

AvgObjectsAggregatedOverTime

This function returns a single numeric value obtained by averaging several objects' aggregated slot values. The objects' slot values may be aggregated as a SUM, AVG, MIN, or MAX over a specified time range.

Description	Aggregates several objects' values, each of which is the result of aggregating a slot's values over time.	
Type	NUMERIC	
Arguments	Type	Meaning
1	STRING	Subbasin name
2	STRING	slot name
3	STRING	aggregation function ("SUM", "AVG", "MIN", or "MAX")
4	STRING	aggregation filter ("INPUT", "OUTPUT", or "ALL")
5	BOOLEAN	time conversion option ("TRUE" or "FALSE")
6	DATETIME	start date
7	DATETIME	end date
Evaluation	<p>A list of slots is generated by searching all of the objects in the Subbasin argument for slots which match the slot name argument. If the time conversion option argument is TRUE, and the values to be aggregated are of the FLOW unit type, the values are multiplied by their corresponding timestep length to convert them to values of the unit type VOLUME.</p> <p>Next, each slot's values are aggregated according to the aggregation function argument over the time range of the datetime arguments. During each of these slot aggregations, any values which do not satisfy the aggregation filter argument are ignored.</p> <p>Finally, all of the object's aggregated slot values are averaged.</p>	
Mathematical Expression	$\overline{\forall_{(obj \text{ in subbasin})} [\forall_{(t \text{ from start to end})} [AggFunction_{(obj)}(obj.slotname)]]}$	
Comments	<p>If the time conversion option argument is TRUE, but the unit of the slot values is not FLOW, RiverWare aborts the run with an error.</p> <p>If none of the values for a slot satisfy the aggregation filter argument, the "SUM" aggregation function yields an aggregated value of 0.0 for that slot, while the "AVG", "MIN", and "MAX" aggregation functions abort RiverWare with an error.</p>	

Syntax Example:

```
AvgObjectsAggregatedOverTime("upper basin",  
    "Inflow",  
    "MAX",  
    "ALL",  
    TRUE,  
    @"October, Previous Year", @"September, Current Year")
```

Return Example:

```
52623.32 "cms"
```