

How to configure OPC DA Communication

Revision Records

Revision	Date	Originator	Description
1.0	16.01.2012	Ischopp	First draft

Content

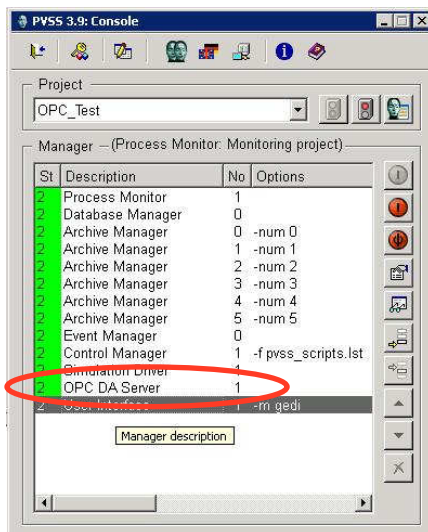
1	Configuration Steps	3
1.1	Configuration in PVSS	3
1.1.1	Add an OPC DA server to your project.....	3
1.1.2	Configure the OPC groups.....	3
1.2	Configuration of DCOM.....	5
1.2.1	OPC enum Configuration on the OPC DA server und on the OPC DA client	5
1.2.2	DCOM settings for the PVSS OPC DA Server.....	11
1.3	Locking the system against unauthorized access.....	15
1.4	OPC Client	16
1.4.1	Connect to the OPC Server "PVSS.OPC.1" on the target host.....	16
1.4.2	Browse through the items.....	17
1.4.3	Observe the tags	17

1 Configuration Steps

There are some steps to do in PVSS and the configuration of the DCOM interface.

1.1 Configuration in PVSS

1.1.1 Add an OPC DA server to your project



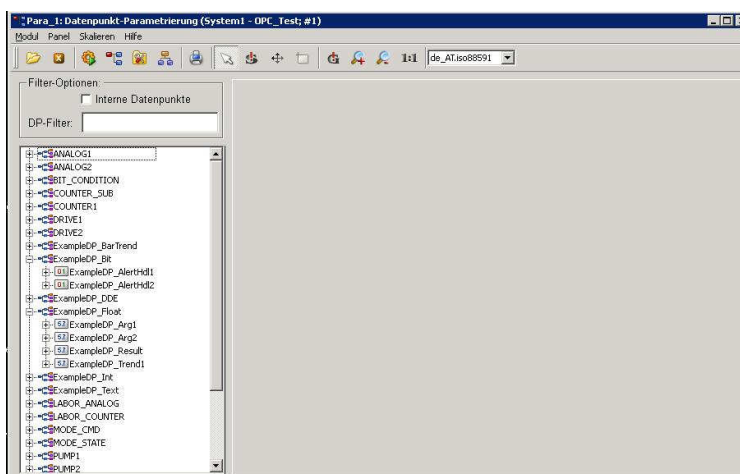
1.1.2 Configure the OPC groups

You only have to add the tags you want to share over OPC to one of the two OPC groups „OPCRead / OPCWrite“.

Attention: The OPCWrite group is a read/write group. So if you add some tags to the write group you don't have to add these tags to the OPCRead group.

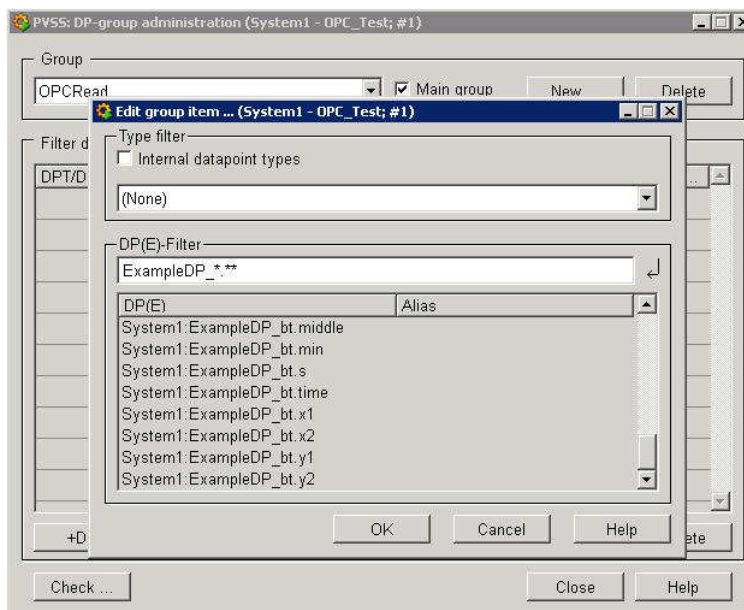
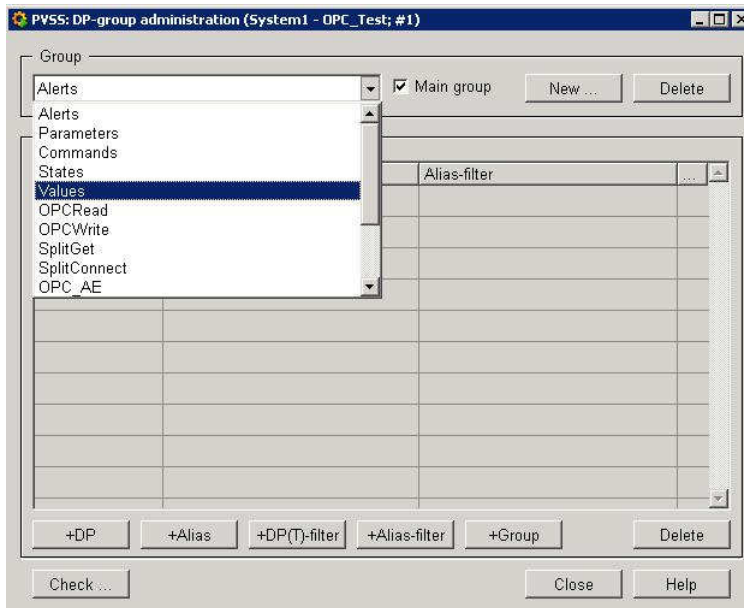
As an example we added the Example_DP* datapoints to the OPDRead group.

Attention: After any change of these groups you have to restart the OPC DA server!



How to configure OPC DA Communication

ETM professional control GmbH



How to configure OPC DA Communication

ETM professional control GmbH

1.2 Configuration of DCOM

The communication of the old OPC DA Standard is processed over the Microsoft DCOM interface. Therefore the PVSS OPC Gateway and the OPC Client hosts have to be configured for the usage of this interface.

1.2.1 OPC enum Configuration on the OPC DA server und on the OPC DA client

Please set the following steps both on the OPC server and the OPC client hosts.

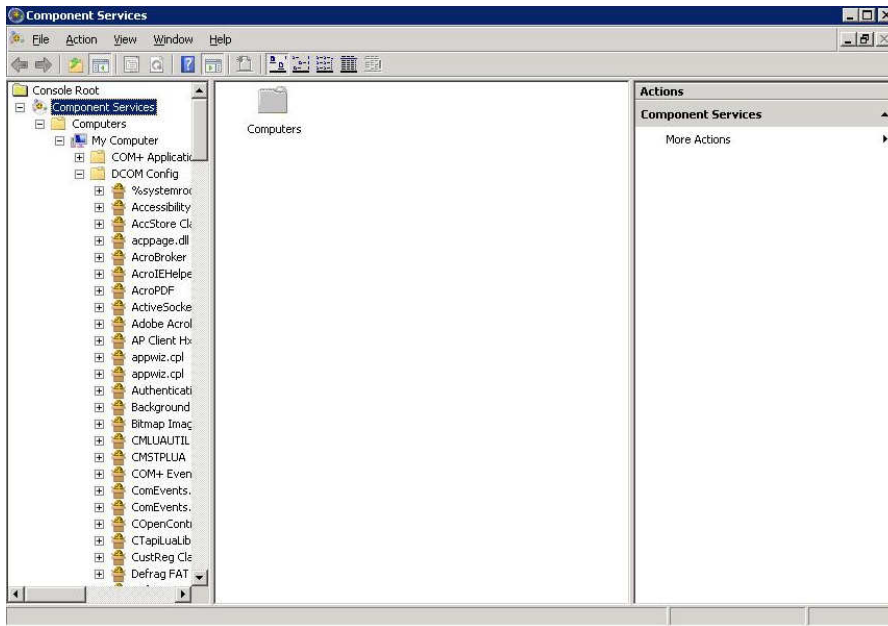
1. Select at the level of the operating system Start > Execute.... and enter the program name "dcomcnfg" in the automatically opened dialog in the field "Open". Confirm with OK.



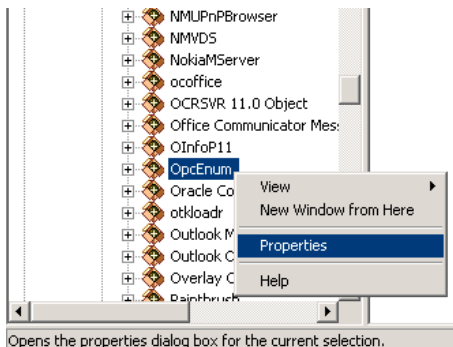
2. Now open the "Component Services" at the left side of the window and navigate to DCOM node over Computer -> My Computer -> DCOM – Configuration.

How to configure OPC DA Communication

ETM professional control GmbH

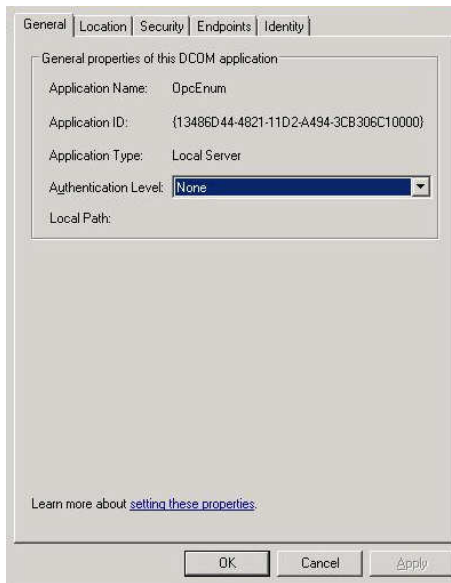


3. Search in the list of the DCOM Configuration for the „OPC enum“ node and open the properties window with right click on the node. On the "General" tab, select the entry "NONE" for the authentication level.

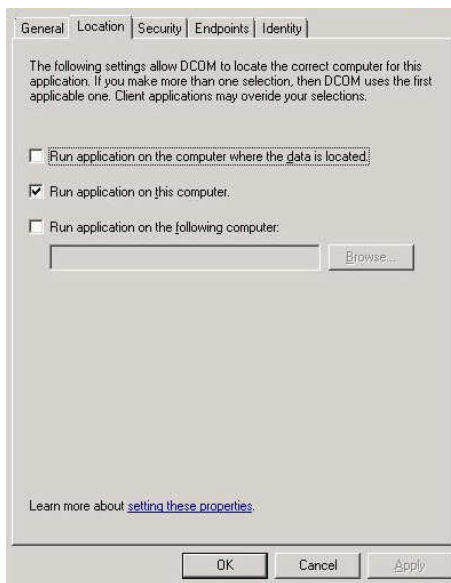


How to configure OPC DA Communication

ETM professional control GmbH



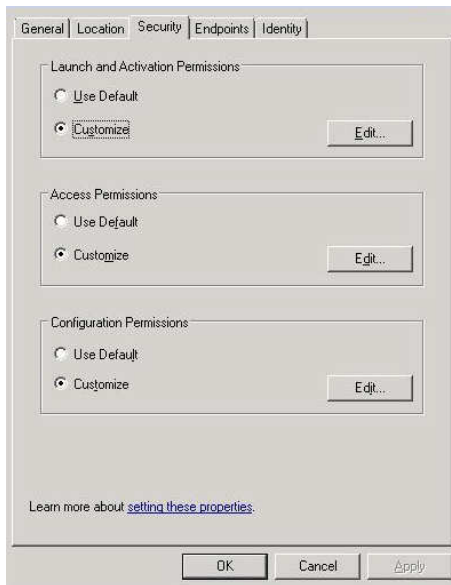
4. On the „Location” tab check the check box “Run application on this computer”



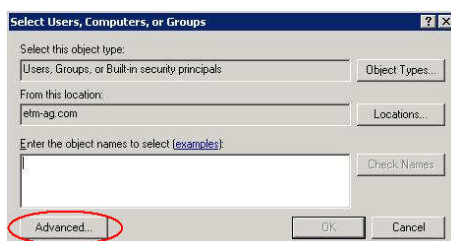
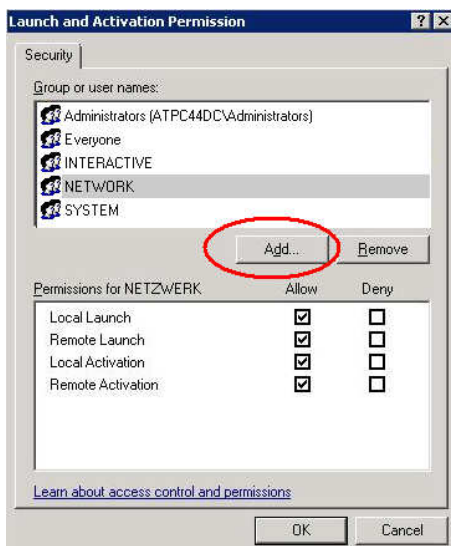
5. On the „Security” tab set for „Launch and Activation Permissions”, “Access Permissions” and “Configuration permissions” the option „Customize”.

How to configure OPC DA Communication

ETM professional control GmbH

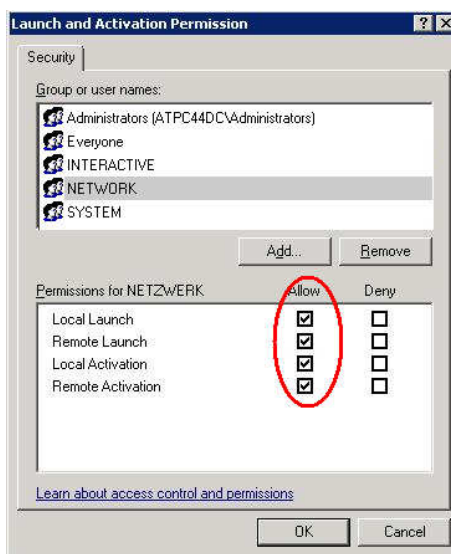
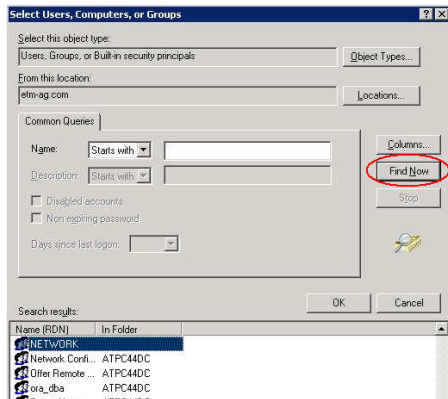


6. Afterwards click for the option „Launch and Activation Permissions” the button edit. In the new opened dialog click on the button „Add“ -> Advanced -> Find now. Select the users "Everyone", "Interactive", "Network", "System". Check that all accounts have "full control" permissions. Click OK.



How to configure OPC DA Communication

ETM professional control GmbH



7. Proceed as in point 6 also for Access Permissions" and "Configuration permissions".

8. On the „Identity“ tab choose the option „The interactive user“. If the OPC enum runs as service, this option is not selectable. In that case please select the option "system account (services only)"

How to configure OPC DA Communication

ETM professional control GmbH

The screenshot shows a Windows configuration window with the 'Identity' tab selected. The window has tabs for 'General', 'Location', 'Security', 'Endpoints', and 'Identity'. The main text asks, 'Which user account do you want to use to run this application?'. There are four radio button options: 'The interactive user.' (selected), 'The launching user.', 'This user.', and 'The system account (services only)'. Under 'This user.', there are three text boxes labeled 'User:', 'Password:', and 'Confirm password:', with a 'Browse...' button next to the 'User:' box. At the bottom, there is a link that says 'Learn more about [setting these properties](#)'. The window has 'OK', 'Cancel', and 'Apply' buttons at the bottom right.

How to configure OPC DA Communication

ETM professional control GmbH

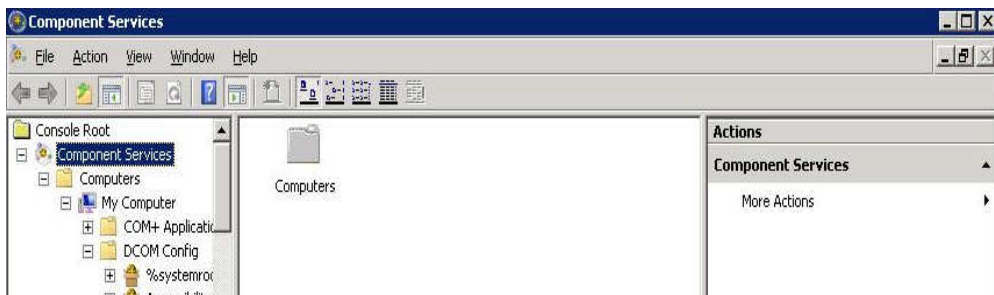
1.2.2 DCOM settings for the PVSS OPC DA Server

The following Steps must only be done on the OPC DA Server host.

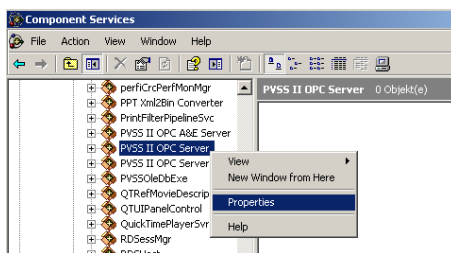
1. Select at the level of the operating system Start > Execute.... and enter the program name "dcomcnfg" in the automatically opened dialog in the field "Open". Confirm with OK.



2. Now open the "Component Services" at the left side of the window and navigate to DCOM node over Computer -> My Computer -> DCOM – Configuration.

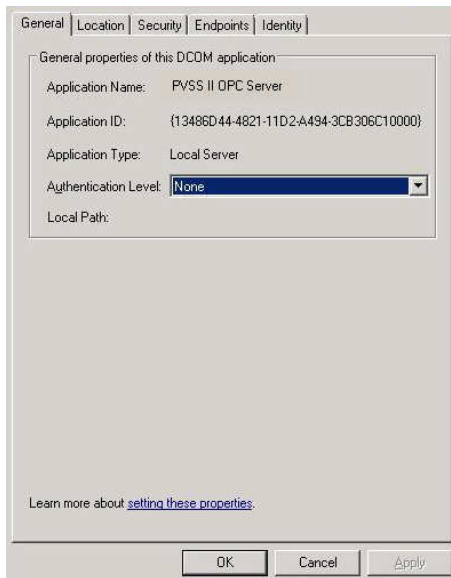


3. Search in the list of the DCOM Configuration for the „PVSS II OPC Server“ node and open the properties window with right click on the node. On the "General" tab, select the entry "NONE" for the authentication level.

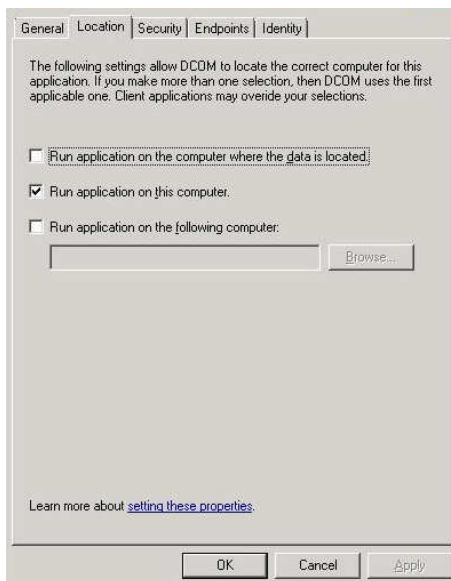


How to configure OPC DA Communication

ETM professional control GmbH



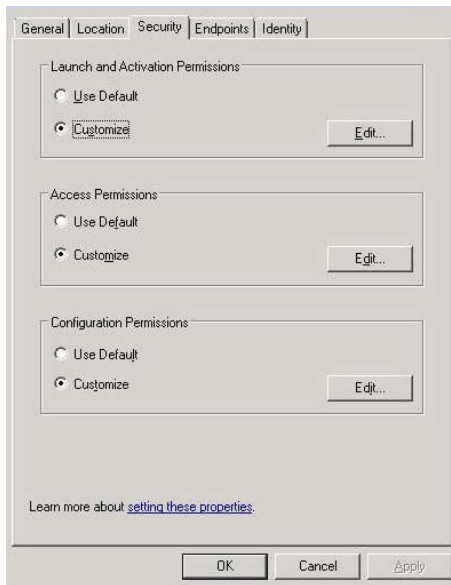
4. On the „Location” tab check the check box “Run application on this computer”



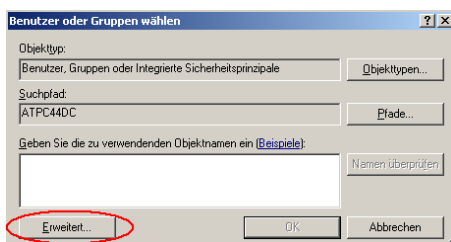
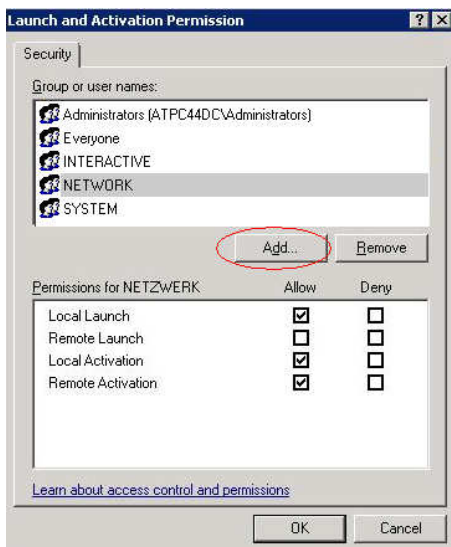
5. On the „Security” tab set for „Launch and Activation Permissions”, “Access Permissions” and “Configuration permissions” the option „Customize”.

How to configure OPC DA Communication

ETM professional control GmbH

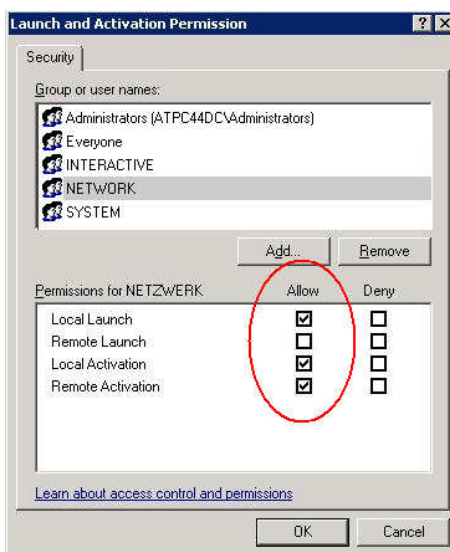
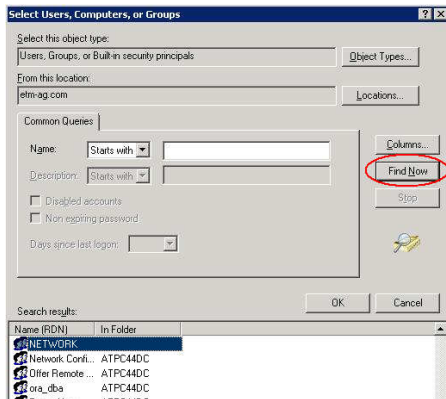


6. Afterwards click for the option „Launch and Activation Permissions” the button edit. In the new opened dialog click on the button „Add” -> Advanced -> Find now. Select the users "Everyone", "Interactive", "Network", "System". Check that all accounts have "full control" permissions EXCEPT the "Remotestart" permission, because the PVSS OPC DA Server must be started and stopped by the OPC Gateway project and shall not be managed by the OPC clients.



How to configure OPC DA Communication

ETM professional control GmbH



7. Proceed as in point 6 also for Access Permissions" and "Configuration permissions", but give all selected users "full control" permission.

8. On the „Identity“ tab choose the option „The interactive user“. If the OPC gateway project runs as service, please select the option "The launching user".

How to configure OPC DA Communication

ETM professional control GmbH



1.3 Locking the system against unauthorized access

The PVSS OPC gateway should be locked against unauthorized access. An unauthorized user must not have access to the PVSS project files or PVS project processes. This can be fulfilled through registration and starting the PVSS OPC gateway project as service. As a result the project is automatically started, if the computer starts up, but a user has no access to PVSS as long as he can't authorize himself at the windows login.

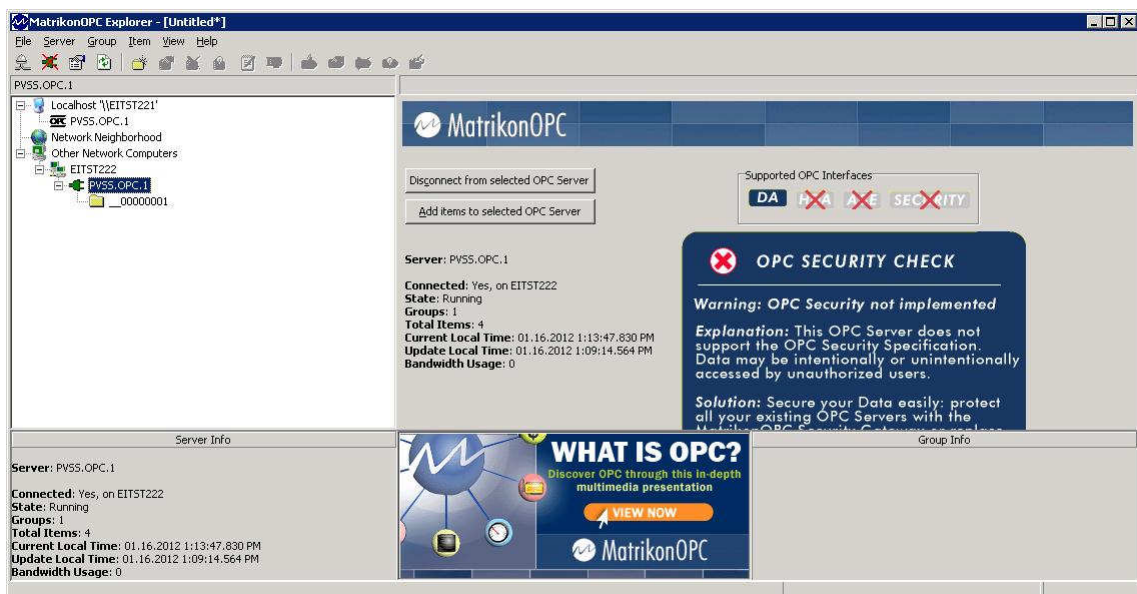
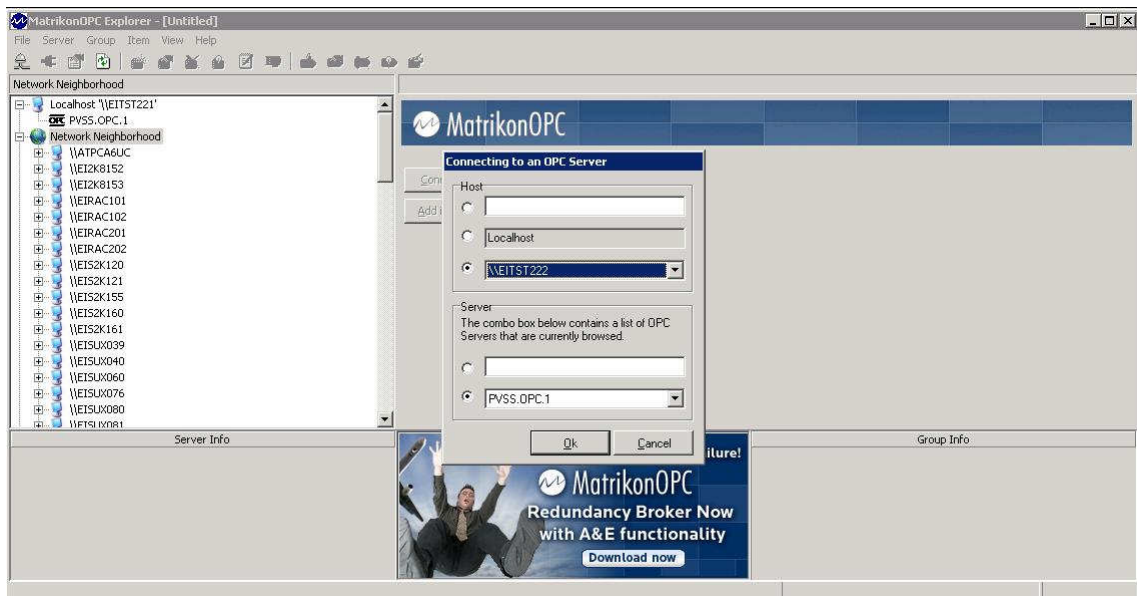
How to configure OPC DA Communication

ETM professional control GmbH

1.4 OPC Client

As an example we used the Matrikon OPC Explorer.

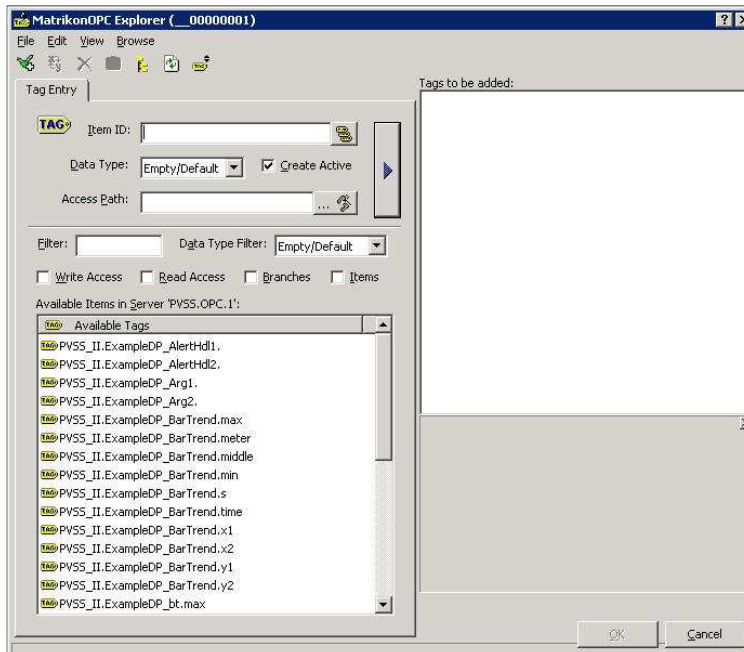
1.4.1 Connect to the OPC Server “PVSS.OPC.1” on the target host



How to configure OPC DA Communication

ETM professional control GmbH

1.4.2 Browse through the items



1.4.3 Observe the tags

