

## Multics Staff Bulletin

MSB-102

TO: Distribution

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DATE: May 1, 1973

SUBJECT: Comparison of Compilation times for PL/1 and Fortran

The following results are those of a rerun of test described in MPL-62 dated April 19, 1973. Unlike the test run then, this test includes runs made on the HIS-6180 Multics rather than the 360/67 cp/cms. All pricing figures are current as of this reporting date (i.e. HIS-6180 Multics based on Virtual CPU time and rates).

OS/ASP (fortran H, PL/1 version 5):

	CPU	memory	i/o	total
prog1.fortran	3.12 sec	200K-.110 min	223-87	
	\$.37	\$.18	\$.16	\$.71
prog2.fortran	1.62 sec	200K-.087 min	204-93	
	\$.19	\$.15	\$.15	\$.49
prog3.pl1	3.36 sec	128K-.769 min	251-1392	
	\$.40	\$.82	\$1.47	\$2.69
prog4.pl1	2.64 sec	128K-.650 min	214-1183	
	\$.31	\$.69	\$1.24	\$2.24

HIS-645 MULTICS (fortran version 2, PL/1 version 1)

	CPU	connect	pagefaults	total
prog1.fortran	18.824 sec	33.333 sec	38+269	
	\$1.88	\$.12		\$2.00
prog2.fortran	20.730 sec	67.333 sec	111+463	
	\$2.07	\$.24		\$2.31
prog3.pl1	35.419 sec	144.633 sec	419+921	
	\$3.54	\$.51		\$4.05
prog4.pl1	28.595 sec	147.0 sec	415+708	
	\$2.86	\$.51		\$3.37

HIS-6180 MULTICS (fortran version 2, PL/1 version 1)  
\*with new CPU pricing & measurement (virtual CPU time)

	CPU	connect	memory units	total
prog1.fortran	12.146	16.666 sec	43.467	
	\$.73	\$.06	\$.65	\$1.44
prog2.fortran	12.718	24.333	34.588	
	\$.76	\$.09	\$.52	\$1.37

	CPU	connect	memory units	total
prog3.p11	18.468	26.666	44.833	
	\$1.11	\$.09	\$.67	\$1.87
prog4.p11	14.473	24.666	41.082	
	\$.87	\$.09	\$.62	\$1.58

CPU USAGE (seconds)	pgm 1	pgm 2	pgm 3	pgm 4
I370	3.12	1.62	3.36	2.64
H645	18.824	20.730	35.419	28.595
H6180	12.146	12.718	18.468	14.473

TOTAL COST	pgm 1	pgm 2	pgm 3	pgm 4
I370	\$ .71	\$ .49	\$ 2.69	\$ 2.24
H645	\$ 2.00	\$ 2.31	\$ 4.05	\$ 3.37
H6180	\$ 1.44	\$ 1.37	\$ 1.87	\$ 1.58