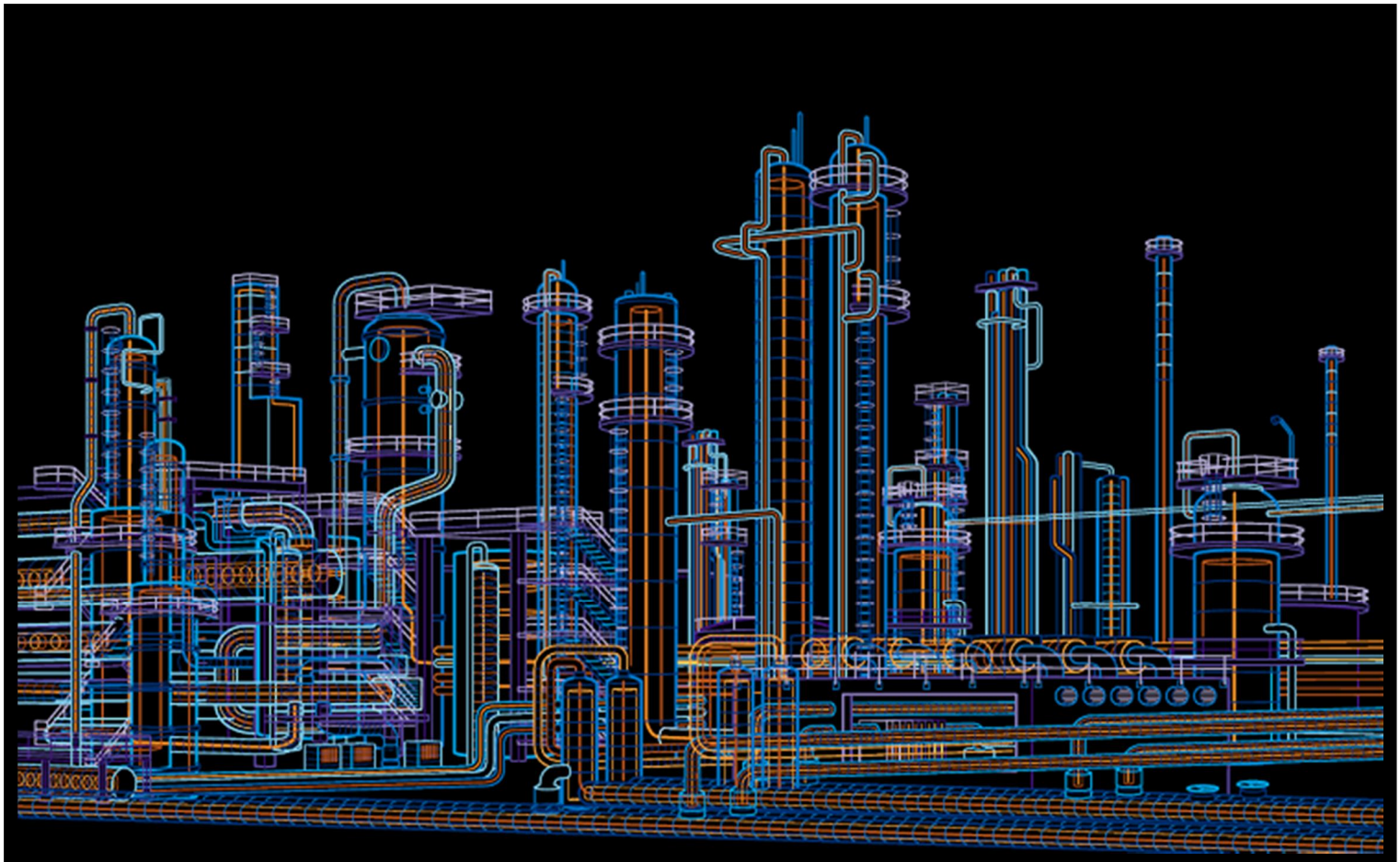


System 800xA
Graphic Property Configuration
For Object Types AC800M, Freelance, Melody and Advant
User Manual

System Version 6.0

Notice

This document contains information about one or more ABB products and may include a description of or a reference to one or more standards that may be generally relevant to the ABB products. The presence of any such description of a standard or reference to a standard is not a representation that all of the ABB products referenced in this document support all of the features of the described or referenced standard. In order to determine the specific features supported by a particular ABB product, the reader should consult the product specifications for the particular ABB product.

ABB may have one or more patents or pending patent applications protecting the intellectual property in the ABB products described in this document.

The information in this document is subject to change without notice and should not be construed as a commitment by ABB. ABB assumes no responsibility for any errors that may appear in this document.

In no event shall ABB be liable for direct, indirect, special, incidental or consequential damages of any nature or kind arising from the use of this document, nor shall ABB be liable for incidental or consequential damages arising from use of any software or hard-ware described in this document.

This document and parts thereof must not be reproduced or copied without written permission from ABB, and the contents thereof must not be imparted to a third party nor used for any unauthorized purpose.

The software described in this document is furnished under a license and may be used, copied, or disclosed only in accordance with the terms of such license.

Trademarks

All rights to copyrights, registered trademarks, and trademarks reside with their respective owners.

Copyright © 2016 by ABB. All Rights Reserved

All rights reserved.

Release: 2016-09-29

Document Number: 3BDA033478-601

Table of contents

1. Introduction 4
1.1 Use of Caution, Information, and Tip Icons 4
1.2 Terminology 4
1.3 Document References 5
2. Graphic Display Configuration 6
2.1 Graphic Element 6
3. Graphic Properties and User Enumerations 8
3.1 Standard Properties 8
3.2 Frequently used PC Toolkit Properties 9
3.3 User Enumerations 10
3.4 Element Specific Properties in Classic Style 14
3.4.1 Bargraph properties 14
3.4.2 Text Box 15
3.4.3 Text Box and Numeric Value properties 18
3.4.4 Limit Text Box and Binary values properties 19
3.4.5 Mode Icon properties for various devices 20
3.5 Element Specific Properties in High Performance Style 27
3.5.1 Alarm indication properties 27
3.5.2 Suppression indication properties 27
3.5.3 Interlock indication properties 27
3.5.4 Bargraph properties 27
3.5.5 Trend properties 28
3.5.6 Voltmeter properties 28
3.5.7 Text Box 29
3.5.8 Numeric Indication properties 33
3.5.9 Limit Text Box and Binary values properties 33
3.5.10 Mode Icon properties for various devices 34
4. Revision 41

1. Introduction

The purpose of this document is to describe the graphic elements property configuration common PC Library object types. All object types described here are identical for the PC toolkits for AC800M, Freelance and Melody.

This document is intended to be used for application engineers.

1.1 Use of Caution, Information, and Tip Icons

This publication includes **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:

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 **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, comply fully with all **Caution** notices.

1.2 Terminology

A complete and comprehensive list of Terms is included in the Industrial IT, 800xA - System, Engineering Concepts instruction (3BDS100972R5001).

Abbreviation	Description
HMI	Human Machine Interface
HP	High Performance
GE	Graphic Element
PC	Process Control; Industry where the PC Toolkit Library for is used

Figure 1.1 Abbreviations

1.3 Document References

Category	ID	Document Number	Description
Configuration	/1/	3BSE030322-600	System 800xA Operations 5.1 Operator Workplace Configuration
	/2/	3BDA033456-600	PC Toolkit Library for - Installation and Configuration
	/3/	3BSE030335-600	Engineering Graphics
	/4/	3BSE049230-600	Process Graphics User Guide

Figure 1.2 Document References

2. Graphic Display Configuration

A graphic element is an aspect that is associated with an object type, to be used in graphic displays to present dynamic information for instances of that type. Most object types have several different graphic element aspects to allow the user to select among different visual presentations.

For building graphics, please note that you will need to have Process Graphics 2 Builder (PG2) installed on the node to be able to build graphics.

> Read more about graphic display configuration in 800xA user documentation /3/ and /4/. You should also a have general knowledge of common terms such as menus, buttons, drag/drop etc. To edit graphics you must belong to the Industrial IT group Application Engineer or higher.

2.1 Graphic Element

Graphics and input items hold various properties that define their appearance and behaviour. Each property is associated with a data type. The **Properties** window shows these properties for a selected item.

Properties window provides an efficient user interface for the user to view and set expressions for the properties.

Complex values or expressions for the properties should be done using the **Expression Editor**. The **Properties Window** is used for quick and efficient editing of expressions.

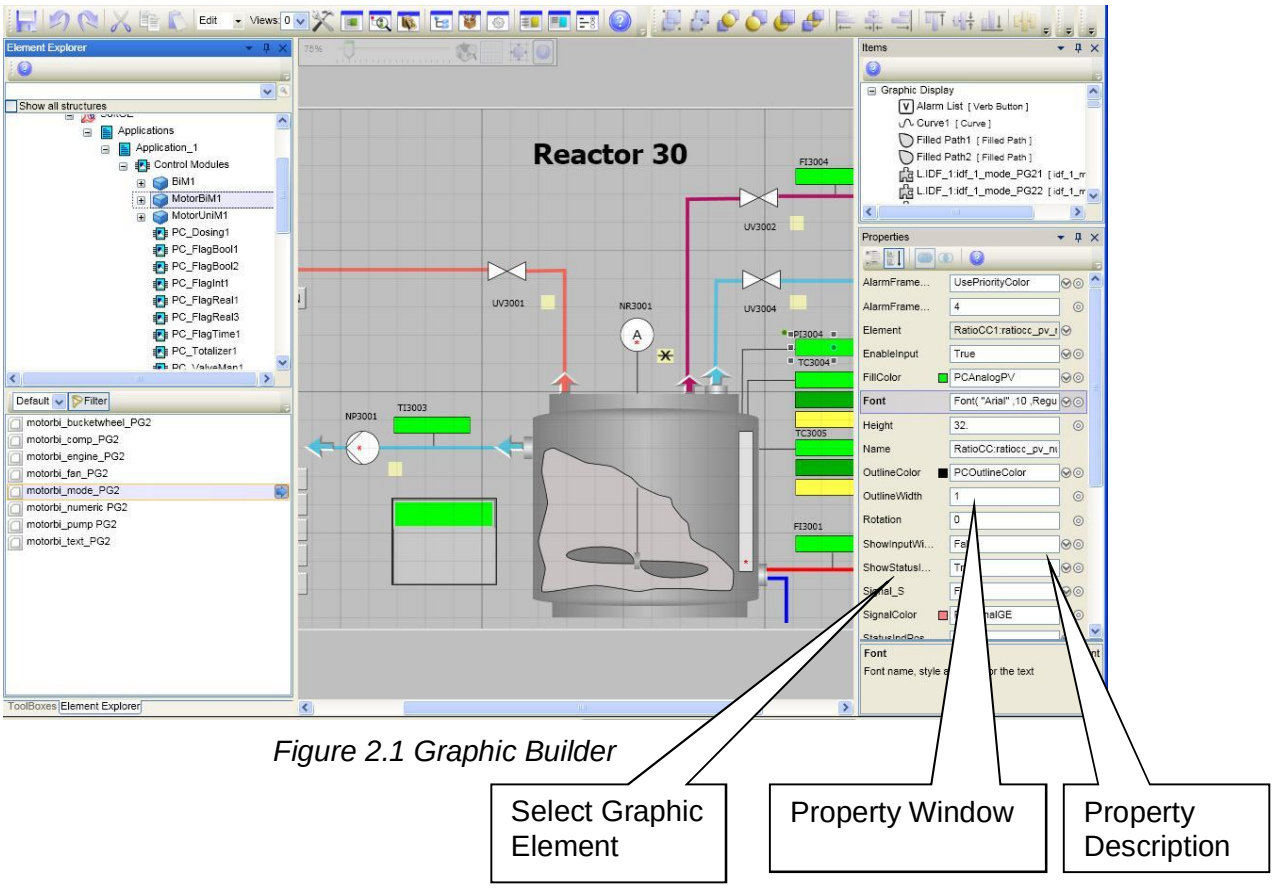


Figure 2.1 Graphic Builder

Open the Properties Window from the **View** menu of the Graphics Builder. The Properties window is presented (if not already open) in order to modify the view, color, mode, etc.

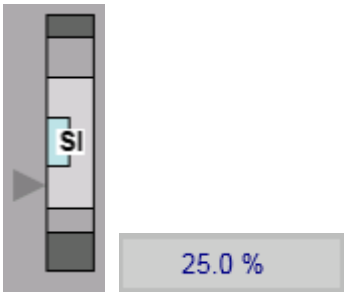
Graphic Element example	**To be changed**
Icons are representing process objects like valves	Size, fill color for on and off status, line width, line color etc.
Icons are representing operation mode like automatic and manual	Size, fill color etc.
Value Text Box for analog values	Size, formatting, fill color for on and off status, line width, line color etc.
Text Box for binary values	Size, text alignment fill color for true and false status, line width, line color etc.
Bar Graph 	Size, fill color, indicator color, line width, line color etc.

Figure 2.2 : Graphic Elements

The error presentation, alarm status and acknowledgement presentation is used. Status and error presentations include:

- Controller Status indication (bad-, uncertain values, alarm suppressed, simulated, forced or interlocked)
- Fill and flashing color

3. Graphic Properties and User Enumerations

Newly created graphical components with the Graphic Builder come along with standard properties which are present at each element. We call it Standard Properties. They are listed in Table 3-1.

There are other graphical element properties, which are not necessarily present at each element. They are summarized in Table 3-2: Frequently used Properties.

User enumerations are user defined data types. These are relevant for input properties. For example, a graphic element that represents the orientation of a valve, requires the user enumeration Top, Left, Bottom and Right to control the orientation of the valve.

3.1 Standard Properties

Property	Data type	Default	Description
EnableInput	Boolean	True	Enables input handling (Mouse Up, Mouse Down and Mouse Move when clicked upon of the element). If false the element itself can't be selected.
Name	String	-	Name of the element instance in a graphic display. Is set automatically by the Graphics Builder (Name of the element + index).
Rotation	Rotation	0	Rotation angle
SubscriptionRate	Integer	0	The update rate for all aspect properties. 0 means default value is used.
Transform	Transform	Empty	Enables animation like scaling, moving and rotation. It is intended only for dynamic values.
Visible	Boolean	True	Visibility of the element in the graphic display.
XPos	Float	-	X position of the upper left corner of the element
YPos	Float	-	Y position of the upper left corner of the element
Height	Float	-	Height of the element. The value is being defined during creation
Width	Float	-	Width of the element. The value is being defined during creation

Table 3-1: Graphic Builder Standard Properties

3.2 Other Graphic Properties

Common graphic properties that are used for most graphic element types are described in the following table.

Name	Type	Default	Description
AlarmFramePres	ENUM	UsePriorityColor	UsePriorityColor, NoPriorityColor, NoAlarmFrame Enables to choose whether the Alarm frame is visible or supports different colors for different priority levels.
AlarmFrameWidth	Integer	4	Width of Alarm Frame
Font	FONT	Arial	Font, Font style and Size: Note: Use only scalable fonts! For example Arial or other Open Type or True Type Fonts (or fonts)
HAlign	ENUM	Center	Far, Near, Center Changes text alignment
OutlineWidth	ENUM	1	Width of the object outline.
OutlineColor	Color	PCOutlineColor	Color of the object outline
ShowIndicationStatus	Boolean	True	Determines is the status indication symbol is displayed.
Signal	Color	PCSignalGE	Signal color used, if Signal_S is true.
Signal_S	Boolean	False	Enables to switch to signal color in the background part. This can be used as additional error indication that then overrides the colors for on and off status!
StatusIndPos	ENUM	Right	Center, Left, Outside, Right Defines the position of status indication symbol. Not applicable for object icons. Note: for bar graph elements refer to bar graph section
StatusIndWidth	Integer	24	Defines the size of status indication symbol. Note: If status symbol would exceed the border of the element then indication size is automatically reduced.
ViewReference	ViewReference	null	Allows to choose custom aspect to be viewed after clicking on element

Table 3-2: Frequently used Properties

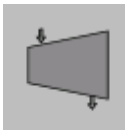
3.3 User Enumerations

Please note that user enumeration parameters can be different at each graphic element, even if the enumeration name is the same.

The enumerations are listed in alphabetic order.

Name	Values	Description
AlarmFramePresEnum	UsePriorityColor	Display alarm frame in priority color ($'PC Logical Color Definition:PCAlarmPrioX', where X =Current alarm priority)
	NoPriorityColor	Display alarm frame always in default color ($'PC Logical Color Definition:PCAlarmPrio1')
	NoAlarmFrame	Display no alarm frame
	Outside	Display alarm frame in priority color ($'PC Logical Color Definition:PCAlarmPrioX', where X =Current alarm priority)
BucketWheelTypeEnum	EightLines	Bucket wheel symbol has 8 lines
	FourLines	Bucket wheel symbol has 4 lines
	SixLines	Bucket wheel symbol has 6 lines
	TwoLines	Bucket wheel symbol has 2 lines
CompressorPaletteEnum	Diaphragm	Selection of symbol inside the compressor icon
	Displacement	Selection of symbol inside the compressor icon
	General	No symbol inside the compressor icon
	Liquid	Selection of symbol inside the compressor icon
	Piston	Selection of symbol inside the compressor icon
	RootsVacuum	Selection of symbol inside the compressor icon
	Screw	Selection of symbol inside the compressor icon
	Stream	Selection of symbol inside the compressor icon
	Turbo	Selection of symbol inside the compressor icon
	Vane	Selection of symbol inside the compressor icon
ElementOrientationEnum	HorizontalBottom	Valve is positioned horizontally with alarm, interlock and mode indication on the button
	HorizontalTop	On top
	VerticalLeft	On the left
	VerticalRight	On the right
FanPaletteEnum	Axial	Selection of symbol inside the fan icon
	General	Selection of symbol inside the fan icon
	Radial	Selection of symbol inside the fan icon
FlapPaletteEnum	Box	Additional symbol indicates the type of the flap
	Electrical	Additional symbol indicates the type of the flap
	General	No additional indication of valve type
	Manual	Additional symbol indicates the type of the flap

Name	Values	Description
	Motor	Additional symbol indicates the type of the flap
	Pneumatic	Additional symbol indicates the type of the flap
	RoundPalette	Additional symbol indicates the type of the flap
FlapTypeEnum	General	No additional symbol
	OneWayFlap	Additional black circle indicates the flap type
	ShutOff	Additional black circle indicates the flap type
FailSafeEnum	FailSafeClose	Additional arrow symbol indicates safe position closed
	FailSafeNothing	No additional indication
	FailSafeOpen	Additional arrow symbol indicates safe position opened
Orientation (Standard)	Horizontal	Bar is placed horizontally
	Vertical	Bar is placed vertically
OrientationEnum (Valve, Motor, Flap, ect.)	Bottom	Symbol is rotated 180 degrees
	BottomLeft	Symbol is rotated 135 degrees counterclockwise
	BottomRight	Symbol is rotated 135 degrees clockwise
	Left	Symbol is rotated 90 degrees counterclockwise
	Right	Symbol is rotated 90 degrees clockwise
	Top	Default view of the symbol
	TopLeft	Symbol is rotated 45 degrees counterclockwise
	TopRight	Symbol is rotated 45 degrees clockwise
OrientationEnum (Bar graph)	Bottom	Bar minimum value top, maximum value bottom
	Left	Bar minimum value right, maximum value left
	Right	Bar minimum value left, maximum value right
	Top	Bar minimum value bottom, maximum value top
PumpPaletteEnum	Centrifugal	Selection of symbol inside the pump icon
	DiaphragmVacuum	Selection of symbol inside the pump icon
	Diaphragm	Selection of symbol inside the pump icon
	ExcentricScrew	Selection of symbol inside the pump icon
	Gear	Selection of symbol inside the pump icon
	General	No symbol inside the pump icon
	JetFluid	Selection of symbol inside the pump icon
	Piston	Selection of symbol inside the pump icon
	ScrewSpindle	Selection of symbol inside the pump icon

Name	Values	Description
PumpSymbolEnum	CentrifugalPump	
	GearPump	
	ReciprocatingPump	
	Turbine	
StatsIndPosEnum	Center	Display the status indication centered inside the element
	Right	Display the status indication right inside the element
	Left	Display the status indication left inside the element
	Outside	Display the status indication right outside the element
	LeftOrTop	Display the status indication left (for horizontal orientations) or top (for vertical orientations) inside the element
	RightorBottom	Display the status indication right (for horizontal orientations) or right (for vertical orientations) inside the element
ValvePaletteEnum	Box	Additional symbol indicates the type of the valve
	Electrical	Additional symbol indicates the type of the valve
	General	No additional indication of valve type
	Manual	Additional symbol indicates the type of the valve
	Motor	Additional symbol indicates the type of the valve
	Pneumatic	Additional symbol indicates the type of the valve
	RoundPalette	Additional symbol indicates the type of the valve
ValvePosition	BottomLeft	Bottom valve way always opened, left way opened in state on (valid for Orientation=Top)
	BottomRight	Bottom valve way always opened, right way opened in state on (valid for Orientation=Top)

Name	Values	Description
	LeftBottom	Left valve way always opened, bottom way opened in state on (valid for Orientation=Top)
	LeftRight	Left valve way always opened, right way opened in state on (valid for Orientation=Top)
	RightBottom	Right valve way always opened, bottom way opened in state on (valid for Orientation=Top)
	RightLeft	Right valve way always opened, left way opened in state on (valid for Orientation=Top)

Table 3-3: User Enumerations

3.4 Element Specific Properties in Classic Style

The following Graphic Elements have the following properties

3.4.1 Bargraph properties

Name	Type	Default	Description
FillColor	Color	PCAnalogDefaultBkg	Background color of the bar graph box
IndicatorColor	Color	PCAnalogPV PCAnalogSp PCAnalogOut PCAnalogRatioSP	Color of the value part of the bar graph box PV=Process Value SP=Setpoint Out= Output value RatioSP= Ration set point
IndicatorNegColor	Color	PCIndicatorAlert	Color of the bar graph indicator in state out of range
Orientation	ENUM	Top	Top, Left, Bottom, Right Orientation of bar graph, Right or Left switches to horizontal layout
RangeFraction	Integer	5	Range fraction high/low for input window in percent.
ShowInputWindow	Boolean	False	Enables input window for writing values to controller. This property is configured only for writable signals. Note: Availability of input window during operation can depend also on object mode (manual, auto, etc.)
ShowStartLine	Boolean	False	Enables start line for the bar graph value
StartValue	Real	0	Bar graph start value
StatusIndPos	ENUM	RightOrBottom	RightOrBottom, Center, LeftOrTop, Outside Determines position of status indication symbol. RightOrBottom, LeftOrTop refer to Horizontal or Vertical layout.
StepSize	Real	1	Step size for changes in the input window
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-4: Bar Graph Properties

3.4.2 Text Box

Four different types of text boxes are available:

Text Box	Description
General text box	One binary signal drives two different texts with text color and fill color.
IDF text box	Each of the signals IsGoingOff, IsGoingOn, IsOff, IsOn and IsStopped drive different texts, text color and fill color.
2-Bit text box	Two binary signals drive four different texts, text color and fill color.
4-Bit text box	Four binary signals drive 16 different texts, text color and fill color.

Table 3-5: Text Boxes

General Text Box

Name	Type	Default	Description
Color0	Color	PCBinaryIsOff	Fill color for the transition from Zero to One State signal (if it is going on)
Text0	String	“False“	Displayed text for Zero State signal (off)
TextColor0	Color	PCBinaryDefaultText	Text color for Zero State signal (off)
Color1	Color	PCBinaryIsOn	Fill color for One State signal (on)
Text1	String	“True“	Displayed text for One State signal (on)
TextColor1	Color	PCBinaryDefaultText	Text color for One State signal (on)
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-6: General text box Properties

IDF Text Box

Name	Type	Default	Description
DefaultColor	Color	PCBinaryDefault	Color if no standard device state is available
DefaultText	String	“No signal”	Text if no standard device state is available
DefaultTextColor	Color	PCBinaryDefaultText	Text color if no standard device state is available
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero State signal (if it is going off)
IsGoingOff_text	String	“->Off“	Displayed text for the transition from One to Zero State signal (if it is going off)
IsGoingOff_text_color	Color	PCBinaryDefaultText	Text color for the transition from One to Zero State signal (if it is going off)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State signal (if it is going on)

Name	Type	Default	Description
IsGoingOn_text	String	“->On“	Displayed text for the transition from Zero to One State signal (if it is going on)
IsGoingOn_text_color	Color	PCBinaryDefaultText	Text color for the transition from Zero to One State signal (if it is going on)
IsOff	Color	PCBinaryIsOff	Fill color for Zero State signal (switched off)
IsOff_text	String	“OFF“	Displayed text for Zero State signal (switched off)
IsOff_text_color	Color	PCBinaryDefaultText	Text color for Zero State signal (switched off)
IsOn	Color	PCBinaryIsOn	Fill color for One State signal (switched on)
IsOn_text	String	“ON“	Displayed text for One State signal (switched on)
IsOn_text_color	Color	PCBinaryDefaultText	Text color for One State signal (switched on)
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped
IsStopped_text	String	“Stopp”	Displayed text if is stopped
IsStopped_text_color	Color	PCBinaryDefaultText	Text color if is stopped
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-7: IDF text box Properties

2-Bit Text Box

Name	Type	Default	Description
Color0	Color	PCBinaryIsOff	Fill color for the Zero State of Signal 1 and Signal 2 (both off)
Text0	String	“False“	Displayed text for the Zero State of Signal 1 and Signal 2 (both off)
TextColor0	Color	PCBinaryDefaultText	Text color for the Zero State of Signal 1 and Signal 2 (both off)
Color1	Color	PCBinaryIsOn	Fill color for One State of Signal 1 (on) and Zero State of Signal 2 (off).
Text1	String	“S1“	Displayed text for One State of Signal 1 (on) and Zero State of Signal 2 (off).
TextColor1	Color	PCBinaryDefaultText	Text color for One State of Signal 1 (on) and Zero State of Signal 2 (off).
Color2	Color	PCBinaryIsOn	Fill color for Zero State of Signal 1 (off) and One State of Signal 2 (on).
Text2	String	“S2“	Displayed text for Zero State of Signal 1 (off) and One State of Signal 2 (on).
TextColor2	Color	PCBinaryDefaultText	Text color for Zero State of Signal 1 (off) and One State of Signal 2 (on).

Name	Type	Default	Description
Color3	Color	PCBinaryIsOn	Fill color for the One State of Signal 1 and Signal 2 (both on)
Text3	String	“S1 & S2“	Displayed text for the One State of Signal 1 and Signal 2 (both on)
TextColor3	Color	PCBinaryDefaultText	Text color for the One State of Signal 1 and Signal 2 (both on)
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-8: 2-Bit text box Properties

4-Bit Text Box

Name	Type	Default	Description
Color00	Color	PCBinaryIsOff	Fill color for the Zero State of Signal 1 to Signal 4 (all off)
Text00	String	“0000”	Displayed text for the Zero State of Signal 1 to Signal 4 (all off)
TextColor00	Color	PCBinaryDefaultText	Text color for the Zero State of Signal 1 to Signal 4 (all off)
Color01	Color	PCBinaryIsOn	Fill color for binary State “0001”.
Text01	String	”0001”	Displayed text for binary State “0001”.
TextColor01	Color	PCBinaryDefaultText	Text color for binary State “0001”
Color02	Color	PCBinaryIsOn	Fill color for binary State “0010”.
Text02	String	”0010”	Displayed text for binary State “0010”.
TextColor02	Color	PCBinaryDefaultText	Text color for binary State “0010”
Color03	Color	PCBinaryIsOn	Fill color for binary State “0011”.
Text03	String	”0011”	Displayed text for binary State “0011”.
TextColor03	Color	PCBinaryDefaultText	Text color for binary State “0011”
Color04	Color	PCBinaryIsOn	Fill color for binary State “0100”.
Text04	String	”0100”	Displayed text for binary State “0100”.
TextColor04	Color	PCBinaryDefaultText	Text color for binary State “0101”
Color05	Color	PCBinaryIsOn	Fill color for binary State “0101”.
Text05	String	”0101”	Displayed text for binary State “0100”.
TextColor05	Color	PCBinaryDefaultText	Text color for binary State “0101”
Color06	Color	PCBinaryIsOn	Fill color for binary State “0110”.
Text06	String	”0110”	Displayed text for binary State “0110”.
TextColor06	Color	PCBinaryDefaultText	Text color for binary State “0110”
Color07	Color	PCBinaryIsOn	Fill color for binary State “0111”.
Text07	String	”0111”	Displayed text for binary State “0111”.
TextColor07	Color	PCBinaryDefaultText	Text color for binary State “0111”
Color08	Color	PCBinaryIsOn	Fill color for binary State “1000”.
Text08	String	”1000”	Displayed text for binary State “1000”.

Name	Type	Default	Description
TextColor08	Color	PCBinaryDefaultText	Text color for binary State “1000”
Color09	Color	PCBinaryIsOn	Fill color for binary State “1001”.
Text09	String	”1001”	Displayed text for binary State “1001”.
TextColor09	Color	PCBinaryDefaultText	Text color for binary State “1001”
Color10	Color	PCBinaryIsOn	Fill color for binary State “1010”.
Text10	String	”1010”	Displayed text for binary State “1010”.
TextColor10	Color	PCBinaryDefaultText	Text color for binary State “1010”
Color11	Color	PCBinaryIsOn	Fill color for binary State “1011”.
Text11	String	”1011”	Displayed text for binary State “1011”.
TextColor11	Color	PCBinaryDefaultText	Text color for binary State “1011”
Color12	Color	PCBinaryIsOn	Fill color for binary State “1100”.
Text12	String	”1100”	Displayed text for binary State “1100”.
TextColor12	Color	PCBinaryDefaultText	Text color for binary State “1100”
Color13	Color	PCBinaryIsOn	Fill color for binary State “1101”.
Text13	String	”1101”	Displayed text for binary State “1101”.
TextColor13	Color	PCBinaryDefaultText	Text color for binary State “1101”
Color14	Color	PCBinaryIsOn	Fill color for binary State “1110”.
Text14	String	”1110”	Displayed text for binary State “1110”.
TextColor14	Color	PCBinaryDefaultText	Text color for binary State “1110”
Color15	Color	PCBinaryIsOn	Fill color for binary State “1111”.
Text15	String	”1111”	Displayed text for binary State “1111”.
TextColor15	Color	PCBinaryDefaultText	Text color for binary State “1111”
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-9: 4-Bit text box Properties

3.4.3 Text Box and Numeric Value properties

Name	Type	Default	Description
FillColor	Color	PCAnalogPv: Process value PCAnalogSP: Set point PCAnalogOut: Output value PCAnalogRatioSP: Ratio set point	Color of the background part of the value text box
RangeFraction	Integer	5	Range fraction high/low for input window in percent.

Name	Type	Default	Description
ShowInputWindow	Boolean	False	Enables input window for writing values to controller. This property is configured only for writable signals. Note: Availability of input window during operation can depend also on object mode (manual, auto, etc.)
StepSize	Real	1	Step size for changes in the input window
ValuePosition	Integer	55	Horizontal alignment of value and dimension – offset from left side in pixels.
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-10: Value text box Properties

3.4.4 Limit Text Box and Binary values properties

The text box displays status HH limit signal (AHHY)

- H limit signal (AHY)
- L limit signal (ALY)
- LL limit signal (ALLY)

Dependent on the input signal the text box is either displayed with configurable font color and background color according to the alarm priority, or with font color according to the alarm priority and configurable background color.

Name	Type	Default	Description
Color0	Color	PCBinaryIsOff	Fill color for Zero State of the limit signal (switched off).
Color1	Color	PCBinaryIsn	Fill color for Zero State of the limit signal (switched off). (When switched on and UsePrioColor is set to true, the fill color will get automatically the priority color of the alarm.)
TextColor0	Color	PCBinaryDefaultText	Text color for off State of the limit signal (switched on). (When switched off and UsePrioColor set to true then text color will get automatically the priority color of the alarm)
TextColor1	Color	PCBinaryDefaultText	Text color for One State of the limit signal (switched on).
Text0	String	“False”	Displayed text if Zero State (switched off)
Text1	String	“True”	Displayed text if One State (switched on)
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-11: Limit Text box Properties

3.4.5 Mode Icon properties for various devices

The mode icons that present current state of a process object are available for Bucket Wheels, Compressors, Fans, Flaps, Motors, Pumps, Valves, Return Symbol, Lamp, Arrow and Switch.

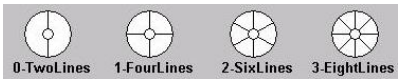
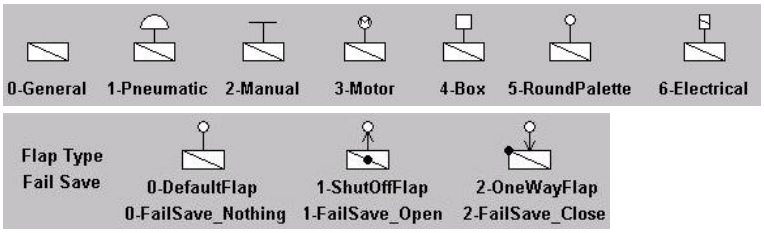
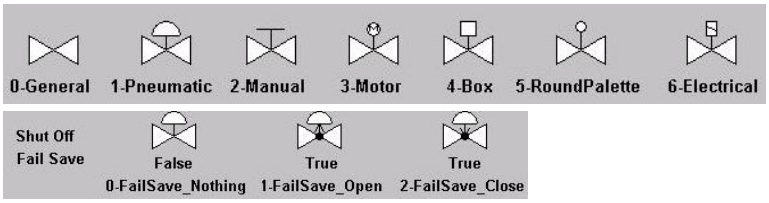
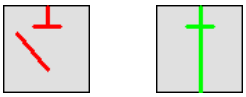
Devices	Device Types
Bucket Wheels	
Compressors	
Fans	
Flaps	
Motors	
Pumps	
Valves	
3 Way Valve	
Return	
Lamp	
Arrow	
Switch	

Table 3-12: Mode Icons

The error presentation, alarm status and acknowledgement presentation is used in all mode icons except lamp and arrow.

Status and error presentations include:

- Controller and object status indication
- Line style, width and color
- Fill color

The graphic elements include controller and object status indication like bad or uncertain communication, simulated or forced values or alarm indication suppressed. For more detailed information on the status indication please refer to Appendix A Tag Quality and Appendix B Indication Icons.

3-Way-Valve

Name	Type	Default	Description
FailSafe	ENUM	FailSafe_Nothing	FailSafeNothing, FailSafeOpen, FailSafeClose
ValvePalette	ENUM	General	General, Pneumatic, Manual,Motor, Box, RoundPalette, Electrical
ValvePosition	ENUM	BottomLeft	Indicates flow direction for the colors: BottomLeft, LeftRight, RightBottom, LeftBottom, RightLeft
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped (only IDF)
Orientation	ENUM	0 -Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-13: Three Way Valve Properties

Bucket Wheel

Name	Type	Default	Description
BucketWheelType	ENUM	3-EightLines	TwoLines, FourLines, SixLines, EightLines
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for if is going off (only IDF)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color if is going on

Name	Type	Default	Description
			(only IDF)
IsOff	Color	PCBinaryIsOff	Fill color if switched off
IsOn	Color	PCBinaryIsOn	Fill color if switched on
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped (only IDF)
Orientation	ENUM	0 -Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-14: Bucket Wheel Properties

Compressor

Name	Type	Default	Description
CompressorPalette	ENUM	General	General, RootsVacuum, Displacement, Turbo, Screw, Vane, Piston, Diaphragm
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-15: Compressor Properties

Engine

Name	Type	Default	Description
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).

Name	Type	Default	Description
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped (only IDF)
Label	String	“A”	Label text (ASCII)
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-16: Engine Properties

Fan

Name	Type	Default	Description
FanPalette	ENUM	General	General, Radial, Axial
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual.
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
For standard and frequently uses properties refer to page 8 and page 9.			

Table 3-17: Fan Properties

Flap

Name	Type	Default	Description
FailSafe	ENUM	FailSafe_Nothing	FailSafeNothing, FailSafeOpen, FailSafeClose
FlapPalette	ENUM	General	General, Pneumatic, Manual, Motor, Box, RoundPalette, Electrical
FlapType	ENUM	DefaultFlap	DefaultFlap, ShutOffFlap, OneWayFlap
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State (if it is going on) (only IDF)

Name	Type	Default	Description
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight,Right, TopRight
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-18: Flap Properties

Pump

Name	Type	Default	Description
PumpPalette	ENUM	General	General, Centrifugal, Displacement, Gear, ScrewSpindle, ExcentricScrew, Piston, DiaphragmVacuum
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-19: Pump Properties

Valve

Name	Type	Default	Description
FailSafe	ENUM	FailSafe_Nothing	FailSafeNothing, FailSafeOpen, FailSafeClose
ValvePalette	ENUM	General	General, Pneumatic, Manual, Motor, Box, RoundPalette, 6Electrical
ShutOff	Boolean	False	False, True
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual

Name	Type	Default	Description
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-20: Valve Properties

Return Icon

Name	Type	Default	Description
IsGoingOff	Color	PCBinaryIsGoingOff	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCBinaryIsGoingOn	Fill color for the transition from Zero to One State (if it is going on). (only IDF)
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
IsStopped	Color	PCBinaryIsStopped	Fill color if is stopped. (only IDF)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-21: Return Element Properties

Lamp

Name	Type	Default	Description
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-22: Lamp Properties

Arrow

Name	Type	Default	Description
IsOff	Color	PCBinaryIsOff	Fill color for the Zero state (switched off).
IsOn	Color	PCBinaryIsOn	Fill color for the One state (switched on).
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-23: Arrow Properties

Switch

Name	Type	Default	Description
ColorEdge	Color	Black	Outline color for the edge of the frame.
ColorState0	Color	PCBinaryIsOff	Fill color of the lines for the Zero state (switched off).
ColorState1	Color	PCBinaryIsOn	Fill color of the lines for the One state (switched on).
LineWidth	Integer	3	Width of the lines.
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-24: Switch Properties

3.5 Element Specific Properties in High Performance Style

3.5.1 Alarm indication properties

Name	Type	Default	Description
LinkToAlarmList	Boolean	True	When true then Alarm list is opened by left mouse click. Otherwise default aspect is called
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-25: General Properties

3.5.2 Suppression indication properties

Name	Type	Default	Description
LinkToAlarmList	Boolean	True	When true then Alarm list is opened by left mouse click. Otherwise default aspect is called
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-26: General Properties

3.5.3 Interlock indication properties

Name	Type	Default	Description
ColorCondInhibited	Color	PCHPHMIOffIndication	Fill color of the element when interlock conditions are inhibited
ColorInterlock	Color	PCHPHMIOnIndication	Fill color of the element when any interlock condition is active
ColorOverride	Color	PCHPHMIOnIndication	Fill color of the element when any of input conditions is overridden
ColorPrioCmd	Color	PCHPHMIOnIndication	Fill color of the element when any priority command condition is active
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-27: General Properties

3.5.4 Bargraph properties

Name	Type	Default	Description
ArrowColor	Color	DimGray	Color of the arrow
BackgroundColor	Color	LightGray	Color of bar graph background
Orientation	Orientation	Vertical	Orientation of bar graph
ShowDeviationLimits	Boolean	True	Show process value deviation as dotted lines (visible only if configured)

Name	Type	Default	Description
			Note: only for APID element
ShowNormalRange	Boolean	True	Show normal range as rectangle(PV limits H and L)
ShowNumericValue	Boolean	False	Show actual value as text
ShowSpDiamond	Boolean	False	Show set-point diamond symbol (if set-point is available)
SizeArrow	Real	16.	Size of indication arrow
SizeColumn	Real	24.	Size of column
SPDiamondColor	Color	White	Color of set-point diamond symbol
SPDiamondSize	Real	16.	Size of set-point diamond symbol
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-28: Bar Graph Properties

3.5.5 Trend properties

Name	Type	Default	Description
BackgroundColor	Color	LightGray	Background color
DescriptionHeight	Real	16.	Height of the description area
DescriptionText	String	“”	Text presented in top area of the element
FontDescription	Font	Font("Tahoma" ,10 ,Regular, SemiBold)	Font of trend description
FontScale	Font	Font("Tahoma" ,7 ,Regular, SemiBold)	Font of trend scales
Limit0ActColor	Color	PCHPHMIValues	Color of curve if normal max or normal min limits are active
OutOfBoundsNormalRange	Boolean	False	Change curve color if normal max or normal min limits are active
TimeScaleHeight	Real	16.	Height of the time scale
TimeSpan	Real	120.	Time span in seconds
ScaleWidth	Real	32.	Width of left scale
ScaleWidthRight	Real	32.	Width of right scale (if present)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-29: Bar Graph Properties

3.5.6 Voltmeter properties

Name	Type	Default	Description
Font	Font	Font("Arial" ,12, Regular, Normal)	Font for numeric values

Name	Type	Default	Description
Limit0Color	Color	Gray	Color of H and L limits areas
MagnAngleEnd	Real	135.	End angle magnifier range
MagnAngleStart	Real	45.	Start angle magnifier range
MagnEnabled	Boolean	False	Magnifier enabled
MagnRangeEnd	Real	60.	End value magnifier range
MagnRangeStart	Real	40.	Start value magnifier range
NormalRangeColor	Color	PCHPHMIOpRange	Color of normal range area
ShowNumericRanges	Boolean	False	Show numeric texts with ranges
ShowNumericValue	Boolean	True	Show actual value as text
TextColorRanges	Color	Black	Text color on numeric range indications
TextColorValue	Color	Blue	Text color on numeric value indication
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-30: Bar Graph Properties

3.5.7 Text Box

Four different types of text boxes are available:

Text Box	Description
General text box	One binary signal drives two different texts with text color and fill color.
IDF text box	Each of the signals IsGoingOff, IsGoingOn, IsOff, IsOn and IsStopped drive different texts, text color and fill color.
2-Bit text box	Two binary signals drive four different texts, text color and fill color.
4-Bit text box	Four binary signals drive 16 different texts, text color and fill color.

Table 3-31: Text Boxes

General Text Box

Name	Type	Default	Description
Color0	Color	PCHPHMIOffIndication	Fill color for the transition from Zero to One State signal (if it is going on)
Text0	String	“False“	Displayed text for Zero State signal (off)
TextColor0	Color	PCBinaryDefaultText	Text color for Zero State signal (off)
Color1	Color	PCHPHMIOnIndication	Fill color for One State signal (on)
Text1	String	“True“	Displayed text for One State signal (on)
TextColor1	Color	PCBinaryDefaultText	Text color for One State signal (on)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-32: General text box Properties

IDF Text Box

Name	Type	Default	Description
DefaultColor	Color	PCBinaryDefault	Color if no standard device state is available
DefaultText	String	“No signal”	Text if no standard device state is available
DefaultTextColor	Color	PCBinaryDefaultText	Text color if no standard device state is available
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero State signal (if it is going off)
IsGoingOff_text	String	“->Off“	Displayed text for the transition from One to Zero State signal (if it is going off)
IsGoingOff_text_color	Color	PCBinaryDefaultText	Text color for the transition from One to Zero State signal (if it is going off)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State signal (if it is going on)
IsGoingOn_text	String	“->On“	Displayed text for the transition from Zero to One State signal (if it is going on)
IsGoingOn_text_color	Color	PCBinaryDefaultText	Text color for the transition from Zero to One State signal (if it is going on)
IsOff	Color	PCHPHMIOffIndication	Fill color for Zero State signal (switched off)
IsOff_text	String	“OFF“	Displayed text for Zero State signal (switched off)
IsOff_text_color	Color	PCBinaryDefaultText	Text color for Zero State signal (switched off)
IsOn	Color	PCHPHMIOnIndication	Fill color for One State signal (switched on)
IsOn_text	String	“ON“	Displayed text for One State signal (switched on)
IsOn_text_color	Color	PCBinaryDefaultText	Text color for One State signal (switched on)
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped
IsStopped_text	String	“Stopp”	Displayed text if is stopped
IsStopped_text_color	Color	PCBinaryDefaultText	Text color if is stopped
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-33: IDF text box Properties

2-Bit Text Box

Name	Type	Default	Description
Color0	Color	PCHPHMIOffIndication	Fill color for the Zero State of Signal 1 and Signal 2 (both off)
Text0	String	“False“	Displayed text for the Zero State of Signal 1 and Signal 2 (both off)
TextColor0	Color	PCBinaryDefaultText	Text color for the Zero State of Signal 1 and Signal 2 (both off)
Color1	Color	PCHPHMIOnIndication	Fill color for One State of Signal 1 (on) and Zero State of Signal 2 (off).
Text1	String	“S1“	Displayed text for One State of Signal 1 (on) and Zero State of Signal 2 (off).
TextColor1	Color	PCBinaryDefaultText	Text color for One State of Signal 1 (on) and Zero State of Signal 2 (off).
Color2	Color	PCHPHMIOnIndication	Fill color for Zero State of Signal 1 (off) and One State of Signal 2 (on).
Text2	String	“S2“	Displayed text for Zero State of Signal 1 (off) and One State of Signal 2 (on).
TextColor2	Color	PCBinaryDefaultText	Text color for Zero State of Signal 1 (off) and One State of Signal 2 (on).
Color3	Color	PCHPHMIOnIndication	Fill color for the One State of Signal 1 and Signal 2 (both on)
Text3	String	“S1 & S2“	Displayed text for the One State of Signal 1 and Signal 2 (both on)
TextColor3	Color	PCBinaryDefaultText	Text color for the One State of Signal 1 and Signal 2 (both on)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-34: 2-Bit text box Properties

4-Bit Text Box

Name	Type	Default	Description
Color00	Color	PCHPHMIOffIndication	Fill color for the Zero State of Signal 1 to Signal 4 (all off)
Text00	String	“0000”	Displayed text for the Zero State of Signal 1 to Signal 4 (all off)
TextColor00	Color	PCBinaryDefaultText	Text color for the Zero State of Signal 1 to Signal 4 (all off)
Color01	Color	PCHPHMIOnIndication	Fill color for binary State “0001”.
Text01	String	”0001”	Displayed text for binary State “0001”.
TextColor01	Color	PCBinaryDefaultText	Text color for binary State “0001”
Color02	Color	PCHPHMIOnIndication	Fill color for binary State “0010”.
Text02	String	”0010”	Displayed text for binary State “0010”.
TextColor02	Color	PCBinaryDefaultText	Text color for binary State “0010”

Name	Type	Default	Description
Color03	Color	PCHPHMIOnIndication	Fill color for binary State “0011”.
Text03	String	”0011”	Displayed text for binary State “0011”.
TextColor03	Color	PCBinaryDefaultText	Text color for binary State “0011”
Color04	Color	PCHPHMIOnIndication	Fill color for binary State “0100”.
Text04	String	”0100”	Displayed text for binary State “0100”.
TextColor04	Color	PCBinaryDefaultText	Text color for binary State “0101”
Color05	Color	PCHPHMIOnIndication	Fill color for binary State “0101”.
Text05	String	”0101”	Displayed text for binary State “0100”.
TextColor05	Color	PCBinaryDefaultText	Text color for binary State “0101”
Color06	Color	PCHPHMIOnIndication	Fill color for binary State “0110”.
Text06	String	”0110”	Displayed text for binary State “0110”.
TextColor06	Color	PCBinaryDefaultText	Text color for binary State “0110”
Color07	Color	PCHPHMIOnIndication	Fill color for binary State “0111”.
Text07	String	”0111”	Displayed text for binary State “0111”.
TextColor07	Color	PCBinaryDefaultText	Text color for binary State “0111”
Color08	Color	PCHPHMIOnIndication	Fill color for binary State “1000”.
Text08	String	”1000”	Displayed text for binary State “1000”.
TextColor08	Color	PCBinaryDefaultText	Text color for binary State “1000”
Color09	Color	PCHPHMIOnIndication	Fill color for binary State “1001”.
Text09	String	”1001”	Displayed text for binary State “1001”.
TextColor09	Color	PCBinaryDefaultText	Text color for binary State “1001”
Color10	Color	PCHPHMIOnIndication	Fill color for binary State “1010”.
Text10	String	”1010”	Displayed text for binary State “1010”.
TextColor10	Color	PCBinaryDefaultText	Text color for binary State “1010”
Color11	Color	PCHPHMIOnIndication	Fill color for binary State “1011”.
Text11	String	”1011”	Displayed text for binary State “1011”.
TextColor11	Color	PCBinaryDefaultText	Text color for binary State “1011”
Color12	Color	PCHPHMIOnIndication	Fill color for binary State “1100”.
Text12	String	”1100”	Displayed text for binary State “1100”.
TextColor12	Color	PCBinaryDefaultText	Text color for binary State “1100”
Color13	Color	PCHPHMIOnIndication	Fill color for binary State “1101”.
Text13	String	”1101”	Displayed text for binary State “1101”.
TextColor13	Color	PCBinaryDefaultText	Text color for binary State “1101”
Color14	Color	PCHPHMIOnIndication	Fill color for binary State “1110”.
Text14	String	”1110”	Displayed text for binary State “1110”.
TextColor14	Color	PCBinaryDefaultText	Text color for binary State “1110”
Color15	Color	PCHPHMIOnIndication	Fill color for binary State “1111”.

Name	Type	Default	Description
Text15	String	”1111”	Displayed text for binary State “1111”.
TextColor15	Color	PCBinaryDefaultText	Text color for binary State “1111”
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-35: 4-Bit text box Properties

3.5.8 Numeric Indication properties

Name	Type	Default	Description
FillColor	Color	PCHPHMIBackground	Color of the background part of the value text box
RangeFraction	Integer	5	Range fraction high/low for input window in percent.
ShowInputWindow	Boolean	False	Enables input window for writing values to controller. This property is configured only for writable signals. **Note:** Availability of input window during operation can depend also on object mode (manual, auto, etc.)
StepSize	Real	1	Step size for changes in the input window
TextColor	Color	PCHPHMIValues	Returns/sets the text color for the value
ValuePosition	Integer	55	Horizontal alignment of value and dimension – offset from left side in pixels.
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-36: Value text box Properties

3.5.9 Limit Text Box and Binary values properties

The text box displays status texts 0 and 1 for:

- HH limit signal (AHHY)
- H limit signal (AHY)
- L limit signal (ALY)
- LL limit signal (ALLY)

Dependent on the input signal the text box is either displayed with configurable font color and background color according to the alarm priority, or with font color according to the alarm priority and configurable background color.

Name	Type	Default	Description
Color0	Color	PCHPHMIOffIndication	Fill color for Zero State of the limit signal (switched off).

Name	Type	Default	Description
Color1	Color	PCHPHMIOnIndication	Fill color for Zero State of the limit signal (switched off). (When switched on and UsePrioColor is set to true, the fill color will get automatically the priority color of the alarm.)
TextColor0	Color	PCBinaryDefaultText	Text color for off State of the limit signal (switched on). (When switched off and UsePrioColor set to true then text color will get automatically the priority color of the alarm)
TextColor1	Color	PCBinaryDefaultText	Text color for One State of the limit signal (switched on).
Text0	String	“False”	Displayed text if Zero State (switched off)
Text1	String	“True”	Displayed text if One State (switched on)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-37: Limit Text box Properties

3.5.10 Mode Icon properties for various devices

The mode icons that present current state of a process object are available for Bucket Wheels, Compressors, Fans, Flaps, Motors, Pumps, Valves, Return Symbol.

For more details refer to section 3.4.5. There is no alarm indication on HP HMI elements.

3-Way-Valve

Name	Type	Default	Description
FailSafe	ENUM	FailSafe_Nothing	FailSafeNothing, FailSafeOpen, FailSafeClose
ValvePalette	ENUM	General	General, Pneumatic, Manual,Motor, Box, RoundPalette, Electrical
ValvePosition	ENUM	BottomLeft	Indicates flow direction for the colors: BottomLeft, LeftRight, RightBottom, LeftBottom, RightLeft
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State (if it is going on) (only IDF)

Name	Type	Default	Description
IsOff	Color	PCHPHMIOffIndication	Fill color for the Zero state (switched off).
IsOn	Color	PCHPHMIOnIndication	Fill color for the One state (switched on).
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped (only IDF)
Orientation	ENUM	0 -Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
OV_compare_value	Real	3.0	If controller output value > "OV_compare_value" then "IsOn" color will be displayed (only when element behavior is based on integer or real value)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-38: Three Way Valve Properties

Bucket Wheel

Name	Type	Default	Description
BucketWheelType	ENUM	3-EightLines	TwoLines, FourLines, SixLines, EightLines
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for if is going off (only IDF)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color if is going on (only IDF)
IsOff	Color	PCHPHMIOffIndication	Fill color if switched off
IsOn	Color	PCHPHMIOnIndication	Fill color if switched on
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped (only IDF)
Orientation	ENUM	0 -Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
OV_compare_value	Real	3.0	If controller output value > "OV_compare_value" then "IsOn" color will be displayed (only when element behavior is based on integer or real value)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-39: Bucket Wheel Properties

Compressor

Name	Type	Default	Description
CompressorPalette	ENUM	General	General, RootsVacuum, Displacement, Turbo, Screw, Vane, Piston, Diaphragm
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCHPHMIOffIndication	Fill color for the Zero state (switched off).
IsOn	Color	PCHPHMIOnIndication	Fill color for the One state (switched on).
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
OV_compare_value	Real	3.0	If controller output value > "OV_compare_value" then "IsOn" color will be displayed (only when element behavior is based on integer or real value)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-40: Compressor Properties

Engine

Name	Type	Default	Description
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCHPHMIOffIndication	Fill color for the Zero state (switched off).
IsOn	Color	PCHPHMIOnIndication	Fill color for the One state (switched on).
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped (only IDF)

Name	Type	Default	Description
Label	String	“A”	Label text (ASCII)
OV_compare_value	Real	3.0	If controller output value > "OV_compare_value" then "IsOn" color will be displayed (only when element behavior is based on integer or real value)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-41: Engine Properties

Fan

Name	Type	Default	Description
FanPalette	ENUM	General	General, Radial, Axial
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	COLOR	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	COLOR	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	COLOR	PCHPHMIOffIndication	Fill color for the Zero state (switched off).
IsOn	COLOR	PCHPHMIOnIndication	Fill color for the One state (switched on).
IsStopped	COLOR	PCHPHMIOffIndication	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
OV_compare_value	Real	3.0	If controller output value > "OV_compare_value" then "IsOn" color will be displayed (only when element behavior is based on integer or real value)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-42: Fan Properties

Flap

Name	Type	Default	Description
FailSafe	ENUM	FailSafe_Nothing	FailSafeNothing, FailSafeOpen, FailSafeClose
FlapPalette	ENUM	General	General, Pneumatic, Manual, Motor, Box, RoundPalette, Electrical

Name	Type	Default	Description
FlapType	ENUM	DefaultFlap	DefaultFlap, ShutOffFlap, OneWayFlap
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCHPHMIOffIndication	Fill color for the Zero state (switched off).
IsOn	Color	PCHPHMIOnIndication	Fill color for the One state (switched on).
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight,Right, TopRight
OV_compare_value	Real	3.0	If controller output value > "OV_compare_value" then "IsOn" color will be displayed (only when element behavior is based on integer or real value)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-43: Flap Properties

Pump

Name	Type	Default	Description
PumpPalette	ENUM	General	General, Centrifugal, Displacement, Gear, ScrewSpindle, ExcentricScrew, Piston, DiaphragmVacuum
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCHPHMIOffIndication	Fill color for the Zero state (switched off).
IsOn	Color	PCHPHMIOnIndication	Fill color for the One state (switched on).
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped

Name	Type	Default	Description
			(only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
OV_compare_ value	Real	3.0	If controller output value > "OV_compare_value" then "IsOn" color will be displayed (only when element behavior is based on integer or real value)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-44: Pump Properties

Valve

Name	Type	Default	Description
FailSafe	ENUM	FailSafe_Nothing	FailSafeNothing, FailSafeOpen, FailSafeClose
ValvePalette	ENUM	General	General, Pneumatic, Manual, Motor, Box, RoundPalette, 6Electrical
ShutOff	Boolean	False	False, True
DefaultColor	Color	PCBinaryDefault	Fill color if no standard state is actual
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State (if it is going on) (only IDF)
IsOff	Color	PCHPHMIOffIndication	Fill color for the Zero state (switched off).
IsOn	Color	PCHPHMIOnIndication	Fill color for the One state (switched on).
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped (only IDF)
Orientation	ENUM	Top	Top, TopLeft, Left, BottomLeft, Bottom, BottomRight, Right, TopRight
OV_compare_value	Real	3.0	If controller output value > "OV_compare_value" then "IsOn" color will be displayed (only when element behavior is based on integer or real value)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-45: Valve Properties

Return Icon

Name	Type	Default	Description
IsGoingOff	Color	PCHPHMIGoOffIndication	Fill color for the transition from One to Zero state (if it is going off) (only IDF)
IsGoingOn	Color	PCHPHMIGoOnIndication	Fill color for the transition from Zero to One State (if it is going on). (only IDF)
IsOff	Color	PCHPHMIOffIndication	Fill color for the Zero state (switched off).
IsOn	Color	PCHPHMIOnIndication	Fill color for the One state (switched on).
IsStopped	Color	PCHPHMIOffIndication	Fill color if is stopped. (only IDF)
For standard and other graphic properties refer to page 8 and page 9.			

Table 3-46: Return Element Properties

4. Revision

Rev. ind.	Chapter	Description	Date/Init.
-d1	All	Created	30.06.2011/RP
-		Reviewed and approved	01.07.2011/FB
A		Reviewed and approved for V6.0-0	21.03.2016/FB
Bd1		Reviewed and added with user enumerations	30.09.2016/FB

Table 4-1 – Revision

3BDA033478-601 Germany 2016-09-29

BU Oil, Gas and Petrochemical
Frankfurt, Germany
www.abb.com/Chemicals