

# INSTRUCTIONS FOR BUNDLING DTSA-II FOR APPLE OS X

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DTSA-II has been designed to work with OS X including following many of the Apple design conventions. But as I no longer have access to a Apple Macintosh, I am no longer able to provide an application bundle for DTSA-II on Apple OS X. Creating an application bundle is not difficult. It takes about 20 minutes and requires only freely available tools. The primary tool is the JAR Bundler tool which is available as part of the Xcode Developer Tools (a free download available [here](#)). Documentation for the JAR bundler is available [here](#). In addition, you will probably want to package the application bundle in a compressed disk image file (DMG) as is common practice for Mac software, DMG files are created with the Disk Utility, a standard part of the Apple OS X install.

For the most part, packaging DTSA-II as an APP is straightforward except for the Python source files which make up the integrated Jython scripting environment.

## ***Contents of the application bundle***

- All the required JAR files
  - As of version 433 Eros these are: batik-awt-util.jar, batik-dom.jar, batik-ext.jar, batik-svggen.jar, batik-util.jar, batik-xml.jar, BrowserLauncher2-1\_3.jar, derby.jar, derbyclient.jar, derbynet.jar, dtsa2.jar, epq.jar, forms-1.3.0.jar, jai\_imageio.jar, Jama-1.0.2.jar, jcalendar-1.3.2.jar, junit.jar, jython.jar, l2fprod-common-all.jar, xml-apis.jar, xpp3-1.1.4c.jar, xstream-1.3.1.jar
- A directory called Lib containing the full Jython run time library. (This is located in the same relative location in the Windows or zip file installers.)
- The dtsa2.icn file containing high-resolution icons for the application bundle. This file is available [here](#).

Working from memory, I recall that you add the Jython run time library by adding the full contents of the Lib directory to the “Additional Files and Resources” list on the “Classpath and Files” tab (see Figure 2).

Figures 1-3 show the correct configuration of the three tabs in the JAR Bundler UI. Once you have configured the JAR Bundler application, the “Create Application” button will create the application bundle. I would suggest using the name “DTSA-II {version}.app” where “{version}” is the user friendly version number (like “433 Eros”). This naming scheme allows users to install multiple versions side-by-side as they can on Windows or other OS.

## ***Contents of the DMG file:***

- DTSA-II {version}.APP
- User documentaton:

- Basic scripting in DTSA-II.pdf
- Introduction to DTSA-II.pdf
- MT1\_GettingStartedWithNIST\_DTSA\_II.pdf
- MT2\_ManipulatingSpectraUsingDTSA\_II.pdf
- MT3\_Standards\_based\_Quantification\_Part1.pdf
- Programmer's documentation
  - A zip file containing the contents of the JavaDoc directory.

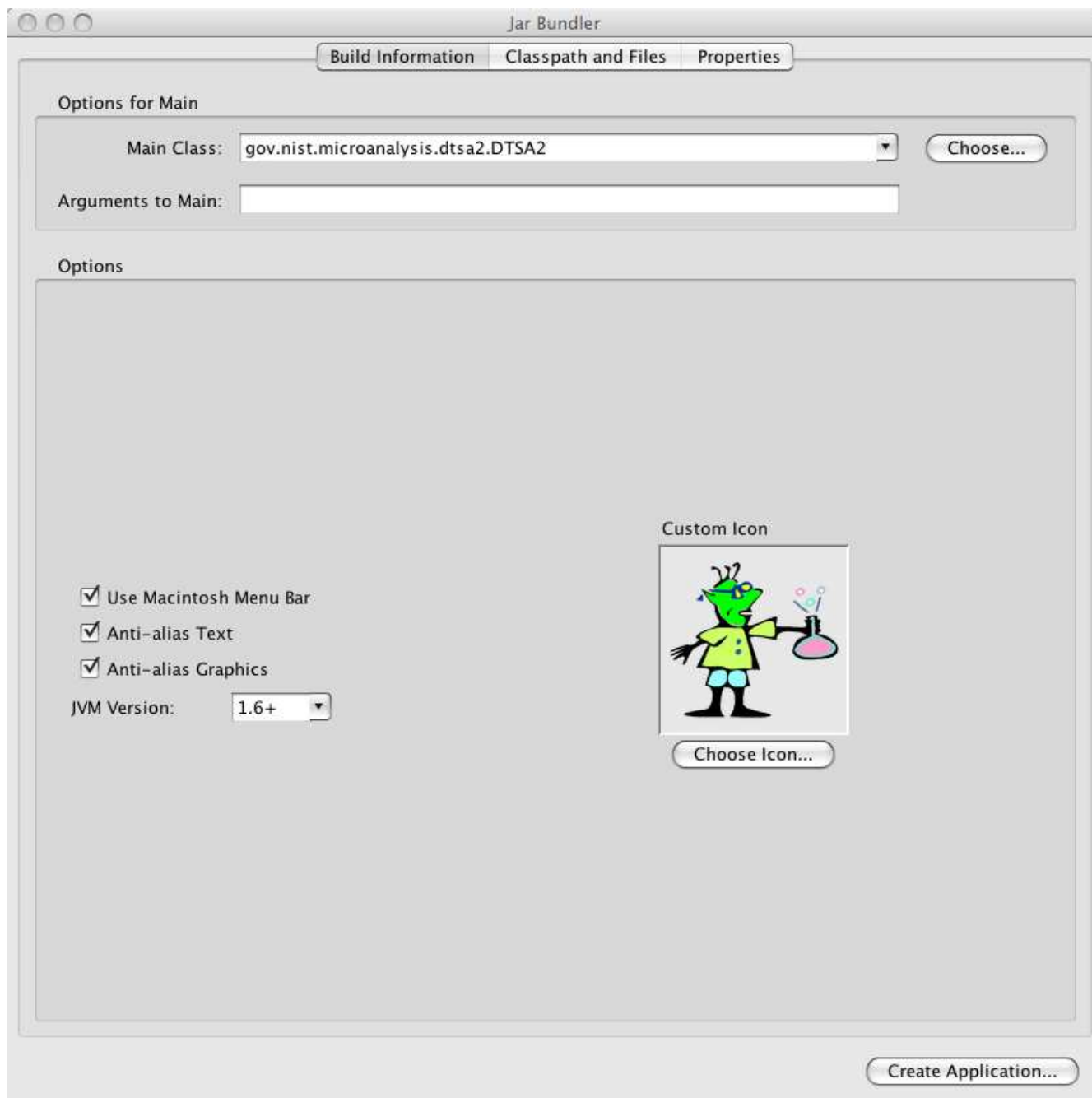


Figure 1 The build information tab. Specify a main class and some run time options. DTSA-II does require JVM version 1.6+.

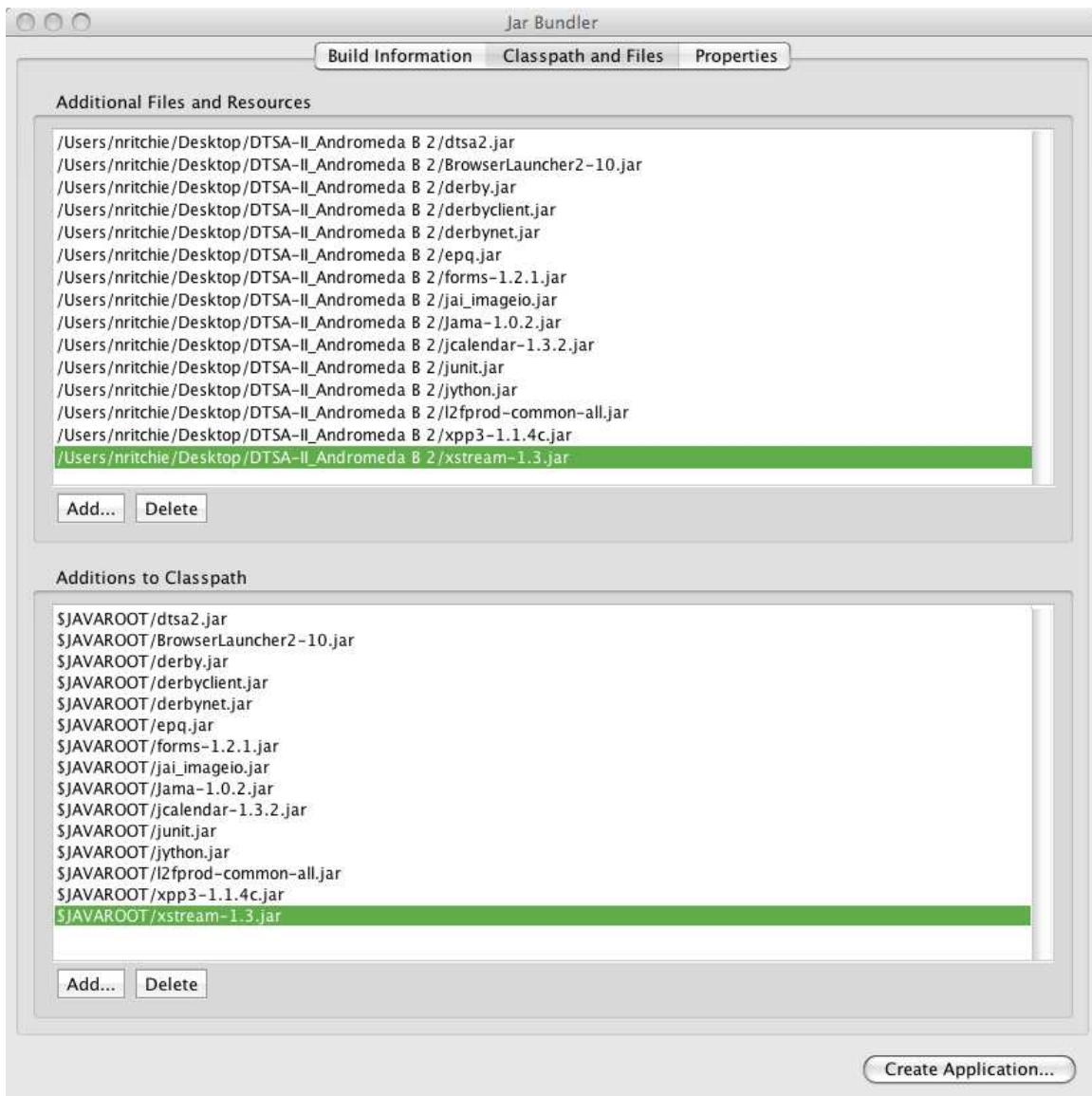


Figure 2: The classpath and file tab

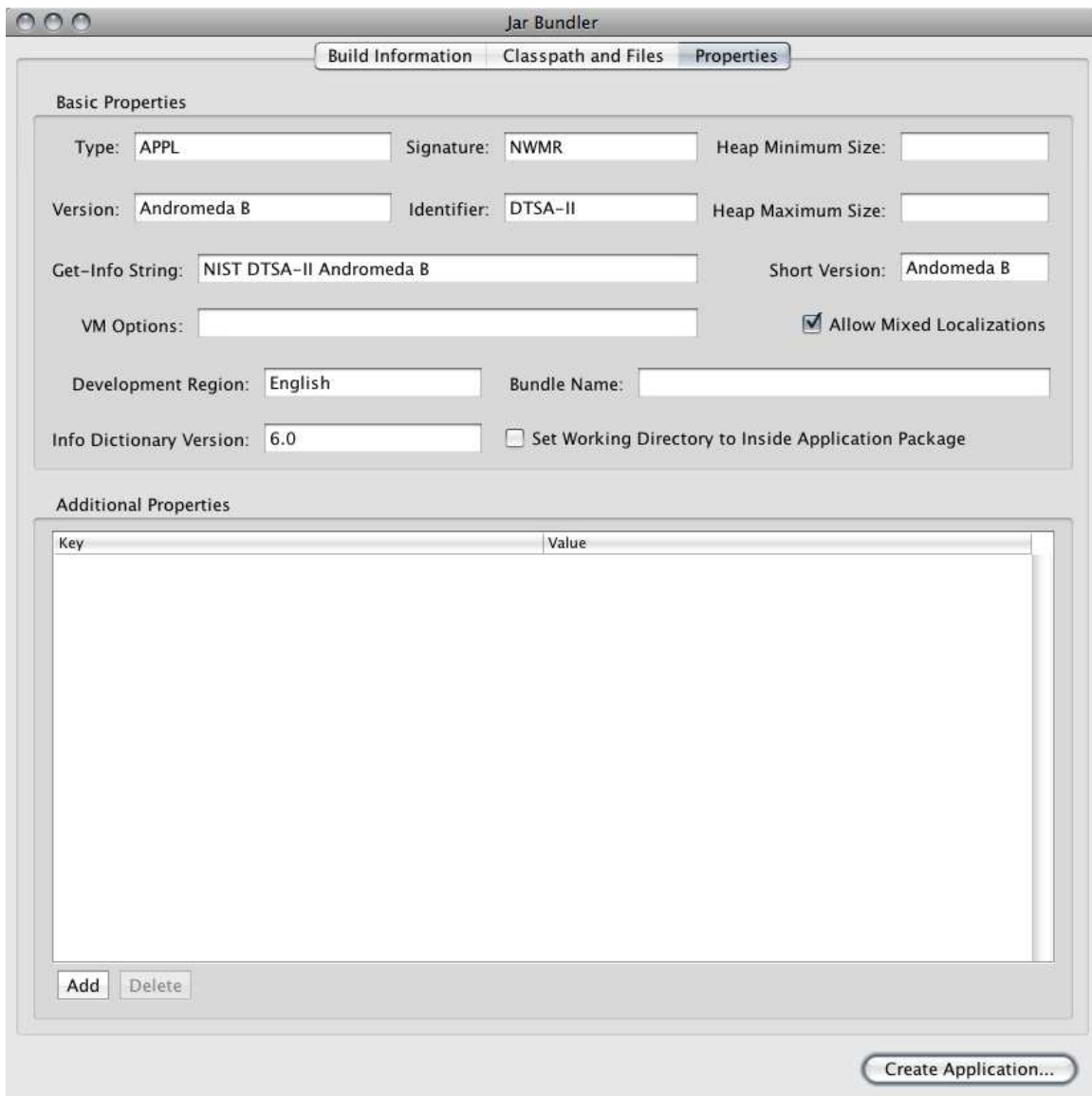


Figure 3: The properties tab. The version should be updated to reflect the latest version name. The signature is the one I registered with Apple for DTSA-II.

I'd suggest testing the application bundle after you have constructed it. The most likely failure modes are either a missing JAR file or problems with the Jython Lib directory. If the application starts it is likely the JAR files are correct. If the application starts but there is a failure reported on the Command tab, then it is likely the Jython library has not been installed correctly.