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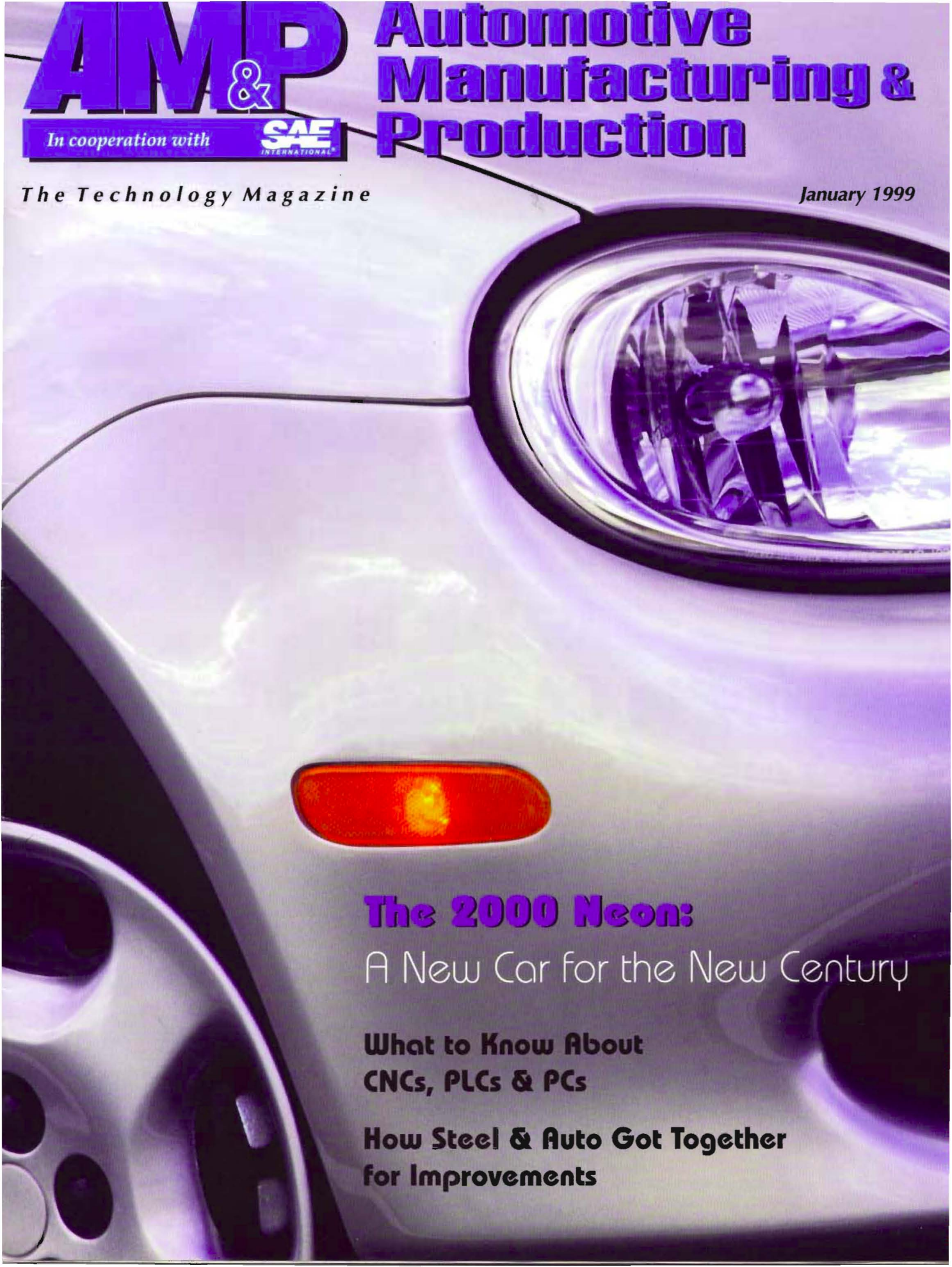

# The 2000 Neon:
## A New Car for the New Century

**What to Know About CNCs, PLCs & PCs**

**How Steel & Auto Got Together for Improvements**

# A New Approach to Benchmarking

**By BRETT C. SMITH,** Senior Research Associate—Office for the Study of Automotive Transportation (OSAT), Transportation Research Institute, The University of Michigan

The tear-down and subsequent benchmarking of competitors' products has been a common practice in the automotive industry for years. Manufacturers (and suppliers) have bought competitors' products, disassembled them and evaluated the products' design, engineering and manufacturing process. But a joint partnership between manufacturing process experts Harbour & Associates Inc. and the engineering and design consultants Munro & Associates intends to provide an alternative to internal competitive analysis programs. The venture, named the "Benchmarking Information Center" (BIC) is an attempt to offer an expert outsider (read unbiased) evaluation of the industry's offerings.

Company tear-down centers have traditionally been treated with higher regard than the most treasured of state secrets. Yet, the in-house benchmarking process often suffers from several potentially fatal shortcomings. The most critical of these is a long-imbedded ailment among corporate engineers—the dreaded NIH syndrome. In a recent walk-through of the center, BIC associates—especially those that had spent time as employees of OEM tear-down teams—stressed the barriers faced in overcoming the Not-Invented-Here syndrome when analyzing a competitor's product. The lack of willingness to accept ideas from outside the company, the associates said, greatly limited the usefulness of the information gathered. In a very real sense, the BIC cannot suffer from the NIH syndrome: the BIC's challenge is not to invent nor protect, but to merely evaluate and to ask why?

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Timeliness and cost are also drawbacks of the traditional in-house tear-down centers. Sandy Munro and Ron Harbour believe that their new venture will set the industry standard for timeliness. They also expect the BIC to offer the information much more cost effectively than does the current structure.

And just who do they see as their customers? Well, just about everybody. The venture envisions itself as a place where engineers, buyers, suppliers and quality representatives can gain access to best-in-class product design and manufacturability information. The venture also presents an interesting opportunity for program managers from the OEMs and suppliers to gain an unbiased review of their products. The ability of the BIC to offer a company a detailed analysis of their product and processes seems to present value. However, maybe even more valuable will be the potential for a company to compare their own tear-down data with that of an objective, well respected outsider.

Because the mission of the BIC is to deliver critical information on leading edge vehicles and systems, it is no surprise that they have chosen the 1999 Honda Odyssey as their first project. The new minivan presents ample opportunity to learn. The Odyssey has been widely recognized as the best in class right out of the gate. Given Chrysler's amazing ability to satisfy the minivan buyer's needs, the Odyssey's leap to the front is rather impressive. The fact that Honda—a company highly regarded as an engineering and process leader—builds the minivan also presents opportunity for valuable lessons to be learned and shared.

The BIC will perform a three-phase analysis of the Odyssey. The first phase will include a ride and drive to evaluate for squeaks, rattles, and other basic measures of vehicle quality. Initial human factors measurements, and door and trunk closure effort will also be analyzed in the initial phase. The BIC will also conduct a thorough non-intrusive evaluation called the "Fit & Finish Quality Analysis" (FFQ). FFQ is an analytical way of documenting what the customer may see, hear or feel when they pick up their new car. According to Sandy Munro, many companies use similar methods in analyzing a new product's initial quality, but there is not an industry standard. The hope of the Harbour and Munro venture is, of course, that they can establish the FFQ as that industry standard.

Once the non-intrusive analysis is complete, the team will move on to a complete design analysis of the product. For this, the BIC will rely on the Complete Design Profit Analysis (CDPA). Munro and Associates developed CDPA and includes an entire toolbox of

methods to better evaluate the product. Included in this toolbox are: design for assembly/design for manufacturing; design for service; design for recyclability; and other tools in an effort to evaluate potential design improvements. Phase 2 will also include a sheet metal analysis including plant layout and statistics for welding, metalforming, body-in-white, and sheet metal operations.

The final phase will include supplemental analysis such as suggested product redesign, service and ergonomics, and ease analysis for industrial engineering cycle times.

In many ways, the Benchmarking Information Center appears to be an idea whose time has come. The need for competitive—even dynamic—benchmarking is paramount in today's ultra-competitive industry. The need for suppliers and manufacturers to gain fast, independent analysis of highly regarded products is critical. And given the trend toward outsourcing, the idea of using an independent benchmarking resource presents a strong case. Phase 1 results will be complete in very early 1999. It will be interesting to see what the Benchmarking Information Center can bring to the table.