



Asset Management Applications

Mountain View Regional Water Services Commission



Transportation



Water



Community



Structures



Environment



- Transportation Planning
- Active Transportation
- Traffic Operations
- Urban Transportation
- Traffic Engineering
- Rail
- Transportation Structures

- Municipal Infrastructure
- Treatment and Reuse
- Hydrogeology
- Hydrotechnical

- Landscape Architecture and Urban Design
- Community Development
- Community Engagement
- Community Planning

- Retaining Structures
- Buildings
- Bridges

- Land Management
- Biophysical and Environmental Assessments
- Fish and Fish Habitat
- Regulatory Approvals and Notifications
- Hydrogeology
- Hydrotechnical

Our Community Engagement, Environmental Management, Geomatics and 3D Visualization services support all sectors.

Integrated Planning and Design Solutions

Int

Integrated Expertise. Locally Delivered.



Proudly
Western
Canadian

14 

Offices

500+ 

Employees

Local Knowledge

Depth of Experience





Mountain View Regional Water Services Commission

Red Deer County, Alberta

Serving over



30,000 People

Across



6 Communities



What they needed.

With asset and maintenance data scattered between multiple hardcopy books and digital files Mountain View Regional Water Services Commission (MVRWSC) needed a centralized approach to asset management for the Anthony Henday Water Treatment Plant.

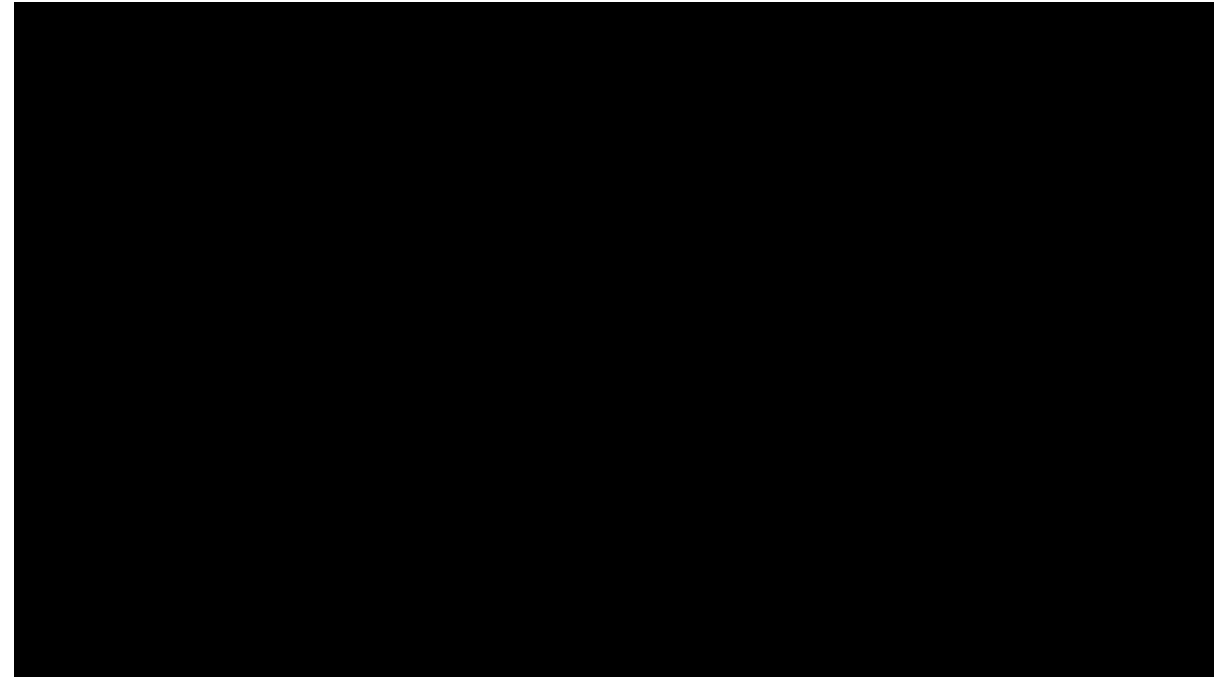
- Easy user interface and functionality
- Little to no demand for in house programmer or IT support
- Scalable asset properties adjustable by MVRWC
- A 3D plant environment representative of facility and assets
- Future proofed system receptive to additional functionality added to the program as MVRWC expands its use into different avenues of Asset Management
- A long-term partnership with ISL in the support and development of the program over time.



What we developed.

ISL developed a “low-code /no-code” stand-alone, interactive asset management application that acts as a virtual replica of their real-world plant, providing an efficient way to **unify, visualize, and access** facility data.

- ✓ A non-proprietary solution built using third party platforms
 - MVRWSC has full ownership over the app
- ✓ User-friendly interface
- ✓ Comprehensive and scalable centralized Database
 - Swiftly view and update equipment specs and maintenance stats at the click of a button
- ✓ Accurate replica of the facility allowing operators to remotely maneuver through the plant and easily access maintenance and equipment data







Activate Windows
Go to Settings to activate Windows.



Asset Panel

- Home
- Recent
- Pinned
- Asset
- Assets
- Asset Attribute Values
- Types
 - Asset Types
 - Asset Sub-Types
 - Asset Attributes
 - Asset Sub-Type Attri...
- Maintenance
 - Maintenance Statuses
 - Colors
- Other
 - Drawing References
 - Websites
 - Asset Manufacturers

Active Assets

Filter by keyword

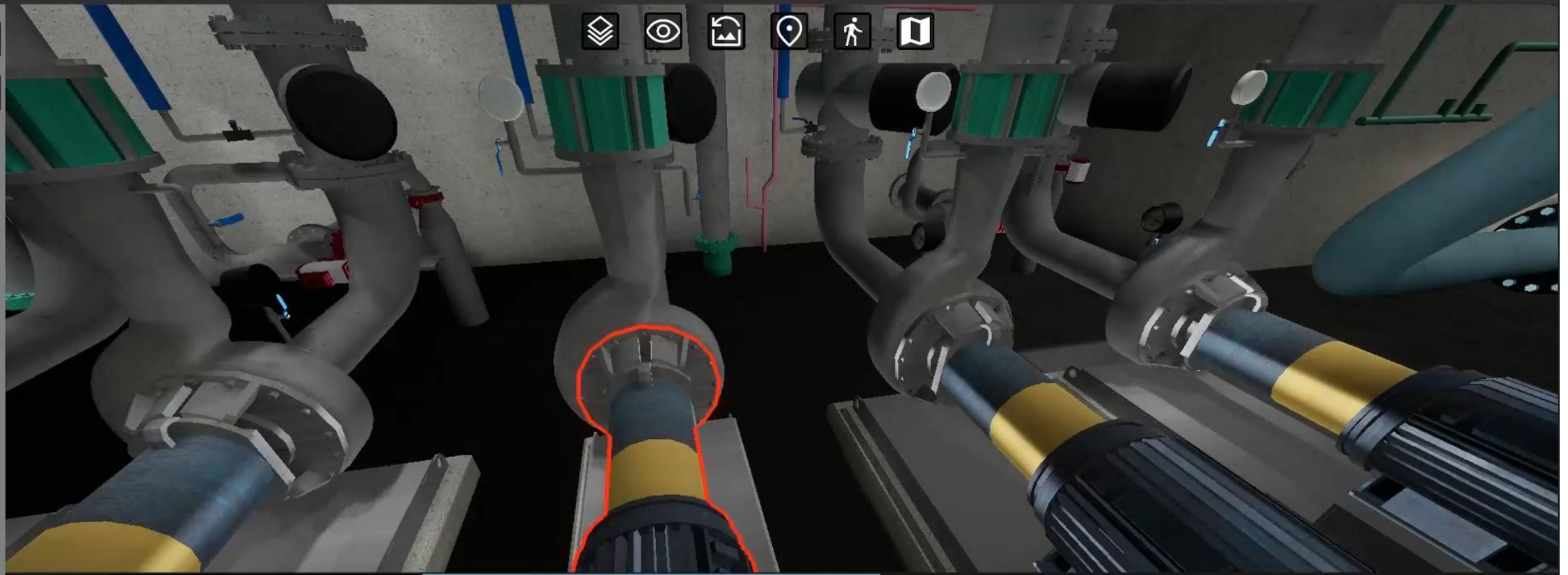
Asset Tag	Asset Name	Asset Type	Asset Sub-Type	Location	Drawing Reference	Asset Manufacturer
BAV-218	ARV-102 Isolation Valve	Instrument	BAV - Ball Valve	Distribution Header	Stantec P&ID P-002	FlowTek (Bray)
BAV-220	ARV-103 Isolation Valve	Valve	BAV - Ball Valve	Booster Pump Header	Stantec P&ID P-002	FlowTek (Bray)
P-201	Booster Pump 1	Pump	Vertical Turbine	Clearwell	Stantec P&ID P-002	Aquateck
P-202	Booster Pump 2	Pump	Vertical Turbine	Clearwell	Stantec P&ID P-002	Aquateck
CHV-204	Booster Pump FCV-204 Check Valve	Valve	CHV - Check Valve	Booster Pump Header	Stantec P&ID P-002	Ritepro
BUV-204	Booster Pump FCV-204 Isolation Valve	Valve	BUV - Butterfly Valve	Booster Pump Header	Stantec P&ID P-002	Bray
ARV-103	Booster Pump Header Air Release Valve	Valve	ARV - Air Release Valve	Booster Pump Header	Stantec P&ID P-002	Val-Matic
FCV-203	Booster Pump Header Discharge Control valve	Valve	FCV - Flow Control Valve	Booster Pump Header	Stantec P&ID P-002	Bray
FCV-204	Booster Pump Header Discharge Control valve	Valve	FCV - Flow Control Valve	Booster Pump Header	Stantec P&ID P-002	Bray
FCV-205	Booster Pump Header Discharge Control Valve	Valve	FCV - Flow Control Valve	Booster Pump Header	Stantec P&ID P-002	Bray
CHV-203	Booster Pump Header FCV-203 Check Valve	Valve	CHV - Check Valve	Booster Pump Header	Stantec P&ID P-002	Val-Matic
BUV-203	Booster Pump Header FCV-203 Isolation Valve	Valve	BUV - Butterfly Valve	Booster Pump Header	Stantec P&ID P-002	Bray
CHV-205	Booster Pump Header FCV-205 Check Valve	Valve	CHV - Check Valve	Booster Pump Header	Stantec P&ID P-002	Val-Matic
BUV-205	Booster Pump Header FCV-205 Isolation Valve	Valve	BUV - Butterfly Valve	Booster Pump Header	Stantec P&ID P-002	Bray
BUV-206	Booster Pump Header FIT-102 Isolation Valve	Valve	BUV - Butterfly Valve	Booster Pump Header	Stantec P&ID P-002	Bray
FIT-102	Booster Pump Header Flowmeter	Instrument	FIT - Flow Indicating Tran...	Booster Pump Header	Stantec P&ID P-002	Siemens
BAV-201	Booster Pump Header Instrument Flushing Valve	Valve	BAV - Ball Valve	Booster Pump Header	Stantec P&ID P-002	GSP
PG-203	Booster Pump Header Pressure Gauge	Instrument	PI or PG - Pressure Indic...	Booster Pump Header	Stantec P&ID P-002	Western Gauge & Instru...
PG-205	Booster Pump Header Pressure Gauge	Instrument	PI or PG - Pressure Indic...	Booster Pump Header	Stantec P&ID P-002	Trerice



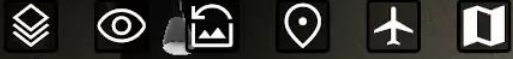
Database



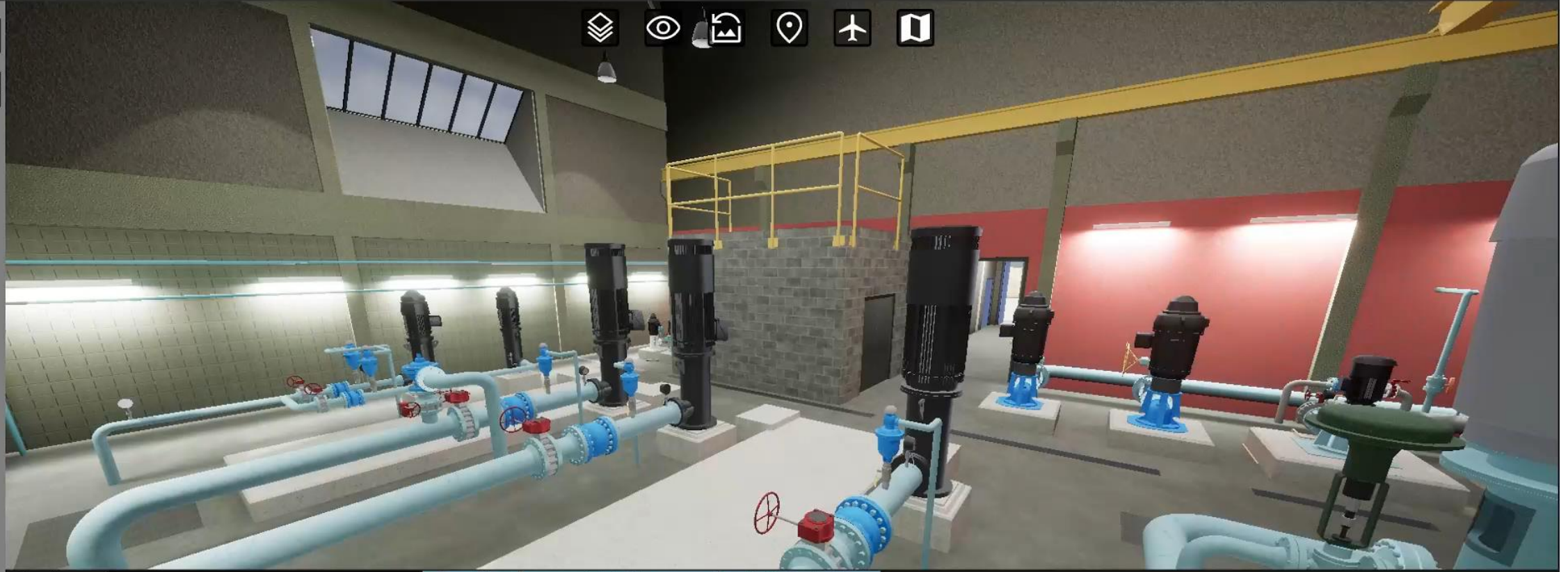
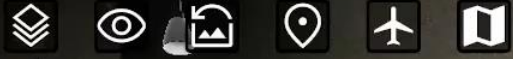




Search	Clear Filter	Isolate Filter	Enable Service Life					
Asset Tag	Asset Name	Asset Type	Asset Sub-Type	Asset Manufacturer	Location	Drawing Reference	Installation Year	Maintenance Status
FV-6270	Flow valve - Plant Service Water - PAC	Valve	FCV - Flow Control Valve		PAC Room	AE-411		
UV-35-1	Inlet UV - Permeate Pump #1	Equipment	UV - Ultraviolet Light Disinfection		Ground Floor Pump Room	AE-403/406		
UV-35-2	Inlet UV - Permeate Pump #2	Equipment	UV - Ultraviolet Light Disinfection		Ground Floor Pump Room	AE-403/406		
UV-35-3	Inlet UV - Permeate Pump #3	Equipment	UV - Ultraviolet Light Disinfection		Ground Floor Pump Room	AE-403/406		
UV-35-4	Inlet UV - Permeate Pump #4	Equipment	UV - Ultraviolet Light Disinfection		Ground Floor Pump Room	AE-403/406		
UV-35-5	Inlet UV - Permeate Pump #5	Equipment	UV - Ultraviolet Light Disinfection		Ground Floor Pump Room	AE-403/406		
LSL-6003	Level Switch - Low Set Point - Citric Acid day Tanks	Instrument	LSL - Level Switch - Low Set Point		Citric Acid Chemical Room	AE-413		
FSL-6006	Flow Switch - Low Set Point - Citric Acid chemical dosing	Instrument	FSL - Flow Switch - Low Set Point		Citric Acid Chemical Room	AE-413		
PRV-6006	Pressure Regulating Valve - Citric Acid chemical dosing	Valve	PRV - Pressure Regulating Valve		Citric Acid Chemical Room	AE-413		
MX-6005	Mixer - Citric Acid Tanks	Mixer	Submersible Mixer		Citric Acid Chemical Room	AE-413		
P-60	Pump - Citric Acid chemical dosing pumps	Pump	Chemical Dosing Pump - Peristaltic		Citric Acid Chemical Room	AE-413		



Search		Clear Filter	Isolate Filter	Enable Service Life				
Asset Tag	Asset Name	Asset Type	Asset Sub-Type	Asset Manufacturer	Location	Drawing Reference	Installation Year	Maintenance Status
FCV-3863-3	FCV - Train B - Membrane Tank TK-34-3	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FCV-3863-4	FCV - Train B - Membrane Tank TK-34-4	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FCV-3863-5	FCV - Train B - Membrane Tank TK-34-5	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FV-9761-3	FV - Train B - Membrane Tank TK-34-3	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FV-9761-4	FV - Train B - Membrane Tank TK-34-4	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FV-9761-5	FV - Train B - Membrane Tank TK-34-5	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
TK-35-3	Train 2 Side 3 Air Separation Vessel	Tanks	Air Separation Vessel		Train 2	AE 430/AE 406		
TK-35-4	Train 2 Side 4 Air Separation Vessel	Tanks	Air Separation Vessel		Train 2	AE 430/AE 406		
TK-35-5	Train 2 Side 5 Air Separation Vessel	Tanks	Air Separation Vessel		Train 2	AE 430/AE 406		
IC-FSL-8506A	Train 2 Blower A Flow Switch	Instrument	FSL - Flow Switch - Low Set Point		Train 2	AE-704		



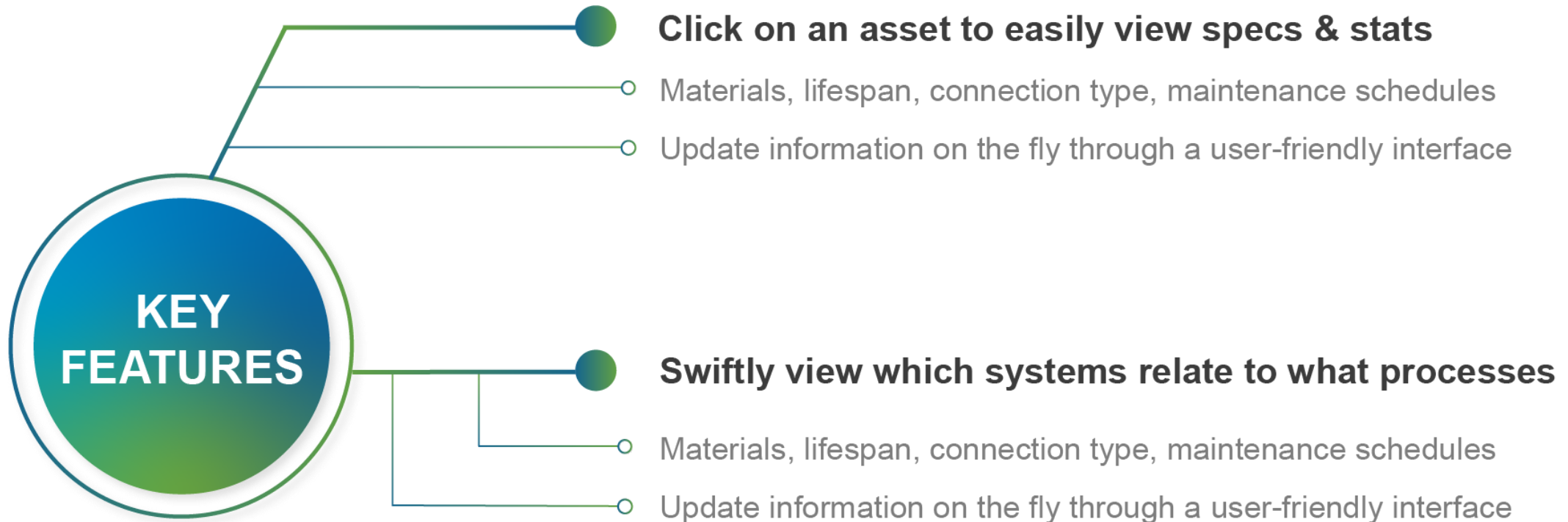
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Asset Tag	Asset Name	Asset Type	Asset Sub-Type	Asset Manufacturer	Location	Drawing Reference	Installation Year	Maintenance Status
FCV-3863-3	FCV - Train B - Membrane Tank TK-34-3	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FCV-3863-4	FCV - Train B - Membrane Tank TK-34-4	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FCV-3863-5	FCV - Train B - Membrane Tank TK-34-5	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FV-9761-3	FV - Train B - Membrane Tank TK-34-3	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FV-9761-4	FV - Train B - Membrane Tank TK-34-4	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
FV-9761-5	FV - Train B - Membrane Tank TK-34-5	Valve	FCV - Flow Control Valve		Ground Floor Pump Room - Train B	AE-428		
TK-35-3	Train 2 Side 3 Air Separation Vessel	Tanks	Air Separation Vessel		Train 2	AE 430/AE 406		
TK-35-4	Train 2 Side 4 Air Separation Vessel	Tanks	Air Separation Vessel		Train 2	AE 430/AE 406		
TK-35-5	Train 2 Side 5 Air Separation Vessel	Tanks	Air Separation Vessel		Train 2	AE 430/AE 406		
IC-FSL-8506A	Train 2 Blower A Flow Switch	Instrument	FSL - Flow Switch - Low Set Point		Train 2	AE-704		



V 1.5

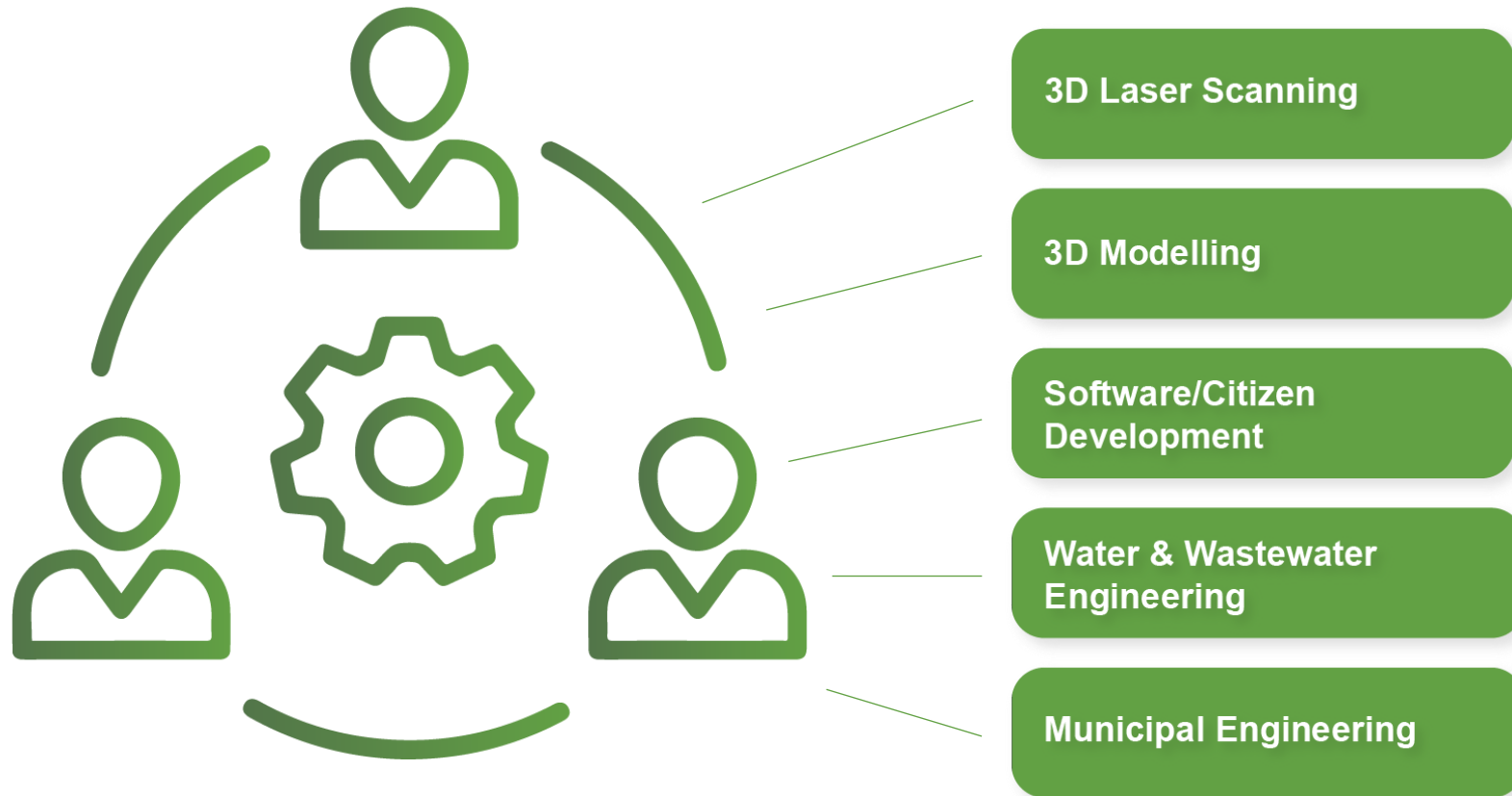
Activate Windows
Go to Settings to activate Windows

Level up your operations with stored data in one virtual place.



Our team.

ISL's Asset Management project team consists of skillful individuals with expertise across multiple disciplines:



How we made it.

In collaboration with MVRWSC, we crafted an optimally tailored management platform to suit their operation needs.



Collect Data

On-site 3D laser scans & photography, SOPs, CAD files, harcopy books, P&IDs



Build 3D Model & User Interface

Virtual replica hosted through Unreal Engine



Construct Database

Back-end user interface to host and update data



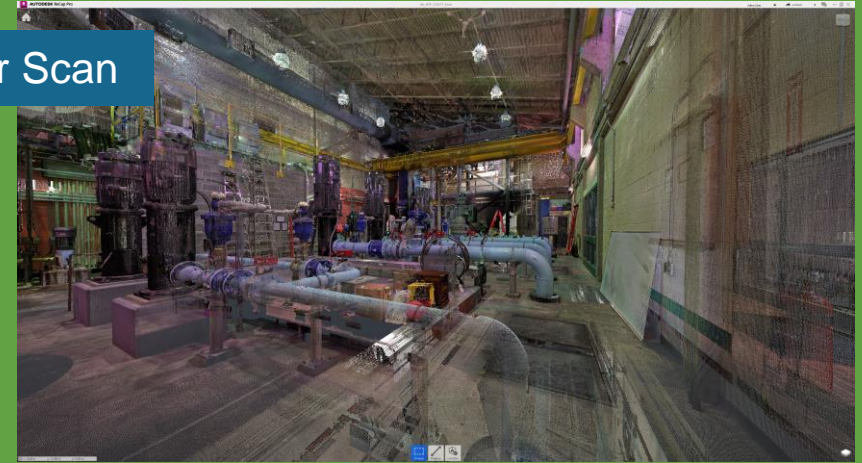
Integrate Database

Create two-way communication between 3D world and Database

Real-world plant



3D Laser Scan



Wireframe Model



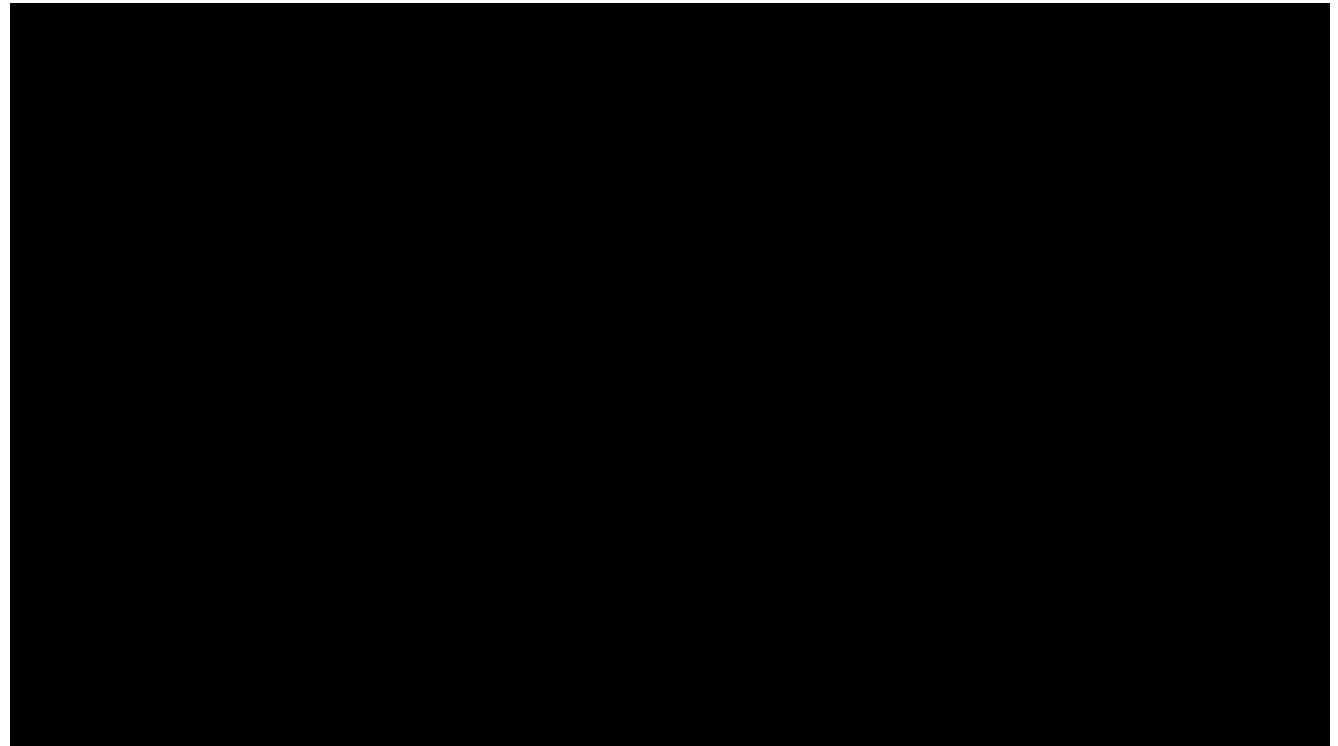
3D Model & Interface



How it optimizes operations.

The MVRWSC Asset Management app helps operators:

- ✓ Save time and reduce plant performance errors
- ✓ Stay organized and make better informed decisions
- ✓ Access operational data remotely
- ✓ Take a proactive versus reactive approach to plant maintenance



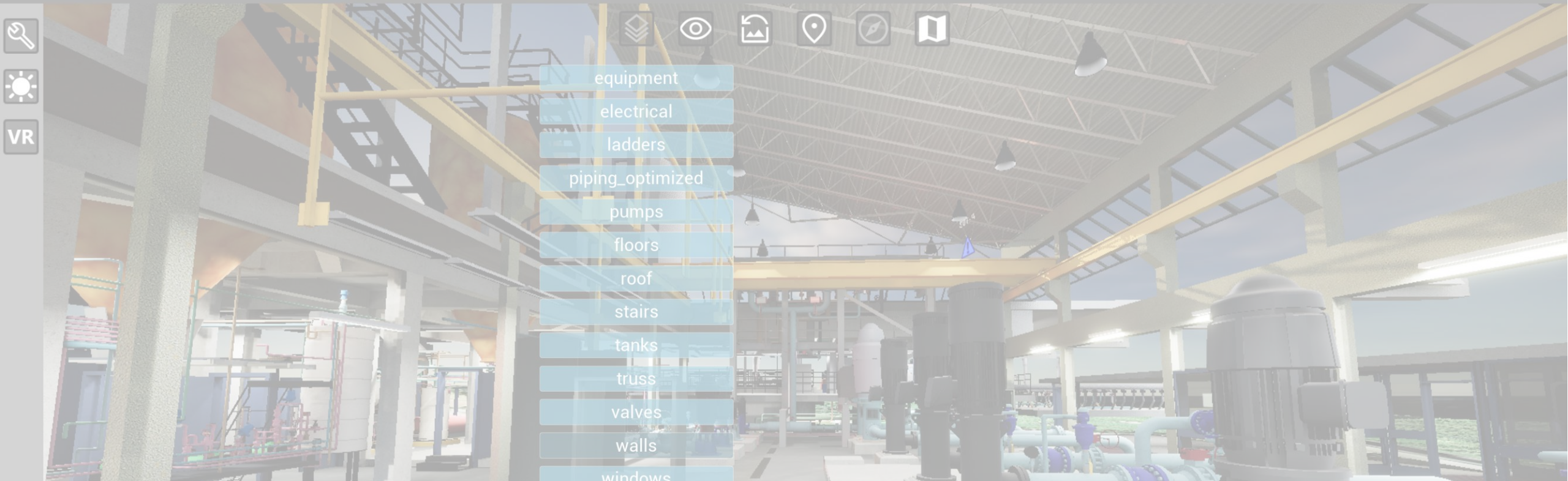
What's next for ISL's Asset Management Platforms?

We craft our applications keeping future upgrades and technical advancements in mind.

**You're only
limited by your
imagination!**

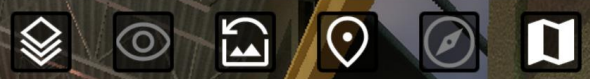
Future features:

- Mobile tablet interface functionality
- Real-time data sourced by onsite sensors
- Maintenance notifications
- Generated data analysis and reports
- And more...



- equipment
- electrical
- ladders
- piping_optimized
- pumps
- floors
- roof
- stairs
- tanks
- truss
- valves
- walls
- windows

QUESTIONS?



Want to learn more?

Let us show you how we can help optimize your plant.

Contact Garnet Dawes at gdawes@islengineering.com for more information.