




Microsoft

Is your automotive business **people**  **ready?**

Manufacturing and Resources

Microsoft Solutions Accelerate and Optimize Automotive Product Development

The Changing Demands of the New Automotive World

Long gone are the days when automakers could satisfy drivers by the yearly introduction of a few new updated models. Today's consumers demand significant changes in emissions, fuel economy, and environmental impact; the latest technology for entertainment, connectivity, and services; and continuous improvements in reliability, safety—and price. They're demanding that manufacturers respond to their new digital lifestyles, integrating their life, work, social interaction, and infotainment needs.

To their credit, automakers are responding by offering consumers incremental improvements with each new model year, in parallel with new programs designed to provide new low-consumption, low-emission platforms throughout their ranges. But this puts an increasingly high premium on the delivery of innovation to the marketplace, the continuous optimization of product development processes, and the faultless coordination of many geographically dispersed participants in an increasingly complex design process.

The Automotive Engineering Environment

Increasingly high product program costs have driven automakers to focus on the use of common platforms and components across their ranges, as well as to enter into cooperative ventures with other automakers as appropriate. These global designs bring economies of scale and efficiency but still often require some degree of adaptation to local regulatory and market conditions.

To better manage this complexity, automakers have increasingly outsourced more design and manufacturing to the supply chain, which further affects the product development process. This approach requires that high volumes of secure, reliable data be exchanged through multiple tiers of collaboration as well as the coordination of a complex network of participants distributed around the world—and around the clock.

Taking Advantage of the Most Common Software Solutions

Microsoft and its network of partners can help automakers by delivering optimized Product Lifecycle Management (PLM), Innovation Process Management (IPM), and Enterprise Program Management (EPM) solutions. All three—applied individually or seamlessly together—are based on technologies that enable collaboration within or between teams to innovate, design, and manage new products and breakthroughs.

PLM platforms provide the core capabilities to specify, architect, design, analyze, and document engineering solutions. Microsoft provides best-in-class infrastructure for these capabilities and adds significant value through a range of related solutions. Those include unified communications, collaboration, management of structured and unstructured data and processes, team support, locating resources and expertise, and, in general terms, empowering people within the value chain to spend more time “on task” to

make the biggest impact on the process. Microsoft® Rights Management Services enable this collaboration to extend beyond corporate boundaries while protecting intellectual property rights.

IPM solutions aim to turn the process of innovation from lucky accidents into a more repeatable, consistent discipline. Microsoft technologies help enterprises manage the best sources of ideas around them—their people, their customers, and their partners. Individuals are provided with tools and capabilities to initiate, develop, review, and promote ideas within the enterprise and the teams in which they work. Integrated portfolio management helps enterprises make smart decisions on how to extract the most from their investment in innovation and on what features, commodities, or ideas are most worth pursuing.

Microsoft Office Project 2007 is commonly used by automakers and suppliers as a stand-alone project management tool. But using Microsoft Office Project Server 2007 in collaboration with Microsoft collaboration and performance management solutions enables the successful management of a complex vehicle program.

A new program can be rapidly put into place and managed effectively, extending access not just to project management professionals but to all participants in the design ecosystem, including partners. The program devolves into specific projects for individuals and teams, simplifying resource management and project execution, but these many projects are also managed together and reported on at an aggregate level as required.

If project execution is managed via matching workflows, KPIs on project performance can be easily extracted, which performance management professionals can use to derive lessons learned about program delivery and best practices. This allows optimization of the next program that the enterprise delivers. This “closed loop” Enterprise Program Management solution represents best-in-class execution in the industry today, and it enables iterative optimization at all levels across all programs.

The ubiquity of Microsoft Office products and their common use in engineering activities makes it easy to provide additional value to all product engineering solutions through the integration of data and tasks into familiar, user-empowering environments. Work in core design tools such as CAD can be integrated with the creation of supporting documents, and then can be presented to the user in a role-centric, highly effective integrated environment. This also promotes the timely organization of tasks with workflow and the integration of unified communications.

In summary, Microsoft Innovation Process Management, Product Lifecycle Management, and Enterprise Program Management platforms facilitate, organize, and speed automotive innovation processes, helping companies to survive and prosper despite the exceedingly rapid pace of worldwide consumer-driven change.

Key Technologies for Automotive IPM, PLM, and EPM

Microsoft Office SharePoint® Portal Server makes it easy to develop portals that integrate data from various systems into a single solution for better information sharing.

Microsoft Office Project 2007 gives robust project management tools so you can manage projects more efficiently by controlling project work, schedules, and finances, keeping project teams aligned, and being more productive through integration with familiar 2007 Microsoft Office system programs.

Microsoft Office Project Server 2007 and its clients enable the organization to more effectively manage and coordinate work ranging from one-time projects to complex programs across the entire project life cycle.

Microsoft Performance Management allows customers to monitor, analyze, and plan their business as well as drive alignment, accountability, and actionable insight across the entire organization.

Microsoft Office PerformancePoint™ Server 2007 allows efficient planning to meet changing business conditions, analysis of variances, and monitoring of progress in a scorecard or dashboard.

Windows® SharePoint Services allows organizations and business units of all sizes to increase the efficiency of business processes and improve team productivity through collaboration tools that help people stay connected across organizational and geographic boundaries.

Microsoft SQL Server® 2008 data management software delivers the full range of capabilities essential for storing, accessing, and analyzing large volumes of data while offering low implementation and maintenance costs.

Windows Server® 2008 operating system delivers the reliability, availability, and scalability that automakers need to reduce costs and increase productivity.

Windows Rights Management Services (RMS) is information protection technology that works with RMS-enabled applications to help safeguard digital information from unauthorized use—both online and offline, inside and outside of the firewall.

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About the Microsoft Automotive and Industrial Equipment Group

Microsoft platforms empower excellence in the automotive industry through better collaboration, integration, and dissemination of information across the whole value chain. Microsoft and its extensive partner ecosystem provides platforms addressing accelerated innovation and product development, lean manufacturing operations, integrated flexible global supply chains, and superior sales and customer service experiences. Computer platforms—extending from car to enterprise to cloud—enable transparency and insight, drive faster and better decision making, and empower people to improve business processes and maximize opportunities.



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