



MelMACCS 4.0.0 Overview and Demo







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Latest publicly available version is MelMACCS 2.0.1

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2000 4000

6000

MELCOR Time (seconds)

MelMACCS 4.0.0 release date to be determined...





MelMACCS Overview



MELCOR Plot File

• Scram time

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- Particle size groups
- Number of rings
- Number of chemical groups and their initial masses in the core
- Release paths and their associated height
- Amount released for each chemical group in every release path

MACCS Input File

- Release paths broken up into plume segments with their associated height
- Start time of each plume segment and duration
- Sensible heat, average plume flow rate, and gas density for each plume segment
- Release fractions for each chemical group and plume segment
- Dry deposition velocities
- Particle size distributions
- Building dimensions
- Initial plume dimensions for each segment
- Radionuclides assigned to each chemical group and their initial inventories

4.0.0 Capabilities

• All capabilities from the previous version were carried over

Updates!

- New graphical user interface design and set up
- Users will have the ability to save and return to their MelMACCS project
- Users will be able to export MELCOR data to a text file or excel file
- Users will be able to download and use a source term library containing example plot files
- Parameters and bounds will be consistent with MACCS 4.0.0
- All available chemical groups found in the MELCOR plot file will now be seen in the user interface
- There will now be multiple ways to create plume segments
- New capability to automatically determine plume segment of maximum risk based on chemical group weighting factors and a cutoff time



Live Demo