



Description: How to setup DCOM on a Windows XP or Windows 2003 Operating System when computers are in a workgroup on the Local Area Network. Please see additional application note if systems are in a domain.

OS Requirement: Windows XP with SP1, or Windows 2003.

General Requirement: In order to communicate OPC data between different PCs via DCOM in a **workgroup**, the following requirements apply:

- All GENESIS32 systems must be in the same workgroup on the LAN.
- All GENESIS32 systems must be logged in to the operating system with the same user name and password.
- The password **must not** be blank or “admin”.
- The user must have administrative privileges to the local PC to change the DCOM settings.
- Windows XP systems must have SP1 installed.

Opening and Enabling DCOM

For GENESIS32 Applications to communicate via DCOM it is necessary to allow permissions (Access and Launch) for specific users. This application note explains how to setup DCOM on a Windows XP Operating System, for the most wide-open permissions. It is usually helpful to develop your application with wide-open communications to be sure it all works properly. After development is complete, you may want to tighten these permissions until you reach a desired level of security.

1. Click on **Start – Run** and type in “**DCOMCNFG**”. The **Component Services** window will open. Expand **Console Root** and you will see three items in the tree: **Component Services**, **Event Viewer**, and **Services**.
2. Expand **Component Services** and **Computers** to find **My Computer** listed. Right-click **My Computer** and select **Properties** to set the DCOM properties.

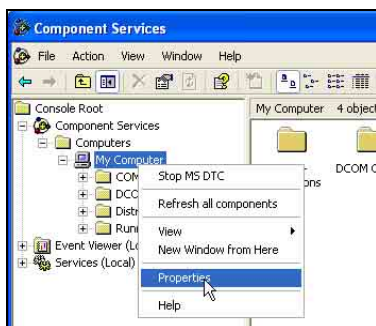


Fig. 1: Component Services Console

3. The **My Computer Properties** window will open, containing six configurable tabs. We are only concerned with two of the tabs for now.
4. Click on the **Default Properties** tab, and match the properties as shown in **Fig. 2**.

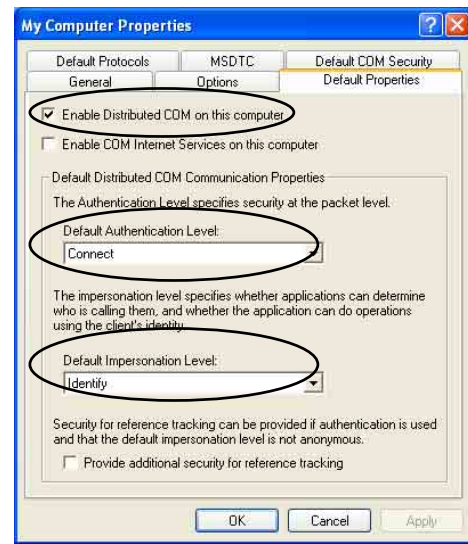


Fig. 2: My Computer Default Properties

DCOM User Permissions

5. Next we have to add user permissions to the Default Security. Click the **Default COM Security** tab as shown in **Fig. 3**:

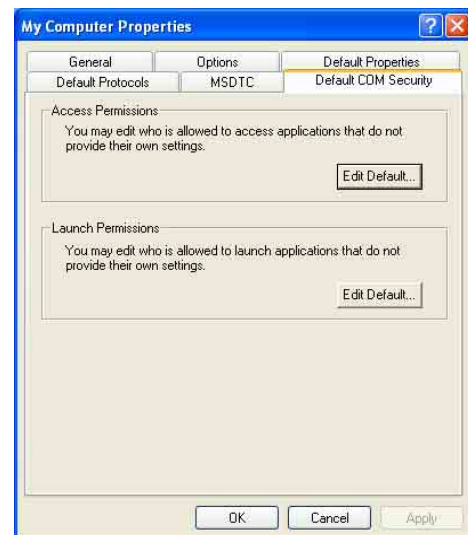


Fig. 3: Default Com Security



6. Click **Edit Default** for **Access Permission** and the **Access Permissions** window will open as shown in **Fig. 4**. Make sure the Access Permissions Window includes at least the following entries:

- **Administrators**
- **Everyone**
- **Interactive**
- **Network**
- **System**
- **The user common to all GENESIS32 systems**

7. If these entries are not shown by default, click the **Add...** button and then **Advanced** to add them to the list.

8. These are all users on the local machine, so choose the local machine name as the **Location**. Click **Find Now**, select all three users while holding the **CTRL** key, and click **OK**.

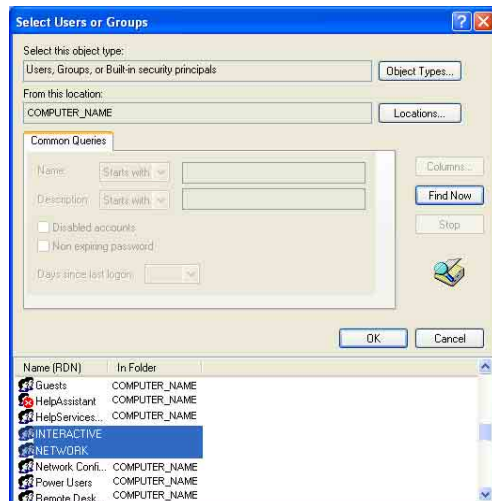


Fig. 4: Select Users or Groups Advanced

9. When all users to be added are listed in the **Select Users and Groups** window, click **OK** to add them.

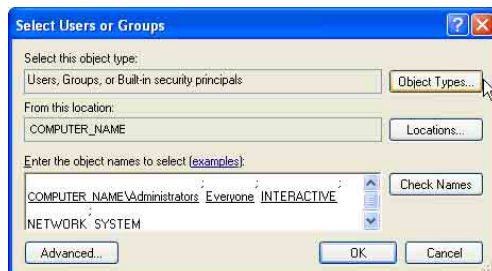


Fig. 5: Select Users or Groups

10. Repeat Steps 6-9 to edit the **Launch Permissions**. Close the **My Components Properties** window, and the **Component Services** window when finished.

Local Security Settings

NOTE: Windows XP has advanced security features compared to Windows NT/2000.

11. Click **Start→Control Panel→Administrative Tools→Local Security Policy** to open the **Local Security Settings** window. Expand the tree control and select **Security Options** in the left hand pane as shown in **Fig. 6**.



Fig. 6: Local Security Settings

12. In the right hand pane, scroll to find **Network Access: Sharing and security settings for local accounts**. Right-click and select **Properties**.
13. Select **Classic - local users authenticate as themselves** as shown in **Fig. 6**, and click **OK**. Close the **Local Security Settings** window when finished.



Fig. 7: Sharing and Security Setting for Local Accounts

14. Restart the PC and login with the common user name and password mentioned in the **General Requirements** of this document. Please refer to **OS Requirements** and **General Requirements** on page 1 of this document to make sure everything is correct.