Title: A Java-based GUI to drive the Atmospheric Model Evaluation Tool (AMET)

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Abstract: The Atmospheric Model Evaluation Tool (AMET) was developed and first presented as a model evaluation option at the 4th Annual CMAS conference in 2005. Since that time, AMET has evolved with periodic version updates, and more recently the distribution of new releases and more frequent bug fixes via Git-Hub (https://github.com/USEPA/AMET). A new version of AMET, version 1.5, was released in July of 2022. In a recent effort to make AMET more user friendly, the US EPA has been developing a Java-based Graphical User Interface (GUI) to broaden the analysis capabilities that are currently performed using Unix *C shell* scripts. The GUI essentially provides all the query criteria and analysis options in a single unified interface.

The AMET GUI has been released to the community as an add-on tool to AMET v1.5 (develop branch). A GUI has some advantages in terms of ease of use, cross-platform compatibility, and minimal learning curve. The AMET GUI adds point-and-click ability to select datasets/projects, refine query criteria (e.g., dates, networks, levels, species) and execute any of the available analysis. Also added to AMET v1.5 and the new GUI, are methods to run the evaluation of a meteorological model in batch mode with some commonly used options. Among these options are running relevant analyses for months, seasons, climate regions, states, observation networks, etc. These methods can be expanded to develop a model evaluation protocol for modeling groups. The GUI provides a more centralized (and therefore perhaps more user-friendly) approach to analyzing meteorology and air quality models. This poster presentation will cover aspects of the GUI operation and installation along with a live demonstration to provide potential users with more clarity on the operation and benefits of this new tool.