

DCOM Setup in a Domain on Windows XP

APPLICATIONS NOTE

January 2003

Description: How to setup DCOM on a Windows XP Operating System when PCs are in a Domain on the Local Area Network. Please see additional application node if PCs are in a Workgroup.

OS Requirement: Windows XP with SP1.

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

- Windows XP PCs must have SP1 installed.
- User must logon to the local PC using the Domain account (username and password). User must have administrative privileges to the local PC to change DCOM settings.
- The password **must not** be blank or "admin".

To setup DCOM on Windows XP follow the steps given below:

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.

1. Click on **Start – Run** and type in "**DCOMCNFG**" as shown in the figure below:

Run	? 🛛		
-	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.		
Open:	dcomcnfg		
	OK Cancel Browse		

Figure 1

2. The Component Services window opens up. Expand Console Root and you will see 3 items in the tree. Expand Component Services and you will see "My Computer" listed. Highlight My Computer, Right-Click and Select the properties to set the DCOM properties. My Computer Properties window will open up with 6 tabs on it. We are interested in only 2 tabs. Click on the Default Properties tab, and match the properties as shown in the figure below:

My Computer Properties	? 🛛					
Default Protocols MSDTC General Options	Default COM Security Default Properties					
Enable Distributed COM on this computer						
Enable COM Internet Services on this computer						
Default Distributed COM Communication Properties						
The Authentication Level specifies security at the packet level.						
Default Authentication Level:						
The impersonation level specifies whether applications can determine who is calling them, and whether the application can do operations using the client's identity.						
Default Impercention Level:						
Security for reference tracking can be provided if authentication is used and that the default impersonation level is not anorymous. Provide additional security for reference tracking						
OK.	Cancel Apply					

Figure 2

3. Next we have to add user permissions to the Default Security. So click on the **Default COM Security** tab. The window will appear as shown below:

My Computer Properties	? 🛽					
General Options	Default Properties					
Default Protocols MSDTC	Default COM Security					
Access Permissions						
You may edit who is allowed to access a provide their own settings.	You may edit who is allowed to access applications that do not provide their own settings					
	Edit Default					
	Edit Derdukt					
- Launch Permissions						
You may edit who is allowed to launch a	You may edit who is allowed to launch applications that do not					
provide their own settings.						
	Edit <u>D</u> efault					

Figure 3

4. Make changes to both Access Permissions and Launch Permissions. Click on Edit Default for Access Permission and the Access Permissions window will open up as shown in the figure below. Make sure the Access Permissions Window show the following entries: Interactive, Network and System, Domain Admins and Domain Users. If these entries are not shown by default, click on the Add... button and then on Advanced to add them to the list.



DCOM Setup in a Domain on Windows XP

APPLICATIONS NOTE

January 2003

Access Permission					
Default Security					
Group or user names:					
Domain Admins (NT_SUPPORT\Domain Admins) Domain Users (NT_SUPPORT\Domain Users) INTERACTIVE NETWORK SYSTEM					
Ē	A <u>d</u> d	<u>R</u> emove			
Permissions for SYSTEM	Allow	Deny			
Access Permission					
	OK	Cancel			

Figure 4

5. Repeat Step 4 for the Launch Permissions. Refer to figure 3 & 4. Close the My Components Properties window.

Final changes in the Local Security Settings

Windows XP has advanced security features compared to Windows NT/2000

6. Click on **Start/Control Panel/Administrative Tools** and open the **Local Security Settings** window. Expand the tree view and **select Security Options** in the left hand pane as shown in the figure below.

🕫 Local Security Settings					
Eile Action View Help ← → 🔁 🗙 🗃 🗔 😭					
Security Settings Account Policies Local Policies Audit Policy Guide Audit Policy Guide Security Options Public Key Policies	Policy A Retwork access: Named Pipes that ca Network access: Remotely accessible Network access: Sharing and security Network access: Sharing and security Network access: Sharing and security				

Figure 5

- In the right hand pane, scroll down and select Network Access: Sharing and security settings for local accounts. Right-mouse click and select Properties. Select Classic local users authenticate as themselves. Close the local security settings window.
- 8. **Reboot the PC** and login with user name and password. Please refer to OS requirements and General Requirements on page 1 of this document to make sure everything is correct.