Overview

The TXS (Text Search) Program is used to create economic indexes on static text files, and search these indexes using smart logic search criteras.

The TXS sytem uses fast existential dictionaries to save space, and allow fast searchs. These dictionaries are indexes that even the key of the entry is not saved, but only hash function entries are stored in a dictionary to indicate existance of a key.

Choose one of the following items for further information :

Operation
Terminology
Contact
Register
Credits

REGISTER

TXS is a shareware product, if you find this product valuable,
please register it. This section describes the reasons you should register.

By registering you will receive a diskette with the latest TXS version,
as well as the XCD executable program that allows you to query TXS
dictionaries from the dos command line.

Your registration wil help us to create the next versions of TXS, that
will include more options, and features, some of them might even be your
enhancment requests!.

Related Topics :
Contact
Overview

Operation

To choose options of the <u>TXS</u> program :

Use the F10 key, (or point the mouse entry on the top line of the desktop, and press the left mouse button) to open a menu from the menu line.

Use the arrows keys, and Entry key, (or move the mouse pointer while the left button is pressed, and release when done) to choose and execute a menu entry.

The main menu has the following menus :

<u>System</u> - can be opened by pressing ALT-S.
<u>Files</u> - can be opened by pressing ALT-F.
<u>Query</u> - can be opened by pressing ALT-Q.
<u>Exclude</u> - can be opened by pressing ALT-E.
<u>Help</u> - can be opened by pressing ALT-H.

Contact

If you want to register the <u>TXS</u> program

   Please contact :

   ISoft D&M,
   P.O.B 5517
   Coralville IA 52241,
   U.S.A

To contact the author directly please write to :

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   ISRAEL

   e-mail address : CompuServe - 100274,162

Credits

TXS was written using Turbo Pascal 6.0 and Borland Pascal 7.0 with objects. (Trademarks of Borland International).

TXS hyper-text help sub-system was written using the HLPDK HELP Dev. Kit system by Ron Loewy, and the PARADOX ENGINE V3.0, copyright - Borland International. The TXS run-time does not use the Paradox Engine, but it was used to debug the system.

The TXS.HLP windows help file was produced using V5.0 of the helpC help compiler, and Windows Help Compiler Version 3.0b.

E.T. Floyd wrote the DDJ published DICT unit, I used the ideas in this unit to create TXS, and was helped by the published source code, but My dictionary uses different hash algorithm. (I saw that in DDJ Jan. 1991 MR. Floyd answered a letter regarding the hash algorithm.), I removed some of the code I did not need from the DICT unit, and added the ability to remove keys from the dictionary.

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Windows is a trademark of Microsoft corp.

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Version 1.2 implemented a real-time clock that was rewritten in assembly from an idea I received after looking at a TP code written by Stefan Tritscher.

Version 1.2 implemeted the enhanced cmdWin command log after looking in the assembly code supplied with execws 1.5 from Turbo Power and applying it to my INT2E interface .

Roby Gilad showed me the bug about font-size detected on some VGA screens, and offered the mathematic logic substitution operators that were added on version 2.0

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Terminology

The following Terms are used in the <u>TXS</u> program :

<u>Dictionary</u>
<u>Search/Query</u>
<u>Logic Expression</u>
<u>Exclude words</u>

Dictionary

The term Dictionary has the following meaning in the TXS program :

A dictionary is an index (built using existential dictionaries) that is
defined on a set of static text files. A dictionary description is
saved in a dictionary definition configuration file.

Choose the following Menu options to perform the following actions :

System|New - to create a new dictionary.
System|Stats - to display current dictionary statistics.
Files|Add - to add a new file to the dictionary.
Files|Remove - to remove a file from the dictionary.
Files|Display - to display files from the dictionary.
Query|Query Log - to query the dictionary.
Exclude|New - to start a new exclude index for dictionary.
Exclude|Add Words - to add word to the exclude index of the dictionary.
Exclude|Rebuild - to Re-build the exclude index from a text file.

Exclude Menu

The Exclude menu of the TXS is used to define an exclude Words
list to the current active dictionary.

Open this menu from the main menu, and choose one of the following
options :

New - to start a new exclude index to the dictionary.
Add Words - to add words to the exclude index.
Rebuild - to rebuild the exclude index from a text file.

Menu Activation key : ALT-E.

Exclude|New Option

Use this menu option to start a new index of <u>exclude words</u> for the current <u>dictionary</u>. This option deletes the previous exclude index and starts a new one.

To Reach this option :

 Exclude|New

Related information :

<u>Exclude Menu</u>
<u>Exclude|Add Words</u>
<u>Exclude|Rebuild</u>

Exclude|Add Words Option

Use this menu option to add <u>exclude words</u> to the current <u>dictionary</u> exclude index.

This option updates the exclude index of the dictionary.

To Reach this option :

 Exclude|Add Words

Related information :

<u>Exclude Menu</u>
<u>Exclude|New</u>
<u>Exclude|Rebuild</u>

Exclude|Rebuild Option

Use this menu option to Re-Build the <u>exclude words</u> index of the current <u>dictionary</u> from a text file that contains a list of exclude words.

This text file must have only one word on every line, and have the name of the current dictionary with the suffix .EXL (e.g. TXSDEF.EXL)

To reach this option :

 Exclude|Rebuild

Related information :

<u>Exclude Menu</u>
<u>Exclude|New</u>
<u>Exclude|Add Words</u>

Exclude Words

The term Exclude Words is used in the <u>TXS</u> program to describe a set
of words that are defined as words that are assumed to exist in all
the text files indexed by the dictionary. The <u>search</u> algorithm checks
for the existance of a word in a particular file of the <u>dictionary</u> by checking
if the word is in the exclude word index, if it is the algorithm returns
True for this word's existance in the file, otherwise the algorithm
calculates the hash value and checks in the dictionary index files.

Choose the following <u>Menu</u> options to perform the following actions :

<u>Exclude|New</u> - to create a new exclude index for the dictionary.
<u>Exclude|Add Words</u> - to add words to the exclude index.
<u>Exclude|Rebuild</u> - to Re-build the exlude index from a text file.

Files|Add Option

Use this menu option to add new file(s) to the current <u>dictionary</u>, you will be given a prompt screen in which the name of the file to be indexed and added to the dictionary, should be written.

The <u>TXS</u> program will scan this file, and update the index files and dictionary configuration files to include information about the words in this file.

To reach this option :

 Files|Add

Related information :

<u>Files Menu</u>
<u>Files|Remove</u>
<u>Files|Display</u>
<u>Files|Print</u>

Files|Remove Option

Use this menu option to remove file(s) from the current <u>dictionary</u>,
A list of the current files that are indexed in the dictionary, from which
you will be able to choose the files you want to remove from the
dictionary.

The <u>TXS</u> program will scan the file, remove the hash entries
from the dictionary, and delete the files entries in the dictionary
definition configuration file.

To reach this option :

 Files|Remove

Related information :

<u>Files Menu</u>
<u>Files|Add</u>
<u>Files|Display</u>
<u>Files|Print</u>

Files|Print Option

Use this menu option to format and print file(s) from the current <u>dictionary</u>,
A list of the current files that are indexed in the dictionary, from which
you will be able to choose the files you want to print from the
dictionary.

The <u>TXS</u> program will scan the file, and format it with
the options you specify from the prompt screen.

To reach this option :

 Files|Print

Related information :

<u>Files Menu</u>
<u>Files|Add</u>
<u>Files|Display</u>
<u>Files|Remove</u>

Files|Display Option

Use this menu option to display file(s) from the current <u>dictionary</u>, in a browse text window. A list of the files indexed in the dictionary will be displayed, from which you will be able to choose the files to display.

The browse window files can be viewed, and searched using the <u>System|Find</u> menu option.

Reach this option using

 Files|Display

Related information :

<u>Files Menu</u>
<u>Files|Add</u>
<u>Files|Remove</u>
<u>Files|Print</u>

Files Menu

The Files menu of the <u>TXS</u> is used to manage the files indexed by the current <u>dictionary</u>.

Open this menu from the <u>main menu</u>, and choose one of the following options :

<u>Files|Add</u> - to add files to the dictionary.
<u>Files|Remove</u> - to remove files from the dictionary.
<u>Files|Display</u> - to display files indexed in the dictionary.
<u>Files|Print</u> - to print files indexed in the dictionary.

Menu Activation key : ALT-F.

Help Menu

The Help menu of the <u>TXS</u> is used to provide hyper-text help to
the TXS system. Choose one of the options in this menu to recieve
detailed help on the option chosen.

In the help window opened, you can choose Links (hi-lighted word) that
will display the word that is hi-lighted. Links appear in a different
color then the back ground and text color. The active (current) link
is hi-lighted in RED.

Choose the active link, from the possible links by using the Tab and
Shift-Tab key.

Open this menu from the <u>main menu</u>, and choose one of the following
options :

<u>Overview</u>
<u>Terminology</u>
<u>Operation</u>
<u>Help</u>

Menu Activation key : ALT-H.

Logic Expressions

The queries understood by the query window
in the TXS are the form :

   [NOT] search-word-1 [AND | OR | XOR [NOT] search-word-2 [AND | ...]]

   Some examples will clarify the definition :

 RON and not landmark   - will print all of the files that
                                                    contain the word RON, but do not
                                                    contain the word LANDMARK.
 JOG or DIE   - will print all the files that
                                                    contain the word JOG, or the
                                                    word DIE, or both of them.
 JOG xor DIE   - All of the files that contain
                                                    either one of the words DIE or JOG,
                                                    but not both of them.

   Some points to consider :

   TXS does not make a difference between upper and lower case letters. -
 lanDmark, LANDMARK, landMArK and landmark are all the same.

   TXS define a word - any set of characters ['a'..'z', 'A'..'Z'].

   Operator precedence   : NOT, AND, XOR, OR.

   Over-riding operator precedence - using the () notation :

Joe and Mark or Jehoshaphat

   is the same as : (Joe and Mark) or Jehoshaphat,   but

Joe and (Mark or Jehoshaphat)

   is different, and will yield different results.

   Operator substitution : NOT = , AND = *, XOR = @, OR = +

   Joe AND Mark   is the same as
   Joe * Mark

   Mark XOR (Joe OR Jill AND NOT Ben)   is the same as
   Mark @ (Joe + Jill * not Ben)   and as
   Mark @ (Joe OR Jill AND NOT Ben)

Query|Query Log Option

Use this menu option to bring one of the open query windows to the top of the TXS desktop.

In the query window you can enter a logic expression to initiate a search on the current dictionary.

To Reach this option :

 Query|Query Log

Related information :

Query Menu
Query|Open Log

Query|Open Log Option

Use this menu option to open a new query window on the top of the <u>TXS</u> program desktop.

This window can be used to enter a <u>logic expression</u> to initiate a <u>search</u> on the current <u>dictionary</u>.

To Reach this option :

 Query|Open Log

Related information :

<u>Query Menu</u>
<u>Query|Query Log</u>

Query Menu

The Query menu of the TXS is used to open Query windows,
and perform searchs using Logic Expressions on the current
dictionary.

Open this menu from the main menu, and choose one of the following
options :

Query|Open Log
Query|Query Log

Activation key for this menu is : ALT-Q.

Search

The Term Search (Query) is defined in the <u>TXS</u> program as a pass
that is performed on the <u>dictionary</u> index, and testing for each
<u>file</u> in the index, if the <u>logic expression</u> defined
in the query results in an exist (match), or not.

To initiate a search refer to the following information :

<u>Query Menu</u>
<u>Query|Open Log</u>
<u>Query|Query Log</u>

System|Find Option

Use this menu option to find a word in a <u>browse window</u> that
is the active window on the top of the <u>TXS</u> program desktop.

You will be asked for a word to find, and TXS will search for the word in the
file, and if it exists, will scroll the window to this word.

To reach this option :

 System|Find

Related information :

<u>System Menu</u>

System Menu

The System menu of the <u>TXS</u> is used to manage the the entire TXS working environment.

Open this menu from the <u>main menu</u>, and choose one of the following options :

<u>System|Path</u> - to set the working directory.
<u>System|Directory</u> - to browse a directory list.
<u>System|New</u> - to start a new <u>dictionary</u>.
<u>System|About</u> - to display <u>TXS</u> logo, and <u>contact</u> information.
<u>System|Command</u> - to open a dos command window.
<u>System|Stats</u> - to display information on the current dictionary.
<u>System|Find</u> - to find a text in a <u>browse window</u>.
<u>System|Options</u> - to set global TXS options.
<u>System|Quit</u> - to leave the TXS program.

Activation key for this menu is : ALT-S.

System|About Option

The About menu option is used to display the <u>TXS</u> program logo and <u>contact</u> information. Use this option to find the current version of TX Syou are using.

To reach this option :

 System|About

Related information :

 <u>System Menu</u>

System|Command Option

The Command and cmdWin options are used to open a dos command box, and allows the user to initiate dos commands without leaving TXS.

To reach this option :

 System|Command
 System|cmdWin

Related information :

 System Menu

Technical information :

   The command window is a window that offers a text field in which the user can enter DOS command lines, and TXS will mimic the shell operation, and display the results in the window, however, this feature is very dangerous, because DOS is not a reentrant operating system, to use this feature you must understand how TXS handles the commands entered at the command line.

   TXS uses the undocumented DOS INT2E to transfer control to the parent OS shell, this method was chosen to allow floppy diskettes users use this feature without having to put the boot diskette in the boot drive, (otherwise we will have to load a secondary shell), this approach, however causes difficulties with some of the command shells available. 4DOS for example does not normally support INT2E, J.P.Software supplies a free TSR program called SHELL2E, to allow 4DOS users to use INT2E, if you use 4DOS, get that program, and load it in your AUTOEXEC.BAT file.

   APP uses an old time trick to display the results of the command in the window, (assuming the command does not write directly to screen), by re-directing the command output to a temporary file, and displaying it. This approach restricts you to use some of the normal commands, commands that require user response, will not work - unless you know the required response by heart.

   This feature is only useful for quick analysis - to list an archives contents, to look at the memory list (using mcbList ..), etc.

(***) - cmdWin - The enhanced command log window - This window was added
          from version 1.7 - this window uses an idea I got from the
          execws unit published by Turbo Power and implemented a similiar
          clip to window to stdout, stdin and stderr by hooking to the
          int 21 vector. Do notice that the code used by me was rewritten
          to hook into my INT2E interface (while execws uses a swap mechanism
          and calls DOS EXEC function). The reason I left both the command
          and cmdWin windows is as follows :
          the cmdWin does not create a temporary file and reads from it, so
          lines that are longer then the current window display are wrapped
          around and not truncated, this can cause a very messy display inside
          that window, however - the cmdWin window will display input requests
          from the user, and wait for responses without the need to remember

the answers. In cmdWin you can type DIR *.* /P and see the "Press any key for more ..", while the normal Command window will wait for the key Press without displaying the message !
- The advantage is that user response is now available through a window !

System|Directory Option

This menu option is used to open a directory list that displays the files of the current directory in a window. The list can be scrolled, and you can change directories by pressing enter on a directory entry.

To reach this option :

 System|Directory

Related information :

System Menu
System|Path
System|Options

System|New Option

Use this menu option to start a new <u>dictionary</u> index. The dictionary files will be created, and you will be able to assign files and <u>exclude words</u> to the dictionary.

To reach this option :

 System|New

Related information :

<u>System Menu</u>
<u>System|Stats</u>

System|Options Option

Use this menu option to set global TXS options, such as
the directory window sort order, The use of a
dialog directory window vs. a floating directory window, and the use
of 43/50 rows on EGA/VGA screens vs. 25 rows.

To reach this option :

 System|Options

Related information :

 System Menu

System|Path Option

Use this menu option to change the current working directory. You will be asked to specify the path, and a change directory command will be issued by the <u>TXS</u> program.

To reach this option :

 System|Path

Related information :

<u>System Menu</u>
<u>System|Directory</u>

System|Quit Option

Use this menu option to leave the TXS program. You will be asked to confirm that request, Tab to the Exit button and press enter.

If The dictionary you have been working on was changed you will be asked if you want the changes to be saved or discarded.

To reach this option :

 System|Quit

Related information :

System Menu

System|Stats Option

Use this menu entry to display statistics about the current <u>dictionary</u>.
This option specifies the dictionary name, number of files, and keys in
each directory index file.

To reach this option :

 System|Stats

Related information :

<u>System Menu</u>
<u>System|New</u>