

Christmas 2008



Bluewater Systems

NEWSLETTER

Welcome

Happy Holidays! As we move into the summer season with all of its festivities and the new year, Bluewater wishes you a happy and safe holiday.

This season we can update you on a number of developments. We have successfully tendered contracts with the Royal New Zealand Navy and the Australian Defence, Science and Technology Organisation (details below). We released two new products, the Snapper 9260 Single Board Computer Module and Big-Eye, the next generation in autonomous digital security solutions.

We've attended some fantastic events such as the Embedded Systems Conference in Boston and have plans to attend CeBIT in Germany in the coming new year.

Company News

Bluewater Secures New Zealand & Australian Defence Contracts

Bluewater Systems has been awarded a major contract with the Royal New Zealand Navy. This is our first defence contract in New Zealand and stands as a marked triumph for the company. This achievement is a continuation of our success in the defence industry and is a significant acknowledgement of the expertise of our team.

We have also successfully renewed our contract with the Defence, Science and Technology Organisation (DSTO), a part of the Australian Department of Defence, for hardware and software development services. This is our third year of contracted service with DSTO and we are extremely proud of our continued achievements in this endeavour.

We're very excited here at Bluewater to be offered such a challenge as well as the opportunity to work with such distinguished organisations. We'll certainly be continuing our pursuit of establishing ourselves as a supplier in the defence industry.



Australian Government
Department of Defence



We Say Hola! to South America

We've taken a few trips to South America this year, namely Brazil and Chile, to promote our DDS-XM100 solid-state data storage system that is used in the telecom industry to replace outdated legacy systems.

We are excited to announce that we have established official reseller channels in that region who will promote and sell our DDS-XM100; which is in addition to NEC, a current reseller for Bluewater. This is a major achievement for us given that Brazil does not often extend its contracts to international organisations. They are extremely proud of their self-sustainment (as any country would be) and therefore typically offer contracts to only Brazilian organisations.

There are two telecom companies that are now working on our behalf, Logictel in Brazil and Faxdatel in Chile. We have experienced interest in our DDS-XM100 from other South American countries since this relationship was established in late August 2008 and we're keeping a close eye on future prospects within the region.



Bluewater Releases New Snapper Module

We have a new addition to Bluewater's arsenal of Snapper Single Board Computer Modules and we're proud to introduce to you the Snapper 9260. This dynamic little package is one of the smallest modules currently available and is based on an ARM9 core.

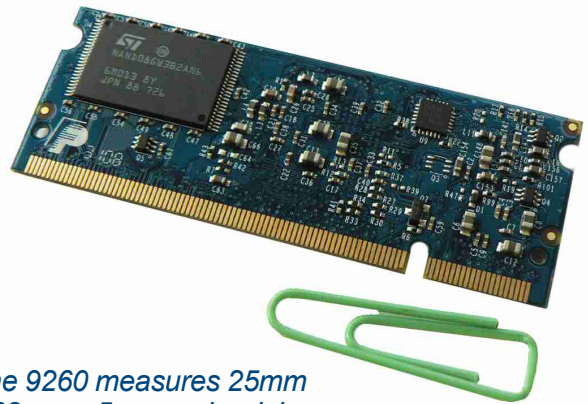
Snapper 9260 is the ultimate value-proposition. Its a mid-performance module with an ultra-low price tag. If your project is constrained by size and unit cost, SN9260 is an ideal choice for achieving your product goals. Similar in many ways to our current range of Snapper SOMs, Snapper 9260 provides impressive performance with an array of on-board peripheral support.

Another fantastic feature is that Snapper 9260 comes with your choice of either a fully-featured, embedded Linux 2.6.20 or WinCE 6.0 kernel, providing you with a versatile applications environment.

Already ear-marked for a number of exciting products, Snapper 9260 is an attractive and cost-effective development option.



Our new addition to the Snapper Family of Single Board Computer Modules: the Snapper 9260



The 9260 measures 25mm x 68mm x 5mm and weighs approximately 7g.

Snapper 9260 Specifications

- Atmel AT91SAM9260 at 180MHz / 200MIPS
- 64MB SDRAM
- 256MB NAND Flash storage
- 32/16-bit processor bus
- 10/100 Ethernet
- Up to 40 GPIOs
- 2 x USB host ports
- 1 x USB device port
- 6 x serial UARTs
- I2S stereo audio codec
- Display option via smart LCD (SPI or system bus)
- I2C, SPI, SDIO, CF, CMI
- Camera interface on module & via SODIMM
- 3.3V single input power
- Typical power consumption 600mW
- Industrial or commercial operating temps

For more information or a brochure on Snapper 9260, please contact Amanda Gardner on agardner@bluewatersys.com

Sky Challenge

Plane in Spain

We've been at work developing hardware and software for this year's Sky Challenge, a project owned and developed by Air Sports Ltd., a New Zealand company which specialises in advanced sports TV technology. We're working alongside other fine organisations from a handful of countries. The first test run was held in Spain in October and attended by Bluewater's software developer Ryan Mallon. For more details, visit the Sky Challenge website www.skychallenge.com or for fantastic videos of the test run you can access the links on our blog, www.bluewatersys.com/blog.

2008 EDN Innovation Awards

Another Bluewater Success

Bluewater Systems was nominated as a finalist in the 2008 EDN Innovation Awards. The compact flash camera that we developed for use in a medical device has been recognised in the "Best Application of Programmable Logic" category. The award ceremony was held in Sydney and we're excited to announce that we received a high commendation for our entry!



Bluewater Releases High-Resolution Digital Security Solution

We're working on making a name for ourselves in the world of digital security solutions. To accomplish this agenda, we've released Big-Eye, a high-resolution digital security and surveillance system. Our goal for Big-Eye is simple: to emerge as the next generation in autonomous security solutions.

Of course everyone is wondering how we've set Big-Eye apart from any other digital security system currently available in the market. Here's what we're doing in a nutshell, just to name a few:

Autonomous Operation: It does not require an operator to watch the feed constantly. It can locally store images and take snapshots only when it detects sound or motion. It can generate and respond to alarms and permit remote access to live video when required.

One-step Clearance: Operators can provide access keys to neighbors, alarm monitoring companies or the police to allow images or live videos to be collected from an off-site location over standard Internet.

Big-Eye Resolution: 3 Megapixel camera with ability to zoom. This provides higher quality images compared to standard security systems like CCTV. Our 3 Megapixel camera gives at least 9x the resolution of CCTV.

Low Cost: Big-Eye is cost comparable to a commercial analogue CCTV camera and doesn't require the high infrastructure, or even staff investments, that other systems rely upon heavily.

Local Storage: Big-Eye is not beholden to the availability of a high-speed always-on network. So if the network stops, it will not just 'forget' the images because it has the capacity to hold 2000 images internally and up to 60,000 with a removable SD card.

How Big-Eye Can Work For You

Surveillance systems are all around us and serve a variety of purposes. Big-Eye can offer benefits in many situations as part of a wider security system, but is ideally suited to the following scenarios:

- Monitoring a door, driveway, parking area or building site where a wide field of view and high quality imaging is required
- Public transport where integrated storage & reliable operation & vibration tolerance are required
- Night operation in total darkness
- Areas in which local storage is required

due to low speed connections (< 2Mbps) or an unreliable network

- Low traffic areas where the presence of motion is a significant event
- Remote monitoring of farm buildings, lifestyle blocks, homes or businesses where an on-site CCTV recording suite is impractical or too expensive
- Autonomous operation where security staff cannot be watching the system constantly



Big-Eye Specifications

- High-speed 200MHz ARM CPU
- Altera EP1C3 FPGA
- 64MB SDRAM
- Micron MT9T0012STC sensor (3MP, 2048H x 1536V)
- 1GB internal storage, 2000 image capacity
- 32GB SD removable storage, up to 60,000 image capacity
- High-resolution, 3MP autofocus digital camera supporting a range of lenses, both compact & CS mounted, with auto Iris control
- Supports full 128-bit WPA2 security
- Supports audio recording & audio announce via integrated speaker/microphone (optional)
- Small enclosure, offering covert placement, or a range of mounting options including weather-proof enclosure
- Integrated IR illumination for image capture in total darkness
- 10/100 Ethernet with POE support
- 802.11b/g WiFi module (optional)
- Powered via battery, POE, external 5-28V power supply or USB
- On-board battery-backed real-time clock
- On-board IR LEDs for illumination
- PIR motion sensing & software
- Open Linux platform for additional features

For more information or a brochure on Big-Eye, please contact Amanda Gardner on agardner@bluewatersys.com

ARM Tools News

RealView Developer Suite Upgrade

For those of you who have purchased ARM Development Tools from us, and of course for anyone interested in purchasing a tools package, there is a new version of RVDS that is now available. RealView Development Suite (RVDS) v3.1 has been upgraded to v4.0. The new version was made available beginning November 2008.

Key Features of RVDS 4.0

- The ARM Compiler now generates even better code using link-time code-generation, improvements of up to 5% in both code size and performance
- Using Profiler-driven Compilation, the ARM Compiler can deliver significantly better performance, while at the same time reducing code size
- The ARM Profiler has now been extended to also include streaming instruction trace, it's able to stream information directly to a hard disk, without the need for an expensive large trace buffer
- The ARM Profiler now offers full display and replay of introduction trace

For more information regarding the upgrade please contact Helen Down on hdown@bluewatersys.com

- Optimised code generation and debug for all available ARM processors now also includes Cortex-A9 processor

Key Benefits of RVDS 4.0

- Reduce device cost by using ARM tools, since smaller code can significantly reduce memory cost
- Improve software performance on a device, which results in better responsiveness of applications and enables inclusion of richer content and functionality
- The ability to trace ones application for days in order to get some real interaction data. This enables the software to be optimised for real-world use
- Trace Replay is an intuitive way of navigating the large trace data sets, enabling developers to quickly find the cause of slowness in their systems
- Gets the best out of all ARM processor-based devices, now including the latest ARM Cortex-A9 SMP-based devices



In The Works At Bluewater

Snapper-DV

We're working on some fantastic new projects at the moment. Our latest idea that's in the R&D phase is the Snapper-DV.

It is a cutting edge Cortex-A8 ARM platform, with enough CPU speed to handle most modern applications, including web browsing and desktop publishing. The platform is focused towards graphics, with both 2D and 3D acceleration built in. It includes a programmable DSP to allow for future updates to include new hardware accelerated components, such as video/audio codecs.

We're intending to create a kiosk/information screen style product which will allow high-resolution display applications to quickly respond to user requests, giving a crisp display system. This product will also be very small, allowing for easy installation behind existing LCD panels and integrated products and is projected for completion Q2 2009.

We'll keep you posted on our progress! For more regular updates on what's happening at Bluewater, check out our blog. www.bluewatersys.com/blog



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