Predictable Work Package Execution using RFID on a Billion Dollar Project

AWP Conference 2015
Safety Moment

Reducing First Aid Incidents for Slips and Trips
“Over-runs stem from a lack of control and visibility of materials, personnel, and equipment”

Source: CII Publication RT240-1, 2008

Activity Analysis: Total Activity Percentages
CII, Craft Productivity, IR 252-2A (2010)
Enhance your supply chain, material management and turnover systems. Add SiteSense® RFID and GPS VISIBILITY.
SiteSense® Total Project Visibility®

SiteSense® Web-Based Applications

SiteSense® Field Mobile Applications

SiteSense® Integration Applications

SiteSense® Visibility Server

Sensor Tags

Handhelds

RFID Readers
# Project Material Tracking

![Project Material Tracking Image](image-url)

## Find Resources

### Find Results

Searching 'spool' 

Showing 1 to 25 of 13,214 entries

<table>
<thead>
<tr>
<th>RESOURCE</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>073-1413-170-1001-43-1</td>
<td><img src="image-url" alt="Actions" /></td>
</tr>
<tr>
<td>073-1413-170-1017-80-1</td>
<td><img src="image-url" alt="Actions" /></td>
</tr>
<tr>
<td>073-1413-170-1001-80-1</td>
<td><img src="image-url" alt="Actions" /></td>
</tr>
<tr>
<td>073-1413-170-1054-58-1</td>
<td><img src="image-url" alt="Actions" /></td>
</tr>
<tr>
<td>073-1413-170-1039-42-1</td>
<td><img src="image-url" alt="Actions" /></td>
</tr>
<tr>
<td>073-1413-170-1028-51-1</td>
<td><img src="image-url" alt="Actions" /></td>
</tr>
</tbody>
</table>

### Details

- **073-1413-170-1054-58-1**
  - Spool isometric 073-1413-170-1054-58 CWP 77PM03 Barcode 6150--SHO--000510
  - **27/6/2013 11:48:13**
Track Site Equipment

- Free-up foreman time
- Increase Tool Time
- Reduce mechanic charges
- Maintenance Reporting
Personnel Safety Tracking

- Faster site evacuation and musters
- Integration with Lenel Swipe Access
- Certification Integration
- Restricted area alerts
Autonomous Reader Stations (ROVER)

- Autonomous Vehicle Reader
- 1,000 ft Tag Read Distance
- Provide Site-wide Coverage Multiple Times per Day
- Cellular or Wireless Connections
Handheld Devices

- Rugged and consumer grade options
- Easy to use interface for field construction users
- Online and offline capability
- Asset Details, Locate, Receive, Issue.
Fixed Reader Stations

- Autonomous, 1000 ft range
- Real-time
- ZONE or GPS Locations
- Engineered for the harshest environments
- Gate, Zone and Muster
Enhance Your Existing Construction Systems with SiteSense® Visibility
## Integrated Systems

**MANAGE LISTS**

<table>
<thead>
<tr>
<th>Active List</th>
<th>Saved Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save</td>
<td>Clear</td>
</tr>
</tbody>
</table>

**ACTIVE LIST ITEMS**

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Progress</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MK-0003</td>
<td>Steel Beam MK-0003</td>
<td>0%</td>
<td>Fabricate 0%</td>
</tr>
<tr>
<td>MK-0004</td>
<td>Steel Beam MK-0004</td>
<td>10.89%</td>
<td>Fabricate 0% Transport 0% Install 33.0%</td>
</tr>
<tr>
<td>MK-0002</td>
<td>Steel Beam MK-0002</td>
<td>55.78%</td>
<td>Fabricate 100% Transport 66.0% Install 0%</td>
</tr>
</tbody>
</table>

**Properties**

- Length
- Weight
- Heat #
- More...

*Images of steel beams with properties and progress levels*
Integrated Systems
Jim Hodges
VP - JV Driver Industrial Services at JV Driver Group USA

• More than twenty eight years of experience in the heavy construction industry

• Construction background includes the petrochemical, chemical, power, pharmaceutical, and refining industries

• Accountabilities in project management, constructability, planning, scheduling, quality control, cost control, craft services and overall safety in a multiple site environment

• Nine years with Austin Industrial and four years with Technip

• B.S. in Business Administration and Project Management from Colorado Technical University and an AAS degree in Construction Management from San Jacinto College
Construction Project
Project Challenges

• Safety
• Materials and Equipment
• Environmental Policies
• Skilled Labor
Project Results

- Reduce IWP planning time 90%
- Time to locate improved 10:1
- Reduced lost materials
- Increased tool time
- Field productivity 10 to 15%
Lessons Learned

- Plan upfront
- Track Everything
- Crawl, Walk... Run!
- Team Up With the Experts
Summary

- Increased Project Visibility
- Increased Field Productivity
- Decreased Field Injuries
- Reduced Environmental Impact
- Overall Cost Savings
Questions?