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#### Introduction

This Tech Note outlines SQL server Authentication and ArchestrA Network account restrictions when installing Wonderware Historian.

## **Application Versions**

- Wonderware Historian 10.0 SP1 P01 (System Platform 2012)
- Wonderware Historian 11.0, 11.5 (System Platform 2012 R2)
- Wonderware Historian 11.5 (System Platform 2014)
- Microsoft SQL Server 2008 R2 SP1 32 bit / 64 bit
- Microsoft SQL Server 2012 32 bit / 64 bit

#### ArchestrA Network Account Restrictions

If you need to install or run Wonderware Historian using a local machine user, the ArchestrA Network Account for that user should be a member of the **aaUser**, **aaAdministrator**, and **aaReplicationUsers** local user groups (Figure 1 below).

| www.ser Properties   | × |
|--|---|
| Remote Desktop Services Profile         Personal Virtual Desktop         Dial-in           General         Member Of         Profile         Environment         Sessions         Remote control |   |
| Member of:<br>A a Administrators<br>a Replication Users<br>a Users   |   |
| are Administrators   |   |
|  |   |
|  |   |
| Add Changes to a user's group membership<br>are not effective until the next time the<br>user logs on.   |   |
| OK Cancel Apply Help   |   |

FIGURE 1: LOCAL USER ACCOUNTS

• When using a domain account or domain group, you either need to use Historian version 11.0-Patch01 or higher, or you have to add the domain account itself (not the domain group) to previous local user groups. This ensures that Wonderware Historian will work without any issues.

If you are using Historian version 11.0, you can apply Hotfix **CR LO0127062** to enable you to add domain groups instead of a specific domain account (this Hotfix is already included in Historian 11.0 Patch 01).

• There are also some restrictions regarding the ArchestrA account user name and password; you may only use ASCII characters and you are limited to 23 characters maximum.

## Microsoft SQL Server Account

If you are using Windows Authentication to connect to Microsoft SQL Server, there are two ways to configure it for use with Historian

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Server:

• You can create the account in SQL Server Management Studio and assign it to the desired database roles for Runtime.

| 🚪 Login - New                             |            |                              |                      |                | _ 🗆 🗙    |
|---|------------|------------------------------|----------------------|----------------|----------|
| Select a page                             | Script -   | Help                         |                      |                |          |
| General                                   | 5          |                              |                      |                |          |
| Server Roles                              | Lleere man | ned to this login:           |                      |                |          |
| User Mapping                              | Man        | Detebase                     | Hear                 | Default Sahama |          |
| Securables                                |            | Ualdiase                     | User                 | Derault Schema |          |
| Er Status                                 |            | Holding                      |                      |                |          |
|   |            | master                       |                      |                |          |
|   |            | model                        |                      |                |          |
|   |            | msdb                         |                      |                |          |
|   |            | ReportServer                 |                      |                |          |
|   |            | ReportServerTempDB           |                      |                |          |
|   |            | Runtime                      | HISTSERVER\JohnSmith |                |          |
|   |            | Runtime_CustomerTesting      |                      |                |          |
|   |            | Runtime_ORIGINAL             |                      |                |          |
|   |            | tempdb                       |                      |                |          |
| Connection                                | Database   | role membership for: Runtime |                      |                |          |
| Connection                                | aaAon      | ver lisers                   |                      |                | 4        |
| Server:<br>CRo. loffHuo                   | aaUse      | rs                           |                      |                |          |
| Cooternuo                                 | db_ac      | cessadmin                    |                      |                |          |
| Connection:<br>MAGELLANDEV/2000/www.liser | db_ba      | ckupoperator                 |                      |                |          |
|   |            | tareader                     |                      |                |          |
| View connection properties                |            | ladmin                       |                      |                |          |
|   | db_de      | nydatareader                 |                      |                |          |
| Progress                                  | db_de      | nydatawriter                 |                      |                |          |
| Ready                                     | db_ow      | iner                         |                      |                |          |
| Weak.                                     | db_se      | cuntyadmin                   |                      |                |          |
|   |            |                              |                      |                | <b>_</b> |
|   |            |                              |                      | ОК             | Cancel   |

FIGURE 2: ASSIGN USER MAPPING

OR

• You can use the built-in Windows user groups that get created during Historian Server product installation, and simply add the users to those groups.



FIGURE 3: ADD USERS TO THE AAUSERS HISTORIAN GROUP

### Microsoft SQL Server Configuration

When you install Microsoft SQL Server for Wonderware Historian 10.0 SP1 P01 you have to install the 32-bit version of SQL Server file:///C|/inetpub/wwwroot/t002842/t002842.htm[2/21/2014 9:19:46 AM]

regardless of which operating system you have (see Tech Note #682 for more details). But when you install it for Historian 11.0 you can install either the 32-bit or 64-bit version if your operating system permits.

| 🚼 SQL Server Installation Center                                   |  |
|--|--|
| Planning Installation Maintenance Tools Resources Advanced Options | Specify the architecture of SQL Server 2008 R2 to install, and specify the location of SQL Server<br>installation media.<br>Processor Type:<br>• x86<br>• x64<br>• ia64<br>Installation Media Root Directory: C:\SQL Server 2008 Enterprise R2_x86_x64_ja64_dv |
|  |  |

FIGURE 4: HISTORIAN 11 INSTALLATION TYPES

If you are configuring Microsoft SQL Server on a machine that has another Wonderware product like Application Server, InTouch, etc. you must configure Microsoft SQL Server to use **Mixed Mode** authentication to log in to the system.

| Database Engine Config<br>Specify Database Engine authentica   | uration<br>tion security mode, administrators and data directories.   |   |
|--|---|---|
| etup Support Rules<br>etup Role<br>eature Selection<br>installation Rules<br>instance Configuration<br>Disk Space Requirements<br>erver Configuration<br>Database Engine Configuration<br>inalysis Services Configuration<br>teporting Services Configuration<br>fror Reporting<br>installation Configuration Rules<br>Ready to Install<br>installation Progress<br>Complete | Account Provisioning       Data Directories         Specify the authentication mode and administrators for the Databa         Authentication Mode         O Windows authentication mode         Image: Mixed Mode (SQL Server authentication and Windows authentication specify the password for the SQL Server system administrator (sa)         Enter password:         Confirm password:         Specify SQL Server administrators         EGYMO2008\Administrator (Administrator)         Add Current User       Add         Remove | ation) ) account.  SQL Server administrators have unrestricted access to the Database Engine. |

FIGURE 5: MIXED MODE SQL SERVER AUTHENTICATION

If you are preparing the machine for *only* Wonderware Historian you can configure it to use only Windows authentication if you wish (Figure 6 below), but it is recommended to use Mixed Mode in case other Wonderware products are installed at a later time.

| Database Engine Config<br>Specify Database Engine authentica  | uration<br>ation security mode, administrators and data directories.   |
|---|--|
| ietup Support Rules<br>ietup Role<br>ieature Selection<br>Installation Rules<br>Instance Configuration<br>Disk Space Requirements<br>ierver Configuration<br><b>Database Engine Configuration</b><br><b>Database Engine Configuration</b><br>Reporting Services Configuration<br>Error Reporting<br>Installation Configuration Rules<br>Ready to Install<br>Installation Progress<br>Complete | Account Provisioning       Data Directories         Specify the authentication mode and administrators for the Database Engine.         Authentication Mode            • Windows authentication mode             • Mixed Mode (SQL Server authentication and Windows authentication)          Specify the password for the SQL Server system administrator (sa) account:         Enter password:         Confirm password:         Specify SQL Server administrators         EGYMO2008\Administrator (Administrator)         SQL Server administrators have unrestricted access to the Database Engine.         Add Current User       Add |

FIGURE 6: OPTIONAL WINDOWS AUTHENTICATION MODE FOR HISTORIAN-ONLY INSTALLATION

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