# analogclock v1.0: An analog clock with PDFLATEX 

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## 1 The package

The analogclock $\mathrm{ET}_{\mathrm{E}} \mathrm{X}$ package allows the users to insert into a $\mathrm{LT}_{\mathrm{E}} \mathrm{X}$ generated pdf document a ticking analog clock showing the time at the moment when the document is being reading, such as the one next:

The clock gives dynamically hours and minutes.
The package is loaded by timeinterval=n]\{analogclock\},$n$beinganypositiveinteger.Theclockwillupdateitsinternalstatusevery$n$seconds.Thus,ifweloadthepackagewiththeoption[timeinterval=120],theclockwillchangeevery2minutes.Thedefaulttimeintervalissetto29seconds.undefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefinedundefined

Note that for low values of $n$ the memory used by Adobe increases while the document remains opened and can become very high. Then values of $n$ below 10 is not recommended.

The package is based on javascript code embedded into the pdf document. It uses a special font clock.ttf obtained converting, with FontForge software, the metafont clock.mf by Oliver Corff ( $\mathrm{TEX}_{\mathrm{E}}$ Clock package).

## 2 Restrictions-requirements

The package requires hyperref, xkeyval, xcolor and tikz packages.
By now, since it uses a ttf font, the package only works under windows. We have not been able to make it work on Linux. Any help will be welcomed.

Once the pdf document is generated, in order to view the clock in another computer, the clock.ttf must be installed on it. Otherwise the clock will appear incomplete. We have not been able to embed the font in the pdf document so that it can be used by javascript code. Any help will be welcomed.

The package works with PDFEATEX. The document generated through $\mathrm{EAT}_{\mathrm{E}} \mathrm{X} \rightarrow$ DviPs $\rightarrow \mathrm{Ps} 2$ pdf or $\mathrm{LAT}_{\mathrm{E}} \mathrm{X} \rightarrow$ Dvipdfm does not display the hands of the clock.

## 3 Installation

Copy the package file analogclock.sty to a directory where $\mathrm{ET}_{\mathrm{E}} \mathrm{X}$ can find it. Install clock.ttf font (by copying this file to the windows/fonts directory)

## 4 Getting the package

The package can be downloaded at http://pcmap.unizar.es/numerico/software

## 5 Macros

The clock must be initialized with \initclock, usually at the beginning of the document, after $\backslash$ begin $\{$ document $\}$.

The main macro \analogclock displays an analog clock colored with the current text color. The size also depends on the current font size. Thus, you can change the size and color for example with
\centerline $\{\backslash$ textcolor\{blue $\}\{\backslash$ Huge $\backslash$ analogclock $\}\}$
you get


There is another macro, \clocksizefactor\{'factor''\}, that increases the size of the clock by a desired factor. To set the size of the clock to its original size, use \clocksizefactor $\{1\}$

The macro $\backslash$ faceclock $\{m\}\{$ 'face color'' $\}$ sets the type and the background color of the clock face, as shown in the table below. The type $m$ must be an integer number. If $m<0$ the clock is not framed, else it is framed. The absolute value of $m$ gives the (four) possible faces. About the face color, it can be used any color allowed in xcolor package. If it is left empty, then a transparent face color is used.

Analog clock macros

| macro | result | action |
| :---: | :---: | :---: |
| \initclock |  | initialize clock |
| \analogclock |  | clock |
| $\backslash$ faceclock\{"face type" $\}$ " face color" $\}$ |  | sets face clock |
| $\backslash$ faceclock $\{-1\}\} \backslash$ analogclock |  | first face (no frame) |
| $\backslash$ faceclock $\{1\}\} \backslash$ analogclock |  | first face (with frame) |
| $\backslash$ faceclock $\{-2\}\{$ red $\} \backslash$ analogclock |  | second face (no frame) |
| $\backslash$ faceclock $\{2\}\{$ red $\} \backslash$ analogclock |  | second face (with frame) |
| $\backslash$ faceclock $\{-3\}\{$ white $\} \backslash$ analogclock |  | third face (no frame) |
| $\backslash$ faceclock $\{3\}\{$ white $\} \backslash$ analogclock |  | third face (with frame) |
| $\backslash$ faceclock $\{-4\}\{$ pink $\} \backslash$ analogclock |  | no face (no frame) |
| $\backslash$ faceclock 44$\}\{$ pink $\}$ \analogclock |  | no face (with frame) |
| $\backslash$ clocksizefactor\{ "factor"\} |  | amplification factor |

