

Sidebar: Bifurcation Blues

News Story by Robert L. Mitchell

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AUGUST 01, 2005 (COMPUTERWORLD) - Low cost and high density are the primary goals for memory for PCs and other AC-powered computers. But battery-powered mobile devices like laptops and cell phones place a premium on low power consumption and nonvolatile memory, which retains data when power is removed.

Today, the memory business is driven less by the PC and more by the mobile sector. "More nonvolatile memory bits will be shipped than volatile memory bits this year," says Bob Merritt, vice president of memory research at Semico Research.

Merritt says diverging market needs are likely to drive memory development in two directions. The market bifurcation could cut into the economies of scale that drive down DRAM prices, and thus the cycle of doubling memory density every 18 months without raising prices could end, he says.

But the high costs of developing and manufacturing memory mean that the industry can't afford to have radically different designs for different markets.

"You can't build a decent fab now for less than \$3 billion," says Michael Kozicki, co-founder and CTO at Axon Technologies, so a common technology foundation will be needed. "Whoever wins this memory smack-down is going to end up being the memory that wins in both areas," he says.