



PDA Technology and Tools

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UNIVERSITY
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History

1984



1993



1996



1999



<http://members.surfeu.at/org2/psion1/>

1996 PDA Specifications

<i>Operating System</i>	<i>PDA</i>	<i>CPU Speed</i>	<i>RAM</i>	<i>Screen Size (Pixels)</i>	<i>Battery Life</i>
<i>WindowsCE</i>	Hewlett Packard HP 300LX,	44Mhz	2MB	640 x 240	20 hours
<i>Palm OS</i>	Palm Pilot 1000	16Mhz	128K	160 *160	6-8 Weeks

First Palm and WindowCE Machine specifications.

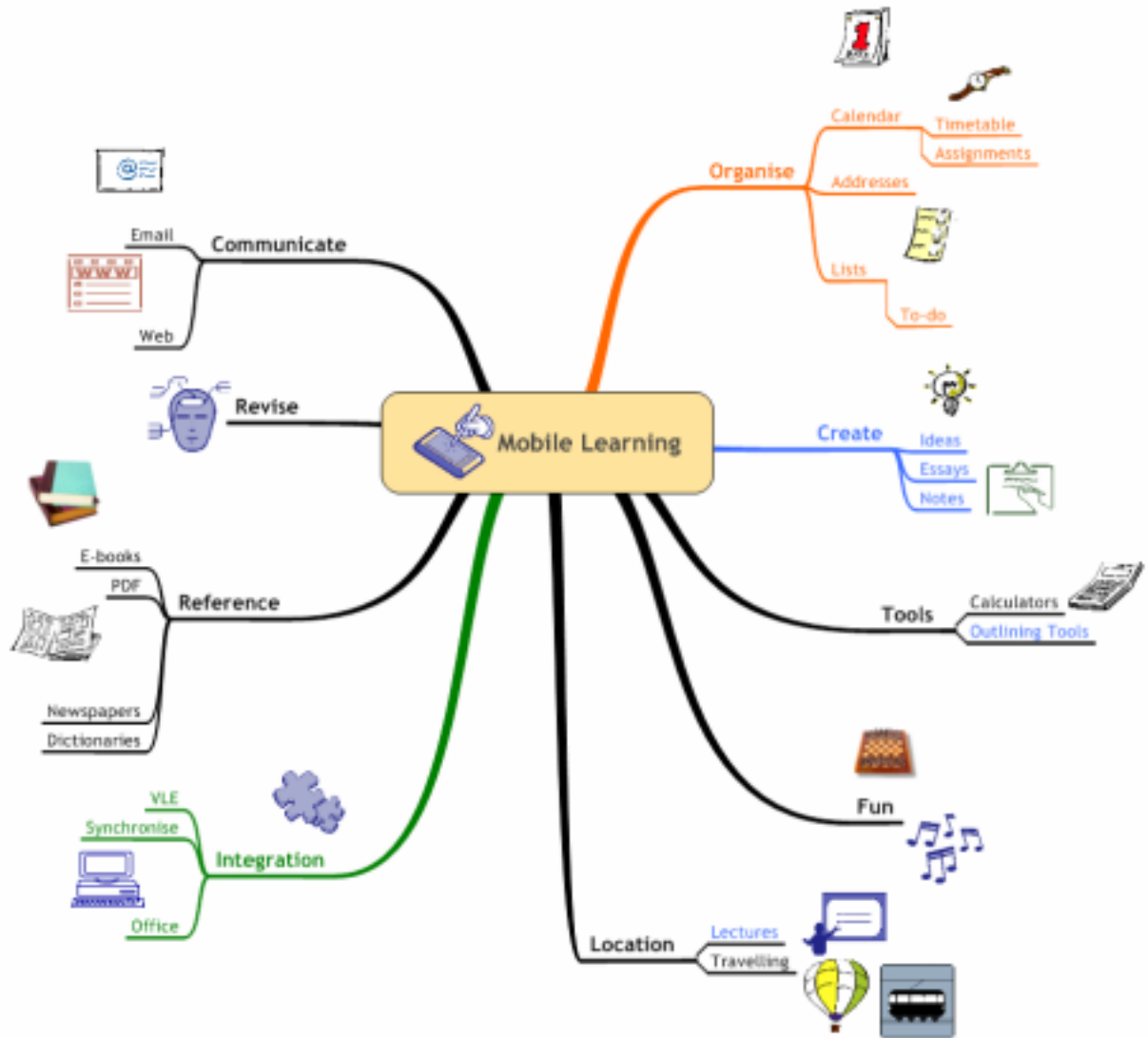
Combination Devices



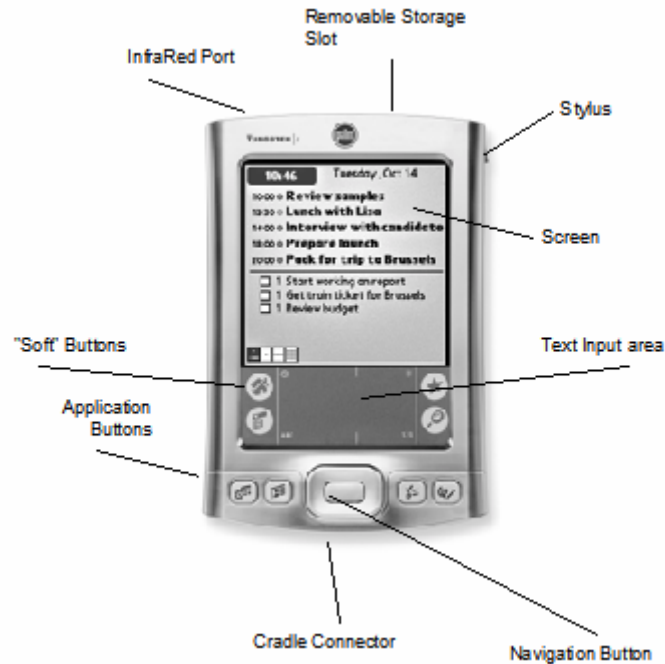
Software Choices

- There are more than 20,000 Applications available for the Palm
- There are over 375,000 developers
- The majority of applications are shareware (average cost \$5-\$20)
- There are also a number of high quality free applications

PDA Uses



PDA Anatomy

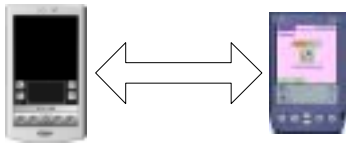


Buttons



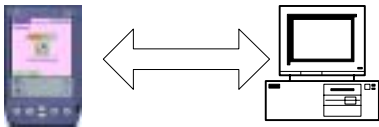
Beaming and File Transfer

Beaming of information and applications by Infra-red (or Bluetooth) is not limited to beaming between the same manufacture's PDAs. In many cases beaming may be a more flexible solution for exchanging files with a PC than HotSync.



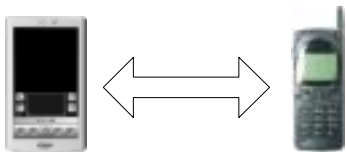
PDA-PDA

Exchange applications, data files, memos, appointments



PDA – PC,PC - PDA

Install Applications, text files, images, VCards

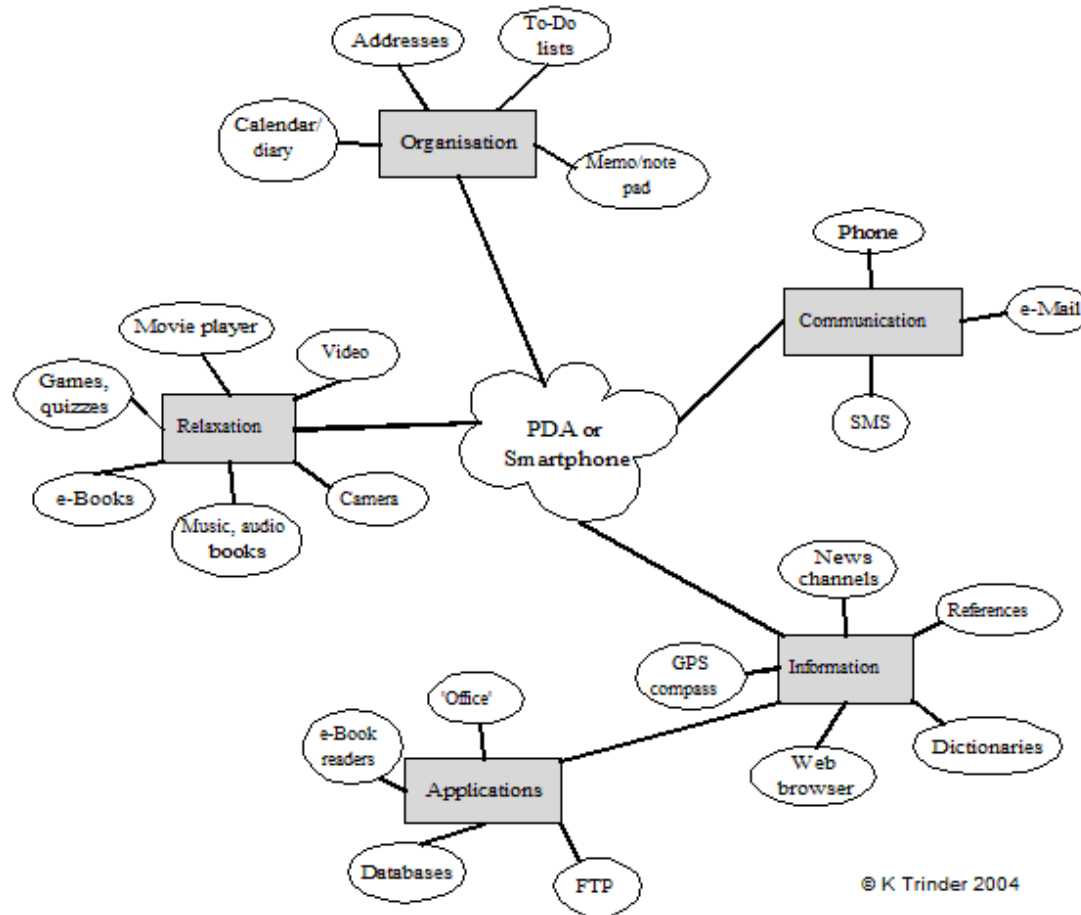


PDA – Phone, Phone - PDA

Exchange addresses, Calendar entries, VCards, images

SOFTWARE

Application Areas



Software Choices

- There is choice!
- Companies actually give support

Software – Sites

Download Websites

- <http://www.palmgear.com>
- <http://www.handango.com>
- <http://www.freewarepalm.com>
- <http://www.palmone.com>

News


- <http://www.brighthand.com>
- <http://www.pdanews24.com>
- <http://www.bargainpda.com/default.asp?newsID=2030>

Palm Software - Expert Guides - Mozilla Firefox

File Edit View Go Bookmarks Tools Help


http://www.palmsource.com/expertguides/ palm expert guides

Getting Started Latest Headlines




What's your Interest?

[For new users](#)
[Amateur Radio](#) **NEW**
[Astronomy](#)
[Aviation](#)
[Careware](#)
[Cigars & Liquor](#) **NEW**
[eBooks](#) **NEW**
[Emergency Preparedness](#)
[Food & Wine](#)
[Fun/Goofy](#)
[Games](#)
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[Genealogy](#)
[Geocaching](#) **NEW**
[Health and Wellness](#)
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[Japanese Content](#) **NEW**
[Knitting](#)
[Languages](#) **NEW**
[Life/Time Management](#)
[Movies/TV](#) **NEW**
[Music Creation](#)
[Parenting](#)
[Personal finance](#) **NEW**
[Pets and Animal Care](#) **NEW**
[Reading](#) **NEW**
[Regional Software](#) **NEW**
[Religion: Christianity](#)
[Religion: Judaism](#)
[Religion: LDS](#)
[Scouting](#) **NEW**
[Scuba Diving](#) **NEW**
[Themes and Eye Candy](#) **NEW**
[Travel](#) **NEW**
[Writing](#)



What's your Profession?

[Anesthesiology](#) **NEW**
[Author](#)
[Dentistry](#)
[Education: Students](#)
[Education: Teachers](#)
[Engineering](#)
[Legal](#)
[Medical Student](#) **NEW**
[Medicine](#)
[Pilot](#) **NEW**
[Psychology](#)
[Real Estate](#)
[Sales](#)
[Technical Writing](#) **NEW**



What's your Task?

[Browsers](#)
[Budgeting](#)
[Calendar](#)
[Credit Card Processing](#)
[Databases](#)
[Dictionary/Thesaurus](#)
[Emulators](#)
[Instant Messaging](#)
[Mobile Email](#)
[Project Management](#) **NEW**
[SMS/MMS](#)
[Time Tracking](#)
[Weblogging](#) **NEW**
[Word Processors](#)

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Institutional Considerations

- Office Applications
- You dont all Need to use the Same Platform
- Cameras

Interoperability with “Office” applications

- Many PDAs are supplied with an application such as *Documents-To-Go Standard Edition* to support the editing of Word and Excel files on the PDA
- Most Palm OS machines are supplied with software to enable basic syncing with *Outlook*
- More advanced syncing requires additional software such as Chapura’s *Pocket Mirror* (www.chapura.com), or Pumatech’s *Intellisync* (www.pumatech.com).

Practical Stuff

Using

Deploying

Supporting

Preparation

- **General**
 - Security Mark
 - Set up accounts for HotSync
 - Batteries/Charging
 - First HotSync
- **Configure the PDA**
- **Paperwork**
 - Data protection
 - Loan forms
 - Insurance
- **Training/Support**

Palm Files

Files stored on a Palm are either .PRC, .PDB or .PQA files:

- PDB files are data storage
- PRC files are programs or resources
- PQA files are Palm Query Applications (mini web pages)

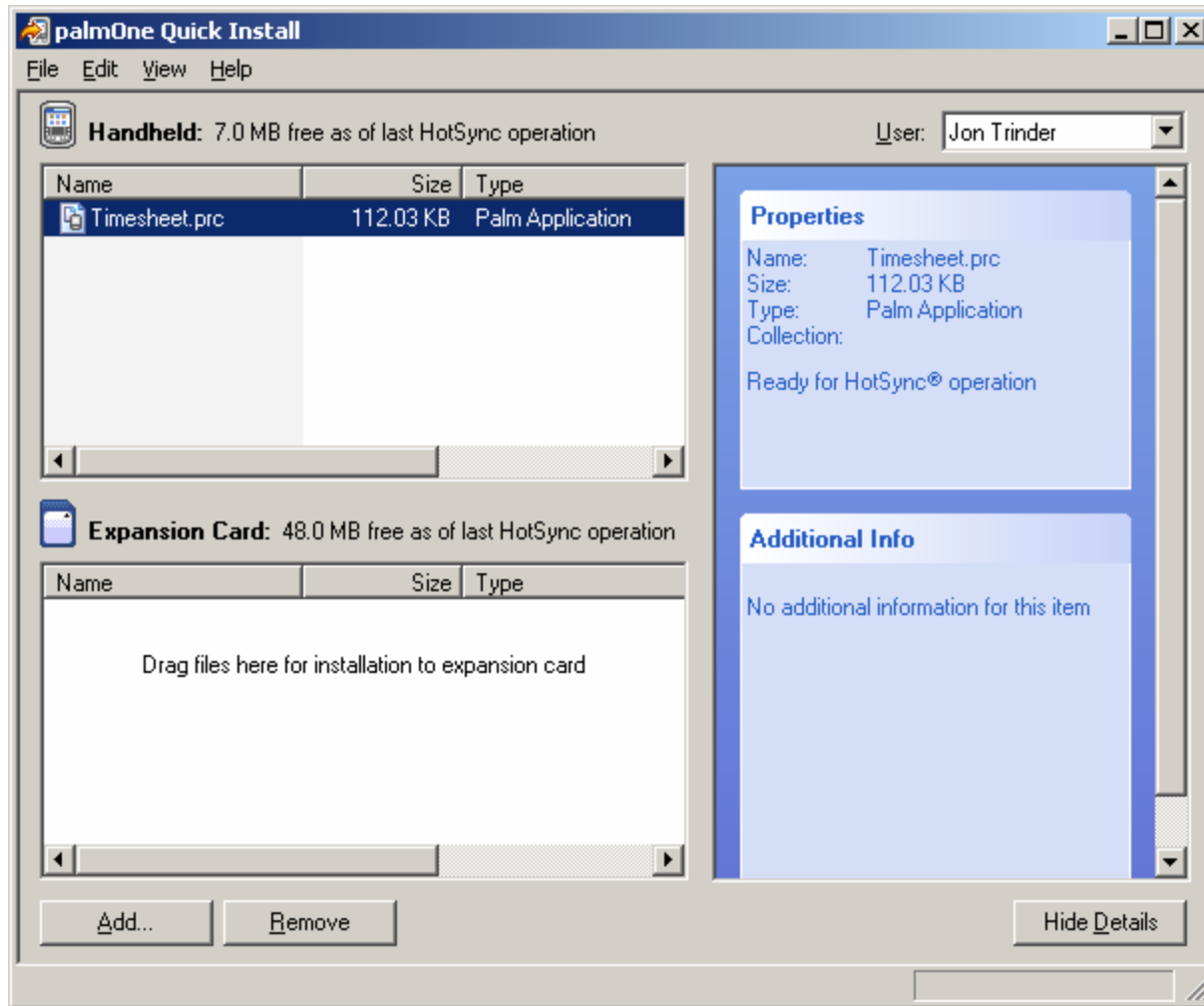
A Palm application is uniquely identified internally by a 4 character “creator code”. (A database of creator codes is hosted by Palm Source but can only be viewed by registered developers.)

Simulator – How To Use

- Drag and drop applications and PDB files to install
- Can do anything a real PDA can do, apart from some hardware specific functions e.g. beaming/bluetooth
- Can hotsync to local or remote PC
- Use on a Laptop with a data projector for training sessions
- Test and evaluate applications
- Take screenshots for training materials



Installing Applications/Data files

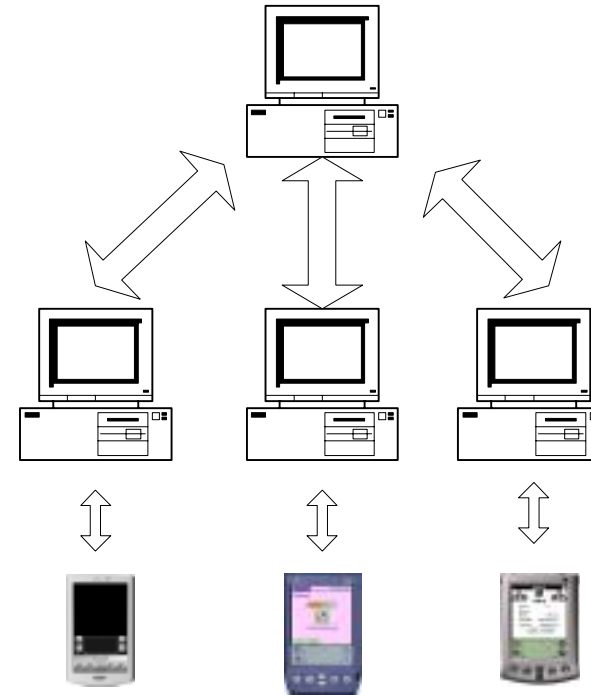


DEMO

Network Sync

The Palm hotsync program can be used over a network.

- Server can be located somewhere secure.
- Client machines anywhere on Network
- Does not support concurrent syncing

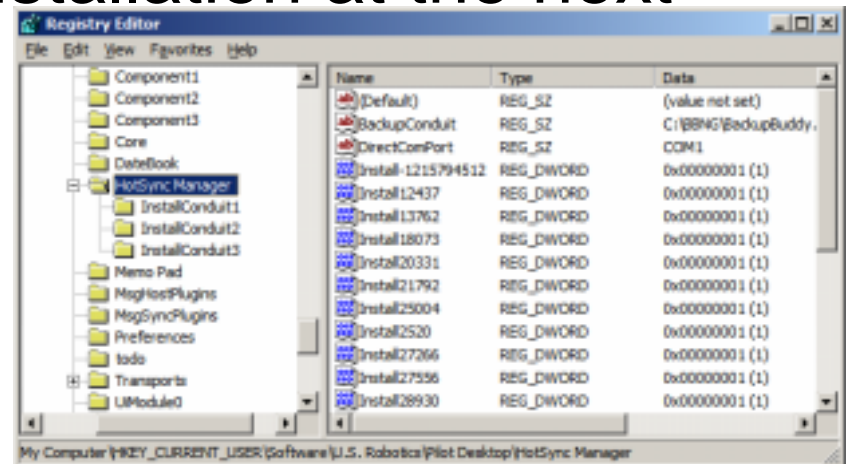


This will support a small number of users but for concurrent syncing third part applications are required... the solutions are expensive.

Installing to multiple users

Prior to actual installation, files destined for the PDA are stored in the users HotSync install directory.

Putting files directly into this directory is not enough to enable their installation at the next hotsync. An entry in the registry is also required.

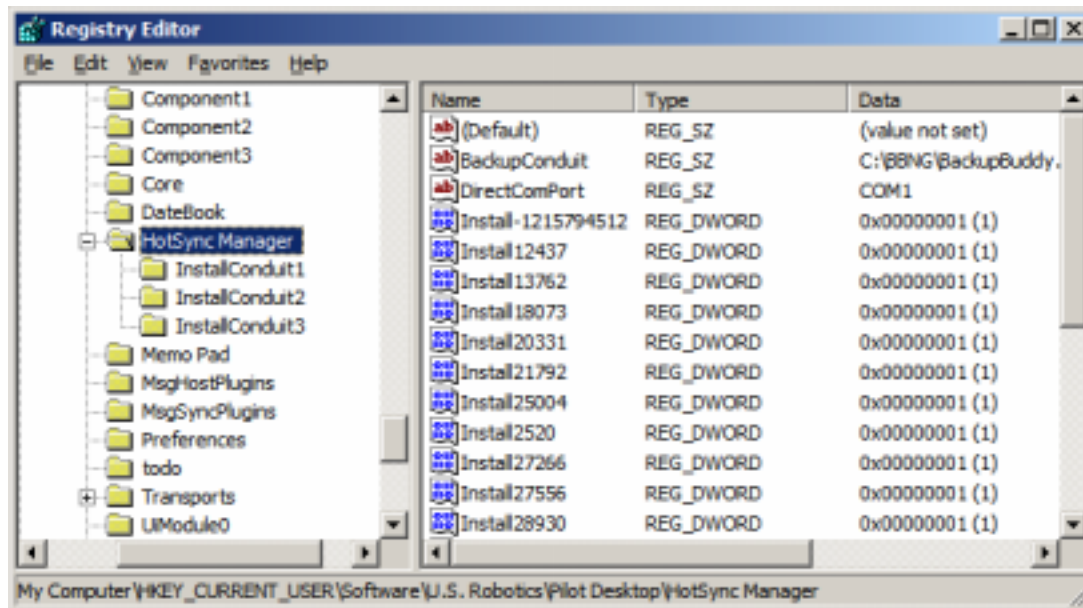


Installing to multiple users

The usual path to a users install directory is `c:\Palm\username\install`

`HKEY_CURRENT_USER\Software\U.S. Robotics\Pilot Desktop\HotSync Manager\Install14137`

“Install14137” is dependent on the users hotsync ID, NOT their HotSync name!



Support issues

Things you Need to Know

Security App on Zire 72 is broken

alm PIM update <http://www.palmone.com/europe/en/support/downloads.html>

alm Desktop CD contains extra conduits that web site doesn't!

ow to Use Shortcuts www.palmpower.com/issuesprint/issue199801/shortgraffiti.html

Resets

Type	How	Affect
Soft	Press reset button	Clears dynamic RAM Storage RAM unaffected.(You keep your applications and data!)
Hard	Press reset button while holding Power button	Erase all memory. System will display confirmation message before performing the clear.
No-Notification	Press reset button while holding the scroll up button.	Applications are not informed of the system reset. May be useful to enable faulty applications to be uninstalled if something is preventing the machine from starting

Special Shortcuts

- ⌘.3 Shut off auto-off feature
- ⌘.4 Display user name and hotsync ID code
- ⌘.5 Erase user HotSync name and ID.
HotSync treats the device as new and you will be given a choice of which user to sync with.
(Causes duplicate records)

Note!! To enter a full stop in Graffiti 1 (Pre PalmOS 5 machines) requires two taps eg to disable auto shutoff is “shortcut code then tap tap 3” but on PalmOS 5 machines is “shortcut code tap 3”

Apps You Need

Crash and ResetEmu

http://www.79bmedia.com/resetemu/d_index.html

Backup Tools

Backup Buddy www.bluenomad.com

BackupMan <http://www.bitsnbolts.com/backupman.html>

Programmers Tools

Filez <http://nosleepsoftware.sourceforge.net/#filez>

Palmasaurus <http://hazelware.luggle.com/palmasaurus/>

Batteries and Charging



Resources

Mailing Lists, Forums

www.jiscmail.ac.uk/pda-edu

www.handheldlearning.co.uk

<http://elisu.gcal.ac.uk/mobile.htm>

www3.telus.net/~kdeanna/mlearning

Reports

Reports

Personal Assistants (PDAs) in Further and Higher Education, Ted Smith (2003)

<http://www.ts-consulting.co.uk/DownloadDocuments/PDAsinFurther&HigherEducation.doc>

Handheld Computers in Schools BECTA report

http://www.becta.org.uk/page_documents/research/handhelds.pdf

Mobile and PDA technologies and their future use in education (Paul Anderson and Adam Blackwood)

http://www.jisc.ac.uk/index.cfm?name=techwatch_ic_reports2004_published (TSW0403)

References

Sharples, M. Disruptive Devices: Personal Technologies and Education [WWW document].

Waycott, J., Scanlon, E. and Jones, A. (2002) In *MLearn 2002* (Eds, Anastopolou, S., Sharples, M. and Vavoula, G.) The University of Birmingham, Birmingham, pp. 34-35.

Books

Handhelds For Doctors, Mohammad Al-Ubaydli, John Wiley & Sons, ISBN 0470858990

Information Appliances and Beyond, Eric Bergman, Morgan Kaufmann ISBN: 1558606009

Pervasive Computing, Jochen Burkhardt, Addison Wesley (2002) ISBN: 0201722151

Zen of Palm <http://www.palmos.com/dev/support/docs/zenofpalm.pdf>

The Invisible Computer, Donald Norman, MIT Press (2002) 0 262 64041-4

The Palm Business Book, Larry Becker (<http://www.thepalmbusinessbook.com/>)

Lose the Laptop, Larry Becker (<http://www.losethelaptop.com/>)

Choosing a PDA

Choosing a PDA

Approach the task with an open mind and forget the normal PC wisdom of more being better – here less is often more!

Choosing a PDA

- Pick one up and try to use it, see how easy it is to perform specific tasks.
- Don't go for a machine just because it has more "features" than another one unless you not only need, but will actually remember how, to use these features.
- Is it quick and easy to access a particular feature? (e.g. try adding an appointment to the diary). How many menus do you have to navigate?
- Do you have to wait for the machine to do a task? (The dreaded hour glass symbol popping up.)

Final Thoughts...

“Manifestly it is better to use simple tools expertly than to possess a bewildering assortment of complicated gadgets and either neglect or use them incompetently”

LTC Rolt, 1947