



Windows Automotive 5.0

A Flexible, Robust Software Platform for Advanced In-Vehicle Systems

Consumers now expect increased functionality and infotainment connectivity in their vehicles. Microsoft Windows® Automotive 5.0 is an automotive-grade open software platform which provides carmakers and in-vehicle device manufacturers the building blocks and development tools they need to create a broad range of solutions to capitalize on this growing opportunity. With Windows Automotive 5.0, companies can quickly and cost-efficiently differentiate themselves in the marketplace.

Windows Automotive 5.0 provides automotive-specific features proven by the industry to accelerate development efficiency in building high quality automotive systems with high-performance graphics support, rich multimedia support based on Windows® CE. The Automotive User Interface Toolkit (AUITK) also supports the growing need for rich user interface development.

Platform Features

Windows Automotive 5.0 is built on the Microsoft Windows® CE 5.0 operating system, a hard, real-time, 32-bit, memory-protected operating system kernel, with support for a variety of processor architectures.

- A Win32 application programming interface (API) subset, including file and memory management, device and service management, threads and process management, and networking stacks
- Platform Builder and other best-in-class development tools
- Multilanguage support
- Microsoft Internet Explorer Web Browser for Windows CE with an OEM-replaceable user interface
- Rich multimedia support through the Microsoft DirectShow®API with support for Windows Media®Audio, MP3, and DVD formats
- High-performance graphics support through the Microsoft Direct 3D Mobile API, the Microsoft DirectX®API, and GDI-Sub

Created Specifically for the Automotive Industry

Windows Automotive goes beyond the base Windows CE operating system with additional automotive-specific features.

- Virtual memory expansion allows DLLs occupying up to 96MB to be loaded, removing the precious limit of 32MB, enabling to build larger systems with more sophisticated applications
- High-performance graphics support, with Graphic Design Interface (GDI-Sub) high-speed rendering API, allows developers to make maximum use of graphic chip performance for scalable, high performance systems
- Automotive-grade Transaction Safe FAT (TFAT) extends functions intended for automotive devices, ensuring file system robustness and reliability
- Ongoing testing by the Microsoft Automotive Business Unit ensures that Windows Automotive is truly an open software platform for the automotive field



Automotive User Interface Toolkit (AUITK)

Windows Automotive 5.0 features the Automotive User Interface Toolkit (AUITK), a sophisticated graphical user interface framework design tool and a compact runtime environment. The toolkit enables cost-efficient development of the rich user interfaces consumers value. Sophisticated graphical user interfaces can be developed at a desktop PC using XML, enabling designers who are not programmers to develop the user interface.

The AUITK facilitates the development of high quality user interface “skins” that connect to the core application program, which means user interface development can be separated from the application program development. User interface development time is shortened using this toolkit, especially when developing multiple systems at the same time.

Automotive System Tools (AST)

Windows Automotive 5.0 includes Automotive System Tools (AST) and documentation to further speed up development while reducing costs.

The System Resource Sharing Tool measures memory and the use of CPU time in the system to ease the troublesome tasks of system tuning, ensuring the system is performing at the best possible level. Advanced Exception Reporting enables customizable system information logging to use for local and remote diagnostics. The development guidelines include documents and sample applications with information for the best and most efficient Development.

Development Environment

Windows Automotive 5.0 provides a development environment on the familiar Windows CE 5.0 Platform Builder. Additional automotive specific development tools, sample codes, and development guidelines offer strong support from the initial design to final testing and tuning, enabling cost-efficient team development.

For more information on how Windows Automotive can help meet your customers' demands for a rich, interactive experience in their vehicles, visit us on the Web at www.microsoft.com/windowsautomotive.