

Efficient Explicit Simulations Using ANSYS Autodyn

Introduction

ANSYS Autodyn simulates the response of materials to short duration severe loadings from impact, high pressure or explosions. It is best suited for simulating large material deformation or failure. ANSYS Autodyn provides advanced solution methods without compromising ease of use. Complex physical phenomena such as the interaction of liquids, solids and gases; the phase transitions of materials; and the propagation of shock waves can all be modeled within ANSYS Autodyn.

A sample of real life ANSYS Autodyn projects includes:

- drop test of electronic devices
- optimisation and design of armor and anti-armor systems
- decommissioning of offshore platforms
- nuclear reactor safety
- aircraft impact risk assessment for power stations
- performance studies of oil-well perforating charges

Objectives

This seminar will provide a quick overview on the advantages of introducing Explicit Dynamic Simulation for large material deformation or failure applications

Benefits

- Gain split second insight you need on how a product responds to severe loadings along with ease of use and trusted results.
- Learn about new, advanced technologies for solving challenging explicit dynamics problems.
- Learn how ANSYS simulation tools help reduce physical prototypes with its proven ability to slash money and time from the development cycle

Who Should Attend

Engineering Managers, Design Engineers, CAE Analysts

What customers say about our solutions

"ANSYS explicit dynamics repeatedly enables us to **solve complex explicit problems** for our customers. We can get answers to them **quickly due to the program's ease of use**. The state-of-the-art solution methods and extensive material models **produce accurate results, a necessity for creating follow-on business**."

Chris LeBoeu, Principal Engineer, ABS Consulting

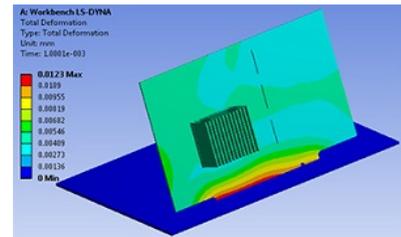
"The ability to couple Eulerian and Lagrangian frames of reference is especially helpful in blast field modeling. With ANSYS explicit dynamics, energy is easily transferred between the two for **accurate modeling of the entire blast process**."

Dale Preece, Global Technology Development, Orica USA Inc

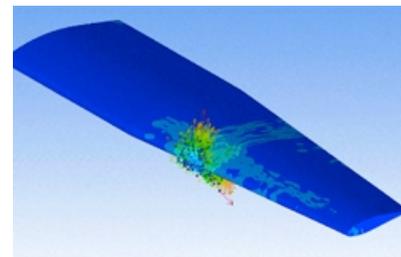
"All our customers want answers to their questions really fast. And it's implicit that they want accurate answers. There are plenty of tools around that give you an answer very quickly, but it's more difficult to find a tool that is **both accurate and quick at the same time**. That's ANSYS."

Jonas Persson, Technical Manager, ST-Ericsson

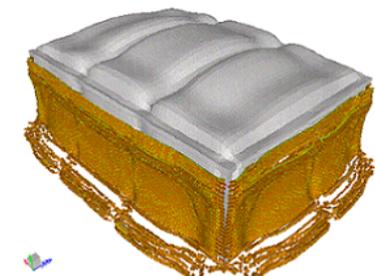
Presenter Profile



Circuit Board Drop Test



Bird Striking Composite Airplane Wing



Deformation of a structure under the impact of inside explosion



Alexander Pett studied Mechanical Engineering at the University of Sussex where he gained a 1st Class Masters Degree (Hons). He then stayed at the university for another three years working for Rolls-Royce in their University Technology Centre on campus. Here he applied computational fluid dynamics (CFD) modelling tools to analyses the internal air flows within large gas turbine engines as well as teaching a Masters level CFD course.

He joined ANSYS in 2007 and has focused his time on providing consultancy on the modelling of short duration transient events using ANSYS's suite of explicit modelling tools but primarily using Autodyn. He has become an expert on modelling blast, shock, blast structure interaction and ballistic impacts and has worked with all of the big names in the European defence industry. He has now moved away from the consultancy division and coordinates the pre and post sales support and training for the ANSYS Explicit and Autodyn products at a European level.

Event Information

Date : 13th January 2016 (Wednesday)
Time : 02:00 pm - 5:00 pm
Venue : CAD-IT Consultants (Asia) Pte Ltd
 159 Sin Ming Road, #03-05, Amtech Building, Singapore 575625 ([view map](#))

Agenda	02:00 – 02:30 pm	Registration
	02:30 – 04:30 pm	Efficient Explicit Simulations Using ANSYS Autodyn
	04:30 – 05:00 pm	Q & A

[Register NOW](#)

- Register online for this event.
- CAD-IT Consultants reserves the right to cancel or postpone the event due to unforeseen circumstances.

For enquiries, please call 6508-7575 or email at caditevents@cadit.com.sg

About CAD-IT Consultants

Founded in 1991, CAD-IT is a leading global ISO 9001:2008 certified Product Life Cycle Management (PLM), manufacturing and education provider. CAD-IT's mission is to provide world-class solutions and services that enable companies and their supply chains to achieve greater product innovation, quality and productivity with drastically reduced time-to-market and costs.

CAD-IT is honored to have received over 80 international and national awards since its inception for marketing and service excellence. Among its most recent accolades are the Singapore Enterprise 50 Award (2015, 2014, 2013, 2012), Singapore SME 1000 (2014, 2013, 2012, 2011), Asia Pacific Entrepreneur Award (APEA) - Outstanding Entrepreneur Award (2012, 2010, 2009), the Singapore Prestige Brand Award SPBA - Established Brand Award (2012, 2011, 2010, 2009), SPBA - Regional Brand Award 2012 and SPBA - Hall of Fame 2012.

CAD-IT Consultants' suite of PLM solutions include ANSYS (System-level, Multiphysics Simulation), Goldfire Innovator (Innovation Process Management), Moldflow (Plastics CAE), Stampack (Sheet Metal Forming), Deform (Bulk Metal Forming CAE), SpaceClaim (3D Direct Modeler), Mentor Graphics Valor DFM (Design For Manufacturing), Valor MSS (Complete Manufacturing Execution Suite) and Cortona3D (3D Technical Documentation).

Since February 2010, CAD-IT has partnered the Singapore Workforce Development Agency (WDA) to offer Advanced Certificate courses in PLM and Engineering Simulation, under the Workforce Skills Qualifications (WSQ) framework, with the charter to upgrade the technological capabilities of organizations in Singapore so as to enable them to undertake high value-add design, engineering, manufacturing and R&D activities.



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