Receptors

Why do the automated a discrete distance options give different results at the same distance?

Technically, the concentration should be the same at the same distances. However, you are likely seeing a difference because the automated distance option sets up an array, and only the distance where the maximum concentration occurs is displayed on the graph.

The Automated Distances option gives the user the option of using a pre-selected array of 50 distances ranging from 100 m out to 50,000 m (50 km).

For the Automated Distances option, the SCREEN3 model calculates the maximum concentration across a range of meteorological conditions for the minimum distance given. SCREEN3 then computes the concentration for each distance in the array larger than the minimum and less than or equal to the maximum. SCREEN3 also uses an iteration routine to determine the maximum value associated with that distance to the nearest meter.

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