Rainfall Runoff Forecasting System (RRFS)



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Definition and functions of RRFS

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Rainfall-Runoff Relationship

Historical Rainfall Scenarios



Purpose of RRFS development

- Forecasting of water demand and supply in real-time or for a short-term period (within 10days)
- Real-time water balance technology for optimizing water distribution and supply

What is RRFS?

- Rainfall Runoff Forecasting System (RRFS) is developed to analyze the streamflow states of the major control points at upstream and downstream of the dam in order to simulate the low flow on which the management of dry season is based.
- Sharing the information and providing the user's convenience will be achieved by developing the web-based interface technology.

Major functions of RRFS

- Integrated management of water quantity and quality
- Identifying characteristics of water use for municipal, industrial and agricultural purposes
- Deriving hydrologic rainfall-runoff relationship
- Estimating streamflow by sub-basins and major control point











Simulation Status in IRWMS

Present water resources conditions





Model Verification (1)

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ESP Procedure (4)

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Characteristics of RRFS

- DB solution for RRFS
- User-friendly operating system
- Diversity and flexibility of input data
- Running and modification according to various scenarios
- Estimation of real-time runoff
- © Conjunctive use with other models such as SSDP, COMOM etc.
- © Change with other engines for runoff simulation
- Runoff forecasting with ESP scheme

Present Status of RRFS

- In KOWACO, RRFS will be served as a useful tool for real-time rainfall-runoff analyses in efficient basin water resources management including rivers and reservoirs.
- RRFS is currently tested and verified at Water Resources Operation Center (WROC) to manage water resources of Geum river basin.

Future Works

- RRFS is extending to apply to other river basins, such as Nakdong river basin, etc.
- GUI system of RRFS is upgrading continuously to operate more conveniently by users

Thank you!

