Preparing FP7 Proposals in LaTeX with `eurpoposal.cls`*

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Abstract

The `euproposal` class supports many of the specific elements of a Framework 7 Proposal. It is optimized towards collaborative projects. The package comes with an extensive example (a fake EU proposal) that shows all elements in action.

1 Introduction

Writing grant proposals is a collaborative effort that requires the integration of contributions from many individuals. The use of an ASCII-based format like LaTeX allows to coordinate the process via a source code control system like Subversion, allowing the proposal writing team to concentrate on the contents rather than the mechanics of wrangling with text fragments and revisions.

The `euproposal` class supports many of the specific elements of Part B of a Framework 7 Proposal. It comes with an example proposal `euproposal-propB.tex`, which shows the usage of the class in action, it is intended as a template for your proposal.

2 The User Interface

2.1 Package Options

As usual in LaTeX, the package is loaded by `\documentclass[`⟨*options*⟩`]{euproposal}`, where `[`⟨*options*⟩`]` is optional and gives a comma separated list of options. Currently the `euproposal` package only takes three options `submit`, `public`, and `eudraft` where `submit` is the default case, so
EdNote(1) that `\documentclass{euproposal}`, is equivalent to `\documentclass[submit]{euproposal}`.[1]

2.2 Proposal Metadata and Title page

The metadata of the proposal can be specified in the LaTeX preamble using the macros described below. All of these take one argument: the value. A typical preamble is given in Figure 1.

`\Proposal*` The `ProposalAcronym` is used to specify the acronym, this will appear in the headings and the title page. `ProposalTitle` specifies the title of the proposal, and `ProposalCall` is used to identify the call the proposal addresses. It is usuall a string of the form `ICT Call 1: FP7-???-200?-?`. An overview over open calls can be found at `http://cordis.europa.eu/fp7/dc/index.cfm`.
EdNote(2) `ProposalInstrument` It is either "Large-scale Integrating Project (IP) Proposal", or[2] `ProposalTopics` specifies the specific objectives in the call this proposal addresses. These are specified in the "call fiche" that can be obtained from the URL above. They usually have a form like

*Version ? (last revised ?)
[1] EdNote: continue
[2] EdNote: find out the others

```
\documentclass[11pt,eudraft]{euproposal}

\def\ipower{{\sc{iPoWr}}}
\ProposalAcronym\ipower
\ProposalTitle{{\underline{I}ntellitent} {\underline{P}r\underline{o}sal}
               {\underline{Wr}iting}}
\ProposalCall{ICT Call 1: FP7-???-200?-?}
\ProposalInstrument{Large-scale Integrating Project (IP) Proposal}
\ProposalTopics{???-200?.?.? Intelligent Proposal Writing}
\ProposalCoordinatorName{Prof. Dr. Michael Kohlhase}
\ProposalCoordinatorEmail{m.kohlhase@jacobs-university.de}
\ProposalCoordinatorTelFax{(+49) 421 200-3140/-493140}

\ProposalCoordinator{JACU}{Jacobs University Bremen}{D}
\ProposalPartner{EFO}{European Future Office}{NL}
\ProposalPartner{BAR}{Universit\‘e de BAR}{F}
\ProposalPartner{BAZ}{BAZ International Ltd}{UK}
```

Example 1: A typical proposal preamble

`???-200?.?.? Intelligent Proposal Writing`. Finally, `ProposalCoordinatorName`, `ProposalCoordinatorEmail` and `ProposalCoordinatorTelFax` are used to specify the contact details of the project coordinator.

The metadata is used to assemble the title page of the proposal, using the abstract which occupies the body of the `titlepageabstract` environment.[3] `titlepageabstra` EdNote(3)

If we are using SUBVERSION for collaborating on the proposal, we should add the two lines immediately below the `\begin{document}` (they must be after). The `$ID` and `$HeadURL` keywords are expanded by SUBVERSION whenever the document is updated or committed, if the relevant properties are set. To set the properties use `svn propset svn:keywords "URL Id"` on the command line or the appropriate clicks in your subversion client. The information will be displayed in the footer line (if the `eudraft` option is set). All dependent files in the proposal can have their own `svninfo` declarations, leading to per-file information in the footer line. `\svnInfo` `\svnKeyword`

Finally, the last two lines set up the table of contents and the

```
\begin{document}
\svnInfo $Id: euproposal.dtx 13982 2007-11-04 14:15:33Z kohlhase $
\svnKeyword $HeadURL: https://svn.kwarc.info/repos/kwarc/doc/macros/euproposal/euproposal.dtx $
\begin{titlepageabstract}
  Writing grant proposals is a collaborative effort that requires the integration of
  contributions from many individuals. The use of an ASCII-based format like {\LaTeX}
  allows to coordinate the process via a source code control system like
  {\sc{Subversion}}, allowing the proposal writing team to concentrate on the contents
  rather than the mechanics of wrangling with text fragments and revisions.
\end{titlepageabstract}
\setcounter{tocdepth}{1}{\small\tableofcontents}
```

Example 2: Typical Front Matter of a Proposal

2.3 Work Packages and Work Groups

`workplan`

[3] EDNOTE: can we count letters in the abstract and put out a warning if it is too long?

The `workplan` environment groups the work package and work group descriptions and handles the accounting. In particular, the environment writes the file ⟨*proposal*⟩.delivs file which is used to generate the delivrables table.[4]

EdNote(4)

`workpackage` `workgroup` The `workpakcage` and `workgroup` environments are closely related, so we will describe them together.

`id` The `id` key is used to specify a label for crossreferencing the work package or work group, it must be document-unique.

`title` `short` The `title` and `short` keys are used for the work package/group title. The short title is used in tables and should not be longer than 15 characters.

`type` The `type` key specifies the activity type of the work package: `RTD` = Research and technological development (including any activities to prepare for the dissemination and/or exploitation of project results, and coordination activities); `DEM` = Demonstration; `MGT` = Management of the consortium; `OTHER` = Other specific activities, if applicable in this call.

`\metapartner` For each partner, the `euproposal` package generates a key that is identical to the short name of the partner. This can be used to specify the person months that the partner spends on this work package (the value for work groups is automatically computed (remember to run LaTeX twice for this)).

`lead` The `lead` key specifies the work package or work group lead, the value of this feature should be the short name of the respective partner.

`start` `duration` The `start` and `duration` keys are used to specify the start month and duration (in months) of the work package

3 The Implementation

We first set up the options for the package.

3.1 Package Options

¡*cls¿

```
\newif\ifsubmit\submittrue
\newif\ifpublic\publicfalse
\DeclareOption{eudraft}{\submitfalse\PassOptionsToPackage{draft}{svninfo}}
\DeclareOption{submit}{\submittrue\PassOptionsToPackage{hide}{ed}}
\DeclareOption{public}{\publictrue}
\DeclareOption*{\PassOptionsToClass{\CurrentOption}{report}}
\ProcessOptions
```

Then we load the packages we make use of

```
\LoadClass[a4paper]{report}
\RequirePackage{textcomp}
\RequirePackage{amssymb}
\RequirePackage{url}
\RequirePackage{lscape}
\RequirePackage{longtable}
\RequirePackage{graphicx}
\RequirePackage{calc}
\RequirePackage{colortbl}
\RequirePackage{xcolor}
\RequirePackage[show]{ed}
\RequirePackage[today,fancyhdr]{svninfo}
\RequirePackage{keyval}
\RequirePackage{array}
\RequirePackage{eurosym}
\RequirePackage{hyperref}
```

[4] EdNote: say something about sorting

And we set up the appearance of the proposal. We use the `\part` mechanism to show that we are in part B of the proposal.

```
\def\thepart{\Alph{part}}
\setcounter{part}{2}
\def\thechapter{\thepart.\arabic{chapter}}
\def\tableofcontents{%
    \chapter*{\contentsname
        \@mkboth{\MakeUppercase{\contentsname}}%
                {\MakeUppercase{\contentsname}}}%
    \@starttoc{toc}}
\newenvironment{titlepageabstract}
{\begin{center}
  {\LARGE \eu@instrument}\\[.2cm]
  {\large \eu@call}\\[.4cm]
  {\LARGE\bf\eu@title}\\[.3cm]
  {\LARGE Acronym: {\eu@acro}}\\[.2cm]
\end{center}
{\large\bf{Date of Preparation: \today}}\\[1em]
\PartnerTable\\[.5cm]
\begin{large}
  \begin{description}
  \item[Work program topics  addressed:] \eu@topics
  \item[Coordinator:] \euc@name
  \item[e-mail:] {\url{\euc@email}}
  \item[tel/fax:] \euc@telfax
  \item [Proposal Abstract:]\small\sf}
{\end{description}\end{large}\newpage}
%
% \subsection{Proposal Metadata}
%
% we define the metadata declaration macros
%    \begin{macrocode}
\def\ProposalAcronym#1{\def\eu@acro{#1}}
\def\ProposalTitle#1{\def\eu@title{#1}}
\def\ProposalCall#1{\def\eu@call{#1}}
\def\ProposalTopics#1{\def\eu@topics{#1}}
\def\ProposalInstrument#1{\def\eu@instrument{#1}}
\def\ProposalCoordinatorName#1{\def\euc@name{#1}}
\def\ProposalCoordinatorEmail#1{\def\euc@email{#1}}
\def\ProposalCoordinatorTelFax#1{\def\euc@telfax{#1}}
```

and the default values

```
\def\eu@acro{ACRONYM}
\def\eu@title{Proposal Title}
\def\eu@call{ICT Call ?: FP7-???-200?-?}
\def\eu@instrument{Proposal Instrument (e.g. IP)}
\def\eu@topics{???-200?.?.? Topic1, ???-200?.?.? Topic2}
\def\euc@name{Dr. Great Coordinatorn}
\def\euc@email{g.coordinator@jacobs-university.de}
\def\euc@telfax{(+??) ??? ???? ???/-???}
\fancyhead[RE,LO]{\eu@acro}\fancyhead[LE,RO]{page~\thepage~of~\thelastpage}
\pagestyle{fancyplain}
```

we want numbered subsubsections

```
\setcounter{secnumdepth}{3}
\AtEndDocument{%
  \clearpage
```

```
  \count@\c@page
  \advance\count@\m@ne
  \edef\@tempa{\the\count@}%
  \ifx\@tempa\thelastpage
  \else
    \ClassWarningNoLine{euproposal}{Last page changed: Rerun LaTeX}%
  \fi
  \immediate\write\@auxout{%
    \gdef\string\thelastpage{\the\count@}}}
\def\thelastpage{??}
```

3.2 Work Packages and Work Groups

`\eu@write@...` This macro writes an `\eu@def` commands to the current aux and delivrables file.

```
\def\eu@write@aux#1#2#3#4{\protected@write\@auxout{}{\string\eu@def{#1}{#2}{#3}{#4}}}
\def\eu@write@delivs#1#2#3#4{\protected@write\@auxout{}{\string\eu@def{#1}{#2}{#3}{#4}}}
```

We first define keys for work groups.

```
\define@key{wg}{id}{\def\wg@id{#1}}
\define@key{wg}{title}{\def\wg@title{#1}}
\define@key{wg}{lead}{\def\wg@lead{#1}}
\define@key{wg}{short}{\def\wg@short{#1}}
```

work packages have similar ones.

```
\define@key{wp}{id}{\def\wp@id{#1}}
\define@key{wp}{duration}{\def\wp@duration{#1}}
\define@key{wp}{start}{\def\wp@start{#1}}
\define@key{wp}{title}{\def\wp@title{#1}}
\define@key{wp}{type}{\def\wp@type{#1}}
\define@key{wp}{lead}{\def\wp@lead{#1}}
\define@key{wp}{short}{\def\wp@short{#1}}
```

Then we introduce the partner declarations; first we initialize the partner counter and some accumulator macros for the partners table, and the first two lines in the WP/WG descriptions.

```
\newcounter{partner}
\def\wpg@partners{}\def\wp@pms{}\def\wg@pms{}\def\eu@partner@table{}
```

The next macro is an internal one that can be specialized for the coordinator

```
\def\proposal@partner#1#2#3{% short, long, nationality
\stepcounter{partner}
\newcounter{wg@#1@effort}[wg]
\newcounter{total@#1@effort}
\eu@write@aux{partner}{#1}{number}{\thepartner}
\eu@write@aux{partner}{#1}{short}{#1}
\eu@write@aux{partner}{#1}{long}{#2}
\eu@write@aux{partner}{#1}{nationality}{#3}
\define@key{wp}{#1}{\expandafter\def\csname wp@#1\endcsname{##1}}
\g@addto@macro\eu@partner@table{\euref{partner}{#1}{number} & {\euref{partner}{#1}{short}} & #2 & #3\\\hl
```

With this, the declarations for the partners are very simple. The one for the coordinator initializes the relevant lists

```
\def\ProposalCoordinator#1#2#3{\proposal@partner{#1}{#2 (coordinator)}{#3}
\gdef\eu@partners{#1}
\g@addto@macro\wpg@partners{\euref{partner}{#1}{number}: \euRef{partner}{#1}{short}}
\g@addto@macro\wp@pms{\wp@pm{#1}}\g@addto@macro\wg@pms{\wg@pm{#1}}}
```

while the one for the partners adds commas.

```
\def\ProposalPartner#1#2#3{\proposal@partner{#1}{#2}{#3}
\g@addto@macro\eu@partners{,#1}
\g@addto@macro\wpg@partners{&\euref{partner}{#1}{number}: \euRef{partner}{#1}{short}}
```

```
\g@addto@macro\wp@pms{&\wp@pm{#1}}\g@addto@macro\wg@pms{&\wg@pm{#1}}}
```

One of the side effects is that we can generate the partner table from the material accumulated in the `\eu@partners` macro.

```
\def\PartnerTable{\begin{tabular}{|l|l|p{11cm}|l|}\hline
\# & Abbr. & Name &  Country\\\hline\hline
\eu@partner@table
\end{tabular}}
```

```
\def\wg@label#1{WG {#1}}
\def\wp@label#1{WP {#1}}
\def\wg@mk@title#1{Work Group {#1}}
\def\wp@mk@title#1{Work Package {#1}}
```

```
\newcounter{wg}
\newcounter{wp}[wg]
\newcounter{deliv}[wp]
\newcounter{wpgno}
```

The next macro sets up the counters for the effort tables and writes the efforts to the aux file

```
\def\wp@efforts{\@for\@I:=\eu@partners\do{
    \def\@effort{\@ifundefined{wp@\@I}{0}{\csname wp@\@I\endcsname}}
  \addtocounter{wg@\@I @effort}{\@effort}
  \addtocounter{total@\@I @effort}{\@effort}
  \eu@write@aux{\wp@id}{\@I}{effort}{\@effort}}}
```

write the workpackage/group-specific metadata to the aux file

```
\def\wpg@write@md#1{%
\eu@write@aux{#1}{\csname #1@id\endcsname}{label}{\csname #1@label\endcsname\thewg}
\eu@write@aux{#1}{\csname #1@id\endcsname}{number}{\csname the#1\endcsname}
\eu@write@aux{#1}{\csname #1@id\endcsname}{title}{\csname #1@title\endcsname}
\eu@write@aux{#1}{\csname #1@id\endcsname}{lead}{\csname #1@lead\endcsname}
\eu@write@aux{#1}{\csname #1@id\endcsname}{short}{\csname #1@short\endcsname}}
```

write the workpackage-specific metadata to the aux file

```
\def\wp@write@md{%
\eu@write@aux{wp}{\wp@id}{duration}{\wp@duration}
\eu@write@aux{wp}{\wp@id}{start}{\wp@start}
\eu@write@aux{wp}{\wp@id}{type}{\wp@type}}
```

show the line with all the efforts in the work package

```
\def\wpg@efforts@line#1{\renewcommand{\tabcolsep}{.2em}
  \begin{tabular}{|*{\thepartner}{c|}}
    \wpg@partners\\\hline
    \csname #1@pms\endcsname\end{tabular}}
```

update the list of the work packages and groups for the staff efforts table

```
\def\update@wps#1{\@ifundefined{wg@wps}{\xdef\wg@wps{#1}}{\xdef\wg@wps{\wg@wps,#1}}}
\def\update@wgs#1{\@ifundefined{eu@wgs}{\xdef\eu@wgs{#1}}{\xdef\eu@wgs{\eu@wgs,#1}}}
```

with these it is now relatively simple to define the interface macros

`wpd`

```
\newenvironment{wpd}[1][]
{\setkeys{wp}{#1}\stepcounter{wp}\stepcounter{wpgno}
\wpg@write@md{wp}\wp@write@md\wp@efforts\update@wps{\wp@id}
\xdef\wp@nums{\wp@nums &\thewg.\thewp}
\begin{center}
\begin{tabular}{||p{\textwidth-15pt}||}\hline\hline
  {\large\textbf\wp@mk@title{\thewg.\thewp}}: {\eu@target{wp}{\wp@id}{\wp@title}}\\\hline
  \wpg@efforts@line{wp}\\\hline}
{\end{tabular}\end{center}}
```

the environment for work groups is even simpler, since we have less to do

wgd

```
\newenvironment{wgd}[1][]
{\begin{center}
\begin{tabular}{||p{\textwidth-15pt}||}\hline\hline
  {\large\textbf\wg@mk@title\thewg}: {\eu@target{wg}{\wg@id}{\wg@title}}\\\hline
  \wpg@efforts@line{wg}\\\hline}
{\end{tabular}\end{center}}
```

wgd

```
\newenvironment{workgroup}[1][]
{\setkeys{wg}{#1}\stepcounter{wg}\stepcounter{wpgno}\wpg@write@md{wg}\def\wp@nums{}
\let\wg@wps=\relax\update@wgs{\wg@id}\def\wp@nums{}
\eu@write@aux{wg}{\wg@id}{num}{\thewg}}
{\eu@write@aux{wg}{\wg@id}{wps}{\wg@wps}
 \eu@write@aux{wg}{\wg@id}{wpnums}{\wp@nums}
 \@for\@I:=\eu@partners\do{
    \eu@write@aux{\wg@id}{\@I}{effort}{\csname thewg@\@I @effort\endcsname}}}
```

The following macro displays the effort of a partner

```
\def\p@pm#1{\@ifundefined{wp@#1}{}{\csname wp@#1\endcsname}}
\def\wpg@gray#1{\def\@test{#1}\ifx\@test\wpg@lead\cellcolor{lightgray}{#1}\else{#1}\fi}
\def\wp@pm#1{\wpg@gray{\p@pm{#1}}}
\def\wg@pm#1{\wpg@gray{\euref{\wg@id}{#1}{effort}}}
\def\wpg@pa#1{\wpg@gray{\euRef{partner}{#1}{short}}}
```

3.3 Hyperinking

\eu@target

```
\def\eu@target#1#2#3{\hypertarget{#1@#2@target}{#3}}
```

\eu@def

```
\def\eu@def#1#2#3#4{\expandafter\gdef\csname #1@#2@#3\endcsname{#4}}
```

\euref

```
\def\euref#1#2#3{\@ifundefined{#1@#2@#3}%
{\protect\G@refundefinedtrue\@latex@warning{#3 for #1 #2 undefined}??}%
{\csname #1@#2@#3\endcsname}}%
\def\euref@aux#1#2#3{\@ifundefined{#1@#2@#3}{??}{\csname #1@#2@#3\endcsname}}%
```

\euref

```
\def\euRef#1#2#3{\@ifundefined{#1@#2@#3}%
{\protect\G@refundefinedtrue\@latex@warning{#3 for #1 #2 undefined}??}%
{\hyperlink{#1@#2@target}{\csname #1@#2@#3\endcsname}}}
```

\eu@lead

```
\def\eu@lead#1{\@ifundefined{wp@#1@lead}%
{\protect\G@refundefinedtrue\@latex@warning{lead for WP #1 undefined}??}%
{\edef\@partner{\csname wp@#1@lead\endcsname}\euRef{partner}{\@partner}{short}}}
```

\wpline

```
\def\wpline#1{\euRef{wp}{#1}{label} &
              \euref{wp}{#1}{title} &
              \eu@lead{#1} &
              \euref{wp}{#1}{start} &
              \euref{wp}{#1}{duration} &
              \euref{wp}{#1}{type} \\\hline}
```

\wgline

```
\def\wgline#1{\cellcolor{lightgray}{\euRef{wg}{#1}{label}} &
  \multicolumn{5}{c|}{\cellcolor{lightgray}{\euref{wg}{#1}{title}}}  \\\hline}
```

wptable

```
\newenvironment{wptable}{\begin{footnotesize}\begin{tabular}{|c|l|l|l|l|l|}\hline
  \textbf{WG/WP}&
  \textbf{Title}&
  \textbf{Lead}&
  \textbf{Start}&
  \textbf{Dur.}&
  \textbf{Type}\\\hline\hline}
{\end{tabular}\end{footnotesize}}
```

\wpobjectives

```
\def\wpobjectives{\textbf{Objectives:} }
```

\wpdescription

```
\def\wpdescription{\textbf{Description of Work:} }
```

wpdelivs

```
\newenvironment{wpdelivs}{\vspace*{-1em}\begin{description}}
{\end{description}}
```

\wgdelivs

```
\newenvironment{wgdelivs}{\setcounter{deliv}{0}\vspace*{-1em}\begin{description}}
{\end{description}}
```

The next macro is generally useful to put a comment at the end of the line, possibly making a new one if there is not enough space.

\lec

```
\def\lec#1{\strut\hfil\strut\null\nobreak\hfill\hbox{$\leadsto$#1}\par}
```

\wpdeliv We first define the keys

```
\define@key{deliv}{id}{\def\deliv@id{#1}}
\define@key{deliv}{due}{\def\deliv@due{#1}}
\define@key{deliv}{dissem}{\def\deliv@dissem{#1}}
\define@key{deliv}{type}{\def\deliv@type{#1}}
\define@key{deliv}{miles}{\def\deliv@miles{#1}}
```

The \wpdeliv macro cycles over the due dates and generates the relevant entries into the deliverables file[5] EdNote(5)

```
\newcommand{\wpg@deliv}[3]{% keys, title, type
\let\deliv@miles=\relax% clean state
\def\@type{#3}\def\@wp{wp}% set up ifx
\def\wpg@id{\csname #3@id\endcsname}
\setkeys{deliv}{#1}\stepcounter{deliv}% set state
\ifx\@type\@wp\def\current@label{D\thewg.\thewp.\thedeliv}
\else\def\current@label{D\thewg.\thedeliv}\fi
\eu@write@aux{deliv}{\wpg@id\deliv@id}{label}{\current@label}
\eu@write@aux{deliv}{\wpg@id\deliv@id}{title}{#2}
\@ifundefined{deliv@due}{}{%
\@for\@I:=\deliv@due\do{\protected@write\wpg@delivs{}{\string\delivrable%
{\@I}% due date
{\current@label}% label
```

[5] EdNote: also generate the makefile

```
{\@ifundefined{deliv@id}{\protect\G@refundefinedtrue\@latex@warning{key 'id' for Deliv #1
      undefined}??}{\wpg@id:\deliv@id}}% id
{\@ifundefined{deliv@dissem}{\protect\G@refundefinedtrue\@latex@warning{key 'dissem' for
      Deliv #1 undefined}??}{\deliv@dissem}}% dissemination level
{\@ifundefined{deliv@type}{\protect\G@refundefinedtrue\@latex@warning{key 'type' for Deliv
      #1 undefined}??}{\deliv@type}}% type
{#2}}}}%
\item[\current@label: (Month \deliv@due)]\eu@target{deliv}{\wpg@id\deliv@id}{#2}
\@ifundefined{deliv@miles}{}{% print the milestones and update their delivrables
\let\m@sep=\relax% do not print the separator the first time round
\lec{\@for\@I:=\deliv@miles\do{% Iterate over the milestones mentioned
\m@sep\euRef{mile}{\@I}{label}% print the milestone reference
\let\m@sep=,}}%set the separator for the next times
\def\d@sep{,}
 \@for\@I:=\deliv@miles\do{% Iterate over the milestones mentioned
 \expandafter\ifx\csname\@I delivs\endcsname\relax% Check that the miles@delivs is empty
  {\expandafter\xdef\csname\@I delivs\endcsname{\wpg@id\deliv@id}}% if so, skip the separator
   \else\expandafter\xdef\csname\@I delivs\endcsname{\csname\@I delivs\endcsname\d@sep\wpg@id\deliv@id}\f
}
}}
```

EdNote(6) [6]

Now, we only need to instantiate

`\wgdeliv`

```
\newcommand{\wgdeliv}[2][]{\wpg@deliv{#1}{#2}{wg}}
```

`\wpdeliv`

```
\newcommand{\wpdeliv}[2][]{\wpg@deliv{#1}{#2}{wp}}
```

EdNote(7) `workplan` the macros above should actually only be defined in the `workplan` environment[7]

```
\newwrite\wpg@delivs
\newenvironment{workplan}%
{\immediate\openout\wpg@delivs=\jobname.delivs\setcounter{wg}{-1}}%
{\closeout\wpg@delivs%
\@for\@I:=\mile@stones\do{\eu@write@aux{mile}{\@I}{delivs}{\csname\@I delivs\endcsname}}
\@for\@I:=\eu@partners\do{
    \eu@write@aux{eu}{\@I}{totaleffort}{\csname thetotal@\@I @effort\endcsname}}
\eu@write@aux{eu}{workplan}{wgs}{\eu@wgs}}
```

`\milestone`

```
%    create a new milestone, initialize its delivrables accumulator macro, set up
%    hyperlinking, and extend the milestones list.
\newcounter{milestone}
\def\milestone#1{\stepcounter{milestone}
\eu@write@aux{mile}{#1}{label}{M\themilestone}
\eu@target{mile}{#1}{M\themilestone}
\@ifundefined{mile@stones}{\gdef\mile@stones{#1}}{\g@addto@macro\mile@stones{,#1}}}
```

`\milesfor` the due date is the first argument to facilitate sorting

```
\def\milesfor#1{\edef\@delivs{\euref{mile}{#1}{delivs}}
\let\m@sep=\relax
\@for\@I:=\@delivs\do{\m@sep\ \euRef{deliv}{\@I}{label}\let\m@sep=,}}
%
```

[6] EdNote: in the last three lines, I would like to extend all the milestones it references by this delivrable, but somehow it does not work yet (leads to a circular definition of ¡mile¿@delivs)

[7] EdNote: use the envisioned two-stop refactoring to make the actual definitions short enough to put into the environment

\Ed@note the due date is the first argument to facilitate sorting

```
\newcommand{\delivrable}[6]{#2&#1&#6&#4&#5\\\hline}%due,label,id,title,type,level
```

delivrables

```
\newenvironment{delivrables}[1]{\begin{longtable}{|l|l|p{#1}|l|l|}\hline
\#&due&title&dissem& type\\\hline\hline}{\\\hline\end{longtable}}
```

\inputdelivs

```
\newcommand{\inputdelivs}[1]{\begin{delivrables}{#1}
\IfFileExists{\jobname.delivrables}%
{\input{\jobname.delivrables}}%
{\input{\jobname.delivs}}
\end{delivrables}}
```

4 The Staff Effort Table

\staffefforttable

```
\def\zero@blank#1{\edef\@test{#1}\def\@zero{0}\ifx\@test\@zero\else#1\fi}
\def\staffefforttable{%
\edef\@wgs{\euref@aux{eu}{workplan}{wgs}}\message{wgs: \@wgs}
{\gdef\staff@efforts{}\def\@zero{0}% initialize
 \let\tabularnewline\relax\let\hline\relax% so they do not bother us
 \@for\@I:=\eu@partners\do{%iterate over partners for the lines
   \xdef\@line{\euref@aux{partner}{\@I}{number}& \euref@aux{partner}{\@I}{short}}% first two columns
   \@for\@J:=\@wgs\do{%iterate over the work groups
     \edef\@wps{\euref@aux{wg}{\@J}{wps}}\message{wps of \@J: \@wps}% define the list of work packages
     \edef\@wgeffort{\euref@aux{\@J}{\@I}{effort}}\message{wgeffort: \@wgeffort}%
     \@for\@K:=\@wps\do{% iterate over wps
       \edef\@wpeffort{\euref@aux\@K\@I{effort}}
       \xdef\@line{\@line&\ifx\@wpeffort\@zero\else\@wpeffort\fi}}
     \xdef\@line{\@line&\ifx\@wgeffort\@zero\else\@wgeffort\fi}}
   \message{line: \@line}
    \xdef\staff@efforts{\staff@efforts\@line&
      \euref@aux{eu}{\@I}{totaleffort}\tabularnewline\hline}}
  \gdef\wpg@nums{} %initialize
  \@for\@I:=\@wgs\do{%iterate over the work groups
    \xdef\wpg@nums{\wpg@nums\euref@aux{wg}{\@I}{wpnums}&T\euref@aux{wg}{\@I}{num}}}}
\message{wpgnums: \wpg@nums}
\begin{tabular}{|l|l|*{\thewpgno}{c|}l|}\hline
\# & Short \wpg@nums & Total \\\hline
\staff@efforts
\end{tabular}}
```

partnerdesc

```
\newenvironment{partnerdesc}[1]{%number, short, long,
\eu@target{partner}{#1}{}
\section*{\euref{partner}{#1}{number}. #1: {\sc \euref{partner}{#1}{long}}  (\euref{partner}{#1}{national
{}
```

\act for the activity table

```
\def\act#1#2{\multicolumn{#1}{l|}{\cellcolor{lightgray}{#2}}}
```

\pause for the activity table

```
\def\pause#1{\multicolumn{#1}{l|}{}}
```

¡/cls¿

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; numbers in roman refer to the code lines where the entry is used.

Change History

v0.1
General: used in the SciML proposal 1
v0.2
General: First Version with Documentation 1
v0.3
General: staff effort table finally works . . . 1