Databending: how to change pictures without graphic editors

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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.

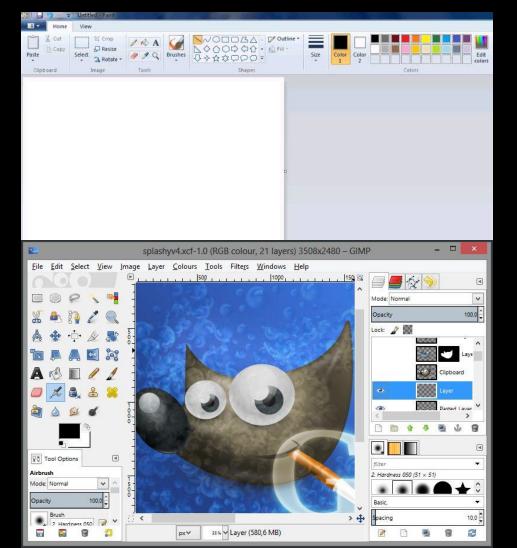
Software

Graphic editors:

MS Paint



• GIMP 2.8



Software

The programs we used:

Wordpad

Audacity

notepad++



ormats that we used

BMP

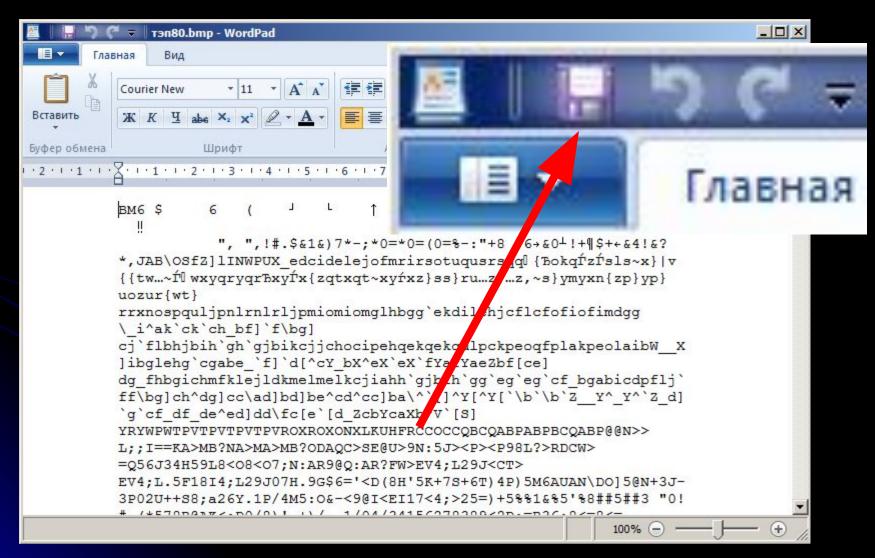
Compressed

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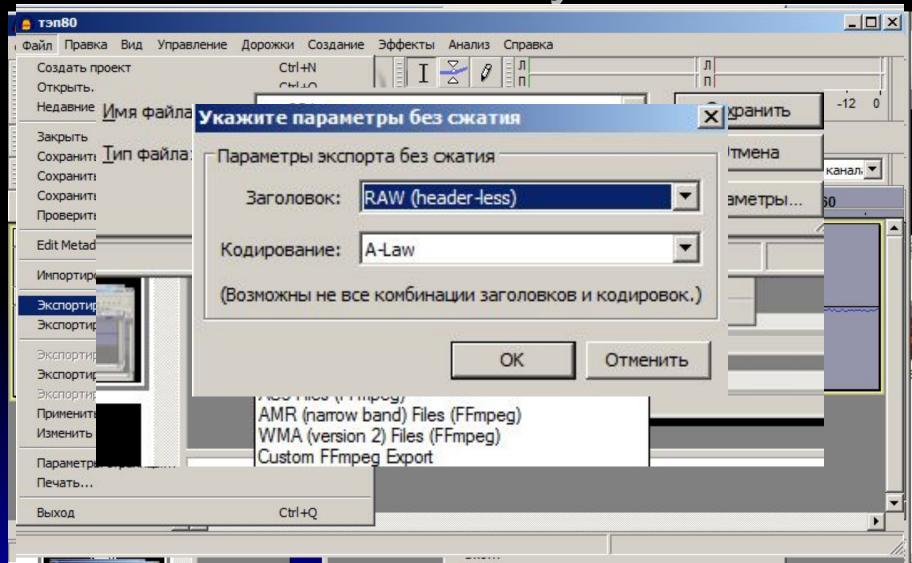
- JPG
- PNG

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Буфер обмена
                    Шрифт
                                         Абзац
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          BM6 $
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                      NAXIS2
                                                     768
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                                               1.000000
                      BSCALE
                      DATAMIN =
                                               0.000000
                      DATAMAX =
                                             255,000000
                      HISTORY THIS FITS FILE WAS GENERATED BY GIMP USING FITSRW
                      COMMENT FitsRW is (C) Peter Kirchgessner
                      (peter@kirchgessner.net), but availableCOMMENT under the GNU
                      general public licence.
                      COMMENT For sources see http://www.kirchgessner.net
                      COMMENT Image type within GIMP: GIMP RGB IMAGE
                      COMMENT Sequence for NAXIS3
                                                        : RED, GREEN, BLUE
                      END
```

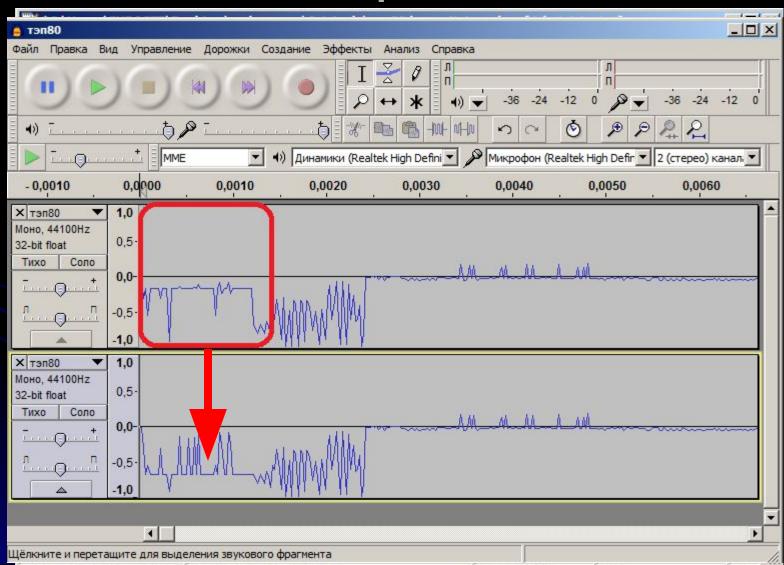
How to databend: Wordpad



How to databend: Audacity



How to databend: notepad++



The example



Wordpad







Wordpad

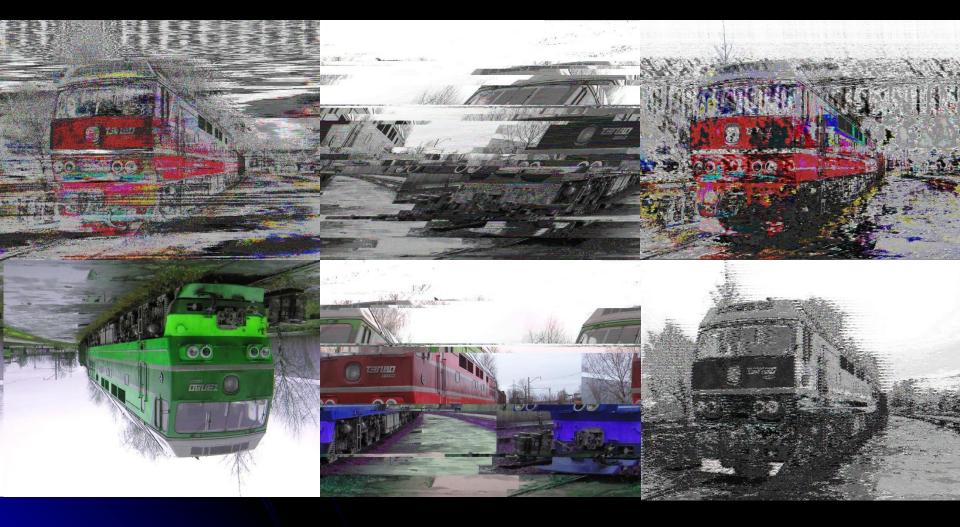




Audacity: BMP



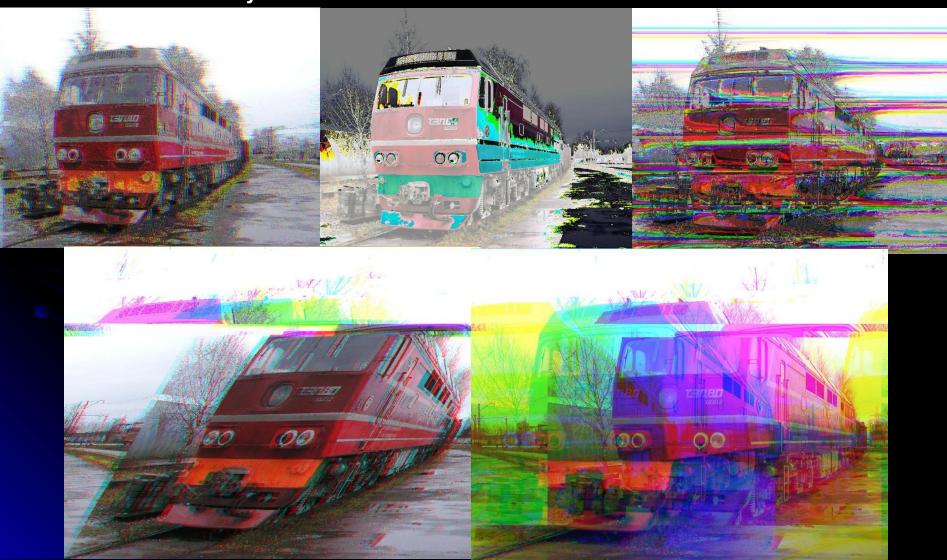
Audacity: BMP



Audacity: BMP. Equaliser



Audacity: FIT



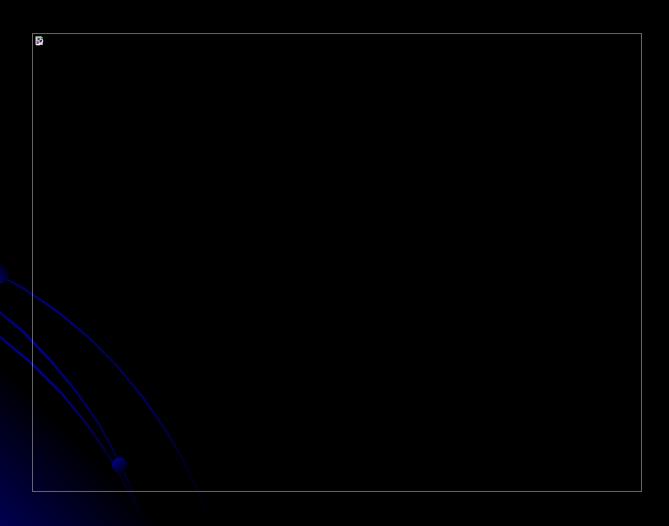
Audacity: FIT, Equaliser



Audacity: JPG



Audacity: PNG



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!