jDem846 is geospatial software designed to produce high-quality digital elevation models in two dimensional, three dimensional and spherical (global) projections. Models are generated using a variety of tinting, hillshading, ray tracing, and perspective techniques. It is pure Java and attempts to implement a full stack of components, including GIS, data format support, rendering, etc. Though a specialized plug-in architecture has not yet been implemented, the software is designed to be easily extended with 3rd party add-ons or used as an API with a larger application.

jDem846 is a “learning” project and has a fluid and evolving design with new features and functionality being added all the time. It is not expected to become a commercial grade product preserving the freedom to tweak and try out new ideas, methods, and algorithms.

Being open-source software, the jDem846 source code is free to download. Feedback and defect reports are always welcome.

**Primary Modules:**

* Base
* dBase
* ESRI Shapefile
* GIS/Physics
* KML
* jDem846 Core
* Graphical User Interface

**Data Input Support**

**Elevation Raster**

* GridFloat
* BIL INT16

**Shapes**

* ESRI Shapefiles

**Images**

* Orthoimagery (planned)
* Simple geo-referenced image support for scripting

**Scripting**

* Groovy
* Jython (planned)
* Basic scripting within standard project type
* Script-only project type for programmatic control over models

**Data Output Support**

* PNG/JPEG
* KML
* Data raster conversions/exports (planned)