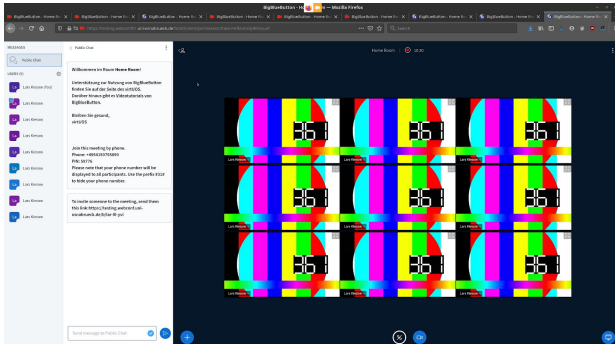# BigBlueButton Development

This document describes a set of improvements to BigBlueButton considered to be important while at the same time being low-hanging fruit with small impacts on code (not much code needed, no critical code is touched, no drastic user interface changes).

Since these are mostly minimal changes, the target version would be 2.2.x as well as 2.3.x if not indicated otherwise.
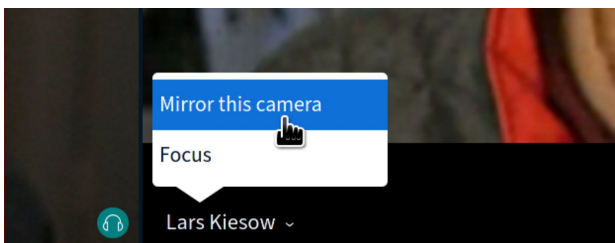
Support 16x9 Videos

BigBlueButton is optimized for cameras with 4:3 aspect ratio. This is also what is requested from the browser in the lower quality settings. But even if only widescreen cameras are present, they will be surrounded by a 4:3 container causing letterboxing.
BigBlueButton should avoid this behavior if only widescreen cameras are present, adjusting the height to the actual camera height.

Pull request: https://github.com/bigbluebutton/bigbluebutton/pull/10912
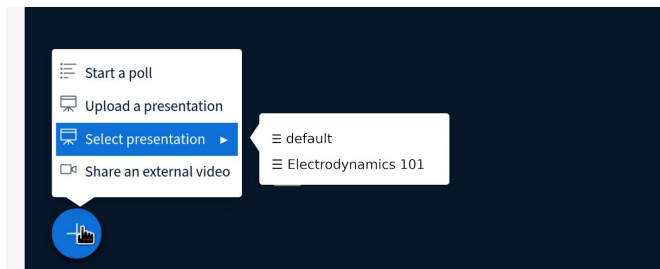
Mirror One Video

BigBlueButton supports mirroring cameras for all or no clients. Users have been asking to be able to mirror specific cameras in some situations. This change does not need to be persisted.
The idea is to add an additional menu item to the individual camera menus which would set the appropriate CSS style to toggle the mirror effect. This should be a safe, minimal invasive patch limited to the HTML5 client.
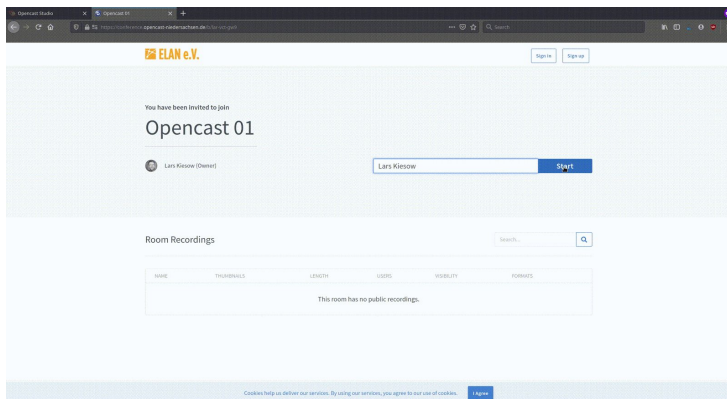
Pull request: https://github.com/bigbluebutton/bigbluebutton/pull/10925

Drop-down to select presentation

Uploading and showing presentations is one of the signature features of BigBlueButton. But switching between multiple presentations is not very easy/fast. It would be nice to be able to quickly select from previously uploaded presentations.
For this, a new menu item could be added to the presenter menu, allowing for a fast selection of previously uploaded files.

Video Conferencing Mode

The default settings of BigBlueButton are great for presentations/webinars but not ideal for simple video conferencing. Enabling media and hiding unnecessary items takes quite a while and quite a few clicks. The BigBlueButton HTML5 client can already be tuned towards conferences (see gif) but then you will have a less ideal setting for webinars.
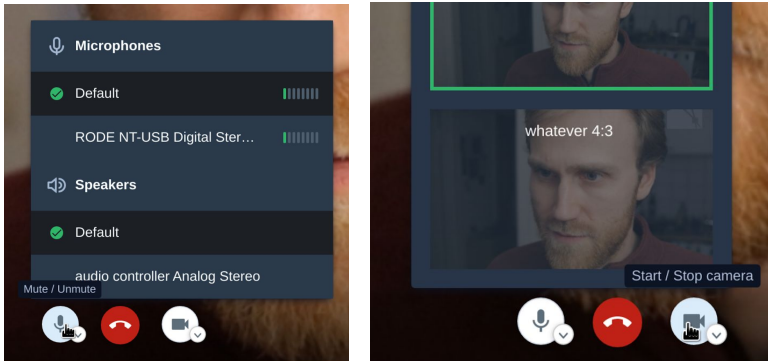We like to introduce a video conference mode which can be enabled by passing an additional parameter to the `/create` API request which will then cause the following settings to be set in the HTML5 client:
- Automatically ask for audio (default already)
- Automatically ask for camera
- Hide presentation
- Hide chat

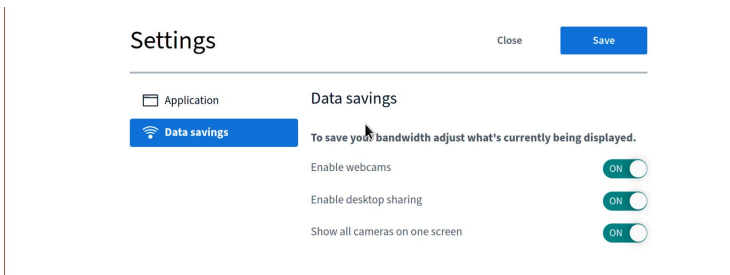All these settings exists already but have to be enabled globally for all conferences.

Audio/Video settings

TODO: Needs better images and a some clarifications in the description

Disabling and re-enabling a camera and switching cameras is very tedious since you will need to go through the set-up dialog over and over again.
That is why we would like to temporarily store the selected settings and not open the dialog the second time you share a camera. For switching, there should then be an easy way to open the camera/microphone settings again, or a direct selection at the share buttons.

Enable Pagination in Settings

Video pagination is a great feature to reduce load but if you do not need it (somewhat powerful machine, good internet connection) it can be very annoying. That is why it is disabled on most servers despite it being potentially being helpful to some users.
That is why we would like to add it to other personal data savings settings in the HTML5 client settings.