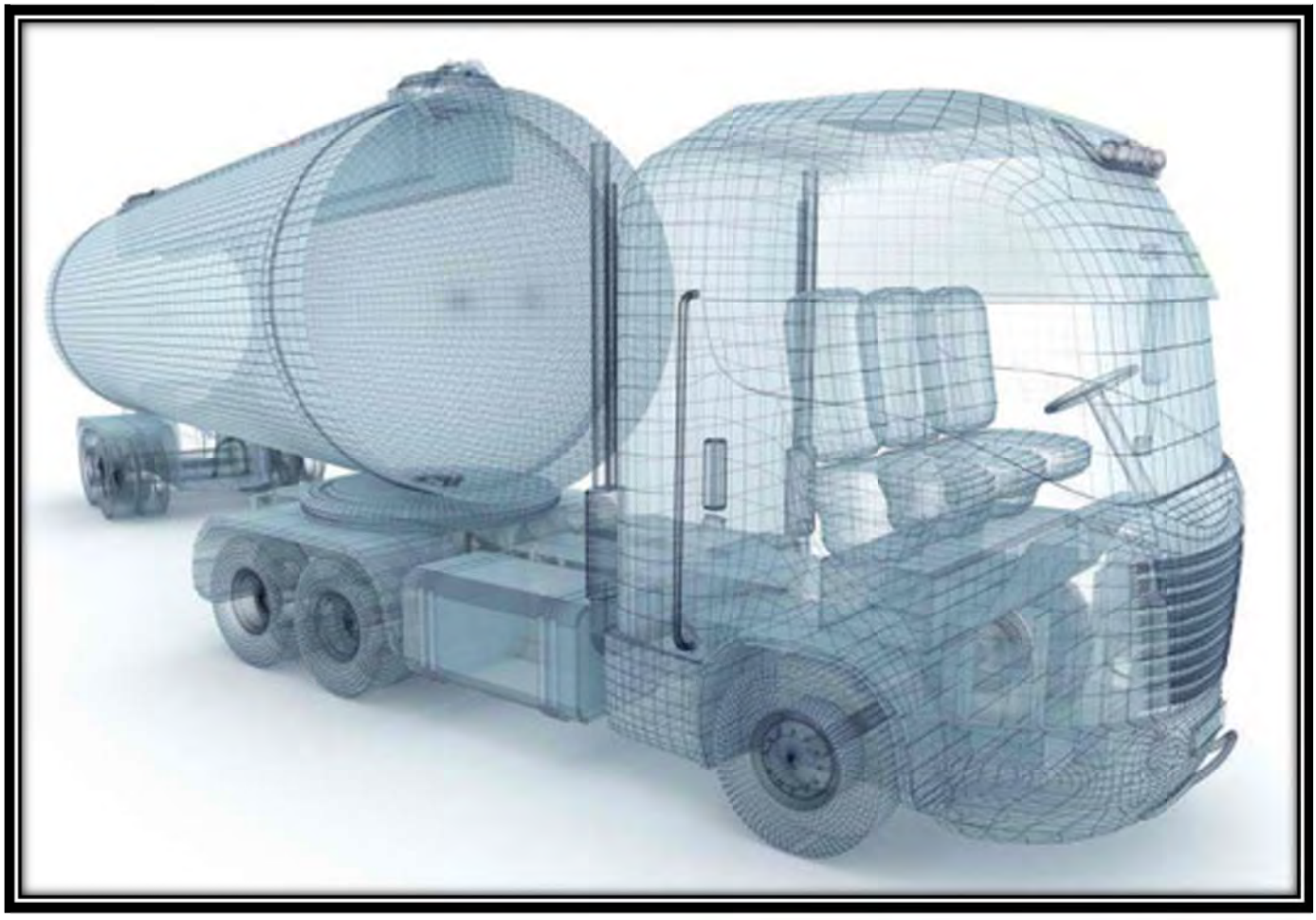
FINITE ELEMENT ANALYSIS feaINFORMATION.COM

FEA Information Engineering Solutions

Volume 1, Issue 11, December 2012

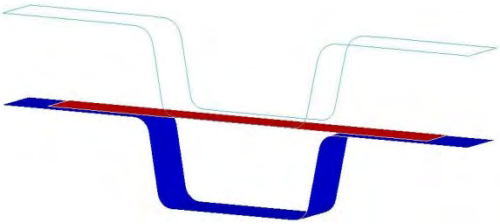


Inside This Issue

LSTC One Day Class Series
Modeling
Warm Forming & Hot Stamping

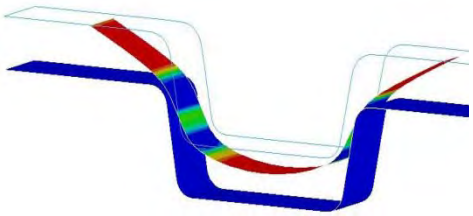
April 12th, 2013 Using the heat transfer capabilities in LS-DYNA.

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.

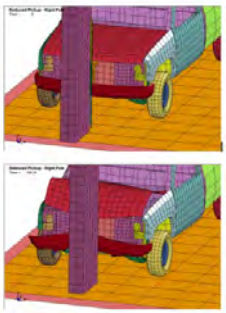
LSTC Livermore Software Technology Corp.

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

LSTC Internet Class Series
LS-DYNA
The Implicit Solver

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

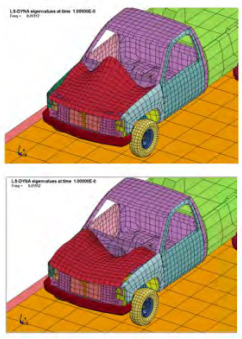
Implicit Nonlinear



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

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

Issues Now On Line	Volume 1 Issue 1 February 2012 **Compilation**	Volume 1 Issue 2 March 2012 **Metal Forming**	Volume 1 Issue 3 April 2012 **FSI**	Volume 1 Issue 4 May 2012 **Aerospace**	Volume 1 Issue 5 June 2012 **Electromagnetics**

Volume 1 Issue 6 July 2012 **Blast & Impact** (1)	Volume 1 Issue 7 August 2012 **Constitutive Modeling**	Volume 1 Issue 8 Sept. 2012 **Optimization**	Volume 1 Issue 9 Oct. 2012 **Simulation**	Volume 1 Issue 10 Nov 2012 **Blast & Impact** (2)	Volume Issue 11 Dec 2012 **Automotive**

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

Table of Contents

Participant Announcements

9th European LS-DYNA Users' Conference
June 2nd – 4th, 2012

Abstract Deadline Extended to: Jan. 31st, 2013.

Introduction to LS-PrePost
No Fee – LSTC California January 28th

Introduction to LS-DYNA
$750 Students $375 Janary 29th
Contact: vic@lstc.com for Information

LSTC - On Line Course The Implicit Solver - March 01, 2013

LSTC One Day Courses: MI Office Modeling Warm Forming & Hot Stamping - April 12, 2013

LSTC OnLine Conference Presentations
Select papers from the 12th International LS-DYNA® Users Conference represented for those that could not attend. May 2013 (date to be announced) For information contact vic@lstc.com

On Line Course by Al Tabiei

Getting Started with LS-DYNA
Blast & Penetration

May 3rd, 2012

Social Media
LSTC & DYNAmore's LS-DYNA TV

This channel is to outline the capabilities of the general-purpose finite-element program LS-DYNA in terms of simulating complex real world problems.

https://youtube.com/user/lstcanddynamore

The 2013 THUMS European Users Meeting

JSOL invites you to join us and share in THUMS technical information.

THUMS, the Total Human Model for Safety for use with LS-DYNA(R) is being rapidly adopted by users worldwide.

Toyota Motor Corporation will present latest validation results and model improvement plans.

http://ls-dyna.jsol.co.jp/en/event/thums2013.html

Sincerely, Marsha Victory, Trent Eggleston FEA Information

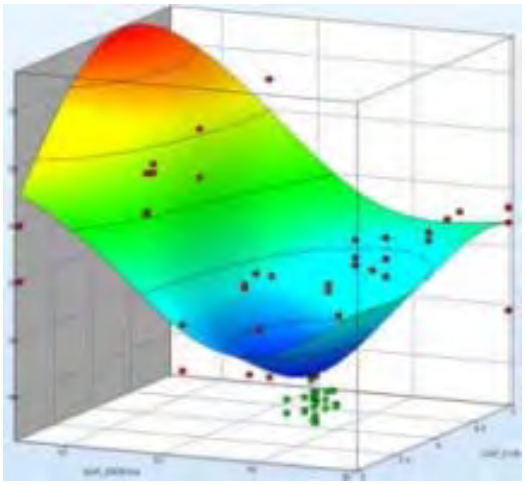
LS-OPT, the graphical optimization tool that interfaces perfectly with LS-DYNA,

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.

The graphical tool LS-OPTui interfaces with LS-DYNA and provides an environment to specify optimization input, monitor and control parallel simulations and post-process optimization data, as well as viewing multiple designs using LS-PREPOST.

Among the information on the support site that you will find is:

Design Exploration



LS-OPT allows global approximations of the design space using meta models. These meta models may be used for design exploration.

Response Surfaces (Meta Models)

- Global approximation of Responses and Histories
- Metamodel types: Polynomials, Radial Basis Functions, Feedforward Neural networks

Visualization

- 2D/3D sections of the surfaces
- 1/2 selected variables vs. any response
- Constraints on the meta models
- Influence of single parameter on a history curve
- Interactive prediction of response values

http://www.dynasupport.com/

The LS-DYNA support site

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.

LS-DYNA support will not provide information on activities of your local LS-DYNA distributor as seminars, promotions, etc. We may ask to check the local sites for any kind of non-technical information.

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

Dec 10, 2012
The Next Step

Dec 10, 2012
Units

Dec 10, 2012
Getting Started

Dec 07, 2012
Contact thickness

Dec 06, 2012
Modeling guidelines for full vehicle contact

Nov 20, 2012
History Variables for Certain Material Models

Nov 19, 2012
Contact types

Nov 19, 2012
How contact works

Nov 17, 2012
Find and remove initial penetrations

October 25th
Install a new network license (Microsoft Windows)

October 23
The tension test

October 23
A pathological case of volume locking in triangular elements

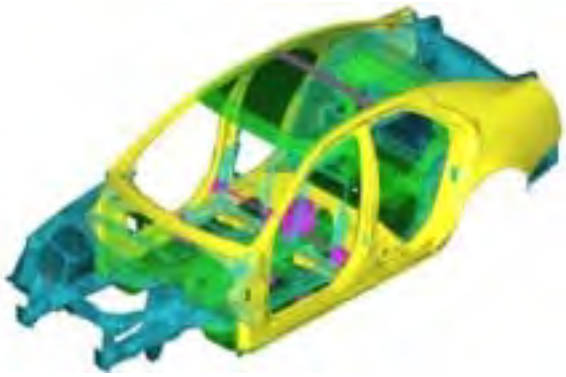
October 23
Material model for TRIP-steels

October 23
History Variables for certain material models

http://www.eta.com/news-eta

ETA Wins SAE Innovation Award

Troy, MI— Engineering Technology Associates, Inc. (ETA) was selected from amongst five finalists as the winner of the 2nd Annual SAE (Society of Automotive Engineers) Detroit Section/MITEF Vehicle Innovation Competition. ETA's winning entry was a seamlessly integrated design development process, entitled the Accelerated Concept to Product (ACP) Process.



After two selection rounds, the five finalists were invited to present their innovations at the San Marino Club in Troy, Michigan. Representatives from industry leading automotive manufacturers and suppliers served as judges for the competition and ultimately selected the ACP Process as the winner of the award in the established company category. The award marked ACP as the innovation likely to have the biggest positive impact on the automotive industry and its products going forward.

.

ETA presented the key benefits of the ACP Process at the event. These include a demonstrated capability to reduce product development costs by 35-40%, reduce product mass by approximately 20%, improve product performance (stiffness, NVH, crash/safety, durability) as well as reduce manufacturing and tooling cost through part consolidation.

The ACP Process is a proprietary, performance-driven, holistic product design development method, which is based on design optimization. ACP incorporates the use of multiple CAE tools in a systematic process to generate the optimal design solution

Contrary to conventional methods where just one or a few design concepts are evaluated, using the ACP process, multiple load conditions are evaluated simultaneously for hundreds of design concepts. The resulting concepts are detailed, analyzed, and optimized. This ensures that final product meets all performance, mass, and cost targets.

Significant efficiencies and product improvements are achievable using the ACP Process, whether it is applied on a component, sub-system or full-system. In this practice, ETA's expert team revisits process requirements and uses the most advanced technology, tools, and materials to give the client the lightest possible structure.

A tier-one supplier to the global automotive industry, ETA's clients include Ford, General Motors (GM), and Chrysler. Its esteemed client list also includes the Auto/Steel Partnership (A/SP) and WorldAutoSteel.

Advanced Product Development engineers working as structural analysts for the world's largest automotive manufacturers established ETA in 1983. ETA's expertise in the areas of vehicle durability, NVH, metal forming, crashworthiness, occupant safety and product design have led to its development of the ACP Process. Proactive in the creation and implementation of new analysis methods and software, ETA is the developer of DYNAFORM and VPG. ETA is a subsidiary of Cranes Software International Limited (CSIL).

For more information, please go to www.eta.com or call (248) 729-3010.

Supported Platforms

µETA v6.8.x is available on MS-Windows, Linux and Mac OS only.

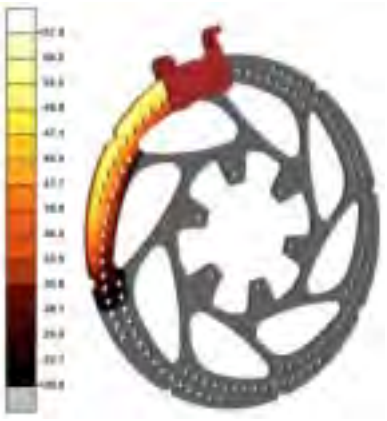
The support of the UNIX platforms: HP-UX, IBM-AIX and SUN-Solaris is discontinued.
The support of Windows 2000 SP3 is also discontinued and Windows XP SP1 is the earliest MS-Windows supported version.

New Features Introduced

The Modal Response and FRF Assembly tools can now calculate the pressure on fluid grids from the complex eigenvalues (Nastran SOL107) of a coupled acoustic model.

META now supports reading, in the 2D Plot tool, modal contribution fractions from Nastran *.pch files.

It is now possible to draw the interior surfaces of Fluent models.



Known Issues Resolved

The result option "Max of In Out/All Layers" could not calculate correct results from Abaqus *.odb files.

- The 32-bit MS-Windows version of META could crash when reading FEMZIP-L files compressed with the 64-bit executable.
- The graphics performance of META could deteriorate when working with multiple Pamcrash *.DSY files and numerous plotted curves.
- Pamcrash TETRA10 elements could not be read.
- META could not read certain Permas *.uci files.
- META could not read certain Ensight files.

Compatibility

µETA v6.8.3 can only run with beta_lm_tools v6.0 or later. The latest beta_lm_tools version is v6.3.

The .metadb files saved by the later versions of µETA are compatible and can be opened by earlier versions of µETA.

Documentation

Documentation is packed into the "common" file. While the "common" file is unpacked, you will find an html file that will guide you through the available PDF documents, including the Release Notes and the Users Guides.

Release Notes

- Please refer to the Release Notes document for more details about the software corrections and the new features.
- A detailed Release Notes document is available in PDF in the download directory and also in the /docs sub-directory within the installation directory.

Users Guide

An Users Guide, updated for version 6.8.3, is also available in PDF.

Tutorial files' availability

The demofiles necessary to cover the tutorials' documentation are available as separate downloads within the META_POST_TUTORIALS folder of the [Public] area. Some tutorial files have been updated for µETA v6.8.2.

Download

Where to download from: Customers may download the new software, examples and documentation from their account at our web site https://ftp.ansa-usa.com/
Contact us if you are missing your account details.

What to download: For the installation of the software on each platform type, the following are needed:

the tar file with the respective platform name (e.g. Linux etc.), or the respective zip file for Windows and
the "common" .tar or .zip file

Previous software releases can be found in the sub-directory called "old".

For Complete Download Information please visit: http://www.beta-cae.gr/news.htm

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 system 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 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.

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.

Indeed

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.

OpenForm

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 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.

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

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

Germany	Gridcore www.gridcore.se	
Sweden	Gridcore www.gridcore.se	
United States	Gompute www.gompute.com	

On Line Course by Al Tabiei: Getting Started with LS-DYNA Blast & Penetration

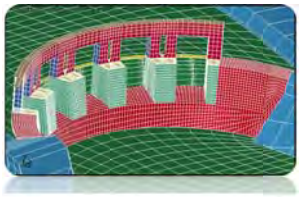
May 3rd, 2013 On Line Course Instructed by Al Tabiei

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:

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
09/20/12 10/15/12 10/30/12 12/10/12

Contact Definitions
10/18/12

Plasticity
10/24/12

Users Interfaces
11/19/12

Crash Analysis
12/04/12

ALE
10/11/12

Meshless Methods
10/11/12

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

January 28, 2013	Introduction to LS-PrePost (no charge)	CA
Jan. 29 - Feb. 1, 2013	Introduction to LS-DYNA	CA
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

Please check the site for accuracy and changes.
Among the many course offering are the following:

LS-PrePost 3, introduction
November 26

LS-DYNA, introductory course
November 27

LS-DYNA, implicit analysis
October 2

ANSA & Metapost, introductory course
October 9

Contacts in LS-DYNA
October 12

LS-DYNA, simulation of sheet metal forming processes
October 16

LS-DYNA, advanced training class in impact analysis
November 20

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

Please check the site for accuracy and changes.

2012

LS-DYNA – Plasticity, Damage & Failure – By Paul DU BOIS (to be held in Paris)
10-11/12

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

Users LS-DYNA Days

Alyotech will be hosting two Users Days this year. These events will focus on the recent evolutions of LS-DYNA and related products from LSTC and will feature talks both about novel functions and real-world applications.

Two sessions will be held: the first one will take place in Toulouse on September 20th while the second one will be held in Antony on November 8th.

Each session will start with lectures from Alyotech and presentations of studies from LS-DYNA users in the morning. The afternoon will then be devoted to discussions between users on selected topics of interest.

Don’t hesitate to contact us at support.ls-dyna@alyotech.fr

Engineering Technology Associates

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

Please check the site for accuracy and changes.

Among the many course offering are the following:

Introduction to DYNAFORM

November 6th

December 4th

Introduction to PreSys

November 13th

December 11th

Introduction to LS-DYNA

November 20th

December 18th

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

Please check the site for accuracy and changes. Among the many course ffering are the following:

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

Partial Listing

Nov 01, 2012
Assembly Modeling – eLearning / Online

Nov 05, 2012
Introduction to ANSYS Mechanical APDL Part I

Nov 08, 2012
Introduction to ANSYS Mechanical APDL Part II

Nov 13, 2012
Mechanically Fastened Joints and Bolt Preload - e-Learning / Online

Nov 15, 2012
Mechanically Fastened Joints and Bolt Preload - e-Learning / Online

Dec 03, 2012
ANSYS DesignModeler

Dec 04, 2012
Introduction to ANSYS Mechanical (Workbench) /

The Complete Courses Offered Can Be Found at http://www.hengstar.com

2012	2	3	4	5	6	7	8	9	10	11	12
An Introduction to LS-DYNA(High Level)											
Concrete & Geomaterial Modeling with LS-DYNA											
Pedestrian Safety and Bonnet Design with LS-DYNA											
Crashworthiness Theory and Technology											
LS-DYNA MPP, Airbag Simulation with LS-DYNA											
Introduction of LS-OPT which is Based on LS-DYNA											
Passive Safety and Restraint Systems Design											
Crashworthiness Simulation with LS-DYNA											
Passive Safety Simulation with LS-DYNA											
Crashworthy Car Body Development - Design, Simulation and Optimization											

For course location visit www.alyotech.fr

LS-DYNA Introduction

Nov 12-14
Dec 03-05

LS-DYNA Implicit

Nov 19-21

LS-PrePost – Meshing

Nov 26

LS-PrePost – New Interface

Nov 27

LS-OPT Introduction

Dec 10-11

LS-TaSC – Topology Optimization

Dec 12

Oasys LS-DYNA UK Users' Meeting 2013
Wednesday 16th January 2013

The tenth in a series of update meetings for Oasys LS-DYNA Users will be held at our office in Solihull on Wednesday 16th January 2013.

Please note: The Meeting will run as a half day event this year with registration commencing at 1:30pm. The decision to shorten the event was taken as the European LS-DYNA Conference is also running in the UK in 2013.

As in previous years this event will bring together around 80 users of the Oasys and LS-DYNA software to provide information on upcoming features of Oasys and LS-DYNA, and to learn more about current and new applications, as well as other related software products.

We are looking forward to talks from Yun Huang (LSTC) and the Oasys team at Arup.

The event will be followed by a complimentary meal at The Boot Inn in Lapworth. Please ensure you register in advance to attend this evening meal.

Registration

This event is free of charge. To register for the event and the evening meal simply send an email with your company/affiliation and contact details to Katherine Groves katherine.groves@arup.com . Please also let us know if you have any particular dietary requirements when you register.

Please note: in line with our company sustainability policy we do not plan to provide printed copies of the presentations for each attendee at the event; the presentations will be made available to download after the event. If you particularly require a printed copy on the day please let us know when you register.

JANUARY 2013

Agenda

http://www.oasys-software.com/dyna/en/events/users_jan-13/Provisional%20Agenda%20Oasys%20LS-DYNA%20Users%20Meeting%202013.pdf

A provisional agenda for the day available. These details will be confirmed closer to the event date.

Training Courses

The following training courses are provisionally scheduled around the time of the Oasys LS-DYNA UK Users' Meeting:

Thur 17th - Fri 18th Jan
NHV & Frequency Domain Anaylsis in LS-DYNA

The course costs listed above are per attendee and do not include VAT or any travel / accommodation expenses. For more details please follow the link to the course page.

Venue

The event will be held at The Arup Campus, Blythe Valley Park, Solihull, B90 8AE. Blythe Valley Park is located at junction 4 of the M42; please click here for a PDF map. Details for public transport to the Blythe Valley Park can be found on the Blythe Valley Park website.

Meal after the event

The meal following the event will be held at The Boot Inn, Old Warwick Road, Lapworth, B94 6JU. The size of the restaurant is limited so please ensure you confirm to us that you plan to attend to avoid disappointment on the night. For a detailed map of the location please click here.

Contact Details

If you would like more information on this event please contact:

Katherine Groves
Oasys LS-DYNA Project Administrator, Arup
T +44 (0) 121 213 3291
E katherine.groves@arup.com

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. In order 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 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

 **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

News ReleaseYarcData Joins World Wide Web Consortium (W3C) to Promote SPARQL and RDF Standards

Dec 11, 2012 -- YarcData, a Cray (NASDAQ: CRAY) company dedicated to providing "Big Data" graph-analytic solutions to enterprises, today announced that it has joined the World Wide Web Consortium (W3C), which is an international community that develops open web standards.

The W3C's mission is to lead the World Wide Web to its full potential by developing protocols and guidelines that ensure the long-term growth of the web. As a W3C member, YarcData will join working groups for Linked Data and RDF in support of W3C's goal to provide a semantic web environment that is available in a standard, reachable, and manageable format. YarcData's graph analytics appliance, uRiKA, utilizes RDF and SPARQL in its graph database.

"We are excited to have YarcData on board as W3C members," said Dr. Jeffrey Jaffe, Chief Executive Officer of the Worldwide Web Consortium. "SPARQL and RDF are key technologies for the analysis of Big Data available on the World Wide Web and we are pleased to see YarcData's commitment to the next generation of the web of data."

Shoaib Mufti, vice president of research and development at YarcData, recently attended the W3C's annual Technical Plenary and Advisory Committee (TPAC) meeting, which brought together more than 450 W3C members from around the world. Held in Lyon, France, this year's meeting featured a variety of breakout sessions on the future of the web and how it is disrupting and impacting many diverse industries.

"We believe that RDF and SPARQL are quickly becoming leading standards for graph analytics, and that they will become to graph analytics what SQL is to relational databases," said Mufti. "We are very pleased to be a part of the community supporting the W3C, and we look forward to collaborating with fellow technology innovators to encourage and assist in developing web standards that are important for enabling previously intractable discovery in Big Data."

About the World Wide Web Consortium

The World Wide Web Consortium (W3C) is an international consortium where Member organizations, a full-time staff, and the public work together to develop Web standards and guidelines designed to ensure long-term growth for the Web. Nearly 400 organizations are Members of the Consortium. W3C is jointly run by the MIT Computer Science and Artificial Intelligence Laboratory (MIT CSAIL) in the USA, the European Research Consortium for Informatics and Mathematics (ERCIM) headquartered in France, and Keio University in Japan, and has 20 outreach offices worldwide. For more information see http://www.w3.org.

About the uRiKA Graph-Analytics Appliance YarcData's uRiKA system is a Big Data appliance for graph analytics that enables enterprises to discover unknown relationships in Big Data. The uRiKA system is a highly scalable, real-time platform that supports ad hoc queries, pattern-based searches, inferencing and deduction. Singularly focused on graph analytics, uRiKA augments existing analytical environments by delivering new high-value discoveries and insights that drive competitive advantage.

About YarcData - YarcData, a Cray company, delivers business-focused, real-time graph analytics for enterprises to gain business insight by discovering unknown relationships in Big Data. Early adopters include the Canadian government, Institute for Systems Biology, Mayo Clinic, Noblis, Sandia National Laboratories, and the United States government. YarcData is based in the San Francisco bay area and more information is available at www.yarcdata.com.

About Cray Inc. - As a global leader in supercomputing, Cray provides highly advanced supercomputers and world-class services and support to government, industry and academia. Cray technology is designed to enable scientists and engineers to achieve remarkable breakthroughs by accelerating performance, improving efficiency and extending the capabilities of their most demanding applications. Cray's Adaptive Supercomputing vision is focused on delivering innovative next-generation products that integrate diverse processing technologies into a unified architecture, allowing customers to surpass today's limitations and meeting the market's continued demand for realized performance. Go to www.cray.com for more information.

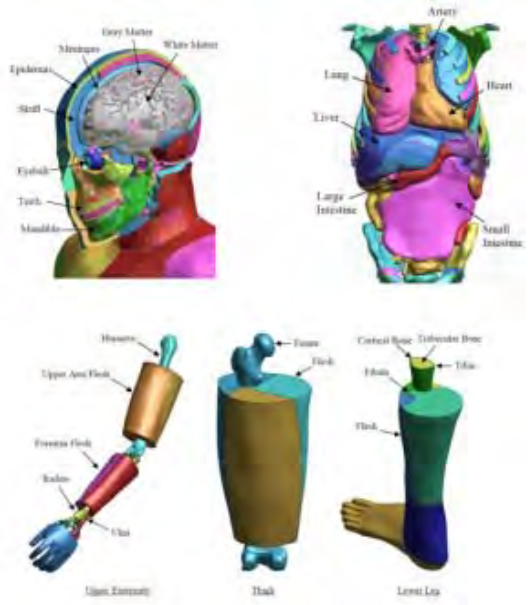
YarcData Media: Nick Davis 206/701-2123 pr@yarcdata.com
Cray Investors:- Paul Hiemstra - 206/701-2044 - ir@cray.com

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.

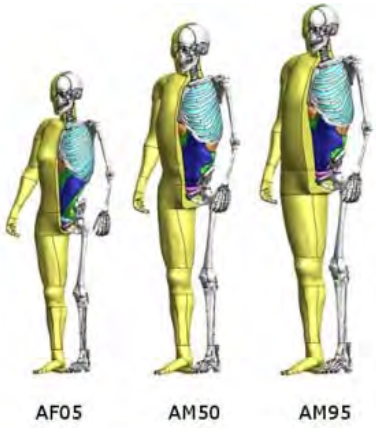


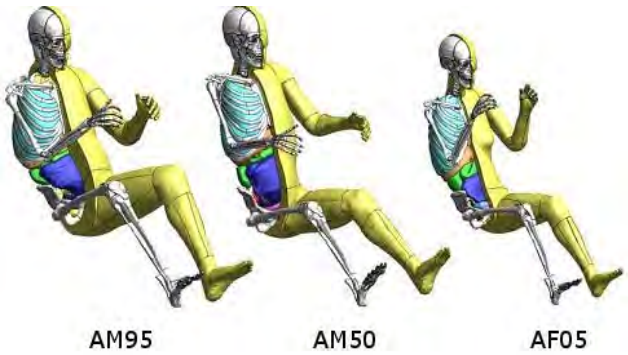
THUMS is limited to civilian use and may under no circumstances be used in military applications.

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.

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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.

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:

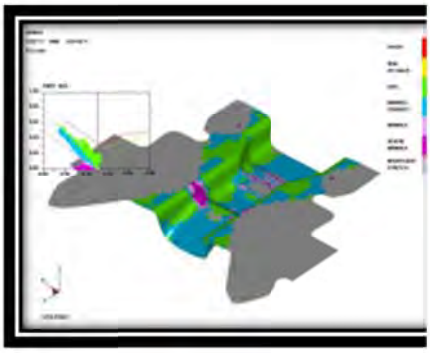
1. Simulation Tools (both commercial and free), this includes: Fluid Dynamics, Stress Mechanics, Visualization, Mesh generation, Model Optimization, etc...
2. Simulation Techniques
3. Computing Hardware
4. Linux for High Performance Computing.

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

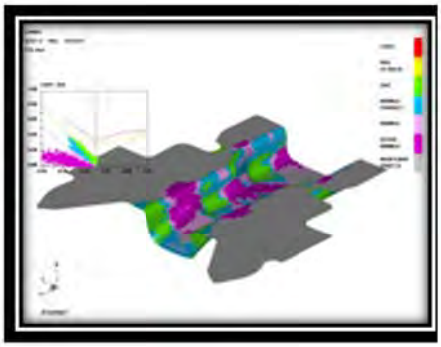
We hope to meet you at Gompute User Meeting!

LS-OPT® Incorporated into DYNAFORM's Formability Simulation Module

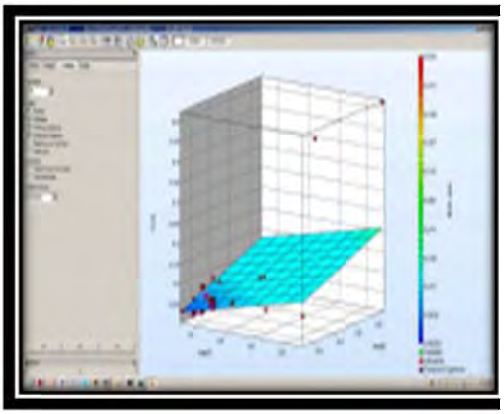
Optimization of sheet metal forming is now possible using DYNAFORM™.



LS-DYNA® based*, for accuracy, this die system simulation solution is now enhanced with LSTC's LS-OPT®. The feature has been integrated into the DYNAFORM™ Formability Simulation (FS) module.



For many years, tooling engineers have used DYNAFORM™ as a virtual tryout for metal stamping. Now, engineers can go beyond identifying problem areas by incorporating design optimization to improve performance and quality - reducing wrinkling, thinning and tearing. In the simulations shown above, severe wrinkling is greatly reduced (purple areas above).



With this module, the engineer can more effectively design drawbeads that restrict the blank from wrinkling & splitting during the forming process, significantly reducing the time required to achieve a formable part.

It streamlines the challenging and time consuming process of laying out drawbeads for large and complicated parts and guides the engineer to efficiently achieve optimum configurations for drawbead forces

The incorporation of optimization streamlines die design, improves product performance and reduces manufacturing time by using simulation iterations as a search engine for the best possible design solution. As a result, higher performing, higher quality products can be can be developed, while greater manufacturing efficiency is achieved.

For more information, please visit http://www.eta.com or email etainfo@eta.com .

*LS-DYNA® & LS-OPT® are trademarks of LSTC.

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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.

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

News Release AMD FirePro™ professional graphics NewsFlash - December 2012 - AMD announced APP SDK 2.8

We thank Antoine Reymond for sending in this News Flash:

AMD Paves Ease-of-Programming Path to Heterogeneous System Architecture with New APP SDK 2.8 and Unified Developer Tool Suite.

APP SDK 2.8 up to 2.3x faster, includes BOLT open source C++ template library
http://developer.amd.com/tools/heterogeneous-computing/amd-accelerated-parallel-processing-app-sdk/downloads/?ref=OpenCLNews

WHAT IS AMD CODEXL? http://developer.amd.com/tools/heterogeneous-computing/codexl/

AMD CodeXL is a comprehensive tool suite that enables developers to harness the benefits of AMD CPUs, GPUs and APUs. It includes powerful GPU debugging, comprehensive GPU and CPU profiling, and static OpenCL™ kernel analysis capabilities, enhancing accessibility for software developers to enter the era of heterogeneous computing. AMD CodeXL is available both as a Visual Studio® extension and a standalone user interface application for Windows® and Linux®.

AMD CodeXL increases developer productivity by helping them identify programming errors and performance issues in their application quickly and easily. Now developers can debug, profile and analyze their applications with a full system-wide view on AMD APU, GPU and CPUs.

Where to find information:

APP SDK 2.8 release notes
http://developer.amd.com/download/AMD_APP_SDK_Release_Notes_Developer.pdf

OpenCL programmers guide
http://developer.amd.com/download/AMD_Accelerated_Parallel_Processing_OpenCL_Programming_Guide.pdf

APP SDK documentation http://developer.amd.com/tools/heterogeneous-computing/amd-accelerated-parallel-processing-app-sdk/documentation/

OpenCL C++ Wrappers http://developer.amd.com/wordpress/media/2012/12/cpp_api_r06.pdf

OpenCL C++ Kernel language
http://developer.amd.com/wordpress/media/2012/10/CPP_kernel_language.pdf

News Release AMD FirePro™ professional graphics NewsFlash - December 2012 - AMD announced APP SDK 2.8

APP SDK 2.8 related blog posts:

· http://blogs.amd.com/developer/2012/12/04/bolt-gpu-acceleration-for-your-c-application/

· http://blogs.amd.com/developer/2012/12/04/implementing-black-scholes-using-bolt/

· http://blogs.amd.com/developer/2012/12/04/bolt-architecture /

· http://blogs.amd.com/developer/2012/12/04/continue-your-heterogeneous-computing-hc-development-with-amd-codexl-1-0-final-release-now-available /

Starting point for all things APP SDK http://developer.amd.com/appsdk