Apple® IIGS

Spectrum™ 2.5.3
Scripting Manual

Spectrum™ v2.5.3

SPECTRUM 2.5 by Ewen Wannop

Seven Hills INTERNATIONAL

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Support: spectrumdaddy@mac.com

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Notes on Freeware Edition

From an initial inception as a IIgs communications program called Impala, Spectrum was developed and released under the guidance of Dave Hecker of Seven Hills International. Originally released back in 1991, it was sold by Seven Hills until their eventual closure.

Seven Hills agreed I could continue to sell Spectrum, so I asked Eric Shepherd of Syndicomm to sell Spectrum on my behalf. In 2011 Tony Diaz took over Syndicomm and continued to sell it for me. With the declining sales over the years, I finally decided that the time had come in 2012 to make Spectrum Freeware.

To coincide with its reclassification, this PDF manual has been compiled from the original Seven Hills manuals. I have changed a few words and links here and there, and added new screen shots and illustrations.

Ewen Wannop - 2012

Spectrum™ Upgrade

Version 2.1

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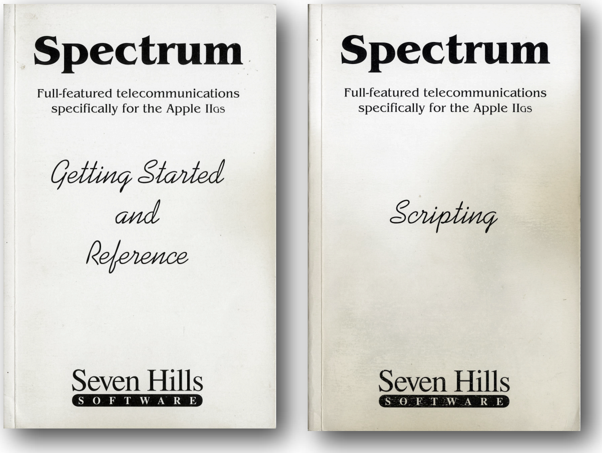
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Spectrum Scripting

Scripts are extremely useful for telecommunications. By using scripts you can automate simple tasks (e.g. typing a password) or complex ones (logging onto a system, sending and receiving mail, downloading files, then logging off). The limits of a script are up to the imagination and skill of the script author.

This section provides basic information about writing and using scripts. Before trying to write scripts you should be familiar with using Spectrum.

Writing A Script

Spectrum's scripting language is very powerful, yet relatively easy to understand because most commands (built-in instructions that tell Spectrum to perform some action) are simple English phrases. For example, can you guess what the command *Play Sound "Welcome"* does? If you guessed that it plays a sound named "Welcome" then you won't have much trouble learning to write scripts for Spectrum!

The best way to learn how to write a script is by doing it! Sit down with this manual and just go through it page by page, learning what each script command does. Many examples are provided in this manual…try them, and modify them to do something slightly different!

To actually write a script you create a text file using Spectrum's built-in editor. In that file you simply write one or more Spectrum commands, placing each command on a line that ends with a Return character. Or you can place several commands on a single line by inserting a semicolon (;) between each command.

For example, this script…

```
Display "^LType your name then press Return: "
Get Line 2
Display "^M^J^JHello there $2!^G^M^J^J"
Stop Script
```

…and this script…

```
Display "^LType your name then press Return: "; Get Line 2; Display "^M^J^JHello there
  $2!^G^M^J^J"; Stop Script
```

…work exactly the same.

The only limitation to combining commands on a single line is that the line (everything up to a Return character) cannot exceed 636 characters after all the replacements are made (replacements are explained shortly).

There are several features that don't affect how the scripts are executed, but they do let you format your scripts to be more readable. The following formatting features can be used:

- Blank lines
- Spaces and/or Tabs at the beginning of a line
- Different fonts, styles, and sizes
- Comments (text you can read but that will be ignored when the script is run)

Running A Script

When Spectrum is told to run a script, it loads the specified script file into memory and begins interpreting the information in that file. A black box appears at the upper-right corner of the menu bar while a script is running.

If an unrecognized command is encountered, Spectrum stops and displays an error message. The error message is displayed for approximately 30 seconds (clicking the mouse or pressing a key will dismiss the error sooner). If the error box disappears automatically, Spectrum hangs up the line. This is a safety feature for scripts that run unattended (by hanging up, online charges are kept to a minimum).

To stop a script press Escape, R, or choose Stop Script from the Script menu. Stopping a script closes any open script files and returns control to the user. *NOTE: Some script commands temporarily block the use of the menu bar; if one method does not work, try another.*

Script Language Definitions

The Spectrum script language consists of three main parts:

- Built-in *commands* that tell Spectrum to do something.
- *Parameters* you supply that tell a command exactly what to do.
- *Special characters* that are treated differently than normal characters.

The following sections describe each of these components (in reverse order because you need to know about the special characters before the parameter descriptions will make sense, and you need to know about parameters before the command descriptions will make sense).

Throughout this manual, “host” refers to *any* system to which you are connected (e.g. if you are connected to GEnie, GEnie is the “host” system). If your friend calls your computer, he is still the host because he is the system to which you are connected (from his perspective, you are the host).

Specially-Treated Characters

The following sections discuss the “special” characters used when writing scripts.

" (String Delimiter)

The double quote mark (") is used to indicate a “string” (a sequence of characters). For example:

An empty string (no characters):	""
A single character string:	"A"
A several character string:	"Greetings, Earthling!"
A string that happens to be a number:	"1234"

NOTE: There is a script command that lets you redefine the string delimiter to be some other character, but normally it should not be changed.

^ (Control Character)

The caret (^) tells Spectrum that the following letter is a control character. You use control characters to enter carriage returns, linefeeds, and other characters that cannot be entered directly into a script command. At script runtime *^Letter* is replaced by the actual control character. *NOTE: Capitalization of control characters does not matter (^b and ^B are both the same character).*

To display the caret (^) from within a script, enter it twice (^^) or use the *$^* replacement item (described in the next section). *NOTE: There is a script command that lets you redefine the control character indicator to be some other character, but normally it should not be changed.*

# (Comment Character)

The number sign (#) tells Spectrum that the rest of the line is a comment. Comments are not executed when a script is run Comments are useful to document what your script is doing so it will be easier to modify in the future. When typing a comment you must include a space after the # sign, then type the comment.

If the number sign is at the beginning of a line, the first word after the sign is also a *Label* (described later). If you want to include a comment but do not want it to be a *Label* then you can use the alternate comment indicator *Rem* or *Remark*.

Example:

```
# This is a comment, and "This" is also a Label
Rem This is just a comment
Remark This is just a comment
```

$ (Replacement Item)

The dollar sign ($) tells Spectrum that what follows is a replacement item. A replacement item works by completely replacing the *$Item* with that item's current contents, just as if you had actually typed the contents.

For example, the *$Date* replacement item gets replaced by the current date, in the form of "dd mmm yy". If today's date is November 19, 1993, when this script is run…

```
Display "Today is $Date.^M^J"
```

…it works *exactly* as if you had actually typed:

```
Display "Today is 19 Nov 93.^M^J"
```

Of course, the advantage to using the *$Date* replacement item instead of actually typing the date is that when the date changes, so will the message that is displayed.

Note that no spaces are inserted when you use a replacement item—the *$Item* is replaced *exactly* as if you had typed it from the keyboard!

To demonstrate this point further, if these assignments have been made…

```
Set Variable 0 "12" # $0 is now 12
Set Variable 1 "14" # $1 is now 14
Set Variable 2 "12,14" # $2 is now 12,14
Set Variable 3 "GotoXY 12,14" # $3 is now GotoXY 12,14
```

…then all of these statements are exactly identical when the script is run:

```
GotoXY 12,14
GotoXY $0,$1 # Same as typing GotoXY 12,14
GotoXY $2 # Same as typing GotoXY 12,14
$3 # Same as typing GotoXY 12,14
```

The following replacement items are available in Spectrum. *NOTE: Capitalization of replacement items does not matter—$RATE, $rate, $Rate, and $rAtE are all the same item.*

$$

Gets replaced by a single $.

Example:

```
Display "The cost is $$12.34^M^J"
```

$^

Gets replaced by a caret (^).

Example:

```
Display "^LSee what $^L does?^M^J"
```

$#

# must be replaced by a number from 0 to 9

Gets replaced by the contents of the specified variable (see the *Set Variable* command).

Example:

```
Set Variable 5 "Hello there!^M^J"
Display "$5"
```

$Length#

# must be replaced by a number from 0 to 9

The length of the contents of variable number #.

Example:

```
Set Variable 6 "ABCDEFGHIJKLMNOPQRSTUVWXYZ"
Display "There are $Length6 characters in '$6'.^M^J"
```

$FKey#

# must be replaced by a number from 0 to 9

Gets replaced by the contents of the specified FKey (see the *Set FKey* command).

Example:

```
Set FKey 3 "a frequently-used phrase"
Display "FKey 3 is '$FKey3'. Try pressing OpenApple-3.M^J"
```

$Version

Gets replaced by the software’s name and version number (e.g. Spectrum 1.0).

$UserName

Gets replaced by the personalization that was entered when Spectrum was installed (the same name that is displayed in the About dialog box).

$OnlineDisplay

Gets replaced by the current online display name, as displayed in the Online Display dialog box.

$DisplayVersion

Gets replaced by the version number of the currently-chosen online display.

$DateTimeStamp

Gets replaced by a ProDOS-compatible *Filename* that represents the current date and time (e.g. D17Sep94T1040).

$Date

Gets replaced by the current date (e.g. 3 Nov 93, 17 Sep 94).

$Month

Gets replaced by the current month number (01-12).

$MonthText

Gets replaced by the current month abbreviation (Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec).

$Day

Gets replaced by the current day number (01-31).

$DayText

Gets replaced by the current day abbreviation (Sun Mon Tue Wed Thu Fri Sat Sun).

$Year

Gets replaced by the current year number (00-99).

$Time

Gets replaced by the current clock time with no seconds or am/pm indication (e.g. 10:40).

$FullTime

Gets replaced by the current clock time with seconds and am/pm indication (e.g. 10:40:59 am).

$Hour

Gets replaced by the current hour (01-23).

$Minute

Gets replaced by the current minute (00-59).

$Second

Gets replaced by the current second (00-59).

$Rate

Gets replaced by the rate that was set by the *Set Rate* command.

$Timer

Gets replaced by the current timer value, in the form “00:01:32”.

$Cost

Gets replaced by the current cost of a call. The cost is calculated as *$Rate* divided by 60 times *$Timer* seconds, and is shown with two decimal places (e.g. 12.34).

Example:

```
Set Rate 10; Set Timer On; Pause 10
Display "The current cost is $$$Cost^M^J"
```

Note that in this example the first *$$* gets replaced by a single $, and *$Cost* gets replaced by the current cost. Thus something like the following is displayed on the screen:

```
The current cost is $1.67
```

$Matched

Gets replaced by the item number that was matched in a *WaitFor* command.

$MatchString

Gets replaced by the string that was matched in a *WaitFor* command.

Example:

```
WaitFor String "cat" "dog"
Display "Got '$MatchString' (choice #$Matched).^M^J"
```

$ErrorMsg

Only meaningful in an “On Error Goto” routine

Gets replaced by the error message that would have been shown to the user if the script aborted normally.

$PTimer

Gets replaced by the current prompt timer value that was set by the *Set PTimer* command.

$CurrentX

Gets replaced by the current horizontal cursor position.

$CurrentY

Gets replaced by the current vertical cursor position.

$StoredX

Gets replaced by the horizontal cursor position that was stored by the *Store XY* command.

$StoredY

Gets replaced by the vertical cursor position that was stored by the *Store XY* command.

$PhoneEntries

Gets replaced by the number of phonebook entries listed in the Dial Number dialog box.

$ForValue*#*

must be replaced by a number from 0 to 9

The current counter value of loop number #.

Example:

```
For 7 11 37; Display "Value is $ForValue7.^M^J"; Next 7
```

$SFPrefix

Gets replaced by the current prefix 8 (usually the *Foldername* that was last used in one of Spectrum’s “Open” or “Save” dialog boxes).

$Boot

Gets replaced by the *Volumename* of the disk you used to start the system.

$SpectrumPath

Gets replaced by the *Foldername* from which Spectrum was launched.

$SpectrumFile

Gets replaced by the *Filename* of Spectrum (it will be “Spectrum” unless you have renamed it on disk).

$ScriptPath

Gets replaced by the *Foldername* of the script that is currently running.

$ScriptFile

Gets replaced by the *Filename* of the script that is currently running.

$MenuPath

Gets replaced by the *Foldername* of the current menu file. This is the same folder that is searched when an Option-keypress is used to run a script. The *$MenuPath* is set by loading a menu file from the desired folder (see *Load MenuFile*). *NOTE: $ScriptPath and $MenuPath do not necessarily indicate the same folder. $ScriptPath indicates the folder of the* ***currently-running*** *script. If the user selected a script manually (by choosing Run a Script from the Script menu), or if a script command was used to run a script, $ScriptPath could be different from $MenuPath. If you write a script that accesses items that should be stored in the same folder as your script, always use $ScriptPath.*

$MenuFile

Gets replaced by the *Filename* of the current menu file.

$LogonFile

Gets replaced by the *Filename* of the script (if any) that is attached to a phonebook entry. Valid only after a *Dial Entry* or *Dial Service* command.

$FileXferPath

Gets replaced by the *Foldername* used for file transfers (set by the user in the File Transfer dialog on the Settings menu, or by the *Set FileXferPath* command).

$AutoSavePath

Gets replaced by the *Foldername* where the capture buffer will be saved automatically (see *Set AutoSave*).

$LastPath

Gets replaced by the *Foldername* of the last file that was loaded, saved, or sent.

$FrontmostApp

Gets replaced by the *FoldernameFilename* of the frontmost application. If *$FrontmostApp* is equal to *$SpectrumPath$SpectrumFile* then Spectrum is the foreground application, otherwise The Manager is active and Spectrum is in the background.

Color Values

Colors are numbered from 0 to 15. The following replacement items are available to simplify commands that use a color value:

$Black	0	$DarkGreen	8
$Blue	1	$Aqua	9
$Brown	2	$BrightGreen	10
$Gray1	3	$PaleGreen	11
$Red	4	$Gray2	12
$Purple	5	$Periwinkle	13
$Orange	6	$Yellow	14
$Pink	7	$White	15

Parameters

When you use a command there are usually additional "parameters" you must specify so that the command knows exactly what to do. For example, in the statement *Pause 5*, "Pause" is the command and "5" is a parameter that tells the command how long to pause.

In this manual, command parameters are displayed in *italics* so you can see exactly what part of the command you may need to complete. Study this partial example of a command description:

> **Pause** *Value*
> *Value* is optional; if used it can be from 0 to 65535

On the first line the required part of the command is in **boldface** and parameters you might supply are in *italics*. The second line contains special notes about the parameter (it tells you that you don't *have* to specify a value, but if you do that it must be a number from 0 to 65535).

There are several parameters that are commonly used. Those common parameters are not redefined or noted in a command's description unless further explanation is required.

The common parameter types which are described in this section are:

- VarNum
- Value
- Character
- String
- Volumename, Foldername, and Filename
- Label
- Statement

VarNum

Variables are used to store information in memory. Ten variables are available, represented by the numbers 0 through 9.

Wherever a *VarNum* parameter is specified you can use one of the following:

- A number from 0 through 9
- Any replacement item that results in a number from 0 through 9

Value

A *Value* is a positive integer (no negative numbers and no fractions or decimals). The exact restriction for a *Value* parameter depends upon the command, so it is noted in each command's description.

Wherever a *Value* parameter is specified you can use one of the following:

- A number (4, 2, 7, etc.)
- A string that represents a number ("4", "2", "7", etc.)
- Any replacement item that results in a *Value*

Character

A *Character* is any single character available on the Apple IIgs.

Wherever a *Character* parameter is specified you can use one of the following:

- A single character, with or without quote delimitation marks (A, g, 7, “R”, “k”, “3”, “^M”, “^J”)
- A value—without the quote delimitation marks—corresponding to the desired character’s ASCII code. The value can be specified as a decimal number (10 through 255 only; 0 through 9 would be considered a single character) or as a hexadecimal value ($00 through $FF). *NOTE: To specify a hexadecimal value you must use $$xx (as in “Set Quote $$22”).*
- Any replacement item that results in a *Character*

Examples:

```
Set Quote \     or  Set Quote "\"
Set Quote 92    or  Set Quote "92"
Set Quote $$5C  or  Set Quote "$$5C"
```

Note the use of *two* dollar signs to indicate a hexadecimal number. Remember, this is required because a single $ indicates a “replacement item”…when Spectrum first expands the *Set Quote $$5C* command, the *$$* gets replaced by the single $, so Spectrum actually sees $5C.

String

A *String* is composed of 0 to 128 *Characters*.

When used in a script, strings should be enclosed in delimitation marks (they are required if the string contains spaces; otherwise the marks are optional). *NOTE: The “delimitation mark” is usually the double quote (") mark. Although the string delimitation mark can be changed by a script, the examples presented in this manual all use the standard double quote mark.*

Wherever a *String* parameter is needed you can use one of the following:

- A single character, with or without quote delimitation marks (A, g, 7, “R”, “k”, “3”, “^M”, “^J”)
- A word, with or without quote delimitation marks (dog, CAT, “house”, “Bread”)
- Two or more words within quote delimitation marks (“wild dog”, “Pretty blue cat^M^J”)
- An empty string (""), which has zero characters
- Any replacement item that results in a *String*

Volumename, Foldername, and Filename

Volumename: The name of a disk (it does not include any folder or file names). For example:

```
:Hard:
:Macintosh Disk:
```

Foldername: Either just the name of a disk or the name of a disk plus the names of one or more folders (or directories) on that disk. For example:

```
:Hard:
:Hard:Spectrum:Spectrum.Script:
:Macintosh Disk:Files to send/receive:
```

Filename: The name of a file (it does not include a *Volumename* or *Foldername*). For example:

```
Capture.File
Today’s Email
```

Remember these important notes about pathnames:

- Always include pathnames in the string delimiter mark (normally the double-quote mark). Although the marks are optional if a pathname has no spaces in it, spaces are entirely possible when using AppleShare or HFS disks. If you don't include the string delimiter marks, a script that works on a ProDOS disk could fail if it is used on an HFS disk.
- Always use colons (:) at the beginning of a *Volumename*, and to separate the names of each folder in a *Foldername*. Although Spectrum allows the old ProDOS-style "/" indicator, it is better to use the GS/OS-style ":" indicator.
- Wherever a *Volumename*, *Foldername*, or *Filename* is needed you can use any replacement item that results in the proper parameter.
- Wherever a *Volumename* or *Foldername* is needed you can use a GS/OS prefix number if it is set correctly. See the *Set GSPrefix* command for more information.
- Wherever a *FoldernameFilename* parameter is indicated you can omit the *Foldername* if prefix 8 is set to the proper folder. *NOTE: It is safer to always include the desired Foldername because prefix 8 can be changed by the user at almost any time.*

Label

Wherever a *Label* is needed you must specify a label that is defined somewhere in your script.

To define a label in your script, type the comment character (#) at the beginning of a line, press the Spacebar, then type a word that will be the label. If you also want to add a comment, press the Spacebar then type the comment.

Look at the following examples in the left column to see if you can determine which items are valid labels. The right column shows the correct answer and reason for each item:

`# What is a label?`	*What* (the first word after the # at the beginning of the line)
`# Say_Hello`	*Say_Hello* (the first word after the # at the beginning of the line)
`Display "Bye!" # The End`	(no label; # is not at the beginning of the line)
`# AskQuestion -- Asks the user a question`	*AskQuestion* (the first word after the # at the beginning of the line)
`# AskQuestion--Asks the user a question`	*AskQuestion--Asks* (the first word after the # at the beginning of the line)
`# WhatLabel?ThisOne!`	*WhatLabel?ThisOne!* (the first word after the # at the beginning of the line)

Statement

Wherever a *Statement* is needed you can insert any valid Spectrum command, including multiple commands separated by semicolons. You can even use any replacement item that results in a *Statement*.

Script Commands

Script Commands

This section describes every Spectrum script command. The function of each command is explained, but in-depth descriptions from the Spectrum Reference manual are *not* repeated here. For example, the *Set Baud* command states that it controls the port setting's baud rate, but it does *not* explain what baud rate is or how it affects telecommunications. For that information, refer to the Spectrum Program Manual.

Each command is described in the following format:

> **Pause** *Value*
> *Value* is optional; if used it can be from 0 to 65535
>
> Pauses script execution for *Value* seconds. A value of 0 pauses forever; if no value is given there is a one second pause.
>
> *Example:*
>
> ```
> Display "Hold your breath..."
> Pause 5; Display "^Gbreathe normally now!^M^J"
> ```

The first line displays the required parts of the command in **boldface** and parameters that you might supply in *italics*. In the sample above, **Pause** is the command and *Value* is the only parameter.

If a parameter needs explanation or clarification, it appears below the command name. In the sample above, it is clarified that *Value* is optional, but if specified it must be a number from 0 to 65535.

Following these items is a description of the command as well as any other notes of interest. From the sample above we now know that Pause will cause a delay of *Value* seconds, and we know what happens if no value is specified, or if a value of 0 is used.

An example is often provided to clarify and spark ideas (they are not necessarily useful, as the example above illustrates).

Script Development

Set Debug *State*

State can be Screen, Scrollback, or Off

Helps you trace exactly what is happening when a script is run so you can detect errors or omissions. Each script statement is displayed or recorded after all replacements have been made, just prior to executing the expanded statement.

Screen: Statements are displayed on the screen. In some online displays the commands are shown in inverse text to help separate them from the rest of the screen. This option is useful for short scripts that display very little on the screen. It can be used for longer scripts, but the displayed statements may go by too quickly to effectively trace what is happening.

Scrollback: Statements are placed into the scrollback buffer. This option is usually more useful than Screen because it provides a written record of all the statements that were executed, as well as showing *when* they were executed.

Off: When debugging is off, scripts execute with no debug information being displayed or recorded.

Example:

```
Clear Scrollback; Set Debug Scrollback
Display "How^M^Jdoes^M^Jthis^M^Jlook?^M^J"
Set Debug Off
```

Clear Scrollback

Clears the scrollback buffer, which is sometimes useful during debugging (especially when sending debug commands to the scrollback buffer). *NOTE: This command should never appear in a completed script!*

Set ShowControls *State*

State can be Off or On

When on, control characters are displayed as *^letter*, which is sometimes useful for debugging scripts. For example, if you're waiting for "Hello" but the host is transmitting "Hel^Tlo" you may not know why the script isn't working; by turning on ShowControls you will be able to see the problem.

For this command to be most useful, create and select character filter tables that do no key translations. *NOTE: Some online displays do not support this command. This command should never appear in a completed script!*

Fundamental Commands

Display "*String*"

Displays *String* on the screen. If you also want to send the string out to the port, use the *Transmit* command.

No characters are added automatically by the *Display* command. If you want to display a word followed by a carriage return you must include the carriage return in the *Display* command (see the example below).

Because some online displays do not automatically add a linefeed (^J) when a carriage return (^M) appears, you should always display the "^M^J" combination to ensure the cursor is at the first position of the next line. Displays that do automatically linefeed will ignore the first ^J after a ^M.

Example:

```
Display "^LThis is "
Display "a test.^M^J"
Display "^GSee how these^M^Jlines look?^M^J"
```

The following control characters behave in a standard way when used in a *Display* command:

Key	Result
^E	Show the cursor
^F	Hide the cursor
^G	Play the system beep sound
^H	Move the cursor one character to the left
^J	Move the cursor down one line
^K	Clear the screen from the cursor on down, without changing the cursor position
^L	Clear the display and move the cursor to the top-left of the display
^M	Move the cursor all the way to the left of the current line (and sometimes down one line too)
^Y	Move the cursor to the top-left of the display without clearing the display
^]	Clear from the cursor to the end of the line
^^	GotoXY (the ASCII value of the next two characters are interpreted as X+32 and Y+32)

NOTE: To insure that you are at the beginning of the next line, always display the combination "^M^J".

NOTE: You cannot directly display "^^" followed by two letters, but you can do it with the following script:

```
Set Token \ # change the control character token to be \
Display "\^!*" # same as GotoXY 1,10
Set Token ^ # change token back to ^
```

The following additional control characters are not supported in all online displays, but if supported they behave as described:

Key	Result
^I	Move the cursor right, to the next "tab stop" (usually at positions 0, 8, 16, 24, and so on)
^N	Normal text (turns off Inverse, and sometimes MouseText too)
^O	Inverse text
^V	Scroll the screen down one line without changing the cursor position
^W	Scroll the screen up one line without changing the cursor position
^X	Turn off MouseText (and sometimes Inverse too)
^[	Turn on MouseText (uppercase letters A-Z are displayed as "MouseText" characters)
^\	Move the cursor right one character
^_	Move the cursor up one line
^Z	Clear the entire line that the cursor is on

NOTE: Displays that support MouseText have different requirements. To ensure MouseText is on, always display the combination "^O^["; to ensure MouseText is off, always display the combination "^X^N".

DisplayRecord "*String*"

Displays *String* on the screen and records it into the capture buffer (even if the screen and buffer have been turned off). If you also want to send the string out to the port, use the *Transmit* command.

Example:

```
DisplayRecord "^M^J[Begin online session on $Date at $FullTime.]^M^J"
```

In the example, note that the ^M^J combination is there for the benefit of the "Display" part of the command… recording to the capture buffer does not need a linefeed.

Record "*String*"

Records *String* directly into the capture buffer (even if the buffer has been turned off). If you also want to send the string out to the port, use the *Transmit* command.

Example:

```
Record "^M[Begin online session on $Date at $FullTime.]^M"
```

In the example, note that only ^M is used…the capture buffer does not need a linefeed.

Transmit "*String*"

Shortcut: **Xmit "*String*"**

Sends *String* directly out to the port. If the port is set for half duplex the string is also displayed on the screen; with full duplex the string is displayed only if the host echoes it.

No characters are added automatically by the *Transmit* command. If you want to transmit a word followed by a carriage return you must include the carriage return in the *Transmit* command (see the example).

Example:

```
Transmit "MyPassword^M"
```

Break

Sends a "break" signal to the port.

Load MenuFile "*FoldernameFilename*"

Loads the specified file as if the user selected it by choosing Load Menu File from the Script menu.

Clear MenuFile

Removes any script names from the bottom of the Scripts menu, and resets the menu path to the Spectrum.Script folder.

Set FKey *Value* "*String*"

Value can be from 0 to 9

Sets an “FKey” to the specified *String*. From then on pressing <u>#</u> (where <u>#</u> is a number from 0 to 9) will type the string just as if you typed it from the keyboard (if a display window is open and in front; it does not work in the Editor, in NDAs, etc.).

The FKeys are available even after the script has stopped running, which makes them very useful for quickly typing common phrases.

Example:

```
Set FKey 1 "For more Spectrum information contact:^M   Seven Hills Software^M   2310
  Oxford Road^M   Tallahassee, FL 32304^M" # From now until Spectrum is quit (or another
  Set FKey 1 is encountered) pressing OpenApple-1 will type the complete address when
  the online display is open.
```

Settings

Save Settings

Saves Spectrum’s current settings to disk. Settings are also saved when Spectrum is quit (unless the user has checked the “Don’t save settings” option in the Status dialog box).

Load Settings

Loads Spectrum’s settings from disk.

Store Settings

Remembers Spectrum’s settings in memory.

Every script command that controls a checkbox or popup menu in a Spectrum dialog box is affecting choices the user has made. Whenever possible you should not permanently alter the user’s settings of those items. This example shows one way to change settings without permanently affecting the user’s choices:

```
Store Settings # hold current settings in memory
Set AutoReceive OFF # turn autoreceive off during logon
Set Duplex FULL; Set Echo OFF # don't show logon information
...logon commands here...
Restore Settings # restore the AutoReceive, Duplex, and Echo settings to whatever they
  were originally
```

Restore Settings

Restores from memory the previously-stored program settings.

Set SmartPaste *State*

Controls whether Spectrum’s built-in editor will use “smart” cutting and pasting. If you change this option, the editor window must be closed (W) then re-opened (E) before the change takes effect.

With SmartPaste turned on, cutting and pasting will insert and delete spaces automatically in an effort maintain the proper spacing between words. However, this option is normally turned off because it can be annoying when editing scripts.

Port Settings

NOTE: The commands described in this section control settings related to the communications port. Most commands affect options that the user can set in the Port Settings dialog box.

Set Baud *Rate*

Rate can be Default, 50, 75, 110, 135, 150, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600, 19200, 38400, or 57600

Sets the “Baud Rate” option to the specified rate.

Set DFormat *Format*

Format can be 7E2, 7O2, 7N2, 7E1, 7O1, 7N1, 8E2, 8O2, 8N2, 8E1, 8O1, or 8N1

Sets the “Data Format” option to the specified data bits (7 or 8), parity (None, Even, or Odd), and stop bits (1 or 2).

Set Duplex *DuplexKind*

DuplexKind can be Half or Full

Controls the “Half Duplex” checkbox. With half duplex, outgoing data is displayed on the screen as it is transmitted; with full duplex outgoing data is *not* displayed on the screen. Setting full duplex and setting the screen off

Set Echo *State*

State can be Off or On

Controls the “Echo” checkbox. If echo is on, incoming characters are echoed back out to the port. *NOTE: If Echo is on and the host echoes characters back to you, you may find yourself in a loop with the same characters constantly being echoed between the two systems. Turn echo off to stop the loop.*

Also, commands which normally are displayed only on the screen will be sent out to the port (e.g. Get Line, Show Catalog, Show File, etc.). *NOTE: When echoing information out to the port, characters are not passed through the keyboard filter (as they would be if they were sent using the Transmit command).*

Set SendLFs *State*

State can be Off or On

Controls the “Send LFs” checkbox.

Set Handshake *State*

State can be Off or On

Controls the “H’ware Handshake” checkbox.

Set XonXoff *State*

State can be Off or On

Controls the “Xon/Xoff Flow” checkbox.

Set CharDelay *Value*

Value can be from 0 to 9

Controls the “Character Delay” value. *Value* is the delay in 1/60ths of a second (0 is no delay; 9 is a .15 second delay).

The delay occurs after each character is sent out to the port and is used at all times except for non-text file transfer protocols.

Set LineDelay *Value*

Value can be from 0 to 9

Controls the “Line Delay” value. *Value* is the delay in 16/60ths of a second (0 is no delay; 9 is a 2.4 second delay).

The delay occurs after a Return character is sent out to the port and is used at all times except for non-text file transfer protocols.

Set DCD *State*

State can be Off or On

Controls the “DCD Handshake” checkbox.

Set Port *PortKind SlotNumber*

PortKind can be IIGS or Slot
SlotNumber can be a number from 1 to 2 if *PortKind* is IIGS; from 1 to 7 if *PortKind* is Slot

Controls the port connection options:

IIGS: Indicates the connection should be through the serial port on the back of the IIgs computer. To specify the Printer Port use 1 for *SlotNumber*; to specify the Modem Port use 2.

Slot: Indicates the connection should be through the card that is plugged into the specified slot.

Examples:

```
Set Port Slot 2 # a Super Serial Card in slot 2
Set Port Slot 4 # an AE DataLink in slot 4
Set Port IIGS 2 # the IIGS Modem Port
```

Online Display Settings

NOTE: The commands described in this section control settings related to the online display. Most commands affect options that the user can set in the Online Display Settings dialog box.

Set OnlineDisplay "*Display*"

Display can be the name of any online display as it appears in the Online Display Settings dialog box

Selects and opens the specified online display. The Spectrum SHR Fast, Spectrum SHR Normal, and Spectrum Text displays will always be available, but others can be added or removed by the user at any time. You can test the Failed flag to see if the display was opened or not.

Example:

```
Set OnlineDisplay "ANSI"
If Failed Then Display "^LThis script requires the ANSI display, which could not be
  opened.^M^J^J"; Stop Script
```

Close OnlineDisplay

Shortcut: **Offline**

Closes the current online display and stops script execution as if the *Stop Script* command was encountered. *Close OnlineDisplay* is useful for ending a script that uses a custom display—the command will close the display and return to the 640 mode desktop with Spectrum’s menu bar.

TIP: Use the Set OnlineDisplay command to select a different online display without causing the script to stop.

Set DeleteBack *State*

State can be Off or On

Controls the “Delete key = Backspace” checkbox. When on, pressing the delete key sends a backspace (^H, ASCII $08). When off, pressing the delete key sends a true delete character (ASCII $7F).

Set LowASCII *State*

State can be Off or On

Controls the “Convert To Low ASCII” checkbox.

Set ScriptKeys *State*

State can be Off or On

Controls the “Recognize Script Keys” checkbox.

Set RemoveLFs *State*

State can be Off or On

When on, linefeed characters (^J, ASCII $0A) are not stored in the capture buffer or seen by scripts. This option is usually on.

Set Sound *State*

State can be Off or On

Controls the “Sounds” checkbox.

Character Filter Settings

NOTE: The commands described in this section control settings related to the character filter. Most commands affect options that the user can set in the Character Filter Settings dialog box.

Set DisplayFilter *Value*

Value can be from 0 to 16

Sets the Display Character Filter to the specified table number. Table 0 is “Default” (which uses the translation setting specified in the General CDEV). Other table numbers correspond to tables that have been added using the Character Filter Editor.

Set KeyFilter *Value*

Value can be from 0 to 16

Sets the Keyboard Character Filter to the specified table number. Table 0 is “Default” (which uses the translation setting specified in the General CDEV). Other table numbers correspond to tables that have been added using the Character Filter Editor.

Set Country *Value*

Value can be from 0 to 7

Sets the IIgs Control Panel’s Display Language and Keyboard Layout to the specified *Value*:

```
Set Country 0 # U.S.A.   # @ [ \ ] ` { | } ~
Set Country 1 # U.K.     £ @ [ \ ] ` { | } ~
Set Country 2 # French   £ à ˙ ç § ` é ù è ¨
Set Country 3 # Danish   # @ Æ Ø Â ` æ ø å ~
Set Country 4 # Spanish  £ § ¡ Ñ ¿ ` ˙ ñ ç ~
Set Country 5 # Italian  £ § ˙ ç é ù à ò è ì
Set Country 6 # German   # § Ä Ö Ü ` ä ö ü ß
Set Country 7 # Swedish  # @ Ä Ö Å ` ä ö å ~
```

This is useful for foreign services that use common character codes to display foreign characters. The Control Panel’s Display Language and Keyboard Layout affect only the standard 40/80 column text displays…they do not affect what you see on the Super Hires screen or on a printout.

If you frequently call a foreign service it would be better to create a Character Filter table that translated one character into another and use a Super High Res online display. For example, a filter could translate:

$7B to $8E so an incoming { character would be changed to é, and

$8E to $7B so an outgoing é character would be changed to {

To view standard “option” characters on the Super High Res screen, the “Convert to low ASCII” online display option must be off. However, characters intentionally converted to high ASCII characters using a filter table will display correctly even if the “Convert to low ASCII” option is off.

File Transfer Settings

NOTE: The commands described in this section control settings related to file transfers. Most commands affect options that the user can set in the File Transfer Settings dialog box.

Set FileXferPath "*FoldernameFilename*"

Filename is optional

Sets the default folder and filename for file transfers. “Auto Receive” transfers will be received to or sent from this folder. *NOTE: If your script is receiving a file and does not care where it goes, set the prefix to $FileXferPath.*

Set PadCR *State*

State can be Off or On

Controls the “Pad Empty Lines” checkbox. Some hosts use a blank line to indicate the end of a document. When this option is on, blank lines in the file being sent are padded with a space.

After a file has been sent with this option on, you may need to Transmit “^M” to finish the transfer because CRs within the file have been padded.

Set Prompt *Character*

Establishes the prompt character used when sending text files, and turns on prompting. If *Character* is ^@ or ^M then prompting is turned off.

Set PTimer *Value*

Value can be from 0 to 256

The value indicates how many seconds Spectrum will wait for the prompt character during a “prompted” text file upload. If the prompt is not received within *Value* seconds after sending a line of text, the upload continues.

Set ULTextShow *State*

State can be Off or On

Controls the “Display text and save to buffer” checkbox in the Send Text File dialog box. If this option is on when a text file is uploaded, the text is displayed on the screen and captured just as if it was being typed at the keyboard. If this option is off, the file transfer dialog box appears while the file is being sent.

Set AutoResume *State*

State can be Off or On

Controls the “Resume Transfers” checkbox. When on, interrupted/aborted CIS B+ and Zmodem transfers will be resumed if possible.

Set AutoReceive *State*

State can be Off or On

Controls the “Auto Receive” checkbox. When on, Spectrum watches incoming data to see if the host wants to send a file via CIS B+ or Zmodem.

Because CIS B+ transfers are started by a single character (^E), it is fairly easy to trigger a false CIS B+ transfer. To prevent false triggers you could write a script that turns auto receive off and on when necessary.

Set BinaryII *State*

State can be Downloads, Uploads, Off, or On

Controls the “Binary II Down” and “Binary II Up” checkboxes.

Downloads: If a downloaded file has a Binary II wrapper, the wrapper will be removed from the file as it is downloaded. This option also turns off the “Resume Transfers” checkbox.

Uploads: If a file doesn’t already have a Binary II wrapper, one will be added as the file is uploaded.

Off: Turns off both checkboxes.

On: Turns on both checkboxes, and turns off the “Resume Transfers” checkbox.

Set SendAhead *State*

Controls the “Packet Send Ahead” checkbox. If this option is on then CIS B+ and Zmodem transfers will not wait for an acknowledgment of receipt of the previous packet before sending another packet. This can decrease file transfer time, but should be used only with a good connection.

Set ProDOSX *State*

State can be Off or On

Controls the “ProDOS Xmodem” checkbox. When on, extra information is transmitted about a ProDOS file (the file’s length, file type, creation/modification date, etc.). Useful mainly when sending a file from one Apple to another or with systems that support this feature.

Set RelaxedXfers *State*

State can be Off or On

Triples the normal wait times for all protocol transfers during this session of using Spectrum (the normal wait times are re-established the next time Spectrum is started).

This command is useful when connected to a host that is slow to respond during file transfers. If you find transfers are getting aborted due to timeout errors, this command can help (it cannot help if the problem is line noise).

Set Turbo *State*

State can be Off or On

Sets “Turbo” mode for Ymodem file transfers. When off, Receive Ymodem uses regular Ymodem protocol; when on it uses Ymodem-g. Ymodem-g avoids the typical delays between transmittal of each block, but must be used only with a good connection because if a single bad packet is encountered the whole transfer is cancelled and must be restarted from scratch.

Set ZErrors *Value*

Value can be from 0 to 65536

Sets the number of errors that will be allowed during a Zmodem transfer. The transfer will be aborted if more than *Value* number of errors occur.

Dialing

NOTE: If you're writing a script that will be attached to a phonebook entry in the Dial Number dialog, or that uses one of the Dial commands, be aware that the script should not wait for things like "CONNECT" or "BUSY"—Spectrum's dialing routines are complete (if they do not fail then you are connected).

Set ConnectWait *Value*

Value can be from 1 to 999 seconds

Specifies how long to wait for a connection before cancelling the dial sequence.

Example:

```
Set ConnectWait 60
```

Get PhoneEntry *Value VarNum*

Value can be a number from 1 to *$PhoneEntries*

Extracts the name of the specified phonebook entry and stores it in the specified variable.

Dial String "*String*"

Prepares the given number for dialing by adding "ATDT" or "ATDP" if needed, then dials the number. Because scripts have greater control over redialing, this command does not redial automatically.

You can check the Failed flag to determine whether or not a connection was made. *NOTE: If the user pressed the ESC key to cancel dialing, the Keyboard value will be ^[(ESC).*

Example:

```
Dial String "555-1234"
If NOT Failed Then Display "[CONNECTED AT $Time ON $Date]^M^J"; Stop Script
If Keyboard "^[" Then Display "Changed your mind, eh?^M^J"
```

Dial Service "*PhonebookEntry*"

PhonebookEntry can be the name of any phonebook entry that appears in the Dial Number dialog box

Extracts the specified entry, sets the port settings, then dials the entry's phone number. Because scripts have greater control over redialing, this command does not redial automatically.

You can check the Failed flag to determine whether or not a connection was made. *NOTE: If the user pressed the ESC key to cancel dialing, the Keyboard value will be ^[(ESC).*

If the phonebook entry has a script attached to it, that script is *not* automatically run. Instead, the *$LogonFile* replacement item is set to the name of the attached script. This way your script can decide whether to use an entry just for connecting to a service, or it can connect and run the script attached to the phonebook entry (see the example below).

Example:

```
Dial Service "GEnie"; If Failed Then Stop Script
Set SFPrefix "$MenuPath" # This is the folder that the last menu file was loaded from,
  which is where the logon script should be located
If Exists "$LogonFile" Then Run "$LogonFile" # If the logon file doesn't exist then no
  error appears
```

Dial Entry *Value*

Value can be a number from 1 to *$PhoneEntries*

Dials phonebook entry number *Value* exactly like the *Dial Service* command. The *Dial Entry* command is useful for automatically dialing one entry after another until one connects. For dialing a specific service the *Dial Service* command should be used because phonebook entries can change position whenever an entry is added or deleted.

Example:

```
If Equal "$PhoneEntries" "0" Then Stop Script # because there are no entries to dial
For 5 1 $PhoneEntries; Get PhoneEntry $ForValue5 3
Display "Trying entry number $ForValue5 ($3)...^M^J"; Dial Entry $ForValue5; If Not
  Failed Then Clear For 5; Display "^LConnected to $3!^M^J"; Stop Script
Next 5; Display "Couldn't connect.^M^J"; Stop Script
```

Hangup

Hangs up the modem without asking for confirmation.

Set Password *Value* "*String*"

Value can be from 0 to 9

Encrypts *String* and saves it with Spectrum. The stored password may be transmitted using the *Send Password* command.

The following table shows the recommended use for the password values:

0	The response given at GEnie’s “U#=” prompt
1	The response given at CompuServe’s “Password” prompt

By using stored passwords and the *Send Password* command, generic scripts can be written and posted online without having to remove your private password information.

Send Password *Value*

Value can be from 0 to 9

Decrypts the stored password and sends it out to the port with no screen echo (unless the host echoes it).

Set Rate *Value*

Value can be from 0 to 65535

Sets the value used to calculate the *$Cost* replacement item. The value should be the cents (or pence, kopeks, etc.) per minute. For example, if a service costs $6.00 per hour, the cost per minute is 10 cents (**6.00***100/60).

Set Timer *State*

State can be Off or On

Turns the timer on and off. The current timer can be displayed using the *$Timer* replacement item. A charge based on the timer can be calculated by first setting the rate *(Set Rate)* then displaying the *$Cost* replacement item.

Clear Timer

Clears the timer back to 00:00:00; it does not turn the timer on or off.

Play Sound "*Name*"

Plays the specified sound at the volume specified in the Sounds CDEV. *NOTE: In order to play sounds, the Sounds CDEV must be installed and active, and the “Sounds” checkbox must be on in the Online Display Settings dialog box.*

Name is case-sensitive (“welcome” and “Welcome” are *not* the same sound). The Failed flag is set if the specified sound was not found (Spectrum will play sounds in the Spectrum.Sounds file, or in any of the sound files found in the System:Sounds folder). *NOTE: System 6.0.0 contains a bug that sometimes prevents the correct sound from being played (e.g. playing “You Have Mail (HAL)” will actually play “You Have Mail”). System 6.0.1 works correctly.*

To avoid one sound cutting another sound short, Spectrum waits until no sound is playing before it asks the Sounds CDEV to play the requested sound. This means that sounds can be “combined” by playing one right after another.

Two sound files come with Spectrum: SP.Snds.Main and SP.Snds.Aux.

The sounds in the **SP.Snds.Main**.Snds.Main; file are played automatically by Spectrum at the appropriate time:

Spectrum Welcome	File-Launch	File-Quit
Phone-Connected	Phone-No Connection	
Phone-Hangup		
Send/Receive-Good	Send/Receive-Bad	
Chatline Warning	SystemBeep	
Saving Screen	Saving Screen Failed	
Key-Return	Key-Spacebar	Key-Any

The sounds in the **SP.Snds.Aux**.Snds.Aux; file are not played by Spectrum, but scripts can play them when appropriate:

Welcome	Goodbye	
You Have Mail	You Have Mail (HAL)	
Reading Mail	Sending Mail	
Receiving Files	Sending Files	
Via Text	Via Xmodem	
Via Ymodem	Via Zmodem	Via CIS B+
Entering Forum	Entering Roundtable	
Reading Messages	Posting Replies	
Loading	Saving	
Capture Buffer	File	
Cleared	On	Off

Example:

```
# NOTE: Although something like this is possible, it can get annoying if overused...
Get File 2 0; If Failed Then Stop Script
Play Sound "Loading"; Play Sound "File"; Load ScriptEditor "$0"
Apply LowASCII; Apply RemoveControls; Apply LFsToCRs; Apply Format 3
Play Sound "Saving"; Play Sound "File"; Save ScriptEditor "$0"; Clear ScriptEditor
Play Sound "Sending A File"; Play Sound "Via Text"; Send "$0" Text
```

Script and Program Control

Stop Script

Stops running the current script.

Example:

```
Display "Thanks for using this script!^M^J"
Stop Script
Display "You won't see this.^M^J"
```

Pause *Value*

Value is optional; if used it can be from 0 to 65535

<<This command is used as an example in the “Parameters” and “Commands” sections above—any changes here should be copied to those sections!>>

Pauses script execution for *Value* seconds. A value of 0 pauses forever; if no value is given there is a one second pause.

Example:

```
Display "Hold your breath..."
Pause 5; Display "^Gbreathe normally now!^M^J"
```

WaitFor Time "*Time*"

Waits until the specified time then continues executing the script. The time must be specified in 24-hour format (e.g. “19:40”, “12:34”).

Example:

```
WaitFor Time "19:40"; Display "It is now 7:40pm!^M^J"
```

Run "*FoldernameFilename*"

Runs the specified script, just as if the user chose Run a Script from the Script menu, then selected the *FoldernameFilename* script. Whenever any script is run, the following items are set to a known state:

```
Set Quote "
Set Token ^
Set CaseSensitive OFF
Set Timeout 0
On Escape Goto ""  # Spectrum handles an Escape
On Error Goto ""  # Spectrum handles errors
Set Turbo OFF
Set ScreenBlank OFF
Set Screen ON
Set Debug OFF
Set Rate 0
Set Flush ON
Set ULCapture OFF
# - ALSO:
# - All ten variables ($0-$9) are cleared to ""
# - The "If Keyboard" value is cleared
# - The Failed flag is cleared to indicate "not failed"
# - $Matched is cleared to 0

# - $MatchString is cleared to ""
# - All files opened by the previous script are closed (including any ScriptEditor file)
```

Example:

```
Display "Set up <C>ompuServe or <G>Enie? "; WaitFor Keyboard
If Keyboard C Then Run "$MenuPathCIS.Setup"
If Keyboard G Then Run "$MenuPathGEnie.Setup"
Display "No system with that letter.^M^J"; Stop Script
```

Chain "*FoldernameFilename*"

Passes control (or "Chains") to the specified script, *preserving* all the settings that are normally reset when a script is Run (see above).

Example:

At the beginning of a script named "Chain.1":

```
Display "Do you want to <D>elete or <S>how a file? "
# KeyLoop1
WaitFor Keyboard
If Keyboard D Then Set Var 9 "Delete"; Chain "Chain.2"
If Keyboard S Then Set Var 9 "Show"; Chain "Chain.2"
Display "^G"; Goto KeyLoop1
```

At the beginning of the script named "Chain.2":

```
Display "^M^J^JNow in the 'Chain.2' script.^M^J^J"
If Null 9 Goto NotChained # if variable number 9 is empty then this script was RUN,
   otherwise the script was CHAINed to and variable number 9 has the name of a label in
   this file
Goto $9

# NotChained
Display "This script was RUN (not CHAINed to).^M^J"; Stop Script

# Delete
Display "This script was CHAINed to, and you wanted to DELETE a file.^M^J"; Stop Script

# Show
Display "This script was CHAINed to, and you wanted to SHOW a file.^M^J"; Stop Script
```

Launch "*FoldernameFilename*"

Spectrum hangs up the modem (see "Hangup") then quits to the specified application. Quitting that application will restart Spectrum. *NOTE: If The Manager is active Spectrum will not be quit; it will just attempt to launch (or activate) the specified application.*

The user is not asked if he wants to save the capture buffer, but a *Save Buffer* command will be issued automatically if the AutoSaveBuffer option is on.

Example:

```
Display "Launch <G>raphicWriter III? "
WaitFor Keyboard
If Keyboard Y Then Launch ":Hard:GWIII:GraphicWriter"
```

Exit "*FoldernameFilename*"

FoldernameFilename is optional; if given it must reference a IIgs application

Spectrum attempts to leave the communication port active (if you are online you should not be disconnected), then…

If *FoldernameFilename* is **not** given then Spectrum quits to the application that launched it. Quitting that application will not restart Spectrum.

If *FoldernameFilename* **is** given then Spectrum quits to that application. Quitting that application will restart Spectrum. *NOTE: If The Manager is active Spectrum will not be quit; it will just attempt to launch (or activate) the specified application.*

In either case the user is not asked if he wants to save the capture buffer, but a *Save Buffer* command will be issued automatically if the AutoSaveBuffer option is on.

Example:

```
Display "^GWARNING: Exiting does not hang up the line; be sure you are not connected to
   an expensive service!^M^J"
Display "Exit to <G>raphicWriter III or <F>ont Factory GS? "
WaitFor Keyboard
If Keyboard G Then Exit ":Hard:GWIII:GraphicWriter"
If Keyboard F Then Exit ":Hard:FFGS:Font.Factory.GS"
```

Quit "*FoldernameFilename*"

FoldernameFilename is optional; if given it must reference a IIgs application

Spectrum hangs up the modem (see "Hangup") then…

If *FoldernameFilename* is **not** given then Spectrum quits to the application that launched it. Quitting that application will not restart Spectrum.

If *FoldernameFilename* **is** given then Spectrum quits to that application. Quitting that application will not restart Spectrum.

In either case the user is not asked if he wants to save the capture buffer, but a *Save Buffer* command will be issued automatically if the AutoSaveBuffer option is on.

Variables

Set Variable *VarNum* "*String*"

Shortcut: **Set Var** *VarNum* **"***String***"**

Set the contents of the specified variable number to be the given string.

Example:

```
Set Variable 0 "Spectrum is cool!^M^J"
Display "$0$0$0$0"
```

Store Variables

Shortcut: **Store Vars**

Stores the current values of the ten numbered variables.

Restore Variables

Shortcut: **Restore Vars**

Restores the ten numbered variables to the previously-stored values.

Clear Variables

Shortcut: **Clear Vars**

Clears the ten numbered variables to "".

Concatenate "*String1*" "*String2*" *VarNum*

Appends *String2* onto the end of *String1* and places the result into the specified variable number. If the length of *String1* and *String2* is greater than 128 characters, the result is truncated to 128 characters and the Failed flag is set.

Example:

```
Display "What adjective describes Spectrum? "
Get Line 0
Concatenate "Spectrum is " "$0" 1
Concatenate "$1" "!^M^J" 1
Display "$1$1$1$1"
```

NOTE: Only a single Concatenate command was really needed; we used two steps to illustrate that it is perfectly acceptable to specify a variable for one of the strings, then to store the result back into that same variable.

Position "*String*" "*ToFindString*" *Start* *VarNum*

Start can be from 1 to 128

Sets variable number *VarNum* to indicate the character position at which *ToFindString* is found in *String*. *Start* indicates which character to start searching from. If *Start* is 0, or if *Start* is greater than the length of *String*, or if *ToFindString* is not found in *String*, then *$VarNum* is set to 0.

Example:

```
Display "Type your first and last name: "; Get Line 0
Position "$0" " " 1 1 # looks for a space starting at character 1; stores the position
   in $1
If Equal "$1" "0" Then Display "You didn't enter a space between your first and last
   name."; Stop Script
```

Substring "*String*" *Start Length VarNum*

Start can be from 1 to 128
Length can be from 1 to 128

Sets *$VarNum* to the specified portion of *String*. If *Start* is 0, or if *Start* is greater than the length of *String*, then *$VarNum* is set to "". If *Length* is greater than the length of *String* then *$VarNum* contains the characters from *Start* to the last character of *String*.

Example:

```
Display "Type your first and last name: "; Get Line 0
Position "$0" " " 1 1 # looks for a space starting at character 1; stores the position
   in $1
If Equal "$1" "0" Then Display "You didn't enter a space between your first and last
   name."; Stop Script
Decrement 1 # the character before the space
Substring "$0" 1 $1 2 # everything to the left of the space is put into $2
Increment 1; Increment 1 # the character after the space
Substring "$0" $1 128 3 # everything to the right of the space is put into $3
Display "^M^JYour first name is: $2^M^J"; Display "Your last name is: $3^M^J"; Stop
   Script
```

Increment *VarNum*

Shortcut: **INC** *VarNum*

Increments the contents of the specified variable number by 1. The variable must contain a valid number in order for this command to work. The number will not increment above 4,294,967,295.

Example:

```
Set Variable 0 "12345"
Display "Starting at: $0^M^J"
Increment 0
INC 0 # the shortcut version
Display " Result is: $0^M^J"
```

Decrement *VarNum*

Shortcut: **DEC** *VarNum*

Decrements the contents of the specified variable number by 1. The variable must contain a valid number in order for this command to work. The number will not decrement below 0.

Example:

```
Set Variable 0 "12345"
Display "Starting at: $0^M^J"
Decrement 0
DEC 0 # the shortcut version
Display " Result is: $0^M^J"
```

Get Random *Value VarNum*

Value can be from 1 to 65535

Places a random number from 1 to *Value* into the specified variable number.

Add *Value1 Value2 VarNum*

Adds *Value1* to *Value2* and places the result into the specified variable number.

Subtract *Value1 Value2 VarNum*

Subtracts *Value2* from *Value1* and places the result into the specified variable number.

Multiply *Value1 Value2 VarNum*

Multiplies *Value1* by *Value2* and places the result into the specified variable number.

Divide *Value1 Value2 VarNum*

Divides *Value1* by *Value2* and places the result into the specified variable number. NOTE: Because values are positive integers, any remainder from the division is thrown away (e.g. the result of 5 divided by 2 is 2, not 2.5).

Example:

```
Set Variable 0 "100"; Set Variable 1 "25"
Add $0 $1 2;      Display "$0+$1=$2^M^J"
Subtract $0 $1 2; Display "$0-$1=$2^M^J"
Multiply $0 $1 2; Display "$0*$1=$2^M^J"
Divide $0 $1 2;   Display "$0/$1=$2^M^J"
```

Compare *Value1 Value2 VarNum*

Compares *Value1* to *Value2* and places the result into the specified variable number (1 means *Value1*<*Value2*; 2 means *Value1*=*Value2*; 3 means *Value1*>*Value2*)

Example:

```
Get Random 100 0
Display "^LI picked a number from 1-100. Now you try to guess what it is!^M^J^J"
# GuessLoop
Display "What is your guess? "; Get Line 1
Compare $1 $0 2 # compare the guess to the random number
On $2 GotoNext Less, Equal, More
# Less
Display "^M^JToo low!^M^J^J"; Goto GuessLoop
# Equal
Display "^G^M^JYou guessed right!^M^J^J^G"; Stop Script
# More
Display "^M^JToo high!^M^J^J"; Goto GuessLoop
```

Swap *VarNum1 VarNum2*

Swaps the contents of the two variables.

Example:

```
Set Var 1 "One"; Set Var 2 "Two"
Swap 1 2; Display "1=$1 2=$2^M^J^J"
```

Getting Input

Set Timeout *Value*

Value can be from 0 to 65535

When waiting for input using any of the “Getting Input” commands, Spectrum waits for *Value* seconds before it gives up and continues executing the script. If *Value* is 0 Spectrum will wait forever.

If you use a timeout for an input command, test to see if the input “failed” (timed out) before using the input.

Example:

```
Display "What is your favorite letter? "
Set Timeout 5; WaitFor Keyboard
If Failed Then Display "^M^JApparently you can't decide what your favorite is!^M^J";
   Stop Script
Display "^M^JYes, '$MatchString' is a nice letter!^M^J"; Stop Script
```

Set KeyLock *State*

State can be Off or On

Locks out keyboard entry that would be sent directly to the port, and prevents keyboard input to the *Get Key* and *Get Line* commands. Turning this option on prevents the user from interfering with the data that a script is transmitting or waiting for.

WaitFor Keyboard

Waits for the next keypress (Spectrum processes characters coming in from the port, but this command ignores them). When a keypress is received the Failed flag is cleared, *$MatchString* is set to the key that was pressed, and *$Matched* is set to 1. You can test for which key was pressed by using the *If Keyboard* command.

If a timeout was used and time ran out, the Failed flag is set, *$MatchString* is cleared, and *$Matched* is set to 0.

WaitFor String "*String1*" "*String2*" ... "*String7*" "*String8*"

At least one string is required; up to eight may be specified. Commas are optional between each string.

Spectrum processes characters coming in from the port and watches for the specified string (the CaseSensitive setting affects the comparison). If one of the strings is found then the Failed flag is cleared, *$MatchString* is set to the string that was found, and *$Matched* is a number that indicates which string was matched.

If a timeout was used and time ran out, the Failed flag is set, *$MatchString* is cleared, and *$Matched* is set to 0.

Example:

```
Set Timeout 15; Set CaseSensitive Off
Transmit "ATDT555-1234^M"
WaitFor String "Connect" "Busy" "No Carrier"
If Failed Then Stop Script
On $Matched Goto Logon, Redial, Redial
```

Get Key *VarNum*

Gets one character from the port or the keyboard (if KeyLock is off) then stores it into the specified variable.

If a timeout was used and time ran out, the Failed flag is set and the specified variable is cleared.

Get Line *VarNum*

Accepts up to 128 characters from the port or the keyboard (if KeyLock is Off). When the Return key is pressed the line is stored into the specified variable.

If a timeout was used and time ran out, the Failed flag is set and the specified variable is cleared.

Input Keyboard

Waits for the next keypress. If Flush is Off then characters coming in from the port are not processed; if Flush is On then incoming characters are processed, but this command ignores them (it watches the keyboard only).

When a keypress is received the Failed flag is cleared, *$MatchString* is set to the key that was pressed, and *$Matched* is set to 1. You can test for which key was pressed by using the *If Keyboard* command.

If a timeout was used and time ran out, the Failed flag is set, *$MatchString* is cleared, and *$Matched* is set to 0.

Input Key *VarNum*

Gets one character from the keyboard and stores it into the specified variable. If Flush is Off then characters coming in from the port are not processed; if Flush is On then incoming characters are processed, but this command ignores them (it watches the keyboard only).

If a timeout was used and time ran out, the Failed flag is set and the specified variable is cleared.

Input Line *VarNum*

Accepts up to 128 characters from the keyboard. When the Return key is pressed the line is stored into the specified variable. If Flush is Off then characters coming in from the port are not processed; if Flush is On then incoming characters are processed, but this command ignores them (it watches the keyboard only).

If a timeout was used and time ran out, the Failed flag is set and the specified variable is cleared.

Ask1 "*Question*" "*Button1*" *VarNum*
Ask2 "*Question*" "*Button1*" "*Button2*" *VarNum*
Ask3 "*Question*" "*Button1*" "*Button2*" "*Button3*" *VarNum*

Question is a string up to 68 characters long
Button# is a string up to 12 characters long

Displays an alert window on the super hires screen that contains the question and the buttons. After this statement *VarNum* contains 1, 2, or 3 to indicate which button number was chosen.

The “#” and “*” are special characters in an alert, so to display them you must use them twice (see the example below). *NOTE: No substitution array is defined so using embedded “*” codes will do nothing.*

The strings can include these alert replacement items:

#0 OK	#2 Yes	#4 Try Again	#6 Continue
#1 Cancel	#3 No	#5 Quit	

The beginning of one button string can include “^^” to indicate that button should be the default choice.

Example:

```
Ask3 "Special ## characters **?" "#1 This" "#3 Way" "^^#2!" 0
Display "You chose button number $0.^M^J"
```

Branching and Loops

Set Labels *State*

State can be Off or On

This command controls whether pressing Option-# (where # is a number from 0 to 9) will attempt to “Gosub” that label (the given routine should include a Return or Pop). *NOTE: No error is generated if a numbered label does not exist. The label search begins at the top of the script each time, so control passes to the first matching label.*

Goto *Label*

Script control jumps to the commands after the first occurrence of *Label* (the label search begins at the top of the script).

Example:

```
Goto Begin
Display "This will never be displayed!"
# Begin
Display "Hello!^M^J"; Stop Script
```

GotoNext *Label*

Script control jumps to the commands after the next occurrence of *Label* (the label search begins on the line after the current statement).

Because searching does not begin at the top of the script, GotoNext is slightly faster than Goto. It is also useful in creating “modular” subroutines…if the subroutine is structured to use GotoNext instead of Goto, you can cut and paste the subroutine without fear of any label names conflicting with labels in the script you’re pasting into.

Gosub *Label*

Script control temporarily transfers to the commands after the first occurrence of *Label* (the label search begins at the top of the script). When the *Return* command is encountered, script control returns to the statement following the *Gosub* command.

Gosub is short for “go subroutine.” Subroutines are very useful (but not required). Imagine you were writing a script that needed to use the same ten commands three different places in a script. Instead of writing those ten commands each time, write the ten commands only once as a “subroutine.” Whenever those ten commands are needed you simply “gosub” to that subroutine.

Up to 16 *Gosub* commands can be active, which means one “subroutine” can call another.

Example without a subroutine:

```
Set Var 6 "This is an example"; Display "Variable 6 is '$6'.^M^J"; Display "The length
   is $Length6.^M^J"
Set Var 6 "of how subroutines"; Display "Variable 6 is '$6'.^M^J"; Display "The length
   is $Length6.^M^J"
Set Var 6 "can be useful."; Display "Variable 6 is '$6'.^M^J"; Display "The length is
   $Length6.^M^J"
```

Example with a subroutine:

```
Set Var 6 "This is an example"; Gosub ShowVar6
Set Var 6 "of how subroutines"; Gosub ShowVar6
Set Var 6 "can be useful."; Gosub ShowVar6

# ShowVar6
Display "Variable 6 is '$6'.^M^J"; Display "The length is $Length6.^M^J"
Return
```

Although the second script might look longer, it actually contains 100 characters less than the first script! Also, imagine what would happen if you wanted to know whether or not variable 6 contained the letter “a”…instead of adding commands to three separate locations you simply have to add this to the subroutine (just above the *Return* command):

```
Position "a" "$6" 1 1; If Not Equal "$1" "0" Then Display "There is at least one 'a' in
   that phrase.^M^J"
```

GosubNext *Label*

Script control temporarily transfers to the commands after the next occurrence of *Label* (the label search begins on the line after the current statement). When the *Return* command is encountered, script control returns to the statement following the *Gosub* command. Because searching does not begin at the top of the script, *GosubNext* is slightly faster than *Gosub*.

Return

When the *Gosub* or *GosubNext* command is encountered, Spectrum remembers where the statement is. When the *Return* command is encountered, Spectrum returns control to that point.

Example:

```
Gosub th; Display "ree "; Gosub th; Display "in "; Gosub th; Display "ings!"; Stop
  Script
# th
Display "Th"; Return
```

Pop

When the *Gosub* or *GosubNext* command is encountered, Spectrum remembers where the statement is. Using the *Pop* command makes Spectrum forget the most recent Gosub, which causes the next *Return* command to return control to the statement following the *second* most recent Gosub. *NOTE: This can be confusing and is intended for advanced script authors only.*

Example:

```
Gosub One; Display "Finished.^M^J"; Stop Script
# One
Display "Inside ONE..."; Display "Leaving ONE..."; Gosub Two; Display "Back in ONE...";
  Return
# Two
Display "Inside TWO..."; Display "Leaving TWO..."; Gosub Three; Display "Back in
  TWO..."; Return
# Three
Display "Inside THREE..."
Pop # this forgets about "Gosub Three"
Pop # this forgets about "Gosub Two"
Return # which means this returns to the statement after "Gosub One"
```

Pop All

Similar to the *Pop* command, except *Pop All* makes Spectrum forget all *Gosub* commands. Most often useful in a generic error handler routine. *NOTE: This can be confusing and is intended for advanced script authors only.*

On *Value* **Goto** *Label1*, *Label2* … *Label7*, *Label8*

At least one label is required; up to eight may be specified

Performs a Goto based on the *Value* (e.g. if *Value* is 1 then script control passes to the first label; if *Value* is 5 then script control passes to the fifth *Label*). *NOTE: The label search begins at the top of the script each time, so control passes to the first matching label.*

If *Value* is 0 then script control “falls through” to the next statement and the Failed flag is set.

Example:

```
Set Timeout 10; WaitFor String "CONNECT" "BUSY"
If Failed Goto Abort
On $Matched Goto Logon, Redial
```

On *Value* **GotoNext** *Label1*, *Label2* … *Label7*, *Label8*

At least one label is required; up to eight may be specified

Similar to *On…Goto* except that the label search begins at the current statement, so control passes to the first matching label after this statement.

On *Value* **Gosub** *Label1*, *Label2 … Label7*, *Label8*

At least one label is required; up to eight may be specified

Performs a Gosub based on the value (e.g. if *Value* is 1 then script control passes to the first label; if *Value* is 5 then script control passes to the fifth label). When a *Return* command is encountered control returns to the statement after the *On value Gosub* command. *NOTE: The label search begins at the top of the script each time, so control passes to the first matching label.*

If *Value* is 0 then script control "falls through" to the next statement and the Failed flag is set.

Up to 16 *Gosub* commands can be active, which means one "subroutine" *can* call another.

Example:

```
# Options
Display "Type a number from 1-3: "; WaitFor Keyboard
On $MatchString Gosub One, Two, Three; Goto Options
# One
Display "One^M^J"; Return
# Two
Display "Two^M^J"; Return
# Three
Display "Three^M^J"; Return
```

On *Value* **GosubNext** *Label1*, *Label2 … Label7*, *Label8*

At least one label is required; up to eight may be specified

Similar to On…Gosub except that the label search begins at the current statement, so control passes to the first matching label after this statement.

For *LoopNumber Start Stop Increment*

LoopNumber can be from 0 to 9
Start is a value from 0 to 65535
Stop is a value from 0 to 65535
Increment is optional; if used it is a value from 1 to 65535

The "For" loop lets you easily repeat a sequence of statements a number of times. The loop is controlled by a counter. The *For* command initializes the counter to *Start*, and the counter is incremented each time a *Next* command is encountered. When the counter passes *Stop* the loop stops. Unless specified, *Increment* is 1. The current counter value can be determined by using *$ForValue#* (where # is a number from 0 to 9).

Example:

```
Display "^LFor/Next loops are much faster than loops done manually!^M^J^J"
Display "Counting with a manual loop: "; Store XY
Set Var 0 "1"
# ManualLoop
Restore XY; Display "$0^M^J"
If Not Equal "$0" "100" Then Inc 0; Goto ManualLoop
Display "Counting with a For/Next loop: "; Store XY
For 0 1 100
Restore XY; Display "$ForValue0^M^J"
Next 0
Display "Done!^M^J"
```

Next *LoopNumber*

LoopNumber can be from 0 to 9

Tests to see if the loop is finished. If not, control returns to the statement after the *For* command. Otherwise control continues to the statement immediately after the *Next* command.

Clear For *LoopNumber*

LoopNumber can be from 0 to 9

Clears loop number *LoopNumber* and sets the counter value to 0. If a *Next* command is encountered, control continues to the statement immediately after the *Next* command.

Store ForLoops

Remembers the current state of all the *For* loops.

Restore ForLoops

Restores the saved state of all the *For* loops.

Conditional Tests

If Equal "*String1*" "*String2*" Then *Statement*

If *String1* and *String2* are exactly the same then *Statement* is executed, otherwise control drops to the next line.

Example:

```
If Equal "THIS" "this" Then Display "The CaseSensitive option is OFF.^M^J"; Stop Script
Display "The CaseSensitive option is ON.^M^J"
```

If Not Equal "*String1*" "*String2*" Then *Statement*

If *String1* and *String2* are **not** exactly the same then *Statement* is executed, otherwise control drops to the next line.

Example:

```
Display "What is your password? "; Get Line 0
If Not Equal "$0" "Garfblat" Then Display "Wrong password!^G^M^J"; Stop Script
Display "Correct!^M^J"
```

If Contains "*LongString*" "*ShortString*" Then *Statement*

If *ShortString* is found anywhere in *LongString* then *Statement* is executed, otherwise control drops to the next line.

Example:

```
If Contains "This is a test" "this" Then Display "YES"; Stop Script
Display "NO"
```

If Not Contains "*LongString*" "*ShortString*" Then *Statement*

If *ShortString* is **not** found anywhere in *LongString* then *Statement* is executed, otherwise control drops to the next line.

Example:

```
# Ask
Display "Do you want to continue? "; WaitFor Keyboard
If Not Contains "YN" "$MatchString" Then Display "^M^JTry Again!^M^J"; Goto Ask
```

If Keyboard *Character* Then *Statement*

If the key pressed in the most recent *WaitFor Keyboard* command is the same as *Character* then *Statement* is executed, otherwise control drops to the next line.

Example:

```
# Continue
Display "Do you want to continue? "; WaitFor Keyboard
If Keyboard Y Then Return
If Keyboard N Then Pop; Display "^M^JGoodbye!^M^J"; Stop Script
Display "^G"; Goto Continue
```

If Not Keyboard *Character* **Then** *Statement*

If the key pressed in the most recent *WaitFor Keyboard* command is **not** the same as *Character* then *Statement* is executed, otherwise control drops to the next line.

Example:

```
# Wait
Display "Press the Spacebar to continue."; WaitFor Keyboard
If Not Keyboard " " Then Display "^G"; Goto Wait
```

If Exists "*FoldernameFilename***" Then** *Statement*

If the specified file exists then *Statement* is executed, otherwise control drops to the next line.

Typically you would check to see if a file exists before you attempt to delete or work with the file, thus avoiding errors.

Example:

```
If Exists "$SpectrumPathCapture.File" Then Show File "$SpectrumPathCapture.File"; Goto
  NextThing
Display "^GThere is no capture file to examine!^M^J"
# NextThing
Display "That's all for now!^M^J"; Stop Script
```

If Not Exists "*FoldernameFilename***" Then** *Statement*

If the specified file does **not** exist then *Statement* is executed, otherwise control drops to the next line.

Typically you would make sure a file does not exist so you won't accidentally overwrite an important file.

Example:

```
Gosub GetCaptureName; Display "Capturing to $0..."; Stop Script
# GetCaptureName
Display "Capture text to what filename? "; Get Line 0
If Not Exists "$SpectrumPath$0" Then Return
Display "^M^J^GThat name is already used--"; Goto GetCaptureName
# In reality you should use the Get File command to let the user specify a name and
  location of the file.
```

If Failed Then *Statement*

If the Failed flag is set then *Statement* is executed, otherwise control drops to the next line. *NOTE: "If Failed" is the same as "If Not Found".*

The Failed flag is set or cleared by various commands (e.g. *Dial*, *WaitFor*, etc.). The *If Failed* command can be used to determine if a command failed. *NOTE: The Failed flag is correct only following a command that sets or clears it…test the flag immediately after these commands (do not put statements between the command and the "If Failed" test).*

Example:

```
# Ask
Display "^M^JPress a key to continue..."
Set Timeout 5; WaitFor Keyboard
If Failed Then Display "Hurry up!^G^M^J"; Goto Ask
Return
```

If Not Failed Then *Statement*

If the Failed flag is clear then *Statement* is executed, otherwise control drops to the next line. *NOTE: "If Not Failed" is the same as "If Found".*

The Failed flag is set or cleared by various commands (e.g. *Dial*, *WaitFor*, etc.). The *If Not Failed* command can be used to determine if a command was successful. *NOTE: The Failed flag is correct only following a command that sets or clears it…test the flag immediately after these commands (do not put statements between the command and the "If Not Failed" test).*

Example:

```
Dial String "555-1234"
If Not Failed Then Goto Connected
Display "The dial command failed.^M^J"; Stop Script
```

If Found Then *Statement*

If the Found flag is set then *Statement* is executed, otherwise control drops to the next line. *NOTE: "If Found" is the same as "If Not Failed".*

The Found flag is set or cleared only by the *WaitFor* commands that use a Timeout (Found is set if the *WaitFor* command succeeds).

Example:

```
# Ask
Display "^M^JPress a key to continue..."
Set Timeout 5; WaitFor Keyboard
If Found Then Return
Display "Hurry up!^G^M^J"; Goto Ask
```

If Not Found Then *Statement*

If the Found flag is clear then *Statement* is executed, otherwise control drops to the next line. *NOTE: "If Not Found" is the same as "If Failed".*

The Found flag is set or cleared only by the *WaitFor* commands that use a Timeout (Found is cleared if the *WaitFor* command times out).

Example:

```
# Ask
Display "^M^JPress a key to continue..."
Set Timeout 5; WaitFor Keyboard
If Not Found Then Display "Hurry up!^G^M^J"; Goto Ask
Return
```

If Null *VarNum* **Then** *Statement*

If the given variable number is empty ("") then *Statement* is executed, otherwise control drops to the next line.

Example:

```
Display "What is your name? "; Get Line 0
If Null 0 Then Display "We'll call you 'Fred' because you didn't type anything!^M^J";
  Set Variable 0 "Fred"
Display "Hello there, $0!^M^J"
```

If Not Null *VarNum* **Then** *Statement*

If the given variable number is **not** empty then *Statement* is executed, otherwise control drops to the next line.

Example:

```
Display "What is your name? "; Get Line 0
If Not Null 0 Then Display "Hello there, $0!^M^J"
```

If Even *VarNum* **Then** *Statement*

If the value of the given variable number is an even number then *Statement* is executed, otherwise control drops to the next line. *NOTE: "If Even" is the same as "If Not Odd".*

If Not Even *VarNum* **Then** *Statement*

If the value of the given variable number is not an even number then *Statement* is executed, otherwise control drops to the next line. *NOTE: "If Not Even" is the same as "If Odd".*

If Odd *VarNum* **Then** *Statement*

If the value of the given variable number is an odd number then *Statement* is executed, otherwise control drops to the next line. *NOTE: "If Odd" is the same as "If Not Even".*

If Not Odd *VarNum* Then *Statement*

If the value of the given variable number is not an odd number then *Statement* is executed, otherwise control drops to the next line. *NOTE: "If Not Odd" is the same as "If Even".*

If CarrierDetect Then *Statement*

NOTE: This command is reliable only if your modem properly controls the DCD signal, and you have a properly-wired modem cable, and the "DCD Handshake" option is on.

If the modem is currently connected to a host then *Statement* is executed.

If Not CarrierDetect Then *Statement*

NOTE: This command is reliable only if your modem properly controls the DCD signal, and you have a properly-wired modem cable, and the "DCD Handshake" option is on.

If the modem is not currently connected to a host then *Statement* is executed.

Example:

```
# - Run this script when you are NOT online
Transmit "AT&C1^M" # - a common modem command so the modem will adjust the DCD line to
   indicate whether a remote modem's data carrier tone is present
Set DCD On # - set Spectrum so it trusts the DCD signal
Display "Your setup apparently does "
If CarrierDetect Then Display "NOT "
Display "support DCD.^M^J"
```

If Debug Then *Statement*

If debugging is currently "Screen" or "Scrollback," then *Statement* is executed.

If Not Debug Then *Statement*

If debugging is currently off then *Statement* is executed.

If TheManager Then *Statement*

If Spectrum is currently being run under *The Manager* (Seven Hills Software's multi-tasking environment for the Apple IIgs) then *Statement* is executed.

If Not TheManager Then *Statement*

If Spectrum is not currently being run under *The Manager* then *Statement* is executed.

Screen Appearance

Set ChatLine *State*
State can be Off or On

Controls whether the chat line is visible or not. *NOTE: Some online displays do not support a chat line.*

Set AutoChat *State*
State can be Off or On

Normally when the chat line is turned on, the port is automatically set to full duplex. When the chat line is turned off the original duplex setting is restored. If you turn AutoChat off, Spectrum will not automatically change the duplex setting when the chat line is turned on and off.

Set StatLine *State*
State can be Off or On

Controls whether the status line is visible or not. *NOTE: Some online displays do not support a status line.*

Store XY

Stores the current cursor position and sets the values for *$StoredX* and *$StoredY*.

Restore XY

Restores the cursor position that was last stored using the *Store XY* command.

GotoXY *X*,*Y*
X (horizontal position) is a value from 0 to 79
Y (vertical position) is a value from 0 to 23

Attempts to move the cursor to the specified screen position. The limits for each value depend upon the online display being used. Be aware that the setting of the chat line and status line might also affect the range of acceptable values.

Draw Window *Left Right Top Bottom*
Left and *Right* are values from 0 to 79
Top and *Bottom* are values from 0 to 23

Draws a window extending from (*Left*, *Top*) to (*Right*, *Bottom*). The limits for each value depend upon the online display being used. Be aware that the setting of the chat line and status line might also affect the range of acceptable values. A script error occurs if a value is used that would place a window coordinate off the screen.

After drawing the window you can use the *GotoXY* and *Display* commands to display something within the window. *NOTE: The window is simply a visual effect—text you display can easily overwrite a window's frame.*

Print Screen

Prints the current screen to the printer, just as if Shift-4 was pressed.

Save Screen

Saves the current screen to disk, just as if Shift-3 was pressed.

Set Flush *State*
State can be Off or On

Incoming data is stored in the port buffer until Spectrum has time to deal with it. When Flush is On, data in the port buffer is processed constantly. When Off, data in the port buffer is processed only during *Get Key*, *Get Line*, *WaitFor Keyboard*, and *WaitFor String* commands (or when the script stops), which makes those commands more reliable.

Set Screen *State*

State can be Off or On

This command determines whether incoming or outgoing data is displayed on the screen when a script is running (incoming data will still be captured if the capture buffer is turned on, and it will still be seen by the *WaitFor*, *Get Line*, and *Get Key* commands). Commands that directly display to the screen, such *Display*, will continue to display on the screen.

Set ScreenBlank *State*

State can be Off, On, or Auto

Controls a built-in screen blanker that blanks the screen (except for the border color). The screen is blanked only while a script is being run…when the script stops the screen is unblanked. *NOTE: If the Twilight II screen blanker is active, Spectrum asks it to "background blank" the screen.*

Off: The screen is not blanked.

On: Blanks the screen immediately.

Auto: Blanks the screen only during *WaitFor* commands. In the example script below, the screen will be blanked until 7pm, at which time it will unblank (in case you happen to want to watch the online session), dial a service, send and receive mail, then log off. The final *WaitFor* command will blank the screen until you press a key.

Example:

```
Set ScreenBlank Auto
WaitFor Time "19:00" # wait until 7pm
Dial Service "CompuServe" # dial CompuServe
If Not Failed Then Gosub Login; Gosub SendMail; Gosub ReadMail; Hangup
WaitFor Keyboard; Stop Script # wait until a key is pressed
```

Prefix Control

Set SFPrefix "*Foldername***"**

Sets GS/OS prefix 0 and prefix 8 to the specified folder.

Set GSPrefix *Value* **"***Foldername***"**

Value can be 0, 2 through 8, or 10 through 31

Sets the specified GS/OS prefix number to the specified folder. Prefix numbers, followed by a colon, can be used as shortcuts wherever a *Foldername* is required. For example, *Show Catalog "8:"* will list the files stored in the prefix 8 folder.

Prefix 1 and 9 is the folder where Spectrum is located and therefore it cannot be changed. All the other prefixes are not used by Spectrum so they are available to scripts.

Prefix 0 is a working path; NDAs and applications change this frequently. Prefix 8 is the current prefix. The next time an "Open" or "Save" dialog box appears, the prefix 8 folder will appear. Prefix 0 and prefix 8 can be changed independently, but usually they are set together (use the *Set SFPrefix* command as a shortcut).

Prefix 0 and 8 are volatile—they can be changed by desk accessories, loading a file in the Spectrum editor, and so on. Therefore it is better to use higher numbered prefixes to remember a prefix for a long time.

Example:

```
Set GSPrefix 21 "$BootSystem" # The system folder on the disk we booted from
   (e.g. :Hard:System)
Set GSPrefix 22 "21:Desk.Accs" # this is identical to typing "$BootSystem:Desk.Accs"
Set GSPrefix 23 "21:Fonts"
Display "Your Desk Accessories:^M^J"; Show Catalog "22:"
                        Display "Your Fonts:^M^J"; Show Catalog "23:"
```

Capture Buffer Control

Set Buffer *State*

State can be Off, On, Auto, or Manual

Off/On: Determines whether or not incoming characters are saved into the capture buffer or the capture file (whichever is active). *NOTE: Script commands that record directly to the buffer will do so regardless of this setting.*

Auto/Manual: Controls the "Auto buffer control" checkbox in the Online Displays Settings dialog box. When this option is set to Auto, the host can turn your capture buffer on and off by sending a ^R or ^T, respectively. *NOTE: Auto buffer control works only if the capture buffer has been turned off.*

Clear Buffer

Clears the capture buffer so it contains no characters.

Open CaptureFile "*FoldernameFilename***"**

Deletes the specified file if it exists, then creates a new file and begins capturing incoming data to it instead of to memory.

Append CaptureFile "*FoldernameFilename***"**

Opens the specified text file and begins capturing incoming data to the end of it.

Close CaptureFile

Closes the capture file and resumes storing incoming data into memory.

Set Append *State*

State can be Off or On

Determines whether data is appended to the end of an existing file or whether data overwrites any existing file when using the *Save Buffer* or *Write Buffer* commands (see those commands for more information).

Set AutoSave "*FoldernameFilename***"**

Filename must be at least three characters long

Specifies the file to use when saving the capture buffer using the *Save Buffer* command. This is used as a shortcut…you can establish this AutoSave filename and whenever you need to save the capture buffer just issue a *Save Buffer* command (as opposed to using *Write Buffer "FoldernameFilename"* each time you need to save the capture buffer).

Set AutoSaveBuffer *State*

State can be Off or On

Determines what occurs when the capture buffer completely fills. When on, Spectrum automatically issues a *Save Buffer* command; when off the user is presented with a dialog box from which he can clear or save the capture buffer.

Save Buffer

If the Append flag is off, the AutoSave filename is incremented by 1 and a new file is created. *NOTE: If there is no number as the last character of the filename then a "1" is inserted (if a number is there it gets incremented). When the number at the last position gets to 9 then the second to last character is set to 1 or increments if it's already a number. The maximum is 99 files, at which point you get an error "name no longer valid."*

If the Append flag is on, the AutoSave filename is not changed and the capture buffer contents are appended to the end of the existing AutoSave filename (if the file doesn't exist yet it is created).

After saving the contents of the capture buffer, the buffer is cleared.

Write Buffer "*FoldernameFilename*"

If the Append flag is off, the specified file is deleted if it already exists, then the capture buffer contents are saved.

If the Append flag is on, if the file exists it is *not* deleted (if *Filename* does not exist it is created). The capture buffer contents are appended to the end of the existing file.

After writing the contents of the capture buffer, the buffer is cleared.

Load Buffer "*FoldernameFilename*"

Loads the file into the capture buffer.

Transferring Files

Send File "*FoldernameFilename*" *Protocol*

Protocol can be Text, ProDOS, Xmodem, 1KXmodem, 4KXmodem, BPlus, Ymodem, or Zmodem

Sends the specified file using the specified protocol. A file transfer dialog box appears for all protocols except possibly Text (which depends upon the ULTextShow setting).

See the “File Transfer Settings” section for settings that apply to file transfers. For example, the “Turbo” option determines whether regular Ymodem or Ymodem-g is used.

If the transfer fails the Failed flag is set, otherwise it is clear.

Receive File "*FoldernameFilename*"

Spectrum automatically detects which protocol is being used, then it receives a file via Xmodem, 1K Xmodem, 4K Xmodem, Ymodem, or Ymodem-g and saves it as *FoldernameFilename*.

If the transfer fails the Failed flag is set, otherwise it is clear.

Receive File *Protocol*

Protocol can be BPlus or Zmodem

Receives a file using the specified protocol and saves it into the current file transfer folder *($FileXferPath)*. The filename is not needed because it is provided by the incoming data.

When receiving a Zmodem file the same process is used that is used for an “auto receive” file, except that the script can control how long Spectrum waits for the transfer to start. Set the wait time using *Set Timeout* with a value from 10 to 600 (10 seconds to 10 minutes).

If the transfer fails the Failed flag is set, otherwise it is clear.

OS Utilities

Delete File "*FoldernameFilename*"

Permanently deletes the specified file. *Use with caution!*

Example:

```
Set Var 0 "$ScriptPathTemporary.File"
If Exists "$0" Then Delete "$0"
```

Rename File "*Foldername1Filename1*" "*Foldername2Filename2*"

Renames the first item to the second name. The folder names can either refer to the same folder (which just renames *Filename*), or they can refer to different folders on the same disk (which moves *Filename* into the second folder). For example…

```
Rename ":Hard:Spectrum:Capture.File" ":Hard:Archives:Capture"
```

…renames “Capture.File” to be called “Capture” *and* it moves it from the Spectrum folder into the Archives folder (which must already exist on the same disk).

Copy File "*Foldername1Filename1*" "*Foldername2Filename2*"

Makes an exact copy of the first file. The copy is named *Filename2* and is stored in the *Foldername2* folder.

Create Folder "*FoldernameFilename*"

Creates a new folder named *Filename* in the *Foldername* folder.

Get FileSize "*FoldernameFilename*" *VarNum*

The number of bytes in the specified file’s data and resource forks.

Get VolumeSize "*Volumename*" *VarNum*

The total size of the specified disk, in bytes.

Get VolumeFree "*Volumename*" *VarNum*

The number of bytes of free space on the specified disk.

Get FileInfo "*FoldernameFilename*" *VarNum*

Gets information about the specified file. The information is in the following format (use the *Substring* command to extract the desired pieces of information):

Start	Length	Information
1	31	Filename
33	3	3-letter abbreviation for common filetypes or $00
37	8	Length (data fork plus resource fork)
46	1	D=Can Destroy (blank space if not)
47	1	N=Can Rename (blank space if not)
48	1	B=Needs Backup (blank space if not)
49	1	W=Can Write (blank space if not)
50	1	R=Can Read (blank space if not)
52	2	Hexadecimal filetype
55	4	Hexadecimal auxtype

Example:

```
Get FileInfo "$ScriptPath$ScriptFile" 0
Substring "$0" 1 31 1 # $1 now has the name
Substring "$0" 33 3 2 # $2 now has the type
Substring "$0" 46 5 3 # $3 now has the file flags
Display "Name: $1^M^JType: $2^M^JInfo: $3^M^J=====^M^J"
```

Show Catalog "*Foldername*"

Shows a listing of the items stored in the specified folder. If you also want to send the listing to the port, Set Echo On before showing it.

ShowRecord Catalog "*Foldername*"

A listing of the items stored in the specified folder is shown on the screen and recorded to the capture buffer. If you also want to send the listing to the port, Set Echo On before showing it.

Record Catalog "*Foldername*"

A listing of the items stored in the specified folder is recorded into the capture buffer.

Show File "*FoldernameFilename*"

Shows the specified AppleWorks Classic, Teach, or Text file on the screen. If you also want to send the listing to the port, Set Echo On before showing it.

Get File "*PromptString*" *Kind VarNum*

Kind can be 0 (any file), 1 (text only), or 2 (text, AppleWorks, or Teach)

Presents the standard “Open” file dialog box in which the user can select a file. *PromptString* is shown at the top of the dialog box (e.g. “Select the file to rename”). Only files matching the given *Kind* will be shown. *NOTE: If the script can be run unattended, do not use this command because it requires the user to interact with it (there is no “timeout”).*

If the user cancels the dialog box the Failed flag is set and the specified variable number is cleared to "". If the user did not cancel the dialog box, the specified variable number contains the name of the file that was highlighted and the prefix is set to the folder that contains the file *($SFPrefix).*

This command does not open or load a file; it merely provides a standard way for the user to select a file.

Example:

```
Get File "Select the file to format:" 2 0 # select a text, AppleWorks, or Teach file
If Failed Then Stop Script # user clicked Cancel
Load ScriptEditor "$0" # load the file into the script editor
Apply LowASCII; Apply RemoveControls; Apply LFsToCRs; Apply Format 3 # format message
   for posting
Save ScriptEditor "$0" # save the formatted file
```

Put File "*PromptString*" "*NameString*" *VarNum*

NameString is optional; if not used “Untitled” is used

Presents the standard “Save” file dialog box in which the user specifies a filename and location to store a file. *PromptString* is shown above the name (e.g. “Save the file as…”). *NameString* is the suggested name that will appear in the dialog box. *NOTE: If the script can be run unattended, do not use this command because it requires the user to interact with it (there is no “timeout”).*

If the user cancels the dialog box the Failed flag is set and the specified variable number is cleared to "". If the user did not cancel, the specified variable number contains the name of the file they typed, and *$SFPrefix* indicates the folder they want the file stored in.

This command does not create a file; it merely provides a standard way for the user to specify a filename and location. If the command is successful you can be assured the returned *Filename* is a legal name.

The only special condition to be aware of is if the user specifies the name of a file that already exists on disk. In this case the system has already received permission to replace the existing file, but it has not deleted it. To avoid errors you should follow a successful *Put File* command with a statement to delete the file if it exists (see example).

Example:

```
Put File "Save mail as..." "Untitled" 0
If Failed Then Stop Script # user clicked Cancel
If Exists "$0" Then Delete "$0" # if the file already exists, delete it (the user has
   already given permission)
Write Buffer "$0" # save the capture buffer using the filename the user specified
```

Reading and Writing Files

Up to four files (numbered 0, 1, 2, and 3) may be open at a single time. After a file is opened for reading or writing (using either the *Open* or *Append* command) refer to the file using the *FileNumber*.

Open File *FileNumber* "*FoldernameFilename*"

FileNumber can be from 0 to 3

Opens the specified text file for reading or writing as file number *FileNumber*. If the file does not exist it is created. *NOTE: This command will also open Teach files, but only for reading (i.e. using Write File will cause an error).*

If you want to write a file from scratch you should delete it first (if it exists) because writing to a file does not shorten the file's length. For example, if a text file contains 100 characters and you open it, write 15 characters, then close it, the file will still contain 100 characters…15 new characters followed by the 85 old ones.

Append File *FileNumber* "*FoldernameFilename*"

FileNumber can be from 0 to 3

Opens the specified text file as file number *FileNumber* and sets the file marker to the end of the file so that writing will occur at the end of the file.

Read File *FileNumber* *VarNum*

FileNumber can be from 0 to 3

Reads the file and stores the read characters into variable number *VarNum*. Reading stops when 128 characters are read, when a CR is encountered, or when the end of the file is encountered.

If you attempt to read past the end of a file the Failed flag is set and variable number *VarNum* is set to "".

Write File *FileNumber* "*String*"

FileNumber can be from 0 to 3

Writes the string into the open file at the current position.

Close File *FileNumber*

FileNumber is optional; if used it can be from 0 to 3

Closes the specified file. If no *FileNumber* is used then all four files are closed (if open). If you forget to close a file you open, it will be closed automatically when the script stops.

Reading Catalogs

Up to four catalogs (numbered 0, 1, 2, and 3) may be opened at a single time. After a catalog is opened you refer to it using the *CatalogNumber*.

Open Catalog *CatalogNumber* "*Foldername*"

CatalogNumber can be from 0 to 3

Opens the specified *Foldername* for reading. *REMEMBER: A Foldername can be just a volume name, or a volume name plus one or more folder names.*

Read Catalog *CatalogNumber VarNum*

CatalogNumber can be from 0 to 3

Reads one catalog entry and stores information about it into variable number *VarNum*. If you attempt to read past the end of a catalog the Failed flag is set and variable number *VarNum* is set to "".

Each entry is in the format described under the *Get FileInfo* command.

Close Catalog *CatalogNumber*

CatalogNumber is optional; if used it can be from 0 to 3

Closes the specified catalog. If no *CatalogNumber* is used then all four catalogs are closed (if open). If you forget to close a catalog you open, it will be closed automatically when the script stops.

Script Editor

There is a text editor available just for scripts to use; it is entirely separate from the built-in text editor. The script editor can be used to load a file, apply formats to it, and send or save the file.

The script editor commands are ideal for automatically formatting a message for posting, or for automatically formatting incoming messages to be more readable.

Load ScriptEditor "*Item*"

Item can be a *FoldernameFilename*, or can be ::Scrollback, ::Buffer, or ::Clipboard

Loads the specified item into the script editor, replacing any existing script editor in memory. A script error occurs if the specified item could not be loaded.

If *Item* specifies a file on disk, the file must be a text, Teach, or AppleWorks Classic file.

If *Item* is *::Scrollback*, then contents of the current scrollback buffer are copied into the script editor. Likewise, *::Buffer* copies the current capture buffer contents and *::Clipboard* copies the system clipboard contents. *NOTE: As a shortcut you can also use ::S, ::B, or ::C (everything after the first letter is ignored).*

Append ScriptEditor "*Item*"

Item can be a *FoldernameFilename*, or can be ::Scrollback, ::Buffer, or ::Clipboard

Appends the specified item to the end of the current script editor. A script error occurs if the specified item could not be appended.

If *Item* specifies a file on disk, the file must be a text, Teach, or AppleWorks Classic file.

If *Item* is *::Scrollback*, then contents of the current scrollback buffer are appended onto the script editor. Likewise, *::Buffer* appends the current capture buffer contents and *::Clipboard* appends the system clipboard contents. *NOTE: As a shortcut you can also use ::S, ::B, or ::C (everything after the first letter is ignored).*

Save ScriptEditor "*FoldernameFilename*"

If a file has previously been loaded into memory, this command writes the file from memory to disk. If the specified file already exists on disk it is deleted before the new text file is written. *NOTE: Save ScriptEditor* *always creates a text file; if you load a Teach file into the script editor then save it with the same name, you will be deleting the Teach file and replacing it with a text file.*

Saving the ScriptEditor does *not* clear the file from memory, which means you can load a file, apply a format, save that version, apply another format, save that version, and so on. When you are done working with a file you should use the *Clear ScriptEditor* command to erase the file from memory.

Clear ScriptEditor

Clears the ScriptEditor text from memory, thus making the memory available for other uses. You should always clear the script editor when you are done using it. If you forget, the script editor will be cleared automatically when the script stops.

Send ScriptEditor

Sends the contents of the script editor via Text protocol. A file transfer dialog might appear (depends upon the "ULTextShow" setting). See the "File Transfer Settings" section for settings that apply to file transfers.

If the transfer fails the Failed flag is set, otherwise it is clear.

Apply Replace "*FindString*" "*ReplaceString*" *VarNum*

VarNum is optional

Replaces all occurrences of *FindString* with *ReplaceString*, and stores the number of changes made into variable number *VarNum*. The CaseSensitive option affects the search. *NOTE: Because Apply Replace can take a long time to complete, consider displaying a message to let the user know that your script is working.*

You can search for control characters by using a caret (^) and the letter of the control character (e.g. use ^M to find all carriage returns). To search for an actual caret character, use ^^.

Apply LowASCII

Converts the loaded text to low ASCII by stripping off the high bit.

Apply RemoveControls

Removes all control characters except for tabs, carriage returns, and linefeeds. If a backspace character (^H, ASCII $08) is removed, the one preceding character is also removed.

Apply LFsToCRs

Changes all carriage return/linefeed combinations into a carriage return, and changes standalone linefeed characters into carriage return characters.

Apply RemoveSpaces

Replaces two or more consecutive space characters with only a single space, and removes spaces before a carriage return

Apply Special *Value*

Value can be from 1-5

Applies one of the following special formats:

Value	Special Format
1	all lower case
2	ALL UPPER CASE
3	All Proper Names
4	Capitalize sentences
5	Convert Viewdata to Text

Apply Format *Value*

Value can be from 1-4

Applies one of the following formats:

Value	Format
1	CRs into spaces
2	Add line feeds
3	Lines into paragraphs
4	Paragraphs into lines

Example:

```
Load ScriptEditor "Message"; Display "Formatting..."
Apply Replace "…" "..." 1 # option-semicolon to ...
Apply Replace "—" "--" 1 # shift-option-dash to --
Apply LowASCII; Apply RemoveControls; Apply LFsToCRs; Apple Format 4
Display "done!^M^J"
Save ScriptEditor "Message"
Clear ScriptEditor
```

Error Control

On Escape Goto *Label*

If the user presses Escape while a script is running, Spectrum normally cancels the script with an error message stating that the script has been stopped. Some script authors might want to exit more gracefully if the user presses Escape, or perhaps confirm that the user really wants to stop the script.

If the *On Escape Goto* command has been encountered, instead of cancelling the script Spectrum jumps to the given label. If the label is not found then the script is cancelled in the usual way.

Although you can use *Resume* to continue the script from the point where the user pressed Escape, keep in mind that if he has pressed Escape then he probably wants to stop the script. Therefore the commands located at *Label* should let the user exit the script.

To turn off the *On Escape Goto* command, use an empty string ("") for the label.

Example:

```
On Escape Goto Quit # Also try running without this line to see what happens when you press ESC
# Loop
Display "Press ESC to quit..."; Goto Loop
# Quit
On Escape Goto ""
Display "^M^J^JThanks for using this script!^M^J"
Stop Script
```

On Escape GotoNext *Label*

Similar to the *On Escape Goto* command, except that Spectrum jumps to the next occurrence of *Label* (the search does not begin at the top of the script). This is useful for creating “local” Escape handlers.

On Error Goto *Label*

If a script error occurs while a script is running, Spectrum normally cancels the script and displays an error message. Some script authors might want to catch certain errors or exit more gracefully if an error occurs.

If the *On Error Goto* command has been encountered and an error occurs, Spectrum jumps to the given label instead of cancelling the script. If the label is not found then the script is cancelled in the usual way.

If you use the *On Error Goto* command, keep in mind that if a script error has occurred then the script probably should be stopped, so the commands located at *Label* should clean things up and exit the script. To report the error to the user a script can use the *$ErrorMsg* replacement item or the *Show Error* command.

To turn off the *On Error Goto* command, use an empty string ("") for the label.

Example:

```
# Loop
Display "Perform what script command? "; Get Line 3; If Null 3 Then Stop Script
On Error Goto BadCommand # turn on error checking
$0 # execute the command that was typed
On Error Goto "" # turn off error checking
Goto Loop
# BadCommand
Display "^M^J^GSpectrum doesn't recognize the command '$0'.^M^J^J"
Goto Loop
```

On Error GotoNext *Label*

Similar to the *On Error Goto* command, except that Spectrum jumps to the next occurrence of *Label* (the search does not begin at the top of the script). This is useful for creating “local” Error handlers.

Resume

Use only in an “On Escape Goto” or “On Error Goto” procedure

Continues running the script as if Escape was not pressed or as if the error did not occur. *NOTE: This can be confusing and is intended for advanced script authors only.*

Show Error

Use only in an “On Error Goto” procedure

Displays the same error box that would appear if no *On Error Goto* command was encountered, but does not stop the script. As usual, if the user does not respond to the error box within 30 seconds, the error box disappears automatically and Spectrum hangs up the line (if necessary). This is a safety feature for scripts that run unattended (by hanging up, online charges are kept to a minimum).

Script Interpretation

Set CaseSensitive *State*

State can be Off or On

The setting of the CaseSensitive option affects all text comparisons (e.g. *Goto*, *Gosub*, *WaitFor String*, *If Contains*, *Apply Replace*, etc.). It does *not* affect script commands themselves (i.e. *display*, *Display*, *DISPLAY*, *dIsPlAy* work identically regardless of the state of the CaseSensitive option). *NOTE: Each time a script is run (not chained to) CaseSensitive is turned off.*

Example:

```
Display "Type ON or OFF: "; Get Line 0
Set CaseSensitive $0
Goto LaBeL
# label
Display "CaseSensitive is OFF.^M^J"; Stop Script
# LaBeL
Display "CaseSensitive is ON.^M^J"; Stop Script
```

Set Quote *Character*

Sets the special character that is used to delimit a string parameter—usually the double quote (") character. *NOTE: This command must be placed on a line by itself!*

Example:

```
Set Quote A
Display A"You will see these quotes!^M^J"A
Set Quote "
```

Set Token *Character*

Sets the special character that is used to indicate a control character—usually the caret (^) character. *NOTE: This command must be placed on a line by itself!*

Example:

```
Set Token \
Display "\LDisplaying ^L clears the screen.\M\J"
Set Token ^
```

Advanced or Specialty Commands

NOTE: This section describes advanced or specialty commands that should be used with caution. Many of these commands will not work unless a specific online display is being used. Information for each online display can be found on disk in Spectrum's "Documentation" folder.

DirectDisplay "*String*"

Feeds *String* to the current online display as if the data were coming in from the port. The interpretation of *String* is entirely up to the current online display; use this command only when you know a particular display is in use and you want to take advantage of special features in that display.

DirectAction "*String*" *VarNum*

Passes *String* to the current online display for processing; the results are returned in *VarNum*. If the display does nothing then *VarNum* is cleared to "" and the Failed flag is set. If *VarNum* would be longer than 128 characters then a script error occurs.

The available actions that can be performed, as well as the meaning of the returned results, are entirely up to the current display.

Draw Line *Left Right Top Bottom Color Size*

Left and *Right* are values from 0 to 639
Top and *Bottom* are values from 0 to 186
Color is optional; if used it is a value from 0 to 15
Size is optional; if used it is a value from 1 to 15

Draws a line extending from (*Left*,*Top*) to (*Right*,*Bottom*). If *Color* is specified the line is drawn with the specified color (black if not specified). If *Size* is specified the line is *Size* pixels thick (1 pixel if not specified).

Draw Rectangle *Left Right Top Bottom Fill Frame*

Left and *Right* are values from 0 to 639
Top and *Bottom* are values from 0 to 186
Fill and *Frame* are optional; if used they are values from 0 to 15

Draws a rectangle extending from (*Left*,*Top*) to (*Right*,*Bottom*). If *Fill* is specified the rectangle is filled with the specified color (black if not specified). If *Frame* is specified the rectangle is framed with a border in the specified color (black if not specified). *TIP: If you need a different width border than the one automatically provided, just draw two rectangles—one with the frame color, then a smaller one with the fill color.*

Draw Circle *Left Right Top Bottom Fill Frame*

Left and *Right* are values from 0 to 639
Top and *Bottom* are values from 0 to 186
Fill and *Frame* are optional; if used they are values from 0 to 15

Draws a circle inside the area (*Left*,*Top*) to (*Right*,*Bottom*). If *Fill* is specified the circle is filled with the specified color (black if not specified). If *Frame* is specified the circle is framed with a border in the specified color (black if not specified). *TIP: If you need a different width border than the one automatically provided, just draw two circles —one with the frame color, then a smaller one with the fill color.*

Draw Icon *X*,*Y* "*Icon*" "*FoldernameFilename*"

X is a value from 0 to 639
Y is a value from 0 to 186
Icon is the name or resource number of the desired icon
FoldernameFilename is optional; if used it is the file that contains the desired resource

Draws the specified icon resource at coordinates (*X*,*Y*). *NOTE: This command works only on 640 mode super-hires screen displays.*

Spectrum searches for *Icon* in memory (if a file was opened it is searched first). A script error occurs if *Icon* is not found, or if a file was specified but could not be opened.

The following icons are available within Spectrum:

SP-Express Mail	SP-No Mail	SP-Have Mail
SP-In Tray	SP-Out Tray	SP-Mail 0
SP-Mail 1	SP-Mail 2	SP-Mail 3
SP-Mail 4	SP-Mail 5	SP-Mail 6
SP-Mail 7	SP-Mail 8	SP-Mail 9
SP-Stop	SP-Note	SP-Checkmark
SP-Spectrum	SP-Printer	SP-Phone
SP-Spectrum small	SP-Printer small	SP-Phone small
SP-Arrow 1 Down	SP-Arrow 1 Left	SP-Arrow 1 Right
SP-Arrow 1 Up	SP-Arrow 2 Down	SP-Arrow 2 Left
SP-Arrow 2 Right	SP-Arrow 2 Up	

The following icons are available in System 6.0.1's "Sys.Resource" file:

Caution	Note	Stop
Disk	Disk Swap	$$07FF0104
$$07FF0103	$$07FF0102	$$07FF0058

Example:

```
Set OnlineDisplay "Spectrum SHR Fast"; Display "^L"
For 0 0 9; Draw Icon 8,22 "SP-Mail $ForValue0"; Next 0
Draw Icon 1,20 "$$07FF0058"
```

Draw Picture *X*,*Y* "*Picture*" "*FoldernameFilename*"ii.Draw Picture;

X is a value from 0 to 639
Y is a value from 0 to 186
Picture is the name or resource number of the desired picture
FoldernameFilename is optional; if used it is the file that contains the desired resource

Draws the specified picture resource at coordinates (*X*,*Y*). *NOTE: This command works only on 640 mode super-hires screen displays.*

Spectrum searches for *Picture* in memory (if a file was opened it is searched first). A script error occurs if *Picture* is not found, or if a file was specified but could not be opened.

Pictures should be stored in the 640 mode screen format, and care should be taken to draw them at the proper *X* coordinate so the dithered colors come out correctly (usually *X* should be even).

Example:

```
Set OnlineDisplay "Spectrum SHR Fast"; Display "^L"
Draw Picture 118,35 "About Pic"
```

Set RTS *State*

State can be Off or On

Drops/raises the hardware handshaking line to tell the modem to stop sending information to Spectrum. Do not set RTS off for very long, as incoming data may overflow the modem's buffer.

Set Init *State*

State can be Off or On

When on, the modem will be initialized before dialing. Normally you should not include this command because the option is automatically controlled (it is on at program startup and turned off after the modem is initialized).

Set InitString "*String*"

Sets the modem initialization string.

Initialize Modem

Initializes the modem if the "Init" option is on. If the modem is initialized successfully (or if the "Init" option was off) then the Failed flag is cleared, otherwise it is set to indicate an error (the modem is not responding).

Make ASCII *VarNum*

Determines the ASCII value of the first character stored in the specified variable, then sets the variable to contain that decimal number. *$VarNum* is empty the Failed flag is set.

Example:

```
Set Var 3 "A" # the character "A"
Display "The letter $3 = ASCII "
Make ASCII 3 # converts "A" into its ASCII value (65)
Display "$3.^M^J"
```

Make CHAR *VarNum*

Determines the value stored in the specified variable. If *$VarNum* is a number from 0 to 255 then the variable is set to contain the referenced character. If *$VarNum* is empty the Failed flag is set. If *$VarNum* is a number greater than 255 a script error occurs.

Example:

```
Set Var 3 "65" # the ASCII value for the character "A"
Display "ASCII $3 = the letter "
Make CHAR 3 # converts "65" into its character (A)
Display "$3.^M^J"
```

Expand Variable *VarNum*

Shortcut: **Expand Var** *VarNum*

Expands any replacement items within the given variable. If the expansion makes the length of variable number greater than 128, the Failed flag is set and the variable is not changed.

Example:

```
Display "Type '$Boot' and press Return: "; Get Line 1
Display "^M^JYou typed '$1' which expands to "
Expand Variable 1
Display "$1^M^J^J"
```

Clear PortBuffer

Clears the port buffer of all pending data. One use might be to eliminate unwanted "junk" characters that sometimes occurs when you log off a system.

Example:

```
Store Settings; Set Screen Off; Set Buffer Off
Transmit "Bye^M"; Hangup; Clear PortBuffer
Restore Settings
```

Changes in v2.5.3

Script Language Changes

This section details new and changed script commands in all versions of Spectrum between 2.0 and 2.5.3. It is intended for script authors; script users should find that scripts written for version 1 still execute identically under version 2.5.3 (just a whole lot faster).

General

- Instead of having only ten variable numbers (0 through 9), Spectrum now supports any number of named variables.
- Added support for “Spectrum External Commands” (or XCMDs), which can provide sophisticated add-on features for scripts.
- Version 2.5.3 executes scripts many times faster than version 1 did!
- The chosen online display automatically opens for commands that require it to be open, but the flag wasn’t getting reset if the Editor window was opened. Fixed.
- “#” comments at the end of commands with optional parameters could cause problems. Fixed.
- If a line had only a replacement variable on it, and the replacement variable is empty, an error would occur. Fixed.

Specially-Treated Characters

$ (Replacement Items)

$Version

Gets replaced by the software's name and version number (e.g. Spectrum 2.1).

$AutoSaveFile

Gets replaced by the name of the current AutoSave file (if the filename has had a suffix added or incremented, this replacement will show the current name).

$Debug

Gets replaced by the current debugging state (see Set Debug in the scripting manual).

$DebugFile

If $Debug indicates debugging is going to a file, then *$DebugFile* provides the *FoldernameFilename* of the debug file.

$LastFile

Gets the name of the last file that was saved or selected in a standard file dialog.

$LastXferPath

Gets replaced by the *Foldername* of the last successful file transfer. The value remains valid until the next successful file transfer. *NOTE: The Kermit XCMD does not update this value.*

$LastXferFile

Gets replaced by the Filename of the last successful file transfer. The value remains valid until the next successful file transfer. *NOTE: The Kermit XCMD does not update this value.*

$Date
$DateTimeStamp

- If the clock is set to the year 2000 or beyond, $Date and $DateTimeStamp would fail with a random error message. Fixed.

$LongYear

Gets replaced by the four digit year (e.g., 1996) so scripts can be written to handle the year 2000 and beyond.

$ReceiveFType

Gets the filetype (in decimal) that is assigned when a received file's filetype/auxtype is unknown.

$ReceiveAType

Gets the auxtype (in decimal) that is assigned when a received file's filetype/auxtype is unknown.

$Trigger

Returns the value of the last trigger string that was seen. Returns 0 if no triggers have been seen since the start of the script. Typically this replacement item would be used only in a trigger handler routine.

$Buffer

Gets replaced by the size of the contents of the capture buffer.

$FullTime

This now strips any trailing spaces (applies only to 24-hour time format).

$ErrorMsg

Some of the messages have changed for clarity. For example, "Parameter not assigned" is now "Required parameter is missing."

$ErrorCode

Only valid after a disk access error occurs

Gets replaced by the hexadecimal code for the disk access error that occurred. See the "Error.Codes" file in the Documentation folder for a list of possible errors.

$FilePos#

# must be replaced by a number from 0 to 9

Gets replaced by the character position of the “expected” file marker for the specified file number. If $FilePos3 is 7 then the next character that is read from file 3 will be the 7th character in the file; if a character is written then the 7th character in the file will be overwritten.

$ActualFilePos#

# must be replaced by a number from 0 to 9

Gets replaced by the actual file marker position for the specified file number. This value will match the $FilePos# value unless a Set FilePos command has been used (in which case $ActualFilePos# shows the true file position, while $FilePos# shows the desired file position).

$EOF#

# must be replaced by a number from 0 to 9

Gets replaced by the character position of the last character in the specified file (the End Of File marker).

$EditorSize#

# must be replaced by a number from 0 to 9

Gets replaced by the number of characters in the given script editor.

$EditorFile

Gets replaced by the name of the file in the editor (if the editor has been saved).

$LastScriptPath

Gets replaced by the *Foldername* of the script which chained to the currently-running script. If the currently-running script was not chained to, or was chained to from a script in the Editor, then *$LastScriptPath* is "".

$LastScriptFile

Gets replaced by the *Filename* of the script which chained to the currently-running script. If the currently-running script was not chained to, or was chained to from a script in the Editor, then *$LastScriptFile* is "".

$ReplyQuote

Gets replaced by the quote string (see Set ReplyQuote).

$Quote

Gets replaced with the current quote character (see Set Quote).

$Token

Gets replaced with the current token character (see Set Token).

$Baud

Gets replaced by the current baud rate, in the format used by the Set Baud command (i.e. 2400 or 9600).

$DFormat

Gets replaced by the current data format, in the format used by the Set DFormat command (i.e. 7E2 or 8N1).

$Duplex

Gets replaced by the current duplex setting, in the format used by the Set Duplex command (i.e. HALF or FULL).

$Echo

Gets replaced by the current echo setting, in the format used by the Set Echo command (i.e. OFF or ON).

$StatLine

Gets replaced by OFF or ON to indicate the state of the status line.

$ChatLine

Gets replaced by OFF or ON to indicate the state of the chat line.

$SendLines

Gets replaced by the line break position, as set by the Set SendLines command.

$Hit

Gets replaced by the number of the last Hitzone that was clicked.

$Update

If a screen update occurred on a super hires display, $Update is set to 1. This is useful for advanced scripts that may need to redraw special screen elements (rectangles, icons, etc.).

$Dialed

Intended for use in a logon script. Gets replaced by a null string if no phone number was dialed (i.e. the phonebook entry did not have a phone number attached). It is replaced by “Yes” if a phone number was dialed.

$PBMethod

Gets replaced by a “T” or “P” to indicate Tone or Pulse dialing, as set by the last-accessed phonebook entry.

$PBNumber

Gets replaced by the phone number of the last-accessed phonebook entry.

$PBDisplay

Gets replaced by the name of the Online Display that is attached to the last-accessed phonebook entry.

$PBRedial

Gets replaced by the redialing options set for the last-accessed phonebook entry.

$PBFile

Gets replaced by the *Filename* of the script (if any) that is attached to the last-accessed phonebook entry. ($LogonFile is still valid for compatibility with version 1.)

$PBPath

Gets replaced by the *Foldername* of the script (if any) that is attached to the last-accessed phonebook entry.

$SEDirty*#*

must be replaced by a number from 0 to 9

Gets replaced by 1 if the specified script editor has been changed since being loaded or saved; null if the editor has not been changed.

$EditorDirty

Gets replaced by “1” if the editor contents need to be saved; otherwise it is null.

$BufferDirty

Gets replaced by “1” if the capture buffer needs to be saved; otherwise it is null.

$AutoSaveBuffer

Gets replaced by the state of the AutoSaveBuffer flag.

$EditorHandle*#*

must be replaced by a number from 0 to 9

Gets replaced by the memory address of the TextEdit handle that holds the data for the specified script editor. For use when communicating with External commands.

$FailureCode

After a command that waits for port input, if Failed is true then $FailureCode gives the reason the command failed:

0 = Other source (e.g. a Hitzone)
1 = Timeout was reached
2 = IdleTimer was reached

$DoHangup

After using the Get File command with a Kind of 3 (launchable applications), $DoHangup indicates whether the “Hangup” option was checked (1 means yes; null means no).

$DoReturn

After using the Get File command with a Kind of 3 (launchable applications), $DoReturn indicates whether the “Return to Spectrum” option was checked (1 means yes; null means no).

$FreeMem

Provides the number of bytes of real free memory currently available.

$DisplayOpen

Gets replaced by ON or OFF depending on whether the current online display is open or closed.

$FileID*#*

must be replaced by a number from 0 to 9

Gets replaced by the GS/OS ID of an open file. The returned value cannot be directly used within any script commands. It is intended for use by XCMDs that can support the direct handling of an open file.

$Date2

Gets replaced by the date using a LongYear value. (e.g. 3 Nov 1993, 17 Sep 2000)

$DateTimeStamp2

Gets replaced by the date/time string using the LongYear value. (e.g. D17Sep1994T1040)

$Year2

This is the same as $LongYear. And is provided for compatiblity with the new LongYear replacement values.

$ChainLevel

Gets replaced by the current level in the Chainback sequence. The returned value will be from 0-16.

$Signature

Gets replaced by the Signature string if it has been defined.

$BufferSize

$ScrollSize

$PortSize

Gets replaced by the size of the defined buffers. Note that this is the maximum size of the buffer as defined, not the size of its current contents.

$BufferSaved

Gets replaced by a NULL string if the buffer has been saved, or a ‘1’ if not. Use this in conjunction with the $BufferDirty variable.

$TCPInstalled

Gets replaced by ON or OFF depending on whether the Marinetti TCP/IP Cdev is installed or not.

$SerialActive

Gets replaced by ON or OFF depending on whether the serial mode has been selected or not

$TCPActive

Gets replaced by ON or OFF depending on whether the TCP/IP mode has been selected or not

$TCPOnline

Gets replaced by ON or OFF depending on whether TCP/IP is connected or not.

$TCPError

Gets replaced by the last error to be reported by Marinetti when a TCP/IP command failed.

$TCPIPID*#*

must be replaced by a number from 1 to 32

Gets replaced by the socket number used by scripts, from a logical connection number used by manual connections. This allows a script to pick up and use any sockets that have been logged into manually.

$ActiveSocket

Gets replaced by the ID # for the current TCP/IP connection. This value can be used subsequently in some of the TCP/IP script commands.

$FreeSockets

Gets replaced by the number of free sockets available. The returned value will be in the range of 0 to 32.

$TCPConnectName

If TCP/IP is active, this returns the name of the current Link Layer set within the TCP/IP CDev.

$TCPMessages

Gets replaced by ON or OFF depending on whether messages are currently being displayed for TCP/IP actions.

$TCPMode

Gets replaced by a value representing the current mode set for TCP/IP.

1 = data returned through port vectors
2 = data returned through port vectors (Telnet mode)
3 = data only returned through Get TCPData and Get TCPHandle

$TCPNotify

Gets replaced by ON or OFF depending on whether switching between active sockets is recorded in the capture buffer.

$IPAddress

If TCP/IP is active and online, gets replaced by the local address of the TCP/IP stack in the format “123.456.789.012”.

$EOLChar1

Gets replaced by the first character of the two EOL characters, range 0-255.

$EOLChar2

Gets replaced by the second character of the two EOL characters, range 0-255.

$FlushChar

Gets replaced by the character used to flush a line, range 0-255.

$FlushFrequency

Gets replaced by the value used to determine the maximum length of line that will be transmitted, range 1-512.

Parameters

VarNum becomes *Varname*

Spectrum now supports *named* variables—there is no longer any such thing as a “VarNum”! Every place you see “VarNum” in the script manual, substitute “Varname”.

Spectrum still supports the ten numbered variables (0, 1, 2, 3, 4, 5, 6, 7, 8, and 9). With the exception of those default variables, variable names must start with a letter.

Variable names can contain any combination of letters and numbers, up to 32 characters long. Uppercase/ lowercase does not matter (i.e., MYNUM, mynum, MyNum, and mYnUm are all the same variable, regardless of the CaseSensitive setting).

The only naming restriction is that you cannot create a variable based on the name of a built-in replacement item. For example, you cannot use “Date” because it is a built-in replacement item, nor can you use variable names that begin with Date (e.g., “DateOfCall” or “Date2”). You may, however, use names such as “MyDate”. *NOTE: An “Assigned name is reserved” script error occurs if you attempt to use an existing replacement name.*

Named variables work just like the numbered variables work: any place a *VarNum* was accepted, a *Varname* can now be used. The only minor difference between the two kinds of variables is that variables 0-9 are always defined and pre-set to null ("") by default, but named variables are not defined until they are created.

This means that when running a fresh script, displaying $0 will show nothing (because var 0 is pre-set to ""), but displaying $Something will show “$Something” on the screen because a variable named “Something” has not been created yet.

New named variables are created explicitly (e.g. Set Var MyNamedVar "Hi there!") or implicitly (e.g. Multiply 41 8 TheResult). Simply referring to a variable (i.e. using "$SomeVariable") does not create it.

In summary, *numbered* variables and *named* variables are nearly identical. The differences are:

- *Numbered* variables always exist; *Named* variables exist only after they are created.
- Certain commands (such as Store Vars, Restore Vars, Clear Vars, etc.) operate only on the ten *numbered* variables.
- Certain commands (such as Delete Vars) work only on *named* variables.

Tips for Advanced Users

When setting a variable (Set Var MyColor "Blue") or accessing its contents ($MyColor) Spectrum must first find the exact variable being referenced before it can work with it.

Initially the variable name table is very short, but as you create new variables the table of variable names is expanded. The more variables you have, the longer the table is, and the longer it takes to search the table.

The search speed is not a concern unless you define hundreds of variables, but even then the search can be optimized by using shorter variable names, or long names that are unique in the first few characters.

For example, using variables named “My1VariableName” through “My99VariableName” will be faster than using variables named “MyVariableName1” through “MyVariableName99”. And using “M1” through “M99” will be even faster.

If you anticipate defining many variables, consider combining several pieces of information into a single variable. For example, instead of having 100 different variables to remember a “yes/no” response you could use a single variable to remember each response (e.g. “YYNNNYYN…”) and use the Substring/Overlay String commands to get and set the appropriate character.

Also, to keep the variable name table short, use the Delete Variables command to delete any variables created for temporary use.

String

A *String* can now contain up to 256 Characters (the previous limit was 128). Accordingly, this means that Variables, FKeys, Passwords, etc. can store up to 256 characters each.

- Extra spaces, commas, and hard spaces no longer affect command recognition (e.g. “if   contains” is now recognized as being the command “if contains”).

Set Debug *State {"FoldernameFilename"}*

State can be External, File, Screen, Scrollback, or Off
FoldernameFilename is required when *State* is File, and must not be present for all other *States*

This command works like it did in version 1, with these additions:

- When Spectrum is executing a script returned from an XCMD, the debug statement shows “XCMD –=>” instead of “DEBUG –=>”.
- “Set Debug External” broadcasts debugging information to Spectrum External Commands, in case there is an XCMD that wants to handle debugging in a custom way. A “Debug” XCMD is provided as an example to show what is possible.
- “Set Debug File” directs Scrollback data into the specified *FoldernameFilename* instead of to memory. This option significantly slows down script execution because the file is updated frequently. It is recommended the file be created on a RAM disk or a fast hard drive.
- If “Set Debug File” was active and the disk gets full, subsequent file saves would result in an invalid reference number error. Fixed. Now if the disk gets full, the file is closed and debugging is turned off.

Set DebugTimeInfo *State*

State can be Off or On

When debugging with this setting turned on, the debug statement includes time information which can be used to optimize scripts.

Fundamental Commands

Clear Screen

Clears and resets the screen as if File/New was chosen.

DirectTransmit "*String*"

Transmits *String* directly out the port, without giving the Online Display any opportunity to alter the string (unlike the *Transmit* command which sends outgoing characters through the Online Display).

Transmit "*String*"

Shortcut: **Xmit "*String*"**

- If Duplex is Half and Set Screen is Off, then this will not open the online display.
- Now complains if too many quotes appear.

Clear Clipboard

Clears the Clipboard of any content. An empty Clipboard can speed up the operation of some script commands.

Open Help *Value1 Value2 Value3*

Optional: *Value1* = Subject, *Value2* = Topic, *Value3* = TargetString

Opens the !Help! NDA, and if the optional Subject, Topic, TargetString are specified, will attempt to scroll to that position.

Close Help

Closes the !Help! NDA.

Set FKey Menu *Value MenuValue*

Value is a number from 0-9 for the OA-Fkey, *MenuValue* is a number from 1-51

Assigns specific menu items to an FKey instead of the usual “String”. This allows those menu items to be fired as easily as if they had a Key Equivalent. The file transfer items are probably the most useful items that can be assigned

MenuValues		***Phone-TCP/IP Menu***
	1	**Switch TCP/IP**
	20-51	**TCP/IP sockets 1-32**
MenuValues		***Receive File Menu***
	2	**CIS B+**
	3	**XModem**
	4	**1K XModem**
	5	**4K XModem**
	6	**YModem Batch**
	7	**YModem-g**
	8	**ZModem**
MenuValues		***Send File Menu***
	9	**CIS B+**
	10	**XModem**
	11	**1K XModem**
	12	**4K XModem**
	13	**YModem Batch**
	14	**YModem-g**
	15	**ZModem**
MenuValues		***BabelFish Menu***
	16	**Import**
	17	**Export**

Play Sound "***Name***"

This command now plays any sound that can be seen by the resource manager, not just sounds stored in the *:System:Sounds: folder. *NOTE: Resource names are case sensitive.*

Play Event *Value*

Plays the sound for the specified event at the volume specified in the Sounds Control Panel. *NOTE: In order to play sounds the Sounds CDEV must be installed and active, and the "Sounds" checkbox must be on in the Online Display Settings dialog box.*

Example:

Play Event $$8 # bad keypress
Play Event $$100 # You have mail

The standard Sound CDEV does not list all these sound events. Run the "SoundPatch" utility to add listings for most of these events.

Sound Events	
0000 Alert stage 0	0053 Alert note
0001 Alert stage 1	0054 Alert caution
0002 Alert stage 2	0060 Screen blanking
0003 Alert stage 3	0061 Screen unblanking
0004 Outside window	0070 Beginning long operation
0005 Operation complete	0080 Application launching
0008 Bad keypress	0081 Application quitting
0009 Bad input value	0100 You have mail
000A Input field full	0E00 Error window base
000B Operation impossible	0EFF Error window other
000C Operation failed	0F00 Visual sound
0011 GSOS to P8	0F80 File transferred
0012 P8 to GSOS	0F81 Real time message
0013 Disk inserted	0F82 File transfer failed
0014 Disk ejected	1000 Connected to service
0015 System shut down	1001 Disconnected from service
0016 Volume changed	1002 Entered real time chat
0030 Disk request	1003 Left real time chat
0031 System startup	1004 Entering Forum/RT area
0032 System restart	1005 Leaving Forum/RT area
0033 Bad disk	1008 Modem-Dialing
0034 Key click	1009 Modem-Hanging up
0035 Return key	100A Modem-No carrier
0036 Space key	100B Modem-Connected
0040 Whoosh open	1010 Feature enabled
0041 Whoosh closed	1011 Feature disabled
0042 Fill trash	1012 Taking screen shot
0043 Empty trash	1020 Reading message
0050 Alert window	1021 Sending message
0052 Alert stop	

Settings

Save Settings "*FoldernameFilename*"

FoldernameFilename is optional

Saves Spectrum’s current settings to disk If no file is specified, settings are saved to the current settings file. If a file is specified then settings are saved to that file, and it becomes the current settings file.

- Would not save to a file unless it already existed. Fixed.
- Neither filters nor passwords were being copied over to the new settings file, and a subsequent Load Settings would not restore the phonebook.

Load Settings "*FoldernameFilename*"

FoldernameFilename is optional

Loads Spectrum’s current settings from disk. If no file is specified, settings are loaded from the current settings file. If a file is specified then settings are loaded from that file, and it becomes the current settings file.

Set ScrollData *Kind*

Kind can be Raw or Filtered

Determines how incoming data is stored into the Scrollback buffer. Raw stores the actual data that was received; Filtered stores data after it has been processed by the online display (i.e. the same information that appears in the Capture Buffer).

Set ReplyQuote "*String*"

String can be 1-16 characters

Sets the quote format used when choosing Paste As Reply from the Edit menu.

Online Display Settings

Set OnlineDisplay "*Display*"

- The Failed flag was not being set or cleared correctly to indicate whether this command succeeded. Fixed.
- This command now clears any defined Hitzones.
- Setting *Display* to “Spectrum SHR Fast” or “Spectrum SHR Normal” actually selects the combined “Spectrum SHR” display.

Close OnlineDisplay

Shortcut: **Offline**

Closes the current online display and displays Spectrum’s 640 mode desktop.

IMPORTANT: This command no longer causes the script to stop (because scripts can now operate even when the Online Display is not open). For full compatibility with version 1, edit any version 1 scripts so that “Close OnlineDisplay” is followed by the “Stop Script” command.

Clear Desktop

Closes all Spectrum windows and NDAs, displaying Spectrum’s 640 mode desktop.

Set NullStrip ON/OFF

Controls the removal of nulls in the input stream to the screen. The default setting is ON.

File Transfer Settings

Set RelaxedXfers *State*

The state of this setting is now stored in the preferences file, if settings are saved.

Set FileXferPath "*FoldernameFilename*"

Sets both the ReceivePath and SendPath locations to the specified folder. Setting to an empty path ("") clears the paths and files will be received into/sent from the most recently-accessed folder.

Set MacBinary *Status*

Status can be On, Off, NoRez, Rez, Downloads

Sets the MacBinary setting, and can alter the Binary2 settings. Refer to the following table:

Script Command	Binary2 Down	MacBin Down	Binary2 Up	MacBin Up	Allow Rez
Binary2 On	-	-	sets	clears	clears
Binary2 Off	clears	-	clears	clears	clears
MacBinary On	-	-	clears	sets	sets
MacBinary Off	-	clears	-	clears	clears
MacBinary Rez	-	-	-	-	sets
MacBinary NoRez	-	-	-	-	clears
Binary2 Up	-	-	sets	clears	clears
Binary2 Down	sets	-	-	-	-
MacBinary Down	-	sets	-	-	-

Set ReceivePath "*FoldernameFilename***"**

Sets the default path used when receiving files. Setting to an empty path ("") clears the path and received files will be stored in the most recently-accessed folder.

Set SendPath "*FoldernameFilename***"**

Sets the default path used when sending files. Setting to an empty path ("") clears the path and files will be sent from the most recently-accessed folder.

Set ReceiveFType *Value*

Value can be 0-255 ($$00-$$FF)

Sets the filetype to assign when a received file’s filetype/auxtype is unknown.

Set ReceiveAType *Value*

Value can be 0-65535 ($$00-$$FFFF)

Sets the auxtype to assign when a received file’s filetype/auxtype is unknown.

Set AutoReceive *State*

State can be Off, On, BPlus, or Zmodem

Controls the “Auto B+” and “Auto Z” checkboxes.

Off: Turns off both checkboxes.
On: Turns on both checkboxes.
BPlus: Turns on the BPlus checkbox.
Zmodem: Turns on the Zmodem checkbox.

Set BinaryII *State*

State can be Downloads, Uploads, Off, or On

Works as described in the Scripting manual, except Downloads and On will no longer uncheck the “Resume Transfers” checkbox (because resume now works regardless of the receiver’s BinaryII setting).

Set SendLines *State*

State can be Off or On, or a number from 10-65535

Controls how text files and ScriptEditors are sent. Off sends files as-is; On splits paragraphs into lines of approximately 73 characters each; a Value splits paragraphs into lines of approximately the specified number of characters.

Dialing

Dial Service "*PhonebookEntry*"

Instead of generating a script error, now the Failed flag is set if the specified phonebook entry does not exist.

Dial Entry *Value*

Instead of generating a script error, now the Failed flag is set if the specified phonebook entry does not exist.

Get ServiceInfo "*PhonebookEntry*"

Establishes the port settings for the specified phonebook entry, and updates all the *$PB_* replacement items so they reflect the information stored in the phonebook entry. The Failed flag is set if the specified phonebook entry does not exist.

Connected

Scripts should issue this command any time they establish a connection with another computer or modem.

Onhook

Scripts should issue this command any time they close a connection (or when they know a connection has been broken) with another computer or modem.

TCP/IP Commands

Note: When in Telnet mode, the setting of Half Duplex will be ignored.

Switch TCP/IP

Disconnects the Serial Port and switches control to the TCP/IP environment. Note that this may terminate an active Serial connection.

TCPConnect

If currently offline, makes a TCP/IP link through the the TCP/IP CDev. It simply makes the initial link to your ISP, it does not open a socket Connection to a target host. If TCP/IP was already linked, this command will do nothing and will not set the Failed flag. The Failed flag will be set if the link failed.

TCPDisconnect

If currently online, will disconnect all active Connections and then disconnect the line from your your ISP. If TCP/IP was already disconnected, this command will do nothing and will not set the Failed flag. The Failed flag will be set if the command failed to disconnect.

Open TCPSocket *"AddressString" Value VarName MenuName*

"AddressString" is a dotted address in the format "123.456.789.123:23" or
"AddressString" is an address in the format "delphi.com"
Value can be from 1 to 3 (Mode)
 1 = data returned through port vectors
 2 = data returned through port vectors (Telnet mode)
 3 = data only returned through Get TCPData and Get TCPHandle
Varname returns a Socket number
The optional *MenuName* is a String maximum 18 characters

Links if not already Linked (See *TCPConnect*), and then opens a connection to the IP address and port in "*AddressString*" using the Mode given in *Value*. Up to 32 connections may be open at once. See documentation for TCP/IP for further details.

If the optional *MenuName* is given, it will be used to name the inserted menu item for that connection. The Timeout setting will be respected, with a maximum wait of 60 seconds. The Failed flag will be set if the Connection could not be opened.

Close TCPSocket *Value*

Value must be a valid Connection Number (Socket)

Closes the Connection. Sets the Failed flag if the Connection was not open or could not be closed.

Check TCPSockets

Checks through all the active Sockets, and if any have been closed, and there is no data waiting to be sent or received, will log them out and return any *TCPClosedResponse* strings that have been set.

Set TCPActiveSocket *Value Value1*

Value must be a valid Connection Number (Socket)
The optional *Value1* can be from 1 to 3 (Mode)

Changes the active connection for the data streams. This allows you to control a number of connections simultaneously. Sets the Failed flag if the Connection is not open.

Get TCPData *"LineEndMarkerString" VarName Socket*

"LineEndMarkerString" is a unique set of characters
Control and Quote characters are stripped from the returned *Varname*.
The Socket is optional.

TCP/IP must be active and an online connection must be made before this command will complete. Returns up to 256 characters from the active *Connection* or the optional *Socket*. When the *LineEndMarkerString* is received, the line is stored into the specified *Varname*. The *LineEndMarkerString* is not included in the returned *Varname*. You may wish to set *Mode* 3 for use with this command. Sets the Failed flag if not online or no data was waiting.

Get TCPEditor "LineEndMarkerString" EditorNumber Socket

"*LineEndMarkerString*" is a unique set of characters
Full 8 bit data integrity is retained in the returned *EditorNumber*
The *Socket* is optional.

TCP/IP must be active and an online link must be made before this command will complete. Accepts characters from the active *Connection* or the optional *Socket*. When the *LineEndMarkerString* is received the line is stored into the specified *EditorNumber*. The *LineEndMarkerString* is not included in the returned *EditorNumber*. You may wish to set *Mode* 3 for use with this command. Sets the Failed flag if not online or no data was waiting.

Get TCPHandle EditorNumber Socket VarName

Full 8 bit data integrity is retained in the returned *EditorNumber*
The *Socket* is required.

TCP/IP must be active and an online link must be made before this command will complete. Accepts characters from the designated *Socket* or the active connection if Socket = 0. If no data was waiting, the *Editor* will be returned empty. The *VarName* returns the current *Status* value for the socket. You may wish to set *Mode* 3 for use with this command. Sets the Failed flag if not online.

Send TCPData *"String" Socket*

Socket is optional

Sends the *String* directly to the active *Connection* or the optional *Socket*. No Telnet translation is made by this command. Sets the Failed flag if not online.

Send TCPEditor *EditorNumber Socket*

Socket is optional

Sends the *EditorNumber* directly to the active *Connection* or the optional *Socket*. No Telnet translation is made by this command. Sets the Failed flag if not online.

Flush TCPSendBuffer

Flushes any waiting data in the *TCPSendBuffer* to the active *Connection*. Data is normally flushed at each character in Telnet mode, or when the *TCPFlushChar* being seen in the output flow. This command allows any waiting data to be flushed before that character is seen. Sets the Failed flag if not online.

Get TCPStatus *Value VarName*

Value must be a valid Connection Number (Socket)
Returns the Status of the Connection:

0 = tcpsCLOSED
1 = tcpsLISTEN
2 = tcpsSYNSENT
3 = tcpsSYNRCVD
4 = tcpsESTABLISHED
5 = tcpsFINWAIT1
6 = tcpsFINWAIT2
7 = tcpsCLOSEWAIT
8 = tcpsLASTACK
9 = tcpsCLOSING
10 = tcpsTIMEWAIT

See the TCP/IP documentation for more details. Sets the Failed flag if the Connection is not open or if not online.

Set TCPClosedResponse *Value "String"*

Value must be a valid Connection Number (Socket)

If the *Connection* closes, the "*String*" will be inserted into the input stream. This allows scripts to monitor a Connection by using a WaitFor or Trigger command. Sets the Failed flag if the Connection is not open or if not online.

Set TCPEOLTranslation *Value Value1*

Value can be from 0 to 255
Value1 is optional and can be from 0 to 255

Normally the EOL character will be sent “as is” to the active Connection. By changing its value, you can translate this to a specific character required by a particular system. You might wish to change a Return to a Return/Line Feed pair, or a Return to a Line Feed.

Set TCPFlushChar *Value*

Value can be from 0 to 255

Sets the character that is used to trigger flushing the output buffer to the active Connection for modes 1 and 3. This defaults to a Return.

Set TCPFlushFrequency *Value*

Value can be from 0 to 512

The output buffer can hold a maximum of 512 characters. You can change this value to flush data more frequently to the active Connection. Note that in Telnet mode 2, the buffer is flushed as each character is sent.

Set TCPMessages *State*

State can be Off, On

If connecting manually, you can turn off the display of the various progress messages shown by TCP/IP.

Set TCPNotify *State*

State can be Off, On

Normally a message is displayed on screen and put into the capture buffer when a service has been manually switched. This turns on and off the display of that message.

Set TCPReconnect *State*

State can be Off, On

Controls whether TCP/IP attempts to reconnect or not when a Connection is started.

Get TCPServiceEntry *Value VarName*

Value can be from 1 to size of Service list
Value can also be an entry name from the list

Extracts the “dotted address” or “host.name” of the specified Service list entry and stores it in the specified variable. If the entry does not exist, then the Failed will be set. If a name was specified, the match will respect the current state of the *CaseSensitive* flag.

Script and Program Control

Run "*FoldernameFilename*" *Label*

Label is optional

Resets many script parameters then runs the specified script. If *Label* is given control passes to the specified label in the new script. If the label does not exist then a “label not found” error occurs.

Chain "*FoldernameFilename*" *Label*

Label is optional

Passes control (or “Chains”) to the specified script, preserving all the settings that are normally reset when a script is Run. If *Label* is given then control is passed to the specified label in the new script. If the label does not exist then a “label not found” error occurs. *REMINDER: Chaining to a script does not preserve the current For/Next loops, nor does it preserve the “Gosub” stack.*

Chainbacks can now be nested to 16 levels. This allows much more flexible use of the “Chain’ command, as using shorter scripts will always speed script execution.

Chainback

Loads the script that chained to the currently-running script (*$LastScriptPath$LastScriptFile*) and resumes executing script commands at the statement after the Chain command. If the currently-running script was not chained to, then Chainback stops the script.

POP Chainback

POP All Chainback

These commands “pop” or remove one or all of the Chainback levels.

Launch / Exit / Quit

These commands now set prefix 0 and 8 to the folder of the application being launched, which resolves path problems when launching some ProDOS 8 programs.

Quit2

This command works exactly like the “Quit” command, except it does not hangup first.

Variables

CompareStrings "*String1*" "*String2*" *Varname*

Compares the two strings using the Toolbox’s _CompareStrings command, which is used when sorting most lists (filenames, etc.). The compare is always case *in*sensitive.

Make CaseChange "*String*" *Value Varname*

Value can be a number 1-4

Depending on the *Value*, makes a change to the case of *String* and returns the results in *Varname*. The valid *Values* are:

1 = UPPERCASE
2 = lowercase
3 = First letter of each sentence is capitalized. Like this.
4 = Capitalize Each Word

Store Variables

Shortcut: **Store Vars**

Stores the current values of the ten numbered variables (0 through 9). It does not store any named variables.

Restore Variables

Shortcut: **Restore Vars**

Restores the ten numbered variables (0 through 9) to the previously-stored values. It has no effect on any named variables.

Clear Variables *Varname1*, *Varname2* … *Varname#*

Shortcut: **Clear Vars**
Varnames are optional

Clears the specified variable names to "". If no variable names are specified, the ten numbered variables (0 through 9) are cleared to "".

Delete Variables *Varname1*, *Varname2* … *Varname#*

Shortcut: **Delete Vars** *Varname1*, *Varname2* … *Varname#*

Deletes the specified variable name(s) from the internal table of variable names.

Match String "*TheLine*" "*String1*" … "*String#*"

Looks to see if *String1* exists anywhere within *TheLine*. If so then $Matched is set to “1”, $MatchString is set to *String1*, and the Failed flag is cleared. If *String1* is not found within *TheLine* then the other strings are checked (the only limit on the number of strings is how many can fit into the script expansion buffer).

If no match is found then $Matched is set to “0”, $MatchString is set to "", and the Failed flag is set.

Strip Spaces "*TheString*" *Varname*

Deletes all space characters from *TheString* and stores the results in *Varname*.

Trim Spaces "*TheString*" *Varname*

Deletes only the leading and trailing spaces from *TheString* and stores the results in *Varname*.

Overlay String "*String1*" "*String2*" *Start* *Varname*

Start can be from 1 to 256

Overlays *String2* on top of *String1*, starting at character position *Start*, and stores the result string into the specified *Varname*. The Failed flag is set if *String2* cannot be overlaid into the existing space used by *String1*.

For example:

```
Overlay String "12345" "ABC" 1 9
# var 9 is now "ABC45"
Overlay String "12345" "ABC" 3 9
# var 9 is now "12ABC"
Overlay String "12345" "ABC" 4 9
# the Failed flag is set because "ABC" cannot be overlaid onto "12345" starting at position 4 (var 9 is set to "12345")
```

Insert String "*Original*" "*New*" *Position* *Varname*

Position can be from 1 to 256

Inserts the *New* string into the *Original* string at character *Position*. If the combined string exceeds 256 characters the result is truncated to 256 characters and the Failed flag is set.

Example:

```
# Loop
Display "Insert where? "; Input Line Position
Insert String "****" "NEW" $Position Result
Display "Result is '$Result'.^M"; Goto Loop
# the results:
0 - script error; run the script again
1 - NEW****
2 - *NEW***
3 - **NEW**
4 - ***NEW*
5 - ****NEW
6 through 256 - ****NEW
257 or higher - script error
```

Delete String "*TheString*" *Start* *Length* *Varname*

Start can be from 1 to 256
Length can be from 1 to 256

Deletes *Length* characters from *TheString*, starting at position *Start*. If *Start* is 0 or *Start* is greater than the length of *TheString* the Failed flag is set and *Varname* is set to *TheString*.

Example:

```
Delete String "12345" 1 3 9
# var 9's now "45"
Delete String "12345" 3 3 9
# var 9's now "12"
Delete String "12345" 3 256 9
# var 9's now "12"
```

Evaluate "*Expression*" *Varname*

Evaluates the given string expression and sets *Varname* to the result. Valid operators are ( ) + – * / ^ ÷ and – (the last two operators are Option-/ and Option-Minus, respectively). *NOTE: To use the "power of" operator (^) you must type it twice (^^).*

The calculations are made on whole Integer numbers, so any remainders from divisions are lost, with the number being rounded down.

The Failed flag is set if *Expression* is not a valid math expression (i.e. there are characters other than numbers, operators or spaces, the parentheses are not balanced, etc.). The Failed flag is also set if any intermediate calculation overflows 32 bits (4,294,967,296), or if parsing the expression overflows the internal 256-byte parsing buffer.

Finally, the Failed flag is set if the result is a negative number, because negative numbers are not valid elsewhere in Spectrum's scripting language. However, in this case the result *Varname* will contain the positive answer (i.e. if an expression is calculated to be –5 then the Failed flag will be set and *Varname* will be set to 5).

Example:

```
Evaluate "2+(3^^4)-2+(3^^2)-3*4+(6/3+(12/4))" Result
Display "The result is $Result.^M"
Evaluate "2^^$Day" Result
Display "The result is $Result.^M"
```

Getting Input

Ask1 "*Question*" "*Button1*" *VarName {Value}*
Ask2 "*Question*" "*Button1*" "*Button2*" *VarName {Value}*
Ask3 "*Question*" "*Button1*" "*Button2*" "*Button3*" *VarName {Value}*

Question is a string up to 68 characters long
Button# is a string up to 12 characters long
Value is a number 0 to 65535

Version 2.0: Instead of the question being restricted to 68 characters long, these commands now accept questions up to 255 characters long (the size of the alert window is adjusted automatically so the message will fit).

Version 2.1: Added an optional value that specifies the number of seconds to wait for a response. If the user doesn't respond within that many seconds, the default button is clicked automatically. If there is no default button, and all the buttons have the same first character, then a SysBeep occurs and the Ask alert will not go away.

Ask1 and Ask2 use the "cool" button layout. Due to formatting problems with Ask3 if the button names are more than a few characters, Ask3 still uses the older button layout.

Waitfor String "*String1*" "*String2*" … "*String7*" "*String8*"

- Comments after the strings were being seen as target strings. Fixed.
- Double letters could cause Waitfor String not to see a string it was waiting for. Fixed.

Set IdleTimer *Value*

Value can be from 0 to 65535

When waiting for input using any “Getting Input” command that gets data from the port, Spectrum monitors the port activity. If the port is idle for *Value* seconds then the command will fail and Spectrum continues executing the script.

This command works in *conjunction* with the Timeout value (Timeout fails the command after *Value* seconds **regardless of port activity**, whereas IdleTimer fails the command after *Value* seconds of **no port activity**).

Example:

```
Set Timeout 120 # 2 minutes
Set IdleTimer 30 # 30 seconds
Transmit "Send me the entire file list!^M"
Waitfor String "END OF LIST"; If NOT Failed Then Display "The entire list was received within 2 minutes."; Stop Script
# otherwise the Waitfor command failed...
On $FailureCode GotoNext TimedOut, IdledOut
# if here then $FailureCode is 0...
Display "Failed for some other reason (a Hitzone was probably clicked)."; Stop Script
# TimedOut - after 2 minutes there's still port activity
Display "Still receiving the list."; Stop Script
# IdledOut - gone 30 seconds with no port activity
Display "Either the list is complete but something happened that the 'end of list' string was not seen, OR the host is disconnected/lost in space."; Stop Script
```

Read Char *Varname*

Accepts one character from the port and stores it into the specified variable.

If a timeout was used and time ran out, the Failed flag is set.

Read Line *Varname*

Accepts up to 256 characters from the port. When a Return character is received the line is stored into the specified variable.

If a timeout was used and time ran out, the Failed flag is set and the specified variable contains the data that was read so far.

Branching and Loops

IMPORTANT: The script keyword “GotoNext” cannot be separated as “Goto Next” (version 1 was more forgiving of this error; version 2 will instead attempt to GOTO a label named “Next”).

On CarrierLoss Goto *Label*
On CarrierLoss GotoNext *Label*

If this command is active and Spectrum detects the transition from having a carrier to having no carrier, then control will be passed to the specified label in the currently-running script.

This command does nothing unless “DCD Is Valid” is checked, the modem has been initialized properly, and the modem is connected with a properly-wired modem cable.

On CompareStrings "*String1*" "*String2*" Goto *LessLabel*, *EqualLabel*, *MoreLabel*
On CompareStrings "*String1*" "*String2*" GotoNext *LessLabel*, *EqualLabel*, *MoreLabel*

Compares the two strings using the Toolbox’s _CompareStrings command, which is used when sorting most lists (filenames, etc.). Based on the result of the comparison, script control jumps to *LessLabel*, *EqualLabel*, or *MoreLabel*.

Set Labels *State*

State can be Off or On

Works as before, but adds support for an extended keyboard: Pressing function keys 1 through 15 will attempt to “Gosub” to that label.

On *Value* **Goto** *Label1*, *Label2* **…** *Label#*
On *Value* **GotoNext** *Label1*, *Label2* **…** *Label#*
On *Value* **Gosub** *Label1*, *Label2* **…** *Label#*
On *Value* **GosubNext** *Label1*, *Label2* **…** *Label#*

These commands have been modified to allow as many labels as will fit in the script line buffer (currently 636 characters, minus the number of characters used for the command itself).

If Value is 0 or is greater than the number of labels supplied, the Failed flag is set and control continues to the next statement. For example, the Display statement would be executed in this script:

```
On 5 Goto One, Two; Display "Didn't go anywhere"; Stop Script
```

For *LoopNumber Start Stop Step*

Works like version 1, except if the initial *Start* value is less than the initial *Stop* value the loop counts.

Example:

```
Display "1 to 100 by twos:^M^J"
For 0 1 100 2; Display "$ForValue0^I"; Next 0
Display "^M^J^M^J100 to 1 by twos:^M^J"
For 0 100 1 2; Display "$ForValue0^I"; Next 0
```

On Compare *Value1 Value2* **GoXXX** *LessLabel*, *EqualLabel*, *MoreLabel*

GoXXX can be Goto, GotoNext, Gosub, or GosubNext

This command is similar to the Compare command, except that the result can be acted on immediately (an intermediate variable to hold the result is not required):

If *Value1* < *Value2* then control passes to *LessLabel*
If *Value1* = *Value2* then control passes to *EqualLabel*
If *Value1* > *Value2* then control passes to *MoreLabel*

Conditional Tests

If False *Varname* **Then** *Statement*

If *Varname* is empty ("") or is “0” then *Statement* is executed.

If True *Varname* **Then** *Statement*

If *Varname* is not empty ("") and is not “0” then *Statement* is executed.

If Not Contains "*ShortString***" "***LongString***" Then** *Statement*

If *ShortString* is longer than *LongString* then *Statement* is now executed.

If Null *Varname* **Then** *Statement*
If Null "*String***" Then** *Statement*
If Null *$EditorHandle#* **Then** *Statement*

If a variable name is supplied and the variable is empty ("") then *Statement* is executed.

If a string is supplied (the current quote delimiters are required) and the string is empty ("") then *Statement* is executed.

If an $EditorHandle# replacement item is supplied and the specified editor is empty ($EditorSize# is 0) then *Statement* is executed.

If Not Null *Varname* **Then** *Statement*
If Not Null "*String***" Then** *Statement*
If Not Null *$EditorHandle#* **Then** *Statement*

If a variable name is supplied and the variable is **not** empty then *Statement* is executed.

If a string is supplied (the current quote delimiters are required) and the string is **not** empty then *Statement* is executed.

If an $EditorHandle# replacement item is supplied and the specified editor is **not** empty then *Statement* is executed.

If Defined *Varname* **Then** *Statement*

If the specified variable name has been defined then *Statement* is executed.

If Not Defined *Varname* **Then** *Statement*

If the specified variable name has **not** been defined then *Statement* is executed.

If Desktop Then *Statement*

If the 640 mode SHR display with menu bar is showing then *Statement* is executed.

If Not Desktop Then *Statement*

If the 640 mode SHR display with menu bar is **not** showing then *Statement* is executed.

Else *Statement*

All “if” comparisons set a special flag that remembers whether the “if” statement was true or false. The “else” command tests this flag and executes the rest of the line if the previous “if” statement was false. *NOTE: “Else” is a completely separate command; it is not an optional part of an “if” statement!*

Using “else” clears the special flag, so multiple “else” statements do not work.

Example:

```
If Equal "A" "B" Then Display "EQUAL^M^J"
ELSE Display "NOT equal^M^J"
ELSE Display "This will never been displayed.^M^J"
# change "B" to "A" and run again
# also try using "If NOT Equal" and other conditional tests
```

Screen Appearance

Set Flush *State*

If Flush was On in version 1, processing incoming data had greater priority over executing the script commands. In version 2 both functions are approximately equal priority, so script commands will execute regularly even if lots of incoming data is pending.

Set ScreenBlank *State*

State can be Off, On, or Auto

Spectrum now completely controls the blanking (previously if Twilight II was active Spectrum would ask it to blank the screen). Also, the border color is now set to black when blanked.

Set ScreenBlank OFF now just broadcasts the “systemSaysForceUndim” IPC message, so if Twilight II (for example) blanks in the background, your script can include a Set ScreenBlank OFF command to force the screen to be unblanked. *NOTE: It is acceptable to issue “Set Screen OFF” even if the screen is already unblanked.*

Set ScreenBypass *Value*
Value can be On or Off

Controls whether data is sent to the screen or not. If set to 'Off', it allows script execution to continue with a closed screen. Note that this is not the same as "Set Screen Off" as the "WaitFor" and "Trigger" commands will still operate. Effectively it operates as though a screen was open, but with no data showing on screen.

Set XferStatus *Value*
Value can be On or Off

Controls whether the Protocol Transfer Status box is shown during a file transfer.

Capture Buffer Control

Load Buffer "*FoldernameFilename***"**

- This command would overrun memory if the file was too big to be loaded. Fixed.

Append CaptureFile "*FoldernameFilename***"**

Opens the specified text file and begins capturing incoming data to the end of it.

What's new: If the specified file does not exist it will be created automatically. If the specified file is not a text file then a script error is generated.

Set AutoSave "*FoldernameFilename***"**

If AutoSave is specified, and AutoSaveBuffer is on, and Append is on, whenever the capture buffer fills it will be automatically appended to the AutoSave folder and filename.

In version 1, if the AutoSave folder or filename was invalid, Spectrum would not save the buffer. In version 2 Spectrum gives the user the opportunity to manually Clear, Save, or Append it.

Transferring Files

Receive File *Protocol*

- When receiving Zmodem, if the host did not start the transfer, or aborted the transfer before Spectrum's file transfer status window appeared, the script would pause for a very long time. Fixed.

Send File ZBatch *"File1" "File2" ... "File3"*

Send File ZBatch *ScriptEditor*

Send File YBatch *"File1" "File2" ... "File3"*

Send File YBatch *ScriptEditor*
File is the path to a file or a file in the Send file folder
ScriptEditor is a value from 0-9

Batch sends multiple files. These commands replace the functionality of the BatchXfer XCMD.

OS Utilities

Rename "*Foldername1Filename1***" "***Foldername1Filename2***"**

- Renaming "FILENAME" to "Filename" would raise an error. Now the case is changed without generating an error.

Copy File "*Foldername1Filename1***" "***Foldername2Filename2***"**

Can now copy even very large ("tree") files, where previously it showed an "access not allowed" error.

- Now handles Macintosh-style OptionLists.
- Now preserves original file creation date and time.

Get FileInfo "*FoldernameFilename***"** *Varname*

Works as documented, with the following additions to the returned string:

Start	Length	Information
59	6	Creation date in the format YYMMDD
65	4	Creation time in the format HHMM
69	6	Modification date in the format YYMMDD
75	4	Modification time in the format HHMM

Get FileInfo2 *"FoldernameFilename" VarName*

Complements the *"Get FileInfo"* command, but returns the LongYear instead of the two digit short year. This makes the command Y2K compliant.

Set FileInfo "*FoldernameFilename***" "***TT/AAAA***"**

TT is a hexadecimal filetype 00-FF
AAAA is an optional hexadecimal auxtype 0000-FFFF

Sets the specified file's filetype and auxtype. The auxtype (AAAA) can be omitted and only the filetype will be changed.

Get MacFileInfo "*FoldernameFilename***"** *Varname*

Sets *Varname* to contain the Macintosh file's Type and Creator. The Failed flag will be set if the file is not an extended file.

NOTE: If the file has a "pdos" creator, Get MacFileInfo may return the filetype holding ASCII values that are not printable. This is because with a creator of "pdos" you can have the filetype and auxtype embedded as Hex data in the four characters of the Mac filetype.

Set MacFileInfo "*FoldernameFilename***" "***TypeCrtr***"**

If the specified file is a Macintosh file then this command will set the file's Type and Creator information.

Show File "*FoldernameFilename***"** *Start Stop*

Start and *Stop* are optional

As in version 1, this command displays the file to the screen (and outputs it to the port if the Echo option is on). What's new:

- The optional *Start* and *Stop* values let you show a specific portion of the file.
- While showing a file, the Spacebar will alternately pause and restart the display.

Get File "*PromptString*" *Kind Varname*

Works as it did in version 1, but Kind can now also be a 3 or 4.

When using a *Kind* of 3 the dialog box displays launchable applications and also contains two checkboxes that let the user control whether the script should hang up before launching ($DoHangup), and whether quitting the next application should return to Spectrum ($DoReturn).

When using a *Kind* of 4 the dialog box displays Teach and text files only (not Appleworks Classic).

Copy File *"SourcePath" "TargetPath" Value*

Value is optional

Value = 1 copies data fork
Value = 2 copies resource fork
Value = 3 copies both forks

Using the optional *Value*, you can copy either the data fork, resource fork, or both forks. In all cases, the target file must already exist, or an error will be generated. The resource fork will be created if needed.

JudgeName *"FoldernameFilename" VarName*

Expands the *FoldernameFilename* and parses it to suit the FST of the destination volume pointed at by *Foldername*.

Get Multifile *"PromptString" Value ScriptEditor*

Value = 0	Any file
Value = 1	Text only
Value = 2	Text, AppleWorks, Teach
Value = 3	Launchable Applications
Value = 4	Text and Teach

ScriptEditor is a value from 0-9

This complements the “Get File” command. It is primarily intended for use by the “Send Batch” commands.

Reading and Writing Files

NOTE: Scripts can now open 10 files and 10 catalogs (previous limits were 4 files and 4 catalogs).

Read File *FileNumber Varname NumBytes*

FileNumber can be from 0 to 9
NumBytes is optional; if used it is a value from 1-256

If the optional *NumBytes* parameter is not provided then this command behaves exactly as it did in version 1.

If *NumBytes* is specified then this command reads exactly that many bytes from the file (it does not check for Return). If reading *NumBytes* passes the end of the file, the Failed flag is set and the variable contains the bytes that were read successfully.

Write File *FileNumber* "*String*" *NumBytes*

FileNumber can be from 0 to 9
NumBytes is optional; if used it is a value from 1-256

If *NumBytes* is not specified then all the characters of the *String* are written; if *NumBytes* is specified then only the first *NumBytes* characters of the *String* are written.

Set FilePos *FileNumber Position*

FileNumber can be from 0 to 9

After opening a file you can use this command to quickly move the file marker to a specific character position. For example, **Set FilePos 0 83** will set the file marker to the 83rd character in file 0.

If you set to a character position that is past the end of a file, the file length will not get extended until you begin writing to that position.

For example, this script…

```
Open File 0 ":Ram5:NewFile"
Set FilePos 0 10000
Set FilePos 0 10; Write File 0 "Word.^M"
Close File 0
```

…will result in a file that is only 15 characters long, not 10,000. To extend a file Spectrum writes as many Return characters as necessary (in the example above, Return characters are written to position 1 through 9, so the "W" of "Word" will start at the character position that was set).

Search File *FileNumber* **"***String***"**

FileNumber can be from 0 to 9

Searches the given file for the given string. The search starts at the current file position and proceeds toward the end of the file.

If *String* is found then the Failed flag is cleared and the file marker is set to the first character *after* the string. If *String* is not found then the Failed flag is set.

Reading Catalogs

Read Catalog *CatalogNumber Varname*

The information that is returned has been extended—see "Get FileInfo" in the OS Utilities section.

Read Catalog2 *CatalogNumber VarName*

Complements the "Read Catalog" command, but returns the LongYear instead of the two digit short year. This makes the command Y2K compliant.

Script Editor

All script editor commands have been modified to allow an optional *EditorNumber*, a value from 0-9. If *EditorNumber* is not present, editor number 0 is assumed:

Clear ScriptEditor *EditorNumber*

Send ScriptEditor *EditorNumber*

Print ScriptEditor *EditorNumber*

Apply Replace *EditorNumber* **"***FindString***"** **"***ReplaceString***"** *Varname*

Apply LowASCII *EditorNumber*

Apply RemoveControls *EditorNumber*

Apply LFsToCRs *EditorNumber*

Apply RemoveSpaces *EditorNumber*

Apply Special *EditorNumber Value*

Apply Format *EditorNumber Value*

Append ScriptEditor *EditorNumber* **"***Item***"** *Kind*
Load ScriptEditor *EditorNumber* **"***Item***"** *Kind*

EditorNumber is optional; if used it is a value 0-9
Item can be a FoldernameFilename, or can be ::Scrollback, ::Buffer, or ::Clipboard
Kind is an optional Varname

Loads the specified data into the given ScriptEditor (Load replaces the script editor contents, while Append adds the new data to the end of the specified script editor).

If *Item* is a file on disk, an optional *Kind* varname can be used which will be set to indicate what kind of file was loaded: 1=Text, 2=Teach, 3=AppleWorks Classic.

- This command can now load Macintosh text files, even if the file has a Macintosh resource fork.
- If a Teach file was loaded, then a Text file was loaded, the ScriptEditor still thought it had a Teach file in it. Fixed.

Save ScriptEditor *EditorNumber* "*FoldernameFilename*" *Kind*

EditorNumber is optional; if used it is a value 0-9
Kind is optional; 1 saves as a Text file; 2 saves as a Teach file; 3 saves as an AppleWorks Classic file

Saves the specified scripteditor to disk. If *Kind* is not specified then the format is Text (if a text or AppleWorks Classic file was loaded) or Teach (if a Teach file was loaded). Otherwise the *Kind* value forces a specific file type to be saved (only Teach saves any style information; the other formats only save the text from the specified script editor).

Create ScriptEditor *EditorNumber*

Creates an empty scripteditor. If the scripteditor is already in use then the Failed flag is set and the existing scripteditor is not changed.

Show ScriptEditor *EditorNumber*

Displays the specified scripteditor on the screen. Holding down the Option key pauses the display; pressing Escape cancels the display.

Clear SEDirty *EditorNumber*

Clears the “dirty” flag for the specified editor.

Error Control

ResumeNext

Use only in an “On Error Goto” procedure

Continues running the script *after* the command that caused the error. *NOTE: This can be confusing; it is intended for advanced script authors.*

Script Interpretation

Set Quote *Character*

A script error could occur when the quote character was set to something other than the standard character (") and a line contained a semicolon:

```
Set Quote %
Display %This is fine.%
Display %This ; failed.%
```

This has been fixed (i.e. the second Display command will no longer fail).

Set Replacement *Character*

Changes the value normally used for the “$” substitution character.

Advanced Commands

Store Screen

Saves the current screen characters to an internal buffer. The Failed flag is set if a display is not open, or if the opened display does not support the feature.

Restore Screen

Restores the screen characters from the previously-stored screen. *NOTE: This command closes and re-opens the Online Display for a proper update to occur. This is quick, but does cause a flicker on the screen.*

The Failed flag is set if a display is not open, or if the opened display does not support the feature.

Define Trigger *Value* "*String*"

Value can be a number 1 to 16
String can be up to 256 characters

Defines a sequence of characters that Spectrum should watch for whenever it is processing incoming data. If *String* is "" then the trigger is deleted, just as Delete Trigger

If the character sequence is seen and an "On Trigger Goto…" command is active, control passes to the specified *Label*.

Note that triggers take precedence over the active command. For example, if "Waitfor String" is currently waiting for "password" and a trigger has been defined to watch for "sword", as soon as the "d" arrives the trigger causes the "Waitfor String" command to fail (the Failed flag will be set) and control will pass to the trigger handler.

Get TriggerInfo *Value Varname*

Value can be a number 1 to 16

Sets *Varname* to the currently-defined trigger string.

Delete Trigger *Value1*, *Value2*, … *Value#*

each *Value* can be a number 1 to 16

Deletes the specified trigger number so its associated trigger string is no longer searched for.

Delete Triggers

Deletes all the triggers so no trigger is searched for.

On Trigger Goto *Label*
On Trigger GotoNext *Label*

When a defined trigger is seen, control jumps to the specified *Label* in the currently-active script, and the *$Trigger* replacement item identifies which trigger was seen. As with other "On X Goto" commands, "Resume" and "ResumeNext" will resume script execution where it was interrupted.

At the entry to *Label*, if the Failed flag is set then a script command was interrupted when the trigger was seen. If the Failed flag is clear then the trigger was seen while Spectrum was flushing data to the screen.

Open ResFile *FileNum* "*FoldernameFilename*"

FileNum can be from 0 to 9

Opens the resource fork of the specified file, which adds it to Spectrum's resource search path. The Failed flag is set if the specified file's resource fork could not be opened.

If a script frequently uses commands that access resources out of a particular file (such as Draw Picture and Draw Icon) the script can be sped up by opening the resource file in advance. This is much faster because Spectrum doesn't have to open and close the resource file around each command; Spectrum will instead just always find the resource in memory (the most-recently opened resource file is searched first).

This command lets scripts create and store all its related resources in one file. However, because these resources are opened and installed at the head of Spectrum's resource search path, script authors who use this feature must take care not to use resource ID numbers that conflict with any of Spectrum's resources (otherwise Strange Things may happen).

When creating a resource file for use with Spectrum, use resource IDs in the range $7001 and above to avoid conflicts. *NOTE: Resource names are case sensitive.*

Close ResFile *FileNum*

FileNum can be from 0 to 9

Closes the specified resource file.

Close ResFiles

Closes all resource files opened with the Open ResFile command.

Set Failed

Sets the Failed flag.

Clear Failed

Clears the Failed flag.

Shut Down

Closes any files opened by the script, calls the AutoSaveBuffer routine, stops the script, then shuts down the system.

Set DiskErrors *State*

State can be Off or On

When a disk-related error occurs (e.g. “file busy” or “disk full”) Spectrum normally generates a script error. The script error can be caught and handled by the script using an On Error Goto routine.

Another approach is to turn DiskErrors off, which will not generate a script error for disk-related problems. Instead, when a command that accesses the disk is used, the Failed flag is set or cleared to indicate whether the command was successful.

If the disk command fails a script can use the $ErrorCode and $ErrorMsg replacement items to determine what error occurred.

NOTE: Only disk access commands are affected; script errors (e.g., using a file number that is already in use) will still cause a script error to appear.

Set ScriptLock *State*

State can be Off or On

ScriptLock can be turned on to prevent a script from being interrupted by the user. When ScriptLock is on:

- On the File menu: the Launch and Quit menu items are dimmed, and the Close menu item is dimmed when the Online Display is frontmost.
- On the Phone menu: the Answer Back menu item is dimmed.
- The entire Script menu is dimmed.
- Pressing Escape will not stop the script.

If you use this command you must be very careful that you provide some way to exit your script, otherwise the user will have to restart the computer to quit Spectrum!

- Previously, ScriptLock On would completely ignore the Escape key. Now the Escape key is processed normally if “On Escape” is active.

Compress Script "*Source***" "***Destination***"**

Source is the *FoldernameFilename* of a Spectrum Script file
Destination is a *FoldernameFilename* parameter

Compresses the data fork of the *Source* file and saves it as *Destination* with the “Compressed Spectrum Script” file/auxtype. A script error occurs if an error occurs. This command is intended only to compress script files, so it works only on Teach or Text files whose data forks are less than 64K.

There is no corresponding Uncompress command—the only way to use a compressed script file is by choosing Run A Script from the Script menu, by running a script that RUNs or CHAINs to the script, or by double-clicking a compressed script in the Finder.

When compressing a script you should be sure to keep the *Source* file intact. To help prevent mistakes, *Destination* must not already exist, otherwise the Failed flag is set.

Save Editor

If the editor contents need to be saved, this command saves the contents. If the editor had not be saved before (i.e. it is a new file) then the command presents the standard file dialog box so the user can specify where to put the file and what to name it.

The Failed flag is set or cleared to indicate the success of the command.

External *CommandName Data*

Shortcut: **Ext**
CommandName is required
Data is optional (depends on the particular external)

This broadcasts an IPC message to Spectrum XCMD~COMMANDNAME~. The external acts on the command (what the command does, and the format of any *Data* being passed, is entirely up to the external module).

The Failed flag is cleared or set to indicate the success or failure of the command.

Compile Script *"SourcePathFileName" "TargetPathFileName"*

Optimises a script by converting the commands into tokens, and removing any white space and REM statements. This can speed up the execution of some scripts by a factor of two.

Set KeyTranslation *Value*

Value can be “None” or “Standard”

By default, KeyTranslation is set to “None” while the online display is open. This script command overrides that setting.

Set Signature *“String”*

Assigns a *“String”* that will be inserted into any open TextEdit control with the OA-T key command.

Reboot

Similar to “*Shut Down”*, but reboots the system instead of just shutting down.

Specialty Commands

Load Screen "*FoldernameFilename*"

Loads a screen image graphic (packed $C0/0001 or unpacked $C1/0000) into the Spectrum SHR display (Spectrum’s Save Screen command creates a suitable file). Only the picture data is loaded; the SCBs and palettes are ignored, as are the first 13 scanlines of the graphic (skipping the menu bar).

This command does nothing if the Spectrum SHR display is not open and frontmost.

NOTE: Loading a screen just loads a graphic image of the screen. Like the Draw commands, screen updates will not refresh the graphic image.

DirectAction "*String*" *Varname*

As in v1.0, this command passes *String* to the current online display for processing; and the results are returned in *Varname*. The options available depend on the online display being used, and in v2.0 the Spectrum SHR display added two new commands. Refer to the online help for details.

Set Update

Sets the $Update replacement item to 1. If a script is watching the $Update replacement to see if a screen update is needed, this will make the script think Spectrum has just redrawn the display in response to a system update event.

Clear Update

Sets the $Update replacement item to 0. When a screen update occurs on a super hires display, $Update is set to 1, which is a signal to advanced scripts to redraw special screen elements (rectangles, icons, etc.). After the script updates the screen it would include a Clear Update command so the screen won’t be updated again until another update is needed.

Draw Rectangle *Left Right Top Bottom Fill Frame Radius*

Works as it did in version 1, with the addition of the optional *Radius* value (1-64) to create rectangles with rounded corners.

Draw Icon *X,Y* "*Icon*" "*FoldernameFilename*"

Works as it did in version 1, except if the specified resource is not found the Failed flag is set (no script error).

Draw DimIcon *X,Y* "*Icon*" "*FoldernameFilename*"

This command is identical to the Draw Icon command, except that it draws the icon so it looks “dimmed.”

Draw Picture *X,Y* "*Picture*" "*FoldernameFilename*"

Works as it did in version 1, except if the specified resource is not found the Failed flag is set (no script error).

Draw Text *X,Y* "*String*" "*Family*" *Size Style Color*

X is a value from 0 to 639
Y is a value from 0 to 186
Family is optional; if used it is a either value or a string that identifies the font
Size is optional; if used it is a value from 2 to 255
Style is optional; if used it is a value from 0 to 31
Color is optional; if used it is a value from 0 to 15

Draws *String* on the screen at coordinates (*X,Y*). The standard font is Shaston, 8 point, plain text, in black. If *Family* is specified then that font is used (if available in the system). If *Size* is specified then that size is used, and so on.

To determine the correct *Style* value, add the values for each style you want to use:

Plain = 0	Bold = 1	Italic = 2
Underline = 4	Outline = 8	Shadow = 16

For example, to use Bold+Italic+Shadow the *Style* value would be 19 (1+2+16).

Define Hitzone *Num Left, Right, Top, Bottom CornerRadius Color*

Num is a value from 1 to 32
Left and *Right* are values from 0 to 640
Top and *Bottom* are values from 0 to 186
CornerRadius is optional; if used it is a number from 0-64
Color is optional; if used it is a value from 0 to 15

Defines a rectangular area that can act like a “button.” *NOTE: This command works only on 640 mode super-hires screen displays.*

When hitzones are turned on, clicking inside a hitzone will highlight it. If the mouse button is released while inside a hitzone the $Hit replacement item will indicate which hitzone number was clicked.

Clear Hit

If $Hit is not zero then a hitzone was clicked. After performing the desired action your script must include a Clear Hit command to reset $Hit to 0 (otherwise your script will think that the user has clicked a hitzone again).

Flash Hitzone *Num*

Num is a value from 1 to 32

Simulates a click on the specified hitzone, exactly as if the user had manually clicked it (i.e., $Hit is set to the given number and any associated HitAction is performed). The Failed flag is set if the specified hitzone does not exist, or if the SHR display is not open.

Delete Hitzone *Num*

Num is a value from 1 to 32

Erases the frame around the specified hitzone, then deletes the hitzone so it is no longer active.

Delete Hitzones

Deletes all the hitzones, but does not erase each individual hitzone (Display “^L” to clear the screen).

Set Hitzones *State*

State can be Off or On

Determines whether hitzones are active or not (when Off, clicking inside a hitzone does nothing).

Set HitAction *Action*

Action is a value from 0-4

After the mouse button goes down in a hitzone the zone is highlighted and tracked. If the mouse button is released while still inside the hitzone then Spectrum sets the $Hit replacement item to the hitzone number that was clicked. Optionally, an additional action can occur:

Action	Result
0	Do nothing else
1	Post an ESCape keypress (will trigger on “On Escape” handler, or will abort the script if On Escape has not been used)
2	Post a Return keypress (will complete a Get Key, Get Line, Input Key, Input Line, or Waitfor Keyboard command)
3	Post a Return into the port input stream (will complete a Get Key, Get Line, Read Char, or Read Line command)
4	Post “Hitzone” text into the port input stream (will complete a Waitfor String “Hitzone” command)

Store Hitzones

Stores the current hitzones and the associated settings.

Restore Hitzones

Restores the previously-stored hitzones and settings and redraws the hitzones on the screen.

Set Hit *Num*

Num is a value from 0 to 65535

Sets the $Hit replacement to the specified number. This is mainly available for XCMDs to use, but could be useful if your script wants to “fake” a hit.

Set Cursor *Value*

Value is a value 0-6

Sets the mouse cursor to one of the following pointers:

#	Cursor Action
0	Hide (hides the current cursor)
1	Show (shows the current cursor)
2	Arrow
3	Watch (animates if a cursor animation extra is installed)
4	Spectrum Watch (won’t animate)
5	I-Beam
6	Forces the Cursor into selected format

Freeze Cursor

Unfreeze Cursor or **Melt Cursor**

Hides and disables the Cursor. This is the same effect as you will get when downloading files. The cursor will be restored when the script stops.

Drop DTR *Value*

Value is a number from 1-60

Drops the DTR line to the modem for the given number of seconds. Without the optional value, it defaults to 2 seconds.

Post Input *"String"*

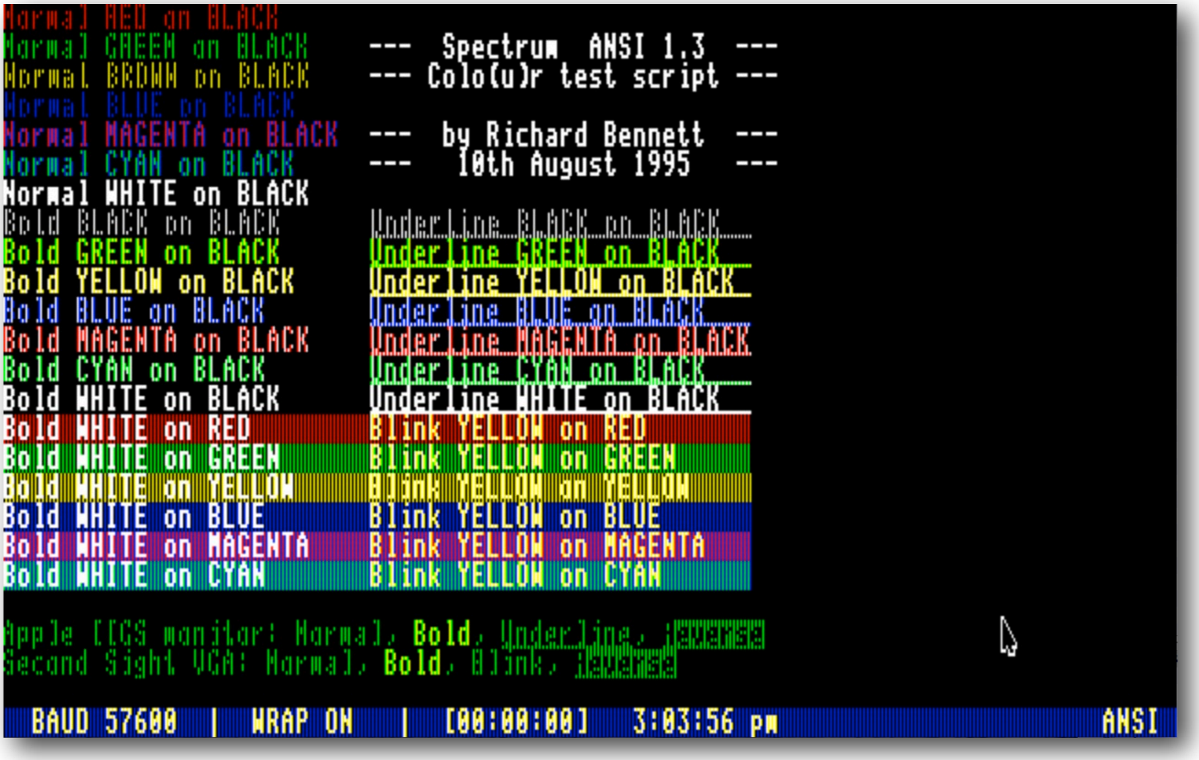
Posts the *"String"* into the input buffer as if it had come from the port.

Show Window *"String"*

Opens a dialog style window and displays the *"String"* in LETextBox format. This window complements the new commands for *"Set ScreenBypass"* by allowing messages to be displayed while there is no active window open.

Close Window

Closes the window opened by "Show Window".



```
Normal RED on BLACK
Normal GREEN on BLACK       ---  Spectrum  ANSI 1.3  ---
Normal BROWN on BLACK       --- Colo(u)r test script ---
Normal BLUE on BLACK
Normal MAGENTA on BLACK     ---  by Richard Bennett  ---
Normal CYAN on BLACK        ---   10th August 1995   ---
Normal WHITE on BLACK
Bold BLACK on BLACK         Underline BLACK on BLACK
Bold GREEN on BLACK         Underline GREEN on BLACK
Bold YELLOW on BLACK        Underline YELLOW on BLACK
Bold BLUE on BLACK          Underline BLUE on BLACK
Bold MAGENTA on BLACK       Underline MAGENTA on BLACK
Bold CYAN on BLACK          Underline CYAN on BLACK
Bold WHITE on BLACK         Underline WHITE on BLACK
Bold WHITE on RED           Blink YELLOW on RED
Bold WHITE on GREEN         Blink YELLOW on GREEN
Bold WHITE on YELLOW        Blink YELLOW on YELLOW
Bold WHITE on BLUE          Blink YELLOW on BLUE
Bold WHITE on MAGENTA       Blink YELLOW on MAGENTA
Bold WHITE on CYAN          Blink YELLOW on CYAN

Apple IIGS monitor: Normal, Bold, Underline, Reverse
Second Sight VGA: Normal, Bold, Blink, Reverse

  BAUD 57600  |  WRAP ON  |  [00:00:00]   3:03:56 pm                  ANSI
```

Index

This index attempts to reference all the topics you might look up.

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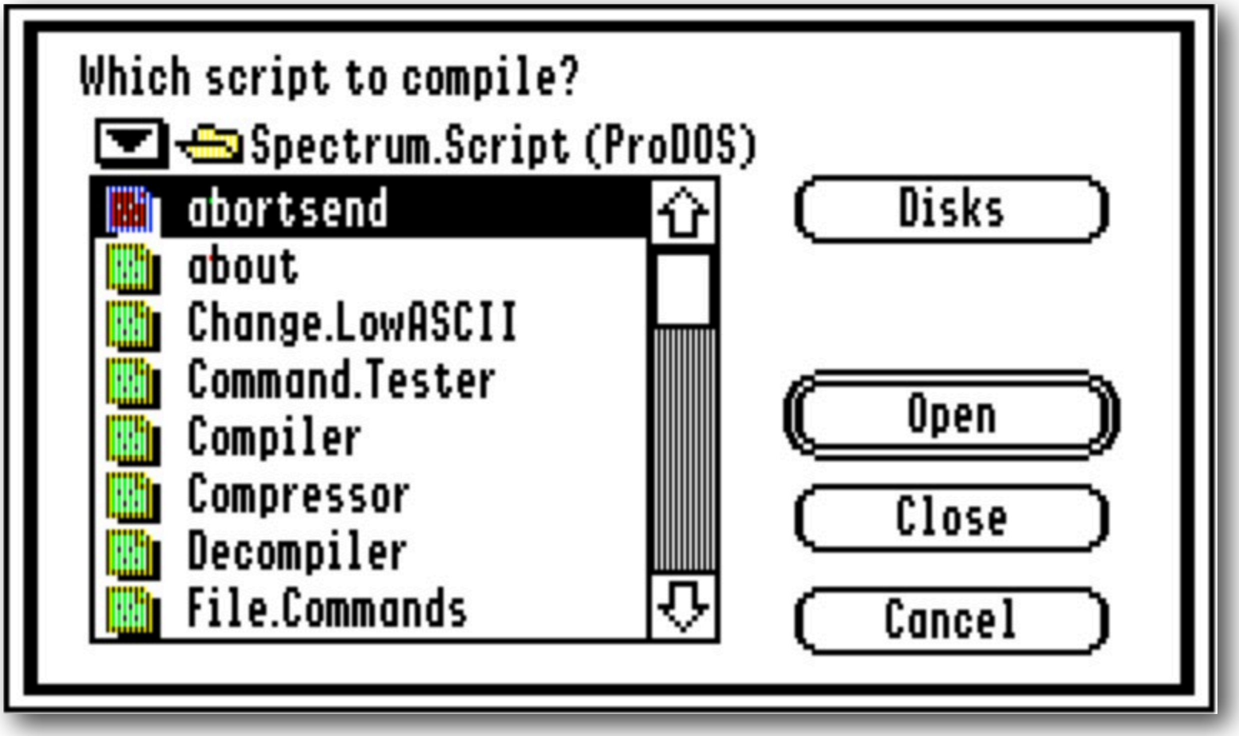
Changes v2.5.3



Which script to compile?
Spectrum.Script (ProDOS)
abortsend
about
Change.LowASCII
Command.Tester
Compiler
Compressor
Decompiler
File.Commands
Disks
Open
Close
Cancel

Extras

Problems

Hopefully you will have none, but if you do, and they cannot be answered by reading these notes, please contact me on:

spectrumdaddy@me.com

Other information

Check for the latest version of Marinetti:

http://www.apple2.org/marinetti/

If you do not already know about my other software, please drop by my home pages and read more. Amongst other titles there you will find SAM2 an email client, SAFE2 an FTP client, and SNAP a Usenet news reader..

You will also find on my web site regular updates to my own programs, PDF manual versions to many of them, as well as many other files that you might find useful:

http://www.wannop.info/speccie/

Someone once said to me, 'Spectrum™ does everything!