Historical Document

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FSD PARALLEL PROCESSOR DEVELOPMENT PROJECT

IBM

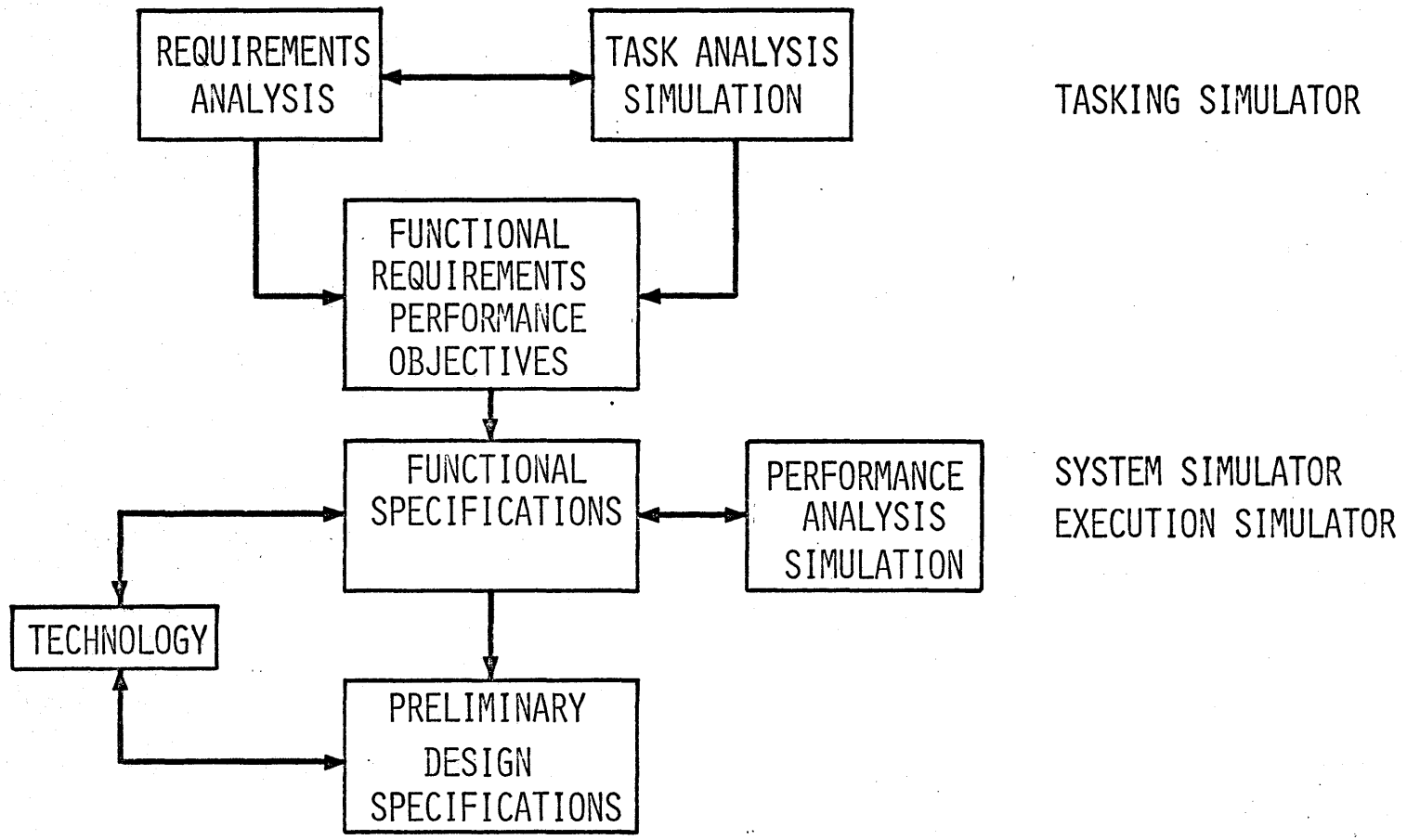
Federal Systems Division
Los Angeles, California

IBM PROPRIETARY

FSD
PARALLEL PROCESSOR
DEVELOPMENT
PROJECT

prepared in April 1968
for presentation to Corp.
Technical Committee.
Machine was never built.

Federal Systems Division
INTERNATIONAL BUSINESS MACHINES CORPORATION
8665 Wilshire Boulevard
Beverly Hills, California 90211



PROJECT PLAN - DESIGN BY SIMULATION

PROBLEMS WITH INHERENT PARALLEL STRUCTURE

LINEAR PROBLEMS

- o MATRIX ARITHMETIC
- o SYSTEMS OF EQUATIONS
- o LINEAR PROGRAMMING

ORDINARY DIFFERENTIAL EQUATIONS

PARTIAL DIFFERENTIAL EQUATIONS

INTEGRAL TRANSFORMS

- o FOURIER ANALYSIS
- o AUTOCORRELATION AND SPECTRAL ANALYSIS

OPTIMIZATION

SIMULATION

PROBLEM AREAS IN CONTINUUM MECHANICS

FLUID MECHANICS

- METEOROLOGY
- OCEANOGRAPHY

SOLID MECHANICS

- GEOPHYSICS
- SOIL MECHANICS

NUCLEAR PHYSICS

- REACTOR DESIGN
- WEAPONS DESIGN

MIXED PROBLEMS

- WEAPONS EFFECTS

PROBLEM RUNNING TIMES AND STORAGE

	TYPE CODE	MESH SIZE	HOURS ON 6600	HOURS ON ILLIAC	STORAGE (KILOWORDS)	USE
1.	2-D Plastic-Elastic (AFTON)	200 x 136	1,000	20	1,300	Ground Shock
2.	2-D Hydro (SHELL)	201 x 105	35	.7	130	Fireball Rise Shock Interactions
3.	3-D MHD	155 x 77 x 77 201 x 105 x 105	900 3,500	18 70	5,600 13,000	Fireball Rise Debris Distribution
4.	1-D Trans (no scatt, no ret)	150	100	2	104	Early Fireball
5.	1-D Trans scatt & ret	150	2,000	40	500	Weapon Output
6.	2-D Diffusion (RADISH5)	155 x 77	2,000	40	200	Debris Motion
7.	2-D Trans (TRASH) (no scatt, no ret)	100 x 50 (x2) 155 x 77 (x5)	1,500 22,000	30 440	10^3 10^4	Weapon Output Ground Interaction
8.	2-D Trans (TRASH) scatt & ret	100 x 50 (x2) 155 x 77 (x5)	30,000 440,000	600 8,800	4×10^4 4×10^5	Weapon Output Ground Interaction
9.	2-Body, 6-D Nonlocal Boltzmann Eq.	50 x 50 x 50 x 50 x 50 x 50	10^{10} years		10^8	Geomagnetic Region Nonthermal Debris Expansion

PROBLEM ANALYSIS STUDY PROCEDURE

COLLECT PROBLEMS/CODES

- BREAK PROBLEMS DOWN TO TASK LEVEL
- CATALOGUE TASK PROPERTIES
- COMPARE PROBLEM FEATURES

TASK PERFORMANCE SIMULATION

- STUDY PROBLEM MODELS
- DEVELOP TASK MANAGEMENT SCHEMES

RESULTS

- GROSS SYSTEM SPECIFICATIONS
- GENERAL PROGRAM DESIGN TECHNIQUES
- PROGRAMMING/MACHINE TRADEOFF INFORMATION

TASKING SIMULATOR USE

PROBLEM ANALYSIS

- USE ACTUAL CODES
- IDENTIFY TASKS

CODE TRACING

- EXECUTE CODE
- OBTAIN TASK INSTRUCTION COUNTS

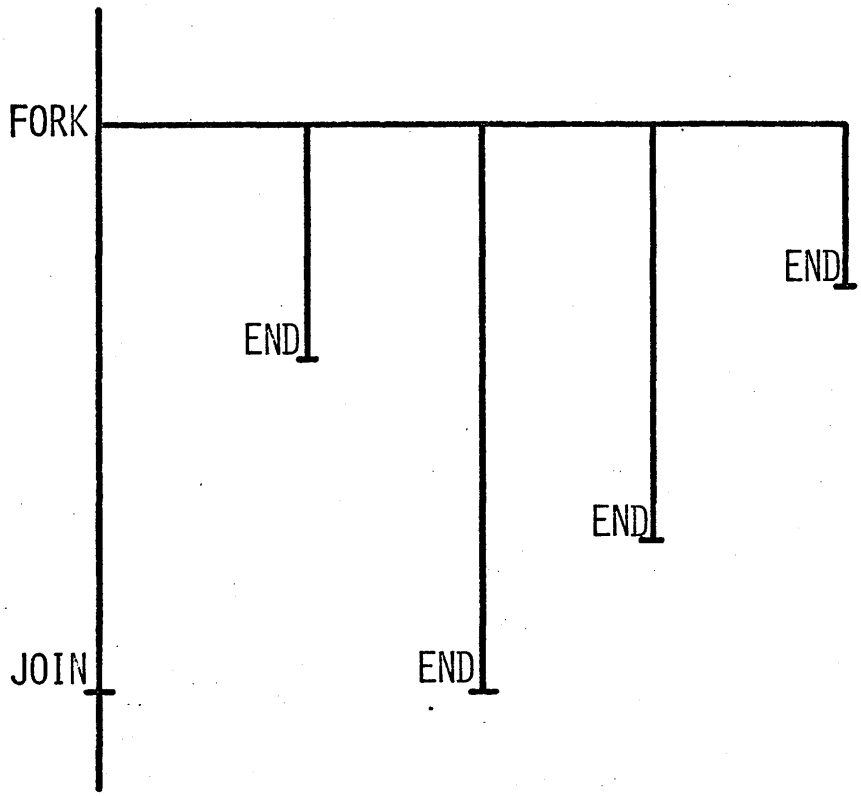
SIMULATION

- WRITE PROGRAM
- RUN SIMULATOR, EXAMINE RESULTS

TASKING SIMULATOR USED TO TEST

- APPLICATION PROGRAM STRATEGY
- TASK MANAGEMENT ALGORITHM

FORK/JOIN PROCESS

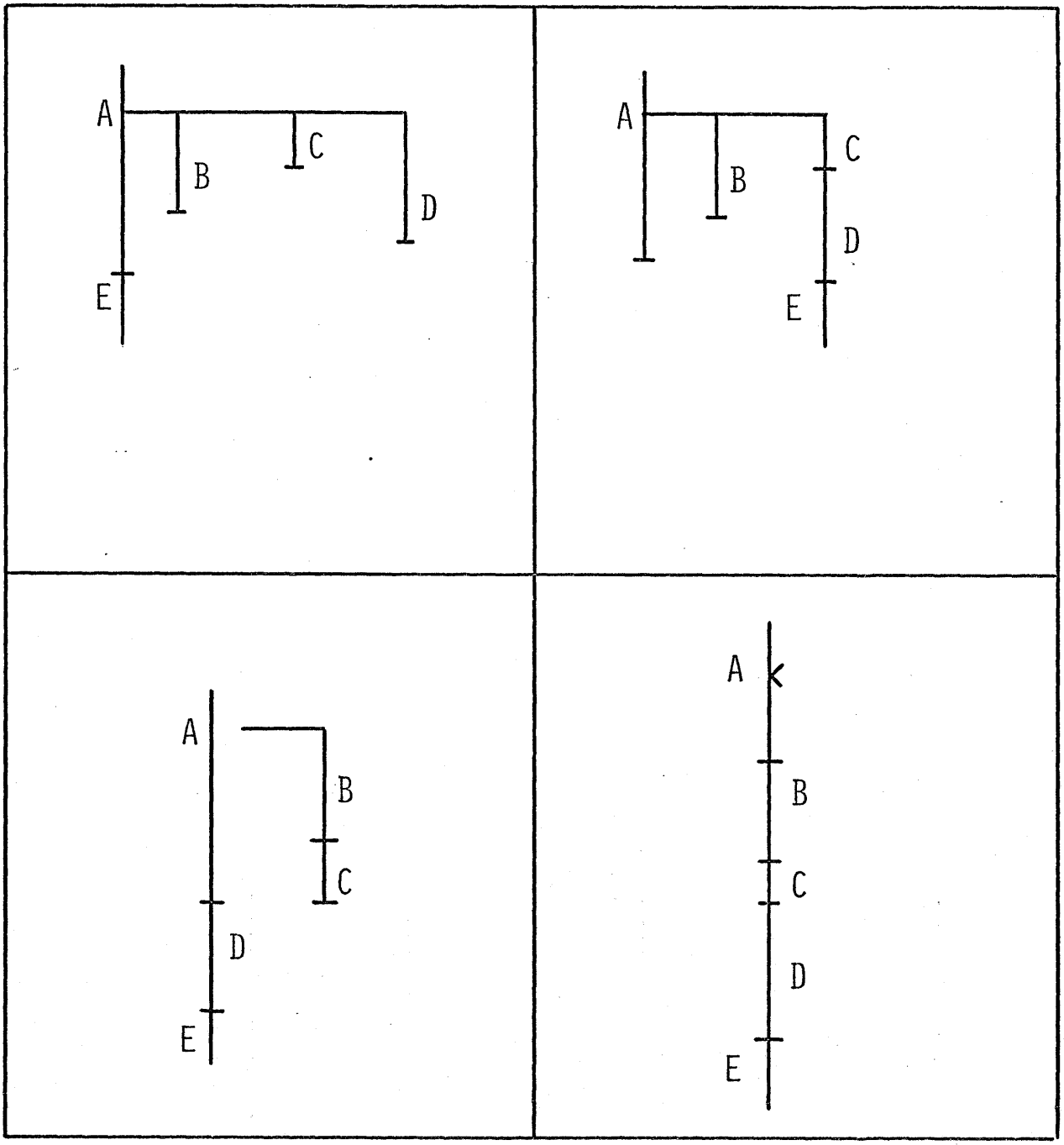


A FORK IS A CALL FOR THE ASYNCHRONOUS EXECUTION OF A SET OF TASKS

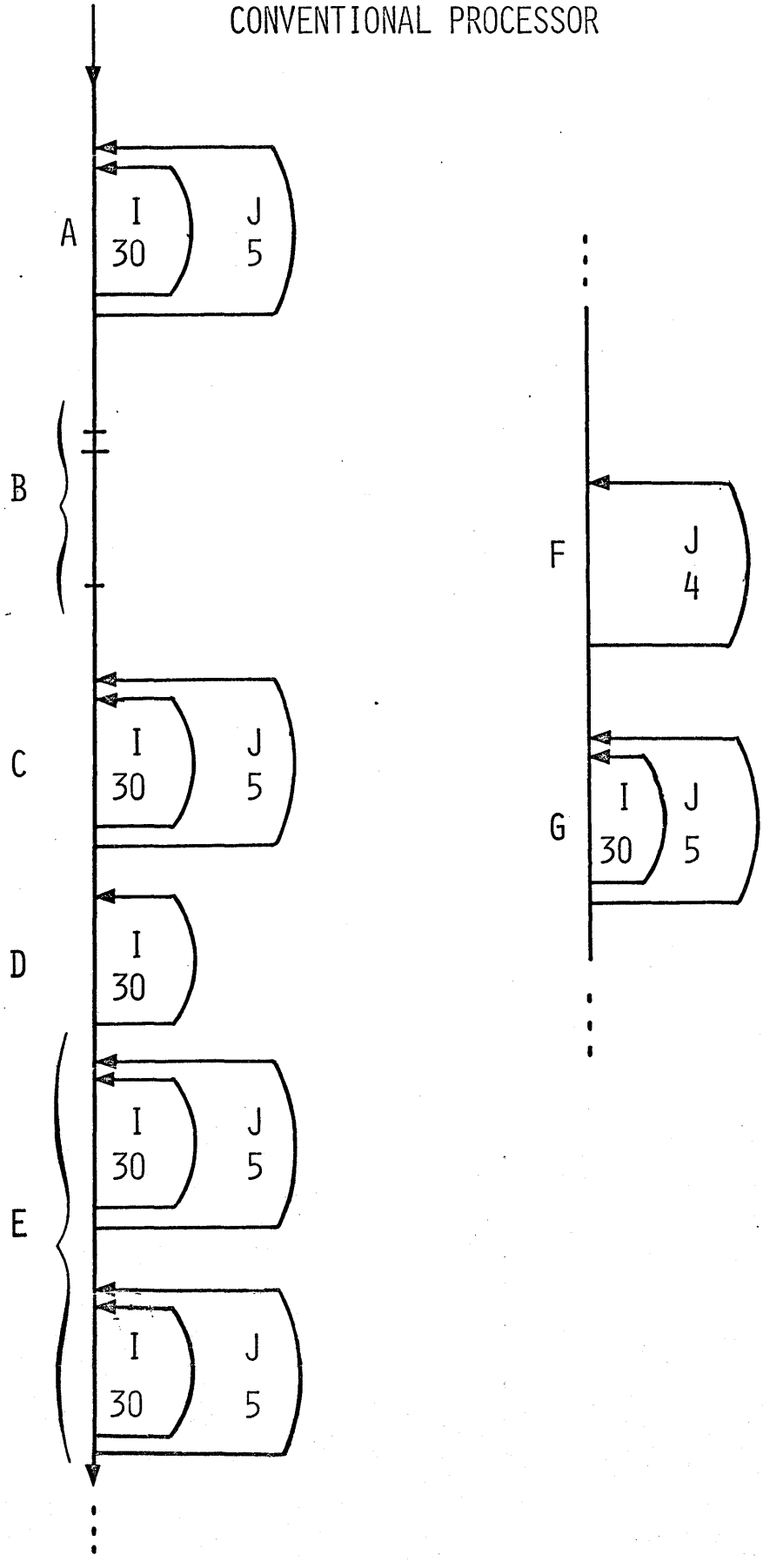
END DENOTES END OF A TASK

A JOIN IS A CALL FOR SYNCHRONIZATION ON COMPLETION OF A FORK

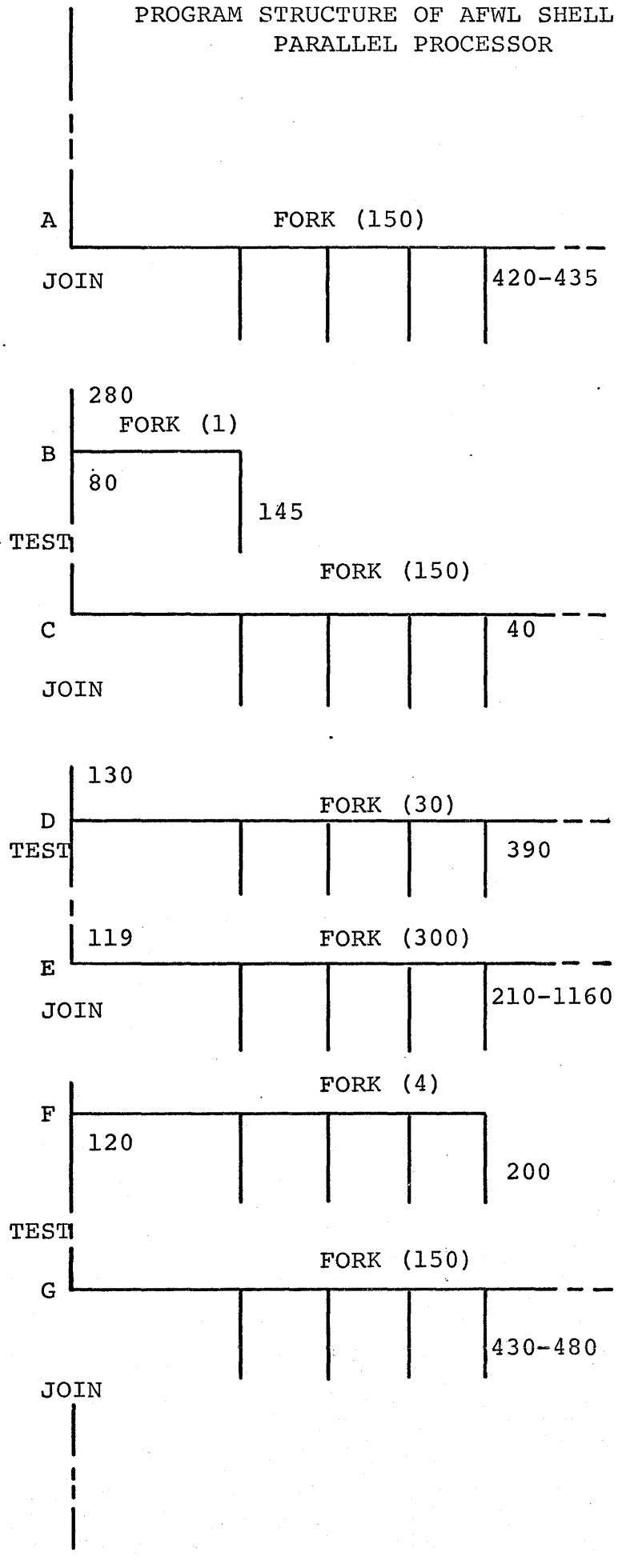
SAMPLE TASK SCHEDULING ALGORITHM



SHELL CODE STRUCTURE
CONVENTIONAL PROCESSOR



PROGRAM STRUCTURE OF AFWL SHELL CODE
PARALLEL PROCESSOR



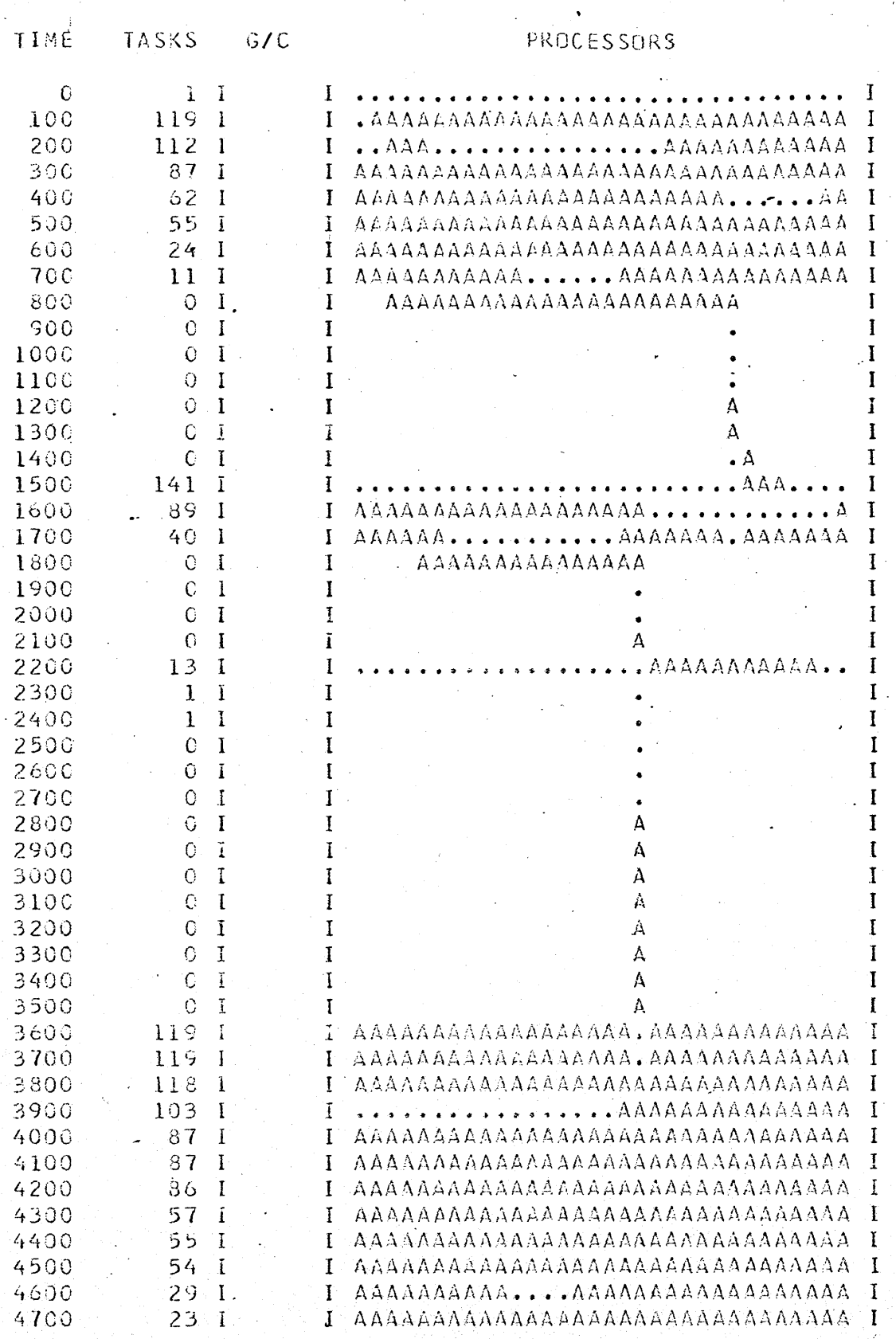
SHELL INITIAL VERSION BASIC PASSIVE MODEL

PROCESSOR EVENT TRACE

TIME	DELTA	TASKS	G/C	PROCESSORS
13938	1	0	I	I AAAAAAAAA AAAAA I
13939	1	0	I	I AAAAAAAAA .AAAA I
13940	1	0	I	I AAAAAAAAA AAAA I
13941	1	0	I	I AAAAAAAAA .AAA I
13942	1	0	I	I AAAAAAAAA AAA I
13943	1	0	I	I AAAAAAAAA .AA I
13944	1	0	I	I AAAAAAAAA AA I
13945	1	0	I	I AAAAAAAAA .A I
13946	1	0	I	I AAAAAAAAA A I
13947	1	0	I	I AAAAAAAAA . I
13948	1	0	I	I AAAAAAAAA I
13950	2	0	I	I .AAAAAAAA I
13951	1	0	I	I AAAAAAAA I
13952	1	0	I	I .AAAAAAA I
13953	1	0	I	I AAAAAAA I
13954	1	0	I	I .AAAAAA I
13955	1	0	I	I AAAAAA I
13956	1	0	I	I .AAAAA I
13957	1	0	I	I AAAAA I
13958	1	0	I	I .AAAA I
13959	1	0	I	I AAAA I
13960	1	0	I	I .AAA I
13961	1	0	I	I AAA I
13962	1	0	I	I .A. I
13963	1	0	I	I A. I
13964	1	0	I	I . I
13965	1	0	I	I . I
13966	1	1	I	I . I
13967	1	1	I	I . I
13968	1	0	I	I . I
14228	28	0	I	I A I
14950	50	0	I	I . I
14951	1	150	I	I I
14951	0	150	I	I I
14952	1	150	I	I I
14953	1	149	I	I I
14954	1	148	I	I I
14955	1	147	I	I I
14956	1	146	I	I I
14957	1	145	I	I I
14958	1	144	I	I I
14959	1	143	I	I I
14960	1	142	I	I .....A..... I
14961	1	141	I	I .....AA..... I
14962	1	140	I	I .....AAA..... I
14963	1	139	I	I .....AAAA..... I
14964	1	138	I	I .....AAAAA..... I
14965	1	137	I	I .....AAAAAA..... I

SHELL INITIAL VERSION BASIC PASSIVE MODEL

PROCESSOR TIME TRACE



SHELL INITIAL VERSION

BASIC PASSIVE MODEL

PROCESSOR SUMMARY

PROC	FREE MODE TIME							OVERHEAD			
	AVAILABLE	USEAGE TOTAL	%	USER	%	PROCESS	%	EFF	SYSTEM	%	USER	%
1	19724	4998	25.	4492	23.	4492	23.	23.	506	10.	0	0.0
2	19724	5079	26.	4574	23.	4574	23.	24.	505	10.	0	0.0
3	19724	5038	26.	4520	23.	4520	23.	24.	518	10.	0	0.0
4	19724	5093	26.	4574	23.	4574	23.	24.	519	10.	0	0.0
5	19724	5052	26.	4520	23.	4520	23.	24.	532	11.	0	0.0
6	19724	5107	26.	4568	23.	4568	23.	24.	539	11.	0	0.0
7	19724	5085	26.	4574	23.	4574	23.	24.	511	10.	0	0.0
8	19724	6257	32.	5248	27.	5248	27.	28.	1009	16.	0	0.0
9	19724	5073	26.	4570	23.	4570	23.	24.	503	10.	0	0.0
10	19724	5206	26.	4710	24.	4710	24.	24.	496	10.	0	0.0
11	19724	5215	26.	4712	24.	4712	24.	25.	503	10.	0	0.0
12	19724	5321	27.	4811	24.	4811	24.	25.	510	10.	0	0.0
13	19724	5266	27.	4749	24.	4749	24.	25.	517	10.	0	0.0
14	19724	5335	27.	4811	24.	4811	24.	25.	524	10.	0	0.0
15	19724	5280	27.	4751	24.	4751	24.	25.	529	10.	0	0.0
16	19724	5321	27.	4811	24.	4811	24.	25.	510	10.	0	0.0
17	19724	6394	32.	5379	27.	5379	27.	29.	1015	16.	0	0.0
18	19724	5294	27.	4806	24.	4806	24.	25.	488	9.	0	0.0
19	19724	5084	26.	4590	23.	4590	23.	24.	494	10.	0	0.0
20	19724	5092	26.	4591	23.	4591	23.	24.	501	10.	0	0.0
21	19724	5198	26.	4690	24.	4690	24.	24.	508	10.	0	0.0
22	19724	5143	26.	4628	23.	4628	23.	24.	515	10.	0	0.0
23	19724	5212	26.	4690	24.	4690	24.	24.	522	10.	0	0.0
24	19724	5157	26.	4628	23.	4628	23.	24.	529	10.	0	0.0
25	19724	5226	26.	4691	24.	4691	24.	24.	535	10.	0	0.0
26	19724	5204	26.	4690	24.	4690	24.	24.	514	10.	0	0.0
27	19724	15032	76.	14021	71.	14021	71.	75.	1011	7.	0	0.0
28	19724	5151	26.	4690	24.	4690	24.	24.	461	9.	0	0.0
29	19724	5434	28.	4957	25.	4957	25.	26.	477	9.	0	0.0
30	19724	7943	40.	7196	36.	7196	36.	38.	747	9.	0	0.0
31	19724	5442	28.	4951	25.	4951	25.	26.	491	9.	0	0.0
32	19724	4986	25.	4498	23.	4498	23.	23.	488	10.	0	0.0
	631168	180718	29.	162691	26.	162691	26.	27.	18027	10.	0	0.0

SHELL INITIAL VERSION

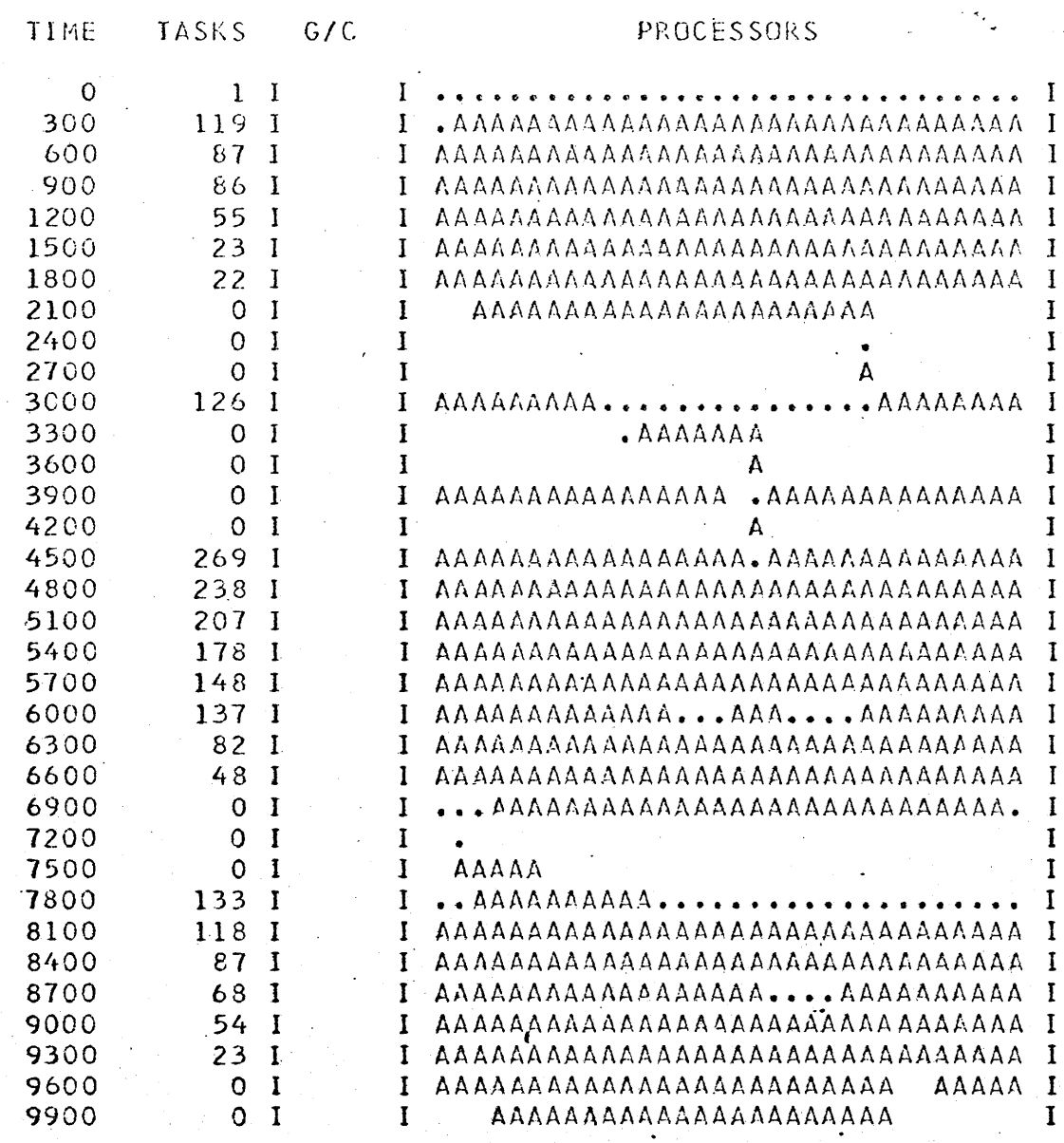
BASIC PASSIVE MODEL

PROCESSOR SUMMARY

PROC	AVAILABLE	FREE MODE TIME USEAGE TOTAL	%	USER	%	PROCESS	%	EFF	OVERHEAD SYSTEM	%	USER	%
1	11075	5961	54.	5322	48.	5322	48.	51.	639	11.	0	0.0
2	11075	6039	55.	5612	51.	5612	51.	53.	427	7.	0	0.0
3	11075	6152	56.	5759	52.	5759	52.	54.	393	6.	0	0.0
4	11075	6262	57.	5858	53.	5858	53.	55.	404	6.	0	0.0
5	11075	6211	56.	5796	52.	5796	52.	54.	415	7.	0	0.0
6	11075	6284	57.	5858	53.	5858	53.	55.	426	7.	0	0.0
7	11075	6233	56.	5798	52.	5798	52.	54.	435	7.	0	0.0
8	11075	6279	57.	5858	53.	5858	53.	55.	421	7.	0	0.0
9	11075	7352	66.	6423	58.	6423	58.	63.	929	13.	0	0.0
10	11075	6257	56.	5850	53.	5850	53.	55.	407	7.	0	0.0
11	11075	6050	55.	5631	51.	5631	51.	53.	419	7.	0	0.0
12	11075	6062	55.	5632	51.	5632	51.	53.	430	7.	0	0.0
13	11075	6172	56.	5728	52.	5728	52.	54.	444	7.	0	0.0
14	11075	6121	55.	5666	51.	5666	51.	53.	455	7.	0	0.0
15	11075	6194	56.	5722	52.	5722	52.	54.	472	8.	0	0.0
16	11075	6143	55.	5660	51.	5660	51.	53.	483	8.	0	0.0
17	11075	6218	56.	5723	52.	5723	52.	54.	495	8.	0	0.0
18	11075	6117	55.	5650	51.	5650	51.	53.	467	8.	0	0.0
19	11075	7958	72.	6500	59.	6500	59.	68.	1458	18.	0	0.0
20	11075	6102	55.	5681	51.	5681	51.	53.	421	7.	0	0.0
21	11075	6388	58.	5948	54.	5948	54.	56.	440	7.	0	0.0
22	11075	6691	60.	5978	54.	5978	54.	58.	713	11.	0	0.0
23	11075	6402	58.	5942	54.	5942	54.	56.	460	7.	0	0.0
24	11075	5949	54.	5489	50.	5489	50.	52.	460	8.	0	0.0
25	11075	6559	59.	5598	51.	5535	50.	55.	961	15.	63	1.
26	11075	6036	55.	5599	51.	5599	51.	53.	437	7.	0	0.0
27	11075	5844	53.	5401	49.	5401	49.	51.	443	8.	0	0.0
28	11075	5911	53.	5466	49.	5466	49.	51.	445	8.	0	0.0
29	11075	5865	53.	5404	49.	5404	49.	51.	461	8.	0	0.0
30	11075	5932	54.	5463	49.	5463	49.	52.	469	8.	0	0.0
31	11075	5904	53.	5461	49.	5461	49.	51.	443	8.	0	0.0
32	11075	7090	64.	6160	56.	6160	56.	61.	930	13.	0	0.0
	354400	200738	57.	183636	52.	183573	52.	54.	17102	9.	63	0.

SIMULATION OF SMALL SHELL (30 X 5 ARRAY) FINAL BREAKDOWN

PROCESSOR TIME TRACE



SIMULATION OF SMALL SHELL (30 X 5 ARRAY) FINAL BREAKDOWN

PROCESSOR SUMMARY

PROC	AVAILABLE	TOTAL	%	USEAGE USER	%	FREE MODE TIME PROCESS	%	EFF	OVERHEAD SYSTEM	%	USER	%
1	10400	7556	73.	6928	67.	6928	67.	71.	628	8.	0	0.0
2	10400	8084	78.	7061	68.	6950	67.	74.	1023	13.	111	1.
3	10400	7715	74.	7358	71.	7358	71.	73.	357	5.	0	0.0
4	10400	8106	78.	7743	74.	7743	74.	77.	363	4.	0	0.0
5	10400	8221	79.	7848	75.	7848	75.	78.	373	5.	0	0.0
6	10400	8232	79.	7848	75.	7848	75.	78.	384	5.	0	0.0
7	10400	7902	76.	7518	72.	7518	72.	75.	384	5.	0	0.0
8	10400	7907	76.	7513	72.	7513	72.	75.	394	5.	0	0.0
9	10400	7847	75.	7445	72.	7445	72.	74.	402	5.	0	0.0
10	10400	7855	76.	7442	72.	7442	72.	75.	413	5.	0	0.0
11	10400	7873	76.	7445	72.	7445	72.	75.	428	5.	0	0.0
12	10400	7890	76.	7483	72.	7483	72.	75.	407	5.	0	0.0
13	10400	7945	76.	7493	72.	7493	72.	75.	452	6.	0	0.0
14	10400	7885	76.	7384	71.	7384	71.	75.	501	6.	0	0.0
15	10400	7894	76.	7381	71.	7381	71.	75.	513	6.	0	0.0
16	10400	7904	76.	7381	71.	7381	71.	75.	523	7.	0	0.0
17	10400	7654	74.	7199	69.	7199	69.	72.	455	6.	0	0.0
18	10400	8516	82.	7355	71.	7169	69.	78.	1161	14.	186	2.
19	10400	7843	75.	7442	72.	7442	72.	74.	401	5.	0	0.0
20	10400	8015	77.	7602	73.	7602	73.	76.	413	5.	0	0.0
21	10400	8023	77.	7602	73.	7602	73.	76.	421	5.	0	0.0
22	10400	8031	77.	7602	73.	7602	73.	76.	429	5.	0	0.0
23	10400	8040	77.	7602	73.	7602	73.	76.	438	5.	0	0.0
24	10400	9087	87.	7918	76.	7881	76.	85.	1169	13.	37	0.
25	10400	7775	75.	7363	71.	7363	71.	74.	412	5.	0	0.0
26	10400	7165	69.	6766	65.	6766	65.	68.	399	6.	0	0.0
27	10400	7181	69.	6771	65.	6771	65.	68.	410	6.	0	0.0
28	10400	7258	70.	6845	66.	6845	66.	69.	413	6.	0	0.0
29	10400	7229	70.	6802	65.	6802	65.	68.	427	6.	0	0.0
30	10400	7274	70.	6848	66.	6848	66.	69.	426	6.	0	0.0
31	10400	7243	70.	6805	65.	6805	65.	68.	438	6.	0	0.0
32	10400	7290	70.	6856	66.	6856	66.	69.	434	6.	0	0.0
	332800	250440	75.	234649	71.	234315	70.	74.	15791	6.	334	0.

TYPES OF PARALLEL EXECUTION

S. I. M. E. - SINGLE I MULTIPLE E.

- A SINGLE INSTRUCTION ~~DECODER~~ STREAM
- MANY ARITHMETIC UNITS
- ALL UNITS EXECUTE INSTRUCTIONS SYNCHRONOUSLY

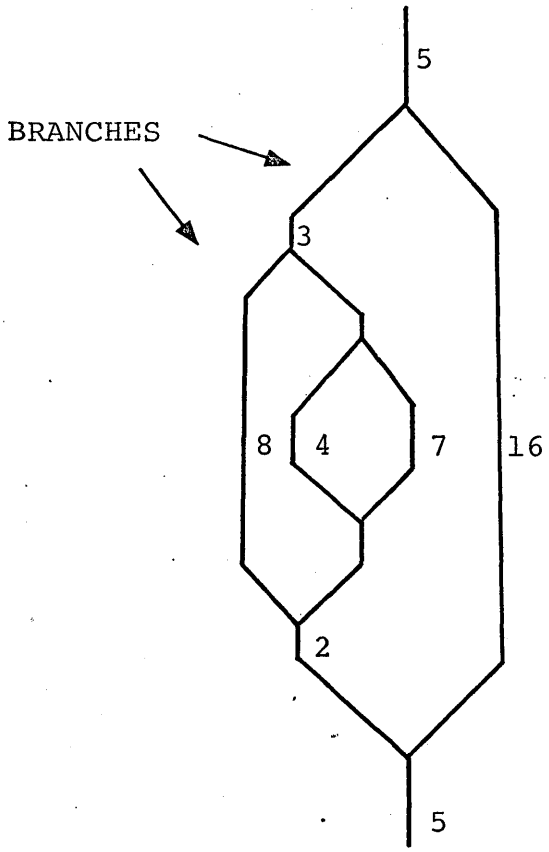
EXAMPLE: ILLIAC 4

M. I. M. E. - MULTIPLE I MULTIPLE E

- MANY INSTRUCTION ~~DECODERS~~ STREAMS
- MANY ARITHMETIC UNITS
- UNITS MAY EXECUTE ASYNCHRONOUSLY

EXAMPLE: FSDPP

PERFORMANCE WITH DATA DEPENDENT EXECUTION

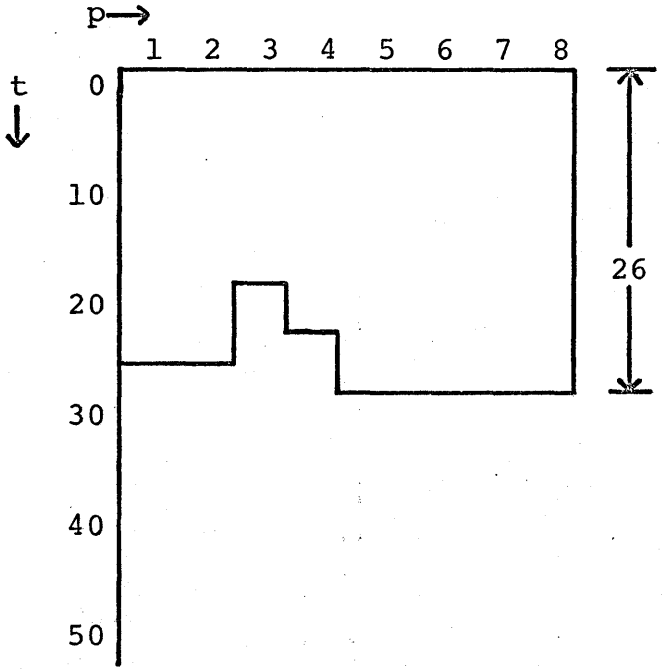


ASSUME EIGHT POINTS TO BE PROCESSED BY EIGHT PROCESSORS AND A 50% PROBABILITY OF TAKING EITHER LEG OF A SPLIT.

NUMBERS INDICATE RELATIVE LENGTHS OF LEGS.

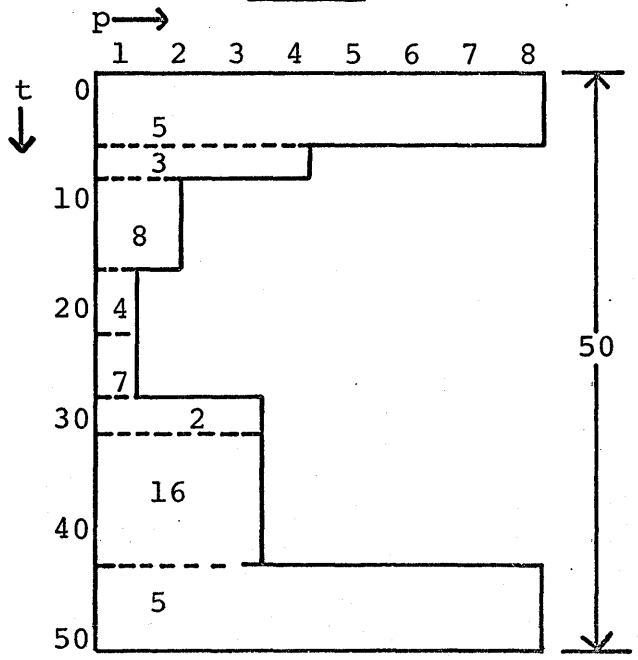
PROCESSOR UTILIZATION MAPS

FSDPP



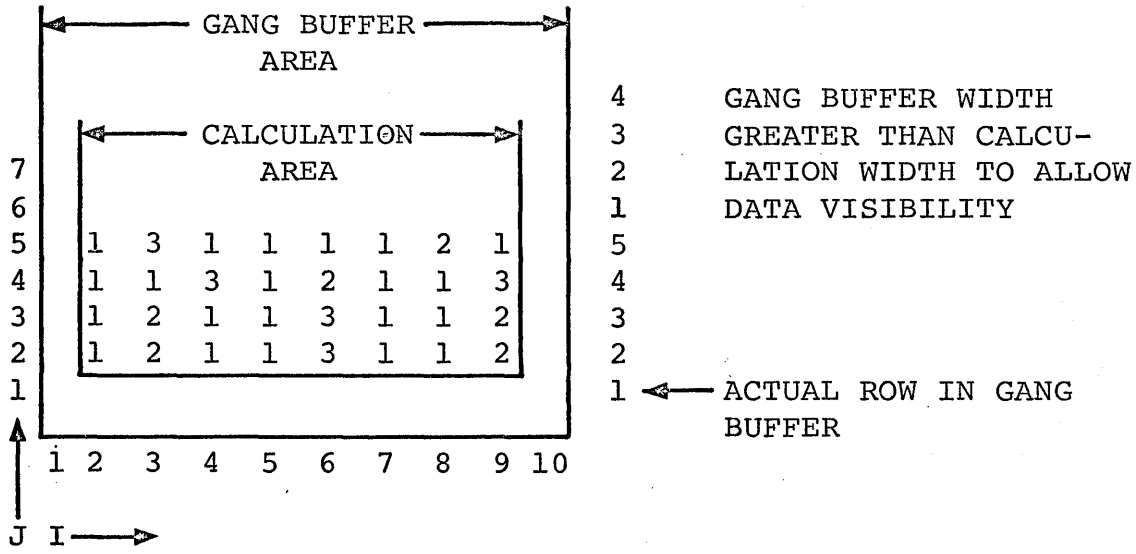
EFFECTIVENESS 92%

ILLIAC



48%

PROCESSOR ALLOCATION TO ELIMINATE WAIT TIME



TIMES VARY FROM 1-3 AS SHOWN ABOVE

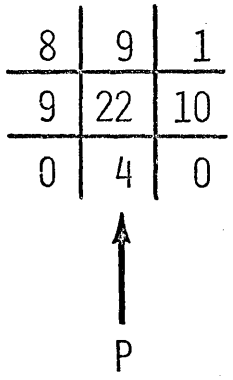
PROCESSOR CALCULATION ASSIGNMENTS

	P=	1	2	3	4	5	6	7	8
t=	1	2,2	2,3	2,4	2,5	2,6	2,7	2,8	2,9
	2	3,2	2,3	3,3	3,4	2,6	3,5	3,6	2,9
	3	3,7	3,8	3,3	3,9	2,6	4,2	3,6	4,3
	4	4,4	4,5	4,6	3,9	4,7	4,8	3,6	4,9
	5	4,4	5,2	4,6	5,3	5,4	5,5	5,6	4,9
	6	4,4	5,7	5,8	5,3	5,9			4,9
	7			5,8	5,3				
	8								

AT NO TIME ARE THERE MORE THAN THREE ROWS BEING WORKED ON. THUS, 5 BUFFER LINES PROVIDE SUFFICIENT SPACE TO ALLOW ALL PROCESSORS TO WORK CONTINUOUSLY.

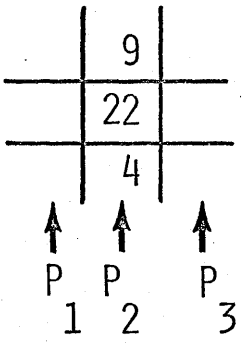
EXAMPLE OF DATA BUFFERING FROM WEATHER CODE

DATA REQUIREMENTS FOR MESH POINT COMPUTATION

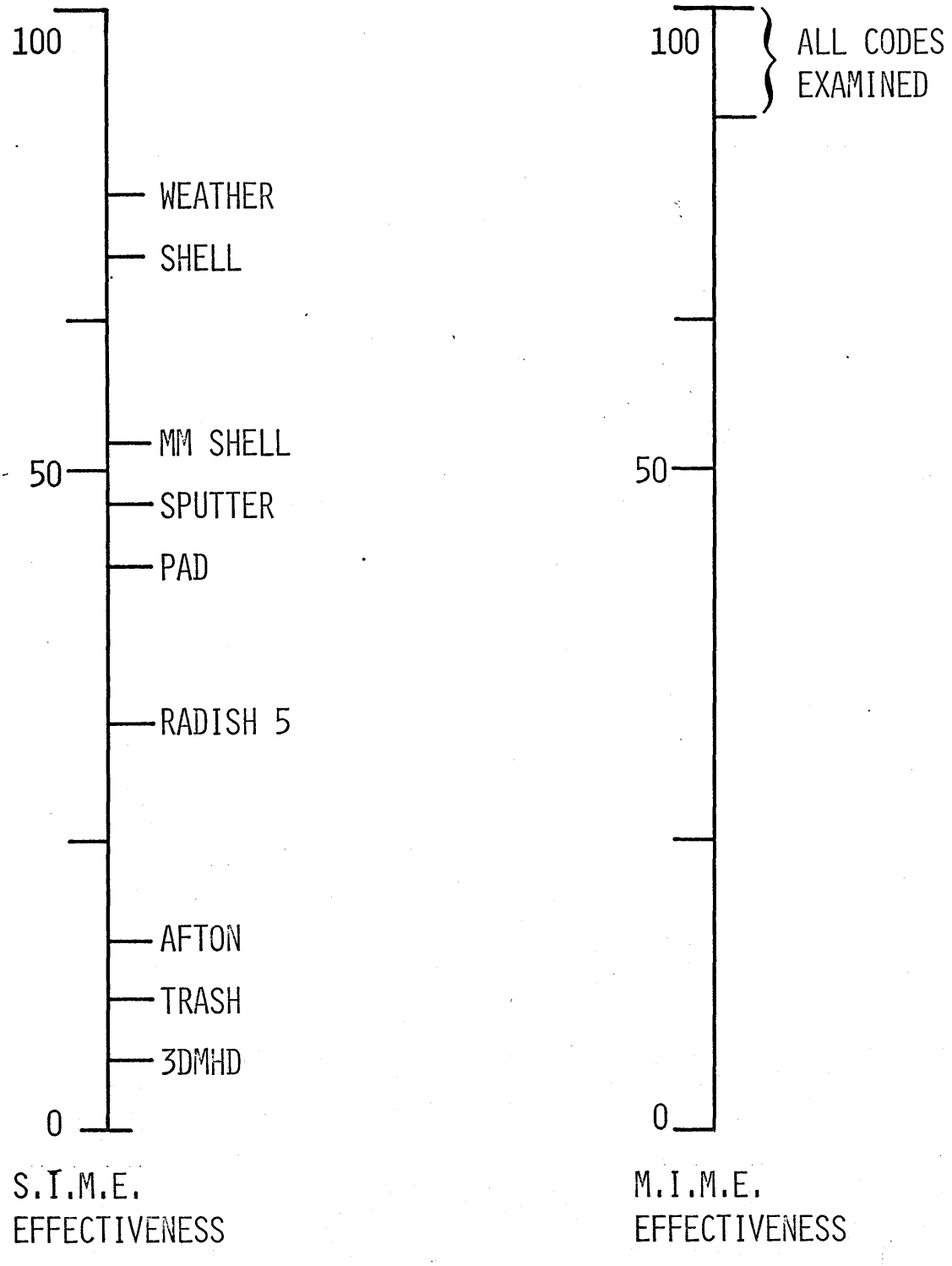


FREE MODE REQUIRES EACH PROCESSOR TO FETCH 63 ITEMS

GANG MODE REQUIRES EACH PROCESSOR TO FETCH 35 ITEMS

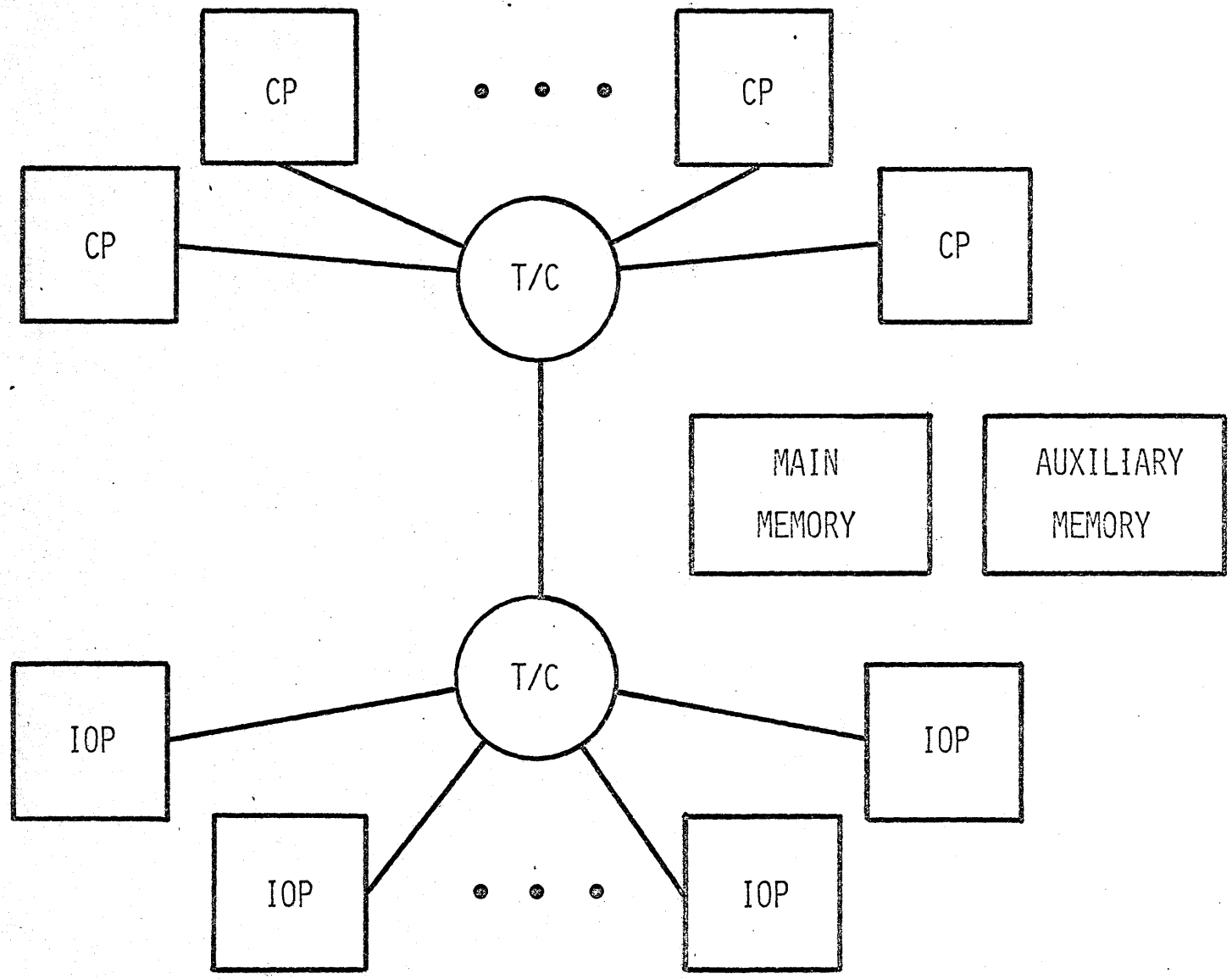


ESTIMATED PARALLEL PERFORMANCES



e.g. ILLIAC IV
3 PNDC

OPERATING SYSTEM


CP
CP
CP
CP
CP
T/C
MAIN
MEMORY
AUXILIARY
MEMORY
T/C
IOP
IOP
IOP
IOP

APPLICATIONS

LARGE SCIENTIFIC

- DEMANDS ALL COMPUTE RESOURCES
- LONG EXECUTION TIME
- WELL DISCIPLINED, LOW INCIDENT CONTROL

REAL TIME

- DEMANDS ALL RESOURCES
- LONG EXECUTION TIME
- WELL DISCIPLINED, HIGH INCIDENT CONTROL

MULTI-JOB

- VARIABLE RESOURCE DEMAND
- VARIABLE EXECUTION TIME
- UNDISCIPLINED, HIGH INCIDENT CONTROL

DESIGN OBJECTIVES

EXPLOIT FORK/JOIN

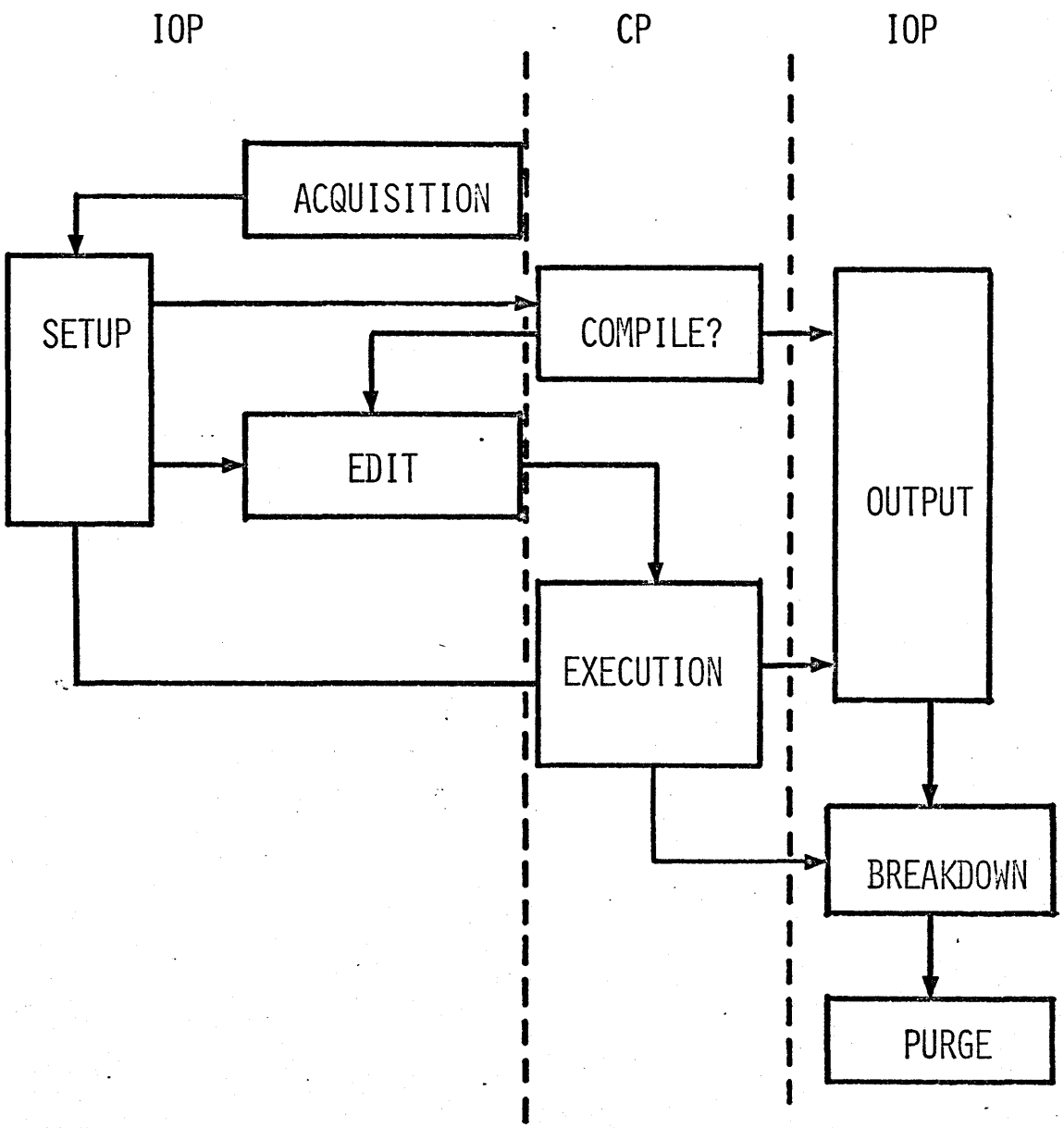
FORCE FUNCTIONS TO I/O PROCESSORS

EXPLICIT, DYNAMIC RESOURCE MANAGEMENT

CHANGE ABILITY

LESS THAN 5% OVERHEAD - 300 INSTRUCTION TASKS

GENERAL OPERATING SYSTEM STRUCTURE



PROBLEM AREAS

I/O BANDWIDTH

- FUNCTIONAL CHARACTERISTICS
- MINIMIZE TRAFFIC WITH EXTERNAL INTERFACES
  E.G., ONLINE DATA AND PROGRAM MAINTENANCE

MEMORY MANAGEMENT

- HIERARCHY
- RELOCATION PHILOSOPHY

COMPILE

- IMPLICIT VS EXPLICIT
- OPTIMIZATION

DATA MANAGEMENT

TASK COORDINATION

- SOFTWARE-HARDWARE TRADEOFFS

SYSTEM SIMULATOR

PURPOSE

- SOFTWARE DESIGN
- SOFTWARE IMPLEMENTATION

METHOD

- IMITATIVE AS OPPOSED TO ANALYTICAL TECHNIQUE
- REFINED AS SOFTWARE DESIGN PROCEEDS

BASIS

- EXECUTION SIMULATOR
- PROGRAM MODELING SYSTEM FOR OS/360

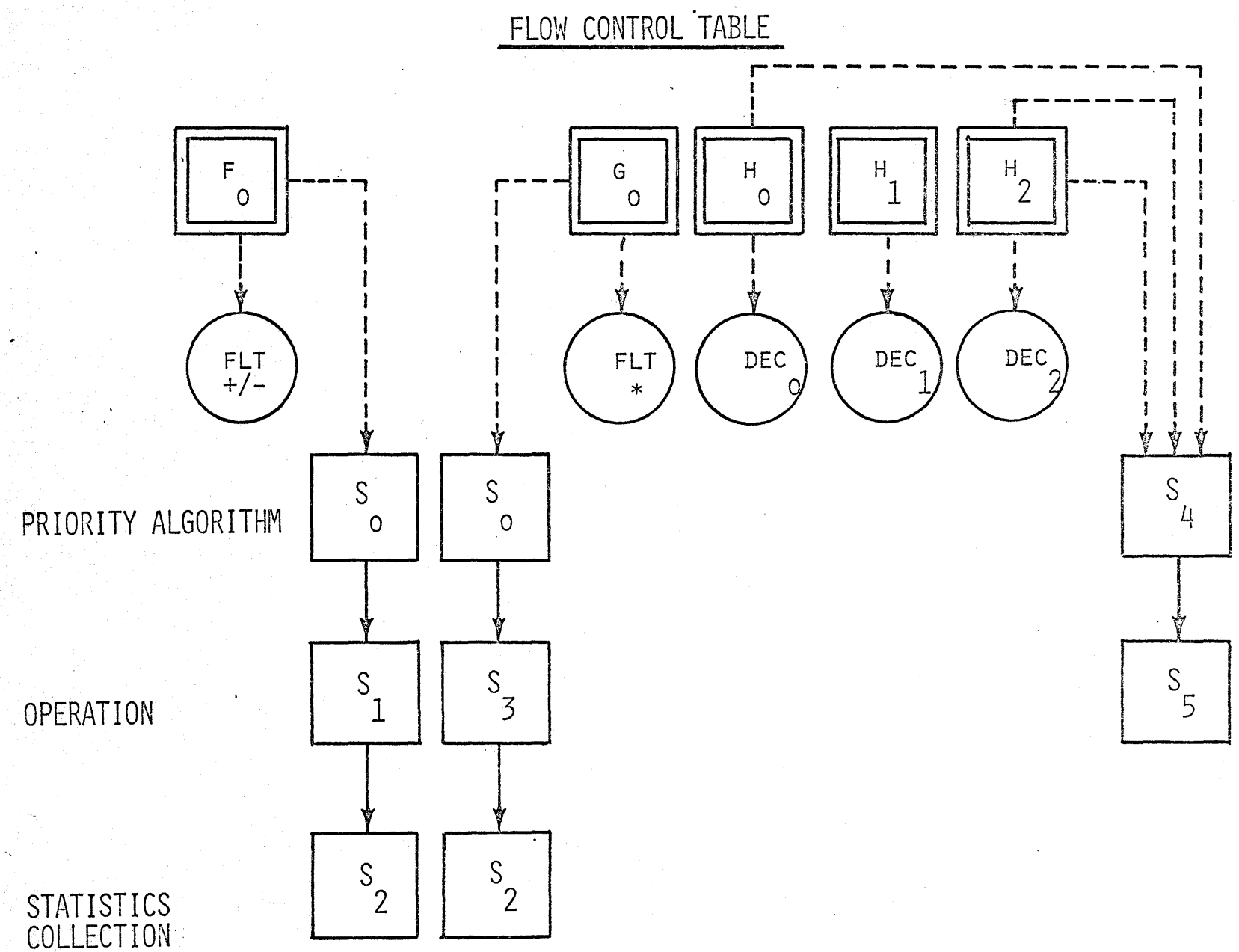
EXECUTION SIMULATOR

ENGINEERING DESIGN TOOL

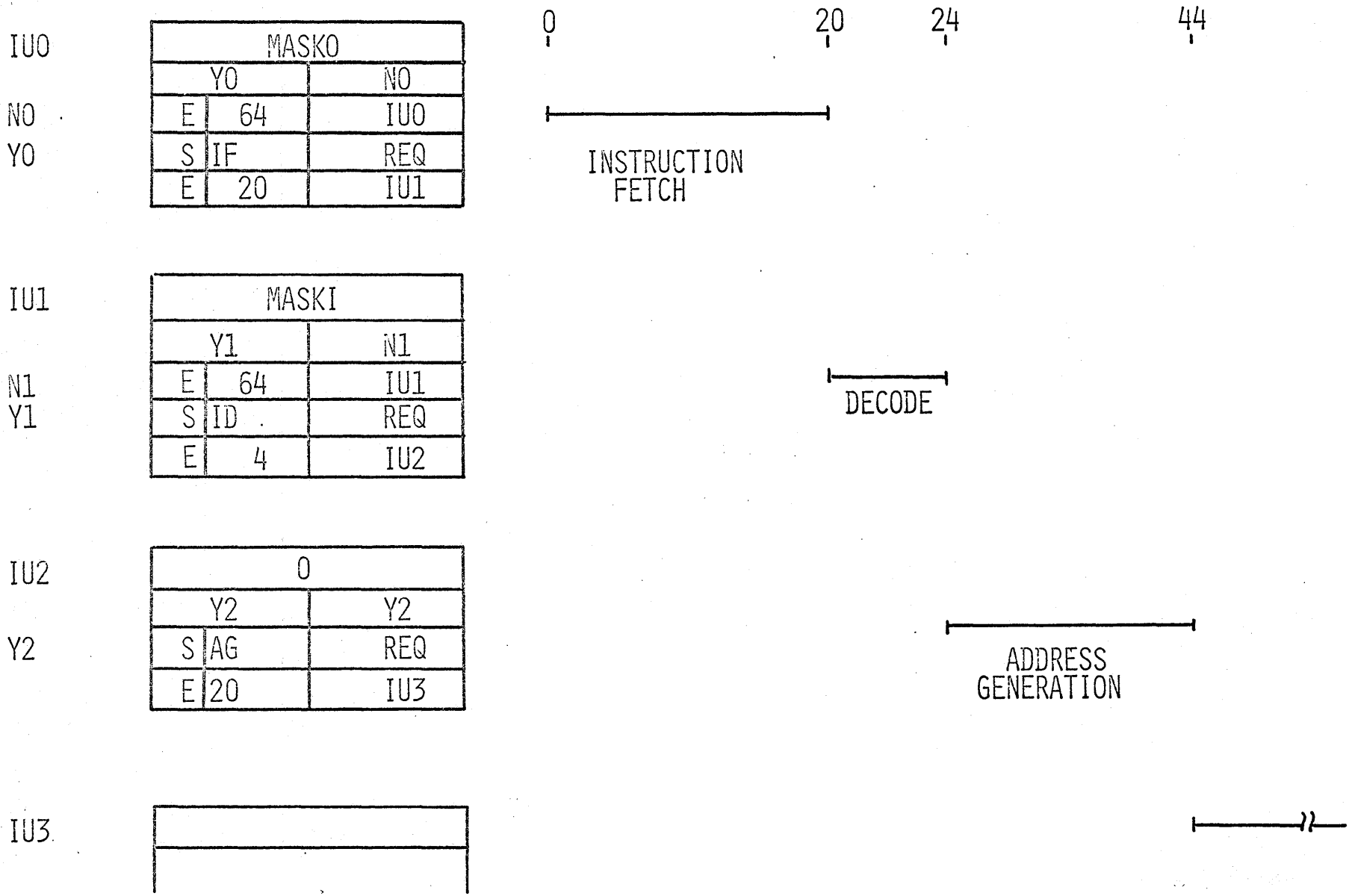
- o INTERPRETIVE EXECUTION - FLOW TRACE
- o INTERFERENCE ANALYSIS - PERFORMANCE

CONFIGURATION TABLE

PROCESSOR / RESOURCE	P_0	P_1	P_2 — — —
PROCESSOR	T_0	T_0	T_0
⋮			
FLT ADD	F_0	F_0	F_0
FLT SUB	F_0	F_0	F_0
FLT MPY	G_0	G_0	G_0
⋮			
DECODER	H_0	H_1	H_2
⋮			
MEMORY MOD. 1			
2			
⋮			
MEMORY BUS			
⋮			


FLOW CONTROL TABLE
F 0
G 0
H 0
H 1
H 2
FLT +/-
FLT *
DEC 0
DEC 1
DEC 2
PRIORITY ALGORITHM
S 0
S 0
S 4
OPERATION
S 1
S 3
S 5
STATISTICS COLLECTION
S 2
S 2

INSTRUCTION UNIT



INPUT

SIMULATION CONTROL

- o INITIALIZATION
- o TERMINATION
- o OUTPUT

DESIGN PARAMETERS

- o CONFIGURATION
- o TIMING
- o ALGORITHM

INSTRUCTION STREAM

LISTING OF PARAMETER CARDS AS READ

```
PROCESSOR   NUMBER=32
CHANGE      RESOURCE=ADGEN,      MASK=10,    ACTSF=RELEASE
CHANGE      RESOURCE=FLDIV,  NUMBER=1,  TYPE=COMMON,    ACTSE=EVENT,X
              ACTDT=0,    ACTSF=EXFLD
CHANGE     RESOURCE=PROC,      PRIDT=448
CHANGE    FCTSTEP=XFCRK, ENTRY=3, FDT=40   CHANGING DELTA-TIME FIELD
CHANGE    FCTSTEP=PRIORITY,  ENTRY=2,  FSE=EVENT,      FADDR=PRIORITY
START      STINST=1,                      STPROC=31,                  X
             ILIMIT=20000
TRACE       LINES=0                COMMENT
 CHANGE     FCTSTEP=PRIORITY,  ENTRY=2,  FDT=448
PLOT        PAGES=400
  ENDPARM             MAIN KEYWORDS NEED NOT ALL START IN COL 4
```

END OF PARAMETERS. 13 CARDS READ.

```
  LCC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    F01JAN68   4/04/68


C00000                          462+INSTRC   START 0 CONTROL SECTION FOR INPUT INSTRUCTIONS
                                463+*
000000 00000000                 464+IBEG     DC    A(0) FOR LENGTH OF INSTRUCTIONS

                                466 *
                                467 *
                                468 *
                                469 *
                                470          PRINT ON,NUGEN       SUPRESS INSTRUCTION MACRO EXPANSIONS
                                471 *
                                472 *  INSTRUCTIONS TO SIMULATE 'SUBROUTINE CMP108'
                                473 *
                                474 *
                                475 *        P R I V A T E  S T O R E  A S S I G N M E N T S
                                476 *
                                477 *    VARIABLE            PRIVATE STORE LOCATION
                                478 *    --------            ----------------------
                                479 *       J                          0 (XR0)
                                480 *       IP1                        1 (XR1)
                                481 *       I                          2 (XR2)
                                482 *       IM                         3 (XR3)
                                483 *       IM1                        4 (XR4)
                                484 *       LOOP CNTRL                 5 (XR5)
                                485 *       JM                         6 (XR6)
                                486 *       MRCH                       7 (XR7)
                                487 *
                                488 *    CONST  1                       8
                                489 *    CONST  2                       9
                                490 *    CONST  3                      10
                                491 *    CONST  4                      11
                                492 *    CONST  7                      12
                                493 *    CONST 10                      13
                                494 *    CONST 0.25                    14
                                495 *    CONST 0.5                     15
                                496 *
                                497 *    ARRAY PU                      20
                                498 *    ARRAY P                       40
                                499 *    ARRAY PV                      60
                                500 *    ARRAY DXU                     80
                                501 *    ARRAY V                      100
                                502 *      .TEMP.                      19
                                503 *
                                504 *
                                505 *  GET ALL PROCESSORS GOING ON TASK
                                506 *
                                507 A        FORK  B
                                516 B        FORK  C
                                525 C        FORK  D
                                534 D        FORK  E
                                543 E        FORK  CMP108
                                552 *
```

[redacted]INS[redacted] [redacted] [redacted]SSE[redacted]D I[redacted]UCT[redacted]INP[redacted]OR [redacted]UTIC[redacted]MUL[redacted]

```
LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                F01JAN68   4/04/68
                                  553 CMP108   NOOP  ,              ENTRY FOR SUBROUTINE CMP108
                                  561 *
                                  562 *  INITIALIZE REGISTERS FOR LOOP
                                  563 *
                                  564          LDX   X2,C5          SET I TO 5
                                  574          LDX   X3,C31         SET IM TO 31
                                  584          LDX   X6,C30         SET JM TO 30
                                  594          LDX   X7,C2          SET MRCH TO 2 - THEN 3, 4, 2, 3, 4, ETC
                                  604 *
                                  605          LDX   X0,C0          START J AT 0
                                  615          LDX   X5,C1          START LOOP CONTROL AT 1
                                  625 *
                                  626 *
                                  627 *  INSTRUCTION COUNTING STATEMENTS, I.E. CTR=CTR+4, ARE NOT SIMULATED
                                  628 *
                                  629 LOOP     ATX   C1,X0,X0           J=J+1
                                  640          TXH   SN10,X0,C2     IF(J.NE.2)
                                  651          TXLE  SN10,X0,C1                 GO TO 10
                                  662          ATX   C1,X2,X1       IP1=I+1
                                  673          TXH   SKIP1,X2,X3    IF(I.EQ.IM) .... IP=1
                                  684          SFX   C1,X3,X4       TEMP - X4=IM-1
                                  695          TXLE  SKIP1,X2,X4    IF .LE. IM-1, THEN .NE. IM
                                  706          LDX   X1,C1          IP1=1
                                  716 SKIP1    LDX   X4,X2          IM1=
                                  726          SFX   C1,X4,X4          I-1
                                  737          TXH   SN10,X2,C1     IF(.NOT.(I.EQ.1))
                                  748          TXLE  SN10,X2,C0                      GO TO 10
                                  759          LDX   X4,X3          IM1=IM
                                  769 *
                                  770 SN10     NOOP  ,              WAS CTR=CTR+4
                                  778          LOD   A1,X5          SIMULATE SAVING 'CTR' SINCE
                                  788          STO   A1,P19              IT DOES NOT AFFECT FLOW
                                  798          TXH   SN2170,X0,X6   IF(J.EQ.JM)...GO TO 2175 - BRA IF HIGHER
                                  809          SFX   C1,X6,X6       TEMP - JM=JM-1
                                  820          TXLE  SKIP2,X0,X6    COMPARING J TO JM-1
                                  831          ATX   C1,X6,X6       RESTORING JM
                                  842          BRA   SN2175         GO TO 2175  (J.EQ.JM)
                                  851 *
                                  852 SKIP2    ATX   C1,X6,X6       RESTORING JM  (HERE IF J.NE.JM)
                                  863 *
                                  864 SN2170   LOD   A1,P40          P(J,I)
                                  874          FADD  A1,P40,A1           + P(J,IP1)
                                  885          FMPY  A1,P20,A1        ABOVE QUANTITY  * PU(J,I)
                                  896          STO   A1,P20          PU(J,I)=  ABOVE RESULT
                                  906 *
                                  907 SN2175   NOOP  ,              WAS CTR=CTR+4
                                  915          TXH   SN11,X7,C2     IF(.NOT.(MRCH.LE.2)) GO TO 11
                                  926 *
                                  927          LOD   A1,P100        V(J,I,L)
                                  937          FADD  A1,P100,A1          + V(J,IM1,L)
                                  948          STO   A1,P19         SAVE IN TEMP
                                  958          LOD   A1,P40         P(J,I)
                                  968          FADD  A1,P40,A1           + P(J-1,I)
                                  979          FMPY  A1,P19,A1      * (V(J,I,L) + V(J,IM1,L))
                                  990          FMPY  A1,P60,A1      * DXU(J)
```

LOC. OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT F01JAN68 4/04/68

```
1001            FMPY  A1,P14,A1      *  0.25
1012            STO   A1,P60          PV(J,I) = ABOVE PRODUCT
1022 *
1023 *
1024 SN11       NOOP  ,               WAS CTR=CTR+4
1032            TXH   SN12,X7,C3      IF(.NOT.(MRCH.EQ.3))
1043            TXLE  SN12,X7,C2                          GO TO 12
1054 *
1055            LOD   A1,P40          P(J,I)
1065            FADD  A1,P40,A1               + P(J-1,I)
1076            FMPY  A1,P100,A1                        * V(J,I,L)
1087            FMPY  A1,P80,A1                                 * DXU(J)
1098            FMPY  A1,P15,A1                                         *0.5
1109            STO   A1,P60          PV(J,I) = ABOVE PRODUCT
1119 *
1120 SN12       NOOP  ,               WAS CTR=CTR+4
1128            TXH   SN13,X7,C4      IF(.NOT.(MRCH.EQ.4))
1139            TXLE  SN13,X7,C3                          GO TO 13
1150 *
1151            LOD   A1,P40          P(J,I)
1161            FADD  A1,P40,A1               + P(J-1,I))
1172            FMPY  A1,P100,A1                        * V(J,IM1,L)
1183            FMPY  A1,P80,A1                                 * DXU(J)
1194            FMPY  A1,P15,A1                                         *0.5
1205            STO   A1,P60          PV(J,I) = ABOVE PRODUCT
1215 *
1216 SN13       NOOP  ,               WAS CTR=CTR+4
1224            TXH   SN2181,X0,X6    IF(J.NE.JM) .... GO TO 2181
1235            SFX   C1,X6,X6        TEMP - JM=JM-1
1246            TXLE  SKIP3,X0,X6     BRANCH IF  J .LE. JM-1  ( .NE. JM )
1257            ATX   C1,X6,X6        RESTORING JM  ( J .EQ. JM )
1268            BRA   SKIP4           BRANCH AROUND EQUAL CASE
1277 *
1278 SKIP3      ATX   C1,X6,X6        RESTORING JM -  J .NE. JM
1289            BRA   SN2181          GO TO 2181
1298 *
1299 SKIP4      ATX   C1,X2,X2        I=I+1
1310            LDX   X0,C1           J=1
1320 *
1321 SN2181     NOOP  SN2181          CONTINUE
1330 *
1331            ATX   C1,X5,X5        LOOP COUNTER UP BY ONE
1342            TXH   TENDCMP,X5,C30      BRANCH TO TEND IF DONE
1353 *
1354            ATX   C1,X7,X7        MRCH=MRCH+1
1365            TXLE  LOOP,X7,C4      BRANCH BACK IF MRCH STILL LE 4
1376 *
1377            LDX   X7,C2           RESET MRCH TO 2
1387            BRA   LOOP
1396 *
1397 *
1398 TENDCMP    TEND  CMP108
1407            TERM                  CLEANUP                                   INST4830
1528 *                                                                          INST4840
1529 *                                                                          INST4850
```

OUTPUT

RESOURCE UTILIZATION

- o BUSY TIME
- o IDLE TIME

REQUEST QUEUE

- o LENGTH
- o DELAY
- o REQUESTOR

INSTRUCTION EXECUTION TRACE

- o INSTRUCTION FETCH
- o DECODE
- o ADDRESS GENERATION
- o OPERAND FETCH
- o EXECUTION

SYSTEM CLOCK TIME=00000064 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME) -I-	-D-	-A-	-O-	-R-	PROC.	(INSTRUCTION) FETCH	EXEC.	0.....8.....6.....4.....2.....0.....8.....6.....3
.CCC	.CCC	.CCC	.CCC	.CCC	0			
.CCC	.CCC	.CCC	.CCC	.CCC	1			
.CCC	.CCC	.CCC	.CCC	.CCC	2			
.CCC	.CCC	.CCC	.CCC	.CCC	3			
.CCC	.CCC	.CCC	.CCC	.CCC	4			
.CCC	.CCC	.CCC	.CCC	.CCC	5			
.CCC	.CCC	.CCC	.CCC	.CCC	6			
.CCC	.CCC	.CCC	.CCC	.CCC	7			
.CCC	.CCC	.CCC	.CCC	.CCC	8			
.CCC	.CCC	.CCC	.CCC	.CCC	9			
.CCC	.CCC	.CCC	.CCC	.CCC	10			
.CCC	.CCC	.CCC	.CCC	.CCC	11			
.CCC	.CCC	.CCC	.CCC	.CCC	12			
.CCC	.CCC	.CCC	.CCC	.CCC	13			
.CCC	.CCC	.CCC	.CCC	.CCC	14			
.CCC	.CCC	.CCC	.CCC	.CCC	15			
.CCC	.CCC	.CCC	.CCC	.CCC	16			
.CCC	.CCC	.CCC	.CCC	.CCC	17			
.CCC	.CCC	.CCC	.CCC	.CCC	18			
.CCC	.CCC	.CCC	.CCC	.CCC	19			
.CCC	.CCC	.CCC	.CCC	.CCC	20			
.CCC	.CCC	.CCC	.CCC	.CCC	21			
.CCC	.CCC	.CCC	.CCC	.CCC	22			
.CCC	.CCC	.CCC	.CCC	.CCC	23			
.CCC	.CCC	.CCC	.CCC	.CCC	24			
.CCC	.CCC	.CCC	.CCC	.CCC	25			
.CCC	.CCC	.CCC	.CCC	.CCC	26			
.CCC	.CCC	.CCC	.CCC	.CCC	27			
.CCC	.CCC	.CCC	.CCC	.CCC	28			
.CCC	.CCC	.CCC	.CCC	.CCC	29			
.CCC	.CCC	.CCC	.CCC	.CCC	30			
.312	.CCC	.CCC	.CCC	.CCC	31	FORK		IIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

C.CC	FL.PT. ADD|SUB
C.CC	FL.PT. MULTIPLY
C.CC	FL.PT. DIVIDE
C.CC	FX.PT. ADD|SUB
C.CC	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000448 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....6.....4.....2.....0.....8.....6.....3
.223	.044	.044	.026	.000	0	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.178	.035	.044	.026	.000	1	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.178	.035	.044	.026	.000	2	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.133	.026	.044	.026	.000	3	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.133	.026	.044	.026	.000	4	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.133	.026	.044	.026	.000	5	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.133	.026	.044	.026	.000	6	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.089	.017	.044	.026	.000	7	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.089	.017	.044	.026	.000	8	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.089	.017	.044	.026	.000	9	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.089	.017	.044	.026	.000	10	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.089	.017	.044	.026	.000	11	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.089	.017	.044	.000	.000	12	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.089	.017	.044	.000	.000	13	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.089	.017	.044	.000	.000	14	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.044	.008	.044	.000	.000	15	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.044	.008	.044	.000	.000	16	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.044	.008	.044	.000	.000	17	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.044	.008	.044	.000	.000	18	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.044	.008	.044	.000	.000	19	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.044	.008	.000	.000	.000	20	NOOP		IIIIIIIIIIIIIIIIIIIDDDD
.044	.008	.000	.000	.000	21	NOOP		IIIIIIIIIIIIIIIIIIIDDDD
.044	.008	.000	.000	.000	22	NOOP		IIIIIIIIIIIIIIIIIIIDDDD
.044	.008	.000	.000	.000	23	NOOP		IIIIIIIIIIIIIIIIIIIDDDD
.044	.000	.000	.000	.000	24	NOOP		IIIIIIIIIIIIIIII
.044	.000	.000	.000	.000	25	NOOP		IIIIIIIIIIIIIIII
.044	.000	.000	.000	.000	26	NOOP		IIIIIIIIIIIIIIII
.044	.000	.000	.000	.000	27	NOOP		IIIIIIIIIIIIIIII
.044	.000	.000	.000	.000	28	NOOP		IIIIIIII
.044	.000	.000	.000	.000	29	NOOP		IIIIIIII
.044	.000	.000	.000	.000	30	NOOP		IIIIIIII
.312	.053	.044	.026	.000	31	LDX	NOOP	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

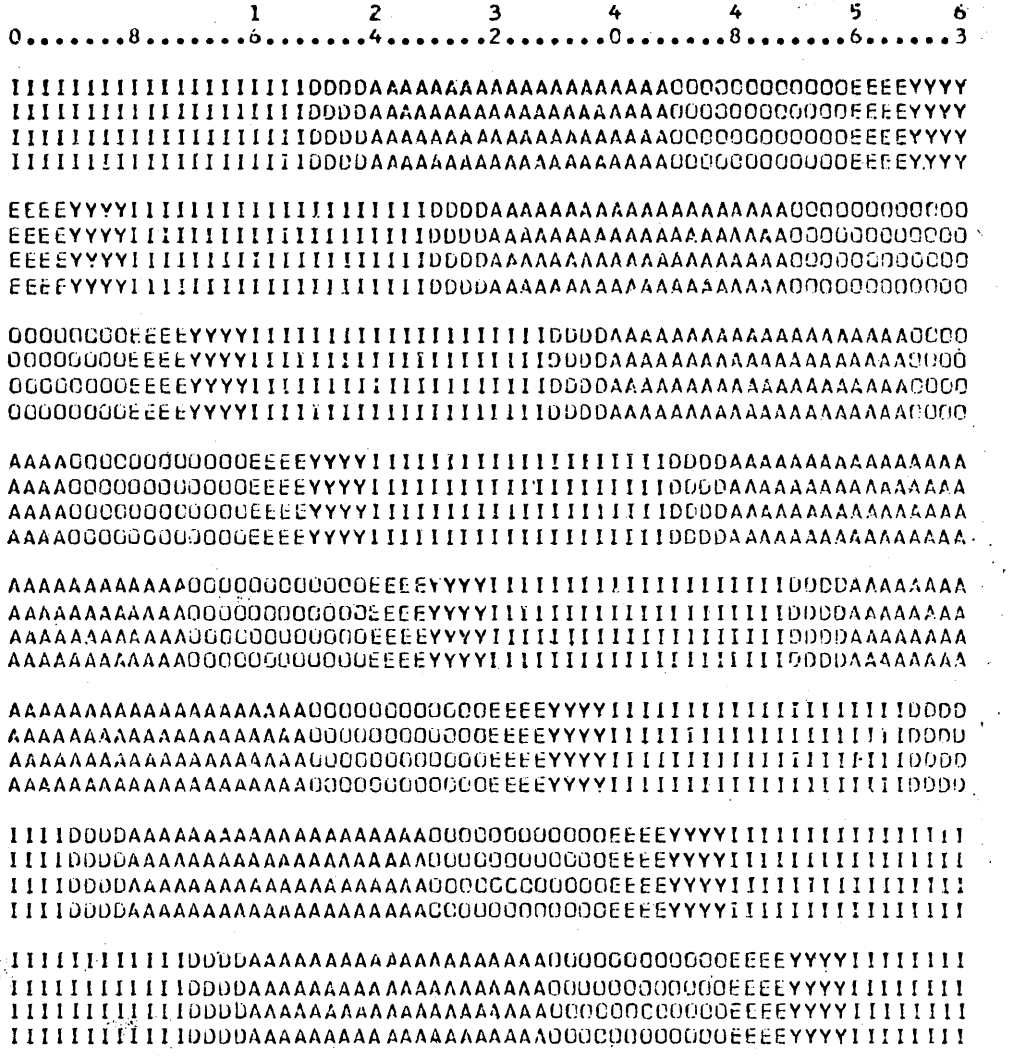
(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000512 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)					(INSTRUCTION)		
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH	EXEC.
.234	.046	.078	.046	.000	0	LDX	LDX
.195	.039	.078	.046	.000	1	LDX	LDX
.195	.039	.078	.046	.000	2	LDX	LDX
.156	.031	.078	.046	.000	3	LDX	LDX
.156	.031	.078	.046	.000	4	LDX	NOOP
.156	.031	.078	.046	.000	5	LDX	NOOP
.156	.031	.078	.046	.000	6	LDX	NOOP
.117	.023	.078	.046	.000	7	LDX	NOOP
.117	.023	.078	.046	.000	8	LDX	NOOP
.117	.023	.078	.046	.000	9	LDX	NOOP
.117	.023	.078	.046	.000	10	LDX	NOOP
.117	.023	.078	.046	.000	11	LDX	NOOP
.117	.023	.078	.023	.000	12	LDX	NOOP
.117	.023	.078	.023	.000	13	LDX	NOOP
.117	.023	.078	.023	.000	14	LDX	NOOP
.078	.015	.078	.023	.000	15	LDX	NOOP
.078	.015	.078	.023	.000	16	LDX	NOOP
.078	.015	.078	.023	.000	17	LDX	NOOP
.078	.015	.078	.023	.000	18	LDX	NOOP
.078	.015	.078	.023	.000	19	LDX	NOOP
.078	.015	.039	.023	.000	20	LDX	NOOP
.078	.015	.039	.023	.000	21	LDX	NOOP
.078	.015	.039	.023	.000	22	LDX	NOOP
.078	.015	.039	.023	.000	23	LDX	NOOP
.078	.007	.039	.023	.000	24	LDX	NOOP
.078	.007	.039	.023	.000	25	LDX	NOOP
.078	.007	.039	.023	.000	26	LDX	NOOP
.078	.007	.039	.023	.000	27	LDX	NOOP
.078	.007	.039	.023	.000	28	LDX	NOOP
.078	.007	.039	.023	.000	29	LDX	NOOP
.078	.007	.039	.023	.000	30	LDX	NOOP
.312	.054	.078	.046	.000	31	LDX	LDX



(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001600 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.287	.057	.237	.142	.000	0	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.275	.055	.237	.142	.037	1	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRR
.275	.055	.237	.142	.037	2	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRR
.262	.052	.237	.142	.000	3	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.262	.052	.237	.142	.000	4	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.262	.052	.237	.142	.000	5	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.262	.052	.237	.142	.000	6	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.250	.050	.237	.142	.000	7	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.250	.050	.237	.142	.000	8	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.237	.142	.000	9	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.237	.142	.000	10	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.237	.142	.000	11	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.237	.135	.000	12	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.250	.050	.237	.135	.000	13	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.250	.050	.237	.135	.000	14	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.237	.047	.237	.135	.000	15	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.237	.047	.237	.135	.000	16	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.237	.135	.000	17	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.237	.135	.000	18	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.237	.135	.000	19	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.225	.135	.000	20	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.047	.225	.135	.000	21	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.047	.225	.135	.000	22	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.047	.225	.135	.000	23	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.045	.225	.135	.000	24	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.237	.045	.225	.135	.000	25	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.237	.045	.225	.135	.000	26	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.237	.045	.225	.135	.000	27	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.237	.045	.225	.135	.000	28	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.237	.045	.225	.135	.000	29	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.237	.045	.225	.135	.000	30	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.060	.237	.142	.000	31	FMPY	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.50	FL.PT. ADD|SUB	11111111333333333
0.00	FL.PT. MULTIPLY	
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00001664 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

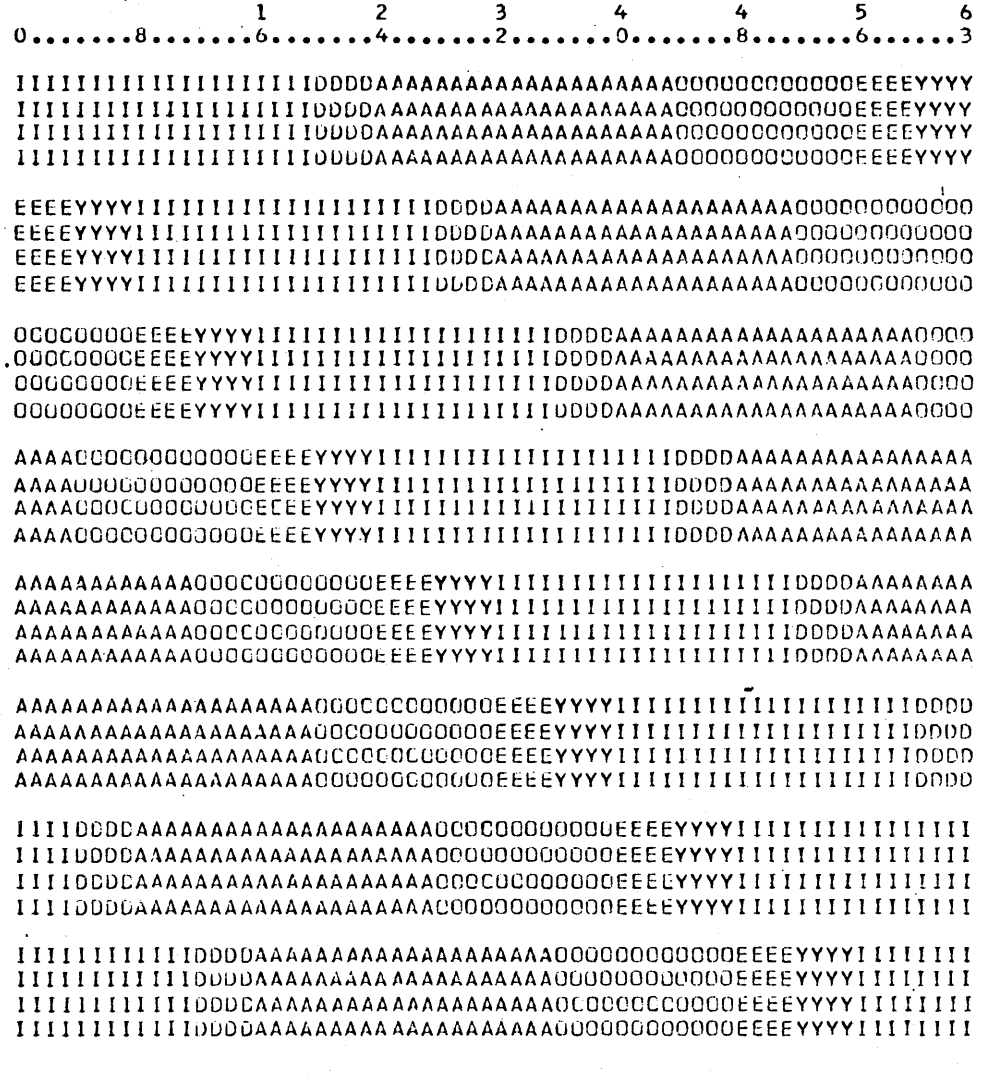
(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.288	.057	.240	.144	.036	0	FMPY	FMPY	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRR
.264	.052	.228	.137	.036	1		FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.264	.052	.228	.137	.036	2		FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.264	.052	.240	.144	.000	3	FMPY	FMPY	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.264	.052	.240	.144	.000	4	FMPY	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.252	.050	.228	.137	.036	5		FADD	EEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.252	.050	.228	.137	.036	6		FADD	EEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.252	.050	.240	.144	.000	7	FMPY	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.252	.050	.240	.144	.000	8	FMPY	FADD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOO
.240	.048	.228	.137	.036	9		FADD	OOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.228	.137	.036	10		FADD	OOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.252	.050	.240	.144	.000	11	FMPY	FADD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOO
.252	.050	.240	.137	.000	12	FMPY	FADD	AAAACCCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAA
.240	.048	.228	.137	.036	13		FADD	AAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.228	.137	.036	14		FADD	AAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.240	.137	.000	15	FMPY	FADD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAA
.240	.048	.240	.137	.000	16	FMPY	FADD	AAAAAAAAAAAAOOOOCCCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.228	.045	.228	.137	.036	17		FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.228	.045	.228	.137	.036	18		FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.240	.137	.000	19	FMPY	FADD	AAAAAAAAAAAAOOOOCCCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.240	.048	.228	.137	.000	20	FMPY	FADD	AAAAAAAAAAAAAAAAAAAAOOOOCCCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.228	.045	.228	.137	.036	21		FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRR
.228	.045	.228	.137	.036	22		FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.228	.137	.000	23	FMPY	FADD	AAAAAAAAAAAAAAAAAAAAOOOOCCCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.240	.045	.228	.137	.000	24	FMPY	FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.228	.045	.228	.137	.036	25		FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRR
.228	.045	.228	.137	.036	26		FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRR
.240	.045	.228	.137	.000	27	FMPY	FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.240	.045	.228	.137	.000	28	FMPY	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.240	.045	.228	.137	.000	29	FMPY	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.228	.045	.228	.137	.036	30		FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRR
.312	.060	.240	.144	.000	31	STO	FMPY	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE)	EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)	
11.50	FL.PT. ADD|SUB	555555557777777799999999BBBBBBBBDDDDDDDDFFFFFFFFGGGGGGGGGGGGGGG
0.37	FL.PT. MULTIPLY	1111111122222222
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00002240 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)	
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.
.285	.057	.250	.150	.026	0	FADD	FADD
.267	.053	.241	.144	.053	1	LOAD	LOAD
.258	.051	.232	.139	.080	2	STO	STO
.276	.055	.258	.155	.000	3	FMPY	FMPY
.267	.053	.250	.150	.026	4	FADD	LOAD
.258	.051	.241	.144	.053	5	LOAD	STO
.250	.050	.232	.139	.080	6	STO	FADD
.267	.053	.258	.155	.000	7	FMPY	FADD
.258	.051	.250	.150	.026	8	FADD	LOAD
.250	.050	.241	.144	.053	9	LOAD	STO
.241	.048	.232	.139	.080	10	STO	FADD
.267	.053	.258	.155	.000	11	FMPY	FADD
.258	.051	.250	.144	.026	12	FADD	LOAD
.250	.050	.241	.139	.053	13	LOAD	STO
.241	.048	.232	.133	.080	14	STO	FADD
.258	.051	.258	.150	.000	15	FMPY	FADD
.250	.050	.250	.144	.026	16	FADD	LOAD
.241	.048	.241	.139	.053	17	LOAD	STO
.232	.046	.232	.133	.080	18	STO	FADD
.258	.051	.258	.150	.000	19	FMPY	FADD
.250	.050	.241	.144	.026	20	FADD	LOAD
.241	.048	.232	.139	.053	21	LOAD	STO
.232	.046	.223	.133	.080	22	STO	FADD
.258	.051	.250	.150	.000	23	FMPY	FADD
.250	.048	.241	.144	.026	24	FADD	LOAD
.241	.046	.232	.139	.053	25	LOAD	STO
.232	.044	.223	.133	.080	26	STO	FADD
.258	.050	.250	.150	.000	27	FMPY	FADD
.258	.050	.250	.150	.000	28	FMPY	FADD
.250	.048	.241	.144	.026	29	FADD	LOAD
.241	.046	.232	.139	.053	30	LOAD	STO
.312	.060	.258	.155	.000	31	FMPY	FMPY

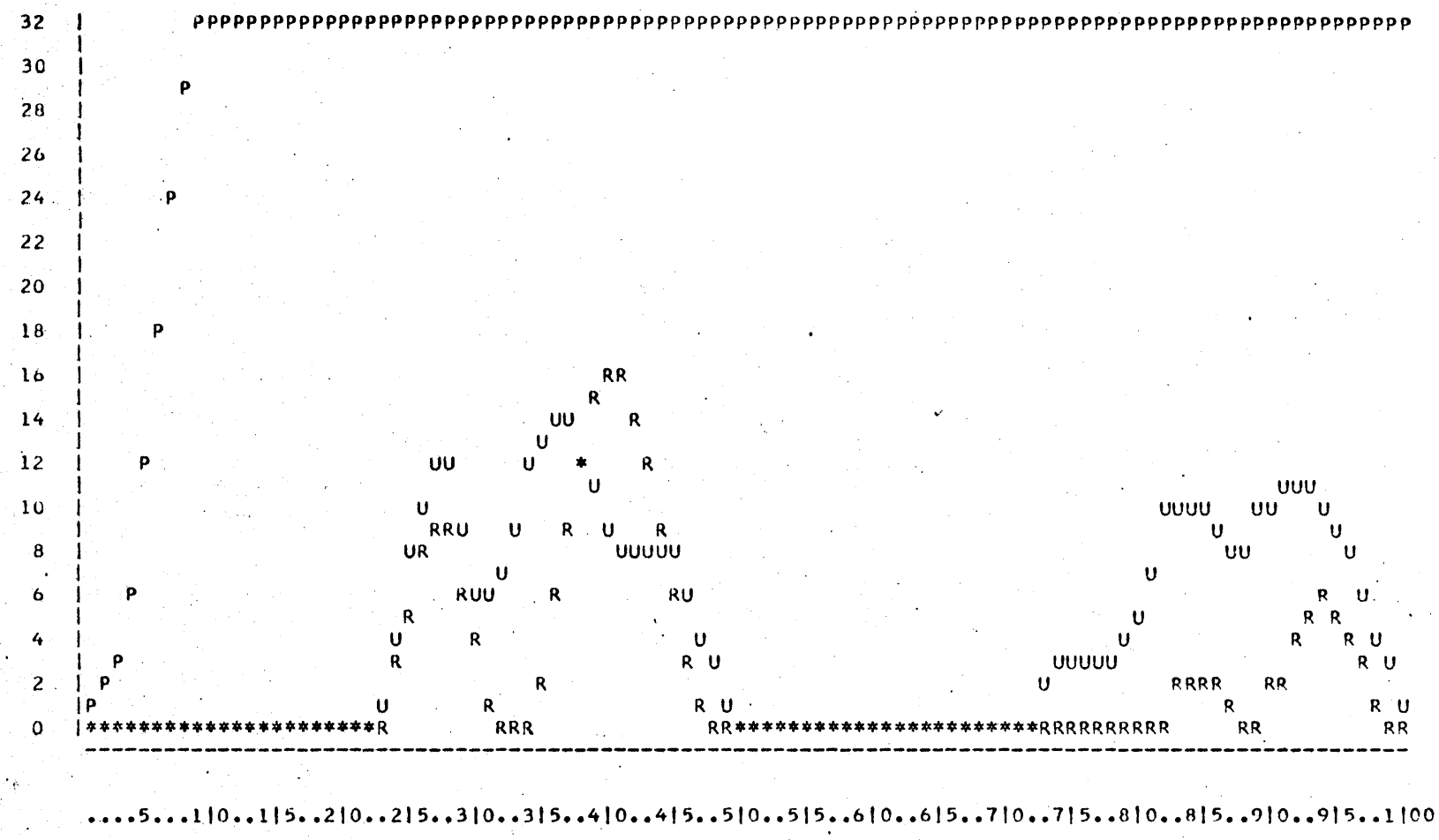


(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

13.75	FL.PT. ADD|SUB
0.37	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00006528 RING PRIORITY=(0,1,2,3)

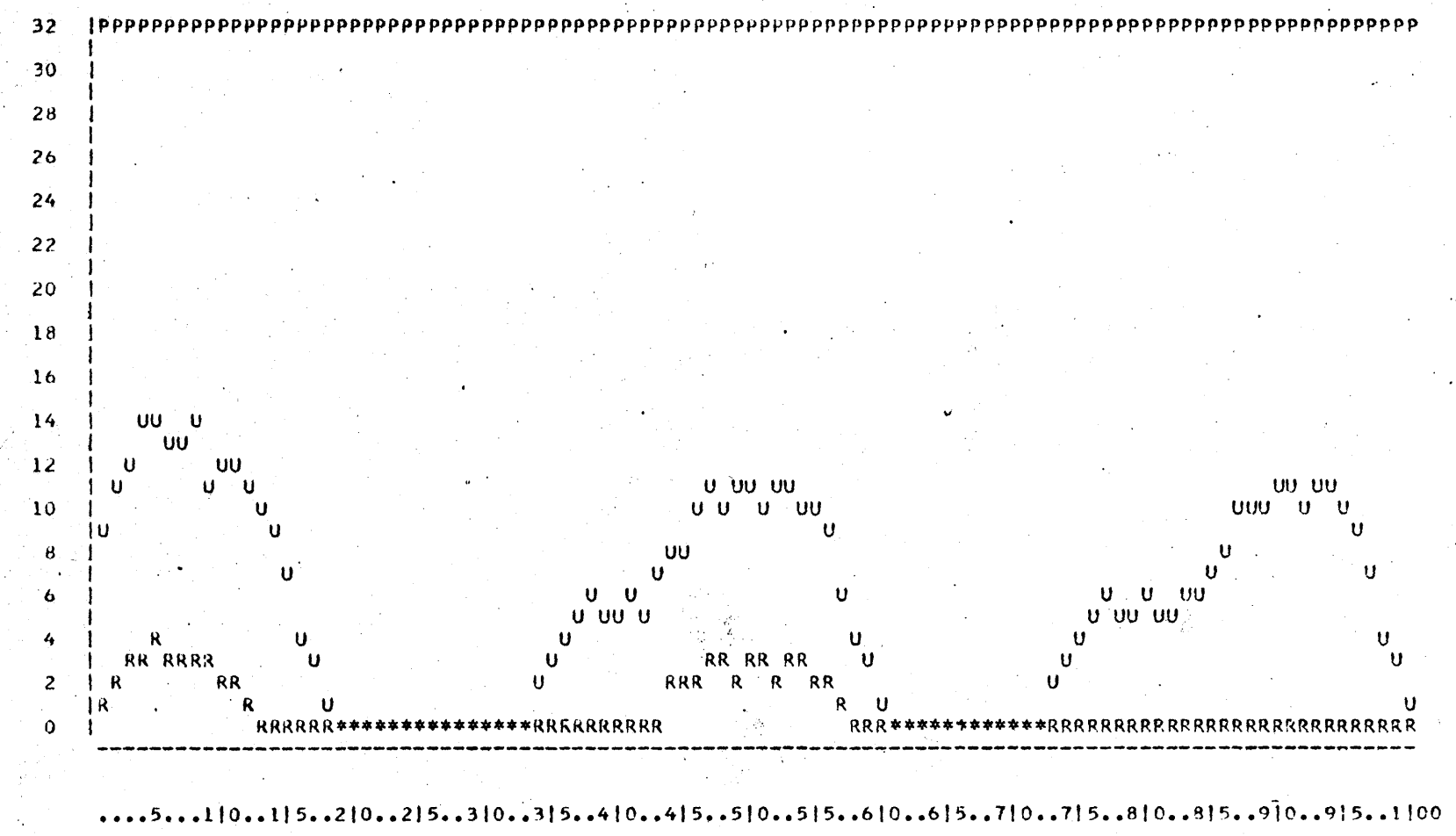
P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



EXECUTION UNIT UTILIZATION

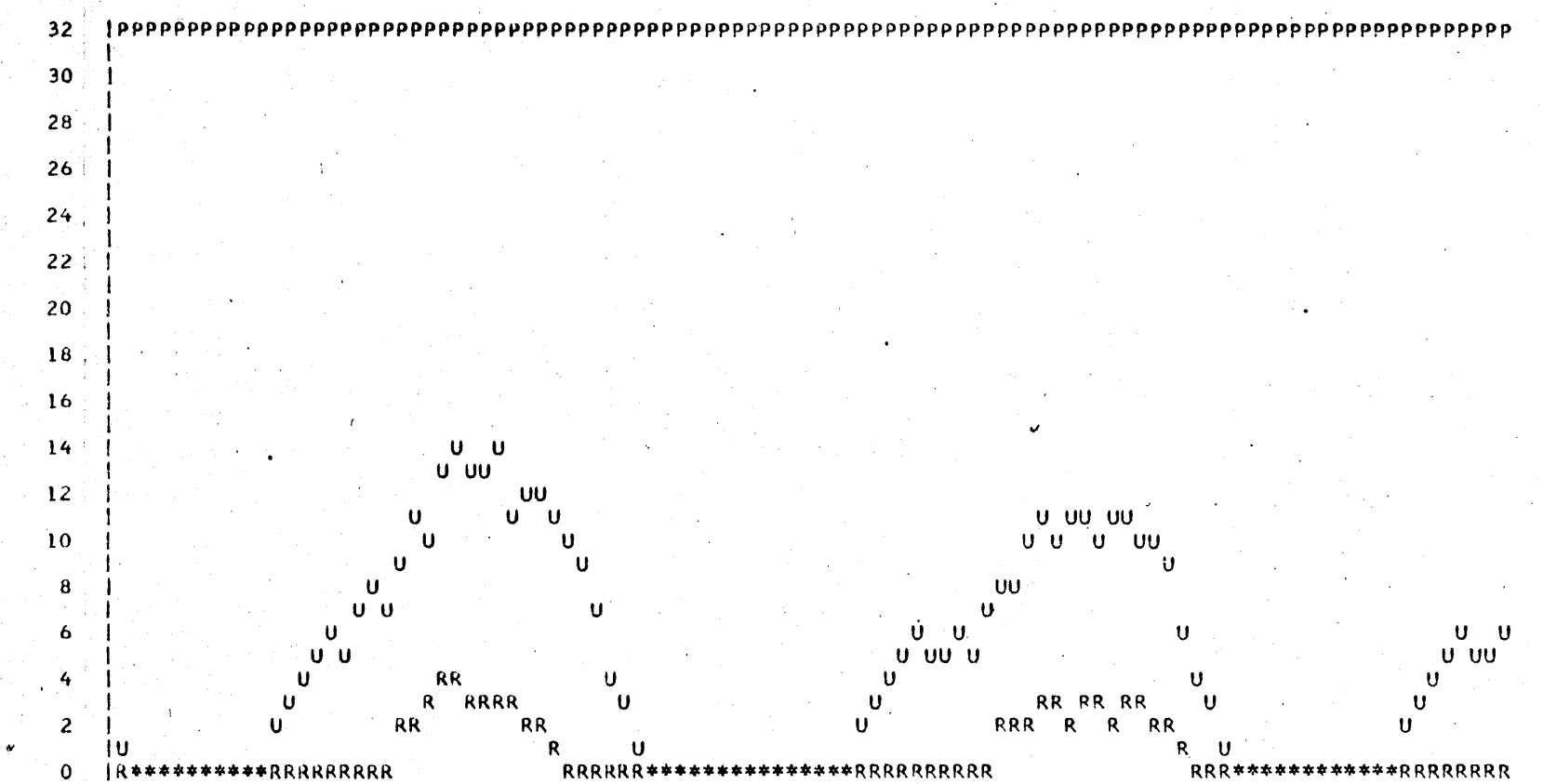
SYSTEM CLOCK TIME=00032128 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



SYSTEM CLOCK TIME=00038528 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



END OF SIMULATION - TIME USED= 0.0536 HOURS, PERFORMANCE = 6215 INSTRUCTIONS/MINUTE (PLOT MODE)

***** EOF ON SYSIN - END OF RUN *****

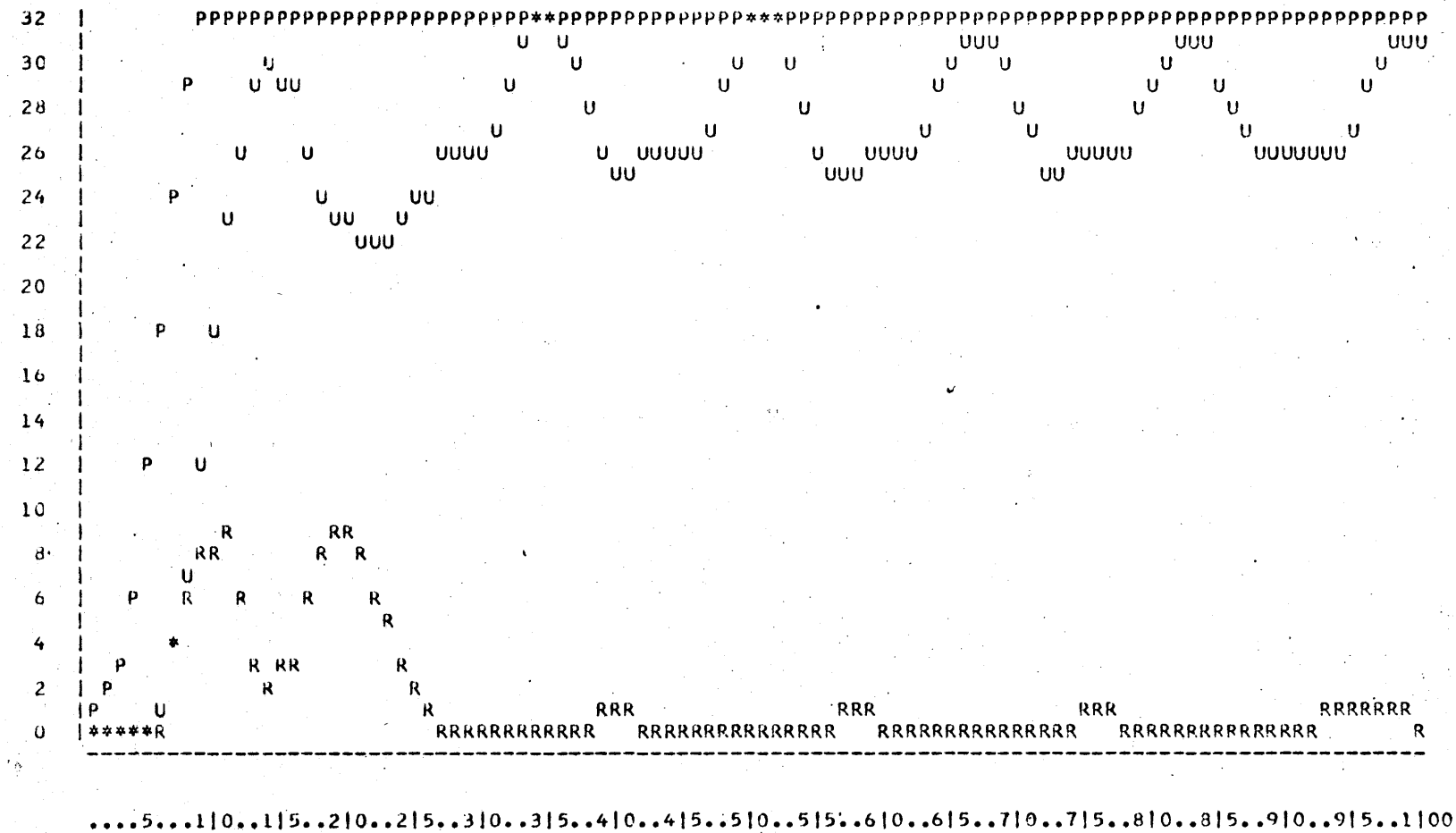
LCC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT F01JAN68 3/18/68

```
000000                  462+INSTRC  START 0 CONTROL SECTION FOR INPUT INSTRUCTIONS
                        463+*
000000 00000000         464+IBEG    DC    A(0) FOR LENGTH OF INSTRUCTIONS

                        466 *
                        467 *
                        468 *
                        469 *
                        470         PRINT ON,NOGEN      SUPRESS INSTRUCTION MACRO EXPANSIONS
                        471         FORK  DEX
                        480 DEX     FORK  DEX2
                        489 DEX2    FORK  DEX3
                        498 DEX3    FORK  DEX4
                        507 DEX4    FORK  TASKA
                        516 TASKA   LDX   X2,C10
                        526 TK2     FADD  A1,P1,A1                                    INST4710
                        537         FSUB  A1,P1,A1                                    INST4720
                        548         FMPY  A1,P1,A1                                    INST4730
                        559         FDIV  A1,P1,A1                                    INST4740
                        570         ADDD  A1,P1,A1                                    INST4750
                        581         SUB   A1,P1,A1                                    INST4760
                        592         MPY   A1,P1,A1                                    INST4770
                        603         DIV   A1,P1,A1                                    INST4780
                        614         SFX   C1,X2,X2                                    INST4790
                        625         TXH   TK2,X2,C0                                   INST4800
                        636         TEND  TASKA                                       INST4810
                        645 *                                                         INST4820
                        646         TERM              CLEANUP                         INST4830
                        683 *                                                         INST4840
```

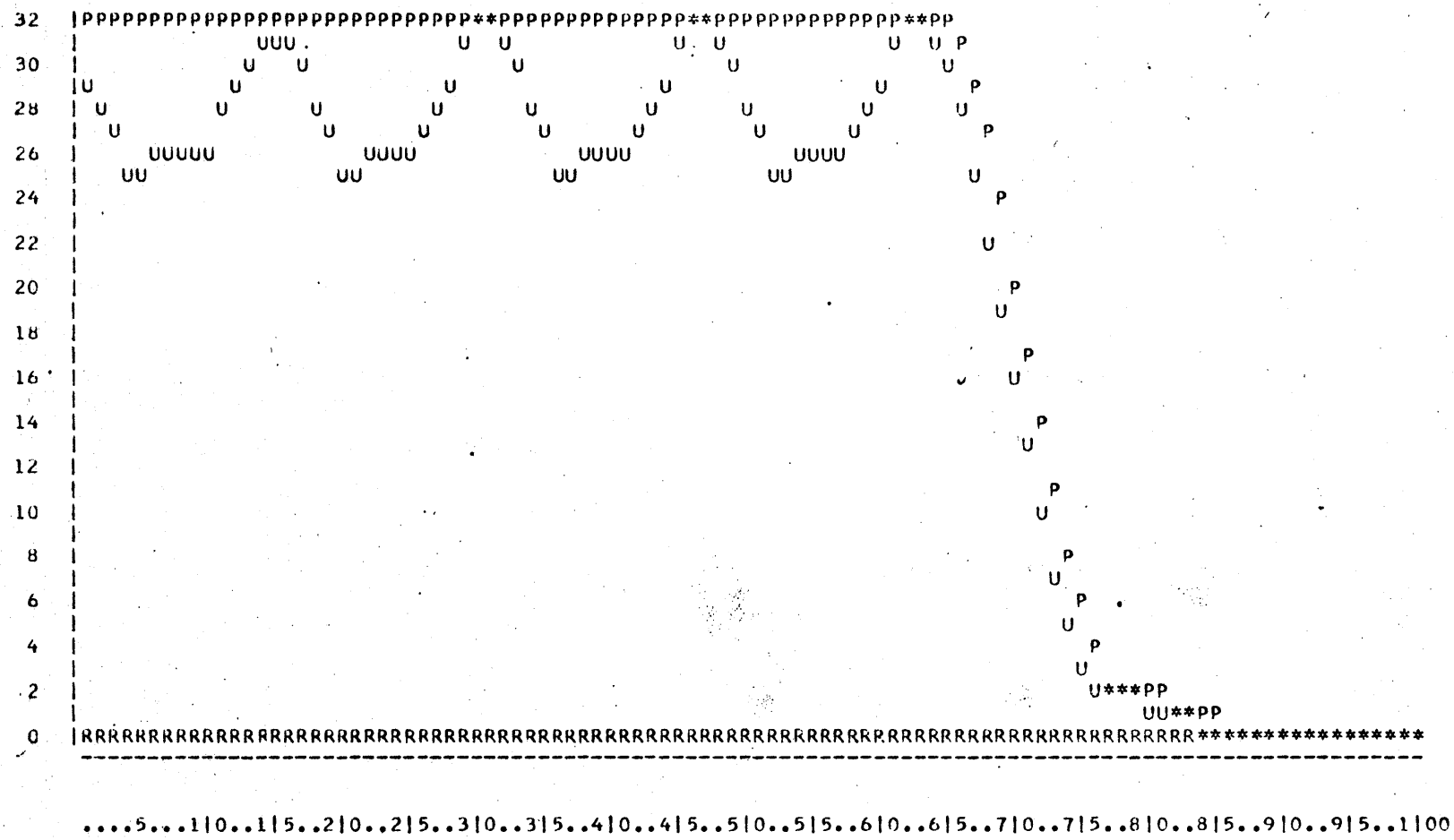
SYSTEM CLOCK TIME=00006528 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



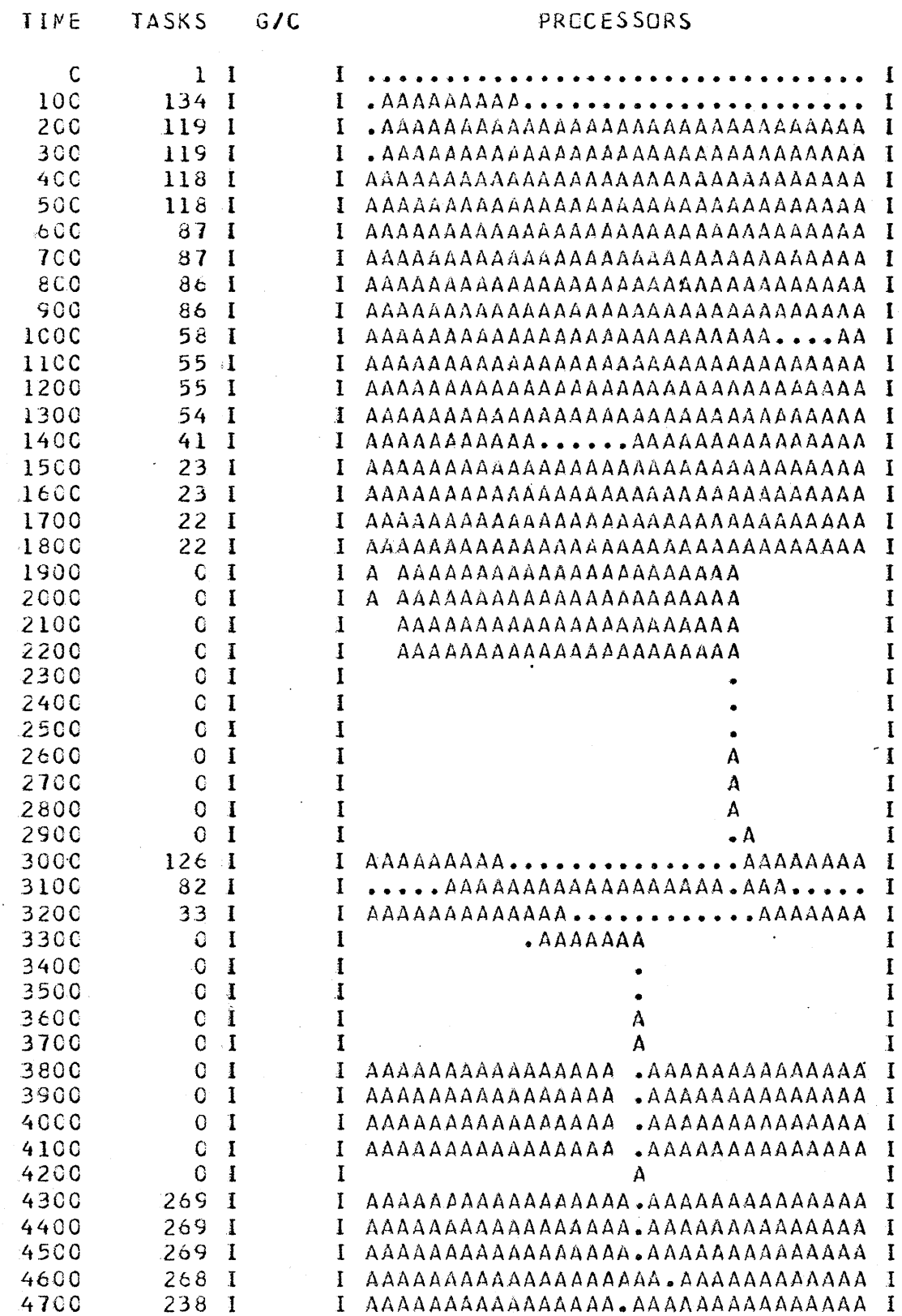
SYSTEM CLOCK TIME=00012928 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



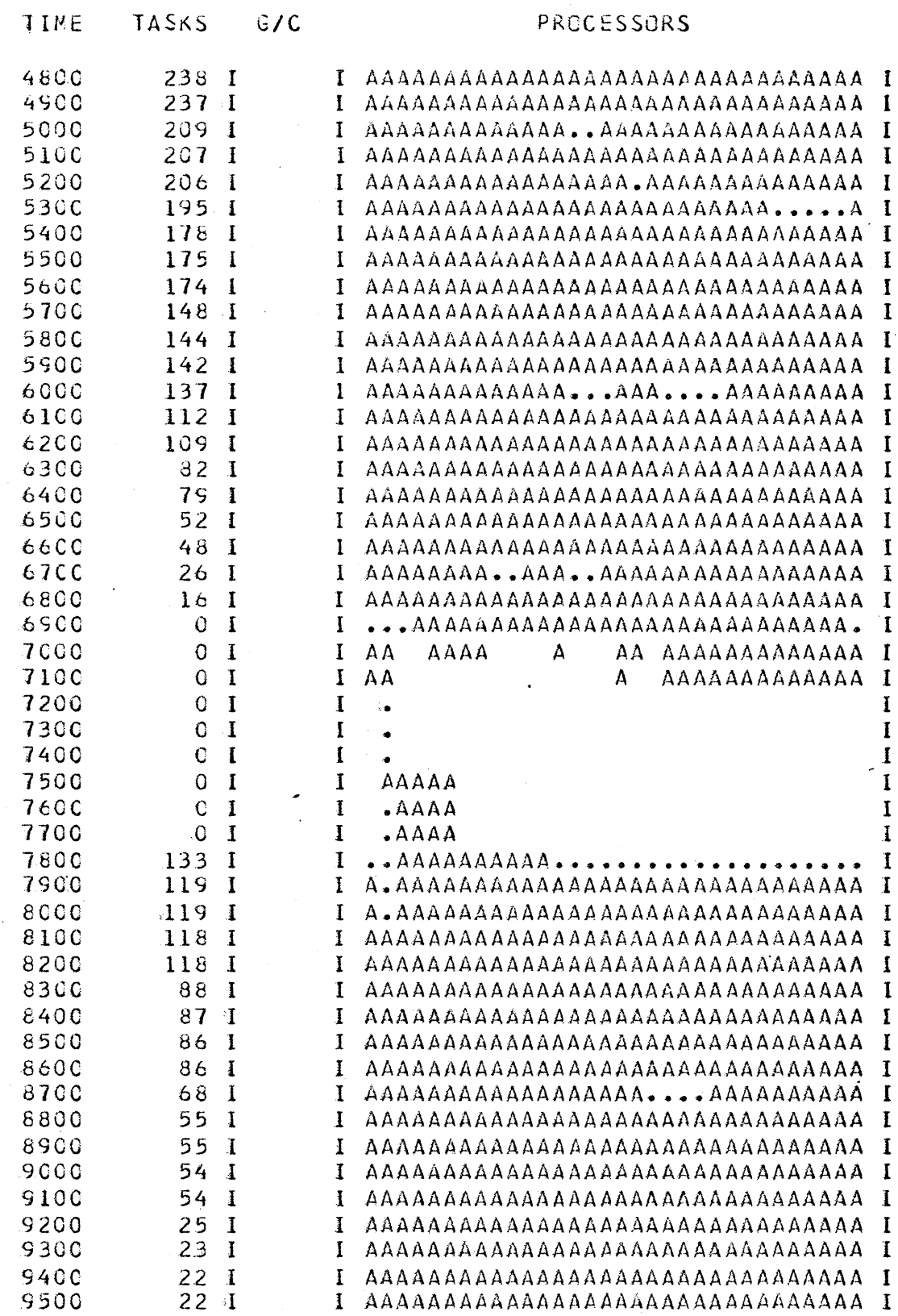
SIMULATION OF SMALL SHELL (30 X 5 ARRAY) FINAL BREAKDOWN

PROCESSOR TIME TRACE



SIMULATION OF SMALL SHELL (30 X 5 ARRAY) FINAL BREAKDOWN

PROCESSOR TIME TRACE



SIMULATION OF SMALL SHELL (30 X 5 ARRAY) FINAL BREAKDOWN

PROCESSOR TIME TRACE

TIME	TASKS	C	I	G/C	I	PROCESSORS		I
9600		C	I		I	AAAAAAAAAAAAAAAAAAAAAAAA	AAAAA	I
9700		C	I		I	A AAAAAAAAAAAAAAAAAAAAA		I
9800		C	I		I	A AAAAAAAAAAAAAAAAAAAAA		I
9900		C	I		I	AAAAAAAAAAAAAAAAAAAAA		I
10000		C	I		I	AAAAAAAAAAAAAAAAAAAAA		I
10100		C	I		I	.		I
10200		C	I		I	.		I
10300		C	I		I	.		I

SIMULATION OF SMALL SHELL (30 X 5 ARRAY) FINAL BREAKDOWN

PROCESSOR SUMMARY

PROC	FREE MODE TIME								OVERHEAD			
	AVAILABLE	TOTAL	%	USEAGE USER	%	PROCESS	%	EFF	SYSTEM	%	USER	%
1	10400	7556	73.	6928	67.	6928	67.	71.	628	8.	0	0.0
2	10400	8084	78.	7061	68.	6950	67.	74.	1023	13.	111	1.
3	10400	7715	74.	7358	71.	7358	71.	73.	357	5.	0	0.0
4	10400	8106	78.	7743	74.	7743	74.	77.	363	4.	0	0.0
5	10400	8221	79.	7848	75.	7848	75.	78.	373	5.	0	0.0
6	10400	8232	79.	7848	75.	7848	75.	78.	384	5.	0	0.0
7	10400	7902	76.	7518	72.	7518	72.	75.	384	5.	0	0.0
8	10400	7907	76.	7513	72.	7513	72.	75.	394	5.	0	0.0
9	10400	7847	75.	7445	72.	7445	72.	74.	402	5.	0	0.0
10	10400	7855	76.	7442	72.	7442	72.	75.	413	5.	0	0.0
11	10400	7873	76.	7445	72.	7445	72.	75.	428	5.	0	0.0
12	10400	7890	76.	7483	72.	7483	72.	75.	407	5.	0	0.0
13	10400	7945	76.	7493	72.	7493	72.	75.	452	6.	0	0.0
14	10400	7885	76.	7384	71.	7384	71.	75.	501	6.	0	0.0
15	10400	7894	76.	7381	71.	7381	71.	75.	513	6.	0	0.0
16	10400	7904	76.	7381	71.	7381	71.	75.	523	7.	0	0.0
17	10400	7654	74.	7199	69.	7199	69.	72.	455	6.	0	0.0
18	10400	8516	82.	7355	71.	7169	69.	78.	1161	14.	186	2.
19	10400	7843	75.	7442	72.	7442	72.	74.	401	5.	0	0.0
20	10400	8015	77.	7602	73.	7602	73.	76.	413	5.	0	0.0
21	10400	8023	77.	7602	73.	7602	73.	76.	421	5.	0	0.0
22	10400	8031	77.	7602	73.	7602	73.	76.	429	5.	0	0.0
23	10400	8040	77.	7602	73.	7602	73.	76.	438	5.	0	0.0
24	10400	9087	87.	7918	76.	7881	76.	85.	1169	13.	37	0.
25	10400	7775	75.	7363	71.	7363	71.	74.	412	5.	0	0.0
26	10400	7165	69.	6766	65.	6766	65.	68.	399	6.	0	0.0
27	10400	7181	69.	6771	65.	6771	65.	68.	410	6.	0	0.0
28	10400	7258	70.	6845	66.	6845	66.	69.	413	6.	0	0.0
29	10400	7229	70.	6802	65.	6802	65.	68.	427	6.	0	0.0
30	10400	7274	70.	6848	66.	6848	66.	69.	426	6.	0	0.0
31	10400	7243	70.	6805	65.	6805	65.	68.	438	6.	0	0.0
32	10400	7290	70.	6856	66.	6856	66.	69.	434	6.	0	0.0
	332800	250440	75.	234649	71.	234315	70.	74.	15791	6.	334	0.

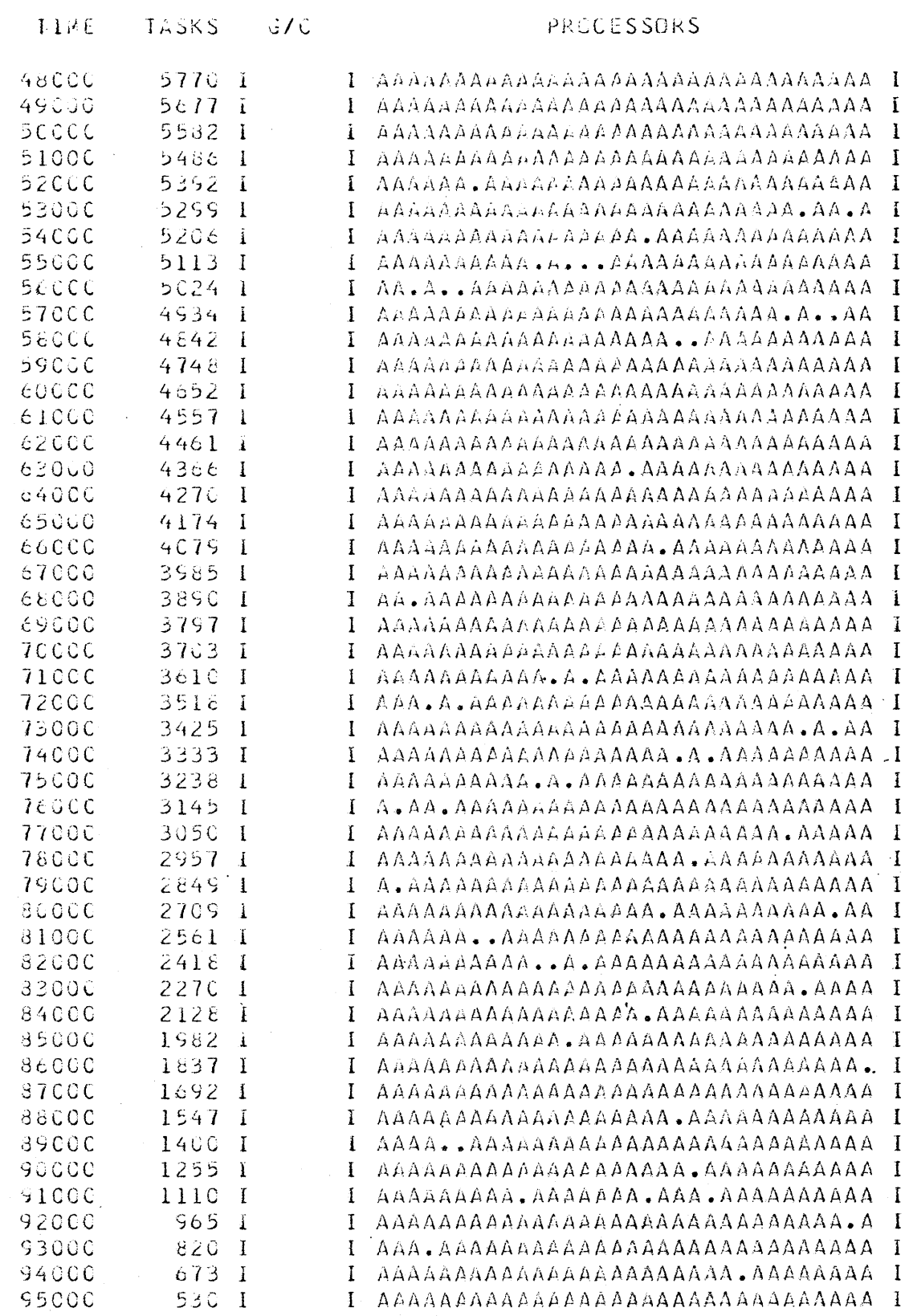
SIMULATION OF 54 X 54 ARRAY SHELL

PROCESSOR TIME TRACE

TIME	TASKS	G/C	PROCESSORS
0	1	I	I I
1000	2925	I	I AAAAA/AAAAAAAAAAAAAAAAA.A.....A I
2000	2757	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
3000	2692	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
4000	2603	I	I AAAAAAAAAAAAAAAAAA.AAAAAAAAAAA..A I
5000	2533	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
6000	2466	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
7000	2378	I	I AAAAAAAAAAAAAAAAAA.AA.AAAAAAAA..A I
8000	2309	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
9000	2244	I	I AAAA/AAAAAAAAAAAAAAAAAAAAAAAAAAAA I
10000	2153	I	I A.AAAAAAAAAAAA.AAAAAAAAAAAAAA..A I
11000	2085	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
12000	2020	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
13000	1930	I	I A.AAAAAAAAAAAA.AAAAAAAAAAAAAA..A I
14000	1861	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
15000	1796	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
16000	1700	I	I A.AAAAAAAAAAAA.AAAAAAAA.AAAAAAAA I
17000	1637	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
18000	1572	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
19000	1481	I	I A.AAAAAAAAAAAA.AAAAAAAAAAAAA.A.A I
20000	1413	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
21000	1348	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
22000	1258	I	I AAAAAAAAAAAAAA.AA.AAAAAAAA.A.A.A I
23000	1189	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
24000	1124	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
25000	1034	I	I A.AAAAAAAAAAAAAA.AAAAAAAA.A.A.A I
26000	965	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
27000	900	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
28000	809	I	I A.AAAAAAAAAAAAAAAAAAAA.AAAA.A.A I
29000	740	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
30000	676	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
31000	584	I	I AAAAAAAAAAAAAAAAAAAAAAAA..AAAAAAA I
32000	516	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
33000	452	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
34000	359	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA. I
35000	292	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
36000	228	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
37000	134	I	I A.AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
38000	68	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
39000	4	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
40000	0	I	I A I
41000	2499	I	I AAAAAAAAAAA.....AAAAAAAAA I
42000	2006	I	I ...AAAAAAAAAAAAAAAAAA..... I
43000	1514	I	I AAA.....AAAAAAAAAAAAAAAA I
44000	1022	I	I AAAAAAAAAAAAAAAA.....AAAA I
45000	529	I	I .....AAAAAAAAAAAAAAAA.... I
46000	37	I	I AAAAAAAA.....AAAAAAAAAAA I
47000	0	I	I AAAAAAAA .AAAAAAAAAAAAAA I

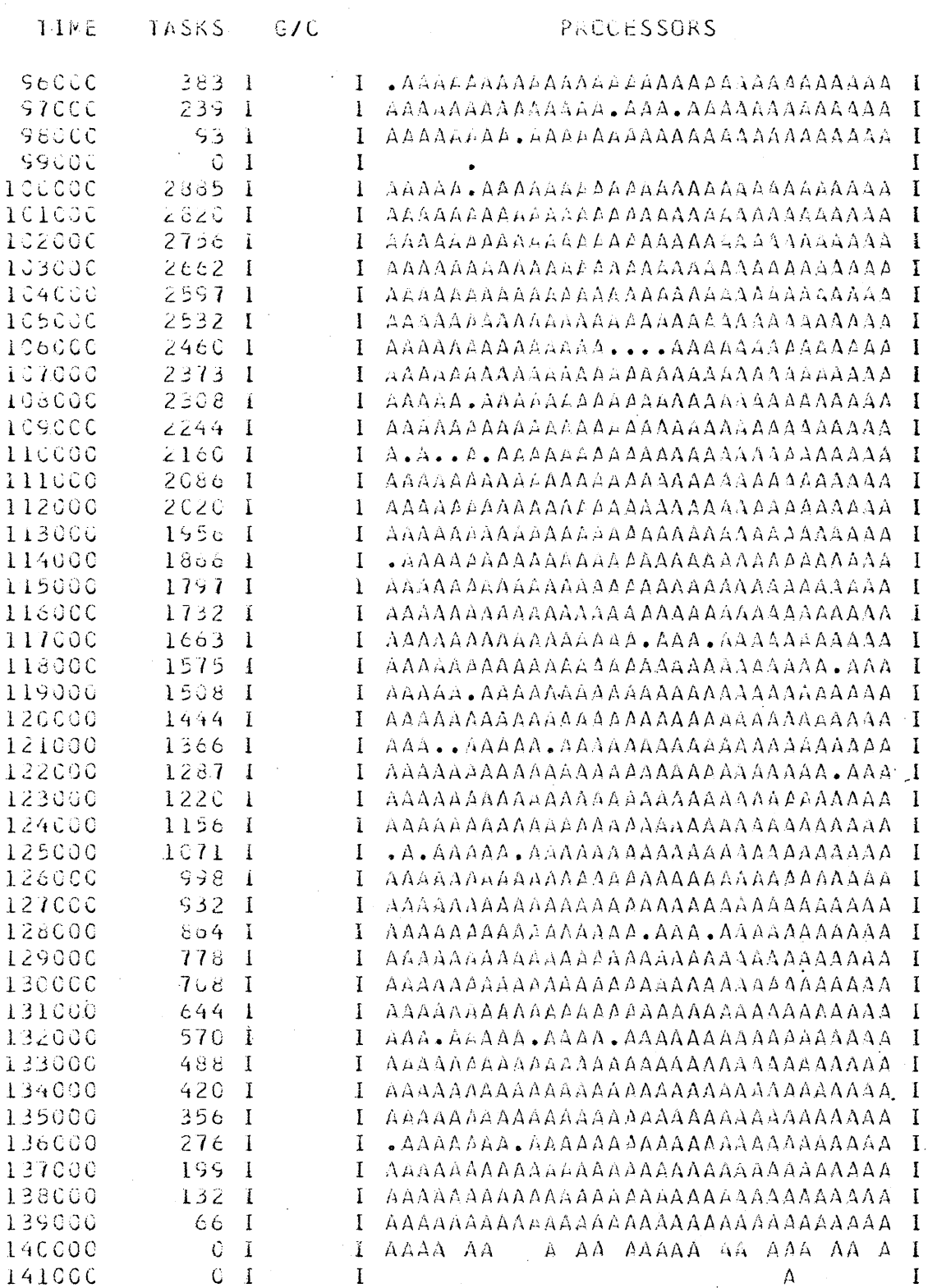
SIMULATION OF 54 X 54 ARRAY SHELL

PROCESSOR TIME TRACE



SIMULATION OF 54 X 54 ARRAY SHELL

PROCESSOR TIME TRACE



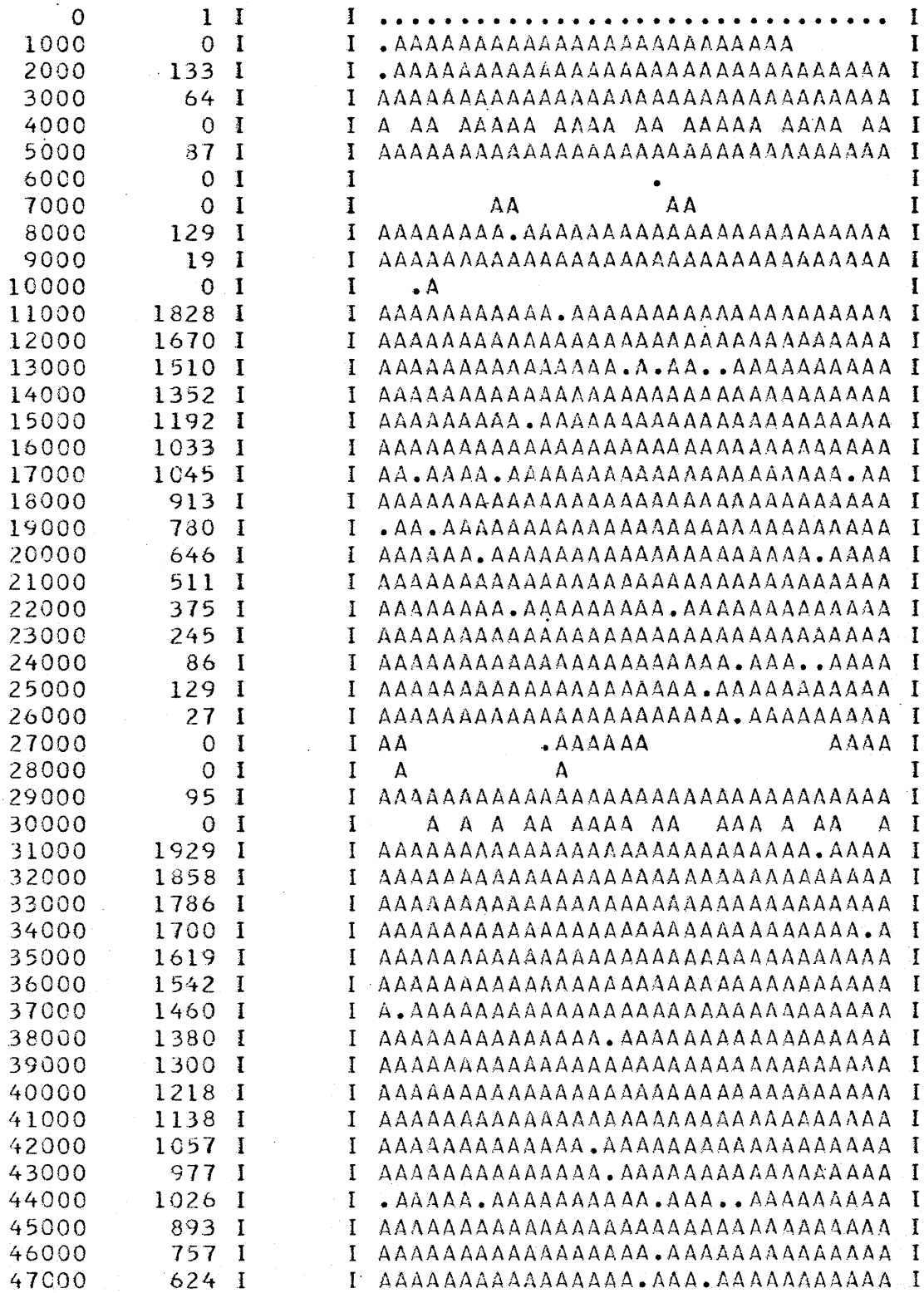
SIMULATION OF 54 X 54 ARRAY SHELL

PROCESSOR SUMMARY

PROC	FREE MODE TIME AVAILABLE	USEAGE TOTAL	%	USER	%	PROCESS	%	EFF	OVERHEAD SYSTEM	%	USER	%
1	141743	137708	97.	131817	93.	131817	93.	97.	5891	4.	0	0.0
2	141743	137372	97.	131640	93.	131640	93.	97.	5732	4.	0	0.0
3	141743	137752	97.	132105	93.	132105	93.	97.	5647	4.	0	0.0
4	141743	137288	97.	131618	93.	131618	93.	97.	5670	4.	0	0.0
5	141743	137222	97.	131539	93.	131539	93.	97.	5683	4.	0	0.0
6	141743	138831	98.	132433	93.	132190	93.	98.	6398	5.	243	0.
7	141743	138421	98.	132761	94.	132761	94.	96.	5660	4.	0	0.0
8	141743	137885	97.	132230	93.	132230	93.	97.	5655	4.	0	0.0
9	141743	138447	98.	132329	93.	132292	93.	98.	6113	4.	37	0.
10	141743	137593	97.	131939	93.	131939	93.	97.	5654	4.	0	0.0
11	141743	136812	97.	131163	93.	131163	93.	96.	5649	4.	0	0.0
12	141743	136789	97.	131157	93.	131157	93.	96.	5632	4.	0	0.0
13	141743	136877	97.	131245	93.	131245	93.	96.	5632	4.	0	0.0
14	141743	137307	97.	131648	93.	131648	93.	97.	5659	4.	0	0.0
15	141743	136909	97.	131198	93.	131198	93.	96.	5711	4.	0	0.0
16	141743	137031	97.	131349	93.	131349	93.	97.	5682	4.	0	0.0
17	141743	138311	98.	131722	93.	131353	93.	97.	6589	5.	369	0.
18	141743	137278	97.	131704	93.	131704	93.	97.	5574	4.	0	0.0
19	141743	137244	97.	131664	93.	131664	93.	97.	5580	4.	0	0.0
20	141743	137304	97.	131721	93.	131721	93.	97.	5583	4.	0	0.0
21	141743	137280	97.	131667	93.	131667	93.	97.	5613	4.	0	0.0
22	141743	137182	97.	131558	93.	131558	93.	97.	5624	4.	0	0.0
23	141743	137360	97.	131737	93.	131737	93.	97.	5623	4.	0	0.0
24	141743	137135	97.	131488	93.	131488	93.	97.	5647	4.	0	0.0
25	141743	137287	97.	131644	93.	131644	93.	97.	5643	4.	0	0.0
26	141743	139122	98.	133200	94.	133200	94.	98.	5922	4.	0	0.0
27	141743	137273	97.	131608	93.	131608	93.	97.	5665	4.	0	0.0
28	141743	137257	97.	131592	93.	131592	93.	97.	5665	4.	0	0.0
29	141743	137493	97.	131846	93.	131846	93.	97.	5647	4.	0	0.0
30	141743	137381	97.	131690	93.	131690	93.	97.	5691	4.	0	0.0
31	141743	137346	97.	131631	93.	131631	93.	97.	5715	4.	0	0.0
32	141743	137635	97.	131920	93.	131920	93.	97.	5715	4.	0	0.0
	4535776	4400152	97.	4216563	93.	4215914	93.	97.	183569	4.	649	0.

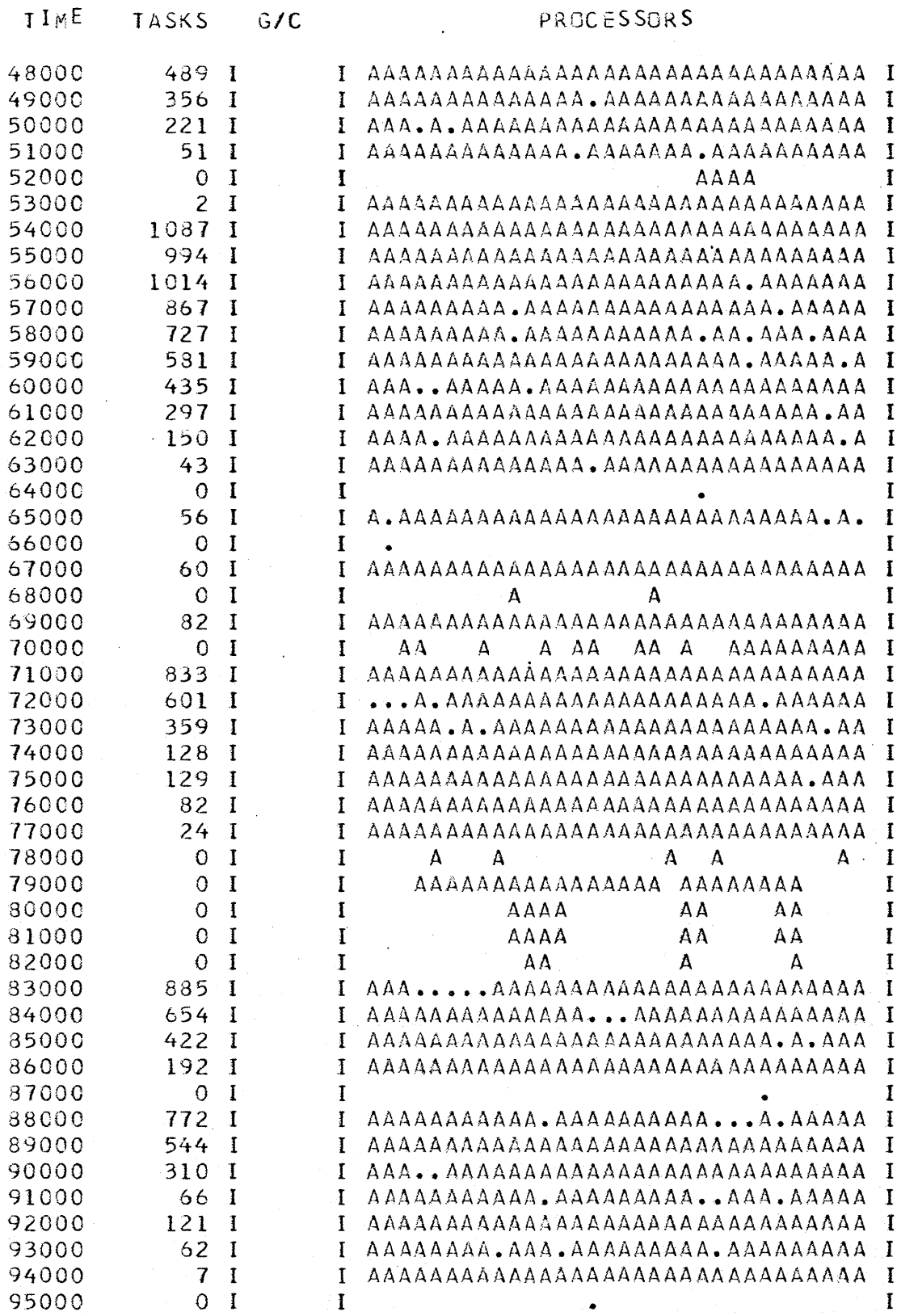
COMPLETE RUN OF MINTZ-ARAKAWA WEATHER MODEL (1000 POINTS) FIRST RUN WITH

PROCESSOR TIME TRACE



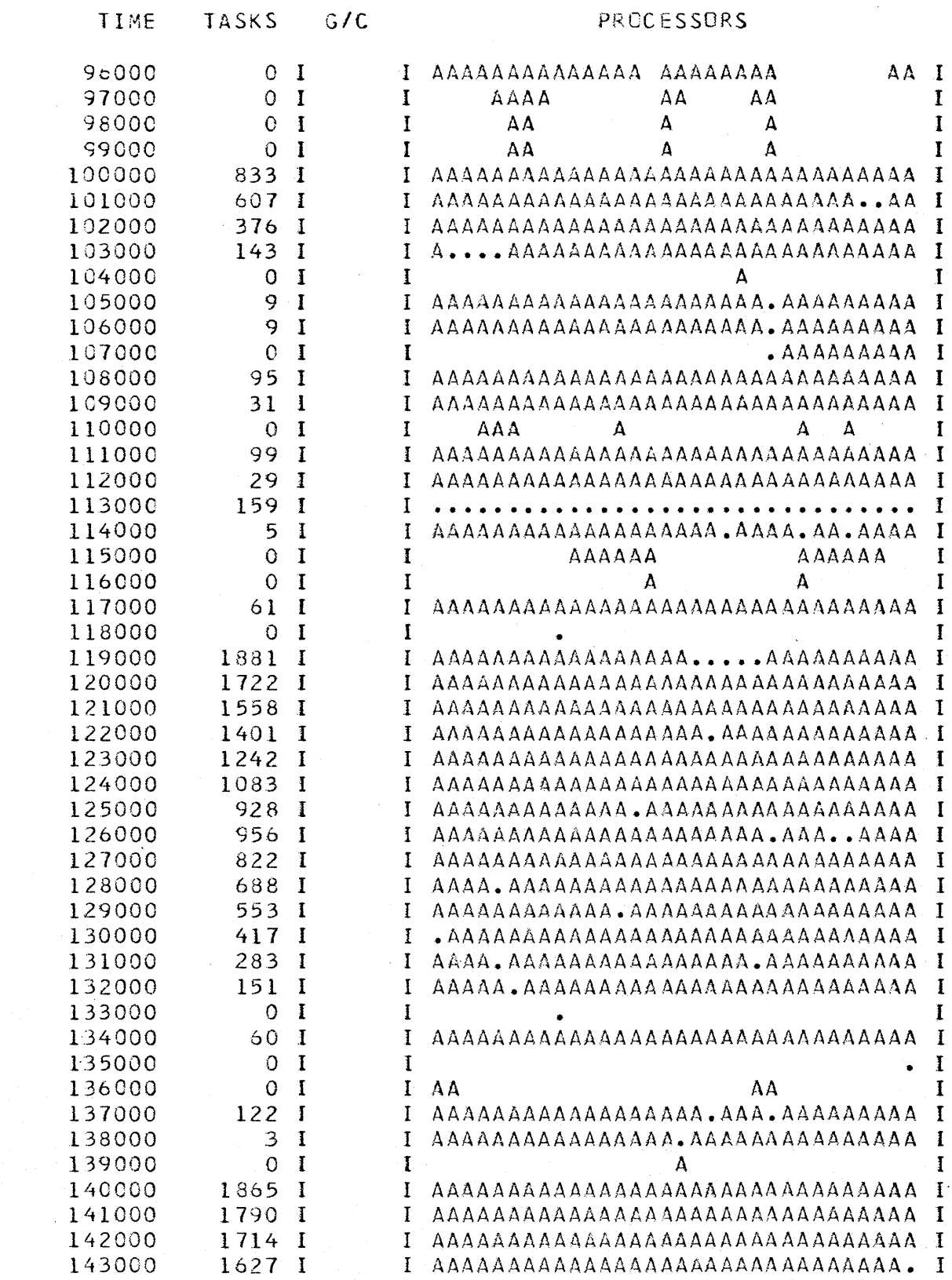
COMPLETE RUN OF MINTZ-ARAKAWA WEATHER MODEL (1000 POINTS) FIRST RUN WIT

PROCESSOR TIME TRACE



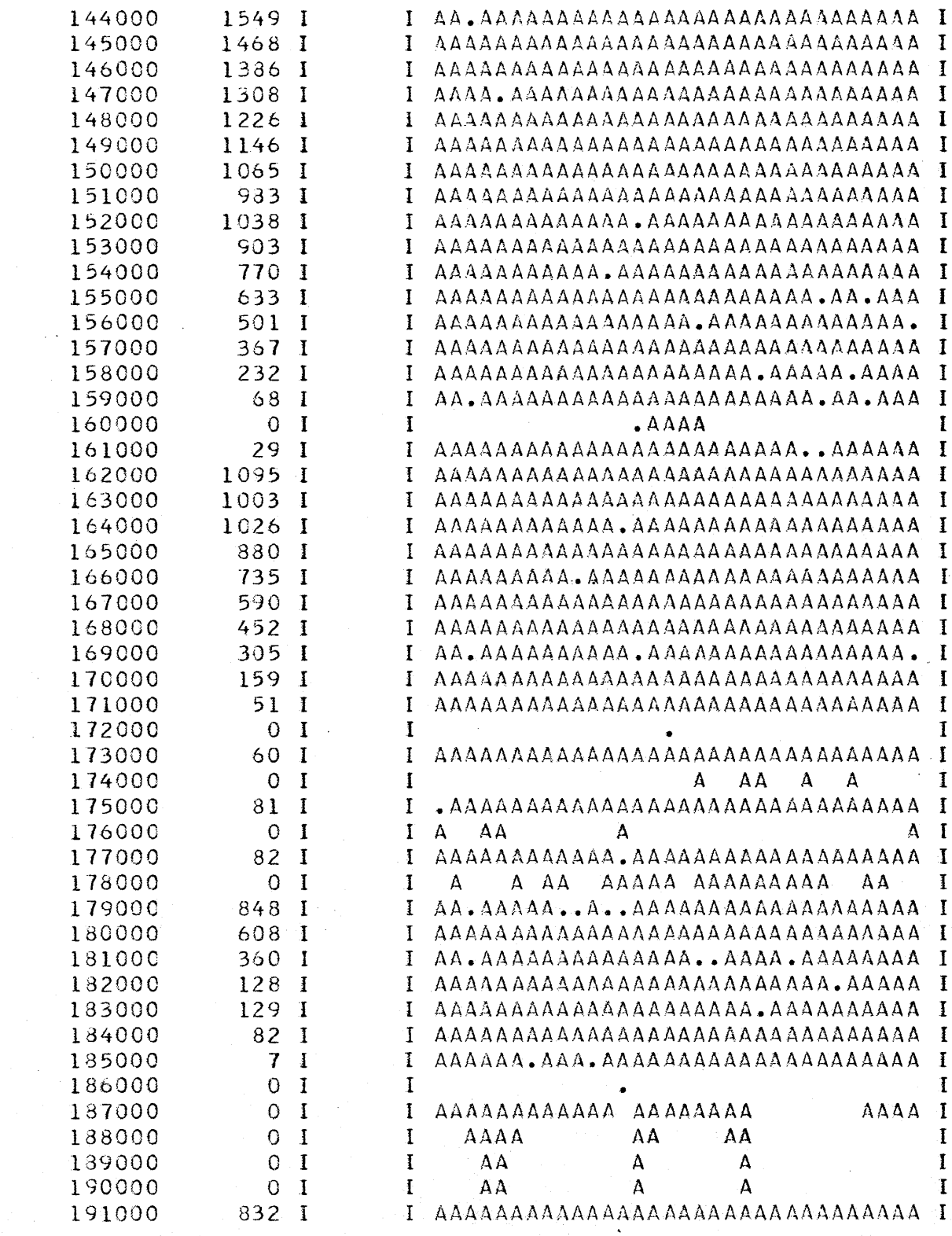
COMPLETE RUN OF MINTZ-ARAKAWA WEATHER MODEL (1000 POINTS) FIRST RUN WITH

PROCESSOR TIME TRACE



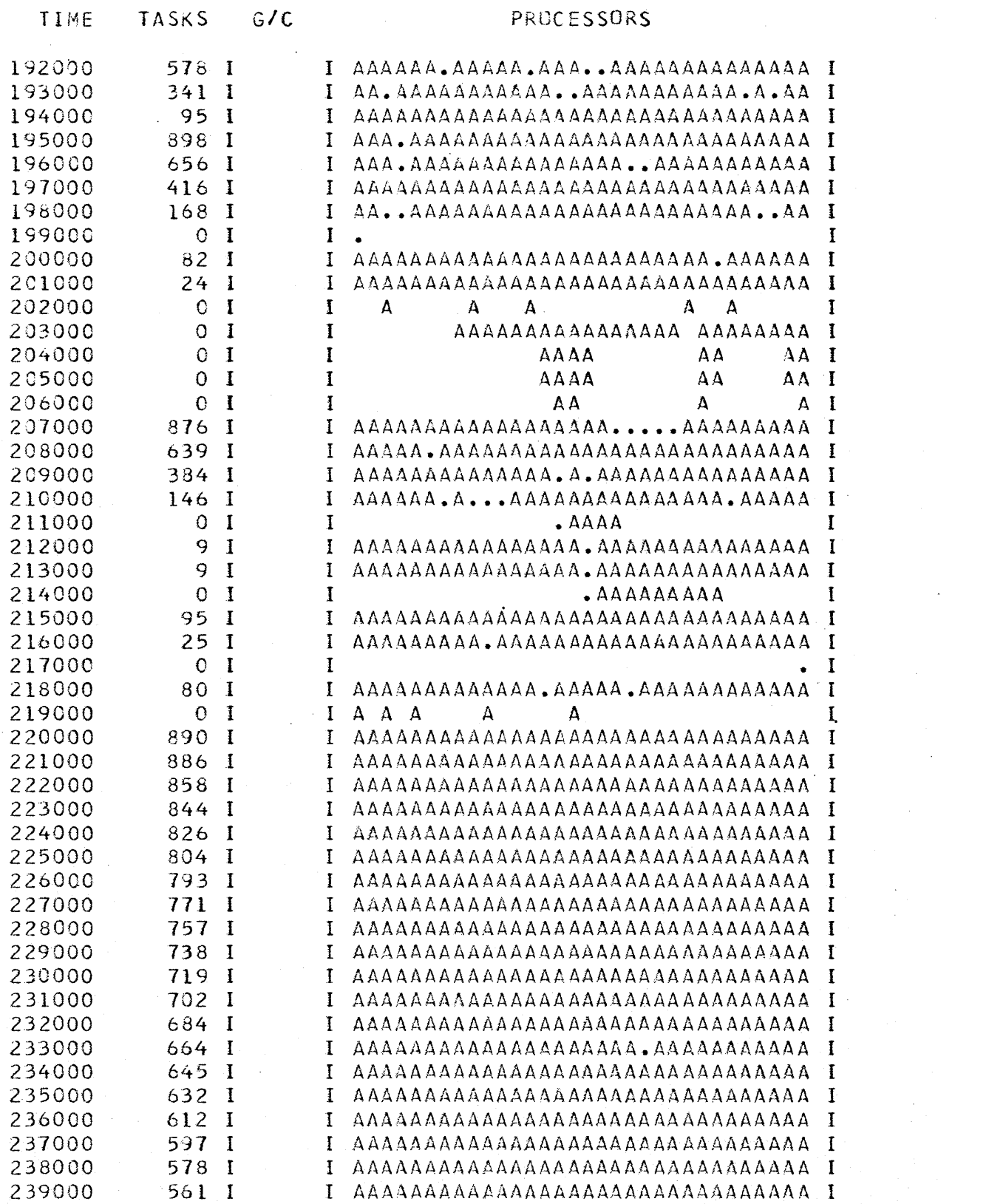
COMPLETE RUN OF MINTZ-ARAKAWA WEATHER MODEL (1000 POINTS) FIRST RUN WITH

PROCESSOR TIME TRACE



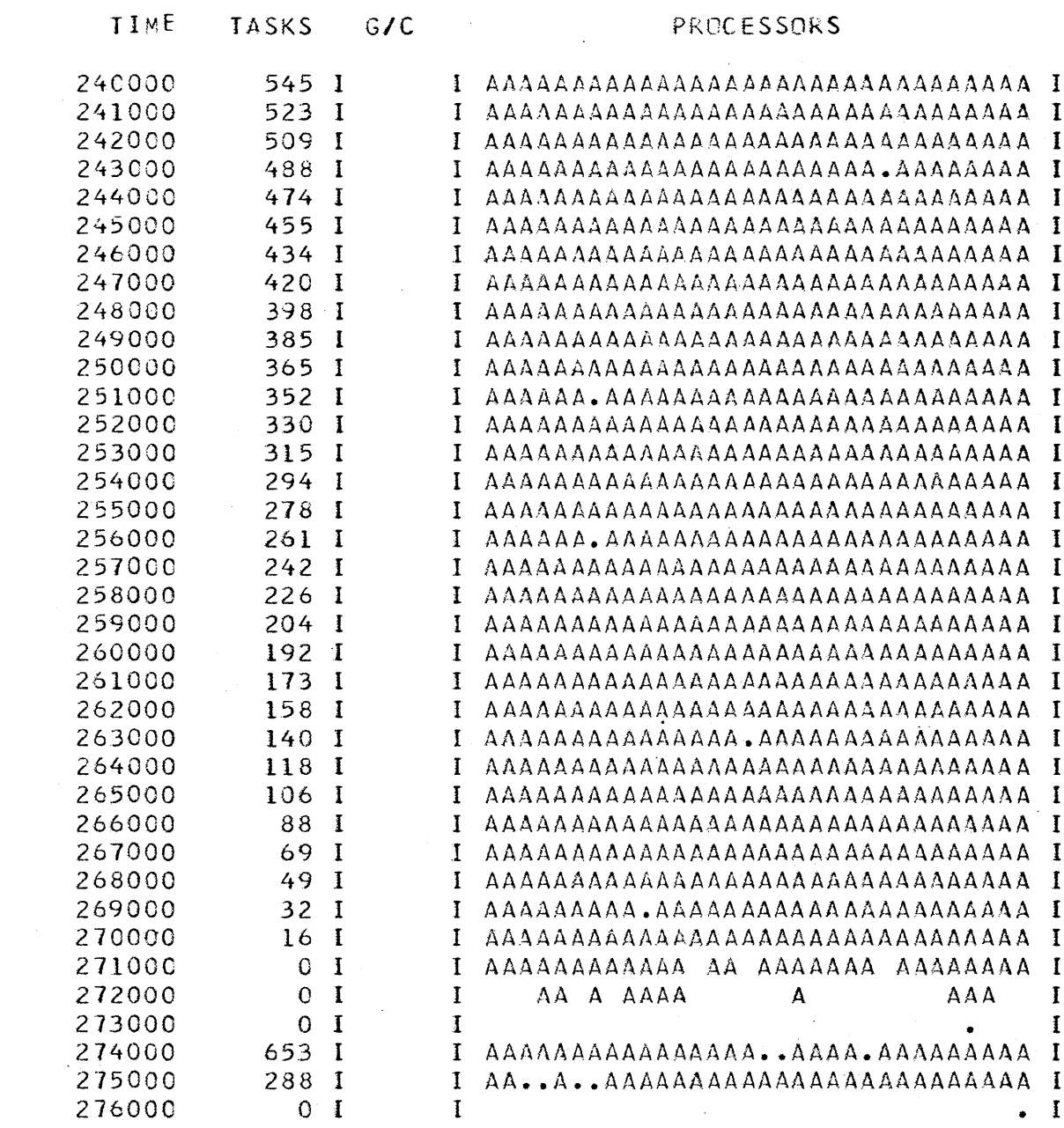
COMPLETE RUN OF MINTZ-ARAKAWA WEATHER MODEL (1000 POINTS) FIRST RUN WITH

PROCESSOR TIME TRACE



COMPLETE RUN OF MINTZ-ARAKAWA WEATHER MODEL (1000 POINTS) FIRST RUN WIT

PROCESSOR TIME TRACE



COMPLETE RUN OF MINTZ-ARAKAWA WEATHER MODEL (1000 POINTS) FIRST RUN WITH COMP3

PROCESSOR SUMMARY

PROC	FREE MODE TIME AVAILABLE	USEAGE TOTAL	%	USER	%	PROCESS	%	EFF	OVERHEAD SYSTEM	%	USER	%
1	276200	232123	84.	221318	80.	220458	80.	83.	10805	5.	860	0.
2	276200	229961	83.	220410	80.	220410	80.	83.	9551	4.	0	0.0
3	276200	230596	83.	220961	80.	220779	80.	83.	9635	4.	182	0.
4	276200	235325	85.	226179	82.	226179	82.	85.	9146	4.	0	0.0
5	276200	236389	86.	227727	82.	227727	82.	85.	8662	4.	0	0.0
6	276200	235834	85.	226431	82.	226431	82.	85.	9403	4.	0	0.0
7	276200	233031	84.	224413	81.	224413	81.	84.	8618	4.	0	0.0
8	276200	232604	84.	223395	81.	223395	81.	84.	9209	4.	0	0.0
9	276200	235438	85.	224983	81.	224801	81.	85.	10455	4.	182	0.
10	276200	233176	84.	224495	81.	224495	81.	84.	8681	4.	0	0.0
11	276200	235282	85.	225949	82.	225949	82.	85.	9333	4.	0	0.0
12	276200	236955	86.	228176	83.	228176	83.	85.	8779	4.	0	0.0
13	276200	234435	85.	224428	81.	224428	81.	84.	10007	4.	0	0.0
14	276200	236748	86.	226256	82.	226256	82.	85.	10492	4.	0	0.0
15	276200	238482	86.	227955	83.	227955	83.	86.	10527	4.	0	0.0
16	276200	238774	86.	228840	83.	228840	83.	86.	9934	4.	0	0.0
17	276200	237084	86.	225468	82.	224176	81.	85.	11616	5.	1292	1.
18	276200	235798	85.	225493	82.	225493	82.	85.	10305	4.	0	0.0
19	276200	235839	85.	226587	82.	226587	82.	85.	9252	4.	0	0.0
20	276200	234983	85.	225512	82.	225512	82.	85.	9471	4.	0	0.0
21	276200	240863	87.	229968	83.	229968	83.	87.	10895	5.	0	0.0
22	276200	238760	86.	228080	83.	228080	83.	86.	10680	4.	0	0.0
23	276200	239103	87.	226428	82.	225318	82.	86.	12675	5.	1110	0.
24	276200	232666	84.	222424	81.	222424	81.	84.	10242	4.	0	0.0
25	276200	236215	86.	226574	82.	226574	82.	85.	9641	4.	0	0.0
26	276200	233576	85.	224389	81.	224389	81.	84.	9187	4.	0	0.0
27	276200	229203	83.	220490	80.	220490	80.	82.	8713	4.	0	0.0
28	276200	233165	84.	222771	81.	222589	81.	84.	10394	4.	182	0.
29	276200	231254	84.	220572	80.	220463	80.	83.	10682	5.	109	0.
30	276200	229679	83.	221257	80.	221257	80.	83.	8422	4.	0	0.0
31	276200	232758	84.	223659	81.	223659	81.	84.	9099	4.	0	0.0
32	276200	234787	85.	224473	81.	224473	81.	84.	10314	4.	0	0.0
	8838400	7510886	85.	7196061	81.	7192144	81.	84.	314825	4.	3917	0.

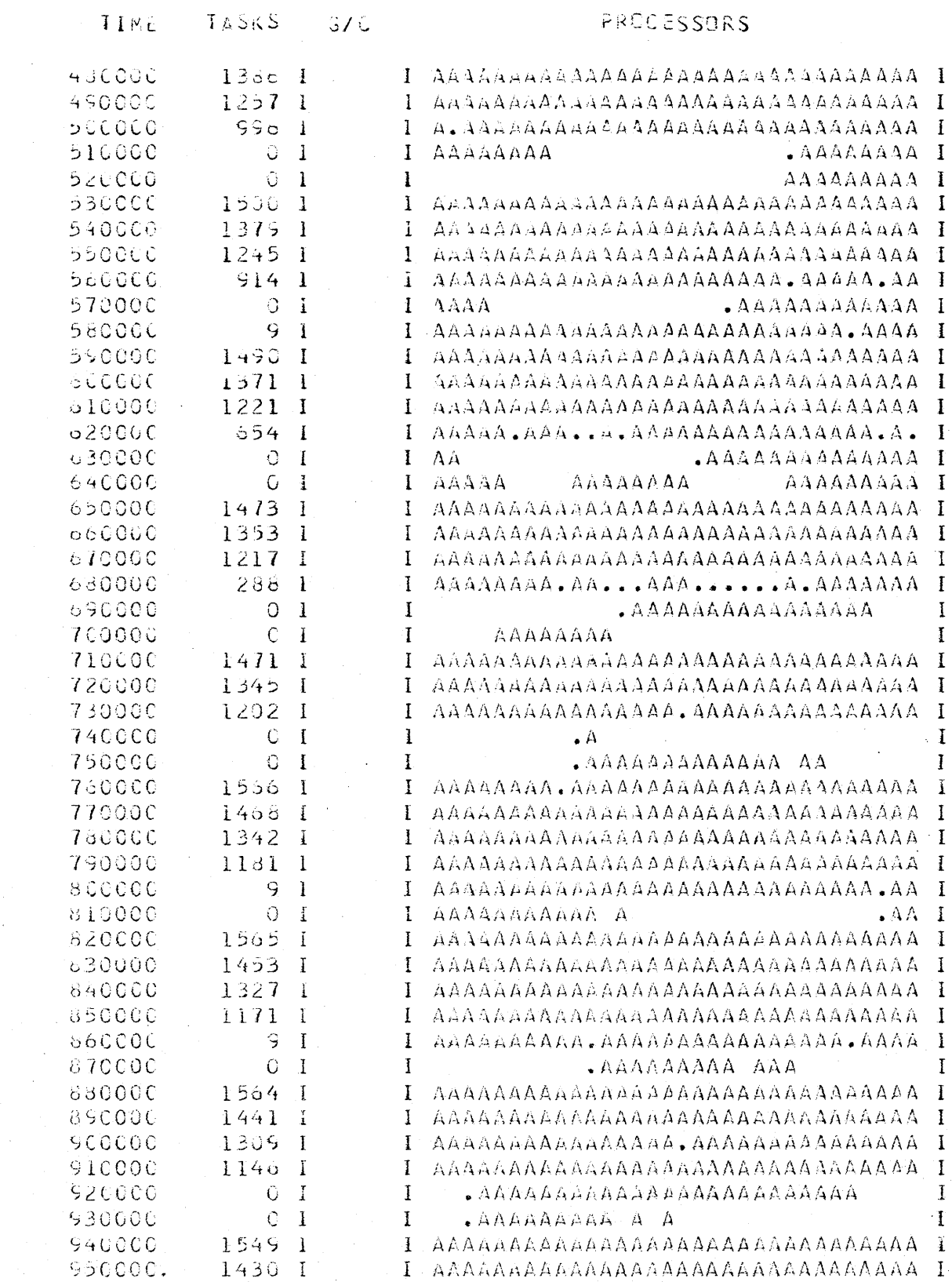
FOURTH BREAKDOWN OF RADISH - APRIL 1968 (1600 POINTS)

PROCESSOR TIME TRACE

TIME	TASKS	G/C	PROCESSORS
0	1	I	I I
10000	1545	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
20000	1538	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
30000	1500	I	I A.AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
40000	1482	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
50000	1461	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
60000	1425	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
70000	1415	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
80000	1384	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
90000	1346	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
100000	1332	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
110000	1302	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
120000	1264	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
130000	1220	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
140000	1182	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
150000	1130	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
160000	981	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
170000	299	I	I AAAAAAAAAAAAAA.....AAA I
180000	1157	I	I A.AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
190000	1093	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
200000	1561	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
210000	0	I	I .AAAAAAAAAAAAAAAA .AAAAAAA I
220000	0	I	I .AAAAAAAAA A I
230000	1547	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
240000	1430	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
250000	1303	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
260000	1130	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
270000	0	I	I .AAAAAAAAAAAAAAAA I
280000	0	I	I .AAAAA AA I
290000	1542	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
300000	1422	I	I AAAAAAAAAAAAA.AAAAAAAAAAAAAAAAAA. I
310000	1293	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
320000	1092	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
330000	0	I	I AAAAA .AAAAAAAAAAA I
340000	0	I	I . A A I
350000	1515	I	I AAAAAAAAAAAAAAAA..AAAAAAAAAAAAAAAA I
360000	1417	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
370000	1280	I	I AAAAAAAAAAAAAAAAAAAAA.AAAAAAAAAA I
380000	1061	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
390000	0	I	I .AAAAAAAAAAAAAAAA I
400000	0	I	I . A I
410000	1511	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
420000	1389	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
430000	1264	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
440000	1023	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
450000	0	I	I AAAAAA .AAAAAAAAAA I
460000	0	I	I AAAAAAAAAAAAAAAAAAAAAAAA I
470000	1508	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I

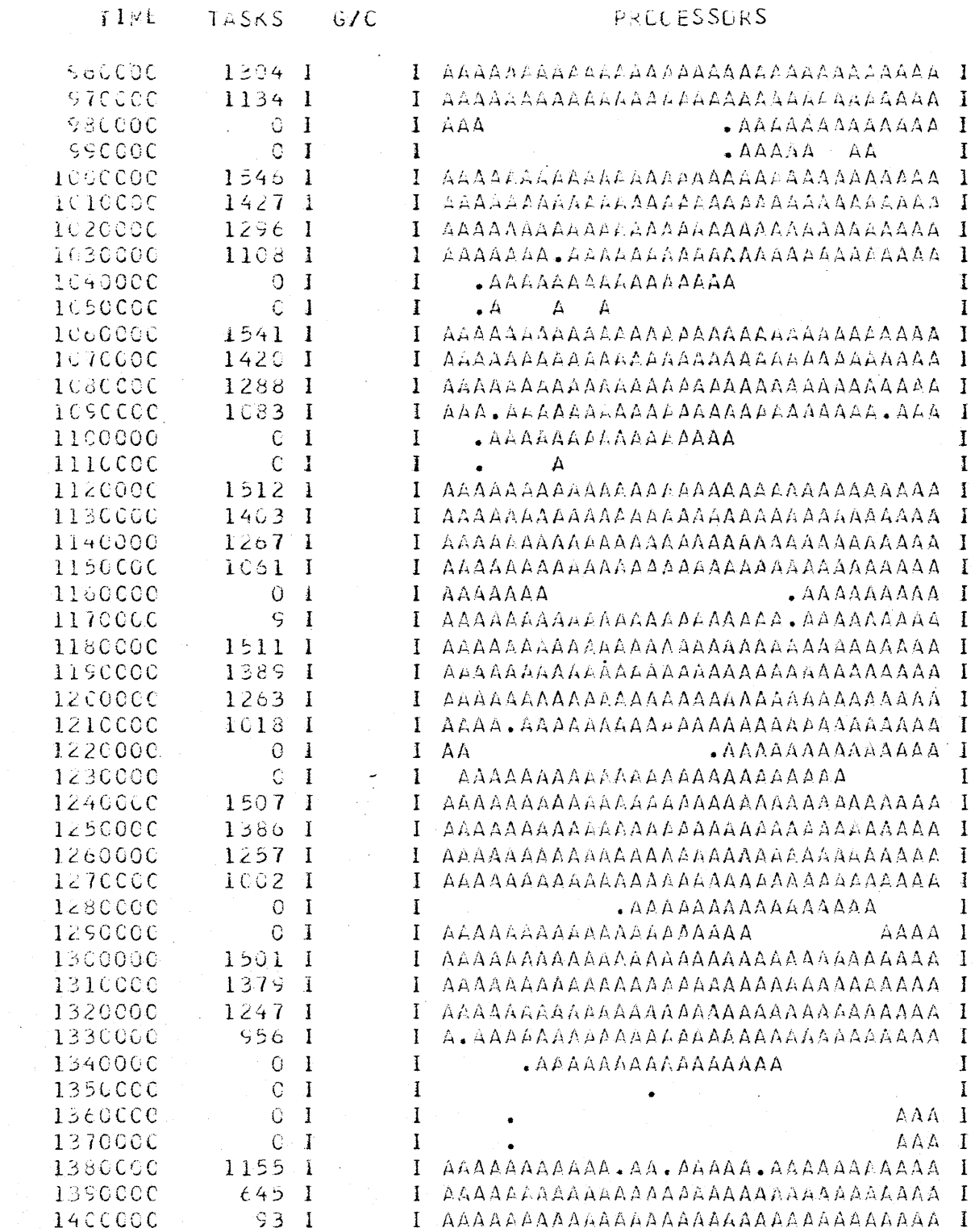
FOURTH BREAK-DOWN OF RADISH5 4 APRIL 1966 (1600 POINTS)

PROCESSOR TIME TRACE



FOURTH BREAK-DOWN OF RADISH5 4 APRIL 1968 (1600 POINTS)

PROCESSOR TIME TRACE



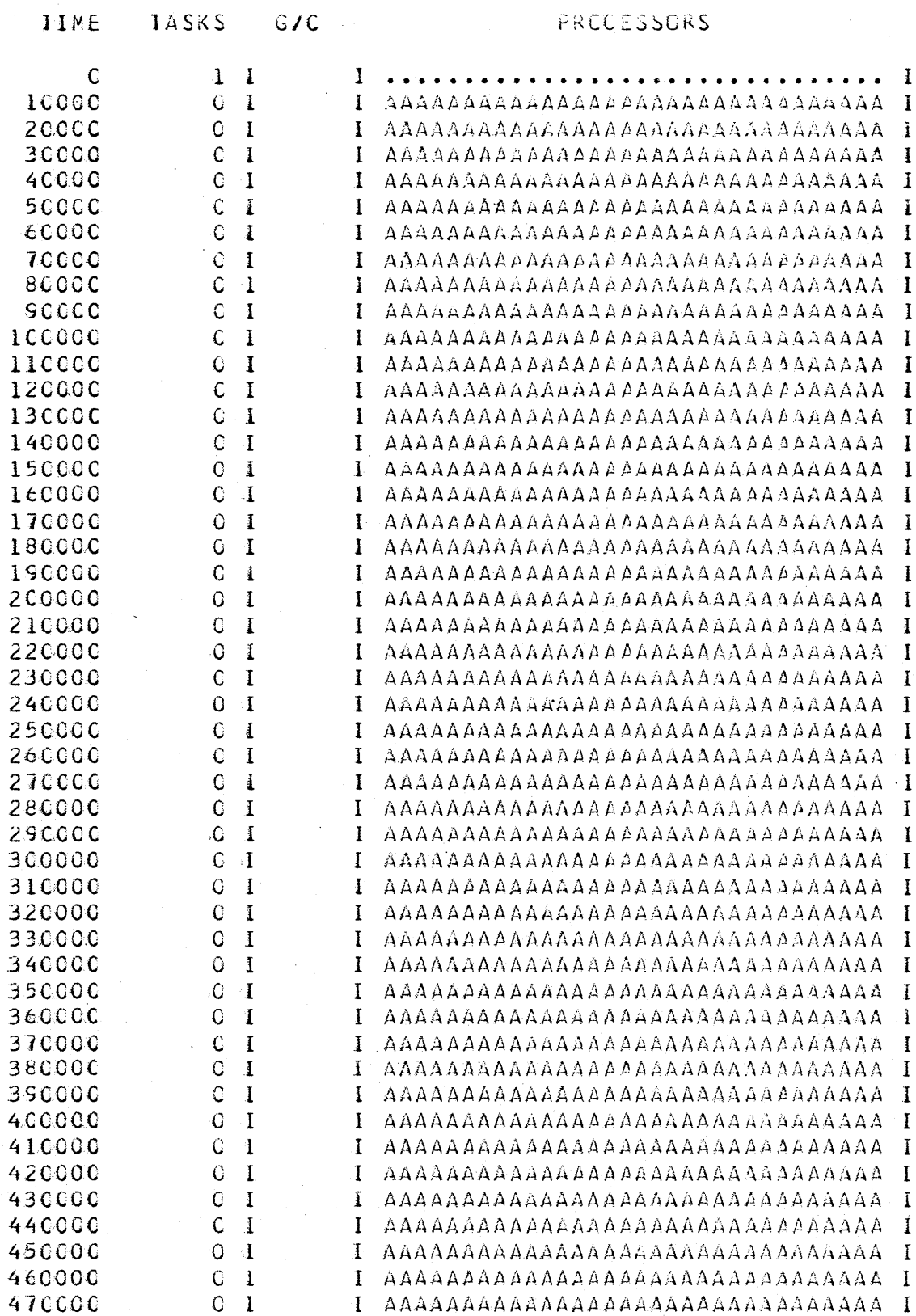
FOURTH BREAK-DOWN OF RADISH5 4 APRIL 1968 (1600 POINTS)

PROCESSOR SUMMARY

PROC	FREE MODE TIME AVAILABLE	USEAGE TOTAL	%	USER	%	PROCESS	%	EFF	OVERHEAD SYSTEM	%	USER	%
1	1413825	1163030	82.	1142098	81.	1142098	81.	82.	20932	2.	0	0.0
2	1413825	1161976	82.	1139296	81.	1139296	81.	82.	22680	2.	0	0.0
3	1413825	1189512	84.	1144446	81.	1122828	79.	82.	45066	4.	21618	2.
4	1413825	1172152	83.	1152611	82.	1152611	82.	83.	19541	2.	0	0.0
5	1413825	1176462	83.	1145568	81.	1138053	80.	82.	30694	3.	7515	1.
6	1413825	1180593	83.	1143035	81.	1128696	80.	82.	37353	3.	14339	1.
7	1413825	1167421	83.	1147325	81.	1147325	81.	82.	20096	2.	0	0.0
8	1413825	1175732	83.	1146501	81.	1139301	81.	82.	29231	2.	7200	1.
9	1413825	1160680	82.	1140051	81.	1140051	81.	82.	20629	2.	0	0.0
10	1413825	1175596	83.	1145749	81.	1138549	81.	82.	29847	3.	7200	1.
11	1413825	1210752	86.	1172092	83.	1157715	82.	84.	38660	3.	14377	1.
12	1413825	1204573	85.	1176378	83.	1169163	83.	84.	28195	2.	7215	1.
13	1413825	1211994	86.	1184042	84.	1176842	83.	85.	27952	2.	7200	1.
14	1413825	1215720	86.	1194226	84.	1194226	84.	86.	21494	2.	0	0.0
15	1413825	1201839	85.	1181601	84.	1181601	84.	85.	20238	2.	0	0.0
16	1413825	1201909	85.	1180731	84.	1180731	84.	85.	21178	2.	0	0.0
17	1413825	1190583	84.	1168495	83.	1168495	83.	84.	22088	2.	0	0.0
18	1413825	1218566	86.	1180039	83.	1165674	82.	85.	38477	3.	14415	1.
19	1413825	1230041	87.	1199546	85.	1192346	84.	86.	30495	2.	7200	1.
20	1413825	1206768	85.	1176815	83.	1169606	83.	85.	29953	2.	7209	1.
21	1413825	1216466	86.	1187140	84.	1179950	83.	85.	29326	2.	7190	1.
22	1413825	1225215	87.	1196496	85.	1189259	84.	86.	28719	2.	7237	1.
23	1413825	1222611	86.	1193835	84.	1186676	84.	86.	28726	2.	7209	1.
24	1413825	1230043	87.	1202315	85.	1195115	85.	86.	27728	2.	7200	1.
25	1413825	1211960	86.	1191838	84.	1191838	84.	86.	20122	2.	0	0.0
26	1413825	1215721	86.	1194595	84.	1194595	84.	86.	21126	2.	0	0.0
27	1413825	1206730	85.	1186082	84.	1186082	84.	85.	20648	2.	0	0.0
28	1413825	1188456	84.	1166509	83.	1166509	83.	84.	21947	2.	0	0.0
29	1413825	1175676	83.	1154723	82.	1154723	82.	83.	20953	2.	0	0.0
30	1413825	1191452	84.	1162606	82.	1155406	82.	83.	28846	2.	7200	1.
31	1413825	1188718	84.	1168860	83.	1168860	83.	84.	19858	2.	0	0.0
32	1413825	1179666	83.	1158494	82.	1158494	82.	83.	21172	2.	0	0.0
	45242400	38268413	85.	37424238	83.	37272714	82.	84.	844175	2.	151524	0.

INITIAL BREAK-DOWN OF MONTE-CARLO METHOD FOR 25000 POINTS ON 32 V.P.'S

PROCESSOR TIME TRACE



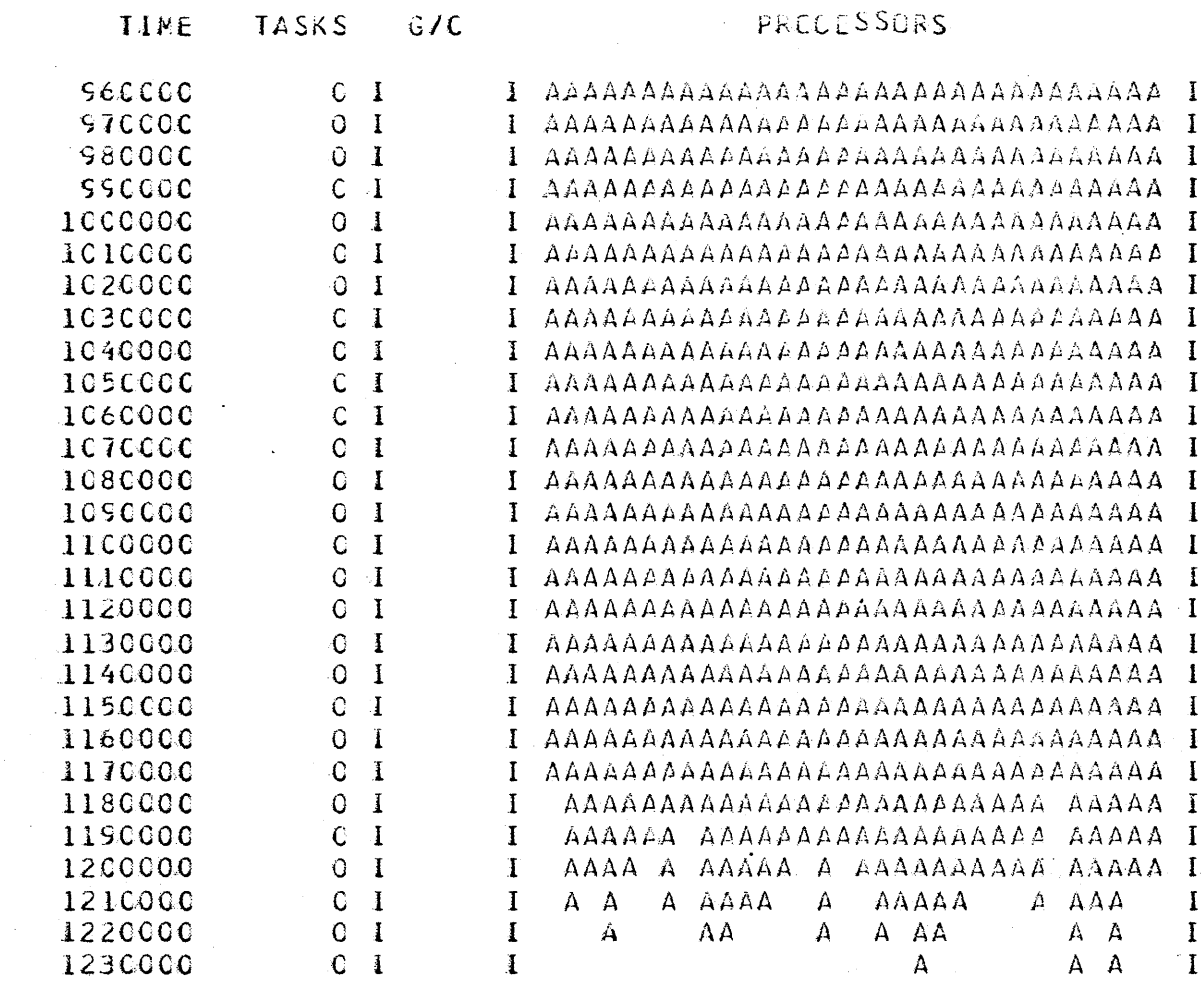
INITIAL BREAK-DOWN OF MONTE-CARLO METHOD FOR 25000 POINTS ON 32 V.P.'S

PROCESSOR TIME TRACE

TIME	TASKS	G/C	PROCESSORS
480000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
490000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
500000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
510000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
520000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
530000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
540000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
550000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
560000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
570000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
580000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
590000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
600000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
610000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
620000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
630000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
640000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
650000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
660000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
670000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
680000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
690000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
700000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
710000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
720000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
730000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
740000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
750000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
760000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
770000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
780000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
790000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
800000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
810000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
820000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
830000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
840000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
850000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
860000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
870000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
880000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
890000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
900000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
910000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
920000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
930000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
940000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
950000	C	I	I AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I

INITIAL BREAK-DOWN OF MONTE-CARLO METHOD FOR 25000 POINTS ON 32 V.P.'S

PROCESSOR TIME TRACE



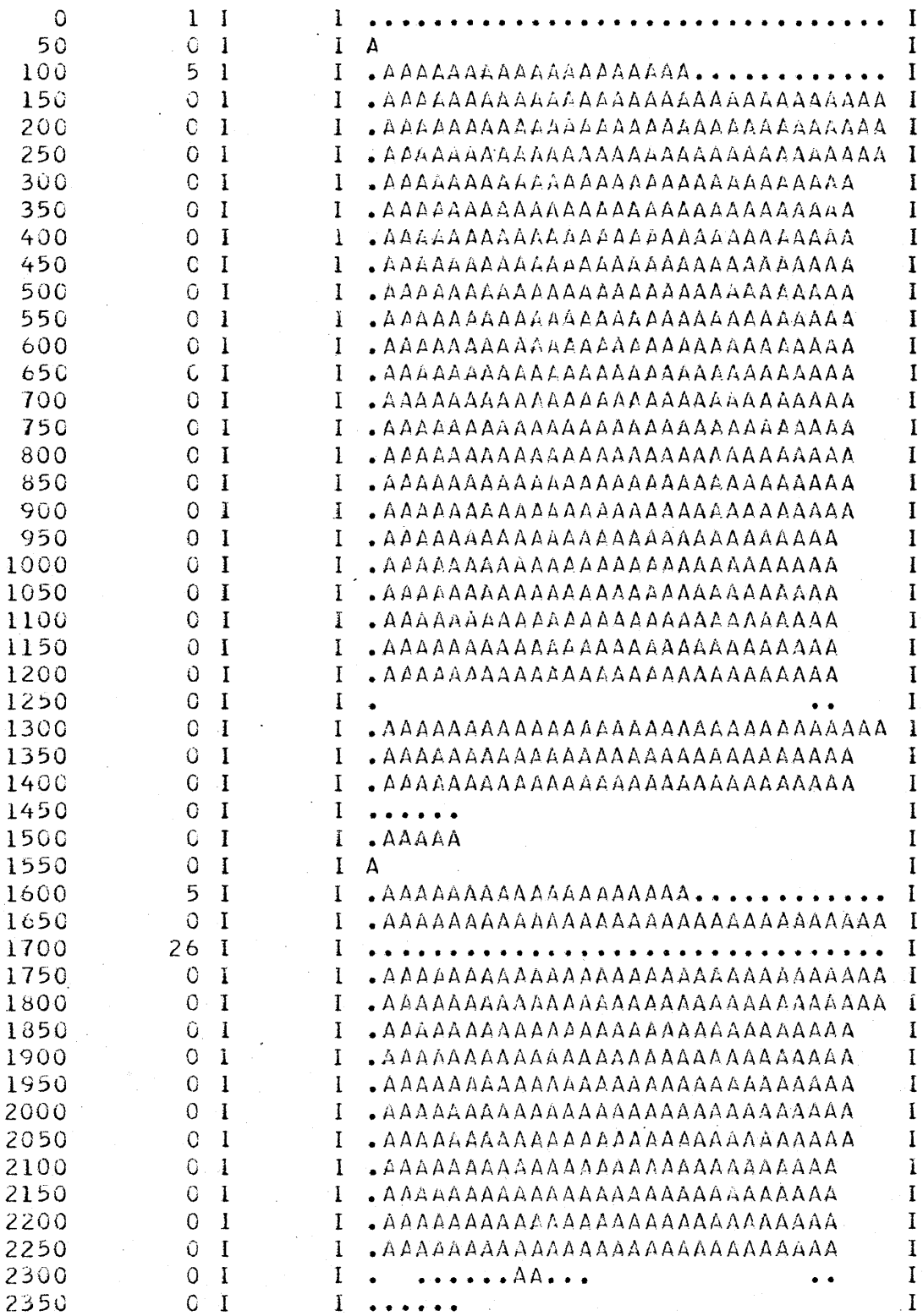
INITIAL BREAK-DOWN OF MONTE-CARLO METHOD FOR 25000 POINTS ON 32 V.P.'S

PROCESSOR SUMMARY

PROC	FREE MODE TIME								OVERHEAD			
	AVAILABLE	USEAGE TOTAL	%	USER	%	PROCESS	%	EFF	SYSTEM	%	USER	%
1	1243355	1170797	94.	1170518	94.	1170518	94.	94.	279	0.	0	0.0
2	1243355	1218550	98.	1218539	98.	1218539	98.	98.	11	0.	0	0.0
3	1243355	1205438	97.	1205426	97.	1205426	97.	97.	12	0.	0	0.0
4	1243355	1228844	99.	1228831	99.	1228831	99.	99.	13	0.	0	0.0
5	1243355	1203812	97.	1203798	97.	1203798	97.	97.	14	0.	0	0.0
6	1243355	1199327	96.	1199312	96.	1199312	96.	96.	15	0.	0	0.0
7	1243355	1216961	98.	1216945	98.	1216945	98.	98.	16	0.	0	0.0
8	1243355	1186036	95.	1186019	95.	1186019	95.	95.	17	0.	0	0.0
9	1243355	1220162	98.	1220144	98.	1220144	98.	98.	18	0.	0	0.0
10	1243355	1227799	99.	1227780	99.	1227780	99.	99.	19	0.	0	0.0
11	1243355	1218511	98.	1218491	98.	1218491	98.	98.	20	0.	0	0.0
12	1243355	1212950	98.	1212929	98.	1212929	98.	98.	21	0.	0	0.0
13	1243355	1209774	97.	1209752	97.	1209752	97.	97.	22	0.	0	0.0
14	1243355	1199782	96.	1199759	96.	1199759	96.	96.	23	0.	0	0.0
15	1243355	1223840	98.	1223816	98.	1223816	98.	98.	24	0.	0	0.0
16	1243355	1197958	96.	1197933	96.	1197933	96.	96.	25	0.	0	0.0
17	1243355	1205132	97.	1205106	97.	1205106	97.	97.	26	0.	0	0.0
18	1243355	1226687	99.	1226660	99.	1226660	99.	99.	27	0.	0	0.0
19	1243355	1219548	98.	1219520	98.	1219520	98.	98.	28	0.	0	0.0
20	1243355	1234491	99.	1234462	99.	1234462	99.	99.	29	0.	0	0.0
21	1243355	1222008	98.	1221978	98.	1221978	98.	98.	30	0.	0	0.0
22	1243355	1217266	98.	1217235	98.	1217235	98.	98.	31	0.	0	0.0
23	1243355	1204781	97.	1204749	97.	1204749	97.	97.	32	0.	0	0.0
24	1243355	1203227	97.	1203194	97.	1203194	97.	97.	33	0.	0	0.0
25	1243355	1206077	97.	1206043	97.	1206043	97.	97.	34	0.	0	0.0
26	1243355	1219935	98.	1219900	98.	1219900	98.	98.	35	0.	0	0.0
27	1243355	1179072	95.	1179036	95.	1179036	95.	95.	36	0.	0	0.0
28	1243355	1235569	99.	1235532	99.	1235532	99.	99.	37	0.	0	0.0
29	1243355	1214770	98.	1214732	98.	1214732	98.	98.	38	0.	0	0.0
30	1243355	1243347	100.	1243044	100.	1243044	100.	100.	303	0.	0	0.0
31	1243355	1202411	97.	1202371	97.	1202371	97.	97.	40	0.	0	0.0
32	1243355	1209223	97.	1209182	97.	1209182	97.	97.	41	0.	0	0.0
	39787360	38784085	97.	38782736	97.	38782736	97.	97.	1349	0.	0	0.0

INITIAL BREAK-DOWN OF LOS ALAMOS PAD (PISTON ACTUATED DETONATION)

PROCESSOR TIME TRACE



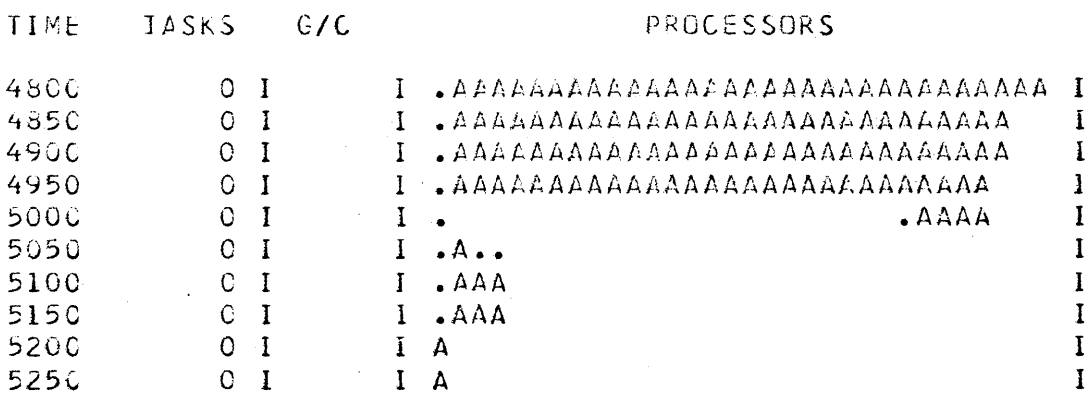
INITIAL BREAK-DOWN OF LOS ALAMOS PAD (PISTON ACTUATED DETONATION)

PROCESSOR TIME TRACE

TIME	TASKS	G/C	PROCESSORS
2400	0	I	I .AAAAA I
2450	0	I	I A I
2500	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAA... I
2550	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
2600	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
2650	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
2700	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
2750	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
2800	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
2850	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
2900	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
2950	0	I	I .AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA I
3000	0	I	I .AA .AAAAAAAAAAAAAAAAA I
3050	0	I	I .AA I
3100	0	I	I .AA I
3150	0	I	I .AA I
3200	0	I	I .AA I
3250	0	I	I .AA I
3300	0	I	I .AA I
3350	0	I	I .AA I
3400	0	I	I .AA I
3450	0	I	I .AA I
3500	0	I	I .AA I
3550	0	I	I .AA I
3600	0	I	I .AA I
3650	0	I	I .AA I
3700	0	I	I .AA I
3750	0	I	I .AA I
3800	0	I	I .AA I
3850	0	I	I .AA I
3900	0	I	I .AA I
3950	0	I	I .AA I
4000	0	I	I .AA I
4050	0	I	I .AA I
4100	0	I	I .AA I
4150	0	I	I .AA I
4200	0	I	I .A I
4250	0	I	I .A I
4300	0	I	I .A I
4350	0	I	I .A I
4400	0	I	I .A I
4450	0	I	I .A I
4500	0	I	I .A I
4550	0	I	I .A I
4600	0	I	I .A I
4650	0	I	I .A I
4700	0	I	I .A I
4750	0	I	I A I

INITIAL BREAK-DOWN OF LOS ALAMOS PAD (PISTON ACTUATED DETONATION)

PROCESSOR TIME TRACE



INITIAL BREAK-DOWN OF LOS ALAMOS PAD (PISTON ACTUATED DETONATION)

PROCESSOR SUMMARY

PROC	AVAILABLE	TOTAL	%	USEAGE USER	%	PROCESS	%	EFF	OVERHEAD SYSTEM	%	USER	%
				FREE MODE TIME								
1	5290	5290	100.	2609	49.	363	7.	14.	2681	51.	2246	42.
2	5290	4727	89.	4629	88.	4629	88.	89.	98	2.	0	0.0
3	5290	4181	79.	4075	77.	4075	77.	79.	106	3.	0	0.0
4	5290	3034	57.	2910	55.	2910	55.	56.	124	4.	0	0.0
5	5290	2916	55.	2793	53.	2793	53.	54.	123	4.	0	0.0
6	5290	2926	55.	2793	53.	2793	53.	54.	133	5.	0	0.0
7	5290	2792	53.	2673	51.	2673	51.	52.	119	4.	0	0.0
8	5290	2798	53.	2673	51.	2673	51.	52.	125	4.	0	0.0
9	5290	2804	53.	2673	51.	2673	51.	52.	131	5.	0	0.0
10	5290	2810	53.	2673	51.	2673	51.	52.	137	5.	0	0.0
11	5290	2816	53.	2673	51.	2673	51.	52.	143	5.	0	0.0
12	5290	2822	53.	2664	50.	2664	50.	52.	158	6.	0	0.0
13	5290	2828	53.	2667	50.	2667	50.	52.	161	6.	0	0.0
14	5290	2835	54.	2661	50.	2661	50.	52.	174	6.	0	0.0
15	5290	2812	53.	2652	50.	2652	50.	52.	160	6.	0	0.0
16	5290	2818	53.	2652	50.	2652	50.	52.	166	6.	0	0.0
17	5290	2824	53.	2652	50.	2652	50.	52.	172	6.	0	0.0
18	5290	2830	53.	2652	50.	2652	50.	52.	178	6.	0	0.0
19	5290	2836	54.	2652	50.	2652	50.	52.	184	6.	0	0.0
20	5290	2842	54.	2652	50.	2652	50.	52.	190	7.	0	0.0
21	5290	2848	54.	2652	50.	2652	50.	52.	196	7.	0	0.0
22	5290	2854	54.	2652	50.	2652	50.	52.	202	7.	0	0.0
23	5290	2860	54.	2652	50.	2652	50.	52.	208	7.	0	0.0
24	5290	2866	54.	2652	50.	2652	50.	52.	214	7.	0	0.0
25	5290	2872	54.	2652	50.	2652	50.	52.	220	8.	0	0.0
26	5290	2878	54.	2652	50.	2652	50.	52.	226	8.	0	0.0
27	5290	2884	55.	2652	50.	2652	50.	52.	232	8.	0	0.0
28	5290	2890	55.	2652	50.	2652	50.	52.	238	8.	0	0.0
29	5290	2899	55.	2652	50.	2652	50.	53.	247	9.	0	0.0
30	5290	2242	42.	1970	37.	1970	37.	39.	272	12.	0	0.0
31	5290	1117	21.	861	16.	861	16.	17.	256	23.	0	0.0
32	5290	1123	21.	861	16.	861	16.	17.	262	23.	0	0.0
	169280	92874	55.	84638	50.	82392	49.	51.	8236	9.	2246	2.

```
000000                  462+INSTRC   START 0 CONTROL SECTION FOR INPUT INSTRUCTIONS
                        463+*
000000 00000000         464+IBEG     DC    A(0) FOR LENGTH OF INSTRUCTIONS

                        466 *
                        467 *
                        468 *
                        469 *
                        470          PRINT ON,NOGEN       SUPRESS INSTRUCTION MACRO EXPANSIONS
                        471 *
                        472 *  INSTRUCTIONS TO SIMULATE 'SUBROUTINE CMP108'
                        473 *
                        474 *
                        475 *        P R I V A T E  S T O R E  A S S I G N M E N T S
                        476 *
                        477 *    VARIABLE              PRIVATE STORE LOCATION
                        478 *    --------              ----------------------
                        479 *       J                          0 (XR0)
                        480 *       IP1                        1 (XR1)
                        481 *       I                          2 (XR2)
                        482 *       IM                         3 (XR3)
                        483 *       IM1                        4 (XR4)
                        484 *       LOOP CNTRL                 5 (XR5)
                        485 *       JM                         6 (XR6)
                        486 *       MRCH                       7 (XR7)
                        487 *
                        488 *    CONST  1                       8
                        489 *    CONST  2                       9
                        490 *    CONST  3                      10
                        491 *    CONST  4                      11
                        492 *    CONST  7                      12
                        493 *    CONST 10                      13
                        494 *    CONST 0.25                    14
                        495 *    CONST 0.5                     15
                        496 *
                        497 *    ARRAY PU                      20
                        498 *    ARRAY P                       40
                        499 *    ARRAY PV                      60
                        500 *    ARRAY DXU                     80
                        501 *    ARRAY V                      100
                        502 *      .TEMP.                      19
                        503 *
                        504 *
                        505 *  GET ALL PROCESSORS GOING ON TASK
                        506 *
                        507 A          FORK  B
                        516 B          FORK  C
                        525 C          FORK  D
                        534 D          FORK  E
                        543 E          FORK  CMP108
                        552 *
```

```
LCC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                        F01JAN68   4/04/68

                                  553 CMP108    NOOP  ,                   ENTRY FOR SUBROUTINE CMP108
                                  561 *
                                  562 *  INITIALIZE REGISTERS FOR LOOP
                                  563 *
                                  564           LDX   X2,C5               SET I TO 5
                                  574           LDX   X3,C31              SET IM TO 31
                                  584           LDX   X6,C30              SET JM TO 30
                                  594           LDX   X7,C2               SET MRCH TO 2 - THEN 3, 4, 2, 3, 4, ETC
                                  604 *
                                  605           LDX   X0,C0               START J AT 0
                                  615           LDX   X5,C1               START LOOP CONTROL AT 1
                                  625 *
                                  626 *
                                  627 *  INSTRUCTION COUNTING STATEMENTS, I.E. CTR=CTR+4, ARE NOT SIMULATED
                                  628 *
                                  629 LOOP      ATX   C1,X0,X0                  J=J+1
                                  640           TXH   SN10,X0,C2          IF(J.NE.2)
                                  651           TXLE  SN10,X0,C1                     GO TO 10
                                  662           ATX   C1,X2,X1            IP1=I+1
                                  673           TXH   SKIP1,X2,X3         IF(I.EQ.IM) .... IP=1
                                  684           SFX   C1,X3,X4            TEMP - X4=IM-1
                                  695           TXLE  SKIP1,X2,X4         IF .LE. IM-1, THEN .NE. IM
                                  706           LDX   X1,C1               IP1=1
                                  716 SKIP1     LDX   X4,X2               IM1=
                                  726           SFX   C1,X4,X4              I-1
                                  737           TXH   SN10,X2,C1          IF(.NOT.(I.EQ.1))
                                  748           TXLE  SN10,X2,C0                                GO TO 10
                                  759           LDX   X4,X3               IM1=IM
                                  769 *
                                  770 SN10      NOOP  ,                   WAS CTR=CTR+4
                                  778           LOD   A1,X5               SIMULATE SAVING 'CTR' SINCE
                                  788           STO   A1,P19                    IT DOES NOT AFFECT FLOW
                                  798           TXH   SN2170,X0,X6        IF(J.EQ.JM)...GO TO 2175 - BRA IF HIGHER
                                  809           SFX   C1,X6,X6            TEMP - JM=JM-1
                                  820           TXLE  SKIP2,X0,X6         COMPARING J TO JM-1
                                  831           ATX   C1,X6,X6            RESTORING JM
                                  842           BRA   SN2175              GO TO 2175  (J.EQ.JM)
                                  851 *
                                  852 SKIP2     ATX   C1,X6,X6            RESTORING JM  (HERE IF J.NE.JM)
                                  863 *
                                  864 SN2170    LOD   A1,P40              P(J,I)
                                  874           FADD  A1,P40,A1                  + P(J,IP1)
                                  885           FMPY  A1,P20,A1             ABOVE QUANTITY  * PU(J,I)
                                  896           STO   A1,P20              PU(J,I)=  ABOVE RESULT
                                  906 *
                                  907 SN2175    NOOP  ,                   WAS CTR=CTR+4
                                  915           TXH   SN11,X7,C2          IF(.NOT.(MRCH.LE.2)) GO TO 11
                                  926 *
                                  927           LOD   A1,P100             V(J,I,L)
                                  937           FADD  A1,P100,A1                  + V(J,IM1,L)
                                  948           STO   A1,P19              SAVE IN TEMP
                                  958           LOD   A1,P40              P(J,I)
                                  968           FADD  A1,P40,A1                  + P(J-1,I)
                                  979           FMPY  A1,P19,A1           * (V(J,I,L) + V(J,IM1,L))
                                  990           FMPY  A1,P80,A1           * DXU(J)
```

```
                        1001          FMPY  A1,P14,A1      *  0.25
                        1012          STO   A1,P60          PV(J,I) = ABOVE PRODUCT
                        1022 *
                        1023 *
                        1024 SN11     NOOP  ,               WAS CTR=CTR+4
                        1032          TXH   SN12,X7,C3      IF(.NOT.(MRCH.EQ.3))
                        1043          TXLE  SN12,X7,C2                            GO TO 12
                        1054 *
                        1055          LOD   A1,P40          P(J,I)
                        1065          FADD  A1,P40,A1               + P(J-1,I)
                        1076          FMPY  A1,P100,A1                          * V(J,I,L)
                        1087          FMPY  A1,P80,A1                                     * DXU(J)
                        1098          FMPY  A1,P15,A1                                           *0.5
                        1109          STO   A1,P60          PV(J,I) = ABOVE PRODUCT
                        1119 *
                        1120 SN12     NOOP  ,               WAS CTR=CTR+4
                        1128          TXH   SN13,X7,C4      IF(.NOT.(MRCH.EQ.4))
                        1139          TXLE  SN13,X7,C3                            GO TO 13
                        1150 *
                        1151          LOD   A1,P40          P(J,I)
                        1161          FADD  A1,P40,A1               + P(J-1,I))
                        1172          FMPY  A1,P100,A1                          * V(J,IM1,L)
                        1183          FMPY  A1,P80,A1                                     * DXU(J)
                        1194          FMPY  A1,P15,A1                                           *0.5
                        1205          STO   A1,P60          PV(J,I) = ABOVE PRODUCT
                        1215 *
                        1216 SN13     NOOP  ,               WAS CTR=CTR+4
                        1224          TXH   SN2181,X0,X6    IF(J.NE.JM) .... GO TO 2181
                        1235          SFX   C1,X6,X6        TEMP - JM=JM-1
                        1246          TXLE  SKIP3,X0,X6     BRANCH IF  J .LE. JM-1  ( .NE. JM )
                        1257          ATX   C1,X6,X6        RESTORING JM  ( J .EQ. JM )
                        1268          BRA   SKIP4           BRANCH AROUND EQUAL CASE
                        1277 *
                        1278 SKIP3    ATX   C1,X6,X6        RESTORING JM -  J .NE. JM
                        1289          BRA   SN2181          GO TO 2181
                        1298 *
                        1299 SKIP4    ATX   C1,X2,X2        I=I+1
                        1310          LDX   X0,C1           J=1
                        1320 *
                        1321 SN2181   NOOP  SN2181          CONTINUE
                        1330 *
                        1331          ATX   C1,X5,X5        LOOP COUNTER UP BY ONE
                        1342          TXH   TENDCMP,X5,C30        BRANCH TO TEND IF DONE
                        1353 *
                        1354          ATX   C1,X7,X7        MRCH=MRCH+1
                        1365          TXLE  LOOP,X7,C4      BRANCH BACK IF MRCH STILL LE 4
                        1376 *
                        1377          LDX   X7,C2           RESET MRCH TO 2
                        1387          BRA   LOOP
                        1396 *
                        1397 *
                        1398 TENDCMP  TEND  CMP108
                        1407          TERM                  CLEANUP                     INST4830
                        1528 *                                                          INST4840
                        1529 *                                                          INST4850
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PRINTOUT OF ASSEMBLED INPUT INSTRUCTIONS

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INSTRUCTION NUMBER   1    FORK   ,,I2
INSTRUCTION NUMBER   2    FORK   ,,I3
INSTRUCTION NUMBER   3    FORK   ,,I4
INSTRUCTION NUMBER   4    FORK   ,,I5
INSTRUCTION NUMBER   5    FORK   ,,I6
INSTRUCTION NUMBER   6    NOOP   ,,
INSTRUCTION NUMBER   7    LDX    C5,,X2
INSTRUCTION NUMBER   8    LDX    C31,,X3
INSTRUCTION NUMBER   9    LDX    C30,,X6
INSTRUCTION NUMBER  10    LDX    C2,,X7
INSTRUCTION NUMBER  11    LDX    CC,,X0
INSTRUCTION NUMBER  12    LDX    C1,,X5
INSTRUCTION NUMBER  13    ATX    C1,X0,X0
INSTRUCTION NUMBER  14    TXH    X0,C2,I26
INSTRUCTION NUMBER  15    TXLE   XC,C1,I26
INSTRUCTION NUMBER  16    ATX    C1,X2,X1
INSTRUCTION NUMBER  17    TXH    X2,X3,I21
INSTRUCTION NUMBER  18    SFX    C1,X3,X4
INSTRUCTION NUMBER  19    TXLE   X2,X4,I21
INSTRUCTION NUMBER  20    LDX    C1,,X1
INSTRUCTION NUMBER  21    LDX    X2,,X4
INSTRUCTION NUMBER  22    SFX    C1,X4,X4
INSTRUCTION NUMBER  23    TXH    X2,C1,I26
INSTRUCTION NUMBER  24    TXLE   X2,C0,I26
INSTRUCTION NUMBER  25    LDX    X3,,X4
INSTRUCTION NUMBER  26    NOOP   ,,
INSTRUCTION NUMBER  27    LOD    X5,,A1
INSTRUCTION NUMBER  28    STO    A1,,P19
INSTRUCTION NUMBER  29    TXH    X0,X6,I35
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INSTRUCTION NUMBER  30    SPX     C1,X6,X6
INSTRUCTION NUMBER  31    TXLE    X6,X6,I34
INSTRUCTION NUMBER  32    ATX     C1,X6,X6
INSTRUCTION NUMBER  33    BRA     ,,I39
INSTRUCTION NUMBER  34    ATX     C1,X6,X6
INSTRUCTION NUMBER  35    LOD     P40,,A1
INSTRUCTION NUMBER  36    FADD    A1,P40,A1
INSTRUCTION NUMBER  37    FMPY    A1,P20,A1
INSTRUCTION NUMBER  38    STO     A1,,P20
INSTRUCTION NUMBER  39    NOOP    ,,
INSTRUCTION NUMBER  40    TXH     X7,C2,I50
INSTRUCTION NUMBER  41    LOD     P1CC,,A1
INSTRUCTION NUMBER  42    FADD    A1,P100,A1
INSTRUCTION NUMBER  43    STO     A1,,P19
INSTRUCTION NUMBER  44    LOD     P40,,A1
INSTRUCTION NUMBER  45    FADD    A1,P40,A1
INSTRUCTION NUMBER  46    FMPY    A1,P19,A1
INSTRUCTION NUMBER  47    FMPY    A1,P80,A1
INSTRUCTION NUMBER  48    FMPY    A1,P14,A1
INSTRUCTION NUMBER  49    STO     A1,,P60
INSTRUCTION NUMBER  50    NOOP    ,,
INSTRUCTION NUMBER  51    TXH     X7,C3,I59
INSTRUCTION NUMBER  52    TXLE    X7,C2,I59
INSTRUCTION NUMBER  53    LOD     P40,,A1
INSTRUCTION NUMBER  54    FADD    A1,P40,A1
INSTRUCTION NUMBER  55    FMPY    A1,P100,A1
INSTRUCTION NUMBER  56    FMPY    A1,P80,A1
INSTRUCTION NUMBER  57    FMPY    A1,P15,A1
INSTRUCTION NUMBER  58    STO     A1,,P60
INSTRUCTION NUMBER  59    NOOP    ,,
INSTRUCTION NUMBER  60    TXH     X7,C4,I68
INSTRUCTION NUMBER  61    TXLE    X7,C3,I68
INSTRUCTION NUMBER  62    LOD     P40,,A1
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INSTRUCTION NUMBER  63    FADD    A1,P40,A1
INSTRUCTION NUMBER  64    FMPY    A1,P100,A1
INSTRUCTION NUMBER  65    FMPY    A1,P80,A1
INSTRUCTION NUMBER  66    FMPY    A1,P15,A1
INSTRUCTION NUMBER  67    STO     A1,,P60
INSTRUCTION NUMBER  68    NOOP    ,,
INSTRUCTION NUMBER  69    TXH     X0,X6,I78
INSTRUCTION NUMBER  70    SFX     C1,X6,X6
INSTRUCTION NUMBER  71    TXLE    X0,X6,I74
INSTRUCTION NUMBER  72    ATX     C1,X6,X6
INSTRUCTION NUMBER  73    BRA     ,,I76
INSTRUCTION NUMBER  74    ATX     C1,X6,X6
INSTRUCTION NUMBER  75    BRA     ,,I78
INSTRUCTION NUMBER  76    ATX     C1,X2,X2
INSTRUCTION NUMBER  77    LDX     C1,,X0
INSTRUCTION NUMBER  78    NOOP    ,,I78
INSTRUCTION NUMBER  79    ATX     C1,X5,X5
INSTRUCTION NUMBER  80    TXH     X5,C30,I85
INSTRUCTION NUMBER  81    ATX     C1,X7,X7
INSTRUCTION NUMBER  82    TXLE    X7,C4,I13
INSTRUCTION NUMBER  83    LDX     C2,,X7
INSTRUCTION NUMBER  84    BRA     ,,I13
INSTRUCTION NUMBER  85    TEND    ,,I6
CALLED RDPARM
```

LISTING OF PARAMETER CARDS AS READ

```
PROCESSCR   NUMBER=32
CHANGE      RESOURCE=ADGEN,      MASK=10,    ACTSF=RELEASE
CHANGE      RESOURCE=FLDIV,  NUMBER=1,   TYPE=COMMON,    ACTSE=EVENT,X
              ACTDT=0,    ACTSF=EXFLD
CHANGE     RESOURCE=PROC,      PRIDT=448
CHANGE    FCTSTEP=XFCRK, ENTRY=3, FDT=40   CHANGING DELTA-TIME FIELD
CHANGE    FCTSTEP=PRIORITY,  ENTRY=2,  FSE=EVENT,      FADDR=PRIORITY
START      STINST=1,                      STPROC=31,                  X
            ILIMIT=20000
TRACE       LINES=0                COMMENT
 CHANGE     FCTSTEP=PRIORITY,  ENTRY=2,  FDT=448
PLOT        PAGES=400
  ENDPARM            MAIN KEYWORDS NEED NOT ALL START IN COL 4
```

END OF PARAMETERS. 13 CARDS READ.

EXECUTION UNITS

FIXED POINT

ADD/SUB	1
MPY/DIV	1

FLOATING POINT

ADD/SUB	2
MPY	1
DIV	1

TIME = 1.45828, DATE = 03/18/68

SYSTEM CLOCK TIME=00000064 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)	
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.
.000	.000	.000	.000	.000	0		
.000	.000	.000	.000	.000	1		
.000	.000	.000	.000	.000	2		
.000	.000	.000	.000	.000	3		
.000	.000	.000	.000	.000	4		
.000	.000	.000	.000	.000	5		
.000	.000	.000	.000	.000	6		
.000	.000	.000	.000	.000	7		
.000	.000	.000	.000	.000	8		
.000	.000	.000	.000	.000	9		
.000	.000	.000	.000	.000	10		
.000	.000	.000	.000	.000	11		
.000	.000	.000	.000	.000	12		
.000	.000	.000	.000	.000	13		
.000	.000	.000	.000	.000	14		
.000	.000	.000	.000	.000	15		
.000	.000	.000	.000	.000	16		
.000	.000	.000	.000	.000	17		
.000	.000	.000	.000	.000	18		
.000	.000	.000	.000	.000	19		
.000	.000	.000	.000	.000	20		
.000	.000	.000	.000	.000	21		
.000	.000	.000	.000	.000	22		
.000	.000	.000	.000	.000	23		
.000	.000	.000	.000	.000	24		
.000	.000	.000	.000	.000	25		
.000	.000	.000	.000	.000	26		
.000	.000	.000	.000	.000	27		
.000	.000	.000	.000	.000	28		
.000	.000	.000	.000	.000	29		
.000	.000	.000	.000	.000	30		
.312	.000	.000	.000	.000	31	FORK	IIIIIIII

1 2 3 4 4 5 6
0.....8.....6.....4.....2.....0.....8.....6.....3

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000128 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)	
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.
.000	.000	.000	.000	.000	0		
.000	.000	.000	.000	.000	1		
.000	.000	.000	.000	.000	2		
.000	.000	.000	.000	.000	3		
.000	.000	.000	.000	.000	4		
.000	.000	.000	.000	.000	5		
.000	.000	.000	.000	.000	6		
.000	.000	.000	.000	.000	7		
.000	.000	.000	.000	.000	8		
.000	.000	.000	.000	.000	9		
.000	.000	.000	.000	.000	10		
.000	.000	.000	.000	.000	11		
.000	.000	.000	.000	.000	12		
.000	.000	.000	.000	.000	13		
.000	.000	.000	.000	.000	14		
.000	.000	.000	.000	.000	15		
.000	.000	.000	.000	.000	16		
.000	.000	.000	.000	.000	17		
.000	.000	.000	.000	.000	18		
.000	.000	.000	.000	.000	19		
.000	.000	.000	.000	.000	20		
.000	.000	.000	.000	.000	21		
.000	.000	.000	.000	.000	22		
.000	.000	.000	.000	.000	23		
.000	.000	.000	.000	.000	24		
.000	.000	.000	.000	.000	25		
.000	.000	.000	.000	.000	26		
.000	.000	.000	.000	.000	27		
.000	.000	.000	.000	.000	28		
.000	.000	.000	.000	.000	29		
.000	.000	.000	.000	.000	30		
.312	.031	.000	.000	.000	31	FORK	IIIIIIIIIIIIDDDD..... IIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000192 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)	
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.104	.020	.000	.000	.000	0	FORK	IIIIIIIIIIIIIIIIIIIDDDD.....
.000	.000	.000	.000	.000	1		
.000	.000	.000	.000	.000	2		
.000	.000	.000	.000	.000	3		
.000	.000	.000	.000	.000	4		
.000	.000	.000	.000	.000	5		
.000	.000	.000	.000	.000	6		
.000	.000	.000	.000	.000	7		
.000	.000	.000	.000	.000	8		
.000	.000	.000	.000	.000	9		
.000	.000	.000	.000	.000	10		
.000	.000	.000	.000	.000	11		
.000	.000	.000	.000	.000	12		
.000	.000	.000	.000	.000	13		
.000	.000	.000	.000	.000	14		
.000	.000	.000	.000	.000	15		
.000	.000	.000	.000	.000	16		
.000	.000	.000	.000	.000	17		
.000	.000	.000	.000	.000	18		
.000	.000	.000	.000	.000	19		
.000	.000	.000	.000	.000	20		
.000	.000	.000	.000	.000	21		
.000	.000	.000	.000	.000	22		
.000	.000	.000	.000	.000	23		
.000	.000	.000	.000	.000	24		
.000	.000	.000	.000	.000	25		
.000	.000	.000	.000	.000	26		
.000	.000	.000	.000	.000	27		
.000	.000	.000	.000	.000	28		
.000	.000	.000	.000	.000	29		
.000	.000	.000	.000	.000	30		
.312	.041	.000	.000	.000	31	FORK	IIIIIIIIIIIIDDDD.....IIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000256 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)	
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.156	.031	.000	.000	.000	0	FORK	IIIIIIIIIIIIIIIIIIDDDD.....
.078	.015	.000	.000	.000	1	FORK	IIIIIIIIIIIIIIIIIIDDDD.....
.078	.015	.000	.000	.000	2	FORK	IIIIIIIIIIIIIIIIIIDDDD.....
.000	.000	.000	.000	.000	3		
.000	.000	.000	.000	.000	4		
.000	.000	.000	.000	.000	5		
.000	.000	.000	.000	.000	6		
.000	.000	.000	.000	.000	7		
.000	.000	.000	.000	.000	8		
.000	.000	.000	.000	.000	9		
.000	.000	.000	.000	.000	10		
.000	.000	.000	.000	.000	11		
.000	.000	.000	.000	.000	12		
.000	.000	.000	.000	.000	13		
.000	.000	.000	.000	.000	14		
.000	.000	.000	.000	.000	15		
.000	.000	.000	.000	.000	16		
.000	.000	.000	.000	.000	17		
.000	.000	.000	.000	.000	18		
.000	.000	.000	.000	.000	19		
.000	.000	.000	.000	.000	20		
.000	.000	.000	.000	.000	21		
.000	.000	.000	.000	.000	22		
.000	.000	.000	.000	.000	23		
.000	.000	.000	.000	.000	24		
.000	.000	.000	.000	.000	25		
.000	.000	.000	.000	.000	26		
.000	.000	.000	.000	.000	27		
.000	.000	.000	.000	.000	28		
.000	.000	.000	.000	.000	29		
.000	.000	.000	.000	.000	30		
.312	.046	.000	.000	.000	31	FORK	IIIIIIIIIIIDDDD.....IIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000320 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)							(INSTRUCTION)	1 2 3 4 4 5 6
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH EXEC.	0.....8.....6.....4.....2.....0.....8.....6.....3
.187	.037	.000	.000	.000	0	FORK	IIIIIIIIIIIIIIIIIIIDDDD.....
.125	.025	.000	.000	.000	1	FORK	IIIIIIIIIIIIIIIIIIIDDDD.....
.125	.025	.000	.000	.000	2	FORK	IIIIIIIIIIIIIIIIIIIDDDD.....
.062	.012	.000	.000	.000	3	FORK	IIIIIIIIIIIIIIIIIIIDDDD.....
.062	.012	.000	.000	.000	4	FORK	IIIIIIIIIIIIIIIIIIIDDDD.....
.062	.012	.000	.000	.000	5	FORK	IIIIIIIIIIIIIIIIIIIDDDD.....
.062	.012	.000	.000	.000	6	FORK	IIIIIIIIIIIIIIIIIIIDDDD.....
.000	.000	.000	.000	.000	7		
.000	.000	.000	.000	.000	8		
.000	.000	.000	.000	.000	9		
.000	.000	.000	.000	.000	10		
.000	.000	.000	.000	.000	11		
.000	.000	.000	.000	.000	12		
.000	.000	.000	.000	.000	13		
.000	.000	.000	.000	.000	14		
.000	.000	.000	.000	.000	15		
.000	.000	.000	.000	.000	16		
.000	.000	.000	.000	.000	17		
.000	.000	.000	.000	.000	18		
.000	.000	.000	.000	.000	19		
.000	.000	.000	.000	.000	20		
.000	.000	.000	.000	.000	21		
.000	.000	.000	.000	.000	22		
.000	.000	.000	.000	.000	23		
.000	.000	.000	.000	.000	24		
.000	.000	.000	.000	.000	25		
.000	.000	.000	.000	.000	26		
.000	.000	.000	.000	.000	27		
.000	.000	.000	.000	.000	28		
.000	.000	.000	.000	.000	29		
.000	.000	.000	.000	.000	30		
.312	.050	.000	.000	.000	31	FORK	IIIIIIIIIIIDDDD.....IIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000384 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME) -I-	-O-	-A-	-U-	-R-	PROC.	(INSTRUCTION) FETCH EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.208	.041	.000	.000	.000	0	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.156	.031	.000	.000	.000	1	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.156	.031	.000	.000	.000	2	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.104	.020	.000	.000	.000	3	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.104	.020	.000	.000	.000	4	FORK	........IIIIIIIIIIIIIIIIIIIIDDDD.....
.104	.020	.000	.000	.000	5	FORK	........IIIIIIIIIIIIIIIIIIIIDDDD.....
.104	.020	.000	.000	.000	6	FORK	........IIIIIIIIIIIIIIIIIIIIDDDD.....
.052	.010	.000	.000	.000	7	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.052	.010	.000	.000	.000	8	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.052	.010	.000	.000	.000	9	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.052	.010	.000	.000	.000	10	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.052	.010	.000	.000	.000	11	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.052	.010	.000	.000	.000	12	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.052	.010	.000	.000	.000	13	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.052	.010	.000	.000	.000	14	FORK	IIIIIIIIIIIIIIIIIIIIDDDD.....
.000	.000	.000	.000	.000	15		
.000	.000	.000	.000	.000	16		
.000	.000	.000	.000	.000	17		
.000	.000	.000	.000	.000	18		
.000	.000	.000	.000	.000	19		
.000	.000	.000	.000	.000	20		
.000	.000	.000	.000	.000	21		
.000	.000	.000	.000	.000	22		
.000	.000	.000	.000	.000	23		
.000	.000	.000	.000	.000	24		
.000	.000	.000	.000	.000	25		
.000	.000	.000	.000	.000	26		
.000	.000	.000	.000	.000	27		
.000	.000	.000	.000	.000	28		
.000	.000	.000	.000	.000	29		
.000	.000	.000	.000	.000	30		
.312	.052	.000	.000	.000	31	NOOP	IIIIIIIIIIIDDDD.....IIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000448 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		1 2 3 4 4 5 6
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....6.....4.....2.....0.....8.....6.....3
.223	.044	.044	.026	.000	0	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.178	.035	.044	.026	.000	1	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.178	.035	.044	.026	.000	2	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.133	.026	.044	.026	.000	3	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.133	.026	.044	.026	.000	4	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.133	.026	.044	.026	.000	5	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.133	.026	.044	.026	.000	6	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.089	.017	.044	.026	.000	7	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.089	.017	.044	.026	.000	8	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.089	.017	.044	.026	.000	9	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.089	.017	.044	.026	.000	10	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.089	.017	.044	.026	.000	11	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.089	.017	.044	.000	.000	12	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.089	.017	.044	.000	.000	13	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.089	.017	.044	.000	.000	14	NOOP		.....IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.044	.008	.044	.000	.000	15	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.044	.008	.044	.000	.000	16	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.044	.008	.044	.000	.000	17	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.044	.008	.044	.000	.000	18	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.044	.008	.044	.000	.000	19	NOOP		IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.044	.008	.000	.000	.000	20	NOOP		IIIIIIIIIIIIIIIIIIIDDDD
.044	.008	.000	.000	.000	21	NOOP		IIIIIIIIIIIIIIIIIIIDDDD
.044	.008	.000	.000	.000	22	NOOP		IIIIIIIIIIIIIIIIIIIDDDD
.044	.008	.000	.000	.000	23	NOOP		IIIIIIIIIIIIIIIIIIIDDDD
.044	.000	.000	.000	.000	24	NOOP		IIIIIIIIIIIIIIII
.044	.000	.000	.000	.000	25	NOOP		IIIIIIIIIIIIIIII
.044	.000	.000	.000	.000	26	NOOP		IIIIIIIIIIIIIIII
.044	.000	.000	.000	.000	27	NOOP		IIIIIIIIIIIIIIII
.044	.000	.000	.000	.000	28	NOOP		IIIIIIII
.044	.000	.000	.000	.000	29	NOOP		IIIIIIII
.044	.000	.000	.000	.000	30	NOOP		IIIIIIII
.312	.053	.044	.026	.000	31	LDX	NOOP	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000512 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.234	.046	.078	.046	.000	0	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.195	.039	.078	.046	.000	1	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.195	.039	.078	.046	.000	2	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.156	.031	.078	.046	.000	3	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.156	.031	.078	.046	.000	4	LDX	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.156	.031	.078	.046	.000	5	LDX	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.156	.031	.078	.046	.000	6	LDX	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.117	.023	.078	.046	.000	7	LDX	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.117	.023	.078	.046	.000	8	LDX	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.117	.023	.078	.046	.000	9	LDX	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.117	.023	.078	.046	.000	10	LDX	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.117	.023	.078	.046	.000	11	LDX	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.117	.023	.078	.023	.000	12	LDX	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.117	.023	.078	.023	.000	13	LDX	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.117	.023	.078	.023	.000	14	LDX	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.078	.015	.078	.023	.000	15	LDX	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.078	.015	.078	.023	.000	16	LDX	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.078	.015	.078	.023	.000	17	LDX	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.078	.015	.078	.023	.000	18	LDX	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.078	.015	.078	.023	.000	19	LDX	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.078	.015	.039	.023	.000	20	LDX	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.078	.015	.039	.023	.000	21	LDX	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.078	.015	.039	.023	.000	22	LDX	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.078	.015	.039	.023	.000	23	LDX	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.078	.007	.039	.023	.000	24	LDX	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.078	.007	.039	.023	.000	25	LDX	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.078	.007	.039	.023	.000	26	LDX	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.078	.007	.039	.023	.000	27	LDX	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.078	.007	.039	.023	.000	28	LDX	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.078	.007	.039	.023	.000	29	LDX	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.078	.007	.039	.023	.000	30	LDX	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.054	.078	.046	.000	31	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

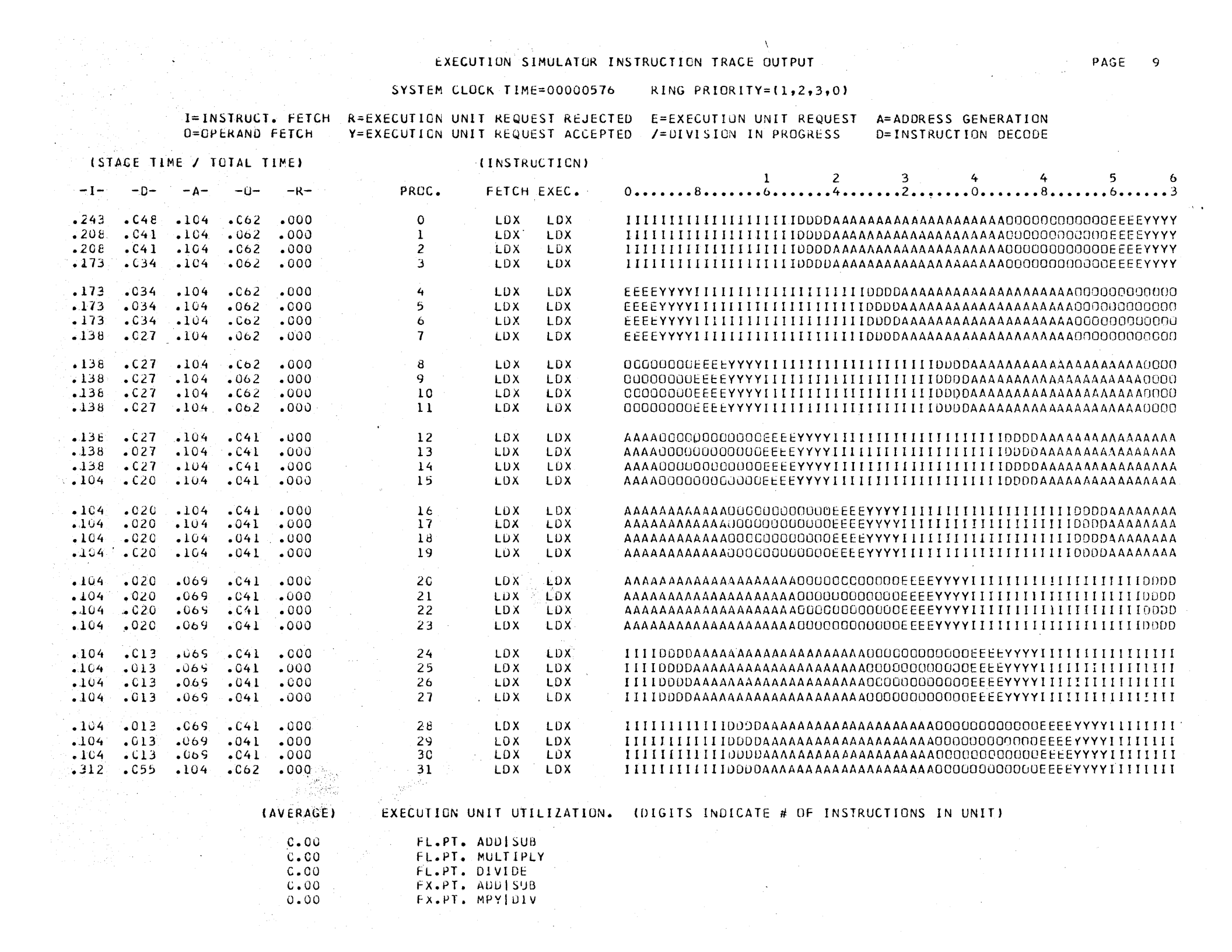
(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000576 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME) (INSTRUCTION)



-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.
.243	.C48	.104	.C62	.000	0	LDX	LDX
.208	.C41	.104	.062	.000	1	LDX	LDX
.208	.C41	.104	.062	.000	2	LDX	LDX
.173	.C34	.104	.062	.000	3	LDX	LDX
.173	.034	.104	.C62	.000	4	LDX	LDX
.173	.034	.104	.062	.000	5	LDX	LDX
.173	.C34	.104	.C62	.000	6	LDX	LDX
.138	.C27	.104	.062	.000	7	LDX	LDX
.138	.C27	.104	.C62	.000	8	LDX	LDX
.138	.C27	.104	.062	.000	9	LDX	LDX
.138	.C27	.104	.C62	.000	10	LDX	LDX
.138	.C27	.104	.062	.000	11	LDX	LDX
.138	.C27	.104	.C41	.000	12	LDX	LDX
.138	.027	.104	.C41	.000	13	LDX	LDX
.138	.C27	.104	.C41	.000	14	LDX	LDX
.104	.C20	.104	.041	.000	15	LDX	LDX
.104	.020	.104	.C41	.000	16	LDX	LDX
.104	.020	.104	.041	.000	17	LDX	LDX
.104	.020	.104	.041	.000	18	LDX	LDX
.104	.C20	.104	.041	.000	19	LDX	LDX
.104	.020	.069	.C41	.000	20	LDX	LDX
.104	.020	.069	.041	.000	21	LDX	LDX
.104	.C20	.069	.C41	.000	22	LDX	LDX
.104	.020	.069	.041	.000	23	LDX	LDX
.104	.C13	.069	.C41	.000	24	LDX	LDX
.104	.013	.069	.041	.000	25	LDX	LDX
.104	.C13	.069	.041	.000	26	LDX	LDX
.104	.013	.069	.041	.000	27	LDX	LDX
.104	.013	.069	.C41	.000	28	LDX	LDX
.104	.013	.069	.041	.000	29	LDX	LDX
.104	.C13	.069	.C41	.000	30	LDX	LDX
.312	.C55	.104	.C62	.000	31	LDX	LDX

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

C.00	FL.PT. ADD|SUB
C.00	FL.PT. MULTIPLY
C.00	FL.PT. DIVIDE
C.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000640 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-U-	-R-	PROC.	FETCH	EXEC.	0.....8.....1 6.....2 4.....3 2.....4 0.....4 8.....5 6.....6 3
.250	.C5C	.125	.C75	.000	0	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.218	.043	.125	.C75	.000	1	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.218	.043	.125	.C75	.000	2	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.187	.C37	.125	.C75	.000	3	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.187	.C37	.125	.075	.000	4	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.187	.C37	.125	.075	.000	5	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.187	.C37	.125	.075	.000	6	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.156	.031	.125	.075	.000	7	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.156	.031	.125	.C75	.000	8	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.156	.031	.125	.075	.000	9	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.156	.031	.125	.C75	.000	10	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.156	.031	.125	.C75	.000	11	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.156	.031	.125	.C56	.000	12	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.156	.031	.125	.C56	.000	13	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.156	.031	.125	.C56	.000	14	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.125	.C25	.125	.C56	.000	15	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.125	.C25	.125	.C56	.000	16	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.125	.C25	.125	.C56	.000	17	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.125	.C25	.125	.C56	.000	18	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.125	.C25	.125	.C56	.000	19	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.125	.C25	.093	.C56	.000	20	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.125	.C25	.093	.056	.000	21	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.125	.C25	.093	.C56	.000	22	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.125	.C25	.093	.C56	.000	23	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.125	.C18	.093	.C56	.000	24	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.125	.C18	.093	.C56	.000	25	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.125	.C18	.093	.C56	.000	26	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.125	.C18	.093	.C56	.000	27	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.125	.C18	.093	.C56	.000	28	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.125	.C18	.093	.056	.000	29	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.125	.C18	.093	.C56	.000	30	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.056	.125	.075	.000	31	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000704 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-U-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.255	.051	.142	.085	.000	0	LDX	LDX	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.227	.045	.142	.085	.000	1	LDX	LDX	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.227	.045	.142	.085	.000	2	LDX	LDX	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.198	.039	.142	.085	.000	3	LDX	LDX	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.198	.039	.142	.085	.000	4	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.198	.039	.142	.085	.000	5	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.198	.039	.142	.085	.000	6	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.170	.034	.142	.085	.000	7	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.170	.034	.142	.085	.000	8	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.170	.034	.142	.085	.000	9	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.170	.034	.142	.085	.000	10	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.170	.034	.142	.085	.000	11	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.170	.034	.142	.068	.000	12	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.170	.034	.142	.068	.000	13	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.170	.034	.142	.068	.000	14	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.142	.028	.142	.068	.000	15	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.142	.028	.142	.068	.000	16	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.142	.028	.142	.068	.000	17	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.142	.028	.142	.068	.000	18	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.142	.028	.142	.068	.000	19	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.142	.028	.113	.068	.000	20	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.142	.028	.113	.068	.000	21	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.142	.028	.113	.068	.000	22	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.142	.028	.113	.068	.000	23	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.142	.022	.113	.068	.000	24	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.142	.022	.113	.068	.000	25	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.142	.022	.113	.068	.000	26	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.142	.022	.113	.068	.000	27	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.142	.022	.113	.068	.000	28	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.142	.022	.113	.068	.000	29	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.142	.022	.113	.068	.000	30	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.056	.142	.085	.000	31	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000768 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME) (INSTRUCTION)

-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....1.....6.....2.....4.....3.....0.....4.....8.....5.....6.....3
.260	.052	.156	.093	.000	0	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.234	.046	.156	.093	.000	1	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.234	.046	.156	.093	.000	2	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.208	.041	.156	.093	.000	3	LDX	LDX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.208	.041	.156	.093	.000	4	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.208	.041	.156	.093	.000	5	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.208	.041	.156	.093	.000	6	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.182	.036	.156	.093	.000	7	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.182	.036	.156	.093	.000	8	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.182	.036	.156	.093	.000	9	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.182	.036	.156	.093	.000	10	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.182	.036	.156	.093	.000	11	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.182	.036	.156	.078	.000	12	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.182	.036	.156	.078	.000	13	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.182	.036	.156	.078	.000	14	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.156	.031	.156	.078	.000	15	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.156	.031	.156	.078	.000	16	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.156	.031	.156	.078	.000	17	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.156	.031	.156	.078	.000	18	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.156	.031	.156	.078	.000	19	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.156	.031	.130	.078	.000	20	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.156	.031	.130	.078	.000	21	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.156	.031	.130	.078	.000	22	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.156	.031	.130	.078	.000	23	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.156	.026	.130	.078	.000	24	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.156	.026	.130	.078	.000	25	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.156	.026	.130	.078	.000	26	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.156	.026	.130	.078	.000	27	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.156	.026	.130	.078	.000	28	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.156	.026	.130	.078	.000	29	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.156	.026	.130	.078	.000	30	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.057	.156	.093	.000	31	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000832 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME) (INSTRUCTION)

-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.264	.052	.168	.100	.000	0	LDX	LDX	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.240	.048	.168	.100	.000	1	LDX	LDX	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.240	.048	.168	.100	.000	2	LDX	LDX	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.216	.043	.168	.100	.000	3	LDX	LDX	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.216	.043	.168	.100	.000	4	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.216	.043	.168	.100	.000	5	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.216	.043	.168	.100	.000	6	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.192	.038	.168	.100	.000	7	LDX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.192	.038	.168	.100	.000	8	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.192	.038	.168	.100	.000	9	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.192	.038	.168	.100	.000	10	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.192	.038	.168	.100	.000	11	LDX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.192	.038	.168	.086	.000	12	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.192	.038	.168	.086	.000	13	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.192	.038	.168	.086	.000	14	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.168	.033	.168	.086	.000	15	LDX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.168	.033	.168	.086	.000	16	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.168	.033	.168	.086	.000	17	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.168	.033	.168	.086	.000	18	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.168	.033	.168	.086	.000	19	LDX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.168	.033	.144	.086	.000	20	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDD
.168	.033	.144	.086	.000	21	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDD
.168	.033	.144	.086	.000	22	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDD
.168	.033	.144	.086	.000	23	LDX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDD
.168	.028	.144	.086	.000	24	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIII
.168	.028	.144	.086	.000	25	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIII
.168	.028	.144	.086	.000	26	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIII
.168	.028	.144	.086	.000	27	LDX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIII
.168	.028	.144	.086	.000	28	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.168	.028	.144	.086	.000	29	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.168	.028	.144	.086	.000	30	LDX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.312	.057	.168	.100	.000	31	ATX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000896 RING PRIORITY=(2,3,0,1)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.267	.053	.178	.107	.000	0	ATX	ATX	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOOEEEEYYYY
.245	.049	.178	.107	.000	1	ATX	ATX	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOOEEEEYYYY
.245	.049	.178	.107	.000	2	ATX	ATX	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOOEEEEYYYY
.223	.044	.178	.107	.000	3	ATX	ATX	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOOEEEEYYYY
.223	.044	.178	.107	.000	4	ATX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.223	.044	.178	.107	.000	5	ATX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.223	.044	.178	.107	.000	6	ATX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.200	.040	.178	.107	.000	7	ATX	LDX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.200	.040	.178	.107	.000	8	ATX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.200	.040	.178	.107	.000	9	ATX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.200	.040	.178	.107	.000	10	ATX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.200	.040	.178	.107	.000	11	ATX	LDX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.200	.040	.178	.093	.000	12	ATX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.200	.040	.178	.093	.000	13	ATX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.200	.040	.178	.093	.000	14	ATX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.178	.035	.178	.093	.000	15	ATX	LDX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.178	.035	.178	.093	.000	16	ATX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.178	.035	.178	.093	.000	17	ATX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.178	.035	.178	.093	.000	18	ATX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.178	.035	.178	.093	.000	19	ATX	LDX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.178	.035	.156	.093	.000	20	ATX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.178	.035	.156	.093	.000	21	ATX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.178	.035	.156	.093	.000	22	ATX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.178	.035	.156	.093	.000	23	ATX	LDX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.178	.031	.156	.093	.000	24	ATX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.178	.031	.156	.093	.000	25	ATX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.178	.031	.156	.093	.000	26	ATX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.178	.031	.156	.093	.000	27	ATX	LDX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.178	.031	.156	.093	.000	28	ATX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.178	.031	.156	.093	.000	29	ATX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.178	.031	.156	.093	.000	30	ATX	LDX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.058	.178	.107	.000	31	NOOP	ATX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00000960 RING PRIORITY=(2,3,0,1)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-1-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.270	.C54	.187	.112	.000	0	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.250	.050	.187	.112	.000	1	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.250	.C50	.187	.112	.000	2	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.229	.C45	.187	.112	.000	3	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.229	.C45	.187	.112	.000	4	NOOP	ATX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.229	.045	.187	.112	.000	5	NOOP	ATX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.229	.C45	.187	.112	.000	6	NOOP	ATX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.208	.041	.187	.112	.000	7	NOOP	ATX	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.208	.C41	.187	.112	.000	8	NOOP	ATX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOO
.208	.041	.187	.112	.000	9	NOOP	ATX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOO
.208	.C41	.187	.112	.000	10	NOOP	ATX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOO
.208	.041	.167	.112	.000	11	NOOP	ATX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOO
.208	.C41	.187	.100	.000	12	NOOP	ATX	AAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAA
.208	.041	.187	.100	.000	13	NOOP	ATX	AAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAA
.208	.C41	.187	.100	.000	14	NOOP	ATX	AAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAA
.187	.037	.187	.100	.000	15	NOOP	ATX	AAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAA
.187	.C37	.187	.100	.000	16	NOOP	ATX	AAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAA
.187	.037	.187	.100	.000	17	NOOP	ATX	AAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAA
.187	.C37	.187	.100	.000	18	NOOP	ATX	AAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAA
.187	.037	.187	.100	.000	19	NOOP	ATX	AAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAA
.187	.C37	.166	.100	.000	20	NOOP	ATX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.187	.037	.166	.100	.000	21	NOOP	ATX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.187	.C37	.166	.100	.000	22	NOOP	ATX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.187	.C37	.166	.100	.000	23	NOOP	ATX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.187	.033	.166	.10C	.000	24	NOOP	ATX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.187	.033	.166	.100	.000	25	NOOP	ATX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.187	.033	.166	.10C	.000	26	NOOP	ATX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.187	.033	.166	.100	.000	27	NOOP	ATX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.187	.C33	.166	.100	.00C	28	NOOP	ATX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.187	.033	.166	.100	.000	29	NOOP	ATX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.187	.C33	.166	.100	.000	30	NOOP	ATX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.312	.C58	.187	.112	.000	31	BRA	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001024 RING PRIORITY=(2,3,0,1)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME) (INSTRUCTION)

-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.273	.C54	.195	.117	.000	0	BRA	BRA	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.253	.C5C	.195	.117	.000	1	BRA	BRA	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.253	.C5C	.195	.117	.000	2	BRA	BRA	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.234	.C46	.195	.117	.000	3	BRA	BRA	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.234	.C46	.195	.117	.000	4	BRA	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.234	.046	.195	.117	.000	5	BRA	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.234	.046	.195	.117	.000	6	BRA	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.214	.042	.195	.117	.000	7	BRA	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.214	.042	.195	.117	.000	8	BRA	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.214	.042	.195	.117	.000	9	BRA	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.214	.042	.195	.117	.000	10	BRA	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.214	.042	.195	.117	.000	11	BRA	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.214	.042	.195	.105	.000	12	BRA	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.214	.042	.195	.105	.000	13	BRA	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.214	.042	.195	.105	.000	14	BRA	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.195	.C39	.195	.105	.000	15	BRA	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.195	.C39	.195	.105	.000	16	BRA	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.195	.C39	.195	.105	.000	17	BRA	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.195	.C39	.195	.105	.000	18	BRA	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.195	.C39	.195	.105	.000	19	BRA	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.195	.C39	.175	.105	.000	20	BRA	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.195	.C39	.175	.105	.000	21	BRA	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.195	.C39	.175	.105	.000	22	BRA	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.195	.C39	.175	.105	.000	23	BRA	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.195	.C35	.175	.105	.000	24	BRA	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.195	.C35	.175	.105	.000	25	BRA	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.195	.C35	.175	.105	.000	26	BRA	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.195	.C35	.175	.105	.000	27	BRA	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.195	.C35	.175	.105	.000	28	BRA	NOOP	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.195	.C35	.175	.105	.000	29	BRA	NOOP	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.195	.C35	.175	.105	.000	30	BRA	NOOP	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.C58	.195	.117	.000	31	NOOP	BRA	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

C.CO	FL.PT. ADD|SUB
C.OO	FL.PT. MULTIPLY
C.CO	FL.PT. DIVIDE
C.OO	FX.PT. ADD|SUB
C.OO	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001088 RING PRIORITY=(2,3,0,1)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.275	.C55	.202	.121	.000	0	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.257	.C51	.202	.121	.000	1	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.257	.C51	.202	.121	.000	2	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.238	.C47	.202	.121	.000	3	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.238	.C47	.202	.121	.000	4	NOOP	BRA	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.238	.047	.202	.121	.000	5	NOOP	BRA	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.238	.C47	.202	.121	.000	6	NOOP	BRA	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.220	.044	.202	.121	.000	7	NOOP	BRA	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.220	.C44	.202	.121	.000	8	NOOP	BRA	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.220	.044	.202	.121	.000	9	NOOP	BRA	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.220	.C44	.202	.121	.000	10	NOOP	BRA	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.220	.044	.202	.121	.000	11	NOOP	BRA	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.220	.C44	.202	.11C	.000	12	NOOP	BRA	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.220	.044	.202	.11C	.000	13	NOOP	BRA	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.220	.C44	.202	.11C	.000	14	NOOP	BRA	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.202	.040	.202	.11C	.000	15	NOOP	BRA	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.202	.04C	.202	.11C	.000	16	NOOP	BRA	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.202	.040	.202	.110	.000	17	NOOP	BRA	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.202	.C4C	.202	.11C	.000	18	NOOP	BRA	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.202	.040	.202	.110	.000	19	NOOP	BRA	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.202	.C40	.183	.110	.000	20	NOOP	BRA	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.202	.040	.183	.110	.000	21	NOOP	BRA	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.202	.040	.183	.110	.000	22	NOOP	BRA	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.202	.040	.183	.110	.000	23	NOOP	BRA	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.202	.036	.183	.110	.000	24	NOOP	BRA	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.202	.036	.183	.110	.000	25	NOOP	BRA	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.202	.036	.183	.110	.000	26	NOOP	BRA	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.202	.036	.183	.110	.000	27	NOOP	BRA	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.202	.036	.183	.110	.000	28	NOOP	BRA	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.202	.036	.183	.110	.000	29	NOOP	BRA	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.202	.036	.183	.110	.000	30	NOOP	BRA	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.C58	.202	.121	.000	31	LOAD	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001152 RING PRIORITY=(2,3,0,1)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....6.....4.....2.....0.....8.....6.....3
.277	.055	.208	.125	.000	0	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.260	.052	.208	.125	.000	1	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.260	.052	.208	.125	.000	2	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.243	.048	.208	.125	.000	3	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.243	.048	.208	.125	.000	4	LOAD	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.243	.048	.208	.125	.000	5	LOAD	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.243	.048	.208	.125	.000	6	LOAD	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.225	.045	.208	.125	.000	7	LOAD	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.225	.045	.208	.125	.000	8	LOAD	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.225	.045	.208	.125	.000	9	LOAD	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.225	.045	.208	.125	.000	10	LOAD	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.225	.045	.208	.125	.000	11	LOAD	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.225	.045	.208	.114	.000	12	LOAD	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.225	.045	.208	.114	.000	13	LOAD	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.225	.045	.208	.114	.000	14	LOAD	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.208	.041	.208	.114	.000	15	LOAD	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.208	.041	.208	.114	.000	16	LOAD	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.208	.041	.208	.114	.000	17	LOAD	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.208	.041	.208	.114	.000	18	LOAD	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.208	.041	.208	.114	.000	19	LOAD	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.208	.041	.190	.114	.000	20	LOAD	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.208	.041	.190	.114	.000	21	LOAD	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.208	.041	.190	.114	.000	22	LOAD	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.208	.041	.190	.114	.000	23	LOAD	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.208	.038	.190	.114	.000	24	LOAD	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.208	.038	.190	.114	.000	25	LOAD	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.208	.038	.190	.114	.000	26	LOAD	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.208	.038	.190	.114	.000	27	LOAD	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.208	.038	.190	.114	.000	28	LOAD	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.208	.038	.190	.114	.000	29	LOAD	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.208	.038	.190	.114	.000	30	LOAD	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.059	.208	.125	.000	31	STO	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001216 RING PRIORITY=(2,3,0,1)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)					(INSTRUCTION)			
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.279	.055	.213	.128	.000	0	STO	STO	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOCCCCCCCCCCCEEEEYYYY
.263	.052	.213	.128	.000	1	STO	STO	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOCCCCCCCCCCCEEEEYYYY
.263	.052	.213	.128	.000	2	STO	STO	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOCCCCCCCCCCCEEEEYYYY
.246	.049	.213	.128	.000	3	STO	STO	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.246	.049	.213	.128	.000	4	STO	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.246	.049	.213	.128	.000	5	STO	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.246	.049	.213	.128	.000	6	STO	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.230	.046	.213	.128	.000	7	STO	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.230	.046	.213	.128	.000	8	STO	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.230	.046	.213	.128	.000	9	STO	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.230	.046	.213	.128	.000	10	STO	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.230	.046	.213	.128	.000	11	STO	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.230	.046	.213	.118	.000	12	STO	LOAD	AAAACCOOOOOOOOOCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.230	.046	.213	.118	.000	13	STO	LOAD	AAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.230	.046	.213	.118	.000	14	STO	LOAD	AAAACOOOOOOOOOOCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.213	.042	.213	.118	.000	15	STO	LOAD	AAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.213	.042	.213	.118	.000	16	STO	LOAD	AAAAAAAAAAAAOOCCCOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.213	.042	.213	.118	.000	17	STO	LOAD	AAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.213	.042	.213	.118	.000	18	STO	LOAD	AAAAAAAAAAAAOOCCCOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.213	.042	.213	.118	.000	19	STO	LOAD	AAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.213	.042	.197	.118	.000	20	STO	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOCOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.213	.042	.197	.118	.000	21	STO	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.213	.042	.197	.118	.000	22	STO	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.213	.042	.197	.118	.000	23	STO	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.213	.039	.197	.118	.000	24	STO	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.213	.039	.197	.118	.000	25	STO	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.213	.039	.197	.118	.000	26	STO	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.213	.039	.197	.118	.000	27	STO	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.213	.039	.197	.118	.000	28	STO	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIII
.213	.039	.197	.118	.000	29	STO	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIII
.213	.039	.197	.118	.000	30	STO	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.059	.213	.128	.000	31	NOOP	STO	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001280 RING PRIORITY=(2,3,0,1)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.281	.C56	.218	.131	.000	0	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAACOOOCOOOOOOOEEEEYYYY
.265	.C53	.218	.131	.000	1	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.265	.C53	.218	.131	.000	2	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.250	.C50	.218	.131	.000	3	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.250	.C5C	.218	.131	.000	4	NOOP	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.250	.050	.218	.131	.000	5	NOOP	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.25C	.C5C	.218	.131	.000	6	NOOP	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.234	.C46	.218	.131	.000	7	NOOP	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.234	.C46	.218	.131	.000	8	NOOP	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.234	.046	.218	.131	.000	9	NOOP	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.234	.C46	.218	.131	.000	10	NOOP	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.234	.046	.218	.131	.000	11	NOOP	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.234	.C46	.218	.121	.000	12	NOOP	STO	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.234	.046	.218	.121	.000	13	NOOP	STO	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.234	.C46	.218	.121	.000	14	NOOP	STO	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.218	.043	.218	.121	.000	15	NOOP	STO	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.218	.C43	.218	.121	.000	16	NOOP	STO	AAAAAAAAAAAAOOCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.218	.043	.218	.121	.000	17	NOOP	STO	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.218	.C43	.218	.121	.000	18	NOOP	STO	AAAAAAAAAAAAOOCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.218	.043	.218	.121	.000	19	NOOP	STO	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.218	.C43	.203	.121	.000	20	NOOP	STO	AAAAAAAAAAAAAAAAAAAAOOOOOCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.218	.043	.203	.121	.000	21	NOOP	STO	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.218	.043	.203	.121	.000	22	NOOP	STO	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.218	.043	.203	.121	.000	23	NOOP	STO	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.218	.C40	.203	.121	.000	24	NOOP	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOCOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.218	.040	.203	.121	.000	25	NOOP	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.218	.040	.203	.121	.000	26	NOOP	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.218	.C40	.203	.121	.000	27	NOOP	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.218	.C40	.203	.121	.000	28	NOOP	STO	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIII
.218	.040	.203	.121	.000	29	NOOP	STO	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIII
.218	.C40	.203	.121	.000	30	NOOP	STO	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.C59	.218	.131	.000	31	SFX	NOOP	IIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001344 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....1 6.....2 4.....3 0.....4 8.....5 6.....6 3
.282	.056	.223	.133	.000	0	SFX	SFX	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.267	.053	.223	.133	.000	1	SFX	SFX	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.267	.053	.223	.133	.000	2	SFX	SFX	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.252	.050	.223	.133	.000	3	SFX	SFX	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.252	.050	.223	.133	.000	4	SFX	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.252	.050	.223	.133	.000	5	SFX	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.252	.050	.223	.133	.000	6	SFX	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.238	.047	.223	.133	.000	7	SFX	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.238	.047	.223	.133	.000	8	SFX	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.238	.047	.223	.133	.000	9	SFX	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.238	.047	.223	.133	.000	10	SFX	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.238	.047	.223	.133	.000	11	SFX	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.238	.047	.223	.125	.000	12	SFX	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.238	.047	.223	.125	.000	13	SFX	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.238	.047	.223	.125	.000	14	SFX	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.223	.044	.223	.125	.000	15	SFX	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.223	.044	.223	.125	.000	16	SFX	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.223	.044	.223	.125	.000	17	SFX	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.223	.044	.223	.125	.000	18	SFX	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.223	.044	.223	.125	.000	19	SFX	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.223	.044	.208	.125	.000	20	SFX	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDD
.223	.044	.208	.125	.000	21	SFX	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDD
.223	.044	.208	.125	.000	22	SFX	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDD
.223	.044	.208	.125	.000	23	SFX	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIDDDD
.223	.041	.208	.125	.000	24	SFX	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIII
.223	.041	.208	.125	.000	25	SFX	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIII
.223	.041	.208	.125	.000	26	SFX	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIII
.223	.041	.208	.125	.000	27	SFX	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIII
.223	.041	.208	.125	.000	28	SFX	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.223	.041	.208	.125	.000	29	SFX	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.223	.041	.208	.125	.000	30	SFX	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII
.312	.059	.223	.133	.000	31	BRA	SFX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001408 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.284	.056	.227	.136	.000	0	BRA	BRA	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.269	.053	.227	.136	.000	1	BRA	BRA	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.269	.053	.227	.136	.000	2	BRA	BRA	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.255	.051	.227	.136	.000	3	BRA	BRA	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.255	.051	.227	.136	.000	4	BRA	SFX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.255	.051	.227	.136	.000	5	BRA	SFX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.255	.051	.227	.136	.000	6	BRA	SFX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.241	.048	.227	.136	.000	7	BRA	SFX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.241	.048	.227	.136	.000	8	BRA	SFX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.241	.048	.227	.136	.000	9	BRA	SFX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.241	.048	.227	.136	.000	10	BRA	SFX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.241	.048	.227	.136	.000	11	BRA	SFX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.241	.048	.227	.127	.000	12	BRA	SFX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.241	.048	.227	.127	.000	13	BRA	SFX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.241	.048	.227	.127	.000	14	BRA	SFX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.227	.045	.227	.127	.000	15	BRA	SFX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.227	.045	.227	.127	.000	16	BRA	SFX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.227	.045	.227	.127	.000	17	BRA	SFX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.227	.045	.227	.127	.000	18	BRA	SFX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.227	.045	.227	.127	.000	19	BRA	SFX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.227	.045	.213	.127	.000	20	BRA	SFX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.227	.045	.213	.127	.000	21	BRA	SFX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.227	.045	.213	.127	.000	22	BRA	SFX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.227	.045	.213	.127	.000	23	BRA	SFX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.227	.042	.213	.127	.000	24	BRA	SFX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.227	.042	.213	.127	.000	25	BRA	SFX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.227	.042	.213	.127	.000	26	BRA	SFX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.227	.042	.213	.127	.000	27	BRA	SFX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.227	.042	.213	.127	.000	28	BRA	SFX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.227	.042	.213	.127	.000	29	BRA	SFX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.227	.042	.213	.127	.000	30	BRA	SFX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.059	.227	.136	.000	31	ATX	BRA	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001472 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-U-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.285	.057	.230	.138	.000	0	ATX	ATX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.271	.054	.230	.138	.000	1	ATX	ATX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.271	.054	.230	.138	.000	2	ATX	ATX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.258	.051	.230	.138	.000	3	ATX	ATX	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.258	.051	.230	.138	.000	4	ATX	BRA	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.258	.051	.230	.138	.000	5	ATX	BRA	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.258	.051	.230	.138	.000	6	ATX	BRA	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.244	.048	.230	.138	.000	7	ATX	BRA	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.244	.048	.230	.138	.000	8	ATX	BRA	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.244	.048	.230	.138	.000	9	ATX	BRA	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.244	.048	.230	.138	.000	10	ATX	BRA	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.244	.048	.230	.138	.000	11	ATX	BRA	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.244	.048	.230	.13C	.000	12	ATX	BRA	AAAACCCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.244	.048	.230	.13C	.000	13	ATX	BRA	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.244	.048	.230	.13C	.000	14	ATX	BRA	AAAACCCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.230	.046	.230	.13C	.000	15	ATX	BRA	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.230	.046	.230	.130	.000	16	ATX	BRA	AAAAAAAAAAAAOOOOCCCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.230	.046	.230	.130	.000	17	ATX	BRA	AAAAAAAAAAAAOOOOOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.230	.046	.230	.130	.000	18	ATX	BRA	AAAAAAAAAAAAOOOOCCCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.230	.046	.230	.130	.000	19	ATX	BRA	AAAAAAAAAAAAOOOOOOCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.230	.046	.217	.130	.000	20	ATX	BRA	AAAAAAAAAAAAAAAAAAAAOOOOCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.230	.046	.217	.130	.000	21	ATX	BRA	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.230	.046	.217	.130	.000	22	ATX	BRA	AAAAAAAAAAAAAAAAAAAAOOOOCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.230	.046	.217	.130	.000	23	ATX	BRA	AAAAAAAAAAAAAAAAAAAAOOOOOOCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.230	.043	.217	.130	.000	24	ATX	BRA	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIII
.230	.043	.217	.130	.000	25	ATX	BRA	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIII
.230	.043	.217	.130	.000	26	ATX	BRA	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIII
.230	.043	.217	.130	.000	27	ATX	BRA	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOCCCCCCOOOOEEEEYYYYIIIIIIIIIIIIII
.230	.043	.217	.130	.000	28	ATX	BRA	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.230	.043	.217	.130	.000	29	ATX	BRA	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.230	.043	.217	.130	.000	30	ATX	BRA	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.059	.230	.138	.000	31	LOAD	ATX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001536 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.286	.057	.234	.140	.000	0	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.273	.054	.234	.140	.000	1	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.273	.054	.234	.140	.000	2	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.260	.052	.234	.140	.000	3	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.260	.052	.234	.140	.000	4	LOAD	ATX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.260	.052	.234	.140	.000	5	LOAD	ATX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.260	.052	.234	.140	.000	6	LOAD	ATX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.247	.049	.234	.140	.000	7	LOAD	ATX	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.247	.049	.234	.140	.000	8	LOAD	ATX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.247	.049	.234	.140	.000	9	LOAD	ATX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.247	.049	.234	.140	.000	10	LOAD	ATX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.247	.049	.234	.140	.000	11	LOAD	ATX	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.247	.049	.234	.132	.000	12	LOAD	ATX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.247	.049	.234	.132	.000	13	LOAD	ATX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.247	.049	.234	.132	.000	14	LOAD	ATX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.234	.046	.234	.132	.000	15	LOAD	ATX	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.234	.046	.234	.132	.000	16	LOAD	ATX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.234	.046	.234	.132	.000	17	LOAD	ATX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.234	.046	.234	.132	.000	18	LOAD	ATX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.234	.046	.234	.132	.000	19	LOAD	ATX	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.234	.046	.221	.132	.000	20	LOAD	ATX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.234	.046	.221	.132	.000	21	LOAD	ATX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.234	.046	.221	.132	.000	22	LOAD	ATX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.234	.046	.221	.132	.000	23	LOAD	ATX	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.234	.044	.221	.132	.000	24	LOAD	ATX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.234	.044	.221	.132	.000	25	LOAD	ATX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.234	.044	.221	.132	.000	26	LOAD	ATX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.234	.044	.221	.132	.000	27	LOAD	ATX	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.234	.044	.221	.132	.000	28	LOAD	ATX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.234	.044	.221	.132	.000	29	LOAD	ATX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.234	.044	.221	.132	.000	30	LOAD	ATX	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.059	.234	.140	.000	31	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV

SYSTEM CLOCK TIME=00001600 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-E-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.287	.057	.237	.142	.000	0	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.275	.055	.237	.142	.037	1	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRR
.275	.055	.237	.142	.037	2	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRR
.262	.052	.237	.142	.000	3	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.262	.052	.237	.142	.000	4	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.262	.052	.237	.142	.000	5	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.262	.052	.237	.142	.000	6	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.250	.050	.237	.142	.000	7	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.250	.050	.237	.142	.000	8	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.237	.142	.000	9	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.237	.142	.000	10	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.237	.142	.000	11	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.237	.135	.000	12	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.250	.050	.237	.135	.000	13	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.250	.050	.237	.135	.000	14	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.237	.047	.237	.135	.000	15	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.237	.047	.237	.135	.000	16	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.237	.135	.000	17	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.237	.135	.000	18	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.237	.135	.000	19	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.225	.135	.000	20	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.047	.225	.135	.000	21	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.047	.225	.135	.000	22	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.047	.225	.135	.000	23	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.045	.225	.135	.000	24	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.237	.045	.225	.135	.000	25	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.237	.045	.225	.135	.000	26	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.237	.045	.225	.135	.000	27	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.237	.045	.225	.135	.000	28	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.237	.045	.225	.135	.000	29	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.237	.045	.225	.135	.000	30	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.060	.237	.142	.000	31	FMPY	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.50	FL.PT. ADD|SUB	1111111133333333
0.00	FL.PT. MULTIPLY	
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00001664 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.288	.057	.240	.144	.036	0	FMPY	FMPY	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOCOOOOOOEEEERRRR
.264	.052	.228	.137	.036	1		FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYY
.264	.052	.228	.137	.036	2		FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYY
.264	.052	.240	.144	.000	3	FMPY	FMPY	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.264	.052	.240	.144	.000	4	FMPY	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.252	.050	.228	.137	.036	5		FADD	EEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.252	.050	.228	.137	.036	6		FADD	EEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.252	.050	.240	.144	.000	7	FMPY	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.252	.050	.240	.144	.000	8	FMPY	FADD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.240	.048	.228	.137	.036	9		FADD	OOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.228	.137	.036	10		FADD	OOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.252	.050	.240	.144	.000	11	FMPY	FADD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.252	.050	.240	.137	.000	12	FMPY	FADD	AAAACCCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.240	.048	.228	.137	.036	13		FADD	AAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.228	.137	.036	14		FADD	AAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.240	.137	.000	15	FMPY	FADD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.240	.048	.240	.137	.000	16	FMPY	FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.228	.045	.228	.137	.036	17		FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.228	.045	.228	.137	.036	18		FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.240	.137	.000	19	FMPY	FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.240	.048	.228	.137	.000	20	FMPY	FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.228	.045	.228	.137	.036	21		FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRR
.228	.045	.228	.137	.036	22		FADD	AAAAAAAAAAAAAAAAAAAACCOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRR
.240	.048	.228	.137	.000	23	FMPY	FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.240	.045	.228	.137	.000	24	FMPY	FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.228	.045	.228	.137	.036	25		FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRR
.228	.045	.228	.137	.036	26		FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRR
.240	.045	.228	.137	.000	27	FMPY	FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.240	.045	.228	.137	.000	28	FMPY	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.240	.045	.228	.137	.000	29	FMPY	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.228	.045	.228	.137	.036	30		FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOCOOOOOEEEERRRRRRRRRRR
.312	.060	.240	.144	.000	31	STO	FMPY	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

11.50	FL.PT. ADD|SUB	555555557777777799999999BBBBBBBBDDDDDDDDFFFFFFFFGGGGGGGGGGGGGGGG
0.37	FL.PT. MULTIPLY	1111111122222222
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00001728 RING PRIORITY=(3,0,1,2)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....6.....4.....2.....0.....8.....6.....3
.277	.055	.231	.138	.034	0		FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYY
.266	.053	.231	.138	.069	1	FMPY	FMPY	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRR
.266	.053	.231	.138	.069	2	FMPY	FMPY	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRR
.266	.053	.243	.145	.000	3	STO	STO	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.254	.050	.231	.138	.034	4		FMPY	EEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.254	.050	.231	.138	.034	5	FMPY	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.254	.050	.231	.138	.034	6	FMPY	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.254	.050	.243	.145	.000	7	STO	FMPY	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.243	.048	.231	.138	.034	8		FMPY	OOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.243	.048	.231	.138	.034	9	FMPY	FADD	RRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.243	.048	.231	.138	.034	10	FMPY	FADD	RRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.254	.050	.243	.145	.000	11	STO	FMPY	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.243	.048	.231	.138	.034	12		FMPY	AAAAOOOOOOOOOOOOEEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.243	.048	.231	.131	.034	13	FMPY	FADD	RRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.243	.048	.231	.131	.034	14	FMPY	FADD	RRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.243	.048	.243	.138	.000	15	STO	FMPY	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.231	.046	.231	.138	.034	16		FMPY	AAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.231	.046	.231	.131	.034	17	FMPY	FADD	RRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.231	.046	.231	.131	.034	18	FMPY	FADD	RRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.243	.048	.243	.138	.000	19	STO	FMPY	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.231	.046	.231	.138	.034	20		FMPY	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRR
.231	.046	.219	.131	.034	21	FMPY	FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.231	.046	.219	.131	.034	22	FMPY	FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.243	.048	.231	.138	.000	23	STO	FMPY	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.231	.046	.231	.138	.034	24		FMPY	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRR
.231	.043	.219	.131	.034	25	FMPY	FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIII
.231	.043	.219	.131	.034	26	FMPY	FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIII
.243	.046	.231	.138	.000	27	STO	FMPY	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.243	.046	.231	.138	.000	28	STO	FMPY	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.231	.046	.231	.138	.034	29		FMPY	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEERRRRRRRRRRRR
.231	.043	.219	.131	.034	30	FMPY	FADD	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIII
.312	.060	.243	.145	.000	31	NOOP	STO	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

15.50	FL.PT. ADD|SUB	GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGFFFFFFFFDDDDDDDD
6.12	FL.PT. MULTIPLY	33333333444444445555555566666666777777778888888888888888888888
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00001792 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		1 2 3 4 4 5 6
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.......8.......6.......4.......2.......0.......8.......6......3
.279	.055	.234	.140	.033	0	STO	STO	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.256	.051	.223	.133	.066	1		FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYY
.256	.051	.223	.133	.100	2		FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEERRRR
.267	.053	.245	.147	.000	3	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYY
.256	.051	.234	.140	.033	4	STO	FMPY	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOO
.245	.049	.223	.133	.066	5		FMPY	EEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.245	.049	.223	.133	.066	6		FMPY	EEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.256	.051	.245	.147	.000	7	NOOP	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOO
.245	.049	.234	.140	.033	8	STO	FMPY	RRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOO
.234	.046	.223	.133	.066	9		FMPY	OOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.234	.046	.223	.133	.066	10		FMPY	OOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.256	.051	.245	.147	.000	11	NOOP	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOO
.245	.049	.234	.133	.033	12	STO	FMPY	RRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.234	.046	.223	.133	.066	13		FMPY	AAAOOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.234	.046	.223	.133	.066	14		FMPY	AAAOOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.245	.049	.245	.140	.000	15	NOOP	STO	AAAOOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.234	.046	.234	.133	.033	16	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.223	.044	.223	.133	.066	17		FMPY	AAAAAAAAAAAOOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.223	.044	.223	.133	.066	18		FMPY	AAAAAAAAAAAOOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.245	.049	.245	.140	.000	19	NOOP	STO	AAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.234	.046	.223	.133	.033	20	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.223	.044	.223	.133	.066	21		FMPY	AAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRR
.223	.044	.223	.133	.066	22		FMPY	AAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRRRRRRRRRR
.245	.049	.234	.140	.000	23	NOOP	STO	AAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.234	.044	.223	.133	.033	24	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIII
.223	.044	.223	.133	.066	25		FMPY	IIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRR
.223	.044	.223	.133	.066	26		FMPY	IIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRRRRRRRRRRRRRRRRRR
.245	.046	.234	.140	.000	27	NOOP	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.245	.046	.234	.140	.000	28	NOOP	STO	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYYIIIIIIII
.234	.044	.223	.133	.033	29	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIII
.223	.044	.223	.133	.066	30		FMPY	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEERRRRRRRRRRRR
.312	.060	.245	.147	.000	31	NOOP	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

(AVERAGE)	UNIT	
4.50	FL.PT. ADD|SUB	BBBBBBBB9999999977777777555555553333333311111111
8.00	FL.PT. MULTIPLY	8888888888888888888888888888888888888888888888888888888888888888
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00001856 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.280	.056	.237	.142	.032	0	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.258	.051	.226	.135	.064	1	STO	STO	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.247	.049	.215	.129	.096	2		FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.269	.053	.247	.148	.000	3	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.258	.051	.237	.142	.032	4	NOOP	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.247	.049	.226	.135	.064	5	STO	FMPY	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.237	.047	.215	.129	.096	6		FMPY	EEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.258	.051	.247	.148	.000	7	NOOP	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.247	.049	.237	.142	.032	8	NOOP	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.237	.047	.226	.135	.064	9	STO	FMPY	RRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.226	.045	.215	.129	.096	10		FMPY	RRRRRRRREEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.258	.051	.247	.148	.000	11	NOOP	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.247	.049	.237	.135	.032	12	NOOP	STO	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.237	.047	.226	.129	.064	13	STO	FMPY	RRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.226	.045	.215	.129	.096	14		FMPY	RRRRRRRRRRRRRRRREEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.247	.049	.247	.142	.000	15	NOOP	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.237	.047	.237	.135	.032	16	NOOP	STO	AAAAAAAAAAAAOOCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.226	.045	.226	.129	.064	17	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.215	.043	.215	.129	.096	18		FMPY	RRRRRRRRRRRRRRRRRRRRRRRREEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.247	.049	.247	.142	.000	19	NOOP	NOOP	AAAAAAAAAAAAOOCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.237	.047	.226	.135	.032	20	NOOP	STO	AAAAAAAAAAAAAAAAAAAAOOOOCCOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.226	.045	.215	.129	.064	21	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.215	.043	.215	.129	.096	22		FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEERRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.247	.049	.237	.142	.000	23	NOOP	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.237	.045	.226	.135	.032	24	NOOP	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOCCOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.226	.043	.215	.129	.064	25	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIII
.215	.043	.215	.129	.096	26		FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEERRRRRRRRRRRRRRRRRRRR
.247	.047	.237	.142	.000	27	NOOP	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.247	.047	.237	.142	.000	28	NOOP	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.237	.045	.226	.135	.032	29	NOOP	STO	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.226	.043	.215	.129	.064	30	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
.312	.060	.247	.148	.000	31	LOAD	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB	
8.00	FL.PT. MULTIPLY	88888888888888888888888888888888888888888888888888888888888888
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00001920 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME) (INSTRUCTION)

-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.281	.056	.239	.143	.031	0	NOOP	NOOP	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.260	.052	.229	.137	.062	1	NOOP	NOOP	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.250	.050	.218	.131	.093	2	STO	STO	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.270	.054	.250	.150	.000	3	LOAD	LOAD	IIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.260	.052	.239	.143	.031	4	NOOP	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.250	.050	.229	.137	.062	5	NOOP	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.239	.047	.218	.131	.093	6	STO	FMPY	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.260	.052	.250	.150	.000	7	LOAD	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.250	.050	.239	.143	.031	8	NOOP	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.239	.047	.229	.137	.062	9	NOOP	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.229	.045	.218	.131	.093	10	STO	FMPY	RRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.260	.052	.250	.150	.000	11	LOAD	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.239	.137	.031	12	NOOP	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.239	.047	.229	.131	.062	13	NOOP	STO	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.229	.045	.218	.125	.093	14	STO	FMPY	RRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.250	.050	.250	.143	.000	15	LOAD	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.239	.047	.239	.137	.031	16	NOOP	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.229	.045	.229	.131	.062	17	NOOP	STO	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.218	.043	.218	.125	.093	18	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.250	.050	.250	.143	.000	19	LOAD	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.239	.047	.229	.137	.031	20	NOOP	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.229	.045	.218	.131	.062	21	NOOP	STO	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.218	.043	.208	.125	.093	22	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.250	.050	.239	.143	.000	23	LOAD	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.239	.045	.229	.137	.031	24	NOOP	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.229	.043	.218	.131	.062	25	NOOP	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.218	.041	.208	.125	.093	26	STO	FMPY	RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRREEEEYYYYIIIIIIIIIIIIIIII
.250	.047	.239	.143	.000	27	LOAD	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.250	.047	.239	.143	.000	28	LOAD	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.239	.045	.229	.137	.031	29	NOOP	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.229	.043	.218	.131	.062	30	NOOP	STO	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.060	.250	.150	.000	31	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.00	FL.PT. ADD|SUB	
7.62	FL.PT. MULTIPLY	88888888888888888888888888888888888888888888888877777777666666666
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00001984 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	1 2 3 4 4 5 6 0.....8.....6.....4.....2.....0.....8.....6.....3
.282	.056	.241	.145	.030	0	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.262	.052	.231	.139	.060	1	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.252	.050	.221	.133	.090	2	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.272	.054	.252	.151	.000	3	FADD	FADD	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.262	.052	.241	.145	.030	4	LOAD	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.252	.050	.231	.139	.060	5	NOOP	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.241	.048	.221	.133	.090	6	NOOP	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.262	.052	.252	.151	.000	7	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.252	.050	.241	.145	.030	8	LOAD	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.241	.048	.231	.139	.060	9	NOOP	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.231	.046	.221	.133	.090	10	NOOP	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.262	.052	.252	.151	.000	11	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.252	.050	.241	.139	.030	12	LOAD	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.241	.048	.231	.133	.060	13	NOOP	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.231	.046	.221	.127	.090	14	NOOP	STO	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.252	.050	.252	.145	.000	15	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.241	.048	.241	.139	.030	16	LOAD	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.231	.046	.231	.133	.060	17	NOOP	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.221	.044	.221	.127	.090	18	NOOP	STO	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.252	.050	.252	.145	.000	19	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.241	.048	.231	.139	.030	20	LOAD	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.231	.046	.221	.133	.060	21	NOOP	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.221	.044	.211	.127	.090	22	NOOP	STO	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.252	.050	.241	.145	.000	23	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.241	.046	.231	.139	.030	24	LOAD	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.231	.044	.221	.133	.060	25	NOOP	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.221	.042	.211	.127	.090	26	NOOP	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.252	.048	.241	.145	.000	27	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.252	.048	.241	.145	.000	28	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.241	.046	.231	.139	.030	29	LOAD	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.231	.044	.221	.133	.060	30	NOOP	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.060	.252	.151	.000	31	STO	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.37	FL.PT. ADD|SUB	1111111122222222
1.87	FL.PT. MULTIPLY	55555555444444443333333322222222111111111
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00002048 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME) (INSTRUCTION)

-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....6.....4.....2.....0.....8.....6.....3
.283	.056	.244	.146	.029	0	FADD	FADD	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.263	.052	.234	.140	.058	1	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.253	.050	.224	.134	.087	2	NOOP	NOOP	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.273	.054	.253	.152	.000	3	STO	STO	IIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYY
.263	.052	.244	.146	.029	4	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.253	.050	.234	.140	.058	5	LOAD	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.244	.048	.224	.134	.087	6	NOOP	NOOP	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.263	.052	.253	.152	.000	7	STO	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.253	.050	.244	.146	.029	8	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.244	.048	.234	.140	.058	9	LOAD	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.234	.046	.224	.134	.087	10	NOOP	NOOP	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.263	.052	.253	.152	.000	11	STO	FADD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.253	.050	.244	.140	.029	12	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.244	.048	.234	.134	.058	13	LOAD	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.234	.046	.224	.128	.087	14	NOOP	NOOP	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.253	.050	.253	.146	.000	15	STO	FADD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.244	.048	.244	.140	.029	16	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.234	.046	.234	.134	.058	17	LOAD	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.224	.044	.224	.128	.087	18	NOOP	NOOP	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.253	.050	.253	.146	.000	19	STO	FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.244	.048	.234	.140	.029	20	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.234	.046	.224	.134	.058	21	LOAD	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.224	.044	.214	.128	.087	22	NOOP	NOOP	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.253	.050	.244	.146	.000	23	STO	FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIDDDD
.244	.046	.234	.140	.029	24	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.234	.044	.224	.134	.058	25	LOAD	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.224	.042	.214	.128	.087	26	NOOP	NOOP	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.253	.048	.244	.146	.000	27	STO	FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.253	.048	.244	.146	.000	28	STO	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.244	.046	.234	.140	.029	29	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.234	.044	.224	.134	.058	30	LOAD	NOOP	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.060	.253	.152	.000	31	LOAD	STO	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

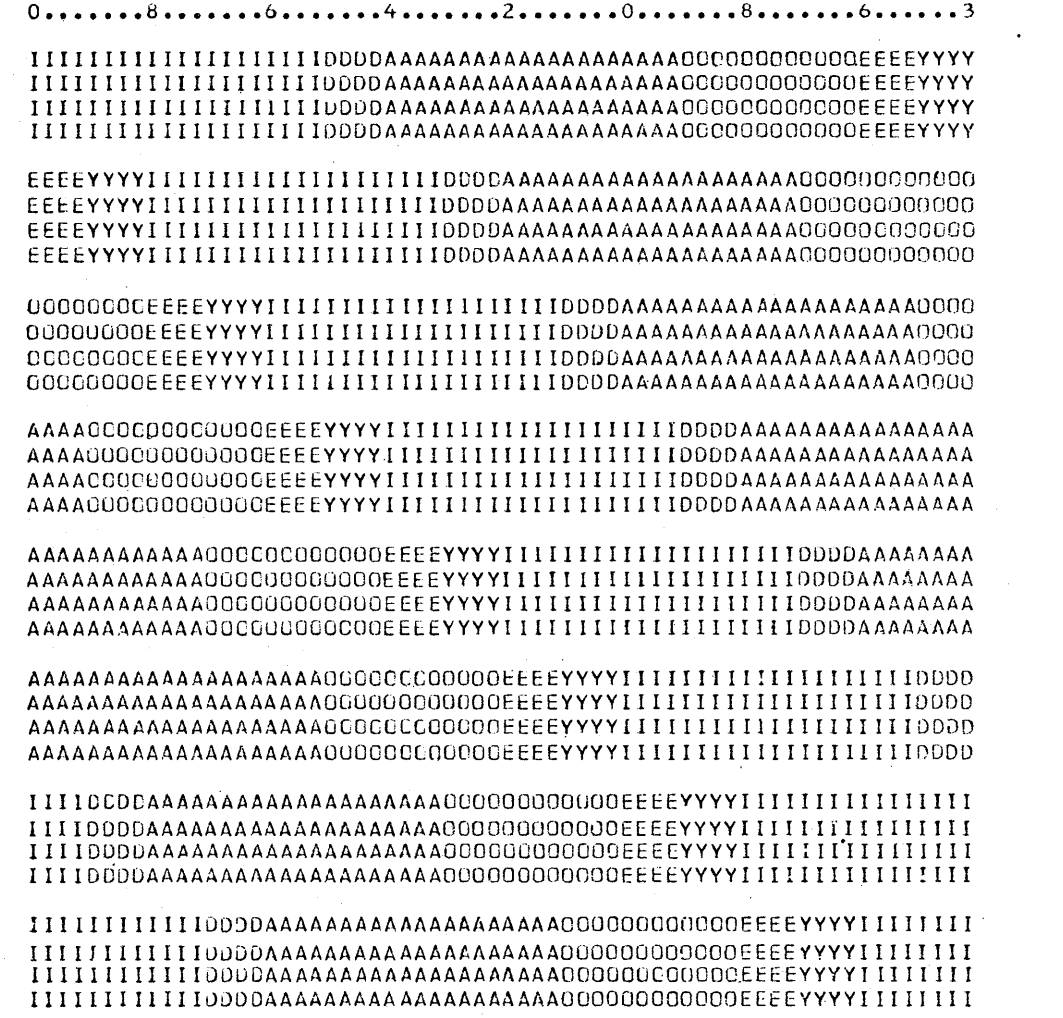
(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

0.12	FL.PT. ADD|SUB	33333333444444445555555566666666777777778888888888888888888888
0.00	FL.PT. MULTIPLY	
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00002112 RING PRIORITY=(0,1,2,3)

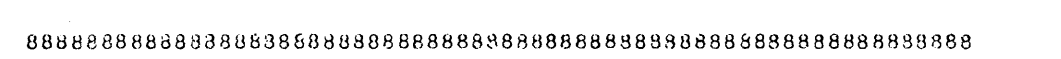
I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)	
-I-	-D-	-A-	-O-	-R-	PROC.	FETCH	EXEC.
.284	.056	.246	.147	.028	0	STO	STO
.265	.053	.236	.142	.056	1	FADD	FADD
.255	.051	.227	.136	.085	2	LOAD	LOAD
.274	.054	.255	.153	.000	3	LOAD	LOAD
.265	.053	.246	.147	.028	4	STO	FADD
.255	.051	.236	.142	.056	5	FADD	LOAD
.246	.049	.227	.136	.085	6	LOAD	NOOP
.265	.053	.255	.153	.000	7	LOAD	STO
.255	.051	.246	.147	.028	8	STO	FADD
.246	.049	.236	.142	.056	9	FADD	LOAD
.236	.047	.227	.136	.085	10	LOAD	NOOP
.265	.053	.255	.153	.000	11	LOAD	STO
.255	.051	.246	.142	.028	12	STO	FADD
.246	.049	.236	.136	.056	13	FADD	LOAD
.236	.047	.227	.130	.085	14	LOAD	NOOP
.255	.051	.255	.147	.000	15	LOAD	STO
.246	.049	.246	.142	.028	16	STO	FADD
.236	.047	.236	.136	.056	17	FADD	LOAD
.227	.045	.227	.130	.085	18	LOAD	NOOP
.255	.051	.255	.147	.000	19	LOAD	STO
.246	.049	.236	.142	.028	20	STO	FADD
.236	.047	.227	.136	.056	21	FADD	LOAD
.227	.045	.217	.130	.085	22	LOAD	NOOP
.255	.051	.246	.147	.000	23	LOAD	STO
.246	.047	.236	.142	.028	24	STO	FADD
.236	.045	.227	.136	.056	25	FADD	LOAD
.227	.043	.217	.130	.085	26	LOAD	NOOP
.255	.049	.246	.147	.000	27	LOAD	STO
.255	.049	.246	.147	.000	28	LOAD	STO
.246	.047	.236	.142	.028	29	STO	FADD
.236	.045	.227	.136	.056	30	FADD	LOAD
.312	.060	.255	.153	.000	31	FADD	LOAD



(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

8.00	FL.PT. ADD|SUB
0.00	FL.PT. MULTIPLY
0.00	FL.PT. DIVIDE
0.00	FX.PT. ADD|SUB
0.00	FX.PT. MPY|DIV



SYSTEM CLOCK TIME=00002176 RING PRIORITY=(0,1,2,3)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.284	.056	.248	.148	.027	0	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOCCCCCCCCCCEEEEYYYY
.266	.053	.238	.143	.055	1	STO	STO	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOCCCCCCCCCCEEEEYYYY
.257	.051	.229	.137	.082	2	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOCCCCCCCCCCEEEEYYYY
.275	.055	.257	.154	.000	3	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOCCCCCCCCCCEEEEYYYY
.266	.053	.248	.148	.027	4	LOAD	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOCCCCCCCCCC
.257	.051	.238	.143	.055	5	STO	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOCCCCCCCCCC
.248	.049	.229	.137	.082	6	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOCCCCCCCCCC
.266	.053	.257	.154	.000	7	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOCCCCCCCCCC
.257	.051	.248	.148	.027	8	LOAD	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.248	.049	.238	.143	.055	9	STO	FADD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.238	.047	.229	.137	.082	10	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.266	.053	.257	.154	.000	11	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.257	.051	.248	.143	.027	12	LOAD	STO	AAAACCCCCCCCCCCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.248	.049	.238	.137	.055	13	STO	FADD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.238	.047	.229	.132	.082	14	FADD	LOAD	AAAAOOCCCCCCCCCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.257	.051	.257	.148	.000	15	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.248	.049	.248	.143	.027	16	LOAD	STO	AAAAAAAAAAAAOOOCCCCCCCCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAA
.238	.047	.238	.137	.055	17	STO	FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAA
.229	.045	.229	.132	.082	18	FADD	LOAD	AAAAAAAAAAAAOOCCCCCCCCCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAA
.257	.051	.257	.148	.000	19	FADD	LOAD	AAAAAAAAAAAAOOCCCCCCCCCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAA
.248	.049	.238	.143	.027	20	LOAD	STO	AAAAAAAAAAAAAAAAAAAAOOCCCCCCCCCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.238	.047	.229	.137	.055	21	STO	FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.229	.045	.220	.132	.082	22	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOCCCCCCCCCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.257	.051	.248	.148	.000	23	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOOOCCCCCCEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.248	.047	.238	.143	.027	24	LOAD	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.238	.045	.229	.137	.055	25	STO	FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.229	.044	.220	.132	.082	26	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.257	.049	.248	.148	.000	27	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.257	.049	.248	.148	.000	28	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.248	.047	.238	.143	.027	29	LOAD	STO	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.238	.045	.229	.137	.055	30	STO	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOCCCCCCCEEEEYYYYIIIIIIII
.312	.060	.257	.154	.000	31	FMPY	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

8.37	FL.PT. ADD|SUB	88888888888888888888888888888888888888888888888899999999AAAAAAAA
0.00	FL.PT. MULTIPLY	
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

SYSTEM CLOCK TIME=00002240 RING PRIORITY=(1,2,3,0)

I=INSTRUCT. FETCH R=EXECUTION UNIT REQUEST REJECTED E=EXECUTION UNIT REQUEST A=ADDRESS GENERATION
O=OPERAND FETCH Y=EXECUTION UNIT REQUEST ACCEPTED /=DIVISION IN PROGRESS D=INSTRUCTION DECODE

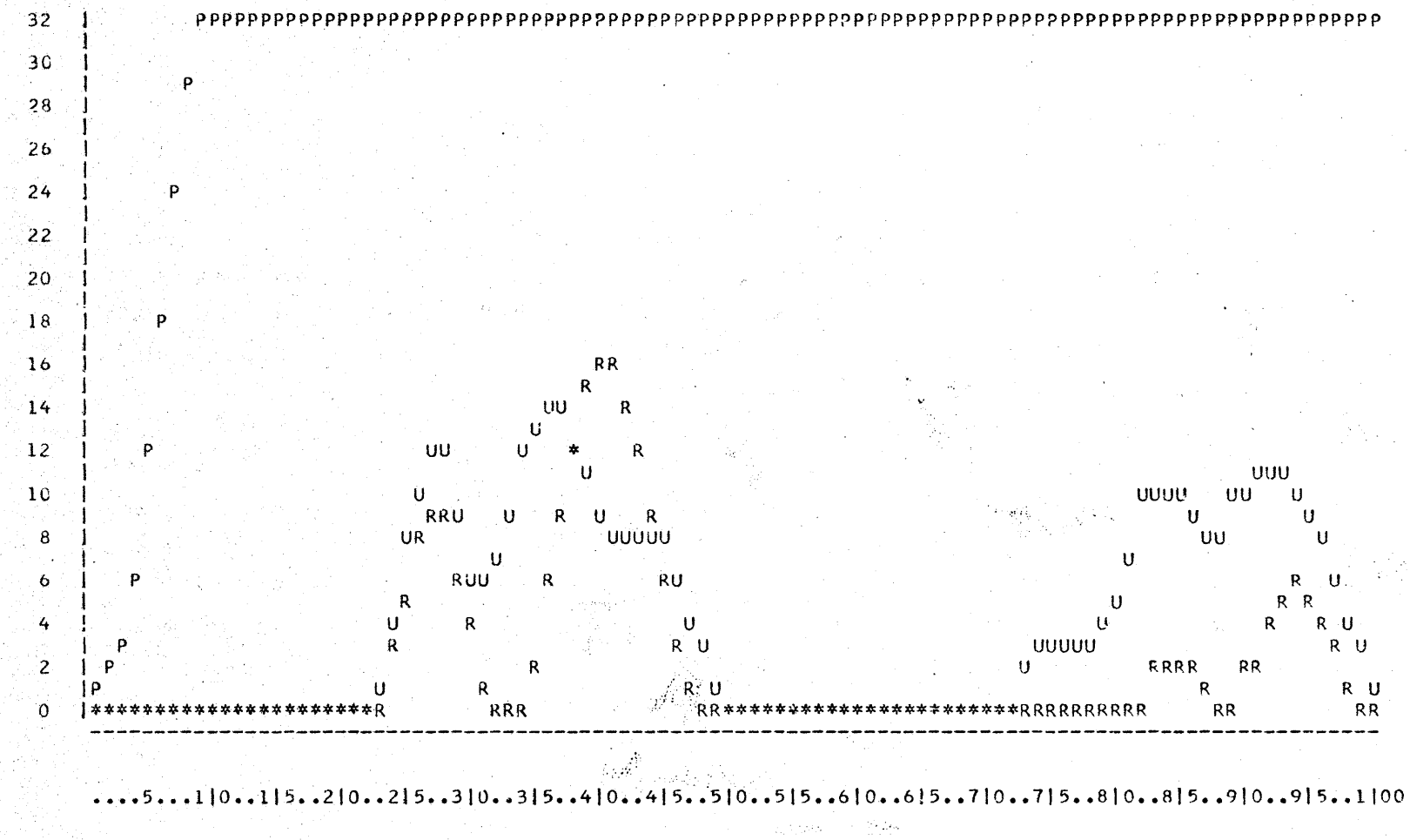
(STAGE TIME / TOTAL TIME)						(INSTRUCTION)		
-I-	-O-	-A-	-O-	-R-	PROC.	FETCH	EXEC.	0.....8.....16.....24.....32.....40.....48.....56.....63
.285	.057	.250	.150	.026	0	FADD	FADD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOOEEEEYYYY
.267	.053	.241	.144	.053	1	LOAD	LOAD	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOOEEEEYYYY
.258	.051	.232	.139	.080	2	STO	STO	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOOEEEEYYYY
.276	.055	.258	.155	.000	3	FMPY	FMPY	IIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOOOEEEEYYYY
.267	.053	.250	.150	.026	4	FADD	LOAD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.258	.051	.241	.144	.053	5	LOAD	STO	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.250	.050	.232	.139	.080	6	STO	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.267	.053	.258	.155	.000	7	FMPY	FADD	EEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOO
.258	.051	.250	.150	.026	8	FADD	LOAD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.250	.050	.241	.144	.053	9	LOAD	STO	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.241	.048	.232	.139	.080	10	STO	FADD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.267	.053	.258	.155	.000	11	FMPY	FADD	OOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOO
.258	.051	.250	.144	.026	12	FADD	LOAD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.250	.050	.241	.139	.053	13	LOAD	STO	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.241	.048	.232	.133	.080	14	STO	FADD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.258	.051	.258	.150	.000	15	FMPY	FADD	AAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAA
.250	.050	.250	.144	.026	16	FADD	LOAD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.241	.048	.241	.139	.053	17	LOAD	STO	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.232	.046	.232	.133	.080	18	STO	FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.258	.051	.258	.150	.000	19	FMPY	FADD	AAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDDAAAAAAAA
.250	.050	.241	.144	.026	20	FADD	LOAD	AAAAAAAAAAAAAAAAAAAAOOOOCCCCOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.241	.048	.232	.139	.053	21	LOAD	STO	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.232	.046	.223	.133	.080	22	STO	FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.258	.051	.250	.150	.000	23	FMPY	FADD	AAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIIIIIIIDDDD
.250	.048	.241	.144	.026	24	FADD	LOAD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.241	.046	.232	.139	.053	25	LOAD	STO	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.232	.044	.223	.133	.080	26	STO	FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.258	.050	.250	.150	.000	27	FMPY	FADD	IIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIIIIIIIIIII
.258	.050	.250	.150	.000	28	FMPY	FADD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.250	.048	.241	.144	.026	29	FADD	LOAD	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.241	.046	.232	.139	.053	30	LOAD	STO	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII
.312	.060	.258	.155	.000	31	FMPY	FMPY	IIIIIIIIIIIIDDDDAAAAAAAAAAAAAAAAAAAAOOOOOOOOOOOOEEEEYYYYIIIIIIII

(AVERAGE) EXECUTION UNIT UTILIZATION. (DIGITS INDICATE # OF INSTRUCTIONS IN UNIT)

13.75	FL.PT. ADD|SUB	BBBBBBBBCCCCCCCCDDDDDDDDEEEEEEEEFFFFFFFFGGGGGGGGFFFFFFFFEEEEEEEE
0.37	FL.PT. MULTIPLY	11111111222222
0.00	FL.PT. DIVIDE	
0.00	FX.PT. ADD|SUB	
0.00	FX.PT. MPY|DIV	

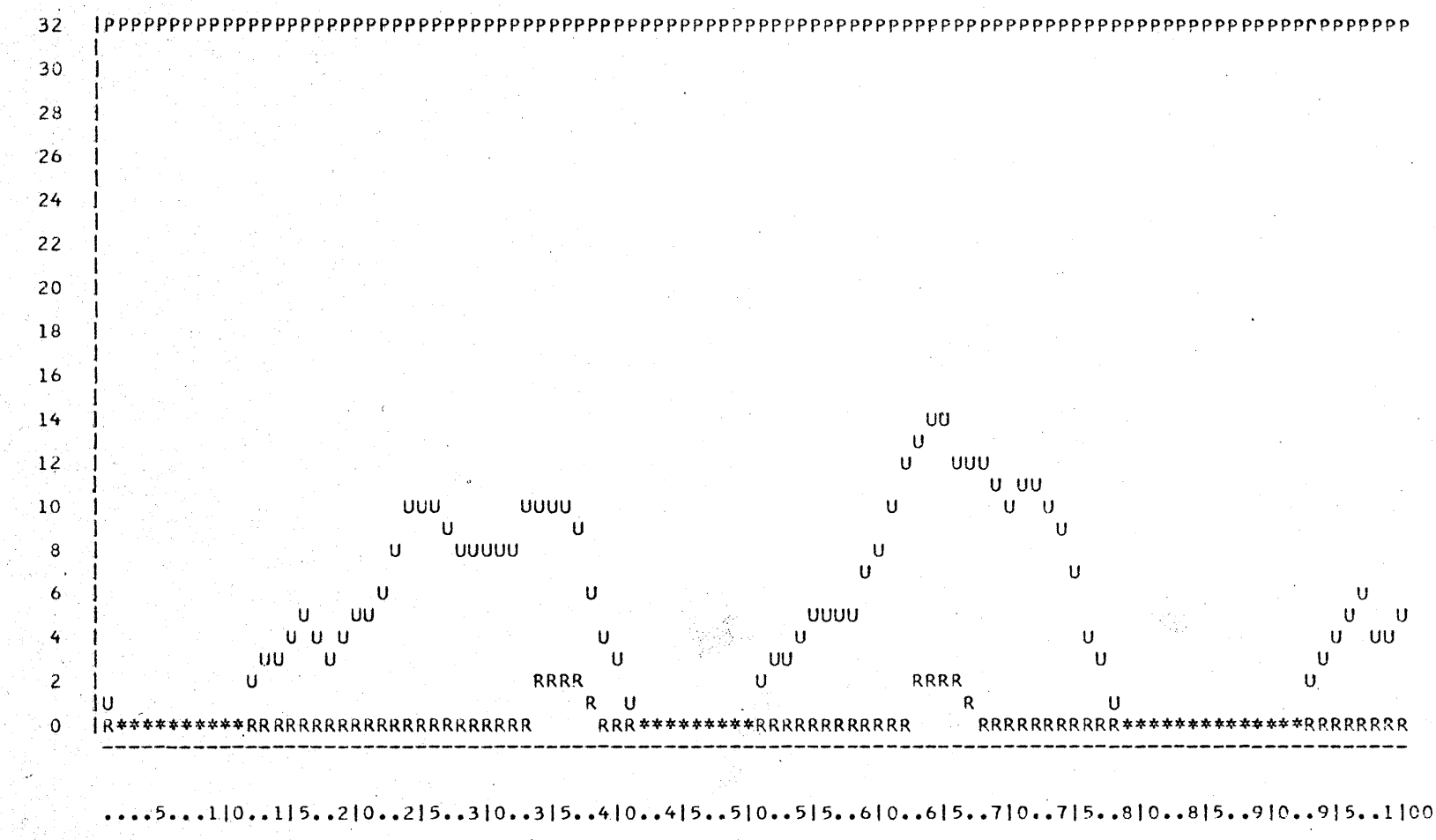
SYSTEM CLOCK TIME=00006528 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



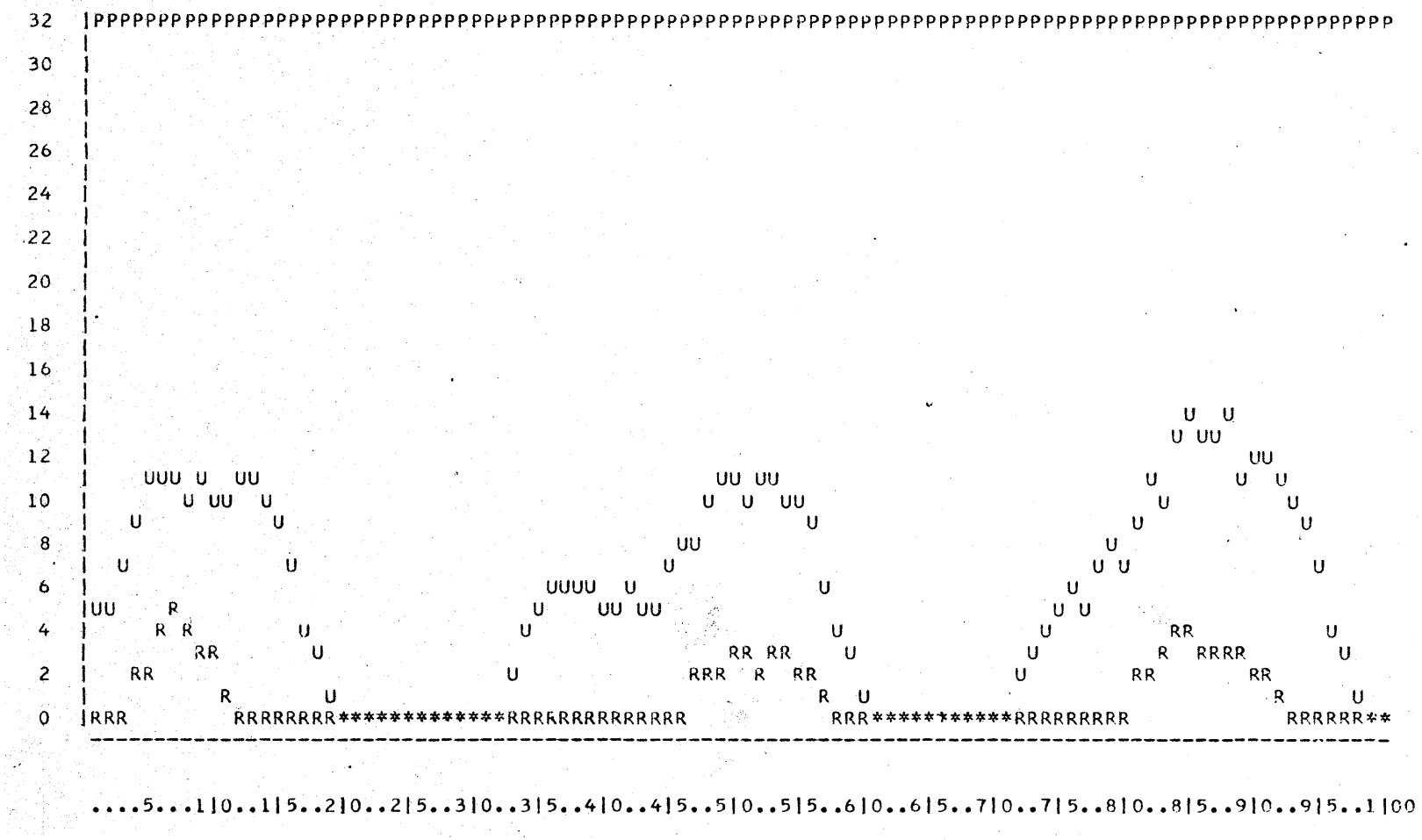
SYSTEM CLOCK TIME=00012928 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



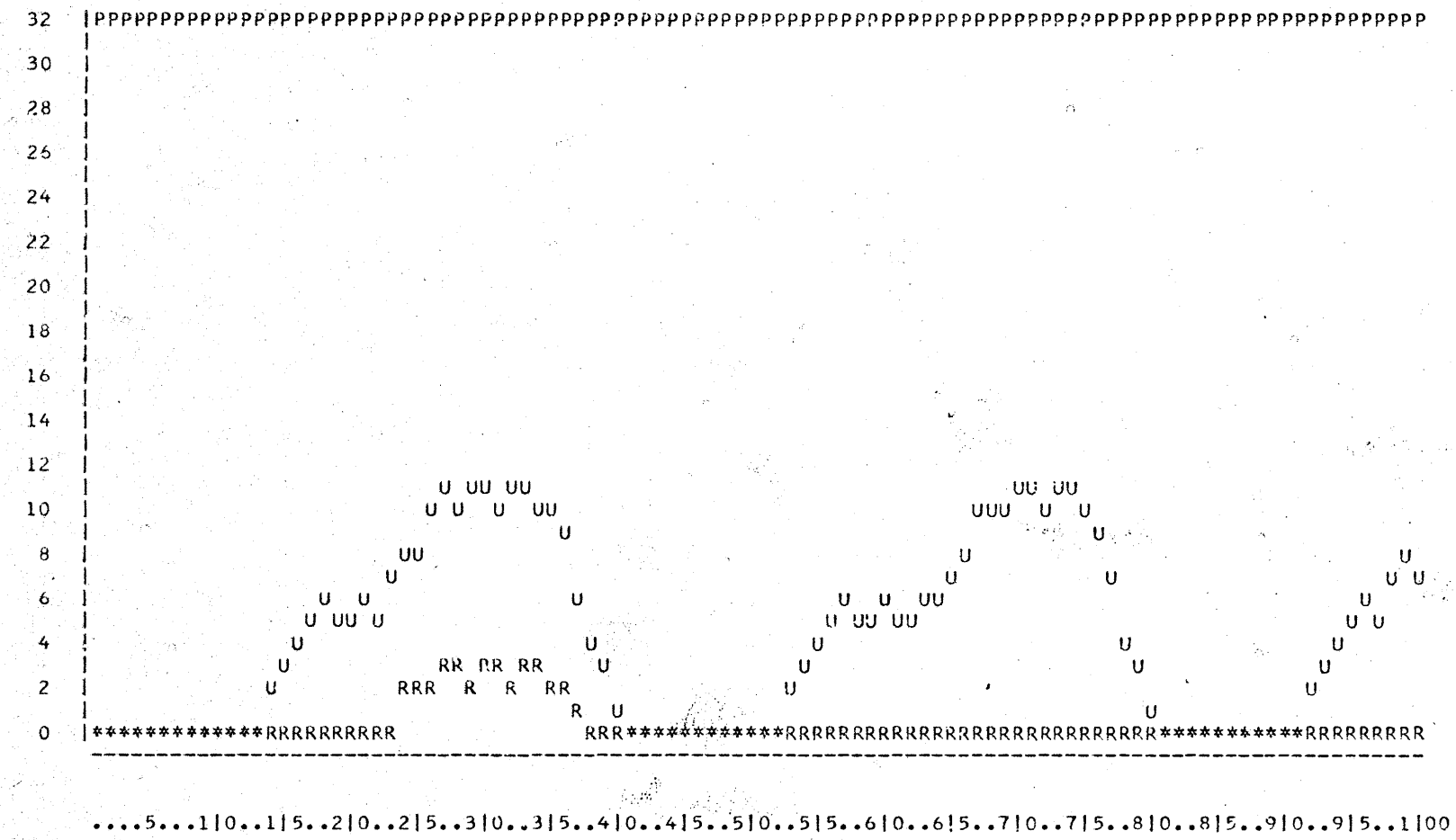
SYSTEM CLOCK TIME=00019328 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



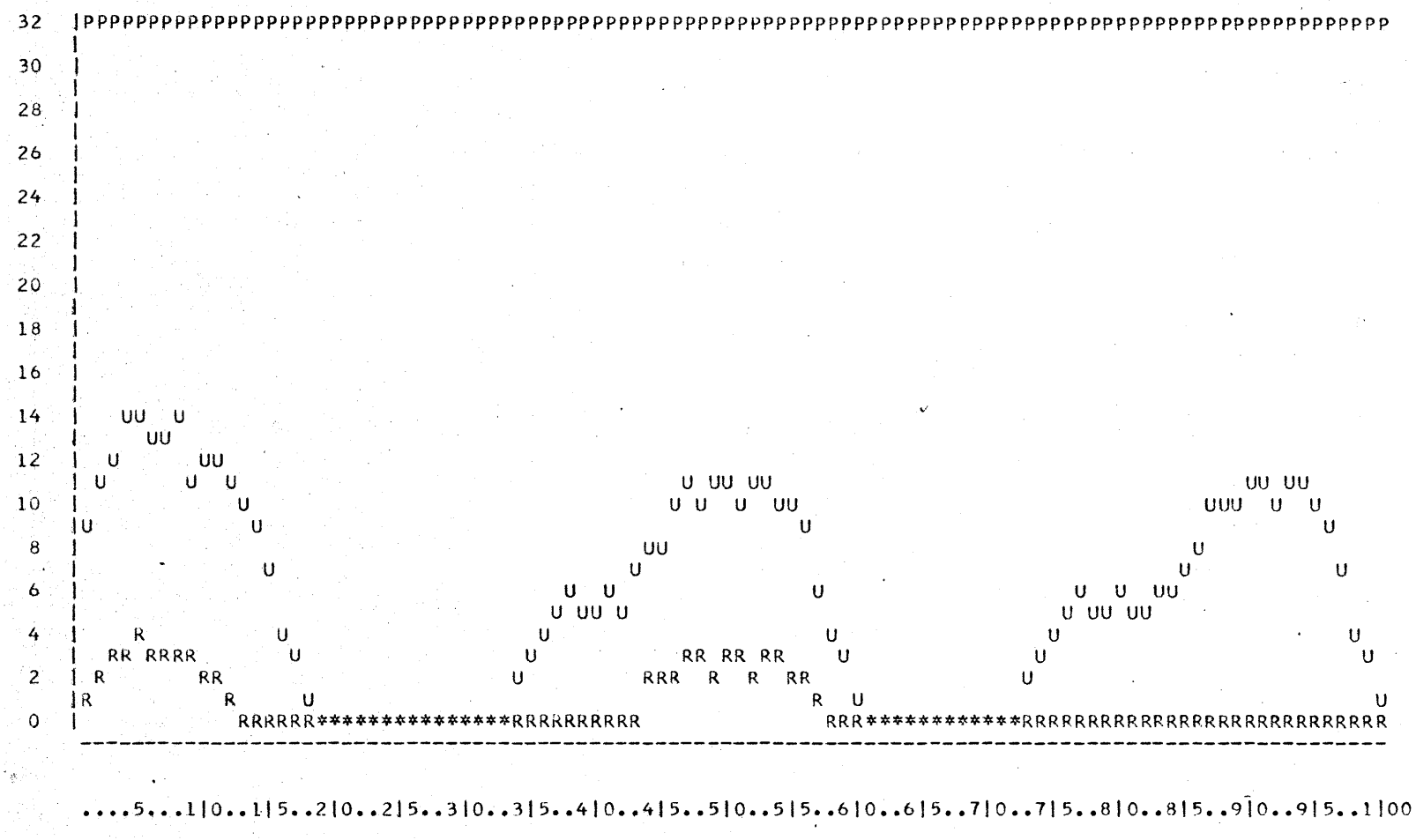
SYSTEM CLOCK TIME=00025728 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



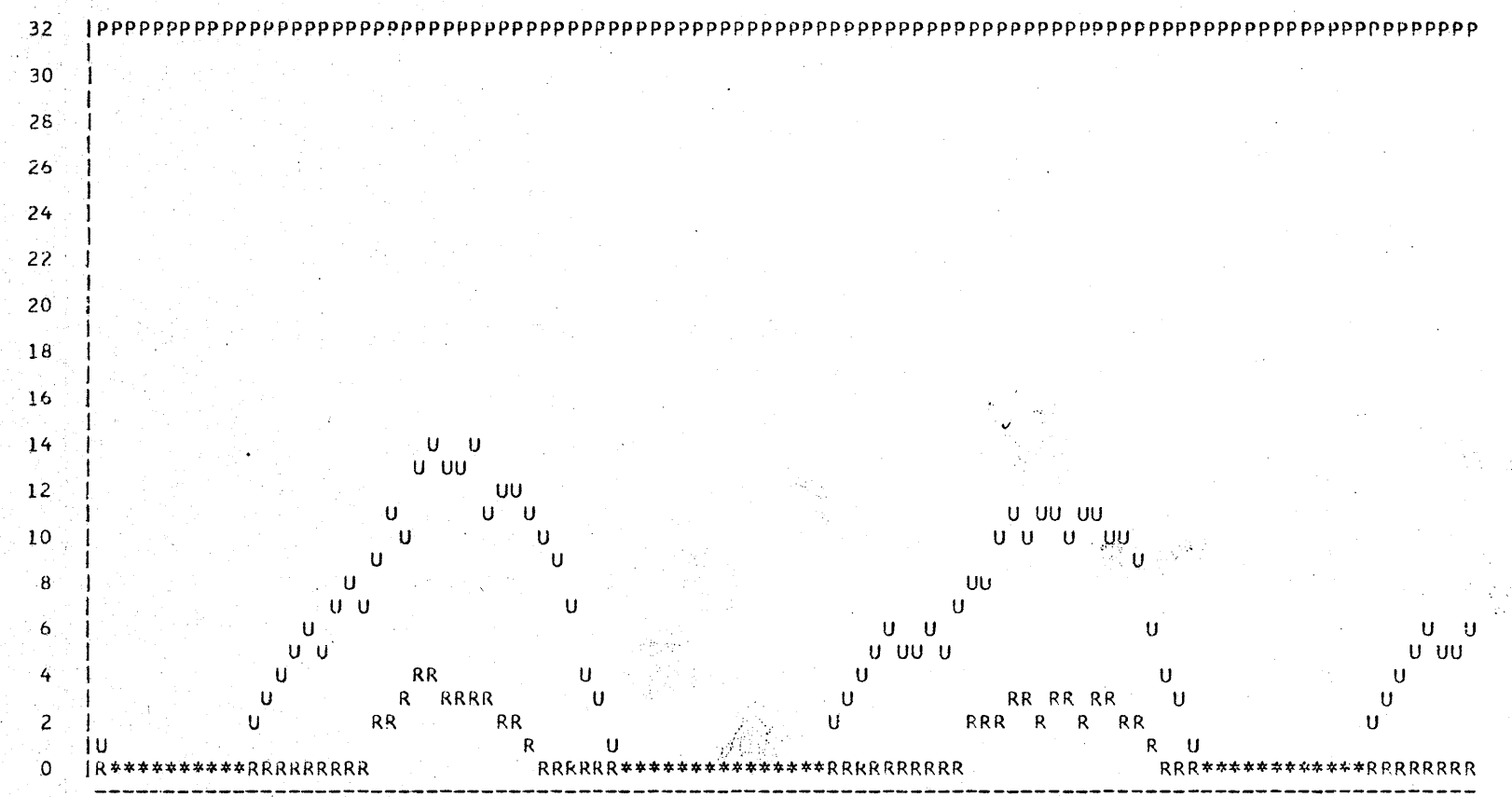
SYSTEM CLOCK TIME=00032128 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



SYSTEM CLOCK TIME=00038528 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



END OF SIMULATION - TIME USED= 0.0536 HOURS, PERFORMANCE = 6215 INSTRUCTIONS/MINUTE (PLOT MODE)

***** EOF ON SYSIN - END OF RUN *****

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT F01JAN68 3/18/68

```
000000                  462+INSTRC  START 0 CONTROL SECTION FOR INPUT INSTRUCTIONS
                        463+**
000000 00000000         464+IBEG    DC    A(0) FOR LENGTH OF INSTRUCTIONS

                        466 *
                        467 *
                        468 *
                        469 *
                        470         PRINT ON,NOGEN      SUPRESS INSTRUCTION MACRO EXPANSIONS
                        471         FORK  DEX
                        480 DEX     FORK  DEX2
                        489 DEX2    FORK  DEX3
                        498 DEX3    FORK  DEX4
                        507 DEX4    FORK  TASKA
                        516 TASKA   LDX   X2,C10                                        INST4710
                        526 TK2     FADD  A1,P1,A1                                      INST4720
                        537         FSUB  A1,P1,A1                                      INST4730
                        548         FMPY  A1,P1,A1                                      INST4740
                        559         FDIV  A1,P1,A1                                      INST4750
                        570         ADDD  A1,P1,A1                                      INST4760
                        581         SUB   A1,P1,A1                                      INST4770
                        592         MPY   A1,P1,A1                                      INST4780
                        603         DIV   A1,P1,A1                                      INST4790
                        614         SFX   C1,X2,X2                                      INST4800
                        625         TXH   TK2,X2,C0                                     INST4810
                        636         TEND  TASKA                                         INST4820
                        645 *                                                           INST4830
                        646         TERM              CLEANUP                           INST4840
                        683 *                                                           INST4850
                        684 *                                                           INST4860
                        685 *  EQUATED INSTRUCTION OP-CODES                             INST4870
                        686 *                                                           INST4880
                        687 *                                                           INST4890
                        688 *  OP-CODES FOR ARITHMETIC TYPE INST HAVING REGULAR SOURCE-SOURCE-TARG- INST4900
                        689 *  ET OPERANDS                                              INST4910
                        690 *                                                           INST4920
000001                  691 FADCOD  EQU   1                                             INST4930
000002                  692 FSBCOD  EQU   2                                             INST4940
000003                  693 FMPCOD  EQU   3                                             INST4950
000004                  694 FDVCOD  EQU   4                                             INST4960
000005                  695 ADDCOD  EQU   5                                             INST4970
000006                  696 SUBCOD  EQU   6                                             INST4980
000007                  697 MPYCOD  EQU   7                                             INST4990
000008                  698 DIVCOD  EQU   8                                             INST5000
000009                  699 ANDCOD  EQU   9                                             INST5010
00000A                  700 ICRCOD  EQU   10                                            INST5020
00000B                  701 ECRCOD  EQU   11                                            INST5030
00000C                  702 SHRCOD  EQU   12                                            INST5040
00000D                  703 SHLCOD  EQU   13                                            INST5050
                        704 *                                                           INST5060
                        705 *  GAP LEFT HERE FOR MORE ARITHMETIC OP-CODES
```

PRINTOUT OF ASSEMBLED INPUT INSTRUCTIONS

```
INSTRUCTION NUMBER   1    FORK   ,,I2
INSTRUCTION NUMBER   2    FORK   ,,I3
INSTRUCTION NUMBER   3    FORK   ,,I4
INSTRUCTION NUMBER   4    FORK   ,,I5
INSTRUCTION NUMBER   5    FORK   ,,I6
INSTRUCTION NUMBER   6    LDX    C10,,X2
INSTRUCTION NUMBER   7    FADD   A1,P1,A1
INSTRUCTION NUMBER   8    FSUB   A1,P1,A1
INSTRUCTION NUMBER   9    FMPY   A1,P1,A1
INSTRUCTION NUMBER  10    FDIV   A1,P1,A1
INSTRUCTION NUMBER  11    ADDD   A1,P1,A1
INSTRUCTION NUMBER  12    SUB    A1,P1,A1
INSTRUCTION NUMBER  13    MPY    A1,P1,A1
INSTRUCTION NUMBER  14    DIV    A1,P1,A1
INSTRUCTION NUMBER  15    SFX    C1,X2,X2
INSTRUCTION NUMBER  16    TXH    X2,C0,I7
INSTRUCTION NUMBER  17    TEND   ,,I6
```

LISTING OF PARAMETER CARDS AS READ

```
TRACE       LINES=0                 COMMENT
PROCESSOR   NUMBER=32
CHANGE      RESOURCE=ADGEN,     MASK=10,    ACTSF=RELEASE
CHANGE      RESOURCE=FLDIV, NUMBER=1,   TYPE=COMMON,    ACTSE=EVENT,X
              ACTDT=0,    ACTSF=EXFLD
CHANGE     RESOURCE=PROC,      PRIDT=448
CHANGE    FCTSTEP=XFORK, ENTRY=3, FDT=40   CHANGING DELTA-TIME FIELD
CHANGE    FCTSTEP=PRIORITY,  ENTRY=2,  FSE=EVENT,      FADDR=PRIORITY
START      STINST=1,                        STPROC=31,                  X
             ILIMIT=20000
  PLOT    PAGES=1000      SHORT RUN FOR OVERLAY TEST
  ENDPARM             MAIN KEYWORDS NEED NOT ALL START IN COL 4
```

END OF PARAMETERS. 12 CARDS READ.

EXECUTION UNITS

FIXED POINT

ADD/SUB	1
MPY/DIV	1

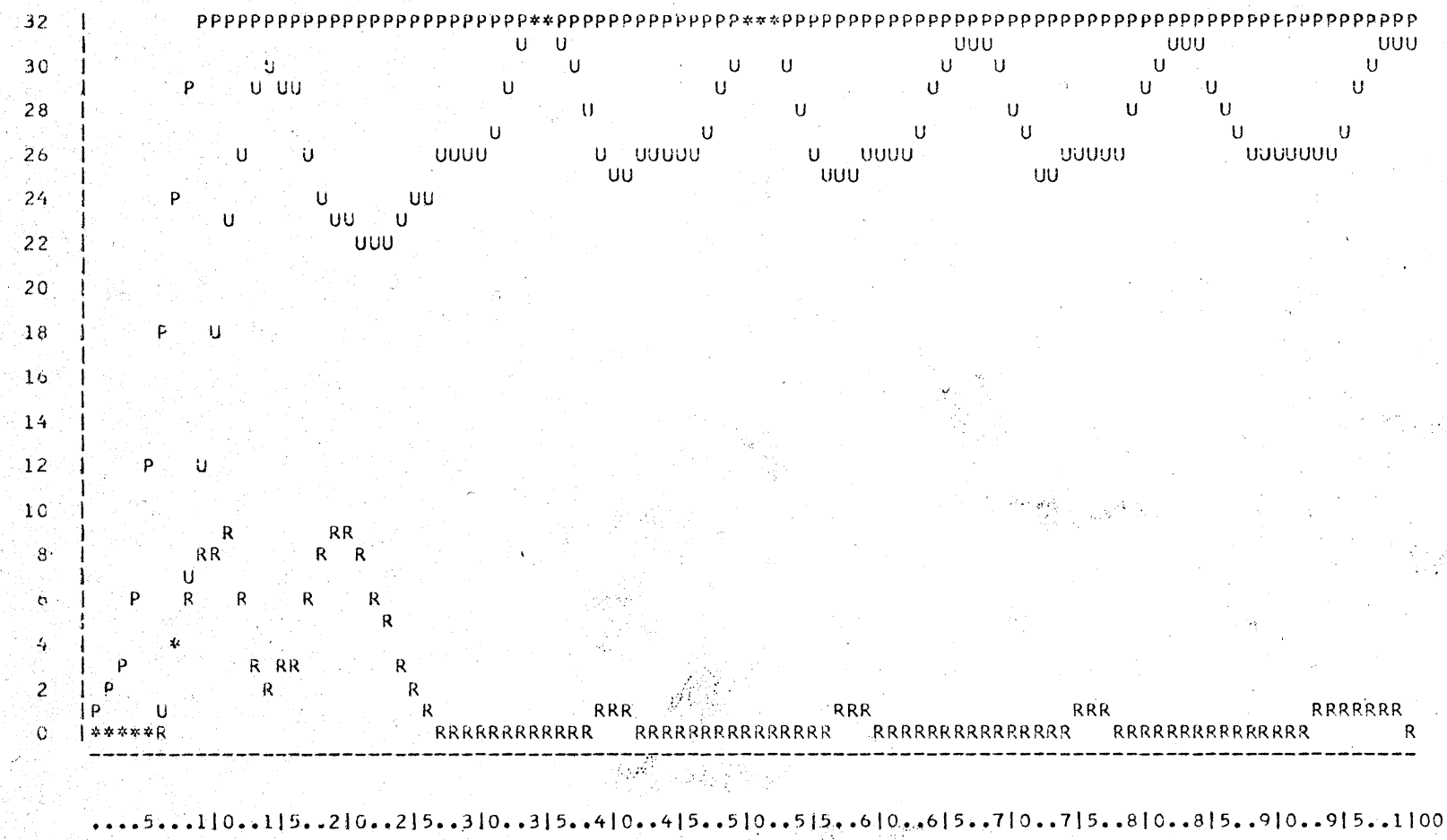
FLOATING POINT

ADD/SUB	2
MPY	1
DIV	1

TIME = 23.4734C, DATE = 04/01/68

SYSTEM CLOCK TIME=00006528 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE



SYSTEM CLOCK TIME=00012928 RING PRIORITY=(0,1,2,3)

P = ACTIVE PROCESSORS
U = ACTIVE EXECUTION UNIT STAGES
R = REJECTED E-UNIT REQUESTS
* = ANY COMBINATION OF ABOVE