Source versions

Welcome to Source (public version). Just as with the full version, you can:

- Build and run a catchments scenario that models water quality constituents;
- Develop river operator scenarios to support day-to-day operations;
- Input data in several ways, including with the Function manager or the Climate data Import tool;
- Use additional analysis tools and plugins; and
- Run and analyse the results using either the command line or the user interface.

Restrictions on functionality are detailed below:

- Limited Node palette (i.e. not all nodes are available)
- Limited to 20 Nodes & Catchments in total (excluding confluence nodes)
- Simple Function editor
- Simple Calibration tool (limited to 1 objective function and 1 calibration engine)
- Plug-in capabilities but specific Plugins will be available separately via the Plugin Store
- Basic IT/Installation support included
- Import scenario functionality
- GN1D groundwater flux model are not available

> In the user guide, content that is not available in Source (public version) is identified on the relevant pages.

These components of Source are not available in Source (public version).

Context variables

Context variables allow you to define a function using a parameter that returns different values based on the parameter's specific context. They can be used in rainfall-runoff models, nodes and links. Using context variables, you can define one function which will use different inputs depending on the context (ie. rainfall runoff model, node or link).

Off allocation node

The off-allocation flow sharing node is used to determine how much off-allocation flow is available in the river (at the node), as well as how to share this between the downstream water users that have licence shares. Off-allocation flows are those that are in excess of regulated requirements. They can be generated from unallocated tributary inflows downstream of storages, and from storage spills.

Ownership and the Transfer of Ownership node

Water ownership deals with the assignment and tracking of water as it is stored in, transits through, and exits river systems. This is an important aspect of water management, as it allows resource sharing amongst owners with the ability to determine how much water an owner has, and where it is located.

The transfer ownership node has two main functions in ownership systems:

- To manage the transfer of flow between owners at a given point in an ownership system; or
- To act as a boundary between adjacent ownership systems by managing the transfer of orders and flow at the boundary.

Resource assessment

Many regulated river systems support several resource assessment schemes to share the available resource (water) among users.
In Source, a resource assessment system:

- is associated with only one scenario in a project, whereas a scenario may be associated with one or more resource assessment systems;
- can only have one owner, but any given owner or water user may be affected by more than one system; and
- supports multiple account types.

There are three types of resource assessment supported in Source:

- Annual accounting - This is a custom assessment method for regulated water;
- Continuous accounting - This replicates the resource assessment system used in the Gwydir and Namoi in NSW; and

- Continuous sharing - In this system, the behaviour of a water user has as little effect as possible on other water users within that system.

You can also configure the following attributes that make up the above three systems:

- Accounts - Water users within a model are linked to accounts, that allow them to request resources;
- Usage limits - Limits the amount of resource that can be delivered to water users;
- Account type triggers - A trigger initiates or cancels certain actions for an account type; examples include dates and water levels; and
- Off allocation systems.

River Operations (limited functionality)

Operations forecasting allows you to create alternate forecasts for inflows, water demands, stream flow losses and gains (unaccounted differences) and constituents within a single overall project scenario. In other words, it forecasts the input data for a model.

In Source (public version), operations cannot be enabled in a scenario. Consequently, a scenario cannot be run using the ***Run w /Warm Up*** analysis type.

Insight (limited functionality)

Insight is eWater's multiple-objective optimisation decision support framework that allows for more efficient evaluation of planning options than the traditional manual trial and error approach that is often used. The main aim of Insight is to optimise decision rules for multiple objectives. The optimisation tool enables a more thorough examination of potential planning scenarios and the resulting trade-offs between desired outcomes.

Source (public version) allows you to undertake optimisation in a single scenario only. It does not allow you to load multiple files where you can carry out optimisation across multiple scenarios.