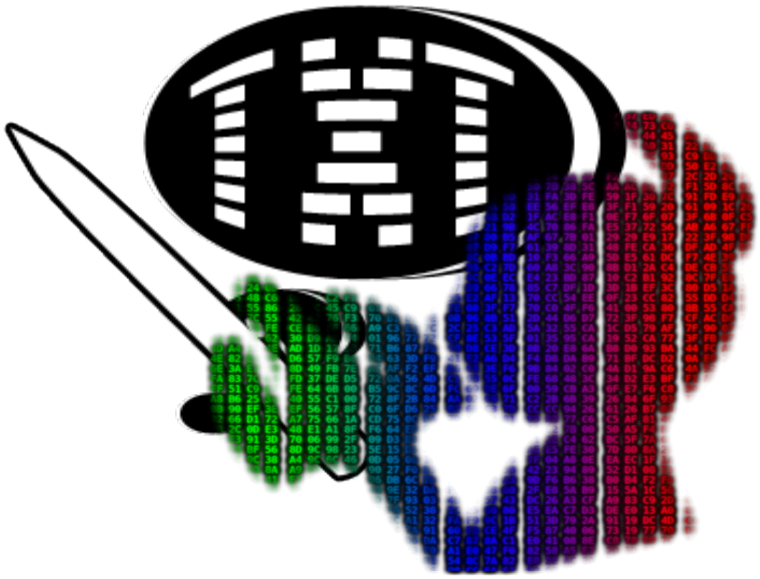

L A B T X T

D A E M O N L A B

a better picture format

Inventez et documentez un format d'image

- LabTxT -
- DaemonLab -

Ce document est strictement personnel et ne doit en aucun cas être diffusé.

INDEX

01 – Détails administratifs

Votre travail doit être rendu via le dossier **~/projets/bpf/** dans votre espace personnel.

Pour cette activité, vous rendrez votre travail sous la forme d'un fichier au format PDF nommé **bpf.pdf**. Les sources ayant servit à générer ce PDF doivent être rendu avec votre travail.

Ce travail est a effectuer seul. Vous pouvez bien sur échanger avec vos camarades, néanmoins vous devez être l'auteur de votre travail. Utiliser le code d'un autre, c'est **tricher**. Et tricher annule **toutes** les médailles que vous avez reçu sur l'activité. La vérification de la triche est réalisée de la même manière que la correction : de manière **automatique**. Prenez garde si vous pensez pouvoir passer au travers.

02 – A better picture format

You will have to create a picture file format. *This exercice is not about programming it, but only about creating it and writing a documentation about it.* ***Your documentation will be in english.***

What is a file format ? It is an organized file that can be recognized by a program. You will have to think of a way to make your file recognizable.

What is a picture file ? It is a file that can contain any kind of picture. A picture is an area of pixels, each pixel being a color. You must allow any size to be stored. You must allow the storage of pictures with 32 bits colors. You must use **indexed colors**. It means your file must have a color table that will be used as reference by pixels (that will not contains directly colors but instead… indexes to use in that table)

The size of your color table should be as short as possible, but not shorter. You **must** be able to represent any kind of color present in your original picture.

You are free to add features like layers, compression (For example, **indexed color sequences** instead of **indexed colors…** or **run length encoding** on pixels) or meta-datas of any kind.

Do not hesitate to read documentations about standard file formats like the bitmap one – a file format you should be able to load, by the way !

03 – Documentation formalities

Your documentation must contains explanation about the way you store datas inside it. It must explain the role of every fields and how to use them.

Don't forget to talk about endianess.

You can get an inspiration from the BMP file format wikipedia page :

https://en.wikipedia.org/wiki/BMP_file_format#Bitmap_file_header

This page's tables are great : they are easy to read and understand.