FINITE ELEMENT ANALYSIS feaINFORMATION.com

FEA Information Engineering Solutions

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Inside This Issue

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

www.beta-cae.gr

www.cray.com

www.datapointlabs.com

www.eta.com

www.esi-group.com

www.gns-mbh.com/

http://gridcore.se

www.hengstar.com /

www.jsol.co.jp/english/cae

www.lstc.com

www.oasys-software.com/dyna/en/

kaizenat.com

www.dfe-tech.com

LANCEMORE Co.

www.lancemore.jp/index_en.html

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Participants Announcements

New Participant: Lancemore Co.
www.lancemore.jp/index_en.html

Specializes in the development and analysis of FE models and provides consulting services for modeling solutions. Lancemore also offers a large collection of highly accurate material data.

Our website showcases hundreds of FE models and AVIs from various subjects.

Email: info@lancemore.jp
Contact person: Kihei Tsutsui

Feb issue will have full information & article

CADFM - Germany

31. CADFEM Users´ Meeting
Mannheim, Germany
June 19 - 21, 2013
www.usersmeeting.com/en

DYNAMORE Nordic – Sweden

LS-DYNA Tools: (free of charge) is a set of tools that can be very handy in the CAE-environment. One of the more popular tools is the plotcprs, which can compress d3plot files up to 90%. Detailed information regarding all the tools in the set can be found at www.dynamore.de/en/products .

If you are interested trying out this tool set contact DYNAmore Nordic: support@dynamore.se

Sincerely, Marsha Victory,
Trent Eggleston FEA Information

Dalian – China

1st China LS-DYNA Users' Conference
Dalian, China - Oct. 16th-18th, 2013
http://www.lsdyna.cn
http://www.dalianfukun.com/conference
Contact us: chinaconf@lstc.com

ESI-Group

FREE Webinar invitation:
Exploring Visual suite for LS-DYNA

Interested individuals may send an email to: andrea.gittens@esi-group.com

LSTC Courses Confirmed
Room available – sign up
www.lstc.com

CA	02/25-27	ALE & FSI
CA	02/28-03/01	SPH
On Line	03/01	Implicit Solver
MI	03/14-15	Blast/Penetration

LSTC New One Day Seminars
$100 Students $50

MI	04/12	Modeling Warm Forming & Hot Stamping
MI	04/16	ICFD and FSI
MI	04/17	ICFD and Conjugate
MI	04/18	Dlectromagnetism
CA	05/15	ICFD and FSI
CA	05/16	ICFD and Conjugate
CA	05/17	Electromagnetism

Getting Started with LS-DYNA
Internet Course – Feb. 22, 2013 – 8 hours
Before February 05th - $350
(After Feb. 5th $400) Instructor Al Tabiei

Information contact:
lsdynacourses@aol.com
or 513-331-9139

Visual-Environment v8.5

A CAE simulation platform with integrated applications supporting 3rd party solver. It helps driving innovative engineering in various CAE disciplines (e.g. Crash/Safety, Casting, Welding, Electromagnetics, …).

The latest release of Visual-Environment v8.5 supports CAE engineers with improved functionality and an intuitive user interface that helps enhancing CAE simulation with LS-DYNA, PAM-CRASH, MADYMO, RADIOSS, NASTRAN.

Visual-Environment holds LS-DYNA available dedicated tools.

Especially for LS-DYNA users Visual-Environment holds available dedicated tools:

- Visual-Crash DYNA,
- Visual-Viewer and
- Visual-Process

The tools are easy to use and all available within one and same simulation environment. This particular suite of Visual applications helps to accelerate LS-DYNA specific pre- and post-processing.

Visual-Environment is available under Windows 32/ 64 and Linux 32/64.

FREE Webinar invitation: Exploring Visual suite for LS-DYNA

Free webinars hold in calendar week 7 introduce new features and showcase best practices.

Interested individuals may send an email to:
andrea.gittens@esi-group.com
Sign up for your personal webinar invitation.

Visual-Environment Open & Collaborative Engineering Environment

Oasys LS-DYNA UK Users' Meeting 2013

The tenth in a series of update meetings for Oasys LS-DYNA Users was held at our office in Solihull on Wednesday16th January 2013. This event brought together 80 users of the Oasys and LS-DYNA software to obtain information on upcoming features of Oasys and LS-DYNA and to learn more about current and new applications.

Attendees enjoyed talks from Yun Huang of LSTC and the Oasys team at Arup, in addition the event was followed by a complimentary meal at The Boot Inn in Lapworth

Presentations - Presentations are now available to download;

Session 1

LS-DYNA General Update
Brian Walker, Arup

Frequency Domain Analysis in LS-DYNA
Yun Huang, LSTC

Session 2

Oasys PRIMER Update
Richard Sturt, Arup

Oasys Post-Processing Update: D3PLOT, T/HIS and REPORTER
Chris Archer, Arup

H-Point Machine and HRMD
Jamie Dennis, Arup

Pratt & Whitney Delivers Final Production F119 Engine to the U.S. Air Force

EAST HARTFORD, Conn., Thursday, January 17, 2013Pratt & Whitney Military Engines today delivered the 507th and last production F119 engine to the U.S. Air Force for its F-22 Raptor fleet. The F119 Final Engine Delivery ceremony at the Middletown, Conn. Engine Center was held with representatives from the Air Force, Lockheed Martin and Boeing in attendance. Pratt & Whitney is a United Technologies Corp. (NYSE:UTX) company.

"This is a bittersweet occasion for those of us who have played a part in 12 years of successful production deliveries," said Bennett Croswell, president of Military Engines at Pratt & Whitney. "The F119 production engine program might be ending but we look forward to a 30-40 year sustainment period in partnership with the Air Force to keep the fleet flying."

The F119-PW-100 turbofan is the world's first operational fifth-generation fighter engine in service and is providing dependable power for the F-22 Raptor, an aircraft known for its unparalleled maneuverability and its ability to "supercruise." The engine, considered one of the Air Force's most successful, is the forefather of the F135 propulsion system powering the F-35 Lightning II.

As Pratt & Whitney shifts from production to sustainment, the company has partnered with the U.S. Air Force at the Oklahoma City Air Logistics Center to manage scheduled overhauls of the F119 engine fleet.

"We accept this last production engine today, but are looking forward to our partnership with Pratt & Whitney in sustaining the F119 in the F-22 Raptor for decades to come," said Colonel Gregory M. Gutterman, F-22 Program Director, Fighters and Bombers Directorate, Air Force Materiel Command, during today's ceremony.

Pratt & Whitney is a world leader in the design, manufacture and service of aircraft engines, space propulsion systems and industrial gas turbines. United Technologies, based in Hartford, Conn., is a diversified company providing high technology products and services to the global aerospace and building industries.

This release includes "forward looking statements" concerning anticipated business opportunities that are subject to risks and uncertainties, including with regard to the programs described in this release. Important factors that could cause actual results to differ materially from those anticipated or implied in forward looking statements include changes in government procurement priorities and practices, budget plans, availability of funding and in the type and number of aircraft in flight operations and hours flown; decisions to award contracts to competing suppliers; and challenges in the design, development, production and support of advanced technologies and services. For information identifying other important economic, political, regulatory, legal, technological, competitive and other uncertainties, see UTC's 10-K, 10-Q and other reports filed with the SEC.

The Cray Xtreme-Cool supercomputer offers all the best features and benefits of the Xtreme-X air-cooled solution with superior energy savings, lower total cost of operation and faster return on investment by requiring fewer or no air conditioning units in the datacenter. Its unique design uses warm water liquid-cooling heat exchangers with no chillers, reducing typical energy consumption used to cool the data center by 50%.

This system offers high performance and three times more energy efficiency per rack versus traditional air-cooled designs. It also produces 80% heat capture to the warm water for possible heat reuse.

The Cray Xtreme-Cool solution isolates the primary datacenter loop and uses a low-pressure isolated secondary datacenter liquid loop to cool the server's critical components such as processors and memory improving cooling system reliability and safety.

Cray Xtreme-Cool Features and Benefits

Liquid-Cooled Energy-Efficient Architecture

- Requires no chilled water using heat exchangers reducing operating costs
- Warm water liquid-cooling heat exchangers rather than chillers
- Uses low pressure isolated secondary loop to cool the server's critical components
- Less energy costs, data center PUE lower than 1.1
- Cools directly the compute processor and memory
- Offers up to 80% heat capture to the warm water
- Produces high return water temperatures for possible heat reuse
- Leak detection and prevention features Integrated with remote monitoring and reporting system
- Ability to field more power dense systems in the datacenter
- Quieter low-power fan system operation for better work environments
- Optional 408V power distribution with a choice of 208V or 277V 3-phase power supplies

Flexible and Scalable Configurations

- System based on Intel® Xeon® Processor E5 Family
- Offers 2 & 4 sockets CPUs or hybrid processing based platforms
- Interconnect options: 3D Torus/Fat Tree, single/dual rail, QDR/FDR, IB/GigE
- Supports a wide range of parallel Storage File Systems
- Scale out datacenters to over 25 PFLOPS of computing performance
- Address capacity, capability, data intensive and hybrid computing requirements

Manageable

- Integrated with HPC Software Stack
- Includes Advanced Cluster Engine Management software
- Remote System Control Manager with CLI and GUI
- Provides multi Linux OS support
- Can manage heterogeneous nodes with different OS stacks
- Offers applications middleware such as message passing libraries, compilers, debuggers and performance tools
- Includes network, server, cluster and storage management
- Fine grain system power and temperature monitoring
- Ability to detect HW, fabric topology configuration errors
- Version control and ability to rollback changes
- Integrates job schedulers such as Grid Engine, SLURM and PBS Pro

Reliable and Serviceable

- No single point of failures with fault tolerance capabilities
- All critical components are easily accessible and hot-swappable
- Built-in multi-generation configuration software management with rollback features

End-To-End Supercomputer Solutions

- Complete design, integration, testing and delivery
- On-site professional installation services, and/or customized services

Return of the Stingray: The 2014 Chevrolet Corvette

DETROIT – Chevrolet is redefining modern performance with today's debut of the all-new Corvette Stingray. And only a Corvette with the perfect balance of technology, design and performance can wear the iconic Stingray designation.

The 2014 C orvette Stingray is the most powerful standard model ever, with an estimated 450 horsepower (335 kW) and 450 lb.-ft. of torque (610 Nm). It is also the most capable standard model ever, able to accelerate from 0-60 in less than four seconds and achieve more than 1g in cornering grip. It is expected to be the most fuel-efficient Corvette, exceeding the EPA-estimated 26 mpg of the current model.

"Like the '63 Sting Ray, the best Corvettes embodied performance leadership, delivering cutting-edge technologies, breathtaking design and awe-inspiring driving experiences," said General Motors North America President Mark Reuss. "The all-new Corvette goes farther than ever, thanks to today's advancements in design, technology and engineering."

The all-new Corvette Stingray shares only two parts with the previous generation Corvette. It incorporates an all-new frame structure and chassis, a new powertrain and supporting technologies, as well as completely new exterior and interior designs. Highlights include:

- An interior that includes real carbon fiber, aluminum and hand-wrapped leather materials, two new seat choices – each featuring a lightweight magnesium frame for exceptional support – and dual eight-inch configurable driver/infotainment screens

- Advanced driver technologies, including a five-position Drive Mode Selector that tailors 12 vehicle attributes to the fit the driver's environment and a new seven-speed manual transmission with Active Rev Matching that anticipates gear selections and matches engine speed for perfect shifts every time

- An all-new 6.2L LT1 V-8 engine combines advanced technologies, including direct injection, Active Fuel Management, continuously variable valve timing and an advanced combustion system that delivers more power while using less fuel

- Lightweight materials, including a carbon fiber hood and removable roof panel; composite fenders, doors and rear quarter panels; carbon-nano composite underbody panels and a new aluminum frame help shift weight rearward for an optimal 50/50 weight balance that supports a w orld-class power-to-weight ratio

- A sculptured exterior features advanced high-intensity discharge and light-emitting diode lighting and racing-proven aerodynamics that balance low drag for efficiency and performance elements for improved stability and track capability

- Track-capable Z51 Performance Package including: an electronic limited-slip differential, dry-sump oiling system, integral brake, differential and transmission cooling, as well as a unique aero package that further improves high-speed stability.

“Stingray is one of the hallowed names in automotive history,” said Ed Welburn, GM vice president of global design. “We knew we couldn’t use the Stingray name unless the new car truly lived up to the legacy. The result is a new Corvette Stingray that breaks from tradition, while remaining instantly recognizable as a Corvette the world over.”

The new Corvette Stingray will be built at GM’s Bowling Green, Ky., assembly plant, which underwent a $131-million upgrade, including approximately $52 million for a new body shop to manufacture the aluminum frame in-house for the first time.

“We believe the Corvette represents the future of modern performance cars because it delivers more power, more driving excitement and better fuel efficiency,” said Tadge Juechter, Corvette chief engineer. “The result is better performance by every measure. The 2014 Corvette delivers the fastest acceleration, the most cornering grip, the most track capability, the best braking performance and what we expect to be the best fuel economy ever for a standard Corvette.”

The 2014 C orvette Stingray coupe goes on sale in the third quarter of 2013.

Founded in 1911 i n Detroit, Chevrolet is now one of the world's largest car brands, doing business in more than 140 countries and selling more than 4 m illion cars and trucks a year. Chevrolet provides customers with fuel-efficient vehicles that feature spirited performance, expressive design and high quality. More information on Chevrolet models can be found at www.chevrolet.com .

http://gns-mbh.com/169.html For Complete Information

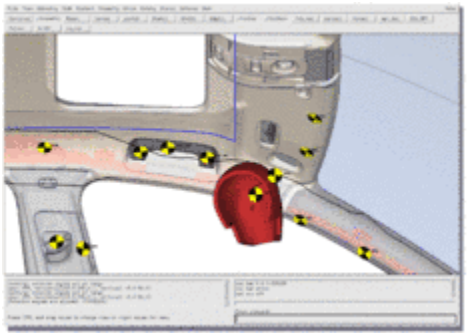
Join GNS at the following events:

1. February 5-6 Numberical Simulation in Energy Application
2. April 10-111 CAE Grand Challenge
3. June 02-04 9th European LS-DYNA Users' Conference
4. June 09-10 NAFEMS World Congress 2013

Animator4

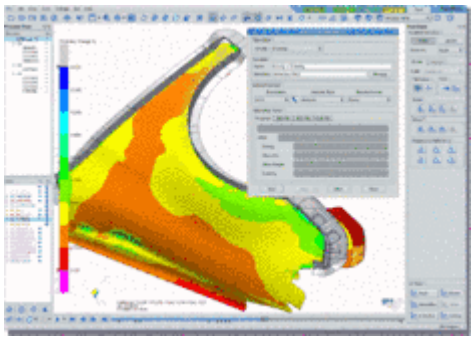
Much of the success of GNS is due to the software product Animator4. Animator4 is a general finite element post-processor and holds a leading position in its field. The development of Animator4 began in the early 1990s. The first commercial version was released by GNS in October 1996 under the name Animator3. Animator3 was succeeded by Animator4 in 2009. Animator4 is used worldwide by almost all automotive companies, a great number of aerospace companies, and within the chemical industry. With more than 2000 l icences Animator4 is probably one of the most successful software products in the field of Finite Element Analysis (FEA).

Generator2



In 2002 G NS released the software product Generator2. Generator2 is a s pecialized pre-processor for crashworthiness applications and has become very successful in the field of passenger safety and pedestrian protection. It is mainly used as a positioning tool for finite element component models by a great number of automobile companies throughout the world. Dummy models, the Free Motion Headform (FMH), car seats, seat belts and Pedestrian Legform Impactors can all be easily moved, positioned and adjusted according to a number of international regulations. Generator2 was the first tool of its kind on the market, and though it has been copied several times, it is still one of the leading software products in its field.

Indeed



GNS also develops the finite element code Indeed. Indeed is an easy-to-use, highly accurate virtual manufacturing software that specializes in the simulation of sheet metal forming processes. Indeed is part of the GNS software suite and works concurrently with all other GNS software products. The development of Indeed started in 1987 w hen simulation of complex forming processes was far from becoming an inevitable part of the design process. Originally developed to simulate stamping processes in the automotive industry (-> Innovative deep drawing), Indeed now covers the entire range of sheet metal forming. The main idea behind Indeed is to combine ease of use with high quality simulation.

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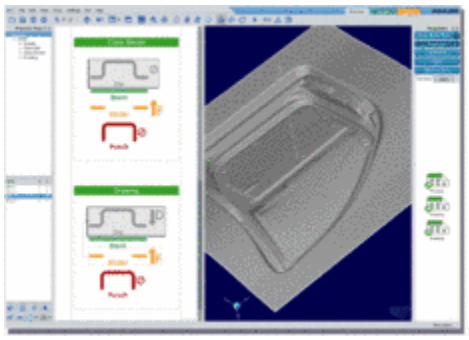
OpenForm



In 2007 GNS started the development of a new intuitive graphical user interface for industrial sheet metal forming simulation, called OpenForm. OpenForm is extremely easy to handle and can be used as a pre- and post-processor independently of a particular finite element forming simulation package. The software was designed to enable those who are not finite element experts to carry out multi-stage forming simulations with even complex multi purpose finite element codes. OpenForm consists of a number of different modules for model set-up, material data evaluation, automatic mesh generation and results analysis. The implicit finite element forming simulation software Indeed is included as part of the OpenForm software

For Complete Information

http://pressroom.toyota.com/releases/2014+lexus+is+premiere+detroit+auto+show+jan15.htm

The 2014 Lexus IS sedan is unveiled at the 2013 North American International Auto Show in Detroit's Cobo Hall.

DETROIT (Jan. 15, 2013) – Lexus today unveiled the all-new 2014 IS sedan at the North American International Auto Show. IS will be available in rear- and all-weather drive versions of the IS 250 and IS 350, a further evolution of F SPORT available across the entire model range, and for Europe, Japan, and select international markets, the IS 300h, the first IS to feature Lexus Hybrid Drive.

Driving performance is a key selling point in the sport sedan segment. In conjunction with a bold new design including the Lexus spindle grille, the all-new IS has been painstakingly engineered to have excellent dynamic capabilities to provide an exceptional driving experience.

"I adopted an entirely different approach to the development of the all-new IS," said Junichi Furuyama, IS chief engineer. "Specifically, it was to make an entertaining driving experience a major premise behind all aspects of performance.

"The conventional approach involves developing each individual aspect in the hope that they will combine to offer an engaging driving experience. By contrast, development of the new IS flipped this process on its head, first establishing the pleasurable driving experience owners desire, and then developing the individual performance elements to support it."

Every aspect of the IS has been engineered with a renewed focus on engaging performance, agile handling, accurate response to driver input and highly communicative feedback.

"The IS has always been precise and fun to drive," said Mark Templin, Lexus group vice president and general manager. "The all-new IS kicks it up a notch with true sport sedan driving dynamics, state of the art onboard technologies, and an all-new design that makes it look fast even when it's standing still."

Incorporating several Lexus-first features and technical innovations, the IS showcases an interior design with all the refinement and quality expected of a Lexus, plus a focused driver's environment, a significant improvement in rear seat comfort and spaciousness, and a larger, more convenient trunk.

Engine/Transmission

Rear- and all-weather drive versions of the IS 250 are powered by a 2.5 liter V6 gas engine. The IS 350 features a 3.5 liter V6 gas engine. The IS 300h, which will be available in Europe, Japan, and select international markets, will employ the Lexus Hybrid Drive powertrain, based on a newly developed 2.5L Atkinson-cycle engine.

IS adopts the Drive Mode Select system which offers up to four switchable driving modes- ECO, NORMAL, SPORT and SPORT S+ (S+ available on IS 350 only) - to optimize vehicle systems to suit the driver's preferred combination of fuel economy, comfort, performance and handling characteristics.

The IS 350 R WD features the eight-speed, Sport Direct Shift (SPDS) automatic transmission from the IS F high performance sedan with quicker shifts, full torque converter lockup and throttle blips in manual mode. The new IS is the first Lexus model to adopt G force Artificial Intelligence (G-AI) control in Sport mode. This system automatically selects the optimal gear and downshift pattern in response to G force, and maintains the selected gear through a corner.

Chassis/Body/Suspension/Brakes

Driving enjoyment was at the heart of the new IS development program, and every aspect of the new Lexus sedan's driving dynamics has been carefully engineered to that end.

New, laser screw welding and adhesive body bonding techniques, along with additional spot welding, have increased overall body rigidity. This enhances stability and also allows for a more comfortable ride without compromising handling agility.

The double wishbone front suspension system has been revised, offering a twenty percent increase in sway rigidity. The rear adopts a new multi-link suspension system from the GS. Fine tuning has resulted in outstanding grip performance and excellent response to steering inputs. Separate mounting of the spring and shock absorber maximizes trunk space.

Steering feel and feedback is key to an enjoyable driving experience, and the new IS benefits from a steering gear box based on that of the GS sedan, incorporating a variety of tuning techniques. The structure and rigidity of each gear box component has been revised to create a smoother and more accurate steering feel with enhanced input response and greater driver feedback.

http://www.dynasupport.com/

At this site you will find answers to basic and advanced questions that might occur while using LS-DYNA. Furthermore it will provide information about new releases and ongoing developments. The content will be regularly updated with answers to frequent questions related to LS-DYNA.

Among the recent updates - please visit the site for the pdf files.

January 17, 2013
Upgrade a Network License (Linux/Unix/Solaris)

January 07, 2013
LS-DYNA V971 R6.1.1 (R6.78769) released

The LS-OPT Support Site

http://www.lsoptsupport.com/

LS-OPT, the graphical optimization tool that interfaces perfectly with LS-DYNA,

LS-OPT . allows the user to structure the design process, explore the design space and compute optimal designs according to specified constraints and objectives. The program is also highly suited to the solution of system identification problems and stochastic analysis.

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

http://www.cray.com/Products/Products.aspx

The Cray XK6

The Cray XK6 supercomputer combines Cray's proven Gemini interconnect, AMD's leading multi-core scalar processors and NVIDIA's powerful many-core GPU processors to create a true, productive, hybrid supercomputer

Cray XE6™ and Cray XE6m™ Supercomputers

The Cray XE6 scalable supercomputer is engineered to meet the demanding needs of capability-class HPC applications. The Cray XE6m is optimized to support scalable workloads in the midrange market.

Cray XMT™ System YarcData uRiKA™ Graph Appliance

The YarcData uRiKA graph appliance is a purpose built solution for Big Data relationship analytics. uRiKA enables enterprises to discover unknown and hidden relationships in Big Data, perform real-time analytics on Big Data graph problems, and realize rapid time to value on Big Data solutions.

The uRiKA graph appliance complements an existing data warehouse or Hadoop cluster.

Cray Sonexion 1300™ Storage System

The Cray Sonexion 1300 s ystem is an integrated, high performance storage system that features next-generation modular technology to maximize the performance and capacity scaling capabilities of the Lustre file system.

Cray also offers custom and third-party storage and data management solutions

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 compary 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 ph ysical 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.

GNS - Gesellschaft für Numerische Simulation mbH

www.gns-mbh.com

Animator4

A general finite element post-processor and holds a leading position in its field. Animator4 is used worldwide by almost all automotive companies, a great number of aerospace companies, and within the chemical industry.

Generator2.

A specialized pre-processor for crashworthiness applications and has become very successful in the field of passenger safety and pedestrian protection. It is mainly used as a positioning tool for finite element component models by a great number of automobile companies throughout the world.

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A pre- and post-processor independently of a particular finite element forming simulation package. The software is extremely easy to handle and can be used as was designed to enable those who are not finite element experts to carry out multi-stage forming simulations with even complex multi purpose finite element codes.

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 co mmand 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.

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	**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			
	LS-DYNA	LS-OPT	LS-PrePost	LS-TaSC
	DYNAFORM	VPG	MEDINA	
	LSTC Dummy Models		LSTC Barrier Models	
France	**ALYOTECH**		nima.edjtemai@alyotech.fr	
	www.alyotech.fr			
	ANSYS	LS-DYNA	MOLDEX3D	FEMZIP
	Primer	PreSys	DYNAFORM	SKYGEN
	MERCUDA	MOCEM		
Germany	**CADFEM GmbH**		lsdyna@cadfem.de	
	www.cadfem.de			
	ANSYS	LS-DYNA	optiSLang	DIGIMAT
	ESAComp	AnyBody	VPS	
	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	
	TOYOTA THUMS		LSTC Dummy & Barrier Models	
Germany	**GNS**		mbox@gns-mbh.com	
	www.gns-mbh.com			
	Animator	Generator	Indeed	OpenForm
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

Distribution & Consulting	Europe	Distribution & Consulting	
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		
	ANSA	µETA	LS-DYNA	LS-OPT
	LS-PrePost	LS-TaSC	FastFORM	DYNAform
	FormingSuite	LSTC Dummy Models	
		LSTC Barrier Models	
Sweden	**GRIDCORE**	info@gridcore.com	
	www.gridcore.se		
	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			
	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-PrePost
		LS-DYNA	LSTC Barrier Models	LS-TaSC
India	**EASI Engineering**		rvenkate@easi.com	
	www.easi.com			
	ANSA			
	LS-DYNA	LS-OPT	LSTC Dummy Models	LS-PrePost
			LSTC Barrier Models	LS-TaSC
India	**CADFEM Eng. Svce**		info@cadfem.in	
	www.cadfem.in			
	ANSYS VPS	optiSLang	ESAComp	DIGIMAT
	LS-DYNA	LS-OPT	LSTC Dummy Models	LS-PrePost
	FTI FormingSuite	AnyBody	LSTC Barrier Models	LS-TaSC
India	**Kaizenat Technologies Pvt. Ltd**		support@kaizenat.com	
	http://kaizenat.com /			
	LS-DYNA	LS-OPT	LSTC Dummy Models	LS-PrePost
	Dedicated to LSTC Software		LSTC Barrier Models	LS-TaSC

Distribution & Consulting	Asia Pacific	Distribution & Consulting

Japan	**ITOCHU**	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			
	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	

Korea	**THEME**	wschung@kornet.com		
	www.lsdyna.co.kr			
	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

Cloud Service	LS-DYNA	Cloud Services
Germany	Gridcore www.gridcore.se	
Sweden	Gridcore www.gridcore.se	
United States	Gompute www.gompute.com	

Training Class:	Internet – Al Tabiei	Training Class

May 3rd, 2013 On Line Course Instructed by Al Tabiei

Contact: Al Tabiei at: lsdynacourses@aol.com

For LS-DYNA users to get started on blast and penetration problems.

LS-DYNA On Line Day Class $600

The day will cover the most important elements to start using LS-DYNA for blast & penetration problems.

Additional workshop: There is an optional one day (8 hours) of workshop on line with support, at an additional cost ($500). The workshop online is not necessary to get started with LS-DYNA blast and penetration. However, it is recommended for LS-DYNA users in this field.

May 03, 2013 8 hours
Eastern Standard Time

Class:	8:30 - 10:00
Break:	10:00 - 10:30
Class:	10:30 - 12:00
Lunch:	12:00 - 1:00
Class:	1:00 - 2:30
Break:	2:30 - 3:00
Class:	3:00 – 4:00
Break:	4:00 – 4:15
Summary	4:15 - 4:30

Sections covered during the course

1-Introduction to Blast and Penetration

- Introduction to Wave Propagation
- Wave propagation in incompressible material
- Wave propagation in compressible material
- Numerical Techniques to solve High energy problems; Lagrangian, Eulerian and ALE, SPH, and EFG
- Sample applications

2-Blast & Penetration

- Blast Wave Simulations Techniques
- Sample applications

3-Failure and Damage Modeling

- Fracture, Damage, and Element Erosion

4-Blast Mitigation (review of the literature)

- Blast Mitigation Concepts
- Blast Mitigation Civil/Structures
- Seat Design for Blast Mitigation

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

Please check the site for accuracy and changes.
Among the many course offered:
2013 Listings:

Classroom-Seminar: Geometry modelling with ANSYS DesignModeler and basics of meshing

02/12 - Grafing (DE)
02/26 - Wien (AT)

Classroom-Seminar: Geometry modelling with ANSYS SpaceClaim Direct Modeler and basics of meshing

02/21 - Berlin (DE)
02/26 - Wien (AT)

Classroom-Seminar: Introduction to explicit structural mechanics with LS-DYNA

02/20 - Chemnitz (DE)

Classroom-Seminar: Advanced explicit structural mechanics with LS-DYNA

03/20 - Chemnitz (DE)

Classroom-Seminar: Simulation of composites with ANSYS Composites PrepPost and LS-DYNA

04/25 - Grafing (DE)

Classroom-Seminar: Optimization and reverse engineering with optiSLang inside ANSYS Workbench

01/22 - Grafing (DE)
03/11 - Aadorf (CH)

Additional Courses are offered – please check the website for upcoming dates for: FTI Forming Suite - DIGIMAT
DIFFPACK and others.

Individual Training: Take advantage of the expertise of our specialists and get to know how simulation processes in your company can be arranged in an optimal way.

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

Intro LS-DYNA
02/04 03/18
04/24 05/06

Intro to LS-PrePost
02/07 03/31

Infoday DYNAstart
02/21 03/15
04/23 05/13

Spotwelds Seminar
02/18 04/23

Contact Definitions Seminar
03/22

Intro Safety Seminar
04/29

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

February 25-27, 2013	ALE/EULERIAN & Fluid/Structure Interaction in LS-DYNA	CA
February 28-March 1, 2013	Smoothed Particle Hydrodynamics (SPH) in LS-DYNA	CA
March 14-15, 2013	Blast & Penetration	MI
March 18, 2013	Introduction to LS-PrePost (no charge)	MI
March 19-22, 2013	Introduction to LS-DYNA	MI
March 19-20, 2013	Advanced Options in LS-DYNA	CA
March 21-22, 2013	Contact in LS-DYNA	CA

March 1st – Internet: LS-DYNA The Implicit Solver

April 12th MI Modeling Warm Forming and Hot Stamping

May 3rd Presented by Al Tabiei – Getting Started with LS-DYNA Blast & Penetration

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

March 12th
ANSA & mETA-Post, introductory

March 19
LS-DYNA Implicit Analysis

April 16
LS-DYNA simulation of sheet metal forming processes

April 23
LS-DYNA material modeling

May 14
Contacts in LS-DYNA

May 21
LS-PrePost3, Introduction

May 22
LS-DYNA Introductory

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

Please check the site for accuracy and changes.

DynAS+ regular training class in 2013

LS-DYNA Introduction Explicit Solver
09-11/09

LS-DYNA Introduction Implicit Solver
23/09

LS-DYNA Unified Introduction Implicit & Explicit Solver
14-17/01, 17-20/06 & 09-12/12

LS-OPT & LS-TaSC Introduction
06-07/02 & 16-17/10

Switch to LS-DYNA
8-9/04 & 12-13/11

Switch from Ls-PrePost 2.X to 3.X/4.X
10/04 & 25/09 & 14/11

LS-DYNA Advanced Implicit Solver
24/09

LS-DYNA ALE / FSI
04-05/02 & 14-15/10

LS-DYNA SPH
13-14/05 & 7-8/10

LS-PrePost 3.X/4.X – Advanced meshing capabilities
11/04 & 26/09 & 15/11

LS-DYNA User Options
15-16/05

LS-DYNA – Plasticity, Damage & Failure – By Paul DU BOIS
26-27/11

LS-DYNA – Polymeric materials – By Paul DU BOIS
28-29/11

LS-DYNA – Geo-material modeling
27-28/05

LS-DYNA – Geo-material calibration
29/05

LS-DYNA Introduction -Forming
18-21/03

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

Please check the site for dates

Among the many course offering are the following:

Introduction to DYNAFORM

Introduction to PreSys

Introduction to LS-DYNA

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

Please check the site for 2013 courses

Among the many course offering are the following:

ANSYS Training, CFD and FEA Consultants Serving CT, NJ, NY, MA, NH , VT

For course location visit www.alyotech.fr

Please check the website for current listing of courses.

May 2013 By: Dr. Nielen Stander, LSTC

10th World Congress on Structural and Multidisciplinary Optimization
May 19-24, 2013, Orlando, Florida, USA

Session Announcement:
"Optimization in Nonlinear Dynamics"
Organized by:
Dr. Nielen Stander
LSTC
held at 10th World Congress on Structural and Multidisciplinary Optimization

"I am organizing a session on "Optimization in Nonlinear Dynamics" at the next conference of the International Society for Structural and Multidisciplinary Optimization (WCSMO10). As a user of LS-DYNA, I would like to invite you to submit an abstract to this session. Inorder for me to provide early feedback, interested participants may submit their abstracts to nielen@lstc.com a week or two prior to the deadline." Nielen Stander

Contributions for this session may include:

- Crashworthiness Optimization
- Optimization in Fluid Dynamics
- Optimization in Reactive Flow
- Optimization in Electromagnetics
- Optimization in Fluid-Structure Interaction
- Optimization using LS-DYNA
- Parameter Identification of Nonlinear Materials
- Topology Optimization in Nonlinear Dynamics

The 500 words abstract submission deadline is January 15, 2013

Final abstracts must be submitted, directly through the conference website, by January 15, 2013.

General information about the conference can be found on the conference web site http://conferences.dce.ufl.edu/wcsmo-10 .

Nielen Stander
(nielen@lstc.com)

June 19 - 21, 2013 www.usersmeeting.com/en.

Invitation & Call For Papers
ANSYS Conference & 31st CADFEM Users' Meeting 2013
June 19th – 21st, 2013, Rosengarten Mannheim, Germany

The Users´convergence

"Convergence" is this year's motto for all the ANSYS Users´ conferences taking place around the world. Traditionally, the conference with the largest content of information is the ANSYS Conference & CADFEM Users´ Meeting held in German. Therefore, a v ery large number of ANSYS users meet, or "converge", at this event to exchange ideas, experience and news, and actively increase their know- ledge. The interdisciplinary specialist conference organized by CADFEM and ANSYS Germany is an excellent opportunity for those who are interested in but do not yet belong to the users´ community, to become more acquainted with the practical use of numerical simulation.

Convergence of contents and requests
Software updates, user reports and compact seminars – it's the mix that makes it work. We are most happy to satisfy the requests of former participants and will reduce the number of product presentations, thus providing more opportunities for technical information and training. Get first-hand tips and tricks on achieving precise simulation results even faster or on how to cope with new challenges using ANSYS, other tools and a f irst-class IT environment.

Call for Papers

Early bird discounts available until 22nd February 2013
Whether you apply as a lecturer or participant, by registering early, i.e. by and no l ater than February 22nd 2013, you will receive a 10% early bird discount on y our registration fee, because early registrations are a great help for the event organizing team. Cancellations made up to one month before the conference starts will not be charged.

We cordially invite you and look forward to meeting you in Mannheim in June!

The CADFEM & ANSYS Germany Team
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June 2013

9th European LS-DYNA Users' Conference

Location: Manchester Central Convention Complex, Manchester, UK

Welcome Reception and Social Event:
Sunday 2nd June 2013

Conference:
Monday 3rd and Tuesday 4th June 2013

Gala Dinner:
Monday 3rd June 2013

Arup are pleased to announce that the 9th European LS-DYNA Users' Conference will be held at Manchester Central Convention Complex, UK on 3rd and 4th June 2013.

Manchester is situated in the centre of the UK with one of the world's best connected international airports and efficient road and rail links. The event will give those in academia and industry a chance to present their work to colleagues and additionally to catch up on the latest developments in the software. Attendees can also meet with exhibitors to find out more about hardware, software and services relating to LS-DYNA.

On the evening of Monday 3rd June the Gala Dinner will take place at the Museum of Science and Industry, just a short walk from the conference venue. The museum brings to life innovation and invention from science and industry through the ages even offering rides on 'Planet', a reproduction steam locomotive!

Important dates:

Registration Opens: end of September 2012
Abstract Deadline: end of December 2012
Papers Deadline: end of April 2013

If you would like to attend, present, exhibit or sponsor, please visit our conference website at: http://arup.cvent.com/euroconference.

We look forward to welcoming you to the event!

June 2013

The 5th ANSA & µETA International Conference

June 5th to June 7th 2013,

The MET Hotel, Thessaloniki, Greece.

There is no participation fee for this event.
Speakers will receive free accommodation.
The language of the event is English.

For Complete Information: http://www.beta-cae.gr/conference05_announcement.htm

The principal aims of this event are to bring the CAE Community together and to promote an international exchange of the latest concepts, knowledge and development requirements on our software products.

Technical papers will be presented outlining the latest advances in CAE strategy, methodology, techniques and applications related to our products. Participants will have the opportunity to be informed about the latest software trends, demonstrate their concepts and achievements and present new development requirements. The closer technical communication with the software developers' team of our products, within the framework of a technical forum, features this three-day conference.

Further discussions, sessions, meetings and events will allow the interaction between participants and organizers. Senior executives of our company, the engineers from the development and services teams and our business agents from around the world will be glad to meet with customers and users, to discuss the applications, the existing functionality, latest enhancements and future development plans of our software products. We expect that this will be a unique opportunity for you to share your success and for us to share our vision.

Dates:
Abstracts submission: February 28th, 2013
Acceptance notification: March 22nd, 2013
Speakers' registration: April 17th, 2013
Final manuscripts submission: April 26th, 2013
Delegates Registration: April 26th, 2013
Presentations files submission: May 10th, 2013
Welcome reception: June 4th, 2013
Event: June 5th to June 7th 2013

Oct. 16th-18th, 2013

Dalian, China

In recent years, China witnessed a rapid growth in the CAE technology. As leading finite element software in the industry, LS-DYNA has been well acknowledged and widely adopted in various industries such as Automotive, Aerospace and Aeronautics, Die Casting and Electrical & Electronics.

LSTC is a well-known software engineering company providing complete engineering software package including LS-DYNA, LS-PREPOST and LS_OPT. For better serving our customers in China, LSTC is hosting the first China LS-DYNA Users' Conference on Oct. 16 at Dalian, China. It is our chance to introduce new features in LS-DYNA and your chance to to share your LS-DYNA experience. The conference provides an opportunity to interact with industry experts, end users and LSTC developers. LSTC expects the conference to be held regularly and become a platform for researchers and engineers exchanging ideas and advocating new developments.

We aim to encourage the communications between software developers and users and among users themselves. Users in academia and industry would have a chance to share their research and experience. People from LSTC would have a chance to share their new developments. We welcome all LS-DYNA users to share their knowledge by submitting papers.

Conference Hosts:

Livermore Software Technology Corp.
Dalian Fukun Technology Co., LTD

Conference: Oct. 16th-18th, 2013

Training courses: Oct. 15th-16th, 2013

Location:

Yinfan Hotel, 135 JinMaLu Road, Dalian Development Zone, Dalian, China.

Conference website:

http://www.lsdyna.cn http://www.dalianfukun.com/conference

Contact us: chinaconf@lstc.com

 **FACEBOOK**

BETA CAE SYSTEMS SA
http://www.facebook.com/pages/BETA-CAE-Systems-SA/193472524006194

Cray Inc.
http://www.facebook.com/crayinc

ESI Group
http://www.esi-group.com/corporate/facebook/

 **TWITTER**

BETA CAE SYSTEMS SA
http://twitter.com/betacae

Cray Inc.
http://www.twitter.com/cray_inc

ESI Group
http://twitter.com/ESIgroup

ETA
http://twitter.com/ETA_Inc

GNS
https://twitter.com/gnsmbh

LINKEDIN

BETA CAE SYSTEMS SA

http://www.linkedin.com/company/beta-cae-systems-s.a.?trk=fc_badg

Cray Inc.

http://www.linkedin.com/company/4936

ETA

http://www.linkedin.com/groupRegistration?gid=1960361

Oasys

http://www.linkedin.com/groups/Oasys-LSDYNA-Environment-Software-4429580?gid=4429580&trk=hb_side_g

YOUTUBE

BETA CAE SYSTEMS SA

http://www.youtube.com/user/betacae

Cray Inc.

http://www.youtube.com/user/crayvideo

ESI Group

http://www.youtube.com/ESIgroup

ETA

http://www.youtube.com/user/etainfo1

NEWS FEEDS

ETA: http://eta.com/company/news-eta?format=feed&type=rss

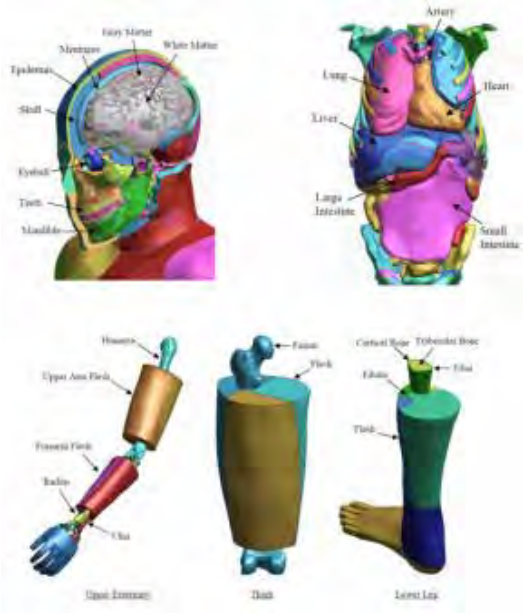
Total Human Model for Safety - THUMS

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.

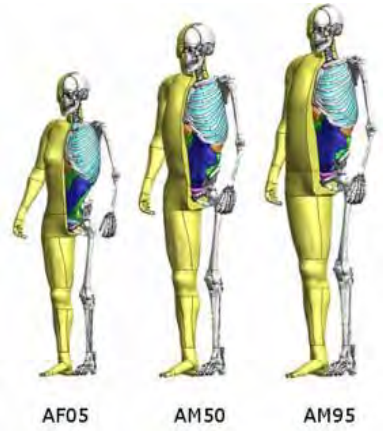
THUMS is limited to civilian use and may under no circumstances be used in military applications.

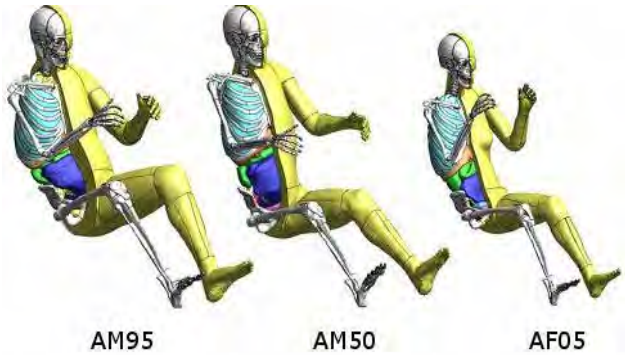


Model Details: Each of the different sized models is available as sitting model to represent vehicle occupants and as standing model to represent pedestrians.

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.

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.
- Run your simulations from 0.05 €/CCH without reservation
- Remote visualization using LS-PrePost
- Avoid installation and maintenance costs
- Other simulation applications also ready to use
- Global connectivity, remote graphics and collaborative environment
- Large number of cores available

For more information please visit: www.gompute.com

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.

GOMPUTE
A GRIDCORE COMPANY

Gompute User Meeting 2013
April 23rd -24th, 2013
8th Gompute User Meeting
Scandic Crown Hotel,
othenburg Sweden.

Meetings:
Tuesday the 23rd 8 am until 5 p.m.
Wednesday 24th, 9 am until 4 pm.

Evening event takes place at:
Villan Chalmers
Tuesday 23rd of April at 7 pm

The Gompute User Group Meeting is a conference oriented to the simulation industry which provides an opportunity to professional users and providers to share knowledge and meet personally. Here you can find more about simulation software, high performance computing hardware and other people experiences in the field of simulation.

Scope of the Meeting: The use of numerical simulations for the evaluation of prototypes and processes is a growing industry which allows time shortening of development. This takes place in many different areas as Continuum Mechanics, Computational Chemistry, Electromagnetics, Risk modeling, Rendering, etc. Commercial implementations of such a tool has gained in maturity and reliability and the Simulation Industry is a growing market which naturally prompts other associated areas such as High performance computing hardware and System integration.

The intention of the Organizing Committee for Gompute Users Meeting 2013 is to gather all relevant actors in the Simulation Industry in the Nordic countries:

1. Engineers (Fluid Dynamics, Stress analysis, Electromagnetism)
2. Scientific users
3. Decision makers for HPC investments
4. Contractors
5. Academics
6. Users in general

Topics to be covered by the convention are:

1. Simulation Tools (both commercial and free), this includes: Fluid Dynamics, Stress Mechanics, Visualization, Mesh generation, Model Optimization, etc...
2. Simulation Techniques
3. Computing Hardware
4. Linux for High Performance Computing.

Registration: This event is free of charge. To register for the event please visit: www.gompute.com

We hope to meet you at Gompute User Meeting!

LS-DYNA® SMP PRICING

LS-DYNA® SMP Version for Windows Workstations

(does NOT include server versions)

SMP version license only, (**LS-DYNA MPP is not included**)

- Workstation versions of Microsoft Windows®
  - Version XP and above.
- Executable is node locked to a single user workstation.
- Simultaneous jobs permitted, up to a total in-use core count of 16.
  - 16 one-core, 8 two-core, 4 four-core, etc.,
- In general the scaling of SMP version is comparable to MPP versions up to 4 cores. Scalability is problem dependent and is not guaranteed.

Includes:

- Pre- and Post-processor LS-PrePost®
- Optimization Software: LS-OPT® and LS-TaSC™
- LSTC dummy and barrier models
- All Features of LS-DYNA® are included: Explicit, Implicit, CFD, Thermal,…

For Information contact LSTC.

LSTC Livermore Software Technology Corp.

Livermore Software Technology Corp. ,
7374 Las Positas Road, Livermore, CA 94551
Telephone: (925) 449-2500 ● Fax: (925) 961-0806
www.lstc.com sales@lstc.com

2013 New Courses are available from Livermore Software Technology Corporation. LSTC Developers, and Consulting Instructors have developed a series of (1) one day specialty seminar/course training series.

Contents

Date	Location	Class	Instructor
March 01	The Implicit Solver LS-DYNA	Internet	Al Tabiei
April 12	Using the heat transfer capabilities in LS-DYNA	MI	Arthur Shapiro
April 16	ICFD and FSI problems in LS-DYNA R7	MI	Inaki Caldichoury
April 17	ICFD and Conjugate Heat Tranfer problems in LS-DYNA R7	MI	Inaki Caldichoury
April 18	EM in LS-DYNA R7	MI	Inaki Caldichoury
May 15	ICFD and FSI problems in LS-DYNA R7	CA	Inaki Caldichoury
May 16	ICFD and Conjugate Heat Tranfer problems in LS-DYNA R7	CA	Inaki Caldichoury
May 17	EM in LS-DYNA R7	CA	Inaki Caldichoury

LSTC Internet Class Series
LS-DYNA
The Implicit Solver

March 01, 2013 Instructor: Al Tabiei
Contact class@lstc.com to register

Implicit Nonlinear

Implicit One Day Internet Class
Registration: $375 Student: $150
For LS-DYNA users to get started on implicit problems with minimal effort.

The most important elements to start using LS-DYNA Implicit successfully will be presented including an additional, no fee, workshop.

Implicit Eigenvalue

Additional workshop: There is an optional one day (8 hours) of workshop on line, at no additional cost, to be determined the day of the class. The workshop online is not necessary to get started with LS-DYNA Implicit. However, it is recommended for LS-DYNA users in this field.
Class Material: Course notes will be available for download the morning of the class.
A 30-day demo LS-DYNA license will be authorized after the class to continue your learning experience.

March 01, 2013 8 hours
Eastern Standard Time
Class: 8:30 - 10:00
Break: 10:30 - 12:00
lunch : 12:00 - 1:00
Class: 1:00 - 3:30
Break: 3:30 - 4:00
Summary 4:00 - 4:30

Certificate of Completion issued: Livermore Software Technology Corporation

Sections covered during the course

1. Implicit versus Explicit
2. Equilibrium, Nonlinearity, and Linearization
3. Activating the Implicit Solver
4. Material Models and Element Types
5. Contact for Implicit
6. Eigenvalue Analysis
7. Dynamic Analysis using Modal Results
8. Springback
9. Additional Implicit Features
   * Explicit-Implicit Switch
   * Buckling Analysis
   * Control Implicit Termination
   * Inertia Relief
   * Consistent Mass
   * Condensation
10. Implicit in MPP
11. Linear Equation Solver
12. Practical Guidelines
13. Trouble Shooting and Ways to Battle Divergence
14. Summary

LSTC One Day Class
Modeling
Warm Forming & Hot Stamping

April 12th, 2013 Using the heat transfer capabilities in LS-DYNA.
LSTC Michigan Office **Instructor:** **Dr. Arthur Shapiro**
LSTC 1 Day Series **Registration: $100.00 Students $ 50.00**
Contact: class@lstc.com

Hot Stamping Process

fringes of temperature

Description: This class provides guidelines in using the heat transfer capabilities in LS-DYNA to model coupled thermal-stress problems with a focus on warm forming and hot stamping manufacturing operations. It is intended for people with a background in using LS-DYNA for computational mechanics, but who are not familiar with modeling heat transfer or coupled thermal-stress.

Class Material: A 30-day demo LS-DYNA license will be authorized after the class to continue your learning experience. Course Notes will be distributed the morning of the class.

Sections covered during the course

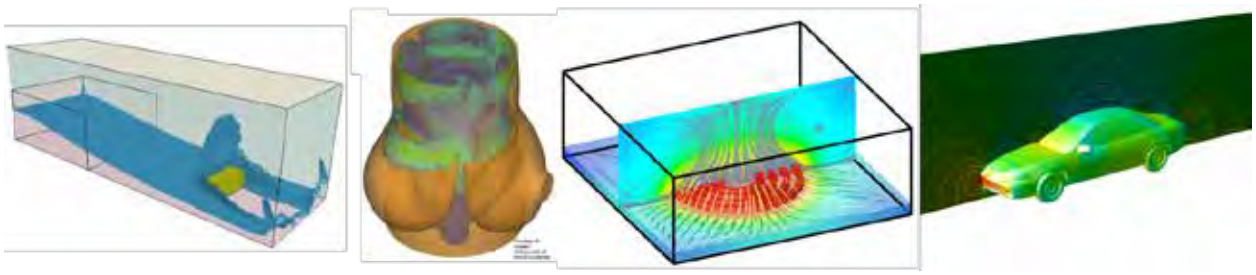
- Getting Started – Learn to create a KEYWORD input file to solve for the thermal *expansion of an aluminum block. Lean how to interpret LS-PrePost temperature fringe* plots to gain knowledge of the physical process.
- Equation Solvers & Nonlinear Solution Method - Learn the advantages and disadvantages of the Gauss direct solvers & conjugate gradient iterative solvers in LS-DYNA. Learn the nonlinear heat transfer keyword parameters and how Newton's nonlinear method works.
- Time Step Control – Learn how to select a thermal and mechanical time step size, and understand the difference between explicit and implicit solution methods.
- Initial and Boundary Conditions – Learn how to define temperature, flux, convection, and radiation boundary conditions. Learn how to hand calculate a convection heat transfer coefficient, which is the parameter with the greatest uncertainty in your model.
- Thermal-Mechanical Contact – Learn thermal-mechanical contact modeling issues with sheet metal forming applications.
- Thermal-stress coupling – An introduction to coupled thermal stress modeling. Topics include conversion of plastic work to heat, conversion of sliding friction to heat, and calculation of thermal expansion. Thermal-mechanical material constitutive models are also presented.
- Modeling Hot Stamping - The Numisheet 2008 B-pillar hot stamping benchmark problem BM03 is presented and solved.
- Modeling Warm Forming - The Numisheet 2011 magnesium warm forming benchmark problem BM02 is presented and solved

Class Information: Class Starts at 9AM. Lunch will be provided.
Certificate of Completion issued: Livermore Software Technology Corporation

LSTC One Day Class Series
Introduction to LS-DYNA R7
ICFD module

April 26th, 2013 Incompressible CFD (ICFD) and FSI in LS-DYNA R7

LSTC Michigan Office **Instructor: Iñaki Çaldichoury**
LSTC 1 Day Series **Registration: $100.00 Students $50.00**
Contact: class@lstc.com



Description: This class provides an introduction to the Incompressible CFD (ICFD) solver in LS-DYNA. Key physical and numerical concepts are presented; keyword examples are described and studied. A special focus

Prerequisite: A background in using LS-DYNA for computational mechanics. CFD basic knowledge is appreciated but not mandatory. It is not necessary to have any experience using the classic so called ALE module for modeling fluids in LS-DYNA.

Class Material: A 30-day demo LS-DYNA license will be authorized after the class to continue your learning experience. Course Notes will be distributed the morning of the class.

Sections

Introduction to the ICFD solver
- Background
- Main characteristics
- Examples of applications

Setting up a pure ICFD problem
- Step by step keyword set up
- Mesh refinement tools
- Advanced features

Current and future post treatments

General principles
- Fluid mechanics
- The Volume mesher
- FSI and thermal coupling

FSI problems
- Loose FSI coupling
- Strong FSI coupling
- Advanced mesh control tools

Documentation and references

Class Information: Class Starts at 9AM. Lunch will be provided.

LSTC One Day Class Series
Introduction to LS-DYNA R7
ICFD module

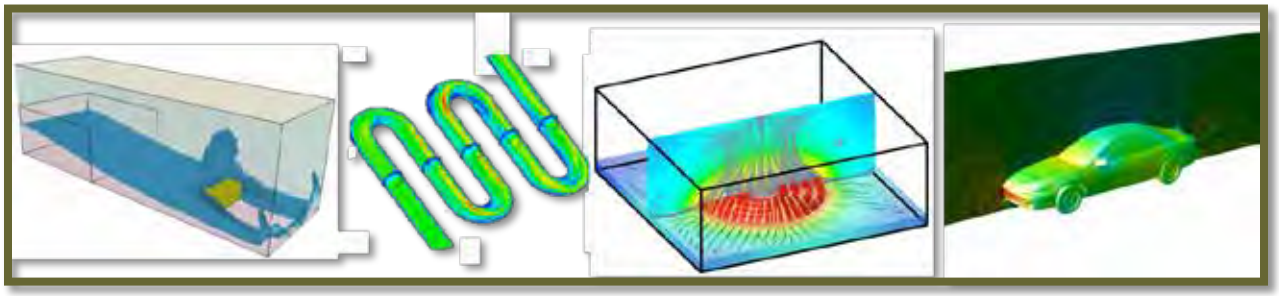
#2 Conjugate: Incompressible CFD (ICFD) and Conjugate heat transfer in LS-DYNA R7

Instructor: Iñaki Çaldichoury

LSTC Michigan April 17th, LSTC California May 16th, 2013

LSTC 1 Day Series Registration: $100.00 Students $50.00

Contact: class@lstc.com



Description: This class provides an introduction to the Incompressible CFD (ICFD) solver in LS-DYNA. Key physical and numerical concepts are presented; keyword examples are described and studied. Among the various possible applications, this class focuses on the coupling with the LS-DYNA thermal solver for conjugate heat problems.

Prerequisite: A background in using LS-DYNA for computational mechanics and thermal problems for solids. CFD basic knowledge is appreciated but not mandatory. It is not necessary to have any experience using the classic so called ALE module for modeling fluids in LS-DYNA.

Class Material: A 30-day demo LS-DYNA license will be authorized after the class to continue your learning experience. Course Notes will be distributed the morning of the class.

Sections

Introduction to the ICFD solver
- Background
- Main characteristics
- Examples of applications

Setting up a pure ICFD problem
- Step by step keyword set up
- Mesh refinement tools
- Advanced features

Current and future post treatments

General principles
- Fluid mechanics
- The Volume mesher
- FSI and thermal coupling

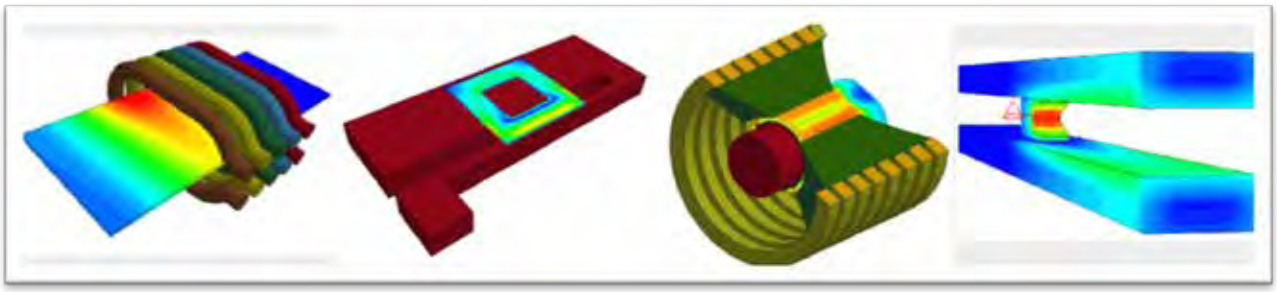
Conjugate heat transfer problems
- Fluid only thermal problem
- Convection modeling
- Coupled conjugate heat transfer problems

Documentation and references

Class Information: Class Starts at 9AM. Lunch will be provided.

LSTC One Day Class Series
Introduction to LS-DYNA R7 EM module

#3 Electromagnetism (EM) in LS-DYNA R7
Instructor: Iñaki Çaldichoury
LSTC Michigan April 18th, LSTC California May 19th, 2013
LSTC 1 Day Series Registration: $100.00 Students $50.00
Contact: class@lstc.com



Description: This class provides an introduction to the Electromagnetism (EM) solver in LS-DYNA. Key physical and numerical concepts are presented; keyword examples are described and studied. The main applications include magnetic metal forming, welding, bending, ring expansions, inductive heating, resistive heating, rail guns and so forth.

Prerequisite: A background in using LS-DYNA for computational mechanics and thermal problems for solids. Electromagnetism basic knowledge is appreciated but not mandatory.

Class Material: A 30-day demo LS-DYNA license will be authorized after the class to continue your learning experience. Course Notes will be distributed the morning of the class.

Sections

Introduction to the EM solver
- Background
- Main characteristics
- Examples of applications

Setting up an Eddy Current problem
- Step by step keyword set up
- Coupling with structural and thermal solvers
- EM equation of states

Current and future post treatments

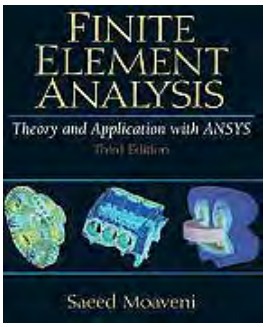
General principles
- Electromagnetics
- FEM-BEM system
- Source terms
- The FEMSTER library

Advanced capabilities
- Inductive heating
- Resistive heating
- EM contact
- Magnetic materials

Documentation and references

Class Information: Class Starts at 9AM. Lunch will be provided.

Time-Domain Finite Element Methods for Maxwell's Equations in Metamaterials (Springer Series in Computational Mathematics	*Jichun Li*
Finite Element Analysis: A Primer (Engineering)	*Anand V. Kulkarni - V.K. Havanur*
Finite Element Methods for Engineers	Roger T. Fenner
July 2013 Finite Element Mesh Generation	*Daniel Lo*
January 2013 The Finite Element Method: Theory, Implementation, and Applications (Texts in Computational Science and Engineering)	*Mats G. Larson -, Fredrik Bengzon*
January 2013 Finite and Boundary Element Tearing and Interconnecting Solvers for Multiscale Problems (Lecture Notes in Computational Science and Engineering)	*Clemens Pechstein*
January 2013 Structural Analysis with the Finite Element Method. Linear Statics: Volume 2: Beams, Plates and Shells (Lecture Notes on Numerical Methods in Engineering and Sciences)	*Eugenio Oñate*
Elementary Continuum Mechanics for Everyone: With Applications to Structural Mechanics (Solid Mechanics and Its Applications)	*Esben Byskov*

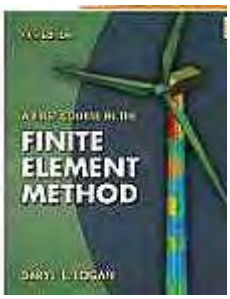


[Finite Element Analysis Theory and Application with ANSYS (3rd Edition)]

Saeed Moaveni

[Practical Stress Analysis with Finite Element]

Bryan J Mac Donald

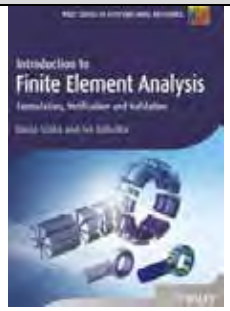


[A First Course in the Finite Element Method]

Daryl L. Logan

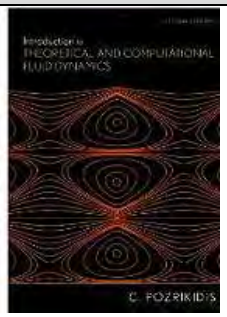
[Finite Element Modelling Techniques in MSC.NASTRAN and LS/DYNA]

Sreejit Raghu



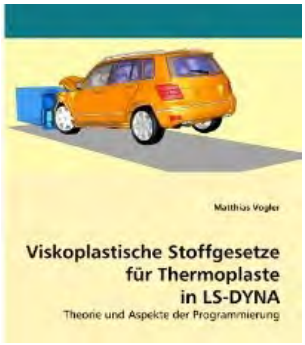
[Finite Element Analysis/formulation & verification]

B. A. Szabo



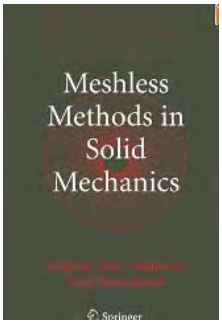
[Introduction to Theoretical and Computational Fluid Dynamics]

C. Pozrikidis



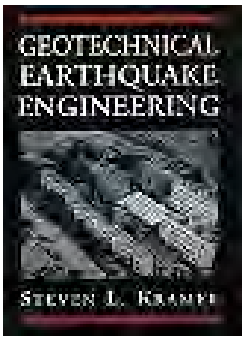
[Viskoplastische Stoffgesetze für Thermoplaste in LS-DYNA: Theorie und Aspekte der Programmierung]

Matthias Vogler



[Meshless Methods in Solid Mechanics]

Youping Chen



[Geotechnical Earthquake Engineering]

Steven Lawrence Kramer

[Biomechanical Systems Technology: Computational Methods]

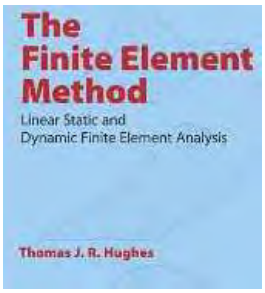
Cornelius T. Leondes

[Numerical response of steel reinforced concrete slab subjected to blast and pressure loadings in LS-DYNA.]

Vivek Reddy

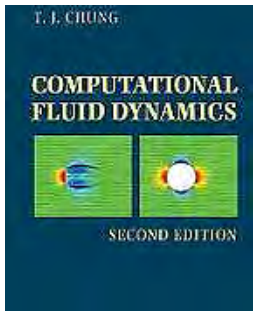
[Formulas for Mechanical and Structural Shock and Impact]

Gregory Szuladziniski



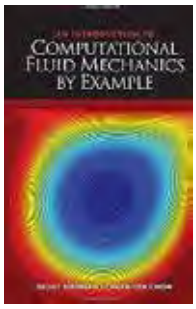
[The Finite Element Method]

Thomas J. R. Hughes



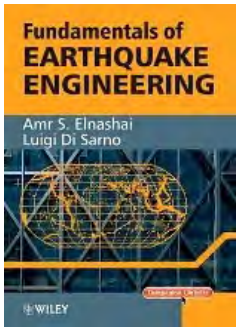
[Computational Fluid Dynamics]

T. J. Chung



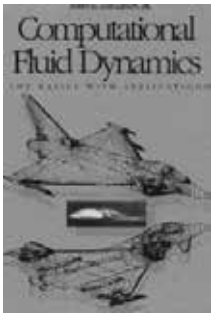
[An Introduction to Computational Fluid Mechanics by Example]

Sedat Biringen



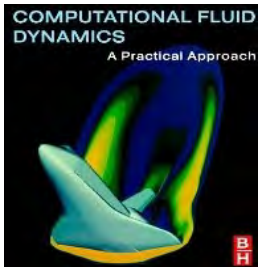
[Fundamentals of Earthquake Engineering]

Amr S. Elnashai



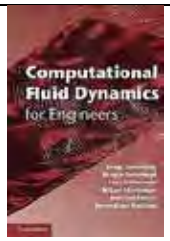
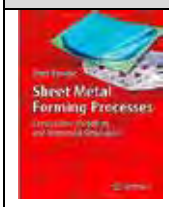
[Computational Fluid Dynamics]

John David Anderson



[Computational Fluid Dynamics: A Practical Approach [Paperback]]

Guan Heng Yeoh

			
Theories, Methods… **Ping Hu, Ning Ma, …**	**CFD for Engineers**	**CAE design and sheet metal forming…** **Li Fei Zhou Deng**	**Applied Metal Forming**
			
Micro Metal Forming (Lecture Notes in Production Engineering)			

Philip Ho LSTC

LS-PrePost is an advance pre- and post-processor developed exclusively for LS-DYNA. It is delivered free with the LS-DYNA package. Designed to be both efficient and intuitive, LS-PrePost runs on Windows, Linux, and Apple Mac utilizing WxWidget for its graphical interface and OpenGL for its model rendering. The current release of LS-PrePost is version 4.0, which can be freely downloaded from:

http://ftp.lstc.com/anonymous/outgoing/lsprepost/4.0

The core functionalities of LS-PrePost are:

* Geometry creation and meshing, all new CAD engineer for geometry cleaning and modification.

* LS-DYNA data creation and modification

* Comprehensive LS-DYNA keyword support

* LS-DYNA Model editing and checking

* Advanced post-processing and visualization

* Special Applications

Pre-Processing features:

- Automatic surface meshing by size or by deviation (for stamping application)
- Solid meshing with tetrahedron element or block meshing with index space technique
- Element generation from other element, like dragging line into shell, or offset shell into solid, or creating shell from solid faces, etc.
- Simple geometry shape meshing, box, sphere, cylinder, plate, etc.
- LS-Dyna data creation and modification: coordinate systems; boundary condition; initial condition; point and pressure loads; rigid body constraints; contact definitions; rigid walls; load curves; set data; etc.

- Keyword data creation and editing: material data; output definitions; control parameters; section property; etc.
- Applications: Metal forming setup including EZSetup; airbag folding; dummy positioning; seatbelt fitting; penetration check, comprehensive model checking.

Post-Processing features:

- Time sequence animation, with fringe result
- Mode shape animation for Eigen analysis
- Comprehensive time history plotting for d3plot data; ascii history data, binout data, user defined data
- Particle data visualization
- CFD data visualization
- General measurement
- Cross section analysis

Other features:

- Command file creation and execution
- Batch mode operation
- Marco commands
- Scripting language for repeated commands
- Printing RGB pictures and or High Definition picture
- Movies creation for animation sequence

The Development office of LS-PrePost: Starting from December 2007, LSTC established the LS-PrePost development office in Dalian, China. Dalian Fukun Technology Development Corporation was formed to do most of the development work of LS-PrePost. This office also perform a lot technical supports for LS-PrePost.

John O. Hallquist, LSTC President, Marsha Victory, LSTC Global business manager, Philip Ho, LSTC Visualization Software Manager, and Dalian Fukun's developers.