Sala

Millions of Data Points Thousands of Assets Hundreds of Decisions One Solution

The Most Feature-Rich, Asset-Intelligent, RBI-Driven Asset Integrity Management Solution **Salue**

33 years of Excellence

Antea is at the forefront of the asset integrity industry with cutting edge technology for plant operations.



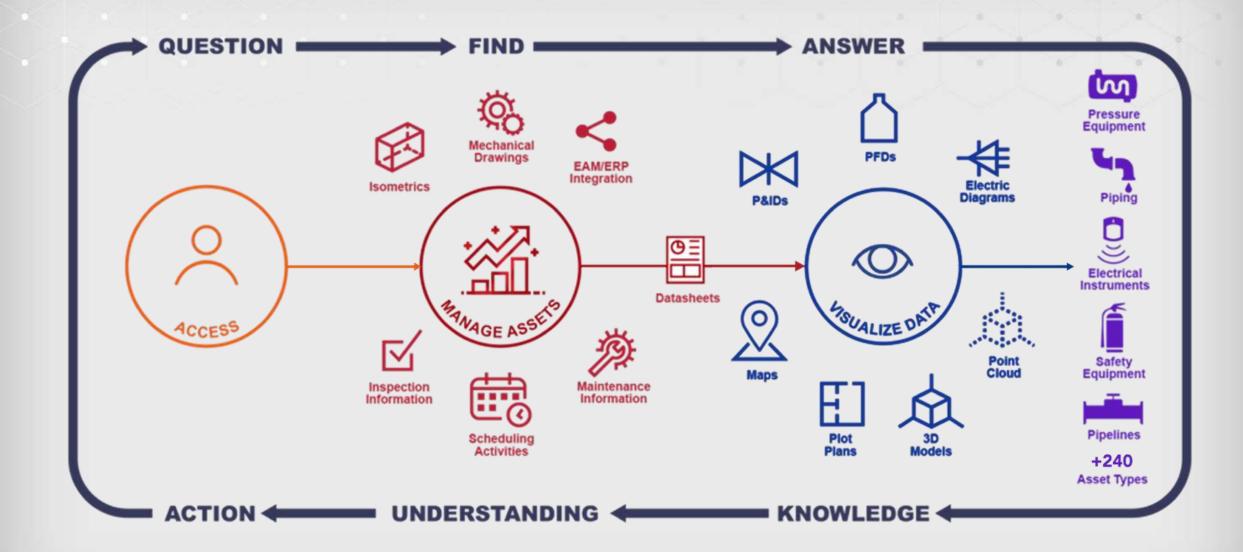
\$160 BILLION+

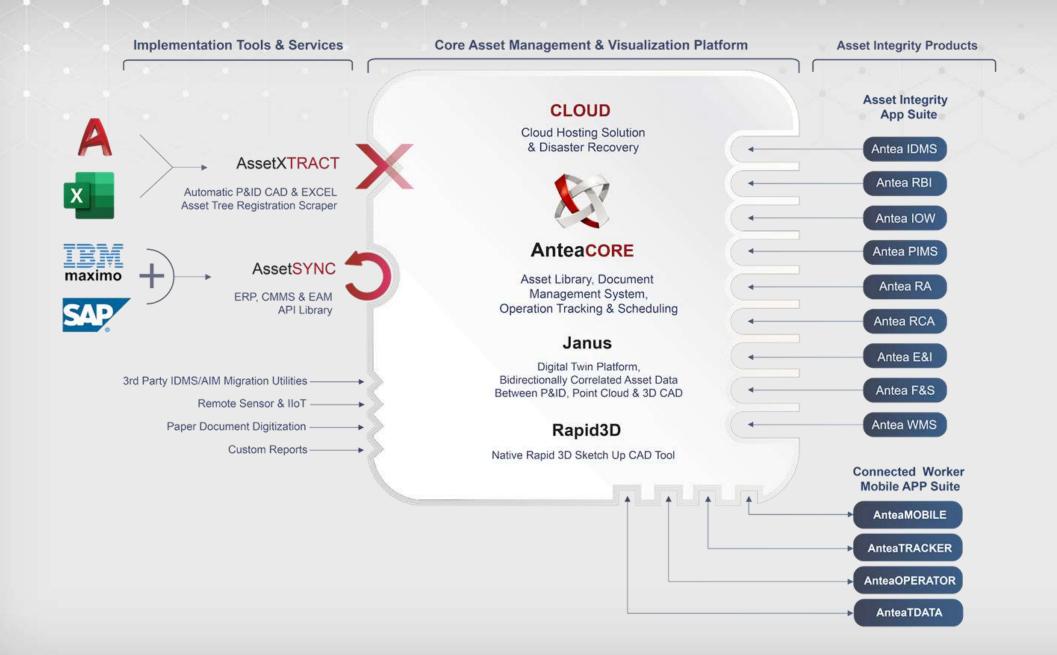
Under Management

6 MILLION+

Monitorea Asset

240 Asset Types











Due Dates completion will be pushed back to ASPM using REST APIs

12

ASPM Work Orders will be mapped to Antea IDMS Due Dates. Uses Apache Kafka to push WO changes.

6



mapped to Antea Items.

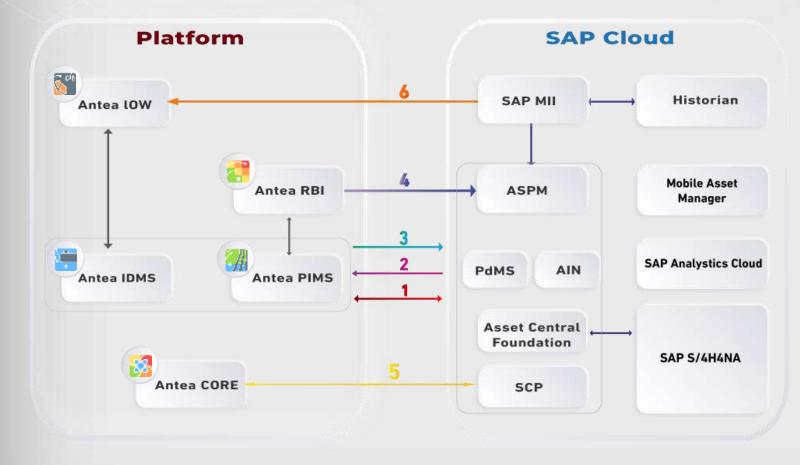
Inspection Plans as RBI output back to ASPM as **Recommendations**. Using ASPM REST APIs.

Time-series data may be fetched from

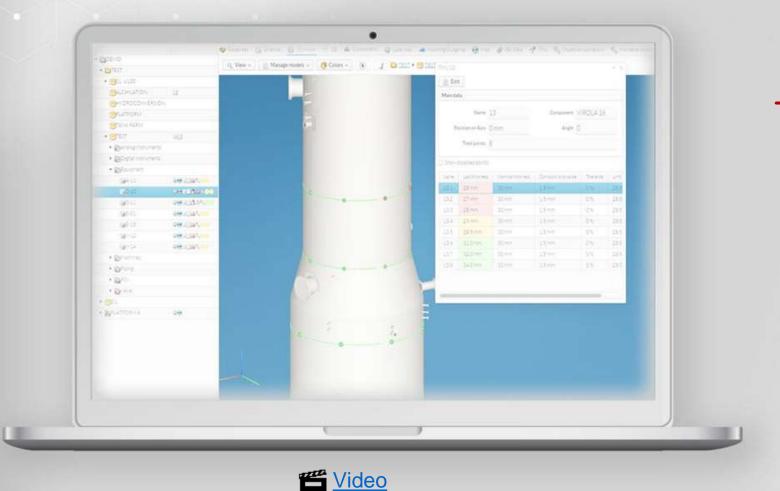
an historian to Antea

IOW.

Documents and attachments will be retrieved just-in-time from ASPM using REST APIs.



IDMS Inspection Data Management System

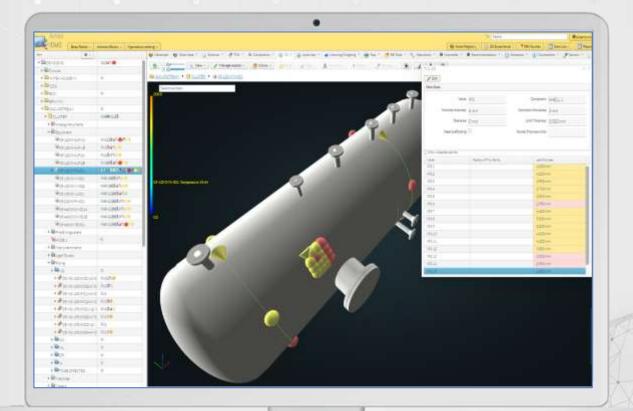


Hundreds of Assets. One Solution.

Seamlessly integrated with Antea CORE, **Antea IDMS** allows you to focus on the management of your pressure equipment, plant pipelines, pressure safety valves and more.

- ✓ Manage all equipment, datasheets, reports and more using color-coded 3D models.
- ✓ Generate inspection or engineering maintenance reports quickly and easily, whenever needed.
- ✓ View individual assets or the entire plant with color-coded 3D models.
- ✓ Schedule inspections or routine maintenance with ease.

CORROSION MONITORING Complete solution



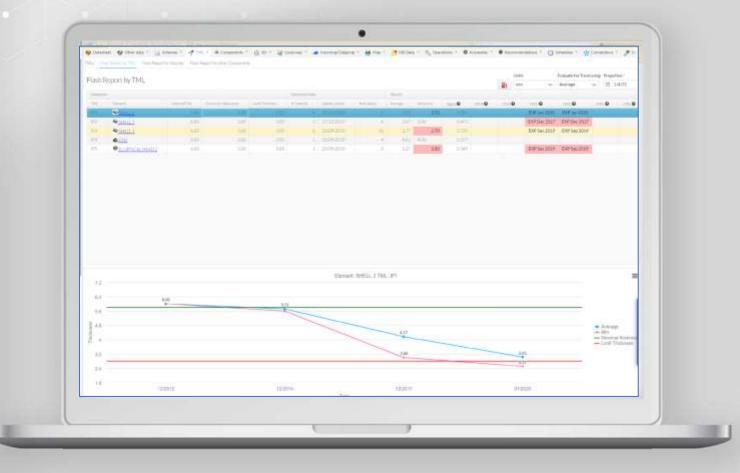
Corrosion rate from different source

Corrosion monitoring module allow the comparison of corrosion rate coming from different analysis

✓ NDT analysis

- ✓ Corrosion Probes & coupons (CMP)
- ✓ Laboratory analysis

CORROSION MONITORING Thickness Inspection



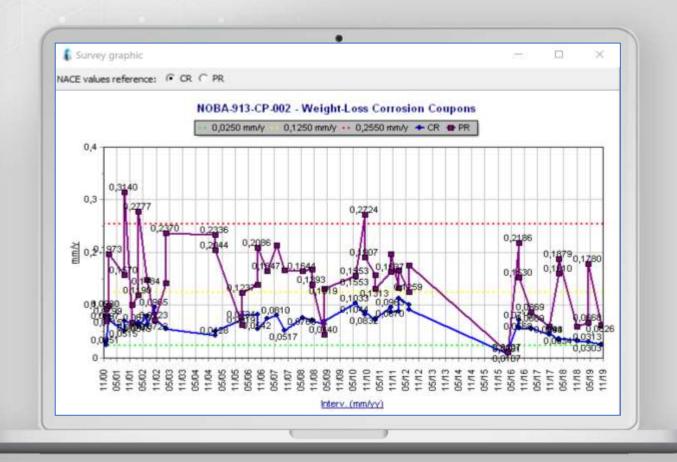
Thickness inspection data

The trend of corrosion will be reported in a graph. It will be possible to consult it for each TML or for each 3D component (available only if 3D model is present) considering the medium or the minimum thickness values.

These data can be calculated:

- S.T.C.R. = Short Term Corrosion Rate
- L.T.C.R. = Long Term Corrosion Rate
- S.T.E.D. = Short Term Expiry Date
- L.T.E.D. = Long Term Expiry Date
- S.T.R.L. = Short Term Residual Life
- L.T.R.L. = Long Term Residual Life

CORROSION MONITORING Corrosion Monitoring Points



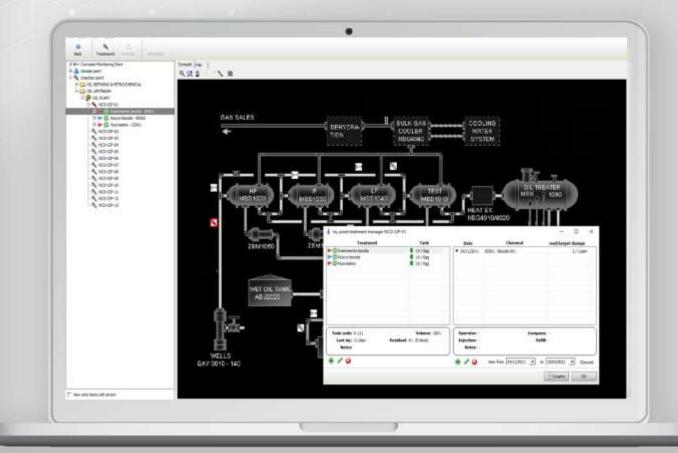
Corrosion Monitoring Points

The trend of inspections will be reported in a graph, both for corrosion rate (CR) and pitting corrosion rate (PCR).

The horizontal stippled lines will be according to NACE Standard RP0775 for corrosion rate and pitting corrosion rate. See table below for reference values.

The data can be retrieved also online in realtime

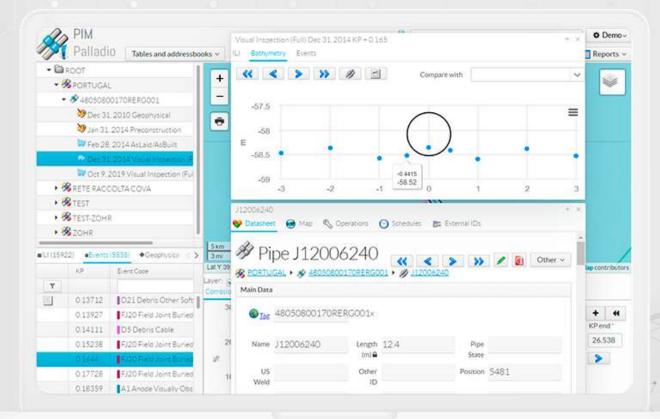
CORROSION MONITORING Production Chemical Analysis



Production Chemicals Management (under development)

The platform can manage all laboratory analysis keeping track of all the corrosion inhibitor treatments and monitoring the stock

PIMS On-shore/Offshore Pipeline Integrity Management System



Video

Integrity from Beginning to End

Antea PIMS provides complete management of your onshore or offshore pipeline integrity from pre-construction to the operating phase.

- ✓ Manage entire pipeline lifecycle
- ✓ Import and manage Pig-generated ILI datasets
- ✓ Visualize data in various formats
- ✓ Access external inspections
- ✓ View various pipeline surveys

RBI Automated Risk Based Inspection Calculation



Improving Your Reliability

Antea RBI performs qualitative, semi-quantitative and quantitative risk-based analyses to evaluate the probability and severity of failures in your plant.

- ✓ Compare RBI matrices
- ✓ Immediately identify critical items
- ✓ Detailed inspection plans provided
- ✓ Prevent future incidents
- ✓ API 581 compliant

RCA Root Cause Analysis



Video

UNDERSTAND THE PROBLEM

Gain instant access to critical information regarding malfunctions with **Antea RCA**.

- ✓ Track entire analysis process
- ✓ Manage all work progress
- ✓ Assign responsibilities and send alerts

Real-Time Data, Real-World Results.

Antea IOW displays real-time data, allowing you to monitor the limits your assets can operate under.

- ✓ Visualize real-time data
- ✓ Create custom-defined rules
- ✓ Manage sensor locations
- ✓ Color-coded digital twin
- ✓ Automated notifications
- ✓ Based on API RP 584



ANTEA MOBILE Mobile Applications

ASSET INTELLIGENCE IN THE FIELD

The Antea mobile app suite allows you to access Antea modules conveniently through your phone or tablet. Visualize the hierarchical structure of items, attachments, statuses, 2D schematics and the item's location on the point cloud provide various tools to help connect field technicians, equipment and data.



- ANTEA MOBILE
- T-DATA
- OPERATOR ROUNDS
- ASSET TRACKING

Antea mobile apps work also on **Atex** tablets that are commonly used in plants.

They can be easily used online and offline.



ANTEA MOBILE

Antea Mobile provides mobile navigation of all your plant's assets and easily view data, attachments, 3D models and more.

- View data, attachments and schedules
- View position in P&ID and in your plant
- View 3D models and point clouds

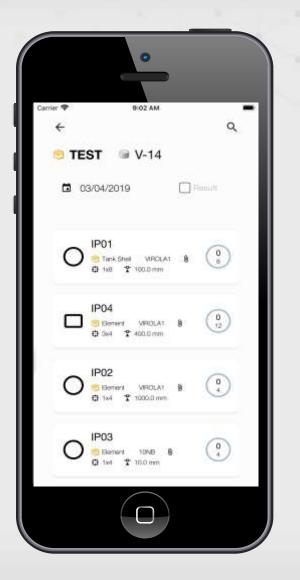


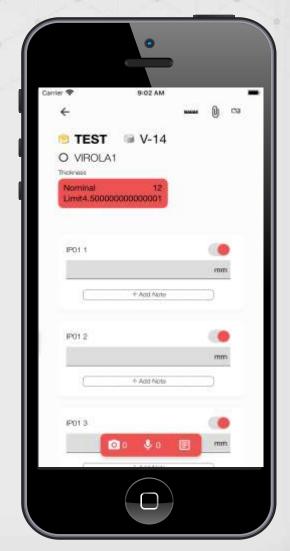


T-DATA

T-Data is engineered for accurate thickness inspections, allowing for a seamless upload of results directly to your database.

- Perform accurate thickness inspections
- Seamlessly upload results to database

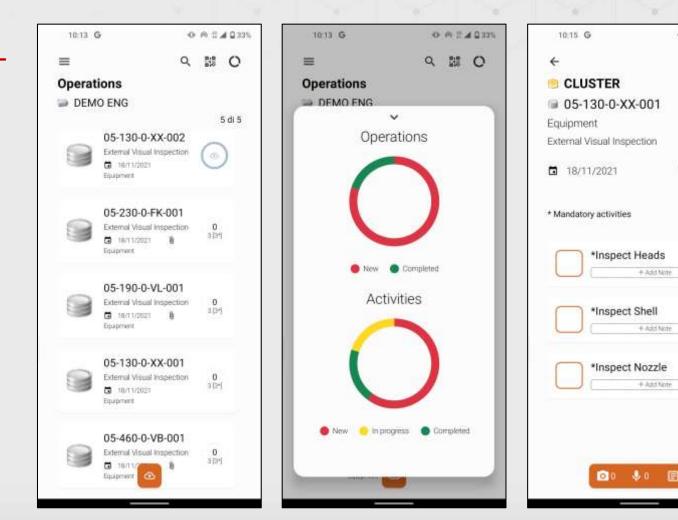




OPERATOR ROUNDS

Operator Rounds is designed to help you execute your visual inspections and tasks, providing on-field inspectors the list of activities to perform and allows for data to be directly uploaded to your database.

- **Execute visual operations** •
- Provides workers with a to-do list
- Upload data directly to database



0 8 5 4 9 325

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Result

+ Add Note

+ Add Note

ASSET TRACKING

Asset Tracking scans QR codes and provides complete asset information, including all maintenance history, allowing seamless access to information.

- Search and add items in asset registry
- Associate position through GPS sensor with items
- Take photos and attach to items





Flexible & EASY TO USE

Fully customizable to meet your specific needs with short learning curve for quick adoption and onboarding



Comprehensive & Powerful

Cost-effectively manage all integrity for ANYasset on ONE centralized platform;



IMPROVE SAFETY & PRODUCTIVITY

Increase staff productivity, lower human error faster better communication, lower time-to-find and reduce likelihood of catastrophic incidents



REDUCE THE GAP BETWEEN FIELD AND IT

Enable the field staff to use familiar tools thanks to the advanced graphic capacities, becoming much more user-friendly to the end user.



RBI Compliant api 581

POWERFULL 2D and 3D





Supervisor		Franco Gambato	
Name of file		Antea Presentation	
Revisions			
R04	16/12/21		
R05	21/11/21	Diletta Realdon	Update
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