Scientific Reference Guide

The Source Scientific Reference Guide details the theory behind the software, including scientific provenance, parameters defaults and recommended ranges, relevant algorithms and references.

To get started you can choose a topic of interest from the navigation panel on the left, or from the topic links below.

Also in the Source User Guide you can find:

- An overview of the broad concepts underlying Source
- The rest of the Source User Guide, which provides information on operating Source
- Best practice modelling guidelines

Adding Flows SRG

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- Inflow node - SRG
- Rainfall Runoff Models SRG
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    - IHACRES-CMD - SRG
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    - Observed catchment runoff depth - SRG
    - Observed catchment surface runoff depth - SRG
    - PERFECT GWlag - SRG
    - Sacramento Model - SRG
    - SIMHYD - SRG
    - SIMHYD with routing - SRG
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    - SMARG - SRG
    - Agricultural Runoff - SRG

Connectors SRG

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- Pipe Junction SRG
- Splitter node - SRG

Water Governance SRG

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Storage SRG

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- Hydropower - SRG
- Weirs SRG
  - Rectangular Weir Calculations
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- Wetlands SRG
  - Multivariate Newton Raphson Solver
  - Wetland Hydraulic Connector - SRG

Lateral Losses and Gains SRG

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  - Groundwater interaction model (Flux) - SRG
- Groundwater - SRG
  - Groundwater Numerical Model for 1-Dimensional Flow (GN1D) - SRG
  - Groundwater Analytical Tool - SRG
- Loss node - SRG

Optimisation SRG

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- Multi-objective optimisation - Insight - SRG

Water Demands SRG

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- Water user node SRG
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  - Irrigation Demand Model Crop Factors SRG
  - PRIDE Demand model - SRG
  - IQQM Crop Model SRG
  - Irrigator Demand Model - SRG
- Minimum Flow Requirement - SRG
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    - Ordering with Priorities - SRG
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- Environmental Flows SRG
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Water Quality SRG

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    - Simple GW salt model - SRG
  - Constituent Filters - SRG
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    - RPM - Riparian Particulate Model for Riparian Buffers - SRG
    - 1st Order Kinetic Model k-C* - SRG
    - Load-based Nutrient Delivery ratio - SRG
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Catchments SRG

- Water quantity processes - Catchments SRG

River Operations SRG

Rivers SRG

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Statistics SRG