



EPC Leader Adopts Integrated Engineering Solution to Drive Growth in FEED Business

WorleyParsons deploys *aspenONE*[®] *Engineering* to integrate conceptual design, basic engineering, and detailed design—and enable true global collaboration for faster, more efficient project execution.

As one of the world's leading EPC companies with more than 114 offices in 37 countries, WorleyParsons is always looking to improve its competitive position. With that in mind, its Hydrocarbons business unit identified the capture of reusable designs and global work sharing as new capabilities that would increase engineering efficiency for client FEED projects.

With a strong worldwide presence and extensive in-house expertise, WorleyParsons required a robust, data-centric solution that could easily scale across several design disciplines. It also had to integrate and “play” with other third-party applications for true standardization company-wide.

To achieve these objectives, WorleyParsons deployed *aspenONE Engineering* and *Aspen Basic Engineering* (formerly Aspen Zyqad) at four global design centers. Since implementation in 2005, the company has already delivered more than 25 major projects with as many as 280 PFDs and 920 equipment services.

“By using Aspen Basic Engineering, WorleyParsons has effectively progressed its vision of improving project execution through collaborative, data-centric solutions. We are able to more effectively leverage global expertise, where it may reside, and deliver consistent FEED deliverables with increased value to our clients.”

— John Griffith, Project and Engineering Systems Manager, WorleyParsons

Customer Profile

WorleyParsons
Engineering (EPC)

Challenge:

Support project teams executing FEED projects in offices around the globe

Solution:

Aspen Basic Engineering integrated with simulation, design tools, and Intergraph's SmartPlant Enterprise

Best Practice:

Global Project Execution in Basic Engineering

Benefits:

- Achieve more certainty in cost and schedule with design reuse
- Enable more innovative design solutions through collaboration
- Share projects among offices—move designs, not people
- Standardize practices across four major design centers
- Leverage database and deliverables to easily hand over designs internally and externally
- Achieve efficiency, quality, and consistency in FEED deliverables



The Challenge of FEED Execution

Execution of FEED projects continues to be a focus and bottleneck for major capital projects across the process industries. Some of the key challenges faced by WorleyParsons included: merging engineering practices of multiple engineering groups into a global, standardized approach; skills shortages, which manifested themselves in particular geographies; and time-consuming handoff of data from conceptual design to FEED to detailed design.

Deployment of a Global FEED Solution

In 2005, after architecting an integrated systems approach, WorleyParsons adopted *aspenONE Engineering* and *Aspen Basic Engineering*. The initial focus was on the production of PFDs, datasheets, and equipment list deliverables, as well as the importing of heat and material balance data from conceptual design. After an initial test, the solution was expanded over the next three years and used on increasingly large and complicated projects.

The benefits of design re-usability were significant. For example, after a proprietary sulfur process was modeled in *Aspen Basic Engineering*, WorleyParsons was able to reuse this design in subsequent projects and achieve substantial savings (estimated greater than 20%) in level of effort for the repeat design.

Infrastructure for Success

WorleyParsons understood from the outset that the support structure for such a broad solution would be critical to its long-term success. The combination of a Community of Practice (COP), best-practice work standards, and standard libraries of re-usable design elements are all key underpinnings of the successful global use of *Aspen Basic Engineering*. "WorleyParsons is able to take maximum advantage of aspenONE in the FEED area because we put administrative support infrastructure behind each project," said Drew Dietrich, Engineering Systems Administrator, WorleyParsons.

Next Steps

WorleyParsons' vision has been to achieve fully electronic handoff between FEED and detailed engineering. The company is currently engaged in expanding the interface between *Aspen Basic Engineering* and SmartPlant Enterprise, which comprises WorleyParsons' preferred suite of engineering design systems. Additionally, WorleyParsons plans to evaluate the ISO 15926 link between *Aspen Basic Engineering* and AVEVA's PDMS system.

About AspenTech

AspenTech is a leading supplier of software that optimizes process manufacturing—including oil and gas, petroleum, chemicals, pharmaceuticals and other industries that manufacture and produce products from a chemical process. With integrated aspenONE solutions, process manufacturers can implement best practices for optimizing their engineering, manufacturing and supply chain operations. As a result, AspenTech customers are better able to increase capacity, improve margins, reduce costs and become more energy efficient. To see how the world's leading process manufacturers rely on AspenTech to achieve their operational excellence goals, visit www.aspentech.com.



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