

AVEVA PI WORLD

Burns & McDonnell Project Data Portal

Leveraging Asset Information Management for Enhanced CAPEX
Collaboration

Presented By: Joe Puglisi

AVEVA

STRENGTH

MORE THAN 7,600 PROFESSIONALS

DEPTH

60+ OFFICES WORLDWIDE

EXCELLENCE

#9 TOP 500 DESIGN FIRMS

COMMITMENT

100% EMPLOYEE-OWNED



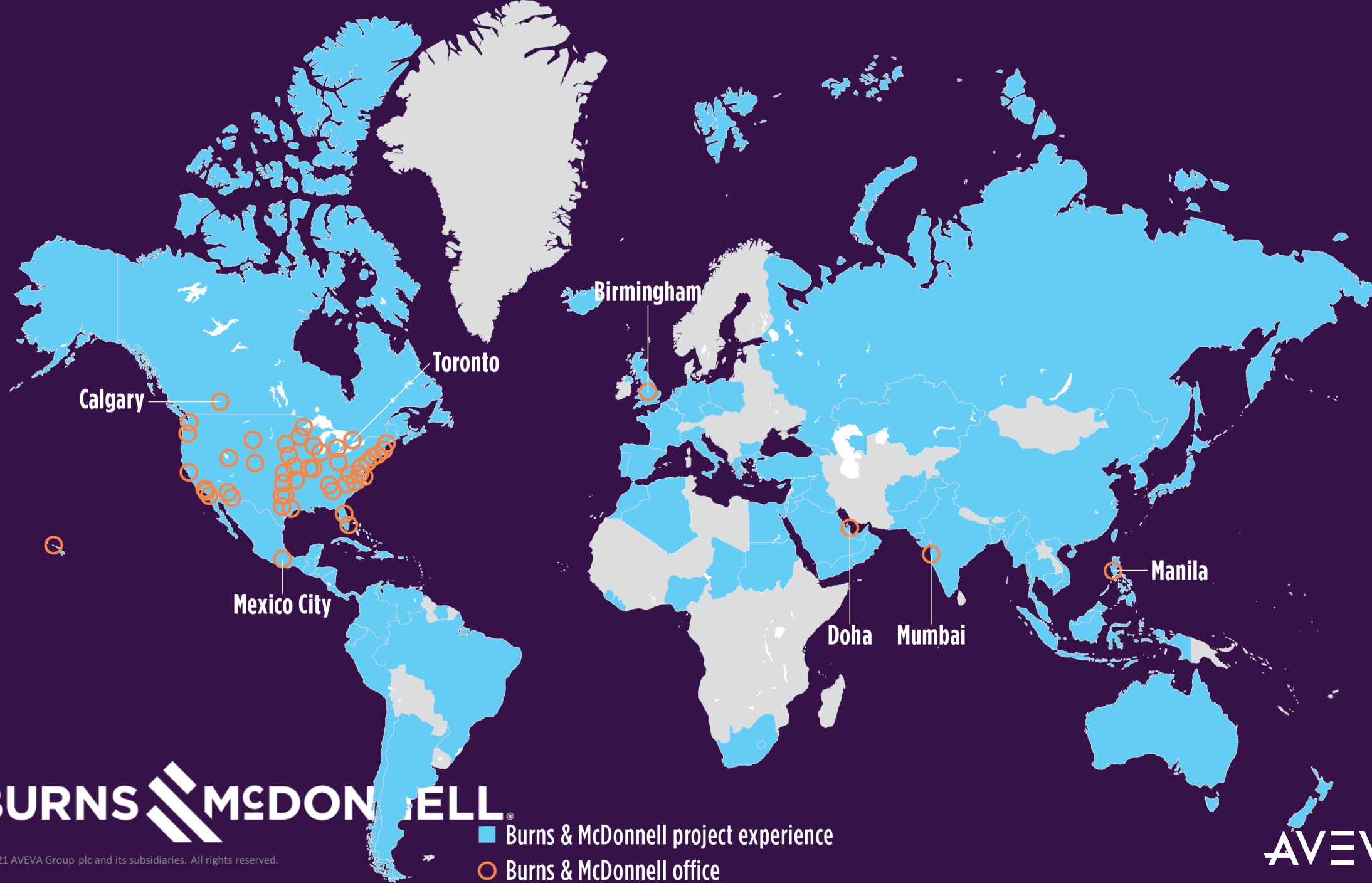
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AVEVA



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-  Burns & McDonnell project experience
-  Burns & McDonnell office

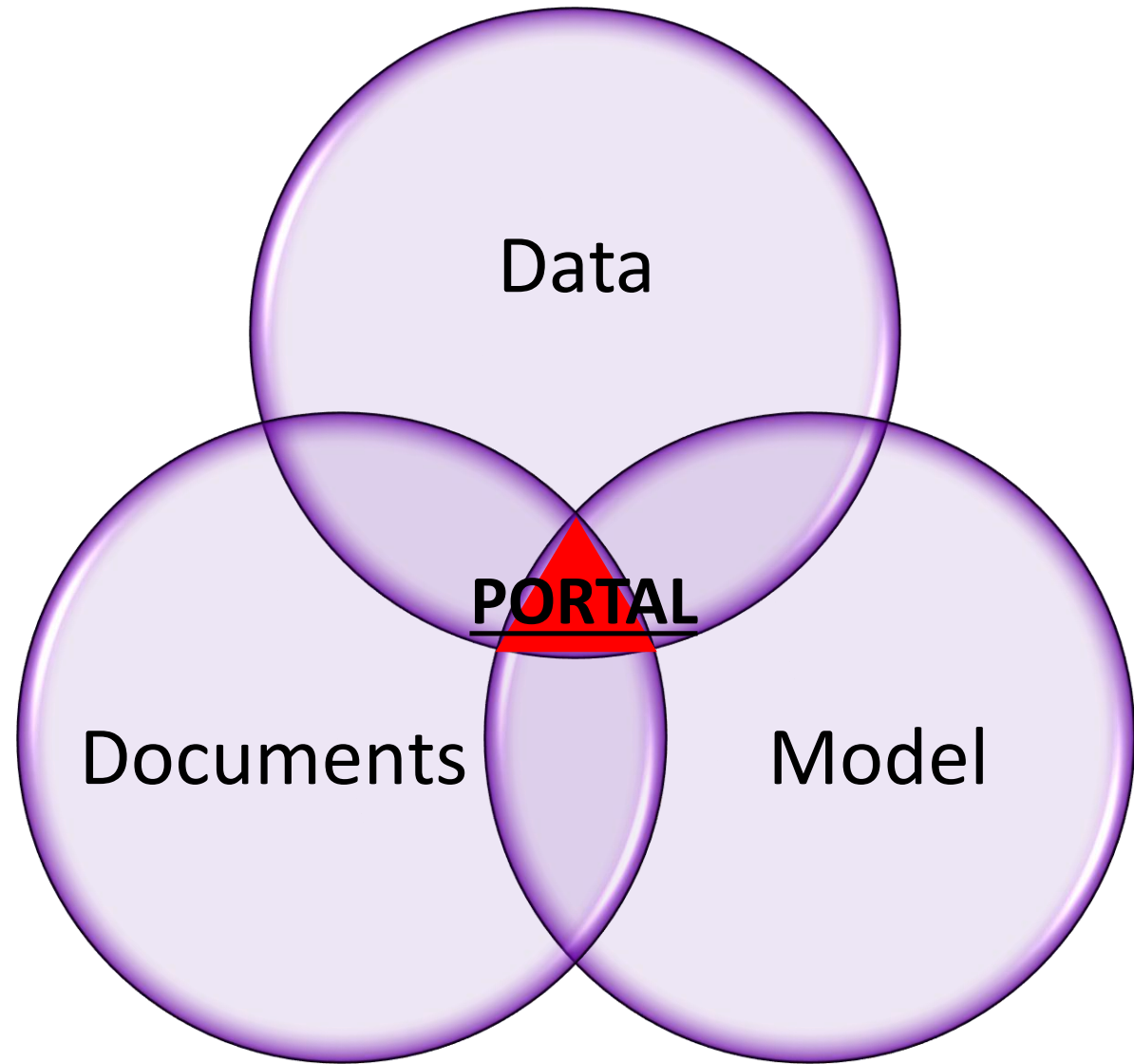


INDUSTRY SPECIFIC RANKINGS

Source: Engineering News-Record

1	Power	Government Offices	3
1	Transmission and Distribution	Aerospace	4
2	Food and Beverage	Cogeneration	4
2	Wind	Chemical Plants	5
3	Fossil Fuel	Telecommunications	5

Challenge: Consolidate Project Data Management



Project Portal Rules



Data Authoring

Keep all existing data authoring software and tools. Multiple file types.

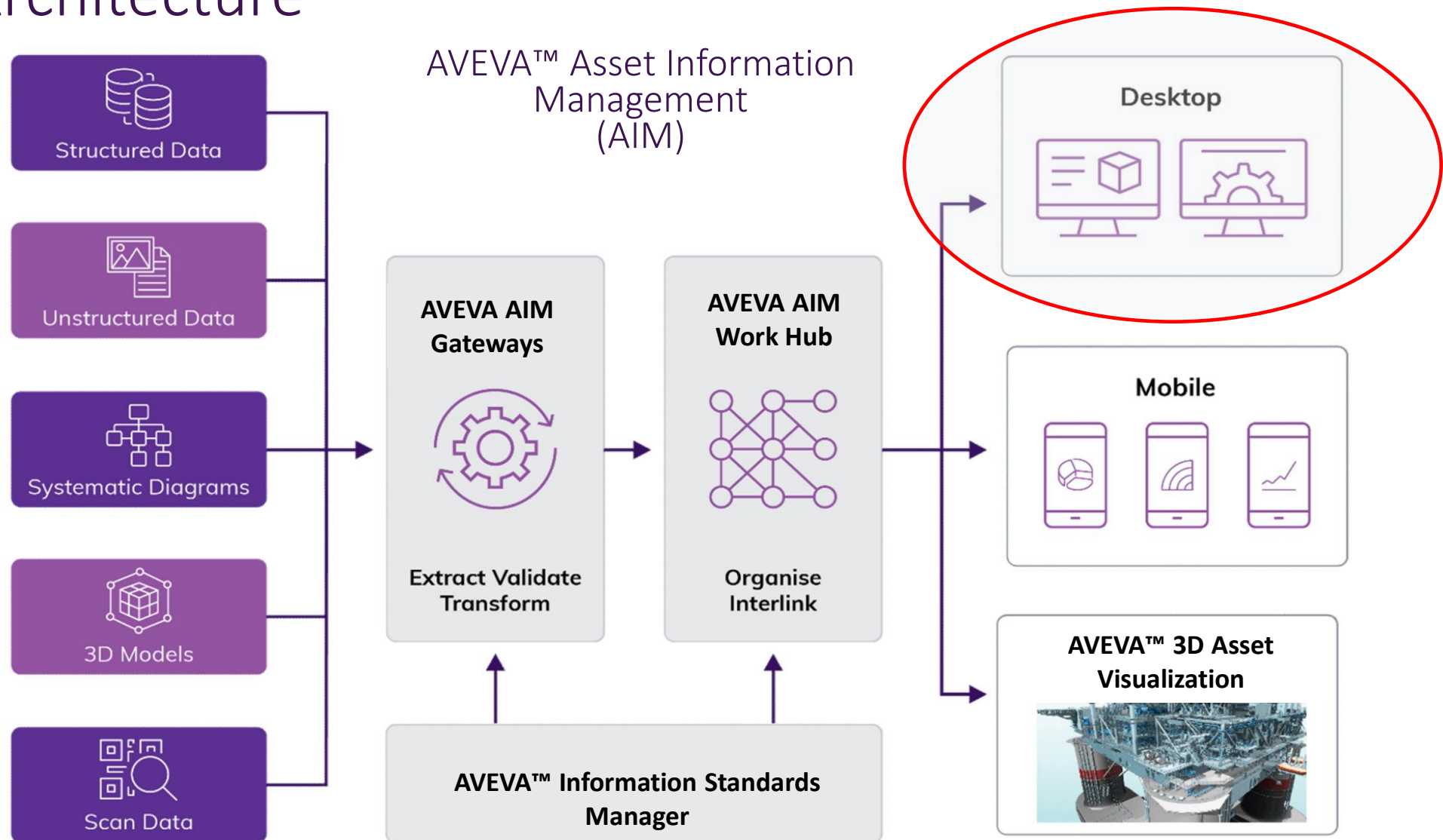
Data Storage

Copy Data only once to a common data warehouse. Data becomes read-only to eliminate multiple authoring locations.

User Interface

Display ALL project data, documents, model on a common web-based, multi-tenant user interface.

Portal Architecture



←→↻⚠ Not secure | kcm-anet-t01:16000/?PortalID

Dashboard

DGD3-P-301

DGD3-P-301 (EQUIPMENT)

Actions...

Details

ID	DGD3-P-301
Name	
Type ID	EQUIPMENT
Lifecycle Statuses	
Aliases	

Attributes

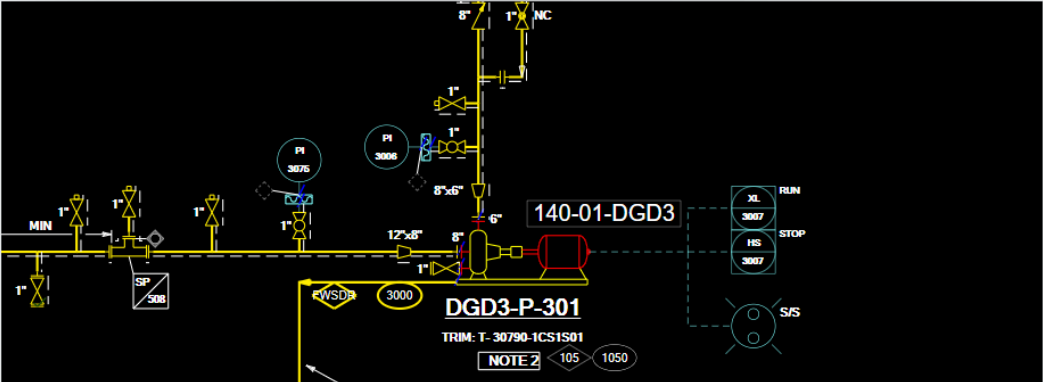
▲ DGD3-P-301 Avngate Data Set (4)

ID	DGD3-P-301 Avngate Data Set
Area Name	22F09
Equipment Name	DGD3-P-301
Refresh Date	5/19/2021

▲ DGD3-P-301 Equip List (6)

ID	DGD3-P-301 Equip List
Desc	No. 1 Blend Fat Pump
Package Number	PMP-201A
PO Number	4505152043
Refresh Date	8/23/2021
Type	Pump

2D View: DGD3-200131-PID-A307



Related Items

Actions...

has dataset - (2)

is referenced in - (2)

3D Models - (1)

P&IDs - (1)

Related Documents

Equipment Document Group

Actions...

3D Models (1)

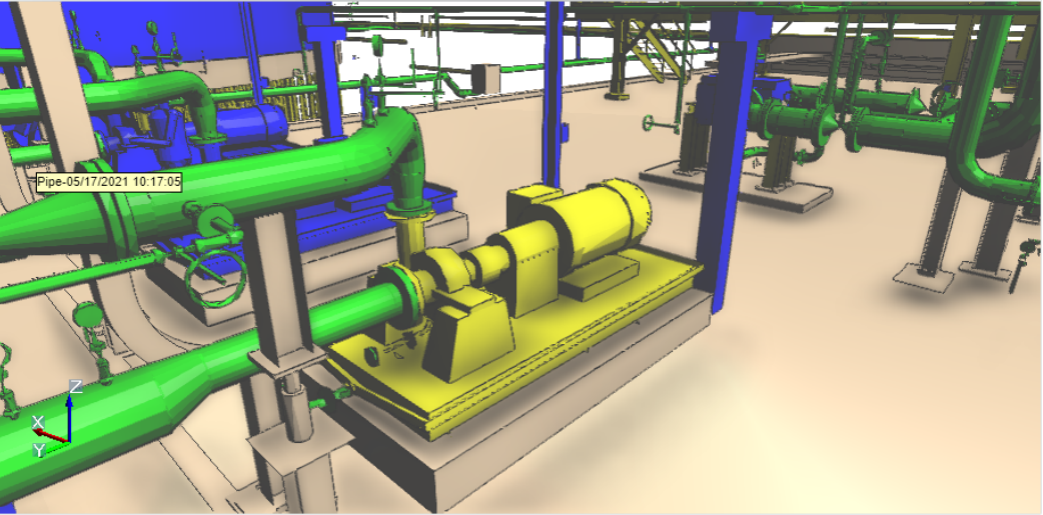
Related Query Forms

Actions...

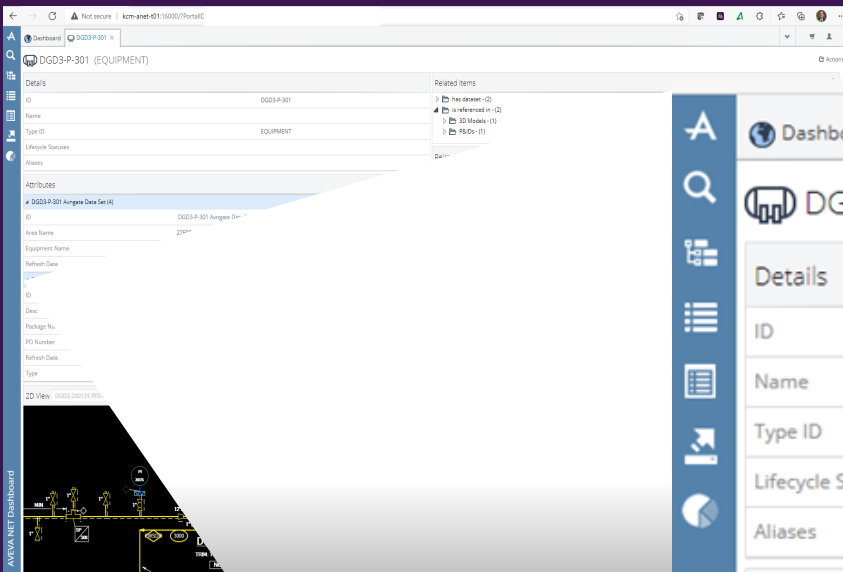
EquipList

3D View

Actions...

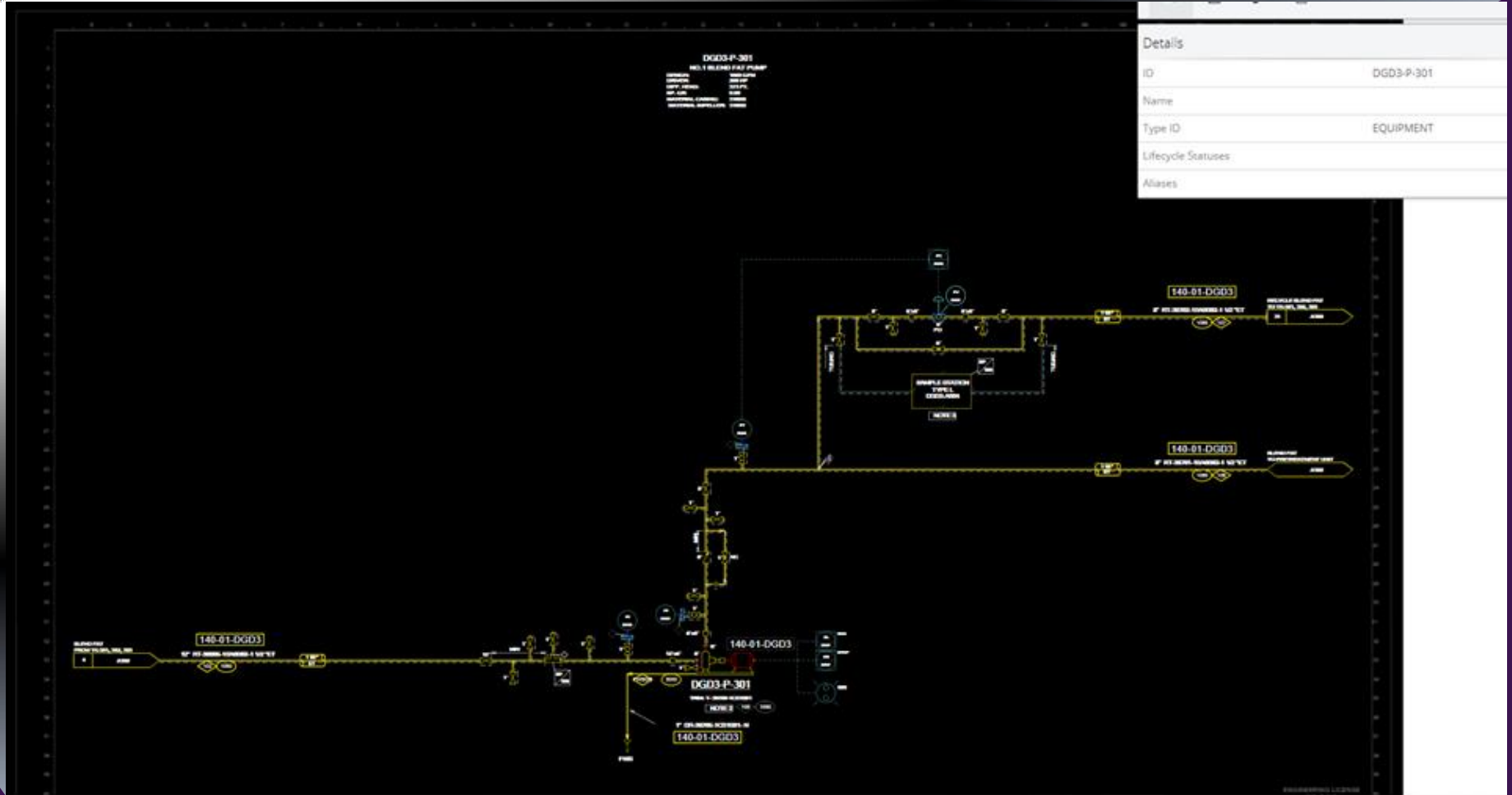
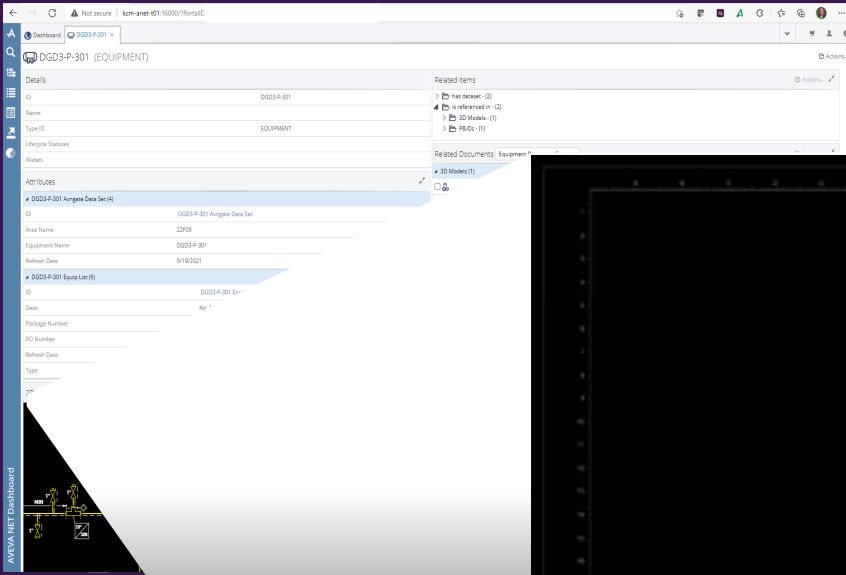


Run Coverage | Run Tests

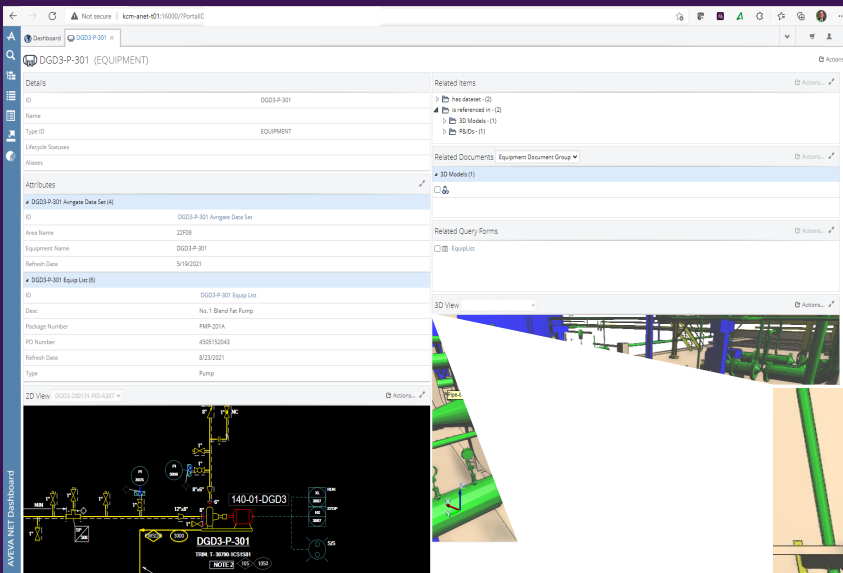


Interact with
Multiple
Databases

Dashboard DGD3-P-301 x	
DGD3-P-301 (EQUIPMENT)	
Details	
ID	DGD3-P-301
Name	
Type ID	EQUIPMENT
Lifecycle Statuses	
Aliases	
Attributes	
DGD3-P-301 Avngate Data Set (4)	
ID	DGD3-P-301 Avngate Data Set
Area Name	22F09
Equipment Name	DGD3-P-301
Refresh Date	5/19/2021
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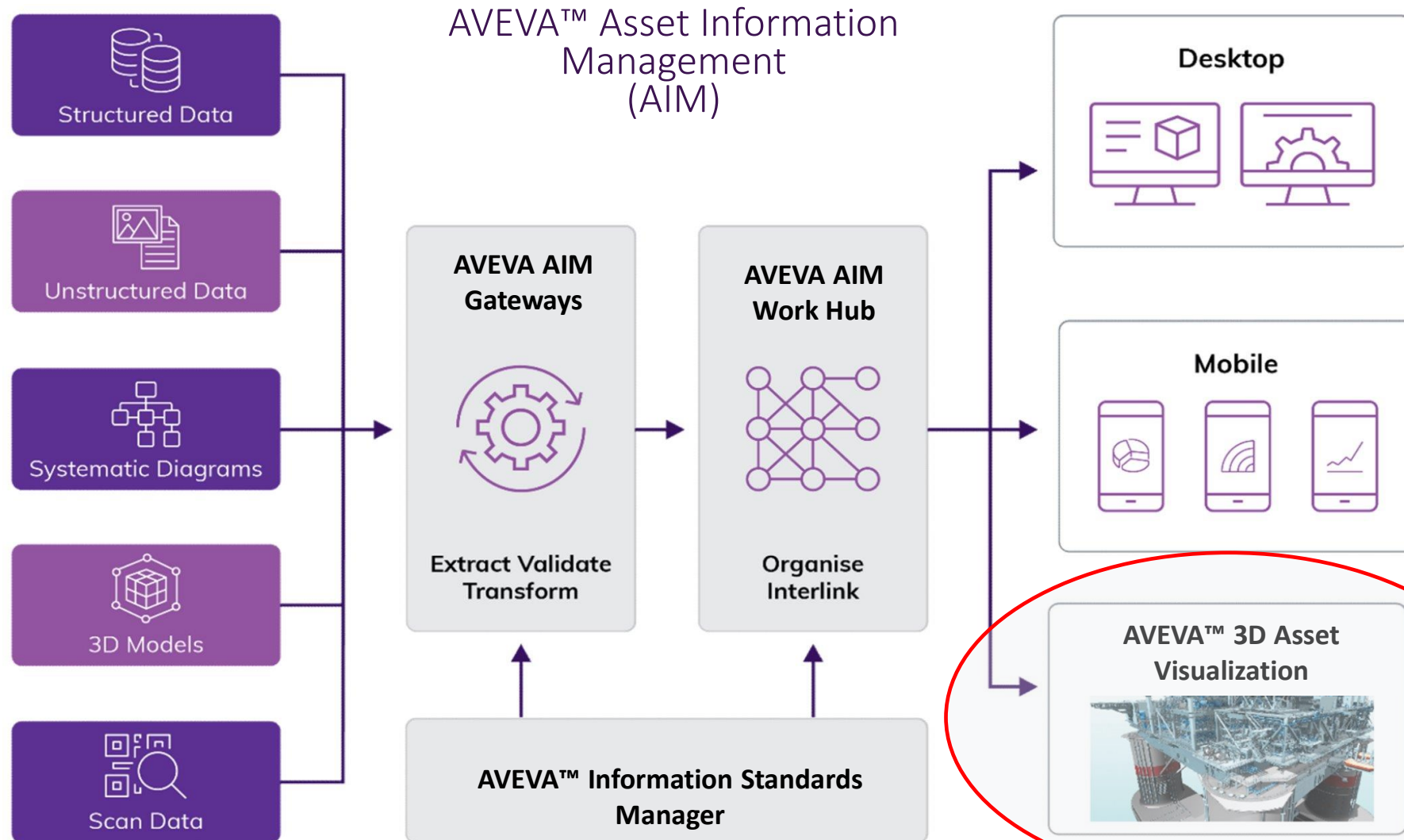


Interact with
Intelligent
Drawings



Interact with
Intelligent 3D
Models

Portal Architecture





E-9001

COLUMN
COLUMNS AND TOWERS



ALL CLASSES OF DOCUMENTS (10) ▾

E-9001 2D Data

Design Pressure
Design Temp.

5.0
150

E-9001 Column Ops. Dataset

Total No. Trays
Type Of Internals
Vessel End Closure Bottom
Vessel End Closure Top

30
TRAYS
FLAT
DOMME

E-9001 Datasheet Data

Design Pressure
Design Temp.
Flow Rate
Installed Power
Operating Press.
Operating Temp.

3.5
150
337
109
2.5
200

E-9001 Design State Data

Responsible
Status

Peter Brunning
7 AFC

E-9001 Dimensions Dataset

Corrosion Allow 1
Corrosion Allow 2
Corrosion Allow 3
External Diameter

MECHANICAL DATASHEET
45015920

ARRANGEMENT DRAWING
65215001

ARRANGEMENT DRAWING
65215002

ARRANGEMENT DRAWING
65215007

PLOT PLAN
65815901

PLOT PLAN
65815902

LOCATION DRAWING
74815102

P&ID
905675

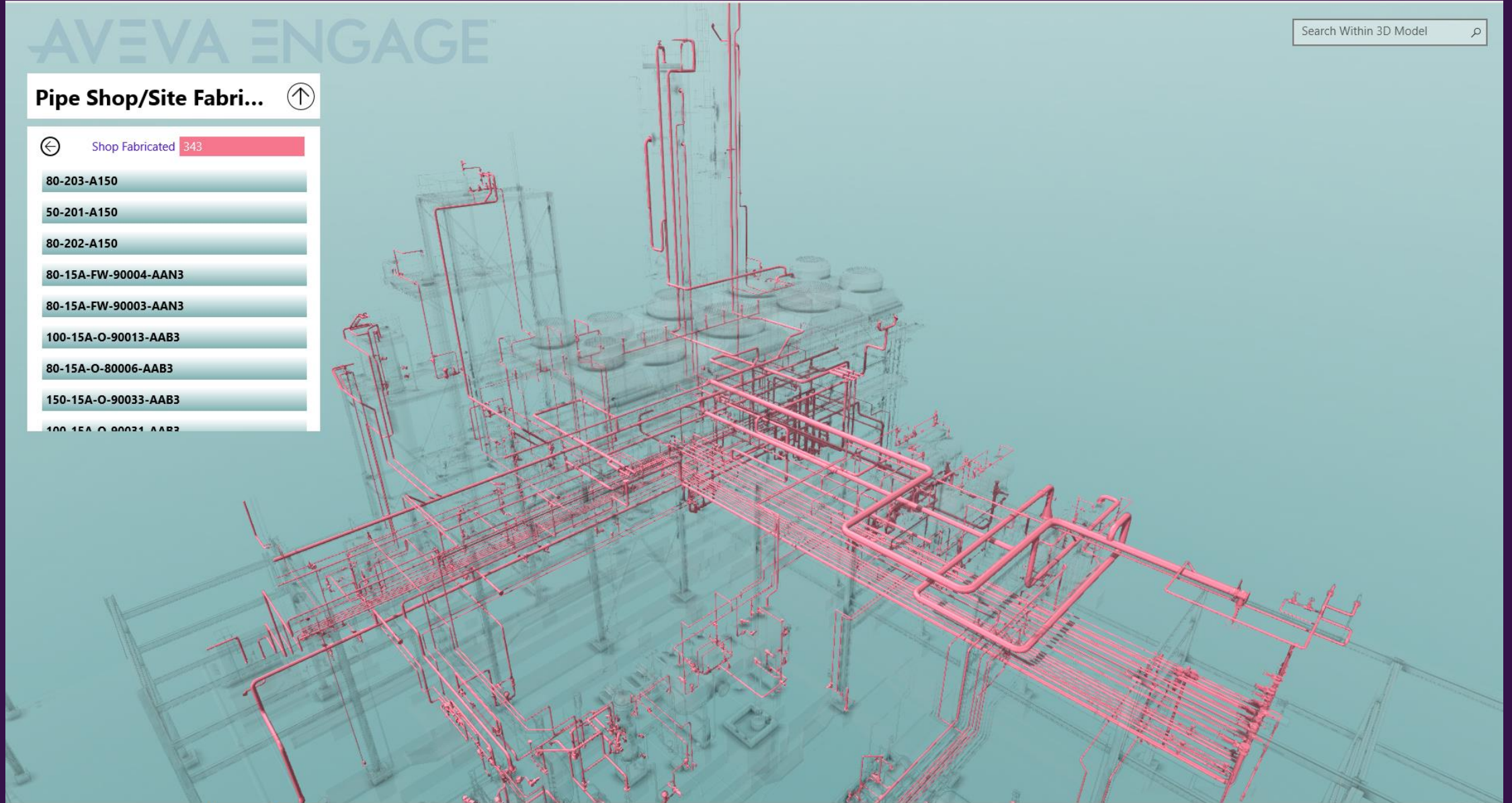
EQUIPMENT DATASHEET
MECH-DS-E-9001

PURCHASE ORDER
MR Scope Of Supply-E9001

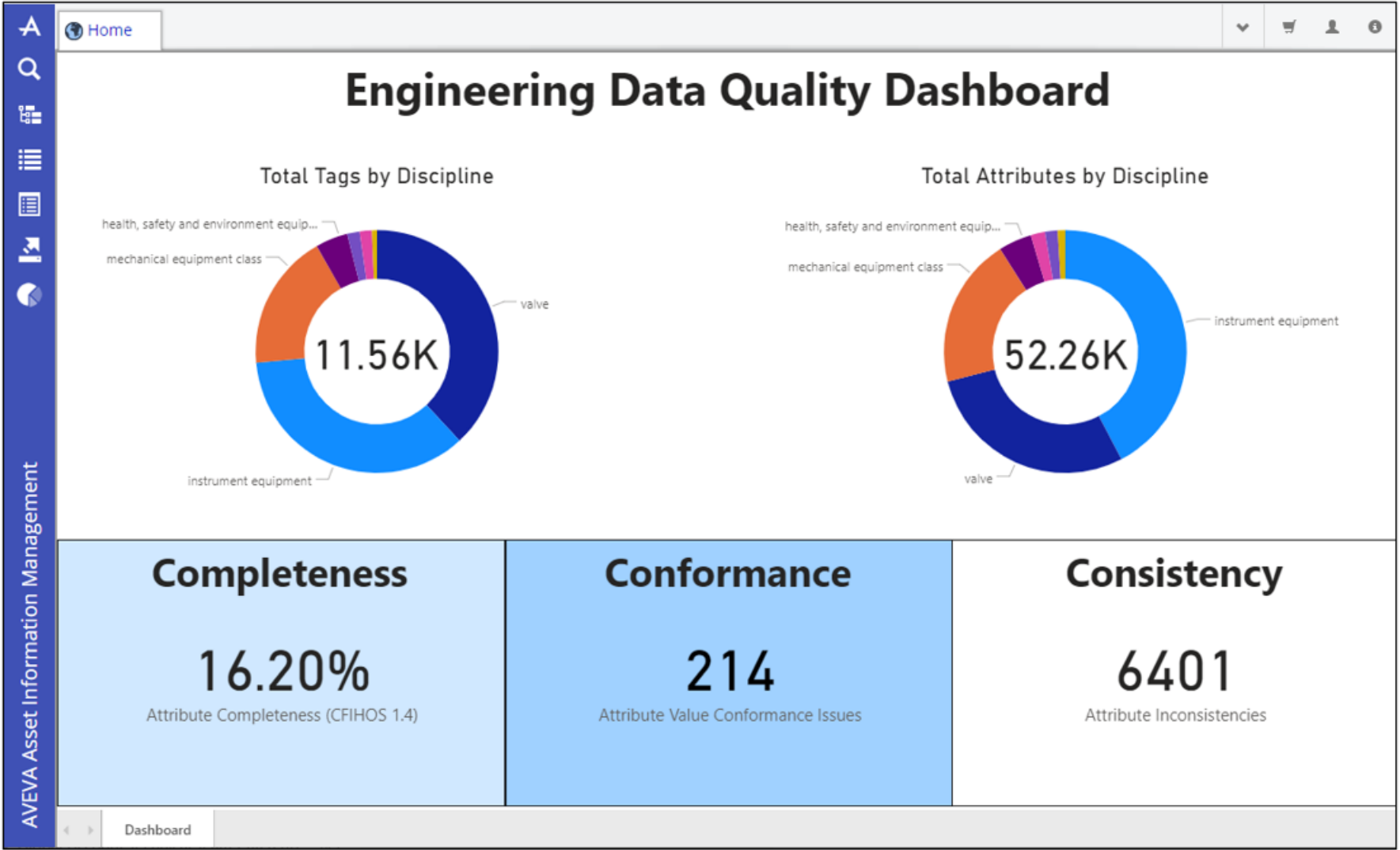


Pipe Shop/Site Fabri...

- 
Shop Fabricated 343
- 80-203-A150
 - 50-201-A150
 - 80-202-A150
 - 80-15A-FW-90004-AAN3
 - 80-15A-FW-90003-AAN3
 - 100-15A-O-90013-AAB3
 - 80-15A-O-80006-AAB3
 - 150-15A-O-90033-AAB3
 - 100-15A-O-90031-AAB3



Achieve Project Data Reporting

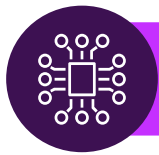


Achieve Project Data Portal Needs



Challenge

Bringing all Project data together in a common location



Solution



Mapping data sources to a common data model which is saved to a data warehouse and visualized through a common UI.



Benefits

All data visualization

Reduction in data acquisition time

Workhub creates foundation for project turnover

Thank you

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Burns & McDonnell

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LinkedIn:





“Our ability to analyze data is only limited by our ability to manage data relationships”

Kyle Miller – Data Architect, BMcD – Oil, Gas, & Chemical

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