ABB Ability™ System 800xA
Control Builder A
Advant® Master system engineering
Tools that make short work of configuring and maintaining Advant Master

Control Builder A provides a full set of tools for Advant Master application engineering. From initial configuring, to in-house testing, on-site commissioning and maintenance of the working system.

The software supports not only the current range of process controllers but also previous generations. The additional support of ABB’s variable speed motor drives makes such drives integral parts of the distributed control system.

Interoperable with ABB Ability™ System 800xA
Control Builder A can interact with System 800xA, making it possible to create, copy, delete, open and print control programs and other system configuration data simply by selecting the corresponding plant item (Aspect Object) in the Plant Explorer. This means that you can fetch ready-made program modules from the project structure and insert them into your overall scheme by simple drag-and-drop.

Stand alone or networked
Control Builder A can be used independently or as part of a network with System 800xA as the hub. A networked solution is perfect for larger application projects involving several persons by facilitating progress on a broad front with a minimum of interlocks between the different tasks. Work already done forms a natural basis for all subsequent tasks, regardless of who are about to undertake them.

Graphic application software development
The Function Chart Builder of Control Builder A enables you to develop AMPL control programs graphically, using a tree editor for hierarchical overview and navigation and a function chart editor for programming and program editing. Control programming in AMPL is essentially a matter of inserting program elements – or type circuits – onto diagram sheets and connecting these elements to other elements and to process inputs and outputs. As you do this, easy-to-read circuit diagrams of your control scheme take shape before your eyes. Not only is Control Builder A a dream to learn and use, it is also loaded with productivity enhancing features such as data import/export, smart copy-and-paste between windows and applications, intelligent search and replace, and single-cycle editing of multiple records.
Standardized, high-quality solutions at a low cost

To save engineering time and facilitate off-line control program development ahead of time, Control Builder A supports both Type Circuits and Circuits. Type Circuits are predeveloped standard solutions to recurring control needs, that is, a way for users to create proprietary, higher level program elements that can be used over and over again, whenever the needs reappear, by just changing user-definable parameters. By solving each control problem only once and testing the solution thoroughly, Type Circuits save engineering time and improve engineering quality. They lend structure to the solution by encapsulating the details, minimizing the number of intercircuit connections and making the programs easier to read and understand.

Application engineering ahead of time

Circuits are host-station-independent program modules making it possible to develop control solutions ahead of time, before the host hardware has been fully specified or built. Consequently, Circuits decouple hardware engineering from software engineering, allowing each discipline to progress independently. Type Circuits and Circuits are developed and maintained in the same way as any other AMPL programs. When finished, you store the (Type) Circuit, appearing as another AMPL element, in the appropriate library for later use. To use a (Type) Circuit, recall it from the library, insert it into your scheme and connect it to the surrounding world, just as you would any standard AMPL element.

A packaged solution for Engineering

Control Builder A consists of applications and utilities for project administration, software integration, control programming, commissioning, fault tracing and program editing. Install this software on a standard PC and you get an engineering station that supports all Advant controllers. Then, connect the PC through a PU410K01 RTA Communication Unit, anywhere on the plant or office network and you get on-line access to all controllers of the system for debugging and editing.