# The papermas package

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2023-04-12 v1.1a

## Abstract

This \LaTeX\ package allows to compute the number of sheets of paper needed to print a document as well as the mass of that printed version of the document, useful e.g. to determine the postage when sending it by snail mail.

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1 Introduction

This \LaTeX{} package allows to compute the number of sheets of paper needed to print a document (useful when the paper is running out) as well as the mass of that printed version of the document, useful e.g. to determine the postage when sending it by snail mail.

Warning/Disclaimer: The mass of (printer’s) ink has to be added and that of envelope, address sticker, stamps,... Thus this is only an estimation without guarantee – do not sue me, if you have got to pay excess postage!

The name \texttt{papermas} is short for paper mass but written with only one \texttt{s}, because historically some software had problems with names with more than eight letters.

It is mass and gives a result in grammes \texttt{[g]}, because the weight \( F = m \cdot g \) (really \( \vec{F} = m \cdot \vec{g} \) \texttt{[N]} would require the knowledge of the gravitational acceleration \( g \) (depending on place and time, in central Europe approximately 9.81 \text{m}/\text{s}^2) and give a result in NEWTON, which probably is not very useful.

2 Usage

Just load the package placing

\begin{verbatim}
usepackage[<options>]{papermas}
\end{verbatim}

in the preamble of your \LaTeX{} \texttt{2e} source file.

Now you can say

This document consists of \$\texttt{\textbackslash papermassPages}$\texttt{\textasciitilde} pages.

When printing \$\texttt{\textbackslash papermasspagespersheet}$\texttt{\textasciitilde} pages on one sheet of paper, \$\texttt{\textbackslash papermasssheets}$\texttt{\textasciitilde} sheets will be needed. For \texttt{ISO\textasciitilde A\textasciitilde papermassformat()} paper of \$\texttt{\textbackslash papermassmass \textbackslash unit(g)/\textbackslash unit(m)}$\texttt{\textasciitilde} (2)$\texttt{\textasciitilde} specific mass, the printout will have a mass of about \$\texttt{\textbackslash papermassstotal \textbackslash unit(g)}$\texttt{\textasciitilde}.
This document consists of 101 pages. When printing 4 pages on one sheet of paper, 26 sheets will be needed. For ISO A4 paper of 80 g/m² specific mass, the printout will have a mass of about 130 g.

This information is also presented at the screen while compiling your document (look for `papermas`), in the log file (search for *** Paper mass ***), and can be found near the end of the aux file.

2.1 Options

options The `papermas` package takes the following options:

2.1.1 format

format The option `format` wants to know the ISO A... format of the paper used for printing, i.e. `format=4` means ISO A4 paper format (which is also the default).

2.1.2 masss

masss The option `masss` wants to know the specific (therefore the third s) mass of the paper used for printing in g/m². The default is `masss=80`, i.e. 80 g/m².

2.1.3 pagespersheet

pagespersheet The option `pagespersheet` wants to know, how many pages are to be printed on one sheet of paper. `pagespersheet=2` could mean duplex printing or printing two pages on one side of paper while keeping the back side blank. This does not influence the real printing process! So, if this number differs from the one chosen for printing, the result will be wrong, of course.

2.1.4 decimalsep

decimalsep The option `decimalsep` wants to know, what should be used for the decimal separator. In English this is “.”, while in German it is “,”. Enclose this in brackets, e.g. `decimalsep={.}` or `decimalsep={,}`. The default is “.”. This is used for the mass of the printed document, and this value is given at the screen during compilation as well as in the log and aux files. Therefore something like `decimalsep={,\,}` would cause trouble there.

3 Alternatives

With the `totpages` package optionally the number of sheets of paper needed to print the document can be computed, but not the mass; https://ctan.org/pkg/totpages.

You programmed or found another alternative, which is available at https://www.CTAN.org/? OK, send an e-mail to me with the name, location at CTAN, and a short notice, and I will probably include it in the list above.
This example demonstrates the use of package \textsf{papermas}, v1.1a as of 2023-04-12 (HMM). The used options were \texttt{format=4} (ISO~A4), \texttt{masss=80} (\unit{g}\unit{m}^{-2}), and \texttt{pagespersheet=2} (pages per sheet of paper, i.e. either duplex printing or printing two pages on one side of a sheet of paper with blank back side).

For more details please see the documentation!
5 The implementation

We start off by checking that we are loading into \LaTeX\ 2ε and announcing the name and version of this package.

A short description of the \texttt{papermas} package:

\texttt{\% Allows to compute the number of sheets of paper}
\texttt{\% needed to print a document as well as the}
\texttt{\% mass of that printed version of the document,}
\texttt{\% useful e.g. to determine the postage when sending it by snail mail.}
\texttt{\% Warning/Disclaimer: Mass of (printer's) ink has to be added}
\texttt{\% and that of envelope, address sticker, stamps,...!}
\texttt{\% So, this is only an estimation without guarantee -}
\texttt{\% do not sue me, if you have got to pay excess postage!}

\NeedsTeXFormat{LaTeX2e}[2022-11-01]
\ProvidesPackage{papermas}[2023-04-12 v1.1a Computes paper mass of a printout (HMM)]

For the handling of the options we need the \texttt{kvoptions} package and for \texttt{\intcalcPow} the \texttt{intcalc} package:

\RequirePackage{kvoptions}[2022-06-15]% v3.15 Key value format for package options (HO)
\RequirePackage{intcalc}[2019/12/15]% v1.3 Expandable calculations with integers (HO)
See subsection 6.1 about how to get them.

The options are introduced:
\SetupKeyvalOptions{family = papermas,prefix = papermas@}
\DeclareStringOption[4]{format}[4]% paper format, ISO A..., default: (ISO A) 4
\DeclareStringOption[80]{masss}[80]% specific mass of the paper, default: 80 (g/(m^2))
\DeclareStringOption[2]{pagespersheet}[2]% number of pages per sheet, for duplex printing this is 2.
\DeclareStringOption[.]{decimalsep}[.]% decimal separator,
%% e.g. "." or ",": decimalsep={,} - brackets are needed!!!
%% decimalsep={,\,} does not work for screen, aux, log output!
\ProcessKeyvalOptions*

We pre-define some commands as (still) undefined:
\def\papermas@undefined{\textbf{??}}
\papermas@undefined will also be needed later!
\let\papermassPages\papermas@undefined
\let\papermasstotal\papermas@undefined
\let\papermasformat\papermas@undefined
\let\papermasmasss\papermas@undefined
\let\papermassheets\papermas@undefined
\let\papermas@rerun\z@
\papermas@totmass This is the internal command, which computes the total paper mass of the printed document.
\DeclareRobustCommand\papermas@totmass{%
\newcounter{papermasA}% paper mass for ISO A...
\setcounter{papermasA}{\papermas@format}% e.g. 4

We check whether papermasA has a reasonable value:
\ifnum\value{papermasA}<0%
\PackageError{papermas}{Option format has no valid value}%
{The format option of the papermas package\MessageBreak% only takes whole, non-negative numbers (0, 1, 2, 3,...),\MessageBreak% because this should be the paper format\MessageBreak% ISO A 0, 1, 2, 3,...\MessageBreak% Found instead: \papermas@format \MessageBreak%}
\else%
\newcounter{papermasmasss}%
\setcounter{papermasmasss}{\papermas@masss}% default 80
\else%
\papermasA has a reasonable value. We introduce a new counter papermasmasss and initialize it with the value given in option masss, i.e. \papermas@masss.
\newcounter{papermasmasss}%
\setcounter{papermasmasss}{\{\papermas@masss\}% default 80
Counters are integers, but the amount of the mass of a single sheet of paper in most cases is not an integer, therefore we multiply with 100 to get two digits behind the decimal separator. (Later we need to divide by 100 again, of course.)

\multiply \value{papermasmasss} 100 \% default 8000

We check whether \texttt{papermasmasss} has a resonable value, i.e. $> 0$:

\input{papermas}

\texttt{masss} has a resonable value, and therefore also \texttt{papermas@masss} and \texttt{papermasmasss}.

We check whether option \texttt{pagespersheet} has a resonable value, i.e. $\geq 1$:

\input{papermas}

\texttt{pagespersheet} has a resonable value, and therefore also \texttt{papermas@pagespersheet} and \texttt{papermas@tmpA}.

We introduce a new counter \texttt{papermas@sheets} for the number of sheets printed.

\input{papermas}

When more than one page is printed on one sheet of paper, the number of sheets needed for printing is decreased:

\input{papermas}
divide cuts off all digits behind the decimal separator, but if there are digits > 0, this means that there is an additional, last sheet, which is only partially covered with print (e.g. only one side of it for duplex printing an odd number of pages). In that case, we have to add one sheet of paper to the number of sheets needed.

\newcounter{papermas@tmpn} \setcounter{papermas@tmpn}{\arabic{papermas@sheets}} \multiply \value{papermas@tmpn} \value{papermasPPS}\ifnum \value{papermas@tmpn}=\papermassPages \else \addtocounter{papermas@sheets}{1}\fi

Now we can multiply the specific mass of 100 sheets with the number of sheets needed for printing:
\multiply \value{papermasmasss} \value{papermas@sheets}%
% default: 8000 (no default for this)

The result is in g m\textsuperscript{-2}.
A sheet with format ISO A0 has a size of 1 m\textsuperscript{2},
a sheet with format ISO A1 has a size of 1 m\textsuperscript{2} \cdot 2\textsuperscript{-1},
a sheet with format ISO A2 has a size of 1 m\textsuperscript{2} \cdot 2\textsuperscript{-2}, ..., and
a sheet with format ISO A\textit{n} has a size of 1 m\textsuperscript{2} \cdot 2\textsuperscript{-n}.

Therefore we compute \(2^{\value{papermasA}}\) and divide the specific paper mass by that value:
\divide \value{papermasmasss} by \intcalcPow{2}{\value{papermasA}}%\% default: 16000 / 2^{(\value{papermasA})}

We need to get the division by 100 and the digits after the decimal separator right:
\% for the example 297 is used
\newcounter{papermas@tmpm} \setcounter{papermas@tmpm}{\arabic{papermasmasss}} \divide \value{papermas@tmpm} by 100\% m:297 n: 0 o:0 p: 0 q:0
\setcounter{papermas@tmpo}{\arabic{papermas@tmpm}}\setcounter{papermas@tmpn}{\arabic{papermasmasss}}\divide \value{papermas@tmpn} by 100\% m:297 n: 2 o:0 p: 0 q:0
\newcounter{papermas@tmpp} \setcounter{papermas@tmpp}{\arabic{papermas@tmpm}}\addtocounter{papermas@tmpp}{-\arabic{papermas@tmpn}}\% 29 - 20 = 9
\multiply \value{papermas@tmpp} 10\% m:290 n: 20 o:2 p: 9 q:0
\setcounter{papermas@tmpq}{\arabic{papermasmasss}}\addtocounter{papermas@tmpq}{-\arabic{papermas@tmpm}}\% 297 - 290 = 7

\%
Now rounding mathematically correct, i.e. \( \geq 0.5 \) becomes 1 (and remember a possible amount carried forward!) and \(< 0.5 \) becomes 0.

\[
\begin{align*}
\text{\texttt{\#ifnum\value{papermas@tmpq}>4\%}} \\
\text{\texttt{\#atocounter(papermas@tmpq))\{1\}\%}} \\
\text{\texttt{\#ifnum\value{papermas@tmpq}>9\%}} \\
\text{\texttt{\#atocounter(papermas@tmpq))\{1\}\%}} \\
\text{\texttt{\#setcounter(papermas@tmpq))\{0\}\%}} \\
\end{align*}
\]

\[
\begin{align*}
m:290 & \ n:20 \ o:2 \ p:10 \ q:7 \\
m:290 & \ n:20 \ o:2 \ p:10 \ q:7 \\
m:290 & \ n:20 \ o:3 \ p:10 \ q:7 \\
m:290 & \ n:20 \ o:3 \ p:0 \ q:7 \\
\end{align*}
\]

The result in the example above is 297/100 = 2.97 \( \approx 3.0 \). We write this into \texttt{\papermastmpr} (where \texttt{\papermas@decimalsep} is the decimal separator) and the (other) options’ values into temporary definitions, as well as the number of sheets:

\[
\begin{align*}
\text{\texttt{\edef\papermastmpr\{arabic(papermas@tmpo)\papermas@decimalsep\arabic(papermas@tmpp)\}}} \\
\text{\texttt{\edef\papermas@tmpo\{arabic(papermas@tmpp)\}}} \\
\text{\texttt{\edef\papermas@tmpformat\{\papermas@format\}}} \\
\text{\texttt{\edef\papermas@tmpmasss\{\papermas@masss\}}} \\
\text{\texttt{\edef\papermastmppagespersheet\{\papermas@pagespersheet\}}} \\
\text{\texttt{\edef\papermastmp\{\arabic(papermas@sheets)\}}} \\
\end{align*}
\]

We check for the counter \texttt{papermassttl}. If it exists, nothing is done, if it does not exist, it is declared as \texttt{\newcounter} (and by default set to zero).

\[
\begin{align*}
\text{\texttt{\@ifundefined{c@papermassttl}{\newcounter{papermassttl}}{}}} \\
\text{\texttt{\relax}} \\
\end{align*}
\]

If the \texttt{papermassttl} counter value already has the value of \texttt{\papermas@masss}, everything is fine.

\[
\begin{align*}
\text{\texttt{\#ifnum\value{papermassttl}\=\value{papermas@masss}\%}} \\
\end{align*}
\]

Otherwise we need another run of \LaTeX.  

\[
\begin{align*}
\text{\texttt{\else\def\papermas@rerun\{1\}\%}} \\
\text{\texttt{\fi\%}} \\
\end{align*}
\]

In any case, we set the counter \texttt{papermassttl} to the current value of \texttt{\papermas@masss}.

\[
\begin{align*}
\text{\texttt{\setcounter{papermassttl}{\arabic{\papermas@masss}}\%}} \\
\end{align*}
\]

Because we want to write out into the \texttt{aux}-file, we need the expanded value (as string) of \texttt{\papermas@masss}:

\[
\begin{align*}
\text{\texttt{\edef\papermas@tmp\{\arabic{\papermas@masss}\}}} \\
\end{align*}
\]

If we are allowed to write into the \texttt{aux}-file, we do it here. If we are not allowed to do it, we give an error message.

\[
\begin{align*}
\text{\texttt{\if@filesw}} \\
\text{\texttt{\immediate\write\@auxout{\string\@ifundefined{c@papermassttl}{\string\newcounter{papermassttl}}{\string\relax}}} \\
\text{\texttt{\setcounter{papermassttl}{\papermas@tmp}}}} \\
\text{\texttt{\immediate\write\@auxout{\string\setcounter{papermassttl}{\papermas@tmp}}} \\
\end{align*}
\]

When it is read from the \texttt{aux}-file and when its content is processed, the counter \texttt{papermassttl} might not have been defined yet, in which case we define it.

\[
\begin{align*}
\text{\texttt{\#immediate\write@auxout{\string\@ifundefined{c@papermassttl}{\string\newcounter{papermassttl}}{\string\relax}}} \\
\text{\texttt{\setcounter{papermassttl}{\papermas@tmp}}} \\
\end{align*}
\]

We set the counter \texttt{papermassttl} to the value \texttt{\papermas@tmp}, i.e. \texttt{\arabic{\papermas@masss}}. In the next compilation run it will be checked, whether \texttt{\value{papermassttl}=}\texttt{\value{\papermas@masss}} (see above).

If this is the case, everything is OK, no changes happened, and no rerun is necessary (at least not for \texttt{papermas}).
What we do need, is to get the determined \papermastmpr to the user. Therefore

1. we define \papermasstotal in the aux-file, where the user can look it up

2. we define \papermasstotal, so the user can e.g. write

This document consists of $\papermassPages$ pages.
When printing $\papermasspagespersheet$ pages on one sheet of paper, $\papermasssheets$ sheets will be needed. For
ISO $\papermasformat{}$ paper of $\papermasmasss \unit{g}/\unit{m}^2$ specific mass, the printout will have a mass of about
$\papermasstotal \unit{g}$.

3. we give at the screen the information about the \papermasstotal

4. which will also appear in the log-file.

We want to give also \papermastmpt = $\arabic{papermas@sheets}$ to the user, i.e. the number of sheets needed to print the document. Therefore we follow the same procedure:

For pretty printing the message of papermas three internal commands are needed, needing another counter:
At \begindocument it is checked whether some commands, which are/will be defined via the aux-file, are undefined yet. If this is the case, at the end a rerun warning is given.

\AddToHook{\begindocument}{\@bsphack
  \ifnum\value{\papermassPages}>0 \relax \message{} \fi\@esphack}
\AddToHook{\enddocument}{\AddToHook{\enddocument/afterlastpage}{\papermas@totmass}}

What we did not do yet, is to really \textit{call} the command \texttt{\papermas@totmass}. We do this after the last page, because we need the total number of pages.

\AddToHook{\enddocument}{\AddToHook{\enddocument/afterlastpage}{\papermas@totmass}}
After the final execution of the aux-file, everything should be defined. Otherwise a rerun is needed.

\AddToHook{enddocument/afteraux}{%}
\ifx\papermassPages\m@ne\relax\def\papermass@rerun{1}\else\ifx\papermassPages\@abspage@last\else\def\papermass@rerun{1}\fi\fi
\fi%
\AddToHook{enddocument/info}{kernel/filelist}{%

The final \PackageInfo is given, either giving values or a rerun warning.

\message{^^J}%
\message{papermas: ******************** Paper mass ********************^^J}%
\ifx\papermass@rerun\z@\relax%
\edef\papermassETest{\the\ReadonlyShipoutCounter\the\totalpages\PreviousTotalPages\@abspage@last}%
\edef\papermassEmpty{0001}%
\ifx\papermassEmpty\papermassETest\relax%
\PackageWarningNoLine{papermas}{Your document seems to consists of zero pages.\MessageBreak% When printing no pages, no paper will be needed.\MessageBreak% No paper has no mass.\MessageBreak% Maybe just rerun or fix any mistakes}%
\gdef\papermassPages{0}%
\gdef\papermaspagespersheet{0}%
\gdef\papermasstotal{0}%
\else%
\ifnum \papermassPages=1\relax\message{papermas: * This document consists of 1 page.}\%
\papermas@spaces{1}{16}% 16 because page vs. pages
\else \message{papermas: * This document consists of \papermassPages\space pages.}\%
\papermas@spaces{\papermassPages}{15}%
\fi%
\ifnum \papermaspagespersheet=1\relax \message{papermas: * When printing one page on one sheet of paper,}\%
\papermas@spaces{100}{6}%
\else \message{papermas: * When printing \papermaspagespersheet\space pages on one sheet of paper,}\%
\papermas@spaces{\papermaspagespersheet}{5}%
\fi%
\ifnum \papermassheets=1\relax \message{papermas: * one sheet will be needed.}\%
\papermas@spaces{100}{26}%
\else \message{papermas: * \papermassheets\space sheets will be needed.}\%
\papermas@spaces{\papermassheets}{25}%
\fi%
\message{papermas: * For ISO A \papermasformat \space paper of \papermasmass\space g/m^2 specific mass,}\%
\papermas@spaces{\papermasmass}{6}%
\message{papermas: * the printout will have a mass of about \papermasstotal\space g.}\%
\papermas@spaces{\papermas@mbs}{4}%
\else \PackageWarningNoLine{papermas}{Variables have changed.\MessageBreak Rerun to get them right}\%
\fi%
\message{papermas: ****************************************************^^J^^J}%
}}}}}%
The command \papermas\powerof is obsolete since \papermas 2011/06/02 v1.0f. As there was ample time to remove it from documents, the replacement has been removed from the package in version 2023-04-12 v1.1a. If you really need to use it, here is the code:

\makeatletter%
\DeclareRobustCommand\papermas@powerof[2] {%
  \@ifundefined{c@papermas@result}{\newcounter{papermas@result}}{\relax}%
  \setcounter{papermas@result}{\intcalcPow{#1}{#2}}%
\makeatother%

6 Installation

6.1 Downloads

Everything is available at https://ctan.org, but may need additional packages themselves.

\papermas.dtx For unpacking the \papermas.dtx file and constructing the documentation it is required:
- \TeX\-format \LaTeX\ 2ε 2022-11-01 or newer: https://www.CTAN.org/
- document class \texttt{ltxdoc}, 2022/06/22, v2.1i, https://ctan.org/pkg/ltxdoc
- package \texttt{geometry}, 2020/01/02, v5.9, https://ctan.org/pkg/geometry
- package \texttt{holtxdoc}, 2019/12/09, v0.30, https://ctan.org/pkg/holtxdoc

\papermas.sty The \papermas.sty for \LaTeX\ 2ε (i.e. each document using the \papermas package) requires:
- \TeX\-format \LaTeX\ 2ε 2022-11-01 or newer, https://www.CTAN.org/
- package \papermas, 2023-04-12, v1.1a, https://ctan.org/pkg/papermas (Because you are reading the documentation for the \papermas package, it can be assumed that you already have some version of it – is it the current one?)

\papermas-example.tex The \papermas-example.tex requires the same files as all documents using the \papermas package and additionally:
- class \texttt{article}, 2022/07/02, v1.4n, from \texttt{classes}: https://ctan.org/pkg/classes

\totpages As possible alternative in section 3 there is listed
- package \texttt{totpages}, 2005/09/19, v2.00, https://ctan.org/pkg/totpages
All packages of the ‘oberdiek’ bundle (especially holtxdoc and kvoptions) are also available in a TDS compliant ZIP archive:


kvoptions It is probably best to download and use this, because the packages in there are quite probably both recent and compatible among themselves.

intcalc The intcalc is available at https://www.ctan.org/pkg/intcalc, also as tds:

hyperref hyperref is not included in that bundle and needs to be downloaded separately,

Münch A hyperlinked list of my (other) packages can be found at https://ctan.org/author/muench-hm.

6.2 Package, unpacking TDS

Package. This package is available on https://www.CTAN.org.


https://mirror.ctan.org/macrolatex/contrib/papermas/papermas-example.pdf The compiled example file, as it should look like.


There is also a papermas.tds.zip available:

https://mirror.ctan.org/install/macrolatex/contrib/papermas.tds.zip Everything in TDS compliant, compiled format.

which additionally contains

papermas.ins The installation file.
papermas.drv The driver to generate the documentation.
papermas.sty The .style file.
papermas-example.tex The example file.

For required other packages please see the preceding subsection.

Unpacking. The .dtx file is a self-extracting docstrip archive. The files are extracted by running the .dtx through plain \TeX:

tex papermas.dtx

About generating the documentation see paragraph 6.4 below.
TDS. Now the different files must be moved into the different directories in your installation TDS tree (also known as \texttt{texmf} tree):

\begin{verbatim}
papermas.sty → tex/latex/papermas.sty
papermas.pdf  → doc/latex/papermas.pdf
papermas-example.tex → doc/latex/papermas-example.tex
papermas-example.pdf → doc/latex/papermas-example.pdf
papermas.dtx     → source/latex/papermas.dtx
\end{verbatim}

If you have a \texttt{docstrip.cfg} that configures and enables \texttt{docstrip}’s TDS installing feature, then some files can already be in the right place, see the documentation of \texttt{docstrip}.

6.3 Refresh file name databases

If your \TeX\ distribution (\TeX\ Live, MiK\TeX, \ldots) relies on file name databases, you must refresh these. For example, \TeX\ Live users run \texttt{texhash} or \texttt{mktexlsr}.

6.4 Some details for the interested

Unpacking with \LaTeX. The .dtx chooses its action depending on the format:

\begin{itemize}
\item \texttt{plain \TeX}: Run \texttt{docstrip} and extract the files.
\item \texttt{\LaTeX}: Generate the documentation.
\end{itemize}

If you insist on using \LaTeX\ for \texttt{docstrip} (really, \texttt{docstrip} does not need \LaTeX), then inform the autodetect routine about your intention:

\begin{verbatim}
latex \let\install=y\input{papermas.dtx}
\end{verbatim}

Do not forget to quote the argument according to the demands of your shell.

Generating the documentation. You can use both the .dtx or the .drv to generate the documentation. The process can be configured by a configuration file \texttt{ltxdoc.cfg}. For instance, put the following line into this file, if you want to have A4 as paper format:

\begin{verbatim}
\PassOptionsToClass{a4paper}{article}
\end{verbatim}

An example follows how to generate the documentation with \texttt{pdLaTeX}:

\begin{verbatim}
pdflatex papermas.dtx
makeindex \-s gind.ist papermas.idx
pdflatex papermas.dtx
makeindex \-s gind.ist papermas.idx
pdflatex papermas.dtx
\end{verbatim}

6.5 Compiling the example

The example file, \texttt{papermas-example.tex}, can be compiled via \texttt{(pdf)latex papermas-example.tex} and will need at least two compiler runs to get everything right.
7 Acknowledgements
I would like to thank Heiko Oberdiek for providing a lot of useful packages (from which I also got everything I know about creating a file in .dtx format, OK, say it: copying).

8 History

[2010/06/01 v1.0(a)]
• First version of this papermas package.

[2010/06/03 v1.0b]
• New \papermassheets and reruncheck introduced; several small changes.
• Example adapted to other examples of mine.
• TDS locations updated.
• Several changes in the documentation and the Readme file.

[2010/06/24 v1.0c]
• htxtxdoc warning in drv updated.
• Corrected the location of the package at CTAN. (TDS was still missing due to packaging error.)
• Several changes to the documentation.
• Introduced new option: decimalsep.

[2010/07/29 v1.0d]
• Corrected given url of papermas.tds.zip and other urls.
• Included a \CheckSum [was later removed again].

[2011/02/01 v1.0e]
• Removed wrong % from the driver file.
• Changed the \unit definition (got rid of an old \rm).
• Replaced the list of my packages with a link to a web page list of those, which has the advantage of showing the recent versions of all those packages.
• Now using \@ifundefined.
• Removed /muench/ from the path at diverse locations.
• Some small changes.

[2011/06/02 v1.0f]
• The holtxdoc package was fixed (recent version: 2011/02/04, v0.21), therefore the warning in drv could be removed. – Adapted the style of this documentation to new OBERDIEK dtx style.
• The rerun warnings are given after the filelist (if that is called with \listfiles) and the final papermas information is presented \AtVeryVeryEnd (now only ones instead of twice) [later replaced by use of the new hook management].
• Instead of compiling “a to the power of b” itself, papermas now uses the intcalc package.
• Removed five counters.

[2011/08/08 v1.0g]
• The pagesLTS package has been renamed to pageslts: 2011/08/08, v1.2a.
• Replaced \global\edef by \xdef.

[2011/08/22 v1.0h]
• Hot fix: TeX 2011-06-27 changed \enddocument and thus broke the \AtVeryVeryEnd command/hooking of atveryend package as of 2011-04-23, v1.7. Until fixed, \AtEndAfterFileList was used. [changed back in v1.0i]
• This version was archived at https://web.archive.org/web/20190417084752/https://mirror.ctan.org/install/macros/latex/contrib/papermas.tds.zip.

[----/--/-- v1.0i]
• Made \newcommands robust.
• Moved from \AtEndAfterFileList to \AtVeryVeryEnd again. [later replaced by use of new hook management]
• By error this version was never released to the public.

[2023-04-12 v1.1a]
• \NeedsTeXFormat{LaTeX2e}[2022-11-01], older package version available from archive (see version 2011/08/22 v1.0h above).
• Using the new hook management and \TeX’s \@abspage@last.
• Package pageslts is neither needed nor used by the papermas package any longer.
• Removed \papermas@powerof (obsolete since version 2011-06-02 v1.0f).
When you find a mistake or have a suggestion for an improvement of this package, please send an e-mail to the maintainer, thanks! (Please see BUG REPORTS in the README.)

## 9 Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; plain numbers refer to the code lines where the entry is used.

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