Task Report v0.5

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Wednesday 2^{nd} June, 2021 - 13:28

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1 Introduction

This package supports the maintenance and report of a task list..

2 How to use task-report

task-report is available as open source at https://github.com/xexeo/task-report. The stable distribution is in the folder dist, while the lastest, and unstable, will be in the root folder.

The only file you really need, besides this manual, is task-report.sty. This should be in your LATEX path, such as in the same folder that your main .tex file.

You can make suggestions, complain about bugs, and request features using GitHub's "Issues" feature, in https://github.com/xexeo/task-report/issues (you must be signed in).

2.1 Using from Overleaf

The best way to use task-report inside Overleaf is to link the distributed style file through its URL. To do that, inside your project, select first "Upload". An "Add files" window will appear, then select "From Externa URL" and enter https://raw.githubusercontent.com/xexeo/task-report/main/dist/task-report.sty as "URL to fetch the file from" and "task-report" as "File Name in This Project", as in Figure 1.

3 Package Options

showtasknumbers

show tasks numbers, default is false.

Users should never refer to a task by its number, since it can change from compilation to compilation if any task is inserted in among the existing ones. It is possible to use the **\label** macro to refer to tasks by number, page ou name.

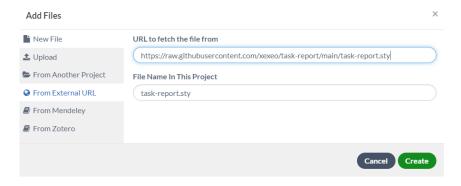


Figure 1: How to link a task-report sty file in your project folder in Overleaf to the official distribution.

3.1 General behavior

4 Version

It is possible that the user wants to know the version being used. We provide two commands for it.

\taskreportversion \printtaskreportversion

Provides the current version

Provides name and version

\taskreportversion was used in the title of this article. The current version is v0.5.

If needed, the second macro prints also the name of the package:

\printtaskreportversion

will result in:

task-report v0.5

Please state the version when reporting bugs.

5 Usage

 \trtask

This is the main macro for the package. $\true {\langle status \rangle} {\langle uedate \rangle} {\langle when-assigned \rangle} {\langle who-assigned \rangle} {\langle who-assigned \rangle} {\langle why \rangle} {\langle when-done \rangle} {\langle extra-text \rangle}$

Altough it has 8 arguments parameters, all of them can be empty. It has 9 arguments because this is the standard \LaTeX maximum.

There are 5 possible standard states that are associated with a color (de-

fault color): todo (red), doing(yellow), tocheck (cyan), checking (blue), and done(green). There is a pseudo-state other (black) that will be the color of any other word used of a state. Colors belong to the xcolor package and are configurable, as explained in section ??.

The example:

generates:

Make coffe

Status: todo Due date: Soon

Assigned in: Wednesday 2nd June, 2021

From: Geraldo Xexéo

Please do the coffe strong

Drink a coffe

Status: doing

Due date: In 5 days

Assigned in: June, 1st 2021

From: The Boss To: The Worker

Roast the beef

Status: tocheck

Assigned in: June, 1st 2021

From: The Boss To: The Worker

Done in: Wednesday 2^{nd} June, 2021

Rare, plese

Drink another beer

Status: checking

Assigned in: June, 1st 2021

From: The Boss To: The Worker

Done in: Wednesday 2nd June, 2021

Please check if you have age to drink in your country. If not, drink orange-

juice.

Drink a beer

Status: done

Assigned in: Wednesday 2nd June, 2021

From: The Boss To: The Worker

Rationale: Because I want

Done in: Wednesday 2^{nd} June, 2021

Task without a name

Task without a name

Status: done

```
Status: arg 1
Due date: arg 3
Assigned in: arg 4
From: arg 5
To: arg 6
Rationale: arg 7
Done in: arg 8
```

5.0.1 Configuring Colors

\trsetboxcolors

Set the colors for the 6 types of standard states Black otherwise.

 $\trsetboxcolors{\langle todo-color\rangle}{\langle doing-color\rangle}{\langle tocheck-color\rangle}{\langle checking-color\rangle}{\langle done-color\rangle}{\langle check-color\rangle}{\langle checking-color\rangle}{\langle checking$

The example:

```
%\trsetboxcolors{magenta}{purple}{orange}{pink}{lime}{pink}
%
%\trtask[todo]{Drink a coffe}{next day}{\today}{The Boss}{The Worker}%
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%\trtask[doing]{Drink a coffe}{next day}{\today}{The Boss}{The Worker}%
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%\trtask[tocheck]{Drink a coffe}{next day}{\today}{The Boss}{The Worker}%
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%\trtask[checking]{Drink a coffe}{next day}{\today}{The Boss}{The Worker}%
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%\trtask[done]{Drink a coffe}{next day}{\today}{The Boss}{The Worker}%
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%\trtask[Drink a coffe}{\today}{Coffe must be strong and add 1 spoon of sugar}
%\trtask{Drink a coffe}{\today}{next day}{The Boss}{The Worker}%
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%\trtask{Drink a coffe}{\today}{next day}{The Boss}{The Worker}%
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%\trtask{Drink a coffe}{\today}{Coffe must be strong and add 1 spoon of sugar}
%
```

generates:

Drink a coffe

 \mathbf{Status} : todo

Due date: next day

Assigned in: Wednesday 2nd June, 2021

From: The Boss To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

Drink a coffe

Status: doing

Due date: next day

Assigned in: Wednesday $2^{\rm nd}$ June, 2021

From: The Boss To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar $\,$

Drink a coffe

Status: tocheck Due date: next day

Assigned in: Wednesday 2nd June, 2021

From: The Boss To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

Drink a coffe

Status: checking

Due date: next day

Assigned in: Wednesday 2nd June, 2021

From: The Boss
To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

Drink a coffe

Status: done

Due date: next day

Assigned in: Wednesday 2nd June, 2021

From: The Boss
To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

Drink a coffe

Due date: Wednesday 2nd June, 2021

Assigned in: next day
From: The Boss
To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

5.0.2 Changing Field Names

\trsetfieldsnames

You can change all field names with command . This command can be used to internationalization or to make these box used by any other reason.

 $\verb|\trsetfieldsnames{$\langle status\rangle$}{\langle duedate\rangle}}{\langle assigned\rangle}{\langle from\rangle}{\langle to\rangle}{\langle done\rangle}{\langle done\rangle}{\langle why\rangle}}$

For example:

generates:

Drink a coffe

Stage: done

Must be ready in: 5 days

Demand date: Wednesday $2^{\rm nd}$ June, 2021

Who asked for: The Boss To who: The Worker Reasons: To keep awake

Ready in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

5.0.3 Modifying the Header

\trsettitlelabel

```
Sets the label for the header.
```

 $\trsettitlelabel{del-for-header}$

```
% \trsettitlelabel{Task}
%
%\trtask[done]{Drink a coffe}{5 days}{\today}{The Boss}{The Worker}
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%
%
```

Task: Drink a coffe

Status: done Due date: 5 days

Assigned in: Wednesday 2nd June, 2021

From: The Boss
To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

Back to normal:

```
% \trsettitlelabel{}
%
%\trtask[done]{Drink a coffe}{5 days}{\today}{The Boss}{The Worker}
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%
```

Drink a coffe

Status: done
Due date: 5 days

Assigned in: Wednesday 2nd June, 2021

From: The Boss To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

5.0.4 Creating New States

\traddstatecolor

Users can create their own state using

 $\transformation{ \langle state \rangle } {\langle color \rangle }$

For example:

%\traddstatecolor{waiting}{teal}
%\trtask[waiting]{Drink a coffe}{\today}{The Boss}{The Worker}%
%{To keep awake}{\today}{Coffe must be strong and add 1 spoon of sugar}
%

generates:

Drink a coffe

Status: waiting
Due date: ASAP

Assigned in: Wednesday 2nd June, 2021

From: The Boss To: The Worker

Rationale: To keep awake

Done in: Wednesday 2nd June, 2021

Coffe must be strong and add 1 spoon of sugar

5.1 Using Labels to Refer to Tasks

You can use labels, such as \label{task:kanbam} in the last argument¹ and refer to it with commands \ref{task:kanbam} (19), \pageref{task:kanbam} (16) ou \nameref{task:kanbam} (Make a LATEX Kanbam document).

6 The List of Tasks

\listoftasks

A list of tasks can be generated with the command:

\listoftasks

Its title can be changed with the command:

 $\verb|\trsettasklisttitle{|} \langle new\text{-}title \rangle|$

The command:

\setlength{\cfttasksnumwidth}{25pt}

from package $\mathsf{tocloft}$ can be used to set the space used by the section indicator.

7 Warnings

This package uses another package that changes IATEX's standard behavior for summary and lists. When you use it, you must explicitly change pages with \newpage before \tableofcontents or similar commands.

 $^{^{1}}$ Actually, they will probably break only if used in the second argument, that is used to name them

8 Implementation

8.1 Options

showtasknumbers

Since task numbers can change between compilations this default is set to false.

- ${\tt 1 \ lowif\ lowers\ lowers$
- 2 %
- 3 \DeclareOption{showtasknumbers}{\@showtasknumberstrue}%
- 4 %
- 5 \ProcessOptions\relax

8.2 Required Packages

- mdframed makes the frame aroung tasks
- etoolbox command ifstringempty
- tocloft create the list of tasks
- 6 \RequirePackage{tcolorbox}%
- 7 \RequirePackage{etoolbox}%
- 8 \RequirePackage{tocloft}%
- 9 \RequirePackage{hyperref}%

10

8.3 Access to the current version

We provide some macros for the user to know the version being used.

\taskreportversion Provides current version of coop-writing

11 \newcommand{\taskreportversion}{\tr@version}%

\printtaskreportversion

Provides package name and version

12 \newcommand{\printtaskreportversion}{task-report \taskreportversion}%

8.4 Color Management for States

8.5 Defining States Through a Simulated List

\traddstatecolor \usestatecolor

Inserts states and their colors in a simulated list and uses them

```
13 \newcommand{\traddstatecolor}[2]{%
                          \@ifundefined{\string\color@#2}%
                   14
                          {%
                   15
                               \message{#2 not defined}%
                   16
                               \expandafter\ERROR%
                   17
                   18
                          }%
                   19
                          {%
                               \expandafter\gdef\csname tr@astate@\detokenize{#1}\endcsname{#2}%
                   20
                   21 }%
                   22 }%
                   23 %
                   24 \def\tr@usestatecolor#1{%
                          \ifcsname tr@astate@\detokenize{#1}\endcsname%
                          \csname tr@astate@\detokenize{#1}\expandafter\endcsname%
                   26
                          \else%
                   27
                   28 \tr@astate@other%
                   29
                          \fi%
                   30 }%
                   Set the colors for the 6 types of standard states Black otherwise.
\trsetboxcolors
                       \trsetboxcolors{\langle todo-color\rangle}{\langle doing-color\rangle}{\langle tocheck-color\rangle}{\langle checking-color\rangle}
                   \{\langle done\text{-}color \rangle\}\{\langle other\text{-}color \rangle\}
                   31 \newcommand{\trsetboxcolors}[6]{%
                   32 \traddstatecolor{todo}{#1}
                   33 \traddstatecolor{doing}{#2}
                   34 \traddstatecolor{tocheck}{#3}
                   35 \traddstatecolor{checking}{#4}
                   36 \traddstatecolor{done}{#5}
                   37 \traddstatecolor{other}{#6}
                   38 }%
                   8.6
                           Standard Colors
                       Sets the standard colors for the standard states
                   39 \trsetboxcolors{red}{yellow}{cyan}{blue}{green}{black}
```

8.7 Managing The Fields Names

\traddfieldname \tr@usesfieldname Define field names - does not create a new field

```
40 \newcommand{\traddfieldname} [2] {%
41 \expandafter\gdef\csname tr@fieldnames@\detokenize{#1}\endcsname{#2}%
42 }%
43 %
44 \def\tr@usesfieldname#1{%
```

```
45 \ifcsname tr@fieldnames@\detokenize{#1}\endcsname%
46 \csname tr@fieldnames@\detokenize{#1}\expandafter\endcsname%
47 \else%
48 Missing Field Name%
49 \fi%
50 }%
```

8.8 Standard Field Names

\trstatuscolor Select the color based on the state

Sets the standard text for the fields

```
Set the names for the field names and for the titles.
  \trsetfieldsnames
   \trsettitlelabel
                           \trsetfieldsnames{\langle status\rangle}{\langle duedate\rangle}{\langle assigned\rangle}{\langle (from)\}}{\langle to\rangle}{\langle (done)\}}{\langle why\rangle}
                           \time {\it title-label}
                       51 \newcommand{\trsetfieldsnames}[7]{%
                              \traddfieldname{status}{#1}%
                       53
                              \traddfieldname{duedate}{#2}%
                              \traddfieldname{assigned}{#3}%
                       54
                              \traddfieldname{from}{#4}%
                       55
                              \traddfieldname{to}{#5}%
                       56
                              \traddfieldname{done}{#6}%
                       57
                       58
                              \traddfieldname{why}{#7}%
                       59 }%
                       60 %
                       61 \traddfieldname{defaulttitle}{Task without a name}%
                       62 %
                       63 \def\tr@defaulttitlelabel{}%
                       64 \newcommand{\trsettitlelabel}[1]{%
                              \def\tr@defaulttitlelabel{#1}%
                       66 }%
                       68 \trsetfieldsnames{Status}{Due date}{Assigned in}{From}{To}{Done in}{Rationale}
                       69 %
        \trsetcolon
                       70 \newcommand{\trsetcolon}[1]{%
                       71
                              \traddfieldname{colonmark}{#1}
                       72 }
                       73 \trsetcolon{:}
\tr@currentboxcolor The dirt trick of using a global variable to store a value
                       74 \ensuremath{\mbox{\sc lor}}\tr@usestatecolor{other}}\%
```

9 List of Tasks

```
85 \newcommand{\trsettasklisttitle}[1]{%
86 \def\trlisttasks{#1}%
87 }%
88 \trsettasklisttitle{List of Tasks}%
89 %% cria a lista, depende do pacoto tcloft
90 \@ifundefined{chapter}%
91 {\newlistof[section]{tasks}{trt}{\trlisttasks}}%
92 {\newlistof[chapter]{tasks}{trt}{\trlisttasks}}%
```

9.1 A Counter for Tasks

9.2 Declaring Tasks

9.2.1 Helpers

\tr@field Helpers to build the task \trtitle should be improved to chack if \tr@defaulttitlelabel is not empty and use it

```
93 \newcommand{\tr@title}[2]{%
94 \ifx\tr@defaulttitlelabel\empty%
95
       \if@showtasknumbers%
96
           \textbf{#2\tr@usesfieldname{colonmark} #1}%
97
       \else%
98
           \textbf{#1}%
       \fi%
99
100 \else%
       \if@showtasknumbers%
101
           \label{tr@defaulttitlelabel} $$ \text{$$1}\% $$
102
103
104
           \textbf{\tr@defaulttitlelabel\tr@usesfieldname{colonmark}\ #1}%
       \fi%
105
106 \fi%
```

```
107 }%
108 %
109 \newcommand{\tr@field}[2]{%
110 \textbf{#1}\tr@usesfieldname{colonmark} #2%
111 }%
112 %
```

9.2.2 Main task macro

```
\trtask Describes a task
```

```
\trtask[\langle status\rangle] \{\langle name\rangle\} \{\langle due\text{-}date\rangle\} \{\langle when\text{-}assigned\rangle\} \{\langle who\text{-}assigned\rangle\} \{\langle to\text{-}who\text{-}assigned}\} \{\langle why\rangle\} \{\langle when\text{-}done\rangle\} \{\langle extra\text{-}text\rangle\}  For example: \trtask[doing] \{Make a \LaTeX\ Kanbam \ document\} \{soon\} \} \{2021-05-31\} \{Xexéo\} \{Geraldo \ Xexéo\} \{Help \ control \ tasks\} \}  {not yet} {Use colors \label {task: kanbam}}
```

generates:

```
Make a Lagrangian document

Status: doing
Due date: soon
Assigned in: 2021-05-31
From: Xexéo
To: Geraldo Xexéo
Rationale: Help control tasks
Done in: not yet

Use colors
```

It is possible to reference the task (as Task 19 in page 16, named Make a \LaTeX Kanbam document).

```
113 % [status] , what, due-date when-assigned, from-who, to-who, why, when-done, extra
114 \newcounter{taskcounter}
115 %
116 \newcommand{\trtask}[9][]{%
117    \par%
118    \ifblank{#2}{
119    \def\trtask@temp{\tr@usesfieldname{defaulttitle}}%
120    }%
121    {%
```

```
122
       \def\trtask@temp{#2}%
123
       \refstepcounter{tasks}%
124
125 % \refstepcounter updates \@currentlabel (\LaTeX magic!)
126\ \% therefore the next command must appear before #9, where label must be.
127
       \refstepcounter{taskcounter}%
128
       \protected@edef\@currentlabelname{\trtask@temp}% trying to make it work
        \label{line} $$ \addcontentsline{trt}{tasks}{\protect\numberline{thetasks}{\trtask@temp}}, $$
129
130
        \trstatuscolor{#1}%
       \begin{tcolorbox}[title=\tr@title{\trtask@temp}{\thetaskcounter},%
131
132 colback=\tr@currentboxcolor!5!white,%
133 colframe=\tr@currentboxcolor!75!black%
134 ] %
            \ifblank{#1}{}%
135
136
                \tr@field{\tr@usesfieldname{status}}{#1}\newline%
137
            }%
138
            \left\{ \frac{43}{3} \right\}
139
140 {%
141
       \tr@field{\tr@usesfieldname{duedate}}{#3}\newline%
142 }%
143 \ifblank{#4}{}%
144 {%
       \tr@field{\tr@usesfieldname{assigned}}{#4}\newline%
145
146 }%
147 \ifblank{#5}{}%
148 {%
       \tr@field{\tr@usesfieldname{from}}{#5}\newline%
149
150 }%
151 \ifblank{#6}{}%
152 {%
153
       \tr@field{\tr@usesfieldname{to}}{#6}\newline%
154 }%
155 \ifblank{#7}{}%
156 {%
157
       \tr@field{\tr@usesfieldname{why}}{#7}\newline%
158 }%
159 \ifblank{#8}{}%
160 {%
        \tr@field{\tr@usesfieldname{done}}{#8}\newline%
161
162 }%
163
            \ifblank{#9}{}%
            {\tcblower%
164
            #9%
165
166
            }%
167
        \end{tcolorbox}%
168 }%
```

End of Code

Change History

v0.1		v0.4	
General: First version	1	General: Allows redefining field	
v0.2		names	1
	1	v0.5	
General: User can create new states	1	General: Allows redefining header	
v0.3		and colon	1
General: List of Tasks	1	Numbers in tasks and references	1

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.

Symbols \@currentlabel 125 \@currentlabelname . 128 \@ifundefined 14, 90 \@showtasknumbersfalse 1 \@showtasknumberstrue 3	\ifblank 77, 118, 135, 139, 143, 147, 151, 155, 159, 163 \ifcsname 25, 45 \ifx 94 L \LaTeX 125	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
_ _ \ \ A \addcontentsline \ . \ 129	N \newif	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
C \color@ 14 \csname 20, 26, 41, 46 D \DeclareOption 3 \detokenize 20, 25, 26, 41, 45, 46	$\begin{array}{cccc} & & & & & & \\ \text{par} & \dots & & 117 \\ \text{printtaskreportversion} & & & & \frac{12}{5} \\ \text{ProcessOptions} & & & 5 \\ \text{protect} & & & & 129 \\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
E \else 27, 47, 97, 100, 103 \empty	\protected@edef 128 R \refstepcounter	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
F \fi . 29, 49, 99, 105, 106 I \if@showtasknumbers1, 95, 101	$ \begin{array}{c} \mathbf{T} \\ \texttt{\ \ } \texttt{\ } \texttt$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

List of Tasks

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