

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`: enables (`true`) or disables (`false`) the grid

The ratio between the real and logical dimensions must be greater than one.

GFX_SET_RGB

Changes the color for all subsequent drawing operation.

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**: size of the new font

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: if the key was pressed (**true**) or released (**false**)
 - 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: if the button was pressed (**true**) or released (**false**)
 - 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`: enables (`true`) or disables (`false`) 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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