

Analysis Criteria

Analysis Criteria is composed of two components: A **Rainfall Manager** and general Analysis Settings. Available **Rainfall Manager** are listed to the right, and include **Australian Rainfall and Runoff**, **SCS** and **User Defined Rainfall**, as well as user defined **Observed Rainfall** and **Long Term Rainfall**. Please select one of these topics for further information.

General **Analysis Settings** are discussed below.

Analysis Settings

Select Rainfall

Use the dropdown to choose the rainfall from the current rainfall library or click Edit to open the [Rainfall Manager](#).

Perform First Flush Analysis

When selected a First Flush event is added as an extra event as part of the analysis, which is based on the First Flush Rainfall Depth provided in the form.

Rainfall Depth

The depth of rainfall to be applied to the First Flush event.

Output Interval

This is the interval at which the results of the analysis should be presented. By default this will be set to every 5 minutes, however a big step maybe more suitable for a long duration analysis. Equally a shorter interval increases the temporal resolution when dealing with a short duration storms.

Output Interval

The results are averaged over the output interval period, for example if the Output Interval is 5 minutes and the Analysis Interval is 1 minute, the results calculated for the 1 - 5 minutes intervals are averaged to produce the 5 minutes result.

Increase Rainfall

This will scale all rainfall by the amount specified. This can be used to take climate change, or other factors, into account.

Analysis Interval Mode

The analysis interval can either be automatically calculated by the software or manually entered if you wish to have more control. The Auto value is calculated as 20% of the Output interval, or 10 seconds if this is larger.

Analysis Interval

When the Analysis Interval Mode is set to 'Custom' the ability to enter a specific interval becomes available. By default this will be 30 seconds, however it can be changed to suit the needs of the design. A shorter interval will improve the accuracy, however it will increase run times.

Note: This must be a multiple of the Output interval.



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Workflow - What's next...?



Inflows connect to either **Junctions** or **Stormwater controls** via **Inlets**.

Specify an **Outlet** on these objects then choose to connect to another Junction or Stormwater Control.



Improved Time-step Management

In this version, the engine features an improved time-step management, that automatically sub-divides the Analysis Interval for structures where the water level is varying rapidly (manholes typically). This gives a better representation of the volume and water level in the structure and prevents artificial drying. This feature removes the need to reduce the Analysis Interval.

Reference Height Fraction

This value is used in **Muskingum-Cunge** calculation for **Stormwater Controls - SWC** and for calculating the Time of Travel for **Analysis of Connections**. It specifies the reference flow height for the calculation, as well as determines the base width calculated at that height. This parameter is unitless and its range is 0.01 - 1.0, but by default 0.5 is selected.