



RAM Disk for Palm version 1.0

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Introduction

What is RAM Disk? If you've used PC Desktop since the good ol' days, you would probably know what RAM Disk is. It partitions a storage block in main memory and treat it as a disk device. RAM Disk is a virtual disk that allows for temporary storage that's extremely fast. It is mainly due to the fact that there is no actual hardware I/O operation but merely memory transfer. People use RAM Disk to boost the application performance since the real hard disk is a lot slower. However, the drawback is that once the power is shut off, all the data stored in main memory is gone. Therefore, the data stored in RAM Disk is lost as well.

Using RAM Disk on Palm devices has a whole new meaning than on PC Desktops. Since the power on Palm is almost never shut off (unless the batter power is gone), you can enjoy the benefit of RAM Disk without its draw backs. **Palm RAM Disk** helps in the following ways:

File Duplication:	You can finally copy files from one memory card to another using just one Palm device. Treat Palm RAM Disk as intermediate media. Use file managers, such as Mcfile 2.0, to transfer files to RAM Disk, then to other memory cards.
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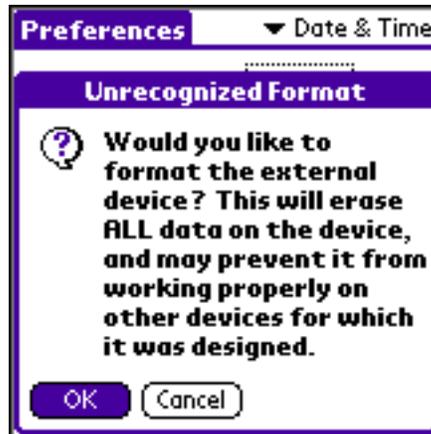
File Storage:	Ever forgetting to bring that important memory card with you? Store important document files on RAM Disk, and never have to worry about forgetting which memory card to bring with.
Memory Savvy:	Unlike RAM Disk on PC Desktop, Palm RAM Disk doesn't pre-allocate a chunk of memory. It only acquires memory when the amount of data it stores increases. Thus, it doesn't hold up the memory for other applications to use. When the data in Palm RAM Disk is not needed, or the memory occupied by it is to be needed, simply release the memory. Palm RAM Disk will free the memory it occupies. Not even a soft reset is needed to be done.
Easy Backup:	Simply use any file managers to copy the RAM Disk image file to memory card to back up the entire content of the disk.
Improved Speed:	RAM Disk is up to 4 times faster than real memory cards. If you find some application is slow on file operation, give RAM Disk a try.
Save Trouble:	Having more than one memory cards not only confuses you which cards have what contents, but would also make it very easy to loose them when on the run when switching cards. Use RAM Disk to minimize the number of memory cards you have to bring along. Admit it! You are more cautious on whereabouts of your Palm device than your memory cards.

Using **Palm RAM Disk** is just a good and convenient way to help you using your Palm devices.

Palm RAM Disk Installation

To install Palm RAM Disk, simply do the following steps:

1. Install both **RamDiskDrv.prc** and **RamDiskPnl.prc** to your Palm device using HotSync. When ask for a soft reset, select Reset button.
2. After soft reset, it would ask whether to format the external device. It is to initialize the content of the ram disk. Select OK button.



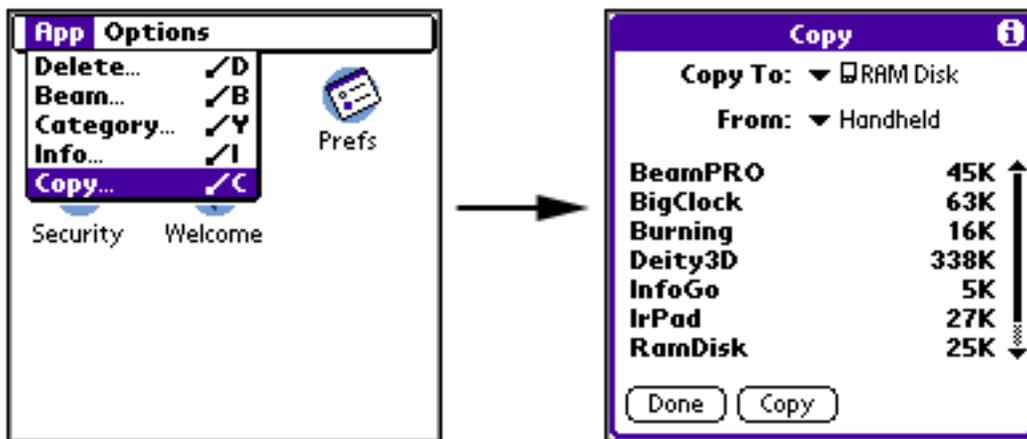
3. Soon after format is done, goto Launcher. There will be a new disk device under the category menu.



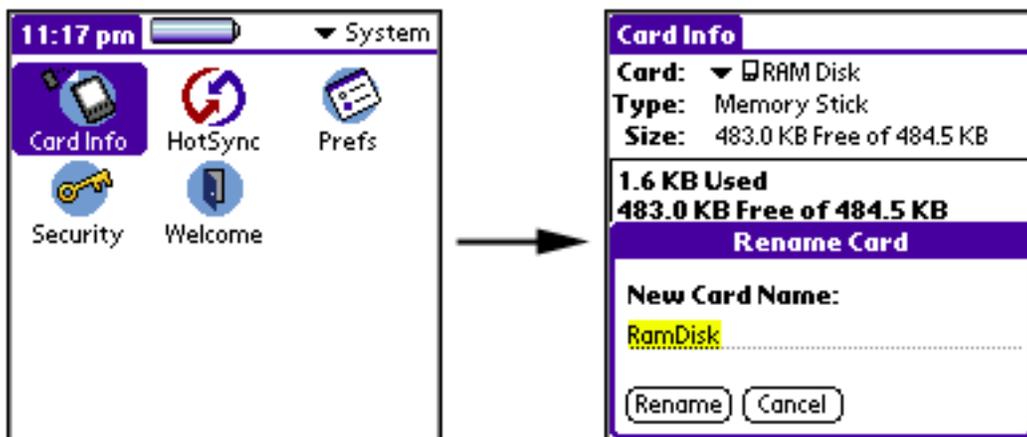
Using Palm RAM Disk

Palm RAM Disk can be used exactly like a real memory card. You can use Launcher to copy files to it, view its information using Card Info, launch applications from it, and, best of all, use 3rd party file manager to utilize it.

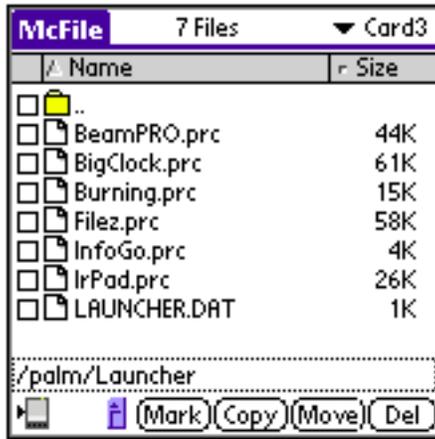
Use launcher to copy applications to Palm RAM Disk



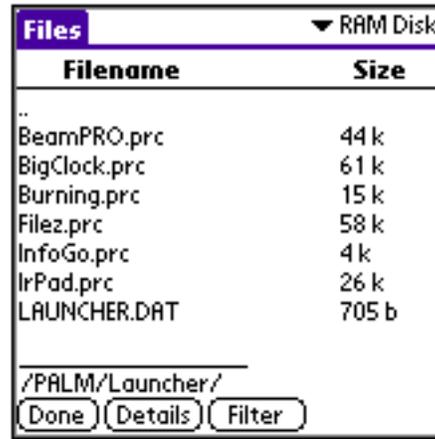
Use Card Info with Palm RAM Disk



Use 3rd party file managers with Palm RAM Disk



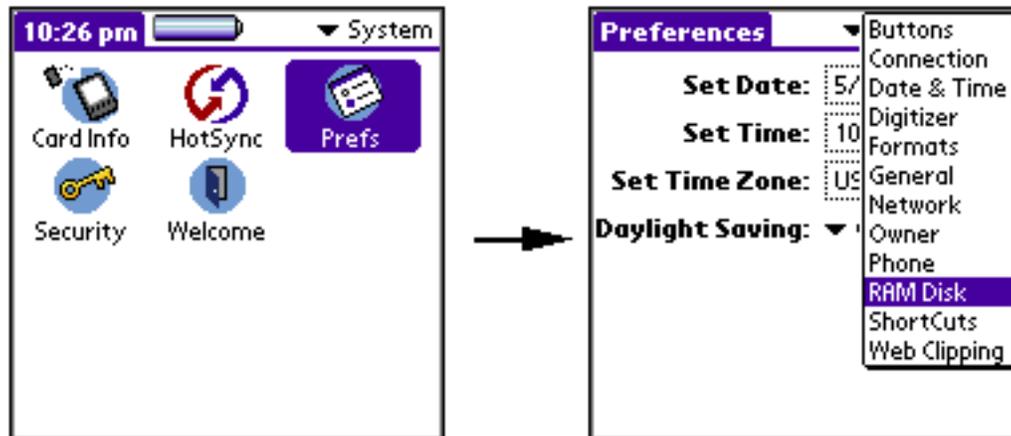
McFile 2.0



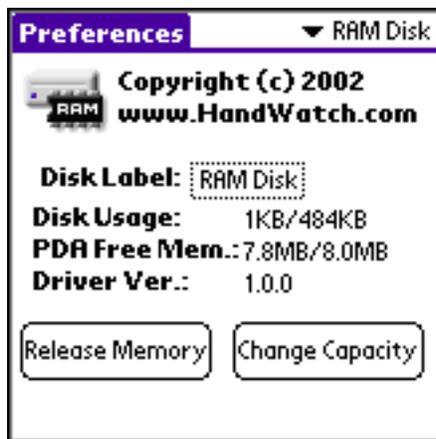
Filez

RAM Disk Prefs Panel

RAM Disk Prefs Panel is where you can customize ram disk properties. It can be found at PalmOS Prefs System Panel, under RAM Disk pull-down menu.



This would bring up RAM Disk Pref Panel. There are many options in the panel.



Buttons/Labels:	
Disk Label:	Show disk label. Tap on the name to change the name of the disk.
Disk Usage:	Shows current size/max capacity of RAM Disk
Free Memory:	Shows free memory size/total memory size of main memory
Driver Version:	Shows RAM Disk driver version.
*Release Memory:	Minimize the memory usage by erasing the content on ram disk.
*Change Capacity:	Change maximum RAM Disk capacity. The total data size stored on ram disk will not exceed the capacity even if there is more free memory.

***Note:** Perform this operation will erase the data in RAM Disk.

Menus:

Disk Menu:



*Release Memory:	Minimize the memory usage by erasing the content on ram disk.
*Change Capacity:	Change maximum RAM Disk capacity. The total data size stored on ram disk will not exceed the capacity even if there is more free memory.
Mount:	Mount RAM Disk.
Unmount:	Unmount RAM Disk. For uninstallation and upgrade purpose.
Mount Only RAM Disk:	Unmount all other memory cards and mounts only RAM Disk. This is for applications that are only

	single-card aware.
Soft Reset:	Performs a soft reset.

***Note:** Perform this operation will erase the data in RAM Disk.

Options Menu:



About RAM Disk:	Shows About Dialog Box.
Register:	Register Palm RAM Disk by entering Unlock Key.

Uninstall/Upgrade Palm RAM Disk

Because RAM Disk remains active at all time it's being used, its driver is being held busy. This makes the driver to be locked by the PalmOS system. To upgrade, or to uninstall, the driver, it has to be deactivate first. To deactivate the RAM Disk, do the following steps:

1. Goto RAM Disk Prefs Panel.
2. Select Menu->Unmount. RAM Disk prompts a dialog saying it is ready to be updated via HotSync.
3. To upgrade RAM Disk simply perform HotSync now.
4. To uninstall RAM Disk, goto Launcher and delete RAM Disk.

FAQ

The application I want to use isn't multiple-memory-card aware. How to make use of RAM Disk?

There are many applications that are not multiple-memory-cards aware. If an application isn't written specifically for certain kind of memory card, you can 'fake' RAM Disk is the only memory card available in the system. Simply do the following:

1. Goto RAM Disk Prefs Panel.

2. Select Menu->Mount Only RAM Disk.
3. To re-mount all memory cards available, simply perform a soft reset by select Menu->Soft Reset.

The application I am using is not running correctly when RAM Disk is active. Can I temporarily deactivate RAM Disk?

Applications that are not multiple-memory-cards aware may have problem handling more than one memory cards. To temporarily deactivate RAM Disk, simply unmount it. When RAM Disk is needed again, mount it to make it available.

When HotSync is performed, Palm Desktop tells me "The number of expansion slots is changed." What does this mean?

The log message is trying to remind you that the number of expansion slots is changed due to the RAM Disk installation. The message is brought up only after RAM Disk is installed for the first time.

Why some applications cannot access RAM Disk?

Many applications are only aware of single memory card. To make RAM Disk compatible, try to use "Mount only RAM Disk" menu option in RAM Disk Pref Panel.

However, if the application is designed to work with specific type of memory card, RAM Disk would NOT be compatible. Such the applications only work with specific expansion device characteristics. For example, MS Import on Sony CLIE devices cannot recognize RAM Disk as the application only recognizes Memory Stick and access the memory card hardware directly.

I am a Palm developer. How do I make use of RAM Disk?

RAM Disk provides a consistent way to access files. Developers can use VFS (Virtual File System) API to save/read files on both internal and external memory storage. Developers do not have to use Database Manager for data stored on internal memory, and VFS for external.

To learn more about programming for RAM Disk, please

see **PalmRamDisk Developer Addendum.pdf** documentation in the Palm RAM Disk download package.

Contact Information

For any suggestions and bug reports, please send the email to handwatch@handwatch.com

For latest version on **Palm RAM Disk**, please visit HandWatch web site at <http://www.handwatch.com>

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