

TimePickerCtrl

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Contents

1	TimePickerCtrl	1
1.1	Introduction	1
1.2	Release Notes	1
1.3	Requirements	2
1.4	License	2
2	Class Index	3
2.1	Class List	3
3	File Index	5
3.1	File List	5
4	Class Documentation	7
4.1	TimePickerCtrl Class Reference	7
4.1.1	Constructor & Destructor Documentation	9
4.1.1.1	TimePickerCtrl	9
4.1.1.2	TimePickerCtrl	9
4.1.1.3	~TimePickerCtrl	9
4.1.2	Member Function Documentation	9
4.1.2.1	Create	9
4.1.2.2	DoGetBestSize	9
4.1.2.3	DoMoveWindow	9
4.1.2.4	Enable	9
4.1.2.5	GetDateTime	9
4.1.2.6	GetHour	9
4.1.2.7	GetMax	9
4.1.2.8	GetMin	9
4.1.2.9	GetMinute	10
4.1.2.10	GetSecond	10

4.1.2.11	GetSpinButton	10
4.1.2.12	GetText	10
4.1.2.13	GetTextValue	10
4.1.2.14	GetTimeField	10
4.1.2.15	GetValue	10
4.1.2.16	Init	10
4.1.2.17	pmQ	10
4.1.2.18	Reparent	10
4.1.2.19	SetHour	10
4.1.2.20	SetMinute	10
4.1.2.21	SetRange	10
4.1.2.22	SetSecond	10
4.1.2.23	SetSelection	10
4.1.2.24	SetTimeField	10
4.1.2.25	SetValue	11
4.1.2.26	SetValue	11
4.1.2.27	Show	11
4.2	TimePickerCtrlButton Class Reference	12
4.2.1	Constructor & Destructor Documentation	12
4.2.1.1	TimePickerCtrlButton	12
4.2.2	Member Function Documentation	12
4.2.2.1	OnSpinButton	12
4.3	TimePickerCtrlText Class Reference	13
4.3.1	Constructor & Destructor Documentation	13
4.3.1.1	TimePickerCtrlText	13
4.3.2	Member Function Documentation	13
4.3.2.1	OnChar	13
4.3.2.2	OnMouse	13
4.3.2.3	OnTextChanged	13
4.3.2.4	ProcessEvent	13
4.4	TimePickerEvent Class Reference	14
4.4.1	Constructor & Destructor Documentation	14
4.4.1.1	TimePickerEvent	14
4.4.2	Member Function Documentation	14
4.4.2.1	Clone	14
5	File Documentation	15

5.1	/home/paul/projects/timectrls/timectrls/timepickerctrl/include/timepickerctrl.h File Reference	15
5.1.1	Define Documentation	15
5.1.1.1	EVT_TIMEPICKER	15
5.1.2	Typedef Documentation	16
5.1.2.1	TimePickerEventFunction	16
5.1.3	Enumeration Type Documentation	16
5.1.3.1	wxTimeField	16
5.1.4	Variable Documentation	16
5.1.4.1	wxSpinButton	16
5.1.4.2	wxTextCtrl	16
5.2	/home/paul/projects/timectrls/timectrls/timepickerctrl/src/timepickerctrl.cpp File Reference	17

Chapter 1

TimePickerCtrl

Version

0.2

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Date

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1.1 Introduction

[TimePickerCtrl](#) is a wxWidgets control for entering and displaying time information. It's a composite control made up of a wxTextCtrl and a wxSpinButton. The time is displayed in 12 hour format like 9:30:00 AM. The user can change the time by selecting the field (hours, minutes, seconds, or AM/PM) they want to change and using the wxSpinCtrl's arrow buttons. For anyone familiar with MFC, this control is similar to a CDateTimeCtrl with the DTS_TIMEFORMAT style.

1.2 Release Notes

This control is still in a beta stage of development. There are no known bugs yet, but it is not extensively tested. The control was developed on 32-bit i386 Ubuntu 10.04 LTS Desktop version using wxWidgets 2.8.11. It is also known to build on Windows Vista with wxWidgets 2.8. I would appreciate any feedback on experiences with this control on other platforms, or any suggestions for improvement, etc. If you do email me, please include the string "timepickerctrl" in the subject line so I can filter the message to the appropriate folder. I can't promise I'll provide fixes or implement suggestions or even respond to email messages, but I'll try to be as responsive as I can with the time I have available, and it can't hurt to ask.

Currently the time format is fixed. Depending on public interest and my available time, I may implement customization.

1.3 Requirements

wxWidgets 2.8 or higher. May work with lower versions of wxWidgets, but this has not been tested. Please email me with your experiences using this control in other versions of wxWidgets.

1.4 License

`TimePickerCtrl` is released under the wxWindows license. Please see <http://www.opensource.org/licenses/wxwindows.php> for details.

Chapter 2

Class Index

2.1 Class List

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

TimePickerCtrl	7
TimePickerCtrlButton	12
TimePickerCtrlText	13
TimePickerEvent	14

Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

/home/paul/projects/timectrls/timectrls/timepickerctrl/include/ timepickerctrl.h	15
/home/paul/projects/timectrls/timectrls/timepickerctrl/src/ timepickerctrl.cpp	17

Chapter 4

Class Documentation

4.1 TimePickerCtrl Class Reference

```
#include <timepickerctrl.h>
```

Public Member Functions

- [TimePickerCtrl](#) ()
- [TimePickerCtrl](#) (wxWindow *parent, wxWindowID id=wxID_ANY, const wxString &value=wxEmptyString, const wxPoint &pos=wxDefaultPosition, const wxSize &size=wxDefaultSize, long style=wxSP_ARROW_KEYS, const wxDateTime time=wxDefaultDateTime, const wxString &name=_("TimePickerCtrl"))
- bool [Create](#) (wxWindow *parent, wxWindowID id=wxID_ANY, const wxString &value=wxEmptyString, const wxPoint &pos=wxDefaultPosition, const wxSize &size=wxDefaultSize, long style=wxSP_ARROW_KEYS, const wxDateTime time=wxDefaultDateTime, const wxString &name=_("TimePickerCtrl"))
- virtual [~TimePickerCtrl](#) ()
- void [SetValue](#) (int val)
This function sets the currently selected field.
- void [SetValue](#) (wxDateTime dt)
This function sets the TimePickerCtrl's wxDateTime to the given wxDateTime.
- void [SetRange](#) (int min, int max)
This function sets the minimum and maximum values allowed in the currently selected field.
- void [SetSelection](#) (long from, long to) const
This function highlights the text in the TimePickerCtrl's associated wxTextCtrl between the given indices.
- int [GetValue](#) () const
This function returns the value of the currently selected field.
- int [GetMin](#) () const
This function returns the minimum value allowed in the currently selected field.

- int [GetMax](#) () const

This function returns the maximum value allowed in the currently selected field.

- wxDateTime [GetDateTime](#) () const

This function returns the wxDateTime currently entered in the [TimePickerCtrl](#).

- virtual bool [Enable](#) (bool enable=true)
- virtual bool [Show](#) (bool show=true)
- virtual bool [Reparent](#) (wxWindow *newParent)
- wxTextCtrl * [GetText](#) () const
- wxSpinButton * [GetSpinButton](#) () const
- unsigned short [GetHour](#) (bool militaryQ=true) const
- unsigned short [GetMinute](#) () const
- unsigned short [GetSecond](#) () const
- bool [pmQ](#) () const

Returns true if the time contained in the control falls between noon and just before midnight.

- bool [SetHour](#) (unsigned short h)
- bool [SetMinute](#) (unsigned short m)
- bool [SetSecond](#) (unsigned short s)
- wxTimeField [GetTimeField](#) () const

Get which field is currently selected.

- bool [SetTimeField](#) (wxTimeField f)

Set which field is currently selected.

- bool [GetTextValue](#) (wxDateTime *const time) const

Protected Member Functions

- wxSize [DoGetBestSize](#) () const

Override the base class virtuals involved into geometry calculations.

- void [DoMoveWindow](#) (int x, int y, int width, int height)
- void [Init](#) ()

Common part of all constructors.

4.1.1 Constructor & Destructor Documentation

4.1.1.1 TimePickerCtrl::TimePickerCtrl () [inline]

4.1.1.2 TimePickerCtrl::TimePickerCtrl (wxWindow * *parent*, wxWindowID *id* = wxID_ANY, const wxString & *value* = wxEmptyString, const wxPoint & *pos* = wxDefaultPosition, const wxSize & *size* = wxDefaultSize, long *style* = wxSP_ARROW_KEYS, const wxDateTime *time* = wxDefaultDateTime, const wxString & *name* = _("TimePickerCtrl")) [inline]

4.1.1.3 TimePickerCtrl::~TimePickerCtrl () [virtual]

4.1.2 Member Function Documentation

4.1.2.1 bool TimePickerCtrl::Create (wxWindow * *parent*, wxWindowID *id* = wxID_ANY, const wxString & *value* = wxEmptyString, const wxPoint & *pos* = wxDefaultPosition, const wxSize & *size* = wxDefaultSize, long *style* = wxSP_ARROW_KEYS, const wxDateTime *time* = wxDefaultDateTime, const wxString & *name* = _("TimePickerCtrl"))

4.1.2.2 wxSize TimePickerCtrl::DoGetBestSize () const [protected]

Override the base class virtuals involved into geometry calculations.

4.1.2.3 void TimePickerCtrl::DoMoveWindow (int *x*, int *y*, int *width*, int *height*) [protected]

4.1.2.4 bool TimePickerCtrl::Enable (bool *enable* = true) [virtual]

4.1.2.5 wxDateTime TimePickerCtrl::GetDateTime () const [inline]

This function returns the wxDateTime currently entered in the [TimePickerCtrl](#).

4.1.2.6 unsigned short TimePickerCtrl::GetHour (bool *militaryQ* = true) const

4.1.2.7 int TimePickerCtrl::GetMax () const

This function returns the maximum value allowed in the currently selected field.

4.1.2.8 int TimePickerCtrl::GetMin () const

This function returns the minimum value allowed in the currently selected field.

4.1.2.9 `unsigned short TimePickerCtrl::GetMinute () const [inline]`

4.1.2.10 `unsigned short TimePickerCtrl::GetSecond () const [inline]`

4.1.2.11 `wxSpinButton* TimePickerCtrl::GetSpinButton () const [inline]`

4.1.2.12 `wxTextCtrl* TimePickerCtrl::GetText () const [inline]`

4.1.2.13 `bool TimePickerCtrl::GetTextValue (wxDateTime *const time) const`

Put the time value of the string in the text control into time and return true or return false if the text ctrl doesn't contain a valid time.

4.1.2.14 `wxTimeField TimePickerCtrl::GetTimeField () const [inline]`

Get which field is currently selected.

4.1.2.15 `int TimePickerCtrl::GetValue () const`

This function returns the value of the currently selected field.

4.1.2.16 `void TimePickerCtrl::Init () [protected]`

Common part of all constructors.

4.1.2.17 `bool TimePickerCtrl::pmQ () const [inline]`

Returns true if the time contained in the control falls between noon and just before midnight.

4.1.2.18 `bool TimePickerCtrl::Reparent (wxWindow * newParent) [virtual]`

4.1.2.19 `bool TimePickerCtrl::SetHour (unsigned short h)`

4.1.2.20 `bool TimePickerCtrl::SetMinute (unsigned short m)`

4.1.2.21 `void TimePickerCtrl::SetRange (int min, int max)`

This function sets the minimum and maximum values allowed in the currently selected field.

4.1.2.22 `bool TimePickerCtrl::SetSecond (unsigned short s)`

4.1.2.23 `void TimePickerCtrl::SetSelection (long from, long to) const [inline]`

This function highlights the text in the TimePickerCtrl's associated wxTextCtrl between the given indices.

4.1.2.24 `bool TimePickerCtrl::SetTimeField (wxTimeField f)`

Set which field is currently selected.

4.1.2.25 void TimePickerCtrl::SetValue (wxDateTime *dt*)

This function sets the TimePickerCtrl's wxDateTime to the given wxDateTime.

4.1.2.26 void TimePickerCtrl::SetValue (int *val*)

This function sets the currently selected field.

4.1.2.27 bool TimePickerCtrl::Show (bool *show* = true) [virtual]

The documentation for this class was generated from the following files:

- </home/paul/projects/timectrls/timectrls/timepickerctrl/include/timepickerctrl.h>
- </home/paul/projects/timectrls/timectrls/timepickerctrl/src/timepickerctrl.cpp>

4.2 TimePickerCtrlButton Class Reference

Public Member Functions

- [TimePickerCtrlButton](#) ([TimePickerCtrl](#) *timepicker, int style)

Protected Member Functions

- void [OnSpinButton](#) (wxSpinEvent &eventSpin)

4.2.1 Constructor & Destructor Documentation

4.2.1.1 `TimePickerCtrlButton::TimePickerCtrlButton (TimePickerCtrl * timepicker, int style)`
[inline]

4.2.2 Member Function Documentation

4.2.2.1 `void TimePickerCtrlButton::OnSpinButton (wxSpinEvent & eventSpin)` [inline, protected]

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

- /home/paul/projects/timectrls/timectrls/timepickerctrl/src/[timepickerctrl.cpp](#)

4.3 TimePickerCtrlText Class Reference

Public Member Functions

- [TimePickerCtrlText](#) ([TimePickerCtrl](#) *timepicker, const wxString &value)

Protected Member Functions

- void [OnTextChange](#) (wxCommandEvent &event)
- void [OnMouse](#) (wxMouseEvent &event)
- bool [ProcessEvent](#) (wxEvent &event)
- void [OnChar](#) (wxKeyEvent &event)

4.3.1 Constructor & Destructor Documentation

- 4.3.1.1** [TimePickerCtrlText::TimePickerCtrlText](#) ([TimePickerCtrl](#) * *timepicker*, const wxString & *value*) [[inline](#)]

4.3.2 Member Function Documentation

- 4.3.2.1** void [TimePickerCtrlText::OnChar](#) (wxKeyEvent & *event*) [[inline](#), [protected](#)]
- 4.3.2.2** void [TimePickerCtrlText::OnMouse](#) (wxMouseEvent & *event*) [[inline](#), [protected](#)]
- 4.3.2.3** void [TimePickerCtrlText::OnTextChange](#) (wxCommandEvent & *event*) [[inline](#), [protected](#)]
- 4.3.2.4** bool [TimePickerCtrlText::ProcessEvent](#) (wxEvent & *event*) [[inline](#), [protected](#)]

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

- /home/paul/projects/timectrls/timectrls/timepickerctrl/src/[timepickerctrl.cpp](#)

4.4 TimePickerEvent Class Reference

```
#include <timepickerctrl.h>
```

Public Member Functions

- [TimePickerEvent](#) (wxWindow *win=(wxWindow *) NULL)
- wxEvent * [Clone](#) () const

4.4.1 Constructor & Destructor Documentation

4.4.1.1 `TimePickerEvent::TimePickerEvent (wxWindow * win = (wxWindow*) NULL)`

4.4.2 Member Function Documentation

4.4.2.1 `wxEvent* TimePickerEvent::Clone () const` [[inline](#)]

The documentation for this class was generated from the following files:

- /home/paul/projects/timectrls/timectrls/timepickerctrl/include/[timepickerctrl.h](#)
- /home/paul/projects/timectrls/timectrls/timepickerctrl/src/[timepickerctrl.cpp](#)

Chapter 5

File Documentation

5.1 /home/paul/projects/timectrls/timectrls/timepickerctrl/include/timepickerctrl. File Reference

Classes

- class [TimePickerCtrl](#)
- class [TimePickerEvent](#)

Defines

- #define [EVT_TIMEPICKER](#)(func)

Typedefs

- typedef void(wxEvtHandler::* [TimePickerEventFunction](#))(TimePickerEvent &)

Enumerations

- enum wxTimeField { [TIME_FIELD_HOUR](#), [TIME_FIELD_MINUTE](#), [TIME_FIELD_SECOND](#), [TIME_FIELD_AM_PM](#) }

Variables

- class WXDLLEXPORT [wxSpinButton](#)
- class WXDLLEXPORT [wxTextCtrl](#)

5.1.1 Define Documentation

5.1.1.1 #define EVT_TIMEPICKER(func)

Value:

```
DECLARE_EVENT_TABLE_ENTRY( ptb3EVT_TIMEPICKEREVENT,      \
                          -1,                             \
                          -1,                             \
                          (wxObjectEventFunction)         \
                          (TimePickerEventFunction) & func, \
                          (wxObject *) NULL ),
```

5.1.2 Typedef Documentation

5.1.2.1 `typedef void(wxEvtHandler::* TimePickerEventFunction)(TimePickerEvent &)`

5.1.3 Enumeration Type Documentation

5.1.3.1 `enum wxTimeField`

Enumerator:

TIME_FIELD_HOUR
TIME_FIELD_MINUTE
TIME_FIELD_SECOND
TIME_FIELD_AM_PM

5.1.4 Variable Documentation

5.1.4.1 `class WXDLLEXPORT wxSpinButton`

5.1.4.2 `class WXDLLEXPORT wxTextCtrl`

5.2 /home/paul/projects/timectrls/timectrls/timepickerctrl/src/timepickerctrl.cpp File Reference

```
#include "wx/wxprec.h"  
#include "wx/textctrl.h"  
#include "wx/spinbutt.h"  
#include "timepickerctrl.h"
```

Classes

- class [TimePickerCtrlText](#)
- class [TimePickerCtrlButton](#)

Index

- ~TimePickerCtrl
 - TimePickerCtrl, [9](#)
- /home/paul/projects/timectrls/timectrls/timepickerctrl/include/timepickerctrl.h,
 - [15](#)
- /home/paul/projects/timectrls/timectrls/timepickerctrl/src/timepickerctrl.cpp,
 - [17](#)
- Clone
 - TimePickerEvent, [14](#)
- Create
 - TimePickerCtrl, [9](#)
- DoGetBestSize
 - TimePickerCtrl, [9](#)
- DoMoveWindow
 - TimePickerCtrl, [9](#)
- Enable
 - TimePickerCtrl, [9](#)
- EVT_TIMEPICKER
 - timepickerctrl.h, [15](#)
- GetDateTime
 - TimePickerCtrl, [9](#)
- GetHour
 - TimePickerCtrl, [9](#)
- GetMax
 - TimePickerCtrl, [9](#)
- GetMin
 - TimePickerCtrl, [9](#)
- GetMinute
 - TimePickerCtrl, [9](#)
- GetSecond
 - TimePickerCtrl, [10](#)
- GetSpinButton
 - TimePickerCtrl, [10](#)
- GetText
 - TimePickerCtrl, [10](#)
- GetTextValue
 - TimePickerCtrl, [10](#)
- GetTimeField
 - TimePickerCtrl, [10](#)
- GetValue
 - TimePickerCtrl, [10](#)
- Init
 - TimePickerCtrl, [10](#)
- OnChar
 - TimePickerCtrlText, [13](#)
- OnMouse
 - TimePickerCtrlText, [13](#)
- OnSpinButton
 - TimePickerCtrlButton, [12](#)
- OnTextChanged
 - TimePickerCtrlText, [13](#)
- pmQ
 - TimePickerCtrl, [10](#)
- ProcessEvent
 - TimePickerCtrlText, [13](#)
- Reparent
 - TimePickerCtrl, [10](#)
- SetHour
 - TimePickerCtrl, [10](#)
- SetMinute
 - TimePickerCtrl, [10](#)
- SetRange
 - TimePickerCtrl, [10](#)
- SetSecond
 - TimePickerCtrl, [10](#)
- SetSelection
 - TimePickerCtrl, [10](#)
- SetTimeField
 - TimePickerCtrl, [10](#)
- SetValue
 - TimePickerCtrl, [10](#), [11](#)
- Show
 - TimePickerCtrl, [11](#)
- TIME_FIELD_AM_PM
 - timepickerctrl.h, [16](#)
- TIME_FIELD_HOUR
 - timepickerctrl.h, [16](#)
- TIME_FIELD_MINUTE
 - timepickerctrl.h, [16](#)
- TIME_FIELD_SECOND
 - timepickerctrl.h, [16](#)
- TimePickerCtrl, [7](#)
 - ~TimePickerCtrl, [9](#)

- Create, [9](#)
- DoGetBestSize, [9](#)
- DoMoveWindow, [9](#)
- Enable, [9](#)
- GetDateTime, [9](#)
- GetHour, [9](#)
- GetMax, [9](#)
- GetMin, [9](#)
- GetMinute, [9](#)
- GetSecond, [10](#)
- GetSpinButton, [10](#)
- GetText, [10](#)
- GetTextValue, [10](#)
- GetTimeField, [10](#)
- GetValue, [10](#)
- Init, [10](#)
- pmQ, [10](#)
- Reparent, [10](#)
- SetHour, [10](#)
- SetMinute, [10](#)
- SetRange, [10](#)
- SetSecond, [10](#)
- SetSelection, [10](#)
- SetTimeField, [10](#)
- SetValue, [10](#), [11](#)
- Show, [11](#)
- TimePickerCtrl, [9](#)
- timepickerctrl.h
 - EVT_TIMEPICKER, [15](#)
 - TIME_FIELD_AM_PM, [16](#)
 - TIME_FIELD_HOUR, [16](#)
 - TIME_FIELD_MINUTE, [16](#)
 - TIME_FIELD_SECOND, [16](#)
 - TimePickerEventFunction, [16](#)
 - wxSpinButton, [16](#)
 - wxTextCtrl, [16](#)
 - wxTimeField, [16](#)
- TimePickerCtrlButton, [12](#)
 - OnSpinButton, [12](#)
 - TimePickerCtrlButton, [12](#)
- TimePickerCtrlText, [13](#)
 - OnChar, [13](#)
 - OnMouse, [13](#)
 - OnTextChange, [13](#)
 - ProcessEvent, [13](#)
 - TimePickerCtrlText, [13](#)
- TimePickerEvent, [14](#)
 - Clone, [14](#)
 - TimePickerEvent, [14](#)
- TimePickerEventFunction
 - timepickerctrl.h, [16](#)
- wxSpinButton
 - timepickerctrl.h, [16](#)
- wxTextCtrl
 - timepickerctrl.h, [16](#)
- wxTimeField
 - timepickerctrl.h, [16](#)