

MULTICS STAFF BULLETIN - 28

TO: Distribution
FROM: Gary C. Dixon
DATE: March 9, 1972
SUBJECT: Multics Listing Maintenance

This bulletin documents the tasks involved in maintaining and distributing Multics system listings, as these tasks were defined on January 12, 1972. The tasks include: Xeroxing listings, filing listings, and miscellaneous duties. These tasks are outlined in detail on the following pages.

The responsibility for performing these tasks currently rests with the PDO - Multics Assurance Project.

XEROXING LISTINGS

Copies of Multics source listings are produced for us by the Xerox Reproduction Center in Waltham. The Xerox sales representative, Walter Pierce, visits the office about once per week, or whenever he is called (Phone: 890-4733).

Sending Listings Out for Xeroxing

The following items should be sent out for Xeroxing.

1. Multics Standard System Book (MSS):
 - a. will be received from a member of the PDO Multics Group (usually from Janice Phillipps).
 - b. should have blank pages removed from the beginning and the end of the listing, but not from the middle. In addition, any cost-accounting page at the end of the listing should be removed.
 - c. should have the following information recorded on a "Xerox in Progress" log when sent out for Xeroxing:
 - date out
 - MSS Number
 - number of copies = 10
 - drilled page holes checked off
 - estimated number of pages (225 page/inch)
 - d. should be accompanied by the following instructions when sent out for Xeroxing:
 - make 10 copies
 - drill three holes per page
 - insert dividers between copies

Use form #3 ("MSS Duplicate Copies") to relay these instructions to the Xerox representative. This form includes the instructions above, except for the number of copies to be Xeroxed. This quantity must be filled in at two places on the form. Also, fill in your name, extension, and room number, and then clip the form to the MSS listings to be Xeroxed.

2. Multics Hardcore Segment Listings (HARD), Bootstrap Operating System Listings (BOS), and Stand Alone Utilities Listings (UTIL):
 - a. will be received from a member of the PDO Multics Group (usually Dave Jordan, Janice Phillipps, or the hardcore installer).
 - b. should have blank pages removed from the beginning and the end of the listing, but not from the middle. In addition, any cost-accounting page at the end of the listing should be removed.

- c. should have the following information recorded on a "Xerox in Progress" log when sent out for Xeroxing:
 - date out
 - number of listings
 - number of copies = 3
 - drilled page holes checked off
 - estimated number of pages (225 pages/inch)
- d. should be accompanied by the following instructions when sent out for Xeroxing:
 - make 3 copies
 - drill three holes per page
 - insert dividers between copies

Use form #2 ("HARDCORE, BOS, and STANDALONE UTILITIES Duplicate Copies") to relay these instructions to the Xerox representative. This form includes all of the instructions above. Fill in your name, extension, and room number, and clip the form to the listings to be Xeroxed.

3. Standard Service System Listings (SSS),
Development System Listings (DEV),
PL1 Listings (PL1),
Development-Fortran Listings (DEV-FT),
Tools Listings (T), and
Author Maintained Listings (AM):

- a. will be received from a member of the Multics PDO group (usually Arlene Scherer or the online installer).
- b. should have blank pages removed from the beginning and the end of the listing, but not from the middle. In addition, any cost-accounting page at the end of the listing should be removed.
- c. should have the following information recorded on a "Xerox in Progress" log when sent out for Xeroxing:
 - date out
 - number of listings
 - number of copies = 2
 - drilled page holes checked off
 - estimated number of pages (225 pages/inch)
- d. should be accompanied by the following instructions when sent out for Xeroxing:
 - make 2 copies
 - drill three holes per page
 - insert dividers between copies

Use form #1 ("AUTHOR MAINTAINED, STANDARD SERVICE SYSTEM, MACHINE TOOLS Duplicate Copies") to relay these instructions to the Xerox representative. This form includes all of the instructions above. Fill in your name, extension, and room number, and clip the form to the listings to be Xeroxed.

Processing Listings Returned from Xeroxing

The following steps should be taken when listings are returned from the Xerox Reproduction Center:

1. the xeroxed copies should be accompanied by a yellow Job Order Receipt. This receipt describes the services which were provided. In particular, it includes Xerox's count of the actual number of pages which were reproduced (a per copy total and a for-all-copies total). Use the Job Order Request to perform the following steps:
 - a. Record the following additional information on the "Xeroxing in Progress" log entry for these listings:
 - date in
 - Xerox's (per copy) page count
 - b. File the Job Order Receipt in the folder for "Recent Xerox Job Order Requests" for future reference.
2. Make sure that the original copy of the listings has been returned.
3. Check the Xerox copies for proper processing:
 - Copies are complete
 - Proper number of copies was made
 - Copies were drilled properly
 - dividers were inserted properly

Processing Xerox Invoices

Approximately once per week, Xerox sends an invoice or bill to the Project MAC Headquarters for the copies produced during that week. Laura Gammell (Room 839) in MAC Hq routes the invoices to us for cost allocation among MAC, IPS, and Honeywell.

1. When you receive an invoice, fill in the date-bill-received column of the "Xeroxing in Progress" entries of listings covered by the invoice.
2. Compare the number on the invoice with the numbers on Recent Job Order Receipts to insure that this bill is for our Xeroxing. There MUST be a match.
3. Indicate on the invoice which portions of the charge should be billed to Project MAC, which portions should be billed to Honeywell Information Systems (HIS), and which to IPS, according to the following table:
 - a. Multics Standard System Book (MSS):
 - MAC 6 copies
 - HIS 3 copies
 - IPS 1 copy
 - b. Multics Hardcore Segment Listings (HARD), Bootstrap Operating System Listings (BOS), and Stand Alone Utilities Listings (UTIL):
 - MAC 1 copy
 - HIS 1 copy
 - IPS 1 copy
 - c. Standard Service System Listings (SSS), Development System Listings (DEV), PL1 Listings (PL1), Development-Fortran Listings (DEV-FT), Tools Listings (T), and Author Maintained Listings (AM):
 - HIS 1 copy
 - IPC 1 copy
4. Return the invoices with the corresponding Job Order Requests to Laura Gammell at MAC Hq (Room 839).

FILING LISTINGSFiling Xeroxed Listings

The original and Xerox copies of listings should be filed in Room 504A, Room 509, and in the IPS Time-sharing War Room, as described below. The priority for filing listings in these rooms is:

highest: Room 504A (all listings should be filed here)
 middle: IPS TWR (then file listings here)
 lowest: Room 509 (finally, file hardcore listings here)

All listings should be filed by system (eg, MSS, HARD, BOS, UIIL, DEV, PL1, T, AM), and, within each system, by ASCII collating sequence. DEV-TI listings should be filed in ASCII collating sequence by bound segment, and within a bound segment, they should be filed in ASCII collating sequence.

1. Multics Standard System Book (MSS):

- a. Original copy should be discarded,
- b. Xerox copies should be placed in binders and labeled with the MSS Number, and distributed according to the following list:

(1)	F. J. Corbató	512 T S	hand carry
(2)	N. I. Morris	510 T S	hand carry
(3)	C. Garman	537 T S	hand carry
(4)	R. Roach	505 T S	hand carry
(5)	IPS TWR	39-494	mail
(6)	C. Clingen	Honeywell	messenger stack
(7)	J. Gintell	Honeywell	messenger stack
(8)	Ann Kelley	Honeywell	messenger stack
(9)	S. Webber	509 T S	hand carry
(10)	M. A. Meer	501 T S	hand carry

2. Multics Hardcore Segment Listings (HARD), Bootstrap Operating System Listings (BOS), and Stand Alone Utilities Listings (UTIL):
 - a. file the Original copy of the listings in Room 504A in the binders for the appropriate system, making new labels for the divider sheets between listings as necessary.
 - b. send 1 Xerox copy to Honeywell via messenger (call Louise on the Honeywell phone - HIS-201), Clip a list of listing names and number of copies to the listings which are being sent.
 - c. send 1 Xerox copy to the IPS Time-sharing War Room via inter-departmental mail (send to yourself, Room 39-494).
 - d. file last Xerox copy in the binders in Room 509, making labels for the divider sheets as necessary.

3. Standard Service System Listings (SSS), Development System Listings (DEV), PL1 Listings (PL1), Development-Fortran Listings (DEV-FT), Tools Listings (T), and Author Maintained Listings (AM):

at the request of an authorized member of the Multics PDO group (usually Arlene Scherer or the online installer), add, replace, or delete listings from the appropriate binders in Room 504A, and in the IPS Time-sharing War Room. Use the instructions in the LISTING_CHANGES memo to determine which listings should be deleted (and, if necessary, to determine which listings should be added or replaced). Original and Xerox copies should be filed in these rooms, as follows:

- a. file the Original copy of the listings in Room 504A in the binders for the appropriate system, making new labels for the divider sheets as necessary.
- b. send 1 Xerox copy to Honeywell via messenger (call Louise on the Honeywell phone - HIS-201).
- c. send the last Xerox copy to the Ips Time-sharing War Room via inter-departmental mail (send to yourself, Room 39-494).

Filing Library Reference Materials

Various reference listings are created on a regular basis. Some of these listings are kept in binders in Room 504 or 504A, some are posted on various notice boards, and some are sent to Honeywell Information Systems (HIS). These listings are usually created by Arlene Scherer, or the online installer. They should be updated or posted as they are received.

1. Listings to be updated on a daily basis:

a. mcb_incrm

this listing should be posted on the door of Room 504, and on the bulletin board in Room 504A.

b. MSL_SHORT

this listing should be updated in the binder labeled "MSL_SHORT" which is kept in Room 504.

c. HIS

this listing should be sent to Honeywell Information Systems (via the first person going to HIS). Place the listing in the HIS tray on Kathy Doyle's desk in Room 512.

2. Listings to be updated on a weekly basis:

a. SSS

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>lld>sss>dc>bind_maps.archive
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these listings should be updated in the Green Library binder called "SSS" kept in Room 504. Put the superceded copies of these listings in the History File.

b. DEV

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>lld>dev>dc>bind_maps.archive
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these listings should be updated in the Green Library binder called "DEV" kept in Room 504. Put the superceded copies of these listings in the History File.

c. PL1
>ldd>pl1>bc>bind_maps.archive

these listings should be updated in the Green Library binder called "PL1" kept in Room 504. Put the superceded copies of these listings in the History File.

d. I
>ldd>t>bc>bind_maps.archive

these listings should be updated in the Green Library binder called "TOOLS" kept in Room 504. Put the superceded copies of these listings in the History File.

e. AM >ldd>am>bc>bind_maps.archive

these listings should be updated in the Green Library binder called "AM" kept in Room 504. Put the superceded copies of these listings in the History File.

f. info_files

this listing is received on Monday and should be updated in the binder called "System Info Files" kept in Room 504.

g. system.status
ldd.status
segs

these listings are received on Monday and should be updated in the binder called "System Status" kept in Room 504.

h. MSL_GLOBAL.1
MSL_GLOBAL.2
MSL_GLOBAL.3

these listings are received on Friday and should be updated in the binder called "Global MSL" kept in Room 504.

1. archives
links
itus
acls

these listings are received on Tuesday and should be updated in the binder called "System Library Data/System Library Tools" kept in Room 504.

- j. MULTICS CHECKOUT BULLETIN

this single sheet is received on Monday and should be posted as a header for the mcb_incrm listing on the door of Room 504.

- k. bind_controls

this listing should be updated in the binder called "Bind Control Files" kept in the Reference bookcase of Room 504A.

1. >idd>sss>bc>bind_maps.archive
>idd>dev>bc>bind_maps.archive
>idd>p11>bc>bind_maps.archive
>idd>t>bc>bind_maps.archive
>idd>am>bc>bind_maps.archive

these listings should be updated in the binder called "Bind Maps" kept in the Reference bookcase of Room 504A.

3. Listings to be updated on a monthly basis:

a. sss.crl
sss.cr
dev.crl
dev.cr
pl1.crl
pl1.cr
t.crl
t.cr
am.crl
am.cr

these listings should be updated in the binder called "Library Crossreference" kept in the Reference bookcase of Room 504A. Another copy of these listings should be updated in the binder called "Crossreferences of System" kept in Room 504.

b. include_archives
icref

the include_archives listing is received from Dave Jordan or Roger Roach and the icref listing is received from Arlene Scherer. These listings should be updated in the binder called "Include Files" kept in the Reference bookcase of Room 504.

Filing_Installation_Tool_Listings

Listings for the installation tools are occasionally updated whenever the tools are changed. When listings are received from Arlene Scherer or the online installer, they should be updated in the appropriate binder, "bound_lib_utility_" or "bound_msl_".

MISCELLANEOUS DUTIES

The following miscellaneous duties should be performed, as indicated below:

1. Once a week, Dick Tilden sends a copy of the online graffiti segment to the INSTALL listing bin. This listing should be posted on the bulletin board in the corridor across from Room 508.