

How-To: Create an HTML5 Bubble Chart in Jasper Studio 6.2.1

In order to create a bubble chart in Jasper Reports, user must have **three measures all using numeric type data** (Integer, Long, Double, and BigDecimal class). String and Date/Timestamp type cannot be used as the measure for the chart. The measures should be listed in the chart design in x, y, and z-axis order, where the filed value in each measure will represent x-axis, y-axis for the bubble coordinate in the chart and size for the bubble, respectively.

It is also importance to set chart category to `#{REPORT_COUNT}` in order to display individual bubble in the chart. **Without the count, only one bubble per chart series will get displayed.**

```
<axisLevelBucket order="None" class="java.lang.Integer">
  <bucketExpression><![CDATA[#{REPORT_COUNT}]]></bucketExpression>
</axisLevelBucket>
```

The following is a sample report JRXML file using HTML5 bubble chart:

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- Created with Jaspersoft Studio version 6.2.1.final using JasperReports Library
version 6.2.1 -->
<!-- 2016-04-11T16:40:11 -->
<jasperReport xmlns="http://jasperreports.sourceforge.net/jasperreports"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://jasperreports.sourceforge.net/jasperreports
http://jasperreports.sourceforge.net/xsd/jasperreport.xsd"
  name="test_bubble"
  pageWidth="612"
  pageHeight="792"
  columnWidth="555"
  leftMargin="20"
  rightMargin="20"
  topMargin="20"
  bottomMargin="20"
  uuid="896e8b63-5c37-4773-8d2a-5d255404a1a">
  <property name="com.jaspersoft.studio.data.defaultdataadapter"
value="JRSrepo.xml"/>
  <property name="com.jaspersoft.studio.data.sql.tables" value=""/>
  <queryString language="SQL">
    <![CDATA[select 0.0 as category_val, 28448 as no_of_calls, '65' as
pattern_total_calls_pct, 'customer2' as i_zone_name, 'ShortRingAnswer' as category,
'4/6/16 9:00 PM' as end_time
union
select 0.0 as category_val, 28776 as no_of_calls, '66' as pattern_total_calls_pct,
'customer3' as i_zone_name, 'ShortRingAnswer' as category, '4/6/16 9:00 PM' as
end_time
union
select 0.0 as category_val, 29581 as no_of_calls, '67' as pattern_total_calls_pct,
'customer4' as i_zone_name, 'ShortRingAnswer' as category, '4/6/16 9:00 PM' as
end_time
union
select 0.0 as category_val, 32459 as no_of_calls, '74' as pattern_total_calls_pct,
'customer1' as i_zone_name, 'ShortRingAnswer' as category, '4/6/16 9:00 PM' as
end_time
union
select 0.0 as category_val, 28689 as no_of_calls, '66' as pattern_total_calls_pct,
'customer3' as i_zone_name, 'ShortRingAnswer' as category, '4/6/16 8:30 PM' as
end_time
union
select 0.0 as category_val, 28751 as no_of_calls, '66' as pattern_total_calls_pct,
'customer4' as i_zone_name, 'ShortRingAnswer' as category, '4/6/16 8:30 PM' as
end_time]]>
```

```

union
select 0.0 as category_val, 28879 as no_of_calls, '66' as pattern_total_calls_pct,
'customer2' as i_zone_name, 'ShortRingAnswer' as category, '4/6/16 8:30 PM' as
end_time
union
select 0.0 as category_val, 32742 as no_of_calls, '75' as pattern_total_calls_pct,
'customer1' as i_zone_name, 'ShortRingAnswer' as category, '4/6/16 8:30 PM' as
end_time]]>
</queryString>
<field name="category_val" class="java.lang.Double"/>
<field name="no_of_calls" class="java.lang.Integer"/>
<field name="pattern_total_calls_pct" class="java.lang.String"/>
<field name="i_zone_name" class="java.lang.String"/>
<field name="category" class="java.lang.String"/>
<field name="end_time" class="java.lang.String"/>
<background>
  <band splitType="Stretch"/>
</background>
<title>
  <band splitType="Stretch"/>
</title>
<pageHeader>
  <band splitType="Stretch"/>
</pageHeader>
<columnHeader>
  <band splitType="Stretch"/>
</columnHeader>
<detail>
  <band splitType="Stretch"/>
</detail>
<columnFooter>
  <band splitType="Stretch"/>
</columnFooter>
<pageFooter>
  <band splitType="Stretch"/>
</pageFooter>
<summary>
  <band height="500" splitType="Stretch">
    <property name="local_mesure_unitheight" value="pixel"/>
    <property name="com.jaspersoft.studio.unit.height" value="px"/>
    <componentElement>
      <reportElement x="0" y="0" width="570" height="400"
        uuid="fd0ecb90-49c1-4820-afbb-57073a49a6fb">
        <property name="local_mesure_unitheight" value="pixel"/>
        <property name="com.jaspersoft.studio.unit.height" value="px"/>
      </reportElement>
      <hc:chart xmlns:hc="http://jaspersoft.com/highcharts"
        xsi:schemaLocation="http://jaspersoft.com/highcharts
http://jaspersoft.com/schema/highcharts.xsd"
        type="Bubble">
        <hc:hyperlink hyperlinkType="Reference" hyperlinkTarget="Blank">
          <hyperlinkReferenceExpression>
            <![CDATA["http://www.december.com/html/spec/colorrgbadec.html"]]>
          </hyperlinkReferenceExpression>
        </hc:hyperlink>
        <hc:chartSetting name="default">
          <hc:chartProperty name="chart.plotBorderWidth">
            <hc:propertyExpression><![CDATA[1]]></hc:propertyExpression>
          </hc:chartProperty>
          <hc:chartProperty name="chart.zoomType">

```

```

<hc:propertyExpression><![CDATA["xy"]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="credits.enabled">

<hc:propertyExpression><![CDATA[false]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="credits.href">

<hc:propertyExpression><![CDATA[""]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="credits.text">

<hc:propertyExpression><![CDATA[""]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="subtitle.style.color">
    <hc:propertyExpression><![CDATA[new java.awt.Color(-
15389789)]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="subtitle.text">

<hc:propertyExpression><![CDATA[""]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="title.style.color">
    <hc:propertyExpression><![CDATA[new java.awt.Color(-
1233126)]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="title.text">
    <hc:propertyExpression><![CDATA["Test Bubble
Report"]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="xAxis.gridLineWidth">

<hc:propertyExpression><![CDATA[1]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="xAxis.title.text">

<hc:propertyExpression><![CDATA["Category"]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="yAxis.endOnTick">

<hc:propertyExpression><![CDATA[false]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="yAxis.startOnTick">

<hc:propertyExpression><![CDATA[false]]></hc:propertyExpression>
  </hc:chartProperty>
  <hc:chartProperty name="yAxis.title.text">
    <hc:propertyExpression><![CDATA["Number of
Calls"]]></hc:propertyExpression>
  </hc:chartProperty>
</hc:chartSetting>
<multiAxisData>
  <multiAxisDataset/>
  <dataAxis axis="Rows">
    <axisLevel name="Level1">
      <labelExpression><![CDATA["Level Label
expression"]]></labelExpression>
      <axisLevelBucket order="None"
class="java.lang.Integer">
<bucketExpression><![CDATA[{$V{REPORT_COUNT}}]></bucketExpression>
      </axisLevelBucket>

```

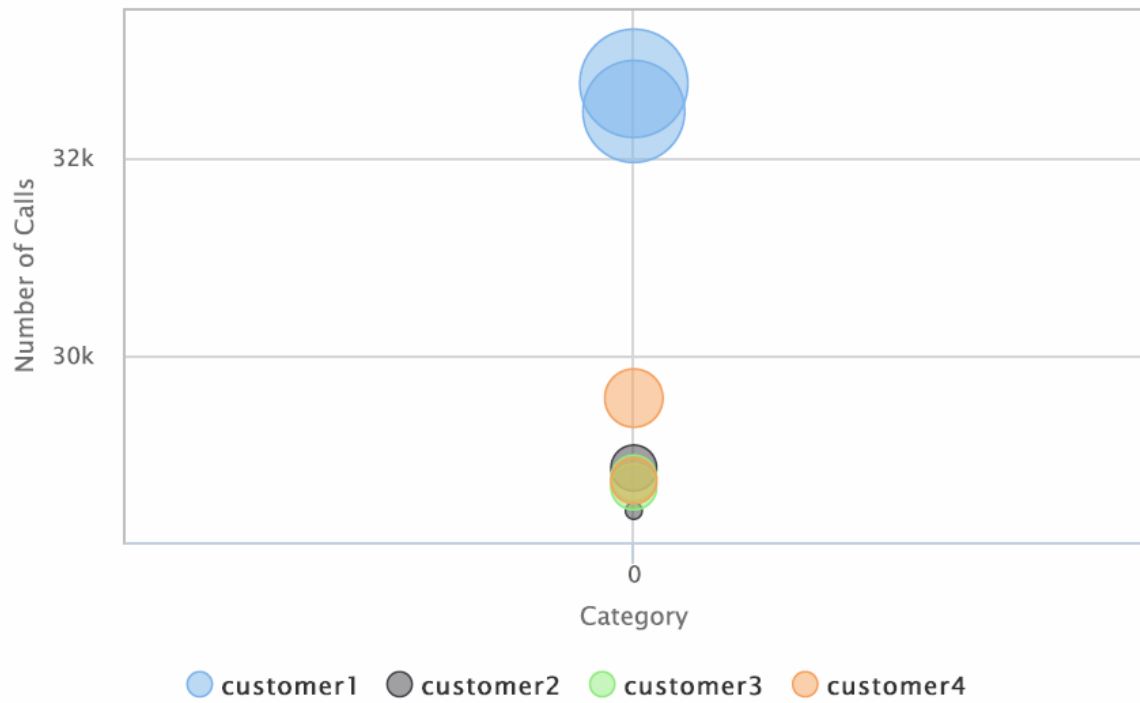
```

        </axisLevel>
    </dataAxis>
    <dataAxis axis="Columns">
        <axisLevel name="series">
            <labelExpression><![CDATA[]]></labelExpression>
            <axisLevelBucket class="java.lang.String">
<bucketExpression><![CDATA[{$F{i_zone_name}}]></bucketExpression>
                </axisLevelBucket>
            </axisLevel>
        </dataAxis>
        <multiAxisMeasure name="Measure1" class="java.lang.Double"
calculation="Nothing">
            <labelExpression><![CDATA[""]]></labelExpression>
<valueExpression><![CDATA[{$F{category_val}}]></valueExpression>
            </multiAxisMeasure>
        <multiAxisMeasure name="Measure2" class="java.lang.Integer"
calculation="Nothing">
            <labelExpression><![CDATA["Value"]]></labelExpression>
<valueExpression><![CDATA[{$F{no_of_calls}}]></valueExpression>
            </multiAxisMeasure>
        <multiAxisMeasure name="Measure3" class="java.lang.Integer"
calculation="Nothing">
            <labelExpression><![CDATA[""]]></labelExpression>
            <valueExpression><![CDATA[new
Integer({$F{pattern_total_calls_pct}})]></valueExpression>
            </multiAxisMeasure>
        </multiAxisData>
        <hc:series name="Measure1"/>
        <hc:series name="Measure2"/>
        <hc:series name="Measure3"/>
    </hc:chart>
</componentElement>
</band>
</summary>
</jasperReport>

```

User can test this report with any PostgreSQL data source. Here is the report output:

Test Bubble Report



Courtesy: <https://community.jaspersoft.com/wiki/creating-html5-bubble-chart-jasper-studio-621>

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Dököll Solutions, Inc.