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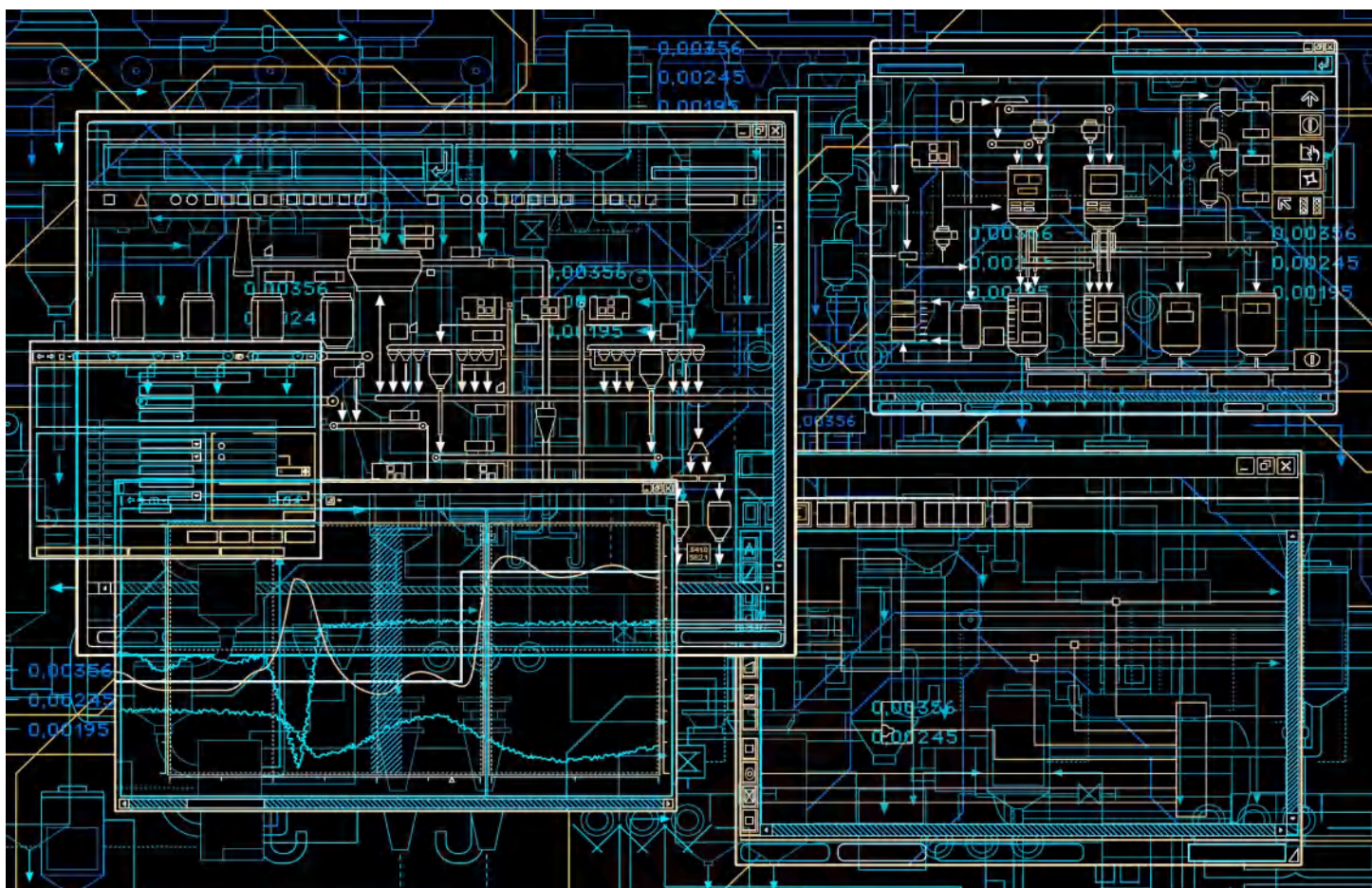
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800xA for Advant Master

Operation

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ABB

About This User Manual

General

Any security measures described in this User Manual, for example, for user access, password security, network security, firewalls, virus protection, etc., represent possible steps that a user of an 800xA System may want to consider based on a risk assessment for a particular application and installation. This risk assessment, as well as the proper implementation, configuration, installation, operation, administration, and maintenance of all relevant security related equipment, software, and procedures, are the responsibility of the user of the 800xA System.

This user manual describes operating the 800xA for Advant Master within the 800xA System. The 800xA for Advant Master is a software product that enables you to connect the Operator Workplace to a system of AC 400 series controllers in a MasterBus 300 network. This also extends the total functionality of the Operator Workplace utilizing the AC 400 Series controller functionality.

User Manual Conventions

Microsoft Windows conventions are normally used for the standard presentation of material when entering text, key sequences, prompts, messages, menu items, screen elements, etc.

Feature Pack

The Feature Pack content (including text, tables, and figures) included in this User Manual is distinguished from the existing content using the following two separators:

Feature Pack Functionality _____

      <Feature Pack Content>

_____

Feature Pack functionality included in an existing table is indicated using a table footnote (*) :

*Feature Pack Functionality

Feature Pack functionality in an existing figure is indicated using callouts.

Unless noted, all other information in this User Manual applies to 800xA Systems with or without a Feature Pack installed.

Warning, Caution, Information, and Tip Icons

This User Manual includes Warning, Caution, and Information where appropriate to point out safety related or other important information. It also includes Tip to point out useful hints to the reader. The corresponding symbols should be interpreted as follows:

Electrical warning icon indicates the presence of a hazard which could result in *electrical shock.*

Warning icon indicates the presence of a hazard which could result in *personal injury.*

Caution icon indicates important information or warning related to the concept discussed in the text. It might indicate the presence of a hazard which could result in *corruption of software or damage to equipment/property.*

Information icon alerts the reader to pertinent facts and conditions.

Tip icon indicates advice on, for example, how to design your project or how to use a certain function

Although Warning hazards are related to personal injury, and Caution hazards are associated with equipment or property damage, it should be understood that operation of damaged equipment could, under certain operational conditions, result

in degraded process performance leading to personal injury or death. Therefore, fully comply with all Warning and Caution notices.

Terminology

A complete and comprehensive list of terms is included in *System 800xA System Guide Functional Description (3BSE038018*)*. The listing includes terms and definitions that apply to the 800xA System where the usage is different from commonly accepted industry standard definitions and definitions given in standard dictionaries such as Webster's Dictionary of Computer Terms. Terms that uniquely apply to this User Manual are listed in the following table.

Term/Acronym	Description
AC 400	Advant Controller 400 Series with Master software - The ABB family of controllers: AC 410 and AC 450
Control Builder A	The configuration tool for Advant Master Controller. Control Builder A consists of Application Builder, Bus Configuration Builder, Function Chart Builder and the option On-Line Builder.
Control connection aspect (CCA)	Contains the name, data type, access rights (read/write) and subscription update rate of each attribute and the name of the corresponding OPC item (object of the controller). CCA also contains a user interface to inspect the object type attribute information. It can also be used to subscribe for the current value of each attribute.
Function Chart Builder	Part of the configuration tool Control Builder A.
MB 300	MasterBus 300 - the control network communication protocol that is used by the AC 400 Series controllers.
RTA	Real Time Accelerator board - the Communication board that is used for connection to the MasterBus 300 control network, a PU515A RTA board or a PU410 unit.
TTD	Time Tagged Data - the name of the log functionality in Safeguard and AC 400 Series Controllers.

Released User Manuals and Release Notes

A complete list of all User Manuals and Release Notes applicable to System 800xA is provided in *System 800xA Released User Manuals and Release Notes (3BUA000263*).*

System 800xA Released User Manuals and Release Notes (3BUA000263)* is updated each time a document is updated or a new document is released. It is in pdf format and is provided in the following ways:

- Included on the documentation media provided with the system and published to ABB SolutionsBank when released as part of a major or minor release, Service Pack, Feature Pack, or System Revision.

- Published to ABB SolutionsBank when a User Manual or Release Note is updated in between any of the release cycles listed in the first bullet.

A product bulletin is published each time *System 800xA Released User Manuals and Release Notes (3BUA000263*)* is updated and published to ABB SolutionsBank.

Section 1 Operating Overview

The Operator Workplace functionality is generic for all controller types. For more information about operation, refer to *System 800xA, Operation (3BSE036904*).*

The 800xA for Advant Master provides the following additional functionality/tools:

- Operator Workplace
- Faceplates
- Advant Master specific information in Alarm & Event Lists
- Hot Keys in 800xA for Advant Master
- Quick List

Operator Workplace

The 800xA for Advant Master uses the standard 800xA Operator Workplace. For more information on the Operator workplace, refer to *System 800xA, Operation (3BSE036904*).*

Figure 1. Operator Message List example

The 800xA Advant Master messages displayed in an operator message list (see Figure 1) or operator message line of the workplace contains messages received from all the users of the system.

Section 2 Faceplates

This section describes about the faceplates specific to 800xA for Advant Master. For more information on faceplates, refer to the *System 800xA, Operation (3BSE036904*).*
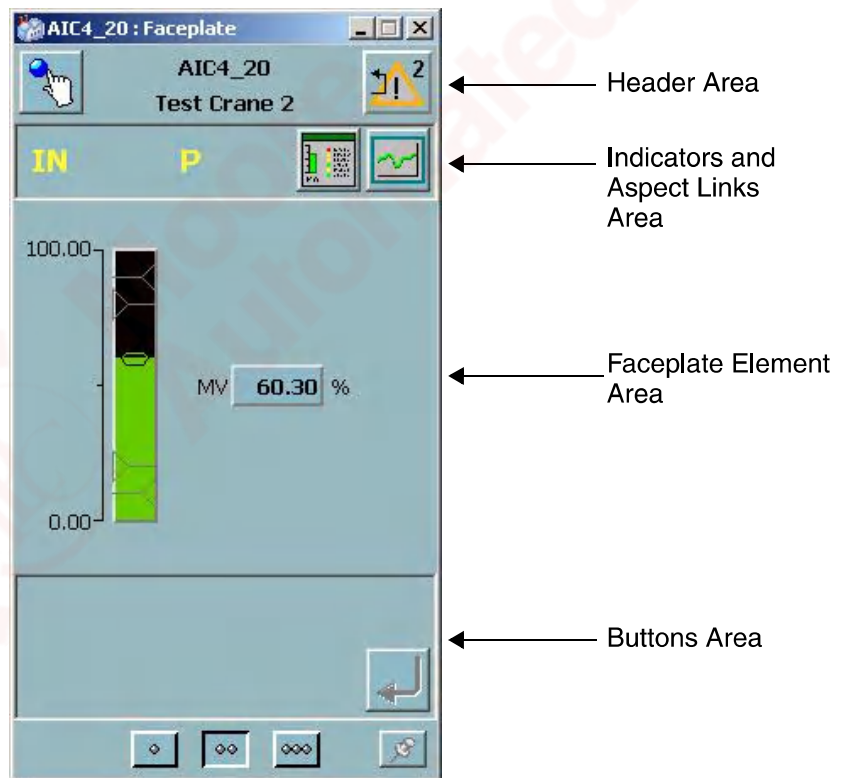

Figure 2. Advant Master Faceplate Example

Header Area

The header area of an 800xA for Advant Master faceplate contains two buttons as shown in Figure 3.
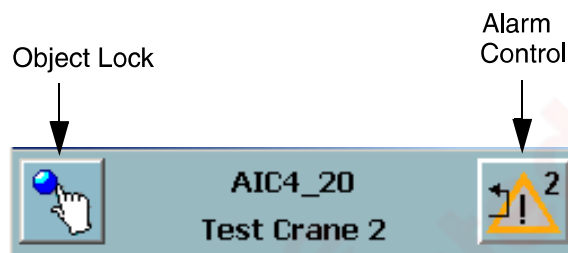
- Object Lock

- Alarm Control

Figure 3. Header Area - Example

Object Lock

The **Object Lock** button is shown as activated starting from the time the user has locked the object until the object lock is released.

Object lock provides the access to operate the object. If autolock is enabled, the object is locked while starting to operate the faceplate.

No operation is possible on the faceplates, if the object is locked by another user. Table 1 shows the different object lock states and the corresponding indications.

Table 1. Lock States Displayed in the Object Lock.

Lock status	Button	Icon	Background Color
Unlocked	Raised		Bluegrey
Locked by me	Sunken		White
Locked by other	Flat		Yellow

When the object is released by another user, the button changes from flat to raised. Click   to lock the object.

To release a lock on an object, click the lock button or close the faceplate.

Alarm Control

Alarm control indicates the alarm state and allows to acknowledge the object alarms from the faceplate. When the object is disabled by the user, priority is not indicated in the alarm icon.
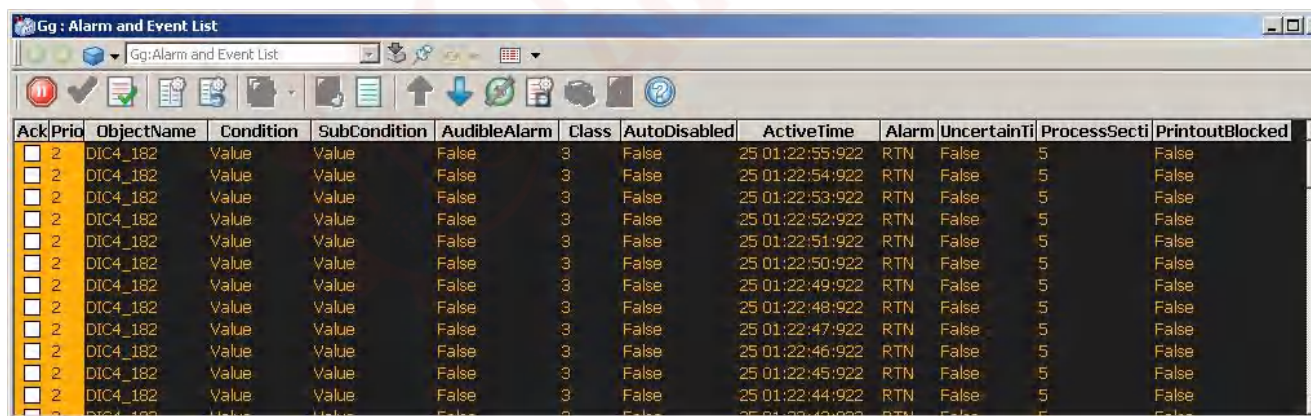
For more information about alarm control and alarm states, refer to *System 800xA, Operation (3BSE036904*).*

Section 3 Alarm and Event

800xA for Advant Master uses the common alarm and event list provided by System 800xA.

800xA for Advant Master defines four specific columns that can be added to the alarm/event list:

*   ProcessSection - section of the plant from which the alarm/event is received.

*   Class - classification of the object.

*   UncertainTimeTag - indication of uncertain time tagging (true).

*   PrintoutBlocked - blocking of alarm logger printout (true).

Figure 7. Common Alarm List with added Advant Master Specific Columns

Section 4 Hot Keys

A Hot Key is a specific combination of keys or a single key on a computer keyboard or an additional keypad defined to perform a specific function. The hot key operations can be global (independent of highlighted object), or affect the highlighted object. A few actions such as starting and stopping a motor, increasing or decreasing a value on highlighted objects can be operated using a hot key.

When you open a faceplate, the corresponding object in the graphic display will be highlighted and surrounded by blue corner brackets. The user can then operate the active faceplate using hot keys.

Hot Keys are only available to a user who is logged on as an Operator, and only from the Operator Workplace.

To secure that all hotkeys can be used, refer to the procedure described in *Hot Keys* section in *System 800xA, Operations, Operator Workplace Configuration (3BSE030322*).*

Predefined Hot Keys

Table 2 and Table 3 describe the set of hot keys predefined in the product.

Table 2. Predefined Hot Keys 1

Object Type	Acknowledge CTRL+ SHIFT+ Q	On/Start/ Open/True CTRL+ SHIFT+ 1	Off/Stop Close/False CTRL+ SHIFT+ 0	Man CTRL+ SHIFT+ Y	Auto CTRL+ SHIFT+ U
AI	X				
AO	X			X	X
DI	X	X	X		
DO	X	X	X	X	X
PIDCONA	X			X	X
PIDCON	X			X	X
MANSTN	X			X	
RATIONSTN	X			X	X
MOTCON	X	X	X	X	X
VALVECON	X	X	X	X	X
GROUP	X	X	X	X	X
SEQUENCE	X	X	X	X	X
GENBIN	X	X	X	X	X
GENCON	X			X	X
GENUSD	X			X	X
DATB		X	X		
TEXT_DATA	X	X	X	X	X
DRICONE	X	X	X	X	X

Table 2. Predefined Hot Keys 1 (Continued)

Object Type	Acknowledge CTRL+ SHIFT+ Q	On/Start/ Open/True CTRL+ SHIFT+ 1	Off/Stop Close/False CTRL+ SHIFT+ 0	Man CTRL+ SHIFT+ Y	Auto CTRL+ SHIFT+ U
DRICONS	X	X	X	X	X
MOTCON_I	X	X	X	X	X

Table 3. Predefined Hot Keys 2

Object Type	E1 CTRL+ SHIFT+ O	E2 CTRL+ SHIFT+ P	Small Increase CTRL+ SHIFT+ K	Small Decrease CTRL+ SHIFT+ H	Large Increase CTRL+ SHIFT+ L	Large Decrease CTRL+ SHIFT+ J
AI						
AO			X	X		
DI						
DO						
PIDCONA	X	X	X	X	X	X
PIDCON	X	X	X	X	X	X
MANSTN	X		X	X	X	X
RATIONSTN	X		X	X	X	X
MOTCON						
VALVECON						
GROUP						

Table 3. Predefined Hot Keys 2 (Continued)

Object Type	E1 CTRL+ SHIFT+ O	E2 CTRL+ SHIFT+ P	Small Increase CTRL+ SHIFT+ K	Small Decrease CTRL+ SHIFT+ H	Large Increase CTRL+ SHIFT+ L	Large Decrease CTRL+ SHIFT+ J
SEQUENCE						
GENBIN						
GENCON	X	X	X	X	X	X
GENUSD			X	X	X	X
DATB						
TEXT_DATA						
DRICONE						
DRICONS						
MOTCON_I						

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