

Ovo Studios Lab Technologies

This document describes the technological underpinnings and capabilities of Ovo Studios' User Research labs. This document has the following sections:

- Overview
- HD/Digital Labs
- Lab Control flexibility
- Real-Time Observation
- Streaming and remote observation
- Remotely moderated testing

Ovo Studios, LLC

Canal Winchester, OH USA
DUNS 60-674-3222

Scott Butler, Principal
scott@ovostudios.com
+1 330-348-1619

Rich Gunther, Principal
rich@ovostudios.com
+1 336-460-1658

Sales
sales@ovostudios.com

After reading this document, we hope you will consider Ovo Studios when you build your next UX/Usability Lab. If you would like more information, please contact Rich or Scott personally or email sales@ovostudios.com.

Overview

In order to do research on the newest technology, your research facility needs to have the latest technology. Ovo Studios has been on the bleeding edge of all of the technologies needed to effectively capture, distribute, and analyze UX research studies. Moreover, we have worked at the Enterprise level of the world's top companies to understand how to deploy a UX research solution that fits with IT security, firewalls, and VPN.

High-Definition, Production Quality Video

When Ovo Studios started building labs in 1998, composite video and VGA were state-of-the-art for cameras and PCs. These were recorded through scan converters on Hi-8 or MiniDV decks. Even back then, Ovo Studios has never sold a usability lab with a tape-based recording solution. In short, we have been digital since before digital was cool.

We have worked with both proprietary and industry-standard technologies to deliver a comprehensive, flexible, and high-quality set of recording and editing technologies. We were the first company to deliver 4-source recording, and still the first and only to support 8-source recording. We were the first to deliver a high-resolution PC recording solution without requiring a software install on the participant machine. Finally, a few years ago, Ovo Studios delivered on the promise of high-definition with the release of its High-Definition, All-Digital lab.

What does this mean, though? Our labs can be summed up by discussing a few basic attributes:

- **High quality:** our video recording is clear, with fluid motion, great color depth, and little to no visual artifacting. Our video distribution within your lab is digital-native, meaning you see exactly what the user sees, at the same time they see it.
- **Single protocol:** we used to sell labs that used VGA for PC distribution and composite video for camera distribution. This created an inefficiency, because you couldn't distribute these two

protocols with the same hardware. With our all-digital labs, a signal is a signal. You can display and record a camera at one moment, a PC at the next, and a mobile device, set-top box, or gaming console the next, without having to restart recording.

- **Future Proof:** VGA is dead. Composite Video is dying. Ovo Studios' certified, experienced team of digital experts has been ahead of this curve for years, and we were first to market with an all-digital solution.

Lab Control Flexibility

Other usability lab vendors can sell you on joysticks and knobs and touchscreen controllers to pan/tilt/zoom your cameras, change the distribution of signals to observation monitors in your lab, and other features. Here's the problem with that: those systems must be custom-programmed, so if you want to add or change functionality later, you need to bring your lab vendor back in to do this, at your cost.

Ovo Studios Lab Control is different. Every bit of Lab Control is done through point-and-click interfaces in the Ovo Logger software. Your lab devices, both inputs and outputs, are custom-labeled to your lab: for example, you could have "Over-the-Shoulder View" instead of just "Camera 2". Cameras can be pan/tilt/zoomed from within the software, and you can easily set and recall as many preset positions as you want. That would involve hours of programming for a touchscreen, and many joystick controllers either don't support or have a limited number of presets available. Finally, you can create templates for your lab control settings, so that switching between testing modalities is as easy as clicking a button. You might have templates for "Focus Group", "Software Test", "Paper Prototype", or "Mobile Device Test". All of the relevant camera settings and distribution are stored within the template.

Real-Time Observation

Some usability lab vendors push their users towards technologies that make observing user behavior difficult. IP Cameras, streaming solutions, and screen-sharing technologies are all inherently laggy and error-prone. You can't research a problem space effectively if you can't follow along with the user's interactions. Ovo Studios usability lab solutions always offer high-quality, real-time, lagless feeds of every source and signal in your lab. Moreover, we give you the relevant views for the type of research you are doing, and we provide flexibility to adapt your observation setup during a study session. You might be observing a card sorting exercise at one point, then the user working on a laptop, and finally the user interacting with a mobile device. Because of our Lab Control and all-digital architecture, switching between these modalities is a click away.

Streaming and Remote Observation

UX and product development teams are increasingly distributed across a number of geographies. It can be expensive and time consuming to bring test team members in to observe user research. Since we introduced digital recording, we have always allowed for streaming of all the sources in your lab to remote observers. They can pick these up using something as simple as Windows Media Player or VLC Player. However, what if you want them to participate in the observation process? We offer LabStream, which is a consolidated viewer and logging environment. The LabStream solution is unique in a few ways:

- **Lag Measurement and Adjustment:** Network lag is going to happen. Anyone who claims that they have a zero-lag streaming solution is either stripping out some aspect of the stream or streaming at very low quality, neither of which are great ideas for effective observation. With the LabStream solution, we measure network lag on an observer-by-observer basis. You might have one test team member back at their desk on your corporate Gigabit-ethernet, and another at home VPNed in through their cable modem. You wouldn't want to assume the same lag for both of them. Ovo measures the lag constantly, and when those observers take notes, we take that lag into account so that their notes go into the database at the correct time.

- **Stream Synching:** when you are streaming multiple sources, it is natural that they will stream out at different rates, and with different lags. By measuring the lag, we are able to synchronize the various feeds, so that when something happens on one feed, you are seeing the same time on all the other ones.
- **Collaborative Logging:** When you have multiple observers in the mix, it's imperative to understand what everyone is doing. LabStream allows you to see what others are logging. If an observer adds a logging parameter like a sub-timer or counter, all observers are alerted to it. Observers can chat using a lightweight instant message engine built into LabStream. Finally, the user interface that remote observers use is identical to the main researcher's logging UI in the lab. Anyone can time tasks, mark items of interest, identify highlight clips, and take notes. Their feedback will be indexed back to their Observer Name.
- **IOS Logging:** Ovo Logger's LabStream capability has evolved to the point where you don't even need a computer to provide feedback. Through the Ovo Logger IOS App, available for free in the App Store, your observers can fire off "QuickLogs" to mark video at pertinent points of interest.
- **Security and Flexibility:** LabStream allows you the option to password-protect access to your usability testing sessions. You can also control who can view the streams, who can log notes, and who can chat. This is great when you want someone to observe, but you don't necessarily want to burden them with taking notes.
- **Out-of-the-Box Streaming:** By default, an Ovo Workstation has the capability to stream your lab's recording sources over Windows Media unicast feeds. This streaming capability has limitations, of course, since the Ovo Workstation is a client computer on your enterprise's network. To overcome the limitations of streaming from a client computer, the Ovo Workstation can be configured to push unicast feeds to a Windows Media Server via a publishing point alias. From that Windows Media Server instance, multicasting, smooth streaming, and other options are available. Contact us for services related to establishing enterprise-wide streaming for your team.

Remotely Moderated Testing

Usability Testing has gotten out of the lab by testing with remote participants over the internet. Often this involves using a screen-sharing technology like WebEx, GoToMeeting, LiveMeeting, or Join.Me. Ovo Logger works seamlessly with all of these tools. There are two ways we can handle remotely moderated testing:

- Host the meeting on your participant PC in your user room. This is very useful if you need a clean environment to install your prototype to be tested on. Ovo Logger records the screen just as if the user were sitting there.
- Host the meeting on the Ovo Logger PC and put the prototype and web conference on the second monitor. Ovo Logger can be set up to record its own secondary monitor.

In each of these cases, you don't want to be a teleconferencing guru to set up a remotely moderated test, and you can use the same logging and methodological tools you use for in-person testing.

Conclusion

Ovo Studios technologies are perfect for User Experience practitioners, because Ovo Studios understands user research. Each of these capabilities and features are the result of our own user research, as well as a long history of "eating our own dog food" when we do research for clients. Simply put, we've built the user research tools that we want to use. Through the pragmatic and conservative application of best-of-breed technologies, Ovo Studios can design a solution that maximizes your ROI from user research.