MoxCon
User Guide

0809-901-2303

Preface

Scope of the User Guide

This guide has been designed to assist the user to configure and create program code for a MOX system application. It is expected that the reader is an engineer or similar with an understanding of the operating and programming requirements of the intended MOX system components.

MoxCon can be used to configure individual devices and also to manage entire network configurations consisting of the following components:

- MOX Open Controller
- MOX Gateway Field Controller

Related Documents

A MOX system contains a collection of MOX equipment and several software packages. For this reason, a number of related documents should be read in conjunction with this guide.

The related documents are noted below:

- MOX Open Controller User Guide
- MOX Gateway Field Controller User Guide

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1 Introduction

MoxCon is a utility to create PROFIBUS DP or ControlNet network configurations to be downloaded to the MOX PROFIBUS DP or ControlNet devices.

MoxCon checks the dependencies between the devices. MoxCon allows configurations only, which make sense. In case of doubts MoxCon will give you a warning.

MoxCon documents your fieldbus system. After the configuration you can print out a detailed documentation of your fieldbus network. The details can be switched on/off. You can print documentation with details between the bus topology and the utmost detail of one device. MoxCon uses standardized configuration files. Some protocols support-standardized files containing information about all features and limitations of the slave device. MoxCon uses these files for the configuration.

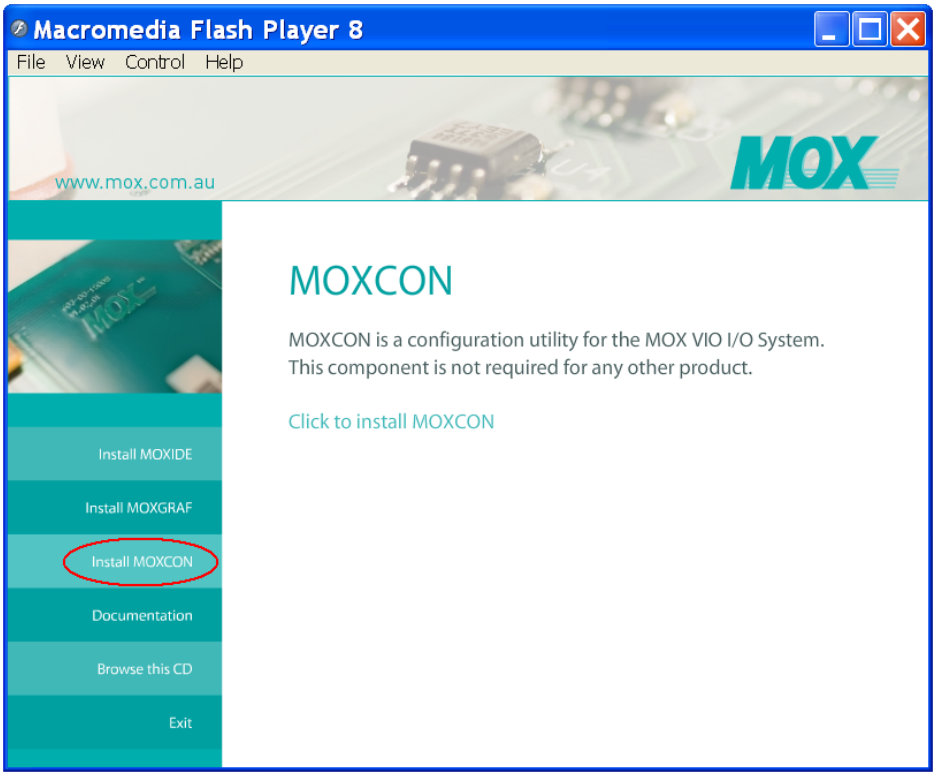
MoxCon is a diagnostic tool. After the configuration you can switch MoxCon into a diagnostic mode. You can watch all status information of connected devices. See protocol dependent diagnostic information like e.g. life list or slave diagnostic information on e.g. PROFIBUS. In this case a slave not operating correctly will be displayed in a different colour.

2 Installation

Insert the MOX Software CD into the disc drive. This action should initiate the Autorun functions on the CD to bring up the screen shown below.

If the Autorun is not initiated then use Explorer to browse the CD and run the *Autorun.exe* file in the root directory of the CD.

From the installation options on the menu, select the option to Install MoxCon and follow the pop-up windows. Once MoxCon is installed you will need to restart your PC.



Alternatively, you can click *Setup.exe* in MoxCon installation package directly, and fulfil the whole installation by following the pop-up windows and their guidance.

3 PROFIBUS Configuration

3.1 Configuration Process

The following procedure gives a configuration process outline:

1) Create a new MOXCON project by selecting **File->New** from the menu, the following dialog box will be displayed, choose **"PROFIBUS"** then click **"OK"**.

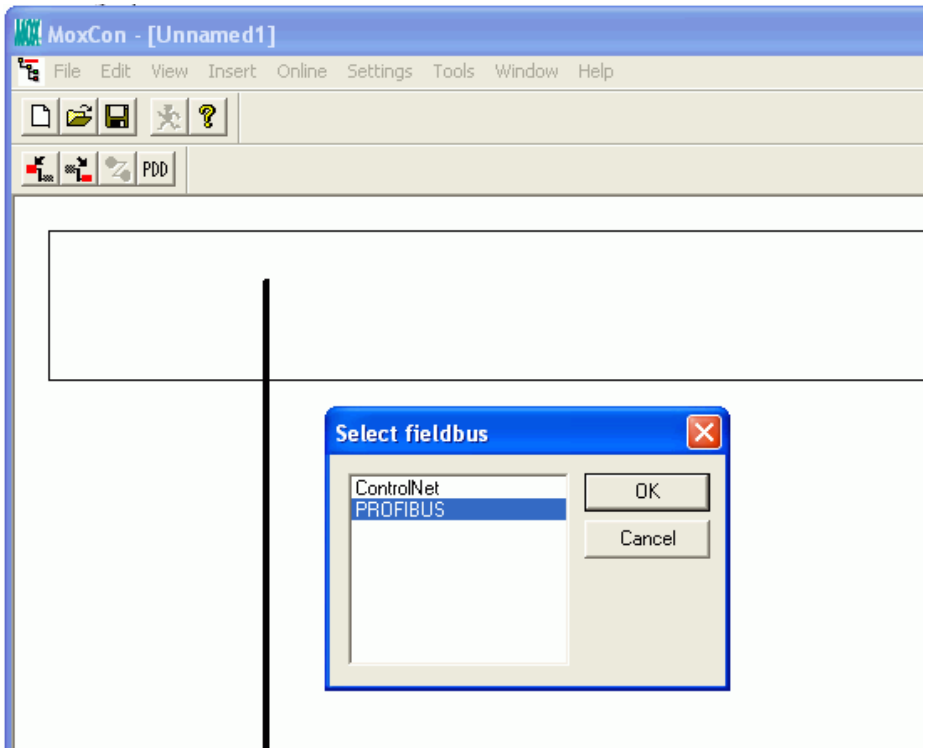


Figure 1 Set up a New Project

2) Insert a Master device by selecting **Insert->Master** from the menu. You can see an **"M"** letter attached to the mouse pointer, then click on the blank area.

   Select the PROFIBUS DP Master with correct Identification number. Click **"Add>>"** then **"OK"**.

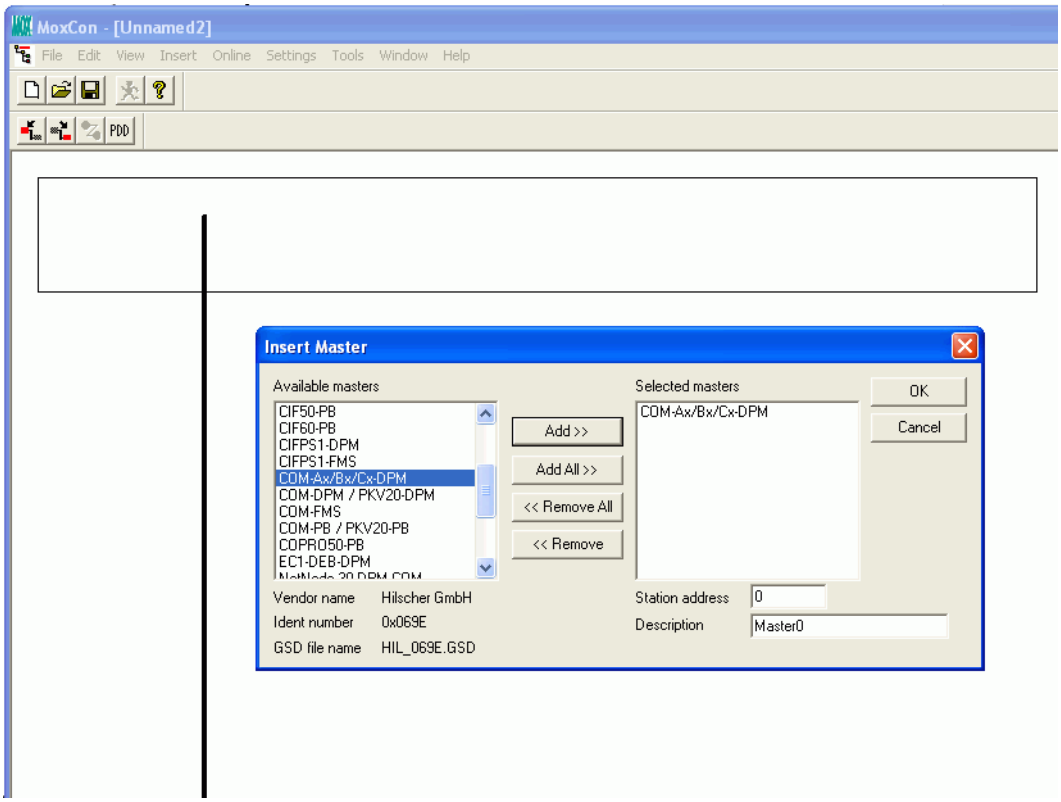


Figure 2 Add PROFIBUS Master

3) Set the PROFIBUS DP device connection driver to Serial or TCP/IP by selecting **Settings->Device Assignment** from the menu. Select **"CIF TCP/IP Driver"** and then click **"OK"**.

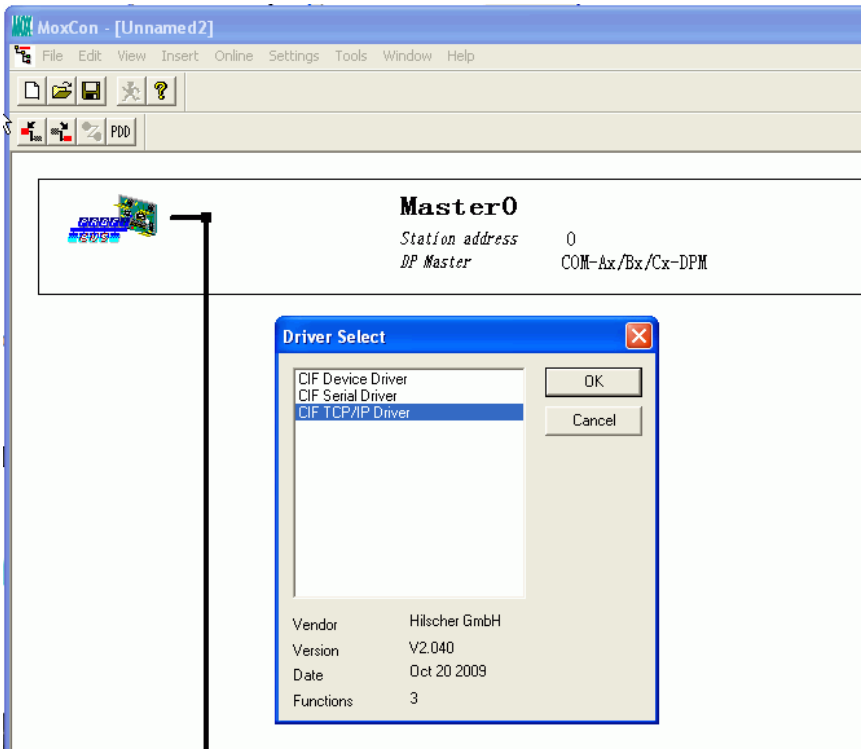


Figure 3 Set PROFIBUS DP Gateway Connection Driver

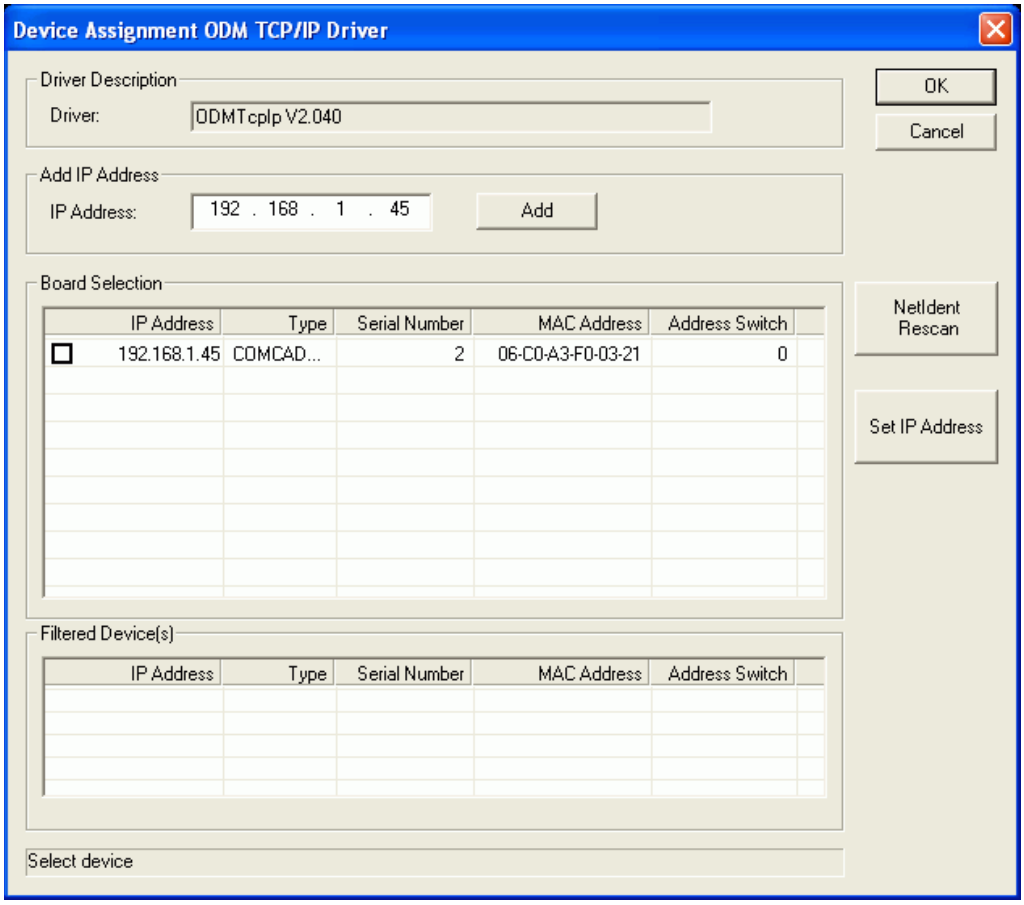


Figure 4 Set IP Address and Connect to Gateway

Fill in the **IP Address** of the PROFIBUS DP device. Click “Add” to connect to the device. Once connected, the information will be displayed in the **Board Selection** frame. Check the box and click **OK.**

4) To link a complete network of devices that are connected to the PROFIBUS DP master select **Online->Automatic Network Scan** from the menu, or add expected devices manually one by one. All PROFIBUS DP slave devices’ GSD files must be available in the ***\Fieldbus\PROFIBUS\GSD*** folder under the MOXCON installation directory.

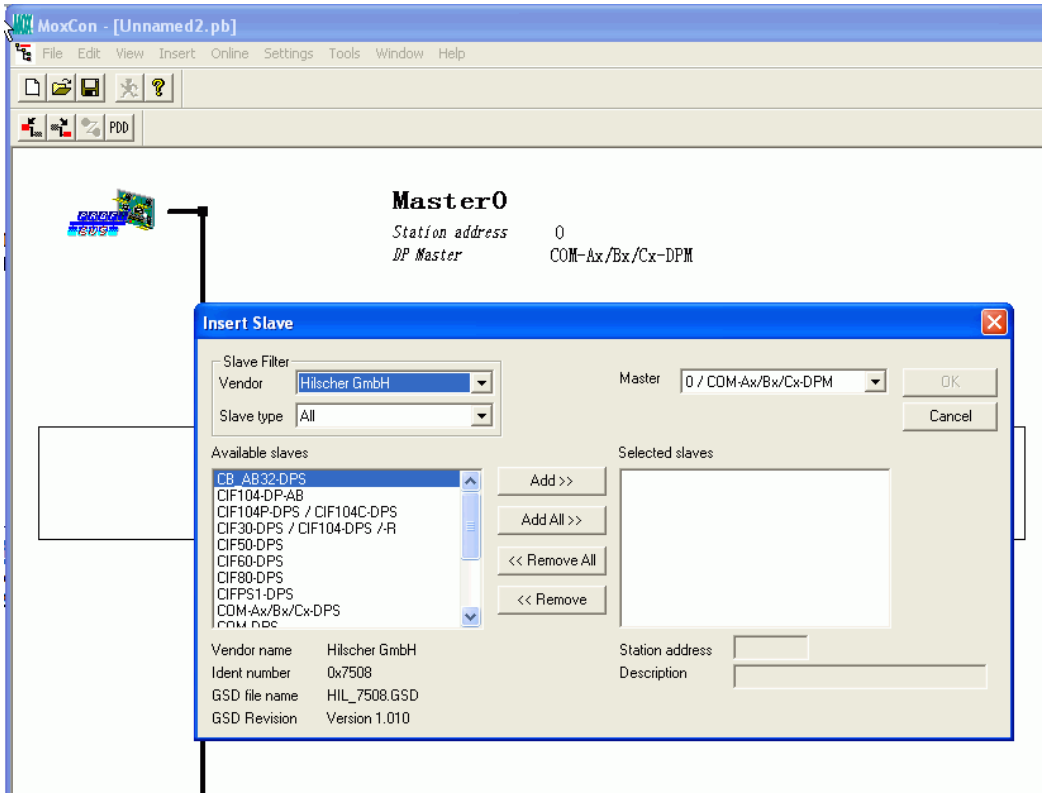


Figure 5 Add PROFIBUS Slave

5) Select **File->Save** to save the current network as any desired name of the user's choice. Download this network to the open controller by selecting **Online->Download**.

3.2 MoxCon Automatic Network Scan

To execute an automatic scan for connected devices to the Open Controller, select **Automatic Network Scan** from the **Online** option on the toolbar at the top of the screen.

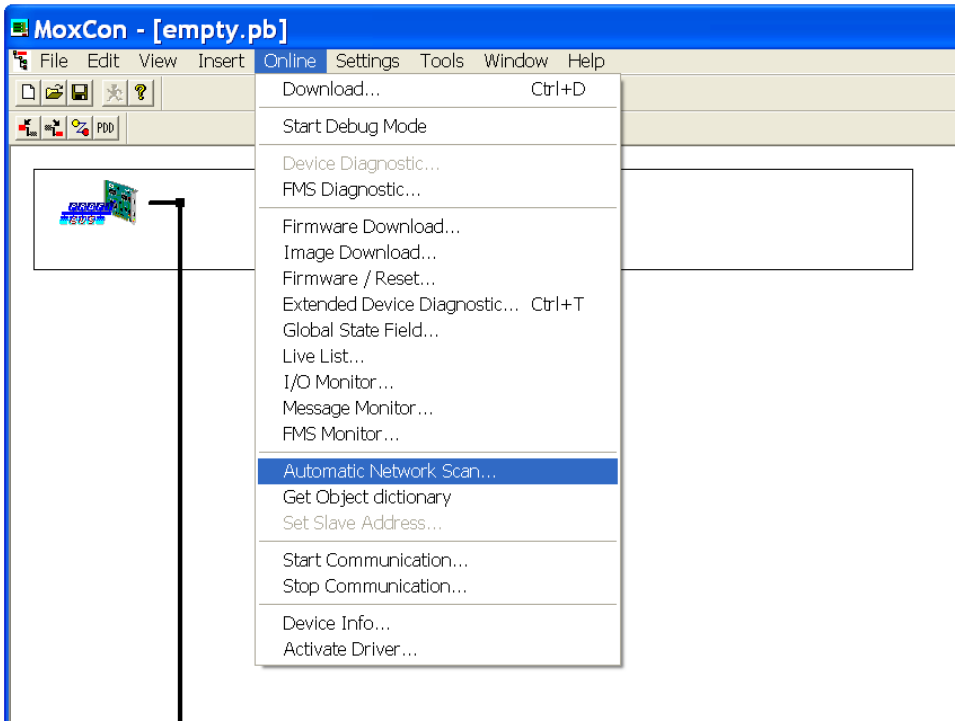


Figure 6 MoxCon Automatic Network Scan

STOP	*"Automatic Network Scan" will reset target PROFIBUS master device and all slaves connected.* *Make sure this do no harm to the system, especially when it is running.*

If the slave devices are correctly connected and functioning they should all appear under the master.

Ensure that the slave device that has been allocated to the network is the correct device that is being used. If it is not remove it from the architecture and manually select the slave device connected to the master.

If you would prefer to add the slave devices manually, click on **Insert** and select the **Slave** option. This will alter the mouse icon to a slave image and you are required to click on the network, the slave's desired position, using this icon. A prompt will then be displayed with a list of slave devices to choose from. Select one and click ok. The process of adding a slave device is now complete; however configuration of the device may still be required.

Save the new configuration and again **Download** it to the Open Controller.

3.3 Manual PROFIBUS Slave Configuration

To manually configure the slave device select **Slave Configuration** from the **Settings** option on the toolbar at the top of the screen, or double click on the slave image on the network screen. A screen similar to that shown below will be displayed.

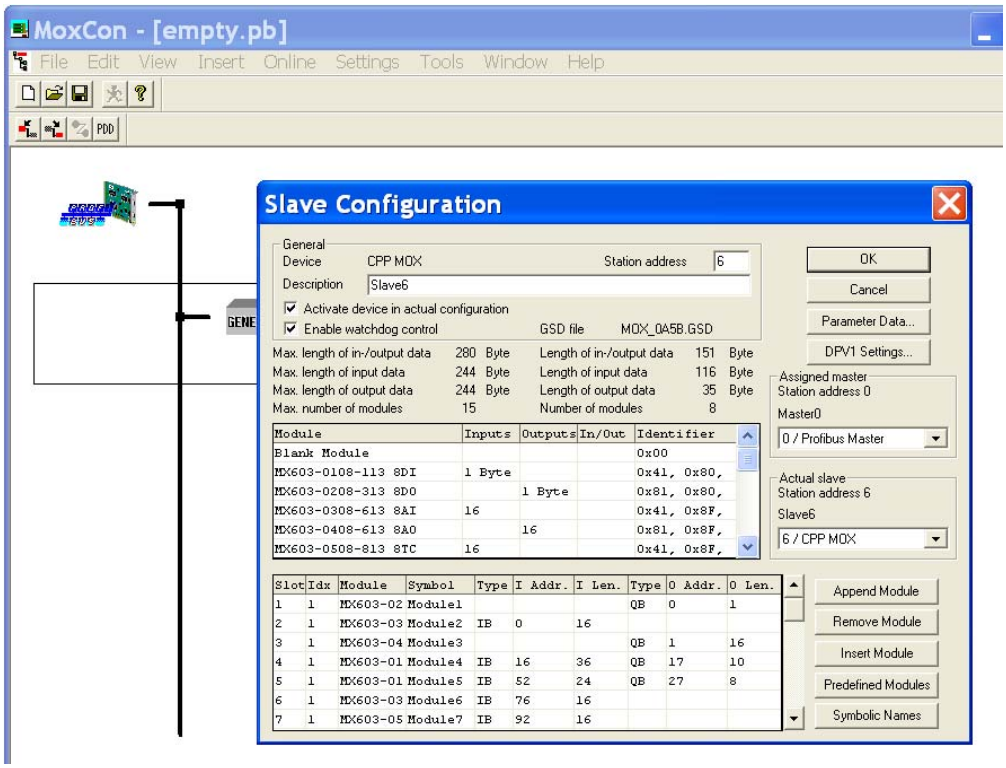


Figure 7 MoxCon Slave Configuration Screen

Remove and add or simply add modules to the lower section of the screen, dependent on the required configuration. This is done by double clicking the module in the upper window. To remove modules from the lower window simply double click on them and acknowledge that you wish to remove them at the prompt.

3.4 I/O Monitor

To test correct functionality of the connected device, select **I/O Monitor** from the **Online** option on the toolbar at the top of the screen. A window similar to that below will be displayed.

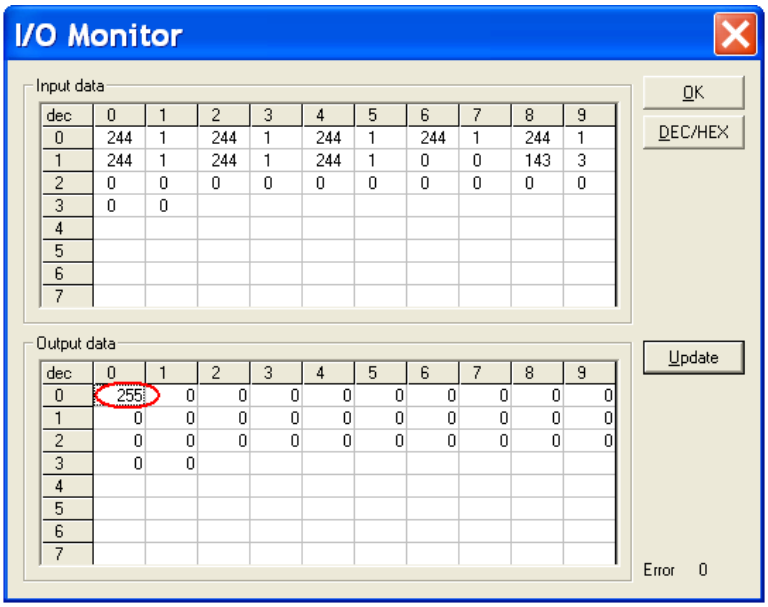


Figure 8 MoxCon I/O Monitor Screen

Enter values into the output section of the option window and click on the update option, to perform the test. This method of testing is restricted to the range to the number of channels that the external I/O device has.

4 ControlNet Adapter Configuration

The MoxCon can be used to configure MOX ControlNet adapters. The following procedure gives a configuration process outline.

1) Create a new MOXCON project by selecting **File->New** from the menu, the following dialog box will be displayed, choose **"ControlNet"** then click **"OK"**.

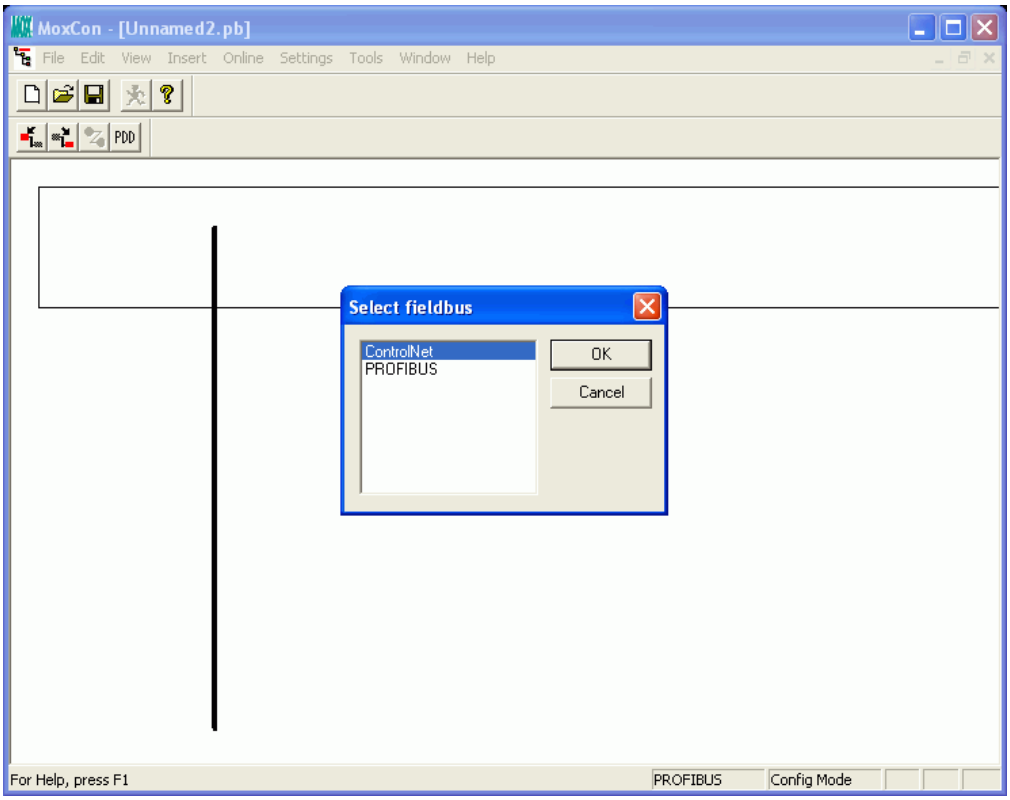


Figure 9 Set up a New ControlNET Project

2) Select "CIF30-CNS" from the available devices. Click "Add>>" to add it to the selected devices.

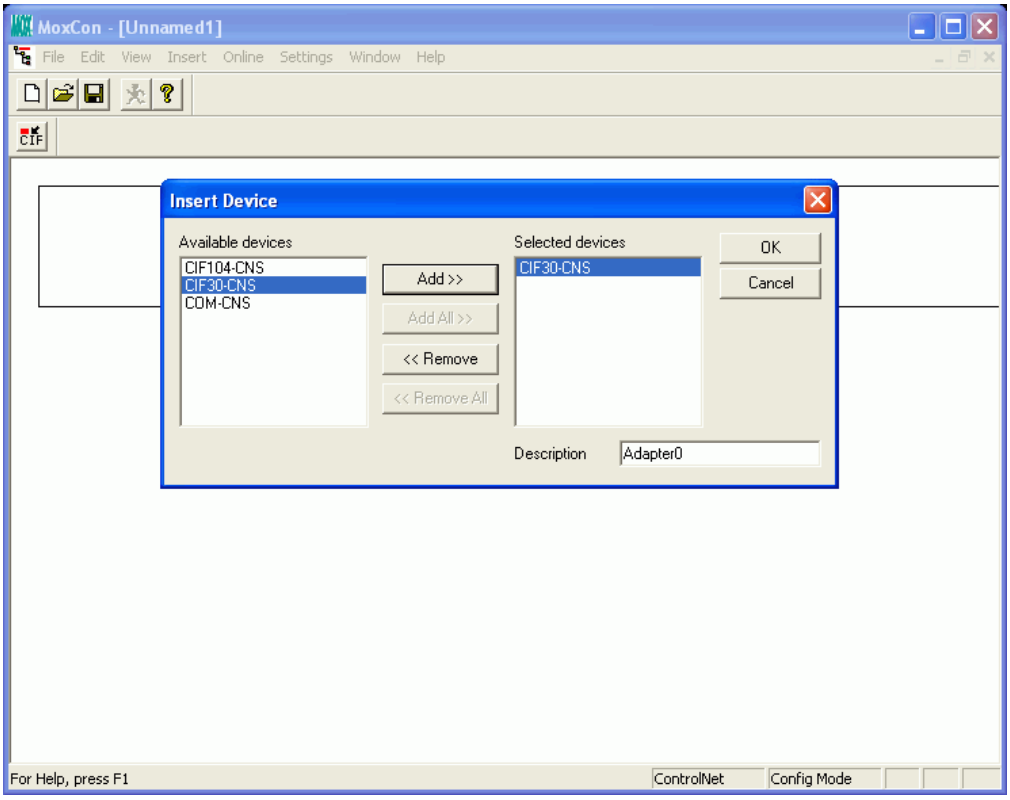


Figure 10 Add Device

3) Set MAC ID and I/O Size. The maximum Input length and Max Output length are both 240 words.

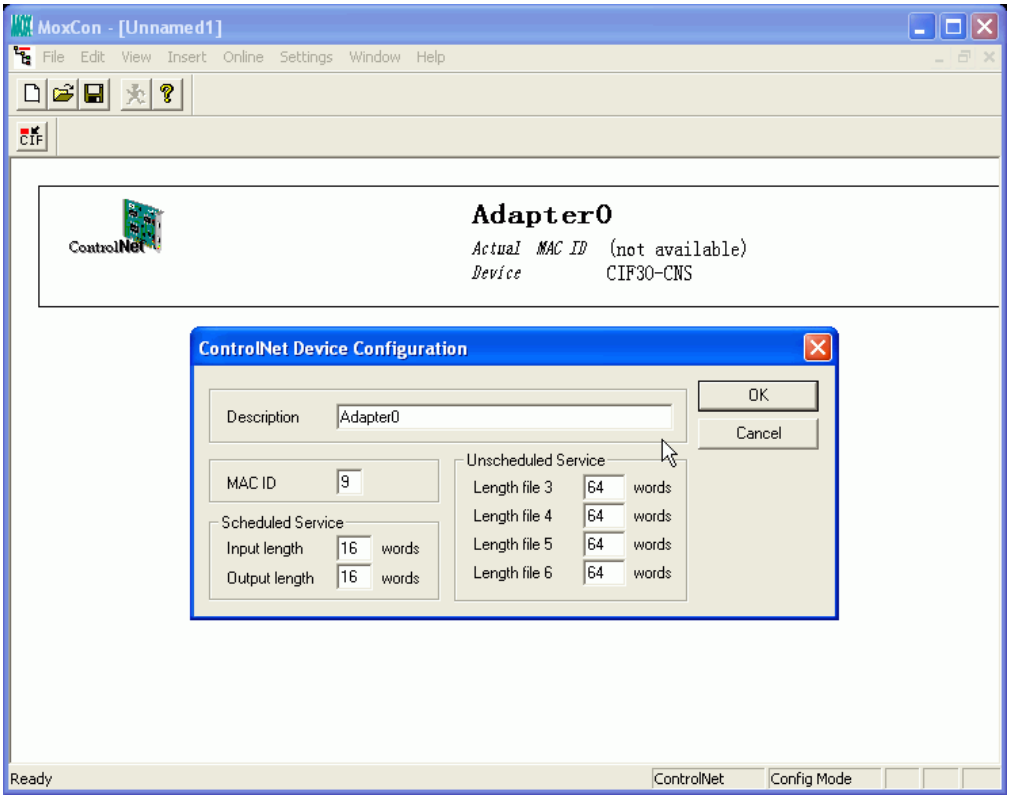


Figure 11 ControlNET Adapter Configuration

4) Set the ControlNET adapter connection driver to TCP/IP by selecting **Settings->Device Assignment** from the menu. Select **"CIF TCP/IP Driver"** and then click **"OK"**. Enter the IP address and click **"Add"** to connect to the adapter. For the IP address definition, please refer to specific adapter user guide.

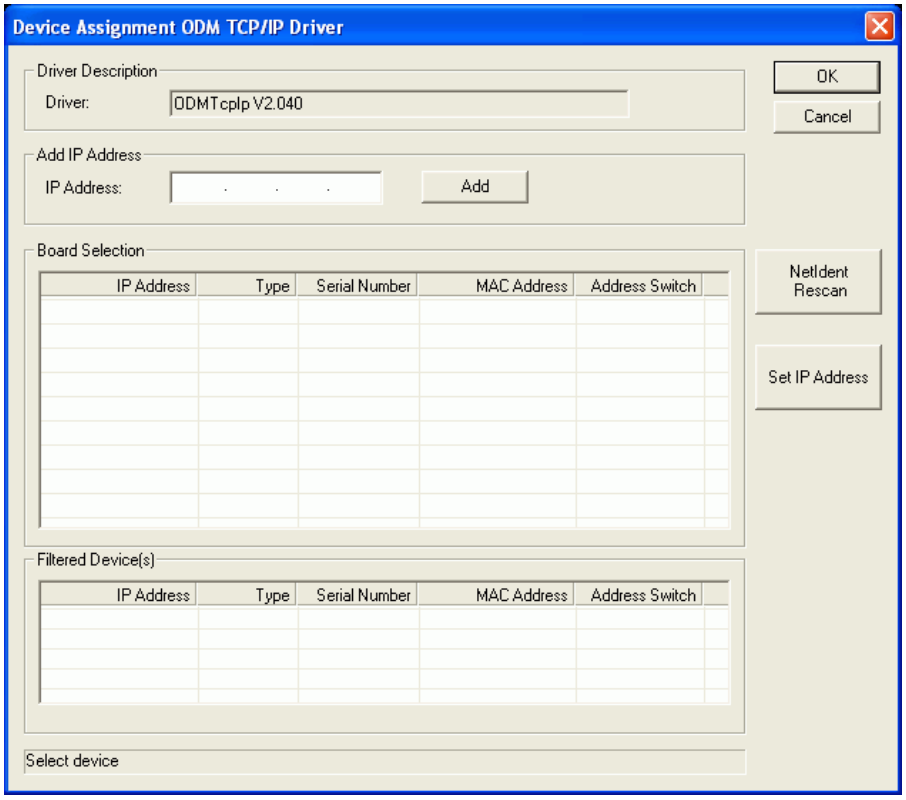


Figure 12 Set IP Address and Connect to Adapter

Appendix A Product Support

Warranty Information

All MOX manufactured products are warranted to be free from defects in material and workmanship. Our obligation under this warranty will be limited to repairing or replacing, at our option, the defective parts within 1 year of the date of installation, or within 18 months of the date of shipment from the point of manufacture, whichever is sooner. Products may only be returned under authorisation. The purchaser will prepay all freight charges to return any products with a valid return authorisation number to the designated repair facility.

This limited warranty does not cover loss or damage that may occur in shipment of the goods or due to improper installation, maintenance, misuse, neglect or any cause other than ordinary commercial or industrial use. This limited warranty is in lieu of all other warranties whether oral or written, expressed or implied.

Liability associated with all MOX products shall not exceed the price of the individual unit that is the basis of the claim. In no event will there be liability for any loss of profits, loss of use of facilities or equipment or other indirect, incidental or consequential damages.

Contact Details

To obtain support for MOX products, contact MOX Group using the following email address or your designated support provider and ask for MOX Support.

E-mail addresses:

support@mox.com.au

sales@mox.com.au

Visit our web page at:

http://www.mox.com.au

Service Information

If you require service, contact your local MOX Group representative. A trained specialist will help you to quickly determine the source of the problem. Many problems are easily resolved with a single phone call. If it is necessary to return a unit, an RMA (Return Material Authorization) number will be provided.

All returned materials are tracked with our RMA system to ensure speedy service. You must include this RMA number on the outside of the box so that your return can be processed immediately.

Your MOX Group authorised applications engineer will complete an RMA request for you. If the unit has a serial number, we will not need detailed financial information. Otherwise, be sure to have your original purchase order number and date purchased available.

We suggest that you provide a repair purchase order number in case the repair is not covered under our warranty. You will not be billed if the repair is covered under warranty.

Please supply us with as many details about the problem as you can. The information you supply will be written on the RMA form and supplied to the repair department before your unit arrives. This helps us to provide you with the best service, in the fastest manner. Most repairs are completed within two days. During busy periods, there may be a longer delay.

If you need a quicker turnaround, ship the unit to us by airfreight. We give priority service to equipment that arrives by overnight delivery. Many repairs received by midmorning (typical overnight delivery) can be finished the same day and returned immediately.

We apologize for any inconvenience that the need for repair may cause you. We hope that our rapid service meets your needs. If you have any suggestions to help us improve our service, please give us a call. We appreciate your ideas and will respond to them.

For Your Convenience:

Please fill in the following information and keep this manual with your MOX system for future reference:

P.O. #: _____ Date Purchased: _____

Purchased From: _____

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Web: www.mox.com.au
Email: info@mox.com.au

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