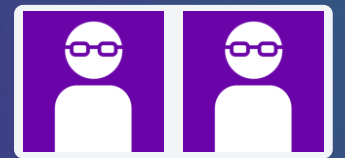


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How to leverage industrial graphics in your applications

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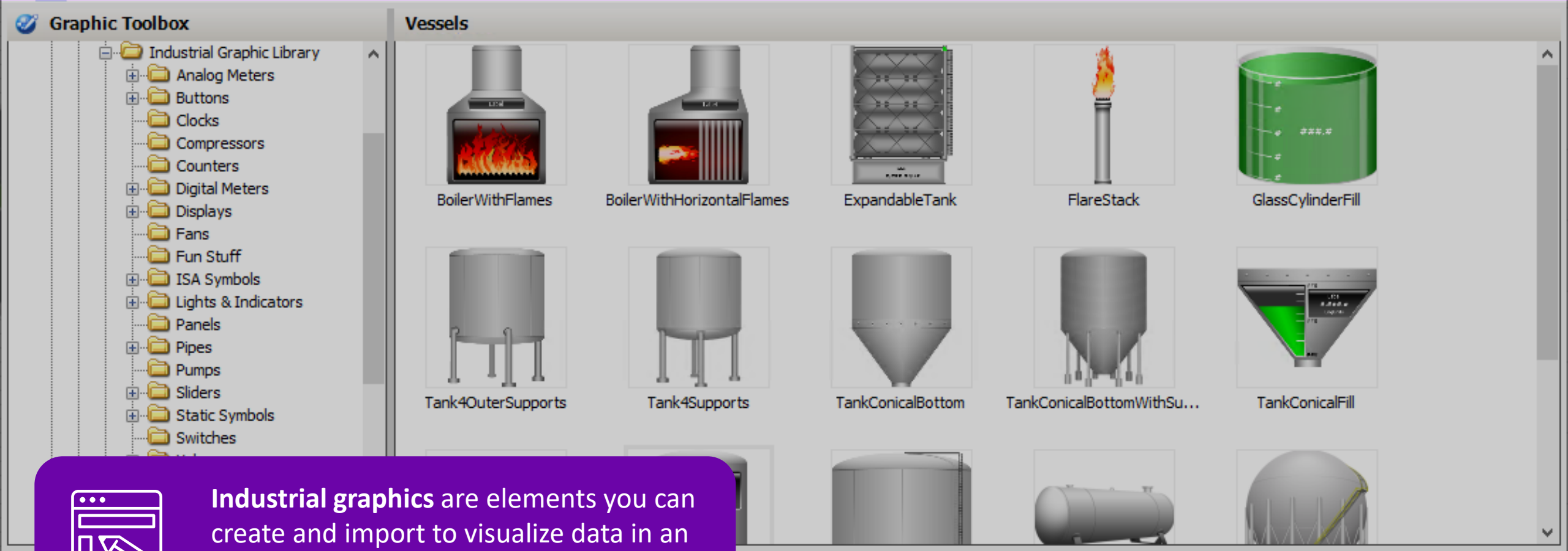
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Agenda

- About AVEVA's industrial graphics
- Industrial graphic editor
- Best practices



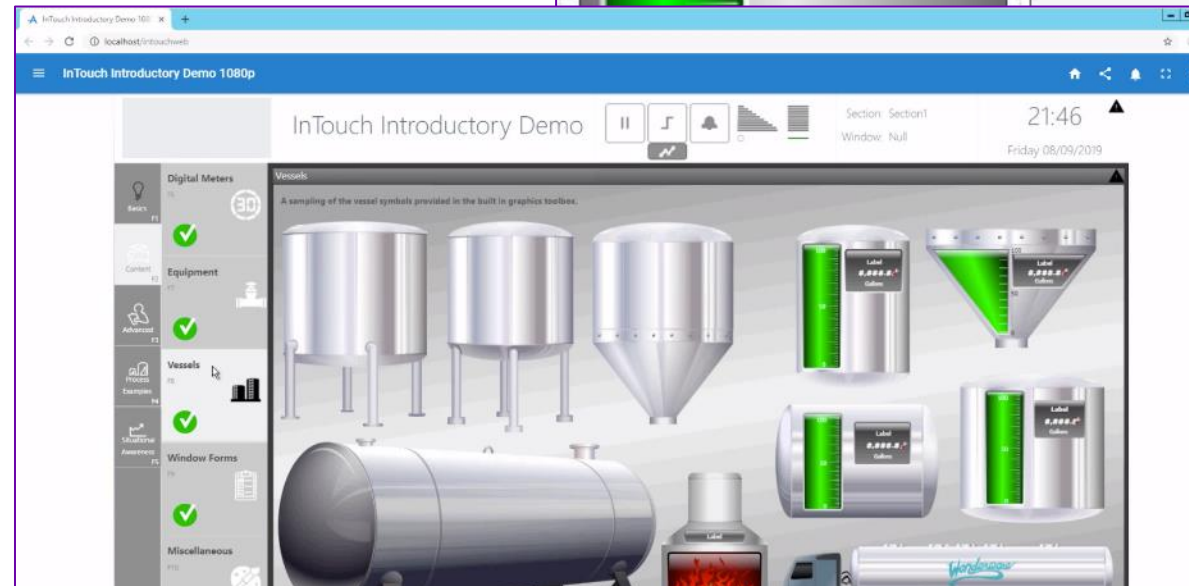
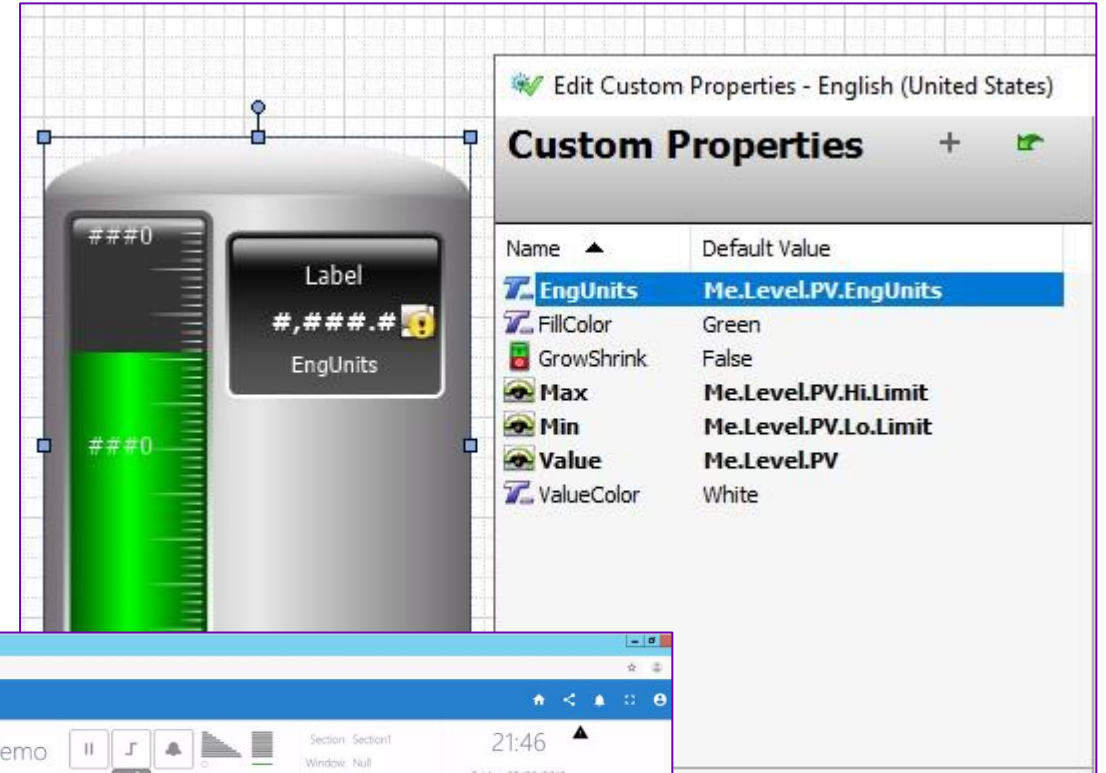
Industrial graphics are elements you can create and import to visualize data in an AVEVA HMI/SCADA system.

It helps in creating icon models, standardization, customization and saving time in system development.

1. Create and store graphics as a standard set that you can re-use, such as a generic valve graphic.
2. Store graphics as templates if you want to use the graphics in multiple instances at run time.
3. Store graphics for use in a specific application.

Why use industrial graphics?

- Cross portfolio integrations
- Web client (HTML5 browser)
- Engineering efficiency
 - Custom Properties
 - Animations
 - Scripting



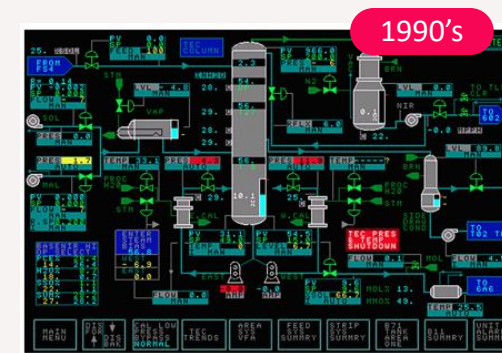
The most powerful HMI engine in the world – industrial graphics

Used across entire portfolio

- Extensive animations
- Local namespace
- Client business logic / scripts
- Quality indication
- Status indication
- Security handling
- Anchor points
- Connector points
- Change propagation
- Symbol embedding
- Data redirection
- Situational awareness
- Element styles
- Content navigation
- .NET Framework access
- Language switching
- Graphic wizards
- Alarm handling
- Numeric formatting
- More...



Today



1990's



2000's

Common graphics across portfolio

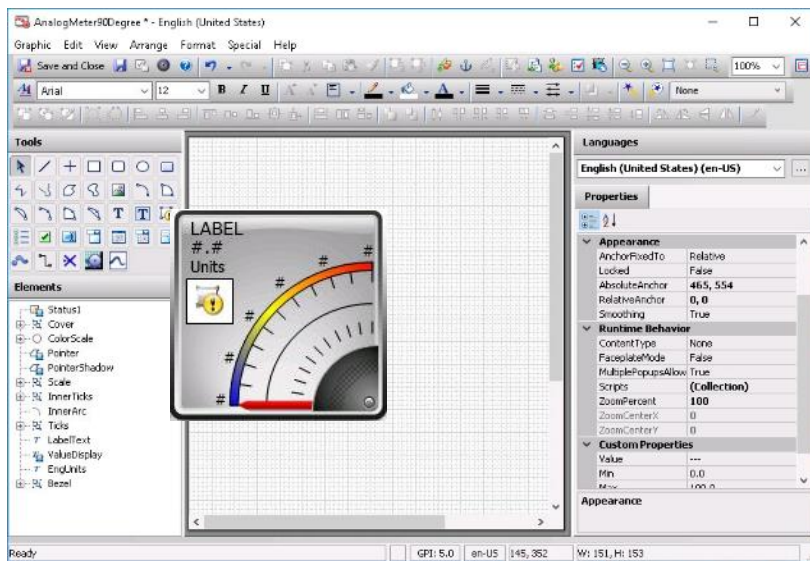
Leveraging AVEVA's cloud to build & save graphics

Engineering Efficiency , Built Once!

Common Technology across Large Customers using multi-products

Concurrent Collaborative Development across teams/sites

AVEVA™ Integration Studio



AVEVA™ System Platform



AVEVA™ OMI



AVEVA™ InTouch HMI



AVEVA™ Cloud Insight



AVEVA™ Edge

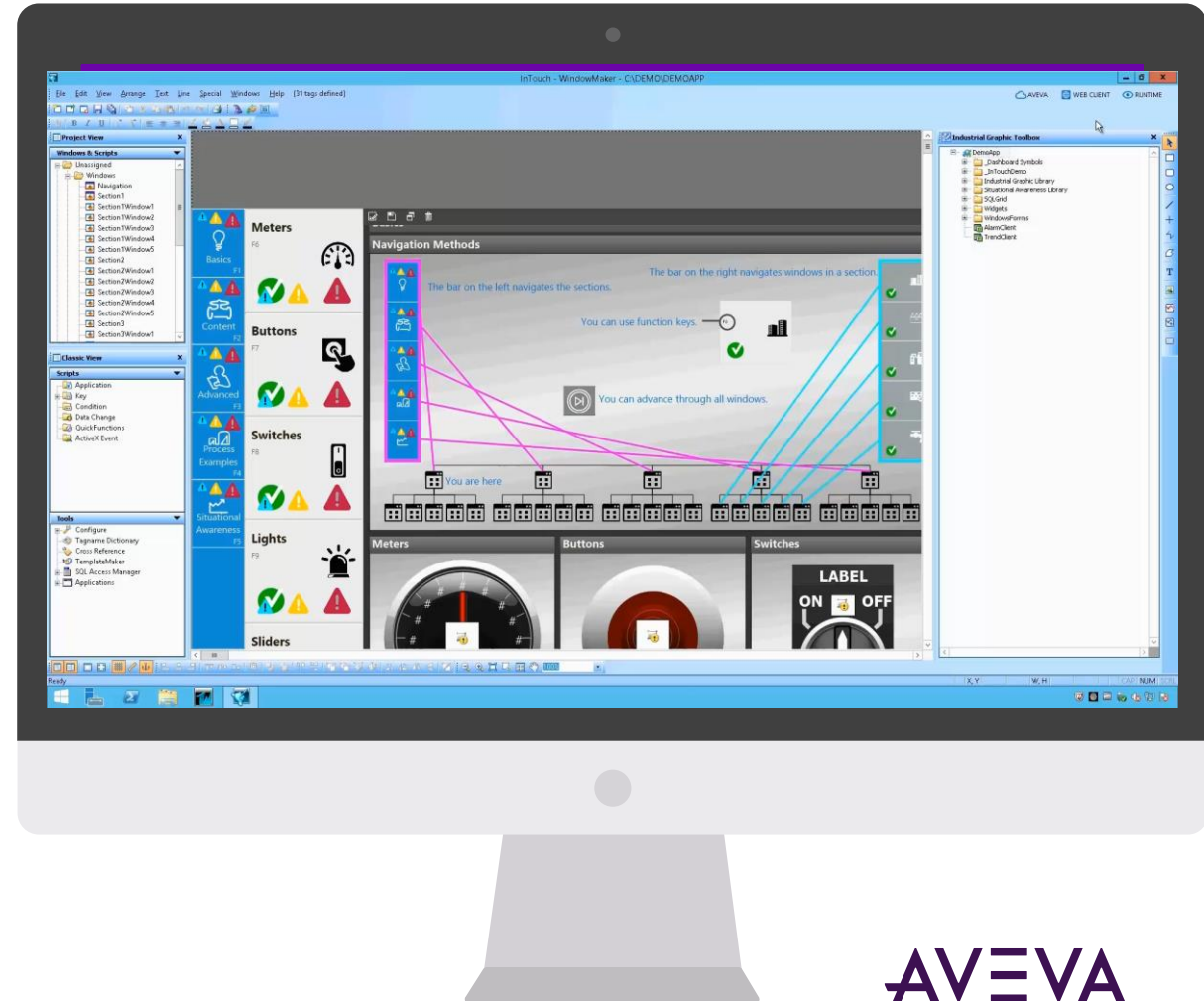


AVEVA™ Citect SCADA

Cloud management of industrial graphics

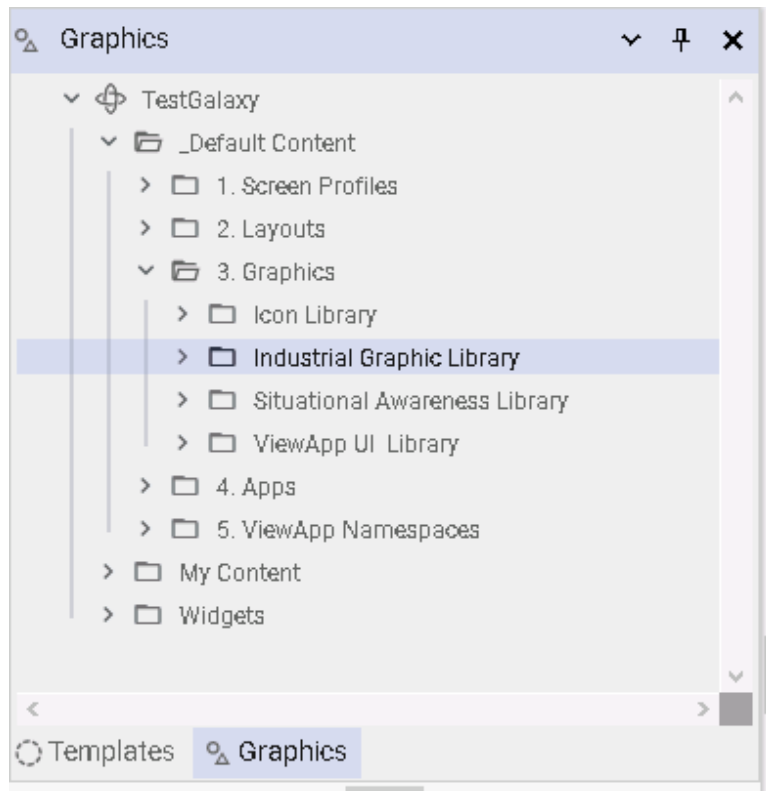
Engineering efficiency

- Industrial graphics and web widgets in AVEVA's cloud
- Easily share your graphical standards with others, through a team or an organization
- Personal Drive cloud storage
- Shared Drive cloud storage
- Drag and drop industrial graphics or complete toolsets
- Access via Development Studio subscription

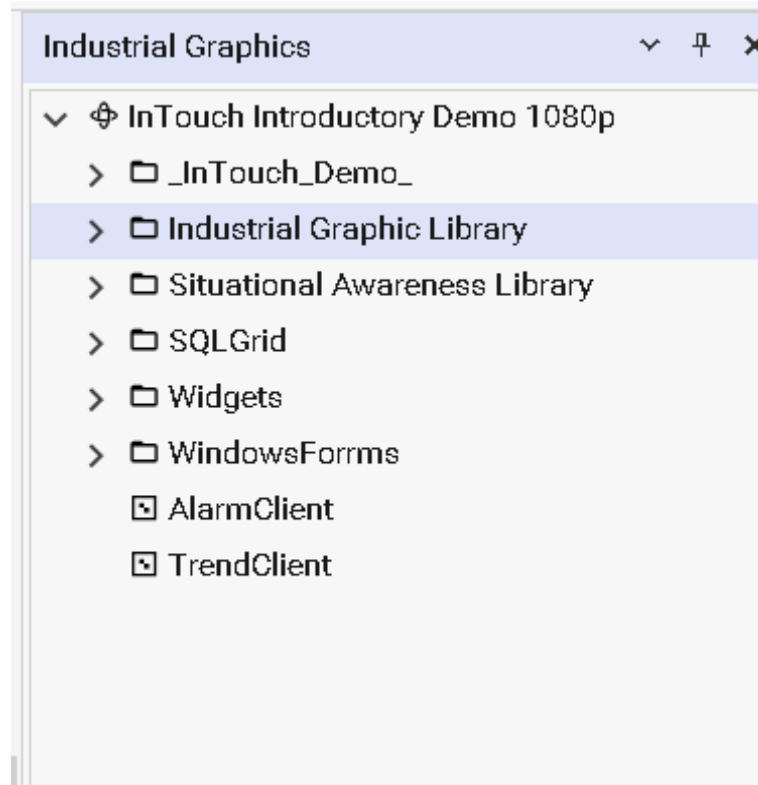


Industrial graphics library

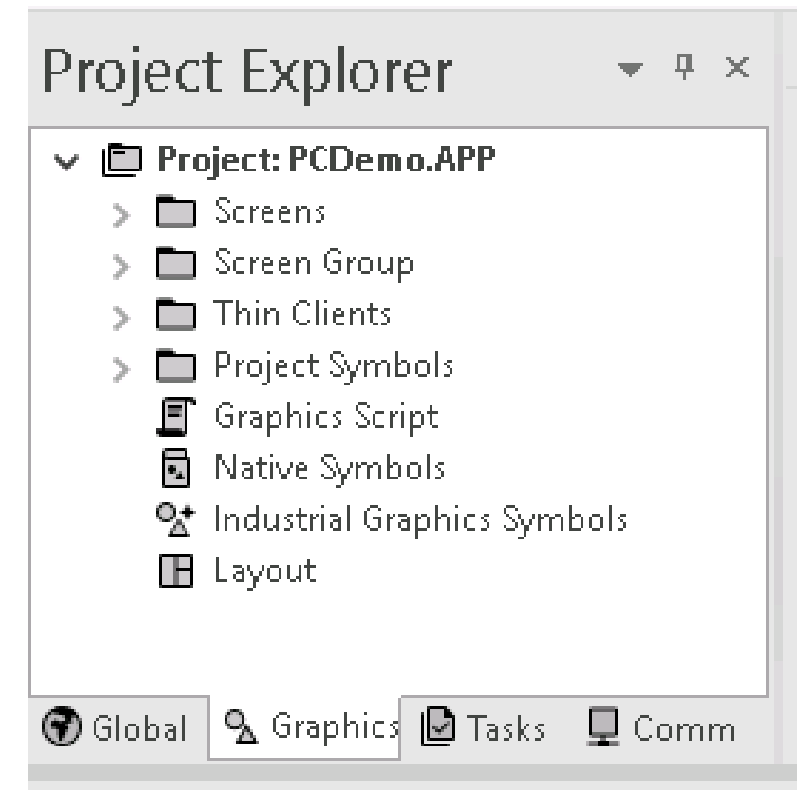
AVEVA System Platform



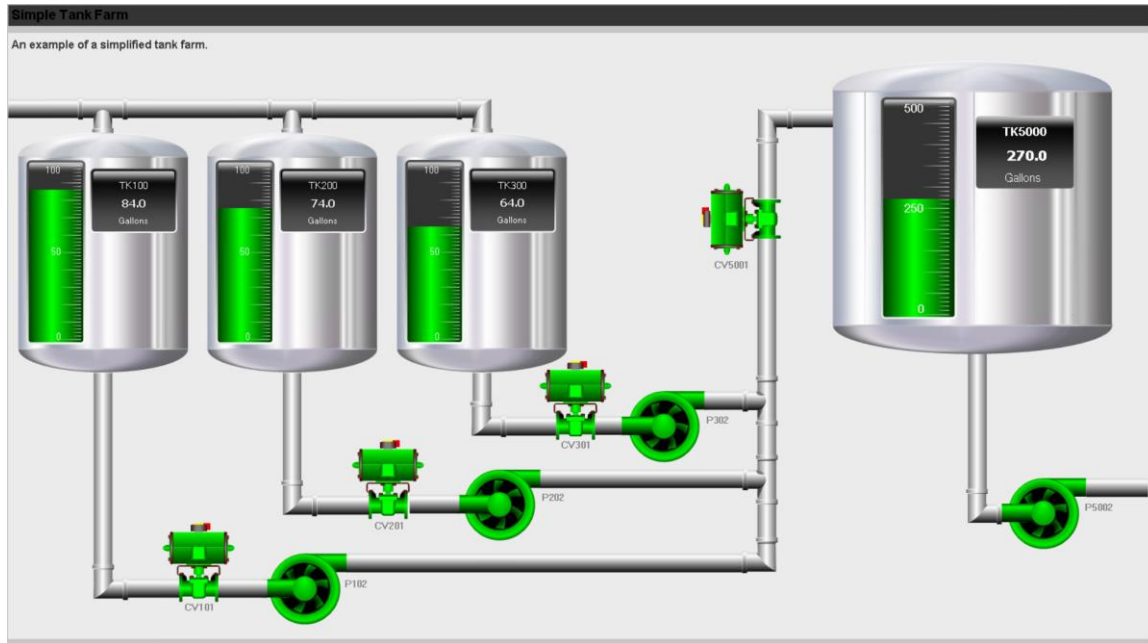
AVEVA InTouch HMI



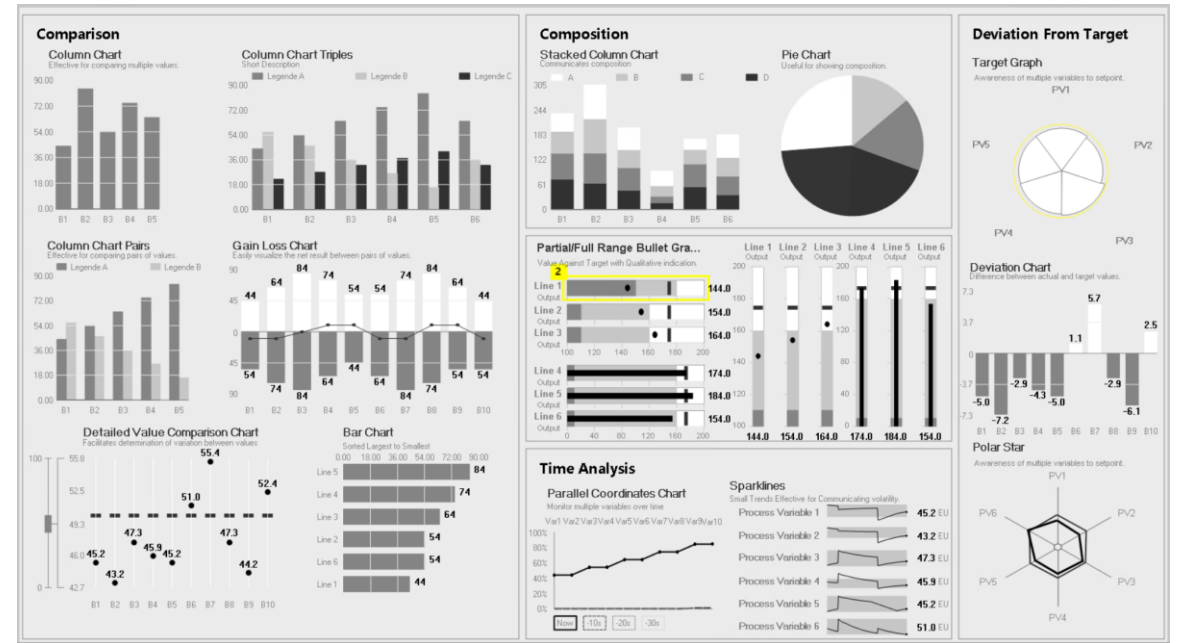
AVEVA Edge



Industrial graphics



Situational awareness graphics



Galaxy Home View Help

Open

Rename Alias name... Contained name... Duplicate Properties... Delete Tagname dictionary

Selected

Instance Screen Namespace Template Layout External content Toolset Symbol

Deploy... Undeploy... Deploy

Check-in

Save Save All Validate

Find...

Assign To... Unassign Set as default Assign

Upload changes Object Viewer Runtime

Graphics

- TestGalaxy
 - _Default Content
 - My Content
 - Widgets

Templates Graphics

Derivation

Defined

- Master_UserDefined
 - \$m_equipment
 - \$m_tank
 - tank01
 - tank02
 - tank03

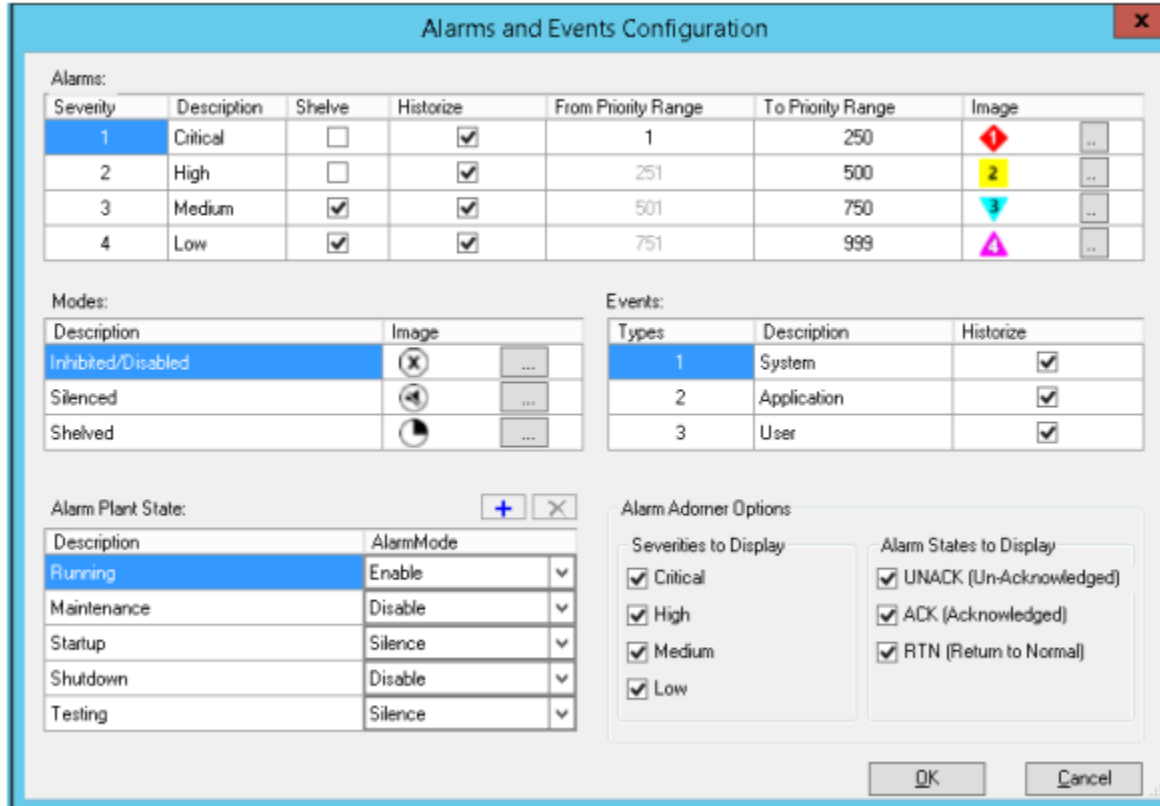
App Engine Platform Base Templates

Model - Tagname Deployment Derivation



Industrial graphic editor

Alarm borders



- Highly visible border around a graphic or graphic element when an alarm occurs
- The color and fill pattern of the border indicates the severity and current state of the alarm
- The alarm value returns to normal and the user acknowledges the alarm.
- Alarm borders improve operator recognition of alarm conditions

Industrial Graphic QuickScript.NET Editor

Use the script editor to create and edit scripts within the Graphic Editor. Each type of script has its own version of the script editor, with options and selections that are unique to that type of script

The screenshot shows the 'Symbol Scripts' editor. On the left, there is a sidebar with 'Predefined Scripts' and 'Named Scripts'. The main area is titled 'Predefined Scripts' and shows a list of scripts. The selected script is 'On Show' with a 'Data Timeout' of 1000. The script code is as follows:

```
1  
2 SetCustomPropertyValue ("bInterlocked", "  
3 SetCustomPropertyValue ("iMode", "InTouch  
4 SetCustomPropertyValue ("iStatus", "InTou
```

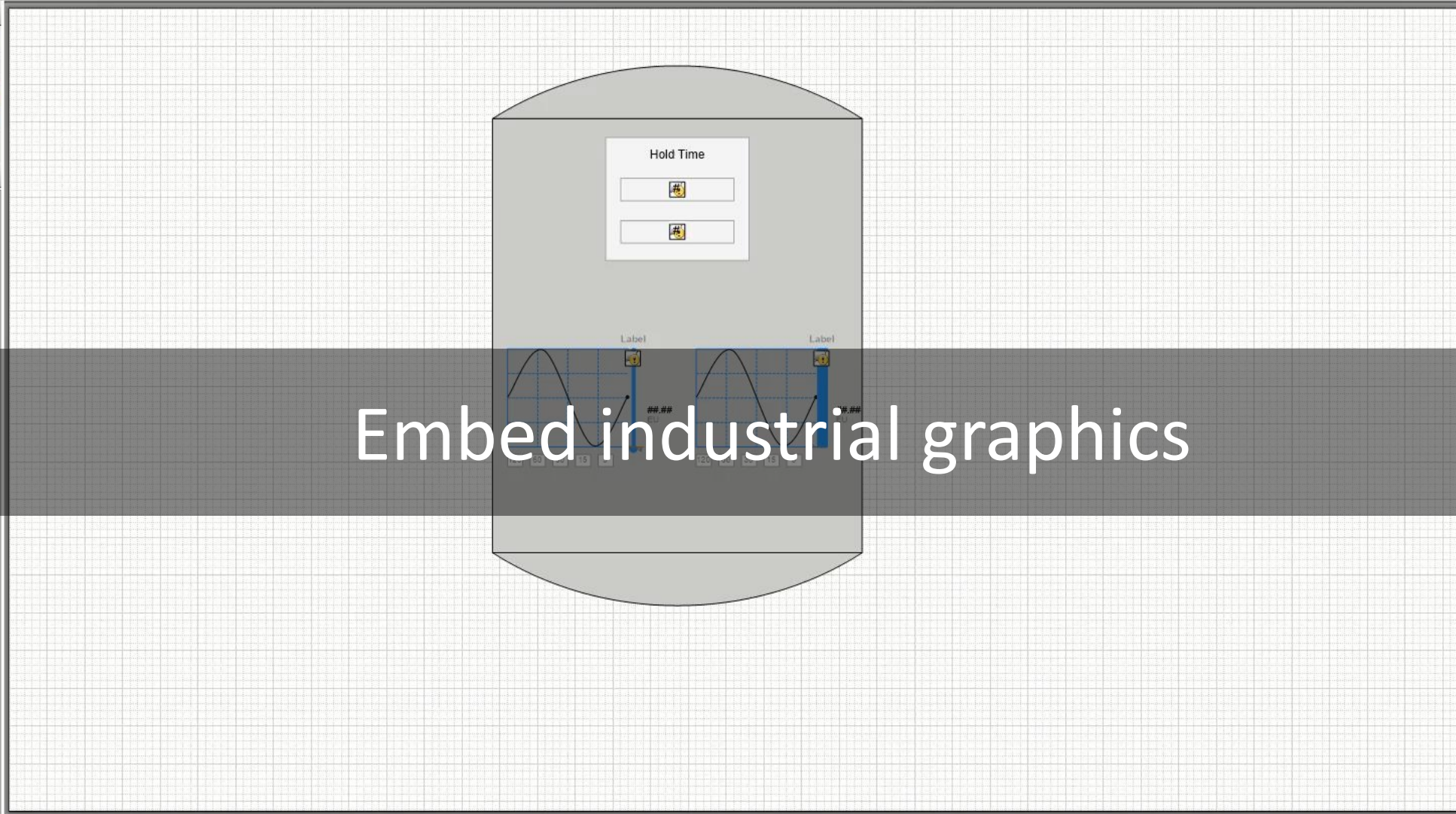
The screenshot shows the 'OpenWindow' dialog box. It has a title bar with a key icon and '2 of 2' pages. The 'Expression' field contains 'WindowName'. The 'Trigger' is set to 'DataChange' with a 'Quality changes' checkbox and a 'Period' of 1000 ms. The 'Deadband' is set to 0. Below the fields is a code editor with the following script:

```
1 Dim graphicInfo as aaGraphic.GraphicInfo;  
2 graphicInfo.Identity = "<Identity>";  
3 graphicInfo.GraphicName = "<SymbolName>";  
4 ShowGraphic( graphicInfo );
```


Tools

Elements

- Chord2
- SA_HoldTimeDisplay1
 - Level
 - SA_LevelMeter
 - SA_Trend
 - Temperature
 - SA_TemperatureMeter
 - SA_Trend
- Chord1
- Rectangle1



Embed industrial graphics

Graphic

Description	
Size	Auto
FixedWidth	500
FixedHeight	500

Appearance

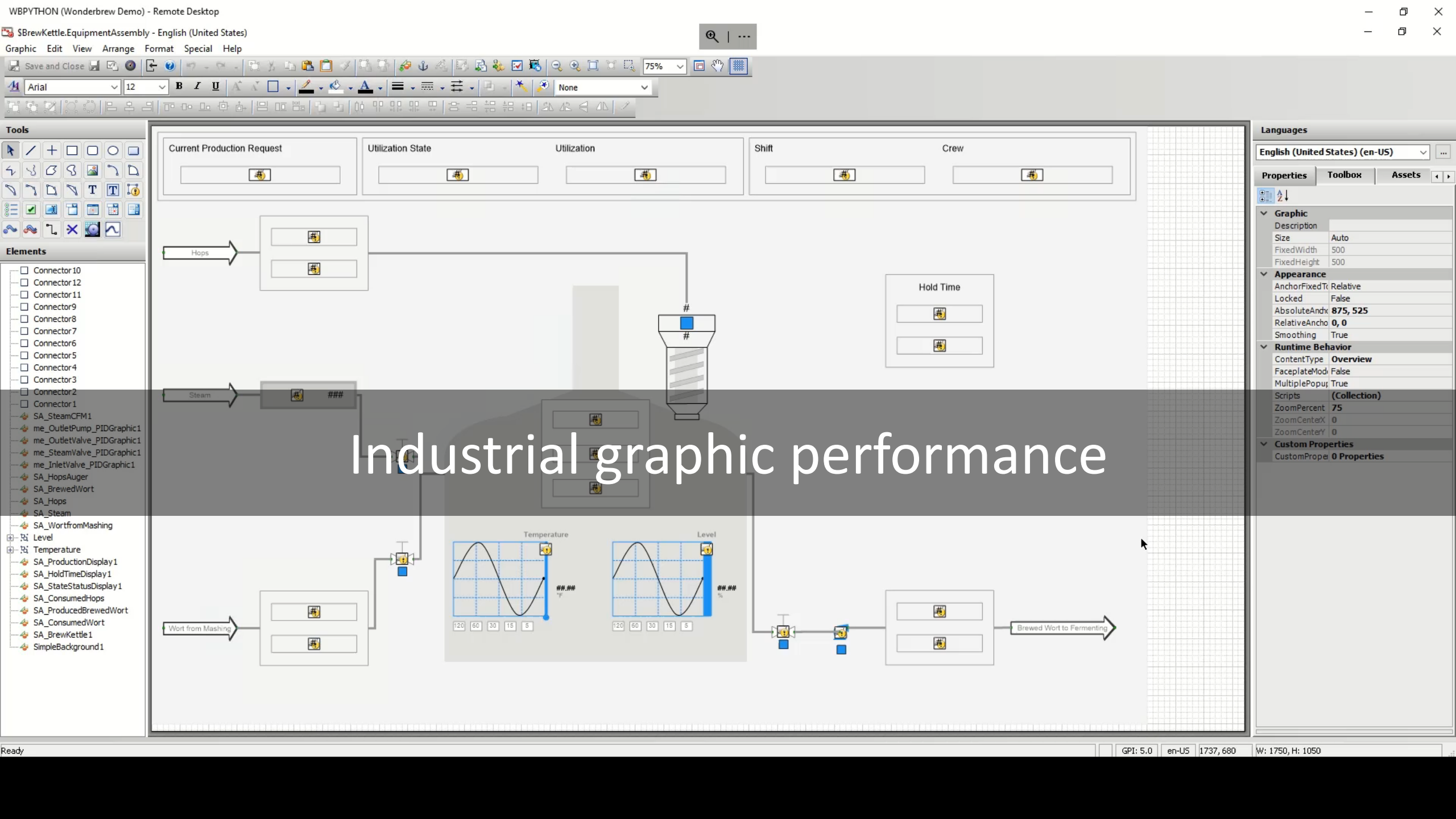
AnchorFixedT	Relative
Locked	False
AbsoluteAnch	885, 433
RelativeAnch	0, 0
Smoothing	True

Runtime Behavior

ContentType	None
FaceplateMod	False
MultiplePopu	True
Scripts	(Collection)
ZoomPercent	75
ZoomCenterX	0
ZoomCenterY	0

Custom Properties

CustomPropel	0 Properties
--------------	--------------



Industrial graphic performance

AVEVA Industrial Graphics
Most powerful visualization
engine in the world



Tools



Elements

Empty Canvas

Operations control 2023 - SVG import

Languages

English (United States) (en-US)

Properties



Graphic

Description	
Size	Auto
FixedWidth	500
FixedHeight	500

Appearance

AnchorFixedTo	Relative
Locked	False
AbsoluteAnchor	0, 0
RelativeAnchor	0, 0
Smoothing	True

Runtime Behavior

ContentType	None
FaceplateMode	False
MultiplePopupsAl	True
Scripts	(Collection)
ZoomPercent	100
ZoomCenterX	0
ZoomCenterY	0

Custom Properties

CustomProperties 0 Properties

Description

Determines the description for the window or symbol.

Questions?

Please wait for the microphone.
State your name and company.



Please remember to...

Navigate to this session in the mobile app to complete the survey.



Thank you!

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AVEVA is a world leader in industrial software, providing engineering and operational solutions across multiple industries, including oil and gas, chemical, pharmaceutical, power and utilities, marine, renewables, and food and beverage. Our agnostic and open architecture helps organizations design, build, operate, maintain and optimize the complete lifecycle of complex industrial assets, from production plants and offshore platforms to manufactured consumer goods.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. The company is headquartered in Cambridge, UK.

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