

# **Angel Introduction: Camera and Video Mixer**

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June 8, 2018

C3VOC

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## **General Info**

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## General Info I

- All talks get recorded and archived forever
- Consistent quality
- No postproduction of individual signals.
- Livestream content is the same as the one recorded and published
- Less mistakes ⇒ better recordings.
- Stream observer shifts
- Difficult talks together with additional video director

## General Info II

- Introduction Meeting here
- Complete overview for all new angels
- Short diff for experienced ones
- Shift distribution every day 15:00 to 16:00 in Hall 6.
- Feedback loop and review at those meetings
- Slides available online:

<https://streaming.selfnet.de/engelschulung.pdf>



# Angeltypes

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# Angeltypes

- Camera Angels
- Video Mixer Angels
- Stream Observing Angels
- A/V Technician

## Camera Angels

- Operate the fixed cameras in the lecture halls.
- Usually, two video angels per lecture hall
- Camera angels will communicate with the Video-Mixer-Angel via intercom,
- Get instructions to shoot in certain ways.
- Maintain good camera settings

## Video Mixer Angels

- Switch the video feed between different sources.
- Mixed video feed is used for both the live-stream and the recordings
- You decide which picture, respectively source, is most interesting/important at each moment.
- Work proactively with camera angels through the intercom,
- Challenging talks, with assistance from an external "image composition director" joining the intercom channel.

## Stream Observing Angel

- Open for all camera and mixing angels
- Reflecting the work of colleagues from an audience perspective.
- Examine streams for issues
- Keep track of sequences appearing hard to consume or violating our rule set.
- Positive and negative remarks
- Constructive feedback
- Instantly report severe issues like "there is no signal" to the VOC Helpdesk.
- Self evaluation and not meant as external monitoring.

## A/V Technician

- 2nd level support in the lecture rooms.
- Familiar with the equipment that is used
- Able to fix (nearly) all the issues.
- Longer shifts.

## Camera Hardware

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# Hardware Camera Controls

imagescamera-controls.pdf.tex

**Figure 1:** Camera Controls

Cameras are in manual mode because of difficult lighting situation.

**Left Ring** Focus - control sharpness of the image.

**Middle Ring** Zoom - vary the focal length.

**Right Ring** Iris - don't touch.

## Tripod Handle Controls



Beware: various models in use.

**Zoom Control** lever above red ring

**Red Button** Start/stop recording, don't touch

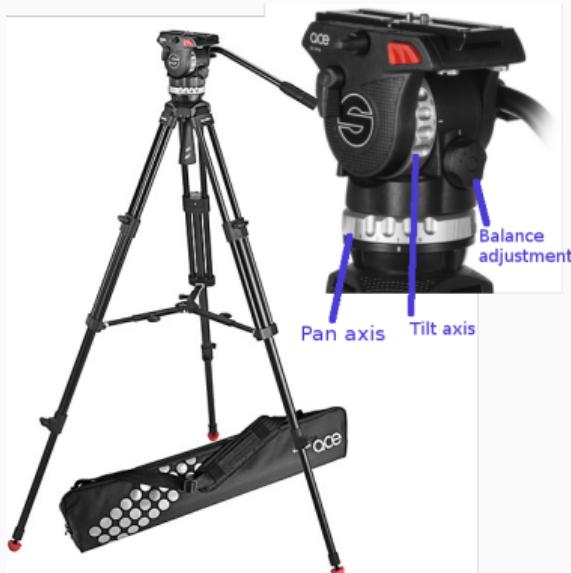
**Other Buttons** markings on the handle

### Alert

Saal 1 and Saal 2 have old tele zoom lenses. Left handle Focus. Right handle Zoom.

**Figure 2:** Tripod Handle

# Tripod



**Figure 3:** Tripod

- Should be level - check the water bubble.
- Variable brakes - can be adjusted to your needs.
- Tilt axis should be balanced, so that the camera doesn't tilt up or down on its own.
- Pan axis is needed all of the time. Set it so you can do smooth pans all over the stage.

## Alert

Alert the A/V-Technician if something's wrong or misplaced.

## SD-Card Recording

- Two SD-Cards in one camera each room
- Backup Recording
- Turn on Recording before first shift in the morning -> Red Dot somewhere in the Display.
- Control Recording Time remaining.

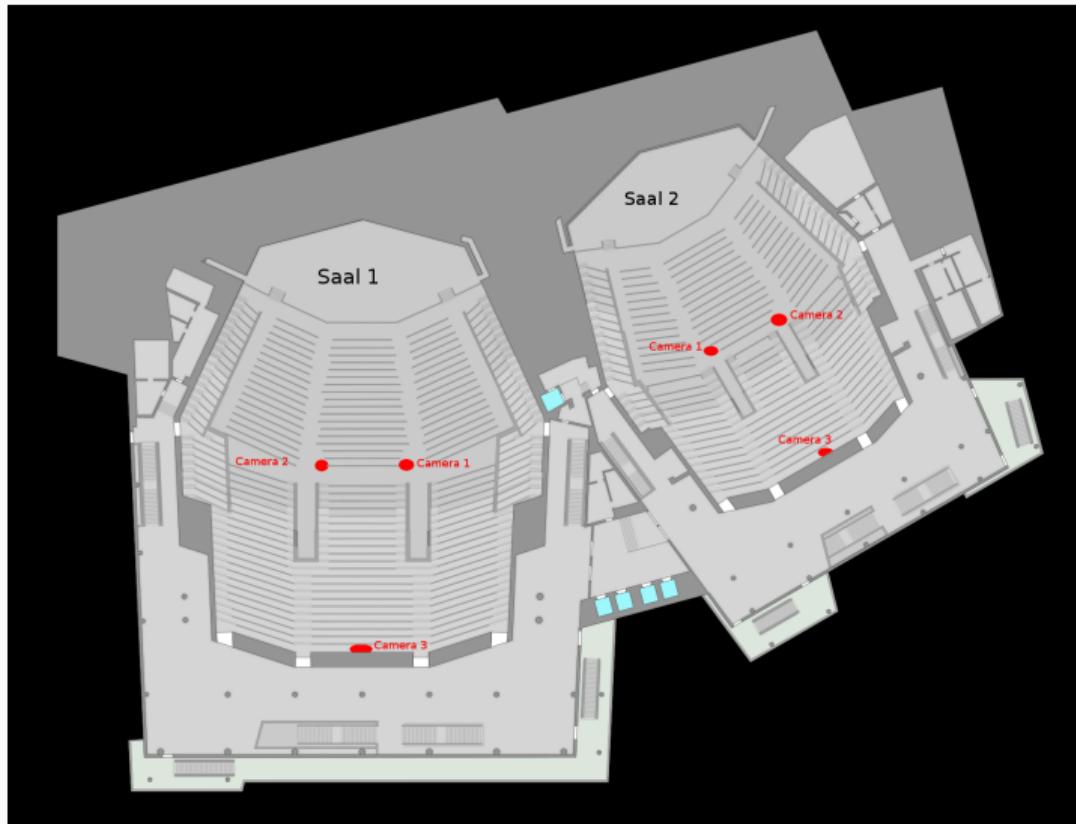
### Alert

Alert the A/V-Technician if something's wrong or not running.

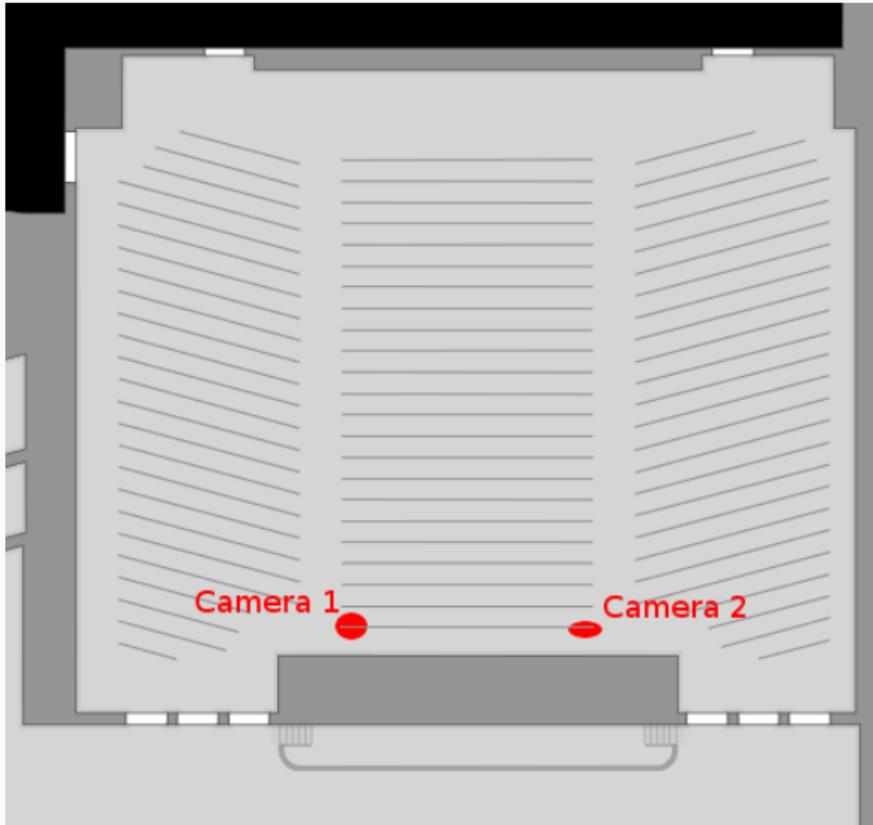
## **Camera Positions and Angles**

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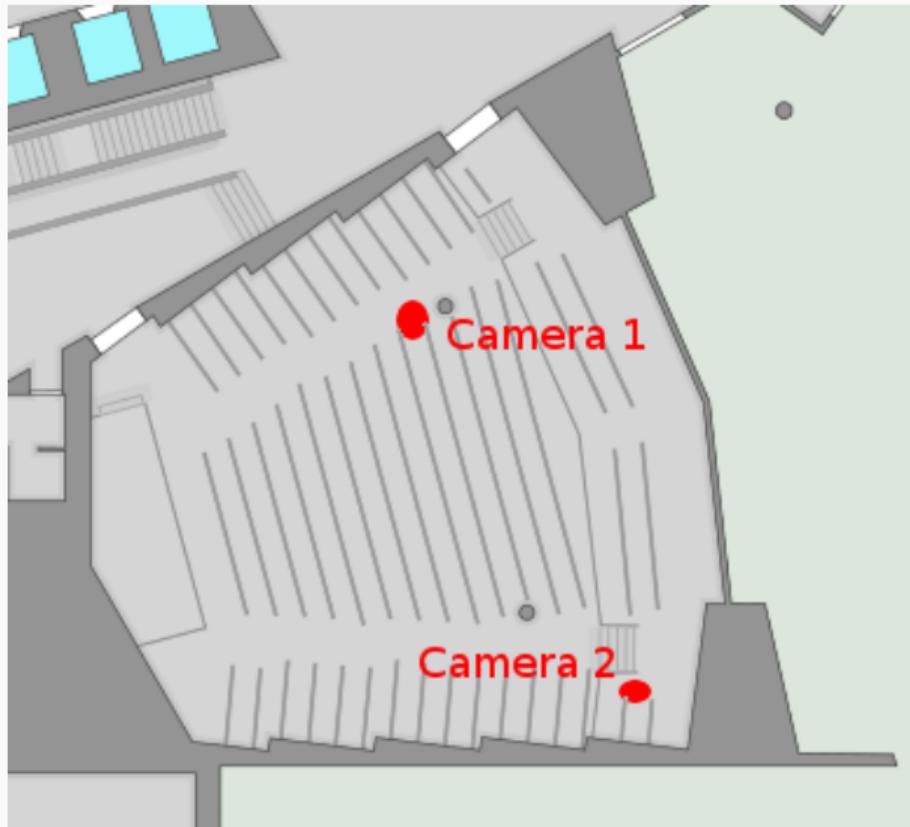
# Map Saal 1 + Saal 2



# Map Saal G



## Map Saal 6



## **Camera 1 - Closeup Camera**

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# Camera 1 - Closeup Camera

## Content

- The Speaker is your best friend
- Keep them always in frame.

## Framing

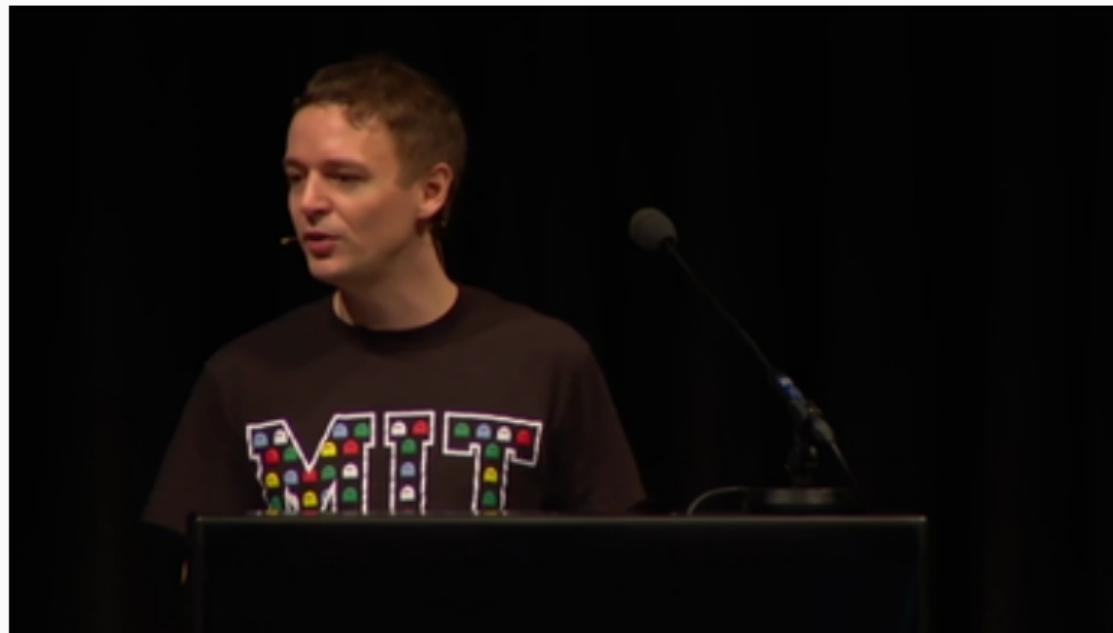
- The upper part of their body + head + a bit of headroom.
- Stay close to his/her eyeline on the upper third line.

## Alerts

- Anticipate movement.
- Leave some room where they want to move next.
- Needs lots of attention.

## Camera 1 - Closeup Camera

Example Shots I



**Figure 4:** Good Closeup Shot

# Camera 1 - Closeup Camera

## Example Shots II

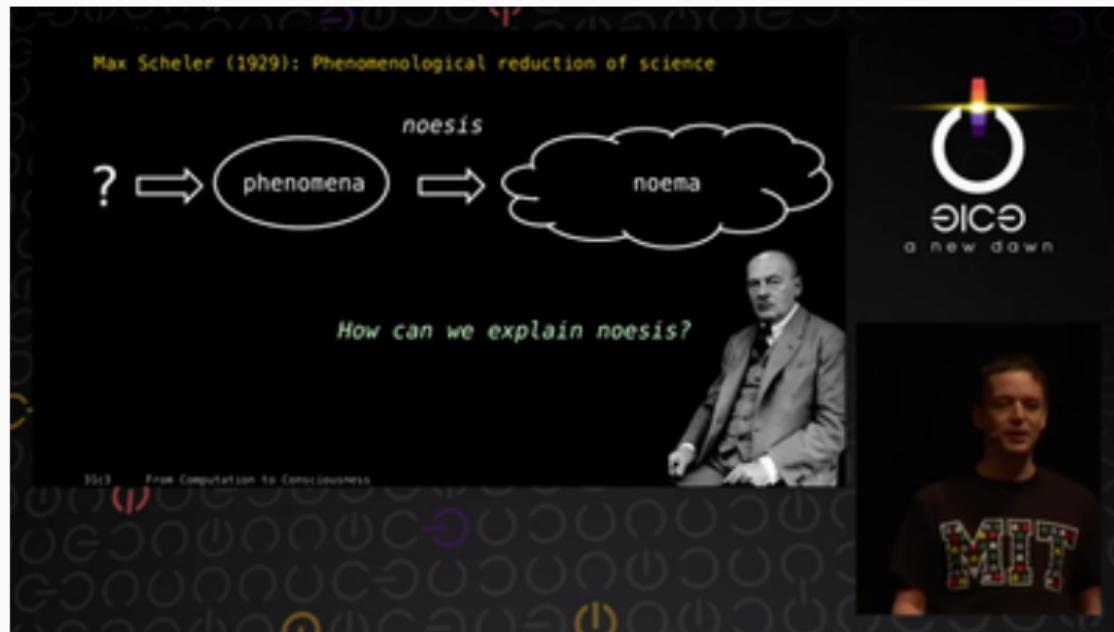


Figure 5: Good Closeup in Supersource

## Camera 1 - Closeup Camera

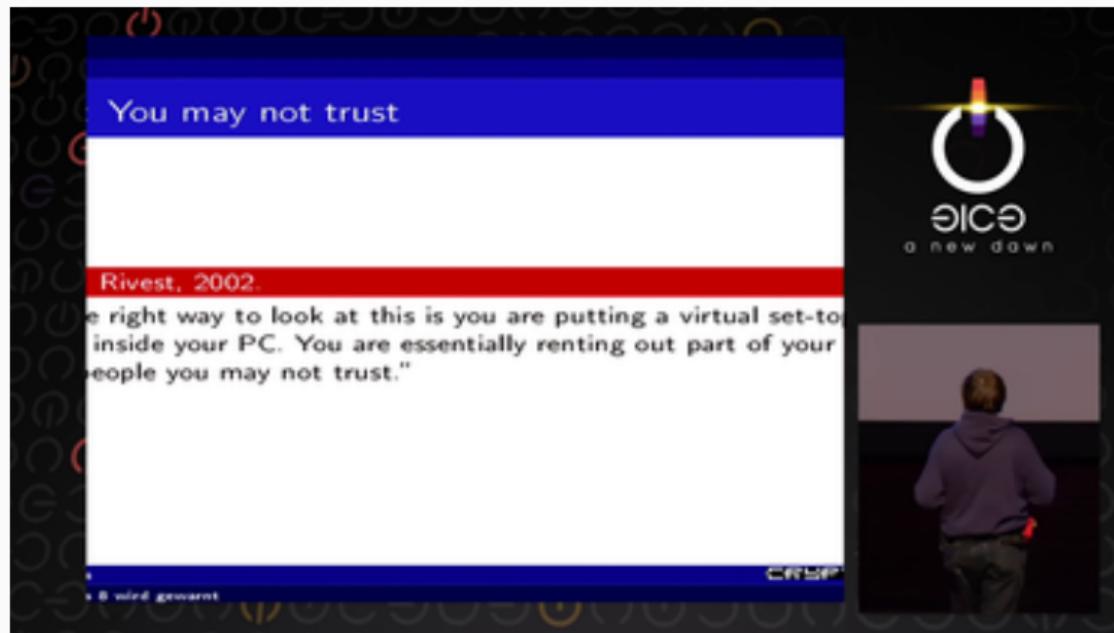
### Bad Shots I



**Figure 6:** Half a head - not good.

# Camera 1 - Closeup Camera

## Bad Shots II



**Figure 7:** Too Far out for a good supersource image.

## **Camera 2 - Medium Camera**

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## Camera 2 - Medium Camera

### Content

- Context around the speaker
- If there are two or more speakers choose the other one - **COMMUNICATE**

### Framing

- Speaker from Head to Toes
- Stay close to his/her eyeline on the upper third line.

### Alerts

- Anticipate movement.
- Leave some room where they want to move next.
- Fallback Camera if the Closeup Camera can't keep up.

## Camera 2 - Medium Camera

### Good Shots I



**Figure 8:** Good Context image.

## Camera 2 - Medium Camera

### Good Shots II



**Figure 9:** Two Speakers.

## Camera 2 - Medium Camera

### Bad Shots I



**Figure 10:** Too much audience.

## Camera 2 - Medium Camera

### Bad Shots II



Figure 11: Too much audience.

## **Camera 3 - Wide Shot**

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## Camera 3 - Wide Shot

### Content

- Complete Lecture Hall in Saal 1 and 2

### Framing

- Covers the whole stage.
- A bit of small audience for context.
- Statically set.

### Alerts

- Needs no attention.
- Fallback Camera if all else fails or standing ovations erupt.

## Video Mixer Tools

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# Dual Setup

Two different Setups are in use at this congress. Both setups offer similar possibilities. You can work with both of them.

## Hardware Video Mixer

- Saal 1
- Saal 2
- Specialized Hardware Panel

## Software Video Mixer

- Saal G
- Saal 6
- Sendezentrum
- Laptop as control surface.

## Hardware Video - Mixer Controls

imagesatem-control-panel.pdf.tex"

**Figure 12:** ATEM 1M/E Panel

**Preview PRV Select** Green row, lower left

**Program PGM Select** Red row above green row.

**Cut Button** Swap selections of PRV and PGM Rows.

**Crossfade Bar** Smooth transition between PRV and PGM.

# Hardware Video Mixer - Screen Layout



**Top Left** Preview, your preview to check feeds before going live

**Top Right** Program, what everyone on the internet sees.

**Bottom two Rows** Up to eight video Feeds.

**Figure 13:** ATEM Multi View

## Software Video Mixer - Controls



**Figure 14:** Voctogui

**Previews** Small images on the left

**Program** Large, middle, what everyone  
on the internet sees.

**Composition** Top row.

## Blue Select A

**Red Select B**

**Stream Blank** For breaks when nothing should be streamed.

# Software Video Mixer - Voctogui

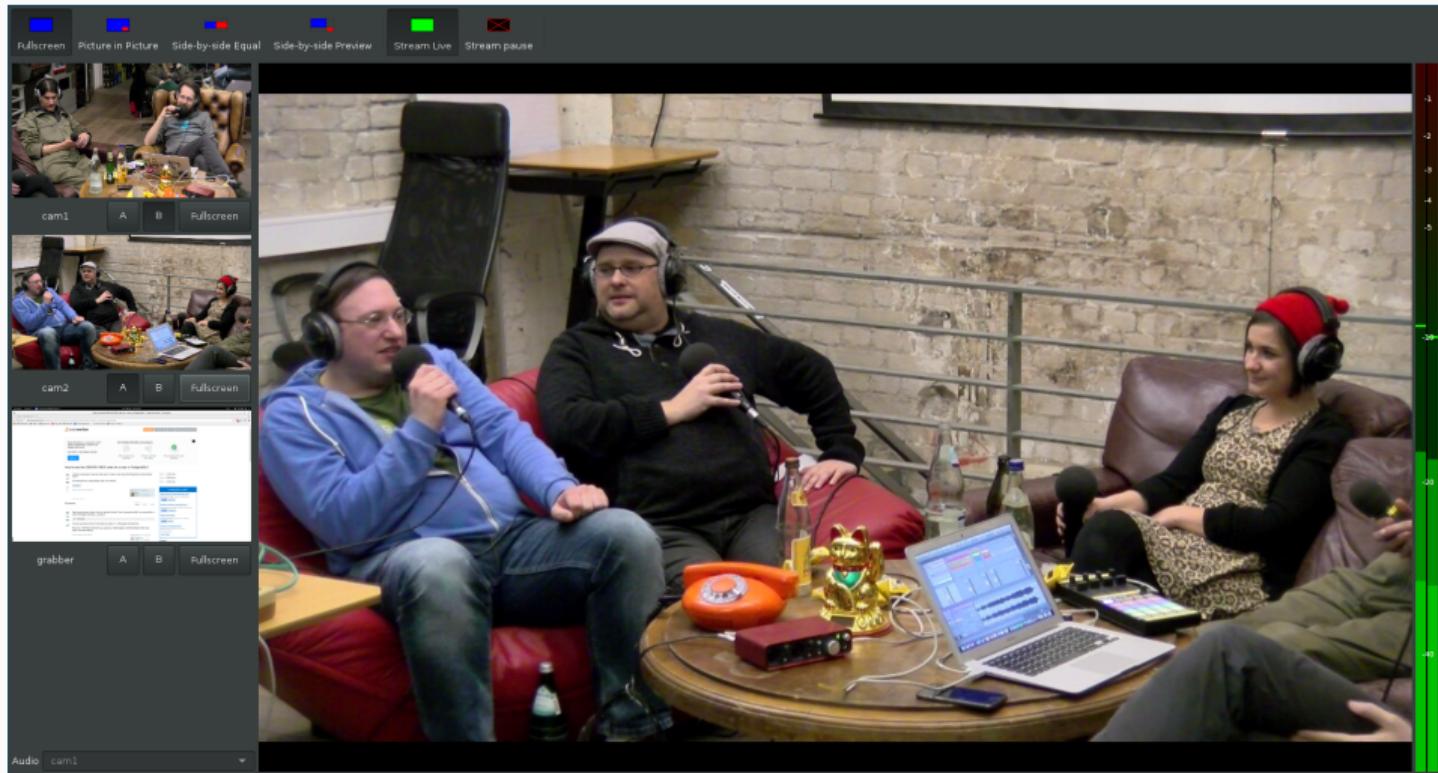


Figure 15: Voctogui

## Video Mixing Guidelines

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## Mixing Guidelines - Hard Rules

- All you are doing is **recorded** and will be published. **Don't make mistakes.**
- The Audience is **not to be filmed**. Cut away if faces of people not on the stage appear.
- **Slides are important**
- Slides stay on till the text has been read **twice**.
- Show new slides **immediately**.

### Hint

Fast-paced presentations with lots of slides are easier to handle with the supersource.

## Mixing Guidelines - Softer Hints

- Start early – opening announcements of the Herald are a good start. Their introduction has to be in the recording and on stream.
- Open wide – Structure the beginning of a talk with shots that set the stage
- The slides in fullscreen – you're dealing with a very small screen. Text has to be readable
- Show gestures – medium-close-up that follows the speakers eye-line
- Don't be too cutty – Pace your videos temperately. Do not cut too often.
- Don't end too early – All questions and answers have to be recorded. The herald ends the talk, not the mixer angel.

### Hints

Leave lots of room at the start and end of a talk. Cut away from the infobeamer before the Herald starts with announcements. Cut to the infobeamer only after the last applause has finished.

## Mixing Guidelines - Communication

- Communication is key
- Partyline intercom in every room
- Mixer Angel requests pictures from Camera Angels and announces their next steps
- Camera angels offer good pictures
- Work together, say what you want to do and what doesn't work.

## Timeline of a Talk

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## Timeline of a typical talk

1. Preparations beforehand
2. Announcements and Introduction
3. Content
4. Questions and Answers
5. Ending

# Timeline - Preparations beforehand

## Cameras

- Get to know your fellow angels.
- Test the intercom.
- Test your camera and settings.
- Look on Stage who will be Herald ans Speaker.
- Camera 1: Get a closeup of the speaker.
- Camera 2: Get a head to toes shot of the herald.
- Both cameras start tracking their persons.

## Mixer

- Check Slides and adjust supersource to 16:9 or 4:3.
- Have Camera 2 on Preview.

# Timeline - Announcements and Introduction

## Cameras

- Camera 1: Get a closeup of the speaker.
- Camera 2: Get a head to toes shot of the herald.
- Both cameras track their persons.

## Mixer

1. Go live with Camera 2 as soon as the Herald starts.
2. Title slide can be shown during the introduction
3. Put Camera 1 on Preview.
4. Camera 1 live as soon as the Speaker starts talking

## Timeline - Content

### Cameras

- Follow commands from the Mixer
- Ask for time off if you have to readjust zoom, focus or anything else that should not be in the recording.

### Mixer

- Show new slides as soon as they are keyed by the Speaker
- Show Camera 2 when the Speaker starts walking and gesturing
- Call out your actions and intentions via intercom
- Plan ahead. Which picture should be shown in 30 seconds?
- Keep your available pictures diverse. Both cameras on medium closeup don't make sense.

## Timeline - Questions and Answers

### Cameras

- Camera 1: Track the Speaker
- Camera 2: Track the Herald or both if they are close
- Keep tracking, don't give up even if your shift ends soon.

### Mixer

- Show whoever is talking on stage to the stream.
- The "Thanks"-Slide can be shown from time to time.
- Don't end too early.

## Questions?

Contact me on congress via irc, voc-lounge on hackint.