

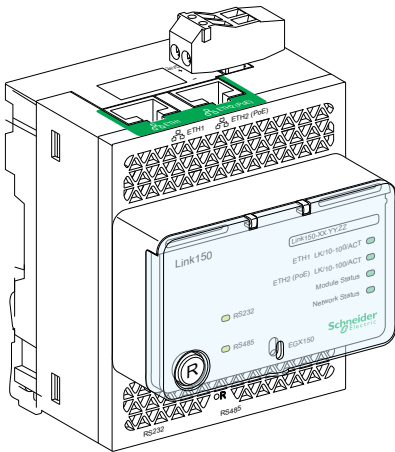
# EcoStruxure

## Link150 Ethernet Gateway

### Firmware Release Notes

EcoStruxure offers simple, cost-effective serial-to-Ethernet connectivity.

DOCA0182EN-03  
04/2021



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# Introduction

## EcoStruxure Master Range

EcoStruxure is Schneider Electric's IoT-enabled, plug-and-play, open, interoperable architecture and platform, in Homes, Buildings, Data Centers, Infrastructure and Industries. Innovation at Every Level from Connected Products to Edge Control, and Apps, Analytics and Services.

## Link150 Ethernet Gateway

Link150 Ethernet gateway is a communication device that provides connectivity between Ethernet (Modbus TCP/IP) and Modbus serial line devices.

It allows:

- Modbus TCP/IP clients to access information from serial slave devices
- Serial master devices to access information from slave devices distributed across an Ethernet network.

## Firmware Release History

Date	Firmware version	Availability
April 2021	005.001.022	Release for manufacturing
December 2020	005.001.019	Obsolete
October 2020	005.001.018	Obsolete
December 2019	005.001.015	Obsolete
February 2019	005.000.029	Obsolete

## Firmware Update Policy

If the latest features of a firmware update are not required, it is not mandatory to update the firmware of a device. However, potential cybersecurity vulnerabilities are regularly addressed and update is recommended.

Use this release note to determine whether an update to the latest version of the Link150 firmware is interesting or relevant for your application.

## Firmware Update

Link150 firmware shall be updated by using the Link150 Firmware Upgrade Tool V2.1. This tool provides the software solution to update the Link150 gateway to the latest firmware version irrespective of the initial version.

Link150 firmware version 005.001.022 is delivered with Link150 Firmware Upgrade Tool V2.1. This tool is mandatory to update any firmware version of Link150 gateway to the latest firmware version.

For more information on updating the Link150 firmware, refer to Link150 Firmware Upgrade Tool V2.1, page 8.

# Firmware Versions

## Firmware Version 005.001.022

### New Features

- Added the configurable Modbus port numbers for remote device connections in Modbus Slave mode.
- Added a feature to disable the Ethernet port not in use.
- Added the security updates in support of SNMP default configurations.

## Firmware Version 005.001.019

### Bugs Fixed

IP configuration was not possible for some devices according to their MAC address.

## Firmware Version 005.001.018

### Security Updates

Treck TCP/IP Vulnerabilities (Ripple20) was fixed. Refer to [SEVD-2020-175-01](#) Schneider Electric Security Notification – Treck TCP/IP Vulnerabilities (Ripple20).

**NOTE:** Link150 gateway with firmware version 005.001.018 cannot be downgraded to older version of firmware (up to version 005.001.015).

## Firmware Version 005.001.015

### Security Updates

- Security updates in support of:
  - Self-signed certificate
  - Link150 gateway in **HTTPS Enabled** mode by default
  - RBAC-User Account Management supported with Admin and Guest pre-defined roles
- Removed the FTP feature for better security

### New Features

Added the following features:

- New user interface layout in the webpages
- RSTP feature
- Firmware update supported through webpage for version 005.001.015

**NOTE:**

- Firmware version 005.001.015 is not backward compatible with existing User Account Management. By updating to firmware version 005.001.015, user will lose all the user account settings.
- Connection of Modbus TCP/IP cannot be configured from firmware version 005.001.015, and supports up to 32 address.
- Link150 gateway with firmware version 005.001.015 cannot be downgraded to older version of firmware (up to version 005.000.029).

## Firmware Version 005.000.029

### Bugs Fixed

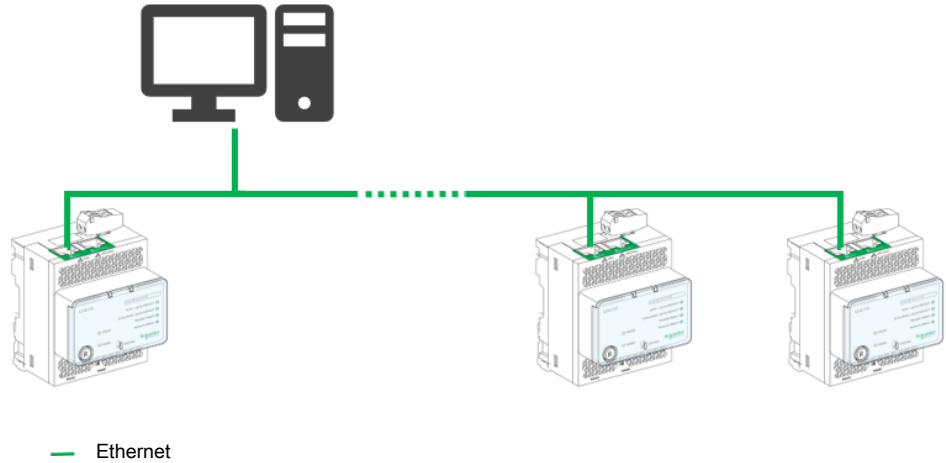
- Connectivity with PME software for ION connection was improved.
- Modbus slave ID in response to exceptions in Modbus ASCII was corrected.

# Link150 Firmware Upgrade Tool V2.1

## Firmware Update Setup

The firmware can be updated for multiple Link150 devices at a time, depending on the load supported by Ethernet architecture only in case of star topology. Refer to the below graphical representation.

**NOTE:** It is not recommended to update the firmware for more than 32 devices at a time.



### **⚠ WARNING**

#### **POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY AND CONFIDENTIALITY**

- In a daisy chain setup, update the device firmware only one at a time. The Link150 Firmware Upgrade Tool will not support firmware update of multiple devices at a time.
- For firmware version 005.001.015 or later, it is strongly recommended to enable HTTPS mode before starting the firmware update of Link150 gateways.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**



## Tool Configuration

The automatic discovery feature is not available in the firmware upgrade tool. The list of Link150 gateways to be updated shall be described and written manually in a **.csv** file. The **.csv** file name is not important.

Each line corresponds to one gateway in the format: IP Address, Login, and Password.

	A
1	192.168.24.47,Administrator,Gateway
2	192.168.24.48,Administrator,Gateway
3	192.168.106.89,Administrator,Gateway
4	192.168.219.180,Administrator,Gateway

For example:

- 192.168.24.47: IP address of the gateway
- Administrator: Login of Administrator account
- Gateway: Administrator account password

### **NOTICE**

#### **UNINTENDED ACCESS TO CONFIDENTIAL DATA**

- Once all the devices are updated, encrypt the file and protect it with a password to save the file integrity and confidentiality. Most compression utilities can perform such operation.
- Store the encrypted archive file in a location on a PC or a network directory where access controls are enforced to help prevent any unauthorized access to the file.

**Failure to follow these instructions can result in unauthorized or unintended access to data.**

## Procedure for Updating Link150 Firmware

**NOTICE**

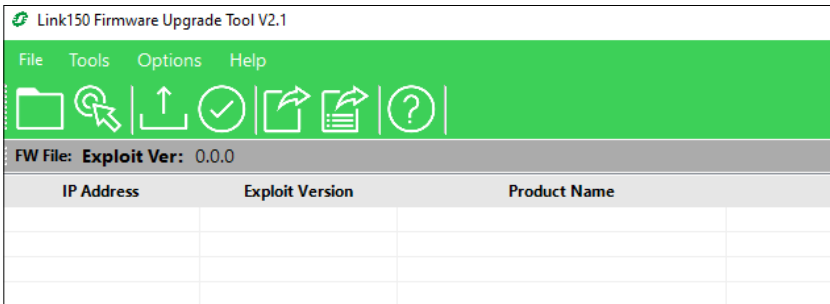

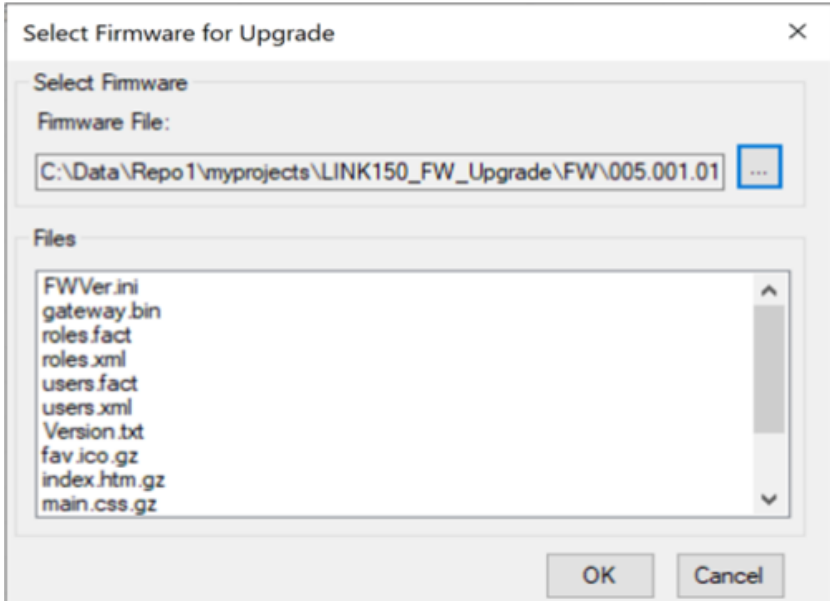

**HAZARD OF EQUIPMENT DAMAGE**





- The Link150 gateway must be continuously powered during the firmware update.
- The connection with the Link150 gateway must be uninterrupted during the firmware update.

**Failure to follow these instructions can result in equipment damage.**

Once the firmware update starts, all the options in the window will be disabled till the firmware update process is completed. The device status is automatically updated. Depending on the initial firmware version of a gateway, the firmware update process can last from 5 to 15 minutes.

Follow the procedure to update the firmware of the Link150 gateway:

Step	Action
1	<p>Double-click the <b>Link150fwupgradetool.exe</b> file to open the Link150 Firmware Upgrade Tool V2.1.</p>  <p><b>NOTE:</b> The Link150 Firmware Upgrade Tool V2.1 is compatible with Microsoft® Windows® 10 and later.</p>
2	<p>Click  icon to select the firmware version for update.</p> <p>This action can also be done through <b>Tools &gt; Select Firmware</b>.</p>
3	<p>Select the <b>Link150_Delivery_Package_V005.001.022.zip</b> file and click <b>OK</b>.</p>  <p><b>NOTE:</b> The <b>Link150_Delivery_Package_V005.001.022.zip</b> file can be downloaded from <a href="http://www.se.com">www.se.com</a>.</p>
4	<p>Click  icon to select the .csv file.</p>

Step	Action
	<p>This action can also be done through <b>File &gt; Open</b>.</p> <p><b>NOTE:</b> The tool will load the data retrieved from all units:</p> <ul style="list-style-type: none"> <li>• Current firmware versions</li> <li>• Device status</li> </ul>
5	<p>Click  icon to start the firmware update of the gateway(s).</p> <p>A safety message is displayed. Read the message and click <b>I UNDERSTAND</b> to continue.</p> <p>This action can also be done through <b>Tools &gt; Upload Firmware</b>.</p> <p><b>NOTE:</b> When the firmware update is completed, a new device version is displayed in the <b>Exploit Version</b> column.</p>
6	<p>Select the devices to verify the firmware consistency with the latest firmware version available.</p>
7	<p>Click  icon to start the verification.</p> <p>This action can also be done through <b>Tools &gt; Check FW Consistency</b>.</p> <p><b>NOTE:</b> The recommendation as per device firmware information is available in the <b>Status</b> column .</p>
8	<p>Click  icon to save the firmware update logs of selected devices.</p>
9	<p>Click  icon to export the firmware update result.</p>

## Related Documents

The following table lists the documents that are compatible with a Link150 gateway with the latest firmware version:

Title of documentation	Publication date	Reference number
Ethernet Gateway Link150 – User Guide	04/2021	<a href="#">DOCA0110EN-05</a>
Ethernet Gateway Link150 – Instruction Sheet	09/2018	<a href="#">NHA50221-03</a>

You can download these technical publications and other technical information from the website at <https://www.se.com/en/download>.



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