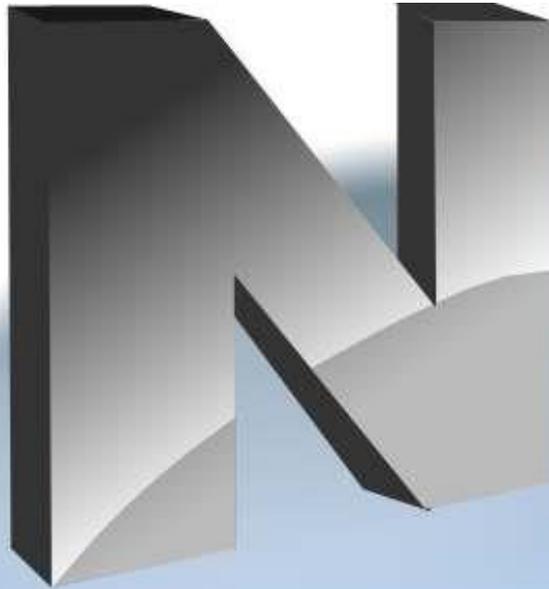

THE CLASSROOM MANAGEMENT SOFTWARE

NET CONTROL²

CLASSROOM,
PROFESSIONAL,
SmallClass

**THE TOOLS AND FEATURES
GUIDE**



Revision 5.0

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Based on version 12.01

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Installation and configuration

Installation and configuration guides are distributed as separate documents for Standard, Professional and SmallClass editions, and are available at

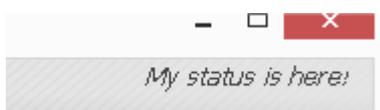
<http://www.netcontrol2.com/downloads>

Tools

The tool set of the top toolbar depends on the view mode used ("Basic" or "Advanced"), the view modes are described in the Installation and Configuration Guide for your edition of the software.



Quick Status panel



Double click the status to change it. The status is visible on student computers in Student Console, as also it is displayed in a tooltip over Net Control 2 icon in the System Tray when you're changing the status. Use statuses to send quick and short information to students: lesson topic, current theme etc.

Quick tools:



The Quick tools panel provides quick access to several often-used features.

Buttons and panels of the Quick tools toolbar:

- select all connections;
- clear selection of connections;

- invert selection of connections;
- clear over thumbnail-marks (help requests, poll results);
- send a **message** to students. The message will be displayed in a full-screen window with the default background, if you need to send a more customized message, please use **Message** tool;
- select and send a previously stored **question**, prepared with **Poll** tool;
- send **rewards** (gold, silver, bronze);
- accept the "**raised hand**";
- **reset the "raised hand"** statuses;
- add **quick comment** to the journal.

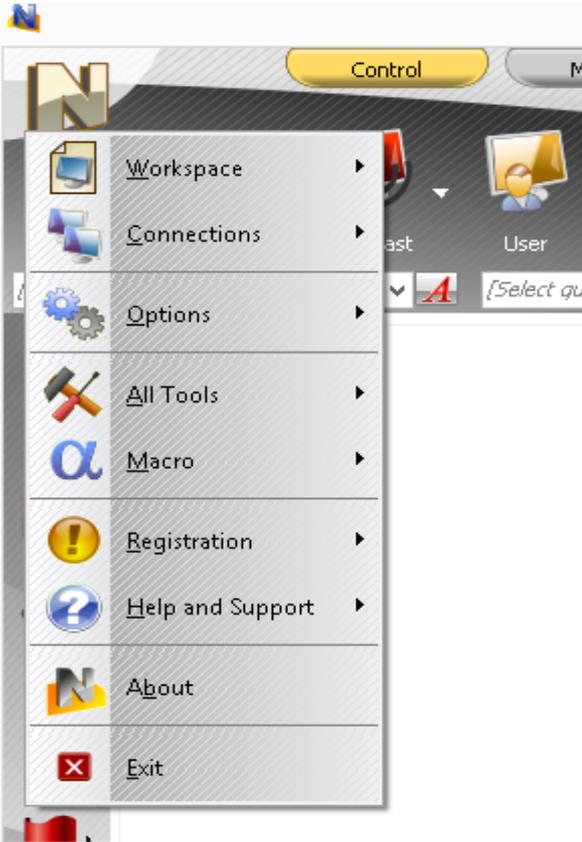
Right panel

The **Right panel** is an optional panel that is disabled by default. The Right panel contains the *Rated Commands List*, which is created on a base of rating of tools (i.e. the most often used tools will be grouped at the top of the list) and *Custom Commands List*, which may be customized by the Instructor, using the main menu command *N -> Options -> Options*; on the "*Right Panel*" tab.

To disable or enable the **right panel**, please click the main menu command **N -> Options -> Options**. On the *Right Panel* tab, enable or disable "*Show right panel*" option and click the OK button. To disable only the Rated Commands list or the Custom Commands list enable or disable the respective option in this group.

Main Menu

The main menu provides quick access to the Net Control 2 workspace management functions, connection management functions, settings, the product registration features, the help and update routines.



To open the **Main menu** please click N button at upper left-hand corner of the main window of the Teacher Console.

Workspace

The Workspace – is a list of Net Control 2 groups and connections including additional information (position of a thumbnail on the screen, membership in “yellow”, “green” or “red” groups etc.).

New – creates a new, empty workspace.

Open – opens a workspace from a file.

Save Default – saves the current

workspace as a default workspace. The Default workspace will be loaded automatically at the program start up.

Save As – saves current workspace using file path and name specified by user.

For more information regarding connections and workspaces please see the “**Workspace operations**” chapter of the **Installation and Configuration** guide.

Connections menu (*Standard/Classroom Edition only*)

Search – scans the local network for available connections. For more information please see Chapter D of the Installation and Configuration guide (Net Control 2 Classroom edition).

Search Groups* - performs full scan of the network. The command first scans

the network for available groups and then scans every found group for new connections within this group.

Add* – add a new connection to the current group.

Delete – deletes selected connections.

Edit – modifies a selected connection.

Join* – creates a grouped connection from several selected connections. Grouped connection will be represented in a workspace by one icon but will mean several client computers, i.e. any action applied to a connection will be applied to all client computers of the connection.

Separate* – separates grouped connection, so every new connection represents one client computer.

Open* – opens inactive, unconnected connections. If a connection was created without “Autoconnect at startup” option enabled, this command allows to open unconnected connection.

Commands marked with () are present in Net Control ² Classroom only if *the Compatibility mode* with the previous versions is enabled.

Options menu

Options – provides access to the teacher module configuration.

Client Options – for selected student computers, opens the client configuration window, making possible to configure the student module remotely.

View Options – opens connection list view options submenu. For more information please refer to the “**Teacher Console**” chapter of the Installation and Configuration guide.

View Profiles – (Standard and PRO Editions only) – using View Profiles you can customize the teacher console appearance, for example, hiding some features from inexperienced teachers. For more information please see “**How to forbid access to some teacher module features**” chapter of the *Installation and Configuration* guide.

All Tools Menu

All Tools menu provides access to all available tools of the teacher console.

Macro Menu

Contains the list of macro commands, management tools for macro- and autoexecutable commands.

Macro commands – are customizable set of actions that may be applied to student computers (custom messages, a sequence of standard actions etc.).

Autoexecutable commands – are macro commands that will be scheduled on student computers for some time or system event and automatically executed at the specified time, even if no teacher computers are connected to the student at this moment.

For additional information please refer to [Macro Commands](#) and [Autoexecutable Commands](#) chapters below.

Help and Support

Bug Found – use this menu command to send a message to developers regarding the technical issue found.

Check for update – checks the update server for new versions of the software.

Update Client – remote update of the student module. Using this command you can send an updated version of the software to student computers and update it there:

- select student computers that should be updated;
- click this menu command;
- open the installation package (.exe) downloaded from our website;
- the software will be uploaded to student computers and updated there.

Registration

Register – (unregistered state) – allows to enter registration information.

Re-register – (registered state) – allows to reset the current registration

information and re-register the software with a new registration key.

About - shows version information for the teacher module.

Remote Desktop features. “Control” tool.



Using Remote Desktop features teachers can help students remotely, from their place, controlling one or several student computers in realtime, using the keyboard and mouse.

All actions that are applied by the teacher are visible to students; in addition, teachers can use special **annotation tools**, drawing directly on the student screen, making the teacher assistance more targeted to students and the teaching process more effective.

With the **Control** tool, you can work with **multiple computers at a time**, actions applied to one computer are repeated on all others. This makes possible, for several scenarios, to install software or perform some system configurations on multiple computers at a time.

Unlike Windows Remote Desktop tools, with Net Control 2 remote desktop features **the screen is always shared** with the currently logged in student (or the session begins on the login screen if no users logged in the system).

During the remote desktop session, teachers can **save or print screenshots**, use common **clipboard**, **record** the whole session to a file **for further replay** on teacher or student computers.

When necessary for security reasons, or to avoid interference with students, teachers can **temporarily block the keyboard and mouse** of student computers during the session.

To start a remote desktop session:

- Select one or several user computers;
- On the **"Control"** page of the **top toolbar**, click:



The button has a submenu, which provides additional commands for controlling commands for Remote Desktop sessions:

- **Control** - the same as clicking "Control" button: opens remote desktop sessions for selected computers.
- **View** - opens remote desktop session in "View-only" mode, i.e. the instructor can see activity on student computers but cannot control it. The "View only" may be changed by Instructor to the "Control" mode at any moment in the Remote Desktop window.
- To close the **Remote Desktop** session on student and teacher computers, use **"Close Control Sessions"** command in the **Control** button submenu.

Remote Desktop viewer:

If one computer controlled:



If several computers controlled:



View-only mode – enables/disables the view-only mode. When enabled, the Instructor can view the desktop of the user computer, but cannot control it with the keyboard and mouse;

Topmost – when the **Topmost** mode is enabled, the **Remote Desktop Viewer** window will be placed on the top of all other (“non-topmost”) windows;

Panning – when enabled, **Remote Desktop Viewer** will automatically scroll the content of the **Remote Desktop** window, whenever the Instructor moves the cursor over the window, this mode works with the 100% scale mode only;

Shadow cursor– when enabled, the viewer will display the “shadow” mouse cursor in the actual shape and position of the cursor on the remote computer;

Drawer – click to enable the drawer mode. For more information please refer to the **Annotation Mode** section, below;

Fullscreen – when enabled, the **Remote Desktop** window will be expanded to the full-screen mode;

Stretched – when enabled, the contents of the **Remote Desktop** will be automatically resized to fit the window;

Monitor – in a multimonitor environment, using this button, you can switch between displays of the remote computer. By default the software uses the “primary” display as a source.

Lock – locks the keyboard and mouse of the remote computer (works until the end of the remote session or when canceled with “Unlock” command);

Unlock – unlocks the keyboard and mouse of the remote computer;

Ctrl-Alt-Del – simulates Ctrl+Alt+Delete key combination pressing on the remote computer.

To top-left – moves the currently active window on remote computer to the top- lefthand corner of the screen. This feature is useful when the Instructor is

controlling several computers at the same time and the user computers have different screen resolutions. Clicking this command forces the current window on all user computers to be arranged in the same position: in the top-left-hand corner of the screen.

Record – records the current session in a DRR (Desktop Recorder) file. Later, this file may be replayed or converted with Desktop Recorder tools.

Snapshot and **Print** – makes a screenshot of the current remote screen and saves it to a file or prints, respectively.

Clipboard – enables or disables the shared clipboard. When enabled, any text information copied to the Clipboard on one computer will be available on another.

The following commands are available only when the **Remote Desktop** session assumes controlling several computers at a time:

Previous – switches the view to the previous computer;

Next – switches the view to the next computer;

Scan – enables the “**Scan**” mode. The viewer will switch between controlled computers after a specific time interval (3 seconds by default). The interval may be changed using the “**Options**” button;

Thumbnails – display thumbnails of the controlled computers, click on a thumbnail to switch to the computer;

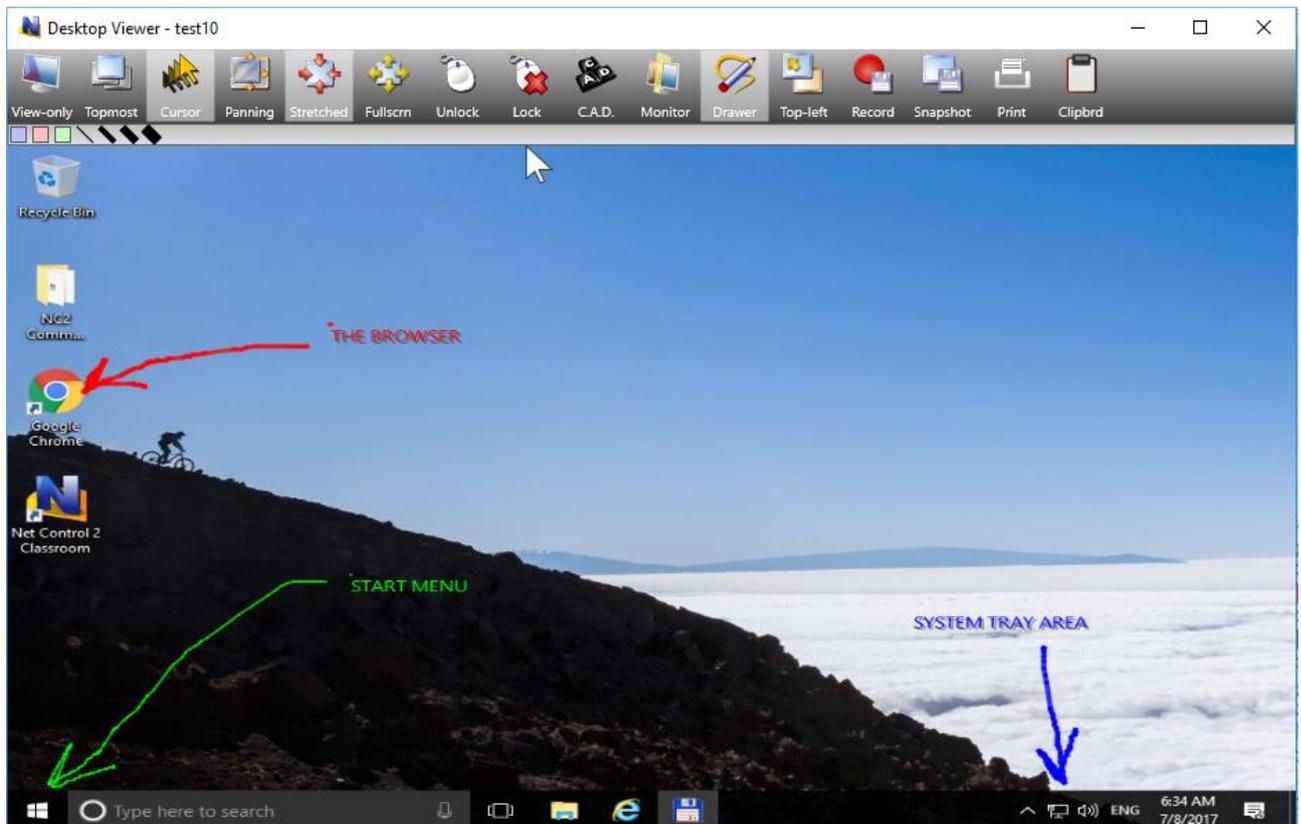
Current – when this mode is enabled, all the actions of the Instructor will be applied to the currently selected user computer only. Otherwise, the Instructor's actions will be applied to all the computers in the **Remote Desktop** connections list.

Drawer Mode (Annotations).

The Instructor can use **Drawer mode** in **Remote Desktop Viewer** to make

graphic and text annotations on the desktop of the user computer.

After switching to **Drawer Mode**, the Instructor can draw directly within the **Remote Desktop** window, by pressing the left mouse button and moving the mouse. You can also type text using the keyboard. All actions will be reproduced on the user computer.



Screen flashing, Aero theme and other graphic mode issues during control/broadcast (Windows XP and Windows 7 only).

Depending on settings of Net Control 2 Broadcast Desktop and Remote Desktop tools Net Control 2 may use acceleration of a special display driver – VHD driver (or Video Hook Driver). Use of the VHD driver acceleration can significantly improve the accuracy and performance of the Remote Desktop engine.

When use of the VHD driver is enabled, Net Control 2 will load this driver automatically when the Remote Desktop or Broadcast Desktop service is started, and will unload it automatically when the session is closed.

For Remote Desktop tool ("Control" or "View" commands) the VHD driver acceleration will be turned on for "controlled" side, i.e. student computers.

For Broadcast Desktop tool ("Broadcast" and "User" commands) the acceleration is enabled for the "source" computer, i.e. for the teacher computer ("Broadcast" command) or the user computer, which display is shown on other computers ("User" command).

The side effect of the VHD driver acceleration in Windows 7 and Windows XP may include:

- **Screen flashing** when the driver is activating or deactivating, i.e. on begin and at the end of the session.
- **Aero theme will be changed temporarily to "Basic" theme** in Windows Vista, 7 and 2008. The theme will be restored back to Aero theme, when Remote Desktop/Broadcast session is stopped.
- In Windows XP – **opaque background of Desktop icon labels.**
- **Black screen of video during playback.** If video playback was started before VHD driver activation, after the driver becomes active, the movie screen may be changed to black screen. One of solutions in this case would be starting playback after the driver activation, i.e. after Remote/Broadcast Desktop session is started.

If these side effects are important in your work and you would like to avoid them, you can disable VHD Driver acceleration as follows:

For Instructor computer:

- Click the main menu command of the teacher console **N – Options – Options**. On "**Control/Broadcast**" page of "Options" window select "**Do not use (Aero safe)**" option and click **OK**.

For Student computers:

- Select student computers in the teacher console;
- Click the main menu command **N – Options – Client Options**;
- On **Control/Broadcast** page of the Client Module Configuration window select "**Do not use (Aero safe)**" option and click **OK**.

Changes will be applied after restart of Remote/Broadcast Desktop

sessions.

Cursor flashing on the controlled computer

When VHD driver acceleration is disabled for Remote/Broadcast Desktop, the software will use special GDI mode. One of side effects for this mode may be the **frequent cursor flashing** during broadcast/control.

To prevent the cursor flashing:

On Instructor computer:

- Click the main menu command N – Options – Options;
- On **Advanced Options** page select (check) “Prevent cursor flashing” option.
- Click OK.

For Student computers:

- Select computers in the teacher console;
- Click the main menu command N – Options – Client Options;
- On Control/Broadcast page enable “Prevent cursor flashing in GDI mode” option and click OK.

Changes will be applied after restart of Broadcast/Control session.

Broadcast Desktop tools.



Broadcast Desktop tools provide the ability to demonstrate the teacher's screen to students, or a screen of one of students to others.

Broadcast Teacher's screen to students

To broadcast the teacher's screen to students, click Broadcast button on the top toolbar:



By default, the Broadcast Desktop Viewer window will be shown on the student computers in the full-screen mode.

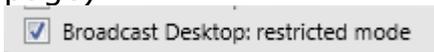
If you need to run the broadcast viewer window on student computers in a "normal" window, to make possible for students to switch to other windows, disable "**Broadcast Desktop Viewer: full-screen mode**" option in the teacher module settings (**N – Options – Options; "Control/Broadcast"** page):



If the "**restricted**" mode is enabled, in the full-screen Broadcast Desktop Viewer mode on student computers, the software in addition will block the keyboard and mouse to prevent switching to other windows. To run Broadcast Desktop session in the "*restricted*" mode, use "**Broadcast Desktop – Restricted**" menu command of "**Broadcast**" button's submenu:

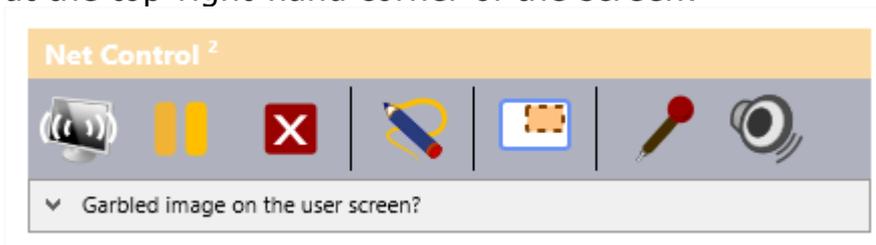


To enable the “restricted” mode on a permanent basis for regular Broadcast Desktop sessions, enable “**Broadcast Desktop: restricted mode**” option in the teacher module settings (**N – Options – Options; “Control/Broadcast”** page):



Broadcast Desktop Toolbar

When a **Broadcast Desktop session** is started, on the source computer (which screen is displayed), the software will display the **Broadcast Desktop toolbar** at the top-right-hand corner of the screen:



Pause/Resume - pause or resume the session;

Stop – stops the Broadcast Desktop session. If a connection with student computers was not established for some reason (due to some network misconfiguration, for example), and after clicking the button, Broadcast Desktop Viewer does not disappear on student computers, you can always stop the session on all computers using the Broadcast button’s sub-menu command “Close Broadcast Desktop session” :



Annotate tool button activates the **Annotation mode** (described below in this chapter).

Select area button allows the teacher to select an area on the screen that will be used for capture and broadcast. Any part of the screen outside of the selected area will not be visible to students. The area selected will be in effect until restart of the computer or until it is reset with the **Reset** button.

Voice broadcast on/off – broadcasts the sender's voice from the microphone (the default recording device).

System audio broadcast on/off – broadcasts the system audio of the sender's computer to students. The system audio is all sounds that are playing on the computer by all programs of the computers.

Annotations

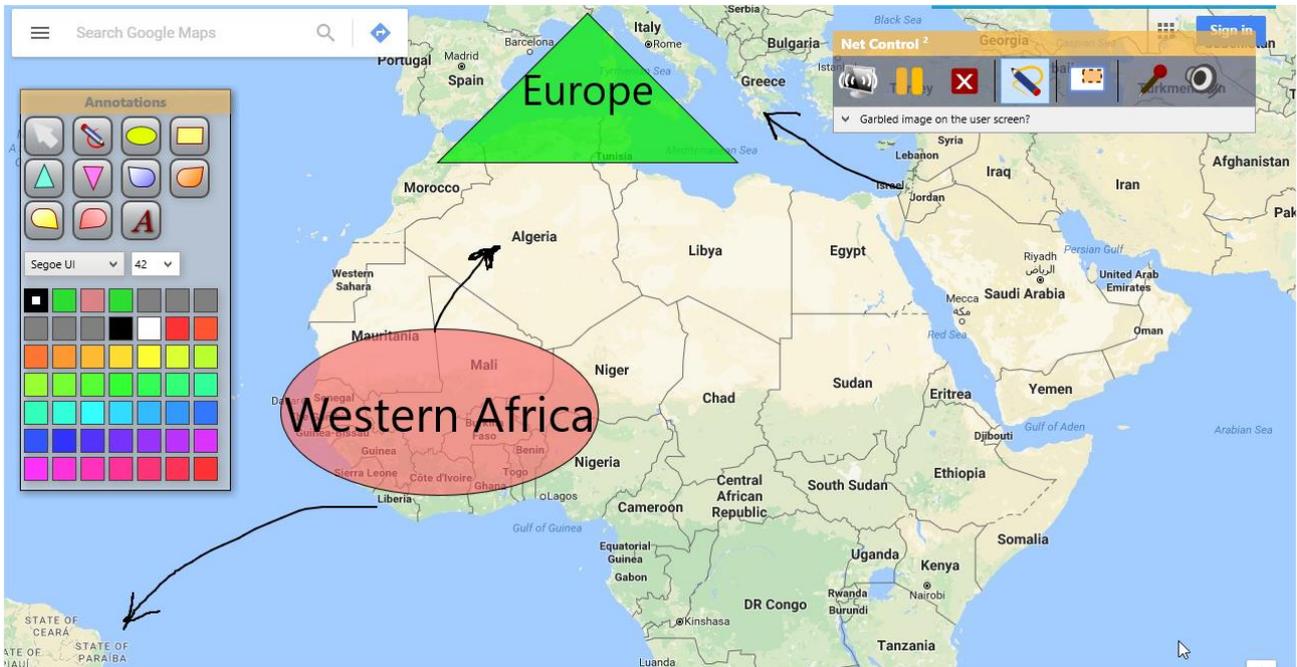
The **Annotate Tool** provides a way for the Instructor to make annotations on his/her screen directly and share them with students.

To use the **Annotate Tool**:

- start the Broadcast session;
- click the **"Annotate Tool"** button on the **"Broadcast Desktop"** toolbar:



- Another toolbar will open on the right-hand side of the screen. Using this new toolbar, the Instructor will be able to add shapes, lines, arrows and text of different color and sizes.



Broadcast a screen of one of students to others

To broadcast a screen of one of students to others, in the teacher module select the student, which screen should be shared.

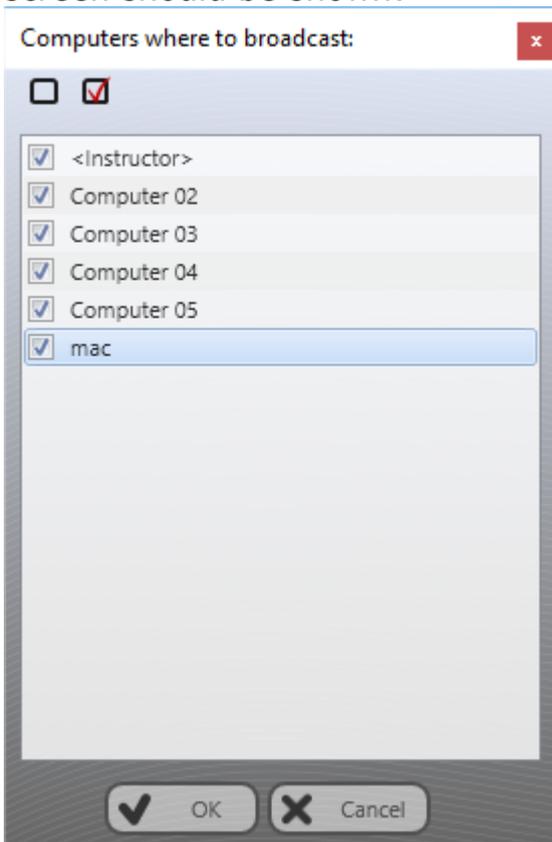
Then, on **“Control”** tab click **“User”** button:



or in **“Broadcast”** button’s sub-menu, click **“Broadcast User’s Desktop”** menu command:



In the appeared list of users, select students (and/or Instructor), where the screen should be shown:



Click OK.

To stop Broadcast Desktop session on computers, select them, use **“Close Broadcast Desktop sessions”** menu command of Broadcast button’s submenu:



Browser Broadcast



“Browser Broadcast only” menu command of **Broadcast** button’s submenu starts a Browser Broadcast session. In this mode, students can see the screen of the teacher in any Internet browser, on any device (a computer, tablet, smartphone etc.) that has the Internet browser.

After the session is started, to open the teacher’s screen in a browser, students need to type in the address bar:

<http://teacher:1080>

where “teacher” is a network name of the teacher computer. In several cases,

iPad, iPhone and Android devices are unable to handle local network computer names correctly. In this case, instead of the network name, you need to specify an IP address of the teacher computer. The local IP address of the teacher computer you can determine in the teacher module, on About tab, clicking "IP address and DNS name" button.

You can enable the browser broadcast mode for regular broadcast modes, in this case the browser broadcast session will be started together and at the same time with the regular broadcast sessions. To enable this mode, in the teacher module settings (**N – Options – Options; on Control/Broadcast page**), enable "**Browser View**" option and click **OK**:



Broadcast Desktop settings

Channels

Broadcast Desktop tool may use Multicast/UDP Broadcast network protocols, which help effectively use the network bandwidth but may result interference if several broadcast sources are sending information on the same network port. For better understanding sets of network ports are grouped into "**channels**", as numbers in range 0-1900, which are internally mapped into respective network port numbers.

Therefore, **to exclude the interference, each teacher module in the network should be configured to use its own channel number!**

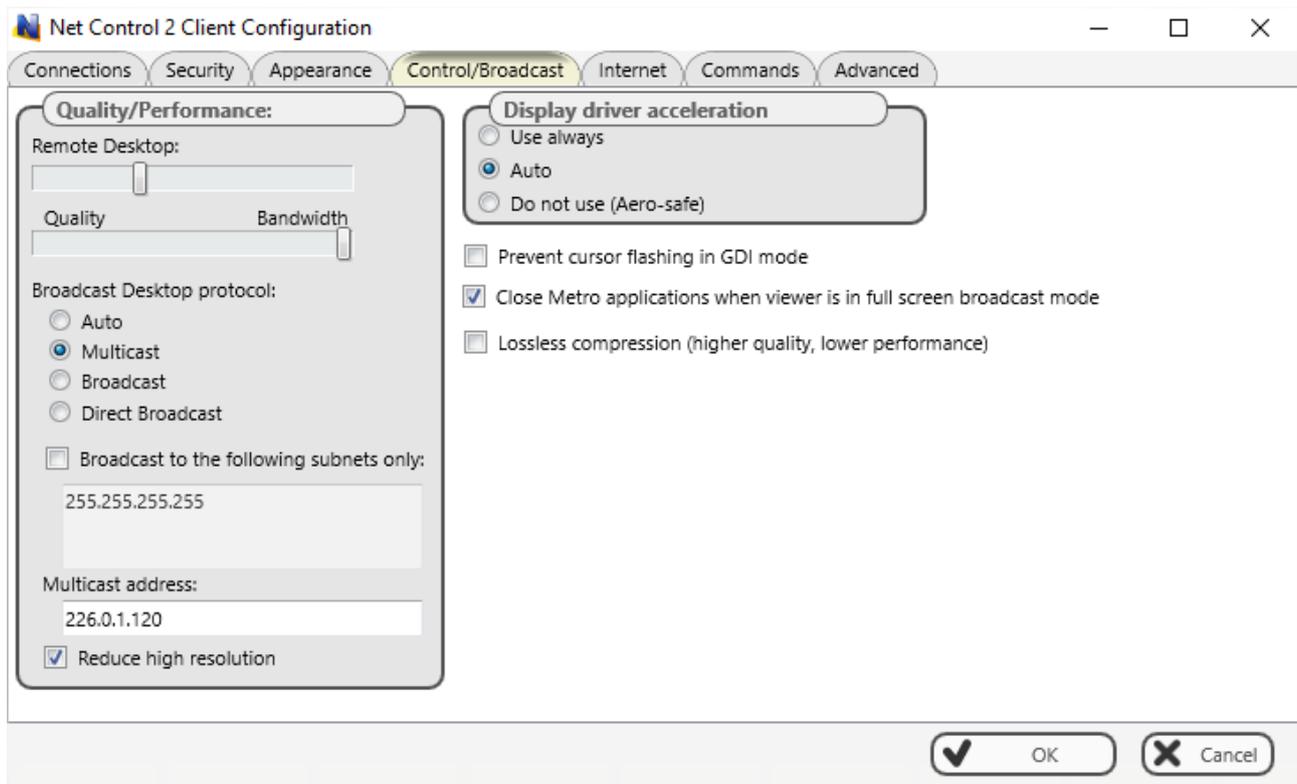
Broadcast Desktop channel may be assigned in the process of installation, and changed at any moment in the teacher console (the main menu command **N – Options – Options; Control/Broadcast page**).

Settings

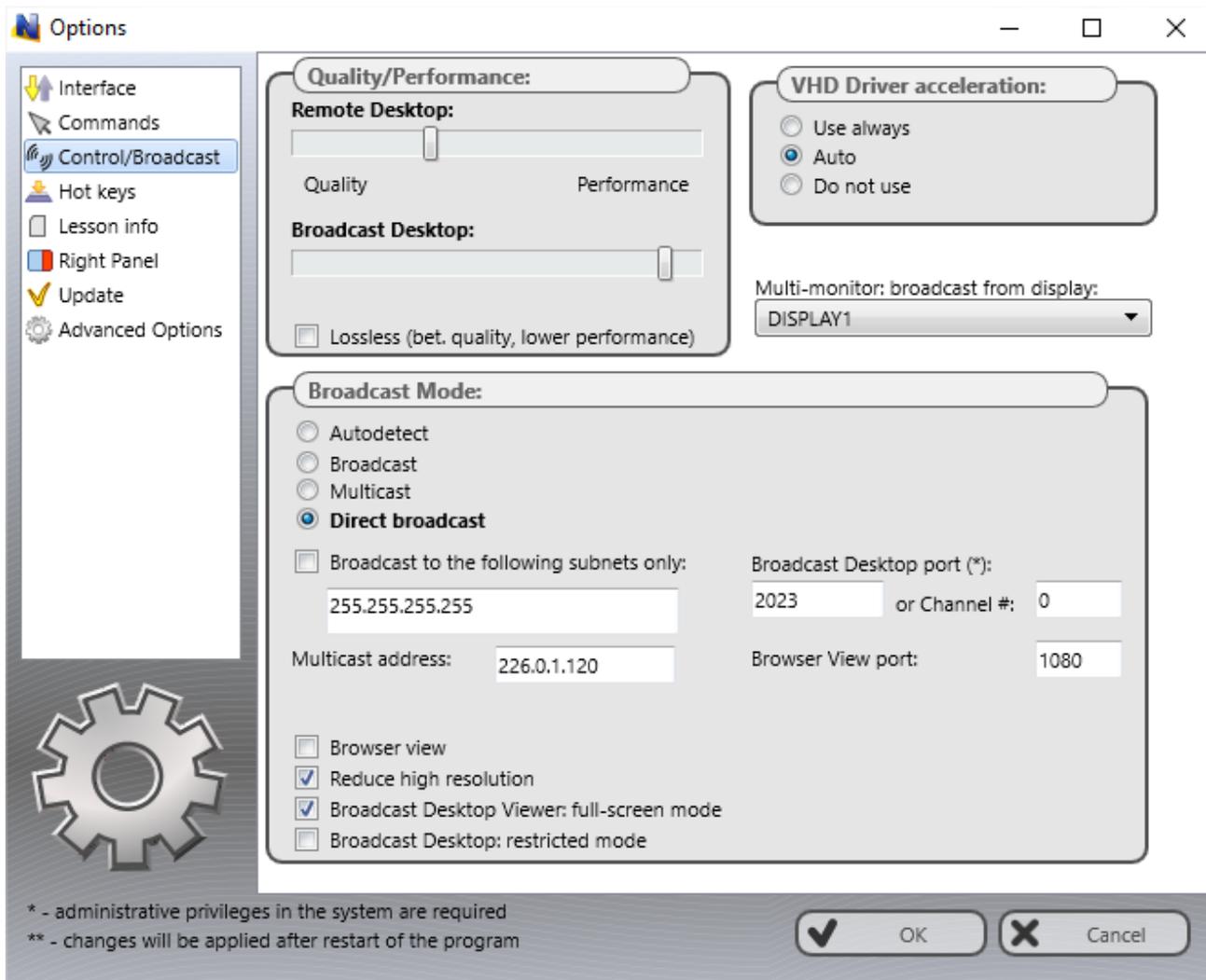
Broadcast Desktop settings should be adjusted on the computer (teacher or student) which is acting as a sender of the information (i.e. the broadcasting

computer). Changing the most important parameters in the teacher module, it will prompt to change the settings on student computers too. Nevertheless, you can adjust the settings on teacher and student computers separately.

To change Broadcast and Remote Desktop settings on student computers, select them in the teacher console; then click the main menu command **N – Options – Client Options**; the settings are on “Control/Broadcast” tab:



To configure Broadcast Desktop settings for the teacher module, use the main menu command **N – Options – Options**; the settings are on “**Control/Broadcast**” page:



Quality/Performance: determines compression settings for Remote Desktop and Broadcast Desktop features. The upper slider adjusts the compression level for Remote Desktop, the lower slider is intended for Broadcast Desktop features.

Moving the slider to the right position, you are increasing the compression level and, respectively, the performance. High compression levels may result appearance of compression artefacts, deteriorating the picture quality.

For optimal performance, we recommend to keep the Broadcast Desktop performance slider position at **15-20%** from the right end.

To achieve the better image quality, without color loss or compression artefacts, you can enable **"Lossless"** option. Please note! This mode generates significantly higher traffic, 2-4 times more in comparison with the option turned off. We recommend using it in wired Ethernet networks with low load and the

minimal network latency.

Broadcast Mode: determines the network protocol, used for broadcasting. Change these settings only if you have issues with the performance or functionality.

Autodetect – the subsystem will try to determine the support of UDP and Multicast protocols by the network and connection between computers.

Broadcast – the system will use UDP Broadcast protocol. If you need to broadcast to several VLANs, you need to specify Broadcast addresses of subnetworks in “Broadcast to the following subnets only” list. To calculate the broadcast address for a network, use any online broadcast address calculator. We recommend to use Broadcast protocol only if Multicast is not supported by your network configuration.

Multicast – the system will use Multicast protocol. In this mode, the system generates significantly lesser network traffic than in “Direct Broadcast” mode, it is compatible with the most of the modern network hardware and configurations. The multicast address may be set up in the respective field, but **we do not recommend changing the default address (226.0.1.120)**, unless you have some interference with third party software that uses the same address.

Direct Broadcast – use this mode, if you cannot broadcast the teacher’s screen to students or if the performance is very low.

Browser view – enables Browser Broadcast (please see above) in addition to regular broadcasting.

Reduce high resolution – enables resizing/downsampling for the desktop image to decrease the traffic on high resolutions (Full HD and higher).

Broadcast Desktop Viewer: full-screen mode – enables the full screen mode for Broadcast Desktop Viewer window on student computers.

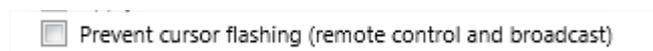
Broadcast Desktop Viewer: restricted mode – enables the “restricted” mode for Broadcast Desktop Viewer window on student computers, so they cannot switch to other applications during the broadcast session.

VHD Driver acceleration – enables or disables the Video Hook Driver

acceleration. VHD acceleration is recommended for achieving the better performance. In Windows 7, when the VHD driver is active, the system may disable hardware DirectX acceleration that disables the semi-transparent "Aero" color scheme and several hardware acceleration capabilities; the initial mode will be restored automatically after closing the broadcast or remote desktop sessions. Windows 8 and 10 do not have such acceleration issues.

Multi-monitor: broadcast from display – in a multimonitor system here you can select a monitor that will be used for broadcasting. By default, the primary display is used.

In addition, "**Advanced Options**" page includes "**Prevent cursor flashing**" option:

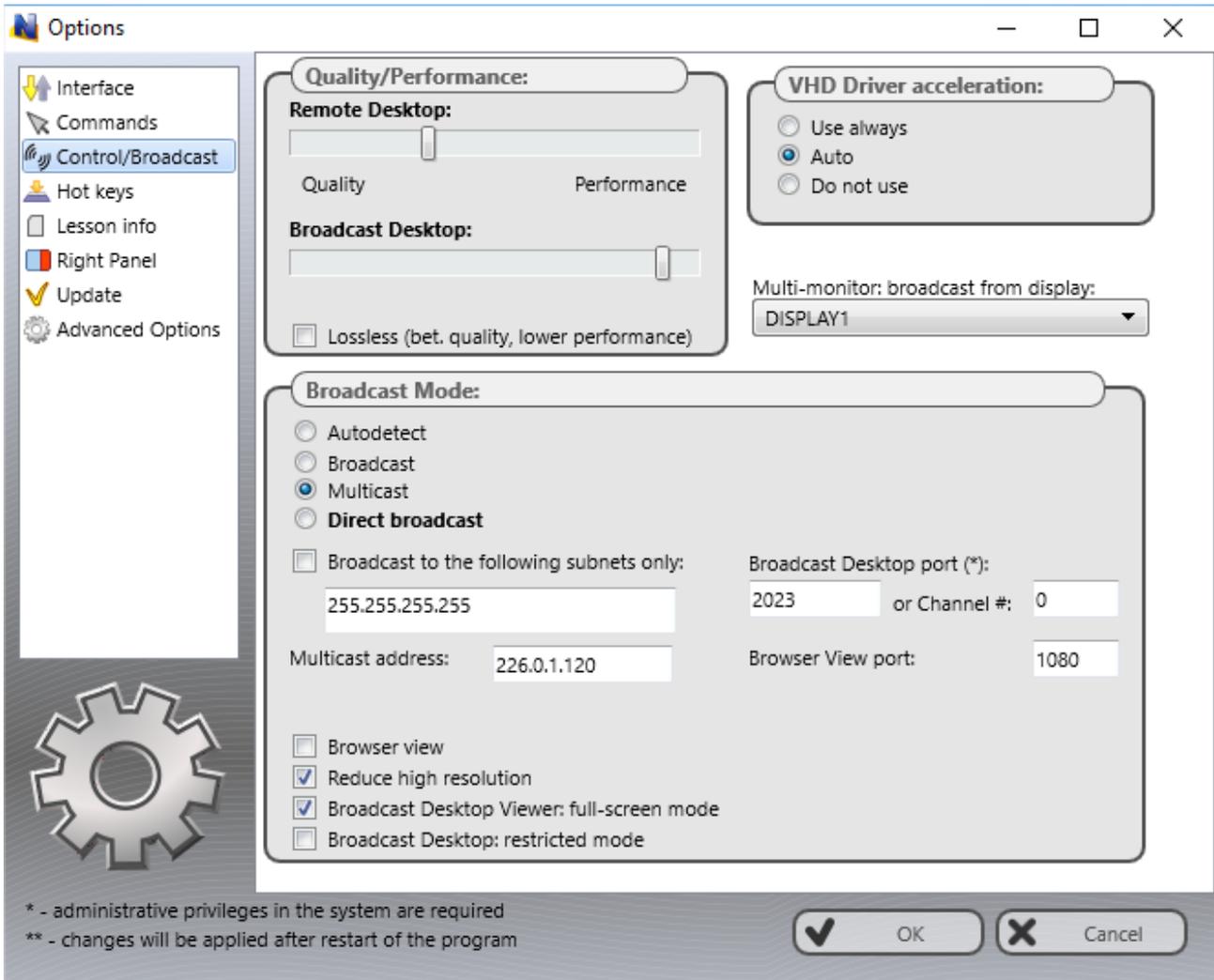


If you experience cursor flashing in broadcast desktop or remote desktop sessions, enable this option to prevent the issue.

Broadcast troubleshooting

1. The teacher's screen is not shown on student computers.

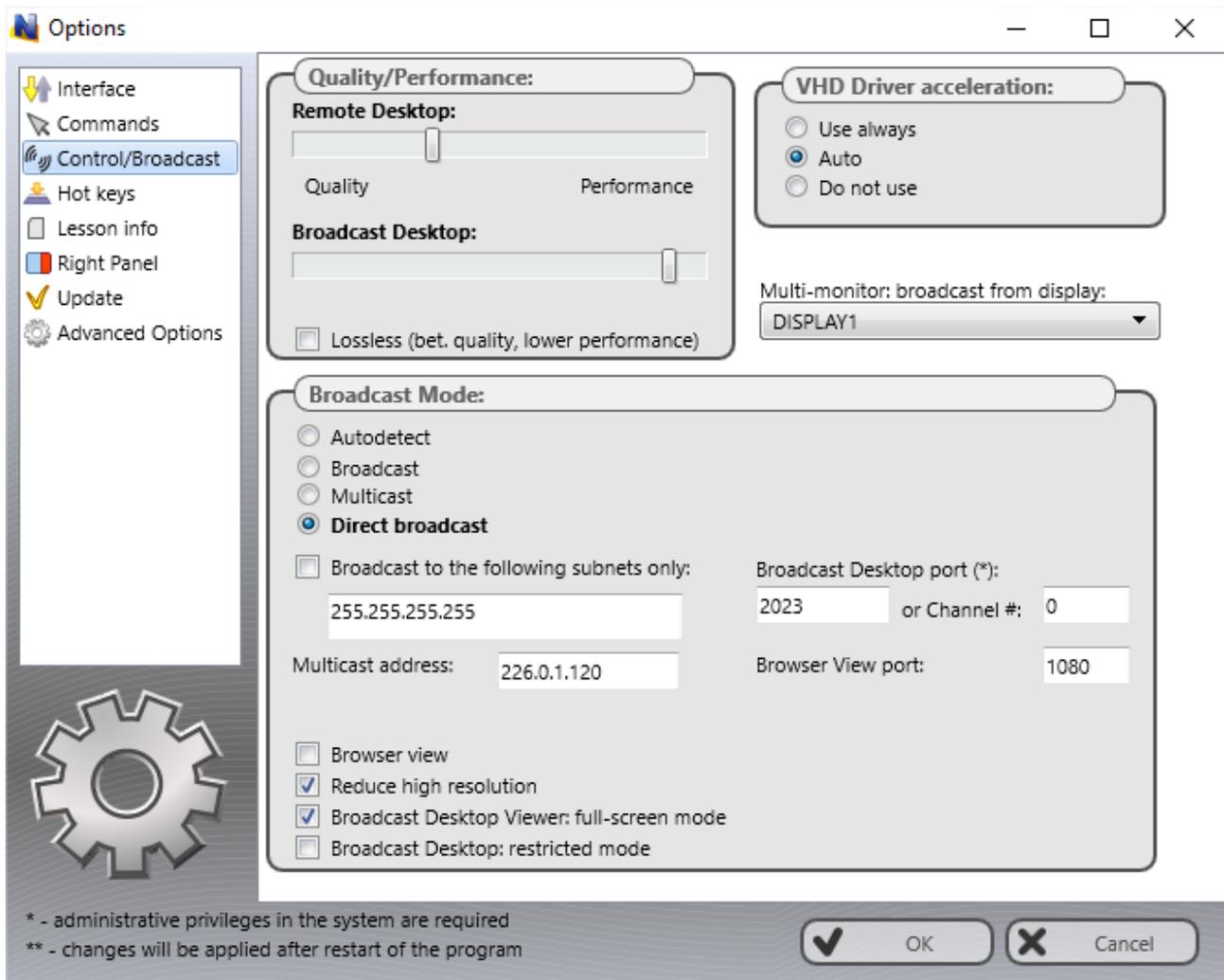
Click the teacher module options **N – Options – Options**; on **Control/Broadcast** page, try to adjust Broadcast Desktop settings according to the screenshot below:



“Lossles” option is disabled; Broadcast Desktop quality slider is moved to right; Broadcast Mode: Multicast; Multicast address is 226.0.1.120; Broadcast Desktop channel is 0 or Auto (Broadcast Desktop port is 2023).

Click OK, restart Broadcast Desktop session.

If the issue still persists, enable “Direct broadcast” mode:

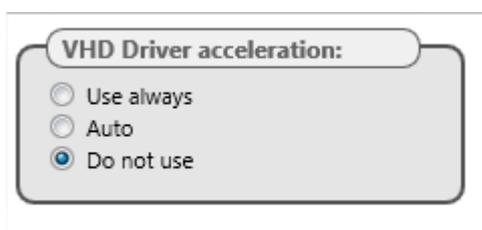


Restart Broadcast Desktop session.

If the issue still persists, contact support: <http://ask.netcontrol2.com>

2. The screen is flashing when Broadcast Desktop session starts up, “Aero” theme is replacing with “Basic” theme (Windows 7)

Disable the VHD driver acceleration in the teacher module settings (enable “Do not use” mode):

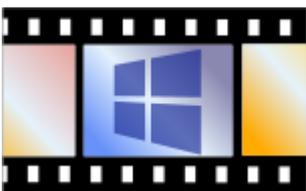


3. The cursor is flashing on the sender’s computer during the broadcast or

remote desktop session.

In the teacher module settings (N – Options – Options); “Advanced Options” page, enable “Prevent cursor flashing” option and click OK. Restart the broadcast or remote desktop session.

Screenshot View



The screenshot view provides a way to monitor student computers viewing their desktop screenshots, cycling through the controlled computers. With this tool you can see one, 4, 16 or 64 screenshots at once.

You can control the tool options with the appearing toolbar:



Screenshot refresh interval – the time interval, in seconds (0-30), which determines how often the screen is updated.

Flip through interval – the time interval, in seconds (0-30), after which the view is switched to a next computer or a set of computers (if more than one computer is displayed).

Mouse/keyboard control – if enabled, any mouse clicks and key presses on the screenshot are reproduced on the student computer.

Copy to Clipboard – copies the screenshot to the Clipboard.

Save – saves the screenshot to a file.

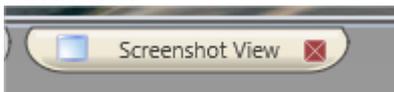
Print – prints the screenshot.

Scale – allows showing 1, 4, 16 or 64 screenshots at a time.

Full-screen – switches to the full-screen mode.

Previous/Next – switches to a next or previous computer.

To close the mode, close **Screenshot View** tab at the bottom of the teacher console:



Restrictions



Using “Restrictions” tool teachers can restrict access of students to web-resources, programs, several system settings and objects, printing services, removable and USB storage devices, control the sound volume.

All restrictions, except for Policies, may be applied permanently or temporarily.

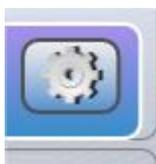


General principles

To apply a restriction, select user computers in the computers list, click **"Restrictions"** tool button on the top toolbar:



Many restrictions may be customized and specially configured, using *Profiles*. To manage the restriction profiles, use "Other profiles" button in the respective section:



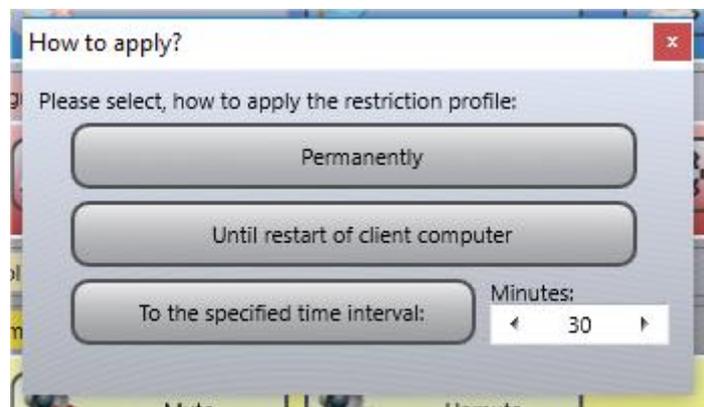
The software includes a set of predefined profiles, as also teachers can create their own profiles or modify existing ones.

Timed restrictions

If "**Timed restrictions**" option is enabled (at the bottom of "Restrictions" window):



before applying a restriction profile, the program will prompt how long the restrictions should be in effect:



Permanently – the restriction or profile will be applied permanently, without time limitations, until a next profile of the same type is applied;

Until restart of client computer – the restriction or profile will be active until restart of the student computer;

To the specified time interval – here you can set up a time interval, in minutes, within which the profile will be active. After the specified time, the student module will restore a previous permanent profile.

Internet restrictions



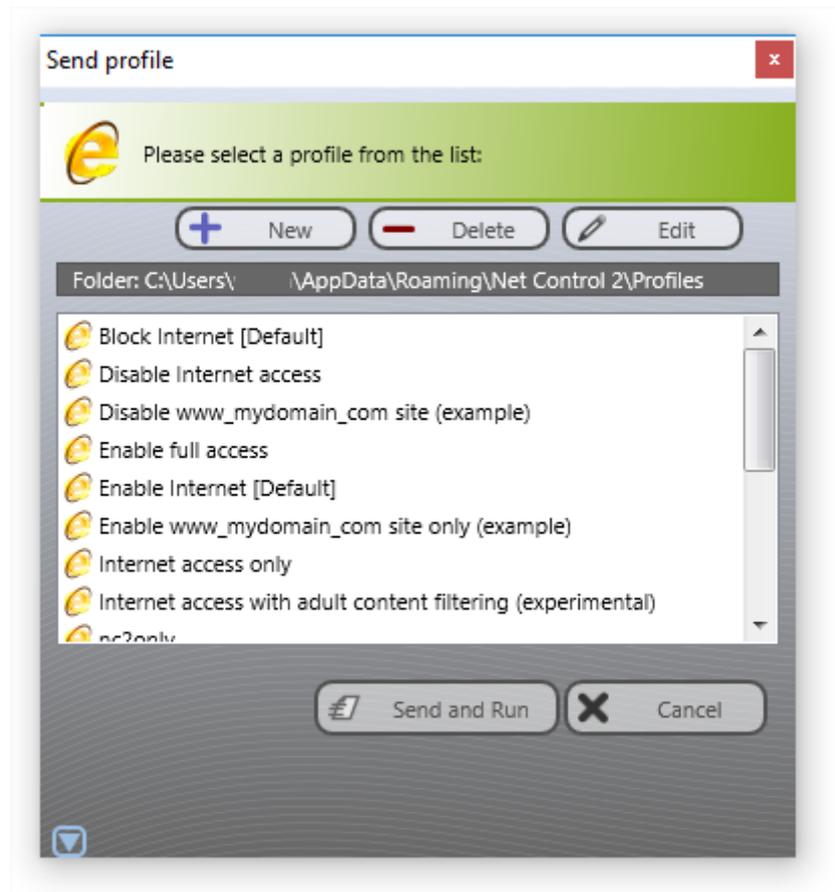
Click "**Block Internet**" to disable access to Internet on selected student computers, all websites will be disabled.

Click "**Enable Internet**" to enable access to Internet on selected student computers, any Net Control 2 - managed Internet restrictions will be disabled.

Click "**Other Profiles**" button to customize or apply more complex restrictions.

After applying a profile, it may take 15-30 seconds on student computers before the profile is updated and reloaded. After the profile is applied, students may need to refresh the currently opened in the browser webpage, to reload it with the new profile settings.

To create a new Internet restriction profile or send an existing one, click "Other profiles" button, in the appeared **Send profile** window:



SEND and RUN – sends and applies the selected profile to student computers.

NEW – creates a new profile;

DELETE – deletes the selected profile;

EDIT – modifies the selected profile.

The default installation of Net Control 2 software includes several pre-defined profiles, which you can edit or use as an example:

Disable Internet Access – disables access to all websites;

Enable Full Access – removes all Internet restrictions (managed by Net Control 2 software), and enables full access to all websites;

Disable www_mydomain_com site – the profile disables access to one website (www.mydomain.com as an example);

Enable [www_mydomain_com](http://www.mydomain.com) web-site only – an example, enables access to www.mydomain.com web-site only;

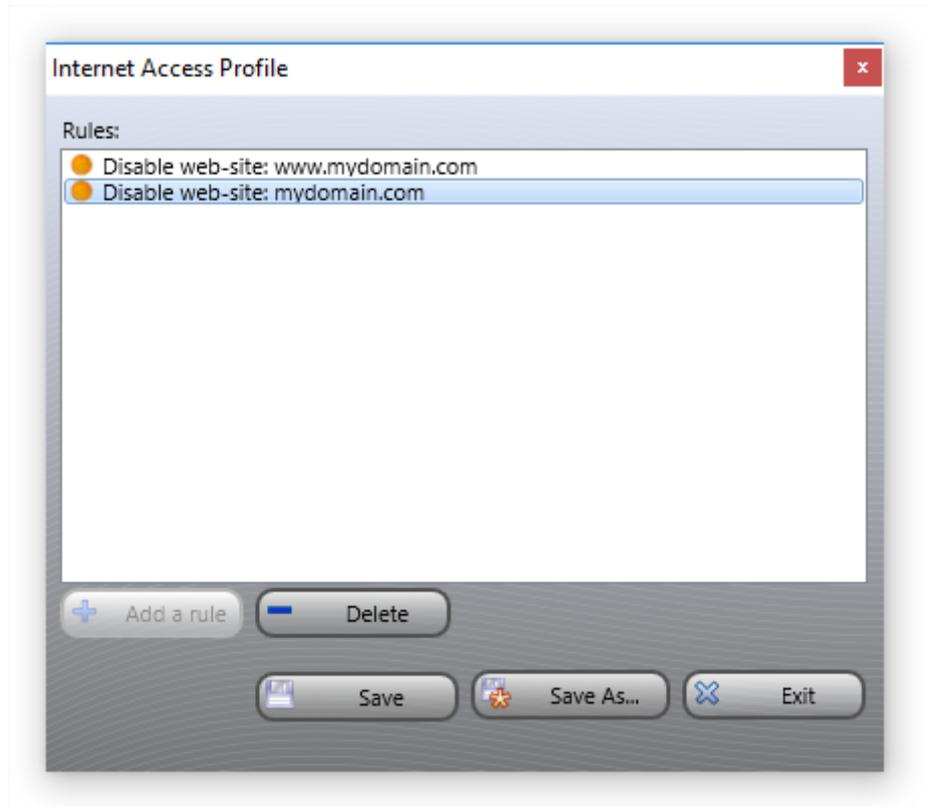
Special profiles:

Internet Access with Adult Content filtering only – visited websites will be additionally checked for the “adult” content, if any forbidden content is found, the website will be blocked. The content filtering works in several restriction modes only, please see below.

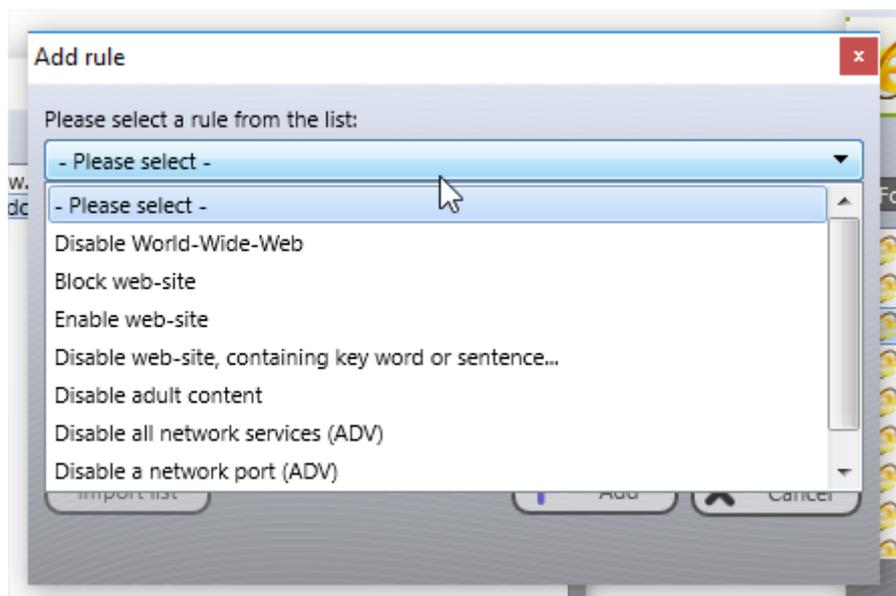
Internet Access Only – enables access to Internet services only. This profile works only if the **Internet Control Engine** is installed in “**TCP Protocol Layer Mode**” mode (see below for more details);

Please note! We do not recommend to modify two special profiles “**Block Internet [Default]**” and “**Enable Internet [Default]**”. These profiles correspond to buttons “Block Internet” and “Enable Internet” of the main Restrictions window. Modifying these profiles you will change behavior of these buttons.

When you are editing an existing profile or creating a new one, you will be switched to Internet Access Profile editor window. Any Internet restriction profile consists of one or several **rules**:



In the Internet Access Profile window, you can add or delete rules, forming the restriction profile:



The set of rules that is included with the software provides the ability to block Internet access completely, enable/disable specific web sites, disable adult content, enable/disable a specific port, etc.

Currently, Internet Control Engine supports the following rules:

Disable World-Wide-Web – forbid access to all websites.

Block Web-site – blocks a website by its domain name. Please note, <http://www.domain.name>, <http://domain.name>, <http://forum.domain.name> – are different websites, to forbid access to all them, please use "*" as a wildcard sign before the domain part, i.e. ***domain.name**

Enable Website – enables access to a website. As above, use "*" before the domain part to cover with restrictions all subdomains of the website.

Please note! A profile cannot include both "blocked" and "enabled" websites. Only the last verb – either "**enable**" or "**block**" will be applied to all specified websites in the profile.

Content filtering:

Disable website containing a keyword or sentence – enables content filtering for websites. Internet Control Engine will check the loaded to the browser text of the website, for presence of forbidden keywords, specified in this rule. If any "forbidden" keyword is found on the page, the access to the website will be blocked.

Disable adult content – related to the previous rule, this rule enables content filtering for the "adult content", based on a short dictionary for English language.

Content filtering works only in Internet Explorer (Mode 1 and 2 as described below), if Internet Explorer add-on is not disabled; otherwise, the traffic control is available only for unencrypted connections (http://) and for uncompressed websites.

Legacy rules,

work only in Internet Control Engine Mode 3:

Disable all network services – disables all network services except those specified in the profile.

Enable a service or network port – enables access to the specified service or network port. Should be used together with “**Disable all network services**” rule.

Disable a service or network port – disables access to the specified service or network port.

Enable content filtering for network service – enables content filtering for all incoming data on the specified port (network service).

Enable content filtering for all network services - enables content filtering on all network services.

Example 1. Enable all websites, except for site1.com and site2.com. Step-by-step.

1. Click Restrictions button on the top toolbar



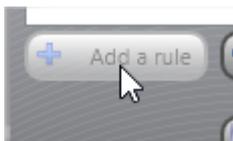
2. Then click “Other profiles” in “Internet” section:



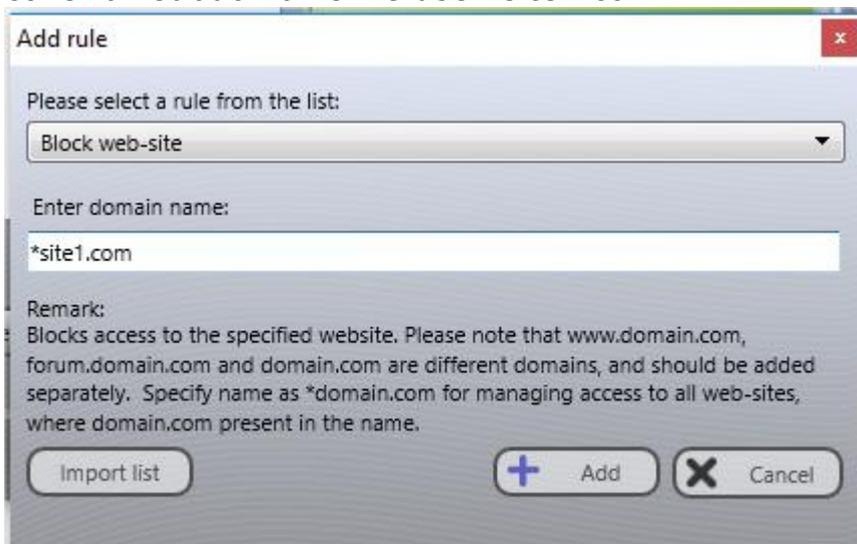
3. In “Send profile” window click New to create a new profile:



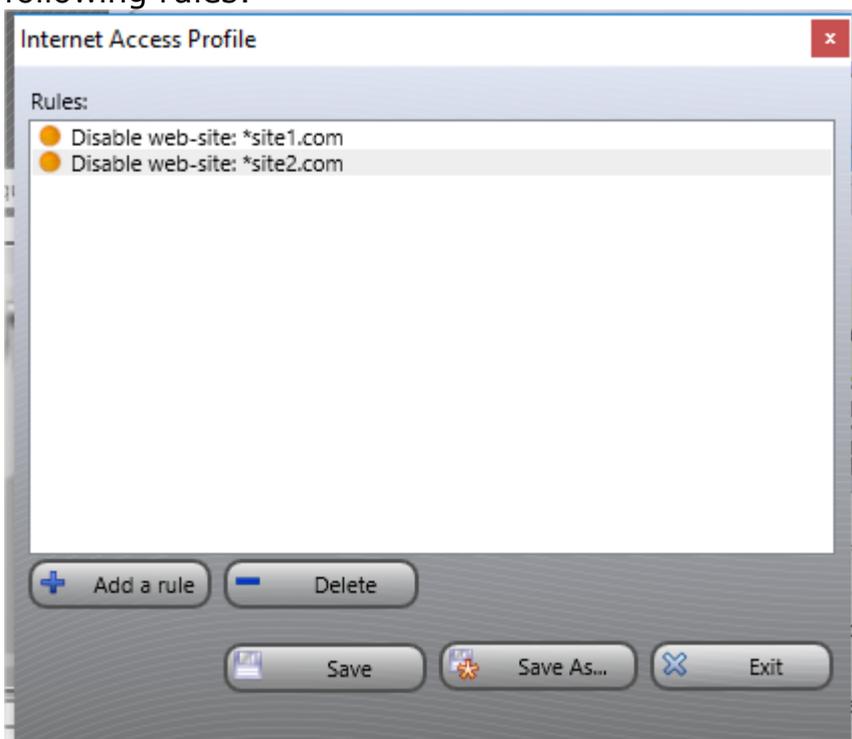
4. In the appeared window click “Add a rule”:



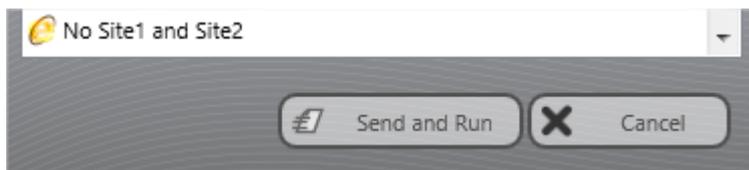
5. Select "Block website" rule, enter the first website domain name, to cover all subdomains we use *site1.com:



6. Click Add and repeat the same for site2.com, the profile has the following rules:



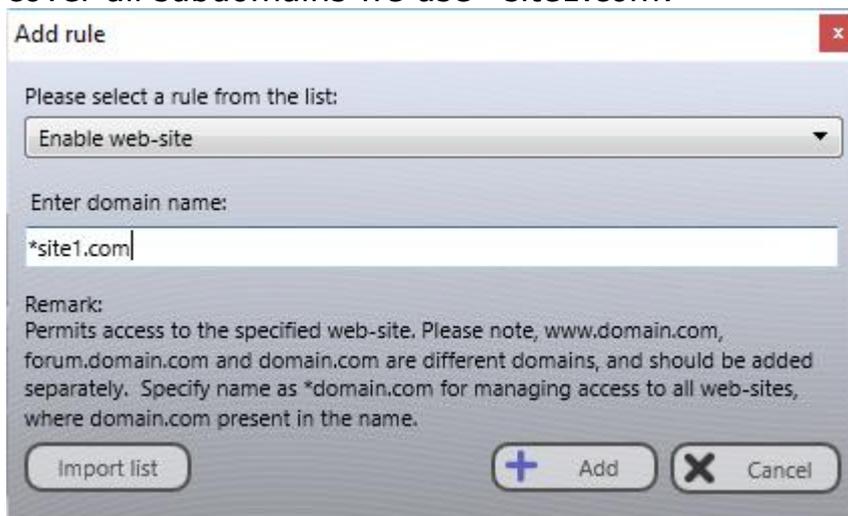
7. Click "Save" and save the profile under some name. Click Exit.
8. The profile should appear in the list of profiles:



9. Select it and click "Send and Run" to send to the selected students.

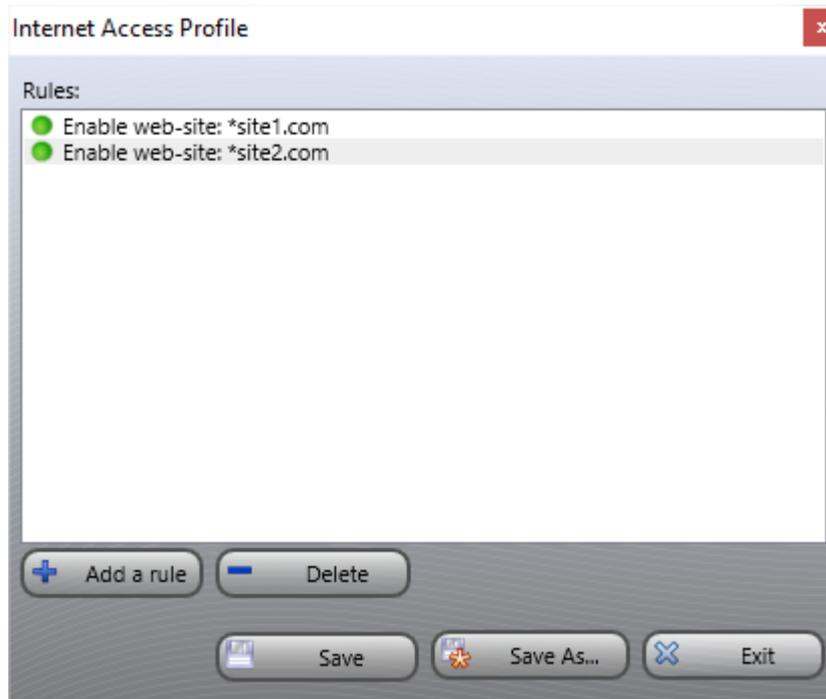
Example 2. Disable all websites, except for site1.com and site2.com. Step-by-step.

1. Repeat steps 1 – 4 of the previous example.
2. Select "Enable website" rule, enter the first website domain name, to cover all subdomains we use *site1.com:



Repeat the same for *site2.com

3. The profile now has the following rules:



4. Repeat steps 7 – 9 of the previous example.

Internet Control Engine modes

The student module of Net Control 2 often works in environments that already have some restrictions managed by third party software (including parental control software, network filters etc). Some such software may use the same technique of interaction with browsers and the network traffic that is used in Net Control 2 software, and may interfere with it.

Therefore, Net Control 2 software supports several modes for Internet Control Engine ("**ICE**"), you can switch between them, depending on restrictions of your environment, if Internet restrictions of the default mode do not work.

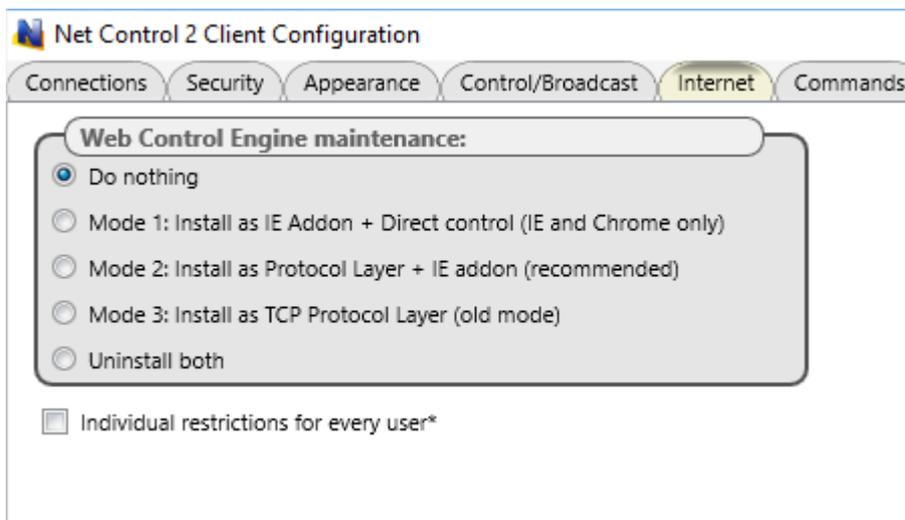
Mode 1 – is recommended to use as the most compatible with third party software interface, if Mode 2 does not work in your environment. In this mode, ICE uses the add-on for Internet Explorer browser, and controls Internet Explorer and Google Chrome browsers from the student module service. Restrictions work in Internet Explorer and Google Chrome only. Other browsers (Edge, Firefox etc) will be disabled if some restrictive Internet profile is applied, access to these browsers is restored when restrictions are disabled.

Mode 2 – the default mode, restrictions work in the most browsers (Internet Explorer, Edge, Chrome, Firefox, Opera, Safari). Works as Internet Explorer add-

on and a special user mode driver.

Mode 3 – used for compatibility with Net Control 2 version 9 and below, keeping the same restriction model. Do not use for new installations.

To switch the mode, select student computers, click the main menu command of the teacher console N – Options – Client Options, on “Internet” tab enable the respective mode and click OK. Changes will be applied after restart of the student computers.



If you use ICE in Terminal Server environment for terminal users, Internet restrictions by default are applied to all users of this terminal server. To apply individual restrictions for each user of the computer, enable “Individual restrictions for every user” option in the student module settings.

Restrict programs and applications

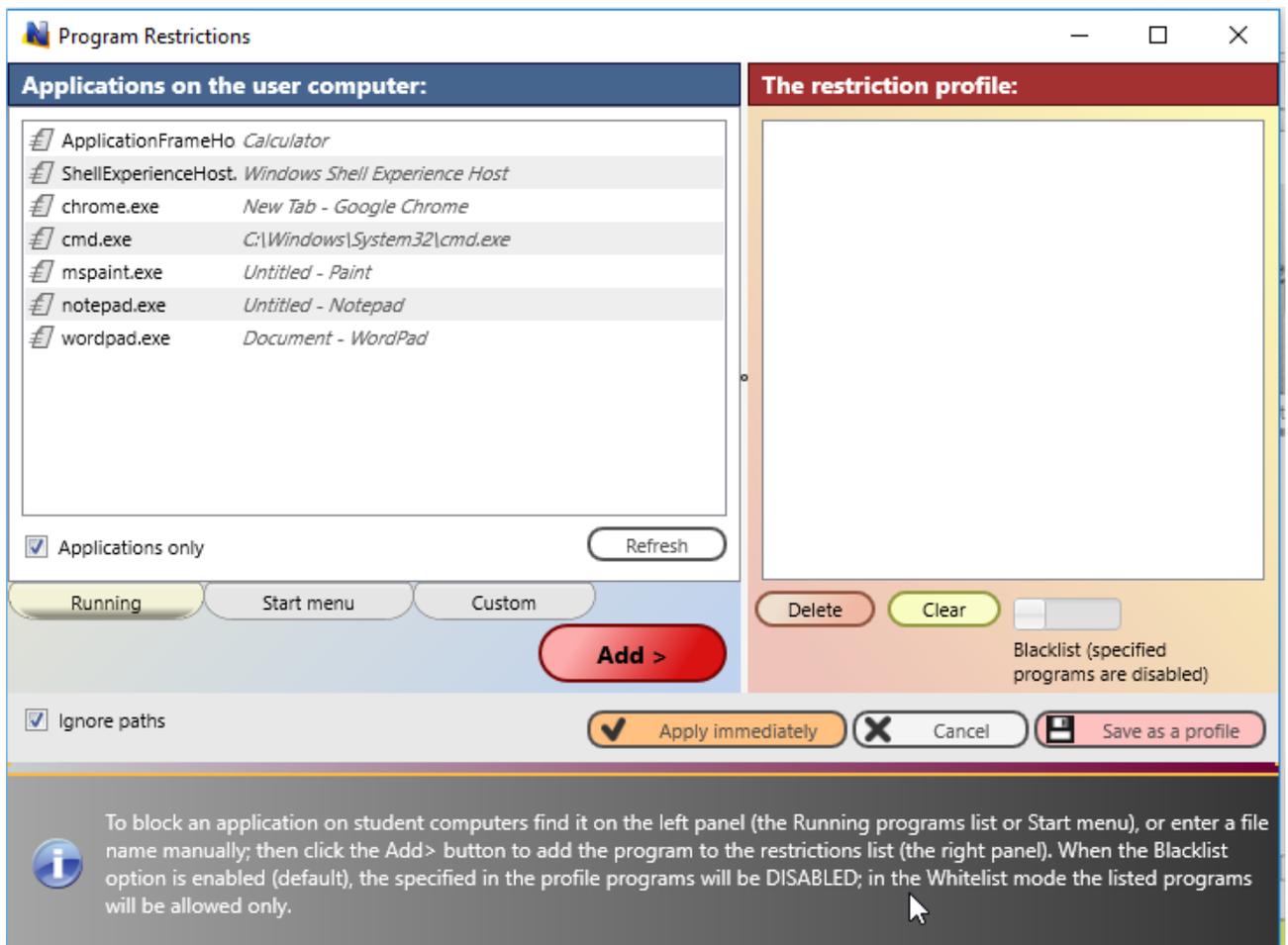
The Program Restrictions feature provides the ability to enable or disable programs and applications on student computers.

To reset all restrictions and enable all programs with a single click:

- select student computers;
- click **“Restrictions”** button in **“Control”** toolbar;
- click **“Enable Programs”** button.



To manage current program restrictions, in the same window click **“Block programs”** button:



- The left pane of the appeared **“Program Restrictions”** window contains a list of applications. The right pane (**“The restriction profile”**) contains a list of restricted applications. To create a restriction profile, you need to move the necessary applications from the left pane to the right pane.
- On the left pane, the teacher may select programs that are running at this

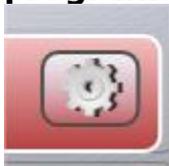
moment on the student computer ("**Running**" tab), installed ones and available in Start – All Programs menu of the student computer ("**Start menu**" tab), or specify the program by browsing to it in the "**Custom**" tab. Once found, click "**Add>**" button to the right pane.

- If the restriction type selector in the right pane is placed to the position "Blacklist", the listed in the profile programs will be disabled; respectively, all not provided in the list programs are enabled. If the selector is placed to the position "Whitelist", only the listed programs will be allowed, all not specified in the list will be disabled.
- to apply the restrictions, click "**Apply immediately**".

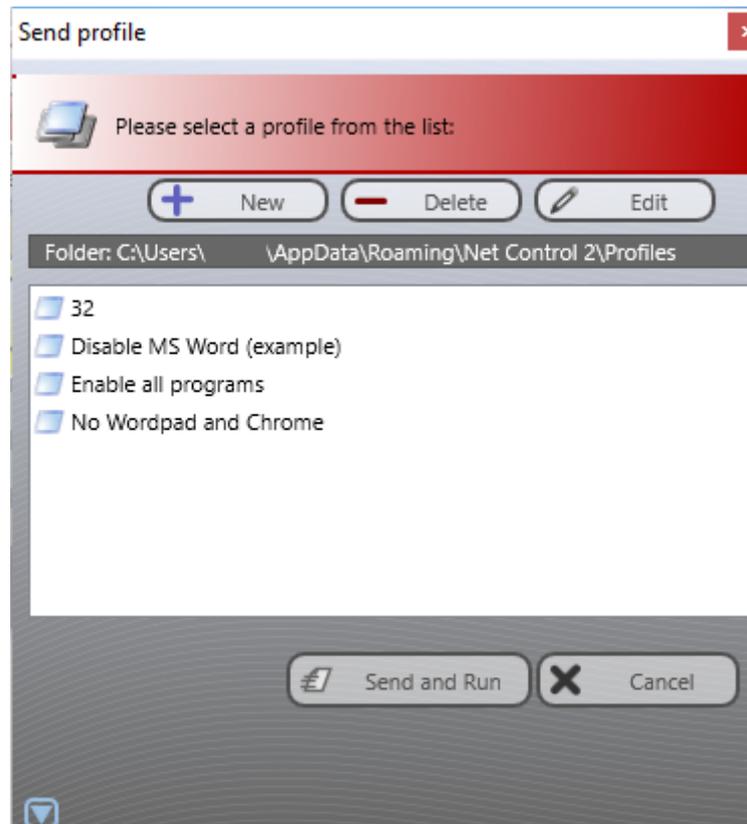
The list of restricted programs may be saved as a profile for further use; to save it, click "**Save as a profile**" button.

To control Program restrictions using profiles:

- in "**Restrictions**" window, click "**Other profiles**" button in "**Restrict programs**" section:



- In "**Send Profile**" window:



To send a profile to students, select it and click **“Send and Run”** button.

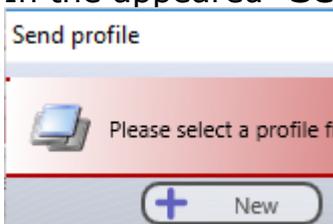
Use **“New”**, **“Delete”** or **“Edit”** buttons to create a new profile, delete or modify the selected one respectively.

Example 1. How to disable Windows Paint and Calculator programs with profiles. Step-by-step.

1. In **“Restrictions”** window click **“Other profiles”** button:

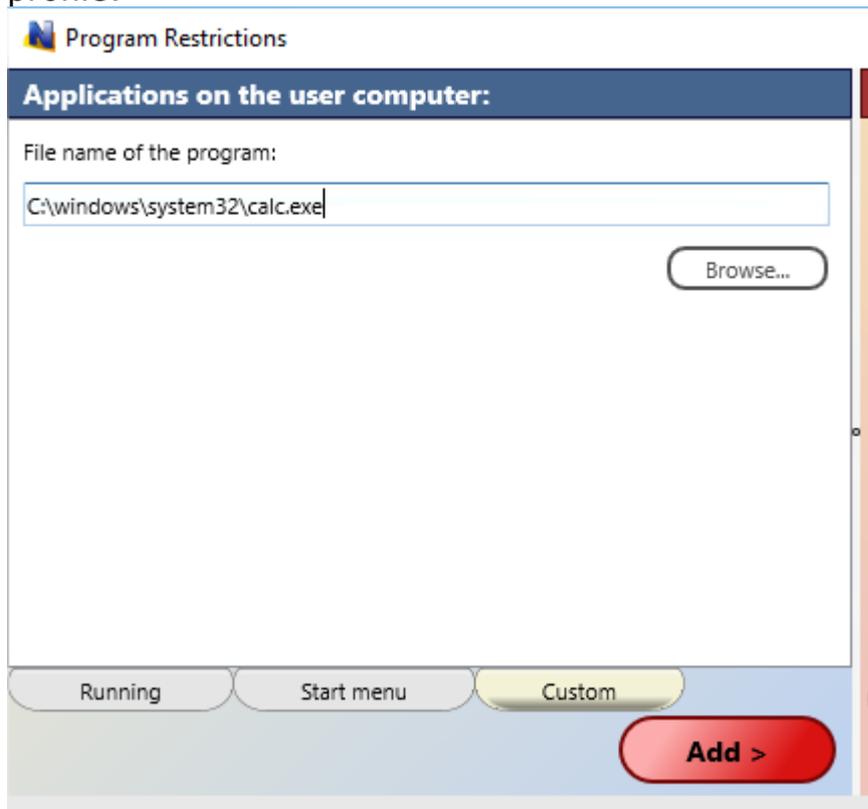


2. In the appeared **“Send Profile”** window, click **“New”** button:

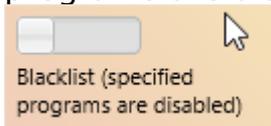


3. Find the file name of Calculator program in the left pane (using any tab) or specify the path manually, use **“Add”** button to add the program to the

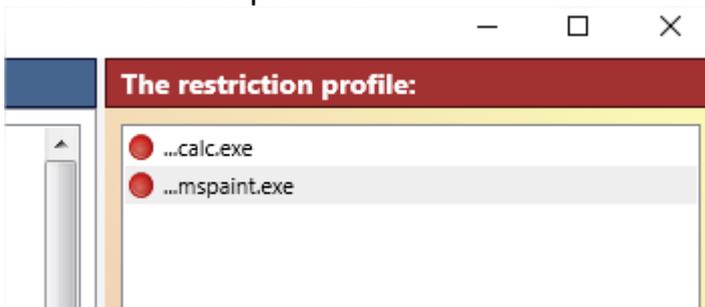
profile:



4. Repeat p.3 for **Paint** program.
5. The restriction mode selector should be set to "Blacklist" (the listed programs are disabled):



6. The restriction profile contains two records:



7. Click "Save as profile", specify some profile name.
8. The profile appears in the profiles list, now you can select it and send to students.

Policies (access to system folders and settings)

Understanding “Policies”.

Policies are special, non-visual system settings which enable or restrict access to system settings, objects or services. Policies are managed by Windows internally, are stored in the system registry, and the support of policies may depend on the version of the operating system. Most Policies require a restart of the computer or log off/log on of the user to be applied. By default Windows applies a Policy only to the currently logged on user. Net Control 2 has the ability to apply policies to all users. Windows and its components use thousands different policies, Net Control 2 implements only the most popular of these.

Domain group policies may override the policies changed with Net Control 2 restrictions and have higher priority. Any policies may be changed on student computers manually, using standard Windows tools: Registry Editor (regedit.exe) or Local Group Policy Editor console (gpedit.msc).

Profiles.

Policies may be applied using “**Restrictions**” tool:

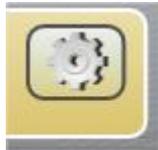


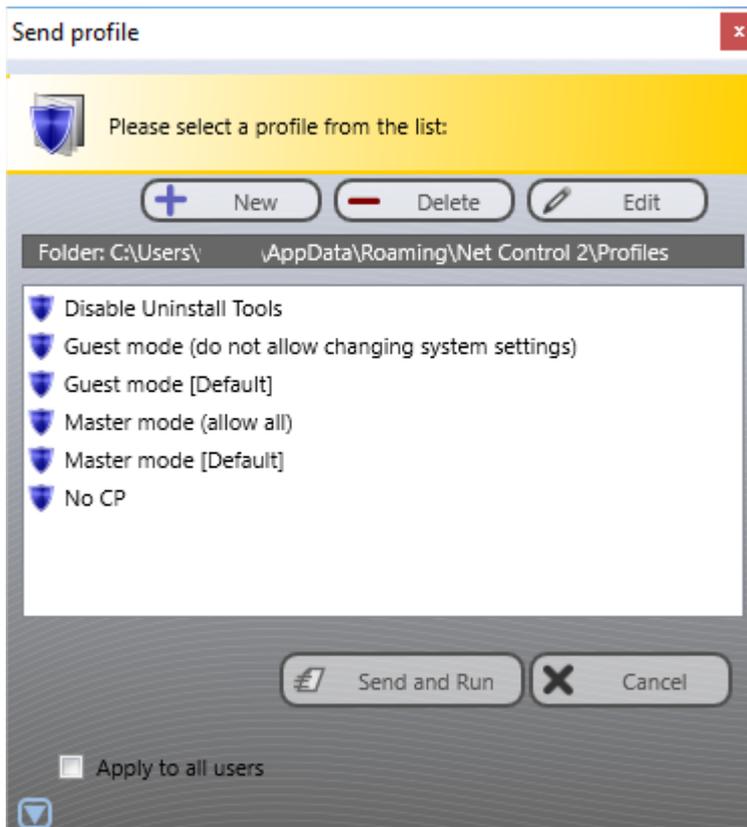
The restrictions window contains two pre-defined modes for quick access:

Guest Mode – restricts access to Control Panel, Desktop settings, and Taskbar.

Master mode – disables all Net Control 2-managed restrictions.

Advanced configuration may be done using the “**Other Profiles**” button:





Standard profiles:

Disable Uninstall Tools - disables access to the "Add/Remove programs" Control Panel program;

Guest mode – disables access to the most important system settings and folders;

Master mode – disables all restrictions. Enables normal access to system settings and folders.

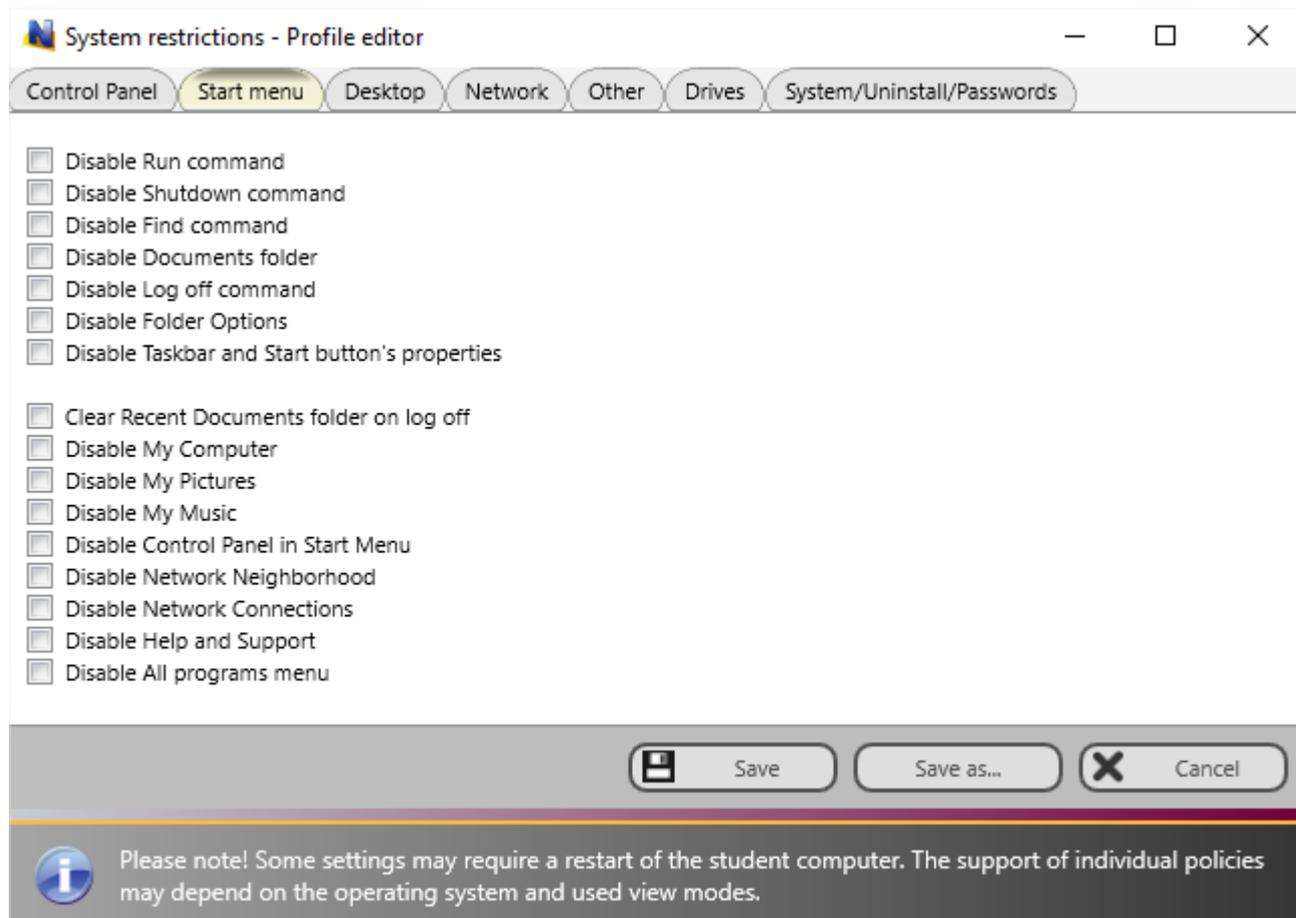
Special profiles **Guest Mode [default]** and **Master Mode [default]** are assigned to "Guest Mode" and "Master Mode" buttons of **Restrictions** tool. Any changes made for these profiles makes changes for the buttons behavior.

New button allows you to create a new profile.

Delete button deletes the selected profile.

Edit button modifies the selected profile.

Clicking the **New** or **Edit** button of the **Send profile** window will open the **Policies Editor** window, where you can specify restrictions for the profile:



Sending a profile to students, you can select the **“Apply to all users”** option in the **Send Profile** window to apply the profile to all users. When this option is not selected, the restriction will be applied to the currently logged in user only.

Many policies may require a restart of Windows Shell (Explorer) to be applied. To apply settings, you can either:

- Restart user computers after sending the profile;
- Log the current user out and require a new log in;
- Restart Windows shell manually: terminate **explorer.exe** process using Program Manager and then restart it.

Sound volume

Sound volume restrictions allow to mute or restore volume level of a default audio output device on student computers. The restriction may be applied permanently, for some time interval (up to 180 minutes) or until restart of the student computer.



To mute the sound:

- Select student computers;
- Click Restrictions button on the top toolbar;
- Click **"Mute"** button in **Sound volume** group.

To restore the default volume level on student computers:

- Select student computers;
- Click Restrictions button on top toolbar;
- Click **"Unmute"** button in **Sound volume** group.

Printing restrictions

Net Control 2 provides an easy way for enabling and disabling printing services on student computers in one click. The tool supports timed restrictions.

When printing services are disabled, users will not be able to print documents on local or network printers installed in the system, add, remove or manage printers.



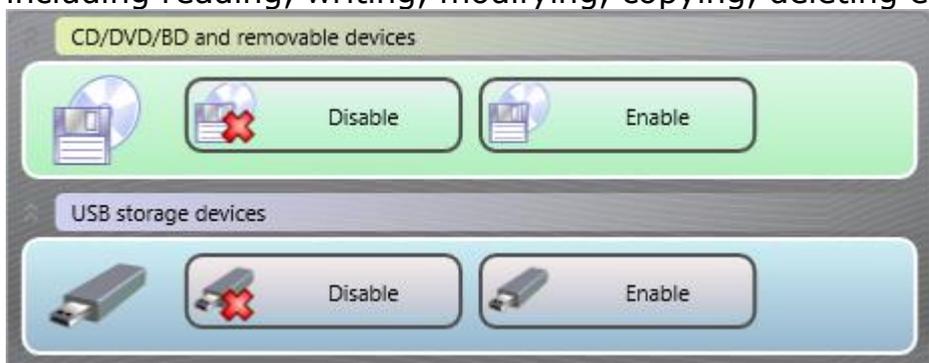
To disable printing services, select client computers; click Restrictions button on top toolbar to open Restrictions tool, then in **"Printing services"** section, click

“Disable” button. To enable the printing services, click **“Enable”** button instead.

Removable drive and USB storage devices restrictions

With Net Control 2 software you can dynamically enable or disable access to removable devices (CD/DVD/BlueRay and Floppy drive devices) and USB mass storage devices (SD cards, Flash drives, portable HDDs, other removable USB devices). The tools support the timed restrictions.

When the restrictions are applied, users will not be able to access these devices, including reading, writing, modifying, copying, deleting etc.



To disable access to devices for selected student computers, click “Disable” button in the respective section; to enable access, click “Enable” button in the respective section.

Program Manager



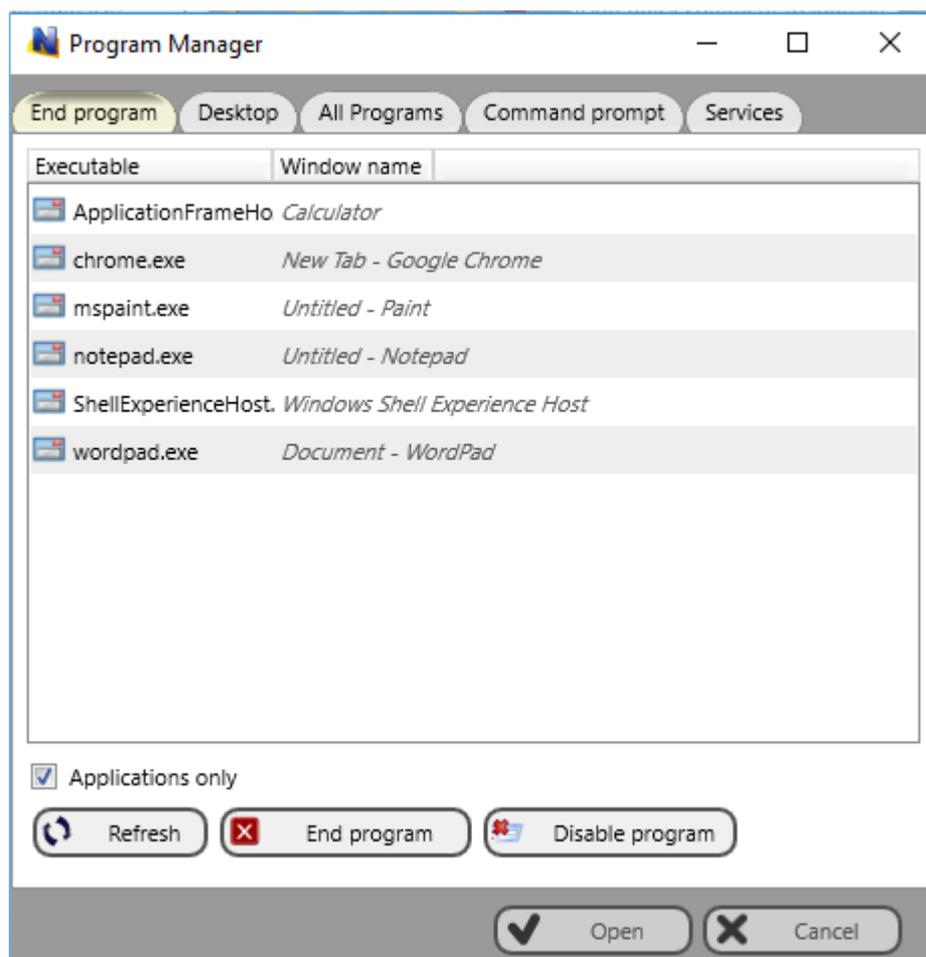
Using **“Program Manager”** tool, teachers can run or manage running applications on student computers from the teacher module.

To manage applications:

- select student computers;
- click the “Programs” button in the “Control” toolbar:



“End program”:



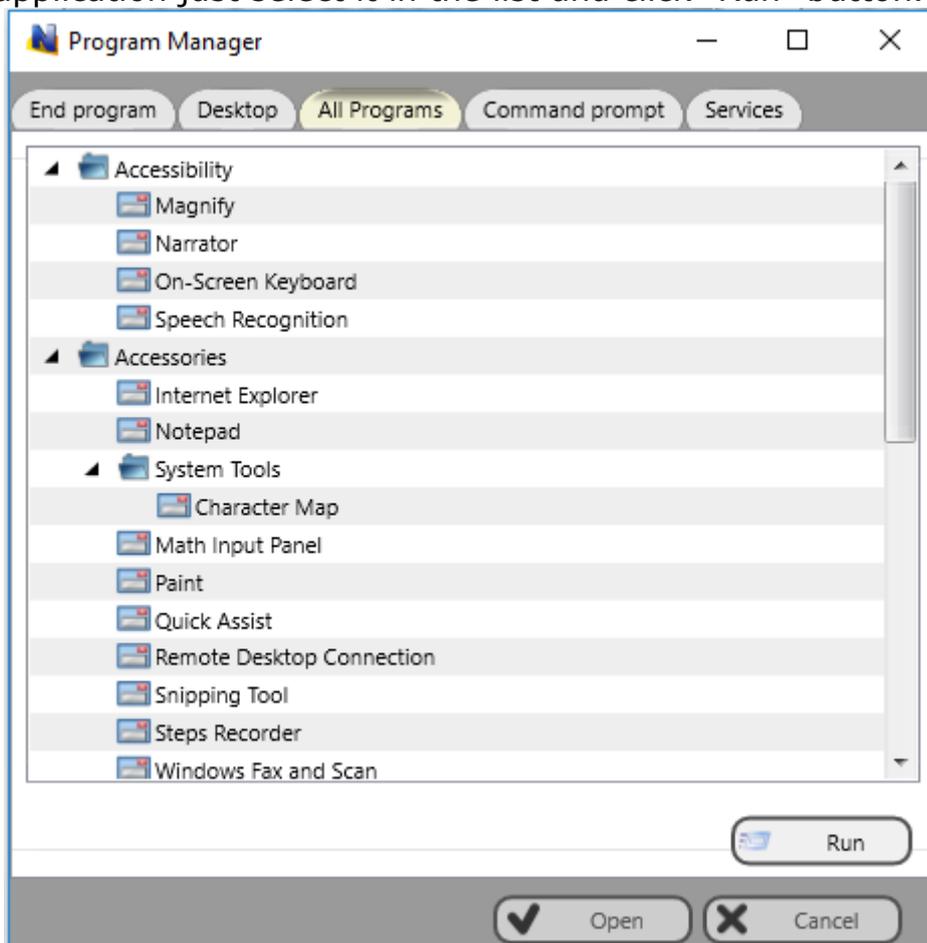
The “End Program” tab provides access to programs and applications that are currently running on the selected student computers.

If **“Applications only”** option is enabled, the list contains only applications, if the option is disabled, the list includes also background processes.

To terminate a program, select it in the list and click “End program” button.

To add a program to Program restrictions, use “Disable program” button.

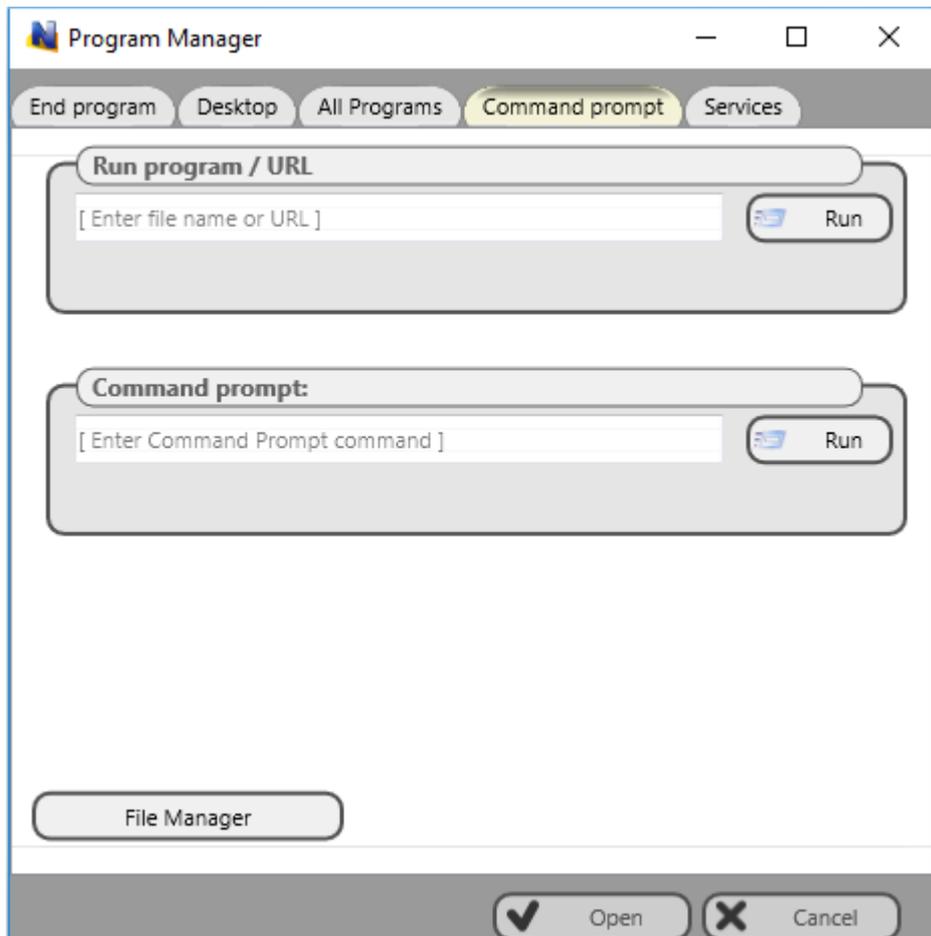
“**Desktop**” and “**All Programs**” tabs contain a list of programs, placed on Desktop and in Windows *All programs* menu of the **Start** respectively. To run an application just select it in the list and click “Run” button.



Using “**Command prompt**” tab and “**Run program/URL**” field you can run programs, documents and Internet links (URLs) by entering a full path to the program, document or URL. Entering a URL, you need to specify `http://` or `https://` prefix, the web page will be opened in the default browser of the student computers. If you are specifying a path to a document, the associated program will be run on the student computers and the document will be opened in this program.

Using “**Command Prompt**” field of this tab you can run commands that will be executed on student computers in Command Prompt window.

Any programs, documents and URLs, opened using **Program Manager** tool will be run on student computers with **privileges of the currently logged in user** on the computer.



“Services” tab provides access to the system service management features, and is available only if administrative operations are allowed in the teacher module settings.

Login Tool



Using **Login** tool an Instructor can login users on student computers remotely. At the moment of applying the login command, the client computer must be on the logon screen. This tool is primarily designed for use in networks with a domain.

In **Windows Vista/2008/7/8** and higher, the "**Do not display last user name**" policy must be enabled on student computers, otherwise the remote login operation may fail.

To enable this policy, you can use **any** of the provided below methods:

1. Active Directory

- open **Group Policy Editor** (Start -> Administrative Tools -> Group Policy Management);
- create a new group policy or edit an existing one;
- at the left pane, open and select the following tree: **Computer Configuration -> Policies -> Windows Settings -> Security Settings -> Local Policies -> Security Options**
- at the right pane find the following parameter: *Interactive Logon: Do not display last user name policy*;
- double click to edit it;
- **enable** it and click OK.

2. Local Policies

If a computer is not a part of Active Directory, you can enable "**Do not display last user name**" policy on this computer as follows:

- open *Local Policy Editor* (press **Win+R** key combination to open Run dialog window; enter the following command:

gpedit.msc

and press Enter

- at the left pane open and select the following tree: **Computer Configuration -> Windows Settings -> Security Settings -> Policies -> Windows Settings -> Security Settings -> Local Policies -> Security Options**

- at the right pane find the following parameter: **Interactive Logon: Do not display last user name policy;**

- double click to edit it;
- enable it and click OK.

3. Registry Editor.

Alternatively you can change the option of system Registry. This operation should be made on every client computer.

- Click Start button and type in Search programs box or press Win+R key combination and enter:
Regedit.exe
- At left pane navigate to the following sub-key:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System
- At right pane find the parameter DontDisplayLastUsername, double click it and change its value to 1
- Click OK.

When the required logon screen mode is enabled, you can use Login tool to log in users remotely:

- Select students in the connections list;
- Click **Login** button on the top toolbar;
- Enter a user name and password. Leave the domain field blank if the network does not use a domain, or specify the domain name;
- Click OK.



Shutdown / Power management



Power management features provide teachers with a quick and simple way to prepare student computers for the lesson or to finish the work. You do not need anymore to spend your time for turning on or off each student computer manually, the operations are available in a few clicks, directly from the teacher module.

To apply a power management operation:

- select user computers;
- click "**Shutdown**" button on the "Control" tab;

- in the appeared window:



click the respective button, to close the window, click Close.

- if "**Forced**" option is selected, users cannot cancel the operation (due to unsaved documents for example);
- if "**Apply immediately**" option is not enabled (the default state), the countdown 20-seconds timer appears on student computers before the operation runs, within this time students can save unsaved documents and prepare the computer for shutting down. You can disable this option, to apply the operation immediately.

Wake up command uses Wake-up On LAN (WOL) technology, relies on some system settings, and turning computers on over the network is possible when the following conditions met:

- The Wake-up on LAN (WOL) feature is enabled in the CMOS BIOS Setup of each user computer. Most often this feature may be found in the Power Management Setup section of the CMOS BIOS Setup program as "Wake-up on LAN", "WOL", "Resume by PCI" or "Resume by Network Adapter" option. For more information about enabling the WOL feature for the computer, please refer to your computer or motherboard's manual.
- Your network adapter must support Wake-up On LAN feature, the most of the modern Ethernet network adapters support such feature.
- Due to wireless networks use authentication, and most often are available only after Windows startup, most likely you will be unable to use Wake up command if students use wireless adapters only.
- To wake up computers remotely, the teacher module should know MAC

addresses of student computers. This information is obtained by the teacher module when it connects to a student first time. So, to apply the operation, the student computer should be connected to the teacher at least one time before.

Send/Collect Tool



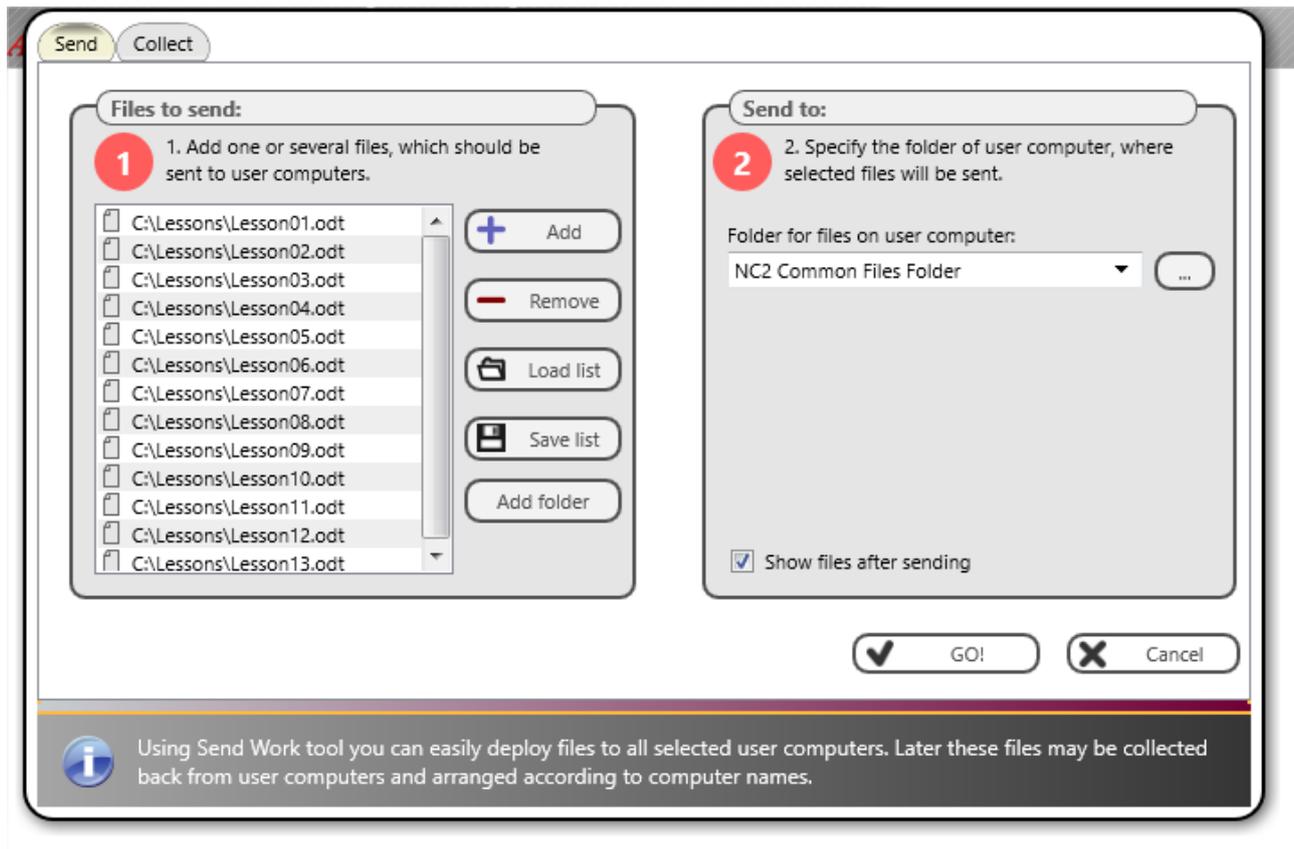
The **Send/Collect Tool** provides an easy way for the Instructor to send files to remote users with a few clicks. In the same way, these files can be collected back from the users' computers to the Instructor and sorted by computer name.

To use the Send/Collect Tool:

- click the **"Send/Collect"** button in the **"Control"** toolbar;



- In the Send/Collect window:



To send files:

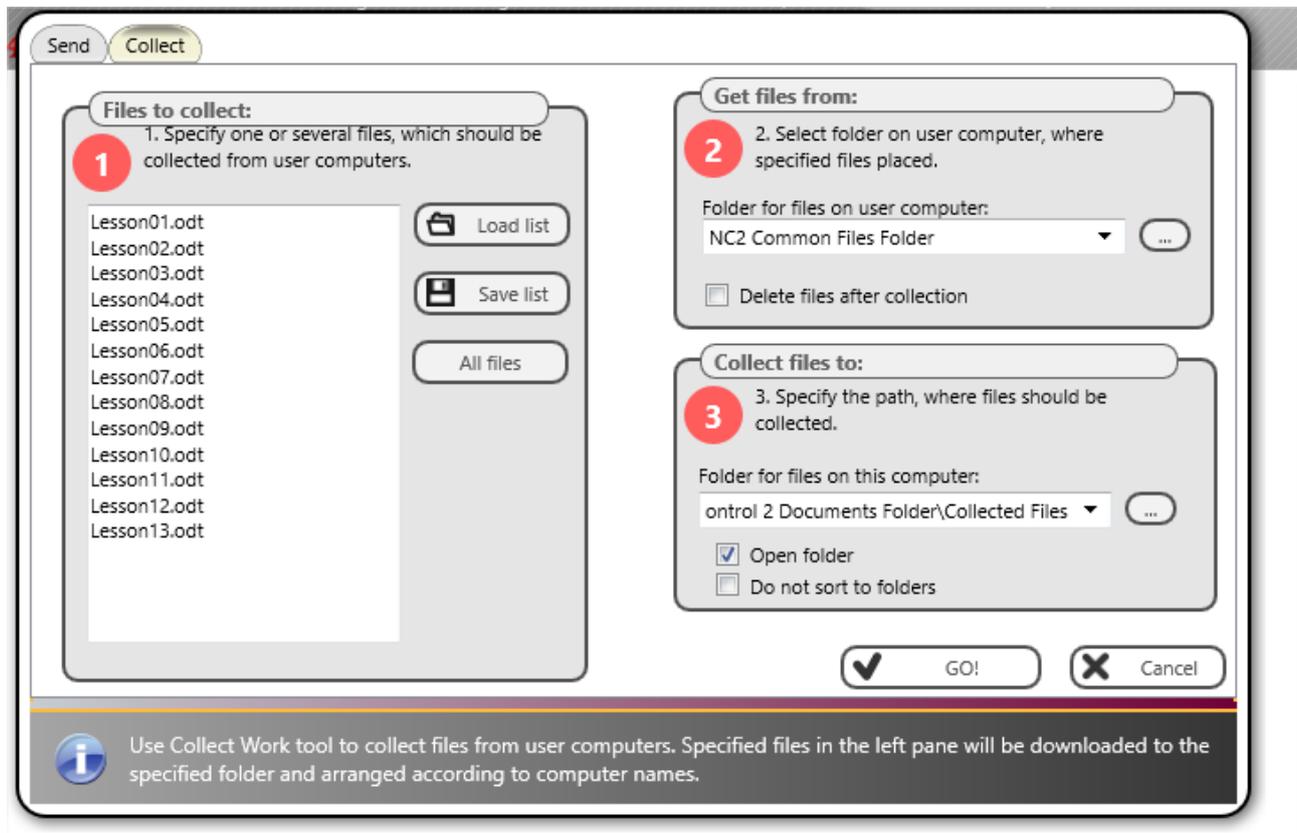
- click **"Add"**;
- specify local path of the file to be sent;
- repeat the above steps until all the desired files are selected;
- if you need to send the whole content of some folder, use "Add folder" button instead;
- in the drop down menu **"Folder for files on user computer"** specify the folder on student computers where the file or files should be saved;
- if **"Show files after sending"** option is enabled, the list of sent files will be displayed on the student computer in Student console after sending;
- click **"Go!"** to run the operation.

Using "Load list" and "Save list" buttons of this tab, you can save the file lists to the computer for further use or open them.

To collect the work:

- in the **"Send/Collect Work"** window, select the **"Collect"** tab;

- specify the files that should be collected; by default, the list contains files that were sent with the last “Send” operation. If you need to receive all files of the “source” folder, click “**All files**” button.
- specify the source folder on the student computer where the files are located, by default it is the same folder as was used for “Send” operation;
- specify a local path, where the collected files should be saved;
- click “**Go!**”.



If “**Delete files after collection**” is enabled, the collected files will be deleted on student computers after collecting.

If “**Open folder**” option is enabled, the destination folder will be opened after the operation is complete.

When “**Do not sort to folders**” option is disabled (default), Net Control 2 will create in the destination folder on the teacher computer, an individual folder for each student, using the respective connection name, and will place the collected files in this folder. When the option is enabled, Net Control 2 will place all the collected files in the destination folder, without sorting to folders, adding a connection name to the file name as a prefix.

Hand Raising

Using this tool, students can notify teachers that they are ready to answer a question or need the teacher's assistance.

To "raise" the hand, students can use Student Console or Net Control 2 toolbar.

To raise the hand, using Student Console, right click Net Control 2 icon in the System tray:



then, in the appeared window, click "Raise hand" button:



If student computers are configured to show a popup Net Control 2 toolbar on the screen, move the mouse cursor to the toolbar, then click "Raise hand" button:



In both cases, the button should change its color and caption to "Put hand down":



Clicking **“Put hand down”** button the status of the “raised hand” on teacher computer will be reset.

When the hand is “raised”, the student computer thumbnail in the teacher console will contain a special icon:



The teacher can accept the request by clicking “Call on” button on top toolbar:



Or reset the status on one or several computers by clicking “Reset Raised Hands” button:

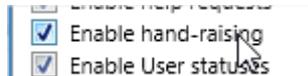


When a teacher is accepting the “raised hand” request, clicking “Call on” button, the button in the Student Console on student computer will be changed to:



To disable the “hand raising” interface on student computers:

- select student computers in the teacher console;
- click the main menu command N – Options – Client Options;
- on “Appearance” tab uncheck “Enable hand-raising” option and click OK.



Lock



Using “**Lock**” tool teachers can minimize distractions and maintain attention of students on learning tasks. With this tool, a teacher can temporarily block student computers, add optional notification, and unblock it when necessary.



Click "Lock" to lock selected computers, "Unlock" to unlock them, use "Lock and Blank" to lock computers without a splash screen.

Optional text notification may be added in "Add a note" field.



- Use this button to change the default background of the "locked" screen.

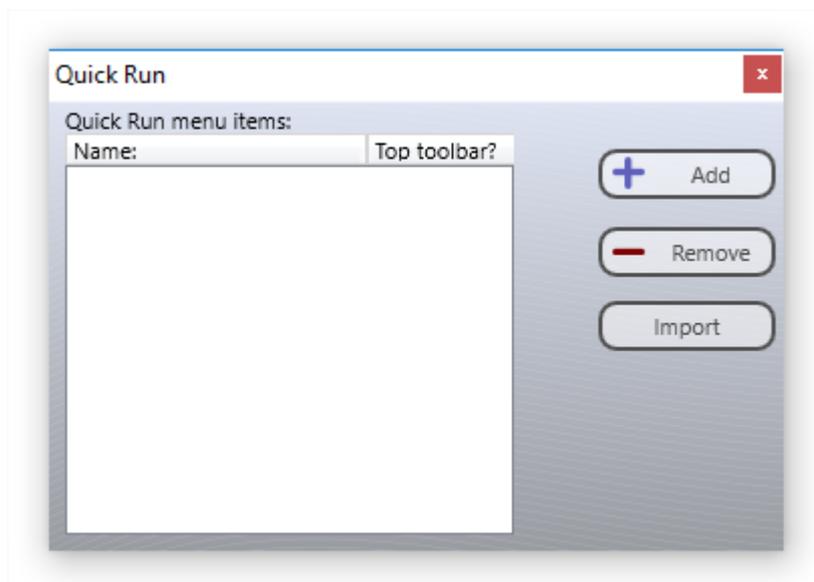
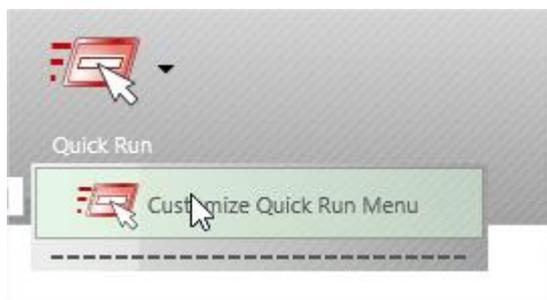
If "Keep restriction active after restart" option is enabled, the "locked" state will be restored after reboot of the computer, when Net Control 2 Client service starts up. To unlock the computer, use the teacher module. If you have any issues with this mode on student computers, reboot the computer in the "safe mode" and correct settings, or contact us for additional information.

Quick Run



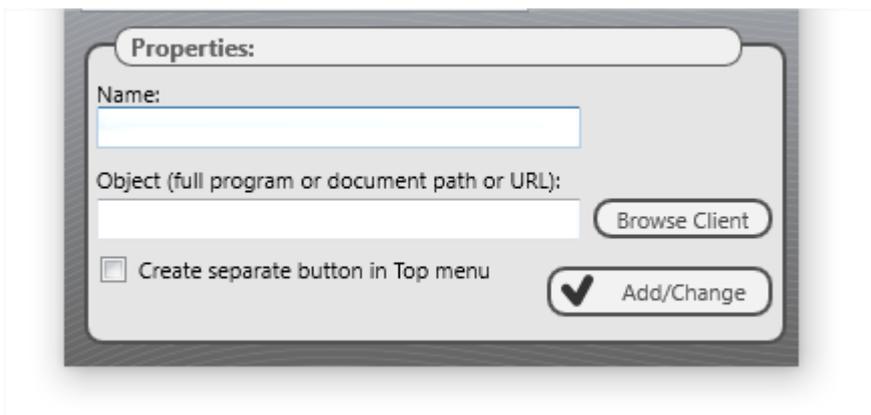
If in your work you often need to run several programs on student computers remotely, **Quick Run** tool may help you to build links for this operation, making possible running often used applications on student computers in 1-2 mouse clicks.

To create quick run links click "Quick Run" button on the top toolbar ("Control" tab), then use "Customize Quick Run Menu" command:

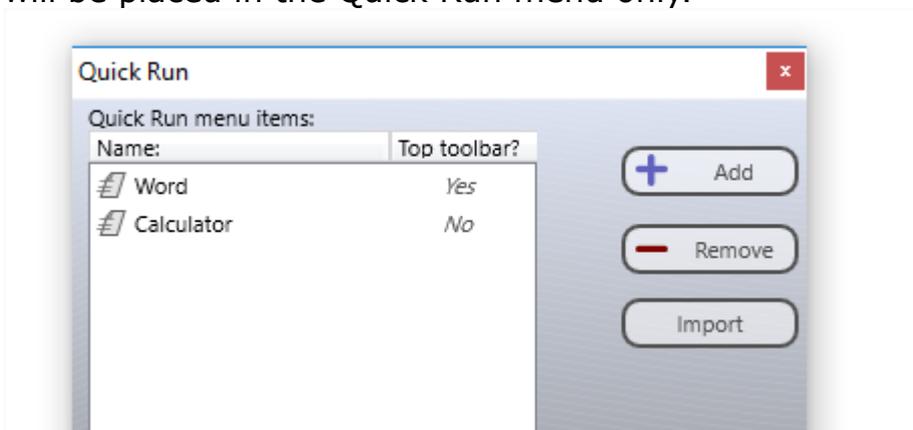


In the Quick Run Menu editor, click **Add** button to add a new item to the list or select an item and click **Remove** button to delete this item from the list.

Adding new Quick Run menu item, you need to specify a name, which will be displayed in the teacher module, and select an object. As the object, you can specify an Internet link (with `http://` or `https://` protocol prefix), a document (with the full file path and name, for example `C:\Users\All Users\Documents\file.doc`), a program module (with the full file path and name, for example `C:\Windows\System32\Calc.exe`) or a program from Start Menu. To select a program from the Start menu, click the **Browse Client** button and select a program from the list (at least one client computer should be selected at this moment in the connection list).



Adding a new item of the Quick Run menu you can also specify its appearance: when **"Create separate button in Top menu"** option is enabled, the item will be displayed on the Top toolbar directly. When this option is unchecked, the item will be placed in the Quick Run menu only.





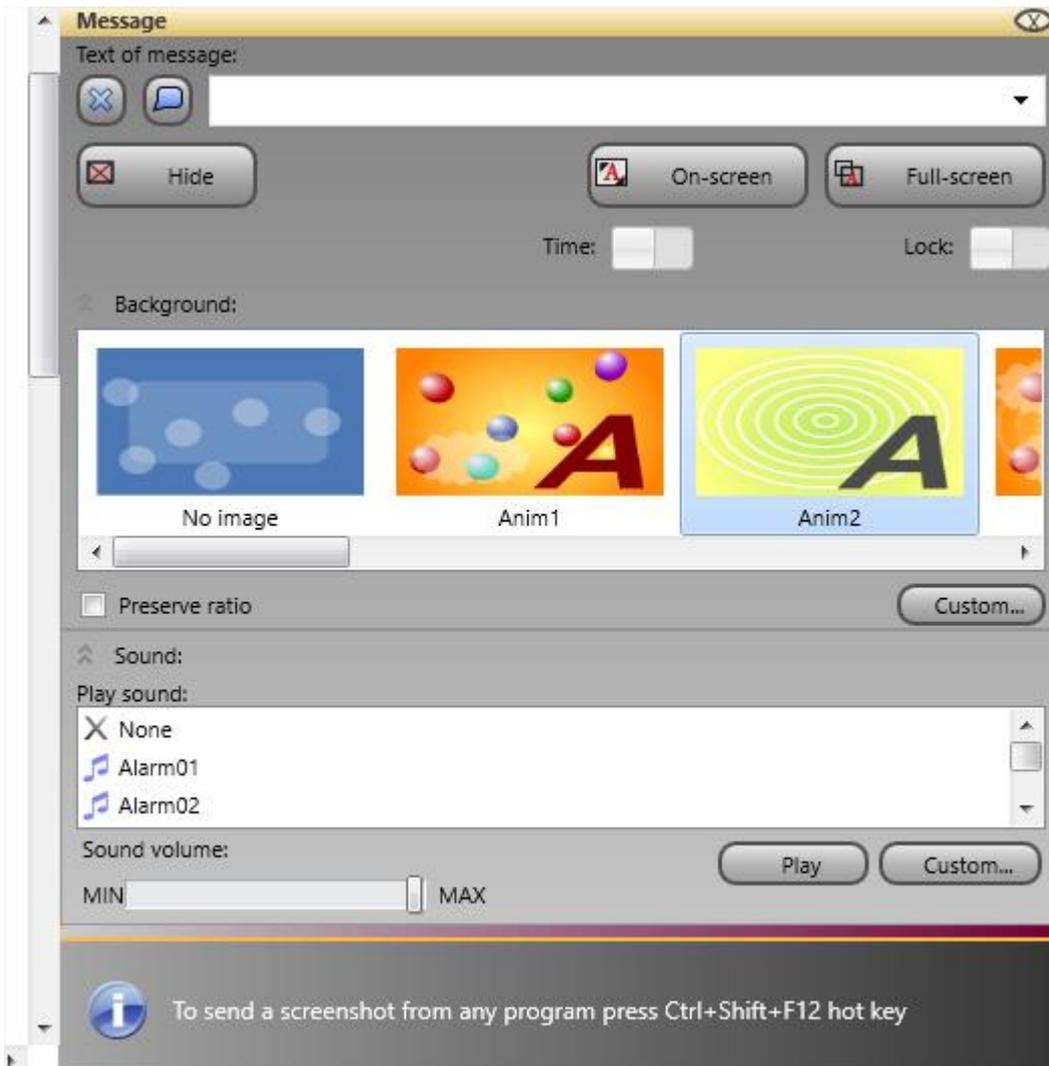
Messages



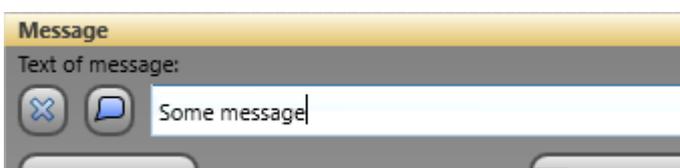
Using **“Messages”** tool you can send text and graphic messages, sounds and use “text-to-speech” features.

To send a message, click **“Messages”** button on the top toolbar:

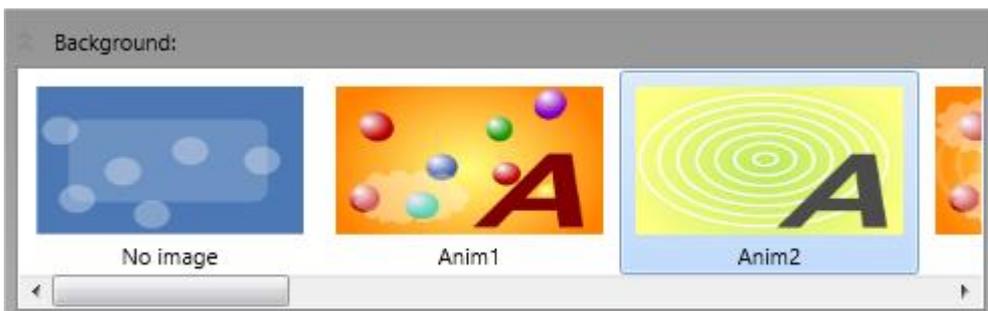




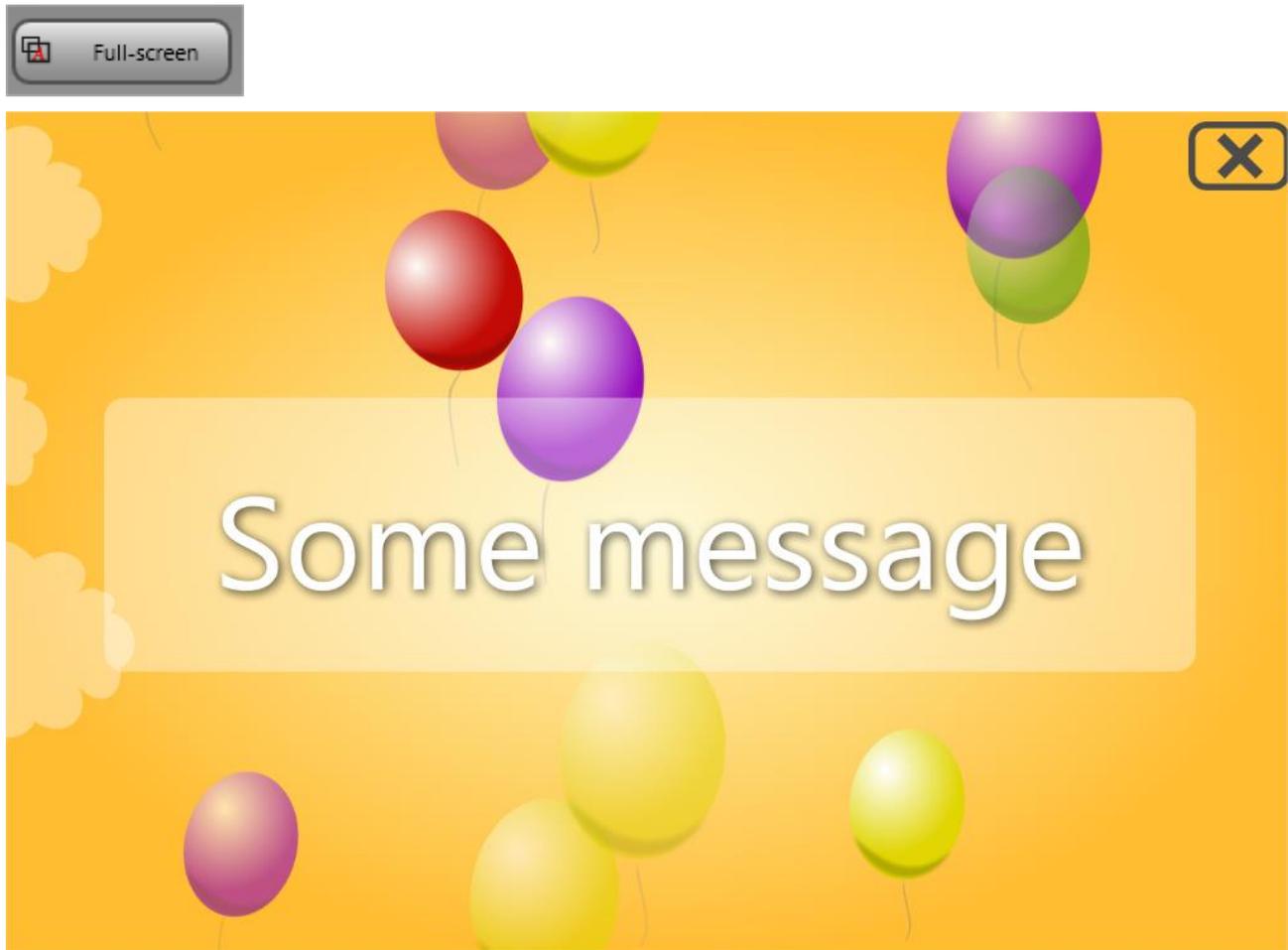
To send a text message, enter the text in **“Text of message”** field:



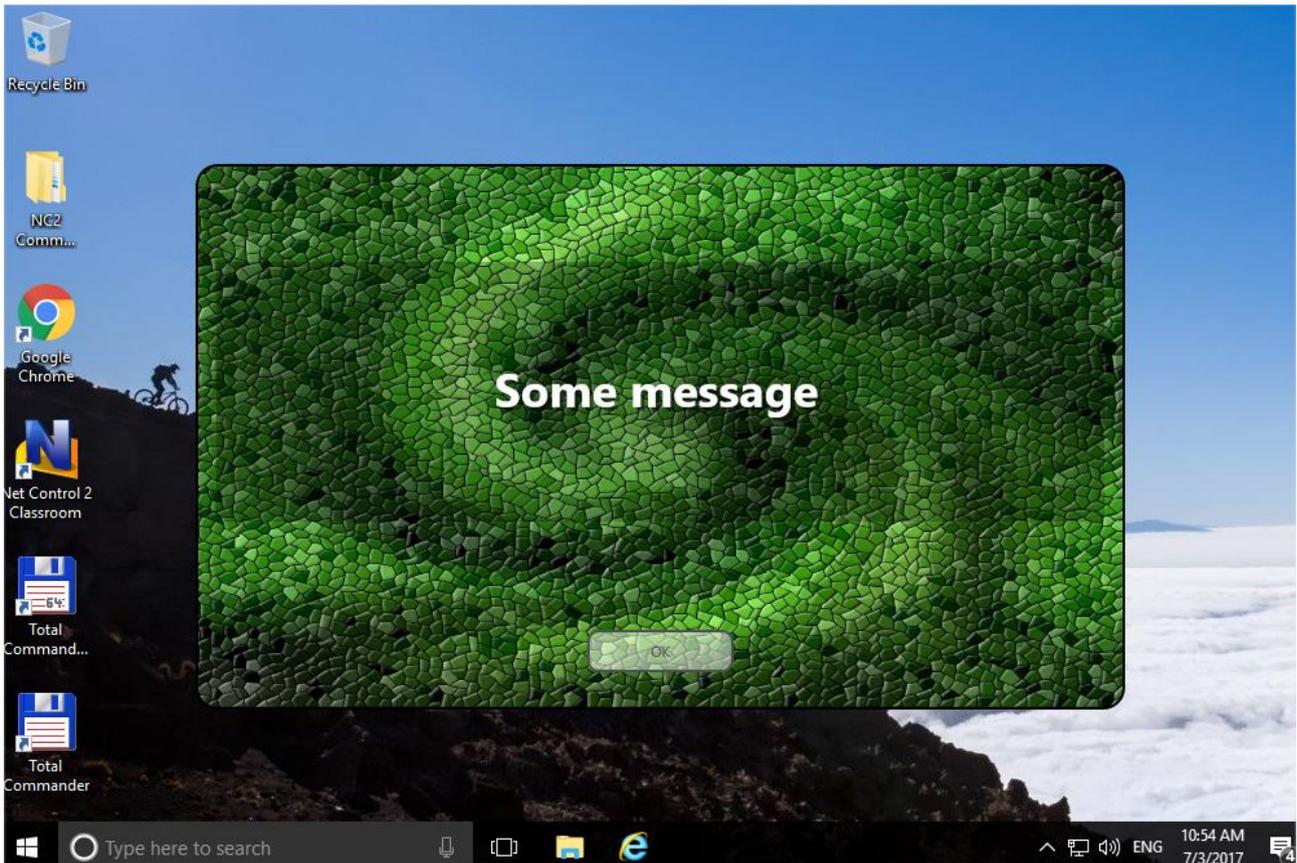
Optionally, you can select a background in the list of backgrounds:



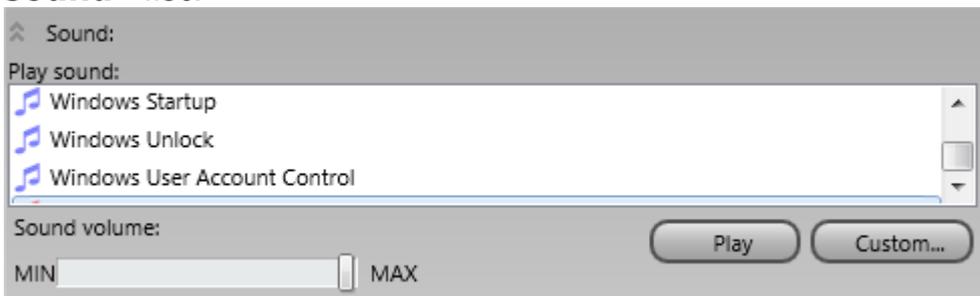
To send a full screen message, click **“Full-screen”** button:



To send a windowed message click "**On-screen**" button:



To play a standard or custom sound together with the message, use **“Play sound”** list:



Click **“Custom”** to select a custom sound (.WAV and .MP3 formats are supported), click **“Play”** to play the sound on the teacher computer.

Using **“Sound volume”** slider you can adjust the sound volume level on student computers before sending the message.

Using **“Time”** selector you can enable time-limited messages:



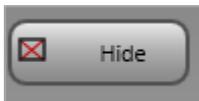
the message will be automatically closed after the specified time interval, in seconds.

If **“Lock”** option is enabled, students cannot close the message window themselves:



This option is intended for use for “time-limited” messages. If the sent message is not “locked”, students can close it just by clicking the message window.

Click **“Hide”** button to hide the message on student computers.



Use **“Say”** button to pronounce the text on student computers, using Windows Text-to-Speech features:

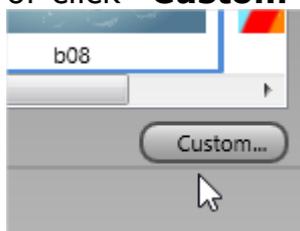


To clear the history of sent messages, use **“Clear history of text messages”** button:



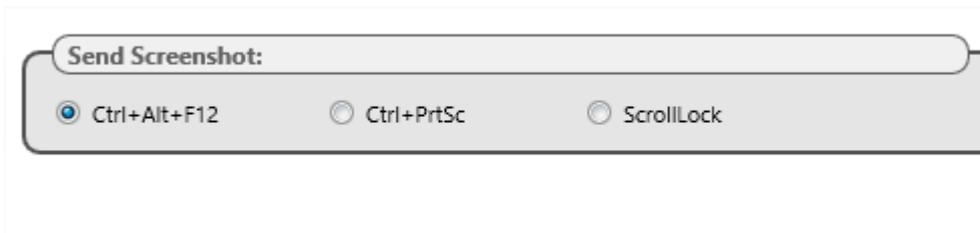
To send and show a graphic image from file, either:

- **drag-drop** the file to the teacher console window;
- or click **“Custom”** button in the backgrounds list, open the file:

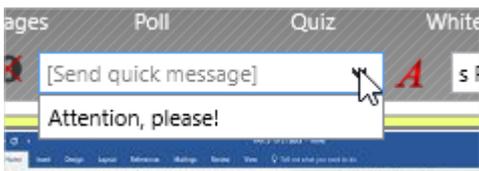


To send a screenshot from any external application, press **Ctrl+Alt+F12** hot

key (the key combination may be re-assigned in the teacher module settings **N** – **Options** – **Options; “Hot Keys”** page:



To send a text message outside of **“Messages”** tool, you can use **“Send quick message”** list on the top toolbar:



Or **“Message”** button of the thumbnail’s menu:



Poll



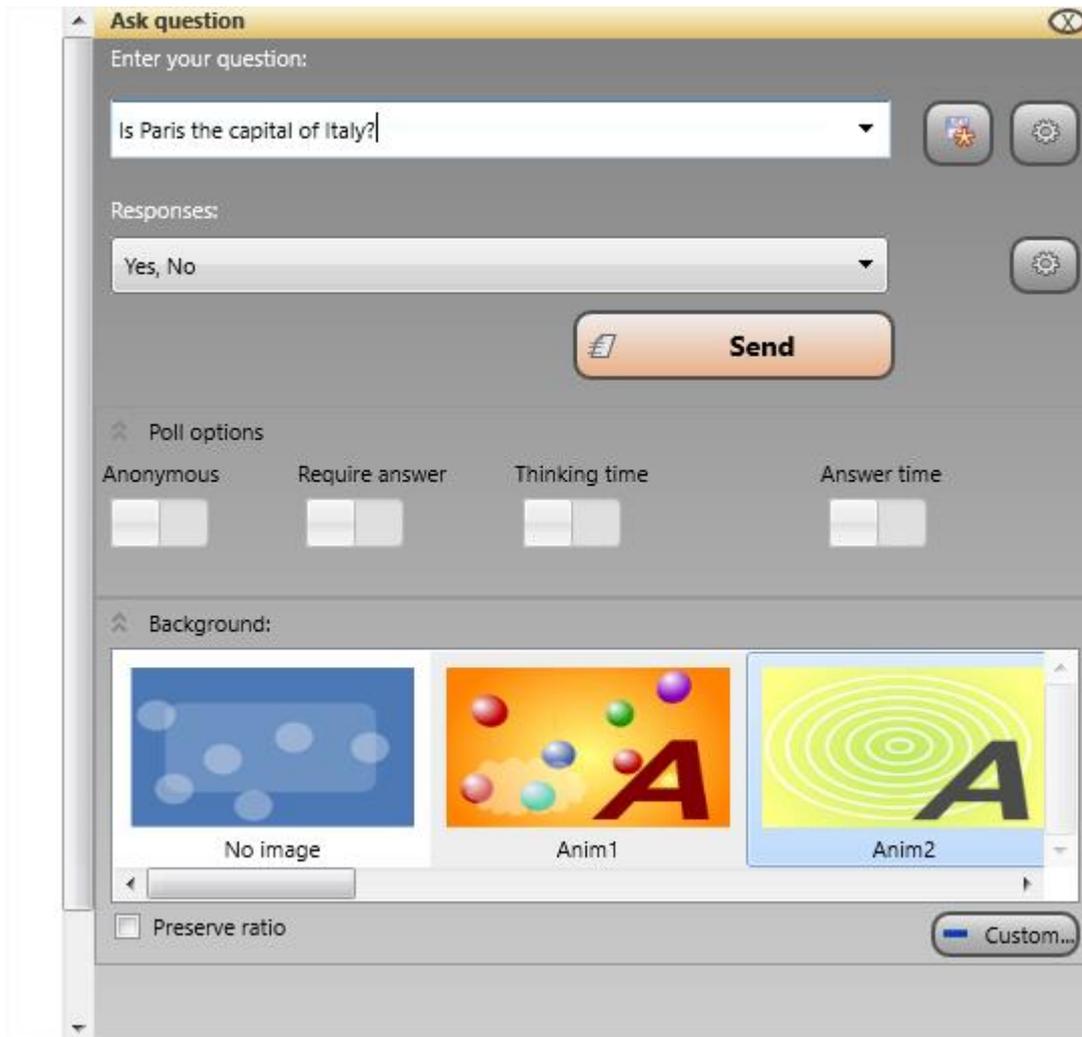
With Poll tool teachers can ask students questions in a couple of clicks, get answers and detailed statistics per each student.

To create a poll, click Poll button on the top toolbar (“Messaging” tab):



Enter your question in the top field of the appeared panel, select a type of possible answers (Yes – No, Yes – No – Maybe, Yes – No – Don’t know) or use “Custom” type and specify a list of custom answers (up to 4):





Optionally, you can select a background for the question and customize the poll options:

Anonymous – poll results are anonymous; the teacher gets only common statistics per each answer. When disabled, the teacher can see answers given by each student.

Require answer – if enabled, students cannot close the poll window and must give some answer.

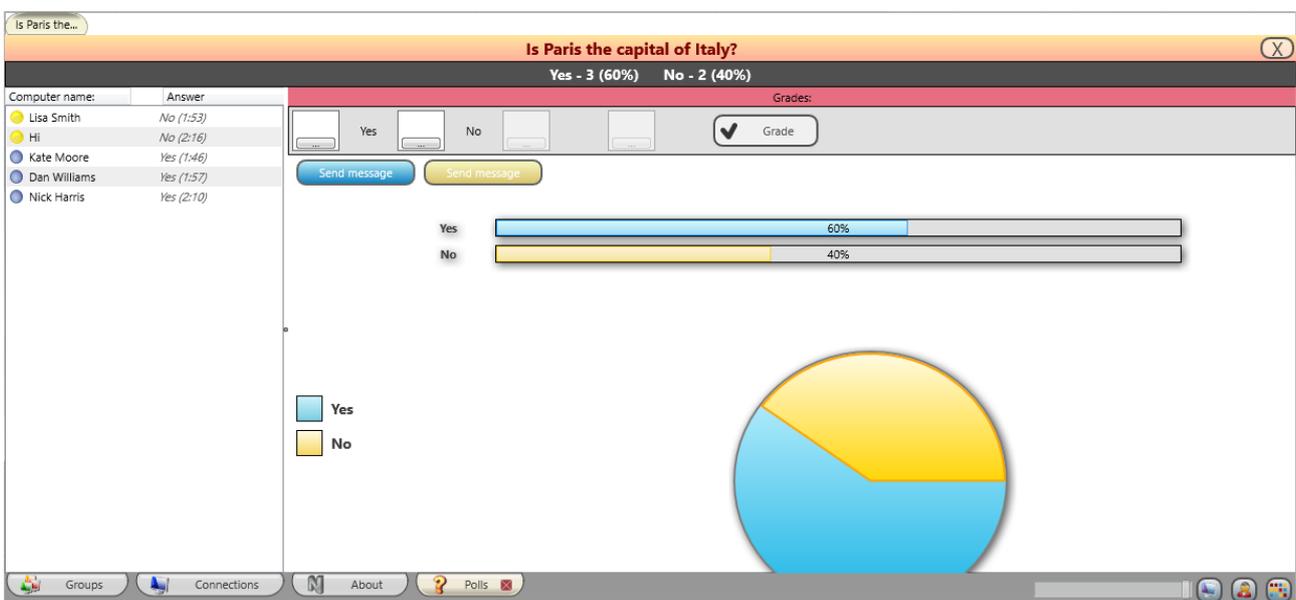
Thinking time – you can set up a time interval, in seconds, within this time, students can see the question and think on it, but cannot answer it.

Answer time – you can set up a time, in seconds, for the question. After this time, the poll window automatically closes.

To run the poll, click **“Send”** button.



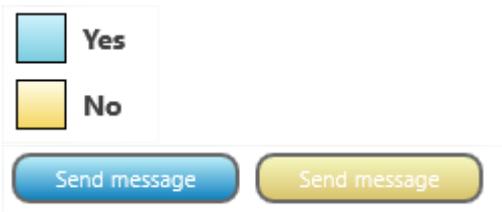
After students make an answer, a new Polls tab appear at the bottom of the teacher console:



The window contains a list of students, arranged by their answer and the answer

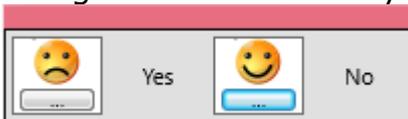
time. For anonymous polls, only common statistics for all students are provided.

Using "Send Message" block:



you can send message to groups of students that gave first or second answer

Using "Grades" section you can grade students depending on the answer given:



The thumbnails on Connections tab show special icons with poll results: the answer is color-coded, numbers mean a place in the competition (lesser numbers mean faster answer).



To reset the poll icons on thumbnails, use "Reset signs" button on the top toolbar:



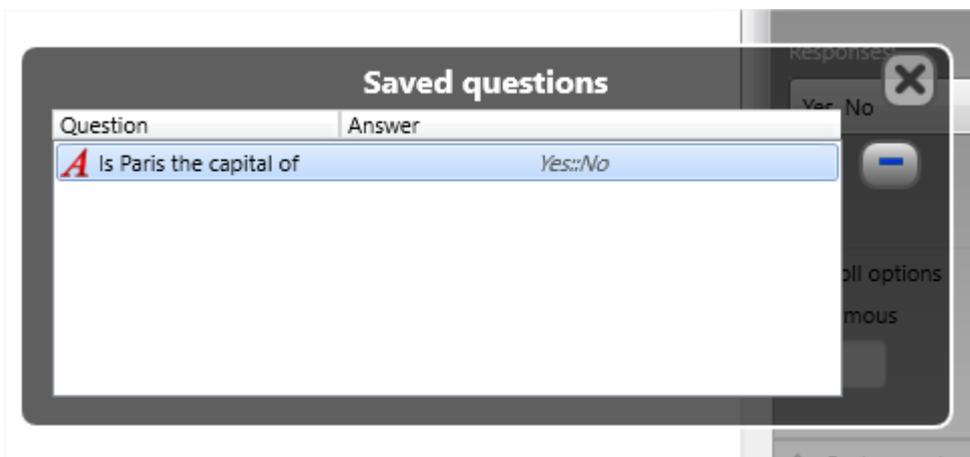
Before sending a question to students you can save it for use in future:



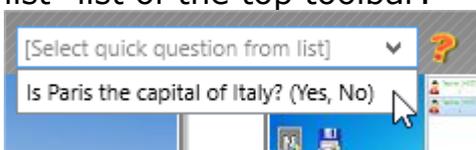
Click "Save question" button to save the question, click "Manage questions"



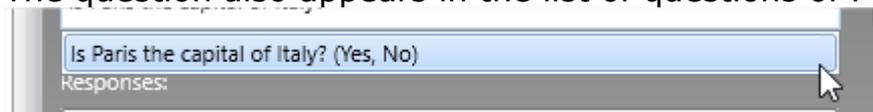
to manage the list of saved questions.



When a question is saved, you can send it in a click using "Send question from list" list of the top toolbar:



The question also appears in the list of questions of Poll panel:



Quiz Tool

Using Quiz tool and associated features teachers can create, deploy and manage interactive quizzes.

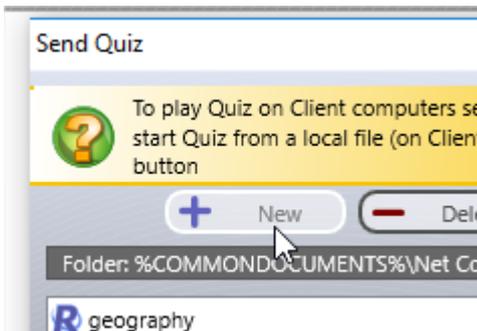
As an example, the standard installation of Net Control 2 software includes two samples of quizzes, we recommend to run and/or edit them to familiarize with quiz features of the software.

Quiz constructor

To create a new quiz, click Quiz button on the top toolbar:

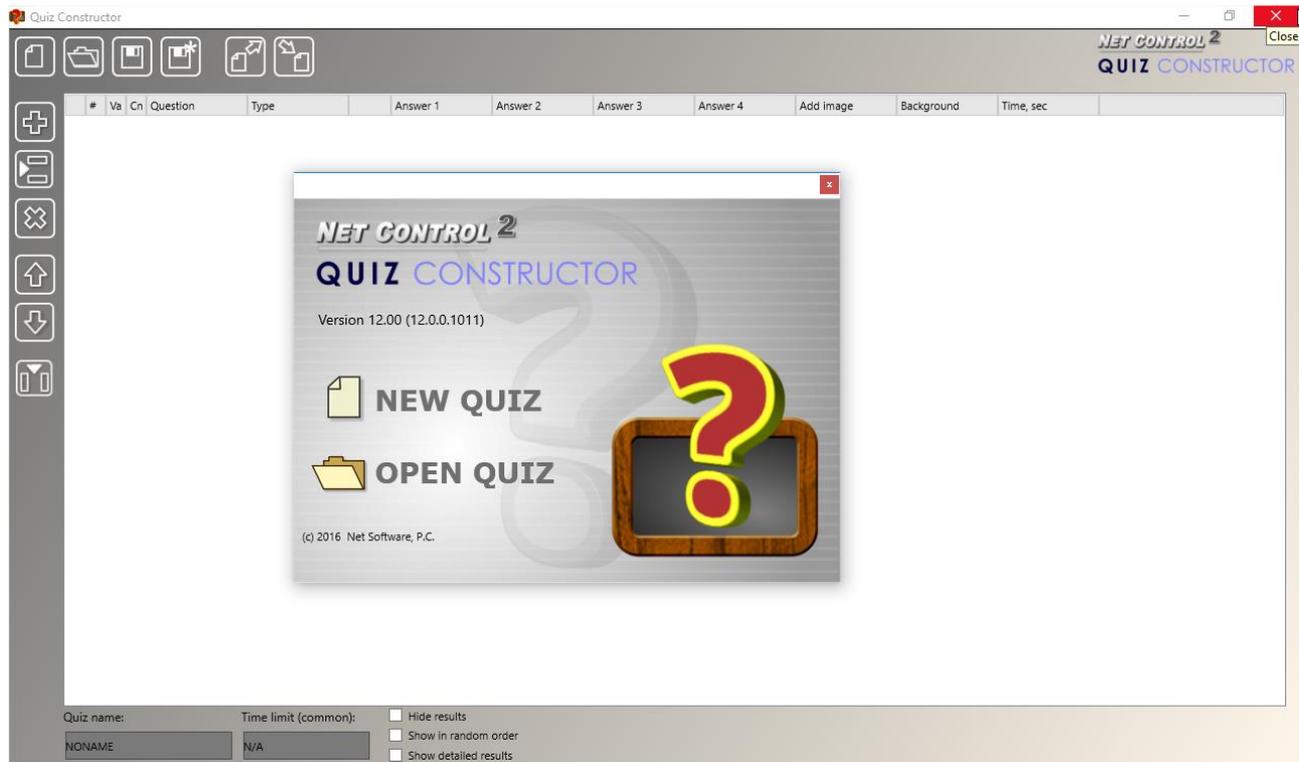


then click "New" button in "Send quiz" dialog:



Alternatively, you can use "Quiz Constructor" menu command of Quiz button's submenu (of the top toolbar):





To create a new quiz click **“New Quiz”** button, to open an existing quiz, click **“Open Quiz”** button.

In Quiz Editor:



New Quiz – creates a new quiz

Open – opens a quiz from a file

Save – saves the currently opened quiz to a file

Save as – saves the quiz under some new name

The left toolbar:



- Add a new question and put it to the bottom of the list



- insert a new question before the currently selected question



- delete the selected question



- move the selected question upper/lower.



- insert an answer, by default the quiz constructor assumes up to four possible answers per a question, using this button you can add as many extra answers for a question as you need.

#	Var	Cmpx	Question	Type	Answer 1	Answer 2	Answer 3	Answer 4	Add image	Background	Time, sec
<input type="checkbox"/>	1	0		One correct a	< 0 >	< 0 >	< 0 >	< 0 >	...	?	N/A
<input type="checkbox"/>	2	0		One correct a	< 0 >	< 0 >	< 0 >	< 0 >	...	?	N/A

Each row of the Quiz editor table represents one question. The most of the question parameters may be set up using the table.

Var (“variant”)– using the variants, you can prepare separate sets of questions for different groups of students within one quiz.

For example, within one quiz, you can create a set of questions A, B, C and assign them the variant “1”, then also questions D, E, F for the variant “2”. After sending the quiz to a group of students, you can assign a variant for the quiz session; setting up the variant “1” for the selected group of students, you will make that only questions A, B and C will appear. Sending the same quiz with the variant “2” as the option, you will make that only the questions D, E and F will appear.

Use of the “variants” is entirely optional. If you need to prepare one single quiz for all students of a class, you can leave this field blank or “0” as the default value.

Variants are numeric positive values.

Cmpx (“Complexity”) – an extension of the “variants” described above. The complexity is a string value that describes a complexity of the question. For example, you can prepare questions A, B, C, D with complexities 10, 20, 30 and 40 respectively. Sending the quiz to a group of students, you will be able to specify the complexity level for the quiz session. Setting up the complexity level 25 for the session, you will make that only questions C and D will appear on the student computers (as having complexities 30 and 40 respectively,

which are bigger than 25).

Use of the complexity parameter is optional.

Question – a text of the question.

Type – a type of the question:

One correct answer – a list of possible answers will be provided to a student, and only one answer from the list is correct.

Several correct answers – a list of possible answers will be provided to a student, and the student can select several correct answers from the list.

Text answer – no possible answers will be displayed to a student, the student should enter the correct answer in a text field, the system then will compare the entered answer with a list of correct answers provided together with this question in the quiz and will add points only if the given answer corresponds to one of the answers specified in the quiz.

Custom layout – a custom layout question, as described below. You can create questions with any custom set of quiz elements on the question form.

Answer 1, 2, 3...N – possible answers for the question.

The screenshot shows a table with two columns. The first column is labeled 'Answer 1' and contains the text 'my answer'. The second column contains the number '3' with left and right arrow buttons, indicating the number of points for this answer.

Answer 1	
my answer	< 3 >

in the left field of the column you can enter an answer (double click to edit the field), at right of the answer you need to specify how many points should be given to the student if s/he select this answer.

Add image – optionally, in this field you can specify a graphic image that will be displayed together with the question.

Background – you can select a custom background image either from a list of built-in images or a from a file. This parameter is optional, if not set, a random background will be used.

Time – a time limit for the question, in seconds. Optional, if not set, the answer time is not limited.

Custom layout questions

As a type of a question you can use the “**custom layout**” type. With this type you construct the question page layout yourself, using a set of available quiz

elements.

To create the custom layout question, in the question row select “**Custom layout**” as the question type, then click “**Edit**” at right of the type:

Question	Type		Ans
	Custom layout ▼	Edit	my a
	One correct answer ▼		

At next step, you will be able to select a template for the question:

Check boxes – a list of answers, several answers in the list may be correct.

Radio boxes – a list of answers, but only one answer of the list is correct.

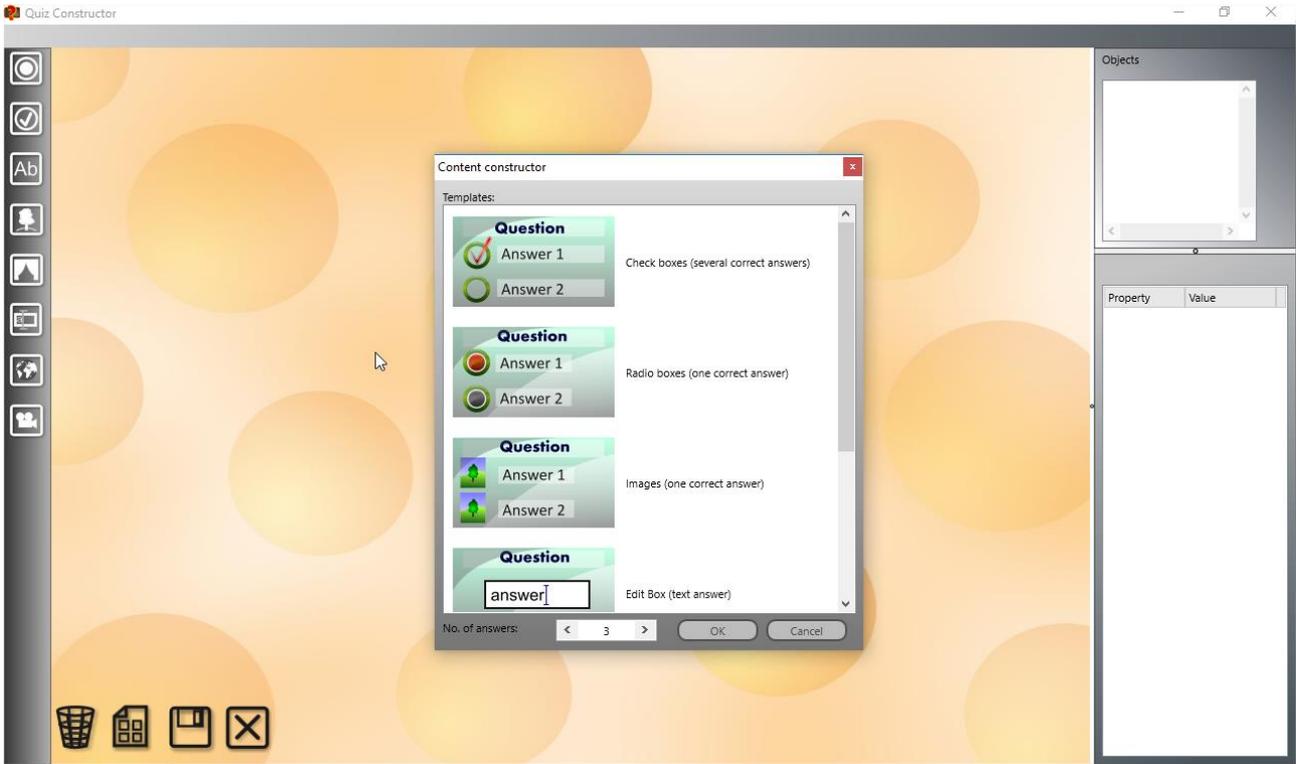
Images – a list of images, one answer only is correct. Students need to click one of the images to give the answer.

Edit box – an input field (the edit box) will be displayed, the answer should be provided in text form, you need to provide together with the question a list of all possible correct answers.

Check boxes with image – the same as “Check boxes” with an image displayed at right side of the screen.

Radio boxes with image – the same as “Radio boxes” with an image displayed at right side of the screen.

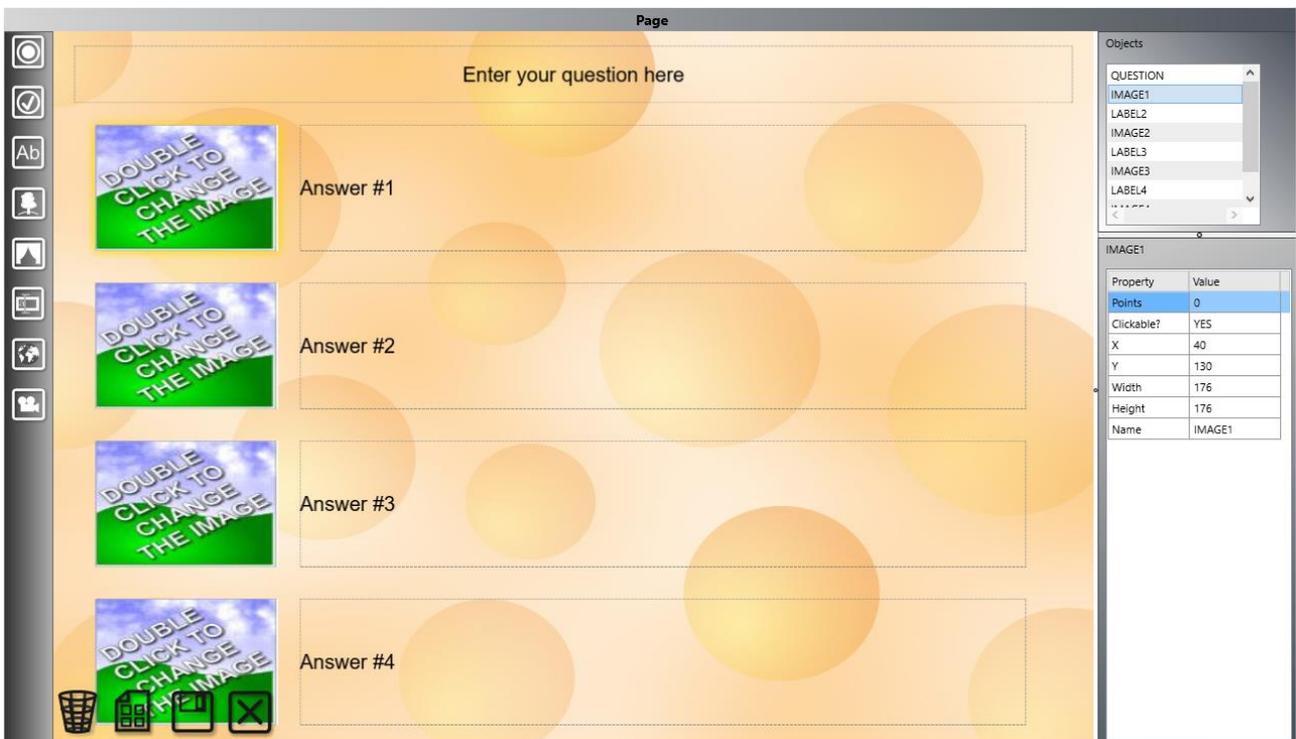
After you select the template, at the bottom, you can specify a number of possible answers for the question (when applicable to the type of template).



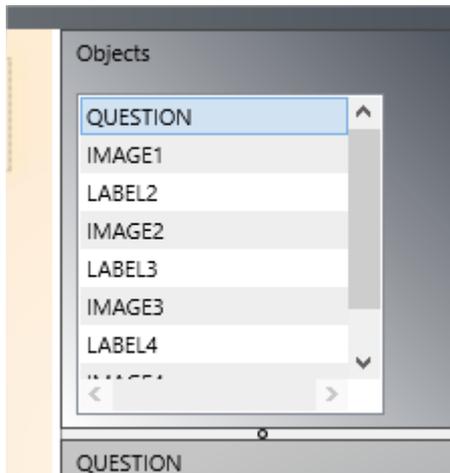
Use of the templates is optional, click **Cancel** button in the template constructor to create your own layout.

To edit a text of any text element, click it, type the text.

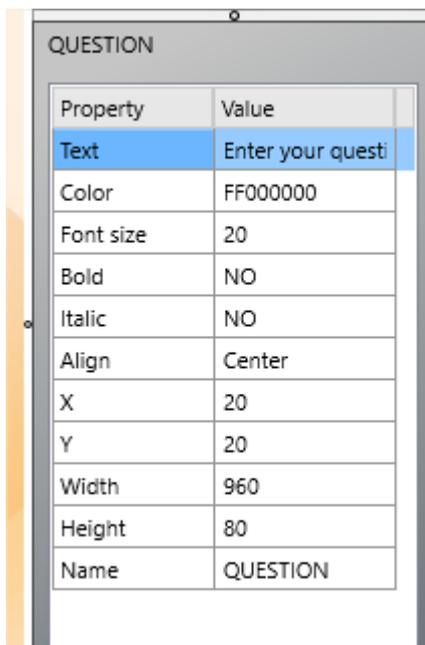
To change an image, double click the image element and choose a file.



A list of available objects on the question page is available in the top-right hand corner of the window:



To change properties of an object, select it in the list, change its properties in the list below:



Property	Value
Text	Enter your questi
Color	FF000000
Font size	20
Bold	NO
Italic	NO
Align	Center
X	20
Y	20
Width	960
Height	80
Name	QUESTION

To delete an object on the page, select it and press Delete on the keyboard or click "Delete" button on the bottom-left hand corner of the page:



To change the template, if was incorrectly selected, use "Select template" button:



To accept all changes and save the page use "Save" button:



To cancel the question creation, use "Cancel" button:



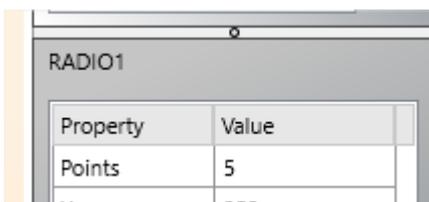
On the custom layout question pages you can add as many elements as you need, using the left toolbar:



- Radio button – assumes only one correct answer on the page. The added on the page element looks as follows:



If the element designates a "correct" answer, you need to add a positive number of points for the element in Properties panel:



After that the "correct" button will appear on the constructor page as follows:





- a "check box" or "multi-select" button. Similar to the "radio" button described above, but assumes several correct answers on one page. In the same manner, as above, you need to add a positive number of points in Properties panel for a correct answer:



- Label, any text label that shows some text on the page. Labels do not have points, they are intended only for use as a description for other elements.



- Image, a custom image from a file. To edit the image in the page constructor, double click it. Images may be used as answers, in this case, you need to enable "Clickable" property for the image in Property editor:

Property	Value
Points	0
Clickable?	YES
X	620

When the "clickable" option is enabled, students can click the image as an answer for the question.



- Background. Here you can assign a custom background for the page.



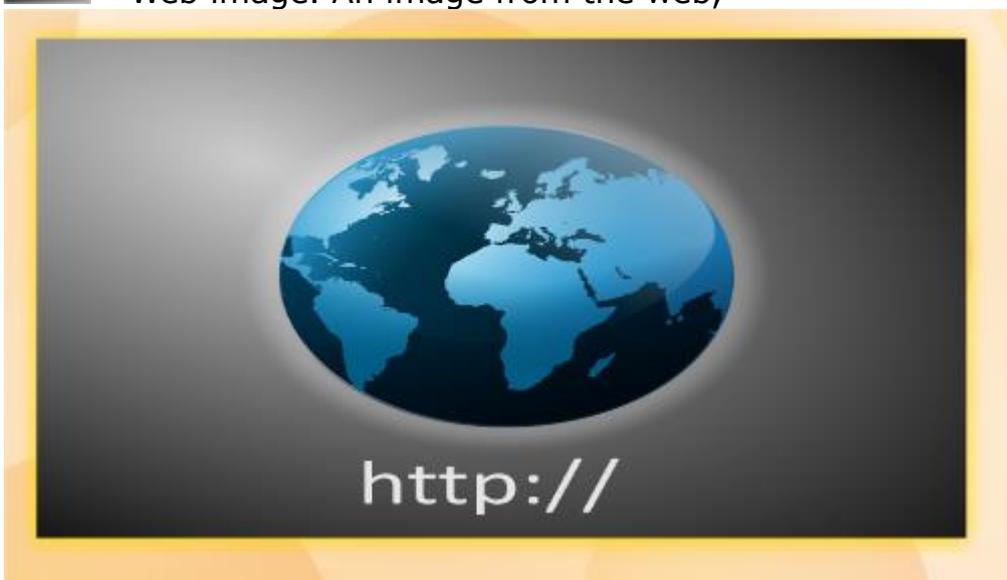
- Edit. The input field, students can enter an answer for the question in this text field, then the system will compare the given answer with the list of possible answers, and will add points only if the given answer is found in the

list. Therefore, you need to provide a list of all possible correct answers in Properties panel for the element (up to 9 answers allowed):

Property	Value
Points	0
X	243
Y	482
Width	500
Height	50
Name	EDIT1
Case-sensitive?	NO
Answer1	
Answer2	
Answer3	
Answer4	
Answer5	
Answer6	
Answer7	
Answer8	
Answer9	



- Web image. An image from the web,



in Properties field you need to provide a URL for the image in the web:

WEB1

Property	Value
URL	
X	68
Y	501
Width	450
Height	350
Name	WEB1



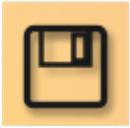
- Media object. A sound, audio or video file that may be played with the system media player. In Properties of the object, you need to specify a path to the multimedia file.



MMEDIA1

Property	Value
File	
AutoPlay?	NO
X	73
Y	507
Width	450
Height	350
Name	MMEDIA1

After the custom layout is created, save it using "Save" button:



Quiz Options

Before saving the quiz, you can set up additional parameters:

Quiz name:	Time limit (common):	<input type="checkbox"/> Hide results
NONAME	N/A	<input type="checkbox"/> Show in random order
		<input type="checkbox"/> Show detailed results

Quiz name – a custom quiz name that will be displayed in quiz player and other reports. We recommend to assign a unique quiz name to every quiz you create.

Time limit – the total time limit for the whole quiz, in minutes.

Hide results – if enabled, students will not be able to see results of testing.

Show in random order – the quiz answers will be displayed in random order.

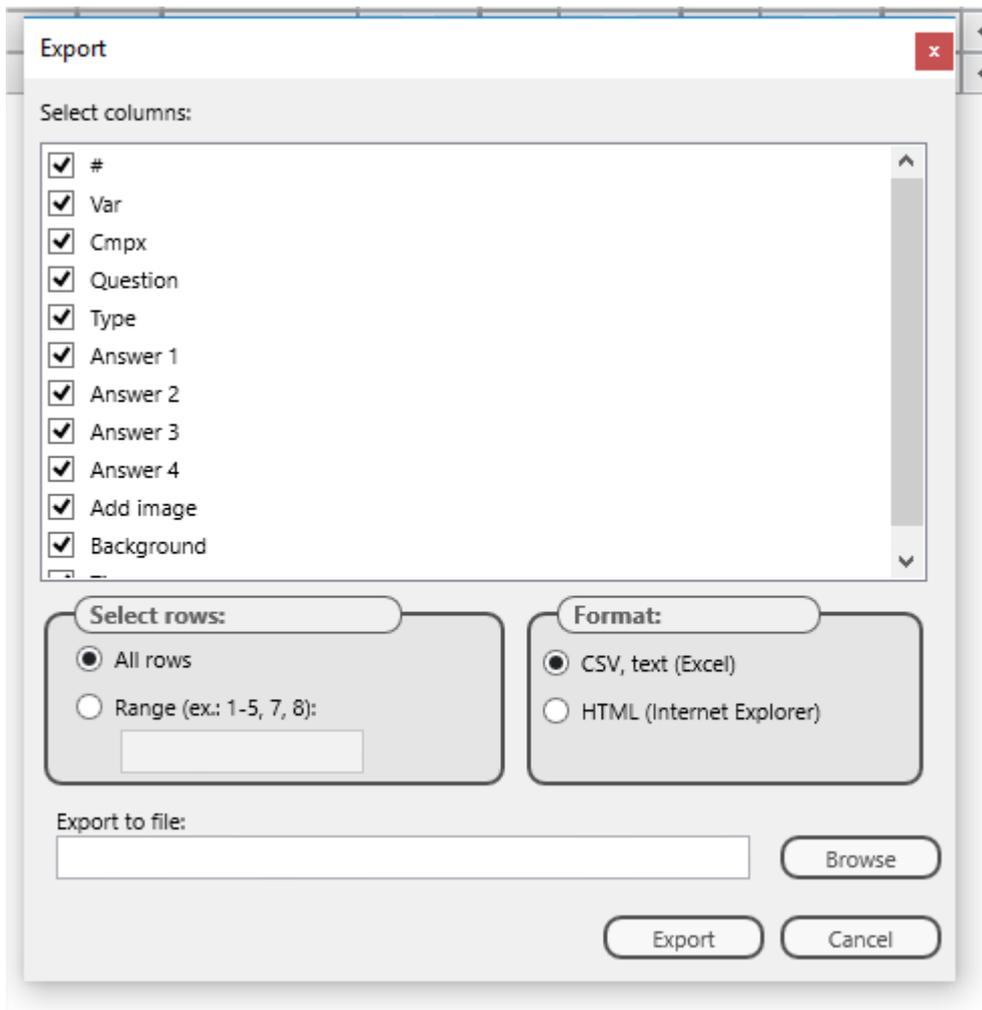
Show detailed results – shows detailed results of the quizzing to students, including a list of answers, given and correct questions with respective points assigned.

Quiz Constructor Export/Import

You may need to export the list of prepared questions and answers to an external program for processing, storing or output.

To export your quiz, in Quiz Constructor click Export button on the top toolbar:



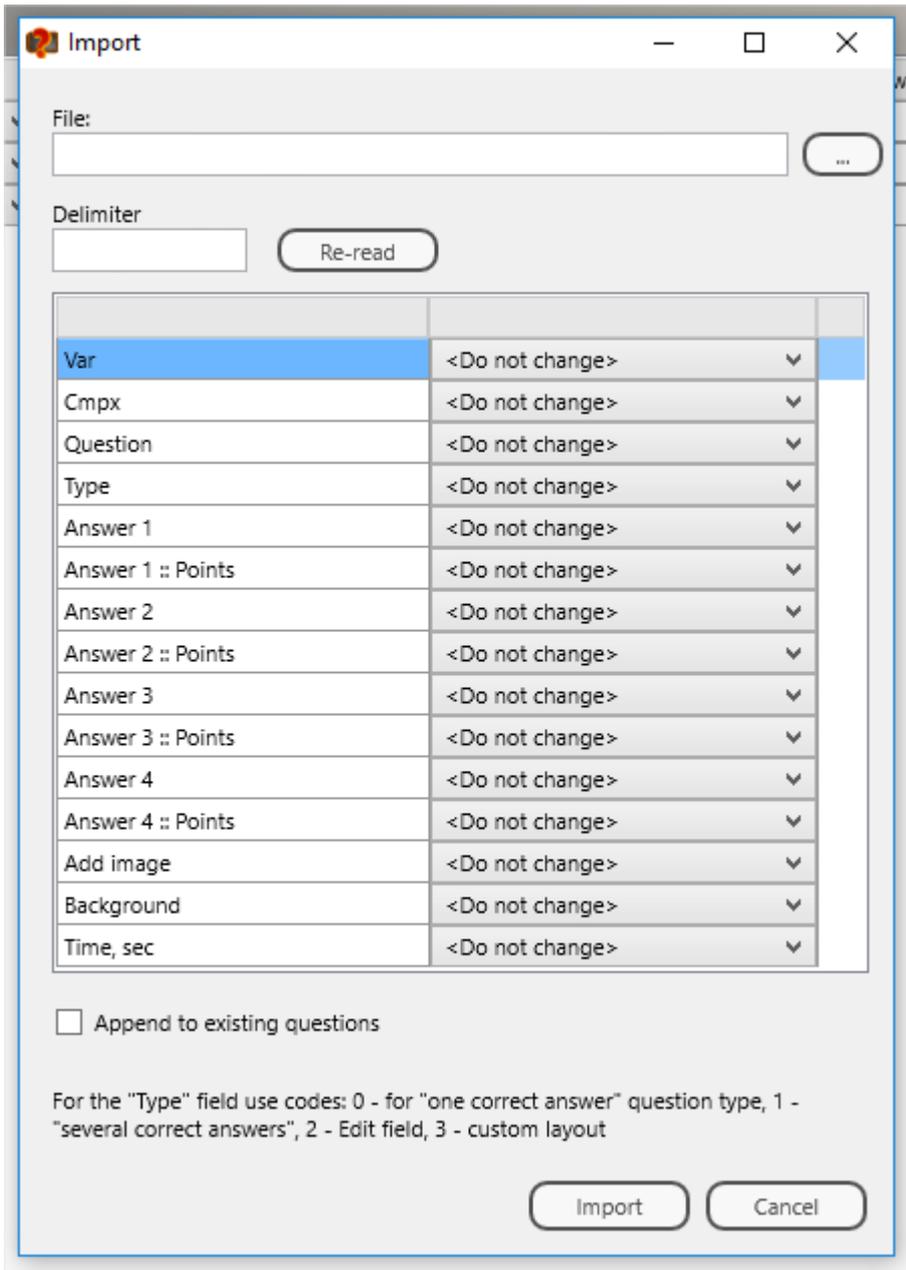


After that you can select columns that should be exported, number of rows for export, the output file format: CSV for post-processing in a spreadsheet editor like Microsoft Excel or OpenOffice Calc; HTML - for displaying in a browser, printing or processing in external programs and editors like Microsoft Word or OpenOffice Writer.

Alternatively, you can use external programs like Microsoft Excel to prepare a list of questions in Excel, then import it to Quiz Constructor using built-in Import tools.

To import a file, in Quiz Constructor click Import button on the top toolbar:

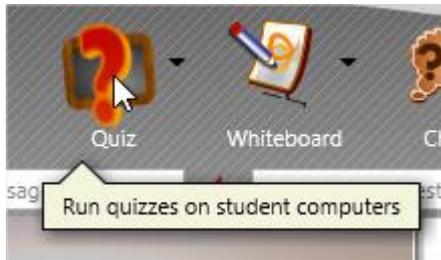




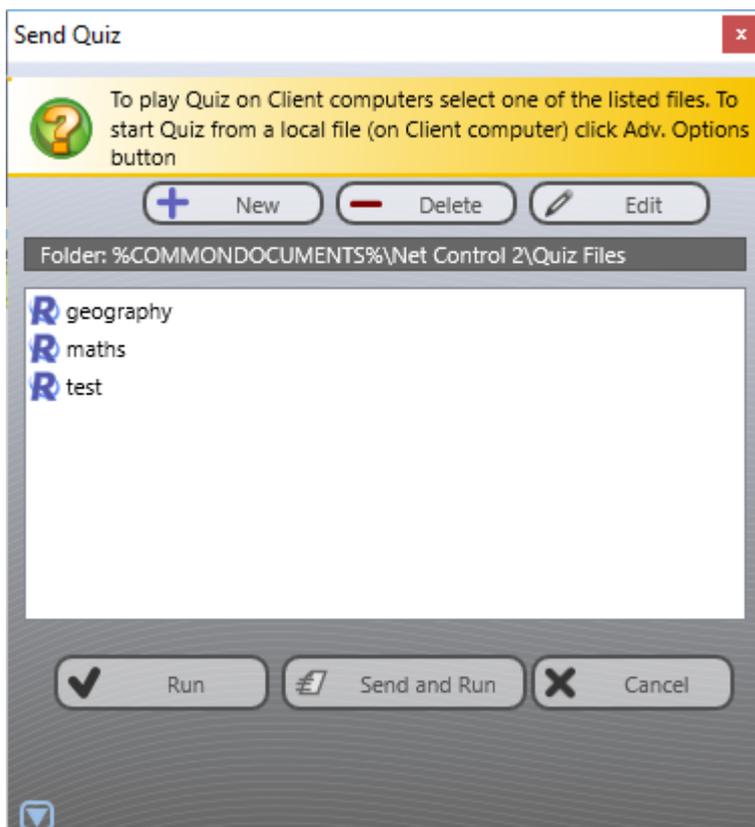
Then open a CSV formatted file (when necessary, specify the used CSV delimiter in the respective field). Specify what column of the imported CSV file corresponds to a column of the quiz table: double click the field at right of "Var" string of the form and select a column of the CSV file that corresponds to the "variant", repeat for other columns. If you miss some columns, they will be filled in with a default value.

Quizzes

To run a quiz on student computers, select them, click Quiz button on the top toolbar:



Select a quiz form the list:



Click **Run** button to run a quiz from a local file on student computers, i.e. the quiz should be copied to student computers beforehand.

Click **Send and run** button to send the selected quiz to students and run it then there. Use this option, if files are not present on student computers.

Click



to get access to additional options:



Send from file – you can select a file on your computer, which will be sent to students and the quiz is started from this file then.

Use other folder – you can specify a path to any non-default folder, where the quiz files are located.

Specify file on User computer – you can specify a full path to the quiz file on student computers.

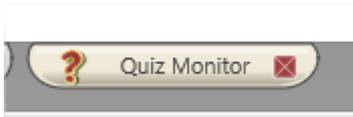
Copy content to User computers – copies quizzes from the currently opened folder to student computers. Please note, for large quizzes, the operation may take some time. After this command is performed, you can use **“Run”** button to initiate a quiz.

After running a quiz on student computers, the following splash screen appears on them:



In the teacher console a new “Quiz Monitor” tab appears at the bottom of the

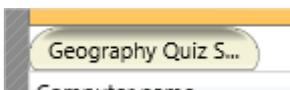
toolbar:



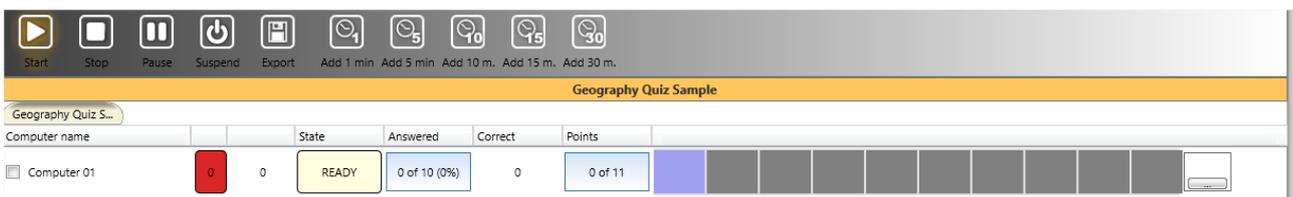
The Quiz Monitor panel provides access to quiz options and controls,



a list of quiz statistics grouped on tabs at the top of the quiz panel, one tab per quiz:



Each quiz tab contains a list of students with respective per-user statistics:



On the Quiz toolbar:



(Start) – runs a quiz for selected computers, only if not started.



(Stop) – stops a running quiz for selected computers.



(Pause) – interrupts a running quiz, but not closes it; students cannot see the current question, nor answer it.



(Suspend) – suspends a quiz, the current quiz progress, state and statistics will be stored on student computers, and the quiz is closed. At any moment later the teacher can resume the quiz using “Resume suspended quiz” menu command of Quiz button’s sub-menu:



(Export) – exports the current quiz statistics to CSV or HTML file. CSV files may be then imported to a spreadsheet editor (Microsoft Excel, OpenOffice Calc); HTML files may be printed or imported to text editors.



- Adds 1, 5, 10, 15 or 30 minutes to a time-limited quiz.

After a quiz is sent to student computers, the sent quiz status appears as “ready”:



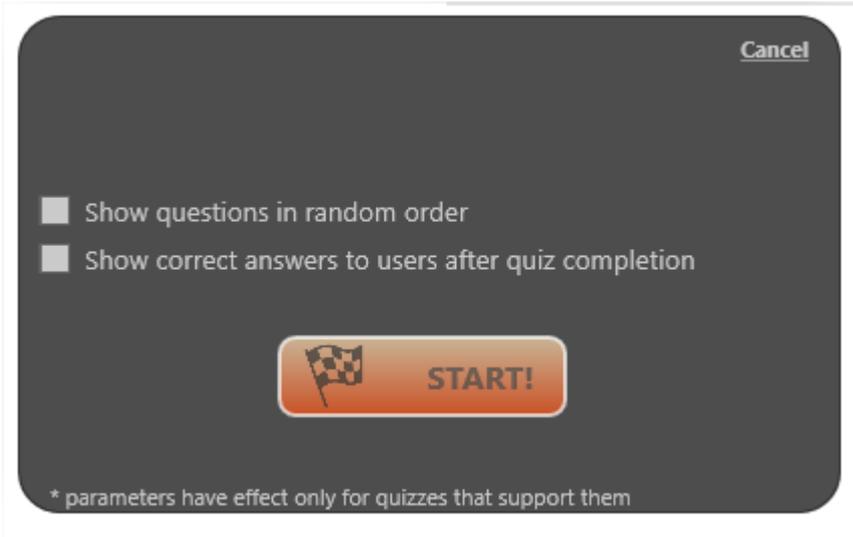
“Start” button may flash slowly:



Click “Start” button to run the quiz. In the appeared window, you can select optional parameters for the quiz. For quizzes that have questions for different complexities or variants, you will be able to select the variant or complexity.

Show questions in random order – enables random order for questions.

Show correct answers to users after quiz completion – if enabled, students will be able to see the full quiz statistics after the quiz is complete: a list of questions, correct and given answers, earned points.



Click **Start** button to run the quiz. The quiz status on the teacher computer should change to "Started":



For each student you can see:

Computer name	State	Answered	Correct	Points
<input type="checkbox"/> Computer 01	0	0	STARTED	3 of 10 (30%) 1 of 3 (33%) 1 of 11

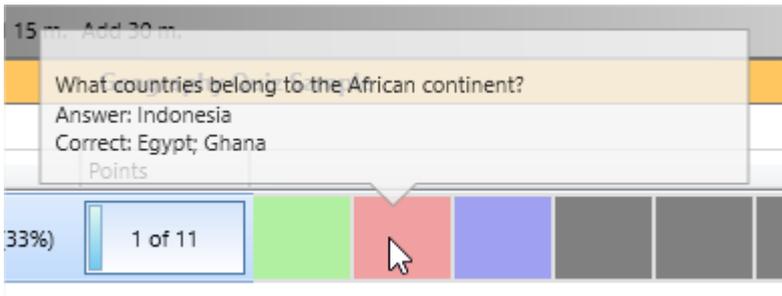
Computer name, the selected variant and complexity, the current state ("ready", "started", "suspended", "paused", "finished"), a number of answered questions (both correctly and incorrectly), a number of correct answers, earned points.

Color-coded per question statistics:



Each square represents one question, a "green" square means the correctly answered question; a "red" square represents the wrong answered question, a "blue" question means the question that is currently displayed on the student computer; a "gray" square means that the question was not visible yet.

Moving the mouse cursor over red or green square you can see the given and correct answers:



Click on the line to get more detailed statistics:

#	Question:	Answer1:	Correct:
1	What is the capital of Italy?	Rome	Rome
2	What countries belong to the African continent?	Indonesia	Egypt; Ghana
3	When it is summer in the United States, what season is it in Australia?		WINTER

At any moment, you can grade students using the button at the right of the statistics:



Whiteboard



Whiteboard is a tool that is intended to replace ordinary school boards, providing teachers with a significantly more effective way to explain lesson material, attractive to students and easy to use for teachers.

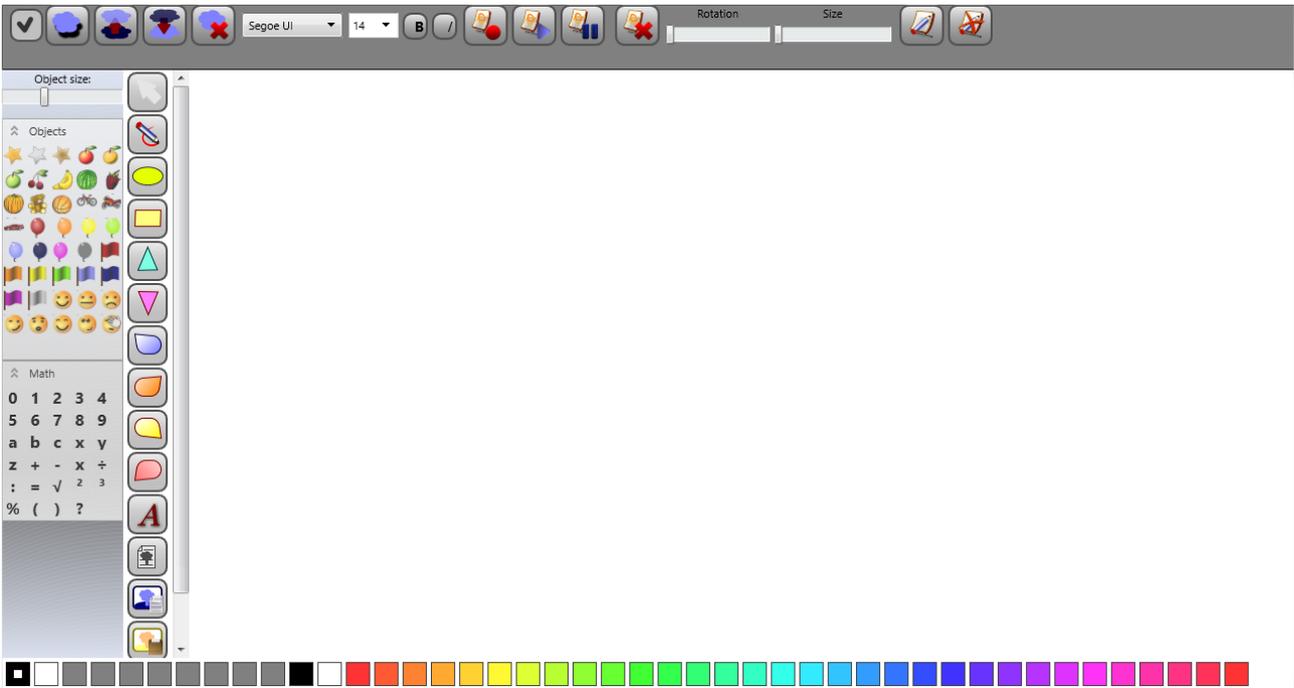
To open the whiteboard, select student computers and click Whiteboard icon on the top toolbar (“Messaging” tab):



The Whiteboard tab should appear at the bottom of the teacher console:



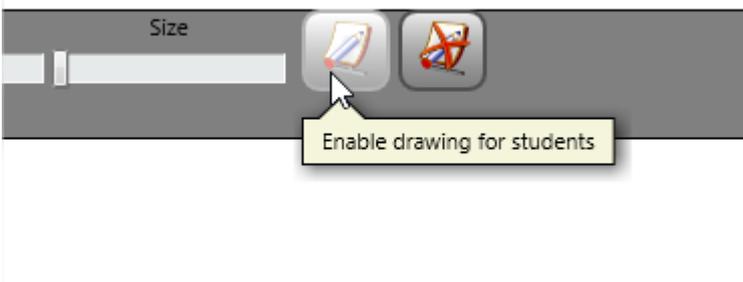
The whiteboard surface is expanded to the whole teacher console window:



Now, any actions performed by the teacher on the Whiteboard, will be reproduced on the student computers.

By default, students cannot draw on the whiteboard, but only can see the actions of the teacher.

The teacher can enable drawing features for any student, using **“Enable drawing for students”** button on the top toolbar of the whiteboard surface



Or using Whiteboard button’s submenu on the main tab of the teacher console:



To disable drawing features for students, use respectively “Disable drawing for students” button of Whiteboard’s surface:



Or “Disable drawing mode” menu command of Whiteboard button’s context menu:



To close a Whiteboard session, just close the Whiteboard tab at the bottom of the teacher console, or use **“Close Whiteboard Sessions”** menu command of Whiteboard button on the top toolbar.

Whiteboard tools:



- select an object on the drawing surface



- Free hand drawing



- draw ellipse



- draw rectangle



- draw triangles



- draw callouts



- type text



- insert an image from a file



- set background of the whiteboard from a file



- paste the background from Clipboard



- capture the background from Desktop (makes a screenshot in 5 seconds after pressing the button).

Object library



At the left side of the whiteboard surface is placed the Object Library, a set of graphic objects, digits and mathematics symbols that you can simply drag and drop to the surface.

For technical reasons, on student computers the drag-drop interface does not work, and instead students need to press the object in the library, it will be inserted in the last drawing position on the screen.

“Object size” slider is intended to set up the default size for inserted from the library objects. Please note, making any changes on the slider, the new size will be applied for new objects only, it does not change the size of objects that are already present on the surface.

Color panel at the bottom of the surface:



May be used to change colors of drawing and filling. First rectangle designates the color of drawing (i.e. the line color for free hand drawing tool, texts, the border color for shapes), second rectangle sets the fill color for shapes.

The top toolbar:



- finishes the current free hand drawing operation

Add a shadow – adds a shadow to the current object.

Move forwards, Move backwards – moves the selected object higher or lower in Z-order position for one level.

Delete – deletes the selected object.

Font parameters – set up the font name, size, style (bold, italic) for the text object.



Rotation – rotates the selected object

Size – changes the size of the selected object



Whiteboard recorder controls:

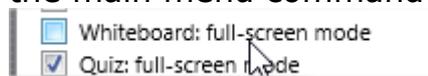
Record – records further actions on the whiteboard to a file for further replay.

Play – replays actions from a previously saved whiteboard record.

Pause – makes a pause in recording.

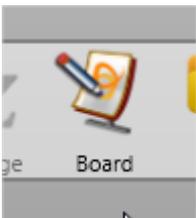
Clear all – deletes all objects from the surface.

The whiteboard window on student computers may be displayed either in the full-screen or windowed mode. To change the mode, in the teacher console, click the main menu command N – Options – Options; on Commands page



enable **“Whiteboard: full-screen mode”** option and click OK.

If the whiteboard window on student computer was closed, to restore the latest whiteboard session and open the window students can click “Board” button in the Student Console:



Chat



Net Control 2 includes several chat features:

Chat, initiated by Instructor:

- select one or more student computers;
- in the **"Messaging"** tab, click the **"Chat"** button



- a new chat session will be started and Chat tab appears at the bottom of the teacher console:



The chat panel contains separate chat tabs for each chat session:



You can change participants of the chat using "Select users" button on the left toolbar:

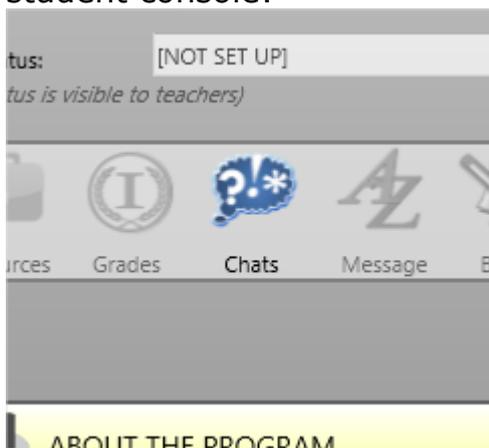


The chat message may be formatted with the controls at the bottom of the chat panel:



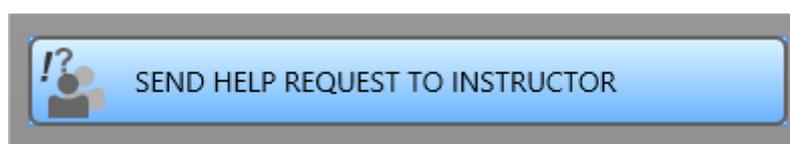
(font styles: bold, italic, underscore; alignment: left, center, right)

On student computers, each chat session is displayed in its individual window, to restore closed chat windows, students need to click "**Chats**" button in the student console:

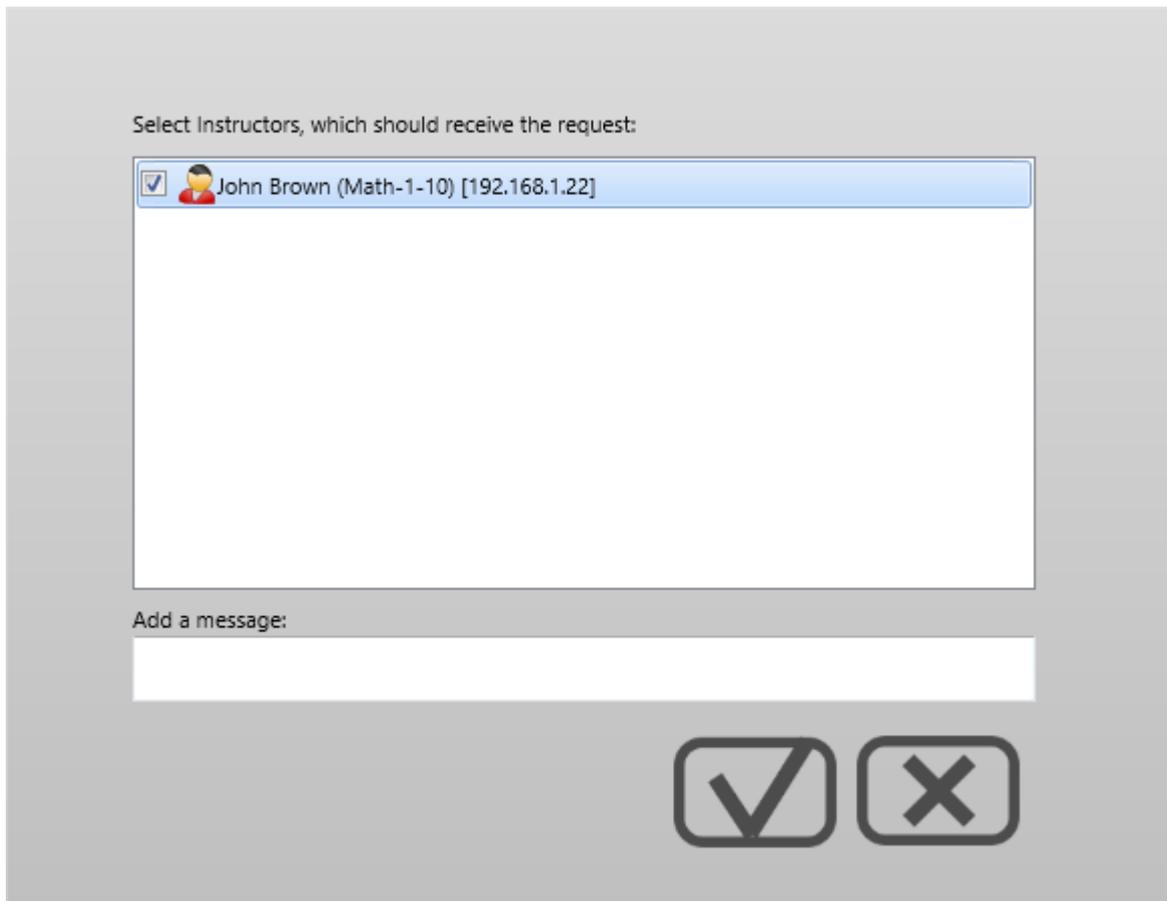


Help Requests

By default, any student can send a **Help request** to any connected Instructor. To initiate chat with an Instructor, click Net Control 2 icon in the System Tray, then click "**Send Help Request to Instructor**" button in the Student Console:



Select one of currently connected to this student computer Instructors:



add an optional message and click OK.

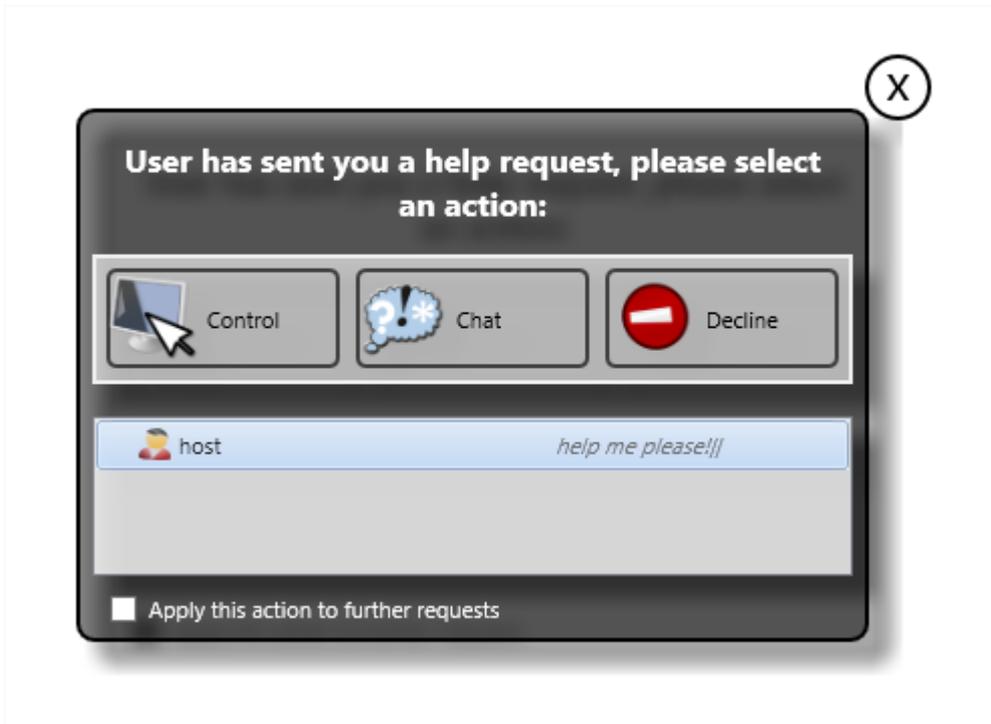
In the teacher console, on the thumbnail of the student computer a special "SOS" icon will appear:



In addition, the same flashing icon appears in the top-right hand corner of the teacher console window:



Clicking this icon you can select an action in response to the request:



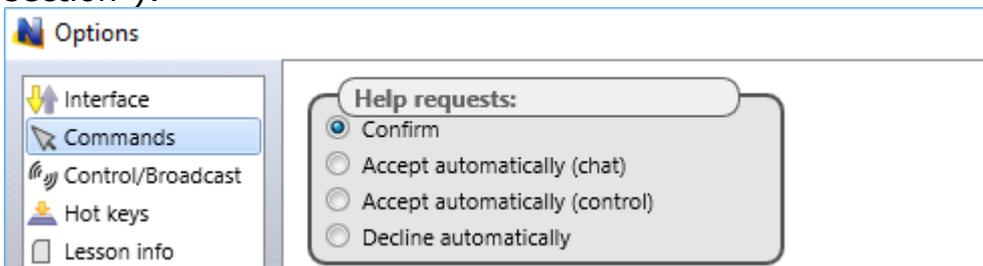
Control – opens a remote desktop session with the student computer;

Chat – opens a text chat session with the student;

Decline – declines the request.

If “Apply this action to further requests” option is enabled, the chosen action will be applied to all further help requests from all other students.

You can change the behavior of the default help request action in the teacher console settings (N – Options – Options; on “Commands” tab, in “Help requests” section”):



Speech features



The **Speech manager** provides for voice communication between computers in one or both directions:

- select user computers;
- click the **"Speech"** button in the top toolbar ("Messaging" tab),



or select the **Messaging - Speech** command from N - All Tools menu;

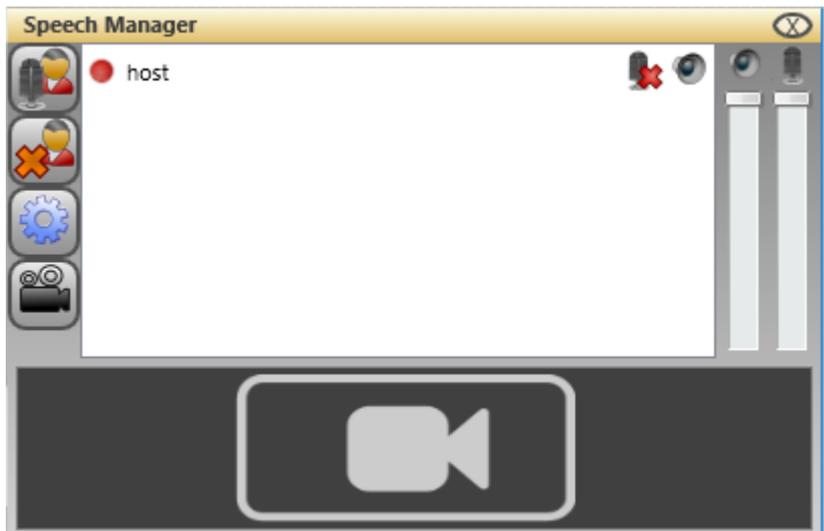


or click "Speak to users" button of the thumbnail panel ;

or use "Microphone" command of the thumbnail context menu:



In the **Speech Manager** panel, appearing at the right side of the teacher console window:



The list of computers include buttons, displaying the current state of the voice communication:     (the student microphone is ON/OFF, the teacher voice is playing/disabled).

Using buttons on the left side of the panel, you can enable or disable listening students (enable or disable the microphone); close the session for selected students; adjust system settings for the audio subsystem; enable or disable broadcasting image from the teacher's web-camera to students.

By default, the communication with students organized individually for each student, i.e. the student can listen the teacher or speak to him, but cannot listen voices of other students speaking to the teacher. If you need to enable the conference mode, when all participants can listen and speak to each other, you need to enable "Speech: Conference Mode" option in the teacher module settings (**N – Options – Options; "Commands" tab**):

Speech: Conference Mode

This mode uses Multicast network protocol, and may be unavailable if Multicast is not supported properly by the network configuration.

Co-Browse

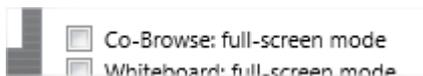


With Co-Browse tool teachers can browse Internet on their computers synchronously with students. To start browsing:

- Select student computers;
- Click **Co-Browse** button on **Messaging** tab of Top panel;
- Net Control 2 Browser appears on the teacher and student computers. All websites opened on the teacher computer are automatically opened on student computers also.
- To close the session, close the browser on the teacher computer, confirm closing browsers on student computers in the appeared prompt:



Depending on the option of the teacher console (**N – Options – Options**), **“Commands”** page, **“Co-Browse: full-screen mode”**:



the browser on student computers is displayed either in the full-screen or windowed mode.

Co-Play



Using the **Co-Play tool**, teachers can play video and audio synchronously on both the Instructor's and User's computers.

Co-Play tool is intended for synchronous playback of files, and it is assumed that files are placed on both User's and Instructor's computers. If it is impossible to copy files to all user computers, we recommend that you place multimedia files on your file server, or that you share the folder where files are located, for network access. For more information about network sharing, please refer to Windows documentation.

If you need to play any other kind of video (online, playing in third party programs, PowerPoint or web presentations), we recommend to use Broadcast Desktop tool instead.

To use the **Co-Play Tool**:

- Select one or several user computers;
- click "**Co-Play**" button in "**Messaging**" toolbar;
- In the **Co-Play** window:



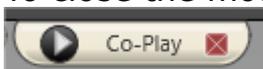
The Playlist management buttons:

- Add files** – adds a file to the play list;
- Delete file** – removes a file from the play list;
- Open play list** – loads a play list from a file;
- Save play list** – saves a play list to a file.

Copy Files to Students – copies files of the play list to student computers and places them in the folder **Net Control 2 Common Files\Video (NC2:\Video)** of student computers. *Net Control 2 Common Files* folder most often is placed on Desktop.

Path on User comps – specified the path to files on student computers. If **“The same as on teacher”** option is enabled, the files on student computers should be placed in the same folder as on the teacher computer (e.g. *D:\NC2-video\1.avi*). If **“In the following folder”** option is enabled, and the path is provided in the field below, the player will be searching for the files in the specified folder only (as the relative path, e.g. *NC2:\Video\1.avi*).

To close the mode, click “Close” button on “Co-Play” tab in the teacher console:



Desktop Recorder



With Desktop Recorder tool teachers can record any actions from their screen to a file, for further replay on student computers, for example, as an electronic manual. Records may include a voice from the microphone or the system audio (sounds that are playing on the computer); teachers can use on-screen annotations to make the prepared material more demonstrative.

Desktop recorder operations are available in the menu of Desktop Recorder button on the top toolbar:



Create Desktop Record – creates a new record;

Play Desktop Record – plays the record on the teacher computer;

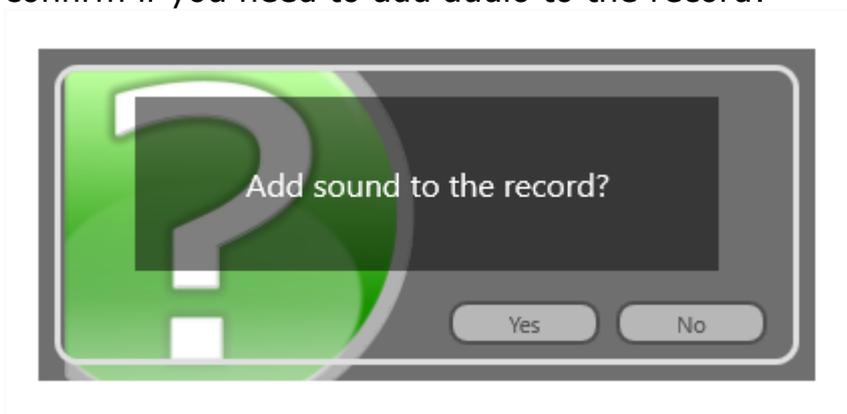
Play Desktop Record on User Computers – plays the record using a file that is already placed on the student computers;

Send Desktop Record and Play – send the desktop record file to students and plays it then. Due to desktop records often have significant size on the disk, if you need to play files on the student computers more than one time, we recommend to copy the files to students beforehand, and use **"Play Desktop Record on User Computers"** instead of **"Send and Play"**, otherwise, sending large files to multiple students may take significant time and load your network.

Convert DRR to AVI – using this tool you can convert desktop records from the internal DRR format to AVI multimedia format that is supported by the most of the software or hardware media players. Records in the internal DRR format may be played with Net Control 2 software only.

To create a record:

- click **"Create Desktop Record"** command of "Recorder" button's menu;
- specify a path to the file where the record will be stored;
- confirm if you need to add audio to the record:



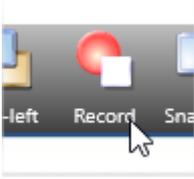
- A semi-transparent window of Desktop Recorder toolbar should appear:



Using buttons of this toolbar you can pause or resume recording, use Annotation tool to make instant annotations on the screen. To stop recording, click **"Stop"** button.

Remote Desktop features of Net Control 2 software also allow recording the

screen of controlled with "Control" command students to a DRR file. To create the record, in Desktop Viewer window click Record button:



specify a path to the file, where the record will be stored. Records prepared with Remote Desktop tool do not include audio.

To convert a file to AVI format, click "**Convert DRR to AVI**" command in the "Recorder" button's menu. Specify a path to the source DRR and the destination AVI files, select a *codec* for conversion. The codec is a third-party component of the system, which provides video compression and playback functionality for some video compression format. Windows has several built-in default codecs, other codecs may be installed with third-party software or installed manually.

Choosing an appropriate codec is a very important step, which determines what quality and file size will have the resulting video file. Standard Windows codecs in many cases create large files and are not recommended for regular use. Several codecs do not support high-resolution video. The recommended codecs are: **Windows Media Video Codec** or **FFDShow MPEG4 Video Codec**. If you do not have such codecs in the system, you can download and install them additionally:

<http://www.microsoft.com/downloads/en/details.aspx?FamilyID=06fcaab7-dcc9-466b-b0c4-04db144bb601> or

<http://www.free-codecs.com/download/ffdshow.htm>

Register (Student Registration).



Student Registration tool may be used by teachers for obtaining additional information from students (for example, a full name of the student) as also for showing on the student computers information about the lesson.

To initiate the student registration, click **Register** button on the top toolbar (**Messaging** tab):



In the appeared window:

Teacher name: John Brown

Teacher ID: JB101

Class: Math-1-10

Lesson: Multiplication

Objectives:

Request for:

Student name Lesson ID

Custom field #1

Custom field #2

Registered users:

	Computer:	User Name:	ID:		
	<input checked="" type="checkbox"/> Computer 01	test10			
	<input checked="" type="checkbox"/> Computer 02	Lisa Smith			
	<input checked="" type="checkbox"/> Computer 03	Dan Williams			

Registration is required, users cannot bypass the request

The top section allows setting up teacher and lesson information that will be visible on student computers in the process of the student registration:

Teacher name, any optional **Teacher ID** that, **Class** and **Lesson** names, **lesson objectives**.

In the **“Request for”** section you need to set up parameters that should be requested from students in the student registration dialog:

Student name: a full name of the student. After registration this name will be visible as the full name of the student in other parts of the program (for example as a connection name in Computer Name View mode).

Lesson ID: an optional Lesson ID, this identifier may be used together with “Search by Lesson ID” feature that helps teachers to find unconnected students by providing the same Lesson ID as specified by the students in the process of

registration. For more information please see Chapter D of the Installation and Configuration Guide (only for Standard and Professional Editions).

Custom field 1, Custom field 2 – two optional fields may be used to request any additional information from students. Here you can also specify names for these custom fields that will be visible on student computers.

Registered Users section – shows the list of currently connected student computers. Red arrow designates “unregistered” students, green arrow means that the student was already registered.

Using **checkboxes** you can select students that should be passed to registration.

Click **Register** button to run registration on the selected student computers. Registration will be done only if the student was not registered. To enforce registration, even if the student was already registered, use **Re-register** button instead.

If “**Registration is required**” option is enabled, students cannot just close the registration window on their computers, any response is required.

Using “**Save/Export**” button you can export the list of registered students with the entered information to HTML file (for further printing, displaying in the browser, export to Word etc.), or to CSV file for further processing with a spreadsheet editor like Microsoft Excel or OpenOffice Calc.

In the process of registration, the following window appears on student computers:

Teacher requests additional information:

Teacher: John Brown (Multiplication)
 Class: Math-1-10
 Lesson: JB101
 Objectives:

Enter your name:

Lesson ID:

Age

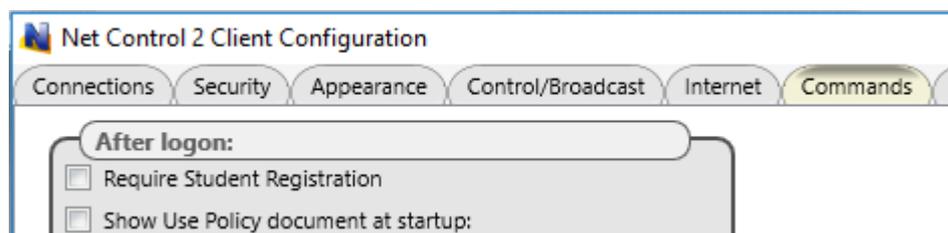
Subgroup



Additional fields and **Close** button are present only if the respective options were enabled.

In several cases it may be useful to request this information from students every time the student logs in to Windows and immediately *after the logon*.

To enable this mode, you need to set up the student module settings (**N – Options – Client Options**), as follows: on **Commands** tab of Client Configuration window, in **“After logon”** section, enable **“Require Student Registration”** option and click OK:



The student module will require entering the information even if no teacher

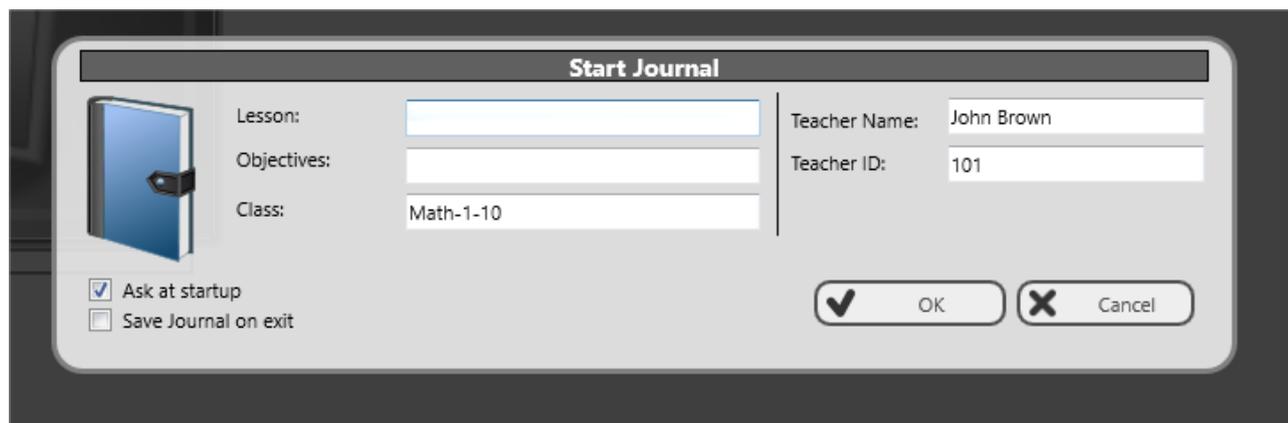
computers connected at this moment to the student computer.

Journal tool



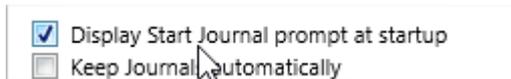
Using the **Journal** tool, an Instructor can log important events in the process of teaching: create a list of registered students, a list of quizzes and polls performed during the lesson, results of quizzing and polling, Instructor's comments. The journal later may be saved, reviewed or printed.

At the program start up, it may prompt for the lesson information, which later will be automatically recorded in the journal:

A screenshot of a software dialog box titled "Start Journal". On the left is a small icon of the blue book. The dialog contains several input fields: "Lesson:" (empty), "Objectives:" (empty), "Class:" (filled with "Math-1-10"), "Teacher Name:" (filled with "John Brown"), and "Teacher ID:" (filled with "101"). At the bottom left, there are two checkboxes: "Ask at startup" (checked) and "Save Journal on exit" (unchecked). At the bottom right, there are two buttons: "OK" (with a checkmark icon) and "Cancel" (with an 'X' icon).

Uncheck **"Ask at startup"** option to disable displaying this prompt at program start up, in this case the specified Teacher name, Teacher ID and Class name will be saved and used by default in the current Net Control 2 profile.

When the prompt is disabled, you can re-enable it, setting up (enabling) **"Display Start Journal prompt at startup"** option in the teacher module **Options**: in the Teacher Console click the main menu command **N -> Options -> Options**. On the **Commands** page, check this option and click OK.



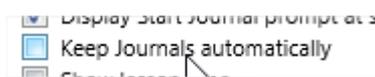
To add a comment to the journal, at any moment, enter text of the comment in the respective field of the top toolbar:



And press Enter.

To open current Journal, click Journal button on the top toolbar. The journal will be opened on a special tab at the bottom of the Teacher Console.

If **“Save journal on exit”** option was enabled in the *Start journal* prompt at startup of the teacher console, or in the teacher console settings (N – Options – Options; Commands page, **“Keep Journals automatically”**):



the journal will be automatically saved in the current user's Documents\Net Control 2 folder as jnl-DDMMYYYY-HHMMSS file. (where DDMMYYYY is current date; HHMMSS is current time).

To view or manage journals, on the top toolbar click the **Journal** button.

On **Journal** tab:



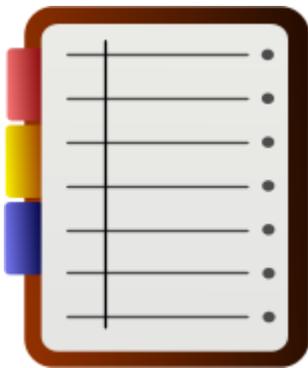
Save as HTML button saves a currently opened journal as HTML file, which later can be viewed with any Internet browser, or modified in any HTML editor (Microsoft Office, Open Office etc.)

Save as XML button saves the journal as XML file. This is default file type for Net Control 2 journal files.

Print button allows printing the currently opened journal.

Open journal button opens a journal from disk.

Planner



Using Planner tool teachers can create and manage lesson plans. The lesson plans are integrated with the teacher module, allowing the teacher to use the lesson time more effectively, facilitating the teaching process.

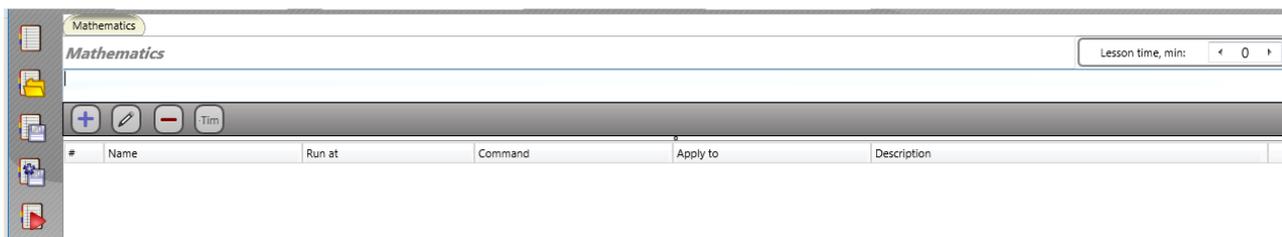
The lesson plan is a sequence of events, actions (commands) and notifications, distributed over time of the lesson and assigned to some time events.



To create a plan, click "Planner" menu command of "Planner" button on the top toolbar. A new tab should appear on the bottom toolbar:



Click it to access the planner console:



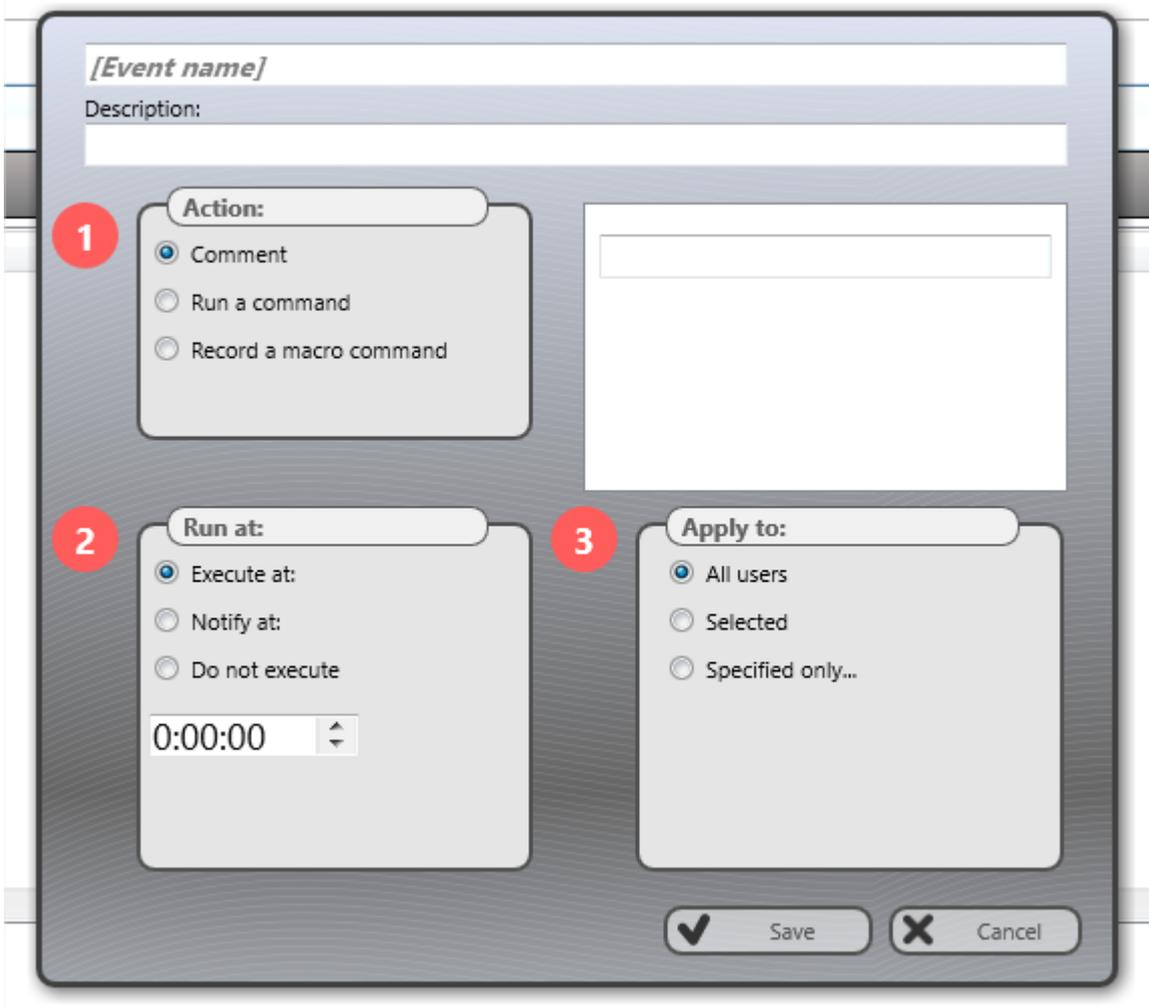
Here you can specify a lesson name, lesson time in minutes, optional description of the plan.

Using buttons of the plan toolbar:



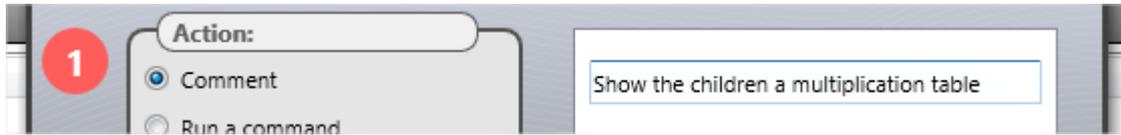
You can add a new event, modify existing one, delete it, add or decrease time of the event.

When you are adding or modifying an event, the following window appears:



In this window you can specify a name of the event, any optional description, assign an **action** to the event:

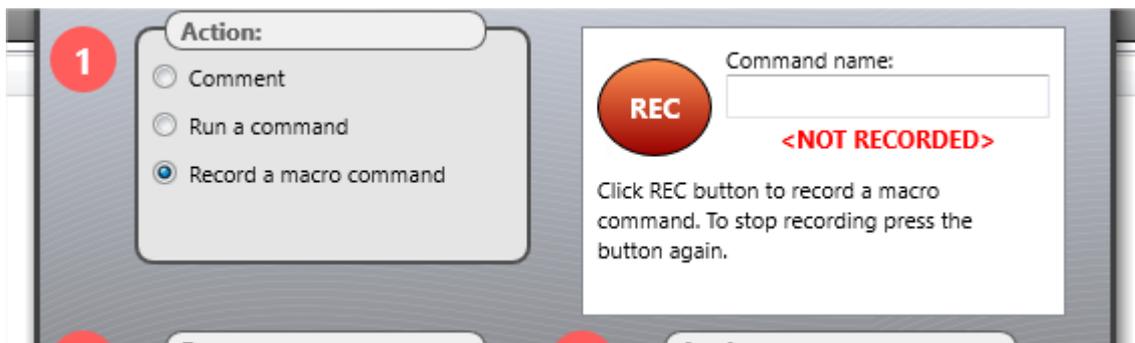
Comment – when the event occurs, the teacher console will display a text message (comment) in the teacher console, the text of the comment you can specify at right of the Action section:



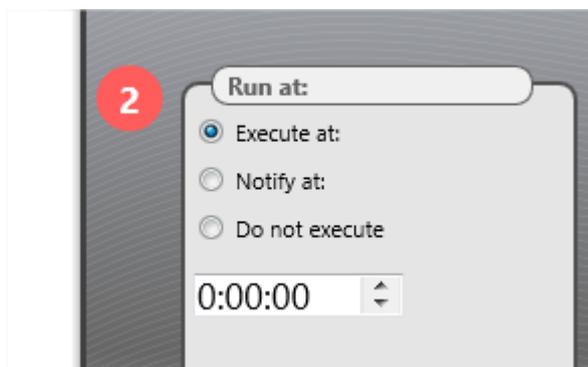
Run a command – when the event occurs, the teacher console will run the specified in the list command



Record a macro command – with this option you can record a macro command (as a sequence of actions in the teacher console), and this command will be reproduced when the event occurs.



After the action is assigned, you need to specify when the event should occur:

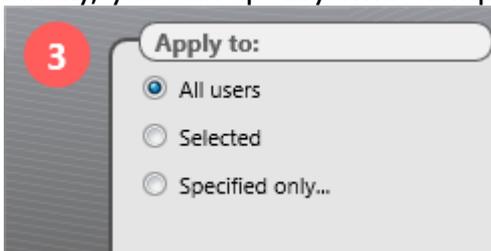


Execute at – you need to specify a time within the lesson time, when the specified command will be executed.

Notify at – at the specified time, the teacher console will display a notification that the command is planned for this time but will not execute it automatically. You can run the command manually, using a button, or bypass the event.

Do not execute – the event will be stored in the plan, but will not be executed or displayed in the plan player.

Finally, you can specify what computers should be used for the applied command:

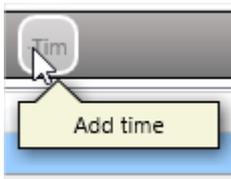


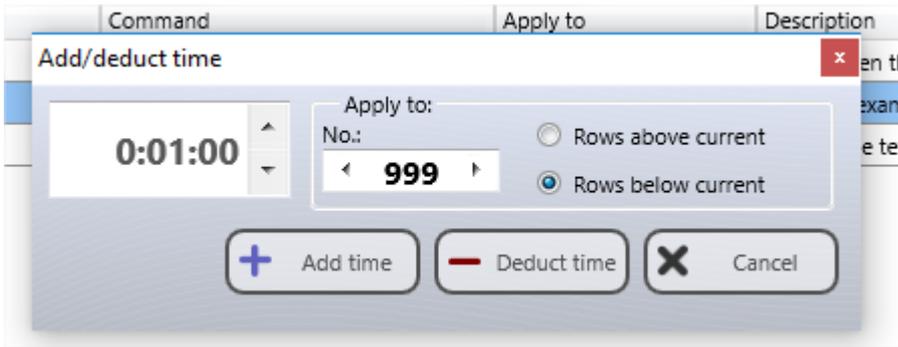
All users; selected users in the teacher console, when the event occurs; or the specified students (you need to specify the list of users).

The created events will be arranged in the list according to the time of the event:

#	Name	Run at	Command	Apply to	Description
1	Introduction	Notify: 0:00:30	Cmnt: Introduction	All	Tell children that today the
2	Explicit instruction	Notify: 0:01:35	Cmnt: Write an example on the board	All	Write an example on the b
3	Explicit instruction	Notify: 0:02:40	Cmnt: Explain the term "factor"	All	Explain the term "factor"

You can add or deduct time to any event of the list, adjusting respectively time of events after or before the modified event. To add/deduct time to an event, select it, click "Add time" button:





In the appeared window, you can specify the time interval that you need to add/deduct, the number of events (rows) that will be modified, the direction of modification (to the top or to the bottom of the list).

After the plan is created, you can save it using buttons of the left toolbar "Save" or "Save as":



To modify or view an existing plan, use "Open" button of the left toolbar:



To create a new plan, use "Create new plan" button of the left toolbar:



To run a plan, use either "Run plan" button of the left toolbar:



Or use "Run a plan" menu command of "Planner" button's submenu on the top toolbar:



When you are running a plan, the teacher console will display a panel at the top of the teacher console window:



The panel includes: the lesson timer, the playback scale, where you can adjust the plan playback position or switch between events, a panel with the event name and description.

Grades



“**Grades**” tool provides access to an internal gradebook, which is connected with different other tools of the program, making possible to grade students based on results of polls, quizzes, any other events. Teachers can make immediate reports to students, keep grades with any optional text descriptions, store them in journals and export to external programs.

As a grade, teachers can use any text letter, phrase, digit or sign (e.g. A-F, 0-12 etc.) or a graphic image from the built-in library that includes different objects, flags, stars, smiles:



 Multiplication 06.06.2017			
[Enter a description here]			
Multiplication			
	Total	2x2=..?	Quiz: Multiplication
Kate Moore [Computer 05]	A good job!	correct	A all questions answered correctly
Robin Black [Computer 04]	C		B
John Smith	A	correct	A
Lisa Smith [Computer 02]	C		D pay more attention
Andrew White [Computer 01]	C		C
Dan Williams [Computer 03]	A good job!	correct	A

When you press **Grades** button on the top toolbar, a new **Grades** tab appears on the bottom toolbar:



On this tab, in the top section you can specify optional parameters for the grade book, including a date, lesson name and description. Below you can see the list of students and at least one column **"Total"** that is intended for the summary grades of the lesson. The program does not maintain the "total" column automatically, it is assumed that you fill in the column grades yourself, based on the lesson results.

On the left toolbar:



Add column – adds a new column of grades.



Add row – adds a new row (as a new student for example).



Delete row – deletes the selected row (student).



Move the row higher – moves the selected row (student) higher in the list. Using this button you can arrange students manually.



Move the row lower – moves the selected row lower in the list.



Show to User – shows grades of the selected row to the student (one selected row only).



Show grades to students – show to students their grades. Each student can see only his/her grades, and not grades of other students.



Save – exports the table to HTML file for external processing, printing or displaying in a browser.



Print – prints the grade book.

To add a grade:

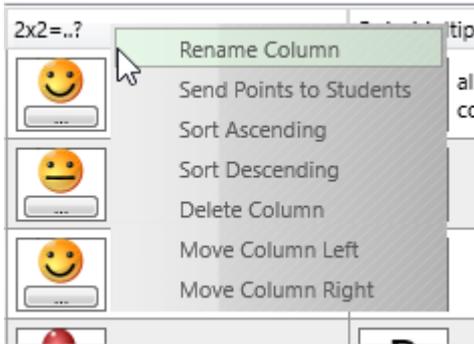


Click the grade field to enter the grade in a text form (A-F, 0-9 etc.) or click the button below the grade field to assign a graphic grade.

If you need to add an optional text description for the grade, double click the field at the right side of the grade field.

Columns in the table mean any object for grading (a poll, quiz, any other optional event). When you are grading students in Poll or Quiz tools, the respective columns are created automatically. If you need to add a custom column, click "Add column" button on the left toolbar.

Clicking on the column header you can change the column properties:



Rename column – renames the column header.

Send Points to Students – send points of this column to students (only the points of this column will be shown).

Sort Ascending, Sort Descending – arrange students by grades of this column.

Delete Column – deletes the column.

Move Column Left, Move Column Right – changes the order of columns in the grade book.

Rewards tool

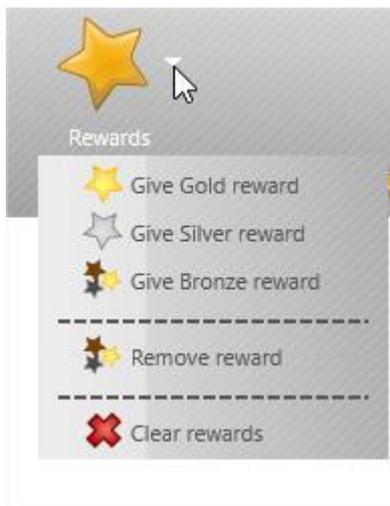
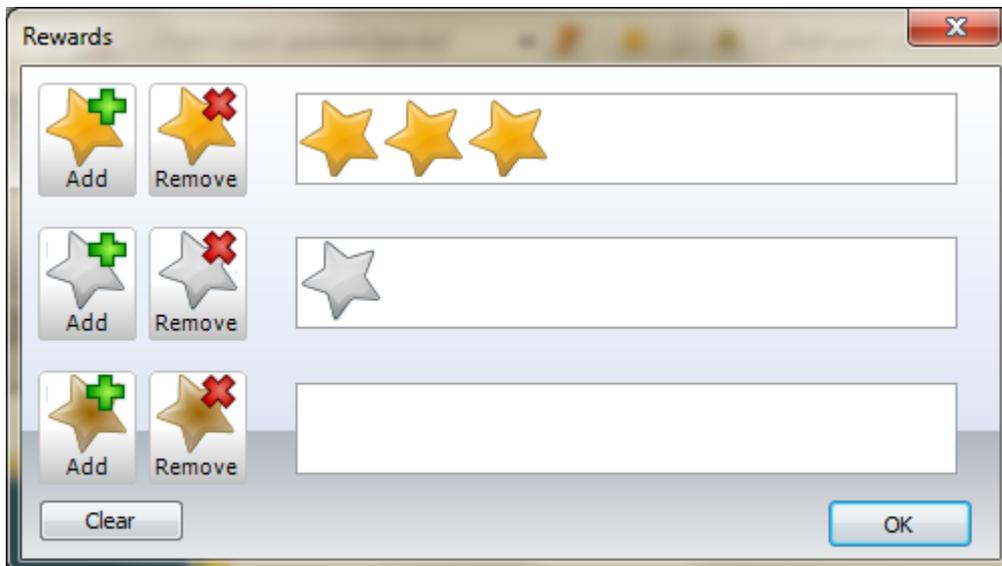


With Rewards tool, an Instructor can grant students with rewards: gold, silver or bronze stars. Up to 8 stars of every quality may be assigned to every client.

Rewards are always displayed on the student computer screen, in the top-right hand corner of the screen, as semi-transparent stars.

Rewards are alternative to the grades, described in the previous chapters, and do not replace them.

To add a reward, select client computer, click the **Reward** button to open the **Rewards** tool or add a reward from Reward button's submenu.



You can also give rewards from the thumbnail's menu:



The top toolbar:



Rewards are stored on client computer until a user log off, log on or restart of the computer.

Lesson resources

Lesson resources is a set of files, links, text descriptions that are available for all students, connected to the teacher. The teacher module synchronizes the lesson resources with the student module on first connection.

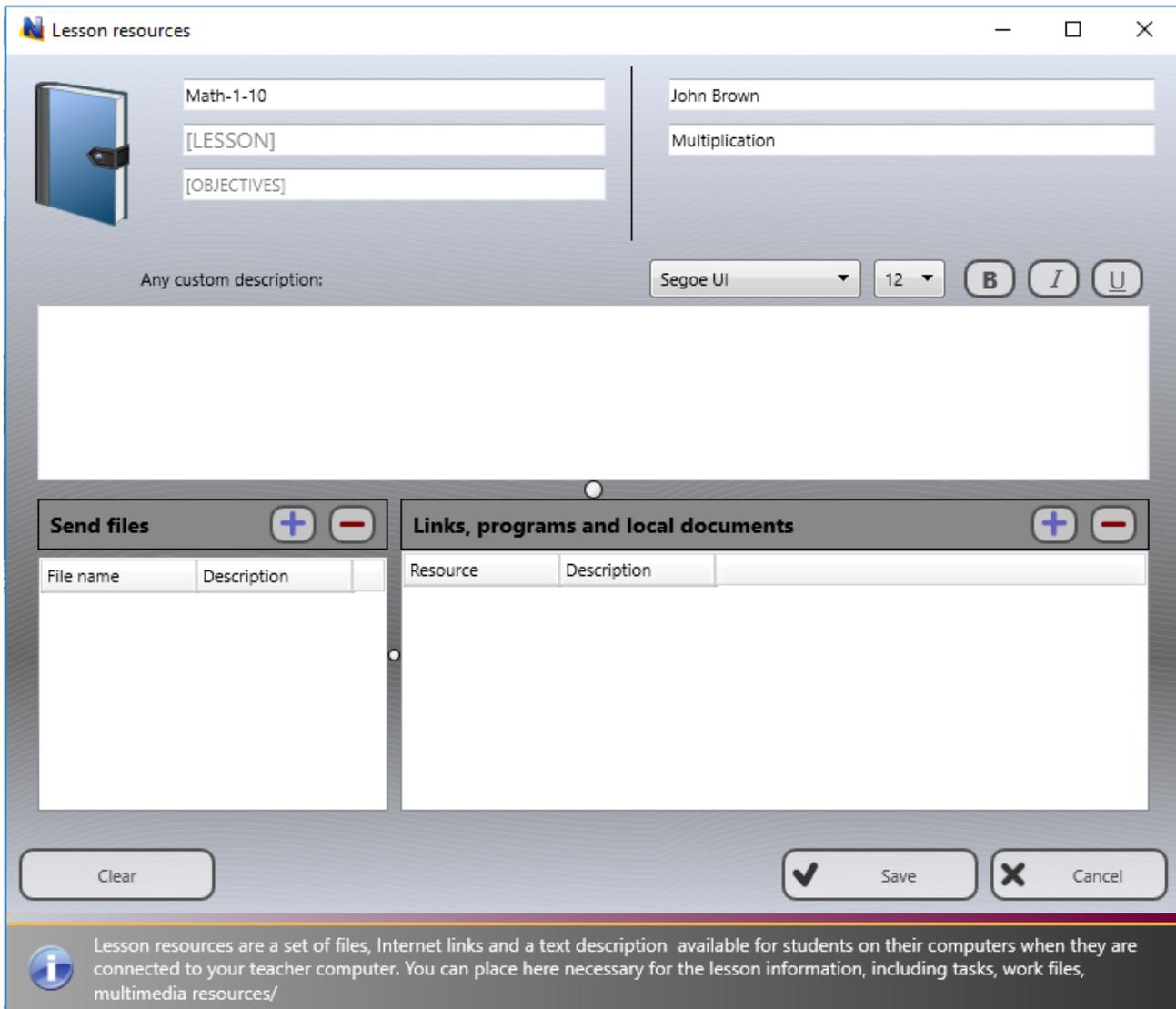
To set up resources on the teacher computer click "Lesson resources" in the top-right hand area of the teacher console:



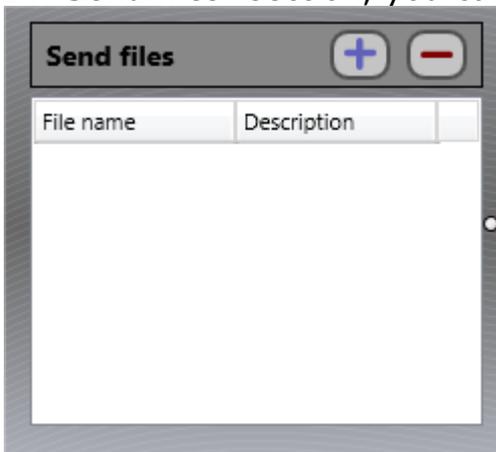
In the appeared window, you can set up or modify the lesson information, when necessary.

In the description section, you can specify any text description of the lesson:



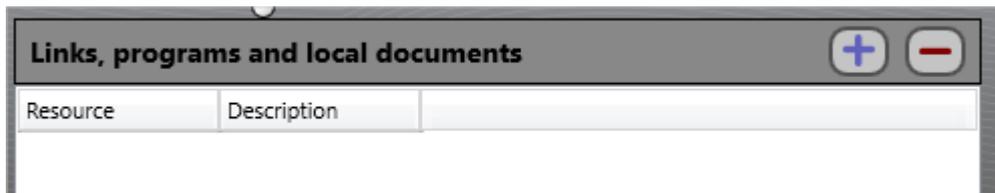


In “Send files” section, you can specify files that should be sent to students:



In “Links, programs and local documents” section, you can add links to local and web resources: local files on student computers, programs (using a full path to

the program), Internet links.



To save changes, click "Save" button. The lesson resources will be updated on next connection of student computers. You can refresh connections (using Refresh button on the left toolbar), to force the lesson resources update.

Event Monitoring

Features:

- monitoring of various events on student computers real-time;
- off-line monitoring and logging events, log management.

Events:

- program launch/termination;
- switching to programs;
- web-site browsing requests (passing a URL to the browser);
- system events: attaching new devices, date/time events, user logon/logoff etc.

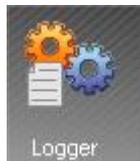
Event Monitor

To watch *events* on-line:

- select computers;
- click the "**Monitor**" button on "**Advanced Tools**" tab:



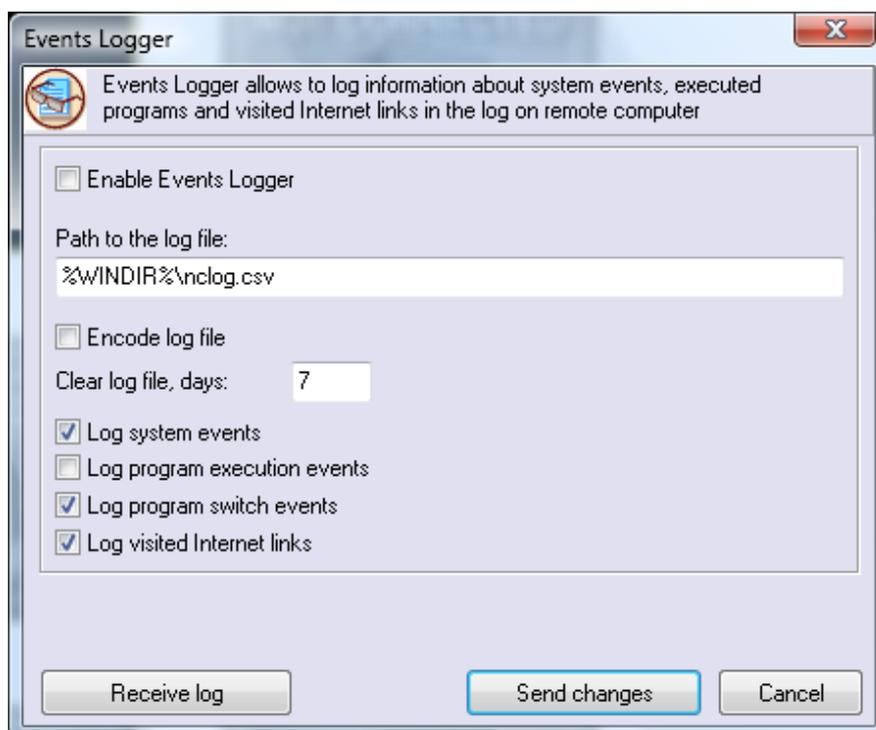
Event Logger



With **Event Logger** you can record events even if a teacher computer is not connected at this moment to the student computer. Later this log may be requested at any time by the Instructor.

To enable logging:

- select student computers;
- click **"Logger"** ("Events Logger") button on **"Advanced tools"** tab.



In the Events Logger window:

- set (check) the **"Enable Events Logger"** option;
- optionally you can set a path to the log file where Net Control 2 will store event information. %WINDIR% refers to the home Windows™ directory,

%TEMP% - temporary files folder for System Service user account,
%SYSDIR% - Windows™ System directory.

- if the **"Encode log file"** option is set, Net Control 2 will encode the file, to hamper reading;
- by default Net Control 2 will clear the contents of the log file each week. You can change this behavior in the **"Clear log file"** field;
- specify which types of events should be tracked.
- click the **"Send changes"** button to apply any changes.

To receive a log file from a remote computer, click the **"Receive log"** button and select which types of events should be included in the resulting log.

Student Console and Mini Toolbar

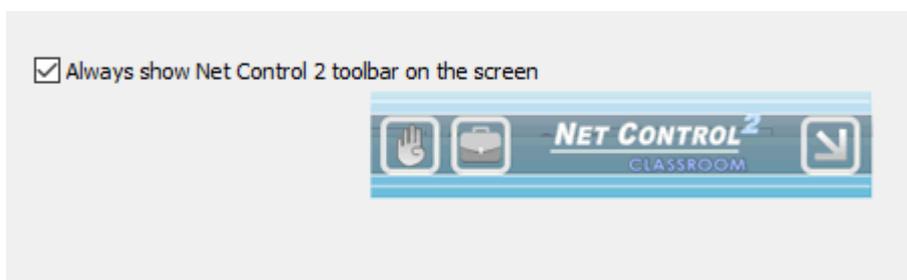
Most of Net Control 2 -related operations for students are available through the **Student Console** or the **Mini-toolbar** window.

Mini toolbar

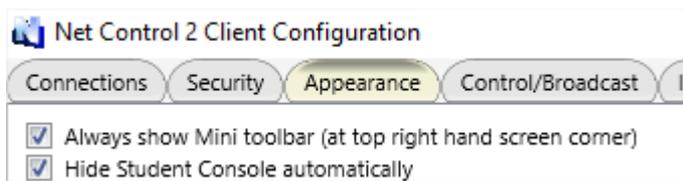
The popup Mini toolbar window appears on student computers in the top area of the screen:



only if the respective option was enabled in the process of installation of student components of the software:



or, if the software is already installed, if “Always show Mini toolbar” option is enabled in the student module settings, on “Appearance” tab:



The Mini toolbar buttons:



“**Raise hand**” or “**Put hand down**”, depending on the actual state of “raise hand” button of the Student Console;



quick access to the lesson resources in Student Console;



open Student Console.

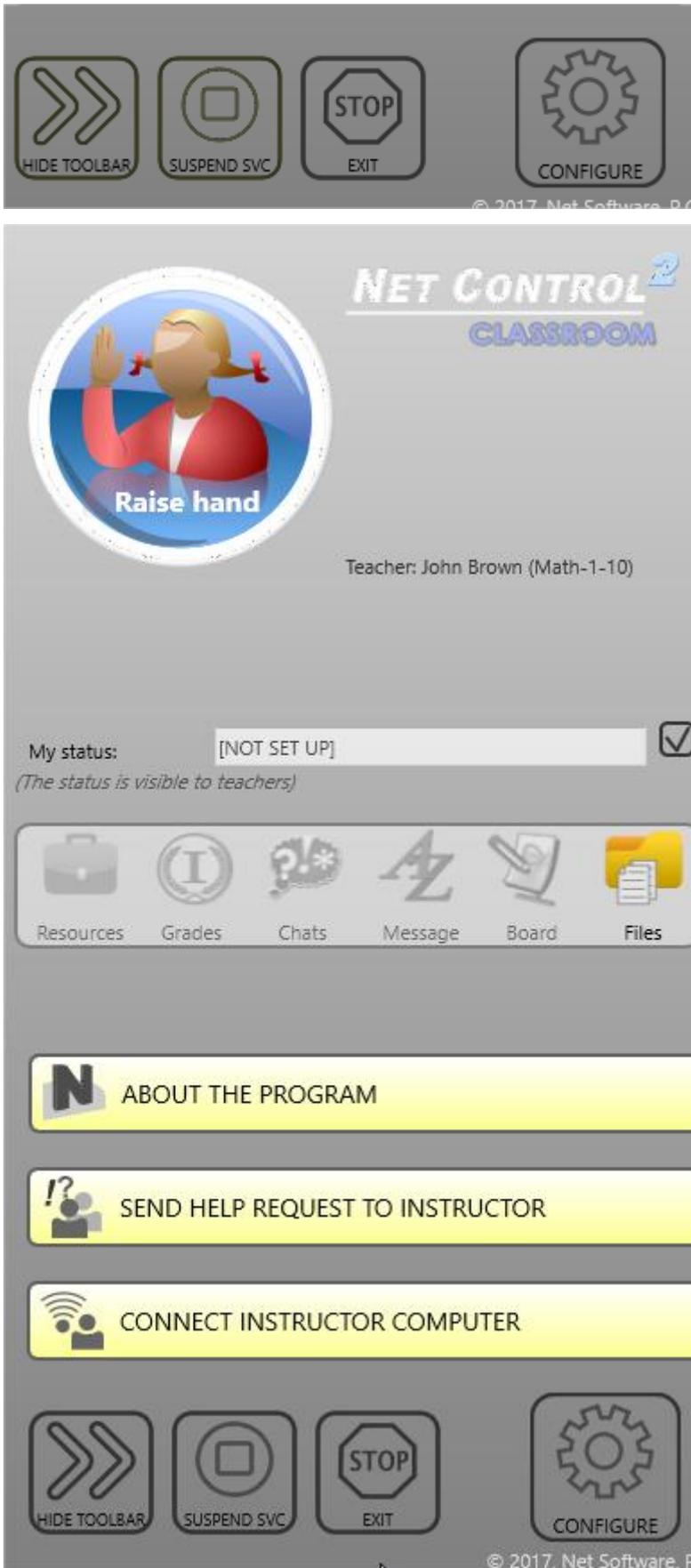
Student Console

To open Student Console, click (Standard and SmallClass editions only) or right click Net Control 2 icon in the System Tray:



The appearance and functions of the Student Console depend on the student module settings. Almost all features (except the About screen) may be disabled in the student module settings.

The bottom part of the console provides access to the student module service settings:



Configure – changes the student module settings.

Suspend Svc/Resume Svc – suspends the student module service (stops all connections and do not accept new ones) so teachers cannot connect the computer, requires administrator password to apply. Subsequent pressing this button again, restores the normal state.

Exit – stops the student module service. Requires administrator password.

Hide Toolbar – immediately hides Student Console window.

To disable **Suspend Service, Resume Service, Exit** and **Configure** buttons of the Student Console – check (enable) “Disable administrator operations” button in Configuration dialog, on Appearance tab.

About the program - provides access to “About the

program” screen that contains information about Net Control 2 Student module version, edition and established connections.

Send Help Request to Instructor – sends a help request to students. For more information please refer to chapter [“Help Requests”](#). This button may be disabled on **“Appearance”** tab of the student module settings (**“Enable help requests”** option).

Connect Instructor Computer – students can connect teachers themselves, by the Teacher Session ID code or by entering an IP address or DNS name of the teacher computer (respectively, **“Allow connecting Instructors by Teacher Session ID”** or **“Allow connecting Instructors by IP address”** should be enabled in the student module settings, **“Appearance”** tab). For additional information, please refer the Installation and Configuration guide.

If the student is a member of a student group and is granted with “leader” privileges, additionally, **“Open Leader Console”** button may appear:



Clicking this button, the student can open the leader console to communicate with other group members.

The tools:



Resources – opens a list of lesson resources.

Grades – opens the grades list. Shows the last grades sent by a teacher to this student.

Chats – open chat windows.

Message – shows the last message sent by a teacher.

Board – shows Whiteboard window.

Files – shows a list of received files.

Statuses

Teachers and students can use “statuses” as short text information about the lesson, visible to students and teachers. Teachers can pass through statuses some important lesson information to all connected students at once, students can pass some information to the teacher, for example, that the work is done.

To disable student statuses – uncheck “**Enable User statuses**” option in **Appearance** tab of the student module settings.

Hand raising

Hand raising is described in the [respective chapter](#) above.

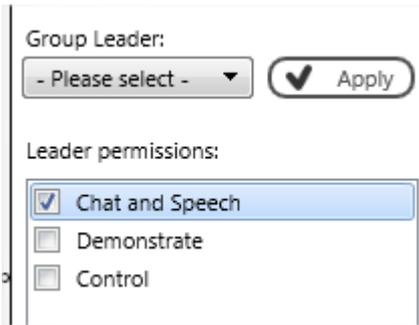
Student groups. Leaders.

Using Student Groups feature, a teacher can join students to special work groups, assign one of members of the group as a “leader” of the group and grant to the leader several teacher features and permissions.

To join students to a student group, select them, right click and use “Add to Student Group” command of the context menu:



In the appeared Student Groups window you can manage existing groups, manage members of these groups, and select a leader of the group. A leader may be granted with the following privileges:

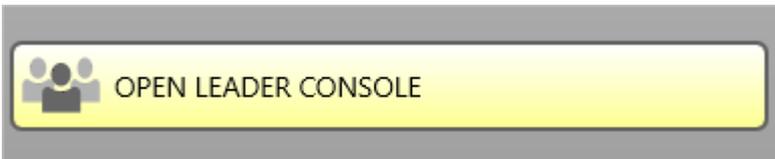


Chat and Speech – the leader will be able to initiate chats with other members of the student group and use speech features.

Demonstrate – the leader can use Broadcast Desktop and Whiteboard features.

Control – the leader can control other members with Remote Desktop features.

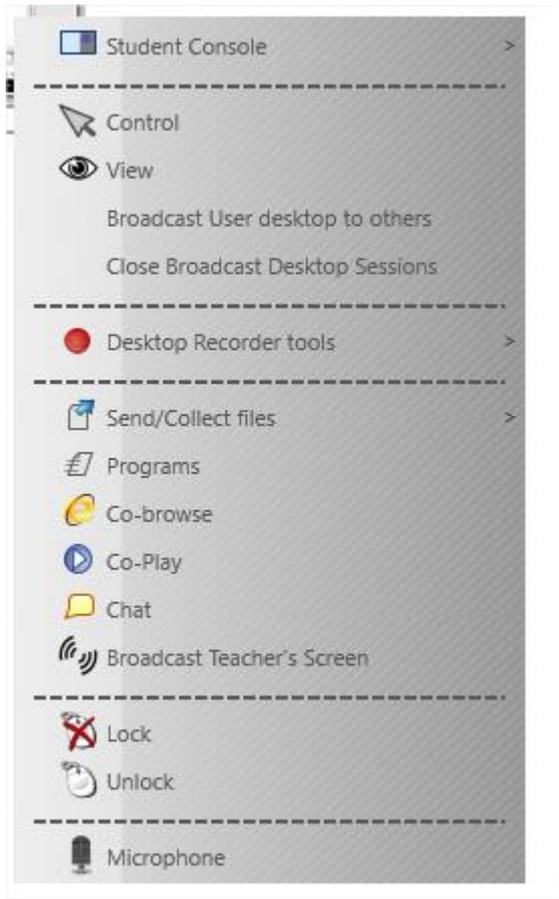
After the leader is selected and granted with some permissions, the Student Console will contain "Open Leader Console" button:



Clicking this button, the leader will open the leader console window that contains members of the group:



To apply a command to a computer, right click it, then use a command of the context menu:

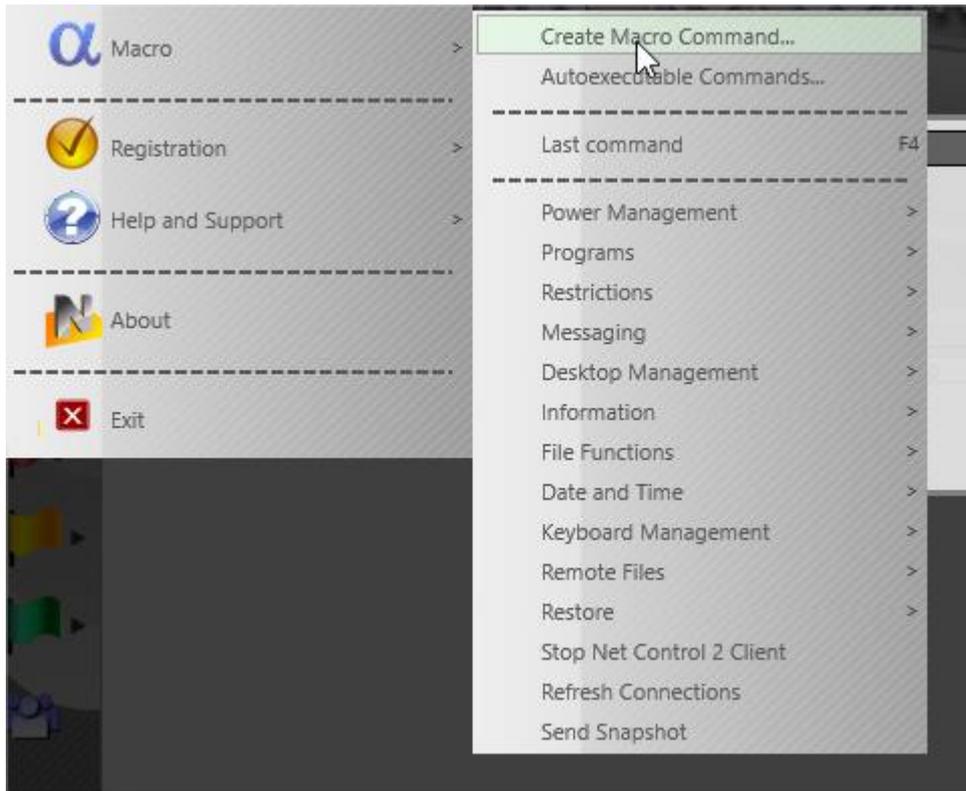


Teacher can manage existing student groups and leaders, using “Student groups” button of the left toolbar:



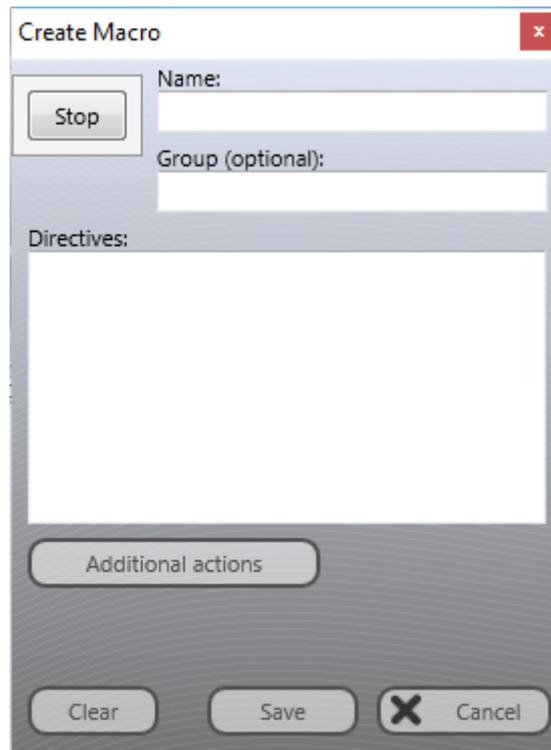
Macro Commands

Net Control 2 includes a set of pre-defined macro commands that are available in **N – Macro** menu.



In addition, you can create your own macro commands, which will be placed to this menu or may be assigned with some hot keys for quick execution.

To create a macro command click **N – Macro – Create Macro Command** menu command:



name the command; optionally, assign some group name; apply commands to student computers. Applied commands will be recorded to the macro. When the command recording is finished click **Save** button to save the command.

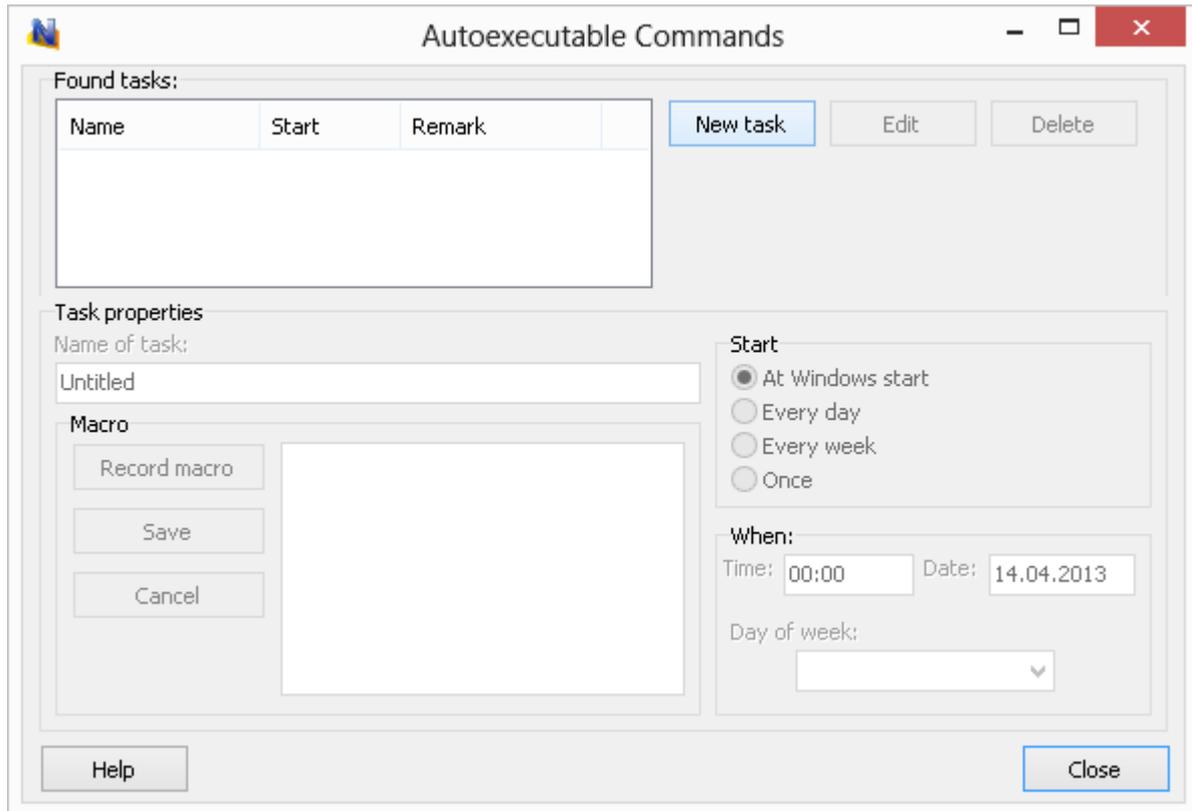
New macro commands will be loaded to the teacher console after restart of the program.

Autoexecutable macro commands

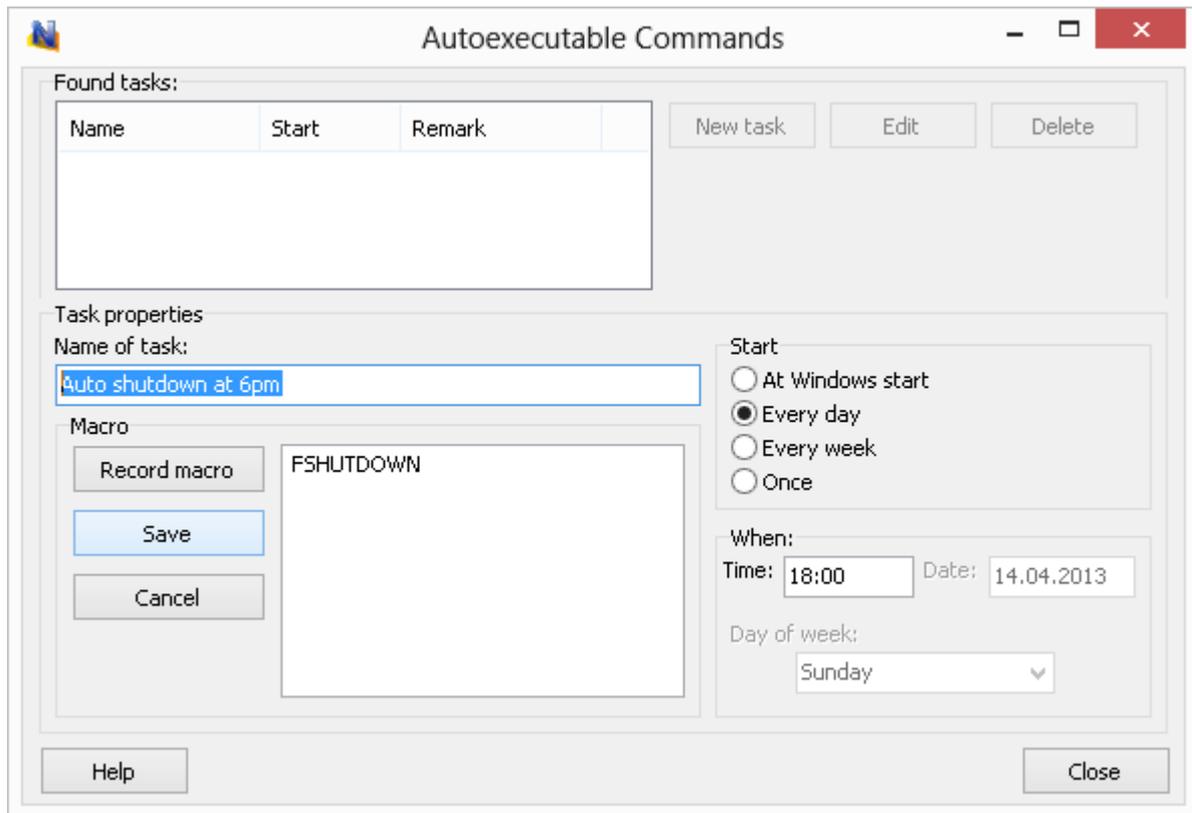
Autoexecutable commands – are macro commands that are stored on student computers and executed on some event (time or date); autoexecutable commands are executed on student computers even if a teacher is not connected at this moment to the student.

To create an autoexecutable command:

- Select student computers in the teacher console;
- Click the main menu command **N – Macro – Autoexecutable commands**.
- In the appeared window:



- Click **New task** to create a new task or click **Edit** to edit an existing task.
- Specify a name of the task;
- Record the macro command;
- Set up an event, when the task should be executed;
- Click **Save** to save the task:



Tasks may be executed on every **Windows start up**; **every day at some specified time** (time should be specified in 24h format, e.g. 18:00); every week at some day and time, or once, at some date and time.