

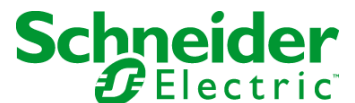
Vijeo Connect

Troubleshooting Guide For LinkManager (Starting and Connecting)

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Safety Information



Important Information

NOTICE

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

Before You Begin

 WARNING
UNINTENDED EQUIPMENT OPERATION <ul style="list-style-type: none">• Only use software approved by Schneider Electric for use with this equipment.• Update your application program every time you change the physical hardware configuration. Failure to follow these instructions can result in death, serious injury, or equipment damage.

About the Book



At a Glance

Document Scope

This document describes the connection setup, connection status, and operation of Vijeo Connect. The Vijeo Connect provides secure remote access to you as if you were on-site (allow remote programming just as you are on site to save travel cost and reduce machine downtime).

NOTE: Read and understand this document and all related documents before installing, operating, or maintaining your Vijeo Connect.

The Vijeo Connect users should read through the entire document to understand all features.

Validity Note

This document has been updated for the release of Vijeo Designer V6.2 SP5, SoMachine V4.2 or later and Vijeo XD coming soon.

Related Documents

Title of Documentation	Reference Number
Vijeo Connect User Guide for GateManager	EIO0000002449 (ENG)
Vijeo Connect User Guide for Security Setting	EIO0000002451 (ENG)
Vijeo Connect Troubleshooting Guide for SiteManager	EIO0000002452 (ENG)

You can download these technical publications and other technical information from our website at <http://www.schneider-electric.com/ww/en/download>

Chapter 1

LinkManager Application

LinkManager Application

LinkManager is a software application that you can install on Microsoft Windows like any other Windows application.

The LinkManager consists of two components:

1. The LinkManager virtual appliance control module is visible as an icon in the Windows notification area. The control module menu is accessed by right-clicking the notification area icon.
2. The LinkManager virtual appliance that operates in a VirtualBox engine, separates from the host machine's operating system. It installs its own network layer on a virtual network adapter. The virtual adapter uses NAT (Network Address Translation) mode, which means that it can only be seen from the host PC and therefore does not interfere with anything on the local network. The LinkManager virtual appliance menu is accessed through the web browser that is launched when accessing console from the system notification area icon menu.

What Is in This Chapter?

This chapter contains the following topics:

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System Requirements and Prerequisites

- Any version of Microsoft Windows Vista, Windows 7, or Windows 8.x or later (both 32 bit and 64 bit). When Intel VT-x is enabled on Windows 7, LinkManager can also run on a virtual machine.
- Intel x86 or compatible processor.
- Minimum 512 MB RAM, dependent on other applications and services installed. The LinkManager virtual appliance reserves 64 MB RAM for its exclusive use.
- Ethernet card with Microsoft Windows or compatible driver installed and attached to a network with a DHCP (Dynamic Host Configuration Protocol) server. Set up your network to allow outgoing access from applications on a PC. Check on how LinkManager accesses the Internet (*see page 13*).
- To install the LinkManager, log on to the computer with full administrative privileges.
- The browser GUI (Graphical User Interface) used for LinkManager administration, configuration, and monitoring uses frames. Therefore, JavaScript must be enabled in the browser.
- When using your LinkManager to access equipment through the GateManager, you need a LinkManager certificate file (.lmc) issued by the GateManager.
- Set up installed antivirus programs to allow installation of a virtual adapter and allow subsequent communication between processes. It is typically not enough just to pause the antivirus program.
- Make sure that your local Internet bandwidth is aligned with your data transmission need.
- Standard security requirements:
 - Protect your computer / tablet with strong passwords (refer to **Vijeo Connect User Guide for Security Setting** manual chapter **Password Strength for Accounts**).
 - Install antivirus / update security patches on your computer.
- By default, Timeout to disconnect LinkManagers is not active: It is under customer's responsibility to disconnect LinkManagers.

WARNING

EQUIPMENT DAMAGE



- Before any maintenance action, ensure by phone that you have on-site agreement.
- Before any update, ensure that you have a stable Internet and electricity environment.
- In particularly, do not use 3G through a mobile phone setup as tethering hotspot for any update.

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

Troubleshooting Installation

The symptom for the most typical installation problem is that one of the LinkManager notification area icons stays red.

The status of the LinkManager is displayed using icon color:

-  Red icon – LinkManager is starting or stopped.
-  Green icon – LinkManager is running.

NOTE: You can confirm status details by hovering your mouse cursor over the icon.

Issues When Using More Than One Network Adapter

If you are often switching between different network adapters on your PC (such as between wireless network and Ethernet) combined with using sleep mode, or your PC is connected with more than one network adapter simultaneously (such as wireless network and Ethernet), you may experience that the LinkManager icon remains red. This is typically due to the LinkManager adapter not getting an IP address from the correct network.

To address this issue, restart the LinkManager (right-click the LinkManager notification area icon and select **Exit**, and start it again).

In some cases, you may have to restart the PC to initialize the Windows network stacks.

Issues with Rights on the PC

The LinkManager requires the user login with administrator privileges on the PC where the LinkManager is installed.

Windows 7/8 and Vista:

Step	Action
1	To open the Control Panel : <ul style="list-style-type: none"> • From the Windows Start menu, open the Control Panel. • From the Start menu, click Search, type Control Panel and press Enter.
2	Goto User Accounts . If using Classic View , goto User Accounts and Family Safety .
3	Browse the users to find the current user, which should be set up as Administrator .

Issues with Firewalls or Antivirus

Step	Action
1	Stop the personal firewall. NOTE: However, some personal firewalls continue to block even when stopped.
2	You can try to reconfigure the personal firewall, as shown in the following steps. NOTE: Only as a last option, you may have to uninstall the personal firewall completely.
3	Confirm that the LinkManager virtual engine is allowed to communicate by checking that the LinkManager.exe program is not blocked. If the LinkManager still does not work, also check the following: <ol style="list-style-type: none"> 1. Confirm that the personal firewall has opened UDP (User Datagram Protocol) port 8888 (all addresses, including broadcast) and TCP port 3. Refer the firewall documentation, or contact your provider. You can limit opening these ports or protocols for the LinkManager.exe. 2. Confirm that personal firewall or antivirus components are not blocking the LinkManager virtual adapter. Enter your network connection settings, enter the properties of the LinkManager adapter, and clear the check box of all items related to antivirus or personal firewall. 3. Confirm that a third-party VPN client is not interrupting the traffic.
4	If there is still an issue, you can check if the LinkManager virtual engine (VirtualBox) is running: <ol style="list-style-type: none"> 1. First, stop LinkManager through the notification area icon menu (the icon is now red). 2. Hold the shift key while selecting Start in the LinkManager icon menu. Typically, a black console window with many boot messages appears indicating that the LinkManager virtual machine process is running. If the console window does not appear, the virtual machine is not running. If the console window does not appear, the virtual machine is not running and there would be one or more log files in the LinkManager installation folder: C:\Program Files\Schneider Electric\LinkManager\Machines\LinkManager\Logs.

Chapter 2

LinkManager Connection Methods

Overview

LinkManager tries several protocols simultaneously to get a working connection to the GateManager.

What Is in This Chapter?

This chapter contains the following topics:

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Automatic Connection Methods

ACM/PXP (port 11444):

Dedicated port for connecting to the GateManager server. Using a dedicated port is normally preferable as it separates the GateManager related traffic from other out-bound traffic in your network. You can track the GateManager traffic on your local network and on your Internet connection. Using a dedicated port also means that you probably need to open this port in the company firewall, which may collide with corporate policy rules.

HTTPS/TLS (port 443):

Connects to the GateManager using the TLS (Transport Layer Security) protocol on port 443. This connection works through firewalls that allow out-going HTTPS (HTTP Secure) connections.

TLS over HTTP (port 80):

Connects to the GateManager using the standard HTTP port 80, but immediately upgrades that connection to a secure TLS connection. This connection method may work through a firewall that only allows out-going HTTP connections.

TLS through Web-proxy:

Connects through a Web-proxy, requesting that Web-proxy to connect to the GateManager on port 443. Once established, the normal TLS protocol is used.

HTTP through Web-proxy:

Connects through a specified Web-proxy (see below), requesting that Web-proxy to connect to the GateManager on port 80. Once established, the connection is upgraded to a secure TLS connection.

Manually Configured Web-proxy

LinkManager searches the Windows registry for information about available Web-proxies. Such information may originate from a user's configuration of a web browser, or the web browser's detection of the Web-proxy through the Web-proxy Auto-discovery (WPAD) protocol.

You can manually enter the IP address (and optional port number separated by a colon) of the Web-proxy through which the LinkManager connects to the GateManager.

Alternatively, you can specify a WPAD URL in the Web-proxy address field, from which the device can obtain the actual Web-proxy address, for example `http://***.**.*.8080/wpad.dat`.

If the Web-proxy requires authentication from the device, specify the required username and password. Digest, NTLMv2, NTLMv1, and basic authentication methods are supported (in that order).

For an NTLM-based Web-proxy (NT LAN Manager), the account is typically specified as **Domain\User** (domain name and user name separated by a back-slash).

The Windows PC's host name is used as the workstation name in NTLM authentication. If required, you can specify a different workstation name before the account name, separated by a colon, **Workstation:Domain\User**.

To specify an empty domain, user, or password, write a single **#** character in the corresponding input field.

Glossary



A

Agent

Generic term for display units and external devices that SiteManager Embedded allowed to connect to the network. The number of units (Agents) you can register differs depending on your license.

D

device/PLC

Indicates a device, such as a PLC (Programmable Logic Controller), that connects to a display unit.

display unit

Indicates a touch-panel display unit manufactured by Schneider Electric for displaying the screen interface designed in Screen Editor & Logic Program Software.

G

GateManager

It is used for user administration and access control for LinkManagers, and acts as communication broker between LinkManagers and SiteManagers.

L

LinkManager

The software installed on your computer, allows remote access to SiteManager and/or devices represented by agents on the SiteManager.

LinkManager Mobile

A service on the GateManager, allows remote access to web enabled and VNC/RDP (Virtual Network Computing/Remote Desktop Protocol) devices from a browser.

S

SiteManager

Refers to display units on the work site connected to the Vijeo Connect network.

SiteManager Embedded

Software used to set up access to the Vijeo Connect network. This software may not be required as you can set up the network connection from the offline screen of some display units.

SiteManager Embedded Basic

One of the license formats required to use SiteManager Embedded. Allows access to the display unit and registration of up to two agents.

SiteManager Embedded Extended

One of the license formats required to use SiteManager Embedded. Allows access to external IP devices – such as PLCs, IPCs, server, Web camera, and so on, on the same network as the display unit, and registration of five agents or more.

screen editor & logic program software

Indicates WebGate for Vijeo Designer.