



Bitboys Selects Hybrid Graphics's 3D Hardware Driver Solution

Helsinki 20 July 2004

Bitboys, provider of graphics acceleration hardware solutions for wireless and embedded devices today announced the selection of Hybrid Graphics's OpenGL[®] ES and Mobile 3D Graphics API for J2ME[™] software drivers as part of Bitboys's graphics processor solutions.

With this partnership, Bitboys continues to pursue its long-term goal of developing products that provide customers with a complete graphics solution, not only the graphics processor core, but also complete, optimized software drivers.

Bitboys products are licensed to semiconductor and mobile phone manufacturers as IP (Intellectual Property) cores that are integrated into the manufacturers' SoC (System-on-Chip) semiconductor products. Customers include NEC Electronics Corporation, which announced in October 2003 the implementation of Bitboys's core in one of the industry's first TFT-LCD controllers featuring a dedicated graphics engine on the chip itself.

Hybrid's software drivers support the entire Bitboys 3D graphics product line, including the new graphics processor products to be unveiled at SIGGRAPH, Los Angeles on 10 August 2004.

Hybrid's software drivers are fully optimized, tested and supported. As such, Hybrid's drivers considerably simplify the integration of the graphics processor into the customer's SoC environment. "OpenGL[®] ES and Mobile 3D Graphics API for J2ME[™] optimized software drivers, supporting all major wireless and embedded operating systems, form a key component of our hardware offering. The drivers provide a single, common application interface to all Bitboys graphics processors, allowing our customers to build a range of consumer devices with different Bitboys graphics cores but with the same software API interface across the platforms," says Petri Nordlund, CTO of Bitboys.

By developing high-performance graphics cores for power and size restricted environments, Bitboys aims to make high-quality graphics content available to mass-market mobile devices. Since the OpenGL[®] ES API is a general-purpose 3D standard, it can be made to work with any content tool. All leading mobile game engine, content and middleware vendors have announced their support for the OpenGL[®] ES API.

“With a decade of experience in developing graphics technology, Hybrid Graphics has a profound understanding of 3D graphics on wireless platforms. Hybrid has an active role in the wireless and embedded graphics community, particularly in the Khronos Group, the industry consortium behind the OpenGL[®] ES graphics standard. We are delighted with this partnership, which will also greatly benefit our customers,” says Petri Nordlund, CTO of Bitboys.

“The software driver is a critical component of an embedded graphics solution, especially on a wireless consumer device. We are happy to support Bitboys’s customers by offering optimized software drivers for their advanced and innovative graphics processor cores. This partnership is a natural extension of several years of co-operation between our companies,” says Ville Miettinen, CTO of Hybrid Graphics.

Hybrid Graphics

Hybrid Graphics Ltd. of Helsinki, Finland develops and licenses open-standard graphics components for wireless devices. Offerings include 2D and 3D graphics solutions such as OpenGL ES, Java M3G and SVG implementations. Hybrid’s track record consists of 10 years of graphics core technology development for various platforms. The company participates actively in mobile graphics technology standardization work and has significantly contributed to the development of the OpenGL ES standard. Hybrid’s mobile graphics technology is already present in millions of consumer devices and existing license agreements cover dozens of millions of devices more. Hybrid is a privately owned company and currently employs 30 people. For more information see www.hybrid.fi

Bitboys

Finland-based Bitboys develops and licenses graphics hardware IP (Intellectual Property) solutions for various wireless and embedded devices. Bitboys graphics processors are specifically designed for power and size restricted environments and are the outcome of over 12 years of experience in graphics research and development. The first product line targeted for wireless and embedded devices has been available for licensing since July 2003. Bitboys currently employs 35 dedicated graphics professionals. For more information see www.bitboys.com

Contacts:

Hybrid Graphics

Harri Holopainen, Executive VP
tel. +358 40 504 2544
e-mail: harri.holopainen@hybrid.fi

Hybrid media contacts:
Konsta Hansson, CIO
tel. +358 50 354 2358
e-mail: konsta.hansson@hybrid.fi

Bitboys

Petri Nordlund, CTO
tel. +358 40 823 1671
e-mail: petri.nordlund@bitboys.com

Bitboys media contacts:
Thomas Freundlich, Netprofile Finland
tel. +358 40 572 5729
e-mail: thomas@netprofile.fi