

Sound Annotation Tool Guidelines

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On open

Whole Video Control

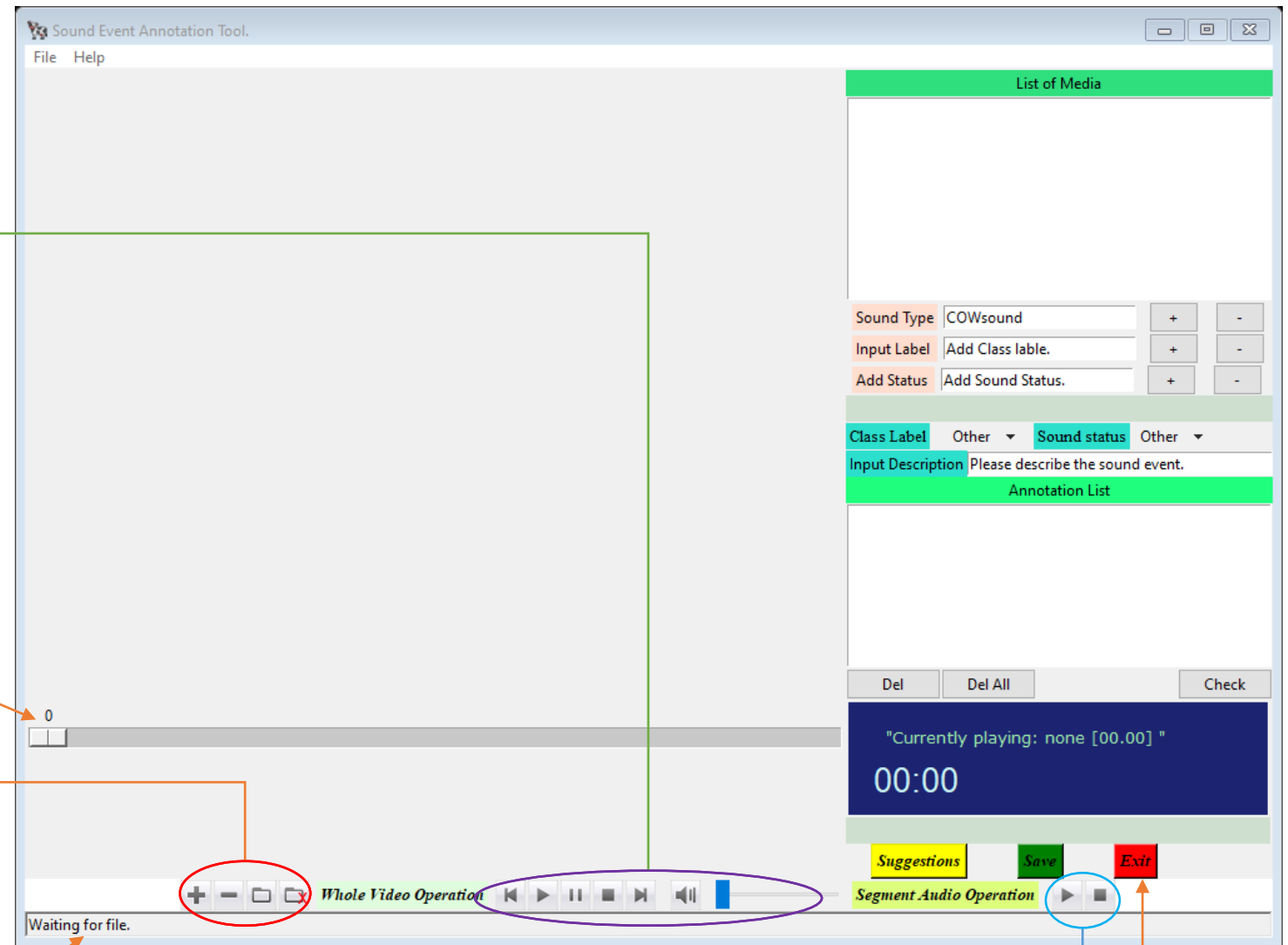
- Previous
- Play
- Pause
- Stop
- Next
- Volume toggle and slider

Data Input and Remove

- + = Input single file
- = Delete single file from play list
- Folder = Input whole media directory
- Folder(x) = Delete all the item from play list

Time slider for whole audio/video play

Display status on system



Segment Audio/Video Play

- Play
- Stop

Exit button which first save the annotation and close playing audio and video then exit the whole window.

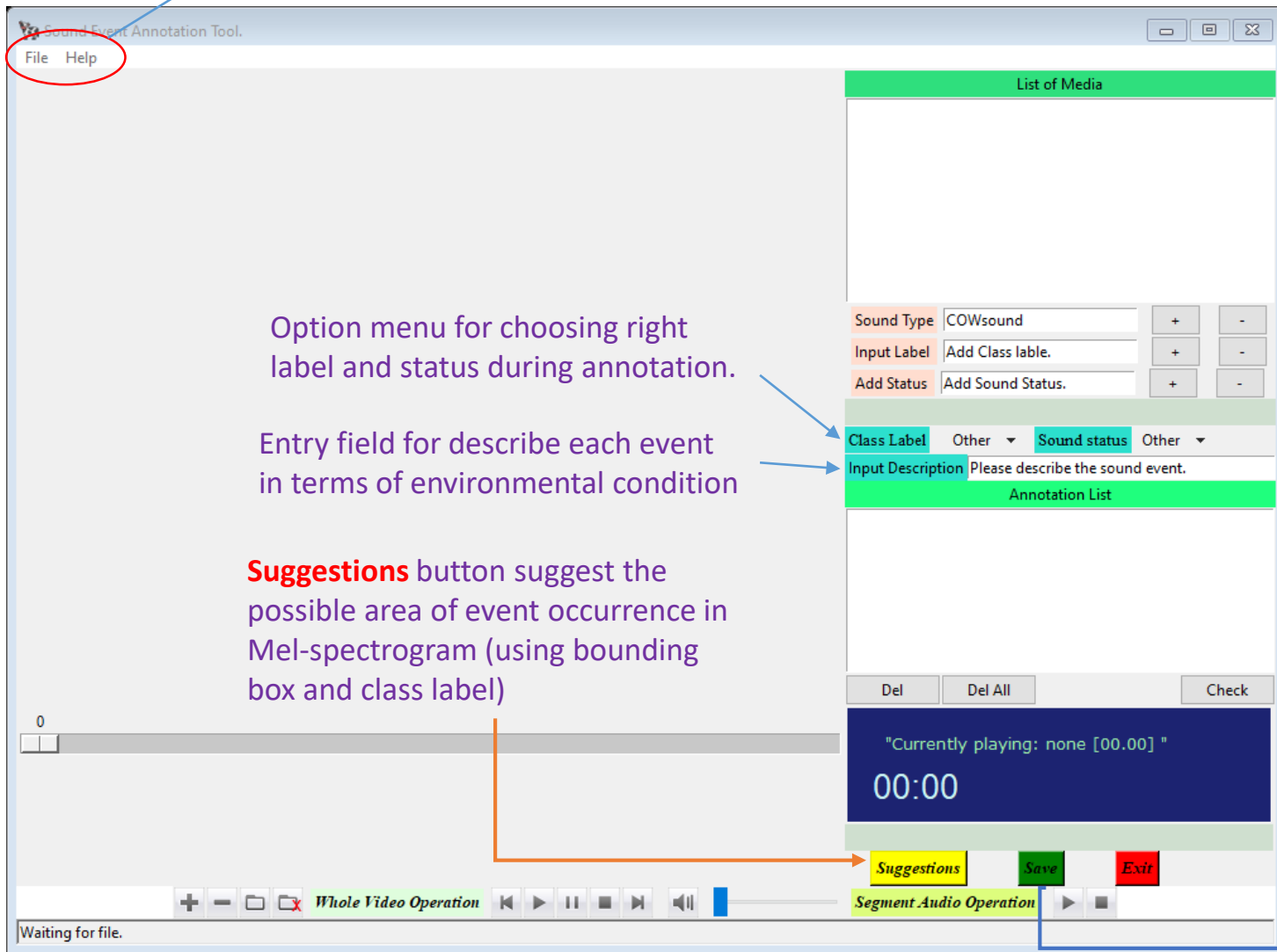
On open

File:

- **Open File**
- **Exit**

Help:

- **About us:** Small description of tool.
- **System Requirement:** Software and package requirement for tool



Display all the input file to GUI

Input Sound type, class label and sound status. The sound type is used for saving all the annotation information (label and status) with this name on text file. The inputted label and status is updated on corresponding option menu just below. The '+' and '-' button right to each entry wedge is for input and clear.

Display all the annotated onset, offset, status and description of individual sound event. The **Del** button can delete a selected annotation and **Del All** delete all the annotation of a single media. The **check** button is for checking and correcting any previous human annotation or system outcome.

It display the current playing media filename, total length of media and current time of playing media

Save button save annotation in two .csv files (one for individual file and one for all) with Filename (with data path), onset, offset, class Label, status (normal, hungry, angry, mating etc.) and Description of event in terms of environmental condition.

On Data Load

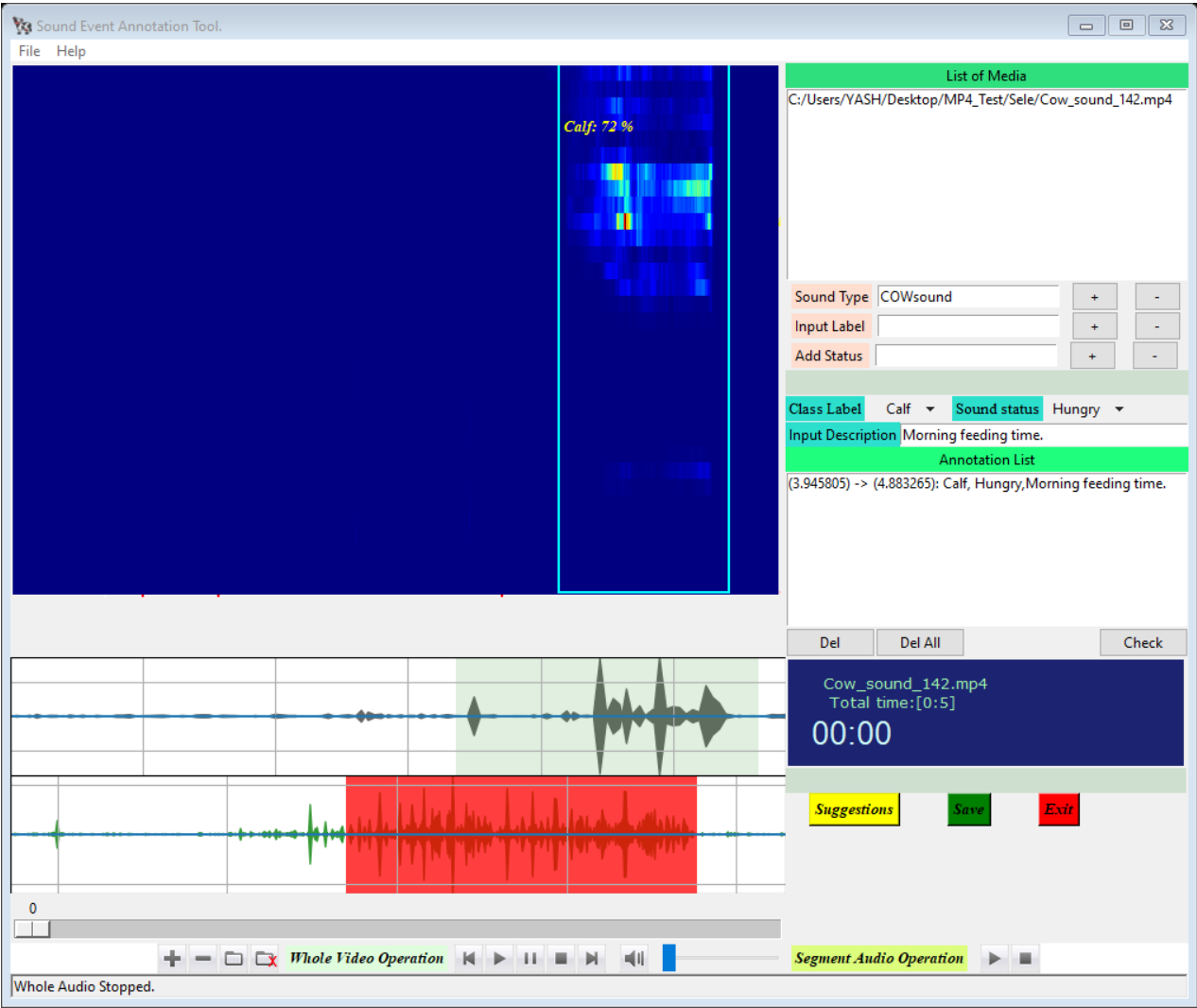
Mel-spectrogram display of audio

(If input is video then the system automatically extract audio and save it on save location and then display it's Mel-spectrogram)

WAW: Whole Audio Display in waveform (Any length)

SAW: Segment audio (selected audio in whole audio)

SAW is the area for annotation. On drawing on the waveform audio representation, the onset and offset points will automatically save on Annotation List. SAW also have zoom-in and zoom-out facility for better view.



Annotation result (.CSV)

| | A | B | C | D | E | F | G | H |
|---|---|----------|----------|-----------|--------|-----------------------|---|---|
| 1 | File_path | Onset | Offset | Class_nar | Status | Description | | |
| 2 | C:/Users/YASH/Desktop/MP4_Test/Sele/Cow_sound_142.wav | 3.945805 | 4.883265 | Calf | Hungry | Morning feeding time. | | |

On Play

Random access
on video play

Random access on
whole audio play
(with animation)

Play selected area only
(with animation)

The screenshot displays the 'Sound Event Annotation Tool' interface. The main window is divided into several sections:

- Video Player:** A large central area showing a video of a cow and a calf in a field.
- Audio Waveform:** A horizontal bar below the video showing the audio waveform. A red rectangular region highlights a specific segment of the audio.
- Annotation List:** A panel on the right side containing a list of annotations. The current entry is: (3.945805) -> (4.883265): Calf, Hungry, Morning feeding time.
- Controls:** At the bottom, there are playback controls including buttons for 'Whole Video Operation' and 'Segment Audio Operation', as well as a progress bar.
- Metadata:** On the right, there are fields for 'Sound Type' (COWsound), 'Input Label', and 'Add Status'. Below these, there are dropdown menus for 'Class Label' (Calf) and 'Sound status' (Hungry), and a text field for 'Input Description' (Morning feeding time).
- File Information:** At the bottom right, it shows 'Cow_sound_142.mp4' and 'Total time:[0:5]'.

The status bar at the bottom left indicates 'Whole Audio Paused.'

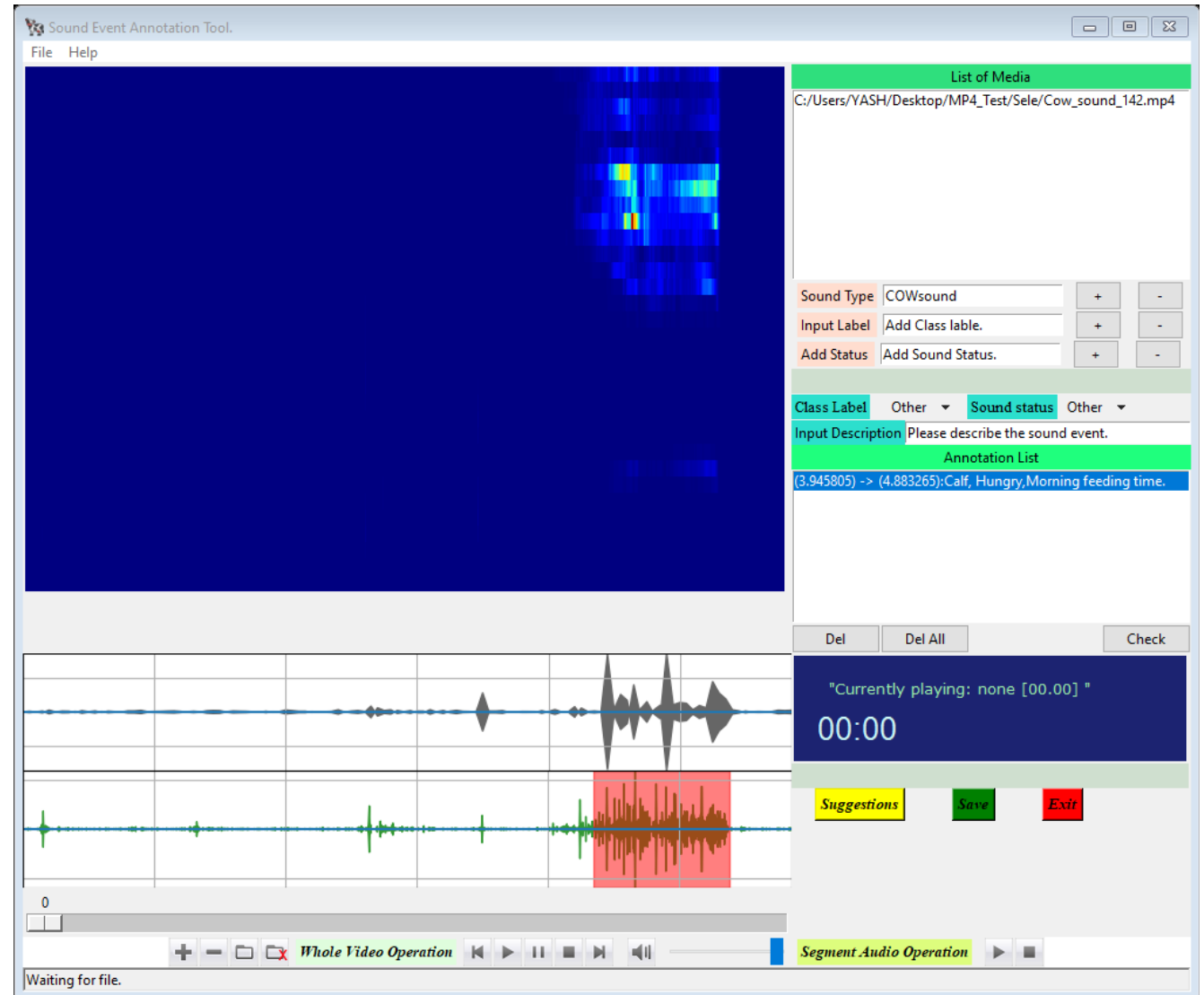
On Check

Condition:

1. The annotation .CSV file must have same data format as the annotation tool.
2. Audio name must be same as .CSV file name.

Process:

Here, annotation is already save and on loading the same audio again, the annotation automatically load on system. If we select the annotation on Annotation List and click on check button, the automatically highlights the corresponding area on SAW (must refresh the area just by one click on WAW or SAW)



Thank you