

TimePickerCtrl

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Chapter 1

TimePickerCtrl

Version

0.1

Authors

Paul Breen (greenbreen@yahoo.com); adapted from the generic wxSpinCtrl by Vadim Zeitlin

Date

January 3, 2011

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 an alpha stage of development. Although there are no known bugs yet, it is not well tested. The control was developed on 32-bit i386 Ubuntu 10.04 LTS Desktop version using wxWidgets 2.8.11. 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:

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Chapter 3

File Index

3.1 File List

Here is a list of all files with brief descriptions:

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| /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)
- void [SetRange](#) (int min, int max)
- void [SetSelection](#) (long from, long to)
- int [GetValue](#) () const
- int [GetMin](#) () const
- int [GetMax](#) () const
- wxDateTime [GetDateTime](#) () const
- 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
- void [setSel](#) (int start, int end) 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]

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

4.1.2.7 int TimePickerCtrl::GetMax () const

4.1.2.8 int TimePickerCtrl::GetMin () const

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

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)`

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

4.1.2.23 `void TimePickerCtrl::setSel (int start, int end) const` **[inline]**

4.1.2.24 `void TimePickerCtrl::SetSelection (long from, long to)`

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

Set which field is currently selected.

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

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](#)

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