
Net Control ²

STANDARD EDITION

INSTALLATION AND CONFIGURATION GUIDE



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General information

Net Control 2 software consists of two main parts - *Teacher Component* and *Student Component*.

Teacher Component should be installed on each computer that will be used to control other computers. *Student Component* should be installed on each computer that you wish to control. Both components may be installed on the same computer.

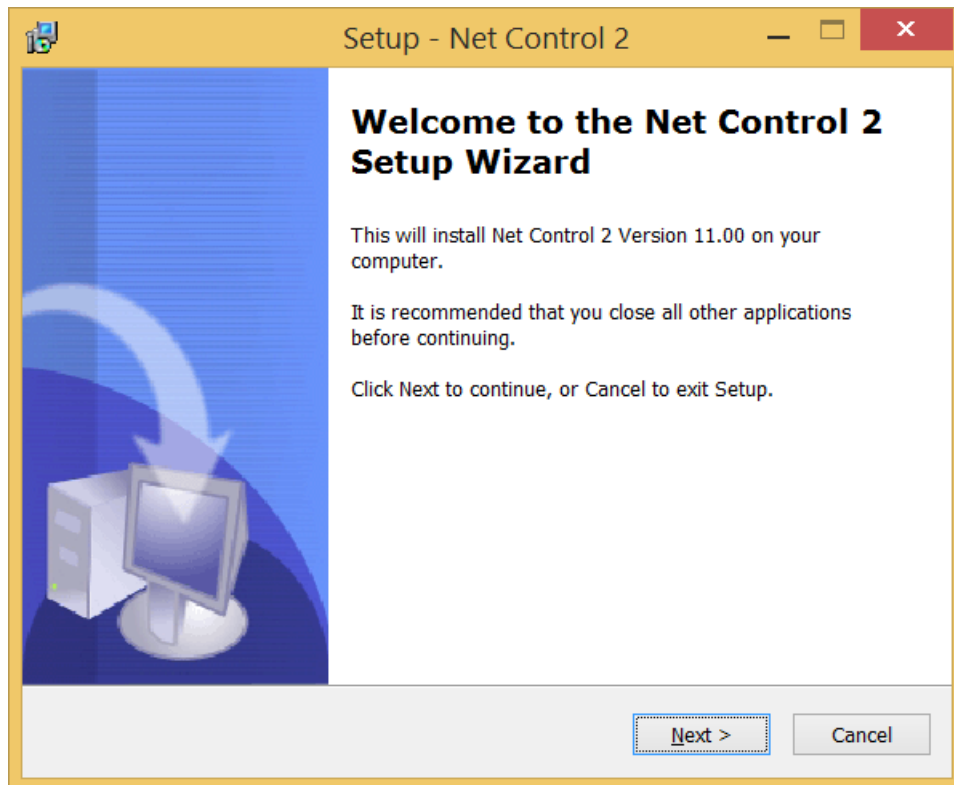
The *Teacher Component* should be installed manually using the standard installation package.

The *Student Component* may be installed using one of the following methods:

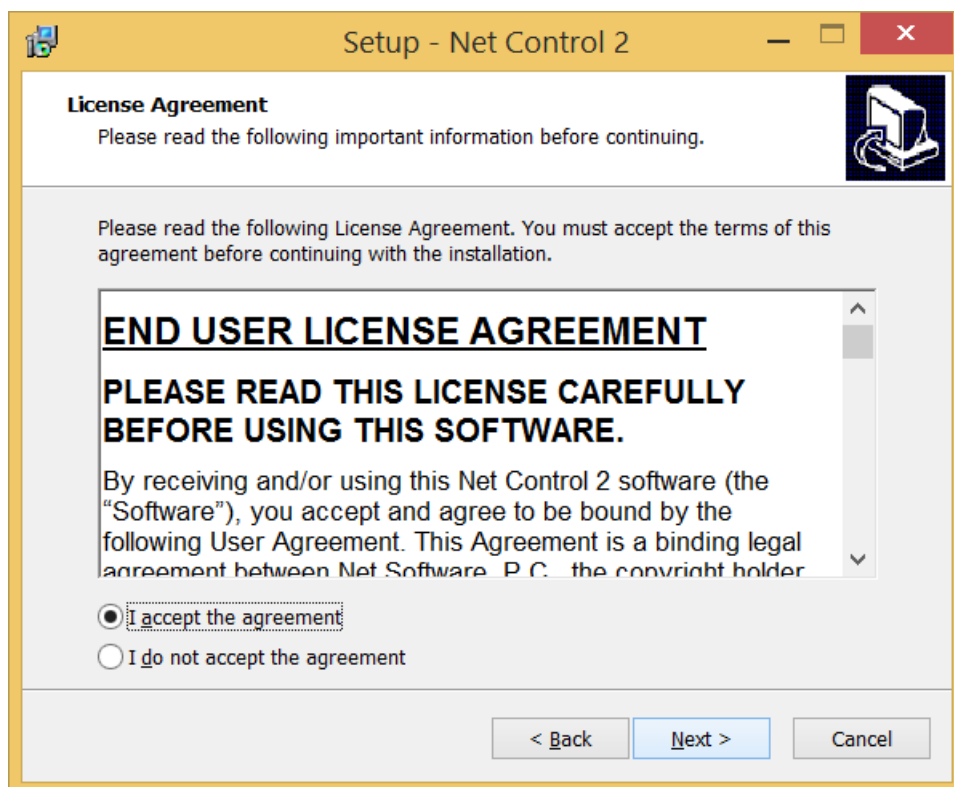
- The software may be installed manually on each computer, using the standard installation package.
- The Student Component may be installed automatically through Windows Server's Active Directory/Group Policies service and using the special MSI package. The special MSI package is available by request for registered users.
- The Student Component may be installed on Student computers automatically through the built-in Net Deploy tool. To use the Net Deploy service:
 - your network must have a domain
 - you should have *local administrative* privileges on all remote computers where the software should be installed
 - your Windows administrator account should be protected with password
 - sharing services should be enabled in your network
 - Remote Administration Shared Folder should be allowed

A. INSTALLATION WITH STANDARD INSTALLATION PACKAGE

1. Run the Net Control 2 Installation Package (most often net1100.exe or net1100r.exe file).



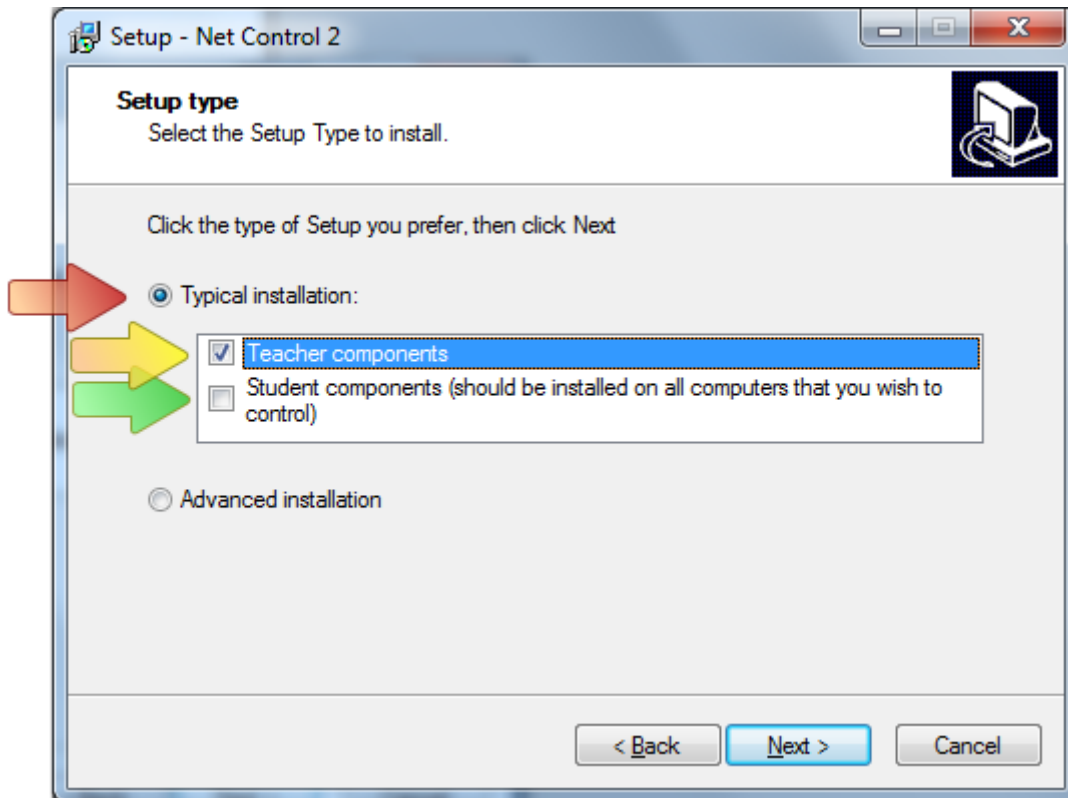
2. Read and accept the End-User License Agreement.



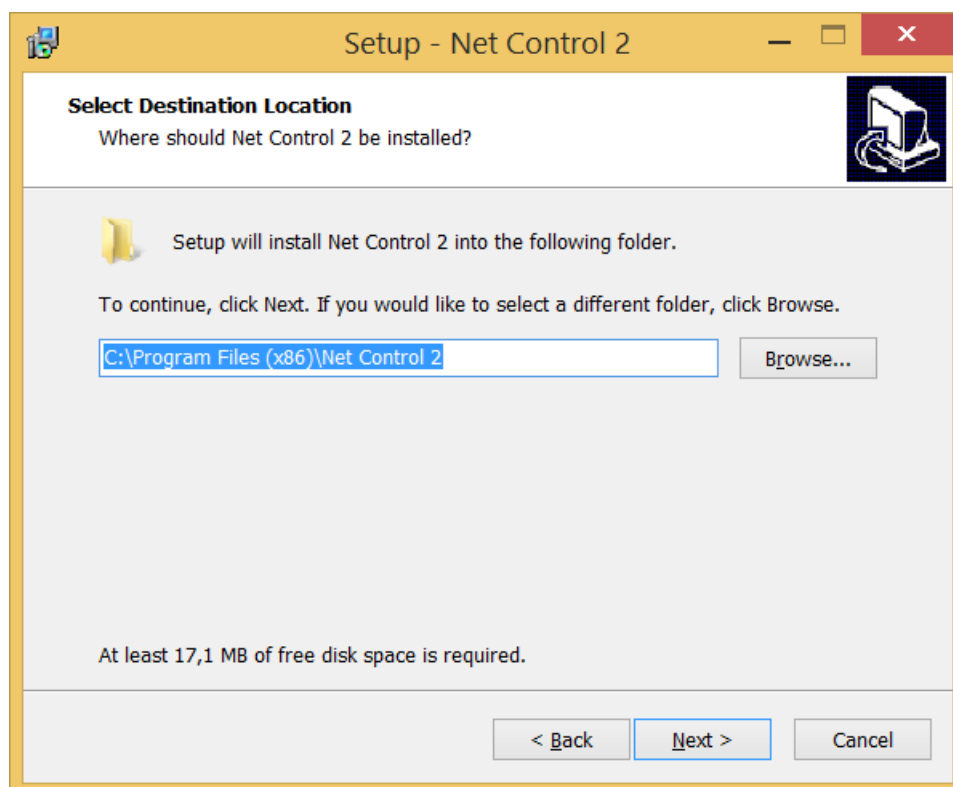
3. On the Setup Type page:

- select **Teacher Components** if you are installing the software on teacher computer;
- select **Student Components** if you are installing the software on student

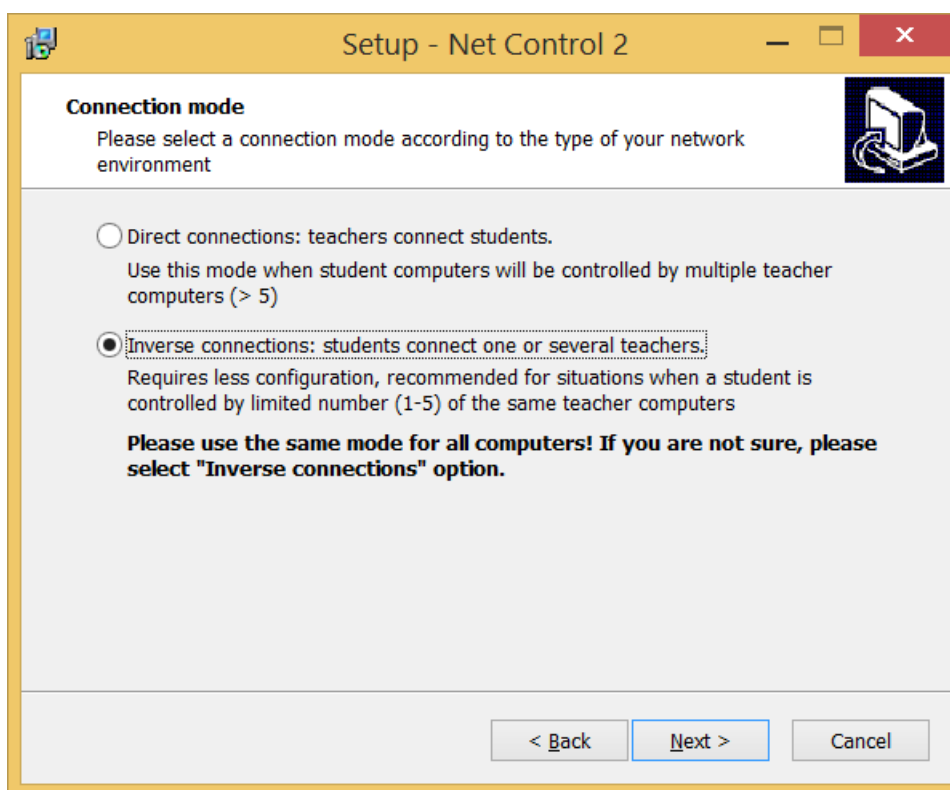
computer, or if this computer should be controlled remotely.



4. Select the folder and Start Menu folder (optional) where the Net Control 2 software will be installed.



5. Select connection mode for the student module (only when you're installing Student Components):



Direct connections mode means that teacher computers will connect student computers. Teachers will be able to scan the network for groups and connections or import connections to the workspace from various sources (text or CSV files, Active Directory, network environment, by scanning an IP address range of the network). This mode provides more ways for teachers to manage groups (classrooms) and connections: each student may be assigned to several groups at a time, the teacher can move students from one group to another; this mode is more suitable if each student may be controlled by many (10 or more) teachers or teachers use different computers each time when they are working with Net Control 2 teacher module. Direct connections are “static”, i.e. always exist in the teacher console, so the teacher can see how many computers are connected and unconnected at this time.

On the other hand, this mode may require additional time for configuring the software in a multi-VLAN environment (i.e. in networks which consist of multiple VLANs, subnetworks), because the default network scanning routines may not work behind the network router where the teacher computer is connected. This makes impossible to find student computers automatically in other segments of the network. And you may need to import these connections to the workspace with import tools or by scanning the network by IP address range.

Inverse connections are recommended for both small and big networks, when this student computer should be connected to 1-10 teacher computers max; and when the student should be assigned to one group (classroom) only.

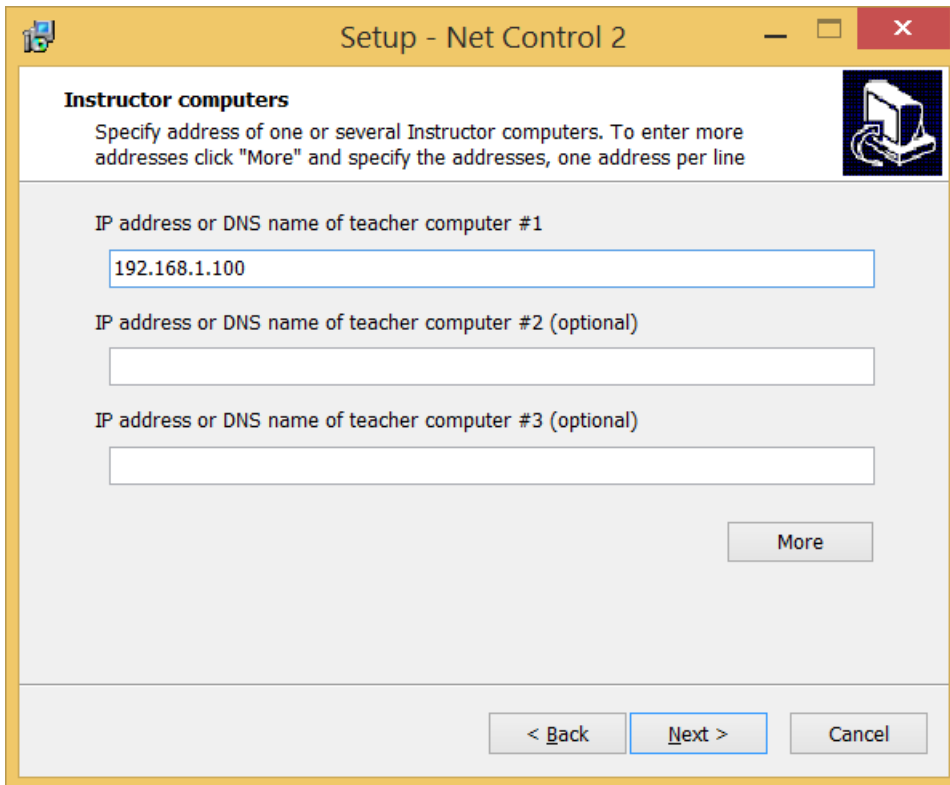
Inverse connection model assumes that the student computer connects one or

several teachers; creates a connection in the teacher workspace and removes it when the connection is closed, i.e. such connections are “dynamic”.

Based on the above information, we recommend selecting **Inverse connections mode** for situations when:

- This student computer will not be controlled by more than 10 teachers;
- The student should belong to one group only.

6. **Enter address of teacher computers** (only if you’re installing Student Components and “Multi-VLAN” environment type was selected on previous step):



Setup - Net Control 2

Instructor computers

Specify address of one or several Instructor computers. To enter more addresses click "More" and specify the addresses, one address per line

IP address or DNS name of teacher computer #1

192.168.1.100

IP address or DNS name of teacher computer #2 (optional)

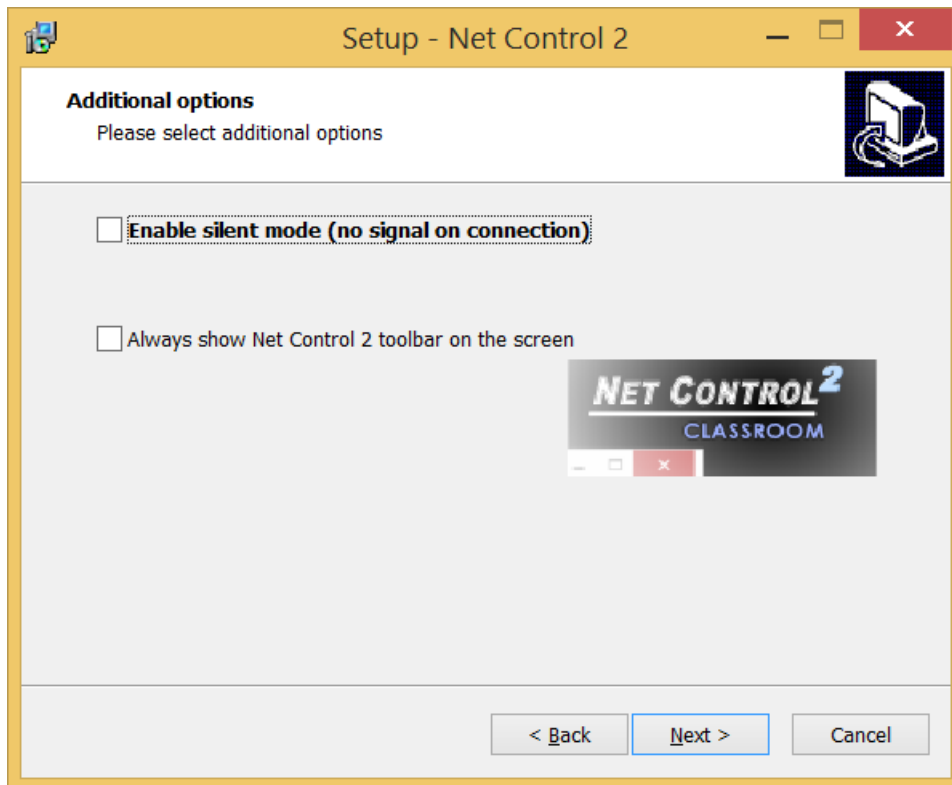
IP address or DNS name of teacher computer #3 (optional)

More

< Back Next > Cancel

Here you can enter IP address or DNS name of teacher computers, to which this student computer should connect. If you need to specify more than 3 computers, click “More” button and enter the addresses, one address per line.

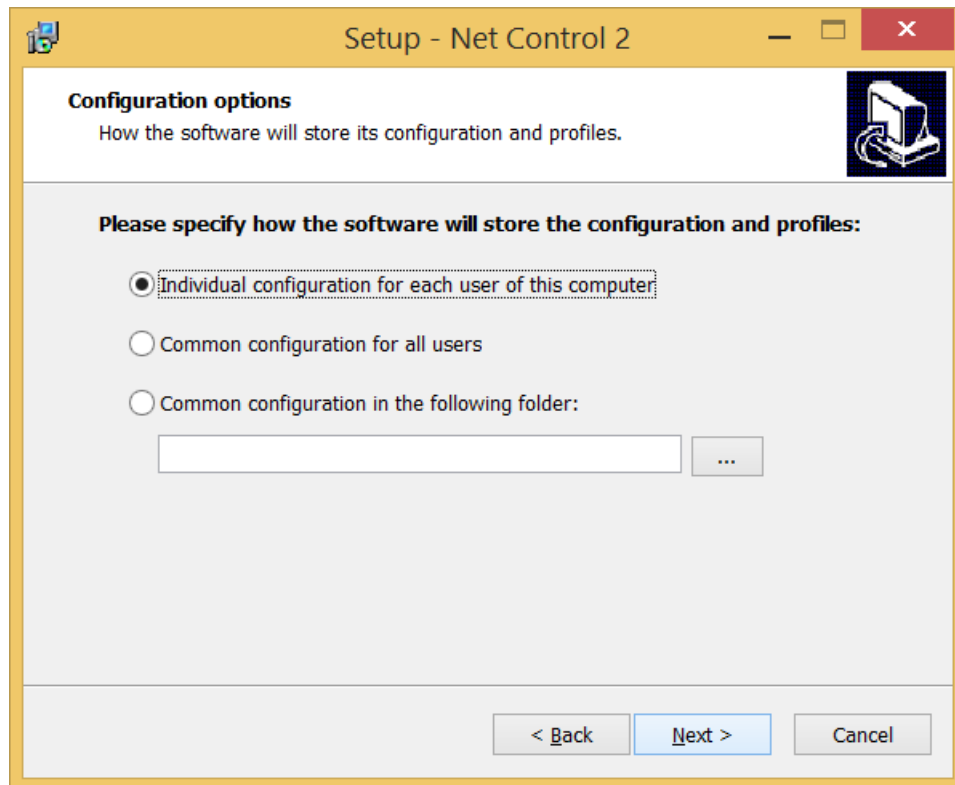
7. **Additional options for the student module installation**



Enable silent mode (no signal on connection) - when it is not enabled, the student module will alert with a sound signal and text notification when a teacher computer is connecting to it. Enable this option to suppress the sound signals and text notifications.

Always show Net Control 2 toolbar on the screen - when enabled, Net Control 2 will display Net Control 2 toolbar on student computers. The toolbar is a button that **is always shown** on the screen of a student computer, at the top-right hand corner of the screen (by default); the user can click this button to open the Student Console.

8. If **Teacher Components** are selected, select how the teacher configuration will be stored:



Individual configuration for each user of this computer - the workspace, profiles, settings and Net Control 2-related documents will be individual for each user of this computer and stored in personal folder of the user, for example:

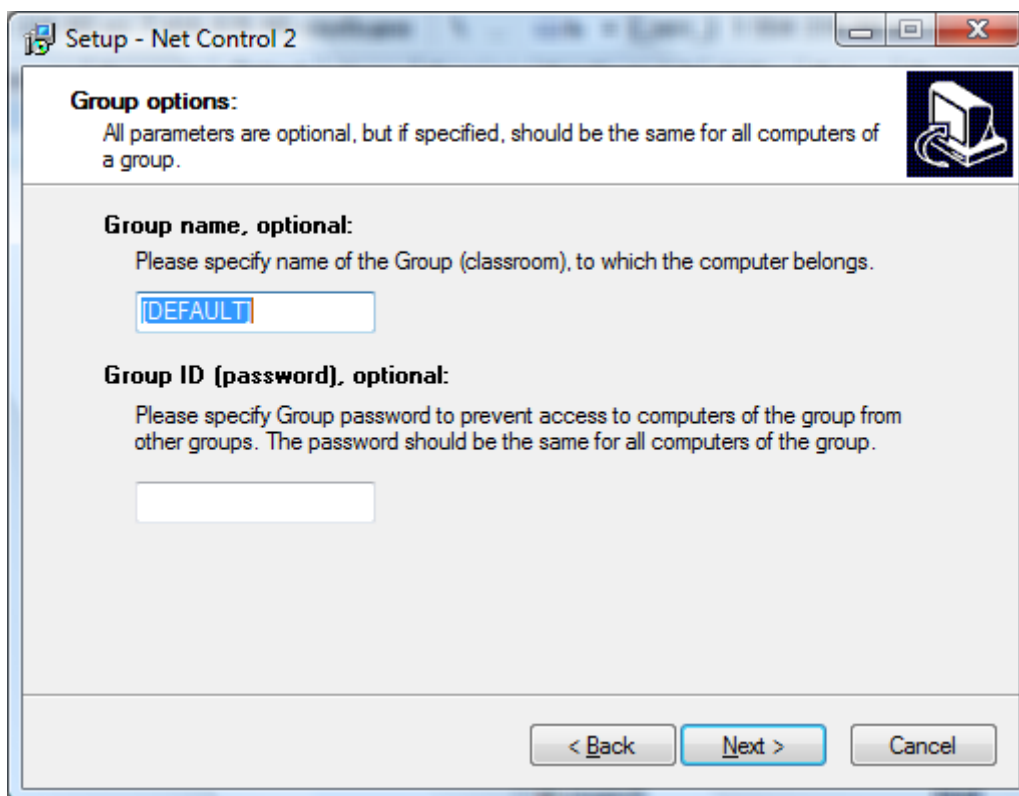
“C:\Users\LOGINNAME\AppData\Roaming\Net Control 2” for Windows Vista/7/2008

“C:\Documents and Settings\LOGINNAME\Application Data\Net Control 2” for Windows XP.

Common configuration for all users- the configuration will be common for all users of this computer

Common configuration in the following folder - the configuration will be stored in a specified folder.

9. **Select Group options** (only if the software was not installed on this computer earlier)



Setting up any **group name**, excepting “[DEFAULT]”, will make this computer a part of the specified Net Control 2 group.

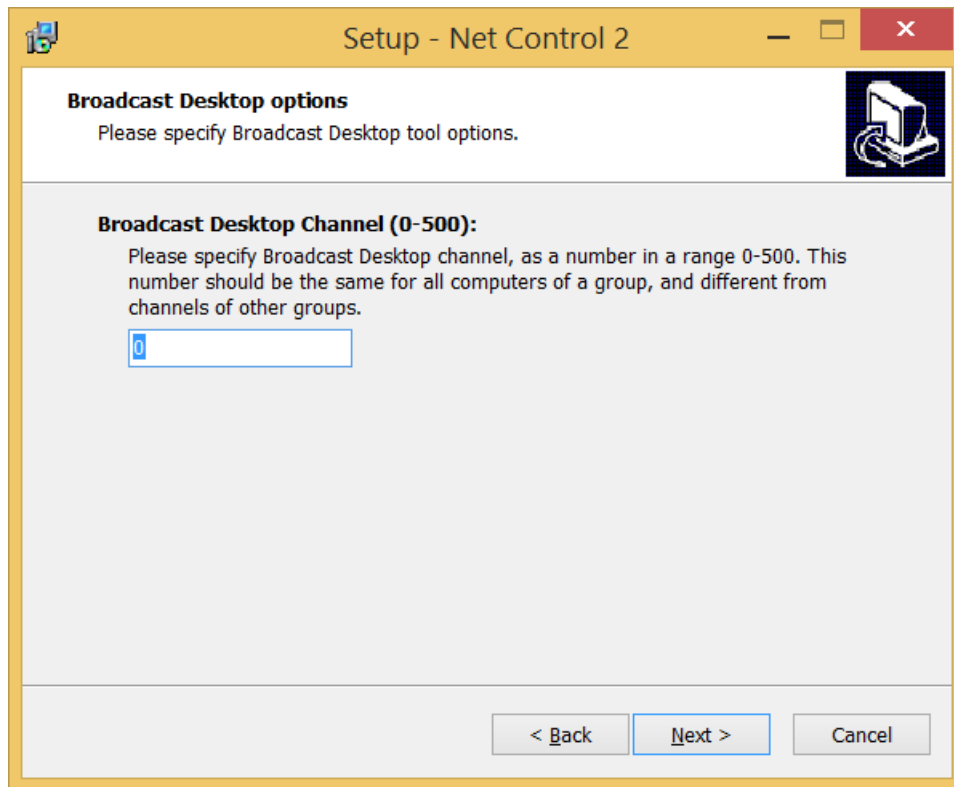
If you have several classrooms in the same network, we recommend placing all computers of one classroom to the one the same group. This will help to isolate computers of the group from other computers and groups. **Group name should be the same for all computers of the same classroom.**

You can leave this option empty or do not change it, if all computers are present in one group or the software will not be installed in other classrooms.

Optionally, together with Group name you can specify the **Group password**. Setting this option up may help prevent access to computers from other groups. The password must be the same for all computers of the same classroom.

Group options are allowed to set up only if the software was not installed earlier on this computer. If the software was already installed, Group options may be changed only using the software’s configuration. For more information about groups please refer to the Chapter I of this manual.

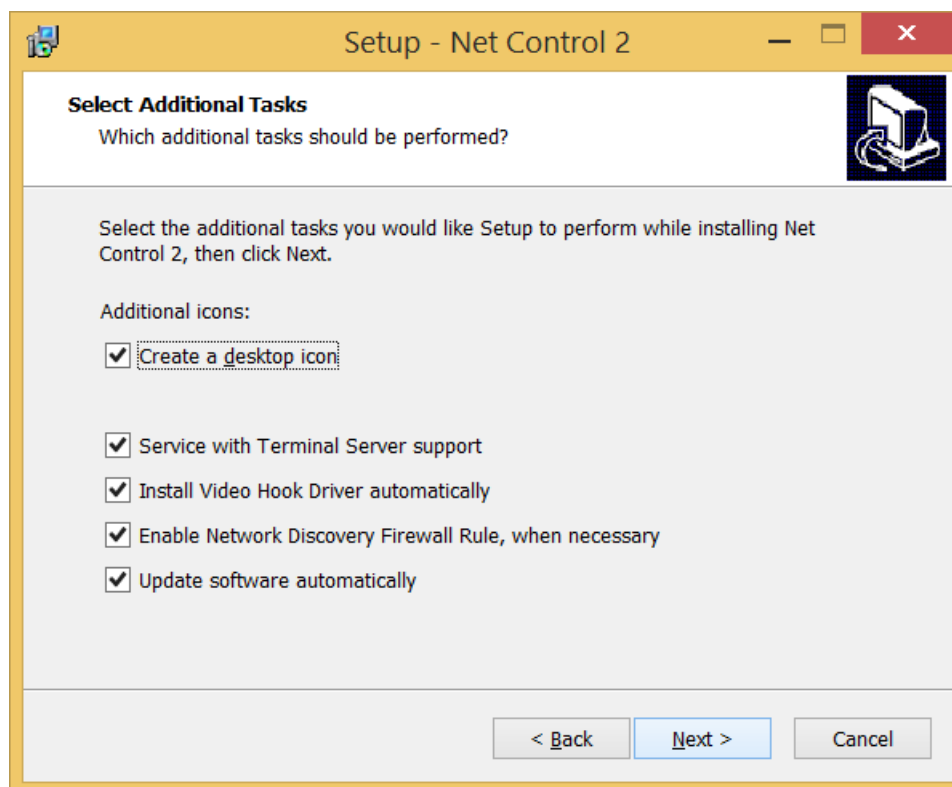
10. Select the default **Broadcast Desktop** options (only for teacher components):



The **Broadcast Desktop Channel** number should be different for every lab of your network, otherwise the transmission sent in one classroom, will be “visible” in other classrooms.

After installation you can change these settings in the Teacher Console, clicking the main menu command **N -> Options -> Control Options; Control/Broadcast** page.

11. Review and select the appropriate Additional installation options:



Enable Network Discovery Firewall Rule - enables the Network Discovery rule of Windows Firewall in Windows Vista/2008/7. This rule is required for connectivity between computers in a local network and is enabled by default for “private” and “work” network profiles of Windows Firewall.

Update software automatically - enables automatic update of the software over the Internet. When enabled, Teacher Component will check the update server every 14 days for available updates, download, and install them automatically when necessary. This feature is available in the software for registered users only.

During the installation, Net Control 2 will automatically install the Video Hook Driver, which is a required component for Remote Desktop, Broadcast Desktop, and Desktop Recorder tools. During the driver setup, the screen may flicker several times.

6. Restart the computer after installation.

B. INSTALLATION OF STUDENT COMPONENTS USING ACTIVE DIRECTORY/GROUP POLICIES AND MSI PACKAGE.

Requirements: Network with domain, Windows Server 2003, 2008 or 2012, Active Directory services enabled, and administrative privileges.

The Special MSI package described below is available for free-of-charge for registered, educational or commercial customers by request. This package is intended for the installation of the Student Component only, in default configuration and without any

additional modification or configuration. To request the file please visit the following page: <http://www.netcontrol2.com/downloads>

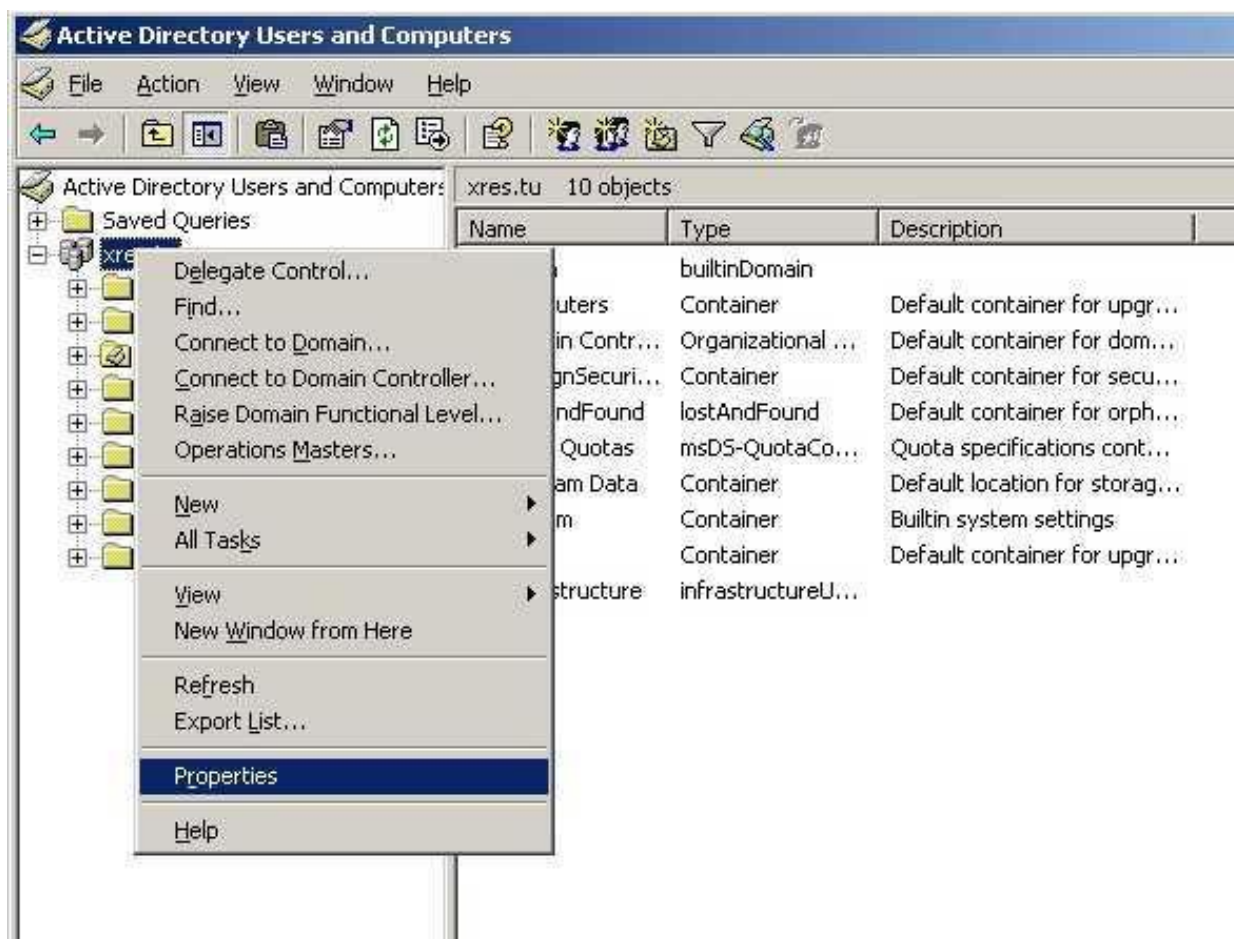
If you need to install the MSI package with some pre-defined settings, for example a Group Name, passwords etc., you can either request us for special **MSI Builder** tool for building custom MSI package for client components deployment or set up Net Control 2 Client settings over Active Directory/Group Policy with administrative templates.

MSI Builder package is available for free of charge for registered or educational customers by request.

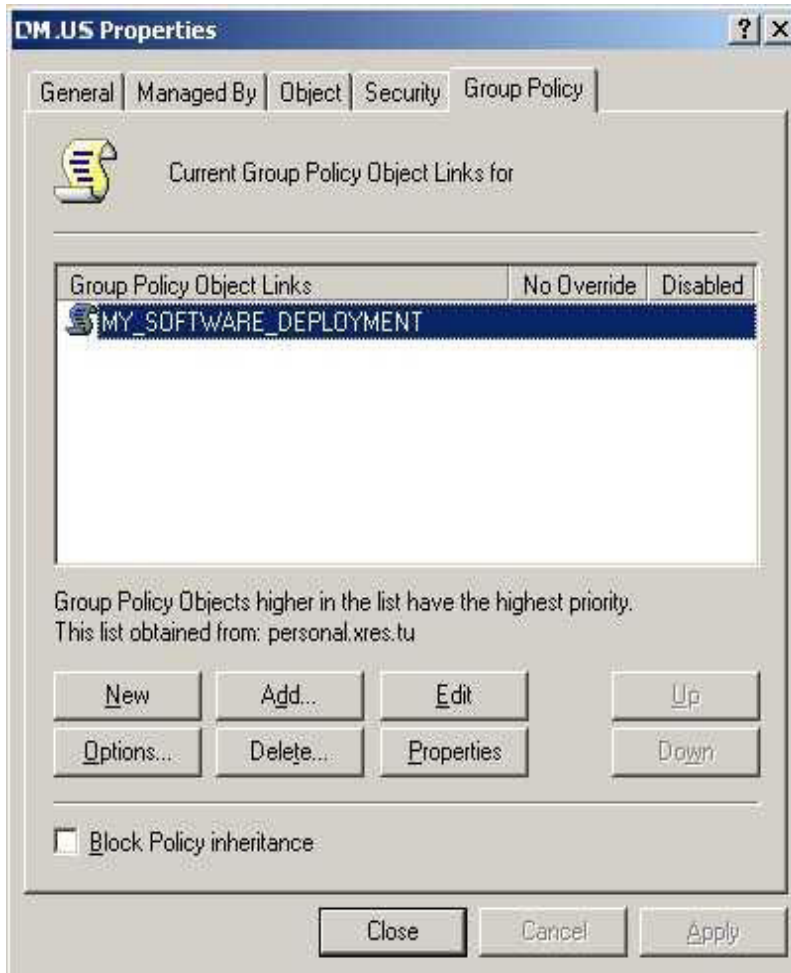
Additional information regarding **setting up the client module settings** with Active Directory Group Policies please see below in **Chapter C**.

To install either the standard or custom MSI package:

1. Copy the MSI package to a shared folder on your network.
2. Log in to the Domain Controller with administrative privileges. For Windows Server 2003, click **Start -> Programs -> Administrative Tools -> Active Directory Users and Computers**.
3. On the left pane, browse and select the domain where you wish to deploy the package. Right click and select **Properties**:

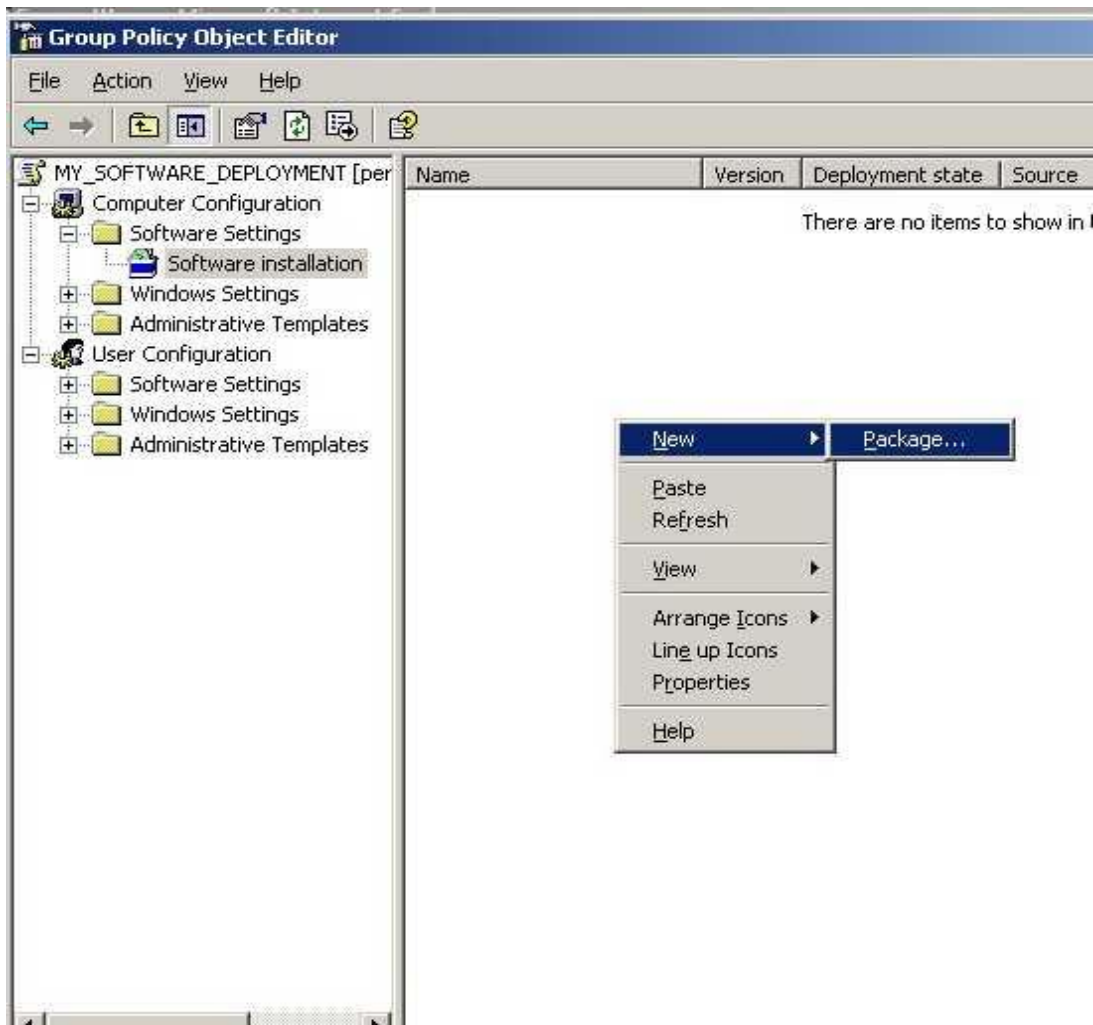


4. In the Domain properties window, switch to the **Group Policy** tab, click the "New" button, specify a name for the policy, and then click the "Edit" button:



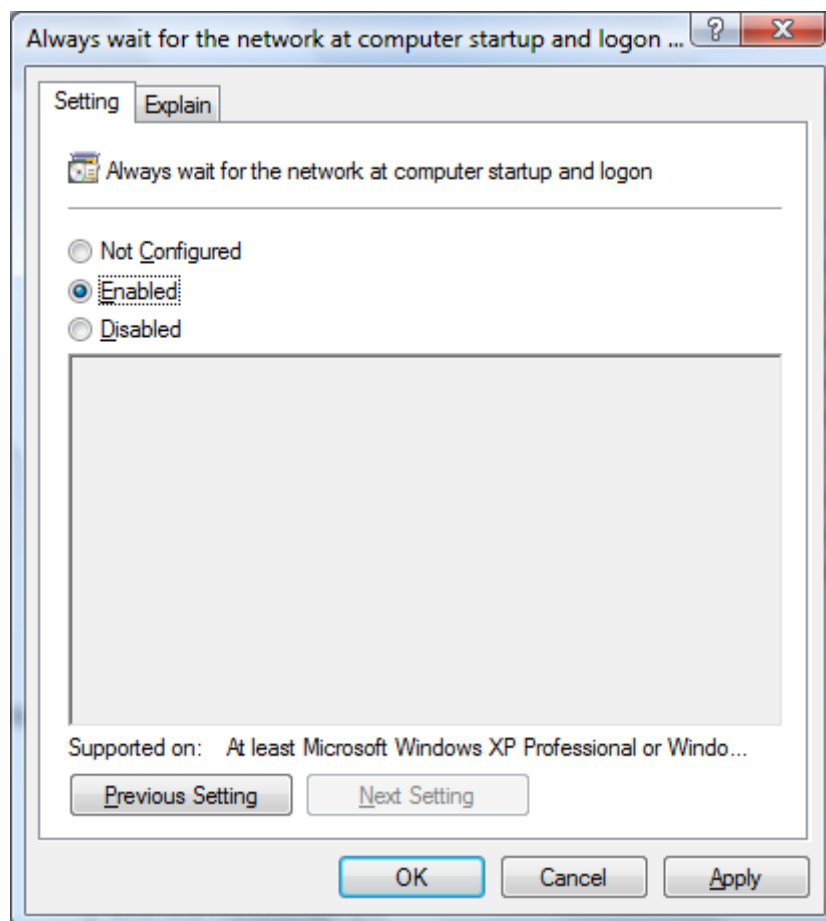
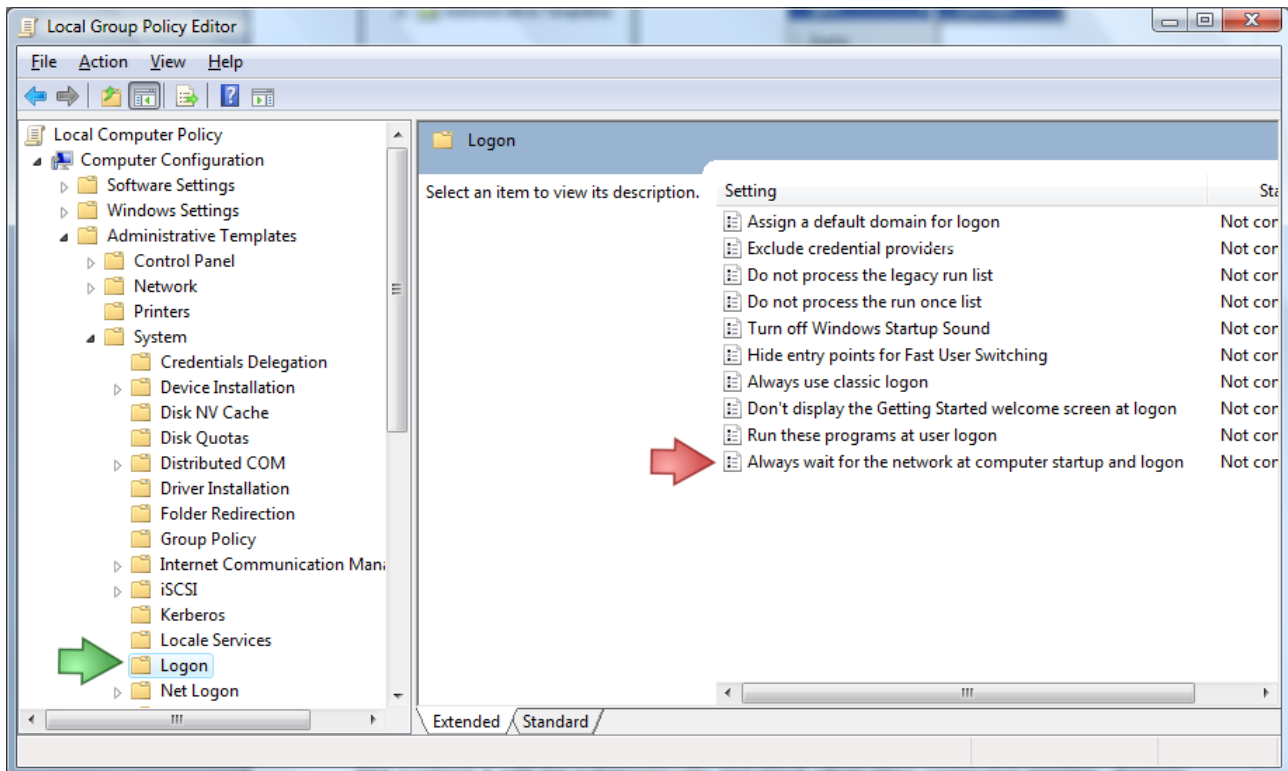
5. In the **Group Policy** window, expand the left tree: **Computer Configuration** -> **Software Settings** -> **Software Installation**. Right click within right pane area, and click menu command **New** -> **Package** from the context menu.

6. Browse for the network path to the Net Control 2 Server MSI package, choose "Assigned" and click OK. (Please note: You need to specify the network path to the package in this format -[\\SERVER\SHARED_RESOURCE_NAME\PATH\msi](#). This path should be valid and accessible for all user computers where the software will



be installed).

7. If Windows XP or later is installed on user computers, please enable "Always wait for the network at computer startup and logon" policy in the same Group Policy. Open Computer Configuration ->Administrative Templates ->System ->Logon ->Always wait for network at computer startup and logon policy; enable it.



8. Close Group Policies and restart the user computers.

Net Control 2 will be automatically installed when a User computer applies domain settings at Windows startup and logon.

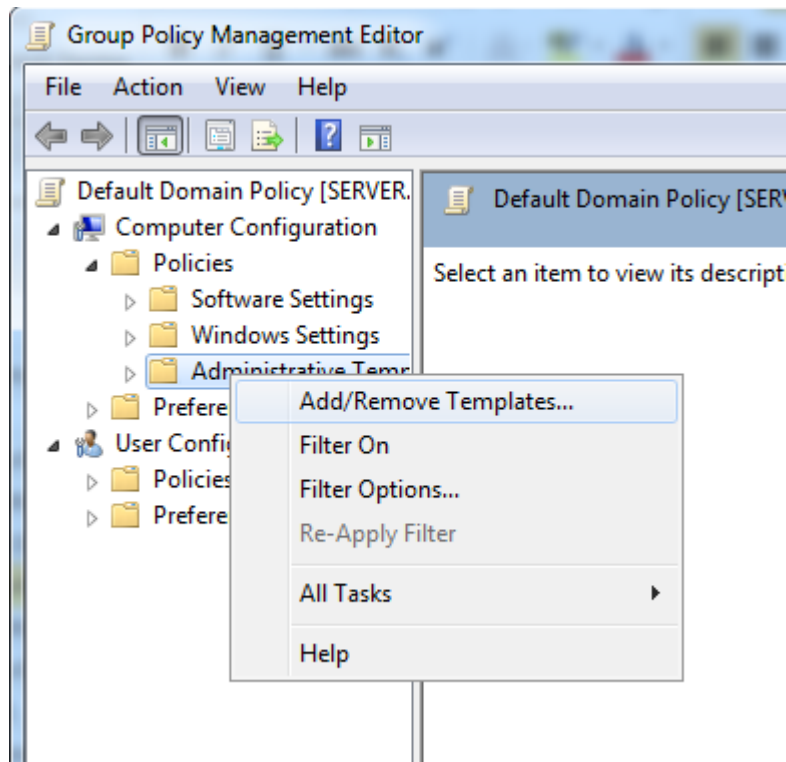
To remove Net Control 2 software from user computers, remove the Net Control 2 package from the Software Installation list as described in p.5 of this chapter.

To update Net Control 2 software on user computers, remove the Net Control 2 package from the Software Installation list as described in p.5 of this chapter and add a new package.

C. SETTING UP THE NET CONTROL 2 CLIENT AND TEACHER SETTINGS WITH ACTIVE DIRECTORY ADMINISTRATIVE TEMPLATES.

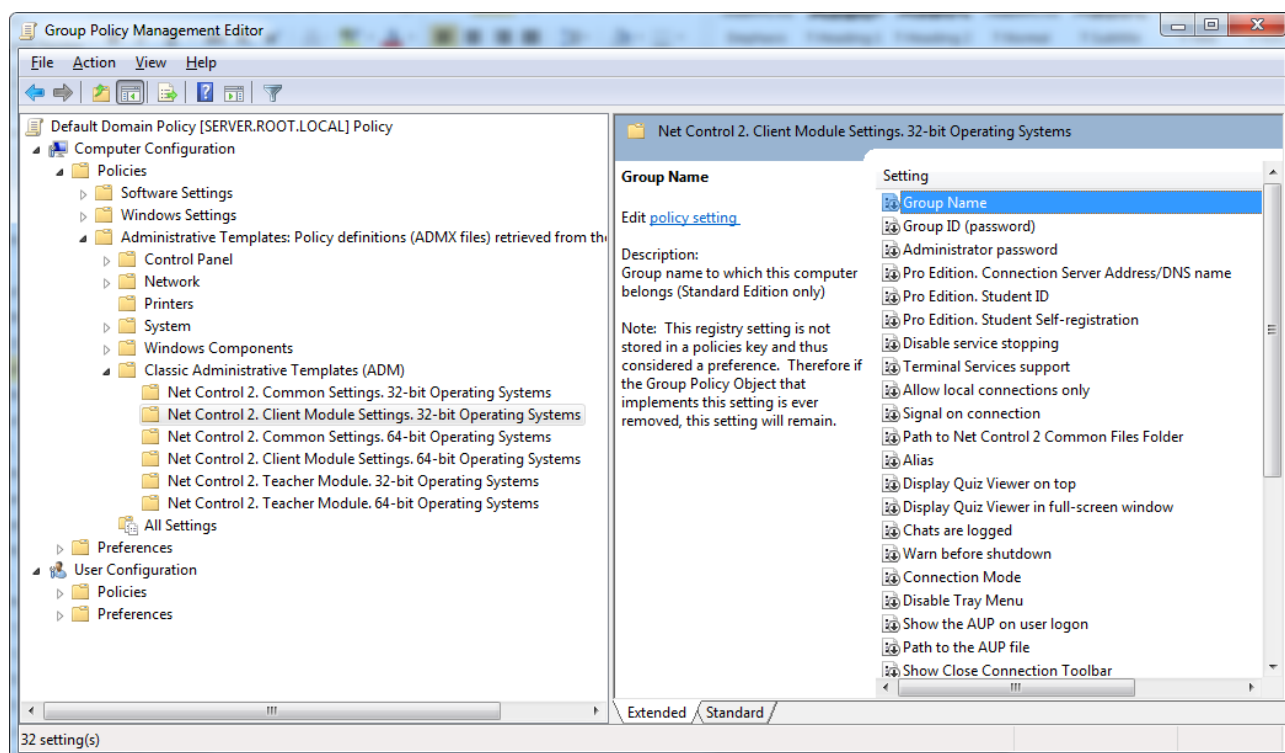
Several settings of Net Control 2 Client Module and Teacher module may be set up remotely using Active Directory Group Policies of Windows Server 2003-2012.

1. Download the administrative templates:
<http://www.netcontrol2.com/getfile?id=nc2client.adm>
and
<http://www.netcontrol2.com/getfile?id=nc2teacher.adm>
2. Open the Group Policy Management console: for Windows 2008/2012 click Start -> Administrative Tools -> Group Policy Management.
3. Select a policy where the settings should be deployed. For example Default domain policy.
4. Right click it and select **Edit** menu command to open **Group Policy Management Editor**.
5. In the editor, at left pane open **Computer Configuration -> Policies -> Administrative Templates**.
6. Right click the **Administrative Templates** option and click **Add/Remove templates** menu command:



7. In **Add/Remove Templates** window click **Add** button to add Net Control 2 template files downloaded in p.1

8. When templates are imported you can change Net Control 2 settings in **Computer Configuration -> Policies -> Administrative Templates -> Classic Administrative Templates (ADM)** section. Settings in 32 and 64 bit operating systems are stored separately and therefore the administrative templates provide separate sections for 32 and 64 bit operating systems. If you have mixed computers with 32 and 64 bit operating systems, both sections should be configured.



D. SCRIPT INSTALLATION WITH STANDARD INSTALLATION PACKAGE.

To install the software using standard Net Control 2 Setup installation package in automatic execution mode and without manual configuration, you can run it with the following parameters:

/SILENT - run installer in non-interactive mode without additional prompts

/COMPONENTS="adm user comm drv lspm\ho" - space-separated list of components, which should be installed. Possible values:

adm - Teacher Component

user - Student Component, install as service (default)

comm - Common components (required)

drv - Install NC2 Video Hook Driver (required for Remote Desktop, Broadcast Desktop and Desktop Recorder tools)

lspm\lsp - Install Internet Control Engine in Mode 1: as Internet Explorer plugin and with internal control of Internet Explorer. In this mode Net Control 2 can control only websites visited in Internet Explorer browser, and cannot control other browsers like Firefox, Chrome or Safari. This mode is recommended if you experience issues with the default Mode 2.

lspm\ho - Install Internet Control Engine in Mode 2: as protocol layer module and Internet Explorer addon (this mode is recommended).

/NORESTART - Do not restart computer automatically after installation

/BDCHANNEL:NN - (optional) specifies Broadcast Desktop channel. Instead of NN please specify the number of Broadcast Desktop channel. When not specified, uses the default channel.

/GROUPNAME:Name - (optional) - specifies Group Name for this computer. Used only if the software was not earlier installed on this computer.

/GROUPID:Password - (optional) - specifies Group ID (password) for this computer. Used only if the software was not earlier installed on this computer.

/ADMPASS:password (optional) - set up administrator password for the student module.

/ADV>ShowMiniToolbar=0 (optional) - disables Net Control 2 toolbar on student computers.

Example 1. To install the software, Student components only in default configuration, execute the following command line:

```
D:\Downloads\net1100r.exe /SILENT /COMPONENTS="user comm drv lspm\ho" /NORESTART
```

Example 2. To install Teacher components of the software only, execute the following command line:

```
D:\Downloads\net1100r.exe /SILENT /COMPONENTS="adm comm drv" /NORESTART
```

D:\Downloads should be replaced to the actual path to installation package on local

computer.

E. INSTALLATION STUDENT COMPONENTS OF THE SOFTWARE USING NET DEPLOY TOOL.

Requirements:

- A network with domain;
- User who is installing the software remotely must be an administrator of the computer where the software will be installed (have administrative privileges);
- The Administrative Share (Remote Admin) resource should not be disabled;
- Net Control 2 software is already installed on the Teacher computer;

The Remote Admin resource.

Remote installation of Net Control 2 software with built-in NetDeploy tool is possible only if Administrative Share ("ADMIN\$") resource is enabled on computers of the network.

1. How to check whether Administrative share is enabled on client computer

On Client computer run Command Prompt (press Win+R on a keyboard and type cmd.exe)

in the Command Prompt window type:

net share

verify that the ADMIN\$ shared resource is in list of resources.

2. How to enable Administrative share resource:

Windows XP Professional:

in Local Security Policy (Windows' Start button -> Administrative Tools -> Local Security Policy) select Security Settings -> Local Policies -> Security Options. At right pane select "Network access: sharing and security model for local accounts" policy, set this policy to "Classic - local users authenticate as themselves"

Windows XP Professional SP3:

- Open Explorer and select Tools -> Folder Options
- Select the View tab and scroll all the way down to the bottom of Advanced Settings
- Make sure that "Use simple file sharing (Recommended)" is not selected

Windows Vista and 7:

Add the following setting to the system registry of every client computer:

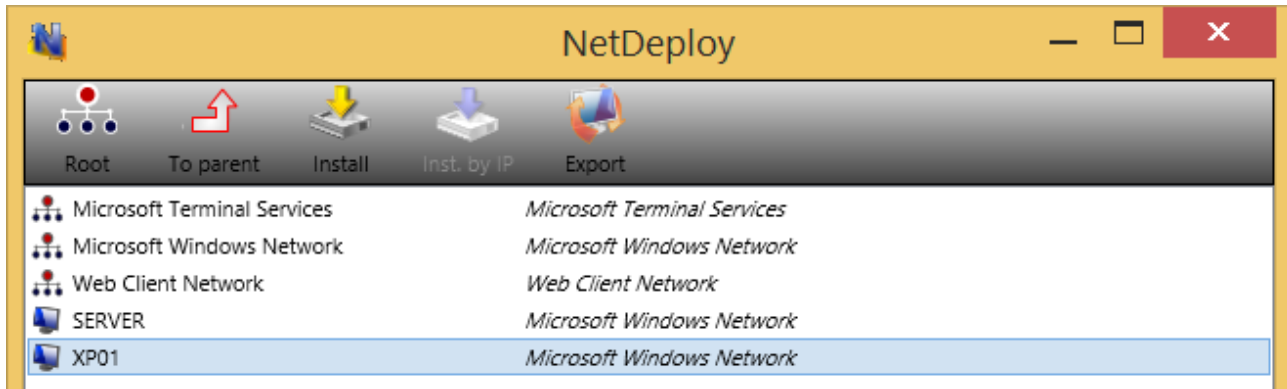
Key: HKEY_LOCAL_MACHINE\Software\Microsoft\Windows\CurrentVersion\Policies\System

Value: LocalAccountTokenFilterPolicy :**DWORD** = 1

To apply changes after altering this setting you need to restart the client computer.

To install the software:

1. Run Net Control 2 Teacher;
2. Click on Top toolbar's command **Net Deploy (Advanced Tools tab)**;
3. In **Network Neighborhood**, find and select computers where the software should be installed;



4. Click **Install** (“Install Net Control 2 on Selected Computers”) button on the top toolbar;
5. Specify local path to *Net Control 2 Setup installation package*;
6. Specify components of the software that should be installed;
7. Specify Advanced options when necessary;



7. Click the **OK** button.

The program will try to connect to the remote computer and install the software. If the login name and password of the remote computer's administrator differs from the name and password of currently logged in user, Net Control 2 will prompt to enter the correct login name and password on the remote computer.

This method of installation will fail if:

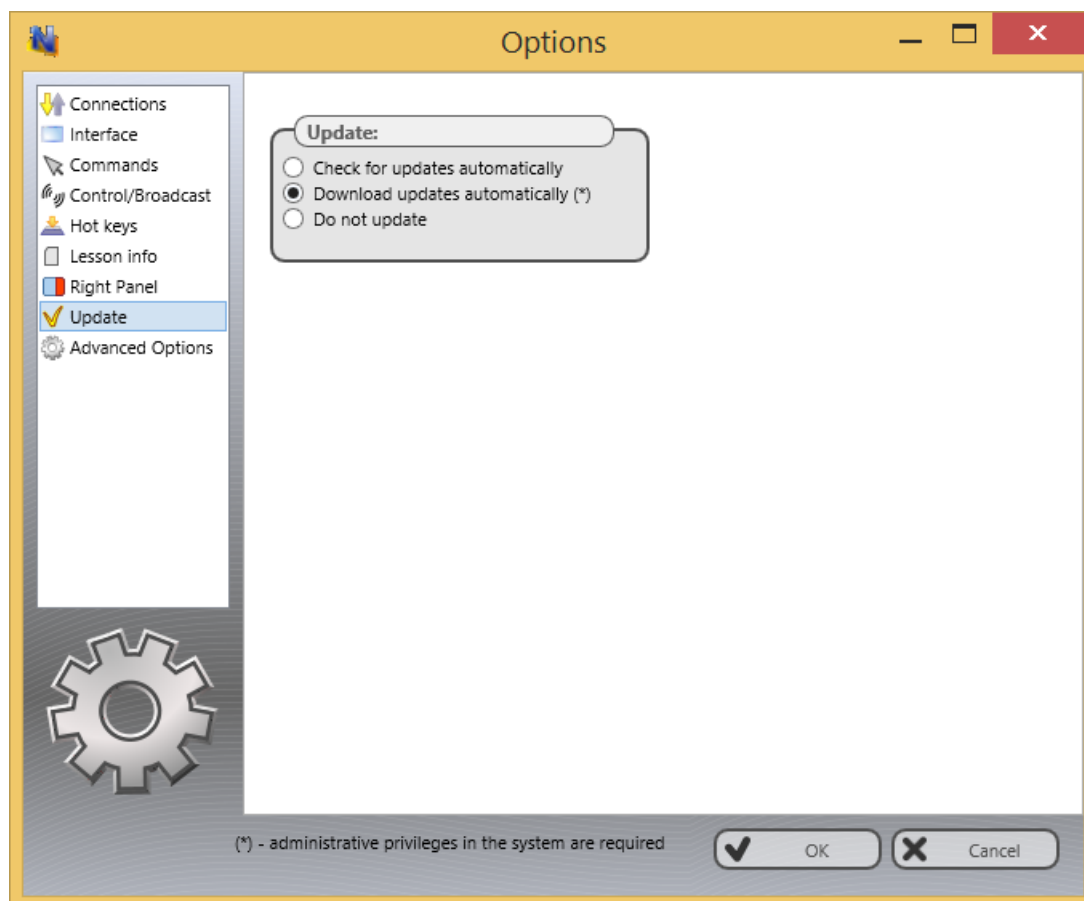
- Your network does not have domain
- You do not have local administrative privileges on remote computer
- Provided login name and password of administrator is incorrect

F. UPDATE.

F.1. Automatic update.

Net Control 2 has built-in automatic update tool, which can perform automatic update for the most important updates:

- If the Teacher computer is connected to Internet
- If Automatic Update is enabled in the NC2 Main menu
N ->Options ->Control Options, Update page, Download Updates Automatically option is enabled



The software will check the NC2 update server every 14 days for available updates. If any update is found, the program will download it to the teacher computer and will

deploy it to the user computers as soon as they are connected to the teacher computer.

Please note: To change the Update options, the program should be started with administrative privileges in the system. For Windows Vista/2008/7/8, you need to run the program as follows:

- right-click on the Net Control 2 icon on Desktop or in Start ->Programs menu
- click menu command **Run As Administrator**
- confirm execution

F.2. Manual update using standard installation package.

- download the latest installation package
- in Net Control 2 Teacher, select the student computers
- click menu command **N ->Help and Support ->Update Client**
- specify path to *Net Control 2 installation package*

The package will be uploaded to the student computers and install. During installation, the student computer will be automatically restarted.

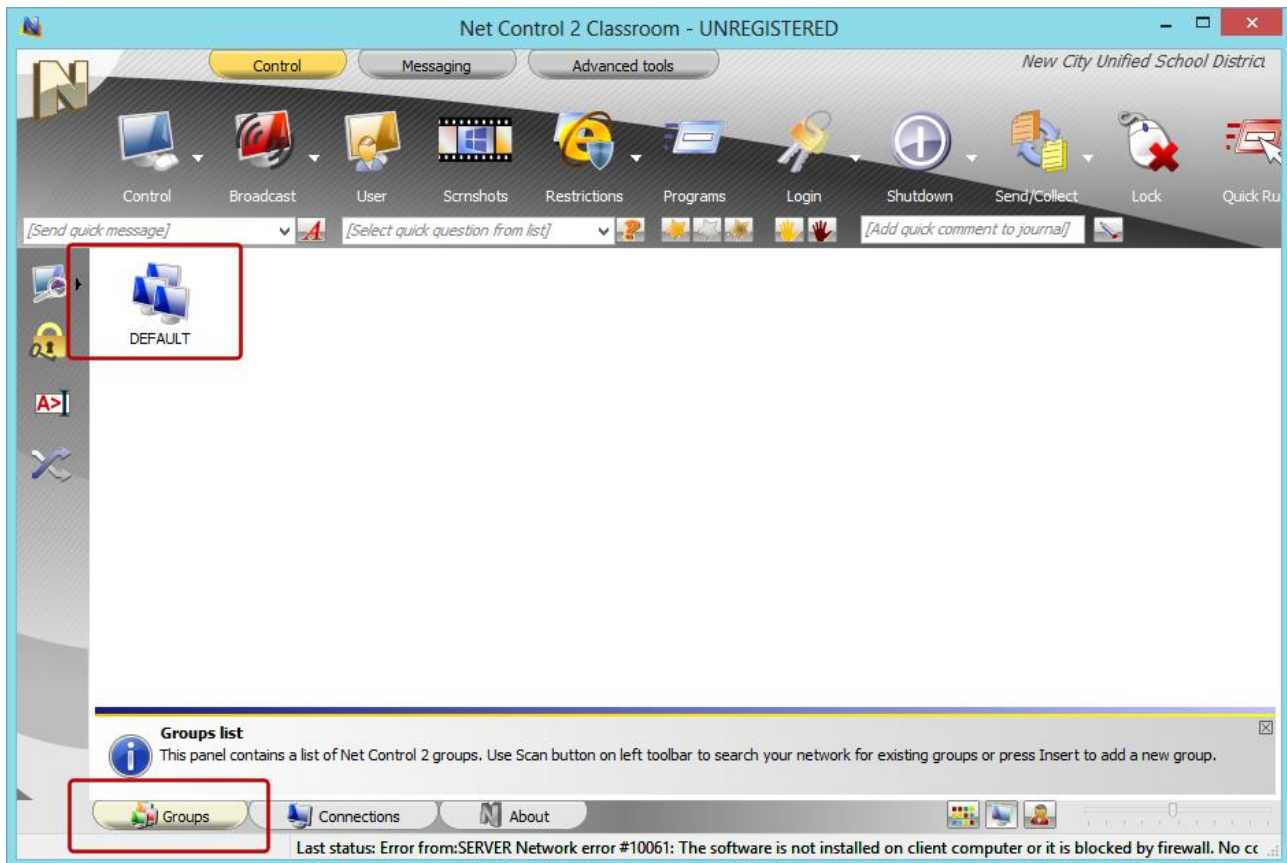
F.3. Update with MSI package.

If the software was installed earlier via **Active Directory/Group Policies** and MSI package, you can update it, removing the older package from Group Policies, and installing the new package. Please see chapter D of this manual.

G. FIRST START.

If the software is installed on Teacher and Student computers, on teacher computer run Net Control 2 Teacher Console (using the link on Desktop or in Start menu).

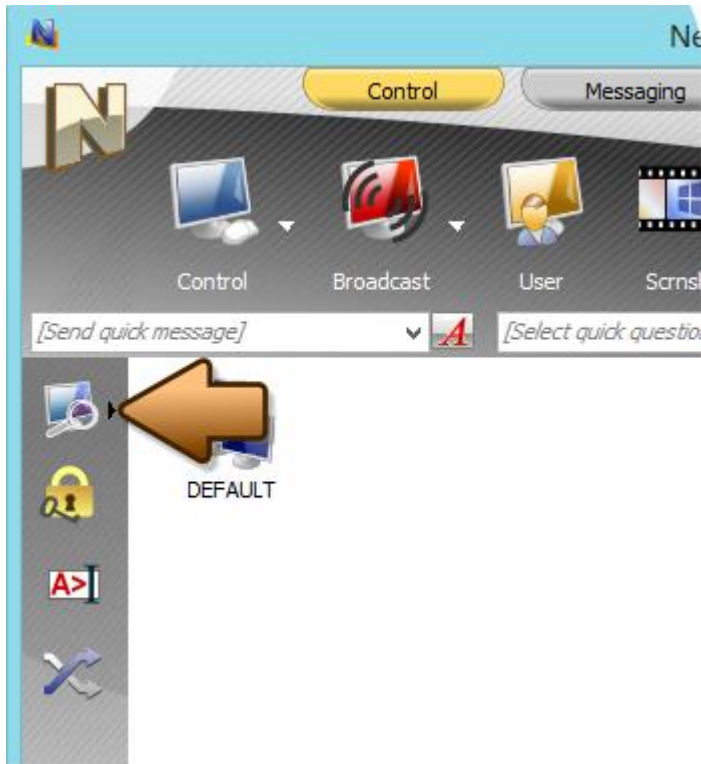
By default Net Control 2 has only one group - **“Default”**:



If you have not set up Group Name parameter on student computers, all student computers will be placed to this group. To open the group double click it.

If you have assigned some **non-default Group Name** to student computers first you need to scan your network for groups:

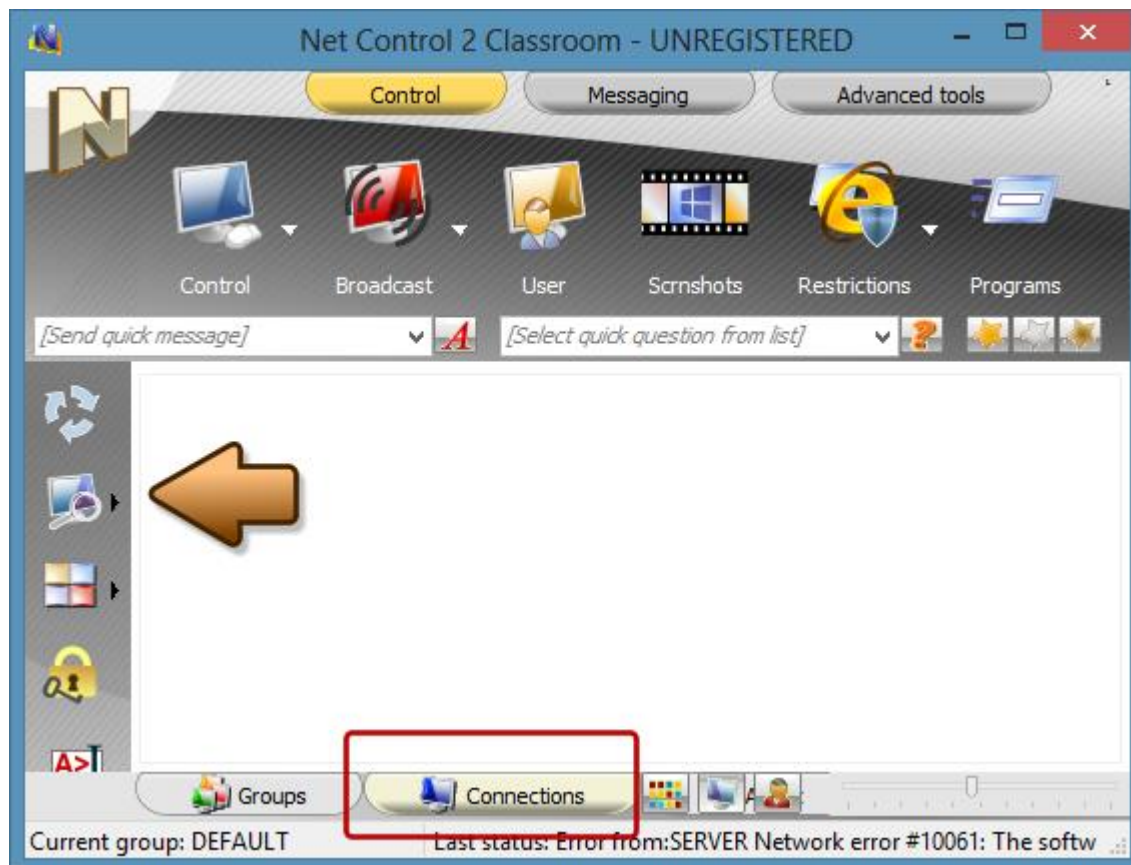
- on Groups tab (at the bottom of main window) click Scan button (on left toolbar):



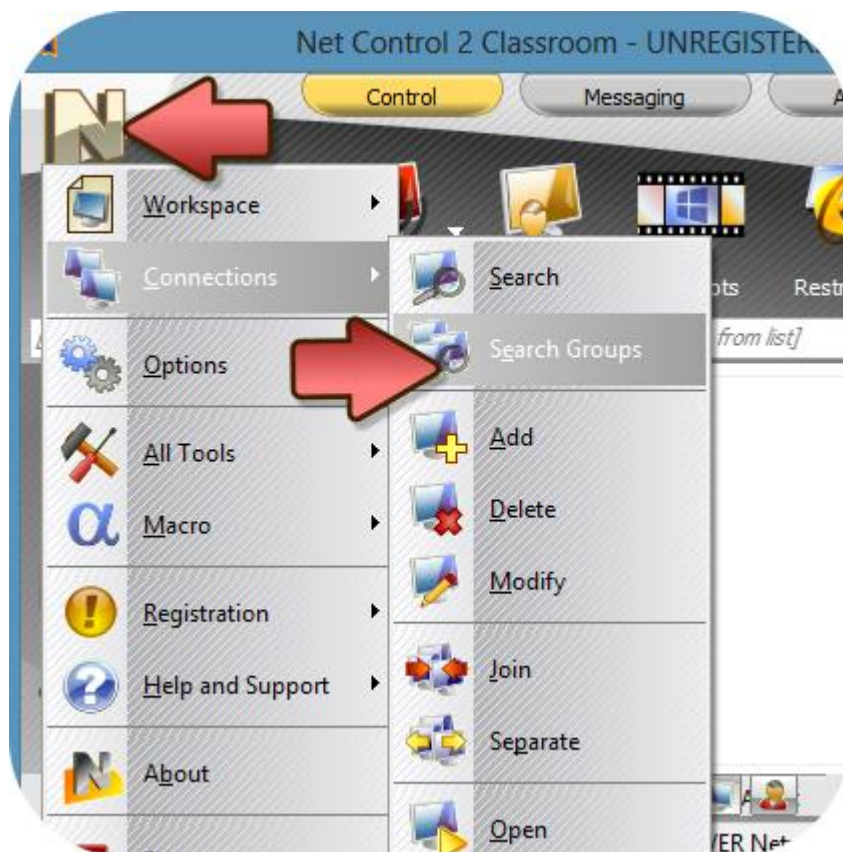
To open any found group double click it.

1. If student computers were configured to work in “Multi-VLAN” mode (please see Chapter A, p.5), the connections should appear in the teacher console within 20-30 seconds automatically.

2. If student computers were configured as “Single-VLAN” mode, open Connections tab and click Scan button to perform scanning your network for available computers:



If no computers were found in the process of scanning, please try to click the main menu command N - Connections - Search Group:



If computers still can't be found, please check state of firewalls on both student and teacher computers: Net Control 2 modules should be enabled there
(<http://kb.netcontrol2.com/entry/23/>)

or consider to use Multi-VLAN connection mode as specified in Chapter A, p.5

3. If computers were configured in Multi-VLAN mode and the operation of scanning of the network for groups did not result, try to add groups manually:

- open Groups tab at the bottom of the main window;
- press Insert on the keyboard and specify name of the group;
- repeat the operation for all groups that should be added.

When groups and connections were found correctly, the connections should appear as follows:



To control computers select them in the list and apply a command from the top toolbar, N - Macro menu or N - Tools menu.

H. GROUPS

Each Student computer in Net Control 2 Standard is a member of some one group. When the group is not assigned, the computer belongs to group “DEFAULT”.

The group on student computers is assigned in the process of installation (first installation only), or in Client module settings.

For information how to change group name on student computer after installation please refer to chapter O of this manual.

In the teacher console:

- to scan current group for connections open the group on Groups tab and click Scan button on left toolbar;
- to scan network for groups and connections use the main menu command N - Connections - Search Groups;
- to add group manually: on Groups tab press Insert key on the keyboard.

To prevent access to a group by unauthorized teachers:

- select **all** computers of the group in the teacher console;
- click the main menu command N - Options - Client Options;
- in Client Configuration window set up Group ID option on Groups tab;
- click OK.

Next time when a teacher will try to connect these student computers, s/he will be prompted to enter this Group ID. Access to computers will be available only after entering the correct ID. The ID may be stored on teacher computer in group settings, and subsequent connections will be authenticated automatically. For this purpose it is strongly recommended to have the same Group ID for all computers of the same group.

To lock teacher console with only one group:

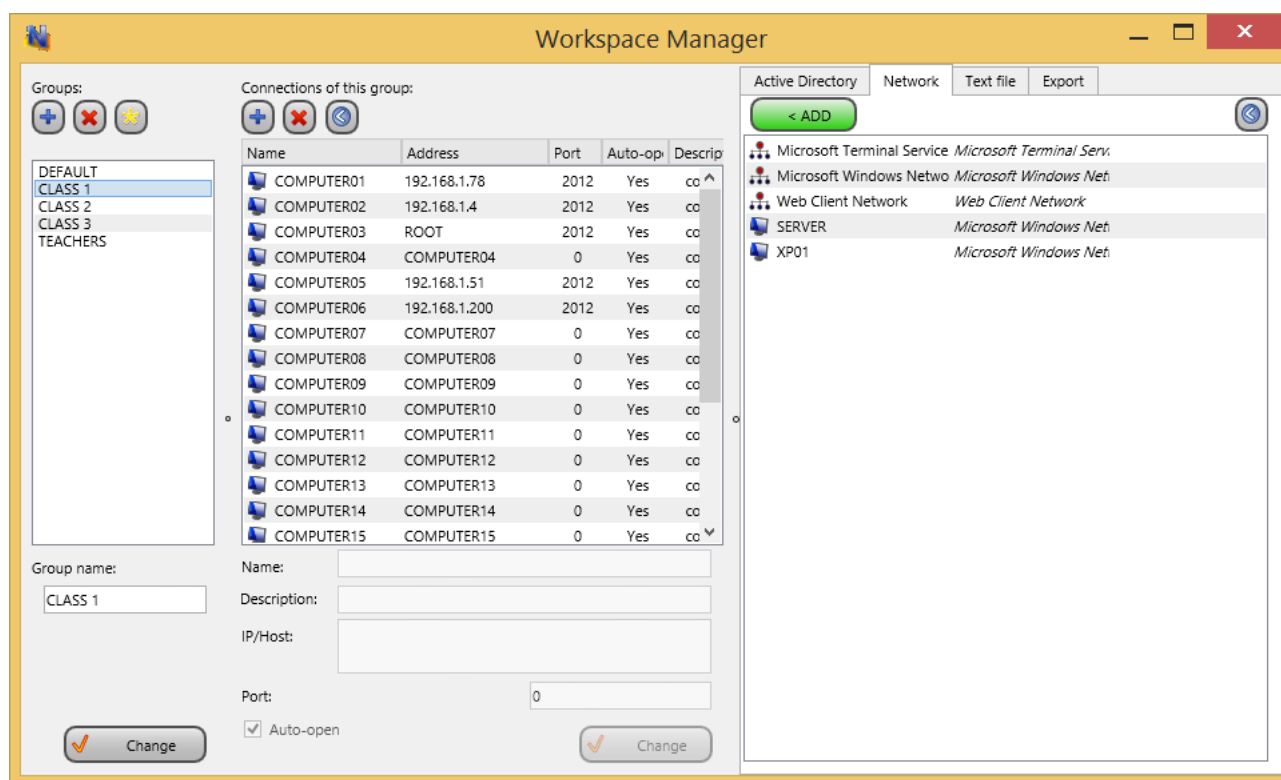
- open a group, that should be locked;
- click the main menu command N - Options -Options ;
- on Interface page click “Lock current group” button;
- specify the unlock password;
- click OK.

To unlock access to all groups, in the same manner click the appeared on Interface page “Unlock current group” button and specify the unlock password.

I. WORKSPACE MANAGER

The *Workspace Manager* is a special tool, which was designed for easy management of Net Control 2 workspace (list of groups and connections). Using the Workspace Manager you can create new groups and connections, modify them, import connections from the Active Directory, the Network Neighborhood or text files; move connections from one group to other.

To open the Workspace Manager, click the **"Workspace"** button on the Advanced Tools tab of the Top toolbar.



In the **"Groups"** list are specified groups of the current workspace. **To add a new group**, click "+" button; **to delete a group**, select it in the list and click "X" button.

To change name of a group in the workspace, select it and specify new name in the **Group Name** field. Click the **Change** button to apply changes. This operation will NOT change settings of client computers, and the group name will be changed only in the workspace of current computer.

To view or manage connections of a group, select the group in the “Groups” list. The “Connections of this group” list will contain connections of the selected group.

In this list, **to add a new connection**, click “+” button, specify new connection parameters at the bottom of the connections list and click “Change” button. To delete a connection, select it in the list and click “X” button.

To move connections from one group to other:

- Select connections in first group;
- Drag and drop them to the destination group in the “Groups” list.
- If connections are protected with Group ID (group password), at next step you can specify new group password, which will be assigned to moved connections.

Important! Group parameters are stored in settings of a client computer and *on the client computer*. Though the Workspace Manager can move connections to other group immediately (within the workspace of this teacher computer), to re-assign Group Name and Group ID in settings of a client, and to make these changes visible for other teacher computers, first this client computer should be connected by this teacher at least once after the operation of moving to other group is processed. Upon first connection the software will transfer new settings to the client. This means that until this moment, old group settings will be in effect on *client* side. Particularly, **the client computer will have old group password, and will react on search requests from the original group.**

Import tools.

Using the Workspace Manager you can easily import connections from the Active Directory, Network Neighborhood or custom text file to any group.

To import computers from the Active Directory, open the “Active Directory” tab at right pane of the Workspace Manager; select computers there and drag-

drop them to the "Connections of this group" list. In the same manner you can move connections from the Network Neighborhood (the "Network" tab) or custom text file (the "Text file" tab). Opening a file on the "Text file" tab, Net Control 2 will check the file for DNS names or IP addresses. All entries of the text file, which contain invalid names/addresses, will be omitted.

To apply changes close the Workspace Manager.

J. IMPORT CONNECTIONS FROM TEXT FILE

To create connections and groups lists from a custom text file:

1. Click **Import Connection from CSV File** command from the sub-menu of the Search button.
2. In the **Import Workspace** window, describe the structure of information in imported file.

An example: imported file contains information in CSV (comma-separated values) format:

COMPUTER01,LAB1,192.168.0.2

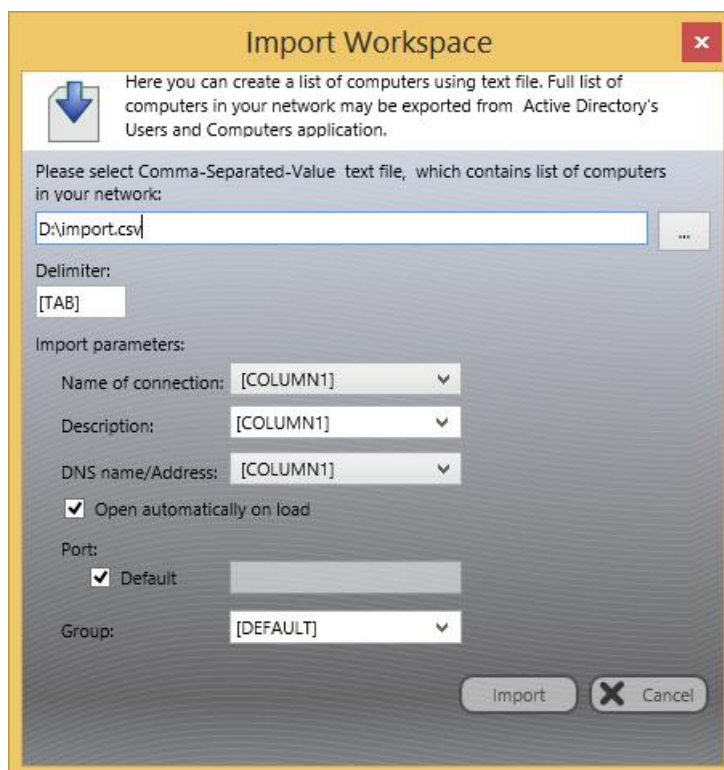
COMPUTER02,LAB1,192.168.0.3

...

COMPUTERXX,LAB1,192.168.0.XX

I.e. values are delimited with comma sign, first value is computer name, second value is a workgroup, third value is IP address.

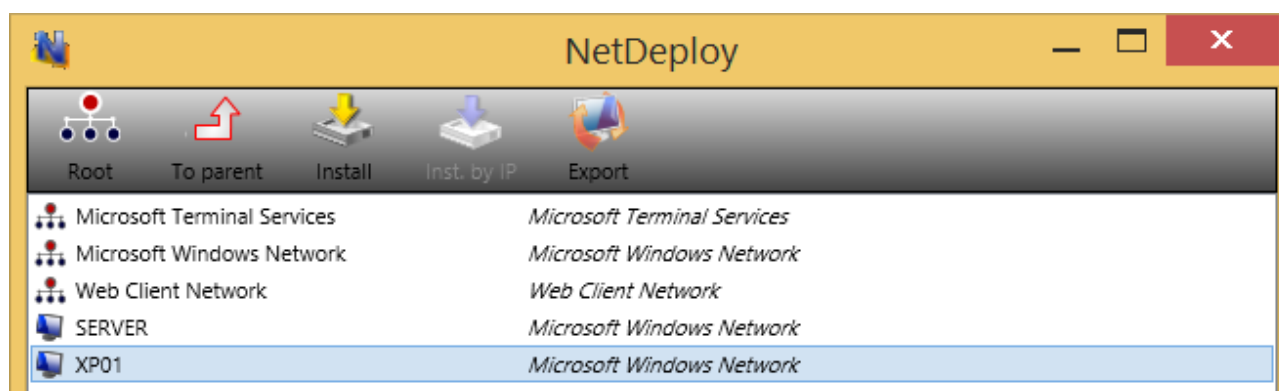
1. Open File, click the [...] button.



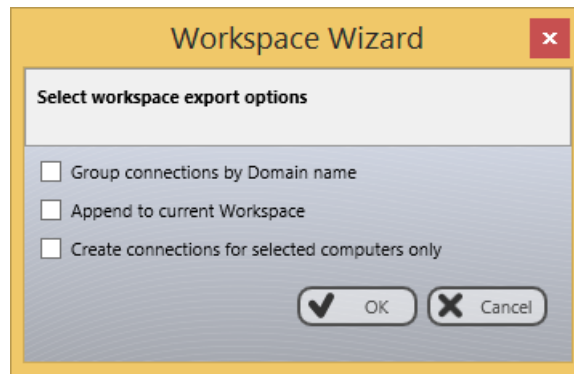
2. According to our file, name of connection is in first column, IP address is in third column, Group name is in 2nd group.
3. Click the Import button and restart the program.

K. IMPORT CONNECTIONS FROM THE NETWORK NEIGHBORHOOD

1. Click Net Deploy tool button on Advanced Tools tab.
2. Select the computers that should be imported.
3. Click the Export Computers to Connections List button.



4. Set up additional parameters:



Group connections by domain name - Net Control 2 will create a new group with the name of the domain and will import the connections to this group.

Append to current Workspace - If checked, imported connections will be added to current workspace; otherwise old connections will be deleted.

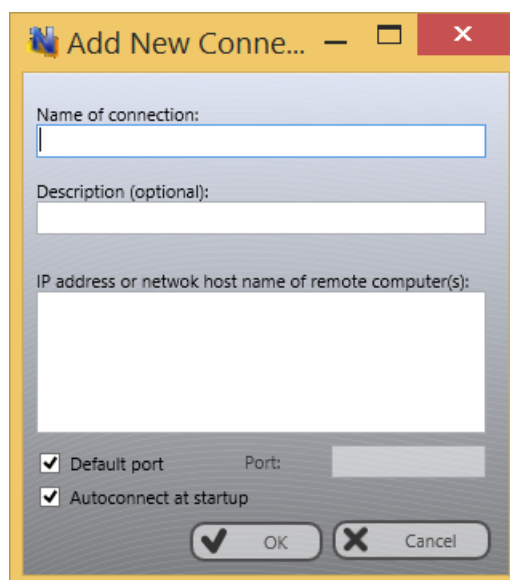
Create connections for selected computers only - When not selected, Net Control 2 will import all connections from the computer's list.

5. Click the **OK** button and restart the program.

L. HOW TO ADD/REMOVE/RENAME CONNECTIONS MANUALLY

To add new connection:

- click the menu command **N ->Connections ->Add** or press the **Insert** key
- specify the **Name of connection**
- add an optional description
- **IP address or network name** of Student computer
- click **OK**



To delete one or several connections from a workspace:

- select connections

- click the menu command **N ->Connections ->Delete** or press the Delete key

To rename the connection, change IP address or network name and description:

- select connection
- click menu command **N ->Connections ->Edit**
- modify properties of connection
- click **OK**

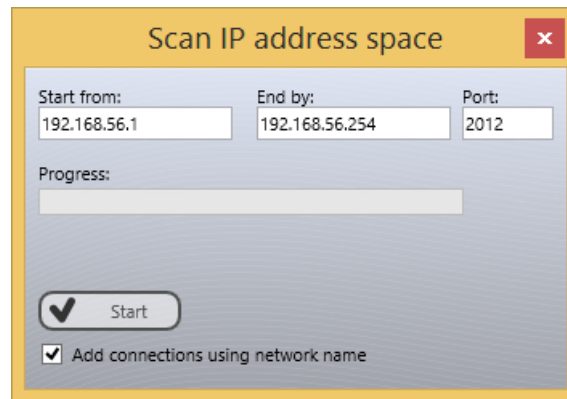
M. HOW TO SCAN IP ADDRESS RANGE OF NETWORK FOR AVAILABLE CONNECTIONS

Several types of networks do not support Broadcast mode of network scanning. In this case, you can scan the network for available connections using the Scan IP Range feature:

- click **Scan IP Range** command from sub-menu of **Scan Network For Available Connections** command on the *left toolbar*:



- specify scanning range as starting and ending IP address
- if your network uses dynamic IP addresses (addresses are not constant), verify that **“Add connections using network name”** option is enabled; if your network uses static addressing, this option may be disabled.



- click the **Start** button to start operation.

Please note: This operation may take a long time, up to 20-30 minutes per one class C subnetwork (253 computers).

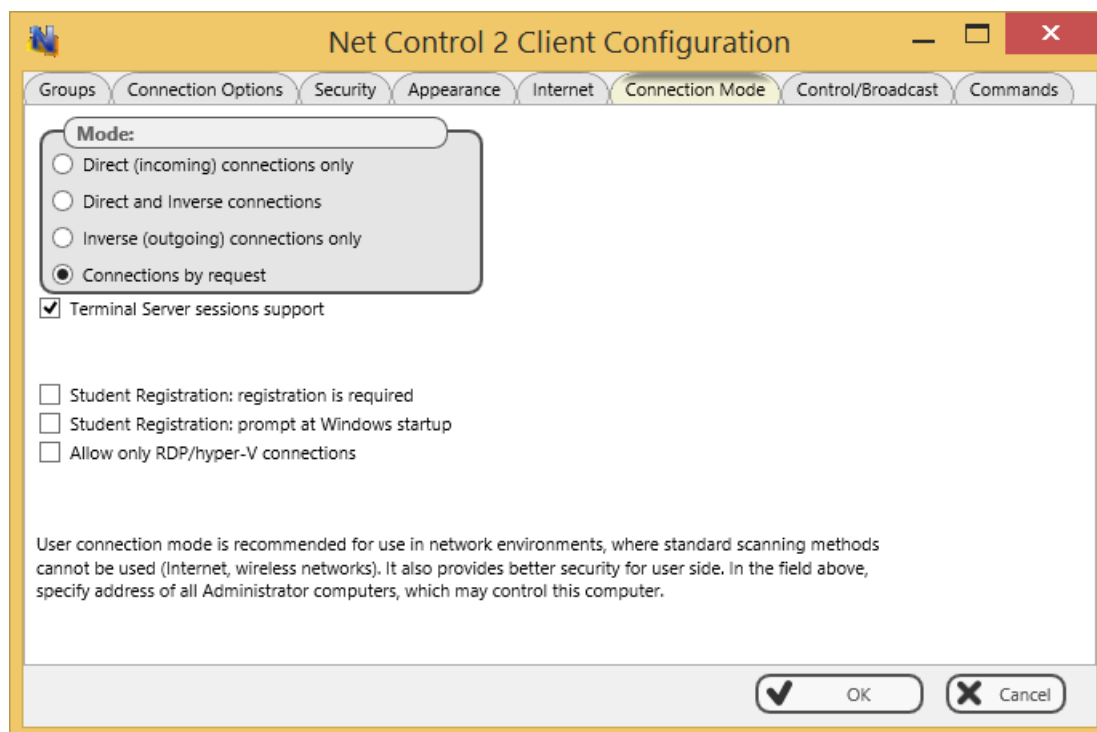
N. START BY REQUEST.

In situations when Net Control 2 service is used by network administrators only by user request, for technical support or communication purposes, when user privacy is important, it is possible to set up Net Control 2 service in special mode, when the service is inactive at computer startup, and to make it active the user should run the service manually through Net Control 2 Client menu in the System Tray.

In “inactive” state the service will not accept any incoming or outgoing connections to teacher/administrator computers, and such connections will be available only after switching the service to “active” state.

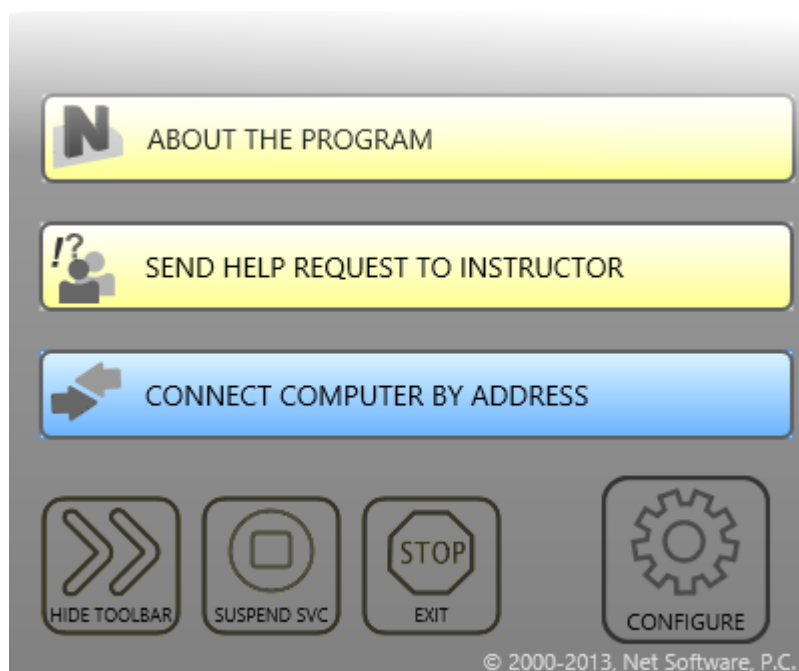
To enable this mode:

- in Net Control 2 Teacher Console, select student computers
- click the menu command **N ->Options ->Client Options**
- on the **Connection Mode** tab, enable **Stop Service at Startup** mode
- click OK

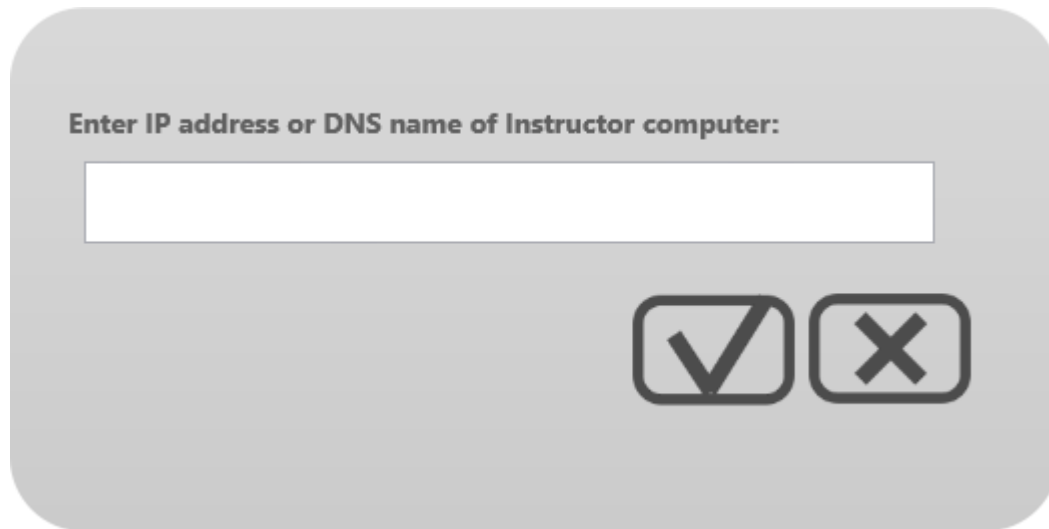


When the Student needs to connect to a Teacher computer, he/she can enable the service as follows:

- click **N (Net Control 2)** icon in the System Tray
- in the appeared Student Console menu, click the **Connect Computer by Address** command:



- Enter IP address or DNS name of the teacher/administrator computer and click OK:



- To stop the service, click **Stop Service** button in Net Control 2 System Tray menu

O. DETAILED CONFIGURATION OF STUDENT MODULE.

The Student Component may be configured remotely from Teacher Module or on a Student Computer directly.

To configure Student Module remotely from Teacher Console:

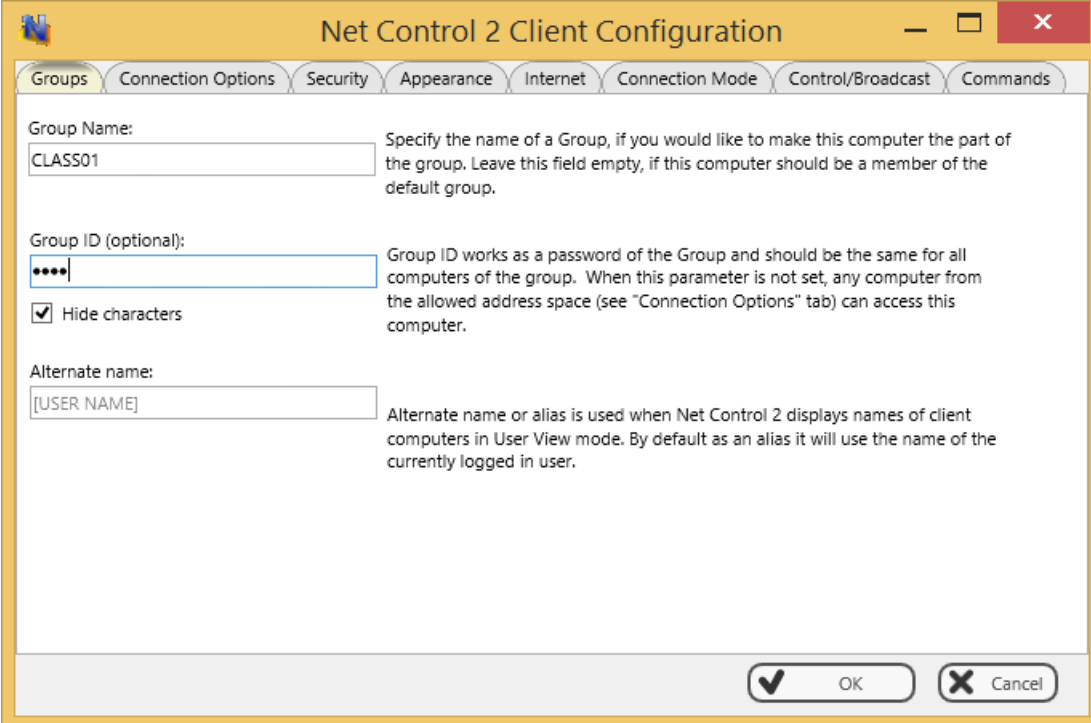
- select the Student Computers
- click menu command **N ->Options -> Client Options** or just click the **User Opts** button on the **Advanced Tools** tab
- configure the options as specified below
- click the **OK** button

To configure User Module on User computer directly:

- click on the Net Control 2 icon in the System Tray
- then click the **Configure** menu command
- Configure options
- click **OK**

Configuration window:

GROUPS

The image shows a screenshot of the 'Net Control 2 Client Configuration' dialog box. It has a yellow title bar and a tabbed interface with tabs for 'Groups', 'Connection Options', 'Security', 'Appearance', 'Internet', 'Connection Mode', 'Control/Broadcast', and 'Commands'. The 'Groups' tab is selected. It contains three main sections: 'Group Name' with a text box containing 'CLASS01' and a description; 'Group ID (optional)' with a text box containing four dots, a 'Hide characters' checkbox, and a description; and 'Alternate name' with a text box containing '[USER NAME]' and a description. At the bottom right are 'OK' and 'Cancel' buttons with checkmark and X icons respectively.

Net Control 2 Client Configuration

Groups | Connection Options | Security | Appearance | Internet | Connection Mode | Control/Broadcast | Commands

Group Name:
CLASS01
Specify the name of a Group, if you would like to make this computer the part of the group. Leave this field empty, if this computer should be a member of the default group.

Group ID (optional):
....
☒ Hide characters
Group ID works as a password of the Group and should be the same for all computers of the group. When this parameter is not set, any computer from the allowed address space (see "Connection Options" tab) can access this computer.

Alternate name:
[USER NAME]
Alternate name or alias is used when Net Control 2 displays names of client computers in User View mode. By default as an alias it will use the name of the currently logged in user.

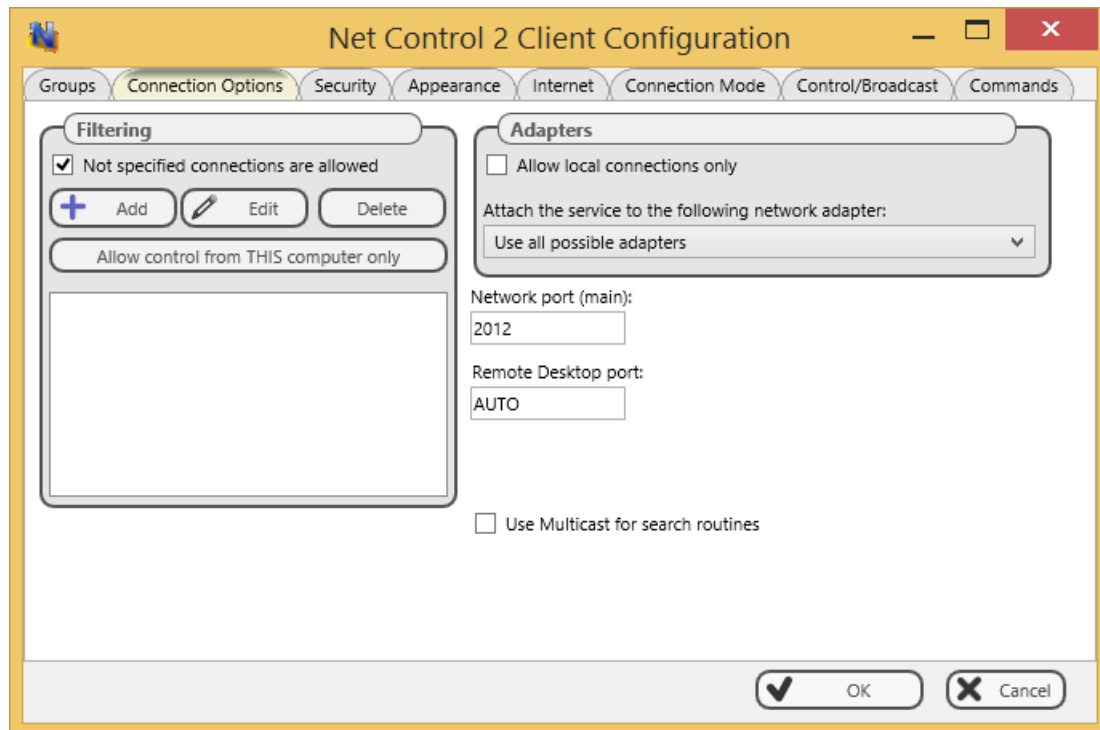
✓ OK X Cancel

Group Name - Group Name to which the computer belongs. For more information about groups, please see *Chapter 1*.

Group Access ID - Group ID (password) for current group. For more information about groups, please see *Chapter 1*.

Alternate Name - this name will be displayed when Teacher switches view mode from *Computer Name View* to *User Name View*. If it is left blank or [USER NAME] value is specified, the name of currently logged in user will be displayed.

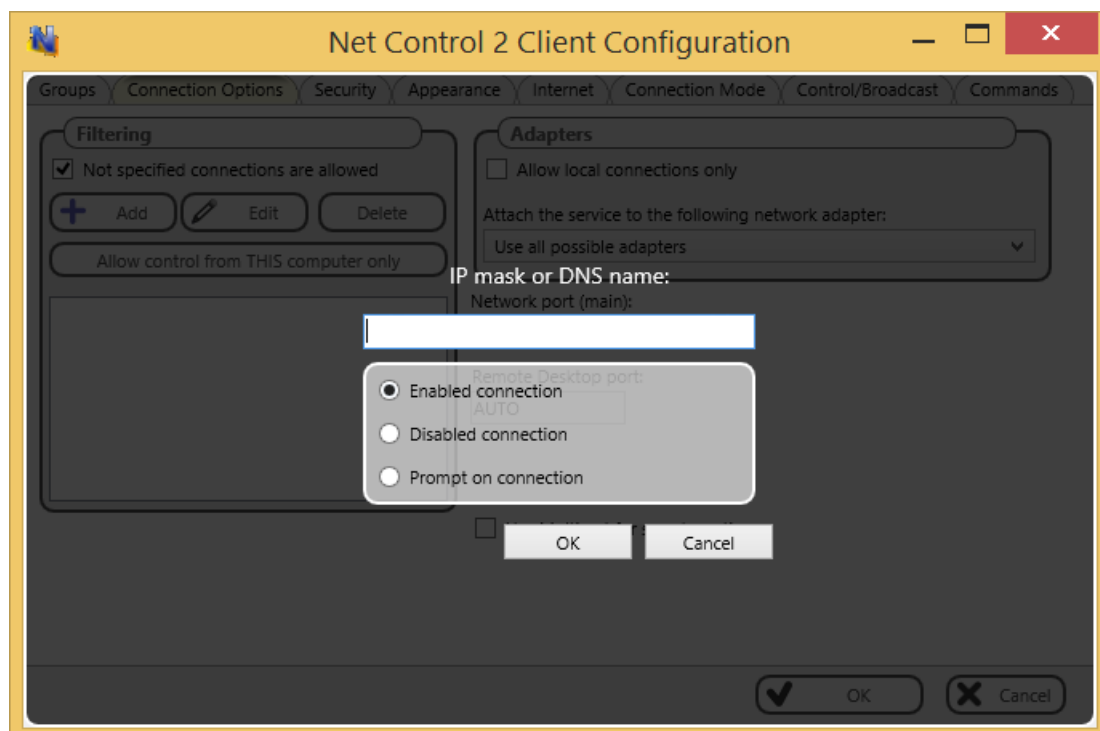
CONNECTION OPTIONS



Filtering - control access to this computer through Net Control 2 Teacher Module by IP address or name of connecting computer.

Not specified connections are allowed - when checked, all connections not specified in the list will be allowed. If is not checked, all connections not listed will be blocked.

Click **Add**, **Edit** or **Delete** buttons to add, modify or delete IP address or name to the list.



IP mask or Host name - specify one IP address, first digits of IPv4 address or DNS name of computer, e.g. 192.168.0.1, 192.168.1, COMPUTER01

Mark this connection as:

Enabled connection- the connection is enabled.

Disabled connection - the connection is blocked.

Ask User on Connecting - when this option is chosen, on each attempt of connection from the specified address, Net Control 2 Student Module will prompt *“Connect computer NNN?”*. Access is available only when the user confirms the connection.

“Allow control from This computer only” button adds IP addresses of Teacher computer to the list of allowed connections.

Allow local connections only - when checked, Net Control 2 will enable only those connections which were made from current network, i.e. first digits of IP address on both computers are the same.

Attach service to the following network adapter - here you can choose a network adapter where Net Control 2 service will be enabled. This option is useful when the computer has several network adapters.

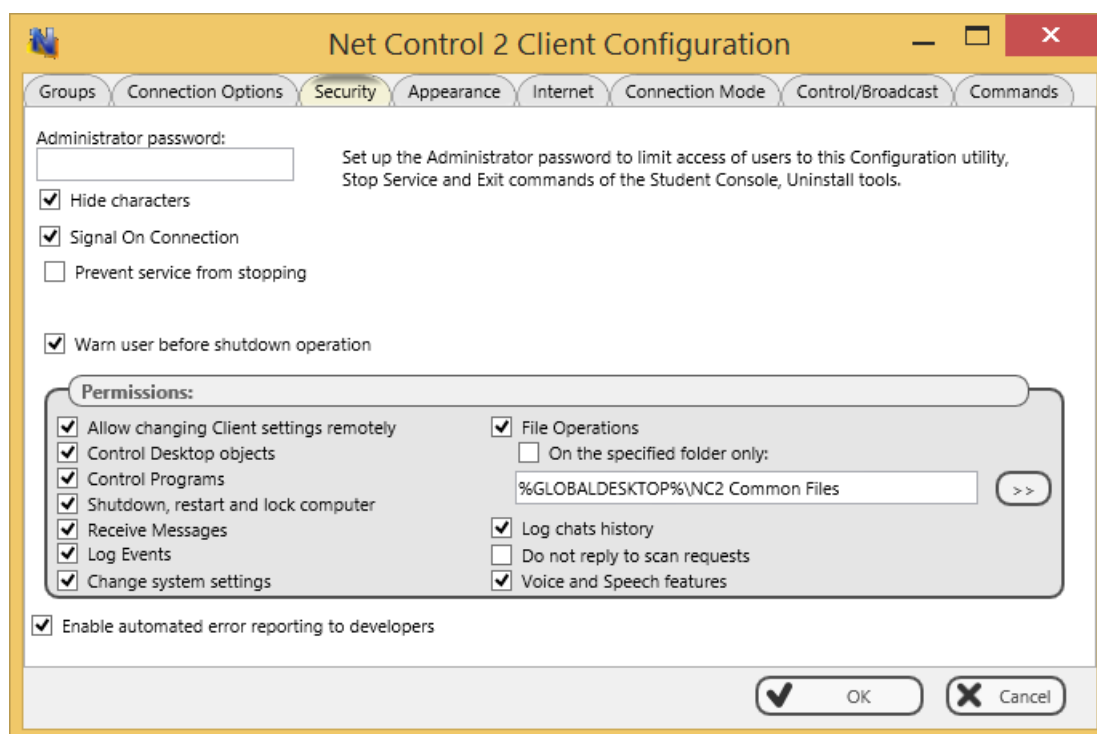
Example: if your computer has access to a local network through a LAN Adapter and to the Internet through a WAN Adapter, you can select the first one to make Net Control 2 service available only within bounds of local network.

Ports:

Network port (TCP/IP, by default – 2012). Change this value **ONLY** if Net Control 2 software conflicts with other software in your network.

Remote Desktop port – when it is set as AUTO (default, recommended), the port of Remote Desktop services will be calculated as MAIN PORT + 7. The same value should be set up on both Teacher and Student computers. On the Teacher side, this value may be set up in **N-> Options -> Control Options -> Connections tab**.

SECURITY



Administrator password used when any user attempts to change the settings of Net Control 2 Server or clicks the menu commands "Stop" or "Exit". We recommend setting up this parameter if you would like to prevent stopping Net Control 2 service or unauthorized configuring the service.

Disable System Tray Menu - when checked, Net Control 2 disables all commands in Net Control 2 System Tray Menu, except About menu command (available in the registered version only). System Tray icon will not be disabled.

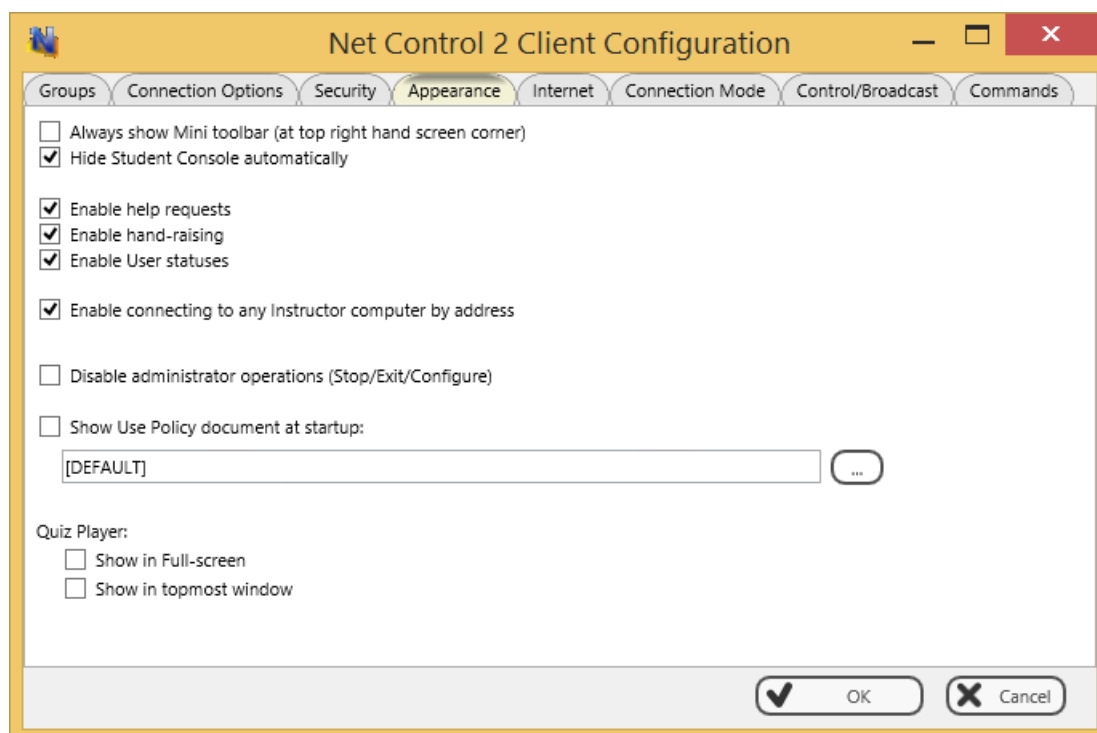
Signal On Connection - when checked, any connection of Teacher computer will be accompanied by sound signal and text message.

Prevent service from stopping - when checked, the user will not be able to stop Net Control 2 Client service using Services console of Administrative Tools or net.exe system program.

PERMISSIONS - allows limiting the functionality of service. When permission is disabled, all features related to this permission will be disabled:

- **Allow changing Server settings remotely** - when this permission is set, the Teacher can change Server settings remotely via the Net Control 2 Client.
- **Control Desktop objects** - permission for controlling the Desktop of the user computer remotely, receive screenshots, run Remote Desktop and Broadcast Desktop sessions, change resolution, etc.
- **File Operations** - permission for file operations between computers. When additionally, "On the specified folder only" option is set, all file operations may be performed within the specified folder only.
- **Control programs** - permission to execute and terminate programs and services remotely.
- **Shutdown, restart, lock** - permission to perform power-related operations, like shutdown, reboot, stand-by etc., and lock and unlock computer remotely.
- **Receive messages** - permission to receive messages from the Teacher computer.
- **Log Events** - permission for Events Watcher and Events Logger tools.
- **Change system settings** - access to Registry, Policies, and access to the Internet etc.
- **Allow Help Requests** - when enabled, student can send Help requests to Teachers via Net Control 2 Server menu.
- **Log Chats History** - chat history will be logged in *C:\Users\YOURLOGINNAME\AppData\Roaming\Net Control 2\nc2chat.log* for Net Control 2 MiniChat and in *C:\Users\YOURLOGINNAME\AppData\Roaming\Net Control 2\nc2cchat.log* file for Chat tool.
- **Do not reply to scan requests** -when enabled, the service will not respond to scan requests sent from any Instructor computer.

APPEARANCE:



Always show Mini toolbar (at top right hand screen corner) - when enabled Net Control 2 Student module will show the mini toolbar (a button on the top right hand corner of the screen, always visible on the screen, for quick access to the Student Console).

Hide Student Console automatically - when enabled the Student Console will be automatically hidden if the student cursor is out of the window within more than 5 seconds.

Enable Help Requests - when enabled, user can send Help requests to Teachers via Net Control 2 Server menu.

Enable Hand Raising - when enabled, user can “raise hand” in the Student Console. This status will be visible in the teacher console, the teacher can accept the request (“to call on” the student) or reset status at any moment.

Enable User statuses - enabling “user statuses”. The user status is a short string that is visible on teacher computer in student connection properties, and it’s shown in a tooltip when a student is changing his/her status. With this tool students can quickly communicate with teachers sending short messages to the teacher.

Disable administrator operations (Stop/Exit/Configure) - when enabled, the Student Console will not provide access to “Stop”, “Exit” and “Configure” commands of Student Console.

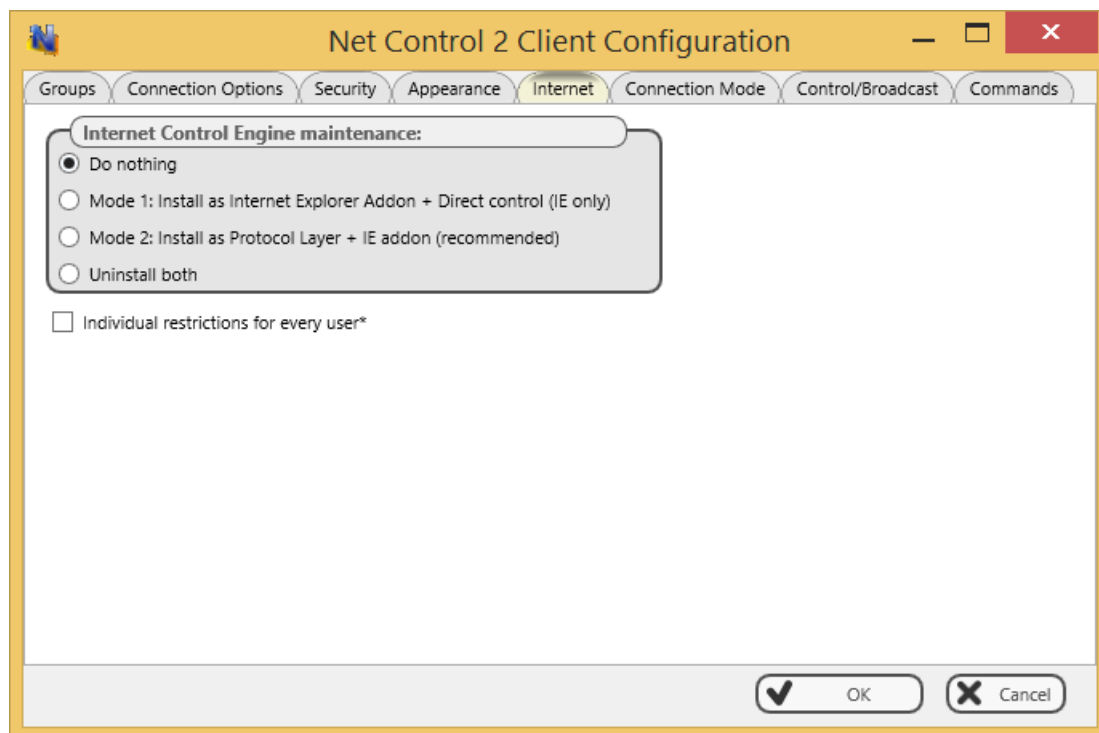
Show Use Policy document at startup - when enabled, the service will display the Acceptable Use Policy document at user logon, either default or custom (specified by the Teacher).

Quiz Player:

Show in full-screen - when enabled, quizzes will be played in full-screen window.

Show in topmost window - when enabled, the user will not be able to switch to other programs during quizzing.

INTERNET:



Internet Control Engine - manage the installation of the Internet Control Engine. Setting any option, except for “Do nothing”, will schedule the installation routine. **Do not change this value unless you need re-install the Internet Control Engine.**

Mode 1: Install as Internet Explorer Addon + Direct Control (IE only) - schedules installation of the Net Control 2 Internet Control Engine as a plug-in for Internet Explorer. This mode is most compatible with third-party software, but allows controlling Internet traffic in Internet Explorer only.

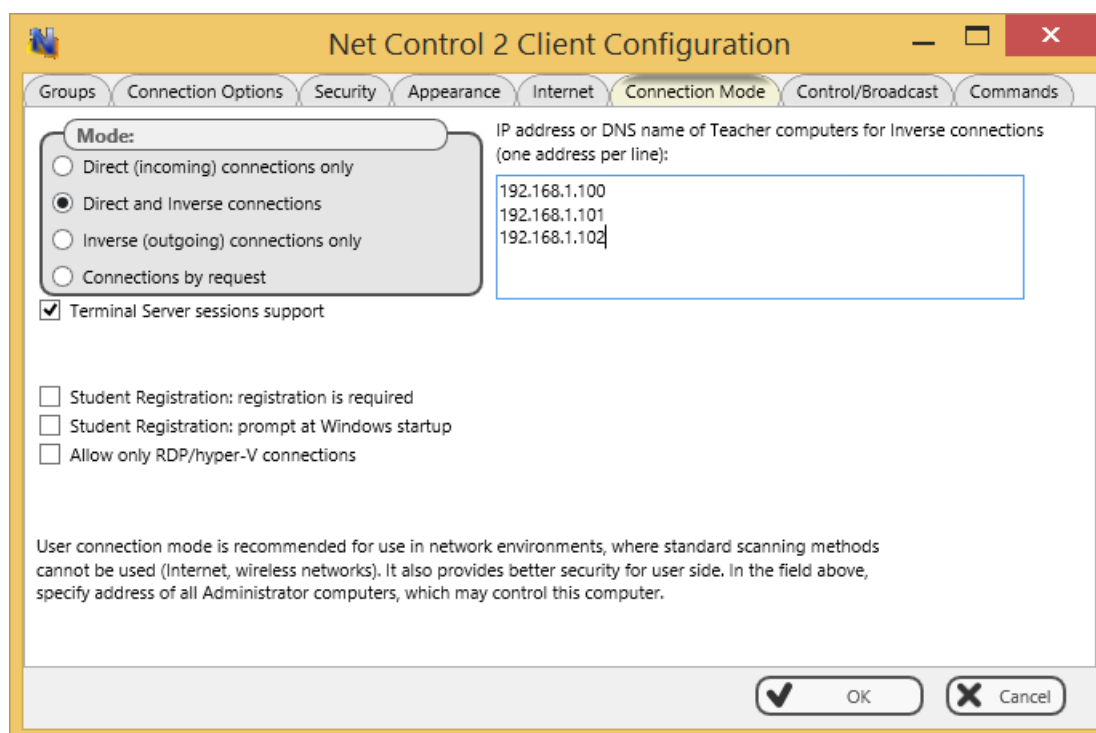
Mode 2: Install as Protocol Layer + IE addon (recommended) – schedules installation of the Net Control 2 Internet Control Engine as a Protocol Layer. This mode is less compatible with third-party software than IE plug-in mode, but provides additional functionality and does not depend on Internet clients (browsers, e-mail clients etc.).

Use this mode if you need to make Internet restrictions working in alternative browsers, like Chrome, Opera, Safari, Firefox.

Uninstall both - Internet Control Engine will be uninstalled from the User computer. You can use this option if Net Control 2 software conflicts with other software installed on User computers. All Internet-controlling features will be disabled.

Individual restrictions for every user - by default all Internet restrictions are applied to all users of the same computer. This may result some issues when one computer works as a terminal server, several users are working on the same computer, sharing all its resources, and therefore share the same Internet restriction profile. Enable this option if profiles should be applied on a per-user basis, i.e. individually for every user. This option work only together with **Control web-sites from the service** option.

CONNECTION MODE



Mode -option determines what types of connections are allowed for this computer

Direct (incoming) connections only - only direct connections are allowed;

Direct and Inverse connections - both direct and inverse connections are available at the same time;

Inverse (outgoing) connections require setting up addresses of teacher computers where this student computer should be connected. IP addresses/ DNS (computer, host) names of teacher computers should be listed at right pane (**IP address or network name of Teacher Servers** field).

Inverse (outgoing) connections only - only user-connections are allowed.

For more information regarding the difference between direct and inverse connection modes please refer to p.5 of Chapter A of this document.

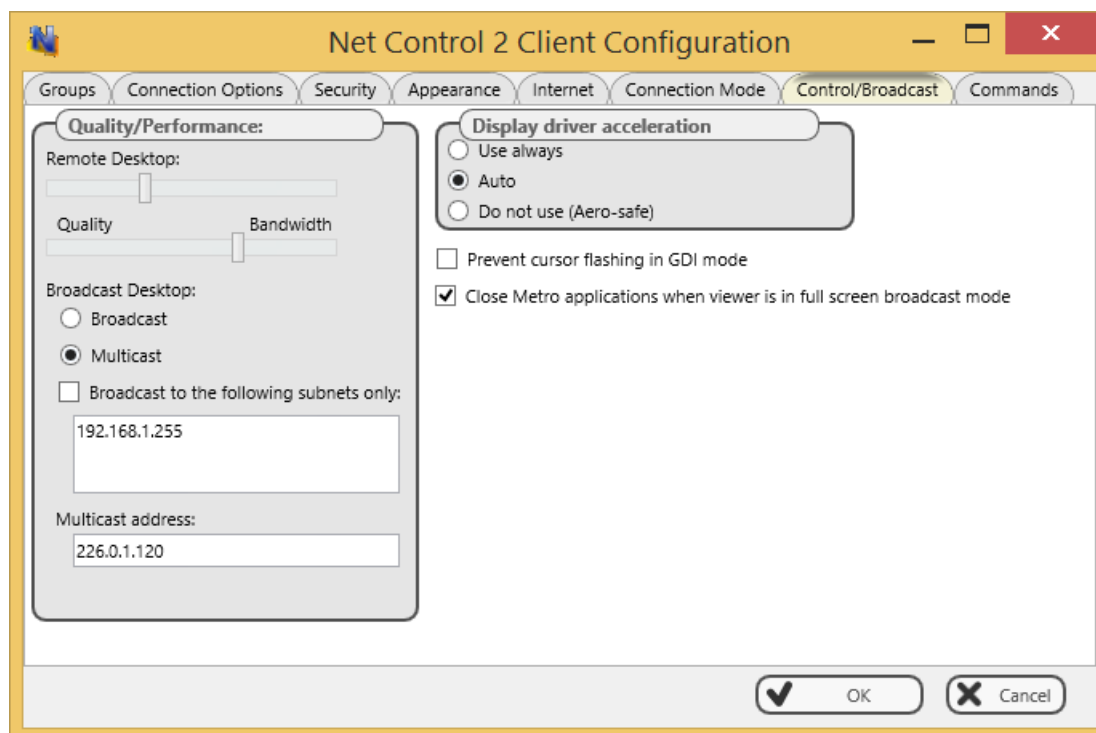
Stop service at startup - the service is not enabled at startup. To enable the service, the User either needs to resume the service by clicking on the Resume Service command in Net Control 2 System Tray menu or to connect Teacher computer by using the Connect computer command. This mode is default for Start by Request mode as specified in Chapter C.

Additional options:

Student Registration: registration is required - when enabled, Student Registration window will be displayed in a full-screen window, which prevents switching to other programs until student registers in the system.

Student Registration: prompt at Windows startup - when enabled, Student Registration window will be displayed at the Windows startup immediately after the user logs on to the system.

Control/Broadcast tab.



Quality/Performance.

Use this option to adjust the level of performance/quality for Remote Desktop and Broadcast Desktop features. Moving the track bar position to the left will increase quality of the picture displayed on remote computer, but at the same time will increase network bandwidth usage and may result slower speed of image refreshing.

Broadcast Desktop transport options:

Broadcast - when enabled, the Broadcast Desktop service will use UDP Broadcast protocol for transmission data over network. This protocol has better compatibility with network configurations and hardware, and is recommended if clients use Windows XP operating system. If a network consists in several VLANs, a router or other network hardware may prevent information sent in Broadcast mode from sending to other VLANs, in this case you may need to add IP address of every VLAN to the broadcast list. For example if VLAN 1 uses IP addresses in range 192.168.0.1-192.168.0.254 and VLAN2 uses IP address range 192.168.1.1-192.168.1.254, you need to add the following addresses:

192.168.0.255

192.168.1.255

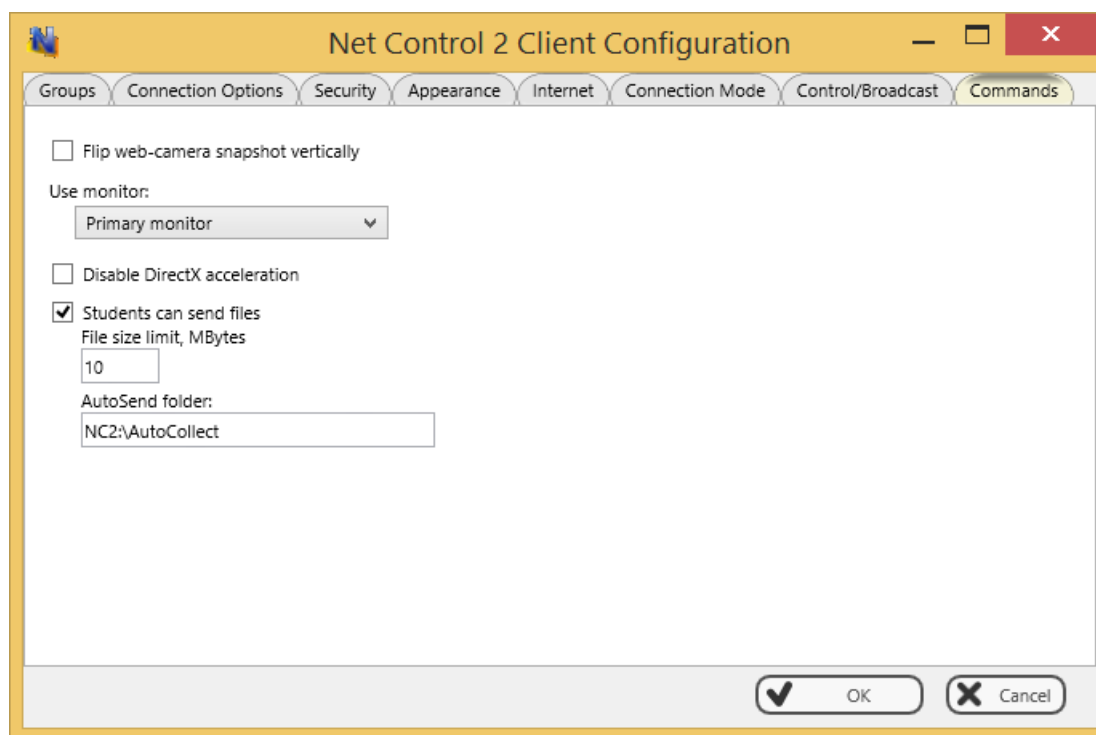
as IP masks for the specified networks.

Multicast - Broadcast Desktop service will use Multicast protocol as a transport protocol. Most often this protocol has better performance and resistance to errors during data transmission if clients use Windows Vista/7/8/10 operating system. If default Multicast address interfere with other network software used in your network, you can change this address and need to change it on all Student and Teacher computers.

Display Driver acceleration - enables or disables Video Hook Driver acceleration for Remote Desktop and Broadcast Desktop tools. Video Hook Driver provides better performance and accuracy in screen changes tracking for these tools. When enabled, Broadcast Desktop and Remote Desktop tools activate VHD display driver only when Broadcast Desktop or Remote Desktop session is started and will unload it automatically once the session is finished. In addition, when the VHD driver is active, Windows Vista/7 will disable automatically Aero style for windows and several Direct3D interfaces, which will be restored only after stopping the driver. Therefore, if you prefer to have Aero style active during Broadcast Desktop/Remote Desktop sessions you need to disable the driver, setting up “Do not use (Aero safe)” option.

The “Auto” option means that VHD display driver will be used in Windows XP, in Windows Vista/7 (when Aero theme is disabled), and always used in Broadcast Desktop sessions; and the VHD driver will not be used in Windows Vista/7, when Aero theme is enabled.

COMMANDS



Flip web-camera snapshot vertically - when enabled, the service will automatically flip snapshots obtained from web-camera vertically.

Use monitor - here you can select the display in multimonitor environment, which will be used as a source for screenshots and thumbnails, displayed on the teacher computer.

Disable DirectX acceleration - enable this option if “Floating point division by zero” error appears after starting Net Control 2 Client module, for more information please refer to the following Knowledge base article: <http://kb.netcontrol2.com/entry/77/> .

P. HOW TO DISABLE GROUPS TAB OF THE TEACHER CONSOLE.

In several cases the Teacher may need to select some default group for a teacher and disable access for teacher to other groups. To prevent access to Groups tab and Groups functions:

- Select the default group, to which a teacher will have access;
- Click the main menu command N -> Options -> Options;
- On Interface tab, click the Lock Current Group button;
- Specify some password, which will be used for unlocking the Groups tab;
- Click OK.

To unlock Groups tab, in the same manner click the Unlock Current Group password on Interface tab of the Control Options.

Q. HOW TO FORBID ACCESS TO SOME NET CONTROL 2 TEACHER MODULE FEATURES.

Net Control 2 Teacher Module may be specially configured to hide or enable its functionality for different groups of users. For example, ordinary teachers will use only part of its features, while IT administrator will have access to full range of features.

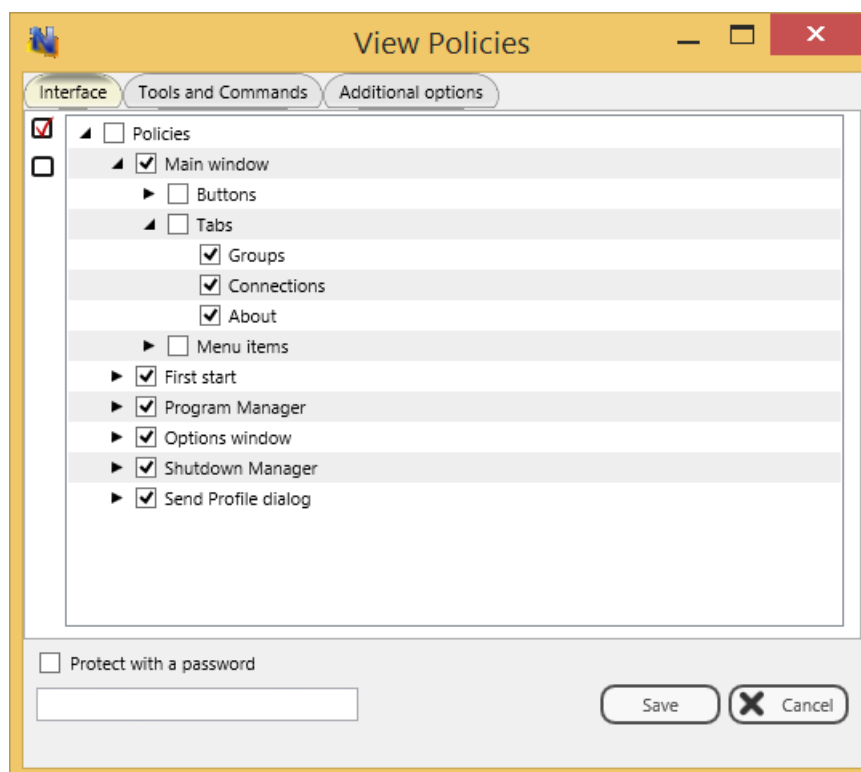
This is realized through the **View Profiles** tool. The Administrator may create several view profiles, protect some profiles with a password or mark some profiles as “**default**”, i.e. make them active automatically at startup.

1. To create a custom View profile:

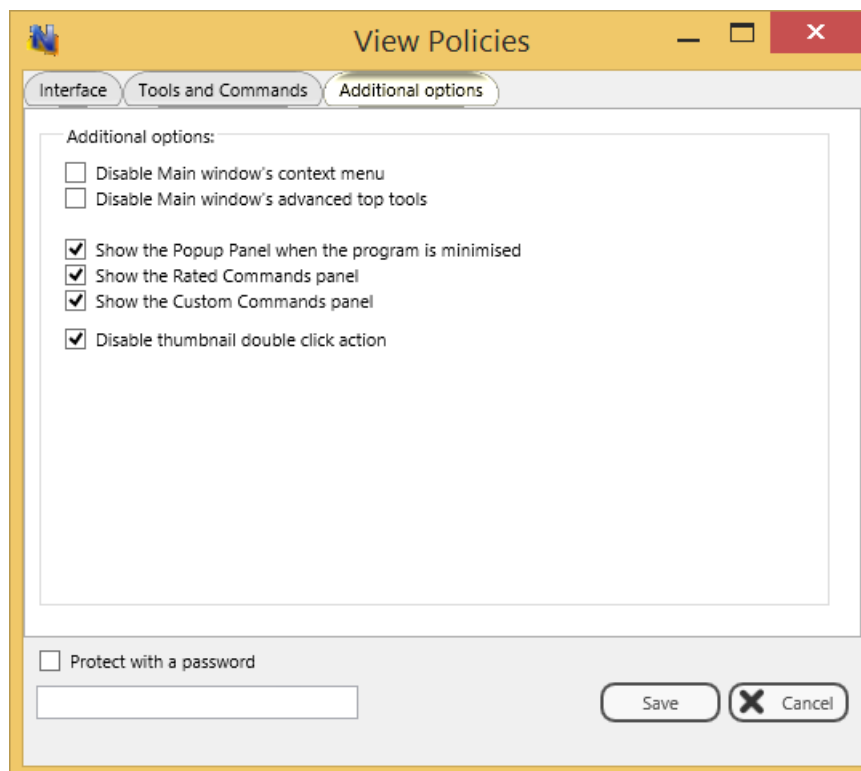
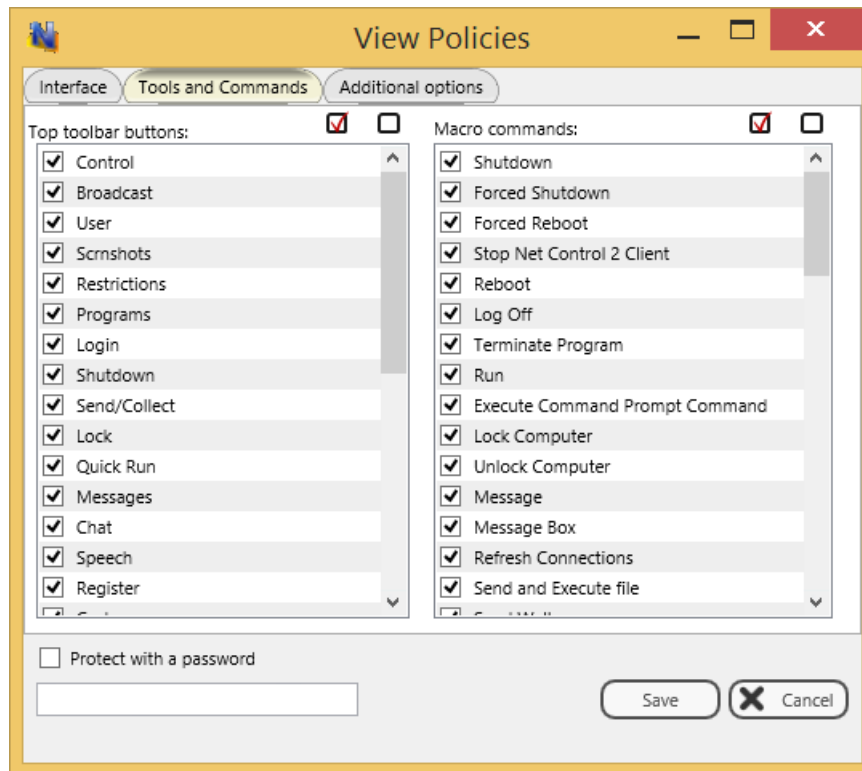
- click menu command N ->Options ->View Profiles.



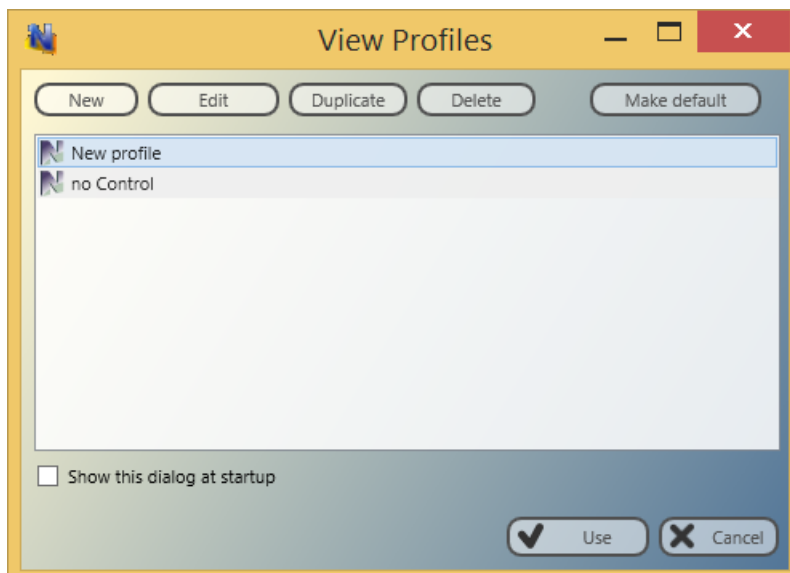
- Click the **New** button.
- On the **Policies** tab, check only those window elements (*buttons, fields, menus*), which should be visible (available for user) in the new configuration:



- on the **Tools and Commands** tab you can set up what commands and macro commands will be available for teachers:



- when a new profile is created, click the **Save** button to save the profile
- specify some name for profile
- created profile should appear in the list



In addition, you can make any profile **“Default”**. In this case, the profile will be loaded and applied automatically at start up of Teacher Module.

If the **Show this dialog at startup** option is enabled, Net Control 2 Teacher will display profiles list at startup with the possibility to select one of available profiles.

If any password was specified in the profile, Net Control 2 Teacher will prompt for this password before applying selected profile.

R. HOW TO PROTECT ACCESS TO NET CONTROL 2 WITH PASSWORD.

To protect access to Net Control 2 Teacher, click the menu command **N ->Options ->Interface -> Lock password**, specify the password, and click **OK**.

To prevent stopping Net Control 2 Student service or configuring its settings on the Student computer, you need to enable the Administrator password:

- click **N** (Net Control 2) icon in the **System Tray**, then click **Configure** button. In the **Configuration** window, on **Security** tab, in **Administrator Password** field, specify new password.

Please note: The password will be applied and stored only in the registered version of the software. Particularly, this feature is not available in Public Trial version.