

# **Chronograph**

**version 1.0**

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**Getting Started  
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## Introduction

This document provides a couple of simple examples for getting started with Chronograph. It takes you step-by-step through the process of creating a cron event using both the graphical interface and crontab file. For a detailed explanation of Chronograph and its programs, refer to the Chronograph User's Manual.

## Hourly Chime

### Goal of the Exercise

To create a cron event that executes repeatedly using the *Cron Master* application. This event will play a sound file that produces a chime every hour on the hour.

### What is Needed

Chronograph should be properly set up as described in the User's manual. *Cron Daemon* should be executing in the background. You will need access to the *Cron Master* application and the *Chime* sound file.

### Setting Preferences

We need to set the preferences item "Auto-Update Cron Daemon" so that additions or changes that are made in *Cron Master* will be automatically transmitted to *Cron Daemon* (which implements the scheduled events). Perform the following steps:

- 1) Launch *Cron Master* by double clicking on its Finder icon.
- 2) Select the *Preferences* menu item from the *File* menu. A preferences dialog box should be displayed.
- 3) Locate the *Cron Master* section of the preferences. This should be at the bottom of the dialog box.
- 4) Find the check box labeled "Auto-Update Cron Daemon". If it is not currently checked, then check it.
- 5) Strike the "OK" button to save the preferences changes.

## Creating the Chime Event

It is time to create the Chime event with the *Cron Master* application. As stated previously, *Cron Master* uses graphical controls to define a cron.

- 1) Since *Cron Master* is currently open, choose the *New* menu item from the *File* menu OR click on the *Add* button in the *Cron Master* window (see Figure 1 in the User's Manual for a picture of the *Cron Master* window).
- 2) The standard get file dialog box is displayed. Locate the file named *Chime* from this dialog box and click the *Open* button. A window entitled "Chime" should have been created. It will appear similar to Figure 2 from the User's Manual.
- 3) Look at the "General Information" section of this window. A check box named "Enable" should be set (this means that the job will become active when saved). The check box named "Make Front Application" should not be hilited (since *Chime* is not an application, this check box does not apply).
- 4) The "Event Type" pop-up menu should be set to *Single* . Change the pop-up menu to display *Repeat* . After altering the menu, the window should have added several more controls.
- 5) Now, the start date and time will be defined. These text boxes are located in the "Event Type Information" section of the window. The date is correct (it will display the current date). We must alter the time so that it event will begin executing at the top of the hour. Modify the time to have the minutes portion set to 0. For example, if the time was originally "10:36 PM", change it to "10:00 PM".
- 6) The repeat frequency must be defined. Since we want the chime to occur once per hour, we will set the text box to the right of "Repeat Every" to 1 and change its pop-up menu (which currently displayed *Minute(s)* ) to *Hour(s)* .

Alternatively, we could leave the pop-up menu set to *Minute(s)* and simply enter a repeat rate of 60.

- 7) The final pop-up menu defines the conditions under which to terminate the cron. Since we want the job to execute indefinitely, the "Repeat Type" popup menu will remain set to *Continuous*.
- 8) Now, the event must be saved. Select the *Save* menu item from the *File* menu. A name is automatically assigned and the job file will be placed in the appropriate location so that it can be automatically loaded each time *Cron Daemon* starts. Also, since we have set the preferences to automatically update *Cron Daemon* with changes, *Cron Daemon* will receive a message from Cron Master with the new event and the chimes will start at the defined hour.

Instead of performing steps 1 and 2, one could have drag-and-dropped the *Chime* icon onto the *Cron Master* icon from within the Finder.

## Hourly Chime Using *crontab*

### Goal of the Exercise

To create a cron event that executes repeatedly using the *crontab* file. This file (and the "advanced" event type of the *Cron Master* application) permit very flexible cron specifications.

### What is Needed

Chronograph should be properly set up as described in the User's manual. *Cron Daemon* should be executing in the background. You will need access to the *crontab* file from the *Chronograph f* folder in the *Preferences* folder. You also need to know the location (full path name) of the *Chime* sound file.

### Creating the Chime Event

It is time to create the Chime event using the *crontab* file.

- 1) Open the crontab file in a text editor (it is very important that the file is saved as ASCII text [i.e. text only]). This file contains some brief information about how to set up the events. Similar information is contained in the User's Manual.
- 2) Look at the contents of the file. At the bottom is a sample crontab line. A '#' at the start of the line means that it is commented out and will not execute. The sample line is commented out so that *Cron Daemon* does not try to execute it.

```
# Example Line:  
#  
# * * * * * "HardDrive:Folder:SubFold1:SubFold2:....:ApplicationOrFile"
```

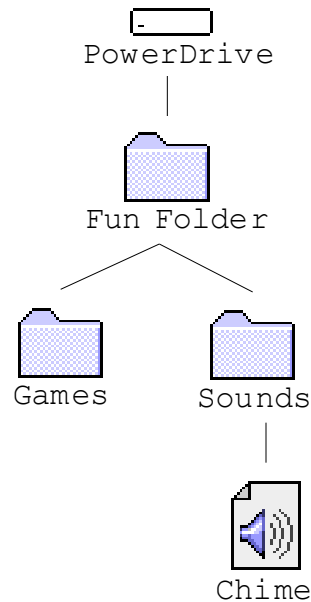
- 3) The last of three lines shown directly above contains the sample data. It has five fields that specify when to execute the event. This is followed by the full path name to the event, enclosed in double quotes.
- 4) First, we will create the five execution time fields. Go to a new line in the *crontab* file. The first field is minutes. Since we want this sound to be played every hour on the hour, we realize that the minutes value should be 0 (execute zero minutes past every hour). Enter a 0 on the line followed by a space. We want the sound to play every hour, so the second field (hours) is set to asterisk (which means every). The third through fifth fields represent the day, month, and day of week to play the sounds. Again, we want it played every hour, so the last three fields should all be asterisks. Below is what we have on the line so far:

```
0 * * * *
```

- 5) The final piece of information is the full path name. Start by making sure there is a space after the final asterisk. Now, begin the full path with double quotes. Enter the

disk drive name followed by a colon (no spaces between drive name and colon). Now, enter the folder hierarchy, inserting a colon between each folder name. Finally, enter the sound file name (Chime) and finish with double quotes.

- 6) Here is an example of the full path name using the folder hierarchy shown below.



The disk drive name is "PowerDrive". Its sub folders (on the path to Chime) are "Fun Folder" and "Sounds". Therefore, the full path name is (including double quotes):

`"PowerDrive:Fun Folder:Sounds:Chime"`

- 7) Save the *crontab* file.
- 8) Finally, kill *Cron Daemon* and then restart it using the *Stop Cron* and *Start Cron* buttons from *Cron Master* 's main window. Modifications to the crontab file only take effect when *Cron Daemon* is restarted.

## Where to Go From Here

Now that you've seen the basic operation of this program, explore and experiment. Create cron jobs for your repetitive tasks. You can use single events to display reminder messages about appointments and important dates. Repetitive events can be used as for backups and fetching E-mail. The possibilities are endless.

Finally, if you like the program and find it useful, please register. Detailed registration information is provided in the User's Manual and a registration form has been provided for your convenience.