Image Display and AstroROOT

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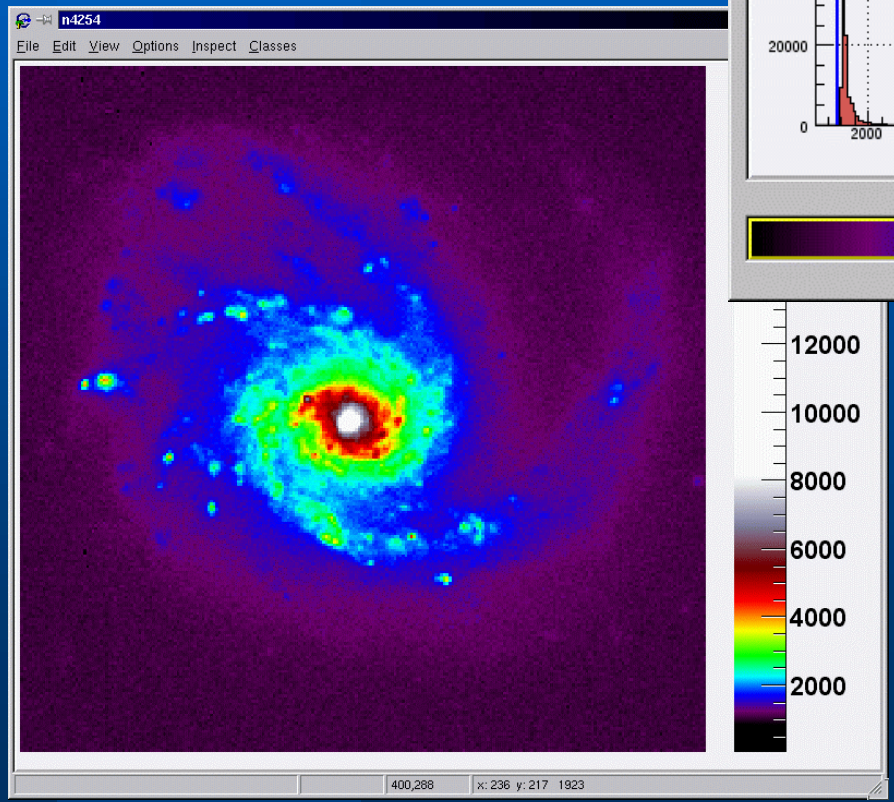
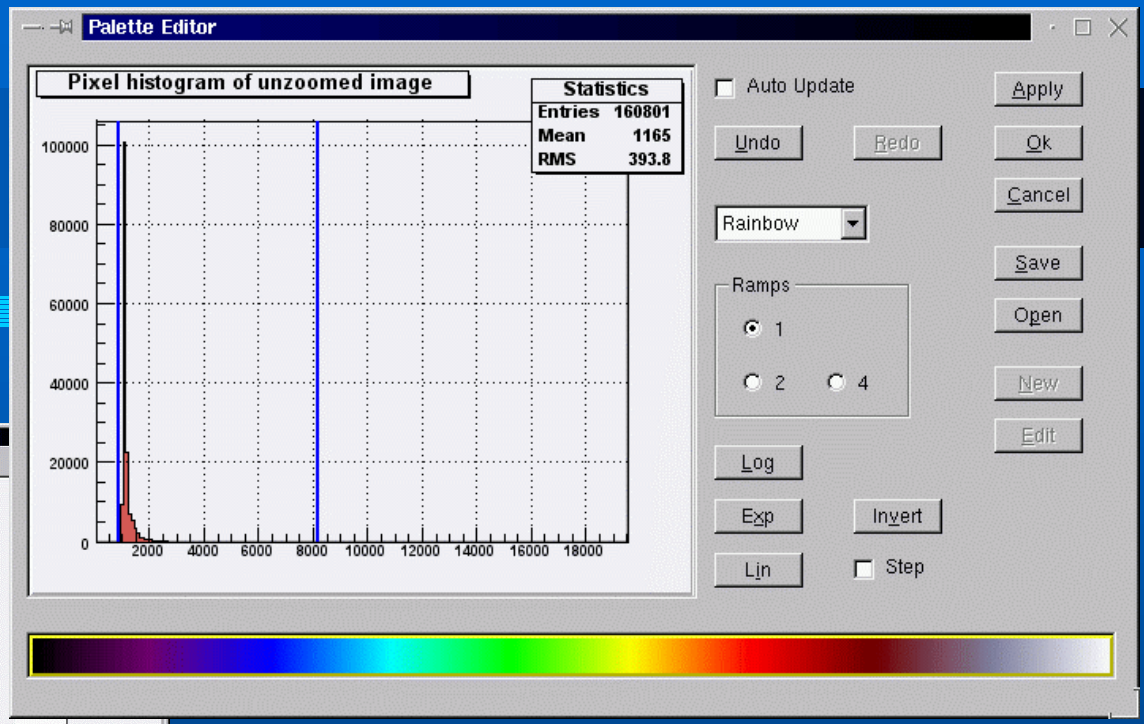
Requirements

- **fast display**
- **color editor**
- **base class for astronomical display**

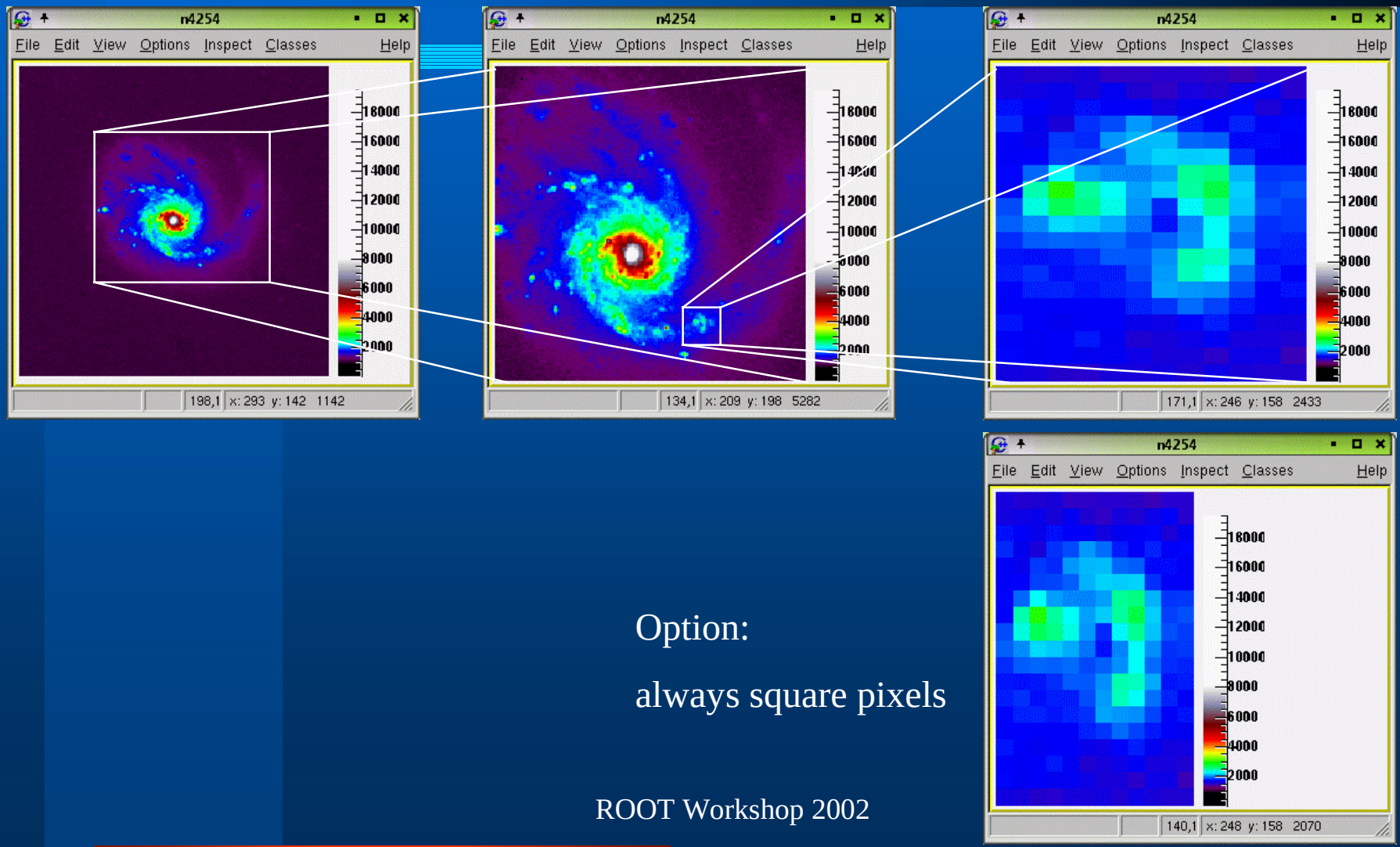
Example


n4254
File Edit View Options Inspect Classes
400,288
x: 236 y: 217 1923


Palette Editor
Pixel histogram of unzoomed image
Statistics
Entries 160801
Mean 1165
RMS 393.8
Auto Update
Apply
Undo
Redo
Ok
Cancel
Rainbow
Save
Ramps
1
2
4
Open
New
Edit
Log
Exp
Invert
Lin
Step

12000
10000
8000
6000
4000
2000

Zooming

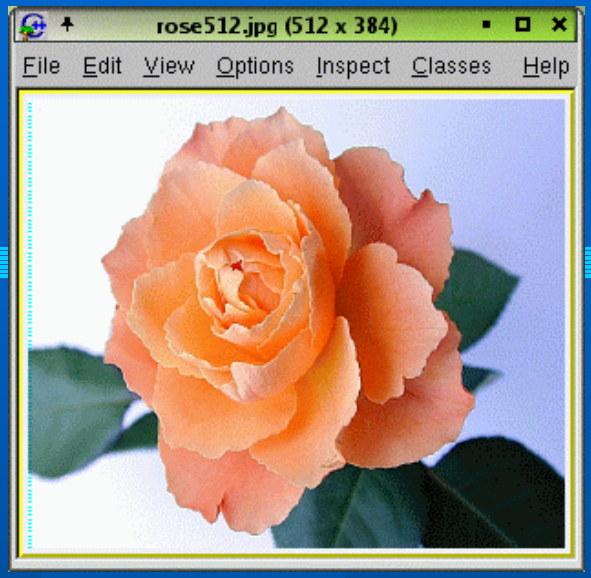


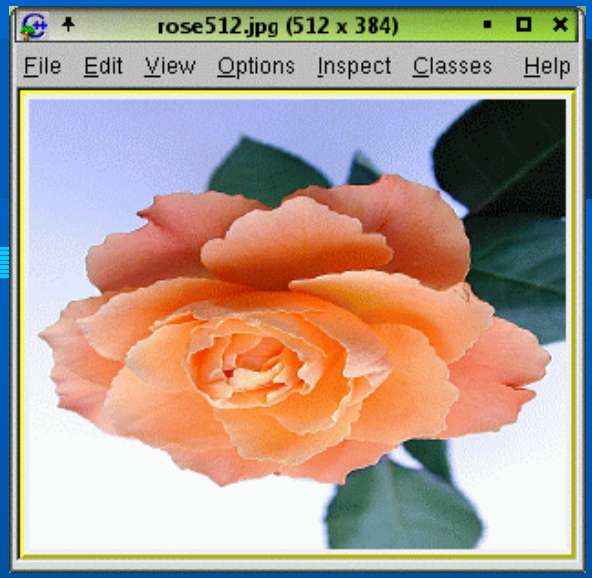
Option:

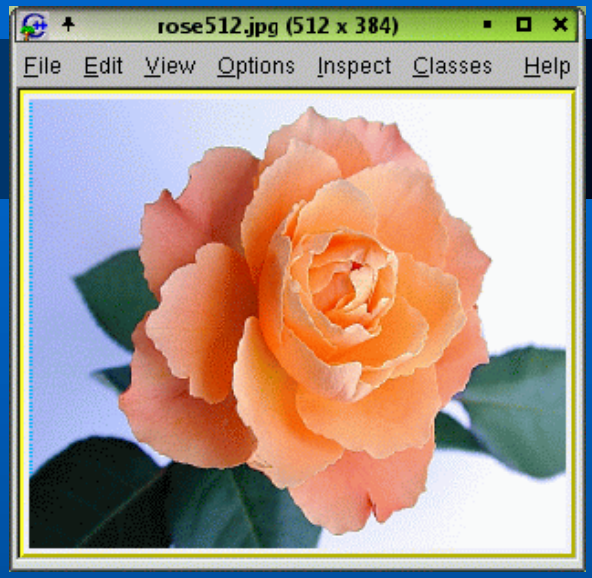
always square pixels

rotation by 90 °

vertical mirror

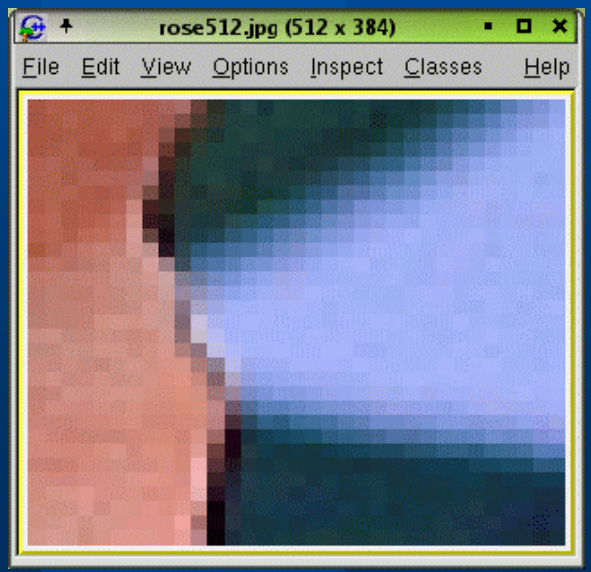


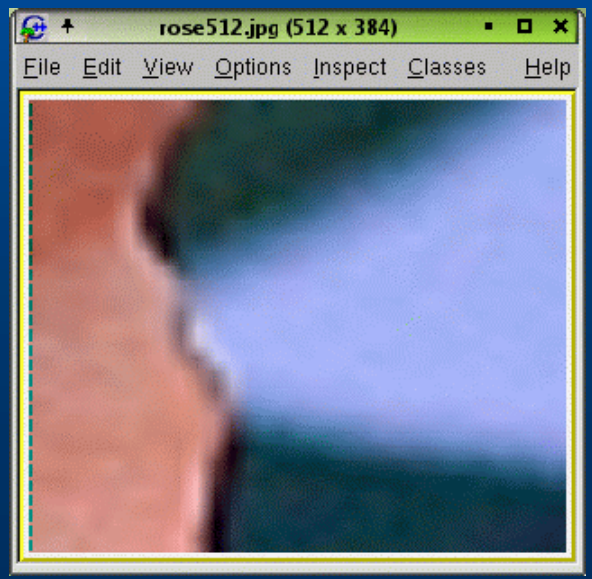




zoom

smooth





Basics

It is available since ROOT 3.03.08

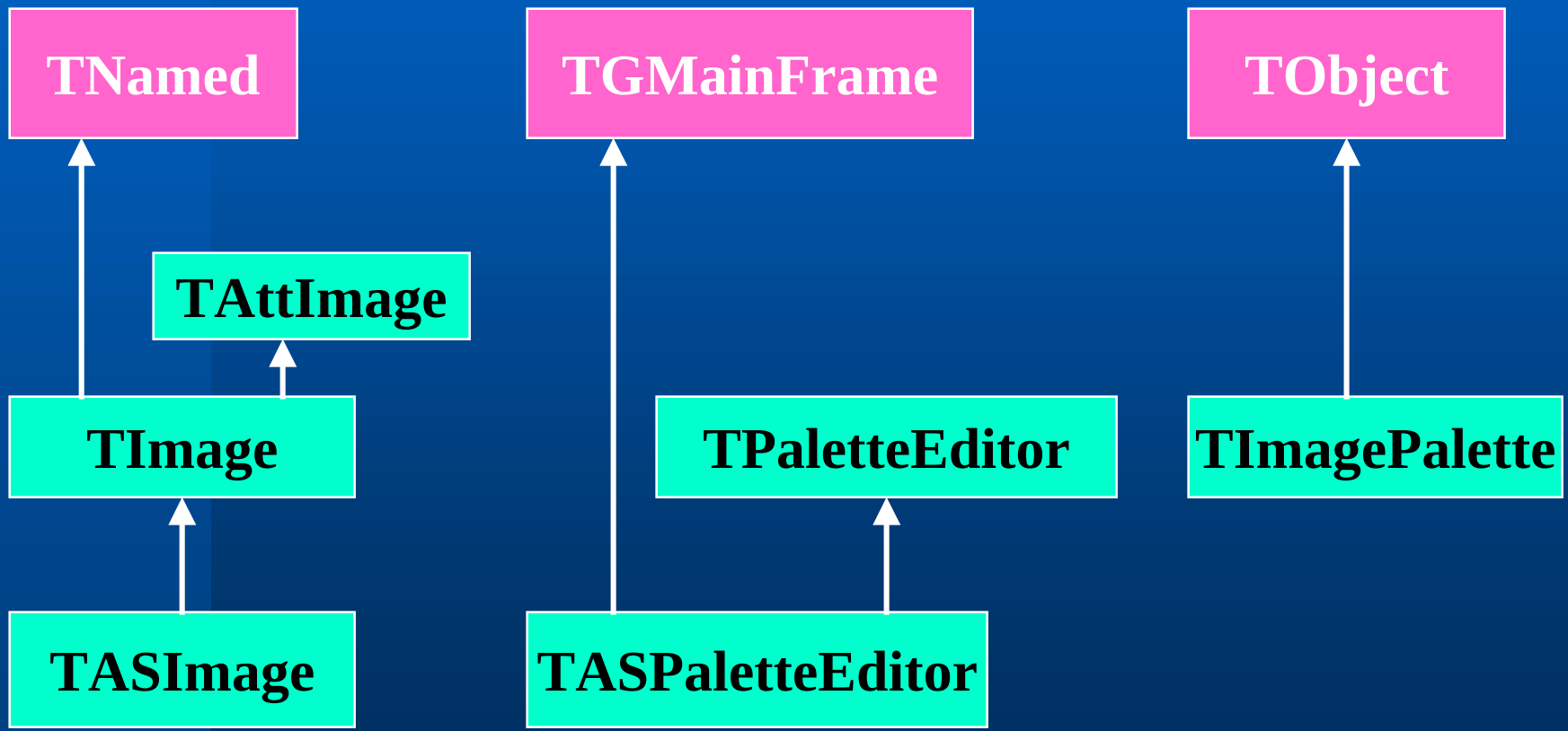
The ROOT image class is build on top of a lower level C - library: libAfterImage (Sasha Vasko)

- **read and write several image file formats (GIF ,TIFF, JPEG, ...)**
- **zoom**
- **new: convert a 2 – D data array into color pixels**

FOR MORE INFO...

http://afterstep.sourceforge.net/afterimage

Class Hierarchy



How to use TASImage

- **Build the libAfterImage library**
  - **download ftp://root.cern.ch/root/libAfterImage.tar.gz**
  - **create a shared library (${ROOTSYS}/lib)**

- **There are two example macros:**
  - **galaxy_image.C**
  - **rose_image.C**

Foreseen Improvements

- **To simplify the build process of a libRootASImage.tar.gz**
- **Interface TASimge to the 2 – D histogram classes**
- **A text editor of the palette**

Next Step: AstroROOT

- **Interface to FITS files (exist already)**
- **Astronomical image display**
  - **read FITS files**
  - **draw astronomical coordinate system**

FOR MORE INFO...

http://isdc.unige.ch/index.cgi?Soft+astroroot

FITS is a file format used for astronomical data