

mobile and embedded solutions product data sheet



# Benefits

### Create a better product

 Gain an accurate understanding of your device's actual power consumption early in your product development cycle

### Reduce power consumption

 Extend your product's power management capabilities beyond the Windows Mobile power manager with Intrinsyc's Enhanced Power Management Engine

### Reduce costs

 Identify potential costly hardware issues that affect power consumption early within your product development cycle

### Reduce risks

- Work with an established Windows Mobile BSP expert: Intrinsyc has implemented BSPs on leading embedded processors including Intel<sup>®</sup> XScale<sup>®</sup>, Texas Instruments OMAP and Samsung ARM based processors
- Leverage expertise: Intrinsyc Software has been developing solutions based on Windows Mobile since its release from Microsoft
- Work with a credible industry expert: Intrinsyc is a founding member of Microsoft's Mobile Partner Advisory Council and a Gold Member of the Windows Embedded Partner (WEP) program

# **Power Management Kits**

# Overview

Intrinsyc Software offers a series of kits for each integral step of your BSP development cycle (see figure 1). Intrinsyc's Power Management kits help you create a better product by reducing your product's power consumption, development costs and project risks. By partnering with an established and experienced Windows Mobile BSP expert, you can develop and launch your products faster and more cost effectively.

Intrinsyc's Power Management kits help you reduce the total power consumption of your product and increase your customer's satisfaction by improving your product's battery life.

Figure 1: How Intrinsyc's Service Kits can enhance your BSP development cycle



# Power Management Assessment Report

The Power Management Assessment Report provides you with an in depth review and analysis of your device's power consumption characteristics and actionable recommendations for improving power consumption. The report is based on your power management use cases, required drivers and hardware platform, and will document power consumption characteristics, power management strategies and recommendations.

## **Power Consumption Characteristics**

Power Consumption Characteristics are based on specific influencers including user profiles and duty cycles. Typical user profiles include light, typical and heavy usage. Duty cycles incorporate use cases and component loading.

**Power Consumption Baseline** 

- The Power Consumption Baseline is defined by supplying power to the device and measuring the overall power consumption.
- If the final battery design is available, it will also include an idle state test measuring the length of time it takes to drain the battery to where it can no longer sustain the idle state of the device.



## Locations

#### Head Office

700 West Pender Street 10th Floor Vancouver BC Canada V6C 1G8 Toll Free: 1 800 474 7644 Telephone: 604 801 6461 Facsimile: 604 801 6417

#### **US Office**

11130 NE 33rd Place Suite 200 Bellevue WA USA 98004 Telephone: 425 732 4950 Facsimile: 425 732 4901

### European Office

Intrinsyc Europe Ltd. Fountain House Great Cornbow Halesowen West Midlands UK B63 3BL Telephone: + 44 121 501 6000 Facsimile: + 44 121 501 6035

## www.intrinsyc.com

Copyright© 2005 by Intrinsyc Software International, Inc. All rights reserved. Intrinsyc<sup>®</sup>, Cerf<sup>™</sup>, Cerf<sup>™</sup>Board, Cerf<sup>™</sup>Cube, Cerf<sup>™</sup>Pod, and J-Integra<sup>™</sup> are registered trademarks of Intrinsyc Software. Microsoft, Windows CE, and Windows Mobile are registered trademarks of Microsoft Corporation in the United States, in other countries, or both. All other product names are trademarks or registered trademarks of their respective owners and are hereby acknowledged.

All specifications are subject to change without notice.

#### Component Power Mapping - optional

• When the product's design and BSP include the capability to enable and disable individual components, Intrinsyc can provide component level power mapping that measures the amount of power used by each component when enabled and activated individually. This provides critical data for power management modeling and allows you to map components to power states managed by the power manager.

## Duty Cycle Testing

- When power management considerations are incorporated into the product's design, duty cycle tests can measure the overall amount of power used by the product. Components include radios (GSM, and Bluetooth), various memory refreshing, CPU active, CPU idle, backlight, other peripherals, and operating system idle states.
- Use Case Tests are integral to duty cycle testing as they involve measuring the amount of power used during your predefined end user use cases and end user modeling. These may include placing a call in call, data transfer, reading a message or email, idling with backlight and keylight on, idling with backlight and keylight off, running a custom application (which may require power to additional peripheral components), or combinations of the above.

## **Power Management Recommendations**

The Power Management Recommendations provides you with actionable recommendations and strategies for reducing power in your product. An overall power management framework and model along with available options for implementing effective power management are provided.

Intrinsyc's Enhanced Power Management Engine and Framework

- Integration of Intrinsyc's Power Management tool (a licensable power management engine) provides you with extended power management capabilities and flexibility for device driver management.
- Intrinsyc can also implement the built-in Windows CE and Windows Mobile standard power manager (PM.dll).

**Power Management Enhanced Drivers** 

• A list of recommended device and system drivers to be enhanced with power management capabilities.

Additional Power Management Strategies

- Overall CPU and device usage
- Application optimization (for any custom application you provided)
- Event management

# Power Management Enhanced Drivers

Based on the list of drivers noted in the Power Management Assessment Report, a standard power management enhancement is offered at a fixed price per driver specific to your product. We also provide implementation of the Intrinsyc Enhanced Power Management Engine at a fixed price.



