HONEYWELL INTEROFFICE CORRESPONDENCE

DATE: SEPTEMBER 7, 1971

TO: J. GILSON

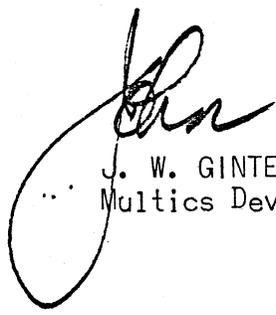FROM: J. W. GINTELL

DIVISION: CISL/PCO

SUBJECT: MULTICS DOCUMENTATION

CC: CT~~OLINGEN~~
       FJ~~CORBATO~~
       JH SALTZER

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Honeywell
admin*

The attached document is a draft of the Multics Development Project's proposal for documentation. As you can see there is a large volume of documentation but we feel that it is all necessary for Multics to be a success. The dates, names of people, and page lengths are all approximations; it will take some more time on our part to verify and improve this information.

J. W. GINTELL, Manager
Multics Development

/ms
(enclosure)

DATE: AUGUST 23, 1971

TO: C. T. CLINGEN
          J. H. SALTZER

FROM: J. W. GINTELL

SUBJECT: DOCUMENTATION NEEDS FOR MULTICS AS A HONEYWELL PRODUCT OFFERING

The following "shopping list" of documentation, although rather large is
my estimate of what is needed for Multics documentation. It follows the
pattern of what we have been doing and hence should contain no real surprises.

I have divided the documents into several categories:

Promotional	Technical documentation whose major purpose is to be used for promotional and introductory purposes.
General User	User documentation which general users of Multics need.
Special User	Documentation needed by users of special subsystem or esoteric features of Multics.
Operational	Documentation which is needed by operational and administrative persons to run Multics.
Technical Support	Miscellaneous technical material useful to system programmers, studiers, or sophisticated users of Multics.

The most difficult problem is the organization and writing of the overview
portions of these documents. It will require a concentrated effort by our
staff to see that all these documents get developed properly.

Consideration should be given to clever packaging schemes so that the needs
of various classes of users can be satisfied by some of the same documents.
For example a Limited Service System user would need a manual with a short
overview and write-ups of a small number of commands and subroutines which
can be "pulled from" the comprehensive Multics Programmers Manual.

The weakest area is in the Operational realm. Very little detailed documentation
exists; and there is little understanding about how to organize and present
this material.

NAME	DESCRIPTION	COMMENTS	MAJOR CONTRIBUTOR EDITOR	ESTIMATED LENGTH	DATE OF GOOD "DRAFT"	DATE OF FINAL VERSION	ESTIMATED RATE OF CHARGE
Promotional, Introductory							
Introduction to Multics	What Multics is and basic use of it. This document is actually useful to new user.	Should have little implementation oriented details that are subject to change.	J. Barnes	30	Oct. '71		Very low.
"How Multics Works"	A view of how Multics works - aimed towards the gadgeteer.	Information can be extracted from other documents.		20			Very low.
Applications of Multics	Show how Multics can be used to solve problems.	Could be based on Clingen's talk on the management of Multics.		20			Very low.
Multics for the Advanced User	Brief description of the many features available on Multics.	Appeals to the advanced user.		20			Low.
Bibliography	Annotated Bibliography			20			High.
Prospective Owners Manual	Explains how running a computer utility differs from running a normal batch job shop.			25-50			Low.
General User							
Multics Programmers Manual	General reference manual for users of Multics.	Perhaps divided into 4 manuals: Introduction and Tutorial Reference Data Commands Subroutines (Tracks system development)	Saltzer	500	"Now"	Dec. '72	High.

Document	Description	Notes	Author	Number	Date	Priority
PL/1 Language Specification	A detailed description of the PL/1 language.	Unless ANSI language charges should be extremely stable.	Freiburghouse	150	Sept.'71	Very low.
PL/1 Users Guide	Guide to the user of PL/1 compiler and runtime environment.		Freiburghouse	100	Dec.'71	Low
Fortran Users Guide	Brief description of language and how to use it.		Mills	100	Sept.'71	Low
APL	A comprehensive reference manual for APL users.	Could be only document needed by an APL only user (i.e. no MPM).	Smith	100	Dec.'71 Dec.'72	Medium
Basic	A comprehensive reference manual for APL users.	If Dartmouth Basic is "purchased" by Honeywell their manual could be used.		100		Low
COBOL Reference	A comprehensive reference manual for COBOL users.	If there is to be a Cobol.		200	1973	Low
Technical Background						
Virtual Memory	A detailed description of the virtual memory implementation			125	NOW	
Access Control	A detailed description of the Access Control implementation.			25	NOW	

Name	Description			Quantity	Date	Priority
Organick's guide for Subsystem writers	A subsystem designers manual.	Another view of how Multics works for the sophisticated user.	Published by MIT Press	500	Mar. '72	
Multics Design Manaul	A designers manual of major Multics Subsystems.	Derived from MSPM.	Staff	300	Dec. '72	
System Programmers Supplement	Internal Documenta-tion describing contents of system - external interfaces - how to use tools, etc.	Includes how to use BOS, how to read dumps, etc.	Staff	2000	Now	
Published papers			Many	....		
Special User						
Subsystem Writers Manual	A detailed reference manual describing how to use esoteric features to build subsystems.	Private environ-ment Custom login Private billing Ring protrection Resource governing		100	Now	High
Processor Reference Manual	A detailed reference manual describing the CPU.	A follow-on update of the 645 Processor Manual.		200	1972	Low
Graphic Users Manual	Aimed for graphics users.	Derived from GUS.		100	Now	High
Dartmouth System	A brief reference to the use of the Dartmouth System on Multics. References Dartmouth available documentation.	Only if system is "purchased" from Dartmouth.		20		Low

Name	Description	Notes		Year	Priority
GECOS Users Guide	A reference manual for the GECOS user on Multics. References GECOS documentation.		50	1972	Low
I/O Programmers Guide	A reference manual for a Device Interface Module programmer. Describes the interface to the equivalent of the GIM for Both terminals and the IOM and 355. others.		50	1972	Low
LISP	Reference manual for Lisp user.	(D.Reed MIT)	50		Medium
Data Management	A reference manual to the Multics Data Management Sub-system.		100	1973	High
Assembly Language Manual	A language reference. Derived from EPLBSA manual with new instructions added.	M.Goudy	100	1972	Low
Debugging Manual	A collection of debugging oriented documents. MPM debug write-up plus scattered commands (could be part of MPM).		100	1972	High

Operational Documentation

Operators Guide	Detailed description of Machine Operators Interface to Multics.	150	High
Administrators Manual	A reference manual for Administrators (Billing, Registration, Resource Allocation, Accounting, Metering, Monitoring, New System Installation)	Derived from MAS 200	High
On-Line T and D	A Field Engineers operators handbook to running on-line T and D software under Multics.	150	Medium
Site Preparation	A guide to preparation for initial hardware and software installation.	Telecommunications requirements must be stressed. 25	Low