# Taking an online course?
# Take your PDA

*Pictures, sounds on handhelds are getting clearer.*

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Want to take an online audio CME course or view educational film clips while traveling? Don't forget your handheld.

Once limited to text-based information, today's more powerful personal digital assistants (PDAs) can also play audio and video files. Innovations in capture and conversion technology allow you to store media-rich online files on your PDA, letting you access multimedia Internet content while you are offline.

## FILE PORTABILITY

PEG-audio layer 3 (MP3) is a compression algorithm used to decrease an audio file's size, allowing numerous audio files to be stored onto an MP3 player.

Other formats-including WAV, Real Audio, and Ogg-Vorbis-can be used to compress files, but MP3 is the most popular and has become the standard.

Video files usually contain massive amounts of data-including synchronized audio-and are quite large. Files created via advanced systems format (ASF) typically are uncompressed general video files. Windows Media and Real Media are other common online video formats.

Several compression algorithms exist for online video, including MPEG-1, MPEG-2, and MPEG-4. Each compression type is geared towards a specific media delivery mechanism.

## PLAYING ONLINE AUDIO ON PDAS

**Pocket PC** devices come with Windows Media Player, which enables users to play MP3s. Alternate programs-such as RealOne Player, Pocket Mind, Pocket Player, and withMP3 (Table 1)-offer features such as an equalizer and can handle streaming audio and play audio books.

To store an MP3 file onto your PDA, simply download the file and store it in the "My Pocket PC" folder on your computer desktop. Storing the file this way, however, consumes much of the PDA's main memory. To preserve PDA memory:

- Store the file in the PDA's compact flash or secure digital card by enter your Pocket PC via the "Activesync" window, then store the file in the device's secure digital card

- Or use a separate USB memory card reader to transfer the file to the memory card, then place the card into the Pocket PC. This is the fastest option.

**Palm OS** devices can play MP3 files with RealOne Player, Aero Player, and Pocket Tunes. Audio files are easily installed using Palm Quick Install.

Drag a copy of the file into the expansion card, and it will be transferred at the next HotSync (synchronization of information from PDA to desktop). However, this process takes about 10 minutes depending on the file's size because the file must go

through the Palm memory. To save time, place the file on a separate USB memory card reader, then transfer the file directly.

## PLAYING VIDEO FILES

Older PDAs could not display video data quickly enough, making images appear jerky and blotchy. Today's Palm OS and Pocket PC PDAs have faster processors, more memory, and can display video at decent quality.

Pocket PC devices can play Windows Media Video and ASF video files with the Pocket PC version of Windows Media Player. Other third-party video players include Project Mayo, Pocket MVP, Pocket TV, and RealOne Player.

Because these video players are not compatible with older Palm OS devices, vendors have created converters that can convert video files for use with the vendors' proprietary video formats (Table 2). All video files must be converted via the desktop and then installed onto the PDA or memory card.

By contrast, newer Palm OS devices (such as OS 5) have enough processing power to display MPEG-4 files using software such as MMPlayer.

## PORTABILITY ISSUES

**Video.** Online grand rounds or other lectures are designed for viewing online. "Streaming" allows a Web site to distribute the video to many users at once. 1 Web casts typically are created in Real Media or Windows Media format, but the streaming is not stored on the computer hard drive for later use. More importantly, the link from the Web site does not contain the media when accessed, but actually is a command to the streaming server.

To capture the video stream, try WM Recorder or HiDownload.

**Audio** files cannot be heard on PDAs without headphones, making them difficult to listen to while driving. FM radio broadcast devices such as the iRock 400 or Belkin Tunecast solve this problem by transmitting a low-strength signal that can be picked up on a car radio.

## OTHER DEVICES

Aside from PDAs, other portable devices are made for viewing audio and video, and others are being invented.

Many MP3 players are smaller and more portable than PDAs. Video "jukeboxes" such as the Archos AV320 and TightSystems TAZ are also available.

Tiquit, OQO, and FlipStart plan later this year to release fully capable computers. They contain hard drives, central processing units and other necessities of full-sized computers, but are only the size of a PDA. These innovations could make the aforementioned devices and programs obsolete by year's end. (*For information on these developing technologies, watch for future installments of Psyber Psychiatry.*)

**Table 1**
**Audio player programs for PDA**

| Software | URL | Operating system compatibility |
|---|---|---|
| RealOne Player | http://www.real.com | Palm, Pocket PC |
| Pocket Mind | http://www.pocketmind.com | Pocket PC |
| Pocket Player | http://www.conduits.com/ce/player | Pocket PC |
| withMP3 | http://withmp3.citsoft.net | Pocket PC |
| Aero Player | http://www.aerodrome.us | Palm |
| | | |

| | | |
|---|---|---|
| Pocket Tunes | http://www.pocket-tunes.com | Palm |

## Video conversion programs for Palm OS devices

| Product | URL | |
|---|---|---|
| Firepad | www.firepad.com | |
| Kinoma | www.kinoma.com | |
| TealMovie | www.tealpoint.com | |

*If you have any questions about these products or comments about Psyber Psychiatry,* click here *to contact Dr. Luo or send an e-mail to* Current.Psychiatry@dowdenhealth.com*.*

# Related Resources

- NPI Webcasting. UCLA grand rounds, Department of Psychiatry and Behavioral Sciences. http://www.mentalhealth.ucla.edu/opce/gr.html

- Prelinger Archives. Movie archives of patients with schizophrenia. http://www.archive.org/movies/movieslisting-browse.php?collection=prelinger (Click on "schizophrenia" in subject index)

- Luo J. Psyber Psychiatry: A world of information in your pocket. CURRENT PSYCHIATRY April online edition. http://www.currentpsychiatry.com/psyber_psy.asp.

# Disclosure

Dr. Luo reports no financial relationship with any company whose products are mentioned in this article. The opinions expressed by Dr. Luo in this column are his own and do not necessarily reflect those of CURRENT PSYCHIATRY.

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