

## Report templates: calc aggregate functions

This example demonstrates the available aggregate functions that can be used with the 'calc' report templates feature for data aggregation. Unlike other report templates constructs, aggregates do not cause repetition of content in the generated document. Instead, they aggregate data and insert the (single) resulting value into the document. For example, to insert the sum of a field's values in all records of a data source, the template '{{calc Sum(ds.value)}}' can be used. Aggregate functions' arguments can be expressions involving data, other functions and constants. The data source used in this demo is a list of random decimal values. Please see this example's source code for full details.

### Data values to aggregate:

1. 667.33
2. 5373.86
3. 14661.3
4. 1209.94
5. 6051.97
6. 12582.17
7. 1903.72
8. 1151.11
9. 32006.17
10. 4037.35
11. 9056.98
12. 21273.94
13. 25253

### Simple aggregates:

- {{ calc Average(ds.value) }} : **10402.218461538463**
- {{ calc Count(ds.value) }} : **13**
- {{ calc First(ds.value) }} : **667.33**
- {{ calc Last(ds.value) }} : **25253**
- {{ calc Max(ds.value) }} : **32006.17**
- {{ calc Min(ds.value) }} : **667.33**
- {{ calc Sum(ds.value) }} : **135228.84000000003**

### Aggregates on expressions:

- {{ calc Sum(ds.value / Count(ds.value)) }} : **10402.218461538461**
- {{ calc Average(Pow(ds.value, 2)) }} : **204511265.53213847**
- {{ calc Average(Sqrt(ds.value)) }} : **89.60850271081578**
- {{ calc Sum(lif(ds.value > 50, ds.value, 0)) }} : **135228.84000000003**