



The Project and Challenge

RLAM, Brazil's oldest refinery, is implementing the construction of a Diesel Hydro Treater (DHT) Unit. The scope for this project is \$1.3 Billion, which includes survey, engineering, fabrication, and construction.

The challenge is to provide accurate 3D engineering drawings and schematics of all of the existing areas. The project also requires that the existing conditions will accommodate the 128 new lines that will lead to the new DHT unit.

The Solution

Upon completion of data capture from the IntelliCamera, the 3D design of the new connections are imported into the LD3 scene. At this point, a clash report is generated of all existing clashes. This data is verified within minutes of capture.

Engineers are now able to model using the LD3 scene to ensure that any corrections with the design do not interfere with existing connections. Schematics are generated to correct any clashes.

The old CAD files of the area are updated using the LD3 data sets.

All 128 interconnections are modelled using LD3 Builder tools for rotation and centerline verification. All designs are now completed and prepared for fabrication and construction.

The Results

- Overall cost savings estimated at \$675K
- Reduced project schedule timeline by 80%
- Realized a direct correlation between reduction in schedule and increased personal safety
- Full Quality Control between data acquisition, engineering, fabrication, and construction mounting.



The IntelliSum Approach:

InteliSum worked extremely closely with RLAM to determine how to reach desired results in less time cost savings of 40%

Project Management (21 Days):

- ▶ Initial scoping of the project looking for all inter-connections.
- ▶ Showing all design pathways for line routing for the interconnecting points
- ▶ Coordinating internal team in achieving deliverables

Scanning (14 Days):

- ▶ Site set up and targeting
- ▶ On site scanning and auto registration

Post processing (14 Days):

- ▶ GCS coordinate registration and analysis
- ▶ 3D modelling and engineering

Total Savings :

- ▶ Total ISI time 49 Days
- ▶ Traditional Methods 121 Days
- ▶ ISI saved 72 Days and \$675K

CLIENT RESPONSE:

“Without a doubt the use of LD3 has given the best results we have ever received. It has made it faster and more cost effective to create detailed designs and solutions. All of this with the added benefit of guaranteed quality control.”

Milton Pereira
Director of Operations
Engvix