Ted B. Belytschko, PhD,

CRAY CS- Storm Cluster

Speed up your workload with Cray's fastest, most powerful GPU solution.

Discover the new Cray CS-Storm cluster

DatapointLabs Materality's V8

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

FEA Information Inc. Publishes:

       FEA Information Engineering Solutions

       FEA Information Engineering Journal

       FEA Information China Engineering Solutions

FEA Information Engineering Solutions:

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

FEA Information China Engineering Solutions

       The first edition was published February 2012. It is published in Simplified and Traditional Chinese in pdf format. Published : February, April, June, August, October, December. The China Solutions is archived on the website FEA Publications. www.feapublications.com

       To sign up for the Traditional, or Simplified edition write to yanhua@feainformation.com

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

       Available on www.feaiej.com

Platinum Participants   Participant Logo- Courtesy of Lancemore Co. Japan

βBETA CAE Systems SA   CRAY   DatapointLabs

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Comet The performance engineering workspace   PENGUIN COMPUTING®   TERRABYTE Co.,Ltd. Customer Satisfaction by Computer Solution & Computer Simulation

DFETECH

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Announcements

LS-OPT Class w/ 30 day demo
October 28-31
Seats available – class is confirmed
LSTC MI office

2014 BETA CAE
North America Open Meeting
October 1st, 2014
The Inn at St. John's, Plymouth (MI), USA

LS-DYNA & JSTAMP Forum 2014
Oct. 29 –30

Anna Crowne Plaza Hotel
Grand Court Nagoya, Japan

LS-DYNA CFD Analysis
pdf presentation
sales@lstc.com

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

Intro to LS-OPT
Location: MI
Confirmed – space available

Ted B. Belytschko, PhD,
passed away
September 15, 2014

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

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

Ted B. Belytschko, PhD, age 71, of Winnetka, passed away September 15, 2014.

Born in Proskurov, Ukraine on January 13, 1943 to Maria and Stephan Belytschko.

Ted was the beloved husband of Gail Belytschko - father of Peter Belytschko, Nicole (Jim) Szafranski, and Justine (Aaron) Wegner

He was Walter P. Murphy Professor and McCormick Professor of Computational Mechanics at Northwestern University. He worked in the field of computational solid mechanics and was known for development of methods like element-free Galerkin method and the Extended finite element method.

We feel the loss of Ted is best described by an anonymous internet post:

> *"There are no words to describe the loss of Ted to the engineering community.*
> *There are no words to describe the loss of the friendship he gave to all people.*
> *There are no words to describe the loss to the world of a loving, caring, gentle man.*
>
> *The world is a better place through his teaching, publications, books*
> *and*
> *The knowledge and friendship that he gave to each of us."*

Marcia Swan DatapointLabs

Matereality Software Release Provides a Strong Materials Core for Manufacturing Enterprises

Matereality's Version 8 release provides a suite of productivity software that automates specific, materials-related tasks performed by different kinds of engineers within an enterprise. By operating from a unified library structure, all engineers interact with a common digital library, receiving information particular to their roles within the enterprise.

For example, the CAE expert can use the CAE Modeler app to create material cards for a particular CAE program, which are then stored in the CAE Models library. It is also possible to upload externally created material cards to the CAE Models library. The models can then be provided to non-expert CAE users for use in simulations. New features in the CAE Models library include the ability to tag a specific card with version details, and to share version-specific material cards. Further, users now are able to bundle all material cards they have created for a specific software and download them from their CAE Models library into their software in a single operation.

A materials engineer uses the Specifications Manager app to create material specifications with minimum and maximum properties values

and targets which can be used to evaluate candidate materials for acceptance by the enterprise. He uses the Materials app to manage composition, processing information, certifications, MSDS and similar materials information.

For the test laboratory, the Data Loader and Materials apps provide an easy way to add materials data and test reports. Based on client feedback, the improved Loader software module allows for faster data grab and save operations.

All engineers can use the updated Viewer module and the more advanced Analyzer module to make sound engineering decisions regarding materials.

Marcia Swan DatapointLabs
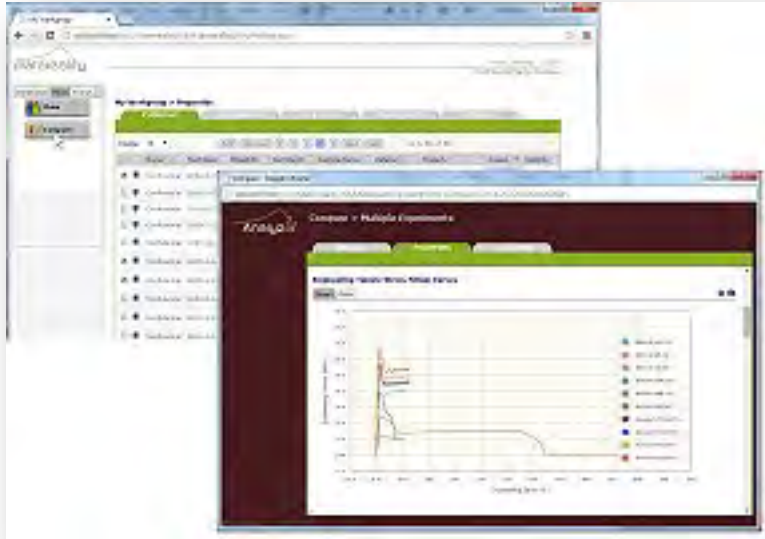
"Product innovation success relies on centralized data and knowledge resources that each engineer can relate to," said Hubert Lobo, President and CTO of Matereality. "This allows for projects to be completed more efficiently and eliminates risks associated with unmanaged material data, thus accelerating the pace of product development."

An important advance in Version 8 is the introduction of discrete, but interconnected, libraries to hold the different kinds of materials information that an enterprise would typically control. Each library now is separately managed, so that users can view, control or share material properties data, CAE material cards, test reports, or material specifications in a manner that is appropriate for their role in the enterprise. This sequestration allows for users to be exposed to highly specific information that is pertinent to their tasks via role-specific engineering apps.

Where the enterprises are not ready to for in-house deployment, Matereality offers a partial solution via a cloud service so individual engineers and engineering workgroups can

achieve immediate benefits. Matereality's usage plans can smoothly scale as more of the enterprise comes online, until complete adoption is achieved. During the ongoing Version 8 upgrade for the Matereality Cloud, users with an active usage plan can evaluate Version 8 via a beta testing program. To participate, send a request to info@matereality.com.

Material Properties to Enhance Simulation Accuracy

Determining the right material properties data needed to achieve the most accurate CAE and FEA simulation results forms the basis of presentations delivered by DatapointLabs at industry events.

Marcia Swan DatapointLabs

Hubert Lobo

Hubert Lobo, DatapointLabs President and CTO, is the keynote speaker at Accurate FEA of Engineering Plastics on October 14, 2014, an intensive one-day seminar hosted by CAE Associates, an engineering consulting firm and ANSYS channel partner, and presented in partnership with DatapointLabs. He will discuss the distinct structural behavior of engineering plastics and the best approaches for conducting accurate FEA.

Abstract: Plastics exhibit non-linear viscoelastic behavior followed by a combination of deviatoric and volumetric plastic deformation until failure. Capturing these phenomena correctly in simulation presents a challenge because of the inadequacy of currently used material models. We follow an approach where we outline the general behavioral phenomena, then prescribe material models for handling different phases of plastics deformation. Edge cases will then be covered to complete the picture. Topics to be addressed include:

- Using elasto-plasticity
- When to use hyperelasticity
- Brittle polymers - filled plastics
- Failure modes to consider
- Criteria for survival
- Choosing materials
- Spatial non-isotropy from injection molding
- Importance of residual stress
- Visco-elastic and creep effects
- Strain-rate effects for drop test and crash simulations
- Fitting material data to FEA material models

EVENTS:

- Accurate FEA of Engineering Plastics, presented by CAE Associates in partnership with DatapointLabs: October 14, 2014 - Tarrytown, NY USA
- Digimat Users' Meeting: October 21-23, 2014 - Rome, Italy
- EnginSoft International CAE Conference: October 27-28, 2014 - Pacengo del Garda (Verona), Italy

Advanced Accelerated Cluster System Taking Industry by Storm

As part of the Cray® CS™ cluster supercomputer series, Cray offers the CS-Storm cluster, an accelerator-optimized system that consists of multiple high-density multi-GPU server nodes, designed for massively parallel computing workloads. Whether users collect these vast amounts of data for strategic or day-to-day operations, they can more efficiently and accurately convert raw data into actionable information.

Cray CS-Storm Accelerator-Optimized Cluster Supercomputer: As part of the Cray® CS™ cluster supercomputer series, Cray offers the CS-Storm cluster, an accelerator-optimized system that consists of multiple high-density multi-GPU server nodes, designed for massively parallel computing workloads. Whether users collect these vast amounts of data for strategic or day-to-day operations, they can more efficiently and accurately convert raw data into actionable information.

HPC Workloads: The CS-Storm system is well suited for HPC workloads in the defense, oil and gas, media and entertainment, life sciences and business intelligence sectors. Typical applications include cybersecurity, geospatial intelligence, pattern recognition, seismic processing, rendering and machine learning.

System Components: Each Cray CS-Storm cluster rack can hold up to 22 2U rackmount CS-Storm server nodes. Each of these servers integrates eight accelerators and two Intel® Xeon® processors, delivering 246 GPU teraflops of compute performance in one 48U rack. The system is available with a comprehensive HPC software stack including tools that are customizable to work with most open-source and commercial compilers, schedulers and libraries. The Cray HPC cluster software stack includes Cray's Advanced Cluster Engine (ACE™) management software, which provides network, server, cluster and storage management capabilities with easy system administration and maintenance.

Visit us at:
LS-DYNA Forum 10/6-8 Bamberg, Germany
Cyber Expo   10/8-9 London, U.K.

Four New Solvers for Multiphysics Purposes

DES (Discrete Element Sphere)

A particle-based solver that implements the Discrete Element Method (DEM), a widely used technique for modeling processes involving large deformations, granular flow, mixing processes, storage and discharge in silos or transportation on belts. In LS-DYNA, each DE particle is a FEM node, making it easy to couple with other rigid or deformable structures by using penalty-based contact algorithms. The DE is highly parallelized and is capable of simulating systems containing over several hundred-million particles.

Here are some distinct features of the bond model:
1.   The stiffness of the bond between particles is determined automatically from Young's modulus and Poisson's ratio.
2.   The crack criteria are directly computed from the fracture energy release rate.
3.   The behavior of bond particles is particle-size independent.

Incompressible CFD

The incompressible flow solver is based on state of the art finite element technology applied to fluid mechanics. It is fully coupled with the solid mechanics solver. This coupling permits robust FSI analysis via either an explicit technique when the FSI is weak, or using an implicit coupling when the FSI coupling is strong.

Electromagnetism

The solver calculates the Maxwell equations in the Eddy current (induction-diffusion) approximation. This is suitable for cases where the propagation of electromagnetic waves in the air (or vacuum) can be considered as instantaneous. Applications   include   magnetic metal   forming, welding, and induced heating.

CESE/Compressible CFD

The CESE solver is a compressible flow solver based upon the Conservation Element/Solution Element (CE/SE) method, originally proposed by Dr. Chang in NASA Glenn Research Center. This method is a novel numerical framework for conservation laws.

LS-DYNA&JSTAMP Forum 2014

  Organizer: JSOL Corporation

Dates: Wed., 10/ 29 – Thurs., 10/30, 2014

Venue: ANA CROWNE PLAZA Hotel

      Grand Court NAGOYA (Nagoya, Japan)

 URL: www.anacrowneplaza-

LS-DYNA&JSTAMP Forum 2014

Expected number of participants:

 Approx. 350

Contact: E-mail : event@sci.jsol.co.jp

Products:

- **LS-DYNA** Impact and structural analysis program
- **JVISION** (#) Multipurpose pre/post-processor
- **ARUP Software** Pre/post-processor for crashworthiness, occupant safety, and related application
- **JSTAMP/NV** (#) Integrated Forming Simulation System for Virtual Tool Shop
- **HYCRASH** (#) Stamping-Crash Coupled Analysis
- **J-OCTA** (#) Integrated Simulation system for Soft Materials

- **THUMS** Total Human Model for Safety
- (#) Products originally developed by JSOL Corporation

JSOL CORPORATION

Engineering Technology Division

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- Nagoya office: Marunouchi KS Bldg. 2-18-25 Marunouchi,naka-ku,Nagoya-shi,Tokyo 460-0002, Japan
- Osaka office: Tosabori Daibiru Bldg. 2-2-4 Tosabori, Nishi-ku, Osaka 550-0001,Japan

 E-mail: cae-info@sci.jsol.co.jp

Tutorials & Workshops - We have a selection of tutorials and workshops which are available to download.

Oasys Software Suite

Oasys PRIMER Top-Tips: Download our Top-Tips document for guidance on some often overlooked features in PRIMER to help you get the most out of the software. Recommended for new and long-term users alike.

Oasys PRIMER Tutorial: This tutorial will give the user an introduction to the main features of Oasys PRIMER.

JavaScript Tutorial: This tutorial will give the user an introduction to the JavaScript functions in Oasys PRIMER and Oasys D3PLOT.

Oasys PRIMER Spotweld & Connections Tutorial: This tutorial will introduce the user to the spotweld and connections functions in Oasys PRIMER.

Oasys PRIMER Seat and Dummy Positioning Tutorial: This tutorial will introduce the user to the dummy positioning function and also seat positioning using the mechanism function in Oasys PRIMER.

Oasys PRIMER Seat Belt Fitting Tutorial: This tutorial will introduce the user to the seat belt fitting function in Oasys PRIMER.

D3Plot Tutorials

Oasys D3PLOT Top-Tips: Download our Top-Tips document for guidance on some often overlooked features in PRIMER to help you get the most out of the software. Recommended for new and long-term users alike.

Oasys D3PLOT Tutorial: This tutorial will give the user an introduction to the main features of Oasys D3PLOT.

T/HIS & FAST-TCF Tutorials

Oasys T/HIS Top-Tips: Download our Top-Tips document for guidance on some often overlooked features in PRIMER to help you get the most out of the software. Recommended for new and long-term users alike. Download

Oasys T/HIS & FAST-TCF Tutorial : This tutorial will give the user an introduction to the main features of Oasys T/HIS, including FAST-TCF.

Reporter Tutorials:

> **Oasys REPORTER Tutorial :** This tutorial will give the user an introduction to Oasys REPORTER.

LS-DYNA Tutorials

> **LS-DYNA Examples**: A selection of example models for LS-DYNA.

> **LS-DYNA Implicit Introduction :** This tutorial will give the user an introduction to working with LS-DYNA Implicit, including static analysis, eigenvalue analysis and buckling analysis

> **LS-DYNA Discrete Beam Orientation (SCOOR Option)**: These notes look at how the SCOOR option control the orientation of a discrete beam during an analysis.

LS-DYNA Preventing Negative Volume Errors: These notes cover a couple of methods for preventing negative volume errors in solid elements when modelling foams

LS-DYNA Setting Up ALE Steady State Flow: These notes cover a method for setting up steady state flow in ALE.

LS-DYNA Creating a simple running model from scratch in PRIMER: This is a PRIMER JavaScript that takes you through building a complete LS-DYNA model from scratch.

Penguin Computing's Open Rack-based Tundra Platform now Available With the Latest Intel® Xeon® Processor E5-2600 V3 Product Family

Multiple Industries to Benefit From High Performance Computing Solutions

FREMONT, Calif. - September 8, 2014 - Penguin Computing, a provider of high performance, enterprise data center and cloud solutions, today announced immediate availability of the Penguin Tundra cluster platform powered by the new Intel® Xeon® processor E5-2600 v3 product family. First unveiled at Supercomputing 2013 and based on Open Compute Project rack level infrastructure, Penguin Tundra delivers the highest density and lowest total cost of ownership for High Performance Technical Computing clusters.

Penguin Tundra delivers a very high number of dual socket (2P) Intel Xeon E5-2600 v3 compute nodes per rack by combining the Open Rack infrastructure defined by the Open Compute Project with a Penguin original compute node design. Open Rack design utilizes the available physical space more efficiently and features also a shared, rack level, redundant AC/DC power conversion and distribution.

"As the first Penguin-original system design Penguin Tundra is an embodiment of Penguin's system integration and data center expertise,"

said Tom Coull, CEO and President of Penguin Computing. "Tundra provides density and TCO advantages for current large-scale HPC deployments while designed to accommodate future exascale HPC components such as coprocessors and fabrics."

"We are excited to see Penguin Computing offering state-of-the-art HPC solutions powered by the new Intel Xeon E5-2600 v3 processors," said Eoin McConnell, Xeon E5 family product line director, Data Center Group. "The enhanced floating point compute performance provided by the new processors combined with the physical density and efficiency of the Penguin Tundra platform provides a powerful solution for TOP500 supercomputers and commercial HPC clusters."

Penguin Computing is focused on testing, integrating and supporting Linux-based compute, storage and networking in the HPC clusters and Internet datacenters. The Penguin Tundra cluster solutions featuring Intel Xeon E5-2600 v3 processors, Penguin IceBreaker storage and Penguin Arctica switches are available immediately worldwide.

For more information, please visit http://www.penguincomputing.com/products/hpc-clusters

XCAE Computer Aided Engineering

Fernando Prevedello
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www.xcae.com.br

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**BETA CAE Systems SA
and BETA CAE Systems USA Inc.
invite you to the
2014 North America Open Meeting**

Invitation

BETA CAE Systems S.A., the leading contemporary industry supplier of CAE software, and its business partner in North America, BETA CAE Systems USA Inc. have the pleasure to invite you to the 2014 North America Open Meeting.

The event will take place on October 1st, 2014 at The Inn at St. John's, Plymouth (MI).

During this event you will have the opportunity to participate in sessions on the latest developments and real case applications, on various CAE disciplines and industries, of ANSA, μETA, and our new product SPDRM (Simulation Process Data and Resources Manager).

BETA CAE Systems S.A. and BETA CAE Systems USA, Inc. would like to extend their appreciation to Dr. Peter F. Sweatman, Director, University of Michigan Transportation (UMTRI) and Dr. Aditya Belwadi, Research Scientist I, Center for Injury Research and Prevention, The Children's Hospital of Philadelphia, for accepting our invitation to honour us as guest speakers.

We are especially honored to invite as keynote speaker Dr Sweatman, who is a national thought leader in intelligent transporation systems and future mobility for people and freight. He is the Director of the University of Michigan Transportation Research Institute (UMTRI) and the Michigan Mobility Transformation Center (MTC) whose mission addresses connected and automated transportation and its contribution to 21st Century Mobility.

During the event, the technical discussions and demonstrations will offer you the opportunity to discuss with our engineers the software features, their application, and the future developments. A team of CAE experts from BETA CAE Systems and BETA CAE SYstems SA will be pleased to meet you in person and exchange knowledge, experience and visions.

There is no participation fee for the event.
Please, register by email no later than September 26th, 2014 to naom2014@ansa-usa.com .

The attire will be business casual. The event is organized and hosted by BETA CAE Systems USA Inc.

07:30 - 08:15	*Registration & Breakfast*
08:15 - 08:20	**Plenary Session** **Introduction** John Skarakis, President and Technical Director, BETA CAE Systems USA, Inc.
08:20 - 08:30	**Welcome** Dimitris Angelis, President, BETA CAE Systems SA
08:30 - 09:00	**Keynote Presentation** Dr. Peter Sweatman, Director University of Michigan Transportation Research Institute (UMTRI)
09:00 - 09:30	**Use case of SPDRM deployment in a European Automotive OEM** Irene Makropoulou, BETA CAE Systems SA
09:30 - 10:00	**MultiVariate / MultiDiscipline Model Buildup** Alexis Kaloudis, BETA CAE Systems SA

10:00 - 10:30	*Break, Technical Discussion and Demonstrations*

Track 1	Track 2
10:30 - 11:00	*Latest Developments in ANSA & µETA Arthur Papadopoulos, BETA CAE Systems USA*	**ANSA and µETA Latest Developments in CFD** **Chin Bong, BETA CAE Systems USA Inc**
11:00 - 11:30	*To be announced*	**The Influence of Mesh Characteristics on CFD Simulations for Automotive Applications** Efi Chatzivasiloglou, BETA CAE Systems SA
11:30 - 12:00	**Pediatric Injury Biomechanics** Dr. Aditya Belwadi Center for Child Injury Prevention, Children's Hospital of Philadelphia	**Importance of Accuracy in CFD Simulations** Vedat Akdag, Metacomp Technologies Inc.
12:00 - 13:00	*Lunch*	

	Track 1	Track 2
13:00 - 13:30	**ANSA - modeFRONTIER integration for multi-disciplinary optimization** Dr. Sumeet Parashar, ESTECO North America	**Re-Analysis Methods** Prof. Zissimos Mourelatos, Oakland University
13:30 - 14:00	**Composite material multi-objective optimization using ANSA, µETA and modeFRONTIER** Nikolas Drivakos BETA CAE Systems SA	**ANSA and µETA Pre&Post Processing for RadTherm analysis** Efi Chatzivasiloglou, BETA CAE Systems SA
14:00 - 14:30	**Co-simulation for Sliding Door Slam test using the Kinetics tool of ANSA** Santosh Patil, BETA CAE Systems USA Inc.	**A pre-processing interface embedded in ANSA for acoustic radiation analyses with RADACT** Vassilis Pavlidis, BETA CAE Systems SA
14:30 - 15:00	*Break, Technical Discussion and Demonstrations*	
	Plenary Session	

15:00 - 15:30	**Automation case studies using ANSA, µETA & SPDRM** Joshua Sims, Sunil Earla, Vasanth Gandhi, BETA CAE Systems USA Inc.
15:30 - 16:00	**Strength and Durability Analysis Through Automated Reports in HONDA Using ANSA & µETA** Vassilis Pavlidis, BETA CAE Systems SA
16:00 - 16:05	*Closing Remarks*
16:05 - 17:00	*Reception & Raffle* *Technical Discussion and Demonstrations*

Venue

The Inn at St. John's

44045 Five Mile Road

Plymouth, Michigan 48170

USA

Location Map

Web: www.stjohnsgolfconference.com

Accommodation

The hotel is reserving a number of rooms for the event at special daily rates of $135.

Registration until: September 26th, 2014

Event: October 1st, 2014

The Inn at St. John's image

Information & Registration

Mr. Raja Puli

Tel: +1-248-737-9760 ext. 211

Fax: +1-248-737-9593

Email: naom2014@ansa-usa.com

August

06   BETA CAE Systems S.A. SPDRM

09   Ford India Growth Momentum

10   Rahul Gupta   ASME fellow

12   LSTC Four New Solvers

13   Cray India's First Cray XC30 Supercomputer

15   Mercedes-Benz Future Truck 2025

16   Toyota FT-1 Sports Car Concept

19   ESI Group AEROCAMPUS

21   XCAE Brazil Distribution

22   Aerospace - Japan's first stealth fighter prototype

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07   Women In Engineering   Programs – Associations

08   BETA CAE Systems S.A   ANSA & µETA v15.0.3

12   Mercedes-Benz   rally driver Ewy Rosqvist

16   TESLA Motors Charging Milestone

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18   Aerospace Working Group   -   KAI Selected as LCH/LAH Developer

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08   FORD China   -   Sales Update

10   Royal Navy -   New Wildcat

12   Chevrolet -   Camaro that converts into the iconic Bumblebee

15   CAE Associates -   Nicholas M.   Veikos

18   LSTC -   Training Classes

19 -   LANCEMORE Co., - Walking Beam Furnace

Training Classes

Space Available

classes@lstc.com

Training Class	Location	Dates	
Intro to LS-OPT	MI	Oct 28-31	Confirmed to take place Space Available
NVH	CA	Nov 4-5	Confirmed to take place Space Available
Intro to LS-PrePost	CA	Nov 10	Confirmed to take place Space Available
Intro to LS-DYNA	CA	Nov 11-14	Confirmed to take place Space Available
Adv Impact & Options	MI	Dec 11-12	
Intro to LS-PrePost	MI	December 15	
Intro to LS-DYNA	MI	Dec 16-19	

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

BETA CAE Systems S.A.– ANSA

BETA CAE Systems S.A.– μETA

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.

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

CRAY   www.cray.com

Cray CS300-AC Cluster Supercomputer

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

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

Cray CS300-LC Cluster Supercomputer

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

ROI while addressing capacity and data-intensive workloads.

Cray XC30 Supercomputer Series

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

Cray Sonexion Scale-out Lustre Storage System

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

DatapointLabs

www.datapointlabs.com

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

The 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.

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

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(Sweden), Stuttgart (Germany), Durham NC (USA) and sales operations in The Netherlands and Norway.

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

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

HYCRASH

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

JSTAMP/NV

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

JMAG

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

Livermore Software Technology Corp.   www.lstc.com

LS-DYNA

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

LS-PrePost

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

LS-OPT

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

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

LS-TaSC

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

LSTC Dummy Models

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

LSTC Barrier Models

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

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

Oasys LS-DYNA® Environment

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

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

  Key benefits:

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

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

  Key benefits:

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

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

  Key benefits:

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

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

Shanghai Hengstar   **www.hengstar.com**

Center of Excellence

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

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

On Site Training

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

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

Distribution & Support

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

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

Comet Solutions   www.cometsolutions.com

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

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

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LS-DYNA   LS-OPT   LS-PrePost

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

FEA, CFD and FDTD Modeling

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

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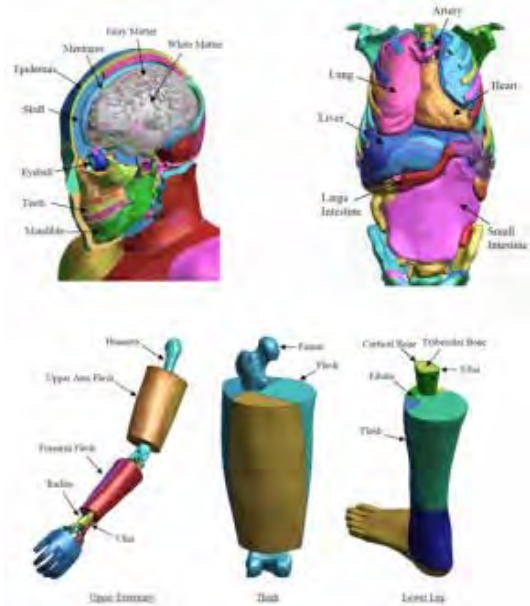
Model Details: Each of the different sized models is available as sitting model to represent vehicle occupants and as standing model to represent pedestrians.

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 .
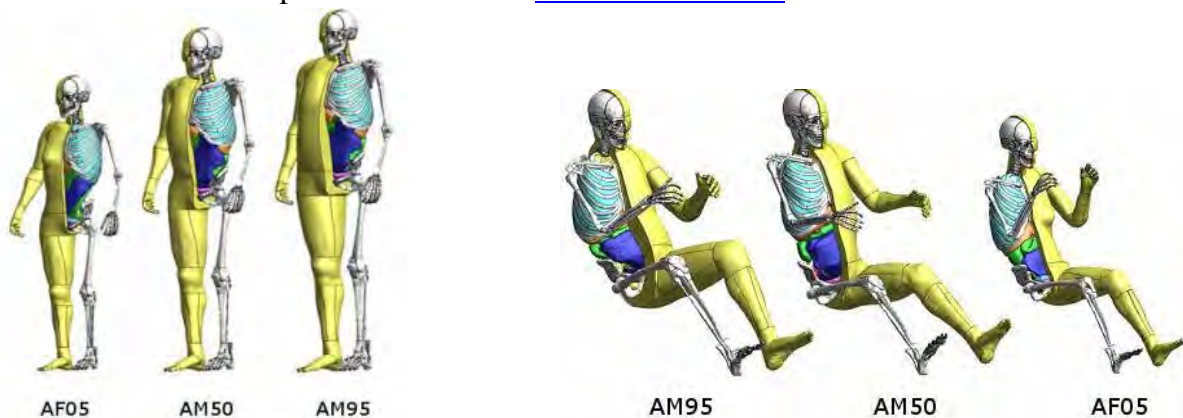
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Arianespace's Ariane 5

Arianespace's Ariane 5 launcher logged another heavy-lift mission achievement, orbiting commercial telecommunications payloads today for leading Asia-Pacific operators MEASAT and Optus on Flight VA218.

Lifting off from the Spaceport's ELA-3 launch zone in French Guiana, Ariane 5 successfully deployed MEASAT-3b and Optus 10 into geostationary transfer orbit – marking its 61st consecutive successful mission. Arianespace Chairman and CEO Stéphane Israël noted that a total of 100 communications satellites have been delivered to geostationary transfer orbits by Ariane 5 during this unbroken string of successes.

"I am particularly happy that this event came on the occasion of a launch for the Asia-Pacific region: a part of the world where Arianespace has been very successful, as demonstrated by a market share constantly above 60 percent," he

said in comments from the Spaceport's mission control center. "With tonight's launch, 70 payloads have been orbited by Arianespace for customers from Asia-Pacific region and this trend will continue as our order book currently includes 10 more satellites to be launched for customers in the region."

MEASAT-3b is the third spacecraft Arianespace has lofted for this Malaysia-based operator, and will expand MEASAT's telecommunications and direct-to-home broadcast services in Malaysia, India, Indonesia and Australia. Built by Airbus Defence and Space, MEASAT-3b has a design life of 15 years and will operate from an orbital position of 91.5 deg. East.

Malaysia's Deputy Minister of Communication and Multimedia, Y.B. Dato' Jailani Johari, called Flight VA218's orbiting of MEASAT-3b a significant and historic event that represents "another milestone in the development of Malaysia's satellite system, which will benefit both Malaysia and the wider Asia-Pacific region."

Flight VA218's Optus 10 passenger was the sixth Arianespace has lofted for Australian operator Optus, which will utilize this satellite to provide direct TV broadcast, Internet, telephone and data transmission services for Australia, New Zealand and the Antarctic region. Optus 10 was produced by SSL (Space Systems/Loral) with a design life of 15 years and will be positioned at 164 deg. East in orbit.

Paul Sheridan, the Vice President of Optus Satellite, offered a special recognition of Arianespace for its continued support during the two companies' long-term relationship. "This is our sixth launch with the Ariane team, and it is worth noting that it's been almost 30

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years since the partnership commenced," he added.

Ariane 5's total payload performance for Flight VA218 was approximately 10,090 kg. – including its MEASAT-3b and Optus 10 payload and associated integration/deployment hardware.

In congratulating all who contributed to "making the difference" with tonight's success, Arianespace's Stéphane Israël added: "This difference enables Arianespace to remain the commercial space transportation leader. Thanks to you, Ariane 5 keeps the pace; Arianespace is on the move."

Israël said the company's next launch is another Ariane 5 dual-passenger mission to geostationary transfer orbit in October. It will carry ISDLA-1 for DIRECTV and Intelsat, which are two long-time customers of Arianespace; along with ARSAT's ARSAT-1 – the first geostationary communications satellite built in Argentina

Flying High: Triton Team Readies for Unmanned Aircraft's Cross-Country Flight

By Captain Jim Hoke, Triton UAS Program Manager   (Source: US Navy Live blog; posted Sept 11, 2014)

This week, for the first time, we will fly our unmanned MQ-4C Triton cross-country to Naval Air Station Patuxent River, where the "future of naval aviation begins."

For months, our team, comprised of military, civilian and contractor personnel, has been doing a phenomenal job making sure every detail is in place for this historic day.

As a program manager, it is an extraordinary opportunity to see the team's hard work come to fruition. Last year, I had the privilege of watching Triton's first flight. Since then, I've observed tremendous success with our initial envelope expansion flight tests and now I'm anticipating its landing here shortly.

For me, my connection to this team and program goes well beyond my three years as program manager. In January 2006, I was serving as the final commodore at Wing FIVE in Brunswick, Maine. During that time, Wing FIVE executed the first-ever operational deployment of the Navy's Global Hawk Maritime Demonstration Unmanned Aircraft System, now known as BAMS-Demonstrator (BAMS-D). While providing critical information to warfare commanders, BAMS-D also provided critical lessons learned for a future unmanned platform, then named BAMS. At the time, I didn't anticipate the stake I'd have in the program someday.

Now, finally five years later, here I am getting ready for the arrival of that 'future system', now formally named Triton. I will be eagerly waiting the MQ-4C take off from Northrop Grumman's California facility.

As it makes its way across the country, flying high at altitudes in excess of 50,000 feet while passing through the southern U.S. border, the Gulf of Mexico, across Florida and up the Atlantic Coast and Chesapeake Bay, we will monitor and control the flight from our Navy System Integration Lab here in Pax River. In the early hours of the morning, our team will watch it land on the runway and taxi into its new hangar for the first time.

Triton's arrival to Pax River marks more than a key milestone on the path to initial operational capability; it represents the tireless work and dedication of a collection of individuals with a common goal in mind: critical capability development and delivery to the warfighter.

Teamed with its manned-capability counterpart, the P-8A, Triton will be a key component of the Navy's family of systems to achieve maritime domain awareness.

We are bringing the future here. This ferry flight marks the start of testing that will ready this system for the fleet in the next few years. The work being done by our team here is far from trivial.

Each one of our team members should reflect on the hard work that has gone into this effort and realize what they are contributing to our future warfighter. As always, it's an honor to be part of this phenomenal team.

NASA is making steady progress on its Orion spacecraft

NASA is making steady progress on its Orion spacecraft, completing several milestones this week at NASA's Kennedy Space Center in Florida in preparation for the capsule's first trip to space in December.

Engineers finished building the Orion crew module, attached it and the already-completed service module to the adapter that will join Orion to its rocket and transported the spacecraft to a new facility for fueling.

"Nothing about building the first of a brand new space transportation system is easy," said Finishing the Orion crew module marks the completion of all major components of the spacecraft. The other two major elements -- the inert service module and the launch abort system -- were completed in January and December, respectively. The crew module was

Mark Geyer, Orion Program manager. "But the crew module is undoubtedly the most complex component that will fly in December. The pressure vessel, the heat shield, parachute system, avionics -- piecing all of that together into a working spacecraft is an accomplishment. Seeing it fly in three months is going to be amazing."

attached to the service module in June to allow for testing before the finishing touches were put on the crew module.

The adapter that will connect Orion to the United Launch Alliance (ULA) Delta IV Heavy rocket was built by NASA's Marshall Space Flight Center in Huntsville, Alabama. It is being tested for use on the agency's Space Launch System rocket for future deep space missions.

NASA, Orion's prime contractor Lockheed Martin, and ULA managers oversaw the move of the spacecraft Thursday from the Neil Armstrong Operations and Checkout Building to the Payload Hazardous Servicing Facility at Kennedy, where it will be fueled with ammonia and hyper-propellants for its flight test. Once fueling is complete, the launch abort system will be attached. At that point, the spacecraft

will be complete and ready to stack on the Delta IV Heavy.

Orion is being built to send humans farther than ever before, including to an asteroid and Mars. Although the spacecraft will be uncrewed during its December flight test, the crew module will be used to transport astronauts safely to and from space on future missions. Orion will provide living quarters for up to 21 days, while longer missions will incorporate an additional habitat to provide extra space. Many of Orion's critical safety systems will be evaluated during December's mission, designated Exploration Flight Test-1, when the spacecraft travels about 3,600 miles into space

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Uconnect Delivers an Array of State-of-the art, Innovative and Easy-to-Use Features and Services for 2015

September 2, 2014 , Auburn Hills, Mich. - 2015 Chrysler Group vehicles will allow customers to stay connected to the information they want and need while remaining focused on the road.

Each vehicle comes equipped with a Uconnect system, which can provide drivers with a range of available communication, navigation and entertainment features or connected services.

Consumers can choose the Uconnect system that suits their individual needs. Drivers have the ability to make handsfree phone calls, receive turn-by-turn directions as they navigate to their location or stream Internet radio. Car and truck buyers have a variety of options to choose from, including:

Uconnect communication features:
• Handsfree calling: Simply push a button to receive an incoming phone call, or use your voice to place an outbound call.
• Voice-text reply: Once a compatible mobile phone is paired to the Uconnect system, drivers can also reply to a text message using 18 predefined messages

Uconnect entertainment features:
Drivers can enjoy music and information with a variety of entertainment options, which include:

• AM, FM, HD or satellite radio
• Bluetooth audio streaming
• CD Player
• USB
• SD Card
• AUX Port
• Drivers can use the switches on the back of the steering wheel, their voice, the touchscreen display or knobs and buttons to control a bevy of entertainment options.

Uconnect Navigation features: Uconnect has partnered with the leaders in navigation to help ensure drivers know where they are, where they are going, and how long it will take to get there. Drivers have access to points-of-interest, well-designed maps and turn-by-turn directions that broadcast over the vehicle's audio system. A Driver Information Display (DID) inside the instrument cluster also provides drivers with real-time, full color directions at a glance.

Uconnect Access: A suite of connected services

• Explore the next generation of in-vehicle connectivity with an included 6 or 12-month trialin properly equipped vehicles. Uconnect Access offers a variety of services leveraged by abuilt-in data connection

• Remote lock, unlock and start: Drivers can remotely lock or unlock their doors and start their vehicle from virtually anywhere in the U.S by using their smartphone or computer

• 9-1-1 or Assist Button: Located on the rearview mirror, drivers can get connected to emergency service providers, roadside assistance dispatchers and vehicle information specialists

• Yelp Search: Drivers looking for popular locations around them can use their voice to conduct a Yelp search

• Voice texting: With the voice texting service, drivers can use their voice to send, or reply to, a personal text message

• Wi-Fi Hotspot: Vehicle owners can transform their vehicle into a Wi-Fi Hotspot on-demand for a day, week or month so passengers can check e-mail or browse news sites

Uconnect Access via Mobile: With an included five-year trial, Uconnect Access Via Mobile is an extension of Chrysler Group's Uconnect Access that allows customers to enjoy their personal Internet radio accounts and stream audio content using their own mobile device data plans. The result: a truly personalized listening experience.

Uconnect Access Via Mobile seamlessly brings four popular Internet radio apps into the vehicle:

• Aha by Harman	• iHeartRadio
• Pandora	• Slacker

SiriusXM Radio: Customers purchasing any new 2015 Chrysler Group vehicle equipped with satellite radio receives a one-year subscription to the SiriusXM service with access to the premium programming lineup, including every NFL game, Howard Stern, every NASCAR race, Oprah Radio and MLB Network Radio, plus access to SiriusXM Internet Radio of smartphone and other connected devices, as well as online at siriusxm.com.

SiriusXM Travel Link and Traffic: Drivers using SiriusXM Traffic and SiriusXM Travel Link have access to a suite of services that include:

• Traffic speed: Color-coded roads on your navigation screen show traffic speed in major metro areas

• Accidents, construction and road closures: Receive traffic alerts, including accidents, disabled vehicles, construction, and road closures.

• Alternate route guidance and mapping: In-vehicle navigation systems and detailed traffic data allows drivers to choose alternate routes and receive updated directions to avoid congested roads

• Fuel prices: Get detailed information on fuel prices and the ability to sort by lowest price, fuel type, distance or brand names

• National weather information: Receive coast-to-coast weather data, including current conditions, five-day forecasts, and weather maps

• Sports scores: In-game and final scores, as well as weekly game schedules, for world-class professional sports and college programs

• Movie listings: Detailed local movie theater listings, including start times and ratings

Control your Uconnect system, features and services your way : The intuitive controls on your Uconnect system are easy to find and easy to use and help keep you focused on the drive – serving you the information you need, when you need it. Drivers can control their Uconnect system their way, using the touchscreen display, steering wheel-mounted controls, voice recognition technology or traditional knobs and buttons.

• Steering-wheel audio controls: Change from FM to satellite, from one channel to another, adjust the volume or change music tracks without ever taking your hands off the wheel. Rocker-switch buttons are mounted where your fingers rest on the backside of the vehicle steering wheel

• Touchscreen displays: Control navigation, entertainment, climate, and phone from one place. View album art and artist information, weather, or street maps and points of interest

• Voice Command: The available Uconnect Voice Command is a voice-activated communication system that allows drivers to operate their mobile phone, music and navigation system handsfree to stay focused on driving. When a compatible Bluetooth mobile phone is initially connected to the system, the phone book within a mobile phone is automatically downloaded, synchronizing as many as 5,000 phone book entries, which can then be selected by simply saying a contact name. The feature also allows drivers to switch radio modes, tune to SiriusXM Radio, AM, FM and HD and request real-time information, such as fuel prices, from the available SiriusXM Travel Link using natural voice commands. The handsfree option promotes driver focus, freedom, value and flexibility.

Bluetooth-equipped cell phones also feature Message Access Profile (MAP) with advance text-messaging that:

• Announces receipt of a text message
• Audibly identifies sender
• Reads the message

This industry-first voice recognition system uses the embedded connectivity to access cloud-based voice-recognition and enable advanced text messaging, which converts the spoken word into verbatim text messages. Communication is limited only by the user's vocabulary.

Visit DriveUconnect.com to learn more about specific Uconnect systems, features or services available in the 2015 Chrysler Group vehicle lineup.

DENZA rolls off production lines in China marking another key milestone for Daimler

•Daimler's joint venture with Chinese partner BYD is the first Sino-German joint venture dedicated to electric vehicles in China.

• Hubertus Troska: "DENZA is by far the most serious local electric vehicle effort in China, and a key pillar of our electric vehicle strategy in the country."

• DENZA is manufactured at a modern production line that follows Daimler's proven production management system.

• Arno Roehringer: "Throughout the entire production process we focus on quality to assure that our customers are getting the best Chinese electric vehicle."

• DENZA will hit the market at the end of September, starting at RMB 369,000 (about EUR 45,700) and entitled to subsidies totaling in almost RMB 120,000 (about EUR 14,900).

Shenzhen/Stuttgart – DENZA, Daimler's 'made in China, for China' electric vehicle, has started rolling off production line at Shenzhen BYD Daimler New Technology Co., Ltd. (BDNT), in Shenzhen. This milestone is the culmination of cooperative efforts at Daimler's technology joint venture with its Chinese partner BYD. The company is the first Sino-German joint venture dedicated to an all-electric vehicle in and for China, and targets

raising the bar in the domestic electric vehicle market by combining Daimler's renowned engineering expertise as global forerunner in safety and quality with BYD's leading battery technology.

"DENZA is the first car that Daimler has engineered from the bottom up outside of Germany, and it clearly lives up to its promise to be the safest, most reliable and convenient electric vehicle from and for China," says Hubertus Troska, member of the Board of Management of Daimler AG responsible for China. "Our joint investment of more than 300 million Euros proves that DENZA is both by far the most serious local electric vehicle effort in China, unmatched by any other European competitor, and a key pillar of our electric vehicle strategy in the country."

The quality of DENZA's production is secured at a modern production line that follows Daimler's proven production management system. Attention to quality is thereby extended to the complete supply chain and supported by significant investments into the latest technologies.

For instance, through a Coordinate Measuring Machine whose precision is accurate up to 0.1 mm, the physical and geometrical characteristics of single parts and complete vehicles are assured to be compliant with defined requirements. Additionally, special on and off-the job training for staff, for example by Daimler's local production joint ventures or specific HV processes and specialists, complete DENZA's 'quality first' production philosophy.

"It is certainly the right time and place for our DENZA as China undoubtedly has the potential to become the most important electric vehicle market in the future," notes Arno Roehringer, COO of BDNT. "We have invested in a state-of-the-art production line and base our production mainly on renowned Daimler processes. Throughout the entire production process we focus on quality to assure that our customers are getting the best Chinese electric vehicle."

About the car: As a modern, urban vehicle concept for private and fleet customers, DENZA has been designed around its lithium iron phosphate battery which is solidly framed by a lightweight aluminum case with extrusion profiles. Intended to absorb large amounts of energy, it is located at the safest place in the car – underneath the body. With a driving range of up to 300 kilometers, DENZA offers the ease

and convenience of emission free mobility for day-to-day use. The charging is equally as convenient: connected to a 22 kW wall-box customers can fully charge the DENZA in less than three hours, alternatively standard household power outlets can be used as well. Thanks to a wheel-base matching the Mercedes-Benz E-Class' level, DENZA offers generous legroom also in the rear compartment and trunk volume of 460 liters. The ample space for up to 5 adults is paired with an intelligent safety concept: DENZA attained 5 stars at China-NCAP's crash rating, a first for an electric vehicle.

Distributed by an independent dealer network, BDNT's first DENZA models will hit the market at the end of September. Starting at RMB 369,000 (about EUR 45,700), DENZA will immediately offer its customers three more convincing arguments: central and local subsidies totaling up to nearly RMB 120,000 (about EUR 14,900) which can be deducted from the vehicle price right away, free license plates in cities like Shanghai and Shenzhen, and lastly, a 10% purchase tax exemption.

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DETROIT – The 2015 GMC Sierra already offers an unparalleled blend of style and strength, but the new 2015 Sierra Carbon Edition, which will be available at dealers this fall, adds distinctive style to the mix.

"The beauty of the new Sierra lies in its strength and sophistication," said Stuart Pierce, Sierra marketing manager. "But for customers wanting to stand out and make a strong statement, the Sierra Carbon Edition models are the answer."

Based on the 2015 Sierra 1500 pickup, the 2015 Sierra Carbon Edition is offered in three different versions, allowing customers to hand-select the truck best suited to their lifestyle.

The striking Sierra Carbon 22 Edition, offered on both Sierra SLE double- and crew cab models, adds distinctive graphics that echo its name. Two carbon fiber appearance graphics emphasize strong forms in the Sierra's hood, while another graphic dresses up the tailgate panel. Additional exterior touches include a black painted grille, along with body-colored door handles and mirror caps. The Carbon 22 Edition also incorporates four-inch black tubular side assist steps and unique 22-inch black alloy wheels. Carbon 22 Edition models also include fog lamps, remote keyless start, Universal Home Remote, a 110-volt power outlet and dual-zone climate controls.

The Carbon 20 Edition, offered only as a Sierra SLE double cab, incorporates the same painted grille and carbon fiber appearance accents as the Carbon Edition, and rides on distinctive 20-inch aluminum alloy wheels.

The standard Sierra Carbon Edition builds off the standard Sierra 1500 double cab model with many of the same cues used on the Carbon 22 and 20 Edition models. The Carbon Edition shares its black painted grille, carbon fiber graphics, and body-colored trim with other Carbon Edition variants, and also includes additional standard content including remote keyless entry, a 110-volt power outlet and light-emitting diode, or LED, cargo box lighting.

All 2015 Sierra Carbon Editions are available with two- or four-wheel drive. A 4.3-liter EcoTec3 V-6 engine is standard equipment, and delivers 285 horsepower, 305 lb-ft of torque, and EPA highway ratings up to 24 mpg. A 355-horsepower, 5.3-liter EcoTec3 V-8 is optional.

The 2015 Sierra Carbon Edition carries a suggested retail price of $33,075, while pricing for the Carbon 20 Edition and Carbon 22 Edition starts at $38,275 and $42,270, respectively. Dealers are accepting orders for double-cab 2015 Sierra Carbon Edition models. Crew cab models will be available to order in early October.

Editors' Note: The Manufacturer's Suggested Retail Price includes destination freight charge but excludes tax, title, license, dealer fees and optional equipment.

GMC has manufactured trucks since 1902, with innovation and engineering excellence built into all GMC vehicles. The brand is evolving to offer more fuel-efficient trucks and crossovers, including the Terrain small SUV and Acadia crossover. GMC's highest-volume vehicle, the Sierra pickup, is the most powerful light duty pickup on the market, and the first full-size pickup to receive the highest possible five-star Overall Vehicle Score for safety since the National Highway Traffic Safety Administration changed its New Car Assessment Program for the 2011 model year.

Details on all GMC models are available at http://www.gmc.com/, on Twitter at @thisisgmc or at http://www.facebook.com/gmc .

www.teslamotors.com/about/press/releases/nevada-selected-official-site-tesla-battery-gigafactory

**Nevada Selected As Official Site
For
Tesla Battery Gigafactory**

CARSON CITY, NV – Governor Brian Sandoval and Elon Musk, Chairman and CEO of Tesla Motors, announced today that Nevada has been selected as the official site for the Tesla Gigafactory.

"This is great news for Nevada. Tesla will build the world's largest and most advanced battery factory in Nevada which means nearly one hundred billion dollars in economic impact to the Silver State over the next twenty years. I am grateful that Elon Musk and Tesla saw the promise in Nevada. These 21st century pioneers, fueled with innovation and desire, are emboldened by the promise of Nevada to change the world. Nevada is ready to lead," stated Governor Brian Sandoval.

"I would like to recognize the leadership of Governor Sandoval and the Nevada Legislature

for partnering with Tesla to bring the Gigafactory to the state. The Gigafactory is an important step in advancing the cause of sustainable transportation and will enable the mass production of compelling electric vehicles for decades to come. Together with Panasonic and other partners, we look forward to realizing the full potential of this project," said Elon Musk, Chairman and CEO of Tesla Motors.

"On behalf of the State of Nevada, I would like to acknowledge this monumental day and provide my initial support. This is a significant opportunity to make a major stride to improve our statewide economy. I look forward to receiving the necessary information so the Legislature can meet and take necessary action to support this major industry coming to Nevada," stated Speaker Marilyn Kirkpatrick.