Silicon Valley Rainbow
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RX50 lets PC-AT use DEC disks

By Russ Mosteller

Almost since the introduction of the Rainbow, one of the major problems that Rainbow users have faced is transferring files between it and other microcomputers.

The evolution of the double-sided, double-density diskette as the de facto industry standard has made the situation even worse.

Fortunately, there have continued to be innovative solutions to the problem, including both software, such as Intersecting Concepts' Media Master, and hardware, such as Suitable Solutions' I-Drive.

A new public domain program, RX50, now goes to the heart of the problem and permits the IBM PC-AT and its clones to read and write single-sided, quad-density RX50 diskettes in its high-density drive.

RX50, written by Robert F. Morse and put into the public domain through Ted Needleman's Rainbow Corner Great Disk Deal in Hardcopy, is easy to use and well-documented. It does present a couple potential problems, but they can easily be overcome.

RX50 consists of two separate programs, RX50DRVR and RX50INIT. RX50DRVR controls the reading and writing of the RX50 diskette, while RX50INIT "initializes" an RX50 diskette which contains no files. The two programs must be installed

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Word Perfect draws the line

Company plans no version 5.0 for DEC Rainbow

By Carl Neiburger

There will be no Word Perfect version 5.0 for the DEC Rainbow nor for any other non-IBM compatible MS-DOS computers, Pete Peterson, executive vice president of Word Perfect Corp., has announced.

Although Rainbow users have produced a strong and steady demand for the word-processing program, Peterson said Word Perfect managers concluded that those sales were not enough to justify the development cost.

"The IBM overshadows the other machines so much in revenue that it's hard to justify the (programming) time," he told the Silicon Valley Rainbow.

Word Perfect has consistently provided versions of its word processor for the Rainbow and other non-compatibles for the past couple years, since it became a major competitor in the software marketplace.

Peterson said Word Perfect Corp. now sells about $13,000 to $14,000 a month worth of Word Perfect programs for non-IBM compatible MS-DOS machines. Of those sales, Rainbow versions account for $10,000 to $12,000 — around 80 percent of the total. By comparison, Peterson said Word Perfect Corp. has been selling about $300,000 a month worth of its new version for Digital Equipment Corp.'s VAX mini-computer.

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Hardware review

RAMbow flexes memory muscle

By Mike Pasini
Pseudo Sysop
SF Bay Area DEC PC BBS

It has a terrible name. Might as well have called it The Poindexter. But by any other name, it would run as well. So we will be obliged to refer to the thing as the RAMbow, though the name pinches us in a delicate spot.

The first memory boards available for the Rainbow were for the 100A and offered two choices: 64K for a total 128K, or 192K for a total 256K. The latter board listed for about a thousand dollars.

I remember trying to boot dBASE II under CP/M-86 and

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Users group meets Wednesday, Oct. 14

The Silicon Valley DEC PC Users group meets from 7 to 9 p.m. Wednesday, Oct. 14, at Kierulff Electronics, 1180 Murphy Ave., San Jose.

To get to the meeting, take the Brokaw Road exit from Interstate 880 and turn east. Brokaw becomes Murphy after it crosses Old Oakland Road.

Take the first driveway past Old Oakland Road on the right into the PS Business Park. Kierulff Electronics is in the first building on the left.

RAMbow: Get past the name, and you've a megabyte

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getting an insufficient memory error on my 64K machine. It was a Friday. I could barely last the weekend. By Monday I had decided to forego the 64K board (though it was significantly cheaper) and go for the 256K. Somehow I would justify it.

A RAM disk would justify it, but there was no such thing for a Rainbow. The bulletin boards that I called had a generic version that did not run on the Rainbow. Only a few weeks later I got hold of one for my machine through Mark Graybill. I was in business.

Then the B showed up. And version 2.0 of CP/M-86/80 with MDRIVE. And MS-DOS. 896K? Whatever for?

DEC did supply 100A owners with a new option: buy a $99 adapter to use the new memory boards for the B and kick your RAM up to 832K

All that was expensive. I can't remember how much.

Then somebody found that if you bought the cheapest DEC board and bought generic chips, you'd save a mint. But you still had to get that adapter. And that $99 was always enough discouragement.

Then DEC announced an 8087 for which both A and B owners had to buy the adapter board. This made me feel a little better, but since it cost about $400, my discouragement crystallized.

I began to see life in terms of 256K.

There's very little you can't do in 256K. Very little. Just about everything fits in 256K. Especially CP/M stuff.

I guess I got tired of hearing myself. I know I got tired hearing drive A crank up WordPerfect. WP seems to cache itself, but all the same, there are some things I do that the authors of the program figured wouldn't get used too much, so they always required a disk access. On a 256K system.

So I decided to figure out how to put in a board and not spend a fortune. And I decided it was only prudent to get up to 832K.

My schemes included three different suppliers: the adapter board from one source, for $89; the bare board from another, for about $260, and some chip sets from yet another, for another $120. I had to spend between $400 and $500.

That's when I first heard about RAMbow. Jerry Miller of Suitable Solutions had designed a board with nine one-megabit chips that kicked 100As up to 896K — with no adapter!

There were some prior fabulous claims for Rainbow memory boards. Combined memory and clock boards that never materialized, for example. So I was skeptical.

Except that Miller had invented the ClikClok. I didn't have one, but I sure liked the idea. It was sandwiched between a ROM and its socket. No velcro. No muss. And inexpensive. Something I knew I had to have when I started using WordPerfect regularly.

Okay, I said, let's look into RAMbow.

Miller gave a presentation with Julie Starr at our user group meeting. Talked about the Ataris he has in the closet. And his interest in the Rainbow. And how Rainbows are finding a second life as corporate give-aways. And how people don't mind at all throwing in third party hardware to tweak them a little. What have they got to lose?

Then he passed around his products.

I actually held a RAMbow in my hand. I started to shake. This was all I needed? This little thing?

I put in an order for three of them.

ClikCloks, too. What the hell.

Why the RAMbow, after so much procrastination? I had five reasons. I could feel each of them stick me as I turned the board over in my hand.

1. It takes the 100A to 896K, rather than just 832K. Actually, the real number is something like 917K.

2. It comes fully populated with the nine one-megabit chips — the latest and greatest. No chips to install or buy or bargain for.

3. It requires no adapter.

4. It is compatible with the B, in the event that DEC ever decides to sell B mother boards for something less than $1000.

5. It was under $400.

Okay, but what's the story on the adapter?

Well, it seems that for any 100A to go over 256K, you need to remove the 8088 from the mother board — known in other species as a lobotomy — and attach it to an adapter that contains the wiring to access the expanded memory.

RAMbow gets around this: Suitable Solutions includes a new 8088 with the board. They call it a cable. $20. They call it a cable because the 8088 has a few wires epoxied on top of it and soldered to a few pins on one side. These wires plug right into the memory board.

So, you could call it — technically — an adapter. But you get a spare 8088. Great for conversations with the easily impressed. And, boy, aren't we all.

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RAMbow: first megabyte

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But how tough is it to remove the old 8088?

I did it to three machines. Two of them yielded to my persistent screw driver just like the installation manual said they would. The third didn't. Turns out that 8088 was actually soldered into its sockets. This is a manufacturing defect, so DEC replaced the mother board, which was "out of rev" anyway. I couldn't have installed their memory either, after all.

So you might say, if you can't install this board in your Rainbow, there's something wrong with your Rainbow. Which, if you have a service contract, may stir your blood.

I confess I used a little Tweek (Stabilant). I keep reading rave reviews in Byte magazine's Chaos Manor column by Jerry Pournelle. Of course, immediately after I got hold of it, the Canadian manufacturer has a letter to Byte published in which the generic name of the stuff is revealed and Tweek shown for the repackaging it is.

Anyway, after all the soldering trauma, I wanted to know these babies would slip right in. So I brushed some Tweek on them.

The installation was quick and painless. Not quite as easy as that 192K board, but as close as possible.

How about software?

You should know that the only versions of the operating systems that support that much memory are CP/M-86/80 2.01 and MS-DOS 2.11. The installation manual says as much.

I found out that CP/M-86/80 2.0 will in fact access the expanded memory, but you can't cold start the Rainbow with it. You can cold start the Rainbow with MS-DOS 2.11 and then warm start CP/M 2.0, but you can't cold start 2.0. RAM parity error is reported.

I haven't run one bit of software that has had any trouble with the new RAM. I ran stuff for CP/M-80, CP/M-86, MS-DOS, compilers, word processors, public domain editors, communications programs, spellers, spreadsheets, you name it. Everything ran fine.

In fact I nearly forgot to do this review because the board is so transparent I didn't notice it was there.

Which is how I like these things to go.

What can you actually do with 917K, besides brag about it?

Laugh at people with fragmented hard disks.

My Multiplan files show 100 percent free when I load my big spreadsheets. That's funny.

I finally got to use SmartKey 5.0D with an application program. There was no memory to use it with in 256K — except WordPerfect, if you only wrote letters with it.

And I found that I could configure WordPerfect to run very, very nicely by copying the speller to a RAM disk, loading the .SYS files to the same RAM disk — for printing, mainly — and loading the whole program into RAM with the /r switch. This leaves both drives free! So the Thesaurus (little used good luck charm) goes in A, and my data disk in B.

I've even found it worthwhile to copy my database files into RAM disks.

Noted briefly...

By Russ Mosteller

About the right DOS

A pamphlet, available for about $5, summarizes all the MS-DOS commands from level 2.0 through 3.2. Its title is simply *MS-DOS Commands*, and it's written by Van Wolverton, who also wrote *Running MS-DOS* and *Supercharging MS-DOS*.

It's an inexpensive reference for people who may be running MS-DOS 3.1 but don't want to pay $20 or so for a detailed DOS guide. It's available at Fry's and at Computer Literacy, and probably many other places as well.

DEC in perspective

MS-DOS disk 72 in the Silicon Valley DEC PC Users Group library contains some articles circa 1985 and 1986 from Infoworld and the Wall Street Journal about the Rainbow's demise as well as several DEC memoranda rebutting the articles and trying to reassure DEC customers.

The most insightful article may be one that suggests that the difference between DEC and IBM is that DEC is run by engineers who graduated from MIT while IBM is run by graduates of the Harvard Business School. (The person who wrote the article holds degrees from both institutions.)