

Journal No. = XXX

\*THE INTERMEDIATE TNLS COURSE OUTLINE

SRI-ARC

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Augmentation Research Center

STANFORD RESEARCH INSTITUTE  
MENLO PARK, CALIFORNIA 94025

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### NLS COURSE LEVEL:

Each level in the series of NLS courses contains the commands from the previous level for review in addition to the commands to be introduced (which are marked by an \*).

Most of the commands from Course I are not included.

#### \*THREE -- INTERMEDIATE TNLS

T is the third session or level, and is intended for users who have completed courses I and II and have had experience with the system at level II. The Programs and Useroptions subsystems are introduced, Output processing is covered, and the Base and Sendmail subsystems are expanded.

#### \* COURSE HEADINGS:

1. GETTING TO NLS
2. STRUCTURE
3. PRINTING
4. ADDRESSING
5. EDITING
6. COMMUNICATING
7. TROUBLE SHOOTING AND HELP
- \* 8. OUTPUT PRINTING
- \* 9. PROGRAMS
- \* 10. USEROPTIONS - CUSTOMIZATION OF NLS

### DEFINITIONS FOR THE COURSE OUTLINE

COMMANDS = You type some characters to tell the computer what to do. The characters you type are represented by the uppercase letters in each "command word".

< > = You type a space.

Uppercase words = You type in the appropriate information for that command, eg., CONTENT.

[ ] = Comments and suggestions will appear in brackets.

CONTROL MARKER (CM) = WHERE YOU ARE: Where the computer thinks you are pointing to (to some character in some file); you may move it by specifying an ADDRESS; this is where your command will be done.

CTRL = hold down the control (CTRL) key WHILE typing the specified character.

\*OK or CR = one of the following:

a Carriage Return;

CTRL B -- executes the command and starts it over again up to the place where you specify an address or other variable;

CTRL E -- in the BASE subsystem only, places you in the Enter mode, entering statement at the current marker location. You leave the Enter mode by typing CTRL X after the last OK to enter your last statement.

<esc> = the ESC or escape key on your terminal (sometimes labeled "alt mode").

DESTINATION = ADDRESS.

When referring to Group or Text, two ADDRESSES are needed.

SOURCE = ADDRESS

When referring to Group or Text, two ADDRESSES are needed.

Always end an ADDRESS with OK. ADDRESSES are prompted with a A:

TYPEIN and CONTENT = a string of characters from the keyboard, ending with an CR. [TYPEIN has a special form when a FILE ADDRESS or Link or Ident is called for (You can tell from the noise words)].

LEVELADJUST: specifies level relative to addressed statement -- type any number of u [for up a level] or d [for down], or OK for same level.

VIEWPSECS: a string of one or more viewspec characters followed by OK, prompted by V: [type OK if no viewspecs are to be entered]

STRING: Character or word or Visible or Invisible or Text or Link prompted by C:

STRUCTURE: Statement or Branch or Group or Plex prompted by C:

**\*INTERMEDIATE TNLS COURSE OUTLINE****GETTING TO NLS****NETWORK (ARPA)**

Network Login [for a new connection where you dial in]

- [I] Type E [to get the Network's attention]
- [III] Type @ 0 <> 43 CR [to open a connection to Office-1, Host 43]

You now should be connected to TENEX

**TENEX "Executive"****Login procedure:**

- [III] Type your USERNAME <> PASSWORD <> CR  
[ SPACE fills in your account number automatically; you're then ready to call NLS]

**Express Login, type:**

EL USERNAME <> PASSWORD <> CR

\* Group allocation quota: GR<esc>oupstat

**Calling NLS**

- [IV] Type NLS CR [it's not necessary to call NLS more than once during one login session]

## 2. ORGANIZATION OF THE SYSTEM

### FILES & DIRECTORIES

Type of files [indicated by filename extensions]

TXT = sequential file which can be copied into NLS

COPY = a temporary sequential file, usually a message

\* System creation of files: certain files are created automatically by the system and may have an effect on disk allocation.

\* [Show Directory defaults to your directory -- you may see other's directories]

### FILE STRUCTURE

STATEMENT: The basic element of structure in a file  
[each has a statement number]

Relationships between statements:

Substatement & Source

STRUCTURES made up of statements:

BRANCH: a statement plus substructure

GROUP: set of contiguous branches with same source

\* PLEX: complete list of statements or branches at the same level with the same source.

\*Secondary relationships between statements:

\*END [of branch]

UP [one level]

DOWN [one level]

BACK [any preceding statement]

\*TAIL [of plex]

HEAD [of plex]

\*SUCCESSOR: statement immediately succeeding current statement at same level with same source

PREDECESSOR: statement immediately preceding current statement at same level with same source

\*TENEX

\* To Go to Tenex (as a subsystem):

\* Goto Tenex OK  
QUIT CR [to return to where you were]

\* Other ways to get to Tenex:

Quit NLS CR [to leave NLS and type CONTINUE CR to return]

**3. PRINTING:** to see specified view of stored information

Printin on a terminal:

\* [print back one statement regardless of level]

VIEWSPECS: to specify what you see, use the characters below when prompted with a V:

w = Default, all lines & levels (show all of the text)

m/n = numbers on/off

y/z = blank lines on or off

To clip levels and lines, use lower case viewspecs including:

a/o - show one level less/more

c/d - show all levels/show first level

e - show referenced statement level

g/h - show branch only/show all branches

q/r - show one line less/more

s/t - show all lines/show first lines only

w/x - show all lines, all levels/show one line, one level

\* To format and show extra info, use uppercase viewspecs

A/B - level indenting on/off

C/D - show/don't show statement names

E/F - paginate/don't paginate

G/H - statement numbers right/left

K/L - show/don't show statement signatures

**SIDS (Statement Identification Numbers)**

I/J - SIDS on instead of statement numbers/statement numbers instead of SIDS

[can be used in place of statement numbers in NLS]

\* Viewpsecs may be combined -- the right most character has the final say. The effect is cumulative, eg. V: xrc will show all levels, 2 lines.

#### 4. ADDRESSING

To tell where Control Marker is:

[Addressing can be combined with editing]

\* Note the marker location after complex editing...

period [.] command [shows statement number and character number]

slash [/] command [shows Control Marker context]

\* backslash [\] may be an ADDRESS element or a command

\* slash [/] may be an ADDRESS element or a command

\* "TYPEIN"=s [limits search to current statement]

ADDRESSING WITHIN A FILE, use:

##### STATEMENT NUMBER:

Automatically assigned to a statement, but not included in it.

CONTENT: "TYPEIN" [must be surrounded by quotes]  
where TYPEIN = the text to be searched for.

\* word-search: "word"=w  
moves the CM to the next occurrence of that word.

\* TAB command = repeat the previous search

\* STATEMENT NAME: "name" a statement so you can point to it by typing its name in an ADDRESS [the first characters at the beginning of a statement up to the delimiter]

##### \* name-delimiters:

Enclose, and define for system recognition, statement names. The default name delimiters are NULL NULL. This means that the first word of any statement is its name if no space precedes it.

\* <>SET Name (delimiters in) STRUCTURE (at) DESTINATION (left delimiter) CONTENT (right delimiter) CONTENT OK

\* <>RESET Name (delimiters in) STRUCTURE (at) DESTINATION OK

\* <>SHOW Name (delimiters in) STRUCTURE (at) DESTINATION OK

\* searching with names:

Jump (to) Name Any [takes you to a name the fastest way possible.]

Jump (to) Name First [for the first occurrence in the file.]

Jump (to) Name Next [the next occurrence in the file.]

\* SID: Statement IDentifier: permanent number (despite editing changes) [always beginning with a 0]

-- renumber a file's SIDs consecutively with:

<>RENumber Sids (in file) OK

ADDRESSES within one statement:

\* Letters PRECEDED 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.

+e skip to end (last character) of statement  
[always needs a plus sign]

+f skip to front (first character) of statement  
[always use a plus sign]

\* l skip to link

\* w skip words

#### ADDRESSING BY JUMPING

TO FIND A WORD OR STRING OF CHARACTERS (= CONTENT) [no quotes]:

Jump (to) Word Next CONTENT VIEWSPECS OK

Jump (to) Word First CONTENT VIEWSPECS OK

Jump (to) Content Next CONTENT VIEWSPECS OK

Jump (to) Content First CONTENT VIEWSPECS OK  
[type a CTRL b for CONTENT to continue search  
for same thing]

\* TO FIND A STATEMENT BY ITS NAME:

\* Jump (to) Name Next CONTENT VIEWSPECS OK

\* Jump (to) Name First CONTENT VIEWSPECS OK

\* Jump (to) Name Any CONTENT VIEWSPECS OK

\* TO GO BACK TO PREVIOUS LOCATIONS WITHIN THE CURRENT FILE:

\* Jump (to) Return OK ANSWER OK  
[type an N for ANSWER - next flashback  
in stack will be echoed; repeat for file before that]

TO JUMP BY STRUCTURE:

\* Jump (to) Next DESTINATION VIEWSPECS OK  
Jump (to) Origin DESTINATION VIEWSPECS OK  
\* Jump (to) Back DESTINATION VIEWSPECS OK  
Jump (to) End (of Branch) DESTINATION VIEWSPECS OK  
\* Jump (to) Tail DESTINATION VIEWSPECS OK  
\* Jump (to) Head DESTINATION VIEWSPECS OK  
\* Jump (to) Down DESTINATION VIEWSPECS OK  
\* Jump (to) Up DESTINATION VIEWSPECS OK  
\* Jump (to) Predecessor DESTINATION VIEWSPECS OK  
\* Jump (to) Successor DESTINATION VIEWSPECS OK

ADDRESSING BETWEEN FILES AND DIRECTORIES:

LINKS for addressing [may be used after any A:]  
<FILENAME,ADDRESS> OR  
<DIRECTORY,FILENAME,ADDRESS> OR  
<DIRECTORY,FILENAME,ADDRESS:VIEWSPECS>

TO JUMP USING A LINK:

Jump (to) Link CONTENT OK

TO GO BACK TO PREVIOUS OR OTHER FILES

Jump (to) File Return OK ANSWER OK  
[type an N for ANSWER - next filename  
in stack will be echoed; repeat for file before that]

SHORT ADDRESSES WITHIN FILES [preceded by a period]:

\* These address elements may be combined in series in the same address field, and if logical will move the pointer to each address specified in sequence. In many cases they are alternatives for Jump commands.

For example: Print Statement (at) .n.t OK OK will print the tail of the next plex.

\* [A number before any of these letters indicates the number of moves (default for number is 1)].

\* .l link [find and jump on the next link]

\* .fr file return:  
[you can precede the .fr with a number to return to files prior to the last one.]

\* .b back [one statement]

\* .d down [one level]

\* .e end [of branch]

\* .n head [of plex]

\* .n next [statement]

\* .o origin [of file]

\* .p predecessor [same level, same source]

\* .s successor [same level, same source]

\* .t tail [of plex]

\* .u up [one level]

**5. EDITING**

[ -- usually combined with addressing.]

Syntax: VERB NOUN A: ADDRESS (L: LEVEL) OK (OK? OK)

STRING and STRUCTURE = "nouns":

STRING: [part of a statement]

Character

Word [note that the system readjusts spaces]

Text

\* Visible [contiguous printing characters]

\* Invisible [contiguous non-printing characters]

\* Link [all characters between parentheses or < >]

STRUCTURE: [one or more statements]

Statement [statements renumbered automatically]

Branch

Group

\* Plex

\* To repeat a command up to the address or first variable: type <esc> or CTRL b

LEVEL-ADJUST determines the level of a statement at a new location -- it must be ended by an OK

Just an OK = same level

u (adjust up a level from referenced statement)

d (adjust down a level from referenced statement)

**INSERT**

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

Insert STRING (to follow) DESTINATION CONTENT OK

continue to insert: CIRL e instead of OK puts you in the Enter mode, CIRL x to get out.

#### DELETE

Delete File CONTENT OK

Delete STRUCTURE (at) DESTINATION OK

\* Delete Modifications (to file) OK (really?) OK

Delete SIRING (at) DESTINATION OK

#### SUBSTITUTE

Substitute STRING in STRUCTURE (at) ADDRESS CR

(New SIRING) T: TYPEIN CR

(Old STRING) T: TYPEIN CR Finished? Y/N: Y [for yes]

Substitutions made: NUMBER

[will replace the old STRING with new STRING every time it finds it in the STRUCTURE.]

#### MOVE

Move STRUCTURE (from) SOURCE (to follow) DESTINATION  
LEVEL-ADJUST OK

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

\* Move Link (from) SOURCE (to follow) DESTINATION OK

#### COPY

Copy STRUCTURE (from) SOURCE (to follow) DESTINATION  
LEVEL-ADJUST OK

Copy STRING (from) SOURCE (to follow) DESTINATION OK

\* Copy Directory (from) SOURCE (to follow) DESTINATION  
LEVEL-ADJUST OK OPTION OK

#### REPLACE

Replace STRUCTURE (at) DESTINATION (by) CONTENT OK

\* Replace STRING (at) DESTINATION (by) CONTENT OK

## TRANSPOSE

Transpose STRUCTURE (at) DESTINATION (and) DESTINATION OK

\* Transpose STRING (at) DESTINATION (and) DESTINATION OK

\* APPEND [join one statement with another]

\* Append Statement (at) SOURCE (to) DESTINATION (join with)  
CONTENT OK

\* BREAK (break a statement into two statements)

\* Break Statement (at) DESTINATION LEVEL-ADJUST OK

\* FORCE (case) (change the case of characters)

\* Force (Case) STRUCTURE (at) DESTINATION OK

\* Force (Case) STRING (at) DESTINATION OK

\* FORCE (case) Mode

\* Force (Case) Mode Upper or Lower or First OK

\* SORT

\* Sort Plex DESTINATION OK

\* Sort Group DESTINATION OK

UPDATE FILE [not imperative, but good practice]

\* Update File Compact OK

\* Update File Old (version) OK

Update File OK

\* Changing the modifications to an entire file:

\* Delete Modifications (to file) OK really? OK

## 6. COMMUNICATING with other users

SENDMAIL and the Journal

Goto Sendmail OK

Individual commands: instead of Interrogate, specify by using the following:

Title CONTENT OK

Distribute (for) Information (Only) (to)  
IDENT/.LASTNAME OK

Distribute (for) Action (to) IDENT/.LASTNAME OK

Comments CONTENT OK

\* Authors CONTENT OK

<>Show Status OK

Send (the mail) OK

To send a message or statement:

Message CONTENT OK

<>Statement (at) SOURCE OK

To send a structure or file:

Group (at) SOURCE OK

\* <>PLex (at) SOURCE OK

Branch (at) SOURCE OK

File SOURCE OK

To identify a user by lastname or ident:

<>Show Record (for ident) .LASTNAME OK [precede by period]

<>Show Record (for ident) IDENT OK

- \* Dialog support application: design philosophy behind the word Journal
- \* Indexes to all public Journal items:  
Jump (to) Link (userguides,locator,8:xbm) OK
- \* Special commands:
  - \* <>PUblic OK
  - \* <>PRivate OK [only those in the distribution can ever read it]
  - \* Insert Status (form to follow) DESTINATION LEVEL-ADJUST OK
  - \* Initialize (specifications) OK
  - \* Process (sendmail form at) DESTINATION OK
- \* To leave the Sendmail subsystem to edit and then return without losing anything:  
Goto Base OK  
Quit OK [returns you to Sendmail]
- \* To leave the Sendmail subsystem when you are done:  
Quit OK [returns you to Base]

#### SEND MESSAGE (Tenex)

Goto (subsystem) Tenex OK [You cannot log out from this Tenex, must QUIT]

SNDM<esc> CR [The system will prompt you:]  
(to:) TYPEIN CR [lastnames separated by comma]  
(cc:) TYPEIN CR [lastnames separated by comma]  
(subject:) TYPEIN CR [subject of your message]  
(message:) TYPEIN  
CTRL Z CR [to terminate and send the message]  
QU CR [to return to NLS]

- \* Net distribution: the carefull use of @ [you may need to type 2 @s if @ is the Net attention character]
- \* To submit a file: After (message:) type: CTRL B then F and the complete TXT filename

## 7. TROUBLE SHOOTING AND HELP

Type ? for commands or needed info.; available after any prompt.

### HELP:

Type CTRL q for help concerning what you are doing or type H for Help command (after Help you can type any word in NLS you wish to know about). CTRL X gets you out of Help and back to where you were.

Help TYPEIN OK

Help OK

Send a message or sendmail item to: FEEDBACK

call SRI/ARC, (415 326-6200, ext.3630)

link to FEEDBACK

### Status commands:

CTRL t [note the words RUNNING or WAIT -- WAIT means the computer is waiting for you to do something]

<>Show <>Disk (space status) OK [each user has a certain allocation of pages]

\*<>Show File Status OK  
Verify File OK

### Remedies:

CTRL c, reset, NLS

If over allocation:

<>Trim Directory (no. of versions to keep) CONTENT OK (really?)  
OK  
<>EXPunge Directory OK

Update File Compact OK [re-stores file more efficiently in computer]

Delete Modifications OK [destroys all changes since last update]

## \* 8. OUTPUT FOR PRINTING

\* Output processor directives (see Output Processor's User Guide)

\* The directives that must be inserted in a file to permit output processing can be inserted automatically by a program that attaches the subsystem Format. See section on Programs.

\* Output to a printer

\* Output (to) Remote (printer -- TIP) CONTENT (Port #) CONTENT OK (Send Form Feeds?) N (Simulate?) ANSWER (Wait at page break?) ANSWER (Go?) N (Type CA when ready, CD to abort) OK  
[If you have access to a printer wired to a TIP]

\* Output (to) Remote (printer -- TIP) CONTENT (Port #) CONTENT OK (Send Form Feeds?) Y (Wait at page break?) ANSWER (Go?) N (Type CA when ready, CD to abort) OK

\* Output (to) Printer File CONTENT OK  
[creates special sequential printer file]

\* Output to a tty

\* Output (to) Terminal OK (Send Form Feeds?) N (Simulate?) ANSWER (Wait at page break?) ANSWER (Go?) Y

\* Output (to) Terminal OK (Send Form Fees?) Y (Wait at page break?) ANSWER (Go?) Y

\* quick printing

\* Output (to) Journal (Quickprint) File CONTENT OK  
[This command puts all the mail under the Journal branch in a sequential file by jumping on every link for later printing-- it includes the entire document]

\* Output (to) Quickprint File CONTENT OK

\* Output to a sequential file

\* Output (to) Sequential File CONTENT OK

\* COM: Computer Output to Microform, what it is -- for specialists only

**\* 9. PROGRAMS**

\* Programs subsystem

\* Only Class I User Programs are covered in the Third course; most of these load as subsystems with NLS command words.

\* Goto Programs OK

\* Load Program CONTENT OK

\* Run Program CONTENT OK [only necessary for a few Class I programs, eg. Letter]

\* Show Status (of programs buffer) OK

\* Quit OK [to leave Programs]

\* User Programs subsystems -- see the Brief Guide to User Programs

\* Calculator [Special Course, see Calculator User Guide]

\* DEX (Deferred execution) [Special Course, see DEX Primer]

## \* USEROPTIONS SUBSYSTEM

[Note: "or" is used here to indicate the alternative command words]

\*Goto Useroptions OK

\*Startup (commands branch address) ADDRESS OK:

[Give the ADDRESS of a Process STRUCTURE branch. CTRL U halts processing.]

\*Feedback Indenting or Length or Verbose or Terse OK:  
[turns noisewords off and on and controls length ]

\*<>Herald Length or Verbose or Terse OK:

\*<>Printoptions Right or Left or Bottom or Page or Indenting or Tab  
CONTENT OK:  
[number of spaces for level Indenting and Tab stop settings..]

\*Name (delimiters defaults)(left delimiter) CONTENT (right) CONTENT  
OK

\*Show All [or any one of the above] OK:

PRACTICE

Use Strategies

How to use the system to accomplish specific tasks, from daily routine tasks (such as message handling) to creative intellectual enterprise.

OTHER AVAILABLE COURSES:

4. ADVANCED TNLS

This is the fourth course or level, which introduces new commands that emphasize alternatives, short cuts and special tools such as content analyzer patterns.

5. EXPERT ADVANCED TNLS

This is the fifth, most advanced level which covers any NLS command phrases or application techniques remaining in the running system.

\* TITLE PAGE