



Kinoma Player 2

Version 2.0.3

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Introduction

Kinoma Player 2 is a high performance digital media player for Palm handhelds. It supports playback of video, animation, and still images together with stereo digital audio. Kinoma Player 2 brings a new high resolution color API together with comprehensive support for widescreen devices, direct playback of Internet movies, stereo audio support, and much more.

Kinoma Player provides support for the full range of unique features provided by the many Palm handheld manufacturers.

For the sample content, answers to frequently asked questions, and the latest version of Kinoma Player please visit <http://www.kinoma.com>.

Devices Supported

Kinoma Player is designed to operate on all Palm handhelds running Palm OS version 3.5 or better. It has been successfully tested on Palm handhelds manufactured by Acer, HandEra, Handspring, IBM, Kyocera, Palm, Samsung, Sony, Tapwave, and TRG. For Palm handhelds with ARM processors running Palm OS 5 or better, Kinoma Player includes several native “ARMlets” to boost performance and extend battery life.

Internet Support

Kinoma Player 2 introduces support for the progressive download of video from the Internet directly to your Palm handheld. Kinoma movies can be downloaded to either internal memory or a removable storage device. While movies are being downloaded, the part of the movie that has been downloaded so far may be watched. Kinoma Player’s progressive download support provides optimum download speed on devices with a fast Internet connection and optimal quality on devices with slower Internet connections. Kinoma Player 2 is compatible with 802.11, Bluetooth, and cell-phone Internet connections on Palm OS 5 devices. The Internet download support has been verified to be compatible with devices from Handspring, Palm, Sony, and Tapwave.

Video Support

Kinoma Player supports the many different display modes of these devices. Video intended for viewing on a gray scale device can also be displayed on a color device. Video intended for viewing on a color device will be displayed in grayscale on devices that do not support color.

Kinoma Player provides support for playback of hi-resolution content on handhelds with hi-resolution displays. At the time of writing, these devices are available from Sony, Palm, Acer and HandEra. Content must be encoded specifically for hi-resolution playback to take advantage of this capability.

Kinoma Player takes advantage of extended screen space on most devices that feature widescreens with the ability to hide the Graffiti text input area.

Audio Support

Support for audio on Palm handhelds has been uneven. While nearly every device supports audio in some form, there are many different kinds of audio supported. The Kinoma Player supports many different kinds of audio for Palm handhelds including:

- Yamaha ADPCM audio on all Palm OS 5 devices, using an audio co-processor built into some Sony handhelds and available as a Springboard module for Handspring devices
- Uncompressed and ADPCM audio using the capabilities provided by the device's Dragonball processor. On Palm OS 5 devices, these audio formats are played back using the enhanced Sound Manager, when available.
- CLIE Audio on Sony handhelds which contain a specialized audio co-processor or peripheral

External Storage Support

Because digital media files can be quite large, Kinoma Player supports the playback of digital media from external storage including Compact Flash, Memory Stick, and SD & MMC Memory cards. For devices that support multiple external storage devices, Kinoma Player displays the content found on all external storage devices. Details on using external storage are provided below.

5-Way Navigation Support

Kinoma Player provides full support for the 5-way navigation control found on handhelds from Palm, Handspring, and others. This support enables single handed operation of the Kinoma Player. The details of how to use the 5-way navigation support are provided below.

Jog Dial Support

Kinoma Player provides full support for the jog dial control and back button found on Palm handhelds from Sony. This support enables single handed operation of the Kinoma Player. The details of how to use the jog dial control are provided below.

Application Support

Kinoma Player 2 is more than a media player. Kinoma Player provides the ability to deliver rich-media multimedia applications created using iShell Mobile by Tribeworks. To learn more about Kinoma interactive multimedia applications, visit the Kinoma web site.

Content Compatibility

Kinoma Player supports the playback of content stored in the Kinoma format. For playback on Palm handhelds, all content must be stored in a Palm Database (PDB) file. To create content in the Kinoma format, use the Kinoma Producer 2 application available on-line at <http://www.kinoma.com>.

Installing Kinoma Player

Kinoma Player is a standard Palm OS application. If you have ever installed an application on your Palm handheld, simply install Kinoma Player in the same way.

If you haven't installed an application on your Palm handheld before, it is very easy to do. Here are instructions for both Macintosh and Windows users:

Windows

1. Launch the "Install Tool" program in the Palm Desktop or Sony Handheld folder in your Start Menu.
2. Click the "Add" button, navigate to the directory where you stored the Kinoma Player, and select the Kinoma Player. The file should be named "Kinoma.prc" or "KinomaJ.prc". Alternatively, you can drag the Kinoma Player file directly into the list of files to install.
3. Click the "Done" button
4. HotSync your Palm handheld following the handheld's manufacturer instructions.
5. Kinoma Player is now installed on your Palm handheld.

Macintosh

1. Launch the "Palm Desktop" application.
2. Select "Install Handheld Files..." from the HotSync menu
3. Drag the Kinoma Player application into the list of items to install (Kinoma Player will be called "Kinoma.prc" or "KinomaJ.prc"). Alternatively, you can click the "Add Item" button and select the Kinoma Player application from the file selection dialog.
4. HotSync your Palm handheld following the handheld's manufacturer instructions.
5. Kinoma Player is now installed on your Palm handheld.

Uninstalling Kinoma Player

Uninstalling the Kinoma Player follows the same steps as uninstalling any other application on your Palm handheld.

Note: When you delete the Kinoma Player application, Palm OS automatically removes any Kinoma movies that are stored in your Palm handheld's internal memory. Any Kinoma movies on an external storage device will not be deleted.

1. Tap the "home" icon on your Palm handheld to return to the Application Launcher.
2. Tap the "menu" icon to display the Application Launcher menus.
3. Tap "Delete..." from the "App" menu.
4. When the delete dialog appears, select the Kinoma Player application.
5. Tap the "Delete..." button

6. A confirmation dialog will be displayed. Tap “Yes” to delete the Kinoma Player application.

Installing Content

Digital media content encoded in the Kinoma format can be installed onto your Palm handheld in a number of different ways.

- You can use the standard HotSync “Install Tool” application to install digital media onto your handheld. The procedure for installing content is the same as the procedure for installing applications, which is described in the previous section.
- You can copy the content onto an external storage device. Kinoma Player looks in certain directories for encoded digital media content. The recommended directory to store your content in is “\palm\programs\kinoma\”. Kinoma Player also looks for content in “\palm\launcher\”, and “\palm\programs\msfiles\” for compatibility with desktop synchronization software.
- Kinoma Producer is an application for Windows and Macintosh that lets you encode digital media content into the Kinoma format for playback on Palm handhelds. After it is encoded, Kinoma Producer can automatically install it via HotSync or by loading it directly on external storage devices such as Compact Flash, Memory Stick, and SD Memory.
- On Palm OS 5 handhelds with an integrated Internet connection, you can download content directly from the Internet using Kinoma Player. For more details, see “Downloading content” below.

Using Kinoma Player

Kinoma Player has two main modes of operation. The first mode is browsing and selecting a digital media document to play. The second mode is viewing the selected digital media document.

Browsing and selecting digital media

When you first launch the Kinoma Player it begins in browse mode.



A list of available content is displayed. Content stored on external storage cards is displayed together with content stored in the internal memory of the Palm handheld.

Tip: If your Palm handheld has a Jog Dial, you can use it to scroll through the list of available digital media documents. To play the selected item, press the jog dial button. To return to the launcher application, press the back button.

Tip: If your Palm handheld has a 5-way navigation control, you can use it to scroll through the list of available digital media documents. To play the selected item, press the center button. To see details about the selected item, press the right button. To return to the launcher application, press and hold the back button.

Tap the icon above the list to change information displayed in the second column.



Displays the type of each media item such as “audio”, “video”, or “a/v”.



Displays the dimensions of each media item in pixels.



Displays the duration of each media item.



Displays the size of the device in internal memory or on external storage.

In the far right column is a document icon. Tap this document to display additional details about the Kinoma movie. If the movie contains a copyright notice, it will be displayed in the details. The details form also provides the ability to rename and delete the clip. The document icon looks like this:



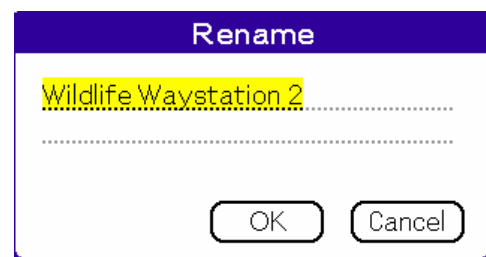
An example details screen is shown below:



Tap the rename button to change the name of the Kinoma movie that is displayed in Kinoma Player. If the Kinoma movie is stored on a removable storage device, the file will be renamed as well. The name may be up to 31 characters in length.

Tap the delete button to delete the Kinoma movie. The Kinoma movie will be permanently removed from the device memory or external storage.

The delete and rename screens are shown below:



Downloading Kinoma movies

The most common way to download Kinoma movies in Kinoma Player is to tap on a link in a web browser on your Palm handheld. By selecting the link, the web browser will

transfer the necessary information to Kinoma Player so that the progressive download can begin.

Not all Palm web browsers are able to launch external applications such as Kinoma Player. The following browsers have been successfully tested with Kinoma Player's progressive download feature: Blazer version 3, NetFront, PocketLink, and Xiino. WebPro may be used to initiate a download, but you'll need to manually launch Kinoma Player for the download to proceed. EudoraWeb and Blazer version 1 and 2 do not support progressive download.

In some rare circumstances, you may know the URL of a Kinoma movie but not have a web browser available to begin the download of the movie. In this situation, you can select the "Play URL..." menu item from the Media menu when you are on the Browse screen in Kinoma Player.



Playing Kinoma movies

After choosing a Kinoma movie to play from the browse screen, it is displayed in the player screen. An example of this screen is shown below.



As soon as the movie is loaded, it immediately begins playing. When the movie reaches the end, it will loop back to the beginning and begin playing again. This behavior can be changed using the Preferences, described below.

The play back controls are displayed below the movie.



Play, pause button. Tap the play button to start the movie playing. While the movie is playing, tap the play button to pause the movie.

Tip: If your handheld has a keyboard, you can use the space bar to play and pause the movie. If your handheld has a jog dial, you can press the jog dial to play and pause the movie. If your handheld has a 5-way navigation control, you can press the center button to play and pause the movie.



Full screen playback button. Tap this button to hide the playback controls while the movie plays. When the button is pressed, the playback controls animate away. On devices with a Graffiti area and or status bar that can be hidden, Kinoma Player will attempt to hide the Graffiti area and status bar for movies that are larger than the current display size.



Rewind button. Rewinds the movie back to the beginning



Time control. The time control indicates the current time of the movie. Tap on the time slider to jump to any time within the movie.

Tip: When playing Kinoma movies directly from the Internet, the time slider initially appears hollowed out with a white center. As the movie downloads the time slider fills in to indicate the portion of the movie that has been downloaded. You may only play back the portion of the movie which has been downloaded.

Tip: You can also use the up and down buttons on your Palm handheld to move back and forth in time in the movie. If your handheld has a Jog Dial, turn it up and down to change the current time. If your handheld has a 5-way navigation control, press left and right to change the current time.



Home button. For VR object and panorama movies only, tap to return to the default (or home) position.



Volume control. Tap in the slider area to adjust the volume. Tap the speaker to mute the audio. If there is no audio in the movie, the volume control is not displayed.

Tip: If your handheld has an audio remote controller, you can use it to adjust the volume. If your handheld has a 5-way navigator, press up and down to adjust the volume.

The controls in the top right corner of the screen provide the ability to navigate to other digital media documents stored on the handheld.



Tap the left pointing arrow to go to the previous movie. Tap the right pointing arrow to go to the next movie. Tap the document icon between the left and right arrows to return to the media browser.

Tip: If your handheld has a keyboard, you can the backspace key to return to the movie browsing screen. If your handheld has a jog dial, you can press the back button to return to the movie browsing screen. If your handheld has a 5-way navigation control, you can press and hold the center button to return to the movie browsing screen.

Tip: If your handheld has a Jog Dial, you can use it to navigate movies. Press and turn the jog dial up to go to the previous movie. Press and turn the jog dial down to go to the next movie. Press the back button to return to the media browser.

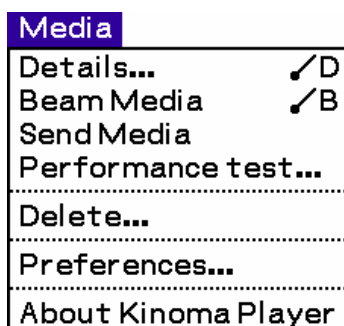
Kinoma Player can play all the media on your handheld in a continuous loop. To enable “play in sequence” mode, tap and hold (for about one second) on the right pointing arrow in the navigation controls. When one movie is finished playing, the player will automatically advance to the next movie. To disable “play in sequence” mode, again tap and hold on the right pointing arrow in the navigation controls. The image below shows the navigation controls in “play in sequence” mode:



On some handhelds, the Graffiti input screen area at the bottom of the screen is “virtual.” That means that it is drawn using software rather than physically being printed on the device. Because it is drawn in software, the Kinoma Player is able to hide the Graffiti input area to provide more space for movie playback. On these handhelds, there is a button in the status bar to control the visibility of the Graffiti input area.

Player Menus

Kinoma Player has additional capabilities available through the application menu available on the player screen. To access the menus, tap the menu button on your Palm handheld. The following menu will be displayed:



Details

The “Details” menu item displays additional information about the digital media document currently being displayed. This information may include the full name, duration, data size, or copyright. You may also rename the movie from the details form.

Beam Media

The “Beam Media” menu item allows you to beam the current digital media document to another Palm handheld. Because beaming is done over a low speed infra-red connection, it is only recommended for Kinoma movies smaller than one megabyte. After selecting “Beam Media” point the infrared port of your Palm handheld towards the infrared port on the other Palm handheld. If the receiver does not have Kinoma Player installed on their Palm handheld, you should beam the application to them first.

Send Media

The “Send Media” menu item allows you to use one or more ways to send the current Kinoma movie to another device. The options provided by Send Media depend on the model of Palm handheld that you are using. On devices with Bluetooth support, you can use Send Media to transfer the current movie to another Palm handheld that has Bluetooth support and Kinoma Player installed. On some devices, you will be presented with the option to send the current movie using MMS or SMS, though this option usually fails because of limitations on the size of messages on cell phone networks. On some devices there are no Send targets available so Send Media does nothing.

Performance test

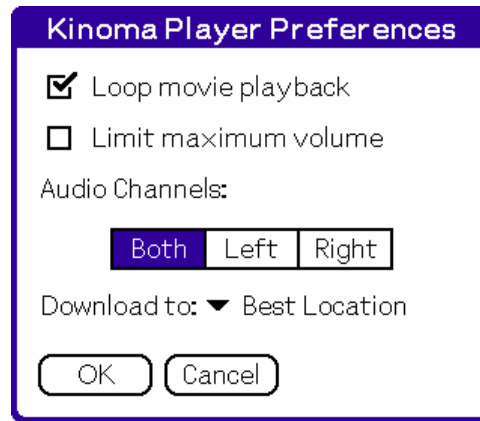
The “Performance test” menu item allows you to determine the maximum frame rate that your Palm Powered handheld can play the current digital media document. It will play every frame of the entire clip from beginning to end as quickly as possible. This operation cannot be interrupted. When playback is complete, the total elapsed time, number of frames played, and average frame rate of playback are displayed. Frame rates will vary depending on whether playback is from internal memory or from a removable storage device. Playback from a removable storage device typically results in a lower rate because of the additional time required to read the media data from the removable storage.

Delete

The “Delete” menu item allows you to remove the currently displayed digital media document from your Palm handheld. Before the document is deleted, a confirmation dialog will be displayed. If the document is stored on external storage it will be deleted from the external storage device. The delete operation cannot be undone, so use it with caution.

Preferences

Selecting the “Preferences...” menu item brings up the Kinoma Player Preferences dialog.



The “Loop movie playback” check box lets you control whether or not a movie will automatically rewind and continue playing when it reaches the end. If this item is not checked, the movie will stop when it reaches the end.

The “Limit maximum volume” check box lets you limit the maximum playback volume. If this item is checked, the volume control will be limited to about 75% of maximum volume.

The “Audio Channels” buttons allow you to select which audio channels you want to hear for movies with stereo audio. For most movies, you’ll want to select “Both” and this is the default. However, some content is encoded with different languages – one in the left channel and the other in the right channel. In these cases, select “Left” or “Right” so only one of the languages is played.

The “Download to” pop-up lets you select where Kinoma movies downloaded from the Internet should be stored. The default selection is “Best location” which means that the movie will be stored either in internal device memory or on a removable storage card, depending on which has more available space. The other options are “internal storage” to force all downloads to be stored in device memory and “external storage” to force all downloads to be stored on a removable storage card. For most users, the default choice of “Best location” will be the most convenient.

About Kinoma Player

This menu item displays a screen with information about Kinoma Player including the version number of the version of Kinoma Player that you are running.