

Version

2010

INTERACTIVE FRONTIERS, INC.

The V1 Professional Digital Coaching System Version 2010



User Manual

Last updated: June 22, 2010

THE V1 PROFESSIONAL DIGITAL COACHING SYSTEM 2010

User Manual

©2010 Interactive Frontiers Inc.
6134 Gotfredson Road
Plymouth, MI 48170
Phone +1.734.357.2214 • Fax +1.734.357.2961
Web: <http://www.v1pro.com>

Table of Contents

1 GETTING STARTED			
What's New in Version 2010?	1	Impact Trigger Options	29
System Requirements	2	Recording Audio	30
Installing the V1 onto Your System	3	The HYTEK USB Force Plate	31
Launching the V1	5	4 WORKING WITH VIDEO	
Database Setup	6	Delete	33
Software Activation and Registration	7	Move	34
Importing from version 5.7	8	Trim	35
Start Menu and Clubhouse News	9	Video Database	36
About the User Interface	11	Finding Tabs	40
Teaching with the V1 – An Overview	14	Database Options	43
		Importing Video	46
2 VIDEO PLAYBACK		5 DIGITAL ILLUSTRATION	
Previewing and Opening Video	15	How to Draw	47
The Video Controls	16	Lines	48
Impact and Key Position Buttons	18	Angles	48
Tempo	19	Boxes	48
Flip	19	Circles	49
Loop	19	Text	49
Comparison	20	Erasing	50
Overlay	21	Snapshot	50
Live Video Overlay	21	Line Styles	51
Playback Options	22	6 DIGITAL EFFECTS	
Printing	24	Wedge	53
		Zoom	54
3 VIDEO RECORDING		Enhance	54
Live Video Options	25	Measure	55
Live Video Preview	26		
Switching Cameras	27		
Using Two IEEE-1394 Cameras	27		
Recording	28		

7 ADVANCED EFFECTS

Time-Lapse	57
Key Frames	57
Multiple Exposure	58
Slide	59

8 WORKING WITH STUDENTS

Student Information	61
The Current Student	64
Import and Export	65
Smarter Lessons	65

9 INTERNET ACADEMIES

Academy Options	67
Receiving Video to be Analyzed	71
Recording a Lesson	72
Uploading your Lessons	76

Downloading from Your Locker	76
Managing your Drills and Intros	76
Downloading Model Videos	78
Downloading YouTube Video	79
Recording CD Lessons	79

10 MORE OPTIONS

Software	81
Camera Options	83
Display Options	85
Launch Monitor Options	86

11 TROUBLESHOOTING

FAQ	87
The System Info Window	89
Technical Support	90
The V1 Learning Center	90

Getting Started

A Quick-Start guide to this powerful new release

This chapter contains valuable information about the installation and basic operation of the V1. It begins with an overview of what's new since version 2009. There's also an overview of the user interface, and an overview of how the V1 is used in a coaching environment.

What's New in Version 2010?

Version 2010 builds upon the comprehensive improvements that were introduced in version 2009. Here's a quick glance at some of the changes we've made this year:

- Enhancements to the appearance of the Bin and Tab buttons have been made to improve contrast and readability



- The Student database window has been upgraded with **Edit** and **Save/Cancel** buttons to prevent accidental edits
- Connect your V1 Branded Academy content to your social media websites--instructors may choose to automatically copy a lesson to their YouTube channel, Facebook fan page, and then even Tweet the link



- Lessons may now be copied to multiple (or all of your) students with a single upload and a reduced fee rather than multiple uploads and a full-priced lesson fee for each copy

V1 PROFESSIONAL 2010

- Create an ad-hoc playlist by selecting multiple tabs and then using the Play button
- Now use the Zoom/Pan tool in conjunction with the video comparison overlay feature to easily line-up video that was shot from unequal distances or of subjects of differing heights
- Now open Live video while recording a lesson--the lesson will be “paused” while Live video is being displayed unless you are also in Compare mode and comparing Live video to previously recorded video
- Choose to rotate video 90 degrees clockwise or counterclockwise when using the Trim command
- The ability to listen to the audio memos that have been recorded and uploaded along with the video from your students using the V1 Golf iPhone app



- Smarter default swing position calculations and the ability to set a custom default “swing tempo”

System Requirements

V1 Pro has the following minimum requirements:

- Microsoft Windows® XP (Service Pack 3), Vista or Windows® 7
- Intel® Pentium® 4, M, Centrino®, or AMD Athlon 64
- 5 GB free hard disk space
- 1GB system RAM
- 1024x768 XGA monitor
- 16 MB DirectX®-compatible display adaptor
- DVD-ROM drive
- Internet connection
- Sound card with speakers and PC microphone

V1 Pro has the following recommended configuration:

- Microsoft Windows® 7 (32-bit)
- Intel® Core® processor (i3,i5,i7)
- 500GB or larger hard drive
- 2GB system RAM
- 1280x800 WXGA monitor
- NVIDIA premium video graphics adaptor
- DV camcorder or digital video camera (AVI, MOV, MPEG4, H.264)
- Optical mouse with wheel
- External video monitor to view tool-less output
- DVD-RW drive
- Broadband Internet, at least 8 Mbps down / 2 Mbps up
- Sound card with speakers and PC microphone
- Secondary USB microphone for Internet lessons

Installing the V1 onto Your System

You may have purchased a computer system pre-loaded with the V1. If you are installing the V1 yourself from a DVD, follow these steps to install the V1 software onto your system:

1. Insert the V1 software DVD into your DVD -ROM drive.
2. Wait a moment or two. Most Windows® systems will detect that a DVD has been inserted, and then automatically launch the “setup.exe” program on the DVD.
3. If the installation begins automatically, skip to step 7. Otherwise...
4. Click the Windows® **Start** or  button. On XP, click **Run**.
5. In the **Run** or **Search programs or files** box, type the letter assigned to your DVD -ROM drive followed by a colon and the word “setup.” (For example, d:setup).

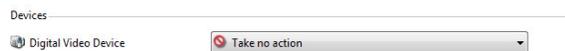
6. Press **Enter**.
7. Follow the on-screen instructions to properly install the software.
8. You must accept the end-user software license agreement (EULA) by clicking **Yes** to continue the installation.
9. We recommend that you accept the default destination location (Program Files\V1 Professional 2010) and the default program menu folder (Interactive Frontiers).
10. We recommend that you install only the **System Component Updates** that have been automatically selected for you. If the V1 installer detects the presence of a required component, it is not necessary to re-install that component, and doing so may result in unnecessary installation delays.
11. Click **Next** to begin the installation. If version 2009 is installed, it will be automatically removed and replaced with version 2010.
12. The V1 will automatically create icons for itself on your desktop and on your **Start** menu under the folder Interactive Frontiers.
13. Click **Finish** to close the installer.
14. Now, double-click the V1 software icon and you are ready to begin using the V1.



When you first connect a streaming camera to the computer and turn it on, you may see a window like the one below.



On Windows XP, you need to select **Take no action** and then check the **Always perform the selected action** option. On Vista or Windows 7, click the **Set AutoPlay defaults in Control Panel** link and change the Digital Video Device option to **Take no action**.



This will ensure that your camcorder will work properly with the computer and the V1 software. Otherwise, Windows will try to capture your camera for use

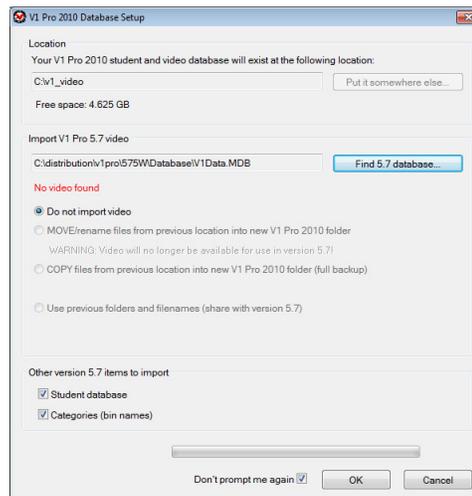
with Microsoft's Movie Maker program. If this happens, your camcorder will be unavailable for use in the V1 software.

Launching the V1

 To open the V1 software, double-click the **V1 Pro 2010** software icon found on your desktop. You may instead click your computer's **Start** or  button, then **All Programs**, then **Interactive Frontiers**, and then finally **V1 Pro 2010**.

Database Setup

If you are upgrading from version 2009, there is nothing you need to do to migrate your database; it's all automatic. If you are upgrading from version 5.7 however, you will have to consider how you want your existing 5.7 data to be used in this version, and then make a couple of decisions. If you are new to the V1, just click **OK** to create your new database.



The V1 will choose a drive for your video database. If you have more space on another drive, you have the option of choosing a new location by clicking **Put it somewhere else**. Otherwise, it is recommended that you keep the default location.

The V1 will attempt to locate a 5.7 database. If you have one, and it is not found for some reason, click the **Find database** button to correct the situation. You now may choose to:

Do not import video

Choose this option to maintain a completely separate database of video.

MOVE files into the new V1 Pro 2010 folder

Choose this option if you will no longer be using version 5.7. Video will be renamed to the new version 2010 format, and files will be physically moved from the older locations to the new locations. Video will no longer be available in version 5.7. Note

V1 PROFESSIONAL 2010

that if you had previously used multiple drives with version 5.7, it may not be possible to move all video to a single folder. This option may not be un-done.

COPY files into the new V1 Pro 2010 folder

Choose this option to make a complete backup of your video into the new folder. Video will then exist in both the 5.7 and 2010, and changes made to one will not affect the other. This option is only possible if there is enough physical hard drive space to copy every video.

Temporarily use the same folder (share it with 5.7)

Choose this option only if absolutely necessary (a COPY is not possible, and you wish to continue to use version 5.7). Once the 2010 database is created, newly recorded 5.7 video will continue to be imported into 2010. However, video that you record in 2010 will not be imported into version 5.7's database. A disadvantage of this option is that video will retain their 5.7 filenames, which will not match version 2010's naming convention.

Other version 5.7 items to import

Student database

This option will import student records from version 5.7. If the student already exists in 2010, it will not be re-imported or overwritten.

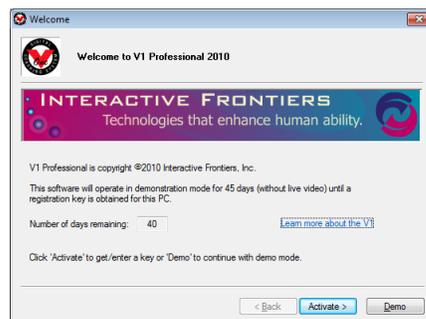
Categories (bin names)

By default, version 2010 will create several categories to match the old 5.7 bin names.

When you are ready to proceed, click **OK**. If you choose the **Don't prompt again** option, you may find the import tool from a button on the Options/Database page.

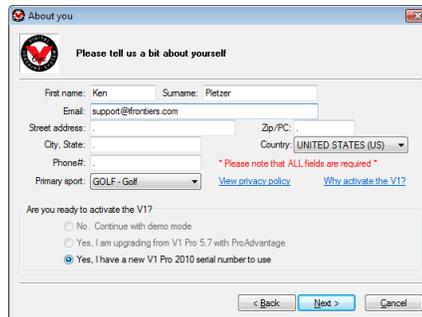
Software Activation and Registration

After your database has been setup, the following Welcome window appears:



V1 PROFESSIONAL 2010

You have 45 days in which to operate the V1 in demonstration mode before the software must be activated. In demonstration mode, it is not possible to view live video (or to record). If this is the first time you opened the V1, you must click **Next** on the Welcome page.



The 'About you' dialog box is titled 'Please tell us a bit about yourself'. It contains the following fields and options:

- First name: Ken, Surname: Pletzer
- Email: support@frontiers.com
- Street address: [empty]
- City, State: [empty]
- Country: UNITED STATES (US)
- Zip/PC: [empty]
- Phone#: [empty]
- Primary sport: GOLF - Golf
- Buttons: View privacy policy, Why activate the V1?

Below the form, there are three radio button options for activation:

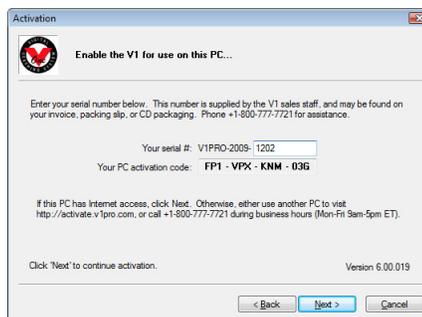
- No. Continue with demo mode
- Yes. I am upgrading from V1 Pro 5.7 with ProAdvantage
- Yes. I have a new V1 Pro 2010 serial number to use

At the bottom are buttons for '< Back', 'Next >', and 'Cancel'.

After entering your name, email address, street address, country, Zip/PC code and phone number on the “About You” page, you either may select to continue in demo mode, upgrade your 5.7 license, or activate the software by entering your new serial number.

In order for all V1 features to become available, the software must be “activated” for use on a specific PC. Activation requires that you first obtain a serial number from Interactive Frontiers, and then (if you don’t have an Internet connection) exchange a set of codes with your salesperson.

Choosing to activate by upgrading your existing 5.7 license allows your version 5.7.195 or newer to operate in “courtesy mode” on this PC only. Version 5.7 must remain installed and updated to use this option. Click **Next** to continue.



The 'Activation' dialog box is titled 'Enable the V1 for use on this PC...'. It contains the following information:

- Enter your serial number below. This number is supplied by the V1 sales staff, and may be found on your invoice, packing slip, or CD packaging. Phone +1-800-777-7721 for assistance.
- Your serial #: V1PRO-2009-1202
- Your PC activation code: FP1 - VFX - KNM - 036
- If this PC has Internet access, click Next. Otherwise, either use another PC to visit <http://activate.v1pro.com>, or call +1-800-777-7721 during business hours (Mon-Fri 9am-5pm ET).
- Click 'Next' to continue activation.
- Version 6.00.019

At the bottom are buttons for '< Back', 'Next >', and 'Cancel'.

After entering your serial number, there are three ways to complete activation:

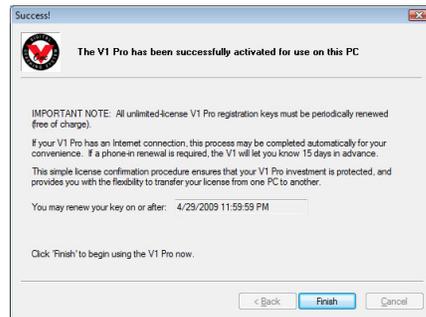
1. If your V1 PC is connected to the Internet, click **Next**, and the V1 will do the rest.
2. If you have another PC connected to the Internet, browse to <http://activate.v1pro.com> and enter your serial number and PC activation code (the 12 digit number displayed below your serial number).
3. Otherwise, call Interactive Frontiers at +1-800-777-7721.

V1 PROFESSIONAL 2010

If the V1 was unable to continue automatically, the next page prompts you to enter your registration key:



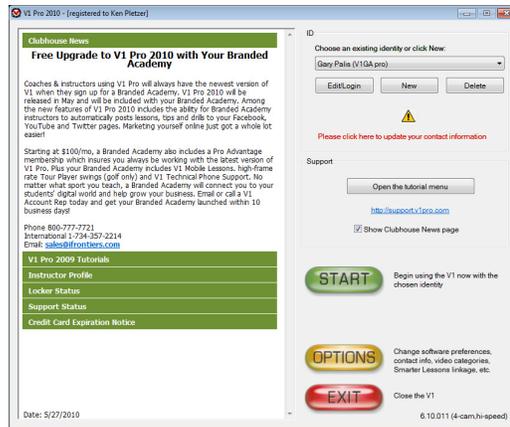
Your registration key consists of 25 characters broken into 5 groups of 5 characters each. If your V1 PC is connected to the Internet, check the **Automatically retrieve future keys from the Internet** option before the **Click to retrieve your key via the Internet** button to further streamline the process for future key renewals. Once a valid key has been entered, click **Next** one more time.



NOTE: All unlimited-license V1 Pro registration keys must be periodically renewed (free of charge). If your V1 Pro has an Internet connection, this process may be completed automatically for your convenience. If a phone-in renewal is required, the V1 will notify you each time that you launch the software once there are fewer than 15 days remaining. This simple license confirmation procedure ensures both you and Interactive Frontiers that your V1 Pro investment is protected, and provides you with the flexibility to easily transfer your license from one PC to another.

Start Menu and Clubhouse News

Once you have activated or started your software demo, you will see the Start Menu and Clubhouse News window:



If you'd prefer not to see news and notes about the V1 and your academy statistics, you may uncheck the **Show Clubhouse News page** box.

You will only be able to click the **Open the tutorial menu** button if you installed the V1 Professional 2010 video tutorials during the software installation.

A default instructor identity has been created for you. However, before you click **Start**, you may wish to login to your Internet academy account—do this first by clicking the **Edit/LogIn** button. You only need to do this if you will be performing Internet lessons or exchanging video with your academy locker. You will be able to perform Internet lessons without having to be connected physically to the Internet at the time of your lesson.



Change your name or email address if they differ from what you entered during registration. Enter your password, select **Student** or **Instructor**, and then click **Login now**.

V1 PROFESSIONAL 2010

If you experience problems logging in, check the following:

1. You are not using a student account, you must visit http://www.v1golfacademy.com/faculty_app.asp to request an instructor account.
2. Make sure that you have entered the correct email address and password.
3. Make sure that Internet Explorer is installed and is able to connect directly to the Internet (no proxy server, and not working in “offline” mode).
4. You have allowed V1 Pro access through your Windows or other firewall.

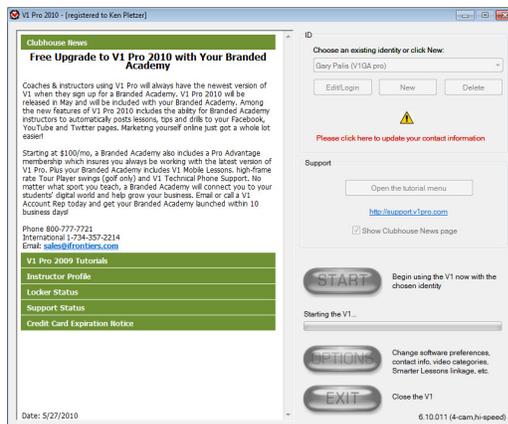
Once you have successfully logged in, you may select an academy. When you have done this, click **Ok** to return to the **Start** menu.

NOTE: Each identity must have a unique name. The name does not need to match your name used on the website.

To change the attributes of an existing identity, select the name and then click the **Edit/Login** button.

To remove a name, click the **Delete** button.

When you click **Start** you will see the message “Starting the V1”:



When the green progress indicator completely fills, the software has been loaded and initialized, and the main V1 window will appear as described in the next section.

About the User Interface

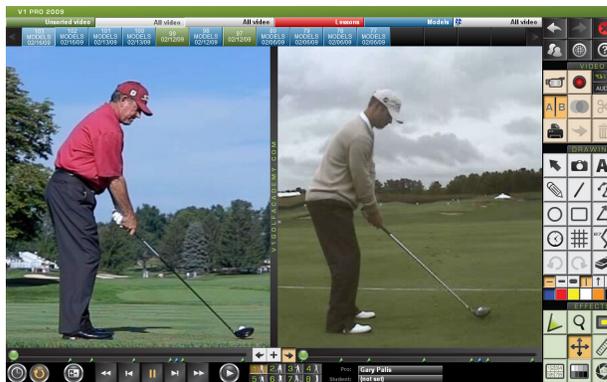
Here's a shot of the V1's main user interface window:



Command buttons are large for ease-of-reading and for the easy use of “tablet and pen” input devices. Buttons are also high contrast for at-a-glance recognition and easy outdoor use.

The large “video window” is surrounded by the V1's buttons. It's here that video is displayed and live video is previewed. This window is not simply used for viewing, however. Once you have selected one of the V1's drawing tools, you may then use that tool to draw directly onto the video. Details can be found in the *Digital Illustration Tools* chapter.

The minimum screen resolution required by the V1 is 1024x768. If you have a widescreen PC and it's capable of a resolution of at least 1280x768, you instead will see the wider version of the user interface:



This new size provides ample room for widescreen video formats, as well as new interface features. It also provides the advantage of seeing a greater portion of standard video when using compare or time-lapse modes. You will notice that there are now 6 bins and 15 tabs displayed along the top of the interface as opposed to 5 and 10 respectively.

There are several groups of command buttons. The two groups found above and below the video window allow you to open and navigate video. They are described in chapter 2, *Video Playback*. To the right of the video controls, you will find the current pro and student names displayed.

The remaining command buttons are stacked up on the right-side of the interface:



At the very top, you'll find some very important buttons, such as **Back** (works just like your browser's back button), **Forward**, **Exit** (use this when you're done with the V1), **Student** (see chapter 8, *Working with Students*), **Internet** (see chapter 9, *The Internet Academies*) and **Help**. Once you click on **Help** to turn it on, the V1 will show descriptions of buttons as you hover your mouse cursor over them.

The **Video** button group is home to the **Live**, **Record**, **Compare**, **Overlay**, **Trim**, **Print**, **Move** and **Delete** buttons. Recording is covered in chapter 3, *Video Recording*. Video comparison is covered in chapter 2, *Video Playback*. The remaining buttons are covered in chapter 4, *Working with Video*.

The **Drawing** button group contains the tools which allow you to graphically analyze video. Here you'll find the essentials such as freehand, lines, angles, circles, boxes, and text. You'll also find the **Clear**, **Select** and **Undo/Redo** buttons here. The **Snapshot** button allows you to save your graphics with the video. See chapter 5, *Digital Illustration*, for complete details.

Buttons found in the **Effects** group activate many of the V1's signature features. Here you'll find tools for illustrating a **wedge** or plane, illustrating relative distances, and highlighting areas of the image. The **Slide**, **Enhance**, and **Zoom** tools allow you to digitally manipulate the video image. The **Time-lapse**, **Key frames** and **Multiple Exposure** tools provide alternative ways to visualize motion. Full descriptions of these features are split between chapter 6, *Digital Effects*, and chapter 7, *Advanced Digital Effects*.

Button States

Active buttons are drawn depressed and in a highlighted or contrasting background color. To activate a function or button, click it.

Some functions act in mutually-exclusive "groups." For example, only one of **Pause**, **Play**, and **Slow** may be active. When you click one of these, the others in the group automatically deactivate.

Other buttons act as switches. When you click one of these, the function is activated. When you click again, the function is deactivated. For example, **Flip** and **Tempo** work this way.

Some buttons act simply as momentary buttons—pressing one of these causes an action, but the button does not remain activated, and requires no deactivation. Examples of these are **Clear** and **Undo**.

Some buttons will open new windows or *dialogs*. These windows allow you to select additional options. Examples of these are the **Print**, **Trim**, **Record**, **Move** and **Delete** buttons.

User Interface Options

There are numerous user interface options, some of which may be helpful to someone just learning to use the V1. These are described in the chapter *More Options*.

Teaching with the V1 – An Overview

If you're like most people, you'll soon be asking yourself how you ever taught *without* the V1.

Before you begin work with a student, click the **Students** button (below the **Back** button). If this is a new student, click **New** and enter the student's information. If this is a returning student, locate and highlight the student's name on the alphabetical list and select him as the **Current Student** by clicking **Select as current**. See the *Student Database* chapter for details on working with student records.

If you double-click a student's name in the alphabetical student list, the V1 will automatically perform the **Select as current** function and close the student window for you.

The first bin of video tabs on the left will now show the student's name and stored videos from previous lessons.

Use the V1's **Live** button to begin live video preview. Adjust position and camera angles to best frame the student's motion to be analyzed. Use the **Record** button to capture the student's motion. See the *Video Recording* chapter for details.

If you will be recording a CD or Internet lesson for your student, this would be a good time to begin the lesson recording. Click the **Internet** button to start recording your lesson.

Open the student video that you just recorded. Click **Compare**. Open a model video or one of the student's previous videos in order to make a comparison. See the *Video Playback* chapter for details.

Use basic digital illustration tools such as lines, angles, and circles to demonstrate differences in motion in the video being compared. Also, highlight and discuss areas in the student's motion that require attention. See the *Basic Digital Illustration Tools* chapter for details.

Don't forget to take advantage of the V1's most powerful tools, the *Advanced Digital Effects*. Consult that chapter for information on using those features.

You may optionally send a "raw" video capture to the student's locker by first opening the video and then clicking **Move**.

Video Playback

Getting immediate results

Ok, you've just installed your V1, and you're ready so see what this software can do. The first thing you'll want to do is to learn how video is organized on the V1 and how to open video for playback. Read on...

Tip: If you have no video now, you may want to first use the **Internet** button to download a couple of models to work with.

Previewing and Opening Video

The V1 stores video files as “tabs” which may be found in one or more “bins.” Bins act as *views* of your video database and help you to organize your video. The first bin will always default to **No category** or the current student's video. The last bin will be set to **All video**, your **Inbox**, or a removable media device such as a camera's memory card. The other bins will default to showing video of various categories, such as **Stored**, **Models**, **Lessons**, and **Titles**.

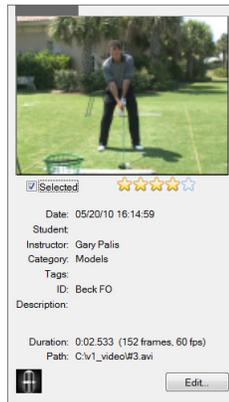


You will notice that tabs are color-coded to match their category's color. When you click a bin button, tabs belonging to that bin will be displayed below the bin names. Only 10-15 tabs are displayed at a time. If the bin has more tabs, arrow buttons will appear on either side of the list of tabs to allow you to scroll left and right. If a bin has a large number of tabs, you may hold down an arrow button to continue scrolling with acceleration.

NOTE: A new recording is always placed at the beginning of the first bin (by default, either **No category** or the current's students video) and given the next sequential serial number. If you choose to record into **No category**, it's then up to you to **Delete** tabs

or **Move** them to into categories for long-term storage. See the *Working with Video* chapter.

It is unnecessary to open each video in order to preview its contents. Instead, you merely need to pass the mouse cursor over the tab, and a video preview window is opened in the upper-right corner of the V1’s window. It will look similar to this one:



Beneath the video preview image, you will find the date, student’s name, instructor, category, tags, ID text, description, and the duration of the video (in frames and seconds). The ID basically acts are a very short (10 character) description that will also be placed on the tab to replace the serial number.

The video’s rating in “stars” appears, and may be adjusted directly by clicking on the new star rating. A **Selected** box allows a method to pre-select multiple tabs before using the **Move** or **Delete** command.

 A “loudspeaker” icon, if present, indicates that the video has an audio track.

 A “microphone” icon appears if the video includes a voice memo. A memo may have been recorded by a user of the V1 Golf iPhone app before uploading the video to the Academy.

To open a video, click its tab. The video will open full-size into the video window.

The Video Controls

Controls that appear similar to those found on a DVD player or DVR appear at the bottom of the V1’s window. When a video is opened, these controls become available.



 When the video is not moving, the video is said to be “paused.” To move the video by a single frame either forward or backward, click the appropriate **Step**

button found on either side of the **Pause** button. Each of these buttons may be held down to advance frame-by-frame until you release the button.



To begin slow motion, either forward or backward, click the appropriate **Slow** button found next to the **Step** buttons. To stop, click the **Pause** button.



To play the video at full speed, click the **Play** button. There may be situations in which the **Play** button is unavailable, such as Compare Mode when both videos are selected.

HINT: To create an ad-hoc playlist, select multiple tabs by holding the **Ctrl** key and clicking tabs before pressing **Play**.



To stop slow motion or full-speed playback, click the **Pause** button.



Playback will “wrap around” and continue indefinitely if the **Replay** button is highlighted. Click the **Replay** button to alternately enable and disable this feature.

Video may be “randomly accessed” in a quick-shuttle fashion by using the video position slider.



The slider has a movable ball that represents the position of the video. When the ball is at the far-left side of the slider, the video is “rewound” to its beginning. When the ball is at the far-right side of the slider, the video is at the end.

The slider’s ball is automatically repositioned when the position of the video changes as a result of the use of one of the Video Controls. You may, however, move the ball manually by clicking and dragging it. The video will be immediately updated on the screen to reflect your movement.

NOTE: With longer video, the slider will seem more sensitive—small movements of the slider will represent more video frames.



The Mouse Wheel

If your mouse has a “wheel,” you may use it to advance the video frame-by-frame. In the example to the left, the wheel is shown in green. To use the mouse wheel, first position the cursor over the video. Then rotate the mouse wheel down (use your finger to pull the top toward you) to step the video forward. Move the wheel in the opposite direction to step the video backward. Each “step” of the wheel will correspond to one video image.

Impact and Key Position Buttons

The V1 has the ability to memorize up to eight key video positions. The behavior of this feature is controlled by an option on the V1's Software Options page. Here you may choose 4 golf positions (address, top-of-backswing, impact, and follow-through), 8 golf positions, or 8 non-sport-specific positions. You will see key positions represented on the video slider as green triangles (blue for the golf impact position).

Golf-specific positions

In the context of a golf swing, the most important of these is the **Impact** position—the frame nearest the point in time when the club hits the ball (also known as the Impact Point). In fact, several of the V1's features require that the impact point of a swing be set before those features become available. A video's Impact Point may be set automatically—see the Recording Options section of the *Video Recording* chapter. If a video's Impact Point has not been set, you will see this button:



Click the **Set Impact** button once you have advanced the video to the proper impact frame. Once the Impact Point has been set, you will see the **Key Position** buttons:



To immediately advance the video position to any one of the key positions, click the desired **Key Position** button.

Setting a new position

If you wish to change the Impact Point, or any other position, first advance the video to the appropriate frame, and then hold down the desired **Key position** button until a **new point has been set** message is displayed. Certain V1 features either require or work more effectively if the important key positions (address, top-of-backswing, impact, and follow-through) are set accurately. These features include **Tempo**, **Video Synchronization**, **Trace**, and **Multiple Exposure**.

Key positions are required to be sequential (that is, 2 must follow 1, 3 must follow 2, etc.). If you reset a position, the V1 will automatically redistribute other positions to enforce this requirement.

Golf tempo estimation

When impact is set for a swing belonging to or assigned to one of your existing students, the V1 will “estimate” the other positions based on the student's most recent swing. If the swing does not have a student assigned to it, the V1 will estimate the other key positions according to a default “average” swing tempo.

Non-sport-specific positions

If you've selected to see the 8 non-sport-specific position buttons, you will not see a "set impact" button. Instead, you will see these buttons:



Initially, the 8 non-sport-specific key positions are evenly distributed through the video. Position 1 corresponds to the beginning, and 8 to the end of the video.

Tempo



When the **Tempo** button is turned on, a digital readout will appear in the upper-right corner of the video.

0:01.533

The number displayed here represents the time (in minutes, seconds, and thousandths of a second) elapsed since the first key position ("address" in golf). Therefore, in order for the tempo feature to operate effectively, you should accurately set the first key position for your video.

You will see negative numbers here if your video includes motion before the first key position.

Flip



This feature allows you to better compare left-handed players with right-handed players. Open a video and then click the **Flip** button to engage this feature. Click again to turn it off.



Loop



Turn this feature on to continuously loop video. When the end of the video is reached, playback will re-start from the beginning until you click **Pause**.

Comparison



The V1's video window may be split to allow you to open and control two videos simultaneously. The **Compare** button will activate Compare Mode. Click the **Compare** button again to exit Compare Mode and return to use of the entire video window for a single video.

In Compare Mode, the video position slider will split into two, and there will be three new buttons placed between the sliders.



The orientation of the split is determined by a setting on the V1's Playback Options page. Side-by-side comparison is best for golf video, while top-to-bottom comparison is probably best for swimming video. The arrow buttons allow you to select which video you wish to control with Video Controls such as **Step** and **Slow** motion. The **+** button allows you to control both videos simultaneously.

There are several V1 features which become available in Compare Mode. **Video Synchronization** and **Compare to Live** are described in following sections. Read about the **Slide** and **Overlay** features in the *Advanced Digital Effects* chapter.

Video Synchronization

People perform various athletic motions with different tempos, or speeds. When two videos are compared and put into slow motion, the V1 has the ability to either “speed up” or “slow down” either one of the videos in order for them to share the same apparent tempo.

This feature is engaged with a check box on the V1's Playback Options page. To find this window, launch the V1, click **Options** and then click **Playback** at the top of the window.

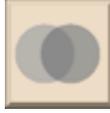
When you first use the **+** button to select both videos, the V1 will move each video to the most recent key position of the left-hand video. You will then be able to use either video position slider or the **Slow** motion buttons to view the two videos in synchronization.

The accuracy of **Video Synchronization** depends on the accuracy of the **Key position** settings for each motion. Although **Video Synchronization** will be possible after only specification of the Impact Point, you'll probably prefer the results you achieve after setting the address, “3 o'clock,” top-of-backswing, and follow-through positions as well.

Compare to Live

To compare live video with stored video, first click the **Live** button, and then the **Compare** button (in that order!). You may then open any stored video on the right-hand side for comparison.

Overlay



First, set up Compare Mode with two similarly recorded videos (i.e., same angle, distance). When you click the **Overlay** button, the videos will appear blended together as shown here:



It will still be possible to change each video's position by using the sliders and the **Key position** buttons. You may also **Step** or use **Slow** motion on one or both videos.

The **Slide** tool in the Digital Effects frame may be used to fine-tune the alignment of your videos. Either side may be independently moved and zoomed.

NOTE: This feature is not available in demonstration mode. Also, when not in Compare Mode (that is, only a single video is open), the **Overlay** button performs the Live Video Overlay feature.

Live Video Overlay

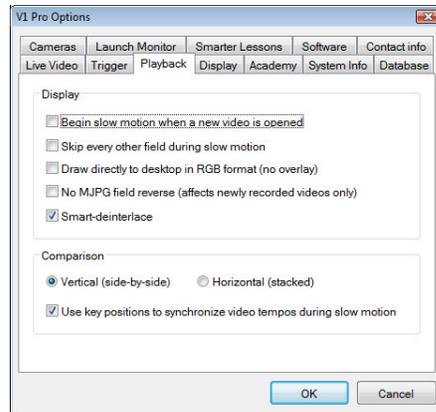
If you click the **Overlay** button with a single video open (that is, when not in Compare Mode), the V1 will attempt to blend live video from your camera with video from the open movie.



All Video Controls are available with the exception of **Play**. Other tools not available in conjunction with Live Video Overlay include **Time-Lapse** and **Zoom**.

Playback Options

To access the Playback Options window, launch the V1 then select **Options**. Select the **Playback** tab:



Display

If you select the **Begin slow motion when a new video is opened** option, a video will enter slow motion as soon as you open it. This does not apply to video opened in Compare Mode.

Skip every other field during slow motion. On slower and/or older systems, you may notice that slow motion is a bit *too* slow. When you select this option, the V1 will skip every other field of video in an attempt to “speed up” slow motion.

The **Draw directly to desktop in RGB format (no overlay)** option applies to full-speed playback. Normally, the system uses a “video overlay” (not to be confused with the V1 feature of the same name) in order to efficiently display playback with the highest possible quality. However, on systems configured to use external video displays and/or DVD recorders, this may result in the appearance of a black or pink screen on one of the two displays or the video output. When you select this option, this black or pink screen is avoided at the cost of some video quality (especially on slower/older systems).

The **No MJPG field reverse** option applies only to video recorded using the MJPG video compressor. The MJPG compressor is used for Legacy VFW (Video for Windows) capture devices, and some DirectShow drivers, but is not used for DV video captured using a DirectShow driver (details discussed in the Live Video Options section). If your recorded video exhibits a behavior where the video is fine quality, except that the video appears to step forward two, then back one, forward two, etc., then your system might require this option.

NOTE: Changing this setting will not fix existing video. Its effect will only be noticed with video recorded after the setting has been changed.

Smart De-interlace (SDI) This is a video quality enhancement technology which increases the apparent resolution of the video in areas without motion (such as most backgrounds). This technology works best with adequate lighting and when using a tripod. Here's a comparison:



Without SDI



With SDI

You will notice more “stair casing” and other video artifacts without SDI enabled. Notice the stair casing on the mountain without SDI; and the relative clarity of the tee box in the image with SDI.

If the majority of your video is shot with low-light or without a tripod, however, you may want to disable this feature by visiting the Options/Playback page and unchecking the appropriate box.

Comparison

The comparison section of the Playback Options page contains options which affect Compare Mode (discussed above).

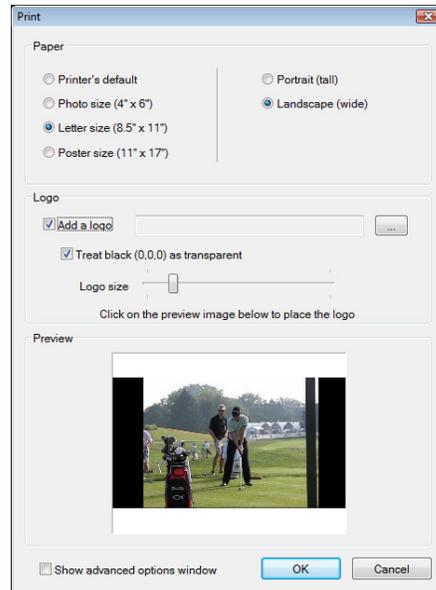
In Compare Mode, the two videos may be viewed side-by-side or “stacked” and viewed top-to-bottom.

The **Use key frames to synchronize video tempo** option affects slow motion when both videos are selected by causing the faster video to be “slowed down” to match the tempo of the slower video.

Printing



If you have a printer attached to your system, the V1 allows you to reproduce on paper what you see in the video window. An options window appears:



Choose the paper size, orientation, and logo position, and then click **Print** to begin printing. Note that if you have not used the Windows[®] control panel to choose a default printer, or if you wish to print to a printer other than your default printer, you should also check the **Show advanced options window** box in order to be presented with the standard Windows[®] “print dialog” box. You may also use this option to override other default printer settings, such as quality, paper tray, etc.

The four paper size choices are Default, Photo, Letter, and Poster. The **Printer's default** paper size will attempt to use whatever paper size that you have configured for your default printer in the Windows[®] control panel. The others are standard sizes.

If you have a logo that you would like printed along with the video image, you may specify the path to a BMP file. This file should be in standard Windows[®] 24-bit color “bitmap image” format.

By selecting the option **Treat black as transparent**, the pure color black (RGB(0,0,0)) may be interpreted as the “transparent” color.

Use the **Logo size** slider to alter the image's size, and click anywhere on the **Preview** window to place the logo.

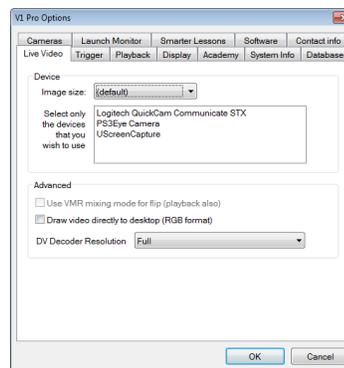
Video Recording

Bringing new video into your system

The V1 supports several different technologies for recording video (also referred to as “video capture”). Please read this chapter to discover and understand the technology choices that you have with your particular system.

Live Video Options

To access the **Live Video** options page, launch the V1 then select **Options**. The following window will appear:



Use the **Image size** setting to force a device such as a webcam to a specific resolution. This setting should be set to **Default** otherwise.

Below the image size setting is a list of the non-camcorder DirectShow devices currently attached to your system. Un-select specific device which you do not wish to use by clicking on their names.

Advanced

There are three options on the **Live Video** options window under the heading of “advanced.” The first, **Use VMR mixing mode**, should only be used on systems with

high-end video display adapters, such as a newer ATI or NVIDIA models—it allows for higher-quality “flipped” live video and full-motion playback.

The next option, **Draw video directly to desktop (RGB format)**, should only be used if you are experiencing a problem with your live video display, as it results in a decrease in the previewed video quality. You may wish to enable this feature if you experience a black screen when using live video on an external video display or DVD recorder.

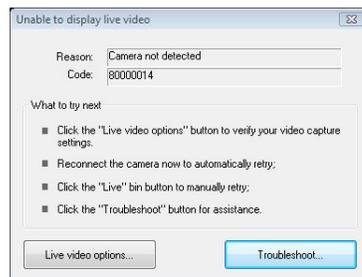
The last option, **DV Decoder Resolution**, applies only to systems using IEEE-1394 (FireWire®) cameras and the DirectShow device mode. Most systems will require this to be set at “Half.” High-end systems will adequately handle “Full.” If a system is not quick enough to handle “Full” DV decoder resolution, live video will appear excessively delayed and possibly choppy, and some recording errors may be observed. Lowering this setting does cause some reduction in *previewed* live video quality, but does not affect *recorded* video quality and video playback.

Live Video Preview

When the V1 completes its loading process, it will attempt to display video from the first DirectShow camera attached to your system.



Connecting and disconnecting cameras will cause the V1 to automatically reset live video. To *manually* reset the display of live video at any time, press the **Live** button. The **Live** button is also used to return to live video after viewing your saved video. If live video is unavailable, a message with an error number will be displayed on the screen.



If the “Unable to display live video” window appears, either the camera was not found, or it could not be initialized. Check your camera selection. Also, the **Troubleshoot** wizard contains a great deal of information to assist you with resolving any camera connection issue.

Depending on your system’s configuration and Live Video options settings, live video preview may be of high quality or it may leave something to be desired. In any case, the V1 will attempt to record the actual video to your hard drive at the maximum quality and resolution available.

Switching Cameras

It is unnecessary to return to the **Options** window to switch between cameras, or to switch between single and dual-camera modes. By default, the V1 will display the following tabs when live video is displayed:



Use these buttons to quickly change cameras. The number of camera buttons available here is determined by the **Cameras** tab on the **Options** page. See the *More Options* chapter for details. **Split Screen** options only appear if you have a dual-camera license. The **4-camera** and **8-camera** buttons only appear if you have the associated license.

Several illustration tools and digital effects are not available for use with live video preview. These include **Zoom**, **Print**, **Plane**, **Enhance**, and **Time-Lapse**.

Using Two IEEE-1394 Cameras

Use of two digital cameras simultaneously offers many benefits. First, there is no longer a need for an expensive external hardware “video mixer” device—this is done internally using software. Second, the center of each video frame is previewed, as opposed to the left and right sides exclusively, which forced odd camera angles to achieve the desired effect. Finally, two full-frame videos are produced when recording with this mode.

Note “Continuous” recording of two cameras is dependent upon the ability of your PC to “keep up” with the demand of writing to two movie files simultaneously—slower PCs, especially slower laptops, may be unable to meet this challenge.

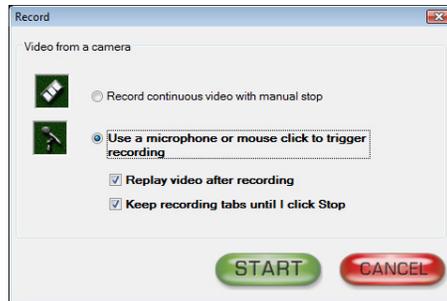
Due to bandwidth considerations, in order to use two IEEE-1394 cameras, each camera must have its own *channel*. This means with a desktop configuration, two Firewire interface cards are required, one for each camera, regardless of the number of ports each card has. With a laptop configuration, you may connect one camera to a built-in Firewire port, and the second camera to an interface card inserted into the PC slot.

If you experience problems with bringing your system up in dual-camera mode, try turning both cameras off. Then, turn your cameras on one at a time, pausing several seconds between cameras. Click the **Live** bin button to reset the video window. Additional help may be found in the Troubleshooting section at the end of this manual.

Recording



When you click the V1's **Record** button, a menu with several recording choices appears.



The first is **Record continuous video with manual stop**. This recording mode allows you to record video as large as you'd like, or until your hard drive space runs out).

When recording begins, the **Record** button icon will alternate with a **Stop** icon. Press either icon to end recording. A new video will be created in the **No category** or student's bin, by default at the beginning of the list. To view your new video, click its tab.

To automate the recording process, you may choose to **Use a microphone or mouse click to trigger recording**. This recording mode creates video with a specific duration. The V1 can use a microphone to automatically determine impact, or you can "tap" the mouse button at the appropriate moment. The size of the recording buffer (amount of total time recorded) and the position of the impact within the resultant video (how much time is recorded both before and after impact) are determined by Impact Trigger Options as covered in the following section.

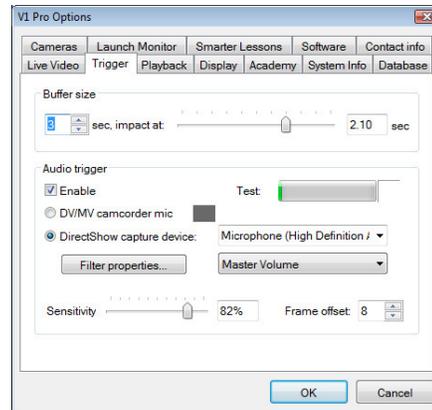
When using the **Use a microphone or mouse click to trigger recording** mode, you have two options. The first is to **Replay video after recording**. If you select this option, the V1 will automatically play your video in slow motion after writing the file to disk. The second option is to **Keep recording tabs until I click Stop**. When this option is selected, the V1 will automatically prepare itself for another trigger and recording. Use the **Stop** button to exit this mode.



The V1's **Time Indicator** reflects the amount of hard drive space you have available for new recordings (expressed in minutes and seconds). The time decreases as recording progresses. In triggered recording modes, the **Time Indicator** is used as a "time out" counter. If a trigger is not detected in the allotted time, recording is automatically cancelled.

Impact Trigger Options

To access the Trigger Options window, launch the V1, select **Options** and then the **Trigger** tab. You will see this window:



Using this window, you may specify the size of the buffer (in seconds) used to capture the video. Golf swings typically can be represented adequately in a 3 second time window. Other motions may require varying amounts of time. Each second of video will consume approximately 3½ megabytes (MB) of your computer’s RAM memory (7 megabytes for dual-camera mode). If your system has only 512MB RAM, for example, it may be impractical (more likely impossible) to capture 15 seconds of video in dual-camera mode. If your hard drive runs continuously while doing a triggered recording or video becomes excessively choppy, you may be experiencing a low-RAM situation.

The **impact at** setting allows you to graphically specify the point of impact within the captured video files. In a 3 second golf swing, about 1 second should be allocated to “follow through”—so that leaves 2 seconds as the impact position within the video. In other words, the difference between the buffer size and the Impact Position determines the amount of time that the V1 will continue to record following receipt of the impact trigger (either from an audio hit detector or a mouse click).

When performing a triggered recording, you may specify the impact position (and end the recording) by clicking the mouse on the live video window. If the **Enable** box is checked, the V1 will also listen to the camcorder or computer’s microphone for the sound of impact (the sound of the club or bat hitting a ball, for example).

You may choose to use either your camcorder microphone, your computer’s built-in microphone or an external microphone by selecting the appropriate device in the drop-down boxes.

There are two parameters which affect the audio trigger. The first is the microphone **Sensitivity**. The default sensitivity is 50%, but this may be adjusted lower if you are picking up false triggers, or higher if the V1 is missing some impacts. The second is the **Frame offset** parameter. Very often, due to computer hardware and driver latencies and buffering, the computer microphone’s audio and the capture card’s video

may not be in perfect synchronization. The **Frame offset** parameter allows you to add or subtract a small number of frames from the impact frame number that the V1 computes based on audio received. With “full” and even “half” preview-resolution DV video, it is not unusual that this value be as great as +/- 10 or more. Under situations of varying computer load (other software running, or use of laptop battery), an accurate setting of the adjustment may also drift. Experience will determine the optimal setting for your particular system configuration.

Testing the audio trigger

The boxes that you see to the right of the **Enable** check box are used to test the audio trigger. As the microphone you’ve selected picks up sound, you will see this graphically represented in the form of a blue “meter.” When the V1 interprets the sound as an impact, a red square is illuminated. Adjust the sensitivity setting until the desired results are achieved. Note that this testing feature does not apply to the camcorder microphone setting.

If you are unable to achieve enough sensitivity, you may need to adjust the **microphone boost** setting in Windows. To find this setting, right-click the speaker icon in the lower-right corner of your Windows desktop and select **Recording devices**. Select your microphone and click **Properties**. You will find the boost setting on the **Levels** tab.

Recording Audio



Audio may be recorded and played back if a tab is recorded using the **Continuous** recording mode. Audio is never recorded when using the triggered recording modes.

Audio is always recorded from the camera’s built-in microphone when using a DirectShow video driver to capture DV video (as from an IEEE-1394 or FireWire® camera). To record audio when using a Legacy VFW video capture driver, you must select the **Audio** button before recording begins.

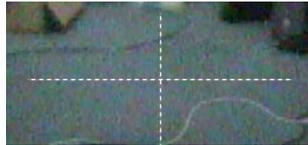
 When a video is recorded with audio, a small “loudspeaker” icon will appear in the preview window when you move the cursor over a video’s tab. To hear this audio, you must select the **Audio** button before video playback begins.

The HYTEK USB Force Plate

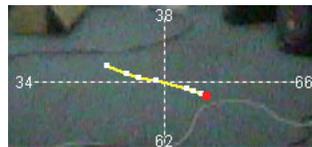
The V1 can interface with your HYTEK USB force plate in order to display and record a person's relative weight distribution during a golf swing or other athletic motion. With this information, you are able to visualize the way in which weight is shifted from side to side, front to rear, etc., during the motion.

Once you have installed the HYTEK USB force plate driver, and have connected the device, verify that everything is properly connected by running the WeightRight software that is included in the force plate package. However, be sure to exit the WeightRight software before running the V1.

The V1 should be able to "see" the force plate if the files "HYTEKFPlate.dll" and "mpusbapi.dll" are found in the V1 Pro 2010 program folder (they should have been installed automatically by the V1 installer). You will know that the V1 sees the force plate if you see a cross-hair graph at the lower center of the video window:



When you step onto the force plate, you will see that the V1 displays a number at each end of each axis. These numbers correspond to the percentage of weight that is distributed on each side of the axis. Also, you will see a red square representing the center of mass, or point of "average" weight distribution. As you move or shift your weight, the red square will follow, and leave a yellow tail representing the last 10 center-of-mass data points:



When you record video with the HYTEK force plate connected, the V1 will record the force plate's weight distribution information along with the video. When the video is then re-opened in the V1, the weight distribution graph will be displayed over the video.

When you first run the V1 with the HYTEK force plate connected, the force plate is automatically zeroed, which resets the zero point to the center of the graph. You may re-center the display while a user is standing on the plates by clicking on the graph when in live video mode.

This page intentionally left blank.

Working with Video

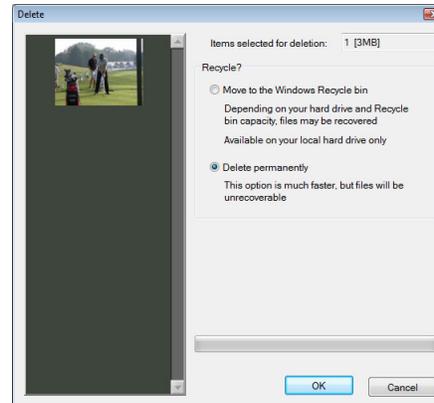
Keeping things organized

Now that you've learned how to record and retrieve video, it's time to learn how to keep your V1 organized so that you can easily find the video that you need when you need it. In this chapter you will learn how to Delete, Move, and Trim (shorten) your video. You will also learn how to backup your video, and share your video with other V1s.

Delete



Open a video, and then click the **Delete** button to show this window:



To proceed with the deletion, click the **OK** button on this window. To close the window without deleting, click **Cancel**.

You have the option to **Move to the Windows Recycle Bin** or to **Delete permanently**. The Recycle Bin option may take a bit longer, but if your Windows Recycle Bin is large enough to hold the tabs you are deleting, you will be able to recover them in the case of an accidental deletion.

To delete more than one video at once, you need to “select” the tabs you want to delete *before* clicking **Delete**. There are a few ways to do this. First, you may hold

down the Control (Ctrl) key on your keyboard as you click tabs. You will see checkmarks placed on those tabs. While again holding Control, click a tab a second time to un-select it. To select a *range* of tabs, begin by clicking on the first tab in the desired range, and then while holding the Shift key, click on the last tab in the range.

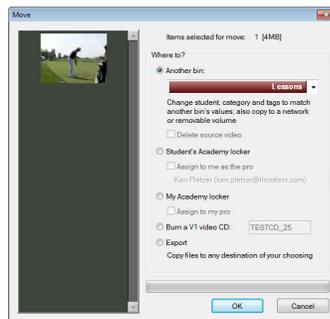
To select tabs without using the keyboard, instead you may hover your cursor over a tab and when the video preview is shown, move your cursor down to check the **Selected** box.

To select *all* of the tabs in a particular bin, first right-click or hold down the bin button. On the **Bin** window, select the **Select all** box and click **OK**. Now that all tabs have been selected, you may un-select specific tabs by either method described above.

Move



Open a video, and then click the **Move** button to show this window:



Another Bin

Click the name of the bin where you would like to move the video. This option provides a convenient way to re-assign your video to a new student or category. In addition, if your bin is showing only video with specific “tags,” those tags will be added to the video as it is moved. Using this **Move** option is equivalent to directly editing the video database to change a tab’s student, category, instructor, and/or tags.

To move more than one video at once, you need to “select” the tabs you want to move *before* clicking **Move**. There are two ways to do this. First, you may hold down the Control (Ctrl) key on your keyboard as you click tabs. You will see checkmarks placed on those tabs. While again holding Control, click a tab a second time to un-select it. To select a *range* of tabs, begin by clicking on the first tab in the desired range, and then while holding the Shift key, click on the last tab in the range.

To select tabs without using the keyboard, instead you may hover your cursor over a tab and when the video preview is shown, move your cursor down to check the **Selected** box.

V1 PROFESSIONAL 2010

To select *all* of the tabs in a particular bin, first right-click or hold down the bin button. On the **Bin** window, select the **Select all** box and click **OK**. Now that all tabs have been selected, you may un-select specific tabs by either method described above.

Note: When tabs are moved to or from your system's hard drive and another media (such as a CD or Network drive), the original tab is not removed. Instead, a copy is made.

Move to Internet Academy

When you move video into an Internet academy locker, you may choose either your student's or your own locker. In order for either of these options to be available, you must be logged into an Internet academy. In order to move video to your current student's locker, a valid email address must be entered into the student database.

NOTE: Video uploaded to a skiing and swimming academy may be 30 seconds in length; all others are limited to 10 seconds.

Burn a V1 video CD

If your PC has a CD-RW drive, and you have a blank CD, you may use the **Move** function to create a V1 CD. A V1 database will be created on the CD so that it may be opened as a bin. This database will contain all category and student information for the video on the CD.

NOTE: After clicking **OK**, you may Cancel the CD burning process and then move additional video to the CD before finally burning it.

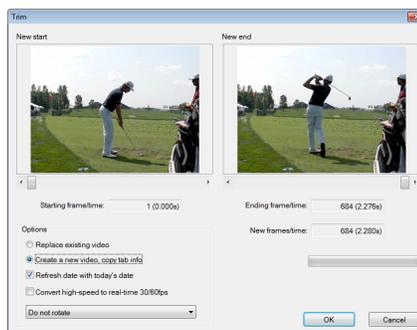
Export

This option allows you a quick way to copy the video to any Windows file system location, such as a backup folder, desktop, etc.

Trim



The **Trim** function allows you to shorten a video to conserve hard drive space, or to make a full or partial copy of a video into a new tab on your system's hard drive. Open a video, and then click the **Trim** button to show this window:



The Trim window shows the start and end positions (in both frame and time units) that will be used for your new video. To reset either of these positions, move the slider below either video window. To fine-tune a single frame in either direction, use the arrow buttons found on either side of each slider.

Replace existing video

The video will be replaced with the trimmed version; the original version cannot be recovered.

Create a new video, copy tab info

A new tab will be created, with identical category, student, instructor, tags, etc.

Refresh date with today's date

Choose this option to update the tab's date. This will move the tab to the first tab position in a bin sorted by date, newest first (this is the default).

Convert high-speed to real-time 60fps

Use this option to convert a high-speed video (210 or 300 fps, as from the Casio FX-1) into a "standard" 60fps video. In addition to reducing the storage required by a factor of up to 5, the 60fps version will play at normal speed.

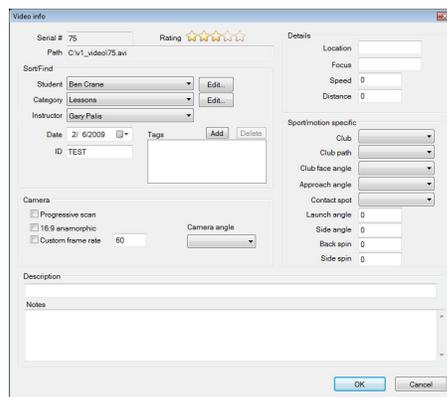
Rotate

You may choose to rotate the video 90 degrees either clockwise or counterclockwise. This may be used to correct a cell-phone video or sideways-HD video.

Click **OK** to proceed with the operation, or click **Cancel** to close the window without trimming the video.

Video Database

The V1 is capable of storing a great deal of descriptive information with your video, collectively called the Video Database. Information ranges from the date and student's name to the camera angles and the type of club used. This information can be displayed, edited, and in some cases also used to search for video on your system or those networked with you. To edit a video's record in the Video Database, right-click its tab, or hold the tab down for a couple of seconds.



The fields available here are as follows:

Serial#

Each new video is assigned a unique serial number which cannot be changed. This is simply a sequential number that is also used as the default filename. For a given Video Database, serial numbers are not re-used. Once you delete number 56, that number will not be re-used. Unless you plan to externally manipulate the Video Database, it is not necessary to be concerned with a tab's serial number.

Path

This is simply the absolute location of the video within the Windows filing system.

Rating

By default, a new video has no rating (0 stars). Click on a star (1-5) to assign a new rating, or click to the left of the first star to remove the rating. The rating may also be set on the Tab Preview window which opens when your cursor hovers over a tab.

Student

Choose to assign the video to any student found in the Video Database. An **Edit** button is provided as shortcut to the Student edit window. A video not assigned a student or a category is considered "unsorted." You may choose to have a bin show only video assigned to a particular student.

Category

Choose to assign the video to any category found in the Video Database. An **Edit** button is provided as shortcut to the Category edit window. A video not assigned a student or a category is considered "unsorted." Default categories include Models and Lessons. You may choose to have a bin show only video assigned to a particular category.

Instructor

Choose to assign the video to any instructor ID on your system. You may choose to have a bin show only video assigned to a particular instructor.

Tags

Together with the category, tags provide an additional method for classifying your video. You might wish to tag video based on attributes such as "left handed," "tripod," "indoors," "face-on," "favorite," "what not to do," "putting," etc. Click the **Add** button to "tag" the current tab. Highlight one or more tags and click **Delete** to remove them.

Date

The date and time the video was created.

Tab ID

This is the shortest "description" that you may assign to a tab. It may only be 10 characters in length. If entered, it will appear on the tab to replace the category name.

Description

This is a searchable description of less than 200 characters. It appears on the Tab Preview window.

Notes

This is a *memo* field which may be multiple paragraphs and tens of thousands of characters in length, allowing you to describe your video in great detail. It is not searchable, and only appears when you open this video info window.

Here are some things you might consider adding to the description and/or notes fields:

- Reactions
- What the student was working on
- What problems you saw that you would like to address

Camera

Progressive Scan

A checkmark appears if the video was recorded with a high-definition progressive-scan camera. This setting is automatically inherited from the P-Scan settings on the Camera Options page as discussed in the *More Options* chapter.

16:9 Anamorphic

When checked, DV video will be stretched to fill the width of the 16:9 aspect ratio video window. This setting is automatically inherited from the camera view settings on the Camera Options page as discussed in the *More Options* chapter.

Custom frame rate

When checked, you may specify a custom frame rate for the video. This is useful for high-speed videos with 210 or 300 frames per second, such as recorded with the Casio FX-1.

Camera angle

The camera view used for the video. Click the down-arrow to select from the following: Face-On, Down-the-Line, Overhead, Behind, or Other. This setting is automatically inherited from the camera view settings on the Camera Options page as discussed in the *More Options* chapter.

Details

Location

When using multiple sites, this field can be used to contain the location that the lesson occurred and/or where the video was recorded.

Focus

Lesson topic, for example, “What motion element were you working on with the student when this video was recorded?”

Speed

Estimated or actual ball speed at impact. If you are using an integrated launch monitor, this field and those under the heading “Ball flight information” may be automatically populated.

Distance

How far did the ball travel? This field, together with the other under the Sport/Motion specific heading may be automatically populated with data taken from a launch monitor system.

Sport/Motion specific

These fields will only be available if your instructor identity is logged into the V1 Golf Academy, or you have specified GOLF as your sport.

Club

Identifies the club used by the student. Click the down-arrow to select from the following pull-down options: Driver, Wood, Long Iron, Mid Iron, or Short Iron.

Club Path

What path was the club traveling through the ball relative to the intended line of flight? Click the down-arrow to select from the pull-down options: Outside In, On Line, or Inside Out.

Club Face Angle

What horizontal angle was the clubface when it struck the ball, relative to the intended line of flight? Click the down-arrow to select from the pull-down options: Open, Square, or Closed.

Approach Angle

What vertical direction (relative to the ground) was the club traveling when it struck the ball? Click the down-arrow to select from the pull-down options: Downward, Parallel, or Upward.

Contact Spot

Where on the clubface did the ball strike? Click the down-arrow to select from the pull-down options: Centered, Heel, Toe, Top, or Bottom.

Launch Angle

At what angle from the ground did the ball “take off?” If you don’t have a launch monitor, this may be estimated by using the angle drawing tool on a frame following impact.

Side Angle

At what angle from straight-on did the ball leave the club (that is, push or pull)?

Back spin

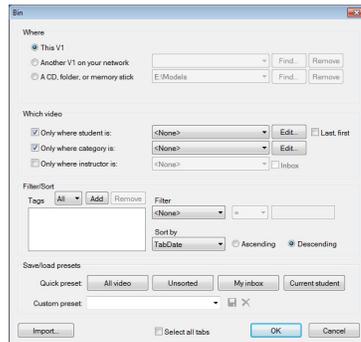
The back spin helps you to estimate what the vertical change the ball will make relative to its initial course (that is, rising or dropping).

Side spin

The side spin helps you to estimate the horizontal change in direction that the ball will make from its original path (that is, hook or slice).

Finding Tabs

After installing the V1, at least one of your bins should be labeled **All video**. When you click on this bin, the list of tabs will represent all of the video stored on your V1, sorted newest to oldest. You could scroll through perhaps thousands of tabs previewing and opening them until you find what you need. However, each bin may be configured to show only tabs meeting specific criteria and ordered to your preference. To change a bin's *view* of your V1 Video Database, right-click it, or hold it down for a couple of seconds. The **Bin** window will appear:



Where

By default, tabs are shown only from your V1's Video Database. However, you may also browse video on a network peer, CDROM, other memory device such as a camera's memory card, or any folder found on your system.

This V1

This option shows your default or "main" V1 Video Database.

Another V1 on your network

Click the **Find** button to search your network for another PC with a V1 Video Database. The file which identifies the database that you are searching for is entitled "volume.txt."

A CD, folder, or memory stick

Click the **Find** button to search your local drives for a folder containing a V1 Video Database. If you select a folder which does not yet have a V1 Video Database, you will be prompted to name the database, and one will be created at the chosen location.

It is only necessary to locate a database once. The V1 will retain each of these database lists for quick access in the future. To remove a database from a list, select it, and then use the **Remove** button corresponding to the list you are modifying.

Which video

All video will be shown unless filtered in some way. This section allows you to specify a student, a category, an instructor, or any combination of these.

Only where student is...

You may choose any student from your database to view only his or her video. In addition, there are three extra choices, <None> <Any> and <Current>.

Only where category is...

There are a few default categories, taken from the old version 5.7 bin names, which are Stored, Models, Lessons, and Titles. However, your list of categories is now unlimited, and you may even create “subcategories.” To open a window to edit or add new categories, click the **Edit** button. If you select to show tabs of a specific category, tabs belonging to subcategories of that category are also displayed.

Only where instructor is...

When you record video for a student, it is also tagged with your instructor name. If your student is taught by multiple instructors, you may wish to see only those tabs which you or another specific instructor created.

Filter/sort

Here you will find ways to further customize a bin’s view.

Tags

In the previous section you learned how you can add short phrases or “tags” to a tab. Now you may specify to show only video with specific tags. You may also choose whether a video must have **All** or **Any** of the specified tags in order to appear in the bin.

Filter

You may filter on the ID, Description, Location or Focus field. You may choose to compare in one of four ways, LIKE, <= (less than or equal), = (exactly equal), or >= (great than or equal). The LIKE comparison method searches for text anywhere in the field. You may use an asterisk (*) in the search box to search for fields beginning or ending with specific text, such as “golf*”. The other comparison methods use alphabetical ordering, for

example \geq “T” will find “text” and “zebra” but not “apple.” The filter is NOT case sensitive.

Sort by

The default sort order is by date, newest first. However, you may select one of several other fields, sorted either descending (largest first or Z to A) or ascending (smallest first or A to Z). The “frames” field represents the length of the video, and sorting on Frames descending will show your longest tabs at the beginning of the list.

Save/Load Presets

Because the V1 remembers your bin settings from session to session, several buttons are provided to “reset” or “clear” the view before you make other changes:

All Video

This button acts as a “clear” button—everything on the form is reset. Click this button then **OK** and you will have a bin showing all video on your V1.

Unsorted

This button clears all settings then sets a search for “no category” and “no student.” This would show video which you recorded without having a student selected as your “current student.” Ideally, this is only a scratch area, and video that you intend to keep around would eventually be categorized.

My inbox

This button clears all settings then sets a search for video which was accepted and received via your Internet academy inbox. Each tab represents a lesson requested by a student. Without a student selected, you should open each video and then begin a lesson. When a lesson is completed for an Inbox tab, it will be removed from this view.

Current student

Although the first view is automatically set to show all of the current student’s stored video, this button allows you to quickly setup another bin and then customize other settings, such as category or tags. Or, if you have made changes to the first bin, use this button to reset it to show all of the current student’s video.

Custom Presets

Custom presets allow you to “save” all of your bin settings for later retrieval. The V1 already automatically maintains your bin settings. However, if your 6 bins do not prove “enough” and you often have to adjust them to perform various searches, you may create a preset to save your settings and recall them at a later time. To do this, enter a name and click the “disc” icon. Any changes made to the bin settings are not saved to the preset until you again click the disc icon.

If you see “*modified*” to the right of your preset name, the bin settings have changed since you last loaded or saved a preset.

Bin names

Once you click OK on the bin window, how is the bin's name determined? Here's the order of precedence in which that is determined:

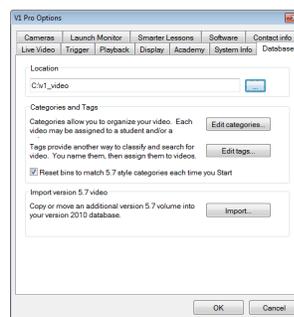
1. If your bin is using a **Preset**, that name will always be used.
2. If your bin is showing only a specific category, then the category name will be used.
3. If your bin is showing only a specific student's video, then the student's name will be used.
4. If your bin is showing a V1 Video Database other than your main database, then that database's name will be used (which may be the networked PC's name).
5. If none of the above applies, one of the common bin names may be used, such as **All video**, **Unsorted video**, **No student**, **No category**, or **Inbox**.

If your bin is showing a V1 Video Database other than your main database, an appropriate icon will be placed on the bin to show this. This could be a network, CD, or folder icon.

If your bin is showing a filtered view in addition to the preset, category, student, or basic view (all video, unsorted, etc.), an asterisk (*) will be placed to the left of the bin's name to denote this. For example, a bin labeled “*All video” would show that the bin began as an **All video** view, but now also has a filter applied.

Database Options

The Options window contains a **Database** options tab:



From here, you may change the location of your V1 Video Database, or make changes to your *categories* and *tags*.

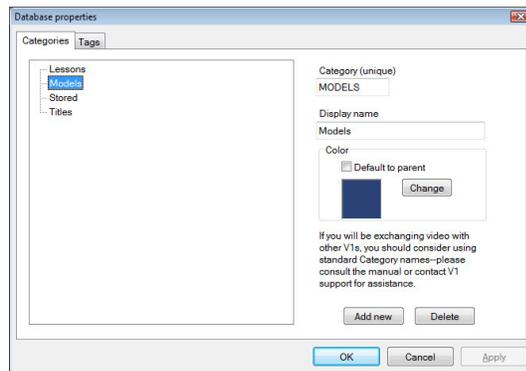
The V1 Video Database folder consists of a Microsoft Database file (MDB) together with all associated video files. There's also a “volume.txt” file that the V1 uses to describe the database when it is accessed by other V1s. It is recommended that you do

not change the location of the database unless you know what you are doing, perhaps to move it to a larger hard drive volume.

Categories

Categories exist in order to allow you to organize your video. In older versions of the V1, there were a small number of categories that were “fixed” to particular bins. Beginning with version 2009, you may choose to customize these labels by adding as many as you like, including “sub” categories (categories within categories).

To view and edit your categories, click the **Edit categories** button here. There are also shortcuts to this window found as **Edit** buttons on the **Bin** and **Tab** windows.



You will see a list of your categories on the left side of the window. If you have any sub-categories, you will see them listed beneath their parent categories and you can show or hide sub-categories by clicking the **+** or **-** signs to the left of the parent categories.

Each category has a unique name and a display name. The **display name** is used as a bin’s title if you setup a bin to show a particular category. The **unique name** is what is actually saved to the database and exchanged with other V1 Video Databases when copying and moving video, and therefore needs to be unique (each category on your V1 requires its own name).

Each category may also have a custom **color**. This color is used as the tab’s color when a tab is assigned to the category. The default color for all categories is a dark blue unless you assign a custom color. Sub-categories may be set to default to their parent’s color. Click the **Change** button to open the standard Windows color-picker window.

Click the **Add new** button to create a new category. If an existing category is highlighted when you do this, the new category will be created as a sub-category to the selected category. To add a category to the “top level,” you must first un-select all categories by clicking anywhere in the list of categories that’s not directly on a category name. The Unique token will default to a sequential token that is unique to your database. However, if you will be exchanging data with other databases, it is suggested that you change this to something more descriptive (but abbreviated, as this is limited to only 10 characters).

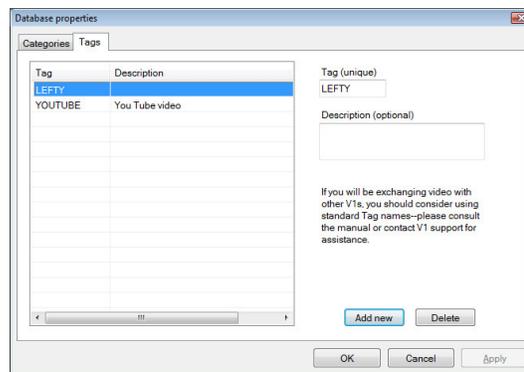
To edit an existing category, click on its name. Any changes you make to the fields will be saved automatically. To delete a category, select it by clicking on its name in the list, then click the **Delete** button.

Use the **Reset bins to match 5.7-style categories each time you Start** option if you'd prefer to stick with the simplest of bin layouts—each bin is reset to represent one category, very similar to the way in which 5.7 operated. The first bin will always be reset to either “no category” or the current student’s video. The last bin will be reset to your Internet academy Inbox if there is video requiring your attention, or to “all video” otherwise.

Tags

Tags are up-to-10 character descriptive attributes or identifiers that may be added to video tabs and/or students. Once a video has been “tagged” you may then setup a bin to show only videos with specific tags. Once a student has been “tagged,” those tags are automatically added to new videos which are recorded for the student.

You can use the **Edit tags** button from the **Database** tab on the **Options** window, or switch over to the **Tags** tab after viewing or editing your categories:



Each tag consists of a unique up-to-10 character *token* as well as an optional description. Use the **Add new** button to create a new tag, or click on an existing tag and click **Delete** to remove it from the list.

Tags are categories may be automatically added to your database if video is moved or imported into your database from another V1 Video Database.

Importing Video

There are several ways to import pre-recorded video into the V1.

With a DV camcorder, you can import video directly from the camera's video playback. Attach the camera to the V1, press play on the camera, and then use the V1's **Record** functions. In this manner, you may either (1) **Record continuous video** and then later use the **Trim** function, or (2) record with the **Use a microphone or mouse click** mode, and manually trigger the impact points by clicking on the video at the appropriate times.

There is also a way to bring pre-recorded video files into the V1. Right-click or hold down the bin label corresponding to the bin into which you want to import. Click the **Import** button at the bottom of the bin window. This will allow you to browse your system for AVI, WMV and other video files. These files will be copied into the bin's V1 Video Database folder, and will automatically be assigned the student, category, instructor, and tags specified by the bin's view.

If you have a camera with built-in memory such as the Casio EX-F1, attach the camera to your PC with its USB cable and power it on. If auto-play has not been disabled on your system, the V1 should prompt you to name the device and then set your right-most bin to display the contents of the camera's memory. At this point you may open and play the video, but it still resides on the camera. If you would like to import video from the camera into your V1, select one or more of the clips and use the **Move** button. Specify any other bin, and the V1 will copy the selected video from the camera onto your V1's hard drive.

Finally, you may simply copy video files into your V1's video database folder. When you restart the software, these files will be imported. They will retain their existing filenames and will not be renamed with the database serial number.

Digital Illustration

Using the V1's suite of analytical drawing tools



The Drawing button group contains buttons that allow you to draw reference lines and shapes on top of the video.

You may also change the line thickness and color, and even add arrowheads to your lines.

The various drawing tools are used in different ways, as discussing in the following section, *How to Draw*.

Function buttons such as **Snapshot**, **Undo**, **Re-do**, and **Clear** are also found here.

How to Draw

Select the drawing tool that you wish to use by clicking on its button. Move the cursor over the video window. Click the left mouse button, and drag the mouse in any direction. Once you have moved the mouse so that the object is the desired size, release the button. The object will be drawn in the color and the line thickness that are currently selected.

Certain tools such as the **Spline**, **Angle** and **Posture** are drawn in multiple steps.

If you're using a tablet and pen, pressing the pen firmly down onto the tablet is equivalent to using the mouse's left button.

Lines

You may draw freehand with the **Freehand** tool, a straight line with the **Line** tool, or a curved line with the **Spline** tool.



The **Freehand** tool allows you to draw freehand, just like using a pencil. Each time you press the mouse button (or push down on the pen), you begin a new line.



The **Line** tool allows you draw a line at any angle you want. Whether or not the angle measurement persists on the screen is determined by a software option. Hold down the Shift or Ctrl key on your keyboard to “snap” to a perfectly vertical, horizontal, or 45 degree line.



The **Spline** tool automatically draws a smooth curve between the points you click, in the order that you click them. When drawing a spline, you may click on the video to add new points, or click and drag the white rectangles that designate existing points.

Angles

There are two variations, the **Angle** tool and the **Posture** tool.



The **Angle** tool allows you to draw an angle of any degree. Position the cursor at one of the endpoints of the angle. Click and draw the first leg of the angle toward the *vertex* (corner). Release the button and reposition the cursor at the other endpoint. Now when you click and draw, an angle measurement will appear. Release the mouse button to complete the angle.



The **Posture** tool allows you to draw posture angles, which are comprised of three lines with angle measurements at the hip and knees. To draw a posture angle, click and draw a line from the shoulders to the hips. Then, click the knees and then finally the ankles.

Boxes

There are two variations, the **Rectangle** tool and the **Grid** tool.



The **Rectangle** tool draws a shape with four sides and four right angles. Click at one corner, and then draw to the opposite corner. To draw a perfect square, hold either the Shift or Ctrl key on your keyboard before you draw. Click at the center of the square, and then draw “outward” in any direction.



The **Grid** tool draws a grid—a series of overlapping horizontal and vertical lines. The default size of the grid squares will vary with the current line width setting. The thicker the lines, the bigger the grid squares.

Once a grid has been drawn, you will see that it has three handles, or white squares, that you can click and drag with the mouse. The handle at the top-left of the grid allows you to move the entire grid. The handle at the bottom-right of the grid allows you to resize it. The handle in the interior of the grid, near the bottom of the first square, allows you to adjust the grid spacing. The V1 will remember your grid spacing for subsequent grids.

Circles

There are two variations, the **Oval** tool and the **Clock** tool.



The **Oval** tool draws an ellipse. Click at one corner, and then draw to the opposite corner of the rectangle that surrounds the oval. To draw a perfect circle, hold down the Shift or Ctrl key on your keyboard before you draw. Click at the center of the circle, and then draw “outward” in any direction.

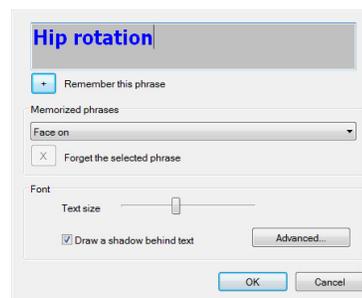


The **Clock** tool draws a clock circle with “hour” ticks. Click at the center of the clock, and then draw “outward” in any direction.

Text



The **Text** button allows you to write text on top of the video in the current color. The V1 can memorize phrases that you use frequently. Click the **Text** button and then click on the video at the point where you would like the text to begin. This window will open:



You may simply type the text you want, and click **OK** or press **Enter**.

Before clicking **OK**, you may press the **+** button to memorize the phrase for future use.

If you have previously memorized phrases, you may select the phrase from the **Memorized phrases** box instead of typing it again.

There are several Font attributes you may choose:

Text size

Move the slider to see your text change size immediately in the edit box.

Draw a shadow

Select this option to draw a shadow behind your text, giving it greater contrast for most video.

Advanced

Click the **Advanced** button to open the standard Windows font selection window. This will allow you to select a custom font and attributes such as bold or italics. Note that the text size is not used from this window, as it is controlled by the **Text size** slider.

Erasing

Here are a set of tools for removing drawings from the screen.



The **Undo** button removes the last thing you drew. There is no actual limitation on how far back you can “undo.” If you draw something new, anything “undone” may not be recovered with **Re-do**.



Clicking **Re-do** will bring the most recently undone object back again. You may continue to click **Re-do** until everything “undone” has been brought back.



The **Clear** button removes all drawing from the video screen. **Clear** may also be un-done and re-done with the **Undo** and **Re-do** functions. When in **Compare** mode, the **Clear** button will clear only the selected side of the video window.

Although not recommended for use, there is also an **Erase** tool, which operates like a pencil eraser. Select the **Freehand** tool then use either the right-mouse button or the flip-side of a drawing tablet pen.

Snapshot



The **Snapshot** button saves what you’ve drawn on a video to a “.dat” file in your V1 Video Database folder. When you next open the video, the drawing you saved will be recalled automatically. The **Undo** and **Re-do** commands work with the recalled drawing.

Note that it’s possible to use **Snapshot** with a “clear” video. When you next open the video, any drawing will be removed.

If you open a video which has not yet had the **Snapshot** tool used on it, any drawing currently on the video window will remain.

Line Styles

 The width buttons determines the width (or thickness) of the pen used by the majority of drawing tools.

 The arrow buttons choose whether or not one or two arrowheads are added to the ends of your lines and angles.

 The selected color button determines the color of the pen used by the majority of drawing tools.

This page intentionally left blank.

Digital Effects

The magic begins...

With this chapter and the next you will see some of the many advantages and the flexibility that the realm of digital video affords.

Wedge



Overlays a half-transparent triangle on a video in order to assist you in determining (for example) if a club moves in or out of plane during the golf swing. Here's an example:



Each video may have one wedge drawn at a time—when a new wedge is drawn, it replaces one that may already be on the screen.

Although the wedge resembles the variable **Angle** tool, it is drawn differently. To draw a wedge, click first at the *vertex* (corner) of the angle. Move to draw the first leg of the angle through either the shoulders or the hips. Next, click in the vicinity of the opposite endpoint, and move to draw the other leg.

The V1 automatically remembers the last wedge that was drawn for each video, and instantly recalls it when you click the **Wedge** button.

Zoom



This tool is used to show a close-up view of a section of the current video image. This tool behaves like one of the digital illustration tools. When you click the **Zoom** button, the cursor becomes a magnifying glass. Move the cursor over the video, then click and hold the mouse button to display a “window within a window” magnified view. While holding the button down, you may move the mouse and the magnification window will follow.

The magnification window is intentionally “offset” slightly up and to the left to prevent the cursor from obscuring the intended center point of interest. Here’s an example:



Enhance



This tool allows you to brighten any rectangular section of the video image for emphasis or better contrast. Like **Zoom**, **Enhance** also behaves like a drawing tool. The **Enhance** tool draws a rectangle, but when you release the mouse button to finalize your drawing, the video within the rectangle is enhanced. Here’s an example:



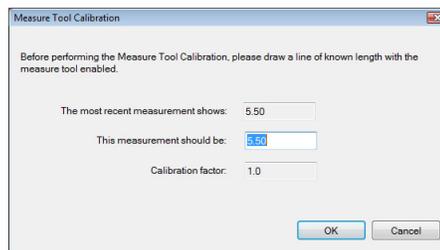
Measure



When you draw a line with the **Measure** button turned on, the V1 will place a digital measurement along the line. By default, the units of this measurement are “pixels” on the display (so if the V1’s video window is 840 pixels wide and 630 pixels high, a horizontal line drawn from the leftmost point to the rightmost point on the window will measure 840.00).



You may “calibrate” these measurements by holding down or right-clicking the **Measure** button.



The **Calibrate** window instructs you to “draw a line of known length” and then set a control to match this value. As soon as you make a change, you will see all on-screen measurements immediately updated.

This page intentionally left blank.

Advanced Digital Effects

Now things really start to get interesting...

The features described in this chapter were designed to aid you in viewing your video from alternate perspectives. The **Time-Lapse** features, for example, use various techniques to compress multiple frames of video into a single image.

Time-Lapse



The basic time-lapse function simply displays eight consecutive frames of video on one image. Here's an example:



Key Frames



The second button, **Key Frames**, will display the 4 or 8 key frame positions corresponding to the 4 or 8 **Key position** buttons as discussed in the *Video Playback* chapter. Here's an example:



Notice that the **Tempo** feature is supported with **Time-Lapse**.

Multiple Exposure



This advanced digital effect simulates the photographic effect of exposing one frame of film to multiple images. In the V1, this effect is performed on sequential frames of video, providing a powerful way to compress an entire athletic movement into a single image. Here's an example image:



Before a multiple-exposure image can be generated, you must specify the **Impact Point** for your video. Then, you may select a starting and an ending **Key Position** for the effect. The V1 will remember these positions and make them the defaults for the next time that you use this feature.

NOTE: You will find that this effect works best when the camera is stationary, as with a tripod. Otherwise, the entire frame will appear as movement to the computer rather than the subject alone.

Slide



When using Compare Mode, only half of the normal space on your screen is available for each movie, and one subject may appear larger than the other. The **Slide** tool allows you to “pan and zoom” a movie in order to position it for better viewing. Here’s a “before and after” example:



After selecting the **Slide** tool, use the mouse to “grab” the video you wish to move. When you depress the left mouse button (or push down with a pen), you will grab the video, and the mouse cursor will change from an open hand to a closed hand. Once you “grab” the video, moving the mouse will move the video in the same direction. When the video is positioned as you like, release the mouse button. If you reach the video’s border while moving the video, it may be necessary to reposition the mouse and then repeat use of the **Slide** tool.

Use the right-mouse button instead of the left to “zoom” the video. When you hold the right-mouse button, the cursor will become a double-headed arrow. Move the mouse toward you (or down) to zoom in. Move the mouse away from you (or up) to zoom out.

Slide may be used both in Compare Mode and with a single video. The V1 will memorize the slide and zoom position for each tab, and will re-open the video in the previously selected position.

This page intentionally left blank.

Working with Students

Keeping your business organized

The V1 helps you to do business by maintaining a database of your students, their contact information and other lesson related data. Each time you begin work with a new student, you should enroll him or her and then select him or her as the **Current Student**. Once you do this, the first bin will show you all video previously stored for the student.

Student Information



When you click the **Student** button, a window appears which allows you to search for a student; view or edit stored student information, and then select him or her as your **Current Student**. It's also the place to enroll new students.

The Student List

If your student list contains too many names to fit on one screen, you may need to use the scroll arrows or drag the scroll box on the right-hand side of the student list. You may also click on the list, then use your keyboard to type the first letter or two of the name you are searching for—the list will jump immediately to that point.

To further limit the view of a large student database, you may select to show **My students only** which will then show only students with an **Instructor** field containing the current instructor's name. By default the instructor field is populated with the current instructor's name when the **New** button is used to create a new student.

It is recommended that you enter names into the **Name** field in standard first then last name format. As you may wish to search by last name, the option is provided to sort your student list by last name first.

Editing a student record

To edit a student record, first locate the student in the student list, and then click on the name in the list. Click the **Edit** button then click on the field you wish to change and use your keyboard. Finally, save your changes with the **Save** button, or undo them with the **Cancel** button.

Adding a student record

To add a new student, click the **New** button. The fields will be cleared and the cursor will be placed in the **Name** box. Once you have finished entering all pertinent information, click the **Save** button. A record should have a unique name and email address. It is possible for several names to share an email address (possibly a family), or for one name to have multiple email addresses (possible different people with the same name).

HINT: If you would like certain fields to have default settings, such as the country, state, gender, etc., create a student record with the name Default. This record's values will be used when you click the **New** button.

Deleting a student record

To delete a student record, first locate the student in the student list, and then click on the name in the list. Then, click the **Delete** button and answer **Yes** to the "are you sure?" prompt.

Student Fields

The information "fields" available to you are as follows:

Name

The student name combined with the email address comprises the "key" to the database. That is, no two students may share the same name/email combination. For consistency across V1 Video Databases, it is recommended that you use first-name-first format. Note that it is possible to sort the student list by last name when searching for students.

Email

user@domain.com, for example

Phone#

Use any appropriate format. You may also check the **CC Smart phone** for push-to-phone lessons.

Address 1

Street name and number

Address 2

Suite or apartment number, if applicable

City, State/Province, Zip/PC code

Use these as appropriate for your locale.

Birthday

Use a standard Windows date-picker. **Hint:** click on the Month, Year label at the top of the date-picker window to show years, click again for decades. The student's age will automatically be calculated and displayed to the right of the birthday field.

Height

Numerical (inches or meters), or general (short or tall)

Gender

Male or Female, or you may leave this blank

Left-handed

Check this box if the student uses a left-handed stance or club.

Body type

Endomorph (overweight), Ectomorph (thin), or Mesomorph (muscular)

Instructor

For new students, this will default to your name, but you may choose any other instructor identity that has been created on your V1.

Serial#

This is a sequential record number used to link to other tables. You need this only if you will be directly manipulating the V1 database file.

Visits

The number of times a student has been selected as the Current Student. This number is automatically incremented by the V1. The date of the last visit is also automatically stored.

Color

Each student may be assigned a custom color that will be used when his or her tabs appear in a bin. This allows you to at-a-glance pick out tabs belonging to specific students of interest.

Use the **Default** box to just use the standard student tab color. Use the **Set** button to open the standard Windows color-picker window.

Tags

You may tag students using the same set of tags used to tag video. When new video is recorded for the student, these tags automatically “flow” to the video record. For example, video recorded for a student with a “Left Handed” tag will automatically be tagged as “Left Handed” as well. Use the **Add** button to add new tags. Highlight one or more tags and then click the **Delete** button to remove them.

Notes

This *memo* field holds any other useful information. This can include motion flaws, strengths, learning style, etc.

Broadband lessons

By default, Internet academy lessons created for students are of broadband size and quality. If the student has a very slow Internet connection, you may wish to un-select this option, which will cause the V1 to create low-bandwidth lessons suitable for dial-up networking.

Student Image

You may store a picture of each student in your V1 database. If your V1 is displaying live video, the **Capture** button may be used to capture a still image that will be displayed whenever you access the student’s record. You may click **Capture** as many times as is necessary.

The Current Student

To select the student you will be working with on the V1, you need to make him or her the Current Student. To do this, double-click the student’s name in the student list, or select the student in the student list and click the **Select as current** button.

The student’s name will appear at the bottom of the V1 window. The first bin will automatically become the student’s bin, showing all video stored for the student. All newly recorded video will automatically be assigned to this student.

To manually “un-select” the current student, you will also find an **UN-select student** button.

Automatic video storage/deletion

You will find a new software option to **Automatically delete new student recordings left unrated/categorized**. When you enable this option, the V1 will delete all new student recordings unless you “rate” or “categorize” them, which may help you to avoid “clutter” by deleting all scratch recordings. After recording video, you will see a “clock” icon on the new tabs like this on number 8:



Unless #8 is rated or categorized before you switch students or exit the V1, it will be deleted. To rate the video, hover your mouse cursor over the tab, and when the video preview window appears, click on the number of stars you wish to assign. Right-click the tab and then select a category to categorize the video. Note that the video must be “paused” in order for the preview window to appear. Once rated and/or categorized, the “clock” icon will be removed.

Import and Export

If you have a large number of students to add to your V1 student database, you may wish to import them from a list. To do this, you need to create a CSV (comma separated value) file. You may do this with the windows “notepad” program, but Excel or Access will make the job easier. The CSV file should be in Windows Unicode format. The first record of the file should contain the field names to be imported. The fields should include the “Name” field, and ideally the “Email” field. All other fields are optional.

Click the **Import** button and browse for your saved CSV file. The V1 will report the number of records successfully imported.

When you use the Export function, the following fields are exported for all students: Name, Email, Phone, Address1, Address2, City, State, Postal Code, Country, Tags.

Smarter Lessons

If you are using the Smarter Lessons version of the V1, and have successfully linked to the Smarter Lessons server, you may begin a Smarter Lessons “walk-up” lesson by first selecting the **Begin a Smarter Lesson** box before selecting the student as the current student.

The Smarter Lesson begins immediately. When “live” video is displayed, the lesson is paused. Otherwise, everything that you say, and everything that appears in the V1’s video window becomes part of the Smarter Lesson. When you have completed the lesson, click the **Stop** button that appears over the **Internet** button. For more Internet lesson details, please consult the following chapter.

This page intentionally left blank.

The Internet Academies

Distance learning here and now

The V1 Golf Academy (and the V1 Sports Academy in conjunction with your V1 Branded Academy) connect golf and other sports professionals like yourself with their students anywhere in the world. There are many ways to use the Academies:

Students may use their personal computers, cameras, smart phones, and the V1 Golf, Leadbetter Interactive, or V1 Home software to capture their motion. You receive an email notification when a **student uploads his video** and is requesting an analysis. You download the video and analyze it using all of the V1's tools. Your video lesson including voice is then returned to the student.

You may use the V1 Pro to create an **on-site lesson** which uses video captured during a face-to-face lesson, or otherwise does not begin with a student first sending you video via the Academy. Student Academy lockers are automatically created if they do not yet exist.

You may record **content video** such as tips, drills, or lesson intros and outros and upload those to your locker for inclusion in future student lessons.

You may use the V1 Pro's **Move** function to push "raw" video to a student's Academy locker.

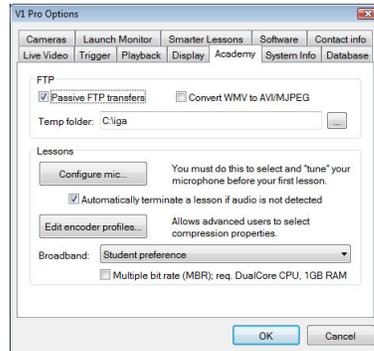
You may use many of the V1's lesson recording functionality to compile and burn a **CD lesson** instead of sending the lesson to an Academy locker.

How to become an Academy instructor

Fill-out a Faculty Application online at <http://www.v1golfacademy.com>, or contact Interactive Frontiers directly in order to have an Academy instructor account created for you on either the V1 Golf Academy or V1 Sports Academy website.

Academy Options

This page allows you to control the way in which V1 Golf Academy or V1 Branded Academy lessons are created and how they are sent to the Academy. To access the Academy Options window, launch the V1, select **Options**, and then select the **Academy** tab. The following window will appear:



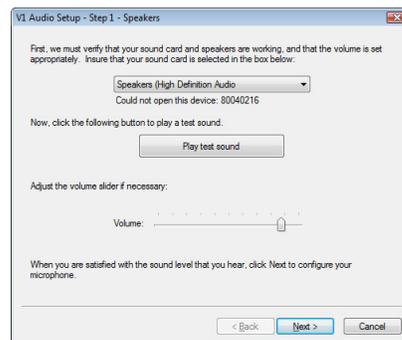
FTP options

The **Passive FTP transfers** option should be checked by default. This feature aids in file transfer through systems with gateways and firewalls. If this does not apply to your system, and you experience problems with file transfers to or from an Academy website, you might try disabling the passive FTP feature.

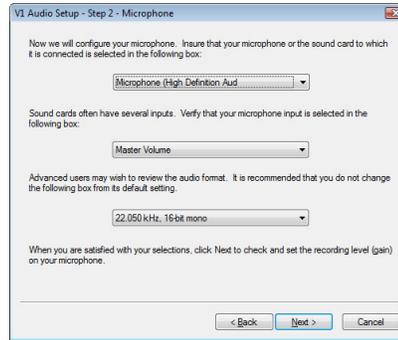
The **Temp folder** is used to hold videos and lessons as they wait to be packed and sent to the Academy. The default location of “C:\iga” is recommended.

Configuring your Microphone

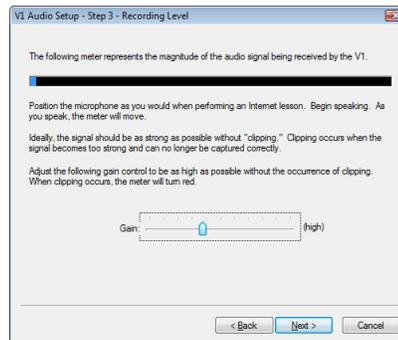
Before using the V1 to create a CD or an Internet lesson, you must configure your microphone. This insures that it is properly connected, selected, and that the gain (recording volume) is properly set. A quick record/playback test is also performed. To begin the configuration, click the **Configure Microphone Now** button.



There are several steps, and you may use the **Back** and **Next** buttons to navigate them. The first step asks you to check your speakers and volume. Click the **Play test sound** button to hear a sound bite. If necessary, adjust the volume slider and the controls on your physical speakers (if they are external to your PC), until you attain a comfortable sound level. Click **Next** to continue.



The second step asks you to select your microphone. The first two option boxes on this page ask for you to select your sound card or other device to which your microphone is connected, and the input device if there are more than one from which to choose. The third box controls the recording format. Unless you have been specifically instructed to change this setting, please retain the default. Click **Next** to continue.



The third step asks you to adjust the gain (or recording volume) of the microphone. There's a graphic display of the sound that's currently being "heard" by the computer. You'll want to position the microphone and speak as you would when performing a lesson. The object is to set the gain as high as possible without "clipping" the audio. Clipping will create distortion in the audio. You will see the graphic display turn red when clipping occurs. When you see clipping, adjust the gain lower and speak again. When you've discovered an optimal gain setting, click **Next** to continue.

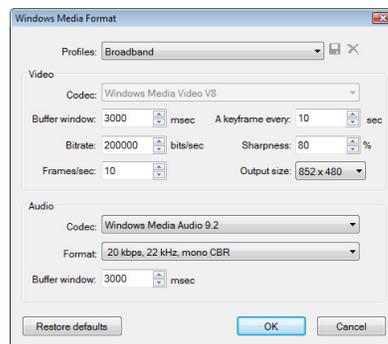


The final step allows you to perform an actual recording test. Click the **Record** button to begin. Speak for several seconds, and then click the **Stop** button. Click the **Play** button to hear what you've recorded. If you need to return to previous steps to make corrections, you may do so as this time by clicking the **Back** button. If you are satisfied with the sound, click **Finish** and your settings will be saved.

It is recommended that you check the box to **Automatically terminate a lesson if audio is not detected** in order to avoid spending several minutes creating a lesson only to learn that the audio has not been recorded due to a missing or switched-off microphone.

Encoder profiles

This configuration page should only be used by advanced users or under the supervision of Interactive Frontiers support.



Encoding of real-time playback may be achieved for broadband lessons by setting the **frames/sec** to 30 and the **output size** to Medium (360). High-quality encoding of non-voice audio (lead-in music for example) may be achieved by using the non-voice Windows Media Audio codec.

Broadband options

A “broadband lesson” is one designed to be viewed by students with high-speed Internet connections, such as cable modems and DSL. However, the size of the files that you as an instructor will be uploading to the Academy will increase by a factor of about 4. If you are using a very slow and/or unreliable connection, you may not wish to create broadband lessons.

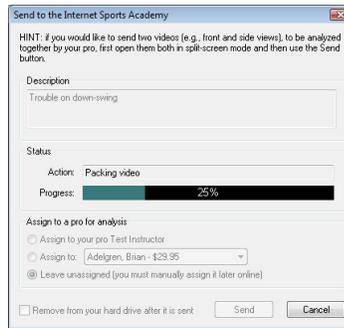
You may choose to create broadband lessons **always**, **never**, or according to **student preference**. When you select **student preference**, a check box appears on the V1's **Record Lesson** window allowing you to select broadband at that time. This setting is then remembered on a per-student basis. This allows you to create broadband lessons only for those students who will benefit from them. Note that the broadband encoding profile is always used for CD lessons.

Select the **Multiple Bit Rate (MBR)** option for broadband lessons only when using a high-performance CPU (dual-core or more) with plenty of RAM (2GB or more). MBR lessons actually contain *both* a standard dial-up quality lesson and a broadband

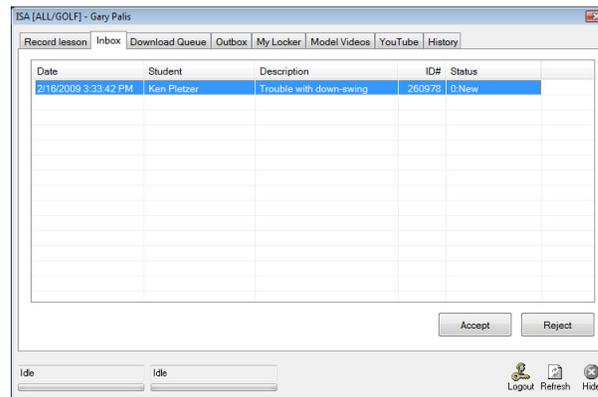
lesson. When your students view their lessons, the Academy server automatically serves the appropriate version based on the student’s connection speed.

Receiving Video to be Analyzed

Before you can receive a video, a student must get video into his locker and assign it to you. Either the V1 Pro, V1 Golf, Leadbetter Interactive, or the V1 Home software may be used to upload video to student lockers. Videos may either be automatically assigned when they are uploaded, or the student may use the website to assign them manually. Here’s what a student might see when he uses V1 Golf, Leadbetter Interactive, or the V1 Home to send a video:



Once the video is on the Academy website and assigned to you, you can use the **Internet** button to view your **Inbox** and retrieve it. If you are logged on, the **Internet** button will actually flash when you start the V1 in order to alert you that you have new lesson requests. You must be connected to the Internet in order to make changes to your **Inbox** and to send and receive.



Your **Inbox** contains a list of the new videos which students have assigned to you. Click a video to highlight it, and then click either **Accept** or **Reject**. Once accepted, the video is moved to the **Download Queue** page, and transfer of the file from the Academy will begin immediately if you’re logged in. If rejected, this video is moved to your **History** page. In either case, the student will be informed of your decision via email.

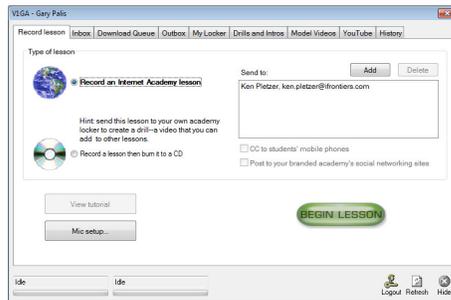
When you are done accepting and rejecting videos, you may now use the Login button to connect to the Academy (if not already connected), and then visit the **Download Queue** page to “watch” your videos arrive, or click the **Hide** button to close the window. When the transfer and unpacking of a video is completed, it will be added as a tab to your V1 **Inbox** bin with a Tab ID reflecting the Academy serial number. The process of importing these videos will also automatically create the appropriate new student records in your V1’s database as necessary.

The V1 **Inbox** bin acts as your Academy “to do” list. Tabs are removed from the **Inbox** bin when they are analyzed or deleted.

Recording a Lesson



Click the **Internet** button to record an Internet Academy or CD lesson. Internet Academy lessons may either be performed in response to videos sent to you through the Internet Academy, or they may be created “on-site” perhaps during a face-to-face lesson. In either case, open the video to be analyzed before clicking the **Internet** button.



Record an Internet Academy lesson

If there is a current student selected, this will be the student for whom the lesson will be created. Otherwise the lesson will be created for the student who uploaded and assigned the current video to you. You may use the **Add** button to “CC” the lesson to additional students. All students must have valid email addresses in their student records.

Select the **CC to students’ mobile phones** option to send a link to the lesson to the smart phone# on record for each student receiving the lesson. A smart phone is one that can receive and play video content, such as an Apple® iPhone® or Blackberry® Storm®.

Select the **Post to your branded academy’s social network sites** option to have the lesson appear on your Facebook fan page, Twitter feed, and Youtube channel. These sites must be configured on your branded academy’s instructor page.

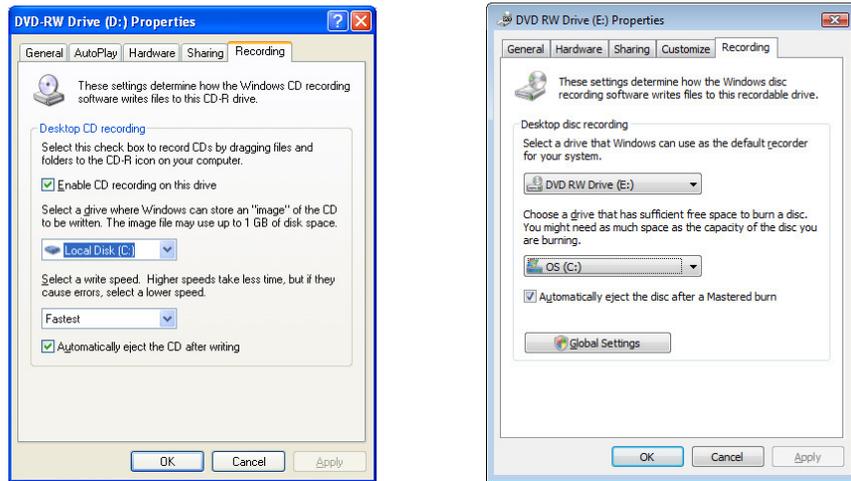
Hint: if you send the lesson to your own Internet academy locker, the lesson will become a “drill” that you then may add to other lessons (see Lesson Wrap-up below). Do this by enrolling yourself as a student on your V1 (using the same email address as

was used to login as an instructor on the V1's beginning menu screen), then make yourself the current student and perform a lesson.

Record a lesson then burn it to CD

This type of lesson proceeds identically to an Internet lesson, however instead of sending the lesson to an academy, the lesson files are burned to a CD.

In order to use this option, you must be using the XP, Vista or Windows 7 operating system with a CD-R (recordable CD) drive. On XP, you must also enable “desktop CD recording.” Do this by opening the “My Computer” icon on your desktop or Windows Start menu. Locate your CD drive icon, right-click on it, and select “Properties.” You should see a window like this one:



Click on the Recording tab, and then check the box for the **Enable CD recording on this drive** option. Click **Ok**. On Vista and Windows 7, this option is always enabled, so there is no checkbox for it here.

Beginning the Lesson

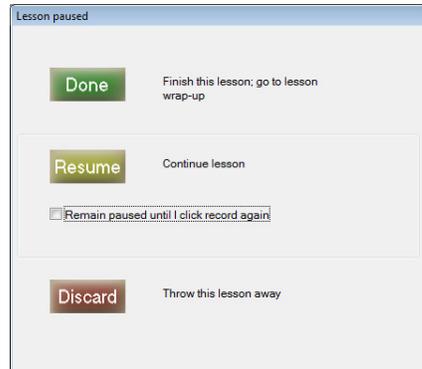
When recording a lesson, the V1 records both your voice and the images shown in the V1 video window. There are a number of setup requirements for recording a lesson, such as microphone configuration (notice the **Mic setup...** button included here for your convenience) and instructor account authentication. You must also have selected a current student and a video with which to begin analysis. Please consult the *Internet Academies* chapter for more information.

Once you click **Begin Lesson**, begin your lesson immediately. Your lesson may not exceed 30 minutes in duration. A 30 minute countdown timer will begin on the V1 window. To the right of the countdown timer is a graphical display of recorded audio activity.



If you see little or no movement of the audio-meter display, you may not have your microphone configured correctly—please consult the previous section. If the relevant Academy option is enabled, the V1 will automatically terminate the lesson if audio is not detected within 10 seconds of starting the lesson.

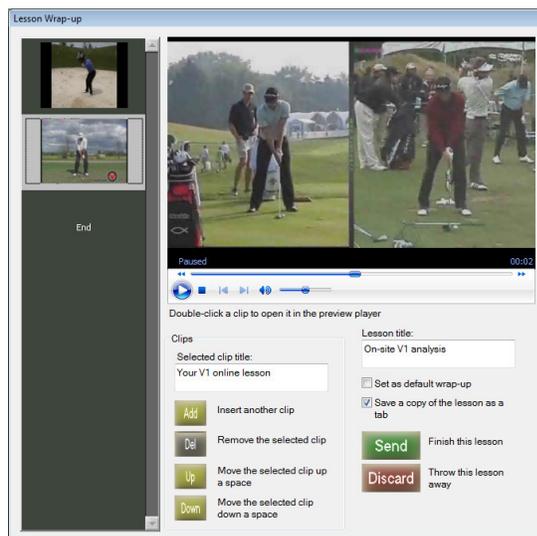
While performing the lesson, speak naturally into the microphone, and use the V1 as you normally would to analyze and compare the student’s video. You may not use live video unless you are creating a Smarter Lesson. When you are done, click the **Stop** record button.



At this point, the lesson is actually “paused.” You may use this time to take a break, collect your thoughts, or pause for any other reason. To continue the lesson where you left off, click **Resume**. Check the **Remain paused until I click record again** box to close the “Lesson paused” window in order to have access to the drawing tools and compare button while your lesson remains paused. When using this feature, you must click the **Internet** button once again to actually resume the lesson.

Lesson Wrap-up

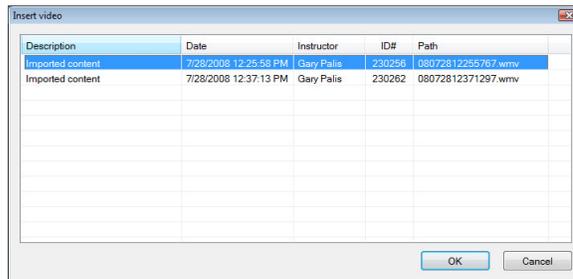
You may **Stop** the lesson and then **Resume** it any number of times. If you are unhappy with the lesson, you may choose to **Discard** it. When you are actually finished with the lesson, click **Done** to display the **Lesson Wrap-up** window.



The lesson that you recorded will be open for “preview” at this time in the video window. You may use any of the video control buttons to see and hear what you’ve recorded. You may change the description so that it appears as you would like in the student’s locker. In addition to a description for the lesson as a whole, you may assign a title to each individual clip. Do this by clicking on a clip, then typing into the **Selected clip title** box. To view or change the lesson description once again, click on the **End** marker.

If you want to discard this lesson without saving it, click the **Discard** button.

To add a pre-recorded drill or other video content to your lesson, highlight the location where you would like it to appear (highlight the **End** marker to put it at the end of the list) and then click the **Add** button.



You will see a list of video lessons currently found in your own Academy locker which have also been downloaded to your computer’s hard drive (see Managing Locker Content below). Now click on the video to insert, and then click the **Ok** button.

When your lesson consists of more than one video, you may open any one of them in the video window by double-clicking its image on the Lesson Wrap-up list. To remove a video from the Lesson Wrap-up, highlight its image then click the **Del** button. It’s not possible to remove the original lesson video.

To rearrange the clip order, highlight a clip, then use the **Up** or **Down** button to move the clip higher or lower in the list, respectively.

Click **Send** to store your lesson for transmission to the Academy website (or **Burn** to write it to a CD in the case of a CD lesson). Sending the lesson proceeds “as a background process” when you are connected to the Internet and logged into an Academy website. That is, as soon as you click **Send**, you may immediately use the V1 for other purposes. If your lesson is being written to CD, however, you must wait for the Windows CD writing process to complete before continuing.

If you are constantly inserting the same videos each time, check the **Set as default wrap-up** box before you click **Send**. Now, the selected videos will automatically be inserted into the lesson wrap-up each time you perform a lesson.

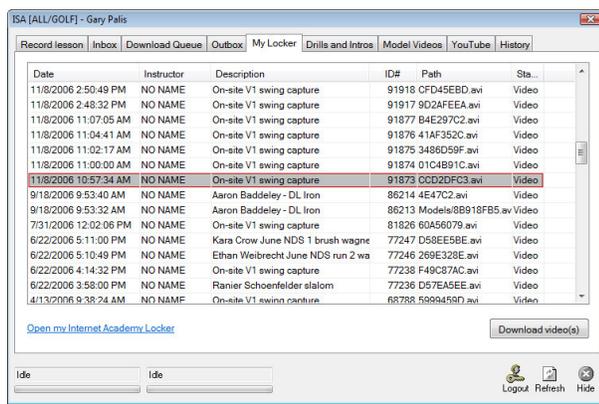
Uploading your Lessons

If you are not continuously connected to the Internet, the V1 will upload lessons when the connection becomes available. When the connection is made, you may click the V1's **Internet** button, select the **Outbox** page, and verify that transfer has begun.

As each lesson is successfully uploaded, it is moved from the **Outbox** to the **History** page.

Downloading from Your Locker

To view the contents of your Academy locker, use the V1's **Internet** button and select the **My Locker** tab.



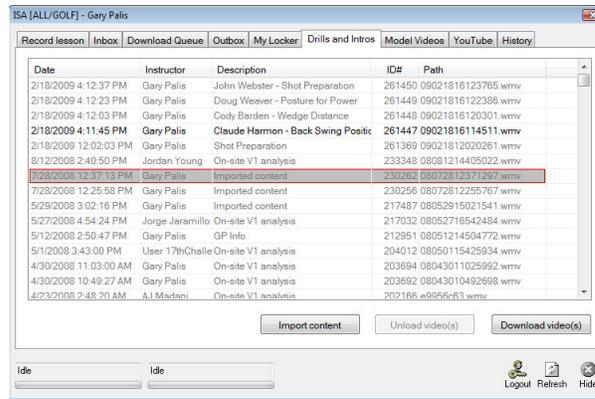
Only raw video sent to your locker by using the **Move** command or the V1 Home or V1 Golf software is shown here. This list is updated when you use the **Refresh** button.

Click on a video then click the **Download video(s)** button to download it. To download more than one at a time, hold the **Ctrl** key as you click videos to highlight more than one before using the **Download video(s)** button.

Once the video has been downloaded and unpacked, it will appear in your leftmost (typically **No category**) bin.

Managing your Drills and Intros

Drills and Intros that are available for use during a Lesson Wrap-up are really just Internet lessons that have been saved to your own academy locker. To view this portion of your locker, use the **Drills/Intros** tab.

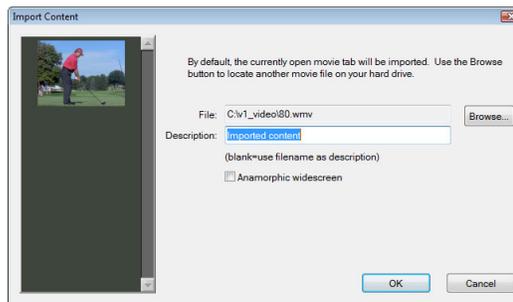


Downloaded locker content will be shown in black (as opposed to gray) lettering. Click on a video then click the **Download video(s)** button to download it. To download more than one at a time, hold the **Ctrl** key as you click videos to highlight more than one before using the **Download video(s)** button.

Once downloaded, the video will be placed into a special folder on your system reserved for locker content available for use during Lesson Wrap-up.

Highlight one or more videos and then click the **Unload video(s)** button to remove downloaded locker content from your hard drive. When videos are unloaded, they are deleted from your computer, but not from your online Academy locker.

You also may convert a raw video file (captured by using the V1's **Record** function or a third-party video capture tool) into an appropriate format and then send it to your locker for use as a drill or lesson content by using the **Import content** button.



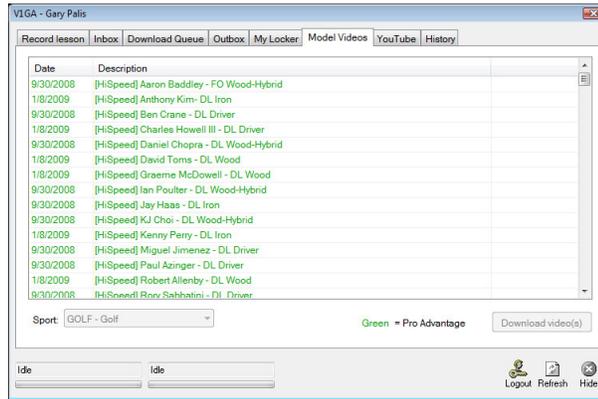
By default, the video tab that is currently open in the V1 window is selected to be converted and sent to the Academy. You may use the **Select** button to browse your hard drive for another video.

When you click Ok, you should see the conversion and upload progress on the **Outbox** page. Once the video has been successfully converted and uploaded, it can be found at the top of your **Drills/Intros** page.

Imported locker content is always encoded into Multiple-Bit-Rate (MBR) format—that is, the actual video file contains streams appropriate for both broadband and dial-up viewers.

Downloading Model Videos

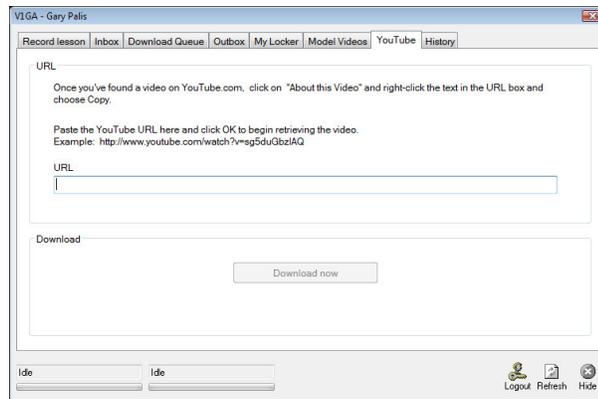
To download model videos, your V1 PC must be connected to the Internet. Use the V1's **Internet** button and select the **Model Videos** tab. By default, you are given a list of models corresponding to the sport you selected when logging into your Academy account. If you're using the V1 Sports Academy, you may browse another sport by selecting the desired sport from the drop-down sport selection tool.



To download a video, click on it, then click the **Download Video(s)** button. You may select more than one video to download by holding the Ctrl key on your keyboard as you click. Videos that are queued for download are listed on the **Download queue** page. Once a video has been downloaded and unpacked, it will be given the category of **Models** in your video database.

Downloading YouTube Video

Click the **YouTube** tab to import a video directly from the [YouTube.com](http://www.youtube.com) website.



Once you have found a YouTube video that you would like to import into your V1, find the URL box on the website like this one:



Click the **Share** button, then click into the URL box and then click Ctrl-C to copy the text. Click into the URL box on the V1 and click Ctrl-V to paste the text. Click **Download now** to add the video to the Download Queue.

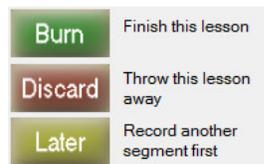
Recording CD Lessons

A V1 “CD lesson” is similar to an Academy lesson, except the video files are burned to a CD-R instead of uploaded to the Academy. When recording a CD lesson, it is not necessary to select a current student, or to begin with an open video. It is also unnecessary for you to be logged in as an Academy instructor.

Before recording a CD lesson, you must be using XP® Vista® or Windows 7 and have enabled its CD burning feature. To verify that this feature has been enabled, open the My Computer icon on your desktop, right-click your CD or DVD burning drive, and select **Properties**. Click the **Recording** tab.

The lesson recording and wrap-up process is identical to the Academy lesson process as described above, with these exceptions:

1. A CD lesson is always recorded with your broadband (high quality) lesson recording settings.
2. Instead of a **Save** button, you will see a **Burn** button.
3. Instead of a **Discard** button, you will see a **Later** button. When you click **Later** at the lesson wrap-up page, the lesson is not discarded. When you record another CD lesson, the new lesson will appear in the wrap-up along with the previously un-burned lesson(s). This allows you to add more than one lesson segment to a single CD.



When burning the CD, the V1 is able to use either a simple play list (a WVX file containing a list of the clips) that will open in Windows Media Player, or an HTML document which provides a more robust user experience when opening your CD.

If a folder entitled “cdlesson” is found in your V1 Professional program folder, its contents are copied to the CD. The HTML file “lesson.htm,” which must also be present in the cdlesson folder, actually contains a template format that is used to create the resultant lesson.htm file which is burned to the CD.

If you updated your V1 since the HTML lesson format was introduced, you will have a file “cdlesson.zip” which can be un-zipped into a cdlesson folder to provide you with this feature.

Chapter 10

More Options

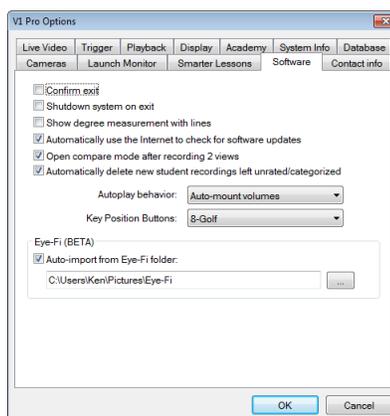
Further customize your V1 experience...

How do I show the degree measurement on my angles? How can I integrate my launch monitor? How can I tell the V1 that I would like videos recorded by my second camera to be labeled as “Face-on” shots? These and other questions are answered in this chapter.

From the V1’s opening menu, click **Options**. V1 options are separated into a number of options pages. The **Live Video**, **Trigger**, **Playback**, **Database**, and **Academy** pages have already been discussed in previous chapters.

Software Options

The **Software** page contains a number of general user interface options:



If you select **Confirm Exit**, you will be asked “Are you sure?” when you click the V1’s **Exit** button. If not selected, the V1 will exit immediately upon depressing the **Exit** button.



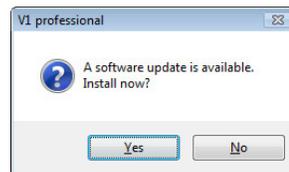
You should exercise caution when disabling the **Confirm Exit** feature and simultaneously selecting the **Shutdown System on Exit** option.

If you select **Shutdown System on Exit**, the V1 will close all open applications on your system and attempt a power-down when you exit the V1 software. This option is handy if you are using the V1 as a dedicated Kiosk system.

The **Show Degree Measurements with Lines** option will cause angle degree measurements (relative to the horizon) to be drawn alongside the lines that you draw. Without this option selected, the degree measurement is still displayed alongside the line until you release the mouse cursor while drawing a line and the line is finalized.

Internet Updates

If your system is connected to the Internet as your V1 software loads, the software will automatically check the Interactive Frontiers website for available V1 updates.



If an update is available, a message will appear on your screen asking whether you'd like to download it. If you answer **Yes** the V1 software will fully download the update before closing and launching the installer. Following installation, the V1 will automatically restart. In addition, a browser window may open the page v1pro.com/support/support.asp. This page contains details of what's new in the update.

In certain circumstances, and especially where the Internet connection is problematic, the automatic update check may cause the V1 to become unresponsive at startup. To override this behavior, remove the check from the **automatically use the Internet to check for software updates** box.

Use the **Open compare mode after recoding 2 views** option when you are using two cameras to record simultaneously, and would like to immediately review both views together in a split-screen.

Auto play behavior

When this feature is enabled, the V1 will react to the attachment of a memory device with a DCIM folder, as from a digital camera. The volume will be “mounted” and the folder will appear as the right-most bin and you will be able to move video to and from device using the V1's **Move** button. Also, you may choose to both **Auto-start V1 & Mount** the volume. With this option, the attachment of the memory device will first start the V1 if it is not already running.

Key Position Buttons

You may choose to display either 4 or 8 **Key position** buttons as discussed in the *Video Playback* chapter. If you select to have only 4 of these displayed, they will correspond to the Address, Top-of-Backswing, Impact, and Follow Through positions. This setting also affects the behavior of the Time-Lapse “key-frames” feature—a number of

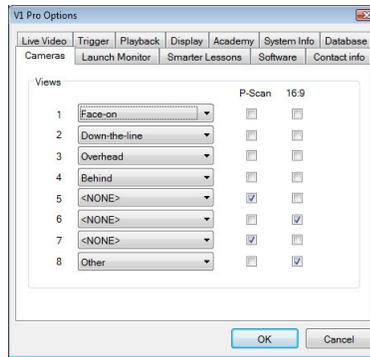
key frames are displayed corresponding to the number of **Key position** buttons that you have selected to display.

Eye-Fi

An Eye-Fi card looks like an ordinary SD memory card, but it has built-in Wi-Fi. When installed into a digital camera and with its software installed on your PC, you may record video on your camera and have it immediately wirelessly transferred to your PC. Eye-Fi video also will be imported automatically into the V1’s leftmost bin when the V1 feature to **Auto-import from Eye-Fi folder** in enabled.

Camera Options

This page allows you to specify your camera configuration so that captured video is appropriately labeled and handled.



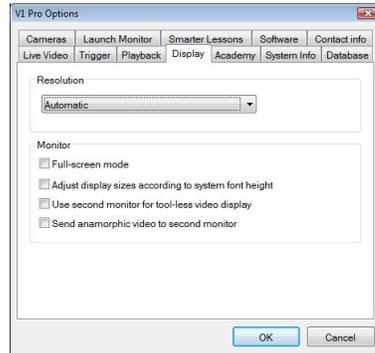
The camera “view” settings are inherited by new videos as they are recorded. You will see this information in the Video Database, and you may be able to search and sort using this criteria. For systems using two DirectShow cameras, Camera 1 corresponds to the image on the left side of your Live Video Preview window, and Camera 2 corresponds to image on the right side of your Live Video Preview window.

If you are using “progressive scan” cameras, you will want to check the appropriate boxes in the **P-Scan** column. Progressive scan cameras provide non-interlaced video as opposed to interlaced video, in which each frame contains two interleaved images.

If you are using a **16:9** anamorphic camera, check the 16:9 box to the right of the camera. When you record, this attribute will be inherited by the new video. When you use the Canon Elura 80, for example, with its “widescreen” (16:9) function enabled, the camera packs the wider view into the same video frame (720x480) that’s used for standard 4:3 video. In order for the image to look correct, it must be horizontally stretched back to 16:9.

Display Options

Resolution and Monitor options appear on this page.



Resolution

The V1 will automatically choose the interface aspect ratio most appropriate for your system when you set this to **Automatic**. You may override this, however, and choose either wide-screen (1280x768 or 1280x800) or standard screen (1024x768).

Full-screen mode

By default, this option is enabled, and forces your desktop resolution to either 1024x768 or 1280x768. In this mode, the V1 occupies your entire display. Use this mode on “dedicated” analysis machines. You may not want to use this mode on certain laptop PCs which are unable to properly switch to one of these display modes (you may see a large black border around the V1 window).

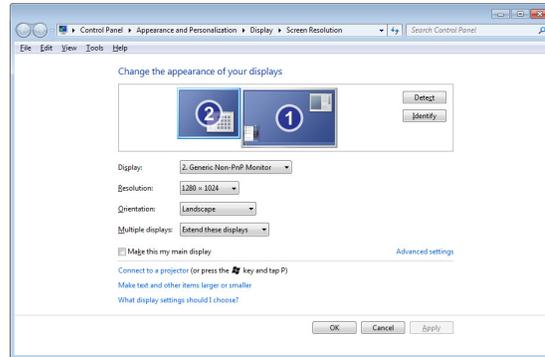
The V1 will not operate in full-screen mode if your system is set to use anything other than the Normal (also called “small”) font size on your Windows® Display Properties control panel. Measured in dots per inch (DPI), the normal font size is 96 DPI. At 120 DPI (125% of normal size), the font size setting is sometimes referred to as “large fonts.” International versions of Windows® may have default font sizes other than 96 DPI. In this case, full-screen mode will be unavailable.

The V1’s normal window size is 1024x768 or 1280x768 pixels, but increases with your system’s font size setting. For example, the V1’s window size increases proportionally to 1280x960 or 1600x960 when using large fonts (125% of normal size). In this case, therefore, a desktop resolution of at least 1280x1024 pixels is required in order to view the entire V1 window. If you wish to attempt to override this behavior and force an 1024x768 or 1280x768 size window, remove the check from the **adjust display sizes according to system font height** box.

Second-Monitor Tool-less Display

Check **Use second monitor for tool-less video display** if you have a system with two monitors and you’d like to have the V1’s video window displayed on your second monitor without the tools (the V1’s buttons). This feature has several requirements as follows:

1. Your operating system (OS) must be XP, Vista® or Windows 7.
2. Your PC must have sufficient “horsepower” for smooth operation of two displays.
3. You must configure the second monitor to be used as part of an “extended desktop.” To do this, right-click on your Windows desktop and select **Properties** then the **Settings** tab (XP) or **Personalize** then **Display Settings** (Vista) or **Screen Resolution** (Windows 7). You’ll see a page like this one:



Click on the monitor number “2” icon and then insure that **Extend these displays** is selected. Click **OK**.

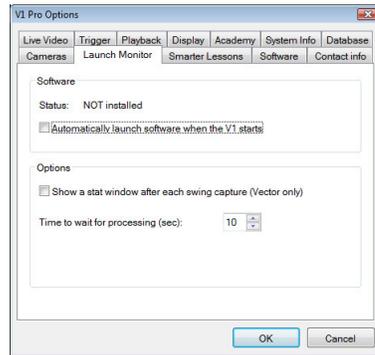
NOTE: If your second monitor wasn’t connected to the PC and turned on when you started Windows, you may need to connect it and turn it on and then restart Windows before it will be recognized here.

4. If you experience a black or pink screen on your second monitor when displaying live video or full-speed playback of video, continue with steps 5 and 6. Otherwise, STOP, you are done!
5. Visit the **Playback** tab of the **Options** window. Select the **Draw directly to desktop in RGB format (no overlay)** option in order to avoid a black or pink screen on the second monitor during full-motion playback.
6. Visit the **Live Video** tab of the **Options** window. Select the **draw video directly to desktop** option in order to avoid a black or pink screen on the second monitor during live video preview and recording.

Launch Monitor Options

The V1 has been designed to receive ball flight parameters from specific versions of the Accusport Vector Pro and Zelocity PureLaunch launch monitors. As these third-party products evolve, their integration with the V1 may also require updating. Please check with your V1 salesperson or support personnel for the latest information.

A **Launch Monitor** options page may be found on the V1 Pro Options window:



You may choose to **Automatically launch software when the V1 starts**. The V1 will attempt to open the launch monitor software in a “minimized” state (you may see its icon appear on the bottom of your Windows desktop if you’re not running the V1 in full-screen mode). With this option selected, the launch monitor software will also automatically be closed when you close the V1.

If the launch monitor and its software have been properly installed and are running at the time you perform an impact trigger recording (see the *Video Recording* chapter for details), you will see the ball speed appear on the tab. Other parameters, such as ball flight distance and spin are accessible via the Video Database (see the *Working with Video* chapter).

NOTE: When using the Zelocity PureLaunch, we recommend that you select the option **Automatic device arming** from the PureLaunch **Options** menu in order to avoid the necessity of constantly switching between the V1 and PureLaunch interfaces to re-arm the PureLaunch system before each swing.

The option to **Show a stat window after each swing capture (vector only)** is especially useful for calibrating or troubleshooting the Vector. The stat window includes the most recent image captured by the Vector, as well as any error or warning messages that it may have generated.

Following a swing, the V1 must wait for the launch monitor to complete image processing before continuing. Your computer’s CPU speed and other resources will determine the length of time required for this processing. By default, the V1 allocates a maximum of 10 seconds for the launch monitor to complete. You may increase this value if you find that your system requires more time.

Chapter 11

Troubleshooting

If everything doesn't go as planned, read on...

Please read the FAQ (Frequently Asked Questions) section before calling for telephone support. Here, we've compiled a list of answers to our most common support call questions. If you don't find your answer there, please use the **System Info** window in order to tell us about your system's configuration when you contact us.

FAQ

Q: In dual-camera mode, I receive error 800705aa or similar. Why is this?

A: To properly start with a two-camera setup, we advise that your cameras be turned off until the V1 menu window is present on screen. Then, turn your cameras on one at a time, pausing between them, and then launch the V1.

Additionally, to use the dual-camera capture feature, both cameras must be supported models. We strongly recommend selecting the same brand camera. You must be using a two (or more) port OHCI compliant IEEE 1394 adaptor. You must not be using an IEEE-1394 hub.

Tested and supported camera models are as follows: (1) Sony DCR-TRV series MiniDV and Digital 8MM camcorders; (2) Panasonic PV-DV series MiniDV camcorders; (3) Canopus ADVC-100 Digital Video Bridge.

Other models and brands not listed cannot be used in a dual-camera configuration.

The dual-camera "continuous record" feature requires a fairly fast hard disk drive and processor, especially if you are using this in combination with the RGB feature to display V1 onto a TV or DVD recorder. If you experience problems using this feature, first make sure that your system meets our minimum requirements, that the hard drive has been de-fragmented recently, and that you have at least 1.5GB of free space.

Q: Why do my FireWire® cameras stop working intermittently or cause my system to crash?

A: If using cameras with batteries, insure they are charged, and power-saving (auto-shutoff) modes are disabled. Also, be advised that the FireWire spec calls for a maximum cable length of only 15 feet. Try turning your cameras off, then turning them back on one at a time, pausing several seconds between each camera.

Q: After a few minutes my DV Camcorder shuts itself off, and it must be turned on again. This may result in a warning message from V1 that reads "Could not start video capture. Please check cables and try again." Why is this?

A: Most DV Camcorders include a safety feature that will power the camera off if it is left idle for a set length of time with a cassette loaded. This may cause V1 to display a warning message, such as “Could not start video capture. Please check cables and try again.” This is done to prevent damage to the DV cassette from the rotating tape head. Removing the cassette should prevent the camera from powering off when left idle.

Q: How can I remove the V1 user interface (tools) from my output?

A: This can be done with XP, Vista® or Windows 7 and most laptops or video cards with a TV-out connection. Startup your system with the TV connected; right-click on your PC desktop; select Properties; select the Settings page; select the 2nd display; check the box “extend my Windows desktop onto this monitor”; select Ok. In the V1’s Options “Resources” page, select the option to “use 2nd monitor for tool-less video display.” On both the “Playback” and “Live Video” pages, you will also have to select the option to “Draw directly to the desktop in RGB format” to avoid black or “pink screens” in this mode.

Q: How do I center the subject in 8-key-frame time-lapse?

A: Enter Compare Mode. Use the Slide tool to center the image. This same position is used for time-lapse.

Q: In a dual-display or TV-out configuration, why does one of my displays show a black or pink screen during live video preview and full-speed playback, while the other appears fine?

A: If you own a computer system that does not allow you to enable multiple displays as PRIMARY displays, you will see a pink screen on any display that is not PRIMARY. See the Playback Options section in the *Video Playback* chapter for instructions on enabling RGB-only output mode.

Q: When I launch the V1, the image does not fill the entire LCD panel—there is a large black border around the V1 window. The desktop returns to normal when I exit the V1. Why is this?

A: Your video driver is not scaling the software to fit your panel. Unlike a regular CRT monitor, LCD panels have a set resolution. When an image that is smaller than the native resolution is displayed, the image will not take the entire panel, only the actual size of the image being displayed.

Q: I get error “ActiveX cannot create object on line xx.” What does this mean?

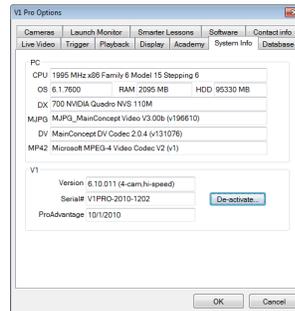
A: This error appears if you do not have one of the following operating system updates installed: DirectX® 8 or newer, Internet Explorer® 5.5 (or newer), and Windows Media Player® 7 (or newer). Please verify your current version of these three important applications, and install any updates if necessary.

Q: Why am I asked to re-activate the V1?

A: In addition to re-activating biannually, you may also be required to re-activate if your hardware changes significantly, you change operating systems, or if a single V1 license has been installed on more than one PC. In these cases, it will be necessary to contact V1 support to have your license reset.

The System Info Window

To access the System Info window, launch the V1, select **Options**, and then select the **System Info** tab. The following window will appear:



This window contains information about your system which may be useful to a technician should you ever find it necessary to contact Interactive Frontiers for technical support for your V1.

If you email your support request, you should include no less than the **Version** number found in the V1 section of the window and the contents of the **OS** box. Also the **Serial#** will help to identify you as a customer.

The **Pro Advantage** date indicates when your Pro Advantage support package is due for renewal. To avoid any loss of service, ask your salesperson or check with the V1 store for automatic renewal options. The Pro Advantage support package is included at no extra cost with a V1 Branded Academy.

Technical Support

To obtain support under our Pro Advantage program, or to speak with a salesperson about joining the Pro Advantage program, please contact us directly at:

Phone: 1-800-777-7721

International Customers: +1-734-357-2214

Hours: Monday - Friday 9am-5pm EST (New York City time)

or visit the support website:

<http://support.v1pro.com/>

To locate a problem using our online Knowledge Base, click on **Knowledge Base** in the V1 FAQ and Knowledge Base section. Enter keywords describing the problem into the search text field, then optionally select your product in the **Browse by Category** box, then click **Go**. For example, if you were experiencing a problem where you only see a pink screen inside the V1 software enter the keywords "pink screen" into the search text field, select V1 Professional as your product, then click **Go**. You also may search for specific error codes by entering the error number into the search box.

or email us at:

support@ifrontiers.com

The V1 Learning Center

The V1 Learning Center is an online resource that provides user manuals, video tutorials, knowledge base links and training webinars for V1 products. Please visit:

<http://learn.v1pro.com>

Index

S

5.7, 1, 41, 45

A

Activation, 7
 Address, 63, 82
 Advanced Digital Effects, 13, 14, 20, 57
 Anamorphic, 38, 83
 Angle, 39, 40, 47, 48, 53
 Angles, 48
 Approach Angle, 39
 Audio, 30

B

Back button, 2, 13, 14, 40, 68, 69
 Backswing, 82
 Bin window, 34, 35, 40
 Bins, 15
 Birthday, 63
 Boxes, 48
 Broadband, 4, 64, 69

C

Calibrate, 55
 Camera, 2, 27, 38, 83, 88
 Camera Options, 2, 38, 83
 Camera Views, 27, 83
 Casio, 1, 36, 38
 Categories, 44
 CD lessons, 34, 75, 79
 CD-ROM, 3, 4
 CD-RW, 34
 Circles, 49
 Clear, 13, 47, 50
 Clock, 49
 Club Face Angle, 39
 Club Path, 39
 Club Speed, 39
 Clubhouse News, i, 9

Compare, 13, 14, 17, 20, 21, 22, 23, 50, 59, 88
 Compare Mode, 14, 20, 21, 22, 23, 59, 88
 Compare to Live, 20
 Comparison, 17, 20, 21, 22, 23, 59, 88
 Confirm Exit, 81
 Contact Spot, 39
 Continual Recording, 28, 46
 Continuous Recording, 27, 28, 30, 46
 Current, 14, 15, 61, 63
 Current Bin, 15
 Current Student, 2, 14, 61, 63, 64
 Custom frame rate, 38

D

Database, 14, 36, 37, 40, 41, 43, 44, 45, 46, 50, 83, 86
 Delete, 10, 13, 14, 33, 45, 62, 64
 Description, 38, 41
 Digital Effects, 13, 14, 20, 21, 53, 57
 DirectDraw, 3
 DirectShow, 22, 26, 30, 83
 Distance, 39, 67
 Download queue, 78
 Downloading, 2, 76, 77, 78
 Drawing, 13, 47
 Drills and Intros, 2, 76
 Dual Camera, 29
 DV Decoder, 26

E

Email, 63, 65
 Encoder profiles, 70
 Enhance, 13, 27, 54
 Erasing, 50
 Export, 2, 35, 65

F

Face-On, 38
 FAQ, 2, 87, 90
 Filter, 2, 41

Finding Tabs, 40
Flip, 13, 19, 27
Focus, 38, 41
Forward button, 2, 13
Frame offset, 29
Freehand, 48, 50
FTP, 67
Full-screen, 84

G

Gender, 63
Golf, 17, 18, 29, 67, 70
Grid, 48

H

Hardware Options, 25, 27
Height, 63
Help, 13
History, 71, 75, 78

I

ID, 16, 37, 41, 71
IEEE-1394, 4, 26, 27, 30, 87, 88
Illustration, 11, 13, 14, 47
Impact Point, 17, 18, 20, 28, 29, 58, 82
Impact Trigger, 28, 29
Import, 2, 1, 2, 46, 65, 77
Inbox, 42, 43, 45, 71
Installation, 4
Instructor, 37, 62, 63
Interactive Frontiers, 1, 3, 4, 5, 8, 9, 70, 82, 89
Internet, 3, 4, 71, 82
Internet Academy, 13, 34, 67, 72, 73
Internet Golf Academy, 67, 70, 71, 75
Internet Lesson, 72
Internet Options, 67
Internet Updates, 82

K

Key Frames, 2, 57
Key Position Buttons, 2, 17, 57, 82

L

Launch Angle, 39
Launch Monitor, 2, 86
Leadbetter Interactive, 67, 70
Left-handed, 63
Legacy VfW, 22, 30
Lessons, 2, 15, 37, 41, 65, 72, 75, 79
Line, 39
Line Styles, 51
Lines, 48, 82
Live Video, 21, 22, 25, 26, 81, 83, 85, 88

Live Video Options, 22, 25
Live Video Overlay, 21
Live Video Preview, 26, 83
Location, 38, 41
Locker, 2, 75, 76
Login, 10, 71
Logo, 24
Loop, 19

M

Magnify, 27
Magnify Tool, 21, 54
MBR, 70, 77
Measure, 55
Memorized phrases, 49
Microphone, 68
MJPEG, 22
Models, 15, 37, 41, 78
Monitor, 2, 84, 86
Mouse Wheel, 17
Move, 2, 34
Multiple Exposure, 2, 13, 18, 58
Multiple No Replay, 46

N

Network, 35
No category, 15, 28, 43, 76
Notes, 38, 64

O

Opening Videos, 15
Outbox, 75, 77
Oval, 49
Overhead, 38
Overlay, 13, 20, 21

P

Pause, 13, 16, 17, 19
Plane, 27
Play, 13, 17, 21, 68, 69
Playback, 12, 13, 14, 15, 17, 20, 22, 23, 57, 81, 82, 85, 88
Playback Options, 20, 22, 23, 88
Posture, 47, 48
Presets, 42
Preview Window, 15, 26, 83
Printing, 13, 14, 24, 27
Progressive Scan, 38, 83

Q

Quick-Start, 1

R

RAM, 3, 29, 70
 Rating, 37, 70, 77
 Recording, 2, 13, 14, 18, 25, 28, 30, 72, 73, 79, 86
 Rectangle, 48
 Rectangles, 48
 Re-do, 47, 50
 Registration, 7
 Replay, 17, 28, 46
 Requirements, 3
 Resolution, 26, 84
 Resume, 74
 RGB, 22, 24, 26, 85, 87, 88

S

Second Monitor, 84
 Select, 13, 14, 22, 34, 35, 47, 50, 64, 70, 77, 85
 Select as current, 14, 64
 Sensitivity, 29
 Set Impact, 18
 Shutdown system, 81, 82
 Skip Field, 22
 Slide, 2, 13, 20, 21, 59, 88
 Smart de-interlace, 23
 Smart De-interlace, 23
 Smarter Lessons, 2, 65
 Snapshot, 13, 47, 50
 Software Options, 17, 58, 81
 Sort, 42
 Spline, 3, 47, 48
 Split-Screen, 27
 Square, 39
 Start Menu, 9
 Startup, 88
 Step, 16, 20, 21, 58
 Stored, 15, 41
 Student button, 61
 Student Enrollment, 61
 Students, 13, 14, 61, 67
 S-Video, 83
 Swing Position Buttons, 17, 18, 57
 Swing Synchronization, 18, 20
 System Info, 2, 87, 89
 System Requirements, 3

T

Tab ID, 71
 Tabs, 40, 71
 Tags, 37, 41, 45, 64, 65
 Teaching, 14
 Technical Support, 2, 89

Tempo, 13, 18, 19, 58
 Text, 2, 49
 Text size, 1, 49, 50
 Time Indicator, 28
 Time-lapse, 13, 27, 57
 Titles, 15, 41
 Tool-less display, 84
 Trace, 18
 Trigger Options, 28, 29
 Triggered Recording, 28, 29, 81
 Trim, 2, 13, 14, 33, 35, 36, 46
 Troubleshooting, 27, 87

U

Undo, 13, 47, 50
 Unicode, 1, 65
 Unsorted, 42, 43
 Updates, 82
 Uploading, 2, 75
 User Interface, 11, 14

V

V1 Golf Academy, 67, 70
 V1 Home, 67, 70, 76
 V1 Sports Academy, 67, 70, 77
 VCR, 22, 26, 46, 87
 Vector, 86
 Vector launch monitor, 86
 Video Capture, 64
 Video Controls, 16, 17, 20, 21
 Video Database, 36, 37, 40, 41, 43, 44, 45, 46, 50, 62, 83, 86
 Virtual Keyboard, 14

W

Wedge, 53
 WeightRight, 31
 Windows, 2, 3, 4, 5, 10, 24, 30, 33, 35, 37, 50, 63, 64, 65, 70, 72, 75, 79, 84, 85, 86, 88, 89
 Windows Vista, 3, 5, 10, 72, 73, 79, 85, 88
 Windows XP, 5, 10, 72, 79, 85, 88
 Wrap-up, 72, 74, 75, 76, 77

Y

YouTube, 2, 1, 78

Z

Zelocity, 86
 Zip drive, 8, 63
 Zoom, 3, 13, 21, 27, 54