Press Release: November 1st 2002:

OPTIMUM Power Technology: CHANGING THE WORLD OF ENGINE DESIGN

OPTIMUM Power Technology is committed to a program of continuous product development. As such many enhancements to our software are made available every year as part of renewals and maintenance. However, some changes are so revolutionary that a new product group needs to be defined. Hence, we now announce the complete OPTIMUM Design Environment.

This environment comprises 4 key components that are combined to create a new, state-of-the-art design system:

1. AUTOMATED DESIGN Rel. 1
2. The Network Supercomputer Rel. 1
3. The Multi-user Database Rel. 1
4. VIRTUAL ENGINES Rel. 6

The addition of a Multi-user database, the AUTOMATED DESIGN Expert System for advanced optimization and the OPTIMUM Network Supercomputer to VIRTUAL ENGINES is a significant step forward in engine design technology and introduces a whole new design paradigm, which is set to render all other engine design tools obsolete by comparison.

David Montgomery (one of our beta testers) from Bombardier commented:

> *"The optimization of the gas dynamics of modern engines is critical to providing world class engines. Optimum's AUTOMATED DESIGN has allowed me to reach optimized pipe and port solutions that would have previously been unattainable due to time constraints. One example was a 10 variable optimization that would have been impossible using conventional simulation tools took only 27 hours to complete and produced an excellent engine design, ready to start physical testing."*
>
> David T. Montgomery, Ph.D.
> Sr. Engineer Analysis/Advanced Engines
> Bombardier Boats and Outboard Engines

1. AUTOMATED DESIGN is the world's 1st engine design expert system and can be thought of as a diligent tireless assistant, thoroughly analyzing a predefined design space in search of the best solutions to your engine design problems. AUTOMATED DESIGN can accelerate the design phase of any engine development project by orders of magnitude, and yield a substantially better design in the process. It will allow an engineer to explore a much larger design space in a fraction of the time. The savings, not only in time, but finding better designs are clear.

2. The Network Supercomputer is the world's 1st system to effectively harness the latent processing power of existing desktop PC's. We have one customer considering 1000 PC's that are not used at night. All of this can be harnessed to work on engine design!

3. Multi-User SQL Database Rel 1.: In contrast to other flat-file based design systems, VIRTUAL ENGINES and AUTOMATED DESIGN store all data in a single SQL database. Management and other members of the design team can all view all projects. IT functions of backup and recovery are simplified.

4. VIRTUAL ENGINES Rel.6 has also been upgraded with many exciting new features.

Product information sheets for all four components are attached and are also available on our website.

The environment greatly expands the scope of VIRTUAL ENGINES through the use of AUTOMATED DESIGN. Now, many more engines can be looked at quickly and easily with the system automatically homing in on alternative better engine designs. In addition, all this can run on your existing (sometimes under-utilized) PC network. Once complete, the AUTOMATED DESIGN methodologies can be preserved and reapplied to future projects to further accelerate your design process.

" Our new Design Environment is the next generation design tool for engine design. Imagine asking the question: 'How can we get more power, lower emissions or increased fuel economy from our engines?' In the past, a simulation would be run and the results assessed. The design engineer would then decide on which changes to make to improve the engine. Our new method automates this process: A base engine model is created. Then, an engineer selects which parts of the engine can be changed in the search for improved performance. This could be the camshaft, it could be the exhaust runner length or diameter or all of those or any part of the engine. Then, running simulations in parallel, it creates new engines and compares the solutions. The Expert System assesses which direction to move within the design space to create a better engine. In the end many engines may be run and better engines can be identified, all automatically and quickly."