6/19/73
Suggest to Ray possibility of destributed power concept for scamp.

Consider:

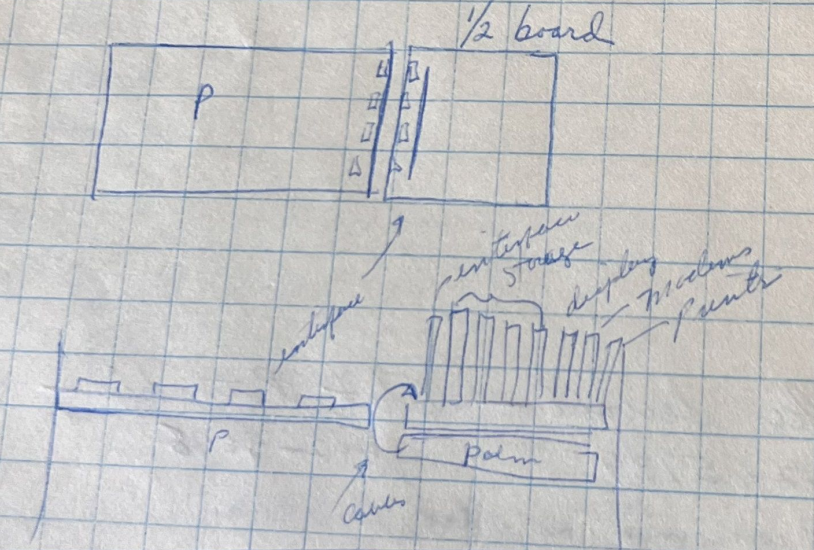
a/ each storage card would have its own +5 and +8.5 V supply on card — −5 Volt would be system configuration.

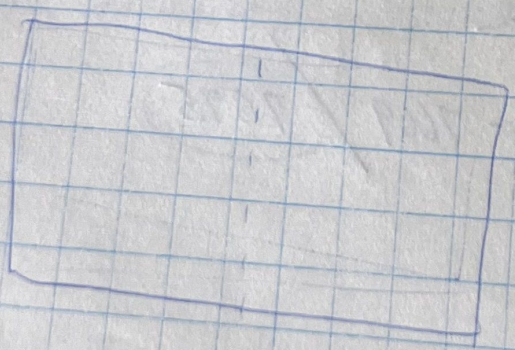
— Mark Silverman
— Bill Morrison — } Work Low Ruffino.

EMT Bi Sync — not same as normal hand shaking —

6/20 — Call Dennis:

Must get IPL ROS
display Character Generator



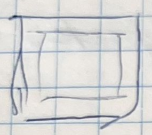


full planar

6/20/13

ALD's for Mini 12's — Chet will send to me.
Acoustic Coupler — Chet to try & get one set of Parts.
KBD - — got one.

Modular Compak Key -
SPST momentary - gold - Max I 10ma @ 12v.

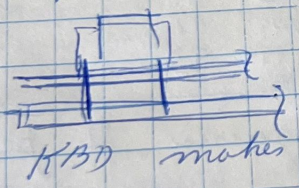


$5 module parts. Avail. 7/20 } no present users.
50¢ production.
We package. }

Assume.
~~Approach~~ Compak Keyboard with APL Key set + 8 function keys
$500 for Kbd
500 for package - } 60 days from input of IPT.
additional copies some costs.
We must do decoding -
2 Key roll can do, with metrik.
Key has 1 ms bounce.

need key button layout

Consider Compak KBD with component circuit board beneath -



} Untested approach.
contact on perimeter of PC board.

Modular approach requires pc area.

IPT to Earl Wood D51 / Bldg 061, Raleigh - $300.00

6/21/73 With Bob Kenz - 5418

Andy Kosieniek 5251 cost of arm test

Collen Kneale Ind. Design -

6591 John Greenfield (Jack -) Mech. Design -

$17 hr. 176 / 17 / 1232 / 176 / 2992

$3000 + travel

Not good design for TPA

4 mold design - 800 X 4 = 3200 for initial molds -
Model Parts ~~added~~ 100 X 4 = 400 in unit qty -
Mech. design $4000 design & travel.

1 fiber glass Mold design help - 800 mold 100 x 2 = 200 finish work. } $2000 + Model Maker

1 Wood model. Masonite

1 Mon month for Jack

Rochester Vendor - IBM Confidential OK -

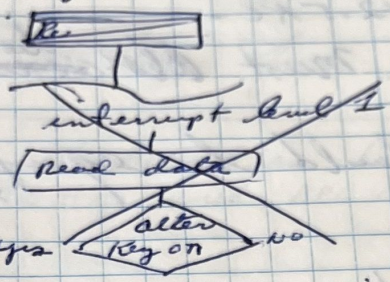
KBD:

6/2/93 Sky

Ask Bill Tuttle if we can do Get to Register & add output bus.

Do Keyboard function key branch like this:

Requires hardware byte assembly.

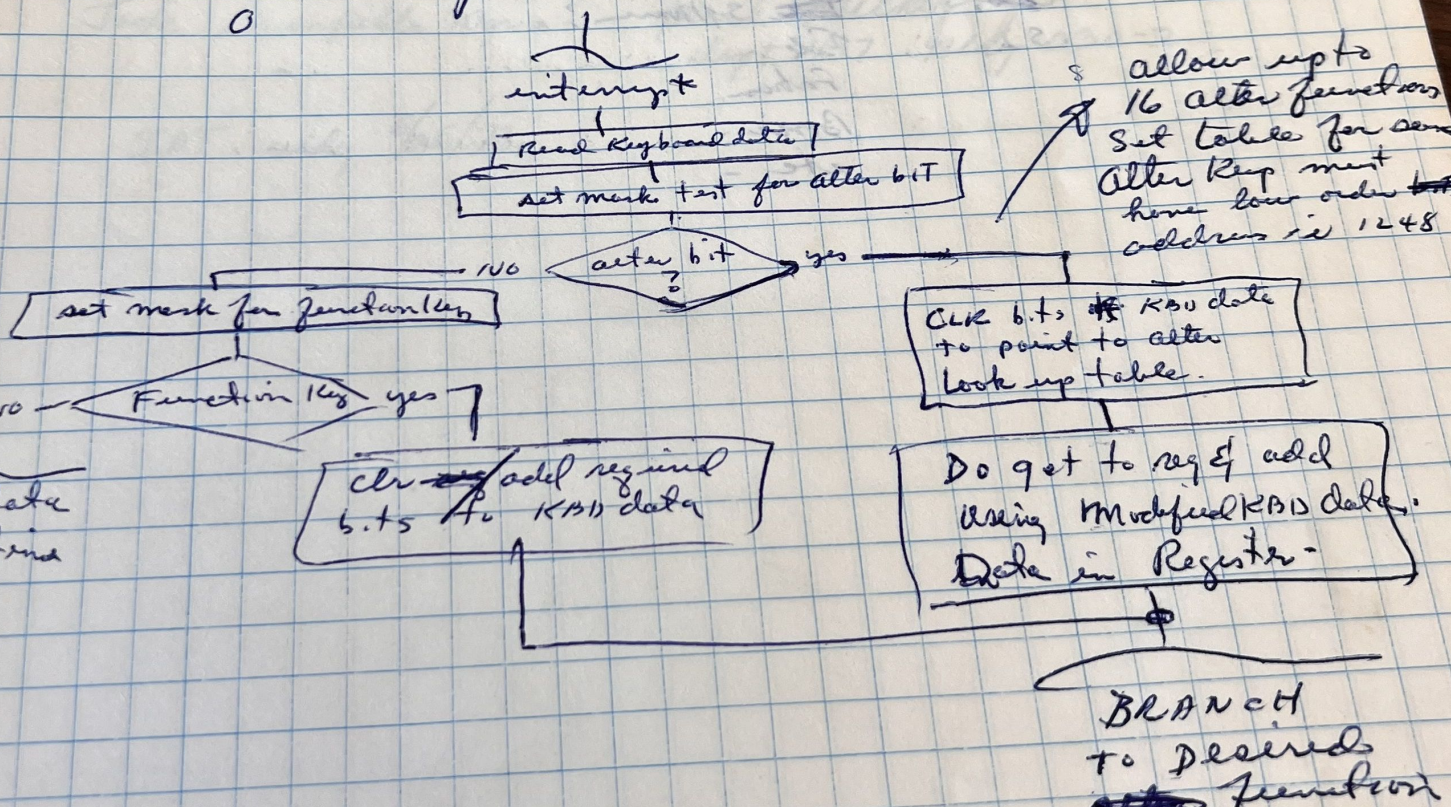


Byte 01234567
= DCBA8421

Consider scan code grouping like this: 54

lower case = one order of bits. low order 6 bits
upper case = seventh bit 1 of byte added as low order
function keys = < 16 = grouped within low order bits; in bit 4 or 3

This would provide the following branching technique



Maple Block 4 socket 816696

Henry Jones
2003

3740 Planar board -
assume .010 center.
manually layout 1/8 center.) Endicott
Roger Cargill.
Coordinator for Viking -

Wear parts - 500 - 2K
Ultimate $36 full $24 half -
not sure if dutcher auto insertion is available -
Testing done by 1130 -

25
.7 hrs insertion of Viking planar using ~~[redacted]~~ Rogen placement machine.

Numbers prove that CEH is better.
Maintenance = FRU = Field replaceable unit -

Norman Slender for help.
Call Norma on Friday.

6/22 Norm Slinder 6707

Mich M. 1961
K. Slack. 6669
Bob Shoppe 5515

6/22 Recd Deerfield Logic from D. Hellworth.

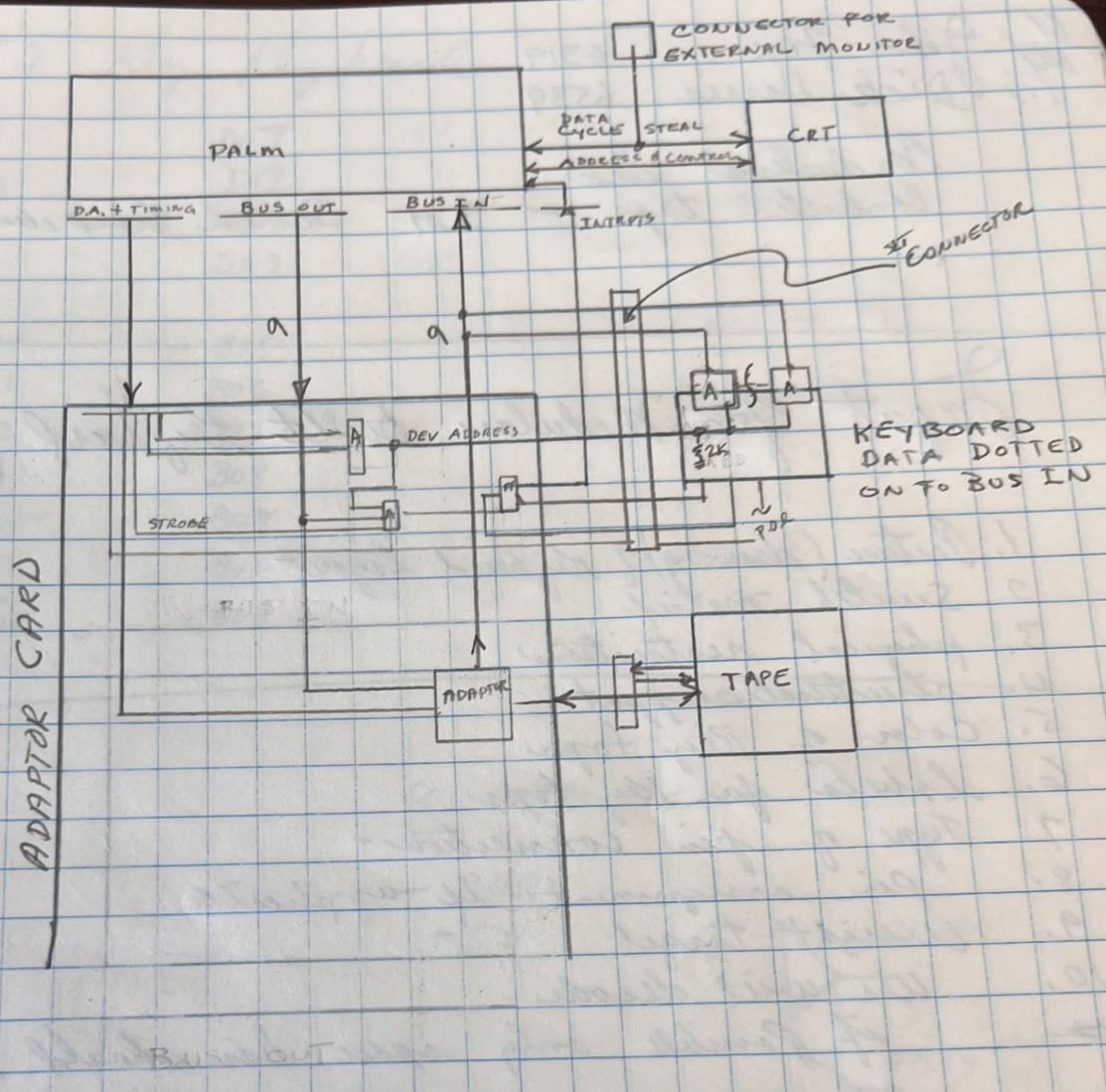
Order Typewriter Keyboard in Compak.
— typewriter type with APL character set and defined functions

Tom Vinson 8-456-2831.

Jack Greenfield Mgr. Frank Wilkey Jr.
dept 437 Bldg 030-2.

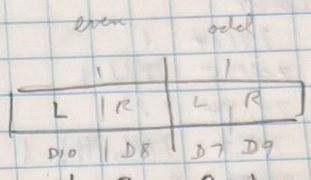
IPT ready 6/25/73

6/25/78


CONNECTOR FOR EXTERNAL MONITOR
PALM
DATA CYCLE STEAL
ADDRESS & CONTROL
CRT
D.A. & TIMING
BUS OUT
BUS IN
INTERR
CONNECTOR
DEV ADDRESS
STROBE
KEYBOARD DATA DOTTED ON TO BUS IN
ADAPTOR CARD
ADAPTOR
TAPE
BUS OUT

Display Card

D7 = ODD Left
D8 = EV Right
D9 odd Right
D10 even Left



+ DISP BIT A	A01	1	A6	VCC	16	A04	
+ DISP BIT B	B01	2	A5	A7	15	B04	+ DISP BIT B
+ DISP BIT 4	C01	3	A4	A8	14	C04	+ GATE CURSOR
+ DISP BIT 2	D01	4	A3	A9 $\overline{E1}$	13	D04	+ DISP DATA BIT 1
ROW CTR 1	E01	5	A0	O1	12	E04	+ ROS BIT 3
ROW CTR 2	F01	6	A1	O2	11	F04	+ ROS BIT 2
ROW CTR 4	G01	7	A2	O3	10	G04	+ ROS BIT 1
	H01	8	GRD	O4	9	H04	+ ROS BIT ϕ

6/27/13

VTL Modules for display card

- 2135 1
- 2117 ~~IIII~~ III
- 2102 IIII
- 2129 ~~IIII~~ I
- 2137 III
- 2139 ~~III~~ I
- 2100 III
- 2109 I
- 2120 IIII
- 2111 II
- 2104 I
- 2114 II
- 2105 II
- 2112 I
- 2116 I
- 2173 I
- 2101 II
- 2113 I

4 ROS Modules

R PAC 2392700 IIII

R PAC = 33 Ω, 75 Ω

diode

Week of June 4

① Bill Tuth -
a) IPL ROS modules ✓
b) memory interface module } (mod) 2
c) Funnel module 2
32 chars / line change
Joel Lenenger - dutchess, etc.

Their customer { Rudy Peronto 4763
Mike Renuart 4764 Printer module
Gene Kuchar IBD module.

Need: 8 or 16 bit shifter (both directions plus enjust control.)
Rotate.

Ralph Tidball — chet Rataski.

Frank Williams — Bring dutchess attachment
441-6424 and software.

② George Hellworth — 6/7 - 9 AM

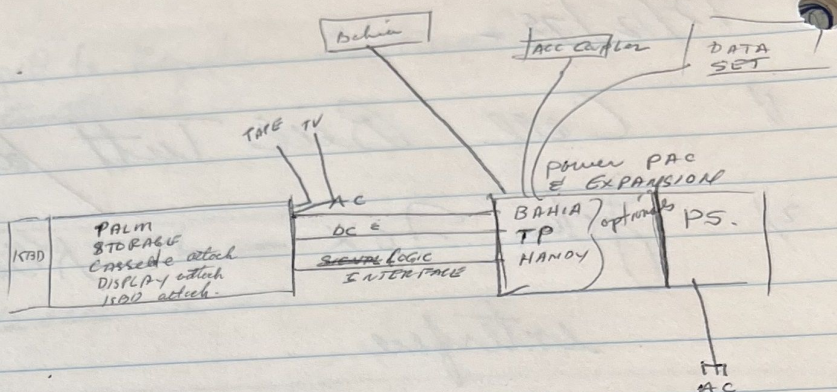
③ Miller — Re tape attachments — Used comp. only & mode
& VTL attachment

Drawings of Scamp -

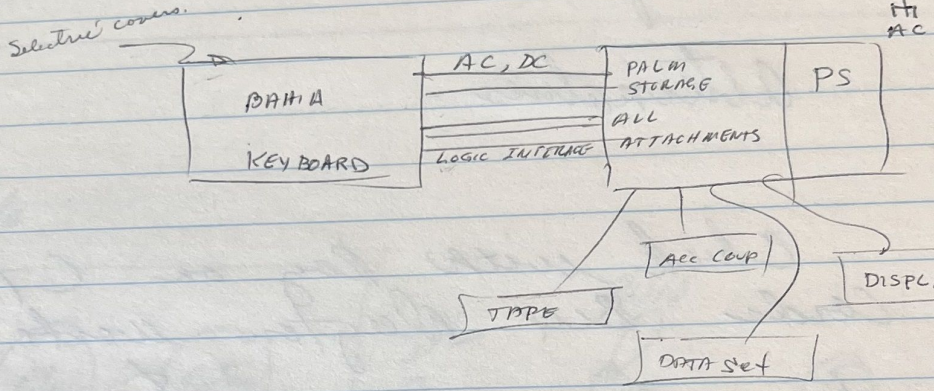
④ Better printer documentation.
⑤ Home SW.
⑥ Don Ref - Mech. design help & Mold -

12/17/73

Consider.



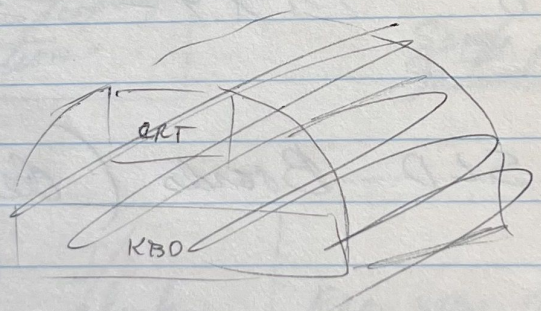
MODEL 1



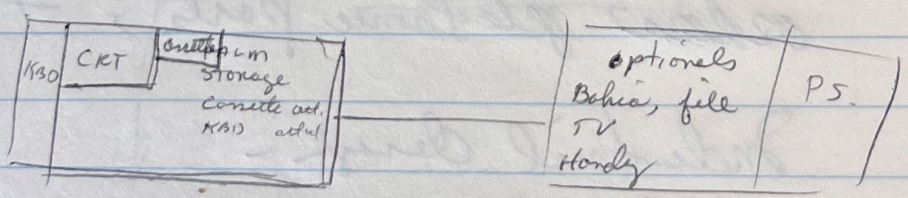
MODEL 2.

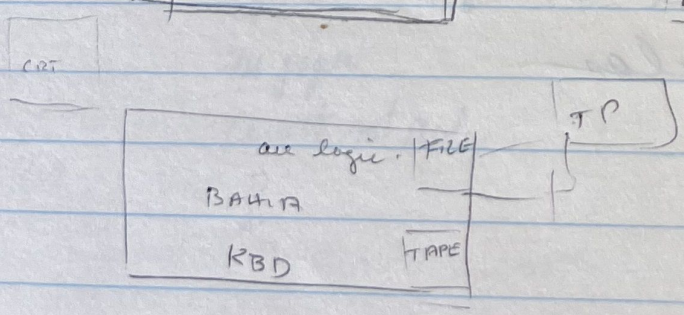
~~MIGRATE TO~~

~~MODEL 3~~

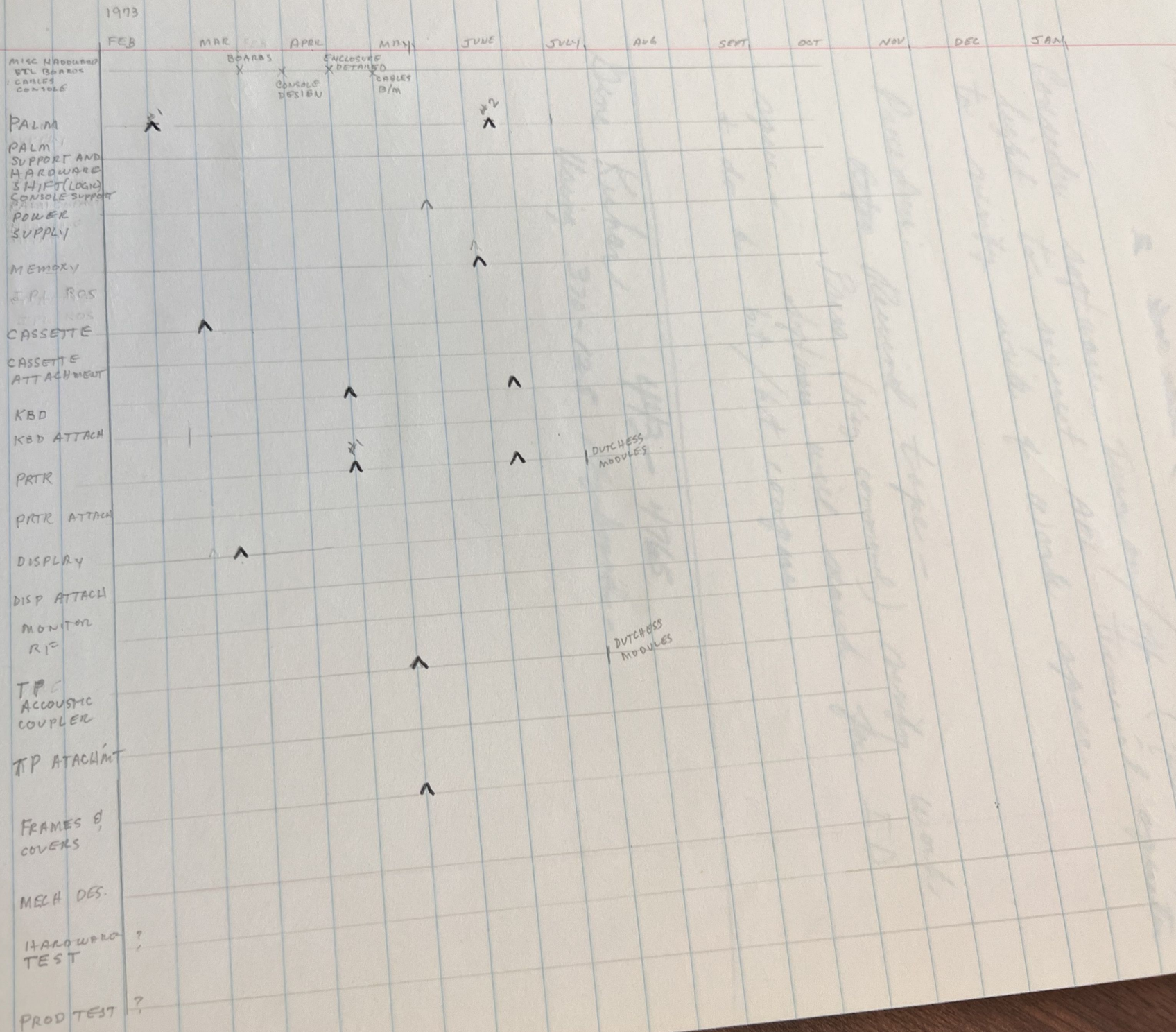


MODEL 3,





Model 4


1973
FEB
MAR
APRL
MAY
JUNE
JULY
AUG
SEPT
OCT
NOV
DEC
JAN
MISC HARDWARE
BTL BOARDS
CABLES
CONSOLE
BOARDS
CONSOLE DESIGN
ENCLOSURE DETAILED
CABLES B/M
PALM
#1
#2
PALM SUPPORT AND HARDWARE
SHIFT (LOGIN) CONSOLE SUPPORT
POWER SUPPLY
MEMORY
CPU ROS
CASSETTE
CASSETTE ATTACHMENT
KBD
KBD ATTACH
#1
DUTCHESS MODULES
PRTR
PRTR ATTACH
DISPLAY
DISP ATTACH
MONITOR RT
DUTCHESS MODULES
TP ACOUSTIC COUPLER
TP ATACHMT
FRAMES & COVERS
MECH DES.
HARDWARE TEST
?
PROD TEST
?

Bill Radky — 8/1/73

— Hardware / Software —

Call From Hugh McKinney

asked for info from Raytheon on low level amp

RM 8341 phone 968-9211

Send data sheet to H E. McKinney

PO Box 2150

Atlanta Ga 30301

Called pm.

Will send data to HEK.

would not quote price over phone.

distributor in atlanta = Cramer 404-451-5421

8/3/73 –

Don Brooks – Bakus will support
Mktg mgr

Slats will pay trip –
Charge it from Cut –
Get together last half –

Verge & REA on vacation → 8/17 –

display –
Graphics ? } need input by 9/15/73 –
buffer ?

1. Speed up. } Cost estimate to Wang board
2. repackage } on doing these 3 things –
3. 2 byte buffer – } Must input if graphics is a must.

estimate to Slats on above –

if we need larger store, input to REA –

Mentioned use of reject cards – not ~~too~~ good, RE[illegible]

Mid Sept. – for display.

Insist writing basic in Palm Lange[illegible]
need sizing for direct program –

Time life programs

Sherwintes – Ginsberg –
Mktg

Consult what program
~~Geo Str~~ should be –

8/3/23.

Phone discussion with Bill Tuttle.

Re: FSU / Snoopy mit -

Bill will add wiring capability to new Palm to slow down to FSU speeds -

FSU = 1 x 9 = 1 dualchan module.

FSU can drive but 1 load.

Will need interface modules -

They have a card designed for EMS -

How ability to run new palm at old cycle rate. allows faster debug.

8/3/73

1. See Wilson Test Equipment -
   effort required to test Scamp

2. BASIC programming people from Tein-Life will evaluate PSIM / BASIC needs -
   They will be in Boca 8/5/73 -
   Call Erwin Vago - 8-243-2881 -
   He wants info on any hardware tricks we are using -
   mention present 2 instruction HDware shift.
   shift right x1 instruction.

3. Machine environment restrictions
   Temperature -
   Tape handling -
   What happens to approach to excessive heat during transportation ->
   what is excessive?

Data Products, 3M Co.
300 So Lewis Rd
Camarillo, Calif 93010
805-482-1911
Jim Lindquist will send info -

1 basic drive with servo -
2 " " " & head
3 " " " " " & R/W card
4 " " " " " " , encode/decode "
5 " " " " " " " "

plus interlock card -

#1 = ≅ $198 in qtys 1K
#5 = ≅ 545 in qty — to be negotiated
model in 3 wks for evaluation if ordered now (week - Oct delivery if order in de

8/4/73

Mark Silverman 8- 372- 7249
— Bill Radky — I/O

Bill Morrison,
Frank Castonza. } 4/76

power supply - extra requirements
board full
console
package 19 rack
I/O configuration. Igar, CRT, KBD, TP, PRINTER 1053?
Test
Qty

graphics.

attach => modem => Acc coupler

EIA

SW

8/8/73

Blank Key for Calcia -

Row 1	1853563
2	1853564
3	1853565
4	1853566

Ron Johnson 6287

8/8/73

Jim Lindquist of Data Products, 3M Company will be here Tuesday, August 14. I have reserved conference room 507 from 10 am to 12 noon -

Mr. Lindquist will have a model of their DPC-202 cassette drive and 1 model of their 3M cassette drive for our appraisal.

dlg

Roy
Chris
Greg
Ed
George
Dennis