Troubleshooting for Network Issues

Getting started with RFID reader devices with LAN interface

1. Introduction

RFID readers from FEIG ELECTRONIC GmbH with Ethernet interface (LAN interface) will be delivered with a default IP setting. During the connection process of the RFID readers in junction with your PC/Notebook it might be possible that you will run in some connection issues. On the following pages this document will help you to resolve network connection issues.

Standard-Network setting for RFID-Readers from FEIG

IP-Address:		192.168.10.10
Subnetmask	:	255.255.0.0
Port:		10001
DHCP:		Off

2. Point to Point Connection

For a properly working direct Ethernet connection between the RFID reader and your PC/Notebook it is recommended to consider the following hints:

a) For a direct connection we recommend to use a **Crossover-Network cable** or using a simple LAN-Switch.

b) The **Firewall** might be also responsible for a non working detection/communication between RFID Reader and your PC/Notebook. So you must to take care that for the Detection/Communication of the RFID-Reader the necessary ports will be passed by your Firewall → Port 50000 (UDP Protocol/UDP Multicast) and Port 10001 (TCP/IP Protocol).

c) The RFID reader and your PC/Notebook must be in the same IP-Address range (same Subnet). You can either adjust the IP-Address of your PC/Notebook or you can change the IP Address of the RFID Reader.

For a direct connection between RFID Reader and your PC/Notebook the first 3 IP address values must be identically. The last value of the IP Address must be different. Example: (here we are using the default IP-Address of the RFID Reader):

The IP address of your PC/Notebook must be adjusted.

	PC/Notebook	RFID Reader
IP-Adress	192.168.10.15	192.168.10.10
Subnetmask	255.255.255.0	255.255.255.0

Table 1: Example for a common IP-Address range

3. Network Connection (e. g. in a company network)

Commissioning a RFID Reader inside an existing network (e.g. company network environment) the following hints should be considered:

a) To get the RFID Reader working properly inside your company network you or your IT Administrator should take care that Firewalls, managed Ethernet Switches and other packet filters will pass the UDP-Protocols and TCP/IP-Protocols. Otherwise the RFID Readers cannot be displayed automatically inside the Software Tools of FEIG ELECTRONIC (e.g.: myAXXESSManager or FEDiscovery-Tool[1]). UDP-Multicast-Packets → Port 50000 (UDP Protocol) and Port 10001 (TCP/IP Protocol) must be passed inside the networks environment. For correct network settings for your PC/Notebook you should get in touch with your IT-Administrator or with an IT-Expert.

b) In most company network environments a DHCP-Server is used (DHCP = Dynamic Host Configuration Protocol). A DHCP Server automatically assigns an IP address to a connected network device. Inside the configuration of the network device (e.g. inside the RFID Reader) the feature „DHCP“ must be enabled. In FEIG RFID Readers this feature is disabled by default. The process of such an automatically assignment of IP addresses inside a network environment avoids that one and the same IP address will be assigned twice to network devices, which will cause a collision inside the networks environment.

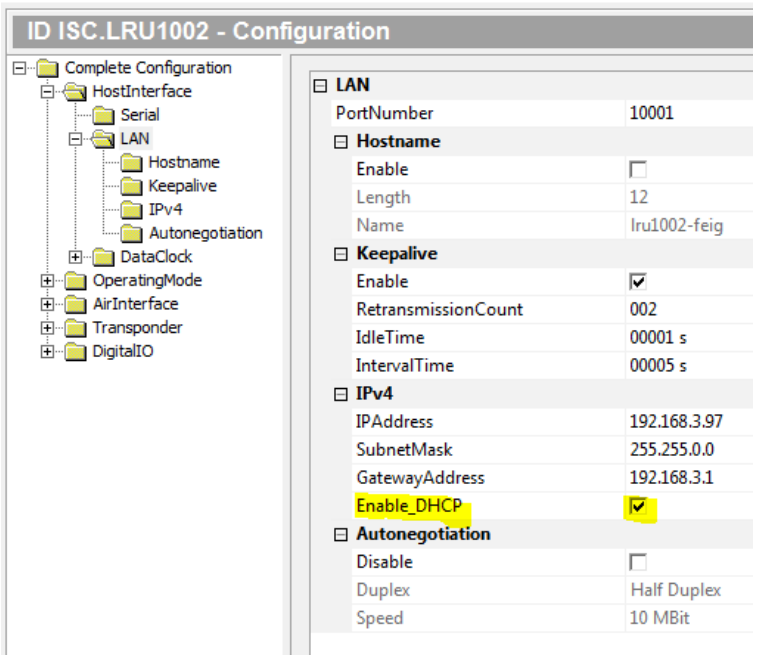


Figure 1: Network-Configuration of aRFID Reader → Parameter for "Enable DHCP" feature.
Shown here by using the software „ID ISOStart Demo program“

If the „DHCP“ feature is enabled inside the RFID Reader and the DHCP Server inside the network environment has assigned an IP address for the RFID Reader this IP ad-

[1] *Am Ende dieses Dokuments finden sie einen Link mit Zugangsdaten, der ihnen zeigt, wo sie die Software herunterladen können.*

dress can be displayed by using the FEDiscovery-Tool[2]. An alternative possibility to archive the assigned IP address for a connected network device is to check the DHCP-Server entries or the routers network environment settings.

c) In general it isn't necessary for RFID Readers and PC/Notebooks to be in the same IP address range (Subnet). For such a special network environment the settings for the gateway, managed switches and routers must be configured correctly. If you are not familiar with such kind of settings it is recommended to get in touch with an IT-Administrator or an IT-Expert.

[2] *At the end of this document you can find Links and access data for the FEIG Download Area*

1. Menu and Dialog for Network Settings

IMPORTANT: For the following process knowledge about operating systems and network settings are required.

If you want to change the IP address of your PC/Notebook you must open the menu for the “Network and Sharing Center” in the “Control Panel” of your PC/Notebook.

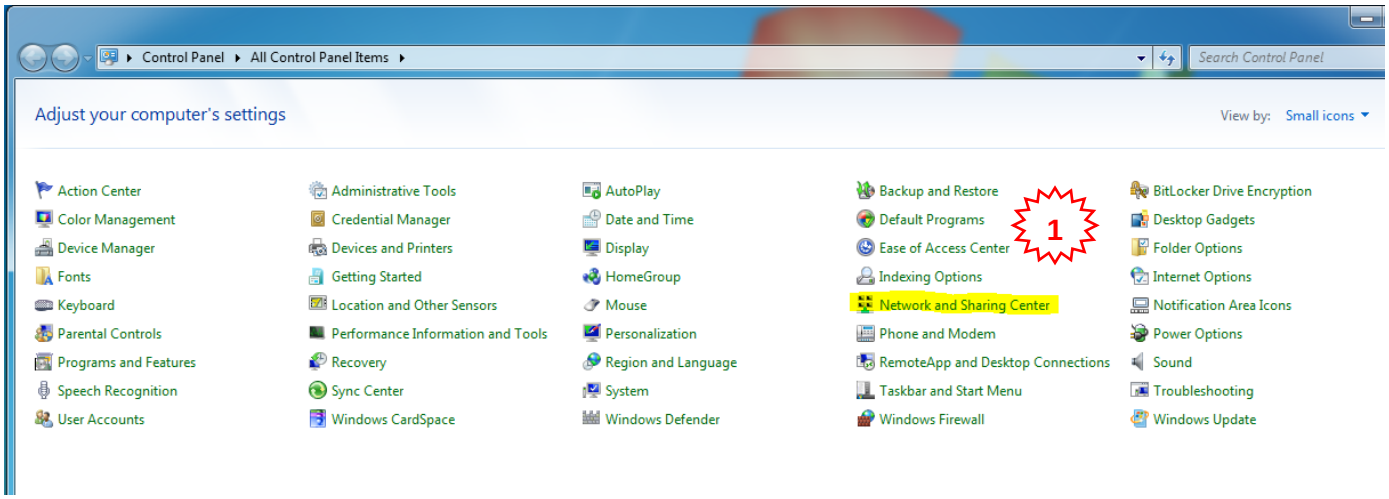


Figure 2: View of Control Panel (Small Icons, Windows 7 OS)

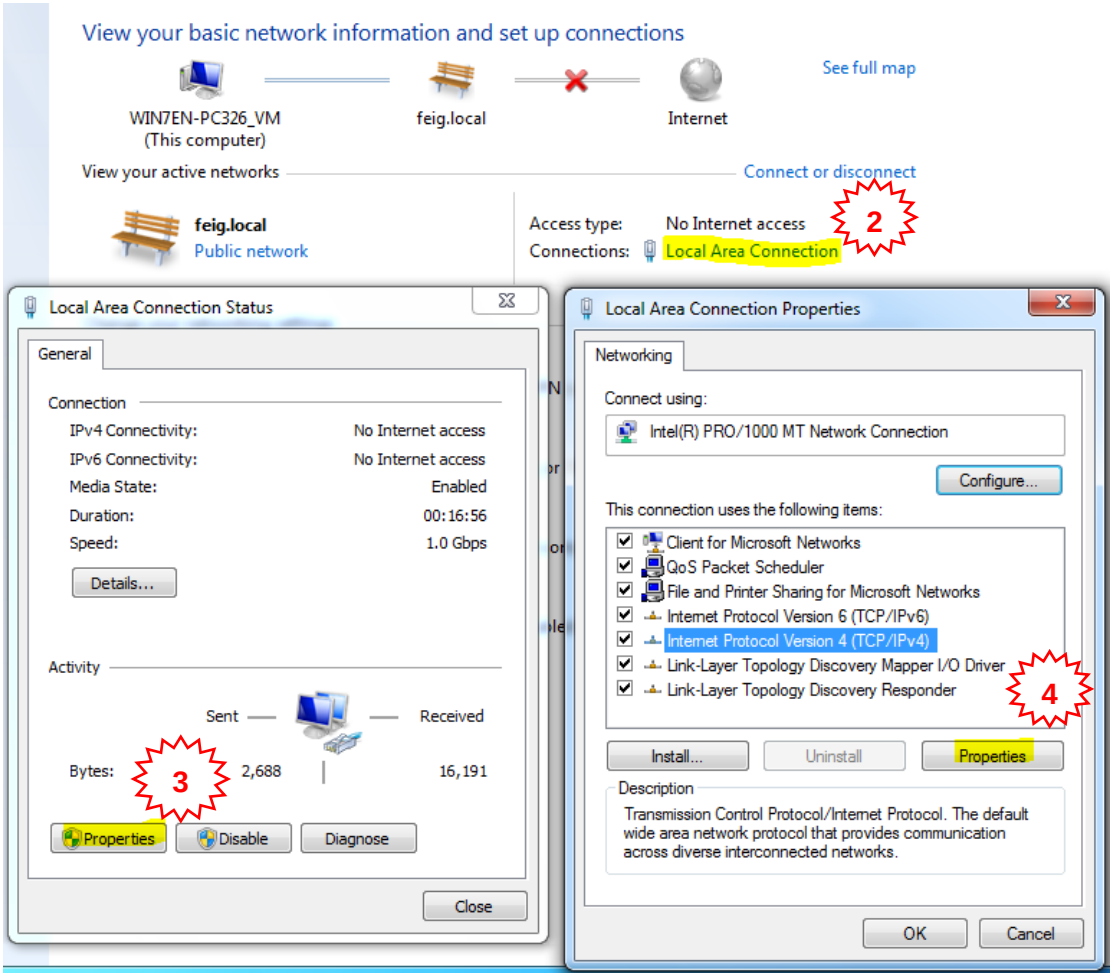


Figure 3: Dialogs for Network settings of your PC/Notebook (Windows 7)

View for Dialog „Internet Protocol Version 4 (TCP/IPv4)“

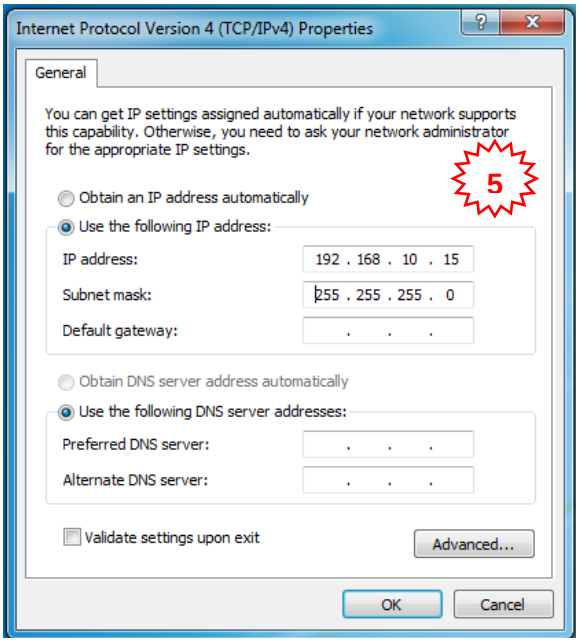


Figure 4: Dialog for setting a static IP address for your PC/Notebook „Internet Protocol Version 4 (TCP/IPv4)“

Note: You need Administrator-Rights (SuperUser) for changing the IP address of your PC/Notebook. If you are not familiar with the OS settings or haven't enough knowledge about your OS you should get in touch with your IT or an IT expert for further help.

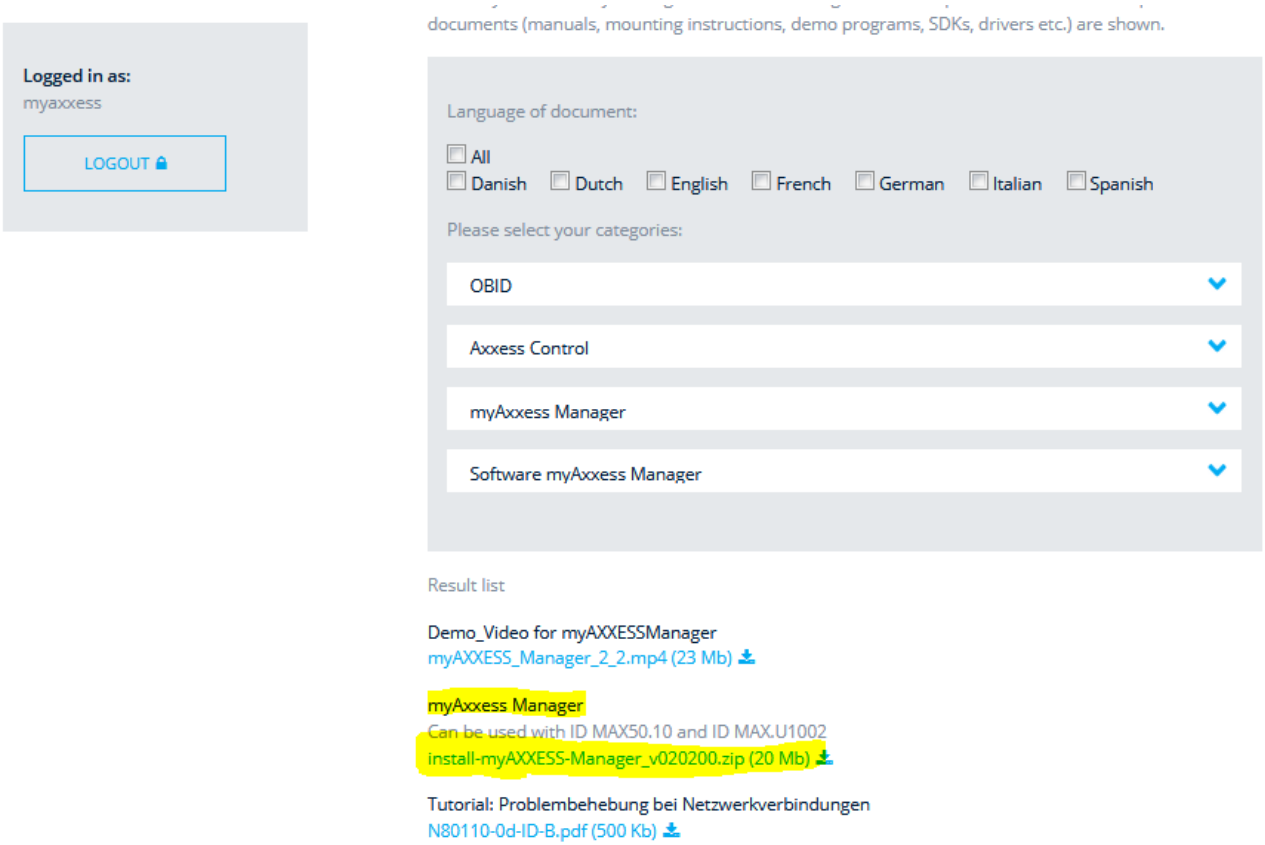
Link to FEIG Website for downloading the necessary Software-Programs, etc.:

Link: https://www.feig.de/downloads/

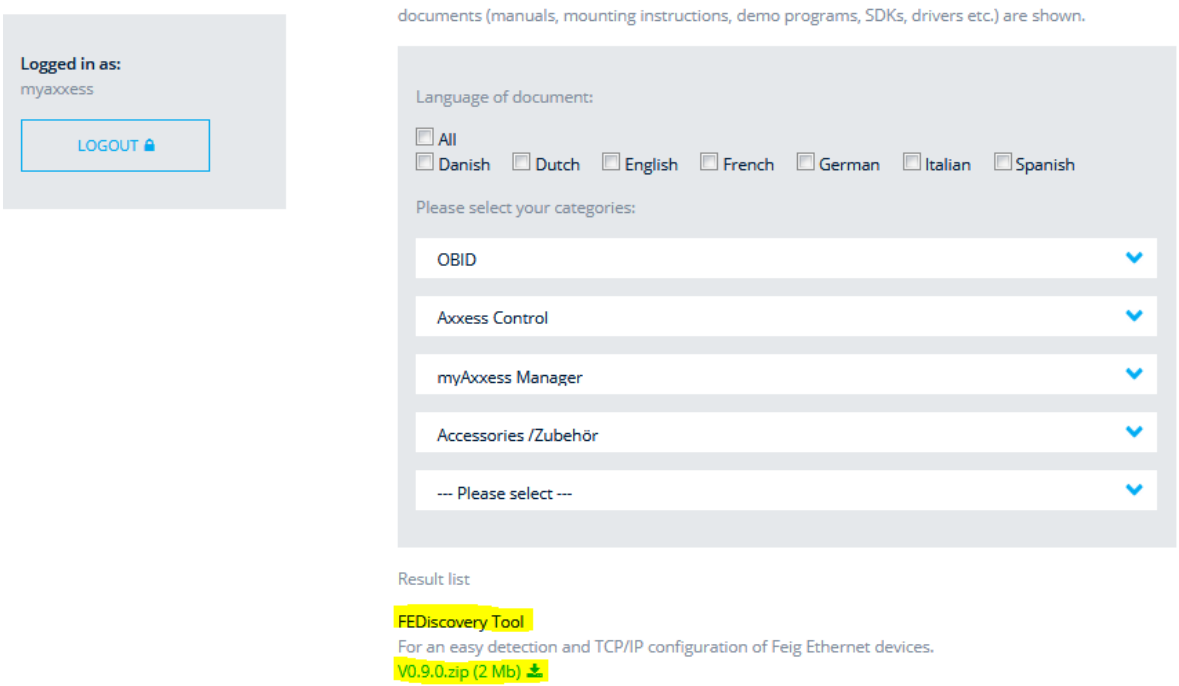
User: myAXXESS

Password: max_reader

Download link for the "myAXXESS Manager" software (needed for programming the access rights to your ID MAX.U1002 RFID- Access controller).

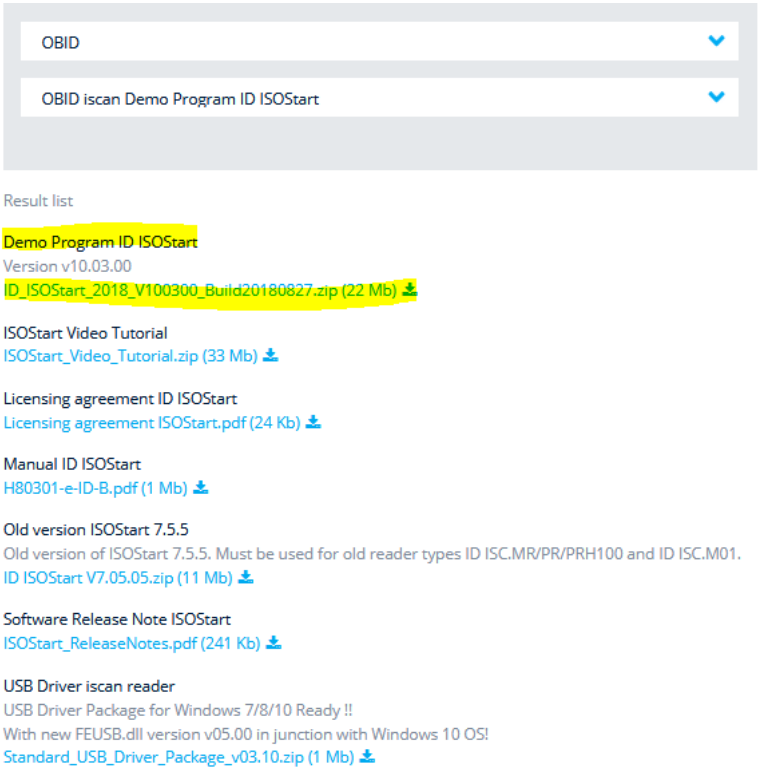


Download link for the “FEDiscovery Tool” (helpful to get/change the readers IP-Address)



For the ISOStart Tool you need the following login information (Tool for Configuration and Communication of RFID-Readers):

Link: https://www.feig.de/downloads/

User: isostart2011

Password: 130511iso