



DSS Timer

Configurable Timer for Palm OS



- For Palm OS® 3.0 or later.
- Up to 500 timer configurations!
- Up to 16 timers per configuration.
- Clock can be displayed in 12-hour, 24-hour or UTC formats.
- Timers can be count-up or count-down.
- Alarms can auto-wakeup the device, and can blink on the display or play an audio alarm.
- Special Night color scheme helps pilots or drivers retain their night vision.
- Uses only 95K of Palm memory.

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For Technical Support

How to reach us:

You can e-mail us on the Internet at **support@deloach.com** for “same or next day” service (we check our mail every day).

For technical support by phone, call Darren evenings from 5:30 pm to 10:30 pm Alaska Time (1 hour earlier than Pacific) at **888-335-6224**.

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Overview

DSSTimer is a highly configurable general purpose timer application, offering significantly more options than a traditional electronic timer. Timers are saved in named “configurations”, and each timer configuration you save can include multiple independent timers that count up or down. Count-down timers fire alarms that you can customize.

Features:

- Save up to 500 named timer configurations.
- Each configuration can display the current clock and up to 16 independent timers, in a font of your choosing.
- The clock can be displayed in 12-hour, 24-hour or UTC formats.
- Each timer is named and can be either count-up or count-down. The default count-down value is saved with the configuration, and can be overridden when running the timer if needed.
- Count-down timer alarms can blink the display, play a Wave audio file of your choosing, or both.
- Special Night color scheme helps pilots or drivers retain their night vision.

This manual will give you all the information you need to get started using DSSTimer. After you have installed the software on your Palm® device using HotSync®, you can get information specific to each dialog in the on-line Help.

Program Installation

Before Installing

Before you install DSSTimer, make sure your computer meets the following minimum PC requirements:

System Requirements

- A computer running the Palm® HotSync® software
- A PalmOS® version 3.0 or later handheld device; supports color or monochrome devices.
- 95K of free RAM in your handheld device

We welcome any comments you have on the installation and use of our software; future enhancements (and future pilots) depend on your feedback.

Setting Up DSSTimer

1. From the Start Menu, start the Palm Desktop Install Tool.
2. Click the Add button in the Install Tool and browse to the program.
3. Select the following file to be added at the next HotSync operation: **DSSTIMER.PRC**.
4. Click Done to exit the Install Tool.
5. Place your handheld device in the cradle, and begin a HotSync operation by pressing the button on the cradle. The software will be copied to your Palm device.

Using DSSTimer

DSSTimer: The Big Picture

DSSTimer is a general-purpose timer application. It can be used for a wide variety of timing tasks, for example

- A Pilot might have timers for each fuel tank, the flight time for the whole flight as well as the current leg, holding pattern legs, instrument approaches, etc. all available in a single display.
- A Cook might have various timers configured for each dish of a large meal, to help ensure that all of the dishes are finished at the same time so that everything is still hot when served.
- A Driver might time hours driven, trip legs, time since the last gas refill, etc.

The range of applications for DSSTimer is limited only by your imagination!

DSSTimer saves your timers in Configurations, and will save up to 500 configurations for you in its database. Each configuration has a name to help you identify it, as well as a list of up to 16 individual timers, each with its own name. Any particular timer can be either “count-up” (starts at 00:00:00 and counts up without limit), or “count-down” (starts at some initial value you specify and counts down to 00:00:00).

To begin using DSSTimer, you must first create one or more timer configurations. See the Managing your configurations topic for more information.

After creating a configuration, you can start the timers. See the Running your timers topic for more information.

The DSSTimer Main Dialog

See the Running Your Timers topic for an introduction to the

DSSTimer - Two Tanks, IFR

Clock	02:48:36 Z
Tank Switch	00:58:27
Left Tank	01:58:29
Right Tank	02:00:00
Flight Total	00:01:29
Leg	00:01:27
Approach	00:01:00

Start **Stop** **Reset** **Set**

dialog elements used to operate your timers.

This is the main dialog of the DSSTimer program. The controls on the dialog are used while actively running your timers. The menu options allow access to other activities, such as managing timer configurations or selecting program options. You can use the following

dialog elements to perform these tasks:

Menu Items

- **Exit** - Exits the program. When you next restart the program, your current configuration will automatically display, along with the current values of the timers, i.e. the timer state is retained even if you exit the program.
- **Tools - Configurations** - Lets you manage your timer configurations.
- **Tools - Options** - Lets you change your program options, such as fonts and colors.
- **Tools - Clear All** - Stops all timers and resets them to their default states.

Dialog Controls

- The timers fill the majority of the dialog. They are drawn in the font and color scheme you selected on the Options dialog. If necessary, a scroll bar on the right side of the dialog will allow you to scroll through the list of timers.
- Click on a timer to select it, or to acknowledge an alarm if the timer alarm has fired.
- Clicking a timer that is already selected will de-select it.

- The buttons at the bottom of the dialog require you to first click on and select a timer.
- Double-click a timer to toggle it from active to inactive or back (i.e. to start or stop the timer without using the buttons).
- Double-click the clock to change its display format (12-hour, 24-hour or UTC).
- The color of a timer can tell you whether it is running, stopped or in alarm. The specific color used depends on the color scheme selected in the Options dialog.
- The **Start** and **Stop** buttons will start and stop the currently selected timer.
- The **Reset** button resets a timer back to its initial value (00:00:00 for count-up timers). This works the same regardless of whether a timer is currently running or not.
- The **Set** button lets you set or override a count-down timer initial value using the Countdown timer initial value dialog.

Selecting a Timer Configuration to Run

1. On the **Tools** menu, click **Configurations**.
2. On the Configurations dialog, click on the configuration you want to select in the list.
3. Click on the **Select** button, or double-click the item in the list, to select the configuration and return to the Main Timer dialog.
4. Once back on the Main Timer dialog, you may want to click on the **Tools** menu and click the **Clear All** option to reset all of the timers back to their default states.

Creating a New Timer Configuration

1. On the **Tools** menu, click **Configurations**.

2. On the Configurations dialog, click on the **Add** button.
3. Enter all of the required information on the Edit Configuration dialog, then click the **OK** button on that dialog to save your new configuration.

Copying a Timer Configuration

1. On the **Tools** menu, click **Configurations**.
2. Click on the configuration you want to copy in the list.
3. Click on the **Copy** button to copy the configuration to a new one. The new configuration will be named “Copy-” followed by the name of the original configuration.
4. Click on the **Edit** button to change any of the new configuration’s elements using the Edit Configuration dialog.

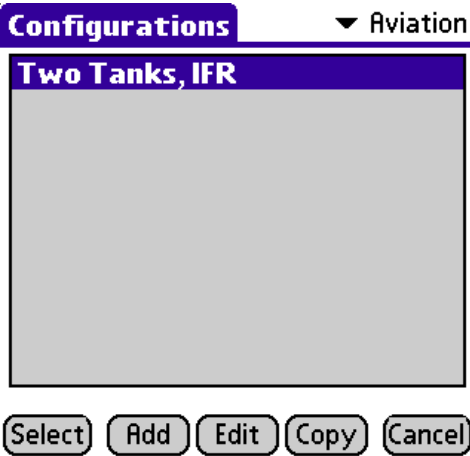
Modifying a Timer Configuration

1. On the **Tools** menu, click **Configurations**.
2. On the Configurations dialog, click on the configuration you want to change in the list.
3. Click on the **Edit** button to change any of the configuration’s elements using the Edit Configuration dialog.

Deleting a Timer Configuration

1. On the **Tools** menu, click **Configurations**.
2. On the Configurations dialog, click on the configuration you want to delete in the list.
3. Click on the **Edit** button to show the Edit Configuration dialog.
4. Click on the **Delete** button to delete the configuration.

The Timer Configuration Dialog



See the [Managing Your Timer Configurations](#) topic for a list of tasks you can perform using this dialog. This dialog is used to create, modify, or select a [Configuration](#). You can use the following dialog elements to perform these tasks:

- The list of available configurations is at the top of the dialog. Double-clicking an item will select it and return to the [DSSTimer Main Dialog](#). Clicking an item a single time will select it so that you can use the buttons described below on the selected item.
- The **Select** button will select the configuration and return to the DSSTimer Main Dialog so that you can run the timers in that configuration. This is the same behavior as double-clicking an item in the list.
- The **Add** button lets you create a new item from scratch.
- The **Edit** button lets you modify the selected item.
- The **Copy** button lets you create a new item by copying the selected item. The new item will be automatically highlighted in the list.
- The **Cancel** button closes this dialog without selecting the item highlighted in the list to run.

The Configuration Editor Dialog

This dialog is used while creating a new timer Configuration, or modifying or deleting a configuration. You can use the following dialog elements to perform these tasks:

- The **Name** text box at the top lets you enter a unique name for this configuration. A name is limited to 32 characters.
- Use the **Timers** drop-down list to specify how many timers you want to use in this configuration. You may have up to 16 timers. A configuration must have at least one timer.
- You can change this value even after a configuration has been created. If you lower the number, the timer(s) at the bottom of the list will be deleted. If you increase the number, additional timers will be added to the list with a default name of “Timer n” where “n” is a number; you can then change the name to the value you want for that timer.
- The **Clock** drop-down list determines whether a clock is displayed in this configuration, and if so in what default format (12-hour, 24-hour or UTC). You can always change the clock format later while running the configuration, this value determines how the clock is initially displayed.
- The **Timer Grid** shows the names and initial values of all of the timers in this configuration. To change any item in the grid, simply double-click the value you want to change, in either column. Names are edited

Timer Name	Initial Value
Tank Switch	01:00:00
Left Tank	02:00:00
Right Tank	02:00:00
Flight Total	
Leg	
Approach	00:01:00

directly in the grid and are limited to 32 characters, while initial values are editing using the Countdown Timer Initial Value Dialog.

- Click the **OK** button to save your changes to the configuration.
- Click the **Cancel** button to cancel your edits. If you are adding a new configuration, the configuration will not be added.
- Click the **Delete** button (if displayed) to delete this configuration entirely. **Note** that deleting a configuration is permanent, you cannot restore a deleted configuration. This button is shown only if modifying a configuration, not while adding a new one.

Running Your Timers

To run the timers in your configuration, you must

1. Select a timer configuration to run.
2. If the timers are still active (for example, from the last time you ran this particular configuration), on the **Tools** menu click the **Clear All** option to stop and reset all timers back to their default state.
3. Click on each timer you want to start, then click the **Start** button to begin the timer.
 - You can stop a timer at any time by clicking the timer to select it, then clicking the **Stop** button.
 - You can restart a timer you have stopped a timer at any time by clicking the timer to select it, then clicking the **Start** button.
 - You can reset a timer back to its default value at any time by clicking the timer to select it, then clicking the **Reset** button. Count-up timers are reset to “00:00:00”, while count-down timers are reset to the initial value saved in the

configuration. The Reset button works the same regardless of whether the timer is currently running or stopped.

4. If you need to override the starting value of a count-down timer, click on the timer to select it then click the **Set** button to set a new initial value. You can do this even after a timer has been started.
5. If a count-down timer reaches 00:00:00, it will begin to alarm based on the alarm options you have chosen. To acknowledge an alarm and turn it off, simply click on the timer that is alarming. The color of the alarm will continue to visibly indicate the alarm has fired, and the timer will begin counting up so you can tell how much time has elapsed since the alarm fired.

Choosing Program Options

You can set a variety of options in DSSTimer, such as the fonts used to display the timers or the sound file used for the timer alarms.

Options i

Clock Style: ▼ 24-Hour

Colors: ▼ Blue

Alarm Style: ▼ Blink

Duration: ▼ Indefinite

Sound: ▼ System 5 (Alarm)

Loop Sound

Activate App on Alarm

OK Cancel

To change your options

On the **Tools** menu, click **Font** to change the font, or **Preferences** to change other options.

Modify any of following items on the Options Dialog:

- **Clock Style** - You can set the default clock display style as
 - 12 Hour (includes AM/PM indicator),
 - 24 Hour (military time) or
 - UTC (GMT or “Zulu” time).

- **Timezone Minutes from UTC** - Shown only on early PalmOS versions. Tap the selector to choose your correct timezone, so that the proper adjustment can be applied to calculate the UTC time.
- **Colors** - Select any of the available color schemes:
 - Normal - white background
 - Blue - blue background
 - Night. **Note:** The Night color scheme is specially designed to use various shades of red to avoid hurting your night vision while flying, driving, etc. In order to change some of the Windows elements, it temporarily changes many of the System colors which will affect other applications you may be running. This color effect is removed any time DSSTimer is not the current active window, and restored when you activate the DSSTimer window. If you find this effect disconcerting, you may want to maximize the DSSTimer window to hide any other windows.
- **Alarm Type** - Select one of the following:
 - Blink - alarms blink on the display
 - Sound - alarms play a sound file
 - Both - alarms blink and play a sound file.
- **Alarm Duration** - Select “**Indefinite** “ to have the alarm continue until you acknowledge it, or select a specific number of seconds for the alarm to remain on. Any alarm will stop as soon as you acknowledge it, even if a finite duration is selected here; this value simply determines how long an alarm stays on if you do not acknowledge it.
- **Alarm Sound** - You can select any of the sounds in the list.
- **Loop Sound** - You can:
 - Check the box to loop the alarm sound (play it continuously), or
 - Uncheck it to play the sound file only one time. A looped alarm will stop after the Alarm Duration selected above has expired.
- **Activate App** - You can:
 - Check the box to cause the DSSTimer to be

- activated when an alarm occurs (so that it becomes the current displayed application), or
- Uncheck it to not change to DSSTimer when an alarm occurs.

Using DSSTimer in Aircraft

DSSTimer has unique features ideally suited for pilots, and is one component of a larger suite of aviation products from DeLoach.aero. Pilots flying aircraft have a number of critical timing tasks that must be performed throughout the flight, such as fuel tanks use, flight and leg times, instrument approach times, etc. One of the best features of DSSTimer for pilots is that it lets you combine a variety of different timers into a single display with a single user interface, i.e. it is not limited to timing only fuel, or only approaches.

On the Options dialog, note there is a “Night” color scheme to help retain your night vision. Everything is drawn in various shades of red when this color scheme is selected.

Here are some ideas about configuring timers for your flying:

- If an aircraft has two tanks but WITHOUT a “Both” fuel selector setting, consider adding one count-down timer for each tank that tracks total usage on the tank, plus an additional count-down timer set to the time you want to switch tanks. As you switch tanks, stop the tank timer you are leaving, start the tank timer you are switching to, and reset the tank switch timer so that it will alarm when the next tank switch should occur. Any tank timer that alarms has exhausted its duration for the entire tank, so fuel will be low in that tank and you are now using reserve fuel. Example: Suppose I have two tanks that I normally run for two hours each (4 hours total flight time plus reserve), and that I like to switch tanks every hour. I would create a “Left Tank” and “Right Tank” count-down timer that starts at 02:00:00 hours, plus a “Tank Switch”

timer that starts at 01:00:00. At the start of the flight I start the Tank Switch and Right Tank timers. One hour later, when the Tank Switch alarm fires, switch to the left fuel tank, stop the Right Tank timer, start up the Left Tank timer, and reset the Tank Switch timer. Continue this process at each tank switch.

- If your aircraft has a “Both” fuel setting, then setup a single “Fuel Timer” count-down timer with the initial value of the total time you can fly without using reserve fuel. When the alarm fires, you have used up the intended fuel amount and are now dipping into your reserve fuel.
- If you have a finite number of IFR approaches you do (for example at your home airport or an airport you regularly fly to), you can copy your basic timer configuration to multiple versions, each with the approach as part of the configuration name, and with a countdown timer with the correct initial value already set. As you pass the final approach fix inbound, start the timer; when it alarms you have exhausted the time allowed for the approach and should begin flying the missed approach procedure. Example: you might have configurations named “N7353E KADS LOC 15” and “N7353E KADS LOC 33”, which are identical except for the approach timer starting values.
- VFR pilots can have one count-up timer for “Total Flight Time”, plus one count-up timer for “Leg Time”.
- IFR pilots might want a “Hold Leg” count-down timer set at one minute. You can use this for multiple things: timing a 180 degree standard rate turn, using two iterations for timing a procedure turn outbound, timing a hold leg, etc. Or create an extra “Procedure Turn” two minute timer. You might even name them simply “One Minute” and “Two Minute” if you plan to use them for many different purposes. As needed, just click the Reset button to have the timer restart at its one or two minute setting.
- If you fly a variety of different aircraft, set up configurations for each aircraft so that you have the fuel

timers preselected to the correct value of the aircraft you are flying. You can add the model or tail number to the configuration name to help identify the correct configuration.

- Double click the Clock display to switch between 12- and 24- hour modes and UTC “Zulu” time, for ease of reporting. The GMT offset from local time is determined by the time zone you have configured your computer. Here are some sample timer configurations that use these tips:

2-Tank, VFR, Both Setting

Fuel - Down, 04:00:00

Flight Total - Up

Leg - Up

2-Tank, VFR, No Both Setting

Tank Switch - Down, 01:00:00

Left Tank - Down, 02:00:00

Right Tank - Down, 02:00:00

Flight Total - Up

Leg - Up

2-Tank, IFR, Both Setting

Fuel - Down, 04:00:00

Flight Total - Up

Leg - Up

Approach - Down, set to approach time

1 Minute - Down, 00:01:00

2 Minute - Down, 00:02:00

2-Tank, IFR, No Both Setting

Tank Switch - Down, 01:00:00

Left Tank - Down, 02:00:00

Right Tank - Down, 02:00:00

Flight Total - Up

Leg - Up

Approach - Down, set to approach time

1 Minute - Down, 00:01:00

2 Minute - Down, 00:02:00

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