

Energy Dimmer 2.4

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Introduction

Colour screens require a lot of energy, thus Palm devices with a colour screen usually won't run as long as devices with a monochrome screen. Therefore it is important to find ways to save energy to gain more time with one battery pack or one charge.

One important feature to save energy is the "Auto-Off" setting. A lot of users use only up to three minutes for this value. But especially Palm users attending meetings using their Palm as a mini-notebook know that there are several occasions where they are not entering anything for a period longer than 3 minutes. This usually means that they have to turn back on their Palm several times each meeting, which is counter-productive and might have other side-effects. For example the screen of the Visor Prism needs some time after being off for a while to get back to its full brightness.

Energy Dimmer tries to solve the dilemma between having to choose a small auto-off value and the wish to use a bigger one - without losing more battery power than necessary. It achieves this by implementing a "dimmer". That's a mechanism that can be found on other handhelds (IPAQ, HP Jornada, Sharp Zaurus) or notebooks. After some time of inactivity, the device will reduce the brightness of the screen, reducing energy consumption significantly.

Dimming the screen before shutting the device off and using a higher auto-off value has another advantage: you can undim your device by simply tapping anywhere on the screen or pressing any key on your keyboard. Thus you save the pressing of the power button and can continue to work in an instant. Plus, the screen won't need time to return to full brightness after having been switched off and cooled down.

But Energy Dimmer allows a much better customization of the dimming process as the aforementioned devices and offers some other nice features additionally:

- allows to define whether to dim
- allows to define after how many seconds of inactivity the screen should dim
- allows to define to what level the screen should dim
- allows to define individual auto-off times in the range of seconds

One set of these settings is called a profile and Energy Dimmer allows you to define as many profiles as you need. Therefore you can easily adjust (with only a few clicks) the settings depending on the time and place. For instance you would use a high auto-off value and a medium dimming time during meetings so the device won't power off all the time, and a completely different setting for reading e-books in bed at night.

System Requirements

Energy Dimmer requires:

- PalmOS 3.5 or newer
- A colour Palm device with an active display, more specifically it currently supports the Handspring Visor Prism, the Palm IIIc, m515¹, Tungsten T², Tungsten T2, Tungsten C and the Zire 71 as well as all current Sony PalmOS 4.x devices with colour screen, Sony Clie NX, NZ and TG50, Kyocera 7135 and colour Treo devices without phones!

The Palm m505 is not supported as it does not allow to change the brightness. The m130 is not supported either. Does not work on Treo with phone enabled! Other colour devices have not been tested. If you want to give it a try, please contact us beforehand.

Installation

- If you are using PalmOS 3.5 or 4.x, install dimmer.prc and a hack manager of your choice. We recommend X-Master from <http://www.linkssoft.com>. After it has been installed, you can enable Energy Dimmer by launching your hack manager and checking the "Energy Dimmer" checkbox.
- If you are using PalmOS 5, please install dimmer-os5.prc. You will find an icon for Energy Dimmer in the launcher where you can activate it.

If you update Energy Dimmer please make sure to disable the previously installed version, otherwise the update will not succeed.

General settings can be found in the configuration panel which you can open within Energy Dimmer / the hack manager. Selecting and defining profiles can only be done while Energy Dimmer is active.

The configuration panel

The configuration panel offers settings that apply to the general behaviour of all profiles or rather to some special circumstances. The only settings at the moment available allows you to define whether you want to use the dimming feature while the device is positioned in a (charging) cradle.



Figure: Configuration Panel

Saying 'no' might be useful if you are using your device as desktop clock on your desk. On the other hand, having it dimmed in the cradle, too, will charge the batteries faster. In any way, this setting has of course only effect on profiles that have dimming enabled.

- 1 Due to hardware limitations, it is only possible to use the default three brightness values: off, dim, bright.
- 2 On the Tungsten T, you might want to use Energy Dimmer's calibration mechanism, read more about it on one of the next pages.

Main dialog

To access the main dialog, Energy Dimmer has to be active. Open the main dialog by keeping your power button pressed for a couple of seconds or by tapping on the brightness icon in your graffiti area - just like you would normally do when trying to change the screen's brightness. Instead of the brightness adjust dialog as you know it, a new dialog will pop up.

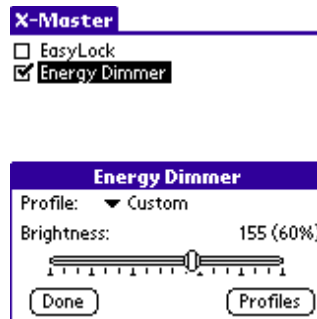


Figure: Dimmer's main dialog

In this dialog you can see at the top the list of available profiles. By opening the list you can easily select any of the previously defined profiles (read below for details on how to create and manage profiles). To just adjust the brightness, use the brightness slider in the lower part of the dialog (Palm m515 users will see three buttons "Off" "Low" and "High" instead of the slider). This will not affect the other settings (dim level, auto-off time, etc) but will just copy all these values plus the new brightness level to the "Custom" profile. By using the button labeled "Profiles" at the right, you open a new dialog which is described in the next section.

Managing profiles

As previously mentioned, you can define an almost unlimited number of profiles. Of course the maximum number depends on the free memory, but as each profile only eats a couple of bytes, you sure won't run out of space.

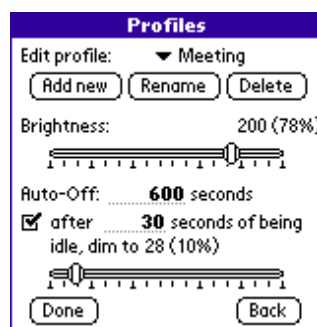


Figure: Dimmer's profile dialog

The profile dialog offers you at the top the list of already defined profiles in alphabetical order. Please note that there is always at least one profile called "Custom". This profile will always be displayed at the top of the list and can neither be renamed nor deleted. Its purpose is to allow on-the-fly changes of the brightness level without changing the values of a profile but while keeping the other profile settings. This means that changing the brightness in the main dialog (see above) will copy the complete profile setting to the "Custom" profile and change the brightness level of the custom profile.

Below the profile list you have three buttons to add, rename or delete a profile. The first two will ask for a (new) profile name and will create a new profile with that name and the default settings or will rename the currently selected profile. Deleting a profile will ask for a confirmation and if you confirm the profile will be gone forever.

In the middle part you can define the settings for this profile:

- **Brightness:** Adjust the level of brightness this profile should use for the screen. Setting a brightness of 0 will have the backlight turned off (if possible). Note that for fine-tuning you can also use the page-up and -down keys.
- **Auto-Off:** Set the auto-off time in seconds. For example, entering 300 means an auto-off time of 5 minutes. You can set any value you like, though values between 1 and 10 seconds will be rounded up to 10 seconds. A special value is the 0 which stands for "never auto-off".
- **Dimmer:** You can define whether the profile should use dimming at all or not. If yes, you also have the possibility to define the time of inactivity after which the screen should be dimmed and the dimming level. For obvious reasons you should choose a timeout that is smaller than the auto-off value.

Again, setting a value of 0 will turn off the backlight (if possible).

Calibrating the Palm Tungsten T

Based on having seen several Palm Tungsten T (T|T) devices, each of them has a different range of brightness. For example, on my T|T the left-most part of the slider (about 10 pixels) were not doing anything, e.g. the brightness is off and doesn't change here. On other devices, this 'dead zone' has often other sizes, sometimes there is no such dead area and if you would be able to move the slider further to the left you might get an even dimmer screen.

To correct this and to provide a fully functional brightness slider with exactly the right size, it is recommended to run a calibration on the T|T when using Energy Dimmer. To do so, please launch Energy Dimmer, tap on "Preferences" and on "Calibration" (this button is only available on Tungsten T devices). Move the slider to the exact position where the backlight is off completely and where a press of the up-button causes the light to go on (in bright light this is sometimes hard to see, please use a dimly lit or dark room for this). Again: please move the slider as far to the right as possible without the backlight turning on. On my device this is at level 79, other devices may vary.

You may also use the automatic calibration. In this case Energy Dimmer will change the brightness and will ask you whether the backlight is on or off. Please answer correctly, otherwise the calibration won't be perfect. It is recommended that you do this in a dimly lit or dark room where you can see for sure whether the backlight is on or off.

Known Problems

No incompatibilities to other applications are currently known.

If you discover problems, please contact dimmer@79bmedia.com with a bug report.

Frequently Asked Questions

- Q: I don't want to press my power button that long to access Energy Dimmer's settings. Is there some easier way to get there?
- A: Yes, there are several possibilities. First, you can go to the "Prefs" application, select "Buttons" in the top right corner and tap on the "Pen..." button in the bottom of the screen. Here you can define that an upstroke should popup the brightness adjust dialog or in your case Energy Dimmer's dialog. Second, you could also install some other hacks that allow you to define other penstrokes (like from the menu to the launcher button) to open Energy Dimmer's screen.
- Q: When using Hackmaster, enabling Energy Dimmer will crash the Palm right away.
- A: This is due to a(nother) bug in Hackmaster. You should update to X-Master which is fully compatible and up-to-date and does not suffer this bug.

Registration

Energy Dimmer is shareware with a trial period of 21 days. During these 21 days, you can use it without any limitation to see whether it does what you expect. After day 21, Energy Dimmer will refuse to work unless you register your copy.

For information on how to register, please refer to the register.html file that accompanies this documentation, or select "Register" from within Energy Dimmer's menu.

Contact

All support questions or inquiries can be directed to dimmer@79bmedia.com in either English or German language.