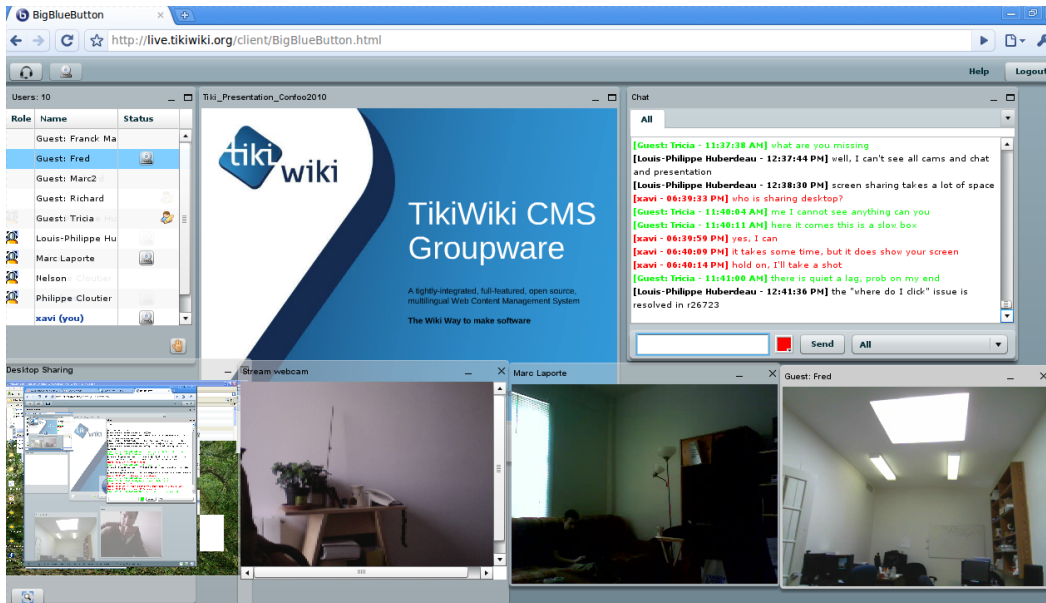# 빅블루버튼 (BigBlueButton)

빅블루버튼 (BigBlueButton, BBB) 는 오픈소스의 실시간 협업 도구입니다. (음성 / 화상 / 화면공유 / 채팅 / 화이트보드 / 녹음) 등 이 여러 개의 오픈 소스 컴포넌트 상에서 제작되었으며 원격 교육에 촛점을 두고 있습니다. 사용자는 브라우저에 플래시플레이어 플러그 인만 필요합니다.

확대하려면 클릭

목차:

소개

티키와 빅블루버튼의 통합의 주요 기능들

- 티키 사용자 시스템을 이용하여 1-클릭 로그인으로 빅블루버튼에 로그인 가능
- 티키의 권한과 그룹 시스템을 통한 빅블루버튼 세션 상에서의 다양한 권한기능
- 티키 내부에서 빅블루버튼 녹화 내역을 나열

Tiki 5.0 에서는 BBB 0.64 를 지원하였고, Tiki 5.1 (그리고 이후) 버전에서는 BBB .64 과 .7 을 둘 다 지원하였습니다
Tiki 8.0 에서는 녹화와 재생과 같은 빅블루버튼 0.8 의 새 기능 지원이 추가되었습니다 (그리고 BBB 의 이전 버전이 계속해서 지원되었습니다).
Tiki 9.0 에서는 미팅에 참여할 권한이 ㅇ벗는 사용자들에게 녹화내용을 보여주는 것을 허용하는 새로운 권한 (tiki_p_bigbluebutton_view_rec) 이 추가되었습니다
Tiki 10.0 의 관리자들은 이제 녹화내용을 삭제할 수 있습니다.

빅블루버튼 사용자들은 플래시가 있어야 합니다. 서버에 대하여, 2기가바이트의 물리적 RAM을 가진 전용 서버가 필요합니다 (이는 호스트에서 가상 머신의 스와핑을 통한 것이 아닙니다). 빅블루버튼은 티키처럼 LGPL 으로 라이센스 됩니다.

추가 정보: http://bigbluebutton.org/

BBB 사용법

빅블루버튼을 사용하려면 웹브라우저에 플래시플레이어를 위한 플러그인이 올바르게 설치되어있어야 합니다.
이는 특정 운영체제와 브라우저의 조합에서는 약간 복잡할 수도 있습니다. 예를 들면, BBB에 연결을 처음 시도할 때 플래시 플러그인이 예기치 않게 크래시된 적이 있다면 (예를 들면, GNU/Linux 기반의 64비트 운청체제이고 플래시플러그인을 시스템 리포지터리에서 설치를 했을 경우), 다음의 단계를 밟아서 플래시플러그인 설정을 수정하는 것을 시도할 수 있습니다:

- 모질라 파이어폭스를 브라우저로 사용하고 다음 익스텐션을 설치: **Flash-Aid**:
  - https://addons.mozilla.org/en-us/firefox/addon/flash-aid/
- 익스텐션에 의하여 생성된 새 아이콘의 설치를 선택하고 "**Quick Mode > Install beta flash**" 을 선택
  - 이는 설치과정을 통한 안내를 제공합니다. 설치 마지막에 요청된 대로 파이어폭스를 재시작.
- BBB 설치로 돌아가서 다시 연결 시도.

부가적으로 웹캠이나 마이크를 사용하려할 때 윈도우를 클릭하여 원격서버에서 받아들이도록 할 수 없다면, 다음 방법을 통하여 수동으로 활성화할 수 있습니다:

- 브라우저로 아래의 URL을 방문
  - 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.

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.
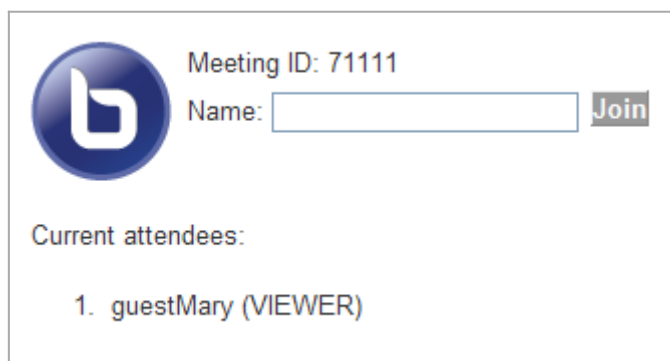
1.1.3. Connect to BBB

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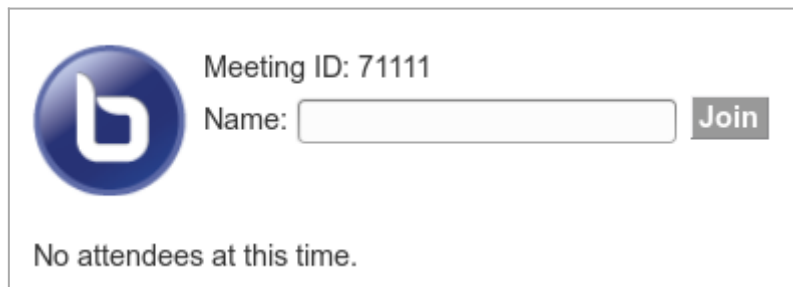
click to expand

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:
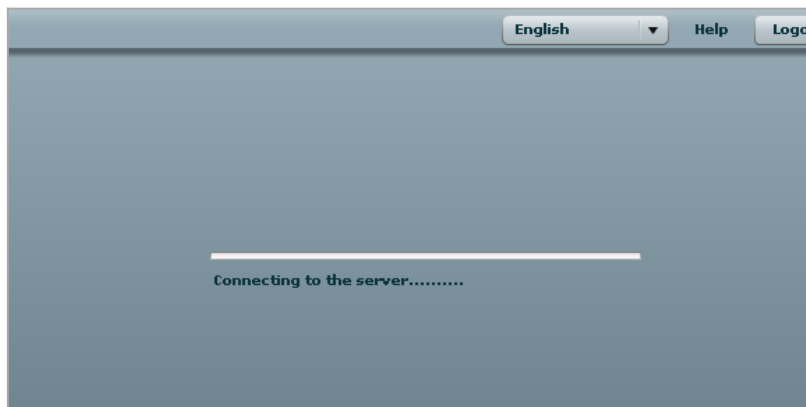
click to expand

Validating Flash permissions to share microphone and webcam:

click to expand

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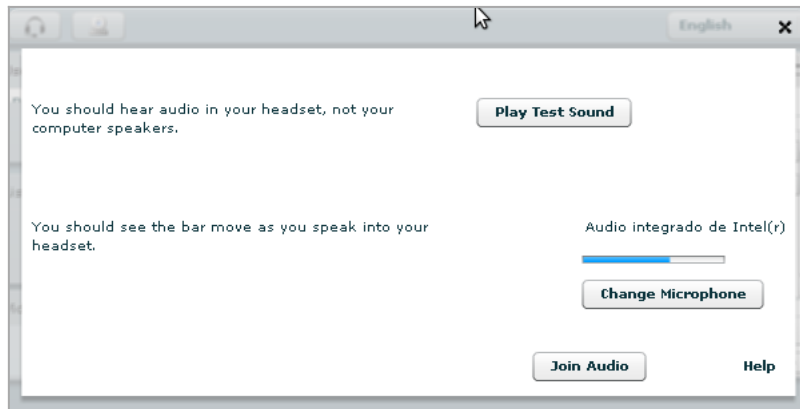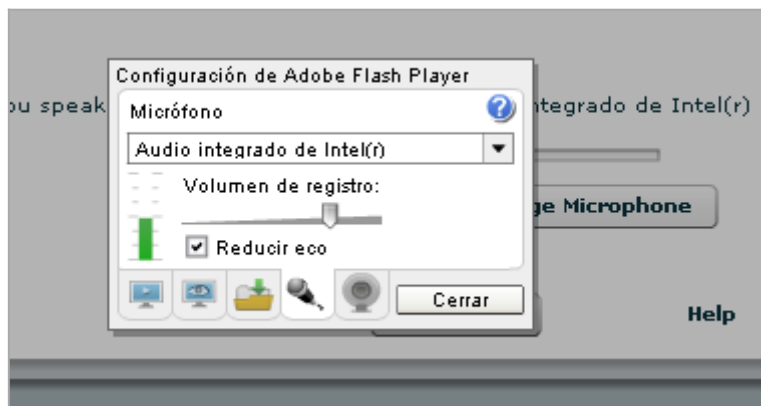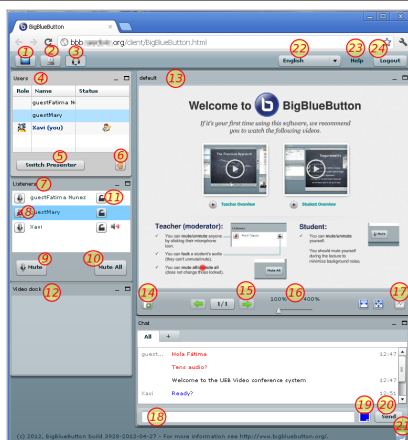

click to expand

Change your microphone settings, if needed:
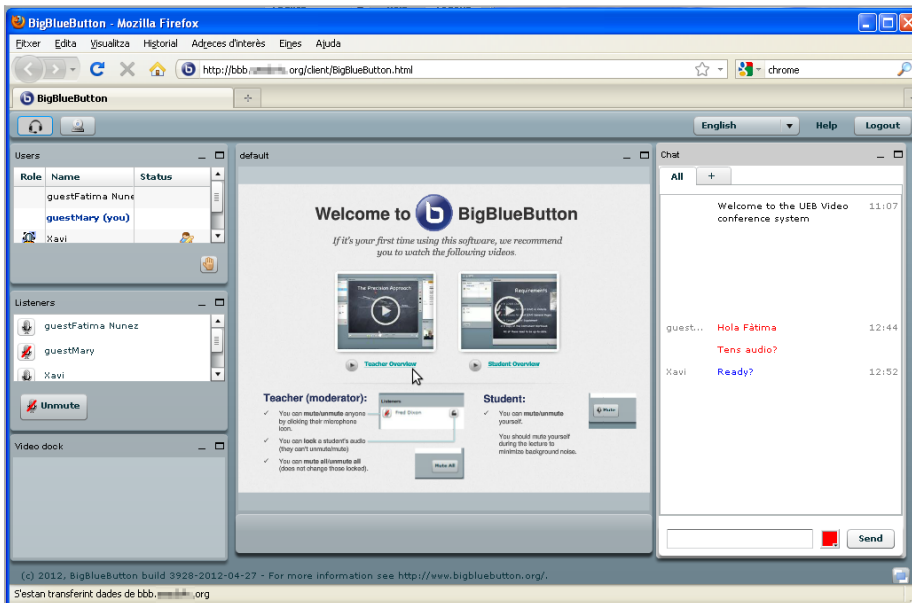

click to expand

# 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:
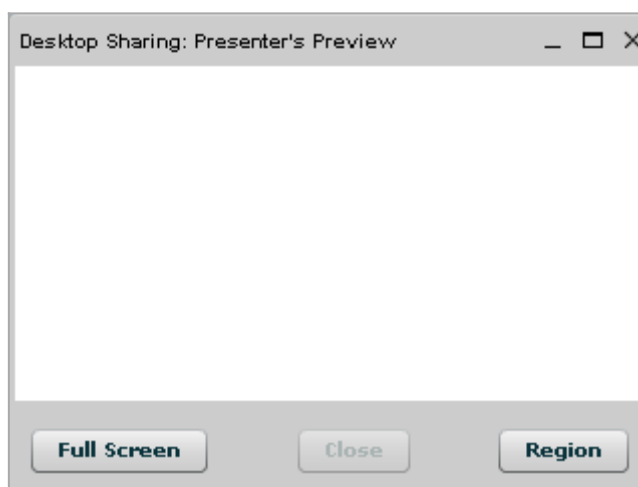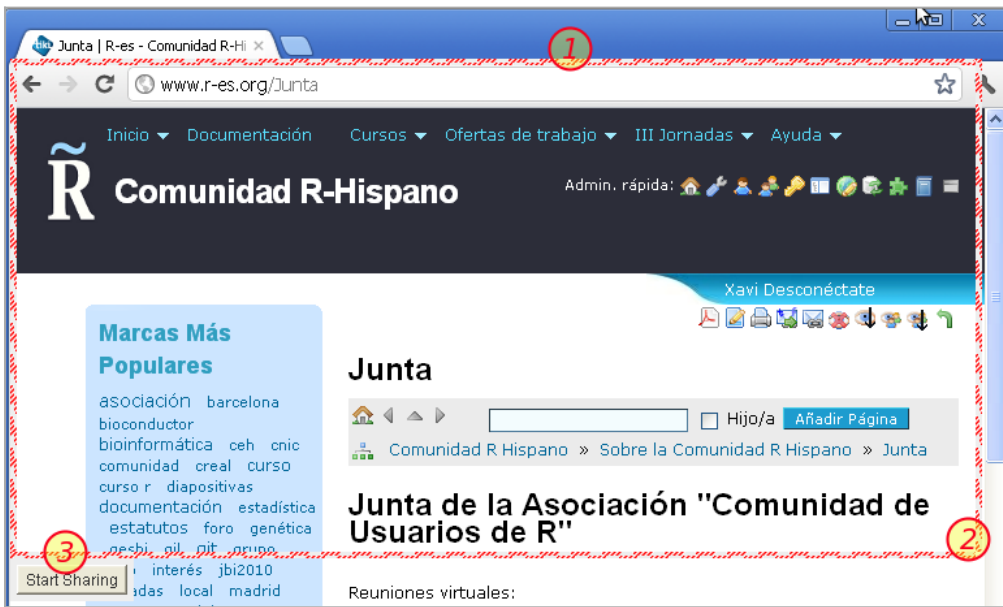

click to expand

At the end:
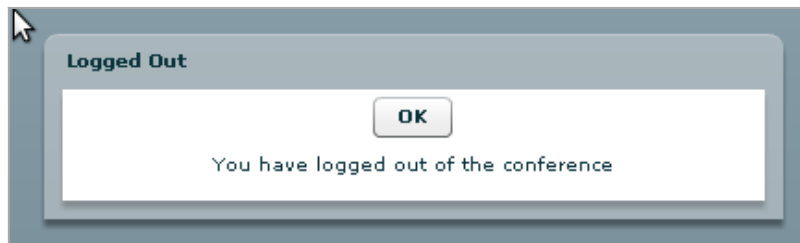
click to expand

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).
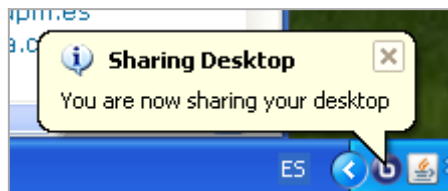

click to expand

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:
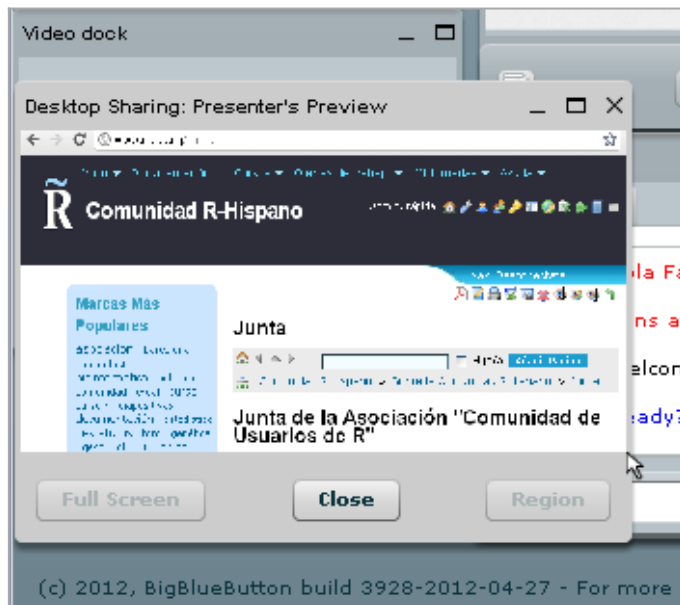
click to expand

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, starting in Tiki5.

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. Tiki8 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 since Tiki9 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

alias

- BBB ko
- Big Blue Button ko