

digital INTEROFFICE MEMORANDUM

DATE: 5 May 1969

SUBJECT: April 24, 1969 PDP-11 Design Review Meeting

TO: PDP-11 Design Review Committee FROM: Jerry Butler

Those Present: A. Kotok, D. Dubay, G. Fligg, H. Spencer, R. Cady, D. Best, R. Pyle, G. Saviers, H. Godfrey, I. Morris, J. Butler

The addressing flow chart was discussed at length. Several changes in inequality signs were noted. The Committee asked Roger Cady to supply coding examples showing the utilization of the various addressing schemes. Roger was also asked to supply the software simulation routines for the extended op codes such as Multiply.

The Branch instructions were discussed. Roger was asked to supply information on the condition code settings as a result of the Magnitude Compare instruction.

Alan Kotok provided a chart of the desired Branch conditions and noted those which exist in the current instruction set.

| | Branch | Complement Branch | Exists | |
|----------|--------|----------------------|--------|-----------------|
| Signed | < | ≥ | ✓ | |
| | ≤ | > | ✓ | |
| Unsigned | < | ≥ | ✓ | ← Doesn't exist |
| | ≤ | > | | |
| Either | = | ≠ | ✓✓ | ← Exists twice |

Byte addressing was discussed. It was suggested that byte addressing to registers should accumulate word (2 byte) results. It was further suggested that all byte arithmetic could be word arithmetic (i.e., byte with sign extended across MSB positions).

Next meeting, we will cover the rest of the instructions and start discussion on I/O.

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