

Databending: how to change pictures without graphic editors

Made by Ulyanov Ivan,
USTU, RENGM-1-15 group

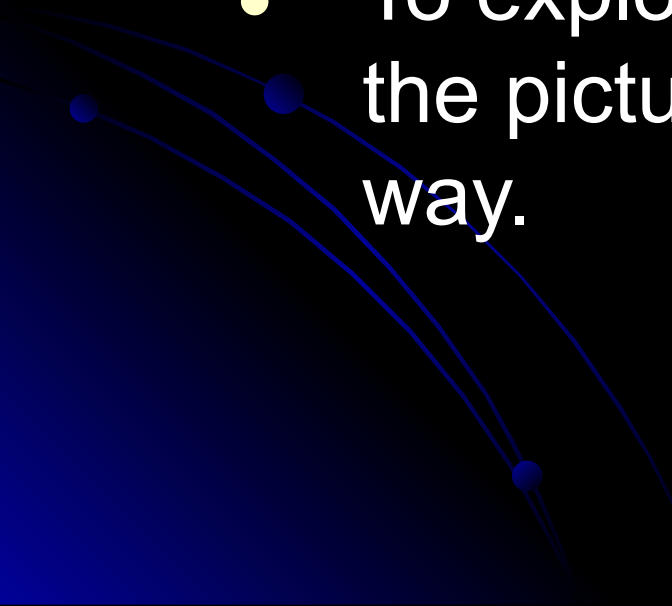


What is databending?

- Databending is a kind of glitch which uses text or sound editors to change images and videos.



The aims:

- To examine the possibilities of programs;
 - To find the changeable image formats;
 - To explore possible reasons why the pictures are changed in this way.
- 

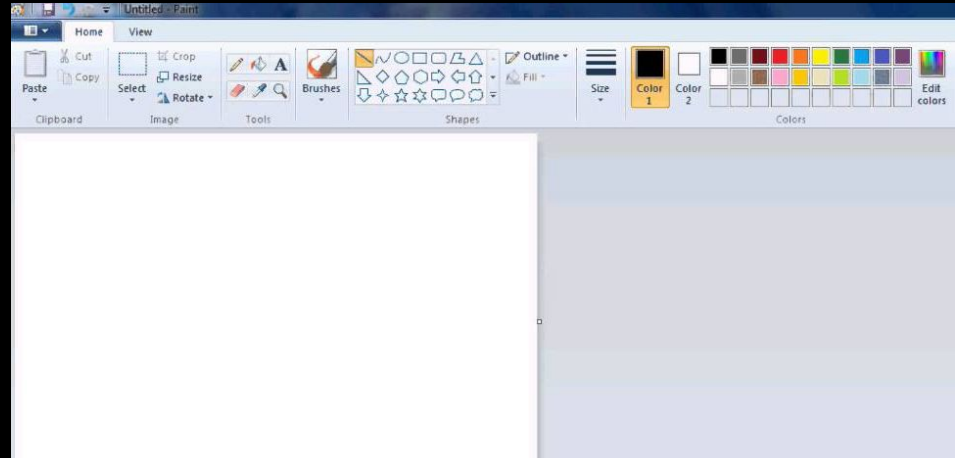
Software

- Graphic editors:

- MS Paint



- GIMP 2.8



Software

- The programs we used:

- Wordpad



- Audacity

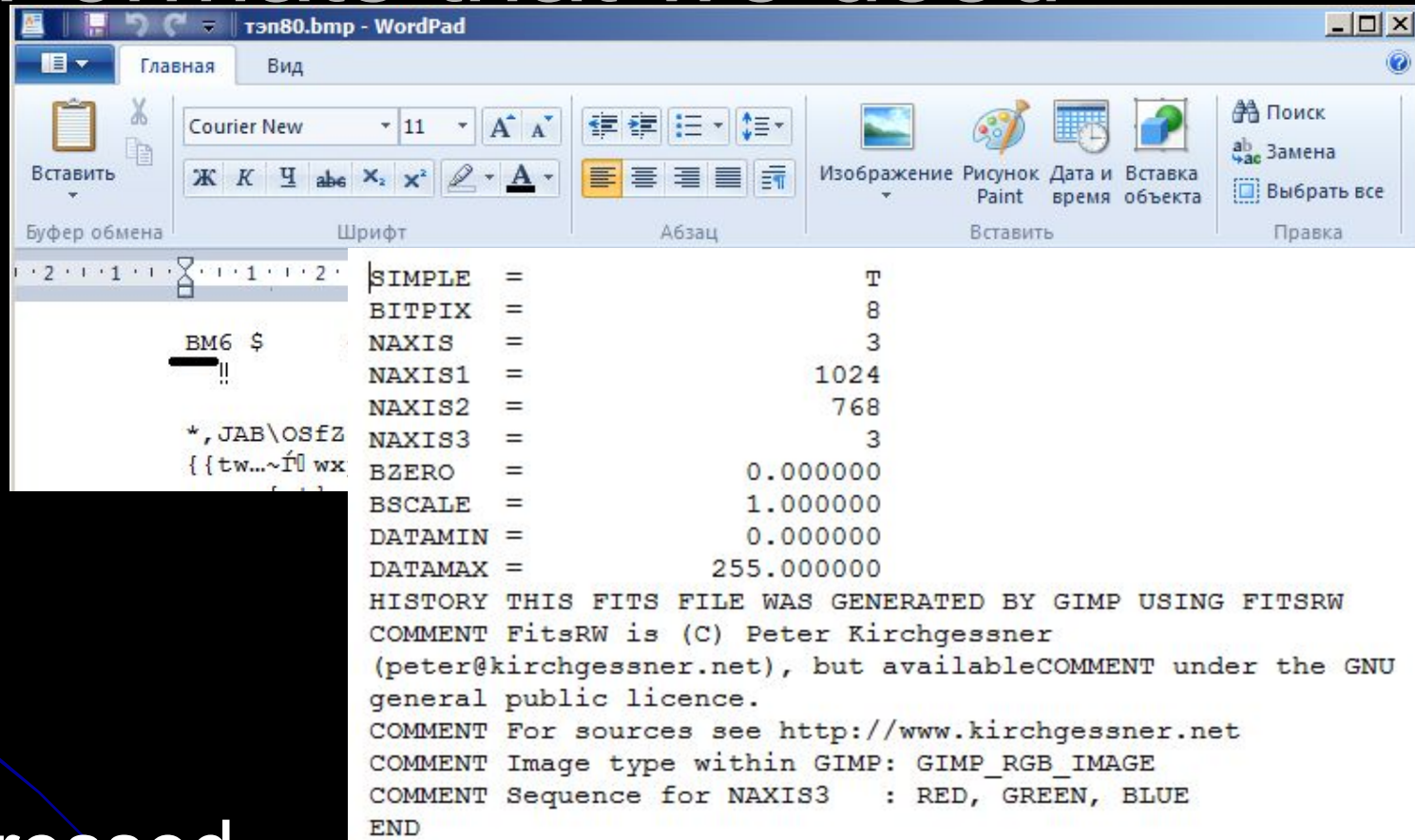


- notepad++



Formats that we used

- BMP



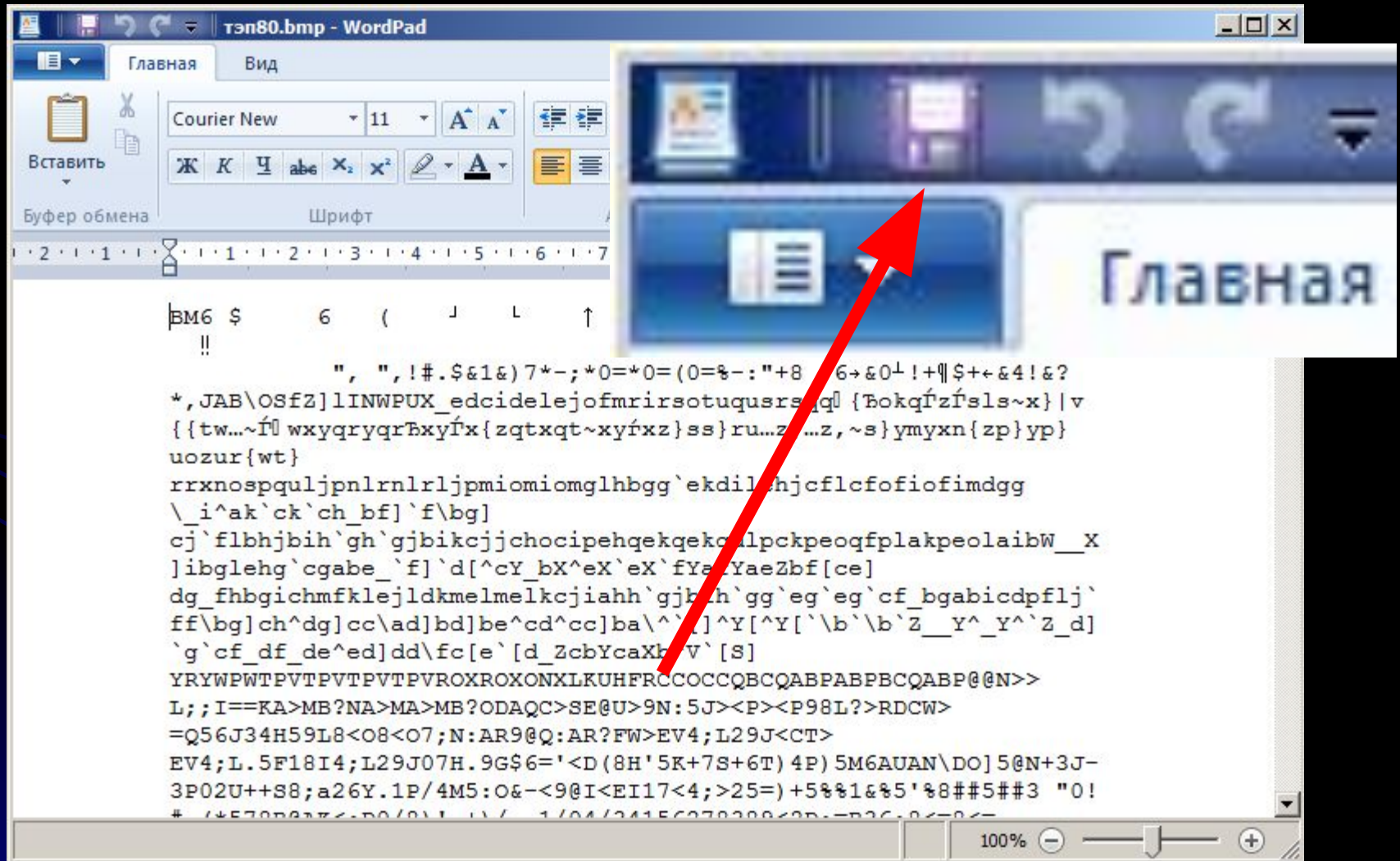
- FIT

- Compressed

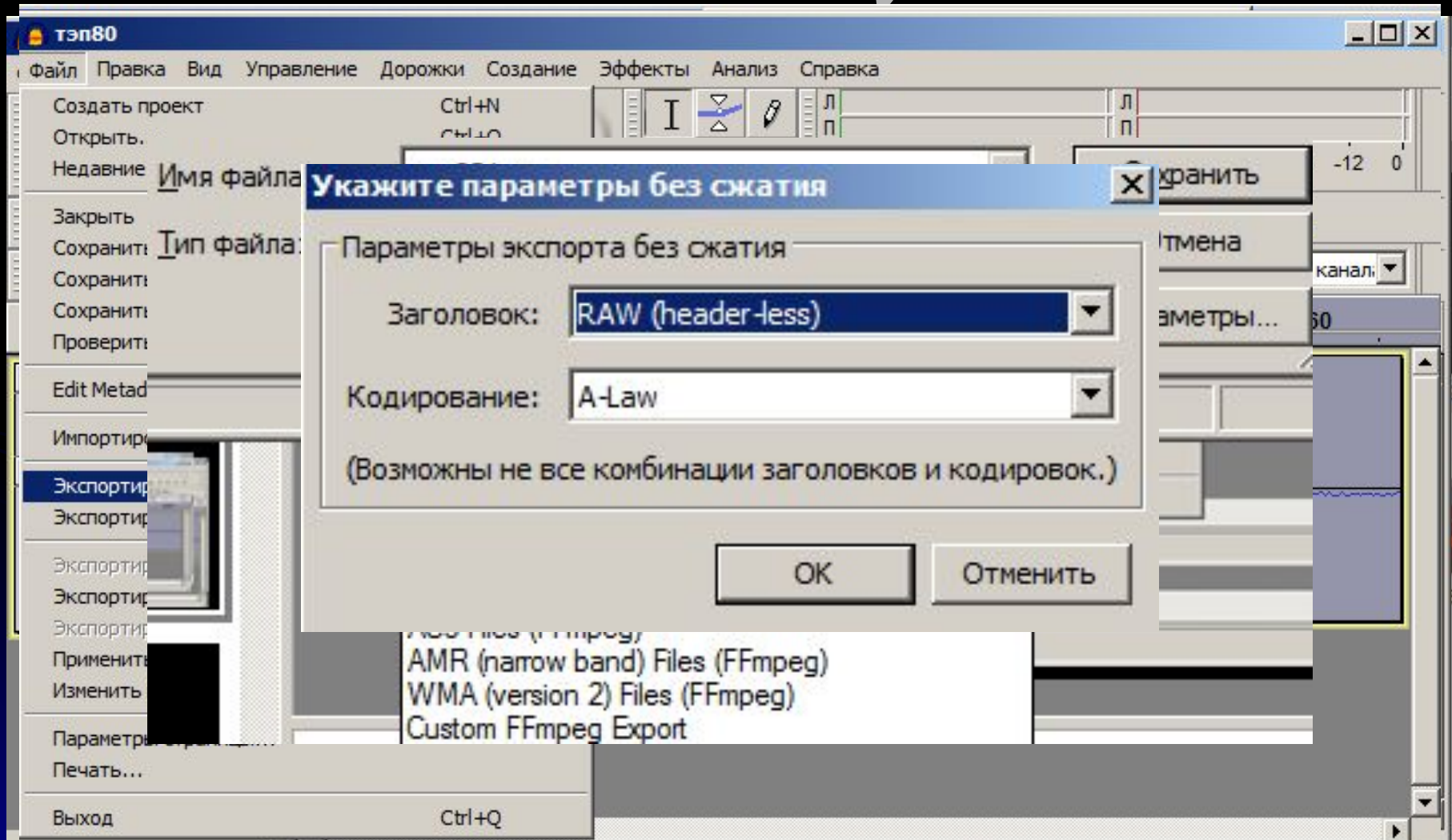
- JPG

- PNG

How to databend: Wordpad



How to databend: Audacity



How to databend: notepad++

The image shows a screenshot of the Audacity audio editing software interface. The window title is "тэл80". The menu bar includes "Файл", "Правка", "Вид", "Управление", "Дорожки", "Создание", "Эффекты", "Анализ", and "Справка". The toolbar contains various playback and editing controls. The main area displays two tracks of audio data. The top track is selected and has a red rectangular box around a segment of the waveform between approximately 0.0000 and 0.0010 seconds. A red arrow points from this box down to the same segment in the track below. The bottom track shows the same audio data but with a different waveform shape in the highlighted segment. The status bar at the bottom reads "Щёлкните и перетащите для выделения звукового фрагмента".

The example



Results and reasons

- Wordpad





Results and reasons

- Wordpad





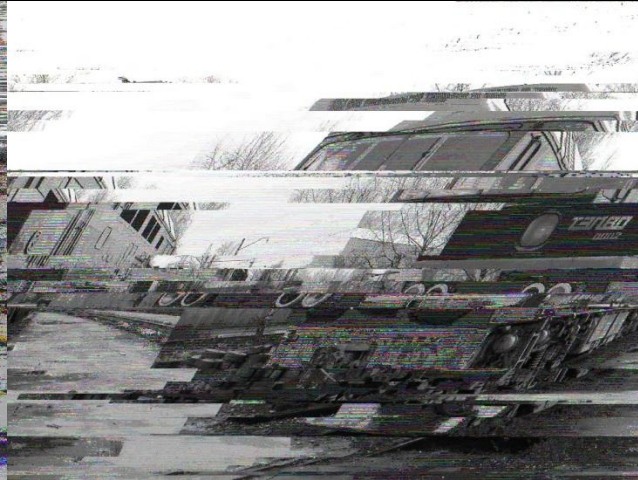
Results and reasons

- Audacity: BMP



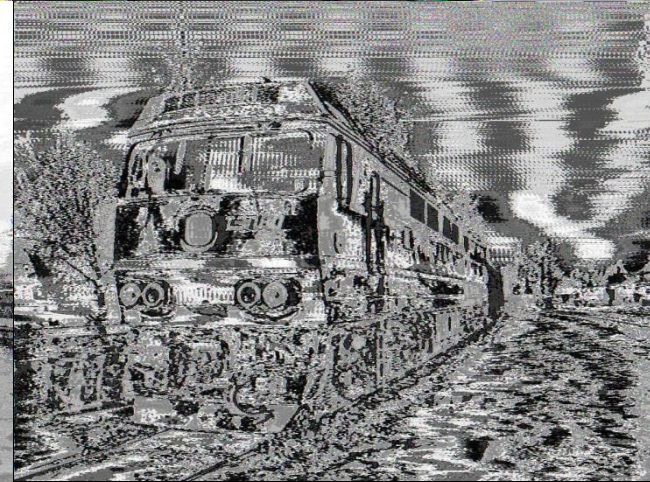
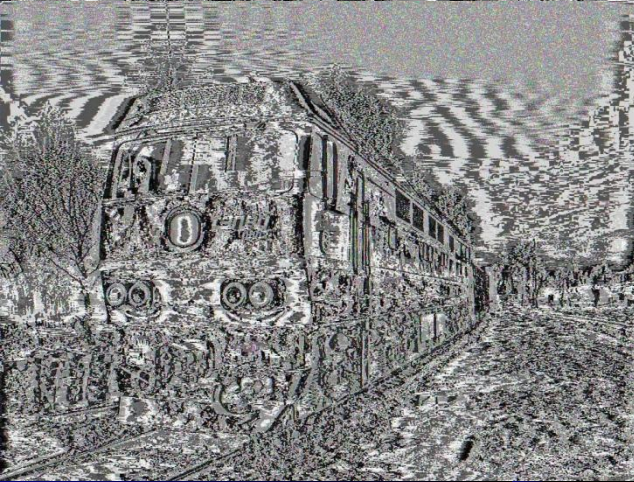
Results and reasons

- Audacity: BMP



Results and reasons

- Audacity: BMP. Equaliser



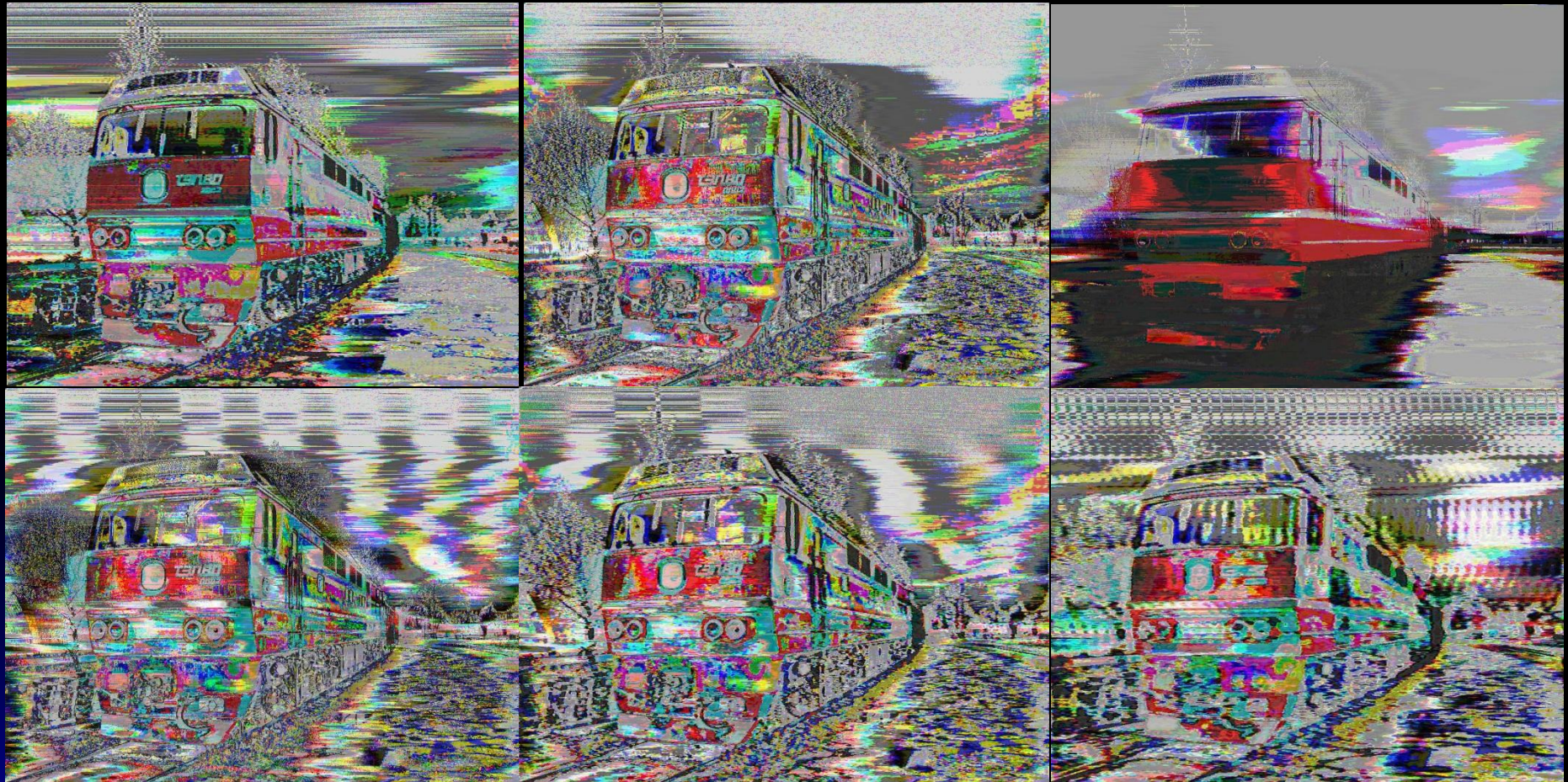
Results and reasons

- Audacity: FIT



Results and reasons

- Audacity: FIT, Equaliser



Results and reasons

- Audacity: JPG



Results and reasons

- **Audacity: PNG**



Results and reasons

- notepad++



Conclusions

- Uncompressed raster image files are the best for databending;
- The result is a little bit unpredictable, so you should have a copy of the original file;
- Text editors don't change the codes of the pixels, but they change other parts of the files like DIB headers which move the pixels;
- Sound editors can change every part of the file.
- .fit files are probably more colourful than .bmp's, but you should download GIMP to work with them.

Thanks for attention!

