

TMS Aritex Cading designs assembly lines right first time with CATIA V5



"We know that CATIA has become the standard in the automotive industry. Consequently, we viewed our purchase of 12 seats of CATIA V5 as both a logical choice and a safe investment."
Llorenç Cavaller, Head of Engineering, TMS-Aritex Cading

Highlights

- *TMS Aritex Cading used multiple CAD systems to exchange data with the automotive OEMs for which it designs assembly and welding lines. As its role can vary from project to project, the company needed flexibility and speed from its CAD system*
- *CATIA Version 5 allows TMS Aritex Cading to begin simulation and feasibility studies earlier and avoid costly errors that remain hidden until the installation phase*
- *TMS Aritex Cading now explores more options and alternatives before choosing a design. Upon reaching the start-up phase, TMS has confidence the system will work and the customer will be pleased.*

Assembly line maker counts on CATIA V5

TMS Aritex Cading S.A. of Badelona, Spain, specialises in assembly and welding lines for the automotive and aerospace industries. Its customers include numerous automotive manufacturers (OEMs) throughout Europe, Central and South America.

The company was formed through acquisitions. Aritex was founded in 1961 to produce automotive assembly lines. Cading was founded in 1986 to perform engineering for Aritex. Both companies were acquired in 1999 by the Transport and Montage (Assembly) Systems or TMS Group. Today TMS is one of the world's top

five suppliers of assembly line systems with about 20 percent market share, and is a subsidiary of the French group VINCI Energies.

Since the 1980s, Aritex Cading has used a variety of different CAD systems to receive data from its various OEM clients. But over time the starting point for a project has changed considerably, with Aritex Cading taking on more responsibility earlier in the process.

CATIA delivers as role grows larger

"Five years ago it was common to receive the complete manufacturing process from an OEM from which we had to work," explains Llorenç Cavaller, head of engineering for TMS-Aritex Cading. "Today we might only be given the actual car data from which we will need to work out the complete assembly process and then design and engineer our appropriate tooling.

"Every OEM has its unique project specification and starting point. We have to remain very focused, flexible and very fast on our feet being prepared to jump in at any point."

To make the company more flexible and agile, Aritex Cading decided to invest in CATIA Version 5. The company's engineering partner CADTECH, an IBM Business partner, worked with them closely for customised implementation and training.

"CATIA V5 was a good solution at that time," Cavaller said. "Today, it is clearly the best system on the market. We like



the methodology we have been able to use through CATIA V5, which means we can eliminate costly errors, begin our simulation and feasibility studies much earlier and avoid the nasty surprises we experienced in the past."

A safe investment

Because CATIA has become the standard in the automotive industry, Cavaller said, the company was confident that purchasing 12 seats of CATIA V5 was "both a logical choice and a safe investment. We have gained a great deal of experience with this technology which makes us very attractive to an OEM looking for an assembly line supplier. In addition, we see ourselves as the pioneers for new technology within the TMS Group worldwide."

The benefits of having CATIA V5 have been numerous, Cavaller said. "CATIA V5 gives us higher quality

design. It means we can explore more options and alternatives and we know the result will be right first time. The main savings we make are not just at the early design stage but, more importantly, at the start-up phase, when we install our systems at the OEM site. At that time, we are highly confident that our product will work and that we will gain a high level of customer satisfaction."

Aritex Cading also uses CATIA V5 to drive 3-axis CNC and wire erosion machines and employs ENOVIA 3Dcom to check the status and progress of customer projects and perform process studies. The DELMIA IGRIP package, mandatory for certain customers, is used for robot simulation.

Because 60 percent of the company's jigs and figures are based on standard designs, Cavaller said the company sees great potential for Knowledgeware. "When we incorporate some of our rules to link Body-in-White panels to assembly processes, we can see Knowledgeware selecting and adapting our standard designs semi-automatically. This will save us a lot of time and money."

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