

DvPlayer

Digital Video Player for AmigaOS 4



DvPlayer v0.76 - User Manual

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1. Disclaimer

This software package is provided "as is" without warranty of any kind, either express or implied.

In no event shall the author be held liable for any damages, direct, indirect, incidental, special or consequential, resulting from the use, misuse, or inability to use this program.

The author reserves the right to discontinue development of this software package without notice, at any time.

The archive containing the demo version of DvPlayer may be freely distributed in electronic form as long as no modifications are made to it, no files are added, removed or modified. It may be included on the cover disk of printed magazines, provided that the author is sent a free copy of the magazine.

Distribution of the registered version is strictly forbidden. Spreading the registered version of DvPlayer is software piracy which causes damage to software development and the Amiga platform. If you would like to ensure future development of this program and would like to contribute to the success of the Amiga platform, please do not spread registered software, and be careful when allowing others to use your computer.

2. Introduction

2.1. General

DvPlayer (short for Digital Video Player) is an ongoing project to bring the ultimate multimedia experience to the Amiga computer. It is a unique and Amiga-only multimedia player, developed by Amiga enthusiasts, for Amiga enthusiasts!

Development of DvPlayer began in the summer of 2002 on a CyberStormPPC-equipped Amiga 4000 using WarpUp. Soon after I started working on it, my Amiga 4000 died and was sent off for repair. After waiting for more than 9 months it was finally fixed and development of DvPlayer could proceed. In the beginning of 2004 I signed an NDA with Hyperion Entertainment, to be able to develop DvPlayer for AmigaOS4. A few months later my CyberStormPPC card started having problems and soon it became impossible to work on it. Development of DvPlayer was halted again. Hyperion was very generous and offered to get my PPC card fixed. They also provided an AmigaOne developer board I could use while my PPC card is being repaired. Without their help, DvPlayer would be nowhere and I am very grateful for them to give me the opportunity to make this wonderful program for the Amiga.

2.2. Requirements

To run DvPlayer you need a computer running AmigaOS 4.1 and at least 10 MB of free memory available.

A PowerPC processor with a clock speed of 800MHz or higher is recommended for playing DVDs and other high resolution videos.

avcodec.library 51.52 or newer is also required. This is a 3rd party library which is not part of DvPlayer and can be found on [AmiNet](#) or [OS4Depot.Net](#). A link is provided on the DvPlayer web page.

2.3. Features

DvPlayer can play the following multimedia formats:

- MPEG-1/2 video streams
- MPEG-1/2 system streams
- MPEG audio files
- VideoCD and SVCD
- DVD Video
- AVI files
- ASF/WMV files
- AIFF audio files

DvPlayer supports many audio and video codecs via avcodec.library, including MPEG Video 1/2, DiVX, XVID, MJPG, Cinepak, Indeo Video, PCM, MPEG Audio (Layer1-3) and more.

To achieve the fastest possible video playback, DvPlayer uses fast direct-rendering algorithms for every possible HiColor and TrueColor display mode. There are also separate rendering routines for half scale and also for movies with 16:9 aspect ratio so that they are correctly displayed on a 1:1 aspect monitor without being stretched.

Support for using the video overlay is also included. This requires a graphic card which has video overlay capability, such as Voodoo or Radeon cards. For best quality, DvPlayer uses a new triplebuffering technique which is only available in OS4.0+.

DvPlayer features an easy-to-use Graphical User Interface.

Keyboard shortcuts are available for quick and easy access to functions.

Handling of multiple files is implemented, so the user can easily select many video files and step between them either automatically or by the press of a button.

The GUI is skinnable, allowing everyone to get the look-and-feel they want

You can easily switch from window to full screen display and back (only for registered users).

DvPlayer can be placed into AmiDock and the user can drag'n'drop files onto the DvPlayer icon to make them play instantly. Files can also be dragged into DvPlayer's window which adds them to the file list.

It is possible to switch between the different audio streams from the menu or with keyboard shortcuts, even during playback, for example to select a different language.

The popular .srt and .sub subtitle formats are supported. Subtitles can be loaded manually or automatically. The position and appearance of subtitles can also be configured (font, size, colour).

The new 64-bit DOS interface functions of AmigaOS4 are supported to allow files larger than 2GB to be correctly handled.

For DVD and VideoCD playback, the DVD drive where you have a DVD or VideoCD inserted will be found automatically. There is no need for the user to specify device names and unit numbers.

DvPlayer features an I/O plugin system, which allows external plugins to be developed to expand the functionality of the program. For example a plugin supporting internet streaming protocols would instantly allow DvPlayer to play internet streaming videos.

DvPlayer supports Multimedia Keyboards, so that you can adjust the volume using the extra multimedia keys.

Stand-alone audio files (AIFF and MPEG Audio) can be played with a nice looking audio scope.

2.4. Limitations of the Demo Version

To encourage you to register this program, ensure future development and contribute to the success of the Amiga Computing Platform, the freely distributable DEMO version of DvPlayer has the following limitations:

- When starting DvPlayer, the "About" window pops up for 7 seconds, reminding the user to register.
- Full screen playback is disabled, it is not possible to switch to fullscreen in the demo version.
- The demo version will exit after 7 minutes.

We hope that you find these demo limitations reasonable and will consider registering this program.

3. Installation

Double-click the DvPlayer_Install icon and you will be guided through the installation.

DvPlayer requires avcodec.library 51.52 or higher. You must download and install it also. On the DvPlayer website you will find information on where to obtain the latest version of avcodec.library from.

4. Usage

4.1. Starting from icon

DvPlayer can be started by double-clicking its icon, or single-clicking in AmiDock. Files can be dragged onto the icon in AmiDock to make them play immediately.

DvPlayer can be configured by setting its icon tooltips. Select the icon and choose **Icons->Information** from the menu. Currently the following tooltips are supported:

DEFAULTDIR=<path>

This specifies the default location where the user prefers to open movies from. The ASL requester will initially go to this location. Example: DEFAULTDIR="Work:Videos/"

SKIN=<filename>

This specifies the name of the skin to use. The file must be a valid DvPlayer skin file and be located in the 'dvskins' directory

LOOP

If this is enabled, DvPlayer will start with looping (repeat) mode enabled.

AUTOEXIT

If this is enabled, DvPlayer will automatically exit after it finished playing the file(s).

XPOS=<x position>

Specifies the X Position of the Left edge of the window. For example XPOS=10 opens the window 10 pixels from the left of the screen. XPOS=CENTER opens the window centered horizontally on the screen.

YPOS=<y position>

Specifies the Y Position of the Top edge of the window. For example YPOS=32 opens the window 32 pixels from the top of the screen (excluding the title bar). YPOS=CENTER opens the window centered vertically on the screen.

NOOVERLAY

This option disables the use of video overlay (PIP). You might want to use this in case you have problems with overlay on your system.

NOALTIVEC

If this is enabled, DvPlayer will not use the Altivec unit on CPUs which have one.

USEBAND=<yes | no>

This option specifies whether DvPlayer should use a special "band" rendering method during playback or not. Defaults to YES, because on most systems this gives the best performance, however setting it to NO may result in faster playback speed on certain systems.

AUDIOBOOST

Makes DvPlayer start with Audio Boost enabled so that the volume slider can adjust the volume between 0 and 200%.

AUDIOSCOPE=<yes | no>

This option specifies whether DvPlayer should display an Audio Scope during playback of audio-only files. Defaults to YES.

NOTRIPLEBUFFER

Disables Triple-buffering. Try it if you have problems in full screen.

DEPTH=<n>

Lets you specify the screen depth to use when fullscreen is used. By default DvPlayer uses a 16-bit Screen for fullscreen playback to ensure maximum performance. Using DEPTH=32 produces better quality at the cost of reduced speed with some higher resolution videos (like DVDs).

DITHER=<ON or OFF>

Lets you disable dithering of the picture. Dithering improves image quality in 16-bit modes and is ON by default. This has no effect on 32-bit modes.

SUBTITLEFONT=

This option lets you specify which font should be used for displaying subtitles. If not specified or the font cannot be found, a default will be used.

SUBTITLEFONTSIZE=<size>

This option specifies the font size to use for displaying subtitles. If not specified, a default size is used.

SUBTITLEPOSITION=<position>

This option can be used to specify the vertical position (in pixels) of subtitles on the display. If the value is positive, the position defines where the top of the subtitle text will be relative to the top of the display. If the value is negative, position defines where the bottom of the subtitle text will be, relative to the bottom of the display.

SUBTITLECOLOUR=<colour>

This option lets you specify the subtitle colour. If this is not specified, the default colour (white) will be used. The colour can either be an RGB value in hexadecimal form (RRGGBB) or one of the predefined colour names: white, yellow, orange, green, blue

SUBTITLECHARSET=<colour> (SUBCHARSET when starting from shell)

This option lets you specify what character set should be used to display the subtitles. If this is not specified, the default character set (which is configured in the Locale preferences) will be used. The value of the character set is the MIBenum value of the preferred character set, as defined in the file "L:CharSets/character-sets".

4.2. Starting from Shell

DvPlayer can also be run as a command line tool from a Shell. A list of file names can be specified on the command line, or special strings describing options for plugins, separated by spaces.

The DVD/VideoCD plugin recognises a device name and unit number separated by a colon, for example "a1ide.device:1". Such strings can be mixed with other files on the command line.

The icon tooltypes are also used when starting from shell, but can be overridden by command line options. All the tooltypes listed above can also be used as command line parameters; in addition, the following options are available only when starting from Shell:

FILES/M - List of files to play (file names separated by spaces)

FULL=FULLSCREEN/S - Start playback automatically in full screen mode.

NOVIDEO/S - Do not perform video decoding (only useful for debugging purposes).

NOAUDIO/S - Do not perform audio decoding (only useful for debugging purposes).

NOSKIP/S - Disable frame-skipping.

NORENDER/S - Decode video, but do not render frames on the screen/window.
(used for performance test)

SAVEAUDIO/K - Save audio (example: SAVEAUDIO="ram:audio.mp3").

VERBOSE/S - Display some information about movie and playback statistics.

SUB=SUBTITLE/K - Subtitle file to load

Example:

```
> DvPlayer FULL LOOP Work:Videos/test1.mpg a1ide.device:2
```

The above example will add the file test1.mpg to the file list, followed by all the video streams (DVD or VideoCD) found on a1ide.device unit 2 and play them repeatedly in full screen.

4.3. Playing DVDs and VideoCDs

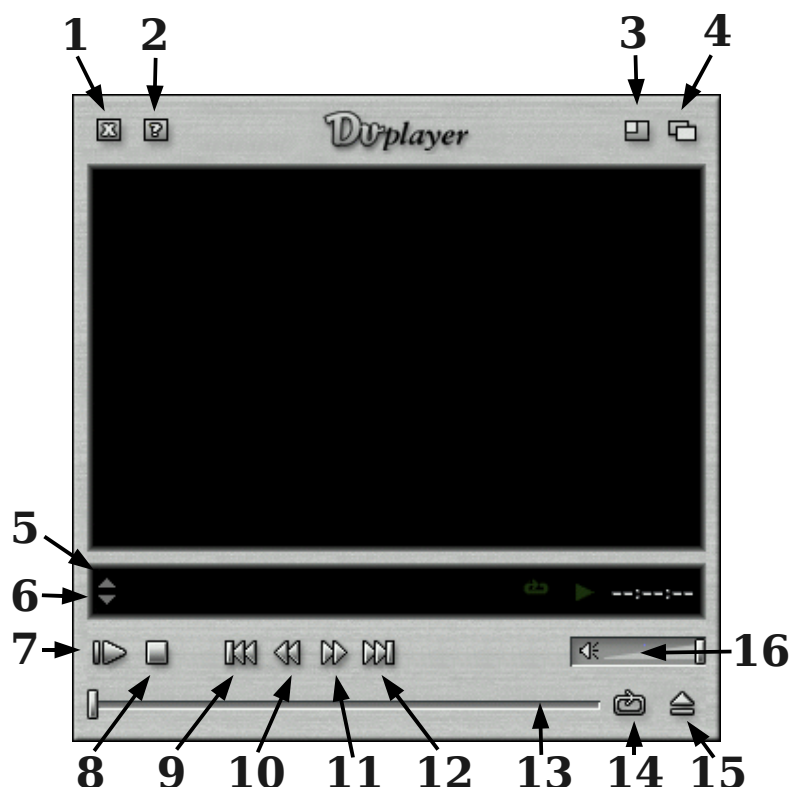
DvPlayer has a plugin (installed by default) which has direct support for DVDs and VideoCDs.

To play your DVD/VideoCD, do the following:

1. Insert disc into any CD/DVD drive (wait a few seconds for the disc to be detected)
2. In DvPlayer project menu, select "Open DVD / VCD".
3. After scanning the disc, DvPlayer will start playing the first stream found.
4. If the disc contains more than one video stream, you can switch between them using the Up/Down arrow keys (or Next/Previous in the Control menu).

4.4. GUI Controls

The simplest way to control DvPlayer is by using the buttons available in the DvPlayer window. The buttons and their functions are described below:



1. Window close button: quits DvPlayer.
2. Question mark: shows version number and other information about DvPlayer.
3. Zoom button: switch to full screen mode (not available in demo).
4. Window depth button: move window in front of, or behind other windows.
5. Go to previous movie
6. Go to next movie
7. Play or Pause (toggle)
8. Stop playback
9. Seek to previous chapter
10. Rewind (seek backwards)
11. Fast forward (seek forwards)
12. Seek to next chapter
13. Slider: allows to seek into any position in the movie.
14. Repeat (looping) enable/disable
15. Open file(s)
16. Adjust volume

4.5. Mouse and Keyboard Controls

The following mouse/keyboard controls are available:

Action	Function
Keyboard [SPACE]	Pause/Play toggle
Keyboard [Enter] / [Return]	Toggle between window and full screen (not available in demo)
Keyboard [↓] (Down Arrow)	Go to Next File
Keyboard [↑] (Up Arrow)	Go to Previous File
Keyboard [←] (Left Arrow)	Seek backwards (rewind)
Keyboard [→] (Right Arrow)	Seek forwards (fast forward)
Keyboard Numeric [+] (Plus)	Zoom in to normal size (only in window mode)
Keyboard Numeric [-] (Minus)	Zoom out to half size (only in window mode)
Mouse Wheel Up/Down	Increase/Decrease Audio Volume
Keyboard [Esc]	Quit

4.6. Menus

DvPlayer has dynamic menus. If new I/O plugins are added to the "dvplugins/" directory, additional menu items may appear in the Project menu. Also the Audio menu always contains the audio streams which are available in the currently opened stream.

Below is an overview of the DvPlayer menu system:

Project

Open... - Open file(s) and remove current files from list

Append... - Open file(s) and append them to the current file list

Open DVD / VCD - Open a DVD or VideoCD and remove current files from list (dvdvcd plugin)

Append DVD / VCD - Append video streams on a DVD or VideoCD to the file list (dvdvcd plugin)

[other plugin menu items go here]

Change Skin - Change the skin of dvplayer

About... - Show about window

Quit - Exit

Control

Next - Go to next movie in the list

Previous - Go to previous movie in the list

Play/Pause - Pause/continue playback

Stop - Stop playback

Repeat - Toggle repeat (loop) mode On/Off

Movie Information - Shows information about the currently loaded movie

Subtitle

Load... - Load a subtitle from a file

Close - Close the subtitle

Subtitle (when DVD is being played)

Off - Subtitles off

Language 1

Language 2

...

Language n

Audio (only available if file is opened with audio)

Boost - Toggle Audio Boost On/Off

Scope - Toggle Audio Scope (when playing audio files)

Audio stream 1

Audio stream 2

...

Audio stream n

5. Registration

DvPlayer can be registered online via RegNet, which is a safe and reliable online registration service.

The following link takes you directly to the DvPlayer registration page:

<https://secure.reg.net/Product.asp?ID=15349>

After you have completed the registration, you will receive the full unlimited version of DvPlayer, usually within 48 hours.

If you encounter any problems with the registration, please send an E-Mail to sf.amiga@gmail.com

6. Known Bugs

A lot of work and betatesting has been done to ensure that DvPlayer is as bug-free as possible. However, it is still far from perfect. There are many badly encoded files out there, which do not comply with the file format's specifications. DvPlayer already contains many workarounds to handle such files, but there are still some that won't play perfectly. There have been many improvements especially with AVI files and more work will be put into getting problematic files to play correctly. If you find any files which cause issues, or any other general problems, please report it by sending an E-Mail to sf.amiga@gmail.com.

7. Future

The following are planned for the upcoming releases of DvPlayer:

- Support for other formats (e.g. MOV, FLV, etc.)
- Improvements to the user interface (e.g. implement file list window with editing)
- Bug fixes and optimizations

8. Contact

You can send comments, suggestions, bug reports or any other queries to:

Stephen Fellner (author)
E-Mail: sf.amiga@gmail.com

The official DvPlayer homepage:

<http://dvplayer.amigarevolution.com>

9. Credits

First of all I would like to thank Hyperion Entertainment for their determination to revive the Amiga Platform and for the entire AmigaOS4 development and betatesting team for all their hard work.

Timothy De Groote for helping me get my first next-generation Amiga System.

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All graphics and design including the GUI, logo, icons, about window and the PDF manual are the work of Viktor Soponyai.

The AmigaOS4 version of avcodec.library is maintained by Csaba Simon and Diego Casorran.

The DvPlayer website was designed by Sammy Nordström, Samworks Development & Consulting: www.samworks.se.

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Many thanks to all who have registered and to everyone else who helped make DvPlayer a reality...