



CAMERA CONTROL • RECORDING • ROUTING • SWITCHING

User Manual

Covers Vantera Studio, Pro and Broadcast. First edition, 2026.

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01

GETTING ORIENTED

Welcome to Vantera

Most venues run their cameras, their recorder, their router and their switcher as four separate products from four separate makers, each with its own panel and its own way of doing things. Vantera is all four in one Mac application, bringing cameras from multiple manufacturers into one, central, production hub.

This manual walks through each of those four jobs in turn: adding and controlling your cameras, recording what they see, patching your router, and switching a live programme.

Who Vantera is built for

Initially designed as a cross camera controller, Vantera is designed for any production company or broadcaster whos cameras come from two or three different makers and want one seat instead of one panel per brand. Vantera also seamlessly integrates recording and livestreaming into its systems, making it a truly plug and play solution for on site recording and production.

Editions

Vantera is one application. What it unlocks depends on your licence, and this manual notes which edition each feature needs: look for a tag like **BROADCAST** under a section heading.

Edition	Camera control	Recording	Routing	Switcher & streaming
Studio	Yes	—	—	—
Pro	Yes	4 channels	—	—
Broadcast	Yes	8 channels	Yes	Yes

A free 5-day trial is available for every edition. The trial marks everything it records or streams with an on-screen "DEMO MODE" watermark and only drives the first three cameras it finds.

02

SETUP

Getting started

What you need

- A Mac running a current version of macOS.
- For SDI/HDMI capture: a Blackmagic DeckLink card with Desktop Video installed*. Cameras reached over the network don't need one.
- Your cameras on the same network as the Mac, or wired into a capture card.
- Optionally: a Blackmagic Videohub, a hardware control panel, and a game controller.
- *Additional hardware capture sources are available, email hello@vanterastudio.com for the latest compatibility list

Installing and licensing

Copy Vantera to Applications and open it. On first launch it runs as an unlicensed trial. Open **Settings** → **Licence** and paste the key you were sent. It's checked against your Mac offline, so Vantera works with no internet connection at all once it's activated. The licensee name on your key appears at the bottom of the Settings page.

Before your first show

1. Connect your cameras, capture cards, router and panel to your local network, then open Vantera.
2. Go to **Home** and confirm every camera you expect to see is listed with a picture.
3. Open **Control** and drive one camera on each protocol you use, Vantera supports a variety of protocols for remote PTZ control, please email if your camera is not supported.
4. If you're recording, open **Recording** and check each channel shows a picture and a live audio meter.

NOTE — YOUR NETWORK

Vantera discovers cameras by their network address. If your Mac gets its address from DHCP, it would be best practise to set a static IP. An address that changes mid-show can lose connection to a camera. Vantera shows a banner the moment its own address changes, so you'll know immediately if this happens.

03

OVERVIEW

Home

Home is where Vantera opens. Every camera it has found sits in a grid, so you can see the state of your whole rig at a glance before you begin your production.

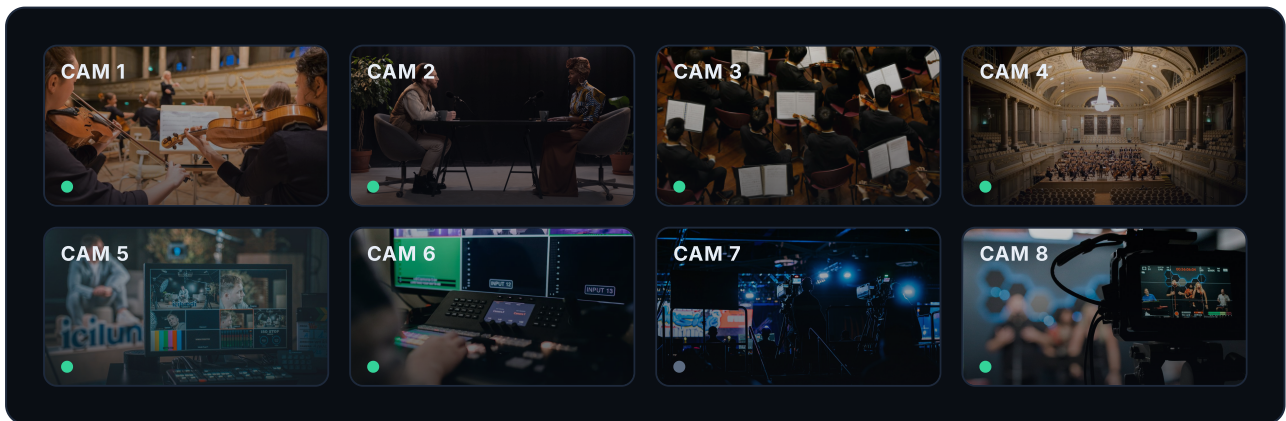


FIG 3.1 – Home, showing eight discovered cameras

A green dot means Vantera has a live picture. Tap any tile to jump straight into **Control** with that camera already selected.

04

CAMERA CONTROL

Control

STUDIO • PRO • BROADCAST

Control drives every camera in your building from one place, regardless of the model. Point the panel, controller or keyboard you already own at Vantera and it reaches Panasonic, Sony, PTZOptics and other VISCA- or Pelco-based cameras alike. A Panasonic panel can drive a Sony camera through Vantera by using Vantera as a bridge between the two systems.



FIG 4.1 – The Control page

- 1 Camera list.** Every camera Vantera has found, with its protocol and a live status dot.
- 2 Pan/tilt/zoom stick.** Drag to drive the selected camera.
- 3 Presets.** Eight per page: tap to recall, or enable write mode to store the camera's current position.

Adding a camera

Open **Settings** → **Cameras** and click **Add**. Vantera can find most cameras on your network automatically. For one it can't, enter its address and choose its protocol by hand: Panasonic AW, VISCA over IP, Sony CGI, or Pelco D/P.

Driving a camera

Select a camera, then move it with whichever input you have on hand. All inputs work at once, and whoever touched a control last is the one in charge:

- **Game controller.** Plug in a PlayStation or Xbox controller: the left stick pans and tilts, the triggers zoom, and the face buttons recall your first four presets.
- **On-screen stick.** Drag the dial in the Control page itself.
- **Keyboard.** Arrow keys pan and tilt. Assign your own shortcuts in Settings.
- **A hardware panel.** See below.

Connecting a hardware panel

Vantera can answer as a camera to a broadcast control panel, so the panel drives whatever camera is currently selected in Vantera, including a camera from a different maker than the panel itself.

Point your panel at this Mac's address and it registers the same way it would register a real camera. This works with Panasonic's own AW-RP150, Datavideo's RMC-300A, and VISCA panels including Sony's RM-IP500, most mainstreams panels will work on Vantera, if they do not, contact us for support.

For more guidance on how to connect a hardware panel, go to Settings

TIP

Selecting a camera in Vantera never moves your panel's own selection. The panel stays free to also drive its other, non-Vantera cameras on the same network. Selection only ever follows panel → Vantera, one direction.

05

CAPTURE Recording

PRO (4 CH) • BROADCAST (8 CH)

Recording captures up to eight channels at once, however many your licence allows, and starts them together, so an edit lines up across cameras without nudging clips by hand. When recording sources from different cameras/protocols, recording will start simultaneously.



FIG 5.1 – Recording, four channels running

What can feed a channel

A channel can either come from a hardware supported capture device, but can also come from any camera macOS itself can see, such as NDI, RTSP or a USB device, recorded alongside your capture-card channels.

Choosing a format

Preset	Codec	Use it for
Streaming and Social Media	H.264	Small files, ready to upload straight away
Archive	H.264	Long-term storage at a lower bitrate
Full Resolution	ProRes 422	Editing in a professional NLE
Custom	Any codec or bitrate, including ProRes 422 Proxy and ProRes 4444 XQ	Anything the presets don't cover

Starting and stopping

Record All starts every channel together, and each channel tile also has its own record button for starting one on its own.

Scheduled recording

Set a time and either a weekday or a single date, and Vantera starts and stops recording on its own. This is a timer inside the running application, so Vantera needs to already be open.

06

PATCHING Routing

BROADCAST

Routing patches your supported Videohub without leaving Vantera. Sources carry the labels your venue already uses, and every source shows a live thumbnail, so you can see exactly what you're about to send before you patch it.

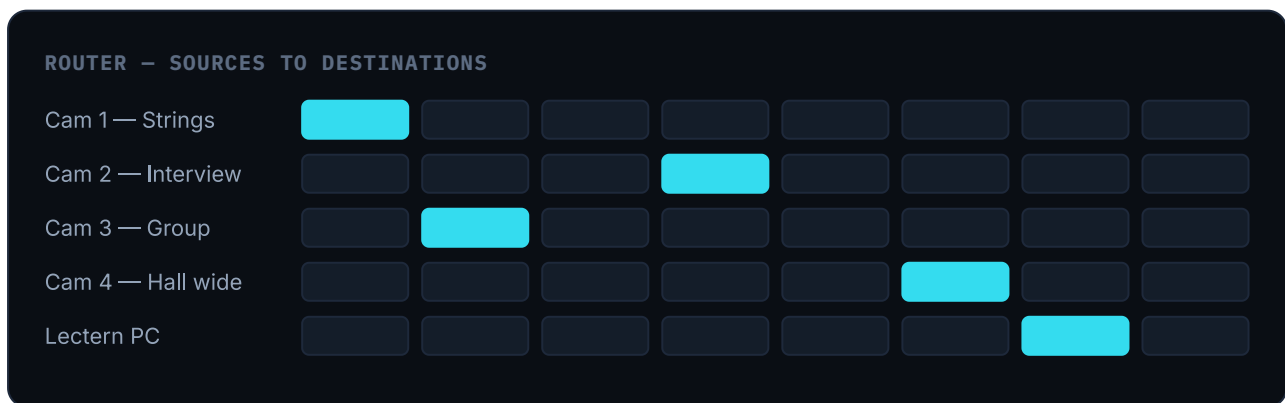


FIG 6.1 — Routing, five sources against eight destinations

Patching a source

Click a source's row, then the destination cell you want it to reach. The Videohub repatches right away. It's the same crosspoint change you'd make on the router's own control panel, just from Vantera instead.

07

GOING LIVE Switcher

BROADCAST

The Switcher is where your programme comes together, preview and cut the programme feed here, and lay in titles, lower thirds and VTs in one production space.

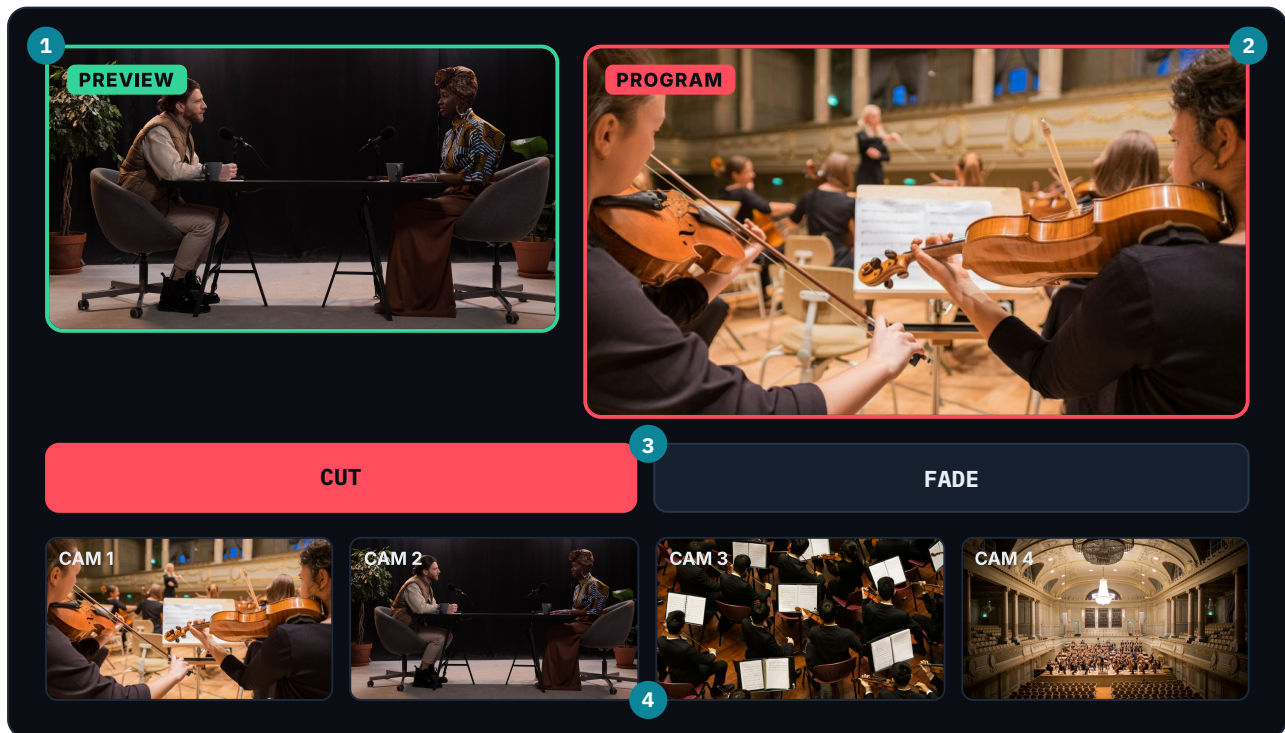


FIG 7.1 – The Switcher page

- 1 Preview.** Choose your next shot here.
- 2 Program.** What's actually going out, to your stream, your recording, and NDI if selected.
- 3 Cut / Fade.** Cut swaps instantly. Fade dissolves over the time set on the slider beside it.
- 4 Sources.** Every channel with a live thumbnail. Click one to load it into Preview.

Slides, titles and keying

A holding slide replaces the whole programme, picture and sound, for a pause between items. A lower third sits over live picture without touching the sound underneath it. The chroma keyer removes a coloured background from a source so it can sit over another picture.

Playing a video clip

Load a clip into a media bin, scrub to the frame you want cued, and fade it to air. Its own audio rides along with the picture, mixed against whatever else is live.

Streaming and NDI output

Add a destination under Destinations and Vantera streams to it over RTMP. You can add multiple destinations at once if you need to stream elsewhere. The same programme is also always available as an NDI source, to any NDI receiver on your network, with no separate setup.

Recording the programme

"Record programme" captures the composited output as it airs, so you keep the show as directed.

Multiviewer and tally

Open the Multiviewer from the Switcher's header for every source at once, tallied red for on air and green for on preview. This can be used as a second monitor, so an operator can watch it while switching on the main screen.

HARDWARE CONTROL

BROADCAST

If you already run an ATEM Broadcast or Advanced Panel, you don't need to put it away. Point it at Vantera's Switcher and it becomes the physical control surface for programme, preview, cut, auto, the T-bar and key layers. It talks to Vantera directly over the network, with no ATEM switcher or router in the signal path.

Connect the panel

- 1 In Vantera, open Settings and find ATEM panel. Enable it, and leave the port at 9910 unless your network needs a different one.
- 2 Note the Mac's IP address, shown right there in Settings. In the panel's own network setup, enter that address as its switcher address, and keep both devices on the same network.
- 3 Open Switcher. The panel's source buttons follow the source order shown in Vantera, so naming a channel in Vantera is what makes the panel readable.

What the controls do

PROGRAM / PREVIEW	Choose what is live and what is cued.
CUT / AUTO / T-BAR	Take the preview instantly, dissolve it, or run a manual dissolve by hand.
FTB	Fade the programme and its sound to black.
DSK / KEY 1-4	Trigger the media slot assigned to that key: a lower third, a slide, a video.

Before a show, check Settings for a connected panel status, then confirm programme, preview and each assigned key behave as expected on your panel and network.

STREAM DECK CONTROL

STUDIO . PRO . BROADCAST

Elgato's Stream Deck, hardware or the mobile app, can sit next to Vantera as a dedicated set of keys. Install the plugin, load the Vantera Production profile, and those keys take over camera moves, presets, recording and switching without you reaching for the trackpad.

Set up once

- 1 In Vantera, open Settings and turn on Stream Deck control.
- 2 Install the Vantera Stream Deck plugin from this disk image, then load the Vantera Production profile. Stream Deck usually offers it automatically.
- 3 On any Vantera key, enter 127.0.0.1, port 46321, and the pairing code Vantera shows on screen. That code is what lets the profile in; nothing else is exposed.

What the pages do

CONTROL	Pan, tilt, zoom, focus and auto focus for cameras 1–12. Hold a key to move; let go and it stops.
PRESETS	Save and recall up to 18 presets per camera. Once Vantera has a preset's thumbnail, the key shows it.
RECORDING	Arm channels, toggle ISO recording, or start the whole group, using whatever destination, codec and quality you've already set in Vantera.
SWITCHER	Programme, preview, cut, auto, fade to black and your keyers. A compact switcher for when there's no ATEM panel on the desk.

Everything runs locally on this Mac. Closing Vantera, losing the pairing or disconnecting the Stream Deck stops any held camera move at once, so check your source mapping and recording destinations before you go live.

08

CONFIGURATION

Settings

Section	What it's for
Cameras	Add, remove and rename cameras, and see every camera's live picture in one grid.
Controller feel	Sensitivity for your game controller and on-screen stick, kept separate from any hardware panel's own speed.
Audio	Choose which pair of channels on your programme sound device Vantera treats as left and right.
Licence	See your edition and licensee name, or enter a new key.

09

IF SOMETHING'S WRONG

Troubleshooting

A camera doesn't appear on Home

Confirm it's on the same network as this Mac and powered on. If you added it by hand, check the address and protocol in Settings → Cameras match what the camera itself is set to. Some cameras will also need a username and password, depending on how they were configured.

A hardware panel won't register

Check the Mac's own network address hasn't changed since the panel was last pointed at it. See the note on DHCP in Chapter 2. Power-cycling the panel after any network change often clears a stale connection.

A camera stops responding after you switch its protocol

Some cameras hold onto whichever protocol last authenticated with them. If a camera stops answering after you change its protocol in Settings, power-cycle it. This clears the lock most of the time, please contact hello@vanterastudio.com if your cameras will not connect.

10

REFERENCE

Specifications

Camera protocols

Protocol	Typical cameras
Panasonic AW	Panasonic AW-series PTZ cameras
VISCA over IP	Sony, PTZOptics and most other IP PTZ cameras
Sony CGI	Sony's own web-based control, including the ILME-FR7
Pelco D / Pelco P	Security-industry PTZ cameras and many budget IP models

Hardware panels

Panel	Protocol
Panasonic AW-RP150	Panasonic AW
Datavideo RMC-300A	VISCA
Sony RM-IP500 and other VISCA panels	VISCA over IP

Recording and routing

Capture	Blackmagic DeckLink cards, up to 8 channels combined across cards
Also recordable	NDI, RTSP, and any AVFoundation device macOS can see
Codecs	H.264, HEVC, ProRes 422, ProRes 422 Proxy, ProRes 4444 XQ
Router	Blackmagic Videohub
Streaming	RTMP, to more than one destination at once
NDI output	The composited programme, sent live

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