CimStation Robotics

News Update 4

Comau Robotics Alliance for full robot simulation and OLP system

AC&E and Comau Robotics, manufacturers and suppliers of world leading multiaxis robots have agreed a strategic alliance for AC&E to provide Comau's Customers with robot simulation and offline programming software developed specifically for Comau robots, called Smart-CimStation (SCS).

SCS will enable users to produce complete simulations of Comau robots, assess positioning and placement of the robots, as well as collision detection. In addition, the software makes it possible to fine-tune equipment positioning and maximise production throughput. This leads to accurately predicted cycle times and offers an RRS interface to the Comau RCS module Tools are available in the SCS simulation to minimise cycle times and potentially limit joint wear and tear. The software has models of Comau robots in its on-line library.

"Our aim is to continue to develop SCS's extensive simulation capability, whilst maximising its ease-of-use."

The SCS software is PC based, and highly visual and comes with a free interactive movie player, allowing custom movies to be shown to colleagues and customers. SCS has been designed to be quick to learn and has a fast PC-based interface.

Special offer for Comau customers and its integrators

Comau Robotics has negotiated special terms for other Comau companies and Comau's Customers to purchase SCS software, which is available from AC&E as a licence with an annual maintenance charge. It will be of particular interest to Comau customers and integrators, who will immediately appreciate the value of fast and accurate robot simulation. Demonstrations are scheduled for Comau integrators and customers.

SCS meets market need for high performance simulation

SCS has been developed from CSR, a well-proven and field-tested simulation system, already used under real production conditions by several major organisations including Nissan, PSA and Boeing.

Comau Robotics Division Responsible said, "Along with the launch on the market of our new product range, we have been looking for a high performance simulation system to assist our users and integrators. SCS is an ideal answer. It gives them access to a very capable simulation tool with truly excellent graphics, and is one of the easiest to use." He added, "As a bonus, we have an extremely positive relationship with AC&E and we expect some good joint developments "

AC&E's Head of Technology, Yash Khandhia, commented, " We are now producing very accurate simulations of Comau robots. The SCS software will have the further benefit of extensive testing from Comau. Our aim is to continue to develop SCS's extensive simulation capability, whilst maximising its ease-of-use. "

Aerospace Vision

CimStation Robotics is designed to simulate robots and robotic devices, prior to programming these devices off-line. Yet, it also offers several powerful features that make it ideal for assisting you at the project concept stage.

CimStation Robotics [CSR] ability to animate and visualise new and complex manufacturing processes has been used for several projects where the design, and therefore manufacturing content, have not been finalised. Often, this is at an early concept phase. Here, the system has to be able to work with ideas, as well as engineering data. CSR's easy-to-use interface is an important aid to this process, combined with its ability to introduce motion and 3D visualisations.

Airbus UK, responsible for designing and building Airbus wings, wanted to undertake several early simulations to determine the manufacturing processes for the A340-600. They had already recognised that the new aircraft would have one of the largest wings then in production. This would inevitably place new demands on the machinery required to build this new wing.

CSR was to be used at the concept and feasibility stage to help guide their chosen machine manufacturer in designing and building a new drilling and fettling machine. Although this particular concept was successfully tested using CSR for the A340 - 600, the project was overtaken by events. However, the benefits achievable from this type of simulation remain valid. It is a novel use of CSR's simulation capability close to the early concept stage, and was intended to deliver time and cost-saving benefits in the design of novel large riveting machines.

We would like to invite you to test CimStation Robotics against your current simulation software. For a free evaluation of CimStation Robotics please complete the following and fax to AC&E at +44 (0)1925 826460.

Name .....
Company.....
Address.....
.....
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Tel.....
e-mail.....

If you need urgent assistance with robot simulation please call us on +44 (0)1925 830085.

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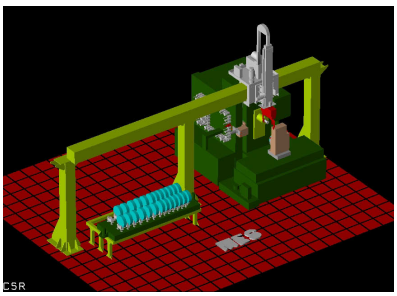
Design & Manufacturing Simulation

CSR and Softmachines

CSR has powerful features required for simulation and offline programming of robots. Many complex machines may be considered as robotic devices, and in most cases, the real benefit of simulation is to be found after the program has been written. This 'second stage' simulation is to simulate the actual program, by another simulation. More correctly we might refer to this as program verification, and this is to test out the actual program before it is used to run the machine.



If we have accurately represented the machine and the associated jigs and fixtures in full, we can check whether the program contains errors, particularly those we would prefer to eliminate before running the real machine. This verification phase can result in minor changes to the program and then re-run however many times as it is required to achieve the necessary confidence level.

An obvious benefit is that this does not tie up an expensive machine to test out new programs. It also prevents the machine becoming 'a bottleneck' for programs which require testing urgently.

Companies in the aerospace sector have already taken advantage of our SoftMachine technology, and increasingly we seek to offer this for diverse markets, for applications where the paybacks are large.

Seminar in Franche Comte

CSR, our robotics simulation and OLP software, is now being used by an increasing number of subcontractors to the automotive sector. It has the benefit of fast operation on PC and is highly productive in use with the ability to simulate up to 15 robots simultaneously on the screen.

A group of users and prospective users in France were treated to a seminar in March where some of the forthcoming features in V 6 where demonstrated, alongside a vision of CSR's development for the future versions. This includes the ability to exchange data with with other robot simulation systems as well as provide a visual interface for CAD translation. The delegates were excited by these concepts, and provided valuable feedback. Less obvious development work involved upgrading the core modules of CSR to accommodate the latest releases from Spatial Technologies.

Copies of our first 2 news updates are now available in French!