SYNTAX OF NLS COMMANDS: NEW COMMAND LANGUAGE

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Definitions and Conventions

This document assumes that you know the meanings of the basic New NLS concepts. We here define special terms needed to understand the syntax of the command summary. See the on-line Help subsystem for general concepts. However, a conceptual map of addressing is included at the end of this document (see Address).

For the purpose of this document, each command-word begins with a capital letter, and the rest is lower case. Recognition of command-words will depend on the recognition mode set by the user. Words all in upper case are variables, which stand for certain alternatives, which are either defined below, or are denoted immediately following the command in which they appear.

(...){optional elements, preceded by the OPTION character <control-u>}

(!){comments, not part of commands}

(...){noise words echoed by system; prompts are not shown}

ADDRESS
a sequence (ending with an OK) of one or more of the addressing elements separated by spaces and ending with an OK. If you type only an OK, without typing any element, the prior position of the CM is taken. See the Addressing map (ADDRESS) at the end of this file.

DESTINATION:
In TNLS: DESTINATION = ADDRESS.
In DNLS: DESTINATION = BUUG or OPTION ADDRESS.
When referring to Group or Text, DESTINATION needs two BUUGS or two ADDRESSES.

SOURCE:
In TNLS: SOURCE = ADDRESS or OPTION TYPEIN
In DNLS: SOURCE = TYPEIN or BUUG or OPTION ADDRESS.
When referring to Group or Text, two BUUGS or two ADDRESSES are needed.

CONTENT:
In TNLS: CONTENT = TYPEIN or OPTION ADDRESS
In DNLS: CONTENT = TYPEIN or BUUG or OPTION ADDRESS
(Same as SOURCE in DNLS).
When referring to Group or Text, two BUUGS or two ADDRESSES are needed.

OPTION = the <control-u> character
(A field enclosed in squarebrackets - -(...)--means that the OPTION character must precede specification of the expression.)
TYPEIN = any string of characters from the keyboard, terminated by an OK.
TYPEIN has a special form when a FILEADDRESS or Ident is called for
(You can tell from the noise words).

LEVEL-ADJUST:
a lowercase u or d or a string of lowercase u's and d's, optionally
preceded by integers, terminated by a <SP> or OK, the difference
between the number of u's and d's is taken as a level adjustment
value. If you only type a <SP> or OK, the level will be the same.

VIEWSPECS:
type a string of any of the viewspec codes, terminated by an OK, or
just type an OK if you don't want to change the viewspecs.

ANSWER: y = yes; n = no
In a few commands NLS wants a yes or no answer; "yes" to proceed
through the command; "no" to cycle back through some field. Type y
for yes or n for no. You usually may also type OK here; the command
will be immediately executed in MOST CASES.

SUBSYSTEM = Editor or Help or Programs or Readmail or
Sendmail or Identification or Tenex or Useroptions or
Calculator
(These will be command-words)

STRING = Character OR Word OR Visible OR Invisible
OR Number OR Link OR Text
(These will be command-words)

STRUCTURE = Statement OR Group OR Branch OR Plex
(These will be command-words)

OK = CA or INSERT or REPEAT
default special characters: display teletype

CA: Command Accept; terminates
the command and returns user
to command reset mode

INSERT: At the end of a command
in Editor subsystem only, exe-
cutes command and starts
"Insert Statement" defaulting
current CM location. User does:
INSERT LEVEL-ADJUST CONTENT OK
(insertion and LEVEL-ADJUST
is relative to OM)
INSERT mode continues until
user types CD
In all other cases, INSERT has
no special meaning; it is equi-
valent to Command Accept

REPEAT: at end of any command \(<\text{tb}>/(.)/\) \(<\text{tb}>/\text{ESC}/\)
terminates and repeats the ALTMODE ALT
command from the beginning,
defaulting each command-word until reaching the first field
not a command-word that the user can specify. User then
takes over the command. REPEAT mode continues until user
types CD

If a TYPEIN or a LEVEL-ADJUST or VIEWSPECS or an ADDRESS immediately
precedes OK, its terminator serves as the OK character, so if you
want to INSERT or REPEAT the command terminate the TYPEIN,
LEVEL-ADJUST, VIEWSPECS, or DAE with the INSERT or REPEAT instead of
CA.
Command Summary

Universal commands available in almost all subsystems:
Show also: quit

Execute (command in) SUBSYSTEM

Goto (subsystem) SUBSYSTEM OK

<control-q>
A brief description of the NLS capabilities you were using follows:
...
For help with help, type <control-q> again.

questionmark:
?

less-than:
<

greater-than:
>

semicolon:
; any comment, not to be taken as command input OK
Archive File CONTENT [ARCHIVEOPT] OK
ARCHIVEOPT = Delete (Finished?) ANSWER
OR Do (not delete) (Finished?) ANSWER
OR Not (allowed) (Finished?) ANSWER
OR Deferred (Finished?) ANSWER
OR Immediate (Finished?) ANSWER

//Another ARCHIVEOPT is expected if you type "n" for ANSWER:

Insert:

STRING:
Insert STRING (to follow) DESTINATION CONTENT OK

STRUCTURE:
Insert STRUCTURE (to follow) DESTINATION LEVEL-ADJUST CONTENT OK

Date:
Insert Date (to follow) DESTINATION OK

Sendmail:
Insert Journal (submission form to follow) DESTINATION LEVEL-ADJUST OK

Time:
Insert Time (and date to follow) DESTINATION OK

Show:

Archive:
Show Archive (directory) KEN [ADIROPT] OK
Show also--ADIROPT>
KEN = OK Idirectory connected to:
or TYPEIN
or [ADDRESS]

Directory:
Show Directory KEN [DIROPT] OK
Show Directory KEN [DIROPT] OK
Show also--DIROPT>
KEN = OK Idirectory connected to:
or TYPEIN
or [ADDRESS]

Disk:
Show Disk (space status) OK

File:

Link:
Show File Link (default directory) OK
Marker:
Show File Marker (list) OK

Modification:
Show File Modification (status) OK

Return:
Show File Return (ring) OK

Size:
Show File Size OK

Status:
Show File Status OK

Name:
Show Name (delimiters for statement at) DESTINATION OK

Viewspecs:
Show Viewspecs (status) [Verbose] OK

Set:

Case:

STRING:
Set Case STRING (at) DESTINATION OK

STRUCTURE:
Set Case STRUCTURE (at) DESTINATION OK

Mode:
Set Case Mode CASEMODE OK
CASEMODE = Upper or Lower or Initial (upper)

Character:
Set Character (size for window to) NUMBER OK
NUMBER = TYPEIN: 0 or 1 or 2

Filter:

Off:
Set Filter Off OK

On:
Set Filter On OK

To:
Set Filter To (pattern) CONTENT OK

Link:
Set Link (default for file to directory) CONTENT OK

Syntax of New NLS Commands
Name:
Set Name (delimiters in) STRUCTURE (at) DESTINATION (left delimiter) CONTENT (right delimiter) CONTENT OK

Temporary:
Set Temporary (modifications for file) OK

Tty:
Set Tty (window to window) BUG OK

Viewspecks:
Set Viewspecks VIEWSPECS OK

Reset:

Archive:
Reset Archive (request for file) CONTENT OK

Case:
Reset Case (mode) Ok

Character:
Reset Character (size for window) OK

Filter:
Reset Filter OK

Link:
Reset Link (default for file) OK

Name:
Reset Name (delimiters in) STRUCTURE (at) DESTINATION OK

Temporary:
Reset Temporary (modifications for file) OK

Tty:
Reset Tty (window) Ok

Viewspecks:
Reset Viewspecks Ok

Modifying-commands:
Show also, insert, create, useroptions, reset case mode, set case, delete modifications, undelete modifications.

Append Statement (at) SOURCE (to) DESTINATION CONTENT OK

Break Statement (at) DESTINATION LEVEL-ADJUST OK

Copy:
STRING:
Copy STRING (from) SOURCE (to follow) DESTINATION OK 3b6c1

STRUCTURE:
Copy STRUCTURE (from) SOURCE (to follow) DESTINATION
LEVEL-ADJUST (Filtered:) FILTER/ OK
FILTER = any combination of the following VIEWSPECS -
terminated by a CA: a, b, c, d, e, g, h, l, w, i, j, k 3b6c2

Archive:
Copy Archive (directory from) CONTENT (to follow)
DESTINATION LEVEL-ADJUST (ADIROPT) OK
Show also--ADIROPT> 3b6c3

Directory:
Copy Directory (from) CONTENT (to follow) DESTINATION
LEVEL-ADJUST (DIROPT) OK
Show also--DIROPT> 3b6c4

File:
Copy File (from) CONTENT (to) CONTENT OK 3b6c5

Sequential:
Copy Sequential (file from) CONTENT (to follow) DESTINATION
LEVEL-ADJUST (ALGORITHM) OK
ALGORITHM = Heuristic OR Justified OR Assembler 3b6c6

Delete:

STRING:
Delete STRING (at) DESTINATION OK 3b6d1

STRUCTURE:
Delete STRUCTURE (at) DESTINATION (Filtered:) FILTER/ OK
FILTER = any combination of the following VIEWSPECS -
terminated by a CA: a, b, c, d, e, g, h, l, w, i, j, k 3b6d2

All:
Delete All (markers) OK 3b6d3

Archive:
Delete Archive (file) CONTENT OK 3b6d4

File:
Delete File CONTENT OK 3b6d5

Marker:
Delete Marker (named) CONTENT OK 3b6d6

Modifications:
Delete Modifications (to file) OK (really?) OK 3b6d7
Syntax of New NLS Commands

Edit Statement (at) DESTINATION EDITSTRING OK

EDITSTRING = a mixed string of the following characters:
<control-f>, <control-u>, <control-z>, <control-o>,
<control-s>, <control-g>, <control-p>,
<control-e> TYPEIN <control-e>, <control-h>, <control-w>,
<control-q>, <control-n>, <control-r>,

Merge STRUCTURE (at) DESTINATION (into) DESTINATION OK

Move:

STRING:
Move STRING (from) SOURCE (to follow) DESTINATION OK

STRUCTURE:
Move STRUCTURE (from) SOURCE (to follow) DESTINATION
LEVEL-ADJUST { (Filtered:) FILTER} OK
FILTER = any combination of the following VIEWSPECS -
terminated by a CA: a, b, c, d, e, g, h, l, w, i, j, k

Boundary:
Move Boundary (from) BUG (to) BUG OK

File:
Move File (from old filename) CONTENT (to new filename)
CONTENT OK

Replace:

STRING:
Replace STRING (at) DESTINATION (by) CONTENT OK

STRUCTURE:
Replace STRUCTURE (at) DESTINATION (by) CONTENT OK

Sort STRUCTURE (at) DESTINATION OK

Substitute STRING (in) STRUCTURE (at) DESTINATION (new STRING)
CONTENT (for old STRING) CONTENT (finished?) ANSWER
{ (Filtered:) FILTER} OK
FILTER = any combination of the following VIEWSPECS -
terminated by a CA: a, b, c, d, e, g, h, l, w, i, j, k

Transpose:

STRING:
Transpose STRING (at) DESTINATION (and) DESTINATION OK

STRUCTURE:
Transpose STRUCTURE (at) DESTINATION (and) DESTINATION
{ (Filtered:) FILTER} OK
FILTER = any combination of the following VIEWSPECS -
terminated by a CA: a, b, c, d, e, g, h, l, w, i, j, k
Update File PAGING
PAGING = Old (version) OK
or Compact OK
or Rename (filename) CONTENT OK
or OK !defaults to update new!

address-commands:
show also: syntax viewing-commands, delete marker, undelete
marker, reset name, set name, show file marker, show name,
Mark Character (at) DESTINATION (with marker named) CONTENT OK
Renumber Sids (in file) OK

TAB command:
<TAB>
These 3 commands show the status of your Control Marker:
backslash:
\ 
period:
.
slash:
/

viewing-commands:
Show also: backslash, reset filter, set filter, reset viewspecs,
set viewspecs, show viewspecs, tab
Jump:

DNLS:

BUG:
Jump (to) BUG VIEWSPECS OK
Address:
Jump (to) Address (relative to) BUG ADDRESS VIEWSPECS OK
Show also: ADDRESS!
Back:
Jump (to) BACK DESTINATION VIEWSPECS OK
Content:
First:
Jump (to) Content First SEARCH VIEWSPECS OK
SEARCH = CONTENT or OKREPEAT !accept displayed one!
Syntax of New NLS Commands
Syntax of New NLS Commands
Remote:
Output Remote (printer TIP) CONTENT (port #) CONTENT (send form feeds?) CHOICE (wait at page break?) ANSWER (Go?) START
CHOICE = Yes
   or No (simulate?) ANSWER
START = Yes or OK!Same as Yes!
or No (Type <SP> when ready, CD to abort) <SP> 3b8d6

Sequential:
Output Sequential (file) CONTENT (Force (upper case)) OK 3b6d7

Terminal:
Output Terminal (send form feeds?) CHOICE (wait at page break?) ANSWER (Go?) START
CHOICE = Yes
   or No (simulate?) ANSWER
START = Yes or OK!Same as Yes!
or No (Type <SP> when ready, CD to abort) <SP> 3b8d8

Print OK 3b8e

STRUCTURE:
Print STRUCTURE (at) DESTINATION VIEWSPECs OK 3b8e1

uparrow 3b8i

file-handling:
show also: archiving commands, modifying-commands, directory-commands, copy file, copy sequential, delete file, delete modifications, move file, output, update file, show file status, show file modification, set temporary, reset temporary 3b9

Create File CONTENT OK 3b9a

Load File CONTENT OK 3b9b

Protect File CONTENT CONTROLS OK 3b9c
CONTROLS = Reset
   or Allow WHOM DOING (Finished?) ANSWER
   or Forbid WHOM DOING (Finished?) ANSWER
   or Private (for) WHOM
   or Set (to) 16BIT#
WHOM = Self or Group or Public
DOING = Read (access)
or Write (access)
or Execute (access)
or List (access)
or All (access)
or Set (to) 6BIT#
16BIT# = a TYPEIN of a 16-bit TENEX protection number
6BIT# = a TYPEIN of a 6-bit TENEX protection number 3b9c

//Typing n for ANSWER cycles you back to DOING! 3b9c1
Verify File OK

Undelete:

Archive:
Undelete Archive (file) CONTENT OK

File:
Undelete File CONTENT OK

Modifications:
Undelete Modifications (to file) OK

archiving-commands:
Show also: Show Archive, Archive File, Copy Archive, Delete Archive, Expunge Archive, Reset Archive,

Retrieve File (from archive) CONTENT OK

directory-commands:
Show also: archiving-commands, Reset Link, set link, show file link, show disk.

Connect:

Directory:
Connect (to) Directory CONTENT (Password) CONTENT OK

Display:
Connect (to) Display (number) CONTENT I/O OK
I/O = Input (and output) OR Output (only)

Tty:
Connect (to) Tty (number) CONTENT I/O OK
I/O = Input (and output) OR Output (only)

Expunge:

Archive:
Expunge Archive (directory) OK

Directory:
Expunge Directory OK

Trim Directory (No. versions to keep) CONTENT OK (really?) OK

recording-commands:

Playback Session (from file) CONTENT OK

Record Session (on file) CONTENT OK

Stop Record (of session) OK

Syntax of New NLS Commands
terminal-commands: Display, Teletype, etc.
show also: syntax semicolon, syntax linefeed dnls, syntax move boundary, syntax reset, syntax set, syntax uparrow dnls.

Accept Connect (from display #) CONTENT OK

Split Window DIRECTION OK
DIRECTION = Horizontally or Vertically

Release:

All:
Release All (frozen statements) OK

Frozen:
Release Frozen (statement at) DESTINATION OK

Freeze Statement (at) DESTINATION VIEWSCPS OK

Clear Window (at) DESTINATION OK

Disconnect Terminal OK

Simulate Terminal (type) TYPE OK
TYPE = Ti (terminal) or Tasker or Execuport or 33-tty or 35-tty or 37-tty

Logout OK
Help:
Show also: Quit

Algorithm CONTENT OK
Entrypoint OK
More OK
Show CONTENT OK
Programs:
Show also: jump, semicolon

Attach Subsystem CONTENT OK

Compile:

Assembler:
Compile Assembler (file at) DESTINATION (using) CONTENT (to file) CONTENT OK

File:
Compile File (at) DESTINATION (using) CONTENT (to file) CONTENT OK

L110:
Compile L110 (user program at) DESTINATION OK

Deinstitute:

Content:
Deinstitute Content (analyzer program) OK

Seqgenerator:
Deinstitute Seqgenerator (program) OK

Sort:
Deinstitute Sort (key extractor program) OK

Delete:

All:
Delete All (programs in buffer) OK

Last:
Delete Last (program in buffer) OK

Execute (command in) SUBSYSTEM

Goto (subsystem) SUBSYSTEM OK

Institute Program CONTENT (as) PROGTYPE OK
PROGTYPE = Content (analyzer program)
   OR Sort (key extractor program)
   OR Seqgenerator (program)

Load Program CONTENT OK

Process Commands (from) STRUCTURE (at) DESTINATION OK

Quit OK
Nls:
Quit Nls OK

To:
Quit To SUBSYSTEM OK

Reset:

Buffer:
Reset Buffer (size) OK

Nddt:
Reset Nddt (control-h) OK

Run Program CONTENT OK

Set:

Buffer:
Set Buffer (size to) CONTENT OK

Nddt:
Set Nddt (control-h) OK

Show Status (of programs buffer) OK
Syntax of New NLS Commands
Titlewords:
Omit Titlewords ALL/SOME OK

/ALL/SOME = All lor! CONTENT

Dates:
Omit Dates (from) CONTENT (to) CONTENT OK

/Note: Null date after "from" omits nothing. Null after "to" specifies today.

Output (item number:) ALL/SOME (to printer) OK

/ALL/SOME = All lor! CONTENT

Resend (item number:) CONTENT (when?) CONTENT OK

/Note: will accept days of the week or the date after "when?".

Show (item number:) ALL/SOME OK

/ALL/SOME = All lor! CONTENT

Undelete (item number:) CONTENT (in all categories?) ANSWER OK

Verbose (view for category) CONTENT OK
Sendmail:
Show also: quit

Authors CONTENT OK
Branch (at) SOURCE OK
Comments CONTENT OK
Done OK
Execute SUBSYSTEM OK
Expedite OK
File SPECIFICATION OK

DESTINATION:
File DESTINATION OK:

Named:
File Named CONTENT OK:

Goto SUBSYSTEM OK
Group (from) SOURCE OK
Hardcopy (located at) CONTENT OK
Initialize (specifications) OK

Insert:

Link:
Insert Link (to follow) DESTINATION OK (Won't work 9APR74)

Status:
Insert Status (form to follow) DESTINATION LEVEL-ADJUST OK:

Interrogate OK
(type of source:) ITEM
(title:) CONTENT
(send to:) CONTENT
(show status?) ANSWER
(finished?) ANSWER

ITEM = STRUCTUPE (at) CONTENT lor!
File DESTINATION lor!
File Named CONTENT lor!
Message CONTENT lor!
Hardcopy CONTENT

Keywords CONTENT OK
Syntax of New NLS Commands
Message CONTENT OK
Number SPECIFICATION

/SPECIFICATION = OK
   !to get one number or!
   CONTENT OK !to specify a reserved number!
Obsoletes (item number(s)) CONTENT OK
Flex (at) SOURCE OK
Process (send-mail form at) DESTINATION OK
Reserve:
   Journal:
      Reserve Journal (numbers -- how many?) CONTENT OK
   Hardcopy:
      Reserve Hardcopy (numbers -- how many?) CONTENT OK
   Misc:
      Reserve Misc (numbers -- how many?) CONTENT OK
Rfc:
   Reserve Rfc (number) OK
      (title) CONTENT
      (author) CONTENT
      (send to) CONTENT
      (online document?) ANSWER
      (show status?) ANSWER
      OK
   Rins:
      Reserve Rins (numbers -- how many?) CONTENT OK
Special:
   Reserve Special (numbers -- how many?) CONTENT OK
Rfc (number) CONTENT OK
Send (for) CATEGORY (only to) CONTENT OK
   /CATEGORY = Action for! Information
Show (status) OK
Statement (at) CONTENT OK
Subcollections CONTENT OK
Title CONTENT OK

Syntax of New NLS Commands
Update (to item number(s)) CONTENT OK
Unrecorded OK
Useroptions:

Viewspects SWITCH OK
SWITCH = Default VIEWSPECs
or On
or Off

Control (characters for terminal) DEVICES OK (control character)
CONTROLFUNCTIONS (character(s)) CONTENT (echo as) CONTENT OK
DEVICES = Tasker or Ti (terminal) or Nvt
or Lineprocessor or Imlac or Execuport
or 33-tty or 35-tty or 37-tty
CONTROLFUNCTIONS = Ca or Cd or Rpt or Insert
or Bc or Bw or Bs or Litesc
or Ignore or Sc or Sw or Tab

Currentcontext (length) NUMBER OK
NUMBER = CONTENT (of the number of characters printed)

Execute (command in) SUBSYSTEM

Feedback FEEDSPECs OK
FEEDSPECs = Verbose
or Terse
or Length NUMBER
or Indenting NUMBER
NUMBER = CONTENT (of the number of characters or spaces)

Goto (subsystem) SUBSYSTEM OK

Herald HERALD SPECs OK
HERALD SPECs = Verbose
or Terse
or Length NUMBER
NUMBER = CONTENT (of the number of characters printed)

Jump RINGTYPE (ring entries) NUMBER OK
RINGTYPE = Return lfile-return ringl
or Filereturn lfile-return ringl
NUMBER = CONTENT (of number of entries in ring)

Level adjust SWITCH OK
SWITCH = On
or Off
Printoptions PRINTSPECS OK
PRINTSPECS = Right (margin is column) NUMBER
or Left (margin is column) NUMBER
or Bottom (margin is line) NUMBER
or Page (size is (lines)) NUMBER
or Indenting (per level) NUMBER
or Tab (stop settings) TABTEXT

NUMBER = CONTENT of a number!
TABTEXT = CONTENT of one of the following forms:
(1) c c c c c c c
where c stands for any character except <SP>
(2) 8,16,24,39, ...
where the number represents the column position (starting
from 1 not 0) for the next tab stop!

Prompt PMODE OK
PMODE = Off or Partial or Full

Quit OK

Nls:
Quit Nls OK

To:
Quit To SUBSYSTEM OK

Recognition (mode) RMODE OK
RMODE = Anticipatory
or Demand
or Fixed
or Expert (secondary mode) RMODE2
RMODE2 = Anticipatory or Demand or Fixed or Expert

Reset:

All:
Reset All OK

Control:
Reset Control (characters for terminal) TERMINALS OK
TERMINALS = Ti (terminal) or Tasker or Nvt
or Lineprocessor or Imlac or Execuport
or 33-tty or 35-tty or 37-tty or All

Currentcontext:
Reset Currentcontext (length) OK

Feedback:
Reset Feedback FEEDPARAMS OK
FEEDPARAMS = Mode or Length or Indenting
Herald:
Reset Herald HERALDPARAMS OK
HERALDPARAMS = Mode or Length

Jump:
Reset Jump RINGTYPE (ring entries) OK
RINGTYPE = Return or Filereturn

Leveladjust:
Reset Leveladjust OK

Printoptions:
Reset Printoptions PRINTSPECS OK
PRINTSPECS = Right (margin)
or Left (margin)
or Bottom (margin)
or Page (size)
or Indenting (per level)
or Tac (stop settings)

Prompt:
Reset Prompt (mode) OK

Recognition:
Reset Recognition (mode) OK

Viewspecks:
Reset Viewspecks OK

Show:

All:
Show All OK

Control:
Show Control (characters for terminal) TERMINALS OK
TERMINALS = Ti (terminal) or Tasker or Nvt
or Lineprocessor or Imlac or Execuport
or 33-tty or 35-tty or 37-tty or All

Currentcontext:
Show Currentcontext OK

Feedback:
Show Feedback OK

Herald:
Show Herald OK

Jump:
Show Jump OK
Leveladjust:
Show Leveladjust OK

Printoptions:
Show Printoptions OK

Prompt:
Show Prompt OK

Recognition:
Show Recognition OK

Viewspect:
Show Viewspect OK

semicolon:
; TYPEIN OK

Calculator:
ADDRESS:
a description of a point in a file. It can be a sequence (ending with an OK) of one or more of the following elements separated by spaces and ending with an OK. Each element moves your Control Marker (CM) to a new position relative to the prior position of the CM if the new element points to something that is really there. Whenever you omit the ADDRESS field (by typing an OK at A:), the prior position of the CM is taken. By inserting a link, you insert an indirect ADDRESS that you can then point to.

FILEADDRESS: SITE, DIRECTORY, FILENAME,
a filename optionally preceded by directory optionally preceded by a site in the form above. If you use FILEADDRESS in an ADDRESS, it must come first. It may include stars or Alt Mode (ALT/ESC).

Note:
a comma is unnecessary after the FILENAME in those instances when only a FILEADDRESS is called for, not a whole ADDRESS, such as in Load File command.

FILENAME:
Each file in the system has a full filename which is divided into parts called fields. "," and ";" divide the fields, thus: name.extension;version-number. Each field except the number can be up to 39 characters and can be recognized one field at a time with <↑>, or all fields (default extension: NLS, default version: latest except when deleting, then oldest) with ALT. The system assigns a directory to each user in which files reside. NLS files have as their extension "NLS". Version numbers go up when you update.

Star convention:
in order to specify more than one file in a command, a star may be placed in any field of a filename. For example, to get all the versions of a file, type <directory>name.extension;*. Modification files have the extension ".PC;". When you use "*" in a command it does not touch files with the extension ".PC;" unless it affects the permanent file that bears the modifications.

ALT: Altmode
If you have typed enough characters in a directory or file name to differentiate it from other names, you may type <ALT> or <ESC> and the command will go on as if you had typed the whole name. Altmode calls only files with the extension "NLS." Altmode calls the highest version number except when you are deleting; then it calls the lowest. You may use $ in a link to represent Altmode. <Control-f> works as Altmode in a filename for a single field only; then continue with the next field. Altmode works in filenames in the following commands:

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directory field--
If you are connected to a directory, you do not have to type the directory field of the filename in order to retrieve another file in that directory.

extension conventions:
The filename's extension field for an NLS file is .NLS;
Other extensions denote other functions.
.PC; designates this file as a modification file
.TXT; represents a sequential file unloadable in NLS.
.REL; means this file contains compiled code for a program.

defaults:
The default directory for links is determined by the Set Link default command. The default file for links is the current file. There can be no default file if the directory is specified. The default ADDRESS is the current location of the link. The default viewspecs or filter are the current ones in effect.

INFILEADDRESS:

POSITION: .lb2c3d4e5fr6h... (preceded by a period in AT) move your CM in relation to its current location with the character that corresponds to the direction you wish to move. A number before any of these letters indicates the number of moves (default for number is 1).

- .b back
- .c next occurrence of content
- .d down
- .e end
- .fr file return
- .h head
- .l link
- .m next
- .o origin
- .p predecessor
- .r return
- .s successor
- .t tail
- .u up
- .w next occurrence of word

STRINGPOSITION: -lc2e3f4i5l6n7v8w (preceded by plus or minus) Letters PRECEEDED IMMEDIATELY BY A PLUS (+) mean SKIP FORWARD, BY A MINUS (-) mean SKIP BACKWARD. A number between the plus or minus and the letter indicates the number of skips.
SID: Statement IDentifier: 012
STATEMENTNUMBER: 1A2B3C4D5E...
STATEMENTNAME: statementname

NEXTNAME: *statementname (preceded by a star)
moves you OM to the first character of the statement canonically next with that name. To search for the first name, use 0 in front of star name.
EXAMPLE: If statement name is jonathan, type: 0 *jonathan
If you use a statement name alone as an ADDRESS element (no *), the system will randomly search for any statement with that name. Thus NEXTNAME is slower but more predictable when two statements have the same name. show also: BRANCHNAME, ADDRESS,

BRANCHNAME: !statementname (preceded by exclamation !)
moves your OM to the name in the branch under the statement containing your OM.
EXAMPLE: Typing: pigs !chauninist would take you to the statement named chauninist in the branch named pigs.

EXTERNALNAME: &statementname (preceded by ampersand)
moves your OM to any occurrence of the name in the SYSGD file of directory NLS if the name is not found in current file.

CHARACTERADDRESS: 'CHARACTER (preceded by single quote)
where CHARACTER = a single character
A character search moves the OM to the next occurrence of that character. If the character is not found in the current statement, the search will go on to the next statement in the hierarchy, and so on to the end of the file. After you use a CHARACTERADDRESS, if you want to jump to a subsequent occurrence of that character, use the TAB command.

Special effects
CHARACTERADDRESS may be followed by the equal sign and a Number and a "c"
e.g.: 'a=2c indicating the second occurrence of the letter a.
This may be further followed by another equal sign and a Number and a "s" meaning to search only within that number of statements. A "w" can be used instead of a "c" to mean the Nth occurrence of CHARACTER as a word. (If a number is not specified it will be taken to be 1)
EXAMPLE: To search for the word "a" within the next 2 statements only, type: 'a=w=2s
CONTENTADDRESS: "TYPEIN"=2W3S

where TYPEIN = the content to be searched for (surrounded by quotes)
This may be followed by "=" and a Number N and a "w" indicating
the Nth occurrence of TYPEIN as a word, and may be further followed by "=" and a Number N and a "s" meaning to search only within N
statements. A "c" can be used instead of a "w" to mean the Nth occurrence of TYPEIN as any string. (If a number or letter is not
specified it will be taken to be 1)
EXAMPLE: Type: "abit"=s for an instatement content search for
"abit"

word-search: e.g. "word"=w
A word search moves the OM to the next occurrence of that word.
If the word is not found in the current statement, the search will go on to the next statement in the hierarchy, and so on to
the end of the file. After you use a word search in an
ADDRESS, if you want to jump to a subsequent occurrence of that
word, use the TAB command

MARKER: #MARKER (preceded by poundsign)
jumps to marker of that name
EXAMPLE: If marker name is signal, type: #signal
Markers are assigned to a particular character position and may be
subsequently used as a name for that point in a file. You assign
markers with the Mark command. A marker name is 1-5 alphanumeric
characters (incl. hyphen & quote), and must be unique within a
file. They are normally invisible when viewing your file, but you
can see a list of all your file's markers with the Show File
Marker list command. Marker assignments go away when you use the
Delete Marker or Delete All Markers commands.
slash: / prints context of OM immediately
When a slash (/) element in an ADDRESS is reached, the location of
the OM is immediately printed as a line feed break and
anglebrackets, in its context of a few (default 7) characters on
either side (You can control the number of characters--show 2
below). Then the next element in the ADDRESS is processed. The
slash is used to determine where you have moved the OM without
interrupting the ADDRESS. There is also a Slash (/) command which
is not part of an ADDRESS.
backslash: \ prints statement containing the OM immediately
When a backslash (\) element in an ADDRESS is reached, the
statement which now contains the OM will be immediately printed,
without moving the OM, before the next element is processed. This
element is used to determine at any point within your ADDRESS
where your OM has moved. It is not to be confused with the
Backslash (\) command, which is not used as an ADDRESS element,
and which does move the OM.
DIROPT: = a series of the following command-words:
(After each one you enter, you will be asked (Finished?). If you answer
Yes or OK the option field will be terminated; if you answer No, you may
then enter another command-word)

Deleted (files only) : 5a
    lists data for files deleted but not expunged 5al
Undeleted (files only): 5b
    lists data for undeleted files; this is the default 5bl
All (files): 5c
    lists data for both deleted and undeleted files 5cl
For (file) CONTENT: 5d
    lists only file or files associated with one name (affected by
    action of star convention and Altmode) 5dl
Everything: 5e
    everything printable about each file 5el
Verbose: 5f
    lists size, last writer, last write date, and last read date for
    each file 5fl
Account: 5g
    account number to which file storage is being charged 5gl
Protection: 5h
    protection status of file 5hl
Last (writer): 5i
    user who last opened file for write access 5il
Number (of) Accesses: 5j
    number of times file has been written and read 5jl
Number (of) Versions (to keep): 5k
    lists the number of versions of each file now being kept 5kl
Dump (tape number): 5l
    tape number of last dump 5ll
Archive Status: 5m
    one of the following (Show function Archive): already archived;
    don't delete after archiving; archive not allowed, archive
    pending; no special status 5ml
Archive Tape (numbers): 5n
    lists tape numbers this file is archived on 5nl
Length ((and bytessize)): 5o
    size in bytes; then byte length in parentheses 5ol
Size (in pages): 5p
    size in disk pages 5pl
Miscellaneous: 5q
    info such as whether it's a "long file" or permanent file 5ql
Date (of) Archiving: 5r
    date the file was archived (if at all) 5rl
Date (of) Creation:
    date this version was created 5sl
Date (of) Last (dump):
    date this version of the file was last dumped on tape 5tl
Date (of) Original (version creation):
    date first version of this file was created 5ul
Date (of) Read:
    date file was last opened for read access 5vl

Syntax of New NLS Commands
Date (of) Write:  
file was last opened for write access  
Time (and date of) Archiving:  
time and date the file was archived (if at all)  
Time (and date of) Creation:  
time and date this version was created  
Time (and date of) Last (dump):  
time and date this version of the file was last dumped on tape  
Time (and date of) Original (version creation):  
time and date first version of this file was created  
Time (and date of) Read:  
time and date file was last opened for read access  
Time (and date of) Write:  
time and date file was last opened for write access  

(Note) NULL/Reverse means that you can specify the command-word Reverse, or that you can do nothing for this field and go on to the next command-word.

Group (group by:) NULL/Reverse No (grouping):  
Backs out of grouping; files will not be listed in categories; the sort options can still be used to sort the whole list. Whether you specify Reverse or omit it has no effect on this DIROPT.

Group (group by:) NULL/Reverse Account:  
Files charged to the same account number will be grouped together, with groups sorted highest number first for Reverse.

Group (group by:) NULL/Reverse Archive Date:  
Files archived on the same date will be grouped together, with groups sorted most recent date first for Reverse.

Group (group by:) NULL/Reverse Archive Status:  
Files with the same archive status will be grouped together.

Group (group by:) NULL/Reverse Archive Tape:  
Files stored on the same archive tape will be grouped together, with groups sorted highest tape number first for Reverse.

Group (group by:) NULL/Reverse Creation (date):  
Versions created on the same date will be grouped together, with groups sorted most recent date first for Reverse.

Group (group by:) NULL/Reverse Deletion (status):  
Separates deleted from Undeleted files if you also ask for All (files), with deleted files first for Reverse.

Group (group by:) NULL/Reverse Dump Date:  
Files last dumped on tape on the same date will be grouped together, with groups sorted most recent date first for Reverse.

Group (group by:) NULL/Reverse Dump Tape:  
Files dumped on the same tape will be grouped together, with groups sorted highest tape number first for Reverse.

Group (group by:) NULL/Reverse Last (writer):  
Files with the same last writer will be grouped together.

Group (group by:) NULL/Reverse Number (of versions to keep):  
Files with the same number of versions being kept will be grouped together, with groups sorted highest number first for Reverse.

Group (group by:) NULL/Reverse Original (version creation):  
Files whose original versions were created on the same date will be grouped together, with groups sorted most recent date first for Reverse.
Group (group by:) NULL/Reverse Protection:
Files with the same protection status will be grouped together.

Group (group by:) NULL/Reverse Read (date):
Files with the same date of last read will be grouped together, with groups sorted most recent date first for Reverse.

Group (group by:) NULL/Reverse Write (date):
Files with the same date of last write will be grouped together, with groups sorted most recent date first for Reverse.

Sort (sort by:) NULL/Reverse Account:
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by files charged to the same account number first for Reverse.

Sort (sort by:) NULL/Reverse Alphabetical:
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by alphabetical order of filenames (the sort will go back to this default) or, if you specify Reverse by reverse alphabetical order of filenames.

Sort (sort by:) NULL/Reverse Archive Status:
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by files with the same archive status.

Sort (sort by:) NULL/Reverse Archive Tape:
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by archive tape numbers, with highest tape numbers first for Reverse.

Sort (sort by:) NULL/Reverse Archive Time (and date):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by time archived, most recent first for Reverse.

Sort (sort by:) NULL/Reverse Bytesize:
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by size of bytes, largest bytesize first for Reverse.

Sort (sort by:) NULL/Reverse Creation (time and date):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by time this version was created, most recent first for Reverse.

Sort (sort by:) NULL/Reverse Deletion (status):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by files with the same deletion status.

Sort (sort by:) NULL/Reverse Dump Tape:
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by latest dump tape numbers, with highest tape numbers first for Reverse.

Sort (sort by:) NULL/Reverse Dump Time (and date):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by time of last dump, most recent first for Reverse.

Sort (sort by:) NULL/Reverse Last (writer):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by name of last writer.

Sort (sort by:) NULL/Reverse Length (in bytes):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by size of file in bytes, largest file first for Reverse.

Sort (sort by:) NULL/Reverse Number (of) Accesses:

Syntax of New NLS Commands
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by number of times read, highest number first for Reverse.

Sort (sort by:) NULL/Reverse Number (of) Reads:
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by number of times read, highest number first for Reverse.

Sort (sort by:) NULL/Reverse Number (of) Versions (to keep):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by number of versions kept for each file, highest number first for Reverse.

Sort (sort by:) NULL/Reverse Number (of) Writes:
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by number of times written, highest number first for Reverse.

Sort (sort by:) NULL/Reverse Original (version creation):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by time and date the original version of this file was created, with most recent first for Reverse.

Sort (sort by:) NULL/Reverse Read (time and date):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by time last read, most recently read first for Reverse.

Sort (sort by:) NULL/Reverse Size (in pages):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by size of file in pages, largest file first for Reverse.

Sort (sort by:) NULL/Reverse Write (time and date):
Sort WITHIN groups (or sort the whole list if it hasn't been grouped) by time last written, most recently written first for Reverse.