

Episode 1: First Week Update

Since the first episode was posted on October 1, 2022 I've made a little bit of progress getting the hardware located, out of storage, cleaned up, and working to at least some degree. Much of this has already been posted in the form of video, but a text description of progress (and lack thereof) seems like a good idea at this point.

1. The Wright model 2600 keypunch is "up and running" with a thorough cleaning and light coating of oil. Since this machine is purely mechanical and human powered, it works as well as the day it was built. Using the Wright keypunch for entry of simple numeric data is a breeze and no more difficult than using a manual typewriter. Likewise, for entry of alphabetic information and punctuation, it's a royal pain in the ass since achieving multiple punches per card column requires looking up the correct code while simultaneously depressing the appropriate keys.
2. The Documation M200 card reader powers up without catching fire. That's the best status I can report at the moment. Internally, the suction line connected to the blower that operates the card picker has degraded to the point where there IS effectively no vacuum present. Also, the solenoid that operates the vacuum picker is inoperable for some reason. Another problem is the "black box" code conversion circuit is inoperative due to capacitor leakage and a truly nasty looking 6-volt battery that operated the buffer memory. Even if I get the card picker working, the output is going to be limited to the 12 data bits and a 13th "strobe" bit that indicates the presence of "good data" from the photoelectric reading station. Repair of this item will be necessary if the "real" card reader is to be used with the system
3. The "modern" Epson scanner works well enough at high-contrast scanning of punch cards to read them using a Python script I located online (not my work.) The problem with scanning cards and "reading" them in software is the prolonged time it takes

to get a scan of the card and the post-processing delay. For a limited number of cards, this is not an issue but it's not at all like the "good old days."

4. Punching and reading tapes with the Fanuc / General Numeric paper tape machine works very well with the laptop. If necessary, I can punch & programs and data on the Fanuc using any computer with an RS-232 port. It's one of the most versatile machines I've encountered, and the speed and noise are most gratifying.
5. I haven't had the heart to pull the IBM 24 keypunch out of storage yet. Since my abortive Retrochallenge attempt at restoring this system ten years ago, it's been collecting dust and serving as an oversized conversation piece. I did manage to find replacement vacuum tubes at some point, but the selenium rectifiers are apparently unobtainable. I'm also terribly unqualified to trouble-shoot or re-design a machine that uses 150-volt logic levels internally. Building a replacement power supply might be an option, but it's not one that I've seriously looked into.
6. The "mainframe" I intended to use is in much worse shape than I thought. My first choice was a small General Electric machine (a DEC pdp-8 internally) that formerly controlled some pretty impressive machine tools, but this might have to become a pdp-11, VAX, or even an Alpha depending on what I can get running before the month is out. Sadly, I don't have any "big iron" systems from IBM that were configured to eat punch cards or tape.
7. On the software side of things, I've got some very rough programming done to do things like code translation (Hollerith Code to ASCII and such) and grab the data stream from the reader. This various small programming projects will be essential if I'm going to submit complete jobs from cards and tape. I'm sure my intended audience doesn't want to see a bunch of Unix / Linux scripts executing as a form of entertainment.
8. Finally, I need to get a line printer running so we have period-correct output to show for all this effort. I'm thinking that a DEC re-badged Diablo Hy-Typer might be just the thing with its staccato rhythm and photogenic typewheels madly spinning about.

So, that's my progress for now. We'll see what actually works over the next 25 days.