

Introduction

Introduction

TODO

Graphics

Graphics

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

Configuration

GFX_SET_GRID

Enables or disables a visual grid delimiting the screen pixels.

output bool GFX_SET_GRID

- Parameters:
 - bool: new state
 - * **true**: enables the grid
 - * **false**: disables the grid

The ratio between the real and logical dimensions set with [WINDOW_SET_SIZE][../window/#WINDOW_SET_SIZE] must be greater then one.

GFX_SET_RGB

Changes the color of all subsequent drawing operations.

output (u8,u8,u8) GFX_SET_RGB

- Parameters:
 - u8: new red component
 - u8: new green component
 - u8: new blue component

GFX_SET_TEXT_CURSOR

Changes the cursor position for drawing text.

output (u16,u16) GFX_SET_TEXT_CURSOR

- Parameters:
 - **u16**: new position in the **x-axis**
 - **u16**: new position in the **y-axis**

GFX_SET_TEXT_FONT

Changes the font for drawing text.

output (string,u16) GFX_SET_TEXT_FONT

- Parameters:
 - **string**: path for the **.ttf** font filename
 - **u16**: height of the new font in pixels

Drawing

GFX_DRAW_BMP

Draws a bitmap image on the screen.

output (string,u16,u16) GFX_DRAW_BMP

- Parameters:
 - **string**: path for the **.bmp** image filename
 - **u16**: drawing position in the **x-axis**
 - **u16**: drawing position in the **y-axis**

GFX_DRAW_PIXEL

Draws a pixel on the screen.

output (u16,u16) GFX_DRAW_PIXEL

- Parameters:
 - **u16**: drawing position in the **x-axis**
 - **u16**: drawing position in the **y-axis**

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

GFX_DRAW_RECT

Draws a rectangle on the screen.

output (u16,u16,u16,u16) GFX_DRAW_RECT

- Parameters:
 - **u16**: drawing position in the **x-axis**
 - **u16**: drawing position in the **y-axis**
 - **u16**: rectangle width

- **u16**: rectangle height

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

GFX_DRAW_TEXT

Draws a text on the screen.

output **string** **GFX_DRAW_TEXT**

- Parameters:
 - **string**: text to draw

The drawing position is first specified with **GFX_SET_TEXT_CURSOR**. The cursor advances automatically for the position after the text.

The drawing font is specified with **GFX_SET_TEXT_FONT**.

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

GFX_DRAW_TEXTLN

Draws a line of text on the screen.

output **string** **GFX_DRAW_TEXTLN**

The drawing position is first specified with **GFX_SET_TEXT_CURSOR**. The cursor advances automatically for the next line after the text, at the same initial position.

The drawing font is specified with **GFX_SET_TEXT_FONT**.

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

Other

GFX_CLEAR

Clears the screen.

output **void** **GFX_CLEAR**

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

GFX_SCREENSHOT

Takes a screen shot.

output **string** **GFX_SCREENSHOT**

- Parameters:
 - **string**: 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 (bool,u16) KEY_PRESS

- Occurrence:
 - whenever a keyboard key is pressed or released
- Payload:
 - **bool**: new key state
 - * **true**: key is now pressed
 - * **false**: key is now released
 - **u16**: the numeric key code

TODO: key codes

Mouse

MOUSE_CLICK

input (bool,int,u16,u16) MOUSE_CLICK

- Occurrence:
 - whenever a mouse button is pressed or released
- Payload:
 - **bool**: new button state
 - * **true**: button is now pressed
 - * **false**: button is now released
 - **int**: the numeric button code (TODO: left, middle, right?)
 - **u16**: the current mouse position in the x-axis
 - **u16**: the current mouse position in the y-axis

MOUSE_MOVE

input (u16,u16) MOUSE_MOVE

- Occurrence:
 - whenever the mouse moves
- Payload:
 - **u16**: the current mouse position in the x-axis

- `u16`: the current mouse position in the `y`-axis

Frame Management

Frame Management

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

Configuration

FRAMES_SET

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

output `bool` `FRAMES_SET`

- Parameters:
 - `bool`: new state
 - * `true`: enables the generation of frames
 - * `false`: disables the generation of frames

FRAMES_SET_CLEAR_RGB

Changes the redrawing background color.

output `(u8,u8,u8)` `FRAMES_SET_CLEAR_RGB`

- Parameters:
 - `u8`: new red component
 - `u8`: new green component
 - `u8`: new blue component

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

The default color is black.

Update

FRAMES_UPDATE

input `int` `FRAMES_UPDATE`

- Occurrence:
 - on every frame, before `FRAMES_REDRAW`
- Payload:

- **int**: the number of elapsed milliseconds since the previous frame

Redraw

FRAMES_REDRAW

input void FRAMES_REDRAW

- Occurrence:
 - on every frame, after FRAMES_UPDATE

Before the event occurs, the screen is cleared with the color set on FRAMES_SET_CLEAR_RGB.

Window Management

Window Management

Manages the game window.

Configuration

WINDOW_SET_SIZE

Changes the real and logical sizes of the window.

output (u16,u16,u16,u16) WINDOW_SET_SIZE

- Parameters:
 - **u16**: the new real width
 - **u16**: the new real height
 - **u16**: the new logical width
 - **u16**: the new logical height

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

WINDOW_SET_TITLE

Changes the title of the window.

output string WINDOW_SET_TITLE

- Parameters:
 - **string**: new window title

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