AVS4YOU Programs Help

AVS Disc Creator

www.avs4you.com

Contact Us

If you have any comments, suggestions or questions regarding **AVS4YOU** programs or if you have a new feature that you feel can be added to improve our product, please feel free to contact us.

When you register your product, you may be entitled to technical support.

General information:	info@avs4you.com
Technical support:	support@avs4you.com
Sales:	sales@avs4you.com
Help and other documentation:	help@avs4you.com

Technical Support

AVS4YOU programs do not require any professional knowledge. If you experience any problem or have a question, please refer to the **AVS4YOU Programs Help**. If you cannot find the solution, please contact our support staff.

> **Note**: only registered users receive technical support.

AVS4YOU staff provides several forms of automated customer support:

- **AVS4YOU Support System**
  You can use the **Support Form** on our site to ask your questions.

- **E-mail Support**
  You can also submit your technical questions and problems via e-mail to support@avs4you.com.

> **Note**: for more effective and quick resolving of the difficulties we will need the following information:
>
> - Name and e-mail address used for registration
> - System parameters (CPU, hard drive space available, etc.)
> - Operating System
> - The information about the capture, video or audio devices, disc drives connected to your computer (manufacturer and model)
> - Detailed step by step describing of your action
>
> Please do **NOT** attach any other files to your e-mail message unless specifically requested by AVS4YOU.com support staff.

Resources

Documentation for your AVS4YOU software is available in a variety of formats:

In-product (.chm-file) and Online Help

To reduce the size of the downloaded software installation files the in-product help was excluded from the installation although you can always download it from our web-site for your convenience. Please, visit AVS4YOU web-site at **http://www.avs4you.com/OnlineHelp/index.aspx** to download the latest available version of the help executable, run it and install into the AVS4YOU programs folder. After that you will be able to use it through the **Help** menu of the installed AVS4YOU software.

Online Help include all the content from the In-product help file and updates and links to additional instructional content available on the web. You can find the **Online Help** at our web-site - **http://www.avs4you.com/OnlineHelp/index.aspx**. Please note, that the most complete and up-to-date version of AVS4YOU programs help is always on the web.

PDF Documentation

The offline help is also available as a pdf-file that is optimized for printing. All PDF help files are available for download at the programs pages at AVS4YOU web-site (both **http://www.avs4you.com/index.aspx** and **http://www.avs4you.com/OnlineHelp/index.aspx**). To be able to read and print AVS4YOU PDF help files you will need to have a PDF reading program installed.

User Guides

You have access to a wide variety of resources that help you make the most of your AVS4YOU software. The step-by-step user guides will be of help not only to the novice users but also to the users that face a certain task to be performed and look for a way to do it. Please, visit our **User Guides** section of AVS4YOU web-site at **http://www.avs4you.com/Guides/index.aspx** to read the detailed instructions for various software and tasks

Technical Support

Visit the **AVS4YOU Support** web-site at **http://support.avs4you.com** to ask your questions concerning AVS4YOU software installation, registration and use. Feel free to also use our e-mail address **support@avs4you.com**.

Downloads

Visit the **Downloads** section - **http://www.avs4you.com/downloads.aspx** - of our web-site to find free updates, tryouts, and other useful software. We constantly update the software, new versions of the most popular programs and new software are also frequently released.

Overview

AVS Disc Creator is a compact and fully functional application that lets the users perform different tasks with any kind of files, such as writing audio/video/photo/data to CDs, DVDs and new generation Blu-Ray discs, disc copying, burning, creating and editing ISO-images, disc erasing. The software has a very easy-to-use and understandable interface that lets you create your own audio, data and video discs effortlessly in just several mouse clicks.

AVS Disc Creator supports writing to the following disc types: CD-R, CD-RW, CD-RW High Speed, DVD-R, DVD-RW, DVD+R DL, DVD-RAM, BD-R, BD-RE, BD DoubleLayer-R, BD DoubleLayer-RE. See the **Appendix** section for more detail on different disc types.

To start **AVS Disc Creator** go to **Start** menu and choose **All Programs -> AVS4YOU -> Burning -> AVS Disc Creator**.

Main Window

AVS Disc Creator has a very intuitive interface that is easy to use and understand. When you launch the application, you will see the **Main Window** where the basic controls of the program are placed.

The main window of **AVS Disc Creator** consists of three principal parts:

- **Top Toolbar** - toolbar with the main buttons that let the users select the content they want to process.
- **Tips Area** - the central part of the **AVS Disc Creator** main window where the current content caption is displayed. Directing the mouse cursor at a certain task from the **Tasks Area** located below a short description of the current task will be shown there.
- **Tasks Area** - the lower part of the program menu with all the tasks that can be performed with the selected content.

Top Toolbar

The **Top Toolbar** consists of the main buttons that let the users select the content they want to process using the **AVS Disc Creator** program. Depending on the content you should use the appropriate button:

Button	Description
 Data	Use this button to see the tasks you can perform on basis of your data. There are the following tasks in this category: **Create Data CD/DVD/Blu-Ray**, **Burn Disc Image to CD/DVD/Blu-Ray** and **Create Boot CD/DVD**.
 Audio	After clicking this button you'll see the **Audio Tasks** list in the **Tasks Area**. They are **Create Audio CD**, **Create MP3/WMA CD/DVD/Blu-Ray**, **Copy CD**.
 Video & Photo	After clicking this button the **Video & Photo Tasks** will be listed below, such as **Burn DVD/Blu-Ray-Video Files**, **Create MiniDVD**, **Create Photo CD/DVD/Blu-Ray**.
 Copy	As soon as this button is pressed, the list with **Copy Tasks** will be shown in the **Tasks Area**. Some of these tasks were mentioned before, such as **Copy CD/DVD/Blu-Ray**, **Burn Disc Image to CD/DVD/BD**.
 Disc Images	After clicking this button the list with **Disc Images Tasks** will be listed in the **Tasks Area**. They are **Burn Disc Image to CD/DVD/BD**, **Create ISO from CD/DVD/Blu-Ray** and **Edit ISO**.
 Tools	Click this button to open the **Tools Tasks** list. Choosing the appropriate option you can **Erase Disc**, **Get Drive Info** or run the **AVS Cover Editor** application that lets you create different labels for optical discs and box covers, edit them and print or save into graphical files.

Working with AVS Disc Creator

Depending on the content that is processed within the tasks they are combined into following groups:

- **Create Data and Multimedia Discs** - this group includes tasks that let you burn video, audio, photo files to CD/DVD/Blu-Ray discs;
- **Copy Discs** - this group consists of three tasks, which allow you to copy CD/DVD/Blu-Ray discs;
- **Disc Images Tasks** - within this group you can find all the tasks concerning disc images;
- **Tools Tasks** - the tasks included into this group let you get additional information or give you extra opportunities to realize your ideas.

Create Data and Multimedia Discs (incl. Burn ISO-Images)

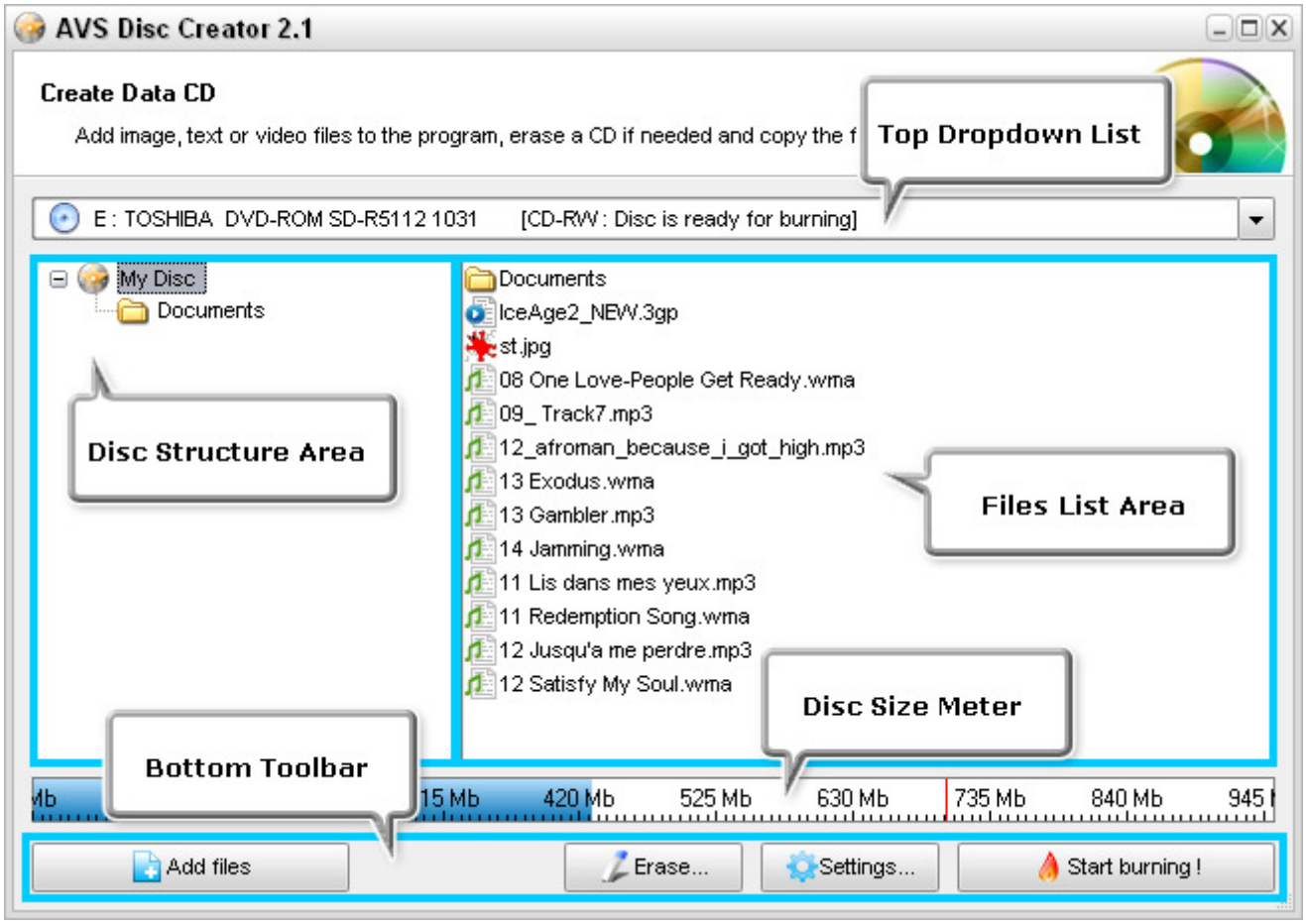

Data


Audio


Video & Photo

Under this caption sixteen similar tasks are combined, such as Create MP3 CD/DVD/Blu-Ray, Create WMA CD/DVD/Blu-Ray, Create Data CD/DVD/Blu-Ray, Create Photo CD/DVD/Blu-Ray, Burn DVD/Blu-Ray-Video, Create MiniDVD as well as **Create Audio CD** (its description can be found in the next section). They are used to write audio files in .mp3/.wma/.cda format, photos, data, DVD/Blu-Ray-video files to CD/DVD/Blu-Ray.

The interface of these tasks in this category is very userfriendly and can be divided in four areas: **Top Dropdown List**, **Main Area**, **Disc Size Meter** and **Bottom Toolbar** that includes the buttons located in the lower part of the task window.

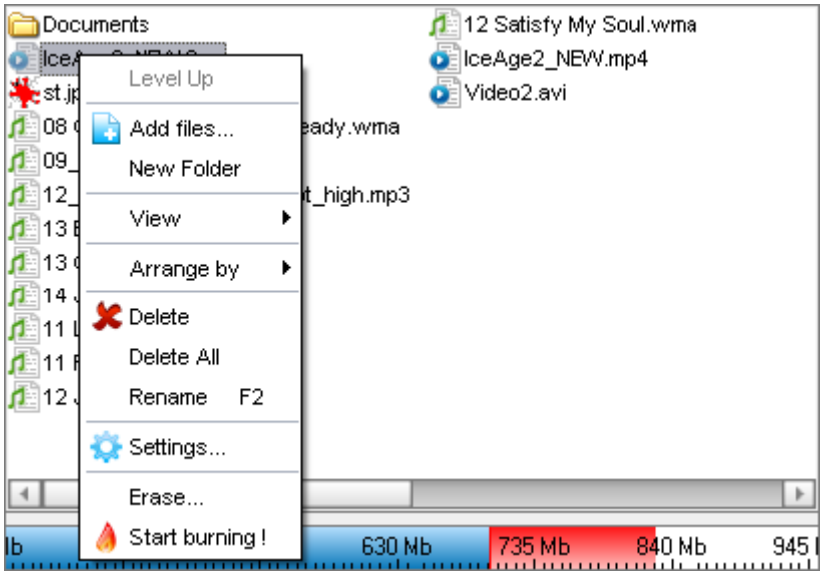


These tasks are very easy to perform. You can do that just in several steps:

1. First you should import audio files, photos, etc. you would like to burn to disc depending on the task selected before. You can do that clicking the **Add files** button. Depending on the task you launched the button can vary from **Add Files** to **Add DVD-Video**.

2. After adding some files/folders to the program you can see whether the loaded data fit to the disc on the **Disc Size Meter**.

3. You can manage the contents of the **Main Area** using the **Express Menu**. In the left part of the area the resulting **Disc Structure** is displayed and in the **Files List** area you can see the contents of the directory selected in the part nearby. Selecting a file/folder in one of the columns and right-clicking it you can access the **Express Menu**.



The **Express Menu** consists of the following items:

- **Level up** - select this option to go to a level that is parent to the current one;
- **Add Files** - use this option to add more files to the program (the option corresponds to the **Add files** button in the **Bottom Toolbar**);
- **New Folder** - choose this option to create a new folder;
- **View** - choose this option to change the view of files/folders in the list;
- **Arrange by...** - select the option to arrange the items by name, size, type or date;
- **Delete/Delete All** - use these options to delete item(s) from the list of imported files/folders;
- **Rename** - use this option to give the selected item a new name;
- **Settings** - select this option to adjust settings for disc burning (the option corresponds to the **Settings...** button in the **Bottom Toolbar**);
- **Erase** - choose the option to erase the inserted disc, if it's not empty (the option corresponds to the **Erase...** button in the **Bottom Toolbar**);
- **Start burning!** - select this option to begin the burning process (the option corresponds to the **Start burning!** button in the **Bottom Toolbar**).

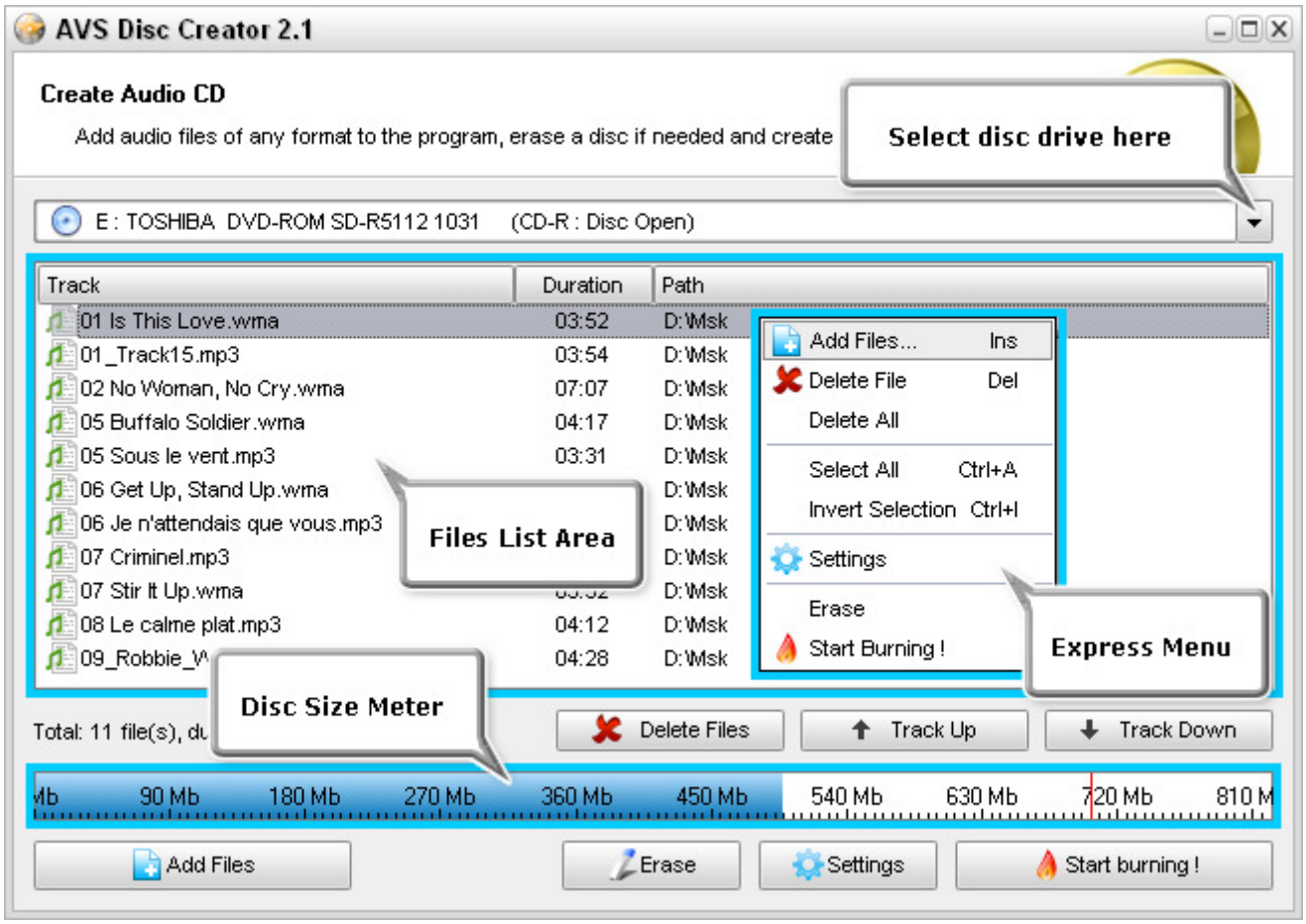
4. You should also select the disc drive you want to use as destination drive in the **Top Dropdown List**. If you need to burn the same files/folders to discs, you can create an ISO image and save it under a certain name at your hard disk drive and use it for further disc burning to save your time.

5. If your CD/DVD/Blu-Ray that you'd like to use for burning files onto is not empty, you can erase all the data from it using the **Erase** button in the **Bottom Toolbar** or the **Express Menu**. To learn more about this process please click **here**.

6. Before you start burning you might want to view and **adjust the additional settings**. To do that you will need to click the **Settings** button in the **Bottom Toolbar** or select the appropriate option in the **Express Menu**.

Create Audio CDs

The **Create Audio CD** task is used to write audio files in **.cda** format to CD.



To access the **Express Menu** of the Create Audio CD task, you should click the right mouse button. The menu consists of the following items:

- **Add Files...** - select this option to load audio files to the program;
- **Delete File/Delete All** - use this option to delete file(s) from the **Files List Area** (similar to the **Delete Files** button at the bottom of the window);
- **Select All** - choose this option to highlight all the items in the **Files List Area;**
- **Invert Selection** - select the option to highlight all other files except the highlighted one;
- **Settings** - use this option to adjust settings for disc burning (similar to the **Settings...** button at the bottom of the window);
- **Erase** - choose the option to erase the inserted disc, if it's not empty (similar to the **Erase...** button at the bottom of the window);
- **Start Burning!** - select this option to begin the burning process (similar to the **Start burning!** button at the bottom of the window).

You can perform this task just in a few steps:

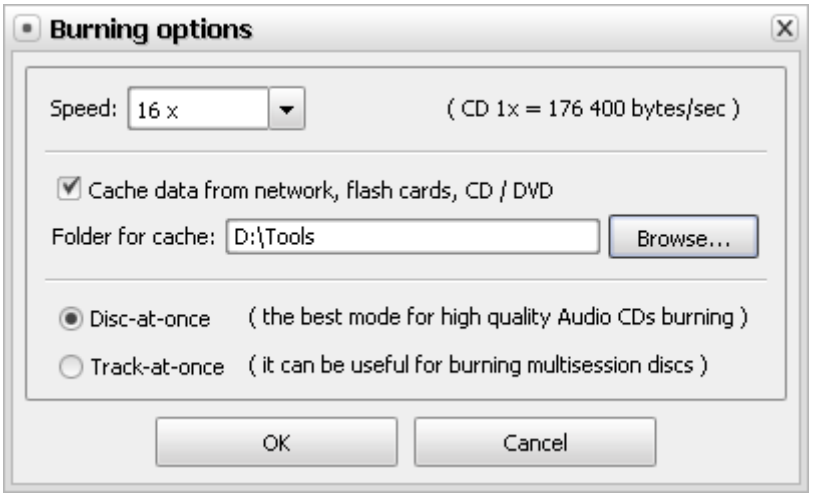
1. First you should load audio files to the application clicking the **Add Files** button.

   You can import files in any format, so they will be converted to .cda before disc burning. To do that press the **Add Files** button, in the opened window select the necessary file and click the **Add** button or right-click the file and choose the **Add** option in the **Express Menu** or drag and drop it to the **Files List Area**.

   After importing the audio files you want to write to CD you can make sure if all the files will fit to the disc using the **Disc Size Meter** that is situated in the lower part of the **Create Audio CD** task window.

2. Then you can locate the imported audio files in a certain sequence by using the **Track Up** and **Track Down** buttons. With every button-click you can place the highlighted track upper or lower in the list depending on the button you press.

3. If your CD that you'd like to use for burning files onto is not empty, you can erase all the data from it using the **Erase** button in the lower part of the current task interface.
4. In the dropdown list at the top you can select the **disc drive** you need.
5. You can also adjust burning settings pressing the **Settings** button at the bottom of the window.



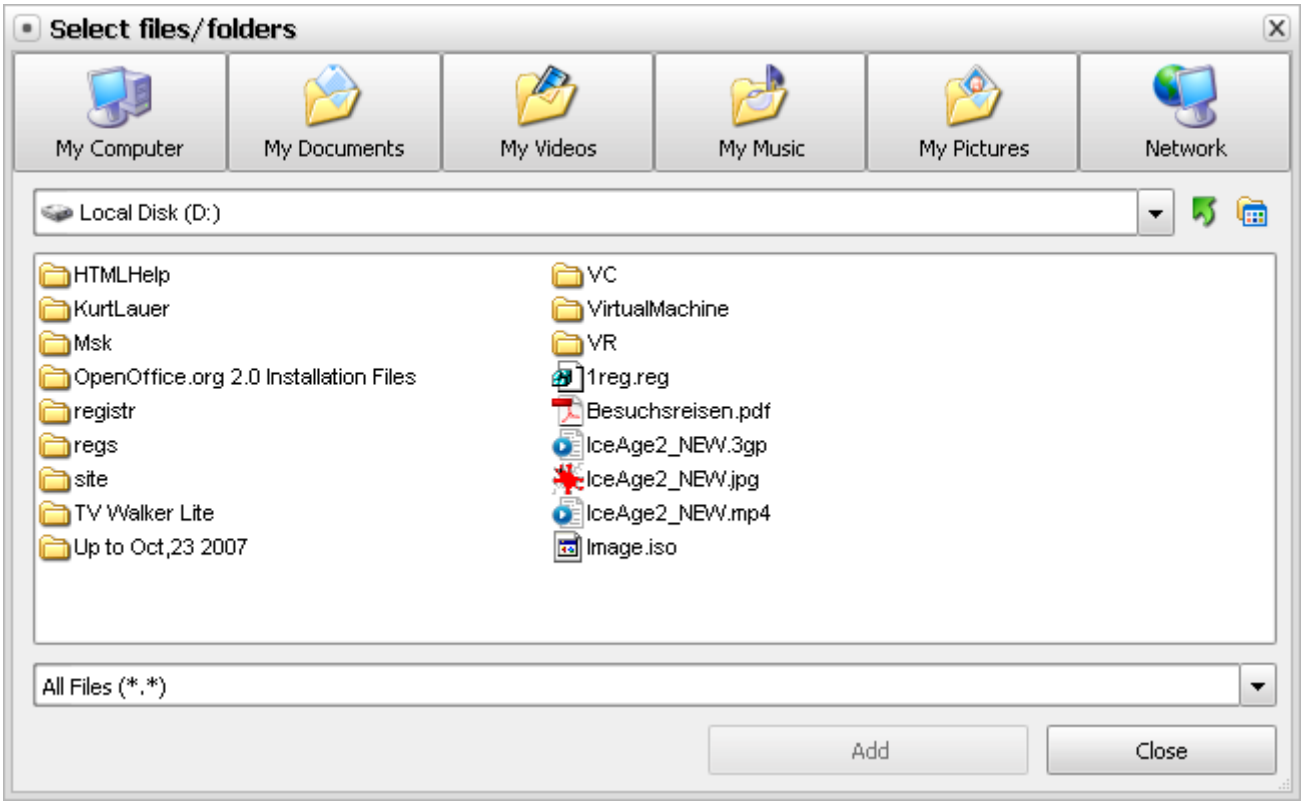
Speed	Possible recording speeds for this drive and disc.
Cache data	Tick this option to copy data that you want to write from some distant source (such as network, flash cards, optical discs, etc.) to a temporary folder on your hard disk drive to shorten the average access time to the data. Clicking the **Browse** button you can select a temporary folder on your HDD where the data will be copied to. After that the path to it will be displayed in the **Folder for Cache** field.
Disc-at-once	It's a mode that masters the disc contents in one pass. Select it if you want to write a high quality audio CD.
Track-at-once	That's a recording mode where a recording laser stops after each track is finished. This option can be useful for burning multisession discs.

To proceed to the final step, you should press the **Start burning!** button. If the disc you inserted contains some data, the program will offer you to erase it. If the disc is empty, the imported audio files will be directly converted to **.cda** format and written to the disc you inserted.

Adding Files

Before you start burning your discs you should compile a list of all the files you would like to record onto your disc.

To do that use the **Add Files** button that can vary from **Add Files** to **Add DVD-Files** or the **Express Menu** clicking the right mouse button within the **Files List** area and selecting **Add Files**. The window will open that will let you navigate through your personal computer drives and find the necessary files and folders:

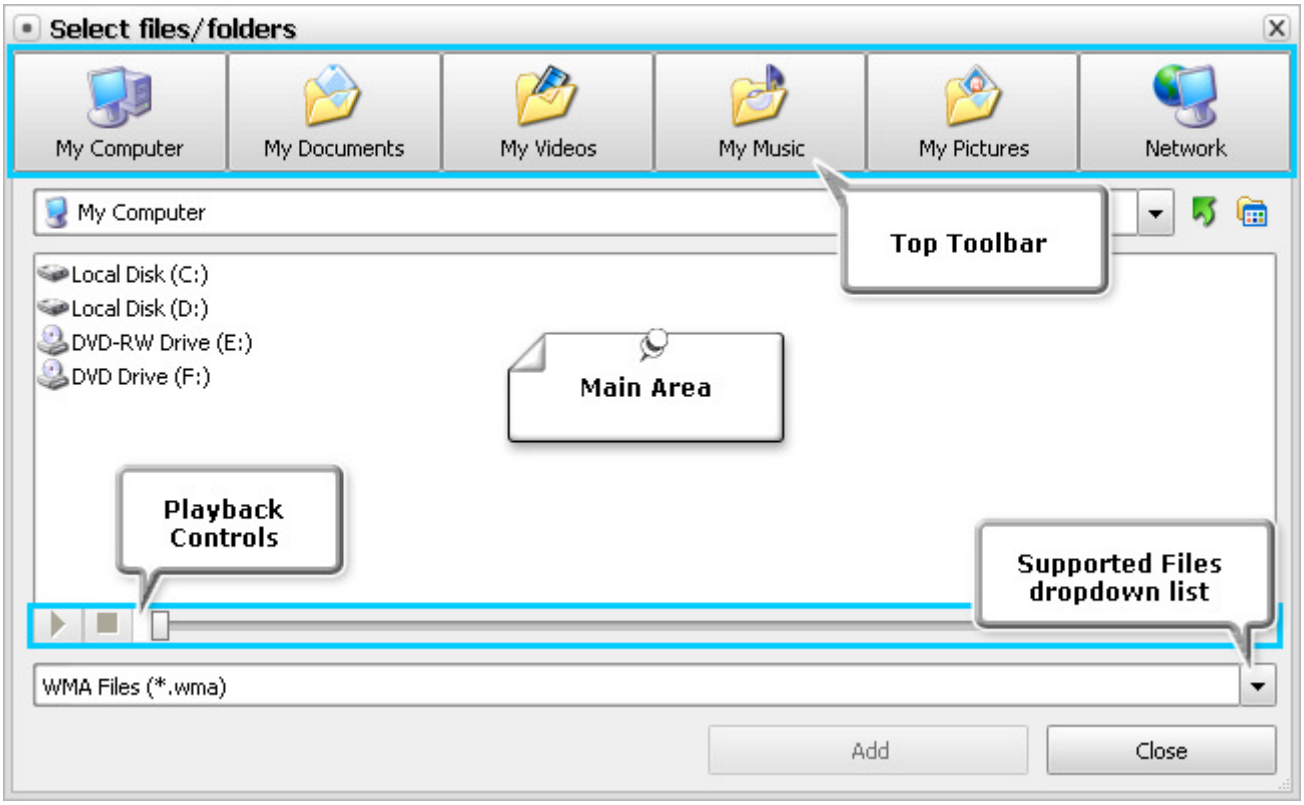


You can use one of the buttons in the **Top Toolbar** of the window to find the necessary directory.

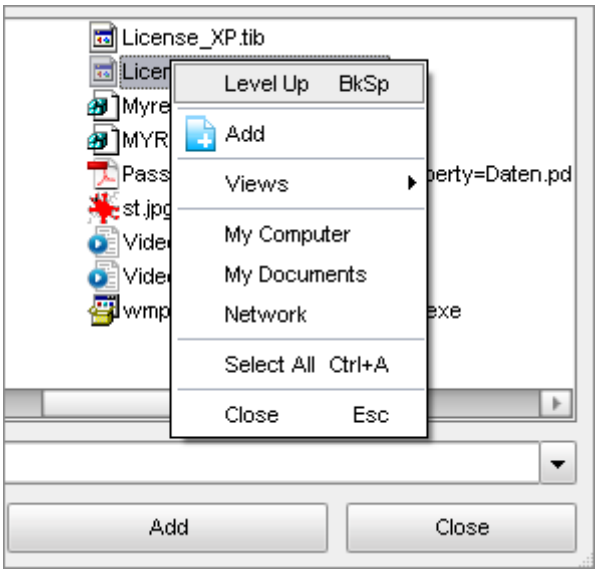
Button	Description
 My Computer	Use this button to move directly to **My Computer** folder of your computer hard disk drive to add files from there.
 My Documents	Use this button to move directly to **My Documents** folder of your computer hard disk drive to add files from there.
 My Videos	Use this button to move directly to **My Videos** folder of your computer hard disk drive to add files from there.
 My Music	Use this button to move directly to **My Music** folder of your computer hard disk drive to add files from there.
 My Pictures	Use this button to move directly to **My Pictures** folder of your computer hard disk drive to add files from there.
 Network	Use this button to move directly to your **network** drive and add files from there.

In the dropdown list situated under the **Top Toolbar** the whole folder tree is displayed that will help you navigate through the directories on your hard disk drive. Using the button you can easily go to a level that is parent to the current one. The button situated nearby will help you find a necessary file or folder, as it changes the view of the files/folders list - you can select among **Icons**, **List** and **Details**.

In the **Main Area** of the **Select Files/Folders** window the contents of the selected folders are shown. If you are performing one of the audio tasks and trying to load audio files to make sure you highlighted the audio file you need, you can play it back using the **Playback Controls** in the lower part of the window. In the **Supported Files** dropdown list you can choose the necessary file format that can help you find the wanted files.



Within this window there is also an **Express Menu** that helps you navigate through the folders system on your PC:



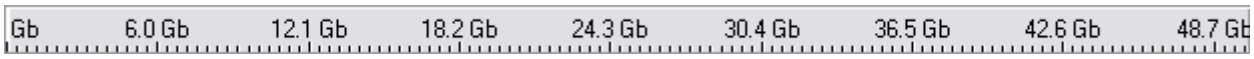
- **Level up** - select this option to go to a level that is parent to the current one;
- **Add** - use this option to add the selected file/folder to the program for burning it to disc;
- **Views (Icons, List, Details)** - select this option to change the view of the files/folders in the opened directory;
- **My Computer/My Documents/Network** - use one of the options to go directly to the appropriate folder;
- **Select All** - choose this option to highlight all the files/folders located in the opened folder;
- **Close**- use this option to close the **Select Files/Folders** window.

You can also drag the files and folders from the standard Windows Explorer and drop them to the **Files List Area**.

Disc Size Meter

Disc Size Meter is available in the magority of the burning tasks. It shows the size of the current disc inserted into the CD/DVD/BD drive and the size of the data that is going to be written onto the disc. Thus, depending on the disc type and its capacity the **Disc Size Meter** will look differently for a **CD**, **DVD Single Layer** or **DVD Double Layer** and **Blu-Ray discs** of different capacities.

For instance, for a **Double Layer Blu-Ray disc** it will look like this:

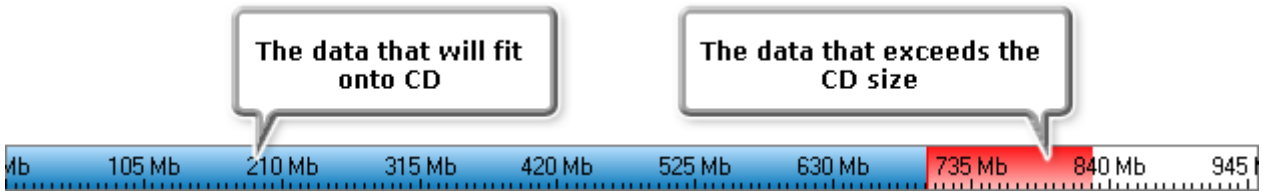


For a **DVD Single Layer** it will look like this:

For a **CD** the **Disc Size Meter** appearance will change like this:

The **Marker** shows the standard capacity of a **CD-R** or a **CD-RW** - about 700 Megabytes.

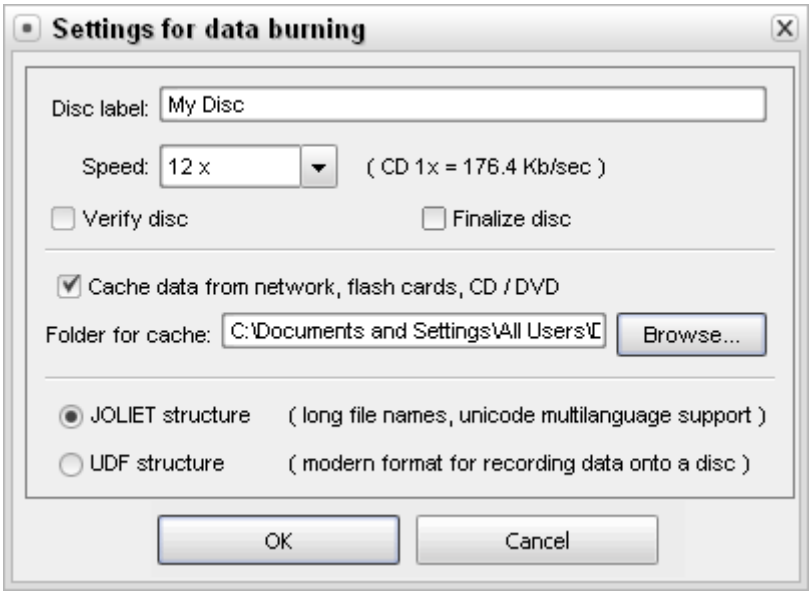
When you add data to your compilation the **Disc Size Meter** will show whether your added data is going to fit your CD/DVD/BD or if it exceeds its capacity.



If the data size is greater than the capacity of a CD/DVD/BD you should either split your data into parts and record these parts onto several CDs/DVDs/BDs or select another disc type with a larger capacity. See the **Appendix** section for more information on different disc types.

Adjusting Settings

Before you start burning you might want to view and if needed change the additional settings. To do that you will need to click the **Settings** button in the **Bottom Toolbar** or select the appropriate option in the **Express Menu**. The following window will be opened:



Here you can change the following parameters:

Disc label	The name of the disc. You can select any you like best.
Speed	Possible recording speeds for this drive and disc.
Verify disc	Mark this check-box to verify the burned data after the recording process is over to make sure the disc was recorded without any errors.
Finalize disc	Close the disc after the data is written. You will not be able to add any data to the disc if this check-box is ticked. If you want to record a multisession disc you should leave this check-box unchecked.
Cache data	Tick this option to copy data that you want to write from some distant source (such as network, flash cards, optical discs, etc.) to a temporary folder on your hard disk drive to shorten the average access time to the data. Clicking the **Browse** button you can select a temporary folder on your HDD where the data will be copied to. After that the path to it will be displayed in the **Folder for Cache** field.
Joliet	The extended ISO file system that allows the user use an additional set of filenames (up to 64 characters in length) with Unicode multilanguage support.
UDF	Universal Disk Format - the modern file system supporting larger files, larger filenames (up to 256 characters in length), larger discs and more information about individual files and folders. It includes support for special file properties and other OS-specific data.

In case you are going to record DVD/Blu-Ray-video the **Finalize disc** setting will be enabled and no change of this setting will be possible. That is done to ensure compatibility with the hardware DVD players. The **Joliet** structure also cannot be used as DVD/Blu-Ray-video discs use only UDF file structure:

After you select all the parameters you can accept all the changes made clicking the **OK** button. To discard the changes press the **Cancel** button. In the both cases the window will close.

Copy Discs

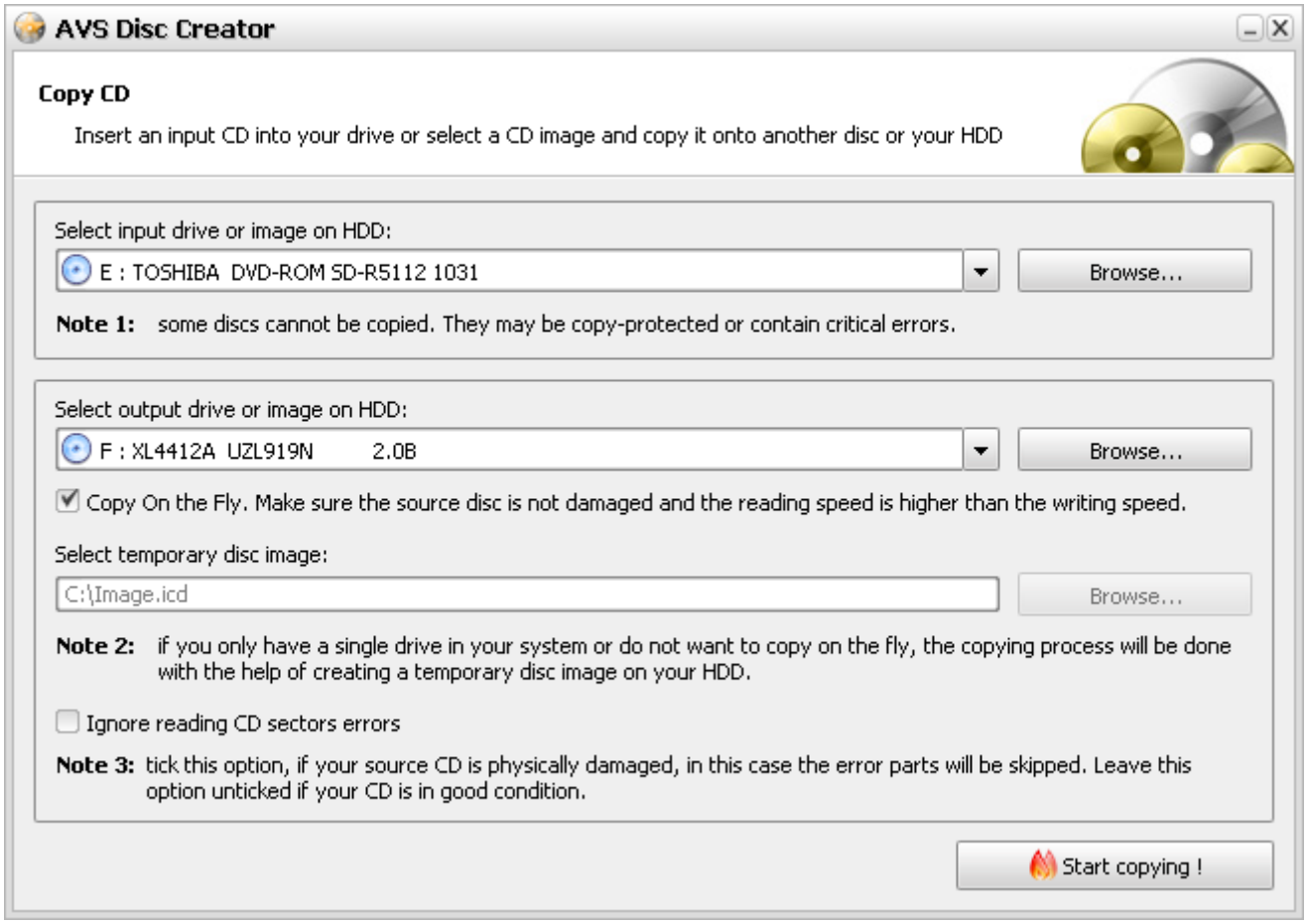
Copy

The **Copy Discs** group comprises three tasks: **Copy CD/DVD/Blu-Ray**. They are used to create an exact copy of the source disc. No data will be changed and no video will be compressed on the target disc as compared to the source disc.

Select the input drive that you are going to copy from.

> **Note**: in the source drive drop-down combo box a path to any previously created image located at your hard drive can be specified.

After that you should set the output drive, which also could be a CD/DVD/BD-drive as well as an image at your hard drive. In case your output drive is HDD, **AVS Disc Creator** will let you select the destination folder using the common Windows Explorer.

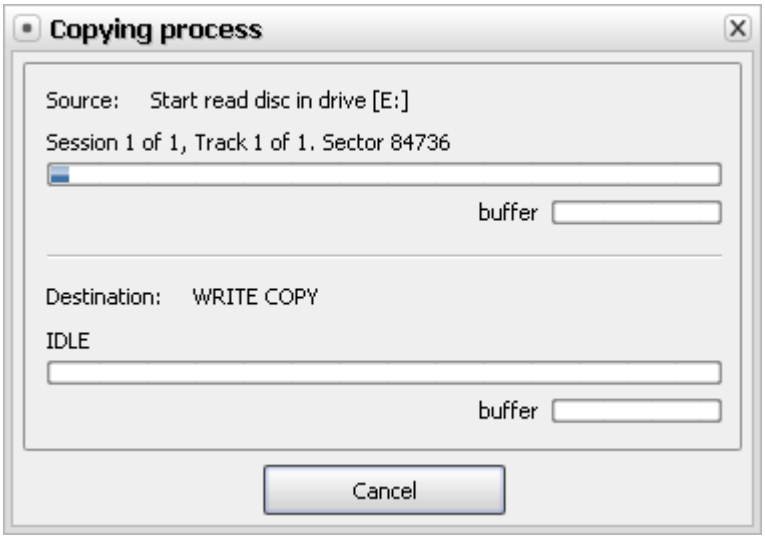


If you select different drives as input and output, the **Copy on the Fly** option will become available. By checking it you'll be able to make a copy of a disc directly, without first saving the source on an intermediate medium (hard disk drive).

If you clone a CD/DVD/BD having only one disc drive, a temporary image on your computer HDD will be created to let you record the resulting disc using the same disc drive. In this case please make sure that you have enough free hard drive disk space available for the created temporary disc image. Its size could be up to almost 200 gigabytes for a six-layer BD.

The **Ignore reading CD sectors errors** option lets you copy damaged discs. In case you know that your disc is physically damaged (scratched, for instance) the program will still let you copy such a disc replacing the defective areas with zero bytes. Thus the disc will become readable again, though some of the information might be lost.

After you select all the settings click the **Start copying!** button to start the copying process. You will see the progress of the current operation and the buffer state at the moment:



You can click the **Cancel** button to abort the recording, although it is not recommended to do that during the burning to the destination disc as the disc might become unreadable afterwards if the burning process is not complete. You won't be able to read or write a CD-R, a DVD-R or a BD-R after you press this button in the middle of the burning process.

Disc Images Tasks

Disc Images

Within this group you can find all the tasks concerning disc images. They are:

- **Burn Disc Images** - use this task to write your disc image created before onto a disc;
- **Create ISO Images** - use this task to create an image from your disc prior to recording it onto a CD/DVD/BD;
- **Edit ISO Images** - use this task to edit an image that was already created prior to recording it onto a disc.

AVS Disc Creator supports the most popular disc image types:

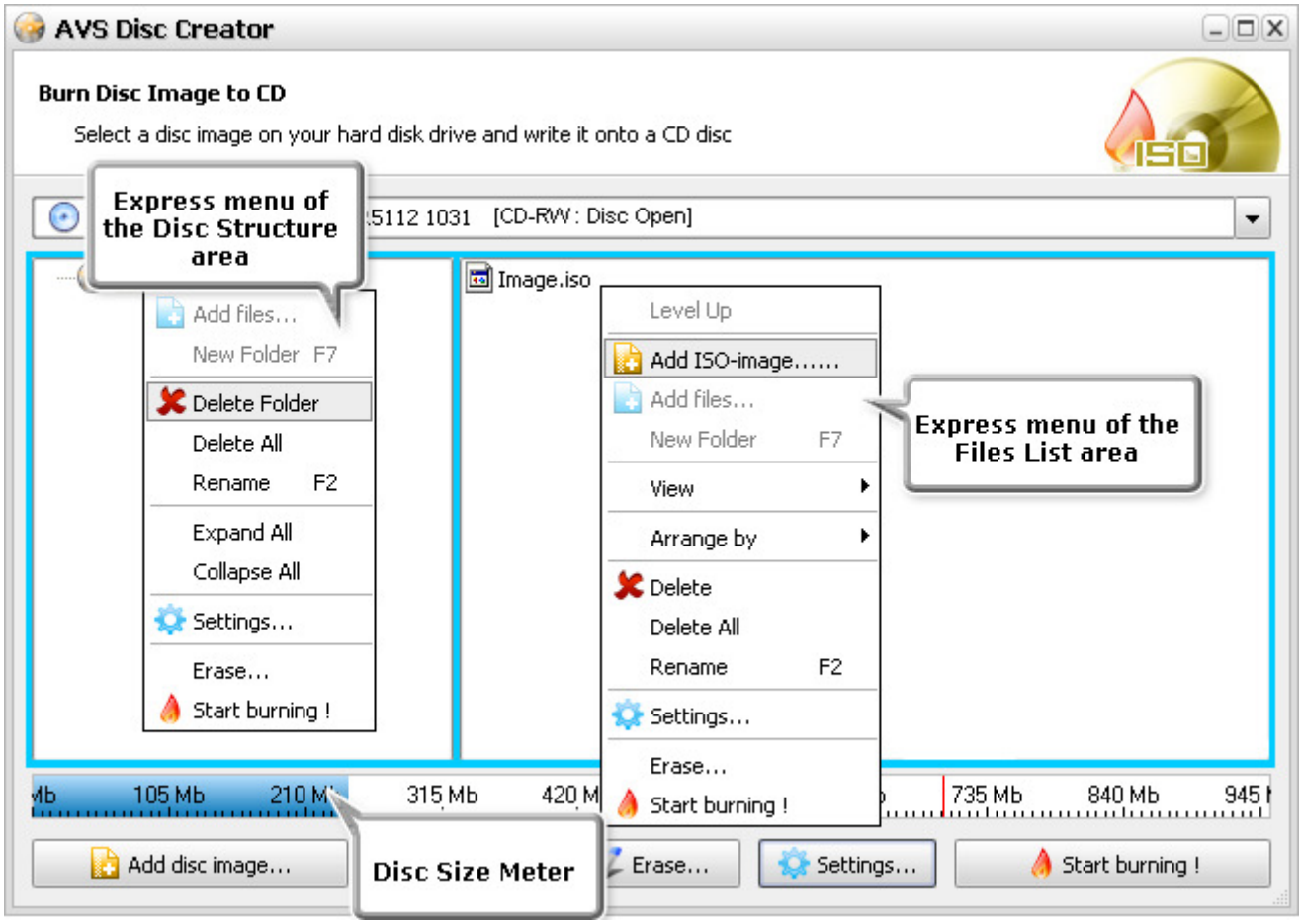
Type	Read	Write
Standard Disc Image Files • *.iso	+	+
AVS Disc Creator Image Files (created by older versions of AVS Disc Creator) • *.icd, *.bin	+	-
CDRWin Image Files • *.cue, *.bin	+	-
Nero-Burning ROM Image Files • *.nrg	+	-
Alcohol 120% Image Files • *.mds, *.mdf	+	-
InstantCopy Image Files • *.pdi, *.pdi01, *.pdi02, *.pdi03, *.pdi04	+	-
BlindWrite Image Files • *.b5t, *.b5i, *.b6t, *.b6i, *.b00, *.b01	+	-
CloneCD Image Files • *.sub, *.ccd, *.img	+	-
PowerISO Image Files • *.daa	+	-
DiscJuggler Image Files • *.cdi	+	-
MagicISO Maker Image Files • *.uif	+	-
DVD Image Files • *.dvd, *.000, *.001, *.002, *.004	+	-

Note: it means that the variety of disc image types can be used as input files, but only ISO images will be produced by the **AVS Disc Creator** application. So if you edit or create a disc image, the result will be saved in .iso format.

Burn Disc Images

If you have previously created disc images that you'd like to burn to CD, DVD, Blu-Ray you can do that easily using one of three tasks included to the **Burn Disc Images** group: **Burn Disc Image to CD/DVD/BD**. A variety of disc image formats are supported, please find the list of all the disc image types you can burn with **AVS Disc Creator here**.

After launching one of the **Burn Disc Image to CD/DVD/BD** tasks the following window will appear, which main area consists of **Disc Structure** and **Files List** parts:



It's very easy to perform these three tasks - **Burn Disc Image to CD**, **Burn Disc Image to DVD** and **Burn Disc Image to BD**.

1. To do that you should first insert CD/DVD/Blu-Ray into your drive, which you would like to burn a disc image to, and select this CD/DVD/BD drive in the dropdown list if you have several drives in your system. After that the optical disc inserted into the drive will be automatically detected and opened.

2. Then **add** a disc image to the **Files List** area using the **Add Disc Image...** button at the bottom of the window or the **Express Menu**.

   Two express menus that can be accessed right-clicking the mouse button within the task window will help you navigate through the folders system on your PC and manage the disc contents:

   - **Add ISO-image...** - select this option to add a disc image to the **Files List** area for burning;
   - **View (Details, List)** - select this option to change the view of the files/folders in the opened directory;
   - **Arrange by** - use this option to arrange the items by **Name**, **Size**, **Type** or **Date**;
   - **Delete/Delete All/Rename** - choose one of the options to delete the highlighted file/folder or rename it, as well as delete all items;
   - **Expand All** - use this option to open all folders and see their contents;
   - **Collapse All** - select this option to hide the contents of all folders;
   - **Settings...** - use this option to adjust settings for disc image burning;
   - **Erase...** - use this option to delete all the data from the inserted rewritable disc, if it's not empty;
   - **Start burning !** - select this option to begin writing the selected disc image to the inserted disc.

3. You can also make sure that all the data fit to the inserted disc on the **Disc Size Meter**.

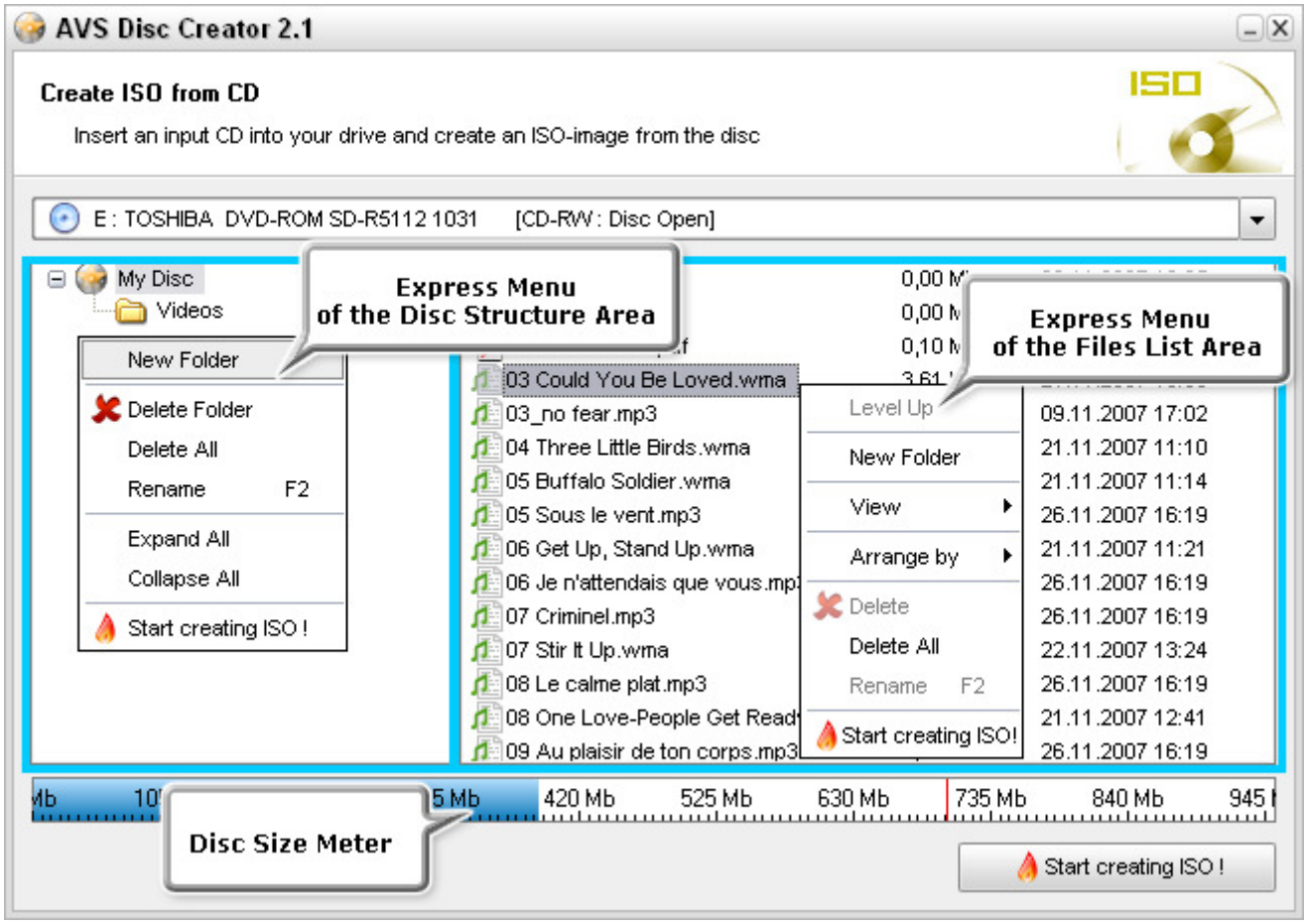
4. If your rewritable CD/DVD/Blu-Ray that you'd like to use for burning disc image onto is not empty, you can erase all the data from it using the **Erase** button at the bottom of the task window or the **Express Menu**. To learn more about this process please click **here**.

5. Before you start burning you might want to view and **adjust the additional settings**. To do that you will need to click the **Settings...** button at the bottom of the task window or select the appropriate option in the **Express Menu**.

Create ISO Images

Sometimes you might need to create an image from your disc prior to recording it onto a CD, a DVD or a BD, e.g. if you want to make several copies with the same contents. So creating a disc image you can save a lot of time. You can do that using **AVS Disc Creator**. Currently it supports ISO-type images compatible with all the main programs on the market nowadays. You can burn this image onto a CD, a DVD or a BD later if you would like to with **AVS Disc Creator** or mount it to some third party virtual drive.

After launching the **Create ISO from CD/DVD/Blu-Ray** task the following window will appear, which main area consists of **Disc Structure** and **Files List** parts:



It's very easy to perform these three tasks - **Create ISO from CD**, **Create ISO from DVD** and **Create ISO from Blu-Ray**.

1. To do that you should first insert CD/DVD/Blu-Ray into your drive, which you would like to create an ISO image from, and select this CD/DVD/BD drive in the dropdown list if you have several drives in your system. After that the optical disc inserted into the drive will be automatically detected and opened.

   In the **Main Area** you can see the whole **Disc Structure** as a folder tree and in the **Files List Area** the contents of the selected folder are displayed.

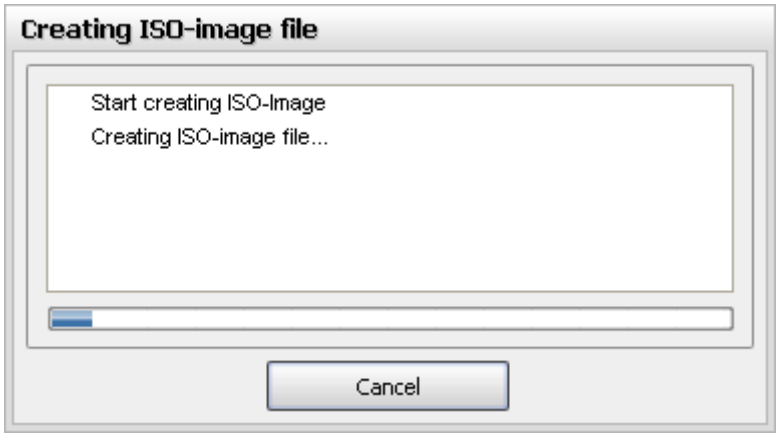
   Within this window there are two **Express Menus** that help you navigate through the folders system on your PC and manage the disc contents:

   - **Level up** - select this option to go to a level that is parent to the current one;
   - **New Folder** - select this option to create a new folder in the opened directory;
   - **View (Details, List)** - select this option to change the view of the files/folders in the opened directory;
   - **Arrange by** - use this option to arrange the items by **Name**, **Size**, **Type** or **Date**;
   - **Delete/Delete All/Rename** - choose one of the options to delete the highlighted file/folder or rename it, as well as delete all items;

- **Start creating ISO !** - use this option to begin the **ISO-image creating** process;
- **Expand All** - use this option to open all folders and see their contents;
- **Collapse All** - select this option to hide the contents of all folders.

2. You can also make sure that all the data fit to the inserted disc on the **Disc Size Meter**.

3. Then you should press the **Start creating ISO!** button to open the **Save ISO Image** window where you can select the output folder for your ISO image. You can also give your ISO image a certain name in the **File name** field. After clicking the **Save** button the ISO image creating process will begin. Its progress will be shown on the progress bar. This process consists of two phases - *Start creating ISO image* and *Creating ISO image file*. You can **cancel the ISO creating process** clicking the appropriate button.

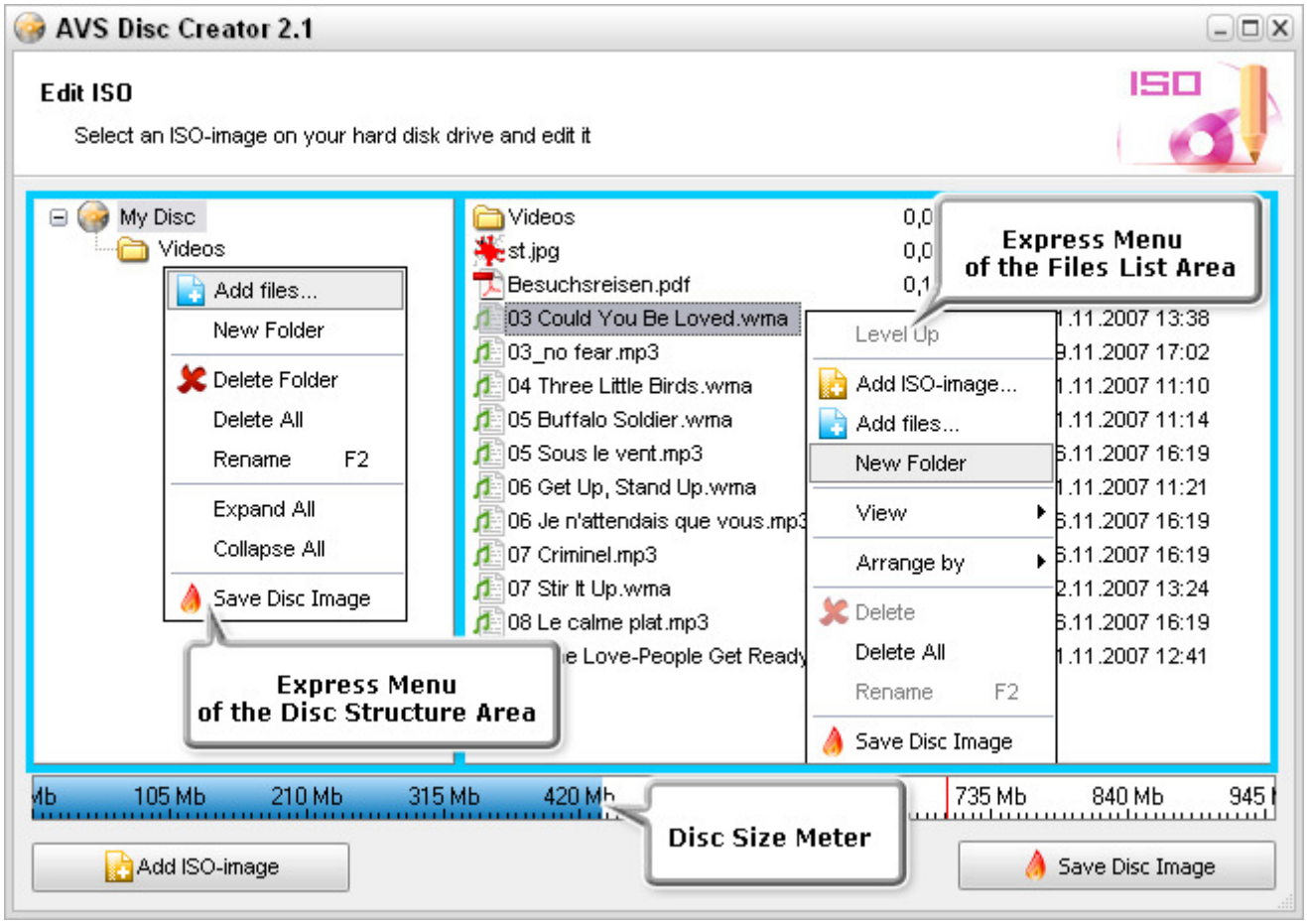


Note: if you want to create an ISO image from a multisessional audio disc, you should better use one of the **Copy Disc** tasks. Otherwise the ISO image will be created from the first session only.

Edit ISO-Images

Sometimes you might need to delete unnecessary files, create and rename folders or add new files to a disc image that was already created prior to recording it onto a CD, a DVD or a BD. You can do that using **AVS Disc Creator**. Currently it supports ISO-type images, compatible with all the main programs on the market nowadays. You can burn this image onto a CD, a DVD or a BD later if you would like to with **AVS Disc Creator** or mount it to some third party virtual drive.

After launching the **Edit ISO** task the following window will appear, which main area consists of **Disc Structure** and **Files List** parts:



You can edit your ISO-image just in several steps:

1. First you should import the ISO image that you would like to edit to the program clicking the **Add ISO Image** button. After pressing the button the **Select ISO Image File** window will be opened. To read more about the navigation within this window please go to the **Adding Files** page. You can also use the **drag and drop** function to load a wanted ISO image file.

2. In the **Main Area** you can see the whole **Disc Structure** as a folder tree and in the **Files List Area** the contents of the selected folder are displayed.

   Within this window there are two **Express Menus** that let you navigate through the folders system of your ISO image and edit it:

   - **Level up** - select this option to go to a level that is parent to the current one;
   - **Add ISO Image...** - use this option to load an ISO image to the program;
   - **Add files...** - use this option to add some files to the existing ISO image structure;
   - **New Folder** -select this option to create a new folder in the ISO image structure;
   - **View (Details, List)** - select this option to change the view of the files/folders in the opened directory;
   - **Arrange by** - use this option to arrange the items by **Name**, **Size**, **Type** or **Date**;
   - **Delete** - choose the option to delete the highlighted file/folder;
   - **Delete All** - select this option to delete all items;
   - **Rename** - use this option to rename the highlighted file/folder;
   - **Save Disc Image** - use this option to save the ISO image you edited.

3. After you edited the loaded ISO image press the **Save Disc Image** button to open a window where you can select the output folder for your ISO image. You can also give your ISO image a certain name in the **File Name** field.

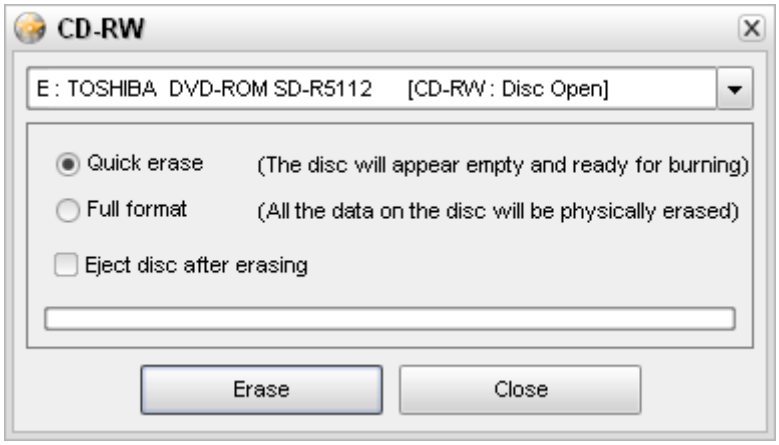
Tools Tasks

The tasks included into this group let you get additional information or give you extra opportunities to realize your ideas. They are:

- **Erase Discs** - use this task to erase a rewritable disc prior to recording your compilation if it's not empty;
- **Get Drive Info** - use this task to learn necessary details about the selected CD/DVD/Blu-Ray drive;
- **Cover Editor** - use this task to launch the **AVS Cover Editor** application that lets you create different labels for optical discs and box covers, edit them and print or save into graphical files. To learn more about its functionality click **here**.

Erase Discs

If you use a rewritable disc (CD-RW, DVD-RW or BD-RE), you might need to erase it prior to recording your compilation. To do that you should launch the task **Erase Disc** by pressing the **Tools Tasks** button in the **Top Toolbar** of the program or click **Erase...** button when you are performing one of the burning tasks. The erase dialog window will appear to let you delete all the information from the rewritable disc:



Here you should select:

- **Drive** - the name of the drive that you use to record your discs.
- **Erase type** - **Quick erase** or **Full format** of the rewritable disc.
    - If you select the **Quick erase**, the data on the disc will not be actually erased as in this mode only the table of Contents of the disc is deleted, the disc will appear empty and ready for burning but the data can be restored later using special software.
    - If you select the **Full format**, all the data on the rewritable disc will be physically erased and you will not be able to restore it later. This mode will take much more time. Use this type of erase if you have some confidential data on the disc that must be erased.

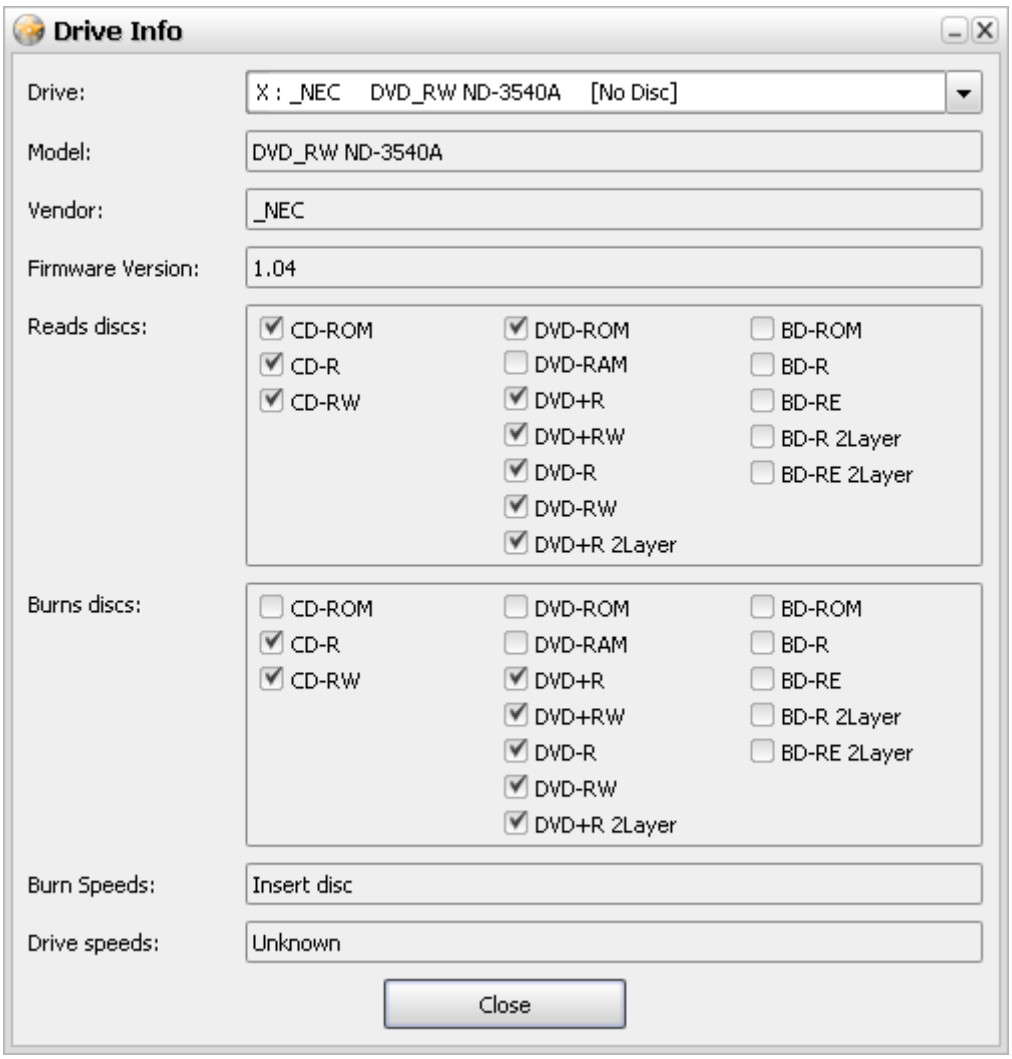
You can also enable the **Eject disc after erasing** check-box, if you do not plan to work with the disc afterwards. If you plan to use the same disc for burning after erasing, it might be useful to leave it unchecked.

When all the erasing parameters are set, you can press the **Erase** button to start the erasing process itself. Once the erasing is started, it cannot be stopped. Please, wait for the erasing process to be finished.

Press the **Close** button to exit the **Erase Disc** task / window.

Get Drive Info

After launching the **Get Drive Info** task the **Drive Info** window will open where you can find necessary details about the selected CD/DVD/Blu-Ray drive.



- **Drive** - in this dropdown list you should select the drive you want to get information about if you have several drives in your system
- **Model** - in this field you can see the exact model of your CD/DVD/BD drive
- **Vendor** - here you'll find the exact manufacturer's name of your drive
- **Firmware Version** - in this field the version of the program that is embedded in your drive is displayed
- **Reads discs** - in this list the disc types that can be read by your drive are ticked
- **Burns discs** - the disc types that can be recorded by your drive are ticked
- **Burn Speeds** - in this field the burn speeds of the inserted disc are given
- **Drive Speeds** - in this field the supported burn speeds of your drive are listed

To exit the **Drive Info** window you should click the **Close** button at the bottom.

Overview

AVS Cover Editor is a compact and fully functional application that lets the user create different labels for optical discs and box covers, edit them and print or save into graphical files. You can use **AVS Cover Editor** together with all the other AVS4YOU products or as a separate application.

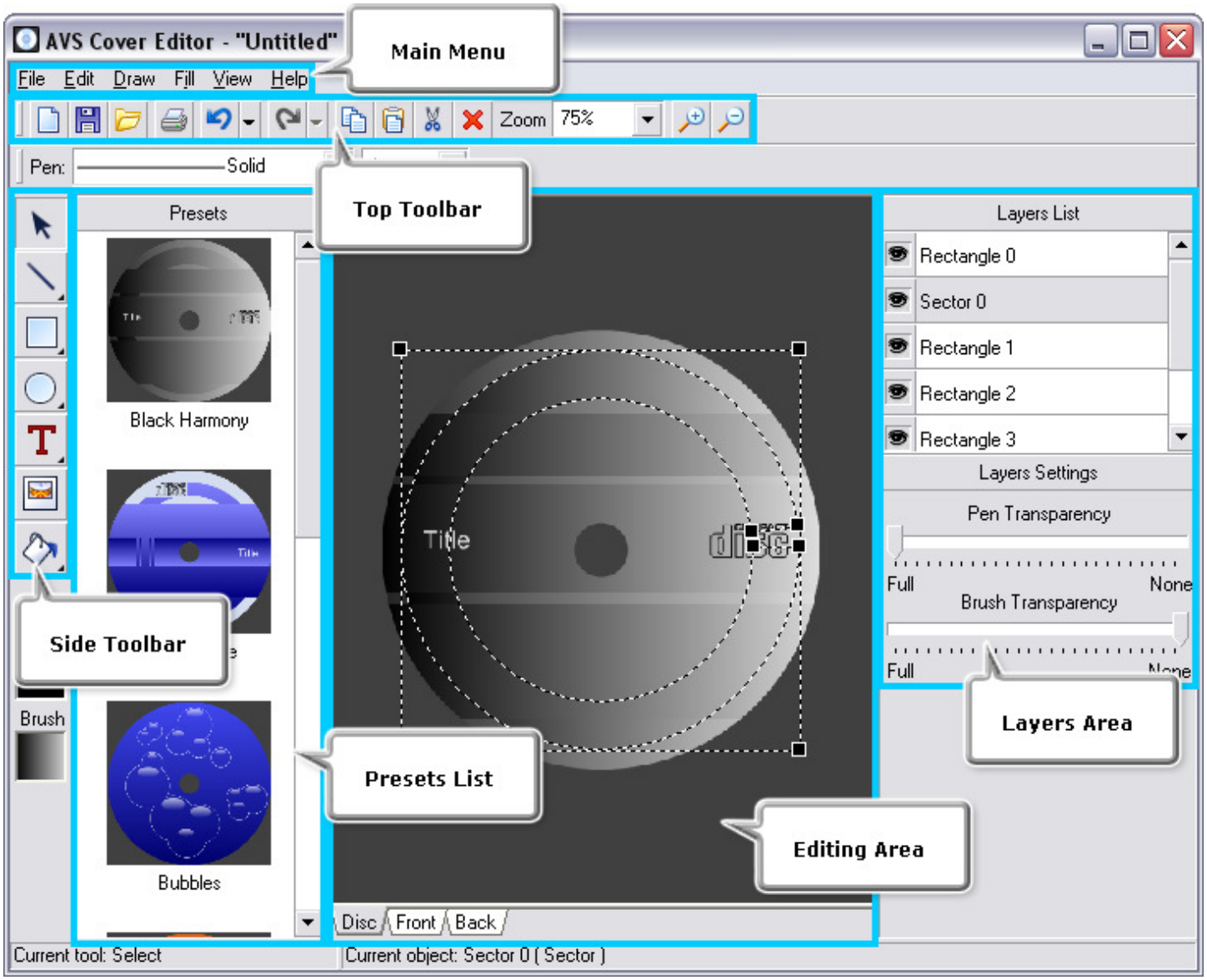
The program does not require any specific knowledge but at the same time has extended editing capabilities that will let you create labels and covers to your taste and needs. Using **AVS Cover Editor** you can add a touch of individuality to your optical discs collection and label them so that you could find the necessary discs faster.

To start **AVS Cover Editor** go to **Start** menu and choose **All Programs -> AVS4YOU -> Burning -> AVS Cover Editor**.

Main Window

AVS Cover Editor has a simple and user-friendly interface. Its **Main Window** consists of the following areas:

- **Main Menu** - is used to get access to all the main functions and features of the program.
- **Top Toolbar** - is used to get quick access to the basic features, such as work with projects, copy-paste functions, zoom, etc.
- **Side Toolbar** - is used to quickly select the main editing tools.
- **Presets List** - is used to let the user select the existing and saved presets.
- **Editing Area** - is used to apply different tools and effects and preview the result.
- **Layers Area** - is used to view the list of the applied layers and adjust the selected layer settings.



Main Menu

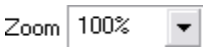
The **Main Menu** lets the user select all the main actions to be done with the **AVS Cover Editor** program and consists of the following items:

Menu	Item	Shortcut	Description
File	**New**	**Ctrl+N**	Start a new **AVS Cover Editor** project.
	Open	**Ctrl+O**	Open an existing or previously saved **AVS Cover Editor** project.
	Recently opened		Shows the list of the **AVS Cover Editor** projects that have been recently opened or saved.
	Save	**Ctrl+S**	Save the currently edited **AVS Cover Editor** project.
	Save As		Save the currently edited **AVS Cover Editor** project under a different name.
	Save as preset		Save the currently edited **AVS Cover Editor** project as a preset, so that it will be available from the preset list later on.
	Print	**Ctrl+P**	Print the created disc and box artwork using a printer connected to the personal computer.
	Export to Images		Save the created disc and box artwork as an image to the selected computer hard disk drive folder.
	Exit		Close the **AVS Cover Editor** and finish the work with the program.
Edit	**Undo**	**Ctrl+Z**	Undo the last editing action.
	Redo	**Ctrl+Y**	Redo the last editing action that has been undone.
	Copy	**Ctrl+C**	Copy the selected layer to the clipboard, so that you could paste it later.
	Paste	**Ctrl+V**	Paste the previously copied layer from the clipboard to the **Editing Area**.
	Cut	**Ctrl+X**	Cut the selected from the **Editing Area** to the clipboard. It will be removed from the **Editing Area** but added to the clipboard. You will be able to paste it later to the **Editing Area**.
	Delete		Delete the selected area from the **Editing Area**.

Draw	**Line**		Draw straight lines with no angles or bends.
	Polyline		Draw lines with angles and bends. As many turns and bends as needed can be added to the line after it is drawn.
	Rectangle		Draw rectangles of various sizes.
	Polygon		Draw different types of polygons. As many angles as needed can be added to the polygon after it is drawn.
	Circle		Draw circles of different sizes.
	Ellipse		Draw ellipses of different sizes elongated in the vertical or horizontal planes.
	Pie		Draw pie-like shapes of different sizes and completeness.
	Sector		Draw parts of circumference of different sizes and completeness.
	Text		Add common text to your created image.
	Text around		Add rounded text to your image.
	Image		Add different images to your project. You can select any previously saved image on your computer hard disk drive.
Fill	**Solid**		Fill the layer with a selected solid color.
	Gradient		Fill the layer with a gradient of two selected colors.
	Texture		Fill the layer with a texture taken from an image file. It can be selected from the preset list or loaded from any image file on your computer hard disk drive.
	Hatch		Fill the layer with a hatch composed of two selected colors.
View	**Zoom In**		Zoom in the image in the **Editing Area**.
	Zoom Out		Zoom out the image in the **Editing Area**.
	Zoom All		Change the zoom scale of the image in the **Editing Area** to the 100% view.
	Disc		Switch to the **Disc** editing window.
	Front		Switch to the **Front cover** editing window.
	Back		Switch to the **Back cover** editing window.
Help	**Content**	**F1**	View the contents of the **Help** file.
	AVS4YOU on web		Visit the **AVS4YOU** - **www.avs4you.com** - home page on the Internet.
	Buy Now		Buy the **AVS Cover Editor** program using the online pay system.
	Register		Open the registration window to enter the **User name** and **Serial number** to register the program.
	About		Open the About window of the **AVS Cover Editor** program.

Top Toolbar

Top Toolbar is used to get quick access to the basic features, such as work with projects, copy-paste functions, zoom, etc. It has the following buttons:

Button	Caption	Description
	**Create new project**	Start a new **AVS Cover Editor** project.
	**Save current project**	Save the currently edited **AVS Cover Editor** project.
	**Open project**	Open an existing or previously saved **AVS Cover Editor** project.
	**Print**	Print the created disc and box artwork using a printer connected to the personal computer.
	**Undo**	Undo the last editing action. The depth of the undo action can be selected pressing the down-arrow symbol on the right side of the button.
	**Redo**	Redo the last editing action that has been undone. The depth of the redo action can be selected pressing the down-arrow symbol on the right side of the button.
	**Copy layer**	Copy the selected layer to the clipboard, so that you could paste it later.
	**Paste layer**	Paste the previously copied layer from the clipboard to the **Editing Area**.
	**Cut layer**	Cut the selected from the **Editing Area** to the clipboard. It will be removed from the **Editing Area** but added to the clipboard. You will be able to paste it later to the **Editing Area**.
	**Remove layer**	Delete the selected area from the **Editing Area**.
	**Zoom**	Change the zoom scale of the image in the **Editing Area** to the selected view. The scale can be selected from the drop-down box ranging from 25% to 400%.
	**Zoom in**	Zoom in the image in the **Editing Area**.
	**Zoom out**	Zoom out the image in the **Editing Area**.

Side Toolbar

The **Side Toolbar** is used to add different shapes and effects to the created cover image and has the following buttons:

The subitems are opened when you press with the mouse button one of the items and hold down the mouse button for a couple of seconds.

Button	Description	
Selection tool	This tool is used to select the layers in the **Editing Area** so that you could edit them.	
Line tool	This tool is used to draw different types of lines and has the following subitems:	
	Line	- Use this option to draw straight lines with no angles or bends.
	PolyLine	- Use this option to draw lines with angles and bends. As many turns and bends as needed can be added to the line after it is drawn.
Rectangle tool	This tool is used to draw rectangles and polygon shapes and has the following subitems:	
	Rectangle	- Use this option to draw rectangles of various sizes.
	Custom polygon	- Use this option to draw different types of polygons. As many angles as needed can be added to the polygon after it is drawn.
Circle tool	This tool is used to draw circles and circle-like shapes and has the following subitems:	
	Circle	- Use this option to draw circles of different sizes.
	Ellipse	- Use this option to draw ellipses of different sizes elongated in the vertical or horizontal planes.
	Sector	- Use this option to draw parts of circumference of different sizes and completeness.
	Pie	- Use this option to draw pie-like shapes of different sizes and completeness.
Text tool	This tool is used to add text to your created image and has the following subitems:	
	Text	- Use this option to add common text to your created image.
	Text around	- Use this option to add rounded text to your image.
Image tool	This tool is used to add different images to your project. You can select any previously saved image on your computer hard disk drive.	
Fill tool	This tools is used to select the filling of the selected layer and has the following subitems:	
	Solid	- Use this option to fill the layer with a selected solid color.
	Gradient	- Use this option to fill the layer with a gradient of two selected colors.
	Texture	- Use this option to fill the layer with a texture taken from an image file. It can be selected from the preset list or loaded from any image file on your computer hard disk drive.
	Hatch	- Use this option to fill the layer with a hatch composed of two selected colors.

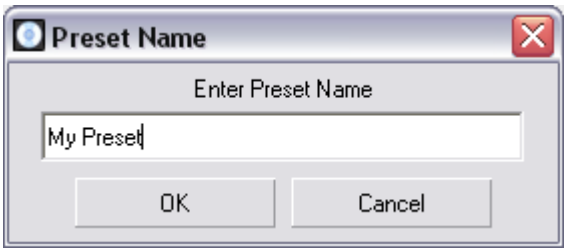
Presets

AVS Cover Editor comes with a number of presets for your convenience. You can use them for your projects, change them to fit your design, or you can create new presets and save them for future use.

To select the preset from the **Presets List**, you need to double-click it with the mouse or drag it with the mouse cursor to the **Editing Area**. After that you can edit the selected preset according to your wish and taste.

Clicking the right mouse button on the preset you will activate the contextual menu. It will let you select either to **Apply** the selected preset to the **Editing Area** and **edit** or **print** it, or **Remove** the selected preset from the **Presets List**.

Note: deleting presets is irreversible and cannot be undone afterwards.

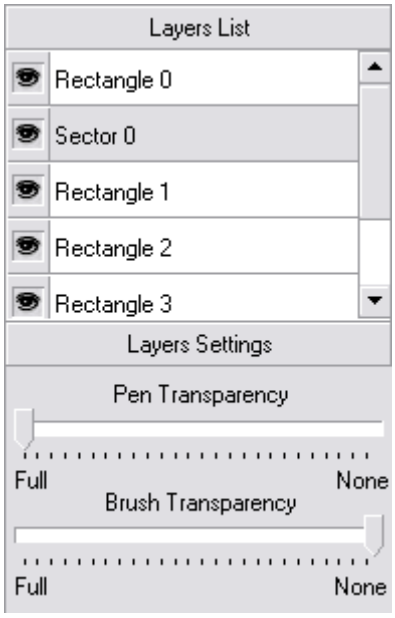


You can also **Rename** the selected preset using the contextual right-click menu. When you select the appropriate menu item, the following window will be opened:

You will need to enter a new preset name and click **OK** to apply changes or select **Cancel** to leave the preset name unchanged.

You can save the currently edited project as a preset. To do that select **Save as preset** from the **Main Menu**, choose a name for your new preset and save it on your hard disk drive. It will be saved to the **Presets** folder of the **AVS Cover Editor** program and have ***.cpr** file extension. After that it will become available from the **Presets List** where all the existing presets are listed alphabetically.

Layers Area



All the tools used to edit the covers and labels form layers in the **Editing Area**. You can manage these layers, changing their position in relation to each other, adding or deleting layers and adjusting their transparency. See the **Organizing Layers** section to find out how to do all that.

The **Layers Area** contains the information about all the layers used in the current project in the **Layers List** in the upper part of the **Layers Area**.

When you click a shape in the **Editing Area**, the respective layer will be highlighted in the **Layers List** and vice versa, when you click one of the layers in the list, the shape that corresponds to it in the **Editing Area** will be selected.

This is very useful especially when you try to edit layers placed underneath other layers.

You can also copy, paste, cut and remove the selected areas, and move them forward and backwards in the **Editing Area**. See the **appropriate section** for more detail on how to do that.

In the lower part of the **Layers Area** the **Layers Settings** can be viewed and changed. For each shape in the **Editing Area Pen** and **Brush Transparency** settings are available. Some of the layers have additional parameters that can be changed. See the **Editing** sections for more details on how to change settings of different layers.

Working with AVS Cover Editor: Overview

Working with **AVS Cover Editor** is quite simple and intuitive and consists of the following main parts:

- Before you can start editing the label or cover for your discs, you should **create new projects**. However, the program automatically creates a project named *'Untitled'* so that you could begin editing it right after the program start.

> **Note**: you can load previously created or edited project if you saved it.

- After that you can begin to **edit covers and labels**. It can be done using the presets included into the installation or creating your own labels and covers from scratch.
- When all the editing part is done, you can go to **printing the projects results** - print the created covers and labels using a printer or save them as an image file to print them later.

That is applicable to any cover or label for optical discs and their boxes. Consult this **AVS4YOU Programs Help** to find the answers to most of your questions concerning **AVS Cover Editor**.

Operations with Projects: Overview

AVS Cover Editor lets the user create different disc labels and box covers or edit existing presets. All the actions you perform in the program are stored in projects when you save them.

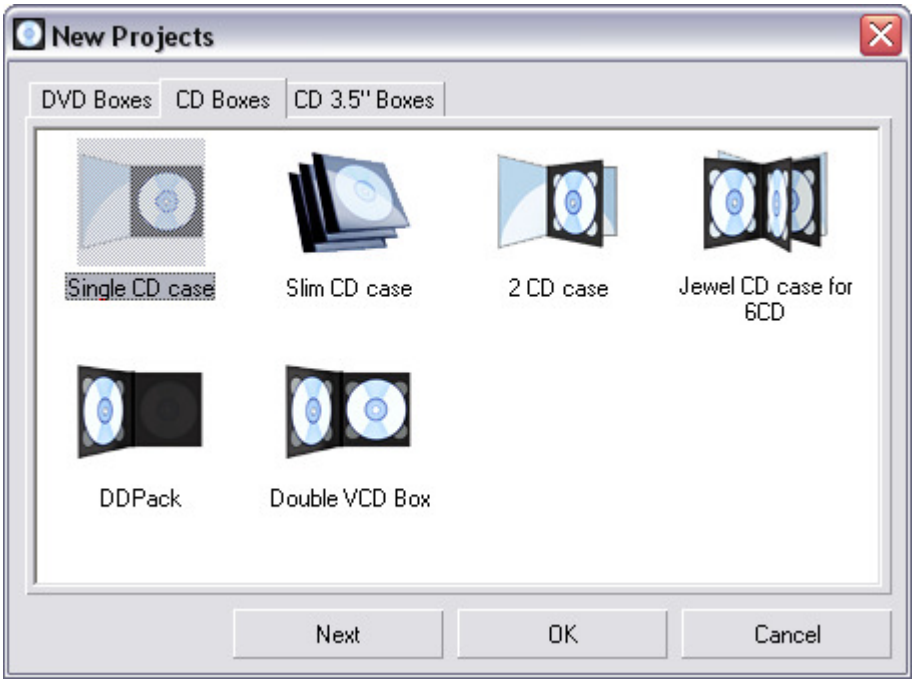
A project contains all the arrangements information of the images and layers included in your cover and all the modifications made. A saved project file in **AVS Cover Editor** has a ***.cov** file name extension. By saving your projects, you can open the project file later and begin editing it in **AVS Cover Editor** from where you stopped.

Working with projects includes the following:

- **Creating new projects** - you need to create a new project to start drawing a new disc label or box cover.
- **Saving the created projects** - you need to save the created project to be able to access it in the future and modify or print the resulting labels and covers. You might also save the created project as a preset, so that it would be available from the **Presets List**.
- **Opening existing or saved projects** - you might need to open an already saved project to further modify it or print the project covers and labels.
- **Printing the projects results** - you can print the created covers and labels using a printer or save them as an image file to print them later.

Creating Projects

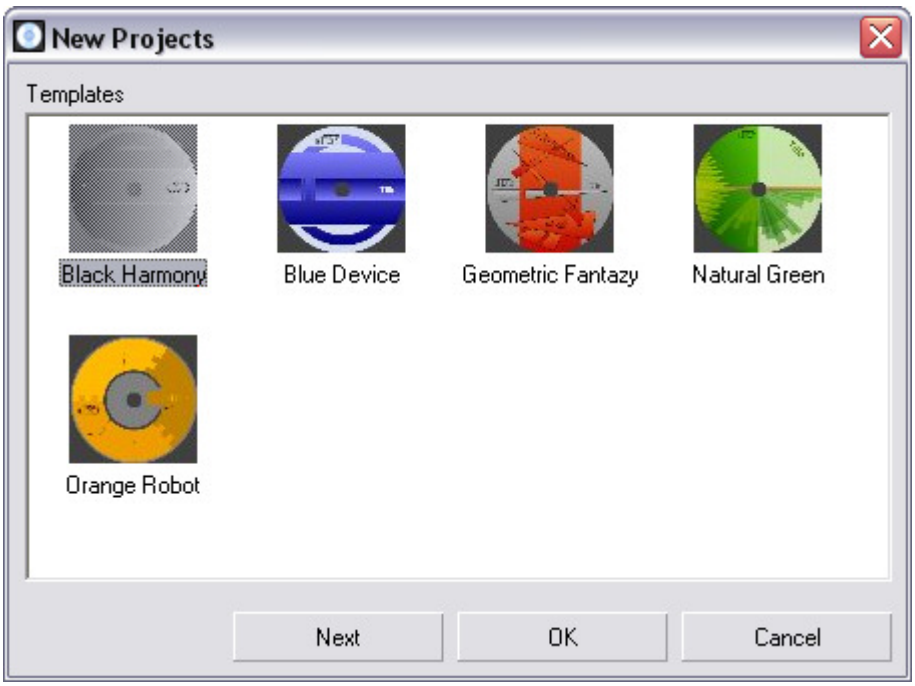
When you launch **AVS Cover Editor**, it begins with all the presets loaded and the *'Untitled'* project started. However, you can create a project of your own from the very beginning. To do that click the **Create new project** button in the **Top Toolbar** or select the **New** item in the **Main Menu**. First of all you will need to choose the type of project you would like to start:



There are several options to select from:

- **DVD Boxes** - use this option to create labels for different DVD discs, covers for DVD boxes and cases (the presets include DVD Clear Case, 14 mm DVD 4 disc case, 14 mm double DVD case, 14 mm single DVD case, 7 mm double DVD case, 7 mm single DVD case, 9 mm double DVD case, 9 mm single DVD case).
- **CD Boxes** - use this option to create labels for different CD discs, covers for CD boxes and cases (the presets include Single CD case, Slim CD case, 2 CD case, Jewel CD case for 6CD, DDPack, Double VCD Box).
- **CD 3.5" Boxes** - use this option to create labels for different 3.5 inch CD discs, covers for 3.5 inch CD boxes and cases (the presets include CD 3.5" and Slim CD 3.5").

After you select the discs set for your cover design, you can click the **Next** button (if available) to see the existing **Templates** for the selected project:



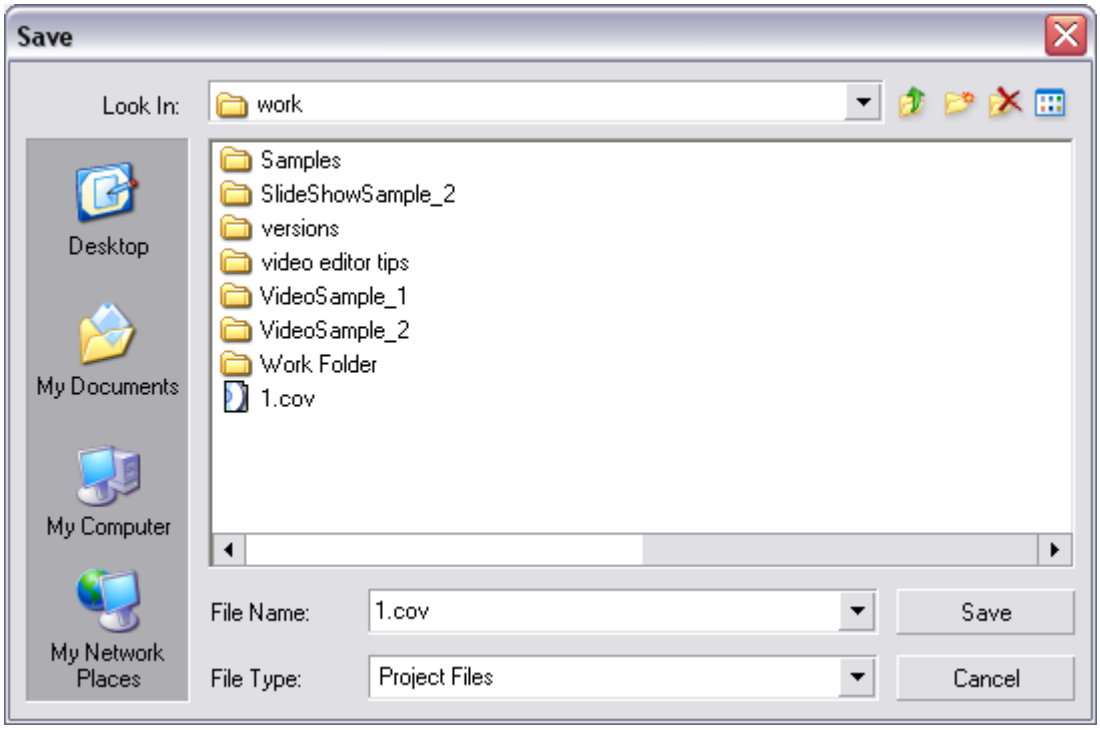
You can return to the projects selection window, clicking the **Back** button or press the **OK** button to accept your choice.

Saving Projects

When you modify your project in some way, you will need to save it to be able to use it later. Saving can be done in the following way:

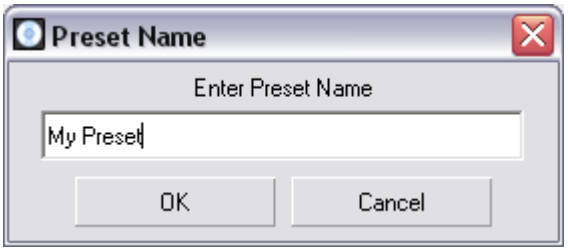
- click the **Save current project** button of the **Top Toolbar** or select the **Save** item in the **Main Menu**;
- or select the **Save As Main Menu** item if you plan to save the existing project under a different name.

The following window will be opened and will let you save the project under the name you select:

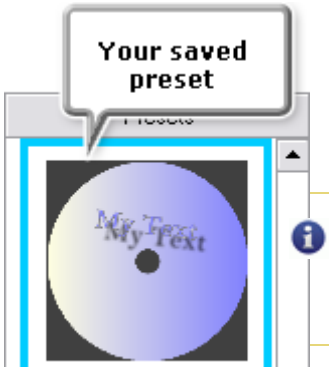


Note: the **AVS Cover Editor** projects have the ***.cov** file name extension.

You can also save the currently edited project as a preset, so that it will be displayed in the **Presets List** afterwards and you will get instant access to it from the **AVS Cover Editor Main Window**. To do that click the **Save as preset** item of the **Main Menu**. The following window will let you enter the new preset name, that will be displayed in the **Presets List**:



After you type in the name of the preset and click the **OK** button the new preset will be saved on your computer hard disk drive.



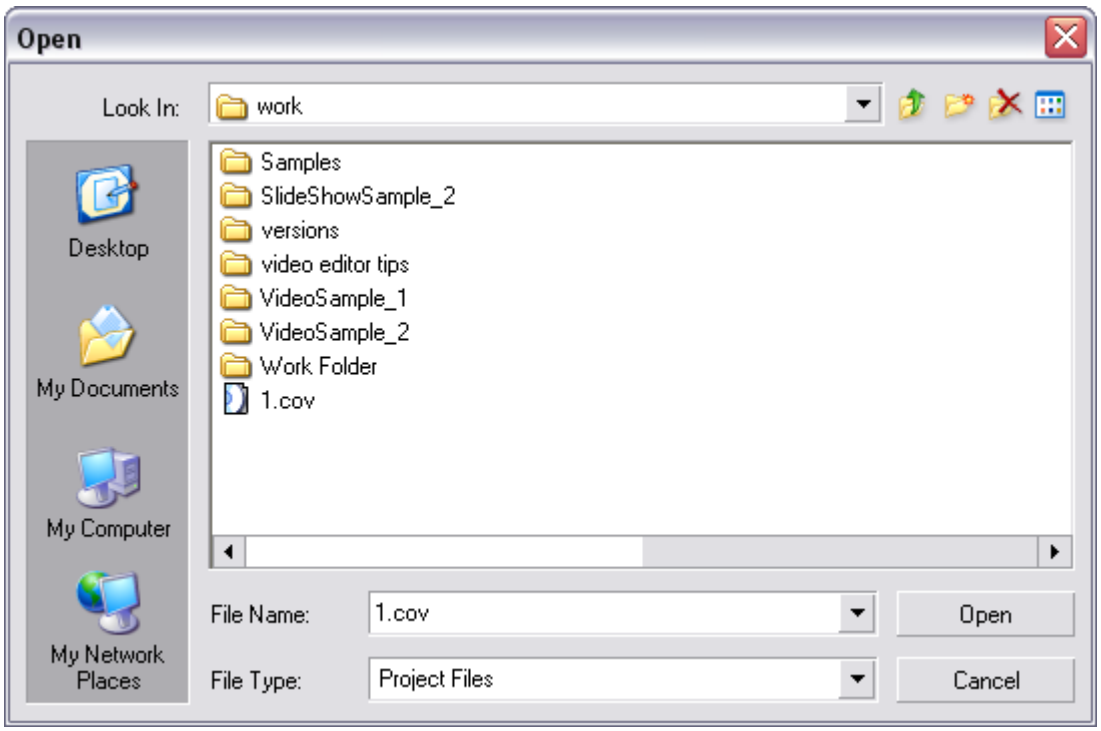
The file that will contain data for your created preset will be saved with the ***.cpr** extension and the preset will be added to the **Presets List** in the **AVS Cover Editor Main Window**.

Now you can use the saved preset to label your discs, edit it changing to your taste and needs and create other presets based on it.

Note: all the changes to the saved preset will not be saved unless you select the **Save as preset** item of the **Main Menu** and save the preset with the same name and the same file name once again.

Opening Projects

You can open previously saved projects using the **Main Menu Open** item or the **Open project** button of the **Top Toolbar**. The following window will open:

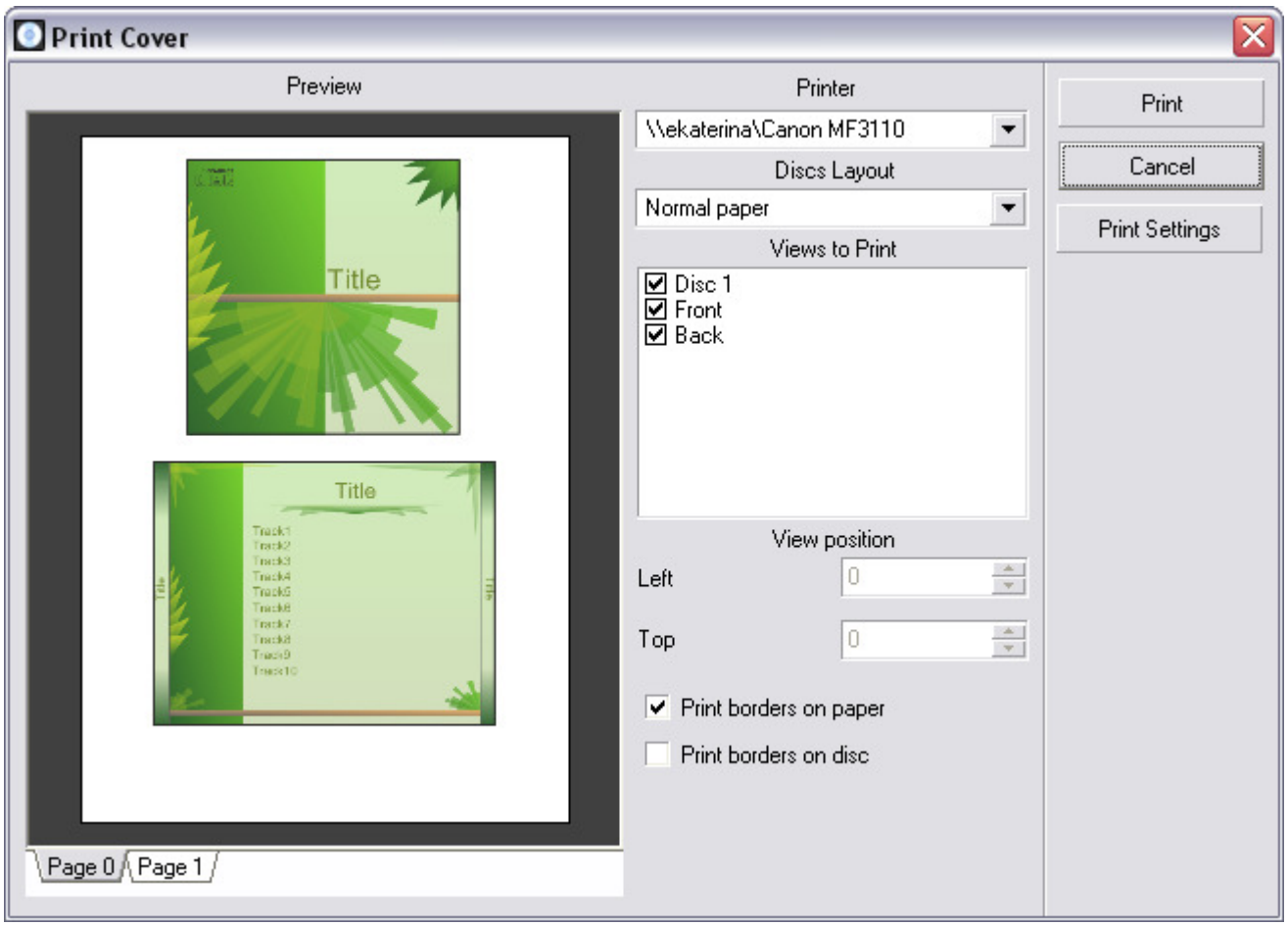


The **AVS Cover Editor** projects will be displayed in the opened window and will have the ***.cov** file name extension.

You can also open the projects, that you recently worked with, directly from the **Main Menu**. To do that click the **Recently opened** menu item and choose the necessary project. The selected project will load automatically and you will not need to look for it on your computer hard disk drive.

Printing and Saving as Images

After the images for your disc label and box cover are ready, you can print them using a printer. To do that click the **Print** button in the **Top Toolbar** or select the **Print** item in the **Main Menu**. The following window will open:



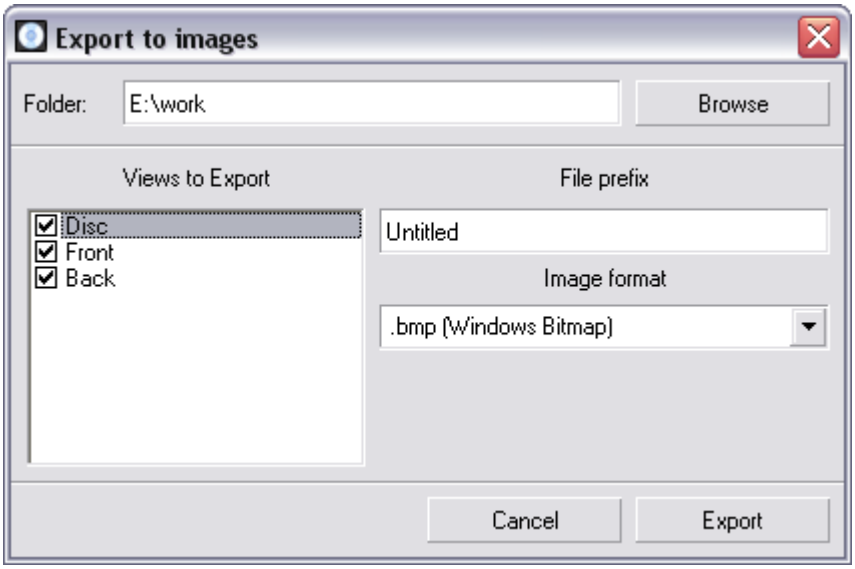
You can select here:

- **Printer** - select the printer from the list of available ones. If you have only one printer connected to your personal computer, it will be selected by default. Otherwise, the printer marked as default by your system will be selected until you choose some other one.
- **Discs Layout** - the position and the number of the discs on the sheet of paper depending on the paper size and type.
- **Views to Print** - you can select to print all the created labels and covers or only some of them - the **Disc** label, the box **Front** or **Back** cover.
- **View position** - you can set the additional position parameters of the disc label or box cover on the paper - namely, **Top** and **Left** margins - in the appropriate fields.
- **Print borders on paper** - use this option to print the box cover borders on paper. It might be especially useful, if your cover background is white and you will not know where the boundaries are unless you print them on the paper.
- **Print borders on disc** - use this option to print the disc label borders on paper. It might be especially useful, if your label background is white and you will not know where the boundaries are unless you print them on the paper.

To adjust the printer parameters, specific to each printer, click the **Print Settings** button to open the printer setup window. The parameters of the printer will differ depending on the printer type and model and the printer drivers installed.

After you select the necessary settings, you can click the **Print** button to start printing the images or **Cancel** to close this window.

However, if you do not plan to print the result right now or have not got an available printer at the moment, you can save your resulting covers and labels as images. Select the **Export to Images** item in the **Main Menu** to open the following dialog window:



Here you can choose:

- **Folder** to save the resulting images. The **My Documents** folder on your computer will be chosen by default. Click the **Browse** button to find a specific folder on your computer hard disk drive.
- **Views to Export** - you can select to export all the created labels and covers or only some of them - a **Disc** label, a box **Front** or **Back** cover.
- **File prefix** - the title that the project is saved with.
- **Image format** - the image file format selected from the list. You can use most of the currently known formats - *.bmp, *.jpg, *.wmf, *.emf, *.gif, *.png, *.tiff, *.pcx, *.tga, *.ras.

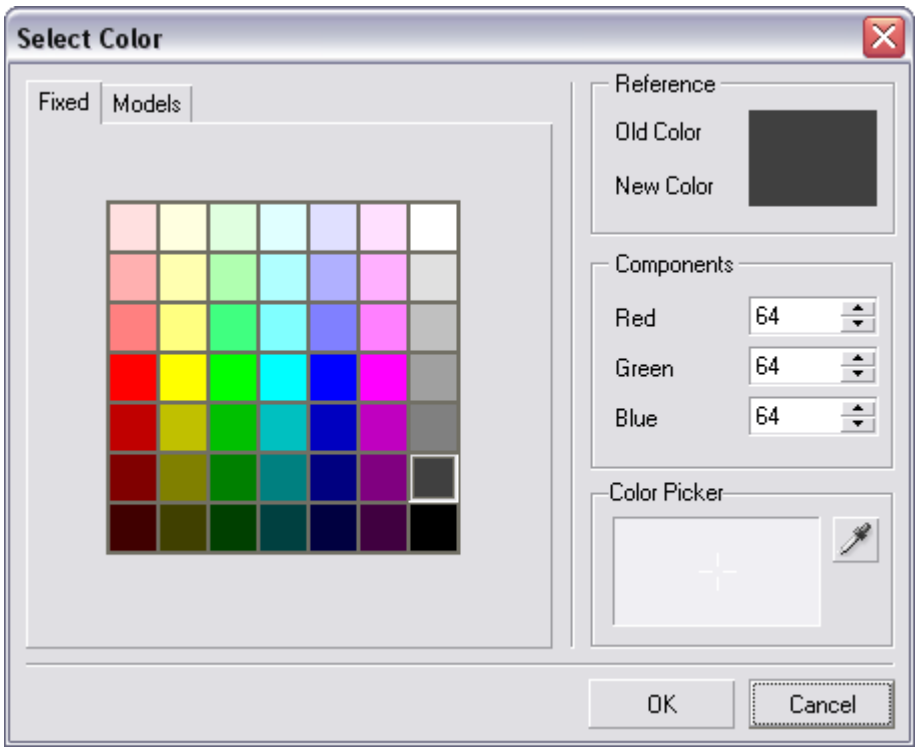
After you select the necessary settings, you can click the **Export** button to save the images or **Cancel** to close this window.

Editing Covers and Labels: Overview

Editing the covers and labels is quite easy and does not require any specific skills. You only need to select a proper tool from the list in the **Main Menu** or from the **Side Toolbar** and put it to the cover or label in the **Editing Area**. After that it can be adjusted using the mouse - you can change its shape, position, transparency and color.

Most tools have got two primary colors - **Pen** and **Brush**. The **Pen** is used to draw the contour of the selected tool, and the **Brush** is used to fill the inner part of the shape, drawn with the selected tool, with the chosen color.

To change the color of either **Pen** or **Brush**, just click them with the mouse button and select the color in the opened window. You can also use the **Picker** to select the needed color:



You should also bear in mind, that the **Brush** can have not only some solid color, but can also be filled using **Gradient**, **Texture** or **Hatch** patterns. See the **Filling Layers** section for more detail on how to do that.

The transparency of both the **Pen** and the **Brush** can be also changed. Use the sliders under the **Layers List** to do that.

The main tools currently included into the **AVS Cover Editor** program are:

- **Line and PolyLine tools**;
- **Rectangle and Polygon tools**;
- **Circle and circle-like shapes tools**;
- **Text and Text around tools**;
- **Image tool**;
- **Filling tools**.

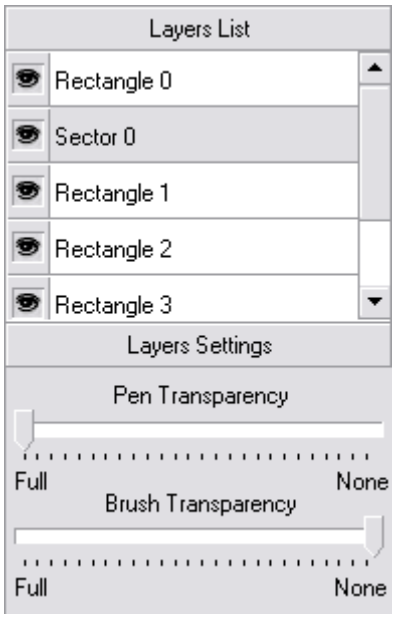
Please see the respective chapters for more detail on each of the tools.

When the tools are used to edit the covers and labels, each of them forms a layer in the **Editing Area**. You can manage these layers, changing their position in relation to each other, adding or deleting layers and adjusting their transparency. See the **Organizing Layers** section to find out how to do all that.

Organizing Layers

When any tool is used to edit the covers and labels it forms a layer in the **Editing Area**. You can manage these layers, changing their position in relation to each other, adding or deleting layers and adjusting their transparency.

All the layers are displayed in the **Layers List**:



When you click any of the layers in the **Layers List**, it will become selected in the **Editing Area**, and vice versa. This way you can edit layers placed under the other layers when you cannot reach them easily.

If you want to change the layers position in relation to each other, you just need to select the layer to be moved with the mouse button and move it upwards or downwards in the **Layers List**. The upward movement of a layer will place it in the background position in relation to the layers below it in the list and the other way round - the downward movement of a layer will place it in the foreground position in relation to the layers above it.

To delete a layer, select it in the **Layers List** or **Editing Area** and click the **Delete** button on the keyboard or the **Remove layer** button in the **Top Toolbar**. To copy a layer, select it in the **Layers List** or **Editing Area** and click the **Copy layer** button in the **Top Toolbar**. After the layer is copied to the computer clipboard, it can be added to the other place, for instance, from the disc label **Editing Area** to the disc box cover **Editing Area**. Use the **Paste layer** button in the **Top Toolbar** to insert the copied layer into the new location.

You can also cut the layer from one place and insert it into the other. Use the **Cut layer** and **Paste layer** buttons in the **Top Toolbar** to do that.

If you would like to adjust the layer transparency, you will need to use the sliders in the **Layers Settings** area to do that. You can change separately **Pen** and **Brush Transparency** of the selected layer using the appropriate slider.

Draw Lines

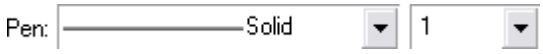
You can use the **Line tool** to draw different types of lines on your disc or box cover.

There are two variants of the **Line tool** that can be used (to select either press with the mouse button the **Line tool** item on the **Side Toolbar** and hold down the mouse button for a couple of seconds or select one of the items from the **Draw** section of the **Main Menu**):

 Line - Use this option to draw straight lines with no angles or bends.

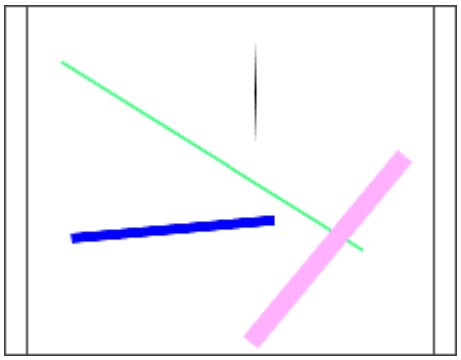
 PolyLine - Use this option to draw lines with angles and bends. As many turns and bends as needed can be added to the line after it is drawn.

When you select either of the **Line tool** modes, the line draw panel will appear in the upper part of the **AVS Cover Editor** window (under the **Top Toolbar**):

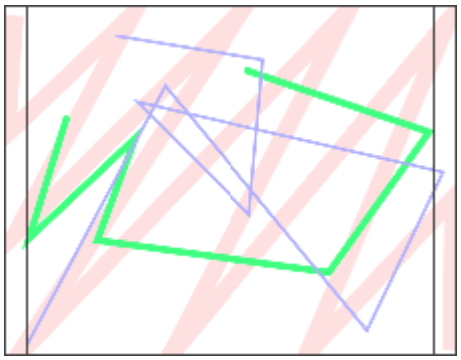


It lets you select the **Pen** type, used to draw the **Lines** and **PolyLines**, and its **Thickness** from the drop-down boxes.

Here are the examples of **Line** and **PolyLine** tools use:



Line example



PolyLine example

Draw Rectangles and Polygons

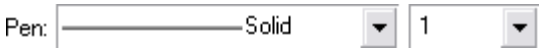
You can use the **Rectangle tool** to draw rectangles and polygon shapes on your disc or box cover.

There are two variants of the **Rectangle tool** that can be used (to select either press with the mouse button the **Rectangle tool** item on the **Side Toolbar** and hold down the mouse button for a couple of seconds or select one of the items from the **Draw** section of the **Main Menu**):


Rectangle - Use this option to draw rectangles of various sizes.

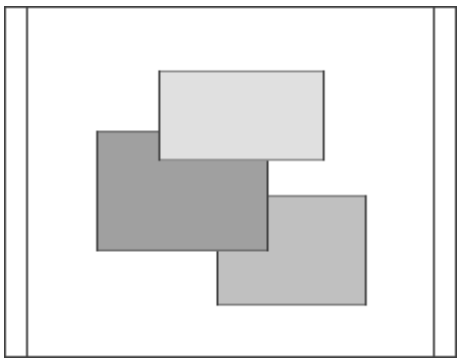

Custom polygon - Use this option to draw different types of polygons. As many angles as needed can be added to the polygon after it is drawn.

When you select either of the **Rectangle tool** modes, the rectangle draw panel will appear in the upper part of the **AVS Cover Editor** window (under the **Top Toolbar**):

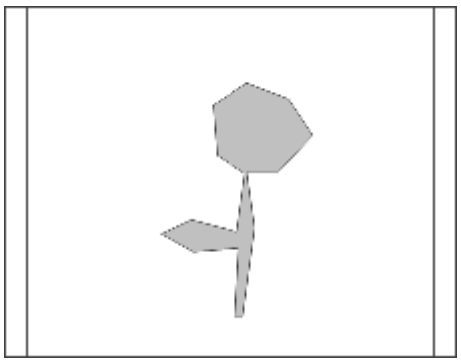


It lets you select the **Pen** type, used to draw the **Rectangles** and **Polygons**, and its **Thickness** from the drop-down boxes.

Here are the examples of **Rectangle** and **Polygon** tools use:



Rectangle example



Polygon example

Draw Circle-like Shapes

You can use the **Circle tool** to draw circles and circle-like shapes on your disc or box cover.

There are four variants of the **Circle tool** that can be used (to select either press with the mouse button the **Circle tool** item on the **Side Toolbar** and hold down the mouse button for a couple of seconds or select one of the items from the **Draw** section of the **Main Menu**):

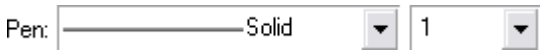
 Circle - Use this option to draw circles of different sizes.

 Ellipse - Use this option to draw ellipses of different sizes elongated in the vertical or horizontal planes.

 Sector - Use this option to draw parts of circumference of different sizes and completeness.

 Pie - Use this option to draw pie-like shapes of different sizes and completeness.

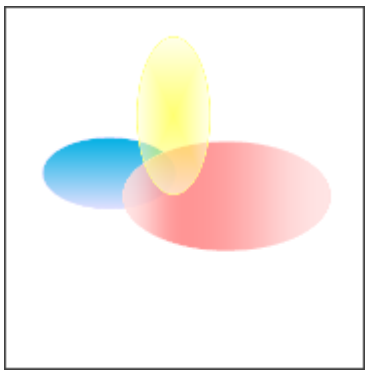
When you select either of the **Circle tool** modes, the circle draw panel will appear in the upper part of the **AVS Cover Editor** window (under the **Top Toolbar**):



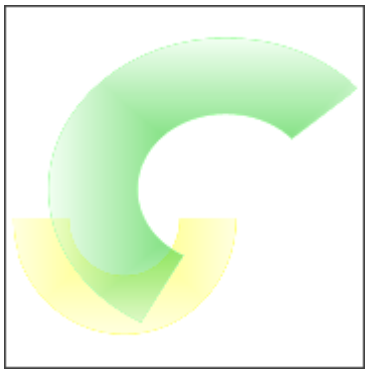
It lets you select the **Pen** type, used to draw the **Circles**, **Ellipses**, **Sectors** and **Pies**, and its **Thickness** from the drop-down boxes.

Here are the examples of **Circle**, **Ellipse**, **Sector** and **Pie** tools use:

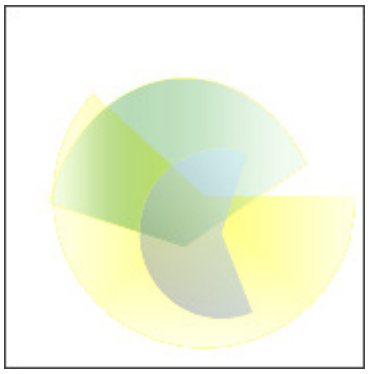
Circle example



Ellipse example



Sector example



Pie example

Add Text

You can use the **Text tool** to add some captions and inscriptions on your disc or box cover.

There are two variants of the **Text tool** that can be used (to select either press with the mouse button the **Text tool** item on the **Side Toolbar** and hold down the mouse button for a couple of seconds or select one of the items from the **Draw** section of the **Main Menu**):

Text - Use this option to add common text to your created image.

Text around - Use this option to add rounded text to your image.

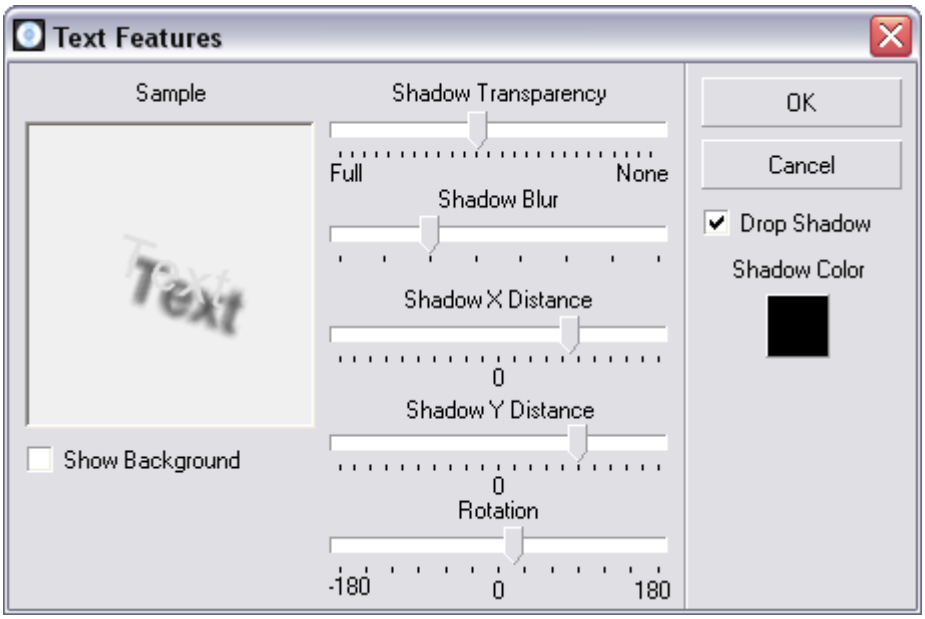
When you select either of the **Text tool** modes, the text panel will appear in the upper part of the **AVS Cover Editor** window (under the **Top Toolbar**):

It lets you select the **Font** type, **Font size**, font decorations (**bold**, **italics**, **underlined**), **Text alignment** and pick one of the **Text presets**, included into the **AVS Cover Editor** installation.

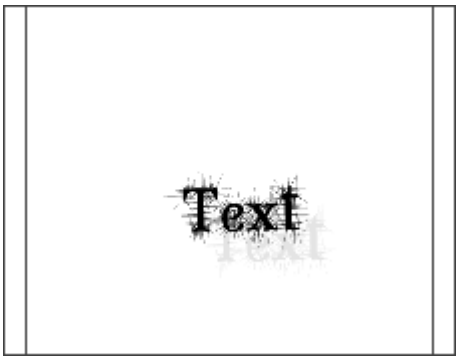
The text itself can be entered into the text area in the bottom right corner of the program window.

To select some additional text settings you will need to click the **Advanced** button, placed under the text area.

You will see the window that will let you change the text **Shadow** settings (**Color**, **Transparency**, **Blur**, **Horizontal (X)** and **Vertical (Y) Distance** from the text and **Rotation** angle). You will be also able to select to either show or hide the text **Shadow** (the **Drop Shadow** setting) and the text **Background**:



Here are the examples of **Text** and **Text around** tools use:



Text example

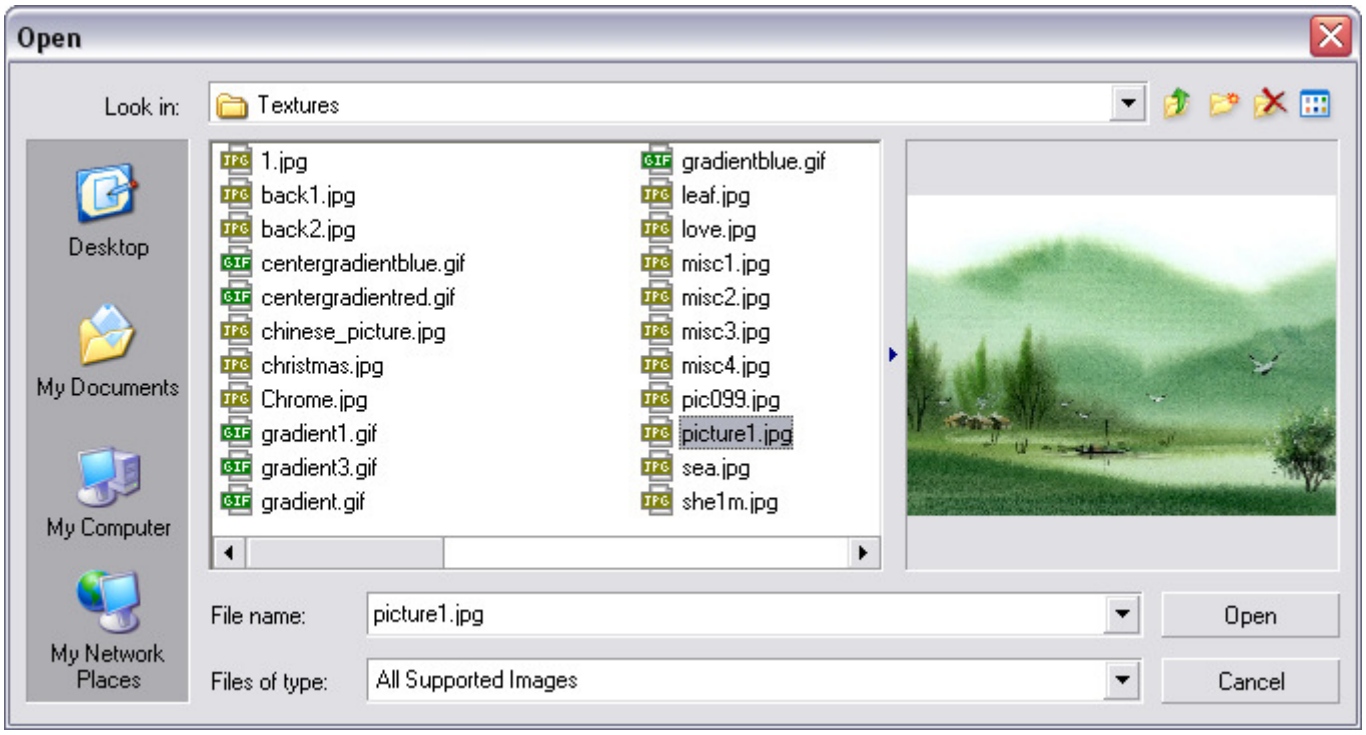
Text around example

Add Images

You can add an image to your created disc label or box cover. It will serve as a background or as a part of the disc label or box cover.

 - Use this button to add an image to your created project. After that click the mouse button within the created label or cover.

The following window will open to let you select an image in one of the graphic formats in the **Textures** folder of the **AVS Cover Editor** program directory. You can also select an image from any folder present on your computer hard disk drive:



After the image is selected, you can change the picture size in the **Editing Area**, select its transparency or choose some other image to replace the current one, clicking the **Load Image** button.

Here is how the above selected image will look like on your disc box back cover:

The same way an image can be placed on a disc label or disc box front cover.

Filling Layers

 The **Brush** can fill the layer with a single **Solid** color, and can also use **Gradient**, **Texture** or **Hatch** patterns. When you added a shape with the help of some tool, you can select it and click the **Fill tool** button on the **Side Toolbar**.

The program will let you select one of the following **Fill tools** that will be used for the **Brush**:

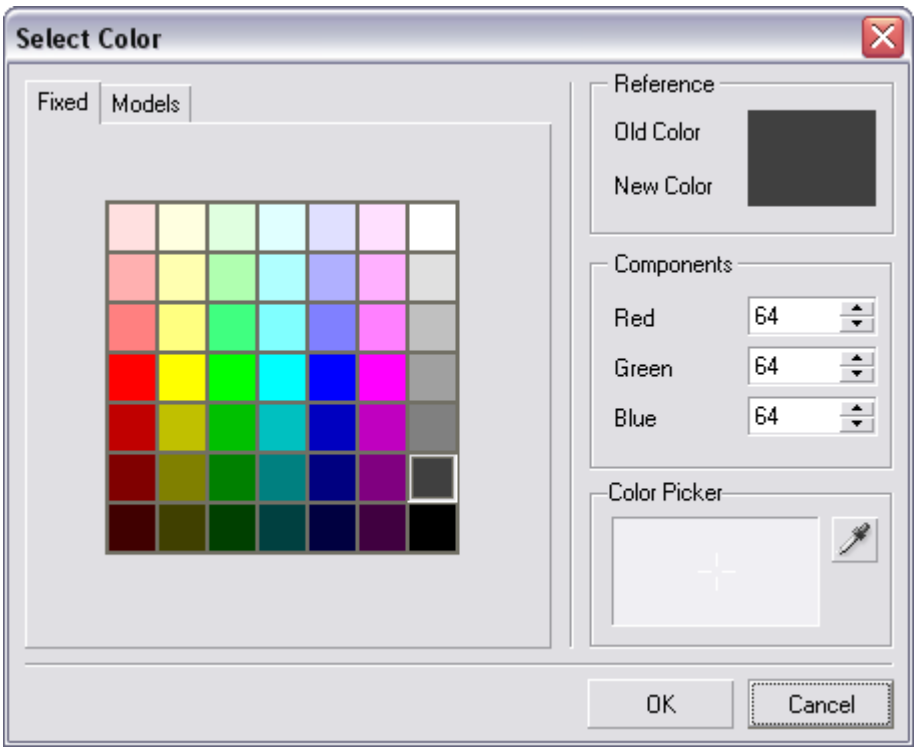
- **Solid color** - use this option to fill the inner part of the shape with a single solid color that you select.

- **Gradient** - use this option to fill the inner part of the shape with the smooth transition of two different colors into each other.
- **Texture** - use this option to fill the inner part of the shape with some texture taken from the presets or from any supported image from your computer hard disk drive.
- **Hatch** - use this option to fill the inner part of the shape with a pattern formed by two different colors.

> **Note**: you can change the fill type for the layer any time, clicking the layer to be edited in the **Editing Area** or in the **Layers List** and selecting a new **Fill tool** instead of a previous one. To change the colors used in the **Fill tool**, you should again select the necessary layer and click the **Brush** icon to the left of the **Editing Area**.

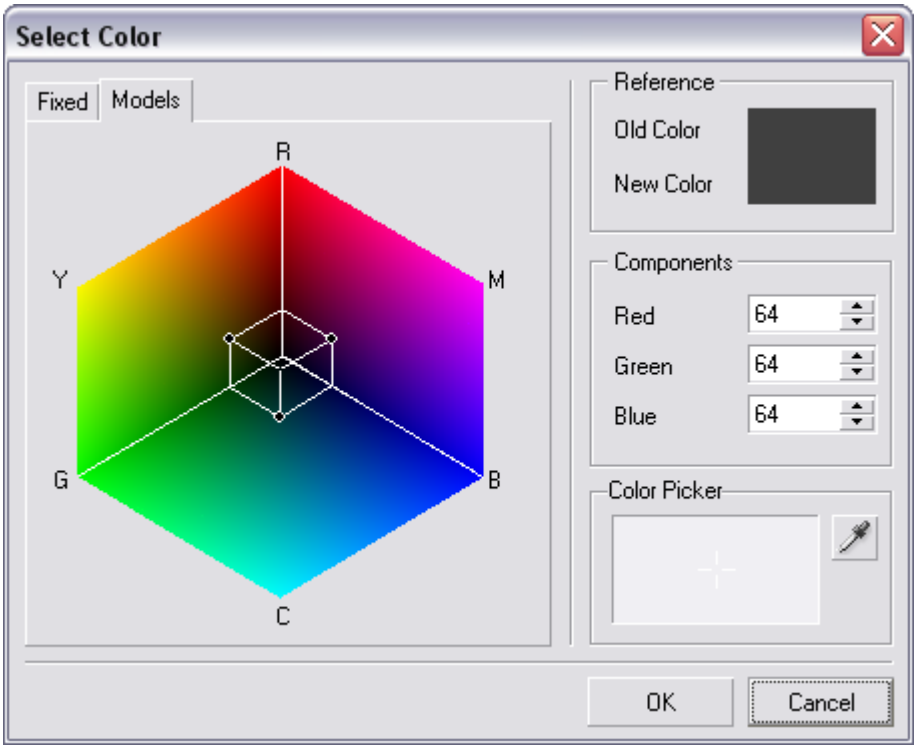
Solid color

Solid When you select the **Solid** color fill type the program will let you choose the color that will be used as **Fill tool**. The following window will open to let you select the color:



You can choose the color from the color list on the left side, adjust the components of the color manually entering the colors values (**Red**, **Green** and **Blue**) in the appropriate boxes, or use the **Color Picker** to click within the area of a certain color to select it. You should first click the **Color Picker** icon with the mouse and, without releasing it, drag it to the place on your computer screen where the desired color is and release it there.

It is also possible to pick a color from the color model clicking the **Models** tab of the **Select Color** window:

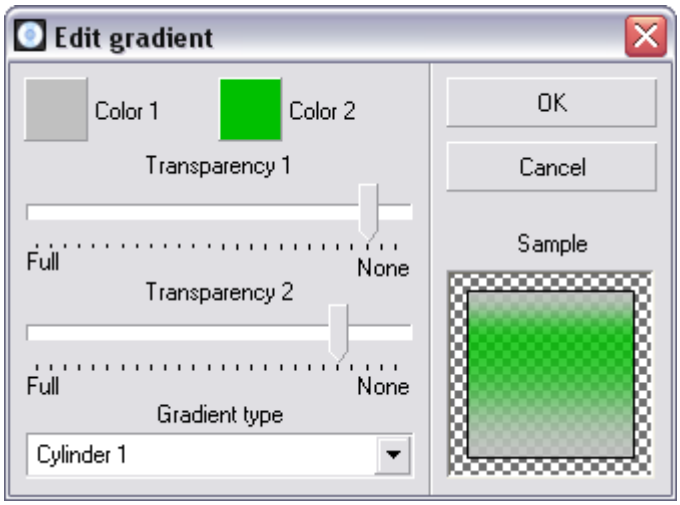


You can also control the selection of the color using the reference between the **Old Color** and the **New Color** in the right upper box.

To accept the color and continue editing, click the **OK** button. To return to the editing without color change, click **Cancel**.

Gradient

Gradient When you select the **Gradient** fill type the program will let you choose the colors that will go into each other and will be used as **Fill tool**. The following window will open:



When you click the **Color 1** and **Color 2** icons the **Select Color** window will be opened to let you choose the necessary colors.

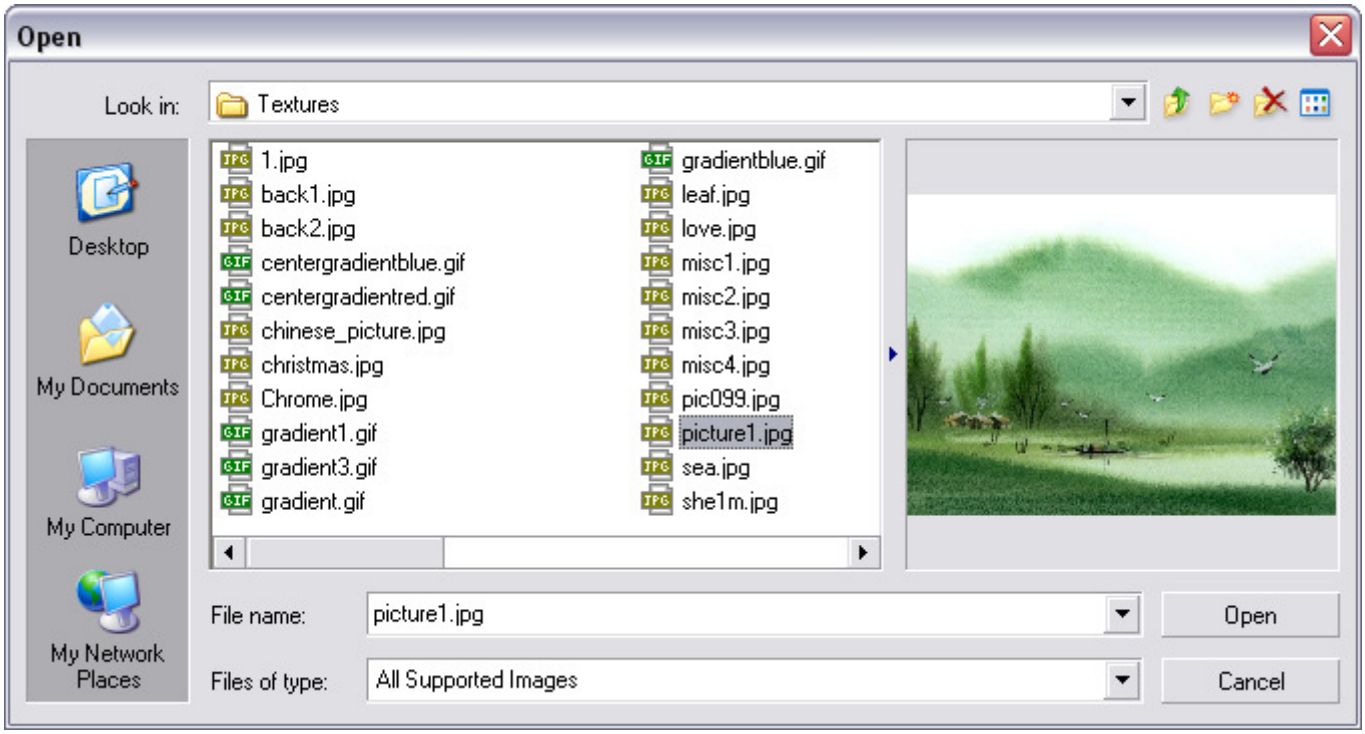
You can also set the colors **Transparency** and **Gradient type** that will be used for the transition of the colors into each other. Currently there are the following **Gradient types** - **Horizontal**, **Vertical**, **Diagonal 1**, **Diagonal 2**, **Center**, **Cylinder 1** and **Cylinder 2**. You can select one of them that will suit your cover best. The preview is available in the **Sample** area of the window.

To accept the colors and their parameters and continue editing, click the **OK** button. To return to the editing without color change, click **Cancel**.

Texture

Texture When you select the **Texture** fill type the program will let you choose the image from the preset list that will be used as **Fill tool**. The following window will open:

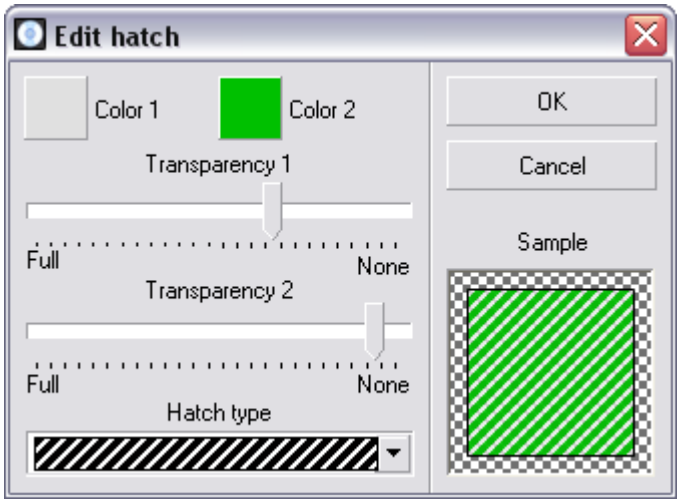
But it is certainly possible to select any of the supported images present on your computer hard disk drive. Click the **Load other** button to open the window that will let you find images:



After the image is loaded, you can change its **Transparency** using the slider or click the **Load Image** button in the lower right corner to select some other image.

Hatch

Hatch When you select the **Hatch** fill type the program will let you choose the colors that will form the pattern with each other and will be used as **Fill tool**. The following window will open:



When you click the **Color 1** and **Color 2** icons the **Select Color** window will be opened to let you choose the necessary colors.

You can also set the colors **Transparency** and **Hatch type** that will be used to form the pattern. You can select one of the available patterns that will suit your cover best. The preview is available in the **Sample** area of the window.

To accept the colors and their parameters and continue editing, click the **OK** button. To return to the editing without color change, click **Cancel**.

Enabling the DMA Mode

DMA mode - Direct Memory Access - allows certain hardware subsystems within a computer to access system memory for reading and/or writing independently of the CPU. Many hardware systems use DMA including disk drive controllers, graphics cards, network cards, and sound cards.

DMA is an essential feature of all modern computers, as it allows devices of different speeds to communicate without subjecting the CPU to a massive interrupt load. Otherwise, the CPU would have to copy each piece of data from the source to one of its registers, and then write it back again to the new location. During this time the CPU would be unavailable for other tasks.

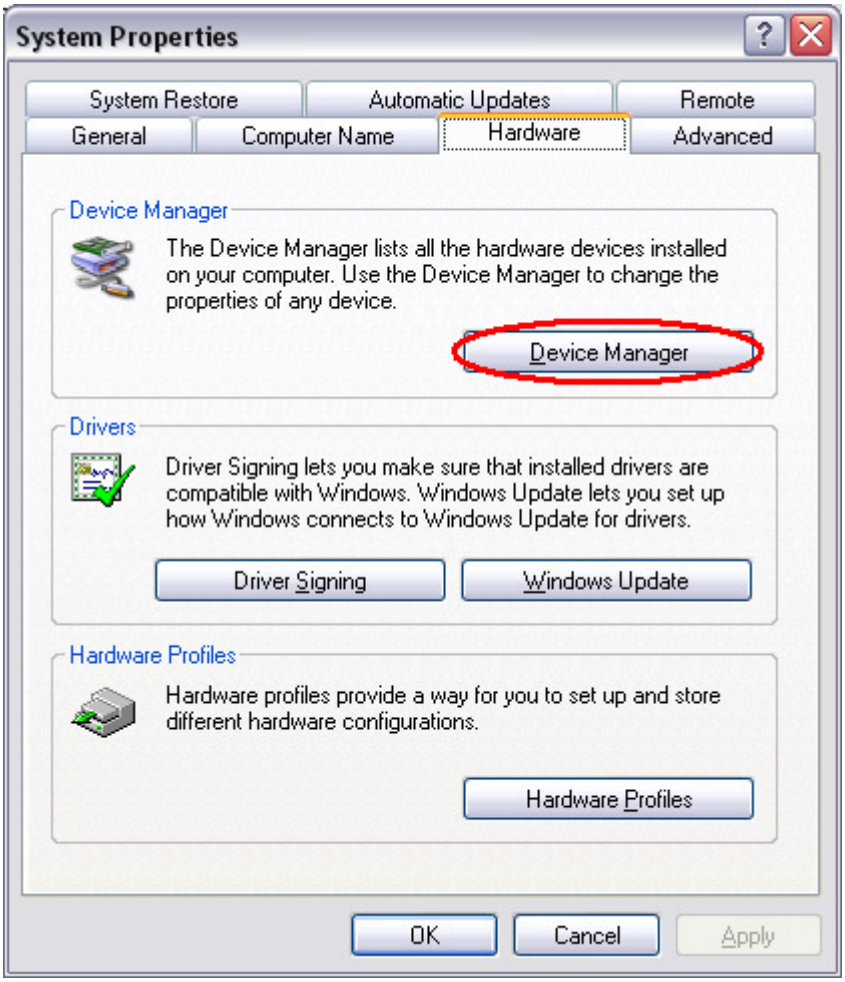
A DMA transfer essentially copies a block of memory from one device to another. While the CPU initiates the transfer, the transfer itself is performed by the DMA Controller. A typical example is moving a block of memory from external memory to faster, internal (on-chip) memory. Such an operation does not stall the processor, which as a result can be scheduled to perform other tasks. It is essential in providing so-called zero-copy implementations of peripheral device drivers as well as functionalities such as network packet routing, file copy, streaming video over a network, etc.

To enable the DMA mode you should do the following:

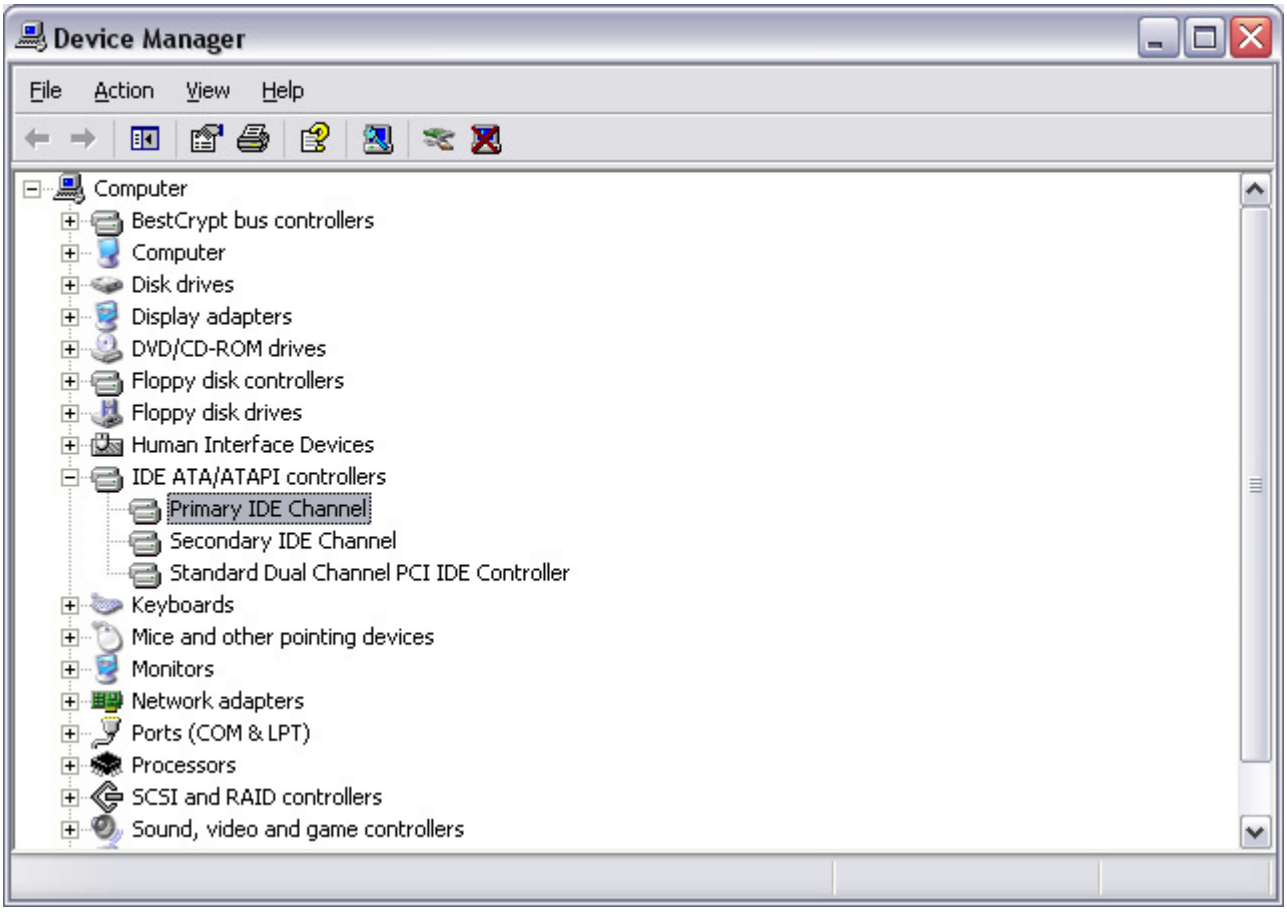
1. Go to the Windows **Start** menu and select **Control Panel**;

2. In the **Control Panel** window choose the **System** icon, double-click it to open the system properties window;

3. In the **Hardware** tab there is a **Device Manager** button:

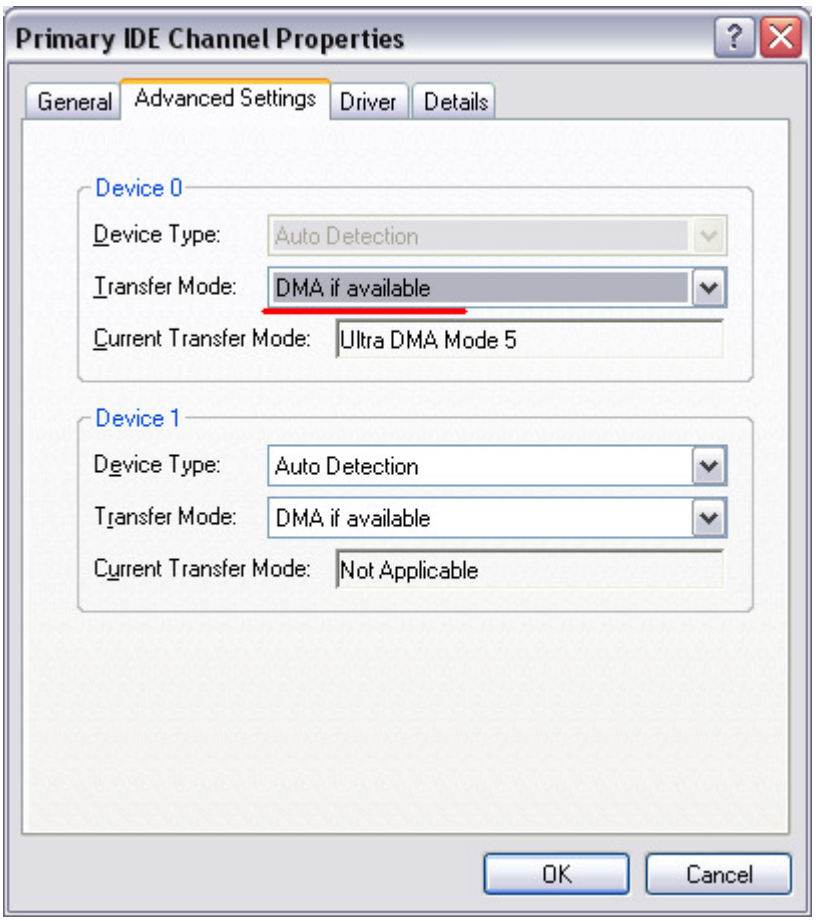


You should click it to open the **Device Manager** window:

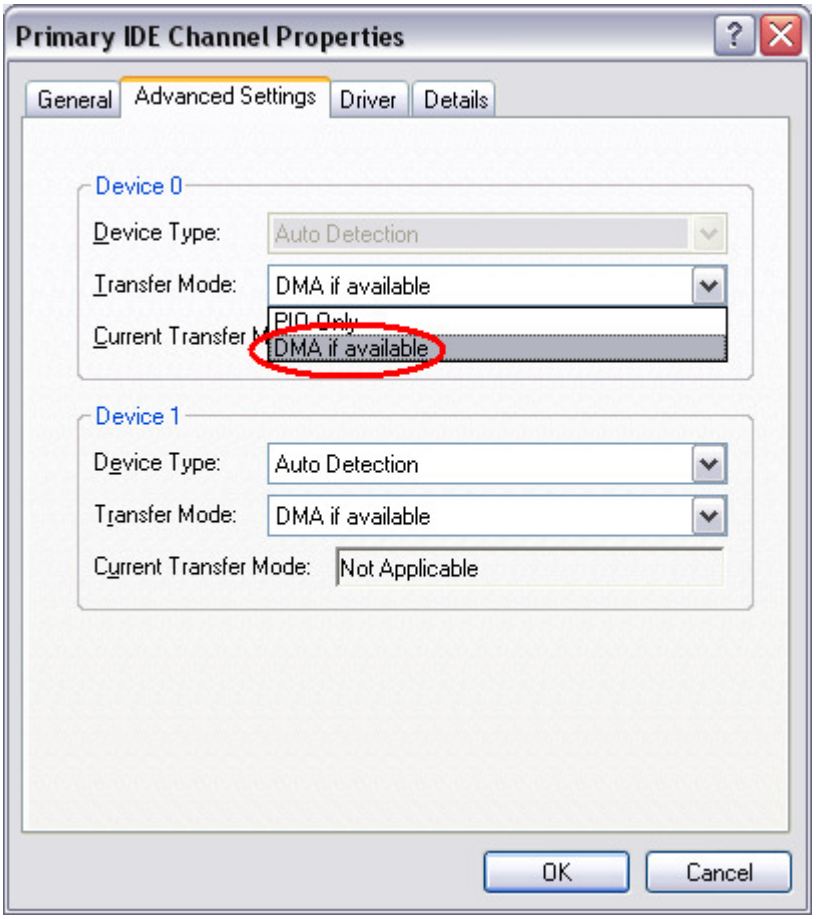


Here you should find **IDE ATA/ATAPI controllers** among the other devices and click the "+" in front of it to open the list of available IDE channels that the controller has.

4. Double-click the **Primary IDE Channel** caption to open the controller properties window:



In the **Advanced Settings** tab you will see the **Transfer Mode** drop-down box where the current transfer mode is displayed. To change the transfer mode and enable DMA you should open the drop-down box and choose **DMA if available** option:



After that click **OK** to accept the changes you have made. The same can be done for the **Secondary IDE Channel**. After you enabled DMA modes for the IDE channels you can close the device manager window. Sometimes the reboot might be needed to apply all the changes.

Note: not all the controllers allow the user to change the transfer mode. If you install the third party driver for your computer IDE controller see the instructions that go along with the driver software. Usually when the special driver for the controller is installed the DMA mode is enabled automatically by the driver software.

Disc Types

AVS4YOU programs currently support three types of optical disc formats that are available for consumer use. This section will better explain the purpose of these formats and their place in history. With the support of other disc types and formats the corresponding information will be added.

- **Compact Discs**
- **Digital Versatile Discs**
    - **DVDs of different capacities**
    - **DVDs of different medium type**
- **Blu-Ray Discs**

Compact Discs

Digital Audio Compact Discs (CD-DA) were first introduced to the consumer audio market in 1980 by Philips and Sony as an alternative to vinyl records and magnetic tape cassettes. In 1984, Philips and Sony extended the technology to include data storage and retrieval and introduced a new format: the Data Compact Disc (CD-ROM).

Since then, the Compact Disc has dramatically changed the way that we listen music and handle electronic information. With a capacity of up to 700 megabytes of computer data or 80 minutes of high quality audio, the Compact Disc has revolutionized the distribution of every kind of electronic information.

In 1990, Philips and Sony extended the technology again and the Compact Disc became recordable (CD-R). Before the introduction of the CD-R technology, compact discs were produced in commercial replication plants by stamping the media with a pre-recorded master. Today, discs are produced in replication plants where large quantities are required. For small production volumes (up to 500 copies or more, depending on your location and manufacturers in your market), it can be significantly less expensive to master your own discs using commercially available Compact Disc writing drives.

Whether a Compact Disc was stamped at a replication facility or "burned" using a compact disc recorder, it can theoretically be read by any available CD-ROM drive. In reality, some inexpensive media and CD players do not work very well together. Only the physical composition of a commercially replicated disc and a CD-R disc are different. The former is coated with a reflective layer of aluminum resulting in a typical silver color. The latter is coated with a reflective layer behind a thin layer of dye (colors can range from blue, silver, green, and others).

In 1997 Compact Disc ReWritable (CD-RW) - a rewritable optical disc format - was introduced. While a prerecorded compact disc has its information permanently stamped into its polycarbonate plastic substrate, a CD-RW disc contains a phase-change alloy recording layer composed of silver, indium, antimony and tellurium. An infra-red laser beam is employed to selectively heat and melt the crystallized recording layer into an amorphous state or to anneal it at a lower temperature back to its crystalline state. The different reflectance of the resulting areas make them appear like the pits and lands of a prerecorded CD. A CD-RW recorder can rewrite 700 MB of data to a CD-RW disc roughly 1000 times.

A Compact Disc contain blocks (or sectors) of 2352 bytes each, going from the center hole to the outer diameter. The block at logical address 0 (beginning of the disc) is located near the center of the disc; the last addressable block (end of the disc) is located near the outer edge of the disc.

Blank discs are usually available in the following sizes (block sizes approximated).

- 21 minutes = 94500 blocks
- 63 minutes = 283500 blocks
- 74 minutes = 333000 blocks
- 80 minutes = 360000 blocks

Digital Versatile Discs

In January of 1995, Sony was the first to showcase Digital Versatile Disc technology after having announced co-development six months earlier. Three weeks later, Pioneer, Time Warner, and Toshiba announced their own version of DVD, which had major differences from the format developed by Philips and Sony. Immediately disputes started over which format should be used, since each had their own advantages and disadvantages.

The disputes did not stop until May of 1995, when a major report was released by leading hardware and software manufacturers (Apple, Compaq, Fujitsu, HP, IBM, and Microsoft), stating that the two formats were not going to be supported by the industry when there were clear advantages in using one format. The result was a mix of the two formats and the formation of the DVD Forum by all companies involved in the two original formats (Matsushita, Mitsubishi, Pioneer, Philips, Hitachi, JVC, Sony, Thompson, Toshiba, and Time Warner).

In 1996, the specifications for DVD-ROM and DVD-Video were finalized and DVD players began to ship to market. One year later, the DVD Forum worked on the specifications for the first recordable (DVD-R) implementation of DVD. In November of 1997, Pioneer announced the first DVD-R drives, while Matsushita and Toshiba released the first DVD erasable (DVD-RAM) drives.

During 1998, a new coalition was formed to develop re-writable discs specifically for storage of data based on 25-year-old CD patents. This format was initially called DVD+RW and was not allowed to use the DVD logo after the DVD Forum ruled that it could not be used in the branch technology. While the technologies between the two formats are similar, licensing rules dictate differences, some of which can be witnessed in the logo branding of devices and media.

Much like Compact Discs, Digital Versatile Discs are comprised of a continuous spiral of blocks (or sectors) starting from the center hole ending at the outer rim of the disc. The blocks are only of size 2048 bytes, making the format less complicated.

There are several types of DVD discs depending on their **capacity** and on the **medium type**.

The main types of DVDs that differ as to their **capacity** are:

DVD disc types	First side		Second side		Total capacity
	First layer capacity	Second layer capacity	First layer capacity	Second layer capacity	
DVD-5	4.7 Gb	-	-	-	4.7 Gb
DVD-9	4.3 Gb	4.3 Gb	-	-	8.6 Gb
DVD-10	4.7 Gb	-	4.7 Gb	-	9.4 Gb
DVD-14	4.3 Gb	4.3 Gb	4.7 Gb	-	13.3 Gb
DVD-18	4.3 Gb	4.3 Gb	4.3 Gb	4.3 Gb	17.2 Gb

DVD-5 - single sided, single layer (disc capacity about 4.7 Gb, the working surface of such a disc is situated on one side of it and consists of one layer only);

DVD-9 - single sided, double layer (disc capacity about 8.6 Gb, the working surface of such a disc is situated on one side of it and consists of two layers about 4.3 Gb each);

DVD-10 - double sided, single layer on both sides (disc capacity about 9.4 Gb, the working surfaces of such a disc are situated on both its sides and either consists of one layer about 4.7 Gb);

DVD-14 - double sided, double layer on one side and single layer on the other side (disc capacity about 13.3 Gb, the working surfaces of such a disc are situated on both its sides and consist of two layers about 4.3 Gb each on one side and one layer about 4.7 Gb on the other side);

DVD-18 - double sided, double layer on both sides (disc capacity about 17.2 Gb, the working surfaces of such a disc are situated on both its sides and either consists of two layers about 4.3 Gb each).

Note: the DVD capacity is measured in the so called **decimal gigabytes** (one gigabyte is equal to 1000 megabytes). The real size of the DVDs is smaller when measured in the so called **computer gigabytes** or **gibibytes** (one gigabyte is equal to 1024 megabytes).

The disc **medium** can be:

DVD-ROM (read only, industrially manufactured)

A factory-made DVD that is manufactured by a press. The DVD specification Version 1.0 was announced in 1995 and finalized in September 1996. "DVD" was originally an acronym for "digital video disc"; some members of the DVD Forum believe that it should stand for "digital versatile disc", to indicate its potential for non-video applications. Toshiba adheres to the interpretation of "digital versatile disc". The DVD Forum never reached a consensus on the matter, however, and so today the official name of the format is simply "DVD"; the letters do not "officially" stand for anything.

DVD-R (R = Recordable once)

A DVD-Recordable or DVD-R is an optical disc with a larger storage capacity than a CD-R, typically 4.7 GB instead of 700 Mb, although the capacity of the original standard was 3.95 Gb. The DVD-R format was developed by Pioneer in autumn of 1997. It is supported by most DVD players, and is approved by the DVD Forum. A DVD-R can be written to only once.

DVD-RW (RW = ReWritable)

A DVD-RW is a rewritable optical disc with equal storage capacity to a DVD-R, typically 4.7 GB. The format was developed by Pioneer in November 1999 and has been approved by the DVD Forum. Unlike DVD-RAM, it is playable in about 75% of conventional DVD players. The primary advantage of DVD-RW over DVD-R is the ability to erase and rewrite to a DVD-RW disc. According to Pioneer, DVD-RW discs may be written to about 1,000 times before needing replacement, making them comparable with the CD-RW standard. DVD-RW discs are commonly used for volatile data, such as backups or collections of files. They are also increasingly used for home DVD video recorders.

DVD-R DL (double layer)

DVD-R DL (Dual Layer) (Also Known as DVD-R9) is a derivative of the DVD-R format standard. DVD-R DL discs employ two recordable dye layers, each capable of storing nearly the 4.7 GB of a single-layer disc, almost doubling the total disc capacity to 8.54 GB. Discs can be read in many DVD devices (older units are less compatible) and can only be written using DVD±RW DL burners.

DVD+R (R = Recordable once)

A DVD+R is a writable optical disc with 4.7 GB of storage capacity. The format was developed by a coalition of corporations, known as the DVD+RW Alliance, in mid 2002. Since the DVD+R format is a competing format to the DVD-R format, which is developed by the DVD Forum, it has not been approved by the DVD Forum, which claims that the DVD+R format is not an official DVD format. The DVD+R format is divergent from the DVD-R format. Hybrid drives that can handle both, often labeled "DVD±RW", are very popular since there is not yet a single standard for recordable DVDs. There are a number of significant technical differences between the dash and plus formats, and although most consumers would not notice the difference, the plus format is considered by some to be better engineered.

DVD+RW (RW = ReWritable)

A DVD+RW is a rewritable optical disc with equal storage capacity to a DVD+R, typically 4.7 GB (interpreted as 4.7 · 109, actually 2295104 sectors of 2048 bytes each). The format was developed by a coalition of corporations, known as the DVD+RW Alliance, in late 1997, although the standard was abandoned until 2001, when it was heavily revised and the capacity increased from 2.8 GB to 4.7 GB. Credit for developing the standard is often attributed unilaterally to Philips, one of the members of the DVD+RW Alliance. Although DVD+RW has not yet been approved by the DVD Forum, the format is too popular for manufacturers to ignore, and as such, DVD+RW discs are playable in 3/4 of today's DVD players. Unlike the DVD-RW format, DVD+RW was made a standard earlier than DVD+R.

DVD+R DL (double layer)

DVD+R DL (Double Layer), also known as DVD+R9, is a derivative of the DVD+R format created by the DVD+RW Alliance. Its use was first demonstrated in October 2003. DVD+R DL discs employ two recordable dye layers, each capable of storing nearly the 4.7 GB of a single-layer disc, almost doubling the total disc capacity to 8.55 GB. Discs can be read in many DVD devices (older units are less compatible) and can only be created using DVD+RW DL and Super Multi drives. The latest DL drives write double layer discs slower

(2.4x to 8x) than single-layer media (8x-16x). A double layer rewritable version called DVD+RW DL is also in development but is expected to be incompatible with existing DVD devices.

DVD-RAM (random access rewritable)

DVD-RAM (DVD–Random Access Memory) is a disc specification presented in 1996 by the DVD Forum, which specifies rewritable DVD-RAM media and the appropriate DVD writers. DVD-RAM media are used in computers as well as camcorders and personal video recorders since 1998. You can identify a DVD-RAM disc due to lots of little rectangles distributed on the surface of the data carrier. Compared with other writeable DVDs, DVD-RAM is more closely related to hard disk technology, as it has concentric tracks instead of one long spiral track. Unlike the competing formats DVD+R, DVD-R, DVD+RW and DVD-RW, you do not need special DVD burning software to write or read DVD-RAMs on a computer. DVD-RAMs can be accessed like a usual floppy disk or hard drive. DVD-RAM is more suited to data backups and use in camcorders than DVD±RW. The advantages of DVD-RAM discs are the following: long durability of minimum 30 years and they can be rewritten more than 100,000 times, and also the fact that no DVD burning software required in computers as the discs can be used and accessed like a removable hard disk.

Blu-Ray Discs

Blu-ray Disc (BD) is a next-generation optical disc format meant for storage of high-definition video and high-density data. The Blu-ray standard was jointly developed by a group of leading consumer electronics and PC companies called the Blu-ray Disc Association (BDA) , led by Sony and Philips. Blu-ray has information capacity per layer of 25 gigabytes.

Blu-ray gets its name from the shorter wavelength (405 nm) of a "blue" (technically blue-violet) laser that allows it to store substantially more data than a DVD, which has the same physical dimensions but uses a longer wavelength (650 nm) red laser.

BD-R (R = Recordable once)

A single-layer Blu-ray disc (BD) can fit 23.3, 25, or 27 GB; this is enough for approximately four hours of high-definition video with audio. A dual-layer BD can fit 46.6, 50, or 54 GB, enough for approximately eight hours of HD video. Capacities of 100 GB and 200 GB, using four and eight layers respectively, are currently being researched; TDK has already announced a four-layer 100 GB disc.

BD-RE (RE = REwritable)

The BD-RE (rewritable) standard is available, along with the BD-R (recordable) and BD-ROM formats, which became available in mid-2004, as part of version 2.0 of the Blu-ray specifications. BD-ROM pre-recorded media are to be available by early 2006.

In addition to 12 cm discs, an 8 cm variation for use with camcorders is planned that will have a capacity of 15 GB.

To ensure that the Blu-ray Disc format is easily extendable (future-proof) it also includes support for multi-layer discs, which should allow the storage capacity to be increased to 100GB/200GB (25GB per layer) in the future simply by adding more layers to the discs.

Blu-ray drives currently in production can transfer approximately 36 Mbit/s (54 Mbit/s for BD-ROM), but 2x speed prototypes with a 72 Mbit/s transfer rate are in development. Rates of 8x or more are planned for the future.

Because the Blu-ray standard places data so close to the surface of the disc, early discs were susceptible to dust and scratches and had to be enclosed in plastic caddies for protection. The solution to this problem arrived in January 2004 with the introduction of a clear polymer that gives Blu-ray discs unprecedented scratch resistance. The coating, developed by TDK Corporation under the name "Durabis," allows BDs to be cleaned safely with only a tissue - a procedure that can damage CDs, DVDs. Bare BDs with the coating are reportedly able to withstand attack by a screwdriver.

