



**Release notes**

## **Migration to Firmware V2 for netTAP NT 100 Devices**

**Hilscher Gesellschaft für Systemautomation mbH**

**[www.hilscher.com](http://www.hilscher.com)**

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# 1 Introduction

## 1.1 About this manual

This document compares firmware version 1 with firmware version 2 for NT 100 devices.

## 1.2 List of revisions

Index	Date	Chapter	Revision
1	2021-04-28	All	Document created.

*Table 1: List of revisions*

## 2 netTAP NT 100 devices

### 2.1 Overview

The firmware for NT 100 has been updated. This is a major update of all stacks in the firmware and the firmware version is V2 now. Firmware version V2 requires SYCON.net starting with version V1.500.210311.36073.

-	Firmware V1.x	Firmware V2.x
DVD	Gateway Solutions DVD up to 2019-08-1	Gateway Solutions DVD Starting with 2021-05-01
SYCON.net	V1.500.190606.28079 and earlier V1.400.x.x V1.351.x.x	V1.500.210311.36073 and later

Table 2: Overview

### 2.2 Devices

#### 2.2.1 Hardware revisions

The hardware revisions of all netTAP NT 100 devices are unchanged.

#### 2.2.2 NT 100-RE-EN

Software updates for the NT 100-RE-EN are discontinued. Recommended for new projects: Use the NT 151-RE-RE instead. NT 151-RE-RE offers more protocol conversions, see section *Protocol conversions supported by NT 151-RE-RE* on page 6. In SYCON.net, create a new project for NT 151-RE-RE as SYCON.net does not import NT 100-RE-EN project files.

## 2.3 Firmware

### 2.3.1 Protocol conversion updated

#### **Firmware version V2**

The firmware for NT 100 have been updated to firmware version V2 for protocol conversions:

- Ethernet to Fieldbus
- Ethernet to Serial
- Fieldbus to Fieldbus
- Fieldbus to Serial

#### **Firmware version V1 (NT 100-RE-EN)**

Protocol conversions for “Ethernet to Ethernet” for NT 100-RE-EN have not been updated (no further development) and is firmware version 1. NT 151-RE-RE supports all protocol conversions of NT 100-RE-EN. For new installations, use NT 151-RE-EN instead of NT 100-RE-EN. Firmware for NT 151-RE-RE will have further development.

## 2.3.2 Protocol conversions supported by NT 151-RE-RE

The following table lists the protocol conversions of NT 100-RE-EN supported by NT 151-RE-RE:

Protocol conversion (X2/X3)	NT 151-RE-RE firmware
PROFINET IO-Device / Open Modbus/TCP	T120D0L0.NXF
PROFINET IO-Device / EtherNet/IP Scanner	T120D0G0.NXF
EtherCAT Slave / EtherNet/IP Adapter	T120F0H0.NXF
EtherCAT Slave / Open Modbus/TCP	T120F0L0.NXF
Sercos Slave / EtherNet/IP Adapter	T120J0H0.NXF
EtherNet/IP Adapter / PROFINET IO-Device	T120H0D0.NXF
EtherNet/IP Adapter / PROFINET IO-Controller	T120H0C0.NXF
EtherNet/IP Adapter / EtherCAT Master	T120H0E0.NXF
EtherNet/IP Adapter / Sercos Master	T120H0I0.NXF
Open Modbus/TCP / Sercos Master	T120L0I0.NXF
EtherNet/IP Adapter / EtherNet/IP Adapter	T120H0H0.NXF
EtherNet/IP Adapter / EtherNet/IP Scanner	T120H0G0.NXF
EtherNet/IP Adapter / Open Modbus/TCP	T120H0L0.NXF
POWERLINK Controlled Node / EtherNet/IP Adapter	T120K0H0.NXF
POWERLINK Controlled Node / Open Modbus/TCP	T120K0L0.NXF
Open Modbus/TCP / PROFINET IO-Controller	T120L0C0.NXF
Open Modbus/TCP / EtherCAT Master	T120L0E0.NXF
Open Modbus/TCP / EtherNet/IP Scanner	T120L0G0.NXF
Open Modbus/TCP / Open Modbus/TCP	T120L0L0.NXF

Table 3: Protocol conversions of NT 100-RE-EN supported by NT 151-RE-RE

### 3 Use cases and brief step-by-step instructions

This section contains brief step-by-step instructions for the use cases:

- Preparing a replacement device
- Update firmware and configuration of an existing installation

#### 3.1 Preparing a replacement device

##### Using NT 100 as a replacement device

This section describes the steps if you intent to prepare an NT 100 replacement device for an existing installed device.

##### Preparation

Make sure that the existing installed device is not used in a productive environment.

##### Prepare replacement device using SYCON.net (Option 1)

Use the same SYCON.net version as for the existing installed device. Do not use SYCON.net V1.500.210311.36073 and later.

Using SYCON.net, load the same firmware version in the replacement device.

Using SYCON.net, open and download the existing configuration in the replacement device.

##### Prepare replacement device using an SD card (Option 2)

Insert an empty and formatted SD card in the existing NT 100 device.

Using SYCON.net, copy firmware and configuration to the SD card.

Remove the SD card from the existing device.

Insert this prepared SD card into the replacement device.

Power the replacement device.

The replacement device starts and copies the firmware file and configuration file(s) from the SD card into the device.

## 3.2 Update firmware and configuration of an existing installation

### Upgrading a device with firmware version V1 to firmware version V2

This section describes the steps if you intent to use firmware version V2 because you want to use new features or need bug fixes only available in firmware version V2 and have a device with firmware version V1.

#### Preparation

Create a backup of the SYCON.net configuration files.

Additionally, using SYCON.net, copy firmware and configuration to an empty and formatted SD card.

#### Steps

Install SYCON.net SYCON.net V1.500.210311.36073 (or later).

Start SYCON.net.

Import all device description files needed.

Open the existing SYCON.net project.

SYCON.net converts the project.

Check the setting for the protocol at X2: The scope of parameters may have changes and new parameters can be available.

Check the setting for the protocol at X3: The scope of parameters may have changes and new parameters can be available.

Check the mapping: a one-to-one mapping is not always possible and may require a reconfiguration by a human.

Save the SYCON.net project.

Download firmware file V2.

Download the configuration.



## 4 NT 100-RE-EN support in current SYCON.net version

SYCON.net has been updated to V1.500.210311.36073 to support NT 100-XX-XX devices for firmware version V2. Exception is NT 100-RE-EN.

Starting with V1.500.210311.36073, SYCON.net supports NT 100-RE-EN with firmware version 1, but importing of a project file created with an older SYCON.net version is not possible for a NT 100-RE-EN. The project for NT 100-RE-EN has to be recreated with V1.500.210311.36073 or continue to use the SYCON.net version the project file has been created with.

If you intent to create with SYCON.net V1.500.210311.36073 a new project for NT 100-RE-EN (for firmware version 1), then please note to use

- “Open Modbus/TCP” instead of “Open Modbus/TCP V3”
- “POWERLINK Controlled Node” instead of “POWERLINK Controlled Node V3”
- “PROFINET IO Controller” instead of “PROFINET IO Controller V3”

## 5 Appendix

### 5.1 Contacts

#### Headquarters

##### Germany

Hilscher Gesellschaft für  
Systemautomation mbH  
Rheinstrasse 15  
65795 Hattersheim  
Phone: +49 (0) 6190 9907-0  
Fax: +49 (0) 6190 9907-50  
E-Mail: [info@hilscher.com](mailto:info@hilscher.com)

##### Support

Phone: +49 (0) 6190 9907-99  
E-Mail: [de.support@hilscher.com](mailto:de.support@hilscher.com)

#### Subsidiaries

##### China

Hilscher Systemautomation (Shanghai) Co. Ltd.  
200010 Shanghai  
Phone: +86 (0) 21-6355-5161  
E-Mail: [info@hilscher.cn](mailto:info@hilscher.cn)

##### Support

Phone: +86 (0) 21-6355-5161  
E-Mail: [cn.support@hilscher.com](mailto:cn.support@hilscher.com)

##### France

Hilscher France S.a.r.l.  
69800 Saint Priest  
Phone: +33 (0) 4 72 37 98 40  
E-Mail: [info@hilscher.fr](mailto:info@hilscher.fr)

##### Support

Phone: +33 (0) 4 72 37 98 40  
E-Mail: [fr.support@hilscher.com](mailto:fr.support@hilscher.com)

##### India

Hilscher India Pvt. Ltd.  
Pune, Delhi, Mumbai  
Phone: +91 8888 750 777  
E-Mail: [info@hilscher.in](mailto:info@hilscher.in)

##### Italy

Hilscher Italia S.r.l.  
20090 Vimodrone (MI)  
Phone: +39 02 25007068  
E-Mail: [info@hilscher.it](mailto:info@hilscher.it)

##### Support

Phone: +39 02 25007068  
E-Mail: [it.support@hilscher.com](mailto:it.support@hilscher.com)

##### Japan

Hilscher Japan KK  
Tokyo, 160-0022  
Phone: +81 (0) 3-5362-0521  
E-Mail: [info@hilscher.jp](mailto:info@hilscher.jp)

##### Support

Phone: +81 (0) 3-5362-0521  
E-Mail: [jp.support@hilscher.com](mailto:jp.support@hilscher.com)

##### Korea

Hilscher Korea Inc.  
Seongnam, Gyeonggi, 463-400  
Phone: +82 (0) 31-789-3715  
E-Mail: [info@hilscher.kr](mailto:info@hilscher.kr)

##### Switzerland

Hilscher Swiss GmbH  
4500 Solothurn  
Phone: +41 (0) 32 623 6633  
E-Mail: [info@hilscher.ch](mailto:info@hilscher.ch)

##### Support

Phone: +49 (0) 6190 9907-99  
E-Mail: [ch.support@hilscher.com](mailto:ch.support@hilscher.com)

##### USA

Hilscher North America, Inc.  
Lisle, IL 60532  
Phone: +1 630-505-5301  
E-Mail: [info@hilscher.us](mailto:info@hilscher.us)

##### Support

Phone: +1 630-505-5301  
E-Mail: [us.support@hilscher.com](mailto:us.support@hilscher.com)