

DS-32 RTU

DNP3.0 Protocol Master Interface Application Configuration Manual

Version: 3



Dynatrol Systems Inc.

#601, 4656 Westwinds Drive N.E.

Calgary, Alberta

Canada, T3J 3Z5

Phone: (403) 235-5611 Fax: (403) 235-5610

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1 Overview

The DNP3.0 Protocol Master Interface Application (MIA) is the DS-32 RTU application (M02) designed to interface with the DNP3.0 protocol master. This is a configuration manual that allows the user to successfully configure the application. There are 16 configurable tables in this application.

1. Asynchronous Communications Table (M02_COMM).
2. Communications and Virtual Terminal Unit X-Reference Table (M02_VXRF).
3. Virtual Terminal Unit Table (M02_VRU)
4. Digital Input Mapping Table (M02_DI)
5. Accumulator Input Mapping Table (M02_ACC)
6. Binary Coded Decimal Mapping Table (M02_BCD)
7. Analog Input Mapping Table (M02_AI)
8. Latch/Pulse Output Mapping Table (M02_LP)
9. Raise/Lower Output Mapping Table (M02_RL)
10. Trip/Close Output Mapping Table (M02_TC)
11. Double Point Select Output Mapping Table (M02_DPS)
12. Pattern Control Output Mapping Table (M02_PAT)
13. Analog Output Mapping Table (M02_AO)
14. Device Status Mapping Table (M02_DEV)
15. Control Output X-Reference Table (M02_DOXF)
16. Internal Indication Table (M02_IIN)

Figure 1-1 shows an example of the relationship among the M02_COMM, M02_VXRF, and M02_VRU the tables. The relationship among the M02_VRU table and other mapping tables are illustrated in figure 1-2.

Figure 1-1: Communication and VRU configuration tables illustration

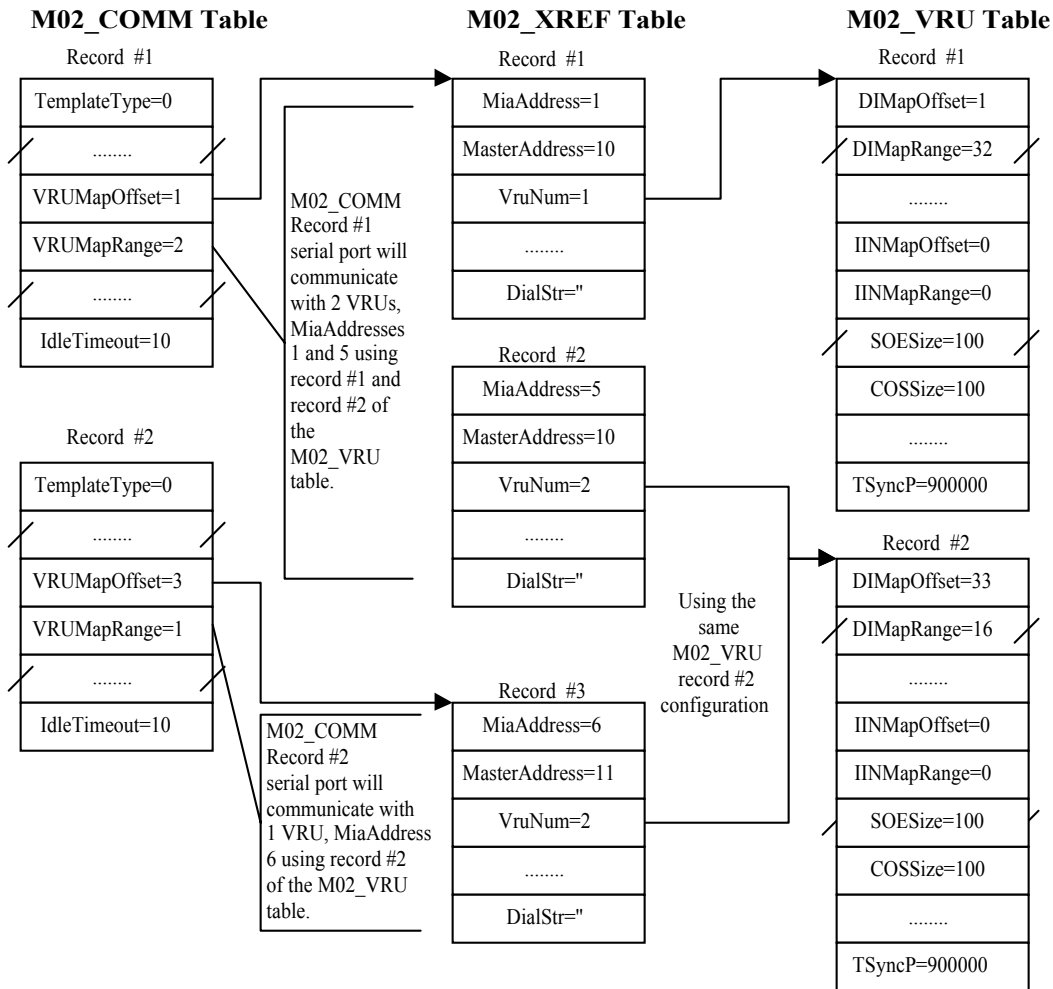
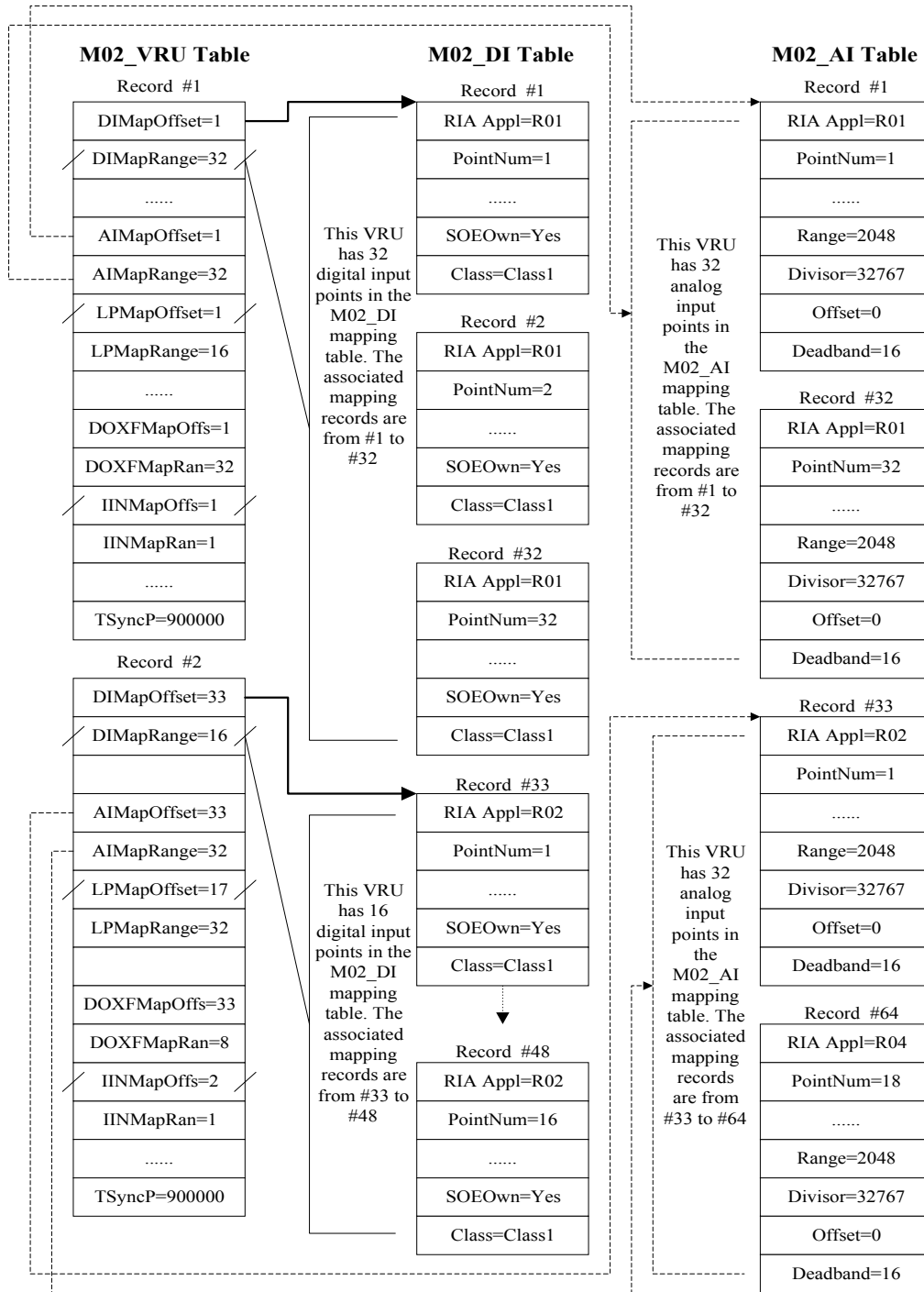


Figure 1-2: Communication and VRU configuration tables illustration



Note:

1. The configuration in the M02_VRU table for other mapping tables follows exactly the same layout as illustrated in the M02_VRU, M02_DI and M02_AI tables.
2. Other mapping tables include M02_BCD, M02_ACC, M02_LP, M02_RL, M02_TC, M02_DPS, M02_PAT, M02_AO, M02_DEV, and M02_DOXF

2 Asynchronous Communications Table (M02_COMM)

The Asynchronous Communication Table (M02_COMM) is a configurable table allowing the user to configure the serial communications parameters of up to five (5) communications ports in the DS-32 RTU Main board. All 5 communications ports may be configured to interface with the DNP3 master.

Table 2-1: Asynchronous Communication Table (M02_COMM)

Field Name	Description	Field Type	Min Value	Max. Value	Typical Value	Note
TemplateType	Communications Template Type. Set to Asynchronous.	Integer	0	2	0	Read only. Set to zero
CommTimeOut	Communications time out period in milliseconds. If the communications port is idle for the timeout period, the application initiates a control output based on the configured <i>CommFailCtrl</i> field.	Long	0	4.29e9	60000	Zero means disabled.
CommFailCtrl	Communications timeout control type.	Long Pointer	LP Point	LP Point	Spare	Usually spare
AckNackDelay	Time to wait for control Ack/Nack before reply. If it times out before receiving the control Ack/Nack, the application assumes that the control Ack has received.	Integer	0	65535	0	Read only Not used.
VRUMap Offset	Offset into M02_VXRF table.	Integer	0	65535	User Configure	Zero means disabled
VRUMap Range	Number of M02_VXRF records associated with this port.	Integer	0	65535	User Configure	Zero means disabled.
TxBufferSize	Transmitting buffer size.	Integer	32	1024	512	Read only
DataLink Layer	Data link layer name. This field is not implemented in this application.	Appl. Name	Spare	Spare	Spare	Read only. Spare.
DataLinkTo DataLink	Data link to data link name. This field is not implemented in this application.	Char. List	Spare	Spare	Spare	Read only. Spare
Application Layer	Application name. This field is not implemented in this application.	Appl. Name	Spare	Spare	Spare	Read only. Spare

Field Name	Description	Field Type	Min Value	Max. Value	Typical Value	Note
BaudRate	Communications baud rate: 300, 600, 1200, 1800, 2400, 4800, 9600, 14400, 19200, 28800, and 38400.	Char. List	300	38400	9600	Select from pick list.
ConstDcd	DCD flag for constant or switching	Char. List	N/A	N/A	Switching	Set to be switching.
DcdWait	Time to wait (ms) before turn on the receiver (after DCD signal detected)	Integer	0	65535	0	Zero means disabled.
RtsOn	Time to wait (ms) before transmit message (after turn on RTS signal)	Integer	0	65535	0	Zero means disabled.
RtsOff	Time to wait (ms) before turn off RTS signal (after completed transmitting)	Integer	0	65535	0	Zero means disabled.
CtsTime	Time to wait (ms) for the CTS signal. If no CTS signal detected within this time, abort transmit.	Integer	0	65535	0	Zero means disabled.
DataBits	Number of communications data bits	Char.	7	9	8	Should be 8 data bits
StartBits	Number of communications start bits	Char.	1	2	1	Should be 1 start bit.
StopBits	Number of communications stop bits	Char.	1	2	1	Should be 1 stop bit.
Parity	Communication parity	Char. List	N/A	N/A	None	None, Even, or Odd.
Break	Break character to be appended.	Char. List	N/A	N/A	Normal	Read only. Not used.
FullHalfDup	Half Duplex/Full Duplex Flag. Half-Duplex is used in this application	Char. List	N/A	N/A	Half	Read only.
XonXoff	XON/XOFF character enabled/disabled flag.	Char. List	N/A	N/A	Disable	Read only. Not used.
CharTimeOut	Character timeout (ms). This value changes according to baud rate (See table 2.2 for the cross-reference)	Integer	2	65535	9	Depends on baud rate
DcdReport	DCD signal events to be sent to this application.	Char. List	N/A	N/A	No reporting	Select from the pick list
CtsReport	CTS signal events to be sent to this application.	Char. List	N/A	N/A	No reporting	Select from the pick list
RTUSize	Number of RTU addresses to be checked.	Integer	0	65535	1	Read only. Not used.

Field Name	Description	Field Type	Min Value	Max. Value	Typical Value	Note
RxBufferSize	Receiving buffer size. It is set at 512 bytes.	Integer	32	1024	512	Read only
PulseDur	The pulse output duration associated with the communications timeout, <i>CommFailCtrl</i> field.	Integer	20	65535	200	Enter
CollAvoid	Enable or disable Collision avoidance for unsolicited messages	Char. List	Disable	Enable	Disable	For use of unsolicited message
RandDelay	Random delay (ms) to reduce the probability of 2 or more devices transmitting a frame at the same time	Char	0	255	0	This delay should be longer than the Master's
DCDDropTime	The maximum time (ms) to wait after DCD line drops	Integer	0	65535	0	Must be longer than Master's
Dialup	Enable or Disable dialup feature	Char. List	Disable	Enable	Disable	Pick list
RedialRetries	The number of attempts for redials	Char	0	255	2	Typical 2 retries
InitString	Dialup Modem initialization string	String	0 (length)	28 (length)	ATE0V0S0 =3S7=18	See modem manual
ConnTimeout	Dialup Modem connection timeout (ms)	Integer	0	65536	30	Must be greater than remote's carrier
RedialDelay	Maximum redial delay time in minutes	Integer	0	65535	8	Multiple of 1 minute
IdleTimeout	Maximum idle line time in seconds before terminate connection	Integer	0	65535	10	Small for master device

2.1 Character Time Out

The typical character timeout configured according to the baud rate is shown in table 2-2.

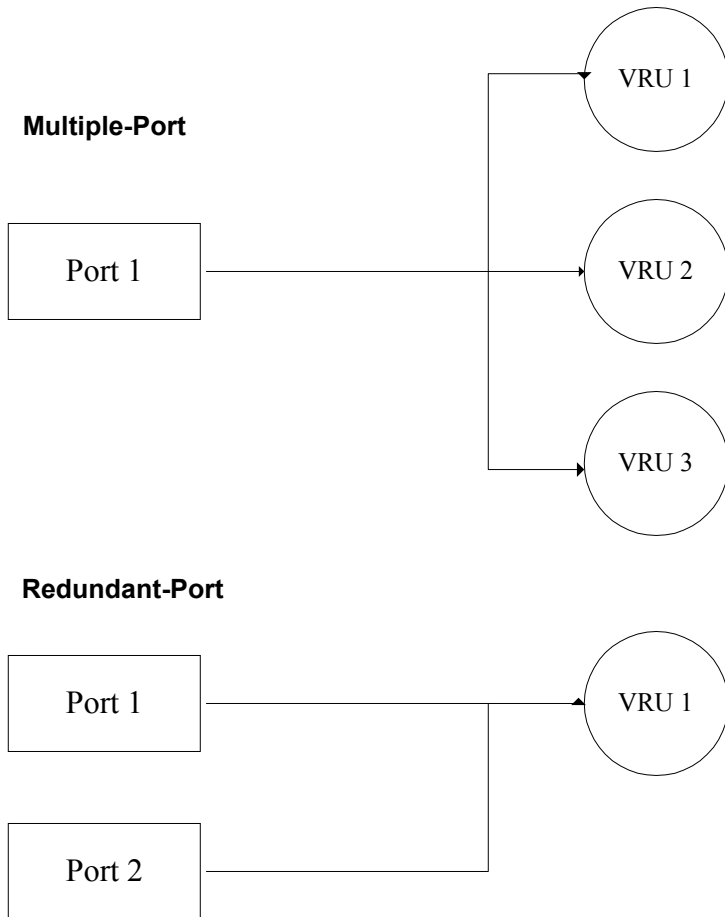
Table 2-2: Typical character timeout period based on baud rate

Communications Baud Rate	Minimum Character Time
9600	3
300	60
600	30
1200	15
1800	10
2400	7
4800	5
14400	3
19200	3
28800	3
34800	3

2.2 Multiple-Port and Redundant-Port

The multi-port and redundant-port configurations are illustrated in Figure 2-1. For Multiple-Port configuration, the master can communicate with multiple VRUs. For redundant-port configuration the application uses two (2) communication ports communicating to one VRU.

Figure 2-1: Multiple-Port and Redundant-Port Configuration Example



3 VRU X-REFERENCE TABLE (M02_VXRF)

The VRU X-Reference table (M02_VXRF) is a configurable table allowing the user to configure the RTU address and its associated VRU configuration.

Table 3-1: VRU X-Reference Table (M02_VXRF)

Field Name	Description	Type	Min	Max	Typical	Note
MiaAddress	The master interface application address associated with the communication port.	Integer	0	65535	N/A	Enter
MasterAddress	The Master address associated with the communication port.	Integer	0	65535	N/A	Enter
VruNumber	The VRU number.	Integer	1	255	N/A	Enter
DIConfirm	The datalink confirm, choose from Send/Confirm or Send/No reply.	Char. List	Send/ no reply	Send/ No reply	Send/ Confirm	Pick list
DIRetries	The number of datalink retries for Send/Confirm command	Char	0	255	2	Enter
DICfmTimeout	The datalink confirm timeout in milliseconds for Send/Confirm command. This is the maximum time the MIA will wait for the datalink confirm to be returned.	Long	10	3.6e6	100	Enter
InterDelay	The inter-frame delay for Send/No Reply command. The maximum time to wait before sending the next frame.	Long	10	3.6e6	200	Enter
DialStr	The modem dialup string.	String	0	20	N/A	Enter number

4 VIRTUAL REMOTE UNIT TABLE (M02_VRU)

The Virtual Remote Unit Table (M02_VRU) is a configurable table allowing the user to configure the RTU. The number of records configured should be equal to the number of RTUs that the master communicates with. Note that unsolicited response is not supported in this version.

Table 4-1: Virtual Remote Unit Table (M02_VRU)

Field Name	Description	Type	Min	Max	Typical	Note
DIMapOffset	The offset into the M02_DI mapping table.	Integer	0	_DI Records	User select	Pick list
DIMapRange	The number of DI points associated with this VRU. Together with the <i>DIMapOffset</i> field, the user may select a range of digital input points configured in the M02_DI mapping table	Integer	0	_DI Records	User select	Pick list
ACCMaPOffset	The offset into the M02_ACC mapping table.	Integer	0	_ACC Records	User select	Pick list
ACCMaPRange	The number of accumulator input points associated with this VRU. Along with the <i>ACCMaPOffset</i> field, the user may select a range of accumulator input points configured in the M02_ACC mapping table.	Integer	0	_ACC Records	User select	Pick list
BCDMaPOffset	The offset into the M02_BCD mapping table.	Integer	0	_BCD Records	User select	Pick list
BCDMaPRange	The number of BCD points associated with this VRU. Along with the <i>BCDMaPOffset</i> field, the user may select a range of BCD input points configured in the M02_BCD mapping table.	Integer	0	_BCD Records	User select	Pick list
AIMaPOffset	The offset into the M02_AI mapping table.	Integer	0	_AI Records	User select	Pick list
AIMaPRange	The number of analog input points associated with this VRU. Along with the <i>AIMaPOffset</i> field, the user may select a range of analog input points configured in the M02_AI mapping table	Integer	0	_AI Records	User select	Pick list
LPMaPOffset	The offset into the M02_LP mapping table.	Integer	0	_LP Records	User select	Pick list

Field Name	Description	Type	Min	Max	Typical	Note
LMapRange	The number of latch/pulse output points associated with this VRU. Along with the <i>LMapOffset</i> field, the user may select a range of latch/pulse output points configured in the M02_LP mapping table	Integer	0	_LP Records	User select	Pick list
RMapOffset	The offset into the M02_RL mapping table.	Integer	0	_RL Records	User select	Pick list
RMapRange	The number of raise/lower output points associated with this VRU. Along with the <i>RMapRange</i> field, the user may select a range of raise/lower points configured in the M02_RL mapping table	Integer	0	_RL Records	User select	Pick list
TMapOffset	The offset into the M02_TC mapping table.	Integer	0	_RL Records	User select	Pick list
TMapRange	The number of trip/close output points associated with this VRU. Along with the <i>TMapOffset</i> field, the user may select a range of trip/close output points configured in the M02_TC mapping table	Integer	0	_TC Records	User select	Pick list
DPSMapOffset	The offset into the M02_DPS (double point select) mapping table.	Integer	0	_DPS Records	User select	Pick list Not used
DPSMapRange	The number of DPS output points associated with this VRU.	Integer	0	_DPS Records	User select	Pick list Not used
PATMapOffset	The offset into the M02_PAT mapping table.	Integer	0	_PAT Records	User select	Pick list. Not used
PATMapRange	The number of pattern control points associated with this VRU.	Integer	0	_PAT Records	User select	Pick list. Not used
AOMapOffset	The offset into the M02_AO mapping table.	Integer	0	_AO Records	User select	Pick list
AOMapRange	The number of analog output points associated with this VRU. Along with the <i>AOMapOffset</i> field, the user may select a range of analog output points configured in the M02_AO mapping table	Integer	0	_AO Records	User select	Pick list
DEVMapOffset	The offset into the M02_DEV mapping table.	Integer	0	_DEV Records	User select	Pick list
DEVMapRange	The number of devices associated with this VRU.	Integer	0	_DEV Records	User select	Pick list
DOXFMapOffset	The offset into the M02_DOXF mapping table.	Integer	0	_DOXF Records	User select	Pick list

Field Name	Description	Type	Min	Max	Typical	Note
DOXFMapRange	The number of digital output points associated with this VRU. Along with the <i>DOXFMapOffset</i> field, the user may select a range of control output points configured in the M02_DOXF mapping table	Integer	0	_DOXF Records	User select	Pick list
IINMapOffset	The offset into the M02_IIN mapping table.	Integer	0	_IIN Records	User select	Pick list
IINMapRange	The number of internal indications associated with this VRU.	Integer	0	_IIN Records	User select	Pick list
SOESize	The SOE buffer size	Integer	0	1000	100	Enter
COSSize	The COS buffer size	Integer	0	1000	100	Enter
AIDeadband	Deadband type: Absolute or Integrated	Char List	N/A	N/A	Absolute	Pick list
UnsReport	Enable/Disable unsolicited report	List	N/A	N/A	Disable	Pick list
ApplCfmFlag	Enable/Disable Application confirm.	List	N/A	N/A	No Confirm	Pick List
Retries	Number of application retries	Char	0	255	2	Enter
CfmTimeout	Application confirm timeout in milliseconds	Long	1000	4.29e9	10000	Enter
SBOTimeout	Select-Before-Operate timeout in milliseconds	Long	200	4.29e9	5000	Enter
TsyncP	Period (milliseconds) in which the application set the “need-time” bit for the master to send the time synchronization command.	Long	0	4.29e9	900000	Enter

5 DIGITAL INPUT MAPPING TABLE (M02_DI)

The digital input mapping table (M02_DI) is a configurable table allowing the user to map the MIA digital input to any RIA digital input point allocated in the DS-32 RTU database. Note that all SOE and COS are returned when the master uses the class1, class2, or class3 polls.

Table 5-1: Digital Input Mapping Table (M02_DI)

Field Name	Description	Type	Min	Max	Typical	Note
RIAAplName	The name of the RIA to be mapped. Choose from a list of all RIAs configured in the DS-32 RTU database.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped. Select from a list of digital input points associated with the RIA configured.	Integer	1	DI records	N/A	Pick list
NorInv	Normal or Invert flag	List	Nor	Inv	Normal	Pick list
COSOwn	The flag to indicate whether the point to generate COS data	List	No	Yes	No	Pick list
SOEOwn	The flag to indicate whether the point to generate SOE data	List	No	Yes	No	Pick list
Class	The data class associated with the digital input point (Disabled, Class1, Class2, Class3)	List	N/A	N/A	Class1	Pick list

6 ACCUMULATOR MAPPING TABLE (M02_ACC)

The accumulator input mapping table (M02_ACC) is a configurable table allowing the user to map the MIA accumulator input to any RIA accumulator point allocated in the DS-32 RTU database.

Table 6-1: Accumulator Input Mapping Table (M02_ACC)

Field Name	Description	Type	Min	Max	Typical	Note
RIAApplName	The name of the RIA to be mapped. Select from a list of all RIAs configured in the DS-32 RTU database.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped.	Integer	1	ACC records	N/A	Pick list.
TransPulse	Transition or pulse accumulator input point	List	Pulse	Trans	Pulse	Pick list.
Size	16 bit or 32 bit value	List	16bit	32bit	32bit	Pick list
RepCount	Report count	Char	0	255	1	Enter
Clase	Data class: disabled, class1, class2, class3	List	N/A	N/A	Class1	Pick list
Frozen	Accumulator value to be stored in frozen buffer	List	N/A	N/A	Disabled	Pick list

7 BCD INPUT MAPPING TABLE (M02_BCD)

The binary coded decimal input mapping table (M02_BCD) is a configurable table allowing the user to map the MIA BCD input to any RIA BCD point allocated in the DS-32 RTU database. The BCD data type is currently not used in this version of the application

Table 7-1: Binary Coded Decimal Input Mapping Table (M02_BCD)

Field Name	Description	Type	Min	Max	Typical	Note
RIAApplName	The name of the RIA to be mapped.	List	1	#No. of RIAs	N/A	Not used
PointNum	The point number of the associated RIA to be mapped	Integer	1	BCD records	N/A	Not used

8 ANALOG INPUT MAPPING TABLE (M02_AI)

The analog input mapping table (M02_AI) is a configurable table allowing the user to map the MIA analog input to any RIA analog input point allocated in the DS-32 RTU database.

The analog scaling is used to linearly scale up or down the analog input.

$$Y_{ai} = aX / b + c \quad (1)$$

Where: Y_{ai} = Analog input scaling value
 X = Analog input value
 a = Range
 b = Divisor
 c = Offset

Table 8-1: Analog Input Mapping Table (M02_AI)

Field Name	Description	Type	Min	Max	Typical	Note
RIAApplName	The name of the RIA to be mapped. Select from a list of all RIAs configured in the DS-32 RTU database.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped.	Integer	1	AI Records	N/A	Pick list.
Size	16bit or 32bit analog input	List	16bit	32bit	16bit	Pick list
Class	Data class: Disabled, Class1, Class2, Class3	List	N/A	N/A	Class1	Pick list
Range	Analog input scaling range parameter. Refer to the scaling formula (1). Value range from -2147483648 to 2147483647.	Long	-long	+long	32767	For 16bit value
Divisor	Analog input scaling divisor parameter. Refer to the scaling formula (1). Value range from -2147483648 to 2147483647	Long	-long	+long	2048	For 16bit value
Offset	Analog input scaling offset parameter. Refer to the scaling formula (1). Value range from -2147483648 to 2147483647	Long	-long	+long	0	
Deadband	Analog input deadband value.	Integer	1	65535	20	

9 LATCH/PULSE MAPPING TABLE (M02_LP)

The latch/pulse output mapping table (M02_LP) is a configurable table allowing the user to map the MIA latch/pulse output to any RIA latch/pulse point allocated in the DS-32 RTU database.

Table 9-1: Latch/Pulse Mapping Table (M02_LP)

Field Name	Description	Type	Min	Max	Typical	Note
RIAApplName	The name of the RIA to be mapped. Select from a list of all RIAs configured in the DS-32 RTU database.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped	Integer	1	LP Records	N/A	Pick list.

10 RAISE/LOWER MAPPING TABLE (M02 RL)

The raise/lower output mapping table (M02_RL) is a configurable table allowing the user to map the MIA raise/lower output to any RIA raise/lower point allocated in the DS-32 RTU database.

Table 10-1: Raise/Lower Mapping Table (M02_RL)

Field Name	Description	Type	Min	Max	Typical	Note
RIAAplName	The name of the RIA to be mapped. Select from a list of all RIAs configured in the DS-32 RTU database.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped	Integer	1	RL records	N/A	Pick list.

11 TRIP/CLOSE MAPPING TABLE (M02_TC)

The trip/close output mapping table (M02_TC) is a configurable table allowing the user to map the MIA trip/close output to any RIA trip/close point allocated in the DS-32 RTU database.

Table 11-1: Trip/Close Mapping Table (M02_TC)

Field Name	Description	Type	Min	Max	Typical	Note
RIAAplName	The name of the RIA to be mapped. Select from a list of all RIAs configured in the DS-32 RTU database.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped	Integer	1	TC Records	N/A	Pick list.

12 DPS MAPPING TABLE (M02 DPS)

The double-point-select output mapping table (M02_DPS) is a configurable table allowing the user to map the MIA DPS output to any RIA DPS point allocated in the DS-32 RTU database.

Table 12-1: Double Point Select Mapping Table (M02_DPS)

Field Name	Description	Type	Min	Max	Typical	Note
RIAAplName	The name of the RIA to be mapped. Select from a list of all RIAs configured in the DS-32 RTU database.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped	Integer	1	DPS Records	N/A	Pick list.

13 PATTERN MAPPING TABLE (M02 PAT)

The pattern control mapping table (M02_PAT) is a configurable table allowing the user to map the MIA pattern output to any RIA pattern point allocated in the DS-32 RTU database. Notice that the pattern control is not used in this application.

Table 13-1: Pattern Control Mapping Table (M02_PAT)

Field Name	Description	Type	Min	Max	Typical	Note
RIAAplName	The name of the RIA to be mapped.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped	Integer	1	PAT records	N/A	Pick list.

14 ANALOG OUTPUT MAPPING TABLE (M02_AO)

The analog output mapping table (M02_AO) is a configurable table allowing the user to map the MIA analog output to any RIA analog output point allocated in the DS-32 RTU database.

The analog scaling is used to linearly scale up or down the analog output.

$$Y_{ao} = aX / b + c \quad (2)$$

Where: Y_{ao} = Scaling analog output value
 X = Analog output value received
 a = Range
 b = Divisor
 c = Offset

Table 14-1: Analog Output Mapping Table (M02_AO)

Field Name	Description	Type	Min	Max	Typical	Note
RIAApplName	The name of the RIA to be mapped. Select from a list of all RIAs configured in the DS-32 RTU database.	List	1	#No. of RIAs	N/A	Pick list
PointNum	The point number of the associated RIA to be mapped	Integer	1	AO Records	N/A	Pick list.
Range	Analog output scaling range parameter. Refer to the scaling formula (2). Value range from -2147483648 to 2147483647. If scaling is not required, configure Range to 1, Divisor to 1, and offset to 0.	Long	-long	+long	2048	For 12bit value
Divisor	Analog output scaling divisor parameter. Refer to the scaling formula (2). Value range from -2147483648 to 2147483647. If scaling is not required, configure Range to 1, Divisor to 1, and offset to 0.	Long	-long	+long	32767	For 16bit value
Offset	Analog output scaling offset parameter. Refer to the scaling formula (2). Value range from -2147483648 to 2147483647.	Long	-long	+long	0	

15 DEVICE MAPPING TABLE (M02_DEV)

The device status mapping table (M02_DEV) is a configurable table allowing the user to map the MIA device status to any RIA devices allocated in the DS-32 RTU database. The application currently does not use this feature.

Table 15-1: Device Mapping Table (M02_DEV)

Field Name	Description	Type	Min	Max	Typical	Note
RIAAplName	The name of the RIA to be mapped.	List	1	#No. of RIAs	N/A	Pick list, not used
PointNum	The point number of the associated RIA to be mapped	Integer	1	DEV records	N/A	Pick list, not used

16 DOXF MAPPING TABLE (M02 DOXF)

The digital output x-reference mapping table (M02_DOXF) is a configurable table allowing the user to select the control output type mapping in the M02_LP, M02_RL, M02_TC, or M02_DPS tables. When the application receives a control output command from the master, it will process the control output point based on this M02_DOXF table.

Table 16-1: Digital Output X-Reference Mapping Table (M02_DOXF)

Field Name	Description	Type	Min	Max	Typical	Note
DoTableType	The mapping digital output table type: LP, RL, TC, DPS, Spare. The user maps the control output point to the specified control output type.	List	Pick list	Pick List	N/A	Can be a spare
ControlType	<i>OnOff/Trip/Raise/Arm or Pulse/Close/Lower/Execute</i>	List	Pick list	Pick list	N/A	Pick list
PointNum	The control output point in the M02_LP, M02_RL, M02_TC or M02_DPS mapping table	Integer	1	LP,TC, RL,DPS records	N/A	Pick list.

17 INTERNAL INDICATION TABLE (M02_IIN)

The internal indication table (M02_IIN) is a configurable table allowing the user to select the internal indications to be returned to the master. The application currently does not use this feature.

Table 17-1: Device Mapping Table (M02_DEV)

Field Name	Description	Type	Min	Max	Typical	Note
BitPos	Bit position within the internal indication word	List	1	32	N/A	Pick list
Processing	Type of indication associated with the indication bit.	Integer	N/A	N/A	N/A	Pick list