Texas Instruments OMAP™ platform and Symbian OS™

The OMAP™ Platform from Texas Instruments (TI) delivers a comprehensive family of processors, software and support providing a wide range of real-time, multimedia-rich capabilities for 2.5G and 3G mobile devices. The industry-leading combination of high-performance and power-efficient processing enables compelling applications such as MMS, video and audio content, speech recognition, advanced security, 3D interactive gaming, m-commerce, location-based services, Java™ and productivity that will attract users to next-generation devices and services.

Symbian OS™ is the market leading open operating system for advanced, data-enabled mobile phones known as smartphones and is licensed by the world's leading mobile phone manufacturers. To date, over 145 million Symbian smartphones have been shipped to over 250 network operators around the world. Symbian OS combines the power of an integrated applications environment with mobile telephony, bringing advanced data services to the mass market.

Symbian OS features include:

- Support to multiple user interface platforms and form factors
- Rich suite of applications – supports Java and IMAP
- Connectivity – supports WiFi®, *Bluetooth*®, Infrared and USB 2.0 technologies
- Messaging – supports push technology, POP email and instant messaging
- Multimedia – supports mobile TV, music and video streaming
- Communication protocols – supports VoIP

OVERVIEW

Symbian OS on the OMAP platform

As a key member of the Symbian Platinum Partner program, TI and Symbian have worked closely to optimize Symbian OS v9 ports for the OMAP family of processors and will continue to support future versions.

Furthermore, TI licenses UIQ and is able to provide customers with solutions based on UIQ on the OMAP platform. TI is also a qualified S60 Semiconductor Integrator and member of the S60 Product Creation Community. With complete access to S60 platform, TI is now able to complement its hardware platform offering with tight integration of S60 software.

Key offerings from TI and third parties for Symbian OS on the OMAP platform include:

- OMAP platform reference designs from TI
- OMAP Board Support Packages (BSP) and Reference Software Packages for Symbian OS help manufacturers get to market faster

Support for:

  – Symbian OS v9
  – S60 and UIQ user-interface platforms
  – Key driver support
  – Hardware accelerated DSP software integrated with Symbian multimedia framework

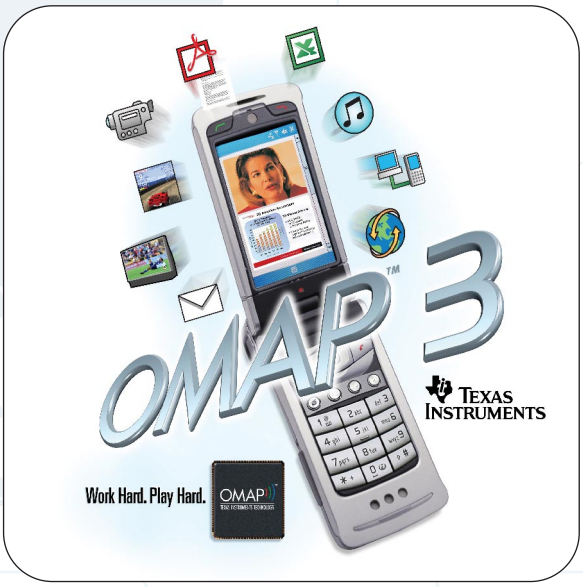
- OMAP Developer Network members deliver software applications and algorithms that drive next-generation applications
- Independent OMAP Technology Centers (OTCs) provide full development support by bringing together hardware, software and system integration expertise

Symbian OS software packages for TI's OMAP platform

TI has developed standard software packages for Symbian OS on the OMAP platform that provide the enabling software needed to start developing next-generation wireless devices.

TI now offers a range of BSPs for OMAP2420, OMAP2430 and OMAP34xx based platforms. These BSPs provide everything for initial development, with many of the BSPs also containing extensive multimedia content including:

- Symbian OS image
- Bootloader
- DSP-BIOS Bridge software – ARM/DSP transport
- Basic drivers



Development tools

Code Composer Studio™ IDE
Platinum Edition

SYNOPSYS®

A full complement of easy-to-use, world-class tools is available for developing with Symbian OS on the OMAP platform:

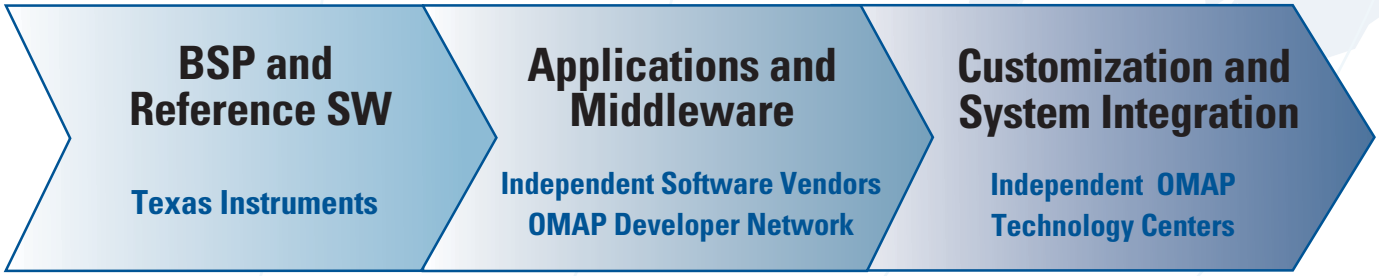
- TI's OMAP2420, OMAP2430 and OMAP3430 Software Development Platform Board
- CodeWarrior™ Wireless Development Kit for Symbian OS
- CodeWarrior Wireless Studio 7
- TI's Code Composer Studio™ for the OMAP Platform
  - DSP and ARM® IDE and debuggers

CodeWarrior OEM Bundle provides everything a developer needs to get started developing with Symbian OS on the OMAP platform in one suitcase. It is the most complete, integrated development environment available and will help reduce the development cycle for smartphones and mobile devices based on Symbian OS and the OMAP platform:

- CodeWarrior Development Studio for Symbian OS v3.1, OEM Edition
- TI Code Composer Studio v3.3
- JTAG (Blackhawk is recommended)
- Blackhawk XDS560 USB Emulator
- Blackhawk XDS560 JTAG PCI Emulator
- TI XDS560 PCI-bus JTAG Scan-Based Emulator
- Symbian 9.x OS images (Board Support Packages)
- Synopsys simulator for the OMAP24xx and OMAP3430 Software Development

These tools will allow developers to easily create and optimize real-time execution of applications to fully take advantage of the OMAP platform's processing power and low power consumption.

Development model



Industry support

Mobile Applications

TI and third-party support, tools and reference designs enable fast time to market.

TI's OMAP Developer Network and the Symbian Developer Network deliver full solutions and applications that allow differentiation, quick time to market and faster return on investment. OMAP Developer Network members are developing rich software applications and middleware that drive next-generation services in areas like MMS, video and audio content, speech recognition, advanced security, 3D interactive gaming, m-commerce, location-based services, Java and productivity.

www.ti.com/omapdevelopers

TI's Independent OMAP Technology Centers (OTCs) provide development support by bringing together a variety of hardware, software and system integration expertise giving device manufacturers a single point of entry for OMAP development technologies.
In addition to working on some of the same application areas as OMAP Developer Network members, OTCs provide:

- System integration
- OS support
- Software component development
- Device drivers
- Hardware development

www.ti.com/omapotcs

With hardware and software from TI along with support and software from the OMAP Developer Network, OTCs and Symbian OS from Symbian, manufacturers have a full solution for developing their mobile device using Symbian OS on the OMAP platform.

www.symbian.com
www.ti.com/omap

Printed in France
Printed on recycled paper.