

S.L.K (Simple . Ludic . Kernel)

1.0

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Chapter 1

File Index

1.1 File List

Here is a list of all documented files with brief descriptions:

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Chapter 2

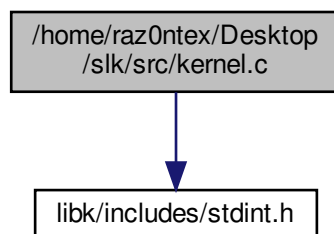
File Documentation

2.1 /home/raz0ntex/Desktop/slk/src/kernel.c File Reference

Kernel's main file.

```
#include "libk/includes/stdint.h"
```

Include dependency graph for kernel.c:



Enumerations

- enum **vga_color** {
VGA_COLOR_BLACK = 0, VGA_COLOR_BLUE = 1, VGA_COLOR_GREEN = 2, VGA_COLOR_CYAN = 3,
VGA_COLOR_RED = 4, VGA_COLOR_MAGENTA = 5, VGA_COLOR_BROWN = 6, VGA_COLOR_LIGHT_GREEN = 7,
VGA_COLOR_DARK_GREY = 8, VGA_COLOR_LIGHT_BLUE = 9, VGA_COLOR_LIGHT_GREEN = 10,
VGA_COLOR_LIGHT_CYAN = 11,
VGA_COLOR_LIGHT_RED = 12, VGA_COLOR_LIGHT_MAGENTA = 13, VGA_COLOR_LIGHT_BROWN = 14, VGA_COLOR_WHITE = 15 }

Define hardware text mode for console.

Functions

- **uint16_t strlen** (const char *str)
Give the length of str.
- void **terminal_initialize** (void)
Initialize terminal.
- void **terminal_setcolor** (uint8_t color)
Set the terminal color.
- void **terminal_putentryat** (char c, uint8_t color, uint16_t x, uint16_t y)
Write char at an entry of VGA buffer.
- void **terminal_putchar** (char c)
Write a char without specifying its dimension and color.
- void **terminal_write** (const char *data, uint16_t size)
Write a string.
- void **terminal_writestring** (const char *data)
Write a string.
- void **kernel_main** (void)

Variables

- **uint8_t terminal_row**
- **uint8_t terminal_column**
- **uint8_t terminal_color**
- **uint16_t * terminal_buffer**

2.1.1 Detailed Description

Kernel's main file.

Author

wil.tor

Date

31/10/2018

Version

1.0

Write in VGA's buffer.

2.1.2 Enumeration Type Documentation

2.1.2.1 vga_color

enum **vga_color**

Define hardware text mode for console.

Define programmable 16 color palette of VGA text mode.

2.1.3 Function Documentation

2.1.3.1 terminal_initialize()

```
void terminal_initialize (  
    void )
```

Initialize terminal.

Initialize the properties of terminx by accessing the vga buffer at the 0xB8000 address with a size for 80x25 characters.

2.1.3.2 terminal_putchar()

```
void terminal_putchar (  
    char c )
```

Write a char without specifying its dimension and color.

Parameters

c	The char to write in VGA buffer.
----------	----------------------------------

2.1.3.3 terminal_putentryat()

```
void terminal_putentryat (  
    char c,  
    uint8_t color,  
    uint16_t x,  
    uint16_t y )
```

Write char at an entry of VGA buffer.

Write char by specifying its dimensions and its color.

Parameters

<i>c</i>	The char to push.
<i>color</i>	The color to set at char <i>c</i> .
<i>x</i>	The width of char <i>c</i> .
<i>y</i>	The height of char <i>c</i> .

2.1.3.4 terminal_setcolor()

```
void terminal_setcolor (
    uint8_t color )
```

Set the terminal color.

Parameters

<i>color</i>	The color to set at terminal.
--------------	-------------------------------

2.1.3.5 terminal_write()

```
void terminal_write (
    const char * data,
    uint16_t size )
```

Write a string.

Write the first 'size' bytes of the strings 'data'.

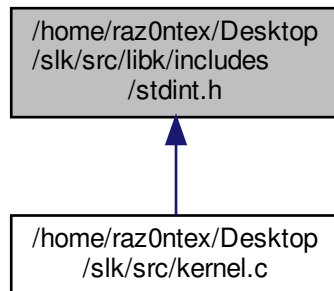
Parameters

<i>data</i>	The string to write.
<i>size</i>	The number of bytes of 'data' string to be written.

2.2 /home/raz0ntex/Desktop/slk/src/libk/includes/stdint.h File Reference

Kernel's basic types.

This graph shows which files directly or indirectly include this file:



Macros

- **#define INT8_MIN** (-128)
Define minimum value for int8_t type.
- **#define INT16_MIN** (-32768)
Define minimum value for int16_t type.
- **#define INT32_MIN** (-2147483648)
Define minimum value for int32_t type.
- **#define INT8_MAX** 127
Define maximum value for int8_t type.
- **#define INT16_MAX** 32767
Define maximum value for int16_t type.
- **#define INT32_MAX** 2147483647
Define maximum value for int32_t type.
- **#define UINT8_MAX** 255
Define maximum value for uint8_t type.
- **#define UINT16_MAX** 65535
Define maximum value for uint16_t type.
- **#define UINT32_MAX** 4294967295
Define maximum value for uint32_t type.

Typedefs

- **typedef signed char int8_t**
Define int8_t type as an exact 8-bit value.
- **typedef unsigned char uint8_t**
Define uint8_t type as an exact 8-bit value.
- **typedef signed short int16_t**
Define int16_t type as an exact 16-bit value.
- **typedef unsigned short uint16_t**
Define uint16_t type as an exact 16-bit value.
- **typedef signed int int32_t**
Define int32_t type as an exact 32-bit value.
- **typedef unsigned int uint32_t**
Define uint32_t type as an exact 32-bit value.

2.2.1 Detailed Description

Kernel's basic types.

Author

wil.tor

Date

29/10/2018

Version

1.0

Define basics int types.

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