USER SUPPORT UPDATE

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# WRF & MPAS-A Support Forum Information

- **Questions for WPS, WRF, MPAS-A, WRFDA, WRF-Chem**
- **Announcements from us**
- **Bug Reports**
- **Code Contribution/Development**
- **(WRF/WPS) FAQ**
- **Job/Position Opportunities, Conferences/Meetings**
- **Forum Feedback**

## WRF Support Topics
- **WRF Modes**: 127 topics, 588 posts
  - Res: geopgrid axe error by clicking09, Sat Jun 01, 2019 8:07 am
  - Res: negative land ice on snow component by Arin, Wed Feb 20, 2019 7:54 am
- **WRF Preprocessing**: 373 topics, 1659 posts
  - Res: cannot load data on snow component by Arin, Wed Feb 20, 2019 7:54 am
  - Can we use cross-section views by Yehang Qie, Mon Jun 03, 2019 7:18 am

## MPAS Support Topics
- **Compiling/Installation**: 18 topics, 46 posts
  - Res: WRFDA compilation problem by thebaker08, Mon Jun 03, 2019 2:25 am
  - Res: How to prepare a set of a... by Abner, Mon Feb 18, 2019 10:22 am
- **DA Algorithms**: 2 topics, 7 posts
  - Res: related to generate omis... by thebaker08, Mon Jun 03, 2019 2:43 am
  - Res: How to prepare a set of a... by Abner, Mon Feb 18, 2019 10:22 am

## MPAS-Atmosphere Support
- **Gas Chemistry and IOP**: 28 topics, 55 posts
  - Res: related to generate omis... by thebaker08, Mon Jun 03, 2019 2:43 am
- **Compilation/Installation**: 5 topics, 30 posts
  - Res: Compilation error by Jeakins01, Mon May 27, 2019 3:05 am
  - Res: new variable to mpa... by Jeakins01, Sun Aug 26, 2018 1:02 am

## MPA-Atmosphere Support
- **Running**: 23 topics, 101 posts
  - Res: new variable to mpa... by Jeakins01, Sun Aug 26, 2018 1:02 am
  - Res: related to generate omis... by thebaker08, Mon Jun 03, 2019 2:43 am

http://forum.mmm.ucar.edu/
FORUM UPDATE (OCT – CURRENT)

- Total User Posts: ~1900
- Total Topics: ~775
- Total Members: 1598
- Increase in user contribution to support
- Forum provides users with related, previously-answered questions (50+ topics)
- 54% decrease in monthly average number of questions (WRF/WPS only)
  - From ~350 inquiries/mo to ~160 inquiries/mo
  - Related to searchability? Public platform encourages users to think/search harder before asking?
WRF/MPAS-A SUPPORT FORUM: BEST PRACTICES

- Before posting, search for related topics to see if the question has previously been answered/resolved
- Post separate topics for separate questions
- Provide model version, and attach namelists, simulation log files (e.g., rsl.out.0000 and rsl.error.0000), and any other helpful/relevant files when posting an inquiry
  - Cloud server for large files
- Post any issue related to using the model on the Forum (not on GitHub)
Any questions, comments or suggestions?

If you have utilized the forum, do you have feedback to provide?
CODE REPOSITORIES ON GITHUB

- MPAS already public on GitHub
- WRF (including DA, Chem and WPS) became public on GitHub last fall
- Code releases done through GitHub
## RELEASE STRATEGY - WRF

- **Major releases once a year**
  - Includes all new development, modifications, & improvements since previous major release
  - Includes all bug-fixes since previous release (likely a bug-fix release)

- **Bug-fix releases multiple times a year**
  - Will be released when enough bug fixes are applied, or if a major bug fix is found/corrected
  - ONLY includes bug-fixes
  - Not necessary to update your code unless the new bug fixes are specific to your application
RELEASE STRATEGY - MPAS

**Major releases**
- No fixed schedule
- Contains new features
- Coordinated with other collaborators

**Bug-fix releases**
- No fixed schedule
- Soon after bug fixes become available
OBTAINING CODE FROM GITHUB

*No GitHub account necessary*

- tar files available from GitHub Release page
  - Located under release notes for that version

- Clone (making a local copy) code from GitHub
  - Will need to have ‘git’ on your system
  - We do not support code on development branch
  - Cloned code allows one to see history of commits
  - Must be used for code development and contributions
GITHUB SUPPORT RESOURCES

- Links to GitHub Release Pages (includes release notes):
  - WRF: [https://github.com/wrf-model/WRF/releases](https://github.com/wrf-model/WRF/releases)
  - WPS: [https://github.com/wrf-model/WPS/releases](https://github.com/wrf-model/WPS/releases)
  - MPAS: [https://github.com/MPAS-Dev/MPAS-Model/releases](https://github.com/MPAS-Dev/MPAS-Model/releases)

  - Known Problems
  - Documentation/Websites (Users’ Guide, Online Tutorial, Tech Note, Best Practices, etc.)
  - Useful Git resources

  - Users Mailing Lists
  - Useful Git Resources
Do you have suggestions for improvement for either the forum or the release process for GitHub?

Do you have feedback on more frequent releases for WRF?

Any other comments, suggestions?
WRF & MPAS CODE CONTRIBUTION REQUIREMENTS

i) Code must adhere to stated coding standards

ii) Code must be thoroughly tested by developer

iii) Code must be offered through a GitHub pull request (PR)

iv) Developers are responsible for supporting their contributed codes

v) New physics: Review by WRF Physics Review Panel

vi) Documentation required for accepted code

Information for Code Contributors:
http://www2.mmm.ucar.edu/wrf/users/contrib_info.php
COMMON PHYSICS DEVELOPMENT EFFORTS

• WRF and MPAS have shared physics set under development: MPAS mesoscale reference suite/WRF tropical suite

• Common Physics Framework (CPF)
  – CPF: NCAR-developed capability to enable physics package use across models
  – CPF based on Community Common Physics Package (CCPP), a NOAA-led effort
  – CPF would support full physics sharing between WRF and MPAS and would be part of SIMA (System for Integrated Modeling of the Atmosphere)
PHYSICS DEVELOPMENT QUESTIONS
PHYSICS DEVELOPMENT

• Community thoughts on physics suites?

  – Currently 2 official WRF suites:
    Convection-permitting
    Tropical

  – Any groups contemplating offering and supporting new suites?

• Common Physics Framework (CPF)

  – Beside the current suites, what physics packages in particular should be made CPF compliant?