#### RECOMP II USERS' PROGRAM NO. 1126

PROGRAM TITLE:

PERT Expenditure Forecast

**PROGRAM** 

CLASSIFICATION:

General

AUTHOR:

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S&ID

PURPOSE:

This program when used in conjunction with

RECOMP II Program #58 (Critical Path Scheduling) will compute a weekly hours expenditure rate

for a given PERT network.

DATE:

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#### DISCLAIMER

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RECOMP II Users' Program No. 1126 will forecast a weekly hours expenditure rate using the estimated activity hours, the activity times, and the expected activity times for a given network. The program has the capability to be used after hours have accumulated for the activities and for activities with zero (0) estimated hours. The program will adjust the forecast for ahead or behind schedule condition.

The expected activity times are found using RECOMP II Program #58 (Critical Path Scheduling). The remainder of the data is taken from the PERT network.

After the worksheet has been prepared, all information is punched on tape (Versatape). This data tape and the program tape are then read into the Recomp. By pressing the appropriate start button the forecast is computed and all information is typed. This typed sheet is suitable for management presentation and for reproduction.

Additional problems can be run by merely reading in the data tape and pressing the appropriate start button.

All activity estimated hours are spread on a 60/40 ogive pattern. (See table in appendix)

## I <u>Versatape Instructions</u>

- A. Use decimal integer cartridge
- B. Set location to 6500.0
- C. Enter week number that actuals have been accumulated thru.
- D. Enter all event numbers ("From" event number, "To" event number, "From" event number, etc.
- E. Enter a minus zero after last event number
- F. Set location to 4000.0
- G. Enter all cost data (est. activity hours, accumulated hours, activity time, expected activity time, ets. activity hours, etc.)
- H. After last expected activity time, enter a minus zero.

# II Operating Instructions

- A. Set margin for single space
- B. Margins at 15 & 100, tabs at 32, 46, 57, and 70.
- C. Read in and verify program tape.
- D. Read in and verify data tape.
- E. Press start 3. This will type all activity information and will compute and type the forecast.
- F. Start 2 will compute and type answer only.

#### III RESTRICTIONS

Activity numbers can be from 1-4 digits.

Activity times are limited from 1-25 weeks.

Activity limit is 330.

Answer can be up to 240 weeks in length.

Activity hours are limited to six digits.

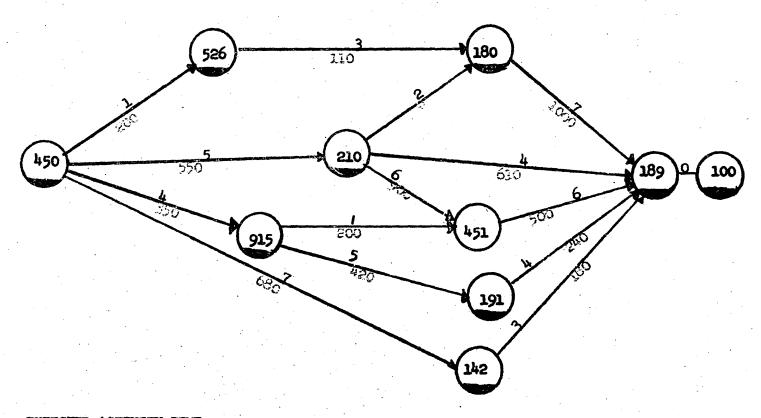
Total forecast hours is limited to seven digits.

The forecast must be continuous in its entirety and start within six weeks after the week that actuals have been accumulated thru. (If more than six weeks ahead of schedule, adjust the actuals thru week number.)

#### IV EXAMPLES

Two examples appear in the appendix. The first example is solved prior to the start of the program. The second example is six weeks after the program has started.

The author realizes that when this program is used for different functions a larger percent of the activities will have zero estimated hours.



RED - EXPECTED ACTIVITY TIME
OFFICE - ESTIMATED ACTIVITY COST (HOURS)

## WORKSHEET

Act From	ivity To	Estimated Hours	Actuals To Date	Activity Time	Expected Activity Time
Actuals Thru Week # _Q					
450	526	200			
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450	915	350		ls.	lt.
450	7/13	630 		7	7
526	180	110		3	),
210	180	0		2	7
510	189	610		<u>lı</u>	· Q
210	451	900		6	11
915	451	200			5
915	189	1:30		5	9
451	189	500		6	17
19)	189	5/10		<u>l</u>	13
1/12	189	130		3	10
180	189	1000		7	14
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# ACTUALS THRU WEEK NO. O

Acti From	<b>-</b> ,	Estimated Hours Cost	Cum Hours To Date	Activity Time	Expected Activity Time
450	526	200		1	1
450	210	550		5	5
450	915	350	•	Ц	Ţŧ
450	142	680	·	7	7
526	180	110		3	<u>L</u>
210	180	0		2	7
- 210	189	610		L	9
210	451	900		6	11
915	451	200		ī	5
915	191	420		5	9
451	189	500		6	17
191	189	5f0 20		l,	ī'j
142	189	180		3	10
180	189	1000		7	14
			50.000mm		

# ACCUMULATED HOURS

# FORECASTED HOURS STARTING AT WEEK NO. 1

424	437	470	306	415	430	570	6H0	543
462	348	272	234	190	100	70	30	•

TOTAL FORECASTED HOURS 5941

## WORKSHEET

Activity From To		Estimated Hours	Actuals To Date	Activity Time	Expected	
Actuals Thru			10 Dave	d giller	Activity Time	
450	526	సరిల	300			
450	210	550	550	5		
450	915	350	350	1.	l(	
450	148	680	600	7		
526	180	11.0	110	3	<u></u>	
510	180	0		2	7	
210	189	610	40	l <sub>k</sub>	<u> </u>	
510	451	900	80	6	11	
915	1,52	500	500		5	
915	293	1120	80	£,	9	
<u> </u>	189	500		6		
191	189	5/10			13	
142	189	180		3	10.	
180	189	1000		7	34	
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		·				

## ACTUALS THRU WEEK NO. 6

70

30

TOTAL FORECASTED HOURS 3728

Activity From To	Estimated Hours Cost	Cum Hours To Date	Activ1ty Time	Expected Activity Time
450 526 450 210 450 915 450 142 526 180 210 189 210 451 915 451 915 191 451 189 191 189 191 189 180 189	200 550 350 680 110 0 610 900 200 420 500 240 180	200 550 350 600 110 40 80 200 80	15473246156437	1 5 4 7 4 7 9 11 5 9 17 13 10 14
ACCUMULATED H	•	2211	•	. 24
	urs starting at week			
839 640	543 462 348	272 234 190	100	

# OGIVE TABLE

Ogive Number & # of Periods	60-40 BREANDOWN	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	100 60 40 30 50 20 21 39 26 14 15 30 28 18 9 12 20 28 20 14 6 10 15 25 20 15 10 5 8 12 20 20 16 12 8 4 7 11 16 18 16 13 9 7 3 6 10 12 17 15 14 10 8 5 3 6 8 12 13 14 11 11 9 9 7 6 5 2 4 6 7 9 14 13 11 10 9 6 5 4 2 4 6 7 8 13 12 10 10 8 7 5 5 3 2 4 6 6 7 8 13 12 10 10 8 7 7 7 4 4 3 2 3 4 6 6 6 9 10 10 8 8 7 6 5 5 4 3 3 3 2 2 2 3 4 5 6 6 8 10 9 9 9 7 7 6 5 5 5 4 3 3 3 2 2 2 1 3 4 4 5 6 6 8 8 8 8 8 8 7 7 7 7 5 5 5 5 4 3 3 3 2 2 2 1 2 3 3 4 5 5 5 6 8 8 8 8 8 7 7 7 7 5 5 5 5 4 3 3 3 2 2 2 1 2 3 3 3 4 5 5 5 6 6 7 8 7 6 6 6 6 5 5 5 4 4 3 3 3 3 2 2 2 1 2 3 3 3 4 4 5 6 6 6 8 7 7 7 6 6 6 6 5 5 5 4 4 3 3 3 3 2 2 2 1 2 3 3 3 4 4 5 5 6 6 6 8 7 6 6 6 6 5 5 5 4 4 3 3 3 3 2 2 2 1 2 3 3 3 4 4 5 5 6 6 6 7 8 7 6 6 6 6 5 5 5 5 4 3 3 3 3 2 2 2 1 2 3 3 3 4 4 5 5 6 6 6 8 7 6 6 6 6 5 5 5 5 4 3 3 3 3 2 2 2 1 2 3 3 3 3 4 5 5 5 6 7 7 6 6 6 6 5 5 5 5 4 3 3 3 3 2 2 2 1 2 3 3 3 3 4 5 5 5 6 7 7 6 6 6 6 5 5 5 5 4 4 3 3 3 3 2 2 2 1 2 3 3 3 3 4 5 5 5 6 7 7 6 6 6 6 5 5 5 5 4 4 3 3 3 3 2 2 2 1 2 3 3 3 3 4 5 5 5 6 7 7 6 6 6 6 5 5 5 5 5 5 5 5 5 5	

## RECOMP II USERS! PROGRAM NO. 1126

Listed below are suggested expected activity times to be used with PECOMP II USERS' PROGRAM NO. 1126.

	1961	1962	<u>1963</u>	1964
January	1	13	25	37
February	2	<b>1</b> /r	26	38 39 40
March	3	15	27	39
April	14	16	28	40
May	5	17	· 29	41
June	6	18	30	42
July	7	19	31.	43
August	8	20	32	44
September	9	21	33	45
October	10	22	34	46
November	11	23	35	47
December	12	24	36	ett.

Expected Activity Time (ATE) The necessary elapsed time from the beginning of the project to the completion of an activity.

Activity Time (te) The estimated time necessary to perform an activity.