ORION®

Alentec & Orion AB   SWEDEN

OriLink®
Monitoring System

Remote Access

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1.　Introduction

The OriLink® monitoring system supports networked Client-Server functionality. This functionality is based on the in Windows native link between processes called COM/DCOM and standard ODBC database connection.

Due to the use of these in Windows native mechanisms most of it is available by default in any Windows version and by any available network type.

2.　Supported features

In OriLink® there are three areas that supports network Client-Server.

2.1.　The Engine/ PNP Array

Since OriLink uses COM for its internal linking between processes that can also be supported over a network by register the Engine COM server for remote distributed COM (DCOM) access. And then set the Windows firewall to accept incoming calls to the Engine DCOM server.

Then you can see hardware layouts, open reels from layouts, and configure hardware from any clients in the network.

For configuring the client must have an OriLink® pro license

For opening of reels the client needs a license for PcKeypad.

2.2.　The Script service

Since OriLink® uses COM for its internal linking between processes that can also be used to support script calls over a network by register the Script Service COM server for remote distributed COM (DCOM) access. And then set the Windows firewall to accept incoming calls to the Engine DCOM server.

With this you can create automated dispensing ordered by for example a main frame production system or similar.

2.3.　WinDb Manager

All internal interaction with the OriLink® database is done by ODBC. The ODBC (Open Data Base Connectivity) API is installed by default in every windows version and is based on an ODBC-key, an ODBC driver for the database in question and some parameter settings.

The default OriLink® database is an MsAccess database called "OriLinkDB_O2K.mdb" and is by default placed in the C:\Orilink folder.

Because of the ODBC concept the database can easily be moved to some other place in the network by just moving the database and re-point the ODBC key.

This also means that it is only to install WinDb Manager on other (client) PC's in the network and point their ODBC keys to the database and you can manage the OriLink® database from client PC's.

3.　Installation

To install software you must be logged in with administrative rights

3.1.　OriLink® Server

No specific installation other than a normal OriLink installation is needed.

3.2.　OriLink® Clients

Here you can choose to install only the things needed but a complete OriLink® installation takes a very small amount of disk space so the easiest is to make a full install also on clients.

Note! –Make sure that you have the same versions of files on the Client as on the Server.

4. How to register the COM servers in Windows.

To register you must be logged in with administrative rights

4.1. Engine COM server

To register the Engine COM server you run/install the file "RegisterEngineCOMServer.reg"

Copy the file from your install media to the C:\Orilink of the OriLink® server.
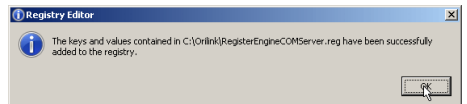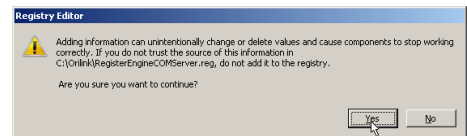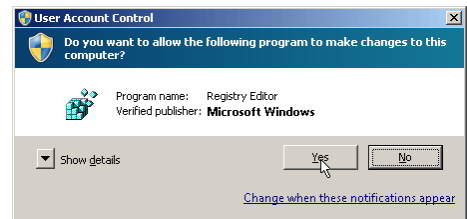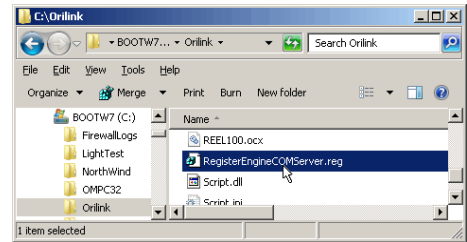
Right-click and select Merge.

Depending on OS and the safety settings of the OS you can get a UAC warning.

Click Yes.

Depending of OS you get a verification request

Click Yes.

If everything went well you should get a message like this.

4.2. Script Service COM server

To register the Script service COM server you run/install the file "RegisterScriptCOMServer.reg"

Copy the file from your install media to the C:\Orilink of the OriLink® server.

Right-click and select Merge.

Depending on OS and the safety settings of the OS you can get a UAC warning.

Click Yes.

Depending of OS you get a verification request

Click Yes.

If everything went well you should get a message like this.
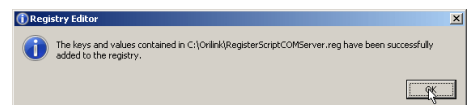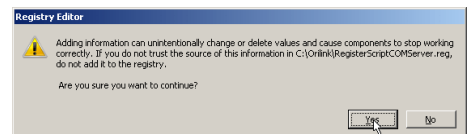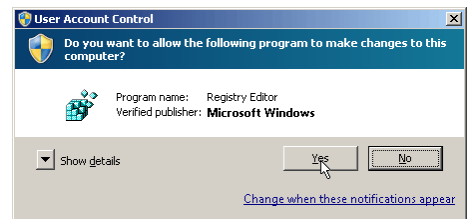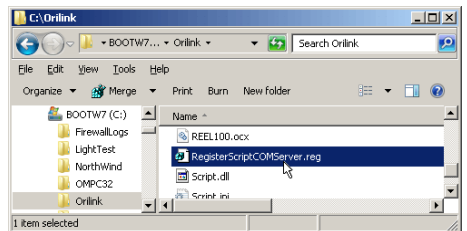
5. How to enable remote calls to COM servers.

By default when a com server is registered the remote access is
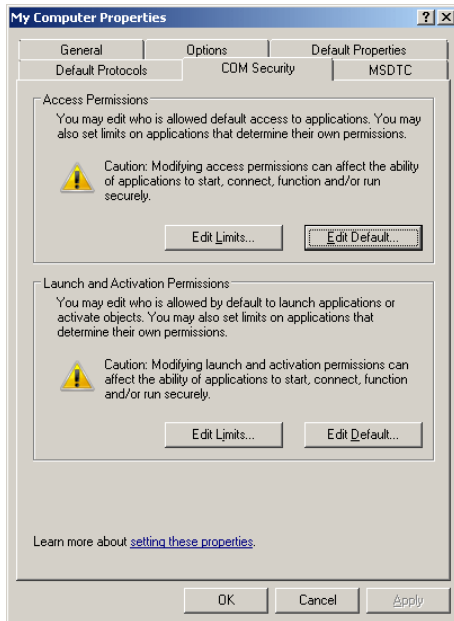disabled. This has to be enabled to accept remote calls.

Open control panel -> Administrative Tools -> Component services or
use start menu item Run type in dcomcnfg and click <Ok>
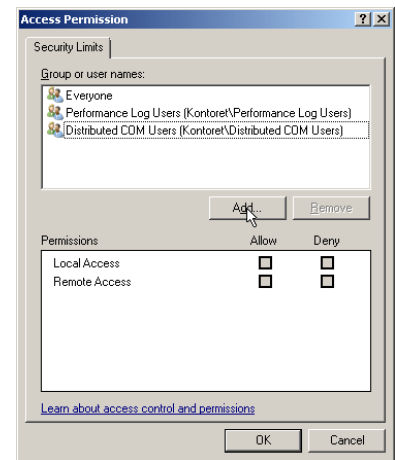
5.1. General COM security

Expand Component services and right-click "My computer".
Select Properties.
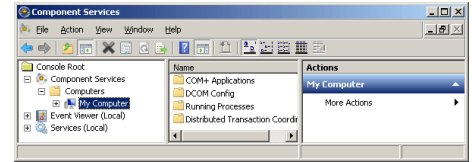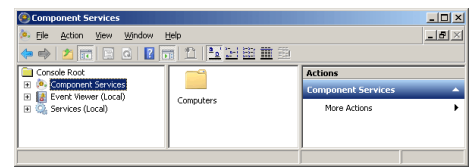
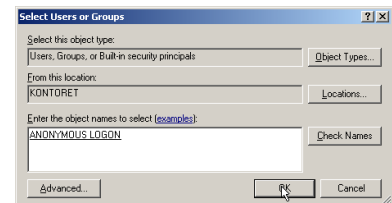In the form that appears select tab COM Security.
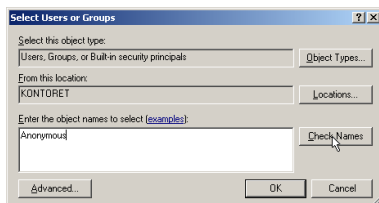
In Access Permissions click <Edit Limits>

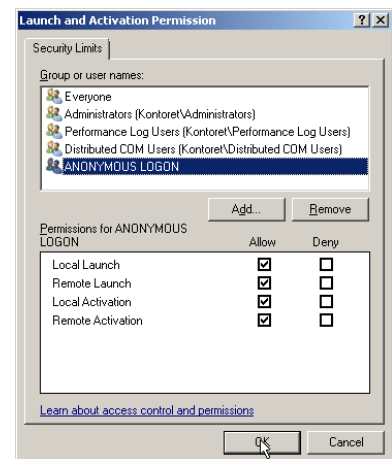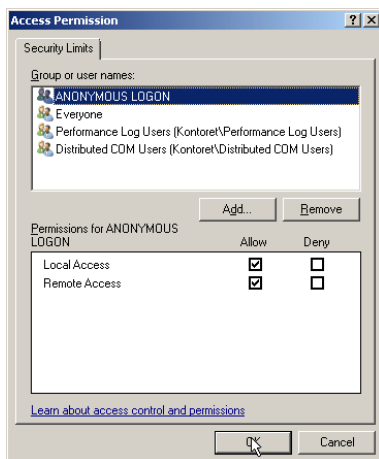Click <Add> and type in Anonymous.
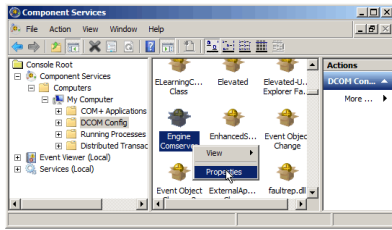
Click <Check Names> and then click <Ok>

Check Remote Access and click <OK>. Do the same for Launch and Activation Permissions
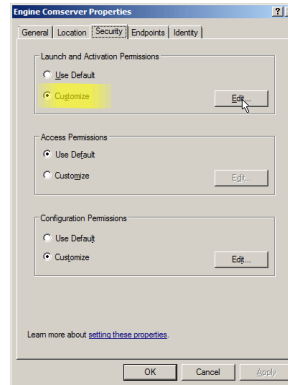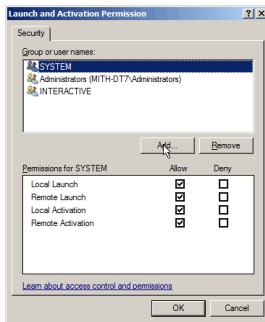
5.2. Engine COM server

To make the engine accept incoming calls its COM server must be set for it. This is only needed if you want to use remote graphical layouts on other PC's in the network.
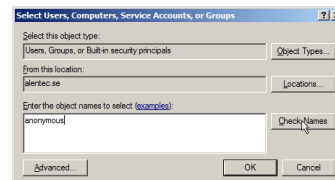

Select DCOM Config. Expand Component services and right-click Engine COM server under DCOM Config. Select Properties from the menu that is shown
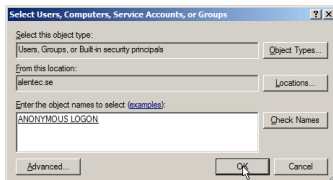
Select the Security tab, check the Customize radio button for "Launch and Activation Permissions" and click <Edit>
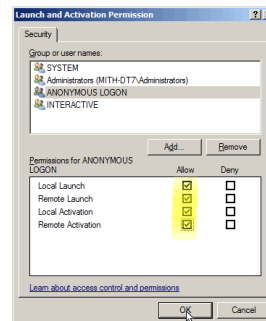

Click <Add>.

Then type anonymous in the white area and then click <Check Names>

Click <OK>

Check all permission check boxes for "ANONYMOUS LOGON" and then click <OK>, then <OK> again.

5.3. Script Service COM server

To make the script service accept incoming calls its COM server must be set for it. This is only needed if you want to use remote script calls (OcpRun) from other PC's in the network.

Select DCOM config. Expand Component services and right-click "Script COM server" under DCOM Config. Select Properties from the menu that is shown.

Then follow the process described for the Engine COM server above.
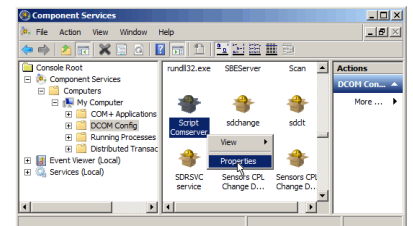
6. Windows firewall

Windows has a firewall of its own. In windows 7 and later it is more complex than in XP but generally the principle and purpose is the same. To be able to pass the firewall a remote call must pass the firewall to reach the target application. For this OriLink® needs two inbound rules one for the Engine and one for a DCOM port. The standard port for DCOM is 135.
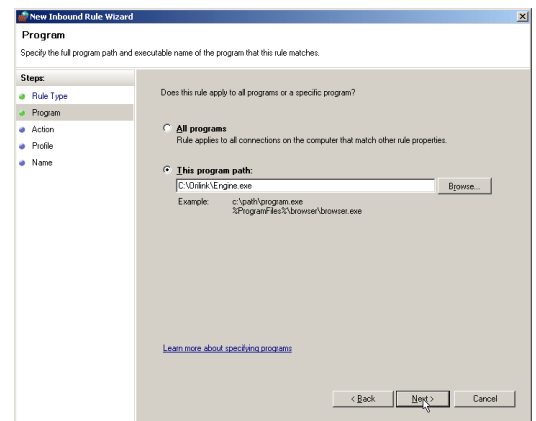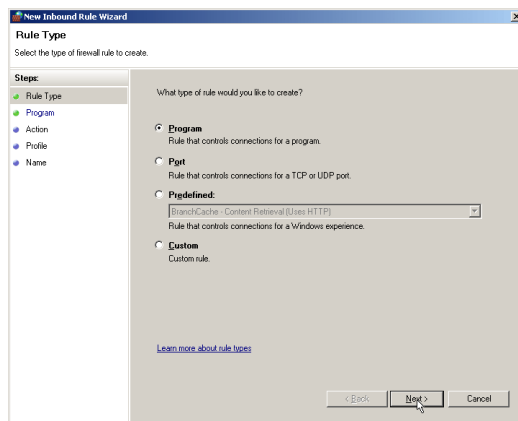
From Control panel open the "Windows Firewall" manager and click the "Advanced settings" on the left side.

Then select "Inbound Rules" in the left pane and click "New Rule" in the right pane.

Start with the Engine rule so make sure that the Program radio button is checked and then click <Next>.
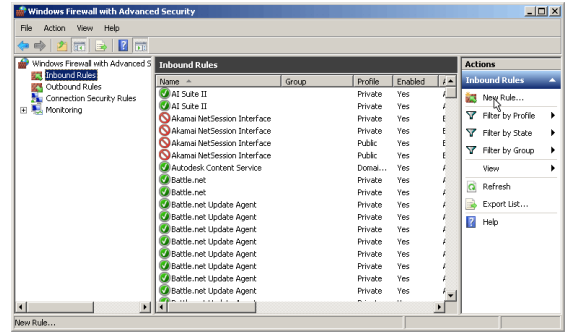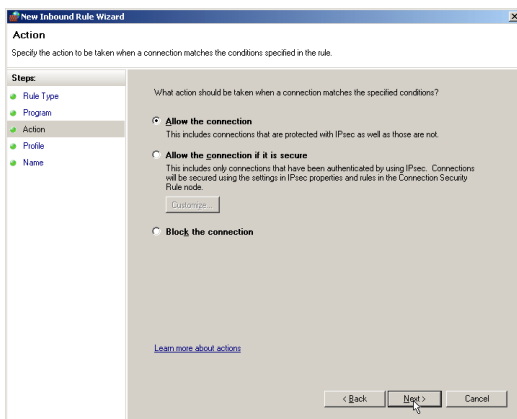
Type in the path to the OriLink® Engine. Install default is C:\Orilink\Engine.exe. Click <Next>
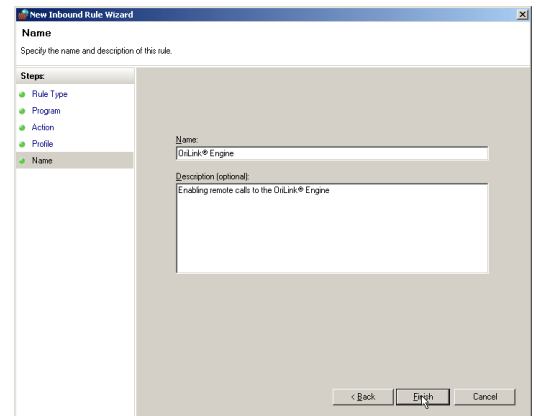
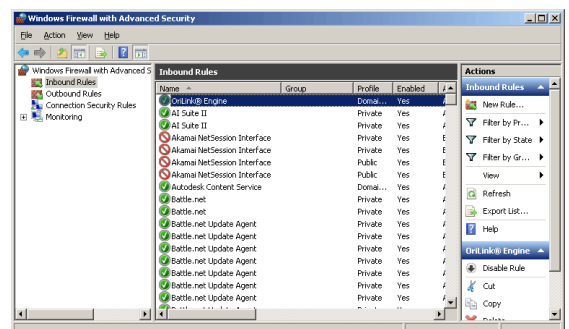Make sure that the "Allow the connection" radio button is checked then click <Next>.

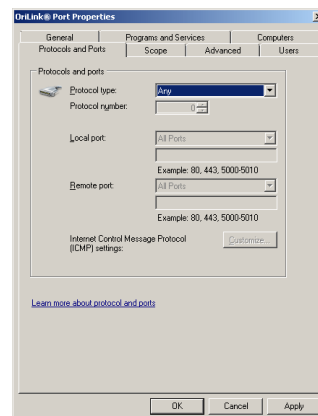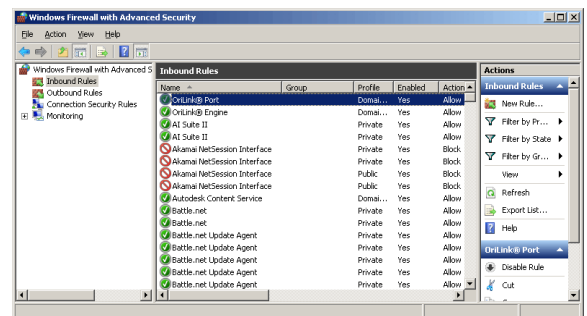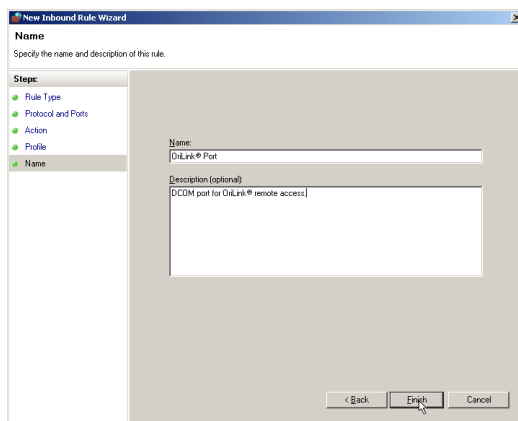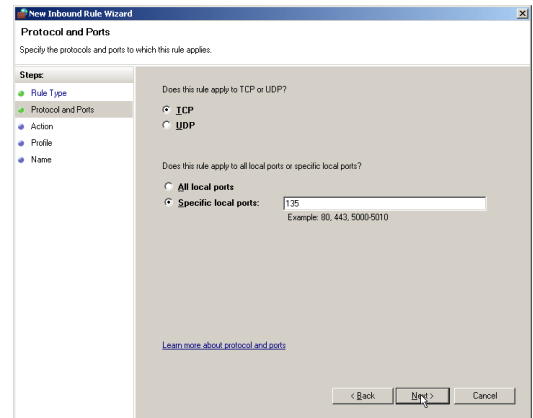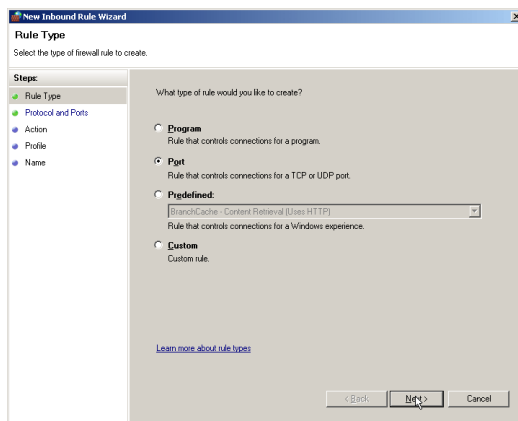Give the rule an informative name and description then click <Finish>

And the result should be a new inbound rule with the name you gave it in the centre pane.
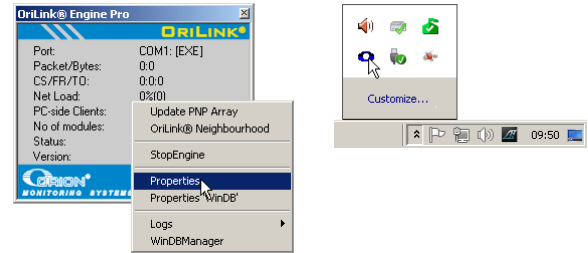
Now create the DCOM port rule in the same way.

Click "New rule" in the left pane. Check the "Port" radio button.

7.   Enable Engine broadcasting

To make the engine visible on the net, "broadcasting" must be enabled because it is disabled as install default. To do that right-click the engine window or the small blue "O" in the systray in the lower right corner of the desktop.

Select menu item Properties.

Uncheck "Disable Broadcast Server" and then click <Ok>.
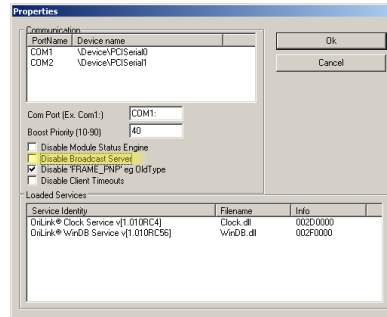
8.   ODBC (Database)

To be able to set up and use a ODBC key the logged in user must have read rights for viewing and reports and write rights for managing to the database.

8.1. ODBC Management tool

OriLink® is a WinAPI 32-bit application so to setup or change the ODBC key you must use the 32 bit ODBC Manager.

8.1.1. x32 system

For an x32 system you find the ODBC manager in Control Panel -> Administrative Tools -> Data Sources (ODBC)

8.1.2. x64 system

For an x64 system you find the 32 bit ODBC Manager as C:\Windows\SysWOW64\odbcad32.exe.

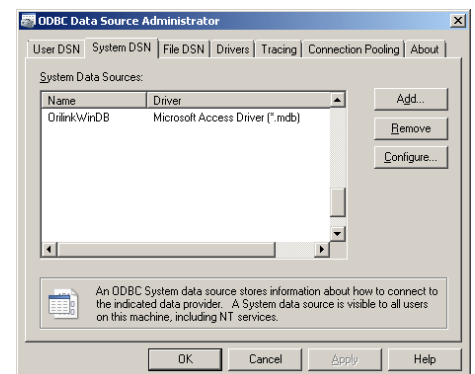#### 8.1.3. The ODBC Manager

It has two possible tabs.

8.1.3.1. System DSN

Default is <System DSN> tab. Setting up the ODBC key here makes it available for all users.

8.1.3.2. User DSN

Setting it up in <User DSN> tab makes it available only to the user that is logged in when it is set. This can be used on client PC's from which you want to be able to look at several system over the network.

9. Client

When there is one or more OriLink® "servers" in a network they can be accessed from "client" PC's.

9.1. Neighborhood/Layouts

To create a client graphic layout you use the network name or IP address of the OriLink® "server" you want to access.

First start HwMon2 in edit mode. This can be done from the "Windows start menu\OriLink\Create New Layout" and select menu "View" and item "Select tool". This will bring up the selector tool.

All OriLink® servers installed on Windows XP PC's visible to the net will automatically be shown in the selector list but due to limitations in the search tool in later versions of Windows they are not automatically shown.
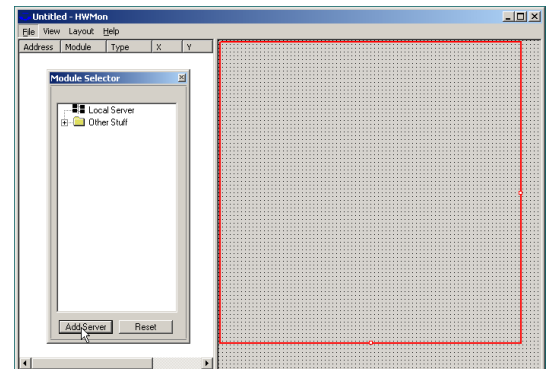
To find the OriLink® servers on Windows Vista or later click the <Add Server> button at the bottom of the selector tool. Type in the IP address or network name of the OriLink® "server" PC you want to work with and click <OK>
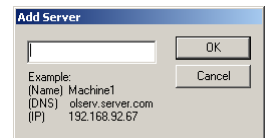
Here there are two OriLink® "servers" present in the network, develop and "kontoret".

To make layouts for client PC's objects should be selected from the "net work name"/"IP address" not from the "Local Server"
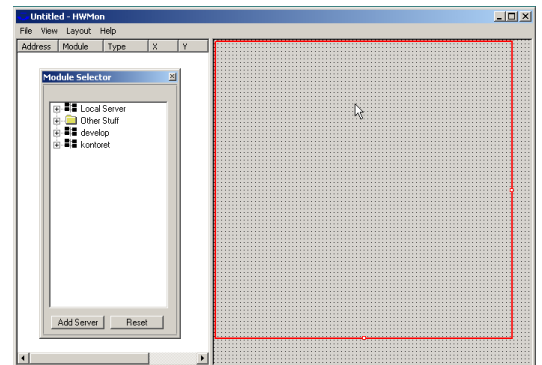
If the separator line between the list view and the graphics are pulled to the right the Server column is shown. In this column you can see which server a graphic object is linked to.

For a layout graphic object to work on client PC's it cannot be linked to "Local Server" because that will only work on the OriLink® "server" that has the corresponding hardware connected.
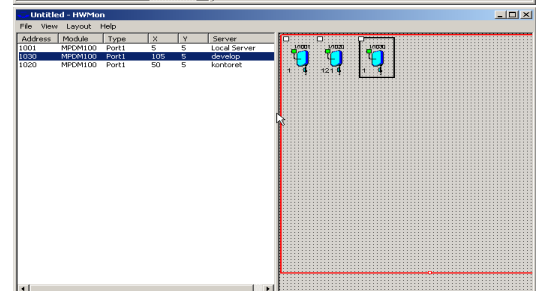
9.2. Script

9.3. WinDb Manager

Create a user for each workshop that should be managed.

Create the ODBC key in <User DSN> and point it to the database for the workshop linked to the user.

This will make WinDb Manager connect to the OriLink® database for the workshop associated with the logged in user on the client PC.