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Windows 2000 DCOM Configuration For OPC

NOTE: These directions will open up DCOM to <u>all</u> users.

NOTE: These steps are used to make sure that communication **<u>can be</u>** established. After these steps have been followed to establish communication, DCOM permissions can be tightened to allow only the necessary users.

1) From the start menu go to run and type in dcomcnfg.



2) Distributed COM Configuration Properties Dialog.

CANADA Edmonton, Alberta Calgary, Alberta Fort McMurray, Alberta Vancouver, British Columbia Toronto, Ontario Quebec City, Quebec

AUSTRALIA Newcastle, New South Wales Brisbane, Queensland Gladstone, Queensland Melbourne, Victoria Perth, Western Australia

USA St. Louis, Missouri Houston, Texas New York, New York

EUROPE Aberdeen, Scotland

MIDDLE EAST Al Khubar, Saudi Arabia

Distributed COM Configuration Properties	<u>?</u> ×
Applications Default Properties Default Security Default Protocols	
Applications Default Properties Default Security Default Protocols Applications: (000C101C-0000-0000-000000000046) (0D4588E8-D99D-11D3-A928-00105A088FAC) (0D81DFEC-5610-4a2b-9857-FC33D21366F0) (1BE1F766-5536-11D1-8726-00C04FB926AF) (6316D324-2238-101B-9E66-00AA003BA905) ADM Document Adobe Acrobat Document Adobe Acrobat Document Adobe Acrobat Document Automatic Updates Background Intelligent Transfer Service Basic Control Language Document CimEdit CimView ClientObjixObject COM+ Event System ComEvents.ComServiceEvents 'CUIExternal Class CustReg Class Defrag FAT engine Defrag NTFS engine Properties	
OK Cancel App	dy

3) Under the Default Properties Tab: Make sure that DCOM is enabled, the authentication level is Connect and the Impersonation level is Identify.

Distributed COM Configuration Properties	<u>?</u> ×
Applications Default Properties Default Security Default Protocols	
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:	
Connect	
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 Impersonation Level:	
Identify 🔽	
Provide additional security for reference tracking	
OK Cancel Ap	ply

(Do this for <u>ALL</u> OPC Servers)5) Click on "Properties".	
Distributed COM Configuration Properties	? ×
Applications Default Properties Default Security Default Pro	tocols
Applications:	
Intellution iFIX WorkSpace Application Internet Explorer(Ver 1.0) Java Class: com.ms.vid.grid.Grid Just-In-Time Debugging Handler and CLR Remote Host logagent Logical Disk Manager Administrative Service Logical Disk Manager Remote Client LuComServer Machine Debug Manager Matrikon Debug Manager Matrikon Debug Manager Matrikon OPC Server for Modbus Devices Matrikon OPC Server for SCADA Modbus Matrikon OPC Server for SCADA Modbus Matrikon OPC Server for Simulation and Testing Matrikon OPC Server for the Matrikon OPC Data Manager Matrikon OPC Tunneller Media Player MediaCatalogDB OLE DB Provider MessengerStatsClient Microsoft Access Application	
OK Cancel	Apply

4) Select the server from the list under the Applications Tab.

You can have your A	Authentication level to Default, or Conn	ect.
Matrikon OPC Server for	Modbus Devices Properties	? ×
General Location Secu	rrity Identity Endpoints	
General properties of th	is DCOM application	
Application name:	Matrikon OPC Server for Modbus Devices	
Application type:	local server	
Authentication Level:	Default	
Local path:	C:\PROGRA~1\Matrikon\OPC\Modbus\OPCN	
	OK Cancel Apply	

7) Under the "Security" tab, select "use custom access permissions" and "use custom launch permissions".

latrikon OPC Server for I	Modbus Devices Pr	operties	<u>? ×</u>	
General Location Secu	rity Identity Endpoir	nts		
C Use default acc <u>e</u> ss	permissions			
┌ ⊙ Use custom acce <u>s</u> s	permissions			
You may edit who can	access this application	l.		
		E <u>d</u> it.		
O Use default jaunch	permissions			
🖵 🖲 Use custom launch	permissions			
You may edit who can	launch this application.			
		Edjt		
O Use default <u>c</u> onfigu	ration permissions			
🖵 💿 Use custom configu	ration permissions —			
You may edit who can	change the configurati	on information f	or this	
application.		Edit		
			···	
	ОК	Cancel	Apply	
) Edit both the launc	h permissions and	d the access		to include "everyon
"interactive", "system	n" and "network".			to include everyon
Registry Value Permissio	ns		x	1
Registry Value: AccessP	ermission			
Awner: ruan plester (Buan	Plester)			
Name:				
- Everyone				
		Allow Access	:	
Se NETWORK		Allow Access	:	
K SYSTEM		Allow Access		
Turn of A				
<u>Type of Ac</u>	cess: JAllow Access		•	
OK Cancel	<u>A</u> dd	<u>R</u> emove	<u>H</u> elp	

Registry Value Permissions	X
Registry Value: LaunchPermission <u>O</u> wner: Account Unknown <u>N</u> ame:	
INTERACTIVE Allow Launch INTERACTIVE Allow Launch NETWORK Allow Launch SYSTEM Allow Launch	
Image:	- _

9) Under the identity tab select "the interactive user".

Matrikon OPC Server for Modbus Devices Properties	<u>?</u> ×
General Location Security Identity Endpoints	
Which user account do you want to use to run this application?	
The interactive user	
C The Jaunching user	
◯ This <u>u</u> ser:	
Us <u>e</u> r: <u>B</u> rowse	
Password:	
Confirm Password:	
C The <u>Sy</u> stem Account (services only)	
OK Cancel Ap	ply

- 10) Please repeat steps 4 through 9 for <u>each</u> OPC Server installed.
 11) Under the "Default Security" tab select both the Default Access Permissions and the Default Launch Permissions to contain: "EVERYONE", "SYSTEM", "INTERACTIVE", "NETWORK".

	ion Properties		ŶŇ
Applications Default Propert	ties Default Securit	y Default Protoco	ols
Default Access Permission	s		[]
You may edit who is allow provide their own settings	ed to access applica	tions that do not	
		Edit Default	
- Default <u>L</u> aunch Permission	s		
You may edit who is allow provide their own settings.	ed to launch applica	tions that do not	
		Edit Default	
- → Default <u>Config</u> uration Perm	issions		
You may edit the list of use configuration information. and adjusting the configure	ers that are allowed t This includes installi ation of existing OLE	o modify OLE class ng new OLE serve servers.	s IS
		Edit Defeut	_
			·
	ок	Cancel	Apply
	<u> </u>	Cancel	Apply
Registry Value Permissions	<u>OK</u>	Cancel	
Registry Value Permissions Registry Value: DefaultAcc	OK	Cancel	Apply X
Registry Value Permissions Registry Value: DefaultAcc <u>O</u> wner: jordan.hicks (Jordan	OK	Cancel	
Registry Value Permissions Registry Value: DefaultAcc Owner: jordan.hicks (Jordan Name:	OK essPermission Hicks)	Cancel	<u>Apply</u>
Registry Value Permissions Registry Value: DefaultAcc Owner: jordan.hicks (Jordan Name:	OK essPermission Hicks)	Cancel	<u>Apply</u>
Registry Value Permissions Registry Value: DefaultAcc Owner: jordan.hicks (Jordan Name: Everyone Everyone	OK essPermission Hicks)	Cancel	Apply
Registry Value Permissions Registry Value: DefaultAcc Owner: jordan.hicks (Jordan Name: Everyone Everyone INTERACTIVE Jordan.hicks (Jordan Hicks NETV/OPK	OK essPermission Hicks) cks)	Cancel	Apply
Registry Value Permissions Registry Value: DefaultAcc Owner: jordan.hicks (Jordan Name: Everyone Everyone Mainteractive jordan.hicks (Jordan Hid NETWORK SYSTEM	OK essPermission Hicks) cks)	Cancel	Apply
Registry Value Permissions Registry Value: DefaultAcc Owner: jordan.hicks (Jordan Name: Everyone INTERACTIVE Jordan.hicks (Jordan Hic NETWORK WSYSTEM	OK essPermission Hicks) cks)	Cancel	Apply
Registry Value Permissions Registry Value: DefaultAcc Owner: jordan.hicks (Jordan Name: Everyone Market Stordan.hicks (Jordan Hick Jordan.hicks (Jordan Hick NETWORK SYSTEM	OK essPermission Hicks) cks)	Cancel	Apply X
Registry Value Permissions Registry Value: DefaultAcc Owner: jordan.hicks (Jordan Name: Everyone INTERACTIVE Jordan.hicks (Jordan Hic NETWORK WETWORK SYSTEM	OK essPermission Hicks) cks) ess: Allow Access	Cancel	Apply X

Registry Value Permissions	×
Registry Value: DefaultLaunchPermission <u>O</u> wner: Account Unknown <u>N</u> ame:	
Everyone Allow Launch INTERACTIVE Allow Launch NETWORK Allow Launch SYSTEM Allow Launch	
Type of Access: Allow Launch]
OK Cancel Add Remove Help	

- 12) Now that this has been completed for both the Default Security Permissions, and the Custom Security Permissions for each OPC Server we can close down DCOMCNFG.exe.
- 13) Please shut down and restart all OPC Servers that are to be used. That means both those running as an application, and those running as a service.
- 14) To restart one running as a service please go: Start -> Run -> "Services.msc"



Action Yiew	→ 🛍 💽 📽 😰 🛃 😫 🥊	▶ ■ ■				
Tree	Name 🔺	Description	Status	Startup Type	Log On As	
Services (Local)	🗧 🏶 HID Input Service		Started	Automatic	LocalSystem	
1 3,	🦓 Indexing Service			Manual	LocalSystem	
	🦓 Infrared Monitor	Supports in	Started	Automatic	LocalSystem	
	Service 🖏 Intellution Licensing Service		Started	Automatic	LocalSystem	
	Sinternet Connection Sharing	Provides n		Manual	LocalSystem	
	Real Policy Agent	Manages I	Started	Automatic	LocalSystem	
	🦓 Logical Disk Manager	Logical Disk	Started	Automatic	LocalSystem	
	🖏 Logical Disk Manager Administrat	Administrat		Manual	LocalSystem	
	🆓 Machine Debug Manager	Supports lo	Started	Automatic	LocalSystem	1
	Matrikon OPC Redundancy Brok			Automatic	LocalSystem	
	Matrikon OPC Tunneller Server		Started	Automatic	LocalSystem	
	Messenger 🖓	Sends and		Disabled	LocalSystem	
	🦓 Net Logon	Supports p	Started	Automatic	LocalSystem	
	Remote Desktop Sh	Allows aut		Manual	LocalSystem	
	Retwork Connections	Manages o	Started	Manual	LocalSystem	
	Network DDE	Provides n	Started	Automatic	LocalSystem	
	Network DDE DSDM	Manages s	Started	Automatic	LocalSystem	
	NT LM Security Support Provider	Provides s		Manual	LocalSystem	

15) Please right click on the Server, and go "Stop".

16) Please right click again and go "Start", your service is now restarted and any changes to the DCOM have been updated.

Your **<u>DCOM</u>** is now setup to accept all incoming connections.

NOTE: DCOM has limitations for connectivity when operating on separate domains/workgroups. These steps may work but, depending on individual networks, additional settings and components may be required. Please contact OPC Support for additional information.

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