

# Cowplayer User Guide

Cowboy Coders

May 4, 2010

## About this document

This document is aimed at end users of the Cowplayer proof of concept demo client.

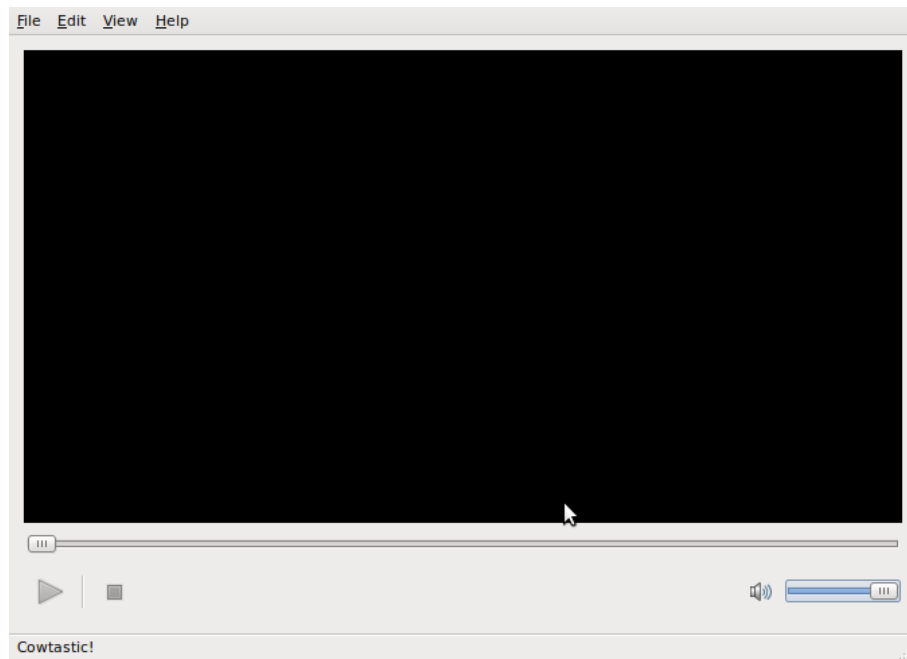


Figure 1: Main player window

## Basic tasks

### Selecting a program

Using the “File” menu, select the option “Show program list...”. This will open the program selection window.

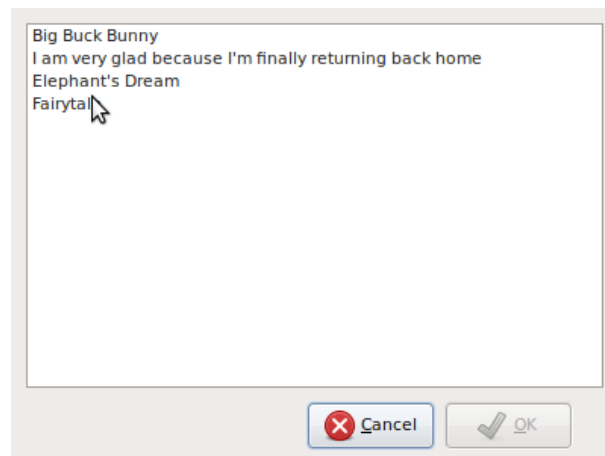


Figure 2: Program selection window

Select a program and click “Ok”. To abort, press “Cancel”. Regardless of choice, the program selection window will close.

### Controlling program playback

Selecting a program will start playback as soon as sufficient data is available.

Clicking the “Pause” button will pause playback.

Clicking the “Stop” button will stop playback and return the position indicator to the start of the program.

Fullscreen mode is engaged by selecting the “Fullscreen” option in the “Options” menu. To exit fullscreen mode, press the Esc key.

You can change the playback position by clicking on the playback position indicator at the bottom of the window, or dragging the indicator handle forwards or backwards.

## Inspecting download sources

To view the download source visualization, select the “Show pieces...” item in the Options menu.

Hovering your mouse pointer over a piece indicator of the grid will show more detailed information regarding that particular piece.

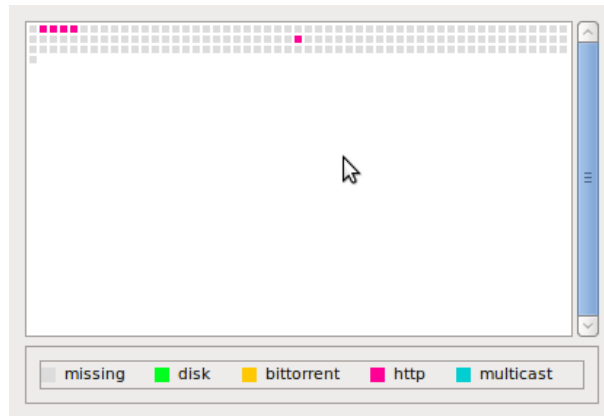


Figure 3: Download source visualization

## Configuration via GUI

To open the preferences window, select Edit->Preferences in the top menu.

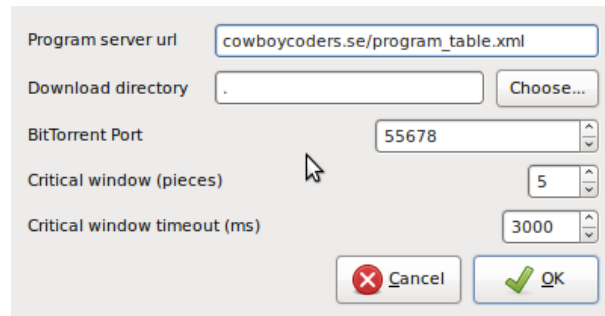


Figure 4: Preferences

**Program server URL** URL to program table XML file. Defaults to the cowboycoders server.

**Download directory** Local directory in which programs are stored after and during download.

**Bittorrent port** Network port for BitTorrent traffic.

**Critical window** Number of pieces directly following the playback position eligible for on-demand download.

**Critical window timeout** Time until on-demand download of pieces in the critical window.

## Advanced tasks

### Manual configuration

Cowplayer is configured using an XML file called "cow\_player\_config.xml" which is situated in the same directory as the cow\_player binary.

Using this file you can change the bittorrent port, download target directory and which program table server to use. The format is as follows.

```
<?xml version="1.0"?>
<info>
<property name="bittorrent_port" type="int">
55678
</property>
<property name="download_dir" type="path">
.
</property>
<property name="program_table_url" type="url">
cowboycoders.se/program_table.xml
</property>
</info>
```

### Command line tools

#### Multicast server

The multicast server streams a program to a specific multicast group and port.

```
multicast_server <file path> <program id> <bitrate> <ip address> <port>
```

There are no optional parameters.

File path is the local path to the file to stream.

The program id is the numerical program identifier of the program to stream.

Bitrate is the send bitrate, it must not necessarily be the bitrate of the movie unless realtime playback on the client end is the goal.

IP address is the ip address of the target multicast group.

Port is the port number for transmission.

### **On-demand server**

The on-demand server is a server that implements a subset of the HTTP protocol. It is started with the following parameters, none of which is optional.

`on_demand_server <ip address> <port> <document root>`

IP address is the address on which the server shall listen.

Port is the port on which the server shall listen.

Document root is the root directory from which the server serves files. No files outside of the root directory will be available to clients.