ABB

ABB Ability™ System 800xA Select I/O
The future of project execution

ABB Ability™ System 800xA Select I/O with xStream Engineering

Select I/O

Select I/O is an Ethernet based single channel I/O solution for ABB Ability™ System 800xA that offers full redundancy down to the Signal Conditioning Module. Each signal coming from the field is conditioned individually with the Signal Conditioning Module (SCM) for both process and safety applications.

A robust field friendly design provides features such as:
- Individual Signal Conditioning Modules (SCMs) available for process, safety (SIL3), and intrinsically safe applications. Visit www.800xAhardwareselector.com for the latest list of available SCMs.
- Field disconnect mode (connected to system, but isolated from the field)
- Electronic current limitation and galvanically isolated (per channel)
- Line monitoring for all I/O types
- -40 to + 70 deg C temp. range
- Up to 192 SCM's per I/O cluster
- Support for HART pass-through and secondary variable access
- Single channel and multi-channel (S800) I/O in the same system
- Support for digital marshalling

xStream Engineering

xStream Engineering addresses the customer need to reduce project time by "de-coupling" automation tasks from each other. Application engineering can now be done in parallel with the installation and configuration of the hardware using the newly released "signals" concept.

The Industrial Ethernet I/O Network enables all of the 800xA controllers to have access to all of the Select I/O and S800 on Ethernet clusters. Therefore, the I/O can be marshalled digitally, instead of physically, using "signals" to connect the applications in the controllers to the physical I/O in the field.

With this solution, it is now possible to decouple tasks and allow two independent teams to work in parallel and then bind together with precision and efficiency later. This reduces the impact of changes during the project and effectively reduces the commissioning time.

The Situation

Today's traditional controller centric I/O solutions promote an inflexible serial project execution model where projects tasks are dependent on one another and resistant to change resulting in change orders and delays.

The Problem

Large capital project cost overruns and late delivery resulting in automation being on the critical path.
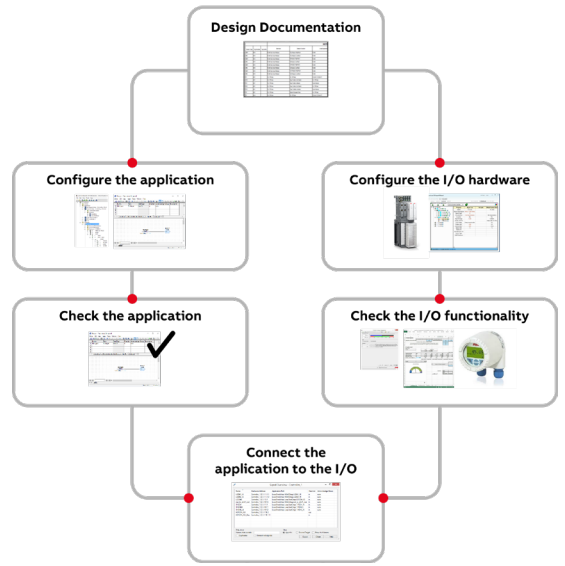
The Solution

ABB Ability™ System 800xA Flexible I/O Solutions featuring Select I/O and xStream Engineering.
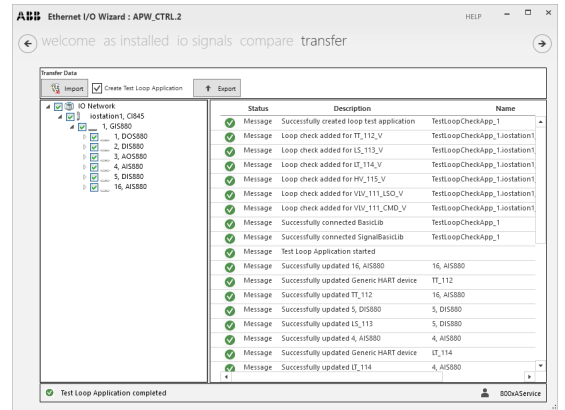
Benefits

- Reduces testing effort and required footprint
- Minimizes the impact of late changes
- Decouples project tasks so they can be done in parallel

xStream Engineering

Ethernet I/O Wizard

Advantages

Select I/O hardware

- Hardware selectable with Signal Conditioning Modules (SCM) for different signal types

- SCM's with field disconnect mode adding protection during installation and maintenance

- Robust design for field installations (current limited, isolation, line monitoring)

- Select I/O (single channel) and S800 I/O (multi-channel) on the same Ethernet I/O Network

- Flexible I/O network architectures decoupled from controllers

xStream Engineering

- Automatic scanning of Select I/O or S800 I/O connected to Ethernet FCI's (HART devices)

- Automatic configuration of I/O hardware structure in ABB Ability™ System 800xA's Control Builder

- Automatic configuration of the test application for early loop functionality testing

- Automatic digital marshalling of I/O to the control application (using signal names)

- Ability to use I/O list within the engineering environment.

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Contact us:

solutions.abb/800xA
solutions.abb/controlsystems
www.800xahardwareselector.com

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