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Determination of suitable hardware for the Process Historian 2014 with the “PH-HWAdvisor” tool

SIMATIC Process Historian 2014

https://support.industry.siemens.com/cs/ww/de/view/109740115

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1 Introduction

The Process Historian is used for long-term archiving of process data and messages. To ensure optimum operation and constant availability of data, the Process Historian 2014 has been subjected to a special delivery release since March 2016, which needs the determination of the suitable hardware.

Since 5th of September 2016 the obligatory consultation of the Systems Support has been replaced by the following process and the "PH-HWAdvisor" tool.

The "PH-HWAdvisor" tool guides you through a catalog of questions on the individual requirements of your PCS 7 project and provides a results protocol with the recommended hardware, which has to be sent to the responsible Product Manager for getting the order approval.

Follow these steps:

1. Download the tool.
2. Unzip and start the tool.
3. Fill in the fields provided and start the evaluation.
4. Send the signed protocol to the specified address in order to obtain order approval for the Process Historian 2014.

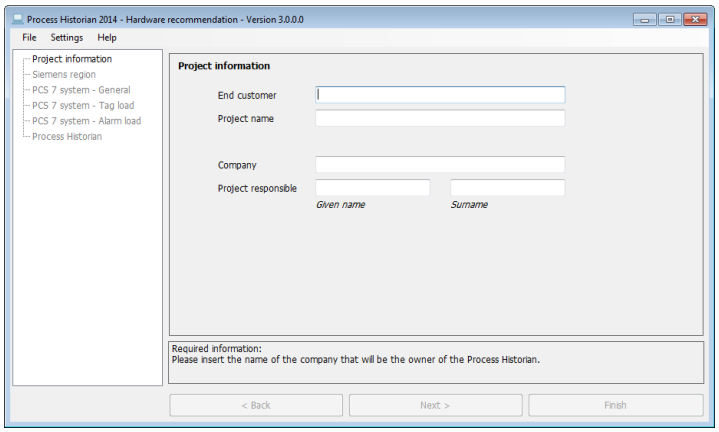
2 Determine suitable hardware

2.1 Creating a project-specific report

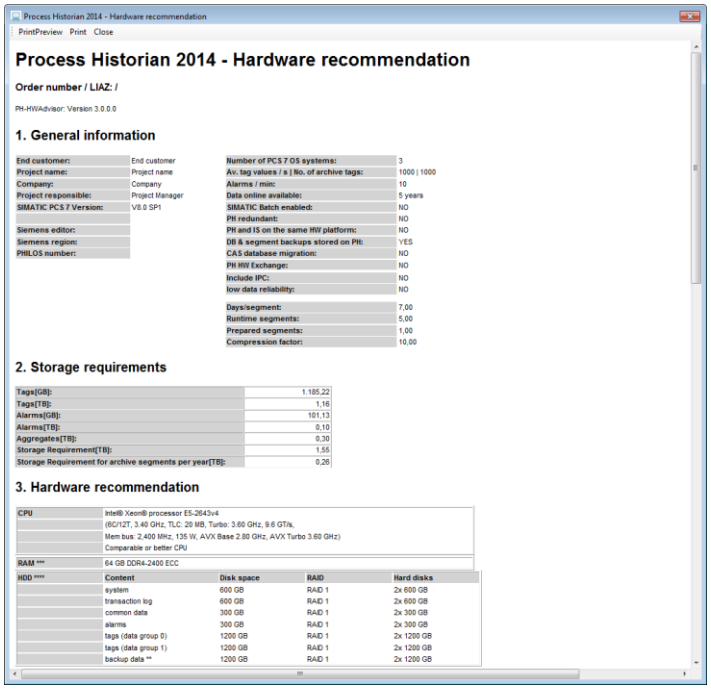
Data input

Enter the general project information and information on the Siemens Sales region in the PH-HWAdvisor.

Also enter information concerning the PCS 7 project, such as the number of PCS 7 OS systems that archive in the PH and information about the PH, e.g. for how many years the online availability of the data is required. Click the button “Calculate” to create the report.

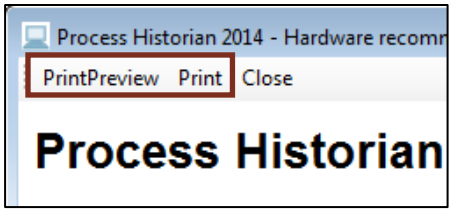


Based on these inputs the tool determines a suitable hardware for the Process Historian and outputs this as a report (HTML).



Printing

After entering the required data, print out the report using the “Print” or “PrintPreview” button in the report dialog.



Signing

Sign the report in the signature field provided.

Signature Field

The persons signing this document are confirming the use of the recommended hardware setup in the mentioned project.

Project responsible / Project manager

Date:	21.Dez.2016
Place/Location:	
Name (block letters):	Project Manager
Signature:	

Purchaser

Date:	21.Dez.2016
Place/Location:	
Name (block letters):	
Signature:	

Scanning

Scan in the signed report.

Sending

Send the report via e-mail to the responsible product manager for the order approval:

Mr. Dr. Dino Drinjakovic
dino.drinjakovic@siemens.com

2.2 Structure of report

The report is divided into four areas:

General information

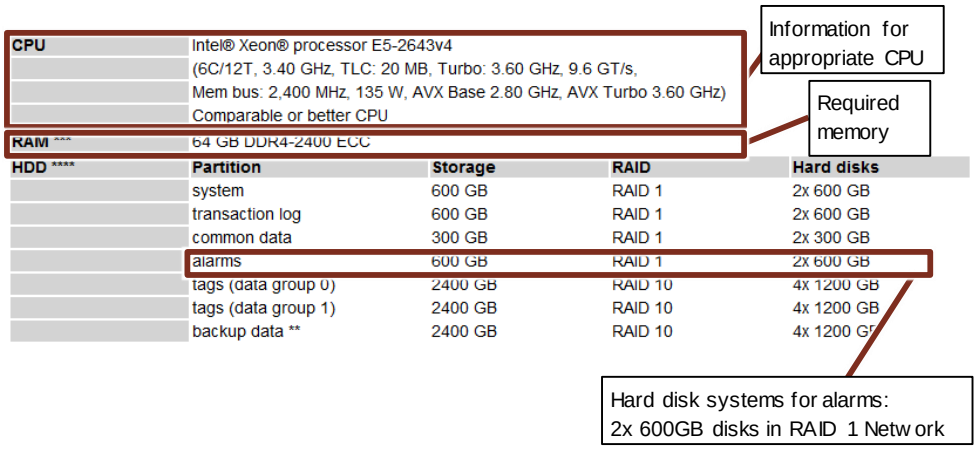
The input data are listed in this section.

Memory requirements

The storage requirements of the PH database for process values (in GB and TB), for the alarms (in GB and TB) and for the archive segments per year (in TB) are output here.

Hardware recommendations

Recommendations for the appropriate CPU, RAM and required hard disk / hard disk systems (hard disk array) as well as their partitioning are made in this section.



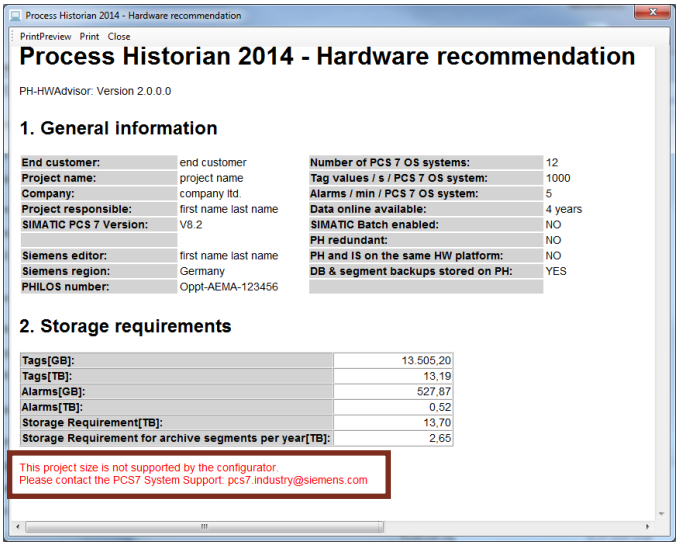
General recommendations

This section offers information on back-up strategy, virtualization, ordering possibilities, etc.

3 Menu explanations

Below you will find a detailed description of the menus and commands:

3.1 File

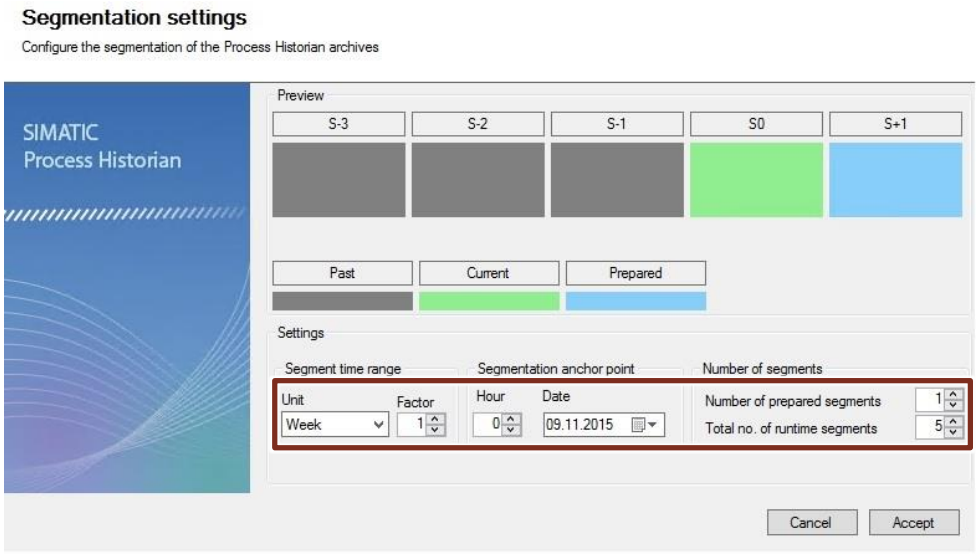
Menu command	Description
New	Creates a new empty configuration.
Open	Opens a configuration that had previously been saved.
Save as	Saves the current entries as configuration under a name.
Calculate	Ascertains a suitable hardware and outputs a report on the basis of the current entries.
Send configuration to PCS 7 Systems Support	If PH-HWAdvisor cannot make a valid hardware recommendation, the PCS 7 Systems Support must be consulted.
	
Close	Closes the PH-HWAdvisor.

3.2 Basic Settings

In the “Basic Settings” dialog the basic settings for the following parameters are displayed:

- Days per segment = 7
- Number of Runtime segments = 5
- Number of Prepared segments = 1
- Compression factor = 10

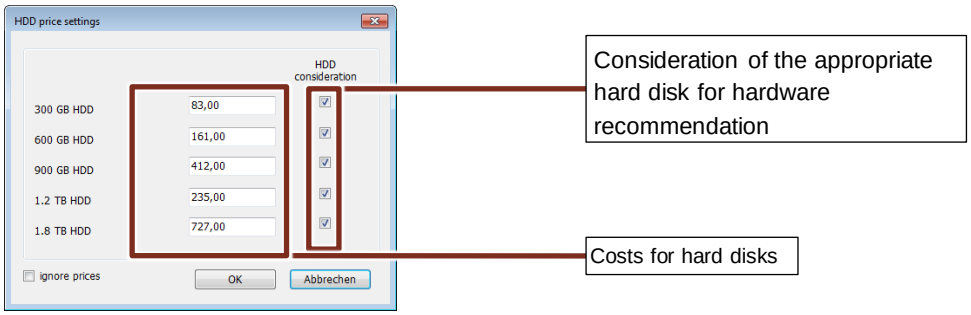
You must take these values into account - with the exception of the compression factor - when segmenting the Process Historian Archive in the PH dashboard. The above values are standard values for the segmentation of the PH database.



3.3 HDD Price Settings

The hard disks or hard disk systems (hard-disk array) and their partitioning in Section 3 of the report is determined by the PH-HWAdvisor on the basis of the cost of the hard disks due to the required storage capacity.

Hard Disk Drive costs are in the “HDD Price Settings” dialog, which can be accessed via the “Settings” menu

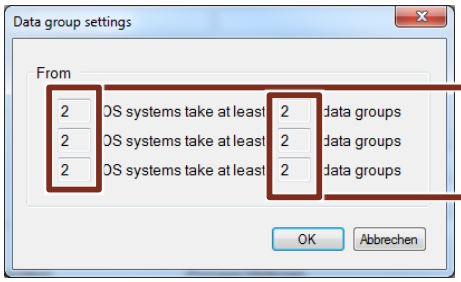


In this dialog you can enter the cost of the individual hard disks. If a certain hard disk is not to be considered when determining the hardware recommendation, you can make the appropriate setting with the corresponding checkbox.

Select the “Ignore prices” option in order for the hard disk prices not to be factored in to the hardware recommendation. When this is done, the PH-HWAdvisor bases its selection of hard disk or hard disk systems (hard disk array) and their partitioning exclusively on storage space requirements

3.4 Data Group Settings

The “Data group settings” dialog shows the minimum number of data groups depending on the number of OS systems.



2 OS systems ore more: **at least**…

… 2 data groups are considered for hardware recommendation for the storage of the process value.

CPU	Intel® Xeon® processor E5-2643v4			
	(6C/12T, 3.40 GHz, TLC: 20 MB, Turbo: 3.60 GHz, 9.6 GT/s,			
	Mem bus: 2,400 MHz, 135 W, AVX Base 2.80 GHz, AVX Turbo 3.60 GHz)			
	Comparable or better CPU			
RAM ***	64 GB DDR4-2400 ECC			
HDD ****	**Partition**	**Storage**	**RAID**	**Hard disks**
	system	600 GB	RAID 1	2x 600 GB
	transaction log	600 GB	RAID 1	2x 600 GB
	common data	300 GB	RAID 1	2x 300 GB
	alarms	600 GB	RAID 1	2x 600 GB
	tags (data group 0)	2400 GB	RAID 10	4x 1200 GB
	tags (data group 1)	2400 GB	RAID 10	4x 1200 GB
	backup data **	2400 GB	RAID 10	4x 1200 GB

4 References

	Topic
\1\	Siemens Industry Online Support https://support.industry.siemens.com
\2\	Download page of this entry https://support.industry.siemens.com/cs/ww/de/view/109740115
\3\	Several instructions around the topic installation, configuration, commissioning and maintenance of the Process Historian (PH) and the Information Server (IS) https://support.industry.siemens.com/cs/ww/en/view/66579062

5 History

Version	Date	Change
V1.0	09/2016	First edition
V2.0	09/2016	Update
V2.1	09/2016	New tool version
V3.0	12/2016	New tool version