

7000-X. Meeting -1-

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Alternate Main Frame

1. originally HARVEST computer

(a) no. 4.S. Npier

25 K

(b) 1 Level LA

3 x 5 K

40 K

25% of Transistor count were in level 2

2. Engineering estimate was 15% reduction (rather than 20%) for cost estimate

3. Prelim. planning prices

Performance equivalent to original, (30 times)

40 machines
Mkt

20 Standard
20 alternate

ST MF \$ 72.5 K

ALT MF \$ 64. K

11% reduction

2ms Mem \$ 18.5 K

4SEX \$ 16.1 K

\$ 20.3

Disk \$ 9.2

I/O package \$ 26. K

1000 r/h.

250-pch

cards

2 TCU's

8 722IV

600 rpm

\$ 23.9 K

\$ 2.1 K

consider Min Machine config:

1 I/O	26
1 Main	18.5
	<u>44.5 K</u>

AME	SME	64	72.5
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Total system	\$ 108.5K	\$ 117.5	(8%) red.
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have requested Mkt Forecast, - waiting now (Jan 15)

2x performance

1. start with above
2. add 1 Mem
3. SME

Alternate Mkt

no need for SME

Memorial

100K - lots of cash

80K - bus. char.

\$ 19.7K Mem

reduce I/O by 3K

(over max 80K)

- lower

7090 2012 \$60K new \$65K

(709-701-701) return on part 1/18/72

Job Cost:

$$C_x T_x \geq C_s T_s$$

cost time stretch

$$a + b = 1$$

$$T_s = T_x \left(\frac{a}{n} + \frac{b}{m} \right)$$

compute I/O
Time Time

no overlapping assumed.

$$\frac{C_x}{C_s} \geq \left(\frac{a}{n} + \frac{b}{m} \right)$$

Small 704 \$30K Large 704 \$50K (Ratio of 4)
 Small Σ 117K Large Σ 200K

$$\frac{1}{4} \geq \frac{a}{50} + \frac{b}{4}$$

(not for xs)

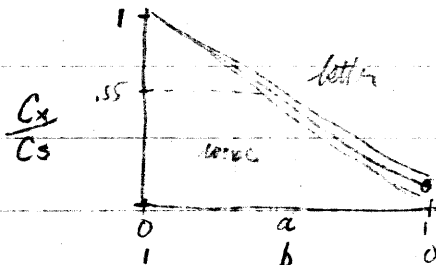
no better for any a

(not for tape to tape only.) 729I is 1 to 1 or peripheral.

50K 704 2 shift 100K can't replace
 ↓ expand
 (2) 50K 704 2 shift 150K can replace.

any 2 machine installations can be replaced.

30x 705 III } tape to tape systems, m=1
 6x 7050 }
 10x 7020 }

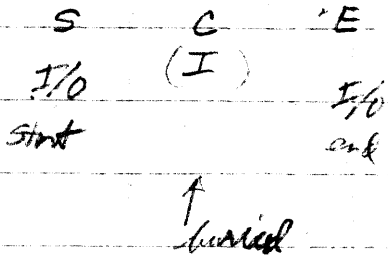


So a has to be ~60% compute.

similar to be better.

705II 65% compute.
 7050 70%
 7020 60%

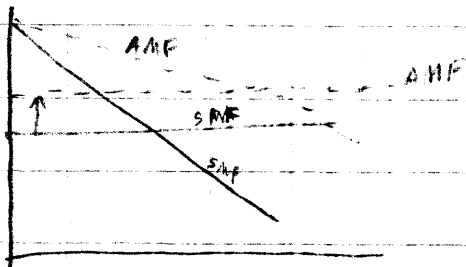
overlapping confuses the source:



multiprogram. drops job cost by factor of 2 or more

← new material to job cost.

alternate MF



7090 60 - 70 15

Intermitt 80 - 100 ←

I 120 → 230