



US Army Corps
of Engineers®

Water Resources Infrastructure R&D Program

Portfolio Decision Support System

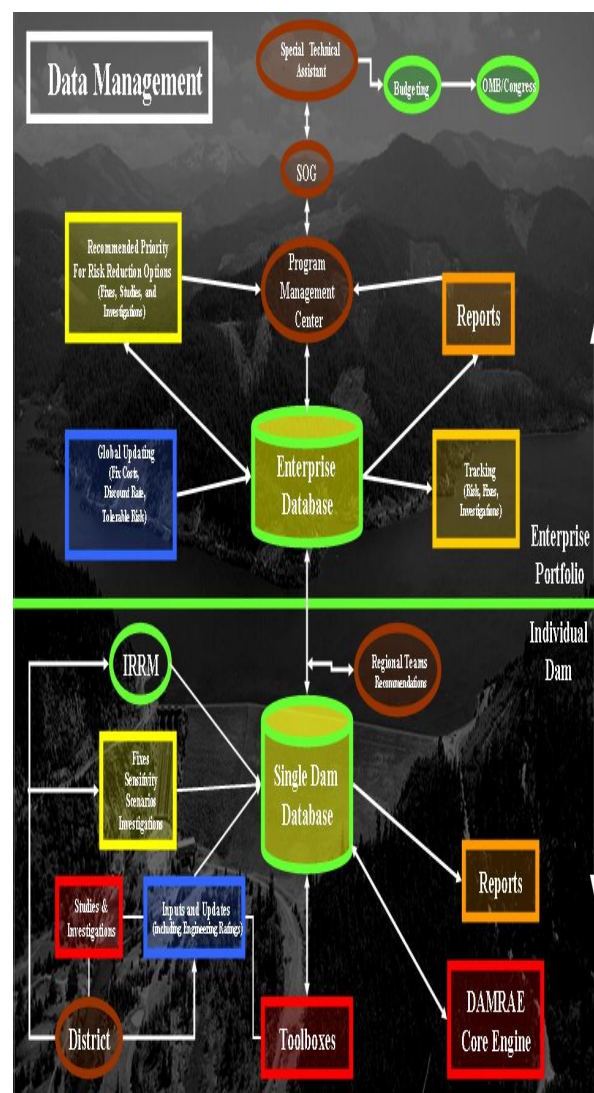
Description

The Decision Support System (RADS II), draws heavily on the successful use and lessons learned over the 5 years of the first generation system, RADS.. The RADS II portal, with a much more robust engineering risk engine and toolbox calculation set, serves as the control center for analysis and decision making process. The engineering toolboxes are executed autonomously and their results feed to the single dam database (SDD), which is preloaded with data NID and DSPMT, and checked out from the portfolio database. Geospatial Information (GIS data) will be maintained in a separate GIS database for use with H&H loading and consequence calculations. As a risk assessment of a state of a dam is completed and approved, it is pushed to the USACE-wide Portfolio database. This database will contain the previous, current and various proposed states of the dam. Rollups are extracted to support the risk and study tracking and the decision making process for investments in fixes and further studies aimed at reducing the USACE risk.

Technical issues include (1) access to portfolio DB, SDD, and documents over the internet, (2) simple & seamless movement of the database info between the portfolio DB and Assessment Team user SDD, and among Assessment Team members, (3) design of a system for storage and tracking of documents and GIS information for each dam, and (4) development of tools to extract/present/track data to support the risk management process.

Benefits

Provides linkages between engineering analysis toolboxes and decision making process. Provides for a uniform risk analysis approach throughout USACE, while supporting a risk informed investment process for dam safety risk reduction. In FY05 USACE began the risk informed approach to investment of dam safety funds through a preliminary screening procedure implemented with the RADS portal and Screening Tool. This is the follow on



methodology to provide a set of more rigorous engineering risk analysis toolboxes and risk engine. Also a more automated decision making process is provided.

Status	Presently draft versions of most engineering toolboxes and the risk engine are being beta tested by the USACE Dam Safety Methodology Team. The RADS II portal is being finalized for beta testing including a process to check-out SDD from the Portfolio DB and move this among Assessment Teams members. . The functionality of the RADS II Portal is based on the RADS Portal and uses a database design based on an extension of the Risk Engine database that is currently being tested. The RADS II portal will contain the USACE-wide data and provide the rollup and decision tools (which are in the early stages of design and development) to be used by HQ USACE.
Distribution Source(s)	The RADS II portal and documentation will only be used by HQ USACE, the Dam Safety Methodology Team, and the National Assessment Teams performing the individual dam risk analyses, and the partnering agency, Bureau of Reclamation. It will be located on a Corps server with access controlled by the Risk and Reliability DX.
Available Documentation	At present, RADS II documentation is limited to a user's manual that is under development. A class will be developed to train the National Teams before fielding of this process.
Available Training	RADS II training will occur through national roll-out workshops and training sessions.
Available Support	Application support can be obtained by contacting H. Wayne Jones at ERDC-ITL.
Application	Currently only the Dam Safety Methodology Team and the Assessment Teams will be able to use the beta versions of the portal and toolboxes.
Point of Contact	H. Wayne Jones, Information Technology Laboratory, US Army Engineer Research and Development Center, 3909 Halls Ferry Road, Vicksburg, MS 39180 E-mail: Harvey.W.Jones@erdc.usace.army.mil
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