

Morpho's software featured in Lenovo's smartphone "K900"

Tokyo, Japan - **May 24, 2013** – Morpho, Inc., a global leader in software image processing solutions for mobile devices, today announced that Morpho will provide its software to smartphone "K900" launched in China and other countries by Lenovo Group Ltd., one of the world's largest PC vendors and a provider of mobile handsets and smartphones. The deployed 10 products include high resolution panorama image generation technology "Morpho Panorama Giga Pixel[™]," video stabilization technology "MovieSolid®," and image stabilization technology "PhotoSolid®."

(Morpho's business development in the Chinese market is undertaken by its partner, ACCESS(Beijing) Co., Ltd.)

About the Products

Morpho Panorama Giga Pixel™

"Morpho Panorama Giga Pixel™" is a technology for generating a panorama image in real-time simply with smooth camera motion along the scene. "Morpho Panorama Giga Pixel™" utilizes Morpho's original motion detection technology "SOFTGYRO®" for high precision alignment and adjusts luminance while merging high resolution images to produce smooth panorama image with fine detail. It automatically detects whether the panorama image is a landscape or portrait from the horizontal/vertical movement of the camera to assist users for easy use.

Morpho Group Photo™

"Morpho Group Photo™" is a unique and handy technology for easily creating a group picture with everyone in the picture looking at their best. From multiple continuous images taken, it selects the best shot of each subject and composes a group picture. In addition to automatically selecting the best shot, "Morpho Group Photo™" also offers a mode which user selects the best shot. By simply selecting the subject's face in the composed group picture, his or her face in each frame of continuous captures are displayed on the screen for user to pick out the favorite shot.

Morpho Cinemagraph™

Cinemagraph is a still image with partial animation. By utilizing Morpho's unique motion detection technology, SOFTGYRO®, "Morpho Cinemagraph™" performs high precision alignment and provides result with natural stitching. With this software, users can generate high quality cinemagraph simply by taking continuous shots and selecting the part of an image to animate. "Morpho Cinemagraph™" allows users to create a cinemagraph image easily without a tripod or an image editing software.

Morpho Object Eraser™

"Morpho Object Eraser™ is a technology, which detects and removes moving objects from continuously captured images and leaves only the still objects. By comparing 5 to 15 consecutive frames, it detects moving objects, removes them, and replaces them with background. Also, "Morpho Object Eraser™ allows users to choose a specific moving object from automatically detected moving objects and remove them.

Morpho Night Portrait™

"Morpho Night Portrait™" is a technology which captures both night scene and portrait beautifully. Generally when taking a picture with flash, the background tends to end up dark as the shutter speed is too fast to collect enough ambient light. Meanwhile, capturing a portrait in a night scene requires a flash to be fired to light up the subject. "Morpho Night Portrait™ enables portrait photography in a night scene similar to slow sync flash* by merging with-flash and without-flash images.

*Slow Sync Flash (Front curtain)

Flash is fired to catch the subject, and the shutter remains open collecting ambient light to catch the background. However, since the shutter speed is slow, a tripod is often necessary.

Morpho HDR™*

When a picture with proper exposure time is over-saturated or has dark shadows, "Morpho HDR™" composes a brightness-adjusted image by layering multiple images with different exposure time. It also corrects alignments automatically so there is no need for users to use a tripod. "Morpho HDR™" performs ghost removal at the same time to correct the outline of the moving object providing a clear image without blurs.

* High Dynamic Range (HDR) is an imaging technology that allows greater dynamic range than standard images.

Morpho Effect Library™

"Morpho Effect Library™" is a technology for implementing effect processing on still images and videos. It offers various types of effects. Users can preview the applied effect in real time to select the best effect for the scene.

Morpho Smart Select[™]

"Morpho Smart Select™" is a technology that determines and selects a shot closest to the best out of continuously captured pictures. The following are the determining factors for best shot: (1)with least blur and most focus, (2)subject is in the center, (3)face of the subject is captured, (4)with highest level of smile. "Morpho Smart Select™" looks into each factor and picks out the best shot comprehensively.

MovieSolid®

"MovieSolid" is a technology which compensates motion jitter while capturing video with smartphone. By comparing the previous frame and the current frame, it detects the amount of motion jitter in the image and outputs the corrected current frame in real time. Also, the product corrects geometric distortion (rolling shutter distortion) caused by shooting a movie using a device with CMOS sensor.

PhotoSolid®

PhotoSolid is Morpho, Inc.'s software-based image stabilization for still images. PhotoSolid utilizes the company's proprietary SoftGyro® gyroscopic engine to detect motion in Six Degrees of Freedom (6DOF), and then conduct image stabilization. PhotoSolid corrects for blurring resulting from a combination of hand jitter, poor lighting conditions, and the distance from the subject when taking a photograph. PhotoSolid also provides subject movement correction, which freezes objects that move quickly through the capture frame.

- *Inventions related to SOFTGYRO are patented in Japan, USA, Europe, and Korea.
- *Inventions related to PhotoSolid are patented in Japan, USA, and Europe.
- * Inventions related to "MovieSolid" are patented in Japan, USA, and Europe.
- *"PhotoSolid", "SOFTGYRO", and "MovieSolid" are registered trademarks of Morpho, Inc.
- * "Morpho Panorama" "Morpho Group Photo," "Morpho Night Portrait," "Morpho HDR," "Morpho Object Eraser," "Morpho Cinemagraph," "Morpho Effect Library," "Morpho Smart Select" are trademarks of Morpho, Inc.

About Morpho, Inc.:

Established in 2004, Morpho, Inc. has built substantial brand recognition in the field of software image processing for mobile devices. Customers utilizing Morpho, Inc.'s software technologies include carriers, processing platform providers and mobile device manufacturers making the company a global player in mobile imaging. For more information visit http://www.morphoinc.com/en/ or contact m-press@morphoinc.com.