OCTOBER 24, 2023

# Leveraging Unified Engineering Ways of Working for Asset Design & Operations

Viswa Pinninti

End to End Optimization Manager – Shell Energy and Chemicals Park Norco



© 2023 AVEVA Group plc and its subsidiaries. All rights reserved.

## **Chemicals & Products – Shell**

Asset Projects and Operations Cultural Transformation from Document Centric to Data Centric Ways of Working

#### Challenge

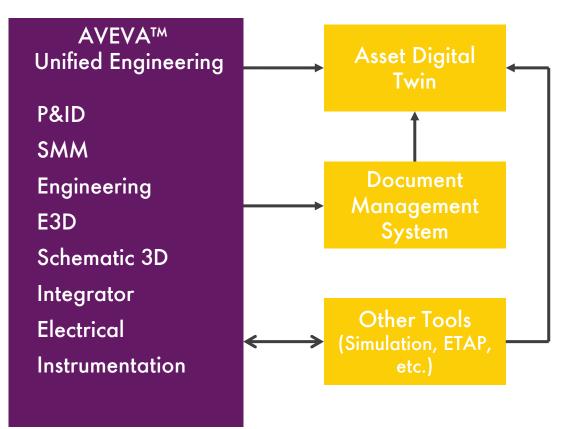
- Data warehousing and governance were challenging due to manual handover of documents and data in silos to Asset by Projects.
- Inconsistent information from multiple sources could result in safety incidents and disruptions in production Operations.
- Needed to build Unified Engineering to facilitate faster decision making with availability & accessibility of right data at the right time.

#### Solution

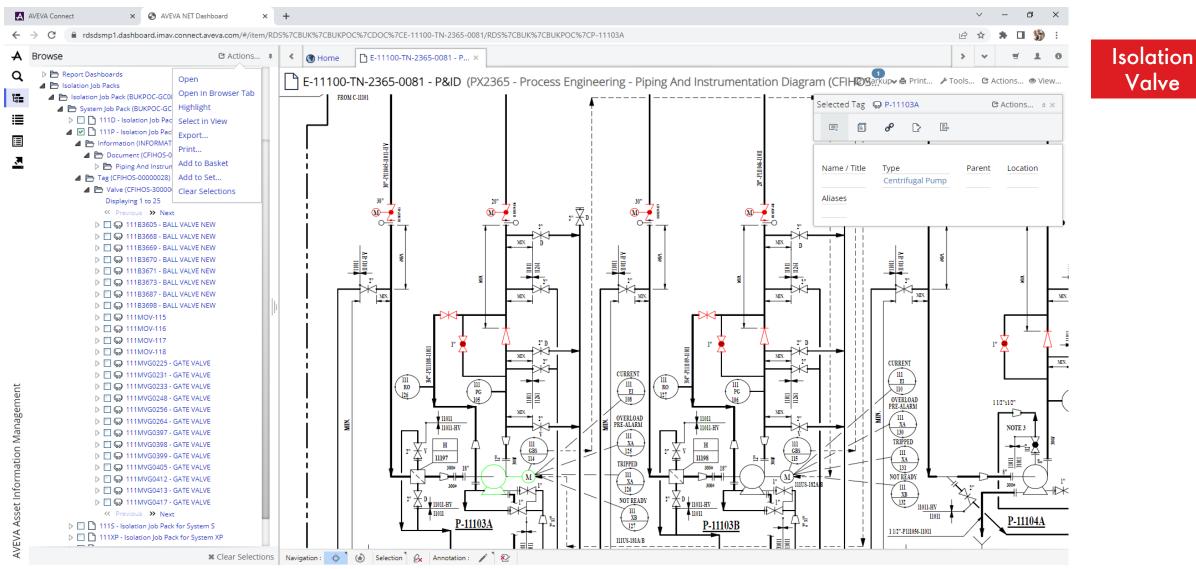
- Deployed AVEVA<sup>™</sup> Unified Engineering to cater to Shell Asset requirements and integration with document management system, Digital Twin and other tools.
- Enabled single platform work methodology for Asset and Contractor partners.

#### Result

- Digital handover of Projects to Assets (P2A)
- Automation of Isolation Job Packs & Standardization resulted in productivity gains compared to manual methods.
- Smart MTO led to cost efficient and faster Turnaround (TA) planning and execution.



### **Process Isolation Job Pack Automation**



4

Valve

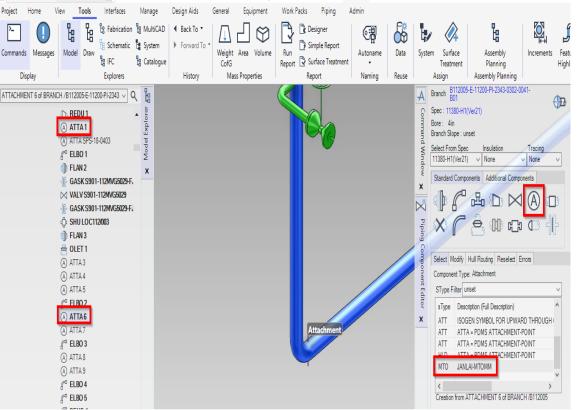
## **Smart MTO**

• •

User Input

🗿 🖥 🦺 🏷 (\* PIPING

ECC | ECC | Model - AVEVA E3D Design



#### Output - Smart MTO

😉 Amazon WorkSpaces

Amazon WorkSpaces View Settings Support

E	5-	¢- <b>&amp;</b> +∓								SmartMTO	- Excel
Fi	e ł	ome Insert Page Layout For	rmulas Data	Review View	♀ Tell n	ne what yo	ou want to do				
	<mark>∙</mark> ∦ Ci	Calibri * 11	- A A = =	- 87 - 6	Wrap Text	0	General	•	₽ ₽	Normal	Ba
Past	E Copy -							€.0 .00 Cond	7	mat as Check Cel	I Exp
	Clipbo	rd ធ Font	Fa	Alignment	t	Fa	Number	Gr.			
M11 $\checkmark$ : $\times \checkmark f_x$											
	A		В			С	D	E	F	G	Н
1	SINo	Name				Туре	MESC	Specificaiton	Size	Quantity	UOM
2		SCH40 - 90 ELL SMLS B16.9 BE A420-WPL6 . LTD				ELBO	7631392461	11380-H1(Ver21)	4in	2	Each
3	2	SCH40 - FLG WN B16.5 BE/RF CL 150 A350-LF2 CL1				FLAN	7662821141	11380-H1(Ver21)	4in	2	Each
4	3	GASKET SPW IR-CR B16.20 .175" RF B16.5 CL 150 316LSS/GRAPH/316LSS/CS					8541363201	11380-H1(Ver21)	4in	2	Each
5		GAV API600/ISO10434 BB HW B16.10 FLGD/RF B16.5 CL 150 A352-LCC NO.16 GPH . S+LTD					7720410121	11380-H1(Ver21)	4in	1	Each
6	i	SCH40 - PIPE SMLS B36.10M BE A333-6					7430170751	11380-H1(Ver21)	4in	303.461602174896	in
7	ì	BRANCHWELD A333-6.				OLET		11380-H1(Ver21)	4in X 2in	1	Each

5

### Recap

- AVEVA<sup>™</sup> Unified Engineering (UE) has enabled a Single Platform of collaboration for Asset Projects, Contractor Partners and Asset Operations
- Aspiration of true Digital handover of Projects to Assets (P2A) is delivered by UE
- A Paradigm shift from Document Centric to Data Centric Ways of Working by deploying UE
- Safe Execution of work by automated Isolation Job Packs & standardization resulted in productivity gains compared to manual methods.
- Smart Material Take Off minimized manual efforts & led to cost efficient and faster Turnaround (TA) planning and execution.

The Digital Transformation roadmap is a holistic approach of integrating People, Process, Plant, Technology & Data. The Unified Engineering is the foundation enabling Technology & Data to achieve our Aspiration.

6



