

A Big Iron Golden Anniversary

A 1440 data processing system finds new life after 50 years **By Ryan Rhodes**

Fifty years ago, IBM unveiled its second printed circuit data processing system, the 1440. This accounting and business information system was targeted to “smaller volume businesses,” although the system still required its own room.

Essentially a lower-cost version of the 1401, the 1440 didn't quite attain the same commercial success. As such, 1440 components—designed and built in Endicott, N.Y.—are difficult to find.

To preserve historical computing technologies like the IBM 1440—a precursor to the modern mainframe—entities have emerged such as the Binghamton, N.Y.-based Center for Technology & Innovation (CT&I) and its TechWorks! Prototype Workshop.

“Electronic packaging and miniaturization are huge advances made by IBM Endicott,” says Susan Sherwood, CT&I executive director. “The 1440 is a very interesting midpoint in that packaging evolution, which is why we're so interested in it.”

With its IBM 1440 Project, CT&I is bringing together original 1440 components and restoring operational functionality. To date, the center has procured a 1441 processing unit, a 1447 console and a 1311 disk drive—as well as cables and manuals—largely on loan from

the IBM Archives. In March, it acquired one of only three known IBM 1442 Card Readers, which was in much better condition than some 1440 devices.

“Some of these things had been in storage for 20-plus years, so several of the gates that contained circuit cards were loaded—saturated really—with mouse nests,” says Fred Petras, a project team member. “So, we had a considerable cleanup task before we could even get to the point where we could power it on.”

After the 1440 was cleaned, it hummed with life for the first time in decades, and the team exercised system functions using the original programming language and established communications among the various components.


“I think the IBM corporate archivist who acquired the 1440 system and transferred it to us would have been happy if it simply looked good, but we're going a little further than that,” Sherwood says. “At TechWorks!, we want

The IBM 1440 is displayed in this brochure image circa 1962.



to delve a bit deeper and show how things work. We don't want to display machines that just sit around, but rather, machines that actually function.”

The 1442 Card Reader is the only 1440 component on hand with visibly moving parts, which will allow visitors to see card decks being read, processed and then output punched results. Sherwood would like to procure an IBM 1403 chain printer fast enough to play music from a card deck, thereby completing a 1440 system. It would likely be the only such fully functional system.

“We may not have the complete system up and working by the 50th anniversary date [Oct. 11], but we'll have most of the 1440 components running, which is a pretty impressive accomplishment considering we started with a system clogged with mouse nests,” Petras adds. 



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