TimePickerCtrl

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Chapter 1

TimePickerCtrl

Version

0.1

Authors

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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 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:

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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)

  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.h 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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