

NOAA Modeling GUI Tools

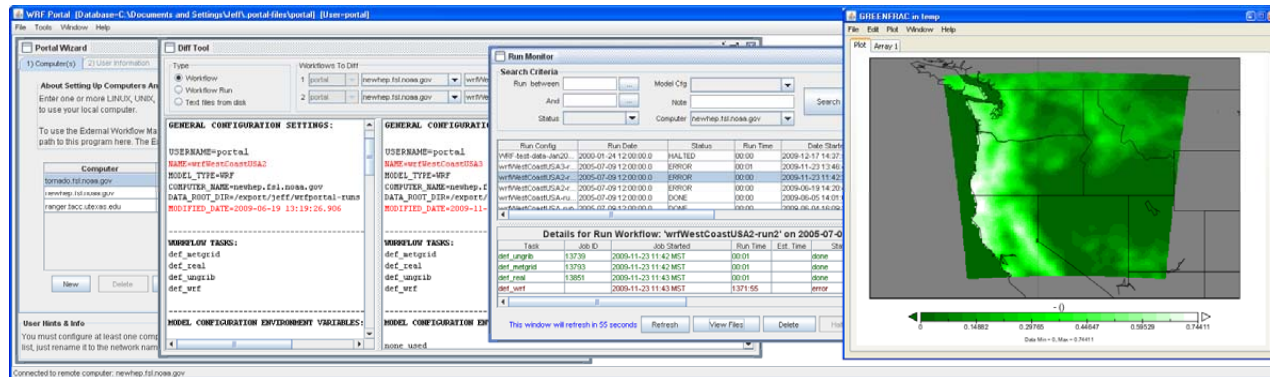
Helping achieve NOAA's Mission Goal:
"Serve Society's Needs for Weather and Water Information"

Presented by Jeff Smith

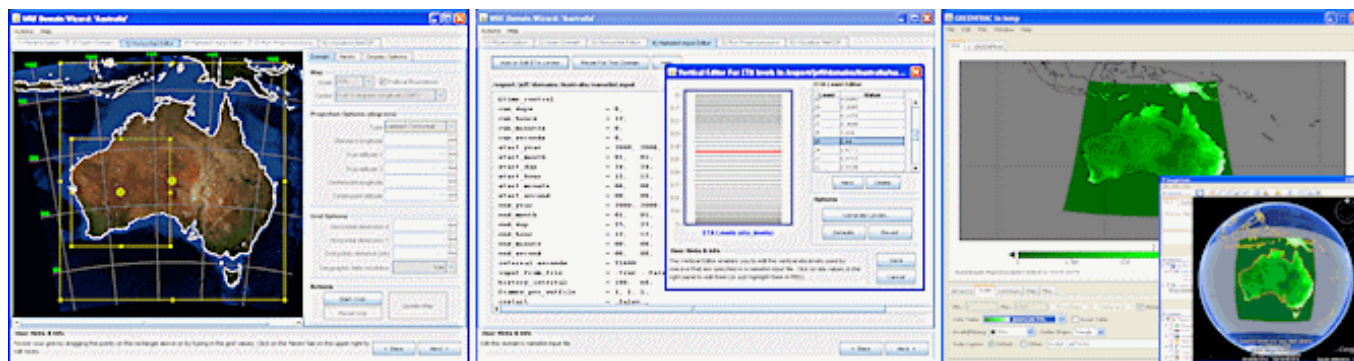


Portal and Domain Wizard

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

Refresh View Files Delete Halt Run Close

Collaborations

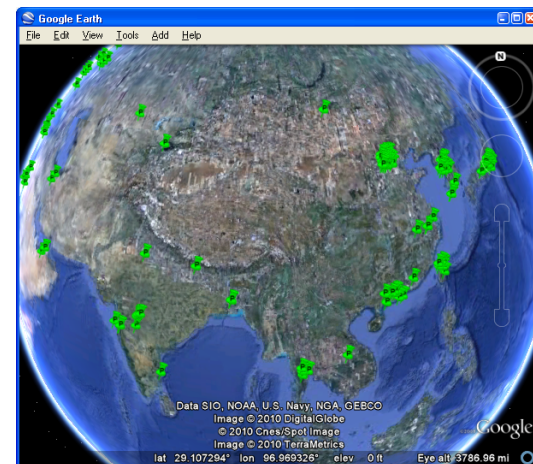
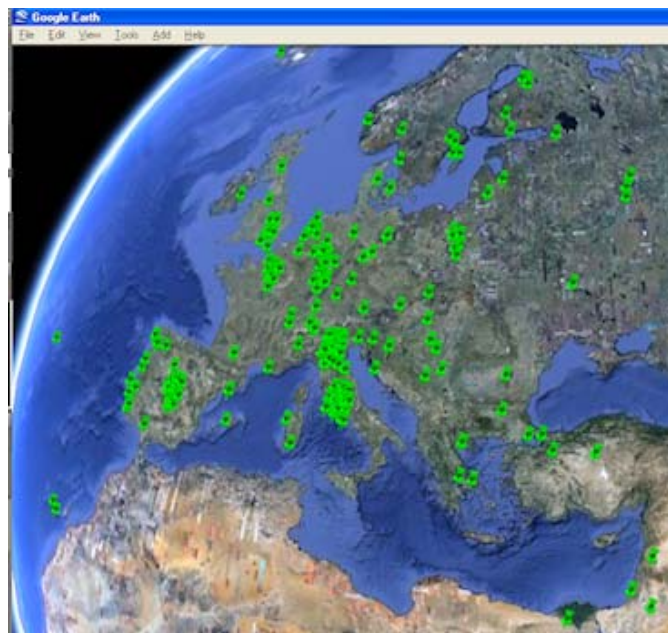
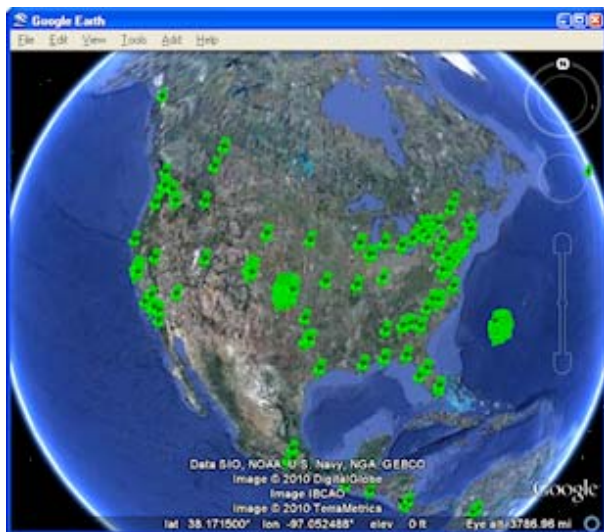
- National Center for Atmospheric Research (NCAR) – developed WRF Domain Wizard in consultation with the WRF development team and we continue to give talks at the NCAR WRF workshops
- Developmental Testbed Center (DTC)
 - 2007, 13-km WRF Dynamic Core Test Report
 - 2009, Hurricane WRF (HWRF) support
- 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	open in Google Earth
WRF Domain Wizard	1472	69	open in Google Earth
Ext. Workflow Mgr	74	18	open in Google Earth



A Few Of Our Users

Stephen Shaffer
Center for Environmental Fluid Dynamics
Arizona State University

Ashish Bhangale
Computer Science Department
Indiana University

Carmelo Borque
University of Zaragoza (Spain)

Sumit Puri
Department of Civil Engineering
University of Nevada Las Vegas

Le Van Thien
Department of Meteorology
University of Hawaii

Don Morton
Arctic Region Supercomputing Center
University of Alaska Fairbanks

Jason P Evans
Climate Change Research Centre
University of New South Wales, Australia

Nakako Kobayashi
Graduate School of Environmental Studies
Nagoya University (Japan)

Michael Culp
Department of Computer Science
University of Montana

Ravan Ahmadov
Chemical Sciences Division
Earth System Research Lab

Pallavi Marrapu
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