What’s coming in 2023 R2 for operations control – Edge

AVEVA™ Edge, AVEVA™ InTouch HMI

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Industrial Internet of Things (IIoT) / Industry 4.0

AVEVA Ops Control Edge (HMI or IIoT)

Cloud Analytics and Mobile Access
analytics, consolidation, artificial intelligence (AI), machine learning (ML), remote management/deployment, remote notifications and monitoring

Edge devices
data acquisition, data manipulation (aggregations, filtering, contextualization, normalization), link with the cloud, local maintenance, local operation

Instrumentation and Controllers
operational real-time control, raw data measurements

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Benefits

**Interoperable**
- Communicate to any PLCs, Controllers, Temperature controls, motion, vision, and other devices.
- Combination of Drivers, and OPC UA (Client or Server) and Standards
- Standards: MQTT, OPC, Modbus, PackML, REST

**Portable**
- Windows or Linux
- Flexibility to run on hardware that is right for the job
  - Screen size, resolution, headless, networking device, cost, performance
- May not need additional HW purchase, run on the devices you already have

**Mobility**
- Remote “Thin Clients”
- Tablet, phone, browser
- Keep operations and maintenance staff efficient and connected.
What is New - AVEVA™ Edge 2023 R2
AVEVA™ Edge 2023 R2

Overall Features

• Cybersecurity Enhancements

• Customer Issues and Enhancements

• Python
  o Customers expect us to provide an open, popular, platform agnostic scripting language.
  o IoT View Runtime and Windows Runtime

• Grid Object (Pagination performance)

• Industrial Graphics (AIG) 2023 R2 (libraries)
  o SVG Import and documentation
Python Editor

- Done in a common way
- Unified Name Space
- Supports External Modules
- Background script groups, Startup and Global Procedures
Python Runtime Scripts

• Python Runtime (non-graphic scripts, i.e. background)
  • Done in a common way
    o Editor
    o Python Runtime Libraries
    o Name Space
AVEVA™ Edge 2023 R2

IoT View

• History Life Time in Days (Trend Housekeeping)
  o Both HST files and SQL
  o 0 = No House-keeping
  o N = Number of days to keep (FIFO)

• Don’t fill up HD or other storage media
  o Tip: Optional functions to redirect Trend (HST), Alarms and Events to other location
**AVEVA™ Edge 2023 R2**

**IoT View**

- Standard Driver Sheets
- Flexible, powerful, more control

<table>
<thead>
<tr>
<th>Feature</th>
<th>Main Driver Sheet</th>
<th>Standard Driver Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number allowed</td>
<td>1</td>
<td>1-999</td>
</tr>
<tr>
<td>Required to use</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Maximum Size</td>
<td>32767 rows</td>
<td>Determined by the driver (max 4096 rows)</td>
</tr>
<tr>
<td>Enabling</td>
<td>Can be enabled or disabled</td>
<td>Can be enabled to read when idle</td>
</tr>
<tr>
<td>Triggering</td>
<td>If enabled, always triggered based on internal tag BlinkSlow (600ms)</td>
<td>Separate triggers for read &amp; write</td>
</tr>
<tr>
<td>Status</td>
<td>Read Status, Read Complete, Write Status, Write Complete</td>
<td>Read Status, Read Complete, Write Status, Write Complete</td>
</tr>
<tr>
<td>Header (file types)</td>
<td>Any supported by the device</td>
<td>Only one per Standard Driver Sheet</td>
</tr>
<tr>
<td>Action</td>
<td>Read, Write or R/W</td>
<td>Read, Write or R/W</td>
</tr>
<tr>
<td>Station</td>
<td>Can be fixed or a string tag</td>
<td>Can be fixed or a string tag</td>
</tr>
<tr>
<td>Scan</td>
<td>Always or Screen</td>
<td>Always</td>
</tr>
<tr>
<td>Scaling</td>
<td>Min/Max or Div/Add</td>
<td>Min/Max or Div/Add</td>
</tr>
</tbody>
</table>
AVEVA™ Edge 2023 R2

IoT View

- Tag Integration
  - Drivers
  - OPC UA
### AVEVA™ Edge 2023 R2 Drivers

#### Drivers and communications

<table>
<thead>
<tr>
<th>Driver</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Release standalone driver included in 2023 release (independent of any release)</td>
</tr>
</tbody>
</table>
| MQTT   | • Enhance MDS to allow easier address of topics  
         | • Support multi-leveled topics (e.g., level1/level2/level3/...) |
| ABKE   | Add to released drivers in 2023 R2 |
| DNP3   | Add to released drivers in 2023 R2 |
| XVGU   | Add to released drivers in 2023 R2 |
| BACSL  | Add to released drivers in 2023 R2 |
What is New -
AVEVA™ InTouch HMI 2023 R2

Planned for Early CY2024
UDT InTouch HMI 2023 R2

User Defined data Types (UDT) Structure support

1. Define new Data Type
   - UDT, Instance and default values are saved outside of Tagname Dictionary

2. Rename, Delete (can’t delete if used), Duplicate
   - Supports propagation

3. Export/Import (JSON Format), to/from another application
   - Can externally “bulk edit”
   - Notepad++ with “JSON Viewer” plugin example
UDT Continued

• All properties will be modifiable except name and type
• Alarm in Properties
• Alarms in EAC
• Drag-and-Drop to create graphic element
• Owning Object, “Me.” support
Import SVG

- SVG import and convert to AIG (Patch 01 but promoting in 2023 R2)
  - Improved Documentation
- Retain object names, grouping and layers
- Use 3rd parties to create layouts, UI and graphics
- Quick YouTube Demonstration
  - https://www.youtube.com/watch?v=jTx2tV_BRUI
AVEVA™ InTouch HMI 2023 R2

Overall Features

• Create graphic and animation from UDT member or Tag
AVEVA™ InTouch HMI 2023 R2

- **Ops Control: User based licensing (AVEVA ID)**
  - Connected Experience

- **Alarm Dismiss/UnDismiss (new functions for EAC)**
  - Dismiss.All()
  - Dismiss.Group()
  - Dismiss.Priority()
  - Dismiss.Selected()
  - Dismiss.SelectedPriority()
  - Dismiss.SelectedTag()
  - Dismiss.Tag()
  - Dismiss.Visible()

- **Next Steps in Alarm Client:**
  - Filter alarms based on LATCHED alarm state
  - Localization of UI changes for design time configurations
  - [AlarmMgr-EAC] Integration with Appserver alarms
  - Display the new state in EAC historical mode
  - Localization of UI changes for Runtime context menus
AVEVA™ InTouch HMI 2023 R2

Overall Features

• Cybersecurity enhancements

• Customer commitments and requests

• All HF roll up into patches, patches into 2023 R2
Questions?
Please wait for the microphone.
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Navigate to this session in the mobile app to complete the survey.

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