—

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.

—
01 Connecting program elements to process I/O is as easy as clicking on an element terminal and then on the desired I/O instance.
—
02 Control Builder A can fetch ready-made program modules in the project structure and insert them into the overall scheme by simple drag-and- drop.

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 soft ware 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 productivityenhancing 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.

—
01

—
02
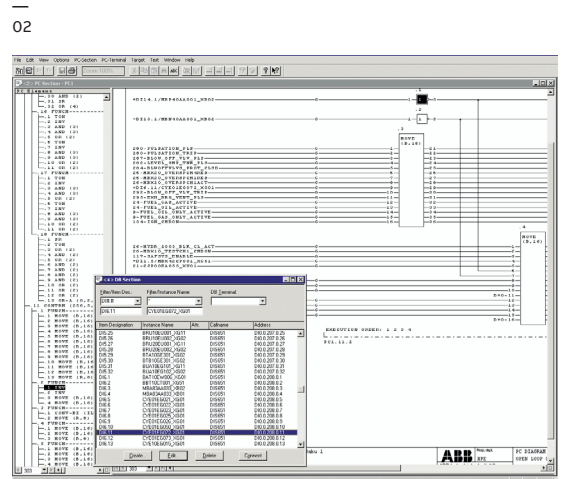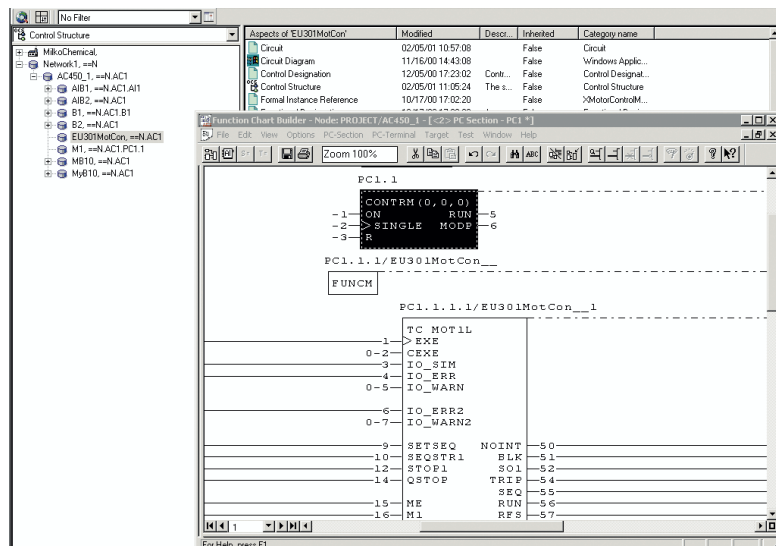
—
01
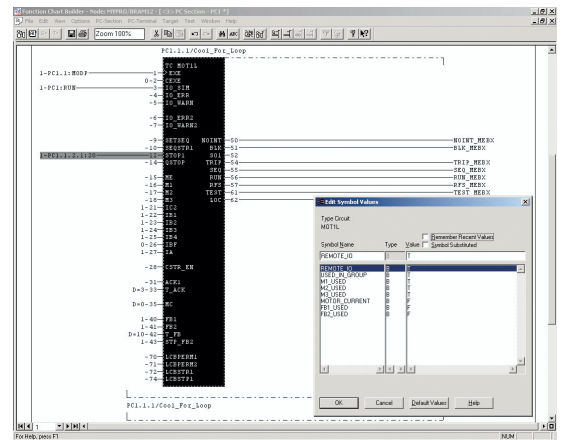
—
02

—
01 Advant Master engi-
neering solution with
Control Builder A
and PU410K01
—
02 Type Circuits
are predeveloped
standard solutions
to recurring control
needs that boost
both engineering
productivity
and quality.

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 once only and testing the solution thor-
oughly, Type Circuits save engineering time and
improve engineering quality. They lend structure
to the solution by encapsulating the details, mini-
mizing 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.

—
abb.com/800xA
abb.com/controlsystems