The KTimetracker Handbook

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Abstract

KTimetracker tracks time spent on various tasks.
Chapter 1

Introduction

KTImetracker tracks time spent on various tasks. It is useful for tracking billable hours and can report the hours logged by task and day.

This time history can be exported to a comma-delimited text file for import into other billing and/or project management tools.

KTImetracker detects when your keyboard and mouse are idle and can associate different tasks with different desktops, two tools that can help keep the timer running on the correct task.

KTImetracker was originally written by Sirtaj Singh Kang. Its home page is https://userbase.kde.org/KTimeTracker.
Chapter 2

Using KTimetracker

2.1 Starting KTimetracker

Type `ktimetracker` at a command prompt or select Personal Time Tracker from the Applications → Utilities group in the Plasma Application Launcher. The generic Qt™ and KDE Frameworks 5 command options are available, see man pages qt5options and kf5options.

KTimetracker provides an additional command option that allows you to enter the name of the iCalendar file that is used to store your labor history. You enter a remote iCalendar file by using HTTP or FTP as part of the file name; for example, https://www.mysite.com/mydata/mylabor.ics.

2.2 Tasks

Problem: You are a freelance software consultant with many clients. Some clients have multiple projects. During the course of a day, you switch back and forth between different projects. You need to track your time to generate monthly invoices.

Solution: Create one top-level task for each client and a subtask for each client project. For projects that require more detailed tracking, create a list of project subtasks. Track time by double-clicking on the task you are currently working on.

KTimetracker provides great flexibility in tracking your time, allowing unlimited tasks and task depth. Time may be logged to any task, and more than one task can be active at any given time.

KTimetracker allows you to edit your task’s history and to put a comment for every event that you have stopped.

To create a top-level task, select Task → New Task... (Ctrl+T). To create a subtask, highlight the parent task and select Task → New Subtask... (Ctrl+B).

When KTimetracker exits, the task list is saved to a file on your disk. When it next opens, it reloads the task list from the same file.

KTimetracker can import and export tasks to minimize your work. See Section 2.4.

2.3 Timers

Problem: To remain solvent, you must bill an average of five hours a day. To stay on track, you watch your daily and weekly totals.
Solution: Reset the session timer at the beginning of each work day and reset all timers at the beginning of each week.

KTimetracker makes tracking time simple. To start logging time against a task, double-click on the task. To stop logging time, double-click the task again. Active tasks display a small clock in the **Session Time** column.

Another visual clue of logging activity is the KTimetracker system tray icon. When a task is active, the second hand in the icon moves. If you rest the mouse pointer over this icon, the name of the active task will display in a tooltip. If more than one task is active, the task names in the tooltip are separated by commas.

KTimetracker maintains two timers for each task: one for the session time and one for the total time. In the default configuration, KTimetracker displays two columns for each timer, resulting in a total of four columns for each task:

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session Time</strong></td>
<td>The time spent on the task since the session began.</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>The time spent on the task since all times were reset.</td>
</tr>
<tr>
<td><strong>Total Session Time</strong></td>
<td>The time spent on the task and all its subtasks since the session began.</td>
</tr>
<tr>
<td><strong>Total Time</strong></td>
<td>The time spent on the task and all its subtasks since all times were reset.</td>
</tr>
</tbody>
</table>

To start a new session, select **File → Start New Session**
To reset all times, select **File → Reset All Times**

### 2.3.1 Desktop Tracking

**Problem:** You have two main projects that you switch between each day. To help organize your work, you keep your project 1 files on Desktop 1 and your project 2 files on Desktop 2.

**Solution:** Associate project 1 task with Desktop 1 and the project 2 task with Desktop 2. When you switch from Desktop 2 to Desktop 1 active, KTimetracker automatically stops the project 2 task and starts the project 1 task.

To associate a task with one or more desktops, select **Task → Properties (Ctrl+E)**. Turn on **Auto Tracking** and select the desktop or desktops to associate with this task. When any of the selected desktops becomes active, after a short delay KTimetracker will be automatically start logging time against that task.

### 2.3.2 Idle Detection

**Problem:** You leave work early on Friday to run an errand and forget to stop the timer. When you return on Monday, the timer is still running.

**Solution:** Turn on idle detection on the **Behavior** page of the settings dialog.

KTimetracker can be configured to detect when the mouse and keyboard become idle. If the mouse and keyboard are idle for longer than the specified number of minutes, KTimetracker displays the following dialog:
Continue Timing

Apply the idle time to all active timers and keep them running.
You were working on the task(s) while your computer was idle and still are.

Revert Timing

Subtract the amount of idle time from all active timers and stop them.
You were not working on the task(s) while your computer was idle and you are still not.

2.4 Other Systems

2.4.1 KOrganizer

KTimetracker, like KOrganizer and Apple’s iCal, uses the industry standard iCalendar format for its data. KTimetracker can read and write the to-do lists created by these two applications.

You can even work synchronously on one file with KOrganizer and KTimetracker. If one program changes the file, the updates will be propagated to the other application automatically.

2.4.2 Planner

As a typical usecase, you might want to plan a project with the project management tool Planner and import its tasks to KTimetracker with File → Import → Import Tasks From Planner..., to have them in the industry standard iCalendar format. Having done so, you are able to schedule the tasks in KOrganizer, and account your time to them in KTimetracker. That’s one way to help ensure your project stays on time and under budget.

2.4.3 D-Bus

KTimetracker does support numerous methods that can be used with D-Bus.

There are two ways to use the D-Bus interface: Qt™’s GUI qdbusviewer and the command line qdbus.

Example 2.1 Bash script that echoes KTimetracker’s version

```bash
qdbus org.kde.ktimetracker /KTimeTracker version 2>/dev/null || echo "ktimetracker not running"
```

KTimetracker’s current D-Bus interface is currently used mainly for automated testing, so it is very limited. For the full interface definition, see the appendix A.
To see the full D-Bus interface of the KTimetracker version installed on your system, run the following Bash script:

**Example 2.2 List KTimetracker’s D-Bus interface to console**

```
qdbus org.kde.ktimetracker /KTimeTracker 2>/dev/null || echo "ktimetracker not running"
```

### 2.4.4 Export Totals to CSV

KTimetracker can export both totals and history to a comma-delimited file format. To export totals, select `File → Export...` and KTimetracker displays the export dialog.

Select option `Times as CSV` in group `Report Type`. The dialog is going to look as follows:

Modify the dialog defaults if necessary. You can preview the CSV output on the right side of the dialog. Click `Save As...` and KTimetracker exports the totals for all tasks to the file you enter in a file dialog.

Use the `Copy to Clipboard` button to export the times to the clipboard.

Here is another example of the output format:

```
"kde",,,,,0.00,0.00,6.88,9.83
"ktimetracker",,,,,6.88,8.70,6.88,9.83
"3.2 feature plan",,,0.00,0.00,0.00,0.00
"bugs",,,0.00,1.13,0.00,1.13
"checkin changes - translation strings",,,0.00,0.00,0.00,0.00
"time card report",,,0.00,0.00,0.00,0.00
"kopete",,,,0.00,0.00,0.00,0.00
"promo",,,0.00,0.00,0.00,0.00
"web stuff",,,,0.00,0.00,0.00,0.00
```

Top-level tasks are output in the first column, sub-tasks in the second, and so on. The time data is output after the maximum task depth (five in this example). The first time column is `Session Time`, the second is `Time`, the third is `Total Session Time` and the fourth is the `Total Time`. 
2.4.5 Export History to CSV

To export task history, select File → Export → Export... and KTimetracker displays the same export dialog as shown above. Select option History as CSV in group Report Type.

Select a date range that you want the task history to cover. Modify the dialog defaults if necessary. You can preview the CSV output on the right side of the dialog. Click Save As... and KTimetracker exports the totals for all tasks to the file you enter in a file dialog.

Use the Copy to Clipboard button to export the times to the clipboard.

Here is an example of the output format:

```
Task History
From Tuesday 06 July 2004 to Tuesday 13 July 2004
Printed on: 2004-07-13 18:10
,,,,,,,,,0.00,"kde"
,,,,1.77,3.23,1.73,,1.37,0.82,8.95,"ktimetracker"
,,,,,,,,,,0.00,"3.2 feature plan"
,,1.13,,1.13,,"bugs"
,,,,,,,,0.00,"checkin changes - translation strings"
,,,,,,,,0.00,"time card report"
,,,,,,,,0.00,"kopete"
,,,,,,,,0.00,"promo"
,,,,,,,,0.00,"web stuff"
```

The first three lines identify when the report was generated and for which date range. The fourth row is a comma-delimited list of the dates in the date range, in ISO 8601 format (YYYY-MM-DD). All subsequent rows list the time logged against each task. The last numeric column is the row total across all days. The task name prints after the total column, and is indented to indicate the task/sub-task relationship. Top level task names appear in the first column after the total.
Chapter 3

The KTimetracker interface

The main KTimetracker window has the following components: menubar, toolbar, searchbar, task/time window and status bar.

The searchbar is a combined field. As long as you do not press Enter, it acts as a filter. Then, only tasks that match your input are shown. As soon as you press Enter, your input is used as a name to create a new task.

Choose Configuration for PDA in the Appearance page of the settings dialog if you have a touchscreen and your screen real estate is precious. It will disable the search bar and every click will pop up a context menu.

3.1 The Task/Time window

The various tasks are displayed in this window, along with the time accumulated for each in the current session and in total. Tasks being timed have a small clock icon next to the session time.

Subtasks can be created for each task. Clicking the plus sign and minus sign in front of the main task toggles the view of its associated subtasks. The total time accrued for a task includes the times for its subtasks, as well as its own accumulated time.
3.2 The Toolbar and Statusbar

The toolbar contains icons for the following commands:

- New Task
- New Subtask
- Start
- Stop
- Delete
- Edit
- Open
- Save

The statusbar reports the name of the file where the data was saved.
Chapter 4

Credits and License

KTimetracker
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KTimetracker was inspired by Harald Tveit Alvestrand’s very useful utility called titrax, the only failing of which is that it is based on the Xt toolkit.

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Chapter 5

Glossary

A

active task
A task which has a timer running.

D

D-Bus
An interprocess communication protocol. Short for Desktop Bus.
desktop
GNU/Linux®, FreeBSD and other systems that run X.Org Server have multiple desktops. You can typically have four different desktops installed by default. Each desktop can display its own set of programs and files. When KDE Plasma first starts up, the desktop you see is Desktop 1. If you press Ctrl+F2, you will see Desktop 2. Pressing Ctrl+F1 will bring back Desktop 1.

H

history
If KTimetracker is configured to log history, it will record every start/stop timer event. This history is not cleared when times are reset and remains on file until the task is deleted.

S

session
A user-defined starting point for the session timers. A new session begins when you select File → Start New Session. Session data is not saved when you create a new session.
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Session Time
The time spent on the task since the session began.

system tray
The system tray is in the bar that (by default in KDE Plasma) appears at the bottom of the screen. In this system tray, the KTImetracker icon is on the far right.

top level task
A task with no parent tasks.

Total Session Time
The time spent on the task and all its subtasks since the session began.

Time
The time spent on the task since all times were reset.

Total Time
The time spent on the task and all its subtasks since all times were reset.
Appendix A

D-Bus Interface

A.0.0.0.1  version

Name
version – Return KTimetracker’s version.

Synopsis
QString version()

Description
version() is a D-Bus call that returns KTimetracker’s version number; for example 4.3.1. The version number is returned as a string in the typical GNU format of major.minor.bugfix.

A.0.0.0.2  quit

Name
quit – Quit KTimetracker’.

Synopsis
QString quit()

Description
quit() is a D-Bus call that provides a way that an external program can gracefully shutdown KTimetracker.

A.0.0.0.3  addTask

Name
addTask – Add new task.
**Synopsis**

QString addTask(QString taskname)

**Parameters**

*taskname*

The name of new task.

**Description**

addTask(QString taskname) is a D-Bus call that adds a new top-level to-do to the current storage. The UID of the new task is returned.