

## Reference for HES GRAPHICS BASIC 1.07

Initial document by Kurious

\*This document currently is incomplete\*

Colors: There are identifiers for the 16 colors

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BLACK
WHITE
RED
CYAN
PURPLE
GREEN
BLUE
YELLOW
PEACH
BROWN
PINK
GRAY1
GRAY2
LGREEN
SKY
GRAY3

```

Parameters:

```

<color> - numeric value/variable or one of the color identifiers above
<sprite> - sprite number from 1 to 8
<voice> - an audio voice number from 1 to 3
<device> - default device is 8
[] - optional parameter
{<etc>|<etc>|<etc>} - a choice of parameters
[,<etc>...] - can repeat many times

```

Graphics commands:

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HIRES and MULTI modes display the same graphics buffer in different ways
The origin (0,0) lies at the lower left corner; coordinates are used as in
typical math
TEXT - Switch to text mode
HIRES - Switch to HIRES mode
MULTI - Switch to MULTI mode
BACKGROUND <color> - Choose background color
BORDER <color> - Choose border color
HIRES COLOR <color> ON <color> - Choose foreground and background hires
colors
MULTI COLOR <color>,<color>,<color> - Choose multicolor colors
CLEAR [<pattern>] - Clear the graphics buffer using pattern (0-255),
default 0
FILL <x>,<y> - Fill at the specified coordinate
DOT <x>,<y> - Draw a dot at the specified coordinate
LINE <x1>,<y1> TO <x2>,<y2> - Draw a line

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BOX <x1>,<y1> TO <x2>,<y2> - Draw the outline of a box  
GPRINT <string> - Print the string within the graphics buffer  
SETORIGIN <x>,<y> - Change the location of the origin  
WINDOW <x1>,<y1>,<x2>,<y2> - Clip graphics commands to occur within this window  
WINDOW - Issue without parameters to remove the window  
SCALE <x>,<y> - Choose a different scale (NOTE: Command is accepted but doesn't seem to work)

#### Sprite commands:

The following commands can be combined, i.e., SPRITE 1 ON AT 10,10 COLOR BLUE  
SPRITE <sprite> {ON|OFF} - Turn sprite on or off  
SPRITE <sprite> SHAPE <value> - The value is from 0 to 255  
SPRITE <sprite> COLOR <color> - Choose sprite color  
SPRITE <sprite> XYSIZE <xsize>,<ysize> - Sizes are 1 for single or 2 for double  
SPRITE <sprite> UNDER {ON|OFF} - Choose the plane of the sprite  
SPRITE <sprite> AT <x>,<y> - Choose the sprite position  
SPRITE <sprite> ANIMATE {ON|OFF} - Turns sprite animation on or off  
SPRITE <sprite> SPEED <number>,<number> - Accepts non-integer values  
XPOS(<sprite>) - Returns X sprite position (this array is read-only)  
YPOS(<sprite>) - Returns Y sprite position (this array is read-only)

#### Sound commands:

Commands are accepted but don't seem to work  
The following commands can be combined, i.e., VOICE 1 ON WAVE SAW  
SOUND {ON|OFF} - Turn sound on or off  
VOLUME <volume> - Choose the volume from 0 to 15  
VOICE <voice> {ON|OFF} - Turn voice on or off  
VOICE <voice> WAVE {SAW|TRIANGLE|PULSE|NOISE} - Choose the waveform  
VOICE <voice> ADSR <attack>,<decay>,<sustain>,<release> - Select voice envelope  
VOICE <voice> PLAY <value>[,<value>...] - Values are from 0 to 65535

#### Disk commands:

DIR [<device>] - Display directory  
DISK <command>,<device>] - Execute disk command, for example: DISK "R:NEWNAME=OLDNAME"  
DISK [,<device>] - Specify no command to retrieve status  
SPRITE {LOAD|SAVE} <filename> - Load or save sprites from/to disk

#### Keyboard commands:

KEY LIST - List function key assignments  
KEY {ON|OFF} - Activate or deactivate function key assignments

KEY(<function-key-number>)=<string> - Perform assignment to the indicated function key

Flow control:

ON ERROR GOTO <line-number> - Choose a non-existing line number to disable error control  
 PROCEDURE <procedure-name>[(<parameter>[,<parameter>...])] - Must be in code, only a marker  
 DO <procedure-name>[(<argument>[,<argument>...])] - Calls the given procedure and pass values  
 ELSE <statement> - Must be in a line by itself, matches last IF  
 RESET - The same as pressing [RUN/STOP]+[RESTORE]

Convenience commands:

FIND <string> - Shows lines of code containing strings that contain the given string  
 CHANGE <string> TO <string> - Changes substrings within strings within the code  
 REN [<increment>[,<first-line-number>] - Renumber lines of code  
 EDIT - Enter sprite editor, to exit press Q (NOTE: Keyboard commands currently unknown-TO DO)

Other commands:

JOY(<port>) - Returns the value at the joystick port, 1 or 2

Existing keywords with usage currently unknown:

CIRCLE  
 COPY  
 EZE  
 FROM  
 HIT - Likely to be sprite related  
 MOVE  
 NE  
 ROLL  
 SCROLL

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