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nexgentec blind driver (NGTSLC4ZRLMV3VENBL) for dual relay blind module V3

1.   Disclaimer
- Genesis Technologies does provide this driver as it is. There is no commitment to support, nor does Genesis Technologies assure a decent reaction time in case of a problem. Genesis Technologies can refuse all support, discontinue support, end the driver lifetime at any time. Genesis Technologies will not refund in any case licenses
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By using this driver you accept that you have read and accepted the terms above!

2.   What is this driver? What is it used for?
This driver is designed to work with the *nexgentec dual relay blind module V3*
It does add a blind, venetian blind or whatever 2 relay moveable/controllable device to the Control4 project. **Do not attempt to use it with V2 blind module!**

3.   What features does the driver support?
All features of a 2.9+ blind driver are supported.

4.   Theory of operation / general info
With C4 OS 2.9 a new blind interface were introduced. This blind will appear in 2 fields on the Navigators. One field is the blind itself (red marked) and the other one are the louver from the blind (green marked)
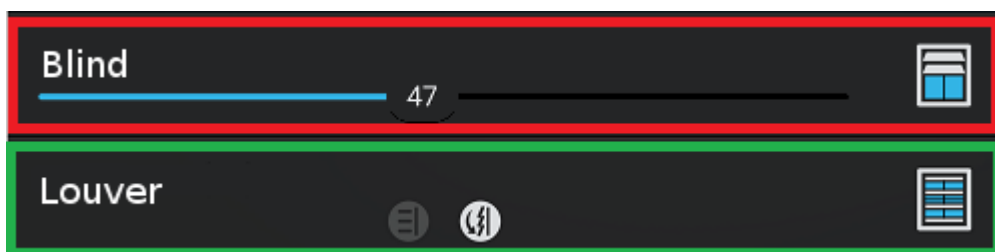
By connecting the louver and the blind part together all buttons from blind and louver

can be moved to one field with all buttons (blue marked). Note that the feedback is also merged to one single field on the right and it may behave creative
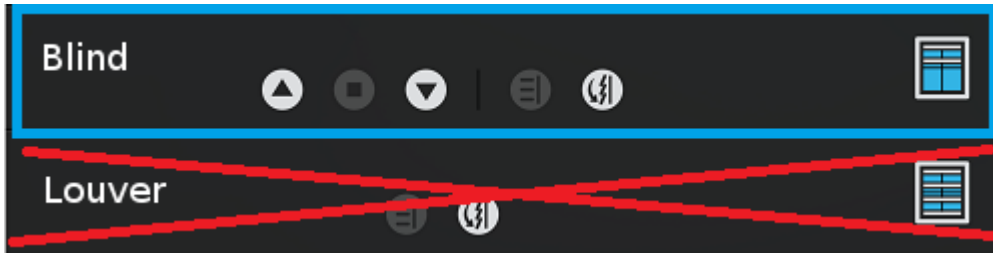

Unfortunately the Navigators don't hide the Louvers field if the connection is done, that has to be done via the room properties in Composer (hide the louver part of the blind) To get the 2 fields merged, simply connect (in Connections) the binding BLIND_SECONDARY_CONTROL and refresh Navigators

In any case the view of the blue or red marked field can be changed to slider view, up/down/stop, etc… view by using the pen symbol and swipe to left and right in the field.
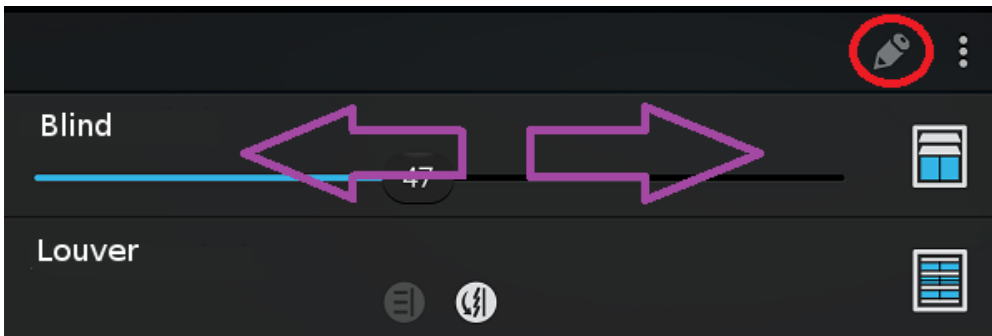
Be aware that the blind have feedback from the slider position and will show an unknown position each time the Controller starts up. As well the toggle buttons will show a question mark. In this status the driver is *uncalibrated*
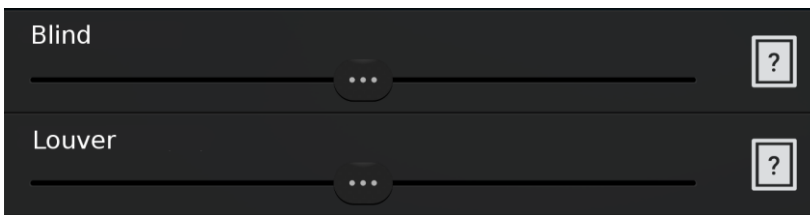

Once the blind is uncalibrated and moved, it will first calibrate itself, meaning that it will travel to an end position (using the time set in Properties *Moving time up/down (s)*) and then to the level entered.

5. Software installation Control4 (new installation)

Assuming that you have already downloaded the drivers and placed them in %USERPROFILE%\Control4\Drivers.
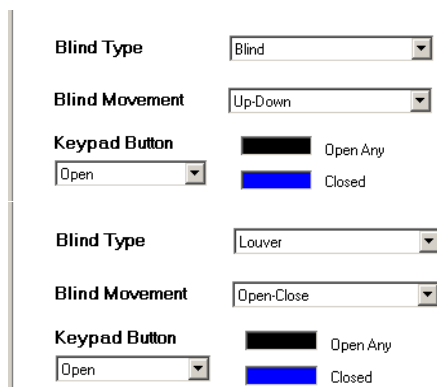
5.1. Start Composer, go to *System Design* and select the tab *Search* in the right top window. Search for *nexgentec dual relay blind module V3*

5.2. Drag and drop the *nexgentec Dual Relay Blind Module V3 (OS2.9+)* driver into the wished room. Click on it and find the Properties page. (Hovering with the mouse over the Properties will show up hints)

5.3. The dual relay blind module uses a Control4 Z2IO Zigbee module, this driver also must be added. Go to *System Design* and select the tab *Search* in the right top window. Search for Z2IO

5.4. Add the Z2IO driver and identify the blind module with a paper clip, push 4 times while having open Composer's Zigbee identification window
(To remove the device from the Zigbee network:
1. Remove power from the device by disconnecting the power connector
2. Hold down the identification button and return power to the device.
3. Continue to hold down the identification button while the device boots up. After about 10 seconds release the button. It is now ready to be joined to a new network)

5.5 Setup the properties on the Z2IO driver, leave all default except for *IO Options* which need to be set to *Option 2: C1, C2, C3, C4* as shown

IO Options

IO Options	Option 2: C1, C2, C3, C4	∨
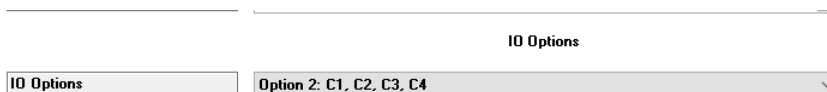
5.6. Properties of the *nexgentec dual relay blind module* driver

Very important is to set the Proxy properties first!
Set on the 2 parts of the blind, blind and louver, what they should display on Navigators

Blind Type	Blind
Blind Movement	Up-Down
Keypad Button	▮ Open Any
Open	▮ Closed

Blind Type	Louver
Blind Movement	Open-Close
Keypad Button	▮ Open Any
Open	▮ Closed

If you have a standard blind with no louver just ignore the louver section and hide it from the Navigators

- -> Info show the driver health info If no version and *running* is not shown the driver will not work

- Driver name: The product identification of the driver

- Moving time up/down (s): **Measure the time the blind travels for both directions using a stop timer on your phone. Insert the correct values (do not exceed the values a bit, full moves will be extended by the driver itself by 10%)**

- Louver open after blind up (%): Set the percentage of the louver openness after a blind travel up. (not end position)
- Louver open after blind fully up (%): Set the percentage of the louver openness after a full blind travel, blind is in upper end position
- Louver open after blind down (%): Set the percentage of the louver openness after a blind travel down. (not end position)
- Louver open after blind fully down (%):Set the percentage of the louver openness after a full blind travel, blind is in lower end position
- Louver steps open / close: How many steps the blind has to do to open or close the louver
- Louver step duration (ms): Set the duration of the slat steps. If set too fast the blind may not react.
- Moving detection delay (ms): Feedback from attached hardbutton is delivered over the contact connection, deepening on the size of the Zigbee network feedback may not be accurate, increase this setting in this case.
- Z2IO module: Select the Z2IO module which is used with this blind module, see also 5.7
- Toggle button can stop: Default C4 behavior is that the toggle button does work like up/down/up... If set to true it does work as up/stop/down/stop/up…
- Apply config to...: All settings will be transferred to the selected drivers.
- Get settings from old blind driver..: If old blind_dual_relay_module_V2_genesis_technologies_switzerland.c4i blind drivers were used in the system all common settings can be overtaken from them
- -> Log / Lua window: Selects the log level printed out in Lua window from Composer. Use the level *Debug* to see what the driver does
- -> Log / Online log server: If a persistent problem appears that cannot be solved from the installer support may ask you to activate a decent level. Do not use until support ask you to do so
- Log period (h): The time frame the log should output
- Log auth: Developer can give you a code to see more logs. Usually not really interesting, only for in deep debug

5.7. Setup the connections to the Z2IO module: Select in Properties *Z2IO module* the module which you have identified. This will connect the IR and all 2 contact connection automatically. In connections this can be controlled:

Control Inputs				
Blind Group	Control	BLIND_GROUP	Input	
IR Input	Control	IR_OUT	Input	StoremodulV3->IR Output 1
Contact	Control	CONTACT_SENSOR	Input	StoremodulV3->Contact Input 1
Contact	Control	CONTACT_SENSOR	Input	StoremodulV3->Contact Input 2
Contact	Control	CONTACT_SENSOR	Input	StoremodulV3->Contact Input 3
Contact	Control	CONTACT_SENSOR	Input	StoremodulV3->Contact Input 4

6. Programming Events

- Standard C4 events

7. Driver actions
- Reset: Restarts the driver
- Run calibration: This will run a calibration of the blind. On finish the travel times up and down will be inserted automatically into the properties
- Stop calibration: Cancels the calibration process

8. Known issues
Using the hardware buttons on the blind module input may not update blind/louver level changes on Navigators. Only press/hold events over 800ms are transmitted to the driver. Therefore short presses are not shown as level changes and therefore also tracking may be slightly lost. To recalibrate do a full up or down travel. Should the blind not go fully up or down use the hard buttons to correct

9. Updates / Support
Updates are available on: <<https://technet.genesis-technologies.ch>>
Bugs should be reported to: info@genesis-technologies.ch

10. Hardware connections