

# Meeting at LASL

July 11, 1961

C. Voorhees:

B. Carlson: -- challenges in programming & measured end,  
-- hope progress toward organization

B. Porton -- history -- 14000 pop, 4300 in school -- tours, etc,

attendees:

P Herwitz - IBM

G. Grover -

C. Falkner

B. Cox

J. O'Neil

G. Han

-

TC Chan

S. Pross

Shank - IBM/Code

Orland Hagg - CIA

Collyer

Graben w

Reith

Bedn.

Snyder - DB

Benson

Rymer - AT&T

-- LRI

Armstrong - MIT

Price

Ewing

Manfield

Campbell

Kozick - LASL

Vandy - Williams - ANO

N. Hardy

Thomas - CIA

Coplay - FBI

E. Woakes,

acceptance tests March 5-7 -- preshipment reliability test

procedure: 15 test codes by LASL

- mostly debugged -- would run,

used manual stop watch.

-- listings, decks, films - mutually agreeable.

3 5 min

6 10-15 min

1 25 min

2 40 min

3 60 min

4 diagnostics

rest physics,

- tape tapes

- interrupt tests

- VFL

- "odd"

A. Citagovics

1. watched maint

2. ~~tests~~ waste time due to machine error,

3. No time - neither for or against.

4. useful { set-up  
run

reel - output

12 hr a day - 5 consec days

8 am 4 hours no halt. - odd  $\frac{1}{2}$  hr increments } 20 min notice to proceed  
5 min to cancel.

~ 6 to 7 hrs first period -- 506 second.

one day 12 hrs, straight

3 IBM in machine room,

- dispute committee, initial entries,

waste time (5% tolerance)

use min running time called "base time"

any time over 105% was called waste

Pok	81.6%	87.1
	95.4	
	96.7	
	88.5	
	84.1	
	<u>89.9%</u>	

at LASL Test 3 days 17 1/2 hrs, last day

96.4

95.1

99.2 - 17 1/2 hrs

97.2%

ran another 20 hrs, later 73.2%

-- 2 spokesmen

LASL, IBM

↑  
CO

↑  
could repeat only

for machine error choices:

take 1. unsched maint

2. continue prob. - return from dump, "

3. standard wrong claim (revised)  
- return on run time

4. put on inactive list for 1 day,  
(30 min penalty)

(C. Faulkner) using dispatcher-operator similar to 704-7090,

prob. programmers - run own probs, -- keep away from engr. consoles

- mostly use on line card reader

& on line printer (can use #01 if desired)

- utility prog (1) Primitive Package LDT

- (2) SIMP (interrupt + I/O), (3) print, (4) Bin punch, (5) Dec loader  
fl pt + V fields only.

monitoring on line  
Problems:

- large amt of time getting on & off machine: 30 sec to 4 or 5 min
- I/O assignment fixed
- personnel -- controllers, <sup>reiner dispatcher, tape librarian, "floating consultant,"</sup> prob programme
- Training: 7030 prog class, reliability codes, MCP & Stray II studies,  
later -- spool input & output MCP -- show operators console,  
cut down loss between jobs -- load & go package -- symbolic I/O -- imp --  
reduces immediate decisions,  
- about 20 programmes now --

(E. Voorhelt)

8 hours per day for 1st 6 mos.

- 8 weeks have been run to date

good time (excl sched maint) -- incl power failures not TBR

week of 5/15 73%

5/22 52%

5/29 92%

6/5 84%

6/12 88

6/19 91

6/26 70 (1 bad day)

7/3 90

(one 10 1/2 hrs at 100%)

Well balanced from reliability point of view  
Dist - very good design rebuild  
HS exchange - some trouble

- Tape UK's most frequent error

Machine errors -- very common also -- usually can overcome quickly

I/O units dropping out.

I/O console "noise" -- some trouble -- definitely failing,

false errors -- in majority

distribution? -- worse later in day, worse end of week,

engineering changes -- going on all the time --

Delivery Schedule & configuration.

	Company & place	Power on Date	Memory	No. Disks	No. Channels	Special Modification	# 1401's
1	LASL	Apr 61	2-16K, 4-16K	1 23	8 - 1 pr, 2 CU's, 1 pu 3TCU 3 tapes { 5 3 4		2
2	LRL	Oct 61	2-8K, 4-16K	1 2?	8 - 1 pr, 1 cr, 1 pu 4TCU { 4 4 4	(reduce to 3TCU's after death arrive, { 4 4?	1 2?
3	AWRE	May 62	2-16K, 4-16K	1	8 cons, cr, pu, pu 4TCU { 4 tapes	yes - extra LAAR, etc., (7 items in package) in p. package,	1 2
7	CEIR	Nov 62	2-8K, 4-8K	1	8 cons, cr, pu pr.	yes (7 items)	1
8	(1) Los Angeles (2) Boston	Jul 63			4TCU { 24 tapes		or more
5	Weather Bureau Wash DC	June 62	2-16K, 4-8K	1	8 cons, cr, pu, pu 2TCU's 8 tapes 24+4	yes (7 items)	2 3
4	NWL Dahlgren	May 62	4-8K? or more	1	8 cons, cr?, pu?, pr? 2TCU 12 tapes	yes	2
6	MITRE Bedford	Aug 62	2-16K 2-16K	1	16 chan 2 cr, 2 cons pu, pu 3TCU (3 tapes ea)	yes +	2

IBM Kingston (K-3) (Kittawan later)	2nd quarte '62	2-16K 4-16K	1	16chan 1p 2ch 3 tpull as LASL 12 tps (8 unused)	yes	general
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H. Goldstein - G. Monroe -- official IBM repr.,

Business Meeting 8 groups involved (9 machines) - 2 meetings per year?

IBM distribution service? - or each send own,

proposed set has been sent out --

- need secretary, etc. --- minutes.

how much real sharing of codes will there be? --- ~~it~~

offer for distribution --- but not go toward standards,

check out time? -- help each other

Purpose:

1. Exchange of ideas + experiences
2. Exchange of programs - abstracts? writeups?
3. joint programming efforts
4. serve as advisory group (joint RPR 2)
5. basic standards

MCP, STRAP II, FORTRAN

Secretary?

P. Hertwitz Prog. Commitments

704-9-90 Package

704-9 simulator

Oct 61

almost ready now

STRAP II

Oct 61

MCP

1<sup>st</sup> q. '62

Un overlapped, compile & go.

SMAC

" "

overlapped compile & go.

FORTRAN

2<sup>nd</sup> q'62

-- product tested programs --

S. Prosser

STRAP II

- almost finished --- used simulator

12 K prog. --- plus tables, (to 32K)?  
~~96K~~

J. Hsia: MCP

Features:

1. Automatic Operator

2. Sys. Supervisor

3. Symbolic I/O

4. Hardware & Truxon I/O pseudoops

Interrupts.

Standard fixups,

Wait, Return, Return after maskable (RAM)

Suppress I/O, Release I/O.

5. Multiple File I/O (Spool)

6. Debugging aids: dump A to B, modal dumps, console

‡SCR - spool and read

(J. O'Donnell)

MCP 8K in core incl buffers, (25K)  
12K on disk

500 byte I/O constraint

Discussion:

ADF on stretch?

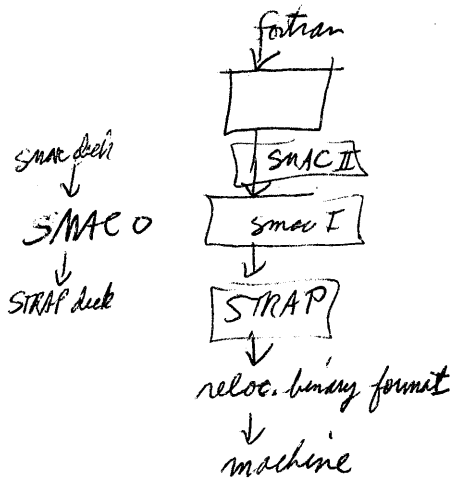
high speed tape system?

proposal: as a group write to IBM & ask answers

(J. Groun) Fortran

(1) way being implemented

(2) Which Fortran?



MCP controls linkage

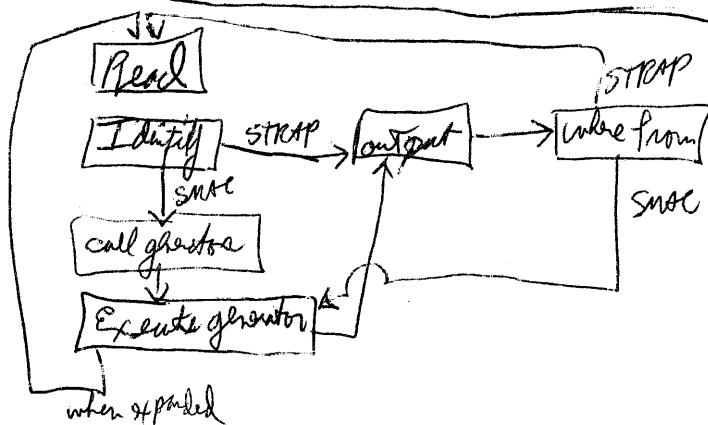
very open-ended

upwards compatibility Fortran II language (209)

new statements -- prelim manual available & (were passed out -- I didn't get one)

does not include complex math, & double precision arithmetic

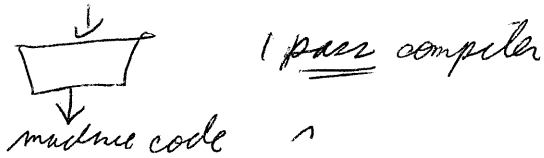
(Amal Ewing)



(Bill Mansfield)

LRL quick Fortran

Fortran statements



relocatable binary later

- certain statements must be in correct order --- dimension statements, etc
- redundant parentheses gives diff, programs -- no presweep
- memory to memory only, -- 1401 pre-edit
- 3 classes of errors -- (1) within statement - char<sup>error</sup> or syntax error - etc
- (2) next level -- consistency no. of parens, etc,
  - all variables defined
  - all statements defined



Wed. July 12

Business centering

- permanent secretary? CO-Chairmen? last 4 mos. -
- IBM, AWRE, ~~AWRE~~ NWL can't
- 1 rep from each installation

consensus of opinions

- influence new developments in advance
- meetings - every 6 mos.

Prog. thru '62 maint. only by end '63

→ MCP Meeting <sup>1st week</sup> Aug '62 Psychotropic

LASZ(1) will distribute minutes of this meeting

(1) impl. recommendations from this meeting

(3) see another meeting is held -- assumed at Greer -- Jan '62?

& make recommendations as to how it works.

CEIR will distribute information - abstracts & correspondence.

for 1 year

IBM will continue to distribute directly to branch offices...

2 notes for CEIR?

(Balke - LASL)

2 classes of Macro ops

-- built in STRAP

-- special can be added

formats,

"Black box" approach

no superfluous summation  
of instructions

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(G. Lewis - LASL) STRIPE

STRAP I of codes

XM "index multiple"

Data Rez. DR(N, 9, 4, 3)

SAM | DRG(

generalized -- refers to several DRG's,

XMG: A, B, C, D

Backspace marker,

not in IBM's manual

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(T. Jordan) Math Subroutines

integers - 18 bit (pos V field)

functions

contains

I

II

linkages

integers

Matrix

$AX=B$

(SEVA)

P. Schenk - diagnostic prog,  
all units simultaneously ...