HYSEP

Model Uses HYSEP can be used for separating hydrographs, estimate ground water and base flows.

Major Categories Hydrology and Water Use

Subject Knowledge Level
Intermediate

Minor Categories Flow

Technical Difficulty Level
Intermediate

Model Type Conceptual Model

Geographic in Nature?
No

Abstract
HYSEP performs hydrograph separations and estimates the ground-water or base flow components of stream flow. The program provides an automated and consistent method for estimating base flow. Any of the three hydrograph-separation techniques of Pettyjohn and Henning (1979) can be used: fixed interval, sliding interval, or local minimum.

Future Developments
Unknown

Model Limitations
Unknown

Model Features
- Separation of hydrographs through Fixed Interval, Sliding Interval or Local Minimum methods.

Required Data Types
Daily mean stream discharge (in daily values card-image format or as stored in WDM files) is used as an input to HYSEP. Stream discharge in the daily values card-image format also can be reformatted to a WDM file using the program IOWDM.

Model Outputs
Tables of statistical output are produced by HYSEP, namely frequency, flow-duration, and seasonal-distribution tables as well as monthly and annual summaries of the hydrograph separation. A program option allows for storage of the estimated daily base flow and (or) surface runoff on the user's WDM file, making the base-flow data available for further processing, such as the performance of flow-duration analysis using the program SWSTAT. The estimated daily base flow and (or) surface runoff can also be output in card-image format.

HYSEP can direct graphical output to any of the devices allowed in your system's implementation of the Graphical Kernel System (GKS).

Hardware Requirements
None noted

Software Requirements
None noted

Supported Platforms

DOS	☐	**UNIX**	☒
Windows	☒	**Macintosh**	☐

Cost, Licensing and Availability
Free – available from link below.

Source
US Geological Survey

Source URL
http://water.usgs.gov/software/hysep.html