BigBlueButton

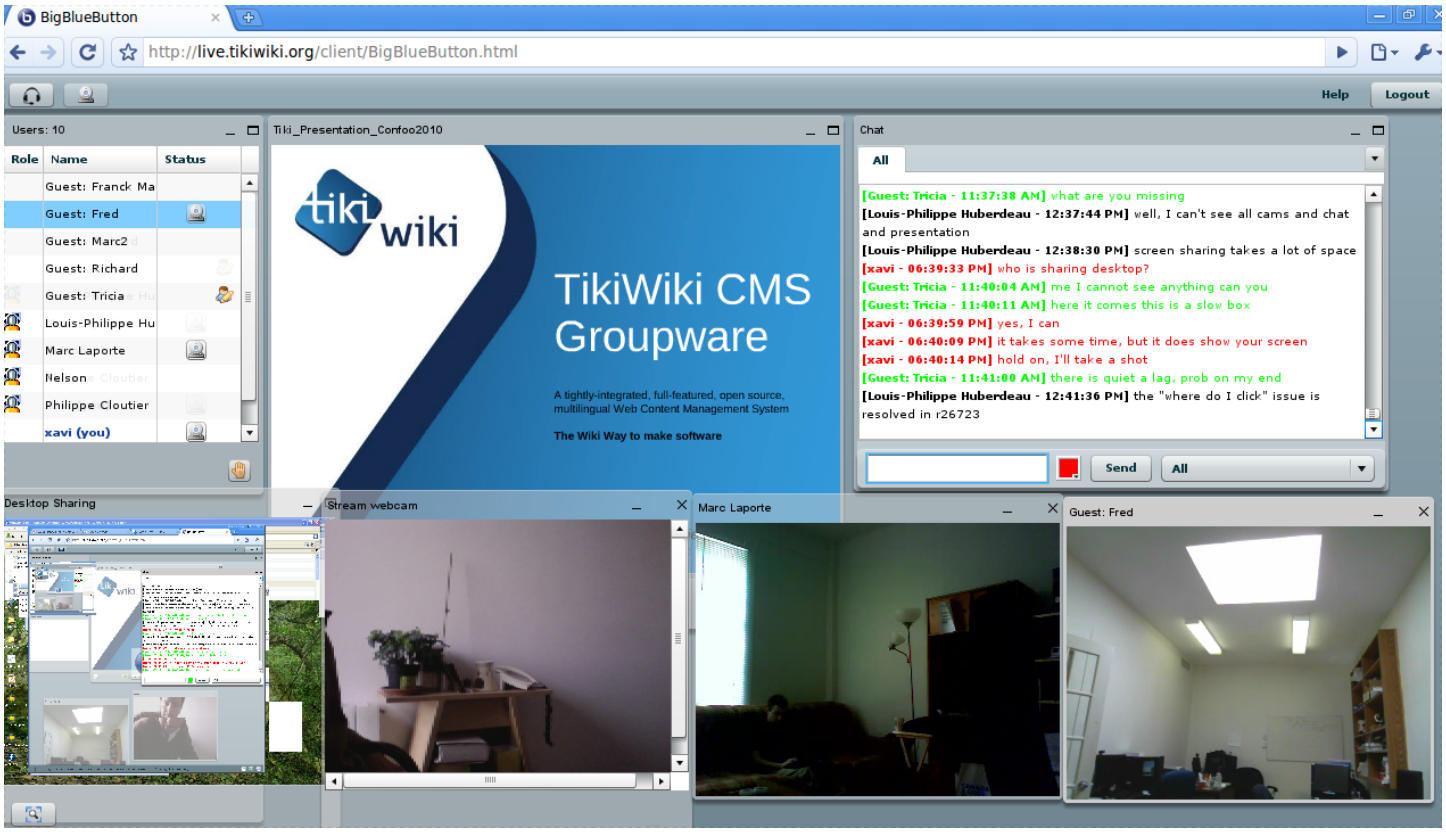
BigBlueButton (BBB) is an open source real-time collaboration tool. (Audio / Video / Screensharing / Chat / Whiteboard / Recording), which is built upon several open source components and with a focus on distance education.

Option	Description	Default
BigBlueButton web conferencing	Integration with the BigBlueButton collaboration server for web conference and screen sharing.	Disabled
BigBlueButton server location	Full URL to the BigBlueButton installation. *http://host.example.com/*	□□□□
BigBlueButton server salt	A salt key used to generate checksums for the BigBlueButton server to assure that requests are authentic.	□□□□
BigBlueButton recording maximum duration	A maximum duration for the meetings must be submitted to BigBlueButton to prevent the recordings from being excessively long if a user leaves the conference window open.	300 minutes
Plugin BigBlueButton	Hold a video/audio/chat/presentation session using the BigBlueButton web conferencing system.	Enabled

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click to enlarge

Table of contents:

Introduction

Key features of the Tiki & BigBlueButton integration

- 1-click login into BigBlueButton using Tiki user system
- Various permissions on the BigBlueButton session via Tiki's permission and group system
- Listing BigBlueButton recordings in Tiki.

BigBlueButton users need to have Flash. For the server, a dedicated server is needed with 2Gb of physical RAM (not as swap in a virtual machine frmo the host). BigBlueButton is licensed LGPL, just like Tiki.

More info at: http://bigbluebutton.org/

How to use BBB

General comments

You need to have the plugin for the flashplayer properly installed in your browser in order to use BigBlueButton.
This can be tricky for certain combinations of operating system and browser. For instance, if you experience any unexpected crash of your flash plugin at the first attempt to connect to bbb (for instance if you have a GNU/Linux based operating system 64 bits, and installed flashplugin from the system repositories), you can try these steps that use to fix your flashplugin setup:

- Use Mozilla Firefox as browser, and install on it this extension: **Flash-Aid**:
  - https://addons.mozilla.org/en-us/firefox/addon/flash-aid/
- Choose the installation of new icon created by the extension, and select the "**Quick Mode > Install beta flash**"
  - This will guide you through the installation. Restart firefox as requested at the end.
- Go back to your BBB installation and try connecting again.

In addition, if you can't click at the window to accept the remote server to use your wecam and microphone, you can manually enable that by means of:

- visit this url with your browser
  - http://www.macromedia.com/support/documentation/en/flashplayer/help/settings_manager06.html
- accept the connection from the server of your interest so that it doesn't ask you each time you try to connect to that bbb installation.

BBB 0.81

Changes:

- Visual indication of who is talking
- Custom and predefined layouts
- Keyboard shortcuts
- Webcams, Screensharing and Notes taken in the Whiteboard shown also in the playback
- Playback: You can point to specific time/part of the recorded session
  - Add **&t=XXmYYs** to the URL of the recorded playback (XX for minutes, YY for seconds)
- Playback: You can switch the main view by clicking the "opposite directions" arrow icon to switch the presentation/webcam views
- interface translated to many more languages

BBB 0.90

Changes:

- **Start/Stop Button for Recording**: Moderators can now mark segments of the class for later playback.
- **Improved Audio**: BigBlueButton now takes advantage of the web real-time communications (WebRTC) framework built into FireFox and Chrome to give users higher quality, lower latency audio.
- **Microphone Check**: BigBlueButton now gives every user a chance to check their microphone before entering the session, ensuring when they enter the session they are ready to participate.
- **Listen Only Mode**: Users without a microphone can join audio in 'Listen Only' mode. In this mode, BigBlueButton displays a speaker icon next to their name letting everyone know they can hear (but not speak).

- Updated tips:
  - Add **?t=XXmYYs** to the URL of the recorded playback (XX for minutes, YY for seconds)

How to use BBB in Tiki

1.1.1. Enable the feature and plugin

Enable the feature at "**Admin home > Community > BigBlueButton**" tab.
Enable the plugin at "**Admin home > Editting and plugins > Plugins > BigBlueButton plugin**"

1.1.2. Place the bbb plugin call in a wiki page

Select the BigBlueButton plugin from the plugin helper popup box thorugh the edit box in the wiki page:

```
{bigbluebutton name="77777" prefix="guest" welcome="Welcome to the BBB from our web site"
logout="http://mywebsite.org/myexitpage" recording="0"}
```

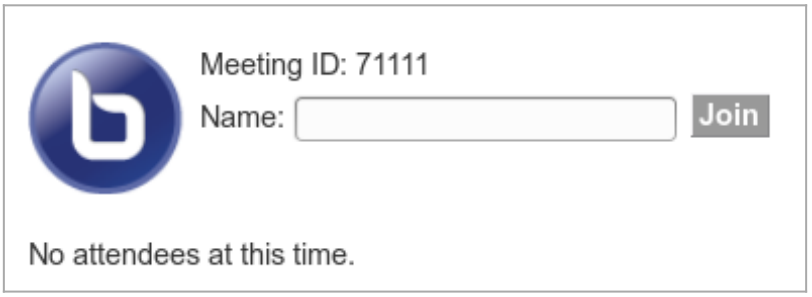
If you want to record your meetings, change the param recording from 0 to 1.

Note:

- Ensure that you are not caching that wiki page (set cache for that wiki page to "0". Otherwise, anonymous users willing to join a meeting might experience some connection problems in some cases.

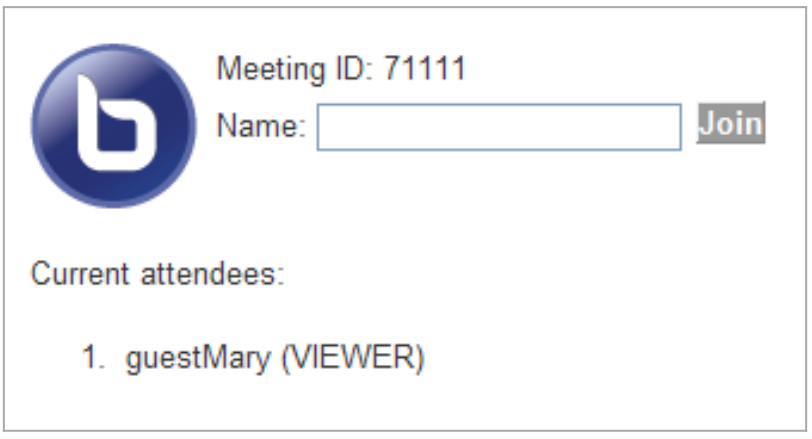
1.1.3. Connect to BBB

An anonymous user would see this in a wiki page when no one is connected to the metting yet:



click to expand

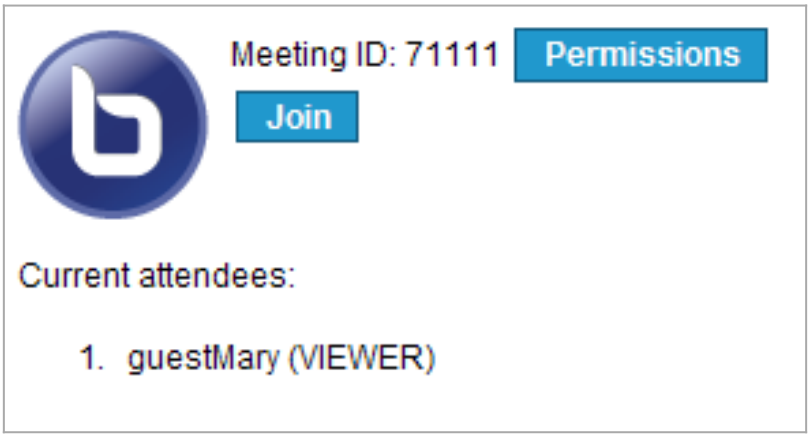
If there is anohter guest user connected (not logged in Tiki at the time of connection, thus loged in BBB as VIEWER), the page would look like:



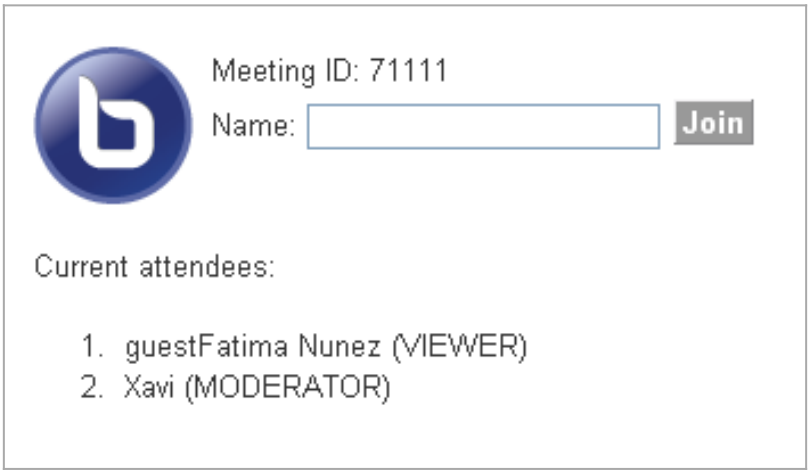
click to expand

If a user logs in the page, new buttons will be seen for him, depending on his tiki permissions, but for sure the username will be taken from his tiki username, andpermissions will be transferred from Tiki to BBB.

If that user connects to the BBB channel, then he will be connecting as MODERATOR.



click to expand



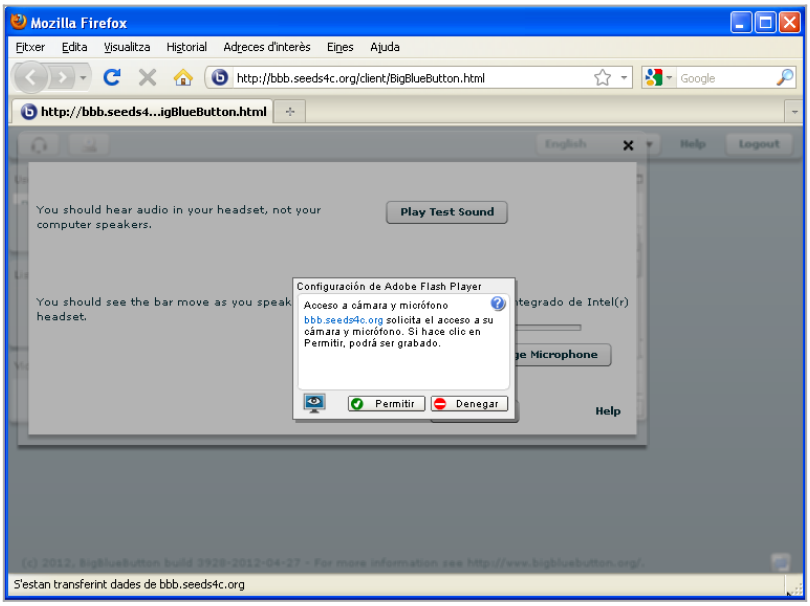
click to expand

Connecting:



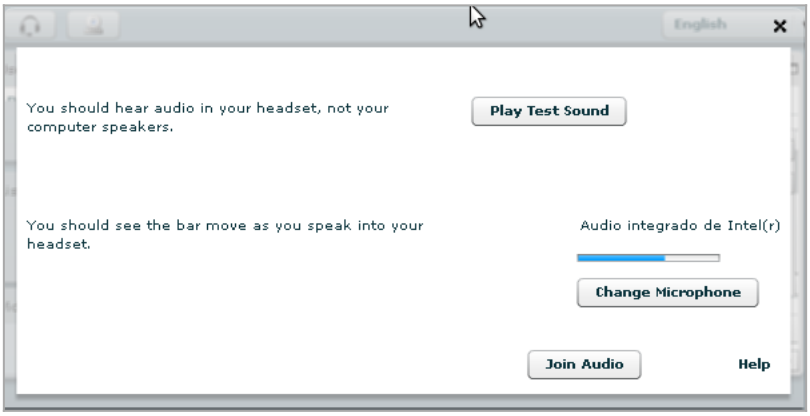
click to expand

Validating Flash permissions to share microphone and webcam:



click to expand

Check your audio settings in general (speakers, microphone):



click to expand

Change your microphone settings, if needed:



click to expand

1.1.4. Desktop Interface

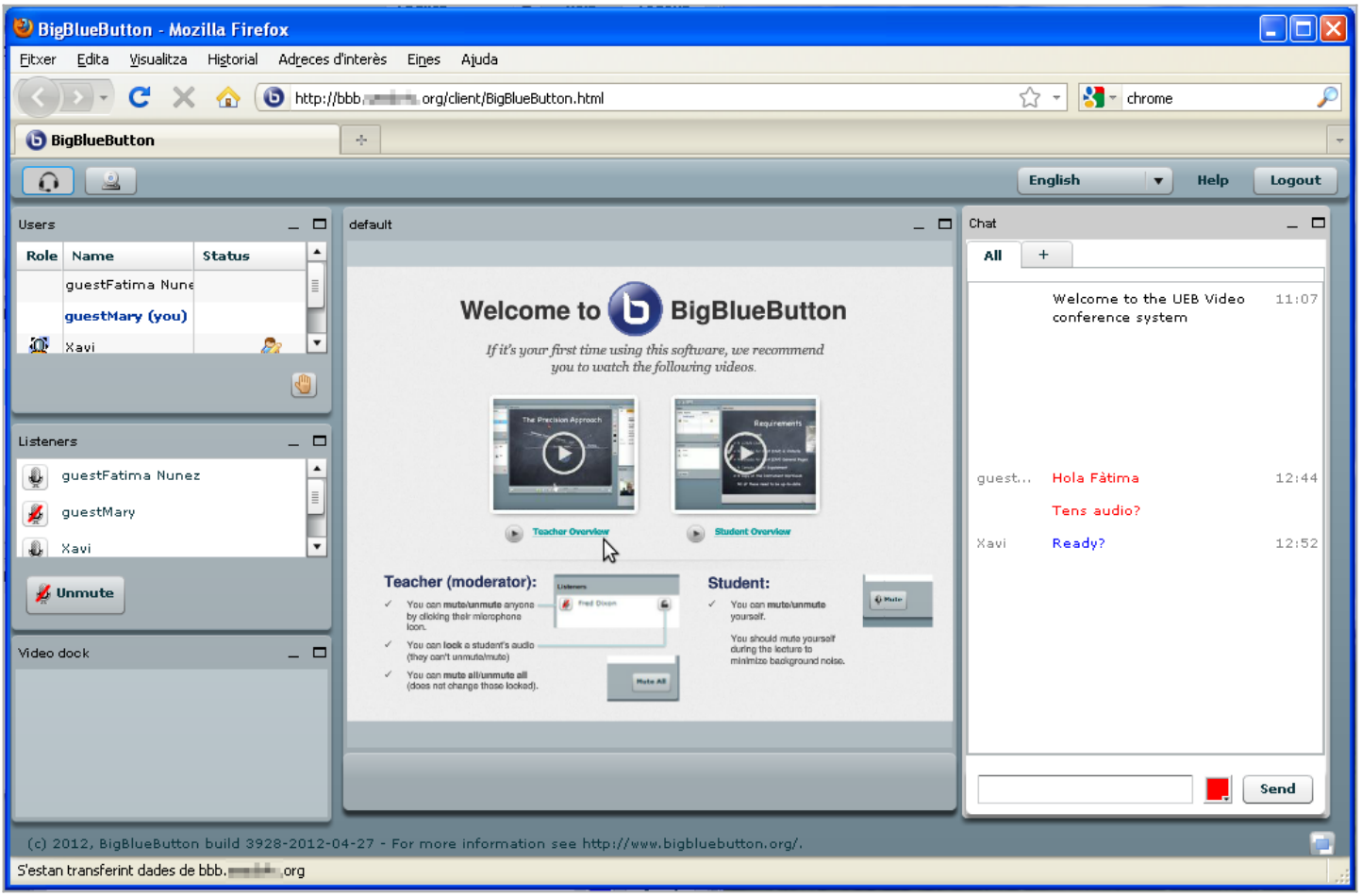
See the BBB desktop:



click to expand

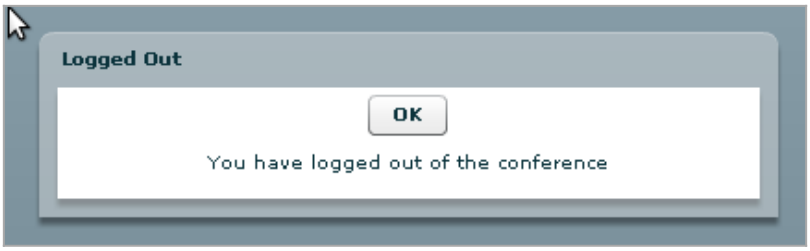
1. **Screen sharing** Show the screen sharing dock, to allow sharing your screen (Java required)
2. **Webcam**. Video streaming from your local webcam, if available
3. **Audio settings & Join Audio** Set up and join the microphone and speakers of your computer to join the audio conference
4. **Users** List of users connected at this moment
5. **Switch presenter** Click at one user frmo the list (as moderator) to grant the user the role of presenter, so that he/she can upload a presentation if needed, user the whiteboard, screensharing, etc.
6. **Raise your hand**. Ask for permission to talk, so that a moderator can unmute your microphone (if that's the case) for you use your turn to talk in the audio conference.
7. **Listerners** List of users who joined the audio conference
8. **Select user**. Click to select a user from the list of listeners
9. **Mute user** Click to mute the selected user
10. **Mute all** Click to mute all users
11. **Lock a user** in this case, the user will not be able to toggle his own audio status
12. **Video dock** When webcams are enabled, they show up here.
13. **Presentation area** When a slideshow is uploaded, the slides are shown here
14. **Presentation upload**. presenter can upload a slideshow through this button, to be converted into a flash presentation.
15. **Moving slides forward** (and backwards, with the arrow at the left)
16. **Zoom** moving the slider you can zoomin in or out the slide size. CLicking and draging you move the area of the slide receiving the focus.
17. **show the whiteboard controls**
18. **Chat**. write chat messages here
19. **font color** for chat. Choose the font color for your user messages
20. **Send chat messages**
21. **Restore display defaults** for bbb windows and docks in the desktop
22. **Language** choose language for the interface
23. **Help** Click there for help on the BBB system
24. **Logout button**

And the view of the same room by an anonymous users without moderator permissions:



click to expand

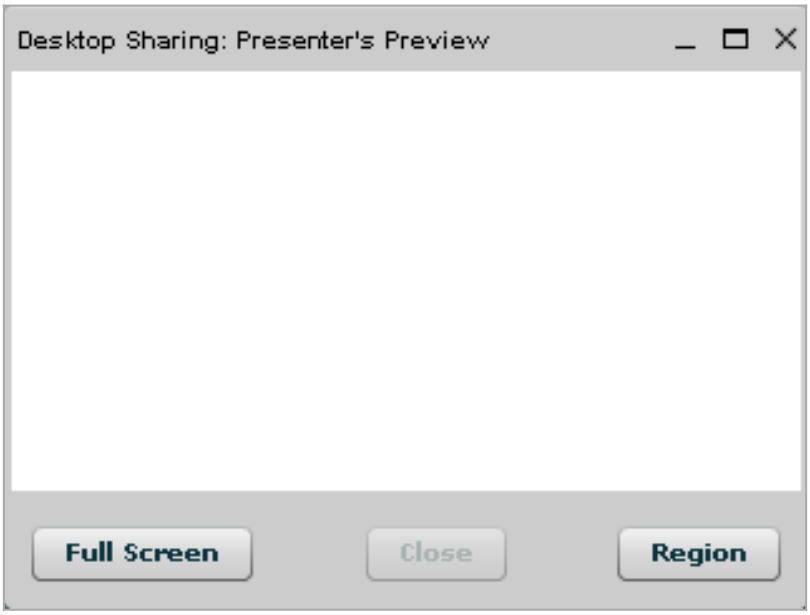
At the end:



click to expand

1.1.5. Desktop sharing

When you have the role of presenter, you can share your desktop for the other attendants to see it. Click the button in the upper left corner to share desktop (the icons that loocks like a screen).



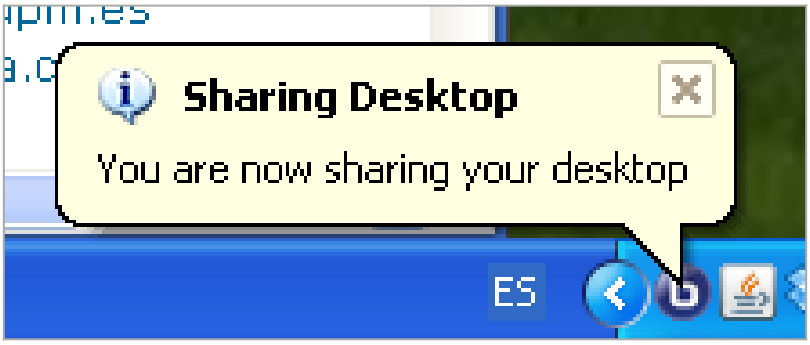
click to expand

Selecting a region of the destkop from the moderator user (a web page in this case). the lower right corner allows the resize of the window:



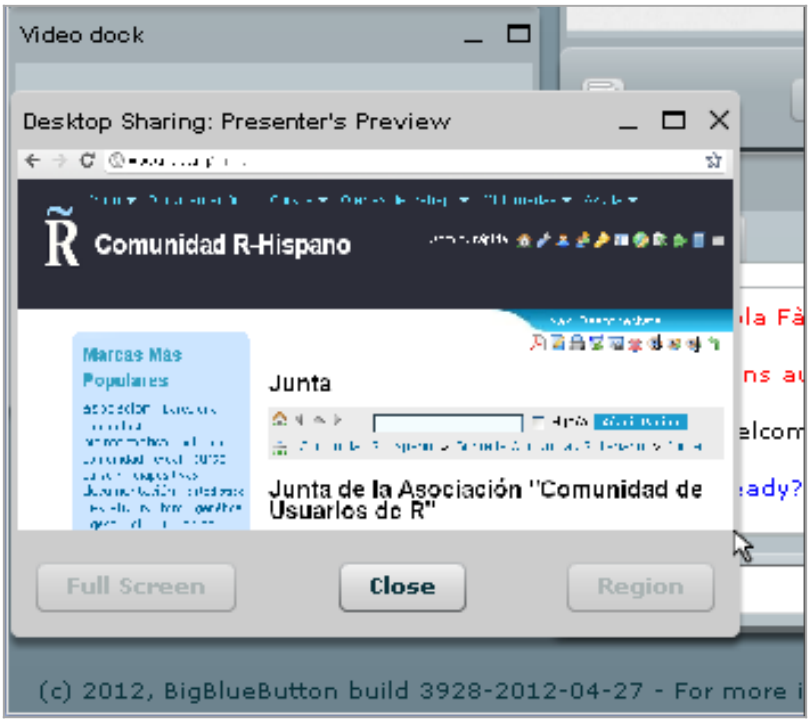
click to expand

Tray notification:



click to expand

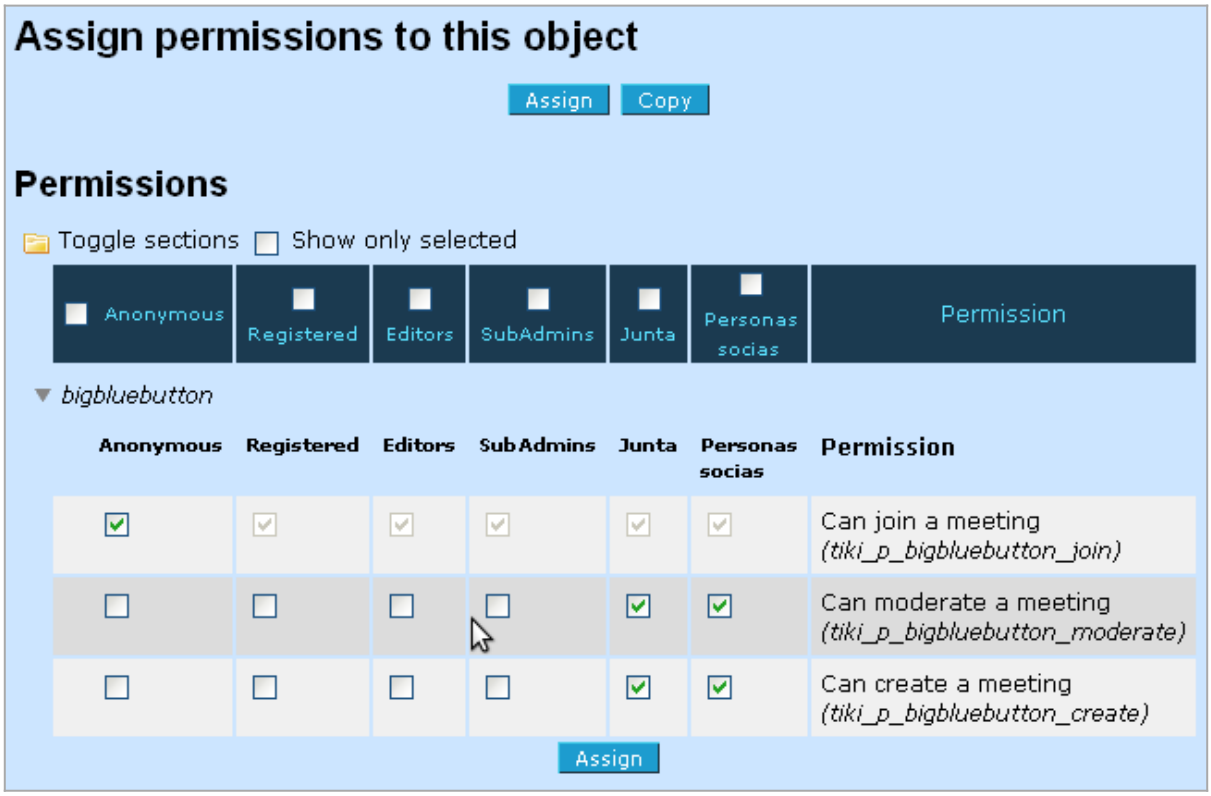
And the sharing seen at the screen of the moderator itself:



click to expand

1.1.6. Permissions

Last, editing permissions for that BBB room name:



click to expand

to be continued...

Videos about Tiki & BBB

The Tiki community Dogfoods BigBlueButton at tiki.org/live.

The Tiki community has been testing BigBlueButton for this type of live collaboration and members of the community have decided to enter in a long-term integration partnership to maintain it as a Tiki feature.

About the integration

Similar to Kaltura, BigBlueButton needs to be installed alongside Tiki (can be on a different physical server). Each project remains standalone, and we'll collaborate to continuously improve the glueware between the two.

At first, Single Sign On, but over time, we expect that many features will meld. The Tiki community will DogFood extensively. Tiki integrated the new record and playback features from BigBlueButton 0.8

Set-up

Before setting up the tiki integration, the BigBlueButton server stack must be installed. Detailed instructions are provided for multiple platforms. However, using the provided virtual machine is the easiest way to go. Also note that there are heavy bandwidth requirements.

To enable the integration in tiki, you need the following information:

- The BigBlueButton server location.
- The server salt — a secret token used to generate call signatures. This value is located inside the bigbluebutton.properties file on the BigBlueButton server.

- you can also have BBB report to you that server salt key with the command on the server:

```
bbb-conf --salt
```

Creating rooms

The user interface for BigBlueButton goes through a wiki plugin. You can use it in wiki pages or most wiki-parsed text areas. To schedule meetings on a calendar, you can use the calendar feature.

Sample

```
{bigbluebutton name=My Meeting Room}
```

If the server location was configured successfully, the BigBlueButton logo will appear. A create button will be proposed to create the new room (a permission is required, but administrators have all permissions). If the salt was set-up correctly, you will be redirected to the meeting room.

Going back to the plugin, you can set-up the permissions to select who can join the meeting room or moderate it.

More info at PluginBigBlueButton

Asterisk

To use the voip feature when using a room name instead of a number:

Change

open the config: sudo nano /etc/asterisk/bbb_extensions.conf then replace: exten => _XXXX.,1,Playback(conf-placeintoconf) with: exten => _.,1,Playback(conf-placeintoconf) and replace: exten = _XXXX.,n,Konference(${EXTEN},H) with: exten = _.,n,Konference(${EXTEN},H) Than reboot the Big Blue Button server with bbb-conf --restart. note: if you don't have nano installed use sudo apt-get install nano

Uses

This will help with several related but slightly different uses.

Webinars / e-learning

Scheduled, live, interactive, one to many delivery of knowledge. The session could be one time (webinar) or an ongoing course with a regular schedule. This is BigBlueButton's core objective "our focus is to make the best web conferencing system for distance education."

Remote support

A visitor clicks a link on a brochure website and is put in contact with a representative of the organization. This is similar to Tiki's Live Support feature (ad hoc 1 on 1 chat help support), but with BigBlueButton's feature set, there are way more possibilities (screen sharing, co-browsing, etc.)

Team meetings

Useful for Teams to meet & coordinate. These are typically scheduled (for instance with PluginConvene and Tiki Calendar) and have an agenda (presumably in a wiki page). Ideally, decisions are recorded (presumably in a wiki page). Everyone can be on audio & webcam. Headsets are recommended.

Broadcasting live events

This will be useful during TikiFests. A projector can be setup at the live event so all participants can see everyone and follow the discussion on the chat. Typically, remote participants can listen in, but will

respond in the text chat. (Just because of logistics and ambient noise).

- An alternative is http://www.ustream.tv/user/tikiwiki
- An example: TikiFestBigBlueButton

Community chat

This is the place to go to hang out with "everyone". It's on 24/7 and can be idle for long whiles. It should be logged as a lot of knowledge, answers and links are shared there. Quick "decisions" are often taken there as well (ask a quick question and if *everyone* seems ok with it, it must be ok). Even if some users may be identified with special rights (ex.: ops), the room is very p2p. It's possible to break out of the room into a smaller one for a short, focused or private discussion. Historically, we use irc.tiki.org but we could eventually develop an IRC to BigBlueButton gateway.

Surveillance camera

Typically a video stream which can be monitored and recorded.

Related links

- http://bigbluebutton-blog.blogspot.com/2010/08/pictures-from-tikifestbigbluebutton.html
- http://bigbluebutton-blog.blogspot.com/2010/04/tiki-wiki-looking-closely-at.html
- dev:BigBlueButton
- http://hostbbb.com/ which is known to work with Tiki
- https://moodle.org/mod/forum/discuss.php?d=272890

alias

- BBB
- Big Blue Button