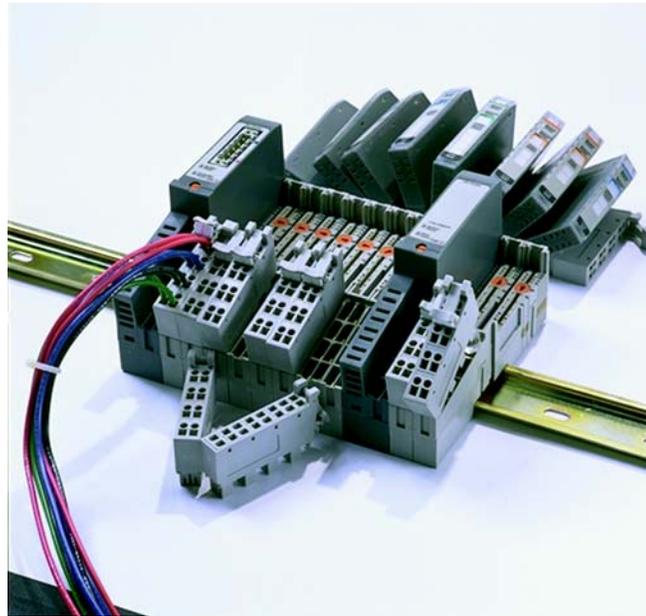# DeviceNet™ POINT I/O™ Configured in Seconds

POINT I/O's new DeviceNet auto-start feature combined with upgrades to RSNetWorx™ gets you up and running fast.

POINT I/O is one of the smallest distributed I/O systems on the market and as such, requires a minimum of DIN-rail and enclosure space. Plus, users are able to add I/O in increments of one, two or four points—an ideal solution for engineers wanting just enough I/O to match an application's requirements.

For all its compactness and convenience, however, installing POINT I/O still takes time. Configuration can take longer than desired due to a unique strength of DeviceNet: users can configure each parameter of every device. Configuring each parameter lets users optimize productivity and gather valuable diagnostics about individual devices and the end-process. But even with default settings, users still have to go through the process of mapping each device's I/O data into the DeviceNet adapter's scanner memory before proceeding.

Users now have the option of either the DeviceNet auto-start feature, or combining auto-start and custom configuration for maximum flexibility. Here's how it works.

Without the DeviceNet auto-start feature, users have to pull up an EDS (electronic data sheet) file via RSNetWorx for each I/O module, and select the correct values for every parameter. After this is completed, the information is loaded into the scanner to create a scan list.

Users not familiar with the Auto Device Replacement (ADR) functionality would sometimes misinterpret the purpose of the "Load Device Config" button. This button loads the EDS configuration parameter values from the RSNetWorx project—*not* from the devices themselves—into the ADR memory area that is later downloaded to the adapter. Consequently, the user would have to ensure that the correct EDS parameter data had either been manually entered or uploaded from the devices.

In response, Rockwell Automation added auto-start mode to the POINT I/O DeviceNet adapter (1734-ADN series B) and new functionality to RSNetWorx for DeviceNet (in version 3.21) for easier startup and operation. With this new feature, configuration can be completed in seconds.

When you select the auto-start mode in the EDS file of the 1734-ADN series B, the adapter will automatically:

- Set all modules on the backplane to Auto Baud.
- Read module IDs on the backplane.
- Set module addresses sequentially.
- Generate a scan list for the backplane.
- Map I/O data, based on either byte, word or double-word boundaries.

When this sequence of events is completed, the POINT I/O modules on the backplane are fully configured, addressed and mapped and the adapter is ready to accept connections from a scanner.

Although auto-start mode allows an adapter to start up and operate with the default configuration, the user can also customize the configuration after operation has begun. The key benefit of this is that the networked system will be proven operational much more quickly and before other nodes are added to the network.

RSNetWorx Upgrades

The new auto-start features require version 3.21 of RSNetWorx for DeviceNet, which is currently available, also delivers additional functions:

- Detailed text added to the POINT I/O module data tables. This replaces the current view of "produce/consume" size only, is visible even at the single-bit level, and can be viewed from the module, adapter or scanner.

- Color-coded highlights for location of data in the mapping table. Simply click on any data field or bit and the location in the mapping table is highlighted in color.

- A new single-button option for bit-packing data called "Pack Align," as well as two new mapping functions named "Pack Align" and "Do not map unused data." These save data table space by mapping bit-packing 2- and 4-channel POINT I/O modules together within a single word.

- Automatic transfer of connection sizes from the adapter to the scanner, which means there's no need to manually enter the connection sizes in the scanner.

With all these new features, I/O mapping addresses are quickly accessed and critical system I/O information is quickly and conveniently available, resulting in considerable time savings.

On the web, see:
- EDS files: www.ab.com/networks/eds/index.html
- POINT I/O: www.ab.com/io
- RSNetWorx: www.software.rockwell.com/rsnetworx

AB Spares

Rockwell Automation Support

Rockwell Automation tests all of our products to ensure that they are fully operational when shipped from the manufacturing facility.

If you are experiencing installation or startup problems, please review the troubleshooting information contained in this publication first. If you need technical assistance to get your module up and running, please contact Customer Support (see the table below); our trained technical specialists are available to help.

If the product is not functioning and needs to be returned, contact your distributor. You must provide a Customer Support case number to your distributor in order to complete the return process.

Phone	United States/Canada	1.440.646.5800
	Outside United States/Canada	You can access the phone number for your country via the Internet: 1. Go to http://support.rockwellautomation.com/ 2. Under *Contacting Customer Support* and Other Countries, click on *Click here*
Internet	Worldwide	Go to http://support.rockwellautomation.com/

www.rockwellautomation.com

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