



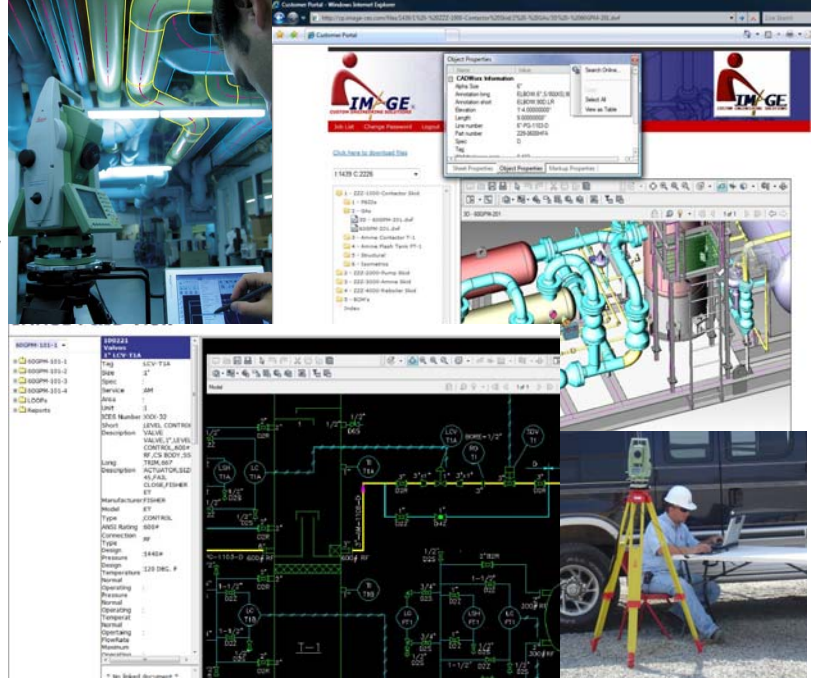
Virtual Replication of Existing Facilities - VREF

IMAGE can produce an intelligent Virtual Replication of your facility in a secure format that is web accessible to all contributing parties.

Intelligent P&ID Development

IMAGE will develop a complete set of P&ID drawings to accurately show all equipment, lines, and I&E controls with appropriate tagging and product information on all. Imagine the convenience of being able to access the P&ID's through a web page, click on an instrument and instantly see information such as manufacturer and model number or even view an O&M Manual or datasheet. Whether we convert your existing P&ID's to add intelligence or create them from scratch, IMAGE can provide the experience and resources necessary to accomplish this.

- *Perform virtual walkthroughs for training.*
- *Quickly and easily view and print existing drawing.*
- *Use keyword searches to locate items.*
- *Markup drawings with required modification.*
- *Provide access to 3rd party contractors and contributors.*



As-Built 3D Model Development

IMAGE will As-Built model your existing facility with the industry leading CADWorx Plant Professional software using laser technology for accurate capture of dimensional information. CADWorx fieldPipe for Leica fieldPro leverages speed of "Point and Shoot" measurement with the power and precision of Laser EDM technology aboard the Leica Geosystems' Total Station. This software allows IMAGE to create a model with pinpoint accuracy. The resulting 3D model is intelligent with embedded metadata containing material, item tags, weights, and line information. This information can be supplemented with information contained within the P&ID to provide a complete 3D virtual representation of your facility with the ability to click any component to access materials information and additional documentation.

Secure Web-based Access

IMAGE has developed a web based application (EDGE 360) that allows all of the information captured in the P&ID's and 3D models to be disseminated through a secure web interface to any assigned users with an internet connection. Viewing this information does not require the users to have a seat of AutoCAD or CADWorx, yet makes all embedded data available in this environment using .dwf technology and the free "Design Review" software from Autodesk. The custom developed software necessary for the conversion can also be provided to allow your continued maintenance of the data throughout the life of the facility.

List of Typical Deliverables

- As-Built P&ID using CADWorx P&ID Professional to develop an smart P&ID including component metadata.
- As-Built 3D modeling of facility to include all major piping, structural, and site layout using CADWorx fieldPipe.
- Develop Site Plan, Equipment General Arrangements, Key Piping Plans, etc. as required.
- Gathering and attachment of supporting documentation such as Operating & Maintenance Manuals, inspection reports, etc.
- Attachment of gathered documents to appropriate entities within the P&ID set.
- Publish P&ID drawings and metadata for web access.
- Publish 3D model and metadata for web access.
- Provide Web Portal software (and server hardware as required) to provide web accessibility.
- Any original AutoCAD files and publishing software may be provided for future maintenance.