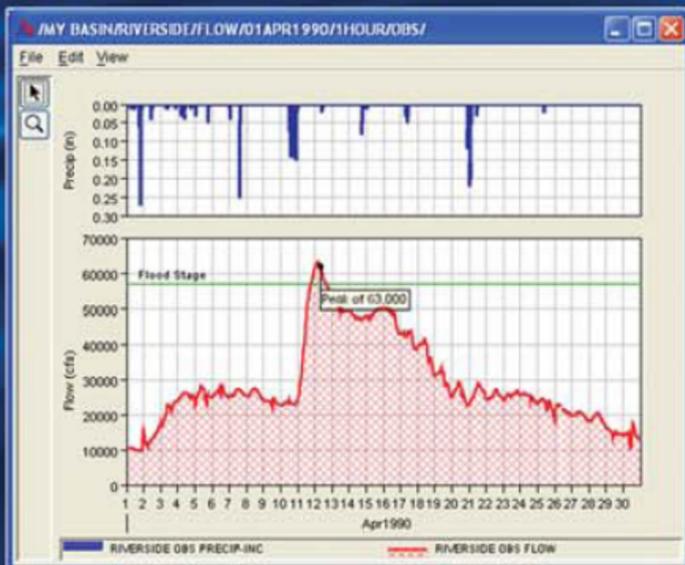


NexGen Software Development Program

1990s, 2000s



Cutting-edge software development has been a central part of the Hydrologic Engineering Center's (HEC) mission since its founding in 1964. From the use of mainframes to PCs, HEC products represented the state of the art in hydrologic engineering and technical analysis software. As computer technology advanced, so too did HEC's software engineering. By 1991, the Center began an ambitious, large-scale development of successor software products to be used by the Corps in the 21st century.



NexGen, the next generation of HEC software, implemented advances in computer science such as object-oriented programming language and graphical user interfaces. The results were a multi-user, multi-tasking network environment and integrated program packages for desktop workstations. The first package, River Analysis System (HEC-RAS), was released to the Corps and other government agencies in 1995. It was soon followed by the Hydrologic Modeling System (HEC-HMS), Flood Damage Analysis (HEC-FDA) and Reservoir Systems Analysis (HEC-RSS).

HEC continued to enhance the NexGen packages and develop new ones into the 21st century. By 2005 HEC had released the Reservoir Simulation Model (HEC-ResSim). In subsequent years the Center produced many other products including a Statistical Software Package (HEC-SSP), Ecosystem Functions Model (HEC-EFM) and Watershed Analysis Tool (HEC-WAT). The NexGen packages consistently added new capabilities, such as GIS links, while preserving and refining existing features. This program is an ongoing part of HEC's work, and it demonstrates the Center's leadership in the field of hydrologic engineering and technical assistance.



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