

Angel Introduction: Camera and Video Mixer

sophie

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C3VOC

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General Info

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 17:00 in CCL 11.
- Feedback loop and review at those meetings
- Slides available online:

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



Angeltypes

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

Hardware Camera Controls

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



Figure 2: Tripod Handle

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.

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

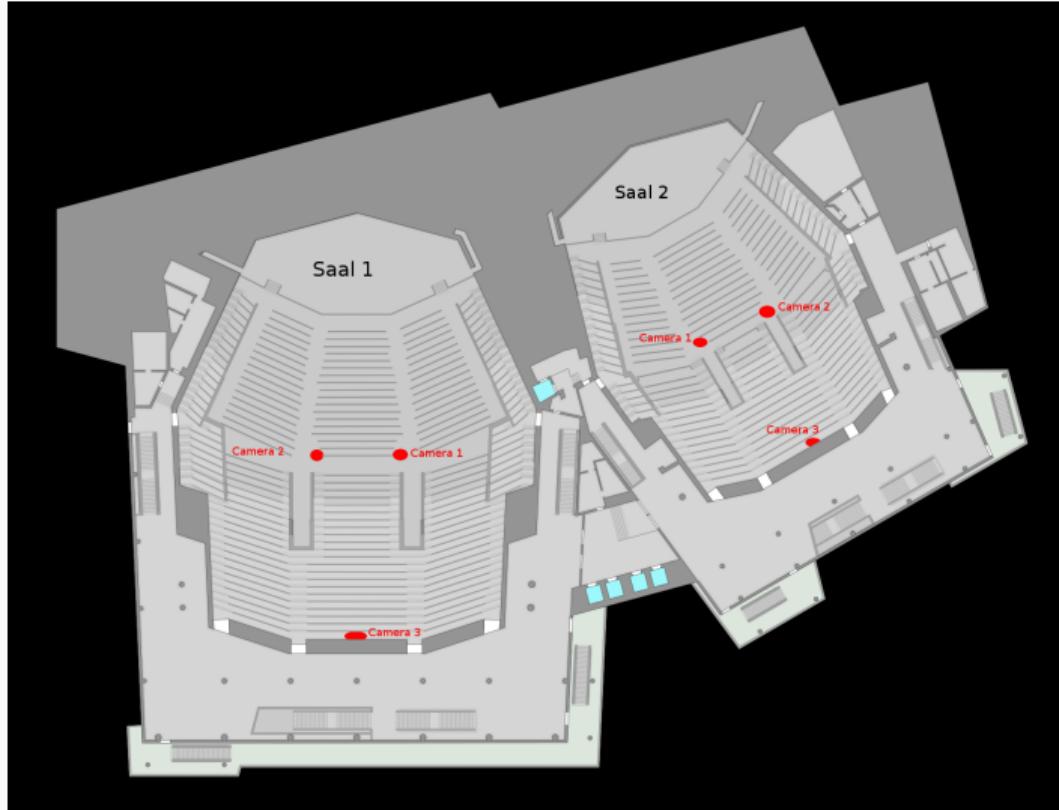
- Two SD-Cards in one camera each room
- Backup Recording
- Turn on Recording before first shift in the morning -> Red Dot somewhere in the Display.
- Control Recording Time remaining.

Alert

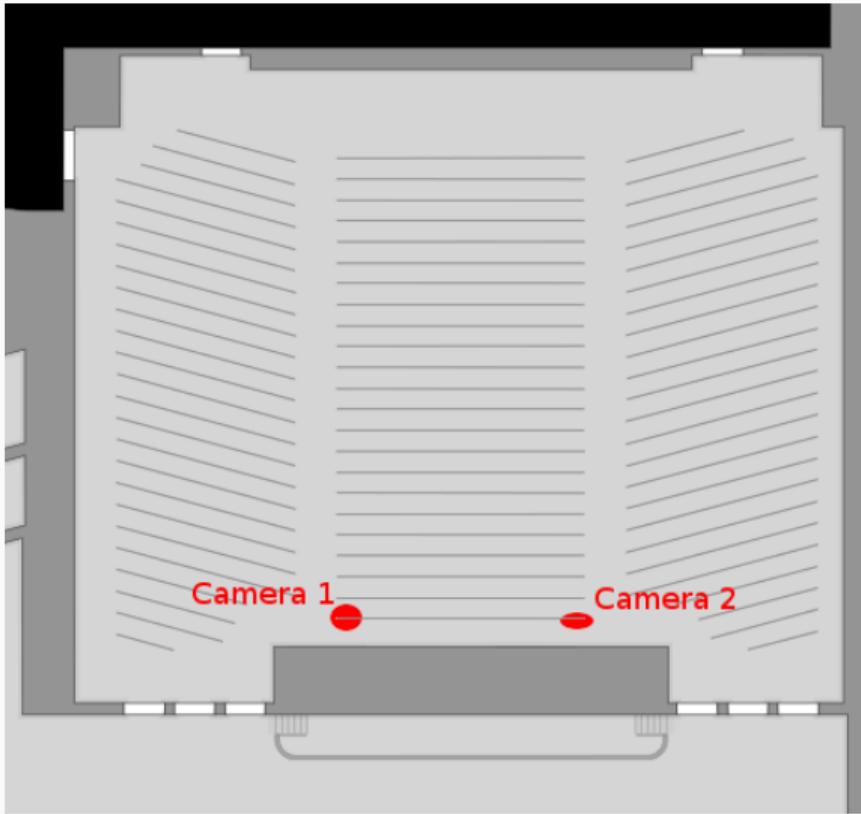
Alert the A/V-Technician if something's wrong or not running.

Camera Positions and Angles

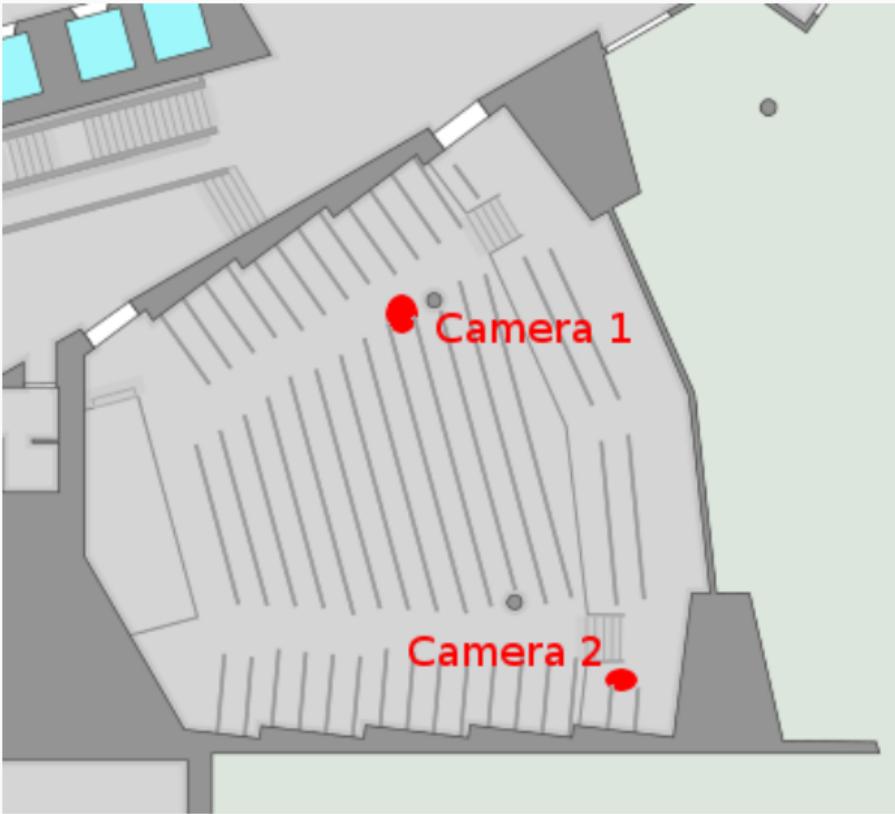
Map Saal 1 + Saal 2



Map Saal G



Map Saal 6



Camera 1 - Closeup Camera

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

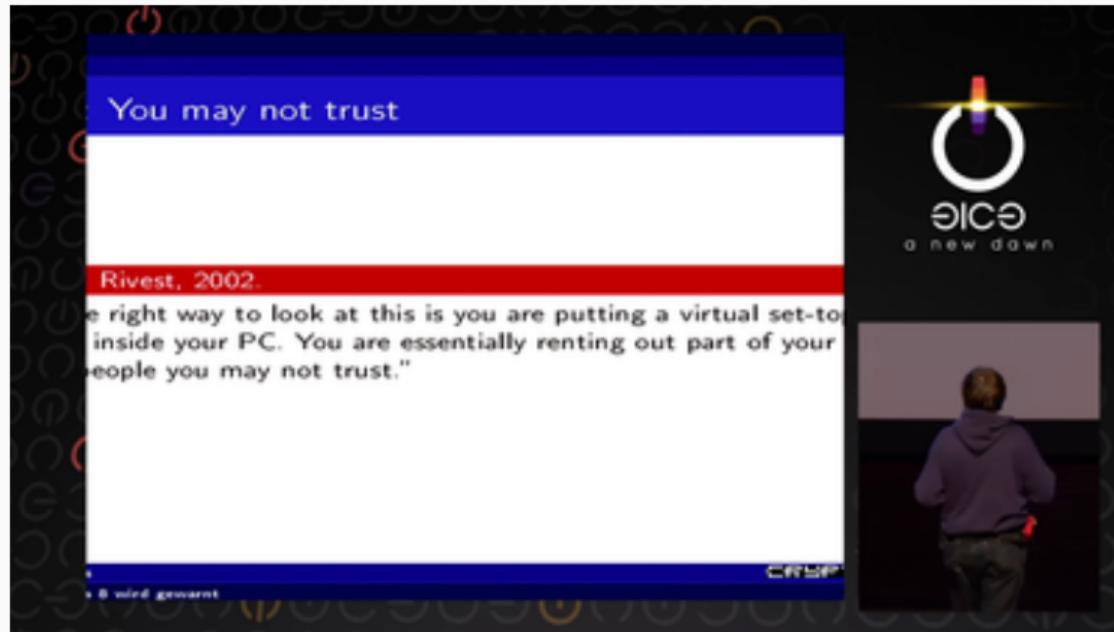


Figure 7: Too Far out for a good supersource image.

Camera 2 - Medium Camera

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

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

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.

Software Video Mixer - Controls

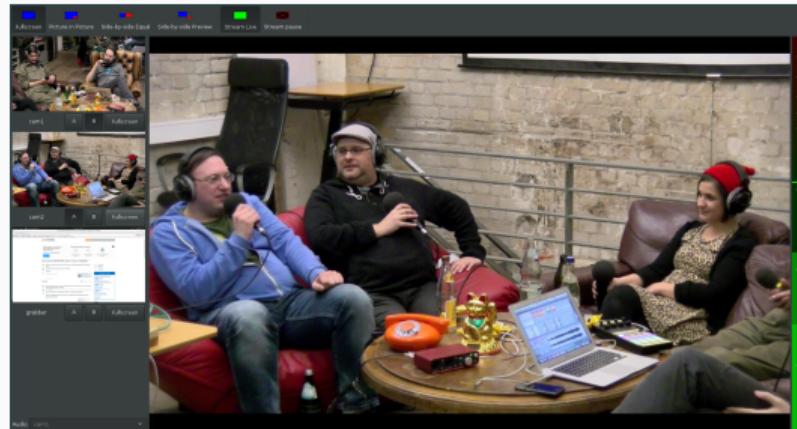


Figure 12: Voctogui

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

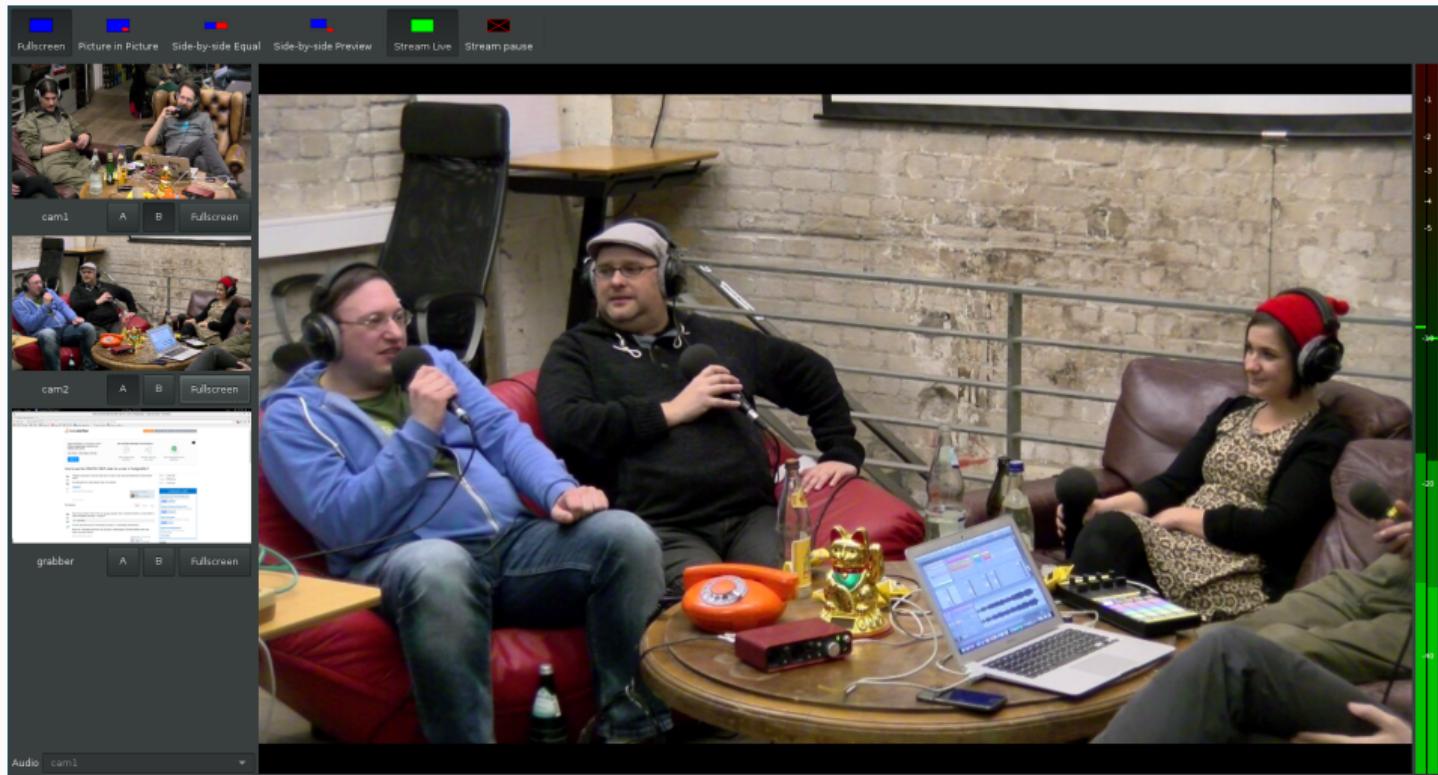


Figure 13: Voctogui

Video Mixing Guidelines

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

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.

Orga

Daily Meeting

- We meet in Lecture Room 11 on day 1, 2 and 3 at 5 pm
[https://events.ccc.de/congress/2018/wiki/index.php/Session:
A/V_Angel_Meeting](https://events.ccc.de/congress/2018/wiki/index.php/Session:A/V_Angel_Meeting)
- Mandatory for Video Mixing Angels
- Optional for other A/V Angels
- Feedback and Shift Distribution

Agenda

- Announcements (5 mins)
- Remarkable Examples (15 mins)
- Short Feedback Round (10 mins)
- Shift Distribution (30 - 40 mins)

Shift Distribution

- Video Mixer shifts will be distributed in this meeting
- Select about three talks you want do have and be excellent to your fellow angels
- Talks with special requirements might be handled by VOC

Who to Contact?

- Technical problem in the hall - A/V Technician on duty
- General Questions regarding VOC - VOC Helpdesk **1600**
- Organizational or social problems / Angels - jwacalex - DECT 5542
- Further training / Angels - Frederik DECT 1609
- General Angel Topics - Heaven - DECT 1023
- Unable to find right person for issue - VOC Helpdesk 1600
- We might need to call you. Please have your DECT (or UMTS) number in the Engelsystem! If you don't have a number yet, go to eventphone.de and get one.

Questions?

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