

Opencast-Matterhorn

working with Galicaster + PuMuKIT

Open Source Lecture Capture and Publishing Solution

The Matterhorn + Galicaster + PuMuKIT integration is the solution adopted by the University of Vigo for its campus of excellence Lecture Capture pilot project. The system provides a comprehensive set of technologies that allow any institution to produce, enrich, distribute and manage large amounts of media content, in an automated way, while allowing a precise control of all the different stages in the process.

Opencast-Matterhorn (www.opencast.org)

The central part of the system is Matterhorn, a free, open-source platform to support the management of educational audio and video multistream content. It is, by itself, an end-to-end system that provides technologies for recording lectures, managing existing media, serving designated distribution channels, and providing user interfaces to engage students with educational videos.

Those are some of the main features of Matterhorn:

- **Multiple Streams:** Matterhorn can record several synchronous videos at once, but by default it expects two: one containing the lecturer or teacher, and the other containing the presentation that supports the speech. That way, the remote viewers can have an experience as close as possible to being physically in the room.
- **Automatic Recordings:** Administrators can schedule recordings to start at a certain date and time in a certain room. Thus, class recordings can be scheduled beforehand and Matterhorn will take care of the rest.
- **Multiple Formats Supported:** The fully-customizable Matterhorn workflows allow the administrators to process video and audio in virtually **any** format (mpeg, theora, mp4, x264, theora, avi, mp3, aac, vorbis...)
- **Engage Tools:** Matterhorn includes a rich media player that allows the playback of the two video streams, but also provides other rich media tools to improve the experience of the viewer, such as jumping to an specific slide in the presentation, search on the text contained in the slides and the ability to write annotations to the video.
- **Integration with other Systems:** Matterhorn can distribute contents to other portals such as Youtube and, soon, iTunes, and integrates seamlessly with LTI-compatible learning platforms such as Sakai.



Galicaster (www.galicaster.org)

Galicaster is an alternative capture agent compatible with Matterhorn. It has been developed by Teltek Video Research for the University of Vigo, to cover some specific needs that weren't fulfilled by the official Matterhorn Capture Agent.

Those are Galicaster main features:

- Graphic interface (ready to use with tactile screens).
- Live visual feedback of what is being recorded, including a vu-meter for audio monitoring.
- Remote monitoring of the recording, via VNC.
- Finished recordings can be browsed, played and deleted.
- Recording may be triggered automatically (scheduled) or manually (on the spot).
- Basic control of the recording in-place (start, pause, stop...).
- Compatible with Matterhorn scheduling system.

PuMuKIT (www.pumukit.org)

PuMuKIT (acronym of KIT for MULTimedia PUBLISHing) is a comprehensive media cataloguing system, developed in the University of Vigo but now adopted by some other universities worldwide. It provides an elegant and customizable front-end, as well as enhanced capability for cataloguing videos. PuMuKIT allowed the University of Vigo to reunite their legacy media content with the new multistream content generated by Matterhorn, in a single good-looking, institutional media portal.

