gtkterm

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Chapter 1

GTKTerm: A GTK+ Serial Port Terminal

GTKTerm is a simple, graphical serial port terminal emulator for Linux and possibly other POSIX-compliant operating systems. It can be used to communicate with all kinds of devices with a serial interface, such as embedded computers, microcontrollers, modems, GPS receivers, CNC machines and more.

1.1 Usage

1.1.1 Keyboard Shortcuts

As GTKTerm is often used like a terminal emulator, the shortcut keys are assigned to <ctrl><shift>, rather than just <ctrl>X and not have GTKTerm intercept them.

Key Combination	Effect
<ctrl><shift>L</shift></ctrl>	Clear screen
<ctrl><shift>R</shift></ctrl>	Send file
<ctrl><shift>Q</shift></ctrl>	Quit
<ctrl><shift>S</shift></ctrl>	Configure port
<ctrl><shift>V</shift></ctrl>	Paste
<ctrl><shift>C</shift></ctrl>	Сору
<ctrl><shift>F</shift></ctrl>	Find
<ctrl><shift>K</shift></ctrl>	Clear Scrollback
<ctrl><shift>A</shift></ctrl>	Select All
<ctrl><shift>B</shift></ctrl>	Send Break
<ctrl>B</ctrl>	Send break
F5	Open Port
F6	Close Port
F7	Toggle DTR
F8	Toggle RTS

1.1.2 Command Line Options

See man gtkterm or gtkterm --help for more information on available command line interface options.

1.1.3 Notes on RS485:

The RS485 flow control is a software user-space emulation and therefore may not work for all configurations (won't respond quickly enough). If this is the case for your setup, you will need to either use a dedicated RS232 to RS485 converter, or look for a kernel level driver. This is an inherent limitation to user space programs.

1.1.4 Scriptability with Signals

Some microcontrollers and other embedded devices are flashed using the same serial interface that is also used for outputting debug information. To facilitate rapid development on these platforms, GTKTerm supports the following UNIX signals:

Signal	Action	Usage Example
SIGUSR1	Open Port	killall -USR1 gtkterm
SIGUSR2	Close Port	killall -USR2 gtkterm

You may find it useful to send these signals in your own firmware flashing scripts.

1.2 Installation

GTKTerm has a few dependencies-

- Gtk+4.0 (version 4.6 or higher)
- · vte-gtk4 (version 0.68 or higher)
- intltool (version 0.40.0 or higher)
- · libgudev (version 229 or higher)

Once these dependencies are installed, most people should simply run:

```
meson build
ninja -C build
```

To install GTKTerm system-wide, run:

```
ninja -C build install
gtk-update-icon-cache
```

If you wish to install GTKTerm someplace other than the default directory, e.g. in /usr, use:

```
meson build -Dprefix=/usr
```

Then build and install as usual.

1.3 Uninstallation 3

1.3 Uninstallation

To uninstall GTKTerm, run:

ninja -C build uninstall

If you already deleted the build directory, just compile and install GTKTerm again as explained in the previous section with the same target location prefix (-Dprefix) and perform the uninstall step afterwards.

1.4 License

Original Code by: Julien Schmitt

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Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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File Index

3.1 File List

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Chapter 4

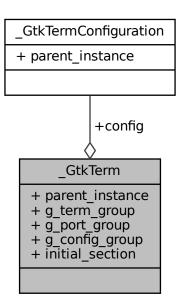
Class Documentation

4.1 _GtkTerm Struct Reference

The main GtkTerm application class.

#include <gtkterm.h>

Collaboration diagram for _GtkTerm:



Public Attributes

- GtkApplication parent_instance
- GOptionGroup * g_term_group
- GOptionGroup * g_port_group
- GOptionGroup * g_config_group
- GtkTermConfiguration * config
- char * initial_section

The Key file with the configurations.

4.1.1 Detailed Description

The main GtkTerm application class.

All application specific variables are defined here.

4.1.2 Member Data Documentation

4.1.2.1 config

```
GtkTermConfiguration* _GtkTerm::config
```

4.1.2.2 g_config_group

```
GOptionGroup* _GtkTerm::g_config_group
```

Referenced by gtkterm_add_cmdline_options().

4.1.2.3 g_port_group

```
GOptionGroup* _GtkTerm::g_port_group
```

Referenced by gtkterm_add_cmdline_options().

4.1.2.4 g_term_group

```
GOptionGroup* _GtkTerm::g_term_group
```

Referenced by gtkterm_add_cmdline_options().

4.1.2.5 initial_section

```
char* _GtkTerm::initial_section
```

The Key file with the configurations.

4.1.2.6 parent_instance

```
GtkApplication _GtkTerm::parent_instance
```

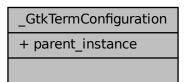
The documentation for this struct was generated from the following file:

• gtkterm.h

4.2 _GtkTermConfiguration Struct Reference

```
#include <resource_file.h>
```

Collaboration diagram for _GtkTermConfiguration:



Public Attributes

• GObject parent_instance

4.2.1 Member Data Documentation

4.2.1.1 parent_instance

```
GObject _GtkTermConfiguration::parent_instance
```

The documentation for this struct was generated from the following file:

· resource_file.h

4.3 _GtkTermConfigurationClass Struct Reference

 $Collaboration\ diagram\ for\ _GtkTermConfigurationClass:$

_GtkTermConfigurationClass + parent_class

Public Attributes

• GObjectClass parent_class

4.3.1 Member Data Documentation

4.3.1.1 parent_class

 ${\tt GObjectClass} \ _{\tt GtkTermConfigurationClass::parent_class}$

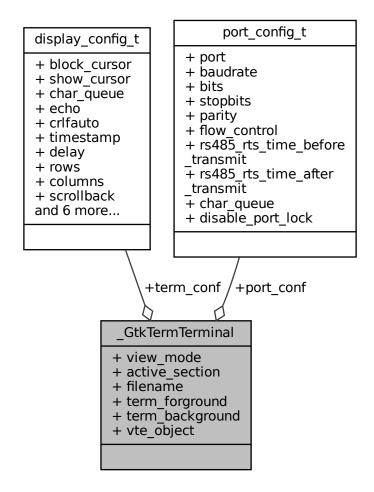
The documentation for this struct was generated from the following file:

• resource_file.c

4.4 _GtkTermTerminal Struct Reference

#include <terminal.h>

Collaboration diagram for _GtkTermTerminal:



Public Attributes

- · uint8_t view_mode
- display_config_t * term_conf

ASCII or HEX view mode.

• port_config_t * port_conf

The configuration loaded from the keyfile.

• char * active_section

Port configuration used in this terminal.

• char * filename

Active section in this window from config file.

GdkRGBA * term_forground

File to send.

GdkRGBA * term_background

Foreground (text) color of this terminal.

VteTerminal vte_object

Background color.

4.4.1 Member Data Documentation

4.4.1.1 active_section

char* _GtkTermTerminal::active_section

Port configuration used in this terminal.

4.4.1.2 filename

char* _GtkTermTerminal::filename

Active section in this window from config file.

4.4.1.3 port_conf

port_config_t* _GtkTermTerminal::port_conf

The configuration loaded from the keyfile.

4.4.1.4 term_background

GdkRGBA* _GtkTermTerminal::term_background

Foreground (text) color of this terminal.

4.4.1.5 term_conf

display_config_t* _GtkTermTerminal::term_conf

ASCII or HEX view mode.

4.4.1.6 term_forground

GdkRGBA* _GtkTermTerminal::term_forground

File to send.

4.4.1.7 view_mode

uint8_t _GtkTermTerminal::view_mode

4.4.1.8 vte_object

VteTerminal _GtkTermTerminal::vte_object

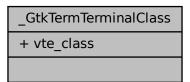
Background color.

The documentation for this struct was generated from the following file:

• terminal.h

4.5 _GtkTermTerminalClass Struct Reference

 $Collaboration\ diagram\ for\ _GtkTermTerminalClass:$



Public Attributes

• VteTerminalClass vte_class

4.5.1 Member Data Documentation

4.5.1.1 vte_class

VteTerminalClass _GtkTermTerminalClass::vte_class

The documentation for this struct was generated from the following file:

· terminal.c

4.6 _GtkTermWindow Struct Reference

The main GtkTermWindow class.

#include <gtkterm.h>

Collaboration diagram for _GtkTermWindow:

GtkTermWindow

- + parent instance
- + message
- + infobar
- + status
- + menubutton
- + toolmenu
- + scrolled_window
- + terminal_window
- + width
- + height
- + maximized
- + fullscreen

Public Attributes

- GtkApplicationWindow parent_instance
- GtkWidget * message
- GtkWidget * infobar

Message for the infobar.

• GtkWidget * status

Infobai

• GtkWidget * menubutton

Statusbar.

• GMenuModel * toolmenu

Toolbar.

- GtkScrolledWindow * scrolled_window
 Menu.
- GtkTermTerminal * terminal_window

Make the terminal window scrolled.

• int width

The terminal window.

- · int height
- bool maximized
- bool fullscreen

4.6.1 Detailed Description

The main GtkTermWindow class.

MainWindow specific variables here.

4.6.2 Member Data Documentation

4.6.2.1 fullscreen

bool _GtkTermWindow::fullscreen

4.6.2.2 height

int _GtkTermWindow::height

4.6.2.3 infobar

GtkWidget* _GtkTermWindow::infobar

Message for the infobar.

4.6.2.4 maximized

bool _GtkTermWindow::maximized

4.6.2.5 menubutton

GtkWidget* _GtkTermWindow::menubutton

Statusbar.

4.6.2.6 message

 ${\tt GtkWidget*} \ _{\tt GtkTermWindow::message}$

4.6.2.7 parent_instance

 ${\tt GtkApplicationWindow} \ _{\tt GtkTermWindow} :: {\tt parent_instance}$

4.6.2.8 scrolled_window

GtkScrolledWindow* _GtkTermWindow::scrolled_window

Menu.

4.6.2.9 status

GtkWidget* _GtkTermWindow::status

Infobar.

4.6.2.10 terminal_window

 ${\tt GtkTermTerminal*} \ {\tt _GtkTermWindow::terminal_window}$

Make the terminal window scrolled.

4.6.2.11 toolmenu

GMenuModel* _GtkTermWindow::toolmenu

Toolbar.

4.6.2.12 width

int _GtkTermWindow::width

The terminal window.

The documentation for this struct was generated from the following file:

• gtkterm.h

4.7 display_config_t Struct Reference

#include <term_config.h>

Collaboration diagram for display_config_t:

display_config_t

- + block_cursor
- + show_cursor
- + char_queue
- + echo
- + crlfauto
- + timestamp
- + delay
- + rows
- + columns
- + scrollback and 6 more...

Public Attributes

- · bool block_cursor
- · bool show_cursor
- char char_queue
- · bool echo
- bool crlfauto
- bool timestamp
- int delay
- int rows
- int columns
- int scrollback
- bool visual_bell
- GdkRGBA foreground_color
- GdkRGBA background_color
- PangoFontDescription * font
- char * active_section
- char * default_filename

4.7.1 Member Data Documentation

4.7.1.1 active_section

char* display_config_t::active_section

4.7.1.2 background_color

 ${\tt GdkRGBA\ display_config_t::} background_color$

4.7.1.3 block_cursor

 $\verb|bool display_config_t::block_cursor|\\$

4.7.1.4 char_queue

char display_config_t::char_queue

4.7.1.5 columns

int display_config_t::columns

4.7.1.6 crlfauto

 $\verb|bool display_config_t::crlfauto|\\$

4.7.1.7 default_filename

char* display_config_t::default_filename

4.7.1.8 delay

int display_config_t::delay

4.7.1.9 echo

 $\verb|bool display_config_t::echo|\\$

4.7.1.10 font

PangoFontDescription* display_config_t::font

4.7.1.11 foreground_color

GdkRGBA display_config_t::foreground_color

4.7.1.12 rows

int display_config_t::rows

4.7.1.13 scrollback

int display_config_t::scrollback

4.7.1.14 show_cursor

bool display_config_t::show_cursor

4.7.1.15 timestamp

bool display_config_t::timestamp

4.7.1.16 visual_bell

bool display_config_t::visual_bell

The documentation for this struct was generated from the following file:

• term_config.h

GtkTermConfigurationPrivate Struct Reference

Collaboration diagram for GtkTermConfigurationPrivate:

 ${\it GtkTermConfigurationPrivate}$

- + key_file + config_file

Public Attributes

- GKeyFile * key_file
- GFile * config_file

The memory loaded keyfile.

4.8.1 Member Data Documentation

4.8.1.1 config_file

GFile* GtkTermConfigurationPrivate::config_file

The memory loaded keyfile.

4.8.1.2 key_file

GKeyFile* GtkTermConfigurationPrivate::key_file

Referenced by gtkterm_configuration_default_configuration(), gtkterm_configuration_validate(), and on_set_config_options().

The documentation for this struct was generated from the following file:

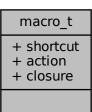
· resource_file.c

4.9 macro_t Struct Reference

TODO: Migrate to GObject.

#include <macros.h>

Collaboration diagram for macro_t:



Public Attributes

- char * shortcut
- · char * action

Shortcut of the macro.

• GClosure * closure

Command to perform.

4.9.1 Detailed Description

TODO: Migrate to GObject.

Define macro structure type

4.9.2 Member Data Documentation

4.9.2.1 action

char* macro_t::action

Shortcut of the macro.

Referenced by convert_macros_to_string(), and convert_string_to_macros().

4.9.2.2 closure

GClosure* macro_t::closure

Command to perform.

4.9.2.3 shortcut

char* macro_t::shortcut

Referenced by convert_macros_to_string(), and convert_string_to_macros().

The documentation for this struct was generated from the following file:

• macros.h

4.10 port_config_t Struct Reference

#include <serial.h>

Collaboration diagram for port_config_t:

port_config_t

- + port
- + baudrate
- + bits
- + stopbits
- + parity
- + flow_control
- + rs485_rts_time_before _transmit
- + rs485_rts_time_after transmit
- + char queue
- + disable_port_lock

Public Attributes

- char port [256]
- long int baudrate
- int bits
- · int stopbits
- int parity
- int flow_control
- int rs485_rts_time_before_transmit
- int rs485_rts_time_after_transmit
- char char_queue
- bool disable_port_lock

4.10.1 Member Data Documentation

4.10.1.1 baudrate

long int port_config_t::baudrate

Referenced by get_port_string().

4.10.1.2 bits

```
int port_config_t::bits
```

Referenced by get_port_string().

4.10.1.3 char_queue

char port_config_t::char_queue

4.10.1.4 disable_port_lock

bool port_config_t::disable_port_lock

4.10.1.5 flow_control

int port_config_t::flow_control

4.10.1.6 parity

int port_config_t::parity

Referenced by get_port_string().

4.10.1.7 port

char port_config_t::port[256]

Referenced by get_port_string().

4.10.1.8 rs485_rts_time_after_transmit

 $\verb"int port_config_t:: rs485_rts_time_after_transmit"$

4.10.1.9 rs485_rts_time_before_transmit

int port_config_t::rs485_rts_time_before_transmit

4.10.1.10 stopbits

int port_config_t::stopbits

Referenced by get_port_string().

The documentation for this struct was generated from the following file:

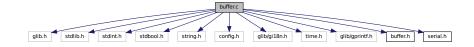
· serial.h

Chapter 5

File Documentation

- 5.1 README.md File Reference
- 5.2 README.source File Reference
- 5.3 buffer.c File Reference

```
#include <glib.h>
#include <stdlib.h>
#include <stdint.h>
#include <stdbool.h>
#include <string.h>
#include <config.h>
#include <glib/gi18n.h>
#include <time.h>
#include <glib/gprintf.h>
#include "buffer.h"
#include "serial.h"
Include dependency graph for buffer.c:
```



Macros

• #define TIMESTAMP_SIZE 50

Functions

- void create_buffer (void)
- void delete_buffer (void)
- unsigned int insert_timestamp (char *buffer)
- void put_chars (const char *chars, unsigned int size, bool crlf_auto)
- void write_buffer (void)
- void write_buffer_with_func (void(*func)(const char *, unsigned int))
- void clear_buffer (void)
- void set_clear_func (void(*func)(void))
- void unset_clear_func (void(*func)(void))
- void set_display_func (void(*func)(const char *, unsigned int))
- void unset_display_func (void(*func)(const char *, unsigned int))

Variables

- · bool timestamp_on
- · char overlapped
- unsigned int virt col pos
- void(* write_func)(const char *, unsigned int) = NULL
- void(* clear func)(void) = NULL

5.3.1 Macro Definition Documentation

5.3.1.1 TIMESTAMP_SIZE

```
#define TIMESTAMP_SIZE 50
```

5.3.2 Function Documentation

5.3.2.1 clear_buffer()

References clear_func.

5.3.2.2 create_buffer()

```
void create_buffer (
     void )
```

5.3 buffer.c File Reference 29

5.3.2.3 delete_buffer()

```
void delete_buffer (
     void )
```

5.3.2.4 insert_timestamp()

5.3.2.5 put_chars()

References RECEIVE_BUFFER, timestamp_on, and TIMESTAMP_SIZE.

5.3.2.6 set_clear_func()

References clear_func.

5.3.2.7 set_display_func()

References write func.

5.3.2.8 unset_clear_func()

References clear_func.

5.3.2.9 unset_display_func()

References write_func.

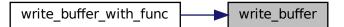
5.3.2.10 write_buffer()

```
void write_buffer (
     void )
```

References overlapped, and write_func.

Referenced by write_buffer_with_func().

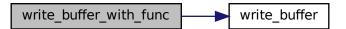
Here is the caller graph for this function:



5.3.2.11 write_buffer_with_func()

References write_buffer(), and write_func.

Here is the call graph for this function:



5.3 buffer.c File Reference 31

5.3.3 Variable Documentation

5.3.3.1 clear_func

```
void(* clear_func) (void) (
     void ) = NULL
```

Referenced by clear_buffer(), set_clear_func(), and unset_clear_func().

5.3.3.2 overlapped

char overlapped

Referenced by write_buffer().

5.3.3.3 timestamp_on

```
bool timestamp_on [extern]
```

Referenced by put_chars().

5.3.3.4 virt_col_pos

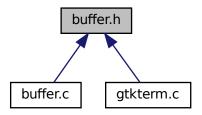
```
unsigned int virt_col_pos [extern]
```

5.3.3.5 write_func

Referenced by set_display_func(), unset_display_func(), write_buffer(), and write_buffer_with_func().

5.4 buffer.h File Reference

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



Macros

• #define BUFFER_SIZE (128 * 1024)

Functions

- void create_buffer (void)
- void delete_buffer (void)
- void put_chars (const char *, unsigned int, bool)
- void clear_buffer (void)
- void write_buffer (void)
- void set_display_func (void(*func)(const char *, uint32_t))
- void unset_display_func (void(*func)(const char *, uint32_t))
- void set_clear_func (void(*func)(void))
- void unset_clear_func (void(*func)(void))
- void write_buffer_with_func (void(*func)(const char *, uint32_t))

5.4.1 Macro Definition Documentation

5.4.1.1 BUFFER_SIZE

#define BUFFER_SIZE (128 * 1024)

5.4.2 Function Documentation

5.4 buffer.h File Reference 33

5.4.2.1 clear_buffer()

```
void clear_buffer (
     void )
```

References clear_func.

5.4.2.2 create_buffer()

```
void create_buffer (
     void )
```

5.4.2.3 delete_buffer()

```
void delete_buffer (
     void )
```

5.4.2.4 put_chars()

References RECEIVE_BUFFER, timestamp_on, and TIMESTAMP_SIZE.

5.4.2.5 set_clear_func()

References clear_func.

5.4.2.6 set_display_func()

5.4.2.7 unset_clear_func()

References clear_func.

5.4.2.8 unset_display_func()

5.4.2.9 write_buffer()

```
void write_buffer (
     void )
```

References overlapped, and write_func.

Referenced by write_buffer_with_func().

Here is the caller graph for this function:



5.4.2.10 write_buffer_with_func()

5.5 buffer.h 35

5.5 buffer.h

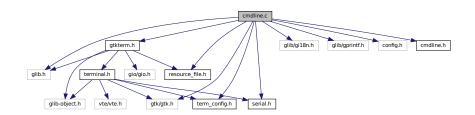
Go to the documentation of this file.

```
2 /* buffer.h
4 /*
              GTKTerm Software
                        (c) Julien Schmitt
       Management of a local buffer of data received
10 /*
11 /*
          - Header file -
12 /*
13 /* ChangeLog
        - 0.99.7 : removed auto crlf stuff - (use macros instead)
- 0.98.4 : file creation by Julien
18
19 #ifndef BUFFER H
20 #define BUFFER_H_
22 #define BUFFER_SIZE (128 * 1024)
23
24 void create_buffer(void);
25 void delete_buffer(void);
26 void put chars (const char *, unsigned int, bool);
27 void clear_buffer(void);
28 void write_buffer(void);
29 void set_display_func(void (*func)(const char *, uint32_t));
30 void unset_display_func(void (*func)(const char *, uint32_t));
31 void set_clear_func(void (*func)(void));
32 void unset clear func(void (*func)(void));
33 void write_buffer_with_func(void (*func)(const char *, uint32_t));
35 #endif
```

5.6 cmdline.c File Reference

```
#include <glib.h>
#include <glib/gi18n.h>
#include <gtk/gtk.h>
#include <glib/gprintf.h>
#include <config.h>
#include "gtkterm.h"
#include "resource_file.h"
#include "cmdline.h"
#include "term_config.h"
#include "serial.h"
```

Include dependency graph for cmdline.c:



Macros

- #define BUFFER_LENGTH 256
- #define MAX_SECTION_LENGTH 32

Functions

void gtkterm_add_cmdline_options (GtkTerm *app)

5.6.1 Macro Definition Documentation

5.6.1.1 BUFFER_LENGTH

#define BUFFER_LENGTH 256

5.6.1.2 MAX_SECTION_LENGTH

#define MAX_SECTION_LENGTH 32

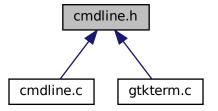
5.6.2 Function Documentation

5.6.2.1 gtkterm_add_cmdline_options()

References BUFFER_LENGTH, _GtkTerm::g_config_group, _GtkTerm::g_port_group, and _GtkTerm::g_term_group.

5.7 cmdline.h File Reference

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



5.8 cmdline.h

Functions

void gtkterm_add_cmdline_options (GtkTerm *app)

Variables

• GOptionGroup * g_term_group

5.7.1 Function Documentation

5.7.1.1 gtkterm_add_cmdline_options()

References BUFFER_LENGTH, _GtkTerm::g_config_group, _GtkTerm::g_port_group, and _GtkTerm::g_term_group.

5.7.2 Variable Documentation

5.7.2.1 g_term_group

```
GOptionGroup* g_term_group [extern]
```

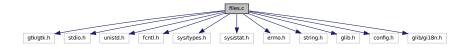
5.8 cmdline.h

Go to the documentation of this file.

```
2 /* cmdline.h
3 /* -----
     GTKTerm Software
                    (c) Julien Schmitt
8 /*
9 /* Purpose
10 /* Reads the command line
11 /* - Header file -
12 /*
13 /* ChangeLog
14 /*
15 /*
      - 2.0 : migrated to GTK4
- 0.98 : file creation by Julien
16 /*
*g_term_group;
18
19 #ifndef CMDLINE_H
20 #define CMDLINE_H
22 void gtkterm_add_cmdline_options (GtkTerm *app);
24 #endif // CMDLINE_H
```

5.9 files.c File Reference

```
#include <gtk/gtk.h>
#include <stdio.h>
#include <unistd.h>
#include <fcntl.h>
#include <sys/types.h>
#include <sys/stat.h>
#include <errno.h>
#include <string.h>
#include <glib.h>
#include <config.h>
#include <glib/gi18n.h>
Include dependency graph for files.c:
```



Variables

char * default_filename = NULL

5.9.1 Variable Documentation

5.9.1.1 default_filename

char* default_filename = NULL

5.10 files.h File Reference

Functions

- void send raw file (GAction *action, gpointer data)
- void save_raw_file (GAction *action, gpointer data)
- void add_input (void)

Variables

- · gboolean waiting_for_char
- char * default_filename

5.10 files.h File Reference 39

5.10.1 Function Documentation

5.10.1.1 add_input()

```
void add_input (
     void )
```

5.10.1.2 save_raw_file()

5.10.1.3 send_raw_file()

5.10.2 Variable Documentation

5.10.2.1 default_filename

```
char* default_filename [extern]
```

5.10.2.2 waiting_for_char

```
gboolean waiting_for_char [extern]
```

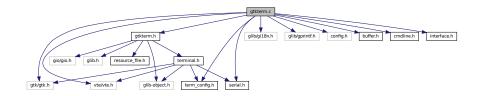
5.11 files.h

Go to the documentation of this file.

```
2 /* files.h
             GTKTerm Software
                        (c) Julien Schmitt
8 /*
 /* Purpose
         Raw / text file transfer management
10 /*
          - Header file -
13 /******************************
14
15 #ifndef FILES H
16 #define FILES_H_
18 void send_raw_file (GAction *action, gpointer data);
19 void save_raw_file (GAction *action, gpointer data);
20 void add_input(void);
21
22 extern gboolean waiting_for_char;
23 extern char *default_filename;
25 #endif
```

5.12 gtkterm.c File Reference

```
#include <gtk/gtk.h>
#include <vte/vte.h>
#include <glib/gi18n.h>
#include <glib/gprintf.h>
#include "config.h"
#include "gtkterm.h"
#include "buffer.h"
#include "cmdline.h"
#include "interface.h"
#include "term_config.h"
#include "serial.h"
Include dependency graph for gtkterm.c:
```



Macros

- #define NR_OF_SIGNALS 4
- #define GTKTERM_TYPE gtkterm_get_type ()
- #define GTKTERM_WINDOW_TYPE gtkterm_window_get_type ()

Functions

- void set_window_title (GtkTermWindow *)
- int main (int argc, char *argv[])

Variables

• unsigned int gtkterm_signals [NR_OF_SIGNALS]

5.12.1 Macro Definition Documentation

5.12.1.1 GTKTERM_TYPE

```
#define GTKTERM_TYPE gtkterm_get_type ()
```

5.12.1.2 GTKTERM_WINDOW_TYPE

```
#define GTKTERM_WINDOW_TYPE gtkterm_window_get_type ()
```

5.12.1.3 NR_OF_SIGNALS

```
#define NR_OF_SIGNALS 4
```

5.12.2 Function Documentation

5.12.2.1 main()

```
int main (
          int argc,
          char * argv[] )
```

References GTKTERM_TYPE.

5.12.2.2 set_window_title()

References get_port_string().

Here is the call graph for this function:



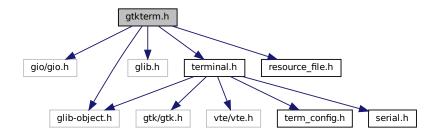
5.12.3 Variable Documentation

5.12.3.1 gtkterm_signals

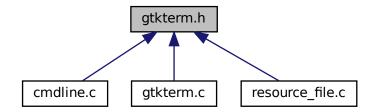
```
unsigned int gtkterm_signals[NR_OF_SIGNALS]
```

5.13 gtkterm.h File Reference

```
#include <gio/gio.h>
#include <glib-object.h>
#include <glib.h>
#include "terminal.h"
#include "resource_file.h"
Include dependency graph for gtkterm.h:
```



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



Classes

struct _GtkTerm

The main GtkTerm application class.

struct _GtkTermWindow

The main GtkTermWindow class.

Typedefs

- typedef struct _GtkTerm GtkTerm
- typedef struct _GtkTermWindow GtkTermWindow

Enumerations

enum { SIGNAL_LOAD_CONFIG , SIGNAL_SAVE_CONFIG , SIGNAL_REMOVE_SECTION , SIGNAL_PRINT_SECTION }

Variables

• unsigned int gtkterm_signals []

5.13.1 Typedef Documentation

5.13.1.1 GtkTerm

typedef struct _GtkTerm GtkTerm

5.13.1.2 GtkTermWindow

typedef struct _GtkTermWindow GtkTermWindow

5.13.2 Enumeration Type Documentation

5.13.2.1 anonymous enum

anonymous enum

Enumerator

SIGNAL_LOAD_CONFIG	
SIGNAL_SAVE_CONFIG	
SIGNAL_REMOVE_SECTION	
SIGNAL_PRINT_SECTION	

5.13.3 Variable Documentation

5.13.3.1 gtkterm_signals

```
unsigned int gtkterm_signals[] [extern]
```

5.14 gtkterm.h

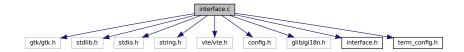
Go to the documentation of this file.

```
1
2 #ifndef GTKTERM_H
3 #define GTKTERM_H
4
5 #include <gio/gio.h>
6 #include <glib-object.h>
7 #include <glib.h>
8
9 #include "terminal.h"
10 #include "resource_file.h"
11
12 enum {
13     SIGNAL_LOAD_CONFIG,
14     SIGNAL_SAVE_CONFIG,
15     SIGNAL_PRINT_SECTION,
16     SIGNAL_PRINT_SECTION
17 };
18
19 extern unsigned int gtkterm_signals[];
20
21 G_BEGIN_DECLS
22
23 //! @brief The main GtkTerm application class.
```

```
24 //! All application specific variables are defined here.
25 struct _GtkTerm {
26
2.7
     GtkApplication parent_instance;
2.8
    GOptionGroup *g_term_group;
29
    GOptionGroup *g_port_group;
30
31
     GOptionGroup *g_config_group;
32
                                             //! The Key file with the configurations //! The initial section provided from the cli.
33
    GtkTermConfiguration *config;
34
    char *initial_section;
35 //! Terminals have their own section pointer
36
37 };
38
39 typedef struct _GtkTerm GtkTerm;
40 G_DECLARE_FINAL_TYPE (GtkTerm, gtkterm, GTKTERM, APP, GtkApplication)
41
42 //! @brief The main GtkTermWindow class.
43 //! MainWindow specific variables here.
44 struct _GtkTermWindow {
45
    GtkApplicationWindow parent_instance;
46
    GtkWidget *message;
GtkWidget *infobar;
                                             //! Message for the infobar
47
48
                                                   Infobar
     GtkWidget *status;
                                                  Statusbar
50
     GtkWidget *menubutton;
                                                   Toolbar
51
     GMenuModel *toolmenu;
                                              //! Menu
52
     GtkScrolledWindow *scrolled_window;
                                                  Make the terminal window scrolled
53
    GtkTermTerminal *terminal_window;
                                             //! The terminal window
54
55
     int width;
    int height;
57
    bool maximized;
58
    bool fullscreen;
59
60 } ;
62 typedef struct _GtkTermWindow GtkTermWindow;
63 G_DECLARE_FINAL_TYPE (GtkTermWindow, gtkterm_window, GTKTERM, WINDOW, GtkApplicationWindow)
65 G_END_DECLS
66
67 #endif // GTKTERM_H
```

5.15 interface.c File Reference

```
#include <gtk/gtk.h>
#include <stdlib.h>
#include <stdio.h>
#include <string.h>
#include <vte/vte.h>
#include <config.h>
#include <glib/gil8n.h>
#include "interface.h"
#include "term_config.h"
Include dependency graph for interface.c:
```



Functions

void show_message (char *message, int type_msg)

Variables

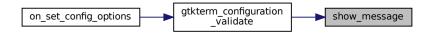
- bool timestamp_on = 0
- · struct configuration_port config
- int virt_col_pos = 0

5.15.1 Function Documentation

5.15.1.1 show_message()

Referenced by gtkterm_configuration_validate().

Here is the caller graph for this function:



5.15.2 Variable Documentation

5.15.2.1 config

```
struct configuration_port config [extern]
```

Referenced by on_set_config_options().

5.15.2.2 timestamp_on

```
bool timestamp_on = 0
```

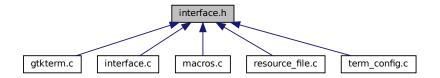
Referenced by put_chars().

5.15.2.3 virt_col_pos

```
int virt_col_pos = 0
```

5.16 interface.h File Reference

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



Macros

- #define MSG WRN 0
- #define MSG_ERR 1
- #define ASCII_VIEW 0
- #define HEXADECIMAL_VIEW 1

Functions

void show_message (char *, int)

Variables

- GtkWidget * Text
- GtkWidget * display

5.16.1 Macro Definition Documentation

5.16.1.1 ASCII_VIEW

#define ASCII_VIEW 0

5.16.1.2 HEXADECIMAL_VIEW

```
#define HEXADECIMAL_VIEW 1
```

5.16.1.3 MSG_ERR

```
#define MSG_ERR 1
```

5.16.1.4 MSG_WRN

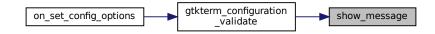
```
#define MSG_WRN 0
```

5.16.2 Function Documentation

5.16.2.1 show_message()

Referenced by gtkterm_configuration_validate().

Here is the caller graph for this function:



5.16.3 Variable Documentation

5.16.3.1 display

```
GtkWidget* display [extern]
```

5.17 interface.h 49

5.16.3.2 Text

```
GtkWidget* Text [extern]
```

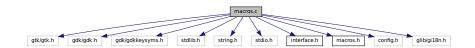
5.17 interface.h

```
Go to the documentation of this file.
```

```
2 /* interface.h
            GTKTerm Software
                        (c) Julien Schmitt
9 /* Purpose
       Functions for the management of the GUI for the main window - Header file -
10 /*
11 /*
12 /*
13 /********************************
15 #ifndef WIDGETS_H_
16 #define WIDGETS_H_
17
18 #define MSG_WRN
19 #define MSG_ERR
21 #define ASCII_VIEW
22 #define HEXADECIMAL_VIEW 1
2.3
24 extern GtkWidget *Text;
                                    // Serial terminal (vte)
25 extern GtkWidget *display;
27 void show_message(char *, int);
28
29 #endif
```

5.18 macros.c File Reference

```
#include <gtk/gtk.h>
#include <gdk/gdk.h>
#include <gdk/gdkkeysyms.h>
#include <stdlib.h>
#include <string.h>
#include <stdio.h>
#include "interface.h"
#include "macros.h"
#include <config.h>
#include <glib/gil8n.h>
Include dependency graph for macros.c:
```



Enumerations

enum { COLUMN_SHORTCUT, COLUMN_ACTION, NUM_COLUMNS }

TODO: Migrate to GObject.

Functions

```
• int macro_count ()
```

• void convert_string_to_macros (char **string_list, int size)

Convert the array of strings to macros.

• int convert_macros_to_string (char **string_list)

Convert the in memory macros to an array of strings for storage in file.

- macro t * get shortcuts (int *size)
- void remove_shortcuts (void)

Variables

```
• macro_t * macros = NULL
```

• int nr_of_macros = 0

5.18.1 Enumeration Type Documentation

5.18.1.1 anonymous enum

anonymous enum

TODO: Migrate to GObject.

Enumerator

COLUMN_SHORTCUT	
COLUMN_ACTION	
NUM_COLUMNS	

5.18.2 Function Documentation

5.18.2.1 convert_macros_to_string()

Convert the in memory macros to an array of strings for storage in file.

Must be NULL terminated

Number of strings is 2x the macros (shortcut and action)

References macro_t::action, macros, nr_of_macros, and macro_t::shortcut.

5.18.2.2 convert_string_to_macros()

Convert the array of strings to macros.

References macro_t::action, macros, nr_of_macros, remove_shortcuts(), and macro_t::shortcut.

Here is the call graph for this function:



5.18.2.3 get_shortcuts()

References macros.

5.18.2.4 macro_count()

```
int macro_count ( )
```

References nr_of_macros.

5.18.2.5 remove_shortcuts()

Clean up all macros

References macros.

Referenced by convert_string_to_macros().

Here is the caller graph for this function:



5.18.3 Variable Documentation

5.18.3.1 macros

```
macro_t* macros = NULL
```

Referenced by convert_macros_to_string(), convert_string_to_macros(), get_shortcuts(), and remove_shortcuts().

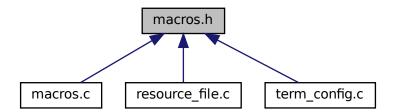
5.18.3.2 nr_of_macros

```
int nr_of_macros = 0
```

Referenced by convert_macros_to_string(), convert_string_to_macros(), and macro_count().

5.19 macros.h File Reference

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



Classes

• struct macro_t

TODO: Migrate to GObject.

Functions

- void remove_shortcuts (void)
- void add_shortcuts (void)

Remove shortcuts from accel_group and free memory.

- macro_t * get_shortcuts (gint *)
- void convert_string_to_macros (char **, int)

Convert the array of strings to macros.

int convert_macros_to_string (char **)

Convert the in memory macros to an array of strings for storage in file.

int macro_count ()

Variables

• macro_t * macros

5.19.1 Function Documentation

5.19.1.1 add_shortcuts()

```
void add_shortcuts (
     void )
```

Remove shortcuts from accel_group and free memory.

5.19.1.2 convert_macros_to_string()

Convert the in memory macros to an array of strings for storage in file.

Must be NULL terminated

Number of strings is 2x the macros (shortcut and action)

References macro_t::action, macros, nr_of_macros, and macro_t::shortcut.

5.19.1.3 convert_string_to_macros()

Convert the array of strings to macros.

References macro_t::action, macros, nr_of_macros, remove_shortcuts(), and macro_t::shortcut.

Here is the call graph for this function:



5.19.1.4 get_shortcuts()

5.19.1.5 macro_count()

```
int macro_count ( )
```

References nr_of_macros.

5.19.1.6 remove_shortcuts()

```
\begin{array}{c} \text{void remove\_shortcuts (} \\ \text{void )} \end{array}
```

Clean up all macros

References macros.

Referenced by convert_string_to_macros().

Here is the caller graph for this function:



5.19.2 Variable Documentation

5.19.2.1 macros

```
macro_t* macros [extern]
```

Referenced by convert_macros_to_string(), convert_string_to_macros(), get_shortcuts(), and remove_shortcuts().

5.20 macros.h 55

5.20 macros.h

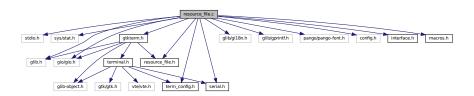
Go to the documentation of this file.

```
2 * macros.h
          GTKTerm Software
                   (c) Julien Schmitt
9 * \brief Purpose
      Functions for the management of the macros
10 *
         - Header file -
14
15 #ifndef MACROS_H_
16 #define MACROS H
18 //! TODO: Migrate to GObject
20 //! Define macro structure type
21 typedef struct
     //! Shortcut of the macro
25
26 }
27 macro_t;
28
29 //void config_macros(GtkAction *action, gpointer data);
30 void remove_shortcuts(void); //! Remove shortcuts from accel_group and free memory
31 void add_shortcuts(void);
32 macro_t *get_shortcuts(gint *);
33
34 void convert_string_to_macros (char **, int);
35 int convert_macros_to_string (char **);
37 int macro_count ();
38
39 extern macro_t *macros;
40
41 #endif
```

5.21 resource file.c File Reference

```
#include <stdio.h>
#include <sys/stat.h>
#include <glib.h>
#include <glib/gi18n.h>
#include <glib/gprintf.h>
#include <gio/gio.h>
#include <config.h>
#include "gtkterm.h"
#include "serial.h"
#include "term_config.h"
#include "resource_file.h"
#include "interface.h"
#include "macros.h"
```

Include dependency graph for resource_file.c:



Classes

- struct GtkTermConfigurationPrivate
- struct _GtkTermConfigurationClass

Macros

- #define CONFIGURATION_FILENAME ".gtktermrc"
 Default configuration filename.
- #define BUFFER_LENGTH 256

Functions

- void gtkterm_configuration_default_configuration (GtkTermConfigurationPrivate *priv, char *section)

 Create a new < default> configuration.
- void gtkterm_configuration_validate (GtkTermConfigurationPrivate *priv, char *section) validate the configuration, given by the section
- bool on_set_config_options (const char *name, const char *value, gpointer data, GError **error)

 Set the config option in the keyfile.

Variables

const char GtkTermConfigurationItems [][CONF_ITEM_LENGTH]
 Used configuration options to hold consistency between load/save functions.

5.21.1 Macro Definition Documentation

5.21.1.1 BUFFER_LENGTH

#define BUFFER_LENGTH 256

5.21.1.2 CONFIGURATION_FILENAME

```
#define CONFIGURATION_FILENAME ".gtktermrc"
```

Default configuration filename.

5.21.2 Function Documentation

5.21.2.1 gtkterm configuration default configuration()

Create a new <default> configuration.

References CONF_ITEM_SERIAL_BAUDRATE, CONF_ITEM_SERIAL_BITS, CONF_ITEM_SERIAL_DISABLE_PORT_LOCK, CONF_ITEM_SERIAL_FLOW_CONTROL, CONF_ITEM_SERIAL_PARITY, CONF_ITEM_SERIAL_PORT, CONF_ITEM_SERIAL_RS485_RTS_TIME_AFTER_TX, CONF_ITEM_SERIAL_RS485_RTS_TIME_BEFORE_TX, CONF_ITEM_SERIAL_STOPBITS, CONF_ITEM_TERM_BACKGROUND_ALPHA, CONF_ITEM_TERM_BACKGROUND_BLUE, CONF_ITEM_TERM_BACKGROUND_GREEN, CONF_ITEM_TERM_BACKGROUND_RED, CONF_ITEM_TERM_BACKGROUND_RED, CONF_ITEM_TERM_FONT, CONF_ITEM_TERM_FOREGROUND_ALPHA, CONF_ITEM_TERM_FOREGROUND_BLUE, CONF_ITEM_TERM_FOREGROUND_CONF_ITEM_TERM_FOREGROUND_RED, CONF_ITEM_TERM_MACROS, CONF_ITEM_TERM_ROWS, CONF_ITEM_TERM_SCROLLBACK, CONF_ITEM_TERM_SHOW_CURSOR, CONF_ITEM_TERM_VISUAL_BELL, CONF_ITEM_TERM_WAIT_CHAR, CONF_ITEM_TERM_WAIT_DELAY, DEFAULT_BAUDRATE, DEFAULT_BITS, DEFAULT_CHAR, DEFAULT_DELAY, DEFAULT_SCROLLBACK, DEFAULT_SCHOOLLBACK, DEFAULT_STOPBITS, DEFAULT_VISUAL_BELL, GIKTEM_CONF_IDERAULT_SCROLLBACK, DEFAULT_SCROLLBACK, DEFAULT_STOPBITS, DEFAULT_VISUAL_BELL, GIKTEM_CONF_IDERAULT_SCROLLBACK, DEFAULT_SCROLLBACK, DEFAULT_S

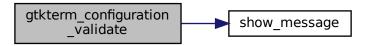
5.21.2.2 gtkterm_configuration_validate()

validate the configuration, given by the section

References CONF_ITEM_SERIAL_BAUDRATE, CONF_ITEM_SERIAL_BITS, CONF_ITEM_SERIAL_STOPBITS, CONF_ITEM_TERM_FONT, CONF_ITEM_TERM_WAIT_DELAY, DEFAULT_BITS, DEFAULT_DELAY, DEFAULT_FONT, DEFAULT_STOPBITS, GtkTermConfigurationItems, GtkTermConfigurationPrivate::key_file, MSG_ERR, and show message().

Referenced by on set config options().

Here is the call graph for this function:



Here is the caller graph for this function:

```
on_set_config_options gtkterm_configuration __validate
```

5.21.2.3 on_set_config_options()

Set the config option in the keyfile.

Options are not saved. Point to the third charater ('-' in front of the cli option)

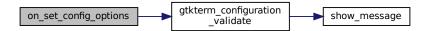
Search index for the option we want to set

Check for max path length. Exit if it is to long. Note: Serial port is also a path to a device.

We should not get here.

References CONF_ITEM_LAST, CONF_ITEM_SERIAL_BAUDRATE, CONF_ITEM_SERIAL_BITS, CONF_ITEM_SERIAL_DISABLE CONF_ITEM_SERIAL_FLOW_CONTROL, CONF_ITEM_SERIAL_PARITY, CONF_ITEM_SERIAL_PORT, CONF_ITEM_SERIAL_RS485_RTS_TIME_AFTER_TX, CONF_ITEM_SERIAL_RS485_RTS_TIME_BEFORE_TX, CONF_ITEM_SERIAL_STOPBITS, CONF_ITEM_TERM_ECHO, CONF_ITEM_TERM_RAW_FILENAME, CONF_ITEM_TERM_WAIT_CHAR, CONF_ITEM_TERM_WAIT_DELAY, config, gtkterm_configuration_validate(), GtkTermConfigurationItems, and GtkTermConfigurationPrivate::key_file.

Here is the call graph for this function:



5.21.3 Variable Documentation

5.21.3.1 GtkTermConfigurationItems

const char GtkTermConfigurationItems[][CONF_ITEM_LENGTH]

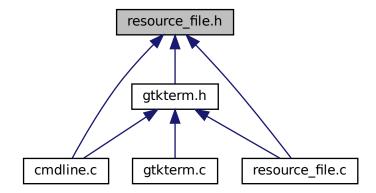
Used configuration options to hold consistency between load/save functions.

Configuration item names.

Referenced by gtkterm_configuration_default_configuration(), gtkterm_configuration_validate(), and on_set_config_options().

5.22 resource_file.h File Reference

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



Classes

• struct _GtkTermConfiguration

Macros

- #define CONF_ITEM_LENGTH 32
- #define DEFAULT SECTION "default"
- #define GTKTERM_TYPE_CONFIGURATION gtkterm_configuration_get_type ()

Typedefs

typedef struct GtkTermConfiguration GtkTermConfiguration

Enumerations

```
• enum {
 CONF_ITEM_SERIAL_PORT , CONF_ITEM_SERIAL_BAUDRATE , CONF_ITEM_SERIAL_BITS ,
 CONF ITEM SERIAL STOPBITS,
 CONF ITEM SERIAL PARITY, CONF ITEM SERIAL FLOW CONTROL, CONF ITEM TERM WAIT DELAY
 , CONF ITEM TERM WAIT CHAR,
 CONF ITEM SERIAL RS485 RTS TIME BEFORE TX, CONF ITEM SERIAL RS485 RTS TIME AFTER TX
 , CONF ITEM TERM MACROS, CONF ITEM TERM RAW FILENAME,
 CONF_ITEM_TERM_ECHO, CONF_ITEM_TERM_CRLF_AUTO, CONF_ITEM_SERIAL_DISABLE_PORT_LOCK
 , CONF_ITEM_TERM_FONT ,
 CONF_ITEM_TERM_TIMESTAMP, CONF_ITEM_TERM_BLOCK_CURSOR, CONF_ITEM_TERM_SHOW_CURSOR
 , CONF_ITEM_TERM_ROWS ,
 CONF_ITEM_TERM_COLS, CONF_ITEM_TERM_SCROLLBACK, CONF_ITEM_TERM_VISUAL_BELL,
 CONF_ITEM_TERM_FOREGROUND_RED,
 CONF ITEM TERM FOREGROUND GREEN, CONF ITEM TERM FOREGROUND BLUE, CONF ITEM TERM FOREG
 . CONF ITEM TERM BACKGROUND RED.
 CONF ITEM TERM BACKGROUND GREEN, CONF ITEM TERM BACKGROUND BLUE, CONF ITEM TERM BACKG
 , CONF ITEM LAST }
```

Define all configuration items which are used in the resource file.

Functions

- GtkTermConfiguration * gtkterm_configuration_new (void)
- bool on_set_config_options (const char *, const char *, gpointer, GError **)

Set the config option in the keyfile.

Variables

• const char GtkTermConfigurationItems [][CONF_ITEM_LENGTH]

Configuration item names.

5.22.1 Macro Definition Documentation

5.22.1.1 CONF_ITEM_LENGTH

#define CONF_ITEM_LENGTH 32

5.22.1.2 DEFAULT_SECTION

#define DEFAULT_SECTION "default"

5.22.1.3 GTKTERM_TYPE_CONFIGURATION

#define GTKTERM_TYPE_CONFIGURATION gtkterm_configuration_get_type ()

5.22.2 Typedef Documentation

5.22.2.1 GtkTermConfiguration

 ${\tt typedef \ struct \ \underline{_GtkTermConfiguration} \ GtkTermConfiguration}$

5.22.3 Enumeration Type Documentation

5.22.3.1 anonymous enum

anonymous enum

Define all configuration items which are used in the resource file.

it is an index to ConfigurationItem.

Enumerator

CONF_ITEM_SERIAL_PORT
CONF_ITEM_SERIAL_BAUDRATE
CONF_ITEM_SERIAL_BITS
CONF_ITEM_SERIAL_STOPBITS
CONF_ITEM_SERIAL_PARITY
CONF_ITEM_SERIAL_FLOW_CONTROL
CONF_ITEM_TERM_WAIT_DELAY
CONF_ITEM_TERM_WAIT_CHAR
CONF_ITEM_SERIAL_RS485_RTS_TIME_BEFORE_TX
CONF_ITEM_SERIAL_RS485_RTS_TIME_AFTER_TX
CONF_ITEM_TERM_MACROS
CONF_ITEM_TERM_RAW_FILENAME
CONF_ITEM_TERM_ECHO
CONF_ITEM_TERM_CRLF_AUTO
CONF_ITEM_SERIAL_DISABLE_PORT_LOCK
CONF_ITEM_SERIAL_BAUDRATE CONF_ITEM_SERIAL_BITS CONF_ITEM_SERIAL_STOPBITS CONF_ITEM_SERIAL_PARITY CONF_ITEM_SERIAL_FLOW_CONTROL CONF_ITEM_TERM_WAIT_DELAY CONF_ITEM_TERM_WAIT_CHAR ITEM_SERIAL_RS485_RTS_TIME_BEFORE_TX IF_ITEM_SERIAL_RS485_RTS_TIME_AFTER_TX CONF_ITEM_TERM_MACROS CONF_ITEM_TERM_RAW_FILENAME CONF_ITEM_TERM_ECHO CONF_ITEM_TERM_CRLF_AUTO

Generated by Doxygen

Enumerator

CONF ITEM TERM FONT	
CONF_ITEM_TERM_TIMESTAMP	
CONF_ITEM_TERM_BLOCK_CURSOR	
CONF_ITEM_TERM_SHOW_CURSOR	
CONF_ITEM_TERM_ROWS	
CONF_ITEM_TERM_COLS	
CONF_ITEM_TERM_SCROLLBACK	
CONF_ITEM_TERM_VISUAL_BELL	
CONF_ITEM_TERM_FOREGROUND_RED	
CONF_ITEM_TERM_FOREGROUND_GREEN	
CONF_ITEM_TERM_FOREGROUND_BLUE	
CONF_ITEM_TERM_FOREGROUND_ALPHA	
CONF_ITEM_TERM_BACKGROUND_RED	
CONF_ITEM_TERM_BACKGROUND_GREEN	
CONF_ITEM_TERM_BACKGROUND_BLUE	
CONF_ITEM_TERM_BACKGROUND_ALPHA	
CONF_ITEM_LAST	Checking as last item in the list.

5.22.4 Function Documentation

5.22.4.1 gtkterm_configuration_new()

5.22.4.2 on_set_config_options()

Set the config option in the keyfile.

Options are not saved. Point to the third charater ('-' in front of the cli option)

Search index for the option we want to set

Check for max path length. Exit if it is to long. Note: Serial port is also a path to a device.

We should not get here.

5.23 resource_file.h 63

References CONF_ITEM_LAST, CONF_ITEM_SERIAL_BAUDRATE, CONF_ITEM_SERIAL_BITS, CONF_ITEM_SERIAL_DISABLE CONF_ITEM_SERIAL_FLOW_CONTROL, CONF_ITEM_SERIAL_PARITY, CONF_ITEM_SERIAL_PORT, CONF_ITEM_SERIAL_RS485_RTS_TIME_AFTER_TX, CONF_ITEM_SERIAL_RS485_RTS_TIME_BEFORE_TX, CONF_ITEM_SERIAL_STOPBITS, CONF_ITEM_TERM_ECHO, CONF_ITEM_TERM_RAW_FILENAME, CONF_ITEM_TERM_WAIT_CHAR, CONF_ITEM_TERM_WAIT_DELAY, config, gtkterm_configuration_validate(), GtkTermConfigurationItems, and GtkTermConfigurationPrivate::key_file.

Here is the call graph for this function:



5.22.5 Variable Documentation

5.22.5.1 GtkTermConfigurationItems

```
const char GtkTermConfigurationItems[][CONF_ITEM_LENGTH] [extern]
```

Configuration item names.

Configuration item names.

Referenced by gtkterm_configuration_default_configuration(), gtkterm_configuration_validate(), and on_set_config_options().

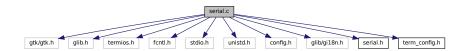
5.23 resource_file.h

```
* resource_file.h
            GTKTerm Software
                      (c) Julien Schmitt
9 +
     \brief Purpose
10 *
       Load and save configuration file
11 *
        - Header file -
12 *
                     13 **********
15 #ifndef RESOURCE_FILE_H_
16 #define RESOURCE_FILE_H_
17
18 #define CONF ITEM LENGTH
19 #define DEFAULT_SECTION
                              "default"
                                             //! Default section if not specified
      Define all configuration items which are used
22 //! in the resource file. it is an index to ConfigurationItem.
23 enum {
24
         CONF ITEM SERIAL PORT.
25
         CONF_ITEM_SERIAL_BAUDRATE,
         CONF_ITEM_SERIAL_BITS,
```

```
CONF_ITEM_SERIAL_STOPBITS,
28
             CONF_ITEM_SERIAL_PARITY,
             CONF_ITEM_SERIAL_FLOW_CONTROL,
29
             CONF_ITEM_TERM_WAIT_DELAY,
30
             CONF_ITEM_TERM_WAIT_CHAR,
31
             CONF_ITEM_SERIAL_RS485_RTS_TIME_BEFORE_TX,
32
             CONF_ITEM_SERIAL_RS485_RTS_TIME_AFTER_TX,
33
34
             CONF_ITEM_TERM_MACROS,
35
             CONF_ITEM_TERM_RAW_FILENAME,
36
             CONF_ITEM_TERM_ECHO,
             CONF_ITEM_TERM_CRLF_AUTO,
CONF_ITEM_SERIAL_DISABLE_PORT_LOCK,
37
38
39
             CONF_ITEM_TERM_FONT,
40
             CONF_ITEM_TERM_TIMESTAMP,
41
             CONF_ITEM_TERM_BLOCK_CURSOR,
42
             CONF_ITEM_TERM_SHOW_CURSOR,
             CONF_ITEM_TERM_ROWS,
43
             CONF_ITEM_TERM_COLS,
44
             CONF_ITEM_TERM_SCROLLBACK,
45
             CONF_ITEM_TERM_VISUAL_BELL,
46
             CONF_ITEM_TERM_FOREGROUND_RED,
47
             CONF_ITEM_TERM_FOREGROUND_GREEN,
CONF_ITEM_TERM_FOREGROUND_BLUE,
CONF_ITEM_TERM_FOREGROUND_ALPHA,
CONF_ITEM_TERM_BACKGROUND_RED,
48
49
50
51
             CONF_ITEM_TERM_BACKGROUND_GREEN,
52
53
             CONF_ITEM_TERM_BACKGROUND_BLUE,
54
             CONF_ITEM_TERM_BACKGROUND_ALPHA,
5.5
             CONF_ITEM_LAST
                                                             //! Checking as last item in the list.
56 };
57
58 //!Configuration item names.
59 extern const char GtkTermConfigurationItems [][CONF_ITEM_LENGTH];
60
61 G_BEGIN_DECLS
62
63 struct _GtkTermConfiguration {
64
        GObject parent_instance;
66 };
67
68 #define GTKTERM_TYPE_CONFIGURATION gtkterm_configuration_get_type ()
69 G_DECLARE_FINAL_TYPE (GtkTermConfiguration, gtkterm_configuration, GTKTERM, CONFIGURATION, GObject)
70 typedef struct _GtkTermConfiguration GtkTermConfiguration;
72 GtkTermConfiguration *gtkterm_configuration_new (void);
73
74 bool on_set_config_options (const char *, const char *, gpointer, GError **);
75
76 G_END_DECLS
78 #endif
```

5.24 serial.c File Reference

```
#include <gtk/gtk.h>
#include <glib.h>
#include <termios.h>
#include <fcntl.h>
#include <stdio.h>
#include <unistd.h>
#include <config.h>
#include <glib/gi18n.h>
#include "serial.h"
#include "term_config.h"
Include dependency graph for serial.c:
```



5.24 serial.c File Reference 65

Functions

char * get_port_string (void)

Variables

- port_config_t port_conf
- · struct termios termios save
- int serial_port_fd = -1

5.24.1 Function Documentation

5.24.1.1 get_port_string()

References port_config_t::baudrate, port_config_t::bits, port_config_t::parity, port_config_t::port, port_config_t::port, port_config_t::port_fd, and port_config_t::stopbits.

Referenced by set_window_title().

Here is the caller graph for this function:



5.24.2 Variable Documentation

5.24.2.1 port_conf

```
port_config_t port_conf
```

Referenced by get_port_string().

5.24.2.2 serial_port_fd

```
int serial_port_fd = -1
```

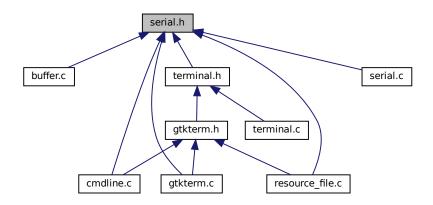
Referenced by get_port_string().

5.24.2.3 termios_save

struct termios termios_save

5.25 serial.h File Reference

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



Classes

• struct port_config_t

Macros

- #define DEFAULT_PORT "/dev/ttyS0"
- #define DEFAULT BAUDRATE 115200
- #define DEFAULT_PARITY "none"
- #define DEFAULT_BITS 8
- #define DEFAULT_STOPBITS 1
- #define DEFAULT_FLOW "none"
- #define RECEIVE BUFFER 8192
- #define TRANSMIT_BUFFER 4096
- #define LINE FEED 0x0A
- #define POLL_DELAY 100 /* in ms (for control signals) */

5.25 serial.h File Reference 67

Functions

char * get_port_string (void)

Variables

- int serial_port_fd
- port_config_t port_conf

5.25.1 Macro Definition Documentation

5.25.1.1 DEFAULT_BAUDRATE

#define DEFAULT_BAUDRATE 115200

5.25.1.2 DEFAULT_BITS

#define DEFAULT_BITS 8

5.25.1.3 DEFAULT_FLOW

#define DEFAULT_FLOW "none"

5.25.1.4 DEFAULT PARITY

#define DEFAULT_PARITY "none"

5.25.1.5 DEFAULT_PORT

#define DEFAULT_PORT "/dev/ttyS0"

5.25.1.6 DEFAULT_STOPBITS

```
#define DEFAULT_STOPBITS 1
```

5.25.1.7 LINE FEED

#define LINE_FEED 0x0A

5.25.1.8 **POLL_DELAY**

```
\#define POLL\_DELAY 100 /* in ms (for control signals) */
```

5.25.1.9 RECEIVE_BUFFER

#define RECEIVE_BUFFER 8192

5.25.1.10 TRANSMIT_BUFFER

#define TRANSMIT_BUFFER 4096

5.25.2 Function Documentation

5.25.2.1 get_port_string()

References port_config_t::baudrate, port_config_t::bits, port_config_t::parity, port_config_t::port, port_config_t::port_co

Referenced by set_window_title().

Here is the caller graph for this function:



5.26 serial.h 69

5.25.3 Variable Documentation

5.25.3.1 port_conf

```
port_config_t port_conf [extern]
Referenced by get_port_string().
```

5.25.3.2 serial_port_fd

```
int serial_port_fd [extern]
```

Referenced by get_port_string().

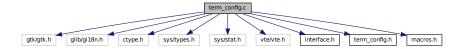
5.26 serial.h

```
2 /* serial.h
4 /*
             GTKTerm Software
                  (c) Julien Schmitt
8 /*
9 /* Purpose
      Serial port access functions
10 /*
         - Header file -
11 /*
14
15 #ifndef SERIAL_H_
16 #define SERIAL_H_
17
18 #define DEFAULT_PORT
19 #define DEFAULT_BAUDRATE 115200
20 #define DEFAULT_PARITY "none"
21 #define DEFAULT_BITS 8
21 #define DEFAULT_BITS
22 #define DEFAULT_STOPBITS 1
23 #define DEFAULT_FLOW "none"
25 typedef struct
26 {
27
      char port[256];
                                   // 300 - 600 - 1200 - ... - 2000000
// 5 - 6 - 7 - 8
// 1 - 2
2.8
      long int baudrate;
     int bits;
int stopbits;
29
30
     // 0 : None, 1 : Odd, 2 : Even
31
32
                                    // 0 : None, 1 : Xon/Xoff, 2 : RTS/CTS, 3 : RS485halfduplex
33
34
                             // character in queue
35
36
38 } port_config_t;
39
40 extern int serial_port_fd;
41 extern port_config_t port_conf;
42
43 char* get_port_string (void);
44
45 #define RECEIVE_BUFFER 8192
46 #define TRANSMIT_BUFFER 4096
47 #define LINE_FEED 0x0A
48 #define POLL_DELAY 100
                                     /* in ms (for control signals) */
50 #endif
```

5.27 term_config.c File Reference

```
#include <gtk/gtk.h>
#include <glib/gi18n.h>
#include <ctype.h>
#include <sys/types.h>
#include <sys/stat.h>
#include <vte/vte.h>
#include "interface.h"
#include "term_config.h"
#include "macros.h"
```

Include dependency graph for term_config.c:



Variables

· display_config_t term_conf

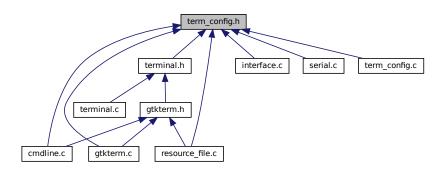
5.27.1 Variable Documentation

5.27.1.1 term_conf

display_config_t term_conf

term config.h File Reference 5.28

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



Classes

• struct display_config_t

Macros

- #define DEFAULT_FONT "Monospace 12"
- #define DEFAULT_SCROLLBACK 10000
- #define DEFAULT_DELAY 0
- #define DEFAULT CHAR -1
- #define DEFAULT_DELAY_RS485 30
- #define DEFAULT_ECHO "false"
- #define DEFAULT_VISUAL_BELL "false"

Variables

· display_config_t term_conf

5.28.1 Macro Definition Documentation

5.28.1.1 DEFAULT_CHAR

#define DEFAULT_CHAR -1

5.28.1.2 DEFAULT_DELAY

#define DEFAULT_DELAY 0

5.28.1.3 DEFAULT_DELAY_RS485

#define DEFAULT_DELAY_RS485 30

5.28.1.4 DEFAULT_ECHO

#define DEFAULT_ECHO "false"

5.28.1.5 DEFAULT_FONT

```
#define DEFAULT_FONT "Monospace 12"
```

5.28.1.6 DEFAULT_SCROLLBACK

```
#define DEFAULT_SCROLLBACK 10000
```

5.28.1.7 DEFAULT_VISUAL_BELL

```
#define DEFAULT_VISUAL_BELL "false"
```

5.28.2 Variable Documentation

5.28.2.1 term_conf

```
display_config_t term_conf [extern]
```

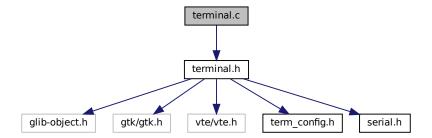
5.29 term_config.h

```
2 /* term_config.h
4 /*
           GTKTerm Software
                              (c) Julien Schmitt
10 /* Configuration of the serial port
11 /* - Header file -
15 #ifndef TERM_CONFIG_H_
16 #define TERM_CONFIG_H_
17
18 #define DEFAULT_FONT "Monospace 12"
19 #define DEFAULT_SCROLLBACK 10000
21 #define DEFAULT_DELAY
22 #define DEFAULT_CHAR
23 #define DEFAULT_DELAY_RS485 30
24 #define DEFAULT_ECHO "false"
25 #define DEFAULT_VISUAL_BELL "false"
26
27 typedef struct
28 {
29
        bool block_cursor;
30
       bool show_cursor;
char char_queue;
31
                                          // character in queue
       bool echo;
                                      // echo local
```

```
33
        bool crlfauto;
                                     // line feed auto
        bool timestamp;
                                         // end of char delay: in ms
35
        int delay;
36
        int rows;
37
        int columns;
        int scrollback;
bool visual_bell;
38
39
40
        GdkRGBA foreground_color;
41
        GdkRGBA background_color;
42
        PangoFontDescription *font;
43
       char *active_section;
44
        char *default_filename;
45
47 } display_config_t;
49 // configuration for the terminal window 50 extern display_config_t term_conf;
```

5.30 terminal.c File Reference

```
#include "terminal.h"
Include dependency graph for terminal.c:
```



Classes

• struct _GtkTermTerminalClass

5.31 terminal.h File Reference

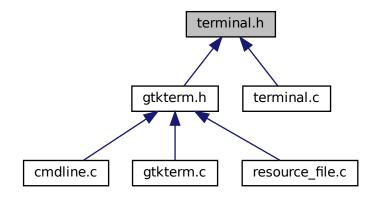
```
#include <glib-object.h>
#include <gtk/gtk.h>
#include <vte/vte.h>
#include <term_config.h>
```

#include <serial.h>

Include dependency graph for terminal.h:



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



Classes

• struct _GtkTermTerminal

Macros

• #define GTKTERM_TERMINAL_TYPE gtkterm_terminal_get_type()

5.31.1 Macro Definition Documentation

5.31.1.1 GTKTERM_TERMINAL_TYPE

#define GTKTERM_TERMINAL_TYPE gtkterm_terminal_get_type()

5.32 terminal.h 75

5.32 terminal.h

```
2 /* terminal.h
        GTKTerm Software
                 (c) Julien Schmitt
7 /* -----
8 /*
9 /* Purpose
10 /* Handles all VTE in/output to/from serial port 11 /* - Header file -
14 #ifndef TERMINAL_H
15 #define TERMINAL_H
16
17 #include <glib-object.h>
18 #include <gtk/gtk.h>
19 #include <vte/vte.h>
20
21 #include <term_config.h>
22 #include <serial.h>
24 G_BEGIN_DECLS
25
26 struct _GtkTermTerminal {
   uint8_t view_mode;
// GtkTermBuffer *te
                                      //! ASCII or HEX view mode
2.7
    // GtkTermBuffer *term_buffer;
display_config_t *term_conf; //! The configuration loaded from the keyfile
28
     port_config_t *port_conf;
char *active_section;
                                      //! Port configuration used in this terminal
//! Active section in this window from config file
31
32
     char *filename;
                                       //! File to send
33
34
                                      //! Foreground (text) color of this terminal
//! Background color
35
      GdkRGBA *term_forground;
36
     GdkRGBA *term_background;
37
38
      VteTerminal vte_object;
                                      //! The actual terminal
39 };
40
42 #define GTKTERM_TERMINAL_TYPE gtkterm_terminal_get_type()
43 G_DECLARE_FINAL_TYPE (GtkTermTerminal, gtkterm_terminal, GTKTERM, TERMINAL, VteTerminal)
44
45 G_END_DECLS
46
47 #endif // TERMINAL_H
```

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