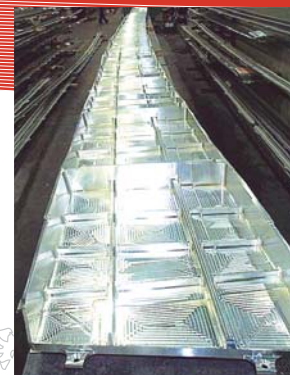


3D enables accurate communication.



A380 Trailing Edge Spar.

By Nick Lerner] **Into the Blue**

An investment in state of the art capital equipment and Dassault Systèmes V5 3D technology has led CAV Aerospace to experience increased productivity and greater design and manufacturing efficiencies.

APPLIED TECHNOLOGY

CAV Aerospace was formed from 3 successful UK companies in 2005 to provide the aerospace industry with a world-class design and manufacturing facility covering aerostructures, ice protection systems and sub assembly manufacture and fabrication.

The company now employs more than 470 people in 9 plants located in England, Wales, Poland and the US. From the company's headquarters at Consett County Durham, UK, Mike Eggleston, Head of programmes explained how Dassault Systèmes V5 technology has helped his company become to achieve so much quite so quickly. "In the past we used various software solutions and providers in our manufacturing and design processes but have recently focussed on Dassault Systèmes V5 PLM to fulfil much of this need. Our 10 CATIA V5 and 3 V5 CNC programming seats supplied by Applied are soon to be augmented by further DS seats along with the valuable support that Applied has provided since our move to DS software."

He continued: "CATIA and DS V5 technology is the de facto standard design solution in the aerospace industry and since starting to use it we have realised why. It is such an all-encompassing solution that it can cover all of our design to manufacture needs with the bonus of being future proof. Applied helps us to get the best

out of the software by initially installing pre-loaded hardware to exactly the right specification, ensuring that it is fully integrated with our other IT systems, and providing full staff training to ensure our engineers are working most productively."

COMFORTABLE COMMUNICATIONS

"CAV sits within a design and manufacturing communications network where production data and its associated meta-data is transferred within and beyond our organisation. We are dealing with global aerospace OEMs and their advanced PLM systems as well as those of smaller aircraft manufacturers whose systems may not so advanced. Part of our role is to provide the correct level of data in the most appropriate and acceptable format and to be able to receive OEM's data, work with it, and return it – in native format. CATIA is an invaluable tool since its flexibility allows us to achieve these complex tasks simply." Applied MD Shaun Clark commented. "CAV like many other industrial companies has to deal with increasingly complex supply chains and hosts of different IT systems. The company's growth in several UK and international locations also presents significant challenges to the design and production system and its efficient operation. We have helped CAV to utilise DS software to its maximum potential, a part of this has been ensuring that all the people using it are fully aware of its capabilities and maximising its benefits."

More efficiency and better customer service through V5 technology.

Examples of this are the use of 3D models to directly programme CNC machines and using the original 3D design data sources to achieve QA. This technique is very accurate and leads to better quality because coordinate measuring machine (CMC) data can be compared with that from 3D models to assure absolute accuracy.

BEST ADVICE

In another case a complex surfacing problem on which there may be several opinions about the best solution can often be resolved by making a call to the Applied helpdesk where experienced engineers can offer advice on the most efficient procedure.

CAV has made impressive progress since initiating its multi-site corporate V5 technology rollout programme. As Mike Eggleston said. "CAV prides itself on having best in class equipment to match exemplary design and production capabilities. Among the equipment we possess is a high capacity 54 meter five axis machining centre for virtually continuous manufacture of wing parts. The investment in this level of capital equipment is significant and we feel that it is important to match it with other systems, equipment, training and support services to match."

The outcome of such a policy is that productivity levels have been maximised while quality has improved. Shaun Clark commented, "To get the most out of a production system it is

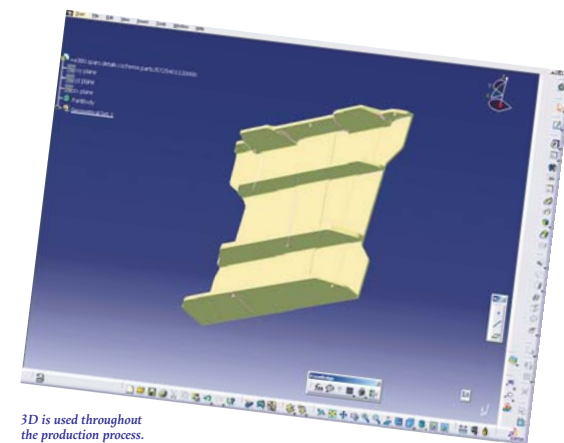
important to look to the details, find weaknesses and bottlenecks as well as potential improvements and develop appropriate improvement strategies."

WINNING FORMULA

Dassault Systèmes V5 technology integrates with the highest level of production equipment and is able, when correctly managed, to improve its performance, functionality and quality levels. Together Applied and CAV are working to develop a production environment that will bring further efficiencies CAV's plants and help win new aerospace contracts. Mike Eggleston is confident that the systems are in place to achieve even more dramatic results. "Since concentrating on Dassault Systèmes V5 technology we have

improved machine utilisation, been able to cut time from processes and bring efficiencies and improvements throughout our manufacturing business. This not only makes our enterprise more profitable but also enables us to offer our customers in the aerospace industry best possible services in combination with very good value. Our maximised machine utilisation produces increased output more rapidly. Also, we are working more effectively because our use of 3D models has led to further efficiencies enabled by V5 methodology"]

For more information:
www.AppliedGroup.com
www.cav-aerospace.net



3D is used throughout the production process.