# Rexx Language Association 2011 Symposium

# Transforming THE to be more than JUST an editor by using Rexx macros

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### **Abstract**

I will demonstrate Rexx macros that expand the basic operations of THE from those of a typical Eastern Orthodox Editor to a powerful tool that multiplies the productivity of the user.

We will explore some of the most used macros, as well as the less used but most powerful.

If time permits we can explore the code for individual macros, as needed.

# **Notes about this presentation**

This presentation was written after the actual online demonstation given during the Symposium, where I used the headers herein as a guide to what I wanted to demonstrate.

I've attempted to reproduce the main points of the demonstration, both in prose and screenshots. Of course I can't guarantee a one-for-one correlation. There may be either more or less here!

This is not an "Introduction to THE", however it does include some of THE's basic features so you can see the expanded capabilities that improve productivity.

## No profile

When run from the command window with the "-n" flag set, THE will display the current directory. Here I've navigated to the THE directory, so it shows the directory that it was launched from, just like it would if it was launched from a shortcut:

```
THE 3.3RC2 - DIR: C:\THE\
                                                                                                    _ | _ | >
DIR: C:\THE\
                                             Line=0
                                                             Col=1
                                                                         Size=21
                                                                                       Alt=0.0
000000 *** Top of File ***
000002
00004
000005.a..
                          30628 12-Feb-2012 23:18 C_test.0.SDV 2167 12-Feb-2012 22:49 C_test.1.SDV
000006<mark>.a..</mark>
                          18321 4-Jan-2001 4:42 COPYING
000007.a..
000008
000009....
000010.a..
                         109234 12-Sep-2011 18:01 HISTORY
000011.a.
                 Copyright 1991-2011 Mark Hessling
                                                                       4:41pm
                                                                                    =20/032
```

Just like Xedit, what you get is very basic. To actually start using THE, you have to become familiar with its documentation:

#### Help

- Help command F1
- Showkey command
- THE.pdf In the C:\THE\doc folder
- Internet (independent, THE Version 3.0) <u>THE Help</u> http://www.gut-wirtz.de/THE/rearranged/index.htm/

#### **Screen Navigation**

Home key

Toggles between the command line and where the cursor was.

F12

Toggles between the file area and the prefix area.

Selecting a file to edit

From DIR.DIR:

Position the cursor to the entry of interest, either in the file area or prefix area, and press ALT-X. Note that a (dir) entry points to another directory and if selected will replace the current one. The '..' entry points to the next higher directory. You can also use the command line and the DIR command to switch to the directory of your choice.

From the command line enter:

the complete\_filepath

#### Adding a file to the ring

Either navigate to a DIR and select a file as above, or simply use the THE command and specify a full filepath.

#### Navigating the ring of files - F2

F2 will take you to the next file in the ring of files.

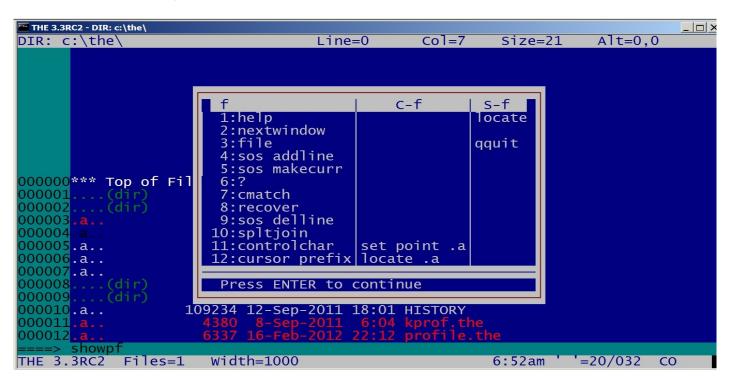
#### File area

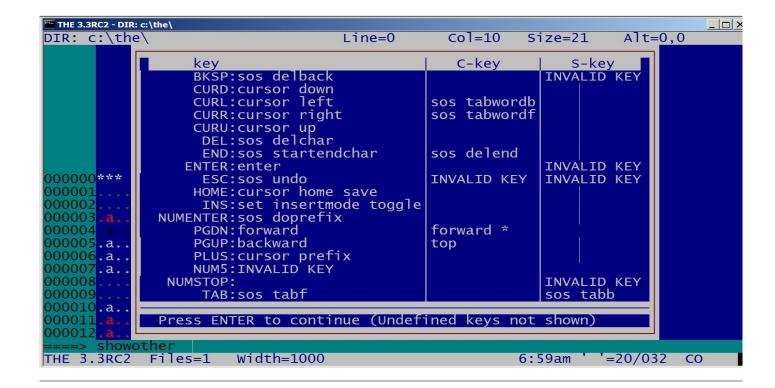
The file area is where you input or change the contents of the file you are working on. By default, the cursor must be in the filearea in order to use F12 to get to the prefix area and the Home key must be used to get to the command line.

#### Arrow keys

The arrow keys position the cursor within the filearea. If the upper, lower, left or right limit of the visible screen is reached, the screen will scroll appropriately.

Here are some screenshots, created by some of my macros, that show some of these default settings:





# With profile

- Copy of profile.the in C:\THE folder
- Does basic setup and then invokes:
  - · userprof.the to make debugging or enhancing easier
  - userprof does some tailoring and runs individual macros to complete the setup:
    - set\_thumbs
    - · defkeys
    - synonyms
    - setpfkeys

Finally, it does some checking to handle the RexxOutput file, as well as the processing for an 'old' or 'new' file.

**profile** then gets control back and runs **checkfile.the** to compare the folder name against a list of "normal" folders, issuing a one time warning message if needed.

The final result looks like this:

The command line has been moved to the top, where I prefer it, there are reserved lines at the bottom to display the function and shift-function keys and the status line now shows the userid and screen dimensions.

Notice that there is no function key to navigate to the prefix area. That is because the filearea is no longer bounded and doesn't scroll automatically. This is more like how Xedit behaves, and what I'm used to. I can use the arrow keys or the number pad '+' key (from the filearea) to get to the prefix area.

### **Macros**

The true power and flexibility of THE is in the macros you use. The ones supplied are just a starting point, demonstrating some of the things that you can do.

Here's a list of the macros that I have indexed for the Extended Help Facility that I wrote:

altered	Display altered/new lines
append	Append string to targeted lines
att	Collect/insert Attachment filenames. See Note
bkup	SET BACKUP for my USERPROF
both	Issue a command against both split screen files

boxes Draw enhanced boxes

checkfile Check for non-owned disk/folder

clearpf Clear defines for pfkeys to revert to defaults

cmdsave Save cmdline commands for smart\_enter for recall by

retrieve

cmdx Extract setting and put cmd setting in command line

ctls Repository for various CTL sequences

decode Decode an encoded string

defkeys Define hot keys

defmouse Define mouse settings

delay Read and execute keybd keys, optionally returning

key sequence

delaymsg Delay clearing of a msg by using DELAY to usurp

CLEARERRORKEY

desktop Set or show if desktop is to be connected to lan

diff Improved version of Mark's original diff macro

dir\_colors Set colors for DIR file

dirs Show popup to select from favorite DIRs

doline Execute the current line as a command

dolist Execute commands against a list of files

dostack Emulate Xedit stack... needs more work

drawchars Variable settings for drawing. Hex table included

editvx EDITV eXtended for easier use

Excel Constants Get Excel Constants and add to bottom of file

explode Explode a .PKG file

ff Flip flop between files in the ring

fileencode Encode N lines of a file

filelist Build a list of a subset of DIR.DIR

fix\_income\_expense Tidy up HOA report

fix\_path Fix the PATH setting to include MyRexxStuff

fix\_pkg Fix .PKG files to point to recipients folders

fixdo Fix standalone DO statements by joining to previous

line

fixfind Convert FIND() to WORDPOS()

fixoocmt Change ooRexx comments (double-dash) to Classic

Rexx

fixpdf Change 4 dots to 3 dots to make a Table of Contents

narrower

fixprops A model for multiple changes to a file

flow Flow text.

flscreen Emulate Xedit FLSCREEN command

format\_dumpvars In process

get\_unused\_keys Find all unused keys

getvar Get tailoring variable

goodargs Generic routine for passing args for validating

helpx THE Help eXtended

helpx\_user Help Extended user exit

helpxmenu THE Help Extended menu manager

helpxusermenu Helpx User Exit menu manager

how Tell/return how program was invoked

index\_help\_cmds Helpx indexing command

index\_help\_query Helpx indexing cmd

index\_help\_set Helpx index SET

index\_help\_sos Helpx index SOS

lesk how Tell/return how program was invoked

leskl Rewrite of L. In progress

leskll Rewrite of LL. In progress

less Remove lines from the ALL display

listf Help maintain EDITV LISTF settings

locatecursor Emphasize cursor in filearea

me Insert Rexx code to self identify

more Add lines to the ALL display

msglog Sample code for writing to a message log

namefind Look up a name in the Tbird exported LDAP file

newfile Initialize a new file and update chicken tracks

nico Game

nico1 Game

noprof Edit a file w/o running the profile but w/additional

cmds

note Create a note

ok Set flag to filter selected error msgs

oldfile Update chicken tracks and invoke CHECKFILE

oo2rexx Convert ooRexx comments to Classic Rexx

oofix Convert mainframe disallowed var chars to ooRexx

standard

oofix Convert mainframe disallowed var chars to ooRexx

standard

package Build zip files for an EXPLODEd .PKG file

packages Build a list of all the .PKG files in the current DIR

pause Collect THE information for RESUME. Defunct; use

Hibernate

pickfile Resolve command/prefix/filearea for selecting a file

pkg Set/Add to a .PKG file

pkgprefix Set the pkg prefix string

pop Pop a setting that has been PUSHed - Incomplete

popcurs Pop the cursor setting

popdef Pop a DEFINE setting

poppf Pop a pfkey setting

prefixcmd Allow a THE command from the prefix area

prefixg Prefix Get - Incomplete

prefixhelpxmenu Drive the special Helpxmenu 'selection' from a list

prefixhelpxusermenu Drive the special Helpxusermenu 'selection' from a list

prefixII Prefix LL - Incomplete

prefixmark Prefix HH

prefixpt Prefix PUT

prefixxc Prefix copy to clipboard

prefixxfp Prefix copy from clipboard to file

present Change colors for presenting

profile Copy of my profile

push Generalized PUSH. Doesn't work all that well

pushcurs Push the cursor values

pushdef Push the DEFINE values

Push the pfkey settings so they can be changed and

then popped

register\_notes Notes from Rony on manipulating the Windows

Registry

reload Quit and Redit the current file

retrieve Retrieve a CMDSAVE line

rextry Experimental REXTRY for THE

rexxedit Execute Rexx commands from the THE/Xedit session

rexxfmt Format a Rexx/THE program. Doesn't handle ooRexx

comments

ringlist Display a popup of all the files in the ring

rm Remove a file from the DIR

run Run the code being edited. Improved version of MH's

**RUNIT** 

scanfile Scan all the tiles of the filetype passed for a string

sendmail Send the mail item being edited

set\_thumbs Set EDITV vars for thumb drives. Requires tailoring!

setpfkeys Set pfkeys and prose to display

showalph Show the alphabetic key settings

showdirs Show the preferred directories. Invokes DIRS

showecolor Show extended colors in a popup

showhex Show hex in a popup

showmouse Show mouse settings in a popup

showother Show 'other' key settings in a popup

showpath Show the system path setting

showpf Show the pfkey settings in a popup

shows Show a popup of all the SHOW... macros

smart enter Enhance the ENTER key for Rexx code completion,

etc.

splitone Split the lines of a one-lined Rexx program

statusarea Maintain the STATUSOPT area of the STATUSLINE

synonyms Set SYNONYM values

timeit Show the execution time of a macro

tosub Position to the subroutine called on the focus line

total Total the numbers in a marked block and insert the

answer

uniqueid Emulate Xedit UNIQUEID command

usable\_screen\_size Calculate usable screen size

userprof My extension to PROFILE

version Display the version of Windows, THE and Rexx.

Needs expanding

view View the Windows file

words Count the number of words to the target

xtohtml Convert an X2 edit sesstion to HTML. Wesley Miller

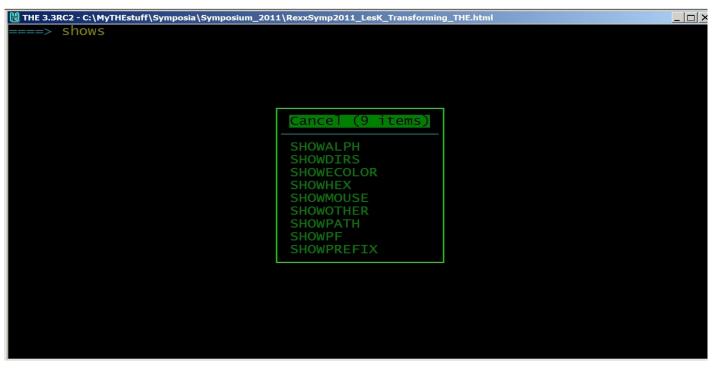
xtract Show an EXTRACT result

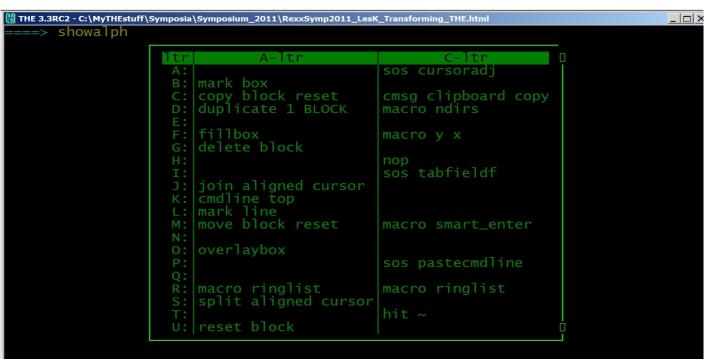
y A replacement for SOS EDIT, with added functionality

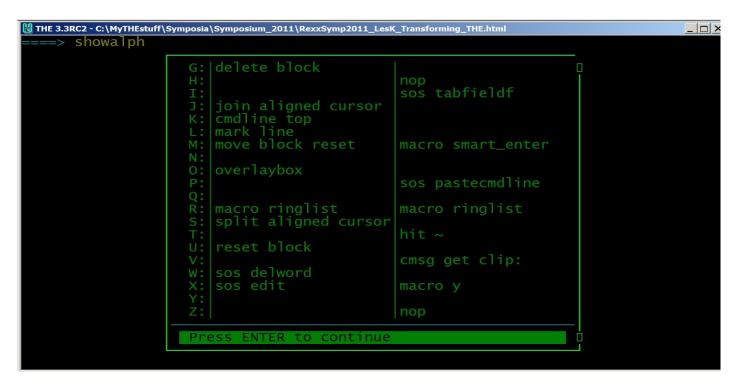
# **Example - SHOWS**

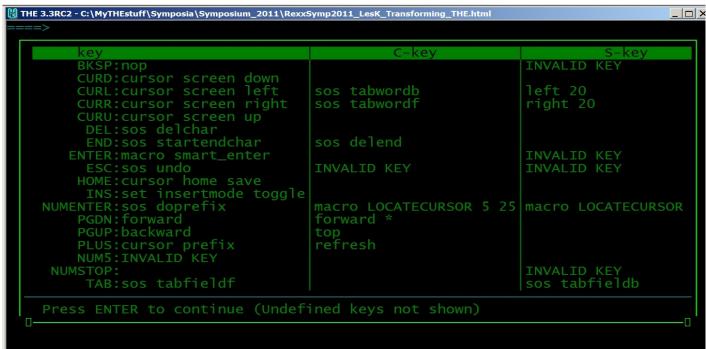
Below are some screenshots of some of the first macros I wrote to help me with some of the various shortcuts that enhance productivity.

All of them use the POPUP command to display a selection menu that is navigated with the arrow keys.









```
### THE 3.3RC2 - C:\MyTHEstuff\Symposia\Symposium_2011\RexxSymp2011_Lesk_Transforming_THE.html

### THE 3.3RC2 - C:\MyTHEstuff\Symposia\Symposium_2011\RexxSymp2011_Lesk_Transforming_THE.html

### THE 3.3RC2 - C:\MyTHEstuff\Symposia\Symposium_2011\RexxSymp2011_Lesk_Transforming_THE.html

### C-F

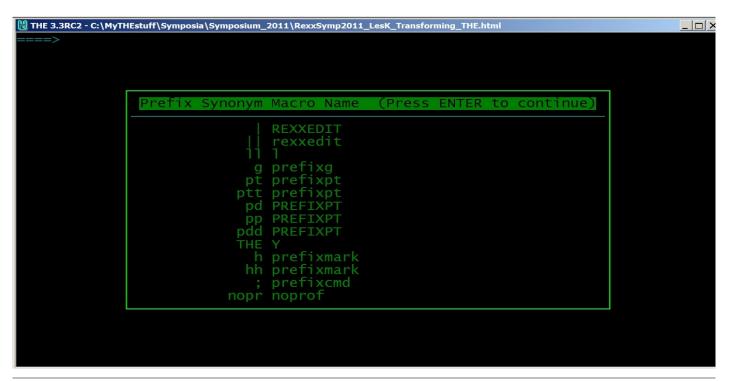
### S-F

### C-F

### S-F

### I cocate

### Command cmsg THE #macro smart_enter
### prevwindow
### qquit
### macro SendMail
### macro SendMail
### macro sendMail
### macro sendMail
### macro retrieve ?MN
### edity listf
### macro pkg a
### gith in the set point in the
```



# **Example - Favorite DIRS**

It is usually the case that files of interest are scattered across multiple directories. Generally, this means that you do a lot of typing to either change directories or use the full filepath to edit the file.

This slows your productivity, not only from the typing itself, but also from the typing errors that you might make.

My solution to this problem is the DIRS macro, which produces this popup menu of my favorite folders for me to select from:

```
Cancel, or press Q (21 entries on 2 disks Time=0.282000)

C:\MyTHEStuff\Symposia\Symposium_2011\DIR.DIR
C:\MyTHEStuff\C:\MyTHEStuff\Symposia\Symposium_2011
C:\MyTHEStuff\Symposia\Symposium_2011
C:\MyTHEStuff\Email
C:\MyTHEStuff\Email
C:\RexxLA2011
C:\RexxLA2010
C:\Program Files (x86)\ooRexx\Samples
C:\Program Files (x86)\ooRexx\Doc
C:\Program Files (x86)\bsf4ooRexx\samples
C:\Regina
C:\Regina
C:\Regina\doc
C:\THE
C:\THE\extras
C:\MyTHEStuff\THE_Source
C:\
C:\MyRexxStuff\JTSWin32
C:\Users\Les Koehler\AppData\Local\Temp
```

I have it defined as the CTL-D hotkey combination so it is always readily available.

The popup is built from Favorite and Ignore entries in **getvar.the**. See my other presentation:

OS and Rexx interpreter neutral application tailoring

Here I've captured only the first screen, as indicated by the blue horizontal separator line. It is optionally added when the drive letter changes.

## **Example - Virtual DIRS**

THE can only have one DIR.DIR file in the ring, but this is often not sufficient for the way I like to work. To overcome this restriction, I've written a macro (**y.the**) that handles an arbitrary list of files just as if it were a DIR.DIR. For example:

```
THE 3.3RC2 - C:\MyTHEstuff\LesK_Macro_Packages.PKG
                                                                                                                                      \MyTHEstuff\L<>cro_Packages.PKG Size=33
                                                                                Line=10
                                                                                                     Col=1
                                                                                                                    Alt=0.0
            \MyTHEStuff\LesK_Macro_Packages.PKG
\MyTHEStuff\Tips_for_THE_macro_authors.txt
\MyTHEStuff\LesK_checkfile.the.PKG
\MyTHEStuff\LesK_defkeys.the.PKG
              MyTHEstuff\LesK_defmouse.the.PKG
              (MyTHEstuff\LesK_dirs.the.PKG
(MyTHEstuff\LesK_dumpvars.txt.PKG
(MyTHEstuff\LesK_editvx.the.PKG
(MyTHEstuff\LesK_explode.the.PKG
         ■:\MyTHEstuff\LesK_Helpx.PKG
                 yTHEstuff\LesK_He]px_Process_Source.PKG
              MyTHEstuff\LesK_He]px_Process_Source_Output.PKG
              (MyTHEstuff\LesK_Helpx_Source.PKG
(MyTHEstuff\LesK_helpx_user.the.PKG
(MyTHEstuff\LesK_moreless.PKG
(MyTHEstuff\LesK_newfile.the.PKG
              MyTHEstuff\LesK_other_macros.PKG
              MyTHEstuff\LesK_Package_Notes_PLEASE_READ.txt.PKG
MyTHEstuff\LesK_pickfile.the.PKG
MyTHEstuff\LesK_pkg.the.PKG
                                       4Save
                         3Quit
                                                    5Curl
                                                                         7()[]
>1Add
             2Next
                                                                                     8Undo 9= 10ToSub
                          Qquit
                                         Send
                                                                  ?MN
                                                                                                         RetSub
```

Each .PKG file is a list of files that belong to that package of code. Essentially an inventory of the dependencies for the package. Selecting one with CTL-X, as shown earlier, adds that file to the ring, as you can see:

```
THE 3.3RC2 - C:\MyTHEstuff\LesK_Helpx.PKG
:\MyTHEstuff\LesK_Helpx.PKG
                                              Size=9
                                                               Line=6
                                                                                Col=1
                                                                                           Alt=0,0
           MyTHEstuff\LesK_Helpx.PKG
MyTHEstuff\helpx_readme.txt
           MyTHEstuff\helpx.the
           \MyTHEstuff\helpxmenu.the
\MyTHEstuff\noprof.the
       C:\MyTHEstuff\prefixhelpxmenu.the
          \MyTHEstuff\LesK_Helpx_Process_Source.PKG
\MyTHEstuff\LesK_Helpx_Source.PKG
-»1Add
                                                                   8Undo 9= 10ToSub
          2Next
                    3Quit
                               4Save
                                         5Curl
                                                    ?MN
                                                                     PkgA
                                                                                   RetSub
  Loc
                     Qquit
                                 Send
```

Although the above doesn't show it, such a list is not restricted to only one file path. It can point to files anywhere on the pc. The .PKG extension used here has special meaning to other macros that I've written to help me automate the process of creating 7zip files for my packages.

y.the also recognizes other special files that have extra data after the fileid:

- The output of scanfile.the (see below)
- · My Extended Help Facility files
- Izip.the files

Thus one hotkey (CTL-X) handles pretty much everything that might be a list of files. You might, for instance, create lists by project, programmer, department, programming language or any other criteria that makes sense to YOU!

## Example - VIEW

The **view** macro is a front-end to the Windows 'Start' command. It uses THE commands to pass the fileid to Windows and then restores the THE window.

Its obvious use is for displaying Windows files from a (virtual) DIR. Not so obvious is the idea of putting file or internet references as stand alone entries within a comment block that you can use later when you're working on the code.

## **Example - SCANFILE**

This macro, named after a VM/CMS program, scans files to locate a character string of interest. Options allow you to:

- Specify the file extension of files in the current DIR to search
- Specify that the current file is a list of files to search
- · Specify that the current file is a list of lists of files to search recursively

#### The resulting file might look like this:

```
C:\MyTHEStuff\kok.the (HIT macro list - :14 1 ) - 'macro list ADD OK.0 0'
C:\MyTHEStuff\kok.the (HIT macro list - :26 1 ) - -- 'macro list OK.0 ~'z
C:\MyTHESTUFF\kok.the (HIT macro list - :41 1 ) - -- 'macro list OK.0 ~'f
C:\MyTHESTUFF\kok.the (HIT macro list - :42 1 ) - 'macro list ADD OK.'f ok.f
C:\MyTHESTUFF\list.the (HIT macro list - :8 1 ) - Syntax: MACRO LIST
C:\MyTHESTUFF\list.the (HIT macro list - :9 1 ) - MACRO LIST ADD MASTERKEY
~data
C:\MyTHESTUFF\listf.the (HIT macro list - :9 1 ) - MACRO LISTF ADD MASTERKEY
~data
C:\MyTHESTUFF\listf.the (HIT macro list - :9 1 ) - MACRO LISTF ADD MASTERKEY
~data
C:\MyTHESTUFF\listf.the (HIT macro list - :66 1 ) - "MACRO LIST ADD RINGLISTORDER
NAME FIRST"
```

#### showing you the following information:

- the full fileid
- · the special delimiting string '(HIT',

- the string you were looking for
- the line number where it occurred
- the number of lines
- the closing delimiter string ') -'
- the contents of the line found

The file is a Virtual DIR, so positioning the cursor and pressing CTL-X will take you directly to that line number in the file. Another hotkey definition, CTL-F, will take you directly to the file, without positioning to the line.

# **Example - RUN**

RUN executes the code that you're editing, without you having to save it. You can use it to experiment with changes to code or to simply execute some example you may have found. Output is captured by the command:

```
rexxoutput file
```

having been issued by the **profile**.

It will try to ensure that the PATH is correctly set, but some BSF4OORexx code can confuse it.

# **Summary**

The macros you've seen demonstrate elevating THE from the realm of "Just an editor" to that of a "Productivity tool", just as has happened with Xedit on z/VM with FILELIST, RDRLIST and others.