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HyperCam *Overview*

HyperCam captures the action from your Windows screen and saves it as a standard, easily edited, AVI (Audio-Video Interleaved) movie file. This format can be played under Windows, as well as the Internet, unlike other programs that use proprietary formats that may need special viewers and be difficult, if not impossible, to edit. HyperCam lets you define the precise area of the screen you want to capture, unlike MS Camcorder and others that record the entire screen

These files can be useful as teaching tools, to demonstrate software, as a start for animation, and for many other uses. This easy to learn, flexible system will have you making your first screen movie in no time at all.

Features include:

- system-wide hot keys to start, pause, stop recording, and to snap single frames
- easy precision visual screen area or window selection
- unique panning mode lets your area follow your cursor
- multiple video compression choices
- optionally annotate your movies with pop-up text boxes, when recording
- optional sound, with choices for recording quality
- capture in any screen color depth
- automatically incrementing file names for captures
- frame rate, compression, and key frame choices
- convenient, user-definable hot keys, including ‘record pause’
- integrated playback buttons
- mouse cursor recording can be turned on or off, true shape of the cursor is recorded
- optional "starburst" recording on mouse click, customized for size, color and duration
- optional recording of mouse sound clicks
- command line options
- automation - control HyperCam from Automation client programs, e.g Visual Basic

A Quick Start topic is included so you make your first screen movie in a matter of minutes. However, we suggest that it will be worth your time to take the few minutes it will take to browse this brief help file, using the browse sequence buttons above, beginning with Before You Begin. Each of the tabbed options is generally self-explanatory, but the short explanations and performance tips in this document will undoubtedly make your experience with HyperCam a far more rewarding one.

HyperCam *Quick Start*

For the purposes of this introduction, we will be using HyperCam's default values, and basic settings. Later, you will discover the flexibility and ease of use that HyperCam's options offer you.

For best performance, set your color depth to 256 color mode. For further information on the implications of the color mode you choose, see Before You Begin.

- Start HyperCam, and from the Screen Area tab, click on Select Region, and use your cursor to outline a small capture area (approximately 150x150). Notice the sharply defined box you can size, as its size is interactively displayed. Click to confirm the size and position of your capture, and place your mouse cursor in the area.

- Click on F2 (the default start/stop hot key) to begin recording. The HyperCam window will temporarily disappear to allow the capture. Move your cursor within the capture area, and then, after a few seconds, click on F2 again to end the capture.

- Congratulations, you have just made your first movie! It's that simple.

- Now, click on Play in the HyperCam dialog, to view your creation.

Next, take the a few minutes to browse this brief help file, using the browse sequence buttons above. The knowledge and tips you will gain will make it worth your small investment in time, enabling you to get the best results in the shortest time.

HyperCam *Before You Begin*

HyperCam captures the action from your Windows screen and saves it to AVI (Audio-Video Interleaved) movie file. Your machine can be in any color mode, and sound from your system microphone can also be simultaneously recorded. We personally suggest that you consider the following to contribute to your first successful experience with HyperCam.

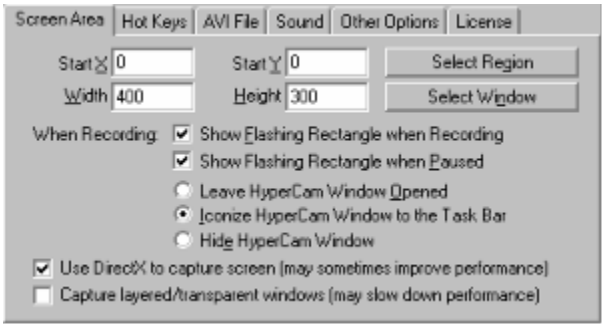
For the best initial performance, we suggest you begin with the 8 bit color mode (256 colors). We have determined that, in this configuration, HyperCam can capture up to ten frames per second of 640x480 images on a Pentium 133 machine. You may capture more if your capture area is smaller, or you have a faster machine. In 16 bit (64K colors) color mode it can do about five fps (frames per second) of 320x240 frames on the same machine. For 4 bit graphics MS Video does not provide a suitable compressor for 4 bit (16 colors) color mode, so the frames are written uncompressed. This is also slow and produces large AVI files, which is why we feel that 256 colors is a good compromise.

HyperCam *Screen Area - Options*

There are three methods for selecting the initial screen area for recording.

- You can select your capture area graphically, from the screen. Clicking on the **Select Region** button provides a convenient, movable and resizable rectangle to appear on screen. Use your cursor or the keyboard arrows to position and anchor one point of the area, and then size the window to your liking. Note that the image size is interactively shown, and the coordinates recorded in the screen area dialog.

- When you click the **Select Window** button, you can move your cursor around the screen to select various screen objects, such as windows, window areas, buttons, etc. These specific areas will be highlighted as you pass over them. Click the left mouse button to accept the highlighted area, or the right button to abort the selection.



- You can also directly enter your choice of the ***x* and *y* screen coordinates,** along with the width and height in pixels, to precisely define your capture area, or fine tune a previous capture.

The **When Recording** buttons determine if a flashing rectangle should be shown around the recorded area or not, and what happens to the HyperCam window when you start recording. It may be left in place, iconized to the task bar, or completely hidden.

0 The *Use DirectX to capture screen* option may improve a little bit the recording performance on some machines. It is not meant for recording computer games using full screen DirectX technology and will most probably fail for such games.

1 The *Capture layered/transparent windows* option will let you capture things like "Office Assistant" in Word, or semi-transparent windows under Windows 2000 or XP. This option may slow down the capture performance, and is incompatible with *Use DirectX* option. Enable only when necessary.

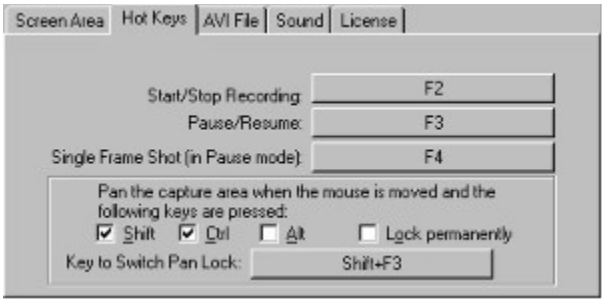
Please note that you should know the hot key to stop AVI recording if you use *iconize* or *hide*, or you may have difficulty terminating a recording. Click on the Hot Keys tab in HyperCam to find out (and change if necessary) the hot key definitions.

HyperCam *Hot Keys - Options*

HyperCam uses four system-wide hot keys:

- to **start and stop** AVI file recording (default is F2)
- to **pause** the recording temporarily and resume it again after a while (default is F3)
- to **snap single frames** and save them to AVI file while HyperCam is in Pause mode (default is F4)
- to switch between **Pan Lock** mode (see the explanation below).

Simply click on the corresponding buttons to redefine the hot keys. When you do, make certain that the blinking I-beam cursor is inside the white space of the edit field, then press the key combination you want to start selected function. If, for example, you want this key combination to be Shift+F9, please hold down the Shift key, then press the function key F9.



With the **Single Frame Shot** hot key (F4 by default) you can make HyperCam capture and save to AVI file single frames at the exact moments you need. Either start the recorder in Paused mode (Start Paused button), or press F3 hot key while recording. Your recorded area mark on the screen will have a big X across it - this means that nothing is recorded. Move the recorded area where you need it, arrange the display you want it, position cursor etc. Now press this hot key and exactly one frame will be snapped and saved to your AVI file. You may repeat this process as many times as you need. If you turned sound recording on, nothing (silence) is recorded in single frame mode. You may terminate this mode at any time by pressing Stop or Resume hot keys/buttons.

Pan Lock

This special HyperCam feature causes the defined screen area to move along with the movement of your cursor. It can be very useful in some cases, to keep the size of your AVI file down, and yet cover more screen area.

The area that is recorded to AVI may be also moved without using the Pan Lock hot key. You may select any combination of the modifier keys (Shift, Ctrl and Alt) which, when held, will cause the record frame to follow your cursor movements. If you check the *Lock permanently* box, the area will be moved without holding any modifier keys. This state may be also toggled on and off using the *Switch Pan Lock* hot key during recording.

Results can be a bit disorienting if not used with proper techniques, so we suggest you experiment with this often useful mode

HyperCam *AVI File - Options*

This option tab lets you choose the several parameters of the AVI file that you record with HyperCam:

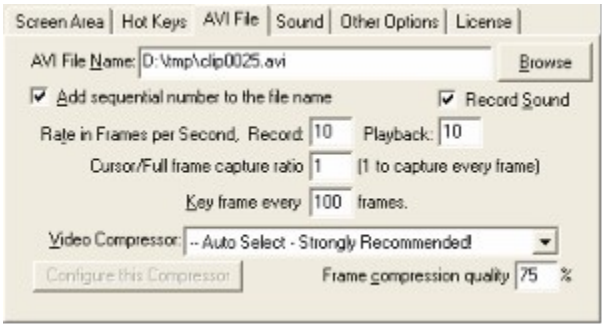
- The **AVI File Name** may be changed by entering the name of the file you prefer. The file name may be preceded by a drive and directory (folder) name, i.e., c:\MyVideos\clip.avi. You may also click on the *Browse* button to select the folder and file name.

If one of your hard disks is faster than the others, we suggest you use that disk as your AVI file destination. Also be certain you have sufficient free disk space on that drive.

- When the **Add sequential number to the file name** box is checked, a number will automatically be appended to the file name each time you press the Start Record button or hot key, so a sequence of files will be recorded, i.e., clip0001.avi, clip0002.avi, clip0003.avi, etc.

Using this option can be a good idea in order to preserve prior, possibly useful, captures. If a file already exists, it will be overwritten with the new capture, and the old capture lost.

- The **Record Sound** box will enable or disable recordings from your system microphone or other sound input. Please note: on some systems, with sound recording on, you will not hear the sounds normally produced by your computer and the running programs. This is due to the fact that most sound cards and their drivers are working in "half duplex" mode, meaning that they can either record or play sounds, but not both at the same time.



The **Rate in Frames per Second** choices let you specify how many movie frames per second will be recorded. If you enter too high a number, and your computer is not fast enough to capture and compress them, HyperCam will drop some frames, or stop completely and tell you about the error. Please see Performance Tips for some advice on what to do in such situations. You may also specify a different playback rate. For example, you could record at 5 frames per second, but have the movie play at 10 fps. If you do this, the Record Sound check box is turned off and disabled, because any sound that you would record would be played at twice the normal speed.

The **Cursor/Full frame capture ratio** should be normally set to one. This means that every frame that is written to AVI file will be fresh captured from the screen. If you set this value higher than 1, for example to 3 - only every 3rd frame will be captured from the screen. The two other frames will only have cursor position updated. Use this setting if you want to achieve smooth cursor movements, while keeping the movie file smaller. This setting higher than 1 also helps if you get the "frame rate too high" error message.

The **Key frame every [ ] frames** value determines how often full frames are written to the AVI file. The frames between them may have only the differences between the current and preceding frame. Higher values may let you help to achieve slightly better frame rates, but also can make it difficult to edit your AVI file in a video editor at a later time.

The **Video Compressor** select box allows you to select the *CODEC,* which is the program that will compress your pictures to make AVI files smaller and enable them to play faster. We recommend the *Auto Select* setting, which will select MS RLE compression for 8 bit color mode, MS Video 1 compression for all higher color modes, and no compression for 4 bit color. Please note that if you want to record AVI files in True Color mode (24 or 32 bit), the default MS Video 1 compressor will still write them as 16 color bitmaps, losing some of the color resolution. You may try the "Full Frames (Uncompressed)" selection to actually record 24 bit bitmaps, or experiment with some other video compressors that are installed on your system. For recording in 16 bits per pixel (65536 colors mode), you could try using Intel Indeo codec in "Quick Compress" mode, which will be about 10-20% faster in compressing, than MS Video 1, the "auto-select" choice of HyperCam.

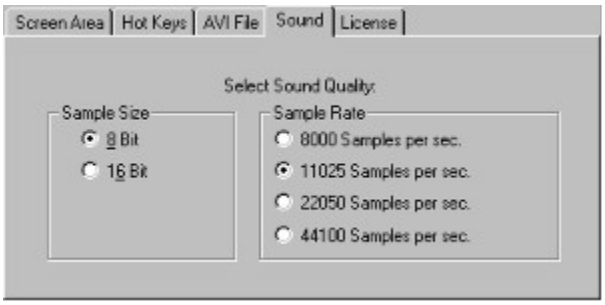
The **Configure this Compressor** button is enabled for some codecs, which allow you to configure additional parameters, specific to the particular codec. E.g. for Intel Indeo you can select there "Quick Compress" or regular compression, a numeric password protection for the file you create etc.

The **Frame compression quality [ ] %** value is used by some video compressors to make a compromise between the speed of compression and size of the picture of the file versus the quality of the picture. You may try to lower this value to achieve faster frame rates, particularly in 16, 24 and 32 bit color modes, but do review what you recorded frequently to verify that you are still satisfied with the picture quality.

HyperCam *Sound - Options*

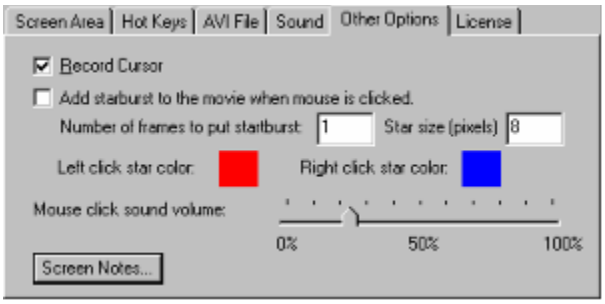
The Sound tab of HyperCam allows you to specify the quality of the sound recorded with AVI movies.

For best performance when you are using a high frames per second rate, select 8 bit samples and a low sample rate. For better sound quality, you may select higher values. A reasonable compromise between performance and quality seems to be 16 bit sound at 11025 sampling rate.



HyperCam *Other - Options*

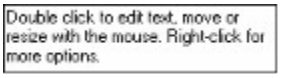
The Other Options tab of HyperCam allows you to modify additional recording parameters, such as whether to record cursor or not, record starbursts on mouse clicks, their size and color. You can also turn on here recording of the sound of mouse clicks – just move the slider to a position higher than 0. Mouse click sounds will be recorded only if you also turn on "Record Sound" option on the sound tab.



The *Screen Notes* feature of HyperCam, available on its *Other Options* tab allows you to annotate your movies with pop-up text boxes while recording.

HyperCam *Screen Notes feature*

The *Screen Notes* feature of HyperCam, available on its *Other Options* tab allows you to annotate your movies with pop-up text boxes while recording. To start using this feature, click the *Screen Notes* button and select *New Note* from the pop-up menu that appears. A small note window will appear in the middle of the screen. Initially the text in it is a short instruction on how to edit this note, similar to this:



Editing a screen note

To edit the text inside the note window, double click the note box. The entire text becomes selected; you may start typing new text at once. To finish editing, just click the left mouse button anywhere outside of the note box.

To move a note box around the screen, just move your mouse pointer over it, press and hold the left mouse button, and move your mouse. The note box will move with the mouse pointer. You may place it over the screen area you intend to record next.

To resize a note box, move your mouse cursor to the corner of the box, press and hold the left mouse button, and move the mouse.

To change the font, colors and frame of a note, right-click in the middle of the note box, and select *Settings* from the pop-up menu. This takes you to a *Note Settings* dialog box, where you may customize note appearance and properties.

Screen Note menu

The screen note menu appears when you click the right mouse button on any note box, and also upon a click on *Screen Notes...* button on *Other Options* tab of HyperCam. You can also access it by a right-click on HyperCam button in Windows task bar. This menu allows you to create and delete notes, hide or show existing notes, and save/restore notes to/from a disk file.

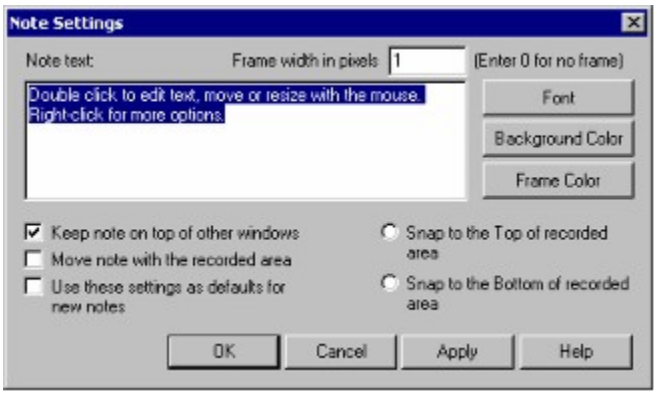
Using Screen Notes to annotate movies

You may prepare a number of notes in advance and hide them, or make the notes on the fly, during the recording session. Whenever you need to pop-up a new note, please pause recording (press F3 hot key, unless you changed it to something else). Now create a new note by right-click on HyperCam button in Windows task bar, or right-click on any existing and visible note. Edit the text and position the note over the recorded area and press F3 again to resume recording.

If you need to remove this note, or reposition it, or change text, press F3 again to pause recording, do any note editing necessary, press F3 to resume.

HyperCam *Note Settings dialog box*

In this dialog box you may change the text and appearance of a screen note - set the width and color of the note's frame, or even completely hide the frame, change the background color, select font face, size and color and more.



The changes you make in *Note Setting* dialog box become visible in the note box after you click the *OK* or *Apply* button.

The new note boxes have by default a "keep on top of other windows" attribute set. This prevents the note box from being covered by other windows. You may turn off this attribute with *Keep note on top of other windows* check box.

If you pan the recorded area during HyperCam recording, you may want your note box move with it, so that it would appear not to move on your movie. For this you may turn on the *Move note with the recorded area* option.

You may also decide to use this note font, color and other settings as defaults for creating new notes. Click into the *Use these settings as defaults for new notes* check box to do so.

You can also select to align the note exactly with the top or bottom of your video frame by selecting one of the *Snap* boxes.

HyperCam Recording and Playing AVI Files

After setting all the parameters for your AVI file, defining the screen area that you want to record, and noting all the hot key assignments, you are ready to start recording. You may start recording immediately by clicking on the **Start Rec**. button or pressing the start hot key (by default F2). You may also start in "paused" mode, where you will see the blinking frame marking the area to be recorded, and be able to pan this area, without beginning to record. To start in "paused" mode, click on **Start Paused** button or press the appropriate hot key (F3 by default). Then, "unpause" when ready by pressing the "pause" hot key (F3 if you did not change it) again.

Once you start recording, you will see a blinking rectangle on your monitor. Everything within this rectangle, including your mouse cursor movements, will be recorded. You may also speak into your microphone and record the sound. The blinking rectangle in which the recording is taking place can be moved (see Pan Lock). You may temporarily pause the recording, and then prepare the recorded program or move the rectangle, by pressing the "Pause" hot key (F3 by default). When ready to resume the recording, press the same "Pause" key again. Finally you may stop the recording by pressing on the start/stop hot key (F2 by default) again. If you did not iconize or hide HyperCam dialog for recording, you may also use HyperCam buttons to start/stop and pause/unpause the recording.

After you record a movie, you may play it by pressing on the **Play** button. However, HyperCam does not perform the playback, but instead is asking your Windows to play it for you, using the default AVI player installed on your system.

You may also click **Edit** button, to edit your movies with a movie editor. If not installed, a message will pop up telling you where to download the editor software.

The **Defaults** button may be use to reset all the options (record area, hot keys, AVI File parameters etc.) to the "factory" default values. HyperCam remembers all the custom parameters that you set, even if you exit it and restart later.

HyperCam *Performance Tips*

If your machine is not fast enough to record as many frames per second, as you requested, HyperCam will try to drop some frames and keep up with as many as possible. However, if it finds out that more than 50% of the frames must be dropped, it will stop with an error message. What can you do to increase the fps rate?

Please try first this suggestion:

- Right click empty Windows desktop and select *Properties* from the pop up menu.
- In *Display Properties* window that appears, click *Settings* tab.
- Check the *Colors* or *Color Quality* setting. Select the lowest setting that is still acceptable for your purposes, e.g. 256 colors, 8 bits per pixel or the *Medium Quality* (also called *High Color*), 16 bits per pixel. Higher color settings will also work, but not as fast.
- Now click the *Advanced* button, and in another *... Properties* window that appears, click the *Troubleshoot* tab.
- Move the *Hardware Acceleration* slider all the way to *None* (to left), then click OK button in both windows.
- Back in HyperCam window, on "Screen Area" tab, make sure that "Use DirectX to capture screen..." option is TURNED OFF, else the above setting does not help.

Now HyperCam should be able to record frames at much higher frame rate than before, at least on most graphics controllers that we tested. When done with HyperCam recording, you may go back to *Display Properties* again as described above, and restore *Hardware Acceleration* to *Full*, or whatever it was before.

If the above suggestion does not help, read on...

- Consider using the "Cursor/Full frame capture ratio..." higher than 1 on "AVI File" tab. For example, if you specify this ration as 3, HyperCam will make a full screen capture for only 1 frame in 3 (every third frame). The other two frames will have just cursor position updated, so that cursor movement will still appear smooth.
- Consider the color depth of your video mode. Today, many computers work in High Color, which uses 16 bits per every pixel and can represent accurately up to 65536 colors, or True Color, which use 24 or 32 bits per every pixel and can represent millions of colors. Pictures in High and True colors modes contain a lot of information to capture from the screen memory, compress and write to AVI file, and this takes a lot of time, processor power, and disk space.

  In many cases, the programs that you want to capture will probably look as good in 8 bit color mode, which can display 256 colors. The programs optimize the color map to make the best use of them, so you really do not lose that much quality unless your subject demands higher color depth. In 8 bit color mode the amount of information to capture and compress is 2, 3, or even 4 times smaller than in the other modes. These pictures can be also compressed fastest, and produce the smallest AVI files. Please consider switching your monitor into 8 bit color mode (256 colors) for AVI recording.
- Try to record your AVI file capture to the fastest hard disk that you have available.
- Try making the "Key frame" value on the AVI tab higher, or the "Frame compression quality" factor lower can help a little in improving the fps rate.

- Consider recording a smaller picture to achieve higher frame rate for your movies. You could make a good use of HyperCam's panning capability to make up for the lower size of your picture.

- Finally, if you really need high fps rate and picture size, you may need to consider using a machine with a faster processor. Dual (and even more) processor machines running under Windows NT, 2000 or XP will be to your advantage, too, as HyperCam is using three program threads when recording. Windows will schedule the threads among all available processors to give you better performance.

Please visit also HyperCam Support Area on Hyperionics web site for more recent tips.

HyperCam *Command Line Options*

HyperCam may be started from a batch file, command prompt window or another application with a number of command line options (switches) that override default settings saved in the system registry, and also may cause it to start recording immediately. A summary of command line switches follows:

-rec	HyperCam starts recording immediately on startup. HyperCam dialog window is iconized to the task-bar.
-recx	Same as -rec, but also on stop recording (e.g. the user presses the hot key to stop recording) HyperCam will terminate.
-hwNN	Selects the recording area to be the same as the area of a window (including frames and title-bar) with handle NN, where NN is a number in decimal notation. This option is useful mainly when calling HyperCam from other applications.
-xNN -yNN -wNN -hNN	Select the recording area (x - left, y - top, w - width, h - height) in pixel coordinates. Upper left corner of the screen is (0, 0). If any value is omitted from the command line, the default value saved in the registry is used.
-fNN	Select the frame rate (in frames per second). NN is a number, decimal fractions are accepted.
-a	This option is for specifying the output AVI file name. The next argument should be the file name itself, for example, HyperCam -a test.avi. Use double quotes to surround the file name, if it contains any spaces.
-i+ or -i-	Turn on (+) or off (-) the adding of incremental number to the file name.
-s+ or -s-	Turns on (+) or off (-) the sound recording.
-kNN	Sets the key frame value for compressed AVI files. NN is an integer number.
-hidden	Run with HyperCam window hidden.

Example:

HyperCam -rec -x100 -y100 -w300 -h200 -i- -a test.avi

will start HyperCam in recording mode. The recorded area will start at (100,100), the width will be 300 pixels, and the height 200. The AVI file name is "test.avi", and no numbers will be appended to the file name.

Controlling another HyperCam window from command line

The following command line options may be used to control another HyperCam window that was started earlier. If another HyperCam window is not started, these options do nothing.

-start	Starts recording, same as if you clicked the "Start Rec." button or pressed the "start" hot key. If HyperCam was in "paused" mode, this will resume recording.
-stop	Stop recording
-pause	Pause recording - or "start paused" if HyperCam was not recording at

all.

-resume	Resume recording, if it was paused.
-hide	Hide HyperCam window
-show	Show HyperCam window in it's previous state (if it was minimized when hidden, it will be still minimized after this command)
-minimize	Minimize HyperCam window
-restore	Restore HyperCam window
-exit	Exit HyperCam completely

Automation - Controlling HyperCam *from Other Programs*

HyperCam may be controlled by other programs, that are Automation (formerly OLE Automation) clients, such as Visual Basic. The client application does this by creating HyperCam object, which effectively starts HyperCam, reading and changing its properties (such as record area, frame rate, AVI file name), and calling its methods e.g. to start, pause and stop recording. The following paragraphs describe the available properties and methods, and gives brief examples on how to use them from Visual Basic.

To use HyperCam as an automation server, it must be run at least once normally on a given machine and from it's current location. This will let HyperCam to register itself in Windows Registry as an Automation Server.

To add HyperCam automation to your VB 5 project, please open "Project" menu in VB, and select "References...". Then click on Browse button, navigate to the directory where HyperCam is installed on your machine and select the file HyperCam.tlb. Click on "Open" button, then make sure that there is a check mark next to "HyperCam" item in VB's "Available References" list. Click on OK. Now you may also view HyperCam's properties and methods in the "Object Browser" under VB's "View" menu.

To use HyperCam object for automation in your VB program, declare an object:

```
Dim hc As HyperCam.HyperCam
```

This can be done e.g. on the global level of your VB module. Next, create HyperCam object somewhere, e.g. after a click on a button or in Form_Load procedure:

```
Set hc = New HyperCam.HyperCam
```

This will start HyperCam program, with HyperCam window invisible. If you want to show HyperCam window, you may call the ShowWindow method:

```
hc.ShowWindow
```

To change a property, just assign it, e.g.

```
hc.FileName = "c:\tmp\clip.avi"
```

and so on. Note that once HyperCam is started as an automation server with the above code, it will not really exit (terminate) even if you make it visible and click on Exit button or close the window. This will only hide HyperCam window, and you may still use it as before. HyperCam will only exit if you destroy the hc object, e.g. by terminating your VB program, or by assigning Nothing to it:

```
Set hc = Nothing   ' this terminates and exits HyperCam
```

A description of properties and methods follows, grouped by corresponding tabs of HyperCam's window:

Note: Most properties that affect the recorded AVI file, can only be changed when recording is stopped (e.g. file name, frame rate etc.). The recorded area position (StartX and StartY properties) can be changed at any time.

General

ActivateTab – takes tab number as integer parameter (from 0 to current number of tabs minus 1) – selects and activates this tab.

CaptureSingleFrame - method, only valid if HyperCam is in Paused mode. Returns True on success, or False on error (e.g. HyperCam was not in Paused mode when called.

DeleteTab – takes tab number as integer parameter (from 0 to current number of tabs minus 1), deletes this tab from HyperCam dialog window. Note: if you delete

e.g. tab 1 (Hot Keys), all the following tabs are moved one number down, so now "AVI File" tab becomes no. 1, "Sound" is no. 2 etc.

GetRecordState - a methods that returns Integer value of 0 if recording is stopped, 1 if it is started, and 2 if recording is paused.

HideWindow - a method to hide HyperCam window. If started as automation server, HyperCam always starts with a hidden window, but you may show it when needed with ShowWindow method, and then hide again with this on.

PauseRec - a method to start recording in Paused mode or toggle between actual record and paused mode.

RestoreAllTabs – restores all tabs deleted with DeleteTab method (so that all 6 tabs of HyperCam are visible again)

ShowWindow - a method to show HyperCam window, when it's hidden. Also, restores the window, if it was iconized. To hide the window back, use HideWindow method.

StartRec – a method to start recording (when HyperCam is in "stopped" mode).

StopRec - a method to stop recording (when HyperCam in recording or paused mode).

Screen Area Tab

FlashRect - get/set property of Boolean type. If set to True, a flashing rectangle is shown around the recorded area during recording. In Paused mode the rectangle with big X is always shown to let the user reposition it.

Height - get/set property of type Integer, to find out or change the height of the recorded screen area in pixels. Can be changed only when the recording is stopped.

StartX - get/set property of type Integer, to find out or change the horizontal position of upper left corner of the recorded screen area in pixels. Can be changed also when the recording is in progress to record a different screen area.

StartY - get/set property of type Integer, to find out or change the vertical position of upper left corner of the recorded screen area in pixels. Can be changed also when the recording is in progress to record a different screen area.

Width - get/set property of type Integer, to find out or change the width of the recorded screen area in pixels. Can be changed only when the recording is stopped.

Hot Keys Tab

DisableHotKeys / EnableHotKeys - methods that turn off/on HyperCam's hot keys to start/stop/pause recording.

AVI File Tab

Compressor - get/set property of String type, to find out or change the codec (compressor/decompressor) that HyperCam will use to compress frames written into the AVI file. The expected or returned string is a 4 letter code of that compressor, as registered in the system, e.g. "MRLE" for MS RLE codec, "cvid" for Cinepak codec and so on. Please note that these names are case sensitive (e.g. "cvid" will work to set Cinepak, but "CVID" or "Cvid" will not work). Also, if there is a space in this 4 letter code, like "DIB " for no compression, it has to be specified as well. (AVI File tab in HyperCam).

CompQuality - get/set property of Integer type, to find out or change the compression quality factor in percents (AVI File tab in HyperCam).

ConfigureCompressor a method, which takes window handle (hWnd) as an argument. It will display currently selected codec's configuration dialog on top of the window specified with hWnd parameter, disabling that window until the configuration dialog is dismissed. If the current codec does not provide a configuration dialog, the function returns FALSE and does nothing. Otherwise it returns only after the configuration dialog was dismissed, and returns TRUE.

FileName - get/set property of String type, to find out or change the AVI file name (AVI File tab in HyperCam).

FrameRate - get/set property of Double type (floating point value) to get the current recording frame rate, in frames per second, or set both record and playback rate. To change the playback rate use PlaybackRate property after setting FrameRate, but this is rarely useful. All these parameters are controlled on AVI File tab in HyperCam.

IncrementFileName - get/set property of Boolean type. If set to True, makes HyperCam to append a sequential number the AVI file name on next start of recording. This prevents overwriting a fine your created in previous record (unless you change FileName property).

KeyFrames - get/set property of Integer type, to find out or change the key frame value in the next recorded AVI file (AVI File tab in HyperCam).

ListCompressor – a "get only" method, that takes as an argument a single integer number, which is the codec position in HyperCam's "Video Compressor" combo box on the "AVI File" tab. Returns a string with the 4 letter code of the codec, followed by a single star (*) character, and the full name of the codec. Sample usage:

S = hc.ListCompressor(1)

will assign the text "cvid*Cinepak Codec by Radius". Values out of range (less than 0, HyperCam's default selection, or greater than the position of last codec) will return an empty string "".

RecordSound - get/set property of Boolean type. If true, sound will be recorded, otherwise not.

PlaybackRate - get/set property of Double floating point type. Allows you to set a playback rate that is different from the actual recording frame rate for the next AVI file that will be recorded.

Sound Tab

RecordSound - get/set property of Boolean type. If true, sound will be recorded, otherwise not.

SoundSampRate - get/set method of Long integer type, to find out or change the rate of sound sampling (in samples per second) if sound is recorded. Valid values are 8000, 11025, 22050 and 44100 samples per second. If you try to set other values, one of the above values will be set instead.

SoundSampSize - get/set method of Integer type, to find out or change the sound sample size. Valid values are 8 or 16 bits per sample. If you try to set another value, either 8 or 16 will be set instead.

Other Options Tab

AddClickStarbursts – get/set property of BOOLEAN type, which decides if starbursts should be recorded or not, when the mouse button is clicked. Valid only if RecordCursor is TRUE.

ClickVolume – get/set the volume of mouse click recording, integer parameter from 0 to 100%

LeftClickStarColor – get/set property of Long type, which decides the color of starbursts that are recorded on left mouse button clicks. Use RGB function to set this value, e.g. hc.LeftClickStarColor = RGB(255, 255, 0) will set this color to yellow.

RightClickStarColor– get/set property of Long type, which decides the color of starbursts that are recorded on right mouse button clicks. Use RGB function to set this value, e.g. hc.RightClickStarColor = RGB(0, 0, 255) will set this color to blue.

RecordCursor – get/set property of BOOLEAN type, which decides if the cursor should be recorded or not.

StarburstFrames – get/set property of Integer type, which decides on how many frames a starburst will appear after a mouse button was clicked. Valid only if both RecordCursor and AddClickStarburst are TRUE.

StarburstSize – get/set property of Integer type, which decides the size of starbursts, in pixels, which are recorded on mouse clicks.

Screen Notes automation calls

CreateNote - a method that takes one text string parameter. Creates a new screen note with the specified text, or the default HyperCam note text, if string length is zero.

DeleteAllNotes - a method that does not take any parameters. Deletes all notes immediately, without asking the user to confirm.

HideAllNotes - a method that does not take any parameters, hides all notes.

ShowAllNotes - a method that does not take any parameters, shows all notes.

ReadNotes - a method taking one parameter as file name string. Reads the previously saved notes from a file. Returns TRUE on success or FALSE if failed.

SaveNotes - a method taking one parameter as file name string. Saves all current screen notes to a file. Returns TRUE on success or FALSE if failed.

GetNumNotes - a method without parameters, returns an integer that is the total number of defined notes.

GetNumNotesVisible - a method without parameters, returns an integer that is the total number of currently visible notes.

ToggleNote - a method that takes one parameter, an integer that is a note number (from 1 to total number of notes). Toggles that note visibility. Returns TRUE on success or FALSE if failed.

IsNoteVisible - a method that takes one parameter, an integer that is a note number (from 1 to total number of notes). Returns a boolean value TRUE (1) or FALSE (0).

GetNoteText - a method that takes one parameter, an integer that is a note number (from 1 to total number of notes). Returns a string that is the text that this note currently displays.

SetNoteText - a method that takes 2 parameter, an integer that is a note number (from 1 to total number of notes), and a text string to set as the text which should be displayed in that note. Returns TRUE on success or FALSE if the text could not be set.

GetNoteWindowHandle - a method that takes one parameter, an integer that is a note number (from 1 to total number of notes). Returns a window handle (HWND) as long integer. The handle can be used with Windows API calls to manipulate the window, e.g. change its size and position etc. Returns NULL (zero) if failed.

SetNoteBackColor - a method that takes 2 parameter, an integer that is a note number (from 1 to total number of notes), and a long integer that is the desired background color (in hex notation this would be BBGGRR, same as COLORREF type in C++). Returns TRUE on success or FALSE if failed.

SetNoteTextColor - a method that takes 2 parameter, an integer that is a note number (from 1 to total number of notes), and a long integer that is the desired text color (in hex notation this would be BBGGRR, same as COLORREF type in C++). Returns TRUE on success or FALSE if failed.

SetNoteFrameColor - a method that takes 2 parameter, an integer that is a note number (from 1 to total number of notes), and a long integer that is the desired frame color (in hex notation this would be BBGGRR, same as COLORREF type in C++). Returns TRUE on success or FALSE if failed.

SetNoteFrameWidth - a method that takes 2 parameter, an integer that is a note number (from 1 to total number of notes), and a long integer that is the desired frame width in pixels. Returns TRUE on success or FALSE if failed.

SetNoteFontHeight - a method that takes 2 parameter, an integer that is a note number (from 1 to total number of notes), and a long integer that is the desired font height. Returns TRUE on success or FALSE if failed.

Below is a fragment of VB code, that start HyperCam without showing it's window, sets a few recording parameters, then records for 10 seconds and closes. If you are interested in Visual C++ code sample, please contact Hyperionics by email.

```
Dim hc As HyperCam.HyperCam
Dim StartTime as Long

Set hc = New HyperCam.HyperCam' this starts HyperCam

hc.FileName = "c:\movies\test.avi"
hc.FrameRate = 8
hc.StartX = 0
hc.StartY = 0
hc.Width = 400
hc.Height = 300
StartTime = Timer
hc.StartRec
Do While Timer < StartTime + 10
DoEvents        ' Yield to other processes
Loop
hc.StopRec

Set hc = Nothing        ' Release and exit HyperCam, if no longer needed
```

HyperCam *Purchase and Registration*

You can license this program right from our web page: www.hyperionics.com - click the "On-line store" or "Purchase" link there. We offer many different ways to order, including secure web forms, phone, fax and mail ordering, and processing of corporate purchase orders. However, since the ordering information is likely to change in the future, and the copy of HyperCam you downloaded may be several months, or even years old - we require you to access our web page for the most current ordering information.

Available license packages

We sell **single user licenses** for home and corporate use (with volume discounts, when applicable), and corporate unlimited site and world-wide licenses.

Our **site license** is valid for up to 500 users, all working for the same company/organization and at the same physical location.

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To find the current prices, please visit us on the web at www.hyperionics.com.

Non-US users should also examine our list of International vendors, there might be one close to you.

Hyperionics *International Distributors*

For the most current list of Hyperionics international distributors, please visit our Web site at www.hyperionics.com. This list may be of interest mostly to those who need to pay by check. Hyperionics can only accept checks drawn on a US bank, but you may use local checks with our non-U.S. distributors. Users in the US should see the previous section, and if they wish to pay by check, print and fill out the registration form they can get to from that section.

Here is a list of our international distributors includes (countries listed in alphabetical order) active at this writing.

Australia - ThumbsPlus Pty Ltd.
PO Box 612, Belgrave, Victoria, 3160
Australia
Phone: 03 9752 5850 Fax: 03 9752 5849
Email: sales@hypersnap.com.au, support@hypersnap.com.au
http://www.hypersnap.com.au

Germany - Sharible (HyperCam in Germany is sold under WinCorder name)
Vogel Datentechnik
sharible Leserservice
Masurenweg 1
D-85521 Ottobrunn, Germany
phone and fax (ISDN) is: +49 +89 6085 1220
http://www.sharible.de/software/hyperionics/

Japan - OddieSoft
Email: **esteban@oddie.com**
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Gangnamgu, Seoul, KOREA
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HyperCam *Contact Information*

For the latest version of HyperCam, and details on our other software, please click here to visit the our web site:

Other Hyperionics products, available also from the above web site:

HyperSnap-DX still screen capture utility and image editing for Windows. Can capture regular Windows programs, as well as screens games/multimedia programs that use DirectX and 3Dfx GLIDE technology, and some video/DVD screens.
FileBox eXtender - this product enhances the standard Windows file dialogs in a totally new, elegant and non-intrusive way---by placing small icon buttons in the title bars of these windows. The buttons provide easy one click access to your favorite folders and documents as well as to a list of recently used folders.

Thank you for using HyperCam! Please do contact us for technical support, questions, comments, and suggestions for improvement you may have!

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