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# **SpectraLive<sup>®</sup> Client**

## **Using OPC via DCOM with Microsoft Windows XP Service Pack 2**

## **Table of contents**

<b><u>INTRODUCTION</u></b>	<b><u>3</u></b>
<b><u>WINDOWS FIREWALL</u></b>	<b><u>3</u></b>
<b><u>CONFIGURING THE FIREWALL</u></b>	<b><u>3</u></b>
<b><u>CONFIGURING DCOM</u></b>	<b><u>5</u></b>

## Introduction

SpectraLive® Client application use DCOM to communicate over a network. When Windows XP with Service Pack 2 is installed with its default configuration settings, OPC communication will cease to work. This paper describes the settings necessary to establish a correct communication between SpectraLive® Client and SpectraLive® Server.

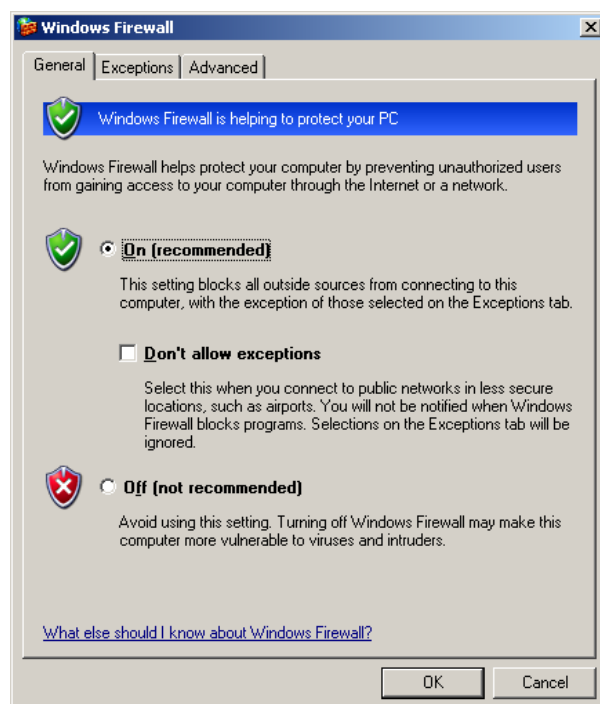
## Windows Firewall

The Windows Firewall allows traffic across the network interface when initiated locally, but stops any incoming traffic. This firewall is exception based, meaning that the administrator can specify applications and ports that are exceptions to the rule and respond to unsolicited request.

The firewall exceptions can be specified at two main levels, the application level and the port and protocol level. The application level is where you specify which applications are able to respond to unsolicited requests and the port and protocol level where you can specify the firewall to allow or deny traffic on a specific port for either TCP and UDP traffic. To make any OPC client/server application to work via DCOM, changes need to be made on both levels.

## Configuring the Firewall

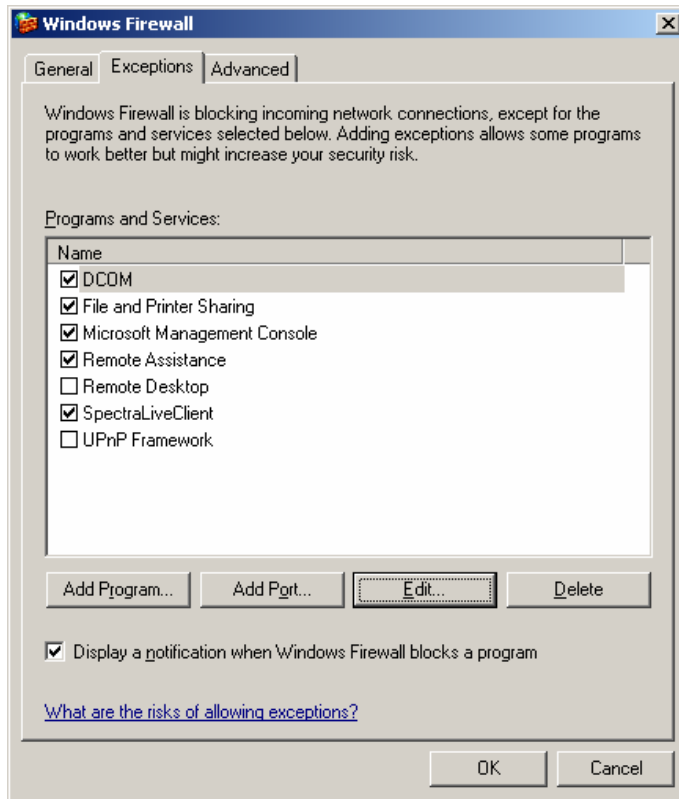
By default the Windows firewall is set to “On”. This setting is recommended by Microsoft and by OPC to give your machine the highest possible protection.



Select the “Exception” tab and add SpectraLiveClient.exe to the exception list. Also check if Microsoft Management Console (used by DCOM configuration utility in the next section) is in the list. If not, just add also this application.

Note: Only EXE files are added to the exception list.

The final screen must be as follow:



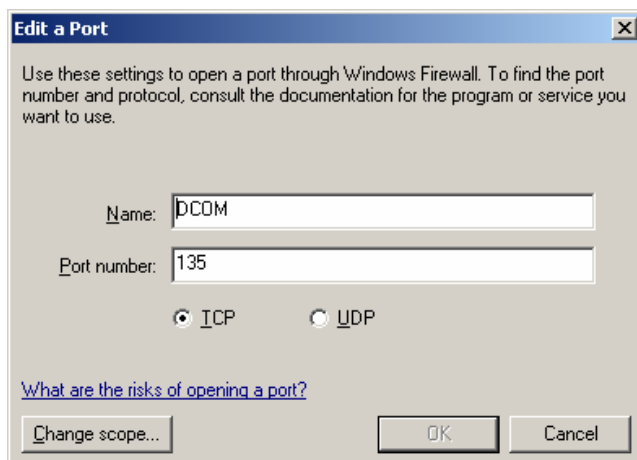
Add TCP port 135 as it is needed to initiate DCOM communication, and allow for incoming echo requests. In the Exception tab of the Windows Firewall, click on Add Port

In the Add a Port dialog, fill out the fields as follows:

Name: DCOM

Port number: 135

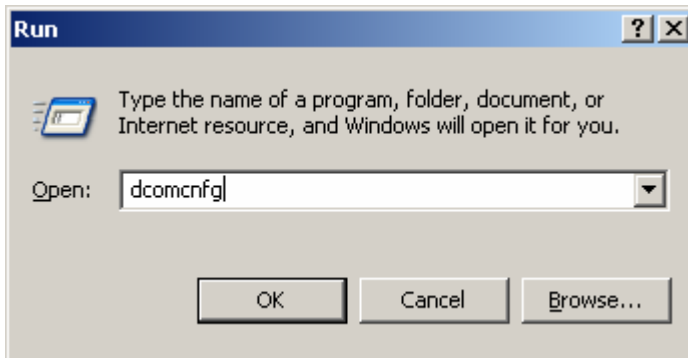
Choose the TCP radio button.



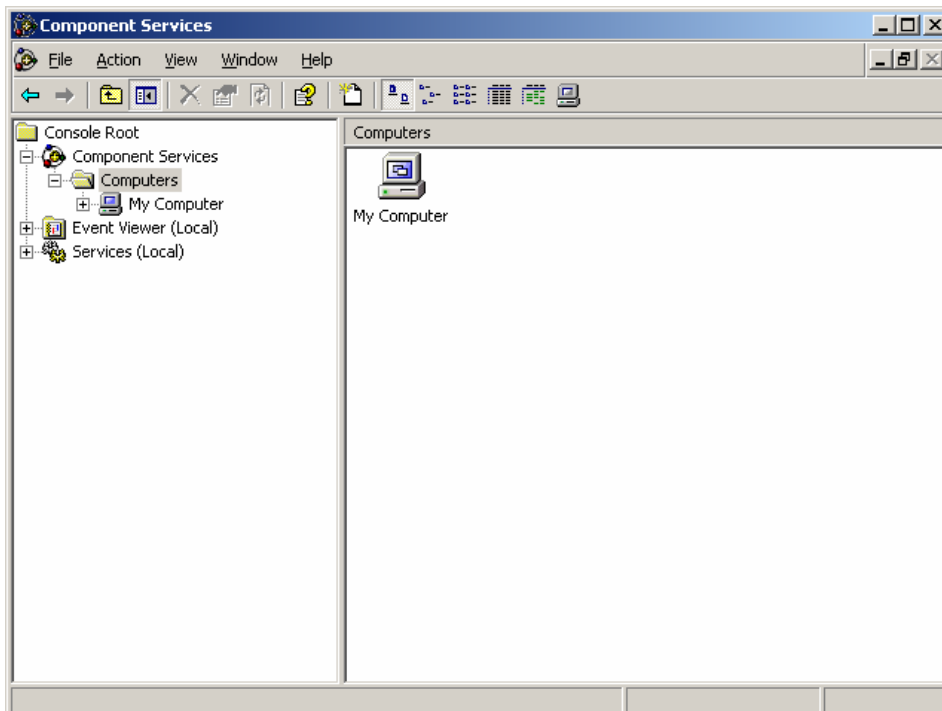
## Configuring DCOM

Follow these steps to configure DCOM for OPC Communication using Windows XP Service Pack 2:

1. Go to Start -> Run and type **DCOMCnfg** and click OK.

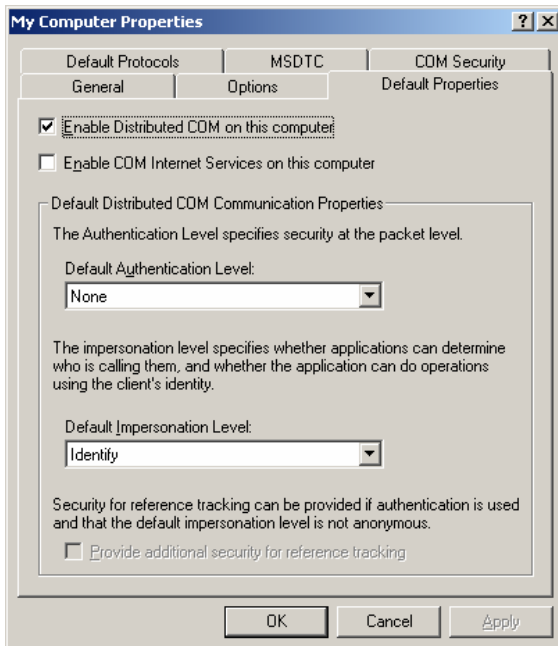


2. Click on **Component Services** under the Console Root to expand it.
3. Click on **Computers** under Component Services to expand it.
4. Right click on **My Computer** in the pane on the right and select **Properties**

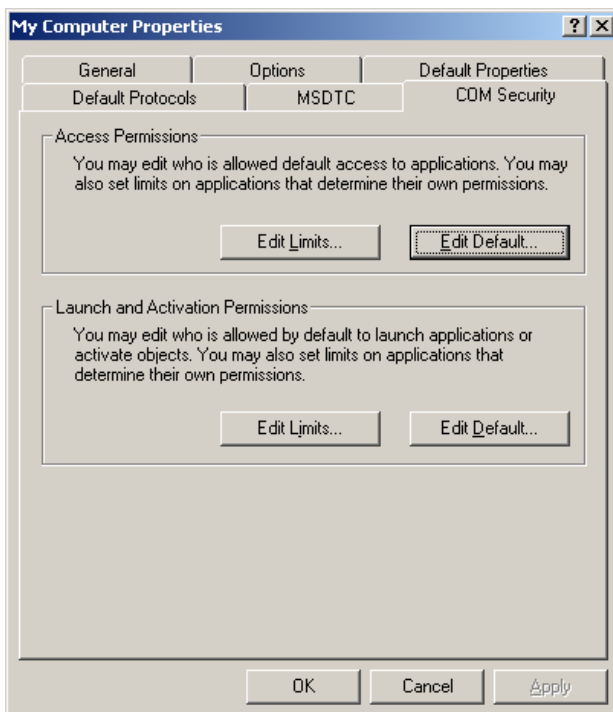


5. Go to **Default Properties** tab

Set the followings:  
Default Authentication Level: None  
Default Impersonation Level: Identify

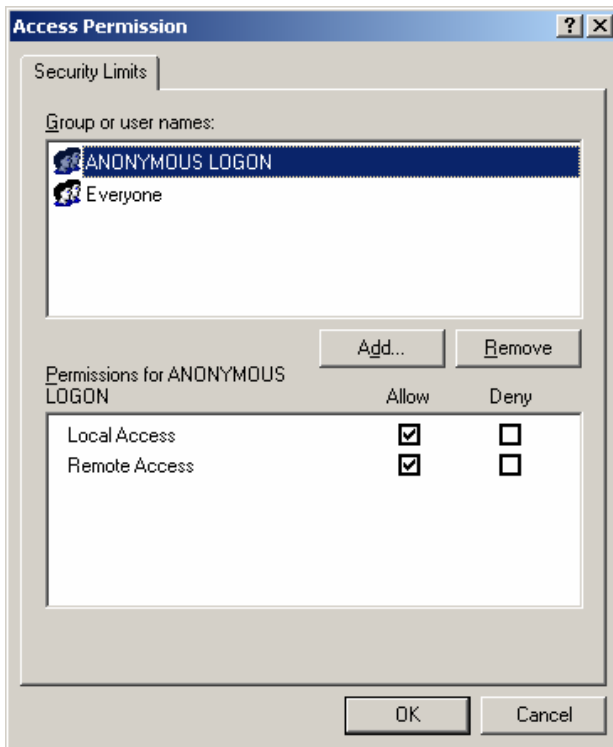


6. Go to COM Security tab and note these are four permission configurations. Three of these we will have to edit:



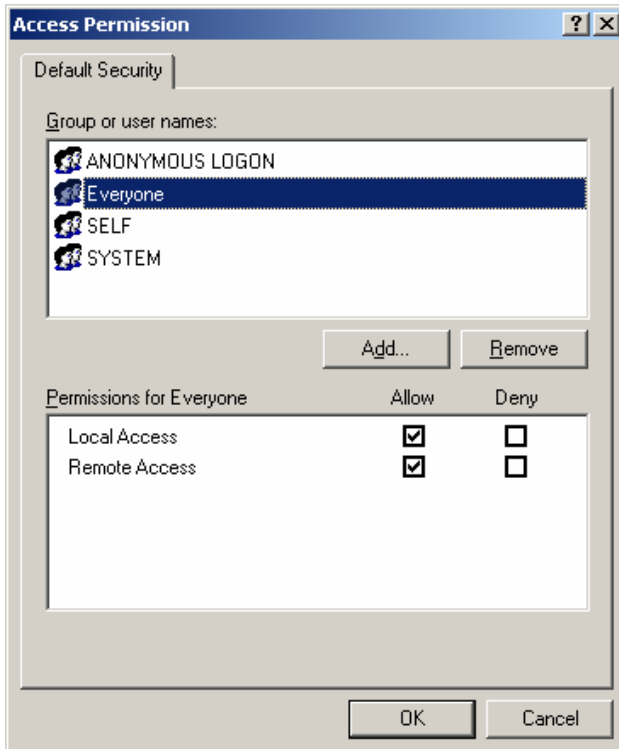
- Access Permissions – Edit Limits
- Access Permissions – Edit Default
- Launch and Activation Permission – Edit Limits

## 7. Access Permissions - Edit Limits



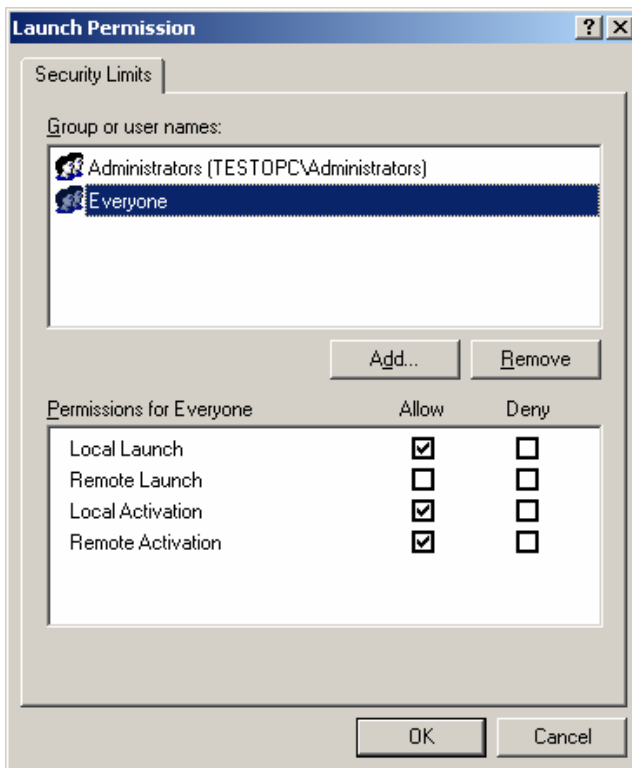
Both ANONYMOUS LOGON and Everyone must configure as above. If "Everyone" doesn't exist in list click on Add and add the Everyone.

## 8. Access Permissions - Edit Default



Both ANONYMOUS LOGON and Everyone must configure as above. If “Everyone” doesn’t exist in list click on Add and add the Everyone.

#### 9. Launch and Activation Permission – Edit Limits



Everyone must configure as above. If “Everyone” doesn’t exist in list click on Add and add the Everyone.



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Note: Use this setup procedure as a baseline for establishing client/server interactions.  
Then you can proceed to a “tighten” DCOM security setting