

AMENDMENT NO. 2

Effective January 1, 1970

The undersigned General Electric Company (hereinafter referred to as "GE") and the undersigned Massachusetts Institute of Technology (hereinafter referred to as "MIT") hereby agree to amend the Basic Agreement between the parties dated April 22, 1968, covering the rental by MIT of GE-645 computer equipment, as previously amended by Amendment No. 1, dated July 21, 1969 (hereinafter referred to as the "Basic Agreement"), effective as of January 1, 1970, as hereinafter set forth.

1. The term of the said Basic Agreement is hereby extended to December 31, 1972.
2. Paragraph B of Article 17 of the Basic Agreement is modified and amended to read as follows:

"General Electric and MIT are bound by the Agreement relating to patentable inventions and other intellectual property dated November 5, 1965, as amended effective January 1, 1968, which Agreement remains in full force and effect."

3. Article 11 of the Basic Agreement is modified and amended to read as follows:

"A. Copies of internal documentation containing technical information related to the detail design of GE-645 equipment, or any other hardware or software development, may be transmitted from time to time by General Electric to the user to aid in the user's development of applications for the GE-645 System. To the extent that such documentation may contain "confidential information," as hereinafter defined, the user agrees that it will maintain such information in confidence and will not disclose the same to any third party without the express written permission of the Large Systems Department of General Electric. Further, the user will restrict the distribution of such information within its organization to those personnel with a need to know for the aforesaid development purposes. In each case the foregoing restriction applies so long as the confidential information classification of the information is

maintained by General Electric or for a period of two (2) years from the date of transmission of the information, whichever is shorter."

"B. "Confidential information" shall mean technical information and documentation relating to GE-645 equipment, or any other hardware or software development, disclosed to the user in writing and designated as confidential on the face of the document, unless such information was in the user's possession, without binder of secrecy, prior to the transmission thereof by General Electric to user. Such information shall cease to be confidential at such time as it becomes part of the public knowledge or literature, or at such time as it may be received by the user from a third party without restriction and without breach of any confidential relationship."

"C. "The above provisions shall not be construed as granting any license or other rights to the user except as specifically provided herein."

4. During the period from January 1, 1970 to December 31, 1972, GE agrees to lease to MIT and MIT agrees to lease from GE the GE-645 computer equipment listed and described in Exhibit I, which is attached to and made a part hereof, all of which equipment is presently installed on-site. Monthly rental charges with respect thereto shall commence upon the delivery and installation of such equipment, with charges for a fractional part of a calendar month prorated on the basis of a 30 days month.
5. The aforesaid lease of the equipment shown in Exhibit I hereof shall be subject to all of the terms and conditions set forth in the Basic Agreement, as hereby amended, with the exception of the following provisions, which shall not be applicable with respect thereto:
  - a. Paragraphs B, C, D, and E of Article 1, APPLICATION.
  - b. Paragraphs A, B and C of Article 3, DELIVERY AND INSTALLATION OF EQUIPMENT.

- c. Article 4, RENTAL CHARGES.
  - d. Paragraphs A and B of Article 5, PERIOD OF USAGE.
  - e. Article 6, MAINTENANCE.
  - f. Article 8, INVOICING AND PAYMENT.
  - g. Paragraph E of Article 16, INSURANCE AND LIABILITY.
6. In addition to the provisions of the Basic Agreement which remain applicable to the lease of the equipment shown in Exhibit I hereof, as above provided, the following provisions shall also be applicable thereto:
- a. MIT will utilize the equipment in the operation of an Information Processing Center, at its sole cost and expense. The user rates to be charged for such service shall be established solely and exclusively by MIT. Such rates, however, shall not be unreasonably low in relation to competitive rates for comparable services, and shall not reflect any equipment cost savings which may be available to MIT under the terms of this Agreement, except that the rates for services for educational purposes may, at the discretion of MIT, reflect educational discounts in accordance with the standard practices of the industry.
  - b. All system use time will be charged by MIT at the hourly rates established by it, except for the not more than 75,000 console hours per year which are to be made available without charge to MIT Project MAC and GE for software development work, as hereinafter provided.
  - c. The minimum monthly rental charge payable by MIT for each item of equipment itemized in Exhibit I hereof for each month of the lease term during which such item of equipment remains installed on-site is 4/16ths of the monthly rental charge for such item of equipment as shown in Exhibit I. In addition, MIT shall pay GE monthly the sum of \$6,666.66 for maintenance of the equipment.
  - d. In addition to the foregoing minimum monthly payments, MIT shall pay GE the following additional amounts for the use of the equipment:
    - (1) For each month during the calendar year 1970 in which MIT's gross sales of system use time, at the rates established by MIT, exceed the sum of 175% of the minimum total monthly rental

charge payable by MIT for such month plus \$6,666.66, MIT shall pay GE 80% of such excess amount.

(2) For each month during the calendar years 1971 and 1972 in which MIT's gross sales of system use time, at the rates established by MIT, exceed the minimum amount payable by MIT for the use and maintenance of the equipment for such month, MIT shall pay GE 40% of such excess amount.

(3) For each month during the calendar years 1971 and 1972 in which MIT's gross sales of system use time, at the rates established by MIT, exceed the sum of 250% of the minimum total monthly rental charge payable by MIT for such month plus \$6,666.66, MIT shall pay GE an additional 40% of such excess amount.

e. GE shall submit invoices in duplicate the first of each month covering the charges provided for in Paragraph 6.c. above for the current month, plus any of such charges as may be billable from the previous month. Payment of said invoices shall be made to GE, Large Systems Department, within 20 days from the date of invoice.

f. With respect to the additional charges provided for in Paragraph 6.d. above, MIT shall submit to GE within ten (10) days after the close of each calendar month a certified statement in writing of the amount of system use time during such calendar month, the billing rates applicable thereto, and the resultant amount of MIT's gross sales of system use time during such calendar month. On the basis of each such certified statement, GE shall render an invoice in duplicate for any additional charges which may be payable in accordance with the provisions of Paragraph 6.d. above, and MIT shall pay the same within twenty (20) days after receipt thereof. Each such invoice shall be subject to subsequent adjustment upon inspection or audit of MIT's books and records, as hereinafter authorized.

g. In the event any invoice shall remain unpaid for a period of thirty (30) days or more after becoming due, or in the event of any other default by MIT in the performance of this Agreement, GE may, at its option, give MIT written notice of such default, and if the same is not cured within thirty (30) days after the date of such

notice, this Agreement shall terminate without further notice. Upon such termination, all unpaid charges under this Agreement shall become immediately due and payable, and GE shall be entitled to immediate possession of all equipment covered hereby, and may enter any premises where the same may be located and retake possession thereof, with or without process of law, without prejudice to any other rights or remedies which it may have.

- h. MIT shall maintain proper books and records of account, including the GE-645 System accounting tapes, to adequately reflect system usage and gross sales resulting therefrom, on a calendar month basis. Such books and records shall be maintained by MIT for at least eighteen months after the close of each calendar month and shall be subject to inspection and audit by duly authorized representatives of GE at all reasonable times within such 18 months period.
- i. GE shall make all necessary adjustments and repairs required to keep the installed equipment in good operating condition. Preventive maintenance shall be performed under a mutually established schedule. It is understood that MIT intends to operate the equipment on a 24 hours per day basis, 7 days per week. GE personnel shall have full and free access to the equipment to provide the necessary maintenance service. MIT shall provide adequate working space and storage space for spare parts, and shall furnish heat, light, ventilation and electric current and outlets for the use of GE personnel. The facilities shall be within a reasonable distance of the equipment to be serviced and shall be provided at no charge to GE.
- j. MIT shall have the right at any time to terminate this Agreement with respect to any specific items of equipment listed in Exhibit I hereof, so long as the total monthly rental amount for the equipment which remains subject to this Agreement after such termination, as shown in Exhibit I, is not reduced to less than \$100,000. Such right of termination may be exercised by giving GE at least ninety (90) days prior written notice thereof, effective as of the end of any calendar month.
- k. The following provision is applicable in place of Paragraph E of Article 16 of the Basic Agreement:

"In no event shall either party be liable for special or consequential damages. Either party's liability on any other claim for loss or liability, including negligence, arising out of or connected with this Agreement, or the use of any equipment covered hereunder (including, but not limited to, loss or liability arising from breach of contract) shall in no case exceed the sum of \$600,000; except as provided in Paragraph 17 hereof, "Infringement of Patents, Trademarks or Copyrights," with respect to General Electric's liability."

7. Equipment additional to that shown on Exhibit I hereof may be leased by MIT from GE, but, unless the parties shall otherwise mutually agree, any such lease of additional equipment shall be upon the standard terms and conditions then offered by GE and shall be at the standard published rates of GE then in effect, less any educational discount then offered by GE for which the transaction may qualify.
8. It is expressly understood and agreed that the lease of the equipment shown in Exhibit I hereof does not include the MULTICS SOFTWARE, and that GE has no obligation hereunder to furnish or maintain such MULTICS SOFTWARE.
9. During the term of this Agreement it is agreed that GE and MIT, through Project MAC, will each continue to support the development of the MULTICS SOFTWARE on a cooperative basis and at a level of effort which each party, in its own judgment, may consider to be required at any particular time.
10. In support of the aforesaid MULTICS SOFTWARE development effort, MIT will make available to MIT Project MAC and GE during the term of this Agreement, without charge, up to 75,000 console hours per year of use time on the GE-645 System covered by this Agreement. For the said purpose, MIT will provide MIT Project MAC and GE 15 guaranteed lines at the maximum speed of 300 Baud, approximately 10 of which lines will be provided to MIT Project MAC and 5 of which lines will be provided to GE. If the annual usage of the system by MIT Project MAC and GE exceeds 75,000 hours, the excess use time shall be charged at the regular rates established by MIT. MIT Project MAC shall be responsible for the payment of such part of the excess use time charges as represents its use of the system in excess of 50,000 hours, and GE shall be responsible for the payment of such part of the excess use time charges as represents its use of the system in excess of 25,000 hours.

11. It is GE's intention to provide such improved hardware for the provision of MULTICS service as GE and MIT may mutually agree is practical and desirable. Such hardware will not be within THE PROGRAM of the November 5, 1965 Agreement as amended. GE accordingly agrees to accept from MIT orders for the purchase of such improved hardware as MIT may wish to acquire, upon such terms, conditions and specifications as may be mutually acceptable to the parties, provided that such orders are placed and accepted during the period while MIT is continuing the active development and use of MULTICS SOFTWARE on GE-645 equipment. Delivery of such improved hardware will be scheduled for not more than 24 months after the date of acceptance of the order therefor, but GE will attempt to effect delivery within such shorter period of time as may be practical in view of the particular improvement involved.

IN WITNESS WHEREOF, the parties have each caused this instrument to be executed by their duly authorized representatives, effective as of the 1st day of January, 1970.

GENERAL ELECTRIC COMPANY

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

E X H I B I T I

PRODUCTION SYSTEM

<u>QTY</u>	<u>Description</u>	<u>Model No.</u>	<u>Gross Monthly Rental</u>	
			<u>Each</u>	<u>Total</u>
1	Processor	CP8031	\$ 13104	\$ 13104
1	Processor Port Pair	CPP8031	275	275
1	Main Memory 32K	MM8040	7100	7100
1	Main Memory 32K	MM8030	7100	7100
2	Additional Memory 32K	AUM600	4700	9400
4	Additional Memory Modules 32K	AMM600	4700	18800
2	Cabinets	CAB601	275	550
1	Memory Switch	MSW600	50	50
1	Systems Clock	CLK600	800	800
8	Memory Ports	OPT802	89	712
2	Additional Interrupt Cells	OPT815	115	230
1	Generalized I/O Controller	DC8031	5910	5910
1	GIOC Port Pair	MIP600	275	275
1	Additional Priority Levels	PLP600	69	69
1	Adapter Cabinet	CAB600	1040	1040
2	High Performance Channel	HPC600	715	1430
4	Teletype Adapters	TTA600	445	1780
14	Teletype Channels	TTC600	140	1960
14	Teletype Channel Extensions	TTL600	68	952
2	Character Asynch Adapter	CAA600	205	410
6	Character Asynch Channel	CAC600	90	540
1	Character Synch Adapter	CSA600	205	205
3	Character Synch Channel	CSC600	90	270

PRODUCTION SYSTEM CONT.

<u>QTY</u>	<u>Description</u>	<u>Model No.</u>	<u>Gross Monthly Rental</u>	
			<u>Each</u>	<u>Total</u>
1	High Performance Drum and Controller	EMU302	\$ 13060	\$ 13060
1	Additional Port Pair	APP302	275	275
1	Motor Generator Set	MG8031	340	340
1	Power Sequencer Unit	OPT825	18	18
			<b>Total Production</b>	<b>\$86,655</b>

DEVELOPMENT SYSTEM

<u>QTY</u>	<u>Description</u>	<u>Model No.</u>	<u>Gross Monthly Rental</u>	
			<u>Each</u>	<u>Total</u>
1	Processor	CP8031	\$ 13104	\$ 13104
1	Processor Port Pair	CPP8031	260	260
1	Main Memory	MM8040	7100	7100
1	Additional Memory	AUM600	4700	4700
2	Additional Memory Modules	AMM600	4700	9400
1	Memory Cabinet	CAB601	275	275
1	Memory Switch	MSW600	50	50
1	Systems Clock	CLK600	800	800
4	Memory Ports	OPT802	89	356
1	Additional Interrupt Cells	OPT815	115	115
1	Generalized I/O Controller	DC8031	5910	5910
1	GI0C Port Pair	MIP600	275	275
1	Additional Priority Level	PLP600	69	69
1	Adapter Cabinet	CAB600	1040	1040
2	High Performance Channel	HPC600	715	1430
3	Teletype Adapters	TTA600	445	1335
12	Teletype Channels	TTC600	140	1680
12	Teletype Channel Extensions	TTL600	68	816
1	Character Asynch Adapter	CAA600	205	205
1	Character Asynch Channel	CAC600	90	90
1	High Performance Drum and Controller	EMU302	13060	13060
1	Additional Drum Port Pair	OPT825	275	275
			<b>Total Development</b>	<b>\$ 62345</b>

PERIPHERAL COMPLEMENT

<u>QTY</u>	<u>Description</u>	<u>Model No.</u>	<u>Gross Monthly Rental</u>	
			<u>Each</u>	<u>Total</u>
1	Peripheral Switch	PSC200	\$ 185	\$ 185
15	Switch Units	OPT510	45	675
1	Disc Controller	DSC270	1260	1260
1	Additional Data Channel	ADC270	420	420
3	File Electronics	DFE270	685	2055
15	Disc Files	DSU270	895	13425
2	Card Readers	CRZ201	715	1430
2	Card Punches	CPZ201	905	1810
2	Printers	PRT202	1750	3500
2	Consoles	CO8030	445	890
1	Mag Tape Controller	MTC404	1630	1630
10	Magnetic Tape Units	MTH373	940	9400
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Total Periph				\$ 36680
Total Production				86655
Total Development				62345
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				\$185,680