

Presentation: Technology & Learning's Tech Forum Gizmos and Gadgets: The Next New Things

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For more up to date information go to my website Palm For Educators

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Conference Paper

Introduction

I used to be chained to a large format Daytimer appointment book. I lugged it to and from the office, to meetings, and even on vacations. I used an endless supply of Post-It notes, which stacked up on the Daytimer pages like flyers on a telephone pole. My life was awash in paper and illegible handwriting. Then in 1998, I bought myself a Christmas gift – my first Palm PDA. Life got simple.

The Palm Operating System PDA (which from now on I'll call the Palm) is functionally elegant and reliable. Unlike my other computers which are packed with redundancy and prone to crash, the Palm works flawlessly and gets right to the point. It may be the Swiss Army Knife of the millennium. With its built in programs and numerous add-ons, I can keep my life in order, browse selected websites I download every morning, edit spreadsheets and even take photographs. All this functionality fits in my suit coat pocket.

As a school district administrator, I have found it essential for keeping my hectic schedule, documenting numerous meetings, and tracking multiple projects. This paper will outline some of the strategies I use for using the Palm to its full potential. It also will highlight some of the new uses of the Palm in education and provide links to additional software. My conference sessions will provide Palm OS training using my projected Palm emulator. I invite readers to periodically check my website, "Palm Training for Professionals" to learn tips, view training clips and find links to the best new software.
www.peterpappas.com

The Basics

I'm currently on my fourth Palm - the HandEra 330. It comes with the newest Palm operating system and plenty for all the extras. I've learned to write using the Palm Graffiti script, which is much faster than the pop up "typewriter" screen. I use all the built in programs to maintain appointments, address book, To Do, memos, email, and expense account. I make extensive use of the "Note" feature, which allows me to attach extra information to appointments, addresses and To Do. For example, I can take notes in a meeting and attach them to the appointment in my calendar. It serves a permanent record of what took place. That sure beats Post-Its in a Daytimer.

Palm also comes with a great “Find” feature. I can search for a word and the feature will look throughout the Palm for any matches – appointments, memos, To Do, etc. To take full advantage of the “Find” feature, I’ve learned to enter information into the Palm in a consistent manner. I always use the same term to refer to people, organizations and meetings that I frequently deal with. With the “Find” feature, the Palm becomes a portable filing system. If a question comes up about what happened in a meeting a month ago, I can use the “Find” function to quickly access my notes for the meeting

I synchronize the Palm with my computer at home and in the office. That means that I am always updated two computers and my Palm with the latest information. All my information is always backed up in three locations -much better than misplacing my old Daytimer. It also serves as a way to transport information between home and the office. My office computer is networked with my secretary, so her updates to my schedules are added to my Palm each time I sync.

The Palm is a great collaborative tool for our administrative group. I’ve run a number of training workshops and most of us use the Palm regularly. For example, if one of us takes notes on the Palm at a meeting we can beam the notes to all the other Palms in the room at the conclusion. We can all leave with a common report on the proceedings.

Useful Add-ons

I make extensive use of a few add-on software packages. (See my website for more detailed information and links).

“DocumentsToGo” allows me to bring Word documents and Excel spreadsheets into my Palm. I can open them up in the Palm for viewing and even edit them in the Palm. If I change the documents in either the Palm or my computer the next sync will update each with the changes. “DocumentsToGo” makes the Palm into an extension of my computer and allows me to use it as a small workstation.

AvantGo: I haven’t stepped up to wireless Palm yet, but I do find that the Palm can give me on-line capabilities when I sync with my computer. It gathers my emails from my computer each time I sync, later I can then open the email in the Palm. I can read, delete or even respond on the Palm. The next time I sync, my response will be emailed out. I use a free web-based service called AvantGo. I go online to Avantgo and subscribe to many websites listed on their service menu. Each time I sync my Palm; “palm-versions” of these sites are downloaded to my Palm. Later, I can “browse” the sites on my Palm. AvantGo provides an extensive list of sites and even allows me to customize the service to include any site on the web. That means that I can use my Palm to read the New York Times, or our school district’s web news page.

PeanutPress: I also use my Palm as an eBook reader. There are many Palm versions of books and journals being published online. I can go to PeanutPress.com and download the latest fiction and non-fiction for the Palm. The text is very legible and the offerings are diverse. Student text material could be delivered via Palm.

Kodak PalmPix: This small digital camera attaches to the base of the Palm. It lacks enough features to be considered a serious camera, but its great for documenting events

around the district. I can quickly snap a digital photo of a student activity. The next time I sync, the image is transferred to my computer. Then I can send a quick congratulatory email to the teacher and attach the photo.

SchoolScheduler: I'm working with a software developer who has designed a very useful Palm program that readily imports school data into the Palm. A quick search can bring up time/date-sensitive schedule and contact info on the Palm screen. For example, if I need an emergency contact number for a child I can find it in my Palm. If I find a stray student in the hallway, I can enter their name in the Palm and quickly find out which class they should be attending. It even knows what block rotation the high school is on that day. If I'm looking for a teacher, I can input their name and the time-sensitive program will quickly access their schedules.

How others are using the Palm in education

The Palm website (www.palm.com) includes a section called "Education @ Palm" which detail how the Palm is being used in a variety of contexts. Here is one excerpt:

The Northstar Middle School of Eau Claire, Wisconsin, sought advanced technologies to help students become better organized and better learners. The school issued Palm IIIe handhelds to select students. Using Palm's IIIe handheld, Northstar students communicate with each other, download assignments, track their studies and deploy learning applications. As a result of the Palm solution, students are organized and more effective learners. The school community is so impressed that both students and faculty now want to use Palms for classroom instruction.

In 1995, the Northstar Middle School of Eau Claire, Wisconsin, a community of 55,000, was founded with a simple mission - provide its 700 students in grades 6-8 with cutting-edge education. To achieve this goal, the school relies heavily on advanced communication technologies. These technologies include 120 networked Macintosh and Windows-based computers in four computer labs, as well as desktops in each classroom. Every student and teacher has an email account and students often submit their work to teachers via the World Wide Web. They also organize and store their work in electronic assignment folders that are accessible from any computer in the school. To guard against viruses and uploads of inappropriate content onto the school's servers, the school forbids the use of floppy disks by students, giving teachers and administrative greater control over the materials stored on the network.

In addition, teachers post classroom assignments on the school's Web site to facilitate communications not only with students but also with parents. The school also loans computers and modems to student households to encourage parents to access educational information on the site and support their children's education. Striving to do still more to enhance the quality of education, Northstar administrators wanted a solution to

strengthen students' ability to organize their work and to communicate with teachers and collaborate with each other. To augment its computer communication technologies, the Northstar Middle School offered the Palm IIIe handheld to students to help them better organize their work and track school assignments.

"After reading an article in Education Week on how handheld computers can enhance classroom learning," said Tom Fiedler, principal of the Northstar Middle School, "we decided to find out for ourselves and turned to the Palm IIIe -- a small and affordable handheld computer with capabilities that are ideal for students."

Each Palm features a suite of productivity tools, such as an address book, to do list, memo pad and calculator, all of which are useful for classroom education. They offer wireless, infrared communications with other Palms as well as with infrared-enabled computers, enabling users to wirelessly download or exchange files quickly and simply by merely "beaming" the data between systems. The devices also work with both Macintosh and Windows systems, a consideration for multi-vendor environments like the Northstar Middle School.

"The Palm's small form-factor, weighing in at only 6 ounces, makes it ideal for students who already are carrying books and other materials," said Fiedler. The school originally issued the devices to groups of five eighth-grade students for several nine-week periods. To ensure a cross-section of the student population, it selected average students as well as those who were technologically literate.

During each nine-week period, students were free to keep the Palms and take them home. They were told use them as needed to support their classroom work. Following the decision to deploy the new Palm solution, Students began using their Palm™ IIIe almost immediately. "The Palm is so simple to use," said Tom Fiedler, principal of the Northstar Middle School. "After a brief introduction to the devices, students were using them routinely."

Students used their Palms to augment their electronic assignment folders, storing and organizing their work and notes on them. Rather than access key data from their folders only when at a school computer, they retrieved assignments anywhere and anytime from their Palms, ensuring their studies were done in a thorough and timely fashion. Students also used the infrared communications ports on their Palms to easily "beam" classroom notes and assignments between their devices. "Palms offer an excellent means for students to exchange information without resorting to floppy disks," said Fielder.

Students relied on many of the applications that come standard with Palm Connected Organizers. They used the devices' calculator program for classroom work, for example, as well as the To Do List to track their work

and assignments. They even downloaded from the Web applications for Palm organizers that offer even greater educational capabilities, such as graphic calculators for math classes and drawing programs.

"Another approach we're interested in pursuing is equipping science classes with Palms, enabling students to use them with probes to collect data for science investigations," said Fiedler. "The educational applications are endless."

At the end of the school year, we polled the students who deployed the Palms to assess how the devices impacted their education," said Tom Fiedler, principal of the Northstar Middle School. "They found their Palms to be a very useful learning resource. The Palms facilitated communications and organization, which are so essential to good education."

With their Palm™ handhelds, students organized and tracked their work more effectively than with bulky notebooks, according to Fiedler. Palm's infrared communications allowed them to "beam" notes and assignments quickly, enabling them to retrieve and exchange vital information. They found the devices easy to carry and deploy. "They appreciated keeping vital information at their fingertips and how the Palm helps them with their studies," added Fiedler.

Students look forward to when Palm systems are routinely deployed across the school. Using Palm's HotSync technology, students will easily access daily assignments and data from teachers' desktops. They will download their e-mail messages to their Palms, write their responses and send them when they synchronize with desktops using HotSync. "With a wealth of educational software applications available for the Palm, I'm sure we'll learn to use the devices even more effectively."

"Many students were sad to give up their Palms and are planning on getting their own," Fiedler continued. "In fact, three eighth-grade teachers purchased their own devices. With their diverse academic applications, handheld Palms are undoubtedly a vital learning tool from which educators and students can greatly benefit." The bottom-line is Palm handhelds allowed our students to keep vital information always at their fingertips, enabling them to become better learners."

For a complete and updated list of educator's resources visit my website: "Palm For Educators" at: www.peterpappas.com

Palm OS Software for Educators:

HICE (Highly Interactive Computers in Education at the University of Michigan) a collection of palm applications for the classroom along with instructions and curriculum <http://www.handheld.hice-dev.org/>

Office Suites | word processing | eBooks | document readers

CSpotRun - freeware Palm doc reader. Use this to read docs downloaded from Memoware.com
<http://www.palmgear.com> | <http://www.handango.com>

Documents to Go - put Word, WordPerfect, Excel, etc., files in a Palm <http://www.dataviz.com>

Memoware - free public domain ebooks, texts & databases. Classic literature, non-fiction, reference data, links, etc. Read Plato, Shakespeare, Twain, or the US Constitution on a Palm. <http://www.memoware.com>

QuickOffice - work with Microsoft Excel and Word documents on your Palm powered Handheld! Quickoffice brings together the industry leading Quicksheet, Quickword and Quickchart apps <http://www.cesinc.com/>

SmartDoc v2.0 top-rated Palm doc reader/editor <http://pda.tucows.com/palm/docreader.html>

TealDoc is a full-featured reader for standard Palm OS document files and enhanced TealDoc files. <http://www.tealpoint.com/softdoc.htm>

WordComplete - anticipates what you write. It speeds up text entry by showing you a pop-up list of word choices once you enter just a few letters. <http://www.cic.com/products/general/>

WordSmith - Word processing has arrived for the Palm! Full MS Word compatibility, font support, and more <http://www.bluenomad.com/>

Media

Artelope - Shape recognizing freehand Palm drawing app <http://www.artelope.com/>

AvantGo - free account & software to put webpages in a Palm. Choose from over 300 website "channels", such as NY Times, WeatherChannel, USA Today, Sky & Telescope, MapBlast, etc
<https://ami.avantgo.com/channels/index.html>

IRChat - freeware interactive whiteboard for Palms
http://www.palmix.itil.com/newpalmix/products/irchat_home.htm

JPGView - View and organize JPG Files on your PDA <http://www.claus-fenske.de/jpgview/>

PalmPix camera by Kodak <http://www.kodak.com/US/en/digital/cameras/palmPix/>

Utilities

BugMe - personal reminders, through handwritten and photo messaging <http://www.bugme.net/>

BeamBox - beam files not seen by the resident Palm OS <http://www.inkverse.com/support/beambox/>

Jot - faster and more natural writing on the full Palm Screen <http://www.cic.com/products/jot/>

McPhling and other hacks by Mike McCollister. Hacks are add on programs that add functionality to your Palm MikeMcCollister.com/palm/

PalmPrint - print Palm docs via the IR port <http://www.stevenscreek.com/pilot/palmprint.shtml>
http://pda.tucows.com/palm/ir_util.html
<http://www.handango.com>

Spreadsheet | data collection and management

iGraph freeware graphing calculator - Justin Manus email to: jmanus@leland.stanford.edu
<http://www.handango.com>

ImagiProbe - handheld data collection software <http://imagiworks.com/>

JFile Pro - a top-rated Palm database program <http://www.land-j.com/jfile.html>

MathGraph graphing calculator <http://www.ahsoftware.de/mathgraph/>

Parens scientific calculator - by Rick Huebner http://pda.tucows.com/palm/calc_scientific.html
<http://www.handango.com/> | <http://www.palmgear.com/>

Quicksheet - a top-rated Palm spreadsheet program <http://www.cesinc.com/quicksheet/quicksheet.html>

Classroom and instructional management

Classroom Wizard - allows teachers to quickly, easily, effectively and simultaneously quiz, grade and report right in their classrooms. <http://www.classroomwizard.com/>

Due Yesterday - student planner for the Palm - Tom Bulatewicz <http://www.nosleep.net>

Learner Profiles & Learner-Profiles-to-Go: turns a teacher's PDA into a powerful management and assessment tool. <http://www.sunburst-store.com/cgi-bin/sunburst.storefront/EN/product/9644>

StudentMate - student planner for the Palm <http://www.jet-ware.com/studentmate.html>

TAPRO 2 - Teacher's Assistant Professional: Great Spirit Software, Inc. <http://greatspiritsoftware.com/>

ThoughtManager for Teachers - A powerful outliner tool and educational database that allows teachers to create and organize the hundreds of ideas, lessons, tasks, problems, solutions, and assessment data that good teaching requires. <http://www.palmcentral.com/3com/palm-education-product.shtml?sectionId=0&productId=14719&catalog=1>

Reference

CityZen - freeware world map, database, geography quiz <http://www.cs.man.ac.uk/~hancockd/CityZen/>

Mapopolis - maps for handhelds, library covers the entire U.S. includes every street and thousands of landmarks
<http://www.mapopolis.com/>

PalmGlobe - freeware earthview geography program <http://www2.hursley.ibm.com>

Planetarium - by A. Hofer <http://www.aho.ch/pilotplanets>- email to: planets@aho.ch

Pocket Star Chart - by Kevin Polk <http://www.muse-of-fire.com> -email to: kevin@muse-of-fire.com

Perio - freeware periodic table software <http://www.palmgear.com> | <http://www.handango.com>

Instructional games and activities

PalmGo & PilotGo - Two programs to play Go on a Palm. FYI, Go is a 4,000 year-old Asian board game. Go is to chess, as mathematics is to accounting. <http://www.palmgear.com>
<http://www.handango.com>

PocketChess <http://www.eskimo.com/~scottlu/> | <http://www.palmgear.com> | <http://www.handango.com>

Polyhedra - freeware rotate 3D geometry figures <http://www.palmgear.com> | <http://www.handango.com>

Palm OS Resource Sites for Educators:

Palm in Education - Palm's guide to Palm use in teaching and research.
<http://www.palm.com/education/palmED/>

The Palm Education Pioneer (PEP) Grant Program gives Palm™ handhelds to K-12 teachers and their students so that they can explore new ways to teach and learn.
<http://www.palm.com/education/programs/pepgrant/>

HICE (Highly Interactive Computers in Education at the University of Michigan) a collection of palm applications for the classroom along with instructions and curriculum <http://www.handheld.hice-dev.org/>

Palm News for Educators

Supporting Science Inquiry in K-12 Using Palm Computers: A Palm Manifesto PdaEd.com Feb 3 2002 <http://www.pdaed.com/features/palmmanifesto.xml>

Education in Hand: special supplement on Palm in the classroom District Administration Dec 2001
<http://www.districtadministration.com/SpecialReports/eihdec.asp>

The Classroom Of the Future Newsweek Oct 29, 2001

<http://www.msnbc.com/news/645566.asp>

Kids gauge air quality Students use Palms to measure pollution Detroit News October 22, 2001

<http://detnews.com/2001/schools/0110/22/c051-324181.htm>

Handheld Computing: New Best Tech Tool Or Just a Fad? Edweek Sept 26, 2001

<http://www.edweek.org/ew/newstory.cfm?slug=04palm.h21>

BYU develops online class for handheld computers: eSchool News Sept 27, 2001

<http://www.eschoolnews.org/news/showStory.cfm?ArticleID=2953>

Keeping Up in Class With Software for a Hand-Held: NY Times Aug 23, 2001

<http://www.nytimes.com/2001/08/23/technology/circuits/23BASI.html>

Squeezing the Office into a Palm: Palm beats Pocket PC: NY Times Aug 9, 2001

<http://www.nytimes.com/2001/08/09/technology/circuits/16STAT.html>

Devices are Ready-at-Hand Communications of the ACM: June 2001

<http://www.handheld.hice-dev.org/readyAtHand.htm>

A Powerful Learning Tool: In the Palm of Their Hands Edweek November 8, 2000

<http://www.edweek.org/ew/ewstory.cfm?slug=10techupdate.h20>

Handheld Design Awards for Education: CILT: Center for Innovative Learning Technologies

<http://kn.cilt.org/palm99/categories.html>