

Conversion Buffer

The amount of memory, which should be made available for the conversion process. Recommended values are between 128 und 512 kBytes. The minimum value is 16 kBytes.

Selection Buffer

The amount of memory which should be used for selecting source audio files. The more files should be chosen, the higher this value must be set. The default value is 16 kBytes.

Reset Performance Statistics

By pressing this button all existing entries of the performance statistics file will be deleted.

Priority Class

Together with the priority, this value determines, how much processor time the conversion process will be assigned. All applications of one priority class share the processor time according to their priority.

Priority

Together with the priority, this value determines, how much processor time the conversion process will be assigned. All applications of one priority class share the processor time according to their priority.

OK

Saves all modifications and closes the dialog.

Cancel

Closes the dialog without saving any modifications.

Help

Shows Online-Help for this dialog.

File Format

The file format for saving the resulting audio files in. Depending on this choice, various different audio formats will be displayed for selection.

Format Tag

The format tag defines the compression / coding algorithm for the conversion. Each format tag supports one or more different formats.

Format

The format defines the level of quality and the number of audio channels for the resulting audio files. The number of supported formats depends on the selected format tag and file format.

Quality Level

By choosing High Quality, the application tries to achieve the best quality possible for the compression. Enabling this setting could have significant impact on the time needed for the conversion process. Not all audio codecs support this option.

File Format

The file format, for which you want details displayed.

About

By pressing this button, you can get further information about the file format library and it's developer.

Close

Closes the active dialog.

Conversion Step

Select a specific conversion step for getting details about it's source and destination format.

Previous Item

By pressing this button you will get to the previous of the selected project items.

Next Item

By pressing this button you will get to the next of the selected project items.

Statistic Entries

This area shows a list of statistical entries, which have been collected during previously running conversion processes. The information includes the source and destination audio formats, the level of quality and the performance achieved in kBytes per second.

Log Conversion Performance

Enable this option to store entries about the achieved conversion performance for later retrieval every time a conversion is run.

Item - Add

Add one or more new audio files to the active conversion project.

Project - New

Create a new, empty conversion project.

Project - Open

Open an already existing conversion project.

Project - Close

Close the active conversion project and prompt the user for saving any modifications.

Project - Save

Save the active conversion project into a project file.

Project - Save As

Save the active conversion project using a different filename.

Project - Convert

Start the conversion process for the active project. Only those items will be converted, for which a destination audio format and a destination file has been specified.

Project - Most Recently Used Projects

Open one of the most recently used conversion projects.

Project - Most Recently Used Projects

Open one of the most recently used conversion projects.

Project - Most Recently Used Projects

Open one of the most recently used conversion projects.

Project - Most Recently Used Projects

Open one of the most recently used conversion projects.

Project - Exit

Quit ACM Station 2.1 and prompt the user for saving any modified projects.

Edit - Cut

Copy the selected project items to the clipboard. These items will be removed from the active project.

Edit - Copy

Copy the selected project items to the clipboard.

Edit - Paste

Fetch project items from the clipboard and add them to the active conversion project.

Edit - Select All

Select all items contained in the active project.

Item - Remove

Remove the selected items from the active conversion project.

Item - Information

Display detailed information about the selected project items.

Item - Destination Format

Select the file format and the audio format for the resulting audio files of the currently selected project items.

Item - Destination File

Select the destination file or the destination directory for the resulting audio files of the currently selected project items.

Item - Play

Start or stop playback for the selected audio file.

View - Toolbar

Show or hide the toolbar of the application's main window.

View - Statusbar

Show or hide the statusbar of the application's main window.

Extra - Settings

Modify various settings of ACM Station 2.1.

Extra - File Formats

Show details about the file formats currently available to the application.

Extra - Performance Statistics

Show statistical information about the conversion performance achieved during previously run conversion processes.

Window - Cascade

Arrange the project windows, so they are stacked up one on the other.

Window - Tile

Arrange the project windows, so they lie side by side.

Window - Arrange Icons

Arrange the icons of minimized project windows.

Help - Help Topics

Show a table of contents of the Online-Help.

Help - About

Show information about ACM Station 2.1.

Help - Context-Sensitive Help

Show help information about the object selected using the mouse.

Window - Window List

Show a particular project window.

Minimize

Minimize the active window to an icon or to the task list.

Maximize / Restore

Enlarge the active window to maximum size or restore it's normal window size.

Close

Close the active window.

Move

Move the active window.

Size

Change the size of the active window.

Next Window

Swap to the next window.

Delete Files After Conversion

Enable this option to physically remove the source audio files after successful conversion.

Preference List

A list of previously saved preferences (format settings).

Save Preference

By pressing this button, you can save the currently selected format settings as a new preference.

Delete Preference

By pressing this button, you can delete the currently selected format preference.

Preference Name

Enter the name for the new preference you want to save. If the name already exists, you will be asked if you want to overwrite it.

What is ACM Station 2.1 ?

ACM Station 2.1 is an application for converting / compressing audio data of nearly unlimited size using various audio formats. Using the appropriate audio codecs, which are installed directly into the operating system, you should be able to compress audio data to a fraction of its original size while avoiding a significant loss of quality. Another possibility how to use this application is to convert audio files between different file formats while preserving the contained audio data. Because of the flexible architecture of ACM Station 2.1, it is possible to use future or self-composed audio and file formats whenever you want.

System Requirements

- Microsoft Windows 95/98 or Microsoft Windows NT 4.0
- Intel Pentium Processor or higher is recommended
- a minimum screen resolution of 800 x 600 is recommended

Features of ACM Station 2.1

Management of conversions using projects

All audio files to convert are stored in a conversion project along with additional information like the destination format and the destination file. These projects can be saved as project files and loaded whenever you want. The properties of some or all contained audio files can be modified all at once.

Usage of all installed audio codecs

For the compression of audio data all audio codecs available on the user's system can be used. To use a new audio compression algorithm, only an appropriate audio codec has to be installed into the operating system and ACM Station 2.1 will be able to use it.

Support of multiple file formats

When storing or loading audio data, various different file formats like WAV or MP3 are supported. Via so-called file-format libraries, in the form of special DLLs, the range of file formats available to ACM Station 2.1 can easily be extended.

Plenty of status and progress information

All kinds of information about the audio and file formats used and how the conversions will be done can be retrieved in the application. While the conversion process is in progress, a whole bunch of status and progress information will be displayed. The error log contains errors and warnings of the running conversion process, so the user will be informed about these, while the conversion will not be suspended or aborted.

Multithreading

The conversion process runs in its own thread in the background, independent of the application itself. This ensures, that the user can continue to work with the application while the conversion is running. The conversion thread will be watched continuously by the application, so conversions, which are not responding anymore can be aborted by the main application. This shall help to make the application more stable.

Support of drag-and-drop

ACM Station 2.1 fully supports the drag-and-drop mechanism. Audio files can be dragged from the Explorer to a conversion project to add new items to the project, and items can be copied and moved between different projects using drag-and-drop.

No limits for the number and the size of audio files

ACM Station 2.1 does not load the whole audio file into main memory to be able to do some conversions, as many other comparable software does, but only loads as much

data as specified by the user into memory. This makes it possible to convert audio files of nearly unlimited size (up to 4 GBytes), and the user can limit the amount of memory, which will be used by the application. Also the number of files, which can be added to a conversion project, is nearly unlimited (up to 4 billion).

Detailed error information

If an error has been detected, the application displays a dialog showing detailed information about the source of the error and how to recover.

Usable by novices and professionals

Novices as well as audio professionals can use ACM Station 2.1. The creation of a conversion project and the subsequent conversion of the contained audio data has been made as simple as possible. Extended information displayed for the project items and while the conversion process is running offer full control over the audio data conversion / compression.

Optimized for speed

The whole program has been optimized to deliver high speed on the new generation of microprocessors, the Intel Pentium processor. On newer PCs it should be possible to do most audio compression using high quality in realtime, even when using complicated audio compression algorithms like MPEG Layer III.

About conversion projects and project items

Conversion project

Conversion projects, or simply projects, are the documents of ACM Station 2.1. They can be loaded and saved, like in most other applications, or you can create a completely new project. The extension of these project files is .CNV. When double-clicking a conversion project in Explorer, ACM Station 2.1 will be started automatically and the selected project will be opened. Several projects can be opened at the same time and items can be copied or moved between these projects. It is also possible to convert several projects at the same time.

Project Item

A project item, or simply item, represents an audio file, which has been added to a project. While the conversion process is running, these audio files will be changed from one audio format to another. In a conversion project, multiple items can be edited at once, so the destination format or the destination directory for these items need not be specified item by item. Plenty of information can be displayed about these items, so that the user will be informed about the audio format, the audio file is in, the audio format, the file will be converted into, the estimated time, the conversion will need, the estimated size of the resulting audio file, etc. Items can be copied or moved between different projects using drag-and-drop. Project items are only a kind of link to the corresponding audio files, the audio data itself is not contained in them, so the audio data will not be included when saving a conversion project. If an audio file contained in a project has been deleted or moved, the corresponding project item cannot be restored, when loading the project, because the audio file of the item is then missing.

Opening a conversion project

Opening a project from Explorer via a double-click

When you double-click a project file (.CNV) in Explorer, the corresponding conversion project will be opened in ACM Station 2.1.

Opening a project from Explorer via drag-and-drop

Using the mouse, drag the conversion project from Explorer into the main window of ACM Station 2.1 to open it.

Opening a project from the application

In the application select **Open ...** from the **Project** menu and select the appropriate project in the displayed dialog.

Opening a recently used project

The 4 most recently used conversion projects are shown in the **Project** menu. Select the appropriate conversion project to open it.

Adding items to a project

Adding items from Explorer via drag-and-drop

Select the audio files, you want to add to a conversion project, and drag them into an already created or opened project.

Adding items via the application

Select **Add ...** from the **Item** menu to display a dialog, where you can select one or more audio files to add to the active conversion project.

Selecting the destination format

After adding items to the active project, you have to select the destination format, to which to convert these items. The destination format includes the file format as well as the audio format. Both are selected using one single dialog. By selecting more than one item, the chosen destination format can be assigned to all selected items.

1. Choosing items

Select one or more items using the mouse or the keyboard. By pressing and holding down the Ctrl- or Shift-keys, you can select several items at once. If pressing Ctrl+A, all items in the active project will be selected.

2. Format selection

Select **Destination Format ...** from the **Item** menu to open the format selection dialog. Using the topmost list you can choose the file format to which the items should be converted. Depending on the chosen file format, the two other lists will display several available audio formats. The left list shows the format tags and the right one shows all audio formats belonging to this format tag. The area at the bottom contains a check box, with which to adjust the quality level for the conversion process, which will also have significant impact on the conversion performance.

Selecting the destination file

After choosing the destination format for the selected items, you further have to select a location for the converted audio files to save in. Therefore you first have to select one or more project items and open the dialog for choosing the destination file. If selecting only one item, you can set the filename for the resulting audio file. If you select more than one item, only the destination path for the selected items can be chosen, while the filename of the project items itself will be preserved.

1. Choosing items

Select one or more items using the mouse or the keyboard. By pressing and holding down the Ctrl- or Shift-keys, you can select several items at once. If pressing Ctrl+A, all items in the active project will be selected.

2. Destination selection

Select **Destination File ...** from the **Item** menu to display the destination selection dialog. Depending on the number of project items selected, one of the two previously mentioned dialogs for choosing the destination path or filename will be displayed.

Information about an item

After setting all attributes for the project items necessary to start the conversion process, you can review information about the project's items again. This information contains the estimated time needed for the conversion process, detailed information about the conversion steps as well as the estimated file size of the resulting audio files.

1. Choosing items

Select one or more items using the mouse or the keyboard. By pressing and holding down the Ctrl- or Shift-keys, you can select several items at once. If pressing Ctrl+A, all items in the active project will be selected.

2. Displaying the information dialog

Select **Information ...** from the **Item** menu to display the information dialog. In the upper area of the dialog you will see information about single items, the middle area shows details about all conversion steps of the project item and the area at the bottom contains information about all selected items together. Using the arrow buttons you can browse through all items, if more than one item has been selected previously.

Modifying application settings

Before starting the conversion process, you can change various settings of the application, if you want. These settings include the amount of memory available to the conversion (conversion buffer size) and the priority of the conversion process.

Select **Settings ...** in the **Extra** menu and modify the appropriate parameters. The minimum conversion buffer size is 16 kBytes, while a value between 128 and 512 kBytes is recommended. The default priority class and priority are "Normal", which should be appropriate in most cases. If you will work on the PC while converting audio files and do not want to sacrifice speed, you should decrease the priority to "Low" or "Very Low". On the other side, if the conversion should get most processor time, you should increase the value to "High" or "Very High".

Starting the conversion process

As soon as all information has been collected about the project items to convert, you can start the conversion process. Therefore you have to select **Convert** from the **Project** menu or simply press F10. While the conversion is running, various status and progress information will be displayed, like the conversion performance, the achieved compression rate, the time running and the estimated time left, etc. This information will be shown for the item currently in progress as well as for the whole project. You can resize the project window to show more or less information areas. In the case a conversion error has occurred, a new entry will be added to the error log, which can be examined by double-clicking it. This makes an unattended conversion process possible, because the conversion will never be suspended or aborted by an error.

Suspending or aborting the conversion

If you want to suspend or abort the currently running conversion, simply press the appropriate button in the bottom-right area. When aborting the conversion you will be prompted to confirm this action. In the case, that the conversion process won't stop, please wait some seconds, until another dialog box will open, asking you, if you would like to force the abortion of the conversion. If you use this "brute-force" method of aborting the conversion, be sure to restart the application or the operating system, because this method doesn't free any memory or resources allocated to the conversion process.

Item Information

Via the **Item Information** dialog it is possible to display information about the items contained in the active conversion project. The upper area of the dialog shows some information about the currently selected item. In the middle area, detailed information about the various conversion steps for this item is displayed. Using the combo box, the conversion step, for which information should be displayed, can be chosen. The area at the bottom of the dialog shows information about all selected project items together.

The screenshot shows the 'Item Information' dialog box with the following content:

| | | | |
|---|--------------------------------|------------------------------------|------------------------------|
| Source File | E:\Audio\Hanging Around.wav | File Size: 3.36 MBytes | File Format: WAVE Audio File |
| Destination File | F:\CD Audio\Hanging Around.WAV | Estimated File Size: 481.01 kBytes | File Format: WAVE Audio File |
| Conversion Step | 1 - Non-PCM to PCM | | |
| Source Format | | Destination Format | |
| Format Tag | MPEG Layer-3 | Format Tag | PCM |
| Format | 128 kBit/s, 44,100 Hz, Stereo | Format | 44,100 kHz; 16 Bit; Stereo |
| Channels | 2 - Stereo | Channels | 2 - Stereo |
| Sample Rate | 44.10 kHz | Sample Rate | 44.10 kHz |
| Data Rate | 15.63 kBytes/sec. | Data Rate | 172.27 kBytes/sec. |
| Alignment | 1 Byte | Alignment | 4 Bytes |
| Sample Size | 0 Bits | Sample Size | 16 Bits |
| Extra Format | 12 Bytes | Extra Format | ---- |
| Length of Audio Data | 19.199.595 Bytes | | << >> |
| Estimated Conversion Time | 02:21.425 | | Close |
| Estimated Conversion Performance | 132.58 kBytes/sec. | | Help |

Source File

The name and file length of the source audio file together with a description of its file format. The file length shown is the actual length of the file, not the length of the contained audio data.

Destination File

The name and the estimated file size of the resulting destination audio file together with a description of its file format. The file name will only be displayed, if a destination filename has already been chosen. Also the estimated file size and the format description are only shown, if a destination format has been chosen before.

Conversion Step

For the most conversions, the project items have to be converted to one or more intermediary audio formats before the final conversion to the selected destination format can take place. These intermediary formats are always PCM audio formats. The list shows all steps necessary for the conversion of the source audio file. The entries in this list also describe the intermediary source and destination formats for the various conversion steps. By selecting a single step, it's information will be displayed in the area below the list.

Source Format

Information about the source audio format for the selected conversion step. For the first conversion step, this is the audio format of the source audio file.

Destination Format

Information about the destination audio format for the selected conversion step. For the last conversion step, this is the destination audio format specified for this project item.

Length of Audio Data

The summarized audio data length of all selected project items. This value shows the length of the audio data contained in the project items, not the size of the audio files.

Estimated Conversion Time

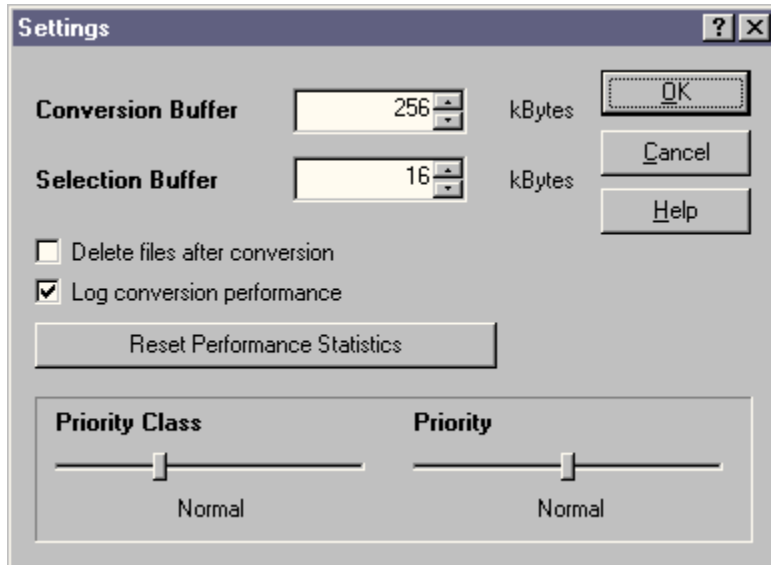
The estimated time, the conversion of the selected project items will use. This value is calculated by using the performance statistics recorded for every conversion process. If these performance values are correct, the displayed value should be the time, the conversion of the whole project will need, if all project items are selected.

Estimated Conversion Performance

The estimated conversion performance, which will be achieved for the conversion of the selected project items. This value is also calculated using the performance statistics.

Settings

Using this dialog, the various settings for the application can be modified. Currently running conversions do not use any changed values.



Conversion Buffer

The maximum amount of memory, which should be available to the conversion process. The actually used amount of memory can be different from the specified one, but will never exceed this limit. The default value for this setting is 128 kBytes. The smallest possible value is 16 kBytes. Recommended buffer sizes lie between 128 and 512 kBytes of memory.

Selection Buffer

The amount of memory used for selecting the source audio files for the active project. The default value is 16 kBytes, but it should be raised, if a large number of audio files will be added to a project at once. An appropriate error message will be displayed, if the selection buffer is too small to contain all selected filenames.

Delete Files After Conversion

By enabling this switch, all successfully converted source audio files will be deleted after conversion. This will preserve free disk space, if many audio files will be converted.

Log Conversion Performance

Enable this checkbox to log the performance of all conversions for later use via the performance statistics.

Reset Performance Statistics

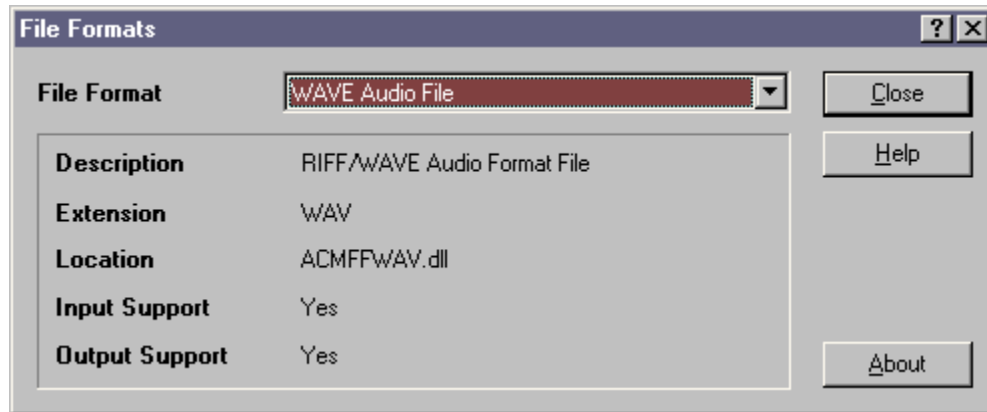
By pressing this button, all previously recorded performance statistic entries will be removed. After doing this, no estimates can be made about the time needed for conversions anymore, until the appropriate conversions have been done again with performance logging enabled.

Priority Class and Priority

These two values define, how much processor time will be assigned to the conversion processes. All applications running under the same priority class share the available processor time according to their priority value. Because nearly every application uses the priority class Normal, only the priority should be adjusted. **Changing the priority class to RealTime can cause important system processes to be interrupted!**

Information about File Formats

This dialog shows details about all available file formats. The support of file formats is done via external DLL, which have a filename in the form of ACMFF*.DLL. Wenn ACM Station starts, these file format libraries are initialized and are then available to the application.



File Format

This List contains all available file formats. By selecting an entry, details about that file format will be displayed in the lower area.

Description

The full description of the file format.

Extension

The file extension of the file format. The file format of an audio file is detected using these file extensions. Therefore the naming of a source audio file, which should be added to a conversion project, must always be correct. For saving audio files in a special file format, the file extension doesn't matter.

Location

The filename of the file format library. This file is always contained in the folder, where the application's executable module (ACMStation.exe) resides in.

Input Support

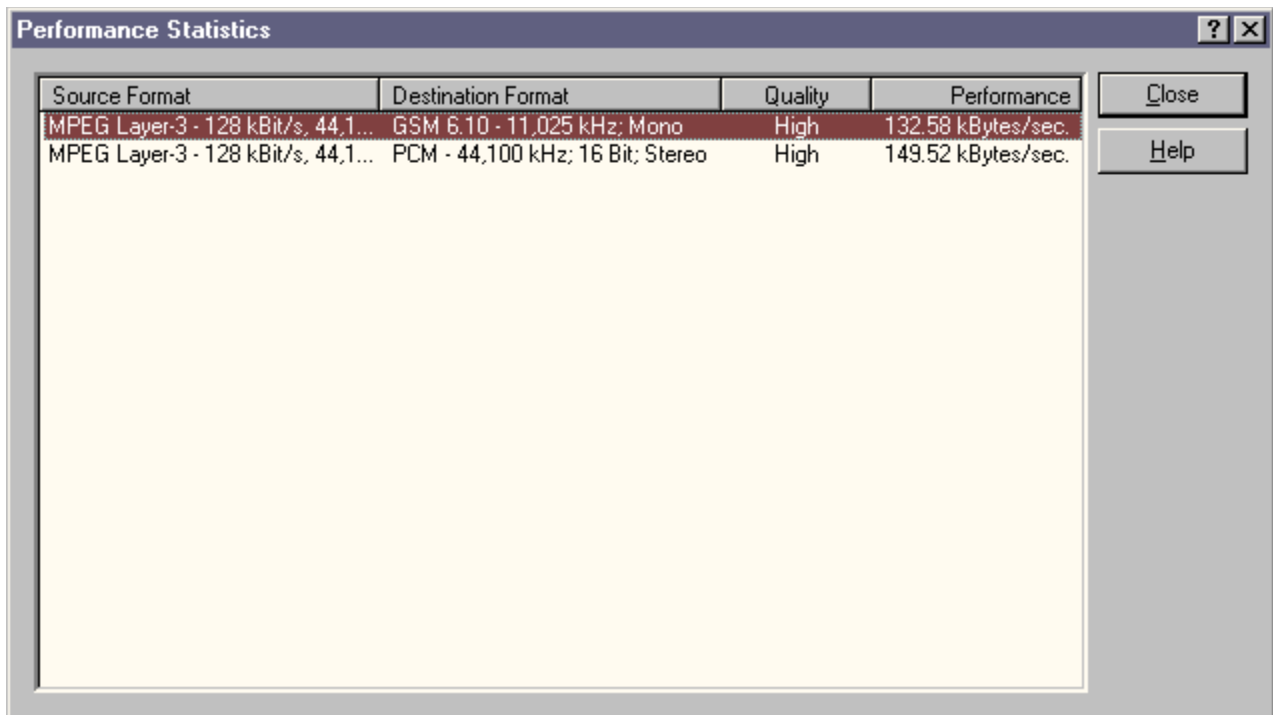
Specifies, if audio files using this file format can be inserted into a conversion project. Not every file format supports this option.

Output Support

Specifies, if converted audio data can be saved using this file format. File formats, which do not support output, will not be displayed in the Destination Format dialog. Not every file format supports this option.

Performance Statistics

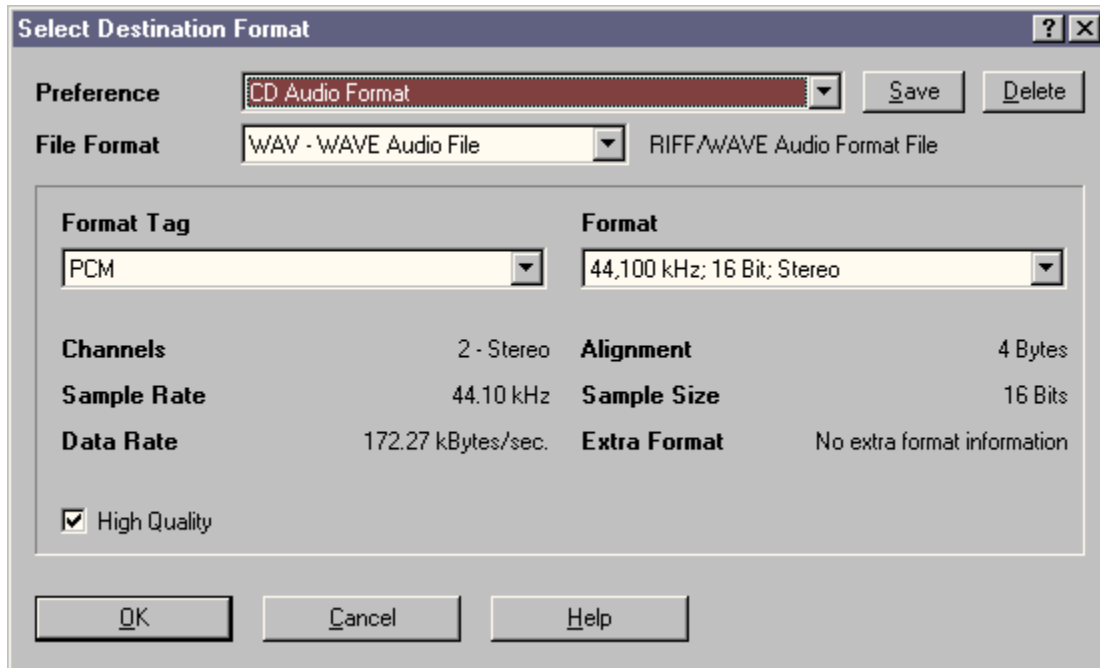
This overview displays information about the performance achieved by previously running conversions. The conversion performance is measured directly while the conversion process is running. All calculated values are then stored in an own file (ACMStation.STX). These values are only representative, if no other work is done, while the conversion is running, otherwise the conversion process will not get the demanded processor time and the calculations will get inaccurate. In the case a conversion process has been interrupted, the performance for that conversion will not be stored. The values contained in the performance statistics are used for estimating the time needed for doing a conversion. Therefore you should be aware of the correctness of these values.



| Source Format | Destination Format | Quality | Performance |
|------------------------------------|----------------------------------|---------|--------------------|
| MPEG Layer-3 - 128 kBit/s, 44,1... | GSM 6,10 - 11,025 kHz; Mono | High | 132.58 kBytes/sec. |
| MPEG Layer-3 - 128 kBit/s, 44,1... | PCM - 44,100 kHz; 16 Bit; Stereo | High | 149.52 kBytes/sec. |

Destination Format

Using this dialog the destination format for the selected project items can be specified. The file format as well as the appropriate audio format can be chosen for these items at this place.



Preference

In this list, all predefined or previously saved format settings are listed. By selecting one of these preferences, the appropriate format settings will be automatically chosen. Usually this list contains format settings, which will be used very often, so there is no need to specify the correct settings every time again.

Save

By clicking this button, you can save the currently selected format settings as a preference, by specifying a name for it. If the name entered already exists, you will be asked, if you want the already existing preference to be overwritten. After saving the format settings, the new preference will be displayed in the preference list.

Delete

By clicking this button, you can delete the currently selected preference.

File Format

The file format to be used for storing the converted audio files. Only those file formats,

which support the output of audio data, are shown in the list. Depending on the chosen file format, several appropriate audio formats will be displayed, which can be stored through this file format library.

Format Tag

The format tag defines the method for compressing / coding audio data. These format tags correspond to the audio codecs installed in the operating system. Every format tag itself supports one or more formats.

Format

The format specifies the level of quality and the number of audio channels used for the conversion. The number of selectable formats depends on the previously chosen format tag and file format.

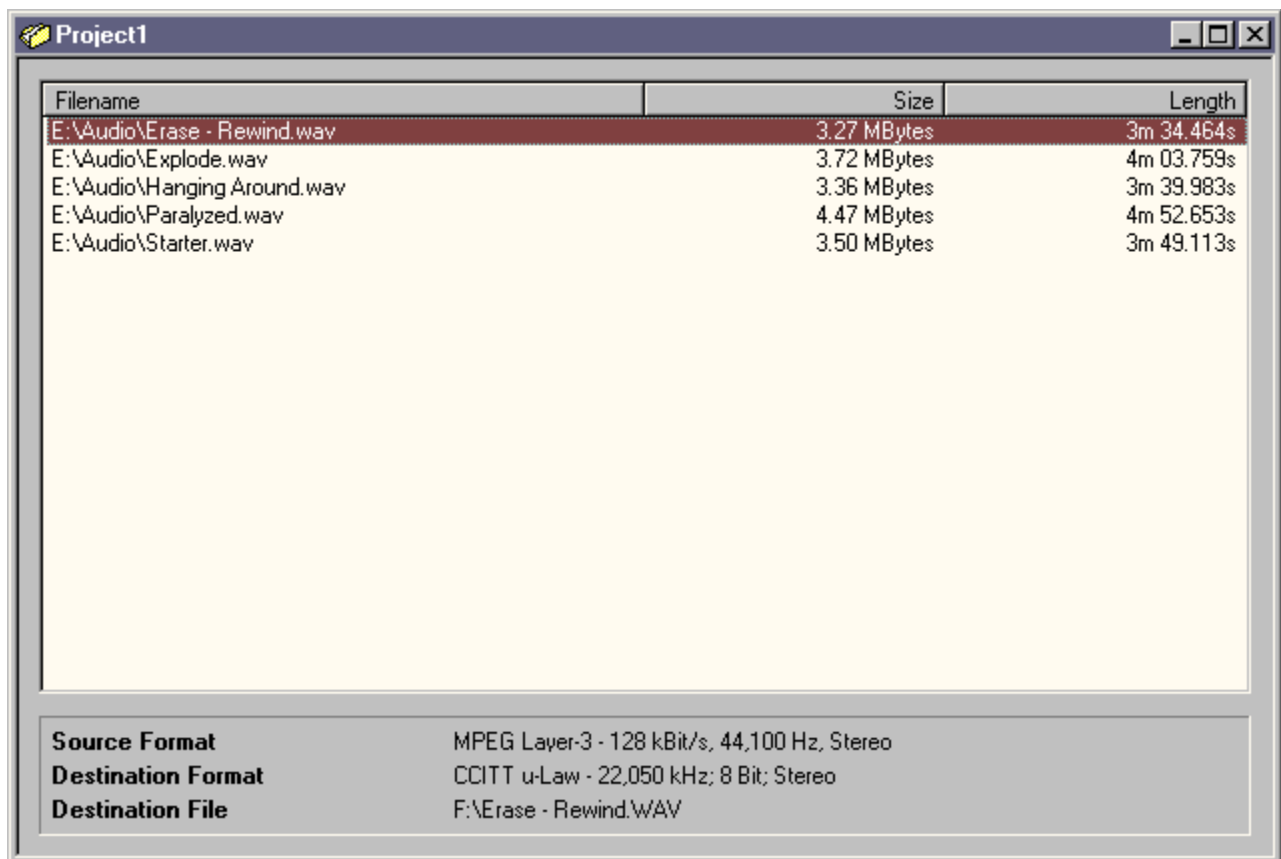
Quality Level

This switch defines, if the conversion should be done with a higher or lower quality level. Although a higher quality level usually delivers better sounding results, this option can have considerable impact on the conversion performance and therefore on the time needed for the conversion. Not all format tags support the specification of quality levels. Most audio codecs use this setting for specifying a realtime conversion (low quality), or a normal conversion (high quality), where time doesn't matter. In some cases conversion errors can occur, because the audio codec used doesn't support the low quality (realtime) setting, so the quality level has to be set to high quality for the conversion to succeed.

Project Window

Editing State

In Editing State this window shows all audio files (items) belonging to the active conversion project. The list in the upper area contains the project items and shows various information about them. The lower area displays details about the currently selected items. The lower area will be hidden, if the size of this window should fall under a defined value, so there will be more space for displaying the list of project items.



Filename

The full name of the source audio file including its path.

Size

The size of the source audio file. This value defines the size of the audio file, not the length of the contained audio data.

Length

The length of the audio data contained in the source audio file displayed as a time value.

Source Format

The description of the audio format of the source audio file. If multiple items are selected, only values corresponding to all selected items will be shown.

Destination Format

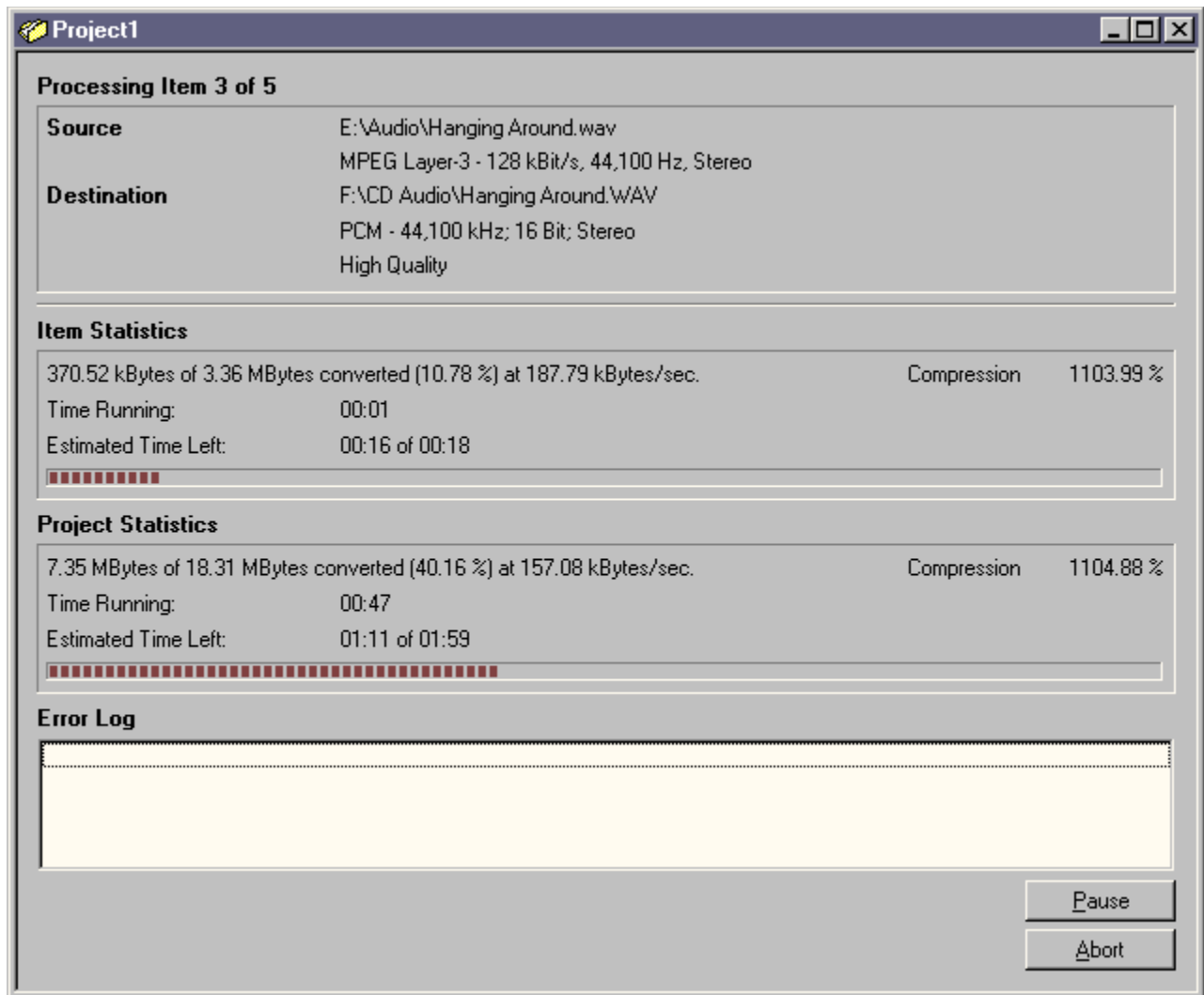
The description of the audio format, to which the selected audio file should be converted. If no destination format has been specified yet, this value will not be shown. If multiple items are selected, only values corresponding to all selected items will be displayed.

Destination File

The name of the audio file, which will result from the conversion of the selected project item. If no destination filename has been specified yet, this value will not be shown. If multiple items are selected, the application tries to display the destination filename as detailed as possible.

Conversion State

As soon as the conversion process has been started, this window shows status information about the conversion. These values include information about the amount of already converted and remaining audio data, the compression rate, the conversion performance, etc. When shrinking the window, various parts of this window will be hidden, for keeping the other information well arranged in it.



Source

Details about the source audio file, including the description of it's audio format.

Destination

Details about the resulting destination audio file, including the description of it's audio format and the level of quality for the conversion.

Item Statistics

Progress information for the project item currently being converted. The first line shows the amount of already converted audio data, the conversion performance and the compression rate. A compression value of 2 % means, that the resulting audio file will only have 2 % of the size of the source audio file. Of course compression rates above 100 % are also possible. The other lines show the time already needed and the estimated time left for the conversion.

Project Statistics

Progress information for the whole conversion project. The displayed details are the same as described for the Item Statistics area.

Error Log

If a conversion error has occurred, the conversion of the active project item will be terminated and an appropriate entry will be placed in the error log. By double-clicking such an entry, further details will be displayed about that error.

Pause

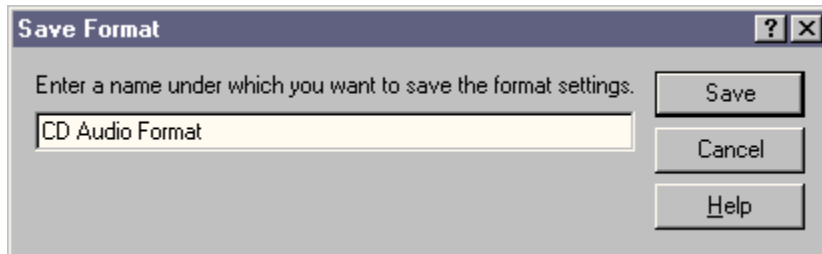
This button is used for suspending the conversion. By pressing it again, the conversion will be continued. If a conversion process has been paused this way, the particular performance will not be stored in the performance statistics.

Abort

This button is used for terminating the currently running conversion after being notified through a message box. If the conversion buffer size has been chosen very large, it could take some seconds for the conversion to be aborted. In the case, the conversion process doesn't respond to the termination request, a dialog will be displayed after some seconds, with which the user can force the termination of the conversion by hand. Should this step be necessary some time, then the application (or the operating system) should be restarted. Also, if using very large conversion buffers, this dialog could already be shown, while the conversion of one block of audio data is still in progress. In this case, it would be better to wait some seconds for the conversion of the particular block to finish.

Save Preference

In this dialog you have to enter a new name for the format settings you want to save. These saved format settings are called "preferences". If you enter a preference name which already exists, you will be asked, if you want to overwrite the already existing preference.



Preference Name

This field is for entering the preference name.

Save

By clicking this button, the currently chosen format settings will be saved as a new preference.

Cancel

By clicking this button, no saving will occur and the dialog will be closed.

