



# WRF Domain Wizard / HWRF

## A GUI for the WRF Preprocessing System

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# What is WRF Domain Wizard?

- The graphical user interface for WPS
- For HWRF users
  - Imports a storm from a TCVITALS file
  - Creates HWRF domain (following same logic as hwrfdomain.ksh script)
  - Writes information to namelist.wps
  - Run the WPS programs
- WDW Version 2.5 released on March 25, 2011
  - New release coming next week (May 2011)
  - Supports Linux (including Ubuntu now), AIX, Mac, Windows

# WRF Domain Wizard Technical Info -1

## ■ Software is written in Java

- Minimum (Java) JRE 1.5
  - JRE 1.6 recommended for best performance
  - Runs on local computer or remote computer
  - Uses SFTP/SSH-2 to connect to remote computers
  - Can be run “locally” on a remote computer with X display forwarding
  - Can be run from web page as a Java Web Start app or download .zip file and run from the command line
  - 390 MB of RAM, 1024 x 768 (or better) video display
- ## ■ Does not include WPS (must download/compile that separately)

# WRF Domain Wizard – How to Run

**Domain Wizard**

**WRF Domain Wizard**  
GUI for the WRF Preprocessor System (WPS) and namelist.input. Go here for [LAPS Version Version 2.50](#) for Linux, AIX, Mac, and Windows - released March 25, 2011

WRF Domain Wizard is the successor to the [WRFSI GUI](#) and is a graphical user interface (GUI) for the new [WRF](#) Preprocessing System ([WPS](#)). It enables users to easily define and localize domains (cases) by selecting a region of the Earth and choosing a map projection. Users can also define nests using the nests editor, edit namelist.input, run the WPS programs (geogrid, ungrib, and metgrid) through the GUI, and visualize the NetCDF output. WRF Domain Wizard is also a built-in component of [WRF Portal](#). WRF Domain Wizard stores its information in namelist.wps, namelist.input (and nest7grid.parms for LAPS users).

WRF Domain Wizard can be run as a stand-alone application or it can be run from inside the [WRF Portal](#) application. There are two ways to launch the standalone version of WRF Domain Wizard: by downloading the application and unzipping it, or by launching it with Java Web Start. The advantages of running the Java Web Start version include being able to run it without doing an installation, and automatically receiving program updates. Having trouble running Domain Wizard? Please read the [FAQ](#) or [troubleshooting tips](#).

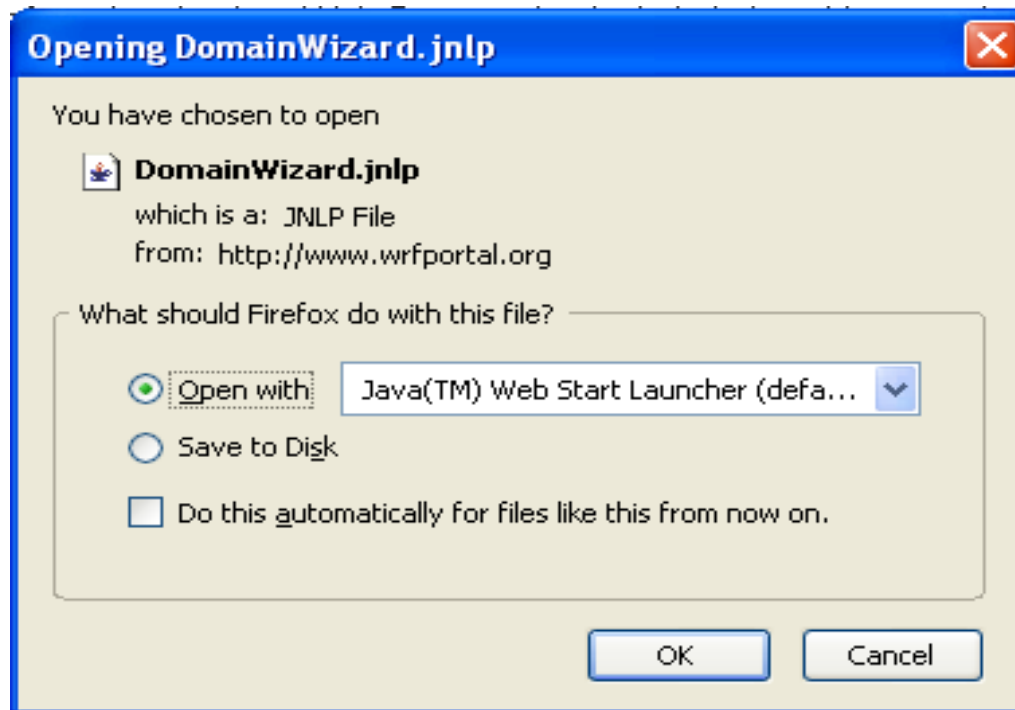
Source Code is available [here](#). Looking for the special version for LEAD? Go [here](#).  
What's [new in version 2.50](#)

**Run WRF Domain Wizard using Java Web Start**

[Click here to launch WRF Domain Wizard version 2.50](#)  
Requires Java 5 or later (go [here](#) if you can only run Java 1.4).

# WRF Domain Wizard – How to Run

- Run using Java Web Start



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# WRF Domain Wizard – How to Run

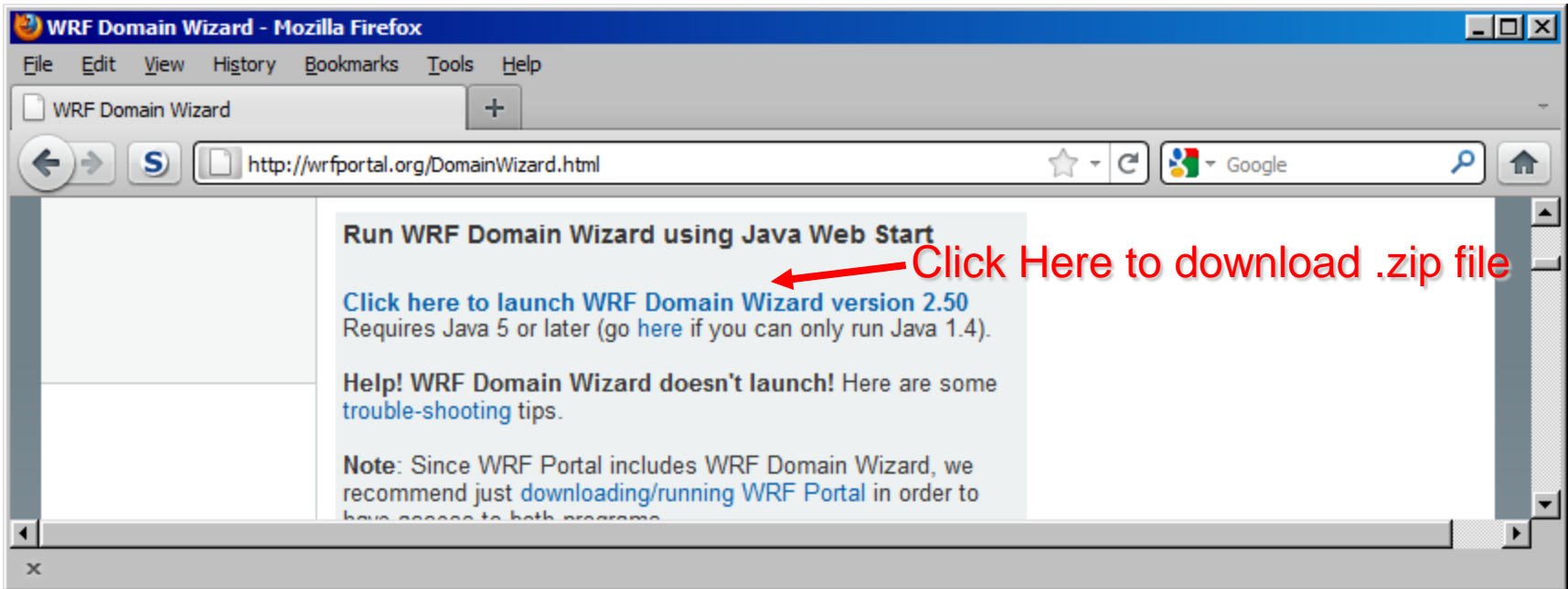
- Run using Java Web Start



Trust us, we're the United States Government.



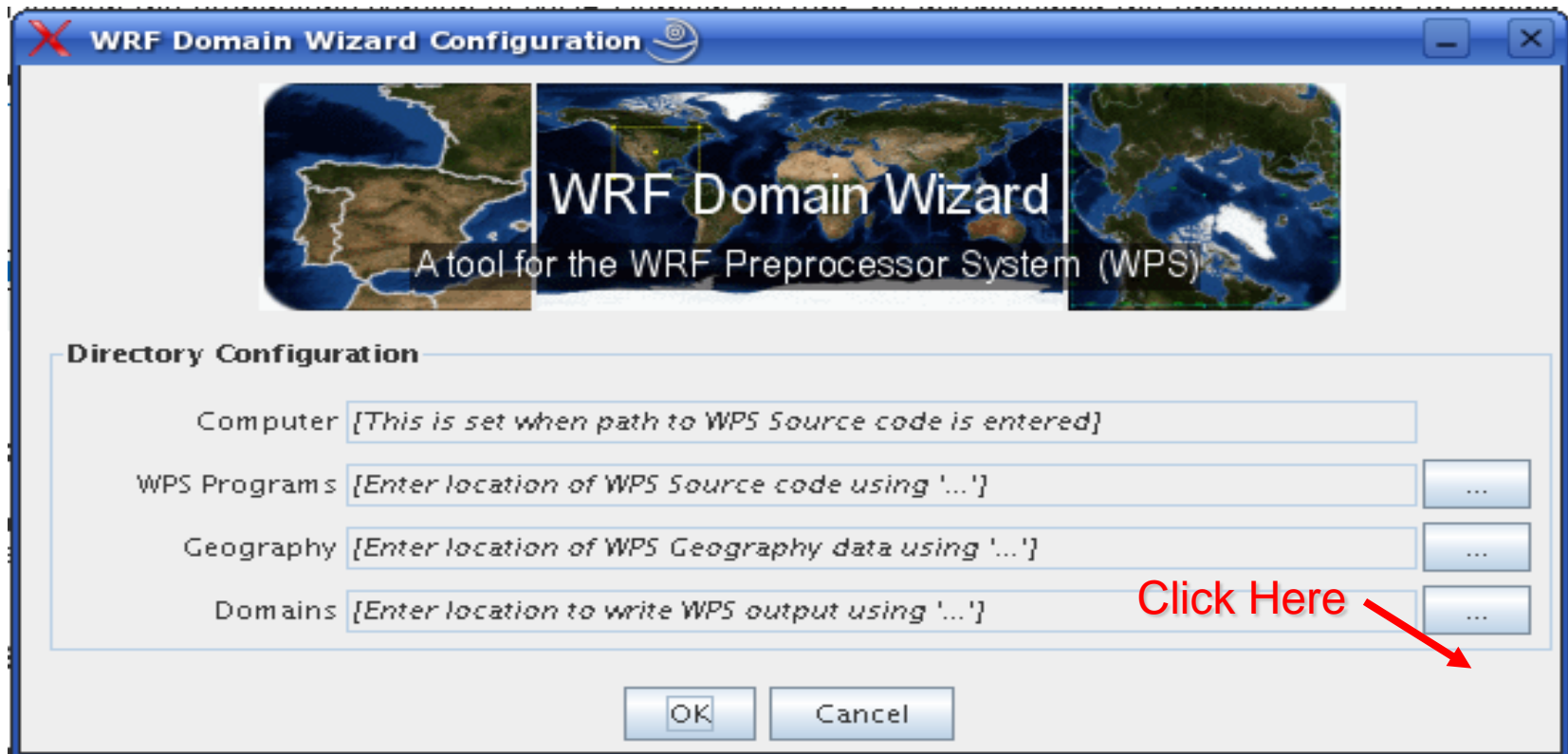
# WRF Domain Wizard – How to Run (from Zip)



- Download zip file from web link and run
  - Download the **WRFDomainWizard.zip** to e.g. c:\WRFDomainWizard or /home/WRFDomainWizard
  - Follow the instructions on the web page

# WRF Domain Wizard Configuration Window

- This window pops up when you start WDW

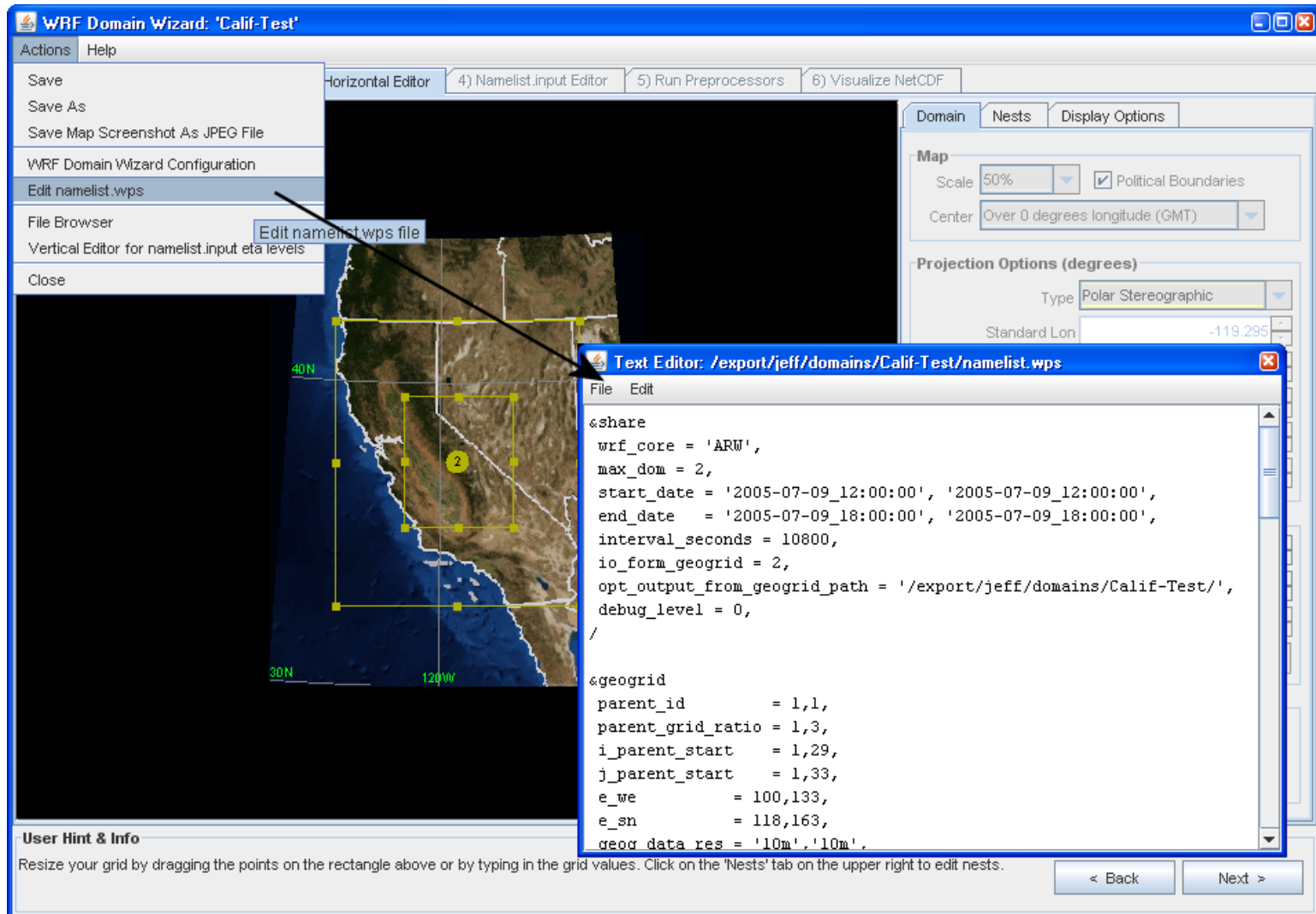


Video (flash) tutorial:

<http://wrfportal.org/tutorial-flash/tutorial-DW-HWRF.html>

# WRF Domain Wizard Tutorial -6

Can edit namelist.wps manually file in built-in text editor



The screenshot displays the WRF Domain Wizard interface for a configuration named 'Calif-Test'. The 'Actions' menu is open, highlighting 'Edit namelist.wps'. A text editor window is open, showing the following configuration for the 'share' section:

```
share
wrf_core = 'ARM',
max_dom = 2,
start_date = '2005-07-09_12:00:00', '2005-07-09_12:00:00',
end_date = '2005-07-09_18:00:00', '2005-07-09_18:00:00',
interval_seconds = 10800,
io_form_geogrid = 2,
opt_output_from_geogrid_path = '/export/jeff/domains/Calif-Test/',
debug_level = 0,
/

geogrid
parent_id = 1,1,
parent_grid_ratio = 1,3,
i_parent_start = 1,29,
j_parent_start = 1,33,
e_we = 100,133,
e_sn = 118,163,
geog_data_res = '10m','10m',
```

The interface also shows a map of California with a yellow rectangular domain boundary. The 'Map' panel on the right is set to 'Scale 50%' and 'Center Over 0 degrees longitude (GMT)'. The 'Projection Options' panel is set to 'Type Polar Stereographic' and 'Standard Lon -119.295'. A 'User Hint & Info' section at the bottom provides instructions on how to resize the grid.

# WRF Domain Wizard Support

- Web form for submitting bug reports or to ask questions:  
<http://wrfportal.org/RequestInfoOrBugReport.html>

The screenshot shows a Mozilla Firefox browser window with the address bar displaying <http://www.wrfportal.org/RequestInfoOrBugReport.html>. The page title is "Request Information or Submit Bug Report".

**Left Sidebar:**

- Home
- WRF Portal
- Domain Wizard
- Tutorials (HTML)
- Tutorials (Video)
- F.A.Q.
- About

**Main Form Fields:**

- Your Name:  \* required
- Your Email:  \* required
- Submission:
- Java version:
- OS:  (e.g. Windows, Linux, MacOS, etc.)
- Workflow Mgr:  (only applicable to WRF Portal)
- Batch System:  (only applicable to WRF Portal)
- Question or Bug Report:

**Footer:**

- Disclaimer
- Privacy Policy
- NOAA website
- ESRL website
- FSL website
- Accessibility statement

**Buttons:** Submit, Reset

**Important:** \* required. If this is a bug report, please include the error information from the console window (or Java Webstart window). This information is very helpful in determining the cause of the problem.

Link  
on  
About Page

# Tutorials on wrfportal.org

**WRF Portal - Demos / Tutorials**

File Edit View History Bookmarks Tools Help

http://wrfportal.org/flash-tutorial.html

WRF Portal - Demos / Tutorials

- Home
- WRF Portal
- Domain Wizard
- FIM Portal
- Tutorials (HTML)
- Tutorials (Video) ← **Tutorial Web Page**
- F.A.Q.
- About

**Quick Overview Videos**

- WRF Portal (133 seconds)
- WRF Domain Wizard (105 seconds)

**How To Launch Software**

[How to launch WRF Portal or WRF Domain Wizard from Firefox browser](#)

**WRF Portal Tutorials**

These Flash tutorials demonstrate how to use WRF Portal.

- 1) Portal Wizard (configures WRF Portal)
- 2) Define a workflow
- 3) Run a workflow, Diagnose and Fix Errors
- 4) Diff tool
- 5) Visualize NetCDF/GRIB output files (maps) in Panoply
- 6) Download Jan 2000 test data, and run real and wrf  
Note: if you get the fatal error "not enough info for a p sfc computation", add the following flag to the "domains" section of namelist.input:  
sfc\_to\_sfcp = .true.  
Note: if you get a seg fault fatal error from wrf.exe, try running "ulimit -s unlimited" from a startup script and then re-running WRF.
- 7) Run WRF Portal "locally" on a remote machine using X forwarding  
You might do this if WRF Portal's built-in SSH support doesn't work with the token card security of the computer that WRF is installed on.
- 8) How to determine which run date to use (using File Browser and Julian Day Calc Tool)
- 9) How to create custom tasks (scripts), add them to a workflow, run them, view the log files and output.

**WRF Domain Wizard Tutorials**

These Flash tutorials demonstrate how to use WRF Domain Wizard.

**>>NEW VIDEO>>** [Domain Wizard 2.00 In A Nutshell](#) (installing, configuring, creating domain, running WPS, visualizing NetCDF output)

- 1) Configuring WRF Domain Wizard

**About The Tutorial Videos**

These video tutorials require the Macromedia Flash player in order to run. If the Flash plugin isn't already part of your browser, you can download it from [here](#).

Most of the videos are reasonably small (around 2-3 Mb in size) and run a few minutes long.

NOAA  
Disclaimer  
Privacy Policy  
NOAA website  
ESRL website  
GSD website  
Accessibility statement

Done



# Thank you!

You can contact me at [wrfportal.org](http://wrfportal.org)  
[jeff.s.smith@noaa.gov](mailto:jeff.s.smith@noaa.gov)