

CHECK-RAS

Model Uses CHECK-RAS is a data analysis package that allows users to evaluate the outputs from HEC-RAS to determine their reasonableness.

Major Categories Hydrology and Water Use

Subject Knowledge Level
Intermediate

Minor Categories Flow

Technical Difficulty Level
Intermediate

Model Type Data Analysis Package

Geographic in Nature?
No

Abstract

The CHECK-RAS program uses a series of checking routines to validate the reasonableness of data from the HEC-RAS files. HEC-RAS is the U.S. Army Corps of Engineers, Hydrologic Engineering Center - River Analysis System program. CHECK-RAS uses the data from the HEC-RAS geometric, steady flow, and output files to verify that the hydraulic estimates and assumptions made in the model appear to be justified, are in accordance with the applicable Federal Emergency Management Agency (FEMA) requirements, and are compatible with assumptions and limitations of the HEC-RAS program.

CHECK-RAS allows users to examine a variety of parameters from HEC-RAS data files, as well as generate, view and print reports, which include tables and messages warning about problems with the HEC-RAS inputs and outputs. Users can reference additional information about the warning messages by using the Help Message database.

Future Developments

Unknown

Model Limitations

Unknown

Model Features

- Categorizes floodplain modeling into five distinct areas of checks
- Provides a summary table and warning messages for each checked area
- Assesses the suitability of roughness coefficients and transition loss coefficients
- Assesses the suitability of starting water-surface elevations
- Assesses bridge and culvert modeling
- Provides a detailed floodway analysis
- Compares important parameters among multiple profiles
- Proposes solutions through the use of the Help screens

Required Data Types

CHECK-RAS requires the outputs from HEC-RAS and will directly utilize the binary-files that it produces.

Model Outputs

Outputs from CHECK-RAS appear in a series of report screens that are viewable by the user from within the application itself.

Hardware Requirements

Same as HEC-RAS:

Intel P3 processor;
At least 40mb free disk space (100+ recommended);
CD-ROM Drive;
Minimum 32mb RAM (Windows 95, 98, ME) or 64mb RAM
(Windows NT, 2000, XP) - 128mb + Recommended;
A mouse;
Color Video Display (Recommend running in Super VGA
1024 x 768).

	Supported Platforms		
DOS	<input type="checkbox"/>	UNIX	<input type="checkbox"/>
Windows	<input checked="" type="checkbox"/>	Macintosh	<input type="checkbox"/>

Software Requirements

HEC-RAS

Cost, Licensing and Availability

Model is offered free of charge from link provided.

Source

Federal Emergency Management Agency (FEMA)

Source (URL)

http://www.fema.gov/pdf/fhm/frm_crum.pdf