

Event Frames

Overview

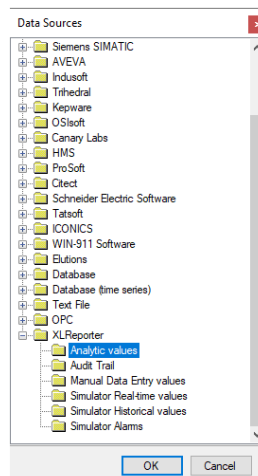
Event Frames are determined from live values of the process by monitoring a start and end event, such as the start/end of a batch, start/end of a machine cycle, or the start/end of a production phase.

Event Frames can be recorded to a database so that a history of their values is available for reporting purposes, for instance, in **Stacked Reports** (please refer to the **Stacked Report** documentation).

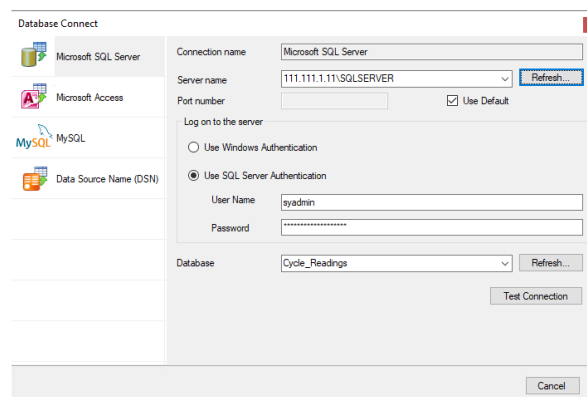
Event Frames monitor two events. The first event captures the start date and time along with process values (**Update** action) and the second event captures the end date and time (**Store** action) which makes the frame complete.

After a **Store**, the current values of the **Event Frame** are available for reports using a **Variable** connection.

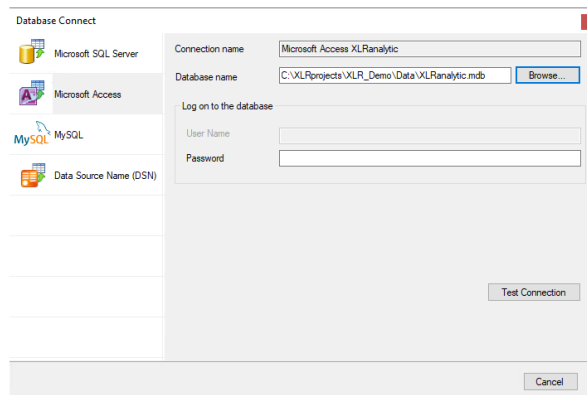
Event Frames require the **Analytic Connector** to be created. From the **Data** tab of the **Project Explorer**, select **Connectors**.



- Choose **XLReporter, Analytic values**
- Click **OK** to open the connector configuration.
- Select the **[.]** button next to the **Primary Database Type**, this will open the **Database Connect** window.



If possible, use a Microsoft SQL Server (including Express) database. Alternatively, a Microsoft Access database is included in the **Data** folder of your project which can be used to store analytic values. Click **Test Connection** to verify database connectivity.

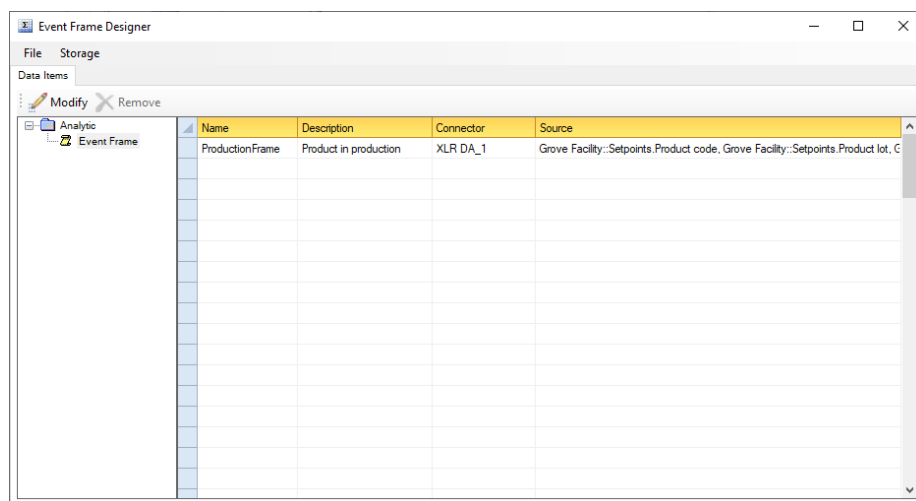


On the **OK** of the data connector configuration, the required event frame tables will be created in the database.

If a history of Start and End times is not required to be stored to a database, it is recommended to instead utilize **Date Time Variables** instead. For more information, see the **DESIGN, Variables** document in the **Document Library**.

Event Frame Designer

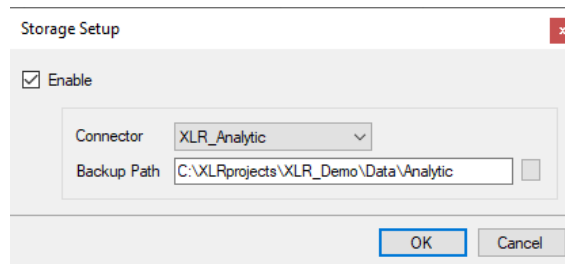
The **Event Frame Designer** is used to configure **Event Frames** and the corresponding database storage options. The designer is opened from the **Data** tab of the **Project Explorer** by selecting **Event Frames**.



The display consists of a **Data Items** tab.

To save changes click **File, Save**. If the Scheduler is running, it is automatically reloaded with any changes.

The **Storage** option shows where the **Event Frame** values are stored. This can be disabled by unchecking **Enable**.



Storage Setup

☒ Enable

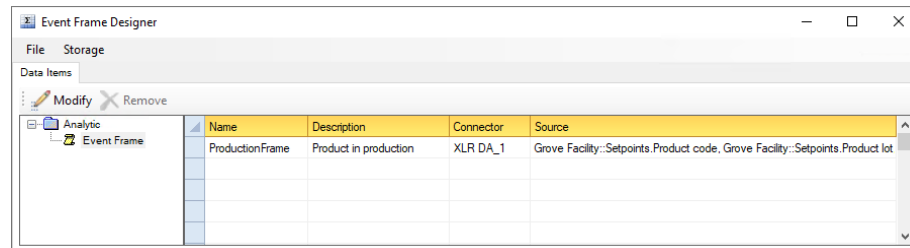
Connector: XLR_Analytic

Backup Path: C:\XLRprojects\XLR_Demo\Data\Analytic

OK Cancel

The **Backup Path** is used to cache values in the event of communication failure. When communication is re-established, the cache is forwarded to the database of the **Connector**.

Data Items



Event Frame Designer

File Storage

Data Items

Modify Remove

Name	Description	Connector	Source
ProductionFrame	Product in production	XLR DA_1	Grove Facility::Setpoints.Product code, Grove Facility::Setpoints.Product lot

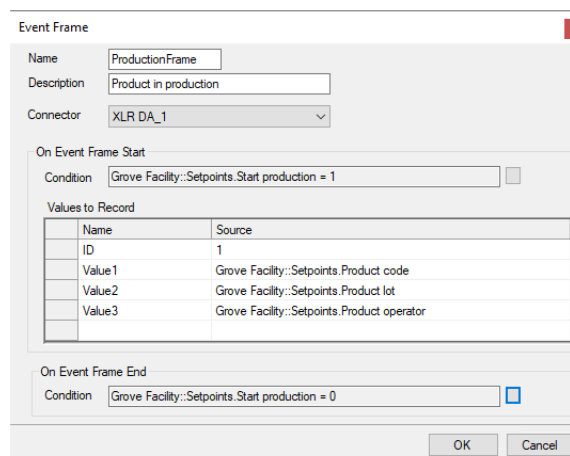
- **Name** is the name of the event frame. This name will be displayed when browsing for event frame values.
- **Description** is a description of the event frame. This description will appear whenever event frames are browsed.
- **Connector** and **Source** collectively define the process value used to calculate the event frame.

To add/modify an item, select a row and double-click, click the **Modify** menu option or select **Modify** from a right click.

To remove an item, select a row and press the **Delete** key, click the **Remove** button, or select **Remove** from a right click. Note, the Event Frame Designer configuration is saved automatically after selecting **Remove**.

Event Frame

An **Event Frame** stores the timestamps of two events together with the current values of the process at the time of the first event.



Event Frame

Name: ProductionFrame

Description: Product in production

Connector: XLR DA_1

On Event Frame Start

Condition: Grove Facility::Setpoints.Start production = 1

Values to Record

Name	Source
ID	1
Value1	Grove Facility::Setpoints.Product code
Value2	Grove Facility::Setpoints.Product lot
Value3	Grove Facility::Setpoints.Product operator

On Event Frame End

Condition: Grove Facility::Setpoints.Start production = 0

OK Cancel

The **On Event Frame Start** shows the **Condition** to monitor to signify the start. Click the browse button [...] and define the condition trigger. When the condition is triggered, the date/time and the **Values to Record** are read from the process and made part of the frame.

The **On Event Frame End** shows the **Condition** to monitor to signify the end at which time the date/time is made part of the frame and the Event Frame is complete. Click the browse button [...] and define the condition trigger.

For more information on condition **Triggers**, see the **Schedule Design** documentation.

If **Event Frames** are stored to a database, they will be stored in a fashion similar to the following:

TagIndex	StartDateTime	EndDateTime	Value1	Value2	Value3	Value4
0	10/1/2022 1:32:00 AM	10/1/2022 4:07:00 AM	P990-150	1200404	Giles Smith	
0	10/1/2022 7:08:15 AM	10/1/2022 1:01:21 PM	P02369-80	1200362	Giles Smith	
0	10/1/2022 4:07:45 PM	10/1/2022 9:15:32 PM	P02369-80	1200363	John Harvey	
0	10/1/2022 10:01:32 PM	10/1/2022 11:56:11 PM	P72-0809	1210043	Giles Smith	
0	10/2/2022 6:32:00 AM	10/2/2022 10:08:05 AM	P72-0809	1210044	Giles Smith	
0	10/2/2022 1:17:11 PM	10/2/2022 4:21:08 PM	P50-30318	1200350	John Harvey	
0	10/2/2022 7:44:10 PM	10/2/2022 11:12:08 PM	P50-30318	1200351	John Harvey	
0	10/3/2022 1:12:44 AM	10/3/2022 4:45:00 AM	P50-30318	1200352	Giles Smith	
0	10/3/2022 9:08:07 AM	10/3/2022 11:14:14 AM	P990-150	1200401	Giles Smith	
0	10/3/2022 1:26:10 PM	10/3/2022 6:32:15 PM	P990-150	1200402	John Harvey	
0	10/3/2022 7:28:03 PM	10/3/2022 11:32:39 PM	P990-150	1200403	John Harvey	

On End

On Start

Event Frames provide the following **Fields**:

- **:Stdu** (start date and time in universal format)
- **:Endu** (end date and time in universal format)
- Up to 4 custom fields referenced by the **Name** given to the value in the **Event Frame** definition.

Tutorial

For a tutorial on event frames, please refer to the document **xlreporter-training-event-frames** which is located in the **_docs** folder of the installation. Alternatively, from the **Project Explorer**, select **Documentation**, expand **GETTING STARTED** and select **Report from Event Frames**.

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