

8/31/73

With Bi-level Truth

Shift Instruction (Regt#1) 1523 NS.  
 $\approx 1.5 \text{ usec.}$

Control      1125 NS  
limit      1125 NS

logic instructions }  
move  
L-H  
clear  
set  
add I  
Sub -I  
Direct Fetch /otre

1523 NS

Snoopy 529.6 NS  
Cycle.

Get  $\rightarrow$  Reg      1721 NS

Put Byte      2052 NS

AND  
OR  
Add SP  
H  $\rightarrow$  L  
XOR  
adcl  
sub

1721

Indirect byte/hw)

Get byte } 2052

Get and Add }  
Jumps      1920

Art McCarthy -

Monday → Armonk -  
Tues to Thorman, Dei - n  
Paul Benson, - Money  
Rear p types & P. Business plans  
allen Crowe  
3:30 PM to 5:30 Dens first.

— Joe & Paul - Roy ~~====~~

Rooms ==

Thursday - Atlanta - Opel -

Tues —

Wed → Atlanta

Thurs afternoon to Opel .

On the road again

9/10 AA 9:00A 14 ar: 5:18  
~~7:30 pm~~ flight from La Guardia  
9/11 9:20 pm Delta 583

REA

Money ok - Boca wants Head count & money .

Bill Morrison 372-7349

Paul Friedl H phone 408-867-0408  
Contact in White plains.  
Rye Hilton edm out to John opel.  
- Post Chester, Conn. 254-3283  
374- Peter Robohm, Mys Scientific Center  
Sect. Charlotte Smeinoff, 254-3283  
Meet in DP  
Get together Monday nights

9/11/73 Allen Krouse  
Norma Anderson

Jack Naughton, Director Advance Market Div.  
Bizzell Mahanti, Adm Market Div Off. of Director  
Steve Veheloge Director DP Marketing planning  
Dean Phifer VP mktg  
Buck Rogers VP. DP

Benson  
Thornton

File - like 1130 capacity. (Input from Paul Friedl)

page = virtual storage.

256 byte page - up to 1K byte pages.  
Access 30-40 ms OK.

Data rate as fast as Possible.

Hard disk is paging disk -

One<sup>or more</sup> fixed heads plus random access 64K

Quick ~~over~~ manual access on soft disk.

Disk must overlap with ~~other~~ I/O ??? 000

- YES -

Would like 128K bytes under fixed head -  
Consider larger hard disk.  
a token size soft diskette -

Consider 100 tracks / plte  
3000 bPI  $\approx$  6 inches / track  $= \frac{2250}{818000} \approx 2000$  bits / track

$$2K 100 = 2 \times 10^3 \times 100 = 200K \text{ bytes track}$$

Now suppose disk is  $\approx$  5' diameter -

$$\text{Usable area} = \pi \times \frac{5}{2}^2 \times 4 \times \text{PI} \times 3.14 = 12^2 = \text{diameter}^2$$

~~9/12~~ 9/12 - 5430 - John Lynott

Dane 939-5305, 691

John Lynott -

We Tigan or Martronics head.  
access time - WC - 150-200 MS -

track to track - 15-20 MS.

64 tracks one side.

rotational speed 900 RPM -

mean =  $\frac{1}{4} \times 2\frac{1}{2} \times \text{PI} \times 3000$  bits / track -

John Fox 441-6319

Dick Harris - Shipped Monday -

Compact -

Mike  $\times 49.38$ .

Calico  $(52) \frac{1}{4} \boxed{\frac{3}{4}} =$

Compact :

$$\begin{array}{r} 1\frac{1}{8} \\ | \quad | \quad | \quad | \\ 10.5 \\ 11.125 \\ \hline \end{array} \quad \frac{3}{4} \times \frac{3}{4} = + \frac{7}{16} + \frac{3}{4}$$

Charlie, OPD APL Bigot

Chuck Bronscomb,

Jerry Antweiler

Jim Clippard

mp. Financial Planning

Wed  
Ray Sputz -

9/13 Summary of Weeks events -

Mon. 9/10 SF → NY.

Picked up at airport by Bill McCarty & Al Gensberg -  
installed equipment in Teek Marsonnig's office in Burbank -

Sys - up immediately - no problems -  
Waited for Paul Friedl - Received a b-7 just 9 - worked to 1.  
We went to Lemoine, came back and stayed with Paul until 12:15 PM -  
→ to White Plains hotel - Rooms occupied etc -

Tuesday - Member of Directors and various personnel see machine -  
Note: Get Demoal Secretary from June -

Tuesday

Machine specifically shown to

Dean Phifers, Corp. VP Business Plans

Buck Rogers, Corp. VP IBM Director Corp Marketing

Allem Krause, Director Division A J Sept 39 D.P. product group (39)

Jock Naughton, Director Advance Marketing

WC Benson, Controller, Group -

Don Horowitz, Director IBM Director plan integration

Bimal Mahanti, Dir. Mkt also office of Director

Very Pro API -

Steve Velsorge, Director Market planning -

Wed 6th Atlanta

Chuck Branscomb - Corp Tech Committee

Jim Clappier, Mgr. Financial planning

Jerry Ottmiller

Charlie OPD

Pete Curran

Thursday  
Harrison

Jack Reilly - VP, Marketing

John Opel Corporate VP 100-39 Dept 613

IBM Senior VP E Group executive.

Machine taken from Jack Reilly conference room to Regency Hyatt Hotel  
for demo to Opel.

Summary -  
1st demo.  
9/14/83

Bob Hennis,  
Jim Engh • 8-456-6151

9/26/73  
Jdg.

1800 RPM - 8" disk -

16 fixed heads — 5K bytes / track

We have to pay travel ~~and~~ costs -

Bob Howell, Rock-Making group X6213  
looked at Teflon.

→ OEM out of Boulder. > \$700-1000.

Call to Art McCarthy - He will pay travel  
of by Rochester file Engr for 2-3 days visit to  
Los Gatos - ~~Desert People~~ is ~~Deserters~~ Skimpy.

9/28/73 -

Conversation with Lou Stevens

Bo Evans had input from Mitchell Watson -

Bo very interested and will propose funding program.

Lou would like Fritz Wedmer to put together package to present to Lou - Bo.

Would like stand alone & portable unit.

Idg.

9/28/73 Art McCarty

Letter from Wayne confirming Scamp to next check ~~#1~~.

Mentioned Lou's conversation.

Vernon ~~Ricklos~~

Merlin ~~Ricklos~~ 456-6194

Merlin Ricklos

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10/1/73 Call From Lee Wilson.

Asked what is FCS & Annoc date. ?

Sharon

10/1/73. Call to ~~Old~~<sup>Emp.</sup> Hollerbach -  
Thomas Bolk - Paruk.

Education Industry -  
Want APL machine  
Basic  
Task Forces

E.

~~Reckless~~

Anderson, Paper, Evans interested.

Hal Marten -

Radke }  
Flagg -

Medical

Hettner

Bill Tripp - Product Test.

Dick Spencer -

Lee Wilson - Rock

Skyko.

10/3/73

Pete Toussaint 253-1794

dept B71 Bldg 965

Pough. SPD

Standard Component Forecasting.

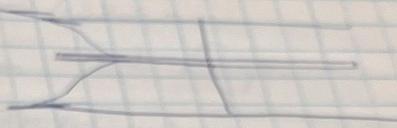
~~Ask Bill~~

Get package for Pete.

Our requirements for Scamp -

BASIC = Cost

10/22/73.  
With Roy Soya  
Sik Kee Au  
Bill Shute  
Emile Wagner



NCI head

3600 RPM - / 1800



3600 RPM - why?

Designer -  
Model Shop

25  
20  
140

} 10K fo 12/30/73

10K 80,000  
10<sup>4</sup> 50,000

5K  
10

30K -  
20K bits 15 10 300 KB/TS

1800 RPM, 20K B/Ts per inch -

= 6" disk -

production heads? 3 mil?

carries cores, mylar - remounted -

$\pm 12V$   $\pm 5V$  +8.5  
Machine to Machine interchangeability

humidity - mylar grows 3 mil in 24" disk

random orientation of tape grain -

Motor - platters - Spud V -

Vern Kendrick : 443-3812

$$155 \begin{array}{r} 4608 \\ 4609 \end{array} \times 2 \quad \text{PRINTER} = \begin{array}{r} \cancel{x} \\ \cancel{x} \end{array} \begin{array}{r} \cancel{\times} 1 \\ \times 2 \end{array}$$

KBD 1554609

order 4608  
4609

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Les Holmes 3584  
Chuck Tully 3714

10/3 HP 9830 - file.  
Electronic News 2.4, 4.8  
page 31

From Dell Hollenbeck

Dell in Boca Tomorrow.

11/6/73

KBD Design - Peter Vitter - P.R. prefers FNC  
BASIC ROS SIZE - Go with function key on right.

X  
.  
-  
+

FIELD MANT. - AIDS.

SIZE, PACKAGING

KBD Color - Letter from Tolentino - 10/29/73.

IND. DESIGN configuration & color 11/30/73 -

NEW NAME

(\*) DENNIS TO TX KEYBD CHANGES - TO RALEIGH.

BASIC KEY TOPS - FEW CHANGES

(\*) SET OF OBJECTIVES FOR JOHN STROEBEL -

TAPE - READ FAILURE RATES - FOR NORELCO.

APL - DO WE NEED MORE TAPE PERFORMANCE

3M DRIVE - VOLTAGE.

≈ 250.- INTERDyne (FOR 2/14) → MANUAL LOAD?

NORELCO

3M GASPHILIPS

2 IGARS?

BUNDLES BAHIA & IGAR? } P.R.

MFE

WEIGHT ESTIMATES

PS - 3 lbs

CRT 2

ECLET 6-12

CAS 4

KBD 5

ENCL. 10

Cables 2

CONSIDER REPAIR AGREEMENT  
FOR TAPE UNITS.

MAINTENANCE PROBLEMS WITH HI PERF TAPE. AS ~~APERF~~ <sup>throughaway</sup> VS "throughaway"

11/6/73

CRT

2 SOURCES

MIRATELL

IKIGAMA

LEGAL?

SIZE BOB KAY HAS 9" SPEC.

GAS PANEL FOR AIRLINES

5x7 1024 CHARACTERS - KINGSTON.

(BRIGHTNESS) ONLY- AND CONTRAST CONTROLS  
SCREWDRIVER ADJUSTMENT?

CE PANEL. YES FOR 2/4 MACHINES-

PIGTAIL FOR PRODUCTION MACHINES -

7/17/73.

Meeting with Jerry Jarvis, Don Moore,  
Pat Rickards, Chuck Galleria, John Strobel

Cut off of LOS GATOS DESIGN HELP -  
HELP ON FOAM COVERS -  
ID WORK HAS STARTED IN ROCHESTER.

JERRY: DOES NOT LIKE DETACHABLE KBD - CABLE?  
TOUCH SENSITIVE KBD - ~~PAPER~~.  
WOULD NOT ATTEMPT NOW - TOO SOON.

DON: PACKAGE MUST BE SHOCK MOUNTED.  
JOHN: MUST SUSTAIN 36 INCH DROP

Copy 3 ID letter for John S.

With George Price:

Typewriter - modification.

Copy of Set of parts? Ask John Lyrott.  
no documentation.

Ask John Geels for model part -  
Time frame, etc.

Pat suggests bringing 4 people from Hencais' shop  
+ to develop product?

In draftsmen

11/8/73.

With John Stroebel, Blayne Murray, Chuck Gelius  
Dennis.

- ① We will provide mind card for duleher printer attachment - 12/73
- ② Graphics will be completed.
- ③ They will provide lab supplies.
- ④ Will advise when parts are to be shipped.
- ⑤ Power supply to be sent to power group - Jerry has critical components & will start building.
  - a) power supply spike ~
  - b) 1.7% regulation for display & +12V.
- ⑥ 2nd machine
- ⑦ packaging
- ⑧ Talking tape - for John -

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11/9/73 -

Ed's input - Thinks we should send both machines to Rochester unless applications programming will continue here.