

# 699 Software

## General Information

### Update Mailing List

You can sign up for the SAM Software Mailing list at <https://lists.nasa.gov/mailman/listinfo/sam-software-release>. Doing so will keep you notified of any software updates for XINA, SAM Data View, and Python Scripts!

### Bug Reporting

Report all bugs to our Bugzilla server at <https://wush.net/bugzilla/sw699/>. Use the "Open a New Account" button to set up a new account. You can use this for both bug reports and feature requests.

## Installation

These tools will install SAMDataview, Python 2.7, and SAM python utilities:

### Mac OS X

Download and install the following files *in order*:

1. Download the [Mac OS X Python Installer](#) from the Python.org homepage. Open the disk image and run the enclosed installer package. You will (probably) never have to update Python again, as far as SAM software is concerned. You can ignore this step when updating in the future.
2. Download the source code archives of the most current distribution of [699util](#). Instructions for installing Python modules from source code archives can be found on that page, as well.
3. Download the Mac Installer from the [SAM Data View](#) page. Open the disk image and run the enclosed installer package.
4. Head to the [XINA Client Install Guide](#) page and follow the instructions to install the XINA client.

### System Requirements

SAM Data View for Mac was built for Mac OS X 10.6.8, 64-bit. In our limited experience with OS X 10.7 ("Lion"), SAM Data View installs and runs with no problems, though we are not yet certain that it will work on all systems with 10.7. We do not expect a high demand for a 32-bit Mac Version of SAM Data View, but if there is, we will build a 32-bit installer. The Python tools and XINA will work on any OS (provided Python and Java, respectively, are installed).

# Windows

Download and install the following files *in order*:

1. Download the appropriate installer from the [Python.org download page](#): [Windows 32-bit](#) or [Windows 64-bit](#).
2. Download the Windows installer from the most current distribution of [699util](#). Windows 7 and Vista users will need to right-click on the file after it has downloaded and choose "Install as Administrator..."
3. Head to the [XINA Client Install Guide](#) page and follow the instructions to install the XINA client.
4. Download the current Windows Installer for [SAM Data View](#) (note: requires reboot after installation).

## Individual Software Pages

- [TunnelManager](#)
- [SAM Data View](#)
- [699util](#) (Python Tools)
  - [Python Tool Installation](#)
  - [699util User Scripts](#)
  - [Install Python 3 tools alongside old Python 2 tools](#)
- [SAM PDS Procedure](#)
- [IGOR Software](#)
  - [SAM SAGE Igor Tool](#)
  - [SAM GATES Igor Tool](#)
  - [ISAMS](#)
  - [tm2igor Quickstart](#)
- [Developer Computer Setup](#)
- [Setup Notes](#) (for other computers)
- Notes on [Python Performance](#) (Developers only)
- Personal User Pages:
  - [Melissa Trainer](#): IGOR scripts for atmospheric analysis
  - [Mike Wong](#): IGOR scripts for atmospheric analysis

## Miscellaneous

### Mac Gnuplot Installation

Short story: for legal reasons, Apple does not ship Gnu Readline library by default. The replacement library does not have all the functionality needed for gnuplot, and this often causes errors.

Download the latest Gnuplot source: <http://sourceforge.net/projects/gnuplot/files/>.

1. Download the latest version of Gnu Readline: <ftp://ftp.cwru.edu/pub/bash/readline-6.2.tar.gz>.
2. Untar it, `cd` to the new folder, and execute `./configure --prefix=/usr`, then `make everything`, then `sudo make install`.
3. Then `cd` into the gnuplot source folder. Use `./configure`, `make`, and `sudo make install`.

## Mac `lxml` Installation

There are two big obstacles to installing `lxml` on a Mac. First, the Mac standard `libxml2` is often woefully out of date (at least up to 10.7; 10.8 is far better.) Therefore, in order to get a good version of `libxml2`, the creators of `lxml` built in a way to build a static library of `libxml2` into your compilation. Unfortunately, the latest version of `libxml2` at this time of writing (2.9.0) has a bug, preventing usual tools like "pip" from working. (If 2.9.1 is ever released, then `STATIC_DEPS=true pip install lxml` will work. If you need `sudo`, remember to put it between `sudo` and `pip`).

1. Download The latest version of `lxml` from PyPi: <http://pypi.python.org/pypi/lxml>
2. Untar it, `cd` to the new folder, and execute `python setup.py build --static-deps --libxml2-version=2.8.0`.  
You may need `sudo` permissions, depending on your setup.

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