

# SU CLOCK

## Tracking Time in Sketchup

VERSION 1.1 – 17 APR 2011

### 1. Overview

**SUClock** tracks the *effective* time spent in Sketchup. The concept of *effective* (or *active*) time is based on:

- **User activity**, essentially exercising the SU tools and interactive Ruby scripts
- **Idle time** (or *think time*): if no activity has been recorded during a period longer than the defined idle time (5 minutes by default), then no time is counted. So:
  - If the last Tool activity is done at 10am, and then the next one at 10:09am, then the 9 minutes time difference (>5) will NOT be counted in the Tracked time.
  - If you are inactive during 3 minutes only (< 5), then the tracked time will be incremented by 3 minutes when you perform again an action.

**Activity in Sketchup corresponds to using any standard tools** (including zooming with the mouse wheel) **or interactive plugins** (i.e. those where you graphically interact with the model, like FredoScale, ShapeBender, ExtrudeByEdge, ...). If you only play with Sketchup dialog boxes (say shadow, layers, preferences, ...), this will not be seen as an activity (this is due to limitations in the Ruby API).

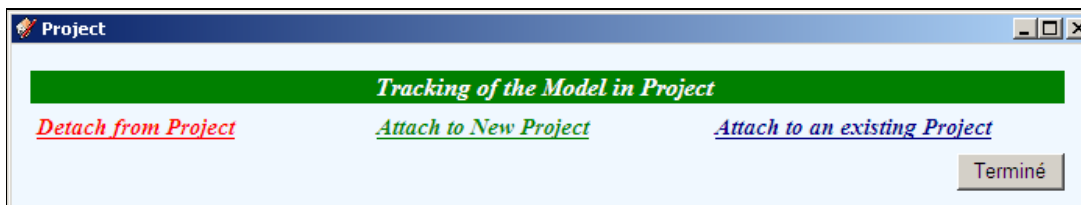
**Time is tracked by Project.** A project can include **several models** (including the subsequent versions of each model). This reflects more real-life situation where modeling projects may involve working on several model files.

**SUClock also maintains a few statistics about SU usage:**

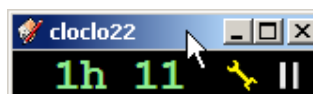
- by Day / Month,
- by Tool,
- by Model.

**Tracking information is maintained in an external file**, in the form of **<project>.suclock** file, which is saved on your local drive. Each model (i.e. .skp file) associated to the tracking project is stamped with the path to this file (absolute and relative to the model).

At any time, you can detach a model from a tracking project, or associate it to a new or to another existing tracking project.



For convenience, a small clock window can be displayed on the Sketchup desktop to indicate the current effective time of a tracking project, in minutes.



From the clock (yellow wrench icon), or via the menu *Configure Tracking Project*, you can access the settings and the statistics

**Project cloclo22**

**Project Parameters**

Name: cloclo22  
Active time spent: 1:11:19  
...in Current Session: 0:00:16  
Idle Time: 5 minutes  
Directory: D:/Documents/Doc/AA\_SKU/Ruby/All Models  
Created on: 13-Mar-11 06:50

**Tracking of the Model in Project**

[Detach from Project](#) [Attach to New Project](#) [Attach to an existing Project](#)

**Statistics**

Day / Month SU Tools SKP Models

Done

Statistics can be printed or exported to Excel as a CSV file

**Day / Month**

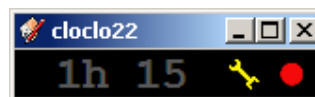
**cloclo22**  
*Day / Month*

Time tracked from 13-Mar-11 06:50 to 18-Mar-11 08:45

Month / Day	%%	Time	%
2011		1:11:20	100.0%
Mar 2011		1:11:20	100.0%
Fri 18 Mar	23.0%	0:16:24	23.0%
Thu 17 Mar	7.9%	0:05:37	7.9%
Wed 16 Mar	0.3%	0:00:14	0.3%
Tue 15 Mar	22.9%	0:16:19	22.9%
Mon 14 Mar	15.6%	0:11:08	15.6%
Sun 13 Mar	30.2%	0:21:34	30.2%
<b>TOTAL</b>		<b>1:11:20</b>	

Export CSV Print Done

Finally, you can also suspend temporarily the time tracking for a model (Pause button)



## 2. Installation

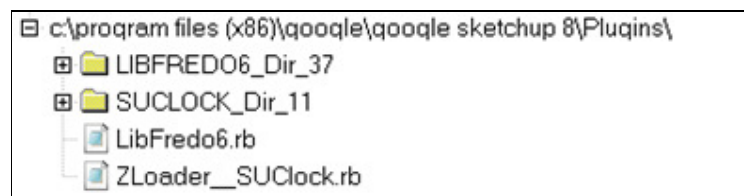
- **Sketchup versions:** **6+** (Free and Pro).
- The plugin requires **LibFredo6 v3.7 or higher**
- **Unzip**<sup>1</sup> the file you downloaded (*SUClock\_xx.zip* in principle) into the Sketchup Plugins folder, answering **YES** to all prompts for file overwriting, in order to make sure you reconstruct the folder hierarchy.

This operation should do the following:

- **Copy one script file** *ZLoader\_\_SUClock.rb* **to the Sketchup Plugins folder:**
- **Create a sub-folder** *SUCLOCK\_Dir\_xx*, containing the script files, the icons and language files, as well as the documentation in PDF format.


**NEVER change the name of files or move them from their folder.**

The footprint should be (Windows environment):



**On Mac**, the right directory for unzipping is:

*Macintosh HD/Library/Application Support/Google SketchUp 8/SketchUp/plugins*

- **Language:** Initially *English* and *French*<sup>2</sup>
- **Menus:** by default, installed in *Tools > Fredo6 Collection > SUClock*
-  **Icon toolbar:** by Default '*Fredo6 Tools*'<sup>3</sup>. One icons is available:
- **Default Parameters:** Plugin configuration and specific parameters, via a dialog box.

**Note:** if you plan to use SUClock to track time with models created in different Sketchup versions, make sure that you install the script for each Sketchup version and keep them at the same release level.

<sup>1</sup> In Winzip, make sure you do first a **Select All**, and then **Extract** all files to the Plugins folder, answering **YES** to all prompts for file overwriting.

<sup>2</sup> Kind contributors can generate the translation in other languages via the menu '*Translation*' and publish the text file (extension *.lang*) on *Sketchucation forum*.

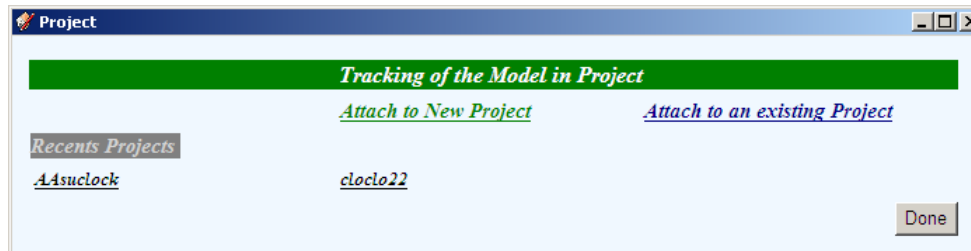
<sup>3</sup> In the future I will attach other standalone plugins to this toolbar "Fredo6 Tools"

### 3. Managing Tracking Projects

Tracking information is managed by Project, which may include one or several models. The project tracking file (extension *.suclock*) is therefore an autonomous entity to which you can freely attach SU models (and detach them).

#### 1) Attaching a Model to a Tracking Project for the first time

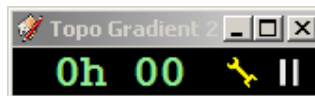
- a) Click on the SUClock icon (or select menu *Configure Tracking project*).
- b) A dialog box will appear.



You can:

- **Create a new Project file.** You will be asked for the project name and directory path. By default, it has the same name as the model
- Or **attach the model to an existing Project**, either by selecting a *.suclock* path or by selecting a recent project if any.

When done, you will see the Clock window shown on the SU desktop.



**Note:** it is advised to *save the model* to have the tracking really taken into account. This is because the tracking file path is written as an attribute of the model.

#### 2) About the Visual Clock

The effective time is tracked whether the Clock is displayed or not. You can therefore freely close it. To display it again, just click on the SUClock toolbar icon.

The Clock is a small dialog box which you can move around your desktop (even outside of the SU window). In principle it remembers its position across sessions (even on Mac).

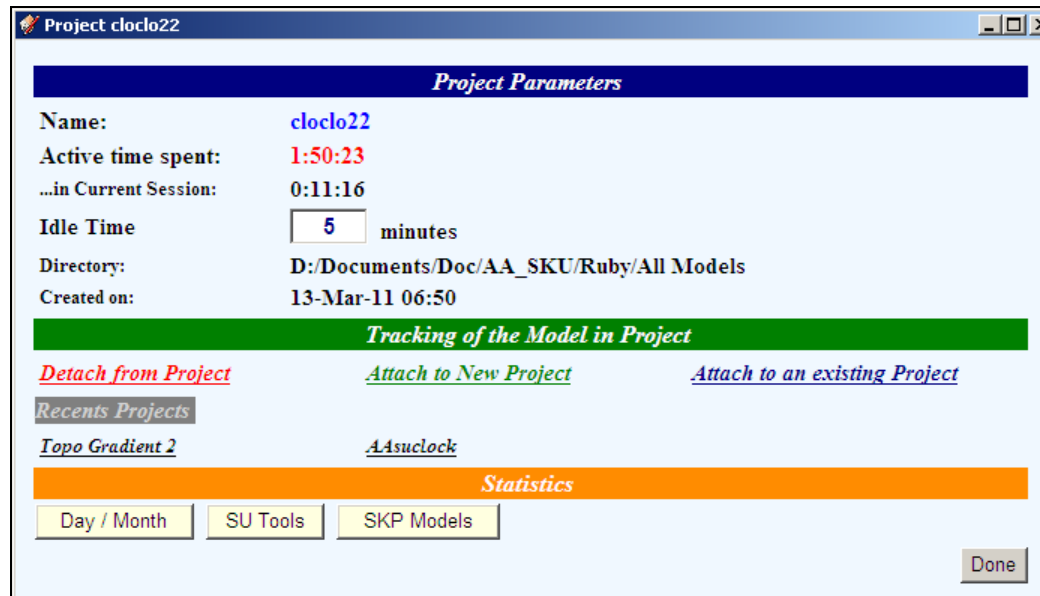
- **The time displayed** is the effective time of the Tracking Project, not the time you spend in the current model.
- **The Wrench icon** gives you access to the Project parameters and statistics (see next section).
- **The Pause icon** allows you to temporarily suspend the time recording for the current model. Click again on the red circle to resume time tracking.



### 3) Managing Tracking Projects and Models

This section applies when a model is attached to a tracking project.

- a) Click on the wrench icon in the Clock Window or the SUClock toolbar icon (or select menu *Configure Tracking project*).
- b) A **dialog box** will appear.



- c) **Idle Time** can be modified for the Tracking Project. It is given in minutes, with a minimum of 1 minute. If you enter a large value (say 999 minutes), then it means that time will always be tracked whether you are or not active in the model (you can go have lunch for 999 minutes!).
- d) **You can modify the attachment of the current model** to the Tracking Projects.
  - **Detach the model** from the Project. The model will no longer be tracked
  - Attach the model to either a **new project** or to another **existing project** (via the Ask path dialog box or recent projects)

### 4) Statistics

SUClock maintains some statistics about effective activity for each tracking project:

- By Models
- By Year / Month / Days
- By Tools (SU Tools and plugins)



Effective time are indicated in h:m:s, with overall percentage and percentage by category.

You can view, print and export to Excel (as CSV files) these statistics.

Note that Print will use the tree expansion state as displayed in the dialog box.

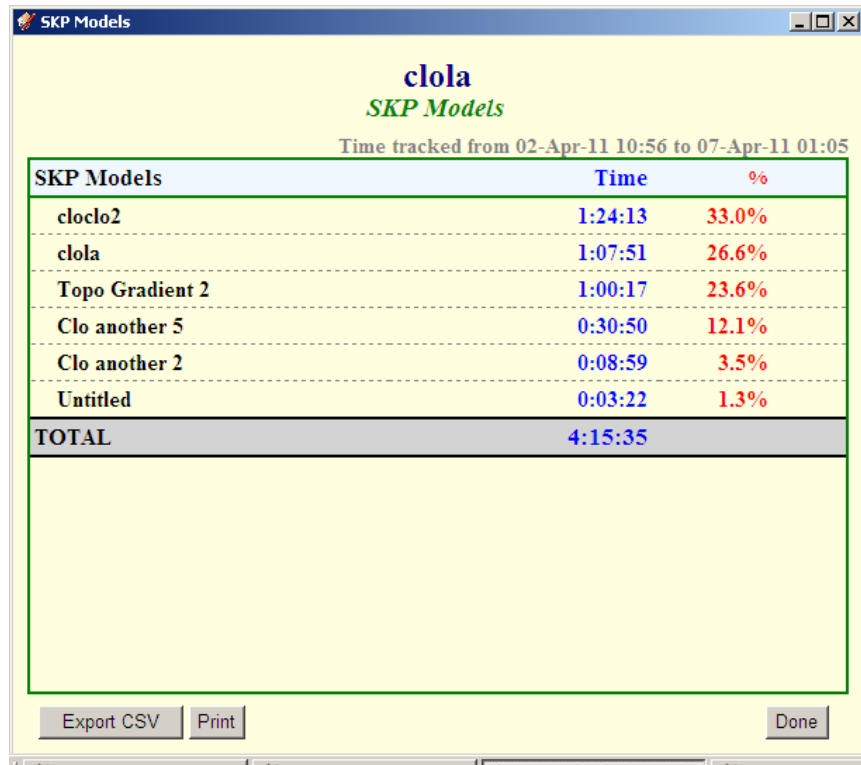
## 1) By Tools (SU Native tools and interactive Ruby scripts)

SU Tools			
<div>clola</div> <div>SU Tools</div> <div>Time tracked from 02-Apr-11 10:56 to 07-Apr-11 01:01</div>			
SU and Ruby Tools	%%	Time	%
<b>Selection Mode</b>		<b>3:57:47</b>	<b>93.5%</b>
<input checked="" type="checkbox"/> <b>Sketchup Tools</b>		<b>0:16:19</b>	<b>6.4%</b>
Offset	51.9%	0:08:28	3.3%
Circle	23.0%	0:03:45	1.5%
Freehand	7.8%	0:01:16	0.5%
Line	6.6%	0:01:04	0.4%
Rectangle	4.8%	0:00:46	0.3%
Scale	3.2%	0:00:30	0.2%
Move	1.0%	0:00:09	0.1%
Rotate	0.8%	0:00:07	0.0%
FollowMe	0.5%	0:00:05	0.0%
CameraOrbit	0.3%	0:00:02	0.0%
Arc	0.2%	0:00:02	0.0%
<input checked="" type="checkbox"/> <b>Ruby Scripts</b>		<b>0:00:19</b>	<b>0.1%</b>
FredoScale	59.7%	0:00:11	0.1%
B... IG	34.5%	0:00:04	0.0%
<div>Export CSV</div> <div>Print</div> <div>Done</div>			

## 2) By Date

Day / Month			
<div>clola</div> <div>Day / Month</div> <div>Time tracked from 02-Apr-11 10:56 to 07-Apr-11 01:01</div>			
Month / Day	%%	Time	%
<input checked="" type="checkbox"/> <b>2011</b>		<b>4:15:34</b>	<b>100.0%</b>
<input checked="" type="checkbox"/> <b>Apr 2011</b>		<b>4:15:34</b>	<b>100.0%</b>
Thu 07 Apr	4.7%	0:11:56	4.7%
Wed 06 Apr	0.3%	0:00:44	0.3%
Tue 05 Apr	10.7%	0:27:20	10.7%
Mon 04 Apr	20.6%	0:52:45	20.6%
Sun 03 Apr	31.2%	1:19:38	31.2%
Sat 02 Apr	32.5%	1:23:07	32.5%
<b>TOTAL</b>		<b>4:15:34</b>	
<div>Export CSV</div> <div>Print</div> <div>Done</div>			

### 3) By Sketchup Models (SKP files)



The screenshot shows a window titled "SKP Models" with a yellow background. At the top, it says "clola" and "SKP Models". Below that, it says "Time tracked from 02-Apr-11 10:56 to 07-Apr-11 01:05". The main content is a table with three columns: "SKP Models", "Time", and "%". The table lists several models and their respective times and percentages. At the bottom of the table is a "TOTAL" row. Below the table, there are three buttons: "Export CSV", "Print", and "Done".

SKP Models	Time	%
cloclo2	1:24:13	33.0%
clola	1:07:51	26.6%
Topo Gradient 2	1:00:17	23.6%
Clo another 5	0:30:50	12.1%
Clo another 2	0:08:59	3.5%
Untitled	0:03:22	1.3%
<b>TOTAL</b>	<b>4:15:35</b>	

### 4. About Differences between Windows and Mac

**In Windows**, there is only one SKP model per Sketchup instance, but you can have several instances of SU opened concurrently. If two or more instances are open on SKP files attached to the same tracking project, then, when switching from one to the other, you have to execute an activity (like mouse-wheel) to get the clock updated.

**On Mac**, you can open only a single instance of the Sketchup application, but you can have several models active within this model. When you switch from one model to another, the clock will be updated when you execute an activity (like mouse-wheel). Possibly, the clock will disappear or appear depending on whether the model is tracked or not.

The above limitations are simply due to the absence of event notification in the SU Ruby API when navigating between instances of Sketchup and between models within an instance.

## 5. Strategy for choosing the location of the *.suclock* files

The path to project tracking files (extension *.suclock*) is registered as an attribute of the models, in two forms:

- Absolute path
- Relative path to the model *.skp* file path

Depending on how you manage your files, you may consider to:

- 1) **Either store all *.suclock* files in one fixed directory**, regardless of where the models are stored. You can then freely reorganize the location of model *.skp* files without bothering about the *.suclock* files.
- 2) **Or store the *.suclock* file in the same folder as the model(s)**. In this case, it is recommended to move both the *.skp* and *.suclock* files together whenever you reorganize your files.

Note that if SUClock cannot locate the tracking project file attached to a model, you will be prompted with a File panel to locate it only when you try to re-attach it to a tracking project. This avoids other users being bothered by time tracking when you send out a SKP file (or post it to a forum).

## 6. Temporary files

SUClock use some temporary files at run time:

- *Suclock\_mru.tmp*: list of recent tracking project files
- *Suclock\_last\_tracked.tmp*: a very small file to track the last activity time across SU instances.
- Runtime *.suclock.txt* and *.sustats.txt* temporary files, very small, which are used for tracking time across models during a Sketchup session.

All these files are stored in the local temporary directories defined in your system:

- **On Windows:** in the user local settings folder (same as where Sketchup stores its own temporary files), typically (on XP):  
C:\Documents and Settings\<user>\Local Settings\Temp
- **On Mac:** in the */tmp* folder.

You can leave these temporary files where they are, but there is no inconvenience to purge them, preferably when you don't have Sketchup opened.