Morpho

Morpho's software featured in new LG smartphone "Optimus G Pro"

Tokyo, Japan - **May 10, 2013** – Morpho, Inc., a global leader in software image processing solutions for mobile devices, today announced that Morpho will provide its software to smartphone "Optimus G Pro" launched by LG Electronics, Inc., a global smartphone manufacturer in Korea. The deployed products are wide range panorama image generation technology "Morpho Panorama™," high dynamic range technology "Morpho HDR™," noise reduction technology "Morpho Denoiser™," video stabilization software "MovieSolid®," and stabilization software "PhotoSolid®."

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

About the Products
Morpho Panorama™
By moving the camera up and down, right and left or following the guide, "Morpho Panorama™" generates a wide-angle-like panorama picture with sense of immersion. Normally, simply stitching together pictures taken with a camera freely moving around does not result in natural picture due to depth difference between pictures. However, "Morpho Panorama" estimates the depth to create input images adjusted to the distance. It then stitches them together to generate a more natural wide angle panorama picture.

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.

Morpho Denoiser™
"Morpho Denoiser™" reduces noise components from a single frame. By expanding the pixels referenced, noise reduction is performed effectively with high speed. Furthermore, it separates color and luminance components to reduce noise but keeps the color tone with details at the same time, thus generating a beautiful image.

MovieSolid®
"MovieSolid 2.0" is a video stabilization technology utilizing "SOFTGYRO®," Morpho's unique motion detection technology. By comparing the previous frame and the current frame, it detects the amount of blurs in the image and outputs the corrected current frame in real time. "MovieSolid® 2.0" can correct blurs caused from zooming in on a hand-held device, because it enables blur correction in 4DOF(degrees of freedom); horizontal rotation, vertical rotation, forward/backward direction, and forward/backward rotation. In addition, "MovieSolid® 2.0" can correct 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, night shooting, 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, Europe, USA, and Korea.
* Inventions related to "PhotoSolid" are patented in Japan, USA, and Europe.
* Inventions related to "MovieSolid" are patented in Japan and USA.
*"SOFTGYRO," "MovieSolid," and "PhotoSolid" are registered trademarks of Morpho, Inc.
* "Morpho HDR," "Morpho Denoiser," and "Morpho Panorama," are trademarks of Morpho, Inc.
*"Optimus" is a trademark of LG Electronics, 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.