

INTERDEPARTMENTAL

MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MASS. 02139

from the office of

April 5, 1971

To: F.J. Corbató
C.T. Clingen
J.W. Gintell
S.H. Webber
N.I. Morris
V.L. Voydock
T.P. Skinner

From: J.H. Saltzer

Subject: MPM Subsystem Writers' Supplement (SWS) Caveats

Enclosed is a first draft of a warning notice to be included in the SWS, and also an initial table of contents. Your comments are invited. I have constructed a mockup of the manual which you may wish to look at.

MPM SUBSYSTEM WRITERS' SUPPLEMENT

April 5, 1971

INTRODUCTION TO THE MPM SUBSYSTEM WRITERS' SUPPLEMENT

This supplement to the MPM has as its purpose to provide constructors of sophisticated Multics Subsystems the extra information needed for their undertaking. The Multics program modules documented here represent a layer of penetration into the system beyond that which is intended for the casual user. As a result, there are several caveats in order:

1. The interfaces described here are not generally as neatly organized or consistently thought out as is the standard user interface represented by the main MPM, because they are in an earlier stage of development.
2. Most of the interfaces provided in this manual would be used only if there is some reason to bypass the usual standard system way of doing things. As a result, in using an SWS interface, one risks giving up some features of Multics. Although there is no claim that all the features of Multics are essential, there is a consistency of style and interpretation at the standard interface which the ultimate subsystem user may be accustomed to. The subsystem writer should be cautious about unintentionally introducing different styles and interpretations when bypassing a standard function.
3. All of the facilities described in the SWS are categorized "Development System", and are thus subject to changes and improvements in their interface specifications. Further, at the level of penetration represented by the SWS interfaces, it is difficult to avoid large disruptions when interfaces are changed. Thus, the subsystem writer is strongly cautioned against unnecessarily utilizing the SWS interfaces.
4. The initial release of the manual consists of simple reproduction of sections formerly found in the System Programmers' Supplement to the MPM, a form of documentation intended only for those charged with the maintenance of Multics itself. Although it is intended that all these sections be expanded and reformatted, initially many sections consist of nothing but a calling sequence and notes. Thus, for example, most sections do not include adequate warnings about the implications of using the module being described.

5. The information about the Multics environment necessary to intelligently use the SWS interfaces is frequently not available in any form. This unfortunate situation should be slowly remedied through accumulated updates to the SWS.

Thus it should be clear that the subsystem writer utilizes the SWS interface at his own risk; and with knowledge of the pitfalls involved. On the other hand, one of the primary objectives of Multics is to allow subsystems of almost any arbitrary specification to be constructed. To that end, the SWS interfaces is intended to be helpful.

Initial Table of Contents

April 5, 1971

MPM Subsystem Writers' Supplement

abbrev_
alloc_
check_fs_errcode_
cv_persmf
cv_pmf
cv_smf
dartmouth_initializer_
default_error_handler_
dl_handler_
error_table_compiler
find_command_
freen_
get_raw_access_
GIOC Calls
hcs_\$gate_meter
hcs_\$get_author
hcs_\$get_page_trace
hcs_\$pre_page_info
hcs_\$quota_get
hcs_\$quota_move
hcs_\$reset_working_set
interpret_condition_
list_arg_
listen_
make_commands
nd_handler_
pre_page_size
process_overseer
search_dart_lib
set_dartmouth_library
start_governor_
transform_command_
translate_gate
unwinder_

} (Belong in an administrators' supplement)

(Description of topic, not calling sequence)

(Writeup not yet available)

(With appropriate warnings)