

Introduction

Introduction

TODO

Graphics

Graphics

Provides graphics operations, such as for drawing pixels and images on the screen.

Configuration

GRAPHICS_SET_GRID

Enables or disables a visual grid delimiting the screen pixels.

output (yesno) GRAPHICS_SET_GRID

- Parameters:
 - **yesno**: new state
 - * **yes**: enables the grid
 - * **no**: disables the grid

The ratio between the real and logical dimensions set with **WINDOW_SET_SIZE** must be greater then one.

GRAPHICS_SET_FONT

Changes the font for drawing and writing text.

output (text,integer) GRAPHICS_SET_FONT

- Parameters:
 - **text**: path for the **.ttf** font filename
 - **integer**: height of the new font in pixels

GRAPHICS_SET_RGB

Changes the color of all subsequent drawing operations.

output (integer,integer,integer) GRAPHICS_SET_RGB

- Parameters:

- **integer**: new red component
- **integer**: new green component
- **integer**: new blue component

GRAPHICS_SET_WRITE_CURSOR

Changes the cursor position for writing text with **GRAPHICS_WRITE** and **GRAPHICS_WRITELN**.

output (**integer**,**integer**) **GRAPHICS_SET_WRITE_CURSOR**

- Parameters:
 - **integer**: new position in the x-axis
 - **integer**: new position in the y-axis

Drawing

GRAPHICS_CLEAR

Clears the screen.

output (**none**) **GRAPHICS_CLEAR**

- Parameters:
 - **none**: no parameters

The clear color is specified with **GRAPHICS_SET_RGB**.

GRAPHICS_DRAW_BMP

Draws a bitmap image on the screen.

output (**integer**,**integer**,**text**) **GRAPHICS_DRAW_BMP**

- Parameters:
 - **integer**: position in the x-axis
 - **integer**: position in the y-axis
 - **text**: path for the **.bmp** image filename

GRAPHICS_DRAW_PIXEL

Draws a pixel on the screen.

output (**integer**,**integer**) **GRAPHICS_DRAW_PIXEL**

- Parameters:
 - **integer**: position in the x-axis
 - **integer**: position in the y-axis

The drawing color is specified with **GRAPHICS_SET_RGB**.

GRAPHICS_DRAW_LINE

Draws a line on the screen.

output (integer, integer, integer, integer) GRAPHICS_DRAW_LINE;

- Parameters:
 - integer: start position in the x-axis
 - integer: start position in the y-axis
 - integer: end position in the x-axis
 - integer: end position in the y-axis

The drawing color is specified with GRAPHICS_SET_RGB.

GRAPHICS_DRAW_RECT

Draws a rectangle on the screen.

output (integer, integer, integer, integer) GRAPHICS_DRAW_RECT

- Parameters:
 - integer: position in the x-axis
 - integer: position in the y-axis
 - integer: rectangle width
 - integer: rectangle height

The drawing color is specified with GRAPHICS_SET_RGB.

GRAPHICS_DRAW_TEXT

Draws a text on the screen.

output (int, int, text) GRAPHICS_DRAW_TEXT;

- Parameters:
 - integer: position in the x-axis
 - integer: position in the y-axis
 - text: text to draw

The drawing font is specified with GRAPHICS_SET_FONT. The drawing color is specified with GRAPHICS_SET_RGB.

Writing

GRAPHICS_WRITE

Writes a text on the screen.

output (text) GRAPHICS_WRITE;

- Parameters:

- **text**: text to draw

The drawing position is first specified with `GRAPHICS_SET_WRITE_CURSOR`. The cursor advances automatically for the position after the text. The drawing font is specified with `GRAPHICS_SET_FONT`. The drawing color is specified with `GRAPHICS_SET_RGB`.

GRAPHICS__WRITELN

Writes a line of text on the screen.

output (text) `GRAPHICS_WRITELN`;

The drawing position is first specified with `GRAPHICS_SET_WRITE_CURSOR`. The cursor advances automatically for the next line after the text, at the same initial position. The drawing font is specified with `GRAPHICS_SET_FONT`. The drawing color is specified with `GRAPHICS_SET_RGB`.

Other

GRAPHICS__SCREENSHOT

Takes a screen shot.

output (text) `GRAPHICS_SCREENSHOT`

- Parameters:
 - **text**: path for the `.bmp` image filename to generate

Input Devices

Input Devices

Provides input handling, such as for keyboard and mouse.

Keyboard

KEY_PRESS

input (integer) `KEY_PRESS`

- Occurrences:
 - whenever a keyboard key is pressed
- Payload:
 - **integer**: numeric key code

TODO: key codes

KEY_UNPRESS

input (integer) KEY_UNPRESS

- Occurrences:
 - whenever a keyboard key is released
- Payload:
 - **integer**: numeric key code

TODO: key codes

Mouse

MOUSE_CLICK

input (integer,integer,integer) MOUSE_CLICK

- Occurrences:
 - whenever a mouse button is pressed
- Payload:
 - **integer**: numeric button code (TODO: left, middle, right?)
 - **integer**: current mouse position in the x-axis
 - **integer**: current mouse position in the y-axis

MOUSE_UNCLICK

input (integer,integer,integer) MOUSE_UNCLICK

- Occurrences:
 - whenever a mouse button is released
- Payload:
 - **integer**: numeric button code (TODO: left, middle, right?)
 - **integer**: current mouse position in the x-axis
 - **integer**: current mouse position in the y-axis

MOUSE_MOVE

input (integer,integer) MOUSE_MOVE

- Occurrences:
 - whenever the mouse moves
- Payload:
 - **integer**: current mouse position in the x-axis
 - **integer**: current mouse position in the y-axis

Sound

Sound

Provides sound playback.

Configuration

SOUND_SET_VOLUME

Changes the volume of all subsequent sound playbacks.

output (integer) SOUND_SET_VOLUME

- Parameters:
 - **integer**: new sound volume in percentage (from 0 to 100)

Playback

SOUND_PLAY

Plays a sound file.

output (text) SOUND_PLAY

- Parameters:
 - **text**: path for the sound filename

The playback volume is specified with **SOUND_SET_VOLUME**.

Frame Management

Frame Management

Manages the game frames, such as for updating animations and redrawing the screen.

Configuration

FRAMES_SET

Enables or disables the generation of periodic **FRAMES_UPDATE** and **FRAMES_REDRAW** inputs to the application.

output (yesno) FRAMES_SET

- Parameters:
 - **yesno**: new state
 - * **yes**: enables the generation of frames
 - * **no**: disables the generation of frames

FRAMES_SET_CLEAR_RGB

Changes the redrawing background color.

output (integer, integer, integer) FRAMES_SET_CLEAR_RGB

- Parameters:
 - **integer**: new red component
 - **integer**: new green component
 - **integer**: new blue component

On every frame before **FRAMES_REDRAW**, the screen is cleared with the background color.

The default color is black.

Update

FRAMES_UPDATE

input (integer) FRAMES_UPDATE

- Occurrences:
 - on every frame, before **FRAMES_REDRAW**
- Payload:
 - **integer**: the number of elapsed milliseconds since the previous frame

Redraw

FRAMES_REDRAW

input (none) FRAMES_REDRAW

- Occurrences:
 - on every frame, after **FRAMES_UPDATE**
- Payload:
 - **none**: no payload

Before the input occurs, the screen is cleared with the color set with **FRAMES_SET_CLEAR_RGB**.

Window Management

Window Management

Manages the application window.

Configuration

WINDOW_SET_SIZE

Changes the real and logical sizes of the window.

output (integer, integer, integer, integer) WINDOW_SET_SIZE

- Parameters:
 - **integer**: new real width
 - **integer**: new real height
 - **integer**: new logical width
 - **integer**: new logical height

The window is automatically cleared with black.

The arithmetic division between the real and logical dimensions must be exact.

WINDOW_SET_TITLE

Changes the title of the window.

output (text) WINDOW_SET_TITLE

- Parameters:
 - **text**: new window title

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