Introduction

This *Tech Note* outlines general troubleshooting steps to address communication issues between a remote node and an Industrial Application Server Galaxy.

Application Versions

- Industrial Application Server version 2.1 and older. Please check the compatibility matrix at the Wonderware Tech Support site for supported operating systems.

- Windows® 2000 Server and Server 2003 with all Service Packs and Releases

**Note:** If you are having trouble opening the SMC logger from a client node or the Server node, please see Tech Note 437: [Unable to Open Logger Under Windows XP SP2 and Windows 2003 SP1](#).

Wonderware Configuration Tools

Use the following Wonderware Configuration tools when troubleshooting the application.

**Wonderware Change Network Account Utility**

To ensure that the ArchestrA Network Admin Account is the same on all machines that are part of the Galaxy (or wish to interact with nodes on the Galaxy)

1. Launch the **Change Network Account** utility from **Start/All Programs/Wonderware/Common/Change Network Account**.
2. Ensure that the local machine name does not have any unusual characters such as a tilde ( ~ ) or underscore. These characters can cause communication errors.

Wonderware O/S Configuration Utility

To run the Wonderware O/S Configuration Utility for WinXP SP2 and Windows 2003 SP1

1. Click Start/All Programs/Wonderware/Common/OSConfiguration Utility.

You can also download the utility from: www.Wonderware.com/support/mmi.

For a complete list of what the utility does, please refer to the Tech Article Security Settings for Wonderware Products.

2. Reboot the machine after running the O/S Configuration Utility.

Wonderware Application Versions

1. Ensure that the version of Industrial Application Server installed on the remote node is the same as the version of Industrial Application Server Galaxy.

2. Verify the version by going to Add/Remove Programs and clicking Click here for support information on the Wonderware Industrial Application Server program. Verify the versions on both the Galaxy Repository (GR) Node and on the remote node.
FIGURE 2: ADD/REMOVE PROGRAMS VERSION CHECK

In the example shown below, the version of Industrial Application Server is 2.1 Patch 01.

FIGURE 3: SUPPORT INFO DIALOG BOX

Checking Windows DCOM Configuration

The DCOM Ports used by the Bootstrap are:

- Port 135
- Port 139
- Port 445
- Ports 1024 to 65535

For additional info see:

- http://support.microsoft.com/kb/832017
- http://www.linklogger.com/TCP139.htm

Do the following tasks to ensure DCOM settings are correct.

DCOM – Checking Wonderware Compatible Security Settings
1. Run `dcomcnfg.exe` from the Start menu, Run command.

   This is the area where you make local DCOM changes that control DCOM security levels on the computer.

2. Expand the branches as follows:

   **Component Services/Computers/MyComputer.**

3. Right-click **My Computer** and select **Properties**.

4. Check the following packages.

   - The first package is WWPIM (aka Wonderware Platform Information Manager)
   - In Windows 2000, click the **Properties** button, or in Windows 2003 or XP, right click **WWPIIM** and select **Properties**.
In the **General** tab panel, ensure the **Authentication Level** is **None**.
Click the **Location** tab and ensure the **Run application on this computer** box is checked.
Click the **Security** tab.

Under each Security grouping, ensure that the security settings are set similar to those shown in the following graphics. These are the minimum settings needed.
Figure 8: Security Properties Tab Panel

The Security Properties Tab Panel allows you to manage access permissions.

Figure 9: Security Settings for Access Permissions

The Registry Value Permissions window allows you to set access permissions for different users and groups.
Click the **Identity** tab.

The **This user** option shown below should be the ArchestrA Network Admin account defined using the [Wonderware Change Network Account Utility](#).

**Note:** The following graphic shows a different user than Figure 1 and is used here only to illustrate account configuration.
**Figure 12: This User Identity Option**

The **Endpoints** tab panel should look similar to the following graphic (Figure 13 below).
Click **OK** and select the **DCOM Transport** configuration item from the **Properties** dialog box.
Ensure the **Enable Distributed COM on this computer** option is checked (Figure 15 below).
FIGURE 15: DEFAULT PROPERTIES CONFIGURATION

- Ensure that all the same settings used for WWPI M are applied for the DCOM Transport configuration.

Windows Configuration – Checking Local Security Settings

**Note:** These settings may be overridden by an enforced Group Policy Object from an MS Active Directory setup if the machine is part of a domain.

Configure local security settings from the Control Panel.

1. Click **Administrative Tools/Local Security Policy** (Figure 16 below):
2. Expand the **Local Policies** folder, then click **Security Options**.

3. Double-click **Network access: Sharing and security model for local accounts**.

4. Ensure that the selected option is **Classic** and not **Guest Only**.
5. Click **OK** to save the setting.

6. Double-click **Log on as a service**.
FIGURE 19: LOG ON AS A SERVICE Setting

7. Ensure that the ArchestrA Network Admin account is listed here.
8. Click **OK**, then double-click **Deny logon as a service**.
9. Ensure that the ArchestrA Network Admin account is not listed here (Figure 22 below).
10. Click OK.

11. Ensure that the Administrator account is a member of the policy **Act as part of the operating system**.
While it is not generally required, in some specific cases – adding the ArchestrA Network admin account to this policy may resolve communication issues.
• Click the following link for information on **Act as part of the operating system** property.

### Windows Configuration – Checking Computer Management

The following items must be checked as a part of troubleshooting Bootstrap communication.

### Local Users and Groups

Make sure the ArchestrA Network Admin account is a member of the Administrators group on the local machine, regardless if it is a local or domain account.

**Note:** The user logged on to the desktop of the remote machine that is trying to launch an IDE for remote GR access must be an Administrator of the remote machine. Administrator permissions are necessary to allow proper DCOM and similar communication.

### Shared Folders – Shares

Make sure the following folders are shared on the local machine and that the ArchestrA Network Admin account has permissions to read and write to the folders.

- aaFileRepository
- aaSF$
- ArchestrA Galaxy Data
- Wonderware$

![Figure 25: Shared System Folders](image)

### Windows Configuration – Folder Options
1. In Microsoft Windows Explorer's main menu, click **Tools/Folder options**.

![Figure 26: Windows Explorer Folder Options](image)

2. Uncheck the **Use simple file sharing (Recommended)** option.

![Figure 27: Disable Simple File Sharing](image)

**Note:** For more information on File Sharing, click [here](#).
Ensure that the regional settings of the remote and GR nodes are set to **English (United States)**.

Verify the settings using the **Regional and Language Options** dialogue box from the **Control Panel/Regional and Language Options**.

S. Kermani, B. Hunter

*Tech Notes* are published occasionally by Wonderware Technical Support. Publisher: Invensys Systems, Inc., 26561 Rancho Parkway South, Lake Forest, CA 92630. There is also technical information on our software products at [www.wonderware.com/support/mmi](http://www.wonderware.com/support/mmi).

For technical support questions, send an e-mail to **support@wonderware.com**.

©2009 Invensys Systems, Inc. All rights reserved. No part of the material protected by this copyright may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, broadcasting, or by any information storage and retrieval system, without permission in writing from Invensys Systems, Inc. [Terms of Use.](http://www.wonderware.com/terms_of_use)