

Kollaborate Encoder



Installation Guide

Kollaborate Encoder is an add-on to Kollaborate Server that allows you to automatically encode video files uploaded to your local server. Multiple servers can be used for high-traffic websites (additional server licenses required).

Requirements

- macOS or Linux computer
- [FFMPEG](#)
- [ImageMagick](#) (optional but recommended)
- [Node.js](#)
- [Xcode](#) (if on a Mac)

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Prerequisites

This guide assumes that you have already setup Kollaborate Server and are familiar with the following topics or tasks in your operating system:

- Managing files
- Using the command line
- Editing configuration files with a text editor
- Modifying file and user permissions
- Executing command line scripts

If you are not familiar with these topics, please research them before continuing.

Installing

To ensure maximum performance on Kollaborate Server we recommend installing Kollaborate Encoder on a separate server.

Kollaborate Encoder should be assigned a fixed local IP address and should be able to access both Kollaborate Server and the Kollaborate Server storage volume over the local network. The storage volume should be mounted on the encoding server.

Mac installation

Important: Be careful when copying and pasting from this user guide as your PDF viewer may add extra whitespace around the commands. If you receive errors after running a command, double-check that there are no errant spaces in the middle of the command. Also check that you are entering double dashes (—) where appropriate instead of single dashes (-).

1. If you do not have Xcode installed, download it from the App Store.
2. Install the Xcode command-line tools by typing **xcode-select —install** (note the double hyphen) into Terminal.
3. Download and install MacPorts.
4. Type **sudo port -v selfupdate** in Terminal.
5. Now type: **sudo port install ffmpeg +gpl +postproc +lame +theora +libogg +vorbis +xvid +x264 +x265 +a52 +faac +faad +dts +libfdk-aac +nonfree**
6. Download and install node.js from <https://nodejs.org> .
7. Download and install ImageMagick from <https://www.imagemagick.org/script/download.php> .
8. Now copy the kollab_server.js, kollab_server.default.conf and the encoder_supporting_files folder to a location of your choice on your hard drive.
9. In Terminal, type **cd [kollaborate encoder location]** where the location is the folder you just copied the files to. Now type **sudo npm install request multicurl**.
10. Now that everything is installed, see the **Configuring and Running Kollaborate Encoder** section of this guide.

Ubuntu installation

Important: Be careful when copying and pasting from this user guide as your PDF viewer may add extra whitespace around the commands. If you receive errors after running a command, double-check that there are no errant spaces in the middle of the command. Also check that you are entering double dashes (—) where appropriate instead of single dashes (-).

In the guide below we are installing to the folder /kollabencoder but feel free to change it to your preferred location.

1. First enter these commands to make sure you have the required prerequisites to build from source:

```
sudo apt-get update && sudo apt-get -y install autoconf automake build-essential  
libass-dev libfreetype6-dev libsdl2-dev libtheora-dev libtool libva-dev libvdpau-  
dev libvorbis-dev libxcb1-dev libxcb-shm0-dev libxcb-xfixes0-dev pkg-config  
texinfo zlib1g-dev yasm nasm libx264-dev libfdk-aac-dev libmp3lame-dev libopus-  
dev libvpx-dev openssl libssl-dev wget
```

2. Enter the following terminal commands to build x264:

```
mkdir /kollabencoder  
mkdir /kollabencoder/ffmpeg_sources  
cd /kollabencoder/ffmpeg_sources  
wget http://download.videolan.org/pub/x264/snapshots/last_x264.tar.bz2  
tar xjvf last_x264.tar.bz2  
mv x264-snapshot* x264-snapshot  
cd /kollabencoder/ffmpeg_sources/x264-snapshot  
PATH="/kollabencoder/bin:$PATH" ./configure --prefix="/kollabencoder/  
ffmpeg_build" --extra-cflags="-march=native" --bindir="/kollabencoder/bin" --  
enable-static --disable-openc1 --enable-shared  
PATH="/kollabencoder/bin:$PATH"  
make  
make install  
make distclean
```

3. Then build ffmpeg:

```
cd /kollabencoder/ffmpeg_sources  
wget http://ffmpeg.org/releases/ffmpeg-snapshot.tar.bz2  
tar xjvf ffmpeg-snapshot.tar.bz2  
cd ffmpeg
```

```
PATH="/kollabencoder/bin:$PATH" PKG_CONFIG_PATH="/kollabencoder/
ffmpeg_build/lib/pkgconfig" ./configure \
  --prefix="/kollabencoder/ffmpeg_build" \
  --pkg-config-flags="--static" \
  --extra-cflags="-I/kollabencoder/ffmpeg_build/include -march=native -ftree-
vectorize" \
  --extra-ldflags="-L/kollabencoder/ffmpeg_build/lib" \
  --bindir="/kollabencoder/bin" \
  --enable-gpl \
  --enable-libass \
  --enable-libfdk-aac \
  --enable-libfreetype \
  --enable-libmp3lame \
  --enable-libopus \
  --enable-libtheora \
  --enable-libvorbis \
  --enable-libvpx \
  --enable-libx264 \
  --enable-nonfree \
  --enable-openssl \
  --enable-postproc \
  --disable-doc \
  --enable-shared
```

```
PATH="/kollabencoder/bin:$PATH"
make
make install
make distclean
```

4. Install nodejs and npm:

```
sudo apt-get install nodejs
```

5. Install ImageMagick:

```
sudo apt-get install imagemagick
```

6. Now copy the kollab_server.js, kollab_server.default.conf and the encoder_supporting_files folder to a location of your choice on your hard drive.

7. In Terminal, type **cd [kollaborate encoder location]** where the location is the folder you just copied the files to. Now type **sudo npm install request multicurl**.

8. Now that everything is installed, see the Configuring and Running Kollaborate Encoder section of this guide.

Configuring and Running Kollaborate Encoder

Rename the `kollab_encoder.default.conf` file to `kollab_encoder.conf`. Now open it in a text editor. Every line in the configuration file should end with a semicolon (;) and strings should not have quotation marks around them.

Specify the following to configure Kollaborate Encoder:

port - This specifies the port to listen on. Set this to any port that is accessible by Kollaborate Server over your network.

site_url - The URL with which to access Kollaborate Server. It is best to use a local URL such as `http://192.168.0.1/mysite` rather than a remote URL like `http://www.mysite.com`.

ffmpeg_path - Specify the path to the `ffmpeg` executable. You can obtain this by typing **which ffmpeg** at the command prompt.

imagemagick_path - Specify the path to ImageMagick's `convert` executable. You can obtain this by typing **which convert** at the command prompt.

temp_storage_path - A local path on the Kollaborate Encoder server to store temporary files.

storage_path - The path to your Kollaborate Server storage volume.

password - Optional. This makes the encoder require a password in order to accept commands sent to it. Leave this field empty to specify no password. Remember to set the same password for the encoder in Kollaborate Server's configure page in the admin area (`[your_site_url]/admin`).

After saving the file, launch Kollaborate Encoder with the following command:

```
node [path to kollab_encoder.js]
```

See **Kollaborate Server Configuration** below for information on pointing Kollaborate Server to your Kollaborate Encoder installation.

Kollaborate Server Configuration

If Kollaborate Server has not yet been installed, you can setup encoding servers from the installer, otherwise they can be setup from the Configure page in the admin area (you must be a superadmin to see this section).

Type the local IP address of the encoding server into the text box. If you are using a port other than 80 or 443, specify the port after a colon like so: **1.2.3.4:8001**. Specify a password if you set one in the config file. Then click Add Server.

An unlimited number of servers can be added but additional encoding licenses need to be purchased to unlock them and send jobs to them.

Click Continue in the installer or Save Settings on the admin page to save the new server information.

Testing

Visit the Dashboard page in the admin area of Kollaborate Server ([your_site_url]/admin). The encoders will be listed on this page, along with colored icons showing their status. Red means the server cannot access the encoder and green means it is accessible.

To test out the encoding functionality, upload a video file to the site from the web uploader.

The encoding will begin after the file has successfully uploaded. If you try to immediately view the file you may receive a message saying it is still in the encoding queue but you can still download it to watch it back locally on your system.

After a few minutes (depending on the duration of the file) a green tick will appear next to the name of the video in the web player. Click on the tick and the page will reload and play the encoded version of the video. The Terminal window in Kollaborate Encoder will show information about the encoding process and any errors that occurred.