

# NodeLink

## Requirements:

- Computer running 24-7. This could be Windows, Raspberry Pi, Docker, VM, whatever.
- NET 5 Runtime installed
- ISY V5 firmware
- ISY Network Module

Download and run the latest version of NodeLink from:

<http://automationshack.com/Files/NodeLink.dll>

<http://automationshack.com/Files/NodeLink.runtimeconfig.json>

Once running you'll see the address for the web configuration listed in the console. Point your browser to this address. The various tabs and functions are listed below.

## Main

The **Main** screen contains the log window and various logging options such as logging to file or a syslog server.

A note on logging:

For each logging type, a minimum logging level can be set. Log items with a severity level  $\geq$  to this setpoint will be logged. Each device added to NodeLink, and the ISY communication data can be adjusted separately for logging level. In this way NodeLink can be very selective about how much data, for each device, is sent to the various logging facilities.

The logging setting for the NodeLink-ISY communication is set on the **System Config** tab.

## System Config

This tab is used to setup communications with the ISY as well as many other advanced features of NodeLink.

## Devices

This tab is where various devices are added to NodeLink. Once entered, each device will have its own web configuration tab with various settings available for adjustment.

This page is also where the ISY node definitions can be updated.

## Relay Server

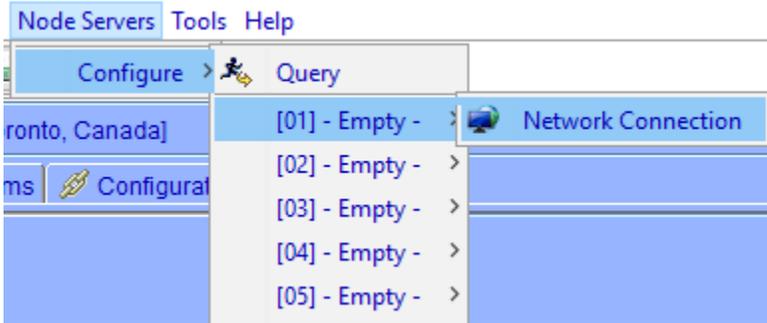
If enabled under the **System Config** tab, the relay server allows for additional commands to be sent to your devices, remote restarting of the computer, and other user-defined commands.

## Work Flow for a New NodeLink Setup

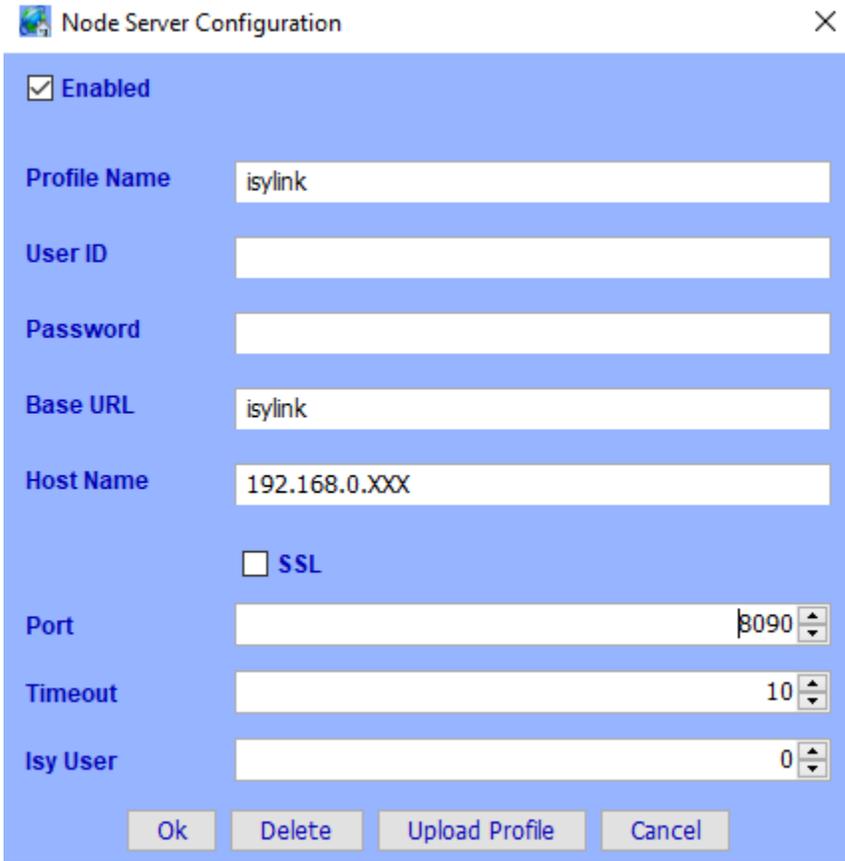
- Install and run NodeLink.
- Point web browser to the address displayed in the NodeLink log window.
- On the **System Config** tab, enter the ISY login and password.
- On the **Devices** tab, hit the "Setup Node in ISY" button. This configures the ISY to communicate with NodeLink. This can also be done manually (see Appendix A).
- On the **Devices** tab, hit the "Install NodeDef Files" button. This load all NodeLink's custom node definitions into the ISY (see Appendix B).
- On the **Devices** tab, install any device you wish to use. The "View Device Descriptions" button provides information on what each NodeLink device does.

## Appendix A: Setting up the Node Server in the ISY

The Node Server must be created within the ISY. Select a new Node Network Connection as shown below:



Setup the node configuration as shown below, entering the address/port of your NodeLink program as required. If authentication is selected under **Web Configuration** under NodeLink's **System Config** tab, this username and password needs to be included here as well.

A screenshot of the 'Node Server Configuration' dialog box. The dialog has a blue background and a title bar with a close button. It contains the following fields and options:

- Enabled
- Profile Name: isylink
- User ID: (empty)
- Password: (empty)
- Base URL: isylink
- Host Name: 192.168.0.XXX
- SSL
- Port: 8090 (spin box)
- Timeout: 10 (spin box)
- Isy User: 0 (spin box)

At the bottom, there are four buttons: 'Ok', 'Delete', 'Upload Profile', and 'Cancel'.

## Appendix B: Installing / Updating Node Definitions

Node definition files are installed through the **Devices** tab on the NodeLink web interface. Once a proper ISY user/password are setup on the **System Config** tab, the node definitions can be installed/updated by pressing the **Install NodeDef Files** button.

### ISY Node Server Install (Profile 1)

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The ISY Node Server profile should be configured as follows:

Profile Name: isylink

Base URL: isylink

Host Name: IP address of the machine running NodeLink (likely 192.168.56.1)

Port: 8090

Timeout: 10s (recommended)

### Update Node Profile

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**Install NodeDef Files**

**Auto-Update ISY**

Auto-updates the ISY when a new NodeLink configuration is found

ISY Details

From time to time it may be necessary to update the nodesetup.zip file for NodeLink. On startup the NodeLink log will notify you if the definitions are out of date. The same button mentioned above will update the definitions. This will not erase any of your previously setup nodes.

There is also the option to automatically update the node definitions through NodeLink. The ISY does not need to be restarted when definitions files are updated.

## Installing Nodes

Once a new device is added and configured in NodeLink, any required nodes should be automatically added to the ISY. If there were errors and nodes did not get fully installed, you can press the “Install Node(s)” button on the device’s configuration page (in NodeLink’s web configuration) to retry manually.

At this point you should have communication between the device and the ISY, and your new node should be present within the ISY.