Integrated Operations

IT Topology and Infrastructure

Interface Solution

Efficient information management requires easy access to all your data. Interface Solution communicates with all your subsystems providing full overview of your data, both real time and historical, all according to established industry standards. The solution can be used either in combination with ABB's 800xA control system, or stand-alone linking any other systems. This product is a part of the Integrated Operations portfolio.

Efficient information management allows businesses to make better decisions faster. Unfortunately, not all systems are easy to integrate. This may result in valuable information having limited availability.

The Interface Solution helps you transfer and collect all your data, disregarding which is the originating or target subsystem. The Interface Solution integrates fully with 800xA, but can also function stand-alone or be integrated with other control systems.

Supported interface protocols are:
- OPC DA / AE
- SQL
- Modbus
- Proprietary, e.g. for FMC Metering, Advant IMS, etc.

Interface Solution is built on standards such as OPC defined by OPC Foundation, where ABB has contributed by writing the foundation charter.

OPC Connect Server

Create and access "soft tags" using OPC Connect Server. These "soft tags" emulate standard object types and can be accessed on your control system as ordinary controller tags, e.g. for operator displays and logging purposes.

The OPC Connect Server implements OPC DA and OPC AE functionality. When integrated with 800xA, ABB Reuse-compliant faceplates are available. The OPC Connect Server can also function stand-alone, connecting to any OPC client.

Interface Handler DA (IHDA)

Interface Handler DA provides an efficient way to exchange real-time data between applications on different computers, even if separated by network firewalls. Receive or send tag values, calculate values, or send commands or alarm acknowledgements to a 3rd party subsystem. Built on the latest Microsoft .NET technology it implements standards defined by the OPC foundation.
Some important features include:
- Traversing firewalls. IHDA needs only one open port in the firewall
- Can utilize intermediate servers to connect to a target server without direct connection to its network
- Fast and cost efficient. Test results show up to 39000 tag values transferred per second
- High security. A 3rd party system can only access tags configured in IHDA
- Encrypted communication (optional)
- Can be reconfigured while running, no restart needed
- Extensive quality monitoring in every link, e.g. IHDA will mark data with bad quality if there are problems with the network connection
- The client and server can run on the same computer and multiple network cards are supported
- Supports redundancy with two or more parallel communication links

Interface Handler AE (IHAE)

Interface Handler AE provides an efficient way to exchange real-time alarm and event messages between applications on different computers, even if they are separated by network firewalls. Configure IHAE with tags you would like monitored, alarm limits and other conditions that should trigger an alarm or event. Connected clients will receive the alarms and events, according to a configured filter for the individual client. Built on the latest Microsoft .NET technology it implements standards defined by the OPC foundation.

Some important features include:
- One IHAE server can have several clients which each connect to a subsystem
- Traversing firewalls. IHAE needs only one open port in the firewall
- Encrypted communication (optional)
- Can be reconfigured while running, no restart needed
- The client and server can run on same computer and multiple network cards are supported

Technology

Built as a stand-alone toolset, the Interface Solution enhances the functionality provided by the 800xA distributed control system. It is built on a modern service oriented architecture, allowing maximal flexibility when it comes to deployment and integration. This flexibility makes installation, configuration and maintenance simple, both for green field and brown field installations. The new installer makes configuration and distribution easier than ever.