Taskwarrior – What's next?
Introduction to Taskwarrior

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Content

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- ► Born 1968 in Wanne-Eickel
- ► Linux since 1996
- ► Emigrated 2008 to Switzerland
- ► Taskwarrior Team since 2010

Entry point for more `https://d5e.org/`

(⚔) **Project founder: Paul Beckingham**

▶ I started out using Gina Trapani's todo.sh, which was great, but I soon wanted features that would have been difficult to implement in a shell script, so I wrote my own.

▶ It stemmed from the fact that a todo program needs to be simple to use, and unobtrusive, otherwise it's a hassle. But it can't be too simple.

▶ If you go to the trouble of capturing this information, it seems wasteful not to leverage it. So it has a lot of features, but tries to remain simple to use.

▶ There are many different methodologies people use for managing their work, and Taskwarrior tries to walk a line through the middle of all that, with features for all the different approaches.

▶ Taskwarrior is intended to scale with the user, from very simple straightforward usage up to quite sophisticated task management.

Reasons for Taskwarrior

Taskwarrior

- ▶ is easy to learn.
- ▶ grows along with the work.
- ▶ is unbelievably powerful.
- ▶ is very fast.
- ▶ is easily extensible.
- ▶ is platform independent:
    - ▶ Most flavours of Unix and Linux, including Mac OS X
    - ▶ Windows 10 Linux Subsystem
      Other Windows versions with Cygwin (unsupported, but working)
    - ▶ Android with Termux
    - ▶ Third-Party Apps (Android-Client, GUI based on NodeJS, …)
- ▶ is actively developed.
- ▶ can be influenced by users (feature requests).
- ▶ has excellent and very friendly support.

🛡 **History – Some milestones**

2006-11-29, v0.0.1

Project began as enhancement to todo.txt.

2008-06-03, v1.0.0

2012-03-17, v2.0.0

2014-01-15, v2.3.0

Task Server support

2015-10-21, v2.5.0

Improved command line parser

2016-02-24, v2.5.1

bug fix, code cleanup, performance release – no features.

near future, v2.6.0

overhaul recurrence and add more flavors of recurring tasks.

<http://taskwarrior.org/docs/history.html>

(🐗) **This workshop . . .**

This workshop hopefully is a *real workshop*.

It will live from you doing things and asking,
it is not about me talking all of the time.

Nevertheless I will show you every command.

🛡 **Installation from source**

Attention!

Since some packagers (Debian and Ubuntu as examples) implement their thinking of the place where files have to be without changing the templates, an installation from source is the recommended way.

All you need to compile is

- ► GnuTLS (ideally version 3.2 or newer)
- ► libuuid
- ► CMake (2.8 or newer)
- ► make
- ► C++ Compiler (GCC 4.7 or Clang 3.3 or newer)

Some OSes (Darwin, FreeBSD . . .) include libuuid functionality in libc.

🛡 **Install dependencies**

Install the necessary packages with your package manager.

CentOS, Fedora, openSUSE

gnutls-devel libuuid-devel cmake clang or gcc-c++

Debian, Ubuntu

libgnutls28-dev uuid-dev cmake clang or g++

Mac OS X

Install Xcode from Apple, via the AppStore, launch it, and
select from some menu that you want the command line
tools.
With Homebrew install the necessary packages:
brew install cmake git gnutls

Get the source

Either

```
curl -LO http://taskwarrior.org/download/task-2.5.1.tar.gz
tar xzf task-2.5.1.tar.gz
cd task-2.5.1
```

or

```
git clone --recursive https://git.tasktools.org/scm/tm/task.git task.git
cd task.git

# Updates
git pull --recurse-submodules=yes
git submodule update
```

🛡 Compile it

Three easy steps . . . hopefully!

1. `cmake .` (**not** `./configure`!) or
   `cmake -DCMAKE_INSTALL_PREFIX=/home/user/task`
2. `make`
3. `sudo make install`

Test it

```
$ task diagnostics
A configuration file could not be found in

Would you like a sample /home/taskwarrior/.taskrc created, so Taskwarrior can proceed? (yes/no) yes

task 2.6.0
   Platform: Linux

Compiler
     Version: 4.8.5 20150623 (Red Hat 4.8.5-4)
        Caps: +stdc +stdc_hosted +LP64 +c8 +i32 +l64 +vp64 +time_t64
 Compliance: C++11

Build Features
       Built: May 17 2016 09:29:51
      Commit: b47fc52
       CMake: 2.8.11
     libuuid: libuuid + uuid_unparse_lower
   libgnutls: 3.3.8
 Build type: release

Configuration
        File: /export/home/v000175/.taskrc (found), 1465 bytes, mode 100664
        Data: /export/home/v000175/.task (found), dir, mode 40755
     Locking: Enabled
          GC: Enabled
     $EDITOR: vim
```

A simple example

```
task add

task list

task <ID> start

task list

task <ID> stop

task list

task <ID> done
```

(🤖) **Nearly all commands work on a bunch of tasks**

There is a lot more to explore.

Even the commands from the last section are more mighty than they seem.

- ► task add <mods>
- ► task <filter> list
- ► task <filter> start <mods>
- ► task <filter> stop <mods>
- ► task <filter> done <mods>

To get an overview, take a look at the cheat sheet (pdf, 145kB)
(or come over and grab a printed copy).

🛡 **task** <**filter**> **command** <**mods**>

- ▶ Is the basic usage of all task related **write** commands.
- ▶ Write commands can operate on one task or a group of tasks or even on all tasks.
- ▶ Every command may be **abbreviated** up to the minimum that is necessary to identify a single command.
- ▶ Filters can be anything from nothing to simple IDs to regular expressions or Boolean constructs.
- ▶ Modifications can be either a change of description, a change of dates or anything else that changes a task.
- ▶ In our simple example we already used the write commands **add**, **done**, **start** and **stop**.

🛡 Scripts

```
# Scripts shipped with Taskwarrior
ls /usr/local/share/doc/task/scripts/*
```

```
# Commandline completion tabtabtabtabtabtab ;-)
source /usr/local/share/doc/task/scripts/bash/task.sh

# Make it persistent
echo source /usr/local/share/doc/task/scripts/bash/task.sh >> .bashrc
```

```
# Syntaxhighlighting for vim
[[ -d ~/.vim ]] || mkdir ~/.vim
cp -r /usr/local/share/doc/task/scripts/vim ~/.vim
```

🛡 **Most important commands**

These are the most important commands, just because I use them most ;-)

- ▶ **task** <**filter**> **modify**
  The name says it, it modifies tasks according to the filter used.

- ▶ **task** <**filter**> **edit**
  This starts your favourite editor with the tasks you want to change.
  (Remember the syntax highlighting for vim?)

- ▶ **task undo**
  Reverts the most recent change to a task.

- ▶ **task help**
  Gives an overview of implemented commands and custom reports.

- ▶ **man task (taskrc, task-faq, task-sync)**
  Show the (almighty) man-page(s). Unlike the man-pages of many other
  programs they are extremely helpful and full of information and
  examples. Try them!

Dateformats – from 'man taskrc'

```
m  minimal-digit month,  for example 1 or 12
d  minimal-digit day,    for example 1 or 30
y  two-digit year,       for example 09
D  two-digit day,        for example 01 or 30
M  two-digit month,      for example 01 or 12
Y  four-digit year,      for example 2009
a  short name of weekday, for example Mon or Wed
A  long name of weekday,  for example Monday or Wednesday
b  short name of month,  for example Jan or Aug
B  long name of month,   for example January or August
V  weeknumber,           for example 03 or 37
H  two-digit hour,       for example 03 or 11
N  two-digit minutes,    for example 05 or 42
S  two-digit seconds,    for example 07 or 47

The  string may also contain other characters to act as spacers,
or formatting.  Examples for other values of dateformat:

d/m/Y  would use for input and output 24/7/2009
yMD    would use for input and output 090724
M-D-Y  would use for input and output 07-24-2009

Examples for other values of dateformat.report:

a D b Y (V)  would do an output as "Fri 24 Jul 2009 (30)"
A, B D, Y    would do an  output as "Friday, July 24, 2009"
vV a Y-M-D   would do an output as "v30 Fri 2009-07-24"
yMD.HN       would do an output as "110124.2342"
m/d/Y H:N    would do an output as "1/24/2011 10:42"
a  D  b  Y  H:N:S would do and output as "Mon 24 Jan 2011 11:19:42"
```

Set dateformat

Defined dateformats

The dateformat you define, will be used in **addition** to all the standard supported ISO-8601 formats.

```
task show dateformat

task config dateformat YMD
task config dateformat.annotation YMD
task config dateformat.report YMD

# my dateformat was YMD-HN

task show dateformat

grep dateformat ~/.taskrc
```

Set weekstart

```
task show weekstart

task config weekstart Monday

task show | wc -l # nearly everything can be customized
235
```

🛡 **Special dates (1)**

Relative wording

> task … due:today
> task … due:yesterday
> task … due:tomorrow

Day number with ordinal

> task … due:23rd
> task … due:3wks
> task … due:1day
> task … due:9hrs

At some point or later (sets the wait date to 1/18/2038)

> task … wait:later
> task … wait:someday

(🛡) **Special dates (2)**

Start / end of ... (remember weekstart setting)

    task ...due:sow # week
    task ...due:eow
    task ...due:soww # workweek
    task ...due:eoww
    task ...due:socw # current week
    task ...due:eocw
    task ...due:som # month
    task ...due:eom
    task ...due:soq # quarter
    task ...due:eoq
    task ...due:soy # year
    task ...due:eoy

Next occurring weekday

    task ...due:fri

🛡 Due and wait

```
task add due:20161231 "Celebrate Sylvester"
task add due:Sunday "Drive home"

task list

task 2 modify wait:20160823

task list
```

🛡 Recurrence

```
task waiting
task 1 modify due:eom recur:monthly

task list

task recurring

# task id changed from 1 (task modify) to 4
# try task 1 edit
```

(🛡) **Recurrence modifiers (1)**

hourly

Every hour.

daily, day, 1da, 2da, . . .

Every day or a number of days.

weekdays

Mondays, Tuesdays, Wednesdays, Thursdays, Fridays and skipping weekend days.

weekly, 1wk, 2wks, . . .

Every week or a number of weeks.

biweekly, fortnight

Every two weeks.

monthly

Every month.

quarterly, 1qtr, 2qtrs, . . .

Every three months, a quarter, or a number of quarters.

Recurrence modifiers (2)

semiannual

Every six months.

annual, yearly, 1yr, 2yrs, . . .

Every year or a number of years.

biannual, biyearly, 2yr

Every two years.

(○) **Until and entry**

```
task add due:eom recur:monthly until:20161231 "Pay installment for credit"

task add "Prepare slides for workshop"
task 6 modify entry:yesterday

task list
```

(🛡) Holiday

Attention!

Holiday has nothing in common with the German words *Ferien* or *Urlaub*
(this would be vacation). (Public) Holiday means *Feiertag*.

You can add holidays by either adding them via task config on the
commandline or by adding them directly to the ~/.taskrc-File or by
including an external holiday definition.

On holidata.net you find a growing list of holiday dates, licensed CC-BY and
offered by volunteers. Service was introduced by the Taskwarrior team, who
is responsible for hosting and conversion to different formats.

🛡 Add holiday / Configure calendar

```
task config holiday.swissnationalday.name Swiss National Day
task config holiday.swissnationalday.date 20170801

# Holiday is not highlighted by default
task cale 08 2017
```

```
task show calendar
task config calendar.holidays full

task cale 08 2017
```

(🛡) **Calendar with due tasks**

```
task config calendar.holidays sparse
task config calendar.details full

task cale
```

🛡 **Project and subproject**

```
task 3 modify pro:ubucon
task 7 modify pro:ubucon.workshop
task 4 modify pro:private
task list
```

Projects

```
task projects
task pro:ubucon ls
task 7 done
```

(🛡) **Tags**

```
task 3 modify +banking
task 4 modify +banking

task list

task 3 mod -banking +bern

task +bern list
```

Priorities

```
task long
task 4 modify pri:H # can be either (H)igh, (M)edium or (L)ow
task long
```

Annotations

```
task 3 annotate "Do not forget your head"
task 4 annotate "Use wifes account"
task list
task 4 denotate "Use wifes account"
```

🛡 **Dependency, part 1**

```
task add "Send letter to Fritz"
task add "Write letter"
task 7 modify depends:8
task blocked
task unblocked
```

Dependency, part 2

```
task 7 done
task list
```

Undo

```
task undo
```

Dependency, part 3

```
task 7,8 done
task blocked
```

Predefined reports (from task reports), part 1

These reports were already used.

- **blocked** Lists all blocked tasks matching the specified criteria
- **list** Lists all tasks matching the specified criteria
- **long** Lists all task, all data, matching the specified criteria
- **projects** Shows a list of all project names used, and how many tasks are in each
- **recurring** Lists recurring tasks matching the specified criteria
- **unblocked** Lists all unblocked tasks matching the specified criteria
- **waiting** Lists all waiting tasks matching the specified criteria

(🏃) **Predefined reports (from task reports), part 2**

New ones:

- ▸ **active** Lists active tasks matching the specified criteria
- ▸ **all** Lists all tasks matching the specified criteria, including parents of recurring tasks
- ▸ **blocking** Blocking tasks
- ▸ **burndown.daily** Shows a graphical burndown chart, by day
- ▸ **burndown.monthly** Shows a graphical burndown chart, by month
- ▸ **burndown.weekly** Shows a graphical burndown chart, by week
- ▸ **completed** Lists completed tasks matching the specified criteria
- ▸ **ghistory.annual** Shows a graphical report of task history, by year
- ▸ **ghistory.monthly** Shows a graphical report of task history, by month
- ▸ **history.annual** Shows a report of task history, by year
- ▸ **history.monthly** Shows a report of task history, by month
- ▸ **information** Shows all data and metadata for specified tasks
- ▸ **ls** Minimal listing of all tasks matching the specified criteria

(🤖) **Predefined reports (from task reports), part 3**

And more:

- ▸ **minimal** A really minimal listing
- ▸ **newest** Shows the newest tasks
- ▸ **next** Lists the most urgent tasks
- ▸ **oldest** Shows the oldest tasks
- ▸ **overdue** Lists overdue tasks matching the specified criteria
- ▸ **ready** Most urgent actionable tasks
- ▸ **summary** Shows a report of task status by burndown-dailyoject
- ▸ **tags** Shows a list of all tags used

26 reports in total (as told by `task reports`)

Test the reports

```
task burndown.daily

task ghistory.annual
task ghistory.monthly

task history.monthly

task ls
task minimal
task summary
```

Report definitions

```
task show report.minimal
task show report.list

task show report # to see all definitions
```

🛡 **Dirks former task list**

```
echo "
report.ll.description=Dirks task list
report.ll.columns=id,project,priority,due,due.countdown,tags,description
report.ll.labels=ID,Project,Pri,Due,Countdown,Tags,Description
report.ll.sort=due+,priority-,project+,description+
report.ll.filter=status:pending
" >> ~/.taskrc

task ll
```

Set default command

```
task show default

task config default.command ll
task
```

🛡 **Filtering in general**

You can filter for any modifier. If you don't use a modifier description is searched for the term, which may be a regular expression, on the command line. Filters may be combined.

The following attribute modifiers maybe applied as well. Names in brackets can be used alternatively.

So a filter can look like `attribute.modifier:value`.

- ► before, after
- ► none, any
- ► is (equals), isnt (not)
- ► has (contains), hasnt
- ► startswith (left), endswith (right)
- ► word, noword

Searches

```
task

task pay

task /[Pp]ay/
```

🛡 **Attribute modifiers**

```
task due.before:20160831

task project.not:taskwarrior
```

```
task project:ubucon +banking
task status:completed project:ubucon
task status:completed project:ubucon completed

task show report.ll.filter
```

Or . . .

```
task list

task \( pro:taskwarrior or pro:private \) list
# Brackets must be escaped for the shell
```

Search configuration

```
task show search

task show regex
```

Filter in reports

```
task show filter
```

🛡 Virtual Tags (1)

- ► **ACTIVE** Matches if the task is started
- ► **ANNOTATED** Matches if the task has annotations
- ► **BLOCKED** Matches if the task is blocked
- ► **BLOCKING** Matches if the task is blocking
- ► **CHILD** Matches if the task has a parent
- ► **COMPLETED** Matches if the task has completed status
- ► **DELETED** Matches if the task has deleted status
- ► **DUE** Matches if the task is due
- ► **LATEST** Matches if the task is the newest added task
- ► **MONTH** Matches if the task is due this month
- ► **ORPHAN** Matches if the task has any orphaned UDA values
- ► **OVERDUE** Matches if the task is overdue
- ► **PARENT** Matches if the task is a parent
- ► **PENDING** Matches if the task has pending status
- ► **PRIORITY** Matches if the task has a priority

🛡 **Virtual Tags (1)**

- ▶ **PROJECT** Matches if the task has a project
- ▶ **READY** Matches if the task is actionable
- ▶ **SCHEDULED** Matches if the task is scheduled
- ▶ **TAGGED** Matches if the task has tags
- ▶ **TODAY** Matches if the task is due today
- ▶ **TOMORROW** Matches if the task is due sometime tomorrow
- ▶ **UDA** Matches if the task has any UDA values
- ▶ **UNBLOCKED** Matches if the task is not blocked
- ▶ **UNTIL** Matches if the task expires
- ▶ **WAITING** Matches if the task is waiting
- ▶ **WEEK** Matches if the task is due this week
- ▶ **YEAR** Matches if the task is due this year
- ▶ **YESTERDAY** Matches if the task was due sometime yesterday

This is by far not all

task log

for logging a task after it is already done.

task diag

to help support for diagnostic purpose.

UDA

User defined attributes.

…

and many more!

Questions?

Getting Help

There are several ways of getting help:

- ▶ Submit your details to our Q & A site, then wait patiently for the community to respond.
- ▶ Email us at support@taskwarrior.org, then wait patiently for a volunteer to respond.
- ▶ Join us IRC in the #taskwarrior channel on Freenode.net, and get a quick response from the community, where, as you have anticipated, we will walk you through the checklist above.
- ▶ Even though Twitter is no means of support, you can get in touch with @taskwarrior.
- ▶ We have a User Mailinglist which you can join anytime to discuss about Taskwarrior and techniques.
- ▶ The Developer Mailinglist is focussing on a more technical oriented audience.

Thanks for your patience!

Dirk Deimeke, Taskwarrior-Team, 2016, CC-BY

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