Volc2

From PNSNWikiDocs

Volc2 is a replacement for all of the original volcano pages (using static images and pure html). Volc2 is a combination of req2 and better webicorders (webi2) with access to the entire catalog and a plotting function. Content is generated by the client. Downloaded catalogs by the client are the only potential draw on the network. The code is mostly reused for each volcano, hopefully simplifying the maintenance and upkeep.

Contents

- 1 Philosophy
- 2 Nuts and Bolts
- 3 Creating a new volcano page
- 4 To Do

Philosophy

All of the parameters that make each volcano page unique are contained within a parameter file (javascript variables) and an html file (volcano name and help menus). Creating a new volcano page only requires changing variables within these two files. The rest of the code is general and is reused for each volcano page. The catalog is updated with the update_WEB script (actually update_volc). The script is called makeCatalogWeb.csh in /stor/snaps/Scripts. The csh code has been tested on tremito.

Nuts and Bolts

- Base Directory: /spikehome/HTML/SEIS/PNSN/volc2
  - Keeps index files (e.g. index_Baker.html)
  - Contains the following directories:
    - images: contains png files (and sometimes ai files) for images on webpage. Images are used for earthquake locations, help menus and legends.
    - js_scripts: contains javascript codes
    - xml: contains catalog files, updated by makeCatalogWeb.csh

- js_scripts: contains ALL javascripts
  - volc2Param_<volcano>.js: ex. volc2Param_baker.js
    - The most important javascript code in the directory. Contains variables that make the webpage unique.
  - volc2.js
    - Modified version of req2.js. Changes include loading a catalog file, and making provisions for cross-sections, depth-time plots, etc.
  - xsec.js
    - Code for generating cross-section, time-depth plot and cumulative energy plot.

- volcCalStuff.js
  - Deals with dates in search function.
- gmaps.polygon.containsLatLng.js: extends google map api to look for points within a polygon. Used by xsec.js.
- flotr: directory for plotting javascript schemes. Contains examples or google "flotr".
- JSCal2-1.7: directory containing javascript for fancy calendar. Also taken from elsewhere.
- prototype-1.6.0.2.js: utility code (used in volc2 for ajax calls...I think).
- scriptaculous.js: don't know what it does, carried over from req2.
- effects.js: don't know what it does, carried over from req2.
- NOTE:The webicorder codes are sourced from the better webicorders directory. This is intentional so that changes in plotStation.js are automatically reflected in volc2.

Creating a new volcano page

1. Copy /spikehome/HTML/SEIS/PNSN/volc2/index.html to another filename in the same directory
2. Edit the following parameters:
   - Change parameter filename to expected filename (line 29)
   - Change Volcano Name (line 40, look for div id="header")
   - Change Help text (probably best done last)
3. Copy /spikehome/HTML/SEIS/PNSN/volc2/js_scripts/volc2Param_baker.js to another filename in the same direcotry
4. Edit the following parameters:
   - mapParam: map center and zoom level...set it to the edifice coordinates
   - eventXml20: relative path and xml filename with last 20 events (or earthquakes that are initially plotted)
   - eventXmlAll: relative path and xml filename with entire catalog
   - vdepth: boolean value to color depths of earthquakes in map view. 1 means a color scale appropriate for volcanoes, 0 means a color scale appropriate for regional earthquakes
   - corr: elevation correction to depths based on datum of velocity model. Currently, only msh has an elevation correction (1.8 km for S4)
5. Add sel and loc2xml.py commands to /stor/snaps/Scripts/makeCatalogWeb.csh to generate catalog files

To Do

- Better compatibility w/ IE (good luck). See something called enscript.js. I've never gotten it to work but supposedly that is the key. Including it when running the scripts in firefox results in a blank page. Must detect IE browser and use it only if IE.
- Flags for turning off search function during high traffic times or on mobile devices. Should also be flag to turn off 6 hour plots on pele. See better webicorders for 6 hour plots. Should be as easy as setting an additional variable in the param file and an if loop in the plotStations.js codes.
- Better handling of msh catalog. Needs to be split up into smaller chunks for quicker loading.
- Clean up code to remove unused variables.
- Add elevation profile. See getUSGSelev.js in the js_scripts directory. It's close but I'm too stupid to figure it out.
- Should be updated to the google maps api version 3. Evidently this is better for mobile devices. Shouldn't be terribly difficult, or terribly easy.