



With Imagination

2009 Issue 5

Nokia: new products

In early September 2009 Nokia announced its first netbook called the 'Booklet 3G'.

The final specs show that this product runs Windows 7 and uses the Intel Atom Z530 containing POWERVR SGX graphics and VXD video technologies. The Nokia Booklet 3G features 1 HDMI 1.2 out, 3 USB 2.0, 1 headphone out (also functions as audio-in with OMTP headsets), 1 DC-in, 1 SD card reader, 1 SIM/USIM slot, 1.3 mp camera and microphone.

The Booklet has a 10.1 inch display and the chassis is made from a single piece of aluminium which is 19.9mm thick.

The low power requirements of POWERVR SGX and VXD give the rechargeable Booklet 3G over 12 hours battery life – more than enough to last a typical working day.

Described by Nokia as a phone with the power of a computer, the N900 has 32 GB of internal storage (expandable by an extra 16 GB on a microSD card), holding up-to 7000 MP3s or 40 hours of video.

It has a full slide-out qwerty keyboard as well as a large 3.5 inch touchscreen. The Nokia N900 uses POWERVR SGX supporting OpenGL ES 2.0.

The N900 is Nokia's first full-function phone using Maemo, Nokia's operating system which is based on Linux and supported by a vibrant developer community.

With a 5mp camera and 3x digital zoom, dual LED flash, preloaded with Ovi maps, photo editing and video this phone is packed with features.



It's all about the Widgets

At IBC 2009, held in Amsterdam in September, With Imagination got to see Opera, the browser people, showing off some neat applications, including Twitter, on a Gigabyte set-top box. We were impressed with this significant improvement on the set-top box user-interfaces commonly used today.

The Gigabyte box is based on Intel's Media Processor CE 3100 SoC, aka 'Canmore', which features POWERVR SGX graphics. With SGX set-top boxes can enable an advanced graphical user-interface experience which is every bit a match for the latest smartphones

while also delivering new TV-specific features such as channel previews, PiP and on-demand services.

Beyond the UI, the CE 3100 allows viewers to interact with a spectrum of downloadable widgets (applets) and data services including localized news, weather, sports, stock tickers, traffic updates and instant messaging applications designed for the TV screen.



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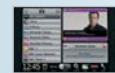
What's inside



New Nokia products Nokia introduce their first netbook, the 'Booklet 3G', and the new N900, a phone with the power of a computer.



It's all about the Widgets At IBC 2009 in Amsterdam, Opera showed off some neat applications, including Twitter, on a Gigabyte set-top-box.



Imagination's technologies enable 'radio for the Facebook generation' PURE's latest product, Sensia, has a high-resolution touchscreen.



Imagination's POWERVR Insider SDK 2.5 Version 2.5 of this industry leading SDK has been released, including eagerly-anticipated iPhone SDKs.



POWERVR SGX driving migration to shader-based graphics in mobile Over 100 leading products now use Imagination's POWERVR SGX to deliver advanced shader-based graphics.



'Digital Britain' plan for digital switchover by 2015 Imagination supports the Government's action plan for the digital migration of radio by 2015.



POWERVR Insider races to over 12,000 members Within the past 18 months the POWERVR Insider ecosystem has tripled, growing to over 12,000 members.



Imagination passes 200 million unit milestone Imagination cores have shipped in over 200 million SoCs.



MediaTek MediaTek have signed a multi-use license agreement for a member of the POWERVR SGX family.

Imagination's technologies enables new 'radio for the Facebook generation'

Imagination's META processor and ENSIGMA communications technologies, together with its internet radio portal platform, enable the unprecedented capabilities of PURE's new Sensia radio.

Sensia is the latest product to be released by PURE and is the world's first DAB digital and internet-connected radio with a high-resolution touchscreen. It combines this large colour touchscreen with a state-of-the-art and intuitive user interface which provides a new way of using radio and helps deliver advanced multimedia content, information and Web 2.0 applications.

PURE Sensia is the first example of Imagination's vision of the future of connected radio. Sensia gives users a unique way of interacting with internet and radio content, including: podcasts and listen again services; DAB/DAB+ and FM; a growing set of custom PURE 'Apps' such as weather, news, Picasa, Facebook and Twitter; and DAB broadcast slideshows. Through access to the Lounge radio and media portal (www.thelounge.com) listeners can manage their radio experience by saving favourite stations, streaming music stored on their computers via Wi-Fi, and accessing masses of listen again content.

Says Hossein Yassaie, Imagination Technologies' CEO: "Sensia heralds a new age in radio where broadcast and connectivity work together to deliver the pre-eminent listening experience. Broadcast is, and always will be, fundamentally the best way to reach a wide

audience. We have integrated broadcast with new technologies for internet connectivity and content delivery which will create a channel for consumers to communicate across social media and with the broadcasters, without any need for PCs. This combination of technologies is the catalyst to springboard radio to high visibility and status in the 'connected age'."

Says Stephen Miron, CEO, Global Radio: "Digital radio is evolving rapidly, and this latest innovation of a 'connected radio' from PURE with the added enhancement of a colour screen, supports and reinforces our broader ambitions for radio going forward. Global Radio is delighted to have worked closely with PURE on the development and introduction of this technology, and we look forward to broadcasting new and exciting content from all our stations using this new feature."

The technologies powering Sensia are all available for licensing from Imagination.



Imagination's POWERVR Insider SDK 2.5

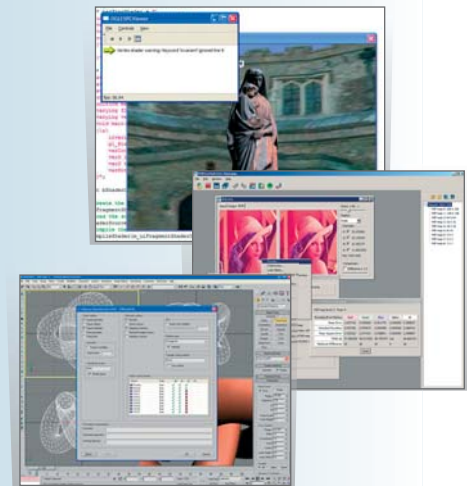
Version 2.5 of the industry-leading POWERVR Insider SDK (software development kit) has been released.

This release includes OpenGL ES 1.1 and OpenGL ES 2.0 SDKs for a number of new phone platforms using POWERVR SGX, including iPhone (running on Mac OS X), Samsung i8910, Sony Ericsson Satio, Nokia N900 and Beagle Board SDKs which give developers access to the world-class POWERVR Insider toolchain.

The POWERVR Insider SDK is developers' preferred development environment for the creation of OpenGL ES 2.0 as well as OpenGL ES 1.1 and OpenVG applications. It includes a complete PC-based emulation environment, combined with Imagination's unrivalled technical support.

Key new features include new Displacement Mapping and Shadow Mapping training courses and new Fur and Coverflow demos, alongside dozens of updates and revisions.

Version 2.5 of the SDK is available to the POWERVR Insider community via the website www.powervrinsider.com.



POWERVR SGX driving migration to shader-based graphics in mobile

Imagination's mobile graphics have reached a new milestone, with over 100 leading consumer electronics products now using Imagination's POWERVR SGX to deliver advanced shader-based graphics.

Imagination's compact graphics power more than 25 handsets and over 75 netbook and mobile internet device (MID) products. POWERVR SGX is the driving force behind the delivery of OpenGL ES 2.0 into the hands of consumers.

Imagination's POWERVR SGX graphics IP cores now range from SGX520, the world's smallest OpenGL™ ES 2.0 mobile core, to SGX543MP16 for high-performance console and computing devices. All members of the SGX family also fully support the popular OpenGL ES 1.1 and OpenVG 1.1 standards, with a growing number of cores also providing full support for DirectX 9 and DirectX 10. Imagination provides mature and comprehensive reference drivers for

all major operating systems including Linux, Symbian, Windows Vista/XP, Windows Mobile and Android.

Phil Northam, global marketing manager, Samsung Mobile Innovator says: "With OpenGL ES 2.0 shader-based graphics enabled by POWERVR SGX, Samsung's i8910 HD smartphone has set a new benchmark for mobile phone graphics and created an exciting opportunity for applications developers to move to the next level of graphical sophistication. We are delighted to be working closely with Imagination to deliver their advanced SDKs and support capabilities to our thriving developer ecosystem."



'Digital Britain' plan for digital switchover by 2015

Imagination has placed its full support behind the Government's outline of a complete action plan for the digital migration of radio by 2015.

The recommendations coincide with the continued momentum in the up-take of DAB/DAB+ audio equipment in the UK and around the world. In the UK, around a third of all households already have digital radios. A similar proportion own digital radios in Denmark. Meanwhile, recent announcements from France, Germany, Denmark and Eastern Europe, and the formal launch of DAB+ digital radio in Australia, mean that the global market for digital radios and digital radio technology is taking off.



Imagination is the leading provider of digital radio technology. Its META processor and ENSIGMA communication technologies are used in over 80% of DAB radios. Imagination's continued investment in technology development has been a major contributor to the reduction in the price of digital radios.

DAB's volume share is now at 25% of all UK radio sales. Digital radio now accounts for over 20% of all radio listening, with DAB leading the increase.

Please visit www.imgtec.com for more information.

POWERVR Insider races to over 12,000 members

Within the past 18 months the POWERVR Insider ecosystem, which has its online resources and interactive online developer forum at www.powervrinsider.com, has tripled in size to over 12,000 members, with intake from a broad community that includes engineers creating device drivers, operating system designers, user interface specialists, and game developers.

The wide support for the POWERVR Insider programme is proof that Imagination's ecosystem is second to none in providing the tools and support essential to leading developers of graphically rich applications.

Xavier Carrillo-Costa, CEO of Digital Legends says: "The POWERVR Insider ecosystem gives us extensive information and access to a dynamic community of developers, hardware manufacturers and platform owners. Joining the POWERVR Insider programme has contributed to improve our productivity, and the technical support we receive from them is excellent for its responsiveness and in-depth technical expertise."



Tony King-Smith, VP Marketing, Imagination Technologies says: "By proactively enabling efficient communications between key members of the development, handset and semiconductor communities we are creating a diverse ecosystem with unique energy and momentum. Indeed, we are delighted to have already initiated a number of strong commercial relationships between our members."

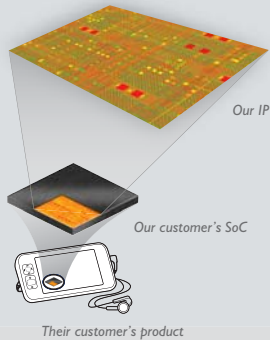
Imagination passes 200 million unit milestone

Imagination cores from its current silicon IP families, META, ENSIGMA and POWERVR, have shipped in over 200 million system-on-chip (SoC) devices.

Imagination is the leading supplier of graphics for mobile applications and our processor and communications technology is used in TV, mobile TV, digital radio and connected audio products, with an ever-growing range of design wins in the pipeline.

Through enabling our partners to innovate in emerging markets Imagination has developed a worldwide user base for its technologies which is growing by more than 50% year on year.

Imagination's success is indicative of a trend in the industry towards complex SoCs which integrate a wide range of capabilities, enabling them to be programmed or configured for



use in many functional and geographic markets. Our IP can be used to create comprehensive SoCs for consumer entertainment and communications, or combined with a rich and diverse range of third-party and proprietary IP.

Says Hossein Yassaie, CEO, Imagination: "Successful semiconductor companies are continuing to invest in R&D, even while cutting back on capital outlay and killing off older technologies and production methods. They know that new and competitive designs are the key to a successful exit from the recession. No semiconductor company has the luxury of reinventing market-leading solutions that already exist. Imagination's technology is proven and uniquely capable for the core functions in today's application SoC."

MediaTek

MediaTek have signed a multi-use license agreement for a member of Imagination's POWERVR SGX graphics processor family. MediaTek will use the technology in its future SoC devices.

Under the terms of the licensing arrangement Imagination receives license fees and royalty revenues when SoCs incorporating POWERVR SGX are shipped.

MEDIATEK



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Forthcoming events



2009 RadioFest – National Radio Conference
Sydney, Australia
9th October 2009
www.commercialradio.com.au/



Arm TechCon3
Santa Clara Convention Center
CA 95054, USA
21-23 October 2009
www.armtechcon3.com/2009/



Symbian Exchange & Exposition
London, United Kingdom
18-20 November 2009
www.see2009.org/



ET Embedded Technology
Yokohama, Japan
18-20 November 2009
www.embeddedtech.net/

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