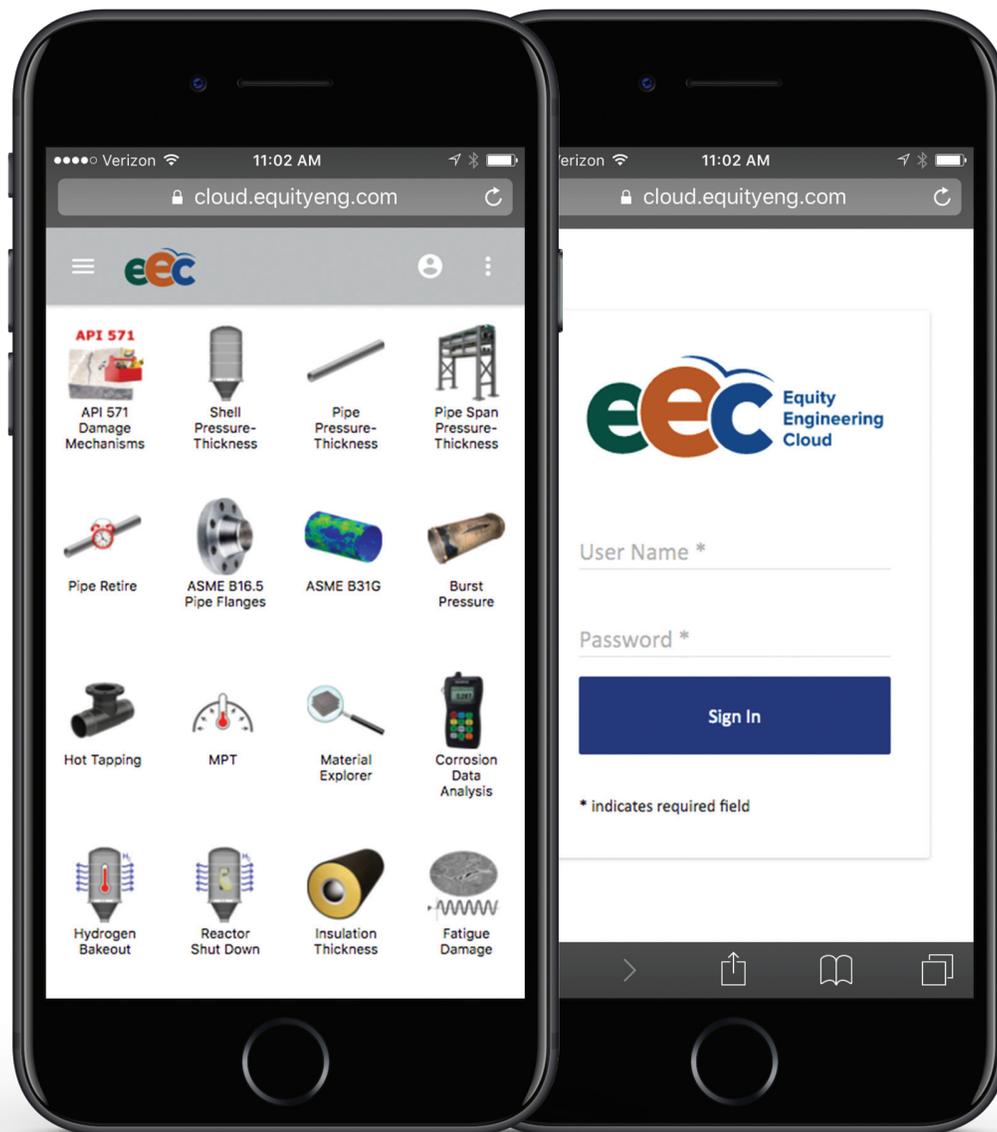


# E<sup>2</sup>G INDUSTRY INSIGHTS

SPRING/SUMMER 2017 | VOLUME 4



**IMPROVING TO BEST SUPPORT  
CAPITAL PROJECTS**

**E<sup>2</sup>G** | The  
Equity  
Engineering  
Group, Inc.

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EQUITY ENGINEERING PRACTICES®

# IMPROVING TO BEST SUPPORT CAPITAL PROJECTS

BY: JEANNIE LEWIS

➤ The Equity Engineering Practices® (EEPs) are a customizable set of Best Practices that are currently being used by more than 20 companies and 70+ facilities in a variety of energy and chemical sectors to manage their equipment and facilities. The EEPs support life-cycle management by documenting Best Practices, experiences, and lessons learned to be accounted for in future designs. The EEPs use these client experiences and preferences to indicate where minimum industry-standard designs are proven to be acceptable and where experience has shown a more robust design can save the organization time and money when considering future inspection, maintenance, and reliability efforts – thus, accounting for life-cycle management.

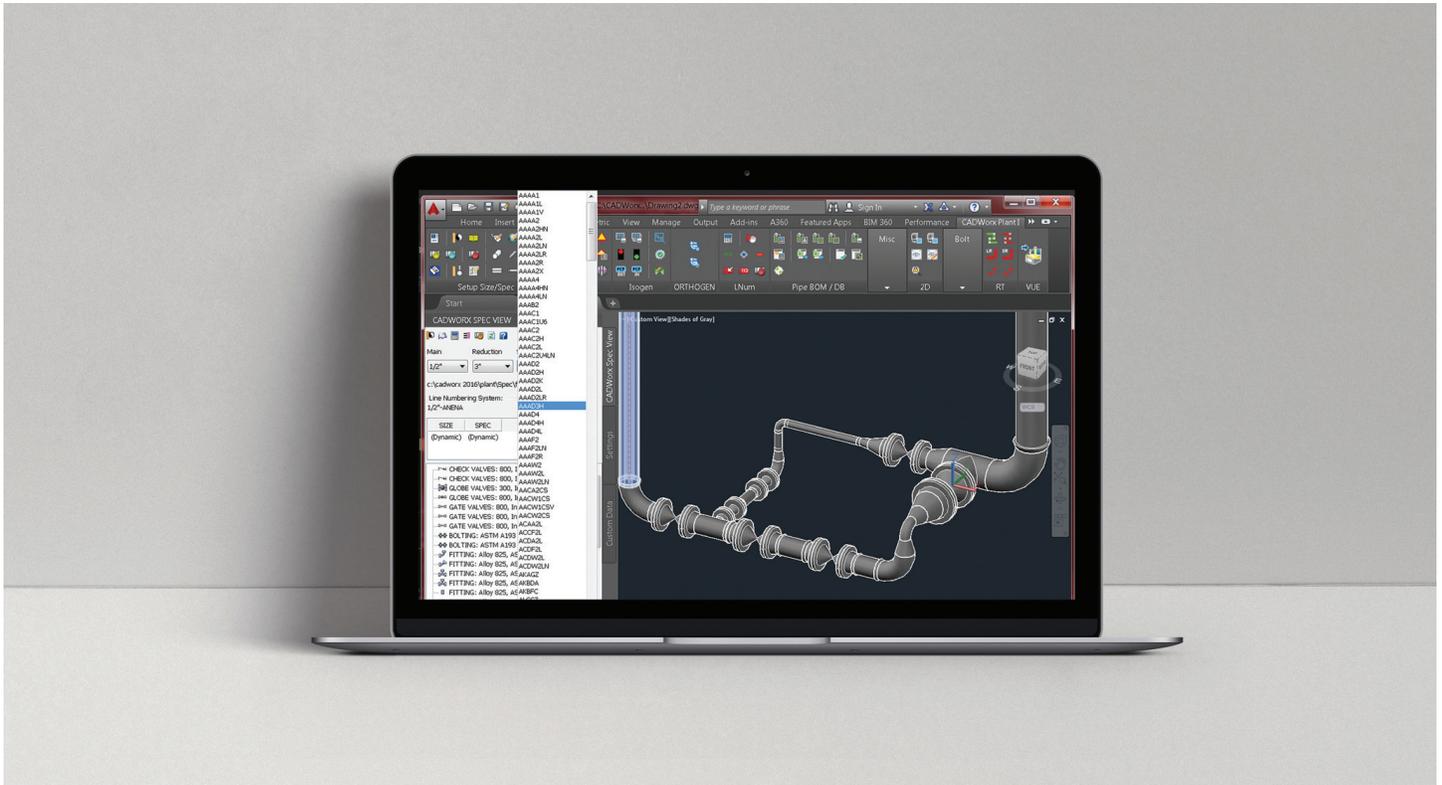
To effectively utilize and execute life-cycle management, organizations need to ensure new equipment is designed and fabricated in accordance with the EEPs. In other words, organizations need to ensure the EEPs are used on capital

projects. To support use, E<sup>2</sup>G has executed client requests to add features to the EEPs which specifically address the concerns of their capital project teams. A few of the most recent upgrades include Computer-Aided Design (CAD) Integration and Project Snapshot.

## **CAD INTEGRATION**

Included with the EEPs Collection is a piping database of 200+ pre-engineered piping classes based on industry standards and the organization's Best Practices. The challenge for capital project teams has historically been that each project requires the piping classes to be recreated in 3D-CAD modeling systems. Once these piping classes are recreated, teams are then required to execute quality checks to ensure the CAD classes comply with all of the original piping class requirements. This effort introduces a variety of inefficiencies - adding time, cost, and potential errors to each project.

Figure 1



To address this issue, E<sup>2</sup>G has developed and currently provides a CAD Conversion Tool. The CAD Conversion Tool allows E<sup>2</sup>G to export the customized client piping databases as a project file that can be imported directly into CAD software.

There are many benefits for organizations that utilize this tool, including:

#### Time and Money Savings

- Initial savings - The entire piping database is converted into a CAD-compatible format at a significantly reduced cost and timeframe vs. manual effort.
- Long-term savings - An updated CAD file can be provided as the piping classes evolve to align with changing Best Practices, reducing on-going maintenance efforts.

#### Quality Assurance

- Automation reduces human error in re-creating classes.
- Direct conversion ensures alignment between requirements in the piping database and CAD classes.

Currently, the CAD Conversion Tool is compatible with Integraph®'s CADWorx® program, and E<sup>2</sup>G is nearing completion of a tool that is compatible with AutoCAD®'s Plant 3D software. The CAD Conversion Tool is being provided to existing EEP clients as an add-on to their current subscription.

#### PROJECT SNAPSHOT

To prevent requirements from changing throughout a multi-year capital project, most organizations typically freeze a copy of the EEPs to lock-in specific requirements that are to be used for that project.

To support this effort, E<sup>2</sup>G has historically provided a copy of the collection on a DVD or uploaded the locked collection to a Share File location. The challenge with this form of delivery is that users of the locked collections lose powerful website tools such as Advanced Search and Material Take-Off (MTO) Generator. To improve record retention and allow capital project teams to take full advantage of the powerful website, E<sup>2</sup>G has developed a new tool called Project Snapshot.

Project Snapshot allows organizations to create locked copies of the customized collections directly through the website - basically making a frozen copy of the website within the website. To access the locked collection, users simply select the project from within the website and, upon selection, all content on the website will consist of the version of the documents and piping classes as they were at the time the project was locked.

To improve ease-of-use for individuals working on a specific project, Project Snapshot also allows each organization to provide a specific link to directly access the locked collection. In addition, each document in a Project Snapshot is watermarked with an indicator to clearly show that the document is part of a specific project.

Project Snapshot is currently being offered as a value-added, standard service for all EEP users, and has already been used to support numerous capital projects.

## CONCLUSION

The EEPs are a corporate solution used by many divisions within an organization. To ensure ease-of-use and to best support the needs of capital project teams, E<sup>2</sup>G has listened and been working hard to execute development of a suite of tools such as CAD Integration and Project Snapshot. We have more features in progress, but are pleased to share these tools to begin supporting our EEP users today. If you are an EEP user and not yet taking advantage of these tools, we invite you to contact us soon to learn more and discuss adding this valuable functionality to your collection!



### JEANNIE LEWIS

Practices Business Unit Director  
Consulting Engineer

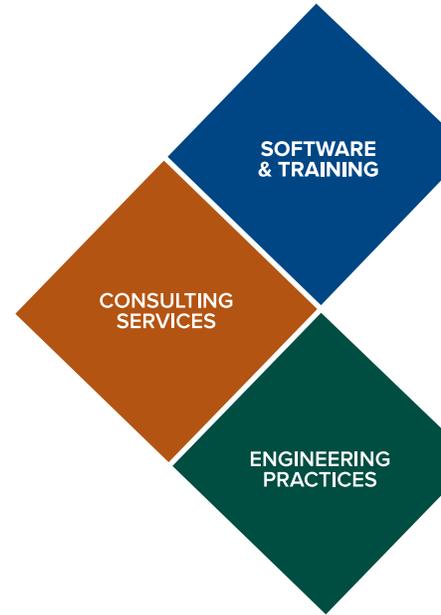
P. 216.658.4746

E. [JLewis@EquityEng.com](mailto:JLewis@EquityEng.com)

Figure 2



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**Corporate Headquarters**

20600 Chagrin Boulevard, Suite 1200  
Shaker Heights, OH 44122

**Satellite Offices**

Houston, TX  
The Woodlands, TX  
Alberta, Canada

216.283.9519

[www.EquityEng.com](http://www.EquityEng.com)