

No. 283: A PLACE FOR YOUR OLD COMPUTER

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I need your spare units to rebuild them and either give them away or auction them online or at Ozaukee Radio Club meetings. Proceeds are shared between OZARES and the ORC Scholarship Fund, both worthy places to donate the funds.

How do I rebuild them? First (and most important to the donor), I wipe the hard drives of all partitions and data, so that the drive reverts to the same condition it was in when it left the hard drive factory (except for ensuing wear). When finished, no one (even including unnamed federal government data laboratories), can restore any data on that drive.

How? I use a software program that changes the first bit on the drive to 1, then 0, regardless of what it was before starting. Then it does the second bit, and third – up to the 8th, and those 8 then represent the first byte on the drive. The program then continues with the next byte, and so on, to the end of the drive. In the case of a terabyte hard drive, this mean one trillion bytes or 1024 gigabytes or 1,099,511,627,776 bytes (8 times that for the number of bits). Since it changes each bit to a 1 and then a zero, that means double the number of actual changes. Then, when all done with the last bit on the drive, it goes back to the position of the first bit at the beginning of of the hard drive platter and starts the whole process again, until the drive has been completely done again. Then, it does it a third time. Yes, this takes a lot of time. I usually run it overnight or into the next day.

That more than takes care of any old data on the drive, including magnetic bleeds to the left or right of the normal tracks written by the write heads. If the drive survives that whole process without errors (all are reported to me), it can be reused. If it does not survive, I disassemble the hard drive, separating the ferrous metals and aluminum into their respective recycle bins. I save the magnets. The point is, your data is unrecoverable.

Then on to the remainder of the computer. Everything is physically cleaned – all dust bunnies and dirt are removed from the interior and exterior of the unit, along with all stickers. Peripherals are checked and determined to be in working order (DVD drives, USB ports, and so on). If there is room and my stock has appropriate memory sticks, I add them. Then, the drive is partitioned and an operating system and other software is added. Currently, I add Linux Mint Cinnamon version 20.2 (nicknamed “Uma” after a Hindu goddess, as mentioned in my last article). This version of Linux also includes Libre Office, a Microsoft Office-compatible version of Word, Excel, Access and PowerPoint plus math formula and drawing software. There are actually thousands of

additional programs (ham programs, too) for new owner may download and install, including programs to run Windows programs within Linux, or to install Windows itself within Linux.

The result is that your old computer will have a new, useful life. On the other hand, if it really is too old (just a 32-bit machine), or the motherboard is not working properly, I separate the metals, circuit boards, batteries, etc., and take them to a commercial recycling center. Any proceeds are donated by that center to a local school. Recyclable plastics go in my household recycling bin.

So how does all this happen? My physical and email addresses are on the header of this article. Drop off your laptop or desktop (keyboards, mice, cables and other peripherals are OK, too, but only modern, working monitors – no CRTs). A sticker with your name and call would be nice on each major piece. Email me first if you want to let me know stuff is coming, but this is not absolutely needed. Just drop off by my front door. Do your bit (or byte) for the ham community and the environment. Happy Computing!