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PCS 7 OS Archive Configuration for long-term Reports with the Process Historian / Information Server 2013

http://support.automation.siemens.com/WW/view/en/66579062

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1 Indroduction

Inside the PCS 7 OS the archive variables are typically stored in a cyclic-continuous manner in the "SystemArchive". With an archiving cycle of 2 seconds, a huge amount of data points are stored. Therefore, the generation of a monthly or a yearly report can fail due to the huge amount of data points.

To avoid this, one has to configure compressed archives for the variables which are used in the long-term reports.

This configuration must be done before the data recording for the long-term reports starts.

In the following you can find the procedure of how to create a compressed archive for long-term reporting.

Compressing Steps

If an archive variable is stored in a 1 to 60 second cycle, the following compressing steps for maximum, minimum and average calculation would make sense:

- 15 minutes
- 1 hour
- 1 day

Figure 1-1
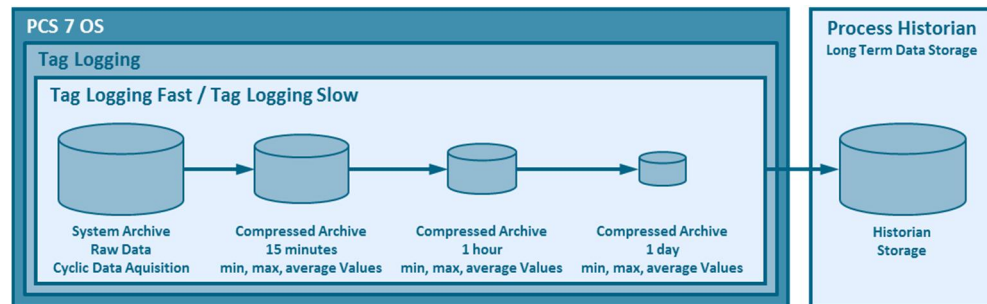
The OS Tag Logging is a revolving archive. The data are stored in the OS archive for one month, for instance, depending on the OS configuration. All long-term relevant OS tags will be transferred in real-time to the Process Historian.

# 2 Configuration

2.1 Creating an OS compressed archive

Example

One likes to create a monthly report with 20 variables. Every variable is stored in a 1 second cycle in the PH database. That means 20 variables* 60s * 60min * 24h* 30 days = 51.840.000 data samples are read and displayed in a report.

To create a report like this, the data must be compressed with the help of maximum, minimum or average functions over a certain time range. For this job one can use the PCS 7 OS "CompressedArchive" function.
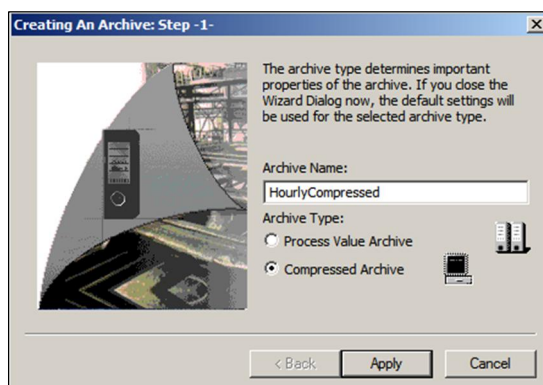
Workflow

1. Open the WinCC Explorer.
2. Open the OS Tag Logging.
3. Start the OS Archive Wizard.

Figure 2-1
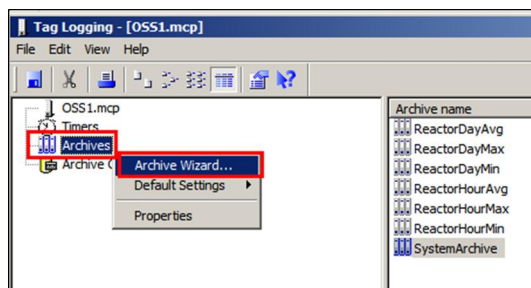
4. Select a "Compressed Archive" and give the new Archive the name „HourlyCompressed".
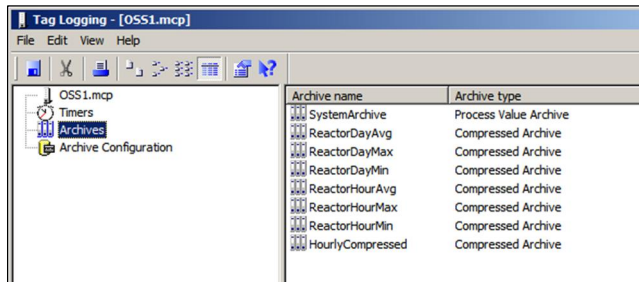
Figure 2-2

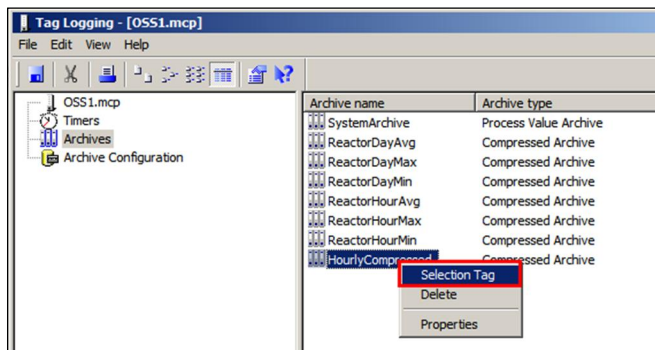5. Click on the "Apply" button.

Result

The empty "Compressed Archive" with the name "HourlyCompressed" is created.
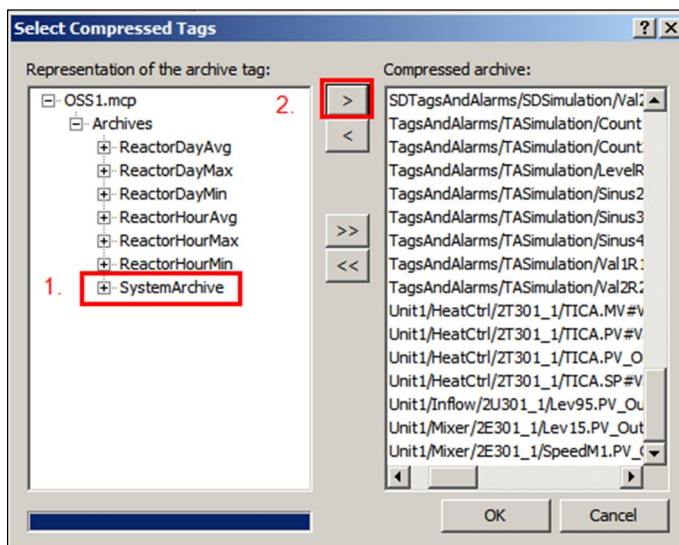
Figure 2-3

6. Right-click on the Archive to open the context menu.
7. Select the OS Variables that you want to be compressed.
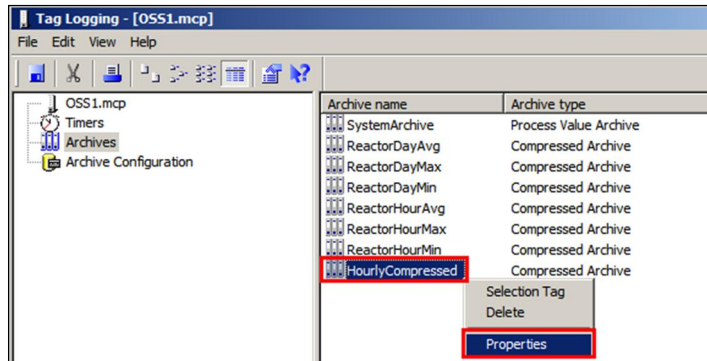
Figure 2-4

8. Select the whole "SystemArchive" and move it with the arrow button to the right-hand side of the dialog. It is also possible to select dedicated archive tags.
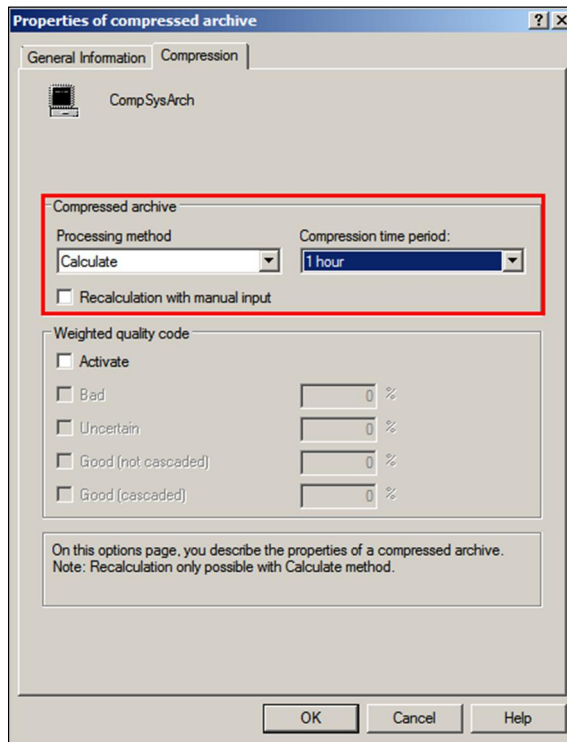
Figure 2-5

9. Open the object properties of „HourlyCompressed" archive.
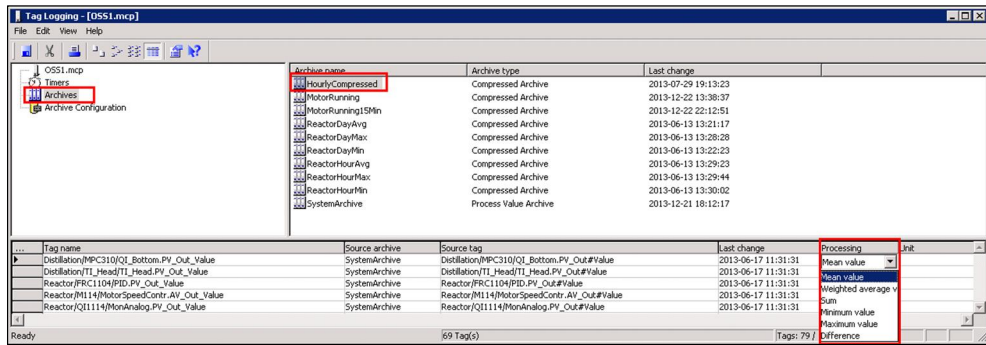
Figure 2-6

10. Define the "Processing method" and the "Compression time period".

Figure 2-7

11. Define the calculation function.

Figure 2-8

12. Save the OS Tag Logging.

13. Download the archive changes to the target OS system with help of the Engineering Station.

2.2 Using the Archive Configuration Tool

For bulk engineering of the OS Archive, one can use the „WinCC_ArchiveTool__V7.2". The tool is available on the PCS 7 Produkt DVD 2 in the folder

„WinCC_Options\ WinCC_ArchiveTool__V7.2".

3 Related literature

Table 3-1

		Topic	Link
\1\		Siemens Industry Online Support	http://support.automation.siemens.com
\2\		Entries to Process Historian / Information Server: • Installing and Commissioning of Process Historian/Information Server in the PCS 7 Environment • Setup a new Process Historian with an existing Historian Storage Database • Integration of Process Historian/Information Server in a Domain • Configuring Access Protection for a Process Historian Database • Configuration of a redundant Process Historian • Moving a Process Historian/Information Server from Workgroup A to Workgroup B • PCS 7 Archive Configuration for long-term Reports with the Process Historian / Information Server 2013	http://support.automation.siemens.com/WW/view/en/66579062

4 History

Table 4-1

Version	Date	Modifications
V1.0	04/2014	First version