Allen-Bradley PLC Migrations

Upgrade your A-B PLC's – Easily and Inexpensively

Continuing to use obsolete or older Allen-Bradley PLC CPU's is costly - not only due to spare parts costs, but also in reduced productivity because of the proprietary networks, memory limits, and programming software used with these systems.

If you have a control system with a PLC-5, SLC-500, PLC-2/PLC or PLC-3 CPU, you can easily retrofit the system to a SoftPLC based system - with minimal re-engineering, re-training or disruption to your business.

> SoftPLC is the only company that provides a smooth, inexpensive upgrade path for users of Allen-Bradley PLC equipment.
>
> **Our upgrades are <u>less disruptive</u> and <u>cost less</u> than Rockwell Automation's options.**

SoftPLC Corporation has automated import/conversion utilities that mean you can continue to use your existing logic and documentation virtually unchanged. The converted logic is familiar to any PLC-5/SLC-500 user.

In some cases, based on the condition and configuration of the A-B equipment, it may be more cost effective to convert the logic and documentation but replace the A-B hardware. A SoftPLC sales engineer can discuss your existing system and offer options for upgrade.

In most cases, the original I/O racks and modules, field wiring, and HMI's can be left intact or require only minimal changes. Then, over time, you can retrofit these other parts of the system as it makes sense to do so. SoftPLC's open architecture gives you a *lot* of options.

SoftPLC has engineers on staff that have worked for A-B, and others that have years of experience with A-B PLC products. We've migrated hundreds of A-B PLC's to SoftPLC based systems, giving customers feature-rich control systems at low cost, with minimal downtime or re-engineering.

For more information, including a video, visit
https://softplc.com/#/_a_b_plc_upgrades

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SoftPLC
CORPORATION

Overview

Most A-B PLC migrations make use of a Smart or NeoPAC model SoftPLC® controller, which are open architecture Programmable Automation Controllers (PAC's) that provide scalable solutions for a wide range of applications in any industry. These controllers are priced to meet the needs of small I/O machine control applications, yet have enough capacity and capability for large process control applications.

- Deterministic, high speed program execution
- "Unlimited" user logic and data table memory
- Ladder logic and data table addressing similar to Allen-Bradley PLC-5/SLC-500/MicroLogix
- Fully documented applications - all documentation resides in the controller
- Supports user functions written in C++
- Specialized functions included, such as data logging, email/text messaging
- Compatible with all HMI/SCADA products
- Embedded web server option
- Programmed/maintained with TOPDOC® NexGen via Ethernet

Communications

Every SoftPLC CPU has a rich set of configurable ports for communication. For example, the Smart SoftPLC includes:

- (5) GB copper Ethernet ports with (2) interfaces for routing capability
- (1) RS-485 serial port and (2) USB host ports
- (3) factory customizable ports (RS-485, A-B RIO, A-B DH+)

Industry standard protocols like ModbusTCP, Ethernet/IP, A-B Ethernet, DF1, Modbus RTU, and others are all included.

I/O & System Configurations

A SoftPLC can interface to other vendor I/O systems through the included ethernet and serial ports (eg: Modbus, ModbusTCP, Ethernet/IP) and via internal interfaces for A-B RIO, DH+ & more. Additionally, the base Smart SoftPLC can be combined with different "daughter cards" to interface to our own Tealware™ I/O (as shown below) for ultimate flexibility and expandability, tailoring the system to the application requirements, thus lowering cost and complexity.

Smart SoftPLC Specifications	
Processor	64 bit, quad-core ARM processor
User Memory	512MB RAM, 8GB on-board eMMC flash
Removable Memory	MicroSD (optional, no card included)
Operating Temperature	0 to 60°C (storage -20 to 85°C) Extended Temperation option: -20 to 70°C
Humidity	0-95%, non-condensing
Input Voltage Range	6~72 VDC, terminal block connector
Power Requirements	2-5W based on options selected
Communication Ports	(1) 4-port GB Ethernet switch (w/ 2 unique host interfaces/MAC ID's), plus (1) GB Ethernet port (1) RS-485 port, 2-wire, non-isolated (2) USB 2.0 host ports (1) Micro-SD serial console port (for troubleshooting – requires optional SPO-UCONCBL cable)
	(3) Option Ports, any mix of choices below (must be factory installed): • RS-485, 2-wire, isolated • A-B RIO Master or Slave • A-B Data Hwy Plus • Others - contact SoftPLC Corp.
Wireless — WiFi	802.11 b/g/h (requires optional SPO-WIFIMOD)
Wireless — Cellular	Option (SM4-MDM1 internal modem)
Dimensions (HxWxD)	5.75 x 6 x 1.5 in without modules (146.1 x 152.4 x 38.1 mm) 5.75 x 6 x 5.625 in. with Tealware modules (146.1 x 152.4 x 142.88 mm)
Packaging	Fanless/Diskless system, Metal enclosure DIN-rail Mount, optional Panel Mount Bracket (SM-VBKT)
Optional I/O Interfaces (only one/system)	Backplane3 - 3 Tealware™ modules LocalPorts - 4 connectors, each supports up to 3 Tealware racks
Remote I/O	Serial and Ethernet connections
Real Time Update	Via internet or local LAN NTP server
Security	Embedded Gatecraft™ Firewall/VPN SSH server for encrypted data transfer
Status LED's	(2) System, (10) Ethernet, (4) Communication port, (1) cell modem

For NeoPAC Specifications, see https://softplc.com/#/_neopac_controllers

Smart SoftPLC w/ no local I/O interface + optional bracket
(most popular A-B Migration configuration)

Smart SoftPLC w/ Backplane3 Interface
(without and with modules installed)

Smart SoftPLC w/ LocalPorts Interface
(connects to up to 12 racks)

NeoPAC SoftPLC
(1 Ethernet, 2 USB, 2 option ports)