# The Foundation for the Future of Mobile Computing



## **Inspiring Innovation**

Since its inception, the Palm OS® platform has defined the trends and expectations for mobile computing—
from the way people use handheld devices as a personal organizer to the use of mobile devices as essential business tools, and even to the ability to access the Internet or a central corporate database via a wireless connection. Throughout this evolution, the Palm OS has driven innovation and maintained a strong focus on providing customers not with an assortment of technology features that they don't need, but with exactly the right solution to fit their needs.

Palm OS 5, the latest version of the world's leading mobile platform, redefines market expectations and creates new opportunities for licensees, for developers, and for end users. In addition to supporting ARM®-compliant processors from industry leaders Intel, Motorola, and Texas Instruments, Palm OS 5 also enhances multimedia capabilities, incorporates a suite of robust security options, and expands support for wireless connections. In providing these new capabilities, Palm OS 5 builds a foundation for the future of mobile computing while also maintaining compatibility with existing software.

#### **Driving the Market Forward**

Palm OS 5 encourages innovation by providing support for a new hardware platform and by allowing both licensees and developers to develop new products and features as they see fit. This will inspire a new range of solutions addressing present and future market needs. Users will have a breadth of solutions, rather than a single one-size-fits-all choice.

### **Without Leaving Anyone Behind**

Palm OS 5 incorporates support for the APIs in Palm OS 4.0, thereby enabling existing software applications that comply with these APIs to run on Palm OS 5. This compatibility support ensures that an investment in 68000-based software is protected into the future.

#### **More Choice**

Palm OS 5 opens new avenues for licensees and developers, paving the way for the creation of new devices and software applications that take advantage of the increased horsepower of the broad range of ARM-compliant processors.

By expanding the number of hardware design options, Palm OS 5 empowers licensees to build a variety of devices at different price points, addressing the needs of specific markets. With a broader range of devices spanning a larger number of markets, software programmers have the opportunity to increase the breadth and depth of the solutions that they deliver to these markets. In turn, enterprise customers and end users will benefit from this wave of innovation by having a wider selection of devices and applications available to meet their needs.

### **Investment Protection**

Palm OS 5 provides a thoughtful path forward for the massive installed base of Palm OS software and for Palm OS licensees, developers, and users. Given the range of needs and solutions for mobile computing, both ARM-compliant devices and devices based on the 68000 processor will co-exist in the market. Licensees will determine the best time to bring ARM-compliant devices to market, and software developers will determine the best time to write native applications.

With the goal of not forcing change upon any licensee or developer, Palm OS 5 includes support for the APIs from Palm OS 4.0. Applications that comply with the Palm OS 4.0 APIs will be able to run on either

ARM-compliant or 68000-based devices. In this way, users will be able to run the same Palm OS 4.0 applications on either hardware platform and exchange information between the two. To protect existing hardware investments, support will continue to be provided for the 68000-based Palm OS platform, including such improvements as support for high-density displays.

## **Security**

As the most widely deployed handheld platform for the enterprise, the Palm OS continues to deliver on the promise of providing a stable, scalable platform with a wide range of security options. The introduction of Palm OS 5 raises the bar even higher, incorporating a suite of robust security options without sacrificing the Palm OS tradition of flexibility, openness, and ease of use.

Palm OS 5 offers system-wide strong encryption (128-bit) as a standard feature. Through a partnership with RSA Security, the leading encryption provider in the security industry, Palm OS 5 includes RC4, SHA-1, and signature verification using RSA-verify. This partnership with RSA Security ensures that best-of-class security services are available within Palm OS. An integral component of these security features is a plug-in cryptographic architecture, which allows the addition of other algorithms, such as Advanced Encryption Standard (AES), to meet specific market needs. Palm OS 5 also offers 128-bit Secure Sockets Layer encryption services (SSL 3.0/TLS 1.0) for secure end-to-end connections. Palm OS 5 will encompass a system-wide authentication and authorization system that has an extensible architecture and that will allow businesses and developers to use any of a number of methods to restrict access, including such authentication methods as biometric verification (handwriting, voice recognition, fingerprints, etc.) and smart cards.

With these new security capabilities as a standard feature of the Palm OS, developers can create applications that use system-wide encryption services to protect user data. And our licensees, leaders in the handheld and smart phone markets, can develop enterprise-specific devices to meet the demands of their customers.

### **Multimedia**

Palm OS 5 incorporates a set of high-density APIs that double the screen resolution of a Palm Powered device—from 160 x 160 pixels to multiples of 160x160 pixels. (These high-density APIs are compatible with software written for a 160 x 160 screen.) In addition to these video enhancements, audio capabilities have been improved with a new set of APIs for playing and recording 16-bit audio files. Licensees and developers can harness these new multimedia resources to further improve the video and audio solutions that exist on the Palm OS platform today, and to deliver the multimedia devices and applications of tomorrow.

## **Wireless Connectivity**

The use of Palm Powered devices has grown far beyond personal information management (PIM) to a position where they play a critical role in the enterprise. The ability to access information over a wireless connection—to deliver the right information at the right time—has become an increasingly important function for these devices.

Palm OS 5 extends the existing wireless capabilities of the Palm OS platform by incorporating a set of APIs and drivers that support 802.11b solutions at the system level. With the addition of these capabilities to the existing support for Bluetooth, GSM, CDMA, and 2.5G/3G networks, Palm OS 5 offers a consistent programming interface for wireless connectivity and an increase in processing power that improves connection speeds significantly. Employing these new capabilities, businesses and developers are therefore able to choose the wireless technology that suits their needs.

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