InTouch® Compact Edition

MITSA Configuration Guide

Invensys Systems, Inc.

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Welcome

This guide shows you how to configure the MITSA driver for InTouch Compact Edition.

This guide assumes you know how to use Microsoft Windows, including navigating menus, moving from application to application, and moving objects on the screen. If you need help with these tasks, see the Microsoft online help.

You can view this document online or you can print it, in part or entirely, by using the print feature in Adobe Acrobat Reader.

Documentation Conventions

This documentation uses the following conventions:

Convention	Used for
Initial Capitals	Paths and file names.
Bold	Menus, commands, dialog box names, and dialog box options.
`Monospace`	Code samples and display text.

Technical Support

Wonderware Technical Support offers a variety of support options to answer any questions on Wonderware products and their implementation.

Before you contact Technical Support, refer to the relevant section(s) in this documentation for a possible solution to the problem. If you need to contact Technical Support for help, have the following information ready:

- The type and version of the operating system you are using.
- Details of how to recreate the problem.
- The exact wording of the error messages you saw.
- Any relevant output listing from the Log Viewer or any other diagnostic applications.
- Details of what you did to try to solve the problem(s) and your results.
- If known, the Wonderware Technical Support case number assigned to your problem, if this is an ongoing problem.

Chapter 1

About the MITSA Driver

This section explains the concepts of the MITSA driver and identifies all hardware and software components required to implement communication between InTouch Compact Edition and compatible PLCs.

About MITSA Driver

You can use the MITSA PLC driver to connect InTouch Compact Edition with Mitsubishi devices using protocol RS-232C with A-Series PLCs.

Device Specifications

To establish communication with the MITSA driver, your target PLC must meet the following specifications:

- Manufacturer: Mitsubishi
- Compatible equipment: A-Series PLCs
- Mitsubishi PLC programmer software: Melsec Medoc

Network Specifications

To communicate with the target device, the network must meet the following specifications:

- Device communication port: RS-232C Port
- Physical protocol: Serial RS-232C
- Logic protocol: Mitsubishi Protocol
- Cable wiring: See PLC manufacturer documentation

Chapter 2

Configuring the MITSA Driver

This section explains how to configure the MITSA driver by completing the following tasks:

- Select the PLC driver
- Configure the connection type
- Configure other PLC-specific settings
- Configure advanced settings
- Associate an InTouch Access Name with the configured driver

You configure the MITSA driver from the **Driver Configuration** dialog box. In a managed InTouch Compact Edition application, you access this dialog box from the WindowMaker **Special**, **InTouch Compact Edition Application**, **IO Driver Configuration** menu.

For more information about configuring connection settings, see the documentation of your PLC hardware manufacturer.

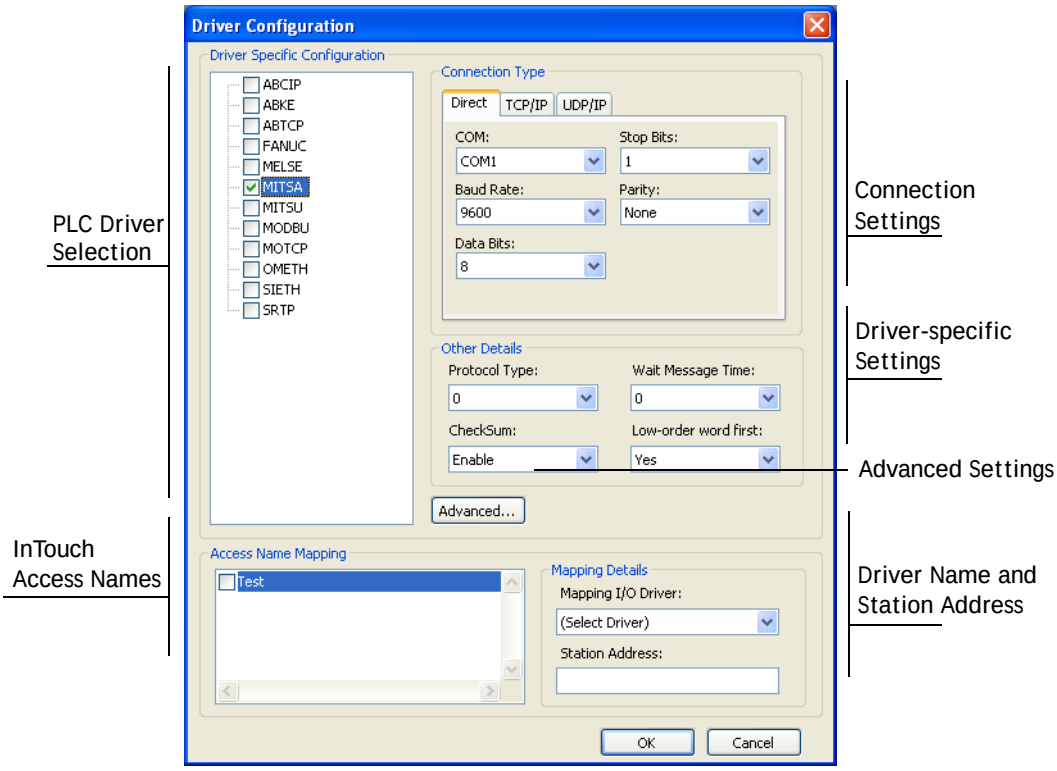
Note For each driver, you can configure only one set of parameters.

Selecting the PLC Driver

Before you configure the PLC driver, you need to select it in the **Driver Configuration** dialog box. You can select more than one PLC driver to configure. All selected PLC drivers can be associated with InTouch Access Names.

To select the PLC driver

1. In WindowMaker on the **Special** menu, point to **InTouch Compact Edition Application**, and then click **IO Driver Configuration**. The **Driver Configuration** dialog box appears.



2. From the list in the left pane, select the check box next to the PLC driver you want to configure.

   The selected PLC driver appears in the **Mapping I/O Driver** list in the **Mapping Details** area of the **Driver Configuration** dialog box. You can associate it with an InTouch Access Name. For more information, refer to Associating a PLC Driver with an Access Name on page 25.

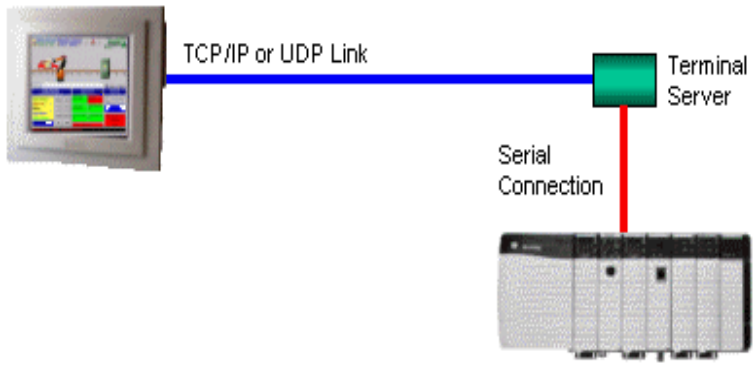
You can now configure the connection settings, advanced settings, and other PLC-specific settings in the right pane.

Configuring the Connection Type

You need to configure the connection type that the InTouch Compact Edition application uses to communicate with a PLC.

The serial driver allows the use of TCP/IP or UDP/IP encapsulation. The encapsulation mode provides communication with serial devices connected to terminal servers on Ethernet or wireless networks. A terminal server converts TCP/IP or UDP/IP messages on Ethernet or wireless networks to serial data. After the message is converted to a serial form, you can connect standard devices that support serial communications to the terminal server.

The following diagram provides an example of this solution.



Note See the manufacturer documentation to configure gateway for TCP/IP and UDP/IP mode.

You can configure one of the following connection types:

- Direct serial
- TCP/IP
- UDP/IP

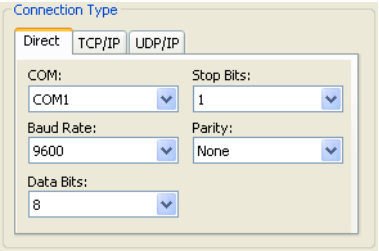
Configuring a Serial Connection

If the panel is directly connected to the PLC, you configure a serial connection. You can configure the following settings:

- COM port
- Stop bits
- Baud rate
- Parity
- Data bits

To configure a serial connection

1. In the **Driver Configuration** dialog box, select the driver you want to configure.
2. In the **Connection Type** area, click the **Direct** tab.



3. Assign values to the following settings:
   - In the **COM** list, select the serial communication port.
   - In the **Stop Bits** list, select the number of stop bits.
   - In the **Baud Rate** list, select the communication speed.
   - In the **Parity** list, select the parity.
   - In the **Data Bits** list, select the number of bits per character or code word.

Configuring a TCP/IP Connection

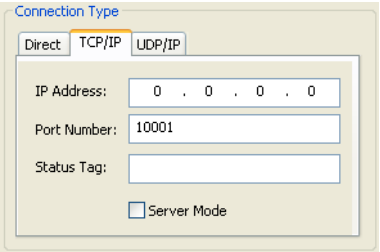
If the panel uses a TCP/IP connection to communicate with the PLC, you need to configure the following TCP/IP settings:

- IP address
- Port number
- Status tag
- Server mode

Note When **Server mode** is enabled, the MITSA driver listens to the TCP/IP port specified instead of trying to establish a connection (the driver is a TCP/IP server). The remote PLC/Device is responsible for connecting to Wonderware Compact Edition. After the TCP/IP connection has been made, all the data is sent through it. When **Server mode** is enabled, the IP Address field is not used because the driver does not try to connect with the PLC.

To configure a TCP/IP connection

1. In the **Driver Configuration** dialog box, select the driver you want to configure.
2. In the **Connection Type** area, click the **TCP/IP** tab.



3. Configure the following settings:
   - In the **IP Address** box, type the IP address of the terminal server that is used to support serial connection.
   - In the **TCP Port Number** box, type the port number assigned to the terminal server that is used to support serial connection.
   - In the **Status Tag** box, type the name of an InTouch discrete tag. The tag value is set to True if the TCP/IP connection is established, otherwise False.
   - Select **Server Mode**, if the remote PLC is responsible for connecting to a Wonderware Compact Edition application.

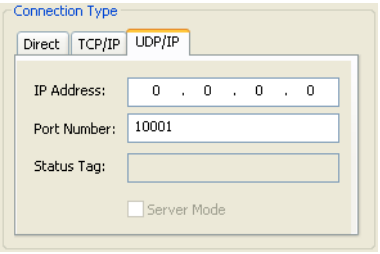
Configuring a UDP/IP Connection

If the Intouch Compact Edition application uses a serial to ethernet converter (terminal Server) to communicate with the PLC, you can configure the following UDP/IP settings:

- IP address
- Port number

To configure a UDP/IP connection

1. In the **Driver Configuration** dialog box, select the driver you want to configure.
2. In the **Connection Type** area, click the **UDP/IP** tab.



3 Configure the following settings:
   - In the **IP Address** box, type the IP address of the terminal server that is used to support serial connection.
   - In the **UDP Port Number** box, type the port number assigned to the terminal server that is used to support serial connection.

Configuring PLC-specific Settings

This section explains how to configure settings that are specific to the MITSA Driver. You configure these settings in the **Other Details** area in the **Driver Configuration** dialog box.

The following table lists the settings specific to the MITSA Driver:

Setting	Purpose
Protocol Type	Specifies which protocol to use depending on your serial connection type and other requirements. • Format 1: Just message • Format 2: A block number is added to each message • Format 3: Each message is enclosed between STX and ETX • Format 4: CR and LF are added to each message Refer to the table beginning on page 15 to identify the required protocol type value.
CheckSum	Specifies if check sum code is attached to the message. Possible values are Enable and Disable.

Setting	Purpose
Wait Message Time	WaitMessage time is a data value for generating delay time in response transmission. Some external devices require a short period to go into the receiving status after sending a command. This value designates the minimum time that the Q series C24 must wait before sending a result after receiving a command from an external device. The wait time should be specified according to the specifications of the external devices. Possible values are 0 to 15 in units of 10 ms.
Low-order word first	Option to change the order of data as it is processed. This option works only for the DataType D and suffix DWORD. Possible values are Yes and No. • Yes – 'Low-order word first' ON; Words are not swapped (HiLo) • No – 'Low-order word first' OFF; Words are swapped (LoHi)

The following table shows you which protocol type to use:

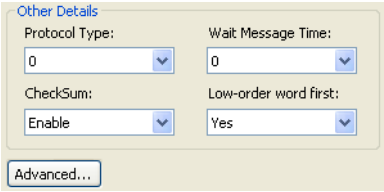
Value	RS-232C	RS-422
0	Format 1	No Protocol
1	Format 1	No Protocol
2	Format 2	No Protocol
3	Format 3	No Protocol
4	Format 4	No Protocol
5	No Protocol	Format 1
6	No Protocol	Format 2
7	No Protocol	Format 3
8	No Protocol	Format 4
9	No Protocol	
10	Format 1	Format 1

Value	RS-232C	RS-422
11	Format 2	Format 2
12	Format 3	Format 3
13	Format 4	Format 4
14	Unused	
15	For Unit test	

Note For more information about configuring MITSA Driver-specific settings, see the documentation of your PLC hardware manufacturer.

To configure MITSA-specific settings

1. In the **Driver Configuration** dialog box, select the driver you want to configure.



2. In the **Other Details** area, assign values to the following settings:
   - **Protocol Type** - See the table beginning on page 15 to specify a protocol type.
   - **CheckSum** - Specify whether a check sum code is to be used.
   - **Wait Message Time** - Use to generate delay time in the transmission.
   - **Word Swap** - Use to change the order of data as it is processed.
3. Click **OK.**

Configuring Advanced Settings for Serial Connection

This section explains how to configure advanced settings for a PLC driver. You can configure the following settings:

- Time-out settings
- Protocol settings
- Hand Shake settings
- Buffer Length settings
- DTR and IR settings

Depending on the PLC driver you select, one or more of these settings might be disabled.

Note For more information about configuring advanced settings, see the documentation of your PLC hardware manufacturer.

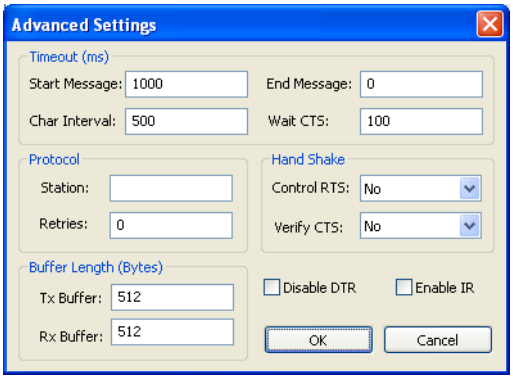
Configuring Time-out Settings

You can configure the following time-out settings:

- Start Message
- End Message
- Interval between characters
- Clear to Send wait

To configure time-out settings

1. In the **Driver Specific Configuration** dialog box, select the driver you want to configure.
2. Click **Advanced**. The **Advanced Settings** dialog box appears.



3. In the **Timeout** area, assign values to the following settings:

- **Start Message** - Time-out period in milliseconds for the message to start.
- **End Message** - Time-out period in milliseconds for the message to end.
- **Char Interval** - Time-out period in milliseconds between each character.
- **Wait CTS** - Time-out period in milliseconds for the Clear to Send wait.

4 Click **OK**.

Configuring Protocol Settings

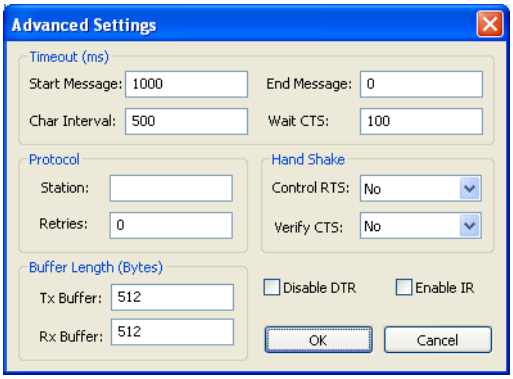
You can configure the following protocol settings:

- Station slave address
- Number of retries

To configure Protocol settings

1 In the **Driver Specifc Configuration** dialog box, select the driver you want to configure.

2 Click **Advanced**. The **Advanced Settings** dialog box appears.



3 In the **Protocol** area, assign values to the following settings:

- **Station** - Specify the slave network address.
- **Retries** - Specify how many times the driver attempts to execute the same communication command before reporting a communication error.

4 Click **OK**.

Configuring Hand Shake Settings

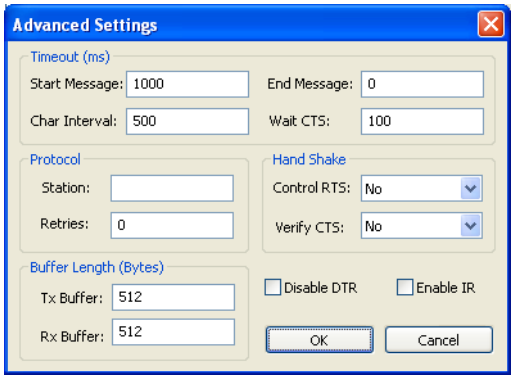
You can configure the following Hand Shake settings:

- Request to Send control
- Clear to Send verification

Hand Shake settings determine how the PLC driver communicates with the PLC over a communication channel after the physical establishment of the channel and before the normal information transfer.

To configure Hand Shake settings

1. In the **Driver Specific Configuration** dialog box, select the driver you want to configure.
2. Click **Advanced**. The **Advanced Settings** dialog box appears.



3. In the **Hand Shake** area, assign values to the following settings:
   - **Control RTS** - Specify whether to use the Request to Send control.The following options are available:

     No: Do not set the RTS (Request to Send) Hand Shake signal. Important: If you are using Windows 95/98 or Windows CE with the correct RS232/RS485 adapter (i.e. without RTS control), then you must select this option.

     Yes: Set the RTS (Request to Send) Hand Shake signal before communication. Important: If you are using Windows NT and the Cutler-Hammer RS232/RS485 adapter, then you must select this option.

     Yes+echo: Set the RTS (Request to Send) Hand Shake signal before communication, and echo the signal received from the target device.

     The default value is No.

- **Verify CTS** - Specify whether to use the Clear to Send type of verification.

  The default value is No.

4 Click **OK**.

Configuring Buffer Length Settings

You can configure the following Buffer Length settings:

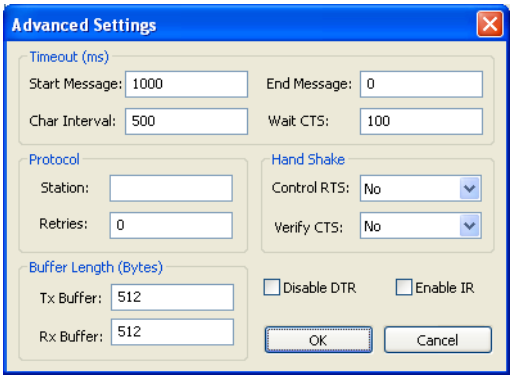
- Transmission Buffer (Tx) Length
- Reception Buffer (Rx) Length

The Buffer Length settings determine the number of bytes allocated from memory as a temporary buffer. The driver stores data in the temporary buffer while communicating with the PLC.

To configure Buffer Length settings

1 In the **Driver Specific Configuration** dialog box, select the driver you want to configure.

2 Click **Advanced**. The **Advanced Settings** dialog box appears.



3 In the **Buffer Length (Bytes)** area, assign values to the following settings:

- **Tx Buffer** - Transmission buffer size in bytes.
- **Rx Buffer** - Reception buffer size in bytes.

4 Click **OK**.

Disabling and Enabling DTR and IR Settings

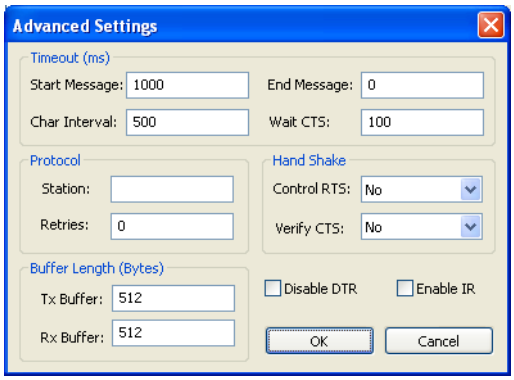
You can enable or disable the DTR and IR settings.

Setting DTR (Data Terminal Ready) means that the panel sends an additional signal to the PLC to indicate that the panel is ready to receive data.

Setting IR means that an infrared interface is used instead of a standard serial port to communicate with the device.

To enable or disable DTR and IR Settings

1. In the **Driver Specific Configuration** dialog box, select the driver you want to configure.
2. Click **Advanced**. The **Advanced Settings** dialog box appears.



3. Assign values to the following settings:
   - Select or clear the **Disable DTR** check box.
   - Select or clear the **Enable IR** check box.
4. Click **OK**.

Configuring Advanced Settings for TCP/IP or UDP/IP Connection

This section explains how to configure advanced settings for a PLC driver. You can configure the following:

- Time-out settings
- Protocol settings
- Buffer Length settings

Depending on the PLC driver you select, one or more of these settings might be disabled.

Note For more information about configuring advanced settings, see the documentation of your PLC hardware manufacturer.

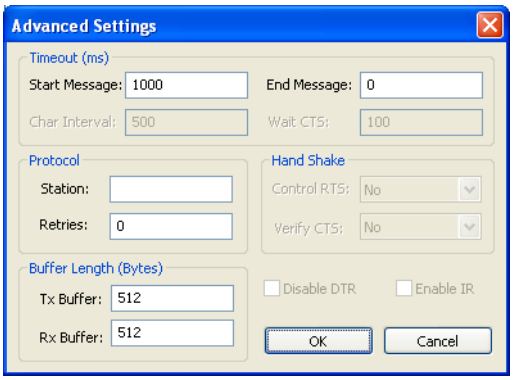
Configuring Time-out Settings

You can configure the following time-out settings:

- Start Message
- End Message

To configure time-out settings

1. In the **Driver Specific Configuration** dialog box, select the driver you want to configure.
2. Click **Advanced**. The **Advanced Settings** dialog box appears.



3. In the **Timeout** area, assign values to the following settings:
   - **Start Message** - Time-out period in milliseconds for the message to start.
   - **End Message** - Time-out period in milliseconds for the message to end.
4. Click **OK**.

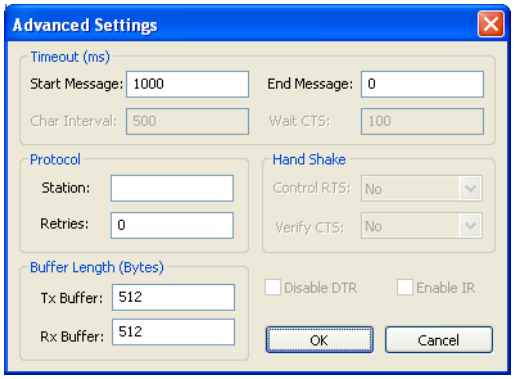
Configuring Protocol Settings

You can configure the following protocol settings:

- Station slave address
- Number of retries

To configure Protocol settings

1. In the **Driver Specific Configuration** dialog box, select the driver you want to configure.
2. Click **Advanced.** The **Advanced Settings** dialog box appears.



3. In the **Protocol** area, assign values to the following settings:
   - **Station** - Specify the slave network address.
   - **Retries** - Specify how many times the driver attempts to execute the same communication command before reporting a communication error.
4. Click **OK**.

Configuring Buffer Length Settings

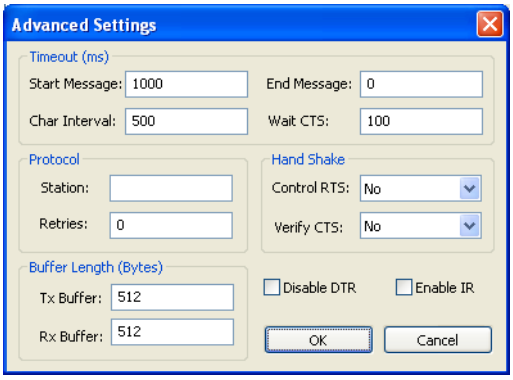
You can configure the following Buffer Length settings:

- Transmission Buffer (Tx) Length
- Reception Buffer (Rx) Length

The Buffer Length settings determine the number of bytes allocated from memory as a temporary buffer. The driver stores data in the temporary buffer while communicating with the PLC.

To configure Buffer Length settings

1. In the **Driver Specific Configuration** dialog box, select the driver you want to configure.
2. Click **Advanced**. The **Advanced Settings** dialog box appears.



3. In the **Buffer Length (Bytes)** area, assign values to the following settings:
   - **Tx Buffer** - Transmission buffer size in bytes.
   - **Rx Buffer** - Reception buffer size in bytes.
4. Click **OK**.

Associating a PLC Driver with an Access Name

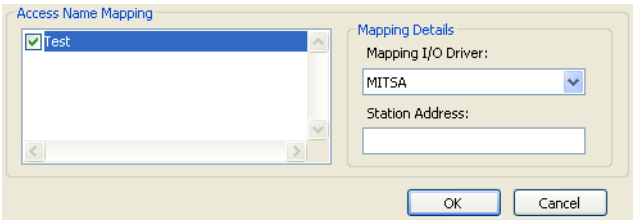
After configuring the PLC driver, you need to associate it with an existing InTouch Access Name. For more information about creating an InTouch Access Name, see the *InTouch HMI Data Management Guide*.

When you associate a PLC driver with an Access Name, you need to also specify a Station Address. The Station Address is used by the MITSA driver to specify slave network addresses of PLCs.

Note For more information about configuring the station address, see the documentation of your PLC hardware manufacturer.

To associate an PLC driver with an Access Name

1. Open the **Driver Configuration** dialog box.
2. In the **Access Name Mapping** area, locate the InTouch Access Name you want to associate.



Note If no Access Names appear in the list, you need to define an Access Name in WindowMaker first.

3. Select the Access Name you want to associate.
4. In the **Mapping I/O Driver** list, select the configured driver.
5. In the **Station Address** box, type the station number. This is a valid value from 0 to 31.

   When you move the mouse pointer over the **Station Address** box, a tooltip shows the required syntax for a station address.
6. Click **Ok**.

Chapter 3

Troubleshooting the MITSA Driver

You can detect communication errors between an InTouch Compact Edition application and the PLC by using the following item names:

Item name	Purpose
SysReadStatus	Receives error code for a failed read operation from the PLC
SysWriteStatus	Receives error code for a failed write operation to the PLC
SysReadCompleted	Indicates if the read operation from the PLC completes (TRUE) or not (FALSE)
SysWriteCompleted	Indicates if the write operation to the PLC completes (TRUE) or not (FALSE)

Note You can associate only one InTouch tag with each item name.

To troubleshoot communication problems

1. In WindowMaker, configure a set of I/O tags to associate with the error item names:
   - An I/O discrete tag to point at the item name SysReadCompleted.
   - An I/O discrete tag to point at the item name SysWriteCompleted.
   - An I/O integer tag to point at the item name SysReadStatus.

- An I/O integer tag to point at the item name SysWriteStatus.

2. Configure animation display links for the I/O tags, such as:
   - Fill color animations for the I/O tags associated with the SysReadCompleted and SysWriteCompleted items.
   - Analog value display links for the I/O tags associated with the SysReadStatus and SysWriteStatus items.
3. At run time, if a read or write error occurs between the InTouch Compact Edition and the PLC, the fill color animation indicates a problem. The value next to the fill color animation shows the error code.

Find the MITSA error codes in the following table. The table also includes typical problems associated with an error code and possible solutions.

Error Code	Description	Possible Causes	Procedure to Solve
0	OK	Communication without problems	None
1	Invalid serial port	The serial port specified is invalid	Specify a valid serial port
2	Invalid block size	Internal error when generating the protocol block sizes	Contact Technical Support and send your published application
3	Invalid number of bits	The number of bits specified is invalid	Specify the correct number of bits
4	Invalid number of stop bits	The number of stop specified is invalid	Specify the correct number of stop
5	Invalid command	It is not possible to write to a single Bit. Please review your Item name	You specified a bit for an item name that does not support bit writing
6	Invalid irq	Internal error	Contact Technical Support and send your published application
7	Invalid response	NACK received in response	• Check the serial communication configuration • Check the operands in the device

Error Code	Description	Possible Causes	Procedure to Solve
8	Invalid buffer size	Buffer received has an invalid size	Check if the equipment that you are communicating with supports the same protocol as the I/O Server
9	Out of memory	There is not enough memory for the I/O server	Check the amount of RAM memory available for your system
10	Tx buffer empty	Internal error	Contact Technical Support and send your published application
11	Tx buffer full	Internal error	Contact Technical Support and send your published application
12	Rx buffer empty	Internal error	Contact Technical Support and send your published application
13	Rx buffer full	Internal error	Contact Technical Support and send your published application
14	Time out waiting CTS	CTS signal was not received, could not send request	Check the cable and also if the communication line is busy
15	Time out waiting start a message	Response was not received from the device	Check the cable connection and also make sure that the I/O server settings match the PLC configuration
16	Time out waiting a message to finish	Started receiving a response but the communication was suspended	Check the cable connection and also make sure that the I/O server settings match the PLC configuration
17	Time out between rx char	Response was not received from the device	Check the cable connection and also make sure that the I/O server settings match the PLC configuration

Error Code	Description	Possible Causes	Procedure to Solve
18	Time out between tx char	Started receiving a response but the communication was suspended	Check the cable connection and also make sure that the I/O server settings match the PLC configuration
19	No carrier detected	Started receiving a response but the communication was suspended	Check the cable connection and also make sure that the I/O server settings match the PLC configuration
20	Invalid/unsupported item name	Item name specified is either invalid or unsupported	Check your item names for unsupported or invalid items
30	Invalid/unsupported item name	Item name specified is either invalid or unsupported	Check your item names for unsupported or invalid items
32	Time out waiting for a tx message to finish	Started receiving a response but the communication was suspended	Check the cable connection and also make sure that the I/O server settings match the PLC configuration
33	Invalid driver configuration file	Internal error	Contact Technical Support and send your published application
34	Invalid/unsupported item name	Item name specified is either invalid or unsupported	Check your item names for unsupported or invalid items
35	Driver API not initialized	Internal error	Contact Technical Support and send your published application
36	Invalid/unsupported item name	Item name specified is either invalid or unsupported	Check your item names for unsupported or invalid items
37	Invalid/unsupported item name	Item name specified is either invalid or unsupported	Check your item names for unsupported or invalid items
38	Invalid station	Station specified for this driver is invalid	Check the I/O driver configuration and specify a valid station address

Error Code	Description	Possible Causes	Procedure to Solve
39	Invalid block size	Internal error when generating the protocol block sizes	Contact Technical Support and send your published application
-15	Time out start messages	• Disconnected cables • PLC turned off or in Stop or error mode • Wrong station number • Wrong RTS/CTS control settings	• Check the cable wiring • Check the PLSC state (it must be RUN) • Check the station number • Check the I/O driver configuration
-17	Time out between rx characters	• PLC turned off or in Stop or error mode • Wrong station number • Wrong parity • Wrong RTS/CTS configuration settings	• Check the cable wiring • Check the PLSC state (it must be RUN) • Check the station number • Check the I/O driver configuration

Appendix

MITSA Driver Item References

This section lists all item names supported for the A-series Mitsubishi PLC.

The following PLC suffixes are supported by the Wonderware Compact Edition:

- Word
- DWord (only Data Register - D)
- Boolean

If an “OUT OF RANGE” item is used in the InTouch Compact Edition application then, the quality for that item is shown as 0 or BAD. It is also possible that the quality of one or more valid items goes to 0 or BAD due to an “OUT OF RANGE” item being used.

Invalid values in items (with/without suffixes) can return unpredictable results.You should ensure that valid values are written for each data type. For example, 0 to 65535 is the valid value range for 'word' type of data.

Supported Data Types and Value Ranges

The following table lists all the data types supported by the MITSA driver.

Data Type	Minimum	Maximum
BOOL	0	1
WORD (16 bit string)	0	65535
DWORD (32 bit unsigned)	0	4294967000

MITSA Driver Item Reference for A-Series

The following table lists all item names supported for the A-series Mitsubishi PLC:

Device Type	Item Name	Range	Data Type	Supported Suffixes	Access	Supported by InTouch Compact Edition
Inputs	Xn	n=000 to 07FF (Hex)	Boolean		Read/write	Yes
Outputs	Yn	n=000 to 07FF (Hex)	Boolean		Read/write	Yes
Link relays	Bn	n=000 to 0FFF (Hex)	Boolean		Read/write	Yes
Internal relays	Mn	n=0000 to 8191	Boolean		Read/write	Yes
Special int. relays	Mn	n=9000 to 9255	Boolean		Read/write	Yes
Latch relays	Ln	n=0000 to 8191	Boolean		Read/write	Yes
Annunciator relays	Fn	n=0000 to 2047	Boolean		Read/write	Yes
Timer contacts	TSn	n=0000 to 2047	Boolean		Read/write	No
Timer coils	TCn	n=0000 to 2047	Boolean		Read/write	Yes
Counter contacts	CSn	n=0000 to 1023	Boolean		Read/write	Yes

Device Type	Item Name	Range	Data Type	Supported Suffixes	Access	Supported by InTouch Compact Edition
Counter coils	CCn	n=0000 to 1023	Boolean		Read/write	Yes
Step relays	Sn	n=000 to 2047	Boolean		Read /write	No
Timer value	TNn	n=0000 to 2047	Word	Word	Read/write	Yes
Counter value	CNn	n=0000 to 1023	Word	Word	Read/write	Yes
Data registers	Dn	n=0000 to 6143	Word	Word	Read/write	Yes
		n=0000 to 6142		DWord	Read/write	Yes
Data register bit access	Dn	n=0000.00 to 6143.15	Word	Word	Read/write	Yes
Data register string access HiLo byte ordering	DSHn	n = 0000.002 to 6142.31	String		Read/ write	No
		n=0000.128 to 6079.128				
Data register string access LoHi byte ordering	DSLn	n = 0000.002 to 6142.31	String		Read/ write	No
		n=0000.128 to 6079.128				
Special data registers	Dn	n=9000 to 9255	Word	Word	Read-only	Yes
		n=9000 to 9254		DWord		Yes
Data register bit access	Dn	n=9000.00 to 9255.15	Word	Word	Read-only	Yes

Device Type	Item Name	Range	Data Type	Supported Suffixes	Access	Supported by InTouch Compact Edition
Link registers	Wn	n=0000 to 0FFF (Hex)	Word	Word	Read /write	Yes
		n=0000.00 to 0FFE (Hex)		DWord		Yes
Link register bit access	Wn	n=0000.00 to 0FFF.15 (Hex)	Word	Word	Read /write	Yes
Link register string access HiLo byte ordering	WSHn	n=0000.002 to 0FFE.002	String		Read/ write	No
		n=0000.128 to 0FBF.128				
Link register string access LoHi byte ordering	WSLn	n=0000.002 to 1FFE.002	String		Read/ write	No
		n=0000.128 to 1FB.128				
File register	Rn	n=0000 to 8191	Word	Word	Read/write	Yes
		n=0000 to 8190		DWord		Yes

Device Type	Item Name	Range	Data Type	Supported Suffixes	Access	Supported by InTouch Compact Edition
File register bit access	Rn	n=0000.00 to 8191.15	Word	Word	Read/write	Yes
		n=0000.00 to 8190.31		DWord		Yes
File register string access HiLo byte ordering	RsHn	n=0000.002 to 8190.002	String		Read/write	No
		n=0000.128 to 8127.128				
File register string access LoHi byte ordering	RsLn	n=0000.002 to 8190.002	String		Read/write	No

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