



BREW® DEVELOPER CASE STUDY

COMPANY:
3GVision

HEADQUARTERS:
Or Yehuda, Israel

FOUNDED:
February 2000

OVERVIEW:
Founded in 2000, 3GVision has positioned itself as a pioneer and market leader in the area of image recognition technologies using the camera in mass-market mobile devices. Developing for BREW since 2003, 3GVision with MEDIASEEK and KDDI were the first to launch a commercial BREW camera-based.

WEB SITE:
www.3gvision.com

BREW DEVELOPER:
Since 2003

COMPANY:
MEDIASEEK

HEADQUARTERS:
Tokyo, Japan

FOUNDED:
March 2000

OVERVIEW:
MEDIASEEK has obtained success leveraging the basic camera phone that comes installed on most standard mobile devices. Today more users than ever are using MEDIASEEK's products largely due to the company's adoption of the BREW solution in 2003. Currently, MEDIASEEK counts Barcode Reader, Barcode Reader & Maker, OCR Dictionary, Hybrid Code Reader, Crazy Cameraman and Barcode Reader for Synastry among its BREW applications.

WEB SITE:
www.mediaseek.co.jp

BREW DEVELOPER:
Since 2003





BREW® DEVELOPER CASE STUDY

MEDIASEEK and 3G Vision were both founded in 2000, each with a primary focus on leveraging the basic technology of digital cameras on mobile devices to develop state-of-the-art image recognition technologies. In 2003, they joined together to become BREW developers combining 3G Vision's camera recognition technology and MEDIASEEK's camera phone to revolutionize the mobile phone image recognition field. Since that time, they have worked closely together to become true leaders in this industry.

3G Vision has worked to turn the digital cameras found on mobile devices into "one-click" input devices, and the company's applications provide a glimpse into the role that image recognition will play on mobile phones in the not-to-distant future. 3G Vision offers many useful applications that demonstrate the strength of visual input technology, including Barcode Reader, Business Card Reader, Scanning Dictionary, Fax Scanner and a suite of Motion Tracking applications and games. 3G Vision's Barcode Reader is a clear market leader, with more than 50 million handsets shipped worldwide with the application already integrated.

Like 3G Vision, MEDIASEEK continues to expand its status as a major developer of software specially tuned for, and embedded into the mobile phone. With its CamReader technology, MEDIASEEK utilizes 3G Vision's special decoding engine designed for small cellular handsets, which reads both single- and multi-dimensional barcodes captured by an electronic camera module implanted into the handset. The decoding engine has been installed as a default application into more than 60 percent of cellular handsets shipped in the Japanese market with software-driven implanted optic modules that can operate with digital camera or video functionality.

Most recently, MEDIASEEK and 3G Vision collaborated on the creation of an award-winning application called Barcode Reader & Maker, which employs an advanced processing technology to access a mobile device's built-in camera, and allow the application to read, analyze and decode an input image of a barcode. The application also features a "Quick Response" two-dimensional bar code creation function that allows for the easy exchange of data between handsets.

From an industry perspective, this partnership has netted a significant advancement in image recognition technology. Barcode Reader & Maker has also received industry accreditation by winning a prestigious BREW Developer Award for Best Information Application at the BREW 2006 Conference in San Diego.

"As the wireless industry evolves at an ever faster rate, our ongoing collaboration with 3G Vision continues to elevate the simple cell phone into a dynamic device with endless options," said Yasuhiro Nezu, MEDIASEEK director. "The wireless world continues to push the envelope with each new application and we are proud that two companies have shared a vision of providing a technology that is changing the way business is done, and consumer information is disseminated throughout the world."

Modern barcodes can store a large amount of information, for example URLs, product information, and even entire news articles or business cards. Using mobile handsets to scan printed or electronically displayed barcodes helps end-users access various types of data, bypassing the tedious process of entering long URLs and access codes by hand, while increasing data-traffic for wireless operators. Barcodes

provide infrastructure to additional services such as M-Commerce, wireless messaging, downloading ringtones and multimedia, as well as enterprise applications. Reading barcodes that contain a URL has become a standard method to access wireless sites in Japan. In fact, Barcode Reader & Maker is now pre-installed on almost all KDDI's handsets in Japan.

"Barcode reader technology is an important asset to the wireless community," said Yossi Lev, CTO of 3G Vision. "By leveraging the everyday digital camera phone and turning it into a multi-functional barcode reading device, we have successfully opened up a completely new medium for the cell phone. With this technology, consumers are able to use their mobile devices to do everything from recognize embedded text, scan documents and convert mobile phone pictures into faxable images."

Both MEDIASEEK and 3G Vision have demonstrated a pioneering spirit in developing wireless applications that take advantage of existing device hardware, and together they are positively changing the way companies use image recognition technologies. MEDIASEEK and 3G Vision have gained even more momentum, discovering that with the BREW solution, an application that once took up to six months to get to market is now available in one to three months. Additionally, they chose the BREW solution as the platform of preference due to the BREW Extension Program and the openness that the platform provides. The BREW Extension Program provides an "open market" opportunity whereby any authenticated BREW developer can access a library of dynamically downloadable extensions to augment their application, without having to separately notify and license the technology from the extension developer.

"We develop and provide applications that mainly leverage image processing technology," said Naoki Nishio, president of MEDIASEEK. "The BREW solution is especially important for us as it provides both the freedom needed for development and exceptional processing speed."

Another exciting benefit of developing barcode technology using the BREW solution is the ease of integration. The powerful and flexible Software Development Kit allows painless integration into any wireless device. Integration as a stand-alone barcode reader application is also possible. 3G Vision's Barcode Reader has been successfully integrated in various system levels: directly in the camera device, embedded on the handset and in open systems.

3G Vision has found that the camera support found in the BREW solution also presents the best of all worlds for wireless imaging developers. It exposes native CPU computational strength and combines well-defined eco-systems and robust development platforms, all while boasting a large installed base.

"Before the BREW solution, we mostly embedded our software into the camera phone in a native environment due to the lack of processing power on the handset," said 3G Vision CEO Mendy Mendelsohn. "This has all changed with BREW. For 3G Vision, BREW is the system of choice because of its technical merits and solid business model. Now, all of 3G Vision's technology is first developed and offered to BREW operators."

