

CONIO

2.1

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Chapter 1

Main Page

Borland-style CONIO implementation for MinGW/Dev-C++. [Homepage](#)

Send any improvements to this library to [me](#), I'll do new release of this devpak.

For the example of use, look at example in the `Examples\conio\conio_test.c` subdirectory of your Dev-C++ directory. It's simple:

1. Include `conio2.h`.
2. Link with `libconio.a` (add `-lconio` parameter to linker).

Functions defined already in MinGW's `conio.h`

`conio2.h` automatically includes `conio.h`. It also provides several `#defines` so you can use all these functions without underscores.

```
char* _cgets (char*);  
int _cprintf (const char*, ...);  
int _cputs (const char*);  
int _cscanf (char*, ...);  
  
int _getch (void);  
int _getche (void);  
int _kbhit (void);  
int _putch (int);  
int _ungetch (int);  
  
int getch (void);  
int getche (void);  
int kbhit (void);  
int putch (int);  
int ungetch (int);
```

About the makefile: The makefile is written for gcc and GNU make. The "all" target passes `-m32` option to the gcc. The "all64" target passes `-m64` option to the gcc.

Author

Hongli Lai hongli@telekabel.nl
tkorrovi tkorrovi@altavista.net on 2002/02/26.
Andrew Westcott ajwestco@users.sourceforge.net
Michal Molhanec michal@mohanec.net

Version

2.1

Changes in 2.1 (2013-12-05 MM):

`clreol()` fix (clear also the color attribute)
new functions `clearkeybuf()`, `delay()`, `switchbackground()`
and `flashbackground()`
`gettext` & `puttext` code simplified
64bit targets in the makefile

Changes in 2.0:

make library aware of console window size
make library aware of console window position in console buffer
added support for UNICODE Win32 API
added constream-like manipulators for C++
implemented `highvideo()`, `insline()`, `lowvideo()`, `movetext()`, `normvideo()`,
`gettextinfo()`, `getpass()`, `cputsxy()`, `putchxy()`, `inittextinfo()`
fixed `delline()`

Chapter 2

Namespace Index

2.1 Namespace List

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

conio	This namespace contain all C++ specific things	9
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Chapter 3

Data Structure Index

3.1 Data Structures

Here are the data structures with brief descriptions:

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Chapter 4

File Index

4.1 File List

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

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constream	A constream implementation for Mingw/Dev-C++	22

Chapter 5

Namespace Documentation

5.1 conio Namespace Reference

This namespace contain all C++ specific things.

Functions

- `_Setxy` `setxy` (int x, int y)
setxy manipulator
- `_Setclr` `setclr` (int color)
setclr manipulator
- `_Setbk` `setbk` (int color)
setbk manipulator
- `_Setattr` `setattr` (int _attr)
setattr manipulator
- `_Setcrsrtype` `setcrsrtype` (int type)
setcrsrtype manipulator
- `std::ostream & clrscr` (`std::ostream &o`)
clrscr manipulator
- `std::ostream & clreol` (`std::ostream &o`)
clreol manipulator
- `std::ostream & highvideo` (`std::ostream &o`)
highvideo manipulator
- `std::ostream & lowvideo` (`std::ostream &o`)
lowvideo manipulator
- `std::ostream & normvideo` (`std::ostream &o`)
normvideo manipulator
- `std::ostream & delline` (`std::ostream &o`)
delline manipulator
- `std::ostream & insline` (`std::ostream &o`)
insline manipulator

5.1.1 Detailed Description

This namespace contain all C++ specific things.

5.1.2 Function Documentation

5.1.2.1 `std::ostream& conio::clreol (std::ostream & o) [inline]`

clreol manipulator

See Also

[clreol\(void\)](#)

5.1.2.2 `std::ostream& conio::clrscr (std::ostream & o) [inline]`

clrscr manipulator

See Also

[clrscr\(void\)](#)

5.1.2.3 `std::ostream& conio::delline (std::ostream & o) [inline]`

delline manipulator

See Also

[delline\(void\)](#)

5.1.2.4 `std::ostream& conio::highvideo (std::ostream & o) [inline]`

highvideo manipulator

See Also

[highvideo\(void\)](#)

5.1.2.5 `std::ostream& conio::insline (std::ostream & o) [inline]`

insline manipulator

See Also

[insline\(void\)](#)

5.1.2.6 `std::ostream& conio::lowvideo (std::ostream & o) [inline]`

lowvideo manipulator

See Also

[lowvideo\(void\)](#)

5.1.2.7 `std::ostream& conio::normvideo (std::ostream & o) [inline]`

normvideo manipulator

See Also

[normvideo\(void\)](#)

5.1.2.8 `_Setattr conio::setattr (int _attr) [inline]`

setattr manipulator

See Also

[textattr](#)

5.1.2.9 `_Setbk conio::setbk (int color) [inline]`

setbk manipulator

See Also

[textbackground](#)

5.1.2.10 `_Setclr conio::setclr (int color) [inline]`

setclr manipulator

See Also

[textcolor](#)

5.1.2.11 `_Setcrsrtype conio::setcrsrtype (int type) [inline]`

setcrsrtype manipulator

See Also

[_setcursortype](#)

5.1.2.12 `_Setxy conio::setxy (int x, int y) [inline]`

setxy manipulator

See Also

[gotoxy](#)

Chapter 6

Data Structure Documentation

6.1 char_info Struct Reference

Structure used by gettext/puttext.

```
#include <conio2.h>
```

Data Fields

- char [letter](#)
character value
- unsigned short [attr](#)
attribute value

6.1.1 Detailed Description

Structure used by gettext/puttext.

See Also

[_conio_gettext](#)
[puttext](#)

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

- [conio2.h](#)

6.2 text_info Struct Reference

Structure holding information about screen.

```
#include <conio2.h>
```

Data Fields

- unsigned char [curx](#)
cursor coordinate x
- unsigned char [cury](#)

- *cursor coordinate y*
- **unsigned short attribute**
current text attribute
- **unsigned short normattr**
original value of text attribute after start of the application.
- **unsigned char screenwidth**
screen width
- **unsigned char screenheight**
screen height

6.2.1 Detailed Description

Structure holding information about screen.

See Also

- [gettextinfo](#)
- [inittextinfo](#)

6.2.2 Field Documentation

6.2.2.1 **unsigned short text_info::normattr**

original value of text attribute after start of the application.

If you don't called the `inittextinfo` on the beginning of the application, this always will be black background and light gray foreground

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

- [conio2.h](#)

Chapter 7

File Documentation

7.1 conio2.h File Reference

A conio implementation for Mingw/Dev-C++.

```
#include <conio.h>
```

Data Structures

- struct `text_info`
Structure holding information about screen.
- struct `char_info`
Structure used by gettext/puttext.

Macros

- `#define gettext _conio_gettext`
Define alias for _conio_gettext.
- `#define cgets _cgets`
This defines enables you to use all MinGW conio.h functions without underscore.

Cursor types

Predefined cursor types.

- `#define _NOCURSOR 0`
no cursor
- `#define _SOLIDCURSOR 100`
cursor filling whole cell
- `#define _NORMALCURSOR 20`
cursor filling 20 percent of cell height

Enumerations

- enum `COLORS` {
 `BLACK, BLUE, GREEN, CYAN,`
 `RED, MAGENTA, BROWN, LIGHTGRAY,`
 `DARKGRAY, LIGHTBLUE, LIGHTGREEN, LIGHTCYAN,`
 `LIGHTRED, LIGHTMAGENTA, YELLOW, WHITE` }

Colors which you can use in your application.

Functions

- void **gettextinfo** (struct `text_info` *info)
Returns information of the screen.
- void **inittextinfo** (void)
Call this if you need real value of normattr attribute in the `text_info` structure.
- void **clreol** (void)
Clears rest of the line from cursor position to the end of line without moving the cursor.
- void **clrscr** (void)
Clears whole screen.
- void **delline** (void)
Delete the current line (line on which is cursor) and then moves all lines below one line up.
- void **insline** (void)
Insert blank line at the cursor position.
- void **_conio_gettext** (int left, int top, int right, int bottom, struct `char_info` *buf)
Gets text from the screen.
- void **puttext** (int left, int top, int right, int bottom, struct `char_info` *buf)
Puts text back to the screen.
- void **movetext** (int left, int top, int right, int bottom, int destleft, int desttop)
Copies text.
- void **gotoxy** (int x, int y)
Moves cursor to the specified position.
- void **cputsxy** (int x, int y, char *str)
Puts string at the specified position.
- void **putchxy** (int x, int y, char ch)
Puts char at the specified position.
- void **_setcursortype** (int type)
Sets the cursor type.
- void **textattr** (int _attr)
Sets attribute of text.
- void **normvideo** (void)
Sets text attribute back to value it had after program start.
- void **textbackground** (int color)
Sets text background color.
- void **textcolor** (int color)
Sets text foreground color.
- int **wherex** (void)
Reads the cursor X position.
- int **wherey** (void)
Reads the cursor Y position.
- char * **getpass** (const char *prompt, char *str)
Reads password.
- void **highvideo** (void)
Makes foreground colors light.
- void **lowvideo** (void)
Makes foreground colors dark.
- void **delay** (int ms)
Pauses program execution for a given time.
- void **switchbackground** (int color)
Replaces background color in the whole window.
- void **flashbackground** (int color, int ms)
Changes background color for a given time and then it restores it back.
- void **clearkeybuf** (void)
Clears the keyboard buffer.

7.1.1 Detailed Description

A conio implementation for Mingw/Dev-C++. Written by: Hongli Lai hongli@telekabel.nl tkorrovi tkorrovi@altavista.net on 2002/02/26. Andrew Westcott ajwestco@users.sourceforge.net Michal Molhanec michal@mohanec.net

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7.1.2 Macro Definition Documentation

7.1.2.1 #define gettext _conio_gettext

Define alias for _conio_gettext.

If you want to use gettext function from some other library (e.g. GNU gettext) you have to define _CONIO_NO_GETTEXT_ so you won't get name conflict.

7.1.3 Enumeration Type Documentation

7.1.3.1 enum COLORS

Colors which you can use in your application.

Enumerator:

BLACK black color

BLUE blue color

GREEN green color

CYAN cyan color

RED red color

MAGENTA magenta color

BROWN brown color

LIGHTGRAY light gray color

DARKGRAY dark gray color

LIGHTBLUE light blue color

LIGHTGREEN light green color

LIGHTCYAN light cyan color

LIGHTRED light red color

LIGHTMAGENTA light magenta color

YELLOW yellow color

WHITE white color

7.1.4 Function Documentation

7.1.4.1 void _conio_gettext(int left, int top, int right, int bottom, struct char_info *buf)

Gets text from the screen.

If you haven't defined _CONIO_NO_GETTEXT_ prior to including [conio2.h](#) you can use this function also under the gettext name.

See Also

[char_info](#)
[puttext](#)

Parameters

<i>left</i>	Left coordinate of the rectangle, inclusive, starting from 1.
<i>top</i>	Top coordinate of the rectangle, inclusive, starting from 1.
<i>right</i>	Right coordinate of the rectangle, inclusive, starting from 1.
<i>bottom</i>	Bottom coordinate of the rectangle, inclusive, starting from 1.
<i>buf</i>	You have to pass buffer of size <code>(right - left + 1) * (bottom - top + 1) * sizeof(char_info)</code> .

7.1.4.2 void .setcursortype(int type)

Sets the cursor type.

See Also

[cursortypes](#)

Parameters

<i>type</i>	cursor type, under Win32 it is height of the cursor in percents
-------------	---

7.1.4.3 void clearkeybuf(void)

Clears the keyboard buffer.

To see it in effect run `conio_test` and try to press a key during the 'Flashing...' phase.

7.1.4.4 void cputsxy(int x, int y, char * str)

Puts string at the specified position.

Parameters

<i>x</i>	horizontal position
<i>y</i>	vertical position
<i>str</i>	string

7.1.4.5 void delay(int ms)

Pauses program execution for a given time.

See Also

[switchbackground](#)

Parameters

<i>ms</i>	milliseconds
-----------	--------------

7.1.4.6 void delline (void)

Delete the current line (line on which is cursor) and then moves all lines below one line up.

Lines below the line are moved one line up.

7.1.4.7 void flashbackground (int *color*, int *ms*)

Changes background color for a given time and then it restores it back.

You can use it for visual bell. Does not modify [textbackground\(\)](#).

See Also

[switchbackground](#)
[delay](#)

Parameters

<i>color</i>	background color
<i>ms</i>	milliseconds

7.1.4.8 char* getpass (const char * *prompt*, char * *str*)

Reads password.

This function behaves like cgets.

See Also

[cgets](#)

Parameters

<i>prompt</i>	prompt which will be displayed to user
<i>str</i>	string for the password. <i>str</i> [0] have to contain length of the <i>str</i> - 3

Returns

&*str*[2], the password will be stored in *str* beginning at *str*[2], in *str*[1] will be length of the string without \0, at *str*[2 + *str*[1]] will be \0.

7.1.4.9 void gettextinfo (struct text_info * *info*)

Returns information of the screen.

See Also

[text_info](#)

7.1.4.10 void gotoxy (int *x*, int *y*)

Moves cursor to the specified position.

Parameters

<i>x</i>	horizontal position
<i>y</i>	vertical position

7.1.4.11 void highvideo (void)

Makes foreground colors light.

If the current foreground color is less than DARKGRAY adds 8 to the its value making dark colors light.

See Also

[COLORS](#)
[lowvideo](#)

7.1.4.12 void inittextinfo (void)

Call this if you need real value of normattr attribute in the [text_info](#) structure.

See Also

[text_info](#)

7.1.4.13 void insline (void)

Insert blank line at the cursor position.

Original content of the line and content of lines below moves one line down. The last line is deleted.

7.1.4.14 void lowvideo (void)

Makes foreground colors dark.

If the current foreground color is higher than LIGHTGRAY subtracts 8 from its value making light colors dark.

See Also

[COLORS](#)
[highvideo](#)

7.1.4.15 void movetext (int *left*, int *top*, int *right*, int *bottom*, int *destleft*, int *desttop*)

Copies text.

Parameters

<i>left</i>	Left coordinate of the rectangle, inclusive, starting from 1.
<i>top</i>	Top coordinate of the rectangle, inclusive, starting from 1.
<i>right</i>	Right coordinate of the rectangle, inclusive, starting from 1.
<i>bottom</i>	Bottom coordinate of the rectangle, inclusive, starting from 1.
<i>destleft</i>	Left coordinate of the destination rectangle.
<i>desttop</i>	Top coordinate of the destination rectangle.

7.1.4.16 void normvideo (void)

Sets text attribute back to value it had after program start.

It uses [text_info](#)'s normattr value.

See Also

[text_info](#)

7.1.4.17 void putchxy (int *x*, int *y*, char *ch*)

Puts char at the specified position.

Parameters

<i>x</i>	horizontal position
<i>y</i>	vertical position
<i>ch</i>	char

7.1.4.18 void puttext (int *left*, int *top*, int *right*, int *bottom*, struct [char_info](#) * *buf*)

Puts text back to the screen.

See Also

[char_info](#)
[_conio_gettext](#)

Parameters

<i>left</i>	Left coordinate of the rectangle, inclusive, starting from 1.
<i>top</i>	Top coordinate of the rectangle, inclusive, starting from 1.
<i>right</i>	Right coordinate of the rectangle, inclusive, starting from 1.
<i>bottom</i>	Bottom coordinate of the rectangle, inclusive, starting from 1.
<i>buf</i>	You have to pass buffer of size (<i>right</i> - <i>left</i> + 1) * (<i>bottom</i> - <i>top</i> + 1) * sizeof(char_info).

7.1.4.19 void switchbackground (int *color*)

Replaces background color in the whole window.

The text however is left intact. Does not modify [textbackground\(\)](#).

See Also

[flashbackground](#)

Parameters

<i>color</i>	background color
--------------	------------------

7.1.4.20 void textattr (int *attr*)

Sets attribute of text.

Parameters

<i>attr</i>	new text attribute
-------------	--------------------

7.1.4.21 void textbackground (int *color*)

Sets text background color.

See Also[COLORS](#)**Parameters**

<i>color</i>	new background color
--------------	----------------------

7.1.4.22 void textcolor (int *color*)

Sets text foreground color.

See Also[COLORS](#)**Parameters**

<i>color</i>	new foreground color
--------------	----------------------

7.1.4.23 int wherex (void)

Reads the cursor X position.

Returns

cursor X position

7.1.4.24 int wherey (void)

Reads the cursor Y position.

Returns

cursor Y position

7.2 constream File Reference

A constream implementation for Mingw/Dev-C++.

```
#include <iostream>
#include "conio2.h"
```

Namespaces

- namespace **conio**

This namespace contain all C++ specific things.

Functions

- **_Setxy** **conio::setxy** (int x, int y)
setxy manipulator
- **_Setclr** **conio::setclr** (int color)
setclr manipulator
- **_Setbk** **conio::setbk** (int color)
setbk manipulator
- **_Setattr** **conio::setattr** (int _attr)
setattr manipulator
- **_Setcrsrtype** **conio::setcrsrtype** (int type)
setcrsrtype manipulator
- std::ostream & **conio::clrscr** (std::ostream &o)
clrscr manipulator
- std::ostream & **conio::clreol** (std::ostream &o)
clreol manipulator
- std::ostream & **conio::highvideo** (std::ostream &o)
highvideo manipulator
- std::ostream & **conio::lowvideo** (std::ostream &o)
lowvideo manipulator
- std::ostream & **conio::normvideo** (std::ostream &o)
normvideo manipulator
- std::ostream & **conio::delline** (std::ostream &o)
delline manipulator
- std::ostream & **conio::insline** (std::ostream &o)
insline manipulator

7.2.1 Detailed Description

A constream implementation for Mingw/Dev-C++.

Warning

There is not implemented constream class, only manipulators for iostream, so use them on cin/cout.

Author

Michal Molhanec michal@mohanec.net

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