



Devon Energy: Develop & Maintain a Digital Twin in the Oil/Gas industry

Session ID #82754

About the Speaker

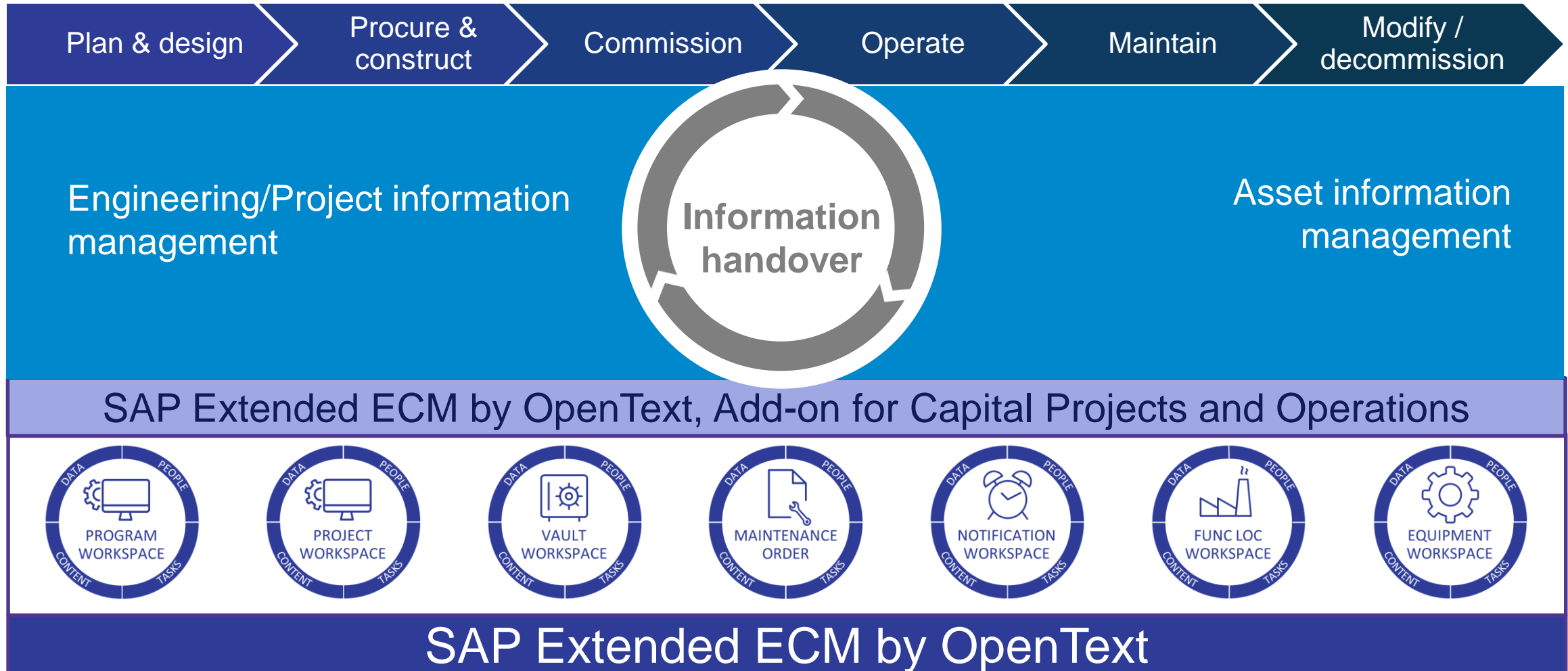
Cameron Brennan

- Director Program Management, Engineering Solutions, OpenText
- Over 10 years in Oil/Gas solution design

Intelligently connecting project & asset information

Efficiently control engineering & asset information, work processes, and risk across the lifecycle of projects and operations to accelerate revenue & reduce costs

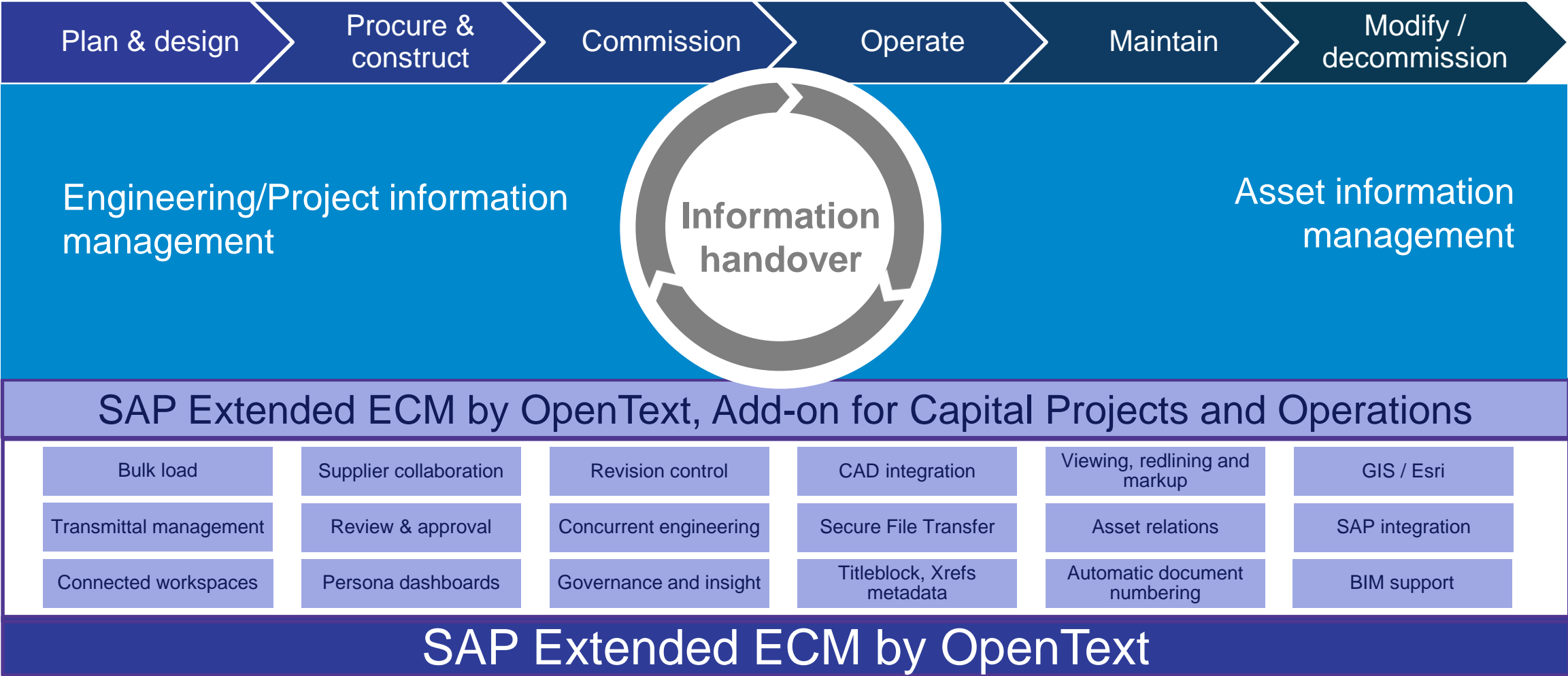
Asset lifecycle



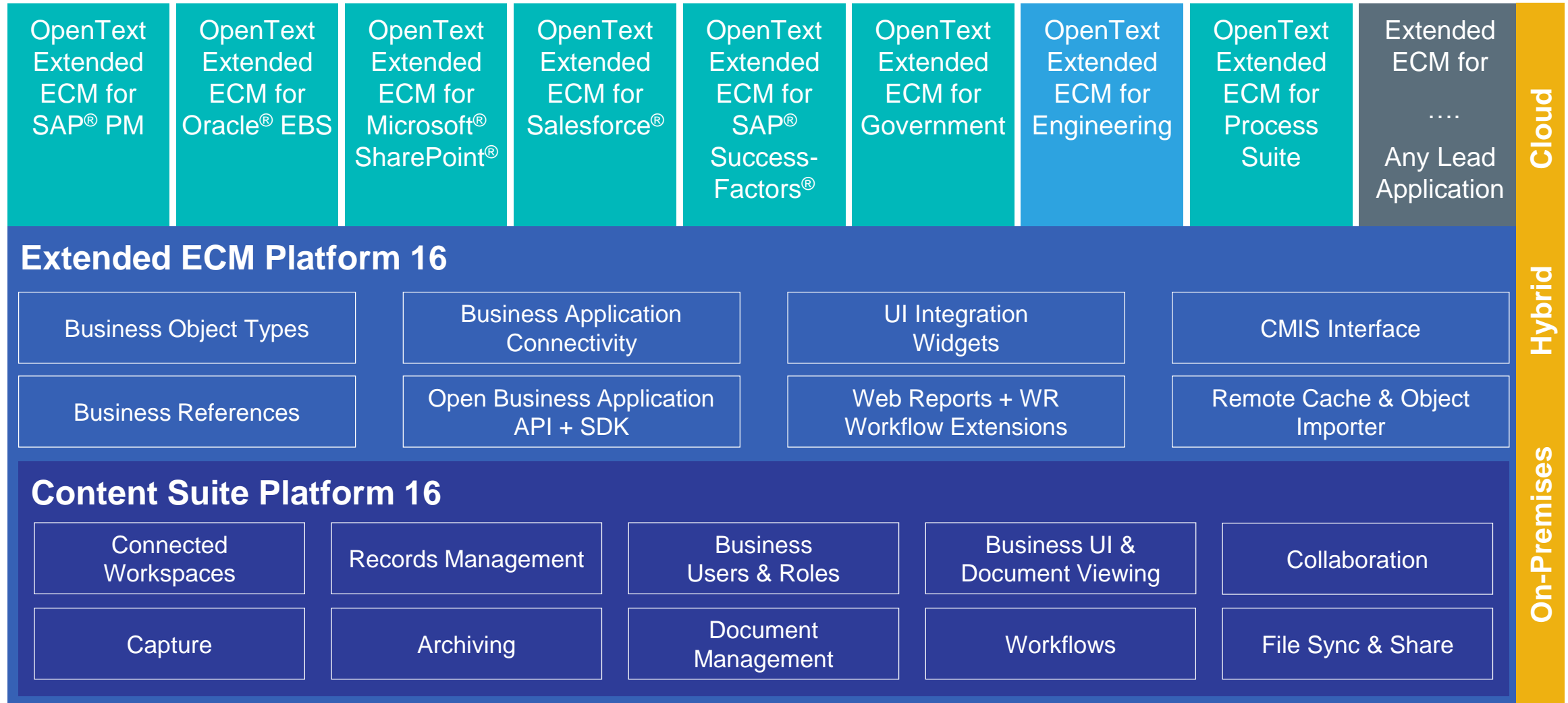
Intelligently connecting project & asset information

Efficiently control engineering & asset information, work processes, and risk across the lifecycle of projects and operations to accelerate revenue & reduce costs

Asset lifecycle



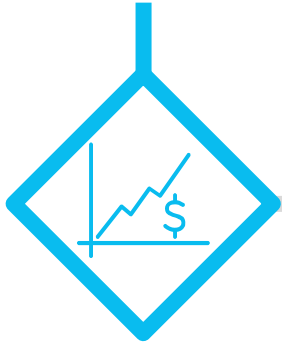
Extended ECM Family & Framework



Impact and value for owner/operators

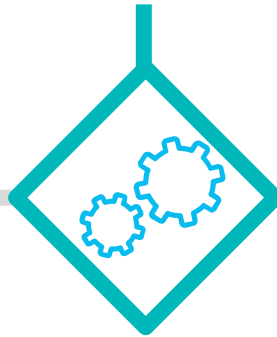
Increase Revenue

Speeds up turnaround times and results in timely production revenues



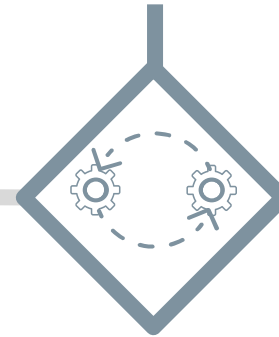
Management of Change

Standardized and simplified change process back to brownfield project phase



Accelerate Handover

No need to file massive amounts of content manually. Enables faster creation of complete EAM records.



Improve Collaboration

Helps to avoid delays and associated costs caused by inefficient maintenance collaboration



Ensure Control

Ensures governance and internal controls across the project and operations lifecycle



EAM Integration

Tight integration into SAP Enterprise Asset management provides a unified engineering and operations content platform for reduced TCO and maximum data quality

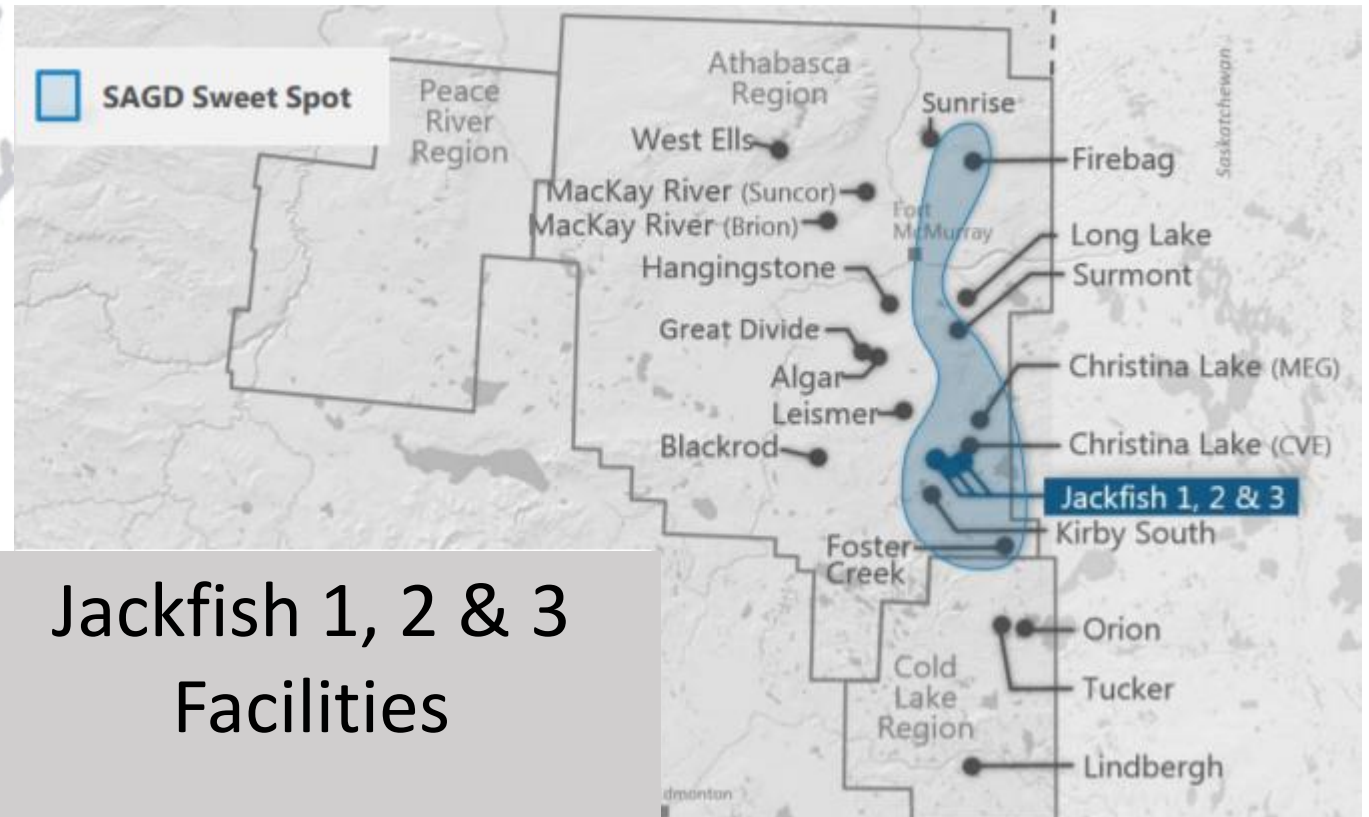


About the Speaker

Philip Cleghorn

- Information Management
- Over 10 years in Engineering Records and Asset Management

Devon Energy Canadian Heavy Oil



Jackfish 1, 2 & 3
Facilities

2018 – 117 Thousands of Barrels of Oil Equivalent per day (MBOED)

asug

Key Outcomes/Objectives

1. Why have a digital twin?
2. What does it look like?
3. How is it implemented?

Agenda

- We have several 'Digital Twins'
 - Facilities
 - Production
- What do these look like?
- How do they work together?

Youtube clip about Devon Canada

<https://www.youtube.com/watch?v=GLdPNFh-wJc>

Facilities can be big, complex



Jackfish facilities have over 100,000 tags

opentext™ | Content Server

Enterprise ▾ Personal ▾ Tools ▾ My Account ▾ Business Workspaces ▾ ? ▾

↩ Back

Jackfish Search

Jackfish 1

• Engineering Records

CPF

Pad A

Pad B

Pad C

Pad D

Pad E

Pad EX

Pad F

Pad G

Pad H

Pad I

Pad O

Pad R

Pad S

Projects

Active - All

Active - OMCP

Active - SCP

Active - SPP

eMOC

Jackfish 2

• Engineering Records

CPF

Flowline TT

Pad AA

Pad BB

Pad CC

Pad DD

Pad FF

Pad KK

Pad MM Study

Pad OO

Pad PP

Pad QQ

Pad TT

Pad XX

Links

Ad Hoc Large Emails

Devon Specifications

Livelihood Recycle Bin

Service Ticket

Jackfish 3

• Engineering Records

CPF

Pad EE

Pad EEE

Pad III

Pad J

Pad K

Pad OOO

Pad RR

Pad VV

Tools

Jackfish Utilities

Project Close Out Sign-off

Workflow & Reports

Jackfish District

• Engineering Records

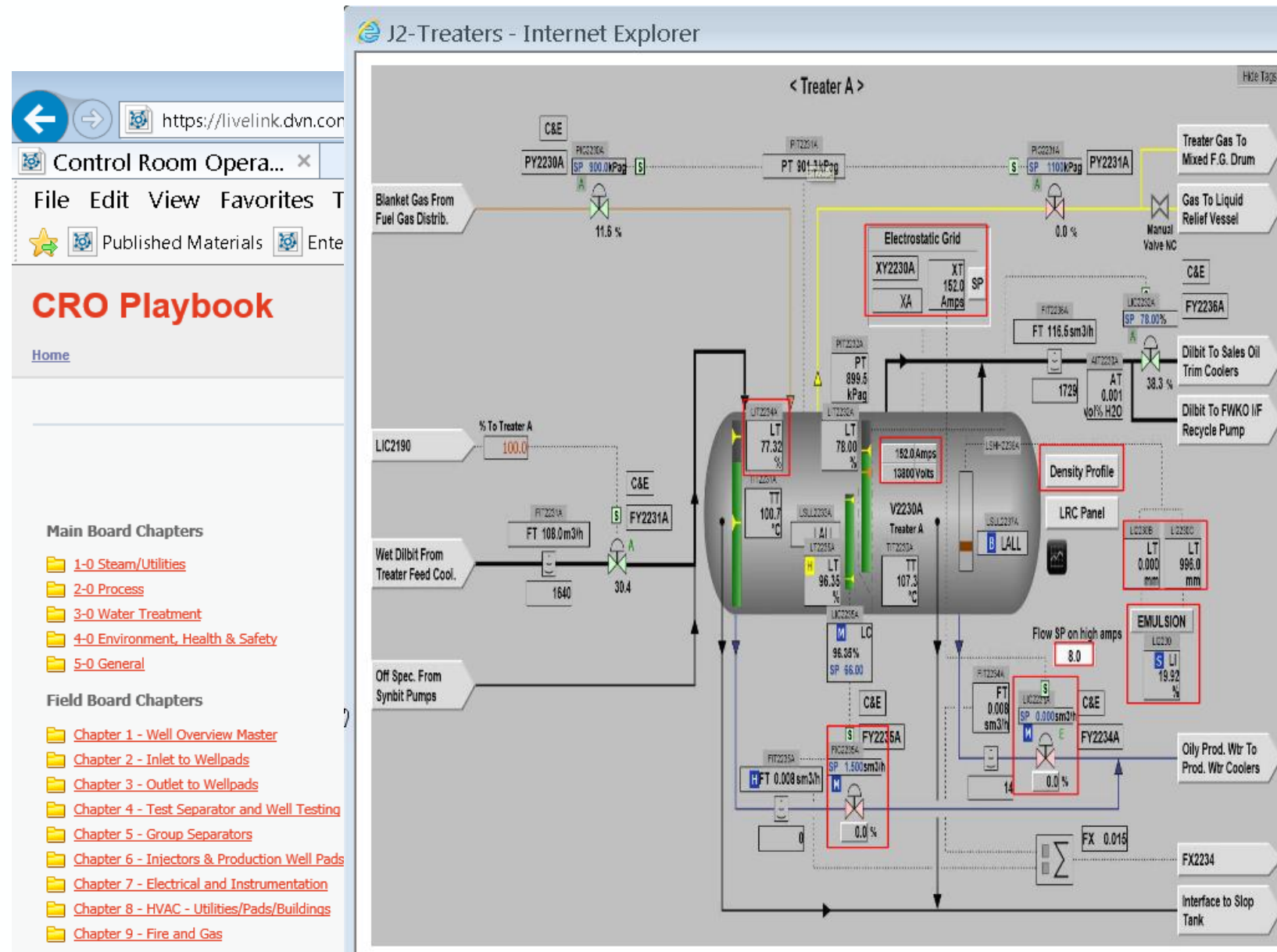
Jackfish Camp

Jackfish Landfill

Jackfish Tank Farm

My Jackfish Projects

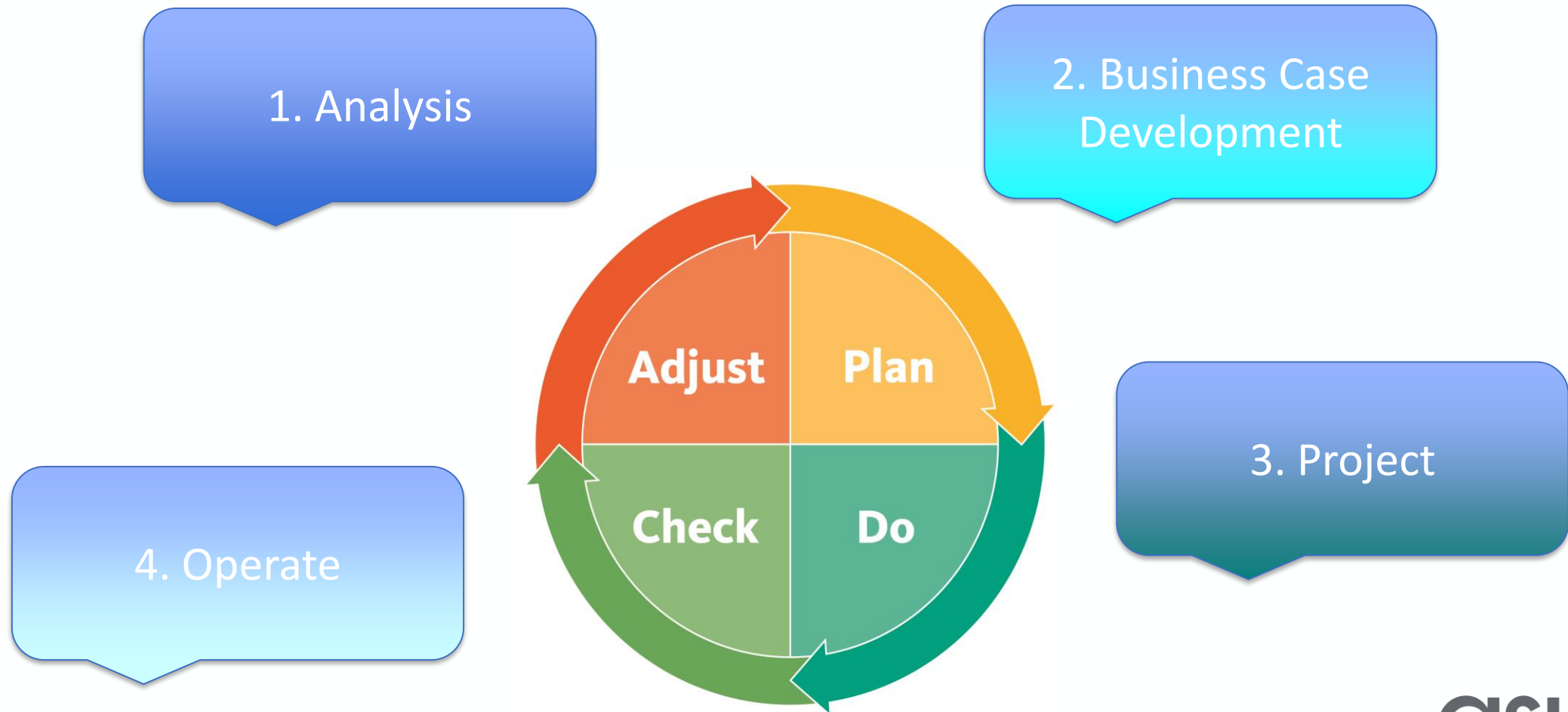
Some 'digital twin' representations look like this



Others like this



Data Feeds the Continuous Cycle of Improvement



Building the 'twins' begins with the Capital Project

Documents
Attributed
By:

Asset

Discipline

Doc
Type A

opentext™ | Content Server

Enterprise > Oil Sands > Jackfish > Projects (Old View) > Sustaining Capital Projects (SCP) > J3 - 10-120044 - Pad EEE Construction

J3 - 10-120044 - Pad EEE Construction

Refine by	Type	Name	Size	Modified	Title
1_Facility		1.0 Project Management	5 items	04/22/2015 4:38:12 PM	
Pad EEE 3030		2.0 Engineering	10 items	11/13/2016 2:35:53 PM	
Jackfish 3 1820		3.0 Survey - Land - Regulatory and Environment	7 items	11/17/2016 1:40:09 PM	
Pad Template 8		4.0 Supply Chain Management	2 items	04/22/2015 5:14:51 PM	
Jackfish 1 7		5.0 Construction Management	4 items	04/22/2015 4:38:10 PM	
Jackfish 2 2		6.0 Quality	3 items	02/05/2016 7:34:02 AM	
Show more		7.0 EHS - Safety	7 items	04/22/2015 4:38:13 PM	
2_Discipline		8.0 Administration	7 items	04/22/2015 4:38:09 PM	
02 Supply Chain Ma... 2860					
02 Procurement - F... 1650					
03 Vendor 1020					
03 Instrumentation... 586					
02 Construction 432					
Show more					
3_Document Subt...					
Panel Strip Drawing 316					
Piping Isometric 188					
Data Sheet 170					
Control Panel Layout 141					
Primary Steel Drawing 56					

All Project Documentation

Including: Construction Documents / Discipline Drawings

🏠

^

Enterprise > Oil Sands > Jackfish > Projects (Old View) > Sustaining Capital Projects (SCP) > 01-06805 - Pad G Construction > 2.0 Engineering > 2.07 Engineering - Controlled Records > Process

🔍

+

Process

Refine by	<input type="checkbox"/>	Type	Name	↑	🔍	Size	Modified	Title	Doc Num
1_Facility	<input type="checkbox"/>		D-035712-0014.pdf			26 KB	05/08/2017 1:06:16 PM	CPF PFD PRODUCED WATER D...	D-035712-0014
Pad G 79	<input type="checkbox"/>		D-035712-0015.pdf			26 KB	05/08/2017 1:26:54 PM	CPF PFD PRODUCED WATER D...	D-035712-0015
Jackfish 1 5	<input type="checkbox"/>		D-035712-0016.pdf			852 KB	05/08/2017 1:28:27 PM	Jackfish CPF PFD - Water Soften...	D-035712-0016
3_Document Subt...	<input type="checkbox"/>		D-035712-0104B.pdf			308 KB	12/04/2017 3:04:11 PM	J1 CPF - P&ID - STEAM CONDE...	D-035712-0104B
Piping & Instrument D... 52	<input type="checkbox"/>		D-035715-0100.pdf			301 KB	11/12/2016 3:44:35 PM	Jackfish - Gathering & Distributio...	D-035715-0100
Data Sheet 12	<input type="checkbox"/>		D-035715-0101.pdf			229 KB	11/12/2016 3:44:35 PM	JACKFISH - GATHERING & DIST...	D-035715-0101
Process Flow Diagram 8	<input type="checkbox"/>		D-035715-0102.pdf			262 KB	11/12/2016 3:44:35 PM	JACKFISH - GATHERING & DIST...	D-035715-0102
Material of Constructio... 6	<input type="checkbox"/>		D-035715-0300.pdf			1 MB	11/28/2017 4:26:43 PM	JACKFISH - GATHERING & DIST...	D-035715-0300
Block Diagram 2	<input type="checkbox"/>		D-035715-0301.pdf			139 KB	11/12/2016 3:44:36 PM	JACKFISH - GATHERING & DIST...	D-035715-0301
Show more	<input type="checkbox"/>		D-045906-0103A.pdf			112 KB	11/12/2016 3:44:54 PM	JACKFISH - PRODUCTION PAD...	D-045906-0103A
4_Document Type	<input type="checkbox"/>		D-045906-0103B.pdf			990 KB	11/12/2016 3:45:02 PM	JACKFISH 1 - PRODUCTION PA...	D-045906-0103B
Drawing 64	<input type="checkbox"/>		D-045906-0106.pdf			188 KB	11/12/2016 3:44:58 PM	JACKFISH - PRODUCTION PAD...	D-045906-0106
Data Sheet 12	<input type="checkbox"/>		D-045906-0107.pdf			139 KB	11/12/2016 3:44:51 PM	JACKFISH - PRODUCTION PAD...	D-045906-0107
Diagram 7	<input type="checkbox"/>		D-045906-0127.pdf			203 KB	11/12/2016 3:44:53 PM	JACKFISH - PRODUCTION PAD...	D-045906-0127
Technical Document 1	<input type="checkbox"/>		D-045906-0301A.pdf			96 KB	11/12/2016 3:44:53 PM	JACKFISH - PRODUCTION PAD...	D-045906-0301A
5_Location									
Area 21000 79									
Area 3000 2									
Area 1000 1									
Area 15000 1									

About 84 items

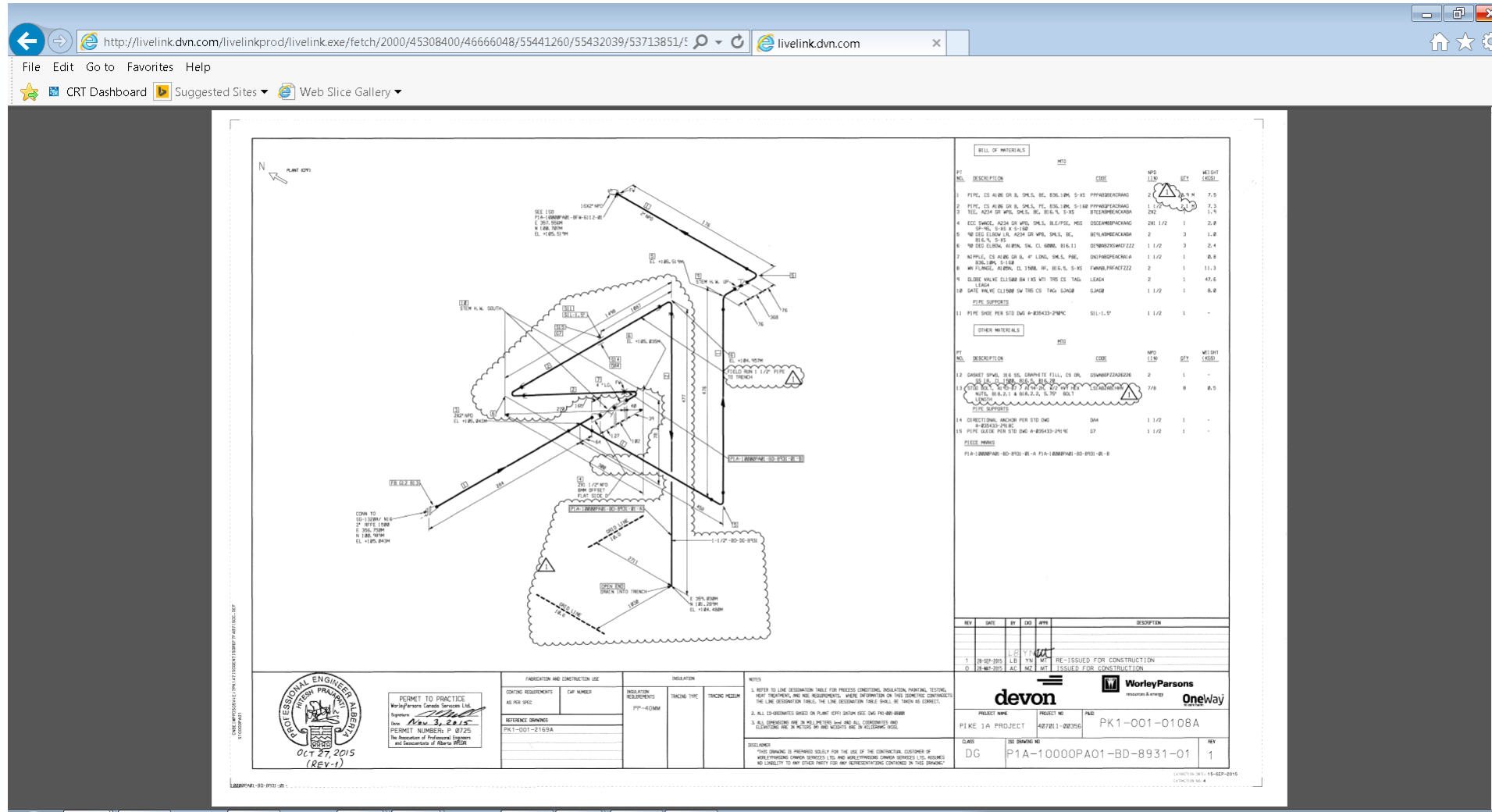
30 per page

1

2

3

Including, of course, Drawings



What digital twins are required?

Operations & Asset Management

Operate

- Records (As-Builts), P&ID's, Data Sheets etc.
- Records – Regulatory: Permits Licenses etc.
- Manuals incl: Manufacturer Records Books

Maintain

- Equipment / Instrument : Service or Replace
- Data Books / MRB
- Regulatory Reporting / Amendments

Production Engineering and Automation

- Field level changes for safety, operability
- Optimization Projects: Production, Maintenance
- P&ID, Cause and Effect

Capital Projects & Construction

Engineering

- Engineering Discipline Drawings
- Vendor Document Management

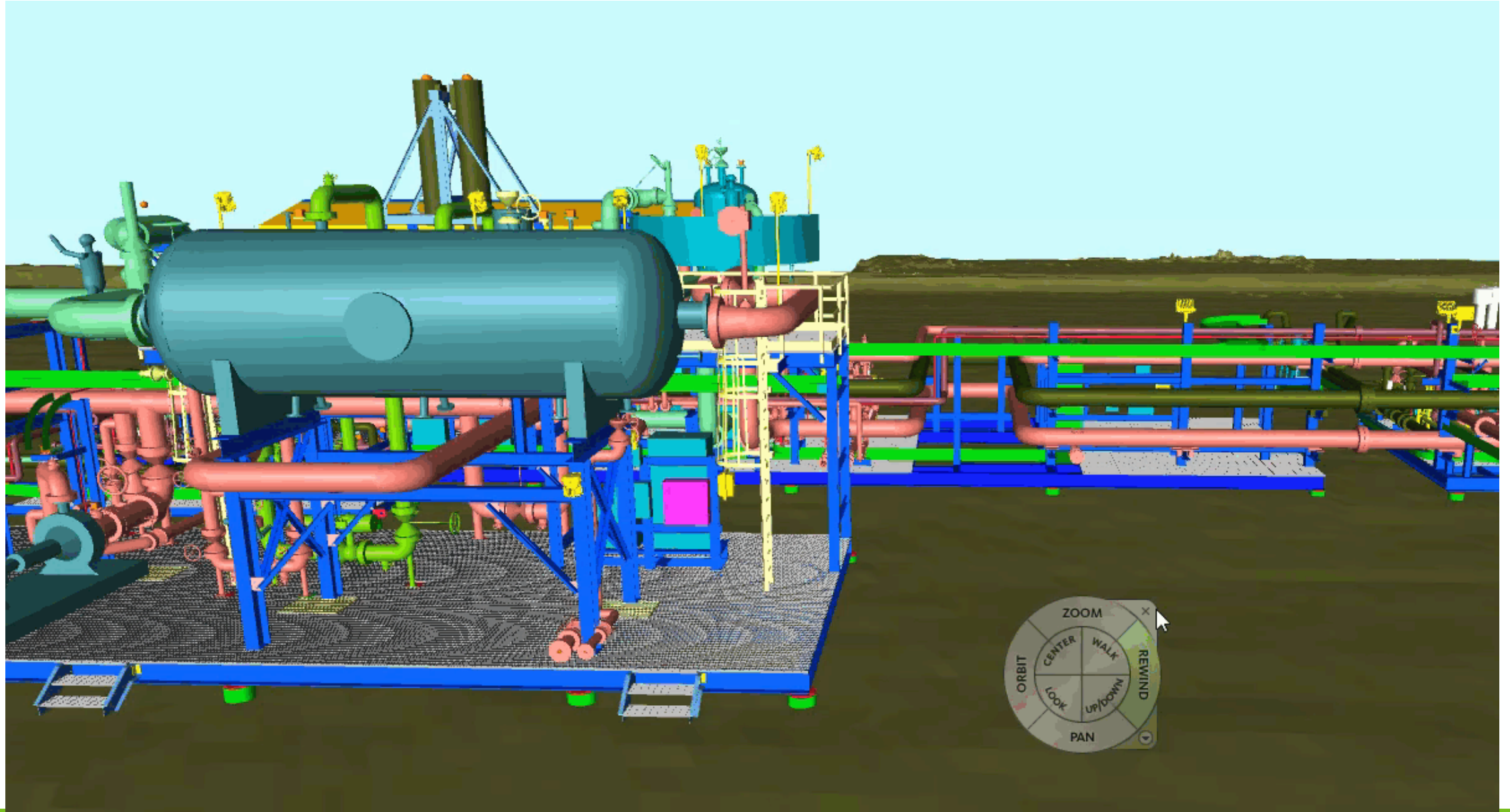
Fabricators / Constructors

- Work Packages (Engineering Packages, Vendor Packages, Construction Work Packages)
- Transmittals (Formal Communication Records)
- Red-Lines (Field As-Constructed Records)

Handover and Turnover

- Commissioning & Startup Binders
- Issued for Construction / Red-Line -> As-Built Records

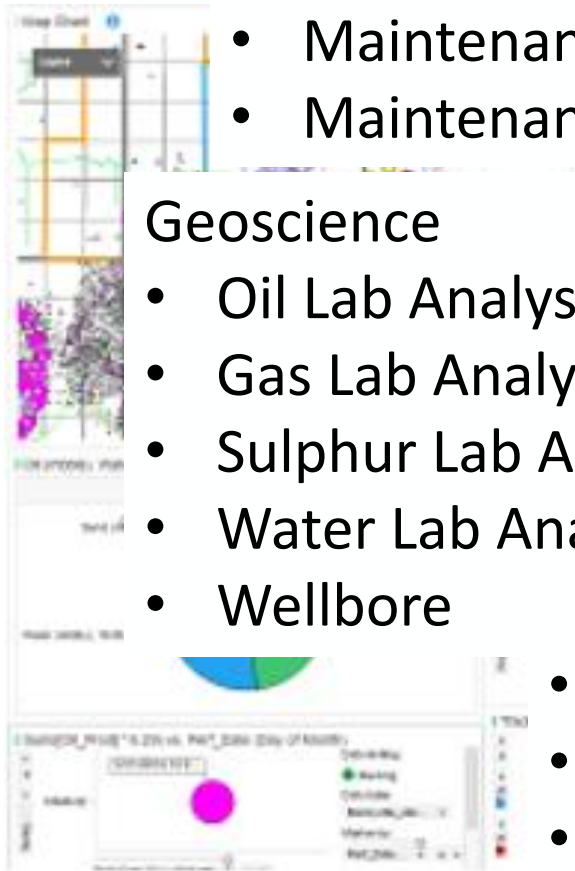
First digital twin is the 3D Model



Once in Operation, 'twins' use Data Services

Asset Management

- Maintenance Plan
- Maintenance Task



Geoscience

- Oil Lab Analysis
- Gas Lab Analysis
- Sulphur Lab Analysis
- Water Lab Analysis
- Wellbore

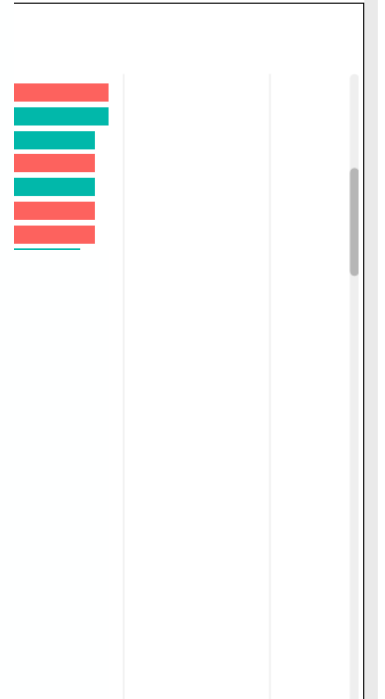
Wellcore

- Casing Details
- Daily Time Breakdown
- Directional Surveys
- Rob Pump Report

























Finance

- Capital Projects
- Per Operations
- SA • Daily Battery Production
- Co • Well Production
- WI • Production Forecast
- Loss Management Events
- Well Integrity
- Pipeline Inspection
- Pipeline Inventory
- Relief Device



ASUG

Challenges mean access to detailed information

Enterprise > ... > Sustaining Capital Projects (SCP) > J3 - 10-120044 - Pad EEE Construction > 2.0 Engineering > 2.07 Engineering - Controlled Records > Process									
Process									
Refine by	<input type="checkbox"/>	Type	Name	↑	Q	Size	Modified	Title	Doc Num
1_Facility	<input type="checkbox"/>		JP-59-A06-0001-01.pdf			37 MB	01/21/2019 8:26 AM	GAS LIFT WELLPAD - ...	JP-59-A06-0001-01
Pad EEE 46	<input type="checkbox"/>		JP-59-A06-0002-01.pdf			12 MB	01/09/2019 9:20 AM	PROCESS SAFETY REVI...	JP-59-A06-0002-01
Pad Template 1	<input type="checkbox"/>		JP-59-A06-0003-01.pdf			14 MB	01/21/2019 8:26 AM	GAS LIFT WELLPAD - ...	JP-59-A06-0003-01
3_Document Sub...	<input type="checkbox"/>		JP-59-A06-0003-02.pdf			1 MB	01/21/2019 8:27 AM	GAS LIFT WELLPAD H...	JP-59-A06-0003-02
Piping & Instrumen... 32	<input type="checkbox"/>		JP-59-A06-0004-01.pdf			4 MB	01/21/2019 8:27 AM	GAS LIFT WELLPAD - L...	JP-59-A06-0004-01
Process Flow Diagr... 5	<input type="checkbox"/>		JP-59-A06-0005-01.pdf			13 MB	01/21/2019 8:27 AM	GAS LIFT WELLPAD - ...	JP-59-A06-0005-01
HAZOP Review 4	<input type="checkbox"/>		JP-59-A06-0008-01.pdf			207 KB	01/21/2019 8:27 AM	GAS LIFT WELLPAD - R...	JP-59-A06-0008-01
Heat or Mass Bala... 2	<input type="checkbox"/>		JP-59-A07-0001-01.pdf			376 KB	01/09/2019 8:58 AM	SUPERSEDED BY JP-00...	JP-59-A07-0001-01
Process Hazard An... 2	<input type="checkbox"/>		JP-59-A07-0001-02.pdf			354 KB	01/09/2019 8:58 AM	SUPERSEDED BY JP-00...	JP-59-A07-0001-02
Show more	<input type="checkbox"/>		JP-59-A06-0004-01.pdf			344 KB	01/09/2019 8:58 AM	GAS LIFT WELLPAD - ...	JP-59-A06-0004-01
4_Document Type	<input type="checkbox"/>		JP-59-A06-0004-01.pdf			344 KB	01/09/2019 8:58 AM	GAS LIFT WELLPAD - ...	JP-59-A06-0004-01

Accessible via SAP

Example Pump Equipment P-3000-N001

Click on "Generic Object Services" Button and select menu item "Business Content"

SAP NetWeaver Business Client 5.0

Display Equipment : General...

Search or enter application name or transaction code

Menu

Display Equipment : General Data

Equipment: P-3000-N001 Category: M Machines

Description: Electric Pump 001

Status: INST

Valid From: 09/28/2016 Valid To: 12/31/9999

General Location Organization Structure

General data

Class	
Object type	3000 Pump
AuthorizGroup	3000 MAINTENANCE
Weight	26.500 KG
Size/dimension	245*45*125
Inventory no.	

Reference data

AcquistnValue	3,000.00 USD
---------------	--------------

Manufacturer data

Manufacturer	Delta Pump Mfg Inc
Model number	300-50
ManufPartNo.	300-50-100
ManufSerialNo.	83-797-1993-12-01

SAP NetWeaver

Display Equipment : General...

Search or enter application name or transaction code

Menu

Display Equipment : General Data

Equipment: P-3000-N001 Category: M Machines

Description: Electric Pump 001

Status: INST

Valid From: 09/28/2016 Valid To: 12/31/9999

General Location Organization Structure

Business Content

My Objects

Workspaces: People, Data, Documents

The screenshot displays the 'opentext | Extended ECM' interface. The breadcrumb trail at the top reads: **Innovate** > **Enterprise Asset Management** > **Equipment** > **P-3000-N001 - Electric Pump 001** > **02 - Manuals**.

The main header for the workspace is **P-3000-N001 - Electric Pump 001** with a lock icon and a share icon. Below the title, it is categorized as **Equipment**. To the right, a list of recent documents is shown, all added 'a year ago' by **Ramos, Peter**:

- Template - Plant Inspection Report.pdf
- Service Order Confirmation.pdf
- Water Pumping Station & Industrial Interior Pipes.jpg

Navigation tabs at the bottom of the header include **Overview** (selected), **Documents**, **Map**, **Office 365**, and **Related**.

The workspace is divided into three main panels:

- Plant Team**: Lists team members with their roles:
 - Blake, Tony** - Quality Management
 - Franklin, Matthew** - Equipment Specialist+1
 - Ramos, Peter** - Plant Operator
- Equipment Data**: A table of asset details:

Equipment Number	P-3000-N001
Category	M
Description	Electric Pump 001
Status	INST
Creation Date	08/10/2016
Valid From	09/28/2016
Valid To	09/28/2016
Object Type	3000
ABC Indicator	A
Weight	26.500
Weight Unit	KG
Size/Dimension	245*45*125
Name	Delta Pump Mfg Inc
Country	US
Model Number	300-50
Part Number	300-50-100
Serial Number	83-797-1993-12-01
Construction Year	1993
- Sub Equipment**: Lists related components:
 - E-10004174 - Electric Pump Motor**
Manufacturer: Strobel Gerätebau GmbH
 - M-3000-N051 - Motor for electric pump,250kw**
Manufacturer: Marlin Electric Inc.
Serial Number: 2009-10-001-MT-400

FLOC, Notifications, Orders, Materials

The screenshot displays the OpenText Extended ECM interface. The top navigation bar includes a home icon, a search icon, a star icon, and a user profile icon. The main header shows the breadcrumb path: Innovate > Enterprise Asset Management > Equipment > P-3000-N001 - Electric Pump 001. Below this, the equipment details for P-3000-N001 - Electric Pump 001 are shown, including a lock icon and a status icon. The main content area is divided into four panels: Functional Location, Maintenance Notification, Maintenance Orders, and Materials. Each panel contains a list of items with their respective IDs, descriptions, and status information.

Functional Location

Functional Location	Status
C1-B01-1 - Pump set 1	CRTE
Category: M	Plant: 3000

Maintenance Notification

ID	Notification Type	Description	Status
000010000070	M1	pump will become hot after 1 hour	OSNO
000010000041	M2	Temperature exceeds specification	OSNO
000010000031	M2	Pump Failure	OSNO
000010000032	M1	Failure Analysis for failed Pump	NOPR ORAS

Maintenance Orders


ID	Status	Description	Start Date	End Date
000004000082	CRTD MANC N...	Pump makes strange noise	10/25/2016	10/25/2016
000004000101	CRTD MANC N...	Pump will become hot after 3 hours	10/25/2016	10/25/2016
000004000061	CRTD MANC N...	Failure Analysis for failed Pump	10/20/2016	10/20/2016

Materials

Material
P-3000 - Pump,electrical,150-200 GPM


Document Info, Related Docs, People



[Enterprise](#) > [01 - Enterprise Asset Management](#) > [Functional Locations](#) > [C1-BR2-22 \(M\) - Intermediate plant - flushing pump 2](#)




C1-BR2-22 (M) - Intermediate plant - flushing pump 2

Functional Location




**stangira** Added 2 days ago
 C1-BR2-22 (M) - Intermediate plant - flushing pump 2

OverviewDocumentsRelated











Metadata


Functional Location Nu...	C1-BR2-22
Category	M
Description	Intermediate plant - flushing pump 2
Creation Date	11/24/1994
Inventory Number	C1-BR2-22
Work Center	MECHMNT
Planning Plant	3000




FLOC - Business Attachments






 7.dwg
 8746-DWG-CAB-0002.dwg
 8746-FCR-FCR-0001.dwg
 8746-FCR-FCR-0002.dwg
 8746-FCR-FCR-0003.dwg
 REFINERY-CALC-CALC-0008.dwg 



Team



 stangira Plant Operator
 Maintenance Technician
 Quality Management

We define relationships to 'share' the information

Document	Asset Type	Doc Type	Area	Tag	FLOC
DS-P3000-N0001	CPF	Data Sheet	3000	P-3000-N0001	C1-BR2-22(M)
JP-59-A06-0005-01	CPF	P&ID	3000		C1-BR2-22(M)
VP-M34-0006-03	CPF	Vendor Print	2000	PK-1500	BW-BR2-23

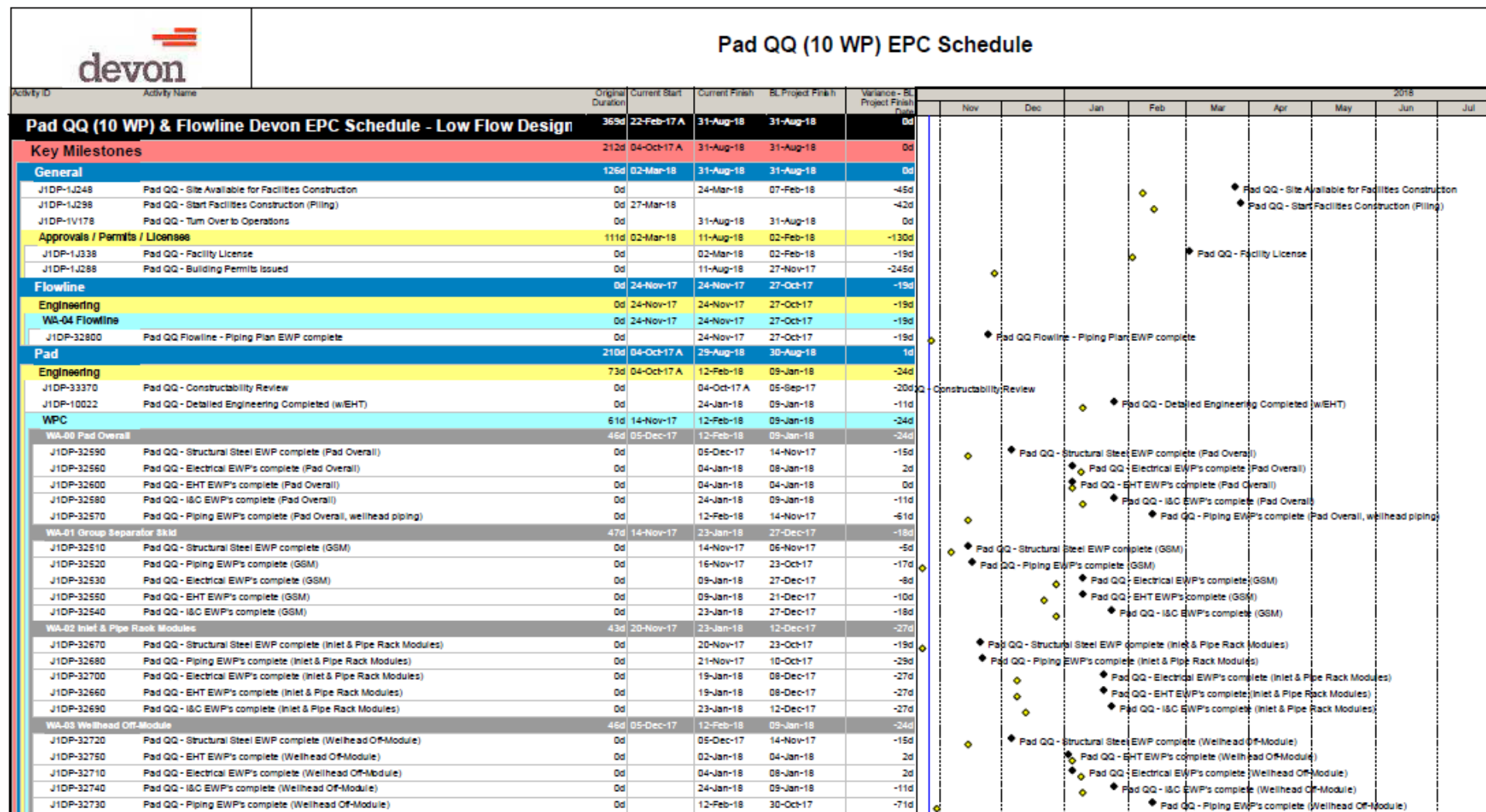
Documents of any type in the project

The screenshot displays the 'Project Builder' application window. The title bar reads 'Project Builder: Display project 99-51160'. The interface includes a menu bar (Project, Edit, Goto, Extras, Settings, System, Help) and a toolbar with various icons. On the left, a 'Project Structure: Description' tree shows a hierarchy with 'JF2 CPF Secondary PW Metering' selected. The main area is divided into several sections:



- Identification and view selection:** WBS element '99-51160', JF2 CPF Secondary PW Metering. Detail icon (yellow triangle), Overview(s) icons (computer, bar chart, diamond, plus, document).
- Basic Data:** Proj.type 'Major Construction', Short ID '99-51160', Priority (empty), ☒ Proj. summarization.
- Status:** System Status 'PREL', User status 'INIT'.
- Responsibilities:** Pers.Resp.No. '99999998' Conversion - Qbyte, Applicant no. '0', Resp. cost cntr 'D001 1001357100' JACKFISH 2 CPF 09-27, Req.cost center (empty), Req. co.code (empty).
- Operative indicators:** ☒ Planning element, ☐ Acct asst elem., ☐ Grouping WBS element.

At the bottom left, a 'Worklist' pane shows a tree with 'Projects' expanded, containing 'Project Definitions', 'WBS Elements' (highlighted), and 'Networks'. Below it, 'Simulations' is expanded showing 'Project Definitions (Simul)'.

Including: Project Schedule





And, Vendor Packages by Requisition



opentext™ | Content Server

Enterprise > Oil Sands > Jackfish > Projects (Old View) > Sustaining Capital Projects (SCP) > J3 - 10-120044 - Pad EEE Construction > 2.0 Engineering > 2.08 Engineering - Controlled Records - Vendor



2.08 Engineering - Controlled Records - Vendor ▾

Refine by

3_Document Subt... ▴

Procedure 44

Inspection & Test Plan 11

Calculation or Design... 9

Welding Procedure 8

Data Sheet 7

Show more ▾

Content Type ▴

Document 971

Folder 50













Shortcut 1

Modified Date ▴

2016 1010


2015 11

2017 2

<input type="checkbox"/>	Type	Name 🔍		Size ↑	Modified	Title	Doc
<input type="checkbox"/>	Folder	E805		11 items	11/30/2016 1:06:20 PM	Power Conditioning Unit	
<input type="checkbox"/>	Folder	J830		11 items	12/01/2016 12:57:09 PM	Flow Meters	
<input type="checkbox"/>	Folder	M810		11 items	11/11/2016 4:19:24 PM	Pop Tanks	
<input type="checkbox"/>	Folder	L821		12 items	11/28/2016 9:25:11 AM	Steam Valves (Large bore)	
<input type="checkbox"/>	Folder	J809		15 items	12/06/2016 9:15:31 AM	Production Well Chokes	
<input type="checkbox"/>	Folder	M811		17 items	11/11/2016 4:19:27 PM	Lift Gas Line Heaters	
<input type="checkbox"/>	Folder	E809		18 items	12/06/2016 9:34:18 AM	Uninterruptable Power Supply (U...	
<input type="checkbox"/>	Folder	E808		27 items	12/06/2016 11:20:57 AM	Variable Frequency Drives & Lon...	
<input type="checkbox"/>	Folder	E830		31 items	11/30/2016 10:00:29 AM	MCC Building	
<input type="checkbox"/>	Folder	J808		31 items	11/11/2016 4:18:41 PM	Pressure Relief Valves	
<input type="checkbox"/>	Folder	E800		43 items	11/11/2016 4:18:07 PM	Motor Control Centres	
<input type="checkbox"/>	Folder	M820		43 items	11/30/2016 11:35:28 AM	Group Separator Packages	

Dev - Final

Plus Operations Documents via Tag Search

 Run WebReport: Equipment Tag and Technical Document Search

Class
☒ Equipment Tag ☐ Technical Document ☐ Cross References

View
☒ Document Controller ☐ Project ☐ Master ☐ Operations

District
Pike ▼

Class Type
All ▼

Use * in between words for wild card search






















Search Criteria

SearchExportResetClose

Project Number	01-10000 ▼...	Project Name	Pike 1 Central Processing Facility 1A ▼...
Tag Name		Title	*Pump* x
Field	▼...	Facility	▼...
Area	▼...	Tag Status	All ▼

SearchExportResetClose

Everything about Equipment Tag P-3120AB

<input type="checkbox"/>	Type	Name	Title	Document Number	Rev Num	Document Status	Document Subtype ▼	Size	
<input type="checkbox"/>		10C8641-J3-M203-F28-002.pdf ▼	COMPONENT NAMEPLATE FACSIMILE	10C8641-J3-M203-F28-002	0	1 - Proceed	Quality Program Document	143 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-B22-002.pdf ▼	DETAILED INSPECTION AND TEST PLAN	10C8641-J3-M203-B22-002	1	1 - Proceed	Inspection & Test Plan	231 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-A20-003.pdf ▼	DIMENSIONAL OUTLINE DRAWING - MOTOR	10C8641-J3-M203-A20-003	0	1 - Proceed	Detailed Drawing	792 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-A12-002.pdf ▼	PERFORMANCE CURVES	10C8641-J3-M203-A12-002	0	1 - Proceed	Certified Performance Curve	885 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-A03-002.pdf ▼	BASE PLATE DRAWINGS - STRUCTURAL SKID	10C8641-J3-M203-A03-002	0	1 - Proceed	Material List	263 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-F29-002.pdf ▼	LIST OF PROPOSED SUB-VENDORS	10C8641-J3-M203-F29-002	0	4 - Accepted for Information Only	Quality Program Document	778 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-F19-001.pdf ▼	PREPARATION FOR SHIPMENT PROCEDURE	10C8641-J3-M203-F19-001	0	1 - Proceed	Quality Program Document	79 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-F22-001.pdf ▼	START-UP ASSISTANCE PERSONNEL LIST WITH RATES	10C8641-J3-M203-F22-001	0	4 - Accepted for Information Only	Cost/Schedule Trend	89 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-B20-002.pdf ▼	HYDROSTATIC TEST PROCEDURE	10C8641-J3-M203-B20-002	0	1 - Proceed	Hydrostatic Testing Report	262 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-B13-001.pdf ▼	WELDING PROCEDURE SPECIFICATIONS	10C8641-J3-M203-B13-001	1	1 - Proceed	Welding Procedure	3 MB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-F25-002.pdf ▼	LONG TERM STORAGE PROCEDURES	10C8641-J3-M203-F25-002	0	1 - Proceed	Procedure	619 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-F04-002.pdf ▼	RECOMMENDED SPARE PARTS LIST (PRICE - COMM & 2YRS)	10C8641-J3-M203-F04-002	0	4 - Accepted for Information Only	Recommended Spare Part	92 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-D04-002.pdf ▼	PERFORMANCE DATA - MOTOR (TC & SPD VS TIME)	10C8641-J3-M203-D04-002	0	1 - Proceed	Motor Performance Characteristic	879 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-A20-004.pdf ▼	DIMENSIONAL OUTLINE DRAWING - PUMP	10C8641-J3-M203-A20-004	1	1 - Proceed	Detailed Drawing	105 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-C04-002.pdf ▼	LOCAL STRESSES AT NOZZLES	10C8641-J3-M203-C04-002	0	1 - Proceed	Calculation	953 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-B01-001.pdf ▼	CERTIFIED HYDROSTATIC TEST DATA	10C8641-J3-M203-B01-001	1	1 - Proceed	Performance Test Result	64 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-A04-002.pdf ▼	CROSS SECTION DRAWINGS & BILL OF MATERIALS - PUMP	10C8641-J3-M203-A04-002	0	1 - Proceed	Detail Drawing with Bill of Material	1022 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-F20-001.pdf ▼	QC MANUAL	10C8641-J3-M203-F20-001	0	4 - Accepted for Information Only	Quality Program Document	2 MB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-D16-001.pdf ▼	ELECTRICAL DRAWING - WIRING DIAGRAM	10C8641-J3-M203-D16-001	0	1 - Proceed	Layout Drawing	827 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-E08-005.pdf ▼	INSTRUMENTATION BOM - TEMPERATURE GAUGE	10C8641-J3-M203-E08-005	0	1 - Proceed	Bill of Material	976 KB	Jackfish 3 Facility:En
<input type="checkbox"/>		10C8641-J3-M203-B20-001.pdf ▼	HYDROSTATIC TEST PROCEDURE	10C8641-J3-M203-B20-001	0	1 - Proceed	Hydrostatic Testing Report	109 KB	Jackfish 3 Facility:En

Or, what operations need to know about purchased packages

opentext™ | Content Server

Enterprise > Oil Sands > Jackfish > Operations > Jackfish 3 Facility > Engineering - Controlled Records - Vendor

Engineering - Controlled Records - Vendor



Refine by

- 1_Facility
 - Jackfish 3 12600
 - Pad K 4460
 - Pad RR 4440
 - Pad VV 3940
 - Pad J 3530
 - Show more
- 2_Discipline
 - 03 Vendor 24200
 - 03 Mechanical 4560
 - 03 Instrumentation... 1740
 - 03 Piping 926
 - 03 Electrical 571
 - Show more
- 3_Document Subt...
 - Detail Drawing with... 1180
 - Data Sheet 988
 - Dimensional Outline/... 951
 - Standard Drawing 861
 - Databook 414
 - Show more

Type	Name	Size	Modified	Title
Folder	J115.1	280 items	11/18/2014 5:20:59 PM	JF3-J115.1 Control Valves - Fir
Folder	M201	278 items	11/18/2014 6:02:17 PM	JF3-M201 Boiler Feedwater Pum
Folder	J143.1	277 items	11/18/2014 5:49:30 PM	JF3-J143.1 Temperature Trans
Folder	M501	220 items	11/18/2014 6:42:11 PM	JF3-M501 Chemical Injection P
Folder	E100	217 items	11/18/2014 5:10:42 PM	JF3-E100 Building BU-1010
Folder	M418	204 items	01/05/2015 12:54:59 PM	JF3-M418 Flash Treater Package
Folder	M108	192 items	04/23/2015 2:26:22 PM	JF3-M108 Weak Acid Cation (W
Folder	M109	189 items	05/01/2015 10:31:53 AM	JF3-M109 Oil Removal Filters ap
Folder	J143.2	187 items	11/18/2014 5:50:13 PM	JF3-J143.2 Temperature Transm
Folder	M503	185 items	03/11/2015 11:28:03 AM	J3-M503 - GAS BOOT COMPR
Folder	J115.2	176 items	11/18/2014 5:21:39 PM	JF3-J115.2 Control Valves - On
Folder	J123.2	173 items	11/18/2014 5:25:50 PM	JF3-J123.2 Pressure Relief Valve
Folder	M300	155 items	11/18/2014 6:14:55 PM	JF3-M300 Electrostatic Treaters
Folder	M203	154 items	11/18/2014 6:03:14 PM	JF3-M203 Progressive Cavity
Folder	M215	145 items	11/18/2014 6:05:31 PM	JF3-M215 Vapour Recovery Up
Folder	D106	145 items	11/18/2014 5:06:55 PM	JF3-D106 Supply & Exhaust Fan



About 212 items 30 per page 1 2 3 4 5 6 7 8

Filter for Data Books, Parts, P&ID, C&E

opentext™ | Content Server

Enterprise > Oil Sands > Jackfish > Operations > Jackfish 3 Facility > Engineering - Controlled Records - Vendor

Engineering - Controlled Records - Vendor

Refine by
















3_Document Subtype: Databook

3_Document Subtype: Recommended Spare Part

3_Document Subtype: Piping & Instrument Diagram

3_Document Subtype: Cause and Effect Diagram

Clear all

<input type="checkbox"/>	Type	Name	Size	Modified	Title	Doc Num
<input type="checkbox"/>		10C8641-J3-M102-F07-001.pdf	181 KB	09/29/2014 12:30:14 PM	DATA BOOK INDEX FOR LIME...	10C8641-J3-M102-F07-001
<input type="checkbox"/>		10C8641-J3-M106-A02-002.pdf	186 KB	09/29/2014 12:32:43 PM	J3 - SYSTEM PROCESS DIAGRA...	10C8641-J3-M106-A02-002
<input type="checkbox"/>		10C8641-J3-M501-F16-008.pdf	186 KB	01/07/2015 11:42:14 AM	ACID CHEMICAL INJECTION PA...	10C8641-J3-M501-F16-008
<input type="checkbox"/>		10C8641-J3-M503-F16-003.pdf	189 KB	12/17/2014 10:00:40 AM	SUPERSEDED BY D-1011797-0...	10C8641-J3-M503-F16-003
<input type="checkbox"/>		10C8641-J3-M400-E03-004.pdf	194 KB	09/29/2014 1:47:08 PM	OTSG CAUSE & EFFECT DIAGR...	10C8641-J3-M400-E03-004
<input type="checkbox"/>		J3-M228_IOM_Section 0.1 - COVER - Binder Cover for Data Book...	196 KB	11/18/2014 3:21:57 PM	FWKO Interface Pumps MRB	J3-M228_IOM_Section 0.1 - CO...
<input type="checkbox"/>		J3-M228_MRB_Section 0.1 - COVER - Binder Cover for Data Book...	196 KB	11/18/2014 3:21:58 PM	FWKO Interface Pumps MRB	J3-M228_MRB_Section 0.1 - CO...
<input type="checkbox"/>		10C8641-J3-J143.3-J08-001.pdf	202 KB	09/29/2014 12:19:41 PM	BULLETIN FOR ROSEMOUNT S...	10C8641-J3-J143.3-J08-001
<input type="checkbox"/>		J3-M228_MRB_Section 4C- Skid PWHT Report.pdf	203 KB	09/29/2014 1:05:30 PM	FWKO Interface Pumps MRB	J3-M228_MRB_Section 4C- Skid...
<input type="checkbox"/>		J3-M228_IOM_Section B6- Operating Manual Mechanical Seal.pdf	204 KB	09/29/2014 1:04:57 PM	FWKO Interface Pumps MRB	J3-M228_IOM_Section B6- Oper...
<input type="checkbox"/>		10C8641-J3-M322-F07-001.pdf	213 KB	09/29/2014 1:29:11 PM	DATA BOOK INDEX - 25000L H...	10C8641-J3-M322-F07-001
<input type="checkbox"/>		J3-M309_2.3_M10192-85-1_Tag_T-3510_MRB.pdf	214 KB	09/29/2014 1:26:59 PM	FRP Acid Tanks MRB	J3-M309_2.3_M10192-85-1_Tag...
<input type="checkbox"/>		J3-M309_2.3_M10192-85-3_Tag_T-2100_MRB.pdf	214 KB	09/29/2014 1:27:01 PM	FRP Acid Tanks MRB	J3-M309_2.3_M10192-85-3_Tag...
<input type="checkbox"/>		J3-M309_2.3_M10192-85-2_Tag_T-2150_MRB.pdf	214 KB	09/29/2014 1:27:00 PM	FRP Acid Tanks MRB	J3-M309_2.3_M10192-85-2_Tag...
<input type="checkbox"/>		10C8641-J3-M417-F07-003.pdf	217 KB	09/29/2014 2:02:33 PM	MANUFACTURING RECORD B...	10C8641-J3-M417-F07-003

Showing 773 items - 30 per page

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

Why have a Digital Twin(s)?

- Safety
 - HAZOPs
 - Overpressure Risk Assessments
 - Monitoring
- Operations
 - Production Optimization
 - Respond to changes
- Projects
 - Visuals
 - Avoid Walk-Downs
 - Reduce Rework
 - Execute to schedule, meet targets

Relationships Between Objects Is Key

JP-59PMB010-PG-0024-02.pdf ▾

Properties ▾

General

*Records Management

***01 Oil Sands Common Attributes** ⓧ

02 Controlled Records +

01 Oil Sands Common Attributes

Only required fields ☐

Document Number	JP-59PMB010-PG-0024-02	Vendor	None
*Document Title	PIPING ISOMETRIC FOR LINE NO. 3-PG-BS11-...	*Program	Jackfish
Revision Number	0	Facility Type	Pads
Document Status	IFC - Issued for Construction	Facility	Pad EEE
*Discipline/Function	03 Piping	Project	J3 - 10-120044 - Pad EEE Construction
*Document Type	Isometric	Material Requisition Number	None

02 Controlled Records

Document Subtype	Piping Isometric	Transmittal Date	06/09/2016
Reference Number	Add text	Engineering Work Package EWP Nu...	J-J3-F-E-2-EEE-BU-010-0400
Equipment Number(s)	Add text	Construction Work Package CWP Nu...	CWP-59000-P04-BU010
Line Number(s)	3-PG-BS11-0024	Module Number	None
Location	Area 59000	Document Class	CER
Engineering Contractor	Ausenco	Filing Code	P48
Transmittal Number	10114101-TR-0159		

EP's deliver documents and relational data

	B	C	E	F	G	H
	\$TargetPath	\$FileName	Doc No	Title	Revision	Status
1	:Enterprise:Oil San	D-035712-0101A_R10A0.dwg	D-035712-	JF 1 - CPF P&ID - LP BIOLER FEED WATER PUMP P-1100A	10A0	IFC - Issued for Construction
2	:Enterprise:Oil San	D-035712-0101A_R10A0.pdf	D-035712-	JF 1 - CPF P&ID - LP BIOLER FEED WATER PUMP P-1100A	10A0	IFC - Issued for Construction
3	:Enterprise:Oil San	D-035712-0124A_R15A3.dwg	D-035712-	JF 1 CPF P&ID - FREE WATER KNOCK-OUT DRUM V-2190	15A3	IFC - Issued for Construction
4	:Enterprise:Oil San	D-035712-0124A_R15A3.pdf	D-035712-	JF 1 CPF P&ID - FREE WATER KNOCK-OUT DRUM V-2190	15A3	IFC - Issued for Construction
5	:Enterprise:Oil San	D-035712-0127C_R11A0.dwg	D-035712-	JACKFISH CPF P&ID - SALES OIL TRIM COOLERS E-2280G-	11A0	IFC - Issued for Construction
6	:Enterprise:Oil San	D-035712-0127C_R11A0.pdf	D-035712-	JACKFISH CPF P&ID - SALES OIL TRIM COOLERS E-2280G-	11A0	IFC - Issued for Construction
7	:Enterprise:Oil San	D-035712-0128_R9B3.dwg	D-035712-	JF 1 CPF P&ID - PRODUCED WATER COOLER E-2210A-D	9B3	IFC - Issued for Construction
8	:Enterprise:Oil San	D-035712-0128_R9B3.pdf	D-035712-	JF 1 CPF P&ID - PRODUCED WATER COOLER E-2210A-D	9B3	IFC - Issued for Construction
9	:Enterprise:Oil San	D-035712-0134_R6A2.dwg	D-035712-	JACKFISH CPF P&ID - TREATER FEED COOLERS E-2250A-F	6A2	IFC - Issued for Construction
10	:Enterprise:Oil San	D-035712-0134_R6A2.pdf	D-035712-	JACKFISH CPF P&ID - TREATER FEED COOLERS E-2250A-F	6A2	IFC - Issued for Construction
11	:Enterprise:Oil San	D-035712-0165_R8B0.dwg	D-035712-	JF 1 CPF P&ID - GAS BOOT V-8900 LSD. 07-28-75-06-W4M	8B0	IFC - Issued for Construction
12	:Enterprise:Oil San	D-035712-0165_R8B0.pdf	D-035712-	JF 1 CPF P&ID - GAS BOOT V-8900 LSD. 07-28-75-06-W4M	8B0	IFC - Issued for Construction
13	:Enterprise:Oil San	D-035712-0171_R7B1.dwg	D-035712-	JF 1 CPF P&ID - GAS BOOT CONDENSER KNOCKOUT DRUM	7B1	IFC - Issued for Construction
14	:Enterprise:Oil San	D-035712-0171_R7B1.pdf	D-035712-	JF 1 CPF P&ID - GAS BOOT CONDENSER KNOCKOUT DRUM	7B1	IFC - Issued for Construction
15	:Enterprise:Oil San	D-035712-0172_R6A1.dwg	D-035712-	JF 1 CPF P&ID - LIGHT HYDROCARBON RECYCLE PUMPS P-	6A1	IFC - Issued for Construction
16	:Enterprise:Oil San	D-035712-0172_R6A1.pdf	D-035712-	JF 1 CPF P&ID - LIGHT HYDROCARBON RECYCLE PUMPS P-	6A1	IFC - Issued for Construction
17	:Enterprise:Oil San	D-035712-0336_R12A0.dwg	D-035712-	JF 1 CPF P&ID - MIXED FUEL GAS SEPARATOR LSD. 07-28-	12A0	IFC - Issued for Construction
18	:Enterprise:Oil San	D-035712-0336_R12A0.pdf	D-035712-	JF 1 CPF P&ID - MIXED FUEL GAS SEPARATOR LSD. 07-28-	12A0	IFC - Issued for Construction
19	:Enterprise:Oil San	D-0710964-4011A-HS-7022-01-DM_R0A.dwg	D-0710964	JF 2 CPF DEMOLITION ISOMETRIC 20-HS-DG11-7022 LSD	0A	DEMO
20	:Enterprise:Oil San	D-0710964-4011A-HS-7022-01-DM_R0A.pdf	D-0710964	JF 2 CPF DEMOLITION ISOMETRIC 20-HS-DG11-7022 LSD	0A	DEMO
21	:Enterprise:Oil San	D-0710964-4011A-HS-7022-02-DM_R0A.dwg	D-0710964	JF 2 CPF DEMOLITION ISOMETRIC 20-HS-DG11-7022 LSD	0A	DEMO
22	:Enterprise:Oil San	D-0710964-4011A-HS-7022-02-DM_R0A.pdf	D-0710964	JF 2 CPF DEMOLITION ISOMETRIC 20-HS-DG11-7022 LSD	0A	DEMO

Name			
2018-04-16@11.45.00_407011-00547-DC-T			
JP-39-A06-0004-01_R0.PDF			
J3-PLIN0PA02-HS-10000-07-DM_R1A.DWG			
J3-PLIN0PA02-HS-10000-07-DM_R1A.PDF			
WP JF Pads Metadata.csv			
J3-PLIN0PA02-HS-10000-01-DM_R1A.DWG			
J3-PLIN0PA02-HS-10000-01-DM_R1A.PDF			
J3-PLIN0PA02-HS-10000-02-DM_R1A.DWG			
J3-PLIN0PA02-HS-10000-02-DM_R1A.PDF			
J1-PLIN0PA02-HS-7022-01-DM_R2A.DWG			
J1-PLIN0PA02-HS-7022-01-DM_R2A.PDF			
J1-PLIN0PA02-HS-7022-02-DM_R2A.DWG	2018/04/16 11:44 ...	Autodesk Design	1,175 KB
J1-PLIN0PA02-HS-7022-02-DM_R2A.PDF	2018/04/16 11:44 ...	Adobe Acrobat D...	308 KB
J1-PLIN0PA02-HS-7022-08-DM_R1A.DWG	2018/04/16 11:44 ...	Autodesk Design	314 KB
J1-PLIN0PA02-HS-7022-08-DM_R1A.PDF	2018/04/16 11:44 ...	Adobe Acrobat D...	214 KB
D-0710964-4011A-HS-7022-02-DM_R0A.DWG	2018/04/16 11:44 ...	Autodesk Design	2,051 KB
D-0710964-4011A-HS-7022-02-DM_R0A.PDF	2018/04/16 11:44 ...	Adobe Acrobat D...	1,512 KB
D-0710964-4011A-HS-7022-03-DM_R0A.DWG	2018/04/16 11:44 ...	Autodesk Design	1,130 KB

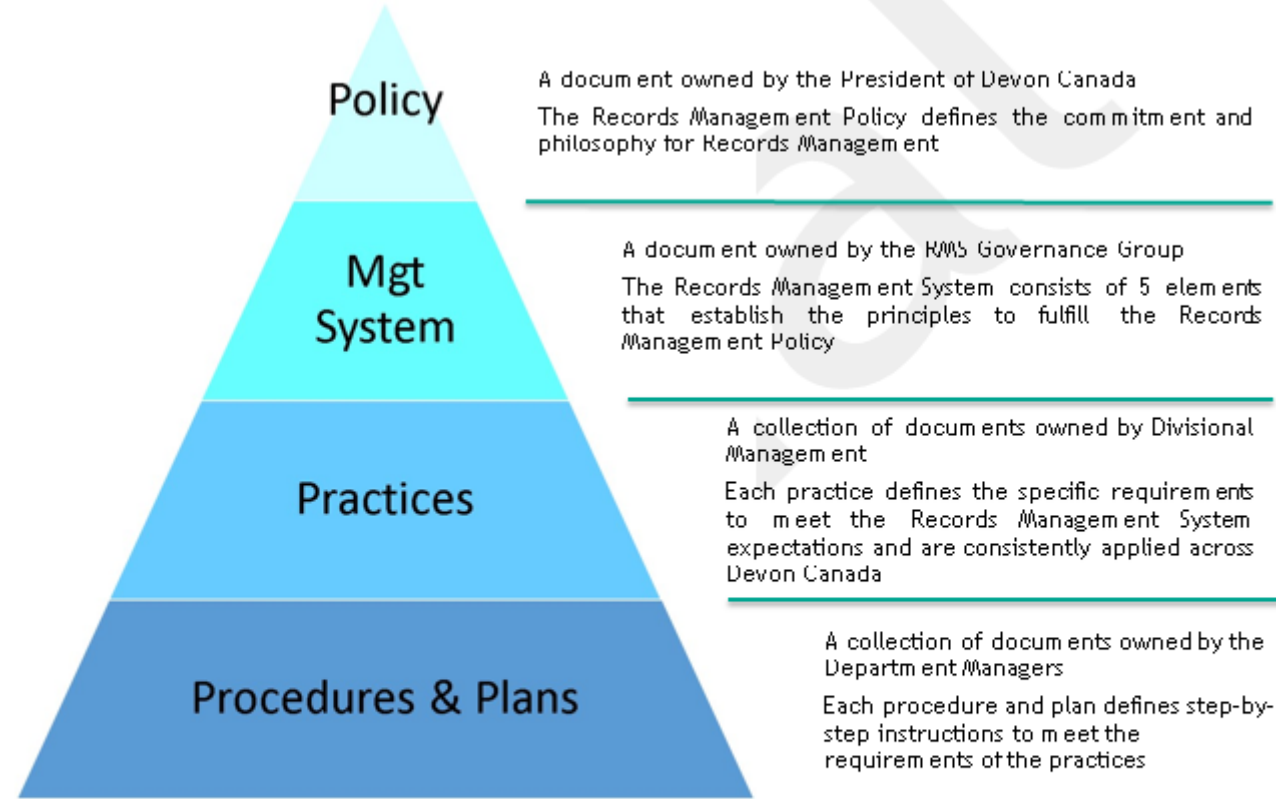
Data is validated before
loading



Data Services inform



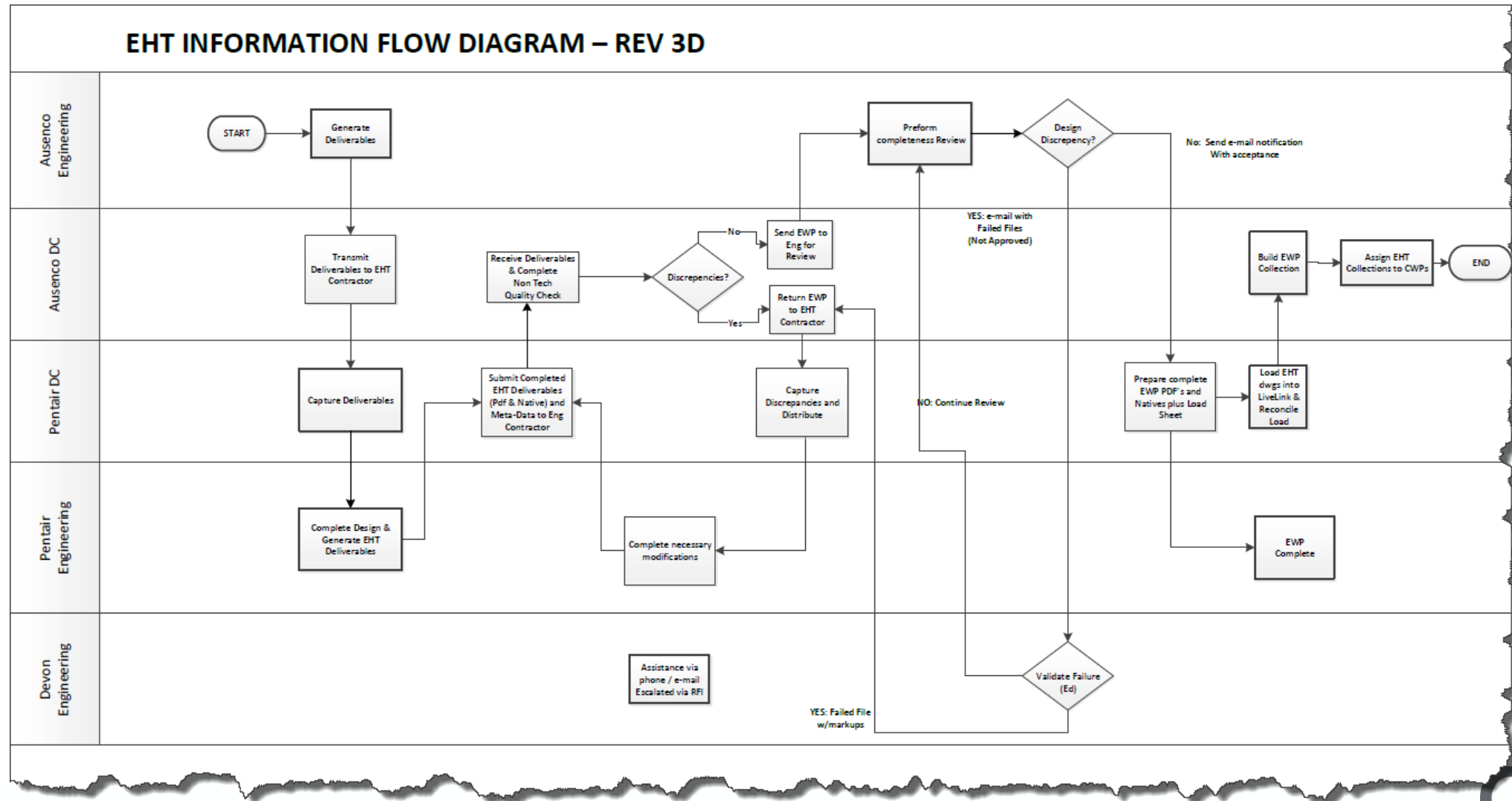
Lessons: Governance Model not an option



Devon's Records Management System Hierarchy is organized into four sections and the Management System has 5 distinct elements, each containing:

- o The Principle: Defines the overall goal and philosophy for the element
- o Element Standards: Prescriptive statements that ensures due diligence and defines the process that will be used to meet the principle

By who and how do things get done?



Standards to live by

The screenshot shows the 'opentext Content Server' interface. The breadcrumb trail is 'Enterprise > Records Management System'. The main heading is 'Records Management System'. On the left, there is a 'Refine by' sidebar with three sections: 'Business Function' (Records Management: 34, Capital Projects: 2, Development: 1, Operations: 1, Supply Chain Management: 1), 'Business Process' (Records Management: 14, RMS Conformance: 5, Management System Review: 3, RMS Framework: 3, Training: 3), and 'Business Unit' (Management System: 34, Document Management: 1). Below these is a 'Content Type' section with 'Document: 29'. The main content area is a table with columns 'Type', 'Name', and a search icon. It lists several items:

Type	Name
Document	DCC-RMS-GDL-0001 RMS Framework
Folder	E01 - Management Commitment & Leadership
Folder	E02 - Training
Folder	E03 - Records Management
Folder	E04 - RMS Conformance
Folder	E05 - Management System Review
Folder	RMS Native Files
Document	RMS Overview.pdf

The screenshot shows the 'opentext Content Server' interface. The breadcrumb trail is 'Enterprise > Standards and Practices > Administration > Technical Services > Administration Guidelines > A-0000 General'. The main heading is 'A-0000 General'. The main content area is a table with columns 'Type', 'Name', and a search icon. It lists several items:

Type	Name
Document	A-0010 Department Document Index
Document	A-0011 General Specification and Drawing Index
Document	A-0021 Document Submission Standard
Document	A-0022 Technical Record Numbering Standard
Document	A-0023 Non-Technical Document Numbering Standard
Document	A-0024 Record Coding Standard
Document	A-0025 Asset Tagging and Identification Standard
Document	A-0026 Revision Number Standard
Document	A-0027 Drafting Standard
Document	A-0028 Red-Line As-Built Standard
Document	A-0029 Concurrent Engineering Construction Practice
Document	A-0030 Engineering Standards and Specifications Program
Document	A-0031 Project Folder Structure

What is the end in mind? What QA is required?

s)	Civil	Architectural drawings	Y	N	File Type: .PDF/.DWG	RL	
		Plot Plans	Y	N	File Type: .PDF/.DWG	IFC	to be reissued if plot plan changes
		Calculations	N	N	File Type: .PDF	IFC	
		Foundation Drawings	Y	N	File Type: .PDF/.DWG	RL	
		Final Grading	Y	N	File Type: .PDF/.DWG	RL	
		Geotechnical information	Y	N	File Type: .PDF/.DWG	IFU	
		Piling Drawings	Y	N	File Type: .PDF/.DWG	RL	
		Plans and Sections	Y	N	File Type: .PDF/.DWG	RL	
		Pipe Support Details	Y	N	File Type: .PDF/.DWG	RL	
		Rough Grading	Y	N	File Type: .PDF/.DWG	IFC	
		Structural Drawings	Y	N	File Type: .PDF/.DWG	ASB	
	Electrical	Area Classifications	Y	N	File Type: .PDF/.DWG/.XLS/.D	IFC	to be reissued if Classification plan changes
		Calculations	N	N	File Type: .PDF	IFC	
		Cable Tray Routing Diagrams	Y	N	File Type: .PDF/.DWG	IFC	
		Standard Design & Installation Details	Y	N	File Type: .PDF/.DWG	IFC	
		Distribution Panel Schedule	Y	N	File Type: .PDF/.DWG	ASB	
		Data Sheets	Y	N	File Type: .PDF/XLS	ASB	
		Electrical Equipment Lists & Load List's	Y	N	File Type: .PDF/.xls	RL	
		Electrical Schematics	Y	N	File Type: .PDF/.DWG	ASB	Motor Control Schematics
		EHT Isometrics	Y	N	File Type: .PDF/.DWG	RL	
		Grounding Drawings	Y	N	File Type: .PDF/.DWG	IFC	
		Instrument & Junction Box Location Plans	Y	N	File Type: .PDF/.DWG	IFC	
		Legends/Symbols	Y	N	File Type: .PDF/.DWG	IFC	
		Panel Board Schedule	Y	N	File Type: .PDF/.XLS	ASB	
		Panel / Console / Cabinet layouts	Y	N	File Type: .PDF/.DWG	ASB	Part of MRBs
		Schedules – Cable	Y	N	File Type: .PDF/.XLS	ASB	
		Schedules – Tray	Y	N	File Type: .PDF/.XLS	IFC	
		Single Line Diagrams	Y	N	File Type: .PDF/.DWG	ASB	
		Specifications & Guidelines	Y	N	File Type: .PDF/.DOC	IFC	O & M Manuals
		Tracing Schedule – EHT	Y	N	File Type: .PDF/.XLS	IFC	
		Wiring Diagram(Heat Trace, JB,etc)	Y	N	File Type: .PDF/.DWG	ASB	O & M Manuals
		Termination/Wiring Diagram	Y	N	File Type: .PDF/.DWG	ASB	InTools
	Automation and Control	Automation System Architecture Drawings	Y	N	File Type: .PDF/.VSD	ASB	
		Control System Block Diagrams	Y	N	File Type: .PDF/.DWG	IFC	
		Control Narrative	Y	N	File Type: .PDF/.DOC	ASB	
		Junction Box Standard Design	Y	N	File Type: .PDF/.DWG	IFC	If not already provided by Devon
		Data Sheets	N	N	File Type: .PDF	ASB	Intools
		Instrument Installation Details	Y	N	File Type: .PDF/.DWG	IFC	If not already provided by Devon
		Instrument Index	Y	N	File Type: .PDF/.XLS	IFC	
		Instrument & Junction Box Location Plan Layouts	Y	N	File Type: .PDF/.DWG	IFC	Typically combined with Electrical Location Plans on Devon projects (see Electrical section)

Lessons Learned:

- True Digital Twins are challenging
 - Set Goals
 - Get Buy-In – Philosophy / Governance
 - Costs – prepare to invest time, effort, energy
- Therefore
 - The Ends (safety, production, projects) must justify the means

Questions

- We have a few minutes for questions....
- Devon Energy: Develop and Maintain a Digital Twin in the Oil Gas Industry
- E86686 – Thurs 3PM, Room 320H

Take the Session Survey.

We want to hear from you! Be sure to complete the session evaluation on the SAPPHIRE NOW and ASUG Annual Conference mobile app.



ASUG

Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

<http://info.asug.com/2019-ac-slides>

Q&A

For questions after this session, contact us.

Cbrennan@OpenText.com

Philip.Cleghorn@dvn.com

Let's Be Social.

Stay connected. Share your SAP experiences anytime, anywhere.

Join the ASUG conversation on social media: **@ASUG365 #ASUG**



ASUG