

ILS22Setup

Software User Guide version 3.06

The program to configure your ILS22...

Introduction.

As the name of the program suggests, ILS22Setup gives the VAR (Value Added Reseller) and the end-user the opportunity to program the behaviour of the ILS22 with respect to the control functions, which are located to the left, bottom and right of the system LCD screen, engraved in the glass plate.

Note: These functions are 'out-side the 'reach' of the Windows operating system', accessible via the LCD touch panel, in the centre.

See the ILS22 user guide for a more in-depth explanation on using these buttons and headers. Simply put, the ILS22 glass-plate buttons and headers can be used by the presenter, end-user or supporting technicians to execute commands directly (e.g. startup the Sho-Q Presenter package), enable or disable keyboard entries, increase or decrease system audio volume output etc. And by hitting the Touch Screen Off button one can temporarily disable all these keys (until the On button is hit again). This is handy when presenters use the surface for other purposes then presenting using the embedded functions.

As far as control features, the ILS22 and embedded functions in general can control:

- An attached projector. Power On, Power Off, or definable commands for example inquiring power status or lamp hours.
- Room light condition. Turn light higher or lower.
- Audio volume. Higher or lower or mute.
- Microphone volume.
- Microphone mute/un-mute.
- Display out selection, either Lectern itself or attached devices such as Notebook or auxiliary.
- Electrical pedestal elevation up/down.

All of these functions depend on the embedded system software driver which we call ILStranlator, and the setup defined with ILS22Setup.

Basically, and as defined with ILS22Setup, there are 3 possibilities per control function:

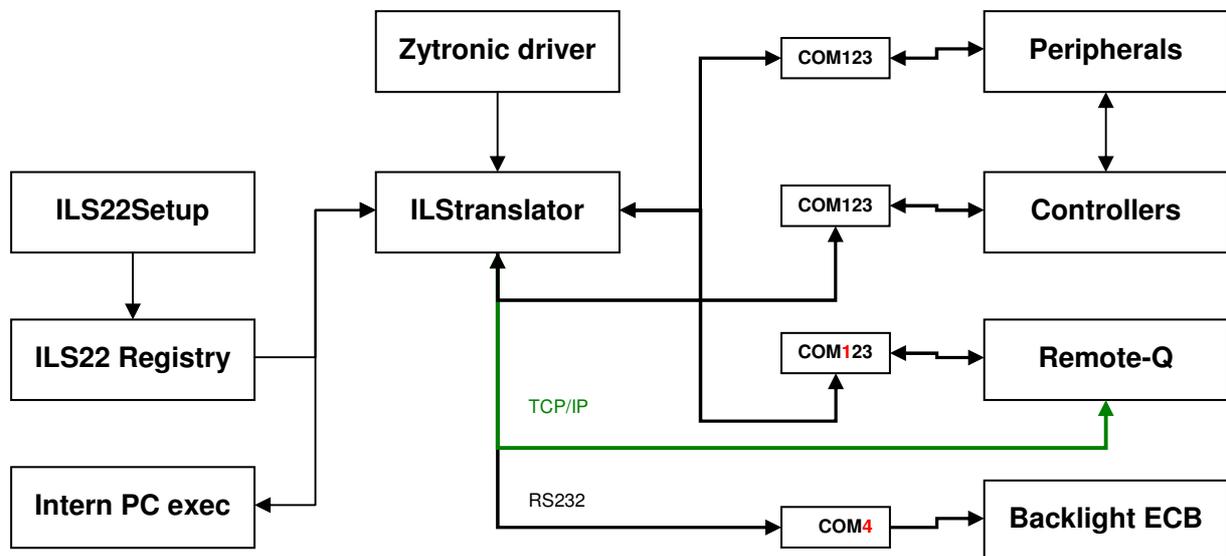
- The ILS22 will do it. Internal software in ILStranlor, internal relays and direct communication (RS232) to external devices are under direct control of the ILS22.
- The ILS22 has nothing to do with it. Glass-plate touches have no effect, external devices and circuitry is used.
- The ILS22 is setup as an intermediate or user-interface. Glass-plate touches will be translated into commands to external intelligent controllers which will perform the requested action.

ILS22Setup makes the system a hybrid one. You can choose and match according to local conditions and requirements:

- Select which device is taking the action.
- Define communication parameters.
- Which keys are programmed for action.

- Enter the ASCII/Hex combined command strings you want for external control.
- Which relays in the system are used.

The following schematics shows how all components work together.



The ILS22Setup wizard is used to determine which peripherals are under direct control of the ILS22, which peripherals are controlled via external intelligent controllers, which communications settings and command strings are used to address peripherals and controllers, and whether remote control via Remote-Q is enabled. The ILS22Setup wizard is saving all this to the lectern system registry.

At start up, ILStranlator will read the registry. If ILS22Setup was not used, ILStranlator will use defaults.

The Zytronic touch driver determines which glass plate buttons or headers were pressed and passes this on to ILStranlator. In turn, ILStranlator will ‘translate’ this to embedded system functions or pass it on to attached intelligent controllers, or react to external controller supplied commands.

The ILS22Setup Wizard will guide you through the possibilities. Each form will show what the default factory setting is.

The ILS22Setup Wizard.

The ILS22Setup program when first started, will show up as a XP-alike Microsoft Wizard.



When ILS22Setup was executed before and parameters were saved to the system registry, another form will come up showing the last saved parameters.

In order to change the Setup, either press (Alt-C) or the Continue button.

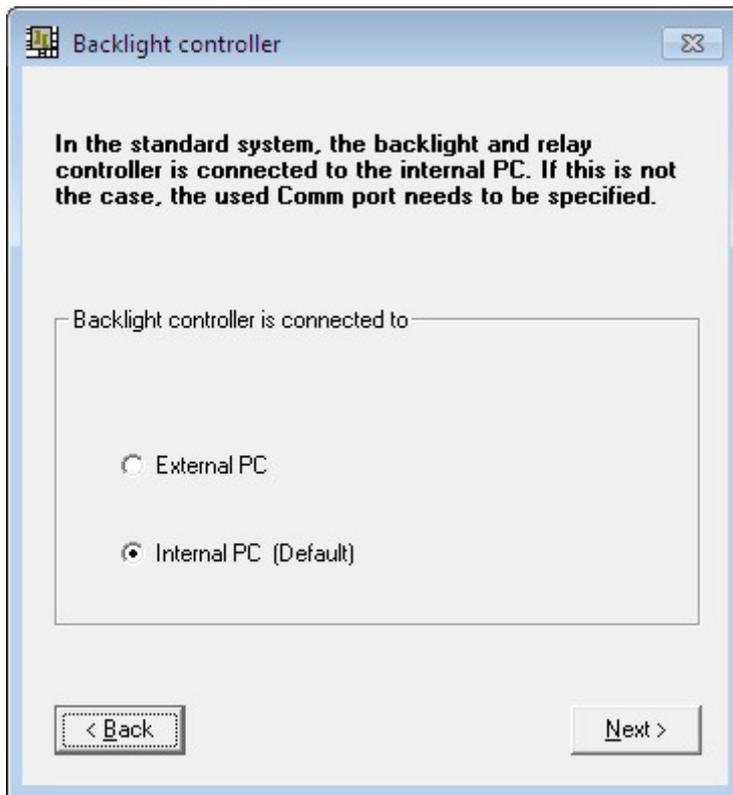
In order to leave the wizard, press Alt-x or the Exit button.

The wizard is self-explanatory, but we will continue with some examples.

Note: Moving the mouse pointer over a button, option, check box, or text entry field will bring up related tool-tip-text.

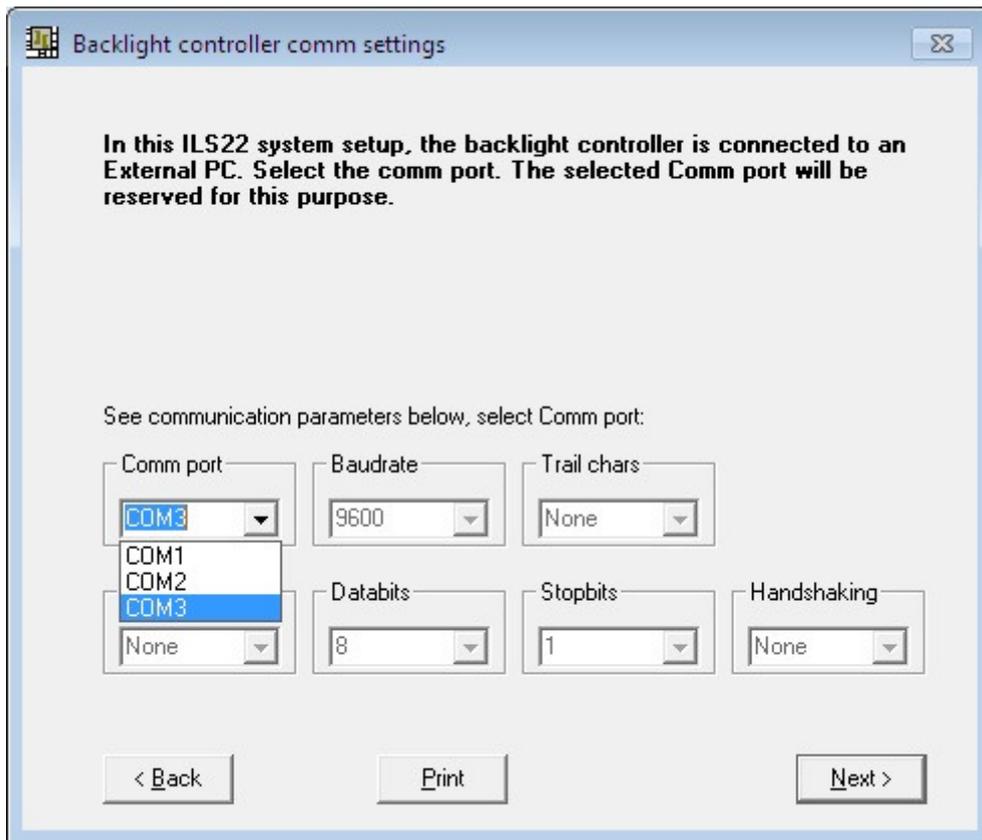
Note: If ILStranlator is started up without running this wizard, it will use factory default settings. Most of the default settings are explained in this Software User Guide.

Backlight controller.



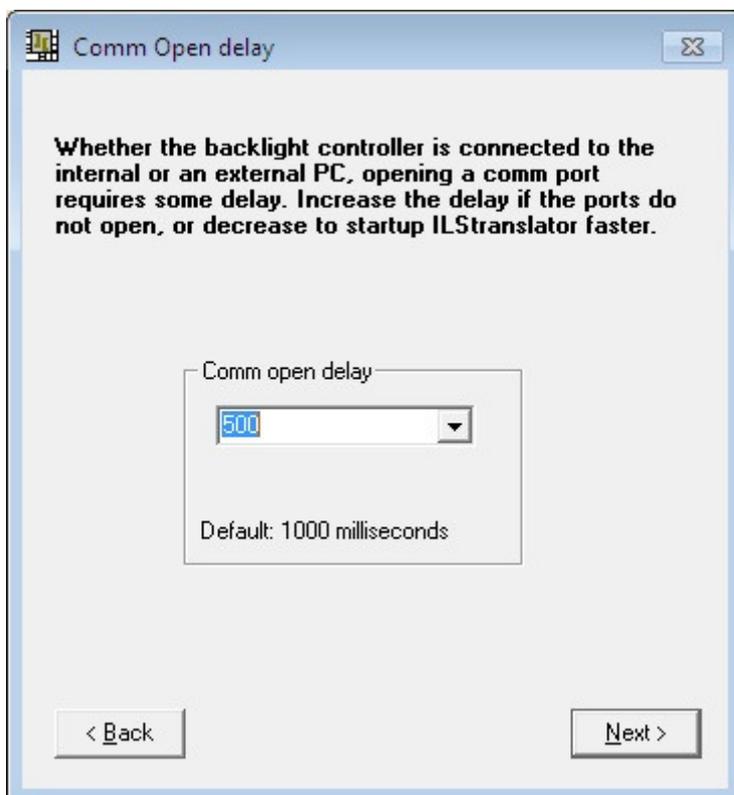
When the ILS22 is delivered in a standard setup, an internal PC is used to control the system and the backlight and relays controller. The internal PC has 4 serial comm. ports, of which COM4 is used to communicate with the backlight controller (see above scheme). In situations where an external PC is used, ILStranlator needs to know to which comm. port.

Note that only the Comm port can be changed. The other communication parameters are fixed.



Comm port open delay.

Whether or not the backlight and relays controller is connected to the internal or to an external PC, the comm. ports need some time after an open comm port command.

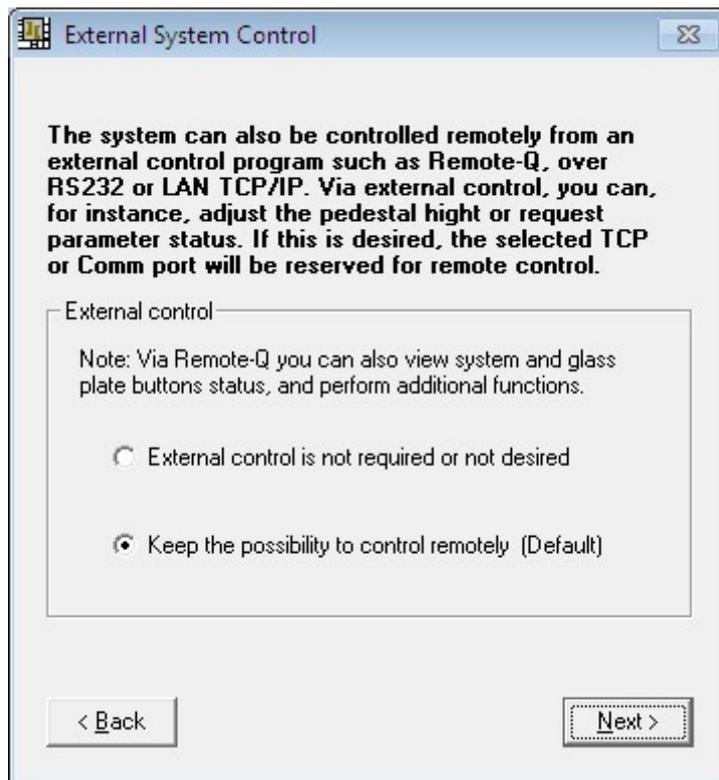


In the above form you can specify the number of milliseconds to wait before the comm. port gets active after opening it. If the internal PC is used, comm. ports may open successfully in just 250 milliseconds. With an external PC it may take longer. This entry allows to fine tune the system and has an impact on the ILStranlator start-up time.

Remote control.

If you want ILStranlator to also listen and allow control besides the direct glass plate buttons, keep that possibility open by selecting the second option.

Note: Select the second option if you also obtained Remote-Q.



Select which Comm port on the ILS22 you want to use and the Baudrate to operate at. Default is 19200 baud, but here you can increase that depending on your remote control hardware capabilities.

Note: With a modern PC or laptop you should be able to successfully communicate at 115200 baud or higher.

External Control comm settings

An external control program such as Remote-Q is able to control this system via a serial or LAN communication link. The selected Comm port or entered TCP port will be reserved for this purpose.

Allow remote access over RS232 Allow remote access over TCP/IP

TCP listening port: 65501

See communication parameters below, select comm port and baudrate:

Comm port COM1	Baudrate 19200	Trail chars None	
Parity None	Databits 8	Stopbits 1	Handshaking None

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If you rather want to control the lectern over a wired or WiFi LAN connection, select the TCP/IP option and enter the TCP listening port number.

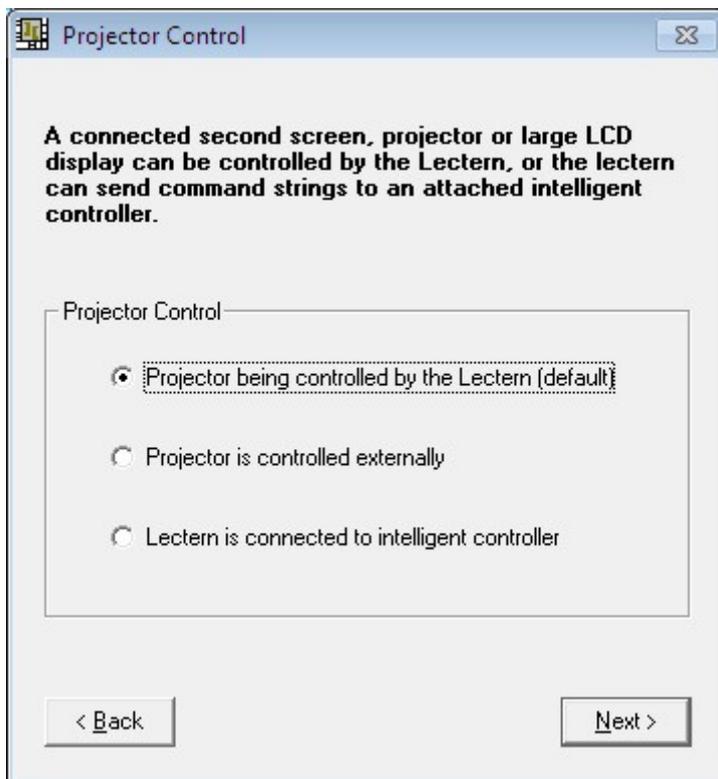
Note: The entered TCP port number should be in the range 49152 – 65535.

Note: Firewall settings may prohibit access to the lectern via TCP/IP. Verify with your ICT department that the ILS22 can be reached via local LAN.

Note: A dedicated RS232 connection can be faster than a networked connection but also requires a dedicated wired connection. Via TCP/IP you can control the lectern from any PC running Remote-Q and connected to the TCP/IP network.

Projector control.

The projector control form allows to select which device is controlling the projector concerning power on, power off or inquiry.



Option possibilities are displayed.

Select the first option if the projector is under direct control of the lectern.

Select the second option if the lectern has nothing to do with it, e.g. the projector functions are under direct control of a supplier supplied IR remote or a controller board room interface.

Select the third option if the lectern has to send out a command string to a connected intelligent controller.

Selecting option 1 or option 3 allows you to enter the communication parameters as shown in the following picture.

Note that other COMM ports may already have been reserved for Backlight controller communication and for remote control. In the standard ILS22Setup with internal PC, communication to the backlight controller is via the internal PC COM4 port, leaving COM1, COM2 and COM3 available for other connections. If no remote control was desired (keep the option open), both COM1,COM2 and COM3 should be available.

For some projectors (such as Panasonic PT-series) you may need to enter Hex characters. ILS22Setup allows to enter Hex characters via a \x entry, e.g. \x02PON\x03 for a power on command. If a command needs to be followed by a trail character (such as \x0D as Cr), you can enter that too, and leave Trail chars to None.

The following image shows an example for InFocus projectors. You can send a power on command as \x28PWR1\x29 or as (PWR1). As the InFocus projectors do not require a Trail character, Trail chars is set to None.

If under direct control, the lectern can power on/off the projector, or request lamp hours, via the on/off buttons or the Projector heading. You can enter command strings as a mix of ASCII and Hex characters (enter Hex as \x e.g. \x02 for STX).

Projector commands

- Power on via Projector On button
- Power off via Projector Off button
- via Projector header

Enter Command Strings below:

\x28PWR1\x29

(PWR0)

(LMP?)

Trail chars

None

Serial communications settings for direct projector control:

Comm port: COM2

Baudrate: 19200

Parity: None

Databits: 8

Stopbits: 1

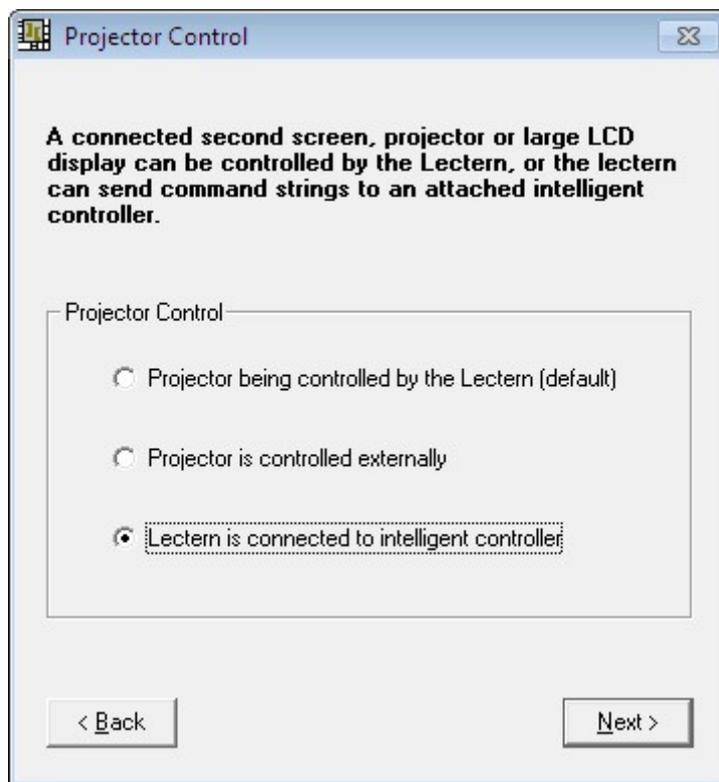
Handshaking: None

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The check boxes allow to specify whether the glass plate buttons are activated (check the box) or not activated (un-check the box).

In the Command string text boxes you can enter the ASCII strings to be send out to the projector to perform the function. In this example, the InFocus CLI command structure is used. (PWR1) , (enter as text without quotes), and it will power up InFocus projectors. (PWR0) will shut it down. A (LMP?) inquiry via the header will request lamp hours. Some protocols require a trailing character to indicate the end of the command. Select under Trail chars (the InFocus projectors require none).
The bottom half allows to specify the communication setting. Select the Comm port to be used on the ILS22, baudrate, parity, number of databits, number of stopbits and communication handshaking. People familiar with Windows embedded Hyperterminal should recognize the choices.

Instead of being under direct control, the ILS22 can be set up to control projectors via an attached controller capable of receiving command strings over a serial RS232 communication line.



Basically, this form is representative for the remainder of this user guide:

- Either control is directly via the ILS22 Lectern (actually via ILStranlator)
- Control is performed via external circuitry (externally)
- Control is performed with ILStranlator functioning as a user interface to an attached intelligent controller

If attached to an intelligent controller, and ILStranlator functioning as a user interface, you can specify which buttons are active, which commands to send and where to.

Next to Projector control via an attached intelligent controller, this also applies to:

- Room light control (Lights)
- Mute Mic control (Mute Mic)

- Mic Volume control (Mic sensitivity)
- Master Volume control (PC Audio)
- Switch control (Source out)

If all off these functions you specify are to be done without interaction with ILTranslator, or ILTranslator as user interface, choose for the second option which directs commands to be performed or controlled 'externally'. In that case, ILTranslator will not backlight these buttons to the Presenter.

If under control by an external intelligent controller connected to the lectern, the lectern can send command strings to power on/off the projector, or request lamp hours, via the on/off buttons or the Projector heading, via the intelligent controller. You can enter command strings as a mix of ASCII and Hex characters (enter Hex as \x e.g. \x02 for STX).

Projector commands:

- Power on via Projector On button
- Power off via Projector Off button
- via Projector header

Enter Command Strings below:

C3

C2

Trail chars: None

Serial communications settings for control via the connected controller:

Comm port: COM2

Baudrate: 19200

Parity: None

Databits: 8

Stopbits: 1

Handshaking: None

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In the String command text boxes you can define which ASCII text string is send to the attached controller. The controller will receive these commands and translate them into action for the projector connected to the controller. In this example the intelligent controller will, after pressing the Power on button on the ILS22 glass-plate, receive the string 'C3', without the quotes as indication to power on the projector. The controller will translate that into the correct command and perform the task of powering on.



In this example the check box for the Projector header is unchecked, so no action will be taken after pressing this button on the ILS22 glass-plate.

Pedestal control.

If the ILS22 is mounted on an electrical pedestal (the ILS Powerlift), it can be elevated up or down .



The elevation Up and Down keys under Extra Buttons are used to elevate the lectern. Please select below which relay is used to move the lectern up, and which relay is used to move the lectern down.

Relay number up: 22 (Default: 22)

Relay number down: 23 (Default: 23)

Select below how many seconds the relay should be closed for up/down elevation:

Nr of seconds: 2 (Default: 2.0)

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The ILS22 has build-in relays for control functions.

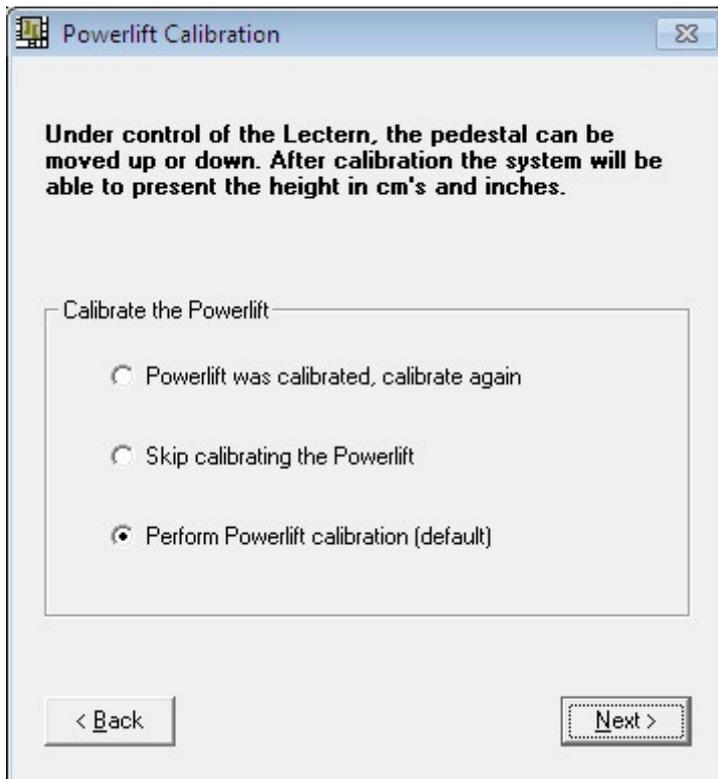
By default, relay 22 and relay 23 are reserved for driving the motor in the optional electrical pedestal from ILS (supplied with the ILS22G).

One can define the number of seconds the relays will be closed (number of seconds for up/down movement). Default is 2 seconds.

If under direct control of the lectern (ILStranlator), the following form will show up.

Via Powerlift Calibration you can specify ('Mark') the lowest setting, which in turn will be used to provide a calculated indication in ILStranlator (and Remote-Q) what the current height is calculated in cm's and inches.

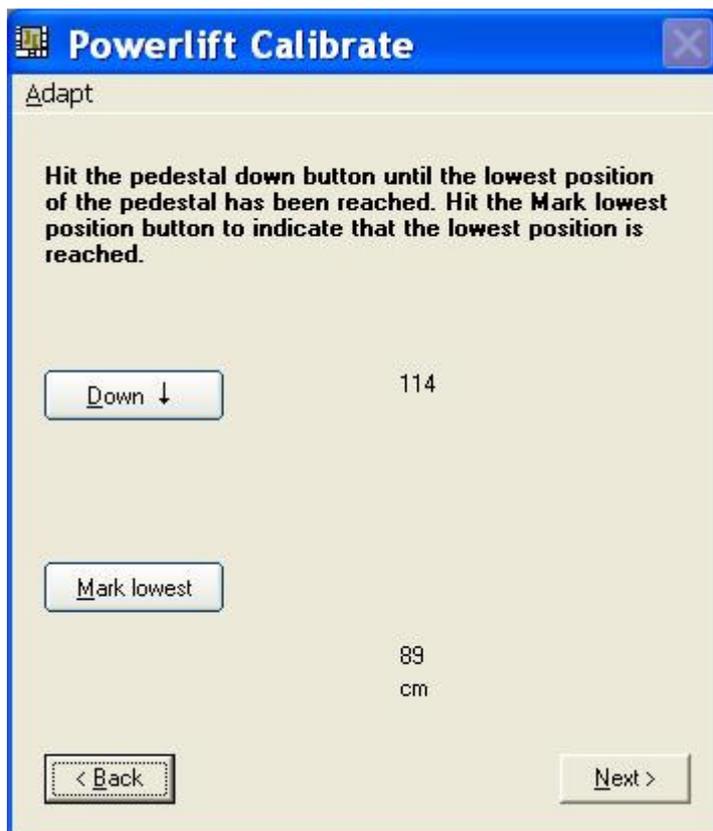
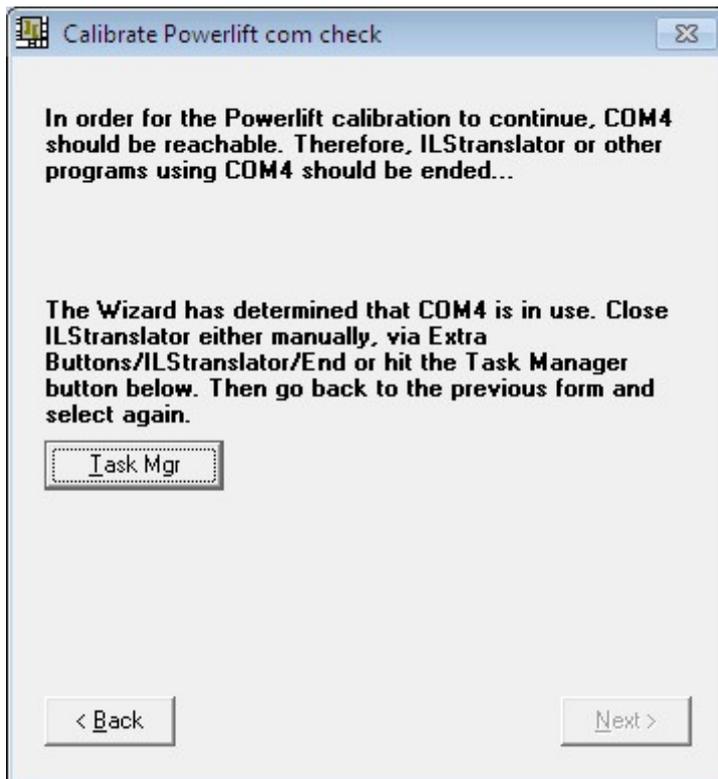
This calculated indication is shown in ILStranlator/Extra Buttons.



Select the first or third option to calibrate the Powerlift.

Important note: If you do NOT Calibrate the Powerlift, neither ILStranlator nor Remote-Q will be able to estimate approx height or adjust it showing approx height. In this case, in ILStranlator/Extra Buttons, the approx height is not shown and in Remote-Q you can not automatically adjust the desired pedestal height for the next presenter...

After verifying that the comm port to the backlight/relays controller is free for communication, the following form will show up (if not, a window will appear allowing to stop ILStranlator or other program which is communicating over the comm port):

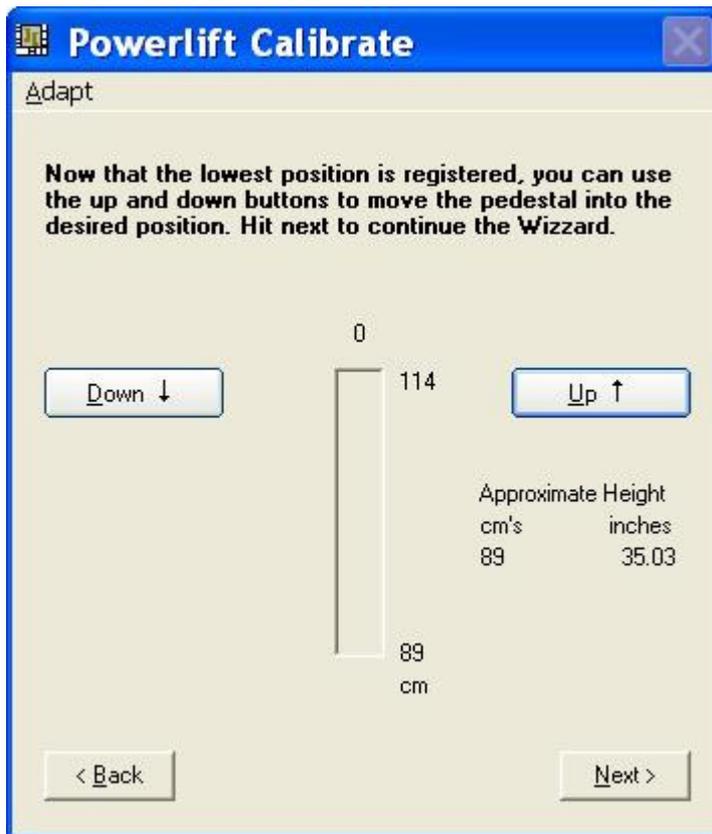


The form shows the approximate lowest and highest position measured in rounded centimeters (in this case 89 cm as lowest and 114 cm as highest). The positions are measured at the front (Presenter side) from ground up to the top of the pedestal.

Note: There might be later Powerlift engines which go lower or higher, or have a different rise-time from lowest to highest measured in seconds (current Powerlift installations go from lowest 89 cm to highest 114 cm in 17.5 seconds roughly). If in doubt, use Alt_A or the menu Adapt entry to change your findings.

While being present at the ILS22 lectern, hit the Down button in this ILS22Setup wizard, until the motor stops and will not allow to go lower. Based on the measured lowest position, you can still adapt lowest, highest and rise-time values.

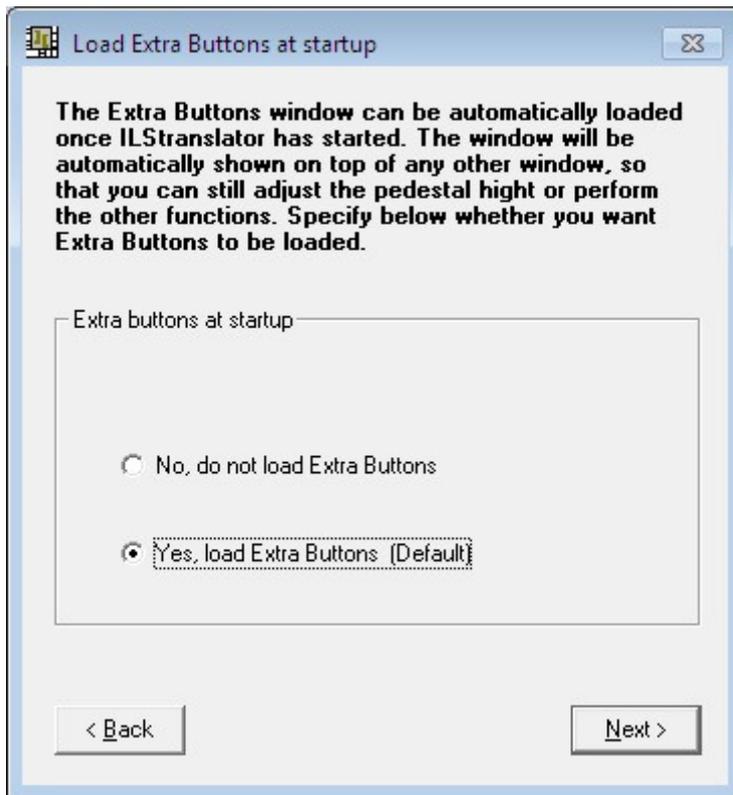
Hit the Mark lowest button and the following form will come up to allow you to adjust to an initial height.



Hit the Down or Up buttons to elevate the pedestal into a required default position. The approximate height values will be adjusted accordingly.

Hitting Next will show the Load Extra Buttons window:

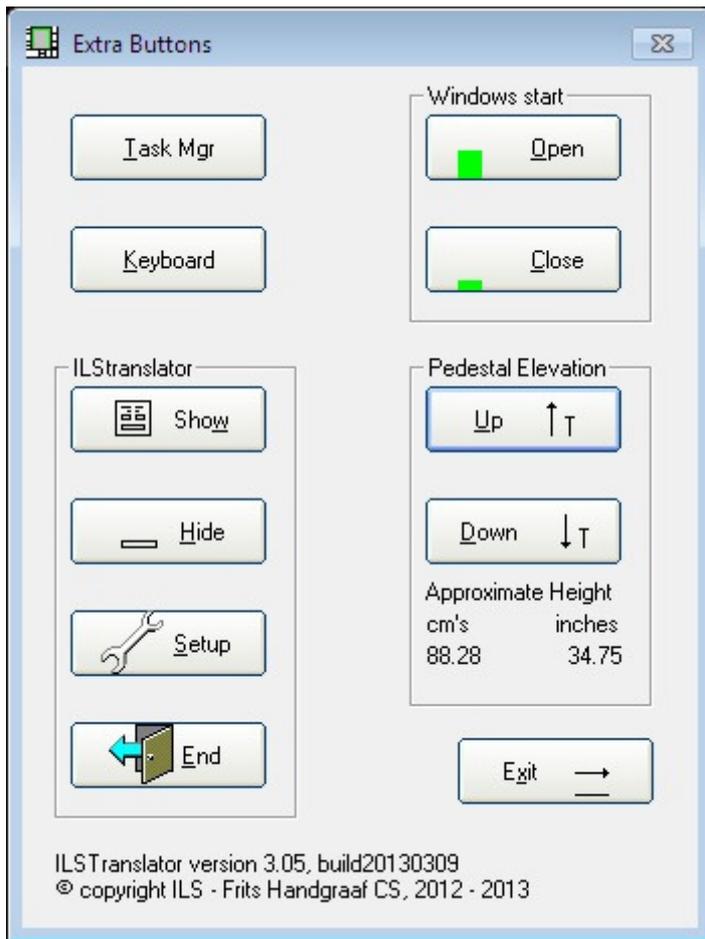
Load Extra Buttons.



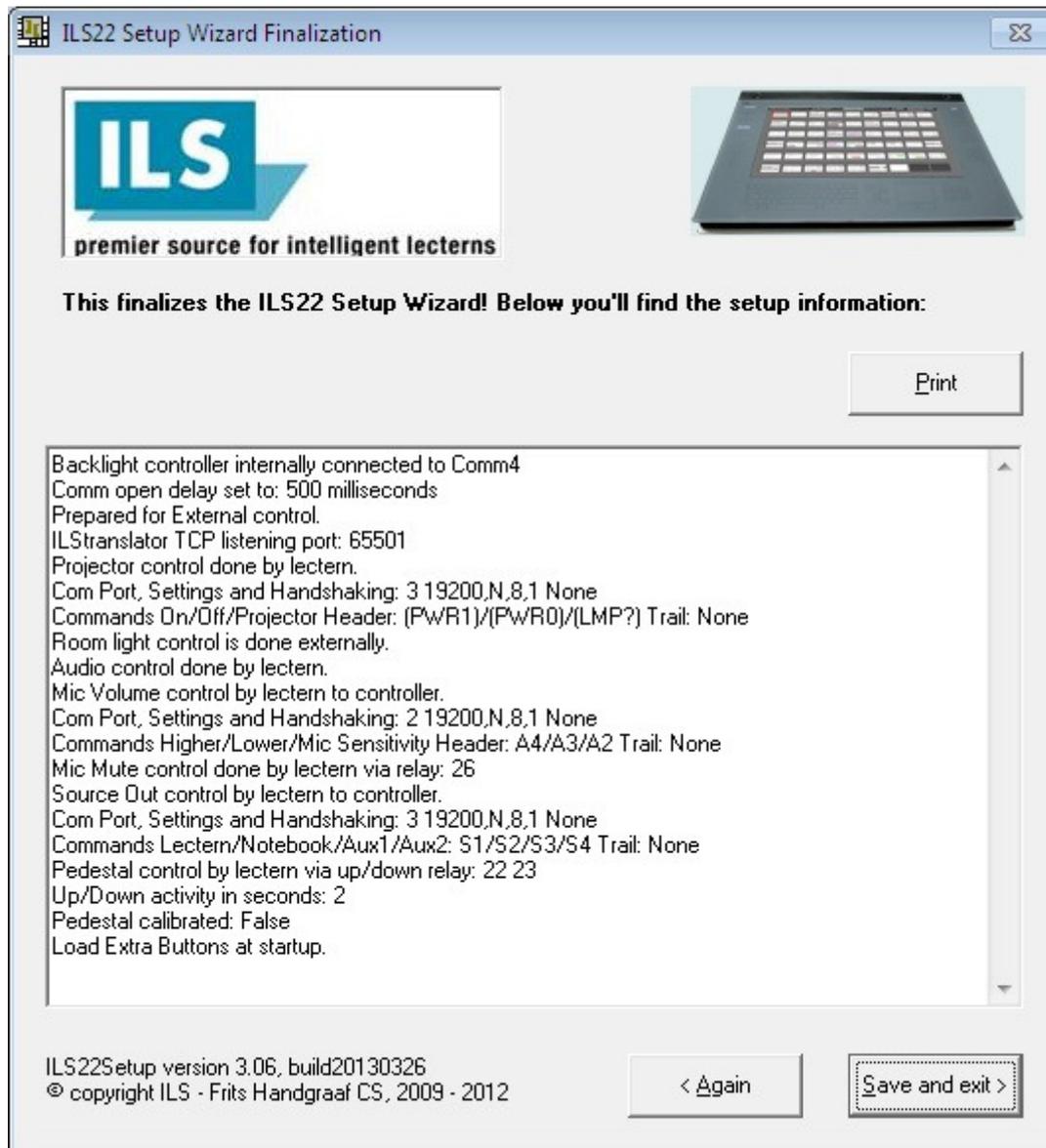
When loaded, you can adjust pedestal height, change ILStranlator settings (not ILS22Setup settings), show the Main window (which displays sent commands, received commands, connection status to Remote-Q) and can serve as a debug tool. In the Extra Buttons window you can also end ILStranlator from running, or hide the Extra Buttons window.

Note: When not loaded at startup, or unloaded via ILStranlator, bring the Extra Buttons window up again via the Extra Buttons glass-plate button.

The next screenshot shows how the Extra Buttons window appears:



To end the Wizard, hit the Next button to continue.



At the end of the wizard, an overview of selected settings will be provided.

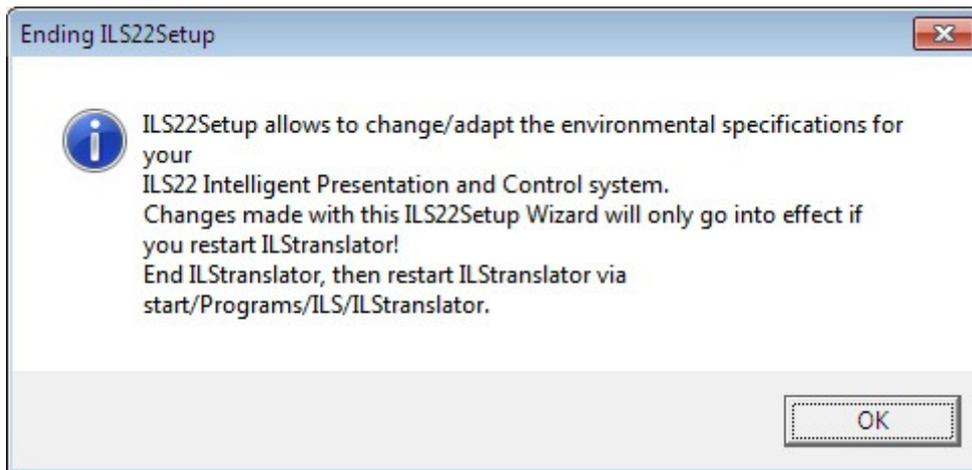
Hit the Save and exit button to save the settings to system registry.

If not content, hit the Again button to restart the Wizard.

When ILStranlator, the glass-plate interface embedded software, is started up, it will read the ILS22Setup settings from the registry and act accordingly.

Note: Within ILStranlator, these settings can not be changed. Therefore, restart ILStranlator if changes were made in ILS22Setup, and you want them to be in effect.

Note: Typically, ILS22Setup is run once only to adapt the ILS22 to required conditions.



Conclusion.

With the ILS22Setup wizard, you, your ILS VAR reseller, or your local ICT/AV support personnel, can exactly determine and specify the ILS22 setup configuration. If it needs a change, for instance because a projector or other device is being replaced, other default requirements are being desired, or in any other circumstances, ILS22Setup can be used to redefine your requirements. Your ILS22 presentation and control system is reacting accordingly (as is Remote-Q). In other words, redefine your new requirements and setup, with this single wizard...

For more information concerning the ILS22, ILS22Setup, ILStranlator or Remote-Q, check the ILS web-site:

www.intelligentlecterns.com

or the FHCS web-site:

www.fritshandgraafcs.com

or contact:

henk.degroot@intelligentlecterns.com

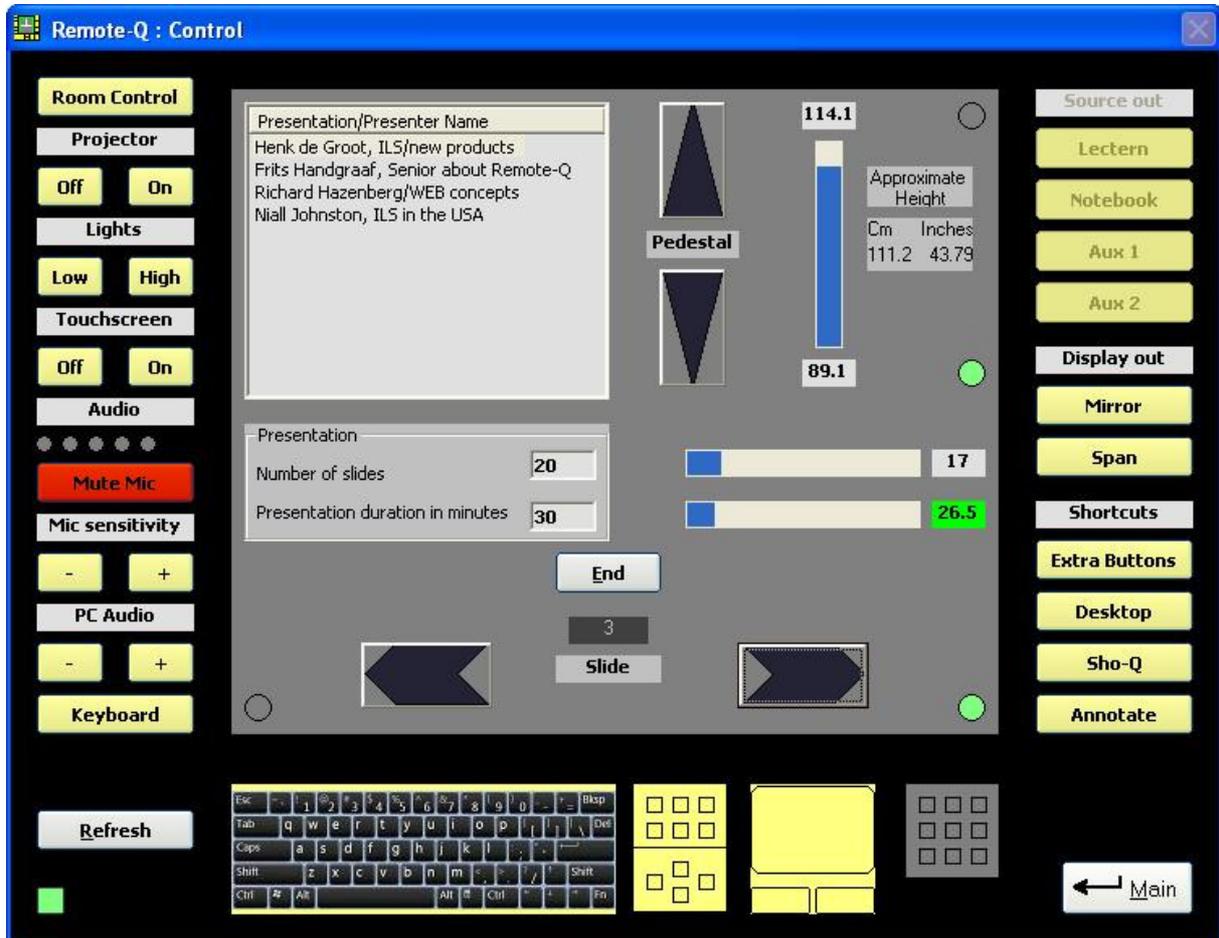
frits.handgraaf@intelligentlecterns.com or

frits@fritshandgraafcs.com

March 26, 2013 by:

Frits Handgraaf

Appendix, Remote-Q screenshot.



Appendix, ILS22 glass-plate buttons.

