

TriCaster™ supports external computer displays served across a network as live video sources in its production environment.

Supported network sources include displays from network connected computer systems (via iVGA™), text and graphics overlays from NewTek's CG application, LiveText™, as well as other NewTek 3Play™, TriCaster, or Apple Airplay® sources. These network sources are directly available for selection on the *Switcher*, and can of course be captured or streamed as well as included in your presentation.

*Note: Gigabit networking is highly recommended for video transfer purposes, and should be considered mandatory for HD sessions in particular.*

For an iVGA source to be recognized by TriCaster, you must first install a small client program on the networked computer system. iVGA PRO™ is NewTek's most advanced client program supplied for use with Microsoft Windows® systems.

You can download iVGA PRO directly from the NewTek website, or find it inside the TriCaster system drive, in a folder at C:\TriCaster\Extras\iVGA\Windows.

## RUNNING iVGA PRO™

iVGA PRO™ is an executable (program) file. Simply copy this file to the client system, and run it by double-clicking its icon. The iVGA PRO executable will run from anywhere you put it on the client system (even a USB thumb drive).

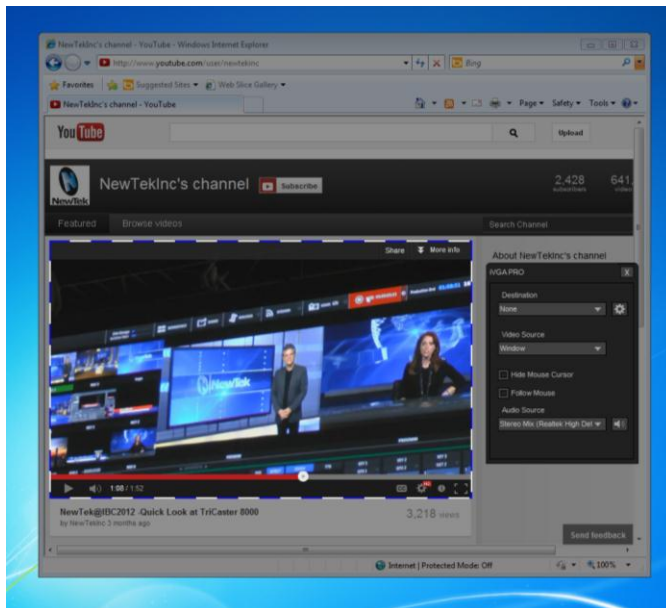


Figure 1

The first time you launch iVGA PRO you'll be asked to accept an End User License Agreement.

Afterward, several things will occur:

- A small icon is added to the Windows® task bar notification area.
- The iVGA PRO control panel (dialog) is opened on your desktop.

The iVGA PRO control panel, taskbar icon (and its context menu) along with a marquee, discussed momentarily, provide all the settings and controls you need to configure and manage the application and its output.

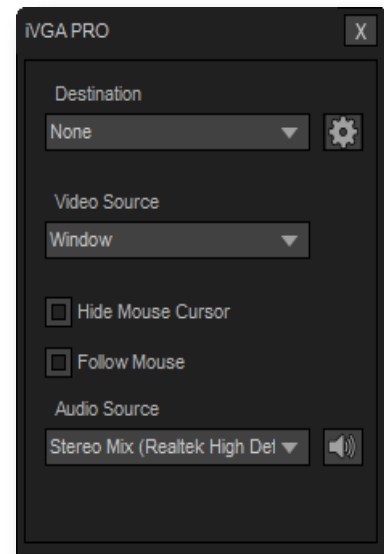


Figure 2

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## THE CONTROL PANEL

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Let's begin our review of the tools provided by looking more closely at the control panel.

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### DESTINATION

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The default *Destination* setting is *None*, indicating that iVGA PRO's audio and video output is not connected to a TriCaster on your local network.

When one or more TriCaster systems are detected, the drop-down menu will display their machine names (Figure 3). A given TriCaster may display more than one possible entry in the list depending on how many network inputs are free for iVGA selection.

Alternatively, TriCaster operators on the same network can directly select your iVGA client as a network source for their *Net 1* or *Net 2* inputs.

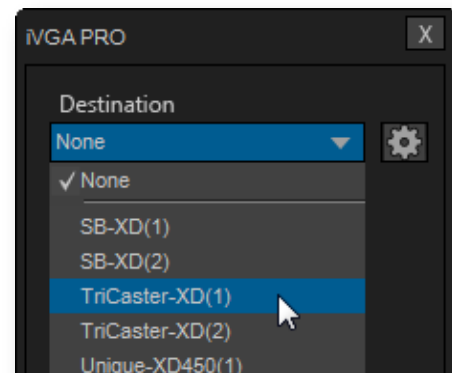


Figure 3

When a TriCaster you have not previously connected to selects your iVGA output, iVGA pops up a 'connection request' dialog. You can then authorize or decline the connection request (click the gear icon next to *Destination* and checkmark *Accept All Connections* in the menu if you prefer that this dialog not be shown).

*Note: If you decline a connection request from a TriCaster with "Always do this" enabled in the dialog, future requests from that unit will simply be ignored. Turn on "Accept All Connections" if you later wish to view all incoming connection requests; alternatively, connecting to a given unit from the iVGA client re-enables the permission dialog for that system alone.*

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### RECORDING

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The last entry in the *Destination* menu is always *Record*. This feature redirects iVGA PRO audio and video output into a movie file, rather than transmitting it across the network to TriCaster.

When you select *Record* a window is shown to let you set the path and file name for capture.

*Hint: You can choose between alternate file formats for recording in the file path dialog, by modifying the 'Save as type' setting.*

Also, the *Send* button at the bottom of the control panel is re-labeled *Record*. As you would expect, clicking the button initiates recording of the current iVGA source. Press it again to end capture.

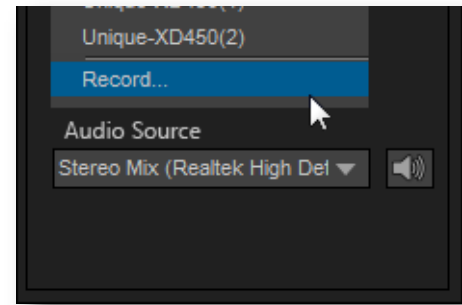


Figure 4

*Hint: Changing the Video Source while recording will automatically stop and restart recording. The current file name is numerically incremented as required.*

## QUALITY (CONFIGURE)

Click the *Configure* (gear) button beside *Destination* to reveal a menu providing quality options. The setting chosen affects iVGA's video compression parameters. You can also use these options to lower throughput demands when your local network connection lacks the bandwidth required to deliver the highest quality iVGA output to TriCaster.

*Note: Gigabit network connections provide the best transfer rates, and the best quality video output. Slower connections may cause dropped frames, and should be considered unsuitable, especially for HD sessions. In extreme cases, where network capability is low or unreliable because of other traffic, iVGA may still be useful for static displays.*

## VIDEO SOURCE

The video source menu governs the imagery iVGA transmits or captures. The menu lists a number of important options (Figure 5).

- At the top, you will see a list of all monitors connected to the system iVGA PRO is running on. Selecting a monitor assigns its entire screen display as the current iVGA source.
  - Just beneath the list of monitors is the *Region* option. This refers to the portion of the screen that is inside a rectangular marquee that is shown when *Region* source mode is newly selected.
    - Drag the cross-hair icon in the center of the marquee to relocate it on the screen or to a different monitor.
    - Drag the mouse on any border of the marquee to scale it up or down. By default, scaling is constrained to retain a 16:9 marquee aspect.
- (Hold down Ctrl when dragging to release the aspect lock. To restore the marquee's standard widescreen aspect, simply drag the border again without the Ctrl key depressed.)

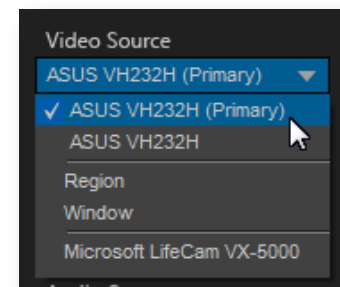


Figure 5



Figure 6

- The next *Video Source* option shown in the menu is *Window*. This is a particularly useful option, as it allows you to ‘snap’ iVGA to a specific application window (or child window).

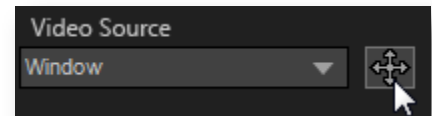


Figure 7

For example, you might designate just the video player pane shown on a web page in your browser as the source; or perhaps you might want to snap to the video display pane in an application such as Skype™.

When you select the *Window* option in the *Video Source* menu, a new icon is shown at right (Figure 7). Click the mouse on this icon, and then drag it to the application window you want to assign as the source. (The marquee updates as you drag the mouse around the screen from one application window to another. Note that it automatically disappears from view when the control panel is closed.)

*Hint: Many application windows actually comprise a number of child windows grouped together. When you drag the marquee around in Window mode its borders snap to the current child window, showing what is currently selected.*

- Finally, if you have any webcams or similar video input devices connected to the system, you’ll see these listed below the *Window* option in the *Video Source* menu.

#### AUDIO SOURCE

This menu allows you to directly select sound from available audio inputs and system audio devices (the latter may provide useful level and mixing options). iVGA PRO transmits the selected sound to the *Network* inputs of TriCaster’s that support this feature. A nearby mute icon allows you to toggle sound output on/off.

*Hint: Privacy mode also temporarily engages Mute.*

#### OPTIONS

- *Hide Mouse Cursor* –the mouse pointer will not appear on iVGA’s video output when this option is enabled.
- *Follow Mouse* – the marquee tracks mouse movement when this option is enabled.

#### SEND/RECORD/STOP

A multi-function button at the bottom of the iVGA PRO control panel toggles output (or recording) on and off. The button label updates to display the action that will occur if you click it according to the current operation and state of the application. It shows *Send*, *Record* or *Stop*, as appropriate.

#### TASKBAR ICON MENU

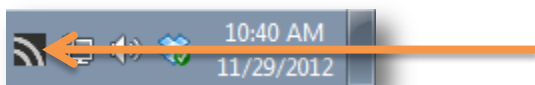


Figure 8

A 'radio beacon' icon (shown at left in Figure 8) is shown in the system taskbar when iVGA PRO is running. The icon shows a 'radiating' animation when connected to a TriCaster.

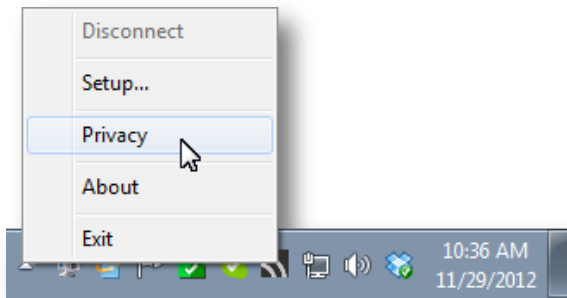


Figure 9

Click the icon to show the iVGA PRO *Control Panel* (and marquee, when enabled).

Right-click the icon to display its context menu (Figure 9) listing the following items:

- *Disconnect* – releases the currently selected connection (equivalent to selecting *None* in the control panel *Destination* menu).
- *Setup* – shows the iVGA PRO control panel.
- *Privacy* – while engaged, iVGA PRO's video output is replaced by a static privacy image (see hint below) and audio output is muted.

Privacy mode allows the user to check e-mail, or perhaps view or arrange something, without risk of the audience observing. The taskbar icon shows a red indicator when Privacy mode is engaged.

*Hint: If an image named "privacy.bmp (or privacy.jpg) exists in the folder that iVGA is launched from, it will be used. Otherwise the default privacy screen is used.*

- *About* – displays information about the application.
- *Exit* (exits the iVGA application)

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## HOTKEYS

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In *Region* mode, it's possible to zoom the marquee to several preset sizes (150%, 200%, 400%) using the hotkeys Right Ctrl + number pad 1, 2 or 3 (these hotkeys enable Region mode).

Pressing Right Ctrl + (number pad) 0 selects the full screen for output. Pressing Right Ctrl + (number pad) 5 toggles the Marquee display on/off (even if the control panel is closed), while Right Ctrl + (number pad) 9 enables or disables the *Follow Mouse* option.

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## ADDDITIONAL NOTES

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- Some antivirus software can interfere with certain iVGA PRO features. In such cases, try disabling your protection briefly. If the problem goes away, consider using a different anti-malware product.
- If iVGA PRO's connection to TriCaster seems intermittent, make sure only one network path exists between the two systems, to prevent the PC from switching back and forth between connections.

- In some cases, the use of headphones or other audio hardware may disable or hijack standard system audio output. You can sometimes resolve this issue by simply unplugging the headphones. In other cases, third party audio drivers that have been installed do not support
- Some systems and third-party audio device drivers deliberately restrict access to system sound (for DRM reasons), preventing their output from appearing as an audio source option for iVGA PRO. Several workarounds exist.
  - You could simply loop an audio cable from the system's output back to an input, and select that input as the audio source for iVGA PRO.
  - Often you may be able to select a different audio device (such as "Stereo Mix" or "SoundMAX") as the system default. Right-click the 'speaker' icon at right in your Windows® Desktop taskbar, and select "Recording Devices". This opens the audio device control applet, allowing you to choose among those available. (It is sometimes useful to right-click in this pane and enable "Show Disabled Devices", as well.)
  - Other third-party software solutions exist as well. An Internet search for terms like "audio loopback software" or "virtual audio cable" will turn up relevant links.