



Recode Manual

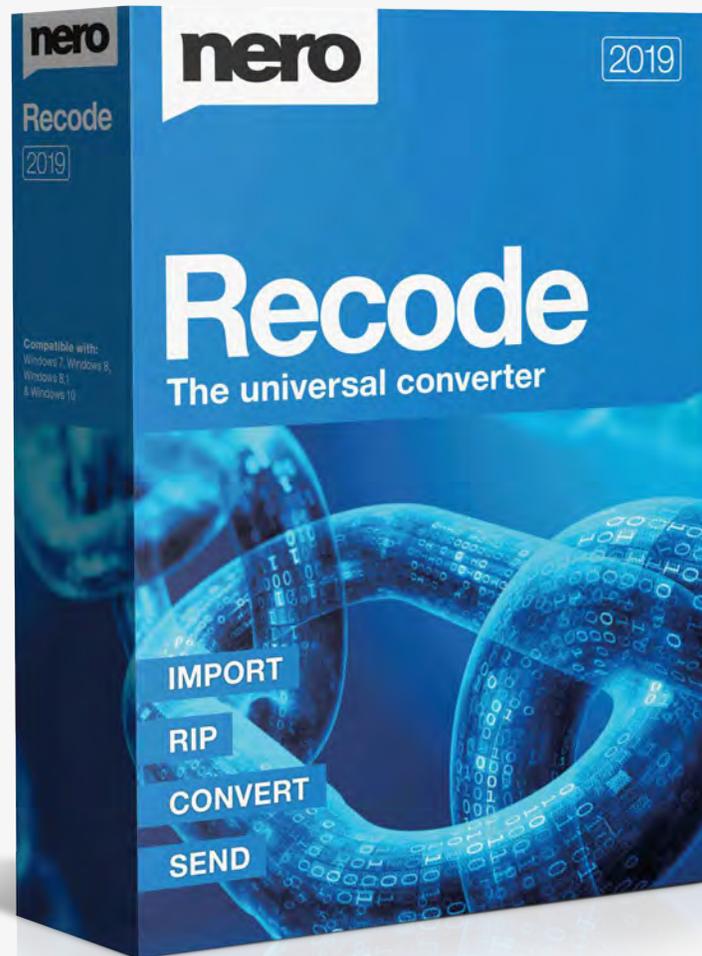


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1. Start Successfully

1.1. About Nero Recode

Nero Recode is a powerful application for ripping non-copy-protected DVD-Videos, Blu-ray Videos, and AVCHD, as well as for converting video files. Video files can be imported from your hard drive or even from the Internet.

Ripping DVD-Video is the functionality Nero Recode is known for. It allows you to make copies from an unprotected DVD either in the original size and quality or with a reduced size and quality to fit to another disc size (so called shrinking). You can exclude unwanted content of the source disc not to be included on the target disc (for example subtitles or soundtracks from a DVD-Video) thereby making space for additional content or for better quality.

Blu-ray Videos can be converted to video files. In order to use non-2D-compliant video material, for example a 3D video, on any 2D system, you can convert it to a 2D video.

It is also possible to crop, trim and rotate the video, when converting to video file.

No matter whether the video is intended for playing on the computer, DVD player or devices like tablet, smartphone or game console, the export profiles allow converting into the format that is required by the chosen device - and you always get the best quality for your respective file size thanks to the various export profiles. Of course you can adjust the output format to your requirements. You can even just rip the audio part of a video as well as convert audio files.

Nero Recode is the perfect companion for optimizing content from digital devices for a high quality home viewing experience, and video sharing.

1.2. Versions of Nero Recode

Nero Recode is available as part of Nero Classic, Nero Platinum, and as a standalone product (Nero Recode).

The standalone Nero Recode and Nero Recode in Nero Platinum offer the following extra features, compared to Nero Recode in Nero Classic:

- Rip and convert Blu-ray Video disc and 3D Blu-ray Video disc
- Import and convert Ultra HD files (4 K)

Nero Recode is available in different versions with a varying feature range. Depending on the Nero product you purchased, your version of Nero Recode may be limited and may not include the full feature range.

For example, a watermark may appear in the encoded videos in Nero Recode Essentials. In addition, the encoding and decoding formats are restricted and the encoding length is limited to one minute. The mp3PRO plug-in is included as trial version.



mp3PRO Plug-in

You will need the mp3PRO Plug-in for unlimited MP3 and mp3PRO encoding/decoding. The plug-in can be added to Nero Classic. You can obtain the plug-in at www.nero.com. The plug-in is already included in the full version.

If you have a limited version of Nero Recode without the features mentioned here, you can upgrade your Nero product at www.nero.com to get the full version of Nero Recode with all features.

Features that are not available in Nero Recode Essentials may be indicated by



the  icon or with an information window. Both the icon and the information window offers you upgrade possibilities.

Nero Recode as standalone product does not offer access to Nero MediaBrowser unless Nero MediaHome is installed.

You can always upgrade your standalone version to Nero Classic or Nero Platinum at www.nero.com.



The **Crop** feature is not available under Windows XP.

1.3. Working with Nero Recode

Despite its wide range of features, Nero Recode is an easy-to-use recoding program that recodes videos in just a few steps:

- First, choose the media file you want to recode. As Nero Recode is source based, choose the medium (disc or file) where the video or audio is located or simply add it by dragging & dropping it to the main screen.
- Then select the target format by choosing the device. Supported devices are for example DVD player, tablets, smartphones, game consoles, and of course your computer. Nero Recode automatically offers you the best fitting recoding and output format settings.

- Select further options if required. For example, you can change the recoding settings to fit your advanced wishes.
- Add the recoding job to the job list by clicking the **OK** button.
- At last simply start the recoding process by clicking the **Start Encoding** button.



Note that the screens in Nero Recode are work based. This means they may change their content and parts of their appearance dynamically to adapt themselves in real-time to the selections you made in the same screen.



Each screen contains tooltips, detailed information and explanations for the buttons, icons and menus. Hover the mouse pointer over a control element for a few seconds to see the tool tip.



The best way to create a simple 1:1 copy of a DVD is by using Nero Express or Nero Burning ROM. There is no compression whatsoever in this case. The recordable disc used must have as much free disc space as is shown for the content of the original DVD.

You can find detailed instructions on how to work with the application in the separate Nero Express and Nero Burning ROM user manuals.

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1.4. Starting Nero Recode

There are several ways to open Nero Recode, depending on various factors such as the product you have installed and the operating system you are using.

On Windows 7 and earlier versions of Windows, you can start Nero Recode via:

- **Start** (the start icon) > **(All) Programs** > **Nero** > **Nero Classic** > Nero Recode
- the Nero Recode desktop icon if you use Nero Recode as a standalone product
- the Nero Classic desktop icon if you use Nero Classic

On Windows 8, you can start Nero Recode via:

- the Nero Classic tile (Windows 8 **Start** screen) or the Nero Classic desktop icon (Windows 8 desktop) if you use Nero Classic
- the Nero Recode tile (Windows 8 **Start** screen) or the Nero Recode desktop icon (Windows 8 desktop) if you use Nero Recode as a standalone product

2. Main Screen

The main screen of Nero Recode is your starting point, giving you an overview about all running and scheduled jobs. Nero Recode provides a source-based approach for starting - you choose your content to be converted and continue. Furthermore, you can use the **Drag your files here** area to start without clicking any button.

The main screen is divided into two areas: the job start area and the job overview area. The size of the job start area will be smaller or bigger depending on how many jobs are to be displayed in the **Your Jobs** area.

The following options are available on the main screen:

Area Drag your files here	Allows you to simply drag and drop content. Nero Recode automatically starts a fitting task based on the source media. In case of mixed content Nero Recode asks you how to proceed. This area may get smaller if the job overview gets enlarged.
Area Recode discs	Displays source locations for disc content which you want to recode.
Area Convert media files	Displays source locations for files which you want to convert.
Area Your Jobs	Displays all jobs.

The following options are available in the **Recode discs** area:

Import Blu-ray/AVCHD	Opens a window where you can choose the Blu-ray-Video disc or AVCHD to be converted. You can choose a drive with an inserted Blu-ray disc or AVCHD.
Import Blu-ray/AVCHD structure	Opens a window where you can choose the Blu-ray-Video disc or AVCHD to be converted. You can choose a folder (BDMV) on your hard drive including Blu-ray material.
Import DVD	Opens a window where you can choose the DVD to be shrinked, copied or recoded. You can choose a drive with an inserted DVD.
Import DVD structure	Opens a window where you can choose the DVD to be shrinked, copied or recoded. You can choose a folder (VIDEO_TS) on your hard drive.

The following options are available in the **Convert media files** area:

Import video files	Opens a window where you can browse for the source video file to be converted.
Import audio files	Opens a window where you can browse for the source audio file to be converted.
Import from Nero MediaBrowser	Opens Nero MediaBrowser where you can select media files to be converted. Nero MediaBrowser can be accessed from every Nero application thus enabling you to manage your media files from everywhere. Only available if Nero MediaHome is installed.
Import Online video	Opens a window where you can select a previously played video to be converted. The video must have been played in your internet browser before.

The following options are available in the **Your Jobs** area:

Information display Finished	Shows the amount of finished jobs versus the amount of jobs not yet started.
Button Clear Job List	Clears the job list. Currently running and scheduled jobs are deleted. Only active if the list is not empty.
List Your Jobs	Lists all jobs. You can re-arrange the jobs in the job list via drag & drop. You can edit or even remove the whole job and you can stop or pause the job during the recoding process. In the job area is the video to be recoded – or even the videos, if you have edited some video files together. If you hover over a video, a tool tip displays information like file extension, codec, aspect ratio or resolution (for videos). After the encoding, you can play and browse the single videos.
Button Start Encoding	Starts all currently scheduled jobs.
Check box / Drop-down menu When job list finished	Activates and selects an action to be executed once Nero Recode finishes the job. Shut down computer: Shuts down the computer. Hibernate computer: Sets the computer to hibernate. When the check box remains cleared, no action will be executed after jobs are finished: Nero Recode just stays open and your computer remains active.

3. Recode Discs

3.1. Recode DVD/Blu-ray to Video File



Ripping and converting of Blu-ray Video discs and 3D Blu-ray Video discs is only available with Nero Recode as part of Nero Platinum.

With Nero Recode you can recode a Blu-ray or a DVD-Video to a video file. You can use Nero Recode to adjust the quality to ensure video files with perfect video quality that fits your needs. You also have the possibility to crop, trim and rotate the video.

Nero Recode supports many different target devices, such as your PC, tablet, smartphone, home entertainment devices (game console and TV), and audio player.

The recoded video file is stored on hard drive. If you want to use the file on a device like your mobile device, you can either store it directly on the device (if technically possible), or transfer it afterwards to the device (for example using Nero MediaHome).

Instead of Blu-ray Video you can also choose an AVCHD as source video. If your Blu-ray Video contains 3D material, it will be converted to 2D.



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To recode a Blu-ray or DVD-Video, proceed as follows:

1. Insert the video disc you want to recode into the disc drive of your PC.
2. Choose the **Import [Disc type]** task from the **Home** window.
 - The **Import [Disc type]** window is opened.
3. Choose the disc drive with the video disc and click the **OK** button.



You can also choose a BDMV folder located on your hard drive using the **Import Blu-ray/AVCHD structure** task.

You can also choose a VIDEO_TS folder located on your hard drive using the **Import DVD structure** task.

Additionally, you can simply add the video content by using the **Drag your files here** area.

- The movie is imported and a preview is shown. During the importing process you have the option to disable the preview. You can track the import process with the progress bar.
 - When the import process is finished, the **Recode [Disc type]** screen is displayed. The **Recode [Disc type]** screen provides three areas on the left side which guide you through all the recoding options.
4. Click the icon that represents your device category, then choose the device in the drop-down menu (for example **Video Files > MPEG-4**).
 5. If you want to change the recoding options:
 - a. Click the **Edit Settings** button.
 - The **Edit Profile** window is opened.
 - b. Change the settings according to your preferences (see Edit Profile Window).
 - c. To save the changes into a new profile, click the **Save As** button.



Note that if you click the **OK** button, the changes will only be used for this job, as predefined profiles will not be changed permanently.

- d. Click the **OK** button.
 - The window is closed and the changed profile is passed on to the **Recode [Disc type]** screen.
6. If you want to adjust the quality:
 - a. Move the slider to the desired quality or select a output size using the **Fit to target** check box.
 7. Define the target folder for the video file using the **Browse** button next to the **Path** field.
 8. Enter the output name in the **File name** input field.
 9. If you want to change the content to be ripped:
 - a. Disable or enable items as desired, such as titles, the main movie, menus or extras.
 - b. Click the button of a title to select or deselect the language or subtitles (for DVD-Video) you want to copy.

- c. Click the  button of a title and click **Audio settings** to change the audio recoding options.
- 10.** If you want to edit the video (crop, trim or rotate), click the **Edit Video** button (see Playback and Edit the Video).
- 11.** Click the **OK** button.
- The **Home** screen is displayed and the created job is added to the job list in the **Your Jobs** area.
 - You have created a job to recode a Blu-ray or DVD-Video to a video file. You can now start the job anytime by clicking the **Start Encoding** button.



See also this tutorial:

Conversion of a Blu-ray Video to be viewed on a Windows 8 Pro Tablet With Nero Recode

3.2. Recode DVD to DVD

You can use Nero Recode to copy the main movie of a DVD-Video to a DVD without additional extras or to copy the entire disc including the menu. You always can remove undesired subtitles or audio tracks. You also have the option of adjusting the quality of the DVD-Video in such a way that the data can be burned to a conventional recordable disc with perfect video quality.



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To recode a DVD-Video, proceed as follows:

- 1.** Insert the DVD-Video you want to recode into the disc drive of your PC.
- 2.** Choose the **Import DVD** task from the **Home** window.
 - The **Import DVD** window is opened.
- 3.** Choose the disc drive with the DVD-Video and click the **OK** button.



You can also choose a VIDEO_TS folder located on your hard drive using the **Import DVD structure** task.

Additionally, you can simply add the DVD-Video content by using the **Drag your files here** area.

- The movie is imported and a preview is shown. During the importing process you have the option to disable the preview. You can track the import process with the progress bar.
 - When the import process has finished, the **Recode DVD** screen is displayed. The **Recode DVD** screen provides three areas on the left side which guide you through all the recoding options.
4. Click the **DVD Player** icon, then choose the **DVD** entry in the drop-down menu.
 5. If you want to change the recoding options:
 - a. Click the **Edit Settings** button.
 - The **Edit Profile** window is opened.
 - b. Change the settings according to your preferences (see Edit Profile Window).
 - c. To save the changes into a new profile, click the **Save As** button.



Note that if you click the **OK** button, the changes will only be used for this job, as predefined profiles will not be changed permanently.

- d. Click the **OK** button.
 - The window is closed and the changed profile is passed on to the **Recode DVD** screen.
6. If you want to adjust the quality:
 - a. Select the **Fit to target** check box, then choose the target size of the DVD (**DVD5** or **DVD9**) or enter a custom value.



We recommend selecting the **Fit to target** entry. This option ensures that the content of the source DVD is recoded during the subsequent process in such a way that it fits the selected target format.

- b. If you have cleared the **Fit to target** check box, you can move the slider for single video items to the desired quality.



In order to adjust the quality of a desired video title individually, you can move the slider in the **Quality** column. The output file size is updated in real time according to the changes.

7. If you want to define the target:
 - a. Select either **Burn to disc**, **Save to hard drive**, or **Create ISO** from the **Target** drop-down menu (see Target Settings).
 - If you selected **Burn to disc**, the **Recorder settings** expandable area is displayed.
 - b. Select your desired burn options here, like disc burner and write speed.
8. If you want to change the content to be ripped:
 - a. Disable or enable items as desired, such as titles, the main movie, the menu or extras.
 - b. Click the button of a title to select or deselect the languages or subtitles you want to copy.
 - c. Click the button of a title and click **Audio settings** to change the audio recoding options.
9. If you want to preview the playback, click on the thumbnail view in the **Title** area (see **Playback Screen**).
10. Click the **OK** button.
 - The **Home** screen is displayed and the created job is added to the job list in the **Your Jobs** area.
 - You have created a job to recode a DVD-Video to DVD-Video. You can now start the job anytime by clicking the **Start Encoding** button.

3.3. Recode DVD to Audio

With Nero Recode you can recode Blu-ray Video, AVCHD or DVD-Video to an audio file. You can use Nero Recode to adjust and modify the settings to ensure audio files with perfect audio quality that fit your needs.

The process for recoding to an audio file is nearly the same as for recoding to a video file (see Recoding Video Disc to Video File). For every device category you have the option to rip only the audio part. You can even choose the audio device categories **Audio**

Files (AIFF, APE, MP3, and so on) or **Audio Player (iPod classic, iPod touch 5G and so on)**.

Just like the video file, you can edit the audio file by trimming it. If you want further editing options like splitting the audio file, you can use Nero WaveEditor.



With Nero WaveEditor, you can edit audio files in real time without damaging the original file. You can use various filters, effects and sound enhancement methods.

Nero WaveEditor is not installed automatically with Nero Classic. However, it can be downloaded for free from the **Download** section at www.nero.com or via Nero ControlCenter and used together with Nero Classic. You will find further information in the Nero WaveEditor manual.

3.4. Recode Screen

In the **Recode [Disc]** screen you define the output. This is basically done by choosing the target device. Each device contains encoding settings that are optimized for a specific output format on the chosen specific device.

You can also play back the target video, change the encoding settings and specify the target path. When the video disc is recoded to video file, you can additionally crop, trim, and rotate the video, and define the file name.

For recoding DVD-Video to DVD-Video three target options are available: The video can be burned, saved as an image file or saved to hard drive as VIDEO_TS folder.

The screen is basically divided into two areas: A left area with edit options for the output (device, quality and target) and a right area with target and source information, individual output settings and ripping options.

The following buttons are available in the lower bar on the right:

OK	Displays the start screen adding the newly created job to the job list. Start the job there by clicking the Start Encoding button.
Cancel	Cancels the job creation process. You can either discard the data or save them for further processing.

3.4.1. Device Settings

The following options are available:

<p>Device category buttons</p>	<p>Select the device for which you want to recode the content.</p> <p>Several device categories are available like your PC, DVD player, tablet or smartphone. For each device category, a number of specific devices is available, e.g. for tablet iPad, Kindle Fire or Windows 8 Tablet.</p> <p>The selected device defines which encoding settings and targets can be chosen. In general, the settings are automatically set best for the selected output format, but can be changed using the Edit Settings button.</p> <p>The device category DVD Player is only available for recoding DVD-Video.</p>
<p>Button Edit Settings</p>	<p>Opens the Edit Profile window where you can change the video settings of the current profile or create a completely new profile (see Edit Profile Window).</p>

3.4.2. Quality Settings

The following options are available:

<p>Quality slider</p>	<p>Defines and displays the output quality in terms of video bit rate. The preselected setting provides you optimal balance between file size and quality.</p> <p>In order to adjust the quality individually, you can move the slider.</p>
<p>Check box Fit to target</p>	<p>Recodes the imported content automatically in such a way that the output size fits the target size that you select or enter here.</p> <p>This is done by reducing or increasing the quality of the video (video bit rate) automatically. If the selected target size is the same size as the source, a 1:1 copy is made. If you have removed video content, then Nero Recode increases the quality of the output video (video bit rate) automatically to fit to the selected target size.</p> <p>If this entry is selected, the editable drop-down menu Fit to target is available.</p>
<p>Editable drop-down menu Fit to target</p>	<p>Defines the target size:</p> <p>4403 (DVD5): Content fits onto a DVD5 with 4.7 GB (4403 MB)</p> <p>8089 (DVD9): Content fits onto a DVD9 with 8.5 GB (8089 MB)</p> <p>You can also enter a custom value in MB for the target size.</p> <p>Note that it is not in every case possible to achieve the target size as the video cannot compressed anymore and you have to deselect titles, audio or subtitles to achieve your wished target size.</p>

	If the desired target size is too large to be burned on a DVD, we recommend that you save the resulting DVD structure to hard drive (Target drop-down menu > Save to hard drive) and play it from the hard drive with Nero MediaHome, for example.
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The following check box is available if there is a GPU available on your system:

Check box Hardware acceleration	<p>If enabled, Nero Recode uses 3rd party encoder for H.264/AVC encoding appropriate to the system (ATI encoder for ATI GPU, Nvidia encoder for Nvidia GPU and Intel encoder for Intel GPU). If disabled, Nero Recode uses Nero encoder for H.264/AVC encoding.</p> <p>3rd party encoders are deployed by the vendor driver installation.</p> <p>If video setting options are not supported by the selected 3rd-party-encoder, they are automatically disabled by Nero Recode.</p>
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3.4.3.Target Settings

The following option refers to the **Target**:

Editable drop-down menu Split file	<p>Creates two or more files out of the target file. The file size of single files does not exceed the value which you choose or enter here.</p> <p>This drop-down menu is only available for recoding to file.</p>
Drop-down menu Target	<p>Burn to disc: Burns the output as a DVD-Video which you can play on almost all DVD players. Several burning options are available in the Recorder settings area when you select this entry. See the subsequent table for further information.</p> <p>Save to hard drive: Saves the output (file or folder structure) to your hard drive, connected device or network drive. You can specify or change the path using the Browse button. If several main movies are chosen to be converted, each of them is saved to hard disk.</p> <p>Create ISO: Saves the output folder structure as an image file to your hard drive, connected device or network drive. The image file will be in the ISO format. You can specify or change the path and enter a name for the image file using the Browse button.</p> <p>Create ISO and Burn to disc are only available for DVD.</p>
Drop-down menu Save to this folder	<p>Defines the target path for the output.</p> <p>This drop-down menu is not available for burning to disc.</p>



Image file

An image refers to a single file on the hard drive that contains the image of a complete disc. Creating an image file is especially useful when you do not have an available recorder or a blank disc. Later on you can use an application like Nero Express to burn the image to disc. Further information can be found in the Nero Express manual.

When you select the entry **Burn to disc** in the **Target** drop-down menu, several burning options are available in the **Recorder settings** area. The following burning options are available:

Input field Disc name	Defines the disc name.
Drop-down menu Disc burner	Defines the disc burner that you want to use for burning.
Drop-down menu Write speed	Selects the write speed at which the disc is burned. Maximum: Maximum speed of selected disc burner. Safe mode: Moderate speed with emphasis on safety. Minimum: Slowest speed for the most reliable burning.
Input field Number of copies	Defines the number of discs that are to be burned. The default is set to one disc.

3.4.4.Target Area

The following options are available in the area on the right:

Preview image	Displays a preview image of the main movie. You can open the internal video player by clicking on the preview image.
Button on preview image 	Opens the internal video player displaying the main movie. If several main movies were detected on the video disc by Nero Recode you can select and watch another main movie in the player. You can also select and watch the extras.
Button Edit Video	Opens the editing screen where you can crop, trim and rotate the video. Only available when recoding to video file.
Source and Target information	Displays some information about the source and the target. You can change the target name for the video in the input field. The target values are updated in real-time to any changes made.

Input field	Defines the name for the output file.
File name	Per default the source file name is used as output file name.
Area	Displays information about the frame rate and the bit rate. You can change the video bit rate here.
More options	Only available when recoding to video file.

3.4.5.Content Area

In the **content selection area**, you can change what content should be ripped.

For recoding to file, you can also change the audio bit rate.

The complete video structure is displayed allowing you to exclude items from the ripping process. These items could generally be (depending on the video type) video titles, main movies, menus, extras, and for each of these items you can exclude audio and subtitles. Excluding parts from the ripping process frees up space to increase the quality of the video title:

If the check box **Fit to target** is selected, the quality of the video title is adjusted automatically to the best possible value depending to the defined target size. Otherwise, you can adjust the quality of the video title manually using the quality slider.

The following options are available in the content selection area:

Content	Displays the items of the video disc in a navigation structure. To include an item in the recode process, select the check box in front of it.
Size	Displays the output size.
Compression	Displays or adjusts the quality of the output in percent of the original quality. Only available for DVD-Video.
Audio	Lists one audio track of the selected video item. By clicking on the  button you can see all available audio tracks and you can also select / deselect audio tracks for the selected video item. Audio settings: Opens the Audio & Subtitles window. Here, you can select / deselect audio tracks and see the audio codecs used. These settings affect the encoding and are optimized for a specific output format. However, you can change those settings to meet advanced needs. See also subsequent table for further information. Settings cannot be changed for recoding to DVD .

Subtitle	Lists one subtitle of the selected video item. By clicking on the  button you can see all available audio tracks and you can also select / deselect audio tracks for the selected video item. Only available for DVD-Video.
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For recoding DVD-Video or Blu-ray video to video file or to audio file, **audio settings** are available for the single audio tracks. You can open the **Audio & Subtitles** window via the  button. The following options are in general available, depending on the chosen device:

File extension	Defines the audio file extension. Only available for recoding to audio file.
Codec	Selects the audio codec used for the output audio format.
Bit rate mode	Defines what kind of bit rate the audio codec is using. Constant bit rate (CBR): Specifies a constant bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data is the same over the entire audio file. Variable bit rate (VBR): Specifies a variable bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data adapts to the dynamics of the audio file. The bit rate, for example, can be lowered at quieter points in the track. Average bit rate (ABR): Specifies an average bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data adapts to the dynamics of the audio file but the average bit rate tends to the defined value. In principle is it a variable bit rate with a limited bit band width and thus combining the advantages of the variable and the constant bit rate.
Bit rate	Specifies the bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data. If the bit rate is low, less data is transferred. The file is then small, but output quality is lower. If the bit rate is high, more data is transferred. The file size is then large, but the output quality is high. A value of 128 is near CD quality. The values available are determined by the audio format you have selected.
Quality	Defines the quality level if VBR is used for bit rate mode. You can set the variable bit rate between 0 and 100 . 0 means the lowest, 100 the highest quality.
Compression	Defines the compression rate for lossless codecs.
Sampling rate	Selects the scan rate. The scan rate is the frequency that a signal is scanned per time interval.

	The values available are determined by the audio format you have selected.
Audio channels	<p>Defines the audio channels of the output. You can select a down mixing of the audio channels, but no up mixing.</p> <p>Keep original is only available if the target audio codec supports the source audio channel configuration.</p> <p>The values available are determined by the audio format you have selected.</p>
Bit per sample	<p>Specifies the scan accuracy and thus determines the quality of the individual scanner. The higher the bit sign, the more accurate.</p> <p>Only available for WAV.</p>

4. Convert Media Files

4.1. Encode Video File to Video File

With Nero Recode you can encode a video file to a video file.



Copyright

Unless you possess the copyright yourself, or at least have the permission of the copyright holder, the unauthorized reproduction of files may be a breach of national or international law and may lead to severe penalties!

To encode a video file, proceed as follows:

1. Provide the source video file:
 - a. To import a video file from your hard drive using the browser window, click the **Import Video Files** link.
 - b. To import a video file from your hard drive using Nero MediaBrowser, click the **Import from Nero MediaBrowser** link.
 - c. Select the video file you would like to encode and click the **Add** button.



Additionally, you can simply add the video content by using the **Drag-and-drop** area.

- The **Convert video files** screen is displayed. The **Convert video files** screen provides three areas on the left side which guide you through all the recoding options.
- When importing is finished, a preview of the video file and source information are displayed on the right side.



You can add more video files using the **Add File(s)** button.

2. Click the icon that represents your device category, then choose the device in the drop-down menu (for example **Smartphone > Android Phone**).
3. If you want to change the recoding options:
 - a. Click the **Edit Settings** button.
 - The **Edit Profile** window is opened.
 - b. Change the settings according to your preferences (see Edit Profile Window).

- c. To save the changes into a new profile, click the **Save As** button.



Note that if you click the **OK** button, the changes will only be used for this job, as predefined profiles will not be changed permanently.

- d. Click the **OK** button.

➤ The window is closed and the changed profile is passed on to the **Convert video files** screen.

4. If you want to adjust the quality:

- a. Move the slider to the desired quality or select a output size using the **Fit to target** check box.

- b. If you have chosen to convert more than one video file, you can adjust the quality for each video file individually in the **More options** area on the **Video** tab. Move the slider to the desired quality or enter a bit rate.

5. Define the target folder for the video file using the **Browse** button next to the **Path** field.

6. Enter the output name in the **File name** input field.

7. If you want to preview the playback, click on the thumbnail view in the **Source** area.

8. If you want to edit the source video, click the **Edit Video** button (see Playback and Edit the Video).

9. Click the **OK** button.

➤ The **Home** screen is displayed and the created job is added to the job list in the **Your Jobs** area.

➤ You have created a job to encode a video file to another video format. You can now start the job anytime by clicking the **Start encoding** button.

4.2. Encode Online Video to Video File

With Nero Recode you can encode an online video file to a video file.

The process for encoding a video file from the Internet is nearly the same as for encoding a video file from hard disk. Just make sure to select the task **Import Online Video** from the start screen.



Copyright

Unless you possess the copyright yourself, or at least have the permission of the copyright holder, the unauthorized reproduction of files may be a breach of national or international law and may lead to severe penalties!

To select a video file from the Internet, proceed as follows:

1. Provide the source online video file:
 - a. Open your Internet browser.
 - b. Call up the address where the online video is located.
 - c. Play back the whole online video!
 - Once the online video was played back, it is available for Nero Recode to encoding.
2. Click the **Import Online Video** link.
 - The **Select the videos to convert** screen is opened. The online videos which are available are listed here.
3. Select the check box of the online video you want to encode.
4. Click the **Add** button.
 - The **Convert video files** screen is displayed. The **Convert video files** screen provides three areas on the left side which guide you through all the recoding options.
 - The video file is imported. During the import process you have the option to cancel the process. You can track the import process with the progress bar in the **Titles** bar.
 - When importing is finished, a preview of the video file and source information are displayed in the **Titles** area. The file name is per default **OnlineMedia**; you can change the name in the **File name** input field.
 - You have selected and imported an online video file and you can proceed with encoding. To encode to video file, see **Encoding video file to video file**.

4.3. Encode Video File to Audio File

With Nero Recode you can encode a video file to an audio file. You can use Nero Recode to adjust and modify the settings to ensure audio files with perfect audio quality that fit your needs.

The process for encoding a video file to an audio file is nearly the same as for encoding a video file to another video file format (see **Encoding video file to video file**). For every device category you have the option to rip only the audio part. You can even choose the audio device categories **Audio Files (AIFF, APE, MP3, and so on)** or **Audio Player (iPod classic, iPod touch 5G and so on)**.

Just like the video file, you can edit the audio file by trimming it. If you want further editing options like splitting the audio file, you can use Nero WaveEditor.



With Nero WaveEditor, you can edit audio files in real time without damaging the original file. You can use various filters, effects and sound enhancement methods.

Nero WaveEditor is not installed automatically with Nero Classic. However, it can be downloaded for free from the **Download** section at www.nero.com or via Nero ControlCenter and used together with Nero Classic. You will find further information in the Nero WaveEditor manual.

4.4. Encode Audio File to Audio File

With Nero Recode you can encode an audio file to an audio file. You can use Nero Recode to adjust and modify the settings to ensure audio files with perfect audio quality that fit your needs.

The process for encoding an audio file to an audio file is nearly the same as for encoding a video file to another video or audio file format (see for example **Encoding video file to video file**).

Just like the video file, you can edit the audio file by trimming it. If you want further editing options like splitting the audio file, you can use Nero WaveEditor.



With Nero WaveEditor, you can edit audio files in real time without damaging the original file. You can use various filters, effects and sound enhancement methods.

Nero WaveEditor is not installed automatically with Nero Classic. However, it can be downloaded for free from the **Download** section at www.nero.com or via Nero ControlCenter and used together with Nero Classic. You will find further information in the Nero WaveEditor manual.

4.5. Encode Screen

In the **Convert video files** screen, you define the output. For each device there are encoding settings that are optimized for the specific output format.

You can also play back the video file, change the encoding settings, and specify the target path. Additionally, you can crop, trim, and rotate the video, and define the file name.

You can convert several videos at once and even combine them into one output file.

The screen is basically divided into two areas: A left area with edit options for the output (device, quality and target) and a right area with target and source information, and advanced output settings.

The following buttons are available in the lower bar:

Add File(s)	Allows you to add more video files.
Create Video with Nero Video	Opens Nero Video in order to create a video out of video files, the video files which you had imported in Nero Recode are taken over. Editing information are also taken over. You can choose which type of Video you want to create, for example you can create a DVD-Video or a Blu-ray Disc.
OK	Displays the start screen adding the newly created job to the job list. Start the job there by clicking the Start Encoding button.
Cancel	Cancels the job creation process. You can either discard the data or save them for further processing.

4.5.1. Device Settings

The following options are available:

Device category buttons	Select the device for which you want to recode the content. Several device categories are available like your PC, DVD player, tablet or smartphone. For each device category, a number of specific devices is available, e.g. for tablet iPad, Kindle Fire or Windows 8 Tablet. The selected device defines which encoding settings and targets can be chosen. In general, the settings are automatically set best for the selected output format, but can be changed using the Edit Settings button. The device category DVD Player is only available for recoding DVD-Video.
Button Edit Settings	Opens the Edit Profile window where you can change the video settings of the current profile or create a completely new profile (see Edit Profile Window).

4.5.2. Output Settings

The **To which quality** area is only available for recoding to video file.

The following options are available:

<p>Quality slider</p>	<p>Defines and displays the output quality in terms of video bit rate. The preselected setting provides you optimal balance between file size and quality.</p> <p>In order to adjust the quality individually, you can move the slider.</p>
<p>Check box Fit to target</p>	<p>Recodes the imported content automatically in such a way that the output size fits the target size that you select or enter here.</p> <p>This is done by reducing or increasing the quality of the video (video bit rate) automatically. If the selected target size is the same size as the source, a 1:1 copy is made. If you have removed video content, then Nero Recode increases the quality of the output video (video bit rate) automatically to fit to the selected target size.</p> <p>If this entry is selected, the editable drop-down menu Fit to target is available.</p>
<p>Editable drop-down menu Fit to target</p>	<p>Defines the target size:</p> <p>4403 (DVD5): Content fits onto a DVD5 with 4.7 GB (4403 MB)</p> <p>8089 (DVD9): Content fits onto a DVD9 with 8.5 GB (8089 MB)</p> <p>You can also enter a custom value in MB for the target size.</p> <p>Note that it is not in every case possible to achieve the target size as the video cannot compressed anymore and you have to deselect titles, audio or subtitles to achieve your wished target size.</p> <p>This drop-down menu is only available, if the check box Fit to target is selected.</p>

The following check box is available in the **To which quality** area if there is a GPU available on your system:

<p>Check box Hardware acceleration</p>	<p>If enabled, Nero Recode uses 3rd party encoder for H.264/AVC encoding appropriate to the system (ATI encoder for ATI GPU, Nvidia encoder for Nvidia GPU and Intel encoder for Intel GPU). If disabled, Nero Recode uses Nero encoder for H.264/AVC encoding.</p> <p>3rd party encoders are deployed by the vendor driver installation.</p> <p>If video setting options are not supported by the selected 3rd-party-encoder, they are automatically disabled by Nero Recode.</p>
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4.5.3. Storing Settings

The following options are available in the **Where do you want to store** area:

Check box / editable drop- down menu Split file	Creates two or more files out of the target file. The file size of single files does not exceed the value which you choose or enter here.
Input field Path	Defines the target path for the output. Saves the output (file or folder structure) to your hard drive, connected device, or network drive. Specify or change the path using the Browse button. If you want to burn the video files to a disc, we recommend using Nero Burning ROM. If you want to make a DVD-Video out of the video files, we recommend using Nero Video via the Create Video with Nero Video button.
Check box Combine videos into one file	Creates one target video file out of several source videos. Only available if you had selected more than one video.



Nero Burning ROM allows you to burn your data, music and videos to disc and gives you full, customized control of your burning projects. Nero Burning ROM is available as part of Nero Classic and as standalone product. You can find further information in the Nero Burning ROM user manual and on www.nero.com.



Nero Video is a program for capturing, editing, and burning movies or slide shows with an extremely user-friendly interface. Nero Video is part of different suites of Nero. You can find further information in the Nero Video user manual and on www.nero.com.

4.5.4. Titles Settings

The following options are available in the **Titles** area:

Information display Total	Displays the amount of video files to be converted, the duration and the source size in MB. The size is updated in real-time if you do any changes.
Preview image	Displays a preview image of the video.

Button on preview image 	Opens the internal video player displaying the video. If the video file is a stream containing several videos, you can also select another video title in the player.
Button Edit	Opens the editing screen where you can crop, trim and rotate the video. Audio files can only be trimmed.
Input field File name	Defines the output file name, which is to be stored in the target path selected above. The source file name is entered per default. For a video file from the Internet, the file name OnlineMedia is entered.
Button X	Removes the video title from the screen.
Expandable area More options	Opens an area where you can change the quality for the output video file. In addition, you can deselect audio tracks in order to reduce output size. If the video file is a stream containing several videos, you can also deselect single video titles. This is useful if a media file contains more than one video track, audio track or subtitles.

4.5.5. More Options Area

In the **More options** area for encoding files you can change the quality for the output file. For video files you can deselect audio tracks in order to reduce output size and set encoding options.

The following options are available on the **Audio** tab:

Include audio	Includes or excludes audio from the recoding process. Excluding audio will result in a mute video!
Audio codec	Selects the audio codec used for the output audio format.
Audio bit rate	Specifies the bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data. If the bit rate is low, less data is transferred. The file is then small, but output quality is lower. If the bit rate is high, more data is transferred. The file size is then large, but the output quality is high. A value of 128 is near CD quality. If you choose Automatic , Nero Recode sets the bit rate as close as possible to the original value. The values available are determined by the audio format you have selected.

Bit rate mode	<p>Defines what kind of bit rate the audio codec is using.</p> <p>Constant bit rate (CBR): Specifies a constant bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data is the same over the entire audio file.</p> <p>Variable bit rate (VBR): Specifies a variable bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data adapts to the dynamics of the audio file. The bit rate, for example, can be lowered at quieter points in the track.</p> <p>Average bit rate (ABR): Specifies an average bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data adapts to the dynamics of the audio file but the average bit rate tends to the defined value. In principle is it a variable bit rate with a limited bit band width and thus combining the advantages of the variable and the constant bit rate.</p>
Quality	Defines the quality level if VBR is used for bit rate mode. You can set the variable bit rate between 0 and 1 . 0 means the lowest, 1 the highest quality.
Compression	Defines the compression rate for lossless codecs.
Sampling rate	<p>Selects the scan rate. The scan rate is the frequency that a signal is scanned per time interval. If you choose Automatic, Nero Recode sets the sampling rate as close as possible to the original value.</p> <p>The values available are determined by the audio format you have selected.</p>
Audio channels	<p>Defines the audio channels of the output. You can select a down mixing of the audio channels, but no up mixing. If you choose Automatic, Nero Recode sets the channel as close as possible to the original setting.</p> <p>The values available are determined by the audio format you have selected.</p>
Bit per sample	<p>Specifies the scan accuracy and thus determines the quality of the individual scanner. The higher the bit sign, the more accurate.</p> <p>Only available for WAVE.</p>

The following options are available on the **Video** tab:

<p>Check box</p> <p>Change quality settings for this video only</p>	Activates the quality slider and the bit rate options in order to change the output settings for this video only.
Quality slider	<p>Defines and displays the output quality in terms of video bit rate. A default video bit rate is preselected by a calculation. The default bit rate provides you good quality.</p> <p>In order to adjust the quality individually, you can move the slider.</p>

	<p>Note: The higher the required aspect ratio, the higher the needed bit rate. Therefore, parts of the quality slider may be grayed out, if the required aspect ratio would result in a bit rate which is not supported by the selected encoder or technically impossible.</p> <p>Only available when the check box Fit to target is cleared.</p>
<p>Input field</p> <p>Video bit rate</p>	<p>Displays the bit rate of the output in Kbps. The bit rate is the quantity of data transmitted within a time unit.</p> <p>The value is determined by the output settings you have selected and is updated in real-time to any made change.</p>
<p>Drop-down menu</p> <p>Bit rate mode</p>	<p>Defines what kind of bit rate the audio codec is using.</p> <p>Constant bit rate (CBR): Specifies a constant bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data is the same over the entire audio file.</p> <p>Variable bit rate (VBR): Specifies a variable bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data adapts to the dynamics of the audio file. The bit rate, for example, can be lowered at quieter points in the track.</p> <p>Average bit rate (ABR): Specifies an average bit rate, i.e., the data flow per unit of time and thus the quantity of the saved data adapts to the dynamics of the audio file but the average bit rate tends to the defined value. In principle is it a variable bit rate with a limited bit band width and thus combining the advantages of the variable and the constant bit rate.</p>

5. Playback and Edit Files

5.1. Playback Files

In the **Playback** screen you can play back the video to be recoded. The **Playback** screen is opened when you click the  button on a preview image.

The video is played back in original resolution. If the resolution is bigger than the window, Nero Recode resizes the video to fit into the window and shows black bars.

For audio files, a wave form is displayed.

For DVD-Video, the playback starts with the first main movie as default if several main movies have been detected. For a video stream file with several videos, the playback starts with the first video title. You can select another title from the  **More** menu.

The following options are available:

Button Edit	Accesses the edit mode. Three buttons (Crop, Trim, Rotate) are displayed at the left page and the playback area is resized to fit the tabs into the window. For encoding audio files, only Trim is available.
Information area with preview picture	Displays name, duration and current playback position.
	Starts and stops playback.
	Increases the rewinding / fast-forwarding speed each time the button is clicked.
	Jumps back one item / Jumps forward to the next item. Controls are only visible if more than one video item is available.
	Changes the audio volume.
Button  More	Allows to switch to another title, audio track or subtitle; if such is available.
Button OK	Closes the screen.

5.2. Crop Files

The enhancement tool **Crop** in the **Playback** screen allows you to crop your video. Crop is only available for recoding to video file.



The **Crop** feature is not available under Windows XP.

The following options are available for the **Crop** enhancement:

Button Crop	Displays the area with setting options for cropping. Cropping is useful if your video features black picture bars on the sides. To crop the video also decreases the size and as a result improves its quality.
Drop-down menu Mode	Disabled: Disables cropping. Automatic: Detects black picture bars and removes them automatically. The aspect ratio of the source file is kept. The area to be cropped is indicated with a black transparent border. Custom: Allows manual cropping. Just grab the sides of the crop area by mouse and drag it. Aspect ratio and Selection color are enabled. Disabled is selected as a default.
Drop-down menu Aspect ratio	Same as source: Keeps the aspect ratio of the source. None: Disables any aspect ratio restriction so that you can crop freely. 4:3 / 16:9 / 16:10 / 21:9: Chooses an aspect ratio which is kept even when you change the crop area manually.
Drop-down menu Selection color	Defines the color of the border being displayed to indicate the cropping area. You can choose between black and white. This feature is useful to get a better contrast for the cropping frame.
Crop area textboxes	Displays the pixel size to be cropped. The boxes are updated automatically when you drag the crop area. You can also enter pixel values manually here and the cropping area will change accordingly. This works within the borders of the chosen aspect ratio.
Button Done	Closes the screen. Saves any made changes. The so-called non-destructive procedure is used for processing, i.e. the actual video is not changed, but flags are simply set that can be canceled at any time.

5.3. Trim Files

The enhancement tool **Trim** in the **Playback** screen allows you to trim your video.

The trim feature is activated beneath the preview (video) or wave form (audio). The trim feature allows you to add markers for start and end position of the area you want to keep. Simply drag and drop the pin from the beginning or end of the trim timeline onto the desired position. By clicking the little triangle on the left or the right you can snap the pin

to the playback marker. Start and end position of the area you want to keep and the duration can also be entered in the input fields in the **Trim** area.

Clicking the **OK** button closes the screen and saves any made changes. The so-called non-destructive procedure is used for processing, i.e. the actual video is not changed, but flags are simply set, so you can come back at any time as long as the job is not finished and change the made settings.



Note, that you can only trim the video at its start and end. If you want to cut unwanted scenes or remove advertising sequences from the middle of the video, we recommend using the **Cutter** feature in Nero Video. Do not forget to save changes to a new video file.

More information about Nero Video can be found in the Nero Video manual.



Note, that you can only trim the audio at its start and end. If you want to remove sequences from the middle of the audio, we recommend using Nero WaveEditor.

Nero WaveEditor is not installed automatically with Nero Classic. However, it can be downloaded for free from the **Download** section at www.nero.com or via Nero ControlCenter and used together with Nero Classic. You will find further information in the Nero WaveEditor manual.

6. Device Profiles

6.1. Edit Video Settings

On the **Video Settings** tab in the **Edit profile** window you can change settings that affect the video encoding. These settings are optimized for a specific output format. However, you can change the device settings to meet advanced needs.

Note that only those settings and values are shown that are possible and applicable for the selected device!

The following options are available in the **General video settings** area:

Drop-down menu	
File extension	Defines the file extension for the container used by the device. A container can contain video and audio codec.
Drop-down menu	
Codec	Defines the video codec used for the output.
Drop-down menu	<p>Selects the method to be used for encoding.</p> <p>Fast (1-pass): The video undergoes only one conversion pass. This method requires less time but results in lower quality than encoding in two steps. The video is analyzed and converted simultaneously with the available bit rate.</p> <p>High quality (2-pass): The video undergoes several conversion passes. The resulting quality is better, but the process takes longer. The first pass analyzes the video and creates a temporary file (*.log). The second pass converts the video. During this process, the bit rate data that was stored in the temporary files is used.</p> <p>Only available if 1- or 2-pass encoding is possible for the selected codec.</p>
Encoding	

The following options are available in the **Advanced settings** area:

Drop-down menu	<p>Defines the aspect of the output. The aspect ratio is set for the video itself and not for the pixels.</p> <p>The pictograms in the drop-down menu give a good impression of the different resizing modes:</p> <p>Original aspect ratio: Keeps the original aspect ratio. The aspect ratio is kept and the resolution is resized.</p>
Aspect ratio	

	<p>Letter box: Resizes the video to fit exactly the desired resolution. The aspect ratio is kept and black bars are added if necessary.</p> <p>Stretch: Resizes the video to fit exactly the desired resolution. The aspect ratio is stretched if necessary.</p>
Option button / Drop-down menu Resolution	<p>Defines the resolution of the output. The values available are determined by the aspect ratio and codec.</p> <p>If you choose Custom, you can define a custom value for the resolution of the output. Enter width and height in the input fields below. However, the selected aspect ratio is kept. A corrected resolution is displayed in the individual output settings for the source file.</p> <p>If you choose Automatic, Nero Recode sets the resolution as close as possible to the original value.</p>
Drop-down menu Frame rate	<p>Defines the frames per second of the output. If you choose Automatic, Nero Recode sets the frame rate as close as possible to the original value.</p>
Drop-down menu Resizing method	<p>Selects the desired resizing method, e.g. bilinear , bicubic , Lanczos and superresolution.</p> <p>Only the resizing methods allowed for the chosen codec are displayed.</p>
Drop-down menu Deinterlace	<p>Selects a method for deinterlacing the current video. Video images are shown as two half images in interlaced mode. Every second line (1, 3, 5, ..., 575) is shown in the first half image. The second half image displays the rest of the lines in the image (2, 4, 6,... 576), so that the eye perceives a full picture. Most video material consists of half images.</p> <p>Weave: The easiest way to fill in half images consists of displaying even and odd half images simultaneously. This way, one half image fills in the lines missing from the other half image. The Weave deinterlacing method is appropriate if both half images originate from the same point in time and can be interlaced inconspicuously.</p> <p>Blend: Consecutive interlaced fields are combined and then averaged together. This is very fast, but image details in the vertical axis may be removed. So called ghost artifacts may also occur and resolution may be lost.</p> <p>Interpolate: One of the two interlaced fields gets discarded completely, and each discarded line is replaced by an average of its upper and lower neighbor</p>

	<p>from the other field. This is very fast, but image details in the vertical axis may be removed.</p> <p>Interpolate Adaptive: Similar to Interpolate, but discards only sections which are not needed. Therefore, it is not as fast as Interpolate, but gives better detail result.</p> <p>Motion Adaptive: The amount of image motion and the motion direction is taken into consideration for the interpolation.</p> <p>The selected deinterlace method will be only applied if deinterlacing of the source video is possible! If you choose Automatic, Nero Recode takes the method that fits best.</p>
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Button	Opens a window with enhanced encoder settings for the selected codec (see Encoder Settings Window).
Encoder Settings	Only active if encoder settings are available.

6.2. Edit Video Encoder Settings

In the **Encoder Settings** window you can change settings for a specific codec. The window is opened by choosing a codec in the **Edit Profile** window and clicking the **Encoder Settings** button. We recommend to only change these settings if you have experienced knowledge in this area!

Note that only those settings and values are shown that are possible and applicable for the selected codec!

6.2.1. General Settings Tab

On the **General Settings** tab in the **Encoder Settings** window you can change the general encoding settings.

With the settings in the **Psychovisual enhancements** area, you can use human perception patterns to achieve better overall quality.

This means, for example, that the quality is better in the middle of the picture than at the outer edges because the eyes tend to focus on the middle and do not notice slight blurring at the edge. Because quality is "saved" at the edge, you can either improve overall quality or achieve greater compression. This means that you can achieve greater compression without any appreciable loss of quality.

Note that only those settings and values are shown that are possible and applicable by the selected codec!

The following option is available in the **Encoder settings** area:

Drop-down menu Encoding precision	Specifies how good the quality of the output file should be in relation to the time used for encoding. 1 provides the best quality, but the longest encoding time. 0 takes up the least encoding time and provides the worst available quality. It is recommended to use a value in the middle range.
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The following options are available in the **Video sequence properties** area:

Drop-down menu Max. reference frames	Specifies how many frames from which a P-frame or B-frame may query information.
Input field Max. keyframe interval	Defines the range for the size of the GOP.

The following options are available in the **Psychovisual enhancements** area:

Check box Picture level	Takes human perception into account in order to achieve better compression for individual pictures at certain spots in the video.
Check box Macroblock level	Takes human perception into account in order to achieve better compression for macroblocks in certain areas in the picture.

6.2.2. Encoder Settings Tab for AVC/H.264

On the **Encoder Tools** tab in the **Encoder Settings** window you can define settings for codecs like AVC/H.264. Note that only those settings and values are shown that are possible and applicable!

The following options are available in the **Baseline Profile** area:

Check box Deblocking	Applies a soft-focus effect to the sharp edges of the macroblocks.
Drop-down menu Deblocking strength	Configures the intensity of the deblocking effect.

The following options are available in the **Main Profile** area:

Check box Bidirectional prediction	Carries out encoding with the help of B-VOPs.
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Drop-down menu Max. consecutive B-frames	Specifies the maximum number of B-frames that can be used in a GOP. This drop-down menu is enabled only when the Bidirectional prediction check box is enabled.
Check box CABAC	Uses the Context Adaptive Binary Arithmetic Coding encoding method. This provides great quality along with lossless compression, but demands high computer power.
Check box Weighted prediction	If this check box is selected, reference frames can be re-weighted during motion predictions. This increases the encoding efficiency especially during cross fading.

The following option is available in the **High Profile** area:

Check box 8 x 8 Transform	If this check box is selected, the default 4x4 transform used by the encoder is changed to an 8x8 transform. This allows for better compression with high-definition resolutions. This setting depends on the chosen profile.
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6.2.3. Encoder Settings Tab for MPEG-4 SP/ASP

On the **Encoder Tools** tab in the **Encoder Settings** window you can define settings for codecs like MPEG-4 SP/ASP. Note that only those settings and values are shown that are possible and applicable by the selected codec!

The following options are available in the **Simple Profile** area:

Check box Unrestricted motion vectors	If this check box is selected, the motion vectors are allowed to relate to points outside the frame. This option improves coding efficiency at the edges of the frame.
Check box 4 motion vectors per macroblock	If this check box is selected, macroblocks of 16x16 pixels are divided into four 8x8 pixel macroblocks for the motion search. This means that there are now four motion vectors instead of one. This option improves the quality but slows down the encoding process.

The following options are available in the **Advanced Simple Profile** area:

Check box Bidirectional prediction	Carries out encoding with the help of B-VOPs.
Drop-down menu Max. consecutive B-frames	Specifies the maximum number of B-frames that can be used in a GOP.

	This drop-down menu is enabled only when the Bidirectional prediction check box is enabled.
Check box Quarter pixel precision	<p>If this check box is selected, a quarter of a pixel instead of a pixel is used for motion estimation and compensation. The movement across the frame will be more accurate.</p> <p>This option often improves the quality. However, older standalone DVD players may not be able to playback files encoded with this option.</p>
Check box Global motion compensation	<p>If this check box is selected, the encoder tries to compensate for camera movement. This is achieved by means of previously generated vector fields for the motion vectors. The vector corrections required when the vector fields do not match are less complex than the complete generation of a new vector field.</p> <p>This setting requires a lot of time for relatively little increase in quality.</p>

7. Nero MediaBrowser

Nero MediaBrowser is a tool which you can use to easily find, view and access media files and add them to your project. More precisely, with Nero MediaBrowser you can access a media library which contains all your media files that were indexed by Nero MediaHome.



Nero MediaBrowser and the media library come with Nero MediaHome and are installed together. You will find further information in the Nero MediaHome manual.

Nero MediaBrowser is designed to be accessed in several Nero applications, but is also available as a standalone application.

To use Nero MediaBrowser within a Nero application, open Nero MediaBrowser via the  button. When you double-click a media file or select it and click the **Add** button in Nero MediaBrowser, the media file will be added to your current project.

To use Nero MediaBrowser with a non-Nero application, open Nero MediaBrowser via the Windows start menu or its tile, depending on your operating system. You will then be able to add media files to any active application by dragging the desired media file onto the application. When you double-click a media file in Nero MediaBrowser, it is opened in its default program.

Nero MediaBrowser features the same categories (**Photos & Videos**, and **Music**) as Nero MediaHome. There are different views available for each category: Clicking one of the entries in the upper part of the list (for example **Faces**) displays the same view as when clicking the corresponding tabs in Nero MediaHome. Also, the same scroll bar as in Nero MediaHome is used. This is either the **standard scroll bar** or the **dynamic scroll bar**.

The following views are available for the **Photos & Videos** category, referring to the corresponding views in Nero MediaHome:

All Photos & Videos	Displays all photos and videos sorted in chronological order by creation date.
Faces	Displays all photos in which faces of persons have been detected and named listed in alphabetical order. Faces are grouped into stacks; you can access one of the stacks by double clicking it.
Find	Displays all existing tags enabling you to create a query.
Album	Displays the content of smart albums (e.g. Recently added) and user generated albums.

The following views are available for the **Music** category, referring to the corresponding views in Nero MediaHome:

Albums	Displays all audio tracks sorted in alphabetical order by album.
Artists	Displays all audio tracks sorted in alphabetical order by artist.
Genres	Displays all audio tracks sorted in alphabetical order by genre.
Titles	Displays all audio tracks sorted in alphabetical order by title.
Playlist	Displays the content of smart playlists (e.g. Recently played) and user generated playlists.

The **Options** window is opened when you click the  button on the upper task bar. The options refer directly to Nero MediaHome.

Library	<p>Displays the Library settings area.</p> <p>All monitored folders are displayed in the respective Watched folders or drives area. If you want to add additional media folders, click the Add Manually button and select the desired folder from the navigation tree. Click the Add Automatically button to have Nero MediaHome perform a search for new media folders on your computer. To exclude certain media types (music, videos, or photos) from a folder, click the respective button to the right of the folder. To delete a folder from the application's watchlist, hover your cursor over the listed folder and click the  button.</p> <p>You can also just drag files or folders to Nero MediaHome. A window automatically opens and asks if you want to add the folder(s) to the library.</p> <p>In the General area you can select to list your external playlists (such as iTunes) as entries in the navigation tree of Nero MediaHome.</p>
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8. Configuration

8.1. Set Options

You can customize Nero Recode according to your preferences in the **Options** window. To open the window, click the **Options** button in the upper bar.

8.1.1.General Options

On the **General** tab, you can define general Nero Recode settings.

The following check box is available in the **Nero MediaBrowser** area:

Add target folder to list of indexed folders	Allows Nero MediaHome to automatically add the target folder you had chosen for recoding to the list of to be indexed folders. When new media is added to an indexed folder, you are instantly gained access to it from Nero MediaBrowser or Nero MediaHome. Only available if Nero MediaHome is installed.
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The following options are available in the **Media playback** area:

Drop-down menu Play recoded files with	Chooses the media player with which recoded media files are played back. Your preference will be saved.
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The following options are available in the **Notifications** area:

List Messages	Displays warning messages for certain actions which can be selected here.
Check box Enable tooltips	Enables the display of tooltips. Tooltips contain brief explanations about screen elements and are displayed in a "bubble" when you hover with your mouse over a screen element.
Check box Show balloon tip in notification area	Displays a balloon tooltip in the notification area when a job is finished.

The following option is available in the **Sleep mode** area:

Check box Prevent computer from entering sleep mode	Prevents the computer from entering sleep mode and hibernating when a job is running and minimizes so the risk of a faulty recode process.
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8.1.2.Import Options

On the **Import** tab, you can define settings regarding the import of source media.

The following options are available:

Check box / Input field Maximum amount of media files to import	Defines how many files can be imported in one import process. If you are going to import more media files than allowed here, a warning message will be displayed. This option applies to importing media files only.
Check box Open Nero MediaBrowser at launch of Nero Recode	If this check box is enabled, Nero Recode displays Nero MediaBrowser permanently in the start screen in order to gain simple access to media files. Only available if Nero MediaHome is installed. Nero MediaBrowser is part of Nero MediaHome.

8.1.3. Output Options

On the **Output** tab, you can define the output settings.

The following options are available in the **Default paths** area:

Input field / Button Default output path	Defines the folder in which the output video is to be stored.
Input field / Button Temporary output path	Defines the folder in which the output data is to be temporarily stored.

The following options are available in the **Audio preselection** area:

Checkbox / List Preselect the following audio tracks	Selects the audio tracks in the specified languages for the recoding process. If none of your preselected languages are available on the DVD-Video, or this check box is cleared, all languages are preselected. This option applies to recoding DVD-Videos only.
Button Add	Opens a window with a language list where you can add or remove languages for preselecting.
Button X	Removes the selected language. This button is only visible when you hover with your mouse over a language in the list.
Drop-down menu Preferred audio format	Specifies the file format in which Nero Recode will recode audio files per default. If a language has been preselected, this option applies only to the chosen language when recoding. If no language has been preselected, this option is applied to all languages when recoded.

	This option applies to recoding DVD-Videos only.
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The following options are available in the **Subtitle preselection** area:

Checkbox / List Preselect the following languages	If this check box is selected, the subtitles in the specified languages are preselected for recoding. If this check box is cleared, no subtitle is preselected. This option applies to recoding DVD-Videos only.
Button Add	Opens a window with a language list where you can add or remove languages for preselecting.
Button X	Removes the selected language. This button is only visible when you hover with your mouse over a language in the list.

In the **Default DVD quality** area, you can specify quality options regarding DVD-Video recoding with the **Fit to target** recode method. The **Fit to target** method recodes the content of the imported disc automatically in such a way that the output size fits the size value that you selected. The following options are available:

Option button Focus on main movie	Assigns the best quality that is possible to the main movie. This option is selected by default as the main movie is most important
Option button Balanced quality	Assigns the same quality to all items.
Option button Focus on extras	Assigns the best quality possible to extras.
Check box Keep original menus	Keeps menus in their original quality.

8.1.4.Profiles Options

On the **Profiles** tab, you can manage custom profiles.

The following options are available in the **Custom profiles** area:

Drop-down menu Select device	Selects the device that is associated with the profiles below.
List Custom profiles	Lists all custom created profiles that are associated with the selected device. Custom created profiles are profiles that you have created during the encoding setting and saved under a new name.

Button X	Deletes the selected custom profile. Profiles that are associated with an ongoing job cannot be deleted. This button is only visible when hovering over a device in the list. Devices that are associated with an ongoing job cannot be deleted.
Button Copy To	Copies a custom profile to any device. A window is opened in which you can select a device the profile should be copied to. The original name of the profile is pre-entered by default.
Button Create	Opens the Edit Profile window where you can create a completely customized profile. All codecs are selectable.
Button Export	Allows you to export custom profiles.
Button Import	Allows you to import custom profiles.

8.1.5. Performance Options

On the **Performance** tab, you can define settings that affect the encoding performance. Nero Recode needs a lot of computer power for a relatively short time, so an adjusted performance is useful. Generally, Nero Recode sets the performance settings as balanced as possible. However, you can change the settings manually.



The options on the **Performance** tab refer directly to the Windows Task Manager. You set the priority and the processor affinity here and the settings will be used by Windows Task Manager for every sessions during which Nero Recode is running. Therefore, we recommend to only change the performance options if you have experienced knowledge in this area. The CPU priority and processor affinity is affected by many settings and by other computer programs and an unbalanced setting may lead to process problems!

The following options are available in the **Priority** area:

Drop-down menu CPU priority	Sets the process priority for Nero Recode in Windows Task Manager. The entries here refer to the respective entries offered by Windows Task Manager.
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If your PC has at least dual core processors, you can choose to distribute the computer power onto the single CPU cores. The following options are available in the area **Processors**:

Checkbox All Processors	Distributes the compute power to all processors of your computer.
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Checkbox CPU 0 / 1 / 2 / ...	Distributes the compute power to the chosen CPU or chosen CPUs. We recommend to allocate Nero Recode exclusively to one CPU (for example CPU 1) while all other programs are accessed by another CPU. Doing so results in a fast encoding with less encoding errors.
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8.1.6.Disc Options

On the **Disc** tab, you can define settings regarding disc burning.

The following options are available in the **Default disc label** area:

Input field Default disc label if no title was found	Defines a default disc label used for the disc if no title has been detected. This option applies only to DVD burning.
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The following options are available in the **Burning** area:

Check box Eject disc after burning	Enables the option that your disc is ejected when the burn process is finished.
Check box Offer to save log file after burning	Opens a window to save the log file when the burn process is finished. You can specify the storage location for the log file here. The log file is saved in TXT format.

The following options are available in the **DVD** area:

Check box Allow 16-bit Unicode for the volume label	Relaxes limitations on the use of character sets. Nero Recode does not use characters from languages like Japanese or Korean, which have a 16-bit Unicode character set that does not comply with DVD-Video requirements. Note that the DVD might not be playable with older DVD players.
Check box Remove P-UOPs	Made locked areas of a DVD accessible when a DVD-Video is recoded. For example, if the original DVD contains an area that cannot be skipped, you can use Nero Recode to remove the block so you can skip or fast forward through that part.
Check box Remove layer break	Removes the layer break. If the original DVD consists of two layers, there is a command on the DVD to freeze the image briefly to allow the laser to switch from the first layer to the second. When Nero Recode is used to recode a DVD-Video to a DVD with just one layer, this command is redundant and can be removed.

8.2. Erase a RW

Nero Recode can be used to erase rewritable discs, i.e. discs with the RW specification, as long as your recorder supports this feature. Two erase methods are available for this purpose:

Quick erasing does not remove the data physically from the disc, but instead only makes it inaccessible by erasing the references to existing content. The data can be restored!

Full erasing removes the data from the disc by overwriting it with zeros. The contents cannot be restored with conventional methods. Repeated full erasing increases the probability that third parties will not be able to reconstruct the contents.

The following configuration options are available in the **Erase Rewritable Disc** window:

Selection list Select recorder	Defines the desired recorder.
Check box Use multiple recorders	Simultaneously erases CDs/DVDs in multiple recorders.
Selection list Select the erase method to be used	Defines the erase method. Two options are available: The Quick-erase rewritable disc method does not physically erase all data from the disc, but only the references to the contents. The disc will appear to be empty even though the data is still physically available. Erasing a disc using this method takes between one and two minutes. The Full-erase rewritable disc method physically erases all data from the disc. The contents cannot be restored with conventional methods. Repeated full erasing increases the probability that third parties will not be able to reconstruct the contents. Erasing the disc using this method takes longer than the other method, depending on the type of disc involved.
Selection list Erase speed	Defines the erase speed.
Button Erase	Starts the erase process.
Button Cancel	Cancels the action and closes the window.