

# StatsComponent

## StatsComponent

! Solr1.4

The stats component returns simple statistics for indexed numeric fields within the DocSet.

### Parameters

param	description
stats	true – then do stats
stats.field	add one parameter for each field that needs statistics
stats.facet	Return sub results for values within the given facet.

### Example

With the example data loaded: <http://localhost:8983/solr/select?q=&#42;;&stats=true&stats.field=price&stats.field=popularity&rows=0&indent=true>

```
<lst name="stats">
<lst name="stats_fields">
<lst name="price">
<double name="min">0.0</double>
<double name="max">2199.0</double>
<double name="sum">5251.269999999995</double>
<long name="count">15</long>
<long name="missing">11</long>
<double name="sumOfSquares">6038619.160300001</double>
<double name="mean">350.0846666666664</double>
<double name="stddev">547.737557906113</double>
</lst>
<lst name="popularity">
<double name="min">0.0</double>
<double name="max">10.0</double>
<double name="sum">90.0</double>
<long name="count">26</long>
<long name="missing">0</long>
<double name="sumOfSquares">628.0</double>
<double name="mean">3.4615384615384617</double>
<double name="stddev">3.5578731762756157</double>
</lst>
</lst>
</lst>
```

Same results faceted on *inStock*:  
`&stats.facet=inStock`

```

<lst name="stats">
  <lst name="stats_fields">
    <lst name="price">
      <double name="min">0.0</double>
      <double name="max">2199.0</double>
      <double name="sum">5251.269999999995</double>
      <long name="count">15</long>
      <long name="missing">11</long>
      <double name="sumOfSquares">6038619.160300001</double>
      <double name="mean">350.0846666666664</double>
      <double name="stddev">547.737557906113</double>
    <lst name="facets">
      <lst name="inStock">
        <lst name="false">
          <double name="min">11.5</double>
          <double name="max">649.99</double>
          <double name="sum">1161.39</double>
          <long name="count">4</long>
          <long name="missing">0</long>
          <double name="sumOfSquares">653369.2551</double>
          <double name="mean">290.3475</double>
          <double name="stddev">324.63444676281654</double>
        </lst>
        <lst name="true">
          <double name="min">0.0</double>
          <double name="max">2199.0</double>
          <double name="sum">4089.879999999999</double>
          <long name="count">11</long>
          <long name="missing">0</long>
          <double name="sumOfSquares">5385249.905200001</double>
          <double name="mean">371.8072727272727</double>
          <double name="stddev">621.6592938755265</double>
        </lst>
      </lst>
    </lst>
  </lst>
</lst>

```

## Notes

- The facet field can be selectively applied. That is if you want stats on field "A" and "B", you can facet a on "X" and B on "Y" using &stats.field=A&f.A.stats.facet=X&stats.field=B&f.B.stats.facet=Y
- ⚠️ Warning:** as implemented, all facet results are returned, be careful what fields you ask for!
- Multi-valued fields and facets may be slow.
- Computing statistics using stats.facet over a multi-valued field does not work properly. <https://issues.apache.org/jira/browse/SOLR-1782>
- Multi-value fields rely on `UnInvertedField.java` for implementation. This is like a FieldCache, so be aware of your memory footprint.
- `TrieFields` has to use a precisionStep of -1 to avoid using `UnInvertedField.java`. Consider using one field for doing stats, and one for doing range facetting on.

## Results

value	description
min	The minimum value
max	The maximum value
sum	Sum of all values
count	How many (non-null) values
missing	How many null values
sumOfSquares	Sum of all values squared (useful for stddev)
mean	The average ( $v_1 + v_2 + \dots + v_N$ )/N
stddev	Standard Deviation – measuring how widely spread the values in a data set are.