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Configuring Access Protection for a Process Historian Database

SIMATIC PCS 7

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

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Preface

Objective

This document describes how to configure access protection for a Process Historian database and which rights are required to do this.

Key content

The following topics will be discussed in detail:

- Setting up a new Process Historian user
- Giving the user the necessary rights

System environment

For the procedure below, it is assumed that the PH is located in a workgroup. If the PH is located in a domain, the procedure described can be applied to this situation too.

Note	The application description "Integration of Process Historian/Information Server in the PCS 7 Environment" describes how a Process Historian installed in the workgroup is added to a domain and the configuration steps that need to be carried out. You can find the description at: http://support.automation.siemens.com/WW/view/en/66579062

Scope

The instructions were generated using Process Historian 2013 / PCS 7 V8.0 SP1.

Note	In the configuration example, the Process Historian is running on a Windows Server 2008 R2.

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1 Introduction

A user account with administrator rights is required for the installation of a Process Historian. Following the installation, this user is assigned the roles "sysadmin" for the SQL server and "db_owner" for the database. The user thus has unrestricted access to SQL Server Management Studio and the "Historian Storage" database. Using SQL Server Management Studio, the user can change data in the Process Historian database with the aid of SQL queries.

In order to protect the database from tampering, the user logged into the operating system must not have unrestricted rights to the "Historian Storage" database.

The instructions below describe how to configure a user account with restricted rights.

Note	The PH is a service-based application. This means that data from the OS systems will continue to be stored on the PH after deactivating the computer or logging out a user account.

2 PH database access protection

Requirements

A new user account will be required for authorized maintenance personnel in order to carry out diagnostics and maintenance work on the PH. The user account must have administrator rights to ensure unrestricted access to the Process Historian Management Console.

In the text which follows, we will set up the following two user accounts:

- "PHMaintenanceUser" for maintenance personnel with administrator rights

- "PHMachineUser" for a standard user without administrator rights

2.1 "PHMaintenanceUser" user account

Below we will set up the user account "PHMaintenanceUser" for maintenance personnel and allocate it to the Local Administrators group. This user account has no access to the PH database.

Operating instruction

1. Open the Windows Start menu and type "Computer Management" into the search box. Click on "Computer Management" to open it.
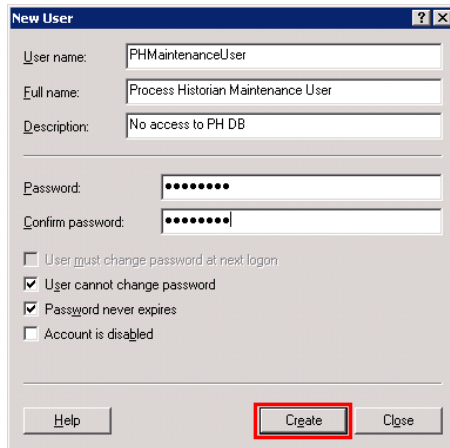
Figure 2–1
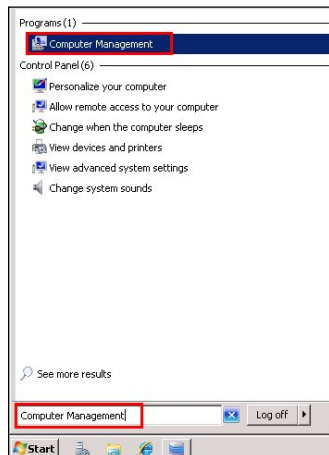
2. Navigate to "Local Users and Groups > Users". Select the "Users" folder and then select "New User..." from the context menu.

Figure 2–2
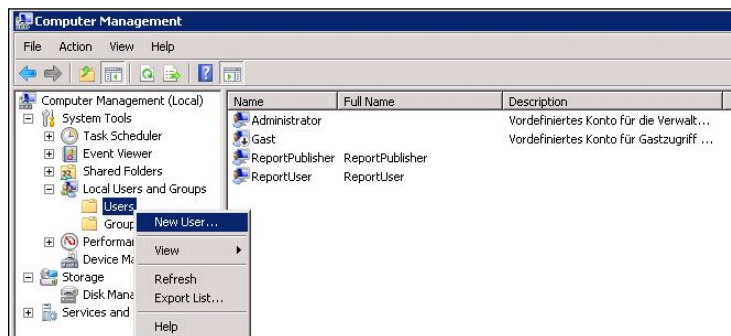
3. Enter the user name "PHMaintenanceUser" and create a password for the user account.
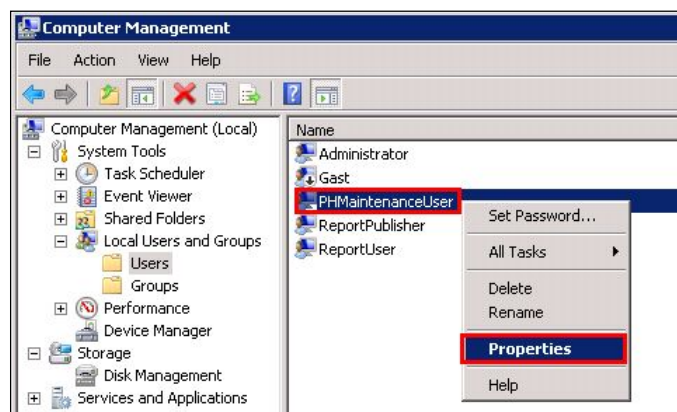
Figure 2–3

4. To set up the user account, click the "Create" button and close the input window.
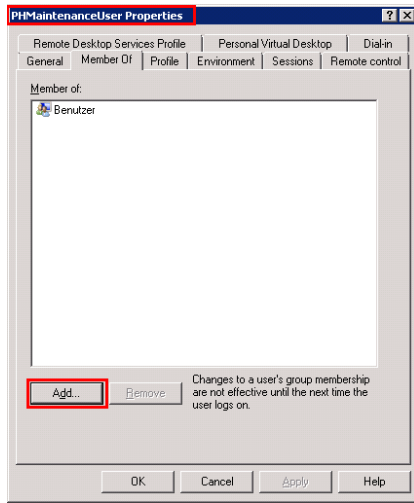
5. Within "Computer Management", navigate to "PHMaintenanceUser" and select "Properties" from the context menu.
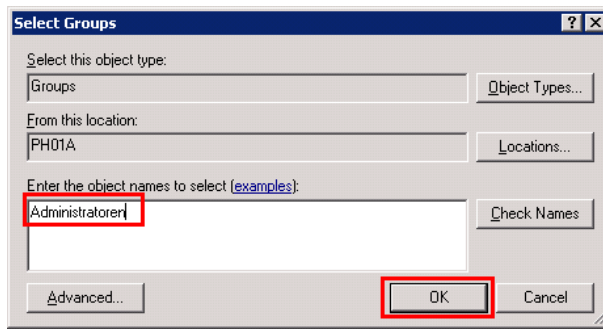
Figure 2–4

6. Select the "Member Of" tab and click the "Add..." button.

Figure 2–5

7. Enter "Administrators" and click "OK".

Figure 2–6

8. Click "Apply" to accept the changes and then close the window.
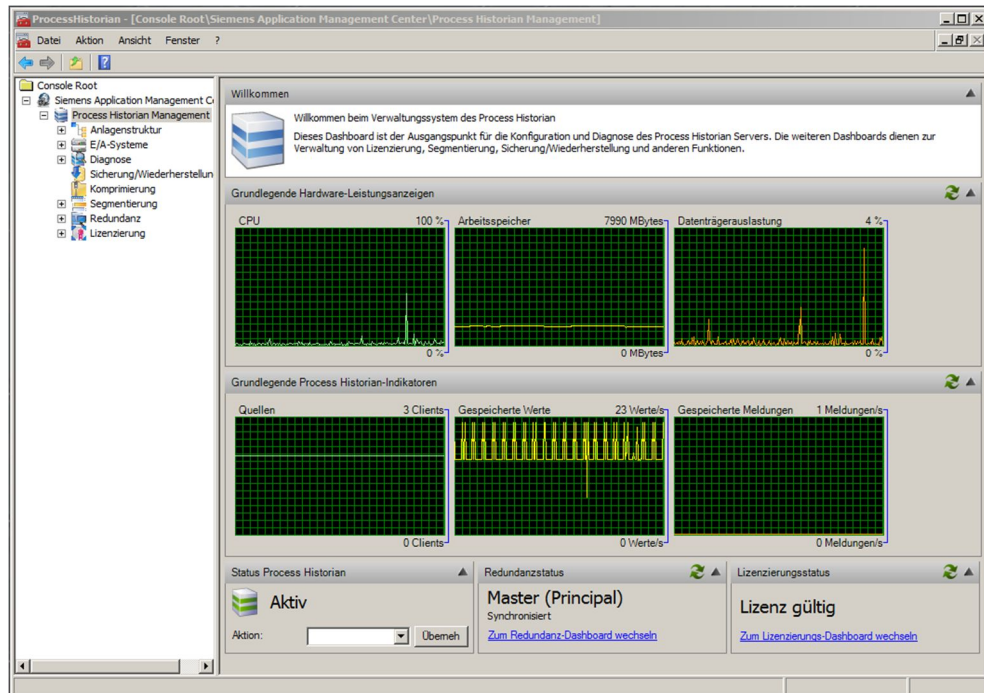
Figure 2-7

| Note | A new user account "PHMaintenanceUser" with local administrator rights has been set up. |

Checking authorizations

9. Log in to the PH computer as "PHMaintenanceUser" to check the settings.

10. Open the Windows Start menu and open the path to the application "Siemens Automation > SIMATIC > Process Historian > Process Historian Management Console".
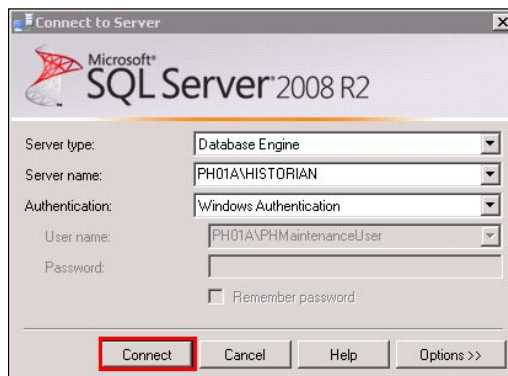
Figure 2-8

Note	The new user "PHMaintenanceUser" will be able to open and operate the Process Historian Management Console.

11. Open the Windows Start menu and start the application via "Microsoft SQL Server 2008 R2 > SQL Server Management Studio".
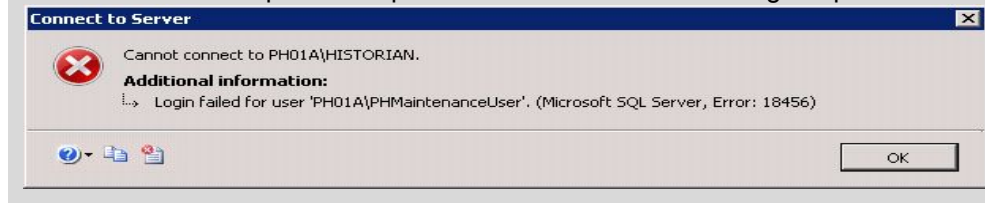
12. Connect to the SQL instance "HISTORIAN" by clicking the "Connect" button.

Figure 2-9

| Note | Access to SQL Server Management Studio, and therefore to the database, is denied. This access protection protects the database from being tampered with. |

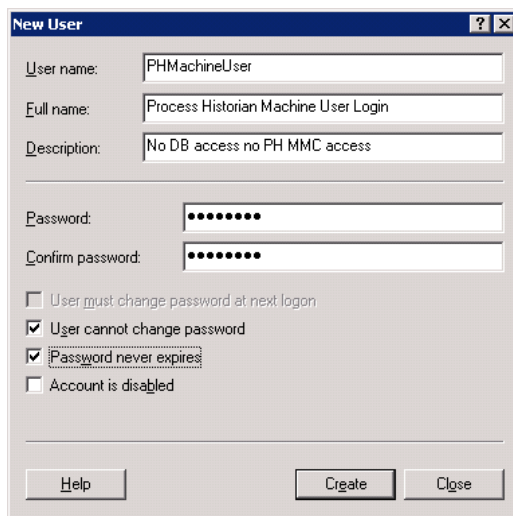## 2.2 "PHMachineUser" user account

Below we will set up the user account "PHMachineUser" with local user rights for standard access. This user account has no access to the PH database and does not have complete support for Process Historian Management Console (PH MMC).

Operating instruction

13. Following steps 1 and 2 in Chapter 2.1, set up a new user with the user name "PHMachineUser". The user must be a member of the "Users" group.

14. Create a password for the user and click "Create" to set up the user account.
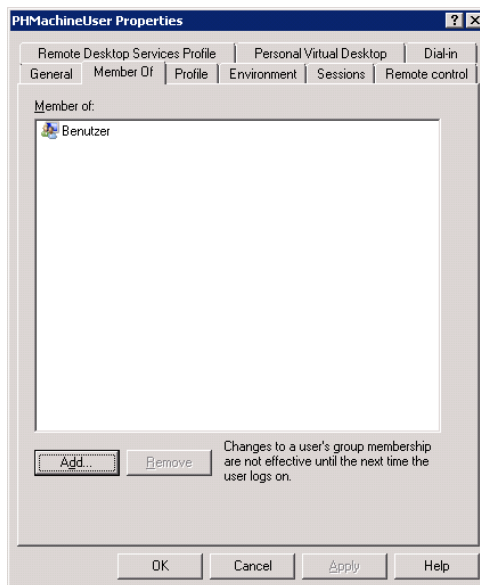
Figure 2-10

15. Within "Computer Management", navigate to "PHMachineUser" and select "Properties" from the context menu.

16. Select the "Member Of" tab.

Figure 2-11

Note	"PHMachineUser" is a member of the "Users" group and has local user rights. For unrestricted access to the PH MMC, the logged in user requires administrator rights.

3 Literature

Table 3–1

	Subject area	Title
\1\	Siemens Industry Online Support	http://support.automation.siemens.com
\2\	Download page of the item with: "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"	http://support.automation.siemens.com/WW/view/en/66579062
\3\	Process Historian 2013 - Administration	http://support.automation.siemens.com/WW/view/en/68099510
\4\	Information Server 2013 - Operating Manual	http://support.automation.siemens.com/WW/view/en/68099543
\5\	Information Server 2013 - Administration	http://support.automation.siemens.com/WW/view/en/68099525

4 History

Table 4–1

Version	Date	Change
V1.0	01/2014	First edition