



RICARDO SOFTWARE

An integrated Approach to the Analytical Powertrain

Ricardo Software products' workshop

Torino, 17° of January 2013

Shoreham Room

- **Welcoming and introductions**
(8:30-9:15)
- **Mechanical Dynamics**
 - **VALDYN Timing and Auxiliary Drive Analysis**
(9:15-10:45) *Dave Bell*
 - Introduction
 - Best practices
 - **Cranktrain Analysis using ENGDYN and VALDYN**
(11:00-12:30) *Dave Bell*
 - Introduction
 - Best practices

Detroit Room

- **Vehicle System Analysis**
 - **IGNITE (New Release)**
(9:15-10:45) *Tyson Stewart*
 - Presentation of the new simulation tool for vehicle systems
 - Current state of development
 - **Under-hood analysis**
(11:00-13:00) *Nick Tiney*
 - Introduction
 - Best practices

Shoreham Room

- **Fluid dynamics and Perfos**

- **WAVE**
(14:00-14:30) *Patrick Niven*
 - Status and feature update
- **HiL tools:**
(14:30 – 15:45) *Jiri Navratil*
 - WAVE-RT: presentation
 - Best practices: implementation on HiL platforms
- **1D-3D simulation**
(16:00-17:00) *Patrick Niven*
 - VECTIS – WAVE Integration
 - Best practices; EGR distribution
 - WAVE3D

Detroit Room

- **3D Fluid/structural analysis**

- **VECTIS In-cylinder**
(9:15-10:45) *Nick Tiney*
 - Introduction
 - Best practices

- **3D Mechanical Tools**

- **FEARCE + VECTIS**
(15:00-15:45) *Ray Sullivan & Nick Tiney*
 - Joint thermo-structural analysis;
 - Best practices
- **Structural Analysis**
(16:00-17:45) *Ray Sullivan*
 - Piston Dynamics with PISDYN+RINGPACK
 - FE integration with FEARCE

Workshop agenda

17° January - afternoon

Prague Room

- **Management Roundtable**

(11:15-13:00) Dave Higbie, Patrick Niven

- Introductory points for an open discussion :

- Reduction of R&D costs through reduction of physical prototypes;
- Ricardo's global approach to simulation;
- Virtual prototype
- Unique proprietary GUI
- Ricardo SW support strategic view

Workshop agenda

17° January - afternoon

Intervening relators

- **Dave Higbie:** Ricardo SW President and Global director
- **Patrick Niven:** *Ricardo SW Global Product manager*
- **Ray Sullivan:** *Ricardo SW FEARCE Product Manager*
- **Nick Tiney:** *Ricardo SW VECTIS Product Manager*
- **Tyson Stewart:** *Ricardo SW IGNITE Product Manager*
- **Dave Bell:** *Ricardo SW Mechanical Suite and FEARCE Development Manager*
- **Jiri Navratil:** *Ricardo SW Technical Support Manager*