Feb 4, 1959 Meeting Math. Planning Group

Sweeney	Carlson	Hoyt	Bill Woods.
Kolsky	Wells	Walton	
Johnston	Lazarus	Frank	

1. Pictures of machine
2. additional I/O equipment — for making plans.
   (Lazarus) uncertain as to I/O now
   contract implies 729 II.

3. Test prob. when?

   June
   aug — system test
   Nov — disk "imperfect machine — incomplete (not full memory).
   Dec [maybe 1/2 shift] per day. → 4 hours
   shakey intermittent is worst
   partial machine can be lived with.

→ one month in LASL to get reassembled
however Debugging time will be squeezed out to make delivery.

question of 704 time in Poughk. (709?)

— Training Period =
Poughk. or LASL

— an advanced programmers course in Pough. -- ?
1 week in May or earlier.

Tape's
8 per Tape adapter
— may have 2 densities on some tape (control unit.)

console.

2nd day Feb 5, '59 LASL

question: exponent underflows — interrupt does it drain look ahead? one instr - fixup - ?

lost carry ... etc.

important case not to loose all of overlap.

mpy

would want spz at all { -0000 ← is sufficient / -111111's

or clear mantissa to all 00's & cleaner sign.

to memory spz? — must be same

— or mode on exp. underflow — "allow", "not allow" — on Numac II

→ ask about testing if acc. is zero before start. skip mpy — ---

question - residue in index adder or how is checked?

divide: zero / zero no interupt,

can't test on div interchange.

→ does accumulator change on zero/zero? can test then

rem -- { no not physically changed

Ralf micro sec, mem

—(Bergt)— would rather have large Mem 2 μs. ∧ do not really fast anymore

(Frank) wants ½ μs mem —

Sim – doesn't have optimized codes.
– doesn't represent actual machines.

(Roger) – ½ μs mem. is valuable – could be put on another machine later.
— can get 2 μs mem later anyway —

(Frank) additional mem. size not so important already adequate

(Bergt) large mem does save lot in ~~exp~~ault, proc.

(Roger) – rights to ½ μs mem is traded for money + mem.
– would like to see comparisons of other deals.
{ if it is only 5% effect – should keep.
but not convinced it is only 5%.
factor of 2 would be worthwhile, to keep.

Table look up – data & code in fast mem ? ----

AV ~~xxx~~ times up 50%

FM times " 50% or more.

Life time ~5 years modifications in interim?

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complete compilation — not normalized now

- geometric load
- rename
- progressive indexing

} still stand should

Test Probs:

- question: what is machine going to look like when.

Schedule: can't put on probs on partial machine.

- a series of probs.
  - some are copies of 704 - exact duplicate.
    4 probs to test overall performance
    some diagnostic types - ordinary with & without interrupts.
    - bit patterns,
    to check that machine operates as expected.

→ no classified problems.

(Bkgd)

- 2 + dim codes
- 1 2-Dim code } neutron diffusion
- 1 3-dim code } single precision f.p., disk

Problem suitable for news release --- ?

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auto coder ff pt. Baland Henrie - (Loyaux & Woods) diagnostics (Committee B. Frank)
" Circe - (T-5) Belch (B. Fl.
unnorm f.p. (Gene VFL) speed. Monte Carlo - (B. Woods) I/O & Math Subroutines (T-1)

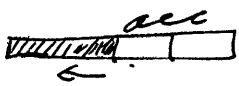
total no. of machine hours needed ?

if machine is running 100 hrs should be ample.

200-300 hrs.

--- unattended operation — 24-36 hour blocks.

VFL compare field command two types ?



on field only as well as on all acc.

→ check into this ?

Noisy mode:

→ Dolf: get zero matissa indicator on complete cancellation

check on how this is zero is tested.

objections: (1) Rogers not soon enough warning.

(2) Bagt not introducing statistical noise

wants less warning — a rounding type procedure.

100.11
100.11
101.11
101.11

Tin bits propagation.

A on adds only is O.K.

may be on one op. in calc, — may want twice ? not possible.