Logged

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OFFICE MEMORANDUM

TO : Biomedical Controls Committee

DATE: March 1, 1976

712913

FROM : J. A. Helland

SUBJECT : MINUTES OF MEETING - FEBRUARY 25, 1976

SYMBOL : MP-3

MAIL STOP: 844

Discussion of minutes of past meetings: A tentative schedule for Cycles 0 and 1 is as follows:

Cycle	Starting Date	Length
0	March 15, 1976	2 weeks
1	April 1, 1976	2 weeks + 1 week dev.

Radiobiology is expected to start with Cycle 3 and patient treatment with Cycle 4 (skin nodules). The large MBD is needed only for running "Q" at Biomed, not for running "Q" on the MP-3 computer. Room allocation at Biomed was discussed briefly. The dosimetry scanner was discussed. There seem to be hardware problems yet (cross talk?).

Lundy's memo (dated February 10, 1976) was discussed. It was estimated that patient treatment may use as much as 50% of the available beam time. Reliability was discussed and it was noted that the Biomed computer has been operating very reliably for the past three weeks.

A list of typical tasks and memory requirements is attached. Memory limitation seems to be the most serious limitation for operation while the beam is on. The GEN partition has ~58 k words, and almost all user tasks run in this partition. Tasks such as FYP and TKB, for example, are each ~16 k words long. Two 32 k word tasks cannot be run simultaneously.

Some points brought out in discussing Lyndy's memo are: Certain functions may require exclusive use of the computer such as II-C&D (of Lundy's memo) and possibly all of Section VII. (Item VI-H should be under VII.) Sections III, IV, V, VII AND VIII probably will not overlap to any great extent. Eventually, treatment planning may place a load on the system, independent of whatever else is running.

Barnard raised the question as to whether or not hardware and/or software development could proceed simultaneously with patient treatment. The committee was divided on this point, but most of the members agreed that any task could run as long as there was little chance that the task would "crash" the system. Task priorities would have to be carefully assigned, however. Task sizes will have to be reduced with more efficient programming and overlaying.

The committee addressed the question as to what tasks should be running continuously when beam is on? The committee decided that there should be a task that runs periodically to log channel parameters, beam currents, etc.

Knapp pointed out that the control and monitoring (including logging) of the beam-line equipment should have top priority. Second priority should go to those tasks supporting on-going research, and third priority should go to anything else.

Swenson suggested dividing beam-on time into three categories as follows:

I Patient treatment (25% of the time)

Monitoring
Logging

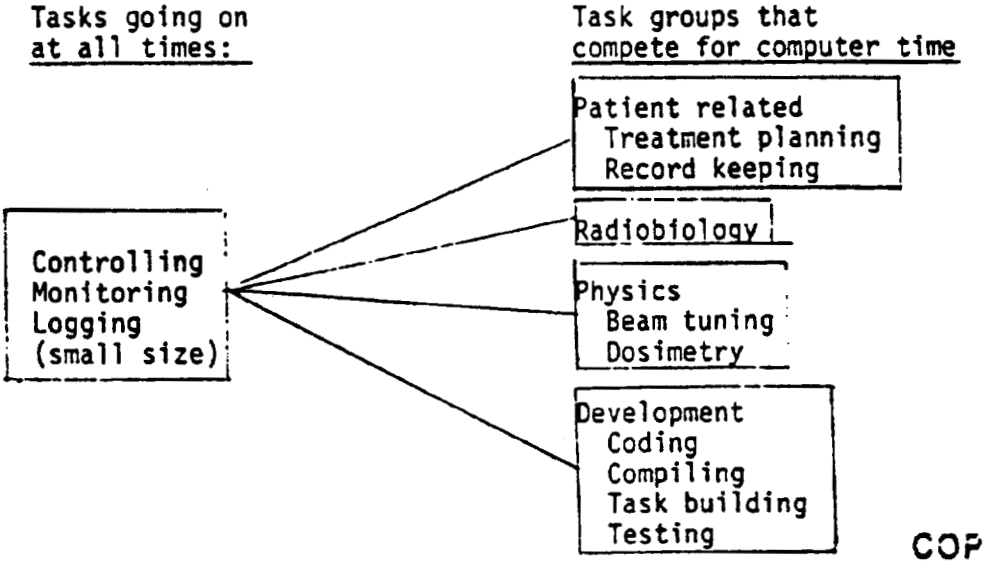
II Pre-treatment (10% of the time)

Set up
Back up

III Preparation for treatment (65% of the time)

Hardware tests
Radiobiology
Dosimetry
Beam Tuning
Code Development
Treatment Planning

Barnard offered another way of looking at the situation:



Helland suggested that "Development" be divided into two sections, one of which includes "safe" tasks that can be run (with a low priority) along with anything else, including patient treatment, and the second of which includes "untested" tasks that might easily "crash" the system.

Both Swenson's scheme and Barnard's scheme were discussed, and the meeting was adjourned.

JAH:bl

Attach: Listing

Distribution:
J. A. Helland, MS 809
A. Lundy, MS 809
R. Kittell, MS 809
H. vander Beken, MS 828
D. Swenson, MS 844
E. Knapp, MS 844
J. Bradbury, MS 844
M. Paciotti, MS 844
A. Smith, UNM, MS 809
R. Barnard, UNM, MS 809
MP-3 Files

PARTITIONS:

(Interrupt vectors)	128
MBDDRV	6,400
GEN	58,208
UTIL	14,336
MCR	5,216
STATIC	24,128
(Executive)	6,848
(SCOM)	11,712
TOTAL	126,976

→ 45K if DECnet included

TASK SIZES:

...PIP- 4992	DP....- 928		ATRDS2-1152
.n.PIP- 4224	TT.....-2880		DATBNK- 384
...EDI- 5056	CR....-1152		DSCAN.- 640
.n.EDI- 5088	DK....-1344		ERR...- 608
...TEC- 3616	LP.....- 864	static	IOLIB.- 192
.n.TEC- 7744	MO.....- 960		SCANLM-3552
...PMP- 864	MT.....-1504		BUT...-6592
.n.PMP- 736	F11ACP-4832		MAGDSP-5984
...MCR- 416	SYSRES-3712	static	MAGDS2-2048
.n.MCR- 224	OTSCOR-3648		MAGDS3-3168
F4P .n.FXP-16512	ERRLOG-2304		BINCMD-4736
.n.FLE-15552	CC.....- 736		SCANIT-5920
.n.TKB-15840	LO.....-1472		SPR2..-2432
.n.SYS- 1888	KS.....-1440		
...ABO- 864			

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