

**Parijat Modbus master/slave instruction**

PARMODBUS	
Parijat Modbus master/slave instruction	ParModbus
PARMODBUS	Code_Error
Code_Error	Code_Action
Code_Action	Poll
Poll	Slave_List
Slave_List	Par_data
Par_data	Xsactions
Xsactions	Data_Xref
Data_Xref	Buffer
Buffer	Par_AcceptMsg
Par_AcceptMsg	Par_CreateSockMsg
Par_CreateSockMsg	Par_DelAllMsg
Par_DelAllMsg	Par_DelSockMsg
Par_DelSockMsg	Par_OpenConnMsg
Par_OpenConnMsg	Par_ReadMsg
Par_ReadMsg	Par_WriteMsg
Par_WriteMsg	Par_ReadBuf
Par_ReadBuf	Par_WriteBuf
Par_WriteBuf	Par_MessageData
Par_MessageData	

**N**ow a software solution is available for your Modbus needs in Rockwell Allen-Bradley Logix family processors. It is an Add-on instruction for v16, (other solutions are available for pre v16 systems). For hardware interface use PLC's channel 0 (for serial) or TCP/IP via EWEB modules to have as many TCP/IP devices or serial devices (via MOXA or similar product), (some limits apply based on system configurations). Commsettings depend on hardware used. Contact Parijat Controlware, Inc., (PCI), for details). Connect any Modbus Master or Slave device (s) to your Logix PLC, including flow computers, analyzers, VFDs, Power Monitors, Level gauges, Smart I/O, etc. All the public/native function codes are supported. 32-Bit integers/floats as single entity are supported with byte and word level swapping.

## COMPARING OUR SOLUTIONS WITH THE COMPETITION

<h3>PARIJAT</h3> <p>(AB-Logix Modbus Master/Slave)</p> <p><b>FEATURES AND BENEFITS</b></p>	<h3>PROSOFT</h3> <p>(MVI56 Modbus Master/Slave)</p> <p><b>FEATURES AND BENEFITS</b></p>
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### REQUIREMENTS:

- AB-Logix processor with v16 or later. Contact PCI for earlier versions.
- EWEB for TCP/IP support
- If using Chan0, you cannot use Chan0 for any other user mode activity. You can use it for non-user mode activities

### OTHER RELATED ITEMS:

- Custom PLC Add-on instructions building
- Other Non-AB communications drivers for serial or TCP available
- PLC upgrades, troubleshooting, applications
- PC Windows, Linux, Comm. Drivers
- Full system integration, training, control system, architecture design services

### CONTACT:

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## COMMON FEATURES

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| <ul style="list-style-type: none"> <li>• Software solution</li> <li>• No management PLC Logic required for most scenarios</li> <li>• Any # of serial ports supported via TCP/IP</li> <li>• Data storage limited by PLC memory. Over 758,000 registers. Configuration separate</li> <li>• Dynamically alter the poll, slave, configurations with your PLC running</li> <li>• One product for Serial/TCP</li> <li>• Mix &amp; match different slaves characteristics on the same drop</li> <li>• 0-based, 1-based addressing support</li> <li>• Status is always available</li> <li>• No need for 3rd party hardware like Prosoft, Molex, FieldServer Uses native Rockwell hardware</li> <li>• Extensive on-line debugging built-in</li> <li>• No impact on performance for debug</li> <li>• Modbus TCP, serial, embedded TCP supported</li> <li>• No special I/O area required</li> <li>• Scan time overhead typical .2 msec (varies PLC model), about 130K PLC memory</li> <li>• Diagnostics and Transactions - history &amp; live</li> <li>• Provides cont. comm. &amp; Time efficiency/ history</li> </ul> | <ul style="list-style-type: none"> <li>• Hardware solution</li> <li>• Management PLC Logic always required</li> <li>• Only two serial port supported</li> <li>• Maximum of 5000 registers. Some of these are required for configuration</li> <li>• Requires stopping and downloading a new configuration file</li> <li>• Different products for Serial and TCP</li> <li>• Fixed characteristics per port</li> <li>• Only 0-based supported</li> <li>• MSG instruction required for status</li> <li>• 3rd party hardware is required</li> <li>• Requires a PC with HyperTerminal</li> <li>• Impact on performance for debug.</li> <li>• Either Serial or TCP supported, Not both in one product</li> <li>• I/O data area required</li> <li>• Not available</li> <li>• Not available</li> <li>• Not available</li> </ul> |
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## PARIJAT

(PAROCK1 Master)

## PROSOFT

(MVI56Modbus Master)

**Vs.**

### OPTIONS

- SERIAL MASTER (Basic Option)
- TCP
- SLAVE
- REDUNDANCY
- MORE THAN 5000 REGISTERS
- CFC SUPPORT— (CUSTOM/ PRIVATE FUNCTION CODE)
- SCATTERED MODE
- PACKAGED WITH EWEB MODULE
- ANNUAL SUPPORT

### MASTER FEATURES

- Unlimited polls \*
- User Defined (Custom) Function Codes supported (up to 128)
- Setup polls as FC's or on action types
- Redundancy in comm. paths to slaves. (Mix serial & TCP)
- Unlimited slaves (via TCP/IP) \*
- Configure multiples slaves with different properties
- Priority poll action that can be dynamically set up/changed by user logic
- Scattered read/write of contiguous data from/to slave on per poll basis

- Maximum of 100 polls (Some of these are reserved)
- User Defined (Custom) Function Codes Not Supported
- Only some Function Codes supported
- Not available
- Limited to 247 \* 2 slaves
- Not available
- Not available
- Not available

### SLAVE FEATURES

- Up to 19 TCP Masters may connect & communicate with any one of the slaves
- Maximum of 10 connections

### Some Possible Configurations of Parijat AB-Modbus Interface

