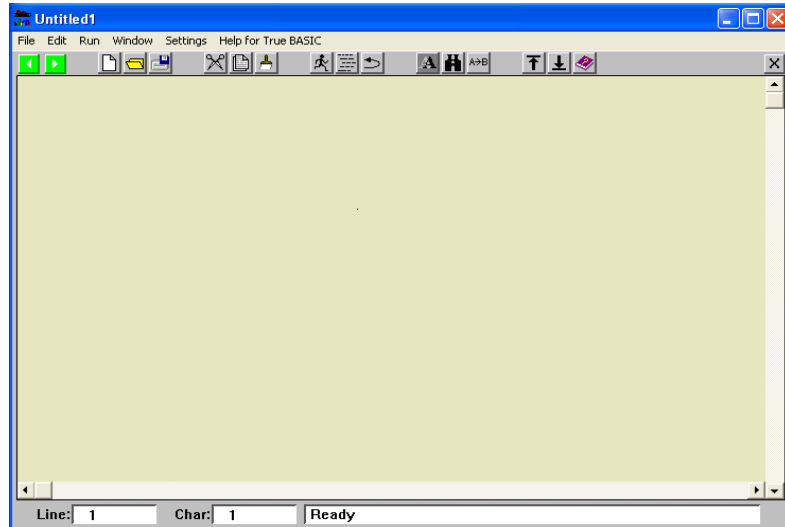


## Using the True BASIC 6.0 Editor - 6.005 Update

Even if you are familiar with word or text processors you are still advised to read these notes because the new True BASIC editor contains a number of unique features that are not available in previous TB editors or other text editors.

### START UP

When you start True BASIC for the first time the screen will show an empty window labelled “Untitled 1” in the top left corner of the screen. In earlier versions at start up, True BASIC displayed a small file selector dialog box where you can click on the NEW button to start with an empty, untitled window.



There are several ways of starting the editor:

- (1) Double click on the editor desk top icon.
- (2) Set up a file association between TRU files and the editor.
- (3) Drag file icons onto the editor icon
- (4) Chain to the editor from another application

File associations can be set up from Windows control panel:

Select Folder Options.

Click the File types tab.

Scroll down the list of extensions and click TRU

Click the CHANGE button.

Click the BROWSE button and then navigate to TBeditor.exe in the folder where you installed the editor.

Users with VISTA or Win7 are advised to set the program properties to “Run as administrator” to avoid conflicts with Windows' file protection settings. See the True BASIC Forum for detailed instructions on how to bypass the hidden administrator account to make this setting permanent.

## **DEFAULT SETTINGS (settings menu)**

The following settings have been pre-set, but you can customize them at any time. Any change in settings will remain in force until you next change them.

### ***Save on close***

The default setting is OFF, meaning that source code will NOT be saved automatically when you close or exit the editor. Setting this feature ON means that when you close the editor, then all currently open programs will be saved.

### ***Back-up on save***

The default setting is OFF, meaning that a back-up copy of your source code will NOT be automatically created whenever you save your program code. Setting this feature ON means that a back-up copy of your source program will be saved with the same program name, but with the extension BAK.

### ***Confirm quit***

The default setting is ON, meaning that whenever you attempt to close or exit the editor you will be asked if you are sure this is what you want to do. If this feature is switched OFF then you will not be asked if you are sure. The editor will shut down as requested.

### ***Hotstart***

The default setting is ON, meaning that when you start up the editor it will return to exactly the same conditions as it was when you last shut down. The programs you had open at the time will be re-opened and the last program you were using will be the focus. The position of the cursor will be the same as you left it. If this feature is switched OFF then the editor will start up with an empty 'Untitled' window. This feature was incorporated in many earlier versions of the editor but never worked consistently.

### ***Binder***

The program that runs, compiles and binds source code is called TBsystem.exe. The default version is 5.5b19. This means that your executable programs do not need the 3 DLL files that older versions needed. However, there are certain features of the old TBsystem file that you may prefer, in which case 531TBsystem.exe can be used.

### ***Aliases***

Previous versions of the editor allowed programs to use short filenames instead of the full pathnames in LIBRARY statements. A list of alias pathnames was used by the editor in order to locate the short filename. This principle is incorporated in the new editor. The default list contains alias types {library}, {do} and {help}. A maximum of 9 alias types can be specified by the user. Aliases can only be used with literal filenames, e.g. "{library}TrueCTRL.trc"

### ***Function keys***

The default setting is OFF. When the switch is on it means that the function keys F2 to F9 work in a similar way to the DOS version function keys, e.g. F4 marks or highlights a block of text, F5 copies and pastes this block, and F6 cuts and pastes this block. If this feature is switched OFF then the editor will not respond to the function keys. This feature has been enabled in this version.

### ***Short cuts***

The default setting is ON, meaning that all menu items will be shown with their short cut keystrokes. If this option is turned OFF then the menu displays will only show the menu item and not the equivalent short cut keystroke.

## **SINGLE WINDOW**

Unlike earlier versions of the editor, this version only has one window, whereas previous versions had one window for each open program. However, in the single window you can open up to 10 programs simultaneously. The two green arrow buttons allow you to switch between any of the open programs, just like the forwards and backwards buttons on a browser. The window title bar shows the name of the current program. You can also switch to a specific program by clicking your mouse on the program name in the list under the WINDOW menu. Note that the current program is ticked in this list. You can close any individual program by clicking the mouse on the close program button at the right hand end of the toolbar (black cross on a gray background). If you wish to compare two programs side by side, then start two instances of the editor. The number of simultaneous instances is limited only by your computer's memory.

## **RECENT PROGRAMS**

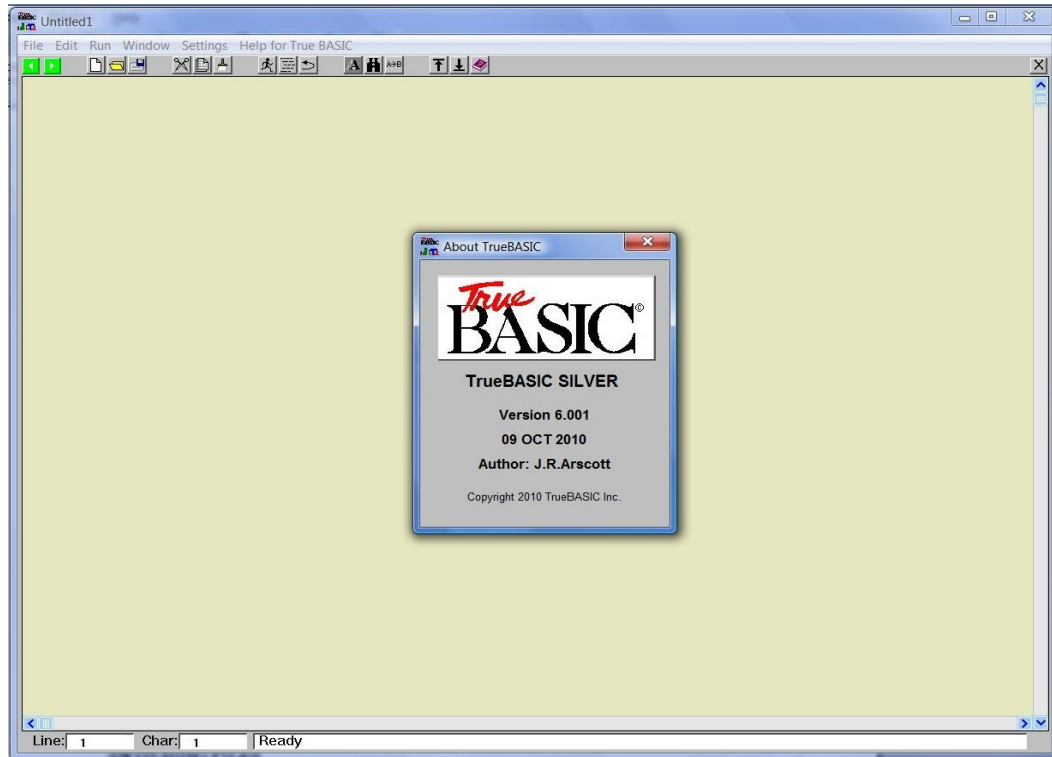
When you close a program it gets deleted from the list of open programs but at the same time it gets added to the list of the 10 most recently used programs, which you can see under the WINDOW menu. If you click the mouse on any program in the recently used list, then this program will be opened and will become the focus.

## **COMMAND LINE**

The command line in earlier versions appeared in its own window, called the command window, but in every other respect the new command line works the same way, i.e. you can type instructions on this line and the computer will execute them immediately without the need to select RUN. For example, you can type the word `FORMAT` and True BASIC will format (indent) your code. Similarly, if you type `RUN` then True BASIC will run the current program. If you type `VER` (version) then you will see the version number and date. Note that not all of the original commands will work in this version, in particular the `PRINT variablename` which allowed the user to stop the program and inspect the values of variables. This important feature has now been added to the `BREAKPOINT` feature instead.

## **COMMENTS**

An exclamation mark at the beginning of a line tells the computer to ignore the line because it is NOT a program instruction. These reminder notes are called "comments" and they can be used anywhere in your program. Indeed it is good practice to make comments after certain lines of code to remind yourself what that line of code is actually doing, because it is not always blindingly obvious. As an alternative to the exclamation mark (!) you may type the word `REM`, short for reminder.



A feature of the new editor is that if you highlight a block of text by dragging your mouse across the text, then you can comment all the lines in the text by typing the exclamation mark just once. This is a toggle action feature in that you also un-comment a block of lines by doing the same operation. The toggle action works on the basis that if any line does not have a comment mark then it will add one, whereas if the line already has a comment mark, it will be removed.

### **AUTO EXTENSIONS (TRU)**

NEW or blank programs can be selected in the same way. By default the name of the blank program is shown on the window title bar as 'UNTITLED'. You can define an appropriate name for the program when you save it. It is a feature of the new editor that program names automatically have the extension TRU added to the name if no other extension exists. This was a feature of the old DOS editor.

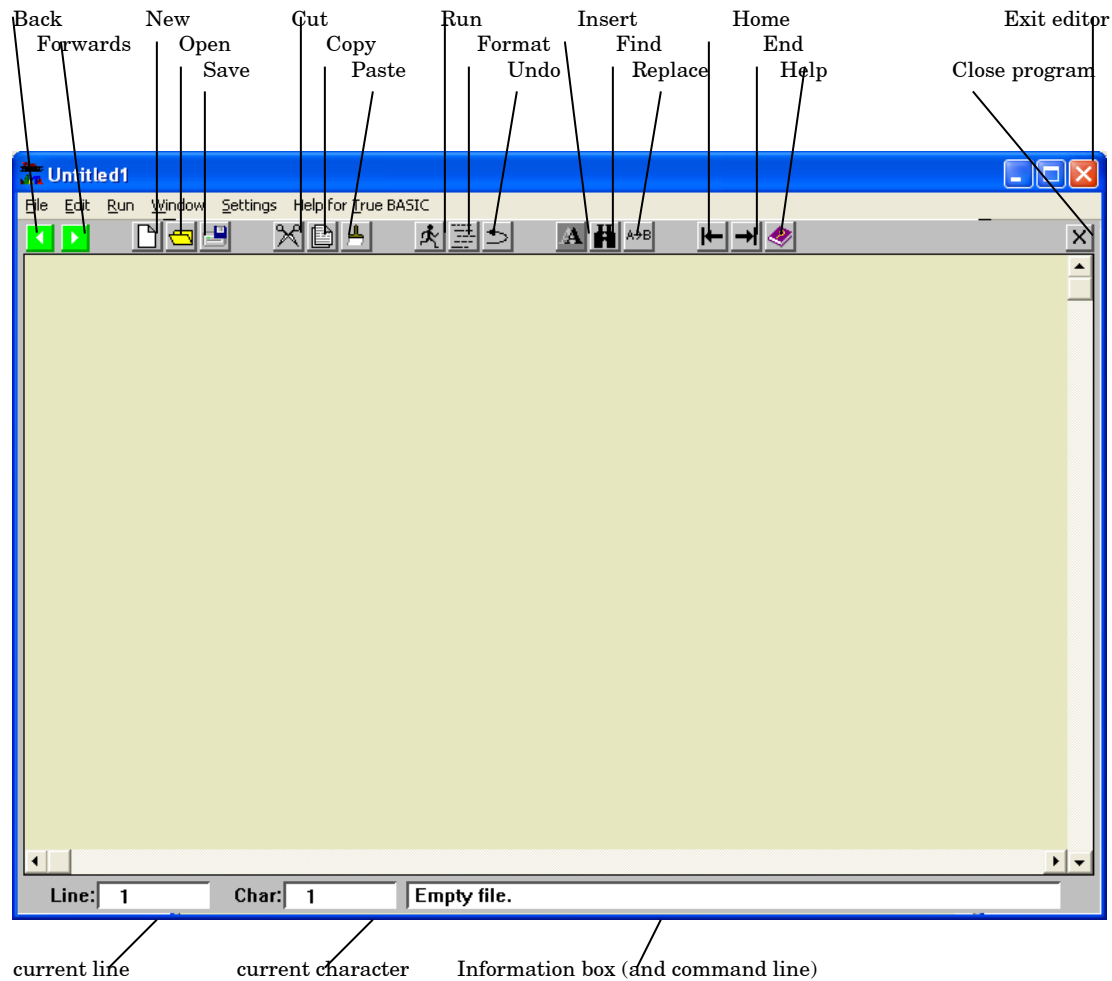
### **SWITCHING FILES**

Existing programs can be opened by selecting OPEN from the FILE menu or by selecting the OPEN button on the toolbar. In either case the new program will become the focus in the window and the blue title bar will show the program name. Any existing program previously displayed in the window will still remain open in a queue behind the focus program. You can move easily between the queue of programs just by clicking the green arrow buttons on the toolbar, or by selecting the program by name from the list under the WINDOW menu.

The editor keeps track of each program in the queue, so that when you switch from one to another, the cursor position is in the same place as it was when you last used the program.

### **TOOLBAR**

In this version of the editor there is also a toolbar at the top that gives you quick access to a number of frequently used features. When the cursor is in the toolbar zone it changes shape to a pointer; tooltips also appear identifying the function of each button on mouseover.



The central area (you can change this color later) is your working page. Below this page are two information boxes that tell you the current position of the cursor. The box on the left gives you the line number and the box on the right gives the character number counting from the left. On the right at the bottom of the window is an information box. This box is also the command line where you can type instructions directly to the computer. If you click the mouse inside the information box it will turn blue, and you can begin typing your instructions. For example, if you type the word "version" in the blue box, the computer will immediately respond with the current version number of this edition.

### UNWRAPPED TEXT

The most important difference between the True BASIC editor and other text editors is that when you type your instructions, the lines of text are NOT WRAPPED, i.e. when your typing reaches the right hand margin it just carries on and on. The text does not automatically drop to the next line down. The only way you can drop to the next line down is to press the RETURN key on your keyboard because this signifies the end of a line. The reason behind this method of operation is that True BASIC only allows ONE instruction per line, but that instruction may be too long to fit the width of the page, so the editor will always allow you enough space for your instruction regardless of how long it is. There is a scroll bar across the bottom of the editor page so that you can view anywhere along very long lines.

If long lines worry you, and you would prefer to see your all of your program without having to scroll across the page, then you can use the ampersand sign (&) to terminate a line as long as you begin the continuation line with an ampersand too.

## WRAPPED TEXT

Under the EDIT menu there is an option that allows you to view wrapped text. For example you may wish to consult a text document during the course of writing a program. Please note that you cannot use COMPILE, RUN or BIND when you are in the WRAP mode. This feature has been enabled in this version.

## OVER-TYPING

If you press the INSERT key the editor will change from inserting characters at the cursor point to over-typing at the cursor point. If you press the INSERT key again then insert typing will resume. Unlike all previous editors, this version indicates which of these two modes is operational, by illuminating the over-type icon on the toolbar.

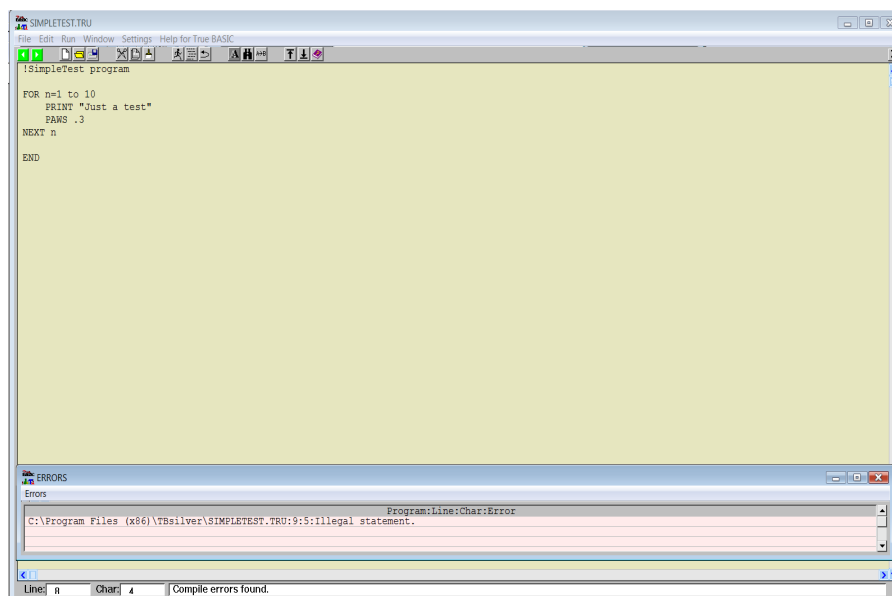
## FORMATTING TEXT

The editor is very tolerant of the way you type the program instructions. You can use upper case or lower case or both. You can also add spaces as often as you like if they make things clearer to read. Indeed there is a utility feature built into True BASIC that will “format” your code, i.e. it will indent certain keywords to make the program easier to read and easier to understand the way it is structured. In a way it is a bit like using paragraphs and bullet points in ordinary text. You will find the format feature one of the most useful items on the True BASIC menu.

## ERROR DETECTION

Whilst True BASIC is tolerant of the way you set your program out, like all other computer languages it is not so tolerant about the instruction code itself. When you type an instruction it has to be word perfect, and if there is any punctuation it has to be perfect too. It is not good enough to get it nearly right; it has to be perfect. Fortunately, True BASIC is wise enough to know that it is dealing with human beings that have a habit of making mistakes, so it has an extensive error detection system built in. When you attempt to RUN your program, if you have made any mistakes then True BASIC will almost certainly find them. In this version of the editor your source code is subjected to the error detection process whether you compile, run or bind your code.

Let us suppose that you have loaded the program SIMPLETEST.TRU and that we have incorrectly spelled the word PAUSE and we have used the word PAWS instead. If we attempt to RUN the program then we would expect the compiler to detect this error and report it. This will give you an opportunity to see how the error detection system works. Select RUN from the RUN menu.



If the error detection process picks up an error or a series of errors, then these will be presented on screen in a separate error window in the form of a scrollable list. If you click your mouse on any line in the list then the corresponding error line in your code will be highlighted.

The information box shows that there was an error while running the program. The compiler detected the errors, and these are displayed in the error window in tabular form. If you click on any line in the table of errors, then the corresponding line in your program will be highlighted. The Preferences box allows the user to change the full line highlight to just the first character.

If you correct the error, the program will run successfully and prints the phrase 'Just a test' ten times in the output window. To exit from the program and return to the editor you must press any key or click the window with the mouse.

You are free to use upper or lower case but my advice would be to use lower case for all your variables and upper case for keywords. The built-in DO FORMAT option will automatically convert keywords to upper case for you, so you can use lower case for everything. There is a strong body of evidence that suggests lower case is much easier to read.

## **BREAKPOINTS**

Breakpoints mark your program at the line where the cursor is positioned. The BREAKPOINT option under the RUN menu is normally disabled (grayed out) and only becomes active when you select DEBUG MODE from the SETTINGS menu. The breakpoint will appear as the word <<<BREAKPOINT>>> surrounded by angle brackets. If you RUN your program with breakpoints marked, the program will stop at the first breakpoint. A dialog box will give you the opportunity to continue running your program. All breakpoints are cleared when you toggle DEBUG MODE again. If you add a series of variable names after a breakpoint, e.g.

<<<<BREAKPOINT>>>> a,b, string\$

then when the program stops you will see a list of these variables and their current value. This is a very useful feature for locating bugs. For example, the breakpoint can be inserted inside a FOR.....NEXT loop to check how the value of variables change with each increment of the loop. The variables list dialog box will give you the opportunity to continue running your program.

## **FUNCTION KEYS**

If the Function keys option under the SETTINGS menu is ticked then:

F2 will make the command line active (blue)

F3 will display the FIND window.

F4 will mark (highlight) the first line in a block of text. A second press of F4 will mark the end of a block of text.

F5 will copy and paste the text marked by F4 to the current cursor position.

F6 will cut and paste the text marked by F4 to the current cursor position.

F7 will undo the last operation.

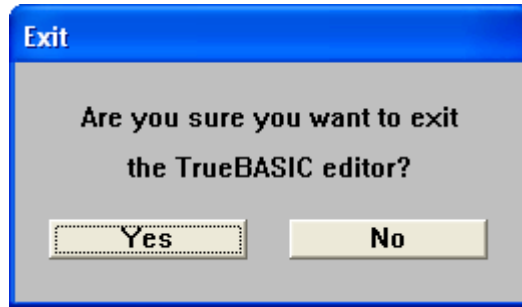
F8 will toggle a breakpoint on the current line.

F9 will run the current program.

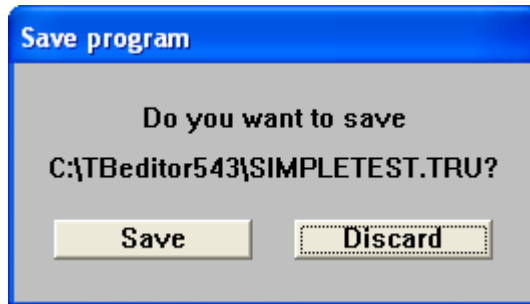
(NB. This feature has been enabled in this version.)

## **EXIT THE EDITOR**

If you wish to exit the editor you must select EXIT under the FILE menu or you can click on the 'close window' button (white cross on a red background). You will be asked if you are sure you want to QUIT. You can eliminate this reminder by un-ticking the 'Confirm quit' option under the SETTINGS menu.



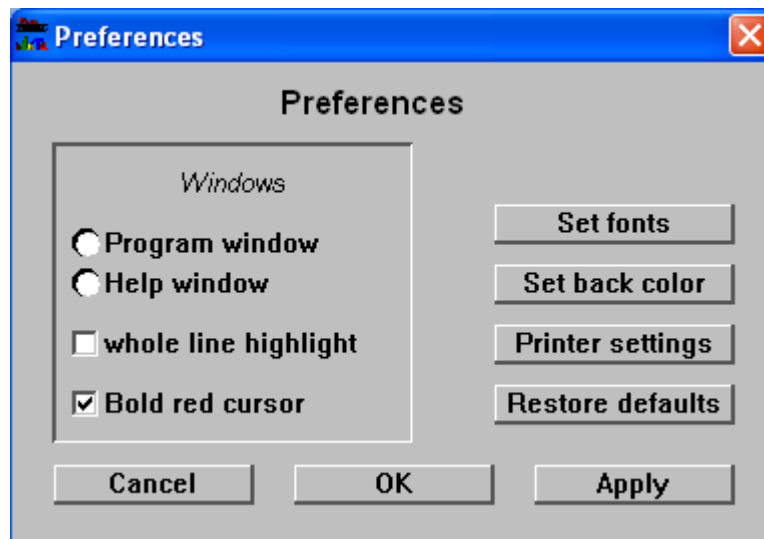
If you click on YES (or press the <RETURN> key) then you will be asked if you wish to save your program if you have made any changes to the program since the last save operation. If you have not made any changes you will not be asked if you wish to save. Likewise if you have selected 'Save on exit' under the settings menu then your program will be automatically saved without displaying this dialog box.



The same process will be applied to all currently opened programs before True BASIC finally terminates.

## PREFERENCES

Under the SETTINGS menu, the user can select Preferences to set up the editor to suit the user.



To set the font or background color for the source program window, first click on the radio button labelled Program window, and then click on the button for font or background color.

If you want the whole line highlighted to indicate a compile error then click on the check box. Otherwise only the first character in the line where the error is located will be highlighted.

If you want the text cursor to change from a simple vertical black line to a bold red line that is easier to see, then click on the check box.

If you want to save a change that you have made then click the APPLY button. This will allow you to continue to make other changes. With each change you must click the APPLY button to save the change. When you have completed all your changes you must click the OK button to execute all your saved changes.

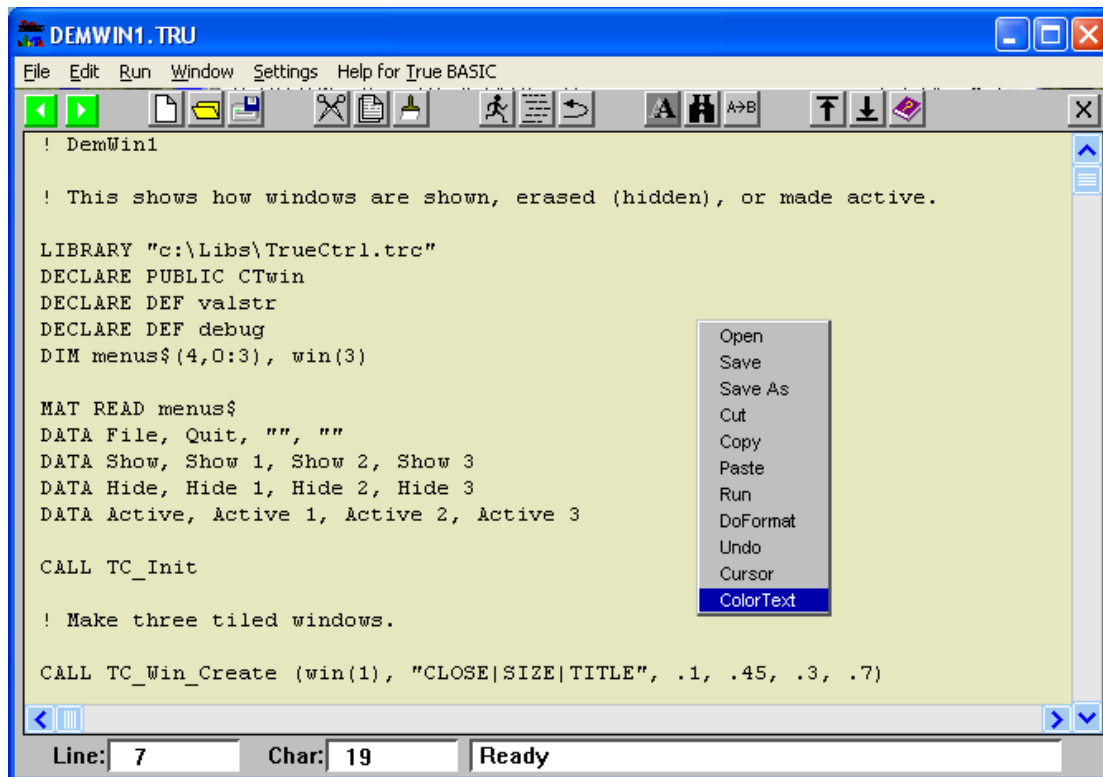
If you want the default settings to be restored then click on the appropriate button. If you click on either the APPLY button or the OK button, the defaults will be restored immediately.

If you click the CANCEL button at any time, then all saved changes will be ignored and the current settings will remain in force.

The printer settings allow you to change the number of print characters across the page and the number of lines down the page. The default is 80 characters and 60 lines.

## RIGHT CLICK /SHORTCUT MENU

By clicking the right hand mouse button you can reveal the shortcut menu.



This menu works like the main menu. It will disappear as soon as you make a selection from the menu.

## SETTING ALIASES

SET ALIAS under the PREFERENCES menu allows you to create new aliases. There are three default alias types, {library}, {do} and {help}.

You may add or edit more in the fields provided.

Note: it is important to use curly brackets around the alias type, followed immediately by the directory pathname.

Some previous versions of the TEditor allowed users to ignore the alias group name in curly brackets. The editor looked into the three default folders to see if the file was located in these folders. This feature has been preserved for the benefit of legacy code. In other words, as long as the file is in any of the three default alias folders then you do not need to specify the alias group name in curly brackets.

The screenshot shows a dialog box titled "ALIASES" with a blue header. The main content area is grey and contains the text: "Enter a new alias or edit existing aliases or click RESET to restore defaults." Below this text are seven text input fields. The first field contains the text "{library}tblibs", the second "{do}tbdo", the third "{help}tbhelp", and the fourth "{myfile}c:\DOS\bword". The remaining three fields are empty. At the bottom of the dialog are three buttons: "OK", "Cancel", and "Reset".

The reset button restores the three default alias types and clears the remaining fields.

## COLORTEXT

This new feature will color certain words in your True BASIC source code. Currently these parts are:

Linenumbers (if any)

Comments

Keywords (i.e. statements)

Functions and definitions

CALLs and SUBs

Literal quotes and string variables

Aliases

Numeric variables and constants

Punctuation

Depending on the background color, a default set of 9 different colors is used to color these parts. The standard color numbers are:

### **BLACK (or dark backgrounds)**

- 7 (gray) for Linenumbers
- 10 (green) for Comments
- 9 (blue) for Keywords (i.e. statements)
- 13 (magenta) for Functions and definitions
- 12 (red) for CALLs and SUBs
- 11 (cyan) for Literal quotes and string variables
- 14 (yellow) for Aliases
- 24 (orange) for Numeric variables and constants
- 2 (white) for Punctuation

### **WHITE (or light backgrounds)**

- 8 (dark gray) for Linenumbers
- 2 (green) for Comments
- 9 (blue) for Keywords (i.e. statements)
- 13 (magenta) for Functions and definitions
- 12 (red) for CALLs and SUBs
- 3 (dark cyan) for Literal quotes and string variables
- 6 (dark yellow) for Aliases
- 25 (brown) for Numeric variables and constants
- 1 (black) for Punctuation

Users are also free to create their own custom list of 9 colors in a simple text file. However, these colors are applied regardless of the background color.

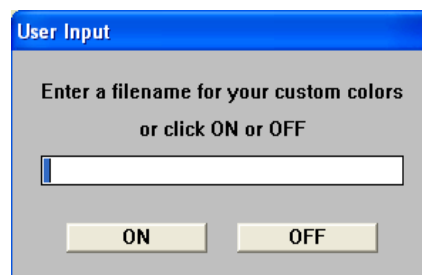
COLORTEXT can be activated from the SETTINGS menu or from the right click menu.

Defined functions will only be colored correctly if the function has previously been declared e.g. DECLARE DEF mydef.

Once COLORTEXT has been switched on, then all currently open source programs will be colored, except wrapped files.

As you type, the text color may change with each keystroke until you press the space bar or type a punctuation mark. At that point the text will take on a fixed color.

To enable COLORTEXT, click the ON button. To disable COLORTEXT, click the OFF button. If you leave the filename field blank then the default colors are used. If you enter a filename (full pathname) then your list of custom colors will be used.



The image shows a dialog box titled "User Input" with a blue header. The main area is gray and contains the text "Enter a filename for your custom colors or click ON or OFF". Below this text is a white text input field with a blue cursor. At the bottom of the dialog are two yellow buttons: "ON" on the left and "OFF" on the right.

## **LINE NUMBERS**

Legacy code often uses line numbers, and some users may prefer to continue working with line numbers, even though True BASIC does not require them. The True BASIC editor works with or without line numbers. There are several utility programs which allow users to number, renumber and un-number programs. It is important to note that programs are automatically re-numbered after CUT and PASTE operations or when lines are deleted. GOTO and GOSUB references are also updated during re-numbering.

## **AUTO LINE NUMBERING**

The editor has a built-in feature that allows automatic line numbering. To invoke this feature the user must insert the following line as the first line of their program:

```
100 !AUTOLINENUM
```

Note that the line must begin with a line number followed by a space, followed by a comment mark (!). The keyword AUTOLINENUM is not case sensitive. The line number signifies the number you wish to start at. All subsequent lines are numbered in increments of 10. By embedding the automatic line numbering switch inside the program, means that the editor can detect which programs require numbering and those that don't. This leaves the user to move freely between programs without having to switch this feature on or off for each program.

If the keyword line is removed, then the program becomes just a regular manually numbered program. Likewise a manually numbered program can be made automatic by adding the keyword line at the beginning, regardless of whether the current program is already numbered or not.

## **DELETING TEXT**

From the current cursor position, the DEL key will delete single characters ahead of the cursor. The BS (backspace) key will delete text behind the cursor. The DEL key will also delete any highlighted text. Similarly, the back space key will also delete highlighted text.

If a block of text is already highlighted when you PASTE any text from the clipboard then the highlighted text will be replaced by the pasted text.

Note that EDIT fields, i.e. input boxes such as those in the FIND box or the CHANGE box , will now allow pasted text as well as typed text.

## **UNDO**

The UNDO feature is a single level operation, i.e. it will only undo the last action. It cannot be used to progressively back track through a series of actions. UNDO can be applied to:

CUT

COPY

PASTE

SELECT TEXT

FUNCTION F4

FUNCTION F5

FUNCTION F6

DELETE

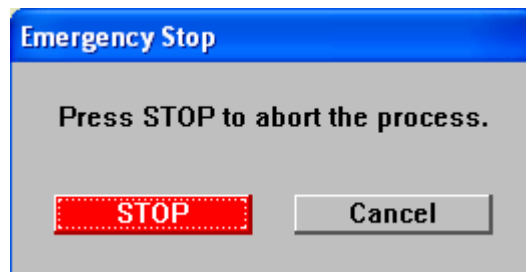
TYPING

The UNDO menu item shows the current action, e.g. UNDO delete.

In the case of typing, UNDO will restore the original line of text before CONTINUOUS typing on the same line began. For example, suppose you type ABC anywhere on an existing line, then UNDO will remove ABC. If you type ABC on one line and XYZ on another, then UNDO will only remove XYZ. If you press the <RETURN> key at any time during continuous typing to create a new line, then UNDO only applies to any typing on the new line and not to the typing on the original line.

### STOPPING PROGRAMS

There may be times during the course of developing programs that you will attempt to run a program that has an error that hangs the computer, or in some other way doesn't terminate properly. For example you may have a DO.....LOOP statement with no EXIT DO to escape the loop. As soon as you RUN a program, the editor produces an Emergency Stop dialog box containing a STOP button. When you click on this button, the running process will abort immediately and you will be returned to the editor.



**Note:** if you are running a program, then it may produce a window that obscures the editor and the Emergency Stop dialog box. To reveal the dialog box, click on the editor label on the taskbar or slide the program window out of the way to show the editor underneath.

If your program runs normally and finishes correctly, then click on the CANCEL button to remove the Emergency stop dialog box.

### HIGHLIGHTING TEXT

There are two ways to highlight text:

- By manually dragging the mouse across the text.
- By using the arrow keys in conjunction with SHIFT.

In the first method the highlighted text NEVER includes the end-of-line characters at the end of the last line highlighted. As a result, when this text is pasted into your text there are no "returns" or extra lines generated.

In the second case the end-of-line characters are ALWAYS included. As a result, when this text is pasted into your text then a new line is generated immediately after the end of the pasted text. This is exactly the same as the old True BASIC editors.

### PEN COLOR (for lines of text)

A new text coloring feature has now been added. If you are modifying a program, you may wish to print the modifications in a different color so you can easily recognize what changes you have made. This cannot be done by changing the pen color because this will change the color of the whole text. Individual lines or blocks of text can now be colored by adding a color signature to each line. This done by highlighting the block of modified text and pressing the keys (#) for blue or (%) for red. This is a toggle action, so you can remove the color signatures by highlighting the same block of text and pressing either (#) or (%). The signatures (!#) or (!%) can also be added manually. The colored text can be run, compiled or bound in the normal way.

## The True BASIC Editor menus

Normally you would use the mouse to click on menu headings, and then to click on items under the heading. Alternatively you can press the ALT key on the keyboard to activate the menu bar. The side arrow keys can be used to drive the heading highlight backwards and forwards across the menu headings. The up and down arrow keys can then be used to highlight individual menu items. Pressing the <RETURN> key will select the current menu item.

### FILE MENU

- **NEW** - this option opens a new empty editing page in the main window with the default title “untitled” followed by a sequential number. A maximum of ten new and existing windows can be open at the same, and you can switch between them as often as you like.
- **OPEN** – will raise an open file dialog box where you can navigate through drives, folders and files to select the file of your choice. The list of files is limited to program files only, i.e. those files with the extension TRU or TRC. You can extend this by selecting ALL FILES in the file type box. When you select a file it will displayed with the file name as the window title. The information box will display the total number of lines in the program.
- **CLOSE** – will close the current program in the main window. This action is identical to clicking the mouse on the close button (black cross on a gray background). You will be asked if you wish to save the contents of the window. When a program is closed, the code is erased from the computer’s memory.
- **SAVE** – will save the contents of the current window using the window title as the file name. The file will be saved in the same folder as the original version when the file was opened. In other words the new version will over-write the existing version. If the program is being saved for the first time, i.e. it is untitled, then you should make sure you give your program a meaningful name because there is every chance that in a matter of weeks you will forget what it is called, so you will have to hunt through your programs folder to see if you recognize the name. For example, if your program calculates the time of sunrise and sunset at any geographical location, then SUNSET.TRU would be an appropriate name. Calling your program MYPROG.TRU or ANYPROG.TRU is not very helpful and will certainly not jog your memory as you glance through your program folder. Clearly this advice becomes more important the greater the number of program files you have saved. It is not unusual for True BASIC programmers to have hundreds, if not thousands, of saved program files on their hard drives, purely because it is so easy to write programs in this language.
- **SAVE AS** – will raise a save file dialog box that will let you specify any name for the file and will allow you to save the file in a folder of your choice. The default file name is the same as the window title, and the default destination folder is the same as the original file when it was first opened.
- **UNSAVE** – is a drastic measure because it will completely delete any file that you specify. You will be asked if you are sure you want to delete the named file. Once you delete a file there is no way to recover it. This is NOT the same as dragging a file to the recycle bin.
- **RENAME** – changes the name of the current window. It does not send a copy of the current source text to a file. If the current source has already been saved to a file, then this existing file will remain unchanged. This corresponds to the RENAME command that executes exactly the same action.
- **PAGE SETUP** – this option presents you with a special dialog box that allows you to specify certain features of any printed output.
- **PRINT** – allows you to select all or a part of your program to be hard copy printed. You select the text by dragging the mouse to highlight the required text. You can also select text using the SHIFT KEY in combination with the DOWN-ARROW key. This procedure uses a high definition

print method more suited to proportional fonts. At present this option only prints in COURIER 10 point font.

- **LISTING** - allows you to select all or a part of your program to be hard copy printed. You select the text by dragging the mouse to highlight the required text. You can also select text using the SHIFT KEY in combination with the DOWN-ARROW key. This procedure uses a standard print quality with 80 characters per line and 60 lines per page as default values. These default values can be changed under the SETTINGS menu. It is more suited to fixed pitch fonts such as COURIER and LUCIDA CONSOLE.
- **CHAIN TO....**- allows the user to select an executable file, i.e. with the extension .EXE, and to run this application directly from the editor. When the application is shut down, the editor is re-activated and continues where it left off.
- **CHAIN WINDOWS APP** – allows the user to select an application file, such as a WORD document file (with the extension .DOC) or an Excel spreadsheet file (with the extension .CSV). The editor will run the main application and will automatically load the selected file. Both the Windows application and the editor continue to be active.
- **EXIT** – will close all windows and shut down the True BASIC editor. You will be asked if you wish to save the program as each window is closed if the SAVE ON CLOSE menu option has NOT been selected.

## EDIT MENU

- **UNDO** – this option will re-instate the original program text prior to a CUT or PASTE operation. In other words, if you perform a CUT or PASTE action and you decide that you have made a mistake and want to return to the original text before you made the mistake, then using UNDO will achieve this. Note that UNDO only applies to the last operation you carried out. It cannot be used repeatedly to back track through a series of operations. The menu is labelled with the operation that can be undone, e.g. UNDO paste.
- **CUT** – will copy any highlighted text to the clipboard, and will then erase that portion of text. Portions of text held on the clipboard can be inserted back into your program with the PASTE option. CTRL-X can be used as an alternative way to execute CUT.
- **COPY** – will copy any highlighted text to the clipboard, but will not erase that portion of text from your program. CTRL-C can be used as an alternative. Portions of text held on the clipboard can be inserted back into your program with the PASTE option.
- **PASTE** – will transfer text from the clipboard to the point immediately after the current cursor position in your program. CTRL-V can be used as an alternative. You can position the cursor anywhere in your program by clicking the mouse at that point. The cursor location boxes at the bottom of the editor window indicate the current line and character position. If any text is highlighted then PASTE will replace the highlighted text with the text from the clipboard.
- **FIND** – will raise the find dialog box that allows you to specify and locate any word, part word or phrase in your program text. The search can be an exact match including upper and lower case, or the search can be independent of case. Normally the search begins at the current cursor position and proceeds to the end of your program. Alternatively you can “wrap” the search to include the whole of your program. The first instance of any text that matches your specification will be highlighted. After a FIND operation the FIND window stays on top, ready to be used again.
- **FIND AGAIN** – is a quick alternative to the FIND dialog box. Once the FIND search has located the first instance of a match, then you may use FIND AGAIN to progressively locate all the other instances.
- **CHANGE** – is similar to FIND except that when a match is found you have the option to replace the match with a specified alternative. You can replace the first instance of a match or you can replace all instances.
- **KEEP** – will retain the highlighted portion of your program and discard the rest. It is a quick way to delete large parts of your program.

- **INCLUDE** – will allow you to specify the name of a program file. The contents of this file will then be inserted in your program at the current cursor position.
- **SELECT ALL** – is a quick way to highlight the whole of your program text rather than dragging the mouse across all the text, which may occupy many pages.
- **MOVE TO** – this is a quick and useful way to place the cursor at a specific line or a specific word in your program. Alternatively you can select the name of a sub-routine from a list of all the sub-routines in your program, and the cursor will move to the start of that routine.
- **WRAP** – this option converts the current window to wrapped text, i.e. long lines are truncated at the edge of the window and are continued on the next line. In the WRAP mode the editor can be used as a general-purpose text reader. CAUTION: None of the options under the RUN menu will work while the window is in WRAP mode. Click the WRAP option again to restore normal programming mode.

## RUN MENU

- **RUN** – this option will run the current program, i.e. the program in the front page of the editor window. When the program has finished running the title bar will tell you to click the mouse or press any key. Either action will return you to the editor. If True BASIC encounters any errors, these will be shown as a list. You may select any of the listed errors and the cursor will immediately go to the line and character position where the error occurred.
- **BREAKPOINT** – will mark your program at the line where the cursor is positioned. BREAKPOINT is normally disabled (grayed out) and only becomes active when you select DEBUG MODE from the SETTINGS menu. The breakpoint will appear as the word <<<BREAKPOINT>>> surrounded angle brackets. This is a toggle action feature, i.e. if the line already has a breakpoint then it will be switched off, but if there is no breakpoint then one will be added. If you RUN your program with breakpoints marked, the program will stop at the first breakpoint. A dialog box will give you the opportunity to continue running your program. All breakpoints are cleared when you toggle DEBUG MODE again.
- **COMPILE** – will cause your program to be converted into a coded format that the computer understands. Unlike earlier editors, your program will be preserved. The compiled version will be automatically saved with the same file name and in the same folder as your source program, but the extension will be changed to TRC instead of TRU.
- **BIND** – is a special linking process that combines your program with any library modules and other resources to produce a stand-alone executable application. The default name of this application is the same as your original source code except the extension is changed to EXE instead of TRU. A dialog box allows you to change this name and to specify the folder where the executable file will be saved. NOTE: this feature is NOT available in the Bronze edition so the menu item is grayed out and disabled.
- **TRACE** – is another feature that helps you locate errors in your program by stepping through your program line by line. Essentially TRACE puts a breakpoint on every line. TRACE is normally disabled (grayed out) and only becomes active when you select DEBUG MODE from the SETTINGS menu. All breakpoints are cleared when you toggle DEBUG MODE again.
- **DO** – is a general-purpose command in which you specify and run an EXTERNAL program unit. A file selector dialog box will assist you in locating the DO program of your choice. Note: The program called RUND0.TRU is NOT a DO program and will generate errors if you attempt to run it. Do not move or delete this file because you will no longer be able to run any DO programs.
- **DO FORMAT** – is a built-in routine that indents your program text depending on certain keywords in order to make the text more readable. It also helps you to locate errors because it aligns corresponding statements such as FOR...NEXT and DO...LOOP. If these statements are not perfectly aligned then there must be an error in the code between these statements. You will find that this menu option is one of the most frequently used features in the editor.
- **DO UPPER** – is a built-in routine that will convert the text of any True BASIC program to all upper case (capital letters).

- **DO LOWER** – is a built-in routine that will convert the text of any True BASIC program to all lower case (small letters).

## WINDOW MENU

- **RECENT FILES** – this option displays a rolling list of the ten most recently closed files. As you close more files, older files will drop off the bottom of the list.

**NOTE:** At the bottom of the WINDOW menu there will be a list of all the program files that are currently OPEN. The list shows the full path name of each file. The current program file will be ticked. You may click the mouse on any of these file names to force the file to become the focus of the editor. When you close a program file it is removed from this list.

## SETTINGS MENU

- **SAVE ON CLOSE** – this option sets an internal toggle action switch that automatically saves your program when you close the window. When the internal switch is active a tick will appear against this item. Click on this item again to cancel the internal switch and the tick will be erased. The default condition is OFF. The True BASIC editor will try to help you avoid catastrophic mistakes by presenting you with a dialog box that asks if you wish to save your program every time you click on the close window button.
- **BACKUP ON SAVE** – this option allows you to set an internal switch that will automatically produce a back-up copy of any program at the time you save the program. The back-up copy has the same name as the original file except the extension is BAK instead of TRU. When the internal switch is active a tick will appear against this item. Click on this item again to cancel the internal switch and the tick will be erased. This is known as a toggle action switch; click once for ON and click again for OFF. The default condition is ON.
- **DEBUG MODE** – is a toggle action switch that enables the BREAKPOINTS and TRACE options under the RUN menu. When DEBUG MODE is switched ON the item is ticked. When the switch is OFF the tick is erased and your program will run as normal. All breakpoints are removed when DEBUG MODE is switched OFF. The default condition is OFF.
- **CONFIRM QUIT** – is a toggle action switch that causes a dialog box to appear whenever you attempt to shut down True BASIC. The dialog box requires that you confirm your intention to shut down. This option will avoid shutting down when you did not mean to do this. When the confirm switch is active a tick will appear against this item. Click on this item again to cancel the internal switch and the tick will be erased. The default condition is ON.
- **HOTSTART** – is a toggle action switch that causes all the open files that you were using in the previous session with True BASIC to be loaded automatically when you start up True BASIC in the current session. When the hotstart switch is active a tick will appear against this item. Click on this item again to cancel the internal switch and the tick will be erased. The default condition is ON.
- **PREFERENCES** – raises a special dialog box where you can set the color of the editor window, and the name and color of the font used to print the text in the window. The default page color for the editor window is SAND. The default font for all editor windows is ASI MONO, 10 point PLAIN (regular) or COURIER, 10 point PLAIN, and the standard default font color is BLACK. As an alternative LUCIDA CONSOLE 10 point PLAIN can be used as a fixed pitch font. The preferences dialog box also allows you to set the number of characters that will be printed across the hard copy page and the number of lines that will be printed per page. The default settings are 80 and 60 respectively. Code lines longer than 80 characters will be wrapped in the hard copy print.
- **BINDER** – allows you to select which binder you wish to use, i.e. the older version binder that requires DLL files in order for executable programs to run, or the new binder (5.5b19) which

does not require DLL files to run executable programs. Note that the new binder has a number of residual bugs that prevent some TrueCtrl objects from working correctly.

- **ALIASES** – this menu option allows you to add or edit the list of alias pathnames used by the editor to locate filenames used in LIBRARY statements. Note that when the file is located in a sub-folder of the directory where the new editor is located, e.g. Tblibs, then only the sub-folder name is used in the alias list. If the file is located in a different directory altogether, then the full path to that directory must be given, e.g. c:\my documents\my pictures. Do not use a trailing backslash.

Aliases can also be used with the OPEN file statement provided the file already exists, i.e. CREATE OLD is specified. The filename must also be a string literal within quote marks and not a string variable.

Legacy programs that used curly brackets and an alias group name, e.g. {mygroup} will be handled by the new alias system, even though the group name is ignored.

- **FUNCTION KEYS** – is a toggle action switch that enables or disables the function keys. This feature is now enabled in this version.
- **SHORT CUTS** – is a toggle action switch that shows or hides short cut keystrokes against each menu item. The default condition is ON, i.e. short cuts are shown.
- **COLORTEXT** – this feature uses different colors for line numbers (if any), key words, calls and sub-routines, definitions and functions, punctuation, aliases, strings and numeric variables. Two default color schemes are available depending on the background page color (light or dark). The user can also define a custom color scheme. This option allows the user to switch colortext on or off. Note that when colortext is ON then all current open source files will use color text except files that are wrapped. Colortext can be RUN, COMPILED and BOUND in the normal way.

## HELP FOR True BASIC

- **HELP** – this option shows a small text window with a drop down index and an edit box that allows you to search the help file. You can resize this window to suit your purpose and it will remain at this size for the remainder of the session while you are working with True BASIC. The help files contain details of all the functions and statements in True BASIC and how to use these features. There are a number of other useful items of information in the help files including extracts from this book. You can select which help file you want to use from the CONTENTS menu. This help file will remain current until you change to another help file. The full alphabetical index will be shown when you click on the down arrow button to the right of the topics title. When you select a topic from the index, the text related to the topic will be shown in the main text box. If you are uncertain what you are looking for, you can type an associated word or concept in the search box then click on the green GO button. The program will then search the whole text in the current HELP file for a match and will display the results in the text box. A unique feature of the HELP option is that you can edit, change or add items to the help file using the EDIT or INSERT options under the HELP WINDOW menu. COPY and PASTE options also allow you to copy code fragments contained in the help text box and transfer these fragments direct to your program
- **FORMS** – this option is grayed out (disabled) in all versions. It is a new option to True BASIC but must be purchased separately. The application automatically enables this menu option to make it fully integrated with the editor. FORMS is not available in any earlier versions. This program allows the user to design window layouts using a simple graphical drag-and-drop interface. Most importantly, FORMS generates the program code to reproduce your design, and includes this code in your own program. You can use FORMS repeatedly to create or modify as many windows as you like. Each window may contain as many controls and objects as you need. The code generated by FORMS is a complete skeleton application that can be run immediately

without further intervention by the user. Included in the code are comments to guide you to the point where you need to insert your own program code to respond to user input.

- **TBILT** – this option is grayed out (disabled) in all versions except Gold. It is a regular option to True BASIC but must be purchased separately. The application automatically enables this menu option. This is a free standing program that allows the user to design window layouts using a simple graphical drag-and-drop interface. The editor automatically chains to TBILT. Most importantly, TBILT generates the program code to reproduce your design, and leaves this code on the clipboard for you to paste into your own program.
- **ABOUT True BASIC** – will show you the version number, edition and release date of the version of True BASIC currently running.
- **MANUALS** – will display a selection list containing details of all the manuals available in the DOCS folder. When you select a manual from this list the program will automatically start up an Adobe PDF file containing the selected manual. When you close the Adobe Reader window, control is passed back to the True BASIC editor. You can also add your own manuals to the DOCS folder, provided the manual file itself is in PDF document format, and this manual will be automatically added to the list in the editor.

## HELP WINDOW MENU

### FILE

- **PRINT** – the current help file topic that appears in the text box will be copied to the hard copy printer.
- **RUN DEMOS** – first select a demo file by highlighting the name (drag the mouse across the name), then select RUN DEMOS. The file will be automatically loaded into editor window ready for you to run.
- **CLOSE** – this option closes the HELP window and returns the user to the main True BASIC editor.

### EDIT

- **CUT** – this option is normally disabled (grayed out). It only becomes active when the **MODIFY** or **INSERT** options are selected. When active you can copy any highlighted text to the clipboard, and that portion of text will then be erased. Portions of text held on the clipboard can be inserted back into the help file with the **PASTE** option.
- **COPY** – will copy any highlighted text to the clipboard, but will not erase that portion of text from the help file. Portions of text held on the clipboard can be inserted into your program with the **PASTE** option on the editor menu.
- **PASTE** – this option is normally disabled (grayed out). It only becomes active when the **MODIFY** or **INSET** options are selected. When active you can transfer text from the clipboard to the point immediately after the current cursor position in the help file. You can position the cursor anywhere in the text box by clicking the mouse at that point.
- **MODIFY** – this is a toggle action option that allows you to edit the existing help file text. For example, you may include additional explanatory notes or more examples to the existing topic, or you may correct mistakes if you find any. The options **CUT** and **PASTE** also become active. First select the topic you wish to modify from the drop-down topics list, then click the **MODIFY** option. When you have completed your changes select the **MODIFY** option again. This will erase the active tick mark and will disable **CUT** and **PASTE**. At this point you will be given the option to **SAVE** your modified topic or **DISCARD** it. You must exit the **HELP** window for your modified topic to appear in the drop down list.
- **ADD NEW** – this is a toggle action option that allows you to add extra topics to the help file. First select the **ADDNEW** option to clear the text window ready for you to type in your topic. You must begin your topic with a title inside angle brackets, e.g. <TITLE> and this will ensure that your topic will then appear in the alphabetical drop down list. Your topic can be of any length. When you have finished, click the **ADD NEW** option again. At this point you will be given

the option to **SAVE** your new topic or **DISCARD** it. The **ADD NEW** toggle option will then be turned **OFF** and **CUT** and **PASTE** will be disabled. You must exit the **HELP** window for your new topic to appear in the drop down list.

- **IMPORT** – is an alternative to **ADD NEW**. It allows you to import additional help information that has been saved in an external file. In this instance multiple help topics can be inserted in one operation. Each imported topic must begin with a title in angle brackets. The import file can contain any number of topics. A dialog box will request the name of the file and its entire contents will be appended to the current help file. This is a very simple way to update your help file using files generated by others, e.g. True BASIC Forum Members or by True BASIC Inc. You must exit the **HELP** window for your imported topics to appear in the drop down list.

## CONTENTS

Selecting any one of the following items determines which help file the editor will use. There are currently eight different help files that cover various aspects and library modules included with True BASIC. In turn this determines the list of topics that you can select from the drop-down list.

- **USING THE EDITOR** – is a series of topics related to using the editor and the help feature. The topics are arranged alphabetically. This item is common to all editions of True BASIC.
- **FUNCTIONS** – this section lists and explains all the built-in functions within True BASIC and again it is common to all editions. Most topics contain code that can be copied to your programs.
- **STATEMENTS** – this section lists and explains all the statements in True BASIC. Most topics contain code that can be copied to your programs. This section is common to all editions of True BASIC.
- **TRUECTRL** – this section details all the sub-routines in the library module and explains the syntax and how to use each routine with code examples that can be copied directly to your programs. This option is not available to users of the Bronze edition. Instead, **BronzeTC** is included.
- **TRUEDIAL** – this section details all the sub-routines in the dialog box library module and explains the syntax and how to use each routine with code examples that can be copied directly to your programs. This option is not available to users of the Bronze edition.
- **TRUECTX** – this section details all the sub-routines in the extended color and text library module and explains the syntax and how to use each routine with code examples that can be copied directly to your programs. This option is not available to users of the Bronze edition.
- **TRUETDX** – this section details all the sub-routines in the extended dialog box library module and explains the syntax and how to use each routine with code examples that can be copied directly to your programs. This option is not available to users of the Bronze edition.
- **FORMS** – this section describes how to use the **FORMS** program to create windows and objects and automatically generate code. This option is not available to users of the Bronze edition.

**Note:** The editor automatically reads all **TEXT** files that reside in the **TBhelp** folder and creates the **CONTENTS** list from these files. To add another help file to this list, all you have to do is drop the file into the **TBhelp** folder and the editor will do the rest.

If you wish to add more help files you may use Notepad or the **TB Editor** to create additional menu items.