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 (yesno) GFX_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.

GFX_SET_FONT

Changes the font for drawing and writing text.

`output (text,integer) GFX_SET_FONT`

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

GFX_SET_RGB

Changes the color of all subsequent drawing operations.

`output (integer,integer,integer) GFX_SET_RGB`

- Parameters:

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

GFX_SET_WRITE_CURSOR

Changes the cursor position for writing text with `GFX_WRITE` and `GFX_WRITELN`.

`output (integer,integer) GFX_SET_WRITE_CURSOR`

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

Drawing

GFX_CLEAR

Clears the screen.

`output (none) GFX_CLEAR`

- Parameters:
    - *none*: no parameters

The clear color is specified with `GFX_SET_RGB`.

GFX_DRAW_BMP

Draws a bitmap image on the screen.

`output (integer,integer,text) GFX_DRAW_BMP`

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

GFX_DRAW_PIXEL

Draws a pixel on the screen.

`output (integer,integer) GFX_DRAW_PIXEL`

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

The drawing color is specified with `GFX_SET_RGB`.

GFX_DRAW_LINE

Draws a line on the screen.

```
output (integer,integer,integer,integer) GFX_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 `GFX_SET_RGB`.

GFX_DRAW_RECT

Draws a rectangle on the screen.

```
output (integer,integer,integer,integer) GFX_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 `GFX_SET_RGB`.

GFX_DRAW_TEXT

Draws a text on the screen.

```
output (int,int,text) GFX_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 `GFX_SET_FONT`. The drawing color is specified with `GFX_SET_RGB`.

Writing

GFX_WRITE

Writes a text on the screen.

```
output (text) GFX_WRITE;
```

- Parameters:

— `text`: text to draw

The drawing position is first specified with `GFX_SET_WRITE_CURSOR`. The cursor advances automatically for the position after the text. The drawing font is specified with `GFX_SET_FONT`. The drawing color is specified with `GFX_SET_RGB`.

GFX_WRITELN

Writes a line of text on the screen.

```
output (text) GFX_WRITELN;
```

The drawing position is first specified with `GFX_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 `GFX_SET_FONT`. The drawing color is specified with `GFX_SET_RGB`.

Other

GFX_SCREENSHOT

Takes a screen shot.

```
output (text) GFX_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
```

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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 playback.

`output (integer) SOUND_SET_VOUME`

- Parameters:
    - `integer`: new sound volume in percentage (`0 -> 100`)

Playback

SOUND_PLAY

Plays a sound.

`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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