

# The ‘greekdates’ package

Antonis Tsolomitis  
Department of Mathematics  
University of the Ægean  
GR-832 00 Karlovassi  
Samos, HELLAS  
E-mail: `atsol@aegean.gr`

2001/05/15

## 1 Introduction

The package provides an easy interface to access the original Greek names of months, days and dates relating to several Greek cities for which this information is available. The package should be useful mainly to Greek Gentiles, to the historians and anyone curious to see how the original Greek dates look like.

## 2 Month names

The month names were not the same throughout Greece. However we do not know the names for all regions of Greece or for some regions we know the names of some of the months. These regions are not covered by this package as our main target group are the Greek Gentiles who would like to really use these names in their documents instead of the names enforced by law during the Byzantine Era. The month names are accessed by commands of the form `\Regionmonth{number}` where *number* is any integer between one and twelve (historians may object to this choice as there was a thirteenth month every four years, but as said before we want this package to be useful for everyday work (e.g. for creating Calendars) rather than strictly a study object).

The `Region` is one of the following:

|           |        |           |
|-----------|--------|-----------|
| Athens    | Delphi | Dilos     |
| Epidavros | Rhodes | Macedonia |
| Aitolia   | Biotia | Samos     |
| Militos   | Tinos  | Lamia     |

Both polytonic (multi-accented) and monotonic (single-accented) are supported and this is determined by whether we use the `polutonikogreek` or the `greek` option of the `babel` package.

Thus `\Samosmonth{4}` will produce the Samian name of April.

### 3 Day Names

For day names we have three commands. These are `\fullgreekday{number}`, `\shortgreekday{number}` and `\sshortgreekday{number}`. We designed these commands having in mind that they may be useful for the creation of calendars. Thus the first command will create phrases like “The Day of Zeus” in Greek (Thursday). The later is `\fullgreekday{5}`. You just have to remember that Sunday is number 1 and also “The day of the Sun”. The other two commands produce abbreviations. `\shortgreekday{1}` will produce “Sun’s” (in greek) and an even shorter form is produced by `\sshortgreekday{1}`.

### 4 Converting the standard name months

The package provides the options `Regionmonths` where `Region` is one of the above names (in the section 2). If the package is loaded say with the `Athensmonths` (`\usepackage[Athensmonths]{greekdates}`) the names for the months will be converted to the names used in Athens. This will affect for example commands like `\today`.

#### 4.1 Full date conversion

If one wants to completely switch to the Greek way of counting dates then the option `fullconversion` should be used. This, together with the selection of one of the region months options will not only change the months’ names but also adjust the way we count years. Thus `\today` will now compute the current Olympiad and the year within the current Olympiad and will print something like “5 monthname 2 year 694 Olympiad”, of course, in Greek. Similarly to the definition of the `\Grtoday` command of the greek option of the Babel package, this command will now behave as `\today` but the numbers will be written in Greek and not with their Arabic forms (see the documentation of the greek option of the Babel package).

We also define the commands `\shortdategreek` and `\Grshortdategreek` which produce the date in short form. For example today is 8 May 2001 and if I would use `\shortdategreek` I would get 8/5/2/694, that is, the 8th day of the 5th month of the 2nd year of the 694 Olympiad. If I would use `\Grshortdategreek` I would get the same but with Greek numerals.

### 5 The code

```
1 (*greekdates)
2 \NeedsTeXFormat{LaTeX2e}[1996/01/01]
3 \ProvidesPackage{greekdates}[2001/05/15\space v1.0]
4 \typeout{Package: ‘greekdates’ v1.0\space <2001/05/15> (A. Tsolomitis)}
5 \ProvidesPackage{greekdates}
6 \RequirePackage{calc}
```

We begin by defining the days in full, short and sshort form as described above.  
`\fullgreekday` The command `\fullgreekday` is used to produce the name of the week’s day using a phrase like “the day of the Sun” in Greek (this is `\fullgreekday{1}`). The argument is an integer from 1 to 7. Shorter forms follow.

```
7 \@ifpackagewith{babel}{polutonikogreek}{
```

```

8 \def\fgrkday#1{
9   \ifcase#1 \or %
10  >Hm'era to~u >'Hliou\or >Hm'era t~hs Sel'hnhs\or >Hm'era to~u
11  >'Arh\or >Hm'era to~u >Erm~h\or >Hm'era to~u Di'os\or
12  >Hm'era t~hs >Afrod'iths\or >Hm'era to~u Kr'onou\fi}
13 }{
14 \def\fgrkday#1{
15   \ifcase#1 \or %
16   Hm'era tou 'Hliou\or Hm'era ths Sel'hnhs\or Hm'era tou 'Arh\or
17   Hm'era tou Erm'h\or Hm'era tou Di'os\or Hm'era ths Afrod'iths\or
18   Hm'era tou Kr'onou\fi}
19 }
20 \newcommand{\fullgreekday}[1]{\fgrkday #1}

```

`\shortgreekday` The `\shortgreekday` macro gives a shorter form for the name of the day. For example `\shortgreekday{1}` will give “Sun’s” in Greek (instead of “the day of the Sun”).

```

21 \@ifpackagewith{babel}{polutonikogreek}{
22 \def\sgrkday#1{
23   \ifcase#1 \or %
24   >'Hliou\or Sel'hnhs\or >'Arh\or >Erm~h\or
25   Di'os\or >Afrod'iths\or Kr'onou\fi}
26 }{
27 \def\sgrkday#1{
28   \ifcase#1 \or %
29   'Hliou\or Sel'hnhs\or 'Arh\or Erm'h\or
30   Di'os\or Afrod'iths\or Kr'onou\fi}
31 }
32 \newcommand{\shortgreekday}[1]{\sgrkday #1}

```

`\sshortgreekday` An even shorter form is produced by the `\sshortgreekday` macro.

```

33 \@ifpackagewith{babel}{polutonikogreek}{
34 \def\ssgrkday#1{
35   \ifcase#1 \or %
36   >'Hl.\or Sel.\or >'Ar.\or >Er.\or
37   Di'os\or >Afr.\or Kr.\fi}
38 }{
39 \def\ssgrkday#1{
40   \ifcase#1 \or %
41   'Hl.\or Sel.\or 'Ar.\or Er.\or
42   Di'os\or Afr.\or Kr.\fi}
43 }
44 \newcommand{\sshortgreekday}[1]{\ssgrkday #1}

```

We define the names of the months of several Greek regions plus the commands for accessing them as described above.

`\Athensmonth` We now define the names of the months for the Athens region. the macro `\Athensmonth` admits a compulsory argument (an integer from 1 to 12) and gives the name of the corresponding month in the Athenian Calendar. Thus `\Athensmonth{2}` will produce the name of the February in that calendar.

```

45 \@ifpackagewith{babel}{polutonikogreek}{
46 \def\Athmonth#1{
47   \ifcase#1 \or %

```

```

48 Gamhli'wn\or >Anjesthri'wn\or >Elafhbolli'wn\or Mounuqi'wn \or
49 Jarghli'wn\or Skirofori'wn\or <Ekatombai'wn\or Metageitni'wn\or
50 Bohdromi'wn\or Puaneyi'wn\or Maimakthri'wn\or Poseide'wn\fi}
51 }{\def\Athmonth#1{
52 \ifcase#1 \or %
53 Gamhli'wn\or Anjesthri'wn\or Elafhbolli'wn\or Mounuqi'wn \or
54 Jarghli'wn\or Skirofori'wn\or Ekatombai'wn\or Metageitni'wn\or
55 Bohdromi'wn\or Puaneyi'wn\or Maimakthri'wn\or Poseide'wn\fi}
56 }
57 \newcommand{\Athensmonth}[1]{\Athmonth #1}

```

\Delphimonth We continue as with the Athenean names (see previous paragraph) with the names of the Delphi region and with the macro \Delphimonth

```

58 \@ifpackagewith{babel}{polutonikogreek}{
59 \def\Delmonth#1{
60 \ifcase#1 \or
61 >Am'alios\or B'usios\or Jeox'enios\or >Enduspoitr'opios\or
62 <Hr'akleios\or >Ila'ios\or >Apella'ios\or Bouk'atios\or
63 Boaj'oos\or <Hra'ios\or Dadaf'orios\or Poitr'opios\fi}
64 }{\def\Delmonth#1{
65 \ifcase#1 \or
66 Am'alios\or B'usios\or Jeox'enios\or Enduspoitr'opios\or
67 Hr'akleios\or Ila'ios\or Apella'ios\or Bouk'atios\or
68 Boaj'oos\or Hra'ios\or Dadaf'orios\or Poitr'opios\fi}
69 }
70 \newcommand{\Delphimonth}[1]{\Delmonth #1}

```

\Dilosmonth We continue as with the Athenean names (see page 3) with the names of the Island of Dilos region and with the macro \Dilosmonth

```

71 \@ifpackagewith{babel}{polutonikogreek}{
72 \def\Dilmonth#1{
73 \ifcase#1 \or
74 Lhni'wn\or <Ier'os\or Galaxi'wn\or >Artemisi'wn\or
75 Jarghli'wn\or P'anhmos\or <Ekatombai'wn\or Metageitni'wn\or
76 Boufwni'wn\or >Apatouri'wn\or >Arhsi'wn\or Poseide'wn\fi}
77 }{\def\Dilmonth#1{
78 \ifcase#1 \or
79 Lhni'wn\or Ier'os\or Galaxi'wn\or Artemisi'wn\or
80 Jarghli'wn\or P'anhmos\or Ekatombai'wn\or Metageitni'wn\or
81 Boufwni'wn\or Apatouri'wn\or Arhsi'wn\or Poseide'wn\fi}
82 }
83 \newcommand{\Dilosmonth}[1]{\Dilmonth #1}

```

\Epidavrosmonth We continue as with the Athenean names (see page 3) with the names of the Epidavros region and with the macro \Epidavrosmonth

```

84 \@ifpackagewith{babel}{polutonikogreek}{
85 \def\Epimonth#1{
86 \ifcase#1 \or
87 Pos'idaaios\or >Artam'itios\or >Ari'anios\or P'anamos\or
88 K'uklios\or >Apella'ios\or >Az'osios\or Karne'ios\or
89 Pror'atios\or <Erma'ios\or G'amios\or T'eleos\fi}
90 }{\def\Epimonth#1{
91 \ifcase#1 \or
92 Pos'idaaios\or Artam'itios\or Ari'anios\or P'anamos\or

```

```

93 K'uklios\or Apella'ios\or Az'osios\or Karne'ios\or
94 Pror'atios\or Erma'ios\or G'amios\or T'eleos\fi}
95 }
96 \newcommand{\Epidavrosmonth}[1]{\Epimonth #1}

\Rhodesmonth We continue as with the Athenean names (see page 3) with the names of the island
of Rhodes region and with the macro \Rhodesmonth
97 \@ifpackagewith{babel}{polutonikogreek}{
98 \def\Rhomonth#1{
99 \ifcase#1 \or
100 Jeuda'isios\or Pedage'itnios\or Badr'omios\or >Artam'itios\or
101 >Agri'anios\or <Uak'injios\or P'anamos\or K'arneios\or
102 D'alios\or Jesmof'orios\or Sm'injios\or Di'osjuos\fi}
103 }\def\Rhomonth#1{
104 \ifcase#1 \or
105 Jeuda'isios\or Pedage'itnios\or Badr'omios\or Artam'itios\or
106 Agri'anios\or Uak'injios\or P'anamos\or K'arneios\or
107 D'alios\or Jesmof'orios\or Sm'injios\or Di'osjuos\fi}
108 }
109 \newcommand{\Rhodesmonth}[1]{\Rhomonth #1}

\Macedoniamonth We continue as with the Athenean names (see page 3) with the names of the
Macedonia region and with the macro \Macedoniamonth
110 \@ifpackagewith{babel}{polutonikogreek}{
111 \def\Macmonth#1{
112 \ifcase#1 \or
113 D'ustros\or Xanjik'os\or >Artem'isios\or Da'isios\or
114 P'anhmos\or L'wos\or Gorpia'ios\or <Uperbereta'ios\or
115 D'ios\or >Apella'ios\or A>uduna'ios\or Per'itios\fi}
116 }\def\Macmonth#1{
117 \ifcase#1 \or
118 D'ustros\or Xanjik'os\or Artem'isios\or Da'isios\or
119 P'anhmos\or L'wos\or Gorpia'ios\or Uperbereta'ios\or
120 D'ios\or Apella'ios\or Auduna'ios\or Per'itios\fi}
121 }
122 \newcommand{\Macedoniamonth}[1]{\Macmonth #1}

\Aitoliamonth We continue as with the Athenean names (see page 3) with the names of the
Aitolia region and with the macro \Aitoliamonth
123 \@ifpackagewith{babel}{polutonikogreek}{
124 \def\Aitmonth#1{
125 \ifcase#1 \or
126 E>ujua'ios\or <Omol'wios\or <Erma'ios\or Dion'usios\or
127 >Ag'ueios\or <Ippodr'omios\or Ju'ios\or P'anamos\or
128 Prok'uklios\or >Ajana'ios\or Bouk'atios\or Lafria'ios\fi}
129 }\def\Aitmonth#1{
130 \ifcase#1 \or
131 Eujua'ios\or Omol'wios\or Erma'ios\or Dion'usios\or
132 Ag'ueios\or Ippodr'omios\or Ju'ios\or P'anamos\or
133 Prok'uklios\or Ajana'ios\or Bouk'atios\or Lafria'ios\fi}
134 }
135 \newcommand{\Aitoliamonth}[1]{\Aitmonth #1}

```

`\Biotiamonth` We continue as with the Athenean names (see page 3) with the names of the Biotia region and with the macro `\Biotiamonth`

```

136 \@ifpackagewith{babel}{polutonikogreek}{
137 \def\Biomonth#1{
138   \ifcase#1 \or
139   <Erma'ios\or Prostat'hrios\or >Agri'wnios\or Jio'uios\or
140   <Omol'wios\or Jeilo'ujios\or <Ippodr'omios\or P'anamos\or
141   Pamboi'wtios\or Dam'atrios\or >Alalkom'enios\or Bouk'atios\fi}
142 }\def\Biomonth#1{
143   \ifcase#1 \or
144   Erma'ios\or Prostat'hrios\or Agri'wnios\or Jio'uios\or
145   Omol'wios\or Jeilo'ujios\or Ippodr'omios\or P'anamos\or
146   Pamboi'wtios\or Dam'atrios\or Alalkom'enios\or Bouk'atios\fi}
147 }
148 \newcommand{\Biotiamonth}[1]{\Biomonth #1}

```

`\Samosmonth` We continue as with the Athenean names (see page 3) with the names of the islan of Samos region and with the macro `\Samosmonth`

```

149 \@ifpackagewith{babel}{polutonikogreek}{
150 \def\Sammonth#1{
151   \ifcase#1 \or
152   Lhnai'wn\or >Anjesthri'wn\or >Artemisi'wn\or Taure'wn\or
153   P'anhmos\or Kroni'wn\or Pelusi'wn\or Metageitni'wn\or
154   Bohdromi'wn\or Kuanoyi'wn\or >Apatouri'wn\or Poseide'wn\fi}
155 }\def\Sammonth#1{
156   \ifcase#1 \or
157   Lhnai'wn\or Anjesthri'wn\or Artemisi'wn\or Taure'wn\or
158   P'anhmos\or Kroni'wn\or Pelusi'wn\or Metageitni'wn\or
159   Bohdromi'wn\or Kuanoyi'wn\or Apatouri'wn\or Poseide'wn\fi}
160 }
161 \newcommand{\Samosmonth}[1]{\Sammonth #1}

```

`\Militosmonth` We continue as with the Athenean names (see page 3) with the names of the Militos region and with the macro `\Militosmonth`

```

162 \@ifpackagewith{babel}{polutonikogreek}{
163 \def\Milmonth#1{
164   \ifcase#1 \or
165   Lhnai'wn\or >Anjesthri'wn\or >Artemisi'wn\or Taure'wn\or
166   Jarghli'wn\or Kalamai'wn\or P'anhmos\or Metageitni'wn \or
167   >It'wnios\or Puanoyi'wn\or >Apatouri'wn\or Poseide'wn\fi}
168 }\def\Milmonth#1{
169   \ifcase#1 \or
170   Lhnai'wn\or Anjesthri'wn\or Artemisi'wn\or Taure'wn\or
171   Jarghli'wn\or Kalamai'wn\or P'anhmos\or Metageitni'wn \or
172   It'wnios\or Puanoyi'wn\or Apatouri'wn\or Poseide'wn\fi}
173 }
174 \newcommand{\Militosmonth}[1]{\Milmonth {#1}}

```

`\Tinosmonth` We continue as with the Athenean names (see page 3) with the names of the island of Tinos region and with the macro `\Tinosmonth`

```

175 \@ifpackagewith{babel}{polutonikogreek}{
176 \def\Tinmonth#1{
177   \ifcase#1 \or

```

```

178 Lhnai'wn\or >Anjesthri'wn\or >Artemisi'wn\or Taure'wn\or
179 Targhli'wn\or >Eleujuai'wn\or >Apellai'wn\or <Hrai'wn\or
180 Boufwni'wn\or Kuanoyi'wn\or >Apatouri'wn\or Poseide'wn\fi}
181 }{\def\Tinmonth#1{
182 \ifcase#1 \or
183 Lhnai'wn\or Anjesthri'wn\or Artemisi'wn\or Taure'wn\or
184 Targhli'wn\or Eleujuai'wn\or Apellai'wn\or Hrai'wn\or
185 Boufwni'wn\or Kuanoyi'wn\or Apatouri'wn\or Poseide'wn\fi}
186 }
187 \newcommand{\Tinosmonth}[1]{\Tinmonth {#1}}

```

\Lamiamonth We continue as with the Athenean names (see page 3) with the names of the Lamia region and with the macro \Lamiamonth

```

188 \@ifpackagewith{babel}{polutonikogreek}{
189 \def\Lammonth#1{
190 \ifcase#1 \or
191 Jrix'allios\or Ge~ustos\or L'ukeos\or J'uos\or
192 >'Areos\or Qrutta~ios\or <Ippodr'omios\or P'anamos\or
193 >It'wnios\or >Apella~ios\or Jem'istios\or B'wmios\fi}
194 }{\def\Lammonth#1{
195 \ifcase#1 \or
196 Jrix'allios\or Ge~ustos\or L'ukeos\or J'uos\or
197 'Areos\or Qrutta'ios\or Ippodr'omios\or P'anamos\or
198 It'wnios\or Apella'ios\or Jem'istios\or B'wmios\fi}
199 }
200 \newcommand{\Lamiamonth}[1]{\Lammonth {#1}}

```

We now define the options of the package relating to Greek regions giving the names of the months in the genitive form so that we can form Greek dates.

```

201 \DeclareOption{Athensmonths}{
202 \@ifpackagewith{babel}{polutonikogreek}{
203 \def\gr@month{%
204 \ifcase\month\or
205 Gamhli~wnos\or >Anjesthri~wnos\or >Elafhbolli~wnos\or Mounuqi~wnos \or
206 Jarghli~wnos\or Skirofori~wnos\or <Ekatombai~wnos\or Metageitni~wnos\or
207 Bohdromi~wnos\or Puaneyi~wnos\or Maimakthri~wnos\or Poseide~wnos\fi}
208 \def\gr@c@month{%
209 \ifcase\month\or
210 Gamhli~wnos\or >Anjesthri~wnos\or >Elafhbolli~wnos\or Mounuqi~wnos \or
211 Jarghli~wnos\or Skirofori~wnos\or <Ekatombai~wnos\or Metageitni~wnos\or
212 Bohdromi~wnos\or Puaneyi~wnos\or Maimakthri~wnos\or Poseide~wnos\fi}
213 }{
214 \def\gr@month{%
215 \ifcase\month\or
216 Gamhli'wnos\or Anjesthri'wnos\or Elafhbolli'wnos\or Mounuqi'wnos \or
217 Jarghli'wnos\or Skirofori'wnos\or Ekatombai'wnos\or Metageitni'wnos\or
218 Bohdromi'wnos\or Puaneyi'wnos\or Maimakthri'wnos\or Poseide'wnos\fi}
219 \def\gr@c@month{%
220 \ifcase\month\or
221 Gamhli'wnos\or Anjesthri'wnos\or Elafhbolli'wnos\or Mounuqi'wnos \or
222 Jarghli'wnos\or Skirofori'wnos\or Ekatombai'wnos\or Metageitni'wnos\or
223 Bohdromi'wnos\or Puaneyi'wnos\or Maimakthri'wnos\or Poseide'wnos\fi}
224 }}
225

```

```

226 \DeclareOption{Delphimonths}{
227 \@ifpackagewith{babel}{polutonikogreek}{
228 \def\gr@month{%
229 \ifcase\month\or
230 >Am'aliou\or B'usiu\or Jeox'eniou\or >Enduspoitr'opiu\or
231 <Hr'akleiu\or >Ila'iu\or >Apella'iu\or Bouk'atiou\or
232 Boaj'ou\or <Hra'iu\or Dadaf'oriou\or Poitr'opiu\fi}
233 \def\gr@c@month{%
234 \ifcase\month\or
235 >Am'aliou\or B'usiu\or Jeox'eniou\or >Enduspoitr'opiu\or
236 <Hr'akleiu\or >Ila'iu\or >Apella'iu\or Bouk'atiou\or
237 Boaj'ou\or <Hra'iu\or Dadaf'oriou\or Poitr'opiu\fi}
238 }{
239 \def\gr@month{%
240 \ifcase\month\or
241 Am'aliou\or B'usiu\or Jeox'eniou\or Enduspoitr'opiu\or
242 Hr'akleiu\or Ila'iu\or Apella'iu\or Bouk'atiou\or
243 Boaj'ou\or Hra'iu\or Dadaf'oriou\or Poitr'opiu\fi}
244 \def\gr@c@month{%
245 \ifcase\month\or
246 Am'aliou\or B'usiu\or Jeox'eniou\or Enduspoitr'opiu\or
247 Hr'akleiu\or Ila'iu\or Apella'iu\or Bouk'atiou\or
248 Boaj'ou\or Hra'iu\or Dadaf'oriou\or Poitr'opiu\fi}
249 }}
250
251 \DeclareOption{Dilosmonths}{
252 \@ifpackagewith{babel}{polutonikogreek}{
253 \def\gr@month{%
254 \ifcase\month\or
255 Lhni~wnos\or <Iero~u\or Galaxi~wnos\or >Artemisi~wnos\or
256 Jarghli~wnos\or P'anhmou\or <Ekatombai~wnos\or Metageitni~wnos\or
257 Boufwni~wnos\or >Apatouri~wnos\or >Arhsi~wnos\or Poseide~wnos\fi}
258 \def\gr@c@month{%
259 \ifcase\month\or
260 Lhni~wnos\or <Iero~u\or Galaxi~wnos\or >Artemisi~wnos\or
261 Jarghli~wnos\or P'anhmou\or <Ekatombai~wnos\or Metageitni~wnos\or
262 Boufwni~wnos\or >Apatouri~wnos\or >Arhsi~wnos\or Poseide~wnos\fi}
263 }{
264 \def\gr@month{%
265 \ifcase\month\or
266 Lhni'wnos\or <Iero'u\or Galaxi'wnos\or Artemisi'wnos\or
267 Jarghli'wnos\or P'anhmou\or Ekatombai'wnos\or Metageitni'wnos\or
268 Boufwni'wnos\or Apatouri'wnos\or Arhsi'wnos\or Poseide'wnos\fi}
269 \def\gr@c@month{%
270 \ifcase\month\or
271 Lhni'wnos\or <Iero'u\or Galaxi'wnos\or Artemisi'wnos\or
272 Jarghli'wnos\or P'anhmou\or Ekatombai'wnos\or Metageitni'wnos\or
273 Boufwni'wnos\or Apatouri'wnos\or Arhsi'wnos\or Poseide'wnos\fi}
274 }}
275
276 \DeclareOption{Epidavrosmonths}{
277 \@ifpackagewith{babel}{polutonikogreek}{
278 \def\gr@month{%
279 \ifcase\month\or

```



```

280 Pos'idaïou\or >Artam'itiou\or >Ari'aniou\or P'anamou\or
281 K'ukliou\or >Apella'ïou\or >Az'osiou\or Karne'ïou\or
282 Pror'atiou\or <Erma'ïou\or G'amïou\or T'eleou\fi}
283 \def\gr@c@month{%
284 \ifcase\month\or
285 Pos'idaïou\or >Artam'itiou\or >Ari'aniou\or P'anamou\or
286 K'ukliou\or >Apella'ïou\or >Az'osiou\or Karne'ïou\or
287 Pror'atiou\or <Erma'ïou\or G'amïou\or T'eleou\fi}
288 }{
289 \def\gr@month{%
290 \ifcase\month\or
291 Pos'idaïou\or Artam'itiou\or Ari'aniou\or P'anamou\or
292 K'ukliou\or Apella'ïou\or Az'osiou\or Karne'ïou\or
293 Pror'atiou\or Erma'ïou\or G'amïou\or T'eleou\fi}
294 \def\gr@c@month{%
295 \ifcase\month\or
296 Pos'idaïou\or Artam'itiou\or Ari'aniou\or P'anamou\or
297 K'ukliou\or Apella'ïou\or Az'osiou\or Karne'ïou\or
298 Pror'atiou\or Erma'ïou\or G'amïou\or T'eleou\fi}
299 }}
300
301 \DeclareOption{Rhodesmonths}{
302 \@ifpackagewith{babel}{polutonikogreek}{
303 \def\gr@c@month{%
304 \ifcase\month\or
305 Jeuda'isiou\or Pedage'itniou\or Badr'omiou\or >Artam'itiou\or
306 >Agri'aniou\or <Uak'injiou\or P'anamou\or K'arneïou\or
307 D'aliou\or Jesmof'oriou\or Sm'injiou\or Di'osjuou\fi}
308 \def\gr@c@month{%
309 \ifcase\month\or
310 Jeuda'isiou\or Pedage'itniou\or Badr'omiou\or >Artam'itiou\or
311 >Agri'aniou\or <Uak'injiou\or P'anamou\or K'arneïou\or
312 D'aliou\or Jesmof'oriou\or Sm'injiou\or Di'osjuou\fi}
313 }{
314 \def\gr@month{%
315 \ifcase\month\or
316 Jeuda'isiou\or Pedage'itniou\or Badr'omiou\or Artam'itiou\or
317 Agri'aniou\or Uak'injiou\or P'anamou\or K'arneïou\or
318 D'aliou\or Jesmof'oriou\or Sm'injiou\or Di'osjuou\fi}
319 \def\gr@c@month{%
320 \ifcase\month\or
321 Jeuda'isiou\or Pedage'itniou\or Badr'omiou\or Artam'itiou\or
322 Agri'aniou\or Uak'injiou\or P'anamou\or K'arneïou\or
323 D'aliou\or Jesmof'oriou\or Sm'injiou\or Di'osjuou\fi}
324 }}
325
326 \DeclareOption{Macedoniamonths}{
327 \@ifpackagewith{babel}{polutonikogreek}{
328 \def\gr@c@month{%
329 \ifcase\month\or
330 D'ustrou\or Xanjiko~u\or >Artem'isiou\or Da'isiou\or
331 P'anhmou\or L'wou\or Gorpia'ïou\or <Uperbereta'ïou\or
332 D'ïou\or >Apella'ïou\or A>uduna'ïou\or Per'itiou\fi}
333 \def\gr@c@month{%

```

```

334 \ifcase\month\or
335 D'ustrou\or Xanjiko~u\or >Artem'isiou\or Da'isiou\or
336 P'anhmou\or L'wou\or Gorpia'iou\or <Uperbereta'iou\or
337 D'iou\or >Apella'iou\or A>uduna'iou\or Per'itiou\fi}
338 }{
339 \def\gr@month{%
340 \ifcase\month\or
341 D'ustrou\or Xanjiko'u\or Artem'isiou\or Da'isiou\or
342 P'anhmou\or L'wou\or Gorpia'iou\or Uperbereta'iou\or
343 D'iou\or Apella'iou\or Auduna'iou\or Per'itiou\fi}
344 \def\gr@c@month{%
345 \ifcase\month\or
346 D'ustrou\or Xanjiko'u\or Artem'isiou\or Da'isiou\or
347 P'anhmou\or L'wou\or Gorpia'iou\or Uperbereta'iou\or
348 D'iou\or Apella'iou\or Auduna'iou\or Per'itiou\fi}
349 }}
350
351 \DeclareOption{Aitoliamonths}{
352 \@ifpackagewith{babel}{polutonikogreek}{
353 \def\gr@month{%
354 \ifcase\month\or
355 E>ujua'iou\or <Omol'wiou\or <Erma'iou\or Dion'usiu\or
356 >Ag'ueiou\or <Ippodr'omiou\or Ju'iou\or P'anamou\or
357 Prok'ukliou\or >Ajana'iou\or Bouk'atiou\or Lafria'iou\fi}
358 \def\gr@c@month{%
359 \ifcase\month\or
360 E>ujua'iou\or <Omol'wiou\or <Erma'iou\or Dion'usiu\or
361 >Ag'ueiou\or <Ippodr'omiou\or Ju'iou\or P'anamou\or
362 Prok'ukliou\or >Ajana'iou\or Bouk'atiou\or Lafria'iou\fi}
363 }{
364 \def\gr@month{%
365 \ifcase\month\or
366 Eujua'iou\or Omol'wiou\or Erma'iou\or Dion'usiu\or
367 Ag'ueiou\or Ippodr'omiou\or Ju'iou\or P'anamou\or
368 Prok'ukliou\or Ajana'iou\or Bouk'atiou\or Lafria'iou\fi}
369 \def\gr@c@month{%
370 \ifcase\month\or
371 Eujua'iou\or Omol'wiou\or Erma'iou\or Dion'usiu\or
372 Ag'ueiou\or Ippodr'omiou\or Ju'iou\or P'anamou\or
373 Prok'ukliou\or Ajana'iou\or Bouk'atiou\or Lafria'iou\fi}
374 }}
375
376 \DeclareOption{Biotiamonths}{
377 \@ifpackagewith{babel}{polutonikogreek}{
378 \def\gr@month{%
379 \ifcase\month\or
380 <Erma'iou\or Prostat'hriou\or >Agri'wniou\or Jio'uiou\or
381 <Omol'wiou\or Jeilo'ujiou\or <Ippodr'omiou\or P'anamou\or
382 Pamboi'wtiou\or Dam'atriou\or >Alalkom'eniou\or Bouk'atiou\fi}
383 \def\gr@c@month{%
384 \ifcase\month\or
385 <Erma'iou\or Prostat'hriou\or >Agri'wniou\or Jio'uiou\or
386 <Omol'wiou\or Jeilo'ujiou\or <Ippodr'omiou\or P'anamou\or
387 Pamboi'wtiou\or Dam'atriou\or >Alalkom'eniou\or Bouk'atiou\fi}

```

```

388 }{
389 \def\gr@month{%
390   \ifcase\month\or
391     Erma'iou\or Prostat'hriou\or Agri'wniou\or Jio'uiou\or
392     Omol'wiou\or Jeilo'ujiou\or Ippodr'omiou\or P'anamou\or
393     Pamboi'wtiou\or Dam'atriou\or Alalkom'eniou\or Bouk'atiou\fi}
394 \def\gr@c@month{%
395   \ifcase\month\or
396     Erma'iou\or Prostat'hriou\or Agri'wniou\or Jio'uiou\or
397     Omol'wiou\or Jeilo'ujiou\or Ippodr'omiou\or P'anamou\or
398     Pamboi'wtiou\or Dam'atriou\or Alalkom'eniou\or Bouk'atiou\fi}
399 }}
400
401 \DeclareOption{Samosmonths}{
402 \@ifpackagewith{babel}{polutonikogreek}{
403 \def\gr@month{%
404   \ifcase\month\or
405     Lhnai'wnos\or >Anjesthri'wnos\or >Artemisi'wnos\or Taure'wnos\or
406     P'anhmou\or Kroni'wnos\or Pelusi'wnos\or Metageitni'wnos\or
407     Bohdromi'wnos\or Kuanoyi'wnos\or >Apatouri'wnos\or Poseide'wnos\fi}
408 \def\gr@c@month{%
409   \ifcase\month\or
410     Lhnai'wnos\or >Anjesthri'wnos\or >Artemisi'wnos\or Taure'wnos\or
411     P'anhmou\or Kroni'wnos\or Pelusi'wnos\or Metageitni'wnos\or
412     Bohdromi'wnos\or Kuanoyi'wnos\or >Apatouri'wnos\or Poseide'wnos\fi}
413 }{
414 \def\gr@month{%
415   \ifcase\month\or
416     Lhnai'wnos\or Anjesthri'wnos\or Artemisi'wnos\or Taure'wnos\or
417     P'anhmou\or Kroni'wnos\or Pelusi'wnos\or Metageitni'wnos\or
418     Bohdromi'wnos\or Kuanoyi'wnos\or Apatouri'wnos\or Poseide'wnos\fi}
419 \def\gr@c@month{%
420   \ifcase\month\or
421     Lhnai'wnos\or Anjesthri'wnos\or Artemisi'wnos\or Taure'wnos\or
422     P'anhmou\or Kroni'wnos\or Pelusi'wnos\or Metageitni'wnos\or
423     Bohdromi'wnos\or Kuanoyi'wnos\or Apatouri'wnos\or Poseide'wnos\fi}
424 }}
425
426 \DeclareOption{Militosmonths}{
427 \@ifpackagewith{babel}{polutonikogreek}{
428 \def\gr@month{%
429   \ifcase\month\or
430     Lhnai'wnos\or >Anjesthri'wnos\or >Artemisi'wnos\or Taure'wnos\or
431     Jarghli'wnos\or Kalamai'wnos\or P'anhmou\or Metageitni'wnos \or
432     >It'wniou\or Puanoyi'wnos\or >Apatouri'wnos\or Poseide'wnos\fi}
433 \def\gr@c@month{%
434   \ifcase\month\or
435     Lhnai'wnos\or >Anjesthri'wnos\or >Artemisi'wnos\or Taure'wnos\or
436     Jarghli'wnos\or Kalamai'wnos\or P'anhmou\or Metageitni'wnos \or
437     >It'wniou\or Puanoyi'wnos\or >Apatouri'wnos\or Poseide'wnos\fi}
438 }{
439 \def\gr@month{%
440   \ifcase\month\or
441     Lhnai'wnos\or Anjesthri'wnos\or Artemisi'wnos\or Taure'wnos\or

```

```

442 Jarghli'wnos\or Kalamai'wnos\or P'anhmou\or Metageitni'wnos \or
443 It'wniou\or Puanoyi'wnos\or Apatouri'wnos\or Poseide'wnos\fi}
444 \def\gr@c@month{%
445 \ifcase\month\or
446 Lhnai'wnos\or Anjethri'wnos\or Artemisi'wnos\or Taure'wnos\or
447 Jarghli'wnos\or Kalamai'wnos\or P'anhmou\or Metageitni'wnos \or
448 It'wniou\or Puanoyi'wnos\or Apatouri'wnos\or Poseide'wnos\fi}
449 }}
450
451 \DeclareOption{Tinosmonths}{
452 \@ifpackagewith{babel}{polutonikogreek}{
453 \def\gr@month{%
454 \ifcase\month\or
455 Lhnai'wnos\or >Anjethri'wnos\or >Artemisi'wnos\or Taure'wnos\or
456 Targhli'wnos\or >Elejuai'wnos\or >Apellai'wnos\or <Hrai'wnos\or
457 Boufwni'wnos\or Kuanoyi'wnos\or >Apatouri'wnos\or Poseide'wnos\fi}
458 \def\gr@c@month{%
459 \ifcase\month\or
460 Lhnai'wnos\or >Anjethri'wnos\or >Artemisi'wnos\or Taure'wnos\or
461 Targhli'wnos\or >Elejuai'wnos\or >Apellai'wnos\or <Hrai'wnos\or
462 Boufwni'wnos\or Kuanoyi'wnos\or >Apatouri'wnos\or Poseide'wnos\fi}
463 }{
464 \def\gr@month{%
465 \ifcase\month\or
466 Lhnai'wnos\or Anjethri'wnos\or Artemisi'wnos\or Taure'wnos\or
467 Targhli'wnos\or Elejuai'wnos\or Apellai'wnos\or Hrai'wnos\or
468 Boufwni'wnos\or Kuanoyi'wnos\or Apatouri'wnos\or Poseide'wnos\fi}
469 \def\gr@c@month{%
470 \ifcase\month\or
471 Lhnai'wnos\or Anjethri'wnos\or Artemisi'wnos\or Taure'wnos\or
472 Targhli'wnos\or Elejuai'wnos\or Apellai'wnos\or Hrai'wnos\or
473 Boufwni'wnos\or Kuanoyi'wnos\or Apatouri'wnos\or Poseide'wnos\fi}
474 }}
475
476 \DeclareOption{Lamiamonths}{
477 \@ifpackagewith{babel}{polutonikogreek}{
478 \def\gr@month{%
479 \ifcase\month\or
480 Jrix'alliou\or Ge'ustou\or L'ukeou\or J'uou\or
481 >'Areou\or Qrutta'iou\or <Ippodr'omiou\or P'anamou\or
482 >It'wniou\or >Apella'iou\or Jem'istiou\or B'wmiau\fi}
483 \def\gr@c@month{%
484 \ifcase\month\or
485 Jrix'alliou\or Ge'ustou\or L'ukeou\or J'uou\or
486 >'Areou\or Qrutta'iou\or <Ippodr'omiou\or P'anamou\or
487 >It'wniou\or >Apella'iou\or Jem'istiou\or B'wmiau\fi}
488 }{
489 \def\gr@month{%
490 \ifcase\month\or
491 Jrix'alliou\or Ge'ustou\or L'ukeou\or J'uou\or
492 'Areou\or Qrutta'iou\or Ippodr'omiou\or P'anamou\or
493 It'wniou\or Apella'iou\or Jem'istiou\or B'wmiau\fi}
494 \def\gr@c@month{%
495 \ifcase\month\or

```

```

496 Jrix'alliou\or Ge'ustou\or L'ukeou\or J'uou\or
497 'Areou\or Qrutta'iou\or Ippodr'omiou\or P'anamou\or
498 It'wniou\or Apella'iou\or Jem'istiou\or B'wmiau\fi}
499 }}

```

Now we turn to counting the years. We compute the current Olympiad by adding the number 776 to the current year (776 before the beginning of the Christian chronology is the year of the first Olympiad) and dividing the result by 4 (integer division). Again from the current year plus 776 we subtract four times the current Olympiad and we add 1 in order to get the olympic year. Finally we redefine the commands `\today` and `\Grtoday`. We start by defining some necessary Greek labels.

```

500 \ifpackagewith{babel}{polutonikogreek}{
501 \def\gretouc{>'etous}
502 \def\grolympiad{>Olumpi'adas}
503 }{
504 \def\gretouc{'etous}
505 \def\grolympiad{Olumpi'adas}
506 }

```

We now define the package option `fullconversion`. This option redefined the commands `\today` and `\Grtoday` to use the calendar names of the specified region option. We start by computing the current Olympiad by the formula  $(\text{year} + 776)/4$ . The value is stored in the `olympiad` counter.

`olympiad counter`

```

507 \DeclareOption{fullconversion}{
508 \newcounter{olympicyearmo}\newcounter{olympicyear}
509 \newcounter{olympiadd}
510 \newcounter{olympiad}
511 \setcounter{olympiadd}{\the\year + 776}
512 \setcounter{olympiad}{\value{olympiadd} / 4}

```

Now we compute the current year within the current olympiad with the formula  $((\text{year} + 776) - (\text{value}\{\text{olympiad}\} * 4)) + 1$

`olympicyear counter`

```

513 \setcounter{olympicyearmo}{\value{olympiadd} - \value{olympiad} * 4}
514 \setcounter{olympicyear}{1+\value{olympicyearmo}}

```

`\today` We redefine the `\today` macro to produce the date according to the Greek calendar (ie, using Olympiads and the month names of the selected region).

```

515 \def\dategreek{%
516 \def\today{\number\day{}}h \space \gr@month\space
517 {\theolympicyear}$^{\hbox{\footnotesize ou}}$ \gretouc\space
518 {\theolympiad}hs \grolympiad }}

```

`\Grtoday` we redefine the `\Grtoday` macro of the Greek option of the Babel package, so that it produces the date according to the Greek calendar (ie, using Olympiads and the month names of the selected region) but with Greek numbers instead of Arabic numbers.

```

519 \def\Grtoday{%
520 \expandafter\Greeknatural\expandafter{\the\day}\space
521 \gr@c@month \space

```

```

522 \expandafter\Greeknatural\expandafter
523 {\theolympicyear} \gretouc \space
524 \expandafter\Greeknatural\expandafter{\theolympiad} \grolympiad }

```

A few fixes: We define short forms of Greek dates (eg 15/5/2/694 is the 15th of May of the second year of the 694th Olympiad) and fix the behavior of `\today` in the `letter` document class.

`\shortdategreek` Short form of Greek date (as described above) with Arabic numerals.

```

525 \def\shortdategreek{\the\day/\the\month/\theolympicyear/\theolympiad}

```

`\Grshortdategreek` Short form of Greek date (as described above) with Greek numerals.

```

526 \def\Grshortdategreek{\expandafter\Greeknatural\expandafter{\the\day}/%
527 \expandafter\Greeknatural\expandafter{\the\month}/%
528 \expandafter\Greeknatural\expandafter{\theolympicyear}/%
529 \expandafter\Greeknatural\expandafter{\theolympiad}}

```

Finally we provide a quick fix for the `letter` document class. This class uses the `\today` command to print the date on the letter below the sender's address. But now this command has been already redefined above, and what it gives is too long for this use in letters. Thus we use the `\shortdategreek` instead of `\today`.

```

530 \@ifclassloaded{letter}{\date{\shortdategreek}}{}
531 }
532 \ProcessOptions
533 \endinput
534 </greekdates>

```

## Acknowledgment

I thank Apostolos Syropoulos for checking the usability of this package.

## Dedication

To my newborn daughter Callisto.