

THE COMPUTER CORNER

No. 217: An Offer and a Request

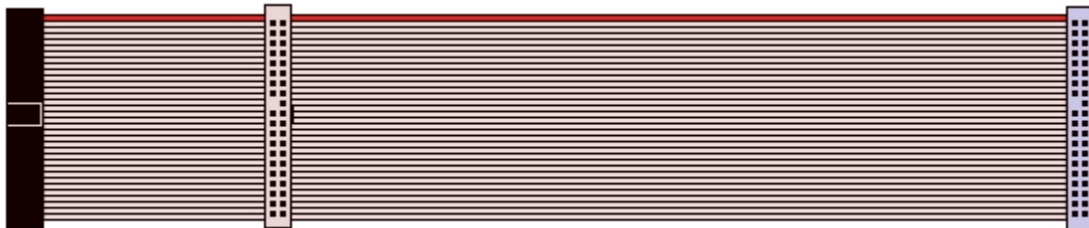
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First, the offer (for ORC and OZARES members only). I have a number of laptop hard drives that are doing no good in my "laptop hard drive" storage box, and I would like to find a home for some of them. Have an old laptop with a 20 or 40 Gb hard drive that you would like to install Linux on as an experiment? Perfect. I can give you an 80 GB SATA drive that has been wiped clean of all files and partitions and is ready to go. It even has been prepared with a fresh NTFS partition, just perfect if you want to use it for some version of Windows. Of course, a Linux installation will destroy that, unless you want to make it dual boot, which is just fine.

So, OK, I prepared those drives by pulling my own Linux hard drive and substituting each one long enough to wipe and repartition it. But, I do not currently own a laptop that uses IDE drives. If anyone has a junker that I could use to wipe and reformat IDE hard drives, I would appreciate a loan or gift. That is part of the request.

The same with non-laptop drives. I do not currently have a desktop that I can use for wiping and partitioning the bigger, non-laptop drives, and I have some waiting that are up to 1 Tb in size! If you have an unused desktop that you would like to donate, I promise to give a proper burial (recycling) when I am done with it (or I will return it if you like). Just let me know.

Well, I talked about SATA and IDE drives. Regardless of whether they are tiny laptop models or larger desktop sizes, they are different from each other in their cabling and contacts, and in the way they handle data. Look at this cable.



The drawing above shows the older IDE (Integrated Drive Electronics) cable from a desktop machine, and a laptop may have an identical cable or have a couple of extra wires for power (or the hard drive may plug directly into contact holder inside the computer). This drawing shows a 40-wire cable; 80-wire cables are more common now. Actually, these are not really called IDE cables and hard drives anymore. IDE describes that the hard drive controller is on the hard drive, but that is the case for all hard drives now. Rather, since the introduction of SATA drives (definition later) in 2003, the older IDE drives and cables began being called PATA (Parallel AT Attachment). These are definitely outdated technology now. The pins on the back of a PATA hard drive match the holes shown at the right end of the cable above.

The newer SATA hard drives are different. Take a look at the next photo.



2.5-inch SATA drive on top of a 3.5-inch SATA drive, close-up of data and power connectors

This photo shows the back of a laptop hard drive sitting on top of a desktop hard drive, both with the gold pins of the SATA (Serial ATA) cable connectors exposed. These use serial technology to send data to and from the computer, hence the use of only a few contacts (7 gold lines) on the left for data. In the older (PATA) technology, data was sent using parallel wires, hence the presence of at least 40 conductors in the cable shown previously. In serial, data marches in single file down one conductor. In parallel, the bits march side-by-side, requiring a lot more conductors.

Both of these illustrations are courtesy of Wikipedia, where much more information is available. So, give me a yell for a loan or donation. And, as always, Happy Computing!