



## CUSTOMER CASE STUDY

# AP Consultoria e Projetos: Implementing AI alongside deep industry expertise

AP Consultoria e Projetos - [aprojetos.com.br](http://aprojetos.com.br)  
Industry - EPC

## Challenges

- Lack of integration between project disciplines leads to miscommunication and time wasted finding and validating project data
- Delayed project visibility resulted in downstream project delays and staggered design work
- Wanted to employ AI to improve some complex design processes

## Solution

- The deployment of AVEVA Unified Engineering and AVEVA Point Cloud Manager enabled the implementation of AI/ML tools for pipe support optimization, bringing project teams together on CONNECT to better model, design, and deliver complex capital projects.

## Results

- 56% reduction in hardware cost
- 90% time reduction in the analysis of pipe support type and position
- 60% reduction in time spent on stress analysis review
- 60% faster documentation and 20% less document correction rework in process simulation

AP Consultoria e Projetos is a multidisciplinary EPC contractor headquartered in Salvador, Brazil. It works across a diverse array of industries, including energy, infrastructure, metallurgy, and steel. With a company mission to be protagonists in the digital transformation journey and on the path of sustainability for its clients, AP Consultoria has been striving to continuously evolve since its founding in 1993. As part of its ambitions for continuous growth, it selected AVEVA as a vendor partner to assist with developing workflows and implementing future-focused AI tools. This allowed for the delivery of projects as efficiently as possible for its clients and directly improved its own profitability as an EPC.

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**“The main challenges we have faced are: How could we reduce the hardware, software, and infrastructure costs? How can we facilitate the integration between all the teams and the disciplines? How can we have the project quality and agility enhanced? And how could we introduce AI?”**

—  
**Thomaz Americano**  
Chief Operating Officer, AP Consultoria e Projetos

## **Delivering a host of benefits with AVEVA engineering tools**

To address its current challenges as a modern EPC, AP Consultoria e Projetos considered, and eventually selected and implemented, an AVEVA Unified Engineering solution. The solution offered a host of benefits, which were the main grounds for its selection.

### **Slashing hardware costs**

Having the tools delivered in the cloud as a service running on the CONNECT platform allows AP Consultoria to be more efficient with its use of licensing.

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**“We don’t have to buy the AVEVA product licenses separately. We simply use the tokens we’ve purchased for the tools as we need them. All the tools we need are available in CONNECT.”**

—  
**Thomaz Americano**  
Chief Operating Officer, AP Consultoria e Projetos

Using the tools, like machine learning models, through the cloud, along with AVEVA’s 24-hour technical support services and automatic version updates, reduced AP Consultoria’s hardware costs by 56%, cutting the demands on both users’ machines and the company servers. CONNECT also provides AP Consultoria with a secure (backed-up) environment for storing and accessing project data, complete with user control.

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**“We used to use expensive machines and equipment but now, considering that we are working totally in the cloud, we only need a fast internet connection to use all of AVEVA’s solutions.”**

—  
**Thomaz Americano**  
Chief Operating Officer, AP Consultoria e Projetos

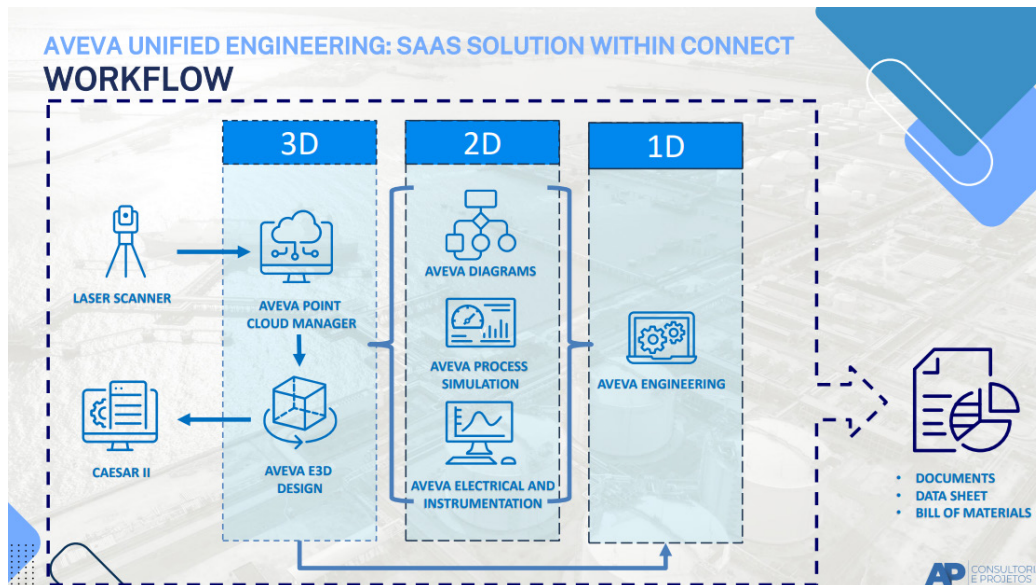
## **Teams working together in real-time**

With the integrated AVEVA tools in the cloud, AP Consultoria is able to share project information much more easily, providing remote access for employees working from multiple sites. Customers also have greater transparency with real-time project monitoring.

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**“We can deliver to our clients a kind of Google Street View and they can see whatever they want to see in their project.”**

—  
**Thomaz Americano**  
Chief Operating Officer, AP Consultoria e Projetos



Multidiscipline, multi-dimensional project workflows using AVEVA tools with CONNECT

Teams can collaborate on complex project designs in real-time. Even across tools and disciplines, teams are working together to iterate, update, and ultimately deliver the same project data. This has resulted in projects being delivered much faster than was previously expected. For example, by integrating simulation data with the design tools, the teams have been able to produce documentation 60% faster with 20% less rework on document corrections.

"We were elected three times as one of the most innovative companies in Brazil (2021, 2023, 2024). The main reason for this was because of our use of AVEVA tools."

—  
**Thomaz Americano**  
 Chief Operating Officer, AP Consultoria e Projetos

## Introducing AI for complex design process improvements

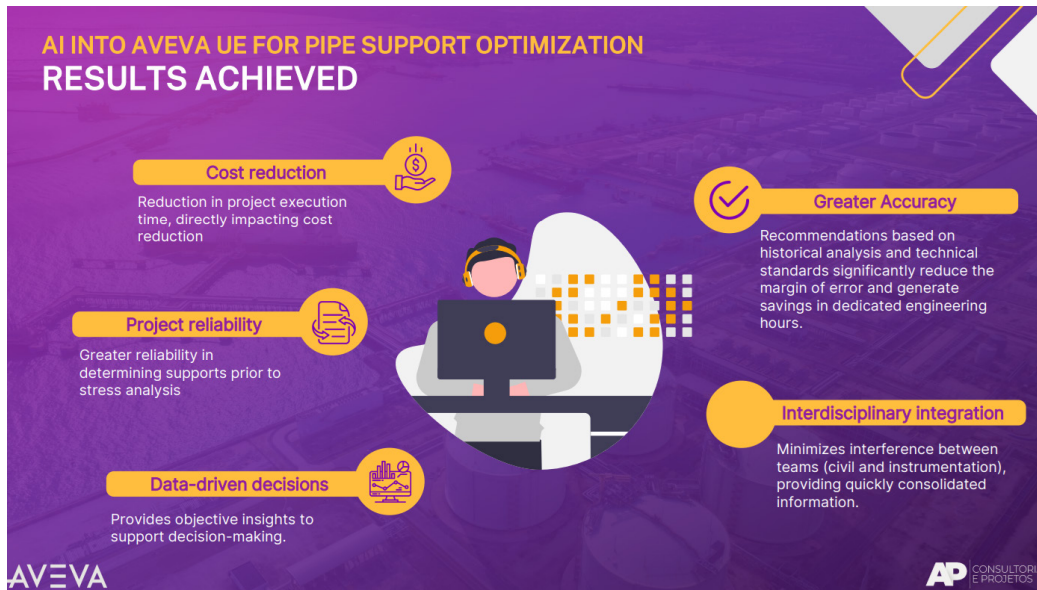
The design of piping supports typically represented a time-consuming challenge for AP Consultoria's engineers, as they often took longer than the allocated time in the project plan.

Delays at this stage jeopardize a project's overall schedule and efficiency, and for this reason, the design of piping supports was deemed a good candidate for the development of an AI/ML solution to increase the efficiency of the task. Piping design requires specialized technical knowledge, high precision, and careful planning, with complex systems (such as those with rotating equipment, high pressure, and temperature) requiring multiple revisions. In developing this AI/ML solution with AVEVA, the AP Consultoria team recognized the importance of clearly defining the problem to solve and that the parameters of the task were clearly understood and mapped.

"We are talking about using expertise, knowledge from previous engineers and from previous projects. It is important to know the challenge that you have, because by doing so, you will be able to drive the development of AI solutions in a much more accurate way."

—  
**Thiago Oliveira**  
 Director, Tech Support Americas, AVEVA





Results achieved with AI within AVEVA Unified Engineering for pipe support optimization at AP Consultoria e Projetos

## Faster project execution with AI

The careful planning, subsequent development, and augmentation of the AI solution with expert human knowledge garnered significant results for AP Consultoria. These included cost reduction through faster project execution and reduced engineering hours as a result of increased accuracy. More specifically, the time spent on the analysis of pipe support type and position was reduced by 90%. Also, project reliability improved as a result of a 60% reduction in the time spent in stress analysis review.

Access to insights enabled the teams to make objective data-driven decisions, and the collaboration between instrumentation and civil engineering teams was more streamlined with fast consolidated information. The AI/ML model even resulted in a reduction of time spent using other external pipe-stress tools outside of the AI project.

## Leading the way with innovative solutions

AP Consultoria e Projetos continues to innovate to deliver more efficient projects for its clients in a very competitive marketplace, and AVEVA technology is making this possible through integrated, data-centric tools. As the future of AI and the realization of capital projects continue to unfold, AP Consultoria is committed to utilizing its deep industry expertise to be a leader in such innovations and to deliver a better, safer, and more sustainable future.

### Citation:

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