

ABB Software UX Design Guidelines

DRAFT v0.1

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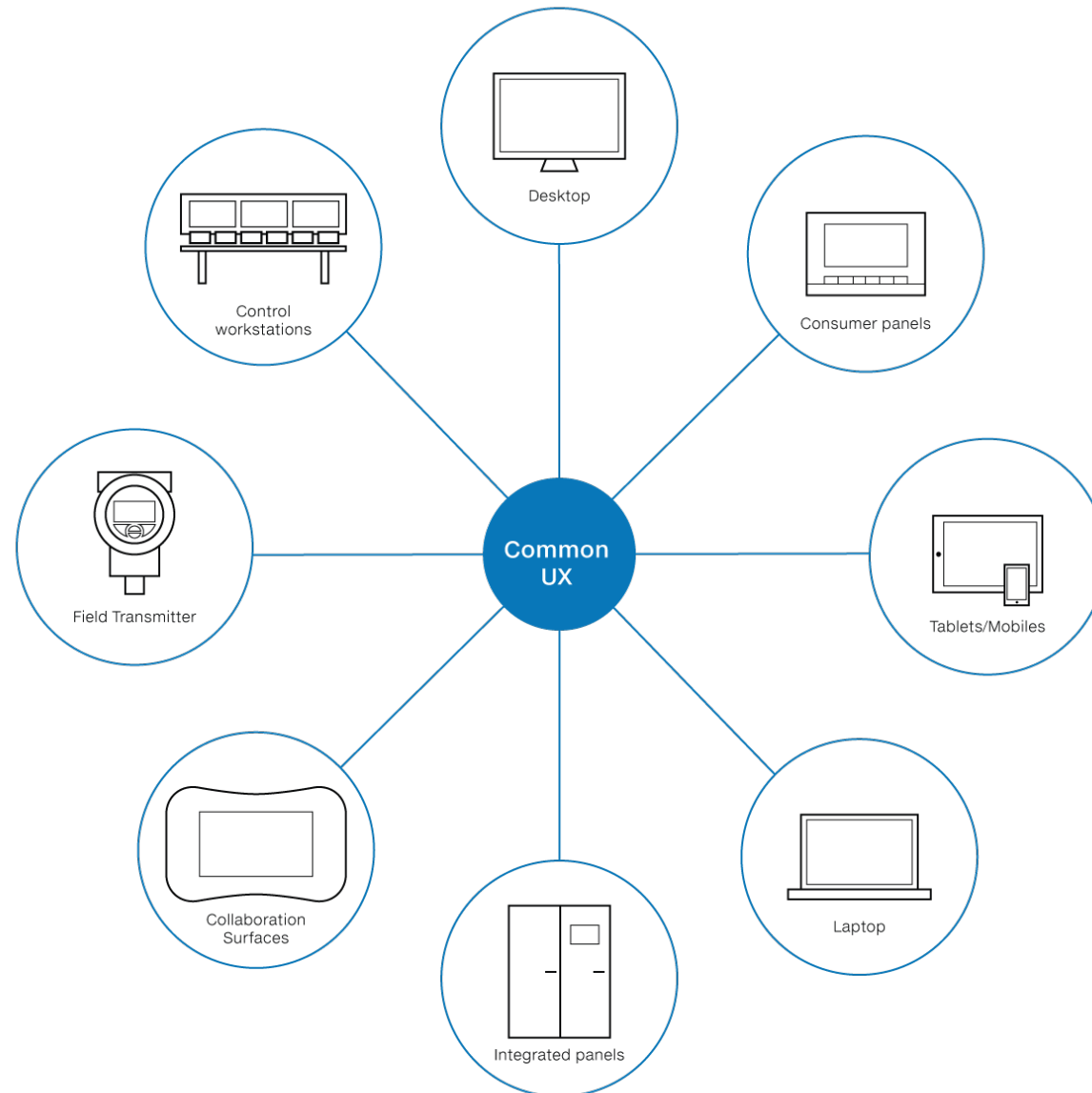
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01

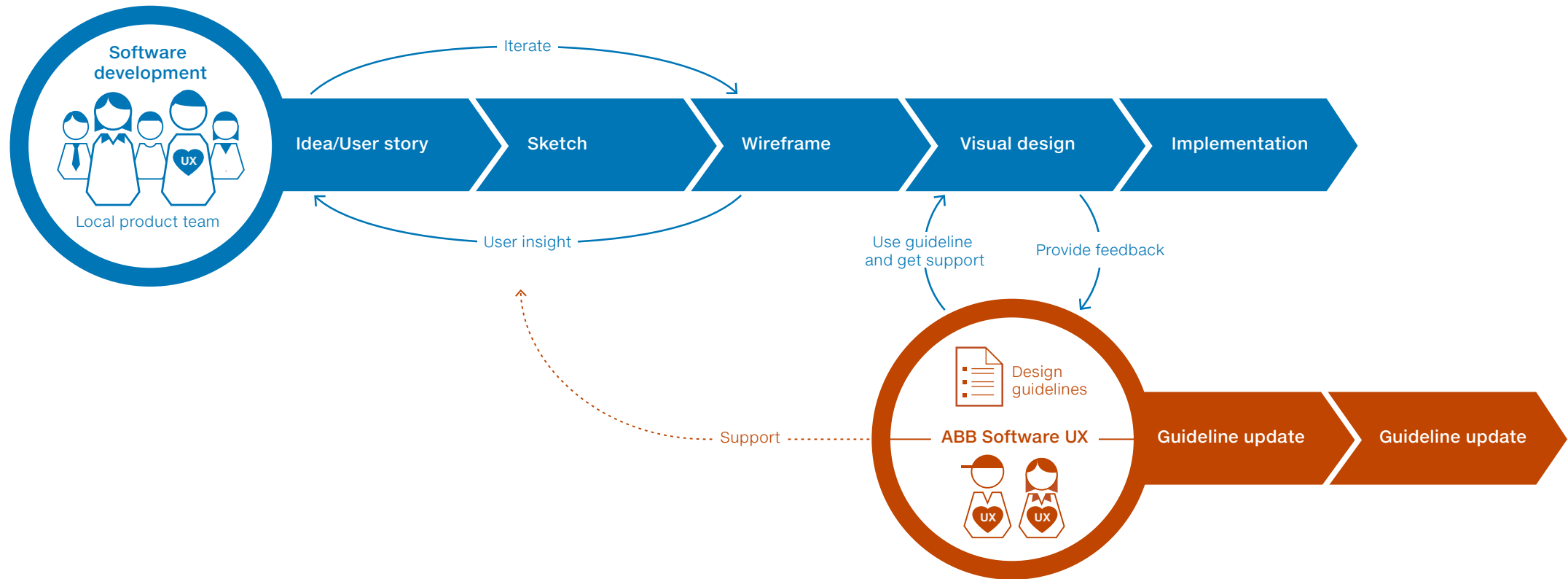
Introduction

Software interfaces in ABB

ABB has a large variety of different software user interfaces and the main challenge is to find a common look and feel that works on all formats. Beside various screens there are contrary work situations, for example office vs field. also, there are challenges related to different user interaction methods like touch, keyboard and mouse, trackpads, etc.



How to use the guidelines in your design process



Design Guidelines Hierarchy

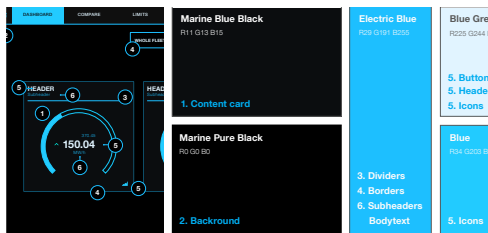
Future: Common UX Guidelines

The ABB design philosophy

Group Level Software Guidelines

Common software UX: style, color schemes, typography, UI components, patterns/best practises

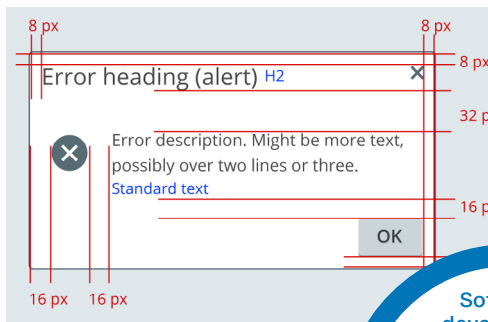
Group Level Product
Guidelines



Optional: BU specific SW Guidelines

Guidelines handling industry/domain specific requirements

Other BU SW Guidelines



Product specification/ documentation

Margins, content specifications, device/platform adjustments, etc

Other Product specifications



02

The ABB Look & Feel

Guiding design principles

The main principle is to provide the user with a familiar and easy to understand interface, that at the same time reflects the ABB brand values.

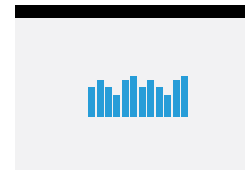
The world of ABB is built on black and white and the color is bright. These essentials of the brand identity can't be used directly as UX design principles. The digital product range of ABB is enormous and different system requirements and platforms make it harder to find common design principles.

We aim to translate ABB brand values into UX design principles. The key is to find the lowest common denominators which will work across all platforms and requirements.



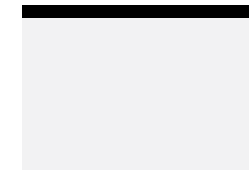
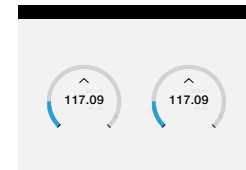
CLEAN

Simple and information-oriented graphics, and a well-arranged layout will convey a **professional** look and feel.



SIGNIFICANT

The black top bar and the vivid blue highlights will appear **powerful** and **engaging**. The overall look shall reflect passion for technology.



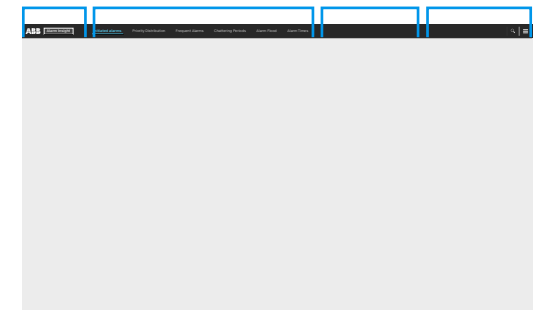
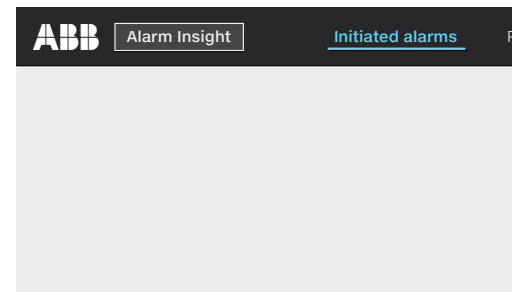
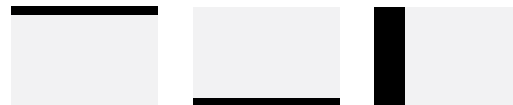
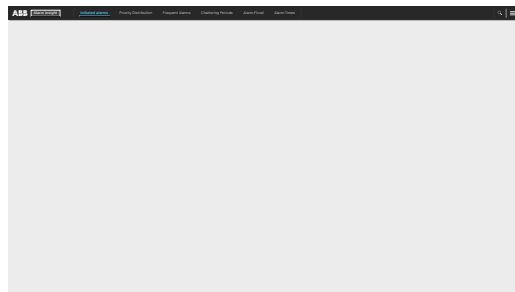
FLEXIBLE

The key elements will be **adjustable** in size and positioning to ensure that product needs will be fulfilled. Always adapt to context of use.

Disclaimer: Initial thoughts only

The black ABB bar

A clean, but significant black bar, highlighting the ABB brand and product name in an elegant way.



A visual landmark

The navigation bar will be one of the main elements which strengthens the ABB look and feel. It is significant, but still neutral enough to allow main content to stand out.

Flexibility

The navigation bar will be flexible enough to adapt to different product needs and work flows. The top bar will be the primary solution.

Black and white

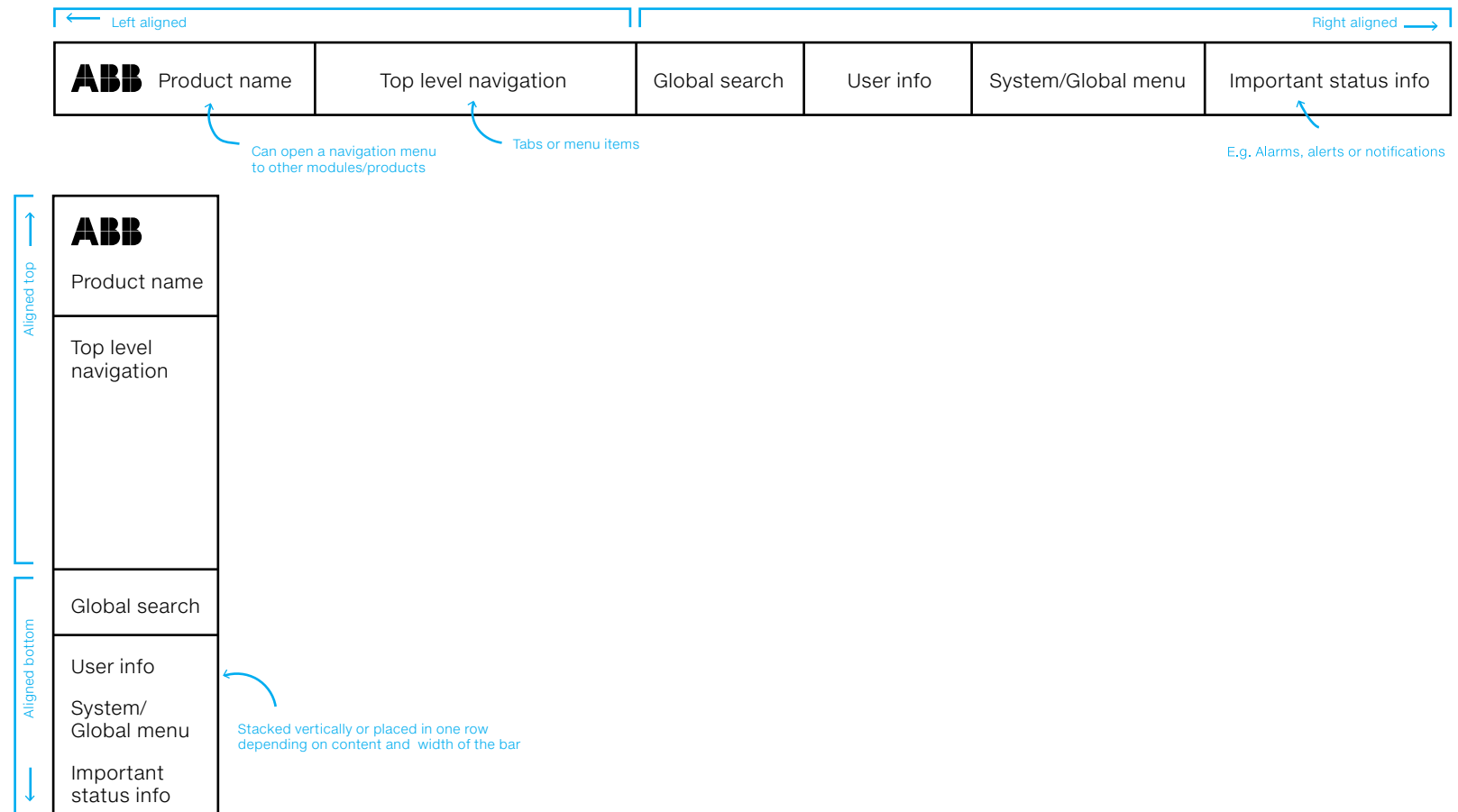
The black and white look with blue highlights will give every system a strong frame that looks powerful and elegant.

Information rich

The main navigation and important elements will be placed in the black bar. Critical information will have a certain place and the user will always know where to find what he is looking for.

The black bar can be either placed on top (primary), on the side or bottom (secondary).

In order to keep the navigation across all applications consistent the bar should only be used for global top level navigation and functions. Local tools should be placed in a tool bar below.



Colors

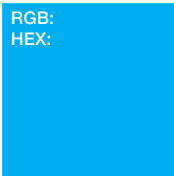
Colors used for ABB digital products are based on the primary and secondary colors defined in the guidelines for ABB's basic elements of visual identity.

Black and different shades of grey will be the primary colours and shades of blue will be used as secondary colours. The colour blue is a good contrast to the black and grey tones and at the same time subtle enough to take a back seat. For example, alarm colours like red, magenta and yellow should have priority when present.

Blue will mainly be used for dynamic elements, and for important graphical elements that need to be highlighted.



Backgrounds and general content



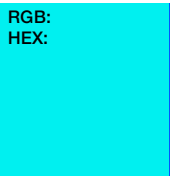
Primary highlight



Supporting highlights



Highlight accent



Typical alarms – may vary depending on industry standards

Typography

Neue Helvetica eText is the corporate typeface designed especially for clear display and legibility on the full range of devices such as smartphones, tablets, eReaders and the Web.

It provides improved performance and readability on small screens and in low resolution environments.

Use the Neue Helvetica eText font primarily in its light and medium styles. Bold should only be used in exceptional cases when extra emphasis is required.

Other versions of this typeface, such as condensed, expanded or outline, shall not be used.

The typeface has been licensed by GF-CC (Corporate Communications) for ABB software and web applications.

Use Arial as fallback font when something prevents use of Neue Helvetica eText.

Neue Helvetica eText

Light

AaBbCcDdEeFfGgHhIiJjKkLl
MmNnOoPpQqRrSsTtUuVv
WwXxYyZz
0123456789 !"#%&/()=?+

Medium

AaBbCcDdEeFfGgHhIiJjKkLl
MmNnOoPpQqRrSsTtUuVv
WwXxYyZz
0123456789 !"#%&/()=?+

Bold

AaBbCcDdEeFfGgHhIiJjKkLl
MmNnOoPpQqRrSsTtUuVv
WwXxYyZz
0123456789 !"#%&/()=?+

Fallback font: Arial

Regular

AaBbCcDdEeFfGgHhIiJjKkLl
MmNnOoPpQqRrSsTtUuVv
WwXxYyZz
0123456789 !"#%&/()=?+

Bold

AaBbCcDdEeFfGgHhIiJjKkLl
MmNnOoPpQqRrSsTtUuVv
WwXxYyZz
0123456789 !"#%&/()=?+

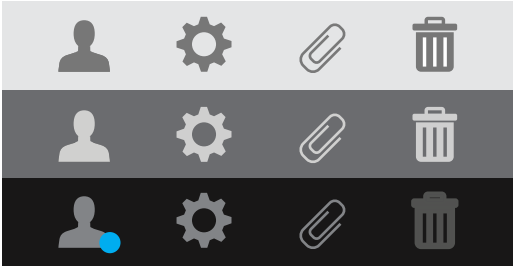
Icons

Icons are signs that represents an object, a concept, a service or an action.

The goal of icons is to provide information quickly and to enable the user to easily and intuitively navigate the system.

To secure a high value of recognition, consistent qualitative brand appearance and optimized navigation/orientation, all icons should be based on the same design rules.

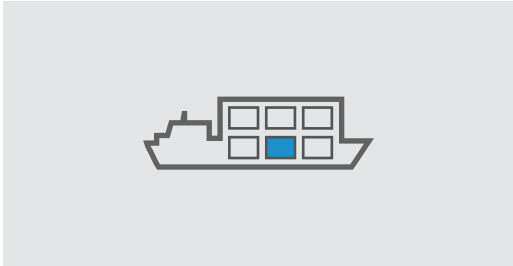
Icons from ABB are reduced to the minimum. No unnecessary details and decoration is used. The ABB brand appearance is clear and precise. In terms of a specific design language this means that e.g. no rounded frames must be used.



Primary icon style

The primary icon style is filled objects which assures a high readability also in small sizes.

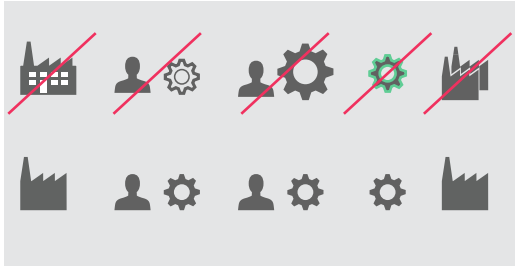
Icons will be monochrome, but context related colour highlights (notifications/badges) are permitted.



Secondary icon style

In some cases the primary icon style can't be applied. In order to get a more detailed illustration the secondary icon style with two different line strokes can be used. The thicker line frames the icon and the thinner line provides detail inside the frame.

Primary and secondary icons can't be mixed in the same context. (Same tool bar, process graphic etc)



Rules

- Keep it simple. Clear and sharp.
- Do not combine filled shapes and lines
- The size must be consistent
- Multiple colors (see exception) are not allowed
- Perspectives shall not be used

03

Structure & Layout

04

UI Components

05

Examples

06

UI development process

Methods, tools and usability
principles

07

Appendix

Screens from existing products
in a common look

Whole Fleet

All Vessels

12 Months

Energy

Daily energy consumption



MW/h



Energy

Daily energy consumption



MW/h



Energy

Daily energy consumption



MW/h



Energy

Daily energy consumption



MW/h



Energy

Daily energy consumption



MW/h



Map

Turku - Stockholm

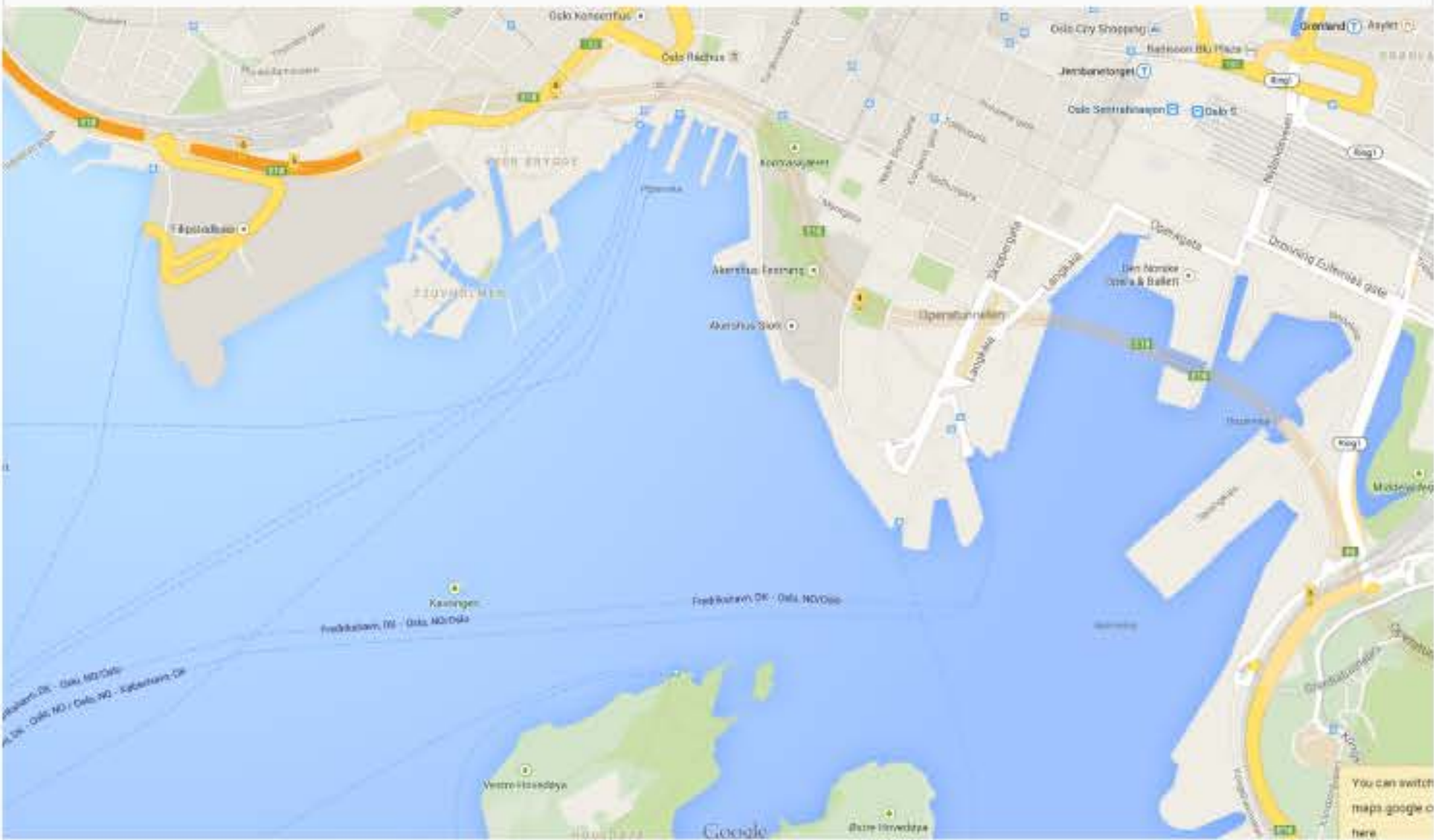


ABB vessel

Amount of passengers

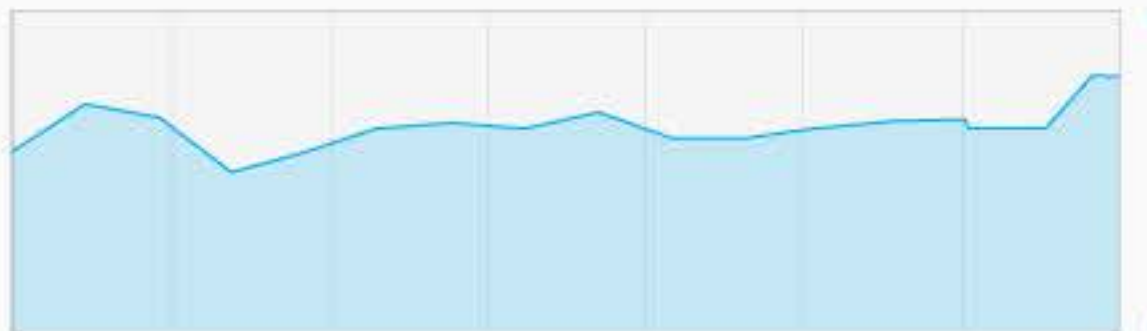
1846.00

pcs

2014 - 06.02 11.00



Vessel mini-trend



Last week



ABB vessel

Amount of passengers

730.00

pcs

2014 - 06.02 11.00



ABB vessel

Amount of passengers

1238.32

kg/h

2014 - 06.02 11.00



System 29 Water injection

Create

Edit

Share

Tools

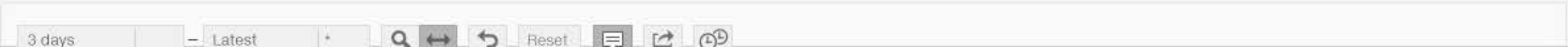
23KA001/002 1st & 2nd Stage Recompressor



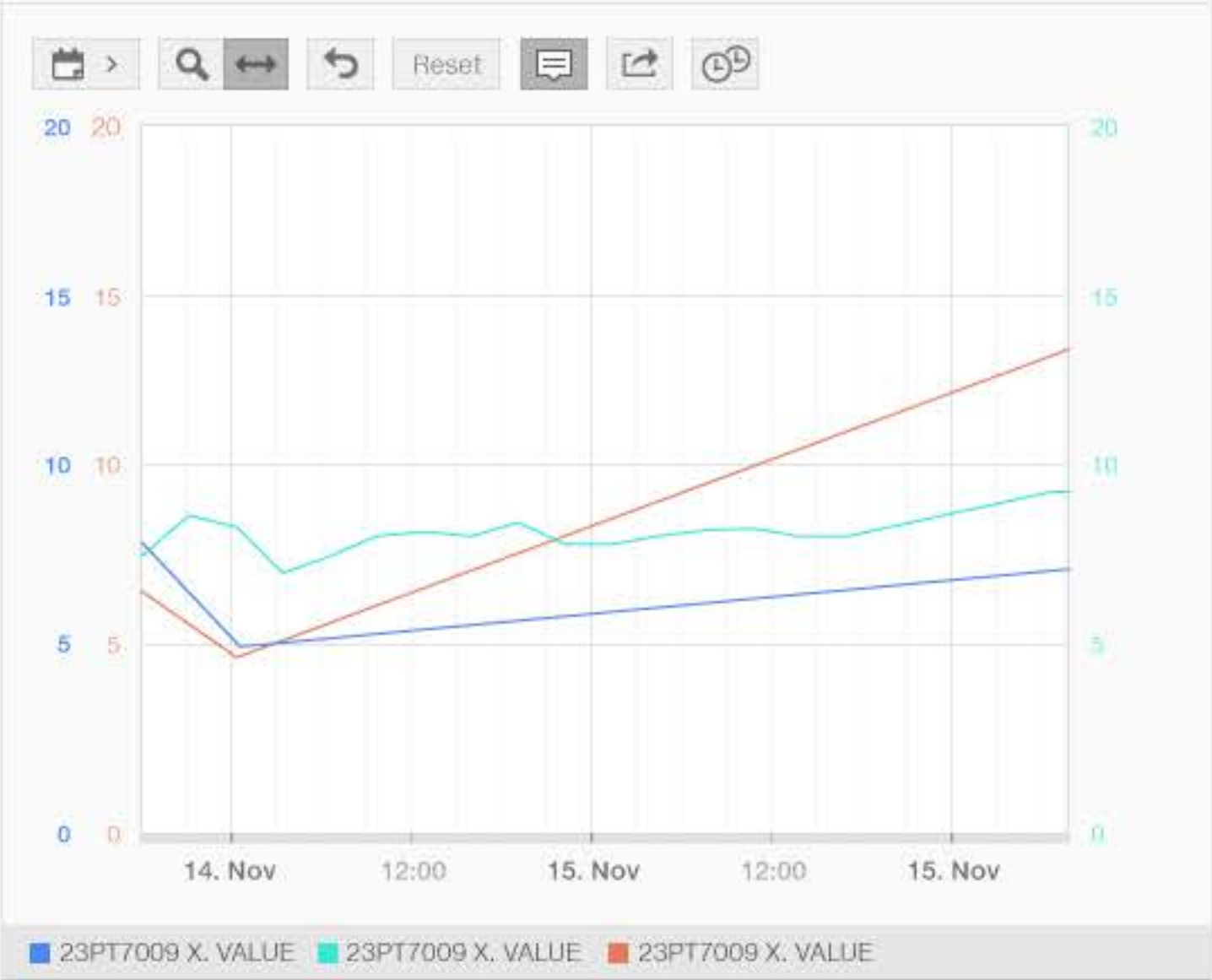
23KA001/002 1st & 2nd Stage Recompressor Key Metrics



23KA001/002 1st & 2nd Stage Recompressor



23KA001/002



23KA001/002

3 days - Latest

Tag	Description	Unit	Value
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	37.7
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	36.5

Disciplines

- > Electro
- > Rotating Equipment
- > Safety Critical Equipment
- > Main Ac Generator
- > Gas Compressors
 - 23KA001/002 1st & 2nd Stage Rec...
 - 23KA001/002 Machinery
 - 23KA001/002 Machinery (alt.)
- > Supply System
 - 23KA001/002 Lubrication
 - 23KA001/002 Seal
 - 23KA001/002 Ventilation
 - 27KA001A/002A 1st & 2nd Stage ...
 - 27KA001B/002B 1st & 2nd Stage ...
 - 27KA003 3rd Stage Compressor
- > MCM 800
- > WiMon100
- > Other
- > Oil Analysis
- > Marine
- > SAS
- > Technical Safety
- > Valve
- > Systems
- > Maintenance & Inspection
- > Environmental Monitoring

System 29 Water injection

Create Edit Share Tools

23KA001/002 1st & 2nd Stage Recompressor



23KA001/002 1st & 2nd Stage Recompressor Key Metrics



23KA001/002 1st & 2nd Stage Recompressor



23KA001/002



23KA001/002

3 days - Latest + [Icon]

Tag	Description	Unit	Value
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	38.9
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	37.7
20BDV2011	Inlet Separator Gas Ou...	Sm3/h	36.5

Filter

From01-11-201212:00

Interval10 min

Priority*

LocationGOLIAT

Area*

Process Section*

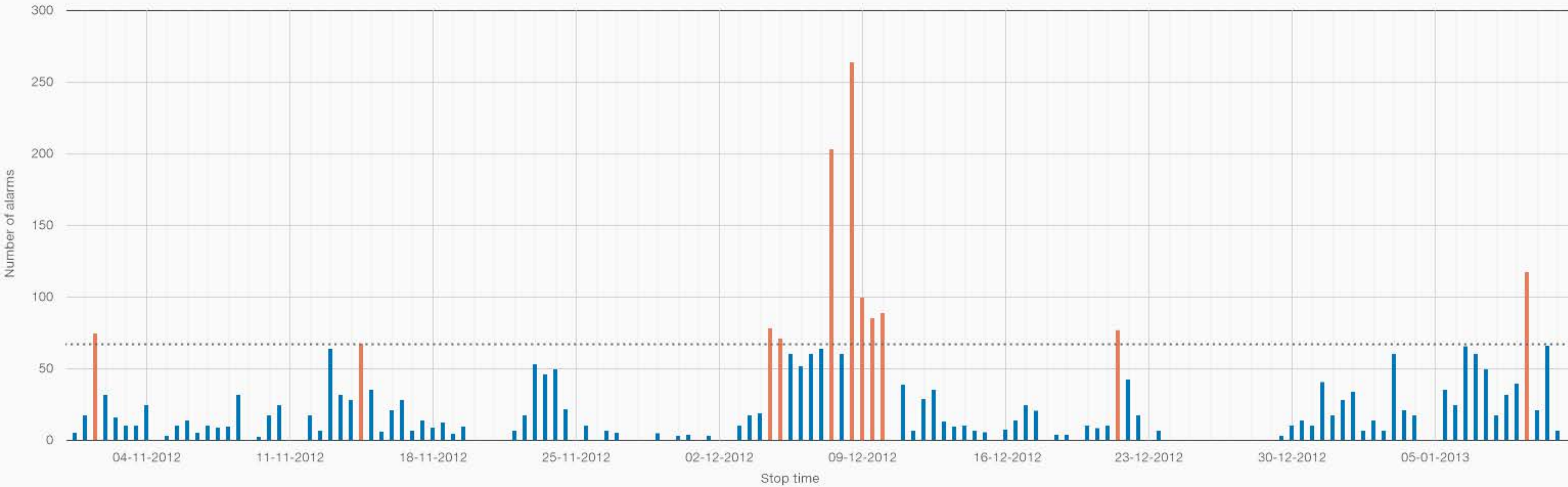
CategoryProcess

To07-01-201312:00

Apply

Graph

Total average: 2.47 Max value: 274 Number of alarms: 3005 Upset average: 120.00 Time in upset: 4.8% Upset line: 60



Table

Start time~	Stop time	Number of alarms	Alarms/min	%	
01-11-2012 12:00	01-11-2012 12:00	0	0.00	0.00	>
01-11-2012 12:10	01-11-2012 12:10	2	0.20	0.07	>
01-11-2012 12:30	01-11-2012 12:30	0	0.00	0.00	>
01-11-2012 12:40	01-11-2012 12:40	0	0.00	0.00	>
01-11-2012 12:50	01-11-2012 12:50	0	0.00	0.00	>
01-11-2012 13:00	01-11-2012 13:00	0	0.00	0.00	>
01-11-2012 13:10	01-11-2012 13:10	0	0.00	0.00	>
01-11-2012 13:20	01-11-2012 13:20	0	0.00	0.00	>
01-11-2012 13:30	01-11-2012 13:30	0	0.00	0.00	>
01-11-2012 13:40	01-11-2012 13:40	0	0.00	0.00	>

SBV_ValveType9

20PST4031_LL

File Browser

Dashboard

Examples

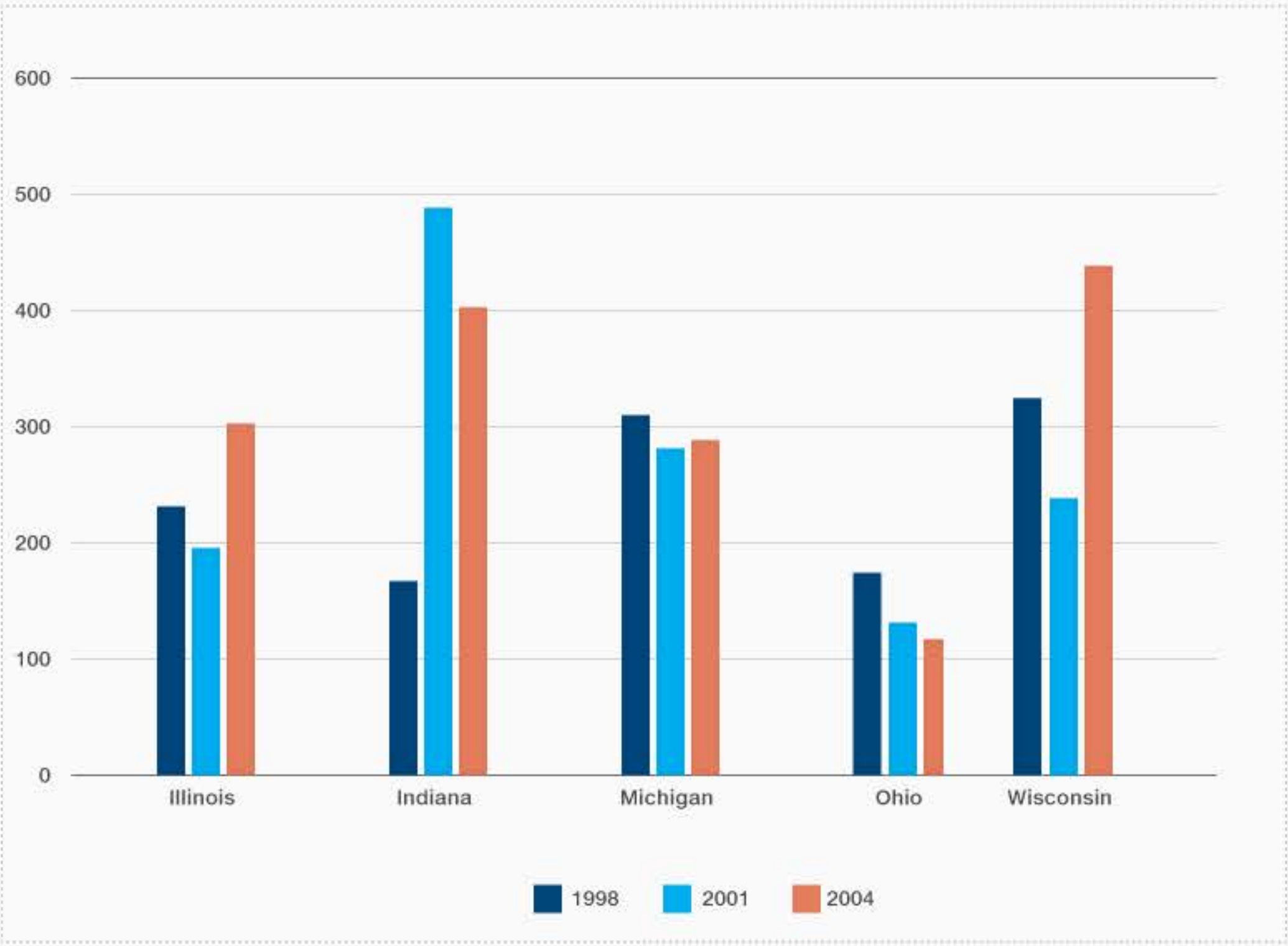
- Avg Trend
- Example 1
- Example 2
- Example 3
- OPCGauge
- OPCPieChart
- OPCTrend
- RTDB Clock
- ValueBars

Widgets

- Chart
- ChartRuler
- ValueBar
- 2.7 Value
- Gauge
- DataList
- PieChart
- Label
- TimeBar
- DEBar
- DEBeetyGantt
- DEBlueGantt
- DEGauge
- Another widget



My Bar Chart



Property Search

General properties

Width	1484
Height	885
DualLayout	<input type="checkbox"/>
Parameters	(Object) ...
Script	(Object) ...

Layout

Background

BackgroundColor	<input type="text"/>	▼
BackgroundImage	none	...
BarckgroundPosition	center	center
BackgroundSize	100%	100%

Request

→ Invoice Display