

Adjustable Fonts Help Unlock the Small Screen

By Matt Hines

NEW ANALYSIS: WHILE FONT-RELATED technologies have rarely been considered very sexy, one company is making a name for itself as new services appear on small screens.

Does your cell phone speak English and Arabic? If your handset does indeed support such wildly different languages, there's a chance that its manufacturer or your mobile carrier is already licensing technology from Monotype Imaging.

The company, based in Woburn, Mass., is a largely silent partner to some of the wireless industry's biggest device makers, operators and content providers, with growing clout in the business.

Most mobiles have traditionally used fixed bitmap font technologies to render one language or another in fairly generic and fixed characters.

However, the explosion of the worldwide wireless market, the increasing number of phones built to work anywhere on the planet, and the avalanche of new multimedia content services aimed at handhelds are demanding that the display capabilities of today's phones get smarter fast.

With a history that features ties to more than 100 years of print typesetting technologies, Monotype Imaging has ported its expertise into the business of licensing adjustable font and imaging tools to handheld makers and others, offering wireless companies the ability to support many different language character sets, allow for new multimedia content, and even help create applications for vision-impaired mobile users.

In fact, one of the challenges facing Monotype Imaging's business, company executives claim, is that so many of its customers—including some of the world's largest handset makers—prefer to keep their licensing deals with the company under wraps for competitive reasons that many people still aren't familiar with the firm's name.

"You might not have heard of us, but there's a good chance that our technology might already be on the mobile device that you're using," said John Seguin, senior vice president and general manager of Monotype's Display Imaging group.

"There's a transition going on right now from bitmaps to scalable fonts, and this is

going to help accelerate both the uptake of wireless in developing areas of the world and adoption of new mobile services."

One company willing to discuss its work with Monotype Imaging is industry behemoth Qualcomm, which announced the week of Feb. 6 that it has licensed the firm's font rendering and text layout software for use in its BREW (Binary Runtime Environment for Wireless) development platform.

BREW is Qualcomm's open-source applications development environment for devices running on CDMA (Code Division Multiple Access) wireless technology that it licenses to many handset manufacturers and software makers worldwide.

By combining its development platform with Monotype Imaging's iType font rendering subsystem, which is based on the industry standard TrueType and OpenType font formats, and the company's WorldType Layout Engine, a software library used for composing, positioning and rendering multilingual text in applications, executives of San Diego-based Qualcomm said they can allow handset makers far greater ability to offer new and better wireless services.

"Over the last five years the handset landscape has changed dramatically with so many new applications on the device, and BREW is pushing data services to even the lowest-tech devices out there," said Mazen Chmaytelli, director of product management for Qualcomm Internet Services.

"If you move to the high end, you're seeing more PC-like interfaces; as a result, you need to have fonts tailored to the device in your hand, and that's what Monotype Imaging brings."

Without adjustable font technologies, Chmaytelli said, supporting Arabic and other complex languages such as Chinese on the handset becomes an arduous and tricky proposition. In addition to demanding detailed characters that differ greatly from any Western languages based on Latin, Arabic speakers also read from right to left, adding another layer of complexity to the system, but one he said Monotype Imaging's tools handle deftly.

Another challenge eased by the company's font technologies is the demand to port applications interfaces from one device or language to another while retaining a similar interface, he said.



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"Some of these applications designs people are doing are so specific that they need to be able to support all devices and languages, and have them populated on the same part of the screen," Chmaytelli said.

"Using the WorldType Layout Engine, you can offer appropriate support that helps maintain the same interface across almost any language, or sized to fit the application developers' original design."

While some companies are signing deals with Monotype Imaging, many more of which it said it hopes to detail publicly in the coming months, others have chosen to bring adjustable font technologies in house.

For instance, in 2002, mobile e-mail market leader Research In Motion purchased the assets of Slangsoft for an unspecified amount of money to help facilitate foreign language input and display on its own handheld products.

Slangsoft developed a font engine that allowed users of wireless devices to enter and view text in Chinese, Japanese, Korean and other non-Latin characters.

Experts said font-oriented technologies are sure to become even more important as the wireless market continues to mature.

David Linsalata, an analyst with IDC, in Framingham, Mass., said people may be focusing more on the flashy multimedia applications coming into the mobile space, but he highlighted the fact that better supporting text interfaces is a priority for almost every company in the industry.

"This is something that is often overlooked, versus a trend like adding TV or music to the handheld, but when it comes down to it, a lot of those applications also look and perform better when the text is formatted correctly," he said.

"We're at a point where device processor speed and network data rates are getting much better, but you have to think that we will always see all different types of companies investing in these sorts of technologies to make their applications look better."

Linsalata said he wouldn't be surprised to see Monotype Imaging's fortunes rise as more vendors consider the scope of scalable font technologies and consider it as a way to make their own applications and devices work more effectively.

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Monotype Imaging

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