

Plone-Calendar 1.0.2

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***Abstract:** If in collaborative working environments synchronization of different employee's time tables has to be done, an access to a common shared knowledge-base has to be offered. This is normally done through semi-automatic usage of groupware applications with calendaring functionalities. Due to the fact that the content management system PLONE offers a variety of web-oriented functionalities in the computer supported cooperative work area including a simple calendaring system, but lacks convenient views and features to the users, we provide an add-on for the existing calendaring system and event objects and news objects (time driven objects) inside PLONE.*

***Keywords:** PLONE, CMF, Zope, Groupware, CSCW, Knowledge Sharing, Web-based Application Service Providing.*

1. Introduction

This document describes the developed Plone conform Groupware Calendaring application named 'PloneCalendar' extending the given features of time driven PLONE objects like events. The resulting agenda offers day, alternative week and month views on these objects. All views offer the feature to filter and show private time driven objects only or show all publicly available objects. Information Pop-Up in calendar views is supported, too.

In collaborative business-like working environments synchronization of different employee's time tables is a crucial planning task. An access to a common shared knowledge-base containing private entries and publicly shared entries has to be offered (private & publicly shared calendaring). This is normally done through semi-automatic usage of groupware applications with calendaring functionalities. Due to the fact that the content management system PLONE offers a variety of web-oriented functionalities in the computer supported cooperative work area including a simple calendaring system, but lacks convenient views and features to the users, we provide an add-on for the existing calendaring system and event objects (time driven objects) inside PLONE.

If we think about the domain of groupware as a triangle spanning a vector space with the dimensions cooperation support, communication support and coordination support (3C model; [4] [5]) the PloneCalendar plus the Event object included in Plone's CMFCalendar are more placed in the area of coordination support and with Plone and the CMFCalendar Event object as a multi user editor touching cooperation support. It clearly does not solve problems of the communication support (maybe in future versions when community user email support in Plone will be directly included).

2. Installation

The current versions and documentation of ZOPE, CMF and PLONE can be found at [1], [2] and [3]. These frameworks for our development here will only be mentioned in this document if needed for explaining functionalities of our contribution.

The PLONE-Calendar was developed using the following components:

- Python 2.1.3
- ZOPE 2.6.1
- CMF 1.3.2
- PLONE 1.0.5

See the PloneCalendar Wiki for additional information and hints for installing.

- Due to the missing datetime.pyd in Zope 2.7.0-b3 standard installs on Win32 (and maybe others, too) see <http://collector.zope.org/Zope/1128>
- Some Python installs do not handle whitespaces correctly. The difference between the Plonecalendar-1.0.2.tgz (309 K) and Plonecalendar-1.0.2.zip (324 K) is that both files have different EOL character sequences. Plonecalendar-1.0.2.zip should work fine for all Win32 Python installs while Plonecalendar-1.0.2.tgz targets the UNIX versions. If something does not work correctly and your error messages seem to correlate with end of lines of the page templates try the other Plone Calendar file (zip/tgz).

Some installations require slight adaptations of the installation process.

After installing Python, Zope, CMF and Plone the PLONE-Calendar installation continues with the following steps:

1. Copy the PLONECalendar directory from the unpacked distribution into the following directory:

```
</install-dir. Zope>/lib/python/Products/CMFPlone/skins/plone_3rdParty/
```

If you are using the Plone Standalone Installer the directory will be

```
"c:\Program Files\Plone\Data\Products\CMFPlone\skins\plone_3rdParty\"
```

in most cases. If "c:\Program Files\Plone\Data\Products\CMFPlone\skins\plone_3rdParty\PloneCalendar-1.0.2" or the equivalent installation directory contains all the

```
calendar*.*
calLinkOpaque.gif
dhtml.js.pt
get*.py
...
```

files then everything should be correct.

2. Start – respectively restart - the Zope server
3. Create a new object "Filesystem Directory View" at your favoured position in the PLONE portal of the ZMI and choose the directory .../PloneCalendar-1.0.2 (Illustration 1). The directory choice here should be identical with the last part of your installation directory used in 1.) above.

Id can be chosen freely. I suggest

PloneCal

as a good Id name.

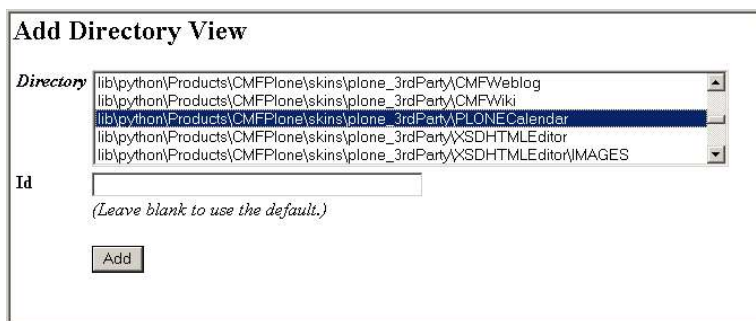


Illustration 1: PLONE-Calendar installation

3. Invocation of the PLONE-Calendar

In this section two ways to access the PLONE-Calendar will be depicted.

URL

The PLONE-Calendar kann be accessed directly through an URI (Security-Properties: standard):

<plone-root-url>/<path to PLONECalendar>/PloneCal/calendarDay

If you added the Filesystem Directory View into the Root Folder of Plone installation the URI will be

http://127.0.0.1/PloneCal/calendarDay

in most cases with PloneCal as the chosen Id for the Filesystem Directory View. If everything works so far: try calendarWeek2 instead of calendarDay in the URI. Or maybe calendarMonth or calendarWeek ?

Additional register card

Totally independent from the installation procedure above you can additionally add a more convenient access by creating an additional register card in the PLONE portal (Illustration 2).

1. Go to the PLONE-root-view of the ZMI in "portal_actions".
2. Fill in the empty text fields in "Add an action":

Name: calendar
ID: Calendar
Action: string:\$portal_url/<path to PLONECalendar>/PloneCal/calendarDay
Condition:
Permission: View
Category: portal_tabs
Visible: "checked"









Illustration 2: Registration card

If you prefer a different standard view of the Plone Calendar change the Action field and replace the .../calendarDay entry by .../calendarWeek2 or .../calendarWeek or .../calendarMonth .

4. I18n - Internationalization

Internationalization support is offered by the Plone Calendar. English is standard after doing the basic install.

<i>PO file to use</i>	<i>Supported language</i>
	 English (standard, no PO file needed)
de.po	 German
es.po	 Spanish

<i>PO file to use</i>	<i>Supported language</i>
fr.po	 French
it.po	 Italian
nl.po	 Dutch

Goto the Zope Management Interface (ZMI) of your Plone installation. There you will find the Localizer containing the Plone Message Catalog. Click the Import/Export Tab of the Plone Message Catalog.

In the lower part of the page you can choose the correct PO file describing your desired language translations from file system by clicking the browse button. After choosing the correct language matching your PO file click the import button on the bottom of the page.

If additional PO files are available, I'll publish them, too. You are invited to provide me with a PO file or the appropriate translations for the Plone Calendar (see appendix A, too).

You can change the language in your webbrowser by choosing the desired language encoding and language.

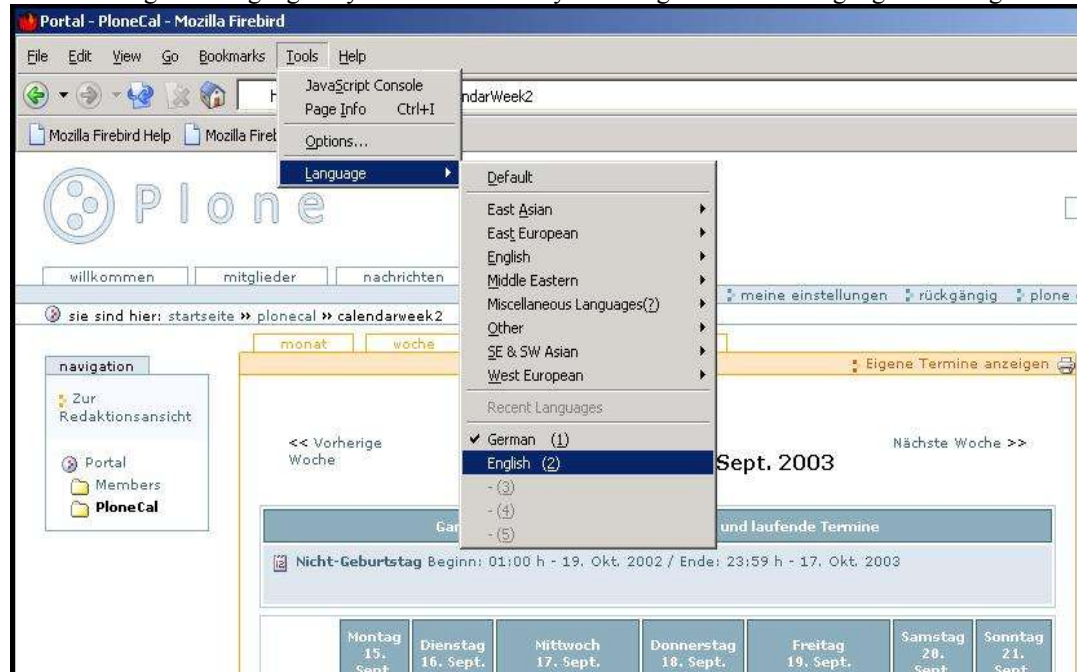


Illustration 3: Selecting language and language encoding in Mozilla Firebird Browser

The internationalization and localizer can be used to customize nearly all Plone Calendar texts and messages, too. For hints on i18n and the localizer of Plone please read the appropriate how-to document available at [3].

5. Description of the PLONE-Calendar

There are four views implemented in the PLONE-Calendar to access time-driven objects like events. Besides the possibility to view these by day, two views by week and a view by month is accessible. Due to the fact that the views offer equivalent functionalities only the view by day will be described in detail.

View by day

In Section 1 of illustration 4 all event objects are displayed if they are whole day events, have started before the current day and end during or after the current day. In Section 2 the current day is displayed in a table showing the hours of the day. All event objects beginning and ending the current day are displayed here. A short description of the event is displayed at its starting hour. The font color of the entry depends on its status:

- green: public
- red: private
- blue: others

month week week2 day [show only my events](#)

<< previous day February 17, 2003 (Monday) next day >>

Whole-Day-Events or Started-Already-And-Still-Running-Events

1

Hour	Events
0.00	
1.00	
2.00	
3.00	Treffen (start: 03:00 h - Feb 17, 2003 end: 05:00 h - Feb 17, 2003)
4.00	2
5.00	

Illustration 4: View by day – private events only

Additionally the timespan of the validity of the event object is marked in dark blue. If no event is “active” during the displayed hour the cell of the table is colored in light blue.

An additional navigation is offered by the links "previous day" and "next day".

Following the link "show only my events" only the users private events will be displayed. If you are viewing the private events only the link text changes to "show all events".

The link “show all events” (Illustration 5) allows to view the other community members event object having the status “public” beside viewing your own events.

Each event offers a mouse-over pop-up functionality displaying a pop-up window showing additional information on the event object. On pop-up the color of the timeframe of the event object inside the time table changes to yellow.

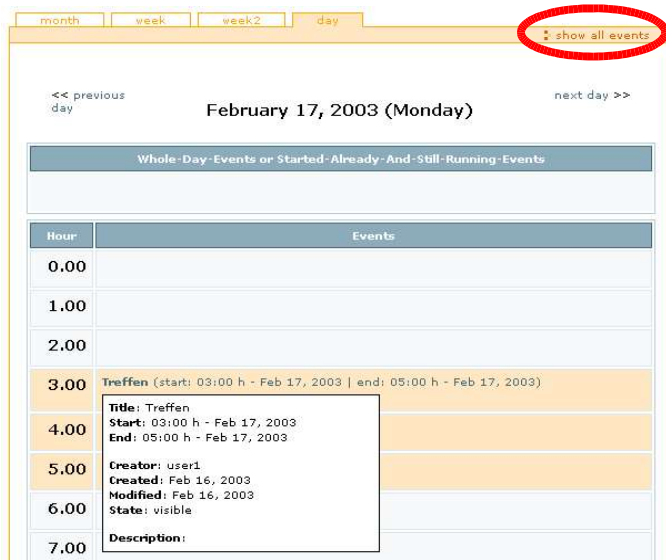


Illustration 5: View by day - all events

View by week

While showing the view by week all event objects are displayed that continue and last the whole week or began before and end during or after the current week (Illustration 6).

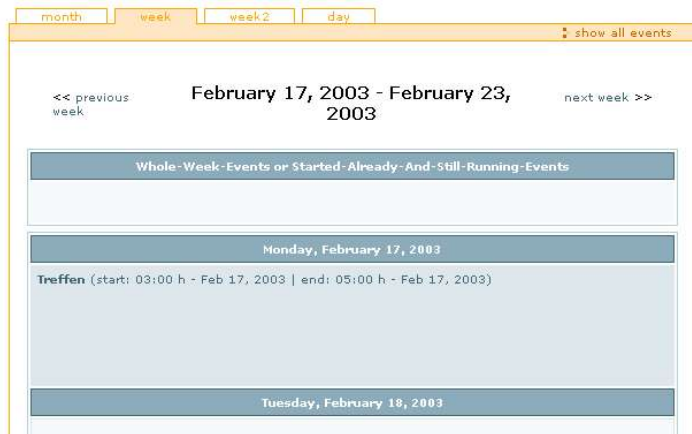


Illustration 6: View by week

View by week 2

Compared to “view by week” the “view by week 2” uses a tabular time schedule with shortened entries instead of a more list like displaying.



Illustration 7: View by week 2 - alternative view

View by month

The days without “active” event objects are displayed with light blue background. The time span of a valid event object is displayed in dark blue. Days with white background belong to the previous or to the next month.



Illustration 8: View by month

6. Conclusion

The implemented PLONE-Calendar offers a variety of possibilities to administrate and maintain the dates and events in a personalised and shared agenda via web-access efficiently. Beside the view by day alternative views by week and by month are implemented. A view by year is not implemented due to clarity reasons.

In contrast to the CMFCalendar which comes along with Plone the Plone Calendar shows the user's own private events even when not published. This is crucial following the criteria for the acceptance of groupware systems – here a calendaring system – as mentioned in [5] and [6]. It directly shows the most relevant information of the events in it's views without the need to use a pop-up window. The pop-up window is included for detailed information. The user gains more convenient and more direct access to the event data. Event filtering as offered by Plone Calendar is not implemented in CMFCalendar.

The internationalization support is implemented and I'll add additional PO files as soon as additional translations are available. Due to the fact Zope 3 will include i18n support the Localizer from Plone will maybe be deprecated in future versions and i18n implementation might force a major redesign or refactoring of the PloneCalendar then.

With the currently existing CMF-event-object some agenda functionalities like recurring events can not be realised (e. g. weekly recurring dates). This have to be maintained manually then. Also missing is the possibility to add a customised icon or marker to an event for refined clarity and easier readability.

To implement such funtionalities in the PLONE-Calendar:

- the event object has to be extended by the additional needed attributes or new content types have to be introduced (e.g. extended events, meetings, whole day events, dates, todos)
- all objects accessing the existing event objects have to be changed in an adequate implementation, e.g. the input and output page template of PLONE

before a refined version containing these features of the PLONE-Calendar can be implemented.

In CMF 1.3.2 and PLONE 1.0.5 the event object is the only one that owns a “start” and an “end” attribute. When searching for event objects in e given time span (day, week, month) the PLONE-Calendar uses the “start” and “end” attributes only (assigned values for the portal_catalog). By a simple extension of the existing or new objects these can be displayed in the PLONE-Calendar.

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References

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- [3] <http://www.plone.org/> , Alexander Limi, Alan Runyan, Vidar Andersen: Plone – Content Management System.
- [4] Cora Burger: *Groupware*, ISBN 3-920993-60-8, 1st Edition, dpunkt Verlag, Heidelberg, Germany, 1997.
- [5] Uwe M.Borghoff, Johann H. Schlichter: *Computer-Supported Cooperative Work*, ISBN 3-540-66984-1, Springer, Heidelberg, Germany, 2000.
- [6] Jonathan Grudin: *Groupware and Social Dynamics: Eight Challenges for Developers*. Communications of the ACM, p. 92—105, 1994.

Appendix A

The following list shows the message id and the corresponding message string of the de.po file.
Text in italics shows a comment for better comprehension or the original English message if different from the message id.

msgid "Apr" *This type of message is used as an abbreviation of its corresponding month name.*
msgstr "Apr." *Here 'April'*

msgid "Aug"
msgstr "Aug."

msgid "Calendar"
msgstr "Kalender"

msgid "Dec"
msgstr "Dez."

msgid "Feb"
msgstr "Feb."

msgid "Friday"
msgstr "Freitag"

msgid "Jan"
msgstr "Jan."

msgid "Jul"
msgstr "Juli"

msgid "Jun"
msgstr "Juni"

msgid "Mar"
msgstr "März"

msgid "May"
msgstr "Mai"

msgid "Monday"
msgstr "Montag"

msgid "Nov"
msgstr "Nov."

msgid "Oct"
msgstr "Okt."

msgid "Saturday"
msgstr "Samstag"

msgid "Sep"
msgstr "Sept."

msgid "Sunday"
msgstr "Sonntag"

msgid "Thursday"
msgstr "Donnerstag"

msgid "Tuesday"
msgstr "Dienstag"

msgid "Wednesday"
msgstr "Mittwoch"

msgid "calendar_created_on" *'created on'*
 msgstr "Erstellt am"

msgid "calendar_day" *'day'*
 msgstr "Tag"

msgid "calendar_end" *'end'*
 msgstr "Ende"

msgid "calendar_month" *'month'*
 msgstr "Monat"

msgid "calendar_next_day" *'next day'*
 msgstr "Nächster Tag"

msgid "calendar_next_month" *'next month'*
 msgstr "Nächster Monat"

msgid "calendar_next_week" *'next week'*
 msgstr "Nächste Woche"

msgid "calendar_prev_day" *'previous day'*
 msgstr "Vorheriger Tag"

msgid "calendar_prev_month" *'previous month'*
 msgstr "Vorheriger Monat"

msgid "calendar_prev_week" *'previous week'*
 msgstr "Vorherige Woche"

msgid "calendar_show_all_events" *'show all events'*
 msgstr "Alle Termine anzeigen"

msgid "calendar_show_only_my_events" *'show only my events'*
 msgstr "Eigene Termine anzeigen"

msgid "calendar_start" *'start'*
 msgstr "Beginn"

msgid "calendar_time" *'time'*
 msgstr "Uhrzeit"

msgid "calendar_week" *'week'*
 msgstr "Woche"

msgid "calendar_week_tabular" *'week2'*
 msgstr "Woche (Tabelle)"

msgid "calendar_whole_day_or_running" *'Whole Day'-Events or Events that already started but are still running'*
 msgstr "Ganztägige Termine oder begonnene und laufende Termine"

msgid "calendar_whole_month_or_running" *'Whole Month'-Events or Events that already started but are still running'*
 msgstr "Ganzmonatige Termine oder begonnene und laufende Termine"

msgid "calendar_whole_week_or_running" *'Whole-Week-Events or Started-Already-And-Still-Running-Events'*
 msgstr "Ganzwöchige Termine oder begonnene und laufende Termine"