
Media Pro 4000 Brief Date: March 27th 2001
File: ICM-SEM-4020_RS232_DF1_A-B_ML1500_BR032701.pdf
Module: ICM-4020 and SEM-4020
Title: Interfacing A-B MicroLogix PLC to the ICM or SEM via RS232 DF1

Media Pro 4000 ICM-4020 Port 2 Pinout (ICM Port 3 & SEM-4020 would be similar)

ICM/SEM Signal	Harting DIN 48F Pinout		RJ-11-6		Device Pinout		Device
			ICM/SEM Port	Jack Pinout			
CTS<	d	6	2	3	RTS		DE9M:
TXD>	d	8	2	4	RECV	3	Allen Bradley
RXD<	b	6	2	5	XMIT	2	MicroLogix
RTS>	b	8	2	2	CTS		1500
Ground	z	6	2	6	Ground	5	PLC
Power	z	8	2	1	Power		Ch 0

Connects to Allen-Bradley Micro Logix PC programming cable 1761-CBL-PM02

CTS<	d	6	2	3	RTS		DE9F:
TXD>	d	8	2	4	RECV	2	Allen Bradley
RXD<	b	6	2	5	XMIT	3	MicroLogix
RTS>	b	8	2	2	CTS		1500
Ground	z	6	2	6	Ground	5	PLC
Power	z	8	2	1	Power		Ch 1

Connects directly to Channel 1 port (2nd serial) of Allen-Bradley Micro Logix (1764-LRP)

Cat 5 unshielded twisted pair cable is recommended for distances over 50 feet (tested to 1000')

Specifications subject to change at any time.

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PC RSLinx RS232 DF1 Configuration

Configure Allen-Bradley DF1 Communications Device

Device Name: AB_DF1-1

Comm Port: COM1 Device: SLC-CH0/Micro/PaneView

Baud Rate: 19200 Station Number: 00
(Decimal)

Parity: None Error Checking: BCC

Stop Bits: 1 Protocol: Full Duplex

Auto-Configure

Use Modem Dialer Configure Dialer

Ok Cancel Delete Help

Note: You will need to Auto-Config initially and after reconfiguring the ML1500 Ch0

(Make these setting always match the current configuration in the ML1500)

Driver: **RS232 DF1 Devices**

Device: **SLC/ML/PV (Ch0)**

Baud Rate: **19,200** (must be 19.2K for Media Pro DF1 Master Protocol)

Parity: **None** (must be None for Media Pro DF1 Master Protocol)

Stop Bits: **1** (must be 1 for Media Pro DF1 Master Protocol)

Station #: **00** (This is the PC's station #)

Error Checking: **BCC** (must be BCC for Media Pro DF1 Master Protocol)

Protocol: **Full Duplex**

*note: Channel 1 configuration will be similar

Micro Logix RS232 Channel-0 DF1 Configuration (1764-24BWA)

Channel Configuration

General Chan. 0 - System

Driver: DF1 Full Duplex Source ID: 1 (decimal)

Baud: 19200

Parity: NONE

Protocol Control

Control Line: No Handshaking ACK Timeout (x20 ms): 50

Error Detection: BCC NAK Retries: 3

Embedded Responses: Auto Detect ENQ Retries: 3

Duplicate Packet Detect

OK Cancel Apply Help

Required fields & formatting will vary with software.

Driver: **DF1 Full Duplex**

Baud Rate: **19,200** (must be 19.2K for Media Pro DF1 Master Protocol)

Parity: **None** (must be None for Media Pro DF1 Master Protocol)

Source ID: **00** (This is the ML1500's station #)

Control Line: **No Handshaking** (must be No Handshaking for 3 wire RS232 interface)

Error Detection: **BCC** (must be BCC for Media Pro DF1 Master Protocol)

Embedded Responses: **Auto Detect**

Duplicate Packet Detection: **Enabled**

Timeout(s): **1000 ms** (1 second)

Retries: **3**

Delay: **0 ms**

EOT Suppression: **Disabled**

*note: Channel 1 configuration will be similar

Media Pro 4000 ICM-4020 Port configuration (SEM-4020 would be similar)

ICM Edit Options: Rack 00

ICM Cue Edit | **ICM Port Configuration** | ICM Animation Configuration | ICM Online

Port Parameters

	Port Type	Baudrate	Parity	Data Bits	Stop Bits	Alias
Port 0	NTSC External Sync	n/a	n/a	n/a	n/a	
Port 1	Maintenance Port	19200	None	8	1	
Port 2	DF1 Port (SLC500)	19200	None	8	1	ML1500-A
Port 3	DF1 Port (SLC500)	19200	None	8	1	ML1500-B
Port 4	Default	300	None	7	1	
Port 5	Default	300	None	7	1	

DF1 Configuration

	Data From MP (O)	Qty (W)	Data Type	To File	PLC Data	Data To MP (I)	Qty (W)	Data Type	From File	PLC Data
Port 2	2	2	B	10	0	2	2	B	11	0
Port 3	600	2	N	12	0	600	2	N	13	0
Port 4										
Port 5										

Module Comment

New ICM

OK Cancel Apply

Port 2 and/or 3 can be used for DF1, only one port is necessary per PLC

Port Type: **DF1 SLC 500** (not DF1 PLC5, not DF1 Slave)

Baud Rate (19.2k), Parity (None), Data Bits (8), Stop Bits (1), Error Correction (BCC): All Hard Coded

Data From Media Pro Output (channel base): **2** (choose the 1st output ch you want to send to the PLC)

quantity of contiguous sending Words: **2** (64 max, the PLC file must be the same size or larger)

Data Type: **B** (set to the desired file type in the PLC)

To File: **10** (set to the desired file number in the PLC)

PLC Data: **0** (offset into PLC file)

Data To Media Pro Input (channel base): **2** (choose the 1st input ch you want to receive from the PLC)

quantity of contiguous received Words: **2** (64 max, the PLC file must be the same size or larger)

Data Type: **B** (set to the desired file type in the PLC)

To File: **11** (set to the desired file number in the PLC)

PLC Data: **0** (offset into PLC file)

Note: Maximum Data transfer rate is approximately 10 times a second.

The quantity of words sent & received may slow this down.

Micro Logix B File Configuration

Data File Properties

General

File: 10
Type: B
Name: FROM MP4
Desc: FROM MP4000
Elements: 2 Last: B10:1

Attributes

Debug
 Skip When Deleting Unused Memory

Scope

Global
 Local To File: LAD 2 -

Protection

Constant Static None
 Memory Module / Download

OK Cancel Apply Help

Data File Properties

General

File: 11
Type: B
Name: TO MP4
Desc: TO MP4000
Elements: 2 Last: B11:1

Attributes

Debug
 Skip When Deleting Unused Memory

Scope

Global
 Local To File: LAD 2 -

Protection

Constant Static None
 Memory Module / Download

OK Cancel Apply Help

Note: The number of elements (Words) must be equal to or larger than the size requested by the MP.
{or the PLC will get errors, the data will be undependable, and the communications ragged}

Micro Logix N File Configuration

Data File Properties

General

File: 12
Type: N
Name: FROM MP4
Desc: FROM MP4000 #2
Elements: 2 Last: N12:1

Attributes

Debug
 Skip When Deleting Unused Memory

Scope

Global
 Local To File: LAD 2 -

Protection

Constant Static None
 Memory Module / Download

OK Cancel Apply Help

Data File Properties

General

File: 13
Type: N
Name: TO MP4
Desc: TO MP4000 #2
Elements: 2 Last: N13:1

Attributes

Debug
 Skip When Deleting Unused Memory

Scope

Global
 Local To File: LAD 2 -

Protection

Constant Static None
 Memory Module / Download

OK Cancel Apply Help

Note: The number of elements (Words) must be equal to or larger than the size requested by the MP.
{or the PLC will get errors, the data will be undependable, and the communications ragged}