

NOVEMBER 2022

Mobility roadmap:

Empowering a connected workforce

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AVEVA

Agenda

AVEVA mobile operator roadmap

Insight mobility

The hybrid approach

Digital procedures

Mobile Operator Capabilities



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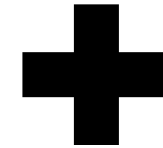
AVEVA

AVEVA mobile operator

Roadmap

- R2 Release – January/February
 - Azure AD authentication
 - Ping ID authentication
 - OSI-PI Core integration update
- OSI-PI Integration
 - Additional core support of custom integration
 - Tour conversion
- Technology updates
 - Cloud supportable architecture
 - Client thinning

AVEVA

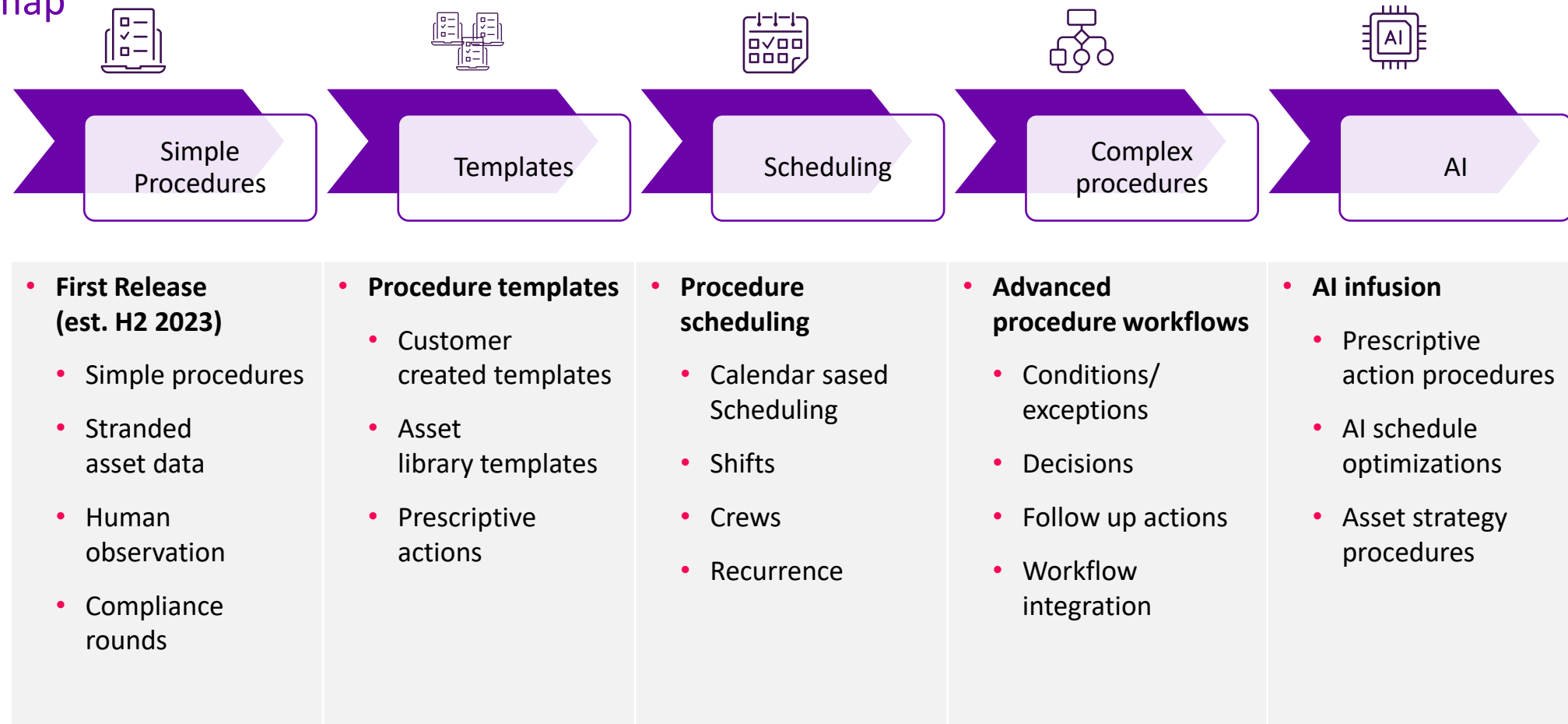


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Insight mobility

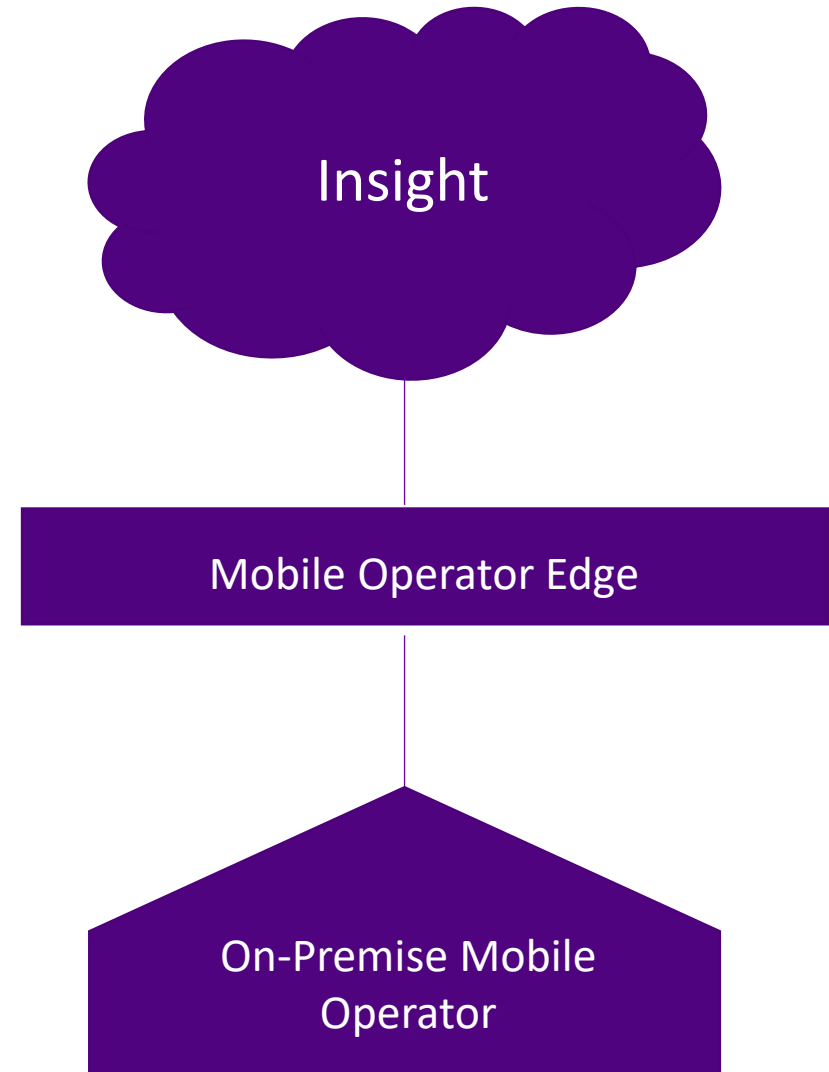
Roadmap



Insight and mobile operator

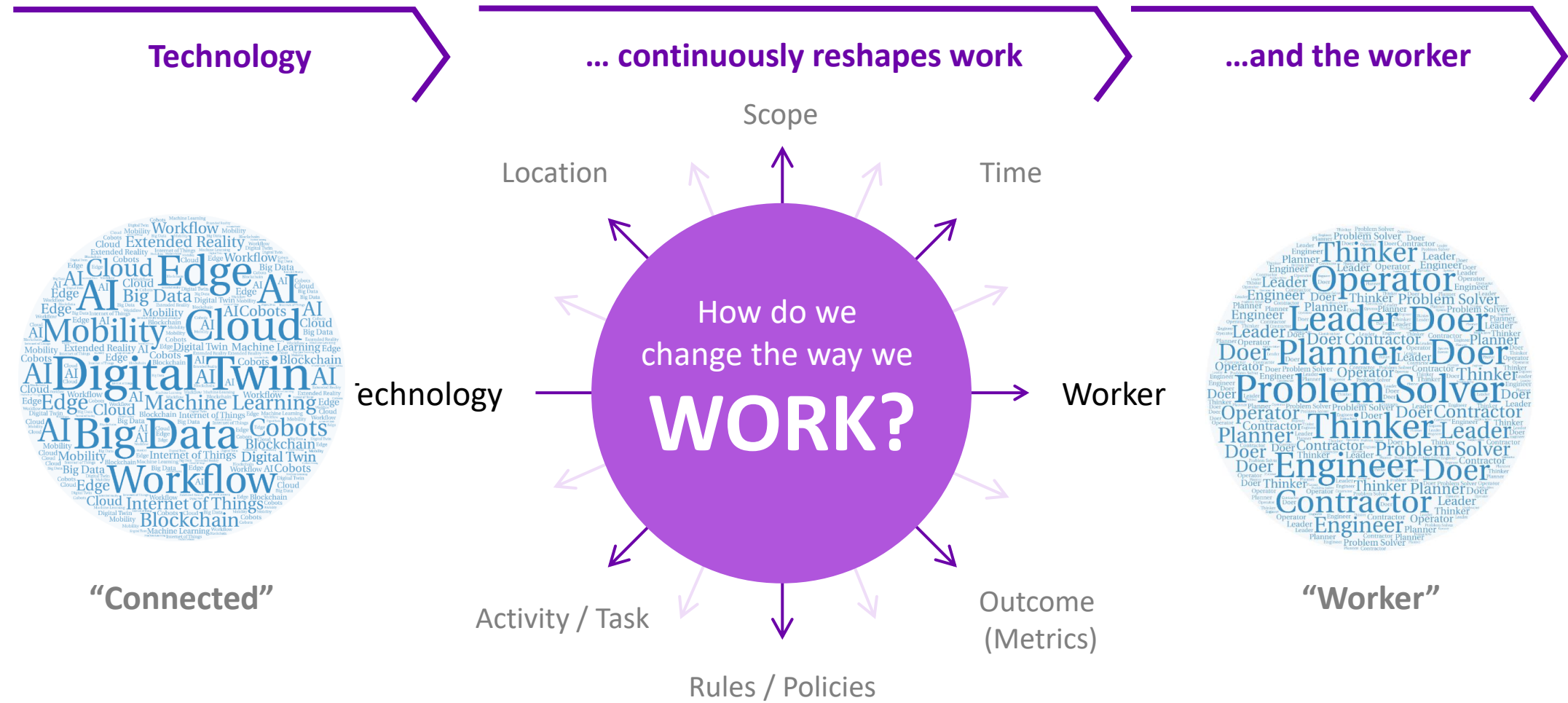
The hybrid approach

- Push Insight templates to on-premise mobile operator
- AI triggered procedure schedules to on-premise mobile operator
- Workflow in the cloud trigger on-premise procedures
- Cloud based procedure auditing



Digital procedures

There is a consistent theme



Addressing different dimensions of the same challenge

“Systems of record” perspective

Enterprise Twin

Source

Make

Deliver

Process Twins

Plant 1

Plant 2

Plant 3

Line 1

Line 2

Line 3

Asset Twins

Filler

Labeler

Palletizer

Digital Twin

Connected Worker

“Systems of engagement” perspective

Enabling problem-solving

Am I empowered to act?
- for what outcome?

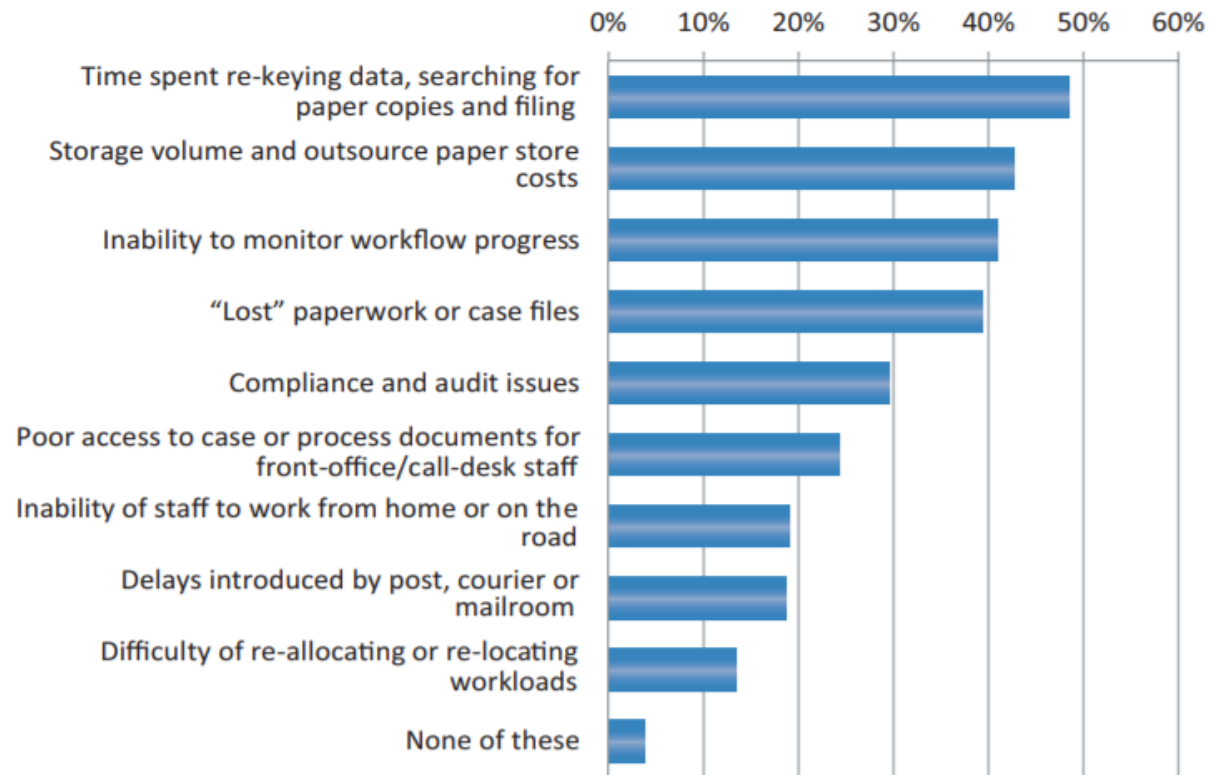
Is the context meaningful?
- to create value?

Is it available to me?
- at the right time?

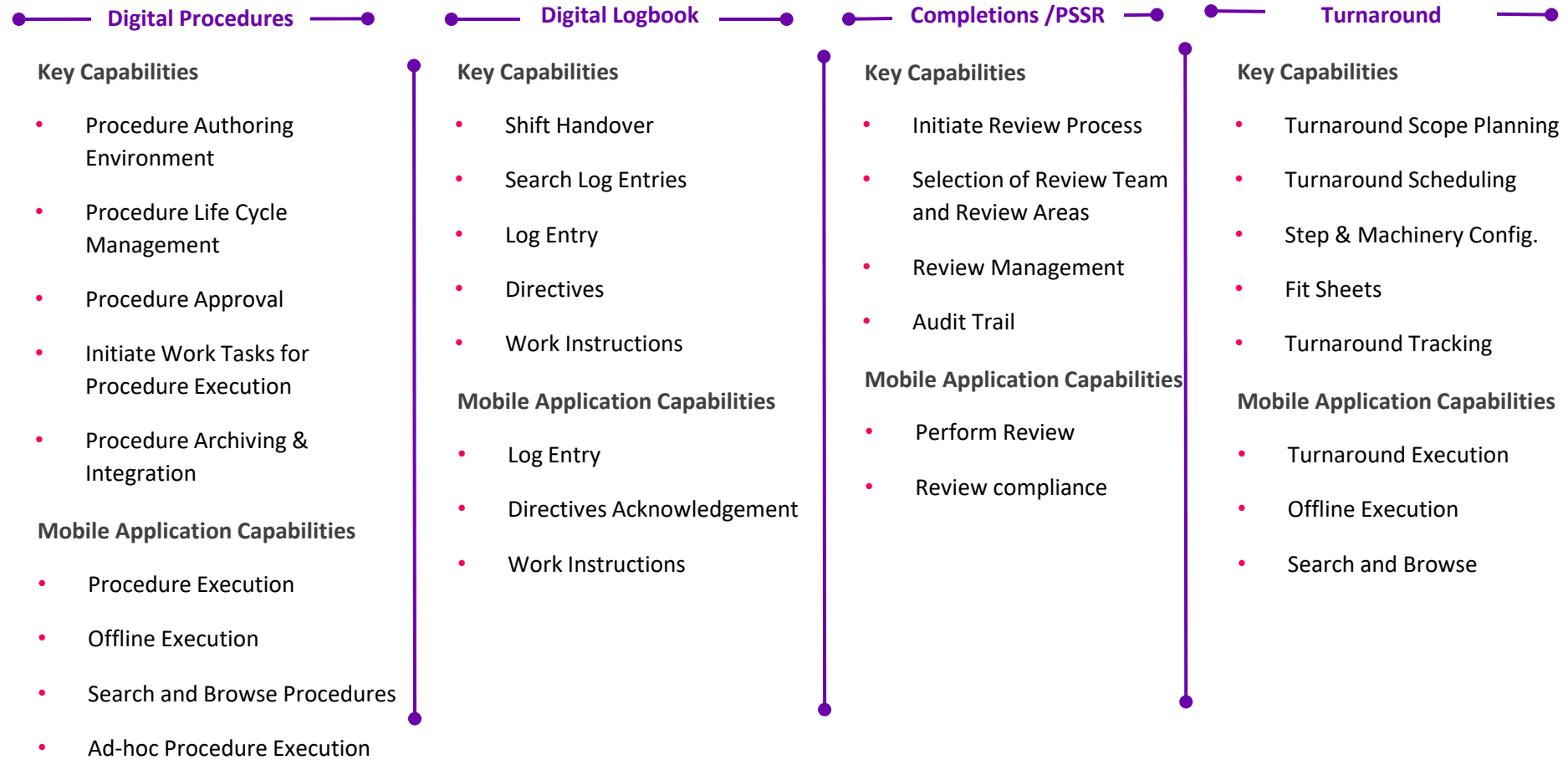
Is the data in a digital format?
- and trustworthy?

Challenge: addressing issues caused by paper-based processes

What would you say are the biggest issues caused by paper-based processes in your organization?
(Max THREE) (N=449)



Functional Apps: addressing the challenge



Standard operating procedures

Often authored in Microsoft Word and printed out on paper for execution today

AutoSave OFF SPP-501-Switch Hydrogen Trailers - Demo.docx - Saved to this PC Arijeet Majumdar

File Home EPM Insert Draw Design Layout References Mailings Review View Help Tell me what you want to do Share Comments

Switch Hydrogen Trailers

Purpose:	To switch hydrogen trailers
When to execute:	When the pressure of the on-line trailer is approximately 1000 psig (indicated on the online trailer gauge) or upon Console request.
Safety and Environmental Precautions:	<ul style="list-style-type: none">Hydrogen is received in a high-pressure (2500 psig) trailer and must be handled as safely as possible to avoid any incidents or injuries. Hydrogen is a highly flammable gas.
PPE:	<ul style="list-style-type: none">Standard
Equipment:	<ul style="list-style-type: none">
References:	<ul style="list-style-type: none">Drawing 708-500-0105
Affected Post(s):	<input type="checkbox"/>
Prerequisites:	<input type="checkbox"/>

Switch Hydrogen Trailers	Complete the following steps to Switch Hydrogen Trailers:
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ID	ACTION	NOTES
PT	1. ENSURE all nine (9) trailer cylinder valves on online trailer are opened and line up is good from online trailer to the hydrogen header	
PT	2. ENSURE all nine (9) trailer cylinder valves are open on the trailer to be switched to.	
PT	3. INFORM the SPU Console Supervisor that you are going to switch hydrogen trailers	
CS	4. CONFIRM when OK to switch trailers	
PT	5. ENSURE the main valve on the trailer being switched to is closed.	

Owner: Revision 0
Printed: Page 1 of 2

Switch Hydrogen Trailers

ID	ACTION	NOTES
PT	6. LINE UP valves downstream of flex hose to the hydrogen header (on trailer being switched to)	
PT	7. SLOWLY CRACK OPEN the main trailer valve until a small flow is heard flowing across valve.	<i>Note: flex hose contains an excessive flow check; if valve is opened too quickly, the check will stop flow.</i>
PT	8. MONITOR downstream pressure increase on local pressure gauge	<i>Note: The pressure will slowly increase and the pressure controller will pinch down.</i>
PT	9. BLOCK valves on the trailer being switched from (the main trailer valve and valve downstream of flex hose.)	
PT	10. INFORM Console Supervisors that procedure is complete	
CS	11. ENSURE proper pressure is being controlled	

****End of Procedure****

Owner: Revision 0
Printed: Page 2 of 2

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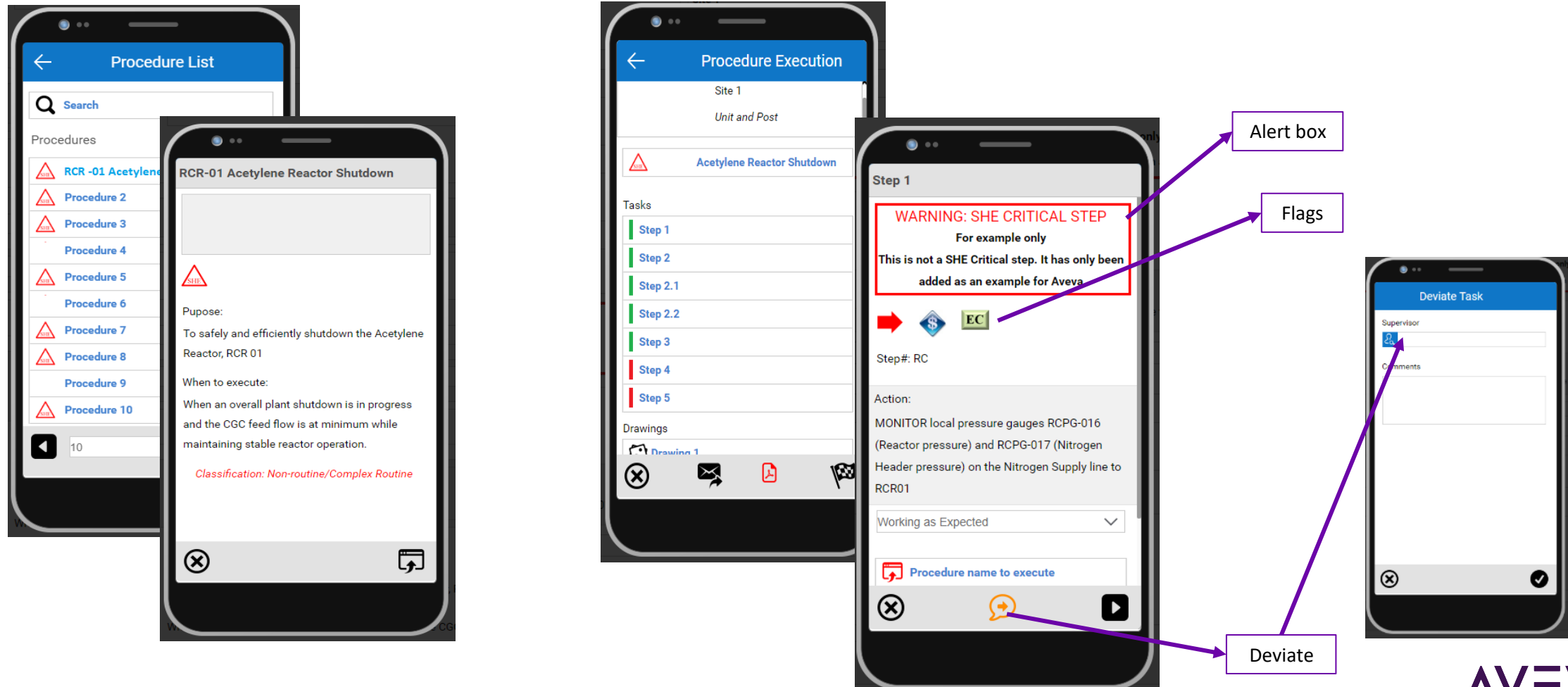
Display Settings 80%

About procedures:

- Commonplace across all industries
- Vary in complexity, e.g.
 - Safety, environment & health
 - Checklists
 - Startup and shutdown
 - Turnaround
 - Routine work processes

Procedure execution

Digital procedures



Procedure authoring

Digital procedures

The image displays the AVEVA digital procedure authoring interface, which is divided into two main sections: the Configuration Wizard and the Authoring Environment.

Configuration Wizard: This section on the left contains various form fields for defining the procedure's metadata. Fields include Site (Site 1), Category (Chemicals), Unit Name & Post (Unit 1), Procedure Number (P00001), Procedure Name (Procedure 1), Revision Number (1), Revision Date (9/1/2019), Owner (SLS), Last Audited Date (9/1/2019), and MOC#. Below these are several yes/no questions: "Include placeholder for Change Form?", "Include Master Copy?", "Include Pre-job Meeting SignOff?", "Is this procedure trained using a GMT module?", and "Is this procedure SHE Critical?". The "Type of procedure" is set to "Non-Routine/Complex Routine", and the "Risk Evaluation" is set to "High Risk".

Authoring Environment: This section on the right is used for creating the procedure content. It features a "Symbol Palette" with icons for Alerts (Warning, Safety, OC), Purpose, When to Execute, and Safety and Environmental Precautions. The main content area is titled "P00001 Procedure 1" and "Safety Critical". It contains three text boxes with rich text editing capabilities (bold, italic, underline, font color, font size, bullet points). The first text box describes the purpose: "To safely and efficiently shutdown the Acetylene Reactor, RCR 01". The second text box describes the execution conditions: "When an overall plant shutdown is in progress and the CGC feed flow is at minimum while maintaining stable reactor operation." The third text box describes safety precautions: "Any step with this symbol is a SHE Critical step. All work activities should follow and comply with the Approved Safety Standards and Work Practices as identified under our Safety Standards and Work Practices." The interface also includes a "Flags" section on the right with checkboxes for Arrow, Financial, Ops Critical, and Environ Critical. At the bottom right, there are "Save As Draft" and "Finish" buttons.

Procedure authoring

Digital procedures - rules and task completion status

The screenshot displays the AVEVA procedure authoring interface. Three callout boxes highlight specific features:

- Completion Status Selection:** A dropdown menu showing options: "Not required", "Enter a value", "Select a value", "Select multiple value", and "Not required" (highlighted in blue).
- Add Rule:** A dialog box for configuring a rule. It includes fields for "Operator" (set to "Equal to"), "Available Options" (set to "Yes"), "Action" (set to "Jump to step"), and "Task Serial Number" (set to "1"). A checkbox for "Stop Processing" is checked. Buttons for "Cancel" and "Finish" are at the bottom.
- Add/Modify Items:** A dialog box for adding items to the options run time. It includes a table with two rows: "Yes" and "No". A "Finish" button is at the bottom.

The main interface shows a table with columns: "Completion Status Selection", "Allow Deviation", "Enable Rule?", and "Available Options". The "Completion Status Selection" dropdown is set to "Select a value". The "Allow Deviation" checkbox is checked. The "Enable Rule?" checkbox is checked. The "Available Options" checkboxes for "Yes" and "No" are checked. Below this table is a "Rule Setup" table:

Operator	Option	Action	Step/Procedure
Equal to	Yes	Jump to step	2.2

Buttons for "Set Options" and "Add Rule" are located below the "Rule Setup" table. A "2c6fc3" label is visible next to the "Add Rule" button.

Making procedure “conversion” practical

What you will see

Switch Hydrogen Trailers

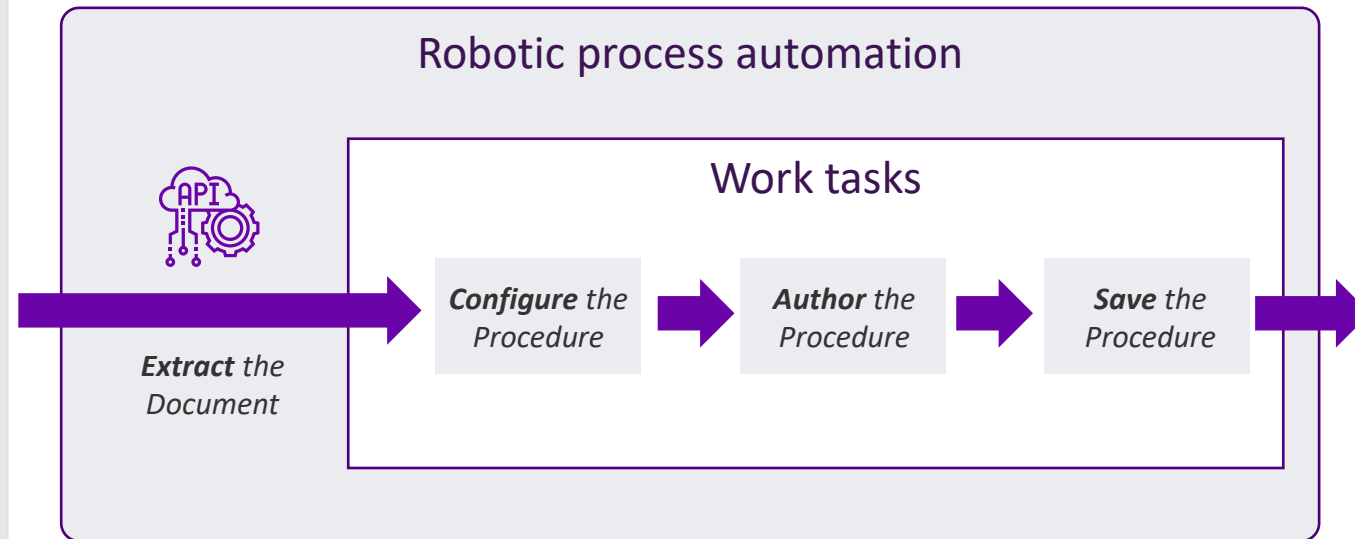
Purpose:	To switch hydrogen trailers
When to execute:	When the pressure of the on-line trailer is approximately 1000 psig (indicated on the online trailer gauge) or upon Console request.
Safety and Environmental Precautions:	<ul style="list-style-type: none">Hydrogen is received in a high-pressure (2500 psig) trailer and must be handled as safely as possible to avoid any incidents or injuries. Hydrogen is a highly flammable gas.
PPE:	<ul style="list-style-type: none">Standard
Equipment:	<ul style="list-style-type: none">
References:	<ul style="list-style-type: none">Drawing 708-500-0105
Affected Part(s):	<input type="checkbox"/>
Prerequisites:	<input type="checkbox"/>

Switch Hydrogen Trailers Complete the following steps to Switch Hydrogen Trailers:

ID	ACTION	NOTES
PT	1. ENSURE all nine (9) trailer cylinder valves on online trailer are opened and line up is good from online trailer to the hydrogen header	
PT	2. ENSURE all nine (9) trailer cylinder valves are open on the trailer to be switched to.	
PT	3. INFORM the SPU Console Supervisor that you are going to switch hydrogen trailers	
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RCR-01 Acetylene Reactor Shutdown

Purpose To switch hydrogen trailers

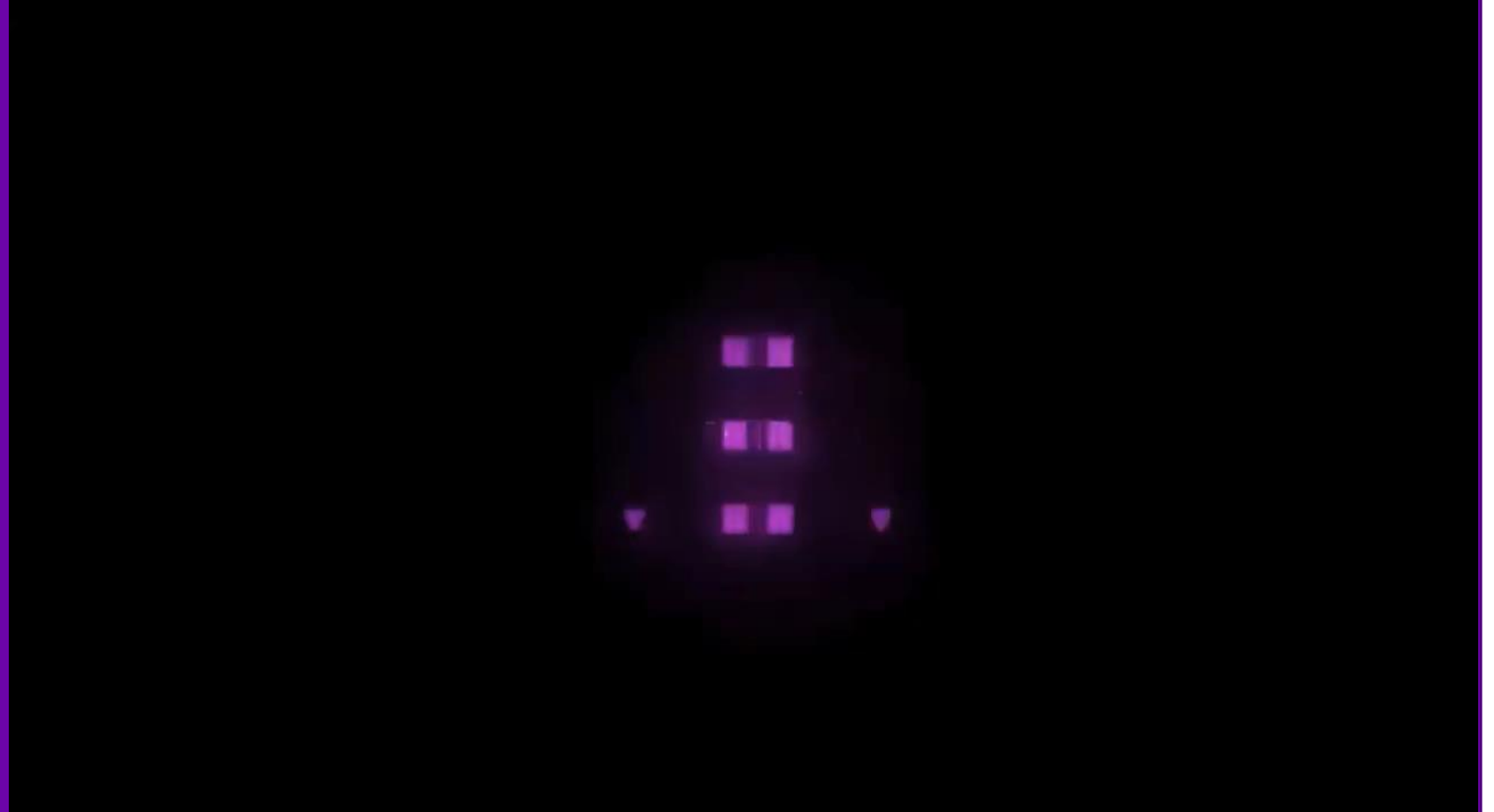
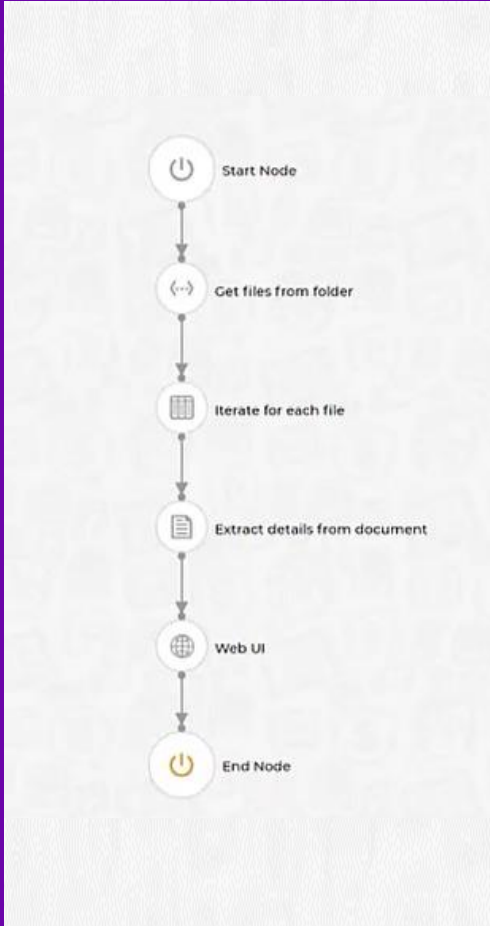
When to Execute When the pressure of the on-line trailer is approximately 1000 psig indicated on the online trailer gauge or upon Console request. When the pressure of the on-line trailer is approximately 1000 psig indicated on the online trailer gauge or upon Console request.

Safety and Environm  Hydrogen is received in a high-pressure 2500 psig trailer and

Digital procedures – conversion + authoring + execution

Conversion + Authoring + Execution



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

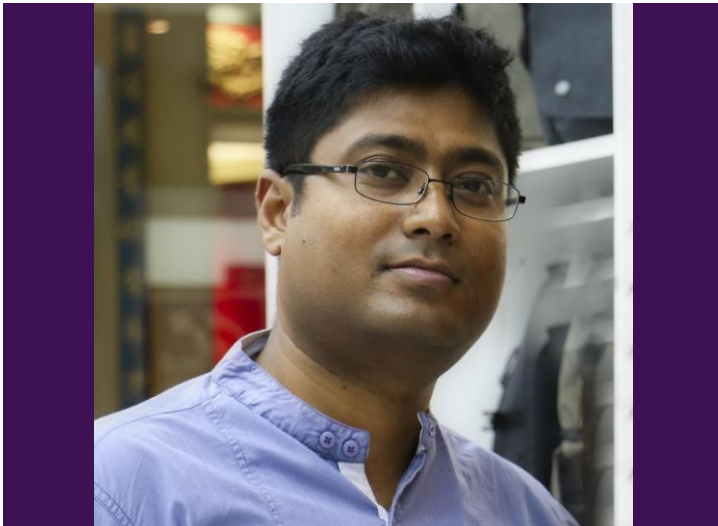
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AVEVA is a global leader in industrial software, sparking ingenuity to drive responsible use of the world's resources. The company's secure industrial cloud platform and applications enable businesses to harness the power of their information and improve collaboration with customers, suppliers and partners.

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.

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