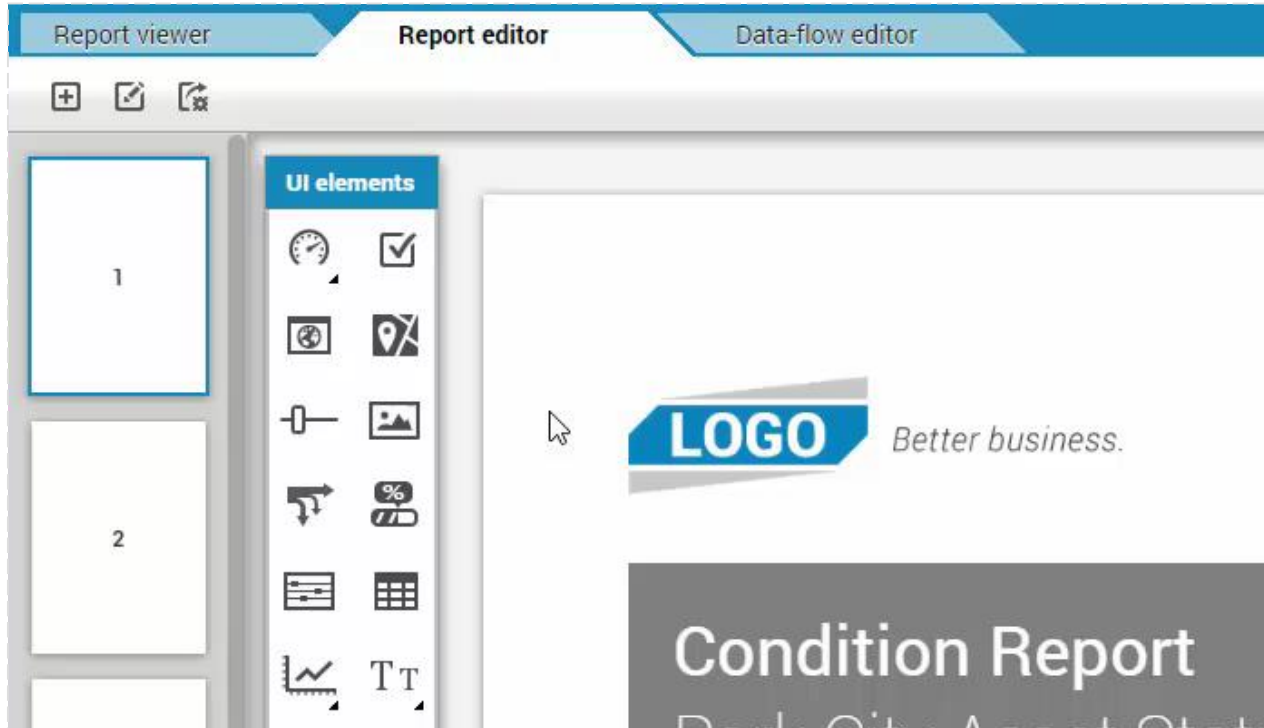


Report training



Agenda

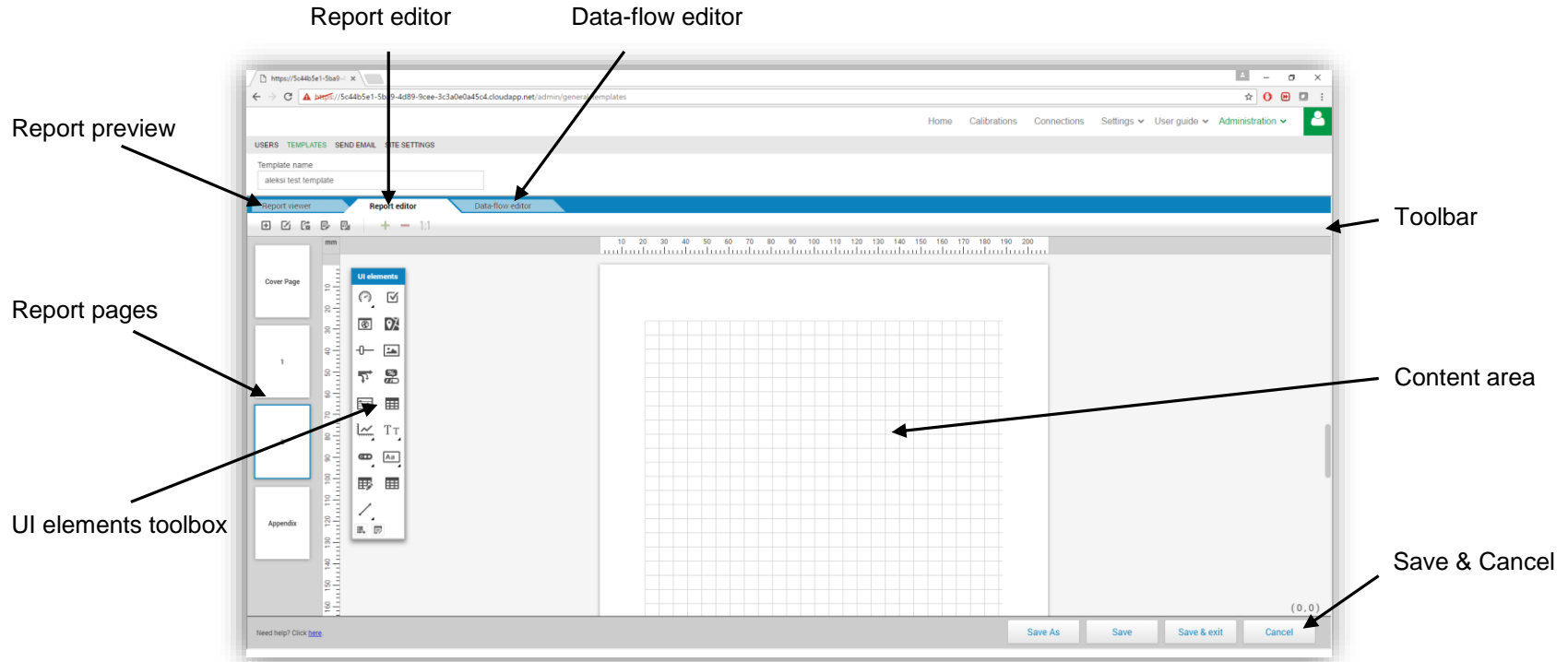
- Introduction to report building
- Overview of the essentials
- Hands-on

Targets

- Create a real report
- Establish know-how to independently create reports

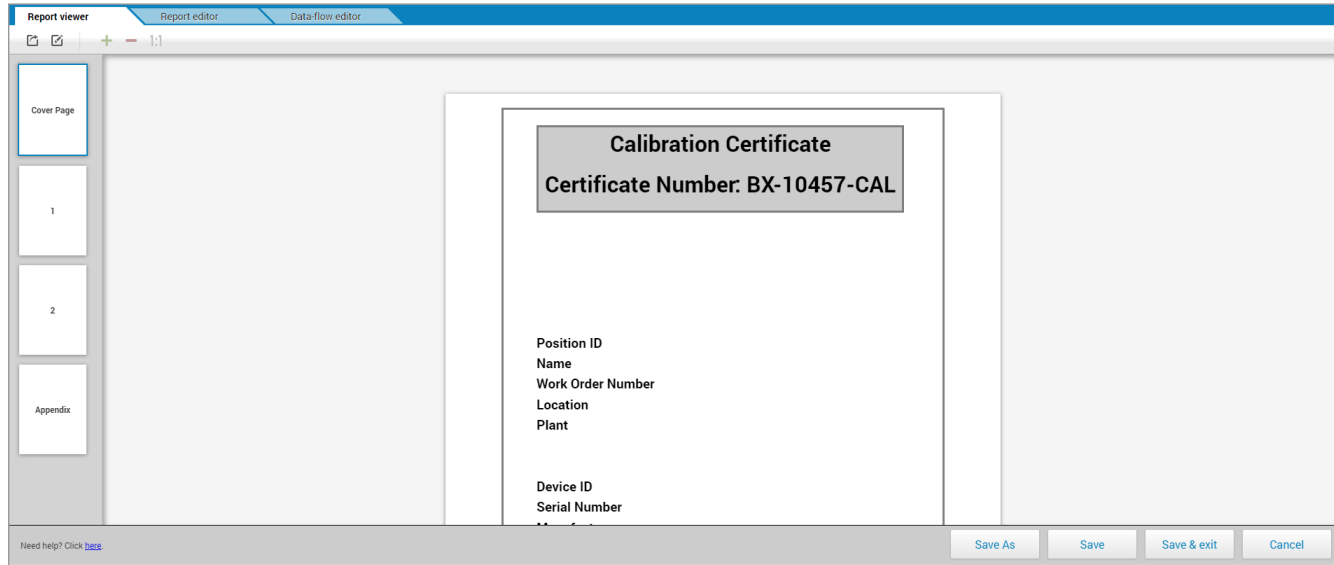
Report training

Overview



Report training

Report viewer



Features:

- Report preview of all generated elements
- Inserting possibility of report parameters
- Zooming and zooming reset functionality
- Export to PDF (not supported)
- Page scrolling via scrollbar, mouse-wheel or click on page

Report training

Report editor

The screenshot displays the 'Report editor' interface within a web browser. The browser address bar shows the URL: `https://5c44b5e1-5ba9-4d89-9cee-3c3a0e0a45c4.cloudapp.net/admin/general/templates`. The page header includes navigation links: 'USERS', 'TEMPLATES', 'SEND EMAIL', and 'SITE SETTINGS'. Below the header, there is a 'Template name' field containing 'aleksi test template'. The main workspace is titled 'Report editor' and features a grid-based design area. On the left, a 'UI elements' palette contains various icons for text, tables, and other report components. The central grid contains a 'Calibration Certificate' template with the following text:

Calibration Certificate
Certificate Number: BX-10457-CAL

Position ID	InputLabel
Name	InputLabel
Work Order Number	InputLabel
Location	InputLabel
Plant	InputLabel
Device ID	InputLabel
Serial Number	InputLabel

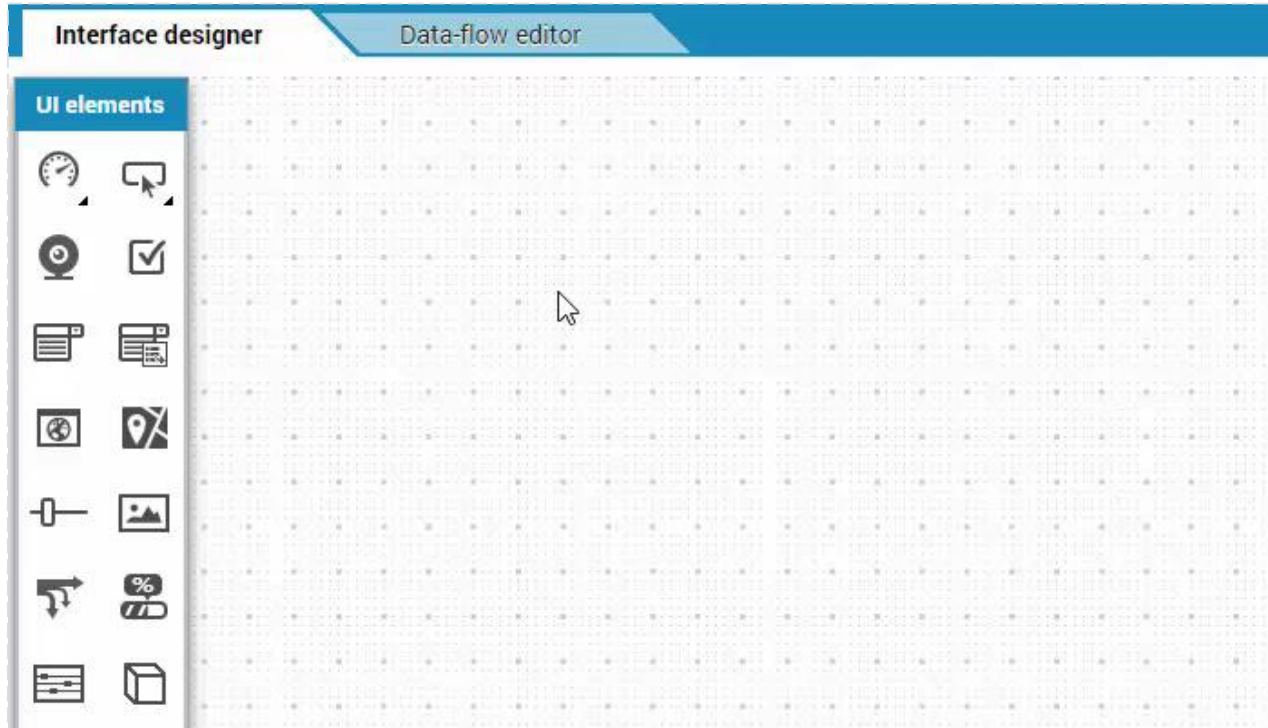
At the bottom of the workspace, there are buttons for 'Save As', 'Save', 'Save & exit', and 'Cancel'. The status bar at the bottom left says 'Need help? Click [here](#)' and the bottom right shows '(0,0)'.

Features:

- Add report pages
- Define report parameters
- Define delivery options (not supported)
- Define report configuration options
- Utilize component templates
- Zooming and zooming reset functionality
- Drag & Drop report design

Report training

UI elements toolbox



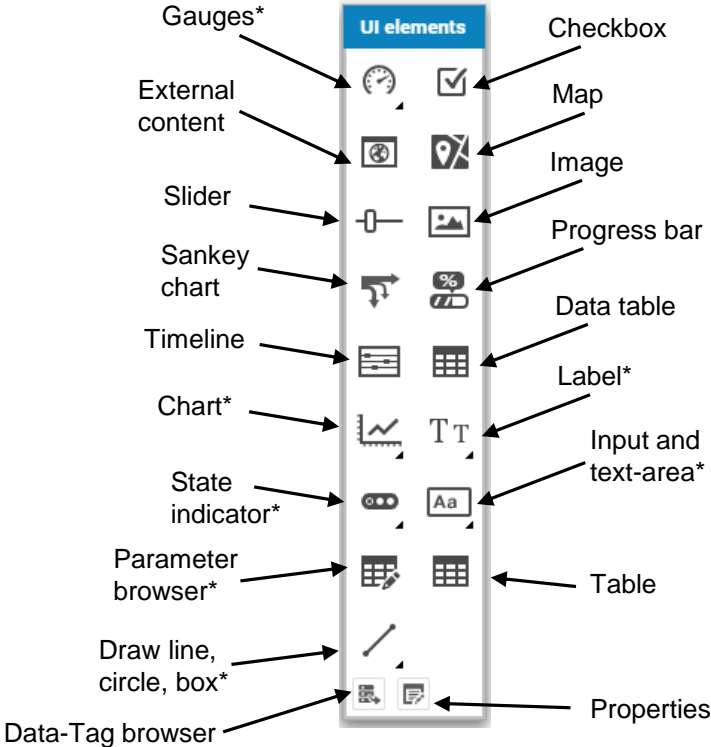
Features:

- Drag & Drop UI building
- 27 UI elements
- Data-Tags window
- Properties window
- Enable live preview

- Click items with a triangle on the bottom right to expand the element group

Report training

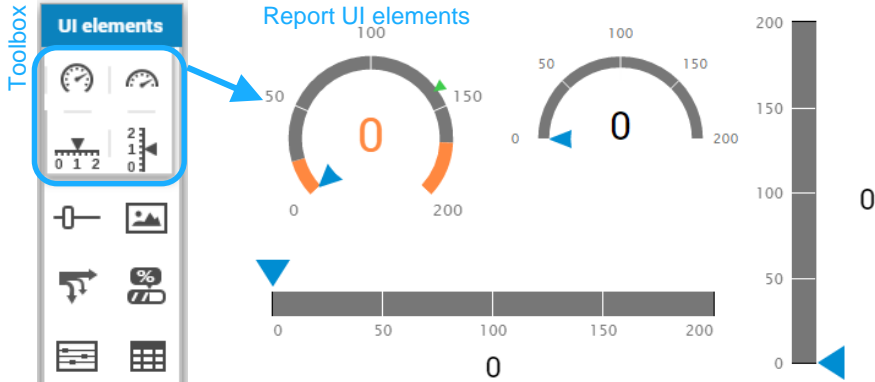
UI elements toolbox



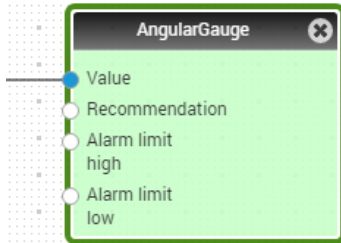
*) Indicates that this is an element icon group containing multiple sub-items

Report training

UI elements group example: Gauges



Data-flow representation



Properties and events

Filter...

AngularGauge

Name
AngularGauge

Min value
0

Max value

Properties dialog (report editor)

Widget Properties

AngularGauge

Find property

Max value 200

Min value 0

Name AngularGauge

Numerical precision 0

Show tickmarks

Unit

Report training

Content editing

Features:

- Type to insert text – create variable using `#VarName`
- Double click elements in the content area to open the property window
- Multi-select and move
- Right click to access context menu
- ALT+Click on element will jump to data-flow

Report training

Data-flow editor

The screenshot displays the 'Data-flow editor' interface. At the top, there is a blue header with 'Interface designer' and 'Data-flow editor' tabs. Below the header, there are icons for download and share, and a dropdown menu labeled 'Run data-flow on:' with 'Mixed' selected. On the left, a 'Data tags' panel lists various sensor data points: acceleration-x, acceleration-y, acceleration-z, accuracy, altitude, gps-speed, heading, headingaccuracy, illuminance, and latitude. The main workspace is a grid where several logic blocks are placed: a yellow 'Constant' block with a 'Value out' connector, a yellow 'REST Data' block with 'Trigger', 'Value out', 'Success', and 'Failure' connectors, and a green 'If-then-else' block with 'Value 1', 'Value 2', 'Value out', 'Then', and 'Else' connectors. A mouse cursor is visible over the grid.

Features:

- Create report logic visually by connecting blocks of data to logic and widget blocks
- Round connectors for value propagation
- Square connectors for event propagation
- Import / Export of reports
- Data aggregation
- Data preprocessing

Report training


Data-flow editor

The screenshot shows a web-based data-flow editor interface. On the left, there is a sidebar with 'Data tags' and a 'Toolbox' containing various mathematical and data processing functions. The main 'Content area' is a grid where components are connected. A 'ReportParameters' block is at the top left, followed by 'OnLoad trigger' and 'Trigger' blocks. A 'Constant' block connects to three 'HalfGauge' blocks. Another 'Constant' block connects to three 'KPI' blocks (KPI 1, KPI 2, KPI 3). A 'Chart' block is also connected to the 'KPI' blocks. On the right, a 'Properties and events' panel shows the configuration for the selected 'AngularGauge' component, including fields for Name, Min value, Max value, Unit, Numerical precision, and Show tickmarks. Annotations with arrows point to these four main areas: 'Data Tags', 'Toolbox', 'Content area', and 'Properties'.




Report training

Data-flow editor: Toolbox




Calculation

- $|x|$ Absolute value
- $\frac{1010}{0010}$ Bit mask
- $\frac{0010}{0010}$ Bit shift
-  Accumulation
- AVG* Average
- n* Count
- $\frac{\circ}{\circ}$ Division
- x^y Exponentiation
- log* Logarithm
- f_x Math expression
- \dots Maximum
- \dots Minimum
- \times Multiply
- $\sqrt[n]{x}$ Nth root
- 123 Number sequence
- $\frac{\circ}{10}$ Round
- \sqrt{x} Square root
- $-$ Subtraction
- Σ Sum






Logic

- $\&$ And
- $\&B$ Bit check
- $\&E$ If-then-else
-  Lookup table
- \Rightarrow Multiplex
- $\&D$ Nand
- $\&N$ Nor
- $\&T$ Not
- $\&O$ Or
- \downarrow Ordered execution
-  Switch
-  Threshold
- $\rightarrow 1$ Triggered value
- $\&X$ Xor

Data

- π Constant
-  REST Data
-  Simulate
-  Virtual Data Tag

Miscellaneous

-  Map pin
- $\leftarrow \bullet$ OnLoad trigger
-  Server status
-  Time
-  Timestamp
- $\&R$ Text replace
-  Resource info
- $\downarrow \uparrow$ Sync

Report training

Shortcuts and hints

Shortcut	Explanation
Ctrl + C	Copy
Ctrl + V	Paste
Ctrl + X	Cut
Ctrl + Z	Undo action
Ctrl + Y	Redo action
<i>Arrow keys</i>	Move selected elements by large grid units
Ctrl + <i>Arrow keys</i>	Move selected elements by one pixel
<i>Ctrl + A</i>	Select all elements
Delete	Remove selected element
Alt + <i>Left Mouse Click on element</i>	Jumps to clicked element in the data-flow / report editor and highlights it
<i>Double click on element</i>	Open property window for selected element
<i>Use #VariableName in texts</i>	Use the Hashtag in the text to create a variable with a certain name (e.g. VariableName in this case) – the variable text can then be controlled from the data-flow editor
Space	Zooms to show all elements in the dataflow-editor
<i>Mouse right-click scroll</i>	Right click the mouse while moving it around in the data-flow editor to move the content area
<i>Mouse scroll wheel</i>	Use the scroll wheel to zoom in and out in the data-flow editor
<i>Mouse right click</i>	Opens context menu for detailed selection if available (e.g. alignment, size, at al.)