Disclaimer of liability

The information contained in these instructions corresponds to the technical status at the time of printing of it and is passed on with the best of our knowledge. The information in these instructions is in no event a basis for warranty claims or contractual agreements concerning the described products, and may especially not be deemed as warranty concerning the quality and durability pursuant to Sec. 443 German Civil Code. We reserve the right to make any alterations or improvements to these instructions without prior notice. The actual design of products may deviate from the information contained in the instructions if technical alterations and product improvements so require.

It may not, in part or in its entirety, be reproduced, copied, or transferred into electronic media.

Softing Industrial Automation GmbH
Richard-Reitzner-Allee 6
85540 Haar / Germany
http://industrial.softing.com

+49 89 4 56 56-0
+49 89 4 56 56-488
info.automation@softing.com
support.automation@softing.com

The latest version of this manual is available in the Softing download area at: http://industrial.softing.com/en/downloads.html
# Table of Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>5</td>
</tr>
<tr>
<td>1.1</td>
<td>About TH LINK PC Industrial Ethernet</td>
<td>5</td>
</tr>
<tr>
<td>1.2</td>
<td>Conventions used</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Before you start</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Scope of delivery</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>System requirements</td>
<td>6</td>
</tr>
<tr>
<td>4.1</td>
<td>Operating System</td>
<td>6</td>
</tr>
<tr>
<td>4.2</td>
<td>Software and Browser</td>
<td>6</td>
</tr>
<tr>
<td>4.3</td>
<td>Hardware</td>
<td>7</td>
</tr>
<tr>
<td>4.4</td>
<td>Network</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Install Microsoft Internet Information Services (IIS)</td>
<td>8</td>
</tr>
<tr>
<td>5.1</td>
<td>Windows 7</td>
<td>8</td>
</tr>
<tr>
<td>5.2</td>
<td>Windows Server 2012 and 2012 R2</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>Install TH LINK</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>Update an existing TH LINK installation</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>Network overview</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>Licensing</td>
<td>15</td>
</tr>
<tr>
<td>9.1</td>
<td>License types</td>
<td>15</td>
</tr>
<tr>
<td>9.2</td>
<td>Activate license</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td>Settings</td>
<td>16</td>
</tr>
<tr>
<td>10.1</td>
<td>Login</td>
<td>18</td>
</tr>
<tr>
<td>10.2</td>
<td>User administration</td>
<td>18</td>
</tr>
<tr>
<td>10.3</td>
<td>Network configuration</td>
<td>18</td>
</tr>
<tr>
<td>10.4</td>
<td>Black list</td>
<td>18</td>
</tr>
</tbody>
</table>
Chapter 1 - Introduction

1 Introduction

1.1 About TH LINK PC Industrial Ethernet

What is TH LINK PC Industrial Ethernet?
- Software for standard PC/notebook for intelligent diagnostics of PROFINET, EtherNet/IP and Modbus TCP
- PROFINET Supervisor in PROFINET networks
- SNMP Client
- Simultaneous diagnostics available for standard Ethernet TCP/IP

1.2 Conventions used

The following conventions are used throughout Softing customer documentation:

- Keys, buttons, menu items, commands and other elements involving user interaction are set in bold font and menu sequences are separated by an arrow
- Buttons from the user interface are enclosed in brackets and set to bold typeface
- Coding samples, file extracts and screen output is set in Courier font type
- Filenames and directories are written in italic

![Note]

This symbol is used to call attention to notable information that should be followed during installation, use, or servicing of this device.

![Hint]

This symbol is used when providing you with helpful user hints.

2 Before you start

Read this manual before starting

Before you start with the installation read this Installation Manual. It will help you with your system setup and provides essential information. The Installation Manual leads you step by step through the installation.

For damages due to improper connection, implementation or operation Softing refuses any liability according to our existing guarantee obligations.
Proceed as follows:
1. Make sure the system requirements are met (see System requirements).
2. Install if necessary the Internet Information Services (see Installation of Microsoft Internet Information Services (IIS)).
3. Install TH LINK PC Industrial Ethernet (see Install TH LINK PC Industrial Ethernet).
4. License TH LINK PC Industrial Ethernet (see Licensing).
5. Modify settings of TH LINK PC Industrial Ethernet (see Settings).

3 Scope of delivery

TH LINK PC Industrial Ethernet includes
- TH LINK Industrial Ethernet
- Installation Manual
- Release Note


4 System requirements

4.1 Operating System

The following operating systems are supported in English and German:

<table>
<thead>
<tr>
<th>Operating system</th>
<th>Bit version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 7</td>
<td>32 Bit and 64 Bit</td>
</tr>
<tr>
<td>Windows 8.1</td>
<td>64 Bit</td>
</tr>
<tr>
<td>Windows 10</td>
<td>64 Bit</td>
</tr>
<tr>
<td>Windows Server 2012</td>
<td>64 Bit</td>
</tr>
<tr>
<td>Windows Server 2012 R2</td>
<td>64 Bit</td>
</tr>
<tr>
<td>Windows Server 2016</td>
<td>64 Bit</td>
</tr>
</tbody>
</table>

4.2 Software and Browser

Software required
- Microsoft Internet Information Services (IIS) 5.1 or higher (available on Microsoft Windows installation CD or via download from the internet http://www.iis.net)
- Microsoft .NET Framework 4.0 (included in TH SCOPE installation)
- Adobe Reader 8 or higher
Browsers supported
- Internet Explorer 11 or higher
- Mozilla Firefox 49 or higher
- Google Chrome 53 or higher

4.3 Hardware
The following hardware is required:
- PC with network adapter

4.4 Network

Figure 1: Network settings

Observe the following network settings:

1. **PC with TH LINK PC installation**
   
   Either:
   - Enabling *TH LINK.exe application*
   
   or
   - Enabling of port HTTP 80 inbound and outbound
   - Enabling of IP 224.0.5.128 port 2364 UDP outbound
   - Enabling of UDP ports 2365 outbound and 2366 inbound

   **Note**
   The required firewall rules are installed during TH LINK PC installation.

2. **Firewall between the PC, on which the TH LINK PC is installed and the devices**
   - Enabling of HTTP port 80
   - Enabling of IP 224.0.5.128 port 2364 UDP
Enabling of UDP ports 2365 and 2366

PC from which TH LINK PC is being accessed
- Enabling of port HTTP 80 outbound

Firewall between the PCs, on which the TH LINK PC is installed and the PC, from which TH LINK PC is accessed
- Enabling of HTTP port 80

5 Install Microsoft Internet Information Services (IIS)

You can find the supported operating systems in section Operating systems. The following sections describe the installation procedure of Microsoft Internet Information Services (IIS) using Windows 7 and Windows Server 2012 and 2012 R2 as an example. Depending on the operating system used the procedure may differ slightly from the following descriptions.

Note
To install Microsoft IIS you need administrator rights on your PC and if necessary the Microsoft Windows operating system installation CD.

5.1 Windows 7

1. Go to Start → Control Panel → Programs → Programs and Features and click on Turn Windows features on or off:

![Figure 2: Turn Windows features on or off](image)

2. Click on the red marked checkbox to activate the Internet Information Services:

![Figure 3: Windows Features - Internet Information Services](image)
3. Open the **Internet Information Services** by clicking the [+ ] icon.

4. Additionally select the yellow highlighted features:

![Image of Internet Information Services]

Figure 4: Select Internet Information Services

5. Click **[OK]** to complete the settings.

### 5.2 Windows Server 2012 and 2012 R2

Change the local server settings as follows:

1. Open the **Server Manager** and click on **Add roles and features:**

![Image of Server Manager]

Copyright 2017 Softing Industrial Automation GmbH
2. In the Select server Roles dialog activate Web Server (IIS) and IIS Hostable Web Core:

3. In the Select features dialog activate .Net Framework 4.5 and ASP.NET 4.5:

4. as well as the following features User Interfaces and Infrastructure (to allow installing the Flash Add on in your browser):

5. If all components are installed successfully, close the Server Manager.
6 Install TH LINK

Make sure that all System requirements are met.

1. Start the installation:
   a. for 64 bit systems with a double-click on Install64_TH_LINK.exe
   b. for 32 bit systems with a double-click on Install32_TH_LINK.exe

   **Note**
   If you install a Softing product for the first time, a window is opened that prompts you to trust the publisher. Activate the option Always trust software from Softing AG, if you do not want to be asked in subsequent installations. Then select [Install] to start the installation.

2. Select your installation language and click [OK]. The Welcome screen appears:
3. Click [Next], to install TH LINK on your system. The license agreement screen appears:

4. Carefully read the information. Click I accept the terms in the license agreement. Then click [Next].

5. The Destination Folder appears:

6. Click [Next] to install in the folder currently displayed or click [Change] to install in a different folder.
7. The installation screen appears:

![Installation Screen]

8. Click [Install] to start the installation. If you want to review or change any of your installation settings, click [Back].

9. The progress of the installation procedure is displayed in a status bar:

![Status Bar]

**Windows Server 2008 installation**

If you install TH LINK PC Industrial Ethernet under Windows Server 2008, a safety note may be displayed explaining that Windows cannot verify the publisher of the driver software. Allow the installation program to install the driver nevertheless.
10. The completion screen appears:

![Completion Screen](image)

11. Click [Finish] to complete the installation and to exit the wizard.

7 Update an existing TH LINK installation

If you update an existing installation of an older version 2.x to the current version 3.4, the license file, the GSD and GSDML files and the bitmaps from the Trebing + Himstedt folder will be moved to the Softing folder.

8 Network overview

When opening the TH LINK web interface, a network overview will be provided, giving essential information on all necessary diagnostic data of the network.

![Network Overview](image)

Figure 5: TH LINK network overview tab
Chapter 9 - Licensing

9 Licensing

9.1 License types

There are two general license types:

- Licensing on PC
- Licensing on USB dongle (Hardlock)

Licensing on PC

The licensing on PC consists of a runtime license that activates the complete software functionality on a PC. License activation is performed using the license manager (download from http://industrial.softing.com/en/downloads.html) via internet. Thus make sure you have an appropriate internet access.

Licensing on USB dongle (Hardlock)

Licensing on USB dongle activates the complete software functionality on that PC where the dongle is connected to. The license is bound to the USB dongle. The dongle can be used alternately with different PCs.

You can insert the USB dongle directly into your and then start your software. Entering a license key is not required.

Hinweis

For Licensing on an USB dongle, please make sure that the PC is connected to the Internet.

9.2 Activate license

Online help

The License Manager includes an online help, which gives you detailed information about the licensing procedure and helps you to solve possible problems. Click in the left part of the License Manager user interface on [Help] and select the corresponding topic.

Licensing on PC - with internet access

1. Start the License Manager with Start → All Programs → Softing License Manager → License Manager V4.
2. Select Activate for this PC.
3. Enter your license key in the following format: XXXXX-XXXXX-XXXXX-XXXXX into the field License Key.
4. Click [Activate license].
5. After a successful activation your license is displayed in the list Available licenses on this PC.

Licensing on PC - without internet access

1. Start the License Manager on the PC where you want to use the license. Select Start → All Program → Softing License Manager → License Manager V4.
2. Select **Activate for this PC**.
3. Click **Export PC-Is...**
4. Select your PC and click **[OK]** in order to save the file.
5. Transfer this file to a PC with internet access and License Manager installed in the current version.
6. Start the License Manager. Switch to **Generate license file for remote PC**. Enter the license key. Click **Import PC-Id from remote PC**.
7. Select **Generate and export license file**.
8. Save this file and transfer the file to the original PC.
9. Select **Activate for this PC**.
10. Click **[Import license file]** and import the file.
11. Then click **[Activate license]**.
12. After a successful activation your license is displayed in the list **Available licenses on this PC**.

### 10 Settings

1. Open the Windows start menu.
2. Select **All Programs → Softing → TH LINK**.
3. Then click **TH LINK:**

![Figure 6: Start menu](image)

4. The default browser on your PC opens with the following website:

![Figure 7: Start page](image)
Note
If you want to access TH LINK PC Industrial Ethernet with another PC, enter the following URL into the address bar of your browser:

http://<Computer name>/THLINK

5. TH LINK PC Industrial Ethernet is displayed with the name of your computer.

6. Click **Settings → TH LINK**.

![Figure 8: Settings](image)

Note
For detailed information about each setting click on the question mark.

Note
After changing the settings click the floppy disk icon to save your settings.

Note
Your data is kept and will also be available following a restart of your PC or restart of the TH LINK service.

7. Proceed with the following steps ([Login](#), [User administration](#) and [Network configuration](#)).
10.1 Login
1. Click Login.
2. Enter the password. Default password is THLINK_Admin.
3. Then click OK.

Note
We recommend changing the password after login (see User administration).

10.2 User administration
Change the default password. Proceed as follows:
1. Enter the old password.
2. Select a new password and confirm it by re-entering.
3. Finally click Change password.

10.3 Network configuration
1. Set the network adapter, through which the access to the network is to be established.
2. After saving, you will be logged out automatically because the TH LINK and the TH SCOPE measurement both restart.

Hint
Without a selection of a network adapter it is not possible to establish a network connection and start the TH SCOPE measurement.

10.4 Black list
Putting a device on the Black list means reducing the protocol request sent by TH LINK to a minimum to ensure network stability. Network devices that were not configured according to PNO-guidelines can - under certain circumstances - cause disturbance in the network. To avoid that behavior, these devices can be put on the Black list. Only limited information will be provided in TH SCOPE on these devices due to a reduced number of requests.

The Black List can manually be activated or deactivated. When active, protocol requests to devices listed on the Black list will be reduced. The default setting is "Yes". It is recommended to contact our Softing support team for further information on using and maintaining the Black list in TH SCOPE.