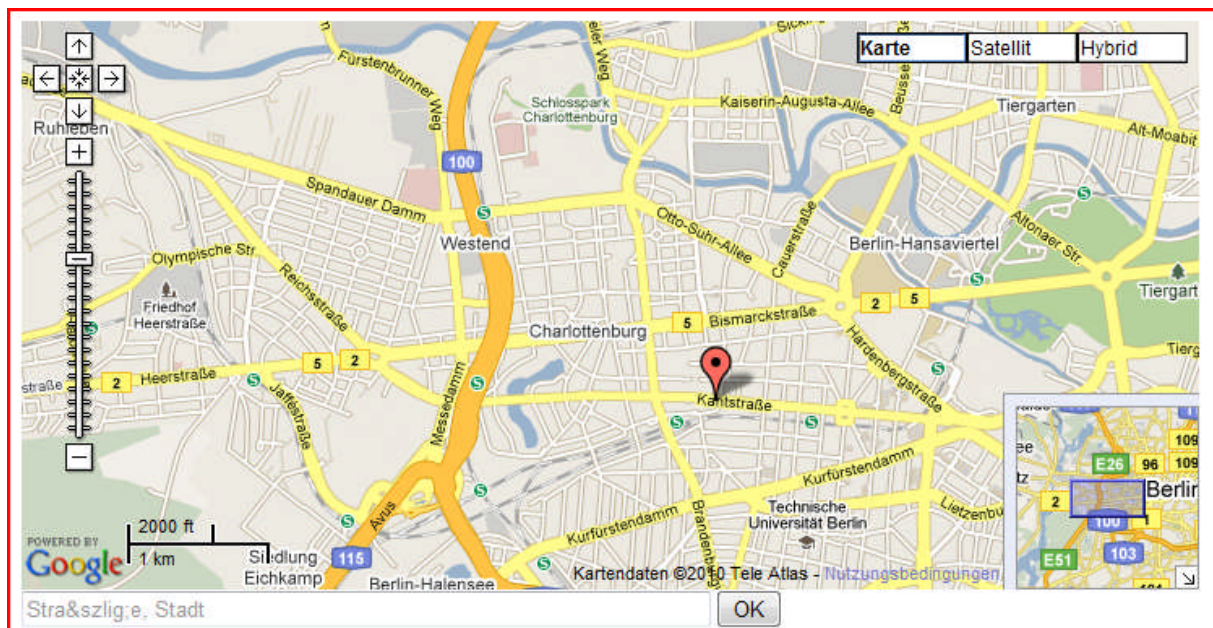


## 1. Sun position calculator and PRT (photo relevant time)

This Joomla 1.5 Component calculates the position of the sun. Get the astronomical, nautical, civil twilights and dawns. Keep an eye on the current transit, sunrise and sunset. You can also check the duration of the dusk and dawn phases. But our highlight is the calculation of the photo relevant time. During this event the sky is even blue - perfect for a photograph.

## 2. How to use

First of all you define your location by dropping the pin at the proper position on google maps application.



There is also the possibility to define your location by entering your address in the text field below the map or by entering the exact latitude and longitude in the accordant fields.

### 2.1. The Daily Feature

After that you specify the date and the actual time zone and click on the “calculate data”-button. If you want to check the current day click the “current date”-button.

Longitude	<input type="text" value="13.3086174"/>	degrees
Latitude	<input type="text" value="52.5065124"/>	degrees
Date	<input type="text" value="12"/> . <input type="text" value="04"/> . <input type="text" value="2010"/>	
Location Description (e.g. Berlin)	<input type="text" value="Berlin/Germany"/>	
Timezone	<input type="text" value="2"/> h	
	0=Greenwich Time, 1=Wintertime (GB)	
	<input type="button" value="calculate data"/>	<input type="button" value="current Date"/>

Successional you get a survey of the following informations:



The supreme sentence informs you about the next event und below there is a survey graphic of dusk and dawn.

Subsequent the following informations are listed:

astronomical twilight morning		04:07	h
nautical twilight morning		04:56	h
civil twilight morning and beginning of the photo relevant time		05:41	h
end of the photo relevant time		05:52	h
sunrise		06:16	h
sunset		20:00	h
beginning of the photo relevant time		20:25	h
civil twilight evening and end of the photo relevant time		20:36	h
nautical twilight evening		21:21	h
astronomical twilight evening		22:11	h
Duration of the photo relevant time at morning		00:11	h
Duration of the photo relevant time at evening		00:11	h

[generate a PDF File of this data for printing](#)

## 2.2. The Monthly Feature

Längengrad  Grad

Breitengrad  Grad

Datum  .

Standortbeschreibung (z.B. Berlin)

Zeitzone  h  
1=Winterzeit 2=Sommerzeit (DE)

After that you specify the date and the actual time zone and click on the “calculate data”-button.

Successional you get a survey of the following informations:



The supreme sentence informs you about the next event und below there is a survey graphic of dusk and dawn.

Subsequent stands a chart with following informations:

Day	astro. mor.	nautical mor.	civil mor.	PRT mor.	sunrise	sunset	PRT ev.	civil ev.	nautical ev.	astro. ev.
01. (Thu)	04:40	05:25	06:07	06:18 (00:11)	06:42	19:41	20:05 (00:11)	20:16	20:58	21:43
02. (Fri)	04:37	05:23	06:05	06:16 (00:11)	06:39	19:42	20:07 (00:11)	20:17	21:00	21:45
03. (Sat)	04:34	05:20	06:02	06:13 (00:11)	06:37	19:44	20:08 (00:11)	20:19	21:02	21:48
04. (Sun)	04:31	05:17	06:00	06:11 (00:11)	06:35	19:46	20:10 (00:11)	20:21	21:04	21:50
05. (Mon)	04:28	05:15	05:57	06:08 (00:11)	06:32	19:48	20:12 (00:11)	20:23	21:06	21:53

At last you can change information in a pdf-document.

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### 3. What events are listed?

**Day:** This column displays the monthday and the weekday.

**astro. mor.:** This column displays the astronomical dawn. There is low but measurable light.

**nautical mor.:** This column displays the nautical dawn. There is enough light to see the horizon and still some bright stars and planets.

**civil mor.:** The civil dawn, also known as "Blue Hour" and "Golden Hour" describes the last period before sunrise.

**PRT mor.:** This column display the end of "photo relevant time" at morning. It begins with the civil dawn. This is a special period which is suitable for photo shooting, because the sky is even blue.

**sunrise:** This column displays the end of the dawn.

**sunset:** This column displays the beginning of the dusk.

**PRT ev.:** This column display the beginning "photo relevant time" at evening. This is a special period which is suitable for photo shooting, because the sky is even blue.

**civil ev.:** The civil twilight, also known as "Blue Hour" describes the dusk after sunset when you can still see and read.

**nautical ev.:** This column displays the nautical twilight. There is enough light to see the horizon and still some bright stars and planets

**astro. ev.:** This column displays the astronomical dusk. There is still low but measurable light.

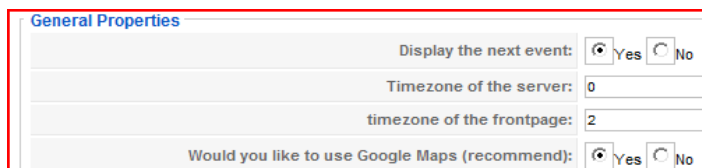
[generate a PDF File of this data for printing](#)

At last you can change information in a pdf-document.

## 4. The Backend

The Backend-Menu is structured in three parts.

Under the topic “**general properties**” you are able to set up the following categories:

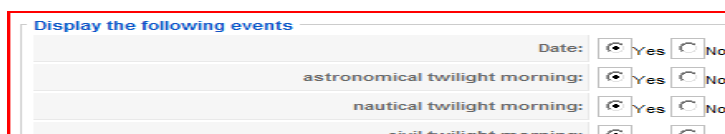


The screenshot shows a form titled "General Properties" with the following fields:

Display the next event:	<input checked="" type="radio"/> Yes <input type="radio"/> No
Timezone of the server:	0
timezone of the frontpage:	2
Would you like to use Google Maps (recommend):	<input checked="" type="radio"/> Yes <input type="radio"/> No

1. **Display the next event**
2. **Timezone of the server and of the frontpage**
3. **Would you like to use Google Maps (recommend)**
4. **Google API Key**
5. **Longitude and latitude at start**
6. **Show vertical and horizontal grid in tables**
7. **Enable PDF-Export**
8. **Date Format**
9. **Default location label**

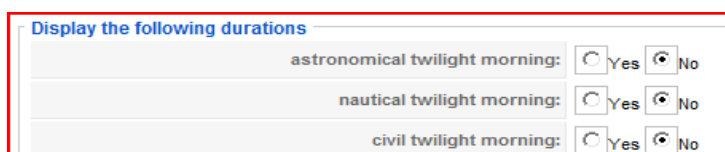
Under the topic “**display the following events**” you are able to set up, which events are shown. All events that are explained under the third chapter can be switched on or off.



The screenshot shows a form titled "Display the following events" with the following fields:

Date:	<input checked="" type="radio"/> Yes <input type="radio"/> No
astronomical twilight morning:	<input checked="" type="radio"/> Yes <input type="radio"/> No
nautical twilight morning:	<input checked="" type="radio"/> Yes <input type="radio"/> No
civil twilight morning:	<input checked="" type="radio"/> Yes <input type="radio"/> No

Under the topic “**display the following durations**” you are able to set, which events are added by their duration - except the events “sunrise” and “sunset”. Additional it is possible to display the “day duration” and the “transit” of sun.



The screenshot shows a form titled "Display the following durations" with the following fields:

astronomical twilight morning:	<input type="radio"/> Yes <input checked="" type="radio"/> No
nautical twilight morning:	<input type="radio"/> Yes <input checked="" type="radio"/> No
civil twilight morning:	<input type="radio"/> Yes <input checked="" type="radio"/> No