AMSTer : SAR & InSAR Automated Mass processing Software for Multidimensional Time series

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Data manipulation with QGIS

Nicolas d'Oreye

Plan:

Pixel coordinates
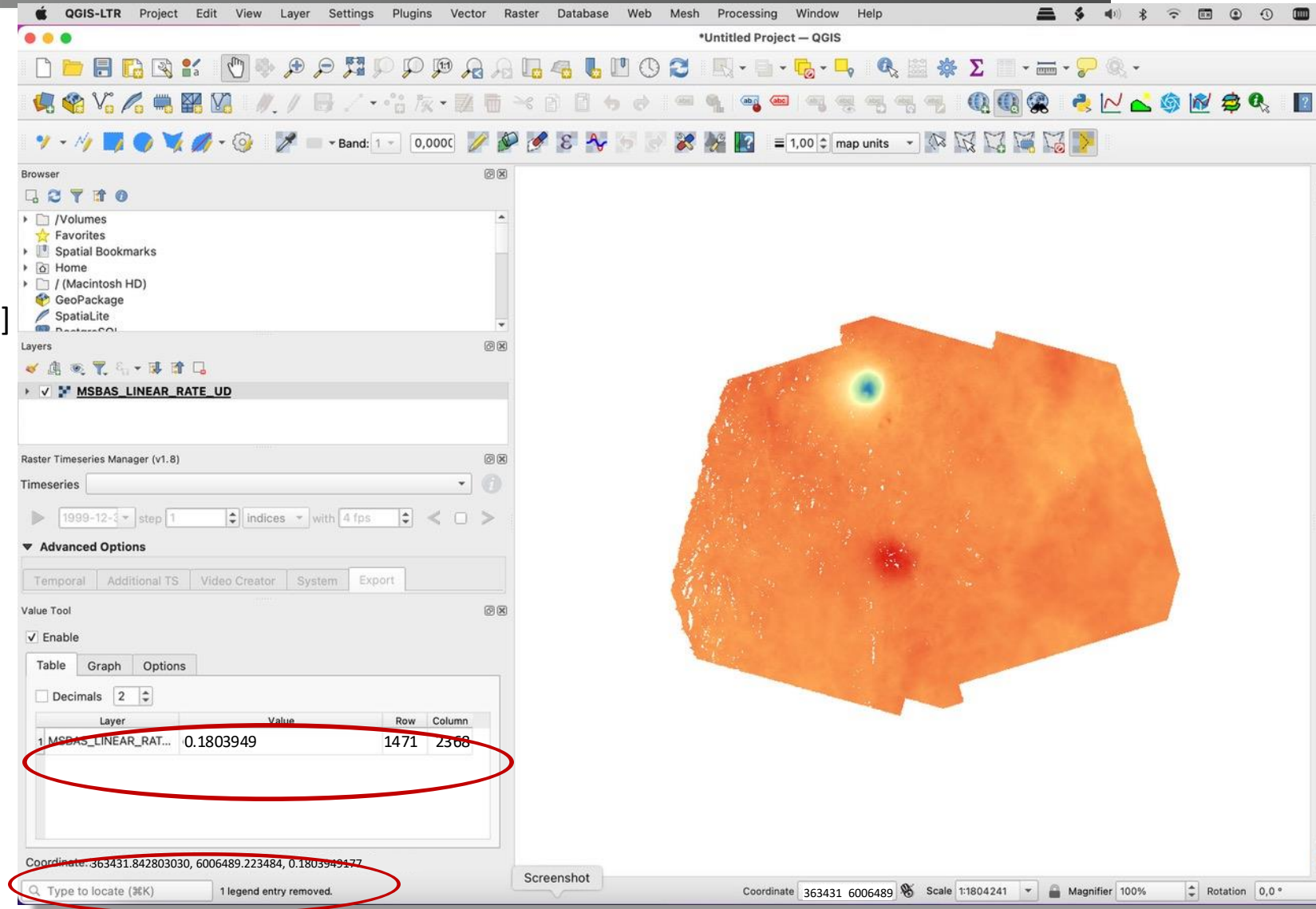
PlotTS.sh from QGIS

Rasters manipulation

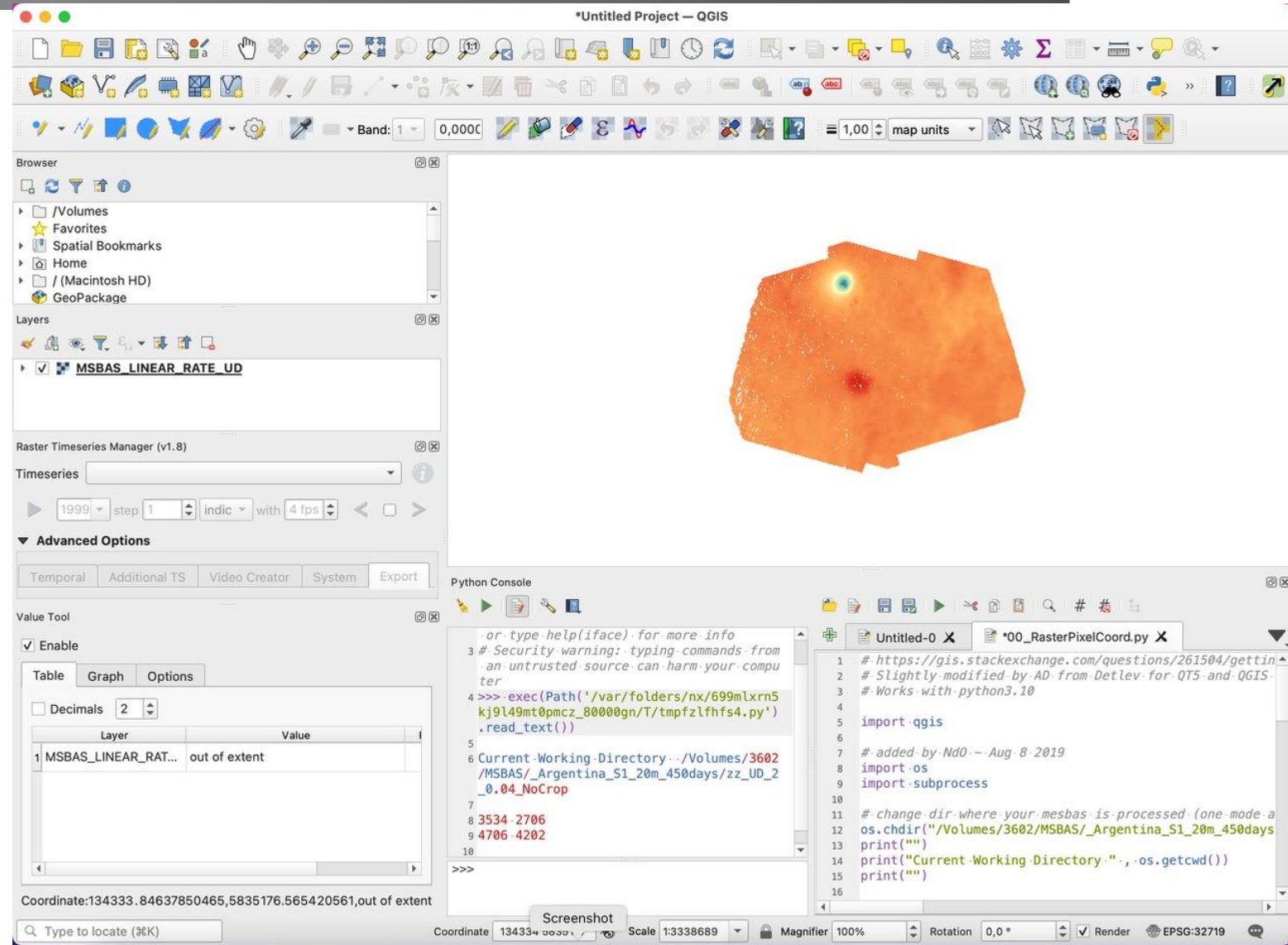**Create a map of deformation masked by coherence on a Google Earth background**

Pixel coordinates

➢ Drag & drop e.g. the
  MSBAS_LINEAR_RATE_UD.bin
  In QGIS

➢ [Double click on layer
  ➔ change Render type; transparency etc...]

➢ Value Tool plugin: watch

  o "Value"

  o "Row" & "column"

  o "UTM values"

Pixel coordinates

PlotTS.sh from QGIS

- ➢ Click on
  Plugins > Python Console

- ➢ Open 00_RasterPixelCoord.py
  (in …/SAR/AMSTer/SCRIPTS_MT)

- ➢ In line 12 of 00_RasterPixelCoord.py, change
  path to dir where msbas defo maps are stored,
  e.g. …/MSBAS/*YourRegion*/zz_Comp_…

- ➢ Run it (click on ▶)

- ➢ Click on the defo map on the pixel where you
  want to plot the time series.

- ➢ The coordinates of the pixel appear in the
  Console in red, and the plot is computed in
  …/MSBAS/*YourRegion*/zz_Comp_…

Pixel coordinates
PlotTS.sh from QGIS
Rasters manipulation

➢ Click on
  Raster > Raster Calculator

➢ Perform the computation you want, e.g.

- Create mask based on a coherence threshold

- Multiply a defo by a mask (1 everywhere, 0 where to mask)

- Create a differential deformation map by substracting the deformation between two dates
  (= create a deformation map even between different satellites or acquisition mode !)

- Etc…

Plus several other classical features from GIS software: create profiles etc…

Pixel coordinates

PlotTS.sh from QGIS

Rasters manipulation

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Try it – have fun !

Plan: Pixel coordinates

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Rasters manipulation

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- DONE !