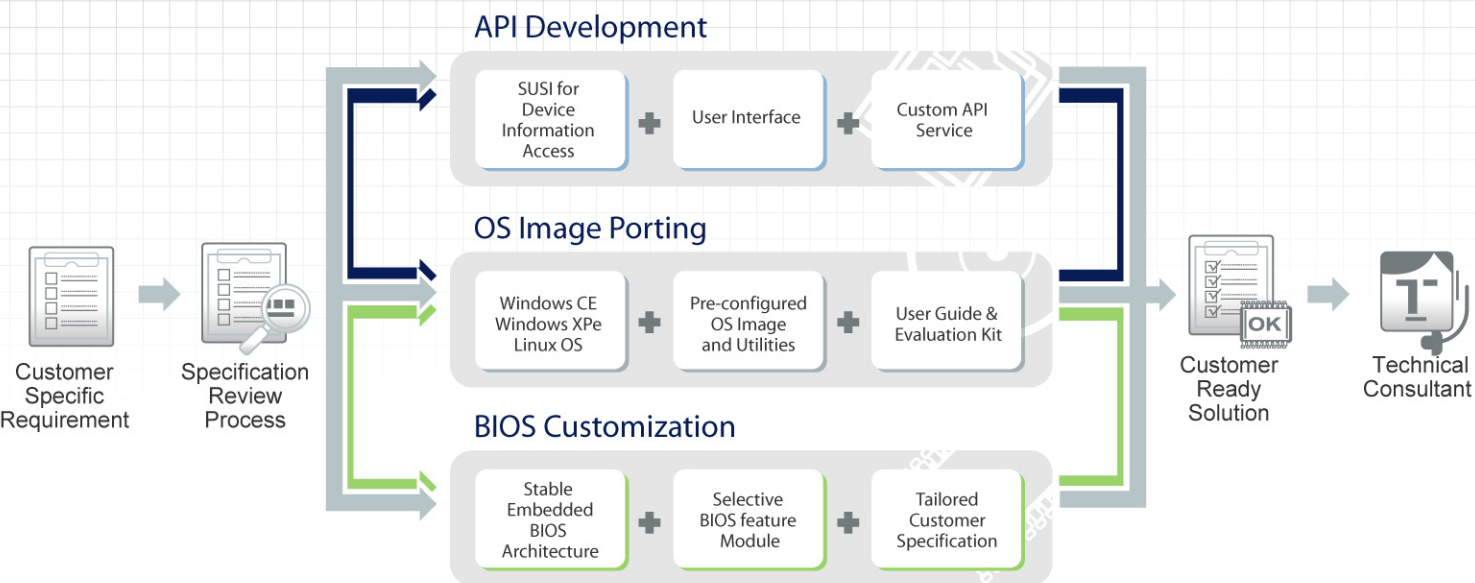


Embedded Software Service Flow



Embedded Software Services

A Bridge to Simplify Hardware & Software Application Implementation

- Embedded BIOS Services
- Embedded OS Services
- Embedded Software Solutions
- SUSI Application Interface

Regional Service & Customization Centers

China Kunshan 86-512-5777-5666	China Dongguan 86-769-8730-8088	Taiwan Taipei 886-2-2792-7818	Netherlands Eindhoven 31-40-267-7000	USA Milpitas, CA 1-408-519-3800
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Worldwide Offices

Greater China		Asia Pacific		Europe		Americas	
China	800-820-2280	Japan	0800-500-1055	Customer Care Center 00800-2426-8080		North America 1-888-576-9668	
Beijing	86-10-6298-4346	Tokyo	81-3-5212-5789	Germany		Irvine, CA	
Shanghai	86-21-3360-8989	Osaka	81-6-6267-1887	Munchen (European Head office)		1-800-866-6008	
Shenzhen	86-755-8212-4222	Korea Seoul	080-363-9494 82-2-3663-9494	Amberg (Design Center)		1-800-557-6813	
Chengdu	86-28-8545-0198			49-89-12599-0 49-9621-9732-100		1-949-789-7178	
Hong Kong	852-2720-5118	Singapore	001-800-9898-8998 65-6442-1000	France Paris			
		Malaysia Kuala Lumpur Penang	00-800-9898-8998 60-3-8075-7035 60-4-397-3788 60-4-397-4188	33-1-41-19-46-66			
				Italy Arezzo			
		India Bangalore	1800-425-5070 91-80-2337-4567	39-0575-98661			
				Netherlands Breda			
		Australia Melbourne Sydney	1300-308-531 61-3-9797-0100 61-2-9482-2999	31-76-523-1270			
				United Kingdom Berkshire			
		Thailand Bangkok	66-2-248-3140	44-1344-989500			
				Czech Brno (Design Center)			
				420-543-213-396			
				Poland Warsaw (Service Center)			
				48-22-33-23-730 8-800-555-01-50			
				Russia Moscow			
				7-495-232-1692			

Trusted ePlatform Services

ADVANTECH

www.advantech.com

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Embedded OS

SUSI

Embedded BIOS

Trusted ePlatform Services

ADVANTECH



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Comprehensive Embedded Software Services

Advantech provides Embedded Software Services to customers who integrate Advantech hardware products. Advantech Embedded Software Services include Embedded BIOS services, OS services and API Library (SUSI). Embedded Software Services help decrease design effort and project complexity, and accelerate product development.

Unique Embedded BIOS Core Architecture for Product Differentiation

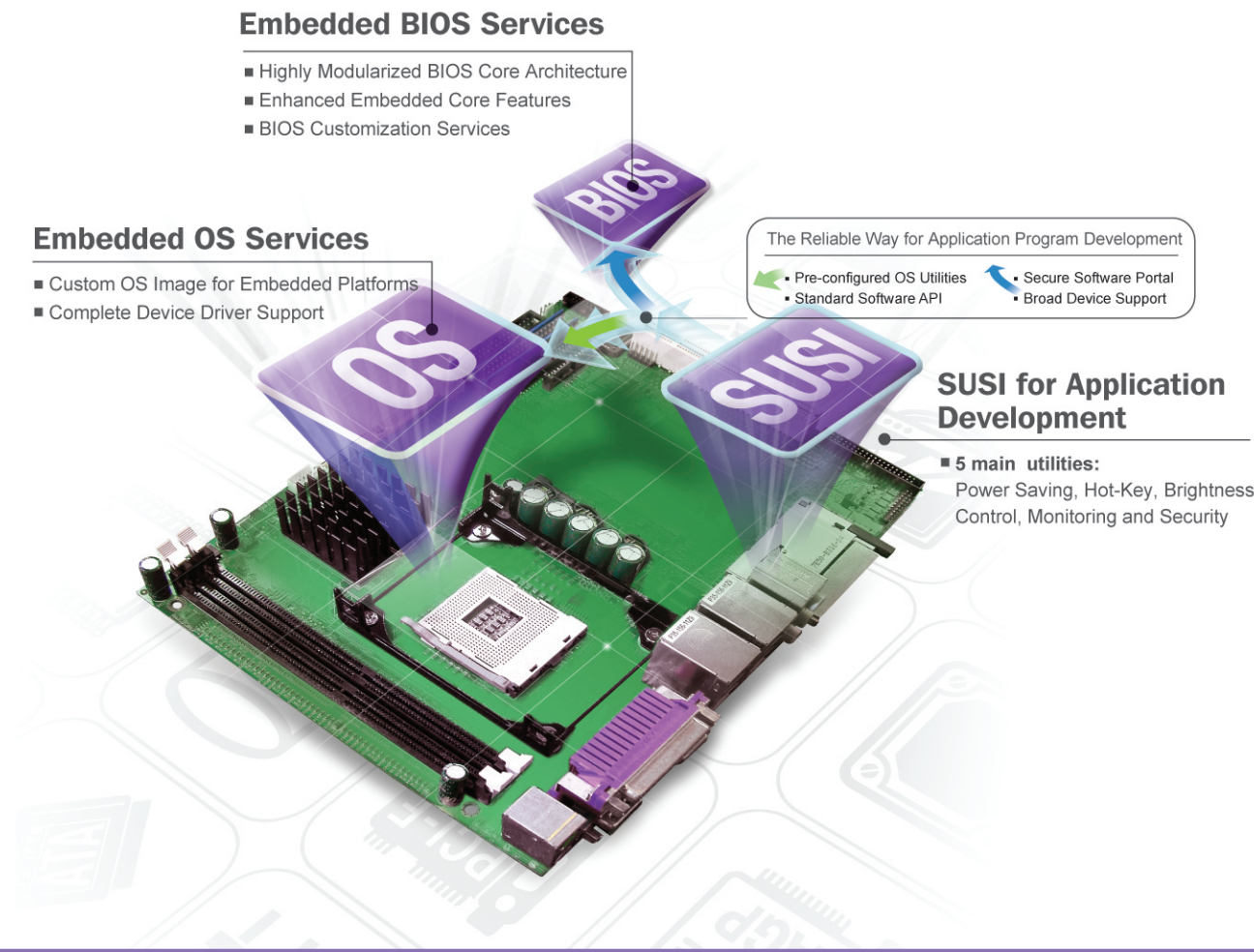
Advantech has modularized the embedded BIOS core architecture and implemented many unique features for industrial markets. By optimizing the BIOS core structure and providing a full BIOS customization service, Advantech helps customers to differentiate their embedded products and applications.

Secure API for Easy Vertical Application Development

A secure software API and plug-in OS environment has been developed for vertical application programmers to easily access and control all platform device functions and develop their Graphical User Interface; these powerful tools help customers shorten application development cycles to reach the market faster.

Unique Utilities & OS Ready Image for Rapid Application Development

The unique utilities protect the system environment, increasing system reliability and enabling easier management and control.



Embedded BIOS Services

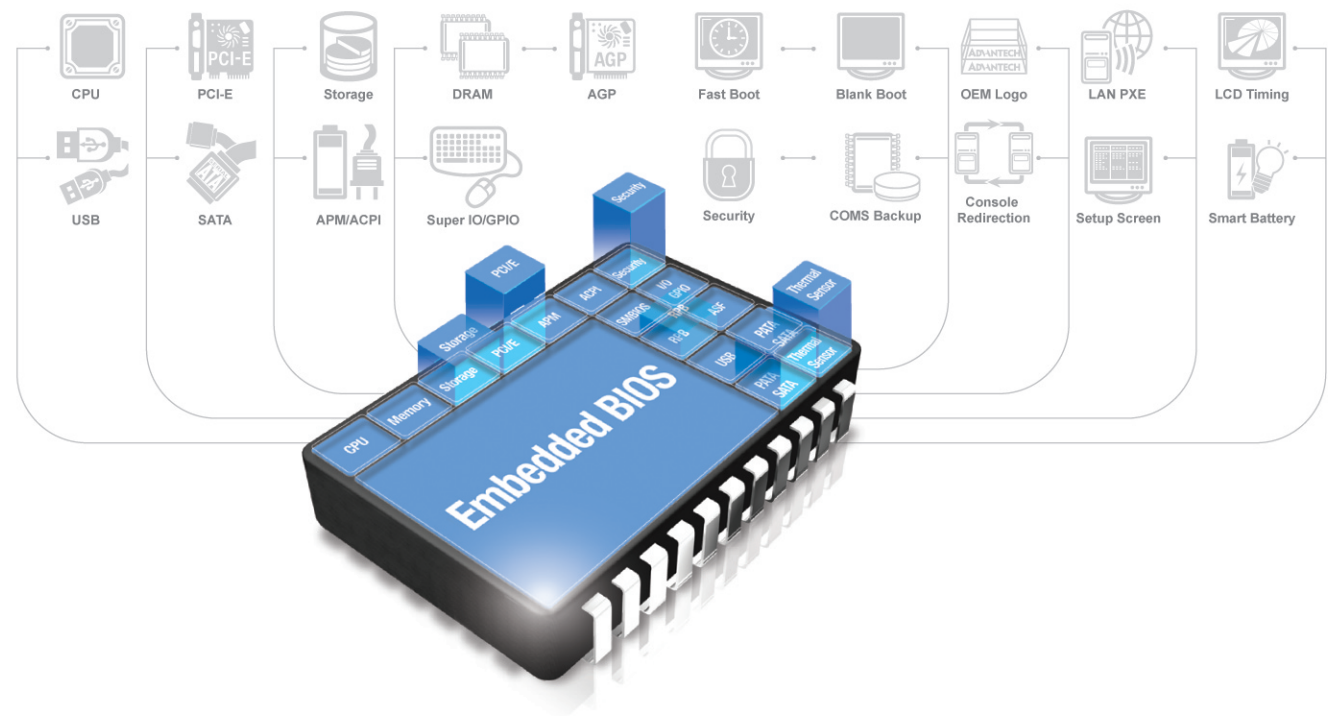
Enhanced Embedded BIOS Features

Advantech provides the full-featured Embedded BIOS solutions that deliver superior performance, compatibility and functionality that System Integrators need. The various options and extensions let customers tailor their products to a wide range of designs to the target markets. In addition, Advantech continues to focus on providing more unique embedded features that help differentiate your solution from the competition. The key features include:

- Enhanced CPU management
- Customizable logo animation and sound effects with boot-animation
- Update and backup BIOS with user-friendly flash tool
- Protect system with encrypted security ID
- Boot-Safe technology to integrate OS image with BIOS
- Wide-range of embedded device peripherals
- Secure software protocols for application programming

BIOS Modularized Services

A highly modularized core architecture allows customers to configure BIOS core features for specific vertical market demands. Customers can easily install or remove specific BIOS core features to create a unique and optimum size BIOS.



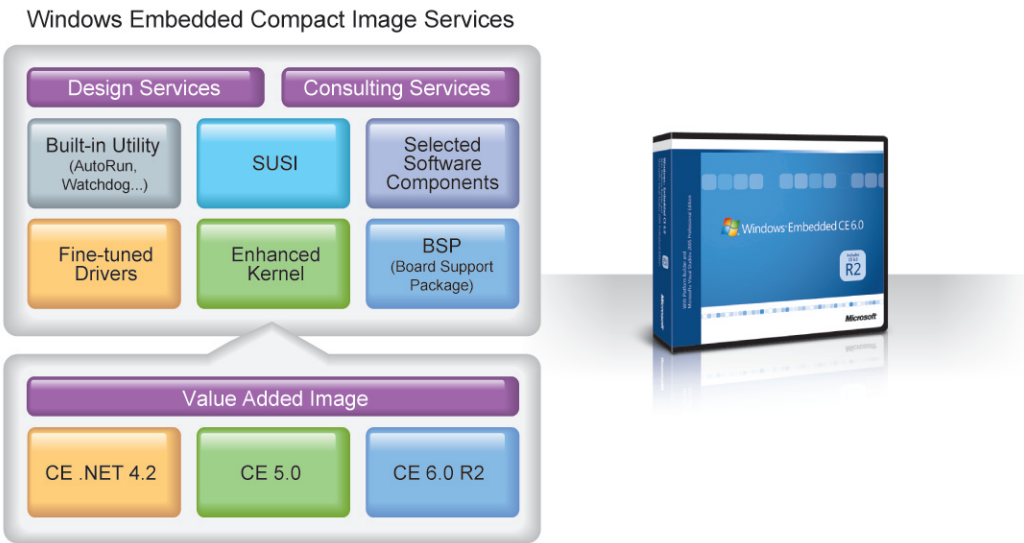
BIOS Customization Services

Advantech offers specific BIOS Customization Services to help customers create unique BIOS solutions and to differentiate their embedded products, for example: Fast Boot, OEM Logo, LCD Brightness control, Optional ROM, Multiple Super IO, Embedded Controllers and Security features. In order to completely fulfill customers' BIOS requirements, we also help customers with BIOS specification reviews and technical consultancy for any unique BIOS customization services.



Windows Embedded Compact (Windows CE)

Windows Embedded CE ready image provides a complete set of components that enable rapid proto-typing and application development. Years of experience with Windows Embedded CE Kernel modification, Built-in utilities and SUSI offer customers huge add-on value on Windows Embedded CE.

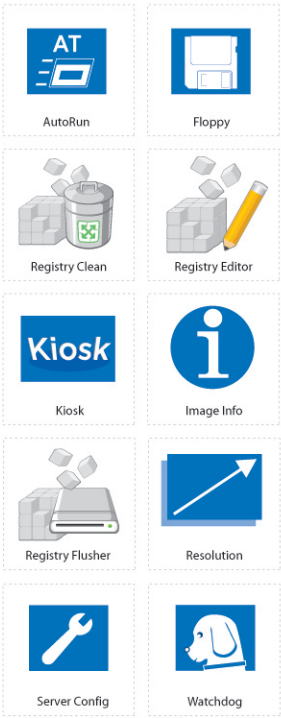


Pre-configured OS Image & Built-in Utilities

For custom Windows Embedded CE OS images, Advantech provides a set of unique utilities to build-in a pre-configured OS image so customers can concentrate on developing their own applications.

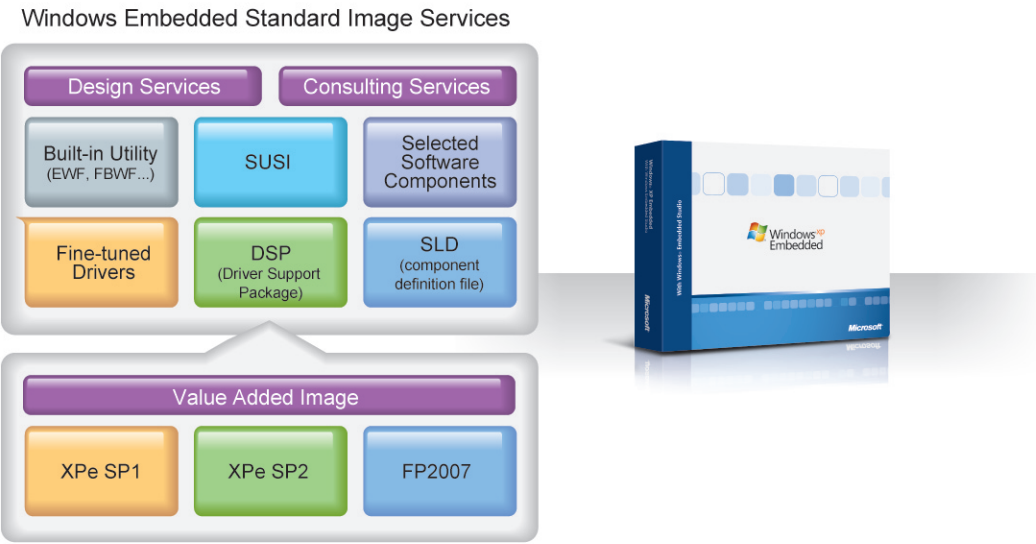
Key features include:

- **Auto Launch Utility**
Launch applications automatically while booting into desktop
- **Floppy Mount Utility**
Mount floppy drive in Windows Embedded CE
- **Image Information Utility**
Read/Write information into Windows Embedded CE image
- **Kiosk Mode Utility**
Launches application as Shell
- **Memory Adjust Utility**
Supports OS auto-recognize system RAM size
- **Registry Clean Utility**
Restore OS configuration back to "factory setting"
- **Registry Flusher Utility**
Flush registry data back to hive periodically and automatically
- **Registry Editor Utility**
An editor to view & modify registry
- **Screen Resolution Utility**
Configure display resolution
- **Server Configure Utility**
Setup Http and FTP servers
- **System Reboot Utility**
Safe restart for Windows CE devices
- **Watchdog Timer Utility**
Timed automatic system reboot



Windows Embedded Standard (Windows XP Embedded)

Windows Embedded Standard ready image provides a complete set of components that's suitable for all kinds of vertical markets. Build-in utilities and SUSI represent Advantech's add-on value in Windows Embedded Standard. Our engineers are experienced in Target Designer development, we can help with specification reviews and evaluation. With our rich knowledge of Windows Embedded Standard, we can shorten your project development costs, time, and provide you with a real total one-stop shop service.



Pre-configured OS Image & Built-in Utilities

For custom Windows Embedded Standard OS images, Advantech provides a set of unique utilities to build-in a pre-configured OS image so customers can concentrate on developing their own applications.

Key features include:

- **Bootting Manager**
A utility for setting boot-up logo, color and shell application
- **EWF Manager**
A utility for Microsoft HORM (Hibernate Once Resume Many) technology, and to control the write-protection function
- **FBWF Manager**
A utility for further write-protection function control
- **USB Native Boot**
Advantech Embedded Standard ready images support USB 2.0 boot. They can boot from either IDE interface or USB 2.0 interface, and with different kinds of storage devices





Innovative Features

Based on our years of experience in tailor-made BIOS, Embedded OS & SUSI from vertical applications, the embedded solutions are packaged to help customers to speed up their project development.

Environment Protection



Monitoring

Monitoring
A utility to provide real time temperature, fan and voltage monitoring and alarm settings to enhance system safety.

- Monitor system status
- Event Log
- Critical alarm
- Critical thermal protection

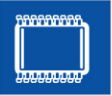


Power Saving

Power Saving
A utility to configure system Power Scheme and Performance. It supports adaptive CPU speed control based on system loading.

- Multi-level CPU speed policy
- CPU thermal alarm and protection
- Support for Intel CPU Throttling
- Easy to import/export settings

System Security



ePlatformFlash

ePlatformFlash
A utility to update and backup BIOS, also supports multiple embedded OS

- Update & Backup BIOS
- Support for Embedded OS: DOS, Windows XP Professional, Windows Embedded Standard, Windows CE, Linux



Boot-Safe

Boot-Safe
Uses BIOS compression to reduce OS image, and integrates OS image into BIOS

- Boot without storage device
- Boot safe, without virus threats
- Fast-Boot without disk I/O
- Easy to enable/disable
- Easy customization



Security ID

Security ID
A tool to secure products with special ID combination (Board ID, Vendor ID, Customer ID)

- Stored in reserved area in BIOS
- Triple protection for customer system
- ID encryption by using hash function SHA-1
- Utility and API for fast implement

Management & Control



SUSI Manager

SUSI Manager
An configurable GUI tool to manage SUSI functions.

- Reference source code export
- Configurable UI
- Alarm for system status
- Manage SUSI functions
- Information , OS, platform
- Control : GPIO, I2C, SMBus
- Monitor: WDT, HW monitor, boot
- Event logger



Video Brightness

Video Brightness
A utility to adjust the LCD panel brightness and backlight, if device has light sensor IC support, this utility can be used to set the value for the auto-mode

- Adjust the LCD panel brightness and backlight
- Power On/Off to display device
- Auto mode can adjust the brightness automatically by receiving the lux from a light sensor IC



Hotkey

Hotkey
A utility to manage combination keyboard events or GPIO inputs in order to execute specific applications or commands

- GPIO Hotkey configuration
- Combination keyboard Hotkey configuration
- SUSI VGA/CPU Clock control Hotkey configuration
- Easy to import/export settings

SUSI (Secure & Unified Smart Interface)

Advantech SUSI (Secure and Unified Smart Interface) is a set of user-friendly, intelligent and integrated application programming interfaces, which shortens development time, enhances security and offers add-on value for Advantech platform users. SUSI makes applications easier and simpler to build and operate.

- Faster Time to Market
- Enhances Hardware Platform Reliability
- Reduce Project Development Effort
- Flexible Upgrade Possibilities



PowerSaving

Utility provides green power settings for max. energy savings and performance



Video Brightness

Utility with manual and auto modes for easy control of panels



Monitor

Utility provides real-time temperature, fan and voltage monitoring, and alarm settings



Security

Utility for multi-level protection with hash encryption



Hotkey

Utility to set keyboard short-cuts for GPIO and control

SUSI Advantages

- **Secure**
SUSI increases system reliability by avoiding access to the wrong hardware address through the pre-programmed API.
- **Unified**
SUSI supports various Advantech Embedded platforms, chipsets, I/O devices and different Operating Systems. With SUSI unified interface, customers can easily migrate their application between OSs; they just re-compile application source code and run it.
- **Smart Interface**
SUSI will auto detect Advantech platforms and then auto enable SUSI functions. SUSI is very easy to install, program, integrate, maintain and upgrade.
We also provides a detailed User Manual & sample application source code for easier implementation. Source code is easily generated to integrate with customers applications.