

Provide Feedback to the Process

Overview

XLReporter provides feedback to the process at two levels, either from **XLReporter's** built-in **Scheduler** or from the report. The scheduler approach is typically used when the process requires a 'heartbeat' to indicate that the reporting system is active. The workbook approach is used when the process requires a signal that all or a section of a report has been populated.

Project Setup

In the Scheduler, the Write Value to Process action is provided feedback.

To configure, from the XLReporter Project Explorer, under the Project tab, select Schedule Designer.

Select Add to add a new schedule action.

| Schedule Image Variables Condition Time: 12:15:00 AM € Daily Weekly Workhy Weekly Action Time Adjustment: 1 € day(s) ✓ Action Time Adjustment: 1 € day(s) ✓ Action Mrite Value to Process Save Worksheet to PDF Action Print Workbook Tag CXLR_DA-Grove Facility::User Defined XLReporter Value 1 Manage Variables Delay Execution Run Applications Value Run Applications Value Write Value to Processi Value Run a Workbook Macro Value Wait to Complete Write as Text | | | | |
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| Action | Continuous Daily Weekly Monthly Event XLR_DA XLReporter | Time: | 12:15:00 AM | |
| | Save Workbook to PDF Save Worksheet to PDF Print Worksheet to PDF Print Worksheet Transfer Reports Manage Files and Folders Manage Variables Run Applications Run a Schedule Script Run an Application Write Value to Process Run a Workbook Macro | Action Tag | Write Value to Process <xlr_da>Grove Facility::User Defined XLReporter 1 Delay Execution 1 \$\$ Seconds</xlr_da> |] |
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Under Condition,

• Set the interval of the feedback e.g., 1 minute Under Action,

- Expand Run Applications and select Write Value to Process.
- For Tag, click the browse pushbutton [...].

| Add Items | × |
|--------------------|---|
| Connector Items | XLR_DA ~ User Defined XLReporter heartbeat |
| | OK Cancel |

- Set the **Connector** to a real-time connector configured in the project.
- For Items, click the browse pushbutton [...] and select a tag to write the value to.
- Click **OK** to fill in **Items** and **OK** again to return to the schedule action.
- Set the Value to what should be written to the selected Tag.
- Check **Wait to Complete**. If checked, the scheduler will wait for the action to complete before processing any other action.

Now, when the **Scheduler** is running, the **Value** is written to the **Tag** at the interval specified.

Feedback From the Report

XLReporter can take any value in the report workbook and write it back to the process with the **Data Export To Tag List** management function. This can be used to write back a fixed value in a cell, the results of an Excel formula of even a value from another data source like a historian or relational database.

To configure this, from the **XLReporter Project Explorer** under the **Home** tab, select **Template Studio**. In the studio, open a template that can be edited for feedback.

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Select Data, Connect.

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| Edit | Insert * | Format • | Chart | Conditional Format + | General | Report Names | Schedule | On Demand Designer | Connect | Link | Preview | Variable |
| | | Conten | 6 | G | | | Settings | | Dat | a | Report | 5 |

Navigate to the Manage tab.

| Data (7) Mar | age (0) | Grou | Гуре | Source | Target | Place |
|--------------------|---------------------|------|------|--------|--------|-------|
| Active By | Any Sheet Group 0 | * | | | | |
| Category | Data Export 🔹 | | | | | |
| Туре | To Tag List 👻 | | | | | |
| Apply To Cell 🔻 | \$A\$1 | | | | | |
| Direction | None | | | | | |
| End | All cells are empty | | | | | |
| Placement | Direct 👻 | | | | | |
| Туре | Direct | | | | | |
| | | | | | | |
| Setting | Value | | | | | |
| Configurati | | | | | | |
| Readback | Yes | | | | | |

- Set the **Category** to Data Export.
- Set the **Type** to To Tag List.
- Under Apply To, set the Cell to the cell location that holds the value to be written back to the PLC.

The process tag to write to is specified in the **Configuration** setting. Select the browse pushbutton [...] under the **Value** column.

Under the **Setup** tab,

| Export | | × |
|----------------|-----------------|---|
| File 🕶 | | |
| Name | Batch Dashboard | |
| Setup Tag List | | |
| | | |
| Connector | XLR_DA ~ | |
| | | |

• Set the Connector to a Real-time Connector in the project.

Under the Tag List tab,

| ile | • | | |
|------|--------------------|--|--------|
| N | lame | Batch Dashboard | |
| Setu | up Tag Lis Cell | t Tag | Туре |
| | SAS1 | Grove Facility::User Defined.Report complete | Number |
| * | | | |

- Select the first row under the **Tag** column.
- Click the browse pushbutton [...] to open the tag browser.
- Select the tag to receive the exported value.
- Click **OK**.
- The **Cell** column should be set to the cell with the value to write.
- Click File, Save to save the configuration and return to the Connection dialog.

| Setting | Value |
|-------------|-----------------|
| Configurati | Batch Dashboard |
| Readback | Yes |
| Wait Time | 0 - |
| Add | Modify Delete |

• Click Add to add the management connection to the template.

When the report is updated, the value will be written from the **Cell** to the process tag.

Note that Management connection are processed *after* Data connections so the feedback occurs *after* the report is populated. To "harden" the feedback, the value written back to the PLC could be a checksum from the report content.