

The Allen-Bradley SLC500 Device Module operates within the Universal Server architecture and provides comprehensive support for SLC500 devices using DF1 serial communications protocol. The Allen-Bradley Module permits the user to create standard devices to match SLC500 field device protocols for real-time communications.

Device Features

Each Allen-Bradley device includes features common to all devices within the Universal Server Architecture:

- Full support for OPC 1.0 and 2.05, SuiteLink, and DDE clients, in any combination.
- Each device may be configured for both a primary and secondary circuit for communications using any of the available circuits defined in the Universal Server. Each device may be configured to use the primary circuit only, secondary circuit only, or alternate between the two. Options also include automatic fail-over between the circuits.
- Available circuits may include direct serial, radios, dialup, CDPD, TCP/IP, UDP/IP, and terminal server connections.
- Each device includes a complete set of standard diagnostic items that may be viewed using the Universal Server remote diagnostics viewer or added to any OPC, SuiteLink, or DDE client.
- Devices may be configured to perform data acquisition automatically, only when clients are connected, or upon demand by client programs only.
- Command items allow complete control of devices from connected clients. Command items include setting device scan status, selecting active circuits, and requesting immediate demand scans.
- User-selectable log options provide comprehensive log messages for system monitoring and troubleshooting. The **Device Diagnostics** screen, below, performs interactive diagnostics and displays streaming device transactions and activity.

Device State:
Comm Status:

Parameter Name	Current	Today	Description
Last Update	03/09/04 12:23:03	03/09/04 12:23:03	Time of Last Diagnostic Update
Last Reset	03/09/04 12:23:03	03/09/04 12:23:03	Time of Last Diagnostic Reset
Total Transactions	0	0	Total Scan Attempts since reset
Good Scans	0	0	Total Successful Scans
% Throughput	0.0	0.0	Percent Throughput 0.0 - 100.0 %
Failed Scans	0	0	Total Failed Scans for this device
Good Outputs	0	0	Total Command Output Transactions
Failed Outputs	0	0	Total Failed Command Outputs
Retries	0	0	Total Number of Transaction Retries
Circuit Failures	0	0	Total Communications Failures
No Connections	0	0	Failed Connection Attempts
Lost Connections	0	0	Lost Connections
Device Timeouts	0	0	Device Timeouts (No Reply)
Invalid Replies	0	0	Invalid Device Responses (Bad CRC's)
Error Responses	0	0	Device Replied with Error Response
Requested Scan Interval	0	0	Current Requested Scan Interval (msec)
Last Scan Interval	0	0	Most Recent Scan Interval (msec)
Max Scan Interval	0	0	Maximum Scan Interval (msec)
Avg Scan Interval	0	0	Average Scan Interval (msec)
Scan Duration	0	0	Last Scan Duration (msec)
Item Count	0	0	Total Client Device Items
Active Items	0	0	Total Active Client Items

Status:
Update Interval: secs

Last Error:
Last Good Poll:

In addition, the Allen-Bradley module provides:

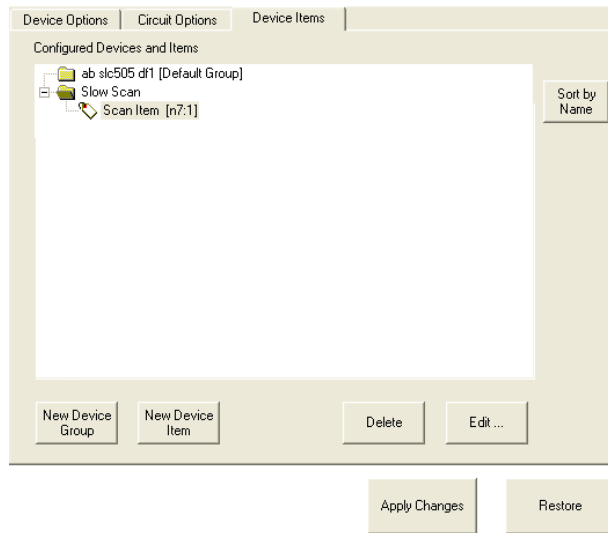
- Communication to SLC500 devices configured for DF1 half-duplex or full-duplex protocol.
- Communication to SLC500 devices via:
 - Serial Connection (Direct, Modem, Radio, etc.)
 - KF2 or KE DH+ modules
 - KF3 or KE DH485 modules

Real-Time Features

The Allen-Bradley Module supports several standard SLC500 Device types, such as SLC 5/01, 5/02, 5/03, 5/04, and 5/05. Standard features of the Allen-Bradley SLC500 Module include:

- Interactive dialogs to create tag names for SLC500 address items for client access. All tag names are available in any OPC Browser.
- Client programs may access SLC500 items by direct SLC500 address or with user-defined tag names.
- Tag items may be designated as autoscan to force data acquisition of the item upon startup with no client connected. In addition, each tag item has configurable access rights and scan options.
- Real-time acquisition may be set to occur at any time period, at a specific time of day, or upon client demand only.
- Optimized device scanning to minimize the number of messages required for data acquisition for current active items.
- Automatic retries of failed device IO transactions with user-configurable retries and response delays.
- Prioritized processing of output commands and demand read transactions.
- File types supported:
 - Output
 - Binary
 - Control
 - ASCII
 - Input
 - Timer
 - Integer
 - String
 - Status
 - Counter
 - Float

The **Device Items** screen for the Allen-Bradley Module is displayed below.



Specifications

<p><u>Hardware Requirements</u></p> <p>Minimum:</p> <ul style="list-style-type: none"> • PIII 900 MHz Processor • 100 MB Hard Disk • 64 MB RAM 	<p>Recommended:</p> <ul style="list-style-type: none"> • P4 1.4 GHz Processor • 500 MB Hard Disk • 128 MB RAM 	<p><u>Software Requirements</u></p> <ul style="list-style-type: none"> • Windows 2000 SP4 or greater • Windows XP SP1 or greater
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