

1530 DATASSETTE UNIT

Press play on tape



After the birth of the home computers (ignoring the very early, very rubbish and very expensive late seventies), it was common to find the permanent storage solution to be external to the computer. Commodore sold their own branded solution, Sinclair relied on users finding their own.

Since shiny 12cm discs had not yet been invented, most home computers came with or required a cassette recorder. Commodore called theirs the C2N or was it the 1530? Well they could never decide...but essentially this was a cassette tape recorder which would load your games and save your high scores. You could buy 15 or 30 minute cassettes especially for the job or you could even go to Micropower in Leeds and pickup their failed/returned/old game cassettes just as cheap.

The C2N transferred data at a rate which today is hardly believable – 800 bits per second*. If the same mechanism was reading a full Blu-ray disc – this transfer rate would take 17 years. Although painfully slow in its day, it would actually only take about 15 minutes to load some games, maybe 8 minutes if it didn't use all the available memory.

A single 30 minute cassette would typically store 200 Kb of data. If you were to fill a BD-ROM with cassette data, you would need 250,000 cassettes (and a lot of spare time).

Storing data on cassette was cheap, but it wasn't cheerful. It certainly had 'character'.

Because of the linear (serial) nature of the cassette there was no direct access to data. Users had to keep a note of where on the cassette the data was (a mechanical counter measured where you were on the cassette).

Unfortunately the tape can and did stretch, plus the counter was never at all reliable in the first place. So finding a game save or high score or even the second part of a game was quite an art. Finding a game would fit in memory all at once and not require loading of additional data mid-game was quite a joy.

That said, there was things you could do. First note the on screen help: The flashing lines you see when a game loads is only seen when data is 'there' on the cassette so what we did was hold down fast for-

ward and play at the same time, so it kind of registered on screen, but also went fast. We probably screwed a few games this way...but cassettes are so vulnerable to damage from direct heat/sun and magnetism that you never really knew why a game would not load anymore.

Now stand up you Speccy owners and take a bow. Because you had one further problem with your tapes...you had to adjust the volume of your cassette player in accordance with what you figured would be about right. Nice! Between this, the overheating machine, the 'dead flesh' keys and interfaces which fell out the back of the machine crashing it...not to mention the dodgy colour scheme...well you had a lot to put up with.

One thing to remember is that although disk drives were available at the time, they were very expensive in comparison. We always knew it was beyond our means so never bothered with them. It's interesting to note that although the 5¼" disk drive for the C64 was as big as your house, it actually only transferred data at a rate of about 5 times faster than cassette. Add to this the reputation for being very noisy and the fact that most 5¼" floppy drives would be say 300 times faster than the cassette – it didn't make a good argument for purchase. In America however—the disk drive was launched with the machine and had a far far greater attach rate.

TRIVIA: Apparently it was feasible to control the Disk Drive CPU separate to the main CPU thus allowing you to control the drive head and therefore the clunky noise it makes. So of course it didn't take the musicians long to realise they could play music through the Sid chip and use the disk drive as an additional instrument. Oh how they must have laughed!

* Reasonable people Commodore! As did all cassettes in its day, the cassette data allows 1200 bits per second transfer, however it requires a start bit and 2 parity/check bits so although you transfer 1200 bps, you only fill memory at a rate of 800 bps