

# SEDSIZE

**Model Uses** SEDDISCH is used to compute fluvial discharge based on user preferences.

**Major Categories** Geomorphology

**Subject Knowledge Level**  
Intermediate

**Minor Categories** Sediment Sources

**Technical Difficulty Level**  
Intermediate

**Model Type** Physical Model

**Geographic in Nature?**  
No

## **Abstract**

SEDDISCH computes fluvial sediment discharge by allowing the user to choose between five described bedload formulas and eight described bed-material formulas. The bedload discharge formulas are those of Schoklitsch (1934), Kalinske, Meyer-Peter and Muller (1948), Rottner, and Einstein. The bed-material formulas are those of Laursen, Engelund and Hansen, Colby, Ackers and White, Yang sand formula, Yang gravel formula, Einstein, and Toffaleti.

## **Future Developments**

Unknown

## **Model Limitations**

Unknown

## **Model Features**

- Option of eight bed material formulas
- Option of five bedload formulas

## **Required Data Types**

Input for SEDDISCH is generated during an interactive session using the program DISDATA. DISDATA generates a direct access file that is read by SEDDISCH. The following data are prompted for by DISDATA to form the SEDDISCH data set:

*measurement location*  
*top width*  
*mean depth*  
*mean velocity*  
*water-surface slope*  
*water temperature*  
*particle size, in millimeters*

## **Model Outputs**

Unknown

Bed-material particle size data are entered depending on the value of the option code selected at the start of the run. One option is that no size distribution data are to be entered. Zero values are given to the percent-in-class variables for the size fractions. The other two options are to enter the size data as percent-finer values or as percent-in-class values.

## **Hardware Requirements**

386 Processor or later

## **Supported Platforms**

DOS  UNIX

## **Software Requirements**

None specified

Windows  Macintosh

**Cost, Licensing and Availability**

Model is provided free of charge from link below.

**Source**

US Geological Survey

**Source URL**

<http://water.usgs.gov/software/seddisch.html>