Why You Should Care About STN® Script Commands

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Outline

- Command Files – What, Why, How
- Simple vs. Scripted Command Files
- What is STN Script Language
- Creating/Converting Script Files
- Script Variables and Statements
- Script Examples
- References

Command Files

Simple

file reg
act goodrns/a
file hcaplus
s l1
s l1/p (notl) l1/dp
s l2 (s) catal?
s l3 and l4
save l5 catal/a
dis l5 tot
file stng;d his

Scripted

=>file reg
=>act goodrns/a \>_line1
=>file hcaplus
=>s _line1 \>_line2
=>s _line1/p (notl) _line1/dp \>_line3
=>s _line2 (s) catal? \>_line4
=>s _line3 and _line4 \>_line5
=>save _line5 catal/a
=>dis _line5 tot
=>file stng;d his

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Why use Command Files?

- Work offline/execute online
  - Save online time
  - Save online costs – reduce errors by advanced planning
  - Save online query storage costs
- Use repeatedly for similar searches, often-used mini-strategies, or SDIs
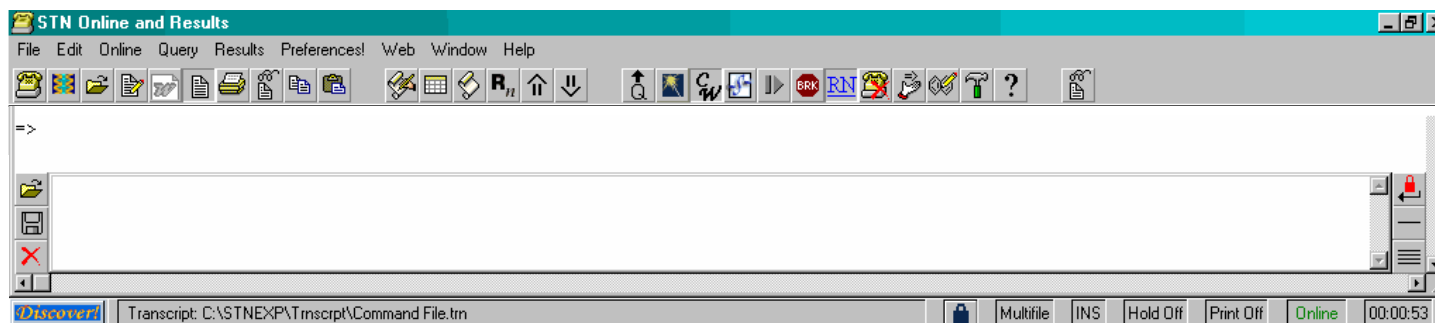- Automate repetitive search or display tasks

Preparing Command Files
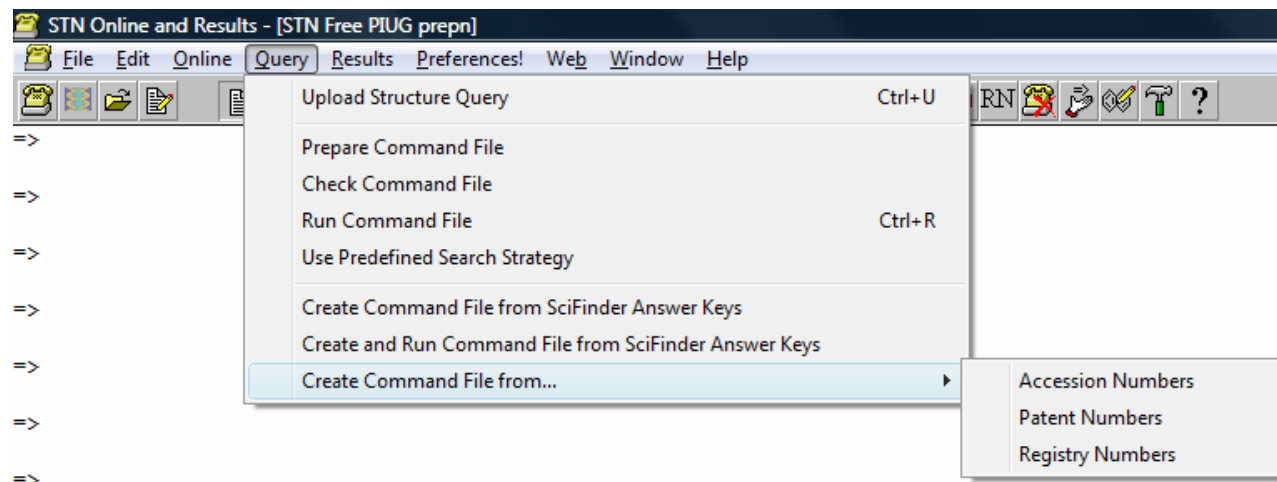
Use any text editor – save as .txt or .sc file

- STN Edit: Query…Prepare Command File

- Notepad, WordPad

- Kedit (macros)

- Avoid Word or other word processors that have auto formatting

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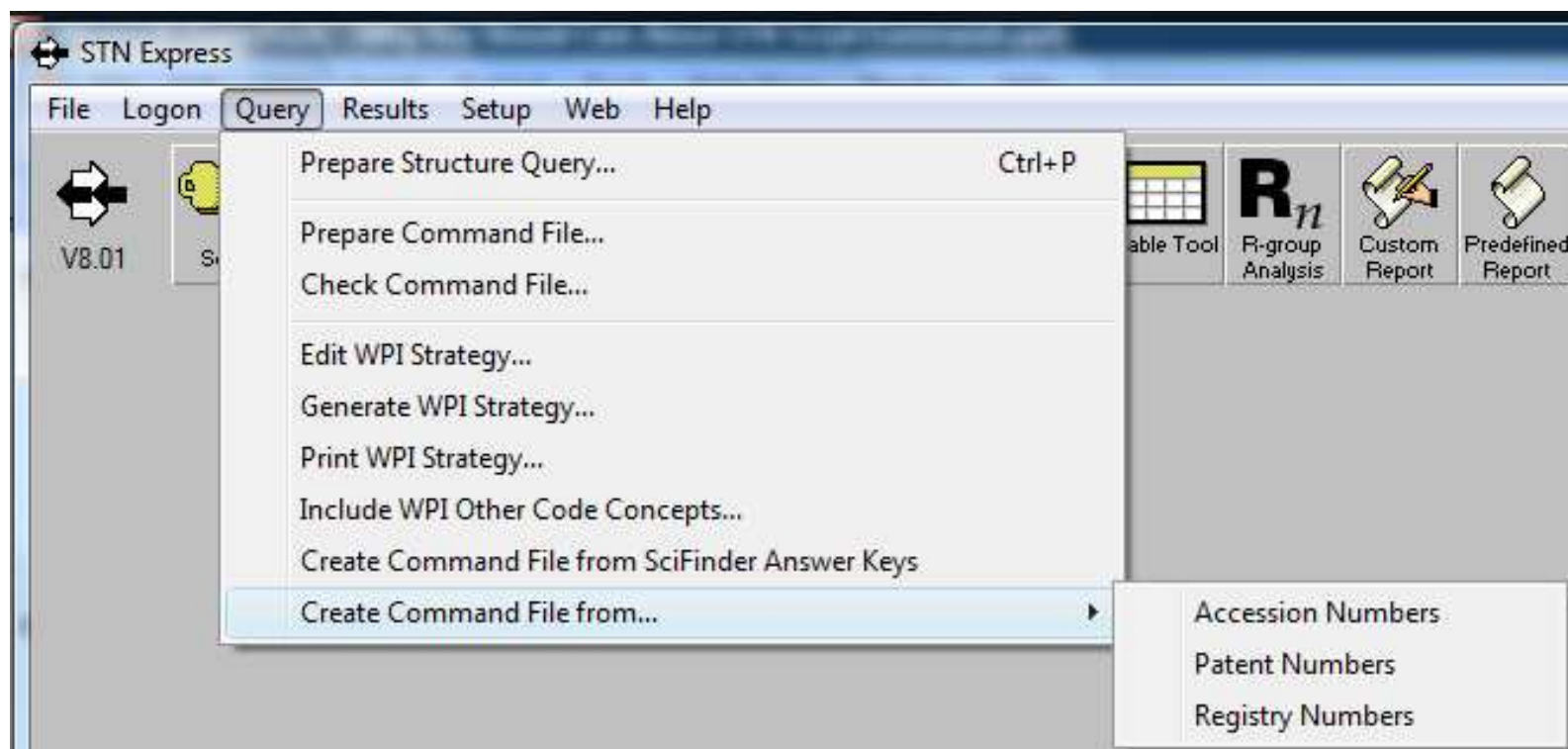**I**NFO

Running Command Files

- Simple – STN Command Window (Ctrl-W), run line-by-line or multiple lines

- Scripted – Upload (Ctrl-R), runs automatically

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Command File Functions on STN Express®

Simple vs. Script Command Files

Feature	Simple	Script
Programming logic	None	Full featured with functions, variables, operators, etc.
User control	Run line-by-line and edit at any time	Runs automatically; include commands for user intervention
Prompts	None – looks like regular online session	=> or :
L-numbers	Must be accurate	Flexibility by using variables for L-numbers and corresponding numbers of answers

What is STN Script Language – 1

- A Script is a Command File that uses features of the STN Express script language with functions for reading files, repeating STN Messenger commands, and making decisions.

- LOGIN scripts most common

- File commands: Capture, Open, Close, Edit, Execute (e.g. a 2nd script), Upload (structures)

- Messenger commands preceded by => or : prompt

- Variables begin with underscore _ and 1-12 characters

- Use variable L-numbers instead of fixed L-numbers, which are indicated after search statement by \>

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What is STN Script Language – 2

- Conditional statements, e.g. for display answers, save sets

- Operators: arithmetic, string, conditionals, L-number, answer count

- EDIT (\! operator) allows user to modify command before it is sent

- ECHO commands to display statements to user

- GET keyboard commands during search

- \ for line continuation (80 char/line; 140 char/stmt)

- * for comments

Convert Script Files

- Create script files using simple L-numbers
- Convert each L-number to _line#

Initial search	Converted script
file reg	=>file reg
act goodrns/a	=>act goodrns/a \>_line1
file hcaplus	=>file hcaplus
s l1	=>s _line1 \>_line2
s l1/p (notl) l1/dp	=>s _line1/p (notl) _line1/dp \>_line3
s l2 (s) catal?	=>s _line2 (s) catal? \>_line4
s l3 and l4	=>s _line3 and _line4 \>_line5
save l5 catal/a	=>save _line5 catal/a
dis l5 tot	=>dis _line5 tot
file stng;d his	=>file stng;d his

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Variable L-Numbers

- Assign the result of a command to a variable
- Commands followed by variable name
    - =>s catal? \> _catal
    - =>s enzym? \> _line3
    - =>act goodans/a \> _line4
    - =>tra l13 pn apps \> _pats
- Use variables in search statements
    - =>s _catal (s) polym? \ > _polycat
    - =>s _line3 (s) digestion \> _line6

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Convert and Edit Script Files

- Apply programming logic
- Provide for user input

Initial search	Edited converted script
	echo "Running script catal.sc"
file reg	=>file reg
act goodrns/a	=>act goodrns/a \>_line1
file hcaplus	=>file hcaplus
s l1	=>s _line1 \>_line2
s l1/p (notl) l1/dp	=>s _line1/p (notl) _line1/dp \>_line3
s l2 (s) catal?	=>s _line2 (s) catal? \>_line4
s l3 and l4	=>s _line3 and _line4 \>_line5
	if (#_line5 > 0) begin
save l5 catal/a	=>save _line5 catal/a
dis l5 tot	echo "Enter display format: " NOCR
	get _displayformat
file stng;d his	=>dis _line5 _displayformat
	end
	=>file stng;d his

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Conditional Statements

- IF [THEN] [ELSE] [BEGIN/END]

- THEN is optional

- ELSE provides an alternative set of instructions

- When IF condition is true, the following statement or BEGIN…END block is executed:

  – Script language instructions

  – Instructions to online host

  – Variable expressions

  – STN Commands (=> and : prompts)

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Answer Count Variable

- Retrieve the number of answers from an L-number variable

- Use the # sign, e.g. #_line6

- Use IF statements to select further processing

- Examples

    =>s _line3 and _line4 and _line8 \> _line9
    if (#_line9 < 1) goto @abort
    if (#_line9 > 0) =>save _line9 goodans/a
    if (#_line9 > 10) =>dis 1-10 else =>dis tot

Script: Multifile with Select

=>file reg

=>s (9003-07-0 or 25085-53-4 or 26063-22-9)/rn \>_line1

=>file rapra

=>s propylene homopolymer/ct and p/dt and \
  up>20070301 _line2

=>sel _line2 pn 1-

=>file hcaplus

=>s e1-e10 \! \>_line3   * user edits this line*

=>s _line1/p and p/dt and up>20070301 \>_line4

=>s _line3-_line4 \>_line5

* alternative: getenums.sc at http://www.infolit.ch/258.html

History: Multifile with Select

FILE 'REGISTRY' ENTERED
L41   3 S (9003-07-0 OR 25085-53-4 OR 26063-22-9)/RN

FILE 'RAPRA' ENTERED
L42   34 S PROPYLENE HOMOPOLYMER/CT AND
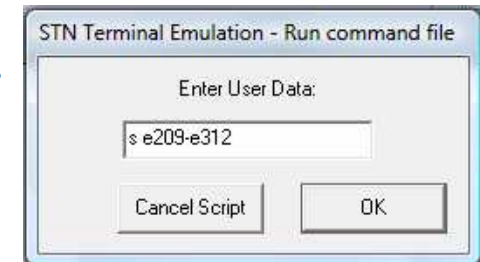   P/DT AND UP>20070301
              SEL L42 PN 1-

Initial ->

STN Terminal Emulation - Run command file
Enter User Data:
s e1-e10
Cancel Script   OK

FILE 'HCAPLUS' ENTERED
L43   42 S E209-E312   *Completed ->*
L44   20 S L41/P AND P/DT AND UP>20070301
L45   62 S L43-L44

STN Terminal Emulation - Run command file
Enter User Data:
s e209-e312
Cancel Script   OK

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Script: Bringing Together Multifile Results

=>file wpix

* User will be asked to edit each TRA line below

=>tra l14 pn.b apps.b / pn apps \! \>_line1 * from HCAPLUS

=>tra l30 pn apps \! \>_line2   * from IFICDB

=>tra l47 os / an \! \>_line3   * from ENCOMPPAT

=>s _line1 or _line2 or _line3 \>_line4

* don't use _line1-_line3 since L-number are not consecutive in this case

* Combine _line4 with additional wpix results

Script: Query Display Output

Script:

```
IF (#_line5 > 0) and (#_line5 < 100)
    begin
    echo "What answers do you want to display?: " NOCR
    get _answerstodisplay
    echo ""
    echo "What display format do you want to use?: " NOCR
    get _displayformat
    =>dis _line5 _answerstodisplay _displayformat
    end
```

Session:

```
What answers do you want to display?: 1,2,4
What display format do you want to use?: ti sc st hitrn
dis L126 1,2,4 ti sc st hitrn
```

Script: Display Scan All Answers

Script:

```
if (#_line5 = 1) =>dis _line5 scan ti sc st hitrn
else if (#_line5 > 1) begin
    if (#_line5 > 500) begin
            echo "Answer set _line5 contains #_line5 answers."
            echo "Do you want to display all in SCAN format? Y/(N):" NOCR
            get _reply
            if (substr(_reply,1,1) <> "y") then goto @noscan
            end
    _numanswers = #_line5 - 1
    =>dis _line5 scan
    : _numanswers
  @noscan
  end
```


STN Terminal Emulation - Run command file
Enter User Data:
yes
Cancel Script   OK

Session: If Y, all answers in SCAN format without further prompting

References

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