

705-TX Meeting:

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Scope: Solid State step-up of present 205 - for present 205 users who are overtaxed.

- maintain same philosophy of format, etc.

a lot of customer resistance in changing formats

- there was a lot of resistance in going to 205 III from 205 II, &

\$ $\frac{1}{4}$ to $\frac{1}{2}$ Million investment in programming would be lost

applied programming package also very important.

- Rapid translation of engineering designs to transistors.

- Product Tested -

can extend logic - eg. indexing

"universal program compatibility"

I/O interrupt req. by IDP. & imp

HS disks } in 5 yr plan for 205-TX.
SWIFT }

- 2.5 μ s Mem. cycle

+ other extensions to auxiliary memories.

Serial addr - address modification is just as fast.

Customers are willing to code new applications but not old programs. - reprogramming delays new applications.

GUIDE
organization:
150
members.
Important voice.

705 III's just starting, plan 24 machines
705 II's still being made - will phase out in 6 mos.

7020's have cut in, 650 users who would have gone to 705
new customers will start with 7020,

705-TX: very powerful - more expensive - mostly no new entries,

705-TX: (5 x 705 II) (3 1/3 x 705 III space)

I 20K counter, memory
II 40K
III 80K

cost is high without
input device.

Question: are there applications too big for 705's? - no study of this.

Internal checking: inherent in design - can't be removed.

705-TX may have too much checking?

Some customers are considering going from 705 to 7020 to take
advantage of cheaper machine - most are not doing it.

→ Economics are very important.

There is a big vested interest in 705 family to perpetuate.

question: How important is large memory?

Disks may not make it as important -

→ 60 orders are on books for 705 III (will make 24)

40% asked for 40K mem. some have asked for 20K.

attaching disk? hang on DSU handled like a tape drive with a "seek" op.

SEPD - has been working on a disk attachment for 705-4

AMC (Air Material Command - Okla City). They are using a TRC.

Eventually minimize a system of tapes & high-speed disk files } off-line peripheral - seems to be the future trend.

will have 50-75 cpm cd reader on console (change cards, etc.)

SPOOL philosophy differs from this. - on-line

(I/O interrupt on 705-TX will make this possible too)

Big invitation is that 729 tapes can't be read off-line.

Drift current-switching, STRETCH circa, (not needed on double card)

Memory need 70 or 35 bits, need decimal addressing

STRETCH planes are wrong, want 80 x 100 planes (128 x 128)

could use 7070 (100 x 100) - ? - would be different

3 modules

Each syncopgr 1 module

synch: 1 channel each

- there is extra space

can put in disk controls etc.

- have not considered parallel operation.

- parallel addr is harder - depends on schedule,

will be block-for-block on tight schedule. - not if loose schedule

dec indexing may be

- console - separate operators - oriented for operator not C.E.

- direct read-out displays, 2 displays



all op-codes can be displayed

- 705-TX is sketchy study program only - still no go-ahead.
- expect to hear in week or two - concerning go-ahead.
- announcement in early '59 ?
- model ~~Sept~~ 3rd quarter '59 study program out '58 ← still not OK'd.
- delivery 2nd quarter '60

price is 10% more than 705 system.

705-III

Rentals:		TX	Tube
	Main Frame with 40K	\$20,000	16,500
	" " " 80K	26,800	23,600
	DSU	5,100	4,200
	Console	1,400	1,100

Standard no. of tapes:

- H.S. Stapes @ 1,100
- L.S. Stapes @ 500

5,500.
2,500.

447K for 2,850 tubes
50K

5.3 K difference.

705 III 9 μs mem. cycle

705 TX 2.8 μs mem cycle 3.3 times

↑ slower, not square away. hope for 2.2 or 2.4 circuits will still work.

Question: what about use of 705 for scientific uses?

at Houston meeting last May - many reports on PDP-1, etc.