

# PrimeXsys Platforms

The ARM PrimeXsys™ solution provides the standard framework for the integrated creation and delivery of tomorrow's leading-edge digital products, through the provision of a licensable, extendable product comprising hardware, software and integration methodology tools.

At the heart of the ARM PrimeXsys solution is a generic base hardware platform that defines the CPU's application focus, the standard operating system (OS) peripheral blocks, and the interconnection fabric that enables the integration of additional functionality to fully characterise the desired final product.

By providing the basic foundation of a system, the PrimeXsys Platform enables immediate and parallel development on the chosen OS and additional application software to take place, while the validation and simultaneous creation of the actual silicon is underway, thereby significantly reducing time-to-market for the end product.

A key factor of the PrimeXsys deliverables is the methodology that natively supports additional product differentiation. Through the integration of additional application solutions, whether in the hardware or software, system designers are able to develop a wide variety of application focussed devices, based around their investment in the PrimeXsys deliverables in a structured and cost effective manner.

The first version of the ARM PrimeXsys Platform - the PrimeXsys Wireless Platform - has been designed to address the media applications dominant in the 2.5/3G wireless market, while delivering significant savings in complexity, power consumption and time-to-market for consumer OS, multimedia and voice applications.

The PrimeXsys Wireless Platform is based around the ARM926EJ-S™ core with Jazelle technology for Java™ acceleration, and includes the ARM MOVE™ video acceleration technology, PrimeCell® Peripherals and an AMBA™ Multi-layer AHB system bus for maximising throughput.

## Features:

- ARM926EJ-S Jazelle technology-enabled microprocessor core
- Standard SoC platform designed to address the media applications dominant in 2.5/3G mobile devices, considering the requirements of low power consumer OSs and high-performance multimedia application software
- AMBA Multi-layer AHB for maximum system bandwidth, minimum power consumption and lower system latency



## ARM® Extendible System Technology

- ARM MOVE™ video acceleration technology
- All major consumer OSs supported, including Windows CE, Symbian OS and Linux
- Standardized platform for running third party, off-the-shelf application software
- Expandable to allow licensees to add differentiating IP
- State-of-the-art tool support and methodology package.

## Benefits:

- Based on ARM's industry-leading 32-bit microprocessor architecture
- Fully integrated, standard SoC platform and software provides the basis for customized ASICs with rapid time-to-market
- Design provides maximum potential for differentiation, customization and specialization
- Enables parallel development of OS and application software before silicon, reducing time-to-market
- Open licensable architecture provides identical base level functionality across ASICs from multiple silicon providers
- Standard and open platform architecture means that OS, software and tools vendors will be able to sustain support in the long term
- Extendable design methodology enables improved validation and verification testing, further increasing design assurance.

## Applications:

The ARM PWP has been developed with the following 2.5/3G applications in mind:

- Wireless Internet Devices (WIDs) with e-mail, mobile internet, M-commerce, utilizing functions such as location services and secure data transfer
- PDAs with a consumer OS (Symbian OS, Window CE, Linux, etc.) and its associated applications (PID, calculator, etc.)
- High-performance functions such as audio player, videophone, mobile games console, etc.
- Other applications: Java applications, 3rd party software (pre-loaded or downloaded), user-written.