

MAKINGITREAL



2012 AUSTRALASIAN ENGINEERING SIMULATION CONFERENCE



Where Melbourne Conference & Events Centre

When Thursday 29 March 2012

Compumod is proud to announce its sponsorship of the "2012 Australasian Engineering Simulation Conference". The conference will consist of keynote speakers from industry who will be detailing their Engineering problems and how they have addressed them using Simulation Software. This is not a conference on theory but an opportunity to hear practising engineers talk about real work problems and their solutions to them.



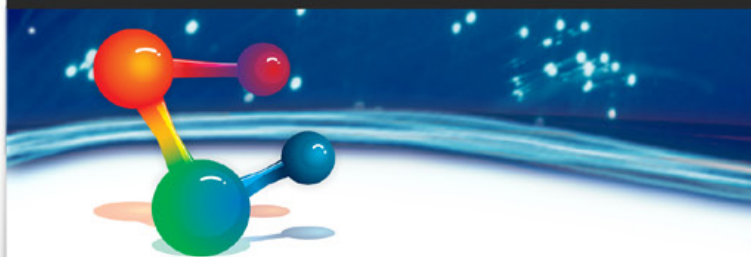
This one day conference is a must attend for anyone in (or interested in) the Engineering Simulation Industry. Along with the presentations, the conference includes networking opportunities with fellow engineers via hosted morning and afternoon teas, lunch and post conference cocktail party.

Mark Thursday 29th of March in your diary and keep an eye on your inbox for more details, alternatively you can register online at www.compumod.com.au/AES-Conference2012 or contact Compumod on info@compumod.com.au for more information.



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COMPUMOD SPONSORS FORD PERFORMANCE RACING [FPR] V8 SUPERCAR TEAM



Mark Winterbottom's #5 Orrcon Steel FPR Ford

Compumod is thrilled to announce our sponsorship of the Ford Performance Racing V8 Supercars team. Ford Performance Racing (FPR) has selected MSC Software's Multi Body Dynamics analysis system, MSC Adams and MSC Adams/Car to aid the design process and gain competitive advantage over the rest of the field in 2012 and beyond.

with Compumod's goals and ethos and we hope many of our customers will get behind FPR in the upcoming race season.'

FPR secured victory in the final race of the 2011 V8 Supercars season at Homebush and they will be looking to keep that winning form going in 2012, backed by the leading motion and kinematics simulation software in the world, MSC Adams.



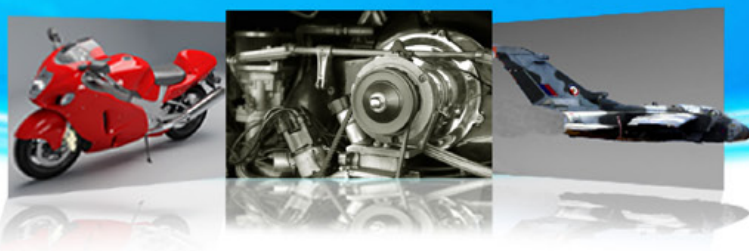
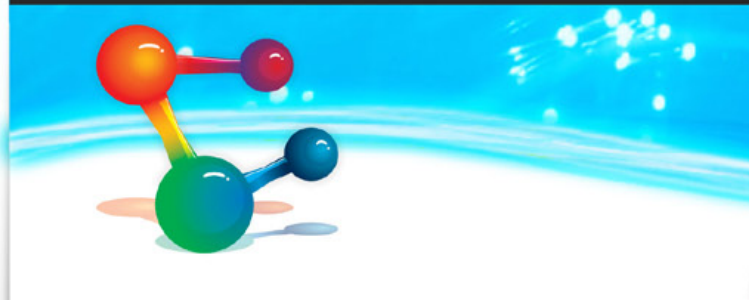
Will Davison's #6 Tradingpost FPR Ford

FPR Director of Business Operations Mark Roworth, said, 'With the margins between winning and losing a race increasingly narrowing every V8 Supercars team is looking for any advantage they can get. For us MSC Adams will provide that advantage, allowing us to virtually test design changes well before the build process begins.'

As part of Compumod's involvement with the FPR team we will be hosting events at race meets and at the FPR facilities in Melbourne so keep an eye out for announcements.

If you would like to follow the progress of the Ford Performance Racing team, find them online at www.fpr.com.au or follow them on Facebook at: www.facebook.com/FordPerformanceRacing and via: @FPR_Australia on Twitter





Welcome to Issue 5 of the 'Making it Real' Newsletter and our first for 2012. This year is already off to a fast start with many new products from all our partners released in late 2011 or early 2012 including:

- ▶ Patran 2012 - with many new features including model browser
- ▶ Nastran 2012 - including non-linear contact within the linear solution
- ▶ Adams 2012 - with an all new interface and integrated FE solver
- ▶ Marc 2011 - with new Mentat GUI
- ▶ Actran - the new acoustic FEA code from MSC
- ▶ XFlow - fast and meshless CFD
- ▶ ZWCAD 2012 - with improved support for AutoCAD 2011
- ▶ ZW3D 2012 - with new GUI and added features

Compumod has a full range of engineering solutions from design, simulation, optimisation and performance which we believe can solve most (if not all) of your engineering problems.

To support the local Engineering Simulation Industry and to help foster the awareness and use of high end engineering software tools Compumod are proud to be sponsoring the inaugural "2012 Australasian Engineering Simulation Conference" to be held in Melbourne on Thursday March 29, 2012. This conference will act as a showcase for engineering companies to present and talk about their use of CAE technologies. It is Compumod's hope that this annual event will act as a focal point to help grow the awareness of CAE tools and capabilities as well as an excellent opportunity for Engineers to network with fellow CAE practitioners. For more details visit <http://www.compumod.com.au/2012AES-Conference>.

All of us at Compumod wish you all the best for a successful 2012 and hope to see you at the Conference.

Warwick Marx

Warwick Marx
Managing Director

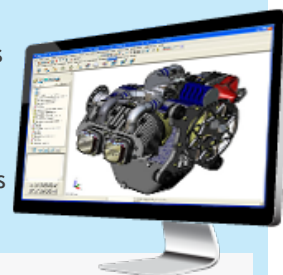
CAD 2D TO 3D TRANSITION COURSE

Are you designing in 2D and wanting to move to a 3D solution but do not have the funds to attend a paid course?

If so, then contact Compumod as we are offering a number of **FREE** places in a 1 day "2D to 3D Transition" course, in our Sydney office.

This course will cover the basics concepts of a 3D CAD System:

- ▶ User Interface
- ▶ Sketch tools
- ▶ 2D Constraints
- ▶ Basic Solid Modelling & Editing Techniques
- ▶ Datum Planes and Reference Geometry
- ▶ Working with Multiple Components - Assemblies.
- ▶ Using existing 2D files to create 3D models
- ▶ Creating 2D drawings from 3D models



Who Should Attend

Designers and Engineers wishing to transition from 2D to 3D

Prerequisites

Knowledge and experience with 2D CAD software is required along with basic drafting, design or mechanical engineering principles.

Bonus Offer

- ▶ All attendees receive a **FREE** 30 day licence of the latest 3D modelling software from Compumod

Contact Steve on steve@compumod.com.au or 1300 965 690 for more details

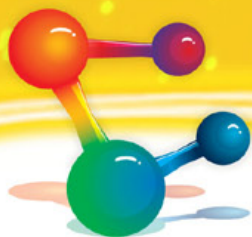
MSC SOFTWARE SOLUTIONS DOWNLOAD CENTRE (SDC)

Did you know that MSC Software users with current maintenance contracts can access all of the software installers that your organisation is entitled to online?

There is no limit to the number of accounts attached to your maintenance contract so each individual user can access the installers they need when they need them. Once you have registered an account on the SDC you will also receive notifications of new releases (both Beta and official) directly to your inbox.

In order to set up your own account on the MSC Software SDC contact your Software License Manager or contact Compumod at info@compumod.com.au





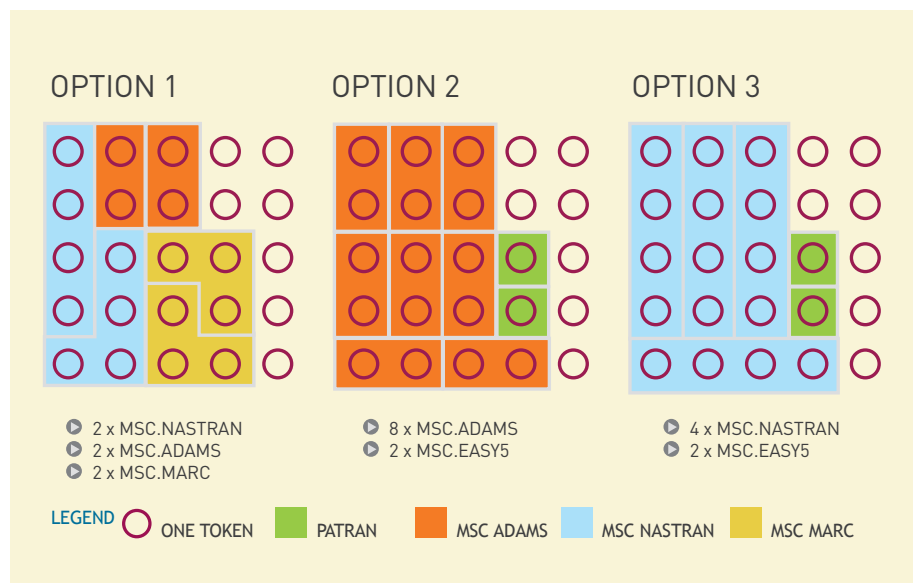
MASTERKEY PLUS - TOKEN BASED LICENCING

What is Masterkey Plus?

MSC's Masterkey Plus is a flexible licensing system that enables users to gain access to over 130 solutions across MSC Software's broad product portfolio. Masterkey Plus is made possible through an innovative "license unit" approach, pioneered by MSC Software.

Masterkey Plus tokens

Instead of requiring individual software licenses, a pool of software tokens is used to facilitate user access to MSC's software solutions. Using the appropriately sized license unit pool, any Masterkey Plus product may be accessed - unrestricted by the number of seats or combination of solutions. While a product is in use, the appropriate number of tokens is checked out. When finished, those same tokens are returned to the pool for other use. Access is limited only by the number of tokens available in the pool.



*This example illustrates token usage and is not meant to represent the actual token counts required to run the products mentioned.

Masterkey Plus Base Products

At Masterkey Plus' core is MSC Nastran, but it also includes access to other engineering products such as Patran, Adams, Marc and Dytran. In total, there are over 130 'base' products available in Masterkey Plus.

Optional Products

Optionally, Masterkey Plus users may decide to add other state of the art solutions from MSC Software such as SimXpert, SimManager, and multi-disciplinary solutions such as MD Adams to their base Masterkey Plus configuration, for an enabling fee. Once an optional product is enabled in Masterkey Plus, access is limited only by the number of license units available in the pool.



For more information on the Masterkey Plus License System please contact Compumod on 1300 965 690 or email info@compumod.com.au



Figure 1 Demonstrates a typical user group accessing MSC Masterkey Licensing System.



MSC NASTRAN SOL 400

In this newsletter we would like to show you a few examples from Sol 400, the new native nonlinear solution in MSC Nastran.

Many of the Sol 400 algorithms are shared with MSC Marc, which was the first commercially available general purpose nonlinear FEA code and is still the industry leader in implicit nonlinear analysis. For instance when the 3D contact is updated for MSC Marc, it is also automatically updated in MSC Nastran.

SOL 400 combines capabilities of multiple solution sequences and software components into a common solution, which also allows for analysis chaining.

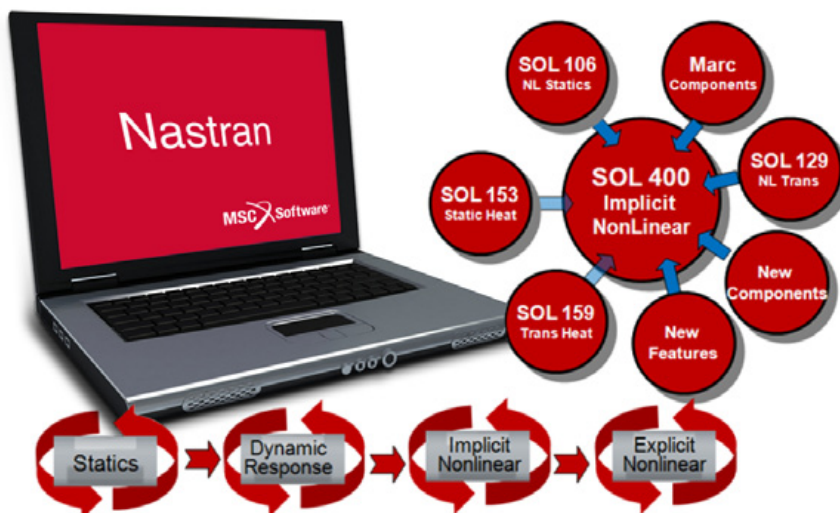


Figure 1 SOL 400 is a unique native Nastran nonlinear solution mainly based on Marc components and new features. It also allows for analysis chaining.

SOL 400 includes the following capabilities:

► Utilize “native” Nastran elements

- No translation required to Marc or any other program (unlike SOL 600)

► Combine static & transient in one analysis

- Pre-stress, transient, steady-state analysis chaining
- Thermal-Structural analysis chaining
- Multiple, independent nonlinear and linear loadcases in 1 run
- Linear Perturbation (f.i. frequency response after nonlinear prestress analysis)

► Use general contact capability

- Solid-to-solid, solid-to-surface, surface-to-surface, edge-to-edge, beam-to-beam, etc. (no more gap or slide line elements!)

► Go beyond small-strain element limitations

- Large strain elements / materials (shells, solids)

► Model large displacement / rotation rigid elements

- Kinematic RBEi elements

► Nonlinear Connectors

- Large displacement / rotation CFAST, CBUSH, and CWELD elements
- “Fuse” capability of CBUSH element

► Simulate Composite Progressive Failure

- Virtual Crack Closure Technique (VCCT)
- Cohesive Zone Modeling
- Progressive Failure Analysis (PFA)
- Composite Beam

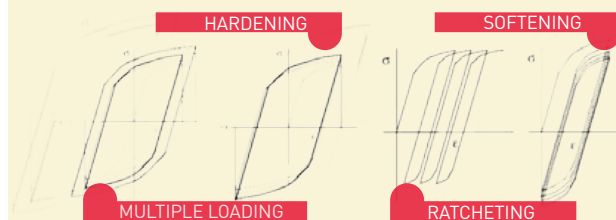


Figure 2 Examples of cyclic plasticity for large strain elements in SOL 400

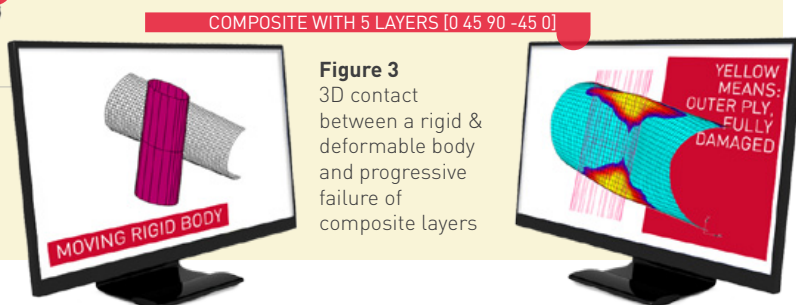


Figure 3 3D contact between a rigid & deformable body and progressive failure of composite layers



MSC NASTRAN SOL 400 [CONTINUED]

COHESIVE ZONE & VCCT EXAMPLE

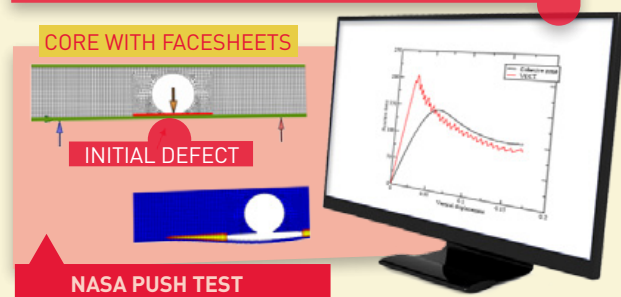


Figure 4 Delamination through cohesive zone elements and the Virtual Crack Closure Technique (VCCT).

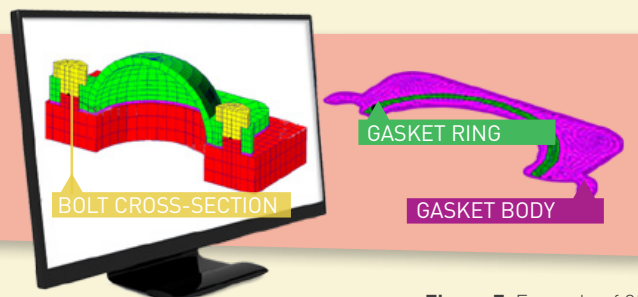


Figure 7 Example of 3D contact with preloaded bolts.

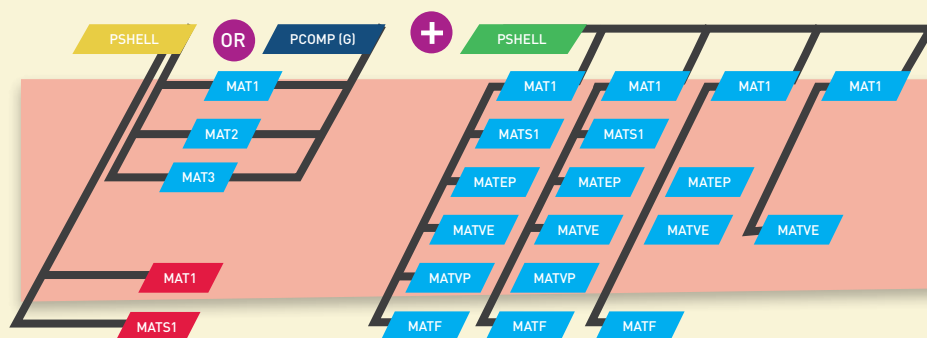


Figure 5 Enhanced nonlinear elements for shells through the PSHLN* entries. Similar enhancements exist for beams, bars and solid elements in SOL 400.

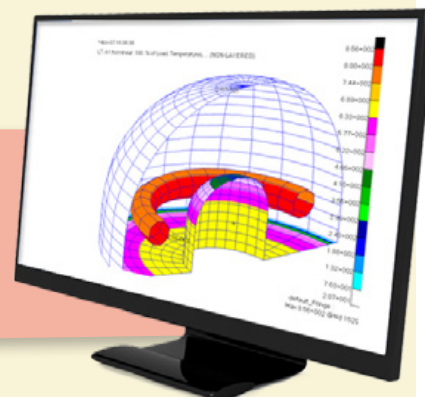


Figure 8 Example of heat transfer with radiation (using the HEMI-CUBE method) in SOL 400.

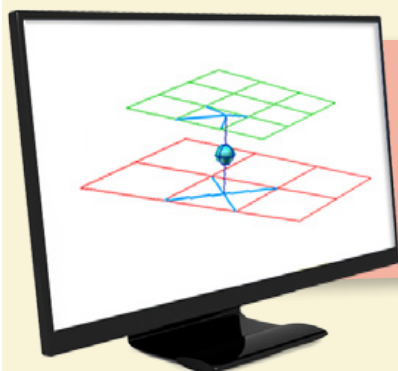
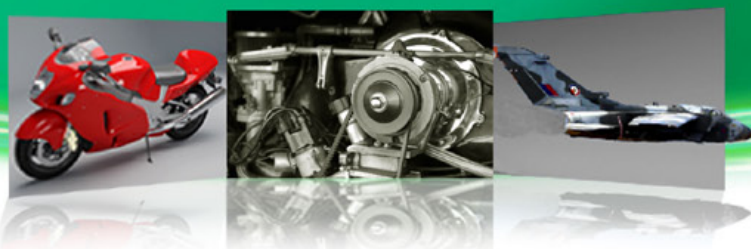
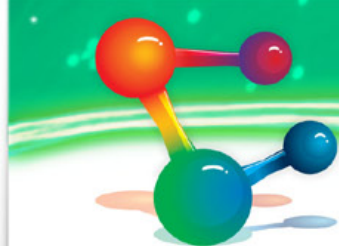


Figure 6 Large displacement/rotation nonlinear mesh independent fastener and spotweld elements with option to failure (fuse).

Summarizing, SOL 400 is a native Nastran nonlinear solution with advanced contact, material and geometric capabilities. It allows for independent subcases (like SOL 101) but now each subcase can be a combination of chained nonlinear and linear perturbation steps. Since MD and MSC Nastran have merged, SOL 400 is now available in MSC Nastran 2012 as a premium option.

If you would like to know more about Sol 400, please contact peter@compumod.com.au





ZW3D 2012 IS LIVE!

ZWSOFT, a leading supplier of 2D and 3D CAD/CAM solutions to the AEC and MCAD industries, has unveiled ZW3D 2012, the flexible CAD/CAM software for all types of 3D modelling and machining. This new release promises significant improvements in many areas, with a special focus on increased modelling efficiency and advanced CAM operations as well as the new ribbon interface.

Better User Experience

The user interface of ZW3D 2012 features the ribbon interface, along with a new in-context mini-bar and in-context help files. The integrated PARTSolutions library allows users to quickly access the entire feature history of each part. The Lightworks add-on renderer generates professional-looking images.

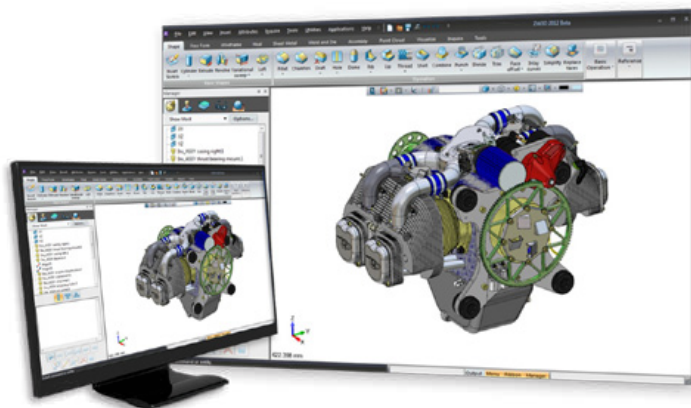


Figure 1 Amazingly new user interface for ZW3D 2012

Increased Modelling Efficiency, Better Direct Editing

ZW3D 2012 offers users numerous improvements in creating and editing 3D models. The replace face, extrude, rib, curve mesh, and extend face operations are all improved. Direct Edit 2.0 makes it more intuitive for users to modify parts through direct editing functions.

Faster Sketching, Assemblies, and Drawings

Sketching is now 50% faster due to the optimised work flow. With the more interactive interface, it takes fewer steps for users to arrive at the result they want. In assemblies, it's easier to move them with the new Assembly Move command.

In 2D drawing mode, layout views are now associative, and users can apply solid-filled TTF fonts for text.

“Download your FREE 30 day trial of ZW3D and see the difference”

Advanced CAM Operations

The new 2X Turning Module gives users turning and milling in the same interface, with support for OD and ID roughing, finishing, threading, and grooving operations -- along with an improved hole-making process.

Quick Mill gets a new undercut feature for creating 3x tool paths with wheel and T-slot milling tools for removing material beneath, thereby creating overhanging shapes. Together with the new CAM user interface, customers will appreciate the improved work flow.



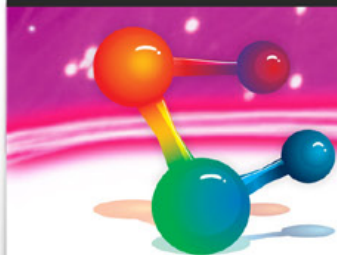
Expanded Translation Capabilities

ZW3D 2012 now exports models in native STEP and ACIS SAT format, and the PDF exporter is beefed up with the new 3D mode. Images cwe saved in a variety of high resolution raster files and the STEP importer is now three times faster than before.

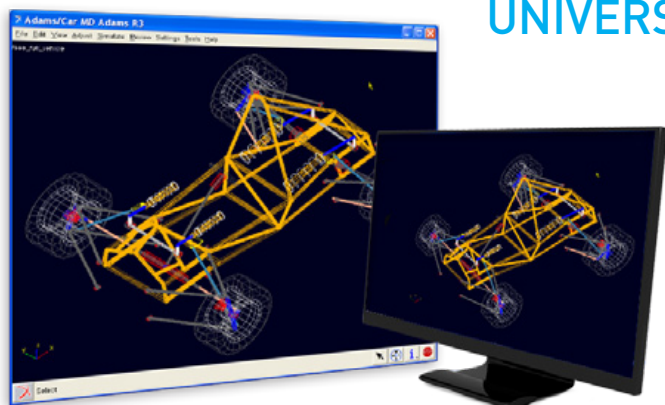
We encourage you to download the FREE TRIAL <http://www.zwsoft.com/en/products/zw3d.html> or click the image across.

Alternatively if you would like to find out more contact Steve at Compumod 1300 965 690 or steve@compumod.com.au





FREE ANALYSIS SOFTWARE FOR UNIVERSITY FORMULA SAE COMPETITION



Did you know that Compumod and MSC Software are active supporters of the University based Formula SAE competition?

By simply registering with Compumod, approved Universities can obtain five seats of MSC's advanced simulation software for FREE for exclusive use in designing and optimising their

FSAE cars. This means that University Students can now use the same technology as the "big boys" when designing their entries. This program also enables students to leave university "job ready" with commercial engineering software experience. The FSAE software suite includes: Patran, MSC Nastran, Adams, Dytran, Marc and more.

The team can use Adams/Car for suspension or full vehicle dynamic analysis and MSC Nastran for structural analysis. This is a great opportunity for your team to enhance the design capability and obtain a competitive advantage. Many of the winning FSAE teams have been taking advantage of MSC's free software since the competition started in 2000.

In addition, a special Adams/Car database is now available for you to download that makes it easier to build and simulate Formula SAE vehicles. Some examples of FSAE Adams models are shown below.

DOE results from Adams enabled one team to tune its vehicle's Ackermann by better understanding the impact of various input parameters. A team was able to quickly see the impact of several design ideas on Bump Steer and Camber Gain.

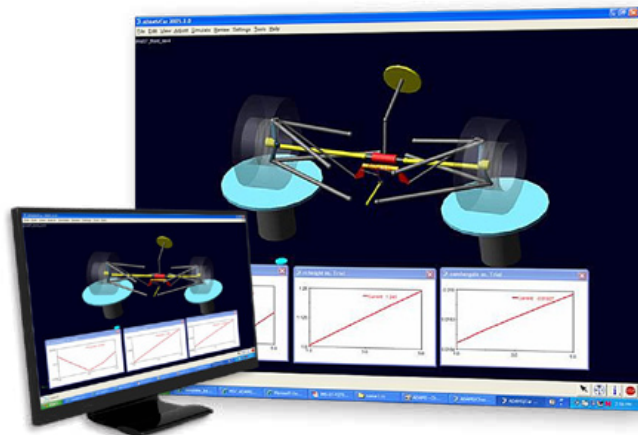


Figure 2

A team was able to quickly see the impact of several design ideas on Bump Steer and Camber Gain.

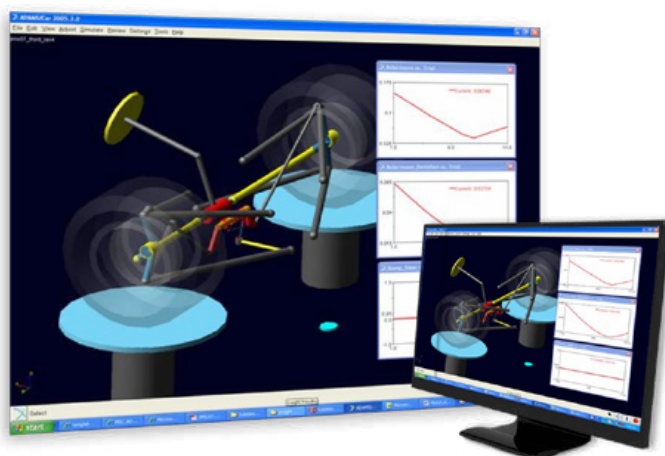
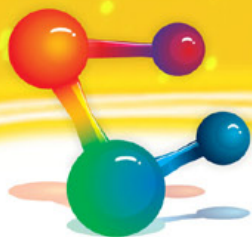


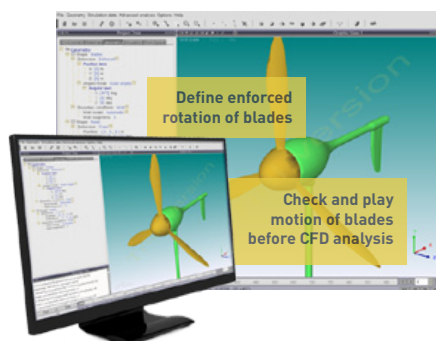
Figure 3 DOE results from Adams enabled one team to tune its vehicle's Ackermann by better understanding the impact of various input parameters.

For more information on obtaining your FREE Formula SAE software suite please contact Zigi Barrett on zigi@compumod.com.au or call 1300 965 690





TIPS AND TRICKS! XFLOW TIPS

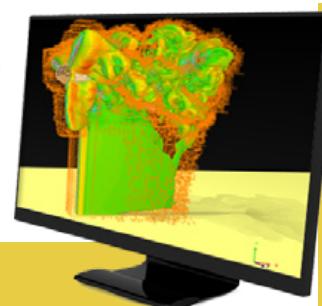


In this article I would like to give you a tip about Xflow, our meshless CFD program.

In Xflow you can define a motion (translation or rotation) on all parts. What some people do not know is that you can play and animate the motion before the actual CFD analysis. This can save you a lot of time in case you made an error in the motion definition. If you want to see an animation of this Xflow tutorial (nr 7) please visit

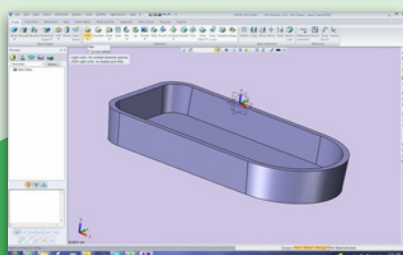
http://www.youtube.com/watch?v=nj_il8PXOD8

If you would like to know more about Xflow, please email **Peter Brand** at peter@compumod.com.au.

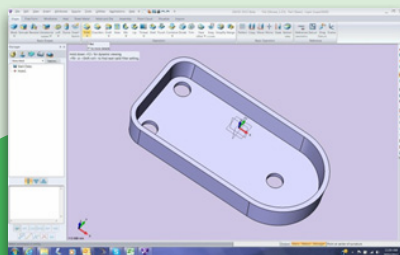


ZW3D TIPS AND TRICKS

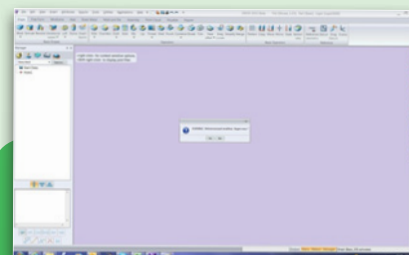
When creating 2D drawings from 3D models, it is important that the drawings are linked to the models so that the 2D drawings are always up to date, even if the 3D model is changed.



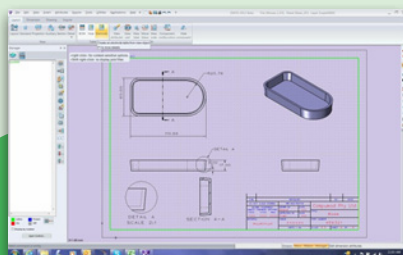
1 Here is the original 3D part model



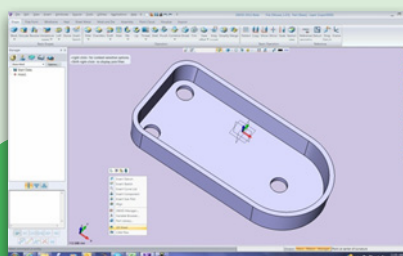
3 Now we are advised that the design of our part is to be revised with holes in the base face.



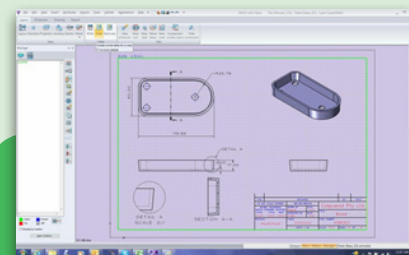
5 We are advised that the original 3D model has been modified and do we wish to update the 2D drawing, select yes.



2 We now create a 2D drawing from the original 3D model. The title block is automatically updated from the part attributes. You can also add dimensions and text to complete your drawing.



4 We return to our 2D Sheet, by clicking the right mouse button.

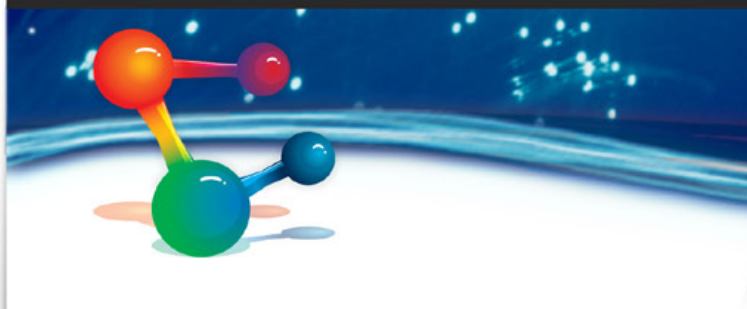


6 Now we are advised that the design of our part is to be revised with holes in the base face.

This feature is one of the most important features in a 3D modelling solution. Choosing ZW3D means that you will have this and much more available in one of the world's most affordable 3D modelling packages.

To find out more contact **Steve** on 1300 965 690 or steve@compumod.com.au





VI-CarRealTime

TAKE THE LEAD AND WIN THE RACE!

Figure 1 VI-CarRealTime is used by many racing teams world-wide to optimize the performance of a car before and also during the racing weekends

Simulation is used by leading companies to understand a design before the first prototype is built. In the automotive industry, simulation is used to improve performance, safety, and vehicle durability.

Five years ago, leading vehicle dynamics experts formed VI-grade as a spin-off company from MSC Software. They have focused on improving and supporting the Adams vertical products and creating new products like VI-CarRealTime.

VI-CarRealTime is an innovative product for engineers who want to quickly evaluate the handling performance of a certain vehicle configuration, want to develop and adjust the vehicle controller and want to test a prototype or production ECU in a real Hardware-in-the-Loop system.

The software is not only very popular with major car manufacturers, but also within racing teams as it can be used by race engineers to easily run (real time) what-if-studies and compare the results in an all-in-one tool during a race weekend!

The different application modes are all based on a realtime equation solver, which shares components with and has been validated against the industry standard Adams/Car.



Figure 3 VI-CarRealTime has a very easy to use graphical user interface. The simulation runs real time!

In VI-CarRealTime, you replicate your real world tests that are usually conducted in a costly hardware based environment. VI-CarRealTime takes advantage of the most advanced driver technology in the market. It is fast, robust, easy to tune and takes the vehicle to the limit without a cumbersome learning procedure. Both open and closed loop manoeuvres are allowed.

Model set-up

The VI-CarRealTime model can either be exported from Adams/Car or can be created stand-alone from K & C test rig data or can be created directly from suspension and steering templates in VI-CarRealTime. Also included in VI-CarRealTime is a tyre and road generator.

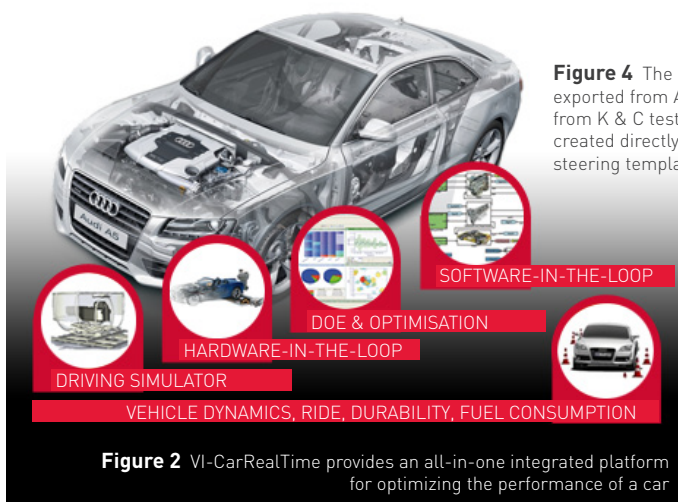
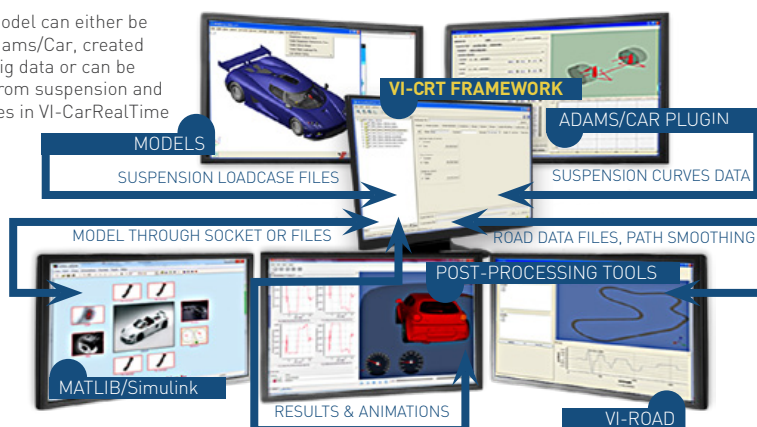
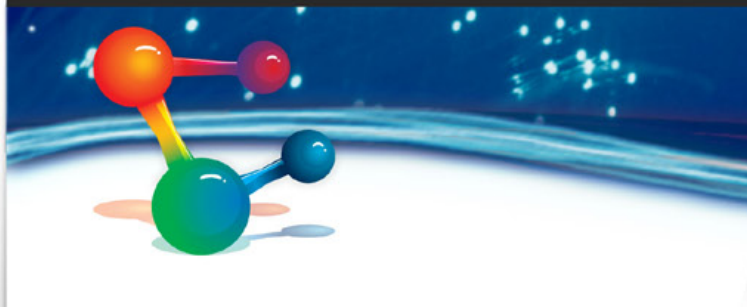


Figure 2 VI-CarRealTime provides an all-in-one integrated platform for optimizing the performance of a car

Figure 4 The model can either be exported from Adams/Car, created from K & C test rig data or can be created directly from suspension and steering templates in VI-CarRealTime





The vehicle model includes a vehicle sprung mass, front/rear suspension, steering system, brakes, and a powertrain (engine, clutch, gearbox, differentials, tyres and aerodynamic wind forces).

Road

The road profiles can also be generated automatically. There are a number of predefined tracks and speedways available in the database delivered with the product. To create your own road you can assemble a complete profile with different sections based on measured data or analytical descriptions. You can drive the vehicle on:

- ▶ Race tracks
- ▶ Ovals
- ▶ Banked Steering Pads
- ▶ Banked Chicanes

The optimal path for the vehicle to follow is generated automatically based on the 3D road profile with the Corner Cutting Tool. Smoothing of imported telemetry data is also possible.

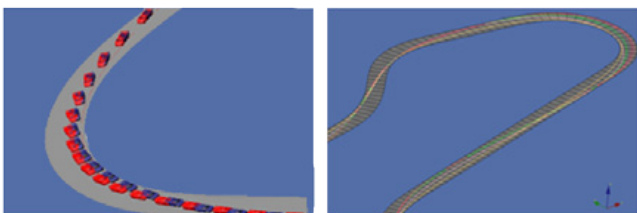
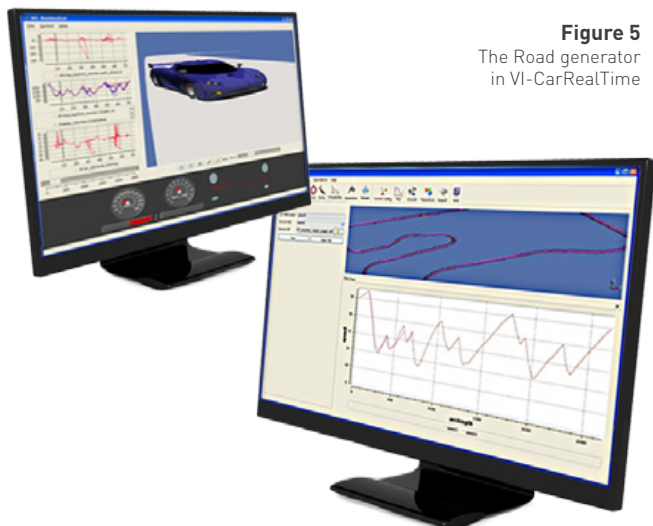


Figure 5
The Road generator
in VI-CarRealTime

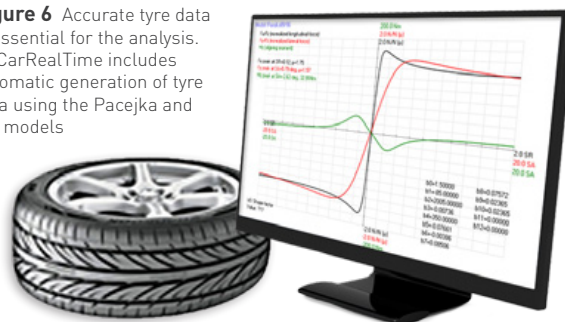


Tyres

The tyre is one of the key components of the vehicle as it represents the interface between the road and the vehicle and it has a significant impact on performance. To capture the complex dynamic behaviour of the tyres, a number of numerical models have been developed in the industry.

VI grade has adapted and validated these models to include effects such as transient roll radius. The two models available in the software are Pacejka and MF. Both models run on 3D roads and allow investigation of curb crossings and variable friction surfaces. The software allows you to perform a tyre test rig analysis to verify the tyre data.

Figure 6 Accurate tyre data is essential for the analysis. VI-CarRealTime includes automatic generation of tyre data using the Pacejka and MF models



The Virtual Driver

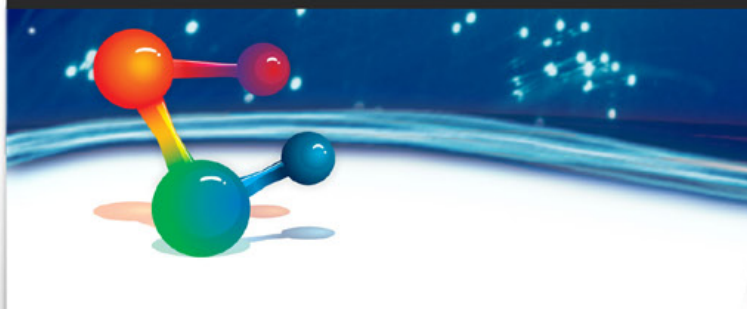
The car is driven by the software either on a track or through predefined manoeuvres like open loop steering, cornering etc. The software also automatically finds the maximum speed and optimum trajectory of a car on a given track. The virtual driver pushes the vehicle dynamically to the limit while considering the:

- ▶ path distance
- ▶ Longitudinal speed threshold
- ▶ Yaw rate limits
- ▶ Wheel Locking

You can now easily conduct press manoeuvres such as an ISO lane change and accurately predict the lap time on a track!

In summary with VI-CarRealTime you can perform the following analyses:

- ▶ Tyre test rig to verify tyre data
- ▶ Suspension test rig and 7-post rig
- ▶ Open loop full-vehicle analyses (impulse steer, step steer, sweep steer, braking, acceleration etc.)



- ▶ Closed-loop full-vehicle analyses (steering pad, braking in a turn, power off cornering, power on cornering, fish hook etc.)
- ▶ Press Manoeuvres (ISO Lane Change, Slalom, Obstacle Avoidance)
- ▶ Any kind of event in which 5 driver channels (steering wheel, throttle, clutch, brake, gear) are combined in any way (either open loop or closed loop)
- ▶ Lap time simulation on any given circuit



Figure 7 An example of a Press Manoeuvre analysis

Validation

Validation with test results plays an important role. The plots below show very good comparison between simulation and test.

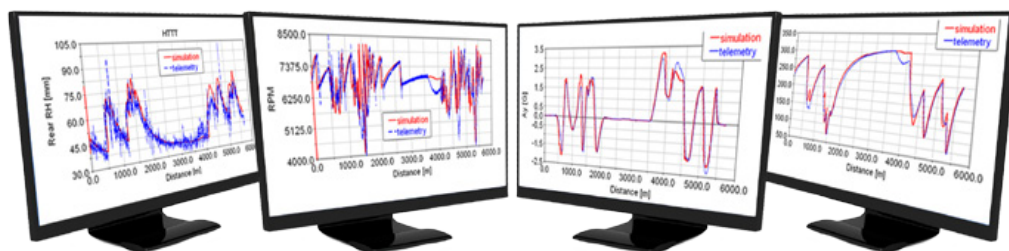
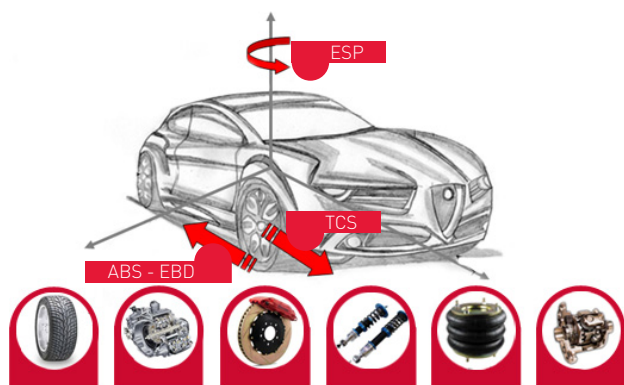


Figure 8 The analysis results correlate very well with test results



Control systems, Software in the Loop (SIL) and Hardware in the Loop (HIL)

Figure 9 Control systems (f.i. through Matlab), software or hardware in the loop can be included in the simulation

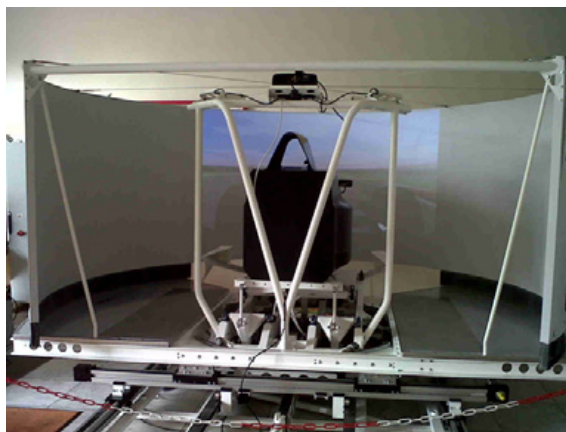
VI-CarRealTime is well suited to be combined with other codes such as MATLAB Simulink or Modelica. The process of adding control systems can be applied to any vehicle subsystem.

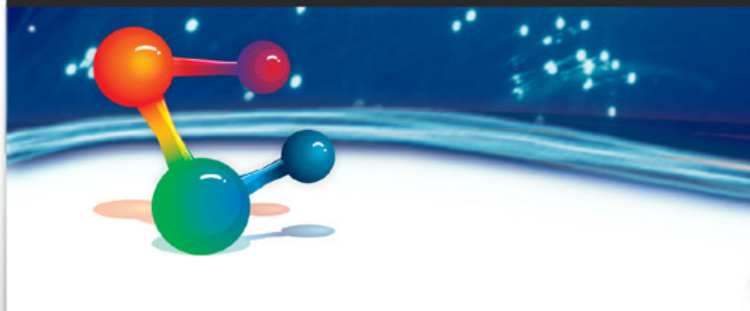
The Driving Simulator

Finally, VI-Grade provides a driver-in-the-loop simulator coupled to the VI-CarRealTime model. So a test driver can immediately tell you how the new design feels before the real prototype vehicle has even been built yet!

Figure 10

The driving simulator coupled to VI-CarRealTime. The car can be optimized and the driver has already driven the track before the race has even taken place yet!





STOP PRESS - VI-CarRealTime

Press Release: Volvo Car Corporation selects VI-CarRealTime to quickly design active chassis systems

Flagship real-time solution by VI-grade used for concept development, development of active chassis systems and as interface to Hardware-In-The-Loop simulations

Marburg, January 31st, 2012 - VI-grade GmbH, the leading provider of best-in-class products and services to bridge the gap between real world testing and technical simulation, today announced that Volvo Car Corporation has selected VI-CarRealTime, the specialized real-time vehicle simulation environment from VI-grade, to optimize the design of their vehicles. In particular, the Volvo research and development team selected the VI-CarRealTime solution due to the direct interface with ADAMS/Car and thus will increase the speed of concept development.

“We were looking for a reliable solution that could enable us to easily design and optimize our vehicles” says Georgios Minos, Manager, CAE and Objective Testing, at Volvo Car Corporation.

“The functionalities offered by VI-CarRealTime enable us to easily integrate with ADAMS/Car, providing a seamless process of transferring high-fidelity vehicle data from validated and trusted ADAMS/Car models to real-time simulation models in VI-CarRealTime. This saves time and builds confidence in the conceptual phase.”

“We are excited about the collaboration with Volvo Car Corporation” says Guido Bairati, Sales Director of VI-grade.

“The addition of this important new customer to the list of all other vehicle manufacturers and suppliers worldwide that already use VI-CarRealTime proves once again the strategic value of our solution in the automotive engineering process.

We want to extend our thanks to our distributor in Sweden, CAE Value AB, who was instrumental in making this collaboration possible.”

VI-CarRealTime - TAKE THE LEAD AND WIN THE RACE!

MSC & COMPUMOD WEBINARS AND YOUTUBE CHANNEL

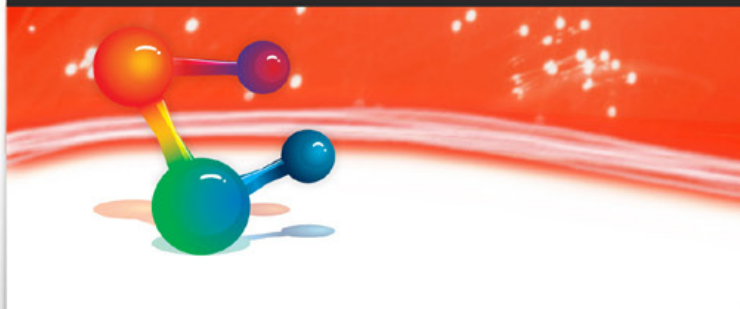
Did you know that both Compumod and MSC regularly conduct webinars on new product demos and updates? Keep an eye on your inbox for invitations to Compumod webinars (if you do not already receive these emails feel free to send your details to info@compumod.com.au to register).

Alternatively you can visit the MSC website where a wide range of on demand webcasts available that may interest you. Simply select your application, product or industry sector and you can easily filter down to webcasts that meet your needs. These are a great way to get a quick multimedia update or training session at a time that suits you.

Go to www.mscsoftware.com and click Resources ► Multimedia or you could [follow this link](#) or click the thumbnail across!

Compumod also now has a Youtube channel that contains a variety of animations of various types of simulations. If you are looking for inspiration for your next engineering simulation or just for general interest, why not [visit the channel!](#)





COMPUMOD ATTENDS MSC ASEAN CONFERENCE IN BORNEO



Compumod was pleased to be invited to be part of the MSC ASEAN annual conference this year held in Kota Kinabalu, Borneo. At this conference MSC representatives from around the ASEAN region were updated on the

latest plans for MSC's software products. Hosted by Mr Eric Favre Vice President, Asia Pacific along with Mr Alias Isa Regional Director ASEANz it was also an excellent opportunity to network with other MSC resellers in the region

to gain a greater understanding of the opportunities and challenges that are present in the current economic climate and how MSC Software is helping our customers maintain a competitive advantage in this environment.

PLAN A PERFECT MARKETING CAMPAIGN

Are you looking to strengthen your position against the competitors?

Compumod's brand, two years on, continues to strengthen with marketing collateral including Website and Print content, Email Campaigns, Advertising, Promotional products and more.

Get in touch with Phillip Pavich Graphics to discuss strategies.



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MSC SOFTWARE UNIVERSITY BUNDLES

The mission of the MSC University Program is to meet the needs of three distinct groups: students, teachers and industry. The primary goal is to help university students obtain desirable jobs with MSC's best-in-class customer-companies who continually seek to hire talented Engineers proficient with MSC's industrial-strength, simulation software.

By enabling teachers to include MSC software in their engineering curricula, our objective is to help them make the principles and theory they teach more understandable, enjoyable, and relevant for their

students. Simulation enables engineers to go beyond static design (CAD) for form and fit - to rapidly develop high-quality, innovative products in the virtual world so they function as intended in the real world.

The following packages are available for universities in bundles for 1, 5, or 50 users.

- ▶ University FEA Bundle includes MSC Nastran, Patran, Marc, Dytran, FlightLoads & Sinda
- ▶ University Motion Bundle includes MSC Adams, MSC Adams/Car + Easy5

If your team or university is interested in the MSC University Program, please contact Zigi Barrett on zigi@compumod.com.au or call 1300 965 690

