

A man in a light blue shirt is shown from the side, holding a tablet computer. He is looking at the screen, which displays a software interface with various charts and data. The background is a blurred industrial factory setting with large machinery and equipment.

SIEMENS

Application description • 6/2016

Windows firewall settings for X-Tools Server Pro

CMS X-Tools / V 04.03 / CPU 416-3 PN/DP

Warranty and liability

Note

The Application Examples are not binding and do not claim to be complete regarding the circuits shown, equipping and any eventuality. The Application Examples do not represent customer-specific solutions. They are only intended to provide support for typical applications. You are responsible for ensuring that the described products are used correctly. These application examples do not relieve you of the responsibility to use safe practices in application, installation, operation and maintenance. When using these Application Examples, you recognize that we cannot be made liable for any damage/claims beyond the liability clause described. We reserve the right to make changes to these Application Examples at any time without prior notice.

If there are any deviations between the recommendations provided in these application examples and other Siemens publications – e.g. Catalogs – the contents of the other documents have priority.

We do not accept any liability for the information contained in this document.

Any claims against us – based on whatever legal reason – resulting from the use of the examples, information, programs, engineering and performance data etc., described in this Application Example shall be excluded. Such an exclusion shall not apply in the case of mandatory liability, e.g. under the German Product Liability Act (“Produkthaftungsgesetz”), in case of intent, gross negligence, or injury of life, body or health, guarantee for the quality of a product, fraudulent concealment of a deficiency or breach of a condition which goes to the root of the contract (“wesentliche Vertragspflichten”). The damages for a breach of a substantial contractual obligation are, however, limited to the foreseeable damage, typical for the type of contract, except in the event of intent or gross negligence or injury to life, body or health. The above provisions do not imply a change of the burden of proof to your detriment.

Any form of duplication or distribution of these Application Examples or excerpts hereof is prohibited without the expressed consent of the Siemens AG.

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates.

For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit <http://www.siemens.com/industrialsecurity>.

To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <http://support.industry.siemens.com>.

Table of contents

	Warranty and liability	2
1	Preface	4
	1.1 Overview	4
	1.2 Basic knowledge required	4
	1.3 Required software	4
	1.4 Required hardware	5
	1.5 Scope of delivery	5
	1.6 Further information	5
2	Allow X-Tools Server Pro through the Windows firewall.....	7
3	Advanced firewall settings: how to create manual rules for X-Tools Server Pro	11
	3.1 Create inbound rules	13
	3.2 Create outbound rules	17
	3.3 Rules advanced settings.....	17
4	Contact information	20
5	History	20

NOTE To change the security settings of Windows and the firewall settings in particular, administrator rights are required. Some settings can only be managed by your system administrator.

1.4 Required hardware

- PC with Microsoft Windows 7.
For more details about the compatible hardware configurations for CMS X-Tools, check out the following document: *CMS X-Tools (All Editions) User Manual – 01 – Introduction.EN.pdf/Page 25*.

NOTE Although X-Tools is compatible with older configurations, in this tutorial we will only tackle the Windows 7 settings. These explanations are not relevant for Windows XP, because this OS leads to variations in the steps described below.

The X-Tools client and server can also be installed on different systems.

1.5 Scope of delivery

No files are delivered with this document.

1.6 Further information

This document will not provide a detailed description of all features. More information can be found in:

- CMS X-Tools – User Manual 01 - 07

2 Allow X-Tools through the Windows firewall at the first startup of X-Tools

When you start the X-Tools software for the first time, if the Windows firewall is enabled, this window could display:



Allow access for the desired network profiles. There are specific settings for each network profile (domain, private, public).

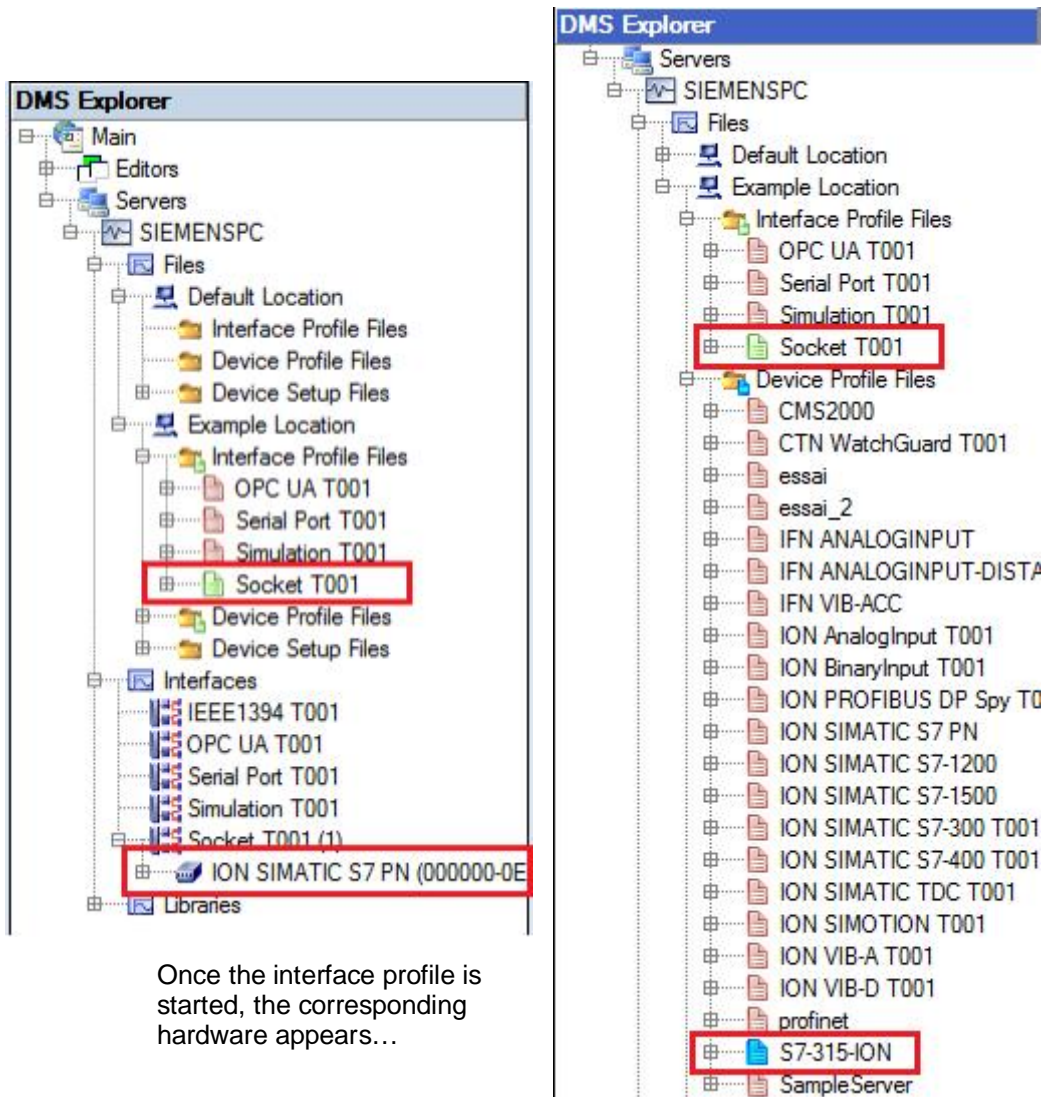
You must have administration rights; if you don't, please contact your network administrator.

NOTE: Only inbound Rules will be created by Windows. You will have to manually create outbound Rules for the X-Tools server later.

3 Add X-Tools Server Pro to the list of programs authorized by the Windows firewall

Most of the time, connection failures between the X-Tools Server and SW ION are caused by the Windows firewall. The default settings do not allow every application to exchange data on the network, and the specific rules for X-Tools may have not been created at the first start.

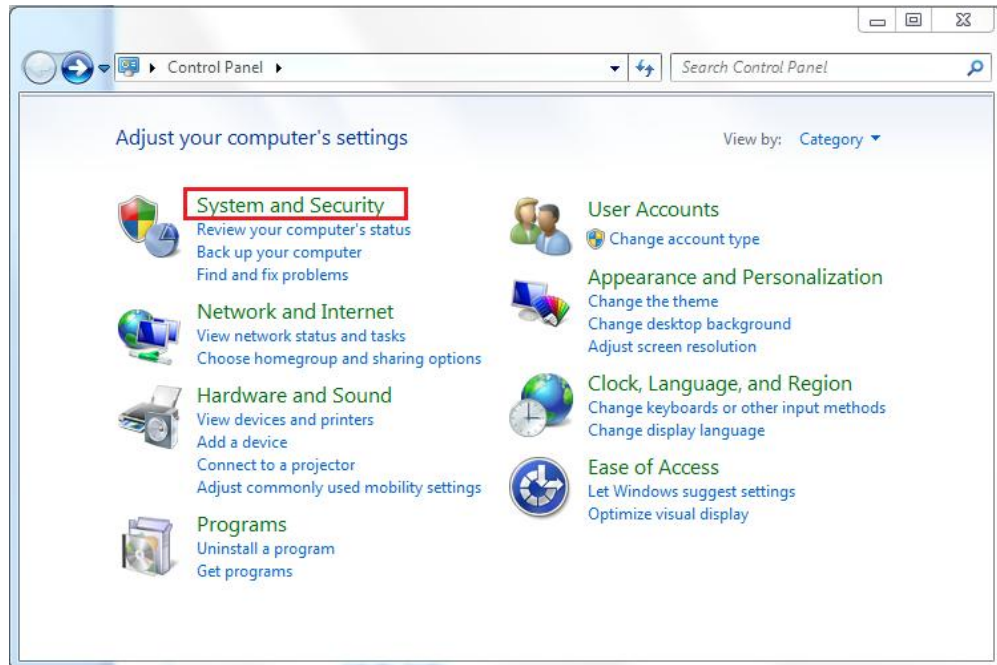
Illustration of the problem in the X-Tools Device Management System interface:



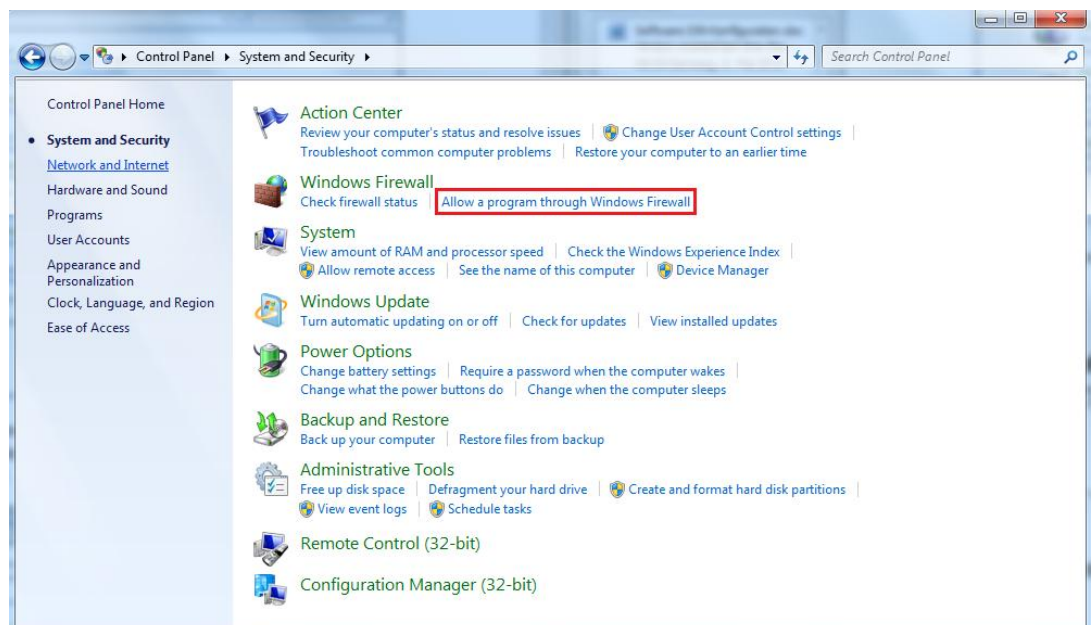
3 Add X-Tools Server Pro to the list of programs authorized by the Windows firewall

This is usually a Windows firewall issue. In this situation, you must manually configure the Windows firewall to allow the X-Tools server to communicate with a network through the firewall.

Go to the Windows Control Panel and open the *System and Security* settings.

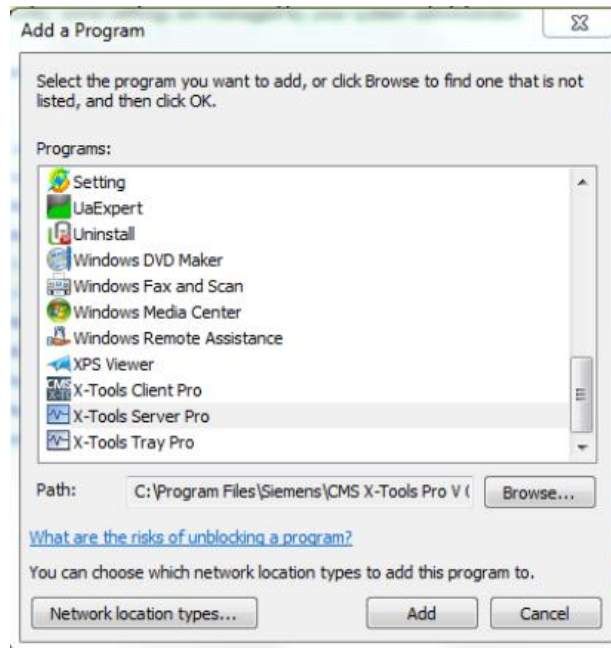


Select *Allow a program through Windows Firewall*.

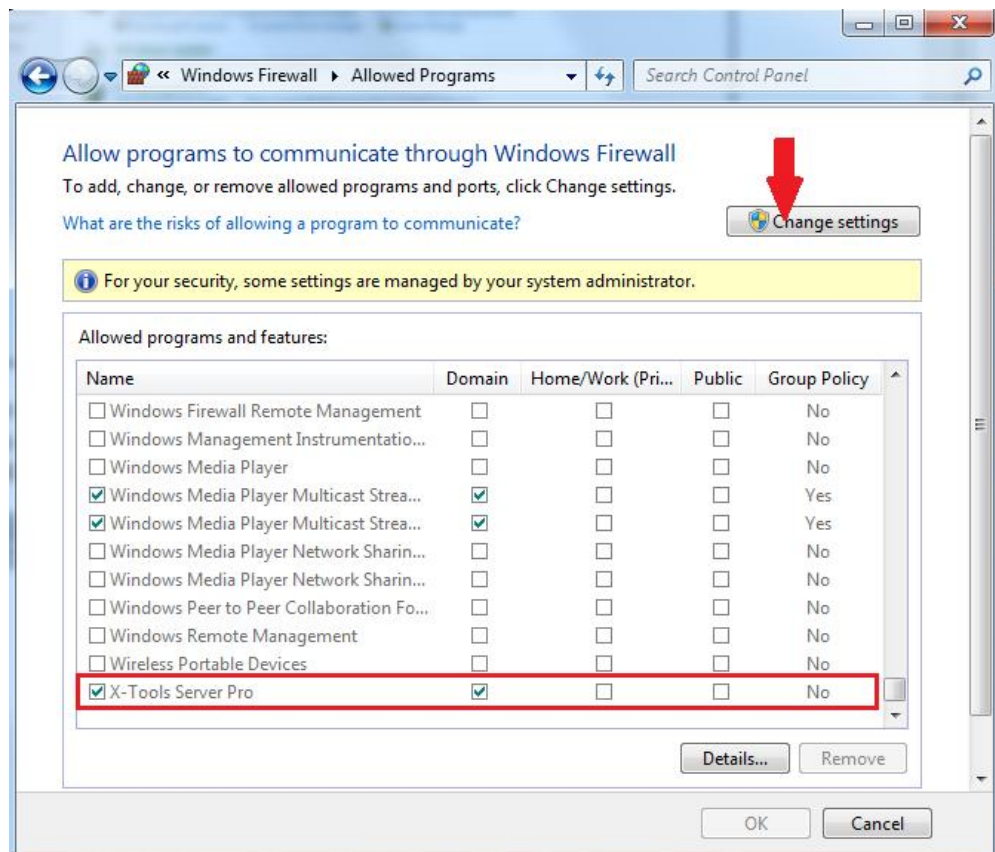


3 Add X-Tools Server Pro to the list of programs authorized by the Windows firewall

Click on *Change Settings* (administrator rights required) and add *X-Tools Server Pro* to the allowed programs and features) for the relevant network categories (domain, private, public).

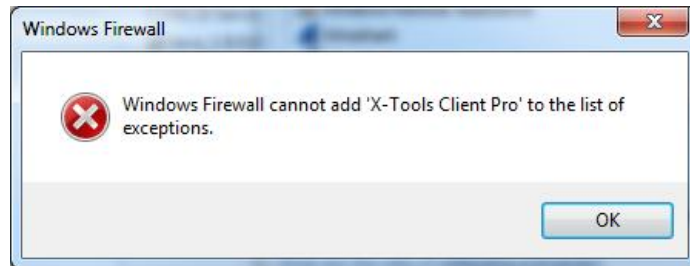


Click on *Change Settings* and check the desired profile options.



3 Add X-Tools Server Pro to the list of programs authorized by the Windows firewall

NOTE: You may be unable to add X-Tools Server Pro to the list of authorized programs.



If an error appears, go on to the next step and the advanced Firewall Settings. We will now describe how to manually add new rules in the Windows firewall for the X-Tools Server.

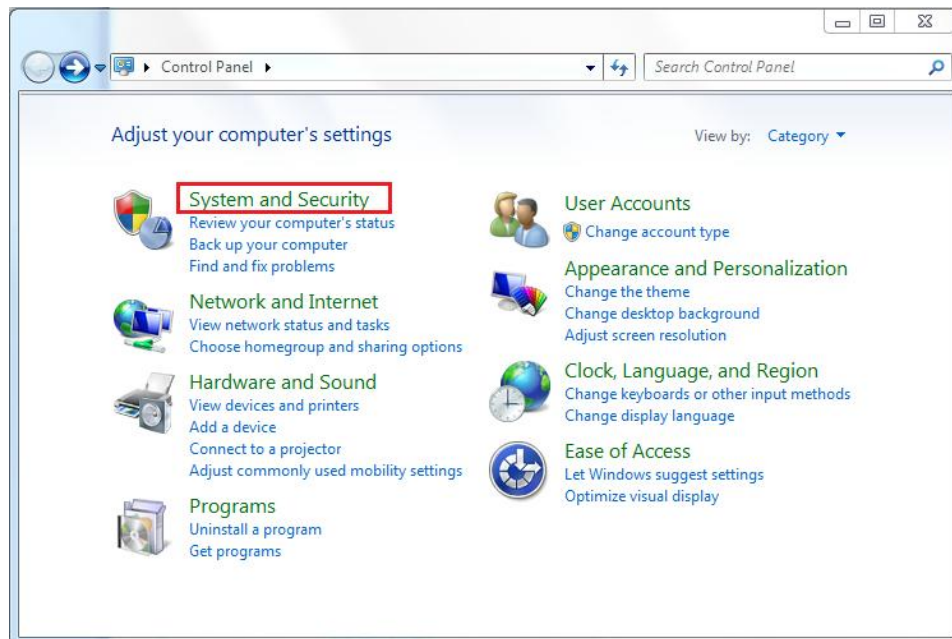
4 Advanced firewall settings: how to manually create rules for X-Tools Server Pro

The two previous steps may not succeed. What's more, **these steps will add only inbound rules**. To exchange data on the network, **specific outbound rules for X-Tools Server need to be created as well, and you must add these rules manually**.

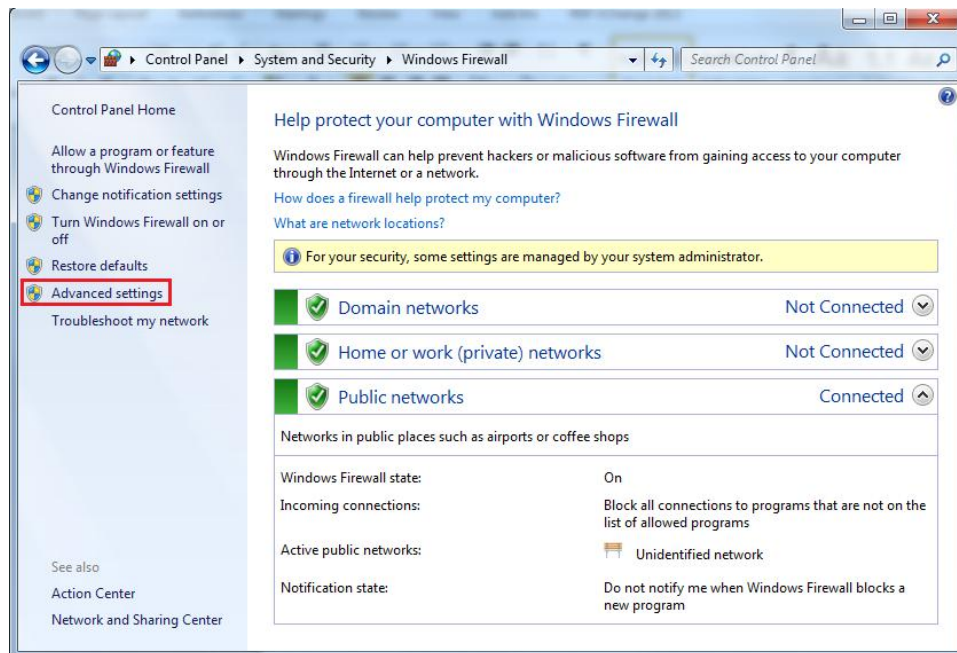
- ✓ If you managed to create inbound rules in one of the previous steps, go on to step 3.2 to create outbound rules
- ✓ If you did not, begin working here:

Go on to the Windows Control Panel.

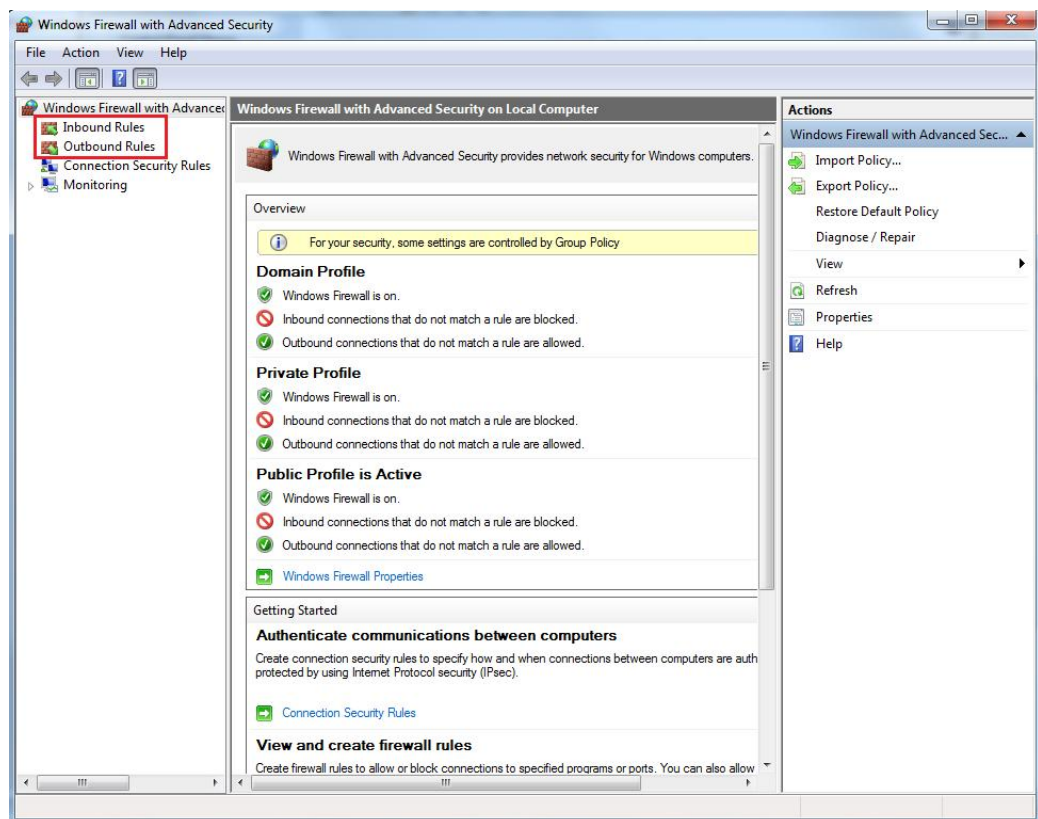
Open *System and Security*, and *Windows Firewall*.



Open the *Advanced Firewall Settings*.

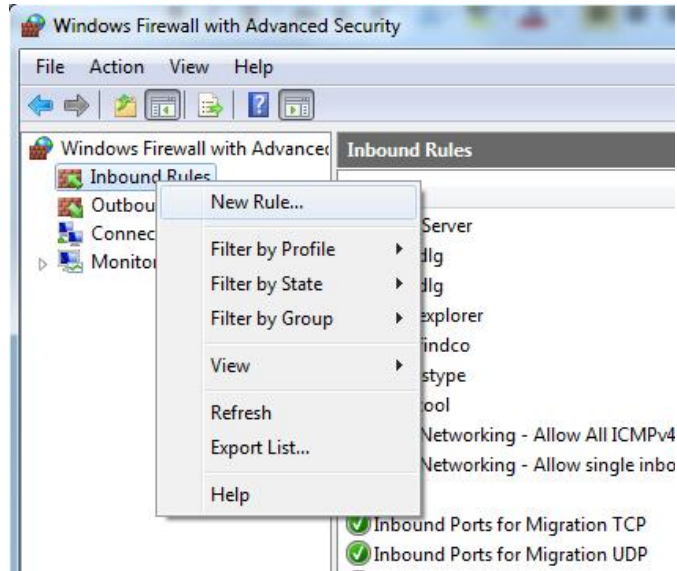


The following window displays. We will now create specific *inbound* and *outbound rules* for the X-Tools server.

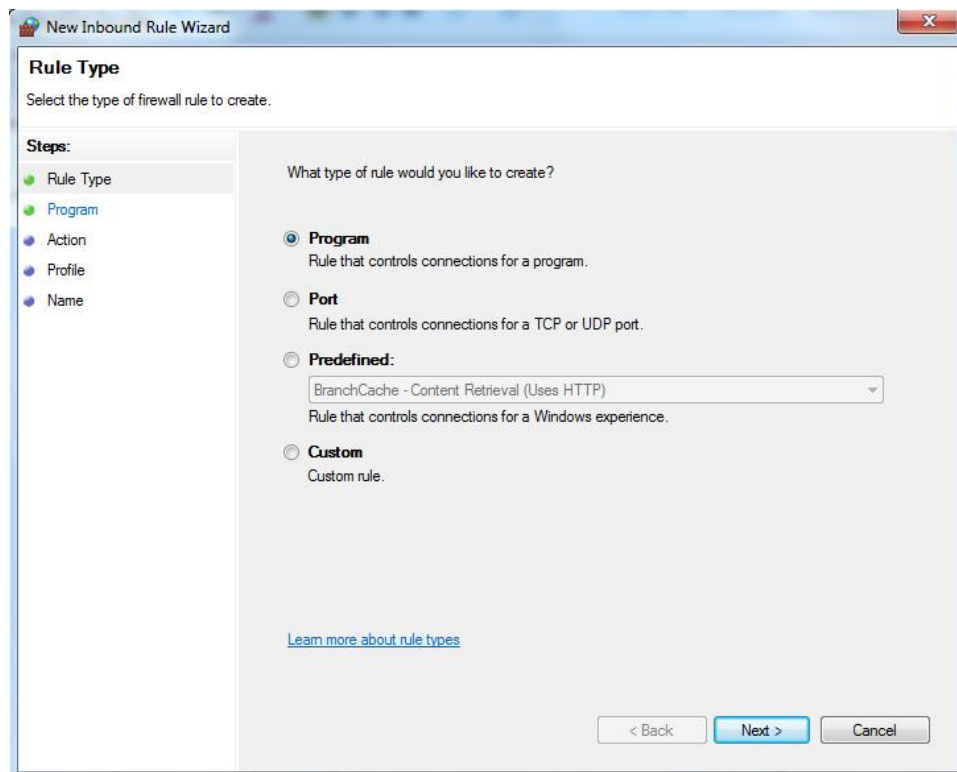


4.1 Create inbound rules

We will first create *inbound rules*:

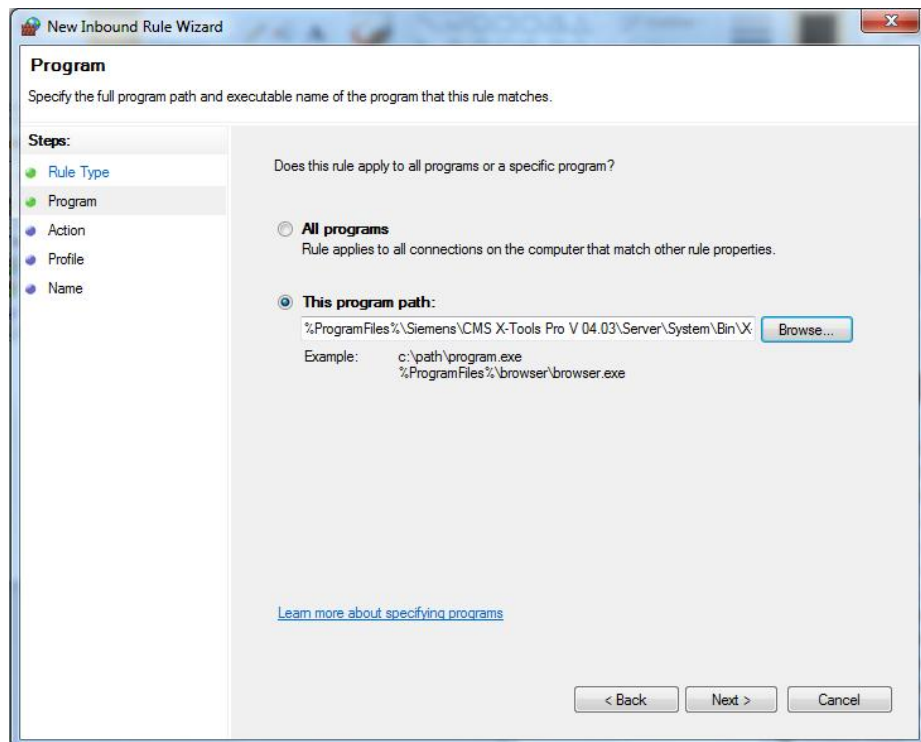


Choose the *Program* rule type.

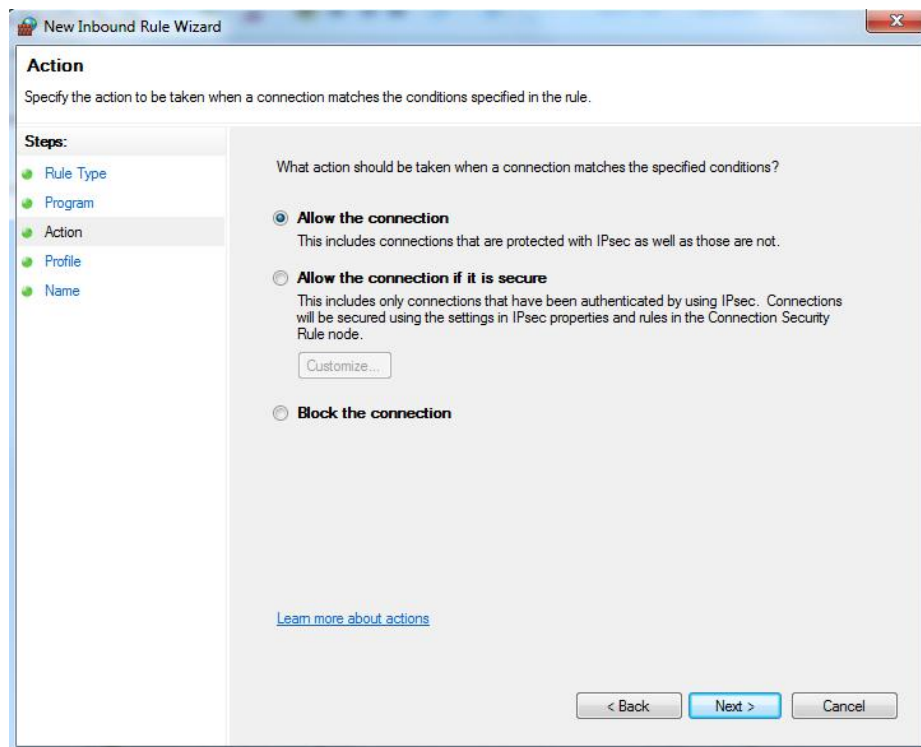


Type the program path or choose the Browse option to explore the disk.

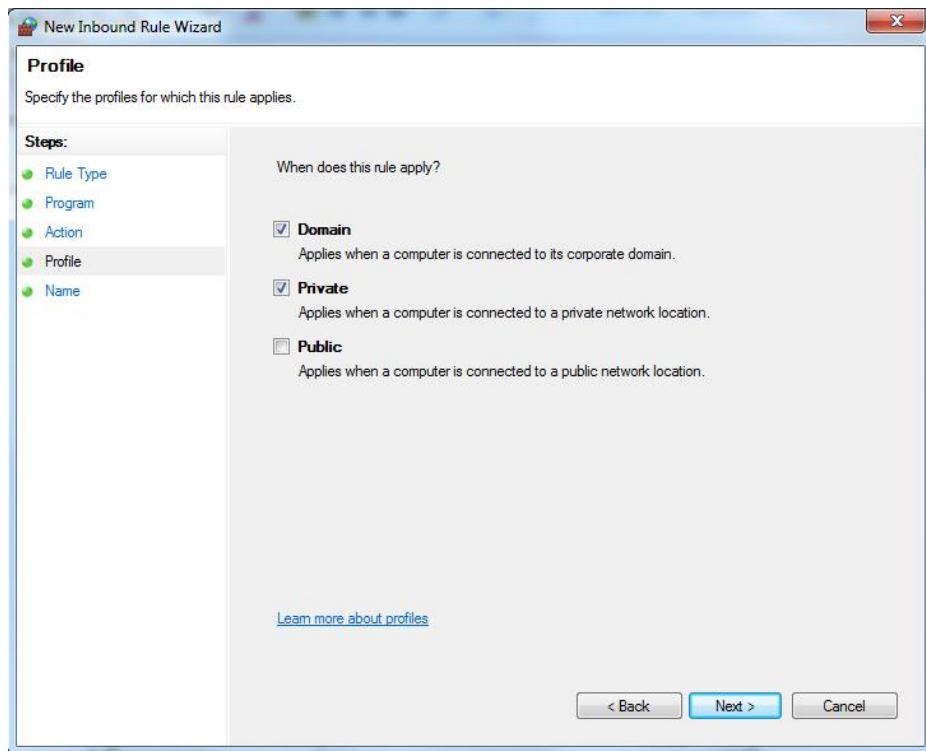
4 Advanced firewall settings: how to manually create rules for X-Tools Server Pro



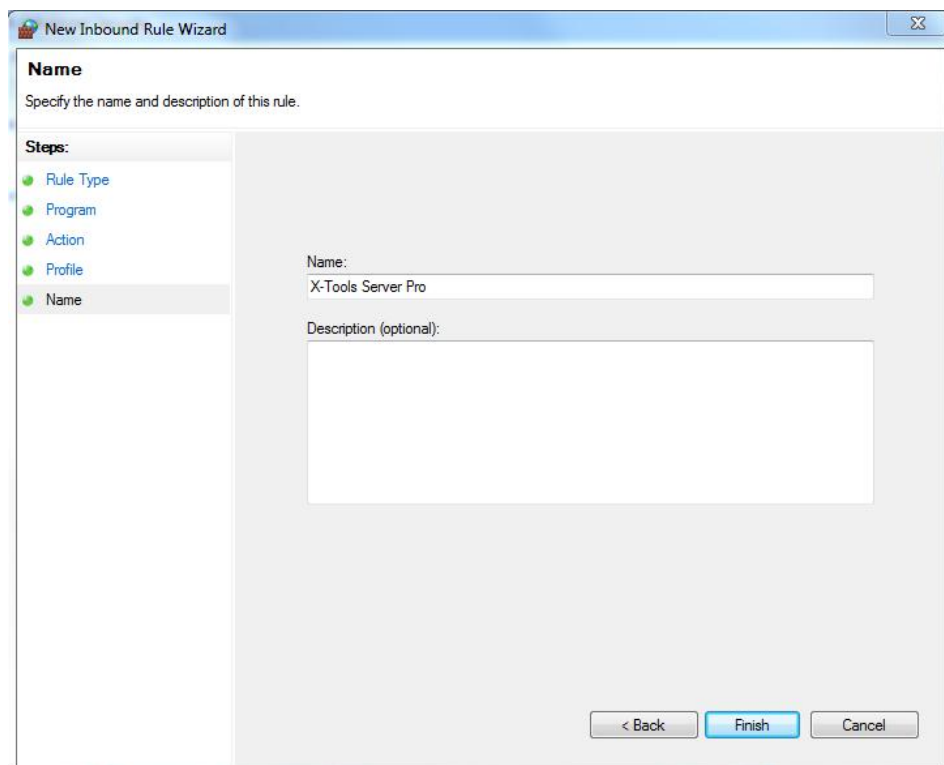
In the next step, choose *Allow the connection* or *Allow the connection if it is secure*, if required in this use case.



Select the profiles to which the rule will apply.

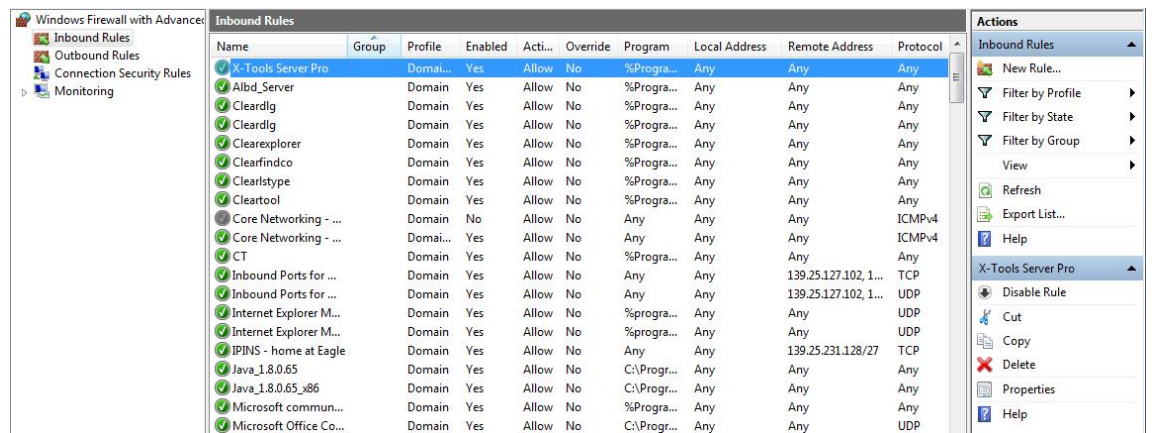


Choose a name for the rule.

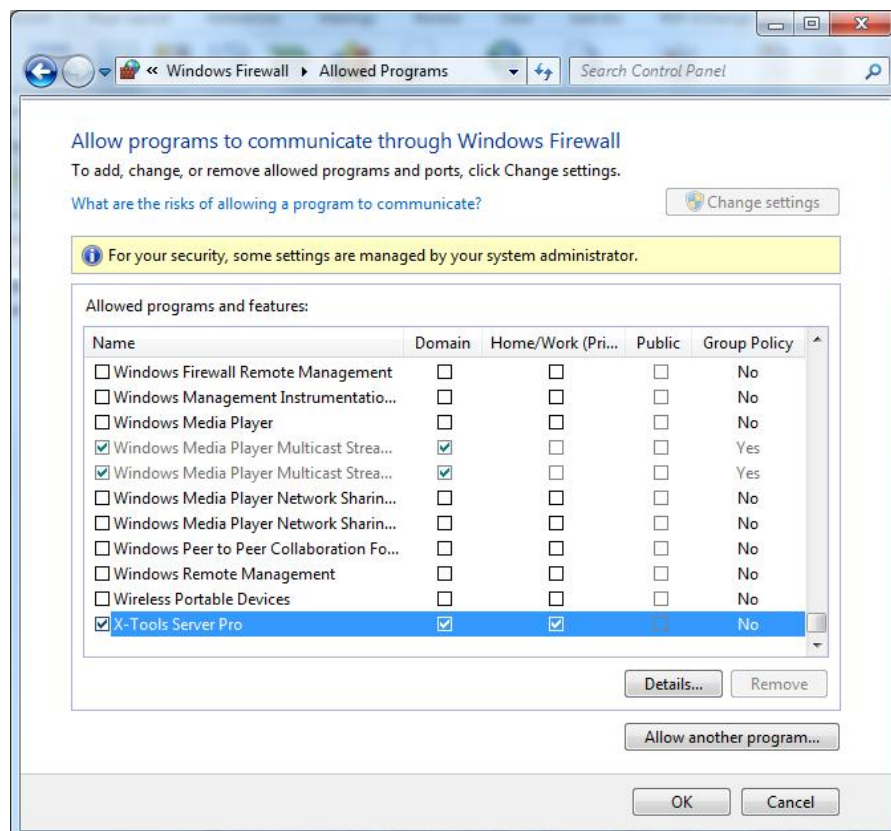


4 Advanced firewall settings: how to manually create rules for X-Tools Server Pro

Your rule now appears on the list. The green dot shows that the rule is enabled.

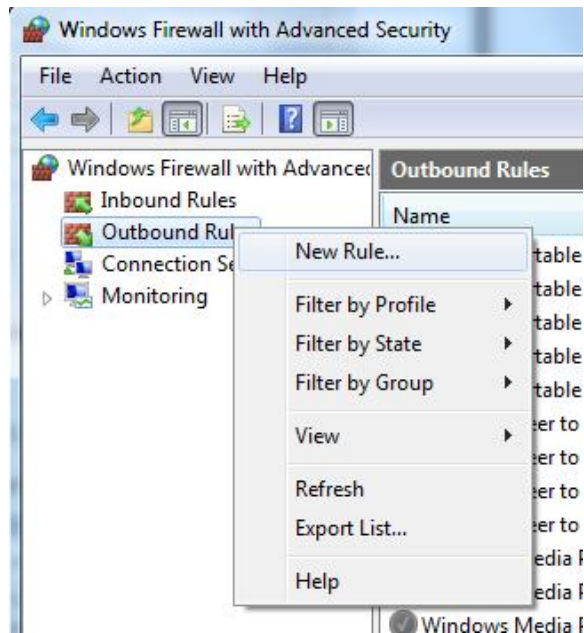


NOTE: You can check that X-Tools Server Pro has been added to the list of the programs authorized by the Windows firewall for the selected profiles:



4.2 Create outbound rules

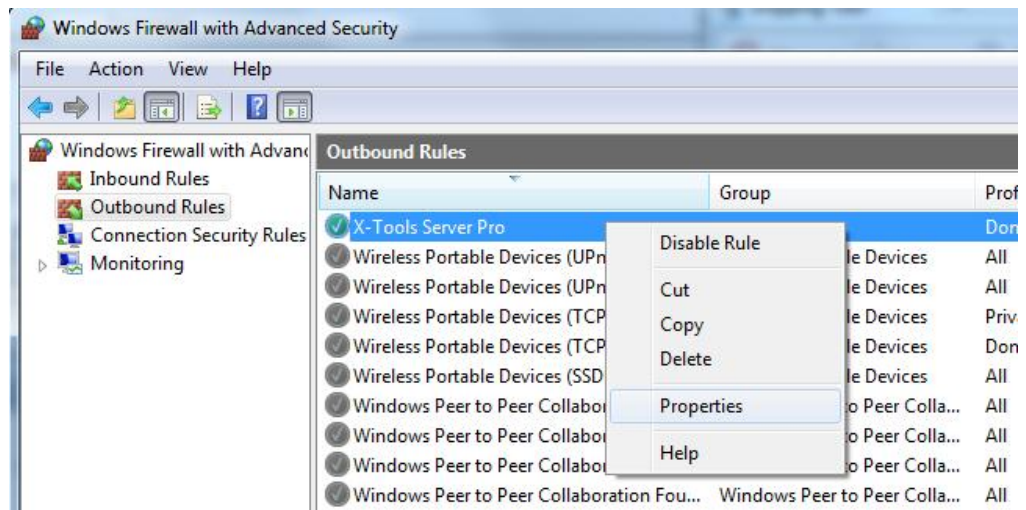
The steps are the same. See the explanation for creating inbound rules.



4.3 Rules advanced settings

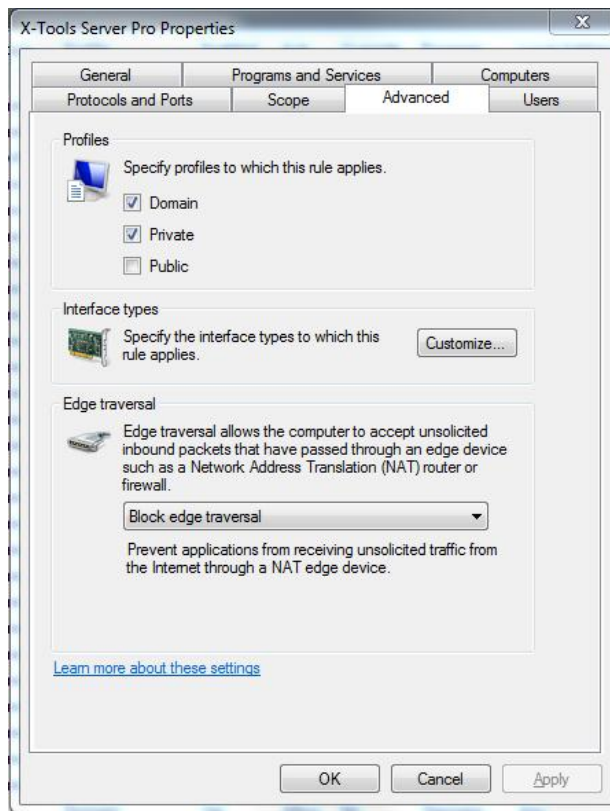
The previous wizard helps you create new rules with basic settings.

The *Properties* menu opens an overview of all the advanced settings, to create safe and custom rules for your particular use case.

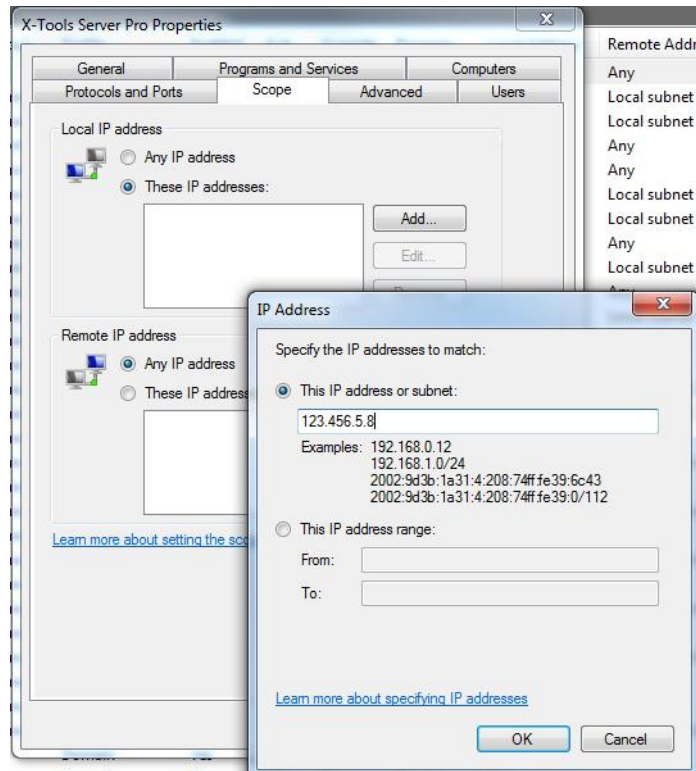


You can change the profiles to which the rule applies (add or delete) in the Advanced tab.

4 Advanced firewall settings: how to manually create rules for X-Tools Server Pro

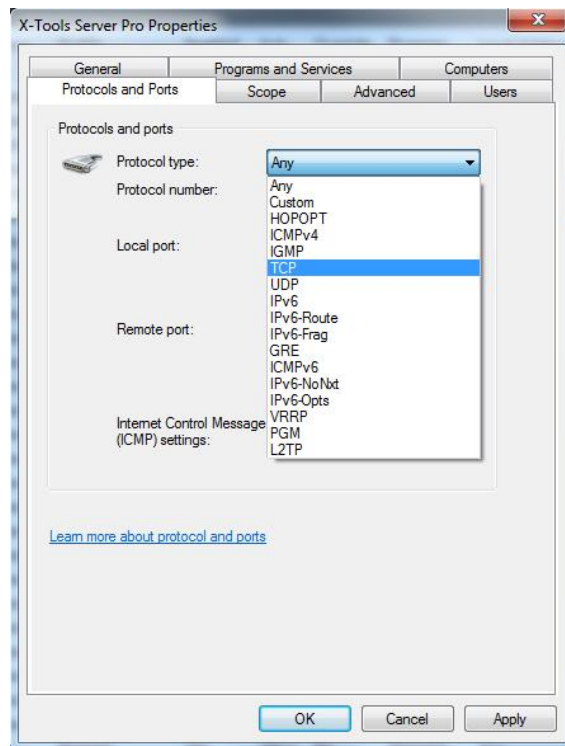


You can filter the IP addresses allowed in the *Scope* tab.



You can also specify a protocol and a port: allow the connection for just one specific port, for example.

4 Advanced firewall settings: how to manually create rules for X-Tools Server Pro



If necessary, create one specific rule for each protocol and security setting you are going to use.

5 Contact information

Should you have any questions concerning the software application, please refer to the Industry Sector Technical Support.

Department

Siemens AG
Industry Sector

Phone

+49 (0) 911 895 7222 (Monday to Friday, 9:00 a.m. to 5:00 p.m. CET/CEST)

Fax

+49 (0) 911 895 7223

Internet

<https://support.industry.siemens.com/cs/>

Thank you for using one of the above-mentioned contacts to ensure that your inquiry is registered and can be processed.

6 History

Version	Date	Modifications
V1.0	07/2016	First version