CASE STUDY

Asset Information Management System for IOCL Refineries Division

AVEVA NET Asset Information Management Platform

OVERVIEW

IndianOil (IOCL) is a diversified, integrated energy major with a presence in almost all the streams of oil, gas, petrochemicals and alternative energy sources.

The company entrusted TCE with developing and supplying a turnkey Electronic Asset Information Management System (AIMS) for ten sites of the IOCL Refineries Division.
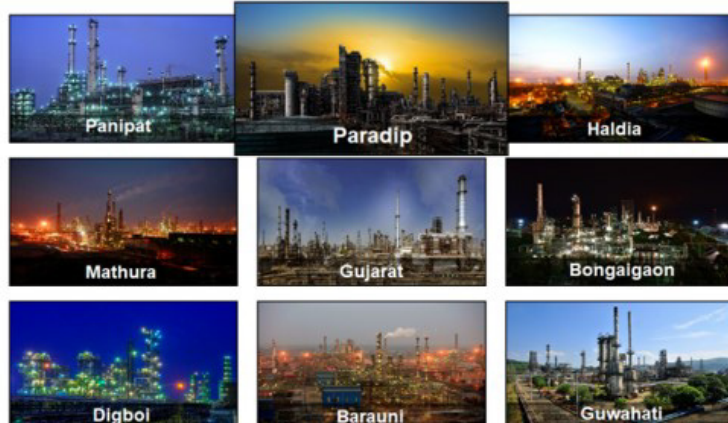
The scope of the AIMS include:

- Solution design and implementation
- Data preparation, cleaning & uploading
- Interface configuration & management
- 1 million documents in phase one and 6 million documents in phase two
- 3D modelling, P&ID, layouts, manuals & documents

- 100K tags
- Hardware & software supply
- Implementation & solution configuration
- Data collection & segregation of data
- Validation & data processing
- Interlinking & dashboarding

Salient Features:

- One touch data accessibility
- Single point access to 98% of engineering data
- Information integrity throughout project and asset lifecycle
- 60-80% reduction in man-hours searching for information

Panipat · Paradip · Haldia · Mathura · Gujarat · Bongaigaon · Digboi · Barauni · Guwahati

Project Tenure
Decemeber 2018 to
January 2021

CHALLENGES

The project came with a unique set
of challenges:

1. Digitising old engineering
    drawings & documents

2. Handling high volume of
    unstructured & non-standard
    documentation.

3. Project governance &
    collaboration between multiple
    stakeholders at ten client sites.

4. Missing/ incomplete metadata
    from old refinery sites.

5. Obtain and process the "right"
    data to meet project objectives
    and customer expectations.

6. Creating project awareness
    and interests amongst multiple
    client teams.

SOLUTIONS

The team set out a pathway to
address client problems by:

1. Implementing a technical
    document management
    system that aligns with ISO
    15926 architecture and quality
    standards.

2. Creating metadata cover pages
    for all scanned documents using
    in-house utilities.

3. Using certified tools for
    converting scanned documents
    to searchable formats.

4. Incorporating standardised
    documentation nomenclature
    for all projects

5. Developing automation tools for
    data segregation, validation, tag
    extractions etc

BENEFITS

TCE delivered yet another first of its kind
project in the country. The client benefits
include:

1. Successful generation of management
    reports for seamless reviews and
    enhanced regulatory compliance.

2. Single point access to 98% of
    engineering documents throughout
    the project and asset lifecycle.

3. Reduced ~60-80% time for searching
    and indexing documents using
    process automation.

4. Establishing a standardised
    mechanism for all future operations &
    digital project handovers for projects
    worth over 25000 CR (INR)