

Application Note

IMO iSmart SMT-Client software



This document guides you through the setup of proprietary vendor specific software installed on your PC. Your supervisor may provide you with additional or alternative instructions.

The document consists of standard instructions that may not fit your particular solution. Please visit our support website for latest revisions of documentation and firmware:

<http://www.secomea.com>

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1. Prerequisites for This Guide

The following guide will assist you to setup a remote and online connection to the IMO equipment placed on the customer site using your IMO iSmart SMT-Client software installed on your PC.

Prerequisites for this guide are:

- You have an operational LinkManager installed on your PC with a GateManager certificate that allows you to connect to the SiteManager agents.
- You have the IMO SMT-Client software installed.
- You have the IMO device agent installed and configured on the SiteManager at the remote site, and there is access between the SiteManager and the IMO PLC.
 - A Serial attached PLC (Such as the iSmart SMT-ED-R20) must be configured with agent device type **IMO/Serial** on the SiteManager.

If any of these prerequisites are not met, you should contact the person / department responsible within your own company or at the company responsible hereof.

System Overview

The communication path is as follows:

IMO iSmart SMT-Client software → **LinkManager** → GateManager → SiteManager → PLC.

This guide will elaborate on the components marked with **bold**.

The following system overview depicts a SiteManager 3134 at the customer location:



2. Serial Access via Serial IMO cable

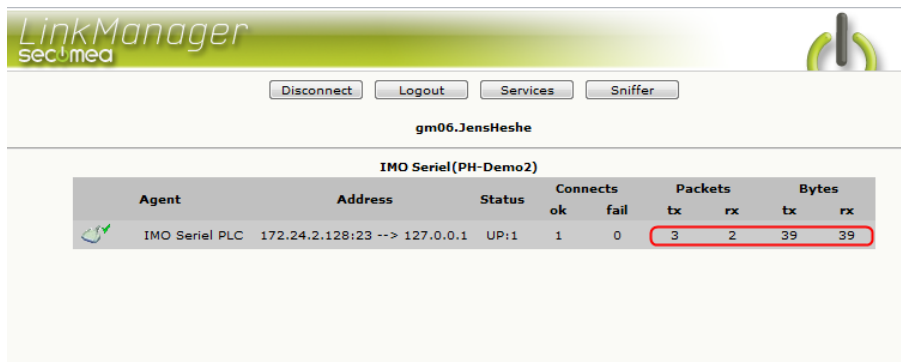
The following describes how to connect the IMO iSmart SMT-Client software to an IMO PLC that is attached to a SiteManager via an IMO Serial cable.

Note: A Serial attached PLC (Such as the iSmart SMT-ED-R20) must be configured with agent device type IMO/Serial PLC on the SiteManager.

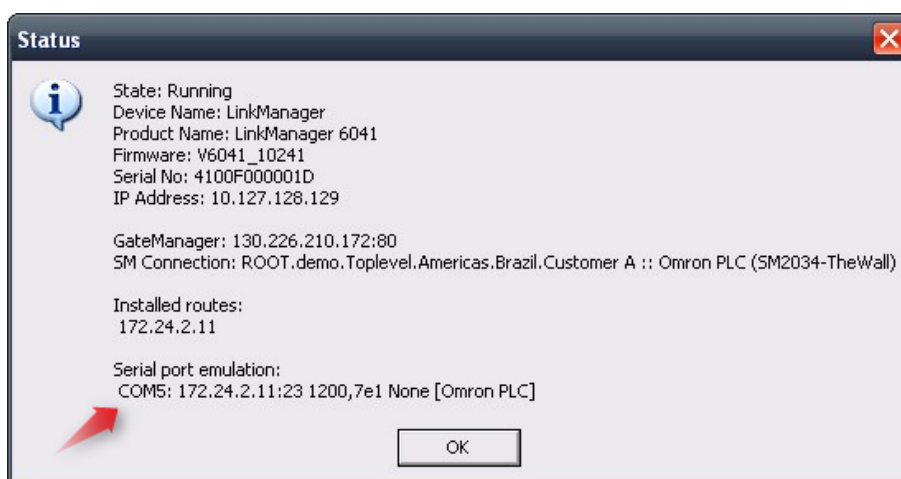
1. Locate the agent that represents your network attached IMO PLC



2. When connecting the agent, you should see some activity in the tray icon area, which is the auto configuring of a virtual serial port. If your SiteManager, and IMO PLC is correctly attached, you should also see the status of the agent become OK, and a few bytes of traffic:

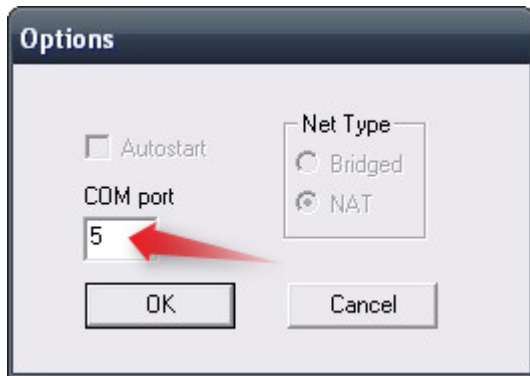


3. Now right click the LinkManager system tray Icon, and select **Status**. Make note of the Serial port that has been assigned (in this case COM5):



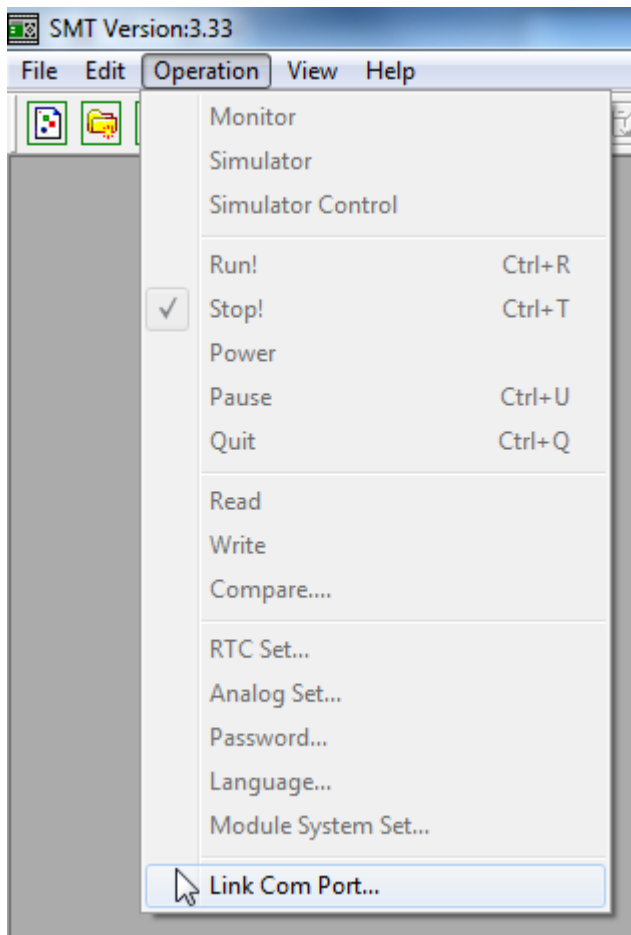
Right click the LinkManager system tray icon again, and select **Options**. Enter the number of the COM port you found under status. This will ensure that you will always get this port in the future.

IMPORTANT: if you change the port you must stop and start the LinkManager.

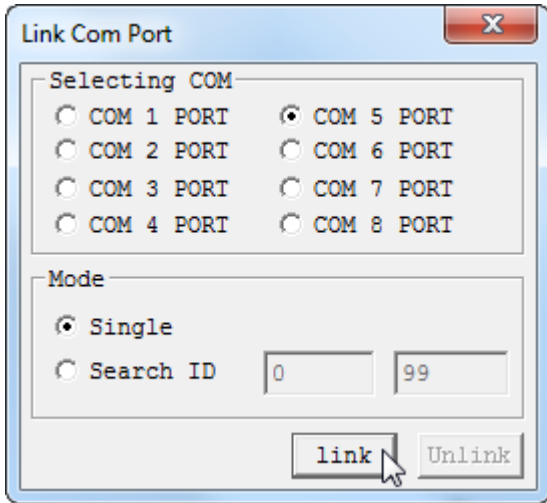


Note: You can also force another COM port (e.g. COM2). Just ensure in your Windows device manager, that the port is not conflicting with an existing COM port. See Appendix A for info on how to organize COM ports.

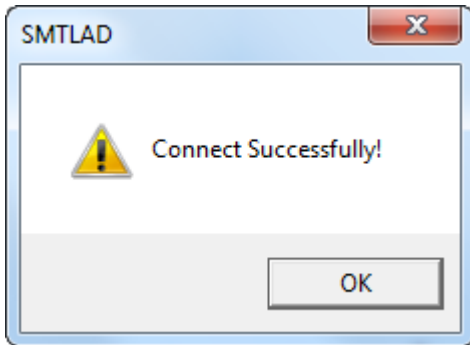
4. Open the IMO iSmart SMT-Client software and select **Operation → Link Com Port:**



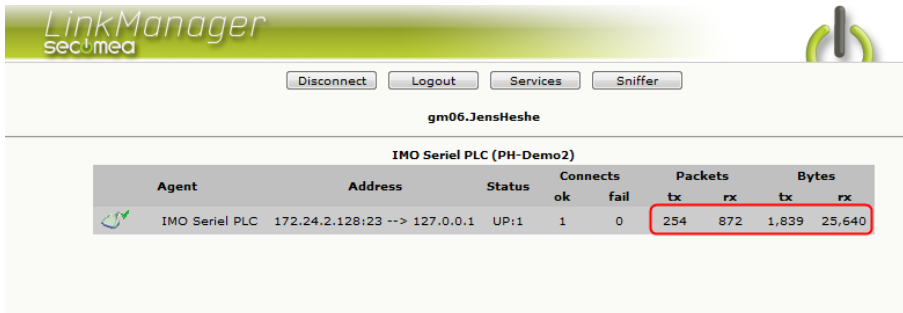
5. Select the COM port obtained from section 3, and click "Link".



6. The SMT-Client software will now tell you, that it has connected to the iSmart successfully.



7. You are now online with the PLC. You can now observe data traffic in the LinkManager:



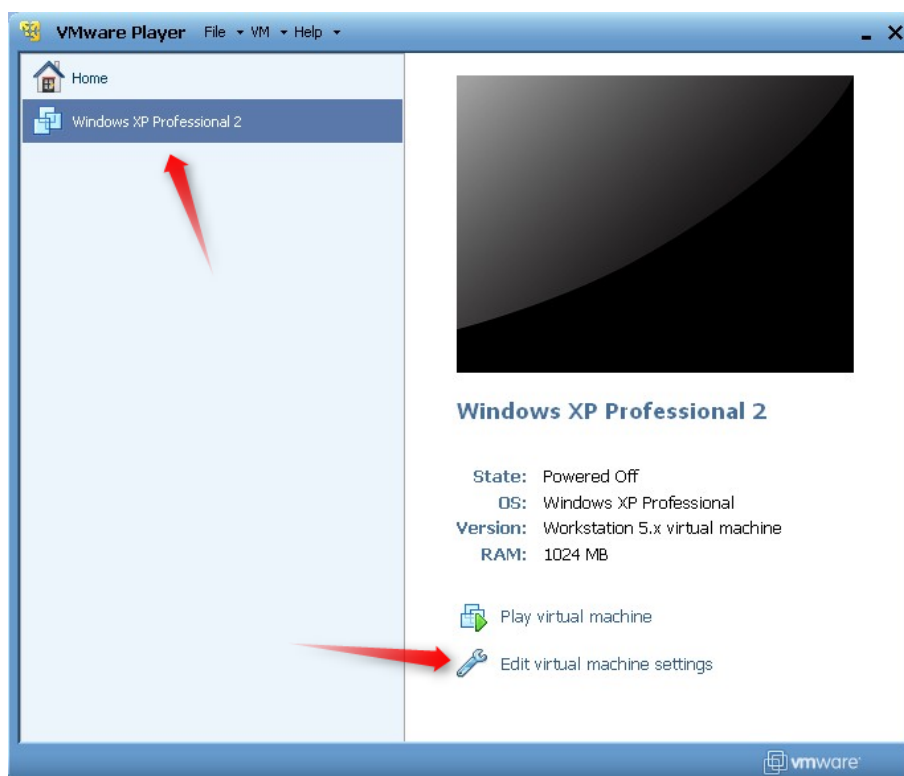
3. Serial connection via Windows XP under VMWare

You can run the IMO iSmart SMT-Client software inside a VMWare engine, to an IMO PLC that is Serial attached to a SiteManager.

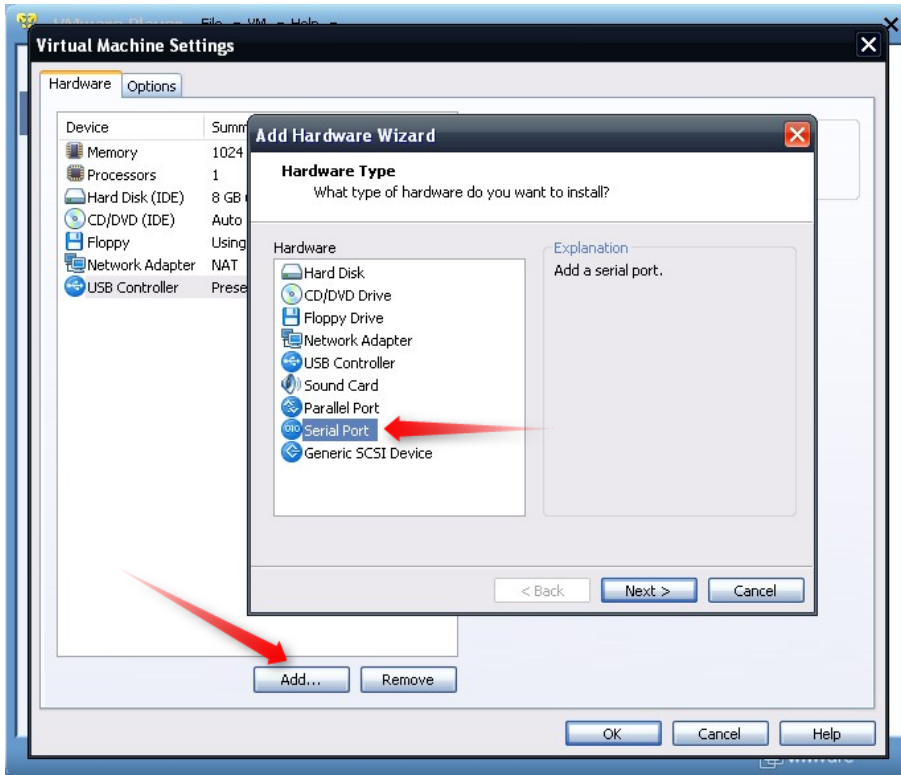
Note: LinkManager must be installed on the hosting machine - and **NOT** inside the VMWare Windows XP image. LinkManager cannot run inside a VMWare virtual machine.

The following illustrates VMWare Player, which can be downloaded free of charge from <http://www.vmware.com/support/product-support/player/>

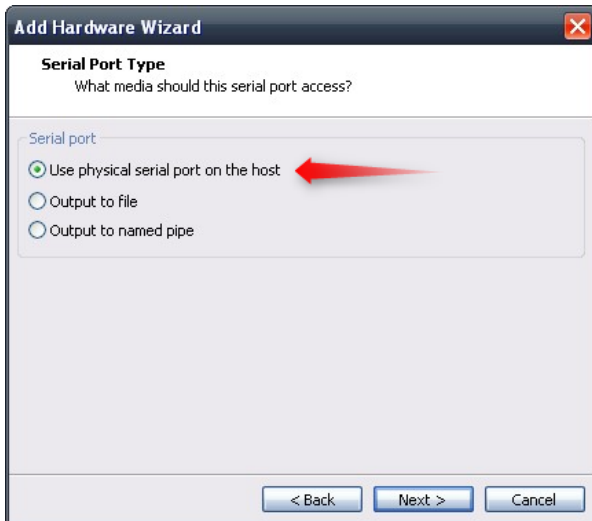
1. Follow step 1-3 of section 1 **Serial Access via Serial IMO** cable on page 4. This will create a COM port even if the PC does not have a physical COM port.
2. Locate your Windows XP that has IMO iSmart SMT-Client software installed, and without starting it, enter **Edit virtual machine settings**.



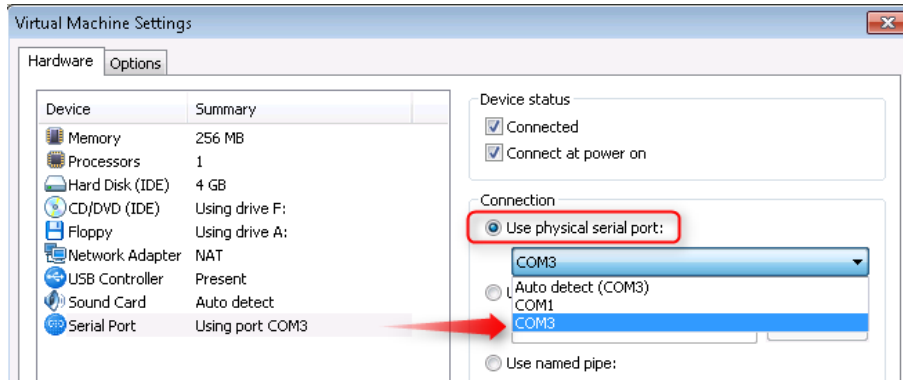
3. Add Serial Port to the Hardware list (if it does not already exist).



4. Select "Use physical port" (Even though LinkManager makes a virtual COM port, VMWare sees it as a physical port)



5. Set the port to the COM port used by the LinkManager (see section 2. **Serial Connection** on page **Error! Bookmark not defined.**)



6. If VMWare does not allow you to add a Serial port, it may be because the PC does not have a physical Serial port.
7. Press **OK** twice, and select the Select **Finish** and **OK**, Start the VMWare WindowsXP image, and start the IMO iSmart SMT-Client software.
8. Follow the procedure described in section 3 **Serial connection via Windows XP under VMWare** on getting access to the PLC via LinkManager.

Note: VMWare will typically make the physical COM port of the host system (e.g. COM3) appear to the virtual OS as COM1. You should configure the IMO iSmart SMT-Client software to use the port of VMWare (COM1) and not the physical port of the host system (COM3) that is used by LinkManager.

3.1. Startup order of VMWare, LinkManager and IMO iSmart SMT-Client software

If you have already preset a COM port in LinkManager as well as in VMWare, the startup order would be irrelevant. You can stop and start the components individually.

If you encounter problems, or you have changed the COM port setting of LinkManager it is recommended to do the following:

1. Stop the VMWare engine.
2. Stop LinkManager completely.
3. Start LinkManager.
4. Connect to the Serial PLC and check the assigned COM port under Status (by right-clicking the LinkManager tray icon)
5. Check the COM port settings of the Virtual Machine Settings of the Windows image with the IMO iSmart SMT-Client software.
6. Start the VMWare image.
7. Start IMO iSmart SMT-Client software and connect to the PLC

Appendix A, Organizing COM ports in Windows

Clean up Windows Registry for redundant COM ports:

You may experience that older versions of the IMO software require a lower COM port number. In case your PC assigns a COM port of e.g. 13, it may be due to previous installs of virtual COM ports from in relation to installation of other programs.

You can clean your PC for redundant COM ports in Windows registry:

1. Open regedit (Start → run → Regedit)
2. Navigate to:

**HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\COM
Name arbiter**

3. In the ComDB set all values to 00
4. Restart your PC

Enable LinkManager to use COM1:

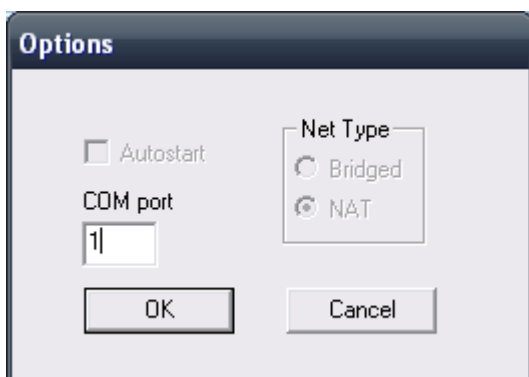
If you prefer the COM port to be COM1:

Even if no COM ports are installed on the PC, Windows will never assign a COM port lower than COM3 to the LinkManager. You therefore have to do the following to force LinkManager to use COM1:

1. Open Windows Control Panel → System → Hardware → Device Manager → Ports (COM & LPT).
2. If there already are physical COM ports listed, you must re-assign the port numbers to free up COM1.

Right click a COM port and select Properties → Port Settings → advanced

3. Change the COM port number in the drop down list.
4. Restart your PC.
5. Right click the LinkManager system tray icon and select Options.
6. Enter 1 in the COM port field.



7. Stop and Start the LinkManager and start the Serial agent.

Notices

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