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# DeviceNet Console

## User Guide

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**This document applies to the Woodhead DeviceNet Console.**

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# Preface

## Preface Sections:

- Purpose of this Guide
- Conventions

## Purpose of this Guide

This is the documentation for the Woodhead DeviceNet Console software.

## Conventions

This guide uses stylistic conventions, special terms, and special notation to help enhance your understanding.

## Style

The following stylistic conventions are used throughout this guide:

<b>Bold</b>	indicates field names, button names, tab names, executable files, command names, and options or selections
<i>Italics</i>	indicates keywords (indexed) or instances of new terms and/or specialized words that need emphasis
CAPS	indicates a specific key selection, such as ENTER, TAB, CTRL, ALT, DELETE
Code Font	indicates command line entries or text that you'd type into a field
<u>Underlining</u>	indicates a hyperlink
“>” delimiter	indicates how to navigate through a hierarchy of menu selections/options
“0x”	indicates a hexadecimal value



## Terminology

The following special terms are used throughout this guide:

<i>Console</i>	Software tool that allows you to configure a DeviceNet network for a Woodhead DeviceNet card.
<i>Configuration Description</i>	Tree structure at the top left of the Console. Used to declare the cards used and to define the parameters for running the OPC Server. See relevant chapter.
<i>Channel Configuration View</i>	Tree structure at the center of the Console. Used to configure the DeviceNet network (master and devices). See relevant chapter.
<i>Deadband</i>	An area of signal range where no action occurs. A value change greater than the deadband percentage will cause the exception limit to be exceeded and the new value to be used.
<i>Device Library</i>	Tree structure at the bottom-left of the Console (device library tab). This library contains the EDS device description files that will be used for building the DeviceNet network configuration. See relevant chapter.
<i>Network Detection</i>	Tree structure at the bottom-left of the Console (network detection tab). Used to scan for devices on the network and determine their main parameters.
<i>Output Message View</i>	List at the bottom of the Console. Used to display error or notification messages.
<i>Topic</i>	Refers to a potential data source. A <i>Topic Name</i> is assigned to each configured device.
<i>Item</i>	Variable within a data source (topic). For topics that reference a device configured on the network, items can be configured in the Console within the leftmost lists.
<i>OPC Server</i>	High-level software interface acting as an industrial data server for OPC client applications. An OPC Server defines COM objects (inter-application communication technology) in accordance with the OPC Data Access standard.

## Special Notation

The following special notations are used throughout this guide:



### **Warning**

Warning messages alert the reader to situations where personal injury may result. Warnings are accompanied by the symbol shown, and precede the topic to which they refer.



### **Note**

A note provides additional information, emphasizes a point, or gives a tip for easier operation. Notes are accompanied by the symbol shown, and follow the text to which they refer.

# 1

## Guidelines for Use

### Chapter Sections:

- Before You Start
- Usage Contexts
- Using the Console
- Using a Remote Workstation

## 1.1 Before You Start

To ensure successful implementation, you should follow this manual step by step. It will guide you through discovering and learning the Configuration Console for your Woodhead DeviceNet product.

The product can be used within different usage contexts:

- Using the OPC Server
- Using the Diagnostic Tool

The product can also be used within usage contexts where the Configuration Console is not required:

- Application that performs all configuration operations through low-level APIs

These usage contexts are detailed in the following chapter.

When the Console is used, the main implementation stages are as follows:

1. Configure the DeviceNet network and target devices.
2. Configure the cards using the previously built configuration.
3. Use the Diagnostic Tool to check that industrial communication between the machine and configured devices is working correctly.

## 1.2 Usage Contexts

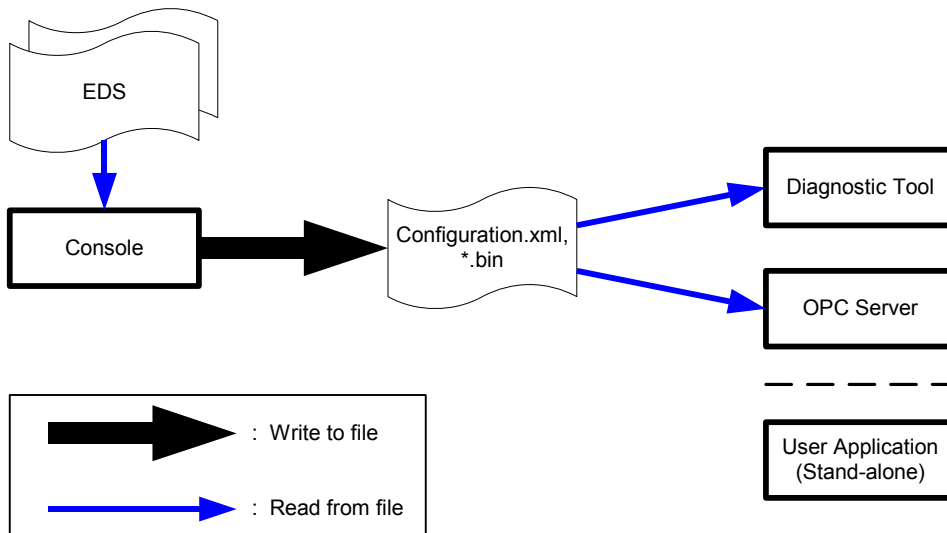
In basic terms, the Configuration Console generates a configuration file that defines the items to be used within the OPC Server. The main file created is:

- **configuration.xml**

This file contains configuration parameters that allow product applications (OPC Server, diagnostics tools, etc.) to use the card as a slave and to define devices and accessible items.

The product can be used in various contexts, based on the application type. Depending on the context, the configuration file will be applied in different ways:

Figure 1: Product Usage Contexts



- **OPC Server**

The OPC Server will use the configuration file generated by the Console to build its addressing space (available *items*).

- **The Diagnostic Tool**

The Diagnostic Tool allows you to open the current network configuration created by the Console, or import a network configuration that was exported from the Console and use this data to configure your cards.

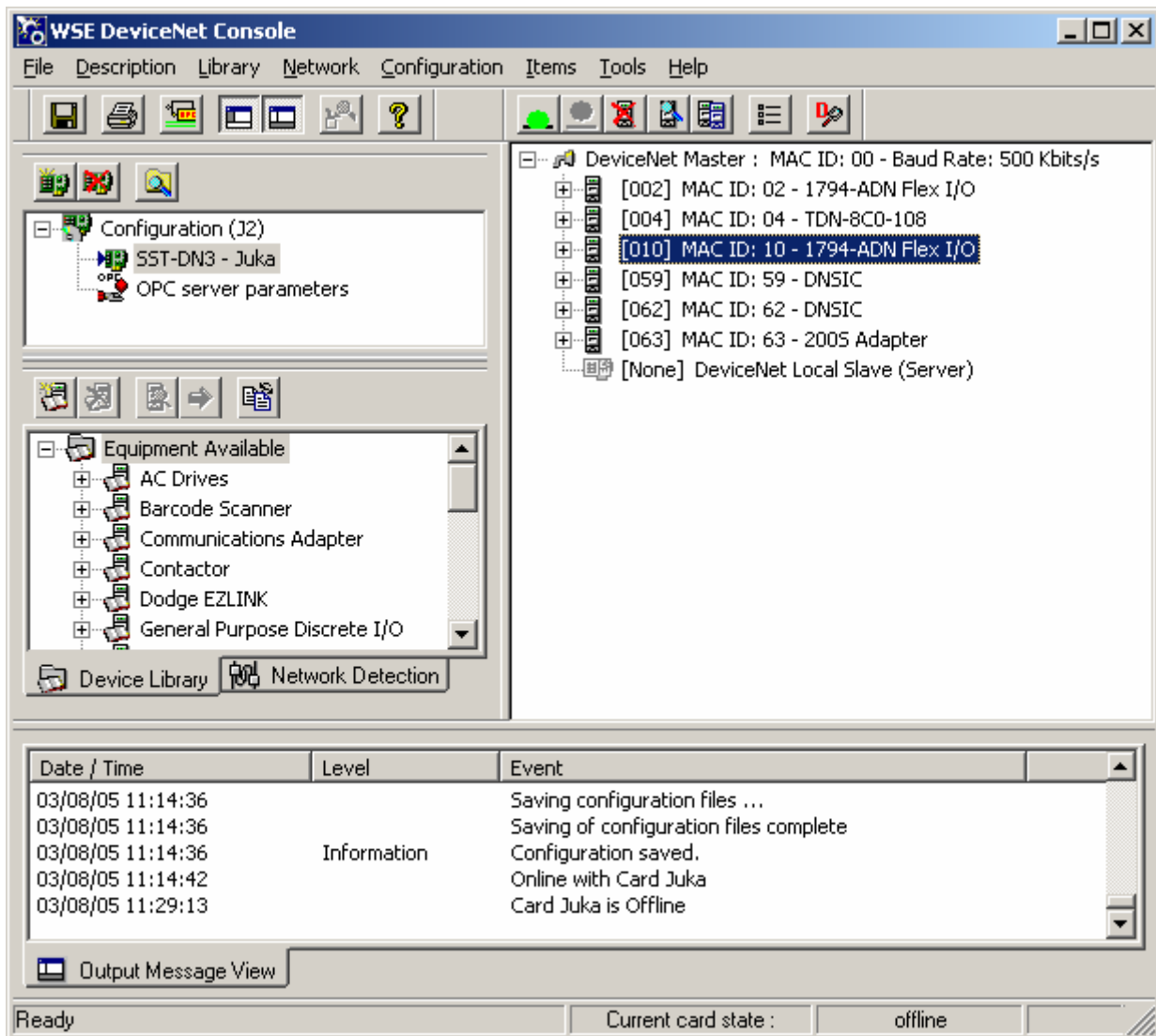
- **User Application**

A user application does not necessarily require the Console. The basic API can be used for the entire network configuration process through programming (dnscan32.dll library functions). For more details, refer to the documentation for this library.

## 1.3 Using the Console

The *Console* is the tool used to configure the DeviceNet network settings and define your devices quickly and easily.

Figure 2: The Console



The following steps outline the main stages of the user configuration process:

1. Declaring the cards.
2. Configuring the DeviceNet parameters (Master Scanner MAC ID, Baud Rate, Scan Interval and Reconnect Interval).
3. Adding devices by automatically detecting them on the network if the card is in the PC, or manually, from the device library.
4. Setting up the devices in the configuration (Equipment ID, Active state, and connection parameters).
5. Declaring (and if necessary configuring) the data access items for the OPC Server.
6. Saving the configuration.

Once these steps have been performed, the card can be used by the Diagnostic Tool, by an OPC client or by a user application.

The Console also includes the following functions:

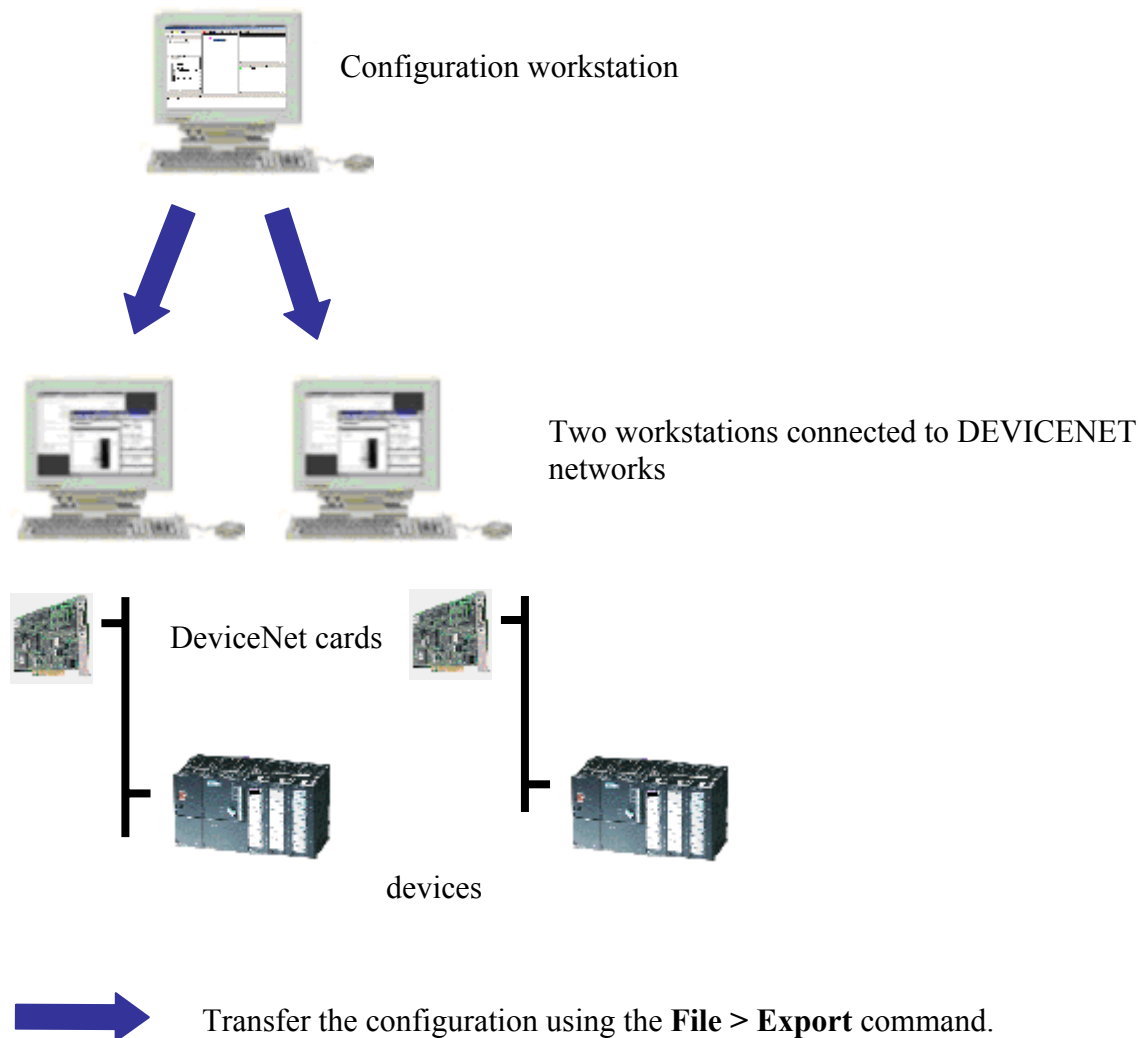
- Configuration Manager. The Configuration Manager is used to define and use several configurations successively.
- Transferring the configuration onto a remote workstation. This function is required when the Configuration Console is installed on a different machine from the user application (e.g., the OPC Server).
- Monitoring device status. This function is enabled when the configuration list (scan list) is placed online (Online-Config mode).



## 1.4 Using a Remote Workstation

If desired, you can use the Console to create a configuration on one workstation and use it on other workstations. The **File > Export** command copies the entire configuration directly onto a remote workstation or removable disk.

Figure 3: Architecture Example





# 2

## Work Environment

### Chapter Sections:

- General Overview
- The Menu Bar
- General File Menu Commands
- General Tools Menu Commands
- Configuration Description Area
- Channel Configuration Area
- Device Library Tab
- Network Detection Tab
- Output Message View
- Item Configuration Area
- Current Card State Indicator
- Console Options
- Console-Generated Files

## 2.1 General Overview

This chapter identifies the different Console work areas and their associated functions.

Figure 4: Work Environment Areas

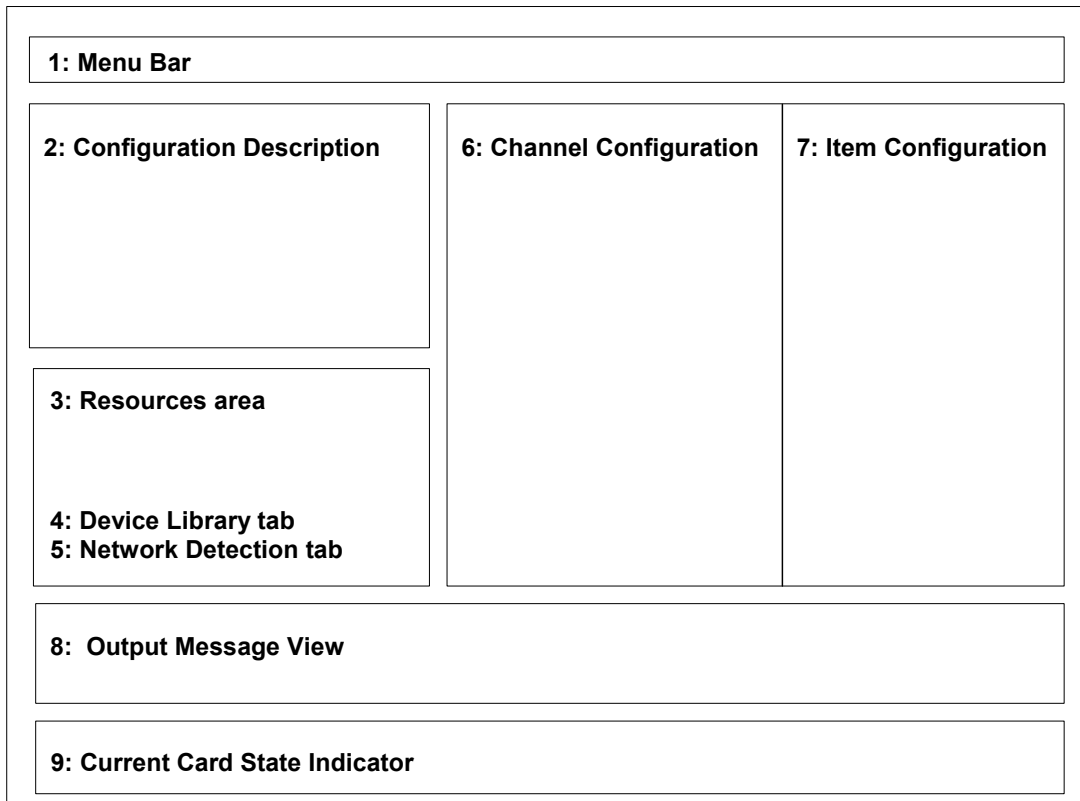


Table 1: Work Environment Area Description

Area	Name of Area	Function
1	Menu Bar	Contains all the commands linked to areas 2, 4, 5, 6, 7 and 8. Refer to Figure 4, <a href="#">Work Environment Areas</a> .
2	Configuration Description	Used to declare the cards that are in the machine and to configure the OPC Server settings.
3	Resources Area	Denotes the area containing the <b>Device Library</b> and <b>Network Detection</b> tabs. These tabs are resource areas for devices that can be included within the configuration.
4	Device Library Tab	Contains a list of devices that can be included within the configuration (Channel Configuration view).
5	Network Detection Tab	Used to detect the configuration that exists on the network. The detected devices can subsequently be included within the configuration (Channel Configuration view).
6	Channel Configuration	Contains the configuration currently being built. This configuration is then used to set up network parameters and declare devices.
7	Item Configuration	Contains the item configuration currently being built. It is used for declaring OPC item information.
8	Output Message View	Contains the notification messages or error messages returned by the Console.
9	Current Card State Indicator	Displays one of the following card states: Offline, Online-Config, Online-Detect or Error.

## 2.2 The Menu Bar

The Menu Bar provides access to the entire set of commands that can be used within the Console. It is divided into submenus that correspond to each work environment area. Each submenu is documented within the specific chapter on the area that it corresponds to. Only the File and Tools submenu commands are not linked to a particular area; they are linked instead to general commands.



Table 2: Menu Bar Areas

Name of Area	Name of Submenu
Configuration Description	Description
Device Library Tab	Library
Network Detection Tab	Network
Channel Configuration	Configuration
Item Configuration	Items

## 2.3 General File Menu Commands

The following table lists the File Menu commands, the toolbar icons, the shortcuts and the corresponding actions.



Table 3: File Menu Description

Menu Name	Icon	Keyboard	Function
Configuration Manager...			Provides access to the Configuration Manager, which handles several configurations.
Save		CTRL + S	Used at any time to save the entire configuration.
Export...			Used to copy the current configuration onto another PC.
Listing > Preview...			Used to view the listing for your configuration.
Listing > Print...			Used to print the listing for your configuration.
Preferences...			Used to configure the Console's display options and to select Expert mode (used to configure certain parameters that are not available in Normal mode).
Message View > Copy			Copies the contents of the Output Message View to the Windows clipboard.
Message View > Clear			Deletes all messages from the Output Message View.
Exit			Closes the Console.

## 2.4 General Tools Menu Commands

The following table lists the Tools Menu commands. This menu can be used to start up the Woodhead OPC client and the Diagnostic Tool. These tools can also be run from outside the Console, using the shortcut found in the programs group.

Table 4: Tools Menu Description

Menu Name	Icon	Keyboard	Function
OPC Client			Runs the Woodhead OPC Client.
Diagnostic			Runs the Diagnostic Tool, which is used to check if the configuration is working correctly.

## 2.5 Configuration Description Area

This area is used to declare cards, to navigate between the different Channel Configuration views (if several cards have been declared) and to specify the parameters for running the OPC Server (notably, the useable items).

Figure 5: Configuration Description Area

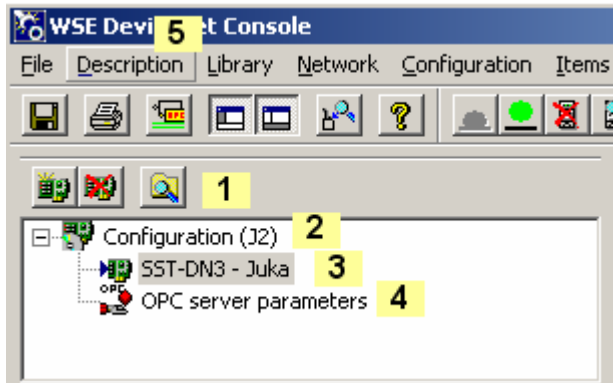





Table 5: Configuration Description Area Description

Area	Name of Area	Function
1	Configuration Description Toolbar	Groups the most frequently used commands in the Configuration Description Area.
2	Description Node	Contains the name of the active configuration. Your entire configuration is described under this node.
3	Card Node	Represents one of the cards in your configuration.
4	OPC Server Parameters Node	Used to configure the parameters for running the OPC Server.
5	Description Submenu	Contains the entire set of commands for the Configuration Description area.

The following table lists the commands that apply to the Configuration Description area, menus, toolbar icons, shortcuts and corresponding actions. There is also a pop-up menu that can be accessed by right-clicking the relevant node.

Table 6: Configuration Description Commands

Menu Name	Icon	Keyboard	Function
Add Card		INS	Adds a new card to the configuration.
Delete Card		DEL	Deletes the card.
Properties		SPACE	Used to display and change the selected node's properties.

## 2.6 Channel Configuration Area

This is the central element of the DeviceNet network configuration. To display the channel configuration for a given card, select the **Card** node. This allows the following:

- The **Device Library** tab to be updated with a list of available devices
- The **Network Detection** tab to be enabled
- The Channel Configuration area to be enabled. This contains the configuration previously saved onto hard disk.



### Note

If several cards have been configured, you will need to switch the Channel Configuration view. Only one Channel Configuration view can be displayed at once. When you switch views, the Console will prompt you to save any changes that have been made to the current one.



The Channel Configuration area is used for:

- Device status monitoring (refer to [Device Status Monitoring](#), on the following page)
- Setting network parameters
- Declaring devices and setting their parameters
- Accessing the applicable topic configuration. Relevant topics provide device data to be accessed via the OPC Server.

Figure 6: Channel Configuration Area

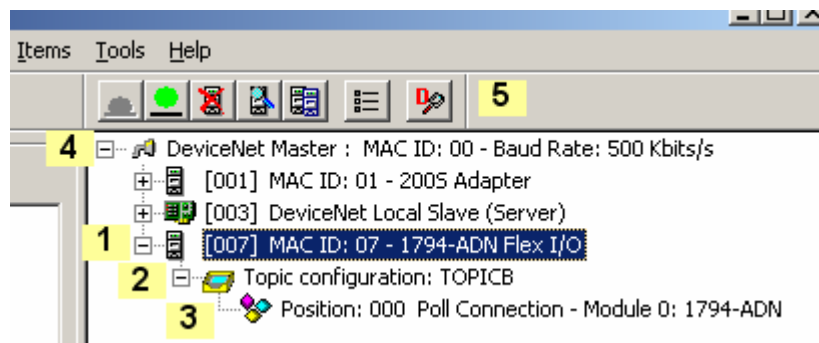








Table 7: Channel Configuration Area Description

Area	Name of Area	Function
1	Device Type Node	Denotes a device declared in your configuration.
2	Item Configuration Node	Used to access the configuration for the relevant topic (useful for OPC).
3	Connection Node	Nodes that correspond to the connections configured in the device properties window. Select this node to display the item configuration view (useful for OPC).
4	Tree Directory Root	Used to access general network data and network "master" settings.
5	Channel Configuration Toolbar	Groups the most frequently used commands from the Channel Configuration area.

The following table lists the Channel Configuration area commands, menus, toolbar icons, shortcuts and corresponding actions. There is also a pop-up menu that can be accessed by right-clicking the relevant node.

Table 8: Channel Configuration Area Commands

Menu Name	Icon	Keyboard	Function
Collapse/Expand			Acts on the selected tree view item. If it currently shows its sub items, this action will collapse them. If it currently shows only the item itself, this action will expand to show all sub items.
Duplicate		CTRL + D	Duplicates the selected device, along with its properties and items.
Delete		DEL	Deletes the selected device.
Properties		SPACE	Used to display and change the properties for the selected node.
Option...			Allows you to customize the view to optionally display MAC ID and Equipment Name.
Network > Go Online Configuration			Used to apply the user channel configuration list (scan list) to the card that is selected in the Configuration Description view (Online-Config mode).
Network > Go Offline			Used to switch the card selected in the Configuration Description view to Offline mode.
Online Action			Used to perform various online requests on the selected node or entire network. See the Online Action detailed description.

## Device Status Monitoring


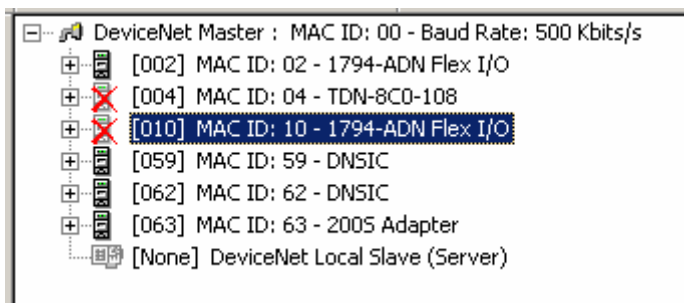
The Channel Configuration area can be used to monitor a device's status. Once in Online-Config mode, device icons will show  if scanning is not in progress.

Figure 7: Device Status Monitoring



## 2.7 Device Library Tab

### General Overview

During the network configuration phase, all devices to be used on the network will need to be declared in the Channel Configuration view. The **Device Library** tab constitutes one of the Console resources, and allows you to include a new device in the Channel Configuration view.

Figure 8: Device Library Tab

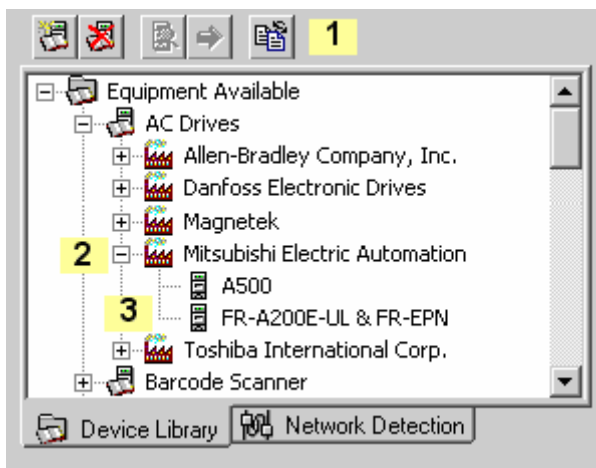


Table 9: Device Library Tab Description

Area	Name of Area	Function
1	Device Library Toolbar	Groups the most frequently used commands for managing the Device Library.
2	Sort by Category Node(s)	Intermediate nodes that are used to sort the devices. The type, name and number of intermediate nodes depend on the sort criteria used.
3	Device Node(s)	Terminal node in the tree structure corresponding to a device that can be included in the Channel Configuration view.






A device can be inserted via Drag & Drop. In this case, you need to select the appropriate device type and move it to the Channel Configuration view. The device will automatically position itself in the right place, regardless of which node is currently selected in the Channel Configuration view.

## Device Library Management

The *Device Library* contains a list of devices that can be included within the configuration. These devices correspond to DeviceNet device description files (with the EDS extension). EDS files describe the device features the Console needs to build the network configuration, and are provided by the device manufacturer.

The following table lists the Device Library area commands, menus, toolbar icons, shortcuts and corresponding actions. There is also a pop-up menu that can be accessed by right-clicking the relevant node.

Table 10: Device Library Actions

Menu Name	Icon	Keyboard	Function
Add		INS	Used to add one or more devices to the library. This command opens a dialog box from which you can select one or more EDS files. These files are then copied into the <Installation directory>\Equipment library\DEVICENET_EDS directory.
Delete		DEL	Used to delete one or more devices from the library.
Sort...			Used to sort the devices according to different criteria: <ul style="list-style-type: none"> <li>• Manufacturer</li> <li>• Device type</li> <li>• EDS file name (sorted alphabetically)</li> </ul>
Insert in Configuration			Used to insert the device into the configuration. The device can also be inserted using Drag & Drop from the library to the Channel Configuration view. The device will automatically position itself in the right place, regardless of which node is selected in the Channel Configuration view.
Properties		SPACE	Used to display the properties for the selected device. The properties can also be displayed by double-clicking the device.



### Note

If you encounter any problems while using the Device Library, remember to look for messages in the Output Message view.

## 2.8 Network Detection Tab

### General Overview and Description of Commands

During the network configuration phase, all devices to be used will need to be declared in the Channel Configuration view. The **Network Detection** tab constitutes one of the key Console resources, and can be used to add a new device (or all devices) to the Channel Configuration view.

From the **Network Detection** tab, you can scan the network for devices and retrieve the main device parameters.

After a Network Detection has been performed, the **Network Detection** tab will look like this:

Figure 9: Network Detection Tab, Post Detection

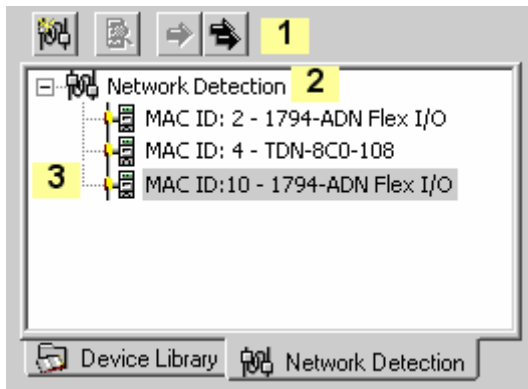








Table 11: Network Detection Tab Description

Area	Name of Area	Function
1	Network Detection Toolbar	Groups the most frequently used commands from the <b>Network Detection</b> tab.
2	Network Detection Node	This node represents the field network.
3	Device Type Nodes	These terminal nodes correspond to devices detected on the network. From these nodes, you can add the device to your configuration's Channel Configuration view.

## Detailed Description of Commands

The following table lists the Network Detection area commands, menus, toolbar icons, shortcuts and corresponding actions. There is also a pop-up menu that can be accessed by right-clicking the relevant node.

Table 12: Network Detection Commands

Menu	Icon	Function
Detect Network		Starts the network scan to find devices and their main parameters. The detected devices are added to the Network Detection tree structure but not to your configuration (Channel Configuration). To add devices to your configuration, use the <b>Insert in Configuration</b> or <b>Insert and Replace All</b> commands.
Go Offline		Switches the card selected in the Configuration Description view to Offline mode.
Online Action		Performs various online requests on the selected node or entire network. See the Online Action description for more details.
Insert in Configuration		Inserts the selected device into your configuration (Channel Configuration view). The device can also be inserted using Drag & Drop from the tree structure to the Channel Configuration view.
Insert and Replace All		Replaces your entire configuration (Channel Configuration view) with the devices detected on the network.
Properties		Displays the selected device's properties (can also be done by double-clicking the node).

## 2.8.1 Performing the Network Detection

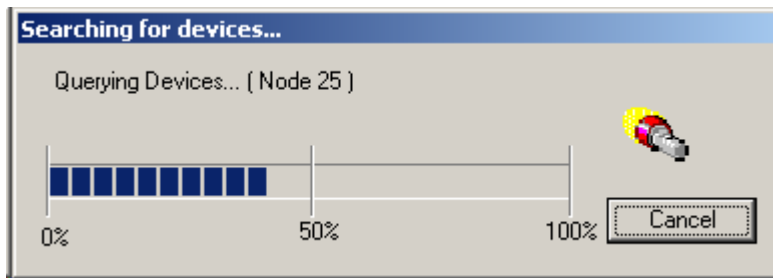
### Prerequisites

- Make sure the devices you want to detect are properly connected to your network.

### Performing the Network Detection

1. Run the **Detect Network** command.
2. In the DeviceNet Master Configuration dialog, enter the parameters that are applicable to the connected network. The network scan begins.

Figure 10: Network Scan in Progress



The scan can find up to 63 devices. The detection progress is displayed in the Progress Bar during the scan. Throughout this process, messages may be sent to the Output Message view.



### Warning

Remember to use a network speed that is supported by all the devices for detection.

At the end of the scan, the tree structure in the Network Detection window is updated with the detected devices.

## Inserting Detected Devices into Your Configuration:

After the network scan, you need to include the devices in your configuration (Channel Configuration view). To do so, you can:

- Replace your entire existing configuration with the new configuration detected on the network, using the **Insert and Replace All** command.
- Or, insert some of the devices detected on the network into your existing configuration. To do so, use the **Insert in Configuration** command or drag & drop the device from the Network Detection window into the Channel Configuration view. If the device is already present in your configuration, you will have the choice of replacing the existing device or canceling the operation.

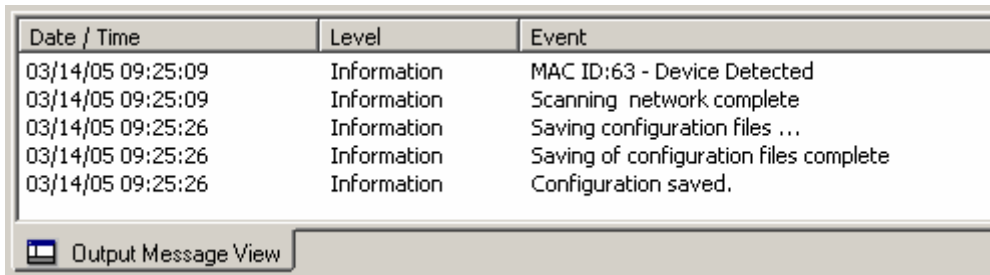
When inserting a device into your configuration, the Console attempts to associate it with a corresponding type from the Device Library. If no device type is found, the Console will display a dialog box so you can make a selection.



## 2.9 Output Message View

The Output Message view allows the Console to display error messages or notification messages related to the network detection.

Figure 11: Output Message View



Date / Time	Level	Event
03/14/05 09:25:09	Information	MAC ID:63 - Device Detected
03/14/05 09:25:09	Information	Scanning network complete
03/14/05 09:25:26	Information	Saving configuration files ...
03/14/05 09:25:26	Information	Saving of configuration files complete
03/14/05 09:25:26	Information	Configuration saved.

Output Message View

This area comprises three columns:

- Date / Time: Date and time of the message.
- Level: Message status level (Information, Warning, Error).
- Event: Text of the message.



### Note

To hide the Date / Time and Level columns, go to **File > Preferences** and deselect the **Add Date to Messages** and **Add Level to Messages** options.

The following commands are available via the **File > Message View** menu:

Table 13: File Message View Commands

Menu Name	Function
Copy	Copies all of the messages onto the clipboard.
Clear	Deletes all the messages.

These messages are logged in the console.log file, located in the current configuration directory (which can be found via the **File > Configuration Manager** command). The maximum file size can be configured via **File > Preferences**.



### Note

This area can be hidden via **File > Preferences**. The messages are still logged in the log file, even if the display area is invisible.

## 2.10 Item Configuration Area

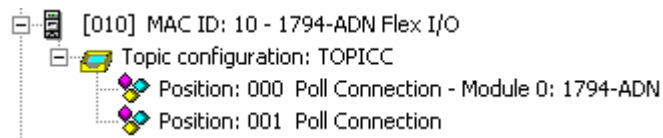
To access data via the OPC Server, each variable must be named, based on:

- A *Topic Name* that denotes the device connected and configured in the Console.
- An *Item Name* associated with the data within the particular device.



These names will reference input/output data for devices connected to the field bus. You are free to choose them yourself (default names are assigned automatically), and they must be entered during the configuration phase performed within the Console. Once the variables have been declared, it is also possible to customize their behavior or display format from within the Console.

To access the function for designating topic and item names, go to the Channel Configuration view in the Configuration Console:

Figure 12: Channel Configuration View



When a configured device contains accessible data, additional nodes appear under the device:




-  A node designed for configuring the topic
-  Nodes that represent data blocks, within which you can define items. Select one of these nodes and a new configuration window appears within the protocol view, used to declare items attached to the node.

Two item categories can be defined within the devices configured on the network: items that represent input data, and items that represent output data.

## 2.10.1 Item Configuration Area Commands


The following table lists the Item Configuration area commands, menus, toolbar icons, shortcuts and corresponding actions. There is also a pop-up menu that can be accessed by right-clicking the relevant node.

Table 14: Item Configuration Commands

Menu Name	Icon	Keyboard	Function
Add items		INS	Used to add one or more new items to the data block.
Delete items		DEL	Used to delete the selected item(s).
Rename item	N/A	F2	Used to rename the item. This name is limited to 32 characters and must be unique for all items within the same topic. You can also click on the existing name in the Input Item Name column to rename the item. The following characters are not allowed: & é « ' ( - è ç à ) = + } ° ] @ \ '   [ { ~ ^ ² < > ? / § ! μ * ^ £ ù % 'space' 'nothing'.
Properties		SPACE	Used to display the selected item's properties. You can also display properties by double-clicking the item. The properties dialog allows you to customize the item's behavior.



### Note

At each save, a text file of the configured items is generated. This file can be viewed or printed via the **Print** command in the **File > Listing...** menu or by clicking the  icon on the Main Toolbar.

## 2.11 Current Card State Indicator

The status indicator allows you to readily view a card's initialization status. A pop-up information box is displayed when you position the mouse pointer over the Card State Indicator.

Figure 13: Current Card State Indicator



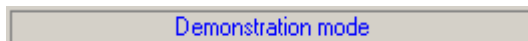
The following table summarizes the different possible contexts:

Table 15: Card State Indicator States

Status	Meaning
offline	No Action Taken.
online-config	The card is online.
online-detect	The card is in Online-Detect mode.
error	The card is in error.

If the Console does not have access rights to save the configuration, the following message is displayed in the status bar:

Figure 14: Status Bar



Demonstration mode occurs if there is no hardware key (dongle) connected to the PC. If this is the case, consult with your distributor.

## 2.12 Console Options

The Console options are accessed via **File > Preferences**.

Figure 15: Console Options/Preferences

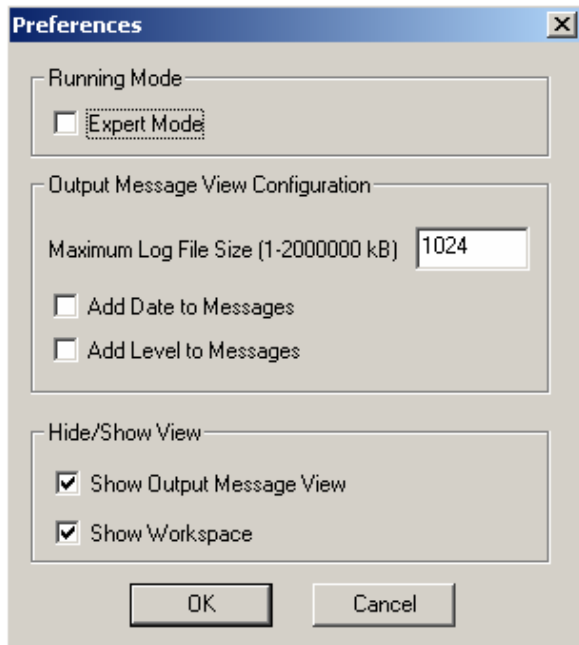


Table 16: Console Preferences Description

Parameter	Function
Expert Mode	Switches the Console to configuration Expert mode. This allows you to access certain parameters that are not available in Normal mode.
Maximum Log File Size	Maximum allowable size of the console.log file. Default value: 1024 KB.
Add Date to Messages	Displays or hides the date display in the Output Message View.
Add Level to Messages	Displays or hides the status level display in the Output Message View.
Show Output Message View	Displays or hides the Output Message View.
Show Workspace	Displays or hides the Resources area.



### Note

By default, the Console launches the Woodhead splash screen. You can substitute your own splash screen by adding a splashScreenoem.bmp file to the installation directory.

## 2.13 Console-Generated Files

At each save, the Console generates the following files in the current configuration directory:

- **configuration.lst**. This is a printable text file containing:
  - A list of the network configuration parameters
  - A summary of the inputs/outputs configured for each device
  - A list of the configured items
- **configuration.xml**. This file contains all of the parameters for the current configuration.
- **.bin** file. This file is generated for each configured card.





# 3

## Configuration Manager

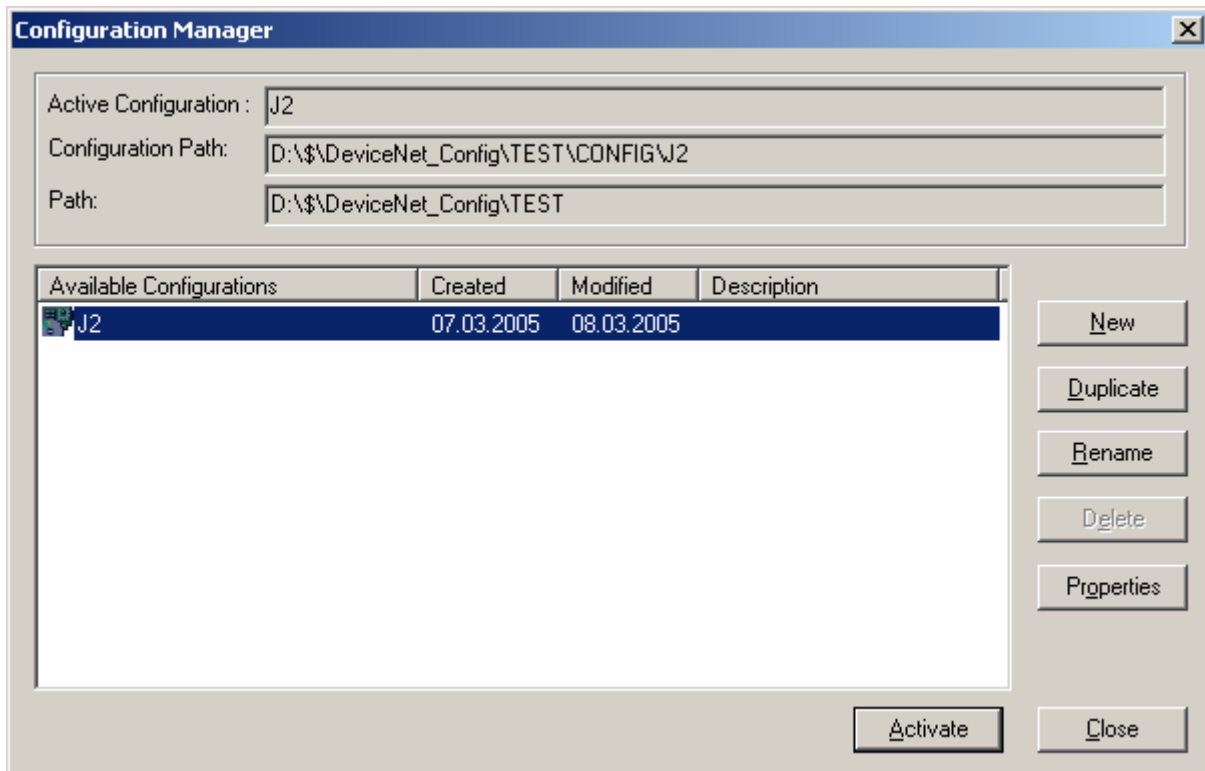
### Chapter Sections:

- General Overview
- Detailed Description of Commands

### 3.1 General Overview

To access the Configuration Manager, go to **File > Configuration Manager...** or click the **Configuration** node in the Configuration Description area view (refer to [Figure 5](#) in Section 2.5).

Figure 16: Configuration Manager



The Configuration Manager allows you to define and use several configurations successively. *Configuration* refers to:

- The cards' definition
- All parameters associated with the field bus configuration
- The definition of the input/output data and data access items
- The OPC Server's operation parameters
- The configuration listing

A configuration is identified by a name and appears on the hard disk as a set of files stored within a single directory bearing the same name as the configuration.



### **Note**

The Console can manage several directories that correspond to different configurations. However, only one configuration can be active at once.

## 3.2 Detailed Description of Commands

The Configuration Manager has the following commands:

Table 17: Configuration Manager Commands

Name	Function
New	Creates a blank configuration.
Duplicate	Creates a new configuration from a selected one.
Rename	Used to change the name of the selected configuration.
Delete	Deletes the selected configuration.
Properties	Used to modify the comment associated with the configuration.
Activate	Closes the Configuration Manager and loads the selected configuration into the Console.
Close	Closes the Configuration Manager.



### Note

When the **Activate** button is pressed, the selected configuration becomes active, therefore:

- All modifications made in the Console will be applied to the configuration.
- The configuration will be used to initialize the cards when going online.
- The OPC Server will use the parameters and items defined in the configuration.

# 4

## Declaring the Cards

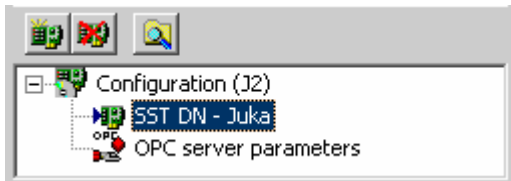
### Chapter Sections:

- General Overview
- Adding a Card to the Configuration
- Deleting a Card
- Card Properties

## 4.1 General Overview

A card is identified by its name. In the Console, cards are declared in the Configuration Description area.


Figure 17: Configuration Description Area



## 4.2 Adding a Card to the Configuration

When the Console opens a new configuration, the cards detected in the PC are automatically added to the active configuration. However, if this configuration is built with no cards available or if it is intended for a card in a different PC, you will need to add the card via the following command:

Table 18: Adding a Card to the Configuration

Menu Name	Icon	Keyboard
Description > Add Card		INS

The following dialog appears:

Figure 18: Card Properties Dialog

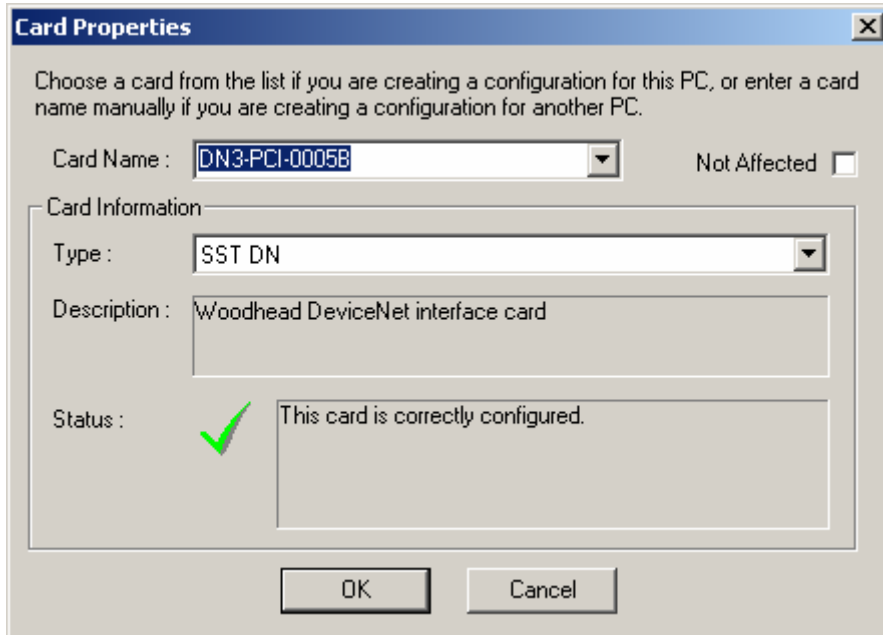



Table 19: Card Property Fields

Name	Description
Card Name	The name of the card. This name must correspond to the card name specified in the Windows Device Manager. The corresponding list contains all the detected cards.
Not Affected	The Card Name field is not required (no card in the PC or configuration for a remote workstation).
Type	The card type.
Description	Description of the card.
Status	Information about the card (card present in the PC, etc.).

## 4.3 Deleting a Card

The following command deletes a card from the configuration:

Table 20: Deleting a Card

Menu Name	Icon	Keyboard
Description > Delete Card		DEL




### Note

If you delete a card in the configuration, the entire associated configuration will also be deleted.

## 4.4 Card Properties

The following command allows you to display and change the properties for the selected card:

Table 21: Card Properties

Menu Name	Icon	Keyboard
Properties		SPACE



# 5

## Configuring the Master

### Chapter Sections:

- General Overview
- General Configuration Tab
- I/O Summary Tab

## 5.1 General Overview

To build the master configuration, follow these steps:

1. Select the card to be configured in the Configuration Description area (top-left of the Console). The Channel Configuration view appears in the right-hand pane of the work environment.
2. Double-click the **DeviceNet Master** node in the Channel Configuration view.

## 5.2 General Configuration Tab

Figure 19: General Configuration Tab

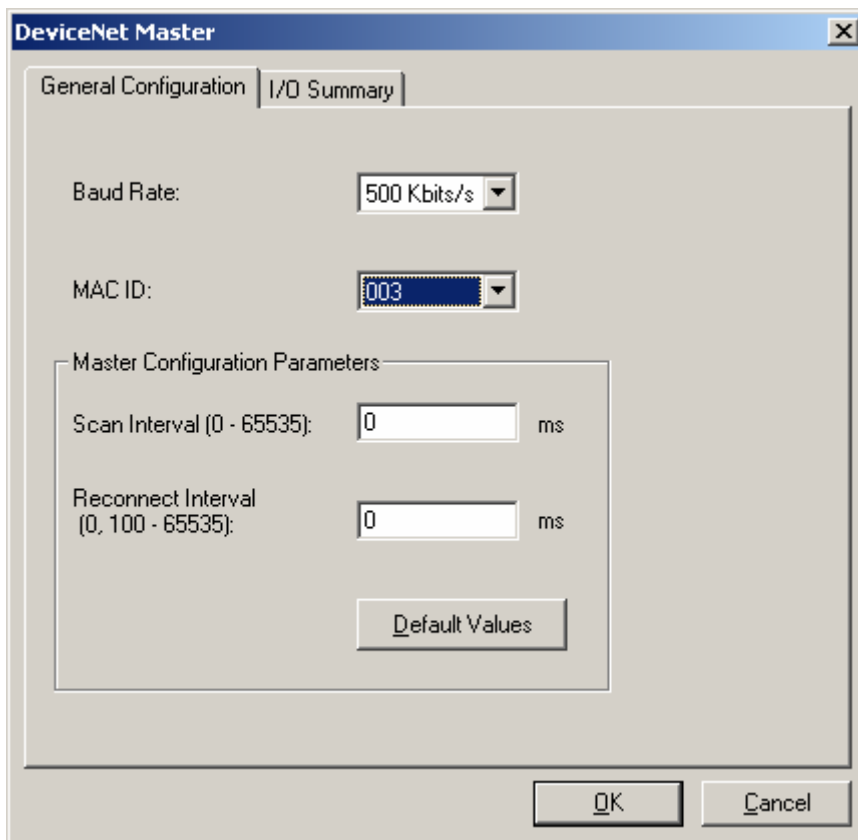


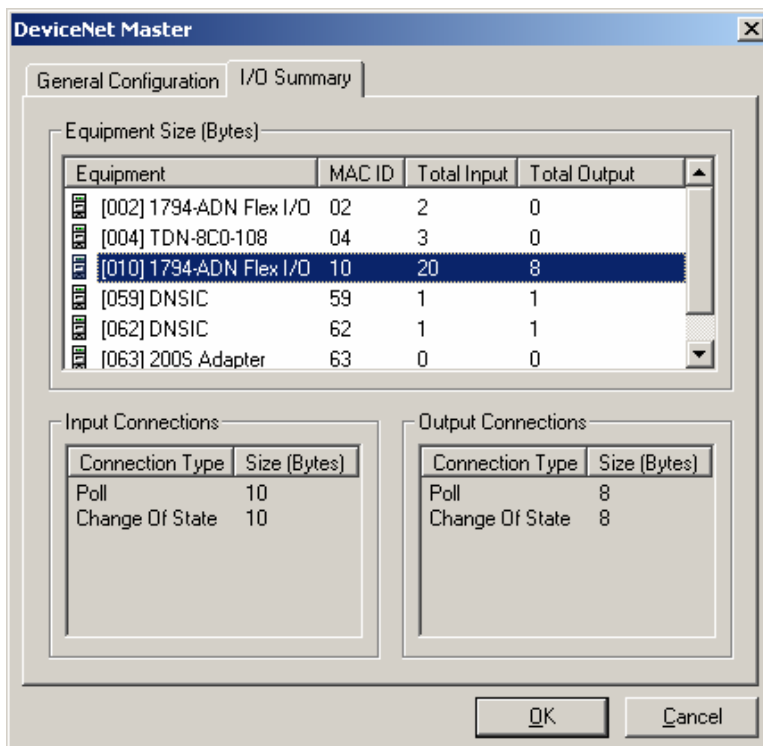
Table 22: General Configuration Tab Fields

Name	Description
Baud Rate	The Master's DeviceNet transmission speed. This must be identical to the speed of all other devices on the network.
MAC ID	Master (scanner)'s address on the DeviceNet network. This must not be the same as any other device's MAC ID.
Scan Interval	The Scan Interval (0 - 65535) specifies the Group 2 Master/Slave Connection Set scan interval in milliseconds. If this value is zero, the scan is as fast as the network parameters and traffic permit.
Reconnect Interval	The Reconnect Interval (0, 100 - 65535) specifies the interval (in milliseconds) the scanner waits between reconnection attempts for faulted slave devices (timeout, connection attempt errors). If this value is zero, the reconnect interval defaults to 10 seconds.

### 5.3 I/O Summary Tab

This tab displays the list of configured devices and a summary of their corresponding configured Input/Output size. Input connection details for the selected device are represented in the lower-left list. Output connection details for the selected device are represented in the lower-right list.

Figure 20: I/O Summary Tab





# 6

## Configuring Devices

### Chapter Sections

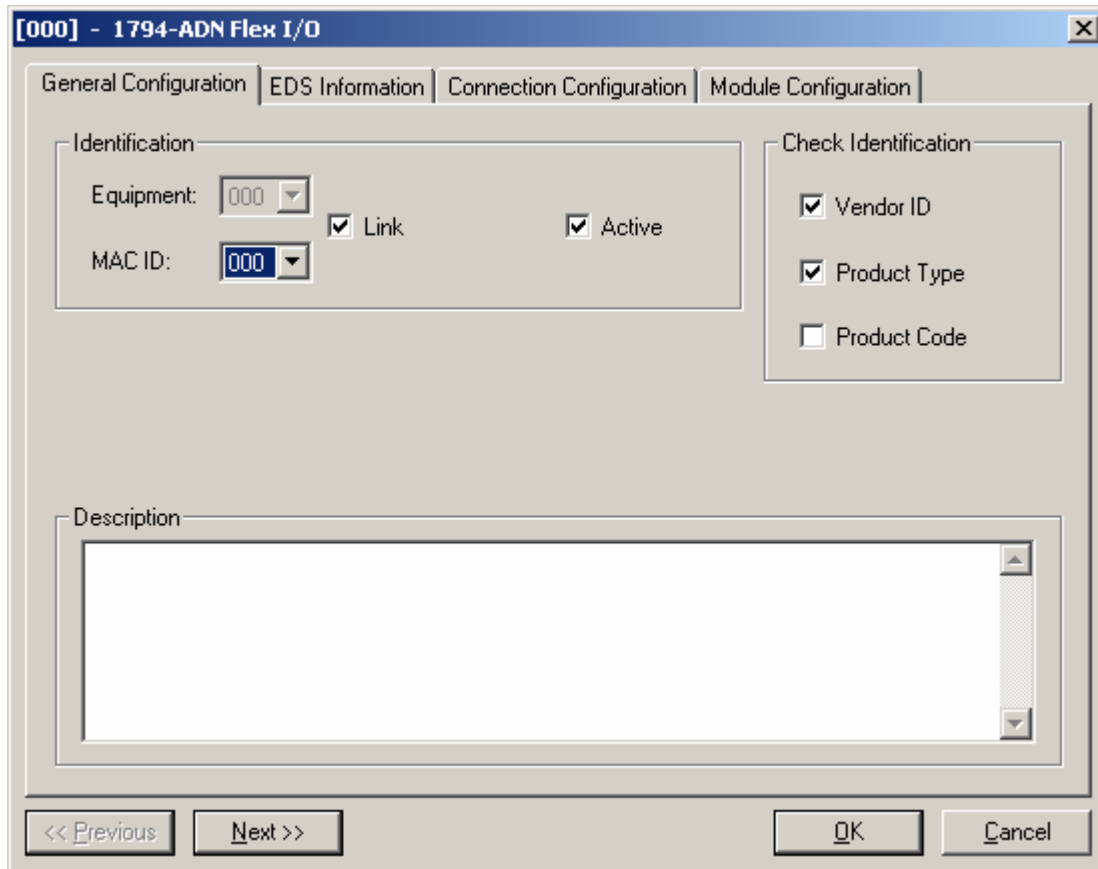
- General Overview
- General Configuration Tab
- EDS Information Tab
- Connection Configuration Tab
- Module Configuration Tab

## 6.1 General Overview

To open the Device Properties dialog, follow these steps:

1. Select the card to be configured in the Configuration Description area (top-left of the Console). The Channel Configuration view appears in the right-hand pane of the work environment.
2. Double-click the desired device node in the Channel Configuration view. The Device Properties Dialog is displayed:

Figure 21: Device Properties Dialog



## 6.2 General Configuration Tab

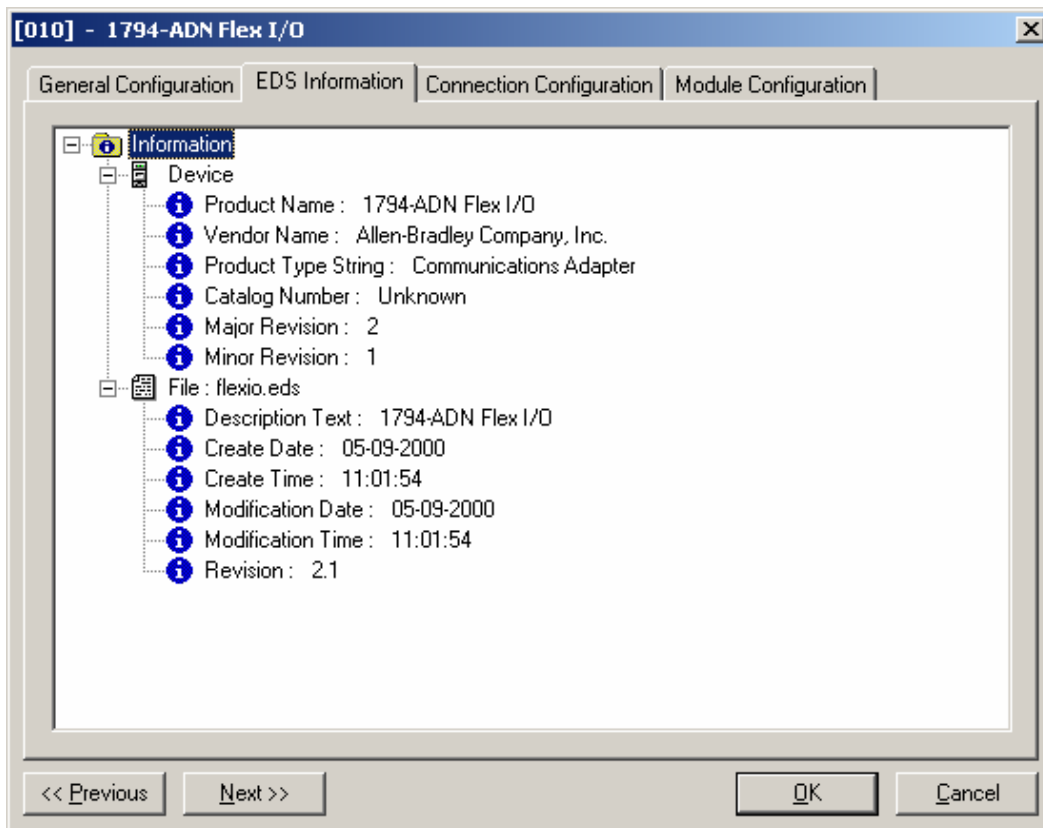
Table 23: General Configuration Tab Fields

Name	Description
Equipment	A user-defined number that refers to the device you want to interact with. This value is not used on the network, but rather is associated with the device for convenience (e.g., the physical device may have an equipment number associated with it that differs from the MAC ID). The Equipment number can be linked to the MAC ID using the <b>Link</b> checkbox, in which case the equipment number and MAC ID will always be the same. Typically, you will leave the <b>Link</b> box checked.
MAC ID	Station address of the device on the DeviceNet network.
Active Configuration	A checkbox for enabling or disabling the device configuration. If the device is not enabled, it will be treated as not configured, and its status will not be monitored when in Online-Config mode. It will not be used by the OPC Server.
Comment	The Comment field can be used for up to 256 characters of free text.
Check Identification	If any identification parameters are selected, the device identification attributes will be included in the configuration XML file. An application that uses the XML file, for example the DN3 OPC Server, will typically use the device identification attributes when configuring the device scan list, in which case the scanner verifies the corresponding attributes. Any mismatch prevents connection to the device and reports the appropriate error in the device status table.

## 6.3 EDS Information Tab

This tab is used to display EDS file details for the currently selected device. The information is categorized into device-specific and file-specific details.

Figure 22: EDS Information Tab





## 6.4 Connection Configuration Tab

This tab is used to declare the connections that the device will establish. Up to 2 connection types may be configured at once. The following DeviceNet specification restrictions apply:

- Strobe Input (Produced) size must be at most 8 bytes
- Change of State and Cyclic connections are mutually exclusive



### Note

For FlexIO devices, Input and Output sizes entered here must match those shown on the **Total Size Module Configuration** tab.

Figure 23: Connection Configuration Tab

[010] - 1794-ADN Flex I/O

General Configuration | EDS Information | **Connection Configuration** | Module Configuration

Poll

Input Size (Produced): 10 Bytes

Output Size (Consumed): 8 Bytes

Update Interval (0 - 65535): 0 ms

Change Of State

Input Size (Produced): 10 Bytes

Output Size (Consumed): 8 Bytes

Update Interval (0 - 65535): 0 ms

Strobe

Input Size (Produced) (0 - 8): 8 Bytes

EDS Default Values

Values from Device

Cyclic

Input Size (Produced): 10 Bytes

Output Size (Consumed): 8 Bytes

Update Interval (0 - 65535): 0 ms

<< Previous | Next >> | OK | Cancel

## 6.5 Module Configuration Tab

This tab is used to declare the modules that are physically present within the device. At least one module must be configured. Double-clicking the module allows you to modify its configuration.

Figure 24: Module Configuration Tab

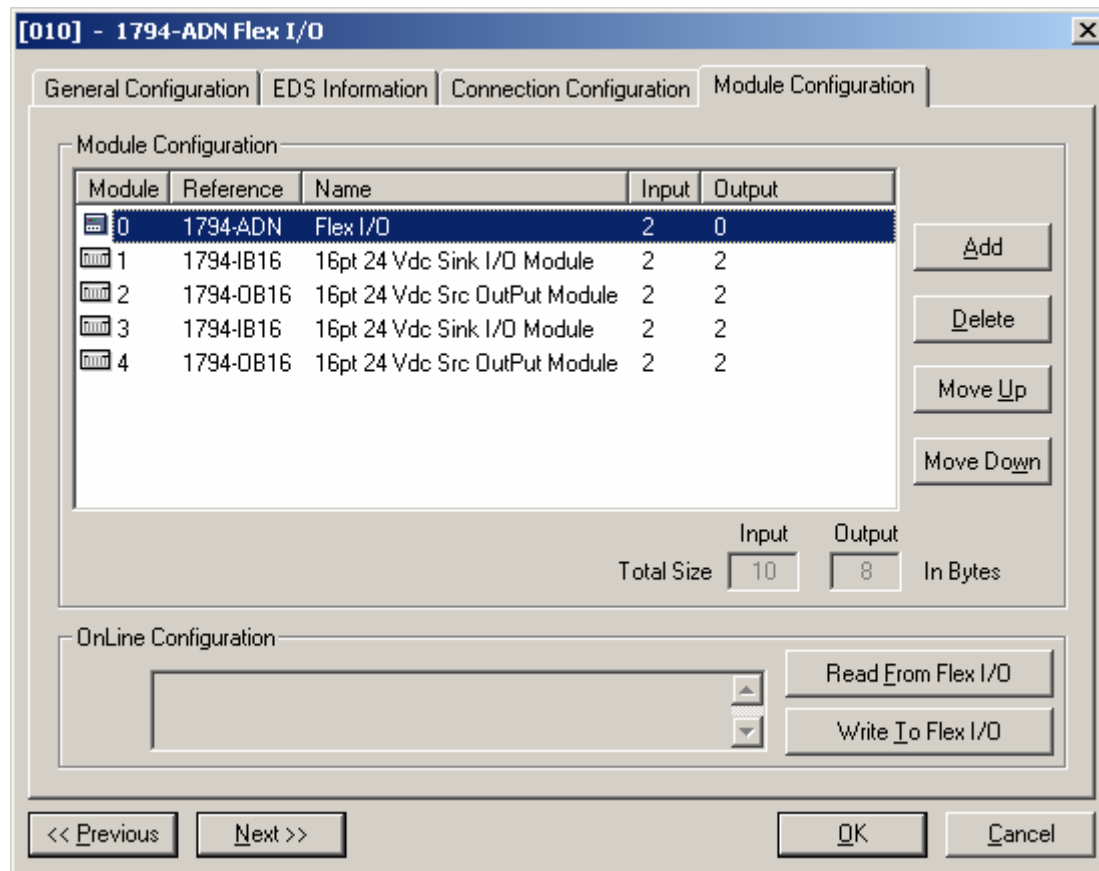


Table 24: Module Configuration Tab Options

Name	Function
Add	Used to add a module to the device configuration. There is a limit of 9 module entries per device (modules 0-8). The <b>Add</b> button will be disabled if all 9 entries are assigned (the entire input/output zone is already being used by the configured modules).
Delete	Used to delete a configured module.
Move Up	Used to move the selected module to a higher position in the list.
Move Down	Used to move the selected module to a lower position in the list.
Read From Flex I/O (Available in Online-Config and Online-Detect modes)	Used to read the Flex I/O composition from the device as well as the parameter values of the modules. This command will replace the current module list in this dialog with the modules and values that are currently configured on the physical device.
Write to Flex I/O (Available in Online-Config and Online-Detect modes)	Used to write the current configuration in this dialog to the DeviceNet Head module.

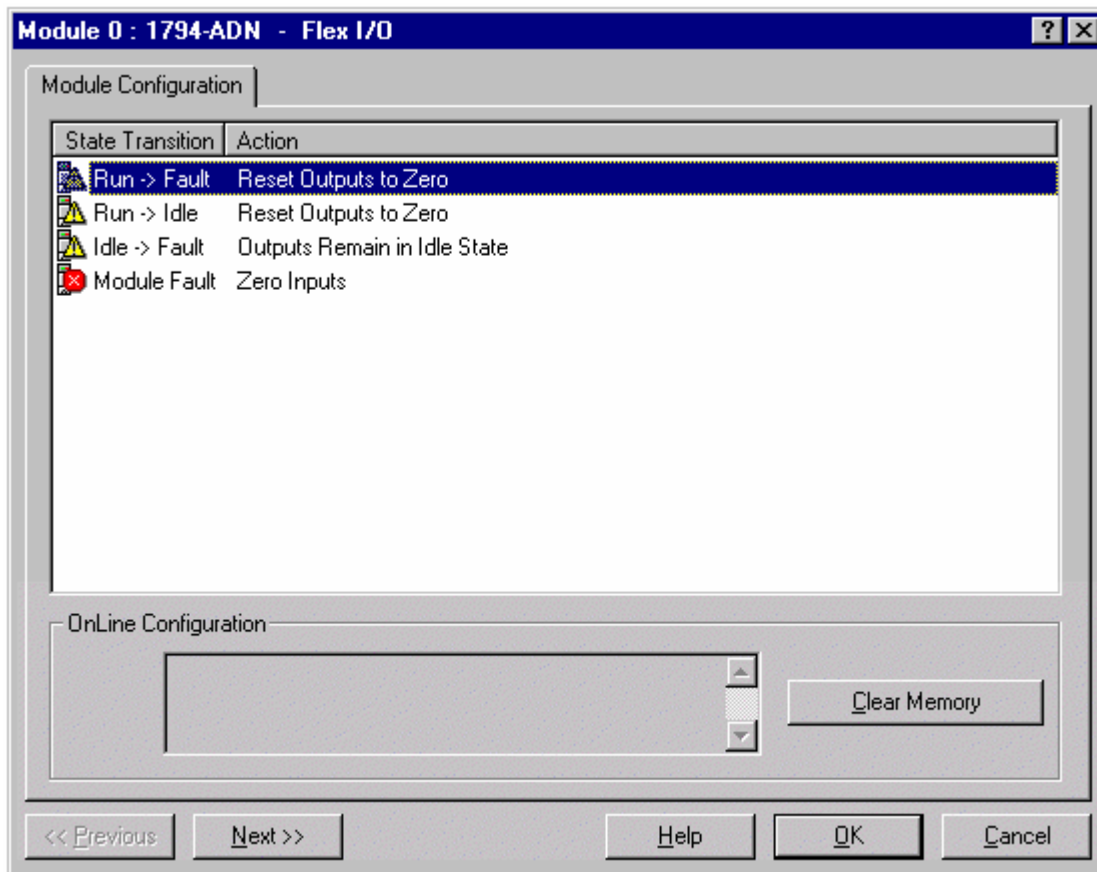


## Notes

- The Flex I/O saves its configuration to memory. When changing the module composition, it is recommended that you reinitialize the DeviceNet Head module via the **Memory Clean-up** command, which will force the device to detect its modules.
- Total Size (Input and Output) values calculated here must match those entered in the **Connection Configuration** tab. If they are inconsistent, you will be prompted to perform an auto-match by entering the Module Configuration totals in the **Connection Configuration** tab.
- The device will acknowledge modifications only after the **Write to Flex I/O** command has been used.

Double-click on the row representing the head module of the Flex I/O device (Module 0) in the **Module Configuration** tab. The following dialog is displayed:

Figure 25: Module 0/Flex I/O Details



This dialog allows you to configure the transition states of the head-end. Double-click on a parameter to modify its value. For more information, refer to the Allen-Bradley documentation (<http://www.ab.com>).

If the Console is currently in Online-Config mode, the following function is available:

- **Clear Memory**

This command forces the Flex I/O device to reinitialize with its default values.

# 7

## Configuring Topics and Items

### Chapter Sections:

- General Overview
- Topic Names
- Viewing Items
- Declaring Items
- Item Properties

## 7.1 General Overview

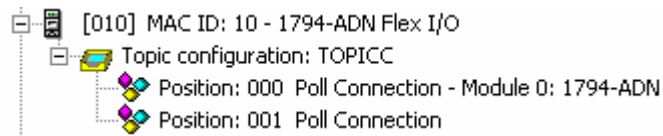
To access data via the OPC Server, each variable must be named, based on:

- A *Topic Name* that denotes the device connected and configured in the Console
- An *Item Name* associated with the data within the particular device



These names will reference input/output data for devices connected to the field bus. You are free to choose them yourself (although default names are assigned automatically) and they must be entered during the configuration phase performed within the Console. Once the variables have been declared, it is also possible to customize their behavior or display format from within the Console.

To access the function for designating topic and item names, go to the Channel Configuration view in the Configuration Console:

Figure 26: Topic Name Designation



When a configured device contains accessible data, additional nodes appear under the device:

-  A node designed for configuring the topic
-  Nodes that represent data blocks, within which you can define items. Select one of these nodes and a new configuration window appears within the Channel Configuration view, used to declare items attached to the node.

Two item categories can be defined within the devices configured on the network: items that represent input data, and items that represent output data.

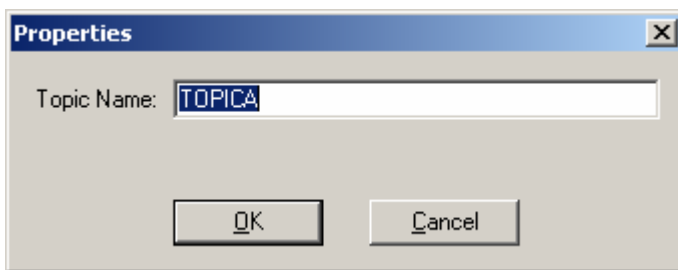
## 7.2 Topic Names

During the configuration phase, a topic name will be assigned to each configured device (default names are automatically suggested by the Console). This name must be unique within the entire configuration.

To define or modify the allocated topic name:


1. Select the relevant Item Configuration node in the Console's Channel Configuration area.
2. Run the **Properties** command or double-click the node. The following dialog box is displayed:

Figure 27: Properties for Topic Name Dialog



3. Enter a topic name and click **OK**.

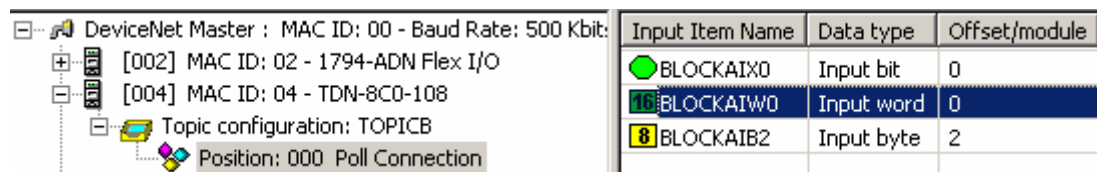
## 7.3 Viewing Items




To view items that are already configured, select a node that represents a connection, , under an expanded topic in the Channel Configuration view. Two lists appear to the right of the Channel Configuration view:

- The items associated with input data (upper list)
- The items associated with output data (lower list)

Each of the lists gives a summary of the item data type, its position and the full set of customization parameters. The lists can be sorted by clicking the desired column header.

Figure 28: Column Header




Input Item Name	Data type	Offset/module
 BLOCKAIX0	Input bit	0
 BLOCKAIW0	Input word	0
 BLOCKAIB2	Input byte	2



## 7.4 Declaring Items

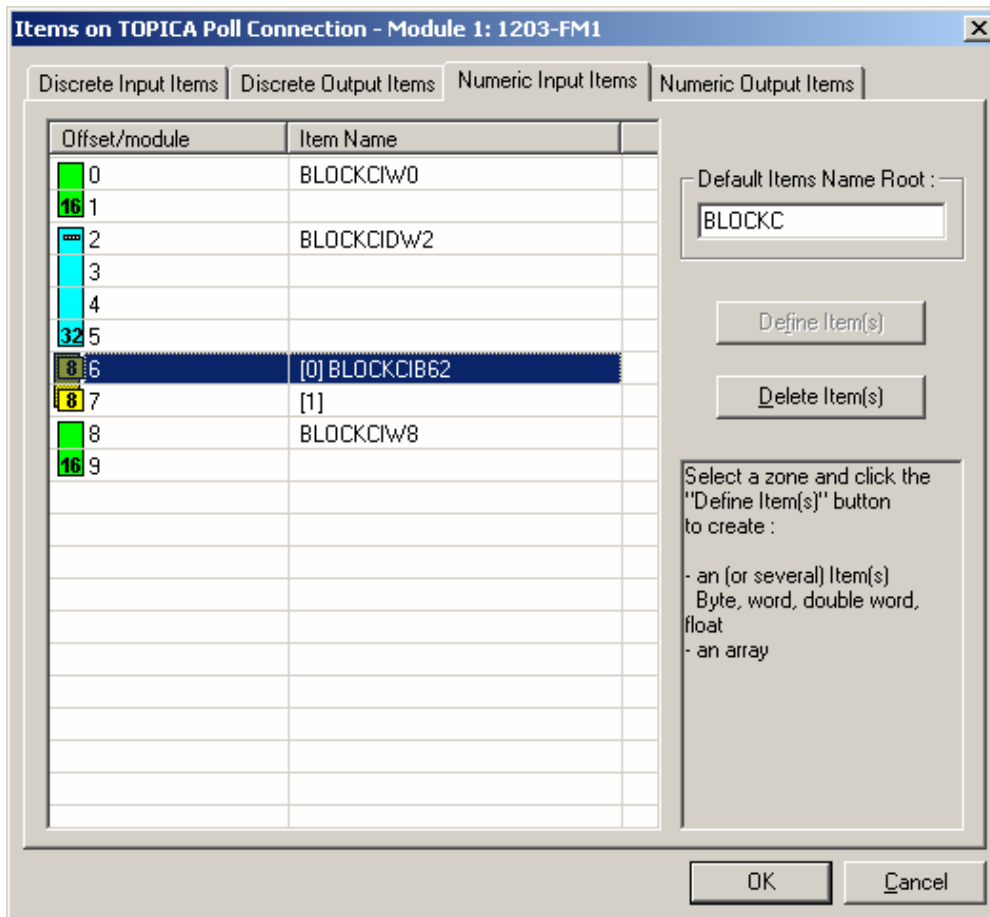
### 7.4.1 Adding Items

To add new items within a data block (i.e., connection), you can:

- Double-click the node that corresponds to the data block (Channel Configuration view)
- Use the **Add items** command in the Items menu or the pop-up menu in the configured items display list
- Click the  button

The following dialog box is displayed:

Figure 29: Items Dialog Box



Each tab corresponds to a category of items to be added:

- **Discrete Input Items** (input bits)
- **Discrete Output Items** (output bits)
- **Numeric Input Items** (byte type input items, word (16 bits), double words and floats)
- **Numeric Output Items** (byte type output items, word (16 bits), double words and floats)

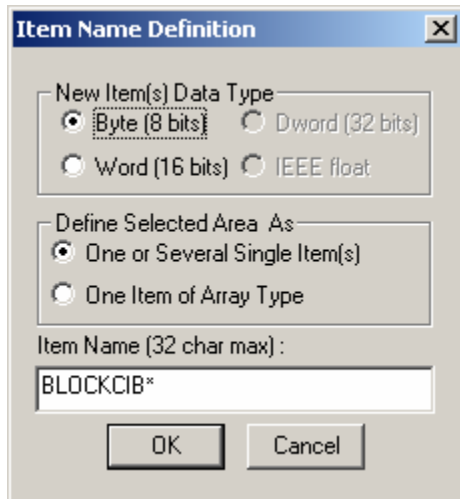
Each tab contains a memory representation of the selected block, which is used to declare items:

- For discrete items, each line denotes a bit in the data block. The bit position is indicated:
  - By the position of the byte that contains it in relation to the start of the block (Offset/module column)
  - By the position of the bit in the byte (bit in byte column shown in the tabs corresponding to discrete type variables)
- For numeric items, each line denotes a byte in the data block. The byte position is indicated in relation to the start of the block that it belongs to (Offset/module column).

To add items to this dialog box, follow these steps:

1. Select the tab that corresponds to the item type you want to add.
2. If required, change the default Item Name root. This root is used for generating default item names.
3. Select a memory area (one or more lines) for which you want to define new items (using the SHIFT and CTRL keys).
4. Click the **Define Items** button. The Item Name Definition dialog box is displayed. Depending on the type of item to be added (discrete or numeric) and the size of the memory area selected, this box may differ slightly. However, the dialog box shown below is the most comprehensive version and serves as a basis for understanding all the others.

Figure 30: Item Name Definition Dialog



### Item Name(s)

Default names suggested for the items to be added. This name can be changed, but it must respect the following rules:

- Length is limited to 32 characters and must be unique for all items within the same topic. The following characters are not allowed: . & é « ‘ ( - è ç à ) = + } ° ] @ \ ` | [ { ~ ^ < > ? / § ! μ \* ^ □ £ ù % ‘space’ ‘nothing’
- If you need to generate several items, the \* character must be in the name. When items are added, this character will automatically be overwritten by the item’s position.

### New Item(s) Data Type

Used to select the type of new items that will be created. The available options depend on the number of bytes selected in the memory representation. For example, to create word type items, select in the previous dialog box a byte number that is a multiple of 2, etc.


### Define Selected Area As

Used to define in the area selected:

- A series of simple items, e.g. three word-type items.
- An array type item, e.g. a three-word array-type item.

## 7.4.2 Deleting Declared Items

You can delete declared items from the display lists via the following methods:

- Use the **Delete Items** command in the Items menu (or the pop-up menu in the configured items display list)
- Click the  button
- From the Add Items dialog box, by selecting a memory area that contains items already declared and:
  - Using the **Delete Items** button
  - Right-clicking on the area

In certain cases, items may be deleted automatically if you have changed the connected devices' configuration or the data blocks in the connected devices. Accordingly,

- If a data block or device is deleted from the configuration, the corresponding items will also be deleted
- If a data block is allocated an input/output size smaller than its previous one, any items configured in the memory area that exceed this new size will also be deleted, and the devices that are replaced by those from the **Network Detection** tab will have their items deleted.

## 7.5 Item Properties

You can access item properties from the displayed list of configured input or output items by:

- Double-clicking the relevant item
- Selecting the item and using the **Properties** command in the Items menu (or the pop-up menu in the display list)
- Selecting the item and clicking the  button

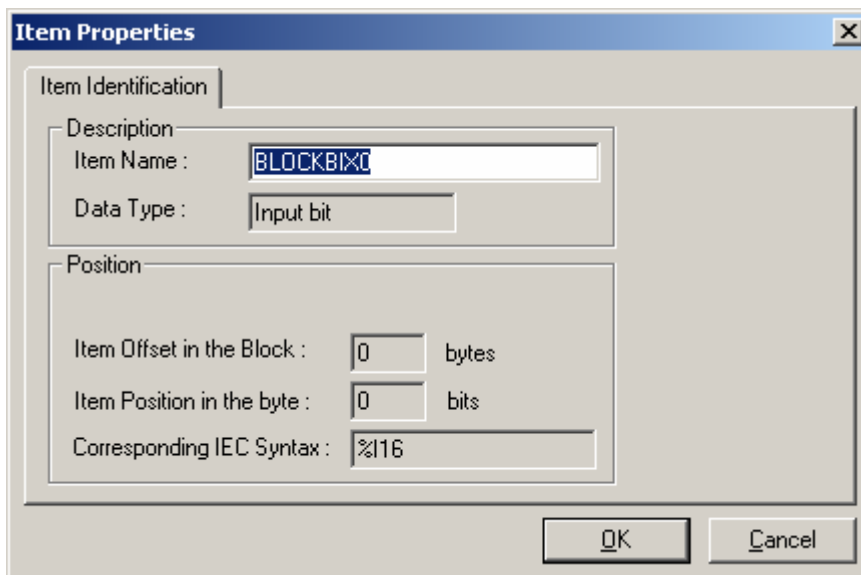
The Properties dialog box for the item is displayed. This will contain either one or two tabs, depending on the data type:

- **Item Identification** tab
- **Item Customization** tab (numeric items only)

### 7.5.1 Item Identification Tab

This tab is used to identify the item and to state its position in the device's memory representation.

Figure 31: Item Identification Tab



- **Item Offset in the Block**

This field states the position, in bytes, of the data in relation to the start of the block that contains it.

**Note**

For bit type items, the offset is that of the byte that contains the bit. The position of the bit in the byte is therefore stated in the **Position of Item in Byte** field.

- **Item Position in the Byte**

For bit type items, this field states the position of the bit in the byte that contains it.

**Note**

The offset of the byte that contains the bit is therefore stated in the **Item offset in block** field.

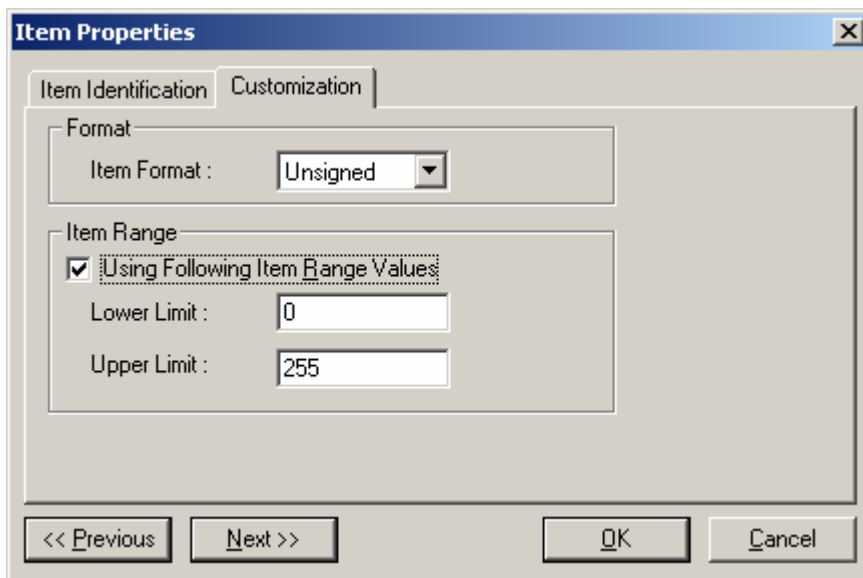
- **Corresponding IEC Syntax**

The IEC syntax is a generic syntax used to synthesize the data type and its position in relation to the device.

## 7.5.2 Customizing the Item

For numeric type items (other than bit type), a second tab is used to customize the item's behavior by allocating special processing to it. In this case, the data is returned to the client applications after processing rather than as a raw value. This is optional, and as such, all non-customized items have standard management and the returned values are raw (direct reflection of the devices).

Figure 32: Customization Tab



To be able to configure most customization parameters, you first need to give the item a numeric format other than Default.

- **Format**

Used to change the item's return format. The following table summarizes all possible formats:

Table 25: Format Descriptions

Format Name	Description
Default	Raw value.
Unsigned	Unsigned value.
Signed	Signed value.
BCD	The value will be converted to BCD format. If conversion is not possible, the quality associated with the data will be "other".

- **Lower Limit**

Used to enter the minimum item value. If the true value of the item falls below the stated threshold, the item quality changes to 0x41. By default, the minimum value is:

Table 26: Minimum Item Value

Item Type	Minimum Signed Value	Minimum Unsigned Value
BYTE	-128	0
16-bit WORD	-32758	0
32-bit WORD	-2147483648	0
FLOATING	-3.40282E+38	0

- **Upper Limit**

Used to enter the maximum item value. If the true value of the item exceeds the stated threshold, the item quality changes to 0x42. By default, the maximum value is:

Table 27: Maximum Item Value

Item Type	Maximum Signed Value	Maximum Unsigned Value
BYTE	127	255
16-bit WORD	32767	65535
32-bit WORD	2147483647	4294967295
FLOATING	3.40282E+38	




# 8

## Online Actions

### Chapter Sections:

- General Overview
- Network Tab
- Explicit Message Tab
- Node Commissioning Tab

## 8.1 General Overview

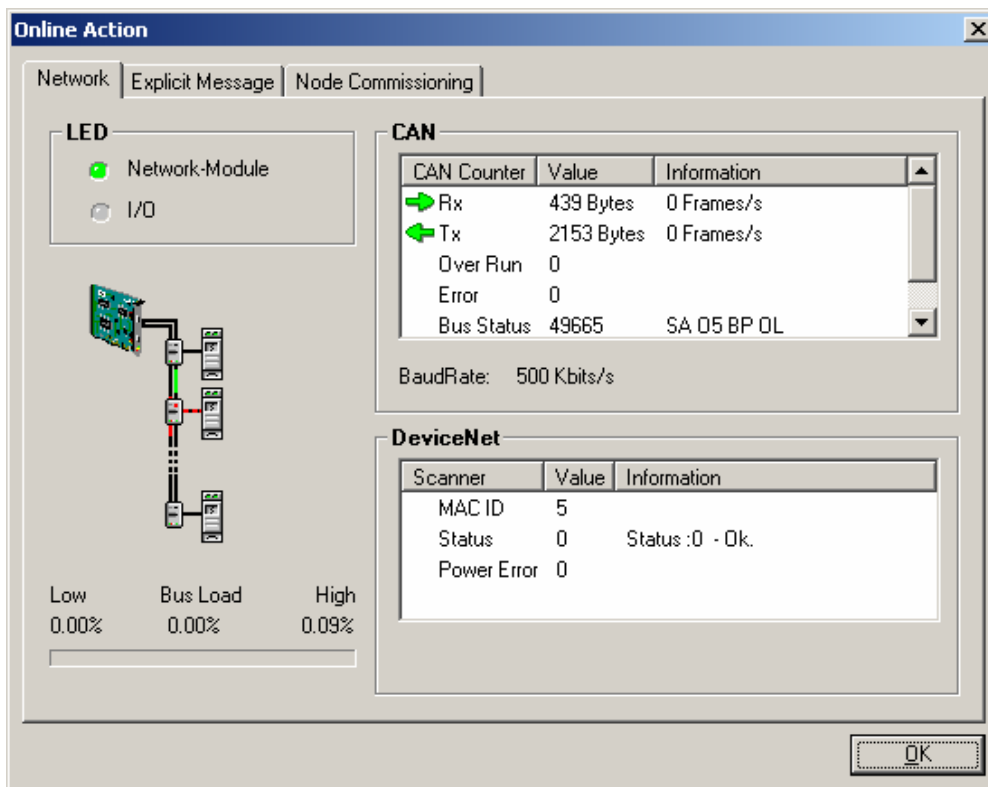
Online Actions are accessible by pressing the  icon. They include the following tasks, each of which corresponds to a tab in the Online Action dialog:

- Network status
- Explicit message transmissions
- Node commissioning

## 8.2 Network Tab

The **Network** tab indicates the DeviceNet Master's connection status on the network. It also indicates the I/O status, overrun status, error status, bus status, and master/scanner information.

Figure 33: Network Tab



## 8.2.1 LED Area

### Network-Module

This LED representation indicates the channel status:



Solid Green: Scanner is Online and Scanning, with at least one active device.



Flashing Green: Scanner is Online, but no devices are active.



Solid Red: Channel Error or Bus Off. An excessive number of communication errors have been detected and the CAN chip has automatically gone offline, or the network has lost power.

### I/O

This LED representation indicates the bus status:



Green: Network activity is detected – messages are being received or transmitted.



Gray: No network activity detected. The bus may be healthy, but currently there is no activity.

## 8.2.2 CAN Area

Table 28: CAN Area Description

Format name	Description
Rx	Total number of bytes received.
Tx	Total number of bytes sent.
Rx Frames	Number of frames received per second.
Tx Frames	Number of frames transmitted per second.
Overrun	Reception buffer overrun counter. This displays the minimum number of frames lost.
Error	CAN error counter for transmission or reception. It displays the number of times a transmission or reception error occurs.
Bus Status	CAN controller bus status. It displays the status as a value and 2-letter representation.
Baud Rate	Transmission speed configured in the DeviceNet Master.

## 8.2.3 DeviceNet Area

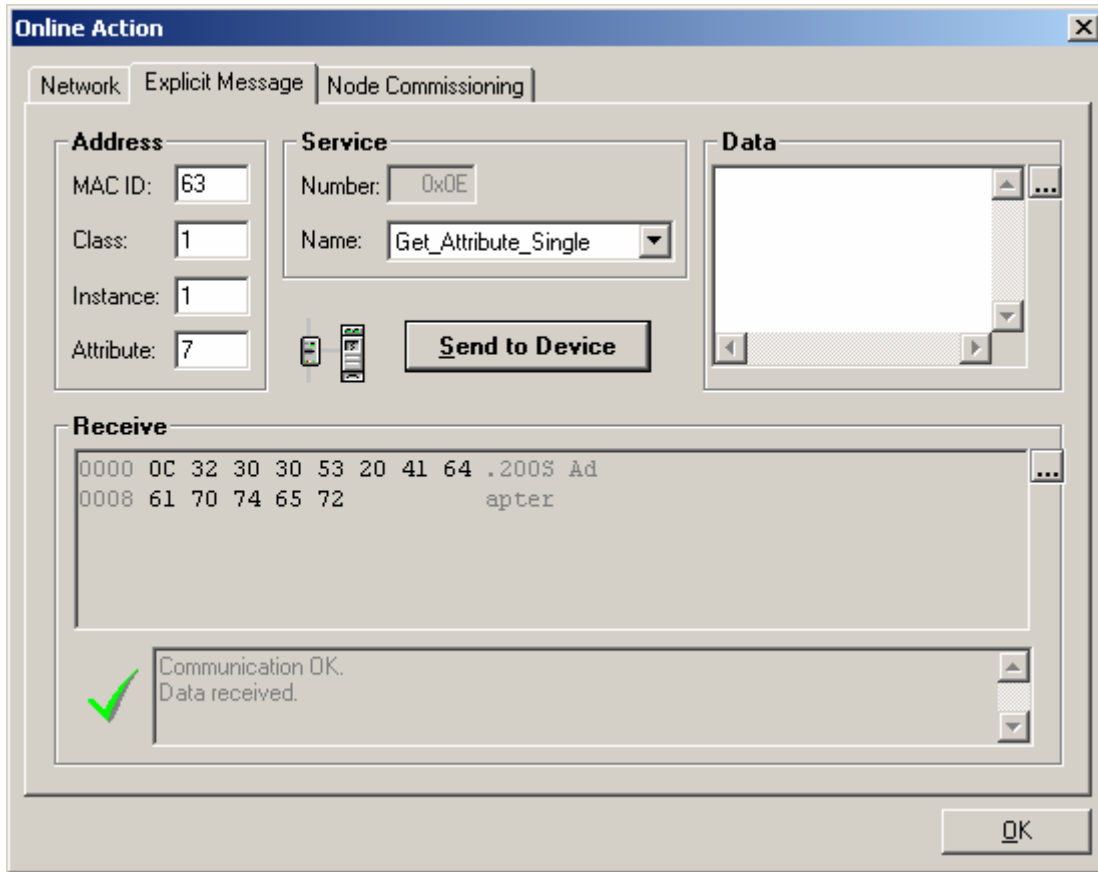
Table 29: DeviceNet Area Description

Format name	Description
MAC ID	Network address of the DeviceNet Master/Slave card.
Status	DeviceNet Master status.
Power Error	Indicates power errors on the DeviceNet Master channel.

### 8.3 Explicit Message Tab

This **Explicit Message** tab allows explicit messages to be transmitted on the DeviceNet network.

Figure 34: Explicit Message Tab



### 8.3.1 Address Area

Table 30: Address Area Description

Format Name	Description
MAC ID	The targeted device's address on the network. MAC ID values range from 0 to 63.
Class	DeviceNet object identifier. Class values range from 0 to 65535.
Instance	DeviceNet object instance. Instance values range from 0 to 65535.
Attribute	Attribute of the DeviceNet object instance. If the attribute must be included in the message, the value must range from 0 to 255. Otherwise, leave this field empty.

### 8.3.2 Service Area

Table 31: Service Area Description

Format Name	Description
Number	Service identifier. A service name is associated with each number. To enter a customized service number, select <b>Customer Service</b> .
Name	Explicit name of the service. A service number is associated with each name. To enter a customized service number, select <b>Customer Service</b> .

### 8.3.3 Data Area

Table 32: Data Area Description

Format Name	Function
Data	Used to enter data to be sent to the device. The "..." button is used to set the various test parameters. It allows you to format the data.

### 8.3.4 Receive Area

Table 33: Receive Area Description

Format Name	Function
Receive	Displays the data returned by the device in response to a request.

### 8.3.5 Command Area

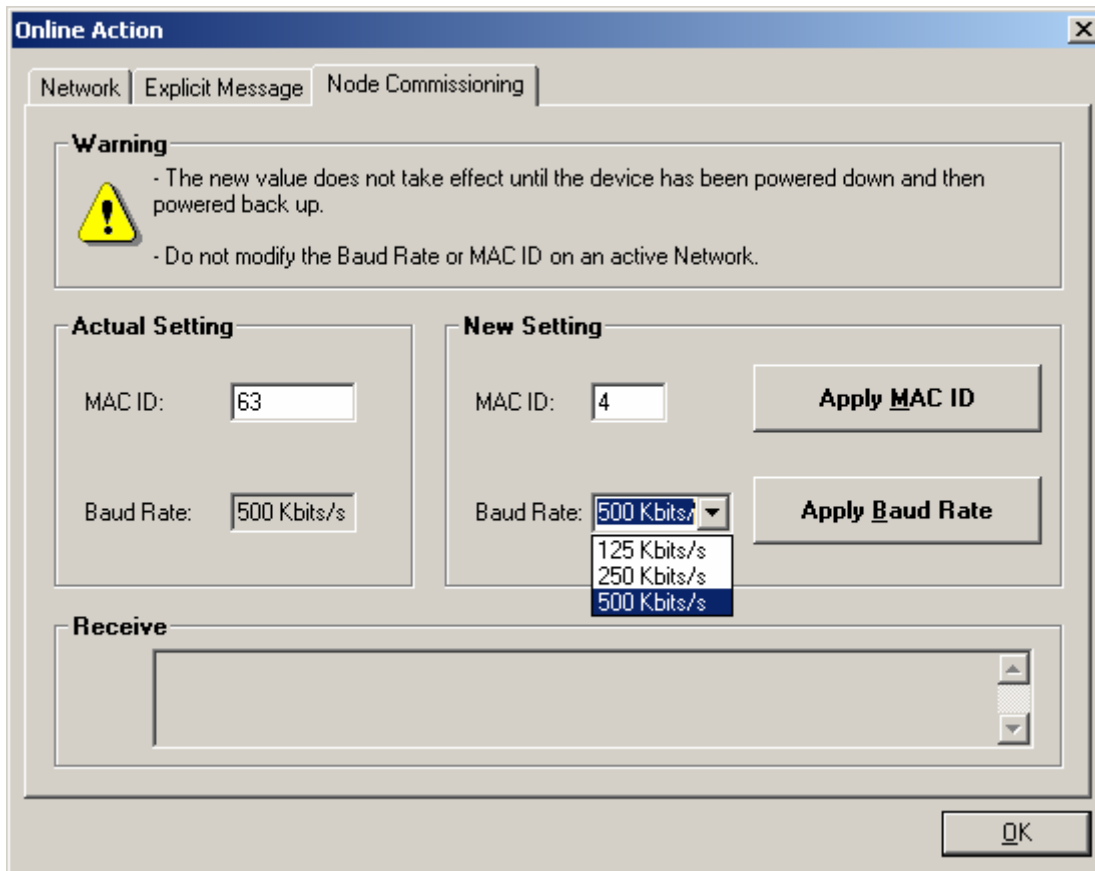
Table 34: Command Area Description

Format Name	Function
Send to Device	Transmits the explicit message defined by the service, the address and the data.

## 8.4 Node Commissioning Tab

The **Node Commissioning** tab allows you to alter a device's baud rate and MAC ID.

Figure 35: Node Commissioning Tab





## 8.4.1 Actual Setting Area

Table 35: Actual Setting Area Description

Format Name	Function/Description
MAC ID	Used to enter the current MAC ID of the node you wish to change.
Baud Rate	The master/scanner's current baud rate.

## 8.4.2 New Setting Area

Table 36: New Setting Area Description

Format Name	Function
MAC ID	Used to enter the MAC ID value.
Baud Rate	Used to enter the master/scanner's baud rate.
Apply MAC ID Command	Transmits an explicit message to the Actual Setting MAC ID node to attempt to change the device's MAC ID to the corresponding New Setting value.
Apply Baud Rate Command	Transmits an explicit message to the Actual Setting MAC ID node to attempt to alter the device's baud rate to the corresponding New Setting value.



# 9

## OPC Server Parameters

### Chapter Sections:

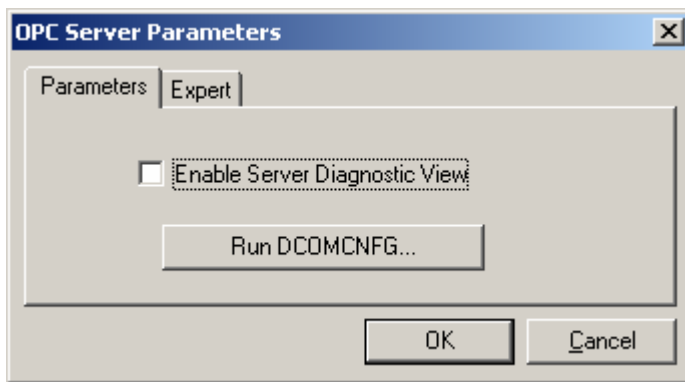
- General Overview
- Basic Parameters
- Expert Mode Parameters

## 9.1 General Overview

To access the OPC Server parameters, double-click the **OPC Server Properties** node in the Configuration Description area.

## 9.2 Basic Parameters

Figure 36: OPC Parameters Tab

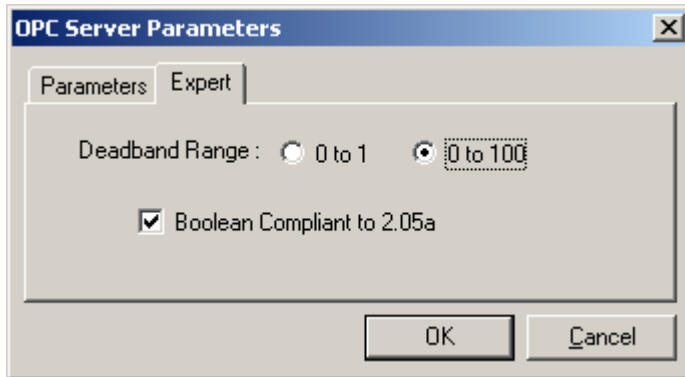


- **Enable Server Diagnostic View**  
Used to enable the pop-up menu linked to the OPC Server icon in the taskbar. This allows you to activate the Diagnostic Interface.
- **Run DCOMCNFG...**  
Used to run the **dcomcnfg.exe** tool, which provides access to the DCOM Configuration Properties.

## 9.3 Expert Mode Parameters

When the Console is switched to Expert Mode, the following tab is displayed:

Figure 37: OPC Expert Tab



This tab is used to set certain internal adjustment factors. These factors can alter the server behavior, so caution must be exercised when changing them.

- **Deadband Range**

Used to define the range used by OPC clients for the OPC groups' deadband parameter:

- **0 to 1**, where 1 represents 100%
- **0 to 100**, where 100 represents 100% (default)
- **Boolean Compliant to 2.05a**

If selected, the Boolean type complies with version 2.05a OPC standards and uses values of FALSE=0 and TRUE=0xFFFF. If this parameter is not selected, then FALSE=0 and TRUE=1. This type is selected by default.



# 10

## Example of a DeviceNet Configuration Implementation


### Chapter Contents:

- Adding a Card to the Console
- Selecting the Configuration Method
- Automatic Configuration
- Manual Configuration
- Troubleshooting the DeviceNet Network
- Diagnostics
- Test Using the OPC Client
- Operation

## 10.1 Adding a Card to the Console

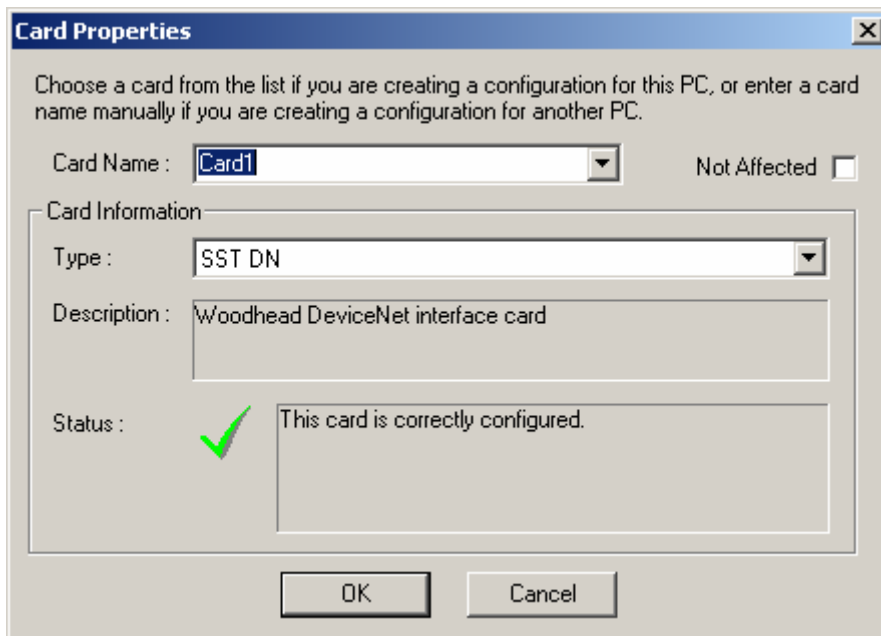
When the Console opens a new configuration, the DeviceNet cards detected in the PC are added automatically. However, if this configuration is intended for a card that is not present in the PC, the card needs to be added using the following command:

Table 37: Adding a Card

Menu Name	Icon	Keyboard
Description > Add Card		INS

This dialog box then appears:

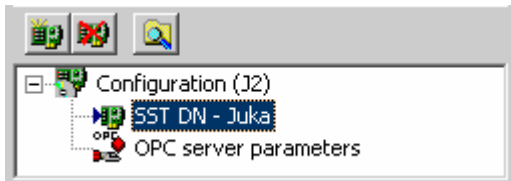
Figure 38: Card Properties





Enter the name of the card and click **OK**. The card then appears in the Configuration Description view:

Figure 39: Configuration Description View



If you select the card in this view, the Channel Configuration view containing the DeviceNet network definition can then be opened.

## 10.2 Selecting the Configuration Method

You now have access to two different configuration methods:

- **Automatic configuration:** The card is already connected to your DeviceNet network, and your devices have the correct MAC ID and baud rate. You will need the corresponding EDS files, which must be included in the device library. If you don't have these files, you will be given the option to have them automatically created.



### Note

If you choose this option, you may not have access to all parameters within the device.

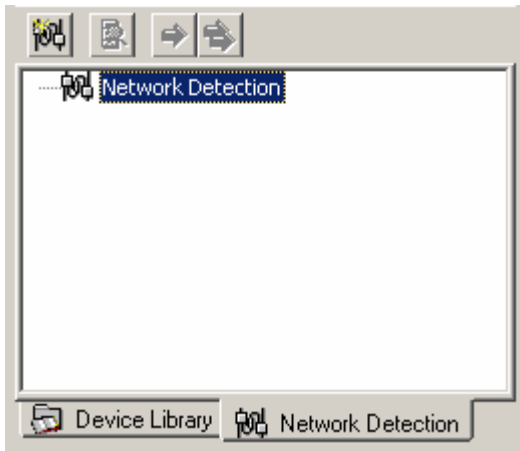
- **Manual configuration:** The card is not yet connected to your DeviceNet network, but you know which devices are to be configured. You will need the corresponding EDS files, which must be included in the device library.

## 10.3 Automatic Configuration

To automatically configure your devices, follow these steps:

1. Select the **Network Detection** tab in the Resources area.

Figure 40: Network Detection Tab





2. Configure your network baud rate in the Channel Configuration view's Master Properties dialog. Confirm your selection using the **OK** button or the ENTER key.



### Note

All of your devices must be configured to the same speed.

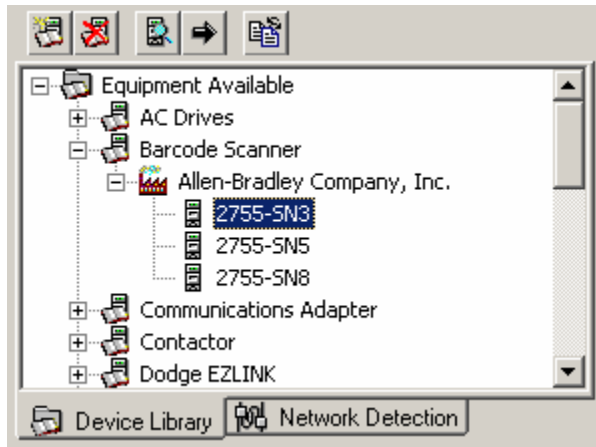
3. Enable network scanning via the **Network > Detect Network** command or by clicking the  button.
  - The scan can then find up to 63 devices.
  - You can include all of the devices detected during the scan in your configuration via the **Network > Insert and Replace All** command or by clicking the  button. The devices can also be included one by one, using Drag & Drop from the **Network Detection** tab into the Configuration area.
  - The Console will automatically link the EDS file that corresponds to each device. Where several EDS files correspond to a device, you should select one of them. However, if there are no corresponding files, you will have the option to create a new one.


## 10.4 Manual Configuration

To configure your devices manually, follow these steps:

1. Select the **Device Library** tab in the Resources area.

Figure 41: Device Library Tab



2. Select the device to be added.
3. Drag & Drop the device from the Resources area into the Channel Configuration view, or use the  **Insert** button.

The Properties page for the device is opened automatically, allowing you to adjust the equipment number, active state, and connection parameters. Most of the data is entered automatically using the values from the corresponding EDS file. For a Flex I/O device, you may also configure its modules and their corresponding input and output sizes.

4. Adjust the baud rate of the DeviceNet network. To do so, double-click the **DeviceNet Master** icon in the Channel Configuration view.

## 10.5 Troubleshooting the DeviceNet Network


This section provides you with a list of checks to perform, depending on the problem you are having.

Table 38: Potential Implementation Problems

Problem	Possible Causes
No devices present after network detection.	Address conflicts. Cabling interrupted. Mismatched baud rates. No termination or incorrect termination.
A network problem has been detected.	Address conflicts. Short circuit on the cable.


## 10.6 Diagnostics

Once the master has been configured and the network devices have been added and configured, you can use the Diagnostic Tool provided with the card to test the network function and the status of all the devices.

The Diagnostic Tool can be accessed from the Console, via the **Tools > Diagnostic** command or by clicking the  icon. This tool can also be run from the Windows Start menu.

## 10.7 Test Using the OPC Client

The OPC client can be used once the master and devices have been configured in the Console and the items have been defined. The Console automatically generates default names for topics and items. These can be renamed and the items can be customized.

The OPC client can be accessed from the Console via the **Tools > OPC Client** command or by clicking the  icon. This tool can also be run from the Windows Start menu.



### Note

The OPC Server must already be installed on the PC for the OPC client to be used as a test tool. You will also need a license to use the OPC Server. This client is only intended for test purposes, not for production use.

## 10.8 Operation

The product is configured and operational.

At this stage, the system is ready to be used with your industrial applications. The product offers different types of software interfaces. Your choice will depend on the type of implementation used to run your industrial applications:

- **Development interfaces**

Developing special applications using your preferred software tools, via the dnsScan32.dll library.

- **OPC Data Server**

Used in the industrial sector, the OPC interface is ideal for exchanging data between your applications and input/output devices.

# A

## Warranty and Support

### Appendix Sections:

- Warranty
- Technical Support

## A.1 Warranty

For warranty information pertaining to the card, refer to <http://www.mysst.com/warranty.asp>.

## A.2 Technical Support

Please ensure that you have the following information readily available before calling for technical support:

- Software version
- Computer's make, model, CPU speed and hardware configuration (cards installed)
- Operating system type and version
- Details of the problem you are experiencing: firmware module type and version, target network and circumstances that may have caused the problem



## A.2.1 Getting Help

Technical support is available during regular business hours by telephone, fax or email from any Woodhead Software & Electronics office, or from <http://www.woodhead.com>. Documentation and software updates are also available on the website.

### North America

Canada:

Tel: 1-519-725-5136

Fax: 1-519-725-1515

Email: [WoodheadSupportNA@molex.com](mailto:WoodheadSupportNA@molex.com)

### Europe

France:

Tel: 33-(0)2-32-96-04-22

Fax: 33-(0)2-32-96-04-21

Email: [WoodheadSupportEU@molex.com](mailto:WoodheadSupportEU@molex.com)

Germany:

Tel: 49-711-782-374-22

Fax: 49-711-782-374-11

Email: [WoodheadSupportEU@molex.com](mailto:WoodheadSupportEU@molex.com)

Italy:

Tel: 39-010-595-4052

Fax: 39-010-595-6925

Email: [WoodheadSupportEU@molex.com](mailto:WoodheadSupportEU@molex.com)

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Fax: 33-(0)2-32-96-04-21

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Fax: 65-6261-3588

Email: [WoodheadSupportAP@molex.com](mailto:WoodheadSupportAP@molex.com)

China:

Tel: 86-21-5835-9885

Fax: 86-21-5835-9980

Email: [WoodheadSupportAP@molex.com](mailto:WoodheadSupportAP@molex.com)

For the most current contact details, please visit <http://www.woodhead.com>.

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