beginning with the location $n+m-1$ and retrogressing until location m.

Instructions 93, 94 are 20 bits long and the others 40 bits long.

There are nine tracks on a magnetic tape, five of which are for recording information, and one for parity check and the rest for timing clocks.

Each bit in the core memory is recorded longitudinally on the tape in the form of a single-error correcting code of three bit length. The code can easily be decoded by merely giving the output as the majority among the three bits.

The counter to record the frequency of error corrections is equipped for the purpose of supervising the degree of degradation of magnetic tapes. At the end of each block a longitudinal parity bit is automatically written in each of six information tracks.

A magnetic tape of 2400 feet in length can accomodate about 30000 words, each of 40 bit length.

The frequency of error correction is observed to be one out of 10^6 under the operating condition.

Tracing Experiments and some Considerations on the High-speed Carry Propagation Circuit of the University of Manchester

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One of the authors had a chance of visiting the University of Manchester and being informed of their high-speed carry propagation circuit in 1959. Upon his return to Japan the authors traced the work at Manchester, and found the circuit very satisfactory.

Micro-alloy junction transistors were employed in the experiment, and it turned out that the transistor serves as an electronic relay with contact resistance as small as three ohms and switching time less than 100 ns.

Possible applications are shown also on parity checking circuit and on high-speed shifting circuit.

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