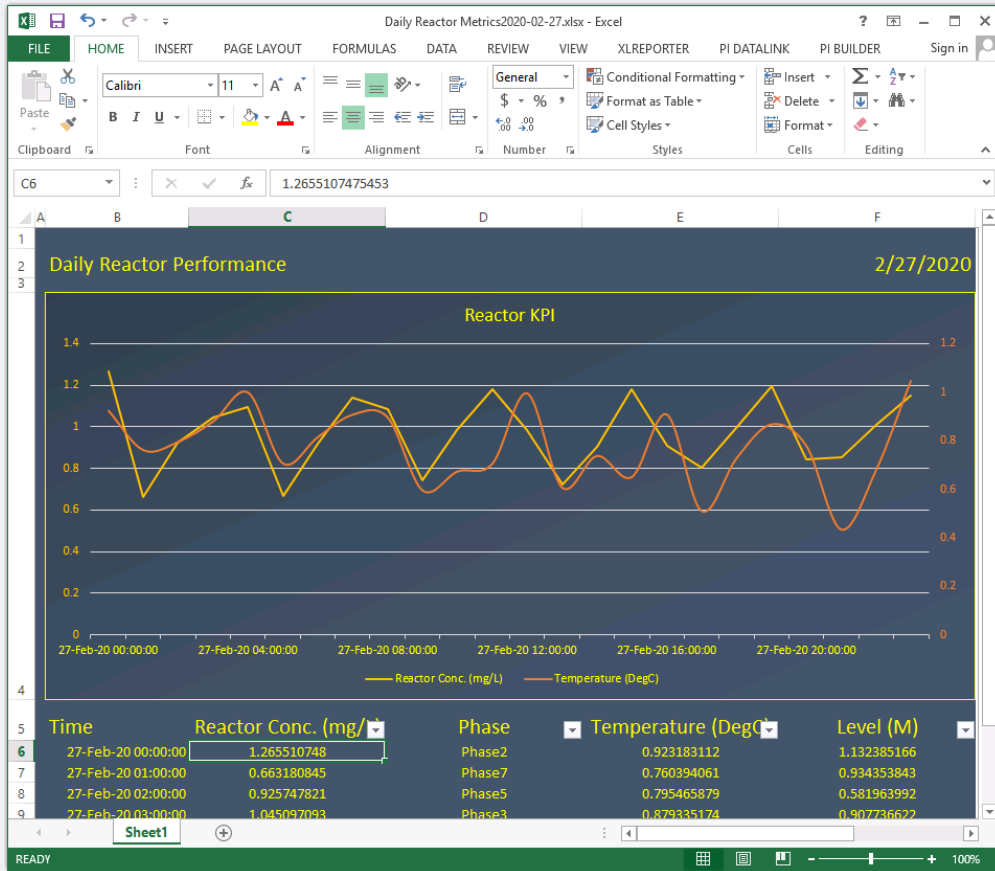


From the **Design Studio** under the **Template** tab, click **Schedule** in the **Settings** section.



Distribution

A template based on an add-in template is treated exactly the same as any other template. This means it can be viewed and updated from **XLReporter Web Client**, the **Windows Client**, or published automatically via email, so that anyone in the organization can view it, even without excel, or the add-in installed!



Date	Mixer 1 Temp. Value first sample	Mixer 2 Temp. Value first sample	Mixer Speed Value first sample	Mixer Pressure Value first sample	Extr 1 Temp. Value first sample	Extr 2 Temp. Value first sample
3/8/2023	87.9321212768555	59.4311027526555	69.54553955957	57.985856201172	82.038404296875	79.984619140625
3/8/2023 1:00:00 AM	92.043342590332	49.3076782226563	78.991342666016	59.8324775695801	86.1501617431641	69.8611373901367
3/8/2023 2:00:00 AM	51	54.775500565918	87.0428619384766	55.937488559082	59	83.2405624389648
3/8/2023 3:00:00 AM	76.2151718139648	54.7549095153809	90.8874664306641	55.8588790893555	76.9440841674805	83.2199554443359
3/8/2023 4:00:00 AM	79.1277084350586	64.2151336669922	89.1821136474609	58.8280067443848	77.8755416870117	78.3558883666992
3/8/2023 5:00:00 AM	79.276237487793	60.8923149108887	82.5225448608398	55	78.0240707397461	75.0338010546875
3/8/2023 6:00:00 AM	90.7942123413086	61.5050659179688	73.2351379394531	55.9362831115723	89.5420455932617	75.6458587646484
3/8/2023 7:00:00 AM	23	50.0069885253906	64.5642395019531	56.1919021606445	11	72.0552022043457
3/8/2023 8:00:00 AM	76.6767120361328	49.042537689209	59.5389603210449	56.4237060546875	78.059326171875	78.7886352539063
3/8/2023 9:00:00 AM	85.8408050537109	49.7389488220215	59.9144973754883	55	87.2234191894531	79.4850234985352
3/8/2023 10:00:00 AM	86.6026458740234	49.4727096557617	65.5599365234375	40	87.9852600097656	79.218833923398
3/8/2023 11:00:00 AM	80.5457077026367	48.4276161193848	74.503059387207	59.166690826416	81.9283218383789	78.1737670998438
3/8/2023 12:00:00 PM	83.3259124755859	51.3398170471191	83.6197814941406	45	84.7085266113281	81.0859527587891
3/8/2023 1:00:00 PM	77.2742156982422	50.4904899597168	89.725357056641	55.258358001709	82.4317398071289	80.2365798950195
3/8/2023 2:00:00 PM	74.3810272216797	54.6288629272461	90.6889506839398	56.3775329589844	74.1069488525391	71.928825378418
3/8/2023 3:00:00 PM	78.8896179199219	59.2745666503906	86.1686401367188	59.9272422790527	82.6155395507813	76.5748291015625
3/8/2023 4:00:00 PM	83.5719604492188	63.1533622741699	77.7488021850586	50	87.2978820800781	80.4536437988281
3/8/2023 5:00:00 PM	85.7266387939453	70.5190582275391	68.3687286378953	59.896915435791	89.45256604248047	75.5246260498047
3/8/2023 6:00:00 PM	78.1804351806641	73.1283874511719	61.3051452636719	57.2450332641602	79.8540878295898	78.1341552734375
3/8/2023 7:00:00 PM	80.0526580810547	61.0361366271973	59.0255737304688	58.5172424316405	81.7263031005859	73.9546500789063
3/8/2023 8:00:00 PM	77.8432388305664	57.4737396240234	62.3263282775879	58.2433700561523	83.3707656860352	78.2793350219727
3/8/2023 9:00:00 PM	75.9295654296875	60.4381065368652	70.0543594360352	57.0607681274414	79.6133193969727	81.2436981201172
3/8/2023 10:00:00 PM	79.0717544559664	57.2784004211426	79.5100479125977	56.1166152954102	82.7555084228516	78.0839920043945
3/8/2023 11:00:00 PM	90.8038787841797	57.0569496154785	87.3902435302734	55.1038970947266	78.6295776367188	77.8625411987305