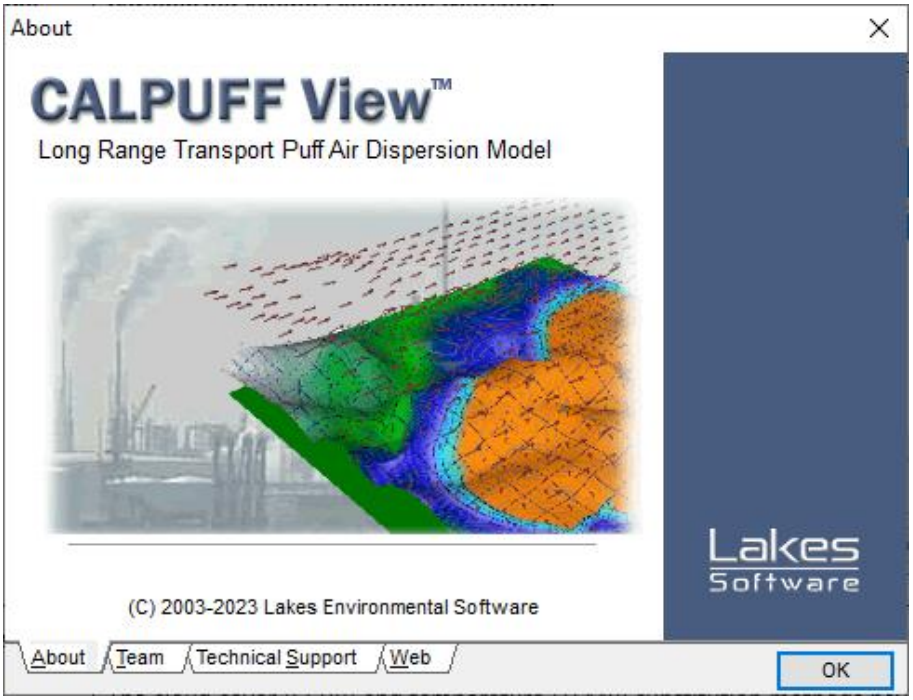
CALPUFF View™

Puff Air Dispersion Model – CALPUFF

Release Notes

Version 10.0



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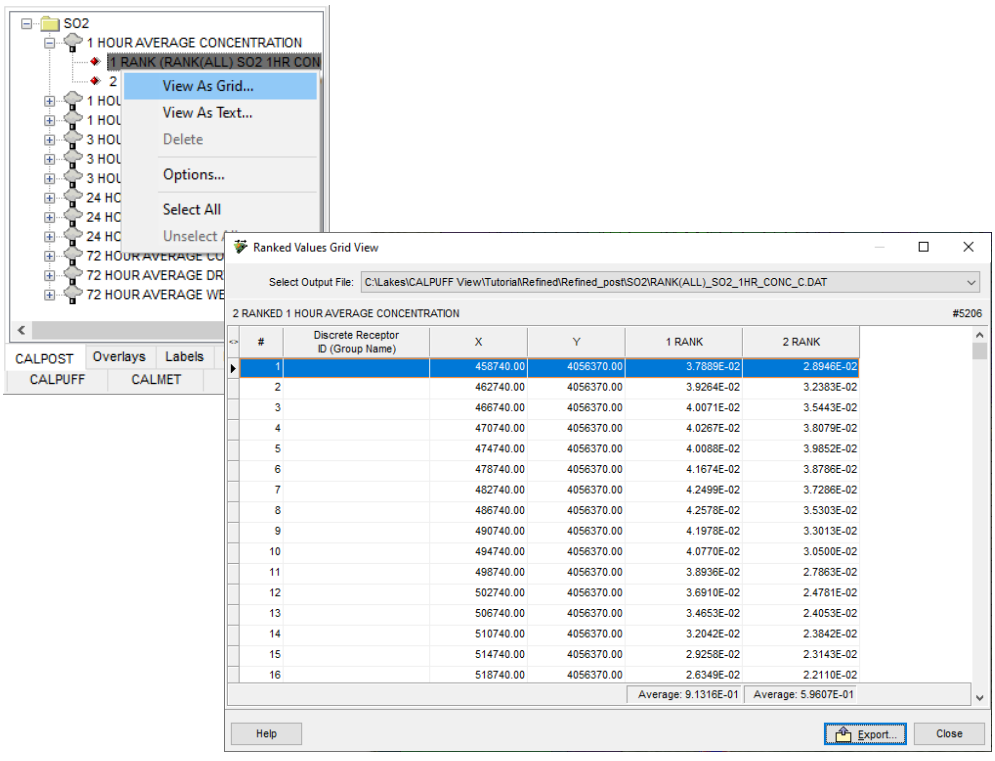
CALPUFF View™ Version 10.0

Release Notes

September 8, 2023

New Features

Topic	Feature Description
CALPOST	**New Ranked Values Grid View Table** A new output display option has been added to CALPUFF View to help modelers more easily review and export Ranked Values data from their CALPUFF projects. This output is enabled via the **CALPOST | Ranked Values** settings and is the same data used to generate contour plots in the main display. Accessible via the **CALPOST Tree View**, right-clicking on any plot name now provides the **View As Grid…** context menu option. Selecting this will open the Ranked Values Grid View. Tables can be exported to CSV format for further external analysis. 

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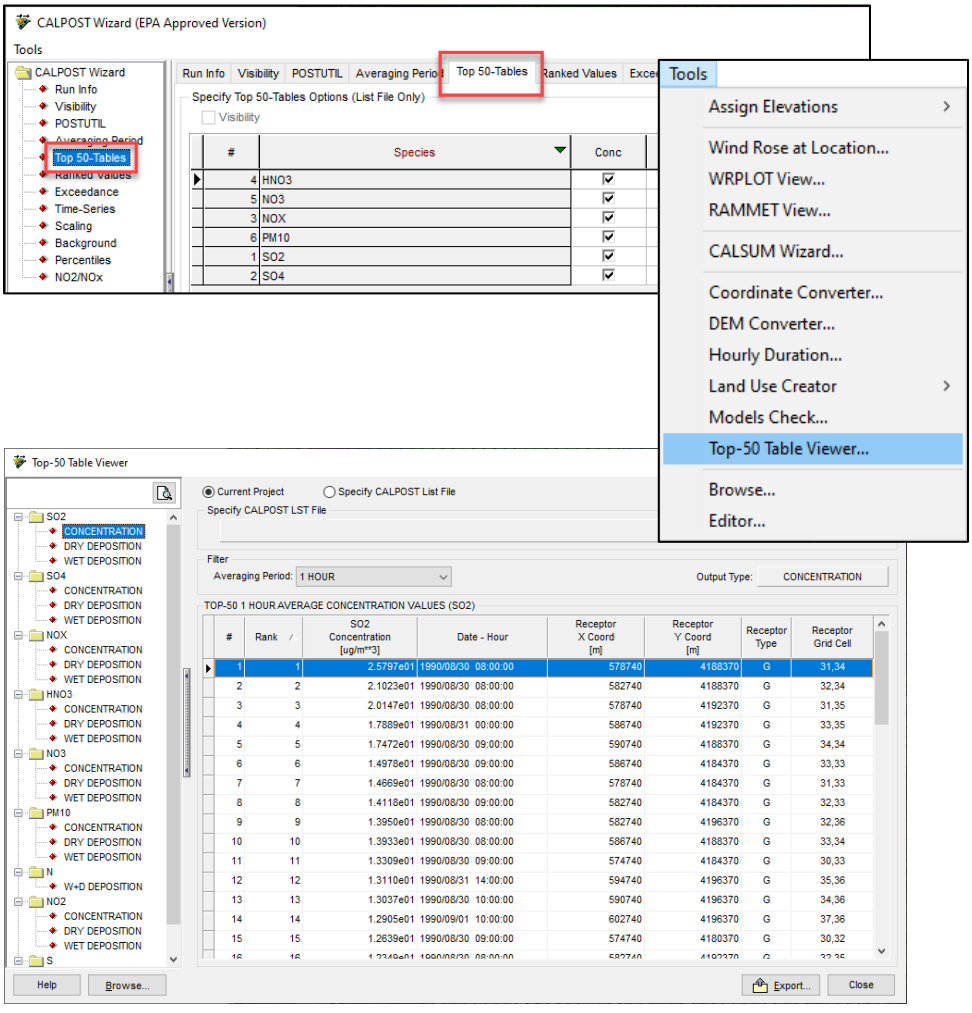
Topic	Feature Description
CALPOST	**New Top-50 Table Viewer** A new table display is available via the **Tools** menu for viewing data produced using the **CALPOST | Top 50 Tables** settings. Data is shown for all available species and processes in the current project with Top 50 output. The viewer contains an export to CSV option. This tool can also be used for externally generated CALPOST list files (*.LST) via the "Specify CALPOST List File" option. 

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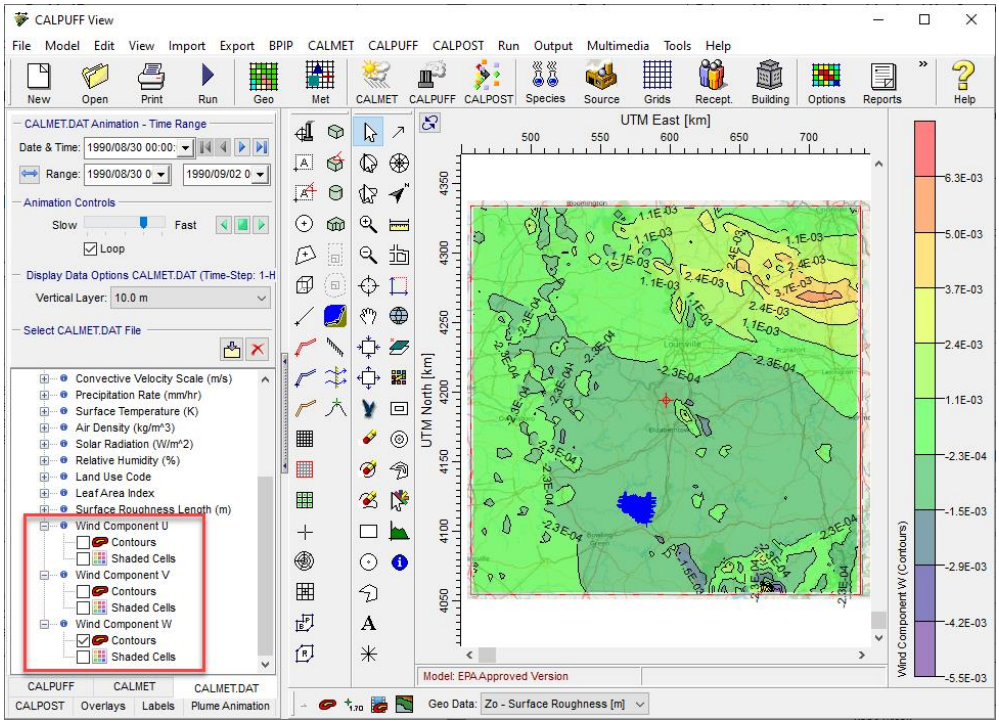
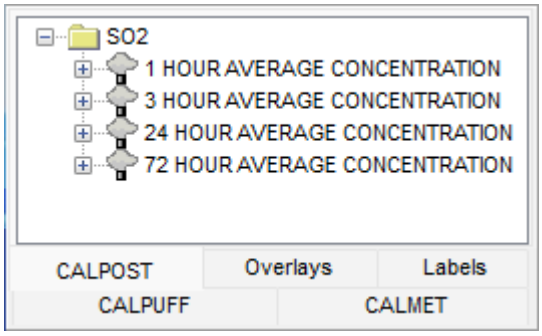
Topic	Feature Description
CALMET.DAT Tree View	**New Display Options – Individual Wind Components** When plotting meteorological variables from the CALMET.DAT Tree View, modelers can now display the **U, V, & W** components of the wind. Data can be plotted as Contours or Shaded Cells. 
CALPOST Tree View	**CALPOST Plot Files Order** The order of CALPOST plot files (displayed in the CALPOST Tree View) has been updated so that they are listed in order of ascending averaging period. 

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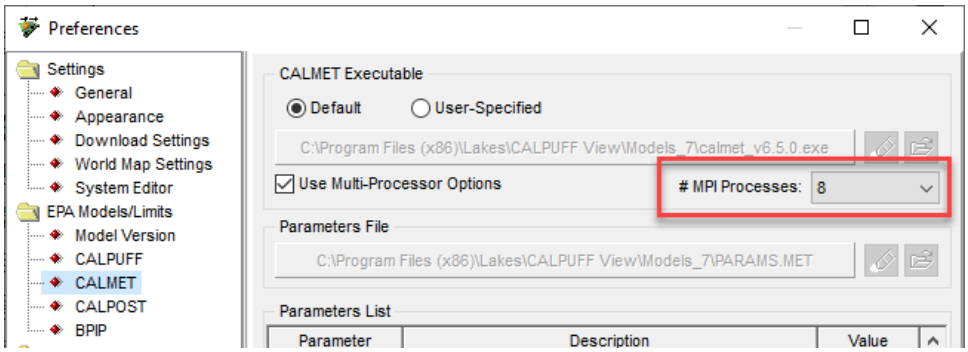
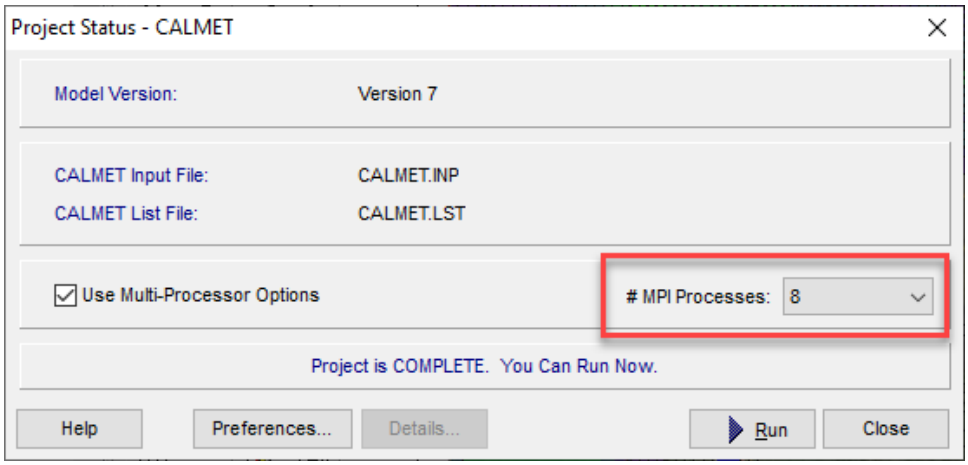
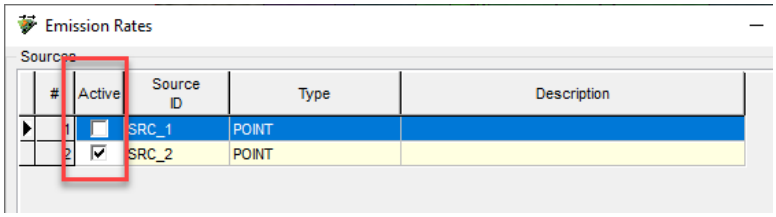
Topic	Feature Description
CALMET	**Processor Selection for Multi-Processor Runs** Modelers can now select the exact number of processors to be used when executing CALMET with the "Use Multi-Processor Options" selection enabled. Selection can be made from the **Preferences** menu or directly in the **Project Status** dialog prior to execution.  
Emission Rates	**Active Source Status Column Enabled** In the **Emission Rates** dialog, the **Active** source status column is now a selectable field allowing users to activate or deactivate sources directly. Previously, this column only reflected the status of the source as set on the **Source Inputs** dialog. 

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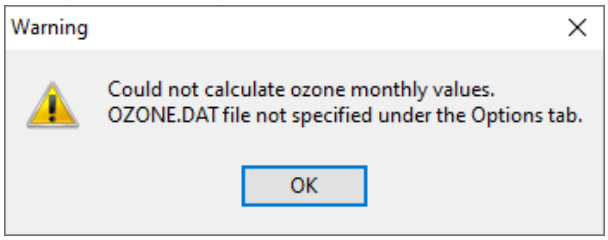
Topic	Feature Description
CALPUFF	**Calculated Monthly Ozone Checks Applied** In the **Chemical Transformation** settings, additional QA checks have been added to the **Calculate from Ozone File** option in the Monthly O3 tab including: • Disabling the button if the option to include an external OZONE.DAT file is not included on the Options tab, and • Issuing a warning message if the button is clicked without an OZONE.DAT file being input. 
Sources	**Polygon Area Import Support** CALPUFF View has supported the unique Polygonal Area Source type for many years, but the CALPUFF model only supports area sources with a maximum of four vertices. The application works by breaking up large area sources with unlimited vertices into smaller tetragons allowing the total area to be modeled. With this update, importing CALPUFF input files generated using CALPUFF View will automatically recombine the individual tetragons into its single polygon spanning the full area. For CALPUFF input files created outside of CALPUFF View, modelers can replicate the functionality by assigning a source ID prefix to all polygons that are meant to be combined (e.g., PREFIX_*n* where *n* is the polygon number).

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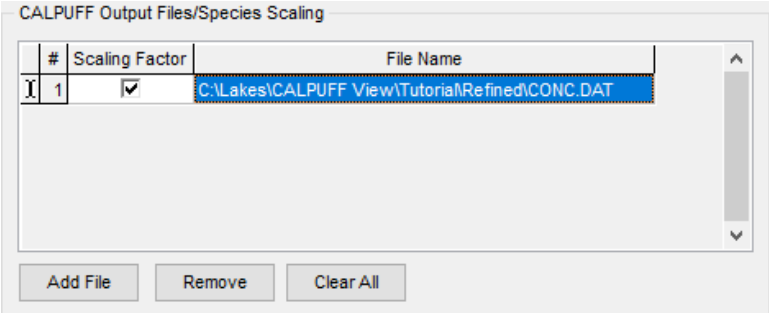
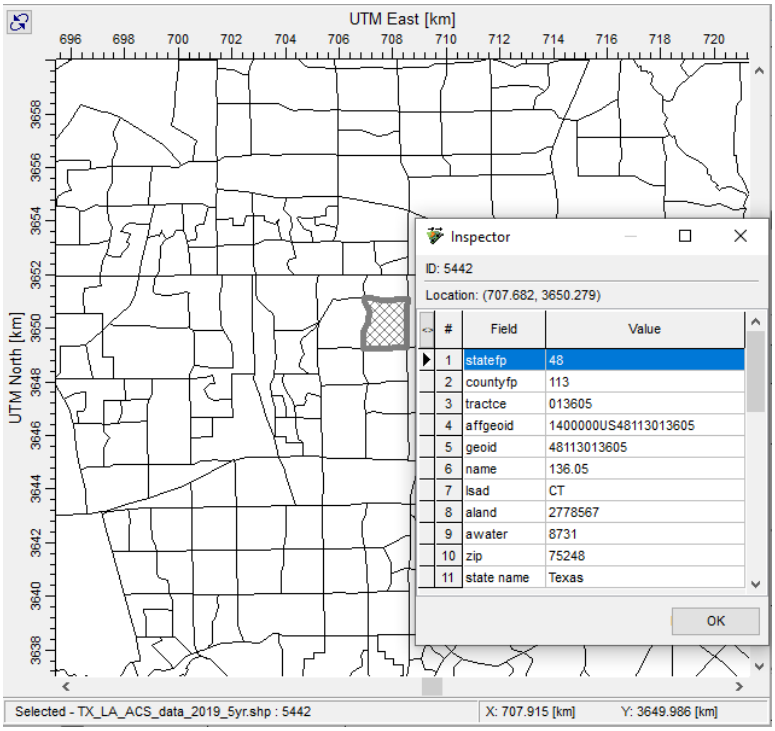
Topic	Feature Description
CALSUM Wizard	**Updated Column Display** When defining model output files to input to the CALSUM Wizard, the File Name column can now be resized to support visualization of full project folder and file paths. The Scaling Factor and File Name columns have been flipped to allow this resizing behavior. 
Base Maps	**Large Shapefile Attribute Handling** Support for shapefiles with large file sizes and detailed attributes has been enhanced. Modelers can now interact and inspect all attributes of large files. 

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Tools	**Enhanced Shapefile Support for Land Use Creator** Several updates were made to better handle importation of shapefiles into the utility. These include: • Updated category mapping • Support for manually entering Land Use Codes when assigning codes for attribute values • Setting WGS-84 as the default datum
Met Processor	**Support for Updated Buoy Data File Format** An update was made to the **Overwater** tab to accept all data file formats output by the National Data Buoy Center (NDBC).
Project Status	**Updated Error Checking** Routines designed to locate errors in the project have been updated to better reflect the state of the project at the time the Run option is called. This includes removing erroneous messages and adding additional ones.
Project Backup	**Large File Support** The Project Backup utility was expanded to include 7-Zip packing & unpacking for projects larger than 2GB in size. The user will be prompted to install the 7-Zip file archiver application if they do not already have it.
Help	**Updated Web Links** Web links in the Help menu have been updated to reflect current URLs to the Lakes Environmental Software website.

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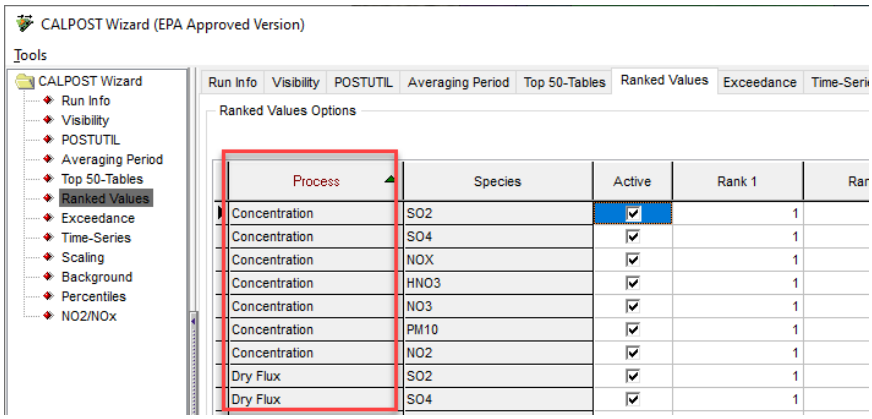
Fixed Issues

Topic	Issue Description
CALMET	**Multi-Processor Support for Version 7.3 (Beta) System** An issue was corrected that prevented users from utilizing the Multi-Processor option for CALMET runs conducted using the Version 7.3 (Beta) modeling system.
CALMET	**Anemometer Heights Fix** When editing individual anemometer heights in the Surface Met Stations dialog, heights would be reset to the default value (10m) each time the dialog was reopened. While this did not impact CALMET model runs, the issue has been addressed so that users do not have to re-enter the heights each time.
CALPOST	**Corrected Process Column** When selecting CALPOST options, the Process column (e.g., Concentration, Dry Flux, etc.) on some tabs had incorrect titles. This has been corrected to show the correct Process for each selection. 
CALPOST	**Time Series Leap Year Support** The CALPOST Wizard has been updated to correctly reflect all 366 days when specifying Time Series output. February 29th can now be selected from the Specify Days table for applicable years.
Reports	**Sensitive Receptor Reports Update** An update was made to ensure that results from all receptors flagged as 'Sensitive' appear in the Sensitive Receptors Summary Report.

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Known Issues

Topic	Issue Description
CALPOST	**Background Data Files Not Accepted in EPA-Approved Version** A bug in the model code prevents the EPA-Approved CALPOST model (Version 6.221, Level 080724) from reading hourly background data files (BACK.DAT). Code modification is necessary for the process to work correctly.
CALPUFF	**Buoyant Line Source with Variable Emission Factors Not Recognized** A bug in the CALPUFF model version 7.2.1 prevents the model from properly recognizing buoyant line source IDs when variable emission factors are included. The issue is addressed in CALPUFF 7.3.2.
CALPUFF	**Sub-Hourly External Source Files with Different Time Steps** CALPUFF model version 7.2.1 is unable to process external source files with different sub-hourly time steps.

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