

# NOAA Modeling GUI Tools

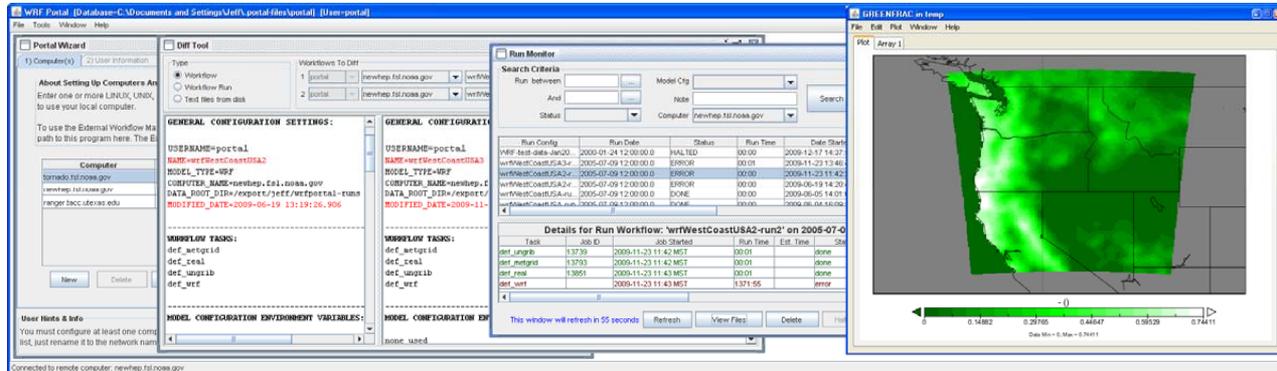
Helping achieve NOAA's Mission Goal:  
"Serve Society's Needs for Weather and Water Information"

Presented by Jeff Smith

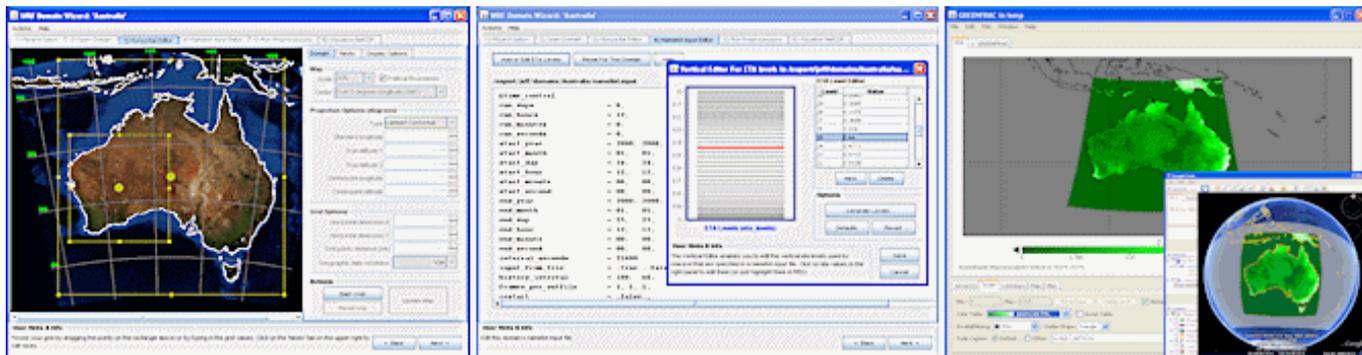


# Portal and Domain Wizard

**WRF/FIM Portal** – graphical user interface (GUI) that guides you through the entire process of running WRF or FIM: setting up environment variables, creating and running workflows, launching jobs and monitoring the progress of your runs, diff'ing workflows and files, visualizing output.



**WRF Domain Wizard** – GUI for the WRF Preprocessing System (WPS). Define a domain by selecting a region of the Earth, choose a map projection and grid dimensions, add nests, edit namelist.input, run the WPS programs, and visualize the resulting NetCDF output.



# Portal Ensemble Support

- Portal excels in managing large and complicated workflows, like ensembles (e.g. 294 tasks and 49,000 lines of XML)
- Portal allows users to see, in one screen, all the information about what tasks completed in how long and in what order, without having to parse thousands of lines of output for errors

Run Config	Run Date	Status	Run Time	Date Started	Elapsed Time	Model
FIM8_ens_from_por...	2008-07-07 00:00:00.0	RUNNING	00:27			FIM8_ens

Details for Run Workflow: 'FIM8\_ens\_from\_portal' on 2008-07-07 00:00:00.0

Task	Job ID	Job Started	Run Time	Est. Time	Status
batchTemplate-prep-ksh17	8197056	2010-01-13 19:58 GMT	00:01		done
batchTemplate-prep-ksh18	8197057	2010-01-13 19:58 GMT	00:01		done
batchTemplate-prep-ksh19	8197058	2010-01-13 19:58 GMT	00:01		done
batchTemplate-fim-EM	8197098				waiting to run
batchTemplate-fim-ksh0	8197069	2010-01-13 20:01 GMT	00:02		done
batchTemplate-fim-ksh1	8197070	2010-01-13 20:01 GMT	00:02		done
batchTemplate-fim-ksh2	8197071	2010-01-13 20:04 GMT	00:00		running
batchTemplate-fim-ksh3	8197072	2010-01-13 20:04 GMT	00:00		running
batchTemplate-fim-ksh4	8197073				waiting to run
batchTemplate-fim-ksh5	8197074				waiting to run

This window will refresh in 45 seconds

## Collaborations

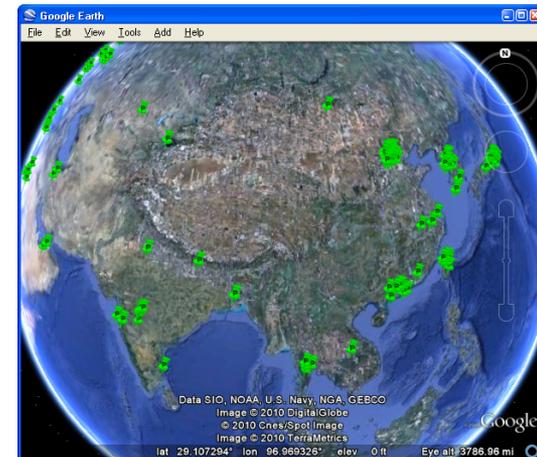
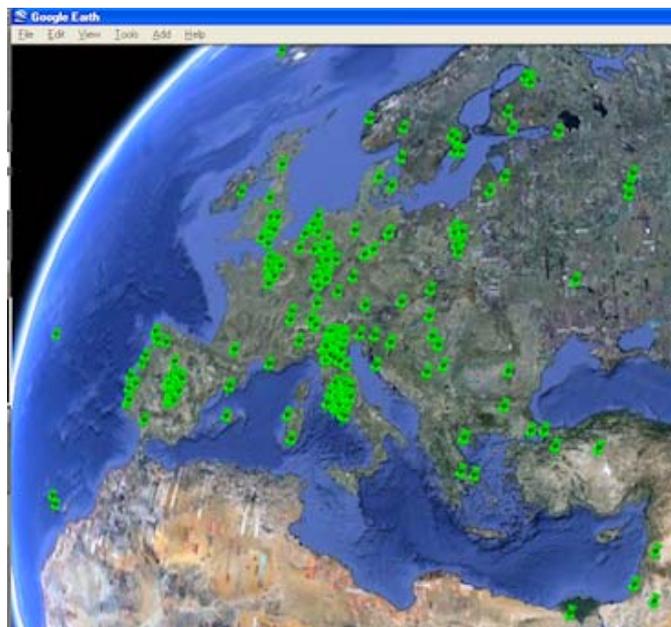
- National Center for Atmospheric Research (NCAR) – developed WRF Domain Wizard in consultation with the WRF development team and we continue to give talks at the NCAR WRF workshops
- Developmental Testbed Center (DTC)
  - 2007, 13-km WRF Dynamic Core Test Report
  - 2009, Hurricane WRF (HWRF) support
- Linked Environments for Atmospheric Research (LEAD) development of a special version of WRF Domain Wizard for the NSF funded LEAD portal
- Geo Targeted Alert System (GTAS) project – added support for GLAPS domains

## Who uses the software?

- Our users are spread across the globe and they come from academia, government and private industry

## Estimated Worldwide Users of This Software

Software	Est. Users	Countries	Google Earth
WRF Portal	964	66	<a href="#">open in Google Earth</a>
WRF Domain Wizard	1472	69	<a href="#">open in Google Earth</a>
Ext. Workflow Mgr	74	18	<a href="#">open in Google Earth</a>



# A Few Of Our Users

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Indiana University

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University of Hawaii

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University of Alaska Fairbanks

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Nagoya University (Japan)

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University of Montana

**Ravan Ahmadov**  
Chemical Sciences Division  
Earth System Research Lab

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Center for Global and Regional Environmental  
Research  
University of Iowa

**Chris Thomas**  
Geoscience Australia (Australian Government)

**Varun Bhatt**  
Indian Institute of Technology at Kanpur

**Brad Evans**  
School of Environmental Science  
Murdoch University, Australia

**Seung Min Oh**  
Dept of Environmental Science and Engineering  
Ewha Womans University (Korea)

**Remi Montroty**  
Meteo France

**Portal Demo**  
**WRF Domain Wizard Demo**