QuickMagIC: Tutorial by example

downloading and viewing data from database

MagIC Workshop May 2014

Introduction

QuickMagIC.py is a Graphical User Interface (GUI) that provides a quick path to the main **PmagPy** programs. The work flow is illustrated schematically in Figure 1. Here, we will do the following tasks:

- getting started.
- Step 1: download data from MagIC database.
- Step 2: view data using PmagPy GUIs.

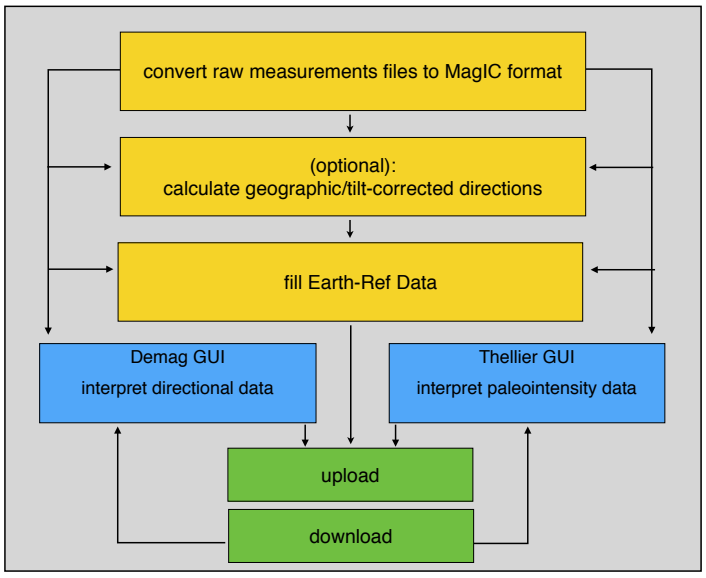

Figure 1: QuickMagIC workflow.

Getting started

- **install PmagPy:** If you havent done it yet: follow the first four bullets in Chapter 1 (MagIC Quick Start), PmagPy Cookbook: `http://earthref.org/PmagPy/cookbook/`
- **create a MagIC Project Directory:** Create a directory with a name that relates to that study.(e.g., TauxeEtAl2004). The project directory name should have NO SPACES and be placed on the hard drive in a place that has NO spaces in the path.
  Inside ThisProject directory, create a sub directory called 'MagIC'.

Step 1: Download MagIC project data from database

- **download example dataset from MagIC:** Open the MagIC search interface `http://earthref.org/MAGIC/search/`.Write the string "Snake River and Tauxe" in the text search window (Figure 2).
  click on the contribution tab. Under the tab 'Contribution SmartBook' there are two files: excel file and txt file. Download the text file (double click or right click) (Figure 3). Save the file in the MagIC directory (Figure 4).

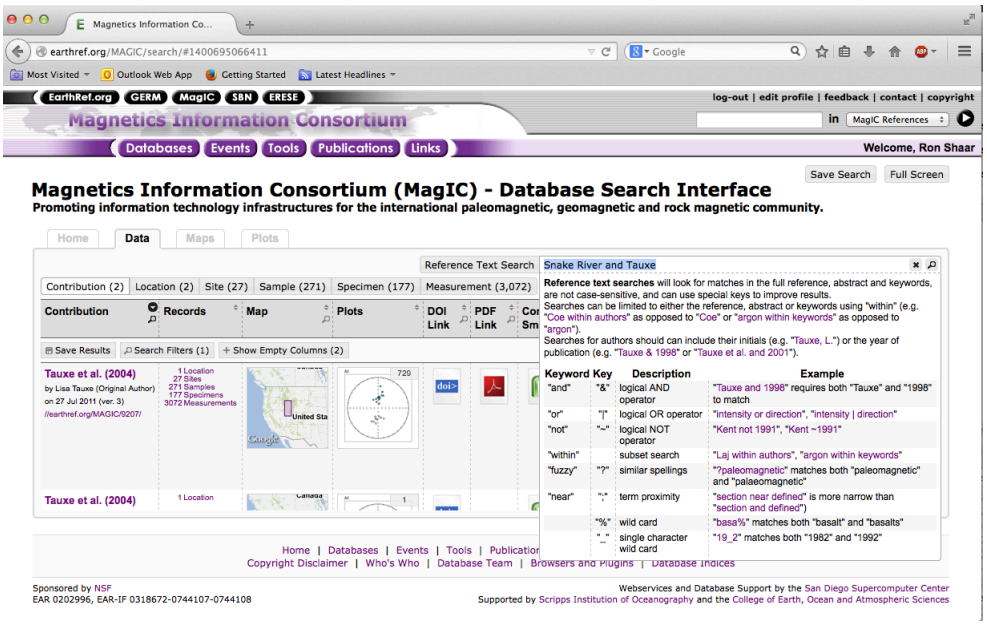

Figure 2: To download the example data search the string "Snake River" in MagIC "text search"

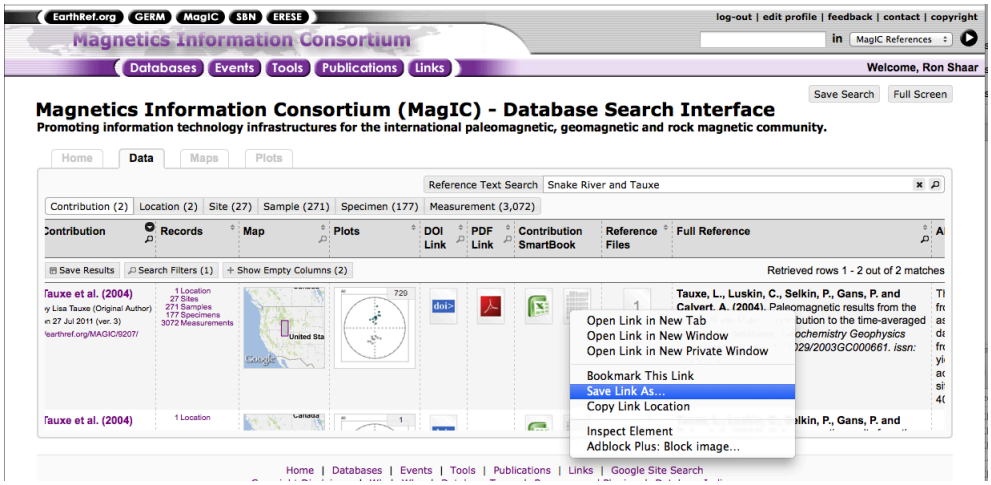

Figure 3: download the Snake River MagIC Project txt file

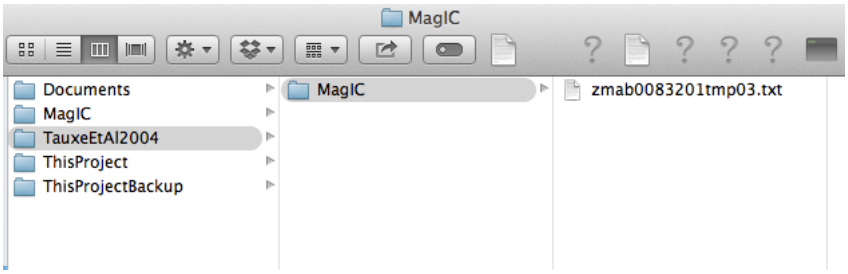

Figure 4: Snake River MagIC Project directory

Step 2: Viewing data using PmagPy GUI's

- **run the program:** Open up a terminal window (mac) or command prompt (pc) and type QuickMagIC.py on the command line. Select the MagIC directory in TauxeEtAl2004 when prompted. (Figure 5)
- Press the [Unpack downloaded txt file] button and choose the downloaded txt file. This runs the PmagPy script "download_magic.py". The result is a list of MagIC files saved in the MagIC Project Folder (Figure 6).
- Press the [Demag GUI] button. This runs the PmagPy program to view and analyze directional paleomagnetic data (Figure 7)
- Press the [Thellier GUI] button. This runs the PmagPy program to view and analyze paleointensity data. (Figure 8)

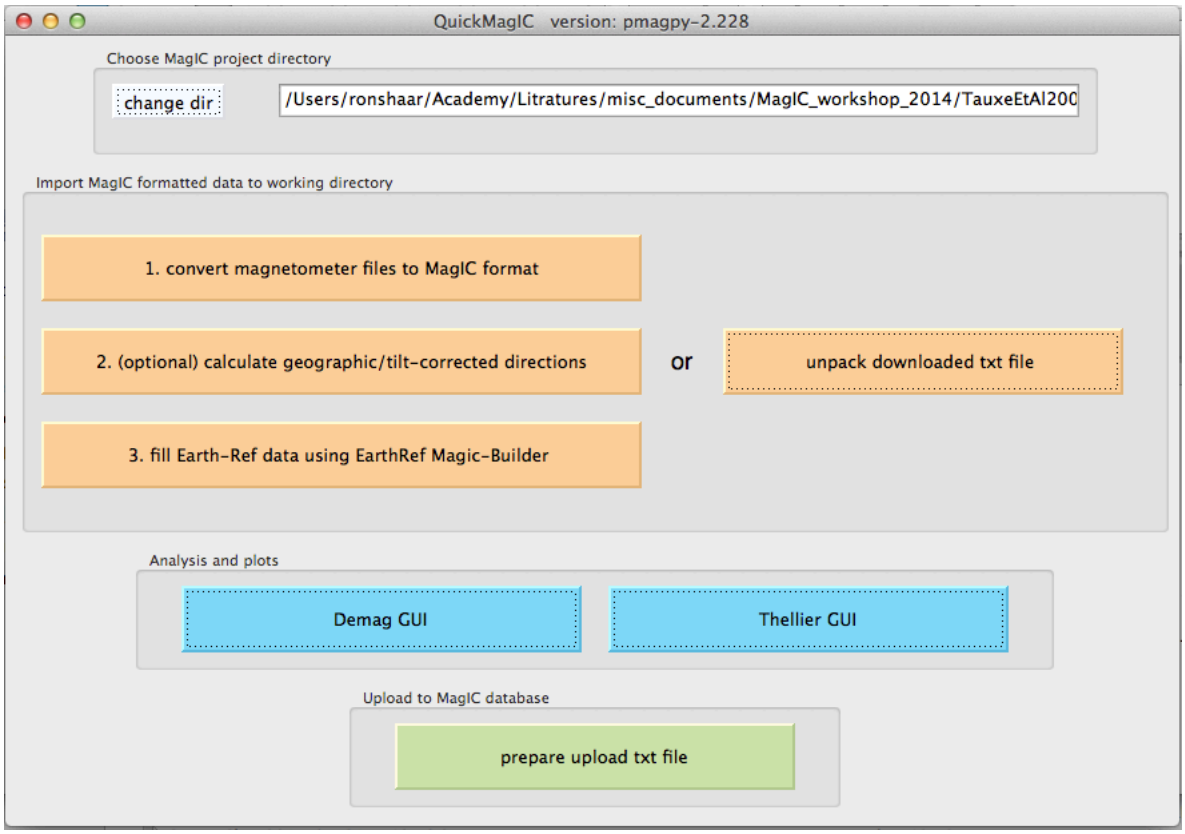

Figure 5: QuickMagIC frame

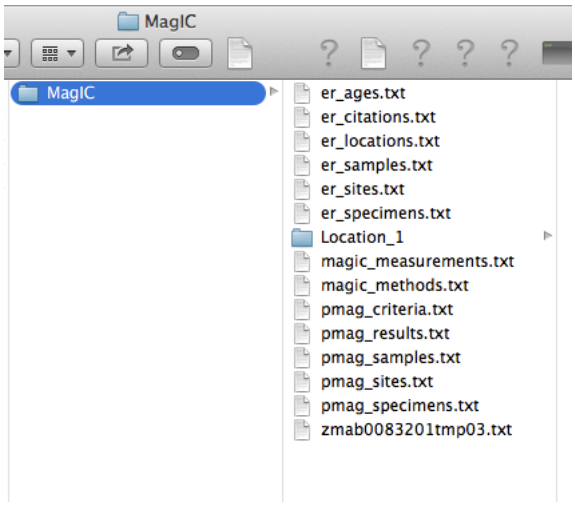

Figure 6: Snake River MagIC Project directory after unpacking txt files

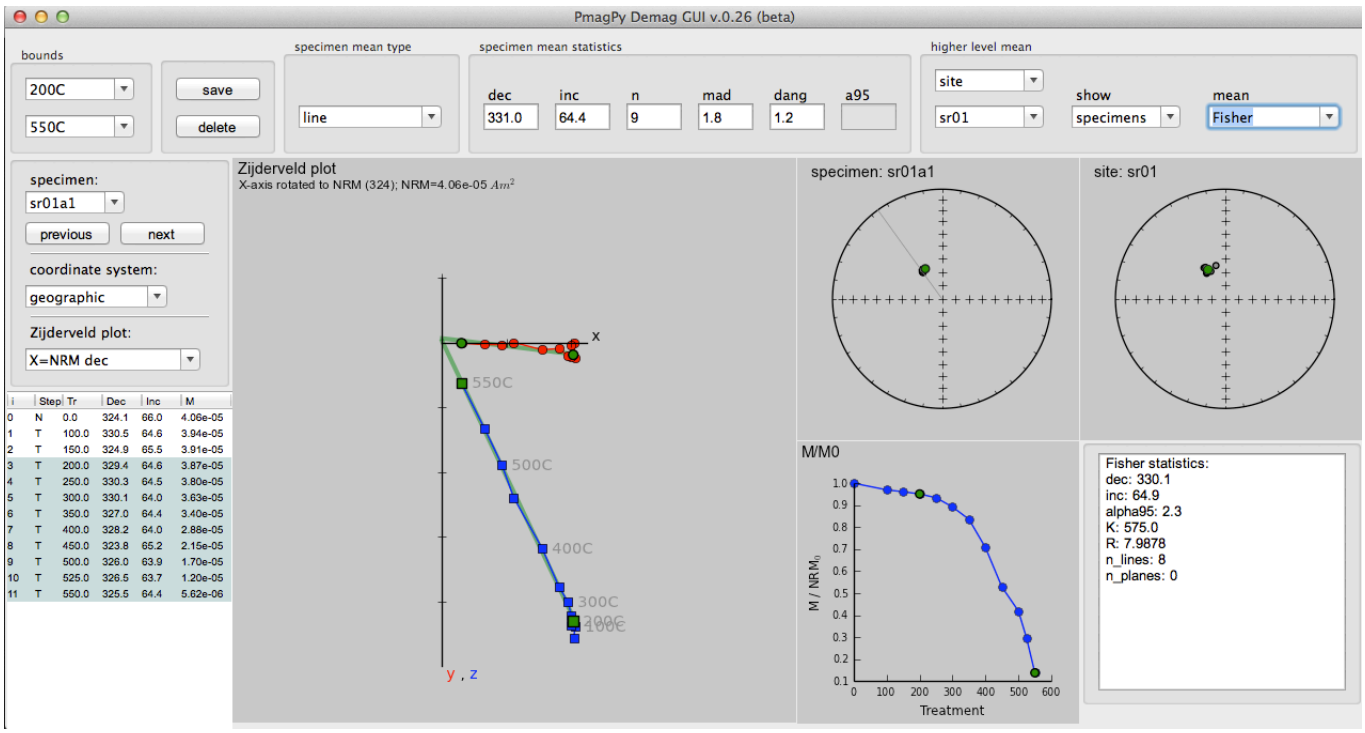

Figure 7: Demag GUI main frame.

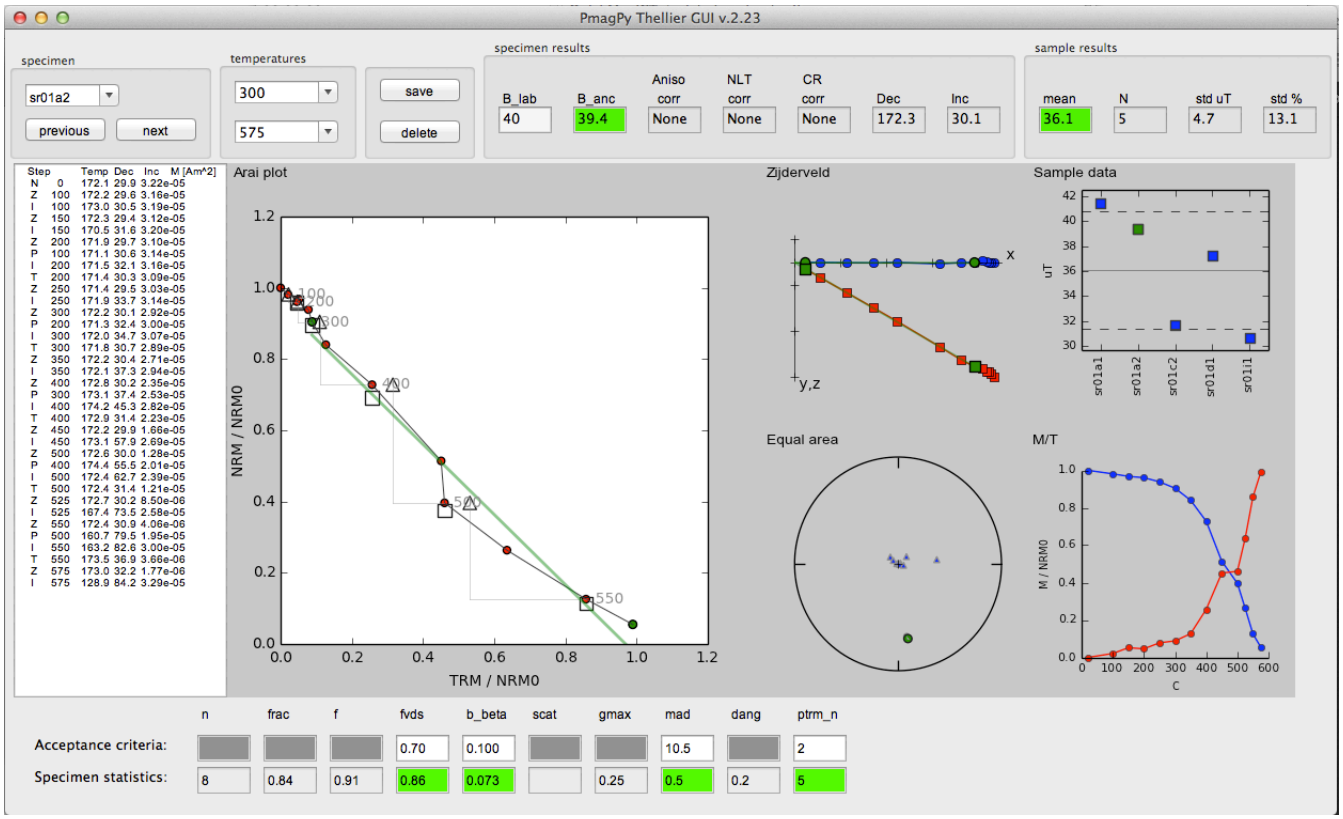

Figure 8: Demag GUI main frame.