DECKLIST Routine for CDC 3300/OS-3
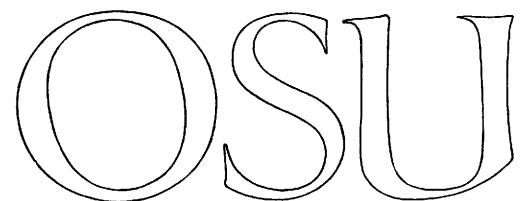## Version 2.0

by

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The purpose of DECKLIST is to print the symbolic information in relocatable binary decks, including: (1) the subprogram name on an IDC card; (2)   the entry point names on EPT cards; (3)   the external names on XNL cards; (4)   the transfer symbol, if any, on a TRA card; and (5)   the Hollerith information on EXS cards.

DECKLIST checks to see that each deck begins with an IDC card and ends with a TRA card, and prints error messages if this is not the case.   It also treats BCD cards as errors and prints them.   At the end of a set of decks, it prints a message telling whether the set was terminated by a file mark or by end-of-data.   Finally, it prints a message telling how many binary records were read, and how many errors were detected.

DECKLIST is stored in an OS-3 public file under the name *DECKLIST.   It may be used by any OS-3 user, either in a batch job, or from a teletype.   There are two parameters for DECKLIST.   One may specify the input unit (I) and the list unit (L).   If the I parameter is omitted, unit 60 is used for input.   If the L parameter is omitted, unit 61 is used for the listing.   The parameters are expressed in the form:

I=(lun),L=(lun), or I=(name),L=(lun).

(lun) may be any integer from 0 to 99, specifying the logical unit number to be used.   (name) is the name of a saved file. Either or both parameters may be omitted, and they may be

expressed in either order. When DECKLIST is used at a tele-
type, at least one of the parameters must be specified.

Also, the backslash (\) can be used to correct typing errors.

DECKLIST operates as follows:

1. DECKLIST processes the parameters on the control card or
the control statement that called DECKLIST. If there are no
parameters, and DECKLIST is being used from a teletype, a
message is printed, telling the user to type in the parameters.

2. If a name was specified as the input unit, DECKLIST equips
unit 59 to the name.

3. A heading is printed on the specified list unit, including
the date and time.

4. If the input unit number is in the range 50 to 59, the
input unit is rewound. Otherwise, it is left as is.

5. DECKLIST begins reading records from the input unit and
printing a listing on the list unit. IDC, EPT, XNL, TRA,
and EXS cards are recognized, and for each such card, the
name of the card (IDC, EPT, etc.) is printed together with
the symbolic information on that card. DECKLIST also
recognizes binary cards with a "word count" of 70_8, which
contain symbol table output from COMPASS and FORTRAN, for use
by RADAR. A set of such cards with the same subprogram name
causes one message to be printed, of the form "SYMCARDS FOR

xxxxxxxx". Other binary cards are counted, but produce no
output unless they occur between decks, in which case an
error message is printed. (EXS and SYMCARDS may occur
between decks without causing an error message.) BCD cards
are considered to be errors and are printed along with an
error message.

6. When DECKLIST reads a file mark or comes to the end of
data on its input unit, it prints a message telling which
of these conditions occurred. Then it prints a message
telling how many binary records were read. Finally, if
there were any errors, DECKLIST prints a message telling how
many errors were found. If DECKLIST is being used from a
teletype, and the list unit is not the teletype, these last
two messages are also printed on the teletype. Then DECKLIST
terminates.

Examples of Use of DECKLIST

1. To use DECKLIST in a batch job to read subprogram decks
from unit 56, printing a listing on the standard output unit
(61):

        ${}^{7}_{8}$*DECKLIST,I=56

2. To use DECKLIST in a batch job, with binary decks to be
read from unit 60, list on unit 61:

        ${}^{7}_{8}$*DECKLIST

[binary decks to be listed]

$\overset{77}{88}$ [end of file card]

3.   To use DECKLIST from a teletype, reading decks from unit 99, printing listing on unit 5.   (Outputs from the computer are underlined.)

#*DECKLIST,I=99,L=5

294 BINARY RECORDS READ.

   3 ERRORS.

#

The control statement (# ...) is ended by return (the computer outputs line feed).

Note: The listing printed by DECKLIST is "narrow" enough to fit on a teletype, so one can have the listing printed on the teletype if it isn't too long.

Error Messages

    There are 5 kinds of errors detected by DECKLIST.

PARAMETER ERROR   If DECKLIST cannot interpret the parameters, this message is printed and DECKLIST termi-nates.

INPUT UNIT IS BUSY

OR NON-EXISTENT   If a name is used as input unit

and there is no such unit or
the unit is busy, this message
is printed and DECKLIST termi-
nates.

BCD CARD [contents
of card]   BCD cards cause this message
to be printed, and processing
continues.

MISSING IDC CARD   The first binary card, or the
first one after a TRA card, is
not an IDC card. The message
is printed, and DECKLIST con-
tinues processing the input,
as if an IDC card had appeared.

MISSING TRA CARD   An IDC card has been read, and
there was no TRA card at the
end of the preceding deck.
DECKLIST continues processing
the input.

Note: Normally, each deck starts with an IDC card and
ends with a TRA card. The only binary cards which can legally
occur between a TRA card and the next IDC card are EXS cards
and SYMCARDS.