



# BI Publisher Charts

PT 8.59

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## Overview

BI Publisher Desktop chart wizard enables designers to quickly insert charts into RTF templates.

The wizard enables fine control over multiple flavors of 13 primary graph types for a total of 47 graph types to choose from.

Charts can build on all the data in a file or create separate charts within a report's grouping. Data structure of the XML File does matter.

## Documentation

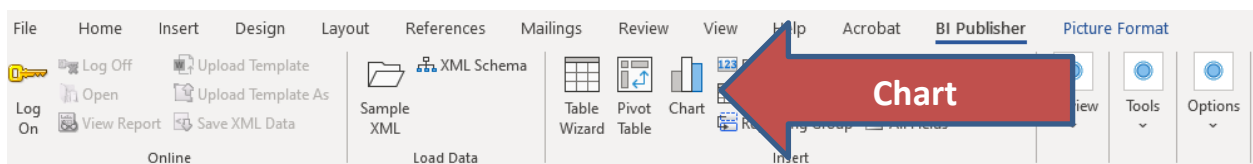
BI Publisher Charts are not well documented in PeopleBooks. Here are some links to Oracle's more detailed documentation on BI Publisher and Pivot Tables

Oracle Docs: Middleware

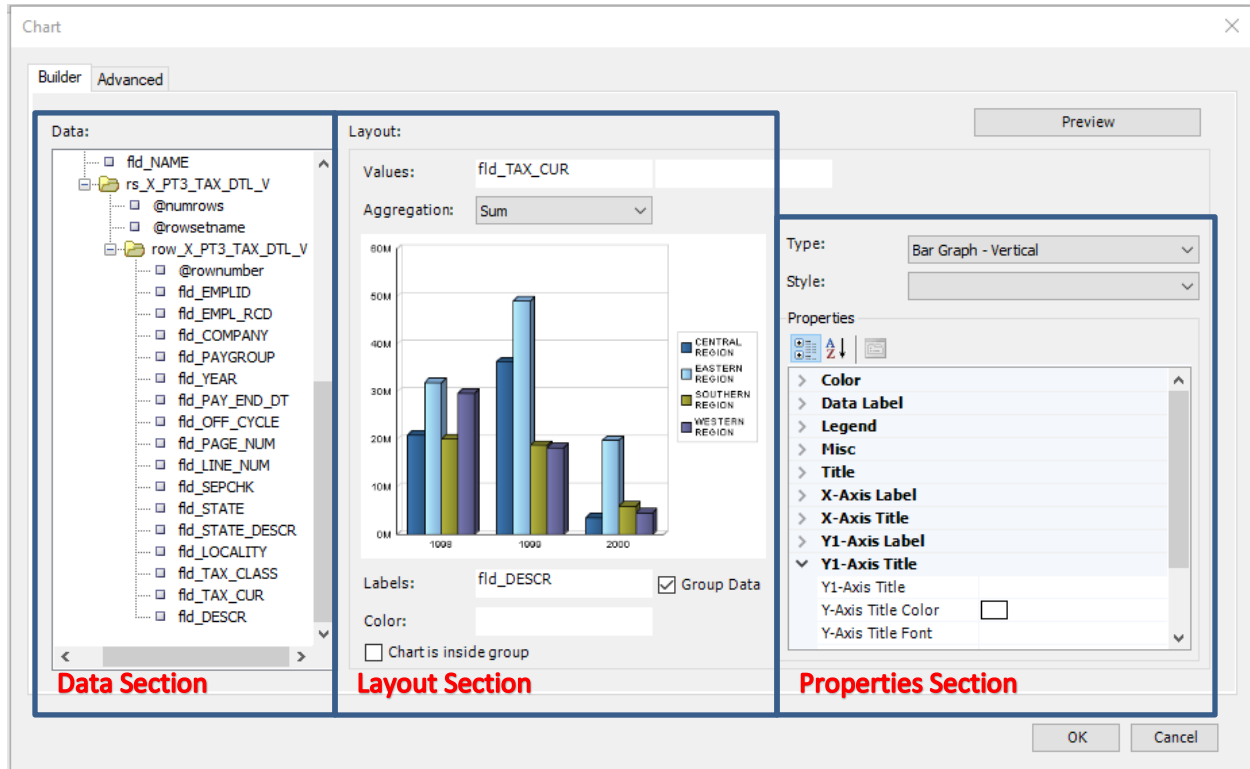
BI Publisher Templates	<a href="https://docs.oracle.com/middleware/12212/bip/BIPRD/toc.htm">https://docs.oracle.com/middleware/12212/bip/BIPRD/toc.htm</a>
RTF Charts	<a href="https://docs.oracle.com/middleware/bi12214/bip/BIPRD/GUID-43369E75-4A64-4C70-956D-AB0DB496CA7A.htm#BIPRD2668">https://docs.oracle.com/middleware/bi12214/bip/BIPRD/GUID-43369E75-4A64-4C70-956D-AB0DB496CA7A.htm#BIPRD2668</a>

## Chart Wizard

On the BI Publisher menu in Word, click on the Chart icon in the "Insert" section to bring up the charting wizard.



The Chart Wizard pops up in a window to define your chart.



The Chart Wizard has three main sections.

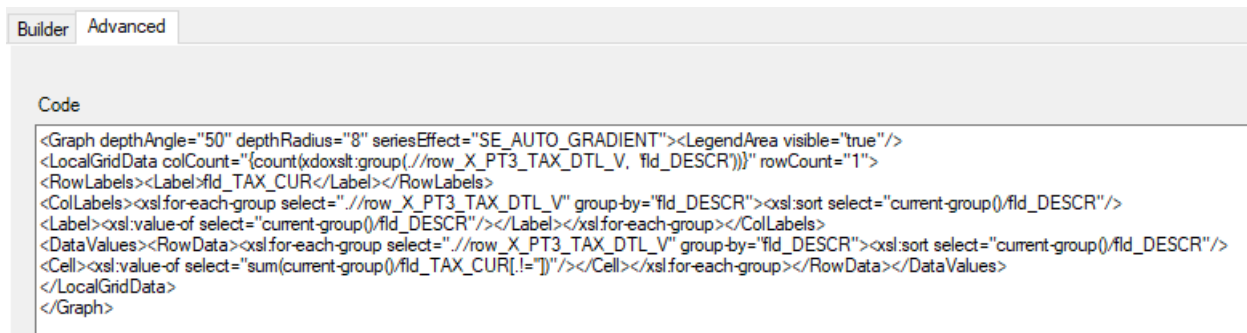
1. **Data Section**  
Displays your data and data structure from your sample file. Drag fields into the layout section to define your chart
2. **Layout Section**  
Defines fields for the X & Y Axes and data aggregation method.  
Shows a chart type example when choosing type and previews current chart configuration with using the sample XML File.
3. **Properties Section**  
Fine control of the chart. Change Chart Type, Colors, legends, titles, etc.

## Preview Button

The preview renders the chart in the layout section sample image according to the sample data file, options, and properties. This button allows us to preview an accurate rendering of your chart without leaving the Chart Wizard.

## Advanced Tab

The Advanced Tab exposes the BI Publisher XSL generated by the wizard generating the chart. This XSL can be edited here for finer control of the chart.



## Double X-Axis values

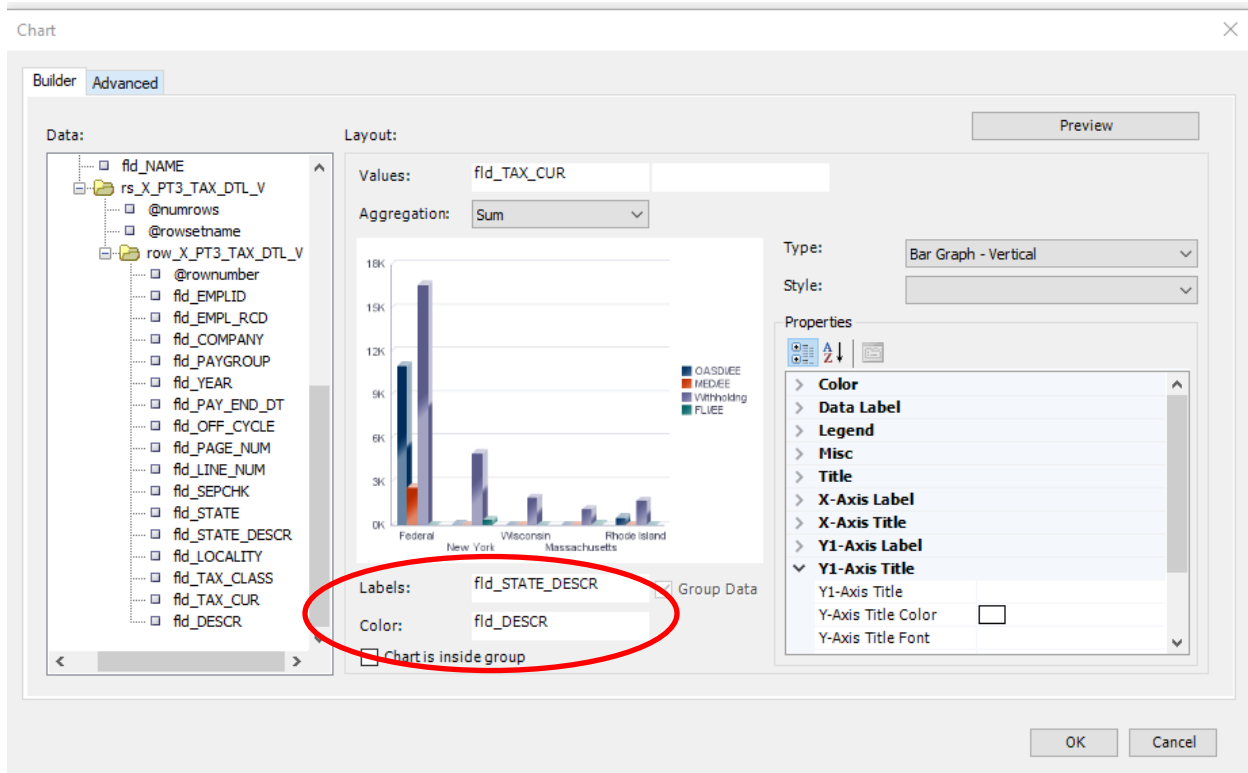
Sometimes, we need more than one field to define our X-Axis. Our example shown later, there are several fields besides the Tax Class to organize the chart. What if we wanted to show the different taxes within each state rather than the grand sum?

At the bottom of the layout section, there are two data elements: Labels and Color.

The “Labels” field is the primary X-Axis field. This is the field we want for our State Description.

The “Colors” field is the secondary X-Axis field. This is for the data breakdown within the primary X-Axis. Place the fld\_DESCR (Tax Class Description) into this box and click the “Preview” button.

The result is that we will see the breakdown of different tax classes within each state.



## Primary Graph Types

There are thirteen primary graph types available in BI Publisher.

- Area
- Bar
- Bubble
- Combination
- Funnel
- Gauge
- Line
- Pareto
- Pie
- Radar
- Ring
- Scatter
- Stock

The fields and controls in the Layout section will change according to the graph type chosen.

- Combination Graph - Enables three fields for the Value selections.
- Scatter Graph - Compares pairs of values. Drag and drop the X and Y data elements to compare.
- Bubble Graph - Compares sets of three values. Similar to the scatter graph, the third value is displayed as the size of the bubble.
- Stock Graph - Drag and drop the elements that represent the Open, High, Low, Close, and Volume values for the stock graph.

Demonstration Example

It’s easier to explain the Charts given a specific example. In this Example, we have a report on employee annual payroll taxes.

Our structured data has a parent child relationship between Employee Data and Taxes.

Each employee row has one or more tax lines

A simple report using this data might look like this

Employee Data

- Name
- Employee ID
- Company
- Department

Pay Tax Data #1

- State
- Locality
- Class (Type)
- Tax Amount\$

Pay Tax Data #2

Pay Tax Data #n

Paycheck Taxes

KU0151 Chris Cameron

Company GBI

Department 13111

Home State NY

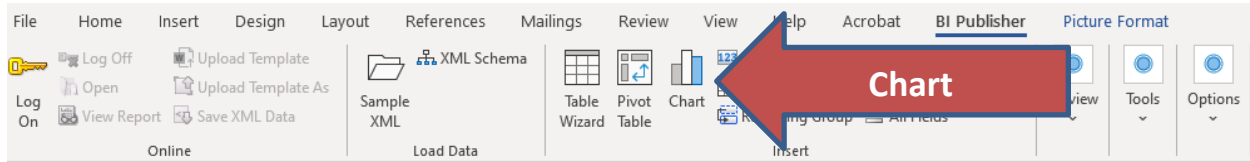
State	Locality	Tax Class (Type)	Tax\$
Federal		OASDI/EE	50.08
Federal		MED/EE	11.71
Federal		Withholdng	82.93
New York		OASDI/EE	0.6
New York		Withholdng	34.83
New York		FLI/EE	4.13
New York	P0001	Withholdng	24.63
Federal		OASDI/EE	50.07
Federal		MED/EE	11.71
Federal		Withholdng	82.93
New York	P0001	Withholdng	24.63
New York		OASDI/EE	0.6
New York		Withholdng	34.83
New York		FLI/EE	4.12
Federal		OASDI/EE	50.08
Federal		MED/EE	11.71
Federal		Withholdng	82.93
New York	P0001	Withholdng	24.63
New York		Withholdng	34.83
New York		OASDI/EE	0.6
New York		FLI/EE	4.13
Federal		MED/EE	11.72
Federal		Withholdng	770
Federal		Withholdng	82.93
Federal		OASDI/EE	217
Federal		MED/EE	50.75

We can see that this employee has paid a lot of taxes over time. However, there is a lot of detail, much of it iterates over multiple paychecks.

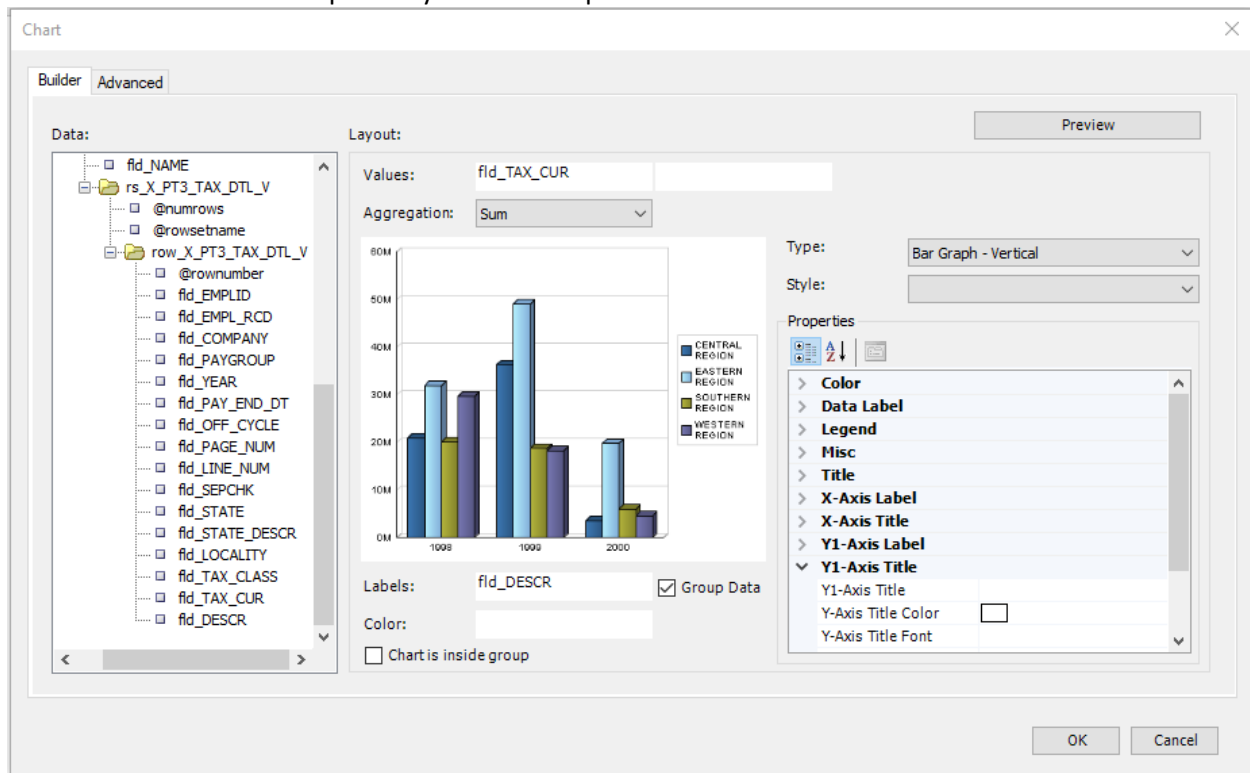
## Simple Chart

Our first chart will report on all data in our XML file without grouping.

1. Load the sample XML file into the BI Publisher Template Builder
2. Place your cursor on the document where you want the chart to render
3. Click on the Chart Control in the BI Publisher Menu



4. The chart Wizard opens in your RTF Template



5. Drag the fld\_TAX\_CUR (Tax Amount) field to the values box

Chart

Builder Advanced

Data:

- fld\_NAME
- rs\_X\_PT3\_TAX\_DTL\_V
  - @numrows
  - @rowsetname
  - row\_X\_PT3\_TAX\_D
    - @rownumber
    - fld\_EMPLID
    - fld\_EMPL\_RCD
    - fld\_COMPANY
    - fld\_PAYGROUP
    - fld\_YEAR
    - fld\_PAY\_END\_I
    - fld\_OFF\_CYCLE
    - fld\_PAGE\_NUM
    - fld\_LINE\_NUM
    - fld\_SEPCHK
    - fld\_STATE
    - fld\_STATE\_DESC
    - fld\_LOCALITY
    - fld\_TAX\_CLASS
    - fld\_TAX\_CUR**
    - fld\_DESCR

Layout:

Values: **fld\_TAX\_CUR**

Aggregation: Sum

Type: Bar Graph - Vertical

Style: Autumn

Properties:

- Color
- Data Label
- Legend
- Misc
- Title
- X-Axis Label
- X-Axis Title
- Y1-Axis Label
- Y1-Axis Title
  - Y1-Axis Title Dollars
  - Y-Axis Title Color
  - Y-Axis Title Font

Labels: fld\_DESCR ☒ Group Data

Color:

☐ Chart is inside group

Preview

OK Cancel

6. Drag the fld\_DESCR (Tax Class Description) field to the Labels box and click "OK"

Chart

Builder Advanced

Data:

- fld\_NAME
- rs\_X\_PT3\_TAX\_DTL\_V
  - @numrows
  - @rowsetname
  - row\_X\_PT3\_TAX\_DTL\_V
    - @rownumber
    - fld\_EMPLID
    - fld\_EMPL\_RCD
    - fld\_COMPANY
    - fld\_PAYGROUP
    - fld\_YEAR
    - fld\_PAY\_END\_DT
    - fld\_OFF\_CYCLE
    - fld\_PAGE\_NUM
    - fld\_LINE\_NUM
    - fld\_SEPCHK
    - fld\_STATE
    - fld\_STATE\_DESCR
    - fld\_LOCALITY
    - fld\_TAX\_CLASS
    - fld\_TAX\_CUR
    - fld\_DESCR**

Layout:

Values: fld\_TAX\_CUR

Aggregation: Sum

Type: Bar Graph - Vertical

Style:

Properties:

- Color
- Data Label
- Legend
- Misc
- Title
- X-Axis Label
- X-Axis Title
- Y1-Axis Label
- Y1-Axis Title
  - Y1-Axis Title
  - Y-Axis Title Color
  - Y-Axis Title Font

Labels: **fld\_DESCR** ☒ Group Data

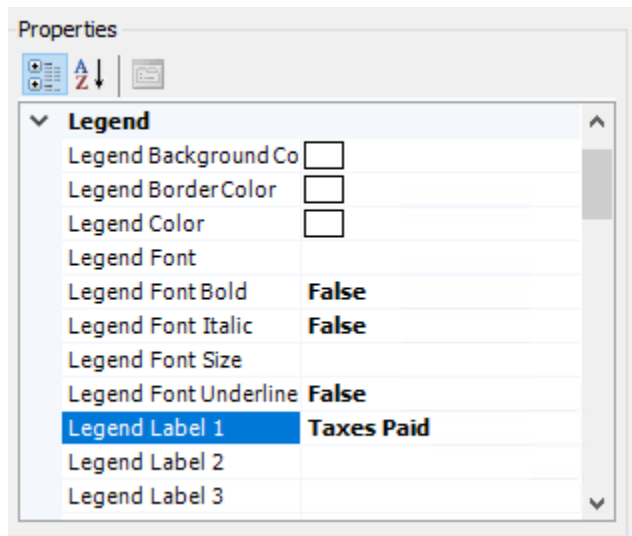
Color:

☐ Chart is inside group

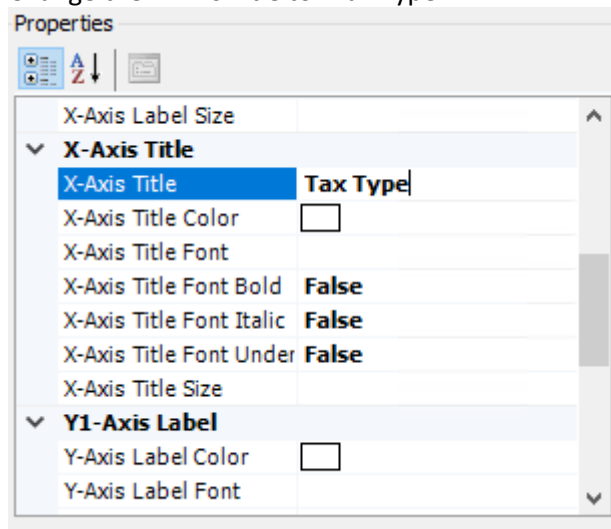
Preview

OK Cancel

7. In the Properties Section, Open the Legend group
  - a. Change the “Legend Label 1” value to “Taxes Paid”

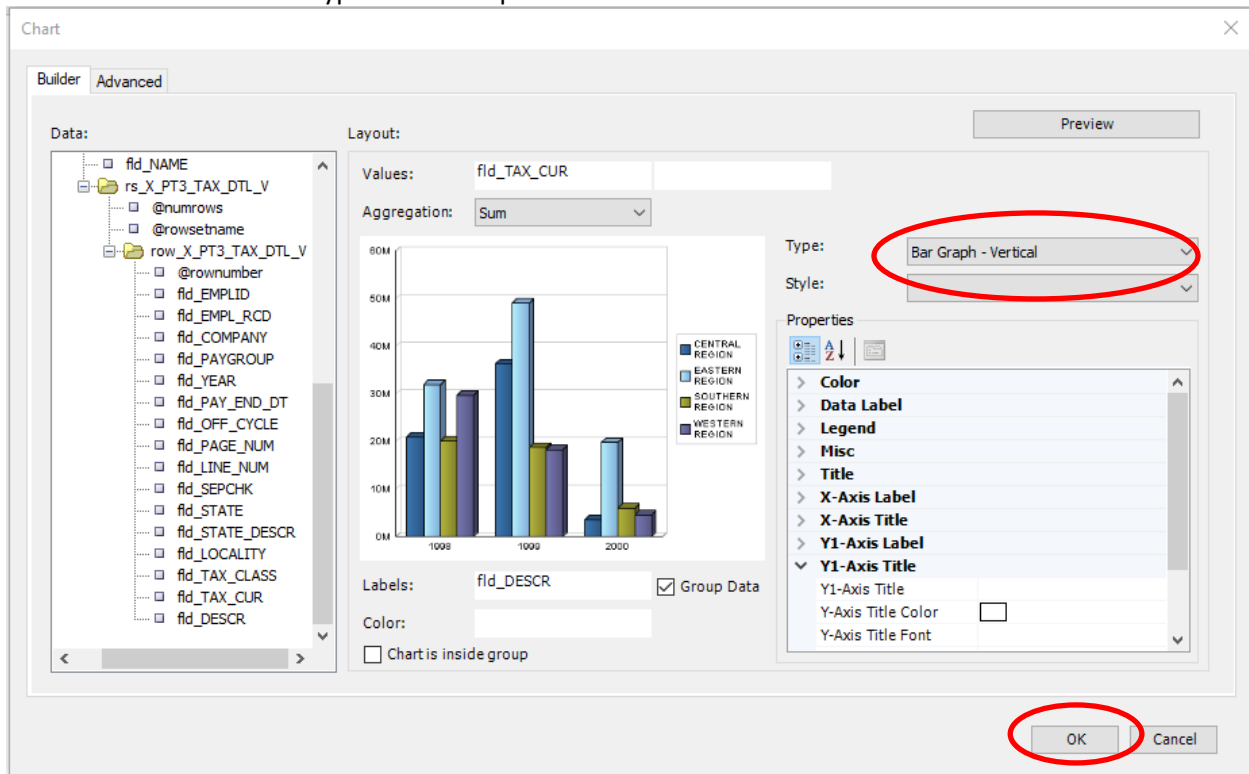


8. In the Properties Section, Open the X-Axis Title group
  - a. Change the X-Axis Title to “Tax Type”

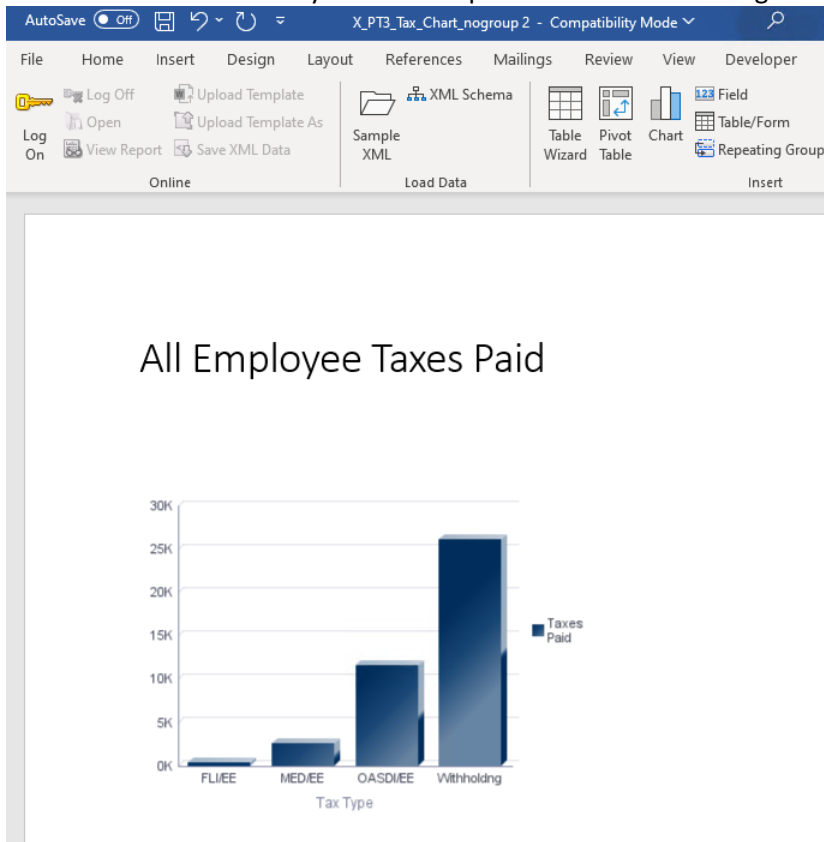




9. Ensure the Chart Type is “Bar Graph – Vertical” and click the OK button

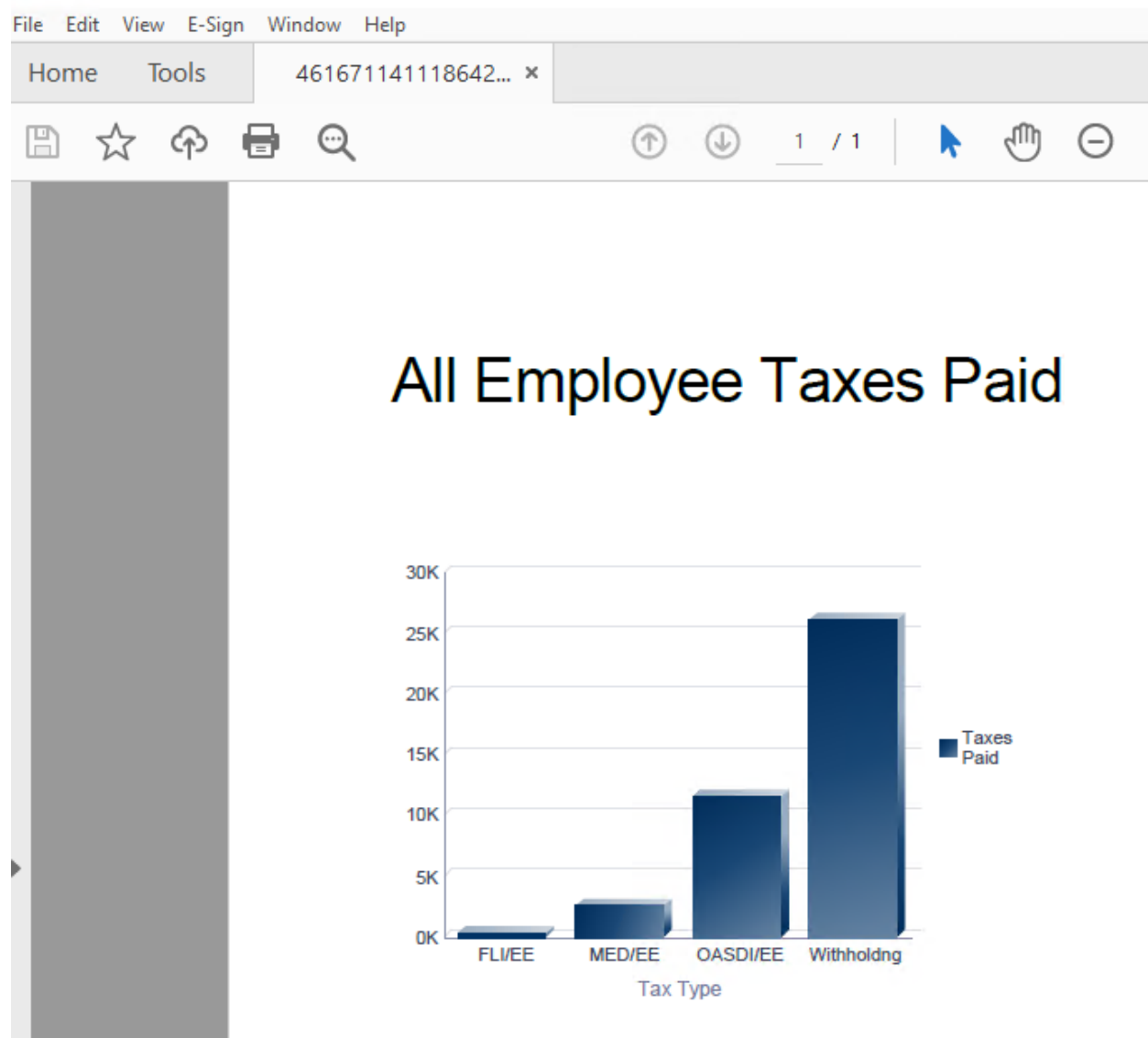


The chart is inserted into your RTF template with the chart image reflecting the sample data file.



Click Preview and see the rendered report

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### Inserting into a Repeating Group

Our example above compiled all the taxes data from the XML File and displayed it in one chart.

BI Publisher can work with the report grouping to generate a chart showing each group's data. For our example data set, we want a chart showing the taxes paid per each employee.

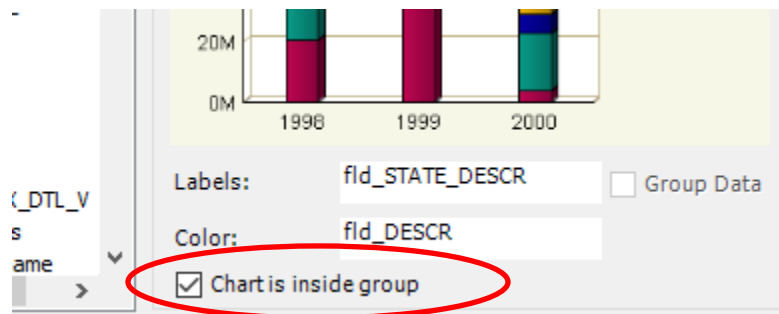
First, create your report with the repeating groups so that the grouping and display functions are working correctly before you add in the chart.

Insert your chart into the report and configure the sections.

### Structured Data Vs Unstructured Data

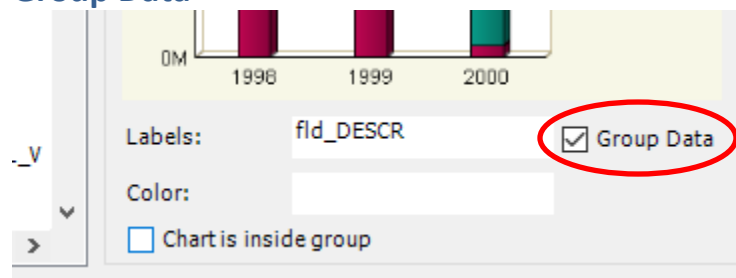
If your XML file already contains structured data with parent-child relationships as in our example, the report will automatically produce a chart for each iteration of your group with just that group's data.

If your XML File is unstructured (as in a PSQuery), check the “Chart is Inside Group” checkbox. This option forces BI Pub to only chart the data within its current report grouping.



Checking this box for data that is structured may cause your chart to appear blank since BI Publisher will attempt regroup data that is already grouped.

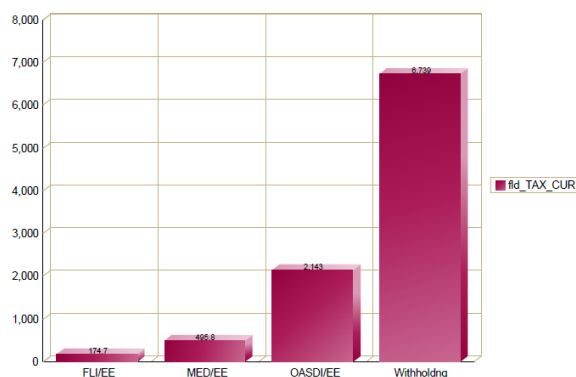
## Group Data



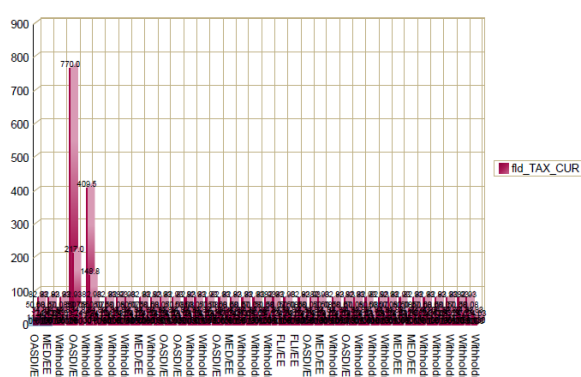
By default, BI Publisher groups and charts data by the “Labels” field. However, you can uncheck the “Grouped Data” checkbox and the chart will not group the data but chart each individual element.

Both these charts reflect the same data. One is grouped and the other is not.

## Grouped Data



## Un-Grouped Data



## Adjusting an existing chart

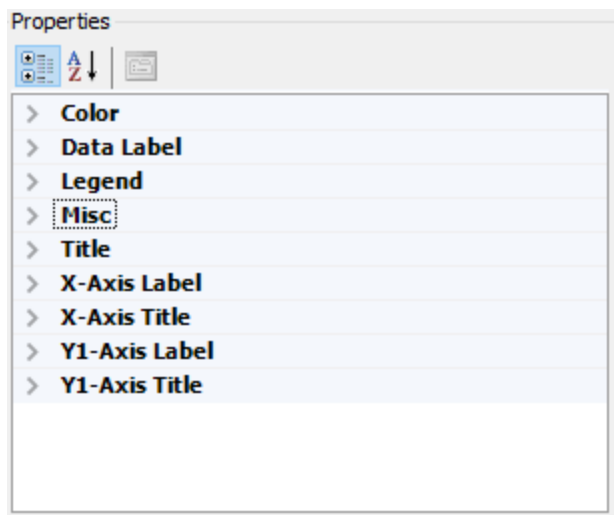
A major improvement the Chart Wizard has over the Pivot Table Wizard is that the Chart Wizard can be relaunched from the Chart object in the RTF template.

To change the layout or properties of a chart, just double click on the chart object will re-open with the last configuration settings. This allows the BI Publisher Report Developer to make small changes to the report without needing to delete and recreate the object for every change.

## Where to go from here

Bi Publisher's Pivot Table tools has more options to explore:

- Multiple different X/Y Axis fields and values
- Different visualizations of each of the 47 chart flavors
- Thirteen delivered Color schemes and custom options
- Fine tuning the graphs colors, fonts, labels and legends



BI publisher's Chart Wizard has the capability to deliver the in report chart your users are requiring.