

RISV

A VIDEO IMPAIRMENT SIMULATOR WITH REGARDS TO ITU P.930 RECOMMENDATION.

This user guide will walk you through the functions and settings in this impairment simulator. The program can apply the impairments described in the **ITU P.930** recommendation, **Artificial Noise, Blockiness, Blurring, Edge Busyness** and **Jerkiness** to one or more files. The user may read the recommendation mentioned to know more about the impairments and how they can be implemented.

The images used in this guide are from the Mac OS version. The Windows version may has some visual differences.

1. WELCOME SCREEN

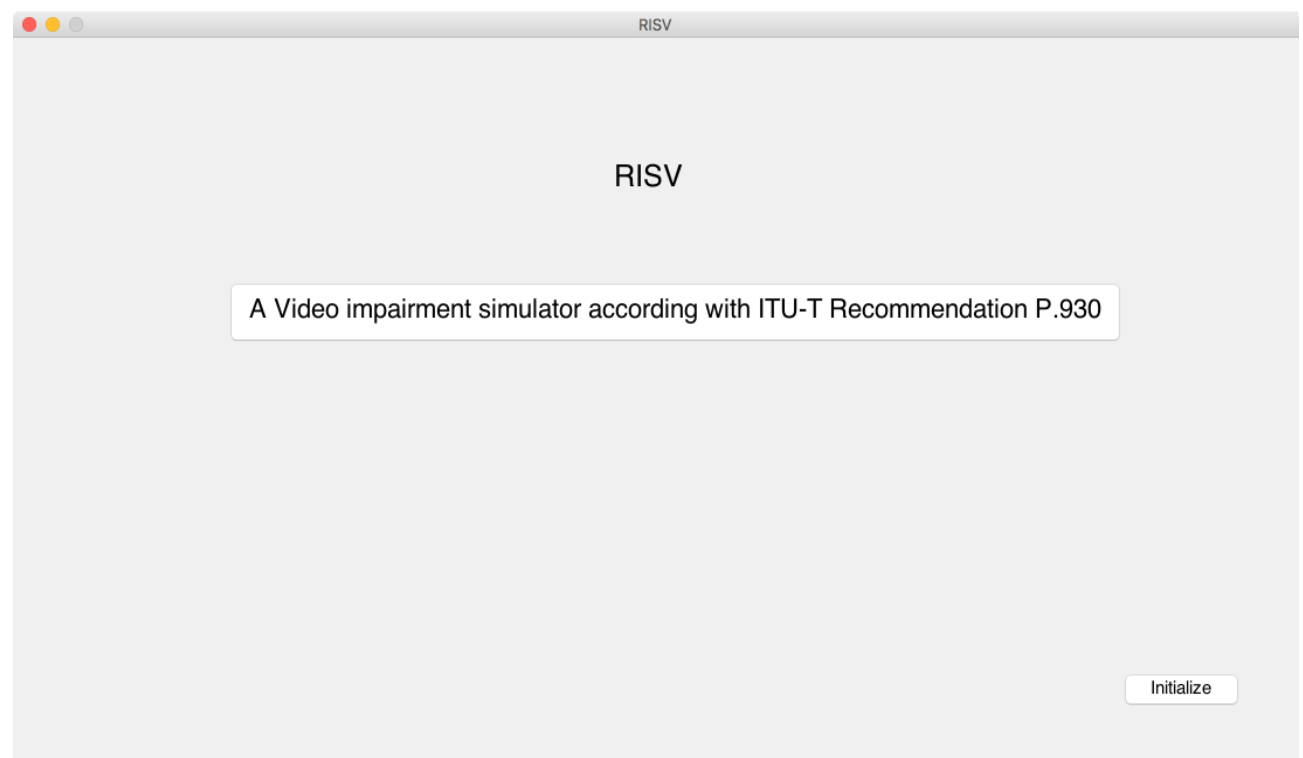


Fig. 1: Welcome screen layout.

- i. Pressing the **"Initialize"** button will initiate the program.

2. IMPAIRMENT(S) SELECTION

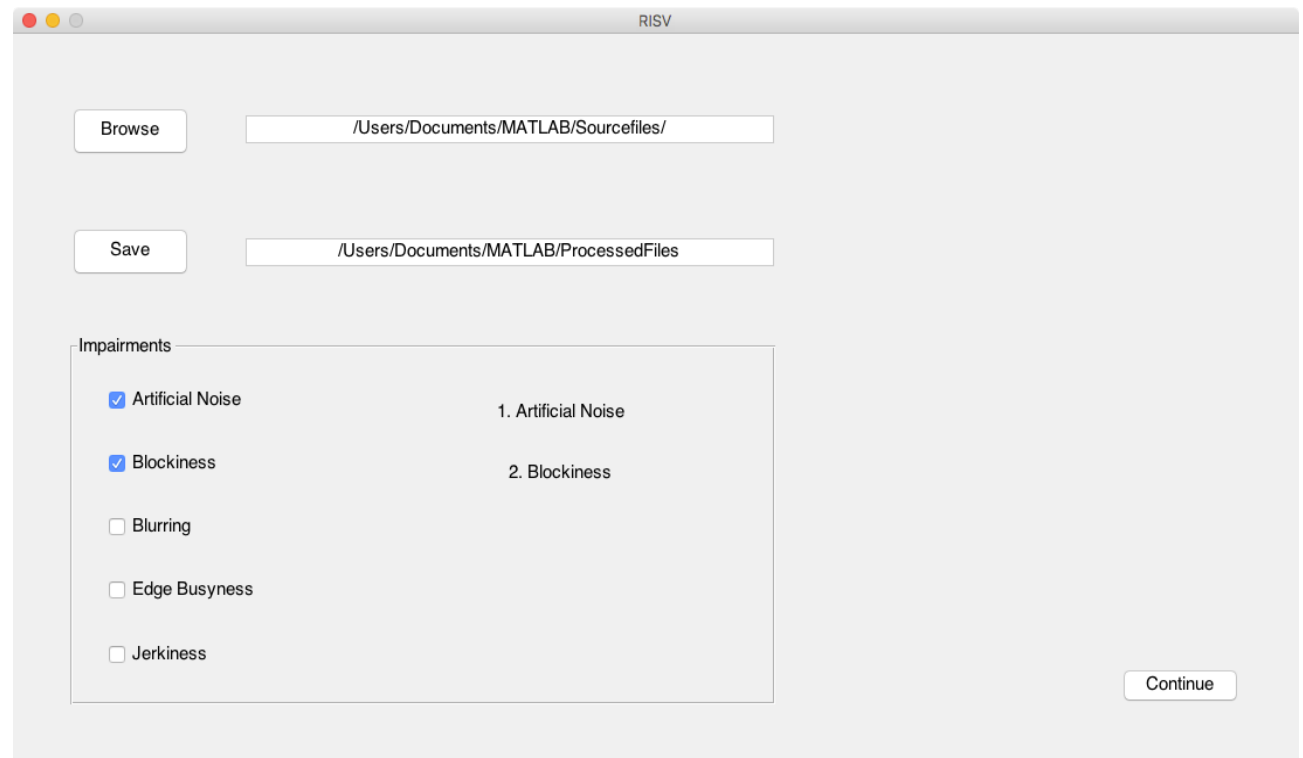


Fig. 2: Second screen browse, save and selection functions.

- i. Pressing the “**Browse**” button will allow the user to choose the video file(s) to impair. The program only supports video files in **.AVI** format. Any other video format will not work properly.
- ii. Pressing the “**Save**” button will allow the user to choose a single path, which will be placed the impaired video file(s).
- iii. You can choose a single impairment type or any combination of impairments checking each desired impairment checkbox in the panel. Since the order of processing alters the final result, the program allows the user to set it when sequentially checked two or more boxes.
- iv. Pressing the “**Continue**” button will redirect the user to the impairment(s) settings screen.

3. IMPAIRMENT(S) SETTINGS

The screenshot shows a window titled "RISV" with two main settings panels. The "Artificial Noise" panel on the left has a label "Percent of frames to be noisy" and a value of "4" in a text box, with a range of "0 - 100%". The "Blockiness" panel on the right has three settings: "Size of blocks: 1 (No blockiness) - 30 (big blocks)" with a value of "14", "Percent of frames to be blocked: 0 - 100%" with a value of "24", and "Percent of blocks within a frame: 0 - 100%" with a value of "24". At the bottom right, there are two buttons: "Back" and "Impair".

Setting	Value
Artificial Noise: Percent of frames to be noisy (0 - 100%)	4
Blockiness: Size of blocks (1 - 30)	14
Blockiness: Percent of frames to be blocked (0 - 100%)	24
Blockiness: Percent of blocks within a frame (0 - 100%)	24

Fig. 3: Impairments settings displayed in third screen.

- i. Each previously chosen impairment(s) will have a setting panel in this screen, the user can choose its levels or methods.
- ii. Pressing the **"Impair"** button will start the impairment process.
- iii. Pressing the **"Back"** button will redirect the user to the selection screen and all selection and settings will be cleared.

4. PROCESSING AND FINALIZATION SCRREN

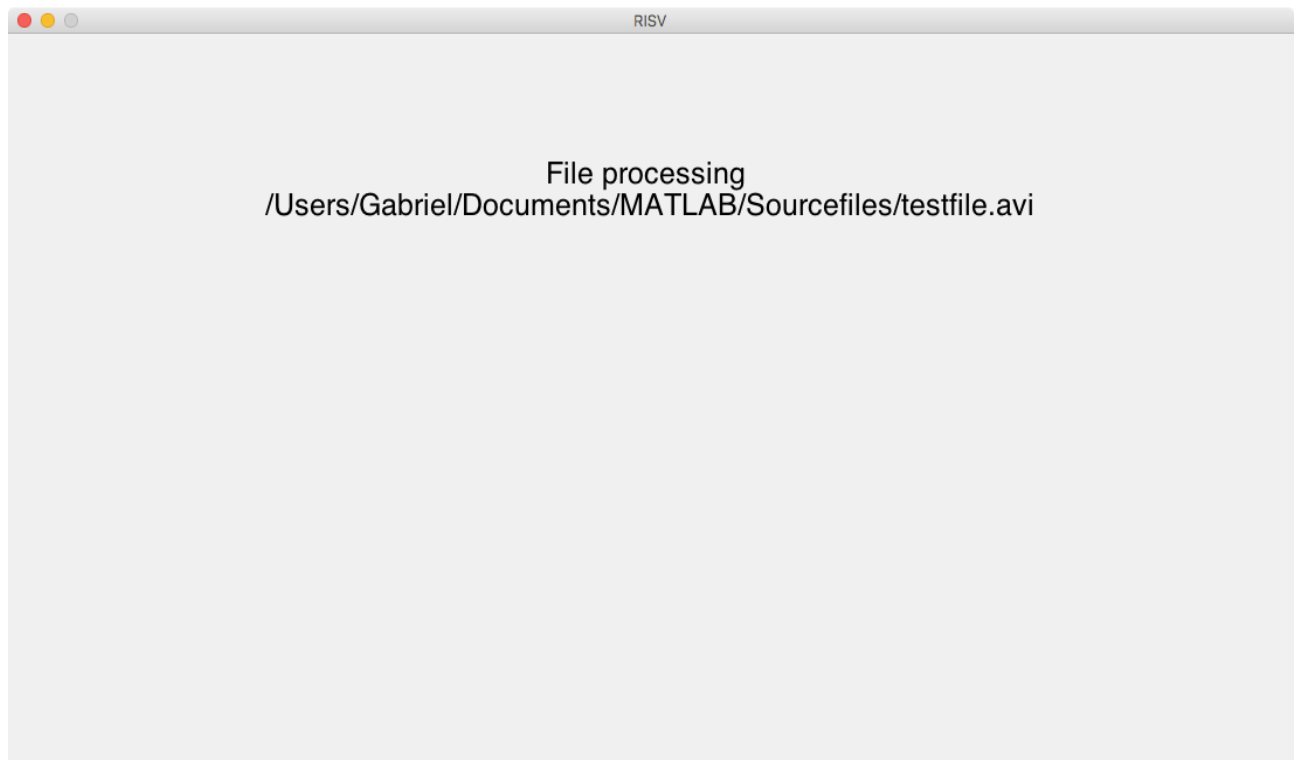


Fig. 4: Processing information.

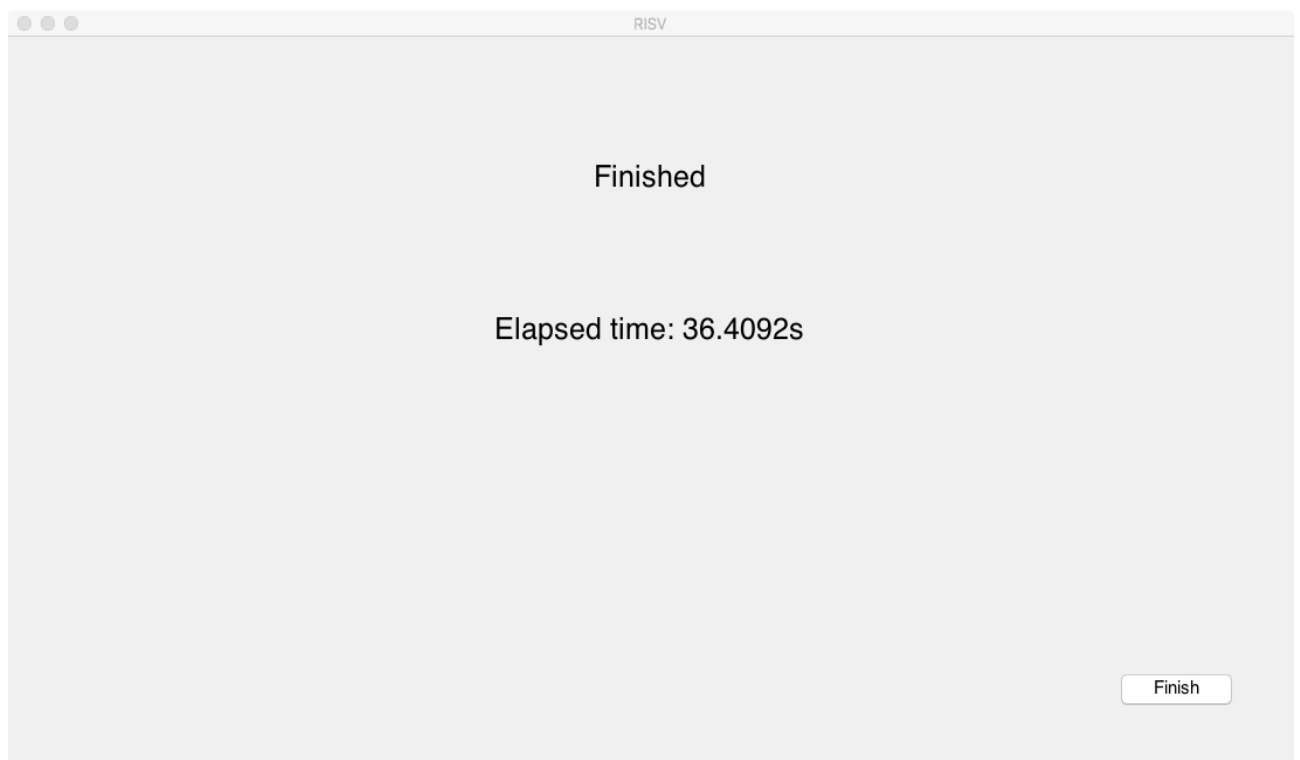


Fig. 5: Last screen information.

- i. Pressing the "**Finish**" button will terminate the program.

5. RESULTS

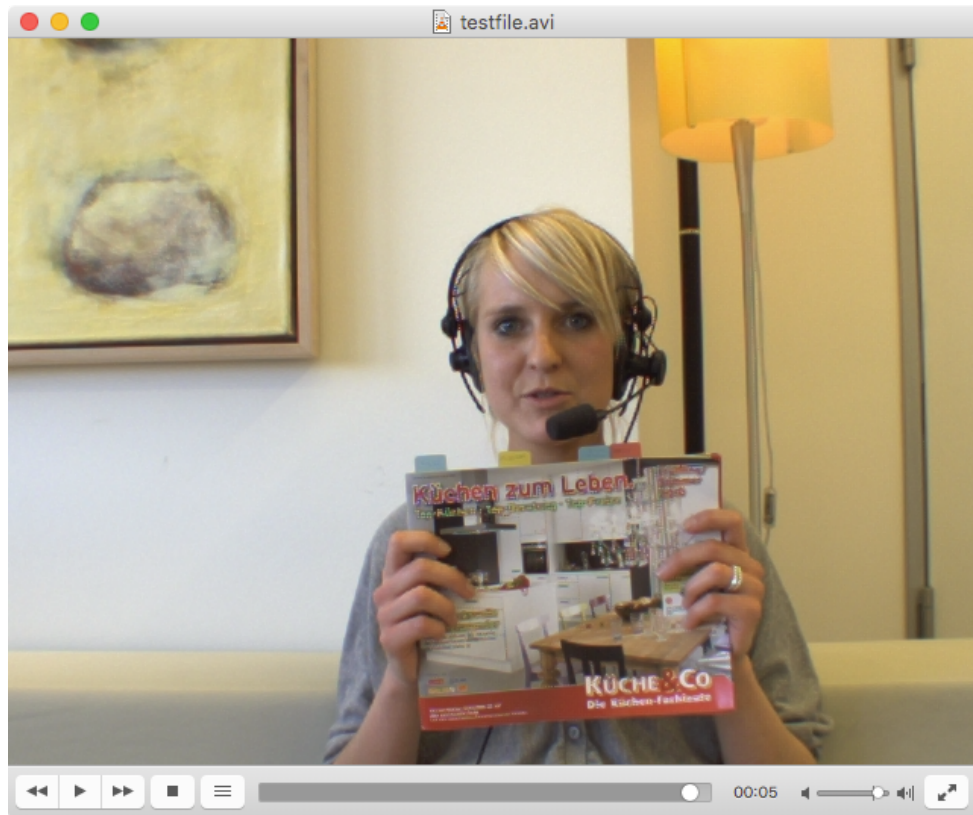


Fig. 6: Original example video file.

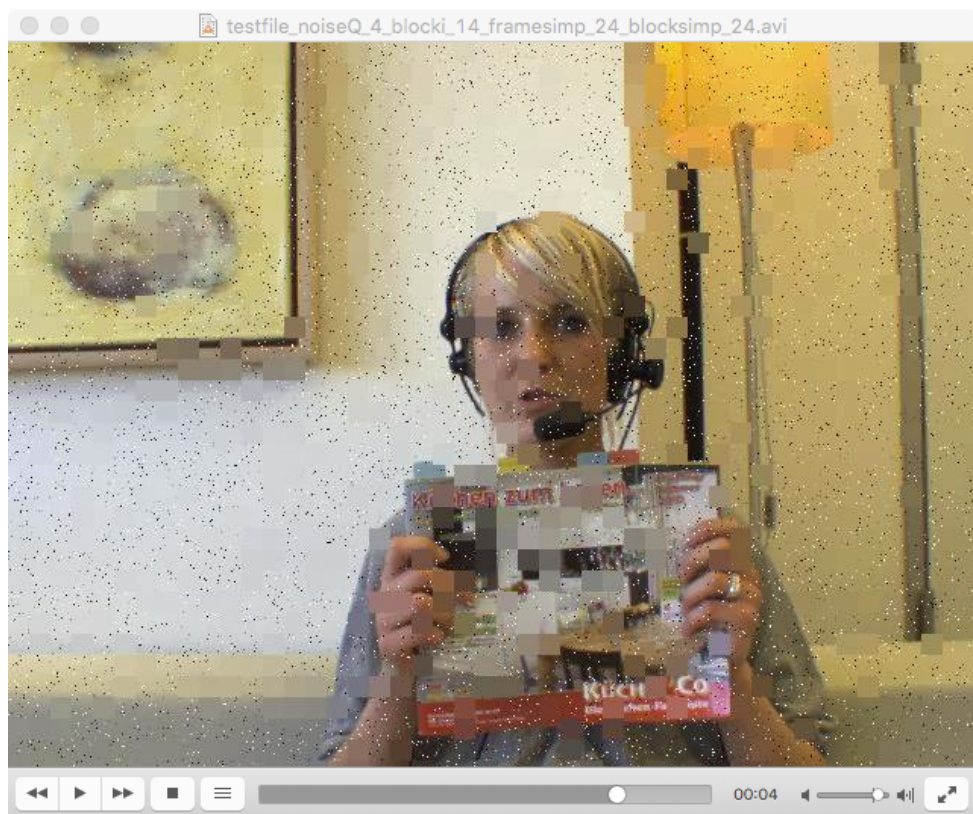


Fig. 7: Original video file impaired with Noise and Blockiness.