

## Press Release



### Farr Yacht Design Meets Rigors of Around-the-World Ocean Racing with NEi Nastran Analysis Software

Westminster, CA – June 20, 2007. [Noran Engineering, Inc.](#) (NEi), a leading developer of finite element analysis (FEA) software, announced that [Farr Yacht Design](#) (FYD) has added NEi Nastran to enhance its [composite structural analysis](#) and simulation capabilities. FYD is a worldwide leader in the design and engineering of high performance racing yachts for major events including the America's Cup and the Volvo Ocean Race, as well as, custom and production yachts for builders around the globe.

"Structural analysis is an increasingly important component of successful racing yacht design", comments Dave Fornaro, FYD design engineer. "We have been utilizing FEA for several years to validate and improve our designs and desired to enhance our suite of analysis tools with more advanced capabilities in several areas including laminated composites, non-linear surface contact with friction, and bolted joints with pre-load. After an exhaustive review, NEi Nastran stood out as the best choice based on its advanced capabilities, cost-effectiveness, and quality technical support."

FYD's first application of Nastran is for it's next-generation of designs for the Volvo Ocean Race, a grueling round-the-world race sailed in fully crewed, 70-foot carbon fiber yachts capable of speeds in excess of 40 knots. "These designs are forging new frontiers in ocean racing," adds Dave Fornaro. "They operate in harsh and brutal conditions, and require a rigorous level of structural design and analysis to ensure peak performance and safety. We are confident that NEi Nastran will be an excellent tool for the job and we have been extremely satisfied with the support from Noran Engineering."

Tony Abbey, NEi Technical Manager, noted the collaborative potential, "We are excited to support and extend FYD's composite analysis capabilities. NEi Nastran provides benefits to a highly sophisticated user base ranging from aerospace vehicles and Formula 1 cars to America's Cup and Tour de France bicycles."



**Left:** Farr Yacht Design ([www.farrdesign.com](http://www.farrdesign.com)) has provided the design and engineering for many winning Volvo Ocean Race contenders over the past 25 years. The Disney-backed "Pirates of the Caribbean" shown placed second in the 2005-2006 edition of the race. The grueling 9-month, round the world event covers some of the most extreme and inhospitable sailing conditions on earth, including winds up to 60 knots and ocean swells up to 30 feet high, with the boats capable of speeds in excess of 40 knots. **Right:** NEi Nastran Finite Element Analysis (FEA) software from Noran Engineering ([www.NEiNastran.com](http://www.NEiNastran.com)) is used to simulate the performance of the entire yacht made from carbon fiber composites. Images shown are displacement contour plots for an extreme condition of impact with a submerged object.

#### **About Farr Yacht Design**

FYD is a racing-yacht design firm with an extensive record of wins in highly prestigious international grand prix events like the Volvo Ocean Race, Admiral's Cup, Commodores' Cup, Kenwood Cup, Sardinia Cup, and Southern Cross.

Website: [www.farrdesign.com](http://www.farrdesign.com) Telephone: 410.267.0780 Email: [info@farrdesign.com](mailto:info@farrdesign.com)

#### **About Noran Engineering, Inc.**

NEi provides a complete suite of engineering software for structural, thermal, dynamics, fatigue, composites, and optimization. Companies worldwide in a variety of industries depend on the core product, NEi Nastran.

Website: [www.NEiNastran.com](http://www.NEiNastran.com) Telephone: 714.899.1220 Email: [info@noraneng.com](mailto:info@noraneng.com)

#### **Marketing Contact:**

Dennis Sieminski, P.E. | 714.899.1220 Ext. 207 | [dennis.sieminski@noraneng.com](mailto:dennis.sieminski@noraneng.com)