

Integration Objects'

OPC Real-Time and Historical Data, Alarms and Events Archiving Solution

OPC EasyArchiver
Version 3.0 Rev.2

QUICK USER GUIDE

OPC EasyArchiver Quick User Guide Version 3.0 Rev 2
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ABOUT THIS USER GUIDE

This guide is a step by step guide on how to install, configure and run OPC EasyArchiver.

INSTALLATION PRE-REQUISITES

In order to properly run the OPC EasyArchiver, install these software components on the target system:

- .NET Framework version 4.0 or higher.
- OPC Core Components version 3.00. You can deploy them during the installation by checking the option “Install OPC Core Components” or after installation by using the setup available in the installation folder of the OPC Easy archiver.



If the OPC Easy Archiver deployment version is 64 bit, you need to install the 64-bit version of the OPC Core Components.
If the OPC Easy Archiver deployment version is 32 bit, you need to install the 32-bit version of the OPC Core Components.

The table below lists the prerequisites to communicate with databases:

Database	Database Connector Pre-requisite
MS SQL Server	Uses ADO .Net to communicate with the database. No pre-requisites need to be installed.
MS Access	Requires Microsoft Office to be installed.
Oracle	Uses a fully-managed ADO .NET provider to communicate with the database. No additional Oracle Client software is required to be installed to connect to Oracle Database.
MySQL	Uses embedded MySQL connector to communicate with the database. No pre-requisites need to be installed.
ODBC	Requires the ODBC driver to be installed in order to communicate with the corresponding database source type.
OLEDB	Requires the OLEDB driver to be installed in order to communicate with the corresponding database source type.
PostgreSQL	Uses ADO .Net to communicate with the database. No pre-requisites need to be installed.
CSV	No pre-requisites need to be installed.

Table 1: Database Connector Pre-requisites

INSTALLING OPC EASYARCHIVER

To install the OPC EasyArchiver, right click on the installation executable and select “**Run as administrator**” from the displayed menu. Then, the installation wizard will take you through the different installation steps.



Before the completion of the installation, a dialog will be displayed in order to configure the user account that will be used to run the OPC EasyArchiver services. Make sure that the configured account has the right to log on as a service and to connect to your OPC Servers.

Note that you can still modify this user account configuration after the installation using the Windows Services panel.

CONFIGURING OPC EASYARCHIVER

Go to **Start => Programs => Integration Objects => OPC EasyArchiver => OPC EasyArchiver** and start the OPC EasyArchiver.

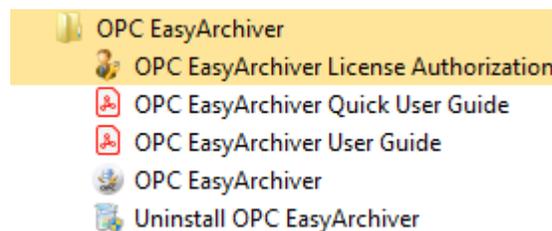


Figure 1: OPC EasyArchiver Start Menu

Configure OPC DA to DB Archiver

1. Right click on the OPC DA Servers node and then select the **Connect to OPC DA Server** menu item.

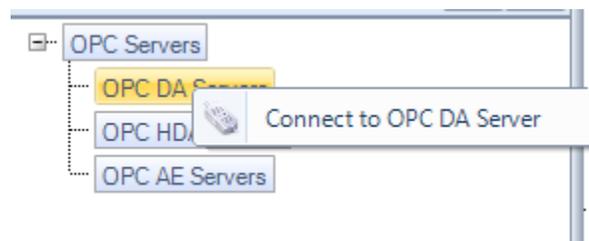


Figure 2: Connect to DA Server

2. Select your OPC DA Server from the displayed list and click on the Connect button.

3. Right click on the connected OPC DA Server and then select the Add Group menu item.
4. Enter the OPC Group parameters and click on the Apply button.
5. Right click on the OPC group node and select the Add Items menu item.
6. Browse the OPC DA server address space and select the required OPC items. Then, click on the Apply button.
7. Go to the Archivers tab
8. Right click on the DA Archiver node and select the Add New DA Archiver from the displayed menu:

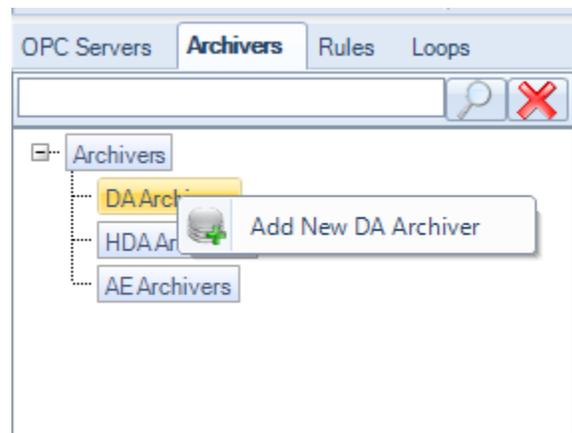


Figure 3: Add New DA Archiver

9. Select the archiver name and the server type.
10. Configure the database credentials/connection string.
11. Select your tables.
12. Select the group to be assigned to this archiver.
13. Right click on the created archiver and then select the Start Archiver menu item

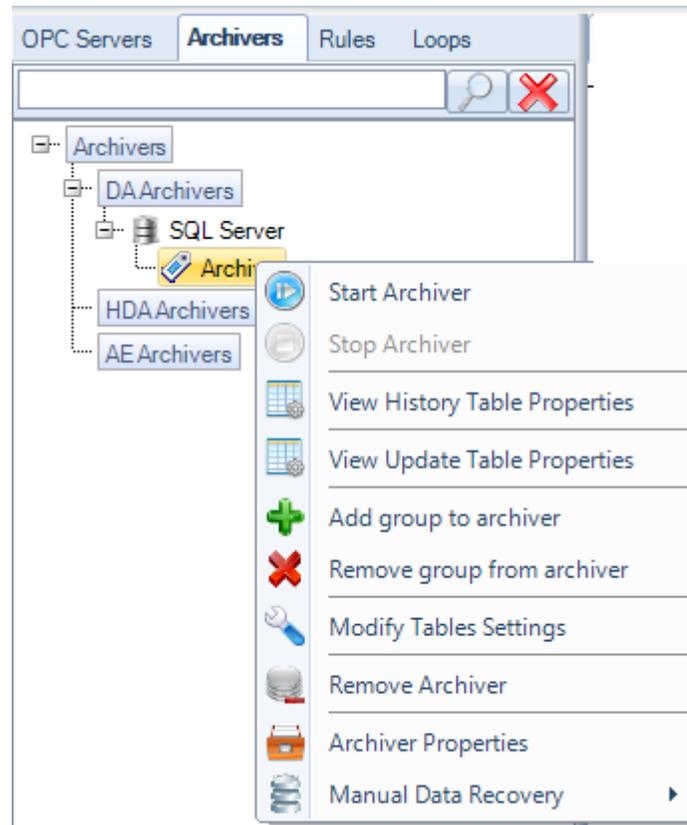


Figure 4: Start DA Archiver

Configure a DB to OPC Transfer

1. Connect to your OPC DA Server, add a group and add the items to where the data will be written
2. Go to the DB to OPC Transfer tab and click the New button.

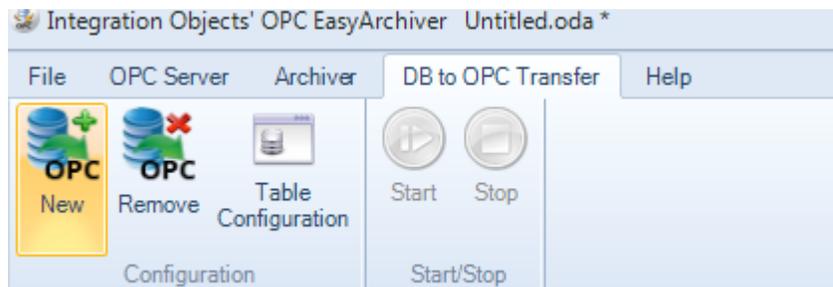


Figure 5: DB to OPC Transfer Menu

3. A wizard will be prompted to configure the transfer. Select the transfer name and the database type.

- Configure the database credentials/connection string. Then, click the Next button. The following window will be displayed:

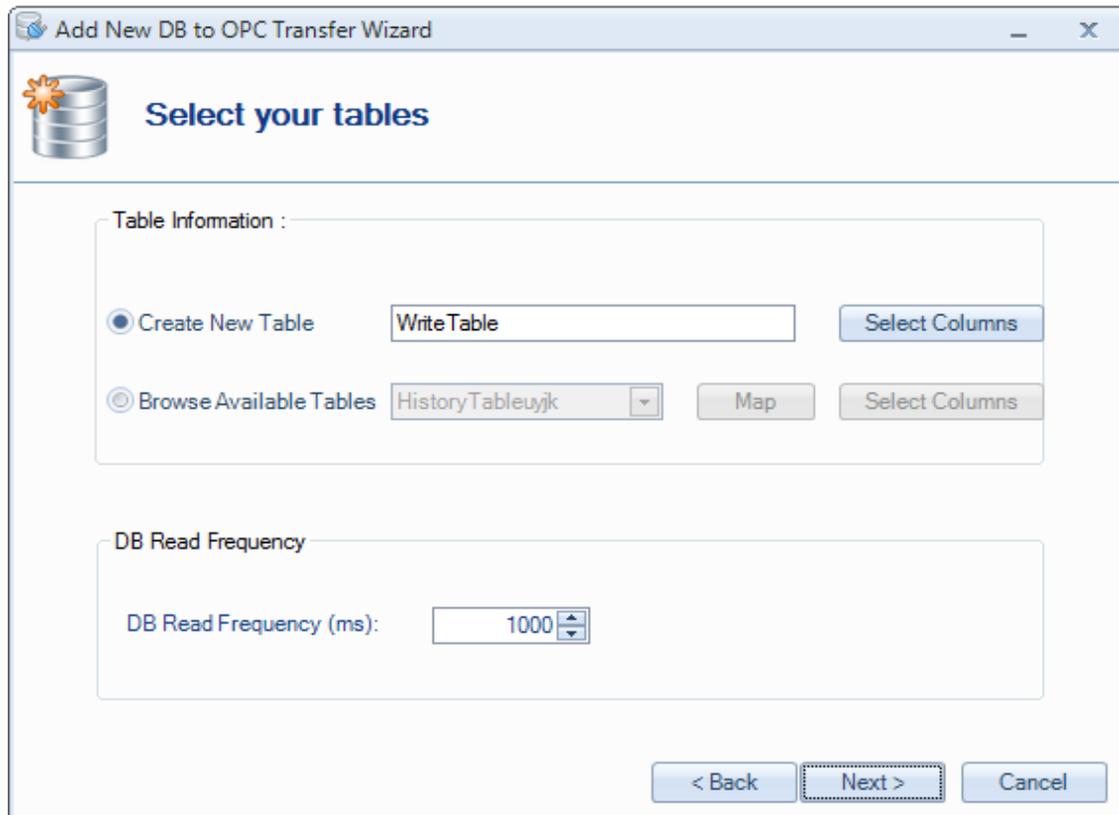


Figure 6: DB to OPC Transfer Table Configuration Dialog

- You can either create a new table or select an existing table.
- If you select an existing table, you will need to map fields of the tables. Click the Map button to proceed. Drag and drop the field from the existing table to the corresponding one in the template table.
- Set the DB Read frequency field, which is the frequency to be used to check for new data in the database.
- Select the OPC Group that contains the tags to which data will be transferred.



The field mapped to the Started field should be set to 0 for the rows to be transferred from the database to the OPC Server.

- To configure your own qualities values, click the Configure Quality mapping context menu item:

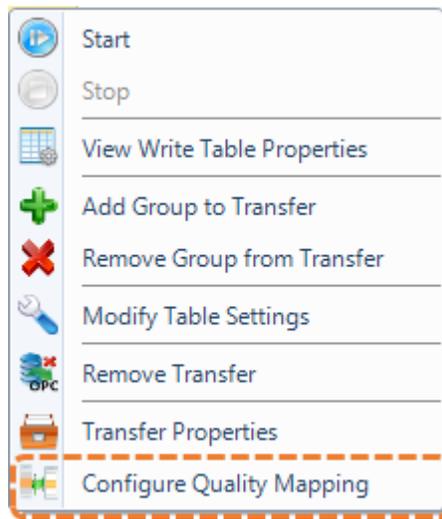


Figure 7: Configure Quality Mapping Menu Item

10. To start the transfer, right click to the transfer in the Transfers tab and click Start:

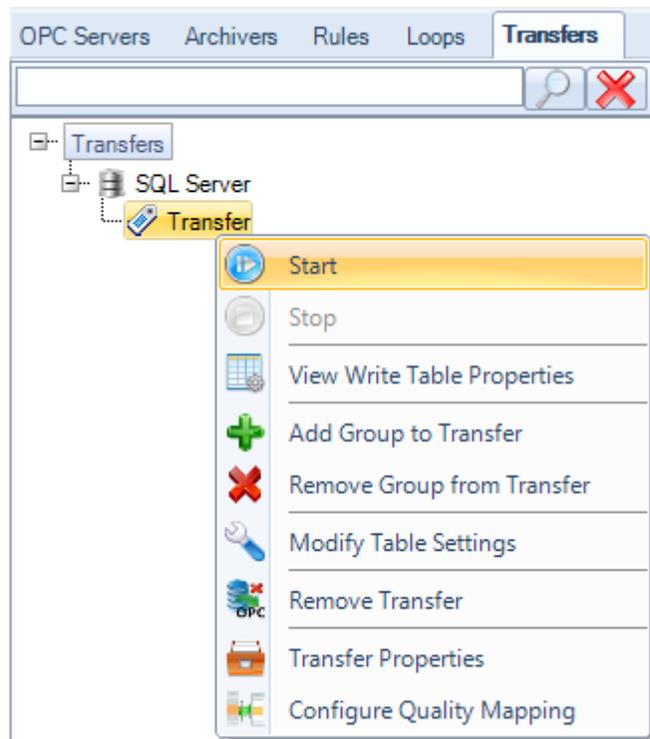


Figure 8: Start Transfer Menu Item

Configure OPC HDA to DB Archiver

1. Right click on the OPC HDA Servers node and then click on the **Connect to OPC HDA Server** menu item.

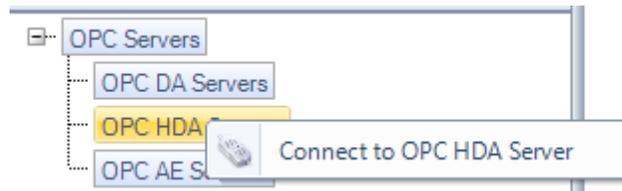


Figure 9: Connect to HDA Server

2. Select your OPC HDA Server from the displayed list and click on the Connect button.
3. Right click on the connected OPC HDA Server and then select the Add Items menu item.
4. Browse the OPC HDA server address space and select the required OPC items. Then, click on the Apply button.
5. Right click on the HDA Archiver node and select the Add New HDA Archiver from the displayed menu:

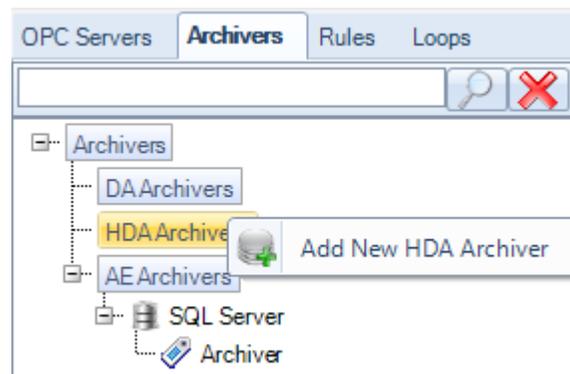


Figure 10: Add New HDA Archiver Menu Item

6. Select the archiver name and the server type.
7. Configure the database credentials/connection string.
8. Select your tables.
9. Select the OPC HDA Server to be assigned to this archiver.
10. Right click on the created archiver and then click on the Start Archiver menu item

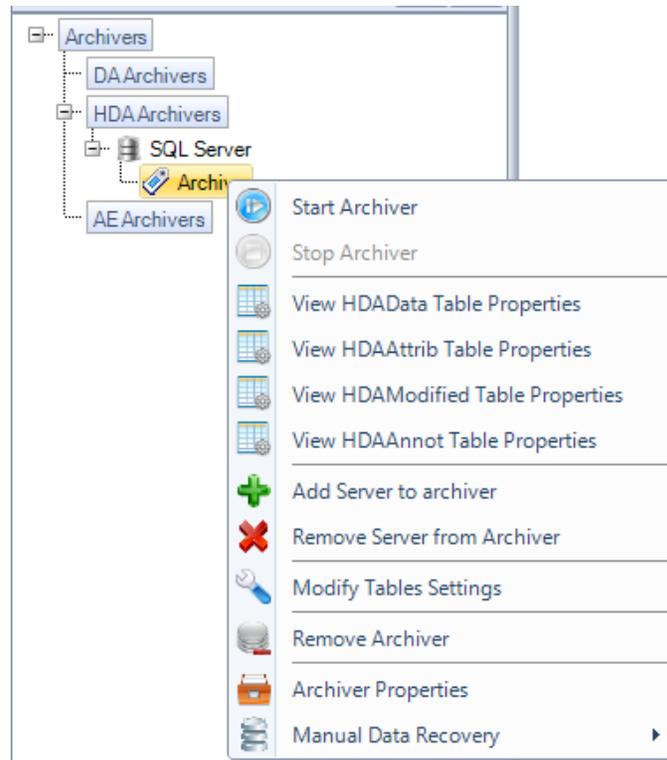


Figure 11: Start HDA Archiver

11. Go to the OPC Servers tab, select the OPC HDA items to be read and right-click on them and select Sync Loop menu item.

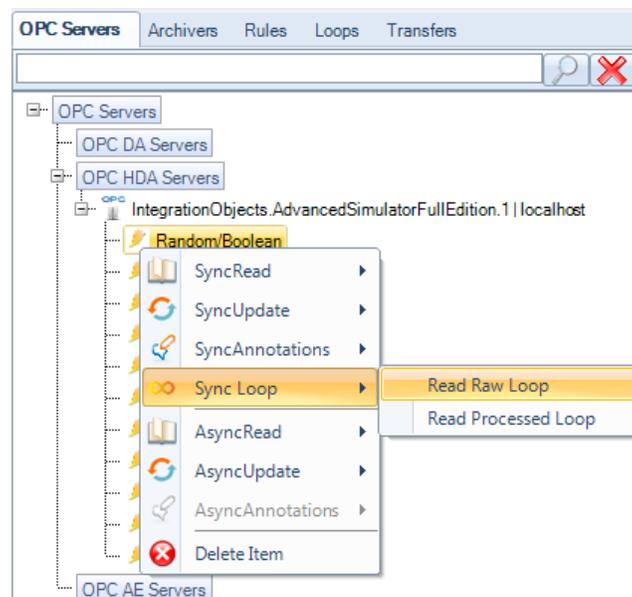
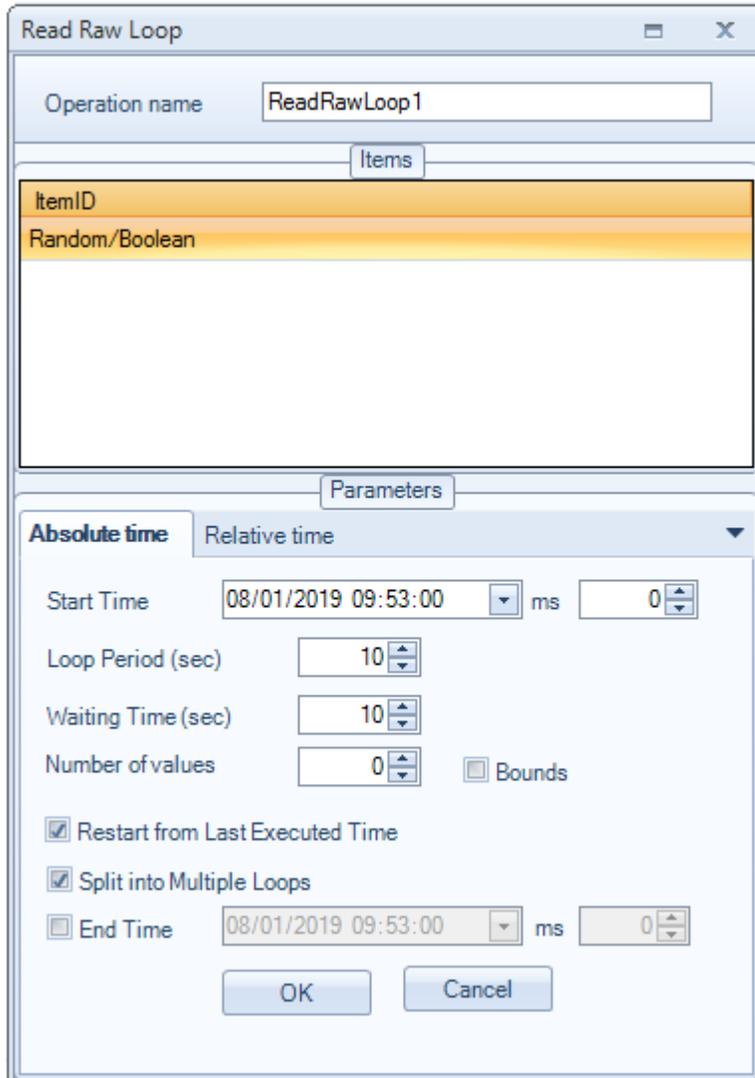


Figure 12: Sync Loop

Read Raw Loop



Read Raw Loop

Operation name: ReadRawLoop1

Items

ItemID
Random/Boolean

Parameters

Absolute time | Relative time

Start Time: 08/01/2019 09:53:00 ms 0

Loop Period (sec): 10

Waiting Time (sec): 10

Number of values: 0 Bounds

Restart from Last Executed Time

Split into Multiple Loops

End Time: 08/01/2019 09:53:00 ms 0

OK Cancel

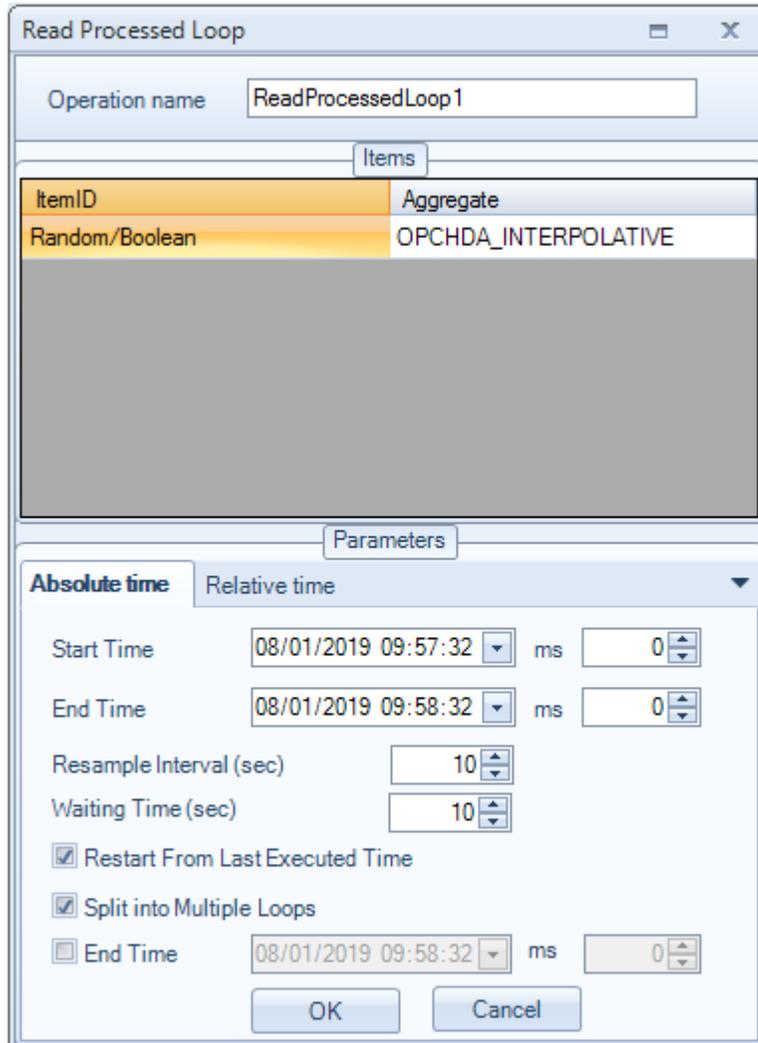
Figure 13: Read Raw Loop

12. Configure the read raw loop parameters as follows:

- **Start Time:** The beginning of the history period to be read for the first read request within this loop
- **Loop Period:** The time interval of each read raw.
- **Waiting Time:** The waiting time between 2 read operations
- **Restart from Last Executed Time:** If checked, the read raw loop will start from the last executed time.
If not, the read raw loop will start from the initially configured start time.
- **Split into multiple loops:** If checked, multiple read raw loops will be created automatically per the maximum items size configured in the settings.

- **End Time:** If checked, the read raw loop will be stopped when the specified date time is reached.

Read Processed Loop



ItemID	Aggregate
Random/Boolean	OPCHDA_INTERPOLATIVE

Parameters

Absolute time | Relative time

Start Time: 08/01/2019 09:57:32 ms 0

End Time: 08/01/2019 09:58:32 ms 0

Resample Interval (sec): 10

Waiting Time (sec): 10

Restart From Last Executed Time

Split into Multiple Loops

End Time: 08/01/2019 09:58:32 ms 0

OK Cancel

Figure 14: Read Processed Loop

13. Configure the read Processed parameters as follows:

- **Start Time:** The beginning of the history period to be read for the first read request within this loop.
- **End Time:** The end of the history period to be read for the first loop.
- **Resample Interval:** The time interval between returned values.
- **Waiting Time:** The waiting time between 2 read operation
- **Restart from Last Executed Time:** If checked: The read processed loop will start from the last executed time.

If not: the read processed loop will start from the initially configured start time.

- **Split into multiple loops:** If checked, multiple read processed loops will be created automatically per the maximum items size configured in the settings.

Configure OPC AE to DB Archiver

1. Right click on the OPC AE Servers node and then select the **Connect to OPC AE Server** menu item.



Figure 15: Connect to AE Server

2. Select your OPC AE Server from the displayed list and click on the Connect button.
3. Right click on the connected OPC AE Server and then select the Create Event subscription menu item.
4. Enter the OPC Event Subscription parameters and click on the OK button.
5. Right click on the AE Archiver node and select the Add New AE Archiver from the displayed menu:

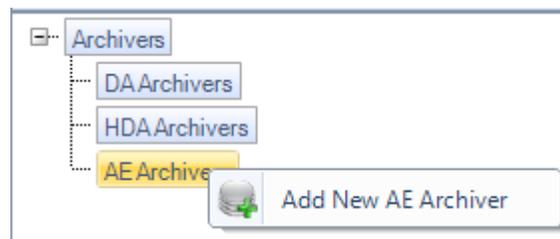


Figure 16: Add New AE Archiver Menu Item

6. Select the archiver name and the server type.
7. Configure the database credentials/connection string.
8. Select your tables.
9. Select the subscription to be assigned to this archiver.
10. Right click on the created archiver and then select the Start Archiver menu item.

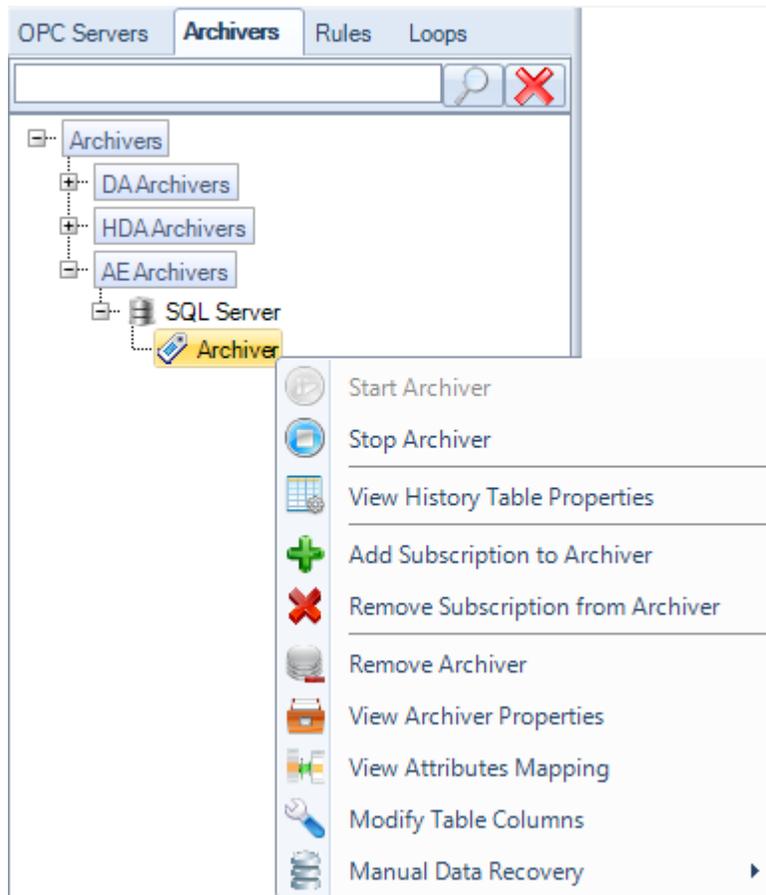


Figure 17: Start AE Archiver Menu Item

For additional information on this guide, questions or problems to report, please contact:

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