DDClip Overview

DDClip is designed for video clips scoring, creating audio commercials, synchronizing voice with music. You can create, save, restore and playback a project of many tracks. DDClip is non-destructive editor, it does not change source multimedia files.

DDClip project may have up to 16 audio tracks, one track with midi sound, and one/two video tracks. Each track can have unlimited number of clips. Clip contains a reference to a continuous fragment (or a whole content) of audio or/and video data from source file.

DDClip playbacks video at any device supported by Video for Windows.

An outstanding feature of the editor is the speed of the playback, especially for its audio part - DDClip is able to mix sound tracks in real time. DDClip is a powerful and flexible tool for audio mixing. Each track has solo/mute toggles. Master volume and balance can be set for whole project, each track and each clip. Moreover, clip may have its own volume and balance profile.

DDClip has intuitive user interface. Operations and features are easily accessible on toolbar, menus and context-sensitive local menus. Application supports up to 999 undo/redo levels.

DDClip has two windows: Project and Clip Collection. The Project window contains all data and tools for project editing. The Clip Collection window may be considered as a handy storage for your audio and video source.

DDClip is designed by SoftLab-NSK from Novosibirsk (Russia).

Check out that you have latest DDClip version –

http://www.softlab-nsk.com/Demo/DDClip_download.html

Clip is an object with reference on continuous fragment (or whole contents) of audio or/and video data from source file. DDClip deals with multimedia source files in AVI (*.avi), WAVE (*.wav) and MIDI (*.mid) formats. Clip also may have specific properties such as volume and balance profiles for Audio clip.

SoftLab-NSK

Almost all fields of human activity are now impossible without computer graphics technology. SoftLab-NSK is one of few companies offering low-cost complex services and solutions in a wide range of technologies. SoftLab-NSK has been organized in 1988 by group of scientists from Institute of Automation and Electrometry of Russian Academy of Sciences taking part in the Russian space program in an area of astronaut training system design. The company now unites the highest level experts with many years of experience in various fields of computer graphics. That permits us to find cost and time-effective real-life task's solutions.

SoftLab-NSK, 1 Koptuga Pr-t., Novosibirsk,
630090, Russia
Phones: 7-(383-2)-399-220
         7-(383-2)-331-067
Fax: 7-(383-2)-332-173
http://www.softlab-nsk.com
E-mail: ddclip@softlab-nsk.com

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DDClip registration

If you already have registration key, choose **About** command on **Help** menu. In *About* dialog click on **Register now** button. *Registration Box* dialog (show picture) appears.

If you agree with DDClip license fill in **Name**, **Address** and **Key** fields and click **OK**.

If error message appears, then checks **Name**, **Address** and **Key** and click **OK** again.

To obtain register key please follow instructions at
> **http://www.softlab-nsk.com/ddclip/register.html**

You can visit our WWW page:

http://www.softlab-nsk.com/Pro/DDClip.html
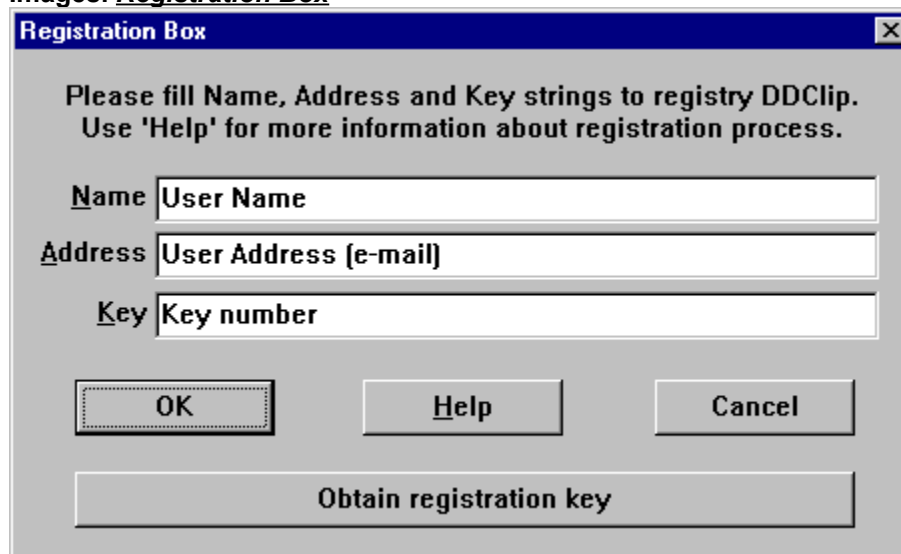
or contact with SoftLab Ltd..

Images. _Registration Box_

Registration Box

Please fill Name, Address and Key strings to registry DDClip.
Use 'Help' for more information about registration process.

Name | User Name
Address | User Address (e-mail)
Key | Key number

OK   Help   Cancel

Obtain registration key

How to obtain the registration key

To obtain register key please follow instructions at
http://www.softlab-nsk.com/ddclip/register.html

You can visit our WWW page:

http://www.softlab-nsk.com/Pro/DDClip.html

or contact with SoftLab Ltd..

Contents

Project Window Description

Project window is a main application window. Window title bar contains application name **DDClip** and path to project file or '**Untitled**'.

Toolbar, accelerator keys and following menus provides accesses to commands and options:

File Edit View Command Range Tools Options Window Help

Right-click on different components displays a context sensitive **local menu**. Cursor has action-sensitive shape.

Project window has *Working Area*, where parts of project tracks with clips are available for editing. Each track at the left of has *Track State* window with track type icon and **Solo**, **Mute** buttons, which control track inclusion in playback.

Clip on a track except general appearance and functionality has features that are specific for *Video*, *Midi* and *Audio* data.
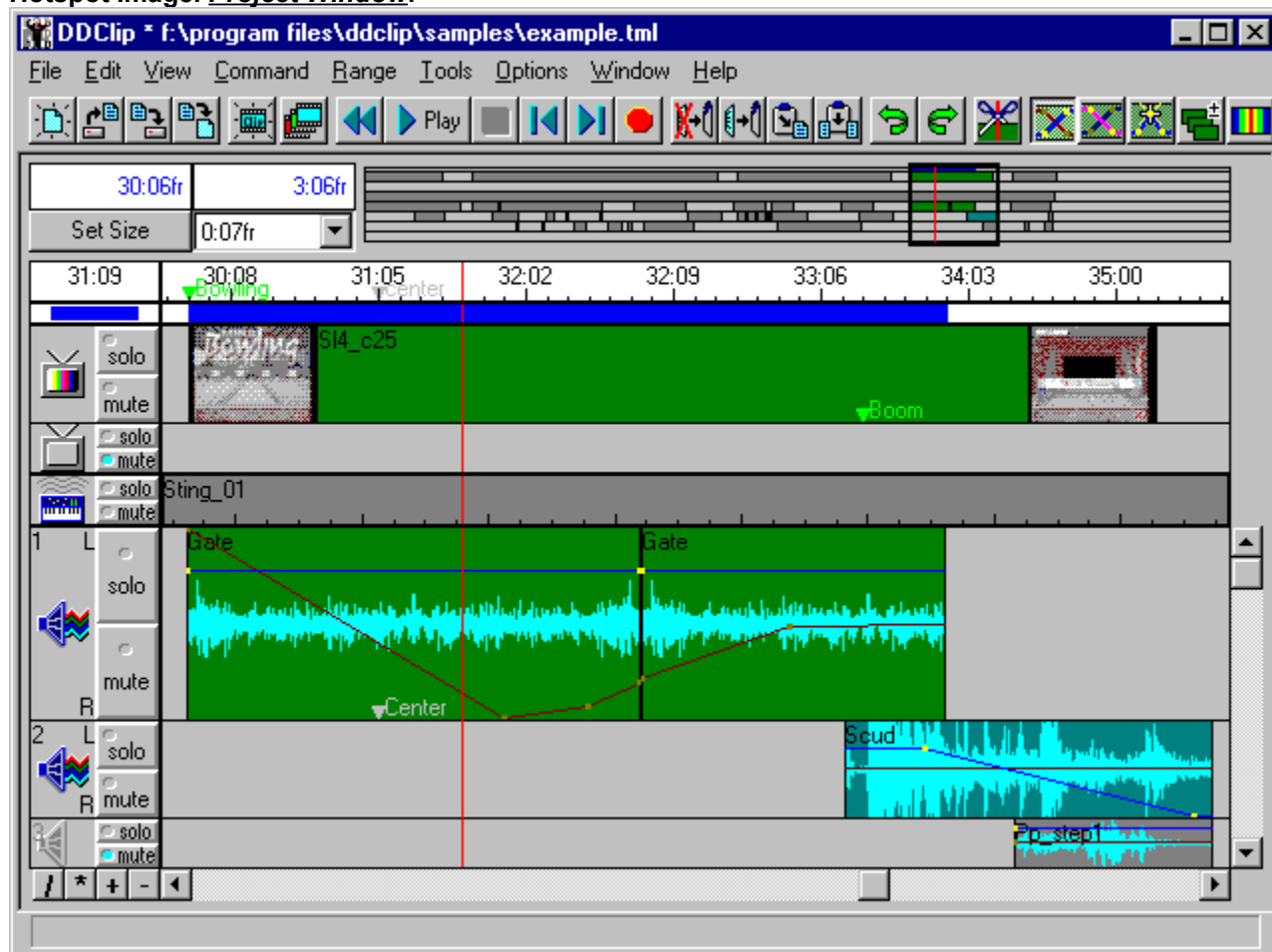
All project tracks and clips are schematically presented in *Project Overview* window. *Time Ruler* provides a project time reference for *Working Area*.

Position of *Current time* is visually represented by two vertical red lines. First in *Project Overview* window; second, *current time mark*, cross *Time Ruler*, *Range* window and tracks in *Working Area*.

Status line at window bottom displays various information while moving around with cursor. Various settings and options available in *Settings* dialog. *Audio Meter(Faders)* window has output volume indicator and may have faders for tracks.

Clips from *Project* window can be dragged to *Clip Collection* and back. Source files also can be dragged from Windows Explorer window, but only one by one.

Hotspot Image. *Project Window*.

Project Overview window

All tracks and clips of the project are schematically presented in this window.

The bold black frame determines position of _Working Area_ - part of project, which is displayed in window with video/midi/audio tracks. Red line – current time mark.

To shift the _Working Area_ - move cursor inside frame (cursor shape became 🖐) - press left mouse button and drag frame.

To change _Working Area_ size - move left or right edge of working area. Place cursor over black frame edge (cursor became ⬌ or ⬌), press left mouse button and drag edge.

To redefine _Working Area_ completely - press **right** mouse button at position of one new edge, drag and release button where you want to set another new edge.

Set Size dialog allows viewing and changing of _Working Area_ bounds.

Project duration and number of audio tracks in project can be changed in _Set Size_ dialog and **General Settings**.

Double click starts playback from pointed position to the end of project.

Time Ruler

| 30:08 | 31:05 | 32:02 | 32:09 | 33:06 | 34:03 |
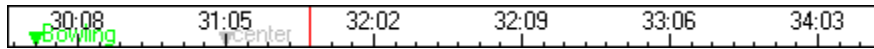
Time Ruler provides a project time reference for <u>*Working Area*</u>. Labels with project time values in current <u>time format</u> are displayed with step presented in <u>*Scale Step*</u> window.

Each click in this window redefines <u>current time</u> position, represented by vertical red line – *current time mark*. 'Scrubbing' starts if you press left mouse button, hold it and then move mouse. Double click starts playback from specified position to the end of <u>*Working Area*</u>.

Right-click calls local menu. Note that **Add Mark** item may be dynamically replaced.

Play	playbacks project from specified position to the end of *Working Area*.
Set current time	calls <u>*Set Current Time*</u> dialog.

Next three commands are identical to ones in **General** *Settings*.

Show video	enables drawing of current frame on videoplayer (*Video* window). Also and **Show In/Out frame** in <u>*Edit Clip*</u> dialog.
Play audio	enables audio scrubbing while drag <u>current time</u> mark.
Auto-scroll rolls	controls automatic scrolling of *working area* when mouse moves outside window.

Next two commands duplicates ones in **Alignment** *Settings* "**Time Alignment**" group.

Align to nearest frame	enables aligning to nearest video frame.
Attract to marks	enables interaction of <u>current time</u> mark with <u>*Place marks*</u>.
Add mark	sets <u>*place mark*</u> at specified position. Command may be replaced, if menu is called near <u>*place mark*</u>.

Current Time window

`31:09`

Current Time window to the left of *Time Ruler* displays current time value in current time format.

Two vertical red lines visually represent current time in *Project* window. First in *Project Overview* window, second, *current time mark*, cross *Time Ruler*, *Range* window and tracks *Working Area*. Current time mark may be dragged with mouse in *Time Ruler* and *Working Area*.

Set Current Time   ☒

Time: `00:00:01:00`

[OK]   [Cancel]
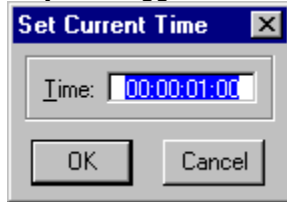
Double click in window calls *Set Current Time* dialog where new current time may be set. **Set current time** on *Time Ruler* local menu also calls this dialog.

Range Window

Range is a user defined time interval used in various operations. Selected interval is displayed as blue area. Range window has same time scale as *Time Ruler*. If range is specified, then *Range Flag* window displays blue band, and *Playback Start and Playback Duration* windows display range start time and duration in blue.

To specify range press left mouse button, drag and release. During mouse moving the program displays current frame from video track, if **Show video** is on (see *Time Ruler* local menu or **General** *Settings*). Shift-click reset nearest bound to specified position. Double click set range, that cover all clips in project except ones on switched off tracks; **Include all clips** on **Range** menu does the same.

To set/view range bounds in current time format double click in *Range Flag* window or click on **Set Size** button to call *Set Size* dialog.

Right-click calls local menu that has same commands as **Range** menu and two additional:

Normalize audio	calls *Normalize Level* dialog, then adjust project master volume to specified level from maximum.
Check overflow	mixes audio within range and represents resulting audio volume as color picture in range window in accordance with volume levels and color associations defined in **Audio Meter** *Settings*.

Range Flag window

If this window to the left of _Range Window_ has dark blue band, this indicates that range is defined, otherwise it is blank.
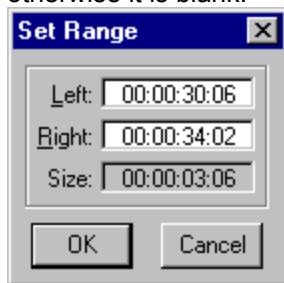
Double click in _Range Flag_ window calls _Set Range_ dialog. It presents in current time format range bounds values.

Playback Start and *Playback Duration*

30:06fr	3:06fr

These two windows show playback start time and playback duration in current <u>time format</u>.
If time range is specified in *<u>Range</u>* window, then range start and duration are shown in blue. Otherwise windows show *<u>Working Area</u>* start and size in black. Where playback actually starts also depends on state of **Start playback from current time position** in <u>**General**</u> *Settings*.
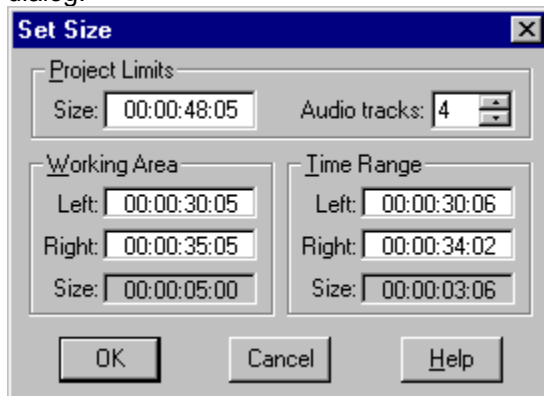Double click in either window calls *<u>Set Size</u>* dialog.

Set Size

Set Size

Set Size button or double click in either _Playback Start or Playback Duration_ windows calls _Set Size_ dialog, which has three parameters groups.

"**Project Limits**". **Size** and **Audio tracks** are project duration and number of audio tracks in project. These settings duplicate "**Project Limits**" group parameters in **General** _Settings_.

"**Working Area**" presents left and right bounds and size of _Working Area_.

"**Time Range**" presents left and right bounds and size of time range. Same settings available in _Set Range_ dialog.

Set Size

Project Limits

Size: 00:00:48:05   Audio tracks: 4

Working Area

Left: 00:00:30:05

Right: 00:00:35:05

Size: 00:00:05:00

Time Range

Left: 00:00:30:06

Right: 00:00:34:02

Size: 00:00:03:06

OK   Cancel   Help

Scale Step

`0:07fr` ▼

Interval between ticks with time labels in *Time Ruler* window may be selected from list. This setting effectively zooms *Working Area* to size, which is natural for selected scale.

If current time mark (vertical red line) is within *Working Area* then 'zoom' preserve visual position of this line; otherwise center of *Working Area* is preserved.

Project Working Area

Working Area is a part of *Project window* below *Range window* that represents project *Video*, *Midi* and *Audio* tracks with clips within specified time interval.

Each track at left has *Track State* window with track type icon and **Solo** and **Mute** buttons. In **View** menu **Show Video tracks**, **Show MIDI track** and **Show Audio tracks** control which types of tracks are presented in *Working Area* window. Vertical scrollbar to the right of area occupied by audio tracks appears, if not all audio tracks fit in window.

Clip on a track in *Working Area* is presented as rectangle with clip name in top left corner. *Video*, *Midi*, *Audio* clips also have specific features and editing operations.

Right-click in area, which is not occupied by clips, calls local menu:

Open source file   calls *Open Clip* dialog and adds clip with reference to whole file content to project and *Clip Collection*. Same as command on **File** menu.

Cut. Copy. Paste. Insert.   operations with selected clip(s). Identical to **Edit** menu commands.

Working Area size and position can be easily changed or redefined in *Project Overview* window, where this interval is represented as bold black frame. *Set Size* dialog presents values for left and right bounds. *Working Area* position relative to project start and end project may be changed with horizontal time scrollbar at bottom. To the left of scrollbar, zoom buttons are located.

Vertical red line, *current time mark*, visually represents current time position.

Images. _Track State_ windows samples

Track State
Project window Hotspot Image

Track State windows (show samples) at the left of each track in *Working Area* has **Solo** and **Mute** toggle buttons, which control track inclusion in playback, and icon, which is specific for each type of tracks. **L** and **R** may appear for audio tracks as reference for balance profile in *Audio clip*. If track is excluded from playback track icon is 'grayed' and some picture details are removed, see icons pairs below:

 - Video track.

 - Audio track.

 - MIDI track.

Right-click in window region or click in icon area calls local menu:

Name	calls *Track Name* dialog, to change track name.

Next 2 commands change relative positions of tracks with same type. Note that first (top) *video track* has priority over second video track during playback. *Audio tracks* have number in upper left corner, which is useful reference when not all tracks fit in window and vertical scrollbar is used.

Move up	swap this and upper track positions.
Move down	swap this and lower track positions.

Next 4 commands change height for ALL tracks. **Audio tracks height** on **View** menu changes height for all Audio tracks.

Double height	display with twice normal height.
Normal height	display with normal height.
Half height	display with half of normal height.
Locked	display with quarter of normal height. Clips on **locked** track can not be selected or manipulated with mouse.
Track volume	change track volume in special dialog window, see also sections. Appears only for *Audio* and *Midi* tracks.
Solo	always include in playback, same as **Solo** toggle.
Mute	exclude track from playback, same as **Mute** toggle.

Track selection (active tracks)

Each track has **Solo** and **Mute** buttons on *Track State* window and may be included in or excluded from playback. For excluded track, its type icon is 'grayed'.

 - **Solo**. Track always included in playback. *Not* **solo** tracks are automatically excluded from playback ('grayed'), in presence of **solo** track(s). **Exclusive 'Solo'** in <u>Selection</u> *Settings* controls, if **solo** may be set for only one or for many tracks.
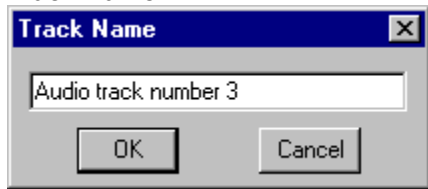
 - **Mute**. Track excluded from playback (track type icon is 'grayed').

 - Neither **Solo** nor **Mute**. Track included in playback, in absence of **solo** track(s).

Track Name

Track name is displayed in status line at *Project* window bottom while cursor is located in _Track State_ window. Predefined names typically indicate track type and number inherited from initial enumeration of project tracks of that type. **Name** command on _Track State_ window local menu calls *Track Name* dialog.

Clip on a Track
Project window Hotspot Image

Clip on a track in project *Working Area* is displayed as rectangle with clip name in top left corner. Rectangle height is equal to track height (see *Track State* local menu), width is determined by clip duration. Clip background color depends on *Clip Selection* state.

Right-click calls local menu. **Cut**, **Copy**, **Paste**, **Insert** at bottom are identical to commands on **Edit** menu. Group of commands at top is also common for all types of clips:

Play clip	playbacks only this clip.
Delete clip	deletes this clip.
Edit clip parameters	calls *Edit Clip* dialog.
'Clip type' editor	actual command name depends on clip type and may be **Video editor**, **Audio editor**, **Midi editor**. 'Editor' application may be set in *Configure external applications* dialog; and is launched with the clip source file name added to command line.
Add mark	sets *Place mark* at specified position. If local menu was called near place mark (cursor has ∇⁻ᴹᵃʳᵏ shape) then **Add mark** is replaced by three commands - **Set mark position, Mark name** and **Remove mark**.

Split clip   splits clip in two parts at specified position, same as **Split** on **Edit** menu.
Repeat clip   calls *Repeat Clip* dialog.

Video, *Midi*, *Audio* clips and tracks have specific features and editing operations.

Video Tracks and Video Clip
Project window Hotspot Image

 and

 in *Track State* window help to identify video tracks. Project may have one or two video tracks. During video playback first video track has priority over second video track. Second video track may be used as temporary storage for video fragments or as the second variant of the video when one track is switched off with **Mute** button.

For video clip on a track in *Working Area* first and last frames of the clip may be displayed, if **Draw first and last frames at clip edges** is checked in **Video** *Settings*.

Right-click in clip calls local menu. Video clip specific commands:
   Clip In is a key frame   indicates that video clip starts from a key frame.
   Clip In to next key frame   moves clip **In** position in source file forward to next key frame.
   **Clip In to preceding key frame**   moves clip **In** position in source file back to preceding key frame.

In position mentioned above is a clip 'start' in source file. See also **Start from Key frame only** in **Video** *Settings*.

Application can playback and export video in the SAME format only. All clips must have the same width, height, frame rate and CODEC name. Two files with same width, height and frame rate but with different CODECs can be recompressed with **Convert AVI** on **Tools** menu *Clip Collection* window. After starting "AviEdit" application you can open the first file and look up its info. Then you need to open the second file and choose same video CODEC parameters the same as ones for the first file CODEC.

Midi Tracks and Midi Clip

Project window Hotspot Image

 and
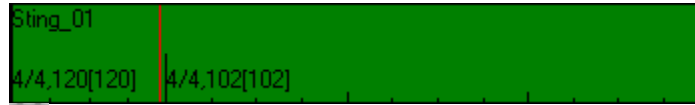
 in _Track State_ window help to identify track with midi sound.

In addition to general features and appearance of clip on a track in _Working Area_ audio clip also have midi measures at clip bottom. At position, where source file has tempo or time signature change command, the measure, current tempo and source tempo are displayed: '**4/4,120[120]**'.

Right-click in clip calls local menu. Midi clip specific commands:

Tempo   calls _Tempo_ dialog to modify clip tempo, see below.

Clip volume   calls _volume_ dialog named '_Clip_' to view/set master volume for this clip.

In _Tempo_ dialog number at bottom shows original source file tempo at specified position. Number at top sets new tempo; vertical scrollbar may be used to change this value. The tempo of whole clip will be changed in proportion - new tempo (at top) to original tempo (at bottom).

Audio Tracks and Audio Clip
Project window Hotspot Image

 and

 in *Track State* window help to identify audio tracks. Project may have up to 16 audio tracks. *Track State* windows at left of audio tracks may also have **L** and **R** at top and bottom, if **Stereo** is set for project in **Audio** *Settings*. These signs provide reference for balance profile in *Audio Clip*.
A project should contain audio files with same ratio. First opened audio file determines a project ratio. DDClip request to confirm conversion, when opening a file with another ratio. Predefined standard ratio may be selected from the list in **Audio** *Settings*; arbitrary ratio values can be set in professional version. If you change the project ratio then all clips with audio will be removed from project. *Change sound parameters* dialog request confirmation to clear audio tracks.

In addition to general features and appearance of clip on a track in *Working Area* audio clip may also have following. Sound waveform picture that is displayed in light blue color. Volume profile is drawn with blue lines, balance profile - with magenta lines. Profiles key points is drawn in yellow. **Edit volume profile** or **Edit balance profile** on **Edit** menu or *Toolbar* control, which profile is available for editing (active). Inactive profile is drawn in dark color (dark blue/dark magenta and dark yellow).

Right-click in clip calls local menu. Audio clip specific commands:

Clip volume	calls *Volume and Balance* dialog named '*Clip*' to view/set master volume and balance for this clip.
Set profile volume	calls *Volume or Balance* dialog named *'Profile'* to set volume or balance profile value at specified position. Profile value may be changed for profile key point or horizontal segment of profile. On slanted segment of profile application at first calls dialog to confirm insertion of new key point at specified position.
Add profile point	adds new key point to profile at specified position.
Remove profile point	removes key point at specified position.
Delete profile	removes key points and set default profile - constant volume/balance level.
FadeIn	applies (multiply) *FadeIn* profile to current volume profile from start of clip to specified position.
FadeOut	applies (multiply) *FadeOut* profile to current volume profile from specified position to end of clip.

Note, that each *audio* clip besides volume and balance profiles, have a general volume and balance (**Clip volume** on local menu); each audio track and whole project also have the master volume and balance levels. Volume at each point of clip is a sum (in dB) of volume profile at this point and all master volumes (project master volume, track master volume and clip master volume). The same is true for balance.

Attention! Maximum volume amplification is 12 dB (4 times). At points, where maximum amplification is reached, profile touch the top of clip rectangle and stay there while other profile key points may be moved with master volume change. Thus the profile is distorted and mixed signal may not correspond to your expectation. To avoid this watch the clip volume profile - it should not touch top clip edge.

Zoom buttons

Four zoom buttons are located in low left corner of *Project* window. Click on these buttons change size of *Working Area* - part of project, which is displayed in window with clips on Video, Midi and Audio tracks.

⎁ - cover the whole project.

⎁ - to current time *Range* bounds.

⎁ - expand at right. Increment zoom factor, preserve left edge position.

⎁ - shrink at right. Decrement zoom factor, preserve left edge position.

Note, that equivalent commands are available - **Zoom In (+)**,**Zoom Out (–)**,**Zoom to Project (/)** at bottom of **View** menu and **Zoom in range (*)** on top of **Range** menu.

Working Area also may be changed in *Project Overview* window, in *Set Size* dialog and when *Scale Step* is redefined.

Time scrollbar
Shifts *Working Area* with step that is displayed in *Scale Step* window.

Audio tracks scrollbar

Vertical scrollbar for audio tracks appears at right, when not all tracks fit in window.

Audio track enumerated from top to bottom; and track number in _Track State_ window upper left corner may be useful reference.

Toolbar. *Project*

First 5 buttons on Toolbar duplicate commands on **File** menu.

creates new (empty) project. Confirmation requested to save or not changes in current *Project* and *Clip Collection*, or cancel creation of new project.

opens selected project file.

saves changes in project and clip collection files. For new created project file name requested. By default, project file has .TML extension, clip collection file has .PRC extension.

save project into specified project file. For new *Clip Collection* clip collection file name also requested.

calls *Open Clip* dialog to insert clip with reference to whole source file contents to project. New clip is also added to current clip collection.

switches to *Clip Collection*. See also **Clip Collection** on **Window** menu.

Next 6 buttons on Toolbar duplicate commands on **Command** menu.

sets current time to *Playback start*.

starts playback from current time. Double click in *Working Area* and *Project Overview* window starts playback from specified position.

stop started playback.

sets *current time* to previous video frame.

sets *current time* to next video frame.

requests target file name (when defined press **Save** button to continue) and calls *Audio Recorder* dialog.

Toolbar. *Project*

<<   [icons]   **>>**

Buttons in this part of *Toolbar* duplicate commands on **Edit** menu.

clears *Clipboard* and moves clip(s) to *Clipboard*.

clears *Clipboard* and copy clip(s) to *Clipboard*.

adds all clips from *Clipboard* to project at <u>current time</u> on free tracks.

splits all clips in project at <u>current time</u>, shifts right part of project and inserts clip(s) from *Clipboard* in this gap. If there is video data then current time and gap width aligns to frame boundaries.

cancels last operation, if possible.

repeats last canceled operation, if possible.

splits selected clip(s) in two parts at <u>current time</u>. If there is video data, then current time at first aligns to frame boundary. New clips preserve *Clip Selection* state of original and have their own copy of volume and balance profiles.

enables editing of volume profile of *Audio* clips.

enables editing of balance profile of *Audio* clips (for stereo projects).

turns on **Add profile point mode**, this allows to add new points to volume/balance profile in *Audio* clips.

turns on **Multiselection mode**, this allows multiple <u>clips selection</u>.

Toolbar. *Project*

<<   **<<**

mixes audio in selected range and shows resulting audio volume as color picture in *Range* window. The picture reflects volume according to color thresholds in **Audio meter** *Settings*. Same as **Check overflow** on **Command** menu.

Next 4 buttons duplicate commands on **View** menu.

Next mark Group, changes current *Place marks* group number in cycle. See also **Active group number** in **Alignment** *Settings*.

Next selection group, change current *Clip Selection* group number in cycle. See also **Active group number** in **Selection** *Settings*.

Zoom In, expands *Working Area* at right. Increment zoom factor, preserve left edge position.

Zoom Out, shrinks *Working Area* at right. Decrement zoom factor, preserve left edge position. See also *zoom buttons* and *Project Overview* window.

calls *Settings* dialog. Same as **Settings** on **Options** menu.

Accelerators of Project window

Action	First accelerator	Second accelerator	
File operations			
Open source file		'F4'	
New project	Ctrl+'N'	Shift+'F3'	
Open project	Ctrl+'O'	'F3'	
Copy from project to clipboard	Ctrl+Shift+'O'	Ctrl+'F3'	
Save project	Ctrl+'S'	'F2'	
Save project as	Ctrl+Shift+'S'	Shift+'F2'	
Edit operations			
Undo	Ctrl+'Z'	Alt+'Backspace'	
Redo	Ctrl+'Y'	Alt+Shift+'Backspace'	
Delete		'Delete'	
Cut	Ctrl+'X'	Shift+'Delete'	
Copy	Ctrl+'C'	Ctrl+'Insert'	
Paste	Ctrl+'V'	Shift+'Insert'	
Insert	Ctrl+'I'	'Insert'	
Select all	Ctrl+'A'		
Unselect all	Ctrl+'D'		
Zoom operations			
Zoom in	Ctrl+'+'	'+'	
Zoom out	Ctrl+'-'	'-'	
Show whole project	Ctrl+'/'	'/'	
Zoom in selected range	Ctrl+'*'	'*'	
Playback/cursor position operations			
Start/Stop playback	'Space'	'Enter'	
Stop playback	'Escape'		
Rewind	'Home'	Ctrl+'W'	'W'
Go to next frame	'Right arrow'		
Go to previous frame	'Left arrow'		
Scroll operations			
Scroll working area to right	Ctrl+'Right arrow'		
Scroll working area to left	Ctrl+'Left arrow'		
Scroll audio tracks up	Ctrl+'Up arrow'		
Scroll audio tracks down	Ctrl+'Down arrow'		
Moving of selected clip(s) (with pressed left mouse button)			
Move to upper track	'Up arrow'		
Move to lower track	'Down arrow'		
Shift 1 ms to right (audio/midi)	'Right arrow'		
Shift 10 ms to right (audio/midi)	Shift+'Right arrow'		
Shift 100 ms to right (audio/midi)	Ctrl+'Right arrow'		
Shift 1 ms to left (audio/midi)	'Left arrow'		
Shift 10 ms to left (audio/midi)	Shift+'Left arrow'		
Shift 100 ms to left (audio/midi)	Ctrl+'Left arrow'		
Shift 1 frame to right (video)	'Right arrow'		
Shift 10 frames to right (video)	Shift+'Right arrow'		
Shift 100 frames to right (video)	Ctrl+'Right arrow'		
Shift 1 frame to left (video)	'Left arrow'		
Shift 10 frames to left (video)	Shift+'Left arrow'		

Shift 100 frames to left (video)   Ctrl+'Left arrow'
    Other operations
Activate Clip Collection   'F6'
window
Exit   Ctrl+'Q'

Clip operations summary

Cursor change it's shape to show which editing operation can be done.

Call local menu	Click right mouse button
Start playback	Double click starts playback of project from specified position to end of window
Clip insertion	Dragged clip (or source file) is displayed as black rectangle. Cursor may have one of following shapes:

    ⊘ - clip can not be inserted;

    - clip can be inserted at place of black rectangle;

    - clip can be inserted but right part of this track will be shifted to right as whole.
         Clip will be inserted at left mouse button click.

Selection

Select one clip	Click on desired clip.
Select clips	Press left mouse button and drag. All clips touched by or within specified box selection will be selected.
Select/deselect many clips	

        Press *Shift* key or turn on **Multiselection mode** (*Toolbar*, **Edit** menu). When cursor has shape, following actions invert clip(s) selection state (change selected to unselected and vice versa):
        1) Click on clip - for this clip;
        2) Double click - for all clips on track after specified position;
        3) Press left mouse button and drag - all clips touched by or within specified box.

Clear selection	Click on area not occupied by clips.

Moving

Move selected clips   - press left mouse button and drag.

Move Left clip edge   - press left mouse button and drag clip edge. If clip has video, first frame will be displayed on videoplayer.

Move Right clip edge   - press right mouse button and drag clip edge. If clip has video, last frame will be displayed on videoplayer.

Move place mark   - press left mouse button and drag mark.

Audio volume/balance profile editing

Add key points to audio profile

        Press *Control* key or turn on **Add profile point mode** (*Toolbar*, **Edit** menu). In this mode cursor has ✚ shape. Each click inside audio clip rectangle adds new key point at specified position.

Move profile key point ✚ - press left mouse button and drag.

Move horizontal profile segment

        - press left mouse button and drag up or down the horizontal segment of profile (two key points of audio clip profile with equal profile values).

Shift slanted/vertical profile segment

        - click left mouse button and drag to left or to right the slanted/vertical segment of profile (two key points of audio clip profile with different profile values).

Delete key point   - call local menu (right-click) and select **Remove profile point**.
Clear audio profile   call local menu (right-click) and select item **Delete profile**. This reset profile to default 0 dB constant.

File menu

Project files have file name extension TML. *Clip Collection* files have file name extension PRC. Each project has associated clip collection file. Clip collection file may be associated with multiple project files. **Save project** and **Open project** saves and opens both files.

New project	creates new (empty) project.
Open project	opens project and associated clip collection.
<u>Add source File</u>	calls *<u>Open Clip</u>* dialog to select source file, then add <u>clip</u> with reference to whole source file content.
Save project	save changes in project and clip collection files.
Save project As	save project into specified project file. For new *<u>Clip Collection</u>* clip collection file name also requested.
Save All	copy project, clip collection and all source files into one directory.
Export	
AVI	write resulting video and audio data into specified AVI-file.
Wave	write resulting audio data into specified WAVE-file.
Aiff	write resulting audio data into specified AIFF-file.
Exit	exit from application.

Most recently used projects list may be inserted before **Exit** item.

Edit menu

Undo	cancels last operation, if possible.
Redo	repeats last canceled operation, if possible.
Delete	removes selected clip(s).
Cut	moves selected clip(s) to *Clipboard*.
Copy	copies selected clip(s) to *Clipboard*.
Copy from file	copies all clips from specified project file to *Clipboard*.
Paste	adds all clips from *Clipboard* to project at <u>current time</u> position on free tracks.
Insert	splits all clips at <u>current time</u>, shift them to right and insert clips from *Clipboard* in this gap. If there is video data then current time and gap width aligns to frame boundaries.
Split	splits selected clip(s) in two parts at <u>current time</u>. If there is video data then current time at first aligns to frame boundary. New clips preserve *Clip Selection* state of original and have their own copy of volume and balance profiles.
Cross fade	available if exactly two overlapped audio clips selected. Applies *FadeOut* to left clip and *FadeIn* to right clip in overlapped region.
Edit volume profile	enables editing of volume profile of audio clips.
Edit balance profile	enables editing of balance profile of audio clips (for stereo projects).
Add profile point mode	allows to add new points to volume/balance profile in audio clips.
Multiselection mode	allows multiple <u>clips selection</u>.
Select All	select all clips (reset other selection groups).
Deselect All	deselect all clips (reset other selection groups).
Invert selection	select all unselected clips and deselect selected clips in current group.

DDClip Clipboard

Clips in *Clipboard* preserve their relative time position and track number. Each **Cut**/**Copy** command clears previous *Clipboard* contents. **Copy**/**Add** commands from *Clip Collection* window add clips to first track only.

Add profile point mode

Cursor shape indicates that **Add profile point mode** is on (*Toolbar*, **Edit** menu, or when *Control* key is pressed). Each click in audio clip rectangle adds new point to volume/balance profile at specified position.

Multiselection mode

Cursor shape indicates that **Multiselection mode** is on (*Toolbar*, **Edit** menu or while *Shift* key is pressed). In this mode following actions invert clip selection state (change selected to unselected and vice versa):

1) click on clip - invert this clip selection;

2) double click on track - invert selection for all clips on track after specified position;

3) press left mouse button and drag - invert selection for all clips touched by or within specified box.

See also *Clip Selection*.

View menu

Most of menu commands also are available on _Toolbar_.

Next mark Group change current _Place marks_ group number in cycle. See also **Active group number** in **Alignment** _Settings_.

Next selection group change current _Clip Selection_ group number in cycle. See also **Active group number** in **Selection** _Settings_.

Show Video tracks enables displaying of video tracks.
Show Midi track enables displaying of midi track.
Show Audio tracks enables displaying of audio tracks.

Show audio meter(faders) shows _Audio meter (Faders)_ window. Same as **Audio meter (Faders)** on **Window** menu.

Audio tracks height next menu level commands – **Double**, **Normal** and **Half** change height for ALL audio tracks. See also _Track State_ window.

Next 3 commands allow to select current format for time values.

Time in Frames time as frame counter.
Time in SMPTE "Hours: Minutes: Seconds: Frames".
Time in milliSeconds "Hours: Minutes: Seconds: Milliseconds".

Next 3 commands allow to change size of tracks _working area_. See also _zoom buttons_ and _Project Overview_ window.

Zoom In expands at right. Increment zoom factor, preserve left edge position.
Zoom Out shrinks at right. Decrement zoom factor, preserve left edge position.
Zoom to project shows all project in tracks working area.

Command menu

Play	starts playback of current project.
Stop	stops playback.
Record audio	requests target file name (when defined press **Save** button to continue) and calls *Audio Recorder* dialog.
Next frame	sets *current time* to next frame.
Previous frame	sets *current time* to previous frame.
Rewind	sets current time to *Playback start*.
Master volume	sets project master *Volume and Balance*. If the *Audio meter (Faders)* window was opened, then application activates it and sets focus to master volume fader.
Normalize audio	calls *Normalize Level* dialog, where request maximum output audio level, then adjust project master volume to normalize audio.
Check overflow	mixes audio in selected range and shows resulting audio volume as color picture in *Range* window. The picture reflects volume according to color thresholds in **Audio meter** *Settings*.

Range menu

Range is a user defined time interval used in various operations. Selected interval is displayed in blue in *Range* window.

Commands operate on *clips on a tracks* within range and on part of clips within range, if range bound crosses clip.

Zoom in range defines *working area* that is equal to selected range.

Include all clips sets range that cover all clips in project, except clips on switched off tracks.

Editing commands below operate on *clips on a tracks* within range and/or on parts of clips within range, if range bound crosses clip. Each operation may have following next menu level commands - **all tracks**, **active tracks**, **selected clips**, which allow then to choose for editing correspondingly - all tracks in project, only tracks included in playback (active), only selected clips in current selection group.

Copy	copy clip(s) and/or part of clips from **all tracks** or **active tracks** to *Clipboard*.
Cut	cuts clips (parts) from **all tracks** or **active tracks** to *Clipboard*, then shift right part of each track to left to fill the gap.
Clear	clears part of project on **all tracks** or **active tracks**.
FadeIn	applies *FadeIn* profile within range to *audio clips* on **all tracks**, or **active tracks,** or only **selected clips**.
FadeOut	same as above for *FadeOut* profile.

Tools menu

Each menu item launches corresponding application defined in *Configure external applications* dialog.

Volume control	starts 'volume control' application.
Audio editor	starts 'audio editor' application.
Midi editor	starts 'midi editor' application.
Video editor	starts 'video editor' application.

Up to 5 commands defined in *Configure external applications* dialog may appear in menu. For example, in accordance with <u>picture</u> there should be 2 commands:

Recorder
Calculator

Last command:

Configure	calls *Configure external applications* dialog.

Options menu

Settings	calls project _Settings_ dialog.
Fade profile	calls _Fade profile_ dialog.
Font for time mark	allows to set font for displaying labels in _Project_ window, in particular time labels values in _Time Ruler_, _Current Time_ window.
Font for clip name	allows to set font for displaying clip names for _clips on a tracks_.
Save Options	safety program settings save.

Window menu. *Project*

Clip Collection	switch to *Clip Collection* window.
Audio meter (faders)	shows *Audio meter (Faders)* window.
Video	shows video preview window, if possible.

Help menu

Only first commands differ on **Help** menus in *Project* and *Clip Collection* windows.

Project window description   appears in *Project* window.
Clip Collection window description   appears in *Clip Collection* window.
Overview   general DDClip notes.
Contents   help contents.
Using help   standard Windows Help (using and customizing help).
About   information about DDClip authors and registration.

Settings

This dialog comprise various settings and options on following tab panels:

General	project limits and playback options.
Audio	audio and midi settings.
Video	video related options.
Troubleshooting	special troubleshooting modes.
Audio meter	volume indicator settings.
Alignment	alignment and place marks options.
Selection	selection options.
Save	save and autosave options.
Colors	color settings for various elements.
Summary	embedded info fields.

This dialog can be called in *Project* window with **Settings** command on **Options** menu and from *Toolbar*.

General *Settings*

<u>Show image</u>

Project size sets duration of the whole project.
Audio track number sets number of available audio tracks in project.

Undo/Redo depth sets the number of Undo/Redo operations.

"**Scrubbing**" group parameters allows to control application behavior when dragging <u>current time</u> mark or setting current time in *Time Ruler*. Switches are duplicated on *Time Ruler* local menu.
Show video enables drawing of current frame on videoplayer.
Play audio enables audio scrubbing with left mouse button dragging.
Sound playbacks in small pieces of **Min.** duration. If during the small piece playback current time is changed then next piece starts from new current time position. While current time do not changes audio plays piece by piece up to **Max** duration; at **Max**. duration it loopbacks from current position. In other words, **Min** value sets the minimal duration of playing; if mouse is stopped when next piece playing is started, duration will be **Max**.
Auto-scroll rolls changes scrolling mode of working area. When <u>current time</u> mark is dragged outside window the working area automatically shifts. If switch is turned on then working area slides smoothly while left mouse button is kept pressed outside window. Else when current time mark reach the working area edge the working area shifts at a step. It looks like at in this moment time mark and associated cursor jumps back from the shifted edge.

Start playback from current time position turns on 'VTR playback' mode. In this mode command 'Play' starts playback from <u>current time</u> position. 'Stop' do not changes current time position. When this switch is turned off, then *Playback Start* and *Playback Duration* windows define playback start position. 'Stop' restores current time position to one before playback.
Prompt before playback video control whether first frame of video will be displayed and confirmation will be asked.
Repeat playback sets playback repeats count for command 'Play'.
Hide cursor during playback – if checked, <u>current time</u> mark will not be drawn over project tracks. Current time line will be drawn in *Time Ruler* and *Range* windows only. This option reduces system load during playback.
Enable solo/mute control during playback allows dynamically include/exclude audio tracks from mixing during playback.

Audio *Settings*

"**Output Format**" group.

Ratio defines audio sampling ratio for the current project. First opened audio file determines a project ratio. Predefined standard ratio may be selected from the list; arbitrary ratio values can be set in professional version. If you change the project ratio then all clips with audio will be removed from project. *Change sound parameters* dialog request confirmation to clear audio tracks.

Resolution selects number of bits per sample for current project.

Stereo turns on stereo mode for current project.

"**Optimization**" group allows to tune parameters to power of your PC.

Buffer size sets premix buffer size. In particular, premix buffer size determines delay when track volume is dynamically changing during playback.

Playback through file turns off real time audio mixing. In this mode audio tracks will be preliminary mixed in temporary file before playback. DDClip has optimized preliminary mixing algorithm. Only changed part of the project will be remixed on next play.

Waveform control a quality of waveform pictures, which are displayed on audio clips. Better picture takes more resources and may slow down application for complex projects on some computers. Try decrease or turn off picture.

"**Devices**" group lists allow to select devices:

Output - for playback audio (WAVE format).

Input - for recording audio (WAVE format).

Midi - for playback music (MIDI format).

Video *Settings*

Show image

Frame rate sets project video frame rate. First video clip that added to project with empty video tracks redefines this value.

Show information about dropped frames. During playback some video frames may be dropped. When this box is checked dropped frame information will be displayed in dialog window after playback.

Draw first and last frames at clip edges turn on drawing of first and last frames at left and right edges of each video clip.

Start from Key frame only. Video in AVI-files may have not only key frames. If video clip starts not from key frame then during playback first frames of this clip (up to next key frame) may be drawn with a noise in Video window. Those frames will be drawn with red border. When this switch is checked application prevents from setting of clip left edge (time **In**) at not key frame. In any case exported AVI-file will have correct video data.

"**AVI**" group.

Playback mode list selects mode of decompressing and drawing video data. Video codec may not support some of playback modes.

    Full screen - video codec decompresses and draws frames on external monitor or full screen.

    Decompress directly to window - video codec decompresses and draws frames directly in Video window.

    Decompress and then draw - video codec only decompresses frames and DDClip draws them on videoplayer (*Video* window).

    None - DDClip will not playback video.

    Default - DDClip tries to find playback mode for codec starting from **Full screen** mode.

Always on top keeps Video window always on top.

Synchronize to audio turns on synchronization of video playback to audio playback. In this mode if audio playback is delayed, then next video frame will have same delay.

Never yield hardware device normally should be unchecked. May by useful in special cases, when DDClip works with hardware video CODEC on air. When checked, application does not release CODEC when project window is minimized, or DDClip launches external applications.

Zoom list selects scale factor for Video window.

Troubleshooting _Settings_

Show image

Use playback starting delay in full-duplex mode. Successive start of playback and record sometimes may help when drivers for some sound card's can not correctly do playback and record audio simultaneously. **Delay** sets delay duration in milliseconds.

Reopen video codec at any operation. In this mode video codec is reopened at each access. This allows to work correctly with hardware video codecs such as one for miroVideo DC20. **Attention!** This mode may decrease video performance for most video codecs.

Audio meter *Settings*

Show image

Audio volume indicator is used in *Audio Recorder* and *A.Meter(Faders)* dialogs. **Check overflow** on *Range* window local menu also utilizes associations between volume level and its color representation.

"**Thresholds"** group sets correspondence between audio volume level and color on indicator. Delimiting values may descend from 0 dB to −96 dB. Intervals can not overlap.

Meter Size defines an audio volume range presented on indicator. Top value is always 'absolute' digital 0 dB.

Peak hold enables display of peak mark (thin color band).

Always on top keeps audio *A.Meter(Faders)* window always on top.

"**Labels**" group control appearance of text labels.

Automatic display value in dB as label text and set reasonable distance between labels. Otherwise, up to 10 pairs **Volume** − **Name** can be defined.

"0" position defines position of label "**0**" for automatic text labels. Note, that zero shift or '0.000' value is used by default.

Alignment *Settings*

Show image

"**Time alignment**" group.
Align current time mark to the nearest frame turns on alignment of current time mark and left edge of moving clips to the nearest video frame.
Attract current time mark to place marks enables interaction of current time mark with *Place marks*.

"**Place marks**" group
Active group number selects group of *Place marks* that will be active. Other groups became inactive.
Distance defines radius (in pixels) around place mark at which objects are automatically caught.

"**Attract to place marks**" group defines which objects will be caught by place marks during moving of selected clip(s):
None - nothing,
Marks inside active group - active group marks interacts with each other only,
Cursor position - cursor position aligns to marks of active group. When cursor remains within catching range, selected clip(s) are not moved.
Leftmost edge - leftmost edge of selected clips aligns to marks of active group,
Rightmost edge - rightmost edge of selected clips aligns to marks of active group,
Left edges - left edge of each selected clip aligns to marks of active group,
Right edges - right edges of each selected clip aligns to marks of active group,

Selection *Settings*

Show image

Active group number sets active *Clip selection* group number. Other groups became inactive.

Exclusive "Solo". In this mode, if track is marked as "solo" then **only this** track will be included in playback.

Do not drag current time mark. If is not set current time mark is also dragged, when time range is defining in *Range* window.

Save *Settings*
Show image

Save project and clip collection turns on saving of current *Project* and *Clip Collection* at specified period and/or after specified number of project changes.

Thumbnail picture turns on saving of thumbnail picture for each video clip in *Clip Collection*.

Waveform picture turns on saving picture of waveform for each audio clip in clip collection.

Temporary directory defines directory for auto-save files and preliminary mixing file. Read/Write access to this directory is required.

Colors *Settings*

Show image

Change color calls standard dialog, where new color can be set for item from list. Color settings are reflected in picture. Item also can be selected by click in picture. It is possible to keep mouse button pressed and move around with cursor.

Colors combination can be stored in files that by default have .CLT extension. To save settings click **Save scheme**, then select directory and type a name.

Load Scheme allows to restore previously saved colors combination.

Default scheme reset to predefined colors.

Summary *Settings*
<u>Show image</u>

Various information fields can be embedded in exported audio and video data files (**<u>File</u>** | **Export** in *Project* window). Some of these fields presented in this dialog. Text string with up to 255 characters can be entered as field value.

Don't export fields if not checked, then all non-empty fields will be included in output. Two additional fields are always saved. One is a name of software package "DDClip V2.23 Multitrack Audio and Video Editor". Another is a creation date in form YYYY-MM-DD; for example, "1998-05-01" for first of May 1998.

Extended allows to view and edit ALL available fields in *Extended Summary* dialog.

Set as Default allows to save all currently defined fields for later usage as default settings for new created projects.

Extended Summary dialog
Show image

Fields that can be embedded in exported audio and video data files are available for editing in this dialog. Some of them appear also in **Summary** *Settings*. Each field is presented by its short name and human readable name. Text string with up to 255 characters can be entered as field value. If field has no associated text string, it has "(Empty)" at the right in list box. Empty fields are not saved, see also **Don't export fields** switch in **Summary** *Settings*.

Reset button clear summary info fields.

Set as Default button allows saving of currently defined fields for later usage as default settings for new created projects.

Dialog can be called from **Summary** panel in *Settings* dialog.

Image. General *Settings*

Image. <u>Audio</u> *Settings*.

Settings	? ✕

Tabs (row 1): Alignment | Selection | Save | Colors | Summary
Tabs (row 2): General | Audio | Video | Troubleshooting | Audio meter

Output Format
Ratio [44100 ▼] Hz
Resolution [16 ▼] bits
☑ Stereo

Optimization
Buffer size [1.000 ▲▼] sec
☐ Playback through file
Waveform [Fine ▼]

Devices
Output [SB16 Wave Out [220] ▼]
Input [SB16 Wave In [220] ▼]
Midi [MIDI Mapper ▼]

[OK] [Cancel] [Apply] [Help]
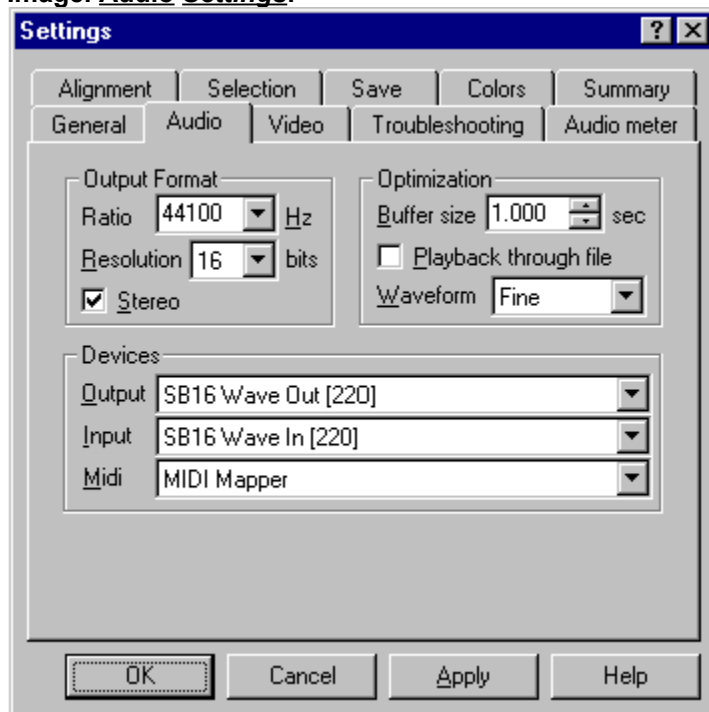
Image. Video _Settings_
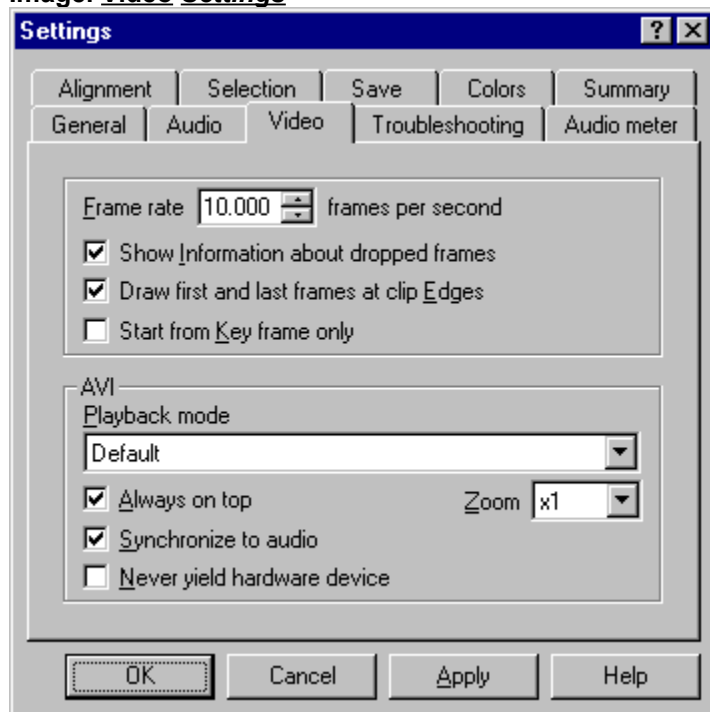
Image. Troubleshooting _Settings_

Image. <u>Audio Meter</u> *Settings*

Image. <u>Alignment</u> _Settings_
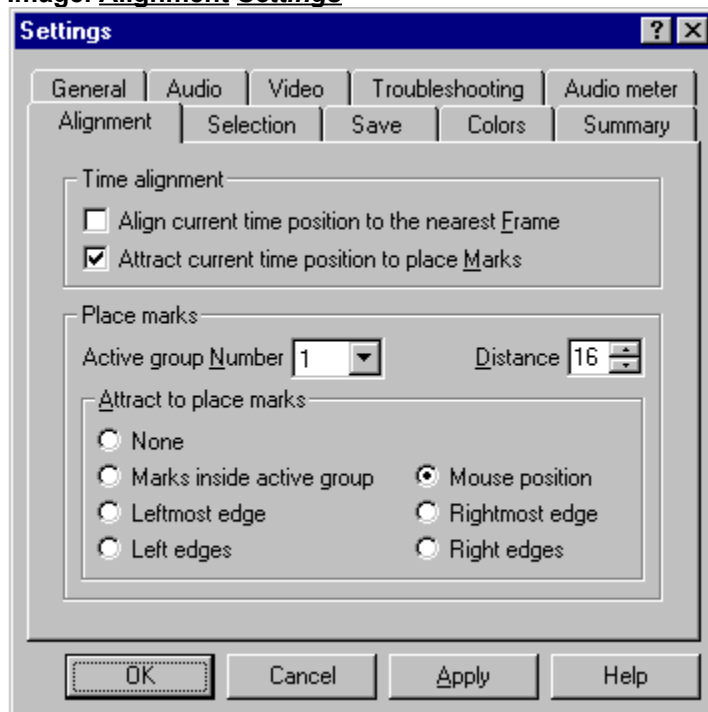
Image. <u>Selection</u> *Settings*

Image. Save _Settings_

Image. <u>Colors</u> *Settings*

Image. Summary _Settings_

Image. _Extended summary_ dialog

Extended Summary

Fields:

IPLT	Palette Setting	(Empty)
IPRD	Product	(Empty)
ISBJ	Subject	
ISFT	Software	
ISHP	Sharpness	(Empty)

Content:

For DDClip Users's Guide

Reset   set as Default

OK   Cancel   Help

Clip Collection
Show Hotspot image

Clip Collection may be considered as a handy storage with references to multimedia data. Each clip in *Clip Collection* window is represented by *Clip Info* window.

Clips from *Clip Collection* can be dragged to *Project* window and back. Source files also can be dragged from Windows Explorer window. When source file is opening in DDClip, a new clip with reference to whole file content is added to *Clip Collection*. Saved collection by default has .PRC extension. When a project is loaded collection file with the same name is also loaded. While working on project other collections may be open and saved.

To change position of *Clip Info* window drag it with left mouse button or use **Up/Down/Left/Right** keys while **Shift** key is pressed.

Double-click in background calls *Open Clip* dialog.

Right click in background calls local menu with following commands:
Add source File calls *Open Clip* dialog to add clip with reference to whole source file content.
Paste   adds all clips from *Clipboard* to Clip Collection.
Following commands control appearance of *Clip Info* windows:
Full Info   shows maximum information about clips.
Basic Info   shows basic information about clips.
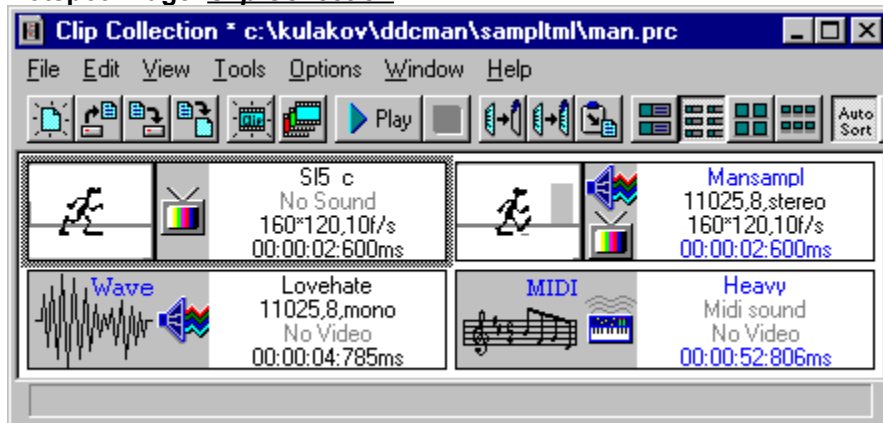**Large Icons**   shows clips as large icons.
Small Icons   shows clips as small icons.

Clip Collection window has accelerator keys, *Toolbar* and following menus:

File   Edit   View   Tools   Options   Window   Help

Hotspot Image. *Clip Collection*.

Clip Info window

Each clip in *Clip Collection* window is represented by *Clip Info* window. There are four variants of all clips appearance:

Full Info is most informative. It provides clip name, source file path, audio parameters (sampling ratio, bits per sample, stereo/mono or 'No sound'), video parameters (width*height, frames per second or 'No Video'), time **In** and time **Out** (beginning and end position in source file), duration. Thumbnail picture is drawn at left.

Basic Info is more compact. Except source file path, time **In** and time **Out**, it provides same information as **Full Info**.

Large Icons and **Small Icons** presents only clip name, but have different sizes.

Note that if clip from *Clip Collection* is not used in current project, then text information, such as clip name, is drawn in blue.

Current presentation of *Clip Info* windows can be selected on *Toolbar,* on local menu (right-click in background), on **View** menu. Thumbnail picture for Video clip can be selected on **Thumbnail** panel of *Clip Properties* dialog, Audio and Midi clips has predefined pictures.

Following icons shows what type(s) of multimedia data clip contains:

 ,

 - video.

 ,

 - audio.

 ,

 - Midi-sound.

If icon is grayed, that means that clip parameters differ from project settings. **Tools** menu may help in conversion to desired parameters.

Clip may contain both *audio and video* data; in this case *both icons* are displayed. If in such a clip usage of audio or video is prohibited (see **Use Video** and **Use Audio** in *Clip Properties* dialog), then corresponding icon is displayed with red cross over it:

 ,

 ,

 or

 .

Right-click on *Clip Info* window calls local menu.

Local menu of _Clip Info_ window

Each clip in _Clip Collection_ window is represented by _Clip Info_ window.

Right-click on _Clip Info_ window calls local menu with following commands:

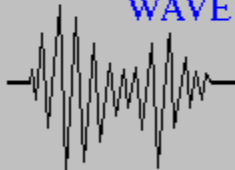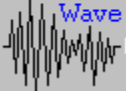|	
Play	playbacks this clip.
Change project video parameters	redefines project video parameters such as frame rate and size of video frame.
Change project audio parameters	redefines project audio parameters such as sampling rate.
Launch Video editor	
Launch Audio editor	
Launch Midi editor	command(s) **Launch 'data type' editor** appears if clip contain corresponding multimedia data type(s). 'Editor' path may be set in _Configure external applications_ dialog. 'Editor' application is launched with the clip source file name added to command line.
Copy	clears _Clipboard_ and add selected clip to _Clipboard_ (clip is placed on first track).
Add	adds this clip to _Clipboard_ (clips are added consequently on first track).
Paste	pastes all clips from _Clipboard_ in Clip Collection.
Delete	removes this clip from Clip Collection.
Properties	calls _Clip Properties_ dialog.
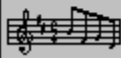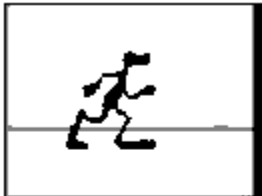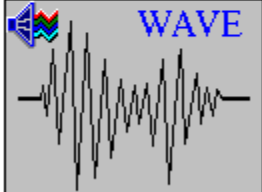
Clip Info windows in _Clip Collection_. Full Info

	Name:	SI5_c
	File:	c:\...ddcman\sampltml\sl5_c.avi
	Sound:	No Sound
	Video:	160*120,10f/s
	In: 0:00fr	Out: 2:06fr
	Time:	2:06fr

	Name:	Mansampl
	File:	c:\...an\sampltml\mansampl.avi
	Sound:	11025,8,stereo
	Video:	160*120,10f/s
	In: 0:00fr	Out: 2:06fr
	Time:	2:06fr

	Name:	Lovehate
WAVE	File:	c:\...an\sampltml\lovehate.wav
	Sound:	11025,8,mono
	Video:	No Video
	In: 0:00fr	Out: 4:08fr
	Time:	4:08fr

	Name:	Heavy
MIDI	File:	c:\...dcman\sampltml\heavy.mid
	Sound:	Midi sound
	Video:	No Video
	In: 0:00fr	Out: 52:08fr
	Time:	52:08fr

Clip Info **windows. Basic Info**

	SI5 c No Sound 160*120,10f/s 00:00:02:600ms	Mansampl 11025,8,stereo 160*120,10f/s 00:00:02:600ms
Wave Lovehate 11025,8,mono No Video 00:00:04:785ms	MIDI Heavy Midi sound No Video 00:00:52:806ms	

Large Icons

SI5_c

Mansampl

Lovehate

Heavy

Small Icons

| SI5_c | Mansampl | Lovehate | Heavy |

Selected clip with video
Basic presentation of *Clip Info* windows.

Clip with audio
Basic presentation of *Clip Info* windows.

Clip with audio and video
Clip is not used in current project.
Basic presentation of *Clip Info* windows.

Clip with midi
Clip is not used in current project.
Basic presentation of *Clip Info* windows.

File menu. *Clip Collection*

New collection	creates new (empty) *Clip Collection*.
Open collection	opens selected *Clip Collection* file.
Add source File	adds clip with whole source file content.
Add from collection	adds all clips from selected clip collection file to current collection.
Save collection	saves changes in current clip collection file.
Save collection As	saves changes in new clip collection file.

Note that saved clip collections has file name extension .PRC.

List of most recently used clip collection files is appended after **Save collection As**.

Menu commands actions also available with buttons on *Toolbar*.

Edit menu. *Clip Collection*

Change project video parameters   redefines project video parameters such as frame rate and size of video frame.

Change project audio parameters   redefines project audio parameters such as sampling rate.

Launch Video editor

Launch Audio editor

Launch Midi editor   command(s) **Launch 'data type' editor** appears if <u>clip</u> contain corresponding multimedia data type(s). 'Editor' path may be set in *Configure external applications* dialog. 'Editor' application is launched with the clip source file name added to command line.

Purge   removes clips, which are not used in current *project*, from current collection.

Copy   clears *Clipboard* and add selected <u>clip</u> to *Clipboard* (clip is placed on first track).

Add   adds this clip to *Clipboard* (clips are added consequently on first track).

Paste   pastes all clips from *Clipboard* in Clip Collection.

Delete   removes this clip from Clip Collection.

Properties   calls *Clip Properties* dialog.

View menu. _Clip Collection_

First 4 commands control appearance of _Clip Info_ windows:

<u>**Full Info**</u>   maximum information about clips.
<u>**Basic Info**</u>   basic information about clips.
<u>**Large Icons**</u>   clips as large icons.
<u>**Small Icons**</u>   clips as small icons.

Next 3 commands control clips order in _Clip Collection_ window:

Auto Sort   if on clips in collection are sorted each time new clip is added.
Sort by Type sort clips in collection by it's type in following order: _Video&Audio_ clips, _Video_ clips, _Audio_ clips, _Midi_ clips.
Sort by Name sort clips in collection by clip name.

Next 3 commands allow to select current <u>format for time values</u>.

Time in Frames   time as frame counter. One second "**25**" or "**25fr**" for video frame rate 25 fps.
Time in SMPTE   "Hours : Minutes : Seconds : Frames". One second **00:00:01:00** or "**00:00:01:00fr**"
Time in milliSeconds "Hours: Minutes : Seconds : Milliseconds". One second **00:00:01:000** or **00:00:01:000ms**

Buttons on _Toolbar_ duplicate menu commands.

Tools menu. _**Clip Collection**_

Convert WAVE   converts source audio file into another WAVE-file with different parameters.

Convert AVI   launches AviEdit application that allows to convert source AVI-file into another AVI-file with different parameters. In AviEdit select **Save Options** on **File** menu, choose video or audio stream, then press **Options…** button, etc..

Convert MScamcorderAVI   prior to use this command, consider possibility to update corresponding CODEC, see URLs below. This update allows to use conventional **Convert AVI** command. Alternatively, use **Convert MScamcorderAVI**. Choose source file, then define output AVI-file. Source AVI will be played on screen and grabbed into output AVI. Wait until end of conversion, do not open or minimize windows, etc.

Link to file with Microsoft Camcorder update:

http://www.microsoft.com/ntserver/netshow/download/mscamupd.exe

See also update related information:

http://www.microsoft.com/workshop/imedia/netshow/netshow2/tools/cam.asp

Both URLs were last checked on 23rd of July 1998.

Convert WAVE

Tools | **Convert WAVE** command in *Clip Collection* window allows to convert source audio file into new WAVE-file with different parameters. Choose input file and define output file name. Then select desired parameters for output WAVE-file and press OK.

Options menu. *Clip Collection*

Font…	sets font for displaying clip information.
Color…	sets color for clip name in **Small Icons** *Clip Info* windows presentation.
Save Options	safety program settings save.

Save options

DDClip automatically save current program settings on exit. These settings will be used at program start. If DDClip was terminated abnormally, then program setting will not be saved. **Save Options** commands on **Options** menu in *Project* window and on **Options** menu in *Clip Collection* allows to make safety program setting save.

Window menu. _Clip Collection_
    Project   go to _Project_ window.

Clip Properties

Dialog can be called for clip in *Clip Collection* with **Properties** commands on *Clip Info* window local menu and **Edit** menu. Following tab panel presents various clip parameters:

General	clip name, source file name, size, etc.
Video, **Audio**, **Midi**	multimedia data specific info. **Use Video** and **Use Audio** switches.
Thumbnail	video frame for thumbnail picture.
Summary	information fields embedded into data source file.

Clip Properties. General.
Show image.

Clip Name is an arbitrary label that may be associated with clip. By default, a name of source file is assigned. Clips with different parameters may have same name. Clip name does not identify clip uniquely.

File Name shows path to source file.

File Size shows source file size in bytes and kilobytes (KB), 1 KB=1024 bytes.

Created and **Modified** show source file creation and modification dates.

'**Time**' group parameters present in current time format following:

In, Out – begin and end of clip in source file.

Duration – clip duration, effectively difference between **Out** and **In**.

Displayed values depend on current value of video **Frame rate** on **Video** tab panel.

Clip Properties. Video
<u>Show image</u>.

This panel appears, if <u>clip</u> source file contain video data.

Use Video, if unchecked disables usage of video data from source file. This has meaning when source file contains both video and audio.

Frame rate is measured in frames per second and determines duration of playback for video. Frame rate of source file is displayed in info area at right of *<u>Open Clip</u>* dialog. Frame rate can be changed, if there is no clip(s) in current project that reference video data in source file.

Width and **Height** presents geometrical parameters of video frame.

Codec name and **short name** provides two variants of video CODEC name.

Data size shows size of video data in source file.

Data rate is calculated video data stream, see note below on **Frame rate** changing.

Duration shows in current <u>time format</u> how long it takes to playback all video from source file.

NOTE, that current frame rate is used in calculations of **Data rate** and **Duration**, see above, and **In**, **Out**, **Duration** fields in **<u>General</u>** panel. In no way frame rate changing affects duration of audio playback. If both **Use Video** and **Use Audio** are enabled and current frame rate value is increased or decreased from one in source file, then on inserting in project audio will be correspondingly truncated or padded with zeros. It may be found convenient to duplicate clip, then enable only **Use Video** in one copy and only **Use Audio** in another.

Clip Properties. Audio

This panel appears, if <u>clip</u> source file contain audio data.

Use Audio, if unchecked disables usage of audio data from source file. This has meaning when source file contains both video and audio.

Ratio is a number of samples per second.
Bits is a number of bits per sample.
Channels shows 'mono'/'stereo' for one or two channels correspondingly.

Data size shows size of audio data in source file.
Data rate is calculated audio data stream.
Duration shows in current <u>time format</u> how long it takes to playback all audio from source file.

Clip Properties. Midi
<u>Show image</u>.

This panel appears, if <u>clip</u> source file contain audio data.
Duration shows in current <u>time format</u> how long it takes to playback all audio from source file.

Clip Properties. Thumbnail
<u>Show image</u>.

This panel appears, if <u>clip</u> source file contain video data.

Slide bar allows to select video frame, which will be used as identifying picture for clip in _Clip Collection_ with window.
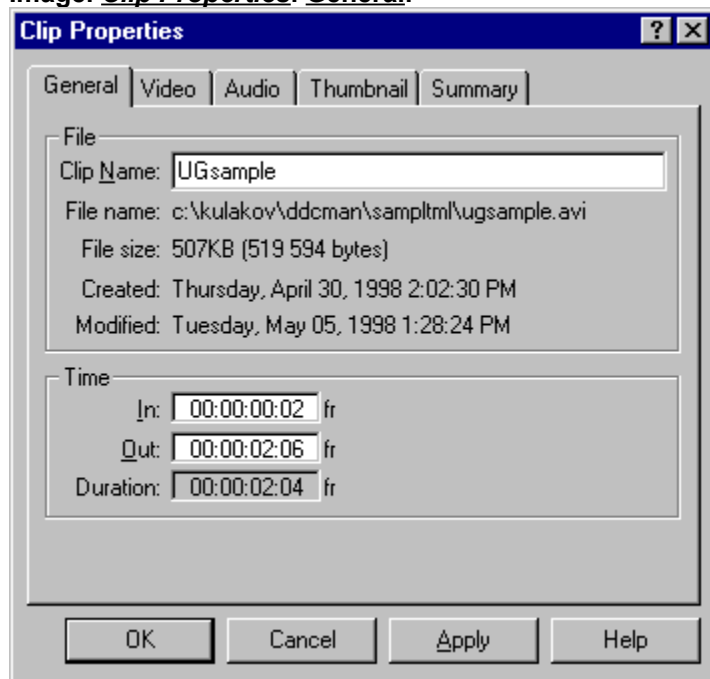
Clip Properties. Summary
Show image.

Clip source file may have various embedded information fields. Some of these fields are presented on this tab panel. See also description of **Summary** *Settings*.

Extended calls *Extended Summary* dialog (show image) that provides information on ALL fields, that application understands. If field has no associated text string, it has ''(Empty)'' at the right in list box.

Image. *Clip Properties*. General.

Clip Properties

General | Video | Audio | Thumbnail | Summary

File
Clip Name: UGsample
File name: c:\kulakov\ddcman\sampltml\ugsample.avi
File size: 507KB (519 594 bytes)
Created: Thursday, April 30, 1998 2:02:30 PM
Modified: Tuesday, May 05, 1998 1:28:24 PM

Time
In: 00:00:00:02 fr
Out: 00:00:02:06 fr
Duration: 00:00:02:04 fr

OK | Cancel | Apply | Help

Image. *Clip Properties*. **Video.**

Clip Properties

General | Video | Audio | Thumbnail | Summary

☑ Use Video

Format
- Frame rate: 10.000 frames per second
- Width: 160 pixels
- Height: 120 pixels

Codec name: Intel Indeo® Video 4.3

short name: IR43

Source file
- Data size: 54.6KB (55 892 bytes)
- Data rate: 21.0KB/Sec (21 497 bytes per second)
- Duration: 00:00:02:06fr

OK | Cancel | Apply | Help

Image. *Clip Properties*. Audio.

Image. *Clip Properties*. Midi.

Clip Properties

General | Midi

Source file
Duration: 00:00:52:08fr

OK | Cancel | Apply | Help
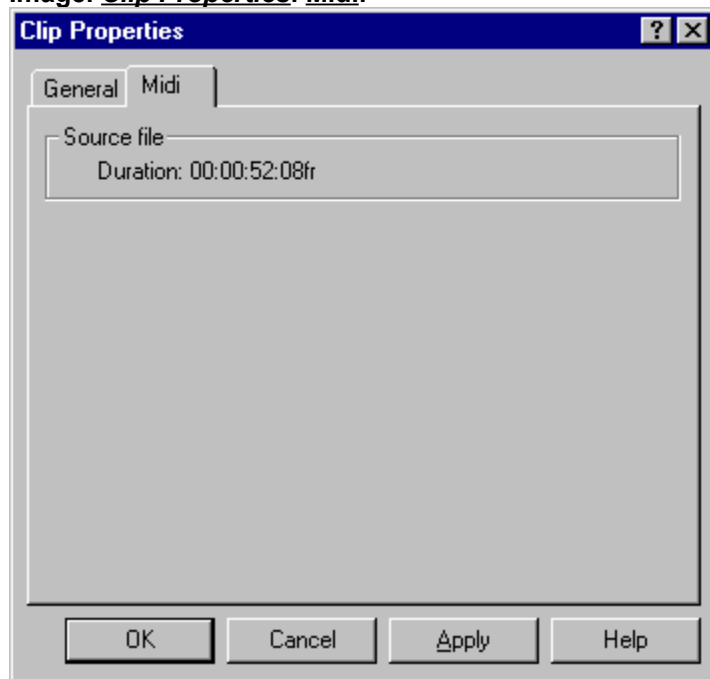
Image. *Clip Properties*. Thumbnail.

Image. *Clip Properties*. Summary.

Clip Properties

General | Video | Audio | Thumbnail | Summary

Title: Sample AVI

Author: Anatoli Kulakov

Subject: For DDClip Users's Guide

Copyright: Copyright (C) 1998 SoftLab-NSK
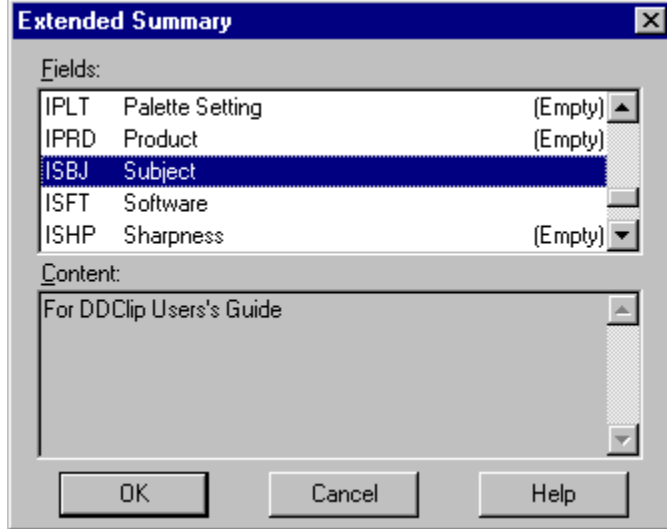
Comments: Settings for grabbing pictures for manual.

Extended

OK | Cancel | Apply | Help

Image. *Extended Summary* **dialog.**

Called with **Extended Button** on <u>**Summary**</u> panel of <u>*Clip Properties*</u> dialog.

Toolbar. *Clip Collection*

Part 1

[toolbar image] **>>**

First 5 buttons on Toolbar duplicate commands on **File** menu.

creates new (empty) clip collection. Confirmation requested to save or not changes in current *Clip Collection*, or cancel creation of new collection.

opens selected clip collection file.

saves changes in current clip collection file. For new created collection file name requested. By default, clip collection file has .PRC extension.

saves changes in new clip collection file.

calls *Open Clip* dialog to add new clip in current clip collection.

switches to *Project* window. See also **Project** on **Window** menu.

playbacks selected clip. See also **Play** on clip local menu.

stops started playback. See also **Stop** on clip local menu.

Clipboard commands also available on **Edit** menu and clip local menu. Note that clips in clipboard from *Clip Collection* will be inserted in *Project* on first track of appropriate type.

clears *Clipboard* and add clip to *Clipboard* (clip is placed on first track).

adds this clip to *Clipboard* (clips are added consequently on first track).

pastes all clips from *Clipboard* in *Clip Collection*.

Toolbar. _Clip Collection_

<<   🔲🔲 ▦▦ 🔲🔲 ▦▦ | Auto Sort | Sort Type | Sort Name | 10 | 0:10 | 0:100 |

Buttons in this part of Toolbar duplicate commands on **View** menu.

First 4 buttons in this part control appearance of _Clip Info_ windows.

Full Info, maximum information about clips.

Basic Info, basic information about clips.

Large Icons, clips as large icons.

Small Icons, clips as small icons.

Next 3 buttons control clips order in _Clip Collection_ window.

sorts clips in collection each time new clip is added.

sorts clips in collection by it's type in following order: _Video&Audio_ clips, _Video_ clips, _Audio_ clips, _Midi_ clips.

sorts clips in collection by clip name.

Next 3 buttons allow to select current format for time values.

Time in Frames, time as frame counter. One second "**25**" or "**25fr**" for video frame rate 25 fps.

Time in SMPTE, "Hours : Minutes : Seconds : Frames". One second **00:00:01:00**" or "**00:00:01:00fr**"

Time in milliSeconds, "Hours : Minutes : Seconds : Milliseconds". One second **00:00:01:00** or **00:00:01:00fr**

Clip Collection Accelerators

Action	First accelerator	Second accelerator
File operations		
Open source file	'Insert'	'F4'
New clip collection	Ctrl+'N'	Shift+'F3'
Open clip collection	Ctrl+'O'	'F3'
Add from clip collection	Ctrl+Shift+'O'	Ctrl+'F3'
Save clip collection	Ctrl+'S'	'F2'
Save clip collection as	Ctrl+Shift+'S'	Shift+'F2'
Edit operations		
Delete		'Delete'
Add to clipboard	Ctrl+Shift+'C'	Ctrl+Shift+'Insert'
Copy to clipboard	Ctrl+'C'	Ctrl+'Insert'
Paste from clipboard	Ctrl+'V'	Shift+'Insert'
Remove unused clips		Shift+'Delete'
Arrange operations		
Move current clip up	Shift+'Up arrow'	
Move current clip down	Shift+'Down arrow'	
Move current clip to right	Shift+'Right arrow'	
Move current clip to left	Shift+'Left arrow'	
Select operations		
Select upper clip	'Up arrow'	
Select lower clip	'Down arrow'	
Select right clip	'Right arrow'	
Select left clip	'Left arrow'	
Other operations		
Playback		'Enter'
Show project window		'F6'
Exit	Ctrl+'Q'	

Audio meter (Faders) window

Show image *A.Meter*.   Show image *Faders*.

Window | **Audio meter (faders)** command in *Project* window activates window that can be shown as *A.Meter* or *Faders*, depending on state of **Faders** switch, see below.

In both cases output volume indicator is presented. Indicator is divided into 5 intervals. Output audio volume within each interval is painted in Dark Blue, Blue, Green, Yellow and Red color consequently. Thin lines mark maximum peak volume (if **Peak hold** is enabled in **Audio meter** *Settings*). These marks are removed at playback start. Click in indicator also removes them. Color intervals delimiting values, displayed volume level range and reference text labels presentation can be changed in **Audio meter** *Settings*.

Project master volume can be set with vertical fader or by editing volume value in text box above it. Horizontal fader and corresponding text box controls project master balance.

Meter when checked enables monitoring of output audio volume on indicator.

Faders control presence of faders at left. When unchecked window contains only elements described above, and is named *A.Meter*. When checked window change name to *Faders* and has track faders with **Solo / Mute** buttons.

Faders window shows 6 tracks faders. Track numbers are displayed at top. If current project has less then 6 tracks then excessive faders will be grayed. If project has more then 6 tracks scrollbar at bottom allows to select which 6 tracks will be displayed. *Volume and Balance* dialogs allows to set volume and/or balance for project, track, clip and profile.

It is possible dynamically change project and track volume and balance during playback. **Attention!** Changes will always have predefined delay. This delay depends on value of **Buffer size** in **Audio** *Settings*.
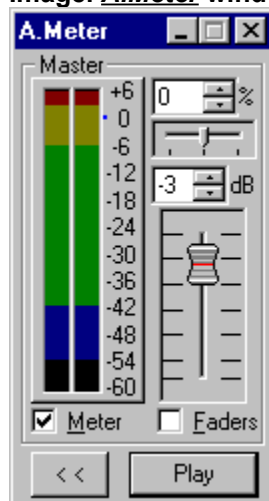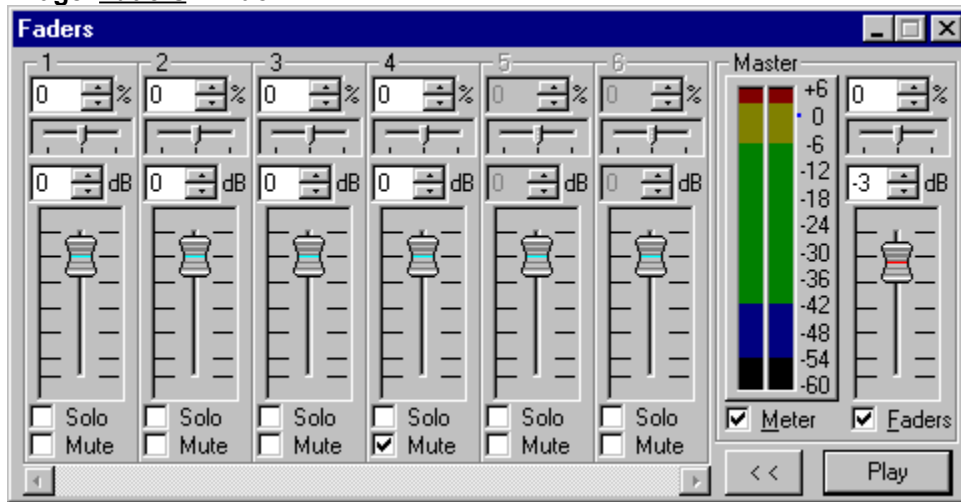
Image. _A.Meter_ window

Image. _Faders_ **window**

Volume and Balance dialogs
Show sample images.

Volume and/or balance dialogs may be called from various menus. Depending on context, dialog change its name and may have either "**Volume**" or "**Balance**" group, or both groups.

Dialog have '**Profile**' and '**Clip**' names, when called with **Set profile value** and **Clip volume** on *Audio clip* local menu.

Dialog is named '**Track**', when called with **Track Volume** on *Track State* window local menu.

Master volume on **Command** menu changes master volume and balance for whole project and dialog is named '**Project**'.

Note, that master volume and balance for project and audio tracks can be set in *AudioMeter(Faders)* window, where it is possible dynamically change volume and balance during playback.
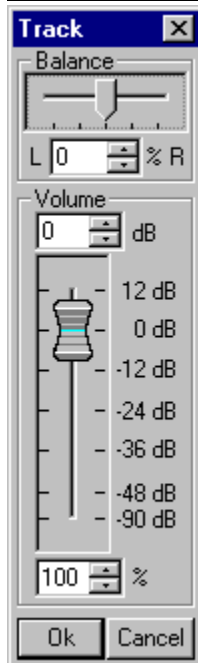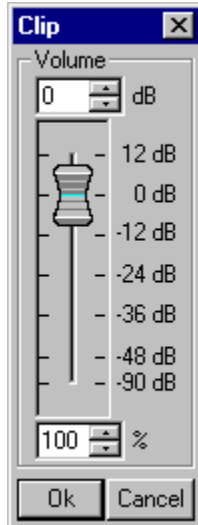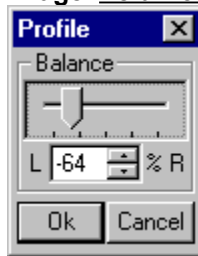
Note, that volume at each point of clip with audio is a sum (in dB) of all master volumes (project master volume, track master volume and clip master volume) and volume profile value at this point (for *audio clip* clip). The same is true for balance.

Balance value can be set from −100 (Left) to 100 (Right).

Nominal volume value is 0 dB or 100 %.

Attention! Maximum volume amplification is 12 dB (4 times). At points, where maximum amplification is reached, profile touch the top of clip rectangle and stay there, while other profile key points may be moved with master volume change. Thus the profile is distorted and mixed signal may not correspond to your expectation. To avoid this watch the clip volume profile - visually it should not touch top clip edge.

Image. _Volume and Balance_ dialogs

Profile	☒

Balance

L [-64] % R

[Ok] [Cancel]

Clip	☒

Volume

[0] dB

- 12 dB
- 0 dB
- -12 dB
- -24 dB
- -36 dB
- -48 dB
- -90 dB

[100] %

[Ok] [Cancel]

Track	☒

Balance

L [0] % R

Volume

[0] dB

- 12 dB
- 0 dB
- -12 dB
- -24 dB
- -36 dB
- -48 dB
- -90 dB

[100] %

[Ok] [Cancel]

Project

Balance

L [0] % R

Volume

[-3] dB

- 12 dB
- 0 dB
- -12 dB

- -24 dB
- -36 dB

- -48 dB
- -90 dB

[71] %

Ok   Cancel
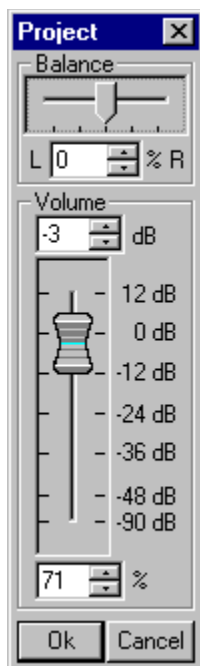
Open clip dialog
<u>Show image</u>.

This dialog allows to add clip with reference to whole source file content. If called from *<u>Project</u>* window then except insertion on a track new clip also is added to *<u>Clip Collection</u>*.

Info area at right displays information about selected source file.
Preview button starts playback of selected file.
Auto preview enables automatic playback start when selection is changed.
**Add** button appears only if dialog is called from *<u>Clip Collection</u>* window. It adds clip with selected source file to *<u>Clip Collection</u>* and does not close dialog.

In *<u>Project</u>* window dialog became available with **Add source File** commands on **File** menu and *Working Area* local menu (in parts that are not occupied by clips) and also with button on *<u>Toolbar</u>*.
In *<u>Clip Collection</u>* window dialog also can be called with **Add source File** commands on **File** menu and local menu of areas, which are not occupied by clips, and with button on Toolbar.
It is also just drag and drop files with multimedia data from Explorer window.

Image. _Open Clip_ dialog.
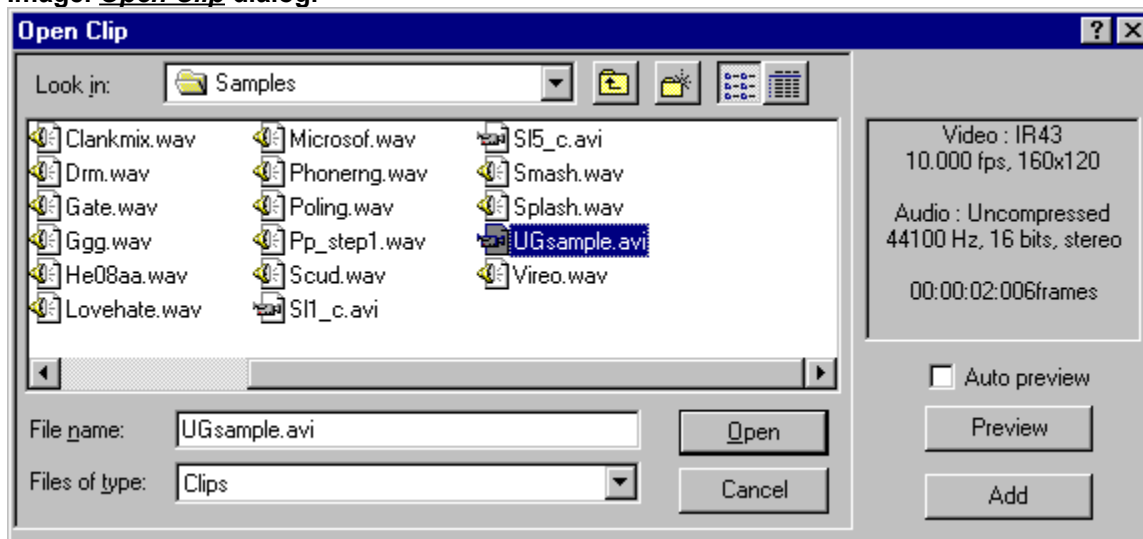
Edit Clip dialog
Show image

Clip Name is an arbitrary label that may be assigned to a clip. By default, name of source file is assigned. Clips with different parameters may have same name. Clip Name does not identify clip uniquely.
File Name show path to source file.

''**Source position**'' group fields presents in current time format values of following parameters:
In, Out − begin and end of clip relative to source file start.
Size − clip duration, effectively difference between **Out** and **In**.
Source − duration of whole source file data.

Start and **Stop** are start end stop clip positions in project.

Show In/Out frame is identical to **Show video** in **General** *Settings* and *Time Ruler* local menu. It controls if corresponding frame is displayed on videoplayer (*Video* window) while you change **In** or **Out** fields. Has meaning and available only for *Video clip*.

Edit clip parameters on local menu of clip on track in *Working Area* calls this dialog. Another dialog, *Clip Properties*, can be called for clip in *Clip Collection*.

Image. *Edit Clip dialog*

Repeat clip dialog

Show image

Dialog is called to create additional copies of <u>clip on track</u> in *Working Area* and is called by **Repeat clip** on clip local menu. Each created copy is an independent clip, but initially clips, except position in project, are identical. Each copy inherited general <u>clip parameters</u>, such as clip duration, position in source file, *place marks*, and also clip type specific properties, such as volume and balance profiles for *Audio* clip.

Values of time position or time interval presented in current <u>time format</u>.

Copy count sets the number of new copies. For example with counter value 4 there will be 5 identical clips.

Time shows value of time interval occupied by new created repeated units - 'period' multiplied by number of copies.

Pause sets duration of pause before each new copy.

Clip shows clip duration.

Period sets total duration of unit 'pause + clip' that will be repeated.

All parameters maximum values depend on free space after clip and are interdependent. Beware that arbitrary values may be set while doing field editing. But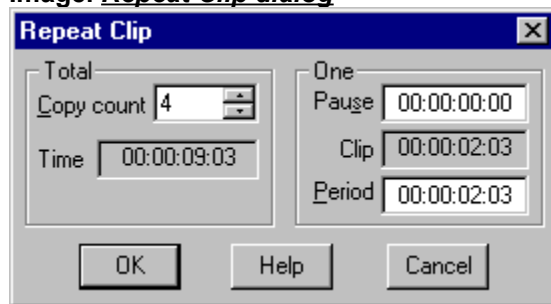 sum of **Pause** and **Clip** can not exceed **Period**. **Period** interval can not be set larger, if there is no enough space for **Copy count** number additional copies, etc. It is recommended to switch to another field with mouse of *Tab* key to see actual field value and then press *OK* button.

Note, that if time is measured in frames or SMPTE, displayed time interval value is rounded to nearest frame start time. This may be a little bit misleading. In <u>sample image</u> dialog was called for project with rate 10 frames per second and after simple multiplication value '00:00:09:02' may be expected for **Time** field. To see that everything is consistent choose **Time in milliseconds** as current <u>time format</u>.
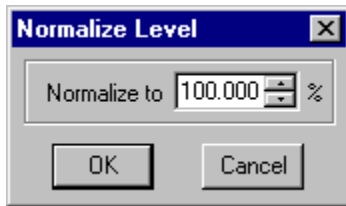
Image. *Repeat Clip dialog*

Normalize audio

Normalize Level [×]

Normalize to [100.000 ⇕] %

[OK] [Cancel]

Normalize Level dialog requests maximum output audio level and adjusts project <u>master volume</u>.
The program mixes selected <u>range</u> and finds maximum volume. Project master volume is adjusted to a value, at which resulting maximum volume will be equal to specified level.
Operation does not change volume/balance profile, clip or track master volume, and changes only the project master volume.
Normalize audio command is available on **Command** menu and on *Range* window local menu.

Attention! Maximum volume amplification is 12 dB (4 times). Thus, the program can not normalize file with maximum level less than 25%. Second, if resulting amplification for clip sample exceeds 12 dB then mixed signal may not correspond to your expectation. To avoid this watch the <u>audio clip</u> volume profile - it should not touch top clip edge.

AudioRecorder dialog
Show image

Before displaying this dialog application requests target file name (when you define file name press **Save** button to continue).

Ratio, Resolution, Stereo select recording audio parameters.

Meter controls displaying of input audio volume level on indicator. Indicator is identical to one used in *Audio meter (Faders)* dialog; and its parameters can be changed in **Audio meter** *Settings*.

Always on top keeps recorder window on top.
Synchronize playback turns on playback of current project during recording. Play command will be issued with **Record** button press.
Rec.Delay sets time between click on **Record** button and start of recording.

Status shows current state of recorder: Stopped, Recording or Pause.
Time shows time position in recording file.
< < or **> >** buttons rewind to begin or forward to end of recording file. The end of recording file is the end of last recording fragment.
Prepare / Rec button makes preparations for recording process. After that button label changes to **Record**.
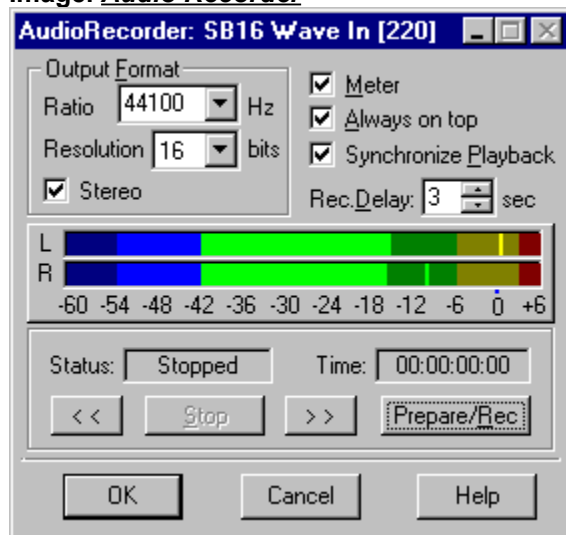**Record** button starts recording.
Stop button stops recording. To record next fragment press **Prepare / Rec** button.

OK button closes dialog and inserts the written file in project and clip collection.
Cancel button closes dialog and deletes written file.

Dialog may be called from **Command** menu or with button on *Toolbar*.

Image. _Audio Recorder_

Configure external applications dialog
Show image

Dialog is called with **Configure** command on **Tools** menu to establish correspondence between command on **Tools** menu and application to launch.

In "**Basic applications**" group applications may be associated with first 4 commands on **Tools** menu, that always presents. Command names displayed as labels to the left of input text box.

In "**Additional applications**" group, nonempty text in **Item name** column will appear as command name in **Tools** menu

Path contains path to external application.
'**+ clip filename**' control whether to add clip source file name to application command line.
Browse button allows to select application.

Image. *Configure external applications dialog*

Configure external applications

Base applications

Volume control:	SndVol32.exe	☐ Browse
Audio editor:		☑ Browse
Midi editor:		☑ Browse
Video editor:		☑ Browse

Additional applications

Item name	Path	+ clip file name	
Recorder	SndRec32.exe	☐	Browse
		☐	Browse
		☐	Browse
		☐	Browse
Calculator	Calc.exe	☐	Browse

OK   Cancel   Help

Fade Profile dialog
Show image.

Options | **Fade profile** command in *Project* window calls this dialog.

Dialog specifies shape of 'FadeIn' profile. 'FadeOut' profile is time reversed 'FadeIn' profile. Profile presented in linear and logarithm scales. Between adjacent points profile has linear interpolation (in logarithmic scale it looks like a bend). Selected key point surrounded by pink square.

Linear buttons set points equidistantly in corresponding scale.
Volume - allow to set volume of selected point in corresponding scale.

Point – show selected point number and allow to change selection to point with specified number.
Time – allow to set time position of selected point.

Add point mode allows to add key points to profile. Each click in profile window adds new key point.

Delete point deletes selected point from profile.

Save profile saves current profile into file. By default file has .FPR extension.
Load profile loads profile from file.

When cursor approaches key point it changes shape and appears as cross, click selects key point. Selected point can be dragged with mouse. Key point can not be placed before and below previous point and after and above next. First and last points can not be moved.

FadeIn and **FadeOut** commands multiply current volume profile of clip(s) by fade profile. Profile scales to specified time interval, interval definition depends on from where command is issued.
FadeIn on *Audio clip* local menu applies (multiplies) profile to clip volume from start of the clip to point, where local menu was called with right-click; **FadeOut** applies from specified point to the end of clip.
If commands issued from **Range** menu, then profile applies to range interval.
Edit | **CrossFade** command became available, if exactly 2 overlapping clips are selected, and is equivalent to **FadeOut** in first clip and **FadeIn** in second in overlapped interval.

Image. _Fade Profile_ dialog.
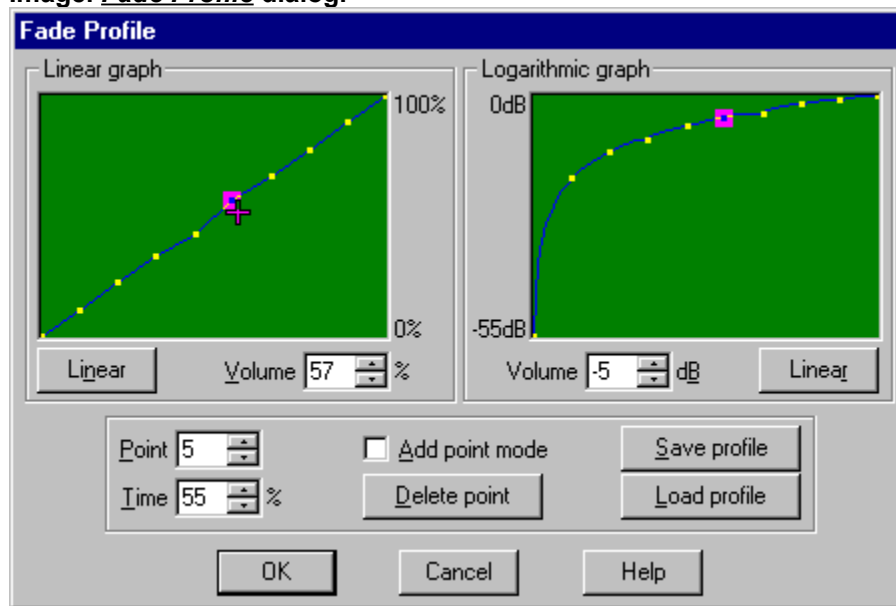
Place marks

Place marks help on with alignment and synchronization of clips. Place mark works during moving of selected clip(s). It attracts objects (for example, left clip edges) and keeps them at place mark position while object is moved within predefined distance from place mark. Object type, distance and other alignment parameters are defined in **Alignment** *Settings*.

Place mark can be set in *Time Ruler* or in clip on a track. Place mark in *Time ruler* has fixed 'absolute' time position from project start. Place mark in a *clip* has fixed time position from the beginning of source file, place mark always moves with the clip, clip resize operations does no effect on place mark position.

When cursor approaches to place mark, cursor change shape to ; and place mark can be dragged while left mouse button is pressed. When place mark is dragged in *Time Ruler*, *current time* mark position also changed.

Time Ruler or clip on a track local menu have following commands:

Add mark	sets place mark at specified position.

Following commands replace **Add mark**, if local menu was called, when cursor has shape near already set place mark:

Set mark position	calls dialog to set mark time position.
Mark name	allows to define mark name.
Remove mark	removes place mark.

Place marks may be arranged in groups (up to 9 groups). Only one group may be active. **Next mark group** on *Toolbar* or **View** menu change active group in cycle. Active group number may be also set in **Alignment** *Settings*.

Place mark of active group is displayed as solid green triangle. Place mark of inactive group - as solid gray triangle.

How all this works. By default, if this is not switched off in **Alignment** *Settings*, place mark attracts *current time* mark. Suppose you set place mark in *Time Ruler*. When you drag *current time mark* and distance between it and place mark becomes less then predefined, then *current time mark* will jump to place mark position. While distance between cursor and place mark is less then predefined distance, then *current time mark* will be kept at place mark position. In similar ways, alignment works with various points in dragged clips. In **Alignment** *Settings* you can select what interacts with place marks: other place marks, edges of clips or cursor position (point where mouse button was pressed to drag clip).

Clip selection

Each clip on a track is displayed as rectangle with clip name in top left corner. Rectangle height is equal to track height. Rectangle width is determined by clip duration. Clip background color corresponds to clip selection state.

One or many clips may be selected, see **Selection** in *Clip operations summary*. Clips in current selection group are displayed in dark green. Clips of other groups are displayed in dark blue. Unselected clips are displayed in dark gray.

Up to 9 clip selection groups may be defined. It is possible to change the number of current clip selection group in **Selection** *Settings*. **Next selection group** command on *Toolbar* or **View** menu change active group in cycle.

Delete, **Move**, **Cut**, **Copy** and some other operations (see **Edit** menu, *Clip operations summary*) works with all clips in current clip selection group.

Time Format

DDClip can show time values in following formats:

Time in Frames

The time is measured in frames. Current **Frame rate**, see **Video** *Settings* determine duration of frame playback. For example, at 25 fps frame rate one second time label will be displayed as "**25**" or "**25fr**".

Time in SMPTE

SMPTE format - "Hours : Minutes : Seconds : Frames"

See **Video** *Settings* for current value of **Frame rate**. For example, one second time label will be displayed as "**00:00:01:00**" or "**00:00:01:00fr**".

Time in milliSeconds

Following format: "Hours : Minutes : Seconds : Milliseconds".

For example, one second time label will be displayed as "**00:00:01:000**" or "**00:00:01:000ms**".

Current time presentation format can be selected in *Clip Collection* window on **View** menu and *Toolbar*, and on **View** menu in *Project* window.

Numbers editing

It is possible to use a mouse when editing numeric fields in the dialogs.

Place cursor over desired digit, press and hold right mouse button. Selected digit place should be displayed in contrast color. Then, holding the button, drag the mouse up/down to increment/decrement digit value and whole number.