CASE STUDY

ROI analysis: Octave Loop Material Readiness offshore fabrication services site



Key facts:

Industry: EPC Firm, Offshore Oil & Gas

Country: USA

Octave products used: Loop Material Readiness Track and Trace *(Jovix)*, Loop Material Readiness Preventative Maintenance and Inspections *(Jovix)*, Active RFID tags

Key benefits:

- Zero lost materials
- Average material location time dropped from 45 minutes to five minutes
- Project savings of $2.1 million

Challenges

Octave Loop Material Readiness (formerly Jovix) was deployed in 2011 at an EPC firm's offshore construction site in coastal Texas. Functionality included material receipt, request, location and issue. Savings from Loop Material Readiness track and trace led it to add preventative maintenance and inspections (PMI) functionality. Below, learn more details about cost savings generated by efficiency, accuracy and a reduction in direct and indirect work hours.

Jobsite challenges

- Time to locate a material: 45 minutes at $65 per hour (average)
- 0.2% of materials were lost; re-procurement at $2,000 per spool (average)
- 0.1% of owner-furnished equipment was lost; replacement at $4,000 each (average)

Solution

Analytics and reporting within Octave Loop Material Readiness pulled the following information:

- 71,624 pieces tagged with active RFID; associated material data entered into Loop Material Readiness
- 66,173 tagged materials were picked in the first 4.5 years of Loop Material Readiness deployment; not a single tagged asset was lost

Analysis of the data resulted in the following conclusions:

- Client saved 0.667 work hours for each material located
- 0.667 work hours reduced per 66,000 materials saved the client $2,867,496
- With zero assets lost, client avoided $264,692 in re-procurement costs

Savings through added functionality

The time and cost savings realized through the Loop Material Readiness track and trace implementation were used to justify expanding the implementation into other processes and activities on the project.

Savings beyond location

The initial investment in hardware had already been accounted for and justified by savings realized in material location. Therefore, it only made sense to incorporate additional Loop Material Readiness functionality that could result in more cost savings. The additional investment would be much lower than the initial commitment, and total savings would be significant.

Preventative maintenance and inspections

The path forward at this facility included PMI functionality, and the implementation proved so successful that Loop Material Readiness became the district standard for PMI activities. It's now sold as a value-added service in this fabricator's tool kit. Unlike most PMI solutions, Loop Material Readiness also features preservation functionality. Coupling two functions drives efficiency by enabling material activities, such as receipt, to automatically trigger an inspection task. Preservation activities automatically update materials management information. For example, if an asset fails inspection, Loop Material Readiness can automatically place it into quarantine status. With Loop Material Readiness PMI functionality, the client was able to perform the following tasks:

- Build inspection templates
- Upload supplier requirements
- Create recurring inspections
- Set reminders and alerts
- Assign inspection to a user
- Locate equipment requiring maintenance
- Collect photos and digital signatures

Total Loop Material Readiness investment:	<$1,1019, 043>
Total labor savings:	$2,868,930
Cost avoidance:	$282,496
Total savings:	**$2,132,383**

PMI with the Loop Material Readiness solution decreased indirect labor costs by reducing material location time and removing manual data entry. Loop Material Readiness also streamlined scheduling and reporting, eliminating the need for personnel dedicated to those functions.

Additional functionality

The client also incorporated the following value-added services:

- Enterprise resource planning (ERP) tool integration
- Fabrication tracking with active and passive RFID tags
- Steel fabrication software integration

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property and assets – for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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