



PRECISION AND ACCURACY RIGHT FROM THE START

All medical technology products have one aspect in common: They have to satisfy stringent requirements with regard to precision and accuracy – requirements that are placed on them by patients and physicians both. For this reason, the medical technology enterprise Aesculap AG, a division of B. Braun Melsungen AG, relies exclusively on first-grade, cutting edge technologies across all phases of product development. Together with their CATIA support partner TATA, manufacturing experts from CENIT have now implemented an end-to-end process that successfully replaces 5 offline programming systems with CATIA NC.

Automation potentials realized

A large number of CATIA systems are deployed at Aesculap's renowned Benchmark Factory in Tuttlingen. „Our goal in Tuttlingen is crystal-clear: to intensify our focus on CATIA. For one thing, the system is the ideal match for our innovative stance. For another, CATIA offers us extremely high potentials for standardizing our design and NC programming“, says Thomas Meurer, Head of CAD and R&D Solutions. „As a result, a wide range of time-consuming tasks can be fully automated via a single system. Our programmers are absolutely satisfied with the customized CATIA solution.“ The implementation of the

system is the product of Aesculap's successful collaboration with the CATIA support partner TATA and CENIT. CENIT AG was responsible for methodological development and determining programming principles within the manufacturing environment. The CAD methodology, on the other hand, was supplied by the CATIA partner. At the CAD-CAM interface, both CATIA partners had to harmonize their approach very closely to be able to provide Aesculap with a holistic, end-to-end process that covers the entire range from the design to the manufacture of implants.

Meanwhile, a hundred machines for a wide range of technologies, e.g. 2.5D- to 5-axis milling, turning, and wire and laser beam cutting, are linked to CATIA via the manufacturing-oriented FASTSUITE product by CENIT. The FASTSUITE modules permit secure, technology-oriented programming.

If you're successful, word gets around

Motivated by the significant reduction of programming times and the sustained increase of flexibility in managing change, Aesculap's plant in Suhl quickly became interested in adopting the successful approach of the Tuttlingen facility.

In Suhl, the end-to-end process has now been realized for the so-called jaws used in tissue sampling. In the course of the change, the process likewise underwent change. „To boost efficiency while maintaining the high level of precision, we had to challenge established wisdom and take new approaches. In our case, that meant: We'll make the product from solid material and do away with forging blanks“, says Dr. Joachim Schulz in describing the solution. The jaw is then lathed and milled, and subsequently the cutting edges of the jaws are sharpened. In order to achieve the required precision and avoid any reworking, the CENIT's CAD/CAM specialists implemented a series of sophisticated manufacturing strategies.

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The solution: Intelligent starting templates

One of the keys of the efficiency boost was process automation with the aid of the CATIA infrastructure. Thanks to intelligent starting templates – templates that contain manufacturing expertise – the system is able to use the existing parametrics, associativity, feed and technology definitions, as well as suitable axis systems based on specified component publications, to rapidly derive the required NC programs and the associated program documentation. „The publications enable us to standardize processes. To deal with changes or new component variants, all we have to do now is redefine the publications. All further results – the NC program and the documentation – are then derived automatically“, says Jörg Feye, Team Manager CAD/CAM at CENIT AG. „Time and again, it’s impressive to see how easy it is to efficiently and flexibly program processes under CATIA.“

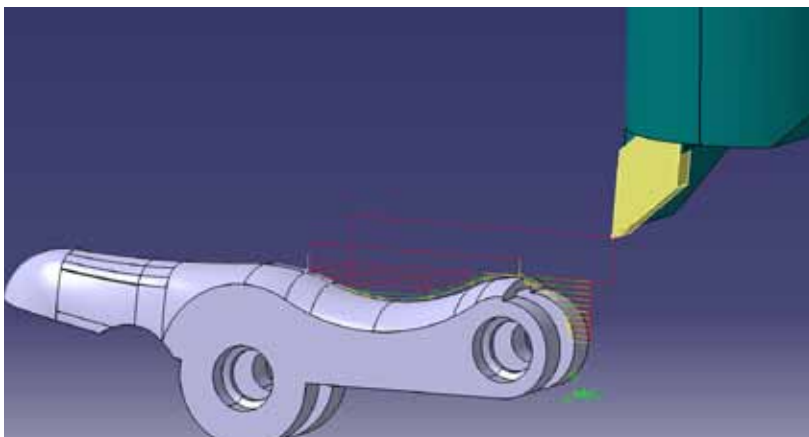
About Aesculap

Founded in 1867, Aesculap views itself as a global partner of surgery and interventional cardiology. A special focus of the B. Braun division lies on the development and marketing of products and services for core surgical and interventional processes in the field of operative medicine. The product portfolio includes surgical instruments, surgical suturing materials as well as implants e.g. for orthopedic, neuro- and spinal surgery as well as cardiovascular surgery. During operative procedures, precision and accuracy are vital parameters for the success of any surgical intervention. The requirements on the employed surgical instruments must be equally strict. The corporate strategy of B. Braun rests on three pillars: innovation, efficiency and sustainability. Innovation not only in terms of the development of new products, but also in realizing innovative manufacturing processes and methods. „Naturally, we also apply our strict benchmarks to the development tools we use, whether in design or manufacture“, explains Dr. Joachim Schulz, Management Board Aesculap AG, Production & Logistics.

About CENIT AG

CENIT AG has been a consultancy and software specialist for the optimization of business processes in Product Lifecycle Management, Enterprise Information Management, Application Management Services and Business Optimization & Analytics since 1988. CENIT currently has about 700 employees world-wide and its customers include Allianz, BMW, Daimler, EADS Airbus, LBS, Metro, AXA and VW. A large number of customers are medium-sized enterprises, particularly in the financial services, automotive and mechanical engineering sectors, such as Dürr, ISE and Emil Bucher.

CENIT is headquartered in Germany (Stuttgart), where it is present in all the major cities. It also has a branch near Detroit to cater for the American market. CENIT is also represented in Switzerland and since 2006 in Romania. With the foundation of another subsidiary in Toulouse CENIT stresses its reputation in the aerospace industry. The internationality of CENIT’s business gains more importance with a further consistent expansion of these subsidiaries.



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