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 holds 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 LISTINGS

Filing 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, UTIL,
DEV, PL1, T, AM), and, within each system, by ASCII collating
sequence. DEV-T 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
       >ldd>sss>bc>bind_maps.archive

       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
       >ldd>dev>bc>bind_maps.archive

       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. T
    >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.

i. archives
   links
   dtus
   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.

l. >ldd>sss>bc>bind_maps.archive
   >ldd>dev>bc>bind_maps.archive
   >ldd>pl1>bc>bind_maps.archive
   >ldd>t>bc>bind_maps.archive
   >ldd>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.