## 14  Digital Interface Operations

The following chapter details the software operations used to configure and control the digital interfaces using the PodMng software.

The driver software enables you to:

**Assign digital I/O as input ports**
**Assign digital I/O as output ports**
**Observe status of I/O ports**

**Digital Channel Configuration - Setting I/O as Inputs or Outputs**

Each of the digital I/O ports can be user configured for input or output port operations. To configure the digital ports for input or output operations follow the instructions described below:

### 14.1    Specifying  Digital I/O as Input Ports

1)    Using either the Config or Podmng software, stop the data transmission operations across the network.

Data transmission operations must be stopped regardless of type of network from which data is being acquired. The **PodMng** software displays a green flashing icon network data is being broadcast by NetPod instruments across a network. The **PodMng** software displays a red icon when data transmission operations are suspended.

**Note: Only the power light on the front of the NetPod is used for Serial port operations.**

 2)    Display the **PodMng** Window.

Press the Right hand mouse button.

Select the *Config* menu option. The **Default Driver Window** will appear.

Ensure that all Instrument data transmissions are stopped. See "**Stopping  Data Transmission Operations**" in Chapter 7.

The task bar icon should be

3)    Choose the Pod whose digital ports you are going to configure. See Fig  13.

 Move the mouse pointer until it is above instrument you are going to configure.  Double click the left  hand mouse button and the **Edit Pod** menu will appear  (See Fig .11, Section 5.3)

Note. The **Edit Pod** window is the menu used to assign port control information.

4)     Select the **Digital** button.

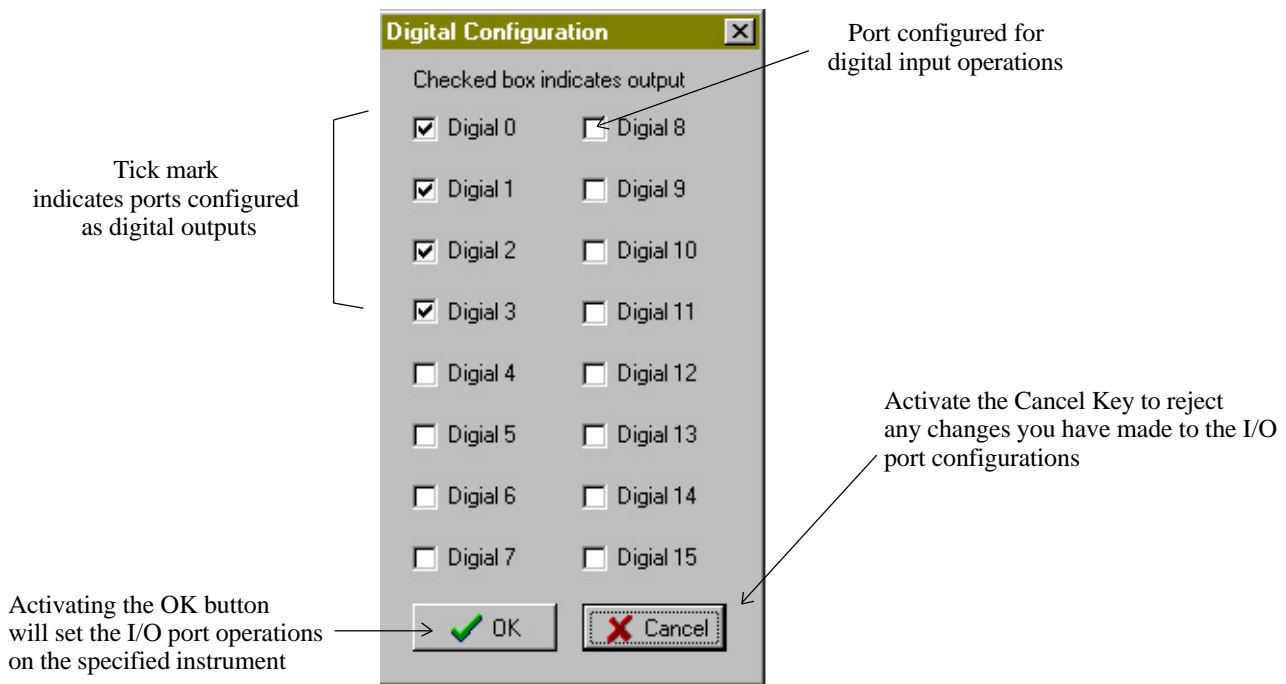The **Digital Configuration** Window will appear (See below)

*Figure 47  PodMng Software - Digital Configuration Window*

The Digital Configuration window will disappear and be replaced by  the **Edit Pod** Window

5)      Press the **OK** button on the **Edit Pod** window.  The **Confirm** window will appear.

6)      Press the **OK** button on the **Confirm** window.  You will see the status lights flash on the NetPod as the changes are sent to the instruments.

### 14.2    Specifying Digital I/O as output ports

1)   Move the mouse pointer until it is above the tick box for the port you want to assign for output operations.

Press the left hand mouse button and a ? ?mark will appear in the tick box (See Fig 32 above). The port is now assigned as an output.

Note. To cancel the operation repeat the mouse key press. The ? ?mark will disappear.

2)    To activate the operations select the OK button. The Window will disappear. You will return to the **Edit Pod** Window.

3)    Press the **OK** button on the Edit Pod Window.

If you have made any changes to the port settings using the **Digital Configuration** Window then the Confirm Window will appear.
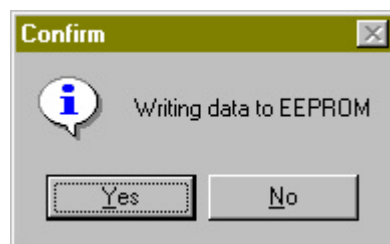


*Figure*                                                                                    *48  Confirm Window - Store Details To EEPROM*

4)    Press the                                                                        **Yes** Button to finish the operations.

If you do not want to reject the changes to the port settings you have made then press the No button.

You will observe the status lights on the instrument flash briefly as the new settings are passed to the instrument and all users of the system.

### 14.3    Observing I/O Port levels

The following section details the instruction you must follow to observe the operations of the digital I/O port levels.

1)       Display the Default PodMng Window

Press the Right hand mouse button.

Select the **Config** menu option. The **Default Driver Window** will appear.

Ensure that data transmission operations are active

The task bar icon should be green i.e. Data Transmission Ops active.

2)       Choose the Pod whose digital ports you are going to configure. Move the mouse pointer until it is above instrument whose I/O levels you want to examine. Single click the right hand mouse button.

You will be presented with the following options in a drop down menu:

**Disable**
**Reset**
**Digital**

3)    Select the **Digital** button.   You can use either the right or left mouse button.

The **Digital Interface** Window will appear.

Pod ID Number:  Unique Pod Identifier

A tick mark in an output port box shows that the port is in a high state

Ports highlighted with red text are digital output ports.

Note. The digital output ports shown in this window will match those configured as outputs using the configuration window shown above.

The tick mark indicates that the input port is measuring a high level input. On slow sample rates you can observe the instantaneous levels of the incoming digital signals.

Note. The channels detailed by the green coloured text are configured as digital input ports.

Up on activating the Set button the specified output port levels are sent to the instrumentation.

*Figure 49  PodMng Software - Digital Interface Window*

4)    The ports shown by red coloured text in the **Digital Interface** Window are Output Ports. Those coloured by green text are input ports.

## 14.4    Digital Input Port - Signal Level Identification

A tick mark contained within the tick box of an input port is used to show  that  logic 1 (High) signal is being monitored

A blank in the input port tick box is used to show that logic 0 (Low) level signal is being monitored.

## 14.5    Digital Output Port Level

A tick mark in the output port tick box is used to show that the port is configured to give a logic  1 output.

A blank in the output port  tick box is used to show that the port has a 0 level. (switched off).

# General System Information

The following chapter details general information. Listed below are driver files you will find on the driver CD and information on the Microsoft Registry settings.

## 14.6    File lists

The following page summerises the files used by the PodMng.exe software package.

nomenclature:

[windows] indicates current windows directory (e.g. C:\WINDOWS)
[system] indicates you windows system directory (e.g. C:\WINDOWS\SYSTEM)

[windows]\**podmng.exe**          NetPod manager interface
[windows]\**netpod.hlp**        NetPod help files
[windows]\**netpod.cnt**        NetPod help contents file
[system]\**netpod.dll**         NetPod driver

In addition there may be drivers specific to your SCADA, MMI or data processing software.

## 14.7    Registry settings

Registry setting are placed under the **HKEY_CURRENT_USER\Software\NetPod** key. You can use Regedit to modify the settings (from the start menu, select run, and type Regedit) The keys are listed as follows:

**Access**      User access mode, e.g. user or operator
             if this key is set to UA5098, then user access mode is selected.

The user has full  access to configure the NetPod. All other keys default to operator mode. Operators can not configure NetPods

The subkey InitCommands contains commands to be run when the NetPod driver software is first run. there are a sequence of commands as follows:

**InitCommands\Command1**
**InitCommands\Command2**
**InitCommands\Command3 etc.**

These command are run sequentially, and the keys are string values that can be any of the following:

**SCANNET**          Scan the network on initialisation
**SCANNET D**        Scan the network on initialisation, and display the progress bar
**SCANPORT 1**       scan comm port 1 (COM1)
**SCANPORT 2**       scan comm port 2 (COM2) etc.
**STARTRUN**         start acquisition operations
**NOPACKERR**        Prevent the error log screen from being viewed in driver.

### 14.8   Reporting Problems

If you have any problems with your system please contact your local distributor.

If you require additional information or would like to develop new units then please contact Keynes Controls directly.

Tel: (+44) 01344-752036
Fax: (+44) 01344-772244


E-mail: **support@Keynes-controls.com**