



Video System Software

CLIPSTER

Pronto Series

Software

Starter Guide

Document Version 2.0 for the CLIPSTER and Pronto Series Software

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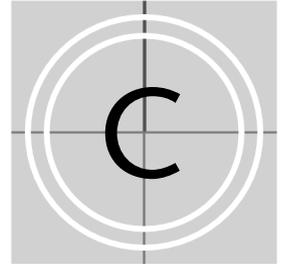
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Introduction



This document introduces the DVS software of CLIPSTER and the Pronto series and provides a first approach to their most important functions. You may use it to make yourself acquainted with the software's structure and the way it operates.

Most users would want to work with the DVS system right away and do not require in-depth descriptions. Therefore, this guide often just shows how to access individual functions and features of the software. With this you will know where to find these functions and you may be able to start your work immediately.



Whenever more information is needed, please consult the other guides delivered with the system. They provide detailed descriptions and explanations about the functions and features of the software.

1.1 CLIPSTER or Pronto Series Only

The software of CLIPSTER and the Pronto series use an almost identical user interface. The main difference lies within their feature sets. While CLIPSTER operates mostly in digital intermediate processes, the systems of the Pronto series are usually used as fast digital disk recorders with basic conforming capabilities.

This guide describes the interfaces of both systems. The optional or exclusively available features will be marked with the following:

	This feature is available for CLIPSTER only.
	This feature is available for a system of the Pronto series only.
<i>Option</i>	An added <i>Option</i> below the symbols indicates that this feature is optionally available for the respective system.

1.2 Preparations

To follow the descriptions in this document your CLIPSTER or Pronto series system has to be prepared in some ways:

- To use the Edit Tool or Spycer at least one clip should be available on the drive for video material (usually V: \). Either copy clips (image sequences) to this drive or record them from an externally connected player with the I/O Tool (see next point).
- To record with the I/O Tool an external player (e.g. VTR) should be connected to the DVS system properly. Interconnect at least the video in- and outputs and the remote control ports. Afterwards, if set up correctly, you can record clips from the external device.

1.3 Starting the Software

Start the software either via the **START** button menu of Windows (e.g. **All Programs » DVS » Clipster**) or via its icon on the desktop:



Example of a desktop icon to start the DVS software

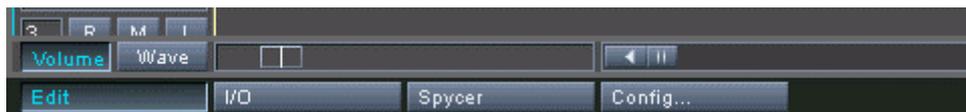
1.4 The Software Modules

The software of CLIPSTER and the Pronto series consists of several programs and modules that combined allow you to process digital video and audio in real time for almost any application. The following lists the most important program modules available on your system:

Software Module	Short Description
Edit Tool	This software module enables you to edit video material. You can arrange clips of all formats and resolutions in any sequence on a timeline. Afterwards, they can be edited with the provided feature set, e.g. with hard cuts, transitions or effects. This software module is automatically active after the starting of the software.

I/O Tool	With this software module you can capture video and audio material from telecines, VTRs, digital disk recorders, or even cameras either in an automated batch processing mode or manually. In its Batch record mode it supports fully the use of EDLs or cut lists.
Integrated Spycer	Spycer, the content management software by DVS, comes free with your system and is integrated into the software's user interface as a software module. It provides you with browse, search and management tools to retrieve data and gather information about them locally as well as via a network. Additionally it can be used to preview audio, video as well as other data and add clips to the bin of the software to make them available for your project.
Configuration Tool	This software module allows you to configure and set up the DVS system and its software. With it you can, for example, set the period for the automatic save function of the project file (autosave) as well as more software specific settings, such as the bin properties.

All software modules can be accessed easily with the help of the task bar of the software's user interface (bottom left: buttons **EDIT**, **I/O**, **SPYCER**, and **CONFIG...**):



Task bar of the software

1.5 ProntoXway

The ProntoXway is DVS's multi-channel disk recorder. It provides the features as described in this document for the Pronto series and, furthermore, offers two totally independent video channels in one system.

Each video channel can be controlled independently from the other with its own user interface. They are also independent from the software module or operation mode (record/play-out) used, and can access either the same or different material (shared storage).

For stereoscopic applications the two channels can be synchronized and controlled from one channel. For this you have to use the multi-device operation mode which can be set up via the Configuration Tool of the DVS software (**Options » Defaults... »** group **VTR**, see also section "Configuration Tool" on page 5-1).

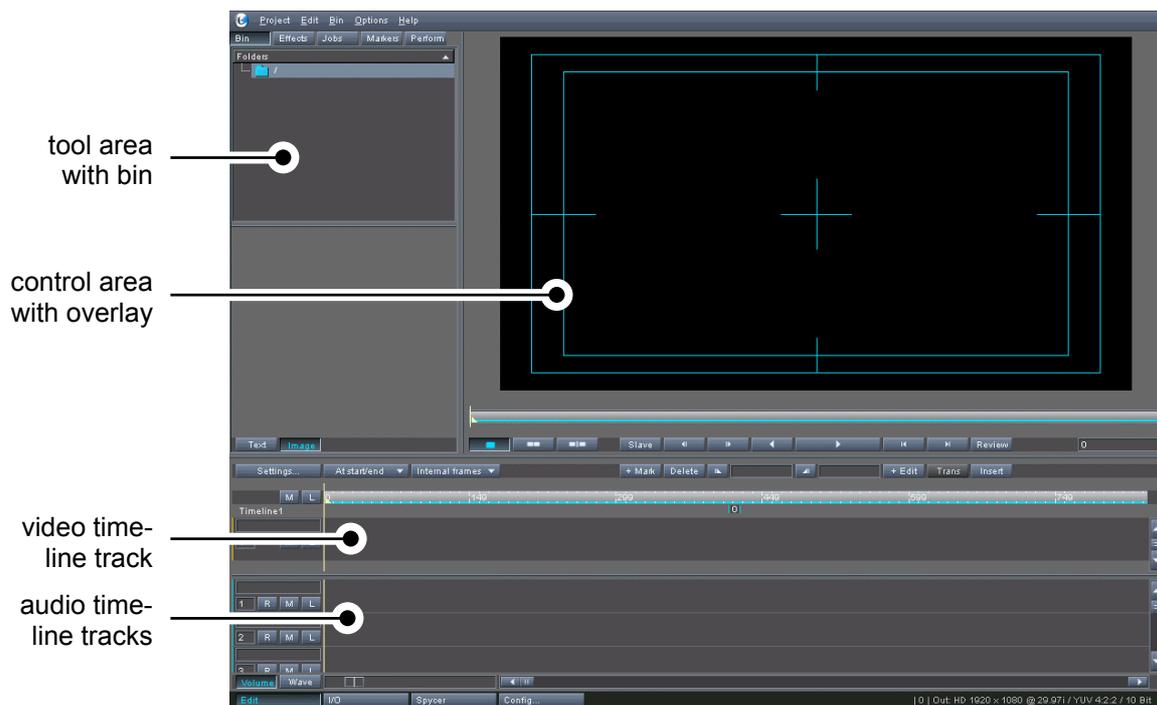


The multi-device operation mode is a standard feature of the ProntoXway. For all other DVS systems it is optionally available.



Edit Tool

The Edit Tool of the DVS software enables you to edit video material. You can arrange clips of different formats and resolutions in any sequence on a timeline. Afterwards they can be edited with the provided feature set, e.g. with hard cuts, transitions or effects. This software module is automatically active after the starting of the software.



Overview of the Edit Tool

2.1 Adding Clips to the Bin

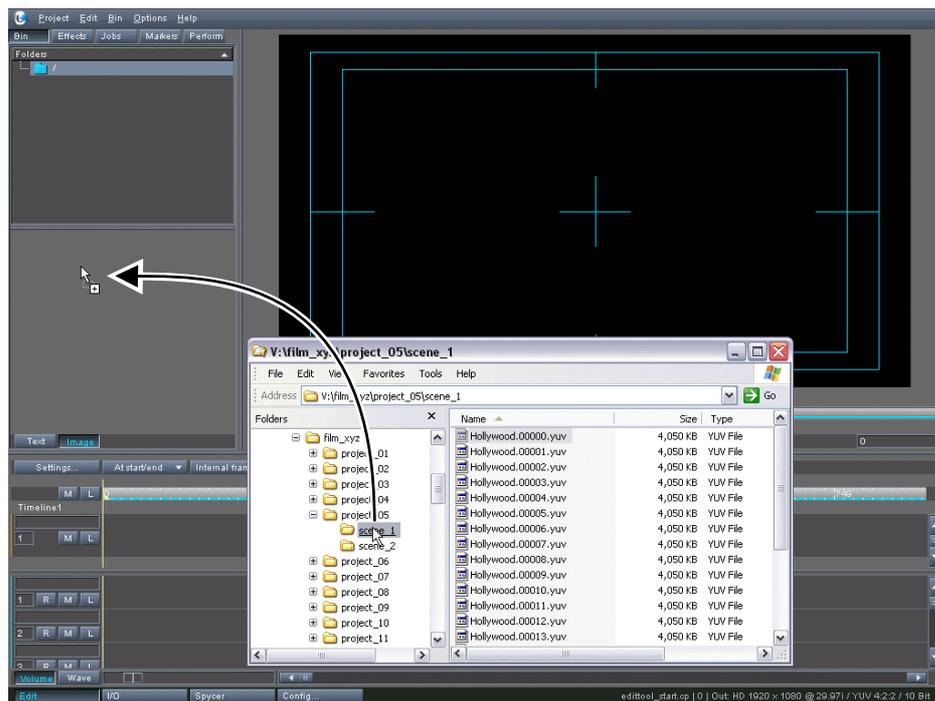
Before clips can be arranged on the timeline the bin has to be filled with clips. These clips will then be available for your project. There are several ways to add clips to the bin: The best and most informative way is to use Spycer (see section "Adding Clips to the Bin Using Spycer

cer” on page 4-4), but they can also be added by using a file manager:



Audio clips to be used in your project must be added to the bin the same way as video clips.

- Press [Windows () + E] on your keyboard to open the Windows Explorer.
- Afterwards browse for a clip and drag and drop it to the bin:



Drag and drop from file manager

This will add the clip to the bin and a thumbnail view of the video clip will be visible in the bin’s contents area.

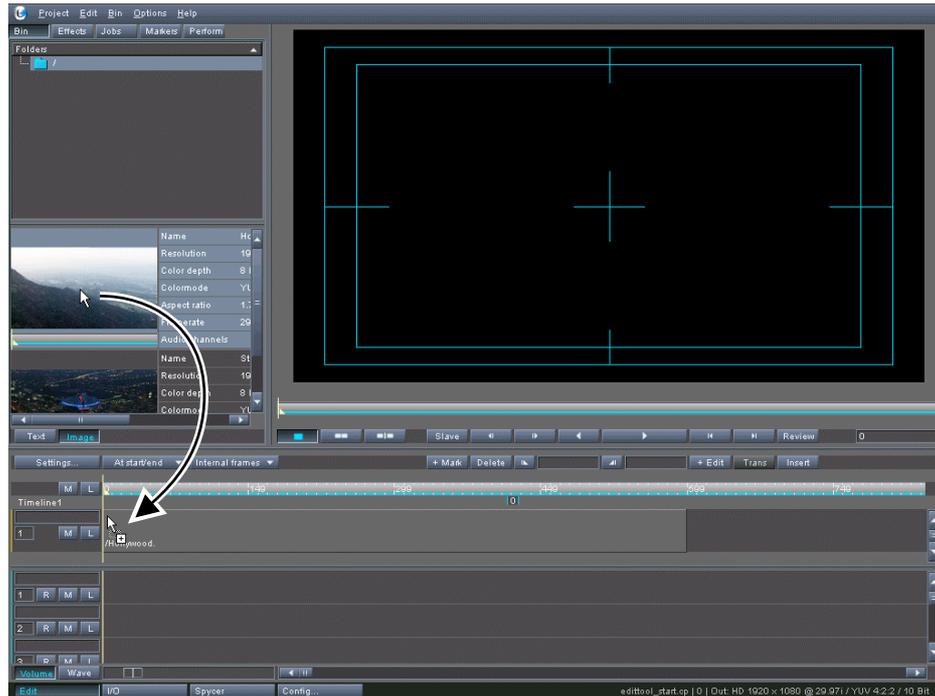
2.2 Adding Clips to the Timeline

When clips are available in the bin, they can be added to the video track of the timeline:



Audio clips can be added to the timeline (i.e. to the audio tracks) the same way as video clips.

- Drag and drop a clip from the bin to the video track of the timeline:



Drag and drop from bin

This will add a representation of the video clip to the timeline.

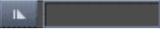
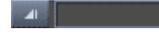
2.3 Working with Clips in the Timeline

The timeline of the Edit Tool can be used most intuitively. In the following you can find some information how to operate with clips in the timeline:



Described in the user guide of the Edit Tool there are several more ways to work with clips in the timeline, e.g. slip and slide trimming or 3-point editing.

- Usually the timeline cursor indicates the position of the frame currently displayed in the video overlay as well as at the output of the DVS system. It may also be used to determine certain positions when editing in the timeline.
- For your work in the timeline there is an insert or overwrite mode available (toggle button **INSERT/OVERWRITE**). The insert mode will preserve your timeline contents (e.g. when adding clips), while in the overwrite mode clips may be overwritten.
- Clips can be moved in the timeline by taking them up with the mouse and dragging them to a new position.
- Clips can be deleted from the timeline by selecting them and pressing the keyboard key [Del].

- When selecting the starting/end point of a clip, a yellow handler will appear enabling you to trim the respective clip, i.e. to change its in- or outpoint on the timeline.
- Clips in the timeline can be cut, copied or pasted as usual under Windows.
- A clip can be split into two or more parts (separate clips) by setting a cutting point. This can also be used to trim a clip. Move the timeline cursor to the position where the cutting point should be applied and press the button **+ EDIT**. Afterwards you may delete a separated part of the clip.
- To define a certain range of the timeline you can apply an in- and outpoint for the timeline (In: , Out: ).

2.4 Adding Effects to the Timeline

There are several features available that enhance the capability of the DVS system.

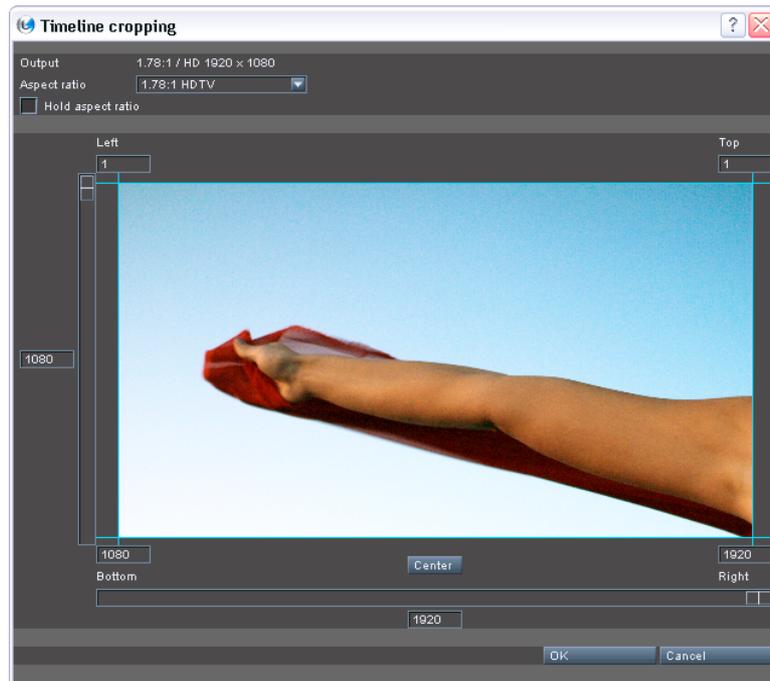
2.4.1 Cropping the Timeline

You can crop the contents of your timeline with the button **SETTINGS...** located in the timeline area. It will open the video output settings window (see "Playing Out the Timeline" on page 2-7) where you can find at the bottom right, besides other possible timeline configurations, the settings to crop the timeline:



Further timeline configurations

A click on the button **CROPPING...** opens the dialog window where you can set a cropping of the timeline:



Timeline cropping window

2.4.2 Setting Transitions in the Timeline

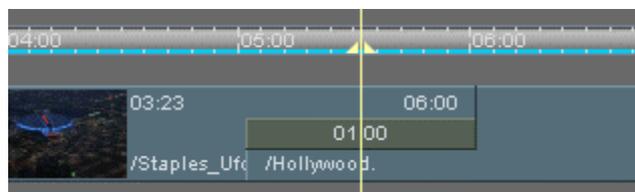
When at least two clips are present in the timeline that provide heads and/or tails (trimmed in-/outpoints), you can add a transition:

- Move the timeline cursor to a cutting point between two clips (e.g. with  / ).

This will make the button **TRANS** available in the timeline area of the Edit Tool.

- Select the button **TRANS**.

A transition will appear between the two clips:



Transition between clips

To configure the transition double-click it in the timeline which will call up the properties of this transition.

2.4.3 Timeline Element Properties



In general, timeline element properties are used to determine the appearance of elements in the timeline (e.g. video clips and transitions). With them you can, for instance, add various effects to video clips in the timeline (effects operators). The following effects may be available on your video system:

Effects Operator	Short Description
1st Color Correction	This operator offers a primary color/gamma correction for video clips as well as an assignment of static look-up tables (LUTs) to the clips.
2nd Color Correction	Provides a vector-based secondary color correction which allows you to color correct video clips with several definable color vectors.
6-Vector CC	Offers six predefined colors for a selective color correction enabling you to manipulate the color values defined by the selected vector.
Flip/Flop	This operator enables you to mirror the video images vertically and/or horizontally.
Zoom + Pan	Allows to set zooming and/or panning for video clips. It is by default available for all clips in the timeline.
DeInterlace	This operator renders a clip from an interlaced image format to a progressive one.

Accessing/Closing the Timeline Element Properties

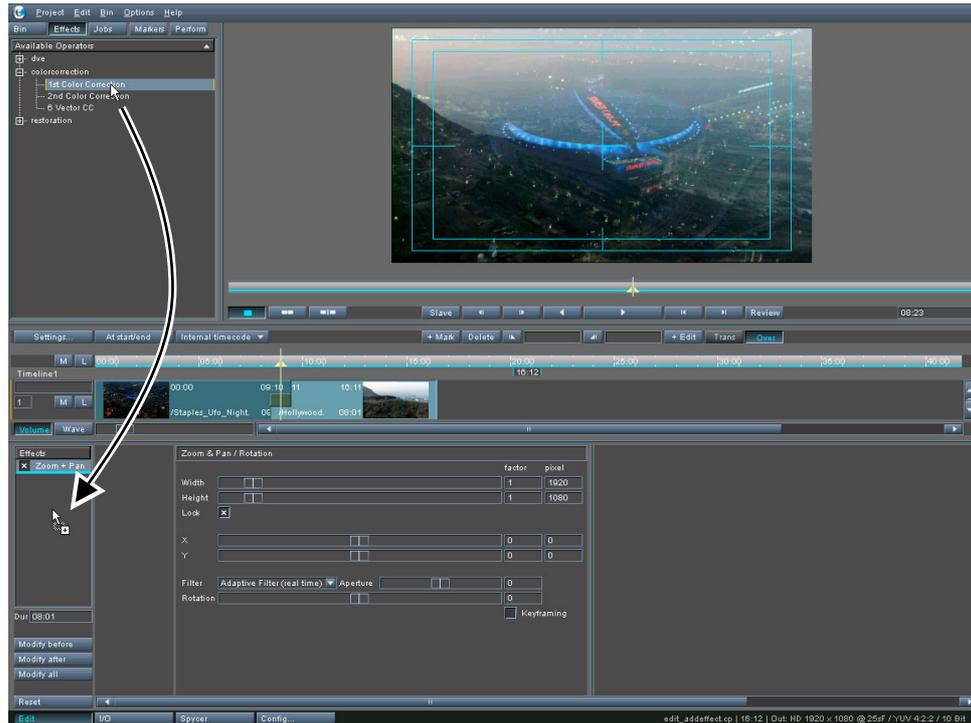
To access or close the timeline element properties double-click a timeline element in the timeline or select from its context menu the menu option **Show properties**.

When accessed, the timeline element properties will be visible instead of the audio tracks right below the timeline area. They will show the properties of the element that is currently selected in the timeline.

Adding an Effect

To add an effect to a video clip in the timeline perform the following:

- Select the video clip that should receive an effect on the timeline.
- Activate the tab **Effects** in the tool area of the Edit Tool.
- Select from one of the folders the operator that should be applied to the clip and drag and drop it to the **Effects** list of the timeline element properties:



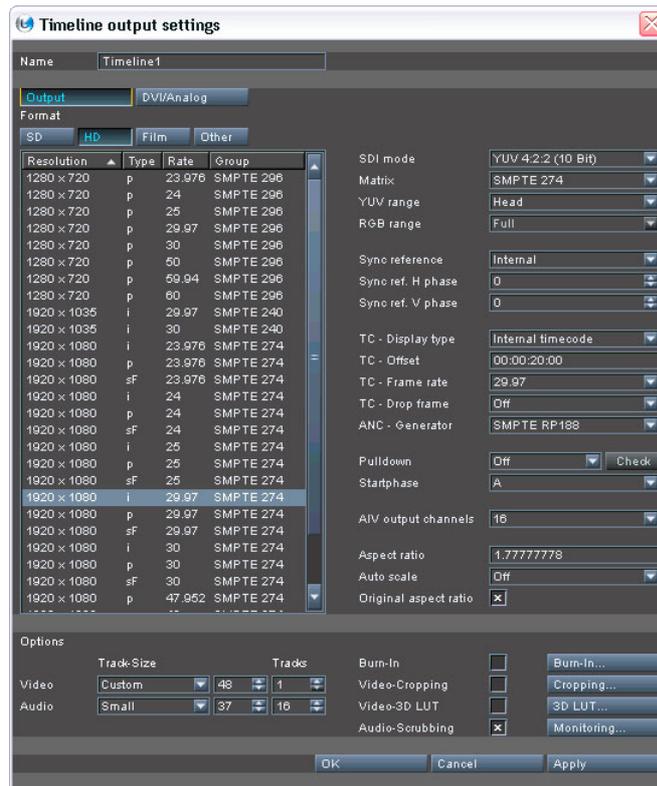
Drag and drop of effect

This will add the effect to the **Effects** list of the clip. Its properties will be displayed in the settings pane of the timeline element properties where they can be adjusted.

2.5 Playing Out the Timeline

Once your work in the timeline is done, it can be played out, for example, via the SDI ports (serial digital interface) of the DVS system. To view the timeline contents, for instance, on a monitor connected to the SDI output(s) perform the following:

- Access the video output settings with the button **SETTINGS...** in the timeline area of the Edit Tool.



Output settings

- Select and configure the output according to the device connected to the output(s), and confirm your settings with the button **OK**.
- Then select in the control area the play button ().

This will start a play-out of the timeline. If your output settings are correct, the signal will be received at the device connected to the output(s).

2.6 Finalizing

A prepared timeline can be finalized to any file format and resolution you want. Afterwards it will be available with all effects applied to the timeline as a new clip (image sequence) on the storage. Furthermore, video and audio can be finalized separately:

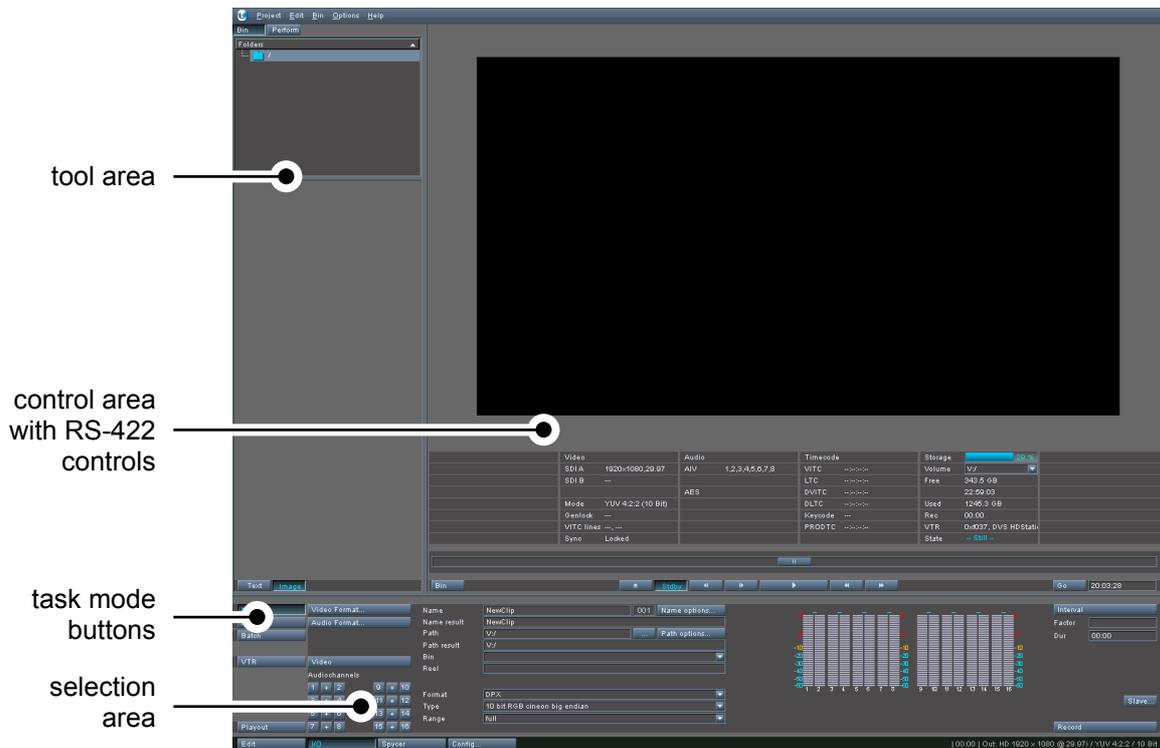
- To finalize and render a new clip from the timeline use the menu option **Project » Finalize....**
- In the opening window configure the video and/or audio settings according to your prepared timeline and the clip to be finalized.
- Then confirm your settings with the button **RENDER**.

This will render the timeline to the stated location.

I/O Tool



The I/O Tool of the DVS software enables you to record video and audio material from telecines, VTRs, digital disk recorders, or even cameras either in an automated batch processing mode or manually. In its Batch record mode it supports fully the use of EDLs or cut lists.



Overview of the I/O Tool

All task modes available in the I/O Tool can be accessed easily via the task mode buttons of the user interface.

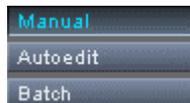
3.1 Capturing Clips

Capturing clips is one of the main functions of the I/O Tool. For this the I/O Tool provides three different record modes:

Record Mode	Short Description
Manual	This mode is used to perform a crash record in the I/O Tool.
Autoedit	Allows to perform a record from a connected external player. Here you can set an in- and outpoint as well as a duration for the record.
Batch	This mode is used to process EDLs, cut lists or a proprietary capture list of the I/O Tool. With it you can perform several different record operations from various sources in one step. Additionally, you can perform an autoconforming by building up a timeline in the Edit Tool from a given batch list.



The Batch record mode is mentioned here for sake of completeness. For information about how to use it please consult the user guide of the I/O Tool.



The record modes can be accessed via the task mode buttons of the I/O Tool's user interface.

3.1.1 General Settings

To perform a record operation you first have to make a set of settings in the selection area of the I/O Tool which will be identical for all record modes:

- Specify the video and/or audio format for the clip to be captured. The set video format has to match the incoming signal, i.e. it must be of the same format and raster.



Items to set the video and audio formats

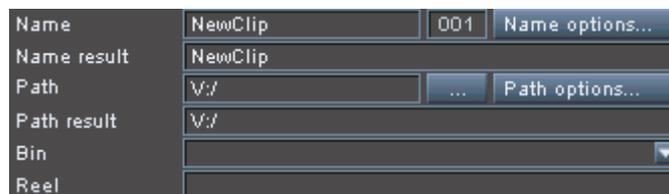
- Select the type of material that you want to capture: audio or video alone, or audio together with video. For this activate the but-

ton **VIDEO** and/or the audio channel buttons of the audio channels that you want to record.



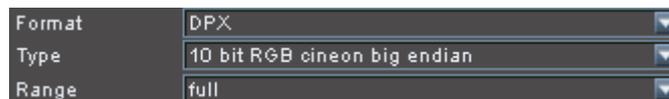
Items to set the record type

- Specify where to save the clip, i.e. enter the clip's name, its directory path as well as a path where to file the clip(s) in the bin (in case folders are present in the bin).



Items to determine the paths

- Set other more file related storage information, such as the file format, the saving type or the color space range.



Items to set more file related storage information

As soon as all of the above said is done, you have to set the mode specific settings for the respective record mode as described in the next sections.

3.1.2 Manual Record Mode

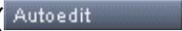
The Manual record mode (**Manual**) can be used to perform a crash record with the I/O Tool. After the general settings (see "General Settings" on page 3-2) are made in the selection area of the Manual record mode, you can initiate a crash record at any time by pressing the button **RECORD** in the lower right corner of the selection area.

The I/O Tool then performs the record and the video overlay shows the signal present at the system's input. To terminate the manual record you have to press the **RECORD** button again.



With a set duration in the field **Dur** prior to a record, you can set the total record time to be captured by the I/O Tool: Once the recorded clip amounts to the stated duration, the record will stop automatically.

3.1.3 Autoedit Record Mode

With the Autoedit record mode () you can perform a record from an external player connected via RS-422. For this you have to set the inpoint, outpoint and duration of the clip to be captured:

- After the general settings are made in the selection area of the Autoedit record mode (see "General Settings" on page 3-2), use the RS-422 controls of the control area to go to the exact inpoint in the material of the externally connected player.
- Then press the **IN** button in the selection area to set the inpoint of the I/O Tool to the selected position.
- After that use the RS-422 controls to move the external player to the desired outpoint in the material.
- Then click the **OUT** button.

In-, outpoint and duration (**In**, **Out** and **Dur**) should now be set in the selection area of the Autoedit record mode.

- Next press the **RECORD** button at the bottom right of the selection area to start the record operation.

The I/O Tool then performs the record in accordance with your settings: The video overlay switches to the live signal present at the system's input and the external player starts its play-out. As soon as the inpoint is reached the record is performed up to the outpoint/duration where the record will be terminated automatically.

3.1.4 Batch Record Mode

With the Batch record mode () you can perform several different record operations from various sources in one step. It supports the use of EDLs, cut lists or a proprietary capture list of the I/O Tool.

Additionally, you can perform an autoconforming in this mode by building up a timeline in the Edit Tool from a given batch list.



The Batch record mode is mentioned here for sake of completeness. For information about how to use it please consult the user guide of the I/O Tool.

3.2 VTR Task Mode (VTR Emulation)

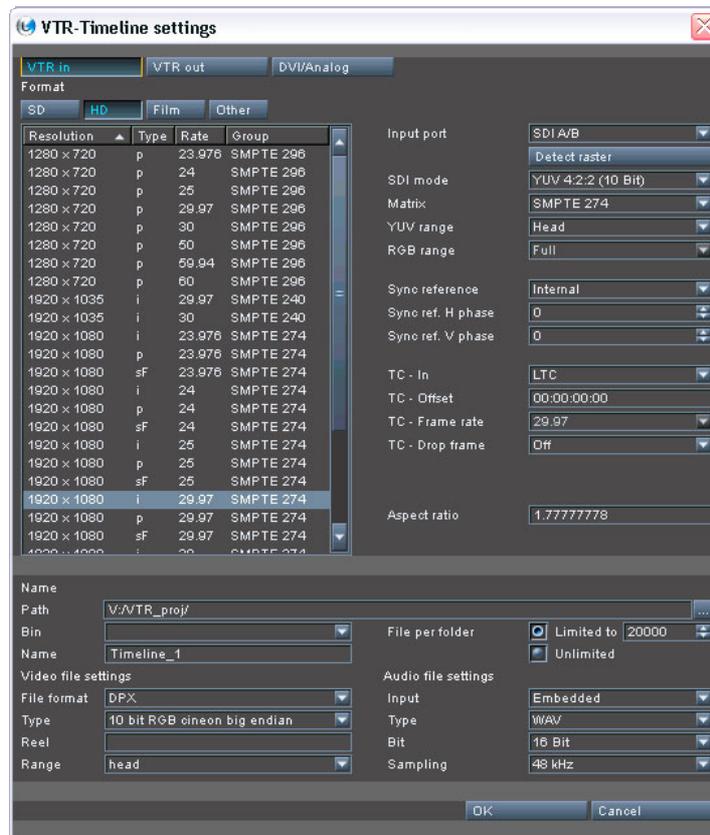


The I/O Tool provides a VTR emulation mode that mimics the behavior of a logical VTR. With this feature the DVS system can be used as a VTR or digital disk recorder and you can easily record material on the timeline of this mode and play it out afterwards.

- Click the button **VTR** () of the task mode buttons to switch to the VTR task mode.

Afterwards you have to create a new VTR timeline to use the VTR task mode:

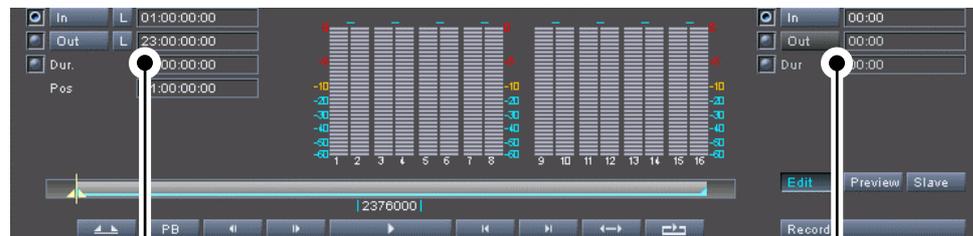
- Select **Project » New** which will open the specification window of the VTR timeline.



VTR timeline base settings

- In this window configure the VTR timeline to your liking. Make sure that at least the input settings match your project's needs because a change of some of them will not be possible afterwards.

Once the VTR timeline base settings are confirmed, the selection area of the I/O Tool shows you the 24 h timeline of the VTR:



VTR timeline (local)

external device

24 h VTR timeline

To the left you can find the position settings of the I/O Tool's VTR timeline. The **L** buttons (**L**) have to be used to activate the in- and outpoint of the timeline. To the right you can find the position settings of the external device connected via RS-422.

The **EDIT/MANUAL** button is a toggle button that switches between an autoedit (control of an external device via RS-422) and a manual (crash record) mode for the VTR task mode.

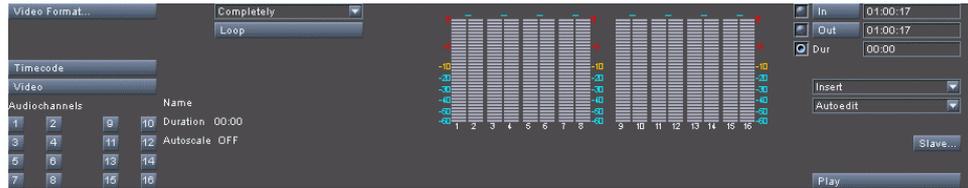


Before recording or playing out with the VTR task mode you have to make the same general settings as for a record operation (except for paths and storage settings which were already set with the VTR timeline base settings; see "General Settings" on page 3-2).

The output video raster is usually locked to the input raster. To configure an output differently from the input settings they have to be unlocked (check box **Lock to Input**).

3.3 Playing Out Clips

The Play-out task mode (**Playout**) allows you to play out clips with the I/O Tool.



Selection area of the Play-out task mode

With it you can, for example, play out clips present in the timeline of the Edit Tool (either in a manual or in an autoedit mode):



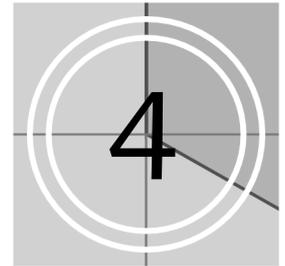
Before playing out with the Play-out task mode you have to make almost the same general settings as for a record operation, i.e. you have to define a video output format and set a play-out type (see “General Settings” on page 3-2).

With the Play-out task mode you can also play out single clips that are present in the bin. Information about this can be found in the user guide of the I/O Tool.

- Prepare or load a timeline in the Edit Tool.
- In the selection area of the Play-out task mode select from the **Autoedit/Manual** combo box whether you want to perform a simultaneous record with an externally connected device via RS-422 (Autoedit) or not (Manual).
- If you want to record your play-out with an external device, you have to set the in-, outpoint and duration with the **In**, **Out** and **Dur** items.
- After that press the button **PLAY** in the lower right corner of the selection area.

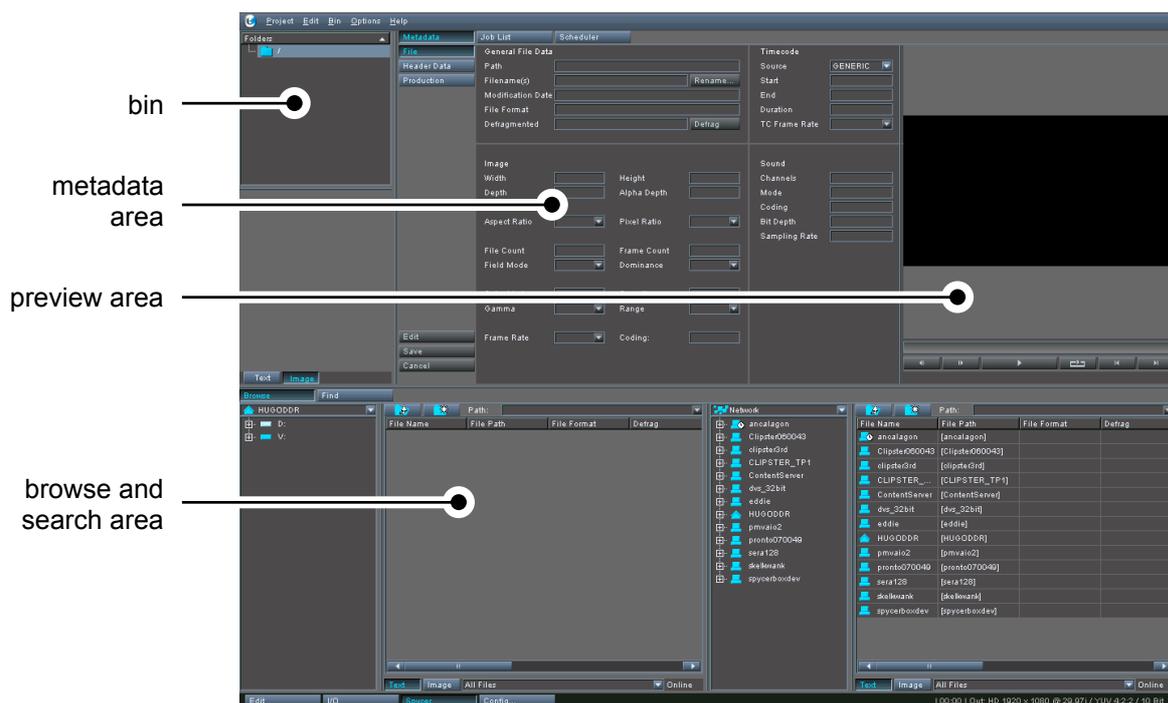
The I/O Tool then performs the play-out and shows the contents of the Edit Tool’s timeline in the overlay as well as at the system’s output. If the autoedit mode was selected, the external device will start a record of the material at the specified inpoint.





Spycer

Spycer, the content management software by DVS, is integrated into the DVS software's user interface as a software module. It provides you with browse, search and management tools to retrieve data and gather information about them locally as well as via a network. Additionally it can be used to preview audio, video as well as other data and add clips to the bin of the software to make them available for your project.



Overview of Spycer

4.1 Enabling the SpycerNet

One strong point of Spycer is the software's capability to enable a decentralized content management as soon as several Spycer applications operate combined in a network. Then they form the SpycerNet,

a scalable distributed content management network, where you can gather information about or search for material that is stored on other workstations. Each Spycer installed in the network maintains a database containing information about the contents locally stored. This information is then accessible and can even be edited from any workstation in the SpycerNet.

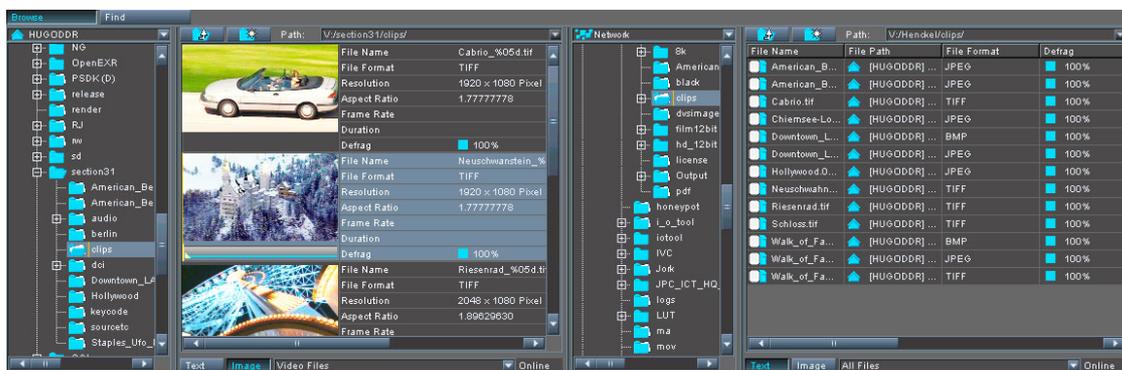
However, ex factory Spycer normally is configured to display the material which is stored locally only, i.e. it is set to the localhost address (127.0.0.1). To enable a network communication between Spycer applications you have to set another IP address via the configuration settings of the DVS software (**Options » Defaults... » group Spycer General**, see also section "Configuration Tool" on page 5-1).

4.2 Browsing and Searching

With the browse and search area you can browse local or network storages or perform searches.

4.2.1 Browsing

An activated button **BROWSE** at the top of the browse and search area displays two browsing panes in the area:

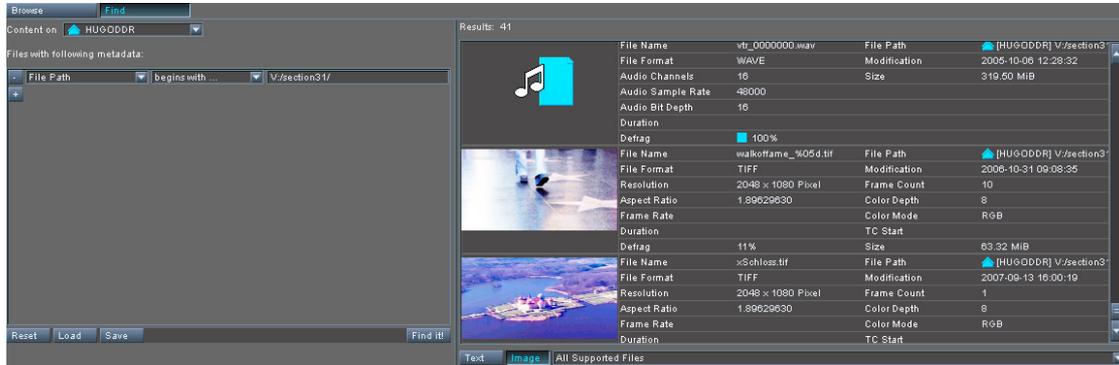


Browsing panes

The two browsing panes enable you to copy or move data between different locations easily via drag-and-drop procedures. Additionally, you can perform directory and file related tasks here by using the context menu of an item (e.g. create, delete or rename files and/or directories).

4.2.2 Searching

The button **FIND** at the top of the browse and search area switches to the search tool of Spycer:

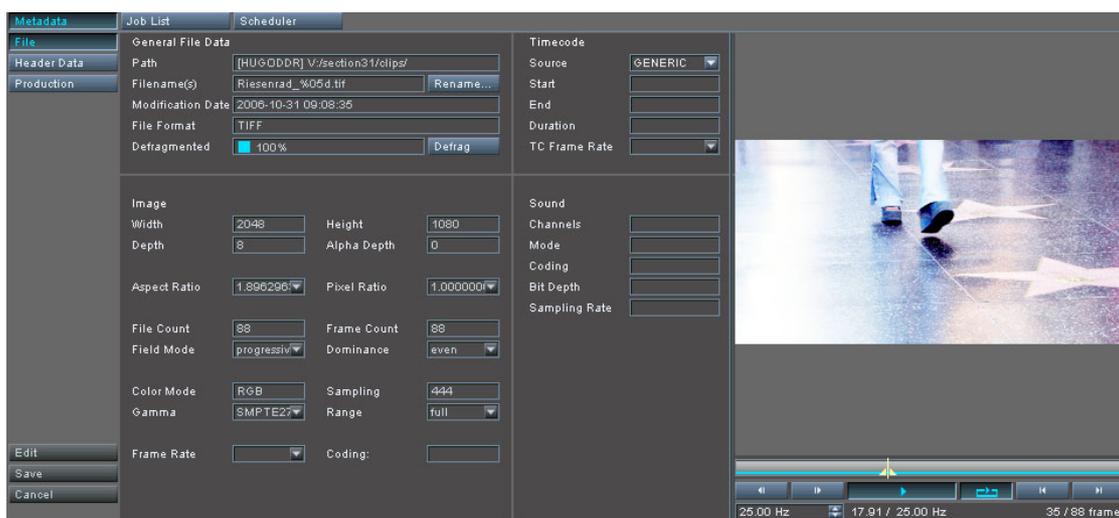


The search tool

With the search tool you can find any material by combining various search parameters, such as file names or metadata information. Once the search location and the search parameters are set, a click on the button **FIND IT!** will display the search results in the results area.

4.3 Viewing Data and Metadata

As soon as material is displayed in the browse and search area it can be viewed in the metadata and preview area. Simply double-click a file with the mouse or select it and press [Enter] to view additional information about it:



Metadata and preview area

To the left you will then see the metadata of the material. With the buttons **FILE**, **HEADER DATA** and **PRODUCTION** you can view more of them, while the buttons **EDIT**, **SAVE** and **CANCEL** allow you to edit them.



Some metadata are provided for review purposes only and cannot be edited because they are direct properties of the respective file. Furthermore, only the header data of *.dpx files edited with Spycer will be saved together with the files. All other edited metadata will be provided virtually by Spycer's database only.

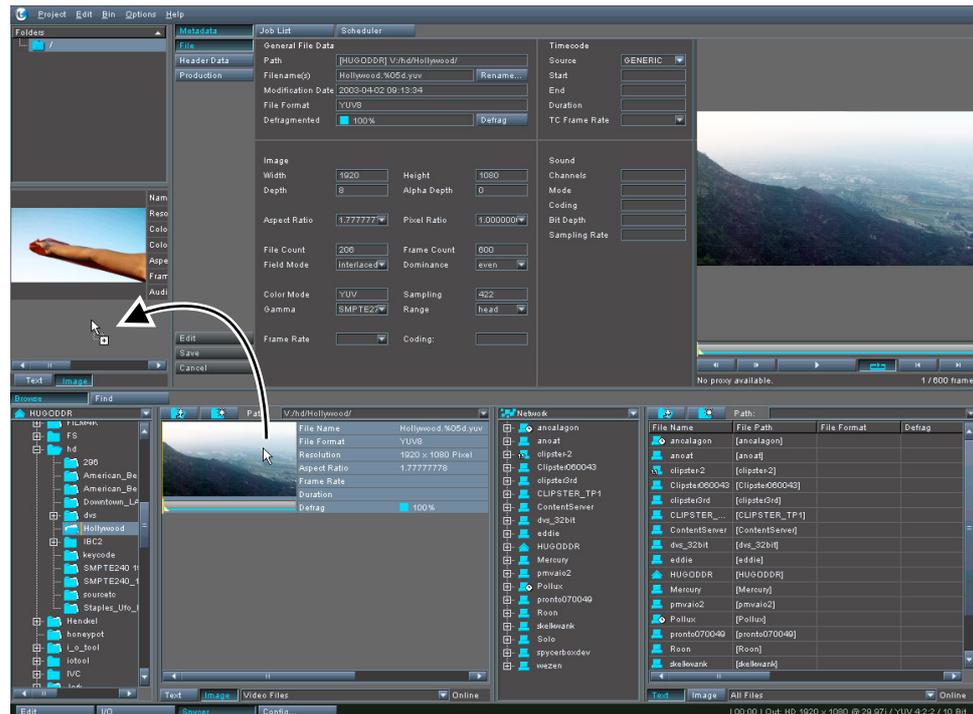
To the right you can find the preview area which can be used to preview 3D LUT files, still images and video clips. By creating and using proxy clips, video material can also be played. Audio clips can be played in the preview area as well.



To create a proxy clip use the menu option **Create proxy** on the context menu of a video clip in the browse and search area. Once the creation of the proxy clip is finished, it can be used for playing.

4.4 Adding Clips to the Bin Using Spycer

Spycer can also be used to add clips to the contents area of the bin. When clips are displayed in the browse and search area (see section "Browsing and Searching" on page 4-2), they can be dragged and dropped into the contents area of the bin:

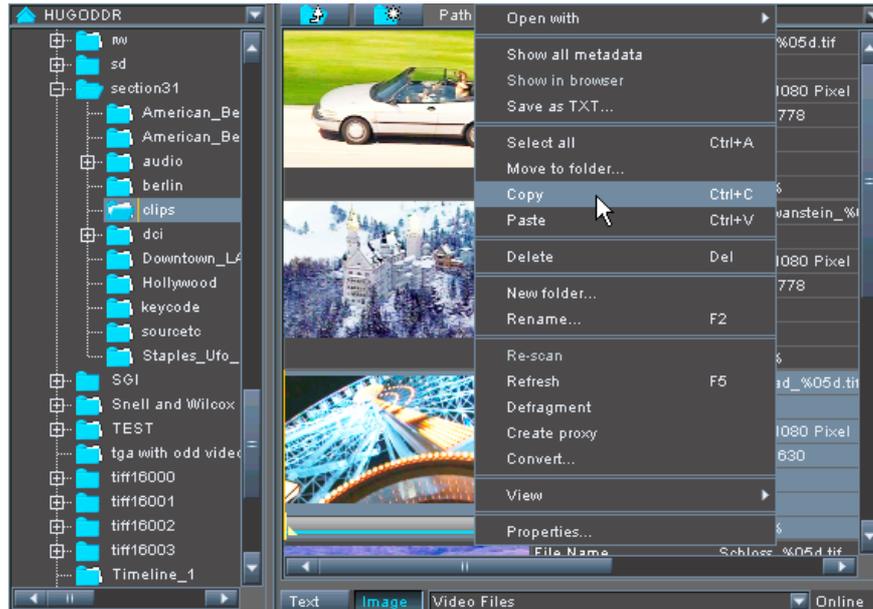


Drag and drop to bin

This will add the selected clip to the contents area of the bin.

4.5 Managing Data

For further management tasks besides copying/moving data or adjusting their metadata, Spycer offers a lot of tools. Most of these can be accessed via the context menu of an item displayed in the browse and search area:



Context menu of a file

Among others the following tools are provided:

High-speed copying	Copies large amounts of data from one storage location to another in about four times the speed of a standard operating system copy.
Defragmenter	Defragments any kind of data and additionally optimizes the physical alignment of image sequences on the storage for optimal real-time performance.
Renaming of image sequences	Changes, for instance, the name prefixes, frame numbers or file extensions of image sequences.
File format converter	Converts still images as well as complete video clips to other file formats.
Scheduler	Initiates, for example, copy, defragment or delete tasks at certain times or intervals automatically (e.g. for management and maintenance operations in the SpycerNet).



The scheduler cannot be accessed via a context menu, but with the button **SCHEDULER** below the menu bar.

Others



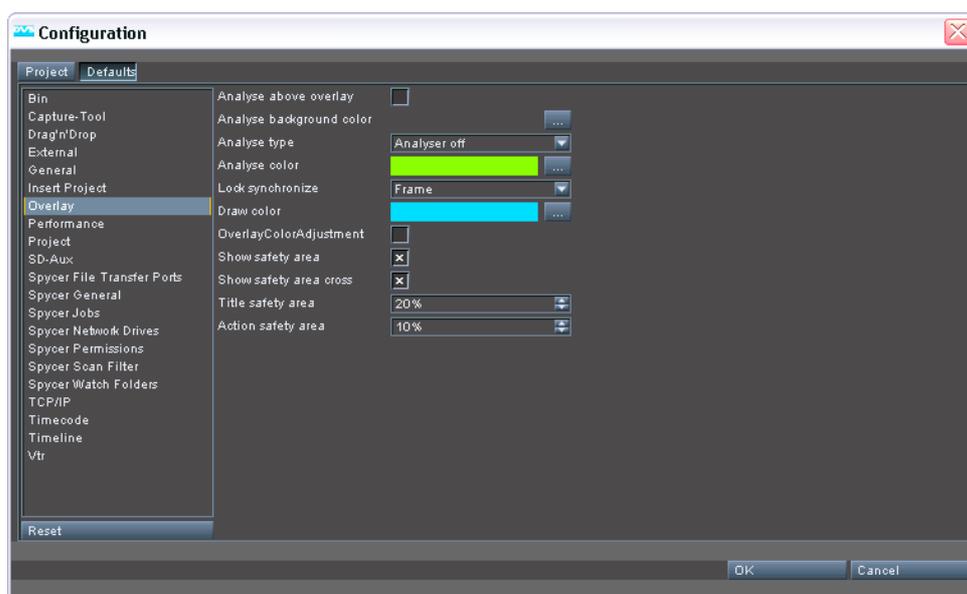
The DVS software provides other modules or useful features, some of them will be sketched in this section.

5.1 Configuration Tool

The Configuration Tool allows you to configure and set up the DVS system and its software. With it you can, for example, set the period for the automatic save function of the project file (autosave) as well as more software specific settings, such as the bin properties.

It provides overall two configuration groupings to define project related settings or default settings that will be used for the DVS system in general as well as for each new project.

The Configuration Tool can be accessed via the task bar of the software's user interface (button **CONFIG...**):



The Configuration Tool

5.2 Slave Mode

The DVS system usually operates as a master. Nevertheless, in the following modes it can be used as a slave via RS-422 as well:

- Edit Tool
The timeline of the Edit Tool is controlled from the external master.
- I/O Tool – Manual record mode
A record is controlled from the external master.
- I/O Tool – Play-out task mode
The timeline of the Edit Tool is controlled from the external master.
- I/O Tool – VTR task mode
Record as well as play-out of the VTR timeline is controlled from the external master.

The slave mode can be activated by pressing the **SLAVE...** button () . Then commands for record, play, stop, jog, or shuttle can be sent via RS-422 and will be carried out by the DVS system.

Normally, the system can no longer be controlled from its user interface when in slave mode, only the master can control it. To enable minimal control of the system without relinquishing the slave mode, some modes display a slave mode control window:

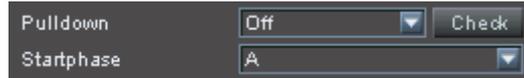


Examples of slave mode control windows

5.3 Pulldown

Pulldown is needed when working with film-originated material. The pulldown feature offers a film-to-NTSC conversion: It renders video data that is in 24 progressive frames/sec (film) as 30 interlaced frames/sec (NTSC).

The pulldown feature of the DVS software can be accessed when you want to in- or output video material, for example, during the settings of the video format (button **VIDEO FORMAT...** in I/O Tool or **SETTINGS...** in Edit Tool, see figure in section 5.4 on page 5-3):



Pull-down settings

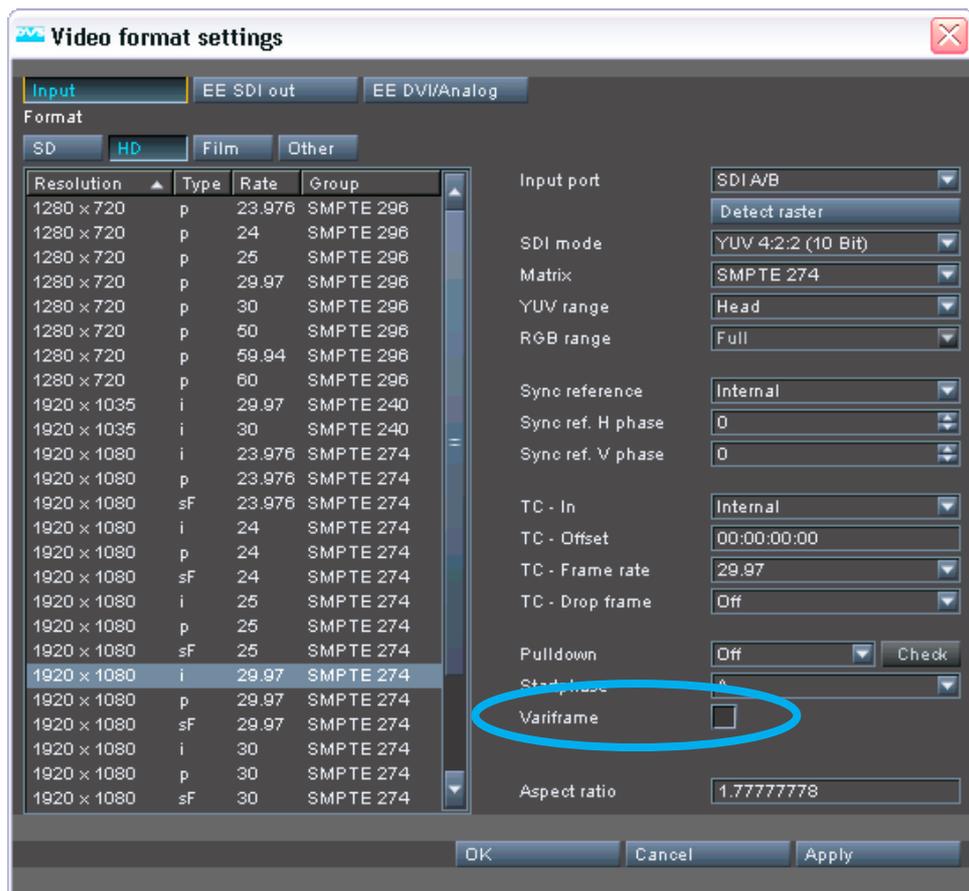
5.4 Variframe



When recording material with the I/O Tool the DVS software offers you the possibility to record video material from particular cameras that support Variframe.

Such cameras send their video data with higher frame rates, e.g. 50 or 60 Hz, and to have it properly recorded, for example, in 24 Hz, certain frames (the frames to be recorded) have to be tagged by the camera. If the Variframe feature is enabled in the software, only the tagged frames will be recorded by the DVS system.

The Variframe feature can be set in the video format settings when capturing video data:



Video format input settings

Headquarters:

DVS Digital Video Systems AG
Krepenstr. 8
30165 Hannover
GERMANY

Phone: +49-511-67807-0
Fax: +49-511-630070
E-mail: info@dvs.de
Internet: <http://www.dvs.de>

Support:

Phone: +49-511-67807-25
Fax: +49-511-67807-31
E-mail: support@dvs.de

For the Americas:**U.S. Headquarters:**

DVS Digital Video, Inc.
300 East Magnolia Boulevard, Suite 102
Burbank, CA 91502
USA

Phone: +1-818-846-3600
Fax: +1-818-846-3648
E-mail: info@dvsus.com
Internet: <http://www.dvsus.com>

Support:

E-mail: support@dvsus.com

