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Reducing Costs and Increasing Efficiency of Projects With Co-Console

Introducing Our Speakers

- David Cole - Manager, Engineering & IT, McDermott
- Thomas Parsons – Global Completions Lead, McDermott
- Mike Kirst – Sr. Co-Console Expert, Prometheus Group
- Sean McWhirter – Global Sales Engineering Manager, Prometheus Group

Agenda

- What is Co-Console and Doc-Console?
- Why McDermott thought the tools were a good fit
- How McDermott has applied the tools and the results they have seen

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Prometheus Group

- Founded in 1998
- Headquartered in Raleigh, NC, USA
- 13 global offices
- Integrated and intuitive software
- Partnerships with industry leading companies

TOP 8
Oil & Gas

TOP 7
Mining & Metals

TOP 7
Pulp & Paper

TOP 6
Chemical

TOP 6
Utilities

SAP® Certified
Integration with SAP® S/4HANA

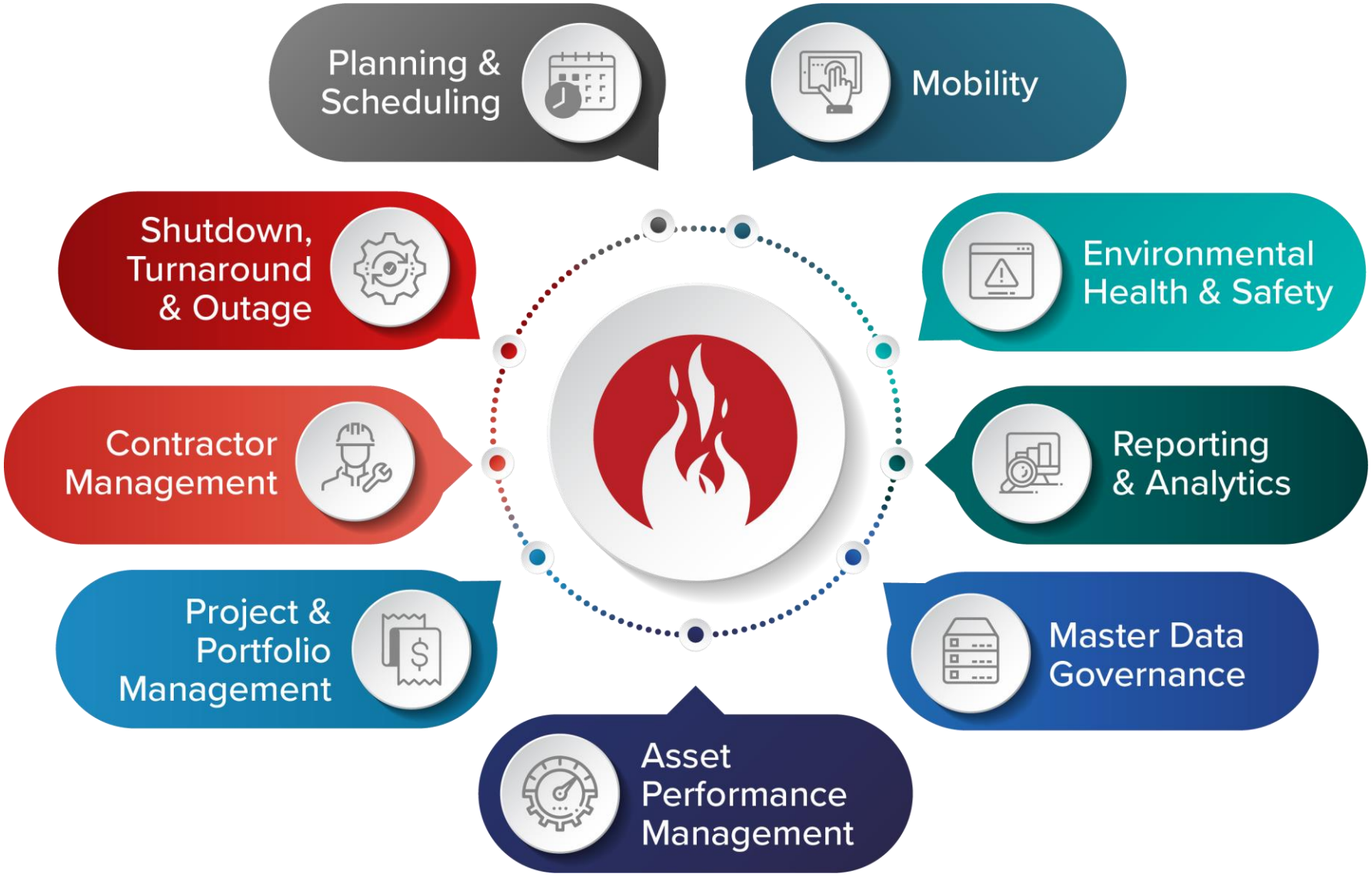
SAP Partner

ORACLE Gold Partner

IBM Business Partner

Key Customers

The Prometheus Platform



Product Offerings

- **Co-Console and Doc-Console**: Executes and delivers multi-discipline projects
  - Offers inspections, pre-commissioning, commissioning, punching to manage project completion and turnover
  - Improves quality and safety of project execution while reducing the risk of costly delays

- **Weld-Console**: Weld and flange management
  - Turns complex welding requirements into simple daily instructions
  - Validates and ensures projects comply with contract and law
  - Maximizes quality, control, compliance, and technical integrity
    - Minimizes administration and management cost and efforts

What Co-Console Does

A Completions Management System Designed to:

- Monitor Construction Installation, Pre-Commissioning and Commissioning Completion Activities
- Tracks Completion Activities by Area, Module, Construction Work Package/Installation Work Package, System/Sub System, Tagged Assets, Milestones and Priorities
- Tracks Preservation Activities by PO Number, Tag Number and Work Order
- Retains Records for Auditing of tracked items
- Generate Sub System Boundary Packages (via Doc-Console)
- Generate Piping Test Packages (via Doc-Console)
- Generate Loop Packages
- Generate Completion Certificates
- Generate Handover/Turnover Dossiers
- Generate Reports

What Doc-Console Does

- A “Plug-in” to Co-Console
- Linked to the EDMS to pull across relevant/ require documentation
- Creates Document – Tag relationships (Metadata/ Drawing Tag Recognition)
- Create Tag – Package relationships (System/Sub System/ Test Packages etc.)
- Creates exception reports (Tags on Documents but not in Engineering Lists and Vice-Versa)

Customer Spotlight: McDermott

SOLVING THE WORLD'S ENERGY CHALLENGES

>100
YEARS OF OPERATION

30,000
EMPLOYEES

54
COUNTRIES

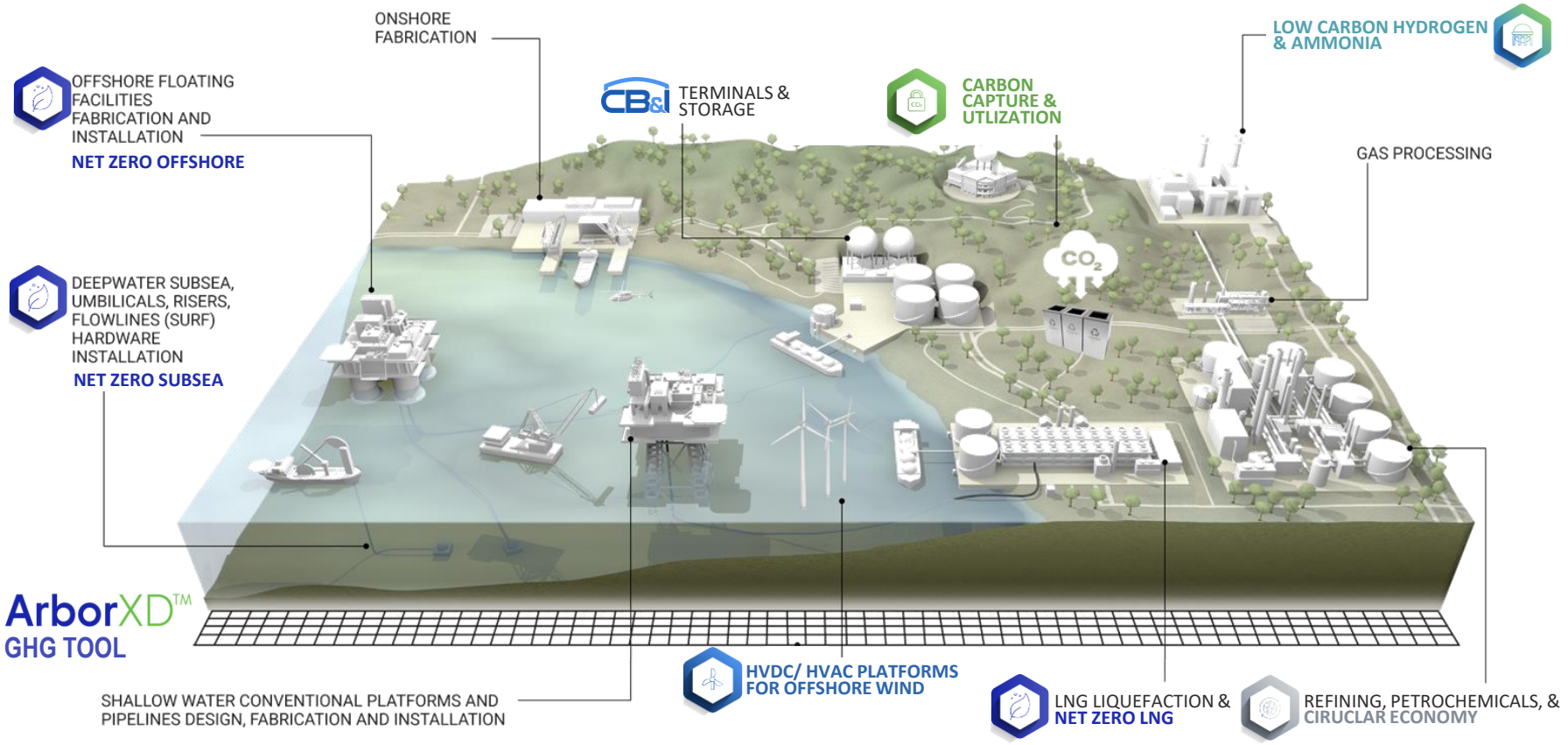
5
FABRICATION FACILITIES

>$20 billion
IN BACKLOG

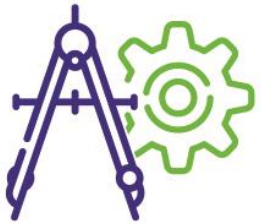
SOLUTIONS ACROSS THE ENERGY VALUE CHAIN

UPSTREAM		MIDSTREAM		DOWNSTREAM	
SUBSEA	OFFSHORE	STORAGE	LNG	REFINING	PETCHEMS

ENERGY TRANSITION



FULLY INTEGRATED EXECUTION

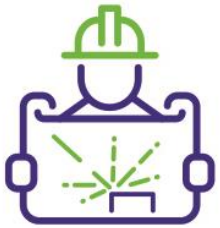


ENGINEERING

Our digital-centric approach transforms how we work together and the tools we use to increase efficiency and productivity and deliver sustainable solutions for our customers.

PROCUREMENT

Employees at our offices around the world efficiently locate, evaluate, purchase and arrange for the transport of materials and services to any project site.



FABRICATION

Our local fabrication facilities adhere to the same international set of standards, regardless of geography or location.

CONSTRUCTION

Specializing in both field and modular construction, we construct our projects using consistent tools, systems and standards to safely deliver superior results even in the most challenging environments.

INSTALLATION

Performing onshore and offshore, subsea and above-surface installation, our ability to mobilize personnel and vessels safely, optimizes productivity and mitigates risks across operations and projects.

Previous State

- Had another software solution in use starting around 2005
- Sought other solutions because:
  - Poor vendor relationship
  - Exorbitant price increase
  - Needed additional functionality

System Requirements

- Needed a way to digitize their systemization
- Wanted a better way to recognize tags
- Needed a system that was configurable to their needs
- Wanted an automated way to create reports
- Needed a mobile app to streamline processes

Why Co-Console & Doc-Console

Overall completions management functionality on par with CMS competitors – Doc Console was the major differentiator

Doc Console

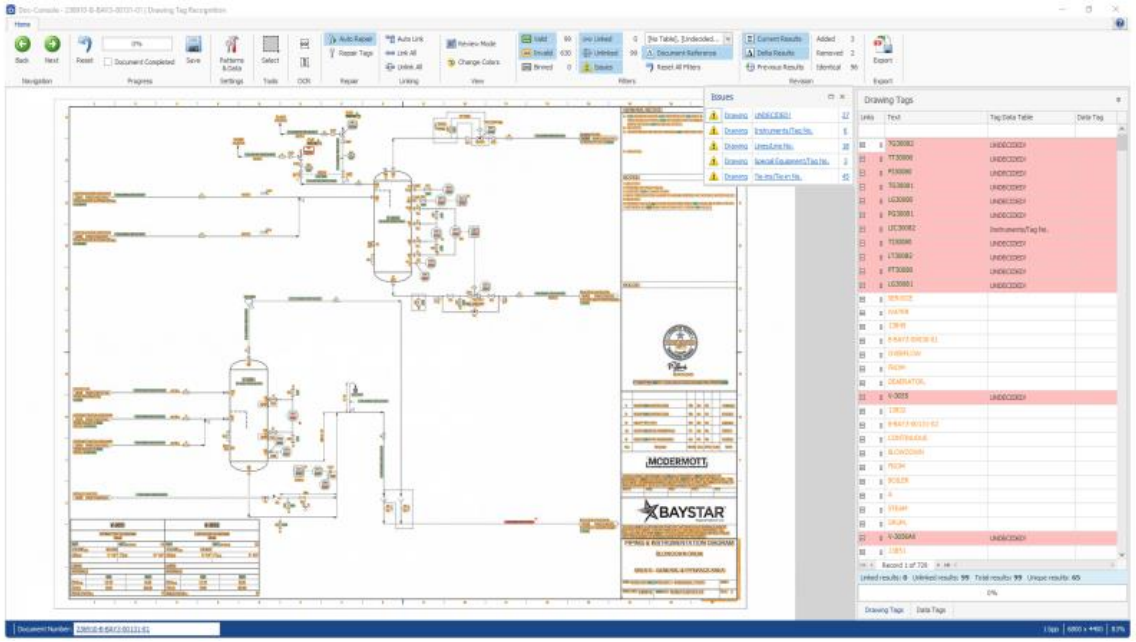
- Integration with iDocs (McDermott EDMS) to ensure latest issued revisions are available to the site
- Ability to scrape tags from project documents, validate them against tagging requirements and issued engineering information
- Streamlining handover

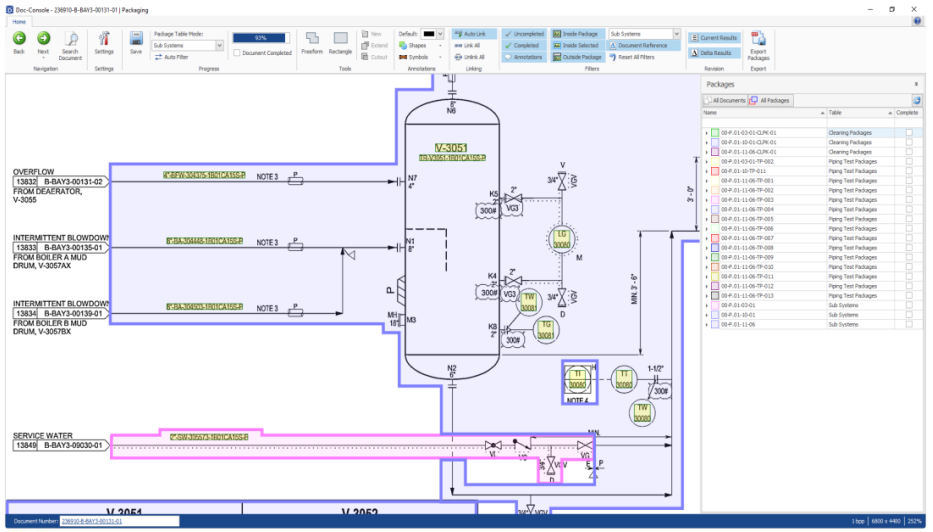
Why Co-Console & Doc-Console

- **Mobile applications**
  - Available to streamline and expedite incremental information capture – both status and redline information
  - Available across all major operating systems (e.g., Windows, Android, and iOS)
  - Mobile friendly interface
- **Reporting**
  - Ease in creating customized queries and reports to meet project information requirements
  - Able to flexibly schedule and distribute reports to project team via email or to network file share for common access
  - Able to feed project information to PowerBI dashboards

Doc-Console

- Recognize tags via text searchable P&IDs, single-line drawings, etc.
- Highlight and link tags to validate engineering data.
- Create system boundaries and layers.
- Update the hierarchy from doc-console tagging.
- Perform commissioning activities within one tool to avoid manual, time-intensive processes

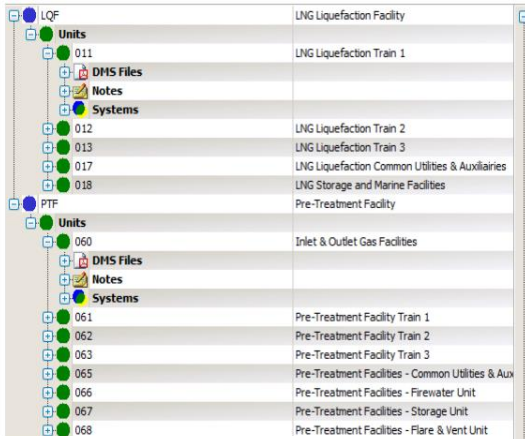




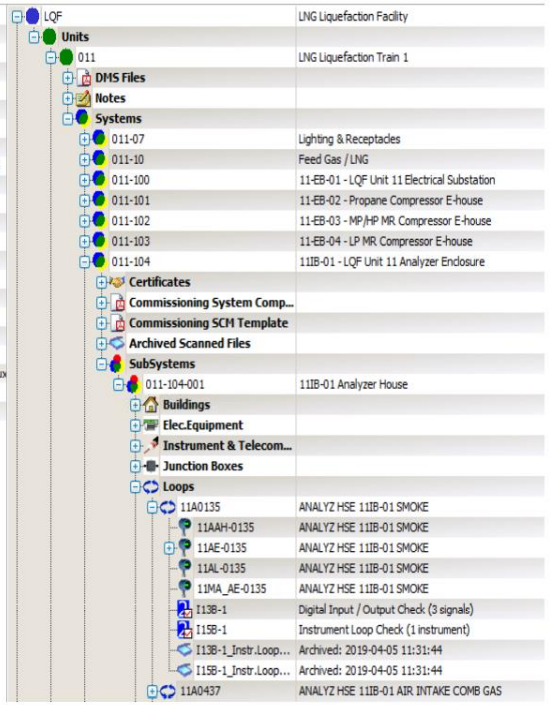
System Configurability

- Configure the system to match the type of data they collect in the field.
- Create multiple hierarchies to match system and project complexity.
- Design global templates for projects to save time.

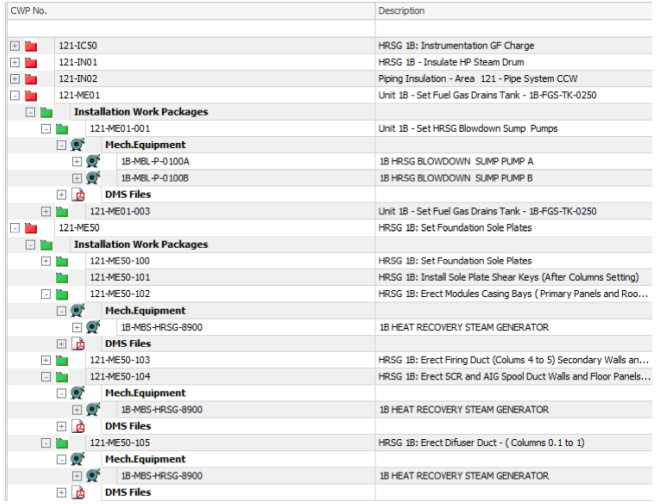
Site/Project > Unit > System > Sub System Hierarchy

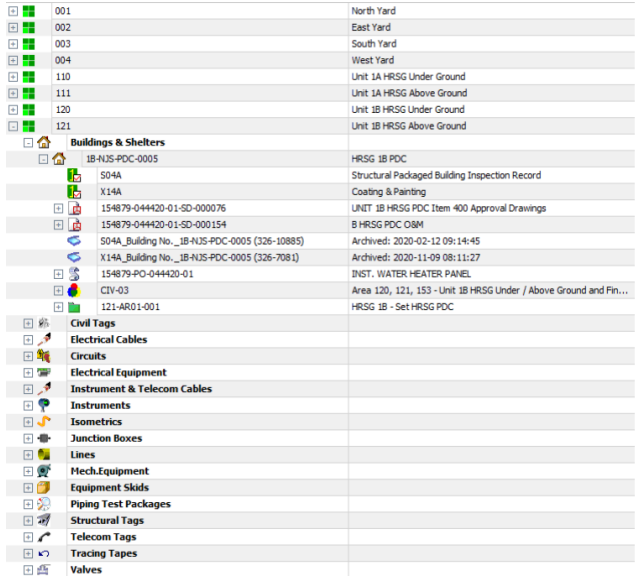


Area / WBS Hierarchy



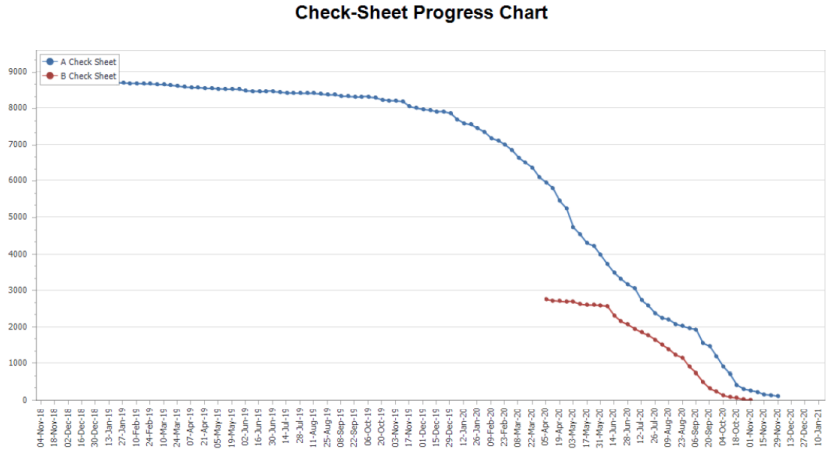
Construction Work Package > Installation Work Package Hierarchy

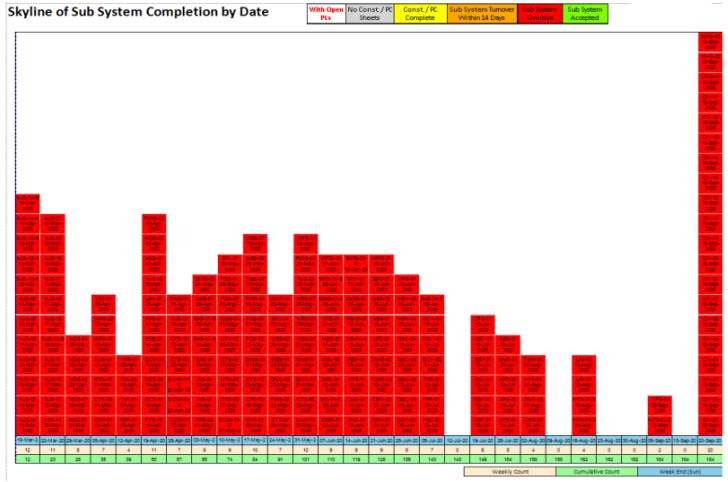




Reporting on Progress

- Configurable global report generation.
- Multiple configurable trend and report types.
- Report scheduling to automate progress reporting to other departments/personnel.

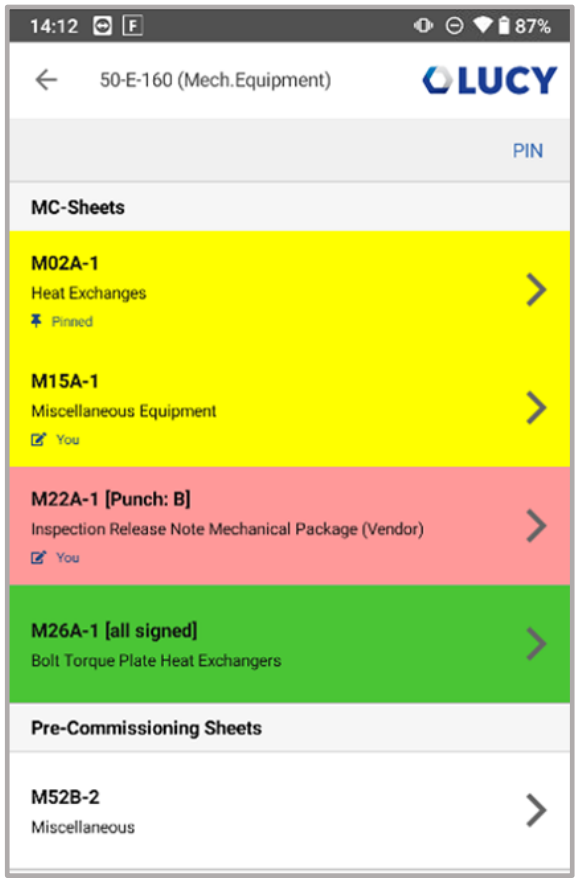


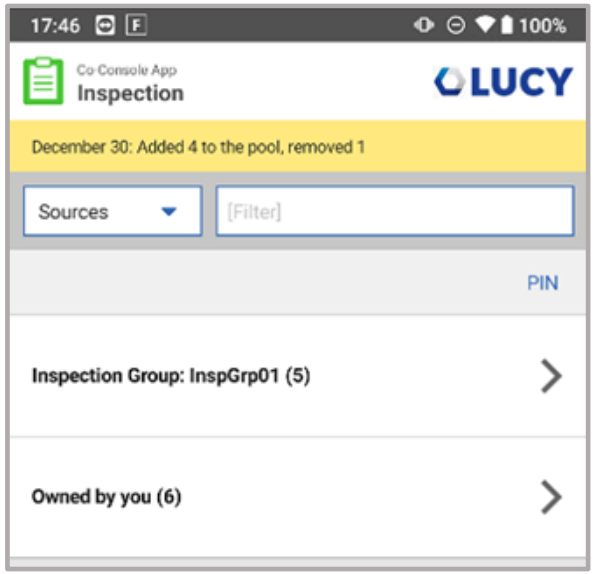


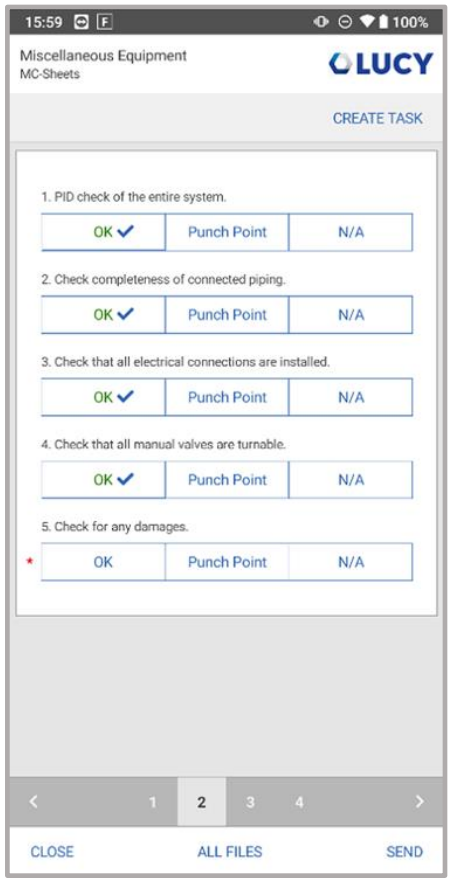
Overall SubSystem Status Report

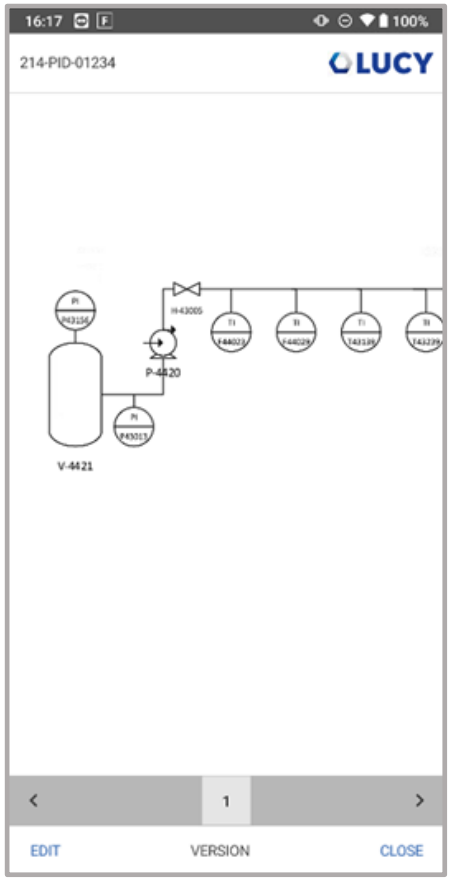
Sub System		Construction				Commissioning				Open Punch Items		
		Plan	Actual	Not-Done	Actual (%)	Plan	Actual	Not-Done	Actual (%)	A	B	C
WPS-04	480V Welding Receptacles - UNIT C	18	18	0	100.00%	0						
System: WTD		354	354	0	100.00%	98	98	0	100.00%			
WTD-01	Demineralizer Water System	258	258	0	100.00%	83	83	0	100.00%			
WTD-02	Demineralizer Water Supply-Tank And Pumps	96	96	0	100.00%	15	15	0	100.00%			
System: WWT		125	125	0	100.00%	34	34	0	100.00%			
WWT-01	Waste Water Treatment	125	125	0	100.00%	34	34	0	100.00%			
System: YVA		40	40	0	100.00%	6	6	0	100.00%			
YVA-01	1A CTG 120kV SWYD & GSU	20	20	0	100.00%	3	3	0	100.00%			
YVA-02	1B CTG 120kV SWYD & GSU	20	20	0	100.00%	3	3	0	100.00%			
System: YWA		33	33	0	100.00%	7	7	0	100.00%			
YWA-01	STG 230 KV Swyd, Breaker And Steam Turbine GSU	33	33	0	100.00%	7	7	0	100.00%			
System: ZZZ		11	11	0	100.00%	0						
ZZZ-01	Satellite Clock, RTU Cab, Main PDC Fiber PNL, Weather Station	11	11	0	100.00%	0						
	Overall:	**8607**	**8607**	**0**	**100.00%**	**2732**	**2732**	**0**	**100.00%**			

Paper to Mobile









Results Summary

Increased time savings on pipe test package revisions

Enhanced efficiency of document collection and collation

Streamlined the process of creating project reports

Reduced paper burden, printers, and need for clerical staff

Improved flexibility and accuracy of field preservation

Increased automation and efficiency of subsystem scoping

Reduced administrative cost of project completion system

Eliminated rework through improved tracking and systems

Prevented litigation over delays through improved processes

Improved ability to update upper management in real-time

Questions?

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Thank you

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