

Last Word: Backpedaling in Microsoft-Land: The UMPC suddenly gets real

by Geoff Walker

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When Microsoft launched the UMPC in March, 2006, they positioned it as a media-focused “lifestyle device” aimed almost entirely on young consumers. Microsoft suggested applications such as instant messaging, gaming, keeping a diary, listening to music, creating scrapbooks, sharing digital images, watching recorded movies or TV, taking notes, managing a to-do list, etc. Any existing ultra-mobile PCs that didn’t meet Microsoft’s UMPC specs were ignored – for example, the FlipStart palmtop, the Sony U50/U80 tablets, the OQO Model 1+, etc.

In order to even come close to Microsoft’s target price of \$600 - \$1,000, all the UMPC OEMs used very low-end CPUs (slow Celerons, etc.), so all the products were sluggish. The media reaction to the UMPC was mostly lukewarm, questioning whether a market for a “lifestyle device” actually existed, and/or writing it off as yet another ill-fated Microsoft experiment. Sales in the first year were rumored to be a few hundred thousand units. By December 2006, the only bright spot in the picture was an increasing number of new mini-PCs (what I called “Near-UMPCs”).

At Microsoft’s 2007 Windows Hardware Engineering Conference (WinHEC) last week, Microsoft revealed that they’ve significantly changed the UMPC’s positioning. In essence, they’ve backed away from the original concept and re-defined the UMPC as “any fully functional, highly portable Windows PC with a 7-inch or smaller screen”. Microsoft said that they had learned three key things from the market:

1. People don’t want single- or limited-function PC-based devices; they want general-purpose PCs
2. People are excited about the ability to have full, no-compromise Windows capabilities in smaller form-factors
3. People are willing to pay more for mobility

Accordingly, any hardware that runs Vista and has a screen of seven inches or smaller has now become a UMPC. Sony U50, welcome to the club! One of Microsoft’s slides shows where the newly-redefined UMPC fits: Note the naming distinction between “Ultra Portable PCs” (generally taken to mean notebooks with 8.x-inch to 12.1-inch screens) and “Ultra Mobile PCs”.

Because of the size of the UMPC, Microsoft is still emphasizing “natural input” as a key focus. By this they mean stylus, touch, keyboard, buttons, pointing device and voice. The new target market is “Consumers and Dual (Work/Home) Users”. Microsoft defined the hardware opportunities (for OEMs) as “new form-factors, latest standards and technologies, consumer appeal, and design & functionality-based differentiation”. In terms of screen size, Microsoft still prefers 7-inch because (a) it’s “readable, touchable & usable”, (b) it’s the size required to make the device thin by avoiding stacking components, and (c) 7”-inch LCDs are low cost because they’re used in many other devices such as car navigation, portable DVD players, etc. But now it’s a “preference” rather than a “requirement”.

Microsoft presented the following table as “food for thought” – i.e., not requirements, just some desirable directions for the UMPC in 2007.

	2006	2007 + Possibilities
Display	7.0-inch	7.0-inch, 5.0-inch, ...
Resolution	800x480	1024x600
Digitizer	Analog resistive touch	Touch panel integrated with LCD to reduce thickness
Connectivity	802.11 b/g wireless	More connected, including WiMax & integrated WWAN
Interaction	Touch, stylus, thumb-based controls	Add integrated QWERTY thumb-keyboard
RAM	512 MB – 1 GB	1 GB+
CPU	1 GHz Celeron M, Pentium M, VIA C7-m	Use Intel’s very latest mobile CPU; reduce power requirements; optimize for Vista, use passive cooling if possible
Graphics	Integrated graphics	WDDM + DX9 (implies discrete graphics)
Battery Life	2-3 hours from 3 cells	3-4 hours from 3 cells
Weight	< 2 pounds	< 1.5 pounds
Dimensions	Varies	18-20 mm thickness is possible
Cost	\$600 - \$1,000	No guidance – make price commensurate with features, performance, etc.
Operating System	Windows XP Tablet PC Edition	Windows Vista Premium Versions (for touch, pen support & voice)

Interestingly, Microsoft said that they’re “not driving UMPC hardware evolution any more because the OEMs have taken over the initiative”. Another interesting statement was that active digitizers are no longer required for Tablet PCs because (a) touch screens have improved, and (b) handwriting recognition has improved significantly, especially with the ability to train recognition in Vista. The result is that handwriting recognition “works great” on a resistive touchscreen. The rest of Microsoft’s UMPC presentation (a) emphasized the familiarity of Windows & Vista and its appropriateness for mobile use, and (b) provided some limited guidance on how to develop application for small-screen devices.