

Application Note

Beijer/Exter HMI and E-Designer



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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Table of Contents

Prerequisites for This Guide	3
<hr/>	
1. Connecting remotely via serial	4
<hr/>	
2. Serial connection via Windows XP under VMWare	8
<hr/>	
2.1. Startup order of VMWare, LinkManager and E-Designer Program	10
<hr/>	
Appendix A, Organizing COM ports in Windows	11
<hr/>	
Notices	12
<hr/>	

Prerequisites for This Guide

The following guide will assist you to setup a remote and online connection to the Beijer or Exter panel placed on the customer site using your E-Designer 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 E-Designer software installed (in this guide, we used E-Designer v7.52 Build 344).
- You have the Beijer device agent installed and configured on the SiteManager at the remote site, and there is access between the SiteManager and the panel.
 - A serial attached panel (such as the Beijer E1012, Beijer E1022, Exter K10 or Exter K20) must be configured with agent device type **Beijer / Serial HMI** on the SiteManager (This Agent requires SiteManager firmware version 13213 or newer)

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.

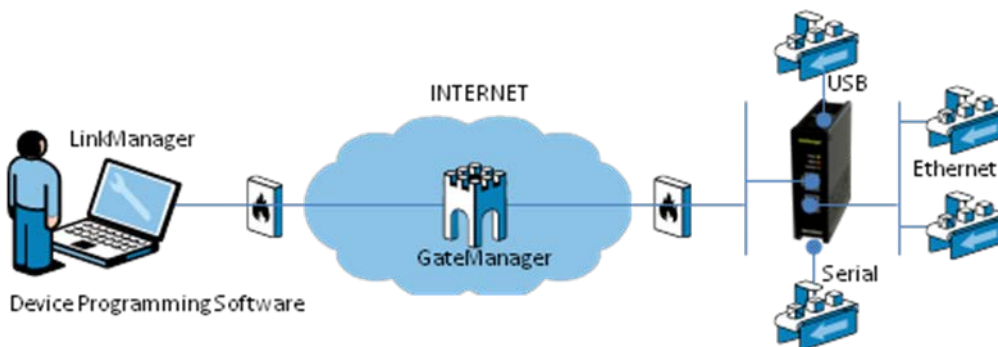
System Overview

The communication path is as follows:

E-Designer → **LinkManager** → GateManager → SiteManager → **Beijer panel**.

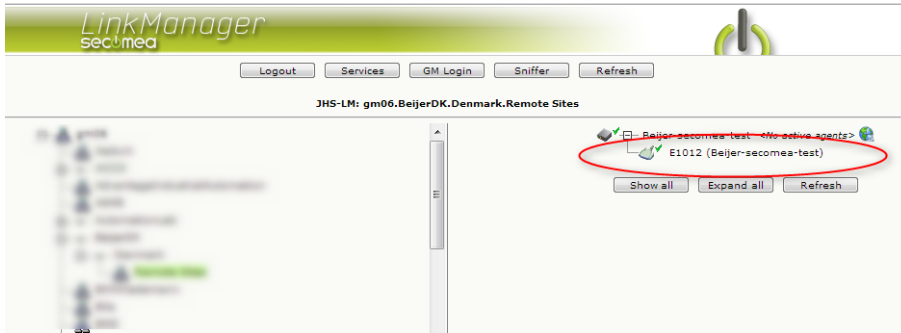
This guide will elaborate on the components marked with **bold**.

The following system overview depicts a SiteManager 1029/3229 at the customer location:

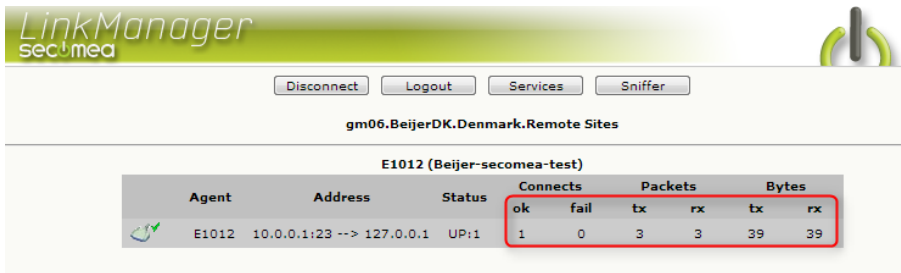


1. Connecting remotely via serial

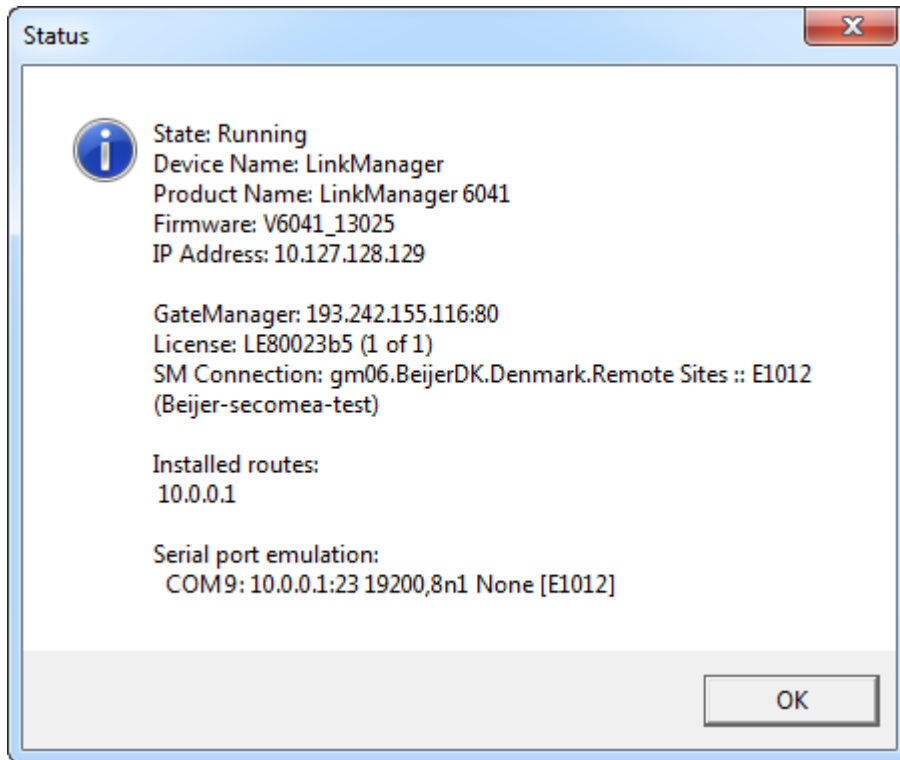
1. Locate the Beijer serial HMI agent and click on it to establish a connection to it:



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 the Beijer HMI is correctly attached, you should also see the status of the agent become OK, and a few bytes of traffic:

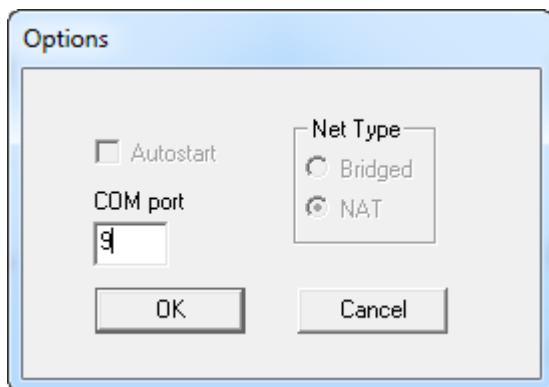


3. Now right click the LinkManager system tray Icon, and select **Status**. Make note of the Serial port that has been assigned (in this case COM9):



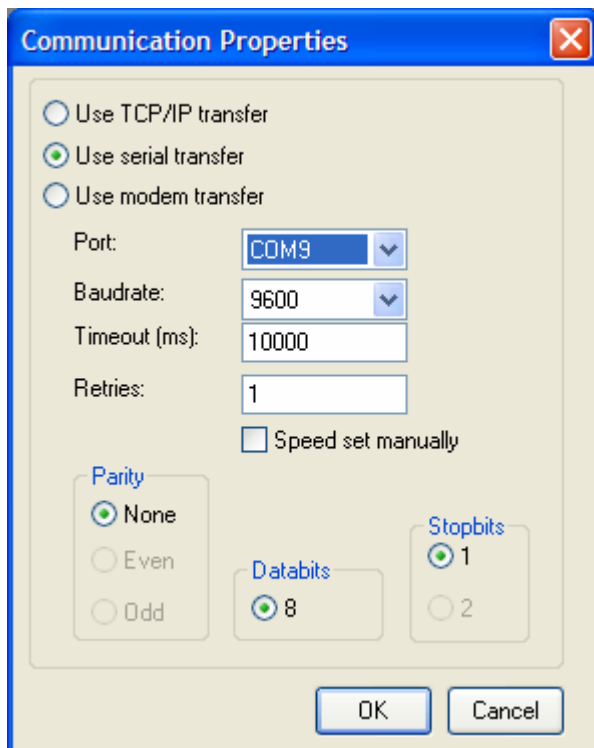
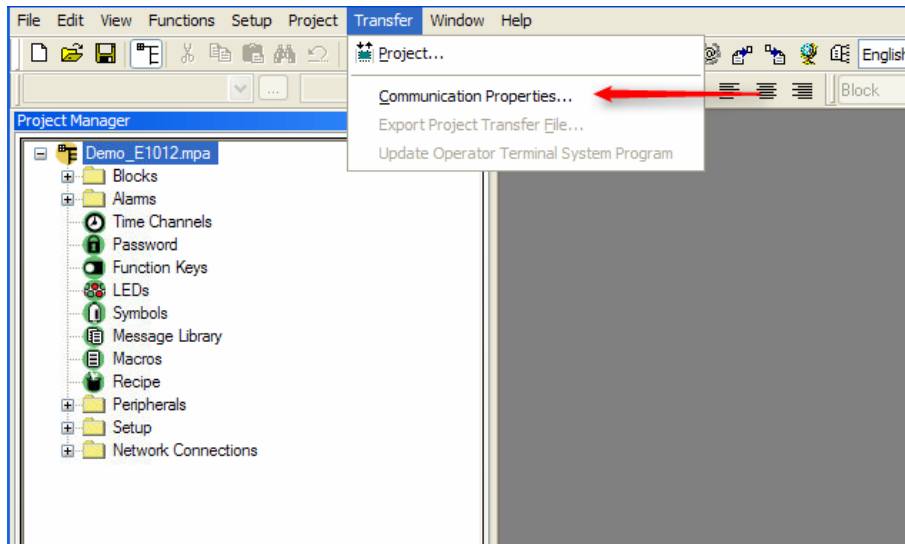
Right click the LinkManager system tray icon again, and select **Options**. Enter the number of the COM port you found under status. This will ensure that you will always get this port in the future.

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

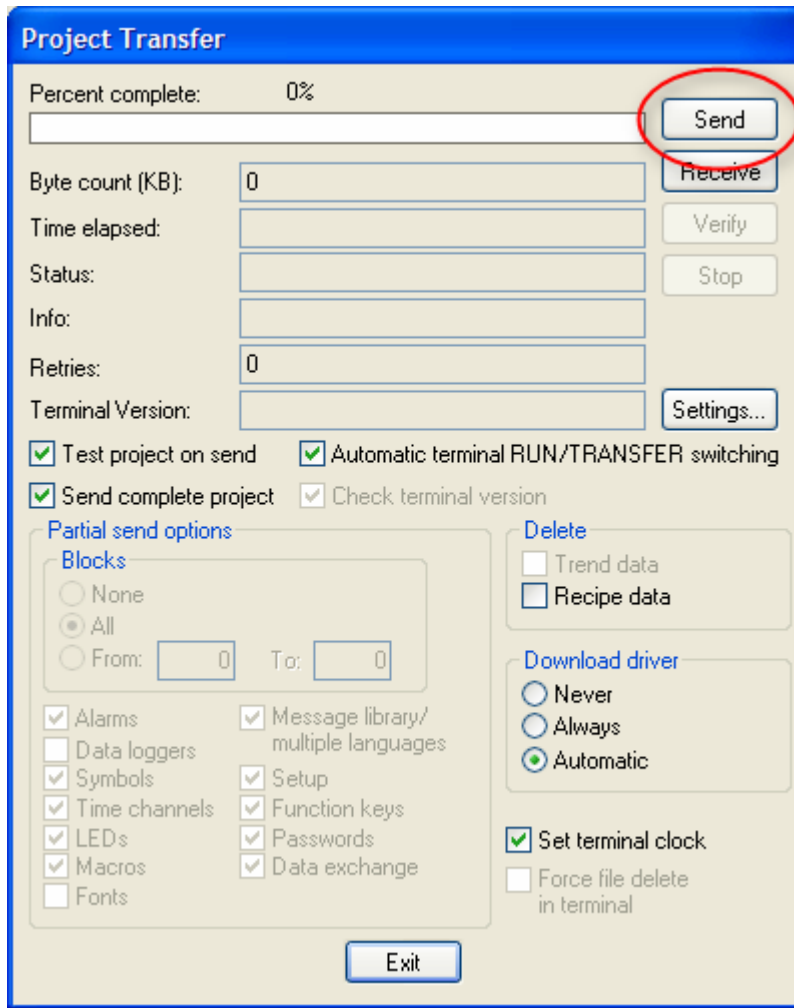


Note: You can also force another COM port (e.g. COM2). Just ensure in your Windows device manager, that the port is not conflicting with an existing COM port. See Appendix A for info on how to organize COM ports.

4. Open E-Designer, and select **Transfer** → **Communication Properties**. Select the COM-port, and set the speed to **9600**. Then, click **ok**.



5. You are now ready to connect with the HMI. To download the project to the HMI, select **Transfer** → **Project**. Then, click Send and press OK. The HMI will now go into transfer mode, and start the transfer.



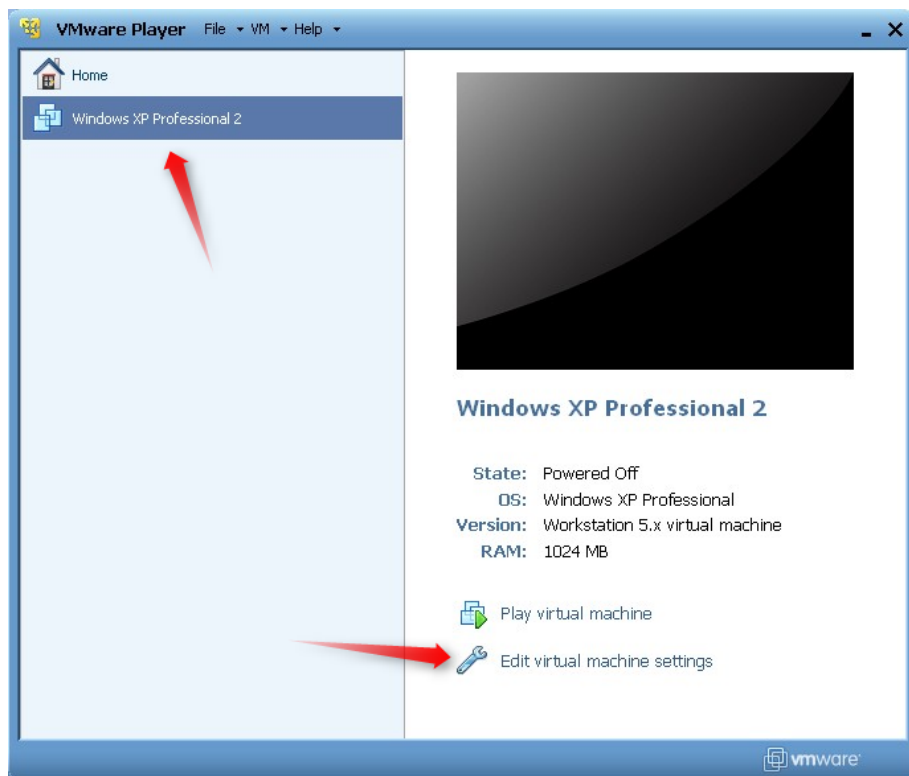
2. Serial connection via Windows XP under VMWare

You can run the E-Designer software inside a VMWare engine, to a Beijer panel that is attached to a SiteManager via a RS232 cable.

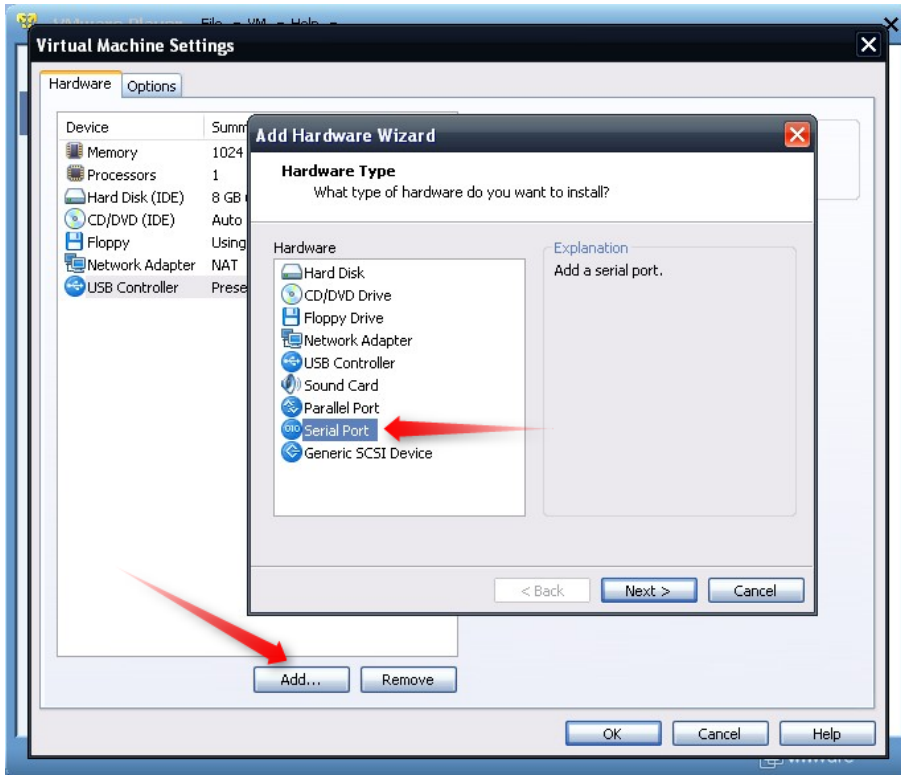
From LinkManager version 12155 you can choose to run the LinkManager inside or outside the virtual machine. Note that LinkManager can only run inside VMWare if the host OS is Windows 7 and the PC's CPU has support for virtualization.

The following illustrates VMWare Player, which can be downloaded from <http://www.vmware.com/support/product-support/player/>, and for LinkManager running outside the virtual machine (i.e. on the host OS system)

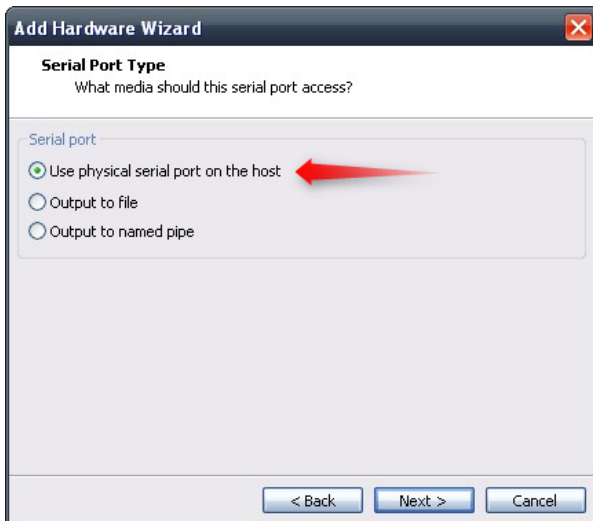
1. Follow step 1-3 of section **1 Connecting remotely via serial** on **page 4**. This will create a COM port even if the PC does not have a physical COM port.
2. Locate your Windows XP that has E-Designer Program installed, and without starting it, enter **Edit virtual machine settings**.



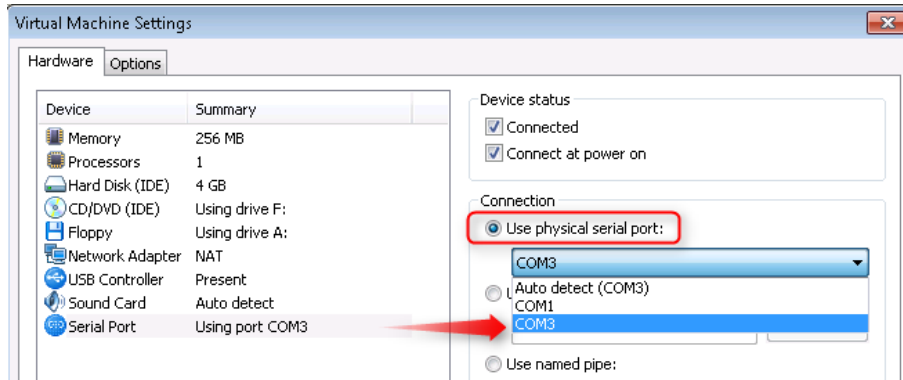
3. Add Serial Port to the Hardware list (if it does not already exist).



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.



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 E-Designer Program.
8. Follow the procedure described in section 1 **Connecting remotely via serial** 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 E-Designer Program to use the port of VMWare (COM1) and not the physical port of the host system (COM3) that is used by LinkManager.

2.1. Startup order of VMWare, LinkManager and E-Designer Program

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 E-Designer Program.
6. Start the VMWare image.
7. Start E-Designer Program 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 E-Designer 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:

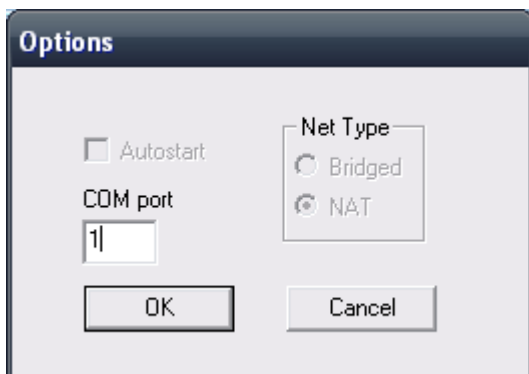
If you prefer the COM port to be COM1:

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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