
Net Control ²

Professional Edition

INSTALLATION AND CONFIGURATION GUIDE



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Based on version 10.0

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General information

Net Control 2 Professional Edition consists of three main parts - *Teacher Component*, *User Component* and *Server Component*.

Teacher Component should be installed on each computer that will be used to control other computers.

User Component should be installed on each computer that you wish to control.

Server Component should be installed on one, main computer, which will manage student and teacher connections; teacher and student computers should have constant connection to this computer.

Any combination of components may be installed on the same computer.

Server Components of the software should be installed manually using the standard installation package.

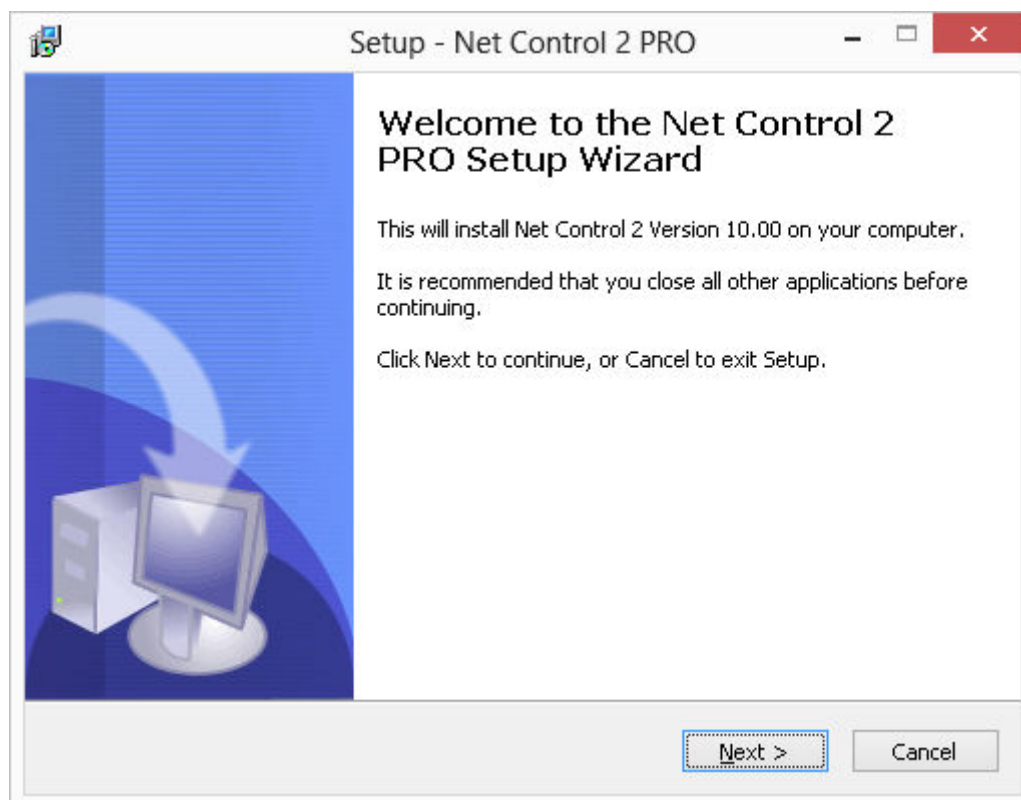
The *Teacher Component* may be installed either manually using the standard installation package or via Active Directory/Group Policy using special MSI package. This package is available by request for registered users.

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

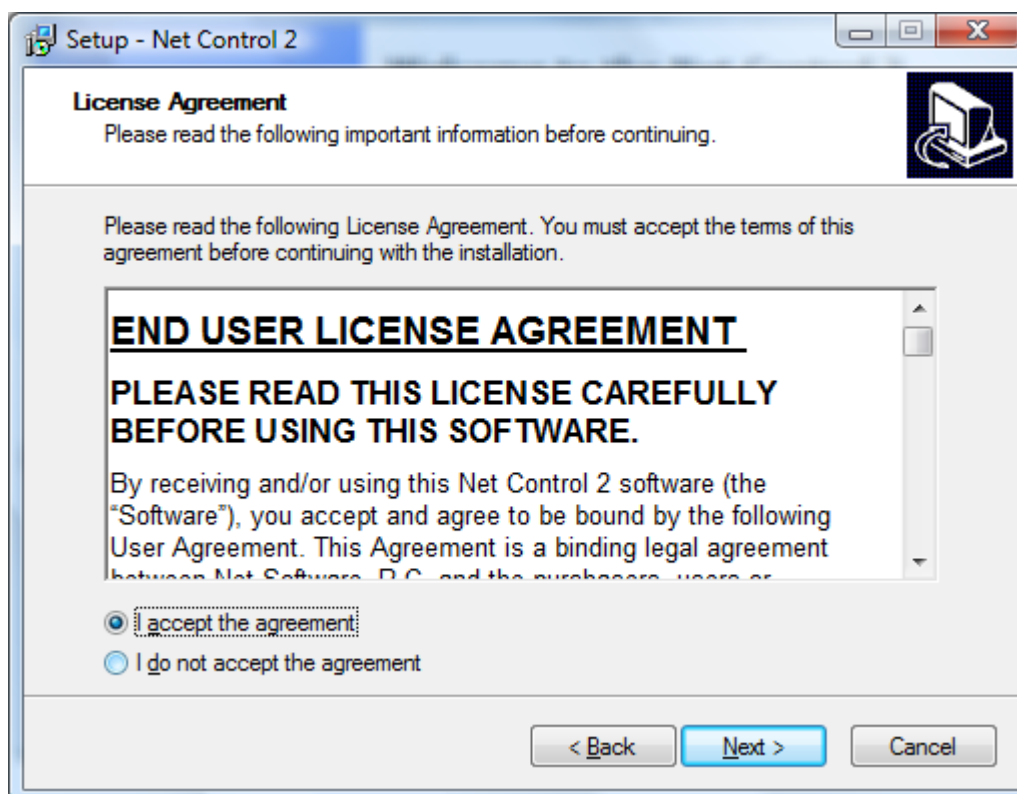
- The software may be installed manually on each computer, using the standard installation package.
- The User Component may be installed automatically through Windows Server's Active Directory/Group Policies service and using the special MSI package. The special MSI package is available by request for registered users.
- The User Component may be installed on user 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 USING STANDARD INSTALLATION PACKAGE

1. Run the Net Control 2 Installation Package (e.g. net1000pr.exe file).



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



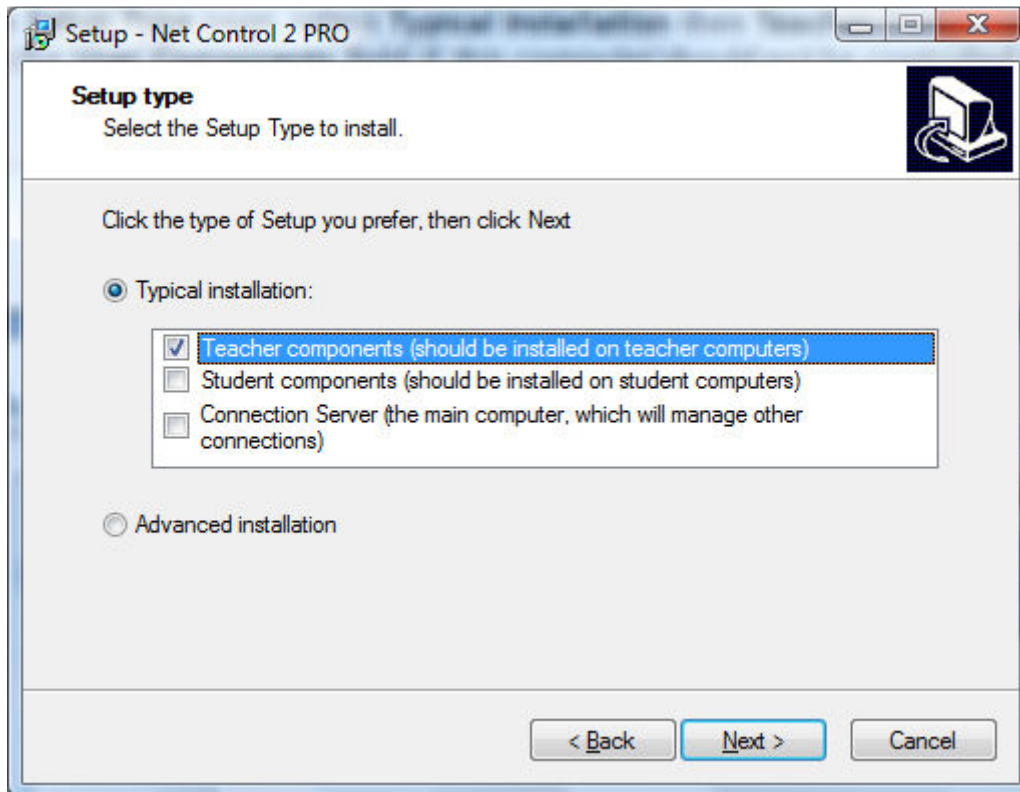
3. On the **Setup Type** page, select **Typical Installation** and specify components, which should be installed:

Teacher Components - should be installed on teacher computers;

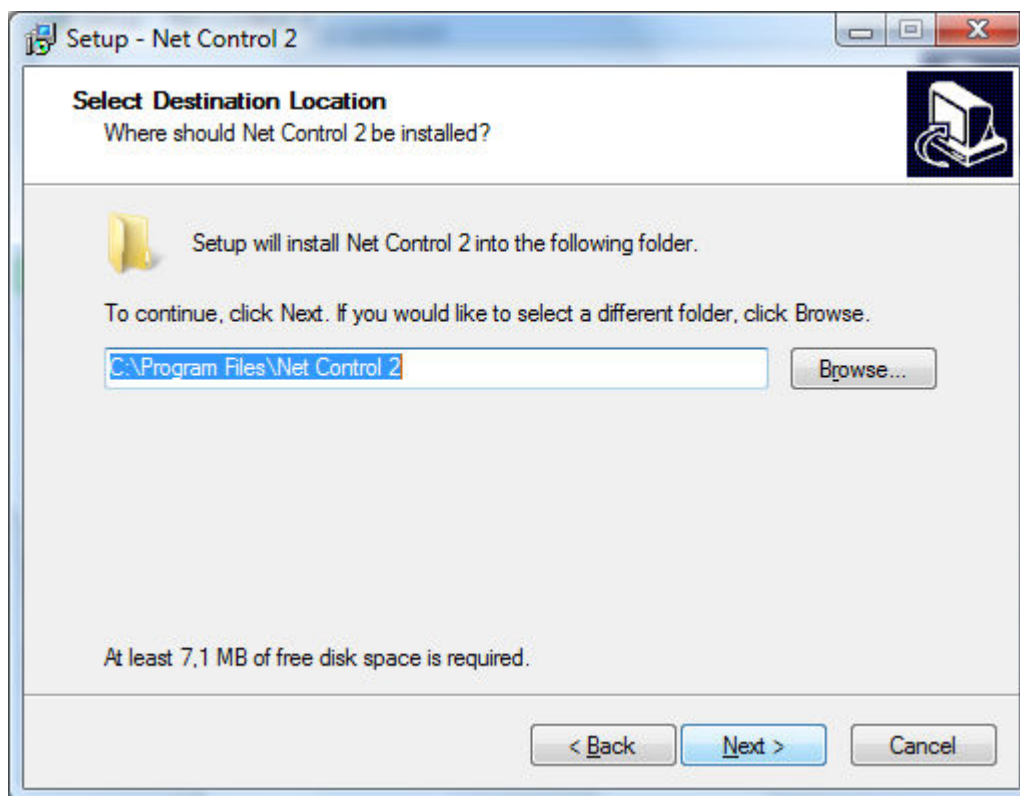
Student Components - should be installed on student computers;

Connection Server component should be installed on one, main computer, which will manage student and teacher connections.

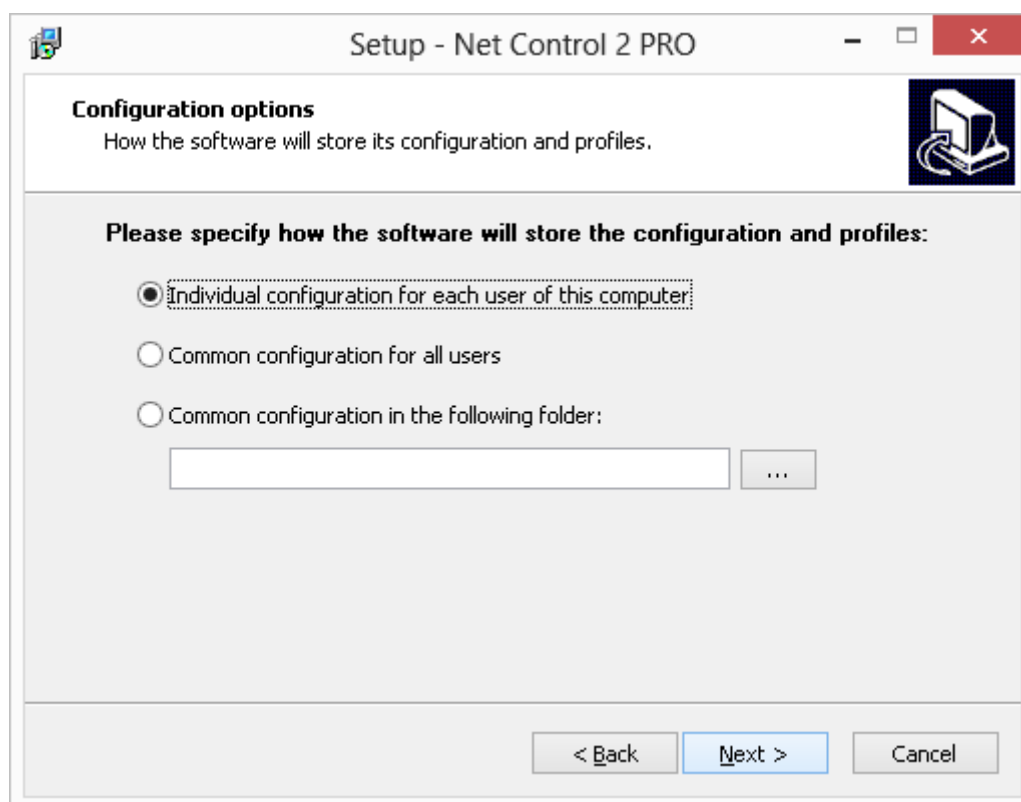
Any combination of components is allowed.



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



5. If Teacher Components are selected, select how the configuration will be stored:



Individual configuration for each user of this computer -profiles, settings and Net Control 2-related documents will be individual for every 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/7/8/2008/2012

“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.

6. Select Net Control 2 Connection Server options.

For Teacher Components:

Setup - Net Control 2 PRO

Connection Server Options (Teacher)
Specify connection options of Net Control 2 Connection Server in your network

Connection Server IP:
Enter IP address or DNS name of Net Control 2 Connection Server in your network.
192.168.1.2

Teacher ID:
Specify Teacher ID for this computer. Teacher ID and Teacher Password are required for getting access to Net Control 2 Connection Server.
teacher

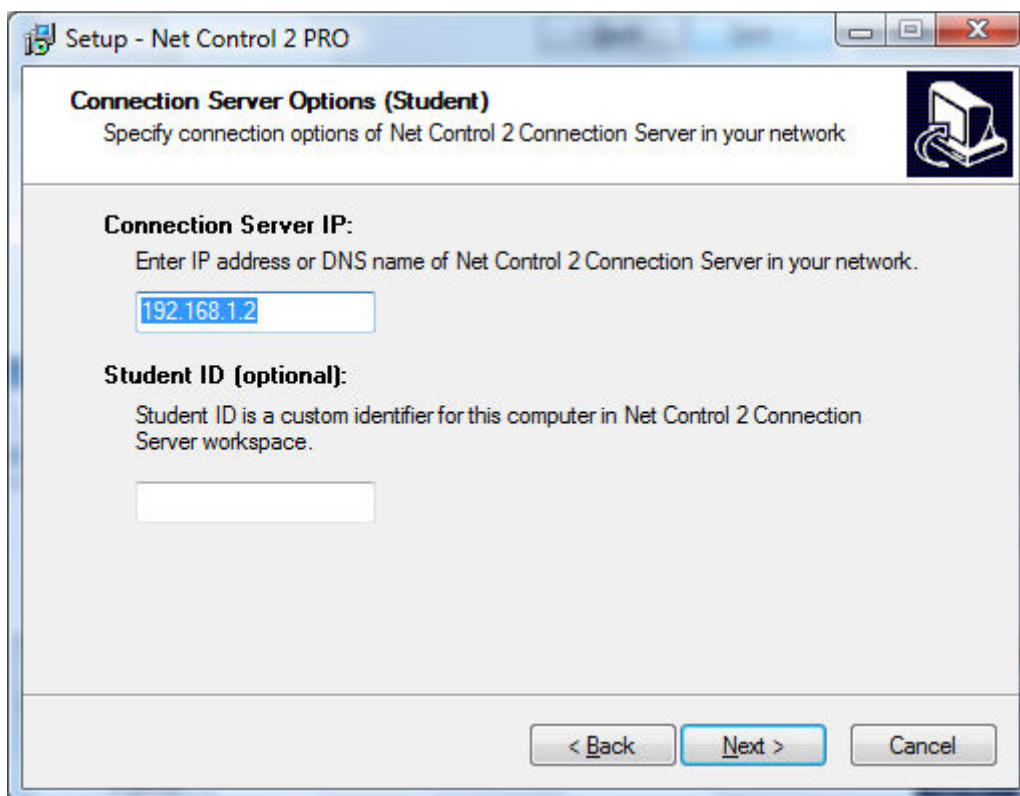
Teacher password:

< Back Next > Cancel

Connection Server IP: specify here an IP address or DNS name of computer, where *Server Components* (Net Control 2 Connection Server) are installed.

Teacher ID and Teacher password: login name and password of teacher account in Net Control 2 Connection Server settings. For more information about teacher accounts please refer to **Chapter B, p.2.**

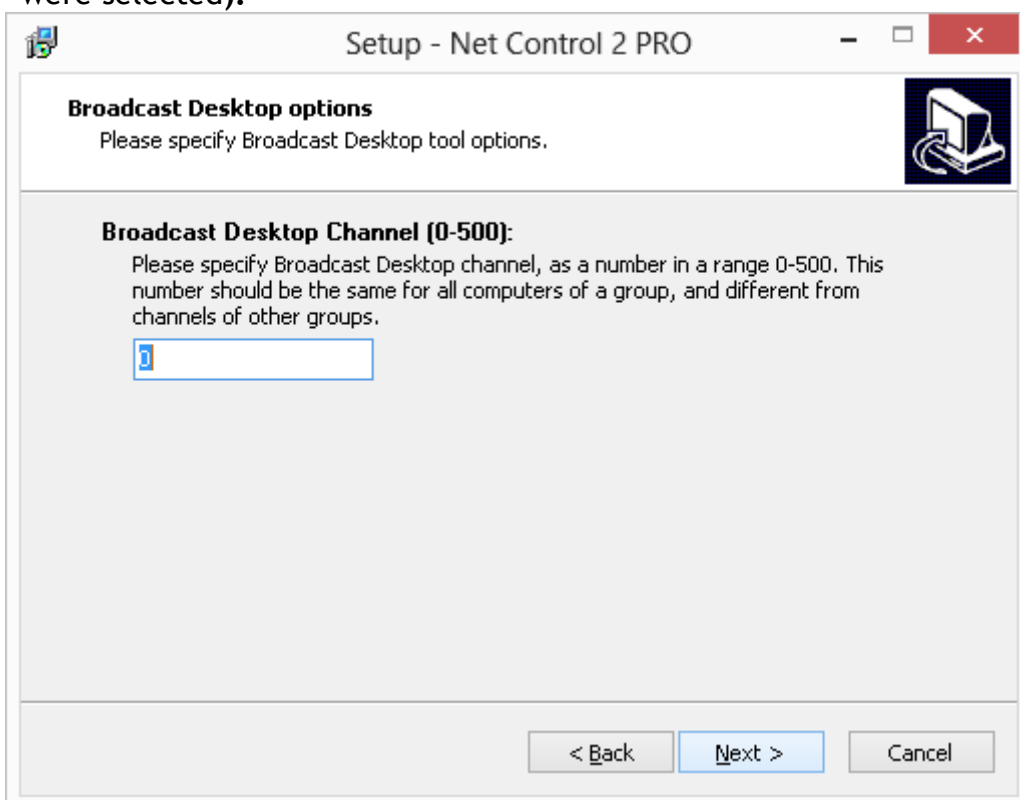
If **Student Components** were selected:



Connection Server IP: specify here an IP address or DNS name of computer, where *Server Components* (Net Control 2 Connection Server) are installed.

Student ID (optional): custom identifier for this student computer. You can optionally use this parameter forming groups in Connection Server.

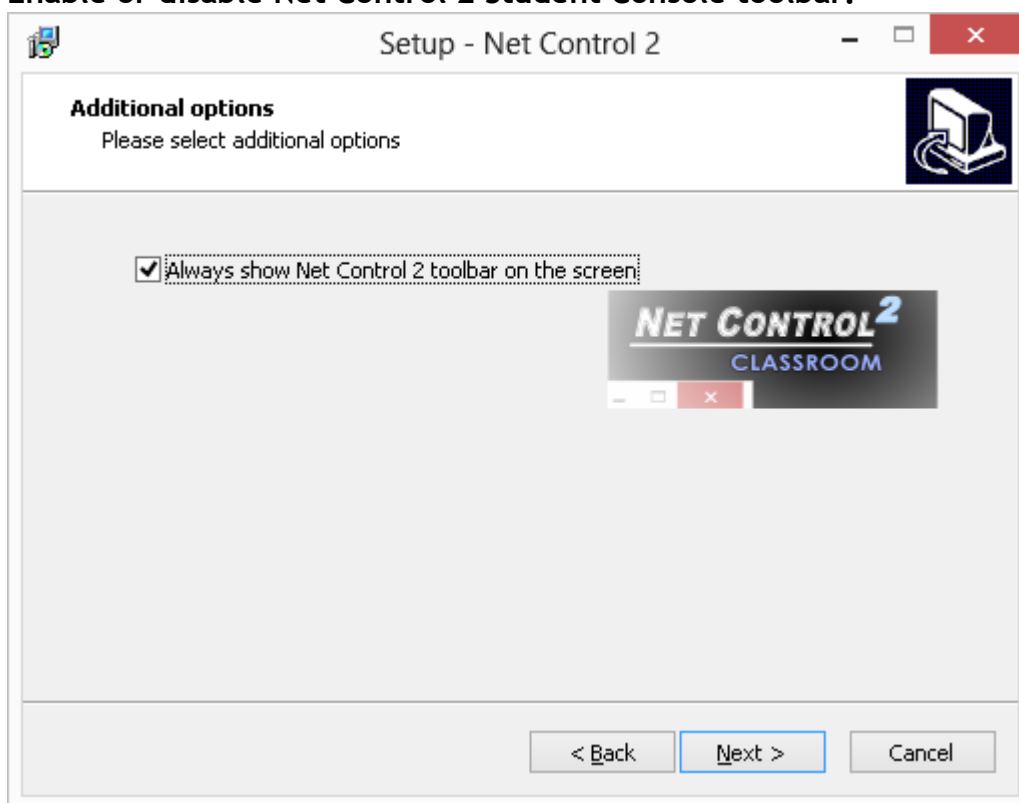
7. Select the default Broadcast Desktop options (only if Teacher components were selected):



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.

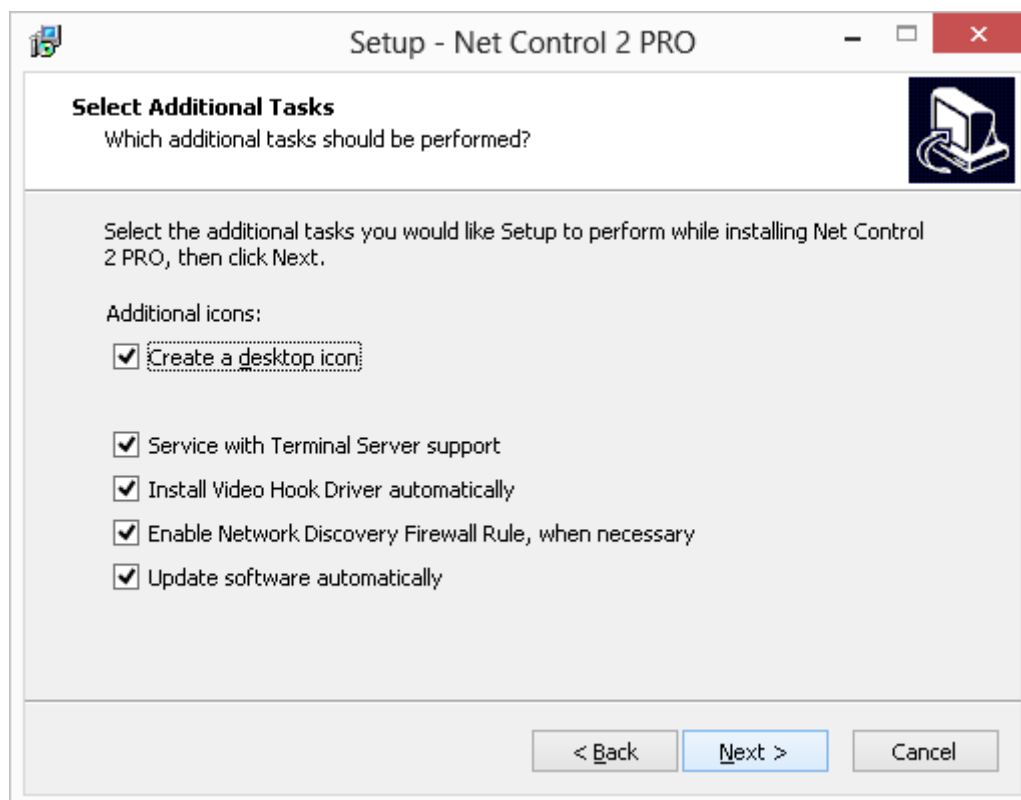
After installation you can change these settings in the Teacher Console, clicking the main menu command **N -> Options -> Options; Control/Broadcast** page.

8. Enable or disable Net Control 2 Student Console toolbar:



The toolbar is a button that is always shown on the screen of a student computer, at top-right hand corner of the screen (by default); the user can click this button to open instantly the Student Console.

9. 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.

10. Restart the computer after installation.

B. CONNECTION SERVER MANAGEMENT CONSOLE.

Connection model

Net Control 2 Professional Edition uses the client-server connection model, which requires creation of special connection server in the network. This server acts as an intermediary between student and teacher computers, and helps the software to operate more effectively in large networks, which consist of several VLANs:

- when Student computer connects the Connection Server, the server checks its database whether this connecting computer or logged in user belongs to any existing Group. If no records for the connecting computer were created, i.e. no suitable group was found the computer is assigned to “DEFAULT” group. *Net Control 2 Group is a logical unit that joins one or more connections; for example you can create separate group for every lab in your network.*
- At next step the Connection Server checks whether any teacher has entered to this group. If so, the server instructs the student computer to connect the respective teacher.

Every student computer may belong to several groups, and may be connected to several teachers at a time.

Quick start

After installation, to configure Net Control 2 connections you need:

1. **ON STUDENT COMPUTERS:** to specify IP address or DNS name of the **Connection Server**; most often this is done in the process of installation.
2. **ON CONNECTION SERVER:** the Connection Server accept connections only from authorized teachers. This means that **before setting up the teacher** computer you need to **create at least one teacher account** in Connection Server Management Console.

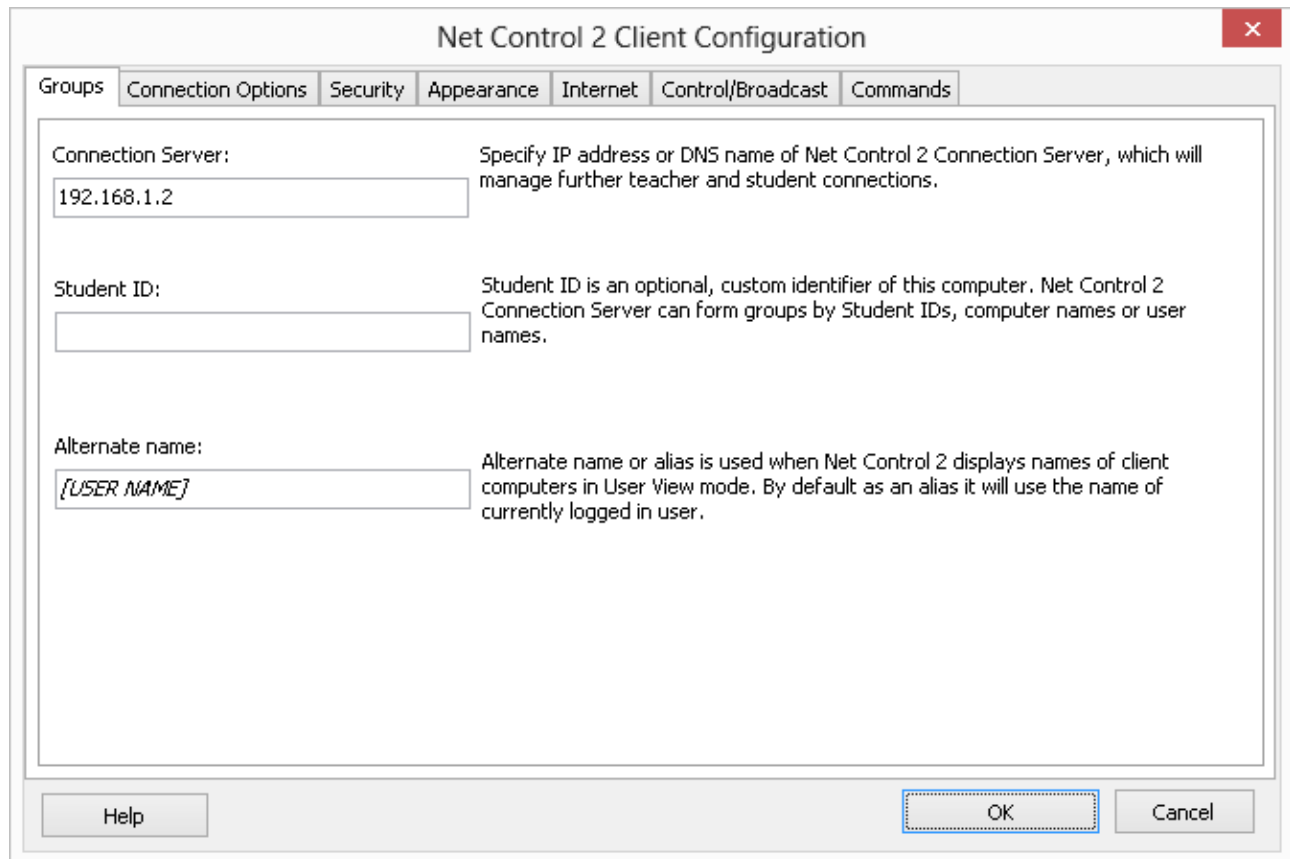
Optionally, you may need to create **Groups** on the Connection Server; otherwise all connections will be automatically placed to the “DEFAULT” group.

3. **ON TEACHER COMPUTER:** in the teacher console to specify the connection parameters of Connection Server computer in your network (IP address or DNS name), as also teacher account credentials, as set up in Connection Server Management Console at step 2. Most often these parameters are set up in the process of installation.

1. Configuring Student module.

Connection Server IP address/ DNS name may be set up in the process of installation (as provided in the previous chapter) or changed at any moment in settings of the Client module:

On Client computer right click Net Control 2 icon in the System Tray, then click “**Configure**” button. In the Client Configuration dialog, on Groups tab, specify IP address of the Connection Server: Click OK.



The image shows the 'Net Control 2 Client Configuration' dialog box. It has a title bar with a close button (X) in the top right corner. Below the title bar is a tabbed interface with the following tabs: 'Groups', 'Connection Options', 'Security', 'Appearance', 'Internet', 'Control/Broadcast', and 'Commands'. The 'Connection Options' tab is currently selected. Inside this tab, there are three input fields with corresponding labels and descriptions:

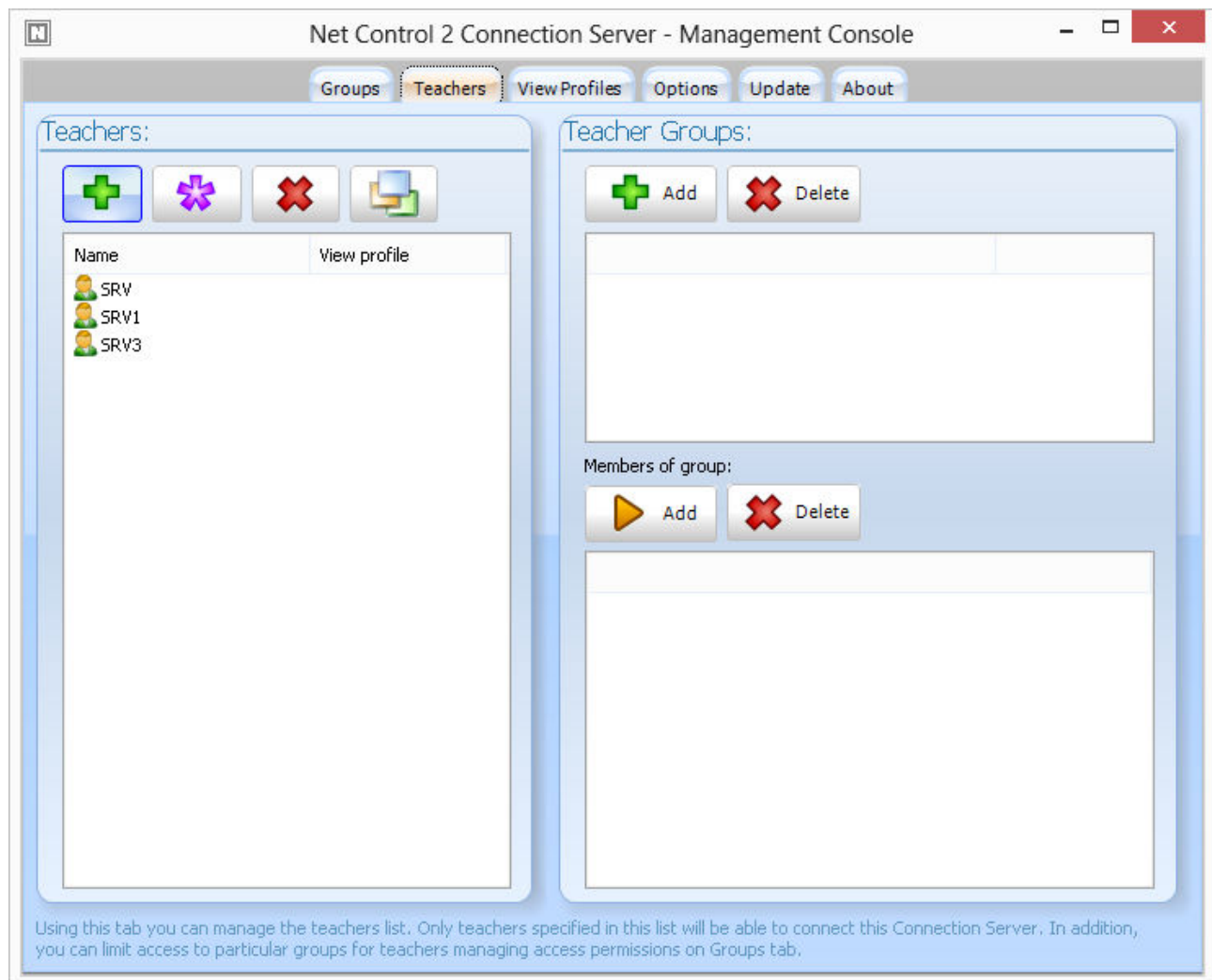
- Connection Server:** The input field contains '192.168.1.2'. The description states: 'Specify IP address or DNS name of Net Control 2 Connection Server, which will manage further teacher and student connections.'
- Student ID:** The input field is empty. The description states: 'Student ID is an optional, custom identifier of this computer. Net Control 2 Connection Server can form groups by Student IDs, computer names or user names.'
- Alternate name:** The input field contains '[USER NAME]'. The description states: '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 currently logged in user.'

At the bottom of the dialog box, there are three buttons: 'Help', 'OK', and 'Cancel'. The 'OK' button is highlighted with a blue dashed border.

2. Create teacher accounts in the Connection Server database.

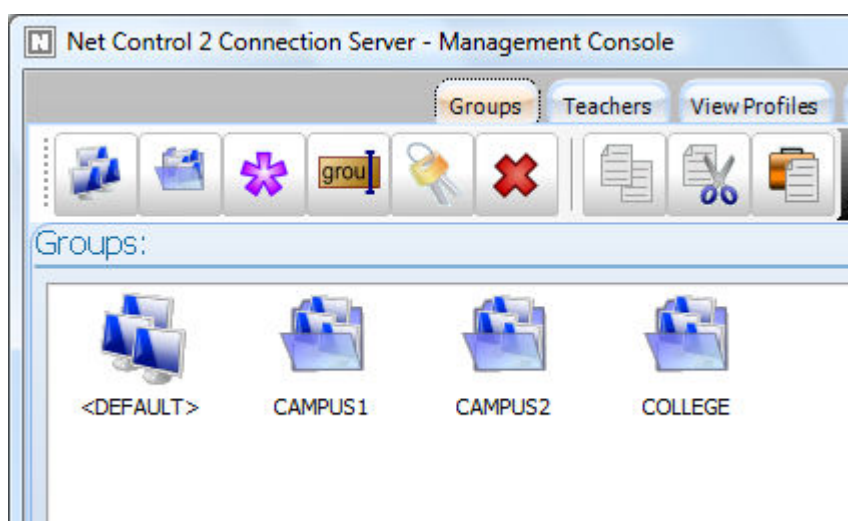
Open Connection Server Management Console: click Windows Start menu command **Start -> All Programs -> Net Control 2 -> Connection Server Management Console**

On Teachers tab, at left pane ("Teachers"), click Add button to create new teacher account.



3. Create groups.

In the Connection Server Management Console open Groups tab.



Click **Add group** button on top toolbar to create new group. Specify name for this group.

In appeared **Group Editor** you need to form content of the group. Net Control 2 group may consist of *computers* addressed by DNS name, IP address or custom Student ID, or *users*, referenced by login name.

To add an item to the group, click buttons of top toolbar:

Computer name - adds new connection to the group referenced by computer (host) name.

User name - adds new connection to the group referenced by user login name.

IP address - adds new connection referenced by IP address.

StudentID - adds new connection referenced by StudentID. StudentID is an optional text parameter, which may be assigned to student computer in Net Control 2 Client settings. Connection Server considers connecting student computer as belonging to the group if its StudentID is listed in the group.

Hint! Several student computers may have the same StudentID. In this case single reference of Student ID in the group puts all these computers to this group. **Example:** for all student computers specify the same StudentID, for example "S01". In Connection Server Management Console, when you're creating a group for these students, in Group Edition add one only record of "Student ID" type, and specify S01 as the value of the record. All student computers, which have "S01" as the StudentID are members of this group now.

Rename - renames the object selected.

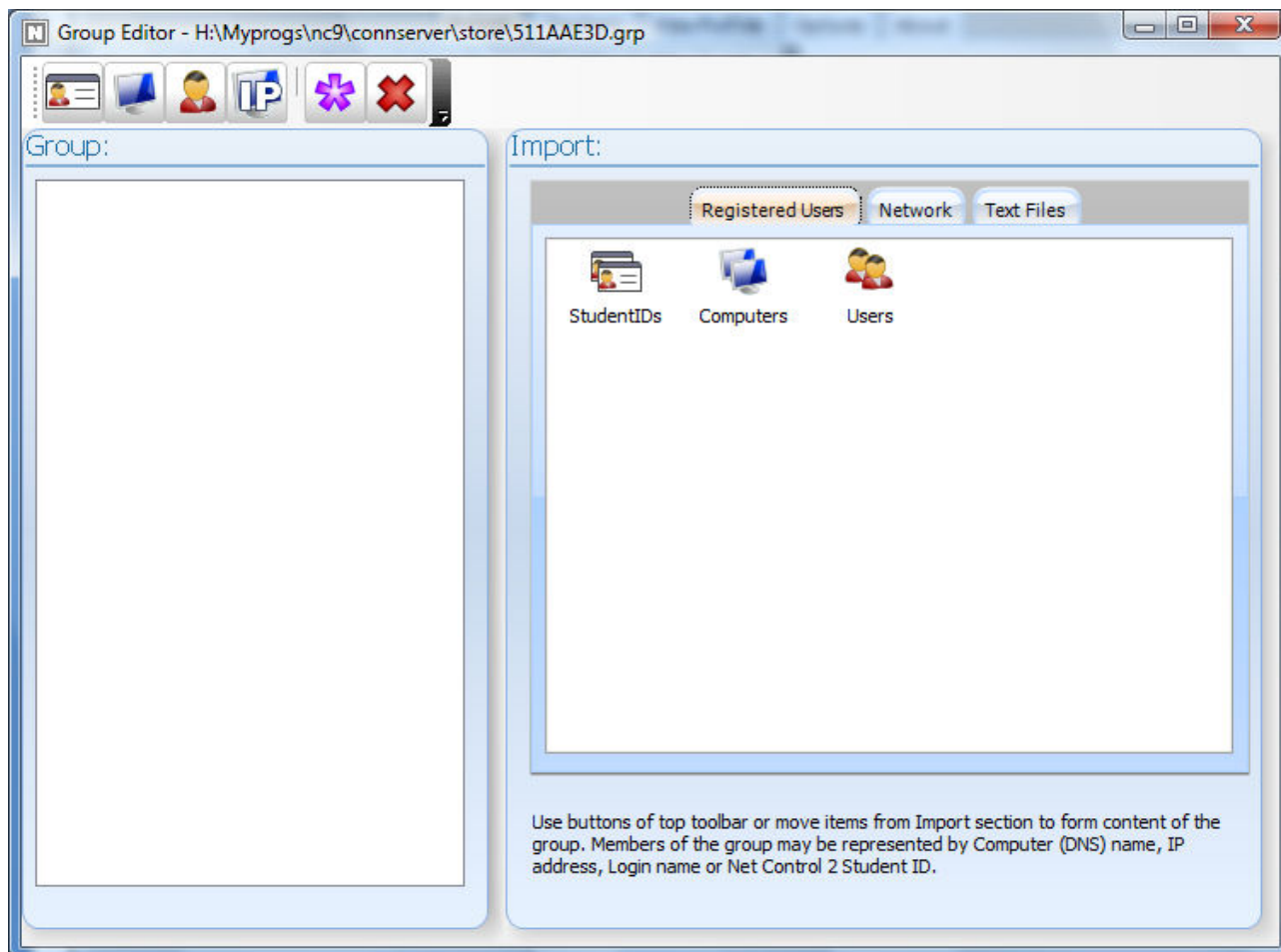
Delete - deletes the object selected from the group.

To simplify the process of group creation you can also use import tools placed in Import section (right pane):

Registered users tab contains list of objects (StudentIDs, Computers and Users), which were connected to the Connection Server earlier. To add objects to the group, select them and drag-drop to the left pane.

Network tab - provides access to the Network Neighborhood. To import computers from this list to the group drag-drop them to the left pane.

Text files tab - here you can open any text file and import elements of the file to group.



Close Group Editor to save changes.

4. Configure the teacher console.

Connection Server parameters may be set up on teacher computer in the process of installation. If the software is already installed you can change settings clicking the main menu command **N -> Options -> Options:**

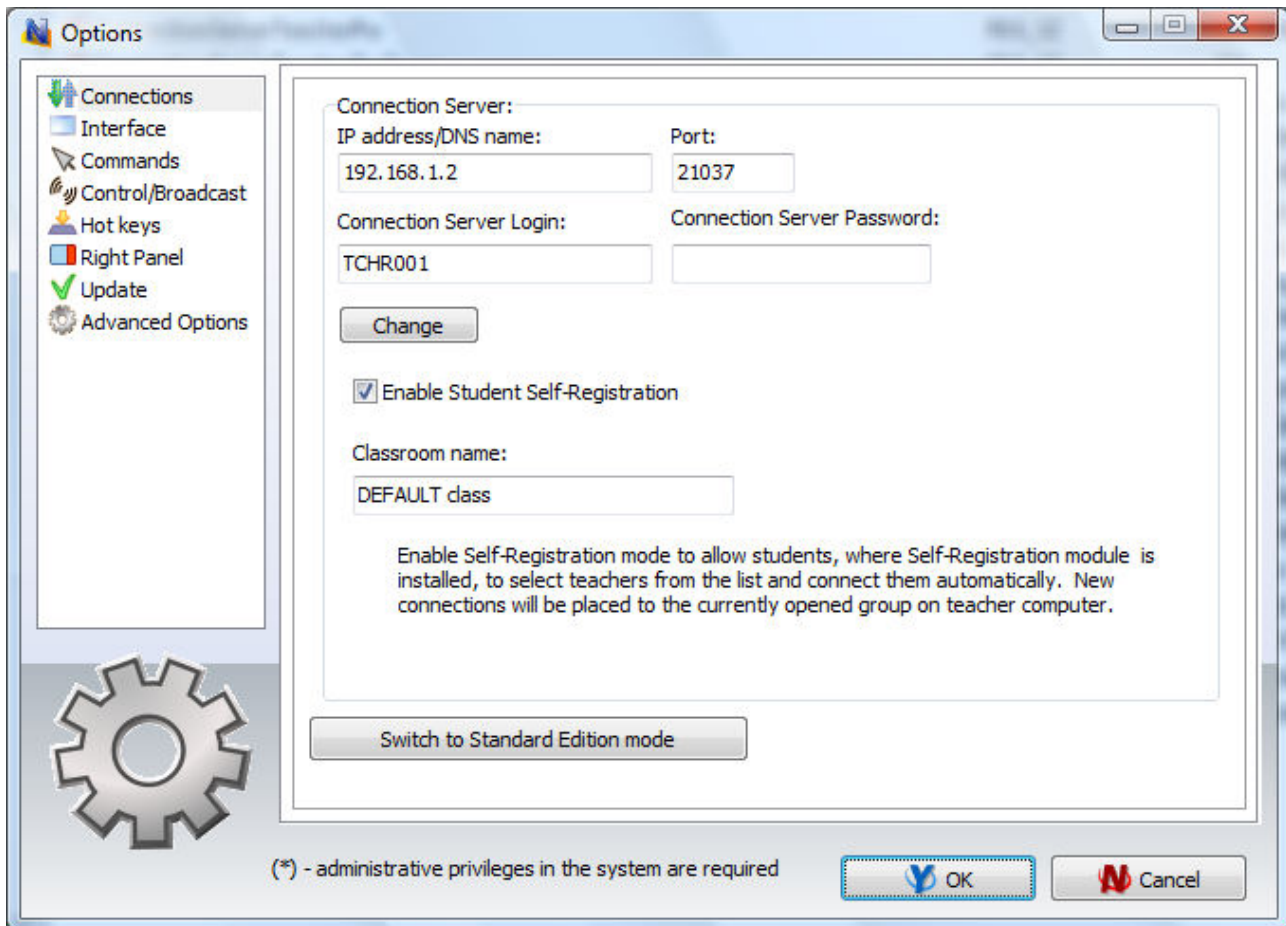
On Connections page you need to set up:

Connection Server IP address/DNS name - IP address or host name of computer, where Net Control 2 Connection Server components are installed.

Connection Server Login - specify the teacher id, as was added in p. 2 of this chapter.

Connection Server Password - specify teacher password corresponding to the specified teacher id.

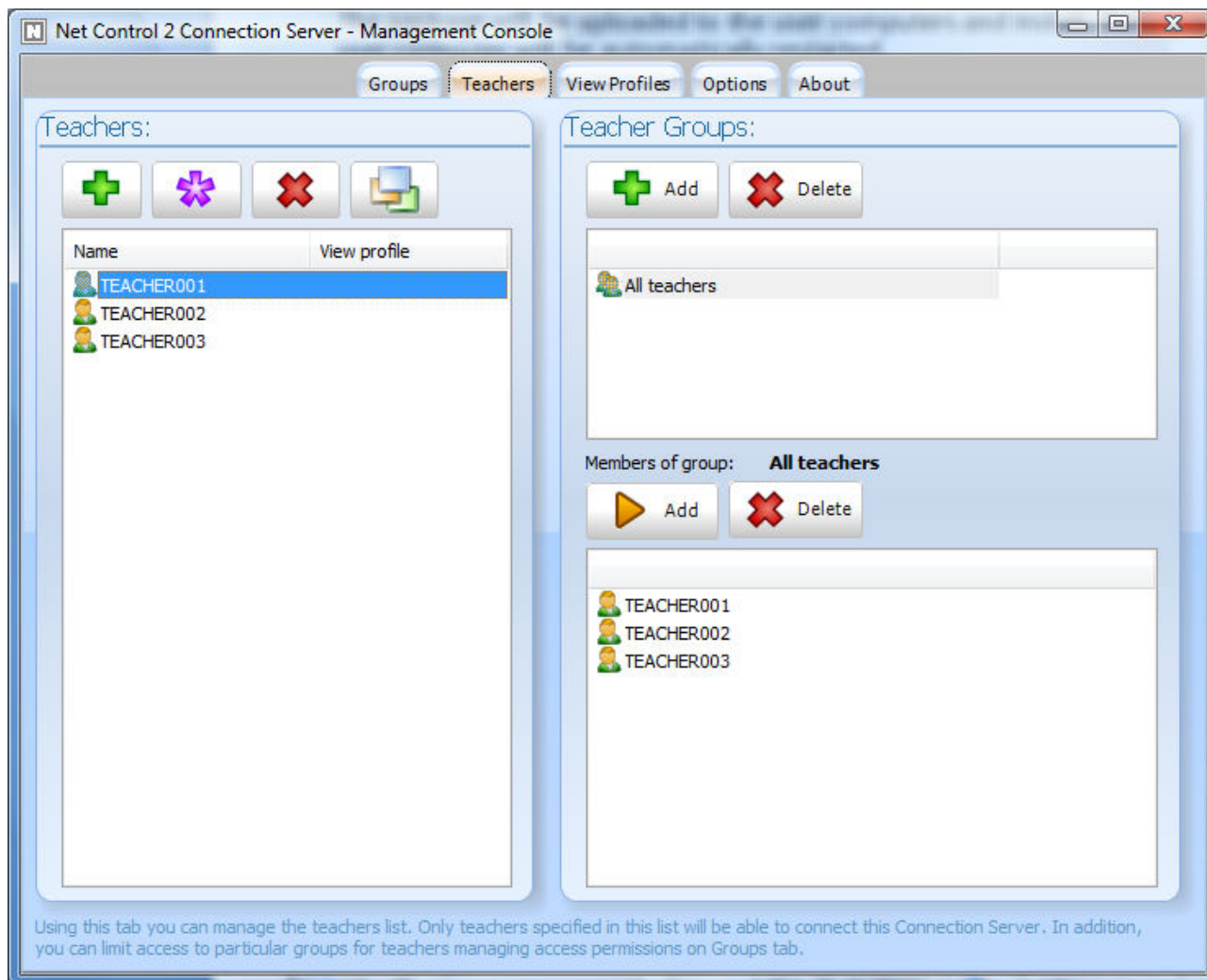
Click **Change** button.



Connection Server Management Console

To open the **Connection Server Management Console**: click Windows Start menu command **Start -> All Programs -> Net Control 2 -> Connection Server Configuration**

TEACHERS



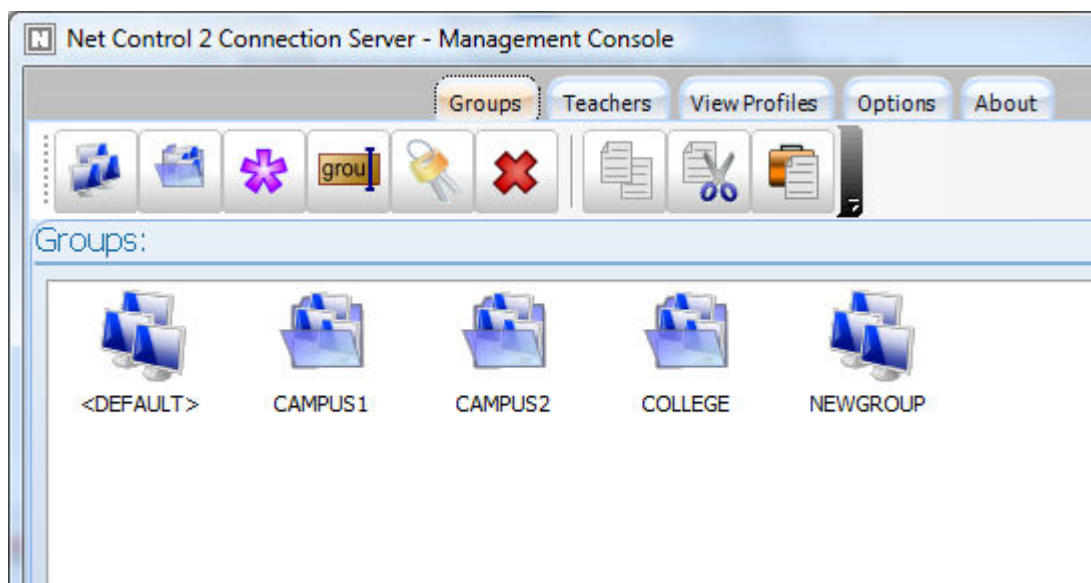
“**Teachers**” pane contains list of teachers, who will have access to the server. You need to create one or more teacher accounts, assign some password and specify these credentials on teacher computers in the Teacher console. Connection Server requires authentication of every connecting teacher with one of the specified teacher accounts/passwords.

In addition, here you can assign to a teacher account some View profile, which may be used for limiting access of teachers to features of the Teacher Console. View profiles may be created on **View Profiles** tab. To assign a profile, select one or more teacher accounts and click **Assign View Profile** button. Select View Profile from the list.

On “**Teacher Groups**” pane you can manage teacher groups. Every teacher group represents several teacher accounts and may be used as a common alias for all these accounts. Teacher groups may be used on *Groups* tab for setting up teacher access privileges to individual Net Control 2 groups; teacher groups do not have passwords and therefore cannot be used for authentication of teacher console.

To create a teacher group click **Add** button in Teacher Groups section. To move teacher accounts to this group, select the group in groups list; then select teacher accounts at left pane and click **Add** button in “*Members of group*” section of right pane.

GROUPS



Buttons of top toolbar:

Add group - adds new group in the current container and opens Group Editor.

Add container - creates new container. Containers are equivalent of folders in Windows file system, e.g. you can open containers and add new groups there.

Edit - modifies currently opened group.

Rename - renames the selected group or container.

Access permissions - changes access permissions for selected group. By default all teachers have access to new groups.

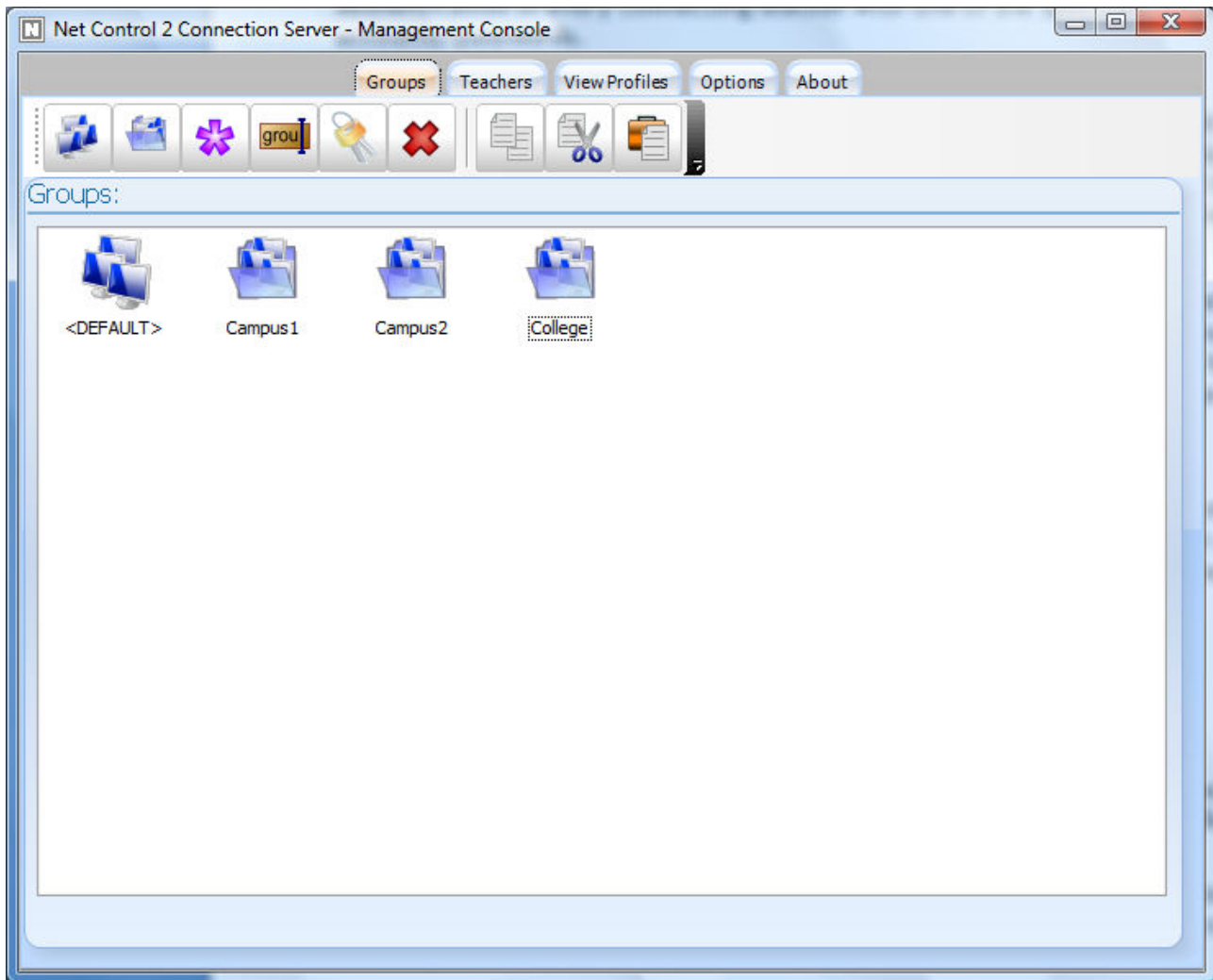
Delete - deletes a group or container.

Copy - copies selected groups to the Clipboard;

Cut - cuts selected groups to the Clipboard;

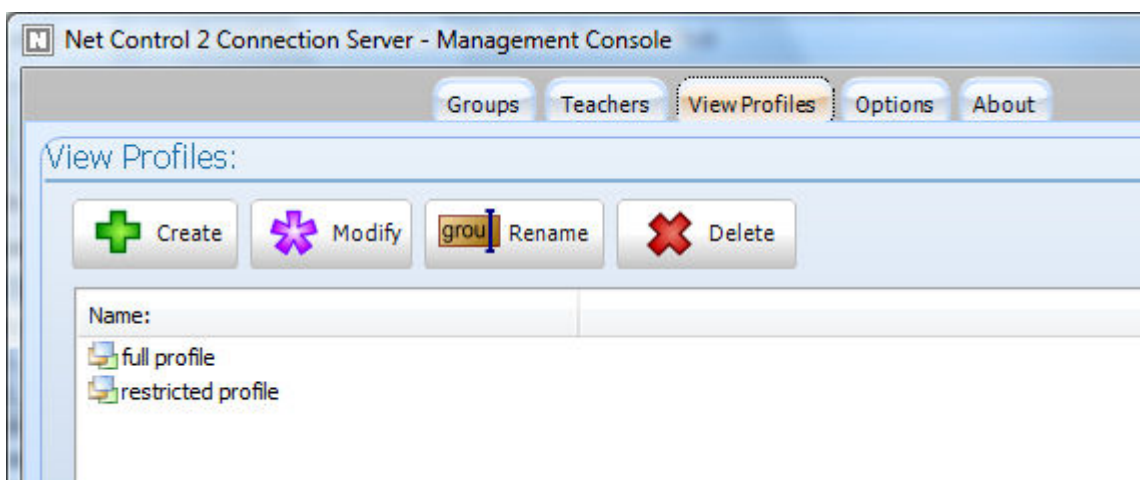
Paste - inserts selected groups from the Clipboard.

<DEFAULT> group in the main container is a special group, which contains all student connections, which cannot be sorted to any of existing groups.



For detailed information about Group Editor please refer to p. 2 of previous chapter.

VIEW PROFILES

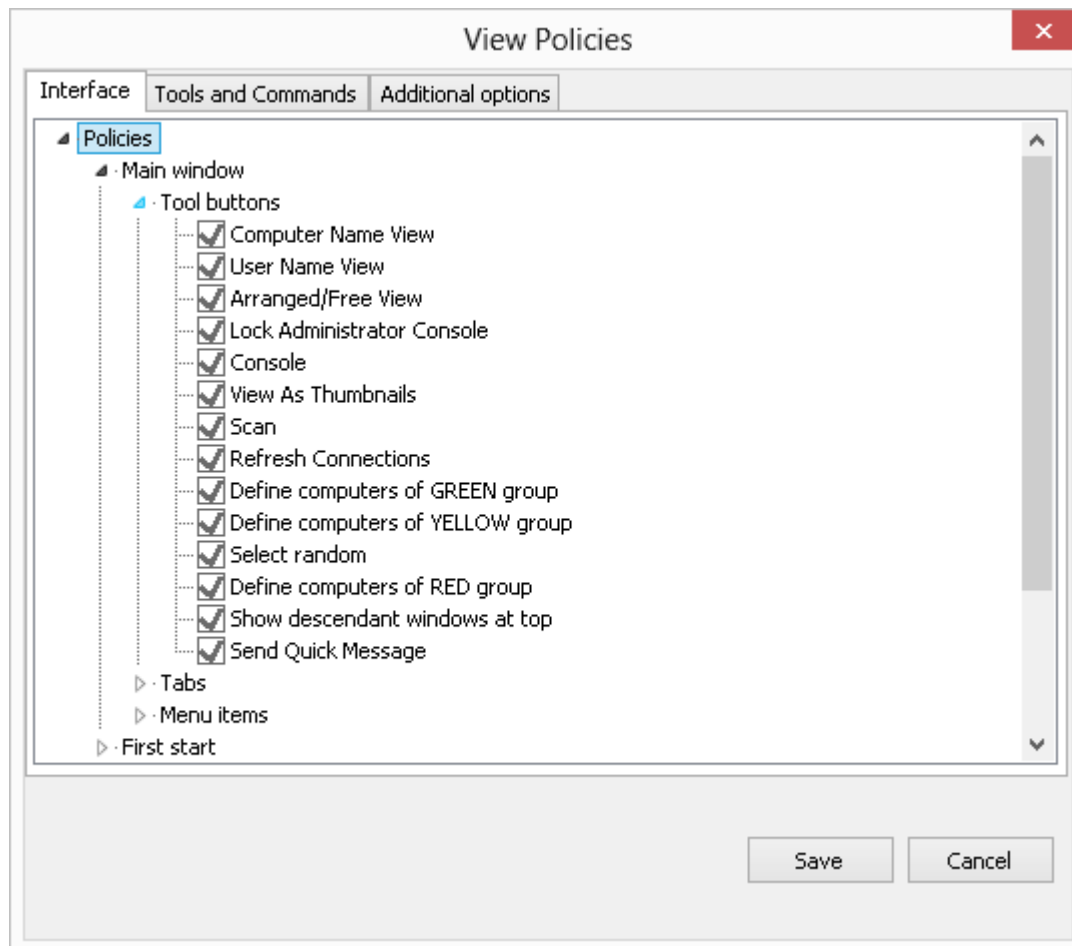


View profile determines what menu commands and toolbar buttons will be available for teacher. Disabling certain user elements you can limit functionality of the teacher

module. When created, the profile may be assigned to particular teacher accounts on **Teachers** tab.

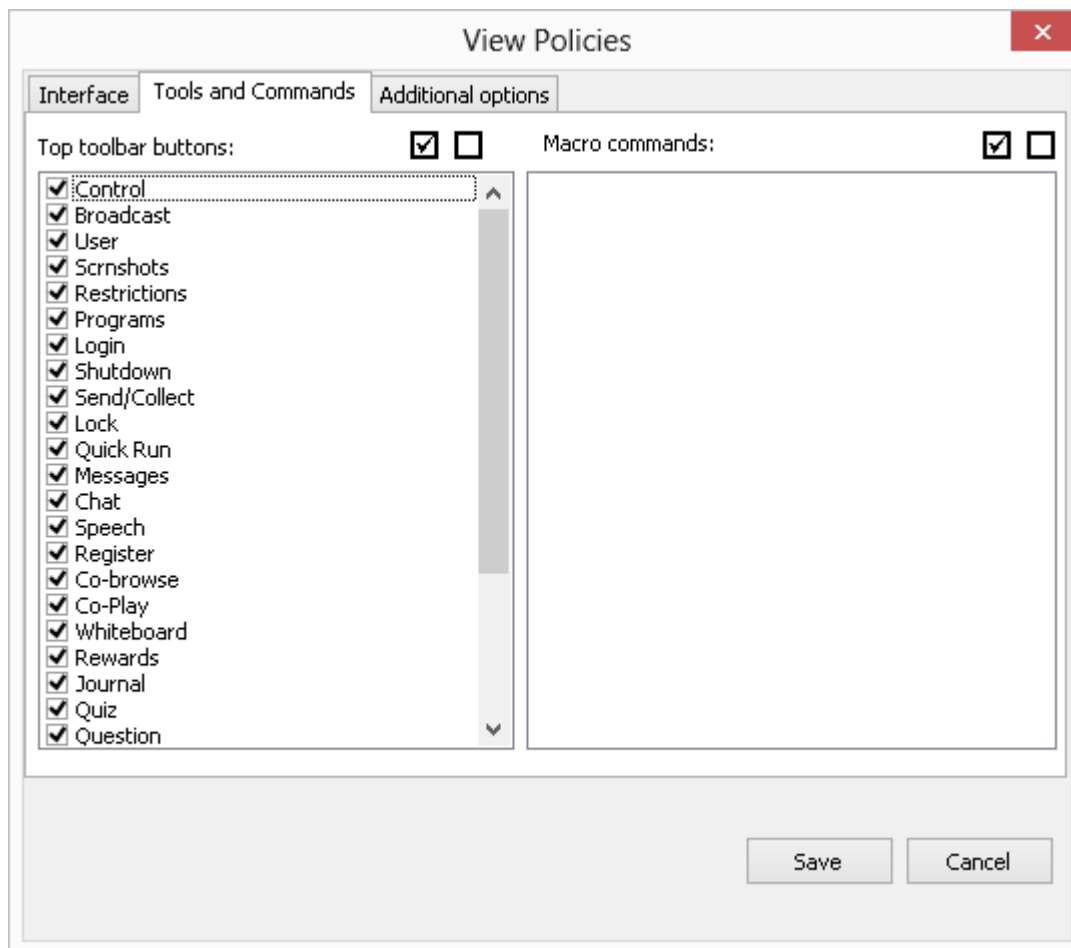
To create a profile click **Create** button on top toolbar, to modify a profile click **Modify** button, to rename a profile click **Rename** button and to delete any profile select it and click **Delete** button.

In profile editor:



On **Interface** tab uncheck elements, which should be hidden.

On **Tools and Commands** tab you can set up buttons of top toolbar that should be visible or hidden.



Click **Save** button to save the profile.

To assign a view profile to teacher accounts:

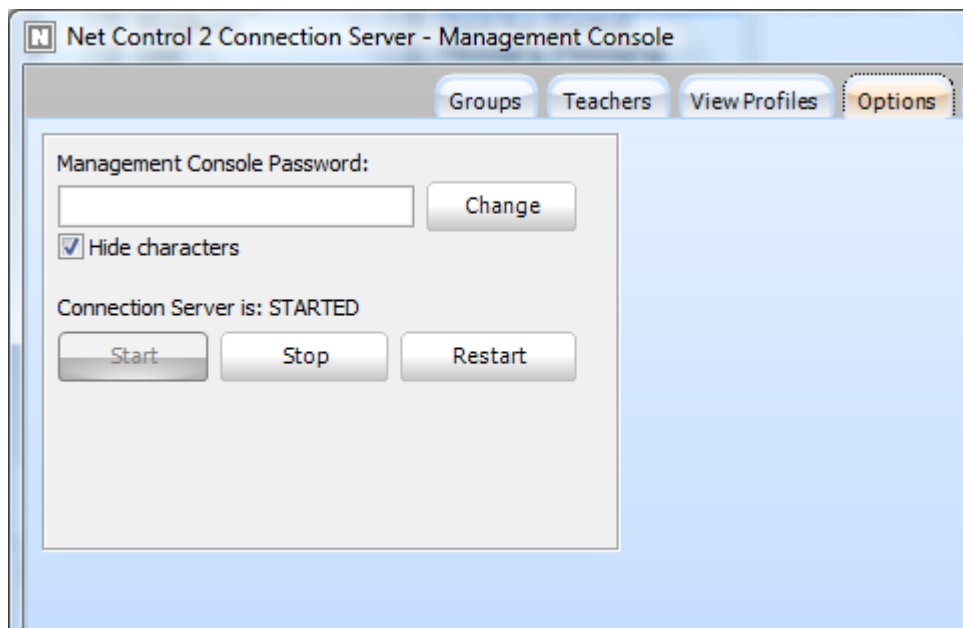
On **Teachers** tab, in **Teachers** section select one or several teacher accounts, click **Assign View Profile** button and select the profile from the list.

OPTIONS

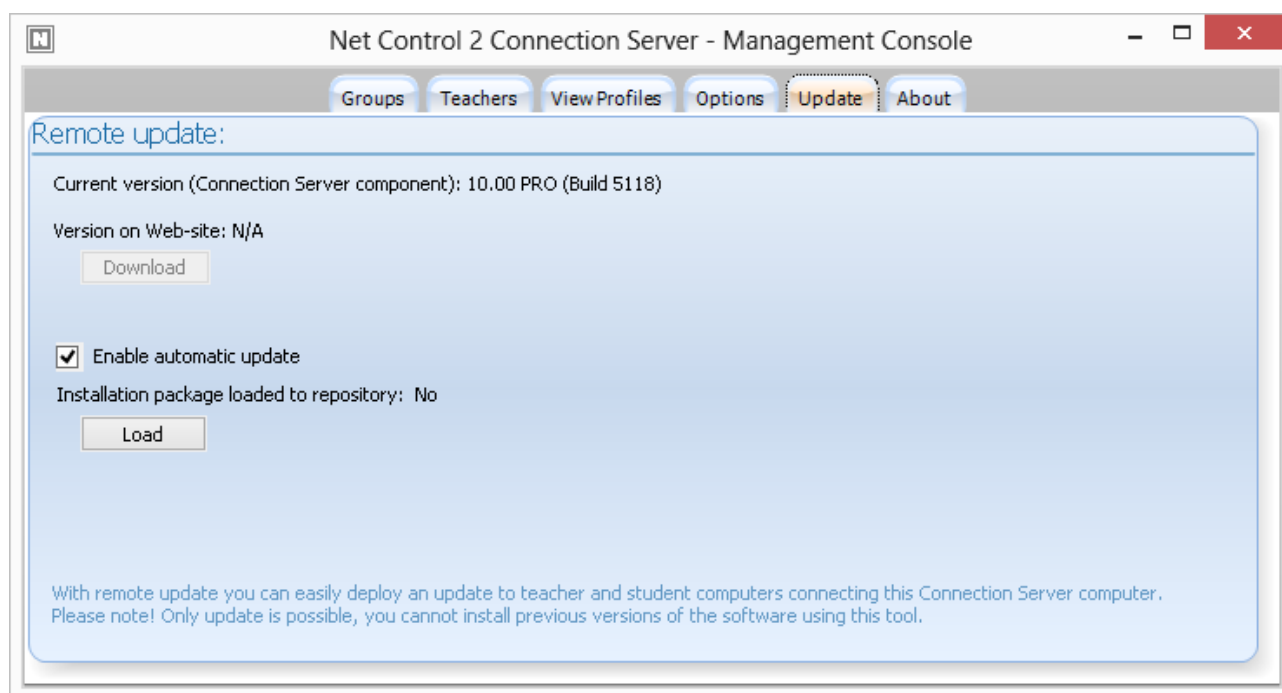
On **Options** tab of Connection Server Management Console you can set up additional options for the Connection Server:

Management Console Password field assigns a password for access to the Connection Server Management Console.

In addition, here you can also manage Connection Server service and obtain current status of the service: click **Start** button to start the service, **Stop** button to stop the service and **Restart** button to restart the server.



REMOTE UPDATE



Using **Update** tab of Connection Server Management Console you can set up automatic update of connecting teacher and student computers to the latest version, loaded to the repository of Connection Server.

To push an installation package to the automatic update:

- Download the latest version of the software (standard .exe installation package, common for teacher and student components);
- On Update tab of Connection Server Management Console click **Load** and open the package.

Please note! It is assumed that Connection Server works with hundreds and thousands of computers at a time, to decrease load of your network and use of your server resources the update will be performed by Connection Server distributed in time, if you have several thousands of computers in your network the whole process may take several days.

Close **Connection Server Management Console** program to apply changes.

C. LICENSING

The software may be used in two modes:

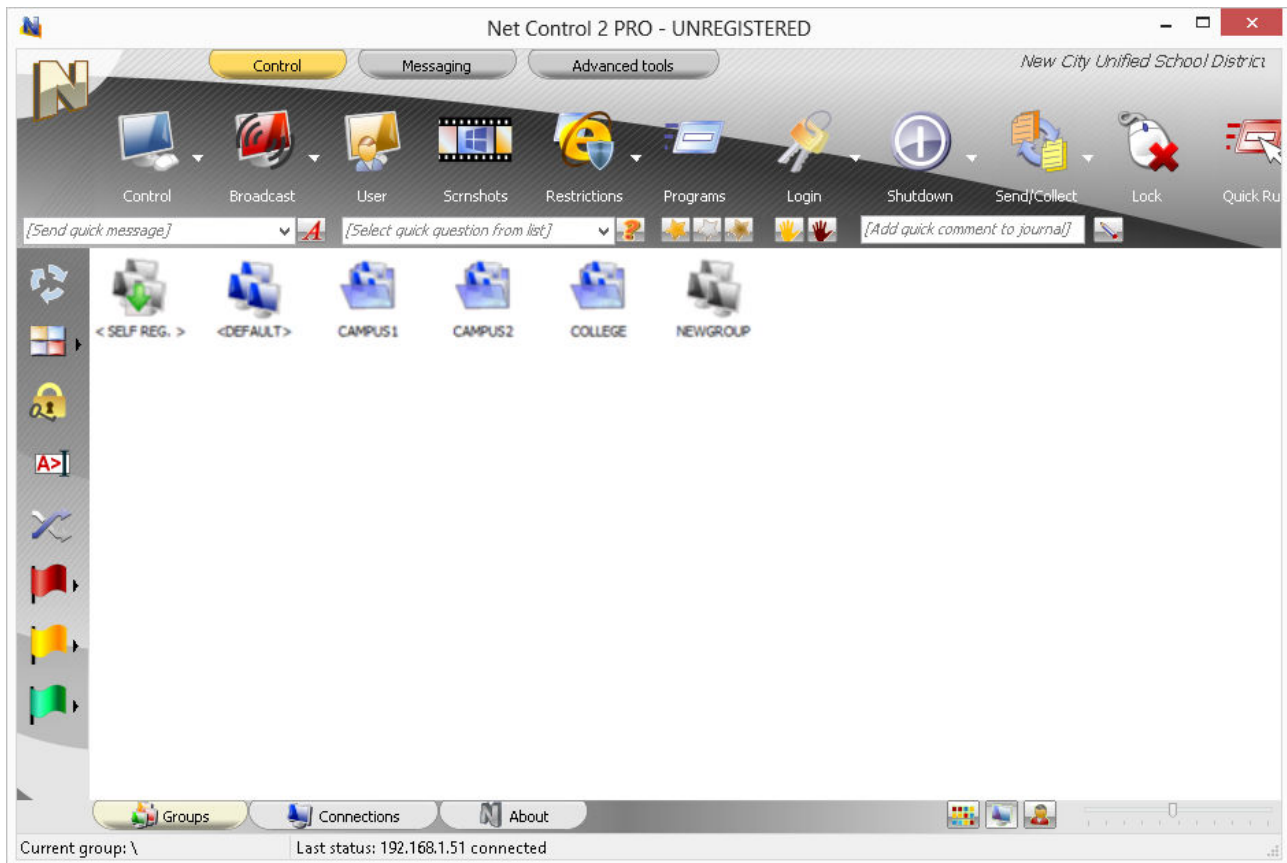
- With Evaluation (“unregistered”) license. In this case you can use the software for managing up to 50 student computers, within 30 days **from the moment of first installation**. If you need to prolong the evaluation period or test the software on more student/teacher computers please contact Net Control 2 support or our reseller for free evaluation license.
- If you are owner of Registered User License to register the software: open Net Control 2 Connection Server Management Console; on **About** tab click **Register** button and enter your registration information. Teacher and student computers will be registered automatically.

If you had some Registered User License and upgraded it then to some other (larger) license, to reset your previous registration: open Net Control 2 Connection Server Management Console; on **About** tab click **Re-register** button; restart the Connection Server Management Console.

D. TEACHER CONSOLE

Before using Teacher console you need to configure it, setting up Connection Server settings (IP address and teacher credentials). These settings may be specified in the process of installation (please refer to **Chapter A**) or changed at any moment after installation (please refer to **Chapter B, p.4**)

Upon starting Teacher Console up you should see on **Groups** tab a list of groups and containers as configured on Connection Server:



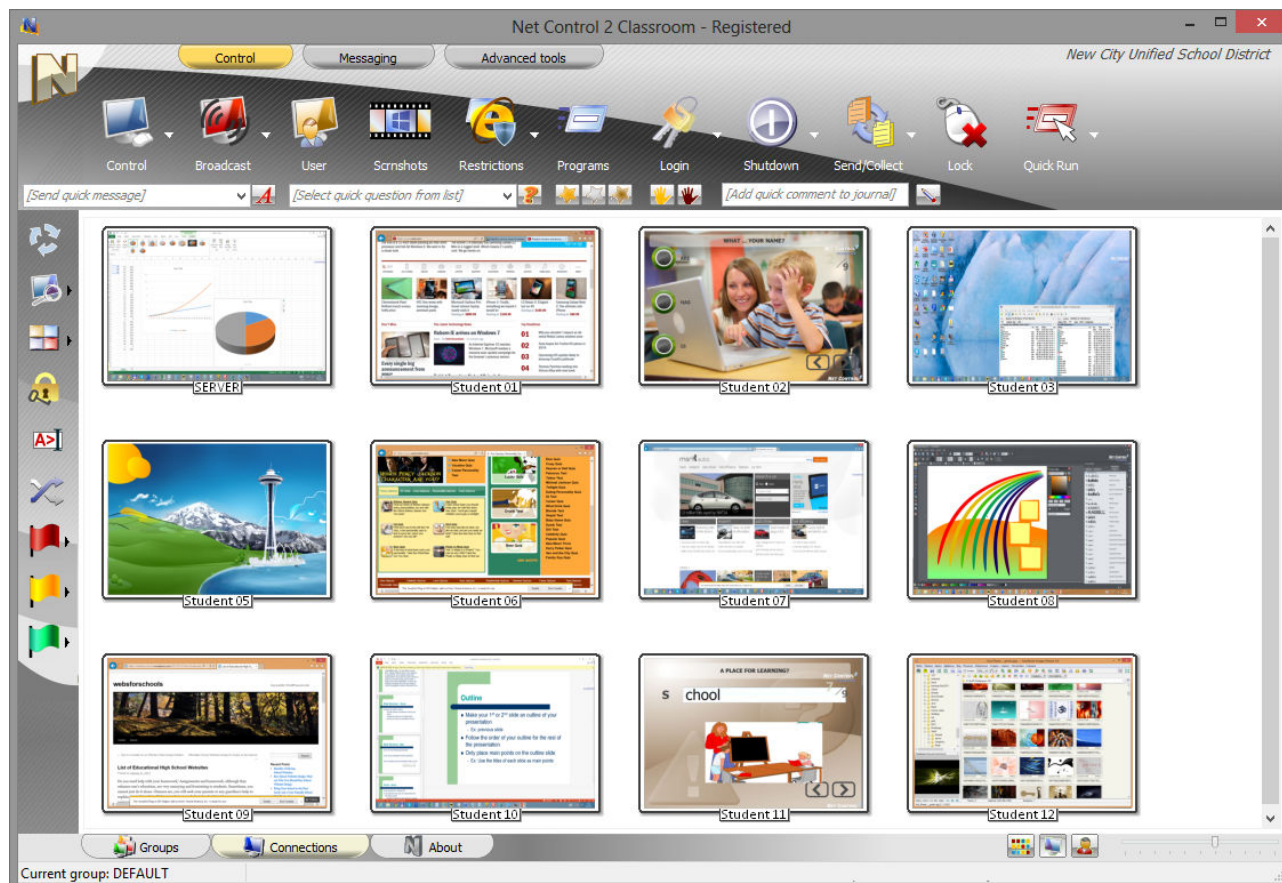
Currently selected group is highlighted with blue monitors icon.

Double click a group or container to enter it.

<DEFAULT> group in the main container is a special group, which contains all student connections, which were not sorted to any other groups.

<SELF REG.> group is a special group, which contains only connections initiated and created by students (*self-registered* connections). For more information about this mode please refer to **Chapter D**.

After entering a group you will see a list of student connections, belonging to this group.



To control User Computers, select them in the list and apply a command from the Top toolbar, Right Panel, All Tools or Commands menu.

E. SPECIAL MODE: STUDENT SELF-REGISTRATION.

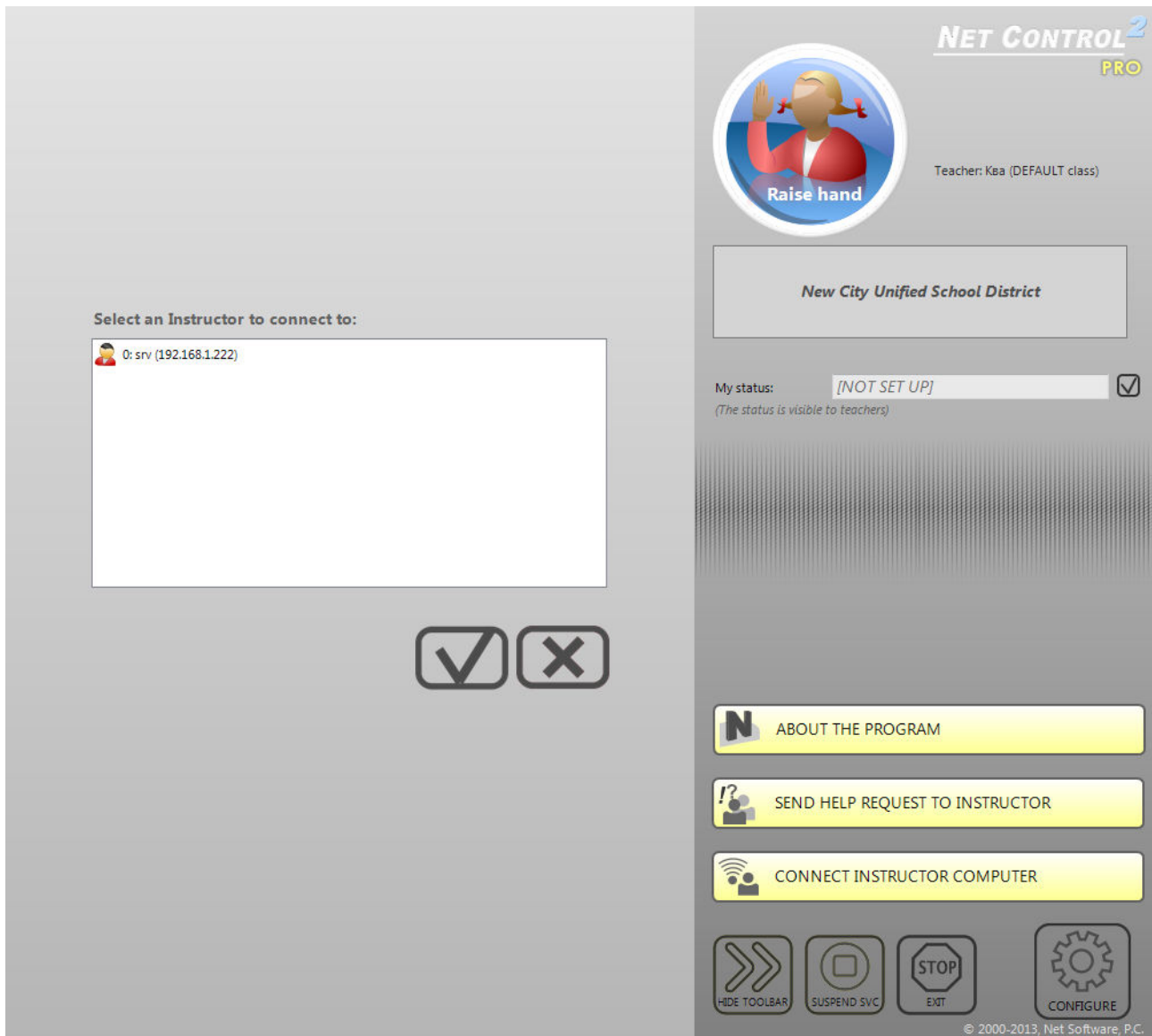
Student self-registration mode may be useful when students (users) use laptops and can move from one classroom to other, i.e. from one Teacher to other, when it is impossible to join such students in one constant group.

When Student Registration mode is enabled on teacher and student computers, the student can initiate connection with selected teacher computer.

To initiate the connection:

- click Net Control 2 icon in the System Tray
- or use “Connect Instructor” shortcut on Desktop,
- or right click Net Control 2 icon in the System Tray and select in appeared Net Control 2 Client Menu “CONNECT INSTRUCTOR COMPUTER” button.

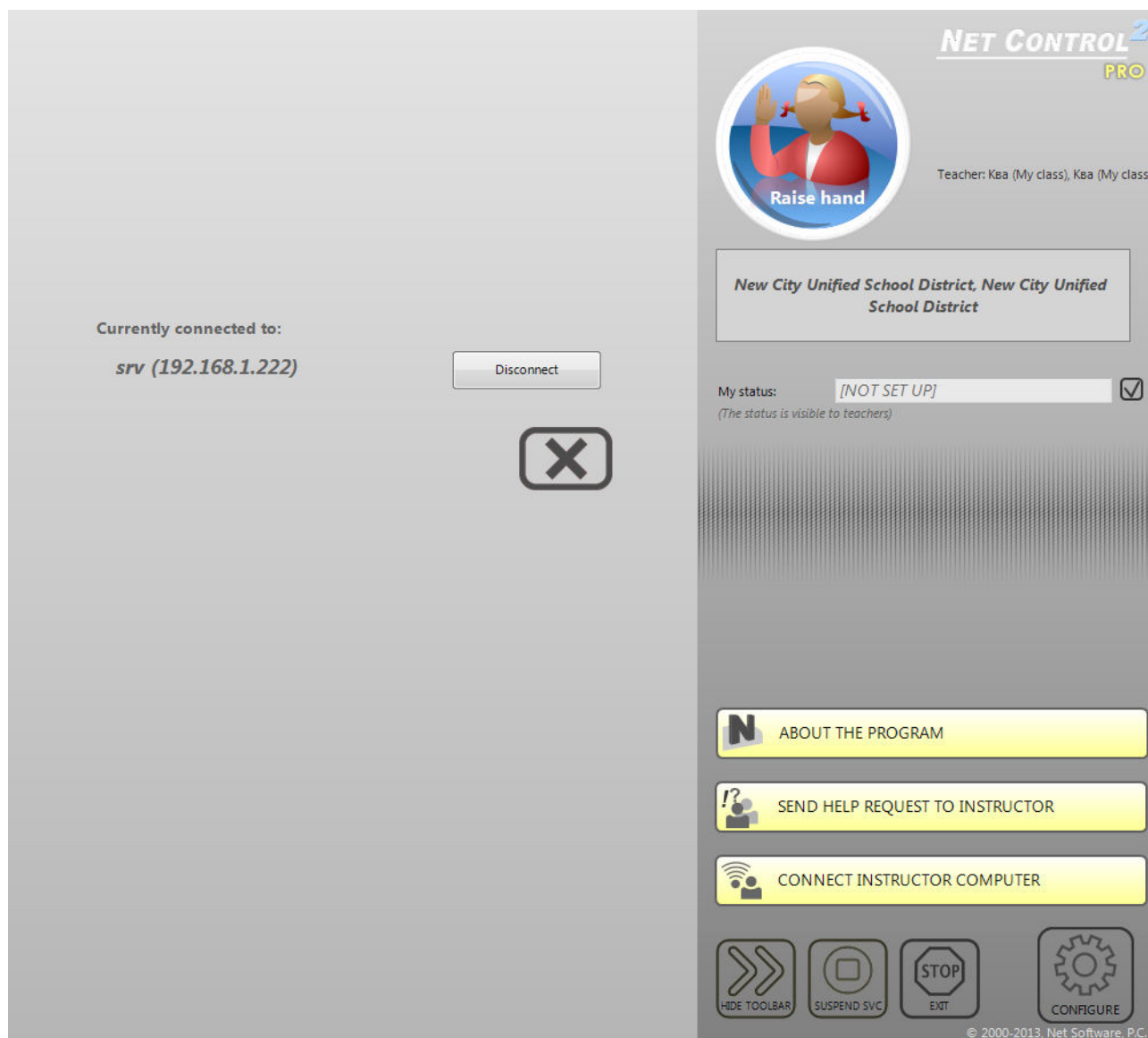
In all these cases the software will display the following dialog window:



With one or several currently available teacher computers. Select a teacher to which you would like to connect and click OK button.

The client module will connect the respective teacher computer and create new connection in its workspace.

To disconnect from teacher computer click Net Control 2 icon in the System Tray again or click shortcut on Desktop again:



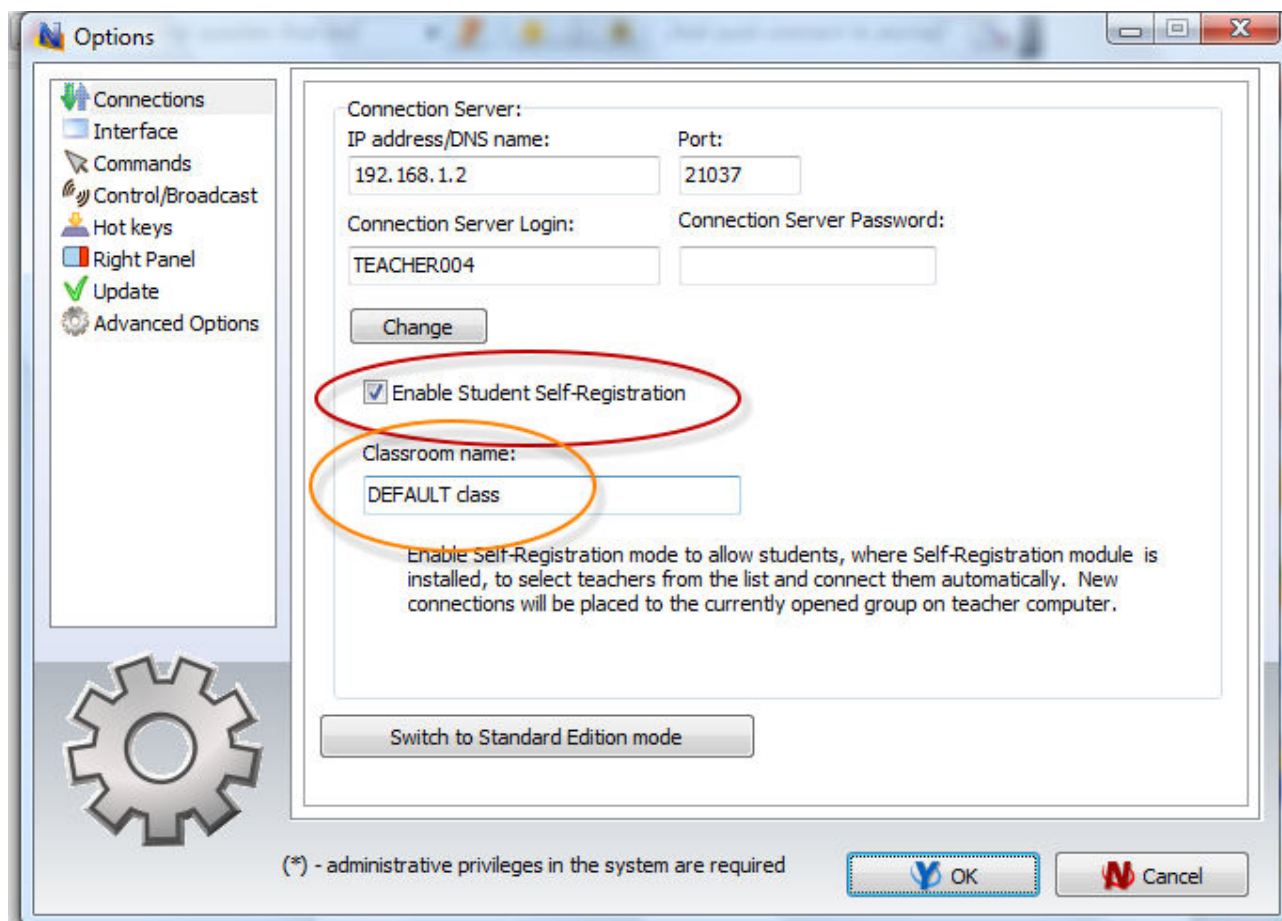
and click **Disconnect** button.

In order to allow student-initiated connections the teacher module should be respectively configured: in Teacher module click the main menu command **N -> Options -> Options**.

On **Connections** page the **Enable Student Self-Registration** option should be **enabled**. Optional **Classroom name** parameter may specify some name, which will be displayed in the teachers list on the student computer.

New student connections will be automatically placed to the currently opened group on teacher computer and removed automatically upon disconnect.

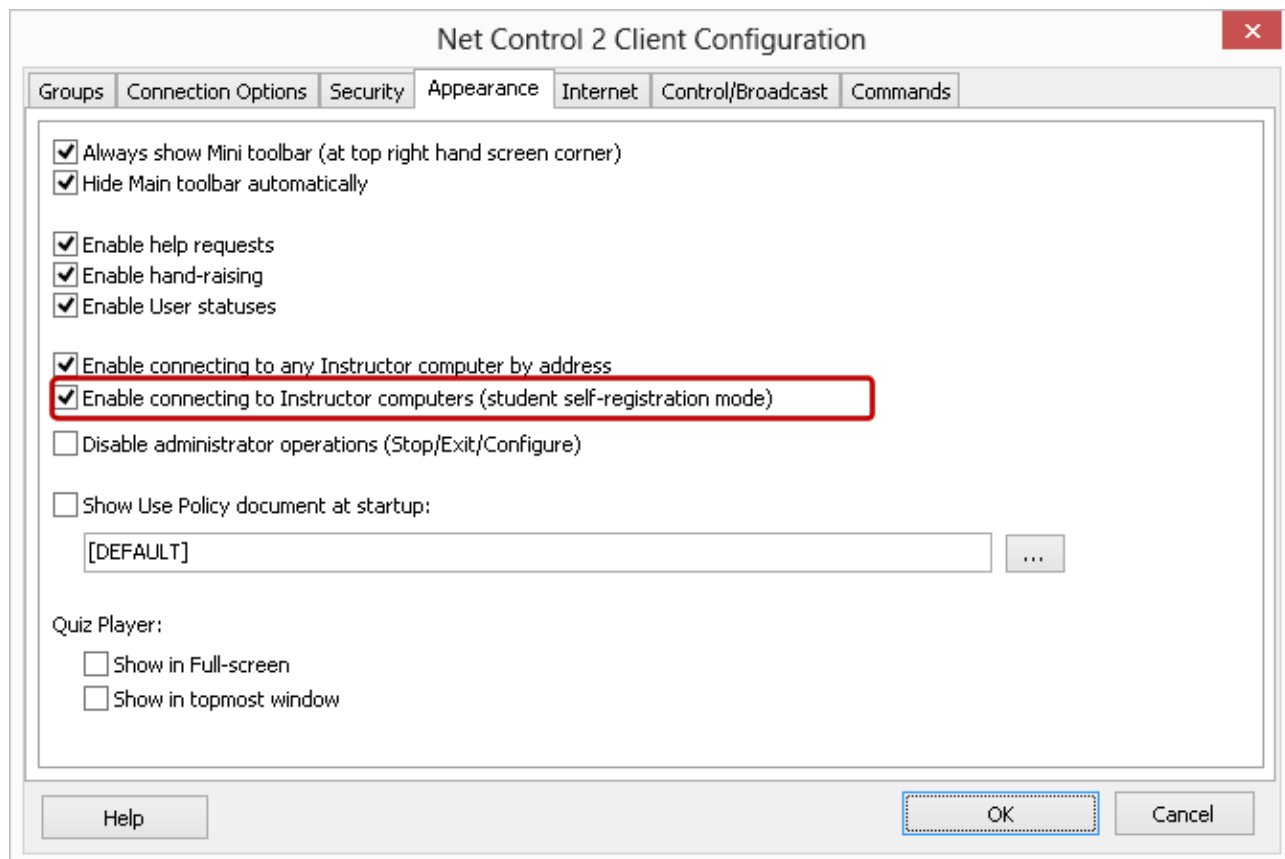
In addition to standard groups, groups list on teacher computer will contain special **<SELF REG.>** group. This group is empty by default and will contain only student-initiated connections.



Student Self-Registration mode may be disabled or enabled in the client configuration. To modify client computers configuration remotely from teacher computer:

- select student computers;
- click the main menu command **N -> Options -> Client Options**.

To change the configuration on student computers directly right click Net Control 2 icon in the System Tray of client computer and then click **Configure** button.



On Appearance tab, when “Enable connecting to Instructor computers (student self registration mode)” option is enabled (checked) the student self-registration interface is enabled.

E. DETAILED CONFIGURATION OF CLIENT MODULE.

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

To configure User Module remotely from Teacher Component:

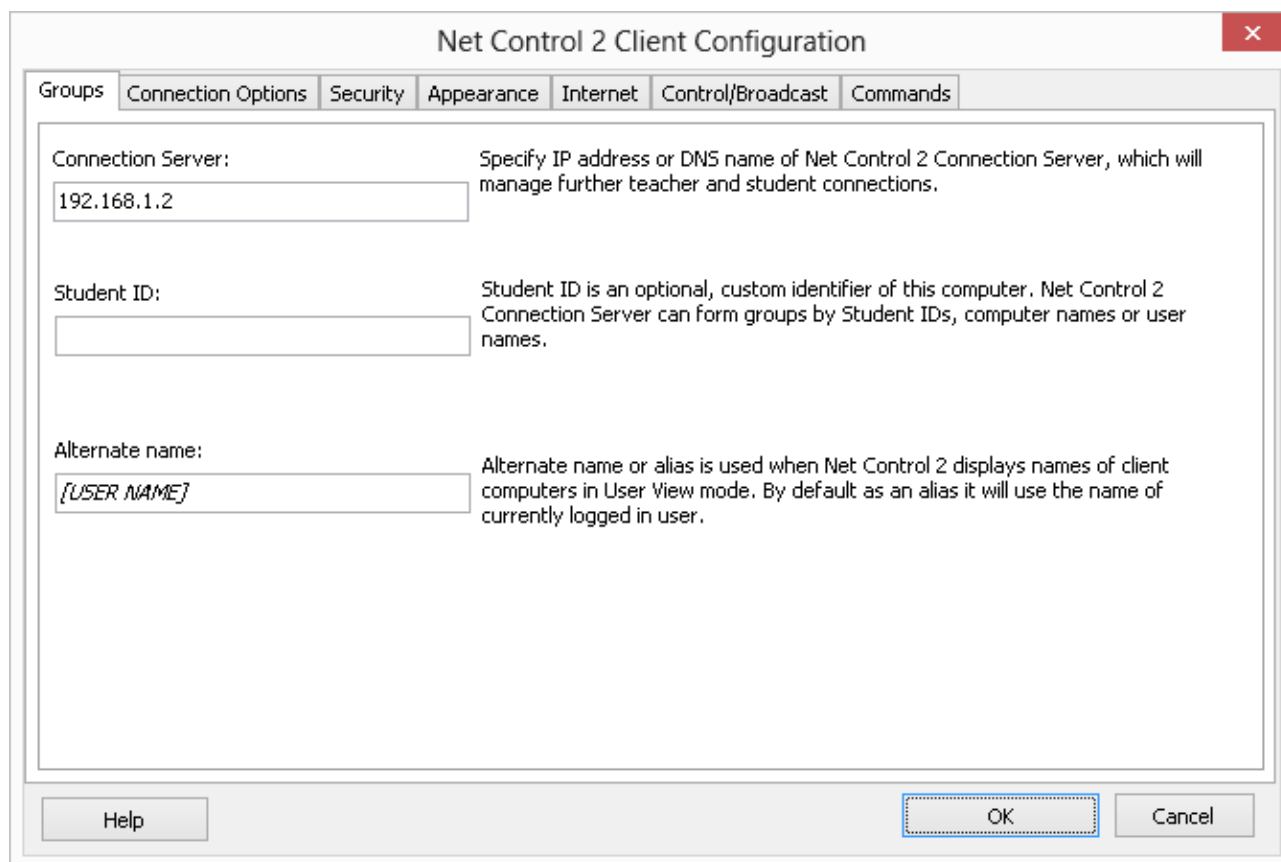
- select the User Computers
- click menu command **N -> Options -> Client Options** or just click the **User Opts** button on the **Advanced Tools** tab
- configure the options as specified below
- click the **OK** button

To configure User Module on User computer directly:

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

Configuration window:

Groups tab:



The image shows a screenshot of the 'Net Control 2 Client Configuration' dialog box, specifically the 'Groups' tab. The dialog has a title bar with a close button (X) in the top right corner. Below the title bar is a tabbed interface with the following tabs: 'Groups' (selected), 'Connection Options', 'Security', 'Appearance', 'Internet', 'Control/Broadcast', and 'Commands'. The 'Groups' tab contains three input fields, each with a label and a descriptive text box to its right:

- Connection Server:** The input field contains '192.168.1.2'. The text to the right says: 'Specify IP address or DNS name of Net Control 2 Connection Server, which will manage further teacher and student connections.'
- Student ID:** The input field is empty. The text to the right says: 'Student ID is an optional, custom identifier of this computer. Net Control 2 Connection Server can form groups by Student IDs, computer names or user names.'
- Alternate name:** The input field contains '[USER NAME]'. The text to the right says: '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 currently logged in user.'

At the bottom of the dialog, there are three buttons: 'Help' on the left, 'OK' in the center (highlighted with a blue dashed border), and 'Cancel' on the right.

Connection Server - IP address or DNS name of the Connection Server.

Student ID - custom identifier for this computer, may be used by Connection Server for sorting computers to groups.

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.

SECURITY tab

The screenshot shows the 'Net Control 2 Client Configuration' window with the 'Security' tab selected. The window has a title bar with a close button (X) in the top right corner. Below the title bar is a tabbed interface with tabs for 'Groups', 'Connection Options', 'Security' (active), 'Appearance', 'Internet', 'Control/Broadcast', and 'Commands'. The 'Security' tab contains the following settings:

- Administrator password:** A text field with three dots (•••) and a checkbox for 'Hide characters' (checked).
- Signal On Connection:** A checked checkbox.
- Prevent service from stopping:** An unchecked checkbox.
- Warn user before shutdown operation:** A checked checkbox.
- Permissions:**
 - Left column (all checked):** Allow changing Client settings remotely, Control Desktop objects, Control Programs, Shutdown, restart and lock computer, Receive Messages, Log Events, Change system settings.
 - Right column:**
 - File Operations:** A checked checkbox.
 - On the specified folder only:** An unchecked checkbox with a text field containing 'C:\Users\Public\Desktop\NC2 Common File' and a '>>' button.
 - Log chats history:** A checked checkbox.
 - Do not reply to scan requests:** An unchecked checkbox.
- Enable automated error reporting to developers:** A checked checkbox.

At the bottom of the window are three buttons: 'Help', 'OK' (highlighted with a blue dashed border), and 'Cancel'.

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.

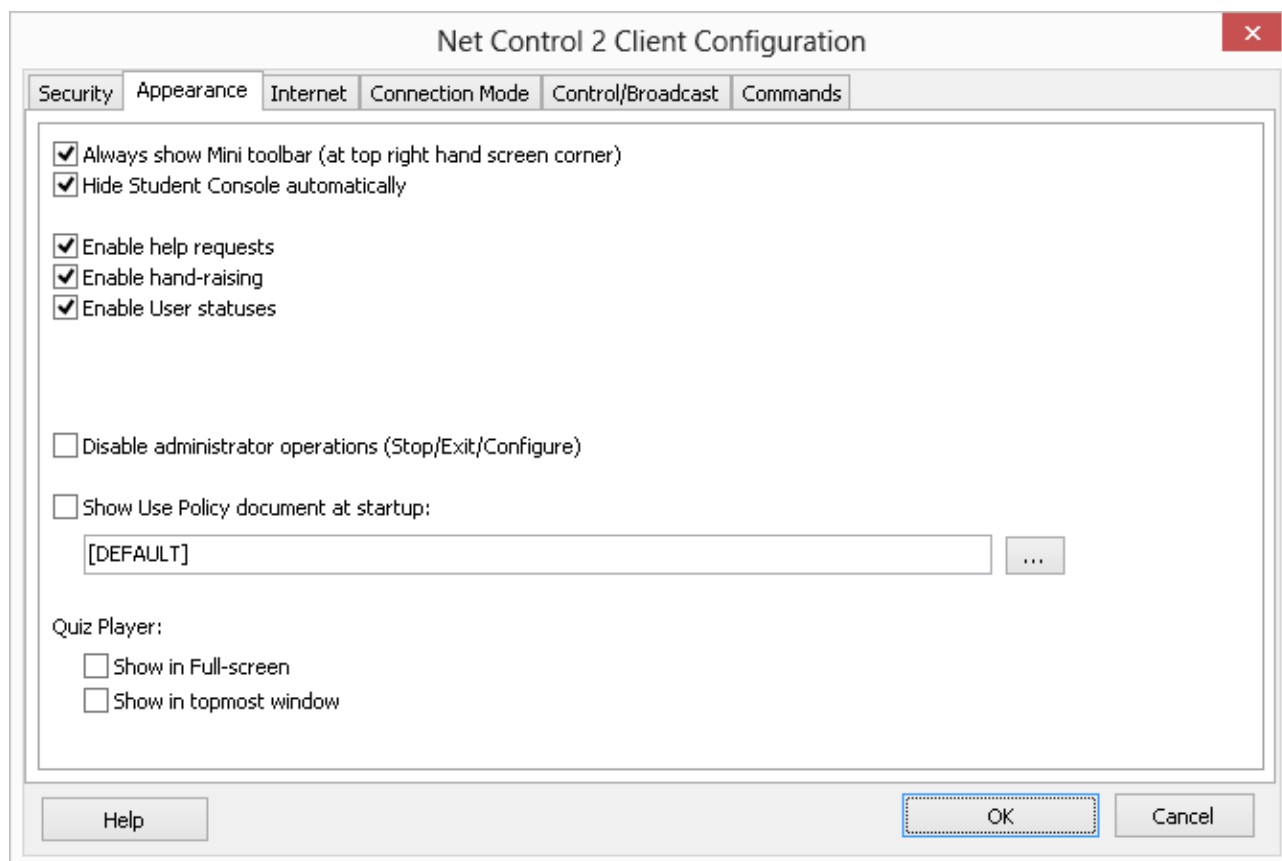
Prevent service from stopping - when checked, the user will not be able to stop Net Control 2 Client service using Services console of Administrative Tools or net.exe system program.

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, user 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.

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.

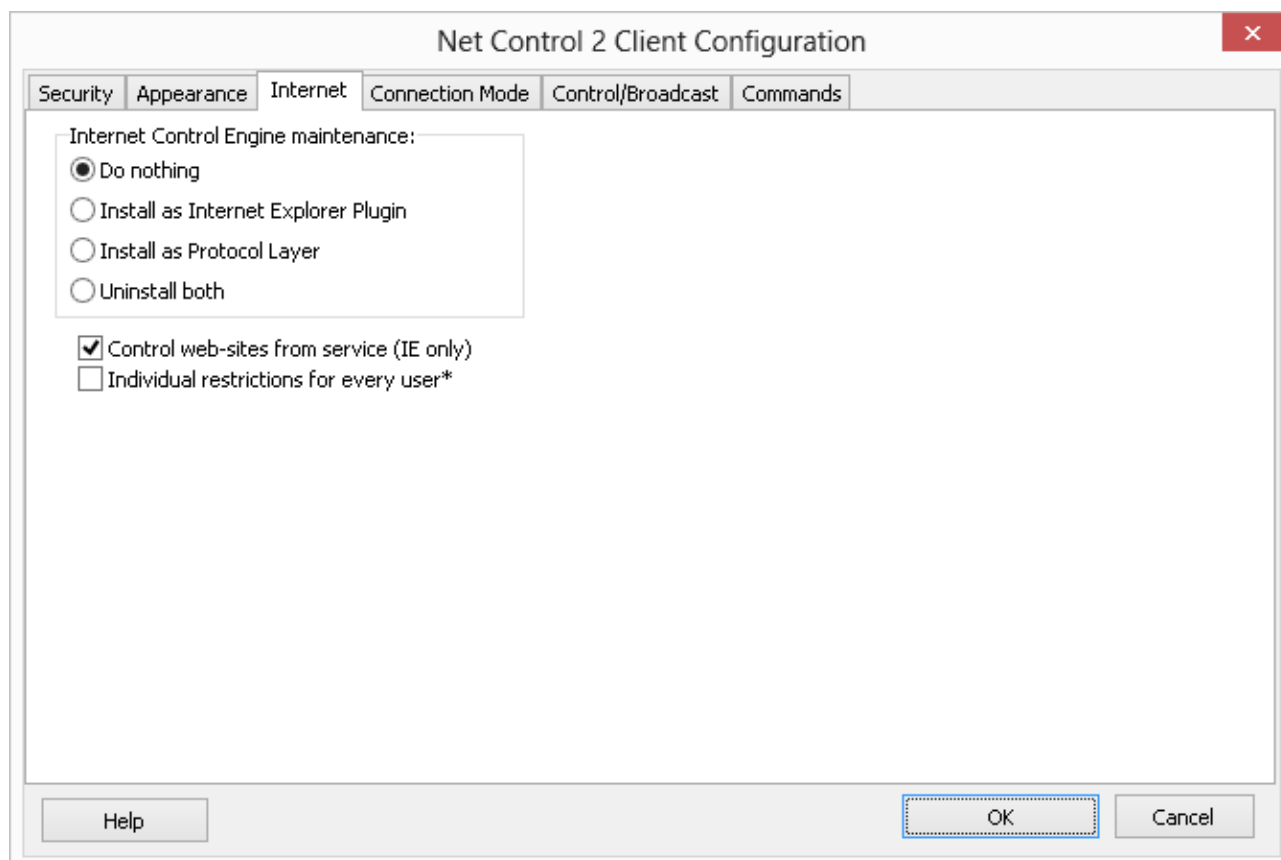
Show Use Policy document at startup - when enabled, the service will display the Acceptable Use Policy document at user logon, either default or custom (specified by the Teacher).

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 “Do nothing”, will schedule the installation routine. **Do not**

change this value unless you need re-install the Internet Control Engine.

Install as Internet Explorer Plug-in - 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.

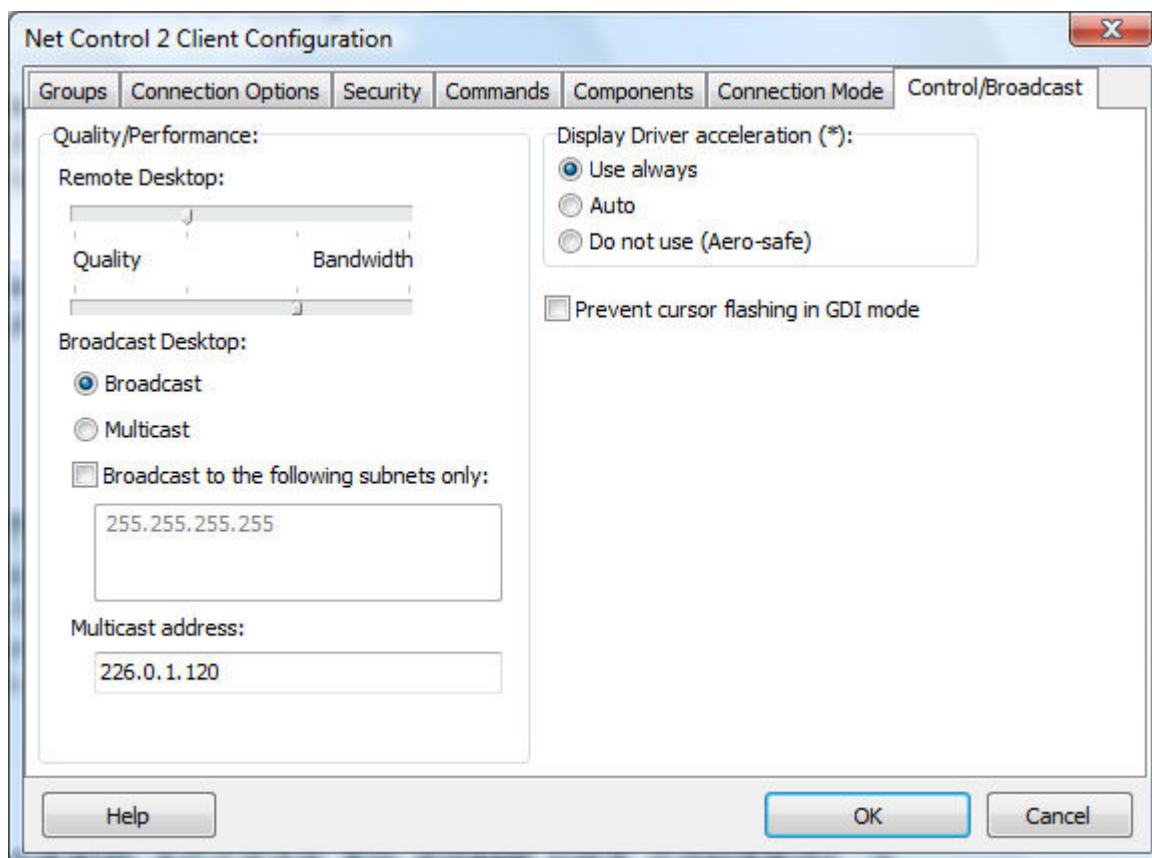
Install as Protocol Layer – schedules installation of the Net Control 2 Internet Control Engine as a Protocol Layer. This mode is less compatible with third-party software than IE plug-in mode, but provides additional functionality and does not depend on Internet clients (browsers, e-mail clients etc.).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

Control web-sites from the service - when checked, Internet restrictions will be applied to Internet Explorer browser, even if Net Control 2 plugins (extension) was disabled by user (in Internet Explorer 9 and higher a user can disable browser plugins at any moment by clicking the respective prompt in browser). When this option is enabled and any restrictive profile was applied to computer, Net Control 2 will automatically disable alternative browsers like Firefox, Opera, Chrome, Safari, because these browsers cannot be controlled directly from the service without browser extensions. Access to these browsers will be automatically restored once the restrictive profile is 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.

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.

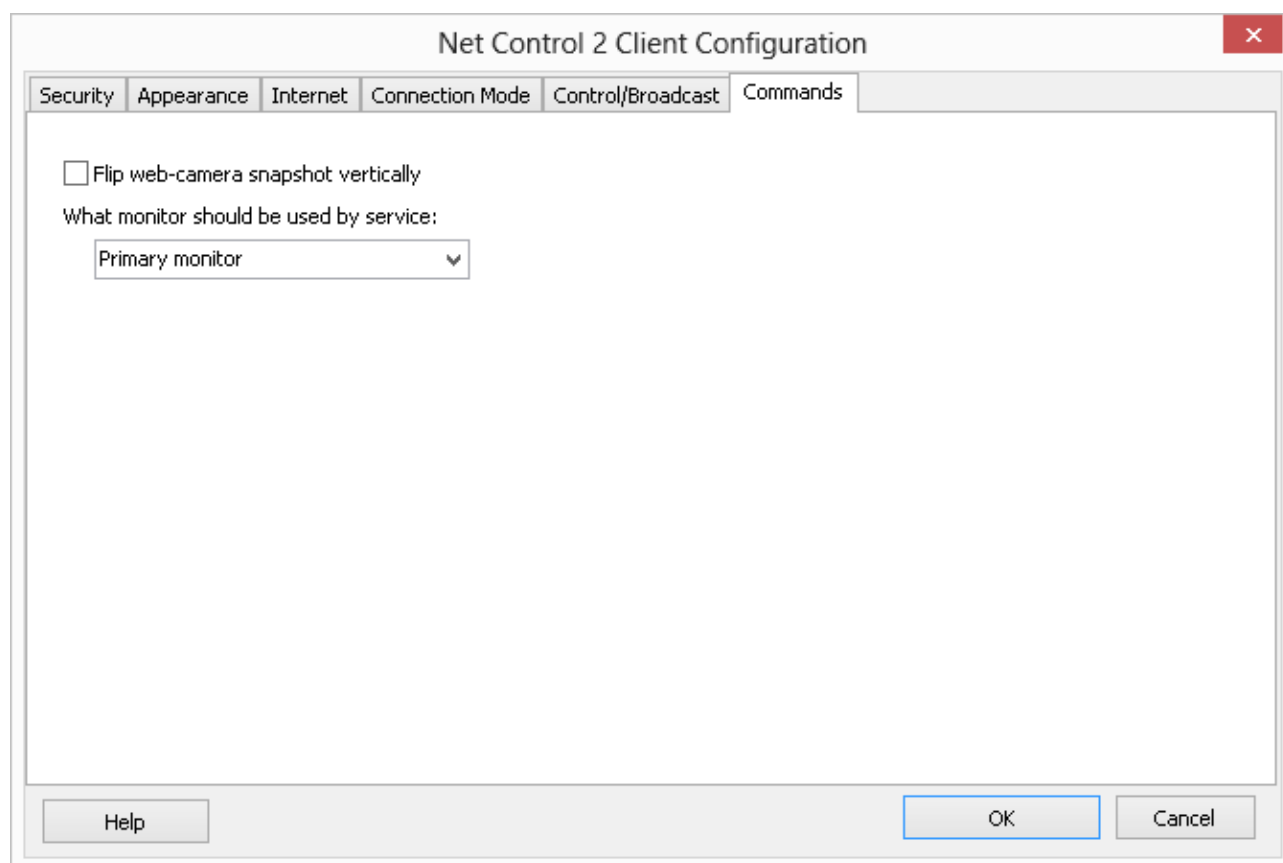
Multicast - Broadcast Desktop service will use Multicast protocol as a transport protocol. Most often this protocol has better performance and resistance to errors during data transmission if clients use Windows Vista/7/2008 operating system. If default Multicast address interfere with other network 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.

What monitor should be used by service - 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.

F. HOW TO DISABLE ACCESS TO GROUPS LIST IN THE TEACHER CONSOLE.

To disable changing currently selected group in the Teacher console Administrator can lock the group in settings of Teacher Console:

- Select the default group, to which a teacher should 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 group;
- Click OK.

To unlock Groups tab, in the same manner click the **Unlock Current Group** button on Interface tab of the Options window.

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

To protect access to **Net Control 2 Teacher Module**, click the menu command N -> Security -> Setup Client Password, specify the password, and click OK.

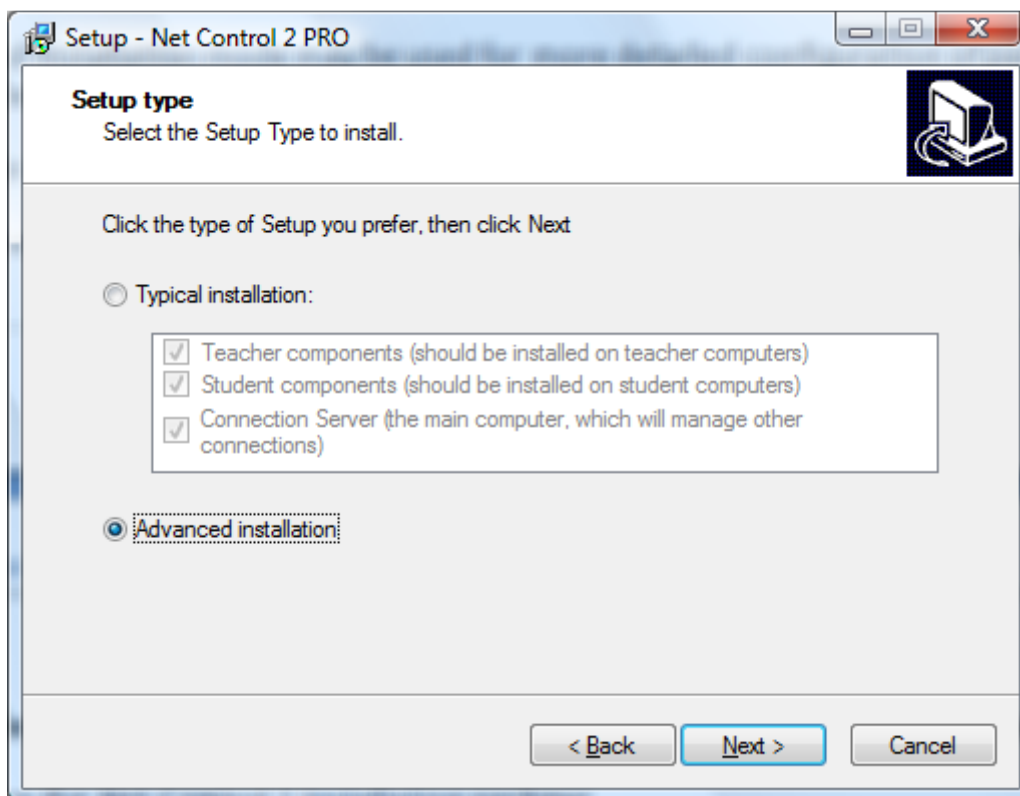
To prevent stopping Net Control 2 User service or configuring its settings on the User computer, you need to enable the Administrator password:

- Right 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.

H. ADVANCED INSTALLATION MODE OF THE STANDARD INSTALLATION PACKAGE

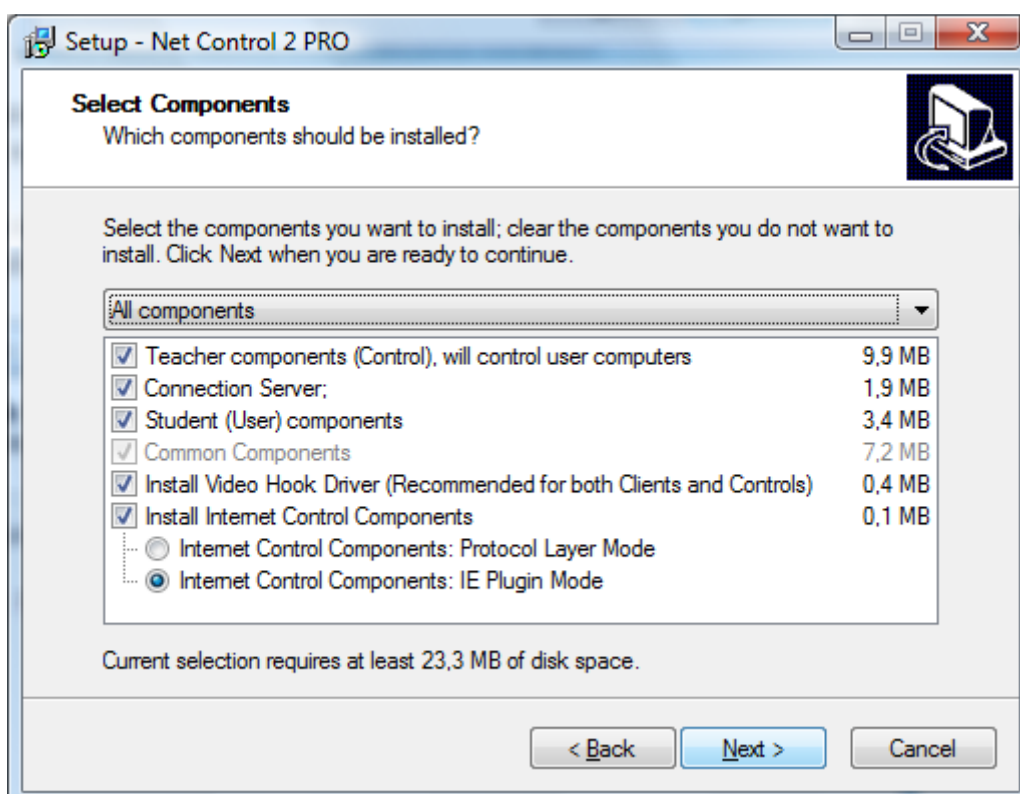
Advanced installation mode may be used for more detailed configuration of parameters of installation.

To enable Advanced installation, in the process of installation, on “Setup type” page select “Advanced installation” option:



At next steps the setup program will prompt all additional parameters as provided in Chapter A.

Additionally, on “Select Components” page you can select necessary components from the detailed list of variants of installation:



Additionally to Teacher, Server and Student components you can enable installation of the following components:

Install Video Hook Driver - enables installation of Net Control 2 Video Hook Driver - special acceleration driver used by Broadcast Desktop and Remote Desktop engines. Installation of this component is recommended. You should uncheck this option only if the VHD driver interferes with some other software installed on this computer.

Install Internet Control Components - enable this option on student machine if you need to control access to Internet services on this computer. The component may be installed either in "IE Plugin Mode" or "Protocol Layer Mode". "IE Plugin Mode" is recommended, and provides full functionality in Internet Explorer and Mozilla Firefox browsers.

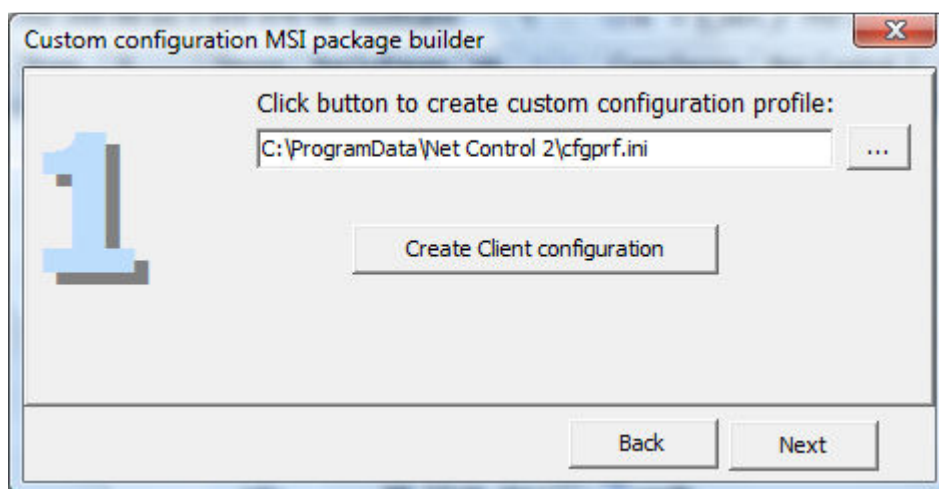
"Protocol Layer Mode" provides monitoring functionality in any network software, including alternative browsers, like Google Chrome, Opera or Safari; several Internet monitoring features are unavailable in this mode. For more detailed information regarding difference in these modes please refer to Net Control 2 Help.

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

Requirements: Network with domain, Windows Server 2003, 2008 or 2008/R2, Active Directory services enabled, and administrative privileges.

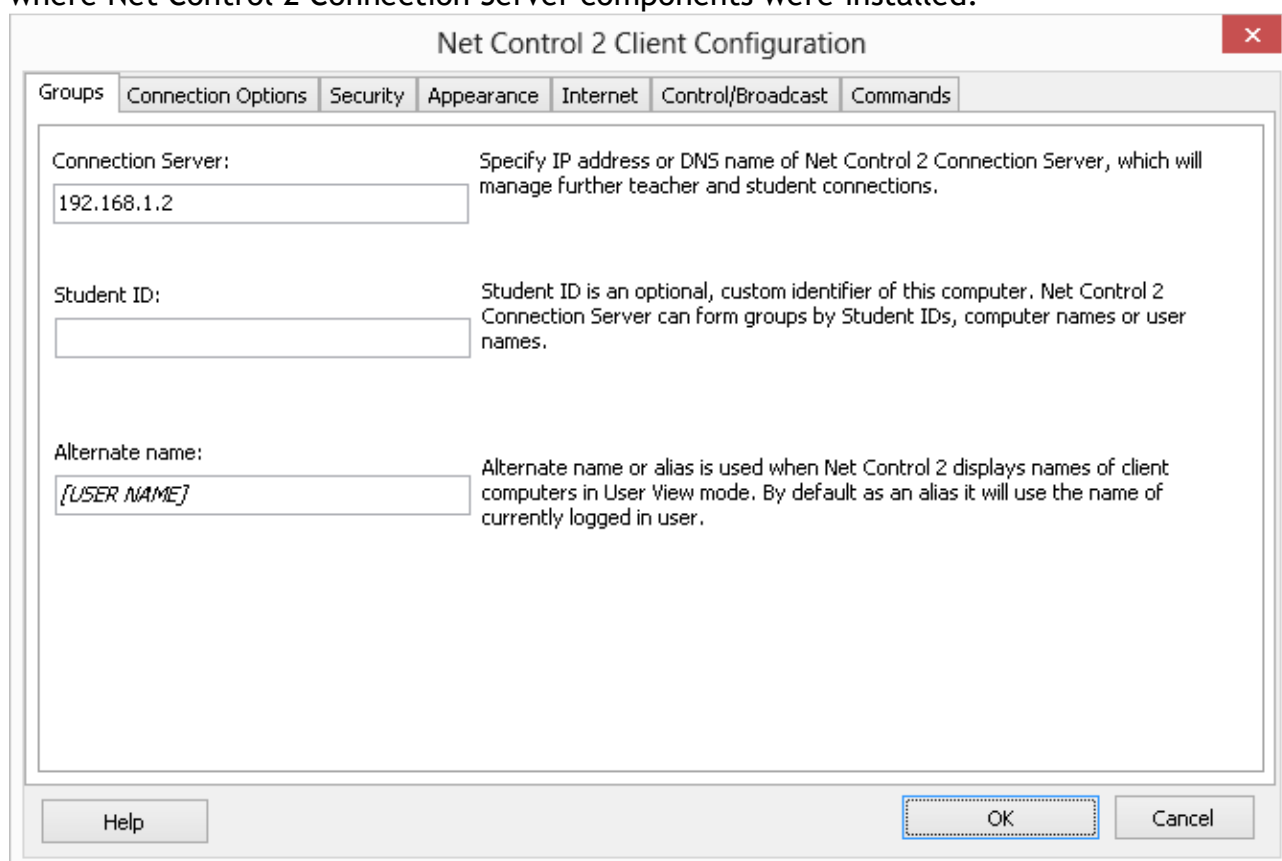
MSI Builder tool is available by request (<http://www.netcontrol2.com/downloads>).

1. Install MSI Builder package and run it from *Start -> All Programs -> Net Control 2 -> MSI -> MSI Builder* menu.



Click **Create Client configuration** button to create default configuration.

Set up default settings for Net Control 2 Client. At least **Connection Server** field should be specified. In this field you need to specify IP address or DNS name of a computer, where Net Control 2 Connection Server components were installed:



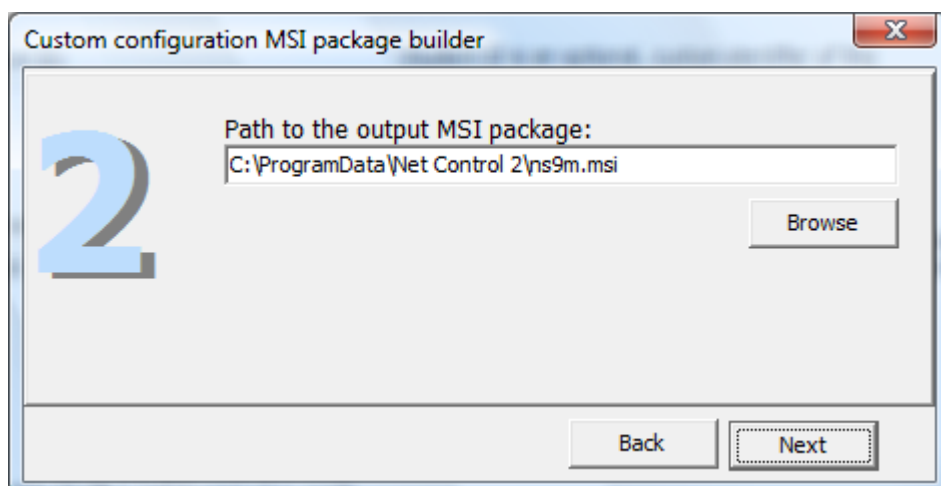
The image shows the 'Net Control 2 Client Configuration' window. It has a title bar with a close button (X). Below the title bar is a tabbed interface with tabs: 'Groups', 'Connection Options', 'Security', 'Appearance', 'Internet', 'Control/Broadcast', and 'Commands'. The 'Connection Options' tab is selected. Inside this tab, there are three input fields with corresponding labels and descriptions:

- Connection Server:** A text box containing '192.168.1.2'. The description says: 'Specify IP address or DNS name of Net Control 2 Connection Server, which will manage further teacher and student connections.'
- Student ID:** An empty text box. The description says: 'Student ID is an optional, custom identifier of this computer. Net Control 2 Connection Server can form groups by Student IDs, computer names or user names.'
- Alternate name:** A text box containing '[USER NAME]'. The description says: '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 currently logged in user.'

At the bottom of the window, there are three buttons: 'Help', 'OK', and 'Cancel'. The 'OK' button is highlighted with a dashed border.

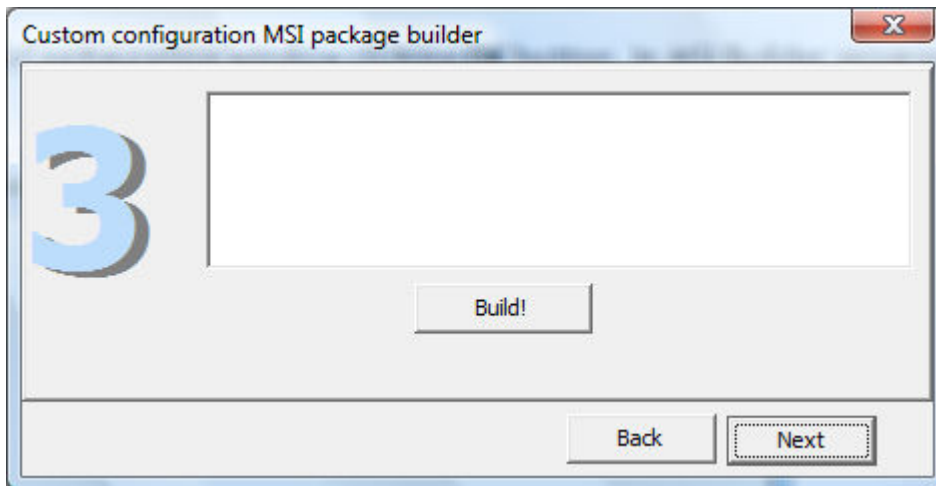
Detailed description of other parameters please see in **Chapter E** of this manual.

Close Client Configuration window clicking **OK** button. In MSI Builder program click **Next** button.



The image shows the 'Custom configuration MSI package builder' window. It has a title bar with a close button (X). On the left side, there is a large blue number '2'. The main area contains a label 'Path to the output MSI package:' followed by a text box containing 'C:\ProgramData\Net Control 2\ns9m.msi'. To the right of the text box is a 'Browse' button. At the bottom of the window, there are two buttons: 'Back' and 'Next'. The 'Next' button is highlighted with a dashed border.

Specify path the output MSI package and click **Next** button.

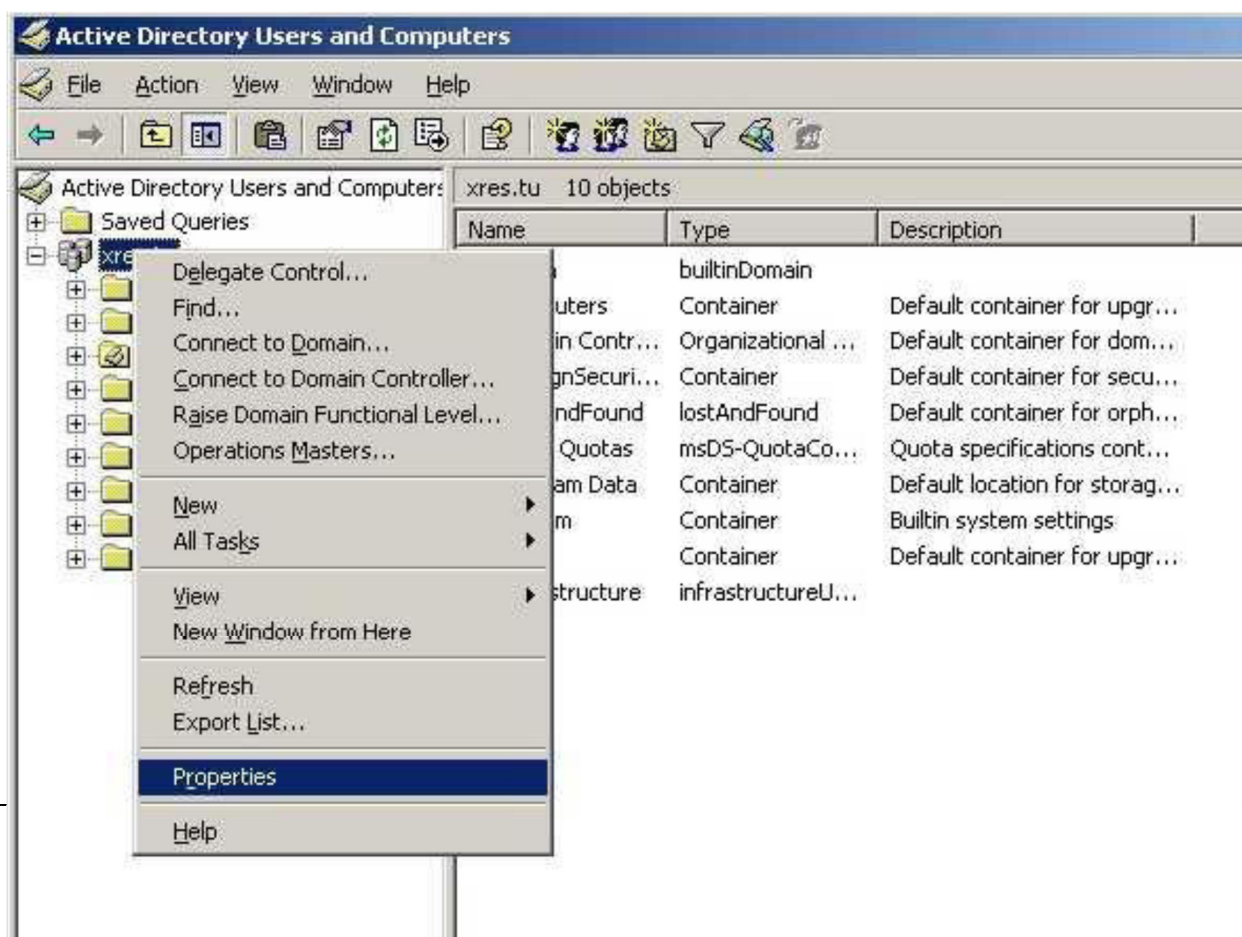


Build the package clicking Build button.

Install the built MSI package in Active Directory.

To install the 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**. For Windows Server 2008/R2 click **Start -> Administrative Tools -> Group Policy Management**.
3. In **Windows Server 2003** on the left pane, browse and select the domain where

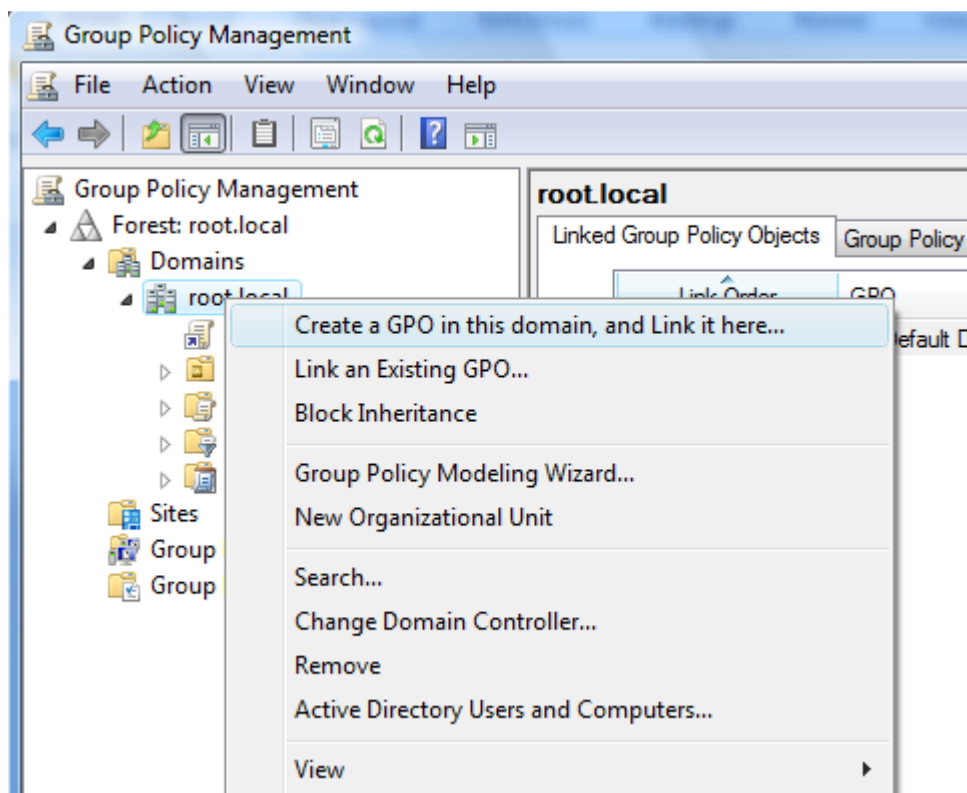


you wish to deploy the package. Right click and select Properties.

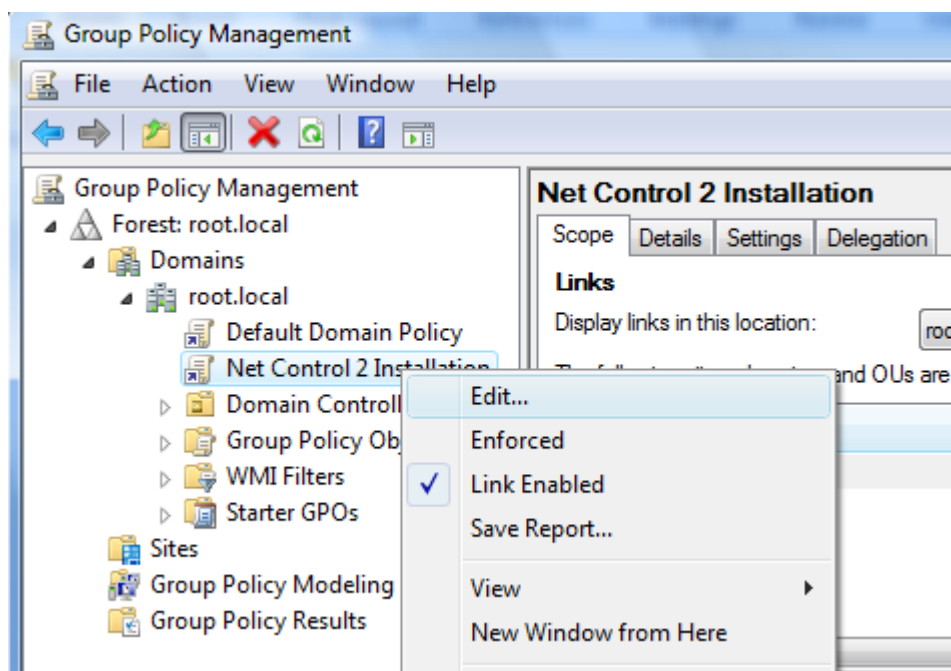
In the Domain properties window, switch to the **Group Policy** tab, click the "New" button, specify a name for the policy, and then click the "Edit" button:



In **Windows Server 2008** right click the domain, where the software will be installed and click **Create a GPO in this domain and link it here** menu command:

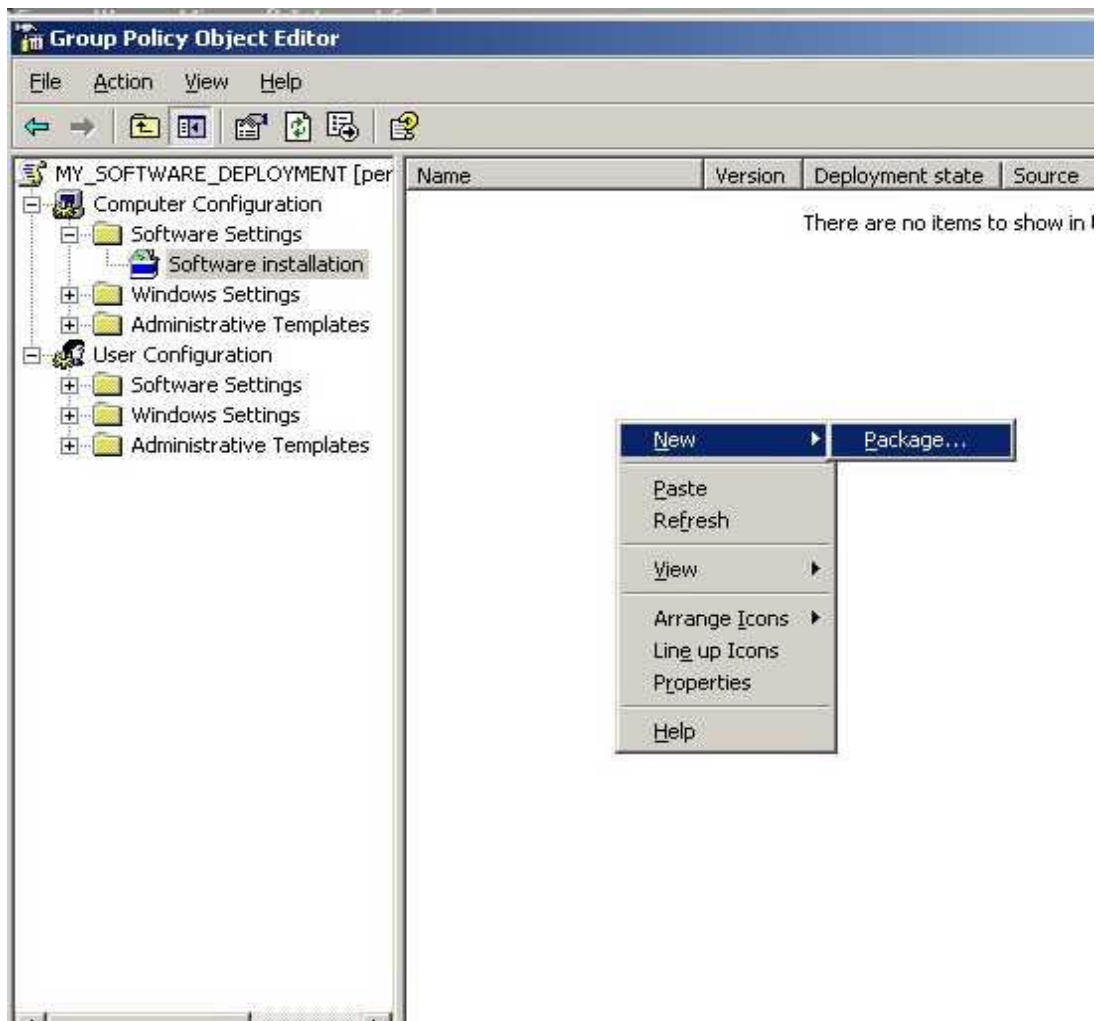


Specify a name for new Group Policy and click OK. New Group Policy will appear in the list at left pane. Right click it and select **Edit** command:

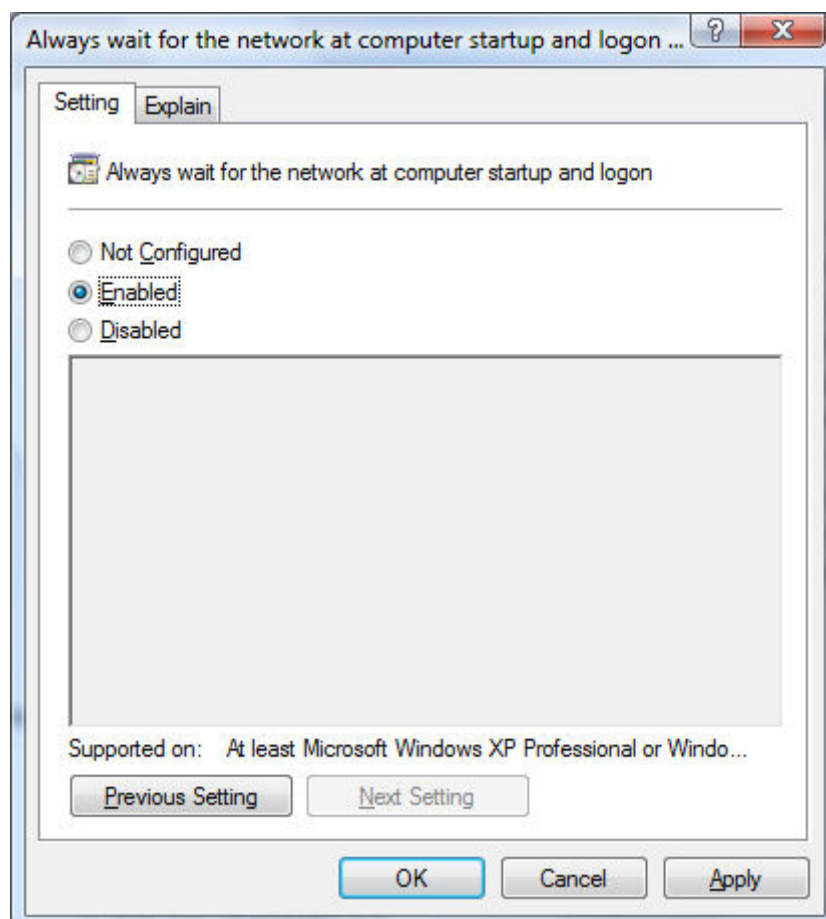
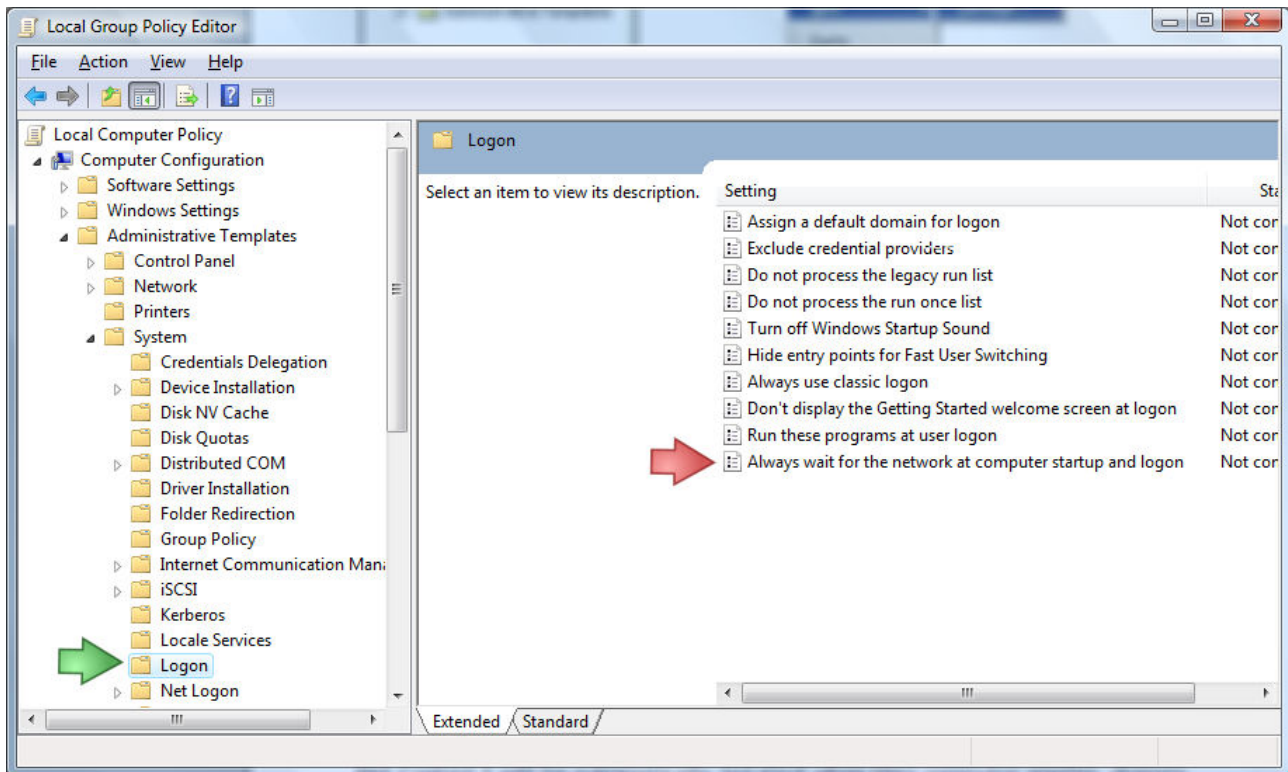


4. In the **Group Policy** window, expand the left tree: **Computer Configuration** -> **Software Settings** -> **Software Installation**. Right click within right pane area, and click menu command **New** -> **Package** from the context menu.

5. 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).



6. 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.



7. 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.

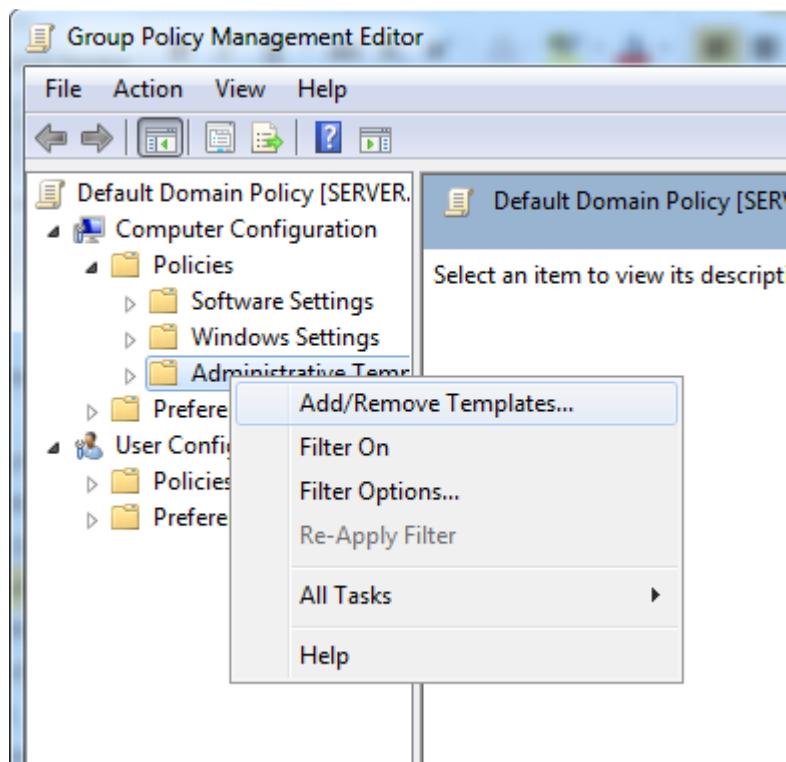
To update Net Control 2 software on user computers, remove the Net Control 2 package from the Software Installation list as described in p.5 of this chapter and add a new package.

11. 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 2003-2008R2.

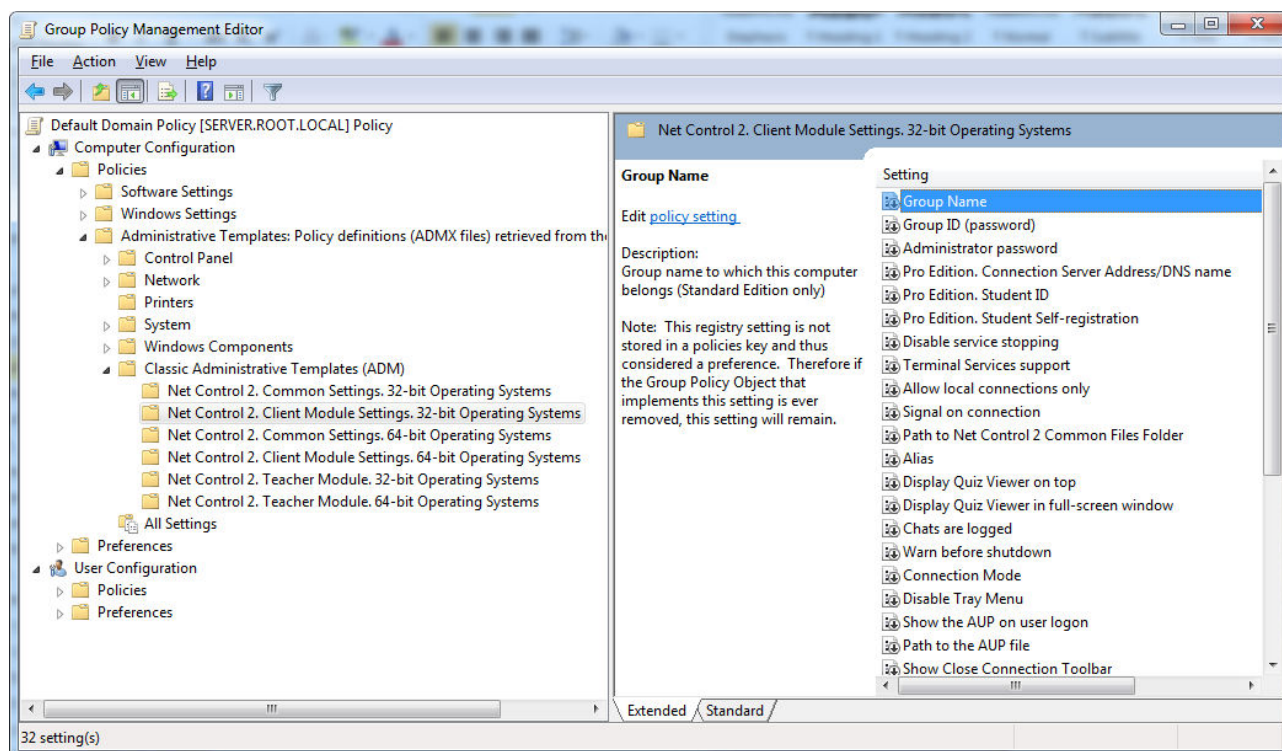
To change settings over Active Directory Group Policies:

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/R2 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. At left pane select **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.



All settings will be applied after restart of client computers.

J. 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;

serv - Connection Server component;

user - Student Component;

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 as Protocol Layer Mode

lspm\ho - Install Internet Control Engine as Internet Explorer Plug-in (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.

/CSIP:Address - IP address or DNS name of Connection Server.

/TEACHERID:ID - Teacher ID for Connection Server log in.

/TEACHERPW:password - Teacher password for Connection Server log in.

/ADV:ShowMiniToolbar=0 - disables Net Control 2 mini toolbar (the button on the top-right hand corner of the screen) on student computers, that may be used for quick launching the Student Console.

If any parameter contains space characters, it should be enclosed in quotes.

Example 1. To install the software, student components only in default configuration, where Connection Server has address "192.168.1.2" execute the following command line:

```
D:\Downloads\net1000pr.exe /SILENT /COMPONENTS="user comm drv lspm\ho"  
/NORESTART /CSIP:192.168.1.2
```

Example 2. To install Teacher Components of the software only, if Connection Server

computer has address "192.168.1.2", Teacher ID is "MYTEACHERID" and password is "my password", execute the following command line:

```
D:\Downloads\net1000pr.exe /SILENT /COMPONENTS="adm comm drv" /NORESTART  
/CSIP:192.168.1.2 /TEACHERID:MYTEACHERID "/TEACHERPW:my password"
```

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

K. INSTALLATION USER 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.

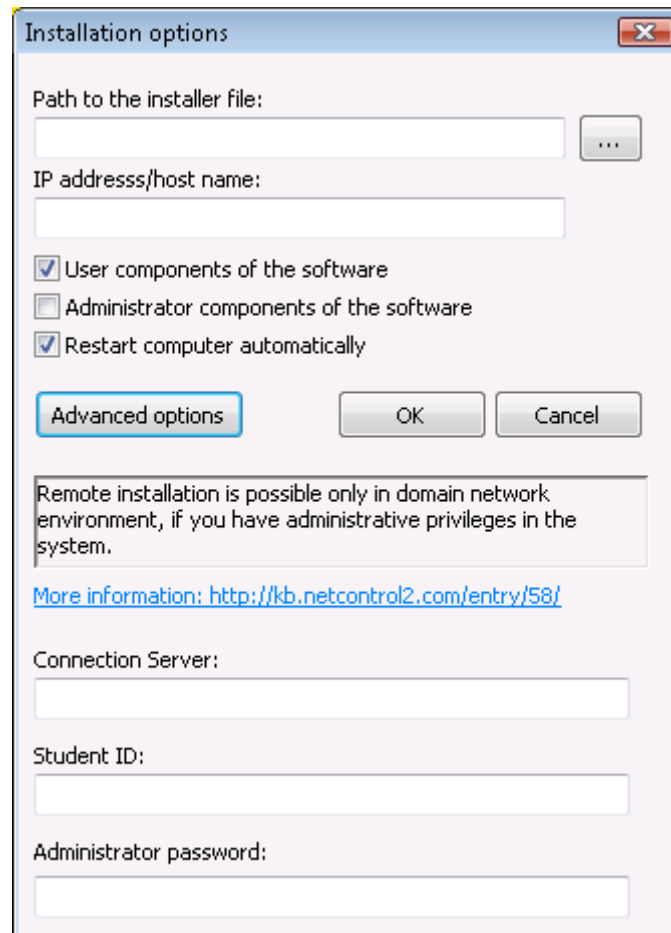
2. How to enable Administrative share resource:

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



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

L. UPDATE.

1. Automatic update.

To set up update through connection server please refer to Chapter B of this manual, UPDATE tab.

2. Remote update through the teacher console and standard installation package.

- download the latest installation package
- in Net Control 2 Teacher Console, select the user 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 user computers and install. During installation, the user computer will be automatically restarted.

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.