FEA Information Engineering Solutions
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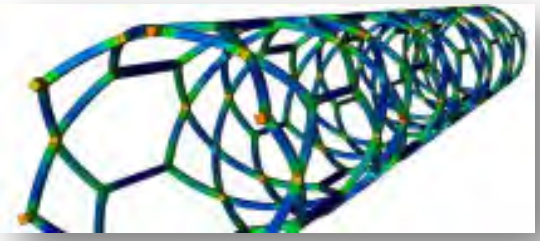
Women in Engineering

Mercedex-Benz rally driver Ewy Rosqvi

BETA CAE Systems SA



Tesla Motors Charging Milestone

FEA Information Inc. is a publishing company founded April 2000, incorporated in the State of California July 2000, and first published October 2000. The initial publication, FEA Information News continues today as FEA Information Engineering Solutions. The publication's aim and scope is to continue publishing technical solutions and information, for the engineering community.

FEA Information Inc. Publishes:

FEA Information Engineering Solutions
FEA Information Engineering Journal
FEA Information China Engineering Solutions

FEA Information Engineering Solutions:

A monthly publication in pdf format sent via e-mail, additionally archived on the website FEA Publications. www.feapublications.com

FEA Information China Engineering Solutions

The first edition was published February 2012. It is published in Simplified and Traditional Chinese in pdf format. Published : February, April, June, August, October, December. The China Solutions is archived on the website FEA Publications. www.feapublications.com
To sign up for the Traditional, or Simplified edition write to yanhua@feainformation.com

FEA Information Engineering Journal: ISSN #2167-1273, first published February, 2012

Available on www.feaiej.com

Platinum Participants

Participant Logo- Courtesy of Lancemore Co. Japan

BETA CAE Systems SA

CRAY

DatapointLabs

eta

esi

LANCEMORE Co.

GOMPUTE
A GRIDCORE COMPANY

JSOL

LSTC
Livermore Software Technology Corp.

Oasys
The Software House of Arup

KAIZENAT
Keep Improving

Comet
The performance engineering workspace

PENGUIN COMPUTING®

TERRABYTE Co.,Ltd

DFE TECH

LS-DYNA Online Training

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Announcements

Product News - JMAG (pg 6)

CD-adapco, JSOL Sign Collaborative Development Agreement
suribala@gmail.com

August - LSTC California - classes@lstc.com

Mhamed Souli will be teaching

SPH CA Aug 11-12 Mon-Tues
ALE/FSI CA Aug 13-15 Wed-Fri

Showcased Published Book on Amazon

Finite Elements and Fast Iterative Solvers: with Applications in Incompressible Fluid Dynamics (Numerical Mathematics and Scientific Computation) Paperback – August 5, 2014

For participation in FEA Information Engineering Solutions, contact Anthony Giaccana agiac99@aol.com

Sincerely, Marsha Victory
Trent Eggleston
Suri Bala
FEA Information Inc. USA edition

NEW YORK, NY & LONDON, UK, July 21, 2014 – CD-adapco, the largest privately held CFD focused provider of CAE software, announced they have signed a collaborative development agreement with JSOL, the authors of the JMAG electromagnetics code, to jointly develop co-simulation methods in the domain to coupled thermal & electromagnetic simulations.

Jean-Claude Ercolanelli, CD-adapco senior vice president product management, comments, "Enabling the co-simulation of both thermal and electromagnet phenomena using best-in-class tools will allow users to truly optimize product designs." Moreover he added, "This collaboration builds on the existing relationship and data transfer methods already being used between our flagship product, STAR-CCM+, and JSOL's JMAG code"

"We are very pleased to be partnering with CD-adapco and to introduce co-simulation methods between these best-in-class technologies," said Takashi Yamada, Ph.D., manager of the Electromagnetic Engineering Group at JSOL. "We hope that together we can provide smooth and reliable multi-physics/multi-disciplinary simulations with STAR-CCM+ and JMAG for that will benefit our joint customers."

The partnership was forged during 2013 when establishing a data transfer process between the two companies' simulation codes, passing electromagnetic loss distributions and component temperature distributions. The collaborative agreement builds on this existing process and will allow a tighter coupling to be achieved. The performance of components within the majority of electromagnetic devices are temperature dependent therefore finding the final 5% of an optimum design requires the co-simulation of such processes. Doing so within a productive environment will unleash the final 5% to product designers. A first release is expected in 2015 and example problems are now being trialed.

For more information please visit [http://www.cd-adapco.com/industries/electric-machines] or www.jmag-international.com/index.html .

About CD-adapco -CD-adapco is the world's largest privately held CFD focused CAE provider. Their core products are the technology-leading simulation packages, STAR-CCM+ and STAR-CD. The scope of our activities, however, extends well beyond CFD software development to encompass a wide range of CAE engineering services in fluid dynamics, heat transfer and structural engineering. Our ongoing mission is to "inspire innovation and reduce costs through the application of engineering simulation software and services." A privately owned company, CD-adapco has maintained 17% organic year-on-year growth over the last 5 years. CD-adapco employs 850 talented individuals, working at 30 different offices across the globe. For more information, please visit [http://www.cd-adapco.com].

Listings are no fee for inclusion, emailed to agiac99@aol.com

Women are gaining momentum in technical disciplines.

Today there are many organizations, programs, events geared for the success of women in engineering.

IEEE WIE

The mission of IEEE WIE is to facilitate the global recruitment and retention of women in technical disciplines.
www.ieee.org/membership_services/membership/women/index.html

The EngineerGirl

The EngineerGirl website is designed to bring national attention to the exciting opportunities that engineering represents for girls and women.
www.engineergirl.org

WEPAN

WEPAN is a non-profit educational organization founded in 1990 to be a catalyst for change to enhance the success of women in the engineering professions.
www.wepan.org

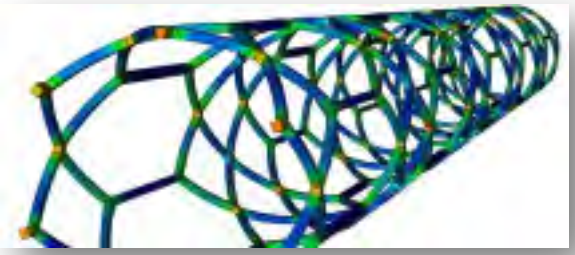
(WiE) Program

Established in 1979, the Women in Engineering (WiE) Program at The Ohio State University fosters a supportive learning environment and culture within the College of Engineering and beyond.
https://wie.osu.edu

WIEP Program

Imagine, Discover, Connect, Dream Purdue University's Women in Engineering Program (WIEP) helps women and girls discover their inner engineer.
https://engineering.purdue.edu/WIEP

BETA CAE Systems S.A. announces the release of ANSA & µETA v15.0.3



Further increasing the reliability of the v15.0x branch, BETA CAE Systems S.A. announces the release of the v15.0.3

ANSA & µETA pre- and post- processing suite.

http://www.beta-cae.gr/news/20140709_announcement_ansa_meta_v15.0.3.htm

About this release:

Further increasing the reliability of the v15.0x branch, BETA CAE Systems S.A. announces the release of the v15.0.3 ANSA & µETA pre- and post- processing suite. This maintenance release focuses on the correction of identified issues for the ANSA / µETA 15.0x branch and is addressed to those who wish to continue to use the v15.0x branch -and not upgrade to v15.1x branch- with its issues resolved.

These corrections have also been propagated to the latest releases of the 15.1x branch, ie v15.1.1.

Understanding the Software Release Schedule

The plan:

We are committed in delivering improved and enhanced software releases, the soonest possible, in order to meet the requirement of our customers for the continuous improvement of their experience and work. Therefore, we are working in releasing new software versions with code corrections, new software features and enhancements, in regular, frequent intervals.

- A major software version is released every year.
- First point releases, such as v15.1.0, v15.2.0 and so on, with code corrections but also with additional software features and enhancements are released every three months.
- Second point releases, such as v15.2.1, v15.2.2, v15.2.3 mainly with code corrections only upon their parent first point release, are scheduled on a monthly basis.

Each software release is accompanied by a detailed description of the introduced corrections and/or additions so that our customers can decide whether it is critical to implement this release in their environment.

This release

This release of v15.0.3 implements code corrections, to the v15.0.2 release and the latest pre-existing release of the 14x branch. These corrections have also been propagated to the latest releases of the 15.1x branch, ie v15.1.1.

Known issues resolved in ANSA

Parts Manager

When a part was unmeshed, its mass would be zero in the Part Manager's attributes.

Compare

Comparing two databases with more than five thousands PLINKs, could cause unexpected termination.

TOPO

Database Browser: Deleting entities from "Geometry" list could cause unexpected termination.

Mesh

Elements: Selecting three nodes, that all belonged to polygon elements, to create a tria element could result in unexpected termination.
Shell Mesh: SETs containing Shell elements affected by reconstruct would not be updated properly.
Volume Mesh: The performance issue with Define [Auto Detect] has been fixed.

Batch Meshing

The result of the proximity refinement from CFD Batch Mesh procedure was not always correct.

Decks

NASTRAN: During Input, the SDIST and EXT fields of *BGSET keyword would be ignored.
PAM-CRASH: Outputting a database containing SETs with names of 80 or more characters, in PAM-CRASH version 2012 or newer, could result in unexpected termination.

Known issues resolved in µETA

Supported Interfaces

PAM-CRASH:
- Results from DIFFCrash would not be read.
- In certain cases PLINKS would not be read from .pc files.
- Unexpected termination could occur when reading .pc files with wrong SENPTG definition.

LS-DYNA:
- Incorrect Solid skin when reading from d3plot files.
- Beam sections displayed with wrong radius.
- Unexpected termination when reading results from specific d3plot files with airbag particles.
- Plotting curves from specific LS-DYNA binout files on MS-Windows workstations could cause termination.

Abaqus:
- Contact status results might be loaded incorrectly.

ANSYS:
- Wrong element nodal forces were displayed on midside nodes of second order tria elements.

PERMAS:
- Unexpected termination when plotting curves of results from .post files.

U3D:
- Follow Node Transformations were not supported for U3D PDF files.

MotionSolve:
- The animation of Flex Bodies' deformations would not be performed correctly.

NVH Calculators

In the Modal Response tool, for load types other than forces, the calculated responses would be incorrect.

Energy results would not be plotted in the FRF Assembly tool.

When setting a zero End Frequency in the FRF Assembly tool, unexpected termination could occur.

Compatibility and Supported Platforms

ANSA files saved by all the first and second point releases of a major version are compatible to each other. New major versions can read files saved by previous ones but not vice versa.

The .metadb files saved with µETA version 15.0.3 are compatible and can be opened by earlier versions of µETA.

Support for 32-bit platform has been discontinued for all operating systems except for Windows.

Download
Where to download from

Customers who are served directly by BETA CAE Systems S.A. may download the new software, examples and documentation from their account on our server. They can access their account through the "user login" link at our web site http://www.beta-cae.gr
Contact us if you miss your account details. The [Public] link will give you access to the public downloads area.
Customers who are served by a local business agent should contact the local support channel for software distribution details.

What to download

All files required for the installation of this version reside in the folder named "BETA_CAE_Systems_v15.0.3 " and are dated as of July 9th, 2014. These files should replace any pre-releases or other files downloaded prior to that date.

The distribution of this version of our pre- and post-processing suite is packaged in one, single, unified installation file, that invokes the respective installer and guides the procedure for the installation of the required components.
For the installation of the software on each platform type, the following files have to be downloaded:

- the .sh installer file residing in the folder with respective platform name, for Linux and MacOS or
  the respective .msi installer file for Windows, 32bit or 64bit, and
- the tutorial example files that reside at the top level of the folder of this distribution.
- In addition to the above, optionally, the µETA Viewer is available to be downloaded for each supported platform.

The Abaqus libraries required for the post-processing of Abaqus .odb files are included in the installation package and can be optionally unpacked.

Previous software releases can be found in the sub-directory called "old" or in a folder named after the
product and version number.

Mercedes-Benz rally driver Ewy Rosqvist celebrates her 85th birthday
Stuttgart Jul 25, 2014

- **Winner of the 1962 Argentinian Touring Car Grand Prix with Ursula Wirth in a Mercedes-Benz 220 SE (W 111)**
- **A charming brand ambassador for Mercedes-Benz Classic**
- **Her first contact with the brand was driving her father's Mercedes-Benz 170 S for work**

Stuttgart. – On 5 November 1962, Ewy Rosqvist finished over three hours ahead of the rest of the field in the 6th Argentinian Touring Car Grand Prix (VI. Gran Premio Internacional Standard Supermovil YPF). Winning this long-distance rally outright was a career highlight for this former Mercedes-Benz works driver.

From Mercedes-Benz & Friends events to Schloss Dyck Classic Days, fans are always delighted to see Baroness Ewy von Korff-Rosqvist whenever she makes appearances as a charming brand ambassador for Mercedes-Benz Classic. Part of the Stuttgart brand's works team during the 1960s, the female Swedish rally driver is celebrating her 85th birthday. "We extend our wholehearted congratulations to Ewy Rosqvist on her special day," says Michael Bock, Director Mercedes-Benz Classic and Customer Center. "We greatly appreciate her personable manner – and her utter professionalism at the wheel."

The Touring Car Grand Prix of Argentina, from 25 October to 4 November 1962. Victory celebrations in the Daimler-Benz AG tower block in Stuttgart-Untertürkheim. From left to right: Baroness Ewy von Korff-Rosqvist, Director General Walter Hitzinger, Ursula Wirth and Head of Racing Karl Kling

The rally driver was born Ewy Jönsson in Stora Herrestad near Ystad, southern Sweden, on 3 August 1929. Her parents ran a farm and had five children, Ewy being the only girl. She attended the local school first and then high school in the small nearby town of Ystad. Having completed her intermediate schooling, her father encouraged her to go to agricultural college. This actually laid the foundation for her subsequent rally driving career and provided her first contact with the Mercedes-Benz brand. After studying livestock husbandry, as well as two semesters of veterinary medicine in Stockholm, Ewy Jensson qualified as a veterinary assistant. Working for a veterinarian, she had to cover a large district containing far-flung farms. Her father therefore bought a Mercedes-Benz 170 S (W 136) for the young woman to drive 150 to 200 kilometres each day on the narrow dirt and gravel roads. Within a relatively short time she had clocked up 220,000 kilometres in the car and was constantly improving her times between the various farmsteads and home. This honed her motoring skills and unearthed her talent for driving quickly and safely on challenging routes. In her autobiography "Fahrt durch die Hölle" ("Driving through Hell"), the racing driver described the time thus: "After two years, I was driving so well that I often finished for the day one and a half to two hours before my female colleagues despite all my stops on the farms."

Marriage to the engineer and motor sport enthusiast Ingve Rosqvist in 1954 gave this young Swedish woman a taste for rallying as a sport. Ewy accompanied her husband during the 1954 Swedish Rally to the Midnight Sun (Svenska Rallyt till Midnattssolen) – and had her chance behind the wheel: "I was allowed to drive on some of the intermediate stages and that was so much fun that I decided to take part in a rally myself, or as a co-driver, as soon as possible," she later recalled. In 1956, aged 27, she found herself on the starting line of the Midnight Sun Rally with Maybrit Clausson as her co-driver.

Ewy Rosqvist was soon passionately committed to the sport, even though rallying was an expensive pursuit for a young veterinary assistant. Taking part in a major national rally in the late 1950s cost the equivalent of around 3,000 deutschmarks – a small fortune at that time. Rosqvist won the Women's Cup four times at the 1,000 Lakes Rally in Finland and also topped the female rankings at numerous other rallies across Europe.

In 1959, Rosqvist became European Ladies' Rally Champion in a Volvo ahead of Pat Moss, the internationally famous rally driver and sister of Stirling Moss. Princess Grace of Monaco presented the trophy to Ewy at the Monte Carlo Rally ceremony in January 1960. Rosqvist won this title again in 1960 and 1961. She also won the ladies' class (Coupe des Dames) in international rallying in 1959 and 1961.

Ultimately it was not possible to pursue intense, successful rallying as a private passion alongside other employment on a permanent basis. As a result, Rosqvist signed a contract as a works driver with Volvo in 1960. The circle back to her first car was soon drawn, though. After all, she had completed her driving apprenticeship in a Mercedes-Benz. In the spring of 1962, the brand recruited the successful rally driver and her co-driver Ursula Wirth onto the Stuttgart works team.

The first race for Rosqvist and Wirth in their top-end Mercedes-Benz 220 SE (W 111) Saloon was the four-day Swedish Rally to the Midnight Sun (12 to 16 June 1962) where they immediately secured the women's cup. They took 6th place in the 22nd Rajd Polski (2 to 6 June 1962) and then came in 12th in the Liège–Sofia–Liège Rally (29 August to 3 September 1962) before going on to win the Argentinian Touring Car Grand Prix. Ewy Rosqvist and Ursula Wirth won all six stages of this 4,624-kilometre race in course records, triggering enthusiastic celebrations on their arrival in Buenos Aires. It was probably the biggest success in Ewy Rosqvist's glittering career. To seal this victory Ewy Rosqvist not only succeeded in dominating the race, she also increased the average speed from 121.234 km/h to 126.872 km/h compared to the previous year's winning duo (Walter Schock and Manfred Schiek in a Mercedes-Benz 220 SE).

Over the next couple of years, Ewy Rosqvist continued to achieve excellent placings in famous rallies and long-distance races. Examples include 16th place overall and a win in the ladies' class at the 1963 Monte Carlo Rally, 12th place at the 11th Acropolis Rally and victory in the class up to 2,500 cc in a six-hour race at the Nürburgring (with Ursula Wirth and Eberhard Mahle). She and Ursula also achieved third place in the Argentinian Touring Car Grand Prix behind team-mates Eugen Böhringer and Klaus Kaiser, as well as Dieter Glemser and Martin Braungart, each duo in a Mercedes-Benz 300 SE (W 112).

In 1964, Ewy Rosqvist teamed up with Eva Maria Falk to win the class up to 2,500 cc at the Monte Carlo Rally, secure 5th place in the Acropolis Rally and 3rd place in the Spa–Sofia–Liège Rally. The Swedish driver ended her active career by finishing 3rd in the 1964 Argentinian Touring Car Grand Prix with Eva Maria Falk. In June of that year, Rosqvist married Baron Alexander von Korff-Schmysingk in the chapel of Stuttgart's Old Castle. Following her husband's death in 1977, Baroness Ewy von Korff-Rosqvist carried on living in Stuttgart for some years. Among other activities, she conducted guided museum tours there in Swedish, German, English, and Spanish.

Baroness von Korff-Rosqvist now lives in Stockholm. She is closely connected with Mercedes-Benz Classic as an ambassador for motor sport and is a popular guest at Mercedes-Benz Classic events.

In June, Tesla's Supercharger network passed a charging milestone, delivering more than 1 GWh of energy to Model S vehicles in a single month.

That energy accounts for a collective 3.7 million miles driven, 168,000 gallons of gas saved, and 4.2 million pounds of carbon dioxide offset. That's like driving to the moon and back seven and a half times, and nixing a day's worth of CO2 from 73,684 Americans.

Tesla's Supercharger network is now the largest fast-charging network on the planet. It's also the world's fastest-growing charging network.

At a Supercharger, Model S customers can get half a charge in as little as 20 minutes, and it's totally free. Supercharger routes now span the entire width of the United States, from Los Angeles to New York, as well as up and down the East Coast and the West Coast. By the end of next year, 98 percent of the U.S. population will be within 100 miles of a Supercharger. We are also aggressively expanding the network in Europe and Asia. Last week alone, we opened eight new Supercharging sites in Europe, bringing the total number of stations on the continent to 32. We unveiled China's first Superchargers in June and more are coming soon.

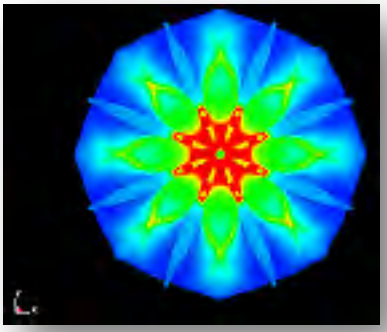
You can find a Model S charging at a Supercharger any given second of the day, and to date Superchargers have powered a total of 24.7 million miles of driving – which means the world has been spared the burning of 1.1 million gallons of gasoline.

For more details on the continued global expansion of the Supercharger network, visit www.teslamotors.com/supercharger.

LANCEMORE Co.

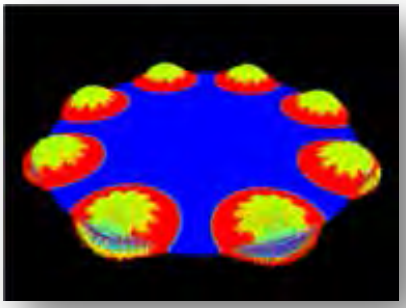
LS-DYNA Consulting:

The sample models have been created and collected below for the purposes of letting you know what LS-DYNA can do and demonstrating our knowledge and abilities to create models. We are hoping that our models come in useful for you. If you wish to create a particular model, please contact us. We will offer the best cost-effective solutions. Thank you for your interest in our models



Plane detonation wave collision analysis using ALE method

No.401



Plane detonation wave collision analysis using sph method

No.400

Contact: info@lancemore.jp

LS-DYNA Aerospace Working Group

http://awg.lstc.com
The LS-DYNA® Aerospace Working Group (AWG)

The LS-DYNA® Aerospace Working Group (AWG) is a partnership of federal agencies, corporations, and universities working together to develop and publish aerospace test cases and modeling guidelines for finite element analyses with LS-DYNA®.

KAI Selected As LCH/LAH Developer to Lead Development of the Aviation Industry

Korea Aerospace Industries, Ltd.(KAI), the sole Korean aircraft manufacturer, will take charge of developing the Light Armed Helicopters(LAH) and Light Civil Helicopters(LCH) which are able to tow development of Korea's domestic aviation industry and simultaneously reinforce the Korean military's aviation strength.

Both the Ministry of Trade, Industry and Energy, and the Defense Acquisition Program Administration announced on the 21st of July that "KAI was selected as a preferred bidder for the core technology development of the LCH project and the system development of the LAH project."

With this selection, KAI will establish a LCH/LAH development plan, including selection of overseas system developers as well as local and foreign vendors and will be solely responsible for the system development of those two projects. The conclusion ceremony of the LCH/LAH development contracts is expected to be held in November.

KAI - LCH/LAH Developer to Lead Development of the Aviation Industry

The LCH/LAH project, driven jointly by both MOTIE and DAPA is a project which connects and develops the 10,000lb-class light armed helicopter and the light civil helicopter all together and its total development budget in local investment is forecasted to be more than approximately one(1) trillion won. Assisted by the government, KAI plans to draw foreign direct investment as well.

The LCH, driven by MOTIE for development will replace the foreign-made helicopters operated in Korea and will be used for diverse purposes, including emergency services, coastal surveillance and passenger transportation.

KAI plans to set out for development of the LCH earlier than the LAH and complete the development by 2020, given its development efficiency and budget saving.

Currently, KAI is in negotiations with Agusta Westland, Italy, Airbus, the Europe, Bell, the U.S.A., and Sikorsky, the U.S.A., all of which offered their participation intentions in the development of the LCH.

In the meantime, designed for substituting for Korea's old and superannuated 500 MD and AH-1S attack helicopters, the LAH project is being driven by the DAPA.

The Korean military fixed a plan for deploying and operating the high-class attack helicopter and the low-class armed helicopter as its army aviation aircraft in order to reinforce Korea's aviation strength in 2009 and has since driven development of a Korean-made Light Armed Helicopter, or LAH.

Intending to make use of the civil and military parts which were acquired via the development of the LCH, KAI plans to secure its armed and fire control system ability of the LAH through international technology cooperation, scheduled for completion by 2022.

Via the development of the KT-1 basic trainer and the T-50 advanced trainer as well as the KUH or Korea Utility Helicopter, KAI has continued to secure its aircraft development ability and infrastructure," said an official at KAI." "The company got everything in readiness to make a successful development of the KF-X and the LAH/LCH project, core ones which will tow rapid progress in the local aviation industry and strengthening of self-reliance defense."

DatapointLabs and Matereality attended more than half a dozen technical meetings and trade events during the past three months. Recent advancements in both material testing applications and material data management software were the focus of the companies' joint presence.

If you missed us at any of these events, below are some highlights:

13th International LS-DYNA Users' Conference

Nearly 650 people attended the International LS-DYNA Users' Conference in Dearborn, MI this year, at which 124 papers were presented, among them Software for Creating LS-DYNA Material Model Parameters from Test Data, delivered by Brian Croop.

The presentation previewed the new user interface and model implementation that will be included in the soon-to-be-released Matereality v8 CAE Modeler . A renewed interest in metal forming testing (provided in G-790 and G-791) was noted in conversations with attendees by staff Nick Simpson and Brian Croop.

Introduced at the conference was DatapointLabs' new Photron SA5 high-speed camera for validation, DIC, and high-strain-rate measurements.

CARHS Automotive CAE Grand Challenge

Hubert Lobo delivered Comments on the Testing and Management of Plastics Material Data at the CARHS Automotive CAE Grand Challenge in Hanau, Germany. This presentation reviewed our latest findings related to volumetric yield in polymers and its relationship to failure, as well as the material database technology that was created to store this kind of multivariate data and the analytical tools created to help the CAE engineer understand and use plastics material data.

SPE AutoEPCON

Matereality software was the focus of Hubert Lobo's presentation at this year's SPE AutoEPCON in Troy, MI. In Software for Creating and Managing Material Specifications, capabilities of a new enterprise app that manages creation of material specifications, input of properties and material composition, and evaluation of candidate materials per specification were introduced.

SIMULIA Community Conference

Hubert Lobo also delivered Providing an Experimental Basis in Support of Finite Element Analysis at the SIMULIA Community Conference in Providence, RI, which was attended by over 600 people. DatapointLabs was also a conference sponsor, and booth staff discussins with attendees centered around the relationships among data validation, simulation, and optimization.

NAFEMS USA Regional Conference

Daniel Roy presented The Use of Digital Image Correlation (DIC) and Strain Gauges to Validate Simulation* at the NAFEMS USA Regional Conference in Colorado Springs, CO. Presentation

ANSYS Conference & CADFEM User's Meeting

The ANSYS Conference & CADFEM User's Meeting drew nearly 800 attendees to historic Nuremberg, Germany, this year. Our exhibit was staffed by Barbara Leichtenstern and Brian Croop, and Brian also delivered a presentation on Validation of Simulations through Use of DIC Techniques*. Many attendees stopped by our exhibit to discuss composite testing, hyperelastic modeling (G-760 and G-761), viscoelastic testing (G-755), as well as techniques to capture property retention of materials subjected to harsh environments.

* DatapointLabs would like to acknowledge the contribution of Jennifer Borshoff, who performed some of the work presented, and the support of Rajesh Bhaskaran, Senior Lecturer and Swanson Director of Engineering Simulation at Cornell University, School of Mechanical & Aerospace Engineering.

Sarba Guha, LSTC, Troy Office, Michigan, USA

LSTC recently released updated versions of the following models:
- HYBRID III 5th Percentile detailed (intermediate release)
- HYBRID III 95th Percentile detailed (scaled)
- HYBRID III 95th Percentile FAST (Updated version of the model previously known as Rigid-FE)

LSTC's LS-DYNA models are available for download through LSTC's website at:

http://www.lstc.com/download/dummy_and_barrier_models

If you need help accessing the models, please contact:

atds@lstc.com

Following are brief summaries of the updates. For more details please refer to the "README" files and "Header Notes" associated with each of the release packages.

1) LSTC.H3_05TH_DETAILED.140612_BETA_IntermediateRelease:

A lot of development has taken place since the last relase and several changes have been incorporated into the model, such as a refined Neck Rubber Model, a more user friendly numbering system and Lumbar rotation feature. In addition, potential problem areas which could lead to failure have been modified.

The reasons this is an intermediate release are the lack of the neck extension calibration and a user's manual for this model. Once that is complete, we will release another version that also includes a complete User's Manual.

2) LSTC.H3_95TH_DETAILED_Scaled.140620_ALPHA.k:

Some potential problems have been eliminated and the shoulder areas have been improved to relieve some built-in stresses between the parts. Most of these changes are based on customer feedback.

3) LSTC.H3_95TH_FAST.130927.V2.0.k

This is the first release of the coarsely meshed, fast running HYBRID III 95th percentile model under the FAST name. Previous versions were labeled Rigid-FE which sometimes lead to the impression that it was a rigid body model.

Any feedback on the models is appreciated.

International CAE Conference 2014

October 27-28, Pacengo del Garda (Verona),

Italy

Your opportunity to be part of the future!

The International CAE Conference is the main event in Italy and one of the most important ones in Europe regarding numerical simulation and its role in shaping the future of industrial R&D. It is a key platform for engineers, analysts, designers, IT managers, professors, researchers and students. Those who wish to share their knowledge and ideas or are interested in learning more about computer simulation tools and related technologies will benefit hugely from attending the 2-day program.

This year's Conference will take place in Pacengo del Garda (Verona), Northern Italy. The program will feature multiple parallel sessions on a variety of industrial verticals including: Aerospace & Defence, Automotive and Transportation, Naval, Oil&Gas and Energy, Processing and Production, Consumer goods, and more. The International CAE Conference is also an annual appointment for dedicated users' meetings on specific and emerging technologies.

Moreover, opinion leaders and experts will explore topics in Civil Engineering & Construction, Biomechanics and High Performance Computing. Several CAE-oriented complementary sessions and workshops will complete the diverse and exciting agenda.

In the frame of the International CAE Conference, the 3rd edition of the "Poster Award" will be presented. The Award honors the most outstanding and innovative research work by students and researchers in the year 2014.

For further information about the conference, to submit a presentation and/or become an exhibitor and sponsor, please contact : info@caeconference.com
Tel. +39 0461 979 474 **Stay tuned to: www.caeconference.com**

June

06 Mercedes-Benz - IEEE Robotics and Automation Award
08 FORD China - Sales Update
10 Royal Navy - New Wildcat
12 Chevrolet - Camaro that converts into the iconic Bumblebee
15 CAE Associates - Nicholas M. Veikos
18 LSTC - Training Classes
19 - LANCEMORE Co., - Walking Beam Furnace

May

06 MIPS Helmets – New Generation
09 JSOL - HYCRASH
10 Comet Solutions, Inc - Automotive Focus
12 BETA CAE Systems S.A. ANSA & µETA v14.2.
14 LSTC - DES Discrete Element Sphere
15 Cray - Cray to Install Tiered Adaptive Storage Solution at the North German Supercomputing Alliance (HLRN)
17 MSC Software - The Jury Has Spoken
18 Penguin - POD (Penguin Computing on Demand
19 AEROSPACE X-29 research aircraft

March FEA Information Engineering Solutions

06 AEROSPACE X-29 research aircraft
08 BMW i8 Delivery in June
10 OASYS Software HPM / HRMD Positioning Tool
11 SEID KORIĆ New World Record in Parallel Scaling
13 CAE Associates Aerodynamic Analysis of an Airbrake System
14 Predictive Engineering Respirator Modeling
15 Gompute User Meeting
16 FORD Analyzing NASA's Robonaut 2
18 GM New Modular Ecotec Engines
20 DYNAmore Call For Papers
22 DYNAmore Free LS-DYNA Information Day

BETA CAE Systems S.A. www.beta-cae.gr

BETA CAE Systems S.A.– ANSA

Is an advanced multidisciplinary CAE pre-processing tool that provides all the necessary functionality for full-model build up, from CAD data to ready-to-run solver input file, in a single integrated environment. ANSA is a full product modeler for LS-DYNA, with integrated Data Management and Process Automation. ANSA can also be directly coupled with LS-OPT of LSTC to provide an integrated solution in the field of optimization.

BETA CAE Systems S.A.– μETA

Is a multi-purpose post-processor meeting diverging needs from various CAE disciplines. It owes its success to its impressive performance, innovative features and capabilities of interaction between animations, plots, videos, reports and other objects. It offers extensive support and handling of LS-DYNA 2D and 3D results, including those compressed with SCAI's FEMZIP software

CRAY www.cray.com

Cray CS300-AC Cluster Supercomputer

§ The Cray CS300-AC cluster supercomputer features an air-cooled architecture based on blade server or rackmount server building block platforms. The system is built for capacity and data-intensive workloads. It delivers turnkey high performance computing with a broad range of flexible system configuration options.

§ The CS300-AC system features two new preconfigured ready-to-go solutions, the CS300 shared memory parallel and the CS300 large memory systems.

Cray CS300-LC Cluster Supercomputer

§ The Cray CS300-LC cluster solution features a direct liquid-cooled architecture using warm water heat exchangers instead of chillers. It delivers a turnkey, energy-efficient solution that reduces datacenter power and cooling operation costs for faster ROI while addressing capacity and data-intensive workloads.

Cray XC30 Supercomputer Series

§ The Cray XC30 family delivers on Cray's commitment to an adaptive supercomputing architecture that provides both extreme scalability and sustained performance. The flexibility of the Cray XC30 platform ensures that users can configure the exact machine to meet their specific requirements today, and also remain confident they can upgrade and enhance their system to address the demands of the future.

Cray Sonexion Scale-out Lustre Storage System

§ Brought to you by Cray, the world's leading experts in parallel storage solutions for HPC and the technical enterprise, the Cray Sonexion is a fully integrated, modular and compact scale-out storage system for Lustre.

DatapointLabs www.datapointlabs.com

Testing over 1000 materials per year for a wide range of physical properties, DatapointLabs is a center of excellence providing global support to industries engaged in new product development and R&D.

The company meets the material property needs of CAE/FEA analysts, with a specialized product line, TestPaks®, which allow CAE analysts to easily order material testing for the calibration of over 100 different material models.

DatapointLabs maintains a world-class testing facility with expertise in physical properties of plastics, rubber, food, ceramics, and metals.

Core competencies include mechanical, thermal and flow properties of materials with a focus on precision properties for use in product development and R&D.

Engineering Design Data including material model calibrations for CAE Research Support Services, your personal expert testing laboratory Lab Facilities gives you a glimpse of our extensive test facilities Test Catalog gets you instant quotes for over 200 physical properties.

ETA – Engineering Technology Associates www.eta.com
etainfo@eta.com

Inventium Suite™

Inventium Suite™ is an enterprise-level CAE software solution, enabling concept to product. Inventium's first set of tools will be released soon, in the form of an advanced Pre & Post processor, called PreSys.

Inventium's unified and streamlined product architecture will provide users access to all of the suite's software tools. By design, its products will offer a high performance modeling and post-processing system, while providing a robust path for the integration of new tools and third party applications.

PreSys

Inventium's core FE modeling toolset. It is the successor to ETA's VPG/PrePost and FEMB products. PreSys offers an easy to use interface, with drop-down menus and toolbars, increased graphics speed and detailed graphics capabilities. These types of capabilities are combined with powerful, robust and accurate modeling functions.

VPG

Advanced systems analysis package. VPG delivers a unique set of tools which allow engineers to create and visualize, through its modules--structure, safety, drop test, and blast analyses.

DYNAFORM

Complete Die System Simulation Solution. The most accurate die analysis solution available today. Its formability simulation creates a "virtual tryout", predicting forming problems such as cracking, wrinkling, thinning and spring-back before any physical tooling is produced

ESI Group www.esi-group.com

Visual-Environment: Visual-Environment is an integrated suite of solutions which operate either concurrently or standalone within a common environment. It aims at delivering an open collaborative engineering framework. As such, it is constantly evolving to address various disciplines and available solvers.

Visual-Crash is a dedicated environment for crash simulation: It helps engineers get their job done in the smoothest and fastest possible way by offering an intuitive windows-based graphical interface with customizable toolbars and complete session support.

For LS-DYNA users, Visual-Crash DYNA allows to focus and rely on high quality digital models, from start to finish as it addresses the coupling with competitive finite element or rigid body based software. This very open and versatile environment simplifies the work of CAE engineers across the enterprise by facilitating collaboration and data sharing.

Further tools are integrated in Visual-Environment enhancing CAE engineers work tasks most efficiently.

Visual-Mesh generates 1D, 2D and 3D elements for any kind of simulation.
Visual-Mesh provides automatic and guided surfaces clean up, application specific mesh generation and intuitive post mesh editing features..

Visual-Viewer is a complete, productive and innovative post-processing environment for CAE applications.

Visual-Viewer delivers a dedicated plotting and animation control solution. It offers a multi page, multi plot environment, allowing to group data into pages and plots. It is designed with a Windows GUI based on an intuitive and sleek user interface.

Visual-Process Executive is an advanced CAE environment for process customization and automation.

VisualDSS is an End-to-End Decision Support System for CAE. Manufacturers widely resort to Simulation-Based Design to gain a competitive edge in product development.

Gompute on demand®/ Gridcore AB Sweden
www.gompute.com www.gridcore.se

Gompute is owned, developed and operated by Gridcore AB in Sweden. Founded in 2002, Gridcore is active in three areas: Systems Integration, Research & Development and HPC as a service.

Gridcore has wide experience of different industries and applications, developed a stable product portfolio to simplify an engineer/scientist's use of computers, and has established a large network of partners and collaborations, where we together solve the most demanding computing tasks for our customers. Gridcore has offices in Gothenburg (Sweden), Stuttgart (Germany), Durham NC (USA) and sales operations in The Netherlands and Norway.

The Gridcore developed E-Gompute software for internal HPC resources gives end users (the engineers) an easy-to-use and complete environment when using HPC resources in their daily work, and enables collaboration, advanced application integrations, remote pre/post, accounting/billing of multiple teams, license tracking, and more, accelerating our customers usage of virtual prototyping

.

JSOL Corporation www.jsol.co.jp/english/cae/

HYCRASH

Easy-to-use one step solver, for Stamping-Crash Coupled Analysis. HYCRASH only requires the panels' geometry to calculate manufacturing process effect, geometry of die are not necessary. Additionally, as this is target to usage of crash/strength analysis, even forming analysis data is not needed. If only crash/strength analysis data exists and panel ids is defined. HYCRASH extract panels to calculate it's strain, thickness, and map them to the original data.

JSTAMP/NV

As an integrated press forming simulation system for virtual tool shop the JSTAMP/NV meets the various industrial needs from the areas of automobile, electronics, iron and steel, etc. The JSTAMP/NV gives satisfaction to engineers, reliability to products, and robustness to tool shop via the advanced technology of the JSOL Corporation.

JMAG

JMAG uses the latest techniques to accurately model complex geometries, material properties, and thermal and structural phenomena associated with electromagnetic fields. With its excellent analysis capabilities, JMAG assists your manufacturing process

Livermore Software Technology Corp. www.lstc.com

LS-DYNA

A general-purpose finite element program capable of simulating complex real world problems. It is used by the automobile, aerospace, construction, military, manufacturing, and bioengineering industries. LS-DYNA is optimized for shared and distributed memory Unix, Linux, and Windows based, platforms, and it is fully QA'd by LSTC. The code's origins lie in highly nonlinear, transient dynamic finite element analysis using explicit time integration.

LS-PrePost

An advanced pre and post-processor that is delivered free with LS-DYNA. The user interface is designed to be both efficient and intuitive. LS-PrePost runs on Windows, Linux, and Macs utilizing OpenGL graphics to achieve fast rendering and XY plotting.

LS-OPT

LS-OPT is a standalone Design Optimization and Probabilistic Analysis package with an interface to LS-DYNA.

The graphical preprocessor LS-OPTui facilitates definition of the design input and the creation of a command file while the postprocessor provides output such as approximation accuracy, optimization convergence, tradeoff curves, anthill plots and the relative importance of design variables.

LS-TaSC

A Topology and Shape Computation tool. Developed for engineering analysts who need to optimize structures, LS-TaSC works with both the implicit and explicit solvers of LS-DYNA. LS-TaSC handles topology optimization of large non-linear problems, involving dynamic loads and contact conditions.

LSTC Dummy Models

Anthropomorphic Test Devices (ATDs), as known as "crash test dummies", are life-size mannequins equipped with sensors that measure forces, moments, displacements, and accelerations.

LSTC Barrier Models

LSTC offers several Offset Deformable Barrier (ODB) and Movable Deformable Barrier (MDB) model.

Oasys, Ltd www.oasys-software.com/dyna

Oasys LS-DYNA® Environment

The Oasys Suite of software, exclusively written for LS-DYNA®, is at the leading edge of the market and is used worldwide by many of the largest LS-DYNA® customers.

Oasys PRIMER is a model preparation tool that is fully compatible with the latest version of LS-DYNA®, eliminating the risk of data loss or corruption when a file is manipulated, no matter what operations are performed on it:

Key benefits:

- Maintains data integrity
- Finds and fixes model errors (currently over 5000 checks)
- Specialist tools for dummy positioning, seatbelt fitting, mechanisms, interior head impact etc.
- Connection manager for spotwelds, bolts, adhesive etc.
- Intelligent editing, deletion and merging of data
- Customisable with macros and JavaScript.

Oasys D3PLOT is a powerful 3D visualization package for post-processing LS-DYNA® analyses

Key benefits:

- Fast, high quality graphics
- Easy, in-depth access to all LS-DYNA® results.
- User defined data components
- Customisable with JavaScript.

Oasys T/HIS is an X-Y graph plotting package for LS-DYNA®

Key benefits:

1. Automatically reads all LS-DYNA® results.
2. Wide range of functions and injury criteria.
3. Easy handling of data from multiple models
4. Scriptable for automatic post-processing

Oasys REPORTER is an automatic report generation tool, for use with LS-DYNA®. which allows fast automatic report creation for analyses.

Shanghai Hengstar www.hengstar.com

Center of Excellence

Hengstar Technology is the first LS-DYNA training center of excellence in China. As part of its expanding commitment to helping CAE Engineers, Hengstar Technology will continue to organize high level training courses and seminars in 2012.

The lectures/training are taught by senior engineers and experts mainly from LSTC, Carhs, OEMs, and other consulting groups.

On Site Training

Hengstar also provides customer customized training programs on-site at the company facility.

Training is tailored for company needs using LS-DYNA or the additional software products by LSTC.

Distribution & Support

Hengstar Distributes and supports LS-DYNA, LS-OPT, LS-PrePost, LS-TaSC. Hongsheng Lu, previously was directly employed by LSTC before opening his distributorship in China for LSTC software.

Hongsheng travels to LSTC often to keep current on the latest software features and support to continue to grow Hengstar as a CAE consulting group.

Comet Solutions www.cometsolutions.com

Comet enables rapid and robust design space exploration from concept discovery and selection through concept validation using a model-based engineering approach. We empower our customers to discover an array of possible design concepts, evaluate which ones are feasible, then select the best.

Comet software is a tool-open, extensible, vendor-neutral performance engineering workspace that lets engineers and engineering project teams readily carry out multi-fidelity, multi-physics modeling and simulation.

In the Comet workspace, companies can better leverage all of their simulation assets – "best practices" expertise, COTS as well as in-house engineering tools, and product performance data.

Canada	**Metal Forming Analysis Corp MFAC** galb@mfac.com www.mfac.com			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	eta/VPG	
	eta/DYNAFORM	INVENTIUM/PreSys		
United States	**CAE Associates Inc.** info@caeai.com www.caeai.com			
	ANSYS Products	CivilFem	Consulting ANSYS Consulting LS-DYNA	
United States	**DYNAMAX** sales@dynamax-inc.com www.dynamax-inc.com			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models		LSTC Barrier Models	

United States	**ESI-Group N.A** www.esi-group.com			
	QuikCAST	SYSWELD	PAM-RTM	PAM-CEM
	VA One	CFD-ACE+	ProCAST	Visual-Process
	VisualDSS	Weld Planner	Visual-Environment	IC.IDO
United States	**Engineering Technology Associates – ETA** www.eta.com		etainfo@eta.com	
	INVENTIUM/PreSy	NISA	VPG	LS-DYNA
	LS-OPT	DYNAform		
United States	**Gompute** www.gompute.com		info@gompute.com	
	LS-DYNA Cloud Service		Additional software	
	Additional Services			
United States	**Comet Solutions** Comet Software		steve.brown@cometsolutions.com	

United States	**Livermore Software Technology Corp**		sales@lstc.com	
	LSTC www.lstc.com			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	TOYOTA THUMS	

United States	**Predictive Engineering** www.predictiveengineering.com		george.laird@predictiveengineering.com	
	FEMAP	NX Nastran	LS-DYNA	LS-OPT
	LS-PrePost	LS-TaSC	LSTC Dummy Models	
			LSTC Barrier Models	

France	**DynaS+**		v.lapoujade@dynasplus.com	
	www.dynasplus.com		Oasys Suite	
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	DYNAFORM	VPG	MEDINA	
	LSTC Dummy Models		LSTC Barrier Models	

Germany	**CADFEM GmbH**		lsdyna@cadfem.de
	www.cadfem.de		
	ANSYS	LS-DYNA	optiSLang
	ESAComp	AnyBody	
	FTI FormingSuite		

Germany	**DYNAmore GmbH**		uli.franz@dynamore.de	
	www.dynamore.de			
	PRIMER	LS-DYNA	FTSS	VisualDoc
	LS-OPT	LS-PrePost	LS-TaSC	DYNAFORM
	Primer	FEMZIP	GENESIS	Oasys Suite
	TOYOTA THUMS		LSTC Dummy & Barrier Models	

The Netherlands	**Infinite Simulation Systems B.V**		j.mathijssen@infinite.nl	
	www.infinite.nl			
	ANSYS Products	CivilFem	CFX	Fluent
	LS-DYNA	LS-PrePost	LS-OPT	LS-TaSC

Italy	**EnginSoft SpA**		info@enginsoft.it	
	www.enginsoft.it			
	ANSYS	MAGMA	Flowmaster	FORGE
	CADfix	LS-DYNA	Dynaform	Sculptor
	ESAComp	AnyBody	FTI Software	
	AdvantEdge	Straus7	LMS Virtual.Lab	ModeFRONTIER
Russia	**STRELA**		info@dynarussia.com	
	LS-DYNA	LS-TaSC	LS-OPT	LS-PrePost
	LSTC Dummy Models		LSTC Barrier Models	
Sweden	**DYNAmore Nordic**		marcus.redhe@dynamore.se	
	www.dynamore.se		Oasys Suite	
	ANSA	µETA	LS-DYNA	LS-OPT
	LS-PrePost	LS-TaSC	FastFORM	DYNAform
	FormingSuite		LSTC Dummy Models	
			LSTC Barrier Models	
Sweden	**GOMPUTE**		info@gridcore.com	
	www.gridcore.se		www.gompute.com	
	LS-DYNA Cloud Service		Additional software	

Switzerland	**DYNAmoreSwiss GmbH**		info@dynamore.ch	
	www.dynamore.ch			
	LS-DYNA		LS-OPT	LS-PrePost
	LS-TaSC		LSTC Dummy Models	
			LSTC Barrier Models	

UK	**Ove Arup & Partners**		dyna.sales@arup.com	
	www.oasys-software.com/dyna		TOYOTA THUMS	
	LS-DYNA		LS-OPT	LS-PrePost
	LS-TaSC	PRIMER	D3PLOT	T/HIS
	REPORTER	SHELL	FEMZIP	HYCRASH
	DIGIMAT	Simpleware	LSTC Dummy Models	
			LSTC Barrier Models	

Australia	**LEAP**			
	www.leapaust.com.au			
	ANSYS Mechanical	ANSYS CFD	ANSYS EKM	Recurdyn
	ANSYS DesignXplorer	ANSYS HPC	FlowMaster	Ensigh
	LS DYNA	DYNAform	Moldex 3D	FE-Safe
China	**ETA – China**		lma@eta.com.cn	
	www.eta.com/cn			
	Inventium	VPG	DYNAFORM	NISA
	LS-DYNA	LS-OPT	LSTC Dummy Models	LS-PrePost
			LSTC Barrier Models	LS-TaSC
China	**Oasys Ltd. China**		Stephen.zhao@arup.com	
	www.oasys-software.com/dyna			
	PRIMER D3PLOT	HYCRASH	T/HIS REPORTER	SHELL
	LS-DYNA	LS-OPT	LSTC Dummy Models	LS-PrePost
	DIGIMAT	FEMZIP	LSTC Barrier Models	LS-TaSC
China	**Shanghai Hengstar Technology**		info@hengstar.com	
	www.hengstar.com			
	LS-DYNA	LS-TaSC	LSTC Barrier Models	
	LS-DYNA Courses	LS-OPT	LSTC Dummy Models	LS-PrePost

India	**Oasys Ltd. India**		lavendra.singh@arup.com	
	www.oasys-software.com/dyna			
	PRIMER	D3PLOT	T/HIS	
			LS-OPT	LSTC Dummy Models
			LS-DYNA	LSTC Barrier Models
				LS-PrePost
				LS-TaSC

India	**CADFEM Eng. Svce**		info@cadfem.in	
	www.cadfem.in			
	ANSYS	VPS	ESAComp	optiSLang
	LS-DYNA	LS-OPT	LS-PrePost	

India	**Kaizenat Technologies Pvt. Ltd**		support@kaizenat.com	
	http://kaizenat.com /			
	LS-DYNA	LS-OPT	LSTC Dummy Models	LS-PrePost
	Complete LS-DYNA suite of products		LSTC Barrier Models	LS-TaSC

Distribution & Consulting	Asia Pacific	Distribution & Consulting

Japan	**CTC**	LS-dyna@ctc-g.co.jp		
	www.engineering-eye.com			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	CmWAVE	
Japan	**JSOL**			
	www.jsol.co.jp/english/cae		Oasys Suite	
	JSTAMP	HYCRASH	JMAG	
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	TOYOTA THUMS	
Japan	**FUJITSU**			
	http://jp.fujitsu.com/solutions/hpc/app/lsdyna			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	CLOUD Services	
Japan	**LANCEMORE**	info@lancemore.jp		
	www.lancemore.jp/index_en.html			
	Consulting			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models		
Japan	**Terrabyte**	**English:**		
	www.terrabyte.co.jp	www.terrabyte.co.jp/english/index.htm		
	Consulting			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	AnyBody	

Korea	**THEME**	wschung@kornet.com		
	www.lsdyna.co.kr		Oasys Suite	
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	eta/VPG	Planets
	eta/DYNAFORM	FormingSuite	Simblow	TrueGRID
	JSTAMP/NV	Scan IP	Scan FE	Scan CAD
	FEMZIP			

Korea	**KOSTECH**	young@kostech.co.kr		
	www.kostech.co.kr			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	eta/VPG	FCM
	eta/DYNAFORM	DIGIMAT	Simuform	Simpack
	AxStream	TrueGrid	FEMZIP	

Taiwan	**Flotrend**	gary@flotrend.tw		
	www.flotrend.com.tw			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	eta/VPG	FCM

Taiwan	**APIC**			
	www.apic.com.tw			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	LSTC Dummy Models	LSTC Barrier Models	eta/VPG	FCM

Gompute

www.gompute.com

Penguin Computing

www.penguincomputing.com/services/hpc-cloud

Training Classes — Germany CADFEM GmbH — Training Classes

The Complete Courses Offered Can Be Found At: www.cadfem.de

Training Classes — Germany DYNAmore — Training Classes

The Complete Courses Offered Can Be Found At: www.dynamore.de/en

Training Classes — United States LSTC — Training Classes

The Complete Courses Offered Can Be Found At: www.lstc.com

Training Classes — Sweden DYNAmore Nordic — Training Classes

The Complete Courses Offered Can Be Found At: www.dynamore.se

Training Classes — France DynAS+ — Training Classes

The complete Training Courses offered can be found at www.dynasplus.com

Training Classes	Thailand	Training Classes

Complete Courses offered can be found at: **http://www.dfe-tech.com/training.html**

Training Classes	United States ETA	Training Classes

The Complete Courses Offered Can Be Found At: www.eta.com etainfo@eta.com

Training Classes	United States CAE Associates	Training Classes

The Complete Courses Offered Can Be Found At: www.caeai.com

Training Classes	France Alyotech Technologies	Training Classes

For course location visit www.alyotech.fr

Training Classes	UK ARUP	Training Classes

For course location visit www.oasys-software.com/dyna/en/training

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ESI Group

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GOMPUTE
A GRIDCORE COMPANY

HPC on-demand for academic users

Run your LS-DYNA simulations and pay for what you use on a turn-key environment

- For LSTC academic customers.
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- Remote visualization using LS-PrePost
- Avoid installation and maintenance costs
- Other simulation applications also ready to use
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Price for computing-core/hour (CCH). Licenses and account set up are not included. Pricing valid only for universities, academic centers and research institutes. The following are trademarks or registered trademarks of Livermore Software Technology Corporation in the United States and/or other countries: LS-DYNA, LS-OPT, LS-PrePost, LS-TaSC. Gompute is owned and operated by Gridcore AB, 2012 All rights reserved.

POD (Penguin Computing on Demand) offers software including LSTC's LS-DYNA

www.penguincomputing.com/services/hpc-cloud

Penguin HPC clusters are optimized for engineering workloads and offer:

- Instant access to an HPC Cloud Cluster
- High performance InfiniBand bare-metal compute
- Free support from HPC experts
- No charges for network transfers
- Cost-effective, pay-per-use billing model
- Secure environment for private data
- Detailed billing reports for user groups and projects

Self Registration Portal – featuring rich--documentation, wiki, FAQ, pricing and more.

https://pod.penguincomputing.com/

POD Software Applications and Libraries (visit site for complete listing)

FEA, CFD and FDTD Modeling

- **LS-DYNA** / LS-PrePost LS-DYNA is an advanced general-purpose multiphysics simulation software package. Its core-competency lie in highly nonlinear transient dynamic finite element analysis (FEA) using explicit time integration. LS-PrePost is an advanced pre and post-processor that is delivered free with LS-DYNA.
- **OpenFoam:** OpenFOAM (Open source Field Operation And Manipulation) is a C++ toolbox for the development of customized numerical solvers, and pre-/post-processing utilities for the solution of continuum mechanics problems, including computational fluid dynamics (CFD).
- **ANSYS HFSS:** ANSYS HFSS software is the industry standard for simulating 3-D full-wave electromagnetic fields. Its gold-standard accuracy, advanced solver and compute technology have made it an essential tool for engineers designing high-frequency and high-speed electronic components.
- **ANSYS Fluent** ANSYS Fluent software contains the broad physical modeling capabilities needed to model flow, turbulence, heat transfer, and reactions for industrial applications.
- **Star-CD** and **Star-CCM+:** STAR-CCM+ is CD-adapco´s newest CFD software product. It uses the well established CFD solver technologies available in STAR-CD, and it employs a new client-server architecture and object oriented user interface to provide a highly integrated and powerful CFD analysis environment to users.
- **Convergent:** CONVERGE is a Computational Fluid Dynamics (CFD) code that completely eliminates the user time needed to generate a mesh through an innovative run-time mesh generation technique.
- **Lumerical:** Simulation tools that implement FDTD algorithms.

For the complete list of ATD Models developed and/or offered by DYNAmore visit http://www.dynamore.de/en/products/models/side

PDB WorldSID-50

DYNAmore has developed a model of the WorldSID 50%. The model is validated with material, component and sled tests. The model was developed with a consortium of the German OEMs (PDB: Audi, BMW, Daimler, Porsche, and VW). The methods applied are the same as in the previous projects with the FAT for the ES-2, ES-2re, USSID, and BIORID model. The table below provides some general information about the release 2.0.1 of the WorldSID 50th percentile male model:

FTSS SID-IIs Model

The dummy represents a small female body and is used in an IIHS side impact load case, in the FMVSS214 and the US-NCAP load cases. The table below provides some general information about the release 3.1a of the SID-IIs model. A version for Build Level C (BLC) and Level D (BLD) is available.

FAT EuroSID Model

The dummy is used in the legal authorization in South Korea, Australia, China and India. The table below provides some general information about the actual release 3.6 of the model.

FAT US-SID and SIDHIII Model

FAT ES-2 and ES-2re Dummy Model

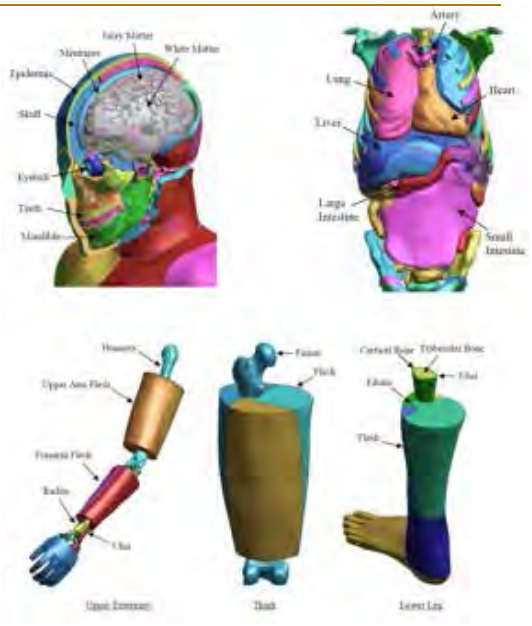
The dummy is used in US-NCAP- and Euro-NCAP side impact assessment, the ES-2re will be used in the new FMVSS214. The dummy is also used for the legal authorization in Europe, Japan and the United States. The table below provides some general information about the release v5.01 of FAT ES-2 model. The version v5.01 of the ES-2re, a variation of the ES-2 for the authorization and the evaluation in the United States, is also available with a comparable number of entities.

The latest model of the FAT US-SID is version v5.0. The dummy is used in the subsiding FMVSS214 regulation and in the SINCAP load case. The modified version, the SIDHIII v5.1 is used in lateral impact to a pole. For both dummies a detailed model is available. The table below provides some general information about the actual multiple validated model of the US-SID.

Total Human Model for Safety - THUMS
LSTC is the US distributor for THUMS

About

The Total Human Model for Safety, or THUMS®, is a joint development of Toyota Motor Corporation and Toyota Central R&D Labs. Unlike dummy models, which are simplified representation of humans, THUMS represents actual humans in detail, including the outer shape, but also bones, muscles, ligaments, tendons, and internal organs. Therefore, THUMS can be used in automotive crash simulations to identify safety problems and find their solutions.

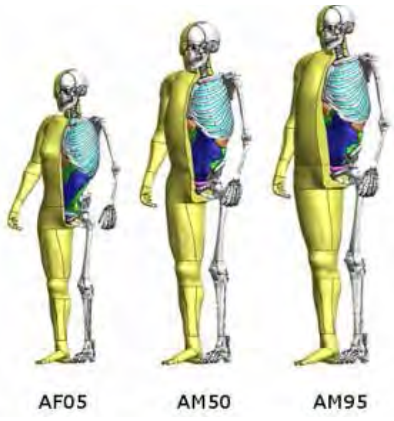


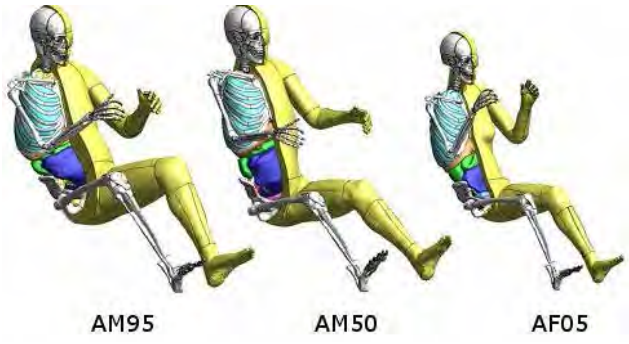
THUMS is limited to civilian use and may under no circumstances be used in military applications.

Model Details: Each of the different sized models is available as sitting model to represent vehicle occupants and as standing model to represent pedestrians.

The internal organs were modeled based on high resolution CT-scans.

LSTC is the US distributor for THUMS. Commercial and academic licenses are available. For more information please contact us at THUMS@lstc.com .





THUMS®, is a registered trademark of Toyota Central R&D Labs.

On Line Training is Owned and Operated by Dr. Al Tabiei

Dr. Al Tabiei has been a consultant on the use of LS-DYNA for more than 20 years to more than 60 companies.

Continuing to teach courses for LSTC in MI and CA, Dr. Tabiei has opened his own LS-DYNA On Line Training, for engineers, students, and consultants that can't find the time to travel to the CA or MI locations. Additionally, he will travel to companies, setting up specific training solutions on site.

Visit to view on line tutorials - www.lsdyna-online.com/tutorial-movies.html

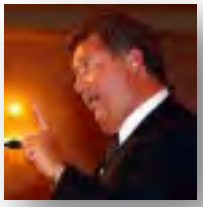
Tutorial Movies & Notes Can Be Purchased

- User Defined Material Tutorial Movie
- LSPREPOST Meshing Tutorial Movie #1
- Running LSDYNA Tutorial Movie #2
- LSPREPOST Postprocessing Tutorial Movie #3
- Fluid Structure Interaction Tutorial
- Composites Fiber Direction Tutorial
- Implicit LS-DYNA Tutorial
- Shell Elements in LS-DYNA Tutorial
- Contact in LS-DYNA Tutorial

Len Schwer

Paul Du Bois and Len Schwer have combined their more than 50 years of experience in non-linear numerical analysis, consulting and training to provide in-depth instruction on several advanced LS-DYNA topics. Their unique team training approach provides an increased depth and breadth of topical knowledge, plus differing viewpoints on methods and motivation.

http://www.duboisschwertraining.com/future



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Schedule of Classes

ALYOTECH, Antony, France

29-30 Sept. 2014 - Methods & Modeling Techniques:
Prerequsite for Blast & Penetration
1-2 October 2014 - Concrete and Geomaterial Modeling (*Len*)
1-2 October 2014 - Polymer Modeling (*Paul*)
3 October 2014 - User Developed Material Models (*Paul*)
Contact: Stéphanie DUTREILLY

DYNAmore, Stuttgart, Germany

9-10 October 2014 - Concrete and Geomaterial Modeling (*Len*)
13-14 October 2014 - Blast Modeling with LS-DYNA
15-16 October 2014 - Penetration Modeling with LS-DYNA
17 October 2014 - Explosives Modeling for Engineers
Contact: Nils Karajan

ARUP, Solihull, United Kingdom

20-21 October 2014 - Concrete and Geomaterial Modeling (*Len*)
20-21 October 2014 - Polymer Modeling (*Paul*)
22 October 2014 - Explosives Modeling for Engineers
Contact: Katherine Groves

Call for Papers

LS-DYNA Forum 2014

6 – 8 October 2014, Bamberg, Germany

www.dynamore.de/forum2014-e

DYNAmore invites you to attend 13th LS-DYNA Forum which will take place from 6 - 8 October in Bamberg, Germany. This year, the conference is extended by half a day with the successful Developer Forum, which will take place before the main two-day User Forum.

You are warmly welcome to participate at the event as well as to actively contribute to the conference agenda by submitting an abstract. In your presentation you may report about your experience with LS-DYNA or LS-OPT as well as exchange your knowledge and discuss your problems with other users.

Additionally, there will be selected keynote lectures of renowned speakers from industry and universities. Software developers from LSTC and DYNAmore will present the latest features in LS-DYNA and the associated new application possibilities. In the accompanying exhibition, numerous hardware and software manufacturers will offer an insight into the latest news and trends around LS-DYNA.

Moreover, we are pleased to offer you several English spoken seminars in the week before, during and after the Forum, which will be either held by LS-DYNA developers or experienced consulting engineers

Presentation topics are:
Crashworthiness, passenger and pedestrian safety, metal forming, optimization and robustness, materials (composites, polymers, ...), joining techniques, implicit, impact, droptest, ballistics and penetration, fluid-structure interaction, computational fluid dynamics (CFD), heat transfer, electromagnetics, multiphysics, manufacturing processes, CAE process integration,…

from the industry areas:

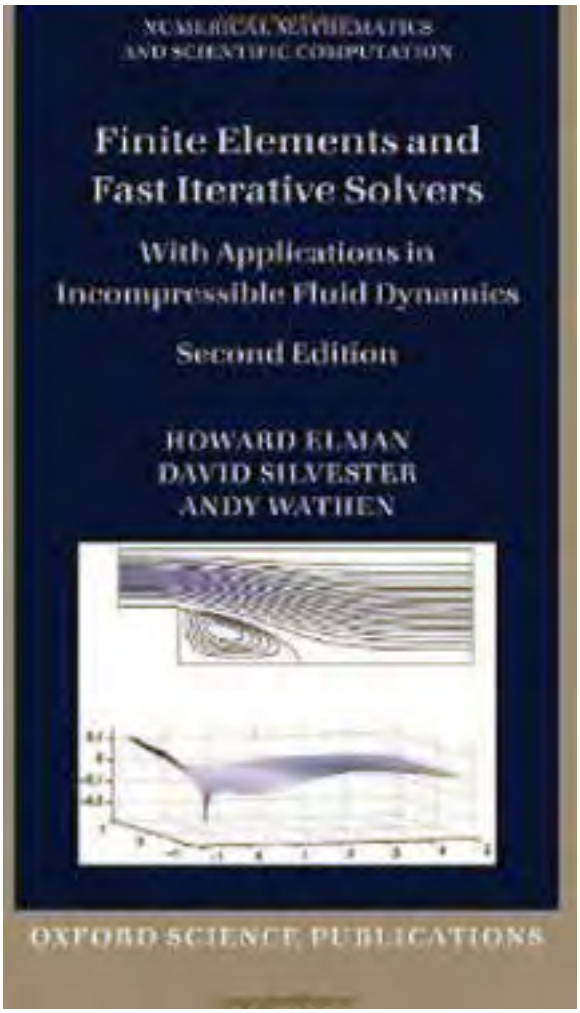
- automotive,
- aerospace,
- mechanical engineering,
- shipbuilding/offshore,
- transportation,
- biomechanics,
- civil engineering,
- medical engineering,
- packaging, ...

Seminars

We offer pre and post conference seminars in English language on:

- Meshless Methods in LS-DYNA - EFG
- Meshless Methods in LS-DYNA - SPH
- NVH & Frequency Domain Analysis
- ALE und Fluid-Structure Interaction
- Concrete and Geomaterial Modeling
- Blast Modeling with LS-DYNA
- Penetration with LS-DYNA
- Explosives Modeling for Engineers

We hope that we have stimulated your interest and are looking forward to receiving your abstract and to seeing you in Bamberg.



Finite Element and Fast Iterative Solvers

Finite Elements and Fast Iterative Solvers: with Applications in Incompressible Fluid Dynamics (Numerical Mathematics and Scientific Computation) Paperback – August 5, 2014

by Howard Elman (Author), David Silvester (Author),

Review: Review from previous edition ...an excellent introduction to finite elements, iterative linear solvers and scientific computing for graduates in engineering, numerical analysis, applied mathematics and interdisciplinary scientific computing. Adrian Carabineanu, Zentralblatt Math, Vol 1083 The text offers a valuable contribution to all finite element researchers who would like to broaden both their fundamental and applied knowledge of the field. Journal of Fluid Mechanics

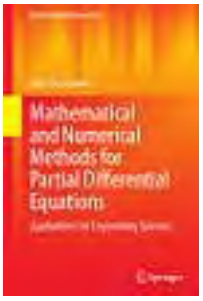
About the Author:

Howard Elman, Professor of Computer Science, University of Maryland at College Park

Howard Elman is a Professor in the Computer Science Department and the Institute for Advanced Computer Studies at the University of Maryland, College Park.

David Silvester is a Professor in the School of Mathematics at The University of Manchester

Andy Wathen is Reader in Numerical Analysis at the Oxford University Mathematical Institute, UK and a Fellow at New College



Mathematical and Numerical Methods for Partial Differential Equations: Applications for Engineering Sciences (Mathematical Engineering)
[Kindle Edition]
Joël Chaskalovic (Author)

Publication Date: May 16, 2014

This self-tutorial offers a concise yet thorough introduction into the mathematical analysis of approximation methods for partial differential equation. A particular emphasis is put on finite element methods. The unique approach first summarizes and outlines the finite-element mathematics in general and then in the second and major part, formulates problem examples that clearly demonstrate the techniques of functional analysis via numerous and diverse exercises. The solutions of the problems are given directly afterwards. Using this approach, the author motivates and encourages the reader to actively acquire the knowledge of finite- element methods instead of passively absorbing the material as in most standard textbooks. This English edition is based on the Finite Element Methods for Engineering Sciences by Joel Chaskalovic.

AUTHORS
Olek C Zienkiewicz (Author), Robert L Taylor (Author), J.Z. Zhu J.Z. Zhu (Author)

The Finite Element Method for Fluid Dynamics, Seventh Edition

Book Description
Publication Date: November 28, 2013 | ISBN-10: 1856176355 | ISBN-13: 978-1856176354 | Edition: 7

The seventh edition of these seminal books delivers the most up to date and comprehensive reference yet on the finite element method for engineers and mathematicians. Renowned for their scope, range and authority, the new editions have been significantly revised and developed. Each book is now complete in its own right and provides self-contained reference, while together they provide a formidable resource covering the theory and the application of the universally used FEM.

* World leading author team of the highest stature, drawn from the academic, research and software applications communities
* A proven standard in the library of any engineer concerned with finite elements
* Significant changes include a clearer presentation of the development of the finite element fundamentals and six major new chapters

The Finite Element Method for Solid and Structural Mechanics, Seventh Edition

Book Description
Publication Date: November 7, 2013 | ISBN-10: 1856176347 | ISBN-13: 978-1856176347 | Edition: 7
The Finite Element Method for Solid and Structural Mechanics is the key text and reference for engineers, researchers and senior students dealing with the analysis and modeling of structures, from large civil engineering projects such as dams to aircraft structures and small engineered components.

The Finite Element Method: Its Basis and Fundamentals, Seventh Edition

Book Description
Publication Date: September 5, 2013 | ISBN-10: 1856176339 | ISBN-13: 978-1856176330 | Edition: 7
The Finite Element Method: Its Basis and Fundamentals offers a complete introduction to the basis of the finite element method, covering fundamental theory and worked examples in the detail required for readers to apply the knowledge to their own engineering problems and understand more advanced applications.

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