

CONTEXT

CONTEXT User Module
PocketDiary

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```
1 \startmodule[pocketdiary]
2 \writestatus{loading}{ConTeXt User Module / PocketDiary}
```


Introduction

It is already some time ago, that my brother Heinz asked me to prepare him a special page-arrangement scheme. This scheme is suitable to form a section with a single-sided printed sheet of paper. He wanted to use it for special kind of greeting-cards. By coincidence I detected an article by U. Ziegenhagen in de T_EXnische Kommödie nr. 3/2010. This article deals with the preparation of a PocketMod, which is a personal organizer based on the mentioned arranging scheme. In the article there is also a link mentioned to an online version of the PocketMod. (<http://www.pocketmod.com/>). – After reading the article and visiting the web-site I got intrigued by the fact, that CON_TE_XT has built in arranging capabilities and due to the LUAT_EX engine and herewith the possibility to perform calculations in Lua it should be possible to build such a personal organizer in CON_TE_XT.

The result is contained in this module. I would like to thank Hans Hagen and Taco Hoekwater for the great LUAT_EX machinery and Wolfgang Schuster for supporting me in tackling the multi-lingual interface.

After the first version in 2011, we are now 11 years older, a lot has changed in and around the CON_TE_XT-machinery. We are now using LMTX (LUAMETAT_EX) the latest development.

During the CON_TE_XT-meeting 2021 Thomáš Hála presented his solution for generating an agenda, while the shops were closed during the Covid-19 pandemic. Discussing issues with calendars revealed, that it could be interesting to integrate into a calendar also data concerning the moon phase and possibly information on the sun rise and sun set time.

I thought, that I would like to do such calculations and give it a try. After having found information how to perform such astronomical calculations, slowly two new modules appeared. The calculations of the moon phases is quite straight forward and this can be considered the easy part of the new development. The only remark must be made, that those calculations are not super accurate. A deviation of about 1 day has to be accepted.

Finding a way to calculate the sun rise and sun set times is much more tedious. Collecting articles on such calculations and building the formulas in Lua is not the issue, but that the given information in those articles looks incomplete for a layman like me. – Finally I found a Lua-module written for an application for presenting the required data on screen (the reference to the authors is given in the Lua-file for the sun data calculations). I adapted this to Lua/CON_TE_XT and it looks like it works fine. – I have a Raspberry Pi Nano with a screen attached where I display weather information together with the sun data, which are fetched from the Open Weather Map (<https://openweathermap.org>). Due to the fact that the development of the solar data module took a long time I was able to compare the calculated results with those displayed on the Raspberry Pi screen. Happily they are completely congruent.

Without the help of Hans Hagen, this module would not have been finished. I would like to thank him for all the support and patience with my struggles!

Subpaths

In order to keep the whole module clearly organized the moon phase as well as the sun rise/set calculation files are situated in separate folders. We tell CONTEXT where to find the requested files

```
3 \usepath[{\Moonphase,Solar}]
```


Lua-files

All calculations for dates are performed with Lua functions. The functions are contained in `t-calendar.lua`

```
4 \ctxloadluafile{t-calendar}{}{}
```

The calculations for the moon phase are done by Lua functions. The functions are contained in `t-moonphase.lua` in the folder “Moonphase”

```
5 \ctxloadluafile{t-moonphase}{}{}
```

The calculations for the sun rise and set time are calculated in Lua too. The functions are contained in the file `t-solar.lua` in the folder “Solar”

```
6 \ctxloadluafile{t-solar}{}{}
```


International interface

The PocketDiary is aware of different languages. The language to be used is selected with `\mainlanguage[en]`. The following interfaces are available

- English interface
- Dutch interface
- German interface
- Italian interface
- French interface

English interface

```

7  \setuplabeltext[en][calendar=Calendar]
8  \setuplabeltext[en][weekagenda=Week calendar]
9  \setuplabeltext[en][week=Week]
10 \setuplabeltext[en][month=Month]
11 \setuplabeltext[en][contact=Contact]
12 \setuplabeltext[en][name=Name]
13 \setuplabeltext[en][address=Address]
14 \setuplabeltext[en][zip=Zip]
15 \setuplabeltext[en][place=Place]
16 \setuplabeltext[en][country=Country]
17 \setuplabeltext[en][phone=Phone]
18 \setuplabeltext[en][mail=e-mail]
19 \setuplabeltext[en][notes=Notes]
20 \setuplabeltext[en][todo=Todo]
21 \setuplabeltext[en][found={If found\textcomma\ please return to:}]

22 \setuplabeltext[en][nyd={New Year's Day}]
23 \setuplabeltext[en][epi={Epiphany}]
24 \setuplabeltext[en][ashw={Ash Wednesday}]
25 \setuplabeltext[en][palms={Palm Sunday}]
26 \setuplabeltext[en][gfri={Good Friday}]
27 \setuplabeltext[en][esun={Easter Sunday}]
28 \setuplabeltext[en][esmo={Easter Monday}]
29 \setuplabeltext[en][ascd={Ascension Day}]
30 \setuplabeltext[en][pcst=Pentecost]
31 \setuplabeltext[en][pcstmo={Pentecost Monday}]
32 \setuplabeltext[en][xmas=Christmas]
33 \setuplabeltext[en][bxid={Boxing Day}]
34 \setuplabeltext[en][day=Day]
35 \setuplabeltext[en][mon=Mon]
36 \setuplabeltext[en][tue=Tue]
37 \setuplabeltext[en][wed=Wed]
38 \setuplabeltext[en][thu=Thu]
39 \setuplabeltext[en][fri=Fri]
40 \setuplabeltext[en][sat=Sat]
41 \setuplabeltext[en][sun=Sun]

42 \setuplabeltext[en][january=January]
43 \setuplabeltext[en][february=February]

```

```

44 \setuplabeltext[en][march=March]
45 \setuplabeltext[en][april=April]
46 \setuplabeltext[en][may=May]
47 \setuplabeltext[en][june=June]
48 \setuplabeltext[en][july=July]
49 \setuplabeltext[en][august=August]
50 \setuplabeltext[en][september=September]
51 \setuplabeltext[en][october=October]
52 \setuplabeltext[en][november=November]
53 \setuplabeltext[en][december=December]

54 \setuplabeltext[en][moondays=Lunar days]
55 \setuplabeltext[en][moon=Moon]
56 \setuplabeltext[en][sunrise=Sunrise]
57 \setuplabeltext[en][sunset=Sunset]
58 \setuplabeltext[en][lighthours=Lighthours]
59 \setuplabeltext[en][sunstar=Sun]

```

German interface

```

60 \setuplabeltext[de][calendar=Planer] % Terminkalender, Kalender
61 \setuplabeltext[de][weekagenda=Wochenagenda]
62 \setuplabeltext[de][week=Woche]
63 \setuplabeltext[de][month=Monat]
64 \setuplabeltext[de][contact=Kontakt]
65 \setuplabeltext[de][name=Name]
66 \setuplabeltext[de][address=Adresse]
67 \setuplabeltext[de][zip=Postleitzahl]
68 \setuplabeltext[de][place=Ort]
69 \setuplabeltext[de][country=Land]
70 \setuplabeltext[de][phone=Telefon]
71 \setuplabeltext[de][mail=e-Mail]
72 \setuplabeltext[de][notes=Notizen]
73 \setuplabeltext[de][todo={Zu erledigen}]
74 \setuplabeltext[de][found={Wenn gefunden\textcomma\ bitte retournieren an:}]

75 \setuplabeltext[de][nyd=Neujahr]
76 \setuplabeltext[de][epi=Dreikönigstag]
77 \setuplabeltext[de][ashw=Aschermittwoch]
78 \setuplabeltext[de][palms=Palmsontag]
79 \setuplabeltext[de][gfri=Karfreitag]
80 \setuplabeltext[de][esun=Ostern]
81 \setuplabeltext[de][esmo=Ostermontag]
82 \setuplabeltext[de][ascd=Himmelfahrt]
83 \setuplabeltext[de][pcst=Pfingsten]
84 \setuplabeltext[de][pcstmo=Pfingstmontag]
85 \setuplabeltext[de][xmas=Weihnachten]
86 \setuplabeltext[de][bxm=Stephanstag]
87 \setuplabeltext[de][day=Tag]
88 \setuplabeltext[de][mon=Mo]
89 \setuplabeltext[de][tue=Di]
90 \setuplabeltext[de][wed=Mi]

```

```

91 \setuplabeltext[de][thu=Do]
92 \setuplabeltext[de][fri=Fr]
93 \setuplabeltext[de][sat=Sa]
94 \setuplabeltext[de][sun=So]

95 \setuplabeltext[de][january=Januar]
96 \setuplabeltext[de][february=Februar]
97 \setuplabeltext[de][march=März]
98 \setuplabeltext[de][april=April]
99 \setuplabeltext[de][may=Mai]
100 \setuplabeltext[de][june=Juni]
101 \setuplabeltext[de][july=Juli]
102 \setuplabeltext[de][august=August]
103 \setuplabeltext[de][september=September]
104 \setuplabeltext[de][october=Oktober]
105 \setuplabeltext[de][november=November]
106 \setuplabeltext[de][december=Dezember]

107 \setuplabeltext[de][moondays=Mondtage]
108 \setuplabeltext[de][moon=Mond]
109 \setuplabeltext[de][sunrise=Sonnenaufgang]
110 \setuplabeltext[de][sunset=Sonnenuntergang]
111 \setuplabeltext[de][lighthours=Taglichtstunden]
112 \setuplabeltext[de][sunstar=Sonne]

```

Dutch interface

```

113 \setuplabeltext[nl][calendar=Kalender]
114 \setuplabeltext[nl][weekagenda=Weekagenda]
115 \setuplabeltext[nl][week=Week]
116 \setuplabeltext[nl][month=Maand]
117 \setuplabeltext[nl][contact=Kontakt]
118 \setuplabeltext[nl][name=Naam]
119 \setuplabeltext[nl][address=Adres]
120 \setuplabeltext[nl][zip=Postcode]
121 \setuplabeltext[nl][place=Plaats]
122 \setuplabeltext[nl][country=Land]
123 \setuplabeltext[nl][phone=Tel.]
124 \setuplabeltext[nl][mail=e-mail]
125 \setuplabeltext[nl][notes=Notities]
126 \setuplabeltext[nl][todo=Todo]
127 \setuplabeltext[nl][found={Wanneer gevonden\textcomma\ aub sturen naar:}]

128 \setuplabeltext[nl][nyd={Nieuw jaar}]
129 \setuplabeltext[nl][epi=Driekoningen]
130 \setuplabeltext[nl][ashw=Aswoensdag]
131 \setuplabeltext[nl][palms=Palmpasen]
132 \setuplabeltext[nl][gfri={Goede vrijdag}]
133 \setuplabeltext[nl][esun=Pasen]
134 \setuplabeltext[nl][esmo={2\high{de} Paasdag}]
135 \setuplabeltext[nl][ascd=Hemelvaart]
136 \setuplabeltext[nl][pcst=Pinksteren]

```

```

137 \setuplabeltext[nl][pcstmo={2\high{de} Pinksterdag}]
138 \setuplabeltext[nl][xmas=Kerst]
139 \setuplabeltext[nl][bxid={2\high{de} Kerstdag}]
140 \setuplabeltext[nl][day=Dag]
141 \setuplabeltext[nl][mon=Ma]
142 \setuplabeltext[nl][tue=Di]
143 \setuplabeltext[nl][wed=Woe]
144 \setuplabeltext[nl][thu=Do]
145 \setuplabeltext[nl][fri=Fr]
146 \setuplabeltext[nl][sat=Za]
147 \setuplabeltext[nl][sun=Zo]

148 \setuplabeltext[nl][january=Januari]
149 \setuplabeltext[nl][february=Febrari]
150 \setuplabeltext[nl][march=Maart]
151 \setuplabeltext[nl][april=April]
152 \setuplabeltext[nl][may=Mei]
153 \setuplabeltext[nl][june=Juni]
154 \setuplabeltext[nl][july=Juli]
155 \setuplabeltext[nl][august=Augustus]
156 \setuplabeltext[nl][september=September]
157 \setuplabeltext[nl][october=October]
158 \setuplabeltext[nl][november=November]
159 \setuplabeltext[nl][december=December]

160 \setuplabeltext[nl][moondays=Maandagen]
161 \setuplabeltext[nl][moon=Maan]
162 \setuplabeltext[nl][sunrise=Zonsopg.]
163 \setuplabeltext[nl][sunset=Zonsonderg.]
164 \setuplabeltext[nl][lighthours=Lichturen]
165 \setuplabeltext[nl][sunstar=Zon]

```

French interface

```

166 \setuplabeltext[fr][calendar=Calendrier]
167 \setuplabeltext[fr][weekagenda={Cal. de la semaine}]
168 \setuplabeltext[fr][week=Sem.]
169 \setuplabeltext[fr][month=Mois]
170 \setuplabeltext[fr][contact=Contact]
171 \setuplabeltext[fr][name=Nom]
172 \setuplabeltext[fr][address=Adresse]
173 \setuplabeltext[fr][zip=CP]
174 \setuplabeltext[fr][place=Lieu]
175 \setuplabeltext[fr][country=Pays]
176 \setuplabeltext[fr][phone=Tél.]
177 \setuplabeltext[fr][mail=e-mail]
178 \setuplabeltext[fr][notes=Observations]
179 \setuplabeltext[fr][todo=Tâches]
180 \setuplabeltext[fr][found={Si trouvé\textcomma\ retourner s.v.p. à: } ]

181 \setuplabeltext[fr][nyd={Jour de l'an}]
182 \setuplabeltext[fr][epi={Épiphany}]

```

```

183 \setuplabeltext[fr][ashw={Mercredi des Cendres}]
184 \setuplabeltext[fr][palms={Dimanche des Rameaux}]
185 \setuplabeltext[fr][gfri={Vendredi saint}]
186 \setuplabeltext[fr][esun={Pâques}]
187 \setuplabeltext[fr][esmo={Lundi de Pâques}]
188 \setuplabeltext[fr][ascd={Jour de l'ascension}]
189 \setuplabeltext[fr][pcst=Pentecôte]
190 \setuplabeltext[fr][pcstmo={Lundi de Pentecôte}]
191 \setuplabeltext[fr][xmas=Noël]
192 \setuplabeltext[fr][bxm=]
193 \setuplabeltext[fr][day=Jour]
194 \setuplabeltext[fr][mon=Lun]
195 \setuplabeltext[fr][tue=Mar]
196 \setuplabeltext[fr][wed=Mer]
197 \setuplabeltext[fr][thu=Jeu]
198 \setuplabeltext[fr][fri=Ven]
199 \setuplabeltext[fr][sat=Sam]
200 \setuplabeltext[fr][sun=Dim]

201 \setuplabeltext[fr][january=Janvier]
202 \setuplabeltext[fr][february=Février]
203 \setuplabeltext[fr][march=Mars]
204 \setuplabeltext[fr][april=Avril]
205 \setuplabeltext[fr][may=Mai]
206 \setuplabeltext[fr][june=Juin]
207 \setuplabeltext[fr][july=Juillet]
208 \setuplabeltext[fr][august=Août]
209 \setuplabeltext[fr][september=Septembre]
210 \setuplabeltext[fr][october=Octobre]
211 \setuplabeltext[fr][november=Novembre]
212 \setuplabeltext[fr][december=Décembre]

213 \setuplabeltext[fr][moondays=Jours lun.] % jours lunaires
214 \setuplabeltext[fr][moon=Lune]
215 \setuplabeltext[fr][sunrise=Lever du s.] %soleil
216 \setuplabeltext[fr][sunset=Coucher du s.] %soleil
217 \setuplabeltext[fr][lighthours=Heures de l.] %lumière
218 \setuplabeltext[fr][sunstar=Soleil]

219 \setuplabeltext[it][calendar=Calendario]
220 \setuplabeltext[it][weekagenda=Calendario di settimana]
221 \setuplabeltext[it][week=Sett.] %Settimana
222 \setuplabeltext[it][month=Mese]
223 \setuplabeltext[it][contact=Contatto]
224 \setuplabeltext[it][name=Nome]
225 \setuplabeltext[it][address=Indirizzo]
226 \setuplabeltext[it][zip=C.A.P.]
227 \setuplabeltext[it][place=Luogo]
228 \setuplabeltext[it][country=Paese]
229 \setuplabeltext[it][phone=Tel.]
230 \setuplabeltext[it][mail=e-mail]

```

```

231 \setuplabeltext[it][notes=0sservazioni]
232 \setuplabeltext[it][todo=Compiti]
233 \setuplabeltext[it][found={Se trovato\textcomma\ }prego speditelo à:}]

```

Italian interface

```

234 \setuplabeltext[it][nyd=Capodanno]
235 \setuplabeltext[it][epi={Epifania}]
236 \setuplabeltext[it][ashw={Giorno delle Ceneri}]
237 \setuplabeltext[it][palms={Domenica delle Palme}]
238 \setuplabeltext[it][gfri={Venerdi santo}]
239 \setuplabeltext[it][esun=Pasqua]
240 \setuplabeltext[it][esmo={Lunedì dell'Angelo}]
241 \setuplabeltext[it][ascd=Ascensione]
242 \setuplabeltext[it][pcst=Pentecoste]
243 \setuplabeltext[it][pcstmo={Lunedì di Pentecoste}]
244 \setuplabeltext[it][xmas=Natale]
245 \setuplabeltext[it][bxd={Giorno di S. Stefano}]
246 \setuplabeltext[it][day=Giorno]
247 \setuplabeltext[it][mon=Lun]
248 \setuplabeltext[it][tue=Mar]
249 \setuplabeltext[it][wed=Mer]
250 \setuplabeltext[it][thu=Gio]
251 \setuplabeltext[it][fri=Ven]
252 \setuplabeltext[it][sat=Sab]
253 \setuplabeltext[it][sun=Dom]

254 \setuplabeltext[it][january=Gennaio]
255 \setuplabeltext[it][february=Febbraio]
256 \setuplabeltext[it][march=Marzo]
257 \setuplabeltext[it][april=Aprile]
258 \setuplabeltext[it][may=Maggio]
259 \setuplabeltext[it][june=Giugno]
260 \setuplabeltext[it][july=Luglio]
261 \setuplabeltext[it][august=Agosto]
262 \setuplabeltext[it][september=Settembre]
263 \setuplabeltext[it][october=Ottobre]
264 \setuplabeltext[it][november=Novembre]
265 \setuplabeltext[it][december=Dicembre]

266 \setuplabeltext[it][moondays=Giorni lun.] %Giorni lunari
267 \setuplabeltext[it][moon=Luna]
268 \setuplabeltext[it][sunrise=Albo]
269 \setuplabeltext[it][sunset=Tramonto]
270 \setuplabeltext[it][lighthours={0. di luce}] %0re di luce
271 \setuplabeltext[it][sunstar=Sole]

```

Spanish interface

```

272 \setuplabeltext[es][calendar=Agenda]
273 \setuplabeltext[es][weekagenda=Agenda semanal]
274 \setuplabeltext[es][week=Sem.] %Semana

```



```

275 \setuplabeltext[es][month=Mes]
276 \setuplabeltext[es][contact=Contacto]
277 \setuplabeltext[es][name=Nombre]
278 \setuplabeltext[es][address=Dirección]
279 \setuplabeltext[es][zip=C.P.]
280 \setuplabeltext[es][place=Población]
281 \setuplabeltext[es][country=País]
282 \setuplabeltext[es][phone=Tel.]
283 \setuplabeltext[es][mail=Correo-e]
284 \setuplabeltext[es][notes=Observaciones]
285 \setuplabeltext[es][todo=Pendiente]
286 \setuplabeltext[es][found={Por favor\textcomma\ devuélvalo a:}]

287 \setuplabeltext[es][nyd=Año Nuevo]
288 \setuplabeltext[es][epi={Reyes Magos}]
289 \setuplabeltext[es][ashw={Miércoles de Ceniza}]
290 \setuplabeltext[es][palms={Domingo de Palmas}]
291 \setuplabeltext[es][gfri={Viernes santo}]
292 \setuplabeltext[es][esun=Domingo de Pascua]
293 \setuplabeltext[es][esmo={Lunes de Pascua}]
294 \setuplabeltext[es][ascd=Ascensión]
295 \setuplabeltext[es][pcst=Pentecostes]
296 \setuplabeltext[es][pcstmo={Lunes de Pentecostes}]
297 \setuplabeltext[es][xmas=Navidad]
298 \setuplabeltext[es][bxm={San Esteban}]
299 \setuplabeltext[es][day=Día]
300 \setuplabeltext[es][mon=Lu]
301 \setuplabeltext[es][tue=Ma]
302 \setuplabeltext[es][wed=Mi]
303 \setuplabeltext[es][thu=Ju]
304 \setuplabeltext[es][fri=Vi]
305 \setuplabeltext[es][sat=Sá]
306 \setuplabeltext[es][sun=Do]

307 \setuplabeltext[es][january=Enero]
308 \setuplabeltext[es][february=Febrero]
309 \setuplabeltext[es][march=Marzo]
310 \setuplabeltext[es][april=Abril]
311 \setuplabeltext[es][may=Mayo]
312 \setuplabeltext[es][june=Junio]
313 \setuplabeltext[es][july=Julio]
314 \setuplabeltext[es][august=Agosto]
315 \setuplabeltext[es][september=Septiembre]
316 \setuplabeltext[es][october=Octubre]
317 \setuplabeltext[es][november=Noviembre]
318 \setuplabeltext[es][december=Diciembre]

319 \setuplabeltext[es][moondays=Días lunares]
320 \setuplabeltext[es][moon=Luna]
321 \setuplabeltext[es][sunrise=Alba]
322 \setuplabeltext[es][sunset=Ocaso]

```

PocketDiary

```
323 \setuplabeltext[es][lighthours={Horas de luz}]
324 \setuplabeltext[es][sunstar=Sol]
```

PocketDiary layout

This module uses different page templates, whereof one uses a symbol out of the set 2 of the Martin Vogel collection. So we load these symbols:

```
325 \usesymbols[mvs]
326 \setupsymbolset[martinvogel 2]
```

The placement of the page numbers is switched off for the moment.

```
327 \setuppagenumbering[location=]
```

Because we will place 8 pages on an A4 landscape, we define our own pagesize

```
328 \definepapersize[Arrangingformat][width=7.42cm, height=10.5cm]
329 \setuppapersize[Arrangingformat][A4,landscape]
```

In the templates a light gray color for (grid)lines is used. Separator lines can have an individual color too. We define the two colors with arbitrary values. These preset colors can be adjusted in the user file `PocketDiary.tex`.

```
330 \definecolor[Grid][s=.75]
331 \definecolor[Separatorline][blue]
```

The page of the PocketDiary has a fairly simple layout. We use a header- and a footer-space. The header has a rule beneath and the footer one on top.

The preset body-font is Pagella at 10pt

We will also use tabular figures throughout the typesetting:

```
332 \setuplayout
333   [topspace=.6cm,
334    backspace=.6cm,
335    header=3\bodyfontsize,
336    headerdistance=.5\bodyfontsize,
337    footer=1.2\bodyfontsize,
338    footerdistance=.5\bodyfontsize,
339    margin=0pt,
340    height=middle,
341    width=middle]
342 \setupbackgrounds
343   [header]
344   [text]
345   [state=repeat,
346    frame=off,
347    bottomframe=on,
348    framecolor=\getvariable{PocketDiaryColors}{Separatorline}]
349
350 \setupbackgrounds
351   [footer]
352   [text]
353   [state=repeat,
```

PocketDiary

```
354     frame=off,  
355     topframe=on,  
356     framecolor=\getvariable{PocketDiaryColors}{Separatorline}]  
  
357 \setupbodyfont[pagella,rm,10pt]  
358 \definefontfeature[f:tabular][tnum=yes]  
359 \definefontfeature[f:smallcaps][smcp=yes]  
  
360 \addfeature[f:tabular]
```

METAFUN drawings

There are three templates which are made up in METAPOST. The drawings are used as backgrounds to the typesetting area in the form of an overlay. So the drawings adapt themselves to the actual dimensions

```

361 \startuniqueMPgraphic{Caro}
362   numeric w; w:= floor(OverlayWidth/4mm);
363   numeric h; h:= floor((OverlayHeight)/4mm);
364   path p,q;
365   p := unitsquare xscaled (4mm*w) yscaled (4mm*h);
366   q:= ulcorner p -- llcorner p;
367   for i = 0 upto w :
368     draw q shifted (i*4mm,0) withpen pencircle scaled .5pt
369     withcolor \MPcolor{Grid};
370   endfor;
371   q:= llcorner p -- lrcorner p;
372   for i = 0 upto h :
373     draw q shifted (0,i*4mm) withpen pencircle scaled .5pt
374     withcolor \MPcolor{Grid};
375   endfor;
376 \stopuniqueMPgraphic

377 \startuniqueMPgraphic{Lines}
378   numeric w; w:= OverlayWidth;
379   numeric h; h:= floor(OverlayHeight/7mm);
380   path p,q;
381   p := unitsquare xscaled OverlayWidth yscaled (7mm*(h-1));
382   q:= llcorner p -- lrcorner p;
383   for i = 1 upto (h-1) :
384     draw q shifted (0,i*7mm) withpen pencircle scaled .5pt
385     withcolor \MPcolor{Grid};
386   endfor;
387 \stopuniqueMPgraphic

388 \startuniqueMPgraphic{Todo}
389   numeric w; w:= OverlayWidth;
390   numeric h; h:= floor(OverlayHeight/8mm);
391   path p,q;
392   p := unitsquare xscaled OverlayWidth yscaled OverlayHeight;
393   q:= llcorner p -- lrcorner p;
394   for i = 0 upto h :
395     draw q shifted (0,i*7mm) withpen pencircle scaled .5pt
396     withcolor \MPcolor{Grid};
397     label.top(texttext("\tfd \symbol[HollowBox]"), point 0 of q
398     shifted (2mm,i*7mm));
399   endfor;
400 \stopuniqueMPgraphic





```


The moon phase

The moon phase calculation from SubsySTEMs, an American education institute, for this module is based on a simple calculation. The consequence is, that the results give a good idea only of the moon phase but this is most probably precise enough for the purpose of the diary. The return value of the moon phase calculation can be either a number, representing the day number in the lunar month, or a command to put a METAFUN-graphic (New moon, growing moon, full moon, waning moon). These little graphics are stored in the file `moons-MP.tex`.

401 `\input moons-MP`

In this file 4 overlays are defined which are used in a dedicated `\framed[]{}` to typeset the pictograms.

Moon phase	Lunar day	Macro	Pictogram
New moon	0	<code>\Moon[background=newmoon]{} </code>	
Growing moon	7	<code>\Moon[background=growingmoon]{} </code>	
Full moon	15	<code>\Moon[background=fullmoon]{} </code>	
Waning moon	22	<code>\Moon[background=waningmoon]{} </code>	




Sun pictograms

The calculations for the sun rise and sun set times is based on work of Alexander Yakushev. The results of his calculations nicely correspond with results obtained from the Open Weather Map website.

For sunrise, sunset and light hours exist three METAFUN drawings. These are included in the directory Solar in the file sun-MP.tex.

402 **\input** sun-MP

In this file 3 overlays are defined which can then be used as a background in a dedicated framed environment.

Sun	Macro	Pictogram
Sunrise	<code>\SunA[background=Sunrise,height=8pt]{\strut }</code>	
Sunset	<code>\SunA[background=Sunset,height=8pt]{\strut }</code>	
Light hours	<code>\SunB[background=Light,height=8pt]{\strut }</code>	

The variable sets

The module uses six sets of variables. The first set contains the information on the calendars to be calculated.

First of all it has to be stated, that the whole idea behind this module is to prepare a personal organizer with as few parameters as possible. After the initial setup of the variables it is sufficient to adapt the values in the first set and once every year the information on the dates of the Day Light Saving Time in the last set must be adjusted.

Variable set PocketDiary

Variable	Value	Comment
WeekDay	number	Values between 1 and 7.
Week	number	Values between 1 and 53
Month	number	Values between 1 and 12
Year	number	Year numbers in the range 1900 and 4099. The lower limit is computer dependent (OS-timestamp), the upper limit is depending on the Easter Sunday calculation. (http://www.assa.org.au/edm.html , R.W. Mallen, 1985).
Nextyear	yes/no	The testing is done on 'yes'. If set to 'yes' the next year instead of the current year is used for the calculation of the year calendar.
Daybyday	yes/no	The testing is done on 'yes'. If this variable is set to 'yes' then a diary is typeset with 1 page per day and the weekend is typeset with Saturday and Sunday on one page. This uses 6 pages and we can freely choose what should be typeset on the pages 7 and 8.

```

403 \setvariables
404   [PocketDiary]
405   [WeekDay=1,
406     Week=17,
407     Month=5,
408     Year=2011,
409     Nextyear=no,
410     Daybyday=no]
```

Variable set PocketDiaryLayout

The PocketDiary can be given a layout according to your own ideas. There are 8 variables (Page1 up to Page 8) which can be given different values.

Variable	Comment
Dayplan	The weekday indicated in the variable 'WeekDay' in the previous section is used to make a PocketDiary page.
Weekendplan	The weekend of the chosen week (variable 'Week') is typeset on a single page
Weekcurrentplan	A week calendar based on the variable 'Week' in the previous section is used for the presentation of a week table.
Weeknextplan	A week calendar based on the variable 'Week' + 1 in the previous section is used for the presentation of the nexts week's table.
Monthcurrentplan	A month table based on the value in the variable 'Month' in the previous section is typeset.

PocketDiary

Monthnextplan	A month table of the next month based on the value in the variable ‘Month’ of the previous section is typeset.
Yearcurrentplan	A complete year calendar of the year given in the variable ‘Year’ in the previous section is typeset.
Yearnextplan	If the ‘Nextyear’ variable in the previous section is ‘yes’, then a complete year calendar for the next year indicated in the variable ‘Year’ of the previous section is typeset.
Lost-Returnto	A page with the indicated information in the PocketDiaryAddress variable set is used to compose and typeset a lost and return page (see next section).
Blank	This page carries a header and a footer but is empty for the rest.
Todo	A todo-list template is typeset.
Caro	A page with full-grid-paper is typeset.
Lines	A page with grid lines is typeset.
Contact	A form with two sets of preprinted fields for marking down contact information is typeset.

A basic setup could look as follows:

```
411 \setvariables
412   [PocketDiaryLayout]
413   [Page1=Lost-Returnto,
414     Page2=Weekplan,
415     Page3=Dayplan,
416     Page4=Monthcurrentplan,
417     Page5=Blank,
418     Page6=Lines,
419     Page7=Caro,
420     Page8=Contact]
```

Variable set PocketDiaryAddress

The third section of variables contains information used for the footer and the lost-return form.

```
421 \setvariables
422   [PocketDiaryAddress]
423   [Familyname=Egger,
424     Forename=Willi,
425     Street={Townstreet 3B},
426     Zipcode=5000,
427     City={New Beach},
428     Country=TEX-world,
429     Phone={+22 444 55 88 66},
430     Mobile={+22 6 19 19 1717},
431     E-mail={info at pocketdiary.org},
432     Web=www.pocketdiary.org]
```

Variable set PocketDiaryColors

The PocketDiary uses some color. The header and footer separator lines can be given a color. Standard color is blue.

For those who want gridlines other than light gray can set a color for the gridlines too.

```

433 \setvariables
434   [PocketDiaryColors]
435   [Separatorline=blue,
436   Gridline={s=.55}]

```

Variable set **PocketDiaryFooter**

The footer is filled with three fields. These fields may contain the contents of variables or $\text{T}_{\text{E}}\text{X}$ commands. The setup of the footer is done with a buffer in order to be able to call it later on.

Footer setup

```

437 \setvariables
438   [PocketDiaryFooter]
439   [Lefttext=PocketDiary,
440    Centertext=\pagenumber,
441    Righttext={\getvariable{PocketDiaryAddress}{Forename},~\currentdate[year]}]
442    %{\currentdate[year]}

443 \startbuffer[Footertext]
444   \setupfootertexts[%
445     \tfx
446     \getvariable{PocketDiaryFooter}{Lefttext}
447     \hfill
448     \getvariable{PocketDiaryFooter}{Centertext}
449     \hfill
450     \getvariable{PocketDiaryFooter}{Righttext}]
451 \stopbuffer

452 \getbuffer[Footertext]

```


Variable set PocketDiaryGeoPosition

For the sun data calculations you need to know the latitude and longitude of your location.

For correct calculations you need also to pass the timezone offset to Lua.

The dates for the begin and end of the day light saving time (DST) are calculated based on the continent information. Possible values are 'EU' and 'US'. If the field is empty, then no DST is calculated.

For the US (except for Arizona and Hawaii) currently the DST starts on the second Sunday of March and ends on the first Sunday of November.

for Europe currently the DST starts on the last Sunday of March and ends on the last Sunday of October.

Sun data are typeset on the 'Dayplan' and 'Weekendplan' as well as on Tuesdays in the week-calendar.

```

453 \setvariables %Koziegłowy
454   [PocketDiaryGeoPosition]
455   [lat=52.467860,
456     lon=16.981240,
457     timeoffset=1,
458     continent=EU]
```


The various calendar pages

Most of the activities for creating the contents and layout of the different pages like day, week-end, week, month and year calendars is delegated to Lua. Those pages are made-up as CON-TeXT-Lua-documents (cld). We preload the Lua -file with

```
459 \ctxloadluafile{t-pocketdiary}{}

```

Day plan

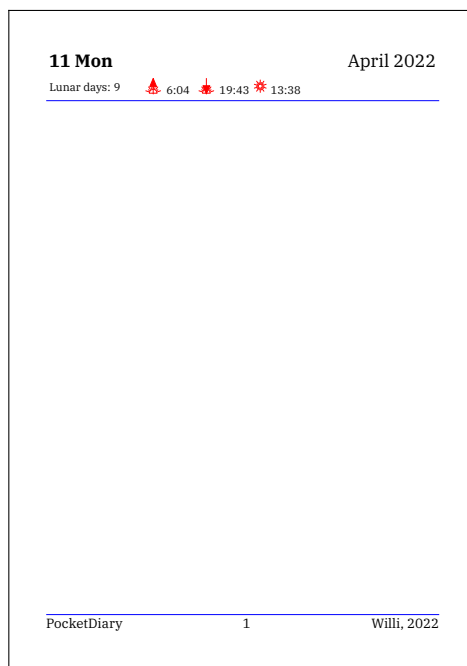


Figure 1 Example Day-calendar

The day calendar looks as in figure 1.

Next to the day number of the selected month the day name is given. If the day is a christian feast day, its name is following after the day name. To the right the week number and the year is typeset.

The configuration of the page looks as follows:

```
460 \startsetups table:topinfo
461   \setupTABLE[each][each][frame=off]
462   \setupTABLE[r][1][offset=0pt,loffset=1pt,roffset=1pt,align=lohi] % Date row
463   \setupTABLE[r][2][height=1.3\bodyfontsize] % Astronomy row
464   \setupTABLE[c][1][style=bold,width=0.25\textwidth,align=lohi] % Day
465   \setupTABLE[c][2][width=0.35\textwidth,align=lohi] % Feastname column
466   \setupTABLE[c][3][width=0.4\textwidth,
467                     align={flushright,lohi}] % Month / year column
468 \stopsetups

469 \startsetups table:topweekplan
470   \setupTABLE[each][each][frame=off]

```

PocketDiary

```

471 \setupTABLE[r][1][offset=0pt,loffset=3pt,roffset=3pt,align=lohi] % Date row
472 \setupTABLE[c][1][style=bold,width=0.5\textwidth,align=lohi] % Name
473 \setupTABLE[c][2][style={\switchtobodyfont[6pt]},width=0.5\textwidth,
474 align={flushright,lohi}] % Week, year
475 \stopsetups

```

For the creation of the page a command with 8 parameters is defined:

```

476 \define[8]\Dayplan{\ctxlua{thirddata.diary.dayplan(#1,#2,#3,#4,#5,#6,#7,#8)}}

```

The Dayplan-command with the collected parameters is placed in a buffer. This buffer is later called from the user-file PocketDiary.tex .

```

477 \startbuffer[Dayplan]
478 \Dayplan %Weekday,Week,Month,Year,lat,lon,timeoffset,continent
479 {\getvariable{PocketDiary}{WeekDay}}
480 {\getvariable{PocketDiary}{Week}}
481 {\getvariable{PocketDiary}{Month}}
482 {\getvariable{PocketDiary}{Year}}
483 {\getvariable{PocketDiaryGeoPosition}{lat}}
484 {\getvariable{PocketDiaryGeoPosition}{lon}}
485 {\getvariable{PocketDiaryGeoPosition}{timeoffset}}
486 {"\getvariable{PocketDiaryGeoPosition}{continent}"}
487 \stopbuffer

```

Weekend

The weekend calendar shows Saturday and Sunday on one page (see figure 2).

The typeset data are identical to those of the ‘Dayplan’

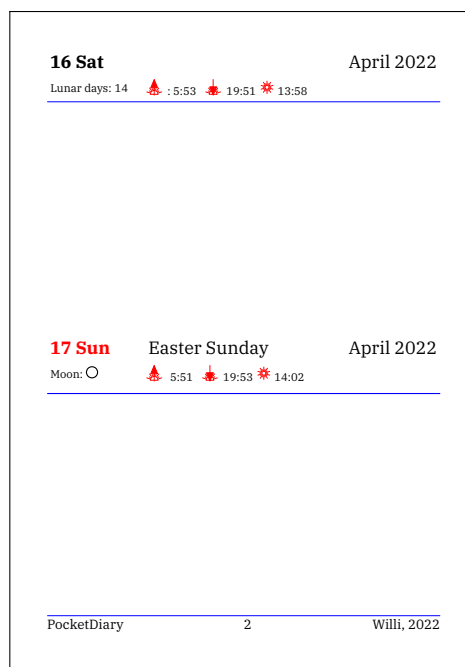


Figure 2 Example Weekend-calendar

Comparable to the Dayplan the Weekendplan command is defined with 8 parameters.

```
488 \define[8]\Weekendplan{\ctxlua{thirddata.diary.weekendplan(#1,#2,#3,#4,#5,#6,#7,#
489 8)}}}
```

Again this command with the collected information of the 8 parameters is placed in a buffer which is called then from the user-file PocketDiary.tex .

```
490 \startbuffer[Weekendplan]
491   \Weekendplan %Weekday,Week,Month,Year,lat,lon,timeoffset,continent
492   {6}
493   {\getvariable{PocketDiary}{Week}}
494   {\getvariable{PocketDiary}{Month}}
495   {\getvariable{PocketDiary}{Year}}
496   {\getvariable{PocketDiaryGeoPosition}{lat}}
497   {\getvariable{PocketDiaryGeoPosition}{lon}}
498   {\getvariable{PocketDiaryGeoPosition}{timeoffset}}
499   {"\getvariable{PocketDiaryGeoPosition}{continent}"}
500 \stopbuffer
```

Week plan and next week plan

The week calendar is a one-column table for working days. Saturday and Sunday are placed next to each other in the last table row. An example is given in figure 3.

In the ‘Weekplan’ header appears ‘Weeek agenda’ or its correspondent name in the supported languages. To the right the month's number, weeknumber and year are typeset.

Week calendar		Month 4 Week 15 2022	
11 Mon 101/365			
12 Tue 102/365 📶 6:02 📶 19:44 📶 13:42			
13 Wed 103/365			
14 Thu 104/365			
15 Fri 105/365 Good Friday			
16 Sat 106/365		17 Sun 107/365 Easter Sunday	
PocketDiary		3	Willi, 2022

Figure 3 Example Week-calendar

By means of a setups-sequence the table is defined as follows:

```
501 \startsetups table:week
```

PocketDiary

```
502 \setupTABLE[r][each][height=.158\textheight,align=flushleft] %.165
503 \setupTABLE[r][even][background=color,backgroundcolor=.5s]
504 \setupTABLE[c][1][width=.5\textwidth]
505 \setupTABLE[c][2][width=.5\textwidth]
506 \stopsetups
```

Again the Weekcurrentplan-command is defined with 8 parameters

```
507 \define[8]\Weekcurrentplan{\ctxlua{thirddata.diary.weekplan(#1,#2,#3,#4,#5,#6,#7,
508 #8)}}}
```

And the command together with the gathered parameters is stored in a buffer, which will be used by the user-file PocketDiary.tex .

```
509 \startbuffer[Weekcurrentplan]
510 \Weekcurrentplan %Weekday,Week,Month,Year,lat,lon,timeoffset,continent
511 {1}
512 {\getvariable{PocketDiary}{Week}}
513 {\getvariable{PocketDiary}{Month}}
514 {\getvariable{PocketDiary}{Year}}
515 {\getvariable{PocketDiaryGeoPosition}{lat}}
516 {\getvariable{PocketDiaryGeoPosition}{lon}}
517 {\getvariable{PocketDiaryGeoPosition}{timeoffset}}
518 {"\getvariable{PocketDiaryGeoPosition}{continent}"}
519 \page[yes]
520 \stopbuffer
```

Similar to the week plan the next week plan is built.

```
521 \define[8]\Weeknextplan{\ctxlua{thirddata.diary.weekplan(#1,#2,#3,#4,#5,#6,#7,#8)
522 }}}

523 \startbuffer[Weeknextplan]
524 \Weeknextplan %Weekday,Week,Month,Year,lat,lon,timeoffset,dst_start,dst_stop
525 {1}
526 {\directlua{tex.print{\getvariable{PocketDiary}{Week}+1}}}
527 {\getvariable{PocketDiary}{Month}}
528 {\getvariable{PocketDiary}{Year}}
529 {\getvariable{PocketDiaryGeoPosition}{lat}}
530 {\getvariable{PocketDiaryGeoPosition}{lon}}
531 {\getvariable{PocketDiaryGeoPosition}{timeoffset}}
532 {"\getvariable{PocketDiaryGeoPosition}{continent}"}
533 \page[yes]
534 \stopbuffer
```

Month current and month next

The month calendar looks as in figure 4.

Left in the header appears the month name in the chosen language. To the right the year is typeset.

April						2022
Mon	Tue	Wed	Thu	Fri	Sat	Sun
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

PocketDiary 4 Willi, 2022

Figure 4 Example Month-calendar

In the same fashion as the previous items also the month and next month calendars are defined respectively setup:

```

535 \startsetups table:month
536   \setupTABLE[column][each][width=.143\textwidth,align=flushright,offset=3pt]
537   \setupTABLE[column][7][style=\red]
538 \stopsetups

```

For the Month-calendars we need only two parameters: month and year.

```

539 \define[2]\Monthcurrentplan{\ctxlua{thirddata.diary.monthcurrentplan(#1,#2)}}

```

The command is kept together with the gathered parameters in a buffer again. This will be called from the user-file PocketDiary.tex .

```

540 \startbuffer[Monthcurrentplan]
541   \Monthcurrentplan
542   {\getvariable{PocketDiary}{Month}}
543   {\getvariable{PocketDiary}{Year}}
544 \stopbuffer

545 \define[2]\Monthnextplan{\ctxlua{thirddata.diary.monthnextplan(#1,#2)}}

546 \startbuffer[Monthnextplan]
547   \Monthnextplan
548   {\getvariable{PocketDiary}{Month}}
549   {\getvariable{PocketDiary}{Year}}
550 \stopbuffer

```

Year current and year next

The year calendar looks as in figure 5.

In the header the year only is typeset.

2022			
January		February	
52 1 2 3 4 5	5 6 7 8 9	9 10 11 12 13	13 14 15 16 17
Mon 3 10 17 24 31	Mon 7 14 21 28	Mon 7 14 21 28	Mon 4 11 18 25
Tue 4 11 18 25	Tue 1 8 15 22	Tue 1 8 15 22 29	Tue 5 12 19 26
Wed 5 12 19 26	Wed 2 9 16 23	Wed 2 9 16 23 30	Wed 6 13 20 27
Thu 6 13 20 27	Thu 3 10 17 24	Thu 3 10 17 24 31	Thu 7 14 21 28
Fri 7 14 21 28	Fri 4 11 18 25	Fri 4 11 18 25	Fri 1 8 15 22 29
Sat 1 8 15 22 29	Sat 5 12 19 26	Sat 5 12 19 26	Sat 2 9 16 23 30
Sun 2 9 16 23 30	Sun 6 13 20 27	Sun 6 13 20 27	Sun 3 10 17 24
May		June	
17 18 19 20 21 22	22 23 24 25 26	26 27 28 29 30	31 32 33 34 35
Mon 2 9 16 23 30	Mon 6 13 20 27	Mon 4 11 18 25	Mon 1 8 15 22 29
Tue 3 10 17 24 31	Tue 7 14 21 28	Tue 5 12 19 26	Tue 2 9 16 23 30
Wed 4 11 18 25	Wed 1 8 15 22 29	Wed 6 13 20 27	Wed 3 10 17 24 31
Thu 5 12 19 26	Thu 2 9 16 23 30	Thu 7 14 21 28	Thu 4 11 18 25
Fri 6 13 20 27	Fri 3 10 17 24	Fri 1 8 15 22 29	Fri 5 12 19 26
Sat 7 14 21 28	Sat 4 11 18 25	Sat 2 9 16 23 30	Sat 6 13 20 27
Sun 1 8 15 22 29	Sun 5 12 19 26	Sun 3 10 17 24 31	Sun 7 14 21 28
September		October	
35 36 37 38 39	39 40 41 42 43 44	44 45 46 47 48	48 49 50 51 52
Mon 5 12 19 26	Mon 3 10 17 24 31	Mon 7 14 21 28	Mon 5 12 19 26
Tue 6 13 20 27	Tue 4 11 18 25	Tue 1 8 15 22 29	Tue 6 13 20 27
Wed 7 14 21 28	Wed 5 12 19 26	Wed 2 9 16 23 30	Wed 7 14 21 28
Thu 1 8 15 22 29	Thu 6 13 20 27	Thu 3 10 17 24	Thu 1 8 15 22 29
Fri 2 9 16 23 30	Fri 7 14 21 28	Fri 4 11 18 25	Fri 2 9 16 23 30
Sat 3 10 17 24	Sat 1 8 15 22 29	Sat 5 12 19 26	Sat 3 10 17 24 31
Sun 4 11 18 25	Sun 2 9 16 23 30	Sun 6 13 20 27	Sun 4 11 18 25
PocketDiary		5	Willi, 2022

Figure 5 Example Year-calendar

The year table(s) are prepared as the week tables with a table-setup sequence, a custom command which resides with the parameters assigned in a buffer, which will again be called from the user-file `PocketDiary.tex`

```

551 \startsetups table:year
552   \setupTABLE[column]
553       [each]
554       [width=.032\textwidth,align=flushright,offset=1pt,frame=off]
555   \setupTABLE[column][1][width=.052\textwidth,align=flushleft]
556   \setupTABLE[row][each][offset=1pt,height=1.5\bodyfontsize]
557 \stopsetups

558 \define[2]\Yearcurrentplan{\ctxlua{thirddata.diary.yearplan(#1,#2)}}
559 \define[2]\Yearnextplan{\ctxlua{thirddata.diary.yearplan(#1,#2)}}

560 \startbuffer[Yearcurrentplan]
561   \Yearcurrentplan
562   {\getvariable{PocketDiary}{Year}}
563   {"no"}
564 \stopbuffer

565 \startbuffer[Yearnextplan]
566   \Yearnextplan
567   {\getvariable{PocketDiary}{Year}}
568   {"\getvariable{PocketDiary}{Nextyear}"}
569 \stopbuffer

```


One week...

As mentioned before, the result will be 5 pages with one working day per page and the weekend on one page i.e. 6 pages. For the pages 7 and 8 the values defined in the 'PocketDiaryLayout' variable set is used. As for the Dayplan we need a command carrying 8 parameters:

```
570 \define[8]\Daybyday{\ctxlua{thirddata.diary.daybydayplan(#1,#2,#3,#4,#5,#6,#7,#8)}
571 }
```

A buffer contains the command just defined with the gathered information for the parameters. The buffer then is called from the user-file PocketDiary.tex .

```
572 \startbuffer[Daybyday]
573   \Daybyday
574     {1} %Weekday
575     {\getvariable{PocketDiary}{Week}}
576     {\getvariable{PocketDiary}{Month}}
577     {\getvariable{PocketDiary}{Year}}
578     {\getvariable{PocketDiaryGeoPosition}{lat}}
579     {\getvariable{PocketDiaryGeoPosition}{lon}}
580     {\getvariable{PocketDiaryGeoPosition}{timeoffset}}
581     {"\getvariable{PocketDiaryGeoPosition}{continent}"}
582 \stopbuffer
```

Templates

The PocketDiary comes with a couple of templates for writing down information:

For the pages with (grid)lines we use an overlay in the background of the text area which will contain the METAPOST-graphic.

The setups for the Contacts page look as follows:

```
583 \startsetups table:contacts
584   \setupTABLE[r][each][frame=off,bottomframe=on,height=2\lineheight]
585   \setupTABLE[c][1][width=.3\textwidth]
586   \setupTABLE[c][2][width=.5\textwidth]
587   \setupTABLE[c][3][width=.2\textwidth]
588 \stopsetups
```

The setups for the Lost-Returnto page is setup in the following way:

```
589 \startsetups table:returnto
590   \setupTABLE[r][each][frame=off]
591   \setupTABLE[c][each][width=\textwidth]
592 \stopsetups
```

Another setups covers the reset of the used Background

```
593 \startsetups Background:stop
594   \defineoverlay
595     [Textarea]
596     [\resetMPdrawing]
```

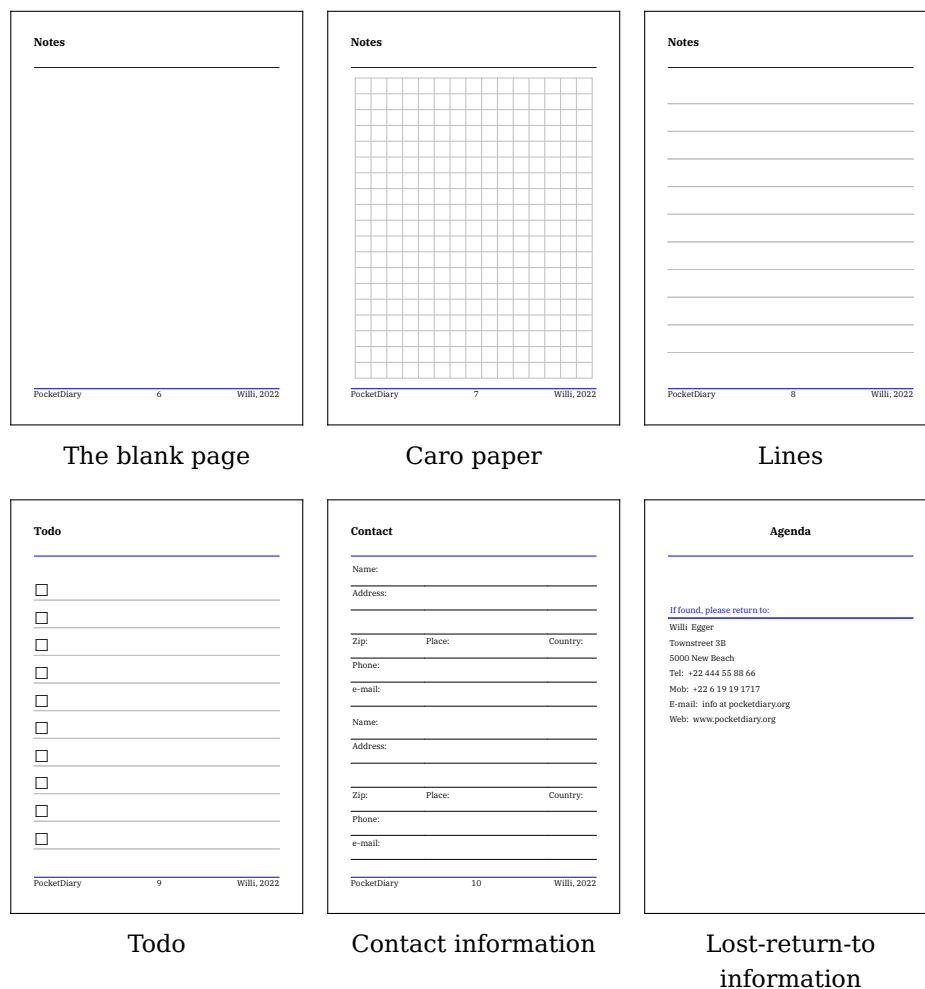


Figure 6 The set of available templates

```

597 \setupbackgrounds[text][text][background=]
598 \stopsetups

```

All templates for these pages are contained in buffers in order to call them from the user-file PocketDiary.tex

```

599 \startbuffer[Contact]
600 \setupheadertexts[{\bf \labeltext{contact}\hfill}]
601 \switchtobodyfont[6pt]
602 \dorecurse{2}{\bTABLE[setups=table:contacts]
603   \bTR
604     \bTD \labeltext{name}: \eTD
605     \bTD \eTD
606     \bTD \eTD
607   \eTR
608   \bTR
609     \bTD \labeltext{address}: \eTD
610     \bTD \eTD
611     \bTD \eTD
612   \eTR
613   \bTR

```

```

614      \bTD \strut\eTD
615      \bTD \eTD
616      \bTD \eTD
617  \eTR
618  \bTR
619      \bTD \labeltext{zip}:\eTD
620      \bTD \labeltext{place}:\eTD
621      \bTD \labeltext{country}:\eTD
622  \eTR
623  \bTR
624      \bTD \labeltext{phone}:\eTD
625      \bTD \eTD
626      \bTD \eTD
627  \eTR
628  \bTR
629      \bTD \labeltext{mail}:\eTD
630      \bTD \eTD
631      \bTD \eTD
632  \eTR
633  \eTABLE
634  \blank}
635  \page[yes]
636  \stopbuffer

637  \startbuffer[Caro]
638      \setupheadertexts[{\bf \labeltext{notes}\hfill}]
639      \defineoverlay
640          [Textarea]
641          [\useMPgraphic{Caro}]
642      \setupbackgrounds[text][background=Textarea]
643      \strut
644      \page[yes]
645      \setups{Background:stop}
646  \stopbuffer

647  \startbuffer[Lines]
648      \setupheadertexts[{\bf \labeltext{notes}\hfill}]
649      \defineoverlay
650          [Textarea]
651          [\useMPgraphic{Lines}]
652      \setupbackgrounds[text][text][background=Textarea]
653      \strut
654      \page[yes]
655      \setups{Background:stop}
656  \stopbuffer

657  \startbuffer[Todo]
658      \defineoverlay
659          [Textarea]
660          [\useMPgraphic{Todo}]
661      \setupbackgrounds[text][text][background=Textarea]

```

```

662     \setupheadertexts[\bf \labeltext{todo}\hfill]
663     \strut
664     \page[yes]
665     \setups{Background:stop}
666     \stopbuffer

667     \startbuffer[Blank]
668     \setupheadertexts[{\bf \labeltext{notes}\hfill}]
669     \strut
670     \page[yes]
671     \stopbuffer

672     \startbuffer[Lost-Returnto]
673     \strut
674     \setupheadertexts[{\bf \labeltext{calendar}}]
675     \setupfooter[state=empty]
676     \setupbackgrounds[footer][text][topframe=off]
677     \setups{Background:stop}
678     \strut
679     \blank[2*line]
680     \framed[width=\textwidth,
681             frame=off,
682             bottomframe=on,
683             align=flushleft,
684             rulethickness=1pt,
685             foregroundcolor=\getvariable{PocketDiaryColors}{Separatorline},
686             framecolor=\getvariable{PocketDiaryColors}{Separatorline}]
687             {\labeltext{found}}
688     \bTABLE[setups=table:retorno]
689     \bTR
690     \bTD \getvariable{PocketDiaryAddress}{Forename}~
691     \getvariable{PocketDiaryAddress}{Familyname} \eTD
692     \eTR
693     \bTR
694     \bTD \getvariable{PocketDiaryAddress}{Street} \eTD
695     \eTR
696     \bTR
697     \bTD \getvariable{PocketDiaryAddress}{Zipcode}
698     {\addff{f:smallcaps}\getvariable{PocketDiaryAddress}{City}}\eTD
699     \eTR
700     \bTR
701     \bTD Tel: \getvariable{PocketDiaryAddress}{Phone}\eTD
702     \eTR
703     \bTR
704     \bTD Mob: \getvariable{PocketDiaryAddress}{Mobile}\eTD
705     \eTR
706     \bTR
707     \bTD E-mail: \getvariable{PocketDiaryAddress}{E-mail} \eTD
708     \eTR
709     \bTR
710     \bTD Web: \getvariable{PocketDiaryAddress}{Web} \eTD

```

```
711     \eTR
712     \eTABLE
713     \page[yes]
714     \getbuffer[Footertext]
715     \setupbackgrounds[footer][text][topframe=on]
716     \stopbuffer
```


The setup of the PocketDiary

When filling the 8 pages we can do two things. Either we let `CONTEXT` typeset the pages as we choose them in the section ‘PocketDiaryLayout’ or we set the variable ‘Daybyday’ in the variable set ‘PocketDiary’ to ‘yes’. This leads to the typesetting of 5 pages with each a working day and the weekend on one page. The remaining two pages are typeset according to the values given in ‘PocketDiaryLayout.’

```

717 \startbuffer[Pocketdiary]
718   \definecolor[Grid][\getvariable{PocketDiaryColors}{Gridline}]
719   \definecolor[Separatorline][\getvariable{PocketDiaryColors}{Separatorline}]

720   \doifelse{\getvariable{PocketDiary}{Daybyday}}{yes}
721     {\Daybyday %creates 6 pages
722       {1}
723       {\getvariable{PocketDiary}{Week}}
724       {\getvariable{PocketDiary}{Month}}
725       {\getvariable{PocketDiary}{Year}}
726       {\getvariable{PocketDiaryGeoPosition}{lat}}
727       {\getvariable{PocketDiaryGeoPosition}{lon}}
728       {\getvariable{PocketDiaryGeoPosition}{timeoffset}}
729       {"\getvariable{PocketDiaryGeoPosition}{continent}"}
730       \getbuffer[\getvariable{PocketDiaryLayout}{Page7}]
731       \getbuffer[\getvariable{PocketDiaryLayout}{Page8}]
732     }
733     {\getbuffer[\getvariable{PocketDiaryLayout}{Page1}]
734       \getbuffer[\getvariable{PocketDiaryLayout}{Page2}]
735       \getbuffer[\getvariable{PocketDiaryLayout}{Page3}]
736       \getbuffer[\getvariable{PocketDiaryLayout}{Page4}]
737       \getbuffer[\getvariable{PocketDiaryLayout}{Page5}]
738       \getbuffer[\getvariable{PocketDiaryLayout}{Page6}]
739       \getbuffer[\getvariable{PocketDiaryLayout}{Page7}]
740       \getbuffer[\getvariable{PocketDiaryLayout}{Page8}]
741     }
742 \stopbuffer

```


Arranging the pages

For the arrangement of the 8 pages on the paper we need a special arranging scheme, which is included in the distribution. Invoking the scheme is performed with

```
\setuparranging[1*8]
```

The arrangement of the 8 pages is not switched on in this file. For the purpose of experimenting it is better to keep this command in the user file `\type{PocketDiary.tex}`

How to fold the PocketDiary

The eight printed pages are folded in such a way, that the PocketDiary presents itself as a small booklet. There are no empty pages visible.

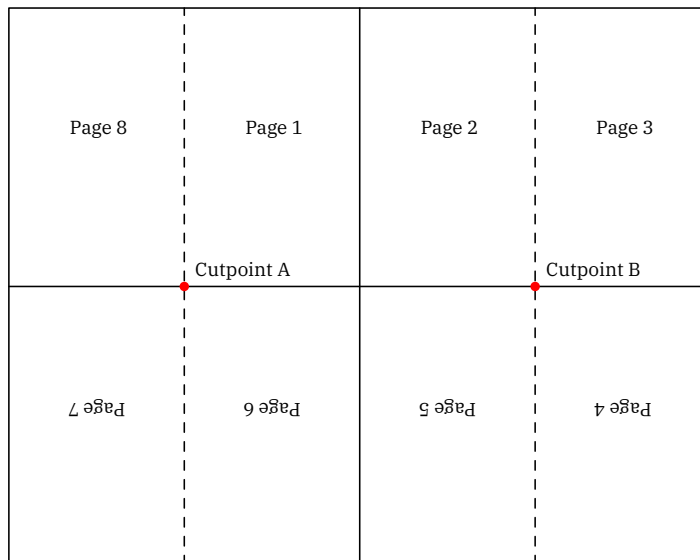


Figure 7 The basic folding scheme

First make two mountain-folds as indicated with the straight lines in figure 7. Unfold the paper and turn it face up and 90° to the left. Make a valley-fold with the lower part of the sheet on the previously made mountain-fold. Unfold and turn the sheet 180° . Make another valley-fold as described before. Unfold the sheet.

Take a sharp knife and a ruler. Slit the paper open between Cuttingpoint A and B (see figure 7).

Now we can fold the booklet. First fold the paper again in the length. Then hold the double folded paper with the mountain-fold up. Push from both sides towards the center in order to get a form similar to figure 8. Fold then the upper double-page in direction B, the lower double-page in direction C and finally the lefthand double-sided page in direction D.

Before creasing the booklet at the spine it is worthwhile to put the section on table and adjust folds where needed. Finally the spine is creased with preference with a bone-folder.

743 \stopmodule

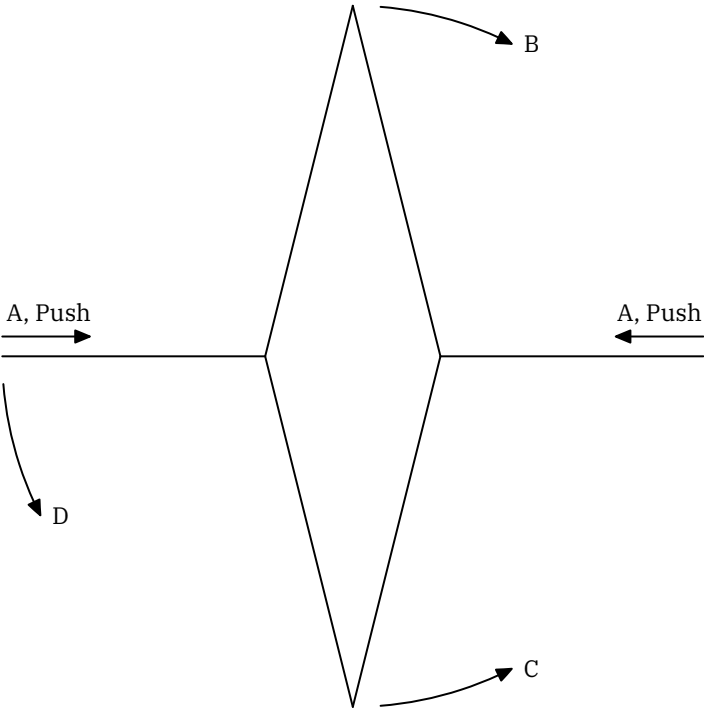


Figure 8 The basic folding scheme