



## Oil Condition Analysis

**PerkinElmer Instruments manufacture, amongst other things, devices for the infrared analysis of materials. One market for these is in the analysis of engine lubricating oils where levels of contamination and degradation are used to determine engine condition.**

### Business and IT challenge

PerkinElmer had an existing product for engine oil analysis. This used a modern infrared spectrometer allied with a long-established robotic sample handler and a 16-bit software application. To maintain and increase market share PerkinElmer urgently required a new oil analysis product using the latest 32-bit software technology and a newer more versatile robotic sample handler.

One of PerkinElmer's principal customers for oil analysis has a seasonal work cycle with the highest demand for analysis being in the summer months. The new system had to be completed to tight deadlines. If the product was not ready for the summer testing season then the opportunity to make significant sales would be lost until the following year.



### Delivering the vision

PerkinElmer wanted to build the new product on the foundations of its more recent infrared software. Tessella already had experience of working on another PerkinElmer system so was well placed to take on the oil analysis project. Tessella created a team of four software engineers with the right skills, at short notice, including individuals who had already worked on a PerkinElmer infrared product.

It was especially important that the user interface was simple and intuitive to allow a high throughput in routine analysis. At the same time advanced features were required to allow skilled administrators to configure the system. The blend was achieved by providing a simple icon driven system for routine analysis and using menus to 'hide' more advanced functions. The whole system was supported by a context-sensitive HTML based help system.

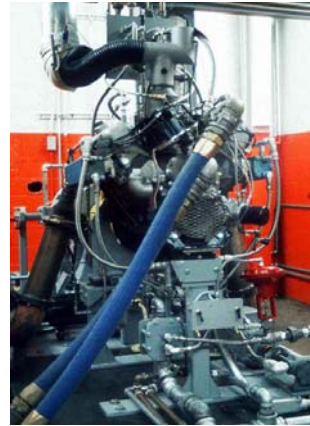
The key technologies used on the project were Microsoft's Visual C++, Visual Basic, COM and ActiveX. Tessella used third party controls where appropriate (e.g. for graphing and reporting) to provide a cost effective and efficient solution.

To assist in the marketing effort for the new product Tessella delivered interim releases of the system. PerkinElmer was then able to demonstrate the product, whilst it was still under development, to key customers in order to stimulate interest in advance of the formal release date.

The system was delivered in time for the important summer testing season.

### Results and Benefits

The new system, named OilExpress, is now shipping to PerkinElmer's customers and is proving to be a great success as a modern and intuitive product.



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