

ByteSnap Design develops Windows CE central management system for energy optimising smart plugs

ByteSnap Design creates Windows CE demand response system for Plogg

Birmingham, 17 September 2009 — ByteSnap Design (www.bytesnap.co.uk), a Windows CE and [Windows Mobile design consultancy](#), has developed The Plogg Network Controller (PNC), a demand response hub which centrally manages and controls multiple Plogg smart energy meters. This will be available to view on stand 303 at the Embedded Systems Conference UK 2009 (ESC UK).

The Plogg energy smart meter was designed by ByteSnap Design for Energy Optimizers in 2007. It provides essential data about energy consumption at the point of use — the electrical power socket.

The Plogg and the Plogg Network Controller provides utility companies, facilities managers or domestic users with the ability to centrally monitor energy consumption of individual electrical appliances. The Plogg is already being trialled by utilities companies in a bid to implement technology that reduces energy waste and costs while cutting CO2 emissions.

The Plogg Network Controller can work with over 1,000 networked Plogg wireless smart meter plugs. Users will be able to monitor power consumption of appliances in real time, monitor consumption over an extended period, and even control consumption remotely from anywhere in a building or via the Internet.

Dunstan Power, director of Windows CE developer ByteSnap Design said, “We see that the Plogg Network Controller as a method of effectively enforcing energy efficiency for all users via the demand response mechanism ByteSnap and Energy Optimizers have developed. The Windows CE operating system has provided us with a flexible yet robust platform to develop this product, which we see as soon becoming a mainstream technology.”

“Demand response systems such as those based around the Plogg Network Controller will be instrumental in the way we measure and control our electricity consumption. Energy Optimizers has

seen enormous demand from power companies for these types of smart devices due to increasing power micro-generation in homes and the growth in windfarms,” continued Mr Power.

Energy Optimizers already has a large number of orders for the clever devices from a number of leading utility companies.

A Plogg Network Controllers allows users to access data and even operate electrical devices via the Internet. Information from the Plogg Network Controller can be provided in Watts, VAs, current or voltage which can be regularly downloaded from Ploggs at set intervals. Users can access this information via the Plogg Network Controller interface.

The Plogg is based on a Teridian 6511 metering processor that can use either Zigbee or Bluetooth wireless connections. The Network Controller software runs Windows CE with an ASP Web interface, which allows customised functionality to be built in by the vendor via Java and VB scripting.

ByteSnap Design has based the network controller around an 800MHz PXA320 Swift Module from Direct Insight Ltd. This module provides a low-cost, high performance processing solution giving enough power for users to develop complex web based applications on the network controller.

The web server draws on data collected by an application which is running constantly on the controller, downloading logs from multiple Plogg devices around it and storing this information in a SQLite database to either internal or external flash. Through custom ASP pages the user interface and functionality of the controller can be altered to suit the end customer. Java and VB scripting is used to allow the interface to be redesigned without changes to the controller firmware or supporting software.

For more information see the case study on ByteSnap Design’s web site www.bytesnap.co.uk

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Notes to Editors

About ByteSnap Design – www.bytesnap.co.uk

ByteSnap Design is a specialist in innovative embedded hardware and software design. Founded in 2008, ByteSnap Design has a client list spanning the UK, Europe and US.

ByteSnap Design offers a team of experienced, talented and innovative software and hardware engineers, who provide a blend of embedded systems services, from hardware design and engineering skills to [Windows Mobile software development](#) and [Windows Embedded software development](#).

The consultancy also has experience of designing hardware products from PDAs to digital audio mixers with multiple Board Support Packages and software projects such as developing [Windows CE BSPs](#) to real-time video mixing applications for Windows Mobile.

About Energy Optimizers

Energy Optimizers Ltd is a designer, manufacturer and distributor of innovative energy saving products and technologies for government, industrial, commercial and household markets. Part of the T H Brown group of companies, it is based in Grimsby, Lincolnshire, United Kingdom.

About Direct Insight

Direct Insight supplies embedded development platforms encompassing reference kits, production ready modules, embedded development tools, training and services. Since 1992, they have helped thousands of developers who rely on our expertise, support and product solutions to get to market. A Microsoft Embedded Gold Partner and Registered Training Provider, Direct Insight is a leading source of expertise in the application of Windows Embedded operating systems. Direct Insight is based in rural Oxfordshire, England. www.directinsight.co.uk

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