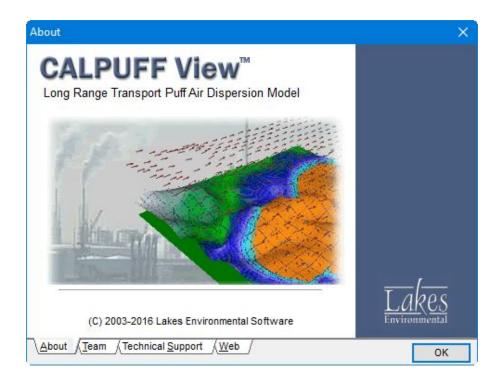
CALPUFF View™

Graphical Interface for the US EPA Approved Long Range Transport Model - CALPUFF

Release Notes

Version 8.0, 8.1, 8.2, 8.3, 8.4, and 8.5



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CALPUFF View[™] Version 8.5.0

Release Notes

March 17, 2017

-	ature Description		
CALPUFF Mul	Multi-Row Select and Apply Values		
rows	Apply button now works on user s instead of applying values to all o ude Emissions Wizard and Cher ne and ammonia tabs.	cells in a table. Updated sections	
	missions Wizard	— — X	
	od for Varying Emission Rates: nal Cycle V Type: Scaling Factor		
	Hour Value ∧ Value: 1 1 1 2.25 3 1 1 1 4 2.25 2.25 6 2.25 2.25 7 2.25 2.25 8 2.25 2.25 9 1 1 10 1 ✓		
	Help Cancel 🔇 Back	Next > Einish	



Торіс	Feature Description
Geo Processor	Updated NED Terrain Download Routines The process for downloading USGS National Elevation Dataset 1/3 arc- second (NED 1/3) and 1 arc-second (NED 1) data formats has been updated to reflect a name change implemented by USGS in their storage servers. The updated download includes updated tiles in some locations.
Land Use Color Ramp	Show / Hide Description Option The Land Use Color Ramp can now be directly modified from the context menu to show or hide the code description. Right-click the
	Color Ramp and select or de-select the Show Description option to show or hide the description.



Торіс	Feature Description		
Sources	Updated Captions for Line-Area and Line-Volume Sources		
	The group box captions for the Line-Area and Line-Volume source types were updated for consistency. All functionality remains the same as in prior versions.		
	LINE-AREA Source Parameters		
	Area Source		
	Initial Si		
	Desire		
	Total Line L		
	Haul Roads Area		
	AREA Sources Source ID Prefix		
Sources	Checks Against Model Version		
	Additional warnings were implemented to avoid errors caused by using source types with improper model versions. For example, the ROAD source type is only allowed in the Version 7 model.		
Site Domain	Updated Projection Support		
	Support for listed projections was updated to match settings in publicly-available model executables.		
	The Equatorial Mercator (EM), Polar Stereographic (PS), and Lambert Azimuthal Equal Area (LAZA) projections remain supported in the interface for projects utilizing user-specified model executables. The default model executables made available by the model developer will not support these, however. Appropriate warning messages have been added.		



Торіс	Issue Description
Export Puffs to Google Earth	Updated Puffs to Google Earth Tool The process for exporting puffs to Google Earth was updated to restore the Puffs Representation layer when the Puff Tracking modeled period was different from the CALPUFF start time. The updated puff generator also corrects an issue with Windows 8 and Windows 10 where old versions of Microsoft .NET were not installed by default. Creating Puff KML File Processing. Elapsed Time: 00:00:02 Remaining Time: 00:00:19
Met Preprocessor	Overwater Template File Added A missing overwater template file led to run failures when the Version 7 modeling system was used. The file has been added.
Sources	Deleting Polygon Area Source Vertices An issue was addressed which caused an error when deleting individual vertices from an individual polygon area source.
Receptors	Nested Grid Receptor Updates The Generate Receptors button in the Nested Grid window has been restored. In addition, the center receptor of the grid was not generated. This has been resolved.
CALSUM Utility	Import Existing CALSUM Input Files The utility was updated to import information more accurately from existing CALSUM input files.



CALPUFF View[™] Version 8.4.0

Release Notes

September 21, 2016

Торіс	Feature Description	
Tile Maps	New Map Server – Lakes Satellite	
	CALPUFF View now provides a new tile map server featuring aerial photography from satellite. This new Lakes Satellite map server has <u>more spatial coverage and higher resolution</u> than the previous MapQuest Satellite and MapQuest Aerial options that were previously available in CALPUFF View.	
	Select Import Tile Maps menu option to access this new option.	
	😱 import Tile Maps — 🗆 X	
	Server Settings Map Server: Lakes Satellite V New X	
	602 602.5 603 603.5 604 Lakes Satellite Add to List	
	<figure></figure>	



Торіс	Feature Description		
Tile Maps	New Map Server – Lakes Satellite – Cont.		
	Below you will see a comparison of the previous satellite map and the new higher resolution Lakes Satellite map.		
	<complex-block></complex-block>		
	Note: Due to the high acquisition and maintenance cost of the new satellite maps, Lakes Satellite Tile Maps service is only available to users with a current paid maintenance agreement. If your maintenance has expired, or you are not eligible for this map service, please contact our sales department at <u>sales@webLakes.com</u> to upgrade your license.		
Tile Maps	Open Street Map Optimization		
	The Open Street Map tile maps server was optimizing to allow for faster downloads. This option is only available for users in current maintenance.		

Торіс	Issue Description
Species & Deposition	Clarifications Applied to User-Specified Options
Deposition	The Species & Deposition options were updated to make it clearer when user-specified options could and could not be used. Species from the Species Library cannot be modified but user-defined species can.



CALPUFF View[™] Version 8.3.0

Release Notes

August 16, 2016

Торіс	Feature Description		
Models	Support for New EPA-Approved Models		
	CALPUFF View Version 8.3 now supports the new versions of CALPUFF and CALMET (Version 5.8.5, Level 151214) which were approved by the U.S. EPA.		
	The Models Check utility searches for the updated calpuff.exe , calmet.exe , params.puf , and params.met when verifying the EPA-Approved executables.		
	😼 Models Check — 🗆 🗙		
	Model Version: EPA Approved Version V CALMET 5.8.5, CALPUFF 5.8.5, CALPOST 6.221		
	Place Models EXE and Parameter files in "Models_EPA" folder 🗶 0 (1) 0 🗸 18 Total: 18		
	File Name Status Full Path Date Comment		
	CALMET.EXE C:\Program Files (x86)\Lakes\CALPUFF View\Mod 8/3/2016 OK		
	PARAMS.MET VC:\Program Files (x86)\Lakes\CALPUFF View\Modi 8/3/2016 OK (Version 5.8.5)		
	PARAMS.PUF C:\Program Files (x86)\Lakes\CALPUFF View\Modi 12/14/2015 OK (Version 5.8.5)		
	CALPUFF.EXE C:\Program Files (x86)\Lakes\CALPUFF View\Modi 12/9/2015 OK		
	CALPOSTL.EXE C:\Program Files (x86)\Lakes\CALPUFF View\Modi 7/24/2008 OK		
	PARAMSL.PST V C:\Program Files (x86)\Lakes\CALPUFF View\Modi 7/24/2008 OK (Version 6.221)		
	Help Z Download CALPUFF Model Check Again Close		
	Note: You must download the latest CALPUFF and CALMET model version 5.8.5 from the <u>Exponent web site</u> as the model executables are not included in the CALPUFF View installation.		
CALMET &	Order Met Data Button Added		
CALPUFF	Ø Order Met Data		
	A new button was added to the CALMET Modules & Stations and CALPUFF Met/Landuse menus which takes users directly to the Lakes Environmental website to order prognostic meteorological data (<u>https://www.weblakes.com/services/met_order.html</u>).		
	Order data from the WRF or MM5 prognostic models in either CALMET-ready or CALPUFF-ready formats.		



Торіс	Issue Descri	ption		
Tile Maps	Updated Map Server List			
	On July 11, 2016, MapQuest announced they were discontinuing access to their map servers. This policy change means that the MapQuest Streets MapQuest Satellite , and MapQuest Aerial tile maps are no longer available for display in our software and they have been removed from the list.			that the MapQuest Streets , tile maps are no longer
	The remaining tile map servers (OpenStreetMap, OpenCycleMap, and CloudMade Maps) all continue to operate normally.			
		mental will con ey become avail		and implement new mapping
Sources	Emissions S	caling by Tem	perature with	Version 7 Model
	The default categories for the temperature varying emissions method changed in the Version 7 modeling system. The table below details the new categories.			
	Category	Previous	Version 7	
	1	0 C	265 K	
	2	5 C	270 K	
	3	10 C	275 K	
	4	15 C	280 K	
	5	20 C	285 K	
	6	25 C	290 K	_
	7	30 C	295 K	_
	8	35 C	300 K	_
	9	45 C	305 K	_
	10	50 C	310 K	_
	11	55 C	315 K	_
	12	55+ C	315+ K	
Geophysical	Updated Land Use Properties			
Processor	for several ca		e accurately ma	KEGEO have been updated tch those specified in



CALPUFF View[™] Version 8.2.0

Release Notes

March 16, 2016

Торіс	Feature Description		
New Project Wizard	Selection of CALPOST Model Versions		
Wizaru	New checks were implemented to prevent the modeler from selecting a CALPOST model version not compatible with the selected CALPUFF mod version.		
	For example, CALPUFF model version 7 can only be used with CALPOST model version 7.		
	CALMET/CALPUFF Model Version CALPOST Model Version		
	Version: Version 7 Version: Version 7 (CALPOST 7.1.0) Version 7 (CALPOST 7.1.0)		
New Project Wizard	Auto-Download of Terrain Data Modified		
	With the availability of worldwide 30-m resolution terrain data in SRTM1 format, the New Project Wizard option to auto-download terrain data from WebGIS for locations outside the USA and Canada was modified to use SRTM1 data instead of SRTM3 data which has a resolution of ~90-m. For licenses out-of-maintenance, the SRTM3 terrain data will be downloaded instead.		
	Wew Project Wizard		
	Process Geophysical Data (Terrain & Land Use Maps)		
	Opwnload from webGIS.com Domain inside USA Search as lead load drive		
	Search on local hard drive Domain outside USA Run Geophysical Processor Automatically		
	Image: Comparison of Compar		
	Help Cancel & Back Next > Finish		



Торіс	Feature Description
Geophysical Processor	Keep Temporary DEM Files
Frocessor	When processing 15-minute CDED terrain data, CALPUFF View creates a series of temporary files in USGS DEM file format. An option has been added to the Advanced tab which allows the user to keep the temporary DEM files after processing.
	Map Files Met Grid Coastline Advanced Output Files
	Terrain Processing Options
	Echo Raw Elevation Data (LRAWECHO)
	Interpolate to Fill Cells with Missing Terrain Elevations
	Search Radius: 12.000 [km]
	No. of Grid Cells: 3
	Keep temporary DEM files after processing
_ • .•	
Projection	WGS-G Datum Added
	The WGS-G datum was restored to the datum drop-down menu for backwards compatibility with old datasets created using model versions that recognized WGS-G and not WGS-84.
Sources	Renaming of Source Types
	A few of the sources were renamed to better represent the source type. This renaming is only a label change and does not have any effect on the model results. See list of changes below:
	VOLUME LINE changed to LINE-VOLUME
	VOLUME AREA changed to LINE-AREA
	 POLYGONAL AREA changed to AREA-POLYGONAL
	RECTANGULAR AREA changed to AREA-RECTANGULAR
	CIRCULAR AREA changed to AREA-CIRCULAR
	CINCULAR AREA Changed to AREA-CIRCULAR



Торіс	Feature Description	
Sources	Line-Volume, Line-Area, and Road Source Options	
	The following options are now available when specifying Line-Volume, Line-Area, and Road Sources:	
	 Import/Export nodes from/to a CSV file 	
	Assign ground elevations	
	Sources – 🗆 🗙	
	Preview \$10 \$15 \$20 \$23 \$33 \$36 A A A A A A B	
	Image: Select X: 541.847 [km] Y: 3491.337 [km] Select X: 541.847 [km] Y: 3491.337 [km] Image: Select X: 541.847 [km] Y: 3491.347 [km] Image: Select X: 541.847 [km] Y: 3491.347 [km] Image: Select X: 541.847 [km] Y: 3491.347 [km] Image:	



Торіс	Feature Description
Sources	Haul Roads Calculator
	The Haul Roads Calculator is now available under the Line-Volume and Line-Area source dialogs. This calculator is based on the US EPA- OAQPS Haul Road Workgroup Final Report (March 2012).
	Haul Road Volume Source Calculator
	Haul Road Volume Source Calculator
	Configuration: Adjacent
	Vehicle Height (VH):
	Factor: 1.7
	Plume Height (PH): [m] (PH = Factor * VH)
	Release Height (RH): [m] (RH = 0.5 * PH)
	Initial Sigma Z: [m] (Sigma Z = PH / 2.15)
	Lane Type: Single Lane 🗸
	Vehicle Width (VW):
	Plume Width (PW): [m] (PW = VW + 6m)
	Initial Sigma Y: [m] (Sigma Y = PW / 2.15)
	Help Report Cancel Apply
Sources	Road Source Included in Excel Template
	The Road source type has been added to the Lakes Format Excel template for importing or exporting source parameters.



Торіс	Feature Description
Sources	Updated Volume Source Display
	The appearance of single volume source and line-volume source types have been updated to more accurately depict the exclusion zone in which model calculations are not performed.
	The exclusion zones for each source type can be controlled separately via the Preferences Settings Appearance menu.
	Preferences – 🗆 🗙
	 Settings General Appearance Show Inactive Buildings Download Settings World Map Settings System Editor EPA Models/Limits Model Version CALPUFF CALMET



Торіс	Feature Description							
Species	Option to Replace Species							
	A new option is now available under the Species & Deposition dialog box that allows you to replace an existing species. When using this option, emission rates specified for each source for the old species will not be deleted and it will be available for the new species. You can also change the name of an existing species by typing the new name (e.g., changing species name from PM25 to PM2.5).							
	Species & Deposition –							
	Calculation Type Concentration + Deposition Concentration							
	Species Deposition Advanced Variables							
	Species Library							
	Modeled Species (4) Species Library							
	V Apply Search:							
	For a quick start, select an option from the drop-down list and press # Species Type ^							
	23 PM0.56 Particle							
	# Species Type A New 30 PM0.81 Particle 31 PM1.12 Particle							
	1 NOX Gas Add 32 PM1.87 Particle							
	2 TPM 3 PM10 Particle 3 PM10 Particle							
	4 PM2.5 Particle 7 34 PM2.5 Particle 7 35 Particle 7 36 PM2.5 Particle							
	Remove 35 [kb-35] Decayvance 36 [502] Gas							
	Clear 37 SO4 Particle							
	38 SOA Particle 39 TOLUENE Gas							
	wy rocone Our							



Торіс	Feature Description					
CALPOST	New NO2/NOx CALPOST Options					
	As part of the Version 7 modeling system, the NO2/NOx CALPOST Options have been expanded to include ratios that vary with NOx concentration (PPB). Options include:					
	• NOx Concentration Conversion Factor from PPB to µg/m ³ ,					
	Short-Term Ratios, and					
	Long-Term Ratios (with user-defined hour threshold)					
	CALPOST Wizard (Version 7) C Tools CALPOST Wizard Nersion 2000 To 50-Tables Ranked Values Exceedance Selected Days Scaling Background Percentee (NO2/IO/S Vability) Vability Vability Vability Specify a Single NO2/IOX rates that vary with NOX concentration in ugm3 Selected Days Specify 14 NO2/IOX rates that vary with NOX concentration in ugm3 Selected Days Specify a Single NO2/IOX rates that vary with NOX concentration in ugm3 Selected Days Specify 14 NO2/IOX rates that vary with NOX concentration in ugm3 Selected Days Depoty Specify 3 Dig (D to 1.0) (where NO2 = NOX * Ratio) Specify INO2 Concentration Selected Days Depoty Specify 3 Dig (D to 1.0) (where NO2 = NOX * Ratio) Specify INO2 Concentration Specify INO2 Concentration Door of the INDEX Concentration in ugm3 Specify INO2 Concentration Depoty Specify INO2 Concentration NO2NOX Ratio (where NO2 = NOX * Ratio) Implement matching Specify INO2 Concentration NO2NOX Ratio Ord of the ugm3 The There rates Interm matching Interm Term Barateters Mox concentrations between the NOx concentrations head whe use used for at NOx concentrations NOX Concentrations between the NOX concenentrations below the towest NOx concentrata					
Percentile	Date and Time Columns added to Percentile Plotfiles					
	The Date and Time columns are now available for Percentile plotfiles.					
	PCTL-98.00_SO2_1HR_CONC_C.DAT - WordPad - X File Home View * ? ************************************					
	SO2 1 (24 hours/day processed) RECEPTOR (x,y) km VALUE NLAT_WGS84 ELON_WGS84 Date Time					
	445.029 6641.881 2.2176E-01 -30.353707 -51.571991 2006_029 05:00:00 446.029 6641.881 2.9336E-01 -30.353752 -51.551386 2006_029 05:00:00 447.029 6641.881 2.9183E-01 -30.353796 -51.551381 2006_029 04:00:00 448.029 6641.881 2.4740E-01 -30.353840 -51.540776 2006_029 04:00:00 449.029 6641.881 1.7899E-01 -30.353882 -51.530371 2006_029 04:00:00 450.029 6641.881 1.0884E-01 -30.353924 -51.519966 2006_029 04:00:00					



Торіс	Feat	ure Desc	ription					
Reports	New	New Report – Percentile Results Summary						
		A new report is now available, Percentile Results Summary Report, which summarizes the maximum concentration results for Percentile plots.						
		Percentile Resu	ults Summary	1				
		SO2 - Concentration: [ug/ Average	m**3] Percentile	Peak	Year, Julian Day,	x	Y	
		Period 1-HOUR	98.00TH	9.1741E+000	Start Hour 2006, 027, 1400	[km] 469.029	[km] 6666.881	
		1-HOUR	99.00TH	9.6190E+000	2006, 027, 1400	469.029	6666.881	
		3-HOUR	98.00TH	8.7941E+000	2006, 027, 1200	469.029	6666.881	
		3-HOUR 24-HOUR	99.00TH 98.00TH	8.7941E+000 2.3962E+000	2006, 027, 1200 2006, 027, 0000	469.029 469.029	6666.881 6666.881	
		24-HOUR	99.00TH	2.3962E+000	2006, 027, 0000	469.029	6666.881	
	· ·							
Export	You c CALPI imple	an now ex UFF Model mented: Puff tracl model ve	port puff Version king for a ersion 7 d	tracking to 7. In additi Area and V only.	Je Earth for o Google Eart on, the follow /olume sourc	h for pro ving iten ces is no	ojects us ns were w suppo	ing th
Export	You c CALPI	an now ex UFF Model mented: Puff tracl model ve Optimiza	port puff Version king for A ersion 7 d tions do	tracking to 7. In additi Area and V only.	o Google Eart on, the follow /olume sourc	h for pro ving iten ces is no	ojects us ns were w suppo	ing th
Export	You c CALPI imple	an now ex UFF Model mented: Puff track model ve Optimiza A progre	port puff Version king for A ersion 7 d tions do	tracking to 7. In additi Area and V only. ne for faste	o Google Eart on, the follow /olume sourc	h for pro ving iten ces is no	ojects us ns were w suppo	ing th
Export	You c CALPU imple • •	an now ex UFF Model mented: Puff tracl model ve Optimiza A progre	port puff Version king for A ersion 7 d tions do ss meter	tracking to 7. In additi Area and V only. ne for faste	o Google Eart on, the follow /olume sourc er generation ailable.	h for pro ving iten ces is no	ojects us ns were w suppo	ing th
Export	You c CALPU imple • •	an now ex UFF Model mented: Puff tracl model ve Optimiza A progre	port puff Version king for A ersion 7 d tions do ss meter	tracking to 7. In additi Area and V only. ne for faste	o Google Eart on, the follow /olume sourc er generation ailable.	h for pro ving iten ces is no	ojects us ns were w suppo	ing th



Торіс	Feature Description				
CALPOST	Plot Files with the Same Results Value for all Receptors Contours cannot be generated for plot files containing the same concentration/deposition values for all receptor locations. In this case, a message is displayed and the Max value is also displayed in the status bar.				
	Information All points for contour layer "CALPOST Results" have the same value (0). No contours can be displayed. OK OK Image: Content of the same value of the sam				
Import	Improved Routines to Import Sources from an AERMOD View Generated Excel File Improvements were made on the routines to import sources from the Excel file exported from an AERMOD View project. CALPUFF View is now fully compatible with the "Source-Parameters" Excel file generated by AERMOD View. The only AERMOD source that currently does not have a corresponding source in CALPUFF View is the LINE source.				



Торіс	Issue Description				
CALPOST	CALPOST Scaling Factor				
	In the CALPOST Scaling option, the calculations performed when the Addictive Scaling Factor (B) was provided were not being used the CALPOST model for version 6 and 7. This issue is now resolved.				
	Also, the B Factor units can now be provided in the same units selected for the CALPOST output (e.g., ug/m3).				
	CALPOST Wizard (Version 6) C Tools CALPOST Wizard CALPOST Wizard V kality OSTUTL Averaging Period Cality Scaling Method Scaling Me				
Coastline	Coastline File Support for Non-UTM Projections				
	The routine for writing a coastline file has been updated to write the CALPUFF-expected value of -999 for the UTM Zone when the project's projection is not UTM.				
Percentile	Percentile Plotfiles for Sampling Grid Receptors				
	If a project used Sampling Grid receptors with a factor > 1, then the generated Percentile plotfiles presented a shift in the coordinates of the sampling grid receptor points. This issue has been resolved.				
Percentile	Percentile Plotfiles Values set to -9.9900E+37				
	When a percentile value could not be calculated (e.g., not enough values in the sample), a null value of -9.9900E+37 was being written to the percentile plotfile. The process was updated to write a value of 0.0000E+00 instead.				



Торіс	Issue Description						
CALPUFF Wizard	Wrong Caption for H2O2 Data File The wrong caption (Specify Ozone Data File) was being displayed when user pressed the button to specify the H2O2 background concentration data file. These captions have been fixed. This issue was only related to the caption and the file was being properly specified in the CALPUFF input file.						
	Chemical Transformation Chemical Transformation Method (MCHEM): 1 - Computed Internally (MESOPUFF II Scheme) Optimized Monthly VHS Obtainity OSI Monthly VHS Obtainity OSI Monthly VHS OS Concentrations from External File (OZONE DAT) OS Concentration File: O Aqueous Phase Chemical Transformation Modeled Read Background L2C2 Concentrations from External File (Aqueous Phase Chemical Transformation Middled Read Background H2C2 Concentrations from External File (Aqueous Phase Chemical Transformation Middled Read Background H2C2 Concentrations from External File (Aqueous Phase Chemical Transformation Middled Read Background H2C2 Concentrations from External File (Aqueous Phase Chemical Transformation Middled Read Background H2C2 Concentrations from External File (Aqueous Phase Chemic (H2C2 DAT) L2C2 Concentration File: Specify Ozone Data File Internal Transformation Method (MCHEME) Internal Method (MCHEME) Internal Transformation Method (MCHEME) Internal Transformation Method (MCHEME) Internal Transformation Method (MCHEME)						
Reports	Correction for Averaging Period Label Less than 1-Hour The Results Summary report was showing the wrong label (HOUR) for averaging periods less than 1 hour (e.g., 10-Min). This issue has been resolved.						



CALPUFF View[™] Version 8.1.0

Release Notes

December 16, 2015

Торіс	Feature Description						
Geophysical Processor	Support for New Terrain File Format – SRTM1 Global Version 3						
	Data offerings from WebGIS in the Terrain Files section now includes the SRTM1 (Global \sim 30m) – Version 3 data.						
	This terrain data, from NASA, had voids filled using other data sources such as the ASTER GDEM2, GMTED2010, and NED. SRTM1 Version 3 is the highest quality SRTM data available to date. It covers regions between 60° north and 56° south latitude with exception of a few regions in west Asia and northeast Africa which may be available in the near future.						
	WebGIS						
	DEM 7.5-Min (USA ~30m)						
	DEM 1-Deg (USA ~90m)						
	CDED 15-Min 1:50K (Canada ~23m) CDED 1-Deg 1:250K (Canada ~93m)						
	NED 1/3 (USA ~10m) NED 1 (USA, Canada, Mexico ~30m)						
	SRTM1 (Global ~30m) - Version 3						
	SRTM3 (Global ~90m)						
	SRTM30 (Global ~900m)						
	GTOPO30 (Global ~900m)						
	WebGIS						
	Note 1: The download of "SRTM1 Global – Version 3" terrain data is only available to users with current maintenance.						
	Note 2: The automated download of SRTM1 Version 2, which covered only the USA, was discontinued. You can still upload these files (*.hgt) using the Add button.						



Торіс	Feature Description					
Geophysical Processor	Support for Generic Terrain File Format (GEN) The Geophysical Processor can now support the Generic Terrain (GEN) format (All Model Versions). The Generic format is described in the Help file. Once you prepare your data in the Generic format (*.gen), you can specify it by using the Add button.					
	Map Files Met Grid Coastline Advanced Output Files Terrain Files Active File Name Datum Type Image: Clear All Image: Clear All Image: Clear All Image: Clear All Image: Clear All Image: Clear All Image: WebGIS Image: Clear All Image: Clear All					
Geophysical Processor	Support for ASTER Global DEM Terrain File Format (GeoTIFF) The Geophysical Processor can now support the ASTER Global Terrain data in GeoTIFF format and Lat/Long projection (Model Versions 6 & 7). ASTER DEM terrain data (~30m resolution) be downloaded from the USGS site below: http://gdex.cr.usgs.gov You can specify ASTER terrain files (*.tif) by using the Add button. Map Files Met Grid Coastline Advanced Output Files Active File Name Datum Type Clear All Search WebGIS					



Торіс	Feature Description						
Geophysical Processor	Additional Options for Processing EOSD Land Use Data						
	After downloading EOSD Land Use Data (Canada 25m), a warning message is displayed asking the user to specify which USGS LU code should be used to convert EOSD "Exposed Land" category. The Exposed Land type in the EOSD dataset is used to represent several USGS land use types: Residential, Industrial, Commercial, Transportation, and/or Mixed Barren Land.						
	2 WebGIS						
	USGS CTG (US 200m)						
	USGS NLCD92 (CONUS 30m)						
	EOSD (Canada 25m)						
	Map Files Met Grid Coastlin Advanced Output Files Under the Geophysical Processor - Advanced tab, see the new EOSD processing options as shown below: EOSD Land Use Processing Options Specify the USGS LU Code to Represent EOSD Code 33 for Exposed Land: Code: Residential (11)						
	Use the Land Use Creator in case a single USGS LU code cannot represent code 33 under the EOSD land use data. In EOSD, code 33 may represent residential, industrial, transportation and/or mixed barren land.						
	Note: The modeler should always check the final processed land use data to see if it is representing the modeling area appropriately. Changes can be made to land use categories assigned to cells using the Land Use Creator.						



Торіс	Feature Description						
New Project	Create Project from ISC/AERMOD Input File						
	The option to create a new CALPUFF View project from an ISC or AERMOD input file using the File Create from ISC/AERMOD Input File menu option, now includes option to specify the BPIP input file containing information on the buildings.						
	Import from ISC/AERMOD Input Files						
	Specify Input Files						
	ISC/AERMOD Input File:						
	BPIP Input File (Optional):						
	Help QK						
New Project	Create Project from MMIF Projection File						
	The option to create a new CALPUFF View project from a MMIF projection file using the File Create from MMIF Projection File menu option, now includes option to specify the terrain grid file (*.grd) generated by the US EPA MMIF program.						
	Import from MMIF Files						
	Specify Files						
	Projection File: WRF-MMIF-CALP5_2014-01.txt						
	Terrain Grid File WRF-MMIF-CALP5_2014-01.grd						
	Help QK						



Торіс	Feature Description	
CALPUFF Wizard	Option to Specify Gridded Terrain File to Extract Base Elevation A new interface option was introduced under the CALPUFF Wizard – Meteorological/Landuse window to support projects that use CALPUFF-Ready WRF/MM5 generated by MMIF which bypasses to use of the CALMET model.	
	When using this type of data, the modeler should extract base elevati for sources, receptors, and buildings from the same terrain data set u to process the WRF/MM5 data and not from a GEO.DAT. Newer version of the MMIF program will generate a gridded terrain file (*.GRD) that be used in this case. See the Help file for further description how to obtain the GRD file.	ised ons
	Image: Second system → □	×
	Met File Format: CALMET binary file (CALMET.DAT)	~
	Met Data Wind Speed Advanced Variables	
	Specify CALMET Domains and Files (CALMET.DAT) Add Domain Add Domain Add Domain Add File Remove Clear All	
	Gridded Terrain File for Extracting Base Elevations GEO.DAT File OUser-Specified Terrain Grid File	
	Grid File:\WRF-MMIF-CALP5_2014-01.grd	



Торіс	Feature Description
Tools Menu	New Option added to Tools Menu – Assign Elevations The new "Assign Elevations" option was introduced under the Tools menu which allows users to assign terrain elevations to all sources, receptors, and/or buildings. The same feature was already available under the Geophysical Processor window. This feature is of great use in case the GEO.DAT file was generated after sources, receptors, and buildings were specified.
	Tools Help Assign Elevations Sources Wind Rose at Location Buildings WRPLOT View Receptors RAMMET View All CALSUM Wizard Image: California state st
CALPUFF Wizard	FCLIP Parameter was Introduced in CALPUFF Wizard The advanced variable "FCLIP" which is available in CALPUFF model version 7 is now available in the interface. FCLIP is the upwind/downwind extrapolation zone in sigma-y units. The CALPUFF model uses the default 0.0 which means "No Extrapolation" in case this variable is omitted. Image: Dispersion -
	Dispersion Puff Splitting Advanced Variables



Торіс	Issue Description
CALSUM	CALSUM Executable for Version 7 Not Properly Identified
	When running CALSUM under the Version 7 modeling system, the CALSUM executable associated with the Version 6 system was being used. This issue has been corrected.
Geophysical Processor &	Conversion of EOSD Land Use Categories Updated
Land Use Creator	The EOSD "Exposed Land" category (code 33) was always being mapped to the USGS Residential Land Use (code 11).
	The Exposed Land type, in the EOSD dataset, is used to represent several USGS land use types: Residential, Industrial, Commercial, Transportation, and/or Mixed Barren Land.
	A new EOSD processing option was implemented to allow the user to make the decision of which land use category to apply in each case.
	Specify the USGS LU Code to Represent EOSD Code 33 for Exposed Land: Code: Residential (11)
Land Use	Conversion Issue of EOSD into NLCD92 in Land Use Creator
Creator	When using the option " Tools Land Use Creator NLCD92 " and downloading the EOSD land use data from the WebGIS button, the EOSD land use categories were not properly recognized.
Sources	Incorrect Number of Area Sources Identified
	In cases where the user specified a polygonal area source that had one of the vertices repeated, the CALPUFF model would fail due to CALPUFF View's improperly separating these polygons into area sources with a maximum of 4 vertices (CALPUFF model limitation). This issue has been fixed.
Overlays	Wind Field Overlay Visibility Status
	Fixed an issue where the status of the Wind Field layer when set to invisible was not maintained.



CALPUFF View[™] Version 8.0.0

Release Notes

November 30, 2015

Торіс	Feature Descrip	tion		
Models	Support for CALP	UFF System Ver	sion 7 Models	
			ts the latest Exponent CALP lels as per the table below:	PUFF
	Model	Version	Level	
	CALMET	6.5.0	150223	
	CALPUFF	7.2.1	150618	
	CALPOST	7.1.0	141010	
	CALSUM	7.0.0	150330	
	POSTUTIL	7.0.0	150207	
	TERREL	7.0.0	141010	
	CTGCOMP	2.253	110225	
	CTGPROC	7.0.0	150211	
	MAKEGEO	3.2	110401	
	SMERGE	5.7.0	121203	
	PXTRACT	4.253	110225	
	PMERGE	5.633	110225	
	READ62	5.661	110225	
	BUOY	7.0.0	141010	
	METSCAN	4.0	010315	
		ment found on th sion 7 from the N	PUFF Model Download e <u>CALPUFF View update web</u> Iodel menu.	opage.
	EPA Approved Ver	sion		
	Version 6			
	Version 7			
		Model executable	s still available for backward s supported under Version	



Торіс	Feature Description
Geophysical Processor	Support for New Terrain File Formats (Model Versions 6 & 7)
	Data offerings from WebGIS in the Terrain Files section of the Geophysical Processor have been expanded to include new formats:
	CDED 15-Min - 1:50K scale (Canada ~23-meter) CDED 1 Dag 1:2E0K scale (Canada ~03 meter)
	CDED 1-Deg - 1:250K scale (Canada ~93-meter)
	 NED 1/3 arc-second (USA ~10-meter) NED 1 arc second (USA Canada, Maxima w20 meter)
	 NED 1 arc-second (USA, Canada, Mexico ~30-meter)
	These formats can only be used with the Version 6 & 7 modeling systems.
	2 WebGIS
	DEM 7.5-Min (USA ~30m)
	DEM 1-Deg (USA ~90m)
	CDED 15-Min 1:50k (Canada ~23m)
	CDED 1-Deg 1:250k (Canada ~93m)
	NED 1/3 (USA ~10m)
	NED 1 (USA, Canada, Mexico ~30m)
	SRTM1 (USA ~30m)
	SRTM3 (Global ~90m) SRTM30 (Global ~900m)
	GTOPO30 (Global ~900m)
	WebGIS
	NED: National Elevation Dataset CDED: Canadian Digital Elevation Data
	Note: The download of NED terrain data is only available to users with current maintenance.



Торіс	Feature Description
Geophysical Processor	Support for New Land Use File Formats (Model Versions 6 & 7)
FIUCESSUF	Data offerings from WebGIS in the Land Use Files section of the Geophysical Processor have been expanded to include new formats:
	 EOSD (25-meter) Land Cover (Canada) CORINE (100-meter, 250-meter) 2006 Land Cover (Europe)
	These formats can only be used with the Version 6 & Version 7 modeling systems.
	2 WebGIS
	USGS CTG (US 200m) USGS NLCD92 (CONUS 30m)
	EOSD (Canada 25m) CORINE CLC2006 - (Europe 100m)
	CORINE CLC2006 - (Europe 250m) GLCC (Global ~1km) - Auto-Detection
	GLCC (Africa ~1km) GLCC (Australia Pacific ~1km)
	GLCC (Eurasia (Optimized for Asia) ~1km)
	GLCC (Eurasia (Optimized for Europe) ~1km) GLCC (North America ~1km)
	GLCC (South America ~1km)
	Note: The EOSD Land Cover data does not cover portions of northern Quebec, southern Ontario, southern Saskatchewan, southeastern Alberta, or Nunavut.



Торіс	Feature Description	
Geophysical	Support for the Generic Land Use File Format (GEN)	
Processor	The Geophysical Processor can now support the Generic Land Use (GEN) format (Model Versions 6 & 7).	
	The Generic format is described in the Help file. Once you prepare your	
	data in the Generic format, you can specify it by using the button.	
Geophysical	Create Custom Land Use Properties	
Processor	The Land Use Properties feature of the Geophysical Processor (found under the Advanced tab) has been enhanced to allow users to import their own custom categories and land use properties. Select the Browse icon to open the full Land Use Properties table and open the User Defined (GEO_UD.DAT) options table. Users can add or remove categories and edit all properties for each category. Data can also be imported from or exported to Excel spreadsheet. Land Use Properties Land Use: Default Click here to select seasonal defaults or user-defined values. Here, you can also add land use classes if your data does not use the USGS 38 class	
	✓ Land Use PropertiesX Seasonal Parameters X	
	Land Use Properties Options: Add Remove Actions Default	
	# Input Category Zo [m] Albedo (0 to 1) Bowen Ratio Soil Heat Flux Parameter Leaf Area Index Output Category ID Description Color	
	1 11 1.00 0.18 1.5 0.25 0.0 0.20 10 Residential 2 12 1.00 0.18 1.5 0.25 0.0 0.20 10 Commercial Services	
	3 13 1.00 0.18 1.5 0.25 0.0 0.20 10 Industrial	
	4 14 1.00 0.18 1.5 0.25 0.0 0.20 10 Transportation, Communications 5 15 1.00 0.18 1.5 0.25 0.0 0.20 10 Industrial and Commercial	
1	6 16 1.00 0.18 1.5 0.25 0.0 0.20 10 Mixed Urban or Bull- Up Land	
	7 17 1.00 0.18 1.5 0.25 0.0 0.20 10 Other Urban or Build PL and	



Торіс	Feature Description	
Sources	New Road Source Type	
	The Version 7 modeling system has added a new source type – Road sources. Each road-link is defined as a single link segment with uniform emissions along the segment. Each road source must include the following input parameters:	
	Initial Sigma Y (m)	
	Initial Sigma Z (m)	
	Effective Release Height (m above ground level), and	
	Emission Rate (g/s/m)	
	CALPUFF View includes the total length of each road segment for quick reference.	
	Road Source Parameters	
	Initial Sigma Y [m]:	
	Initial Sigma Z [m]:	
	Effective Height [m]:	
	Effective neight [h].	
	Total Line Length [m]: 3007.3	
Sources	New Varying Emission Rates Factors	
	The Version 7 modeling system allows for the application of four additional varying emission factor types:	
	1. Weekly Cycle	
	2. Weekly / Diurnal Cycle	
	3. Monthly / Diurnal Cycle	
	4. Wind Speed Class	
	Emissions Variable Rates	
	Method for Varying Emission Rates:	
	Constant	
	Constant Diurnal Cycle Monthly Cycle	
	Hour and Season Weekly Cycle	
	Weekly/Diurnal Cycle Monthly/Diurnal Cycle	
	Wind Speed Class Wind Speed and Stability Class Temperature	
	Temperature	



Торіс	Feature Description
External Sources	Select Downwash Method for External Point Source Files When using external point source files (PTEMARB.DAT), selecting the BPIP option now presents the user with the option to choose between BPIP or BPIP-PRIME methods. Project Status - BPIP Wethod (MBDW): 2 - BPIP-PRIME BPIP Input File: bpip.bpi Primary Output File: bpip.sup No. of Buildings: 4 Active: 4 No. of Stacks: 2 Active: 2 Run BPIP for Point Source Emission File(s) - PTEMARB.DAT Your Project is COMPLETE. You Can Run Now !! Help Input File Details Run Close
External Sources	New Variable Emissions File Options The Version 7 modeling system supports new variable emission files for Flare and Road source types. These files can be input via the CALPUFF External Source Files menu option. Point Source Files Area Source Files Volume Source Files Road Source Files Line Source Files FLARE Source Variable Emissions File (FLEMARB DAT) File Name Sources Species Add File Remove



Торіс	Feature Description	
Reports	New Reports Summarizing CALMET & CALPUFF Parameters	
	New reports are new available via the Output Reports menu. The n CALMET Parameters and CALPUFF Parameters reports contain descriptions of all model input parameters along with the project's value for each parameter.	
	Reports can be sent to a printer; saved in PDF, Excel XML, and Excel C table format; or exported directly to PDF.)LE
	Output Multimedia Tools Hel	
	Contour Clipping	
	Graphical Options	
	Reports Reports	
	V Reports	×
	□ □ CALMET Parameters □ □ □ □ □ CALPUFE Parameters □ Results Sommary	î
	CALPUFF Parameters	
	Refined Tutorial	
	Observation Data Year 1990	
	INPUT GROUP: 0 – Input and Output File Names	
	Parameter Description Value	
	METDAT CALMET gridded meteorological data file (CALMET.DAT) CALMET.DAT	
	PUFLST CALPUFF output list file (CALPUFF.LST) CALPUFF.LST CONDAT CALPUFF output concentration file (CONC.DAT) CONC.DAT	
	DFDAT CALPUFF output dry deposition flux file (DFLX DAT) DFLX DAT	
	WFDAT CALPUFF output wet deposition flux file (WFLX.DAT) WFLX.DAT	
	VISDAT Output relative humidity file (VISB.DAT) VISB.DAT LCRILES Lower case file names (T = lower case, F = upper case) F	
	NMETDAT Number of CALMET.DAT input files 1	
	NPTDAT Number of PTEMARB DAT input files 0 NPTDAT L Number of PTEMARB DAT input files 0 NPTDAT	
	NARDAT Number of BAEMARB DAT input files 0 NVOLDAT Number of VOLEMARB DAT input files 0	
	IIIDIIT GDOIID: 4	~
	Page 1 of 8	
	Help	ose



Торіс	Feature Description	
Land Use Creator	Select Land Use Output File Format	
Creator	The Land Use Creator now allows the user to define which output file format they want to build:	
	USGS CTG (200m resolution)	
	USGS NLCD92 (30m resolution)	
	Generic (adaptive resolution)	
	Tools	
	Wind Rose at Location	
	WRPLOT View	
	RAMMET View	
	CALSUM Wizard	
	Coordinate Converter	
	DEM Converter	
	Hourly Duration	
	Land Use Creator USGS CTG	
	Models Check USGS NLCD92	
	Browse Generic	
	Editor	



Торіс	Feature Description	
Land Use Creator	WebGIS Support for Importing New Land Use Data Sources	
	The WebGIS feature in the Land Use Creator now allows users to import land use data from USGS NLCD92 , EOSD , and CORINE GeoTIFF image files. These file formats can also be imported via the Import Land Use Files menu option.	
	2 WebGIS	
	USGS NLCD92 (CONUS 30m)	
	EOSD (Canada 25m)	
	CORINE CLC2006 - (Europe 100m)	
	CORINE CLC2006 - (Europe 250m)	
	GLCC (Global ~1km) - Auto-Detection	
	GLCC (Africa ~1km)	
	GLCC (Australia Pacific ~1km)	
	GLCC (Eurasia (Optimized for Asia) ~1km)	
	GLCC (Eurasia (Optimized for Europe) ~1km) GLCC (North America ~1km)	
	GLCC (South America ~1km)	
	Note: The download of EOSD and CORINE land use data is only available to users with current maintenance.	



Торіс	Feature Description
Topic Land Use Creator	Direct Open and Edit Support for Generic Format Files Generic format land use data files can be opened directly in the Land Use Creator. Use the Open File command in the Save Land Use File As group and select the Generic land use file you want to edit. ✓ Land Use Creator (Generic GEN) View Import Export Output Tools
	Save Land Use File As File: C1VEU-France_CLC2006_100m.dat Author: Lakes Memort WebGIS
Buildings	Improved Import Error Message
Zananga	The error message presented when an improperly-formatted Excel spreadsheet is used for importing buildings has been updated to reflect why the error occurred.
	Import Error X
	File "AA_Buildings.xlsx" is not recognized as Lakes Excel Format. Expected Column Headers not found: ID_Building Tier_Number Num_Coords See Help file for format description.



Торіс	Issue Description
Export Sources	Export Failure for Specific Source IDs
	Source IDs which followed the format E# , where # represents a numeric value, were improperly exported to Excel format due to Excel's default format assignment of such values. This has been corrected.
Map Projection	UTM Zone Disappeared
	Fixed an issue where the UTM Zone number would disappear after a fatal crash to the application.

Known Issues

Торіс	Issue Description
Coastlines	Coastline Appears Shifted
	The GSHHS coastline data available via WebGIS can appear shifted from the actual coast in rare occasions. This is the result of projection and datum information applied during the archival process.

