

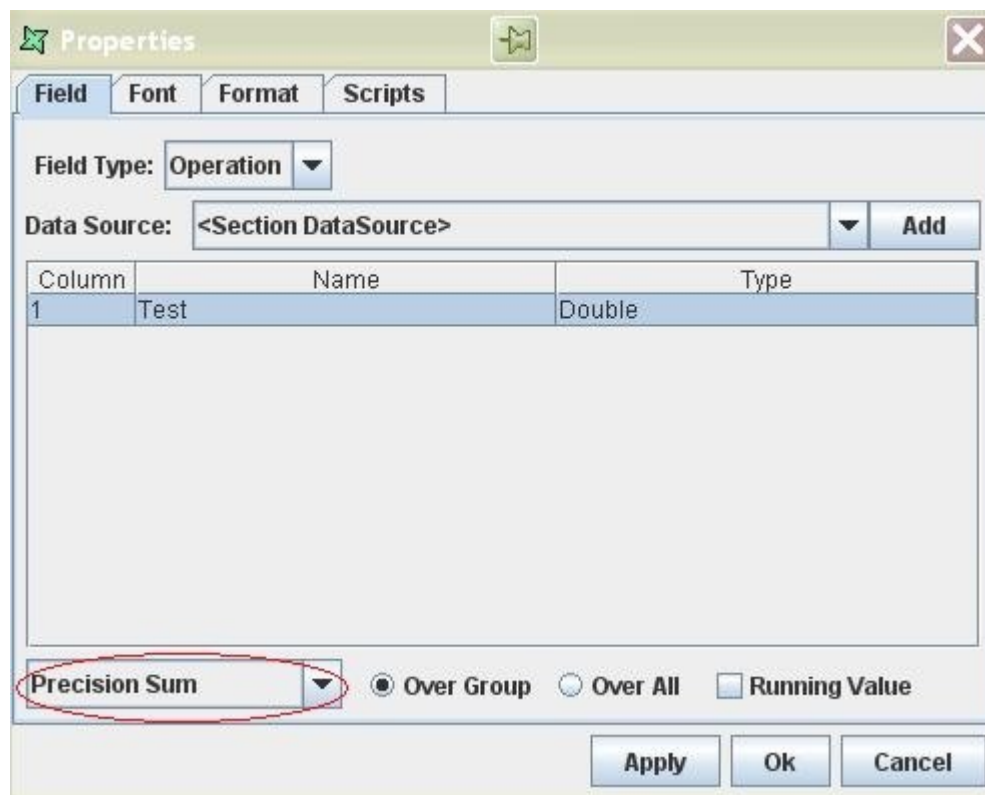
Creating a User-Defined Function

Adding a user-defined function into a report will allow the user to select their defined function from the user interface.

Before starting to create a user-defined function script you need to have basic knowledge of scripting.

To create our sample user-defined function:

1. Place the user-defined function script (example [PrecisionSum.js](#)) into `.\Repertoire\ext`
- 2) Open the template in Repertoire Designer or Remote Designer.
- 3) Double click the 'Data Field' to open the 'Properties' option.
- 4) Select 'Field Type: Operation' and select the user-defined function in the combo box located at the bottom.



Our sample user-defined function will provide the user with exact values after summation, using Double Type values.

In Java, double and float are internally represented as binary fractions according to the IEEE standard 754 and therefore the result will not be exact.

See <http://docs.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html> for more information.

Example: Double Type of 1.52 and 0.51 will be 1.5200000000000001 and 0.5100000000000001

respectively.

Therefore summation of 1.52 and 0.51 will output 2.0300000000000002 instead of 2.03.

The workaround is to:

1. Convert these values to BigDecimal.
2. Multiply all the values by 100 and sum them as Integer then divide the final result by 100. (Example $(1.52*100+0.51*100)/100$)

The above PrecisionSum.js is based on Workaround 2.