

## Technical Note

# Sample Application showing how to manually control BTRs and BTWs with the AN-X2-AB-DHRIO (RIO Scanner Firmware)

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## Document Information

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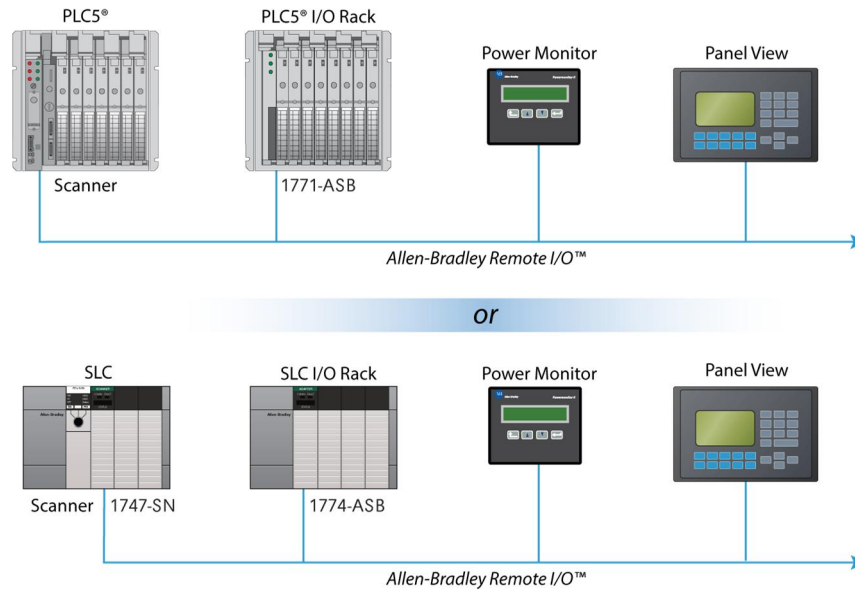
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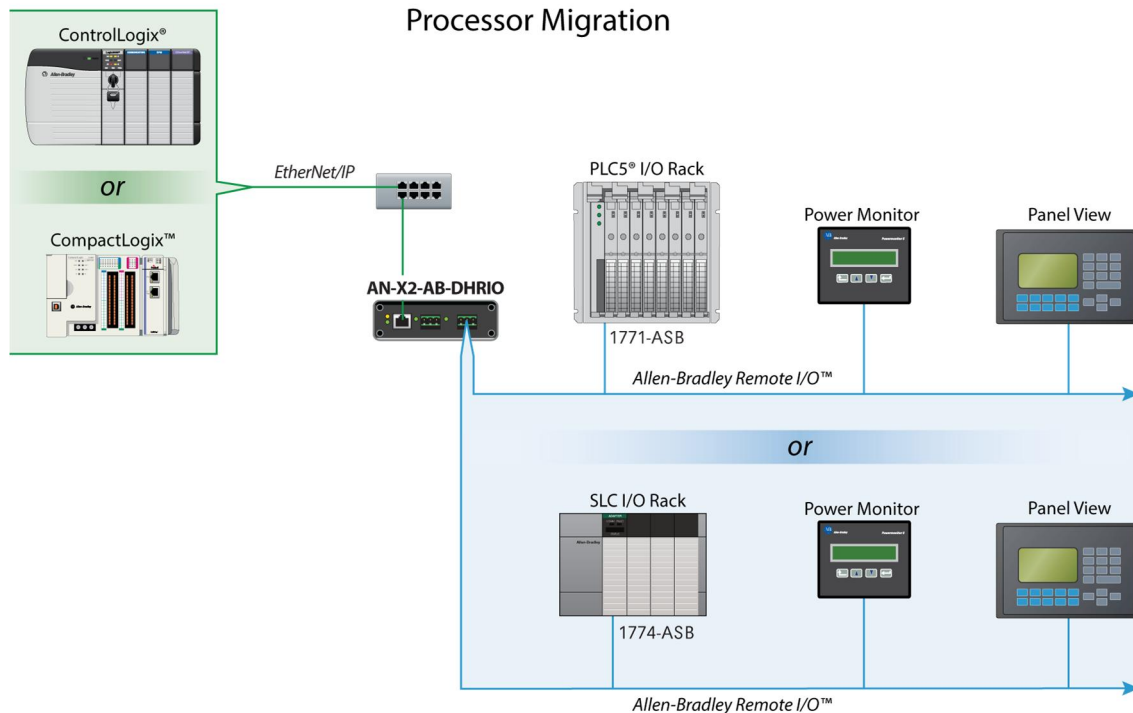
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The AN-X2-AB-DHRIO gateway when configured with the Remote I/O Scanner Firmware provides an excellent solution for migrating legacy PLC5 or SLC applications to CompactLogix or ControlLogix systems to re-use existing Remote I/O devices.

## Existing System



## Processor Migration



When an AN-X2 gateway is configured as a Remote I/O Scanner BTRs and BTWs can be configured to execute either automatically, semi-automatically, or manually.

When an application has a single BTR and/or BTW to a unique Rack, Group, and Slot it is recommended to use Automatic mode. When the BTR and BTW is configured in Automatic mode the gateway handles sending out the BTR and BTW at a configurable interval.

If the application has multiple BTRs and/or BTWs to the same Rack, Group, and Slot number than it will need to be run in an overloaded configuration. In this type of an application the BTRs and BTWs must be configured in Manual Mode as a shared buffer is used in ladder logic. When an application has overloaded BTRs and BTWs the length is used to uniquely identify which BTR or BTW is being executed on both the Remote I/O Scanner and the Adapter. Overloaded BTRs and BTWs can occur in applications with old PanelView™ displays or PowerMonitor™ equipment from Allen-Bradley® or Rockwell Automation®.

This Technical Note contains a sample application depicting how to trigger different BTRs and BTWs configured in Manual Mode. A simple state machine has been created that ensures only a single BTR or BTW is occurring at a given time. This state machine has an initialization segment, and a normal operating segment that is controlled by different values in the RIO\_StateEngine tag.

Please note that when an application is configured with BTRs and BTWs in manual mode the first 2 words of the Discrete Input and Output data will be used for the BTR and BTW control and status information.

*This is a sample application. If a BTR or BTW failure occurs it is retried until it succeeds. This may or may not be the desired behavior in other applications.*

If after reviewing this TechNote and associated ladder logic you still have any questions please feel free to contact your regional Technical Support Center for further assistance.

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