



MyBox: Easy Tools Set User Guide – Media Tools

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Version: 6.5.9

Date: 2022-8-31

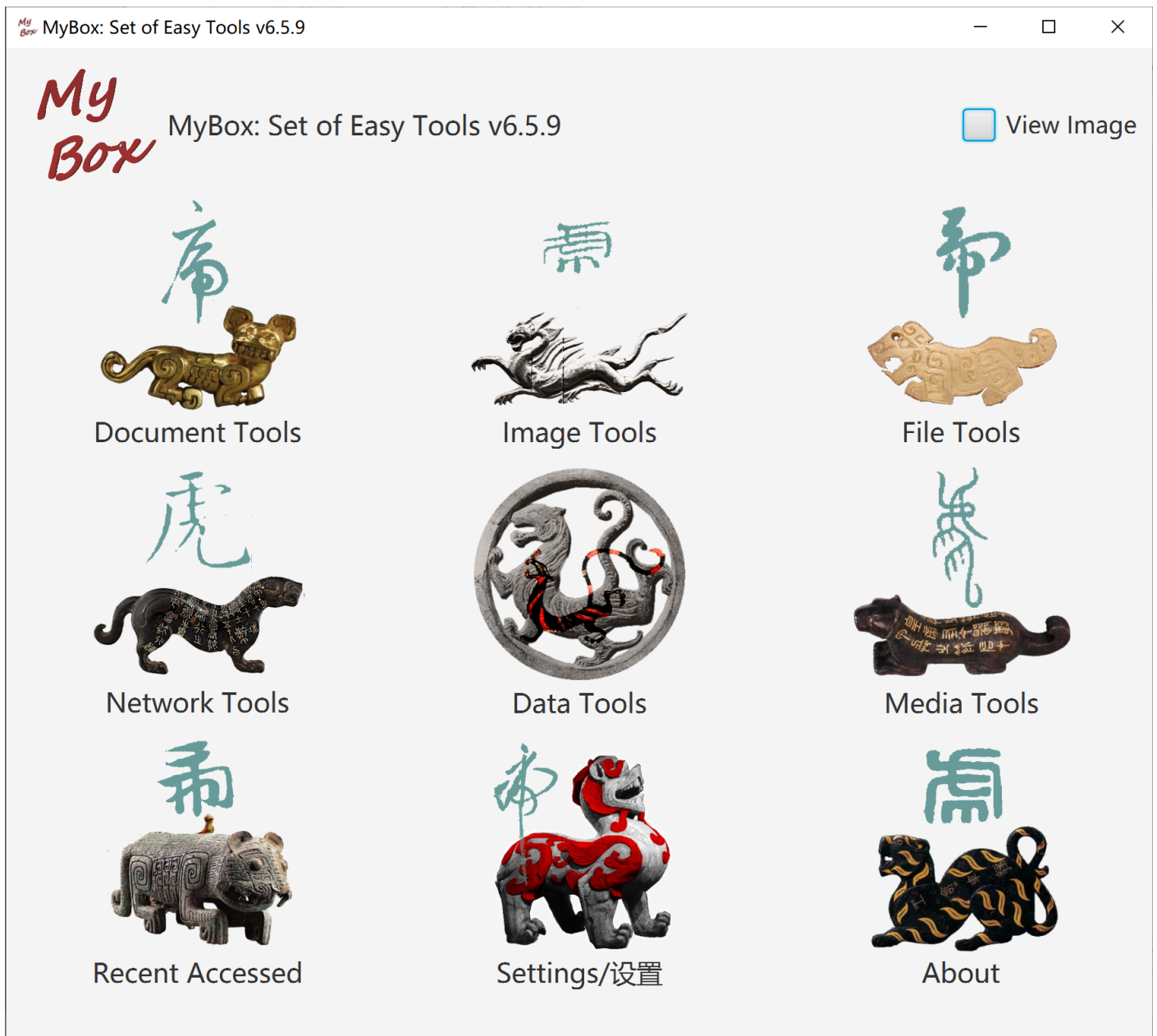
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1 Introduction

This is desktop application based on JavaFx to provide simple and easy functions. It's free and open sources.

1.1 Main Interface



1.2 Resources Addresses

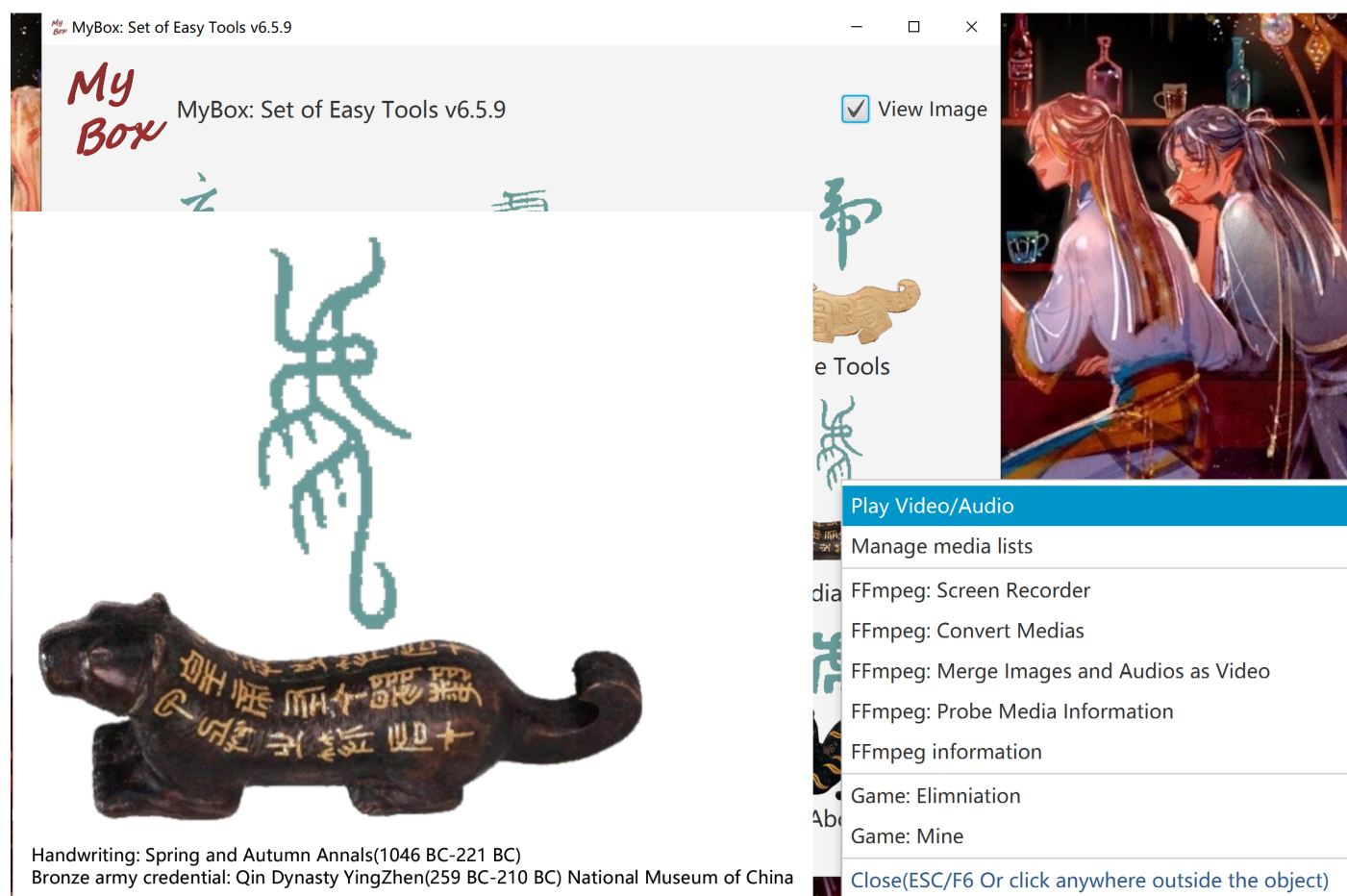
Contents	Link
Project Main Page	https://github.com/Mararsh/MyBox/
Source Codes and Compiled Packages	https://github.com/Mararsh/MyBox/releases
Submit Software Requirements and Problem Reports	https://github.com/Mararsh/MyBox/issues
Data	https://github.com/Mararsh/MyBox_data
Documents	https://github.com/Mararsh/MyBox_documents
Mirror Site	https://sourceforge.net/projects/mara-mybox/files/
Cloud Storage	https://pan.baidu.com/s/1fWMRzym_jh075OCX0D8y8A#list/path=%2F

The screenshot shows the GitHub repository page for **Mararsh / MyBox**. The repository is public and has 41 issues, 17 forks, and 79 stars. The main content area displays the repository structure, including folders like `alpha/MyBox`, `docs`, `en`, and `released/MyBox`, and files like `.gitignore`, `LICENSE`, and `README.md`. The `README.md` file is open, showing the text "ReadMe in English". The sidebar on the right contains a list of tools: `html`, `markdown`, `pdf`, `image`, `ocr`, `csv`, `sql`, `database`, `excel`, `convert`, `location`, `javafx`, `media`, `bytes`, `ppt`, `jshell`, and `matirx`. Below the tools, there is a section for **Releases** with 89 releases. The latest release is **v6.5.8**, released 18 days ago, and is marked as the "Latest" version. A red circle highlights the **Code** button in the top right corner, and another red circle highlights the **Releases** section in the sidebar.

1.3 Documents

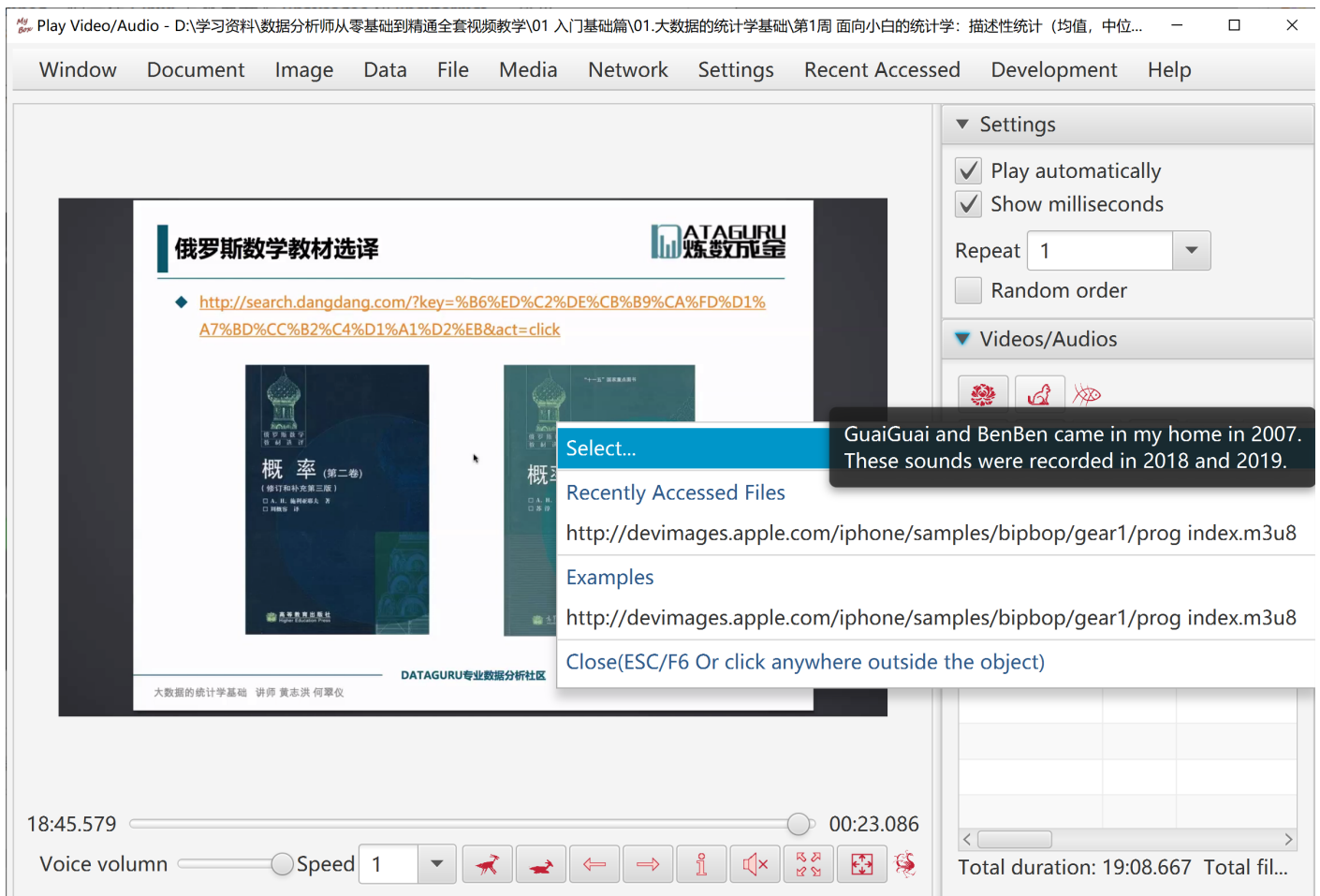
Name	Version	Time	English	Chinese
Development Logs	6.5.9	2022-8-31	html	html
Shortcuts	6.5.6	2022-6-11	html	html
Packing Steps	6.3.3	2020-9-27	html	html
Development Guide	2.1	2020-8-27	PDF	PDF
User Guide - Overview	6.5.9	2022-8-31	html PDF odt	html PDF odt
User Guide – Document Tools	6.5.9	2022-8-31	html PDF odt	html PDF odt
User Guide - Image Tools	6.5.9	2022-8-31	html PDF odt	html PDF odt
User Guide - File Tools	6.5.9	2022-8-31	html PDF odt	html PDF odt
User Guide - Network Tools	6.5.9	2022-8-31	html PDF odt	html PDF odt
User Guide - Data Tools	6.5.9	2022-8-31	html PDF odt	html PDF odt
User Guide - Media Tools	6.5.9	2022-8-31	html PDF odt	html PDF odt
User Guide - Development Tools	6.5.9	2022-8-31	html PDF odt	html PDF odt

1.4 Menu of Tools



2 Play Videos/Audios

1. Create/load playlist
2. Options: auto-play, display milliseconds, loop number, random order
3. Set: volume, speed(0~8 times)
4. Buttons: Play, Pause, Stop, Next, Previous, Media-info, Mute, Full-screen
5. When full screen, display controls in short duration by clicking screen, and quit full-screen by ESC
6. Support muxer format: aiff, mp3, mp4, wav, hls(m3u8), video codec: h.264/avc, audio codec: aac, mp3, pcm.
 - If video does not sound, this is due to unsupported audio codec.
 - Known issue: MyBox may quit when play some media stream.
7. Sounds of GuaiGuai and BenBen
8. This tool need not ffmpeg. But libavcodec and libavformat are required on Linux, and refer to: <https://www.oracle.com/technetwork/java/javafx/downloads/supportedconfigurations-1506746.html>



3 Manage Playlist

1. Create/Delete/Update playlists.
2. Add/Delete items in playlists.
3. Read medias information, including duration, audio encoding, and video encoding.

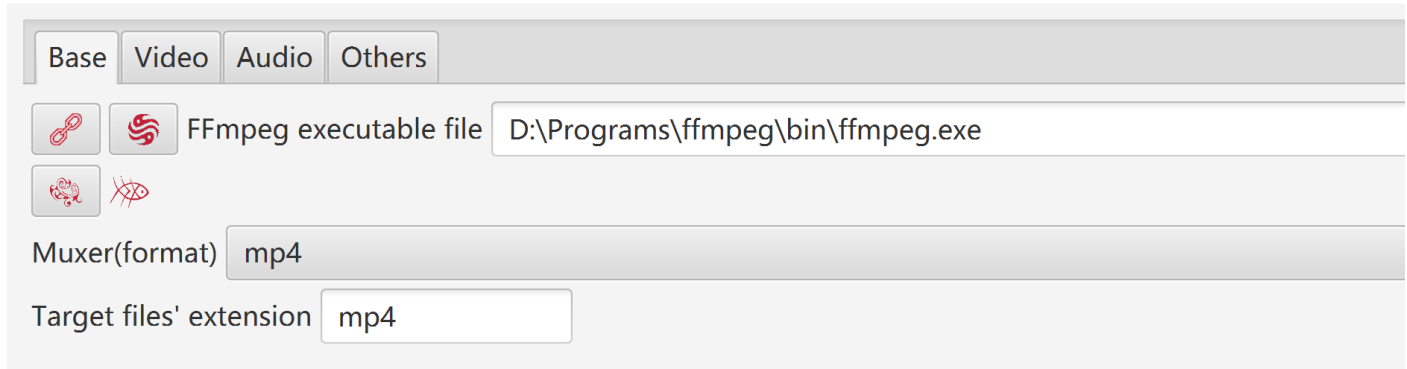
Table row	Curr...	Address	Duration	Audio encoding	+
☐ 1		d:\tmp\mybox-da...	00:01.541	audio/mpeg MPE...	
☒ 2		D:\视频\Photosho...	03:17.973	audio/mpeg AAC	v

地址file:/D:/视频/Photoshop%20CC2015/1----Photoshop%20CC%202015%20全面技能培训介绍.mp4
 时长: 03:17.973
 分辨率: 1280x720
 大小: 99.136 MB
 Track: 1
 Name: video/x-h264
 name: video/x-h264
 video width: 1280
 encoding: H264
 video height: 720
 enabled: true
 Track: 2
 Name: audio/mpeg
 name: audio/mpeg
 encoding: AAC
 enabled: true

4 Wrap Functions of ffmpeg

4.1 Base

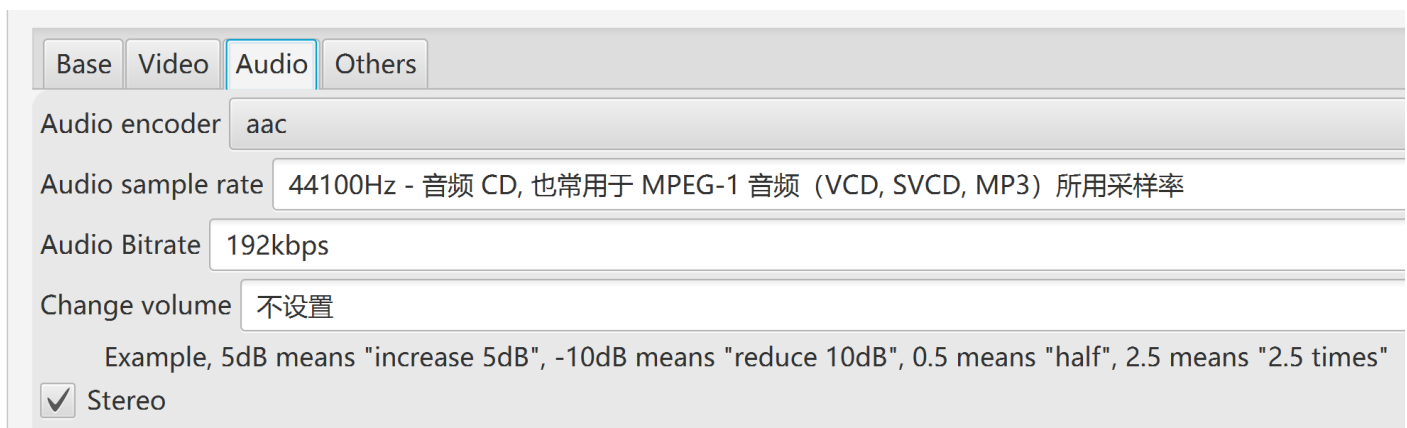
Notice: This set of functions is based on ffmpeg, and user need download ffmpeg by yourself. (Suggest to use static version)



The screenshot shows the 'Base' tab of the MyBox Media Tools interface. It includes a tab bar with 'Base', 'Video', 'Audio', and 'Others'. Below the tabs, there are two rows of icons: the first row has a red circle with a white 'X' and a red circle with a white 'S'; the second row has a red circle with a white 'X' and a red circle with a white 'S'. The 'FFmpeg executable file' field is set to 'D:\Programs\ffmpeg\bin\ffmpeg.exe'. The 'Muxer(format)' dropdown is set to 'mp4'. The 'Target files' extension field is set to 'mp4'.

When handle media:

1. All parameters can be selected/set, including format, codec, subtitle, frame rate, sample rate, change volumn, etc.
2. Button "Default": When NVIDIA is available, chooce "h264_nvenc" as video encoder, to make use of hardware acceleartion.
3. Most of players support: muxer "mp4", video codec "H.264", audio codec "AAC".



The screenshot shows the 'Audio' tab of the MyBox Media Tools interface. It includes a tab bar with 'Base', 'Video', 'Audio', and 'Others'. Below the tabs, there are four rows of settings: 'Audio encoder' is set to 'aac'; 'Audio sample rate' is set to '44100Hz - 音频 CD, 也常用于 MPEG-1 音频 (VCD, SVCD, MP3) 所用采样率'; 'Audio Bitrate' is set to '192kbps'; 'Change volume' is set to '不设置'. Below these settings, there is a text box with the example: 'Example, 5dB means "increase 5dB", -10dB means "reduce 10dB", 0.5 means "half", 2.5 means "2.5 times"'. At the bottom, there is a checkbox for 'Stereo' which is checked.

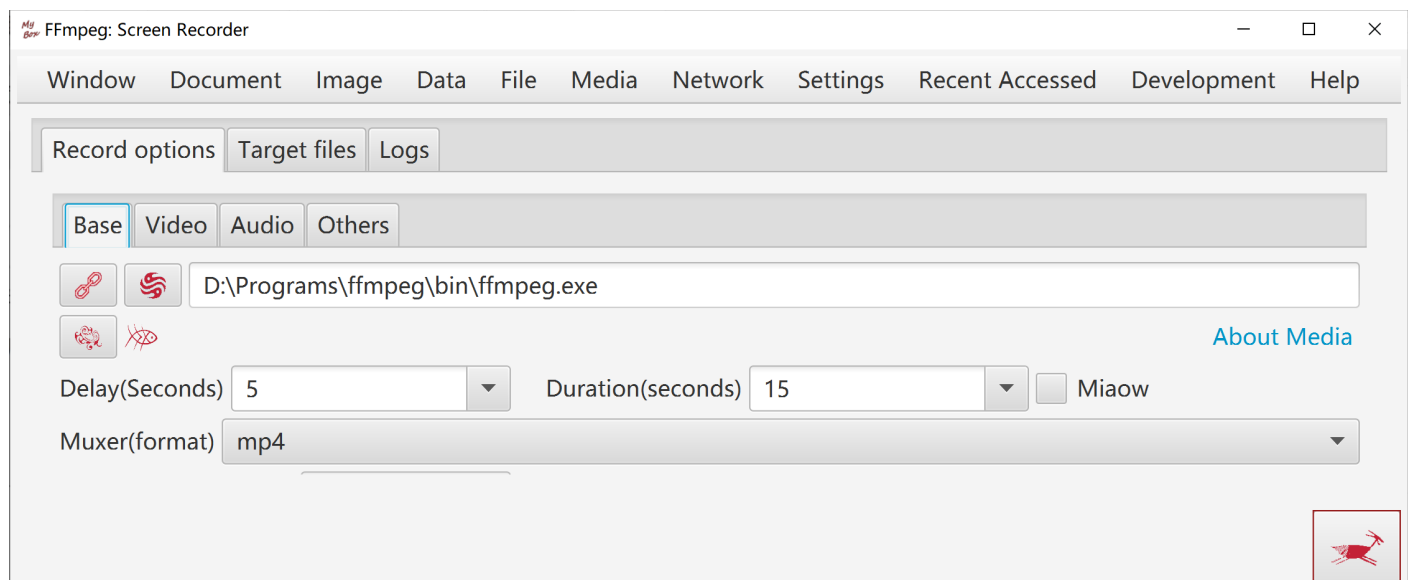
4. Try different options of encoders, preset, and CRF, to get suitable settings of your computer, as following factors :
 - The encoder should be fast enough to record without frames dropping.
 - Consume limited system resources, and leave enough CPU and memory for other applications.
 - Quality and size of the generated file are tolerable.

Base	Video	Audio	Others
Video encoder	h264_nvenc NVIDIA NVENC H.264 encoder (codec h264)		
Video frame rate	ntsc 30000/1001		
Video bitrate	1800kbps		
Video resolution	ntsc 720x480		
Aspect ratio	16:9		
Encoding preset	slow 1 hq 2 passes		
Factor for constant quality model (CRF)	A preset is a collection of options that will provide a certain encoding speed to compression ratio. Slower preset provides better quality and occupies more CPU. Quicker preset means worse quality and less CPU occupation.		

Base	Video	Audio	Others
Subtitle encoder	srt		
More arguments	Separated by space		
-ss 0:1:30	set the start time offset		
-sseof 0:5:00	set the start time offset relative to EOF		
-to 0:10:15	record or transcode stop time		
-t 0:0:20	record or transcode "duration" seconds of audio/video		
-aq quality	set audio quality (codec-specific)		
-ac 2	set audio channels: 1 for mono, 2 for stereo		
-title string			
-author string			
-copyright string			

4.2 Record Screen

- When have not NVIDIA and CPU is not so powerful:
 - Choose "libx264rgb" as video encoder, to bypass conversion from RGB to yuv444p.
 - Select quicker encoding preset.
 - After recording, use conversion tool to change generated video from RGB to yuv444p with encoder "libx264".
- Select whether record video:
 - Set size of threads queue.
 - Record area: full screen, window by title, rectangle.
- Select whether record audio:
 - Detect audio cards automatically, and pick the first one as the audio device.
 - Set size of threads queue.
- Set delay:
 - If "unlimited", record at once when user click button "Start".
 - If valid value, recording will start when this time is past.
- Set duration:
 - If "unlimited", record until user click button "Stop".
 - If valid value, recording will end when duration completes. User can click button "Stop" to finish recording at any time.



4.3 Convert Videos/Audios in Batch

1. Source files are listed as files/directories.
2. Source files are listed as streams and medias information.

4.4 Combine Images And Audios As Video

1. Source files are listed as files/directories.
2. Source files are listed as streams and medias information.
3. Duration can be set for each image, or set for all images.
4. Option: End video when audios finish.
5. Images are adjusted automatically to fit for screen size meanwhile keep width-height ratio.

FFmpeg: Merge Images and audios as Video - Images information

Window Document Image Data File Media Network Settings Recent Accessed Development Help

Images Audios FFmpeg options Target files Logs

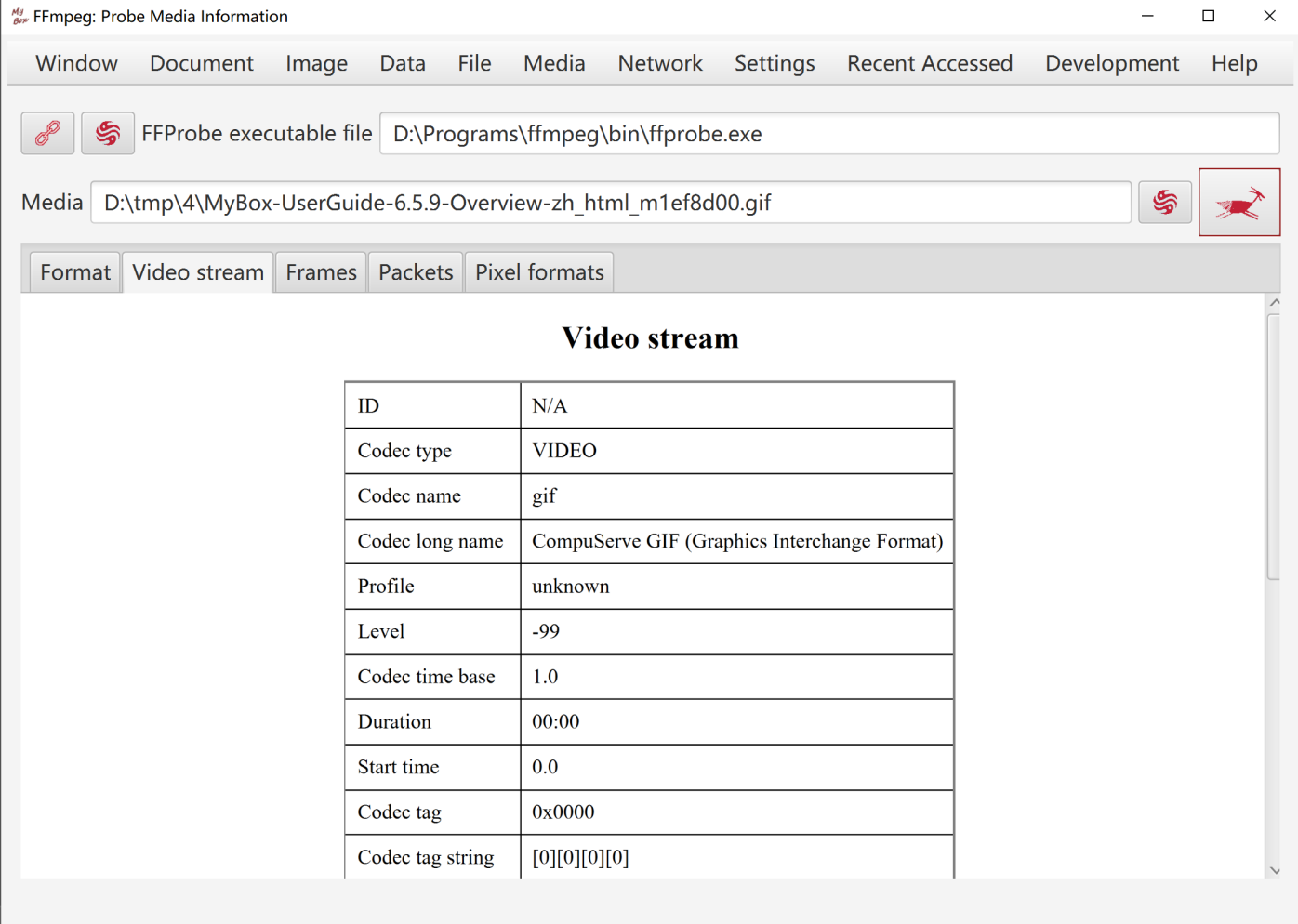
☐ Table row	Curr...	Duration Milliseconds	Source image	Pixels	Color space	File
☐ 1		0		603x445	RGB	D:\tmp\4\MyBox-UserGuide-6.5.9-Ove..
☐ 2		3000		872x593	YCbCr	D:\tmp\4\14_2022-01-22_10-57-44-79..
☐ 3		3000		1946x1983	YCbCr	D:\tmp\4\1.jpg

Duration(milliseconds) 500 Set values for all or selected rows

Total pixels: 4,644,349 Total duration: 00:06.000 Total files: 3 Total Size: 2.842 MB Double click selected item to view

4.5 Read Media Information with ffprobe

Format, audio stream, video stream, frames, packets, pixel formats.



FFmpeg: Probe Media Information

Window Document Image Data File Media Network Settings Recent Accessed Development Help

FFProbe executable file D:\Programs\ffmpeg\bin\ffprobe.exe

Media D:\tmp\4\MyBox-UserGuide-6.5.9-Overview-zh_html_m1ef8d00.gif

Format Video stream Frames Packets Pixel formats

Video stream

ID	N/A
Codec type	VIDEO
Codec name	gif
Codec long name	CompuServe GIF (Graphics Interchange Format)
Profile	unknown
Level	-99
Codec time base	1.0
Duration	00:00
Start time	0.0
Codec tag	0x0000
Codec tag string	[0][0][0][0]

4.6 Read Information of ffmpeg

Version, supported formats/codecs/filters, and query with customized parameters.

FFmpeg information

Window Document Image Data File Media Network Settings Recent Accessed Development Help

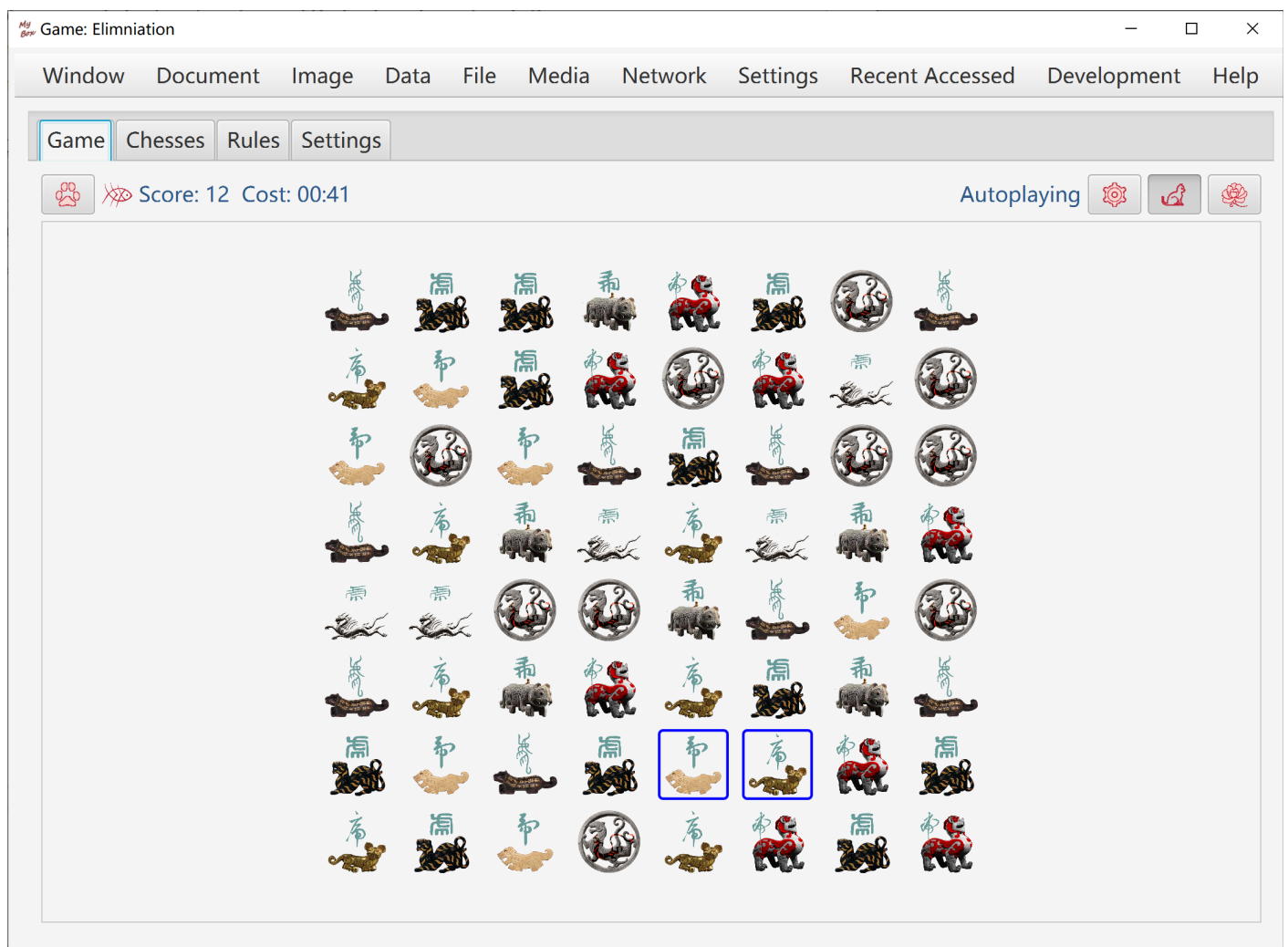
FFmpeg executable file D:\Programs\ffmpeg\bin\ffmpeg.exe

Version	Formats	Codecs	Filters	Query			
Codec	Type	Decoding supported	Encoding supported	Lossy compress...	Lossless compress...	Intra frame-only	
012v	Video	✓			✓	✓	Uncompressed 4:2:2 10-b
4xm	Video	✓		✓			4X Movie
8bps	Video	✓			✓	✓	QuickTime 8BPS video
a64_multi	Video		✓	✓		✓	Multicolor charset for Co
a64_multi5	Video		✓	✓		✓	Multicolor charset for Co
aasc	Video	✓			✓		Autodesk RLE
agm	Video	✓		✓			Amuse Graphics Movie
aic	Video	✓		✓		✓	Apple Intermediate Code
alias_pix	Video	✓	✓		✓	✓	Alias/Wavefront PIX imag
amv	Video	✓	✓	✓		✓	AMV Video
anm	Video	✓		✓			Deluxe Paint Animation
ansi	Video	✓		✓			ASCII/ANSI art
apng	Video	✓	✓		✓		APNG (Animated Portable
arbc	Video	✓		✓			Gryphon's Anim Compres
asv1	Video	✓	✓	✓		✓	ASUS V1

Total: 456

5 Game-Elimination

- Options about chesses images, number, size, effects like dropshadow or arc.
- Chesses can be predefined images, user defined images, or colors.
- Sound: praise from GuaiGuai, praise from BenBen, 3-conection from Ben and others from Guai, mute, or any mp3/wav file.
- Counted chesses: Make scores only when eliminate selected types of chesses.
- Customize rulers that how to give score when eliminate different type of connection.
- Set strategy when deadlock happens: keep score and renew game, make chance of elimination, or pop alert to have user chooce.
- Options: speed of automation, times of flush when eliminate, whether pop scores.
- Button "Help Me": prompt valid step.
- Button "Play Automatically": click to play by compute and click again to stop it.

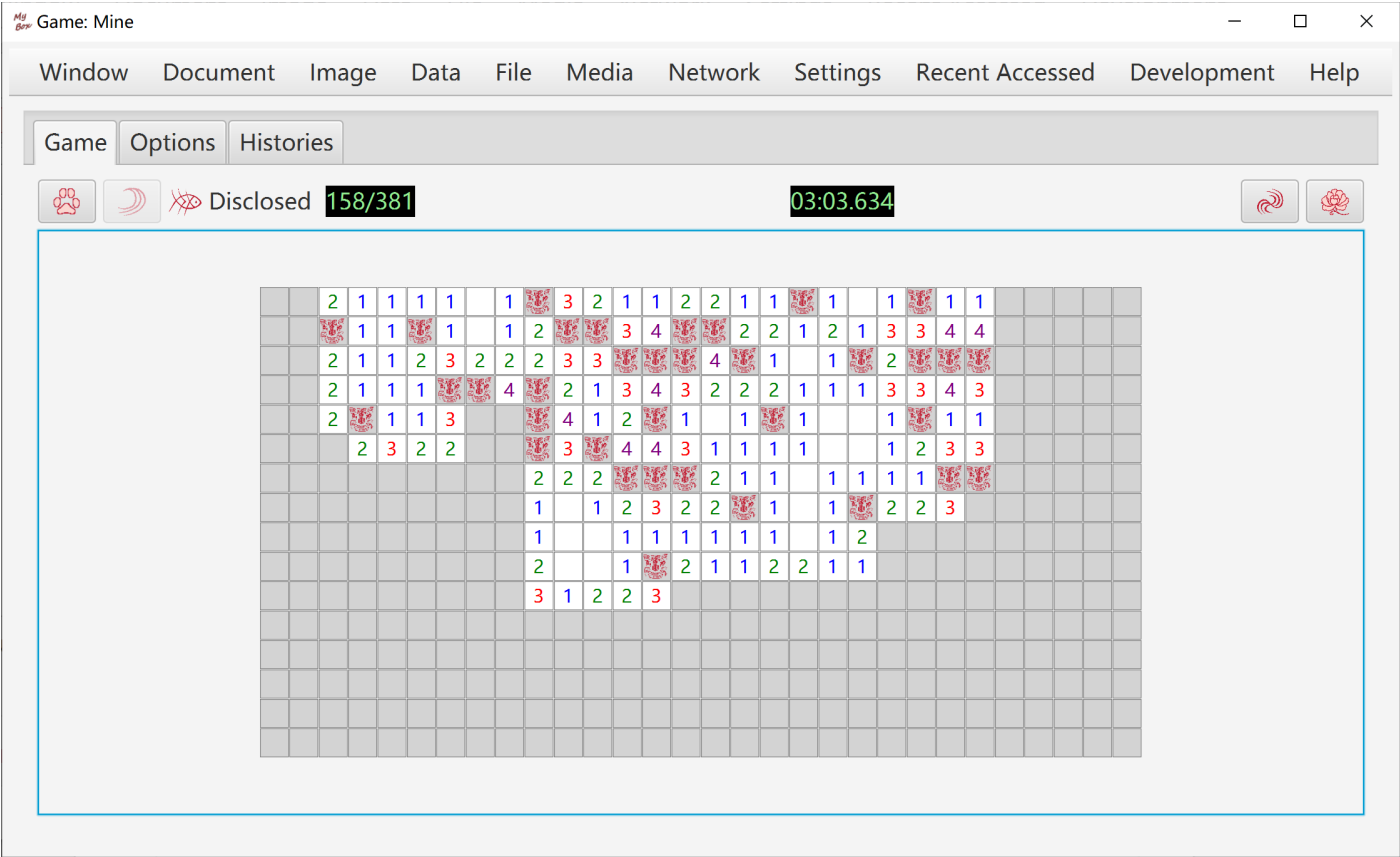


6 Game-Mine

Target: Disclose all cells which are not mines. Game fails once a mine is opened.

Rulers:

1. When game is started, all cells are in status "closed".
2. Start timing when click a cell at first time.
3. Count: Opened cells number / Total number of cells which are not mines.
4. When left-click a cell, nothing happens when it is "disclosed", or else:
 - If it is a mine, then game fails.
 - If it is not a mine, then it is opened and its status becomes "disclosed".
 - If there are mines around this cell, then the number of mines around it is shown in the cell.
 - If there is no mine around this cell, then it is shown as blank and all cells around it will be disclosed. Continue this process.
5. When right-click a cell, nothing happens when it is "disclosed", or else:
 - If this cell is not marked, then mark it as "Mine".
 - If this cell is marked as "Mine", then change its mark as "Suspected".
 - If this cell is marked as "Suspected", then remove its mark.
 - Right-clicking only marks the cell, and will not trigger mine nor disclose the cell.
6. When double-click a cell:
 - If the cell is in status "closed", then disclose it.
 - Disclose all cells which are not marked as "Mine" around this cell.
 - Do this only when you are sure all mines are marked correctly around this cell.
7. When you are unlucky to trigger a mine:
 - Click button "Undo", to pretend that did not happen and continue the timing and counting.
 - Click button "Replay", to restart the same game.
 - Click button "New Game" to start a different game.
8. Click button "Help me" to see all mines secretly, and click button "Undo" to continue playing.



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