Thursday, April 9, 2020

VINTAGE ASTRONOMY : lights from the dark.

Finding the Format.

Most electronic images are encoded by assigning a certain number of bits per pixel.

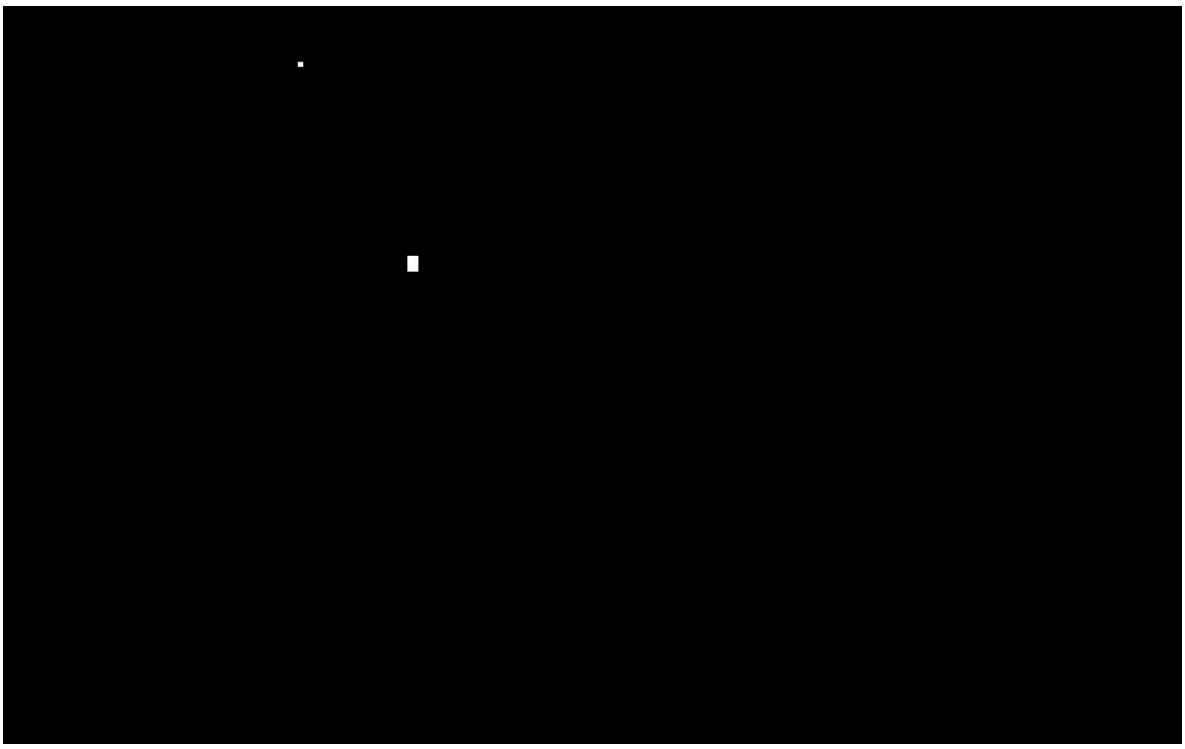
In theory one could assign any number of bits per pixel, but this would make it awkward to share images.

Standard byte depths have made the Internet possible, but who knows what formats were used in the early 1970's?

It’s was finally write for the magazines waiting.

It will be a cool last In dream magazines serie, even if it was long to be done.

More there



Venus in pixels on April 9 2020 **flic.kr/p/2iNG7Na**

This video have taken 5 steps.

The last was become gifs

flic.kr/p/2iNG7LM

Sadly I havent got the pleïades this time, even if they are just close to Venus, tonite.

First, stars was only very slight.

Some typical examples of information that can be obtained from digital image:

- **the average luminance**
- **the average contrast**
- **the predominant color**
- **the average level of acuity :precise or vague**
- **the color uniformity rate**
- **the presence or absence of certain objects**

Object recognition is a branch of vision artificial and one of the pillars of vision industrial.

It consists in identifying pre-described forms in a digital image, and by extension in a digital video stream.

Types of data used:

Image acquisition is a spatial measure of an interaction between a wave and matter.

The wave is emitted by a source and received by a sensor.

The image processor mainly has digital images, therefore sampled.

It also has intermediate data of various kinds:

Image processing began to be studied in the 1920s for the transmission of images by submarine cable from New York to London.

Harry G. Bartholomew and Maynard D. McFarlane perform the first image compression with data compression to send faxes from London to New York.

The transfer time thus goes from more than a week to less than three hours.

There was no real evolution thereafter until the post-war period.

Signal processing became important towards the end of the Second World

War with the arrival of the radar.

Oil exploration also plays a major role in the development of signal processing techniques.

The real boom in image processing did not take place until the 1960s when computers began to be powerful enough to work with images.

Shortly after, the rediscovery of the fast Fourier transform (FFT) revolutionized the field, making it possible to manipulate the frequency content of signals on a computer.

However, most of the research still focused at this time on improving images and their compression.

In 1980, David Marr first formalizes the detection of contours in a precise manner.

During the 1980s, a real craze emerged for image processing and especially for the understanding of the image by expert systems.

The ambitions were far too great, the failure was all the more bitter.

The 1990s saw the constant improvement of operators.

Medical research is becoming a very big demand in image processing to improve the diagnoses made from numerous medical imaging techniques, the queen technique being MRI.

Advertisers, then the general public become familiar with image editing thanks to software and image processing for an aesthetic purpose is spreading.

Finally, the decade ends with the craze for wavelets and multimodal images.

All those data and more deep research will be in magazines being written because it is a series that ends with issues 18-19 on the first part of the research, and then resume in 2020 by the number 20 as than In dream. As if! and which continues research bridges in research and their references, their relationships.

Application areas:

- **photography**
- **digital cinema**
- **astronomy**
- **quality control**
- **non-destructive testing**
- **medicine**
- **security**
- **microscopy**
- **micro tomography**
- **Image search by content.**

Decoding Astronomy data from 1970's as Part of my ongoing project more deep on Patreon

Posted by Veronica IN DREAM at 3:26 PM