





# Intelligent Drawing Platform Product Overview

# Welcome

## PRODUCT OVERVIEW



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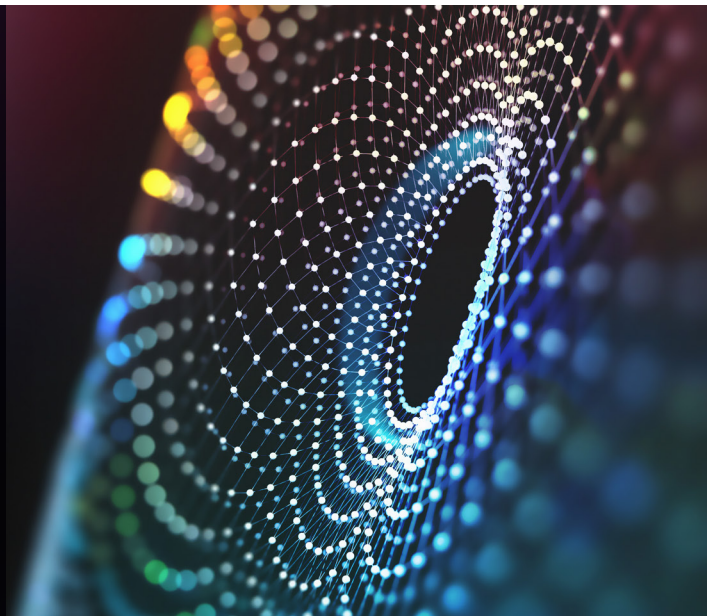
# Company Profile

”

Situational awareness is the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the future.

“

- Mica R. Endsley, 1998



## Our Mission

To enable the human factor to more safely and productively operate and maintain physical assets from within the familiar environment of Piping & Instrumentation (P&IDs) and Process Flow Diagrams (PFDs).



## Our Vision

To be the dominant provider of disruptive technology digitally transforming the asset intensive process industries, within eighteen to twenty-four months.

# Our Values



## Safety

Our company provides its services to protect people, the environment, and capital investments. This is why we exist.



## Responsibility

We act with urgency and have the courage to change course, when required, in order to build, sustain, and grow our company to meet the expectations of our customers and shareholders.



## Service

Our team is dedicated to meeting the specific needs of the programs our customers seek to develop and strengthen.



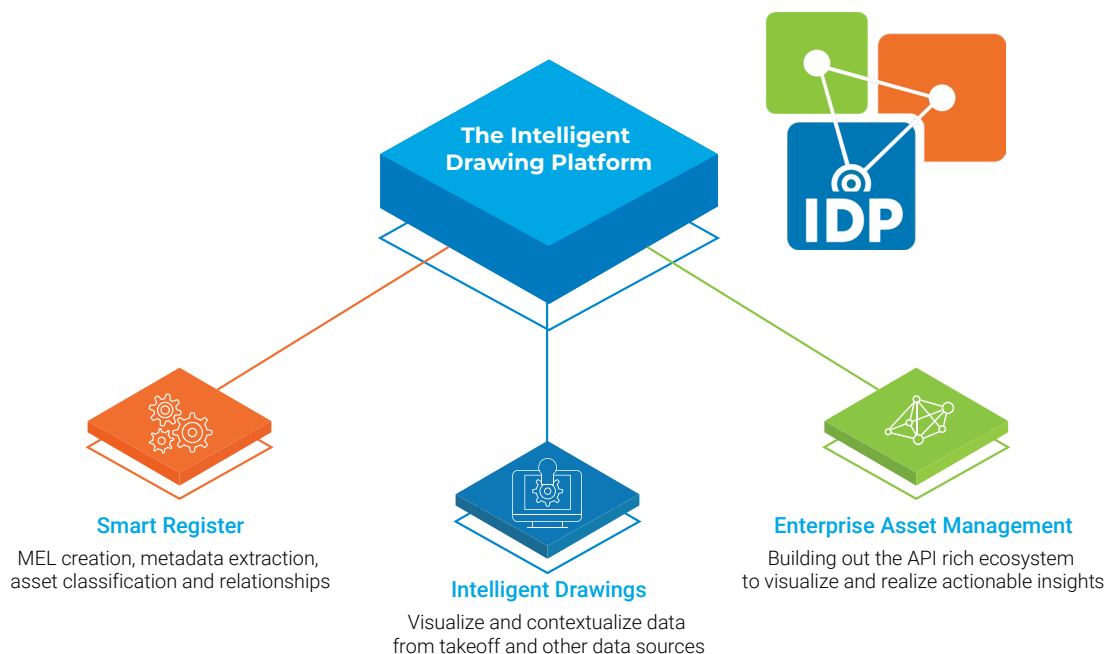
## Innovation

We take pride in our ability to adapt to the evolving needs of our market place and to make use of the right technologies available.



# The Intelligent Drawing Platform

VisualAIM's Intelligent Drawing Platform (IDP) is an add-on tool facilitating the Enterprise Asset Management ecosystem. Figure 1 and the associated descriptions summarize the three-tier asset visualization solution which disruptively intelligizes any AutoCAD file into a fully enabled IDP in seconds.



## Figure 1



### Smart Register

An inventory of all assets, organized by tag and classification at a minimum and grouped when applicable. Any metadata that resides in CAD format will be captured and included. Symbol standardization with find/replace capability.



### Intelligent Drawings

Drawings rendered in original format as well as simplified "relational" structure to emphasize upstream, downstream and near relations.



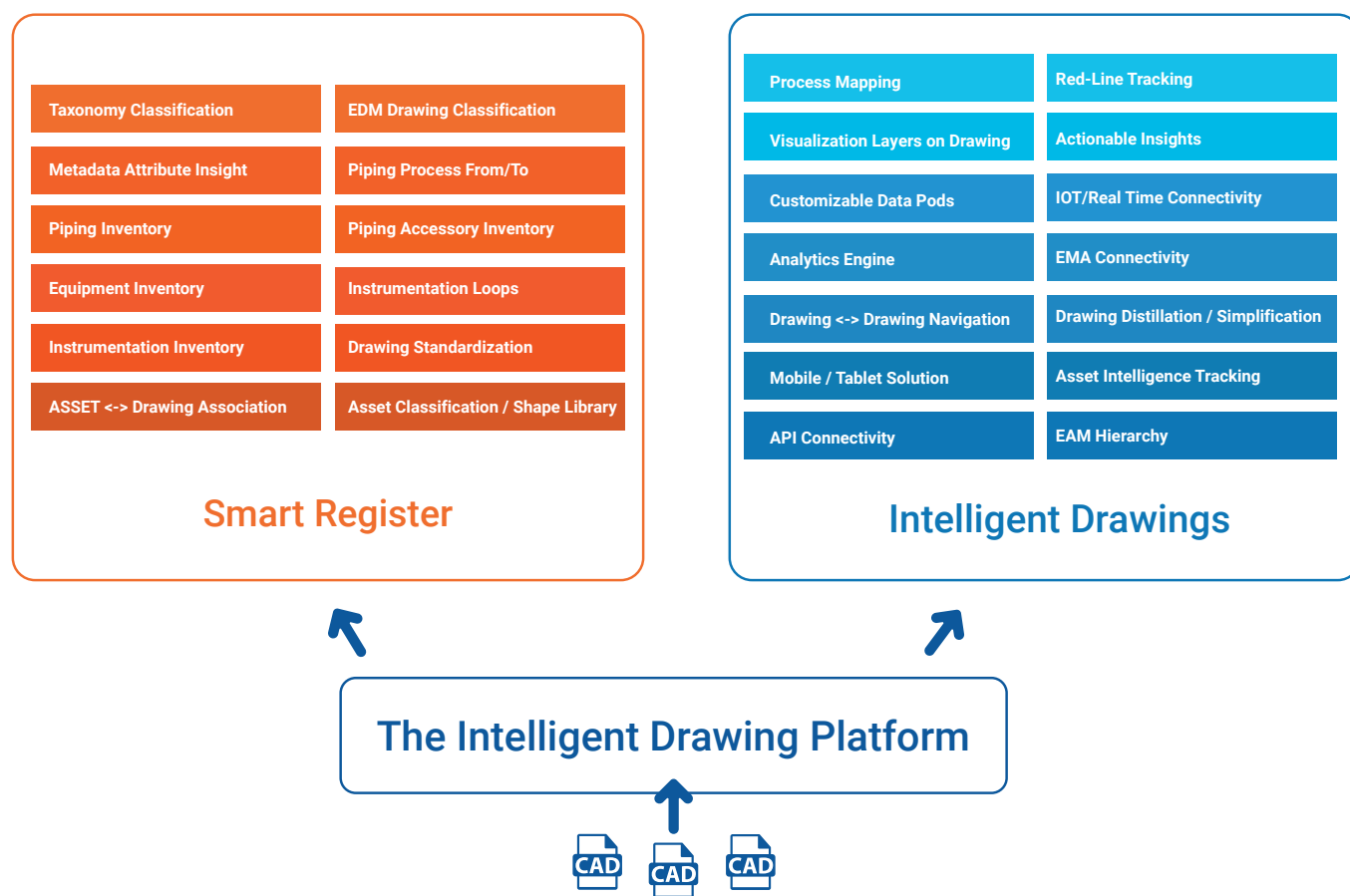
### Enterprise Asset Management (EAM):

Association of additional information to tagged assets and visualization through custom templates, data-pods, APIs, attached files.

# Overview

The following illustration features the Smart Register and Intelligent Drawing components of the Intelligent Drawing Platform.

Items in green represent available deliverables upon IDP implementation. IDP implementation or converting a complex P&ID CAD file (.dwg) to an intelligent drawing has been benchmarked at **4.3 seconds** per drawing. Items in blue are enabled after implementation and can be built upon if desired by the owner operator.



## Use Cases:

### Use Case #1 - Non Standard P&IDs

» **Problem Statement** - "Plant drawings are a source of truth. Inconsistencies across our existing P&IDs creates a lack of confidence in the accuracy of our drawings. We need to standardize but this can take years... until now."

» **Background** - The plant has had four owners over the past forty years, two major expansion projects and five debottlenecking projects. No two P&ID's or symbol libraries look the same. Our red lining and evergreen processes are inefficient as are our operation, maintenance and inspection departments. Tech services are overworked and behind schedule and our new project costs continue to increase dramatically due to inaccurate as-builts and field documentation.

» **Solution** - The IDP drawing standardization feature, standardizing 4,000 P&IDs, and 40,000 associated PFD, One Line, Loop Diagrams, Junction Box, and Marshaling Panel drawings. All blocks in the DWG drawings are programmatically replaced with corresponding blocks from the standardized CADWorx legend including categorizing drawing layers to the owner operator's standard layer set. This two-step process begins with asset classification and building a continual learning shape library. All drawing blocks are classified on the platform, resulting in a standardized Shape Library of assets, symbols, and title blocks specific to the owner operator's refinery, manufacturing plant, terminal, production platform etc. The Shape Library allows for the recognition of drawing patterns and ensures full coverage of assets, blocked or unblocked, located in the CAD drawings.

» **Continual Learning Shape Library** - The more drawings are utilized during implementation, the more robust and effective the library becomes in capturing non-blocked content, achieving 99% accuracy and reducing the conversion time to less than 5 minutes per drawing.

» **Value Proposition - Drawing Standardization** - The manual process for standardizing a P&ID including the replacement of all relevant blocks, layer categorization, and QA/QC is estimated to take between 5 to 10 hours per drawing. For 4,000 drawings this equates to 30,000 hours which at \$60/hr costs the owner operator \$1.8M; it would take a team of 5 CAD drafters 2.9 years to complete. The IDP completes this work in 8 weeks including 40,000 related one line, loop, junction box, marshaling panel drawings etc.

» **Project Completion Timeframe** - 8 weeks

For a more detailed explanation of the process, please refer to the "Standardization" section of Appendix A.

### Use Case #2 - Product Contamination Global Terminal Operator

» **Problem Statement** - "90% of our product movements are managed manually, using radios in the field. If a valve is LOTO we have to call it in and regenerate the work order. We're operating in the blind and don't have the time to sift through every paper copy of our P&IDs for each oil movement. I need to make more effective decisions in less time. Show me only what I need to see to more effectively manage our product movements."

» **Background** - Today the process industry is faced with increasing economic pressure and non-tolerance towards environmental accidents coupled with a reduced workforce. Storage tank facilities are prone to incidents because of constant environmental exposure and close proximity to soil/groundwater in the event of a leak. Optimizing operations and maintenance activities to increase plant availability is also a priority. The terminal's product movements are conducted manually and in the blind. A work order is issued for a movement from the ship dock to various "pits" where operators set up with radios to execute the product transfer to the target storage tanks which may include, line purging, tank blending and other complex tasks. Product contamination costs due to human error, leaks, mechanical failures etc. range from \$750K to \$1.5M annually or in the case of a major fire tens of millions USD.

» **Solution** - The IDP drawing to drawing navigation feature provides situational awareness and visualization across the terminal dramatically improving the reliability of the product movement work process. The IDP drawing relationship knowledge and API connectivity to the work order system automatically connects only those P&IDs associated with the movement. Clustering and spatial analytics within the IDP, distill these now connected P&IDs down to a one-line diagram visualizing only those components of interest to the operators and relevant to the product movement. Field changes to the work order are available on the IDP Smart Tablet when say due to a valve lock out, tag out is discovered during a pre-alignment. The work order can then be modified from the field and the realignment reissued. The IDP reads the reissued work order and re-renders the new drawing connections and component distillation to a revised one-line diagram allowing the operator to track each step in the product movement visually from the one-line diagram on a smart tablet.



» **Value Proposition** - Mitigate product contamination - 5 yr NPV = \$7.5M

» **Project Completion Timeframe** - 8 weeks for up to 500 P&IDs.

### Use Case #3 - IDP Enabling The EAM Solution

» **Problem Statement** - "The MI software and EAM solutions have major data gaps and I have two weeks to get an accurate asset register that is taxonomically correct and can be exported into our EAM system. Two weeks"

» **Solution** - The IDP EAM hierarchy and asset drawing association features complete a take-off of all drawing components creating an exportable database or excel spreadsheet for comparing data in other applications. This can include exporting taxonomically preferred data and meta data to EAM solutions like Maximo and Infor. The resulting comparison of all drawing assets, components, instrumentation sorted by loop and piping systems, circuits and line numbers revealed over 3,000 piping systems not being inspected. The hierarchy of data and metadata from the drawings was exported to the owner operator's EAM solution which in this case was Infor.

» **Value Proposition** - Project execution time was an order of magnitude less than competitive and manual solutions including significant cost savings from utilizing the IDP

» **Completion Time** across 400 P&IDs - 2 weeks



### Use Case #4 - Energy Control Plan

» **Problem Statement** - Our energy control plan is at best handwritten and inaccurate or worse non-existent. Either way a procedure has to be written on the fly or anew for every LOTO procedure across every asset and component requiring repair or replacement. Needless to say this process is inefficient and ineffective and could lead to errors and potential safety issues resulting in injuries or worse.

### Use Case #5 - Creating situational awareness through the collaborative and familiar environment of our plant drawings.

» **Problem Statement** - Our deep domain knowledge of risk is esoteric needs to transcend the SMEs and reach the plant floor. Otherwise we'll continue to have an inefficient and inaccurate evergreen process leading to excessive unplanned downtime or worse.

# Value Proposition - General Overview

## Intelligent Drawings Business Case



For some, creating situational awareness through visualization IS the single focus for improving reliability at their refineries. They believe that improving the cognition of plant personnel leads to the reduction of activity duration time and to fewer errors. For example, studies of wrench time show that a typical maintenance worker wastes 15 to 20% of their time just looking for information and they waste additional time correcting errors caused by missing/inaccurate information. This adds cost and, more importantly, it significantly reduces plant availability; Shutdowns take more time, scheduled downtimes have to be longer and breakdowns cause longer delays. In some cases, major refineries, chemical manufacturing, and terminal operators can easily be carrying \$100+M/yr in annualized risk.

The Intelligent Drawing Platform improves a number of factors affecting operational effectiveness and efficiencies while reducing the annual risk inherent in all asset families. The following examples portray how these benefits are achieved.

» The [Drawing Navigation](#) feature increases efficiencies by at least 30% because it allows the user to navigate through multiple interconnected drawings relating to the activity at hand without having to look through paper copies. Drawing navigations could be from one P&ID to another through off page connectors or from an instrument instance on a P&ID to its loop diagram simply by tapping/clicking on it from a smart tablet.

» With [EAM Connectivity](#), asset integrity and/or performance management applications can be visualized directly from the collaborative environment of the intelligent drawings. This mitigates risk beyond the technical boundaries of each application albeit RCM, RBI, IOW and others.

- » The **Process Mapping** tool allows for procedures such as LOTO or product movement, which typically involve multiple P&IDs, to be visualized as a single rendering. In the case of product movement, product contamination and environmental cleanups can be reduced or eliminated.
- » The **Visualization Layers** on the drawings allow for direct visualization of information such as HAZARD nodes, circuit definitions, risk levels, operating conditions, and other information directly on the drawing. This greatly reduces risk through direct increase of situational awareness.

The value analysis template below estimates the potential value stream that Intelligent Drawings can represent for Owner Operator top line revenue:

Facility : Tank Terminal, Zoo storage Tanks, \$459 Annual Revenue

IDP Value Proposition	% Rev	Mitigated Annual Loss (\$M)	5 yr NPV (\$M)
Operating Delays	0.50%	\$ 0.23	\$ 1.13
EH&S Incidents	TBD		
Lower Availability	0.50%	\$ 0.23	\$ 1.13
Higher CAPEX for Mods	0.20%	\$ 0.09	\$ 0.45
Higher Maintenance Costs	0.30%	\$ 0.14	\$ 0.68
Total EH&S Risk for 200 Tanks (\$40k/tank; 75% reduction)		\$ 6.00	\$ 30.00
Product Contamination/Cleanup (750k/200 tanks)		\$ 0.75	\$ 3.75
<b>Total</b>		<b>\$ 7.43</b>	<b>\$ 37.13</b>





# Appendix A- Visual AIM

## Solution Processes

The following processes and solutions lay out the foundation to create an Intelligent Drawing. In particular, the Smart Register process has additional applications such as the once detailed in this section.

### Smart Register

The Smart Register process that VisualAIM performs results in 99%+ coverage identifying all asset types that occur in CAD drawings. Using proprietary algorithms developed to support Mechanical Integrity projects, – which require complete, accurate inventories of fixed and rotating equipment, piping, piping accessories, and instrumentation – a complete Master Equipment Inventory is generated from this process.

Figure 2 represents the work process to generate the inventory and applies to a set of 10 or 10,000 drawings in the exact same way.

- » CAD format files are processed using the VisualAIM engine which parses all content into a readable query format.
- » Existing definitions (blocks) in CAD are organized and classified per type and form the basis of the Shape Library.
- » The definitions in the Shape Library are reviewed to determine duplicate or similar shapes (ie. Multiple symbols used to define the same asset type) and a “master” symbol is defined for each asset type which is used as the standard. This step significantly simplifies the search process.
- » Text patterns that represent piping instances and other asset types are identified and classified.
- » A search algorithm is run on geometrical and text pattern matching to identify similar instances across all drawings.
- » A review QC process is performed on each drawing and the pattern matches are reviewed together with nonmatched content to ensure 99%+ consistency.

The output from the process defined above creates the asset inventory in a structured SQL query-able database.

The database is then queried using additional algorithms and logical grouping is performed to identify instrumentation loops, linkage to different drawing types for instrumentation and electrical components, and drawing connectivity associations through off-page connectors. The off-page connectors represent the first step of defining the relationships between assets.

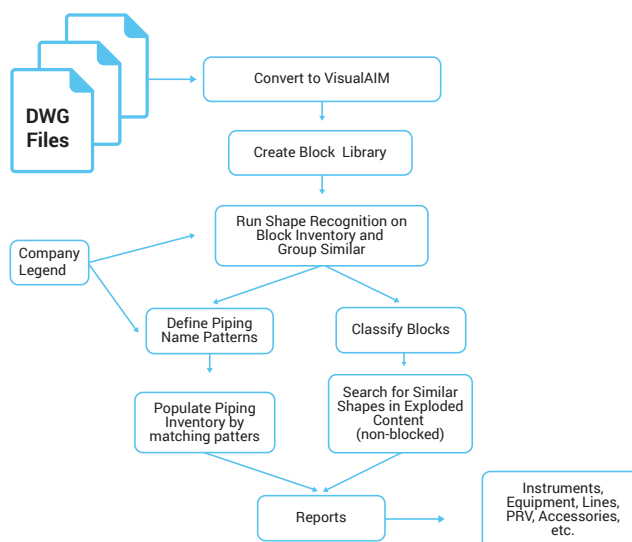


Figure 2: Smart Register Process

A visual representation of the algorithm which identifies off page connectors is shown in Figure 3 below:

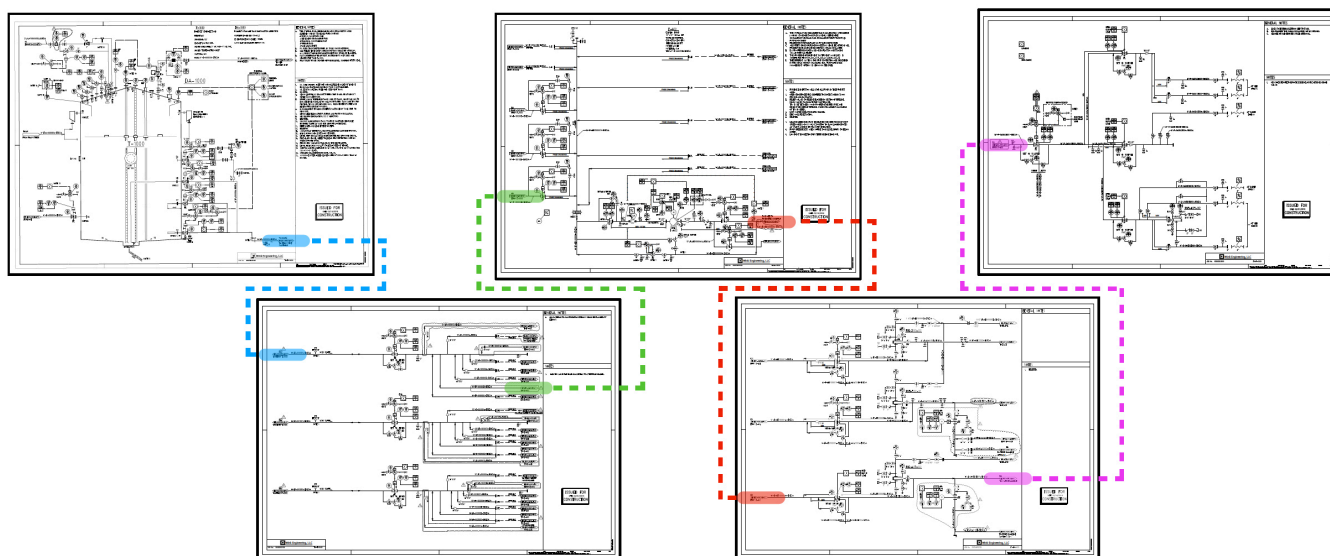


Figure 3: Off-Page Connector Algorithm Representation

Using the defined assets and off page connectors, process piping is automatically identified by tracing paths between assets across multiple drawings as shown in Figure 4:

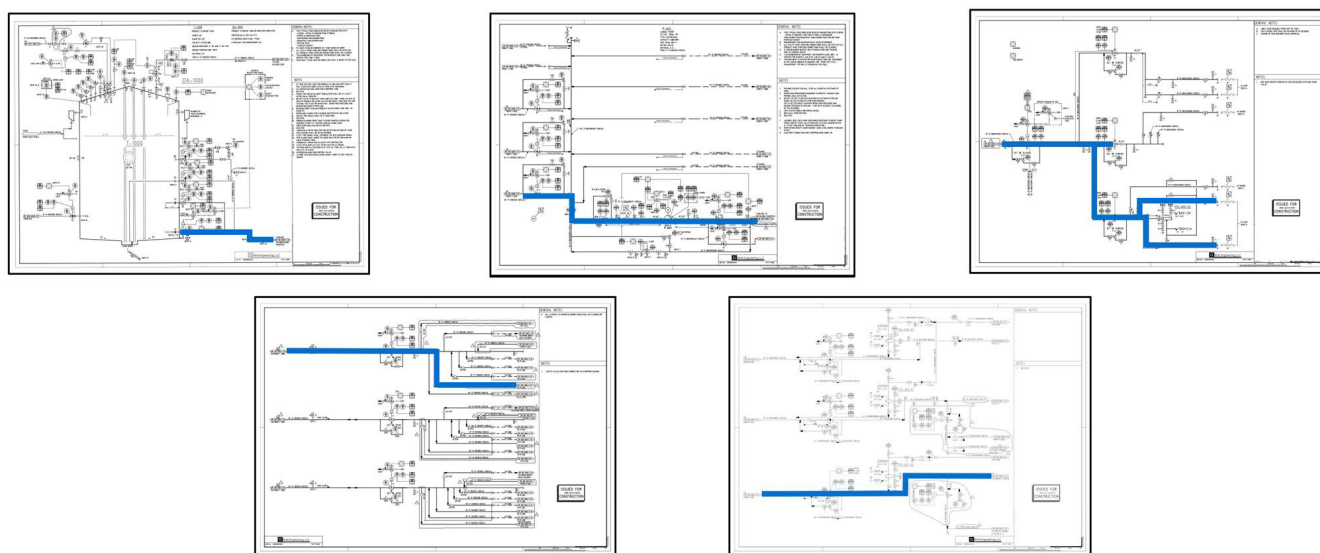


Figure 4: Process Path Example

The above graphic demonstrates only a single process for clarity; however, process piping paths are defined across all drawings resulting in a full piping inventory with from/to, upstream/downstream understanding.

After the piping is identified, an algorithm is then run to associate the identified accessories (valves, reducers, flanges, etc...) from the asset inventory to the specific piping on which they are found. The Smart Asset Register is then updated to include relationship information for all piping and accessories related to the equipment and off-page connectors.

Instrumentation and the associated connections are identified on the P&IDs. Instrumentation loops are defined based on tagging/grouping and associated with the appropriate equipment or piping. If electrical drawings are included in the process, those associated drawings are mapped to the instrumentation location on the P&IDs and added to the inventory.

At this stage, the Smart Register is complete and the resulting database contains all information required to understand and visualize the drawings, their assets, and the relationships that exist between them across the entire drawing set.

## Standardization

Using the information from the Smart Register, a routine is run to replace single (or multiple) instances of the same asset type with a standardized version of the asset symbol. This process is performed across the entire drawing library wherever the target asset type has been identified. Understanding that the asset symbology may differ in size and appearance, the routine will automatically scale and position the asset correctly according to its placement and use.

For example, a set of drawings may contain many different iterations of a valve type resulting in dozens of different symbols being used for the same asset type. Using the Smart Register inventory library generated by VisualAIM, all iterations of the valve symbol are recognized and replaced with a single, client approved, standardized version of the valve symbol. The original CAD drawing is updated with these changes, and the new version is saved back to DWG format with the appropriate revision information included in the DWG metadata structure reflecting the changes.

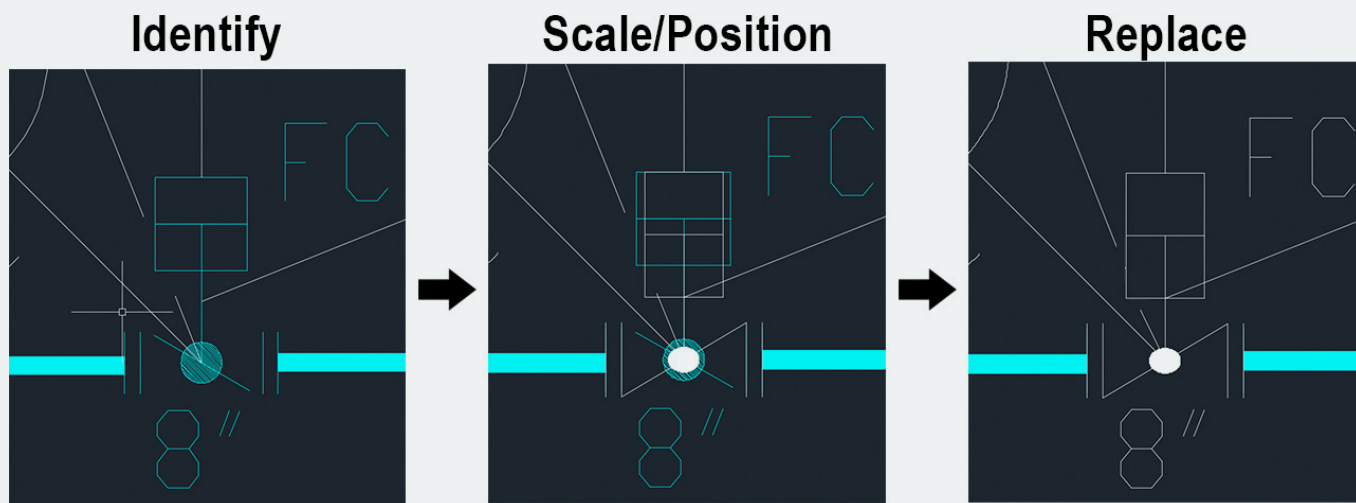
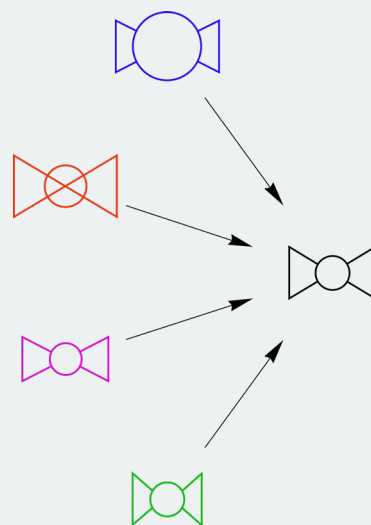
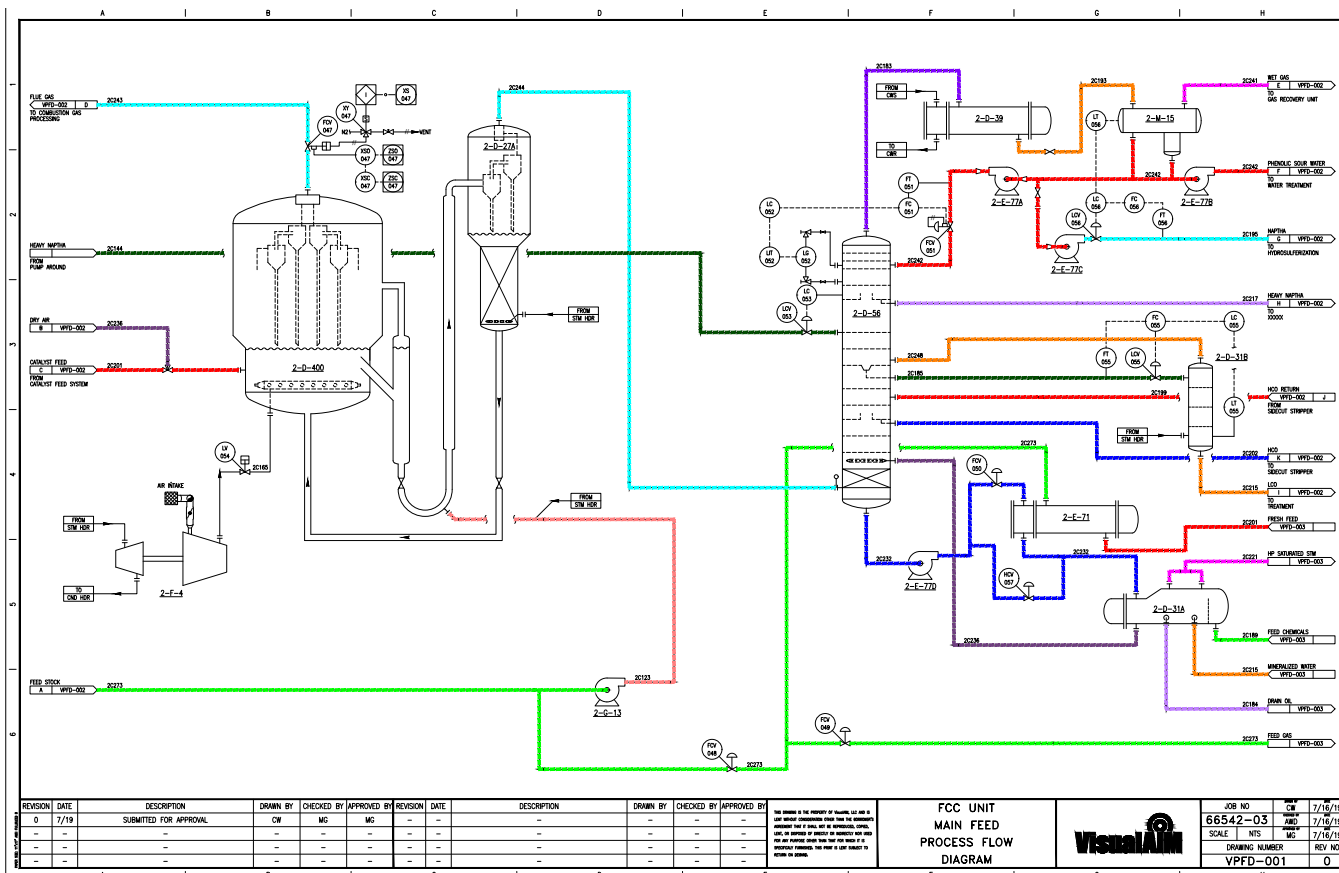


Figure 5: Standardization Process



## Intelligent Drawings



The second phase of the process encompasses the visualization of the original drawings rendered in the VisualAIM Intelligent Drawing Platform. Using the asset classifications, relationships, and drawing associations, the original CAD drawings are represented in the VisualAIM platform as intelligent drawings. In this environment, the drawings provide the capability for the end user to interact with and visualize information directly on the drawings. Some of these features include:

- » Information/calculation pods that can pop-up over equipment showing additional information associated to the asset (as shown in Figure 6)
- » Manipulating the drawings to colorize assets and piping to represent groupings, data, and relationships (see Figure 7)
- » Visualizing specific portions of a single drawing, or elements together across multiple drawings (example provided in Figures 8-10)
- » Isolation and highlighting of specific assets on the drawing based on type, characteristics, or relationships. E.g. Highlighting all control valves on a drawing.
- » Automatically identifying logical groupings of piping circuits and process based on piping pathways, operating/design information and rulesets. E.g. Automatic recommendation of piping inspection circuits based on damage mechanism susceptibility.
- » Integration of information from outside data sources via APIs or data-links (more information provided in The EAM Visibility section)

The example in Figure 6 shows information from external data sources organized in a pop-up pod which is shown when the user clicks on an asset. The pod contains user-configurable tabs to organize information from multiple sources for quick access.

Templates/Data Pods are configurable by asset type to display relevant information and are then accessible for all instances across all drawings for that asset type. The example in Figure 6 shows information for a tank, but pods are also available for instrumentation, piping, fixed/rotating equipment and more based on end user roles and requirements. Pod data can include operating/design properties, maintenance history, inspection history, file linkage and more.

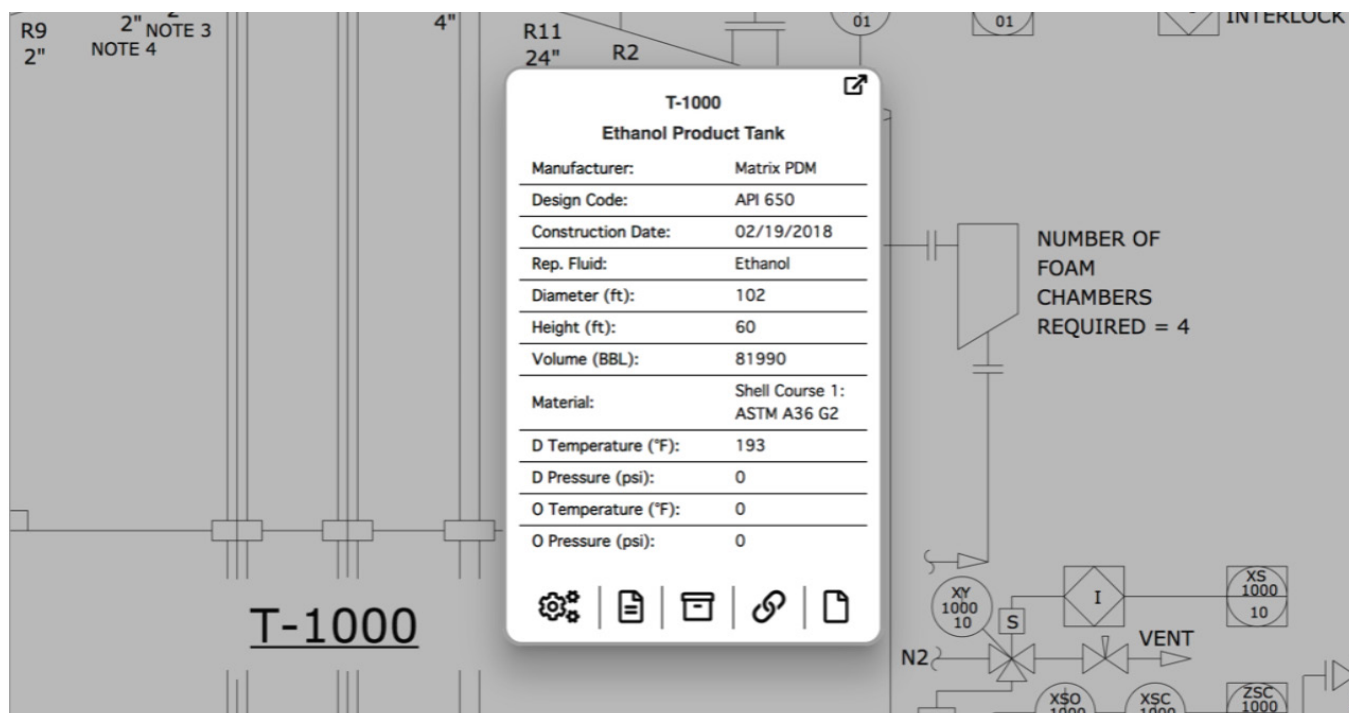


Figure 6: Information Pod Example

An example showing process piping or HAZOP nodes by programmatically re-drawing lines per user-defined visualization properties and data fed into the drawings is shown in Figure 7 below:

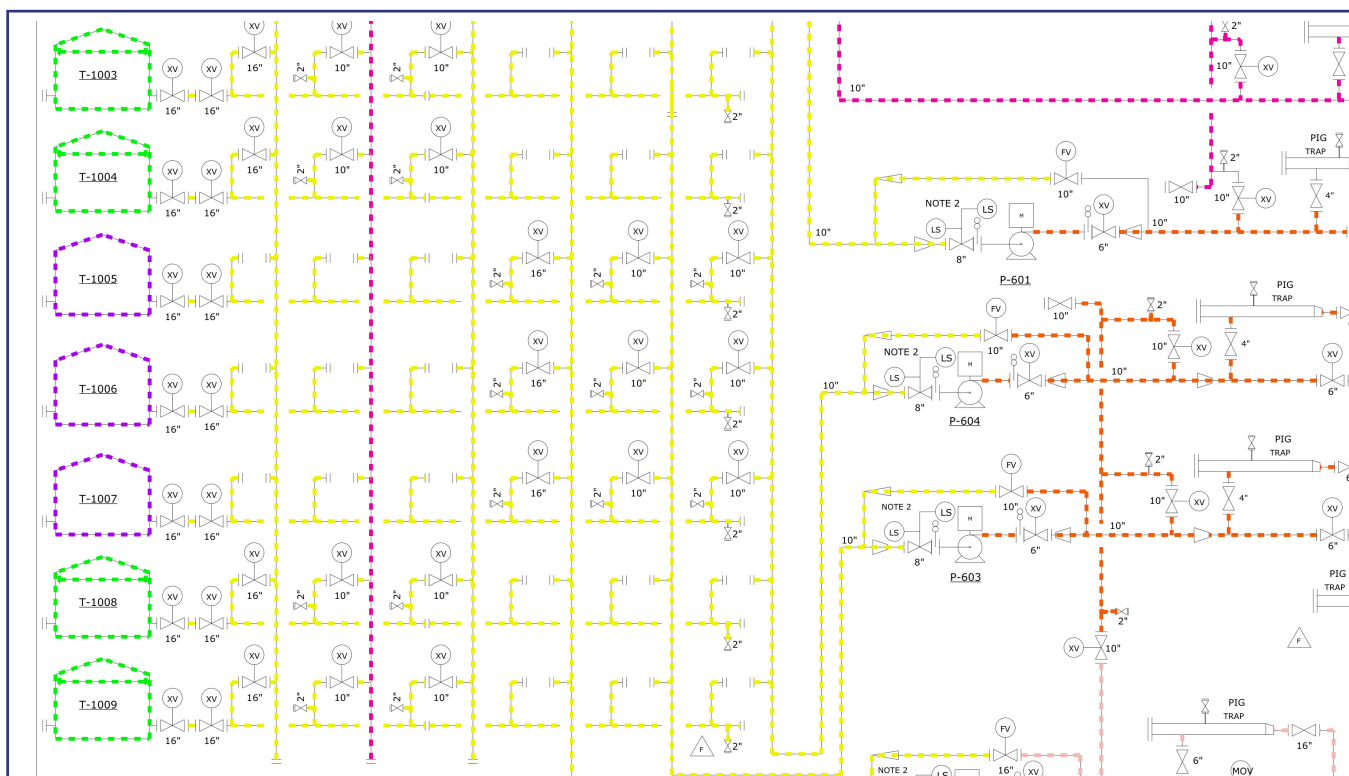


Figure 7: Pipe Grouping Representation

Expanding on the example shown in Figure 4 from the Smart Register, the following visualization on Figure 8 shows how the data collected can be used to associate connections, not just between assets, but across multiple drawings in the Intelligent Drawing environment.

Target piping is identified with their related off page connectors across multiple drawings:

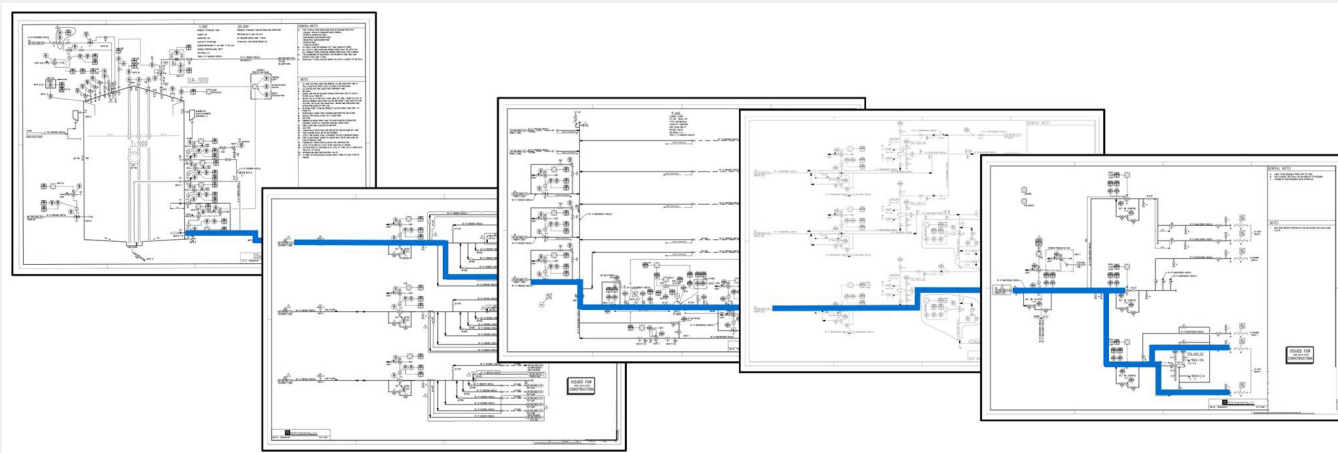


Figure 8: Target Piping Identification

The Intelligent Drawing platform can then be automatically re-rendered to connect assets across the multiple drawings and isolate the relevant portions of the drawing into a single visualization and hide the non-relevant assets from the process.

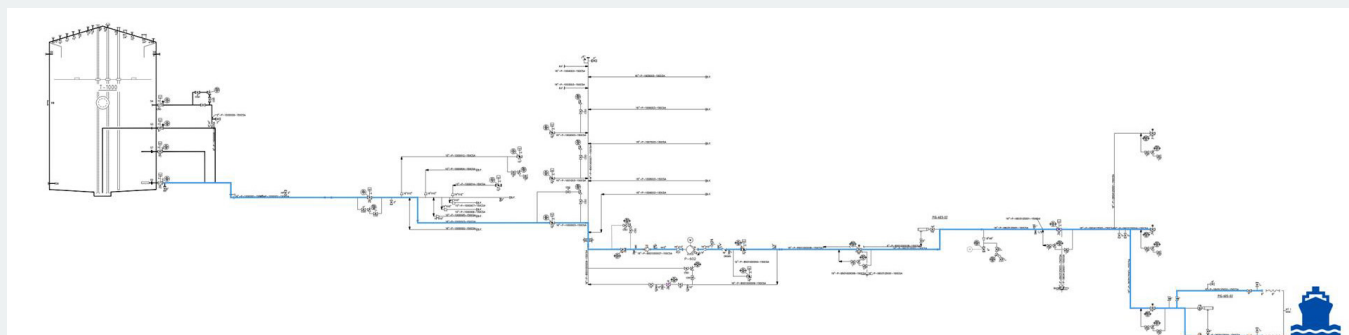


Figure 9: Re-Rendering of Process Lines

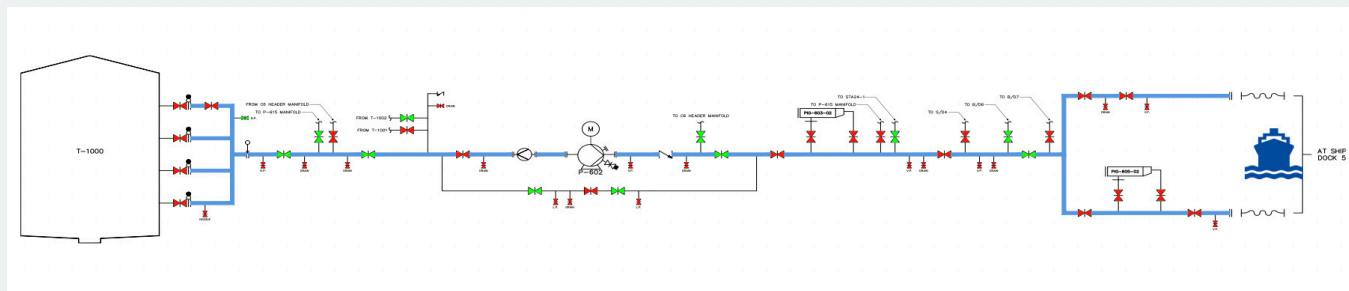


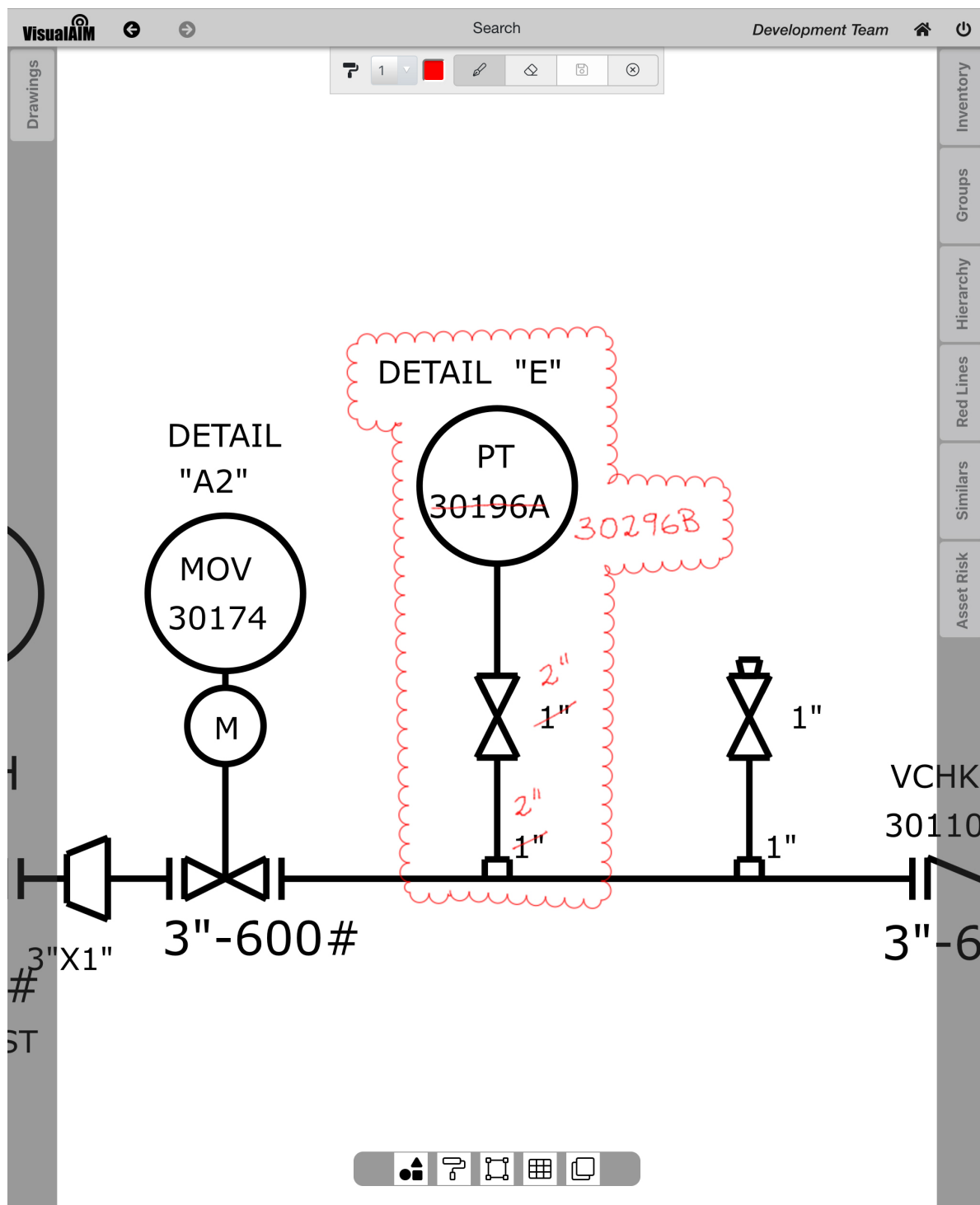
Figure 10: Simplified One-Line Diagram

The figures presented above offer a sample of the potential renderings that can be performed within the Intelligent Drawing environment of the VisualAIM platform.



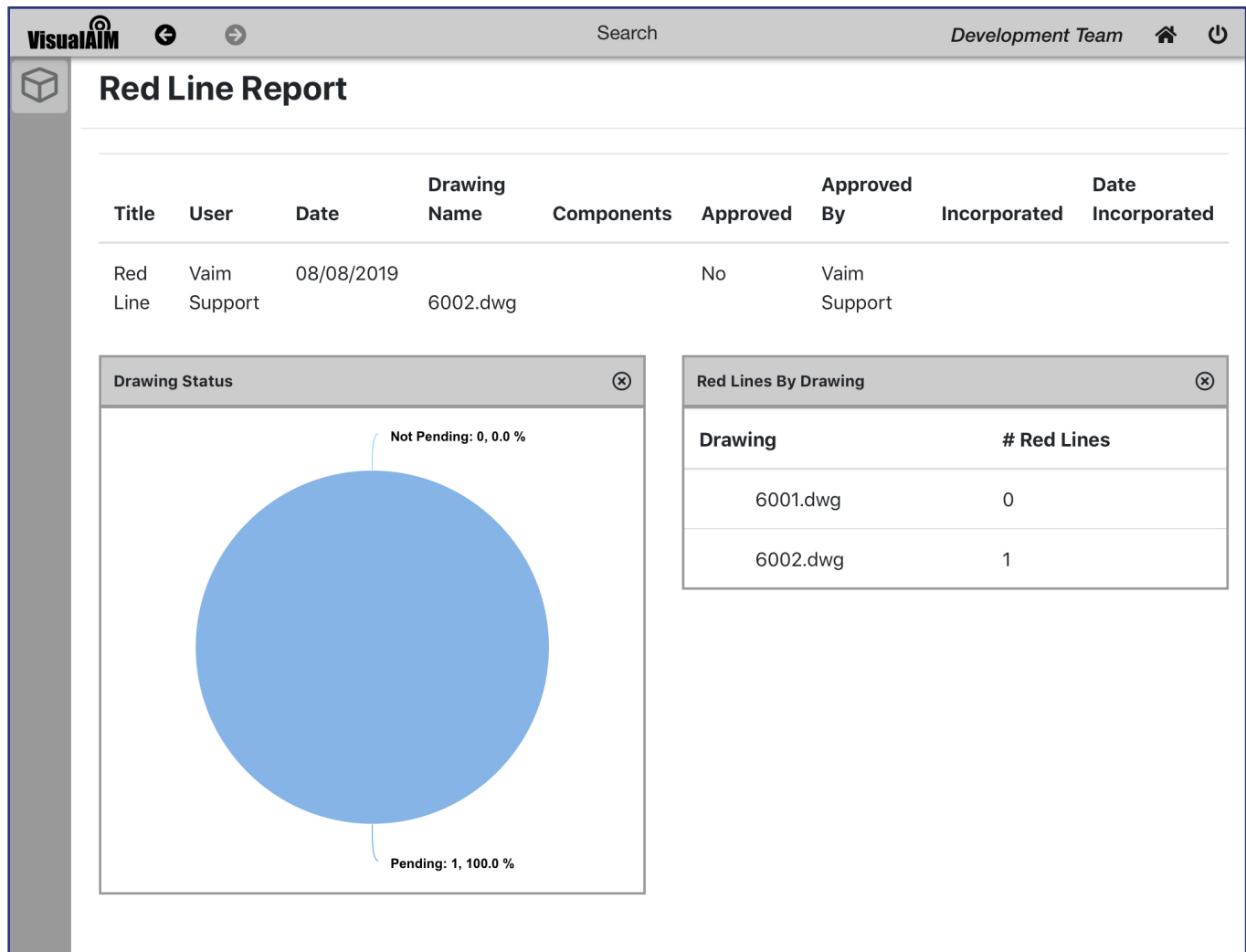
## Redline

The redline capability allows maintenance and operations personnel to redline P&IDs, Isometrics, PFDs, and any other drawing type directly on the field. The illustration below shows the example of a freehand redline performed on an Intelligent Drawing. This functionality eliminates the ineffective approach of manually keeping redline records.



Once saved, the redline gets associated to a tracking system that logs the date of the redline, the user who performed it, reference to the drawing components it affected, its approval status, and a confirmation if it has been incorporated into the master CAD file.

This capability ensures that redlines are properly managed and do not get lost, saving time and maximizing accuracy in a proper MOC process for keeping all drawings as-built.



## API Connectivity

As outlined above, the culmination of the Smart Register and the Intelligent Drawings facilitate the ability to visualize information directly on the drawings that is relevant to any of the classified assets or relationships. The type or scope of information that can be queried is limited only by data availability via API or other forms of data linkage.

The VisualAIM Platform is a cloud-based SaaS solution and supports connectivity methods that can be used to amalgamate information from additional data sources easily and efficiently. The type and format of data integration is customizable within the VisualAIM platform to facilitate a wide variety of use cases to meet our customers' needs.

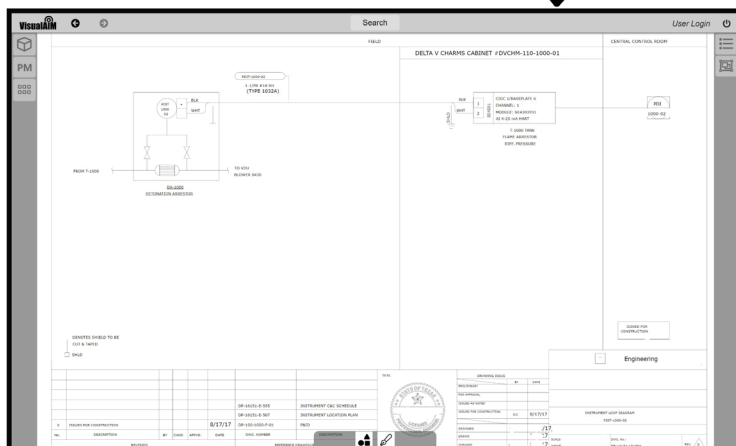
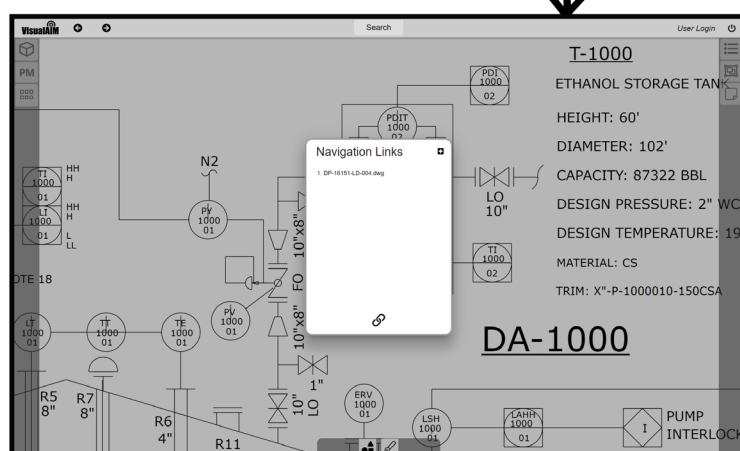
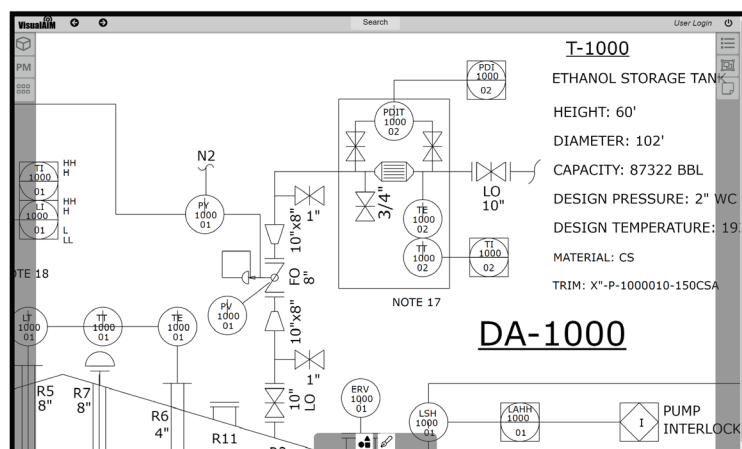
For example, a centrifugal pump on a Intelligent Drawing can be linked through its tag name or functional location ID via an API to its information in Owner Operator - Pipelines and Terminal's Asset Data Store or SAP. This connectivity would permit the user to visualize relevant asset data from the SAP system via the Intelligent Drawing. This information could be any outstanding work order or the available seal replacements for it in inventory.



By developing an API-rich ecosystem with Intelligent Drawings, or a powerful data lake like Owner Operator - Pipelines and Terminal's Asset Data Store, great efficiencies can be obtained by having the ability to visualize data from multiple applications through a single source, saving time and maximizing collaboration. This can reduce time in decision-making processes and increase situational awareness by empowering all levels of the organization with mission critical data at their fingertips.

## Drawing Navigation

The illustrations that follow display the ease of navigation from an instrument on a P&ID to its respective loop diagram through the VisualAIM application. The same connectivity is available to other electrical drawings including marshalling panels and junction boxes, but not shown below due to complexity. Note that this inter-drawing linkage is done automatically from the asset register and algorithmic understanding of asset locations and relationships.





# Appendix B

## Smart Register

Taxonomy Classification	EDM Drawing Classification
Metadata Attribute Insight	Piping Process From/To
Piping Inventory	Piping Accessory Inventory
Equipment Inventory	Instrumentation Loops
Instrumentation Inventory	Drawing Standardization
ASSET <-> Drawing Association	Asset Classification / Shape Library

### Smart Register

#### Asset Inventories:

» **Piping Inventory:** Obtain a report with all piping tag names contained in your P&IDs. Gain additional insight from tag name nomenclature such as design information as well as process mapping to help reduce unplanned downtime while facilitating unit isolation and abnormal situation management.

» **Equipment Inventory:** Generate a master equipment list directly from your plant drawings. This is the quickest and most accurate way of creating an equipment list for your facilities.

» **Instrumentation Inventory:** Get a complete inventory of all the instruments in your facilities.

» **Metadata Attribute Insight:** Capture all information contained in your drawings, including hidden metadata for an exhaustive data extraction from your drawings.

» **Piping Accessory Inventory:** Understand all accessories contained in each of your process lines including valves, reducers, flanges, instruments, and more.

#### Relationships :

» **Piping Process From/To:** Capture the start and end points of all your process lines.

» **Asset-Drawing Association:** Understand in which specific plant drawings your assets are located.

» **Instrument Loops:** Group instrument clusters to identify instrumentation loops along with the primary elements to which they are associated.

## Classifications :

- » **Asset Classification / Shape Library:** Classify your assets by type for improved inventory groupings and set the stage for your Intelligent Drawings.
- » **Taxonomy Classification:** Set taxonomy levels for different data and attribute types, standardizing your information structure. This aids in data compatibility and/or transfer between multiple data sources.
- » **EDM Drawing Classification:** Identify and categorize your drawing types for seamless transition into your Enterprise Document Management System.



## Standardization :

- » **Drawing Standardization:** Standardize all of your plant drawings by replacing their components and blocks with the standardized set from your legend. Perform the same process on drawing layers for a fully standardized drawing set.

# Appendix C

## Intelligent Drawings

Process Mapping	Red-Line Tracking
Visualization Layers on Drawing	Actionable Insights
Customizable Data Pods	IOT/Real Time Connectivity
Analytics Engine	EMA Connectivity
Drawing <-> Drawing Navigation	Drawing Distillation / Simplification
Mobile / Tablet Solution	Asset Intelligence Tracking
API Connectivity	EAM Hierarchy

### Intelligent Drawings

#### Drawing Interface :

- » **Customizable Data Pods:** Click on any asset on your drawings to open a customizable pod with key asset data and expand its fields to encompass your enterprise-critical information.
- » **EAM Connectivity :** Connect to external Enterprise Asset Management applications such as IDMS or work order systems to visualize and interact directly from the collaborative environment of plant drawings.
- » **API Connectivity :** Connect to external applications in the cloud or other sources through Application Programming Interfaces (APIs).
- » **EDM Connectivity :** Connect to external Enterprise Document Management systems and have direct access to your mission-critical documentation directly from the intelligent drawings.
- » **IOT/Realtime Connectivity :** Connect to data historian information from Pi, IP21 and other systems. Link instruments and sensors in the field to assets on the drawings for increased insight and accessibility to live information through the Intelligent Drawings.
- » **Drawing Navigation:** Navigate from one P&ID to another through off page connector relationships or access the loop diagram of an instrument simply by tapping on it. Drawing associations are performed programmatically utilizing information obtained from the Smart Register.
- » **EAM Hierarchy :** Create personalized system hierarchies and utilize the selector tool to easily select the asset positions in each of the hierarchy levels. The selector tools works like the red-lining tool (see below) and identifies all assets in the selected region; It permits positions to be set as parent or children for a properly structured and highly specific asset hierarchy. Utilize this feature to create the data import tables for Enterprise Asset Management systems such as Infor, SAP, Maximo, etc.

## Drawing Modification :

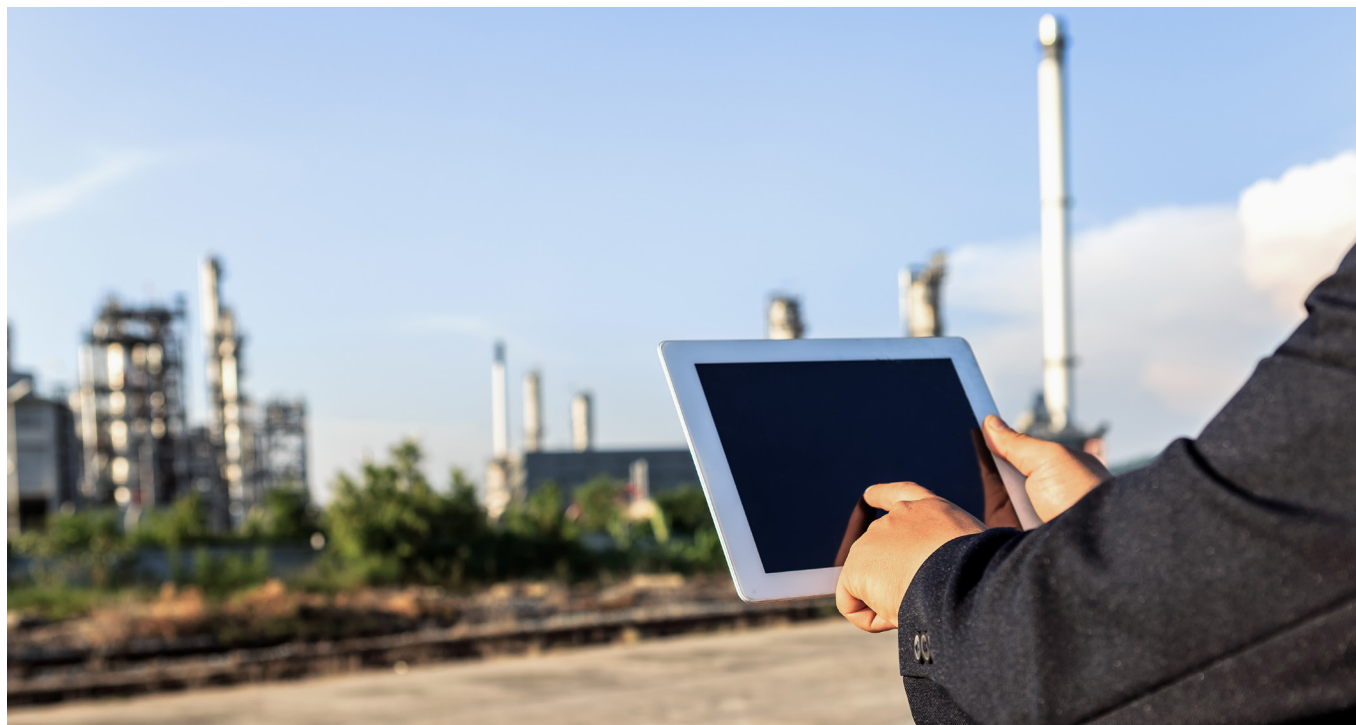
- » **Red-Line Tracking** : Concurrently redline or modify your Drawings directly on our platform, from multiple locations and business units. Whether inspections, maintenance, operations, engineering in-house or EPC, track all changes aligned with your MOC process with our reporting tool; write back to the native CAD format and never lose a redline again.

## Visualization :

- » **Visualization Layers** : Display customizable color patterns and outlines on your drawings to visually identify risk levels, operating conditions, piping circuits, and more.
- » **Process Mapping**: Combine the relevant drawing sections you need for operation activities such as LOTO, shutdowns, or product transfers. Increase situational awareness this way and reduce errors in the field.
- » **Drawing Distillation / Simplification**: Simplify your process mappings and display only what you need to see for a more refined and intuitive visualization. Simplified views increase the cognition of plant operators while increasing their willingness to utilize the technology.
- » **Actionable Insights**: Work with us to develop solutions that meet your exact plant needs and get the greatest value from your drawings.
- » **Asset Intelligence Tracking**: Have a full understanding of all the asset statuses in your drawing set; Get notified of any work orders generated against the assets or extreme digressions from regular operation conditions.

## Mobile :

- » **Data Collection App**: Collect all asset data and take pictures directly in the field; The application can fully work offline and sync to the database once connected back to wifi.





# Appendix D

## Mechanical Integrity Suite



### Risk Analysis :

- » **Quantitative API 581**: Perform risk analyses on any of your fixed assets with a fully compliant API 581 risk engine to optimize your inspection activities.
- » **Semi Quantitative API 580**: Get quick insight into the qualitative risk of your assets with our semi quantitative risk engine, designed around API 580 principles.

### Inspection Work Planning :

- » **Inspection Work Plans**: Configure your inspection strategies per asset type and have access to any asset inspection plan or a plantwide understanding of inspection schedule.
- » **Inspection Recommendation Tracking**: Log and keep track of all the inspection recommendations and non-conformances found through your inspection activities.

### Inspection Data Management System :

- » **NDE Module**: Import all thickness readings into the digital CML structure directly on your isometrics, with automatic linkage to the inspection history and risk modules.


### Mobile :


- » **Data Collection App**: Collect all asset data required for inspection tracking and risk analyses directly in the field.
- » **External Visual Inspections App**: Perform compliant API 510, 570, and 653 external visual inspections with the capability of taking pictures directly through a tablet/phone.
- » **Radiography** : Perform radiography inspections and save over 30% of time in building the report by hand with the added benefit of direct signature requests from client via web.



# Intelligent Drawing Platform Product Overview

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