IZENDA
REPORTS

# REPORT DESIGN GUIDE

**Version**

6.5

Izenda Reports Report Design Guide, Revision 2

# Preface

Izenda is a reporting and business intelligence platform that connects directly to relational and non-relational data sources. Through its .NET API, it loosely couples with Microsoft-based applications to integrate with your current security, branding, and navigation.

Izenda *Reports* enables you to easily access your databases directly and quickly transform raw data into useful and readily understood information.

With Izenda, you can:

- Extract the information you need from one or more related tables.
- Format data into tables, reports, charts, pivots, and gauges.
- View the resulting report in your Web-browser and then print it.
- Export reports in several formats, including Microsoft Word, Microsoft Excel, and Adobe PDF.
- Automate many processes through scheduling, sharing, alerting, batch processing, and caching
- Implement custom layout reports through Izenda Forms
- Develop user-defined or custom Dashboards and Maps

Izenda's point-and-click interface is designed for the standard business user, with Advanced options available for those with greater access and skill. Many users will never design reports, but simply make modifications to current core reports, or use drill-downs to start at a high level overview and click through to get to the required information.

This user manual will step you through each simple process in using *Izenda,* and provide you with what you need to know to create your queries and reports. Any data that your application developer has included in the database can be accessible to you in creating *ad hoc* reports.

# CONTENTS

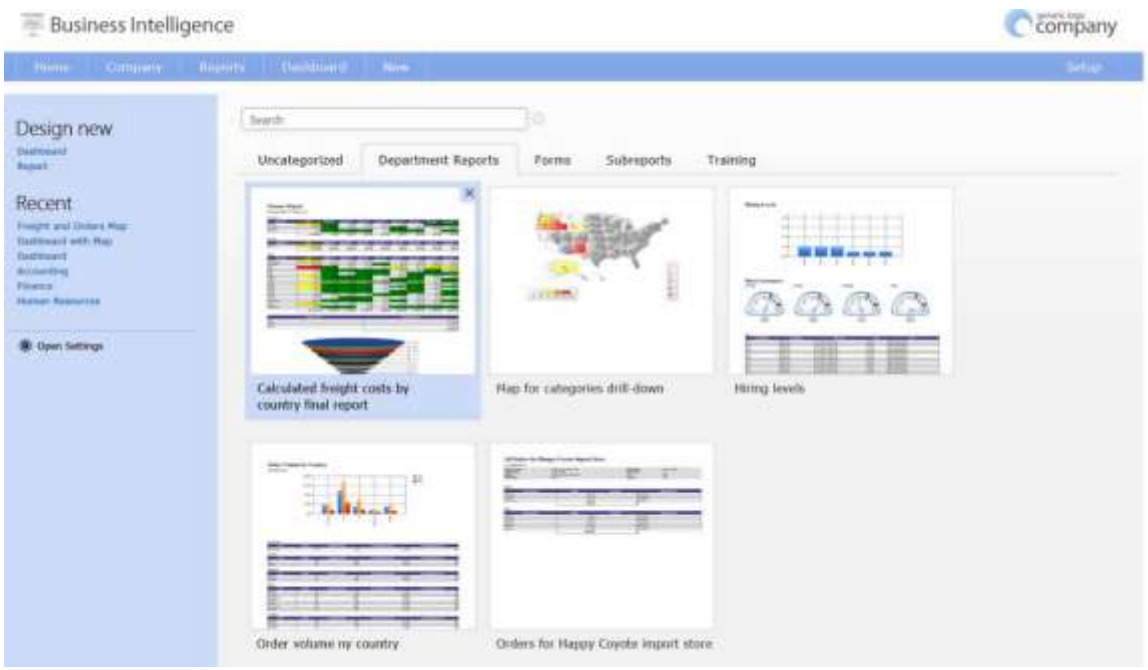
## 1.0 INTRODUCTION TO IZENDA REPORTS

[Izenda Live Demo Page]

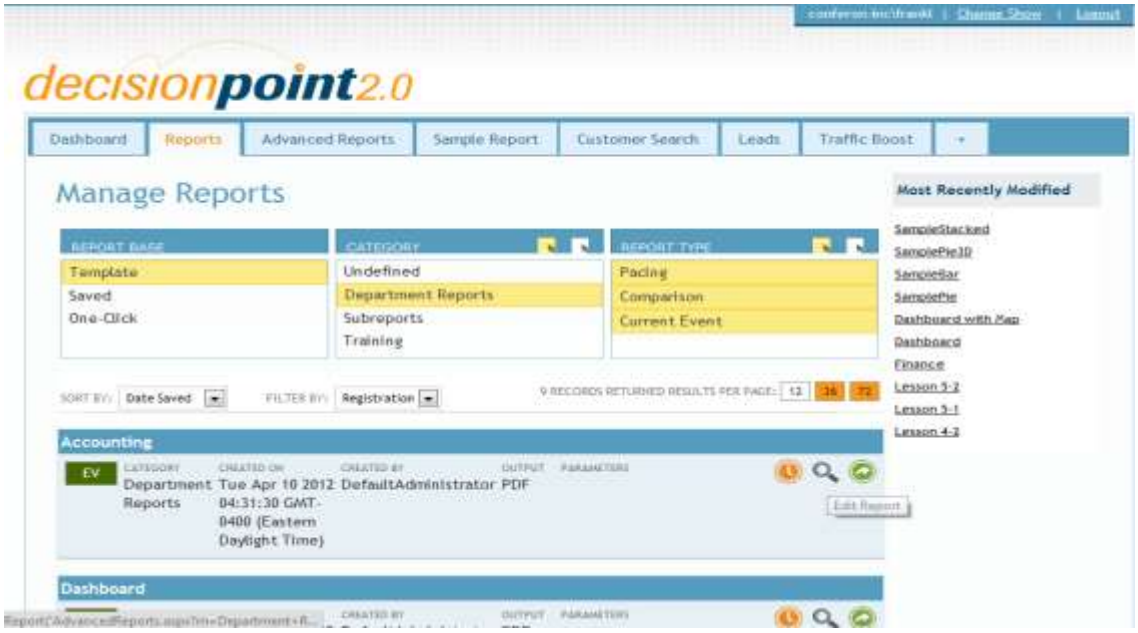

Click on the Link Above or the Image to Navigate to the Page

## 1.1 Report List

### Branded Standalone Izenda Interface – Office 2013 Style Report List

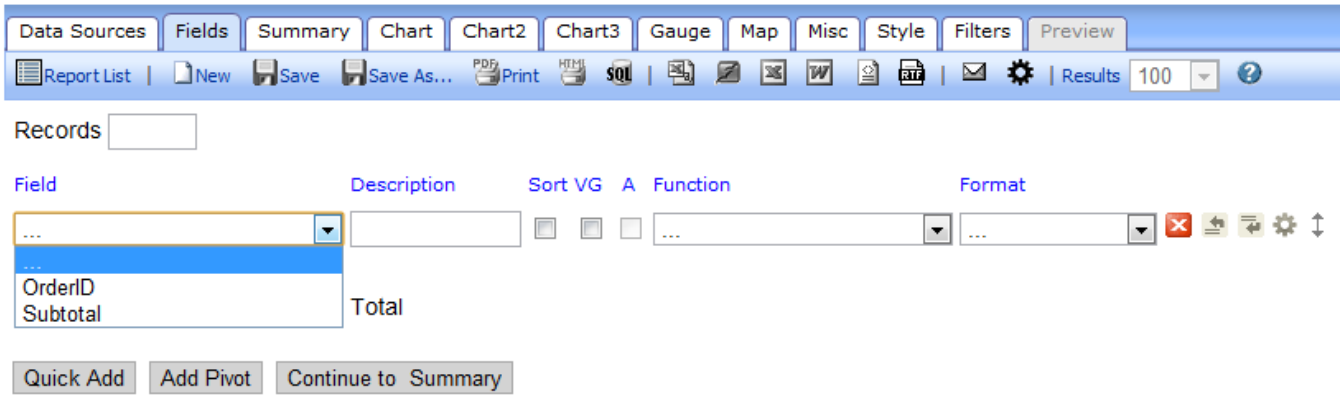



### Embedded Application Example – Report List



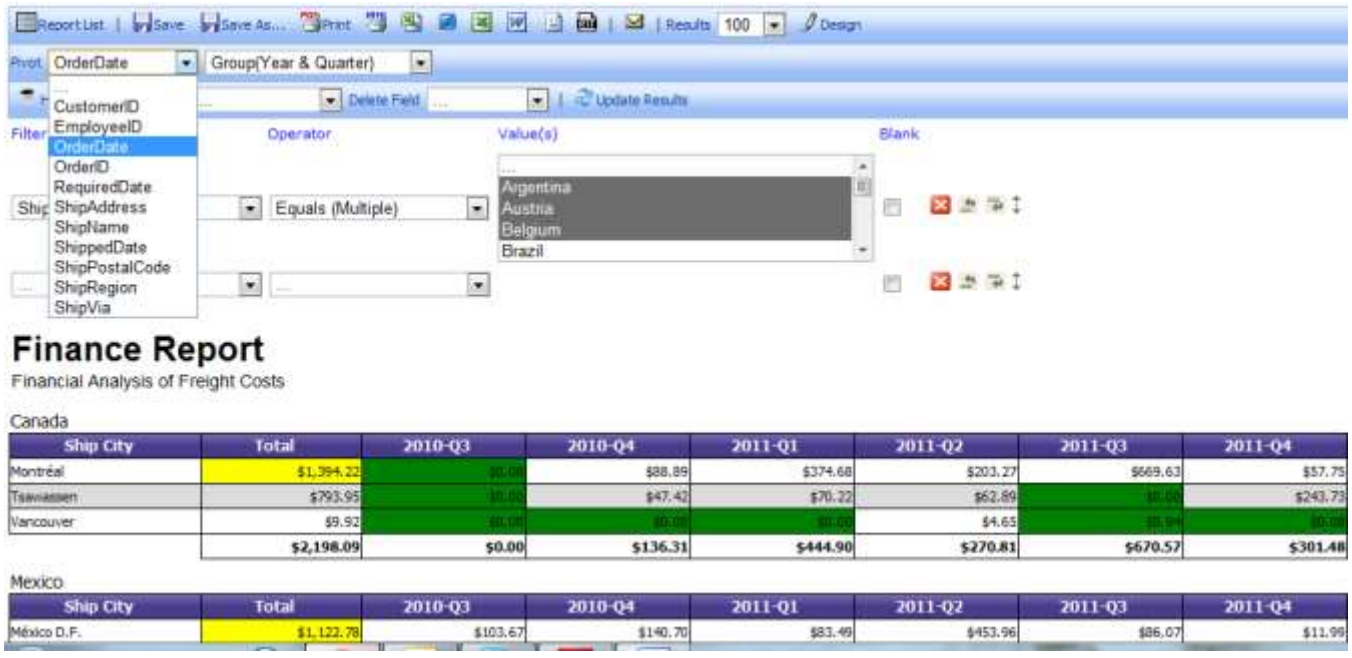
## 1.2 Report Designer

**The Report Designer lets you create new reports and modify existing reports.**

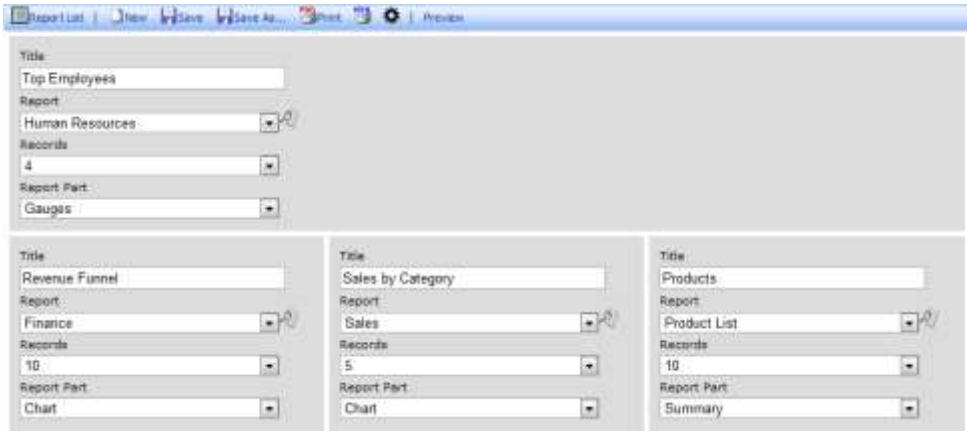


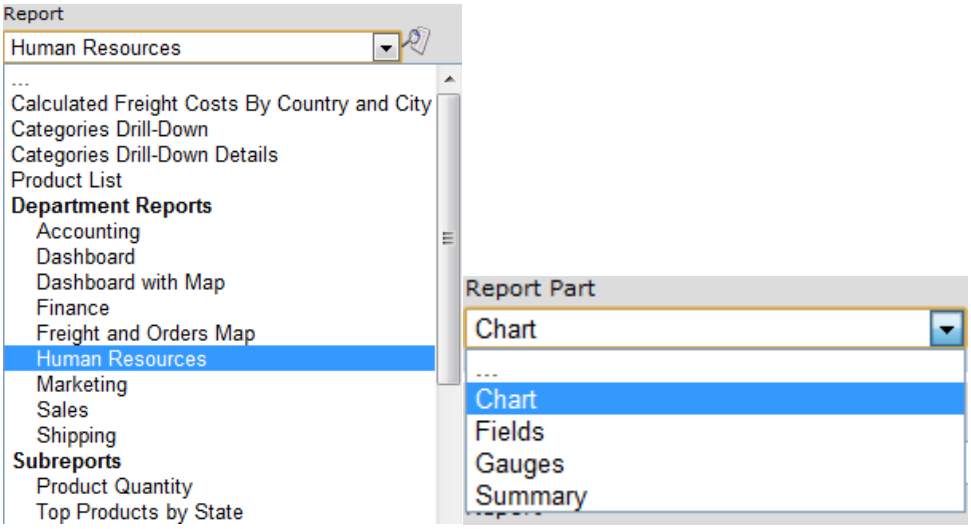

**The Report Viewer lets you easily modify a previously create report and save a variation, print it, export to various formats, and share it through email.**

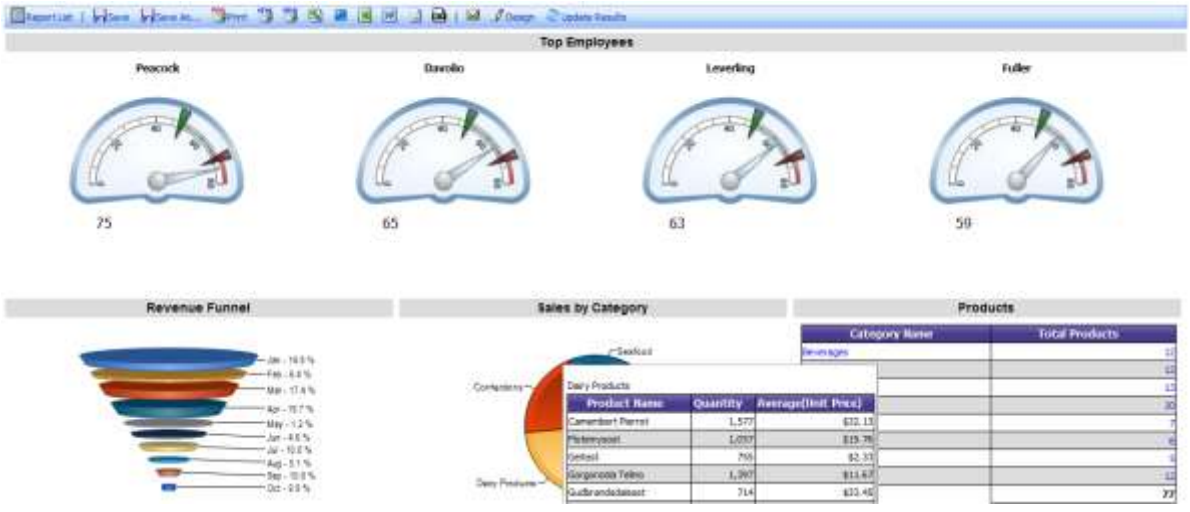
## 1.3 Report Viewer



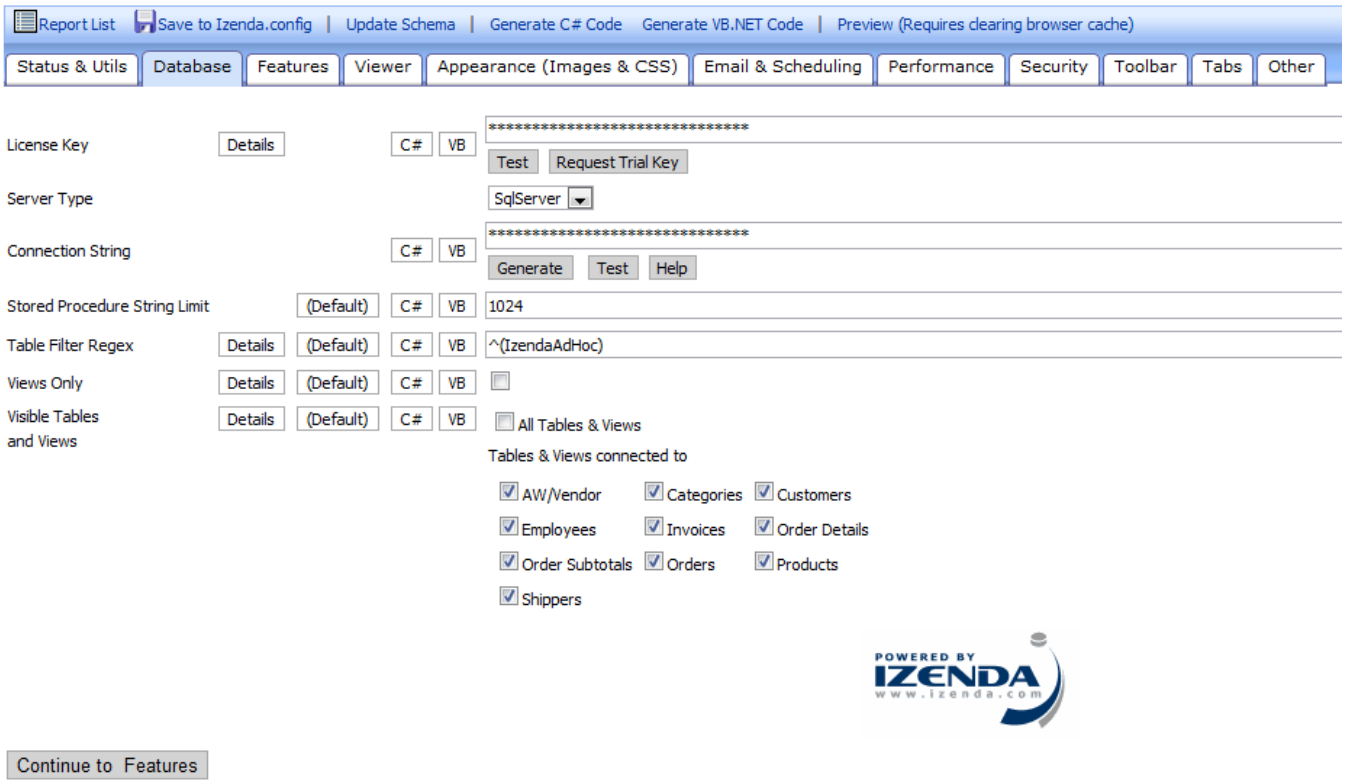
## 1.4 Dashboard Designer



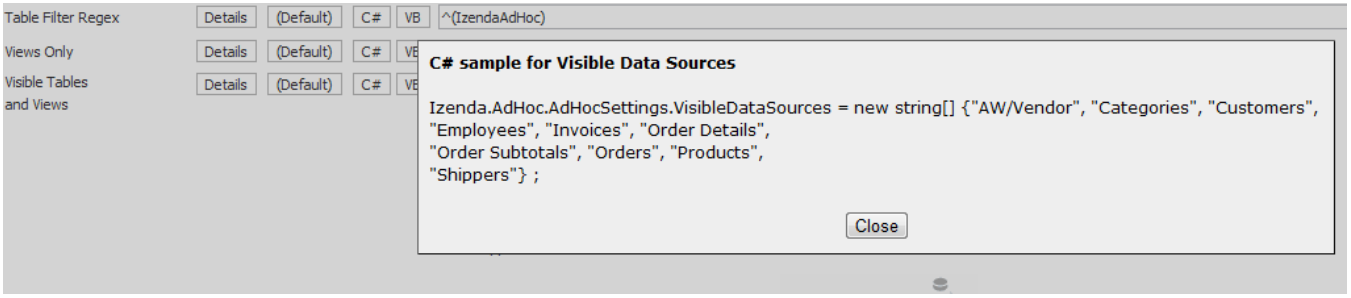



## 1.5 Settings



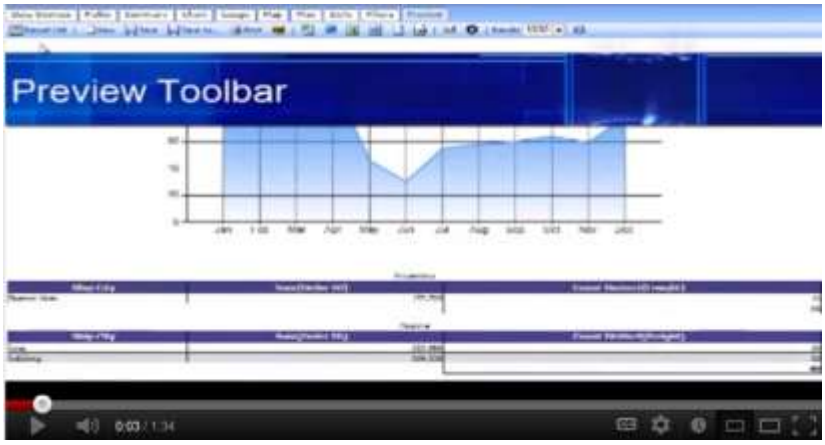

Click on C# or VB Button to see code samples for the selected property



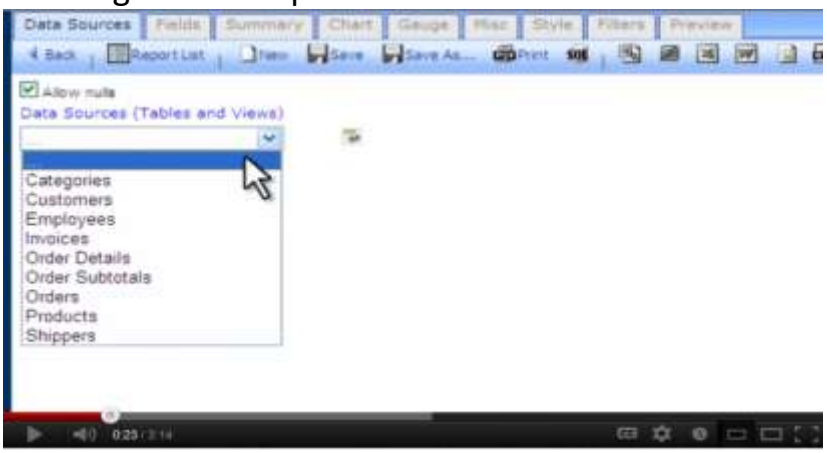

Click on Details to see the description for the selected property and Go to Online Documentation, if needed.

## 2.0 QUICK START GUIDE

Toolbar Preview




Creating a Basic Report



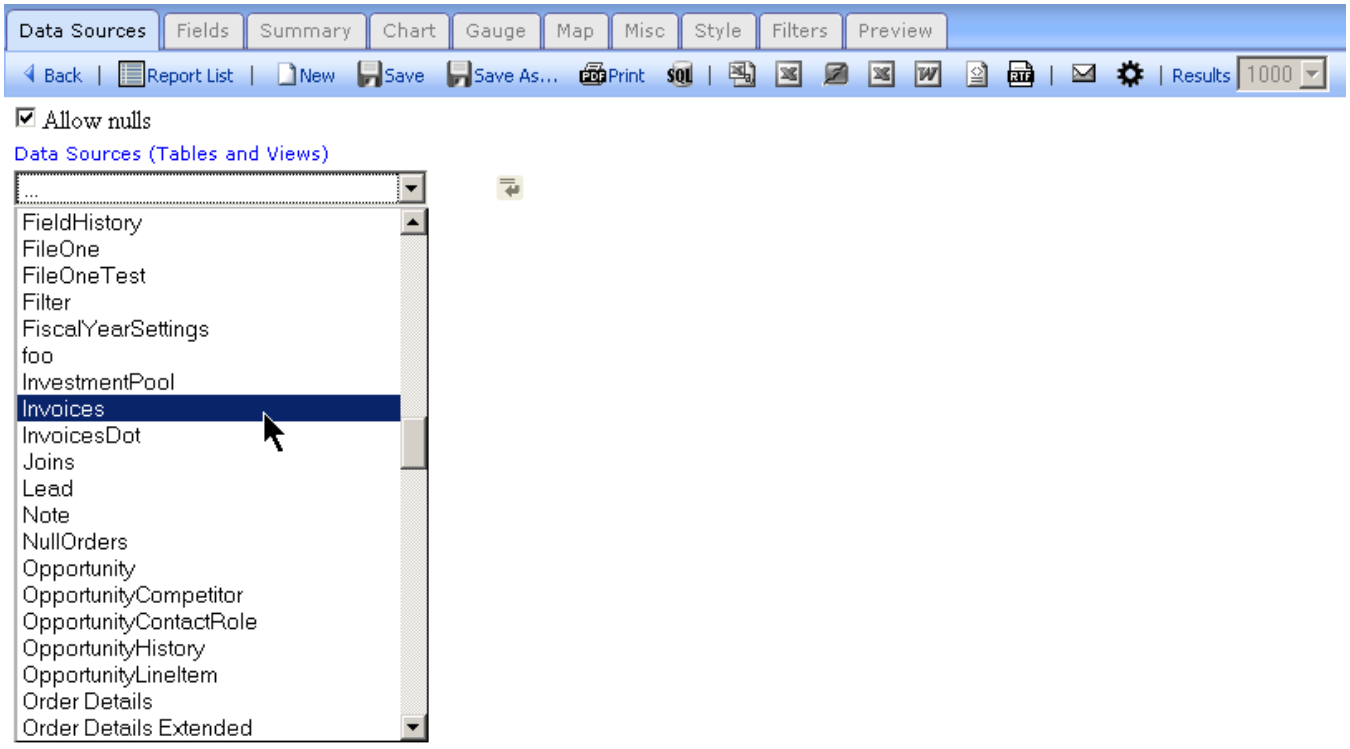

Report Creation Full Tutorial

## 2.1 Building your first report

- Navigate to the Report List page
- Click the "Design A New Report" link

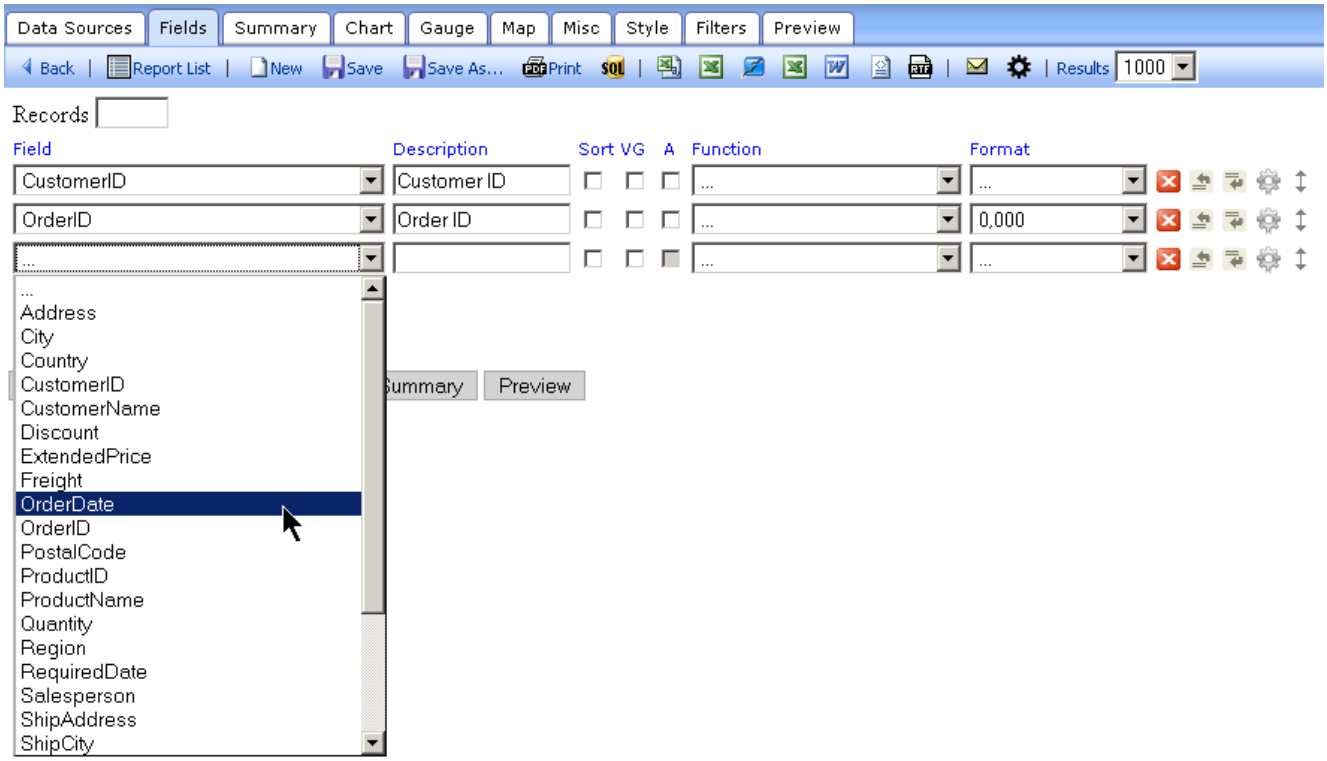

**Click to design a new report**

- Select a report data source in the "Data Sources" tab (the drop-down contains tables and views) like Invoices or Orders



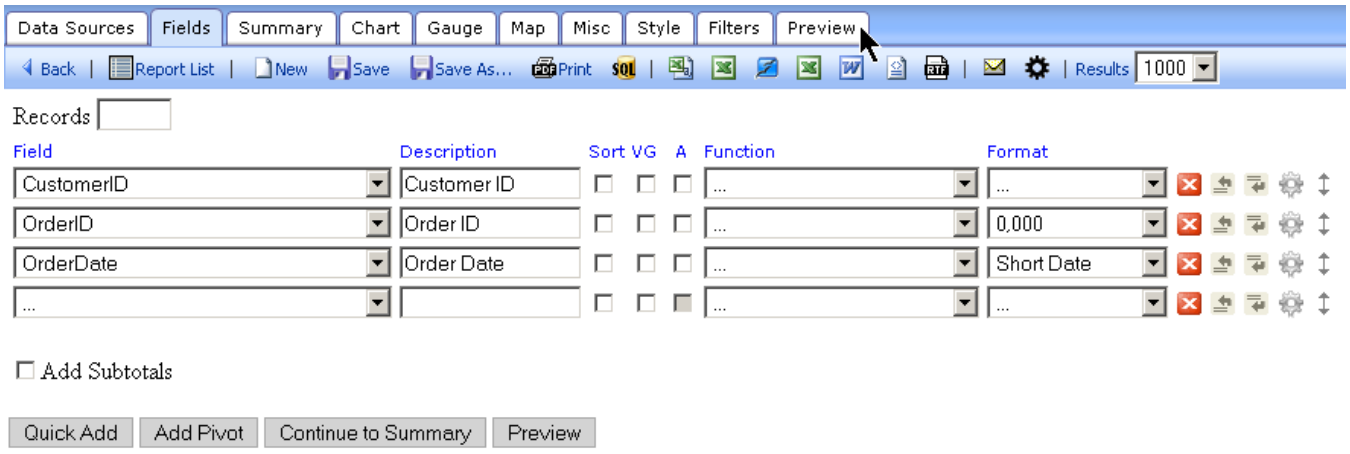

**Select Views and Tables**

- Select one or more fields, such as LastName, or OrderId, from the "Field" drop-downs



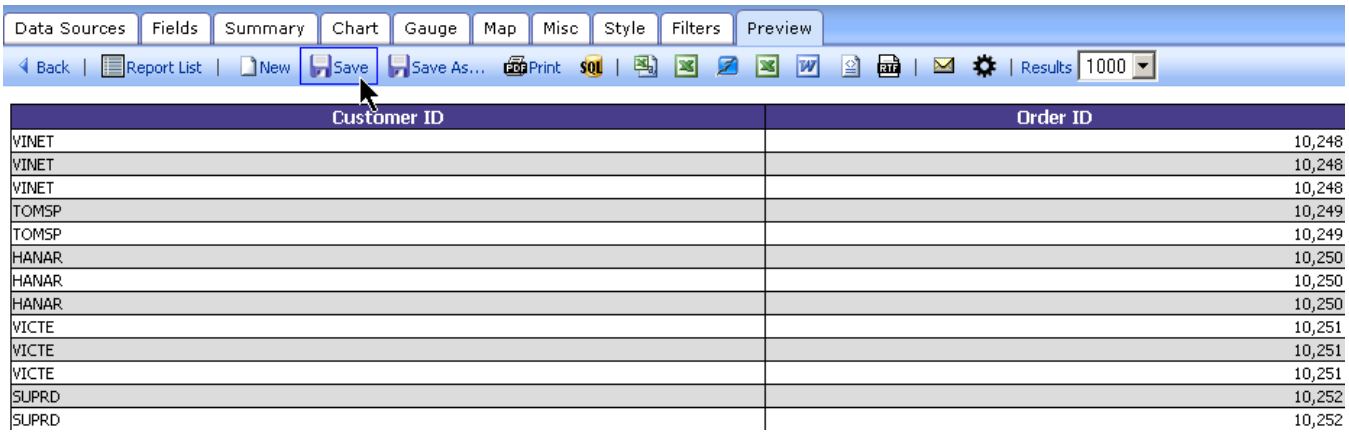

**Select Fields**

- Click the "Preview" tab



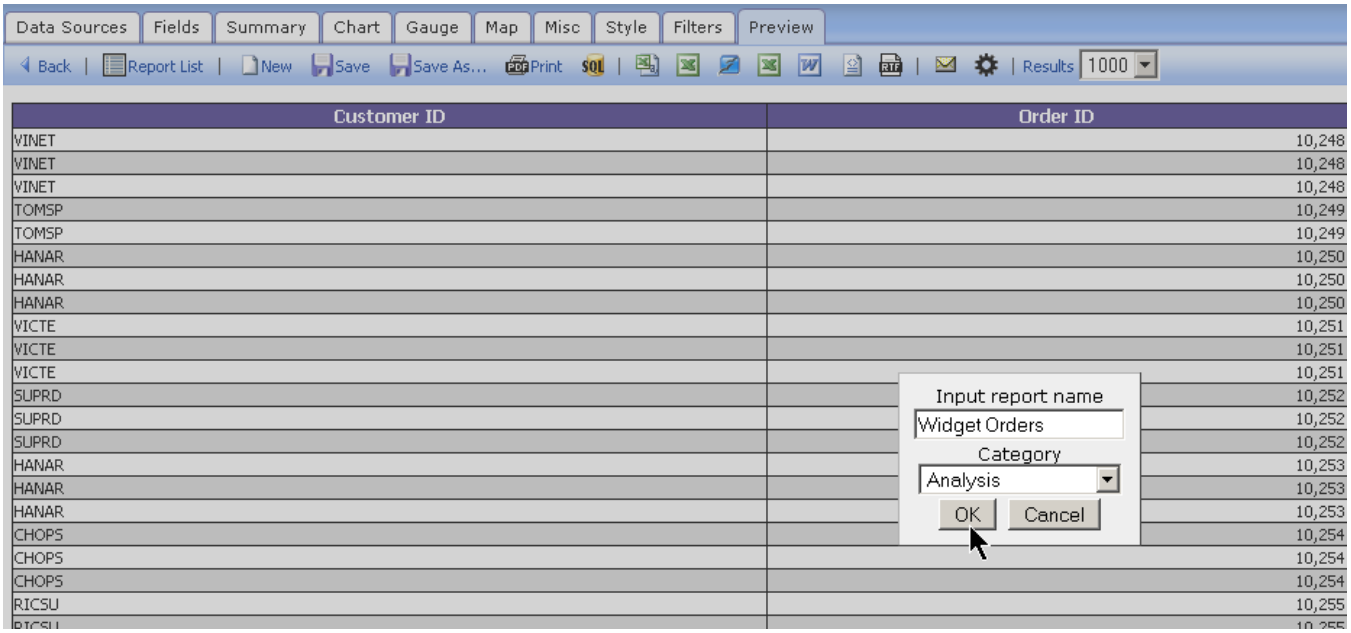

**Click the preview tab**

- Click the "Save" button to save your report




**Click "Save" to save your report**

- Enter a name and category(optional) in the "Save" dialog box




**Enter a report name and/or report category in the dialog box**

You now have your first functional report. This is a very basic example, and Izenda Reports offers far more capabilities.

## 2.2 The "Design a New Report" Link


**Design a New Report Link**

This is a special link. Clicking this link takes you to the report designer where you can create a new report.

## 2.3 The Delete, Design and Modify Buttons


**Report Link, Delete & Modify Buttons**

The delete button allows you to delete a report. Clicking it will pop-up a dialog box confirming your choice to delete.

The design button allows you to make an advanced customization to the report by loading the report in the report designer.

By clicking on the Report Title (**Automation Test**) you can make simple customizations in the Report Viewer interface.

## 2.4 Toolbar


**Toolbar Buttons**

The table below describes the functions of the Toolbar buttons.

| Icons | Features | Description |
|---|---|---|
| Back | Back | Goes to the browser's previous page. |
| New | New | Creates a new report. |
| Save | **Save** | Saves a report. |
| Save As... | Save As | Allows a new report name to be saved. |
| Print | Print (PDF Export) | Saves the report as a PDF document. |
| GO | IE | Runs the report in the web browser. |
| | Schema | Display database diagram |
| | SQL | Views the report in SQL mode. |
| | CSV | Saves the report as a CSV file. |
| | Excel Spread sheet | Saves the report as a MS-EXCEL file. |
| | Word Document | Saves the report as a MS-Word document. |
| | XML document | Saves the report as a XML document. |
| | Open office document | Saves the report as an Open Office Document. |
| | RTF document | Saves the report as a RTF document |
| | Back to Report List | Takes you to the Report List screen. |
| | E-mail | E-mails a report to a client |
| | Settings | Takes you to Settings.aspx page. |

## 2.5 Report Design Lessons

### 2.5.1 Designing a List of Shipping Countries Report

***Goal - The goal of this lesson is to create a report which lists all of the countries the company ships to, view the report by using the preview tab, name, and save the report.***

Design this Report
Edit this Report

Steps to create a new Izenda report -

1. From the ReportList.aspx page Click on "Design a New Report".
2. Under the "Data Sources" tab - Click on the drop down arrow and choose "Orders"
3. Under the "Fields" tab - Click on the drop down arrow and choose "ShipCountry". Leave the "Description" box as it is. (this will be discussed in another lesson).
4. Click on the "Preview" tab to see the Izenda report you just created.
5. Click on "Save as" tool bar button, name your report, for example "Lesson 1-1", and enter the category you want the report to be shown under, for example "Training", click ok. Now you have a saved Izenda report.

Note: This Izenda report shows you real time information. If you want to take a snap shot of the current results you can export the information. (Exporting will be discussed later)

| Ship Country |
|---|
| Finland |
| Brazil |
| USA |
| Italy |
| Germany |
| Mexico |
| Argentina |
| Switzerland |
| Sweden |
| Austria |
| UK |
| Poland |
| Canada |
| Ireland |
| France |
| Norway |
| Venezuela |
| Belgium |
| Spain |
| Denmark |
| Portugal |

### 2.5.2 Adding additional fields, using field functions, using field formats, & sorting the data.

***Goal - The Goal of the lesson is to add to the Country List Report from the previous lesson, including the ship city, number of orders, and total freight costs. Then we will sort the data alphabetically by country.***

Design this Report
Edit this Report

1. If you do not have the lesson open from before, then you will need to load it by clicking the link above.
2. Let's add some more information to the report other than just the ShipCountry field. Click the fields tab.
3. In the bottom most row under the field label, select "ShipCity" from the drop down box. Add "Order ID" & "Freight" as well.
4. The freight field is a dollar amount so select the "$0.00" Format from the drop down box.
5. Click Preview. You will see the fields have been added.
6. I'm interested in the number of orders to each city and the total freight spent shipping the orders. To see this information we need to add some functions to the fields.
7. Next to the "OrderID" field select "count" from the function drop down box. This will count the number of order IDs from the previous report. Let's change the description to "Orders" by entering that into the description textbox.
8. **Notice that when a function is selected all of the fields default to using the group function.
9. Next to the "Freight" field select "sum" from the function drop down box. This will sum the freight. Let's change the description to "Freight" by entering that into the description textbox.
10. Click the "Preview" tab. Now let's sort the data alphabetically by country.
11. Click on the "Fields" tab. Then click on the "sort a-z" checkbox on the same row as the "ShipCountry" field.
12. Click the "Preview" tab. Now the data is sorted. Let's save the report.
13. Click on the "Save as" tool bar button, name your report, for example "Orders and Freight by Country", and enter the category you want the report to be shown under, for example "Training", click ok. Now you have a saved Izenda report.

| Ship Country | Ship City | Orders | Freight |
|---|---|---|---|
| Argentina | Buenos Aires | 16 | $598.58 |
| Austria | Graz | 30 | $6,205.39 |
| Austria | Salzburg | 10 | $1,186.11 |
| Belgium | Bruxelles | 7 | $458.91 |
| Belgium | Charleroi | 12 | $821.23 |
| Brazil | Campinas | 9 | $322.38 |
| Brazil | Resende | 9 | $194.71 |
| Brazil | Rio de Janeiro | 34 | $1,685.27 |
| Brazil | Sao Paulo | 31 | $2,677.83 |
| Canada | Montréal | 13 | $1,394.22 |
| Canada | Tsawassen | 14 | $793.95 |
| Canada | Vancouver | 3 | $9.92 |
| Denmark | Århus | 11 | $947.34 |
| Denmark | København | 7 | $448.85 |
| Finland | Helsinki | 7 | $88.41 |

*Screen shot from final report made in this lesson.*

### 2.5.3 Visually Grouping & Subtotal Function

***Goal - The goal of this lesson is demonstrate the power of the Visually Grouping function and subtotal function using the report created in the previous lesson.***

Design this Report
Edit this Report

1. If you do not have the lesson open from before, then you will need to load it by clicking the link above.
2. Notice how some countries have multiple cities listed. We can visually group by the country and have a cleaner report. Click on the "Fields" tab.
3. Click the "VG" check box in the "ShipCountry" field row. Note: When using VG it must be the first field in the fields tab. If the field you select to Visually group by is not the first field then use the up arrow icons to make it the first field.
4. Click the "Preview" tab. Now the data is sorted by the Ship Country. Let's add subtotals for each Ship Country.
5. Click the "Fields" tab.
6. Select "Sum" from the "subtotal" dropdown box.
7. Click the "Preview" tab. Subtotals have been added. Let's save the report.
8. Click on the "Save as" tool bar button, name your report, for example "Orders and Freight Totals by Country", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

Argentina

| Ship City | Orders | Freight |
|---|---|---|
| Buenos Aires | 16 | $598.58 |
| | **16** | **$598.58** |

Austria

| Ship City | Orders | Freight |
|---|---|---|
| Graz | 30 | $6,205.39 |
| Salzburg | 10 | $1,186.11 |
| | **40** | **$7,391.50** |

Belgium

| Ship City | Orders | Freight |
|---|---|---|
| Bruxelles | 7 | $458.91 |
| Charleroi | 12 | $821.23 |
| | **19** | **$1,280.14** |

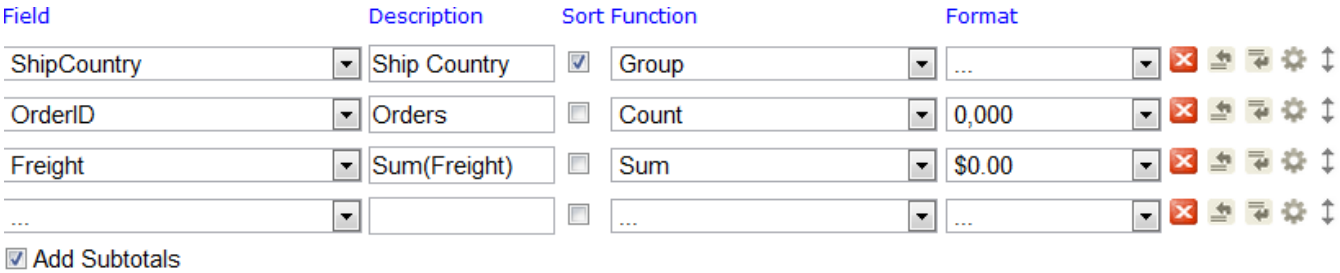
*Screen shot from final report made in this lesson*

### 2.5.4 Adding a Summary and a Title

***Goal - The goal of this lesson is to add a summary grid and title to the report created in this lesson***

Design this Report
Edit this Report

1. If you do not have the lesson open from before, then you will need to load it by clicking the link above.
2. There is a lot of data here so let's add a summary. Click the "Summary" tab.
3. Under the "Fields" dropdown - Click on the drop down arrow and choose "ShipCountry", as well as "Order ID" and "Freight".
4. For the "Ship Country" field select the "group" function and select the "sort a-z" checkbox. This will group the data together by country and sort the data alphabetically.
5. For the "Order ID" field select the "count" function and change the description to say "Orders". This will count the number of Order IDs for the country.
6. For the "Freight" field select the "Sum" function and the "$0.00" format. Change the description to say "Freight". This will sum the freight for all orders sent to each country.
7. Let's add a grand total to see how much business we have done. Check Add Sub-totals.
8. Click the "Preview" tab. You will have to scroll down to the bottom to see the report.
9. Let's move the summary to the bottom of the report. Click on the "Style" tab.
10. Scroll down until you see the report order. Click on the down arrow next to "Summary" until it is below "Details". Now it will be at the bottom of this report. Let's also add a title.
11. Click on the "Misc" tab. In the "Title" box enter "Orders and Freight By City and Country"
12. Click the "Preview" tab. Now the Report is Titled and in the order I want. Let's Save it.
13. Click on the "Save as" tool bar button, name your report, for example "Lesson 1-4", and enter the category you want the report to be shown under, for example "Training", click ok.




Argentina

| Ship City | Orders | Freight |
|---|---|---|
| Buenos Aires | 16 | $598.58 |
| | **16** | **$598.58** |

Austria

| Ship City | Orders | Freight |
|---|---|---|
| Graz | 30 | $6,205.39 |
| Salzburg | 10 | $1,186.11 |
| | **40** | **$7,391.50** |

### 2.5.5 Exporting a Report

***Goal: The goal of this lesson is to export the report created in the previous lesson to Excel using report designer. This can also be done in Report Viewer by selecting Excel from the "export type" drop down box and clicking the export button then follow step 3.***

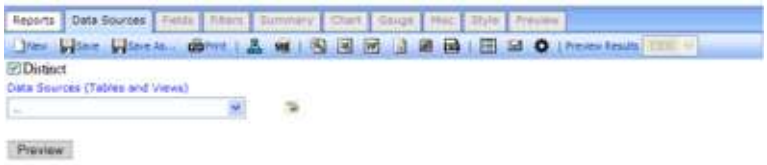
Note: To retain this information as it shows on your current Izenda Report let's export the information to Excel. Remember to capture the information showing on a current Izenda report you must download the report. Otherwise the report can change each time you open the report since it reads the data in real time from your data base.

Design this Report
Edit this Report

1. If you do not have the lesson open from before, then you will need to load it by clicking the link above.
2. Click on the Excel button on the tool bar.
3. You will see a box that asks "Do you want to open or save this file".
4. Click "Open".
5. Now you will see a "web" version of the report.
6. Click file, save as.
7. Decide where you want to save the file and name the file.
8. Change the "Save as type" to Microsoft Excel Worksheet.
9. You now have an Excel document which shows the information from your report.

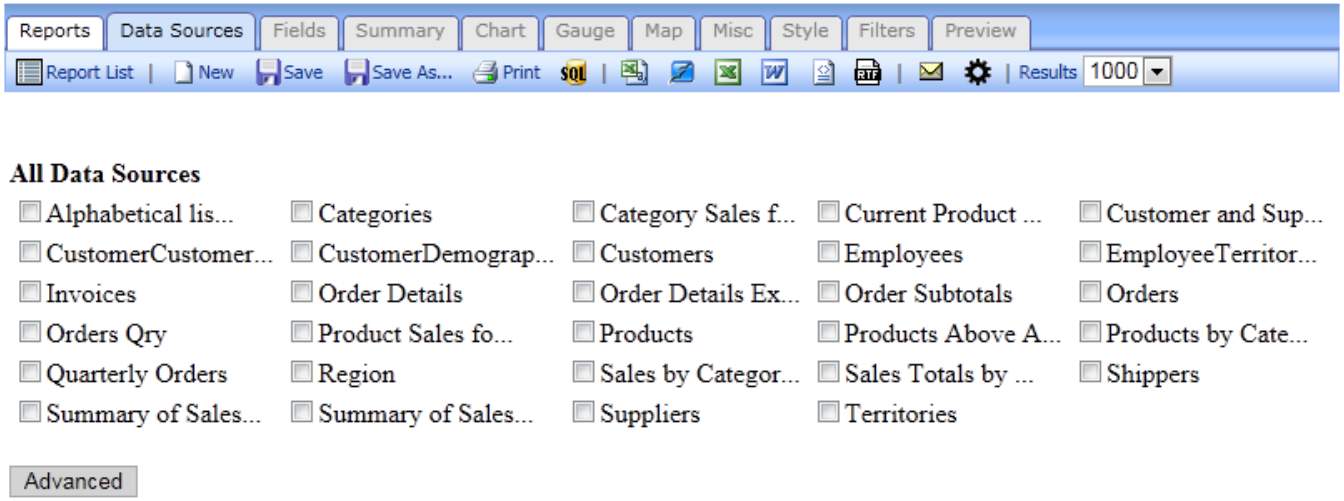
## 3.0 DATA SOURCES TAB

The **Data Sources** tab shows you which Tables or Views you have access to from the database. Your system administrator can set up the interface to simplify the data selection process, so you do not have to know the underlying data model.



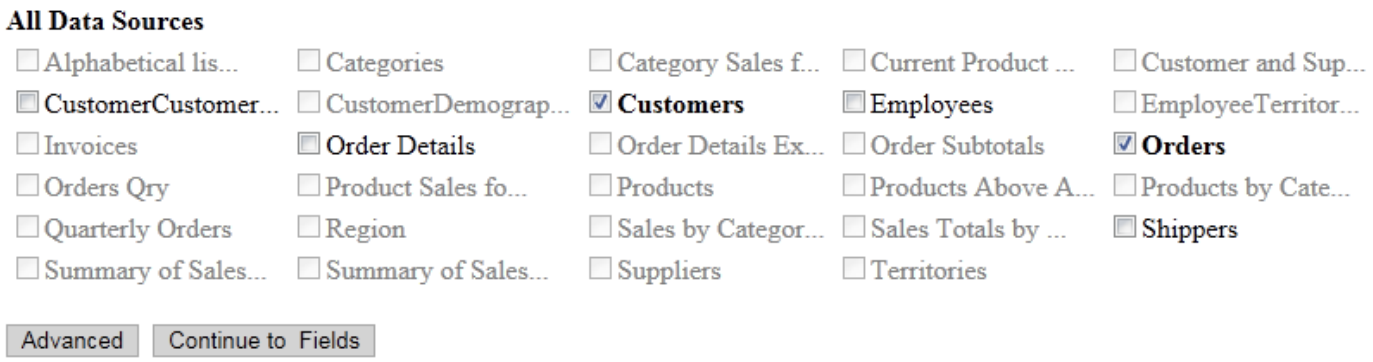
**DATA SOURCES VIDEO TUTORIAL**

### 3.1 Simple Mode




**Data Source Selection**

To join tables in check boxes mode you should just check the tables you want to join one after another. When you check the first table, all tables that cannot be joined to it will automatically be disabled. After you will select the next table to join, the list of available checkable tables will be refreshed (see image below).




**Auto Disabling Data Sources To Join**

## 3.2 Admin Tip – Setting Visible Data Sources

Setting Visible Data Sources

You can set up which data sources are available on a per user/per role basis by setting the Visible Data Sources property in the Global.asax file.

```
//Pass User Credentials
        AdHocSettings.CurrentUserName = HttpContext.Current.Session["UserName"] as
string;
        AdHocSettings.CurrentUserIsAdmin = true;
        AdHocSettings.VisibleDataSources = new string[] { "Orders", "Employees",
"AdminData" };
```

## 3.3 Admin Tip – Using Constraints

**Using Constraints**

Virtual constraints are easy to add in Izenda Reports. Complicated schemas no longer require extensive user education or the changing of database schemas. Virtual constraints allow Izenda Reports to know about all connections between tables.

If there are already constraints in the database, this will work automatically. If there are no constraints in the DB schema, you could add virtual constraints manually through the Izenda API using **AdHocSettings.ShowDataSourcesAsCheckBoxes = true**.

Note that constraints are required to use data sources auto-join.

You could use wildcards to add rules for all tables instead of adding constraints for each pair of

tables.

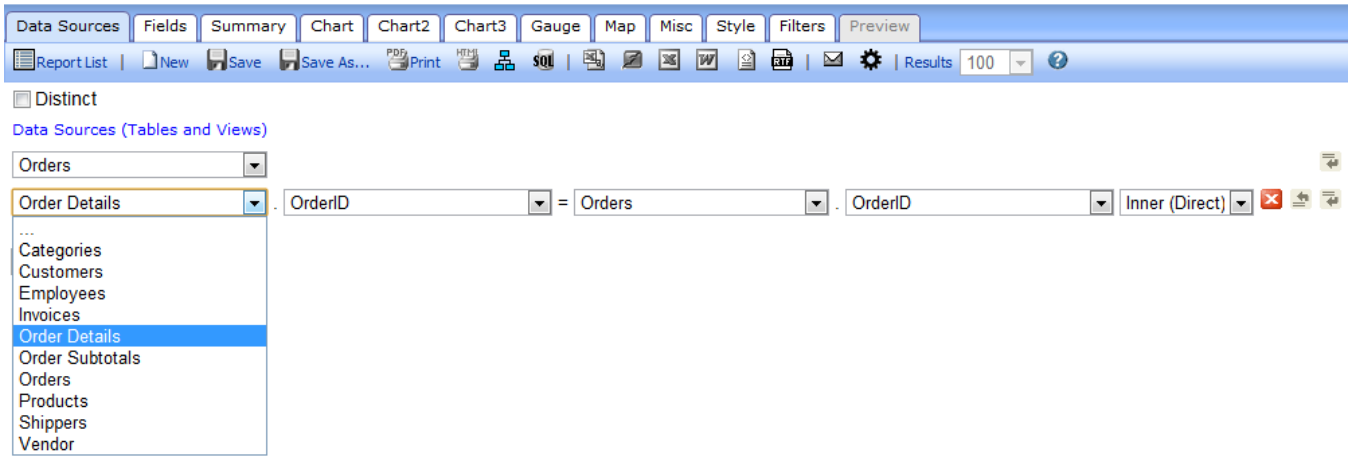
Here is a very simple example of how to use virtual constraints:

```
AdHocContext.Driver.AddConstraint("Account.Id", "*.AccountID");
AdHocContext.Driver.AddConstraint("User.Id", "*.OwnerId");
AdHocContext.Driver.AddConstraint("User.Id", "Account.OwnerId");
```

You will not able to manually specify the joined fields in this mode. If you need this capability, you will need to manually specify the **Foreign Key** relationships by clicking the Advanced button from the Data Sources tab.

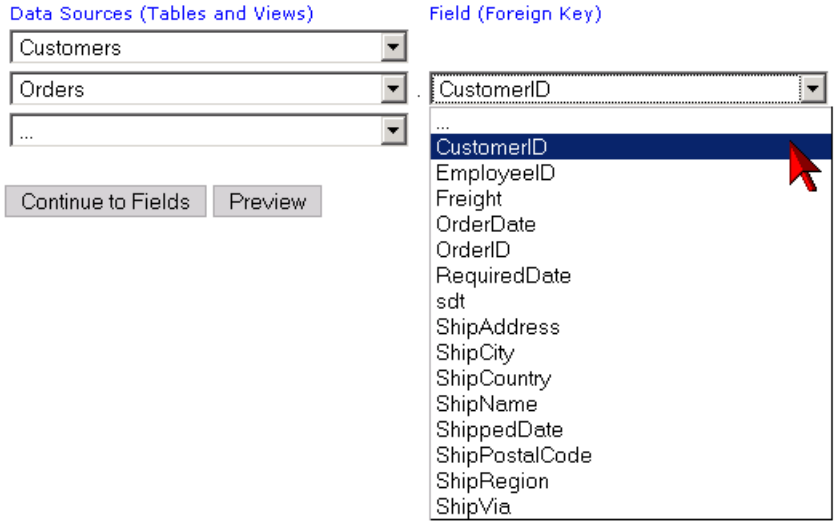
## 3.4 Advanced Mode

In Advanced Mode, you will have to select the relationships that exist between the tables or views yourself. You will start with a drop-down menu that lists the various Tables and Views that are available.




To join two tables and/or views, they must have fields with identical entries. For example, both the ***Customers*** and the ***Orders*** tables have the same *CustomerID* field that contains one of several possible entries: beverages, condiments, dairy products, seafood, and so on. Foreign keys are not required to have the same name, but must possess a relationship that results in data when joined together.

The **Join Field** dropdown menu (below) is a list of the fields contained in the table/view selected in the **Table** dropdown menu to the left. Select the field that has identical entries as the table/view that it needs to be joined with.




**Join Field Dropdown Menu**

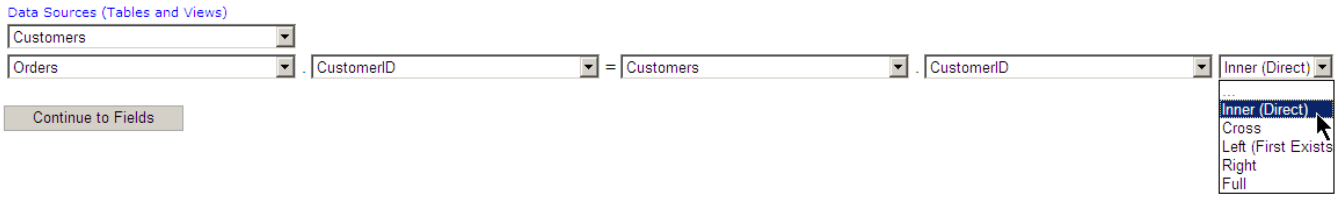
The **Foreign Table** dropdown menu (below) is a list of the tables/views that have been selected in the **Table** dropdown menu, other than the one in that row. Select the table/view to join the table/view in that row.


**Foreign Table Dropdown Menu**

The **Field** dropdown menu (**Error! Reference source not found.**) is a list of fields in the table/view that are selected in the **Foreign Table** dropdown menu to the left. Select the field to join with the table/view in that row.


**Field Dropdown Menu**

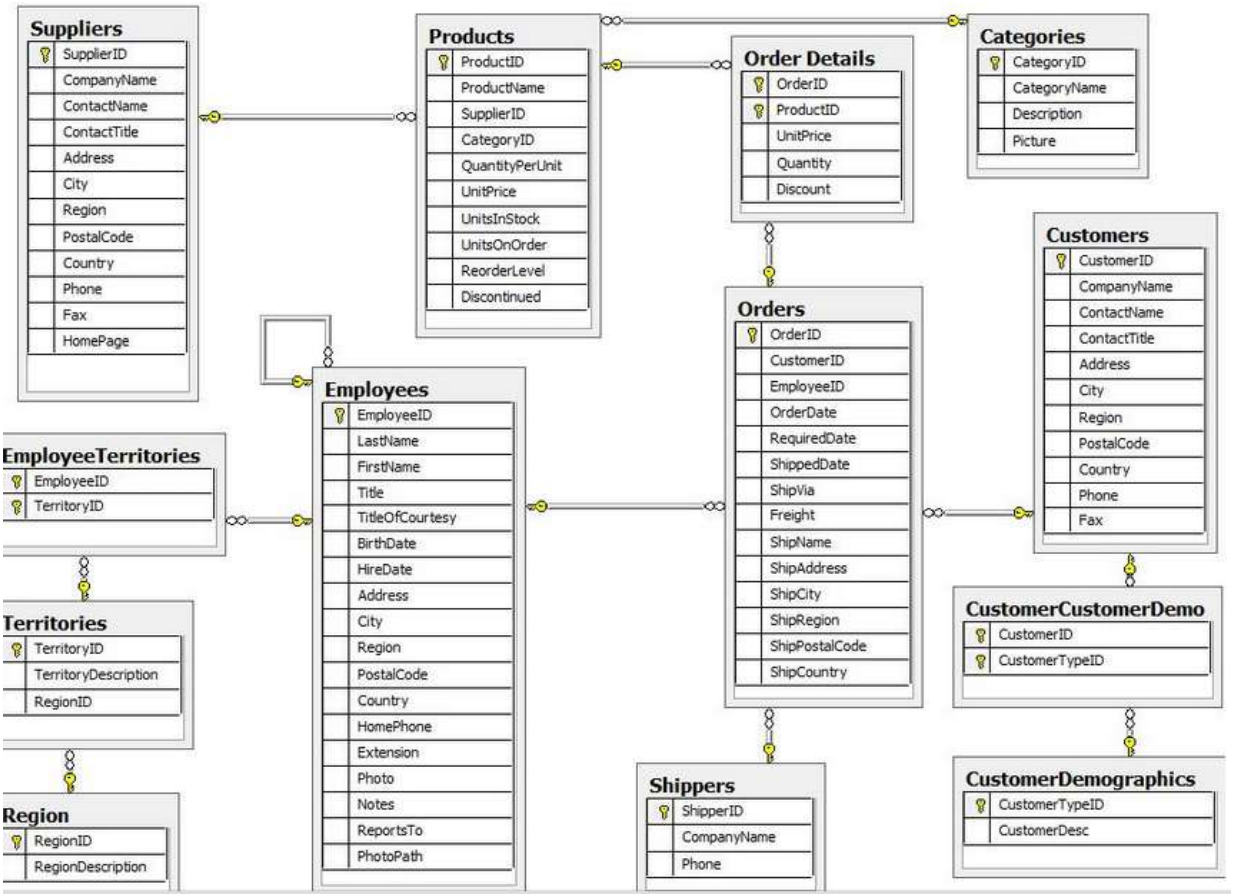
The **Join Type** dropdown menu (below) is a list of the available joining methods. The "Inner" method discards any objects from the joint fields that do not have an identical match. The "Left" method still displays those without an identical match




**Join Type Dropdown Menu**

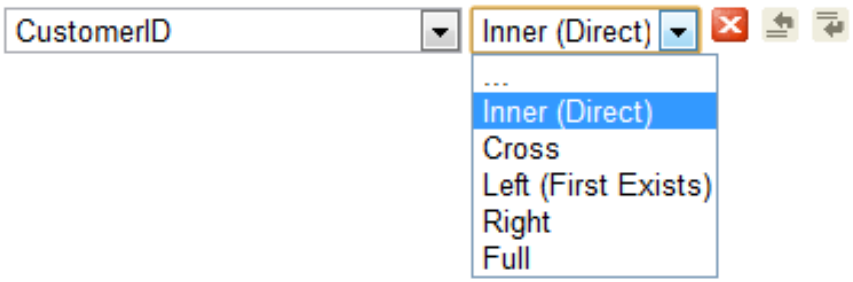
### 3.4.2 Understanding the Data Model

Most users choosing to use the Advanced Mode need to have a clear understanding of the database schema (image below), which is a blueprint of how the data is organized in the database, to be able to quickly join tables together. This mode does allow for greater flexibility in selecting the types of joins that can be performed, but is not recommended for most users.



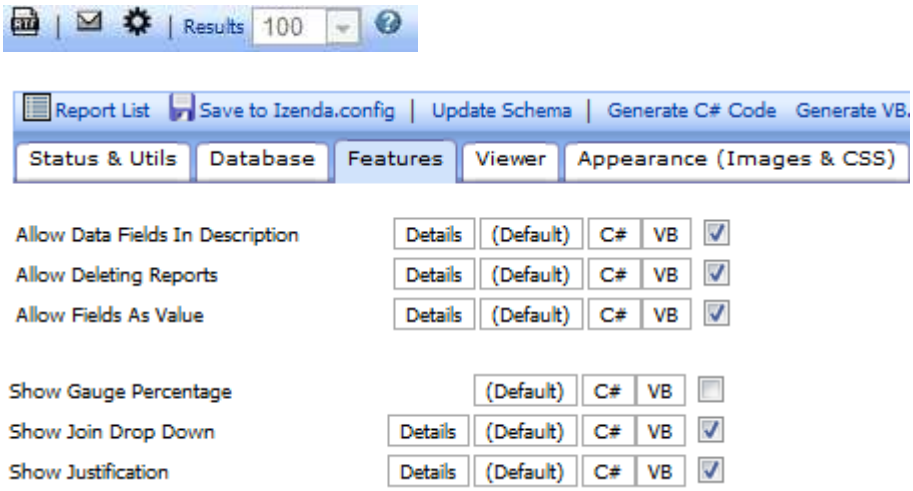

**Database Schema Diagram**

### 3.4.3 Join Types

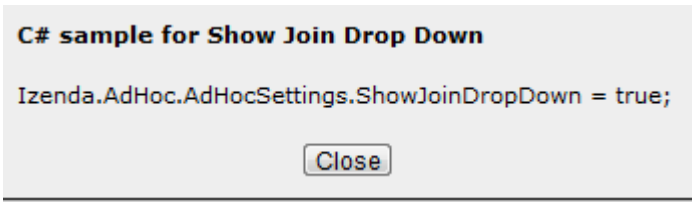


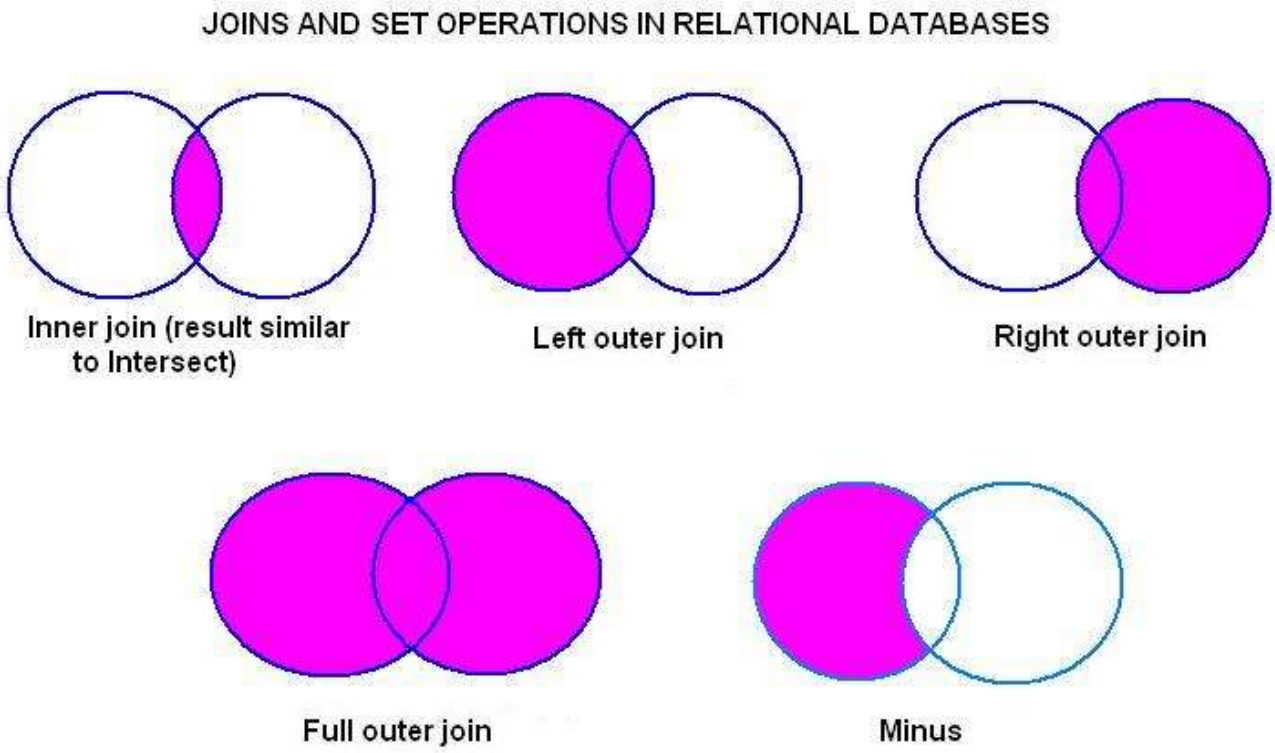

By default, Izenda will perform an Inner Join across the data sources selected.

To show the Joins Type drop down, you can navigate to the Settings.aspx page by clicking on the gear icon in the report designer screen. After you are in the settings page, click on the Features tab and check "Show Join Drop Down". Click on Save to Izenda.config at the top of the page, and clear browser cache using CTRL F5. The Joins Drop Down will appear to the right of each additional data source chosen.




It can also be added via the API under ConfigureSettings(): AdHocSettings.ShowJoinDropDown = true;.






SQL Code of chosen Join Types:

**Inner (Direct) Join:** Selects rows from two tables such that the value in one column of the first table also appears in a column of the second table.

```
SELECT DISTINCT
[dbo].[Invoices].[CustomerName] AS 'Customer Name'
FROM [dbo].[Orders]
INNER JOIN [dbo].[Invoices] ON [dbo].[Invoices].[CustomerID]=[dbo].[Orders].[CustomerID];
```

**Cross Join:** A cross join will return a result table where each row from the first table is combined with each row from the second table.

```
SELECT DISTINCT
[dbo].[Invoices].[CustomerName] AS 'Customer Name'
FROM [dbo].[Orders]
CROSS JOIN [dbo].[Invoices];
```

**Left(First Exists) Join:** The Left Outer Join known also as Left Join returns all rows from the left table in the Left Outer Join clause, no matter if the joined columns match. A field in a result row will be null if the corresponding input table did not contain a matching row.

```
SELECT DISTINCT
[dbo].[Invoices].[CustomerName] AS 'Customer Name'
FROM [dbo].[Orders]
LEFT OUTER JOIN [dbo].[Invoices] ON
[dbo].[Invoices].[CustomerID]=[dbo].[Orders].[CustomerID];
```

**Right Join:** The Right Outer Join known also as Right Join returns all rows from the right table in the Right Outer Join clause, no matter if the joined columns match. A field in a result row will be null if the corresponding input table did not contain a matching row.

```
SELECT DISTINCT
[dbo].[Invoices].[CustomerName] AS 'Customer Name'
FROM [dbo].[Orders]
RIGHT OUTER JOIN [dbo].[Invoices] ON
[dbo].[Invoices].[CustomerID]=[dbo].[Orders].[CustomerID];
```

**Full Join:** The Full Outer Join known also as Full Join returns all rows from Both the Right Outer Join & Left Outer Join. A field in a result row will be null if the corresponding input table did not contain a matching row.

```
SELECT DISTINCT
[dbo].[Invoices].[CustomerName] AS 'Customer Name'
FROM [dbo].[Orders]
FULL OUTER JOIN [dbo].[Invoices] ON
[dbo].[Invoices].[CustomerID]=[dbo].[Orders].[CustomerID];
```

### 3.4.4 Function Buttons of Data Sources Tab


**Function Buttons**

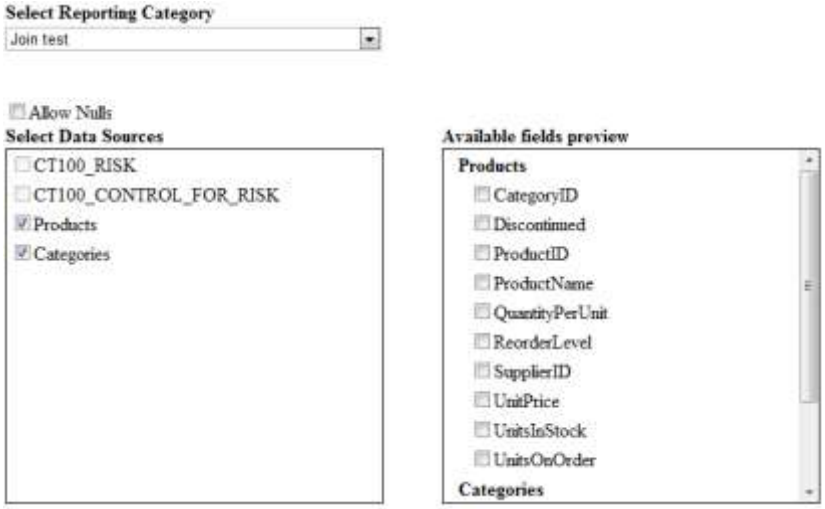
The , , and function buttons are defined in Table 2 below.

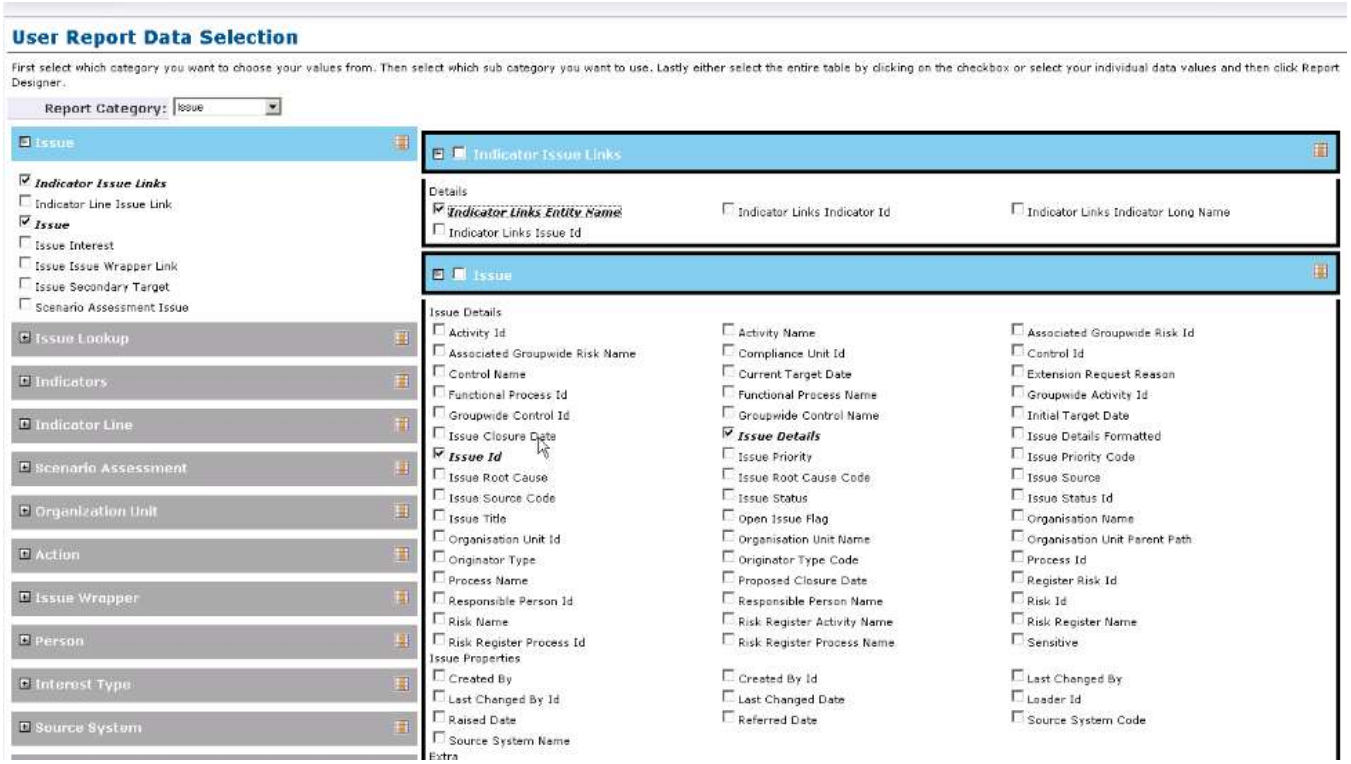
| Icons | Control Name | Description |
|---|---|---|
| | Delete button | **Click this button to delete the row the button is on.** |
| | Insert Row button (above) | Click this button to insert a row above the row the button is on. |
| | Insert Row button(below) | Click this button to insert a row below the row the button is on. |

**Function Buttons of Data Sources Tab**

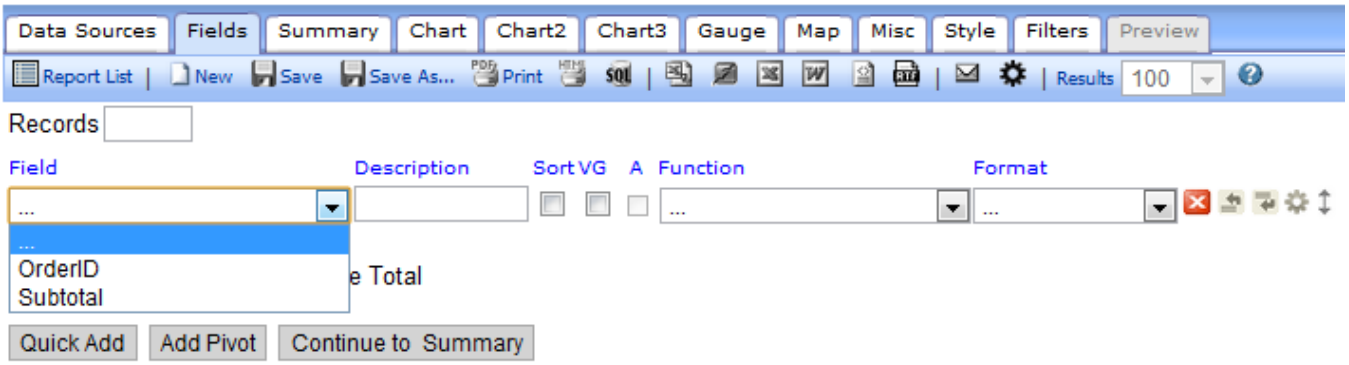
## 3.5 Custom Data Source Selection Page

Since Izenda is a platform and not a set product, if the Simple or Advanced Modes do not fit your needs, you can have a customized Data Source Selection Page tailored to your preferences. The example below is for a customer that had hundreds of tables in their database and needed an easy way to categorize the selection process to make it simpler for their users. Working with the client, we developed a mock-up and implemented a custom page with their existing branding and navigation.



## 4.0 FIELDS TAB




**Fields Tab**

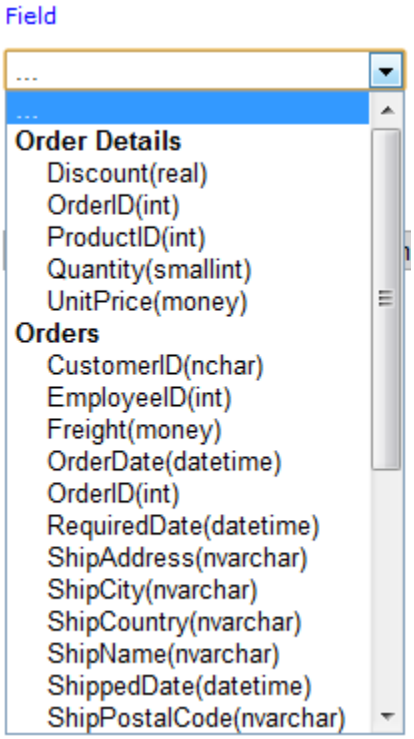
After selecting the data sources you want to display, as in the previous step, continue to the Fields tab. In the **Fields** tab, you will choose which fields you want to display and be able to apply various formatting options.

Listed below is a brief description of the properties available in the main Fields tab screen.

| Feature | Description |
|---|---|
| Field Selection | Select fields from the drop-down menu or use the Quick Add button |
| Description | Displays a new title for the Field |
| Sort | Sorts A - Z |
| VG | Visually Groups the Field |
| A | Arithmetic – Performs basic calculations (+, -, x, %) and concatenation of text. |
| Function | Displays functions available based on the type of data being accessed. |
| Format | Displays the formats available to be displayed based on the data type. |
| Other buttons | On the far right you can delete, insert, move, or set advanced properties. |
| Records | Sets the number of records to display, which is used many times to add a Top to the query result, such as Top 10 Customers by Revenue |
| Add Sub-total | Adds a sub-total to the report under each numeric column |
| Add Side-total | Adds a side-total to the report beside each numeric row |
| Quick Add | Lets you quickly add multiple fields to the report at one time |
| Add Pivot | Displays the pivot inputs to add to the report |
| Continue to Summary | Continues to the next tab in the report design process, the Summary tab. |

## 4.1 Field Dropdown Menu

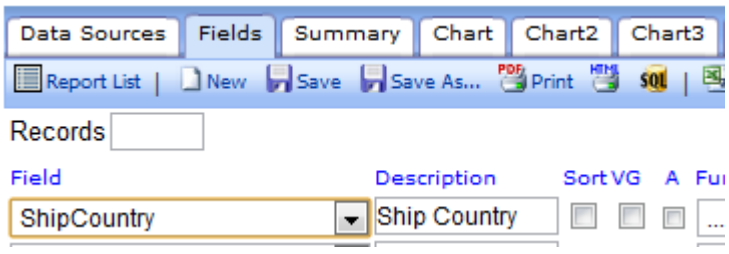
The **Field** dropdown menu is a list of the available fields in the table/view that is selected in the **Data Sources** tab. If joining tables/view, the title of the table/view that the field is from appears in parenthesis next to the name of the field. Select the fields to display. The entries in the list that are in **Bold** are the table/datasource names.




**Field Dropdown Menu**

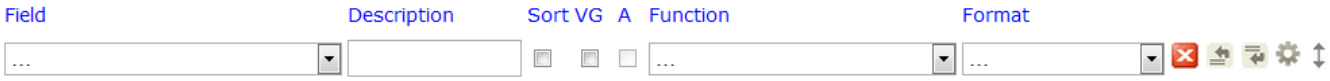
## 4.2 Description

Automatically Inputs the name of the associated Field. You have the option to change the description and it will appear as the new title when displayed.




**Description**

## 4.3 Sort, VG, & Arithmetic Check Boxes




**Sort, VG, & Arithmetic Check Boxes**

Table 3 explains the **Sort, Group, and VG Check Box** features.

| Features | Description |
|---|---|
| **Sort** check box | Check this box if you want the table/view to be sorted by the field selected in the **Field** dropdown menu to the left in ascending order. |
| Sort (z-a) under **Advanced**  | **This check box is in the advanced properties of the row and can be set if you want the table/view to be sorted by the field selected in the Field dropdown menu to the left in descending order.** |
| **VG** check box | Check this box to change the column for the field selected in the **Field** dropdown menu to the left into subheadings |
| **A**rithmetic | Arithmetic. Performs basic calculations (+, -, x, %) and concatenation of text. Calculated Fields KB |

**Descriptions of Sort, Group, and VG Check Boxes**

## 4.4 Other Buttons on the Fields Tab

The  **, and** function buttons shown in Figure 4-1 are for the rows that they are in.


**Figure 4-1 Function Buttons of Fields Tab**

Table 4 describes the function buttons of the **Fields** tab.

| Icons | Control Name | Description |
|---|---|---|
|  | Delete button | **Click this button to delete the row the button is on.** |
|  | Insert Row button (above) | Click this button to insert a row above the row the button is on. |
|  | Insert Row button (below) | Click this button to insert a row below the row the button is on. |
|  | Move | Allows user to move a row up or down in the list |
|  | Advanced Properties | Advanced properties for that row. |

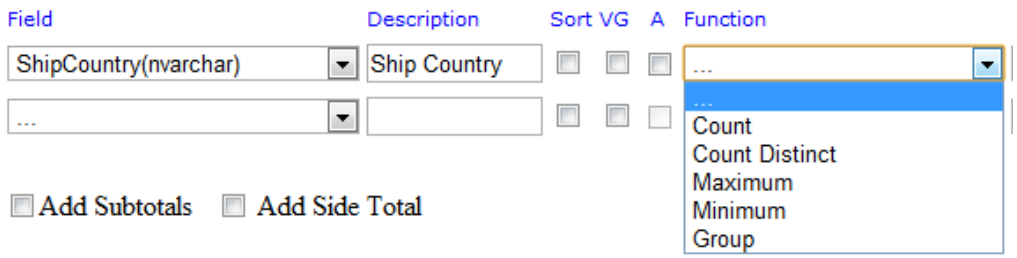
**Table 4 Function Buttons of Fields Tab**

## 4.5 Functions Drop-Down

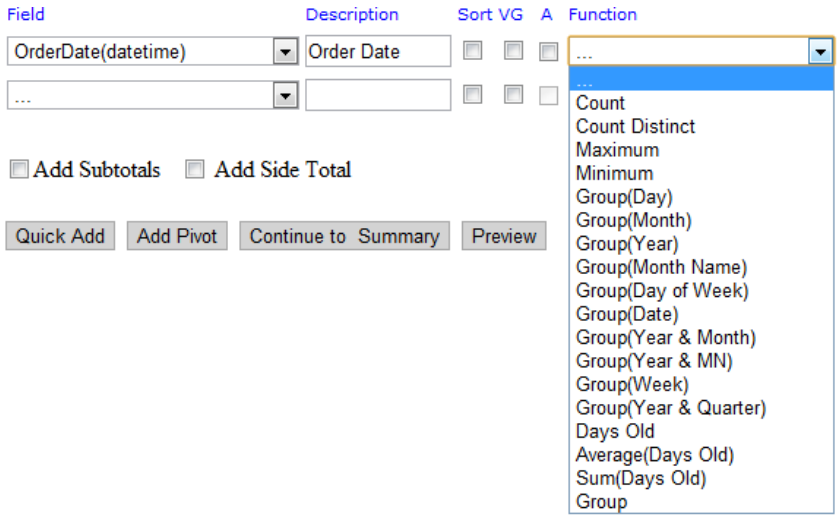
Functions allow you to perform calculations on the data and can be chosen from the dropdown menu based on the data type of the selected Field.

Article on SQL Functions (w3schools.com)

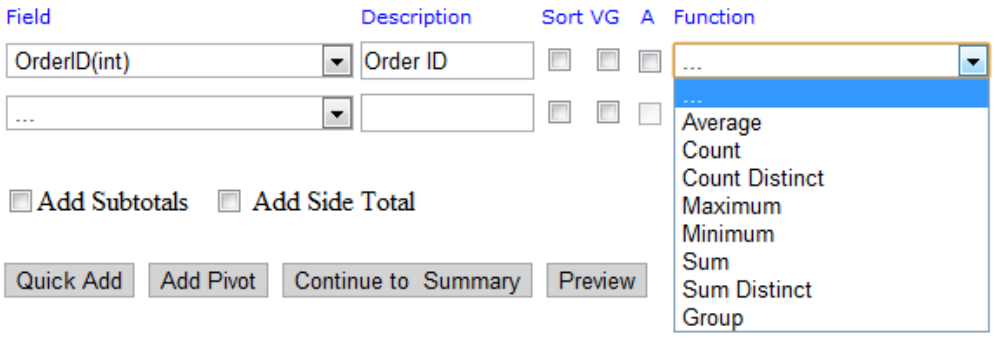
### Text (String) Functions Available




### Date/Time Functions Available




### Numeric Functions Available



**Functions Table**

| Function Name | Description |
|---|---|
| . . . | No function used |
| Average | Average the values in a column |
| Count | Counts the number of values in a column |
| Count Distinct | Counts the number of distinct values in a column |
| Maximum | Takes Maximum value of a field |
| Minimum | Takes Minimum value of a field |
| Sum | Sums the values in a column |
| Sum Distinct | Sums the rows with distinct values in a column. |
| Group | Groups field values together for aggregating |
| Group(Day) | 23; day of month |
| Group(Month) | 3; instead of March |
| Group(Year) | 2012 |
| Group(Month Name) | July |
| Group(Date) | 7/4/2012 |
| Group(Day of Week) | Sun or Mon |
| Group(Year & Month) | 2012 -07 |
| Group(Year & MN) | 2012 - Jul |
| Group(Week) | Jul 01 – Jul 07 (Sunday to Saturday of Week) |
| Group(Year & Quarter) | 2012–Q3 |
| Days Old | 342 (Number of Days from Today's Date) |
| Sum(Days Old) | 782 (Sums the Number of Days from Todays Date) |

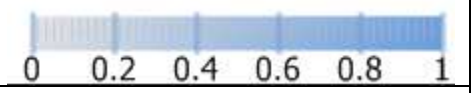
## 4.6 Format Dropdown Menu

The **Format** dropdown menu is a list of formats for the entries of the field selected in the **Field** dropdown menu directly to the left to appear in. Depending on the Field data type and the function, you will have differing options for formatting. The main two formats used will be available for all numbers and dates.

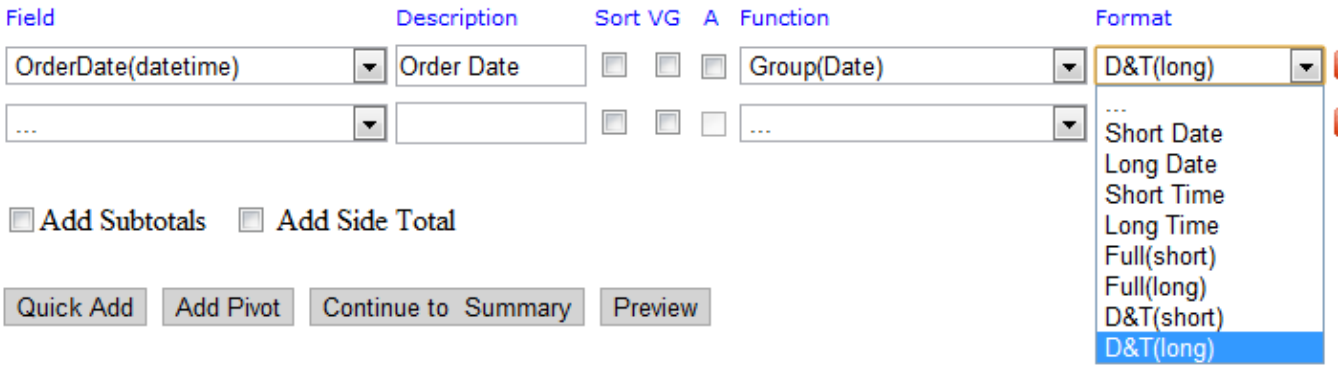

**Format Dropdown Menu**

**Numeric Formats Available**

| Format | Description | Examples |
|---|---|---|
| . . . | Displays the number as it is stored in the database | 500 |
| 0,000 | Displays as a whole number | 500 |
| 0,000.00 | Displays with two decimal places | 500.00 |
| $0.00 | Displays as currency with two decimal places | $500.00 |
| $/100 | Displays the Number / 100 In currency format. | $5.00 |
| 0.0 | Displays with one decimal place | 500.0 |
| 0.00 | Displays with two decimal places | 500.00 |
| 0.000 | Displays with three decimal places | 500.000 |
| 0% | Displays the number as a percentage | 50000% |
| % of Group (with rounding) | Same as % of Group but rounds to closest tenth (ex. 1.11547% would be 1.1%). | 100.0% (only one selected value, 500) |
| % of Group | Calculates the percentage of the row | 100% |

| | | |
|---|---|---|
| | value to the entire group of values. | |
| Gauge | Shows value in a Linear Gauge instead of a numerical value. |   |
| Gauge (variable) | Shows values in a Linear Gauge which changes format due to values. | |
| Dash Gauge | Shows values in a Linear Gauge which changes format due to values. | |

**Date/Time Formats Available**




| Format | Description | Examples |
|---|---|---|
| . . . | Displays the date as it exists in the database | 7/4/2012 12:00:00 AM |
| Short Date | Displays date using the mm/dd/yyyy format | 7/4/2012 |
| Long Date | Displays the day of the week, month, numeric day, and the year | Wednesday, July 04, 2012 |
| Short Time | Displays time as hh:mm AM/PM | 12:00 AM |
| Long Time | Displays time as hh:mm:ss AM/PM | 12:00:00 AM |
| Full(short) | Displays the **Long Date** format, followed by the **Short Time** format | Wednesday, July 04, 2012 4:34 PM |
| Full(long) | Displays the **Long Date** format, followed by the **Long Time** format | Wednesday, July 04, 2012 4:34:52 PM |
| D&T (short) | Displays the **Short Date** format, followed by the **Short Time** format | 7/4/2012 4:34 PM |
| D&T (long) | Displays the **Short Date** format, followed by the **Long Time** format | 7/4/2012 4:34:52 PM |

**Date Format Dropdown Table**

## 4.7 Quick Add

Quick Add lets you add multiple fields to the report at one time by selecting from a list.

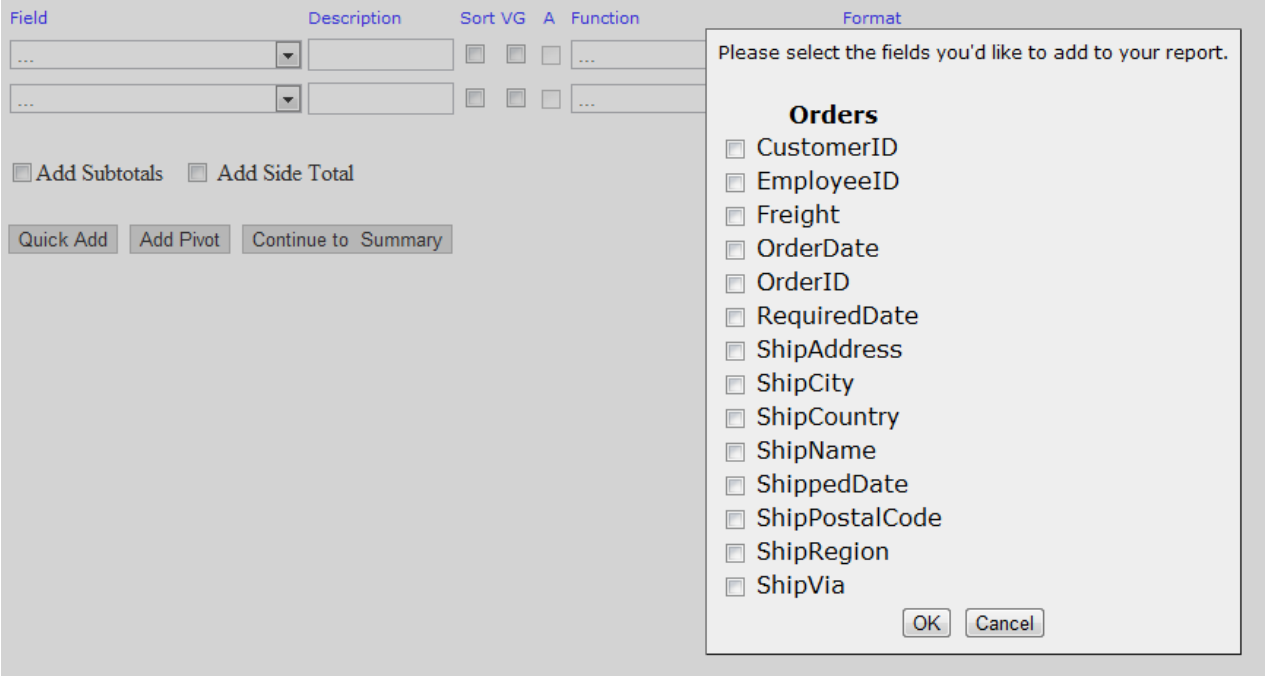
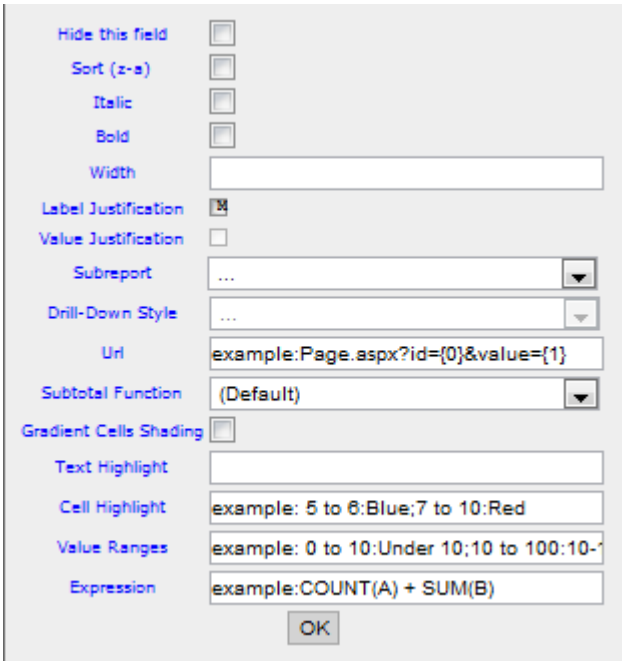
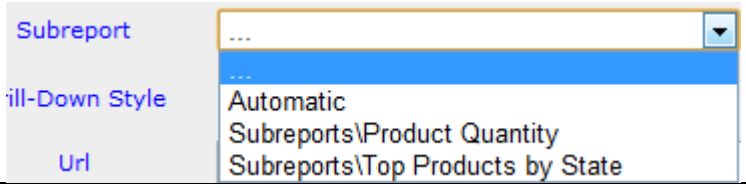


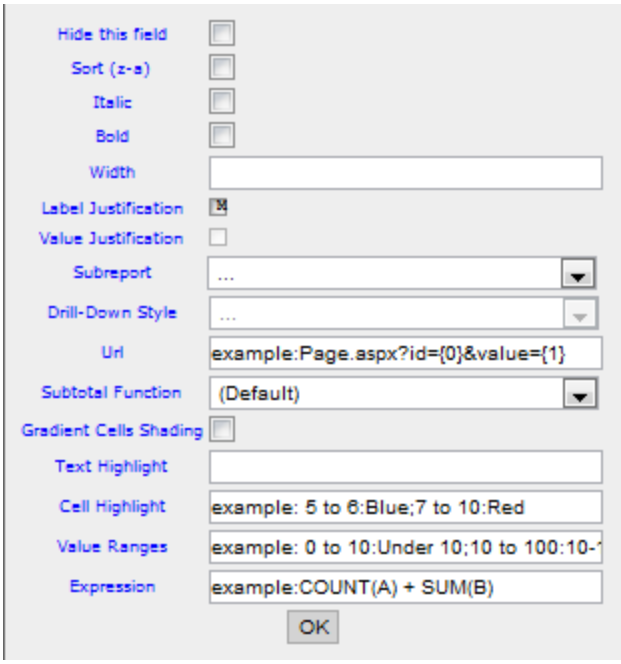

**Figure x-x Fields Quick Add**

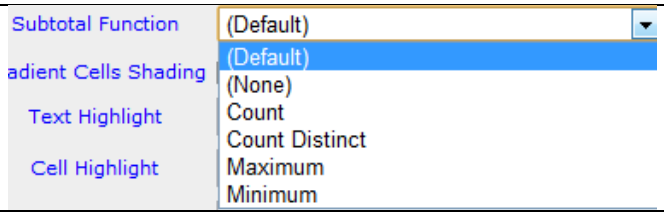
## 4.8 Advanced Field Settings Button

To access the Advanced Field Settings, click on the Gear icon on the selected Field.



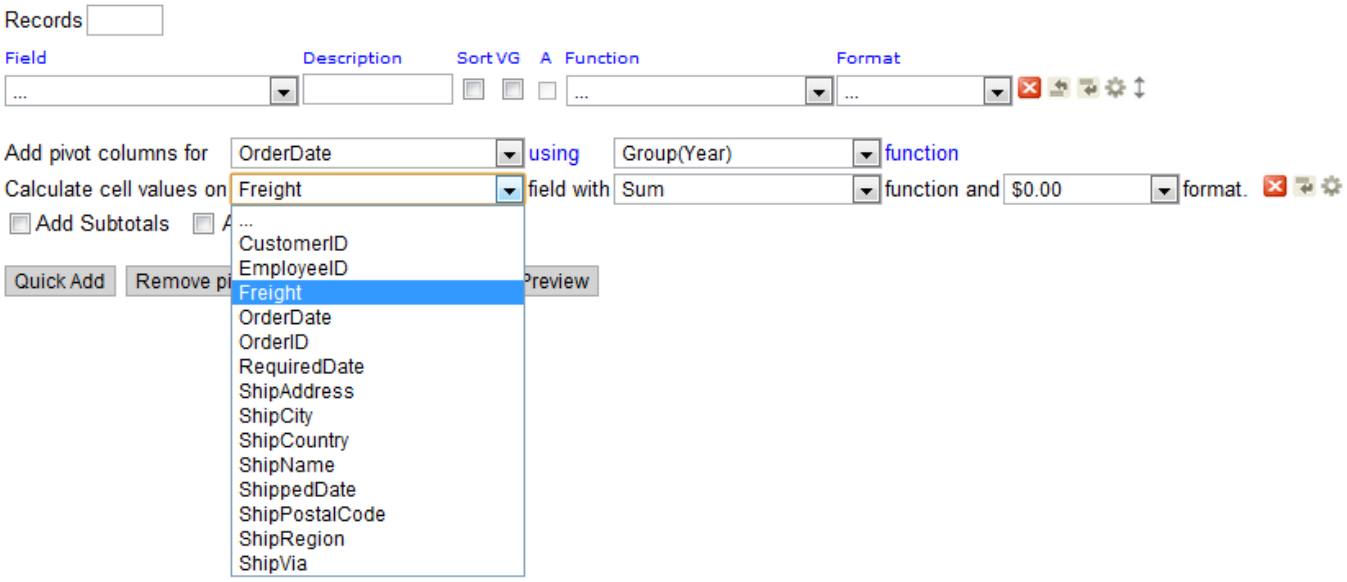

| Setting Name | Description |
|---|---|
| Hide this field | Hides the field from display when report is ran |
| Sort (z-a) | Sorts in descending order |
| Italic – Bold | Italic and Bold for that field |
| Width | Set the width of the column in number of pixels |
| Label Justication | Sets the Column label to the left, right, or middle of the row<br>  |
| Value Justication | Sets the Value of the field to the left, right, or middle of the row<br>  |
| Subreport | Sets the drill-down child report<br>  |
| Drill-Down Style | **Link** – opens in same browser window<br>**Link (New Window)** – opens in new browser window<br>**Embedded** – embeds the drill-down results into the main report<br>**Popup** – opens the results on a pop-up screen |




| | |
|---|---|
| **SubTotal (Function)** |  |
| Gradient Cells Shading | Sets a gradient effect shading the affected cells.<br>Canada<br>Ship City / Total<br>Montréal $1,394.22<br>Tsawassen $793.95<br>Vancouver $9.92<br>**$2,198.09** |
| Text Highlight | Highlights the text for the given range. Can use any color from list on Styles Tab color drop-down.<br>Example: 5 to 6:Blue;7 to 10:Red |
| Cell Highlight | Highlights the cell for the given range. |
| Value Ranges | Let's you set text values for number ranges, so if you set 0 to 10: Under, Vancouver would say Under from above<br>Vancouver Under<br>**$2,198.09** |
| Expression | Below, we use Sum (Freight) * .35 to get the new column<br>Argentina<br>Number of Orders / Freight Amount / Freight * 35%<br>16 $598.58 $209.50 |

## 4.9 Add Pivot

Add Pivot lets you generate analytical data grids and essentially adds extra pivot columns to the right side of the eport.




## 4.10 Admin Tips

### 4.10.1 Aliasing

**Field can be aliased or hidden from the menu through the Izenda API.**

Dynamic Fields lets you dynamically alter the field names in the drop down that the user sees on a per-user basis. This is useful for localization and when custom fields are used in your application.

```
public override void ConfigureSettings()
{
        AdHocSettings.FieldAliases["ShipCity"] = "DepartureCity";
}
```

### 4.10.2 Hidden Filters

Hidden Filters let you enforce row-level security on any field in the database on a per user / per role basis.

**US Manager –** Can only see U.S. data


**Finance Report**

Financial Analysis of Freight Costs

USA

| Ship City | Total | 2010-Q3 | 2010-Q4 | 2011-Q1 | 2011-Q2 | 2011-Q3 | 2011-Q4 |
|---|---|---|---|---|---|---|---|
| Albuquerque | $2,134.21 | $517.89 | $142.08 | $721.46 | $72.73 | $44.42 | $18.66 |
| Anchorage | $983.53 | $257.62 | $84.21 | $73.02 | $0.00 | $31.85 | $135.63 |
| Boise | $6,683.79 | $0.00 | $429.99 | $226.79 | $620.12 | $1,642.22 | $624.37 |

**Administrator –** Can see all data


**Finance Report**

Financial Analysis of Freight Costs

Canada

| Ship City | Total | 2010-Q3 | 2010-Q4 | 2011-Q1 | 2011-Q2 | 2011-Q3 | 2011-Q4 | 2012-Q1 | 2012-Q2 |
|---|---|---|---|---|---|---|---|---|---|
| Montréal | $1,394.22 | $0.00 | $88.89 | $374.68 | $203.27 | $669.63 | $57.75 | $0.00 | $0.00 |
| Tsawassen | $793.95 | $0.00 | $47.42 | $70.22 | $62.89 | $0.00 | $243.73 | $222.47 | $147.22 |
| Vancouver | $9.92 | $0.00 | $0.00 | $0.00 | $4.65 | $0.94 | $0.00 | $4.33 | $0.00 |
| | **$2,198.09** | **$0.00** | **$136.31** | **$444.90** | **$270.81** | **$670.57** | **$301.48** | **$226.80** | **$147.22** |

```
Izenda.AdHoc.AdHocSettings.HiddenFilters["ShipCountry"]= GetUserCountry();
```

The example above only lets you see data from your country value in the database.
You can set hidden filters to be a specific value or a range of values.

## 5.0 FILTERS TAB

In the **Filters** tab (Figure 5-1), the fields of the table/view chosen in the **Data Sources** tab can be filtered so that only pertinent entries appear in the table.

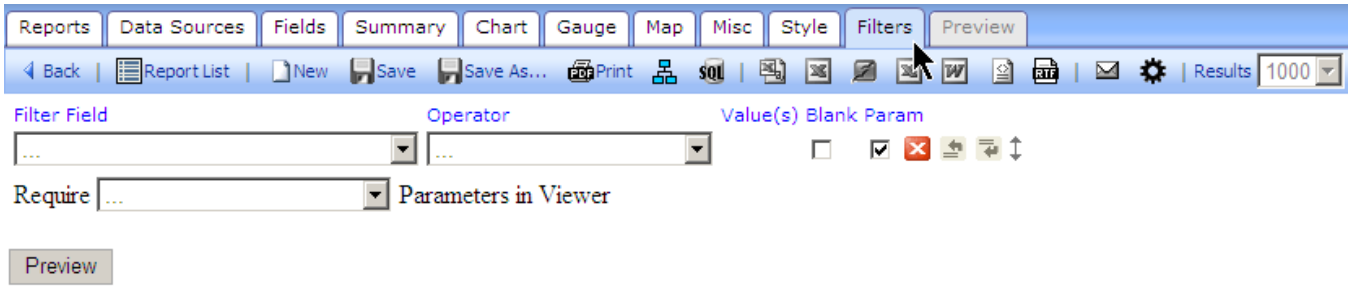



**Figure 5-1 Filters Tab**

### 5.1.1 Filter Field Dropdown Menu

The Filter Field dropdown menu is a list of the available fields in the table/view that have been selected or created in the **Data Sources** tab. Select the fields to filter. If joining tables/view, the title of the table/view that the field is from appears in parentheses next to the name of the field.

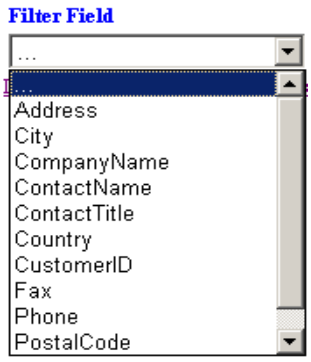
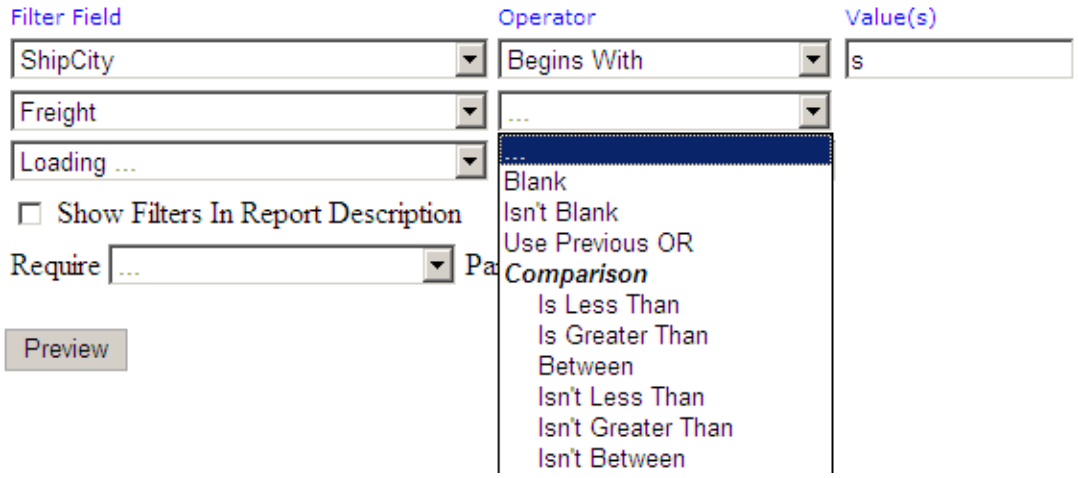



**Figure 5-2 Field Dropdown Menu**

### 5.1.2 Filter Operator Dropdown Menu and Value(s)




**Operator Dropdown Menu and Value(s).**

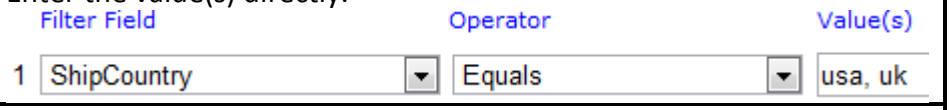
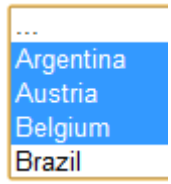
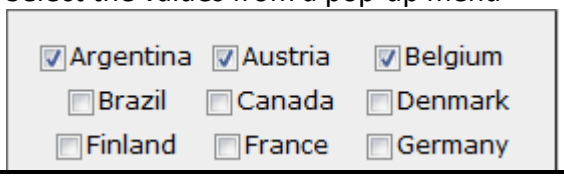
The Filter Operator Drop-down lets you select your operator based on the data type that has been selected in the filter. the filter fields available are only those under the Tables or Views selected in the Data Sources tab.

| Data Type | Categories Available |
|---|---|
| **Number** | Comparison, Equivalence, Field Comparison |
| **Text** | All of the above and Text |
| **Date/Time** | All of the above and Date/Time |

**Description of Operator Dropdown Menu and Value(s)**

### 5.1.3 Operator Categories

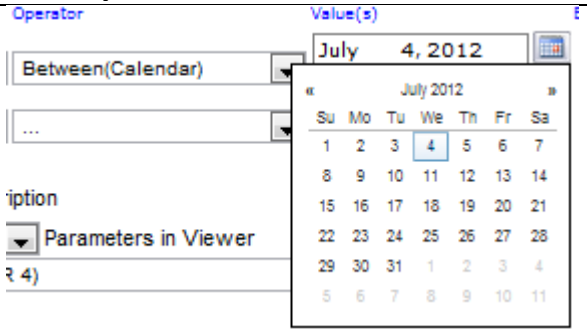
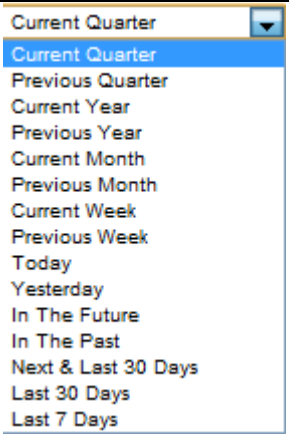
| **Comparison** |
|---|
| Is Less Than |
| Is Greater Than |
| Between |
| Isn't Less Than |
| Isn't Greater Than |
| Isn't Between |

| Equivalence | Description |
|---|---|
| Equals | Enter the value(s) directly.<br>  |
| Equals (List) | Allows you to copy/paste a list of values from a .csv file |
| Equals (Autocomplete) |  <br>Start typing the value and it will autocomplete for you |
| Equals (Select) | Select a single value from a drop-down list for a particular field |
| Equals (Multiple) | Select multiple values from the drop-down list<br>  |
| Equals (Popup) | Select the values from a pop-up menu<br>  |
| Doesn't Equals | |
| Doesn't Equals (Select) | |
| Doesn't Equals (Multiple) | |
| Doesn't Equals (Popup) | |

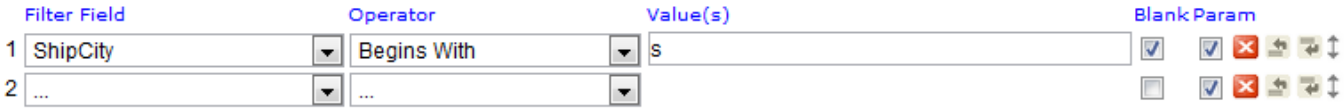
| Field Comparison | Description |
|---|---|
| Is Less Than (Field) | |
| Is Greater Than (Field) | |
| Equals (Field) | **Multiple Field Joins – when needing to join on multiple fields or keys** |
| Not Equals (Field) | |

| Available for All | |
|---|---|
| . . . | No filter is set for the report. |
| Blank | Records that include blank or Null values will be included in the report. |
| Isn't Blank | Records that do not include blank or Null values will be included in the report. |
| Use Previous OR | **How to Use Previous OR KB** |

| Text | Description |
|---|---|
| Like | You can use the Like operator to find values in a field that match the pattern you specify. Like "sa" could return sam, samurai,or raisan. |
| Begins With | Begins with the values you set. |
| Ends With | Ends with the values you set. |
| Isn't Like | Isn't Like "sa" would not return any results with sa in it. |

| Date/Time | Description |
|---|---|
| Between (Calendar) |  <br>Between two dates you select from a calendar |
| In Time Period |  <br>You can use the standard values above or create your own custom timespans.<br>**Add New Time Period KB** |
| Less Than Days Old | |
| Greater Than Days Old | |
| Equals Days Old | |

### 5.1.4 Blank and Param Checkboxes




**Filter Selection**

The Blank and Param checkboxes (see image above) allow you to control the filtering behavior in the report viewer. T***hey do not affect the "Preview" tab of the report designer.***

**Blank Checkbox**: To use this, first set a "Filter Field" and then set an "Operator."
If "Blank" is checked, the filter will return data which matches the "Value(s)" dropdown/textbox and also data which has a blank/null value in that field .

In the example above, if "Blank" is checked and then viewed in the report viewer, then the user would see all of the data where the "ShipCity" begins with "s" and all of the "Address" records which are blank or null.

**Param Checkbox:** To use this, first set a "Filter Field", set an "Operator", and then set "Value(s)", as in the previous example. This will display the filtered report in the report viewer and allow the user to change the filter value. If it is not checked, then the filter will not be visible to the end-user and the end-user will not be able to change the filter.

The example above shows a filter which will display a report in the report viewer where only the Address fields which begin with "s" will be shown. However, a user will be able to change the "s" to a "t" and update the report if desired.

### 5.1.5 Other Buttons on the Filters Tab

The , , , and function buttons of the **Filters** tab are shown below.

| Icons | Control Name | Description |
|---|---|---|
| | Delete button | **Click this button to delete the row the button is on.** |
| | Insert Row button (above) | Click this button to insert a row above the row the button is on. |
| | Insert Row button (below) | Click this button to insert a row below the row the button is on. |
| | Move | Allows users to move a row up or down in the list. |

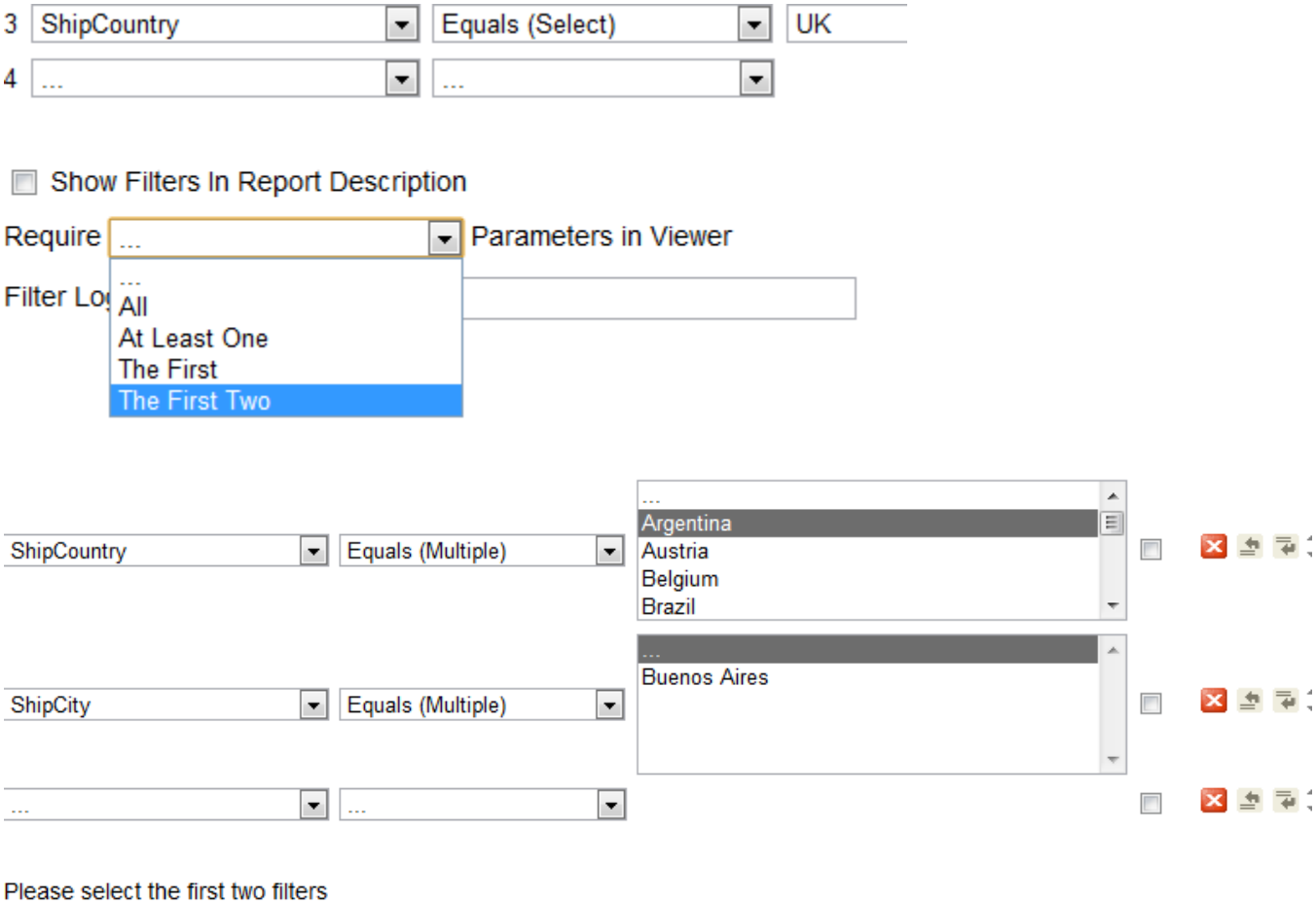
**Table 7 Descriptions of Buttons**

### 5.1.6 Other Filter Features

| Feature | Description |
|---|---|
| Show Filters in Report Description | Lists the Filters on the screen when accessed in the Report Viewer |
| Require ___ Parameters in Viewer | Sets the number of filter parameters the user must set when accessing this report in the Report Viewer |
| Filter Logic (Conditional Filtering) | Ex: (1 OR 2) AND (3 OR 4)<br>Advanced Filter Logic KB |

## Require ___ Parameters in Viewer

The example below requires the user to select at least two parameters before the report will run in the Report Viewer.



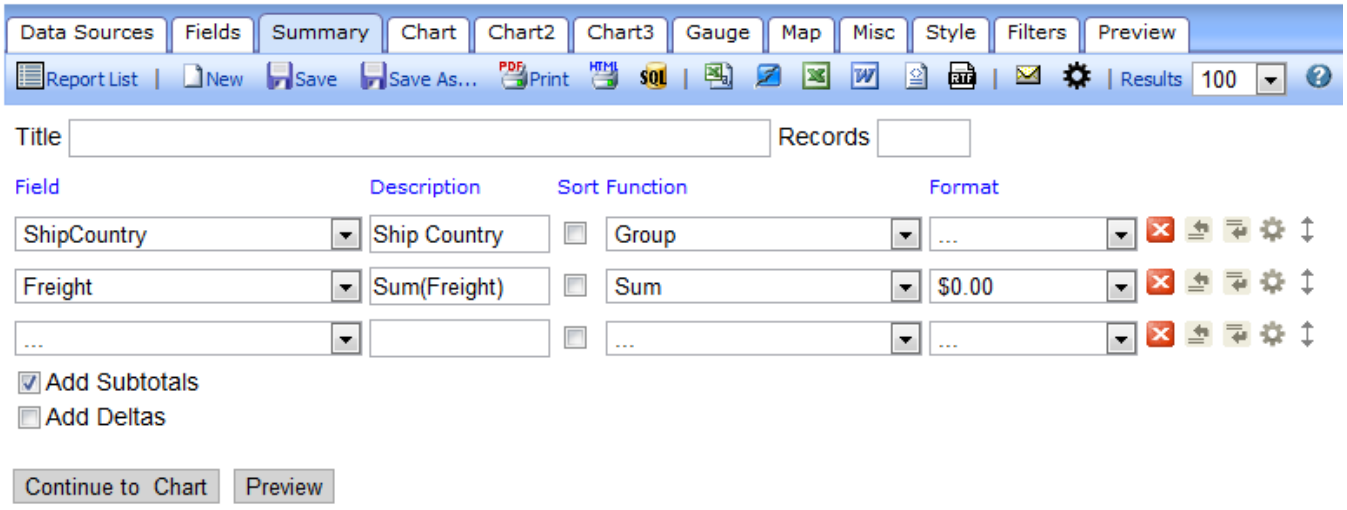

**Require The First Two Parameters in Viewer**

## 6.0 SUMMARY TAB

In the **Summary** tab (below), a table can be created that summarizes the chosen fields using different functions (Ex: *Average*, *Count*, *Maximum*, and so on). You can also make a group of fields by choosing the **Group** option from the **Function** dropdown menu.

Most actions and properties available in the Summary Tab are available in the Fields Tab.
The only difference is the removal of the Quick Add and Pivot capabilities, and addition of the Add Deltas checkbox

For more information on performing a Summary, refer to the Fields section.




**Summary Tab**

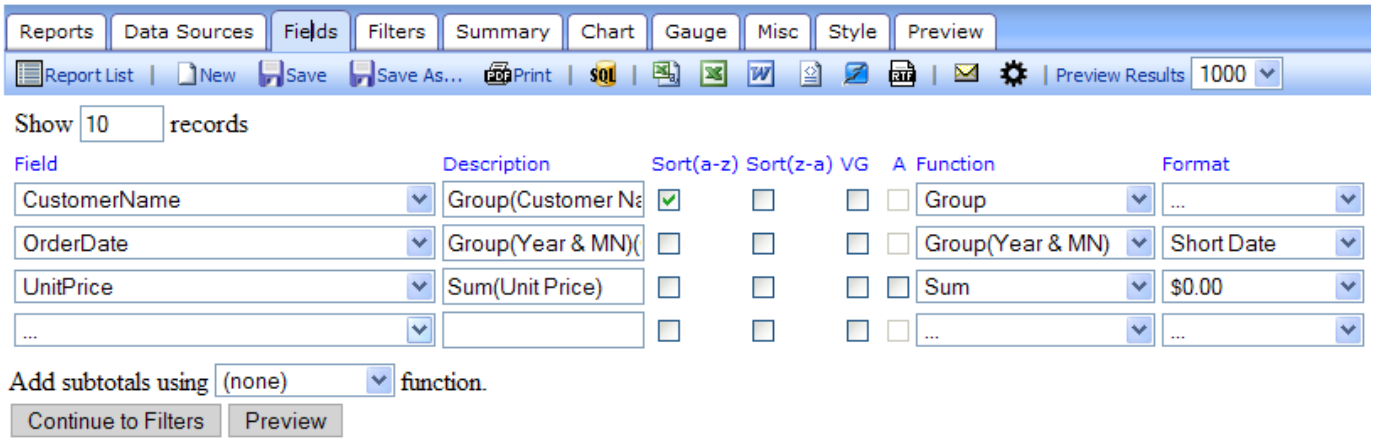
| Ship Country | Sum(Freight) ▼ |
|---|---|
| USA | $13,771.29 |
| Germany | $11,283.28 |
| Austria | $7,391.50 |
| Brazil | $4,880.19 |
| France | $4,237.84 |
| Sweden | $3,237.60 |
| UK | $2,954.27 |
| Ireland | $2,755.24 |
| Venezuela | $2,735.18 |
| Canada | $2,198.09 |
| Denmark | $1,396.19 |
| Switzerland | $1,368.53 |

**Summary Results**

## 6.1 Deltas

Delta means "Change In".
Any time there is a change in a quantity that change is calculated by taking the later value for that quantity and subtracting from it the earlier value for that quantity.

This can be used in a report by selecting "Add Deltas" under the Summary tab.
Select the "Add Deltas" checkbox under Summary tab.




Report view showing Summary with Delta.

| Group(Customer Name) | Group(Year & MN)(Order Date) | Sum(Unit Price) |
|---|---|---|
| Alfreds Futterkiste | 2007 - August | $151.20 |
| | | ($7.40) (-4.9%) |
| Alfreds Futterkiste | 2007 - October | $143.80 |
| | | ($7.80) (-5.4%) |
| Alfreds Futterkiste | 2008 - January | $136.00 |
| | | $5.20 (3.8%) |
| Alfreds Futterkiste | 2008 - March | $141.20 |
| | | ($71.70) (-50.8%) |
| Alfreds Futterkiste | 2008 - April | $69.50 |
| | | $12.10 (17.4%) |
| Ana Trujilo Emparedados y helados | 2006 - September | $81.60 |
| | | $60.90 (74.6%) |
| Ana Trujilo Emparedados y helados | 2007 - August | $142.50 |
| | | ($78.50) (-55.1%) |
| Ana Trujilo Emparedados y helados | 2007 - November | $64.00 |
| | | $78.00 (121.9%) |
| Ana Trujilo Emparedados y helados | 2008 - March | $142.00 |
| | | ($108.40) (-76.3%) |
| Antonio Moreno Taquería | 2006 - November | $33.60 |

| Group(Customer Name) ▼ | Group(Year & MN)(Order Date) | Sum(Unit Price) |
|---|---|---|
| Alfreds Futterkiste | 2007 - August | $151.20 |
| Alfreds Futterkiste | 2007 - October | $143.80 |
| Alfreds Futterkiste | 2008 - January | $136.00 |
| Alfreds Futterkiste | 2008 - March | $141.20 |
| Alfreds Futterkiste | 2008 - April | $69.50 |
| Ana Trujilo Emparedados y helados | 2006 - September | $81.60 |
| Ana Trujilo Emparedados y helados | 2007 - August | $142.50 |
| Ana Trujilo Emparedados y helados | 2007 - November | $64.00 |
| Ana Trujilo Emparedados y helados | 2008 - March | $142.00 |
| Antonio Moreno Taquería | 2006 - November | $33.60 |

Result: The Deltas() show the change in the Unit Price over the period of time.

## 7.0 CHART TAB

In the **Chart** tab, a chart can be created using the data in the table/view selected on the **Data Sources** tab**.**

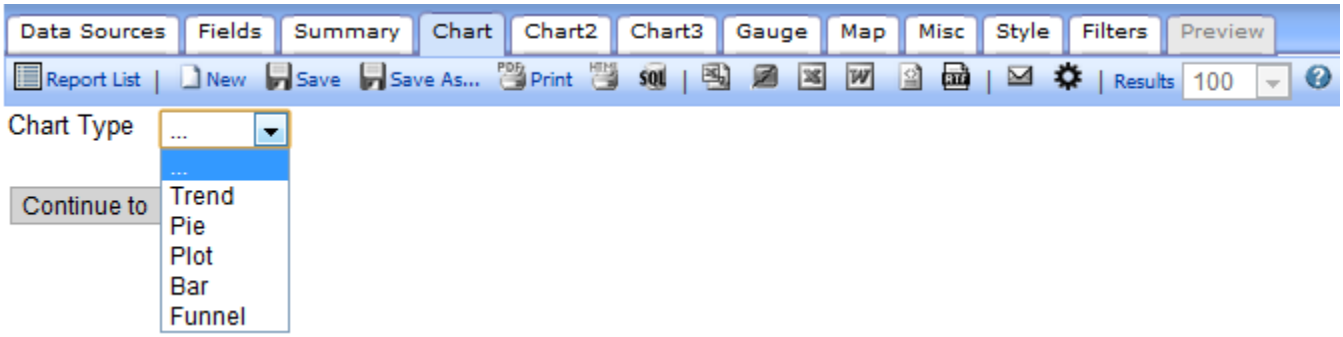



**Chart Tab**

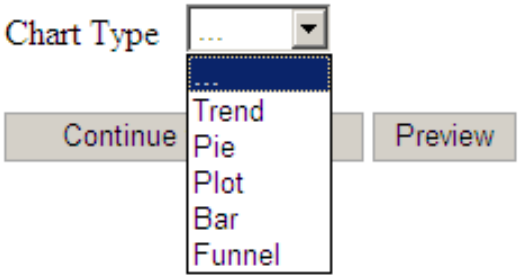
The Charts Tab lets you create different variations of charts, including:

Trend
Pie
Plot
Bar
Funnel

You can have multiple charts in one report or put multiple charts of summary information on a Dashboard to show key business metrics.

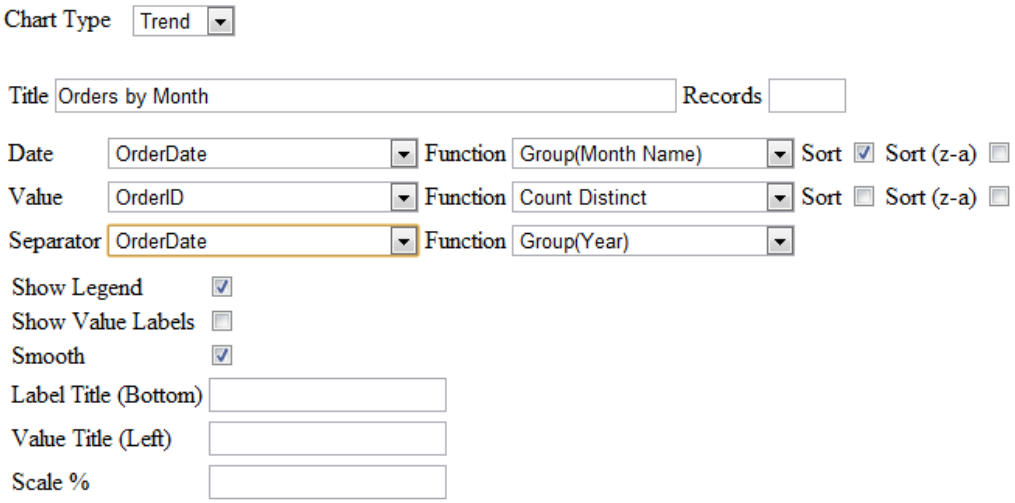
### 7.1.1 None Selection

When the chart type is **None (…),** no chart appears.



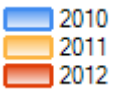
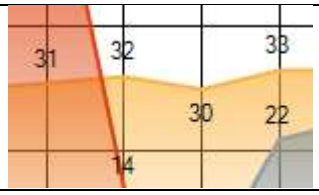
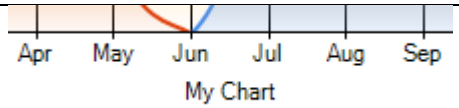
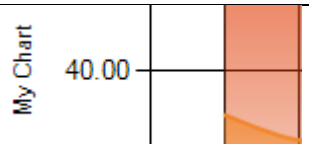

**None Selection**

## 7.2 Trend Selection



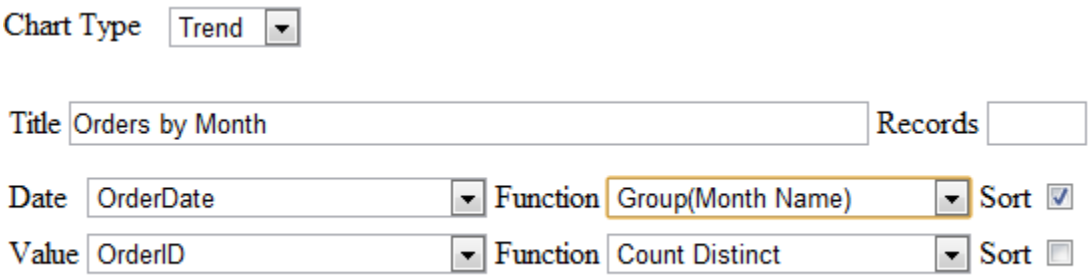

**Trend Selection**

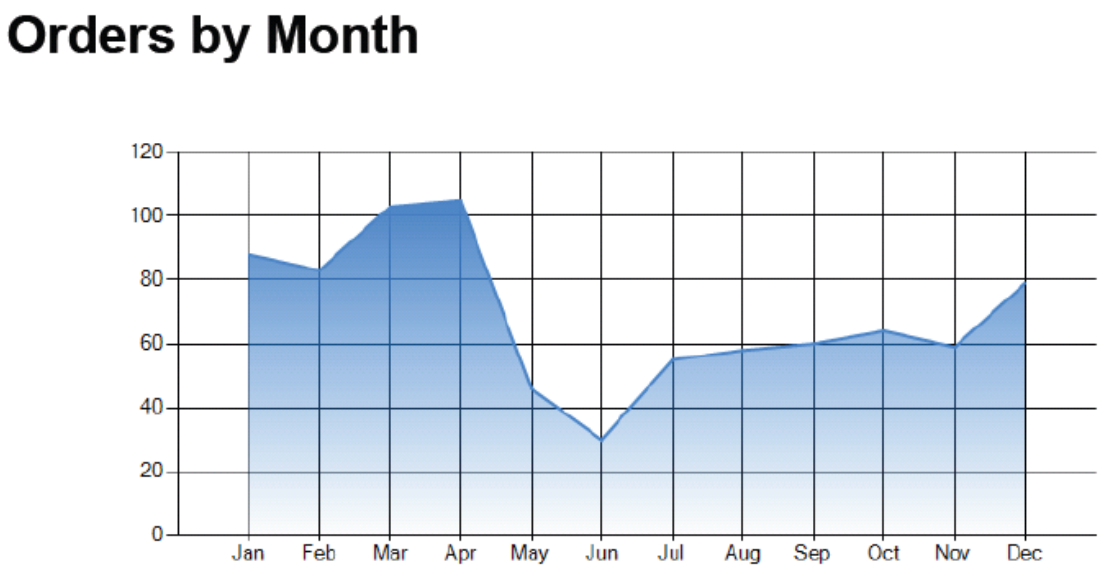
The table below describes the features of the **Trend** chart type selection.

| Features | Description |
|---|---|
| Trend chart | By choosing chart type **Trend**, the chart appears in **Trend** format. |
| Date dropdown menu | **Will show all of your available fields that are dates** |
| Value dropdown menu | Choose any value from the dropdown list. |
| **Show Legend** |   |
| **Show Value Labels** |   |
| **Smooth** | Smoothing of the data points, as seen in graph Figure x-x above |
| **Label Title (Bottom)** |   Inserts a label centered at the bottom of the chart |
| **Value Title (Left)** |   Inserts a label centered to the left of the chart |
| **Scale %** | Allows you to scale your chart to a percentage of the original size |

### 7.2.1 Creating a Trend Chart showing Orders by Month

Design This Report
Edit This Report



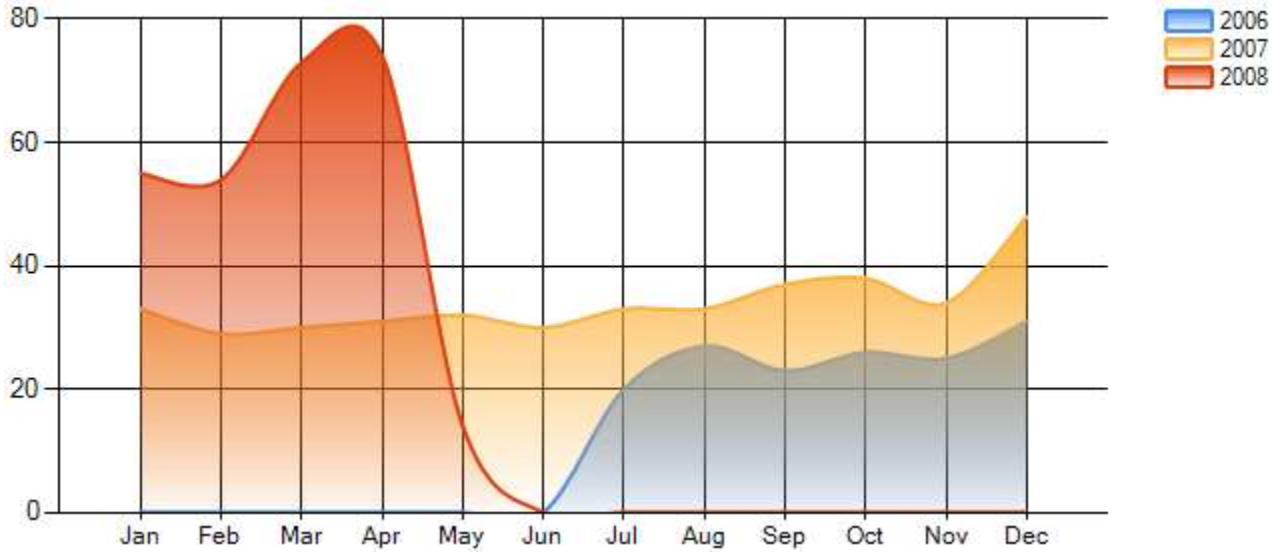




1. From the ReportList.aspx page Click on "Design a New Report". Or if you are in report designer click the "New" icon. Now we need to select a data source.
2. Click on the "Data Sources" tab. Then click on the drop down box and choose "Orders".
3. Click on the "Chart" tab. This is where we create charts.
4. Click on the "Chart Type" drop down box and choose "Trend" for the chart type.
5. Click on the "Date" drop down box and select "OrderDate" for our date field.
6. For the "Date" function select "Group (Month Name)" from the drop down box.
7. Click on the "Value" drop down box and select "OrderID" for our value field.
8. For the "Value" function select "Count Distinct" from the drop down box.
9. Click on the "Preview" tab so you can view the report. Let's add a title to this report.
10. 10. Click on the "Misc" tab. In the "Title" text box enter "Orders by Month"
11. Click the "Preview" tab. Now the Report is Titled. Let's Save it.
12. Click on the "Save as" tool bar button, name your report and enter the category you want the report to be shown under. Click OK. The Izenda report is saved.

### 7.2.2 Creating an Advanced Trend Chart Report

Design This Report
Edit This Report

***In this example, we will modify the trend chart created in 7.2.1 above, by separating the data by year and smoothing out the graph.***

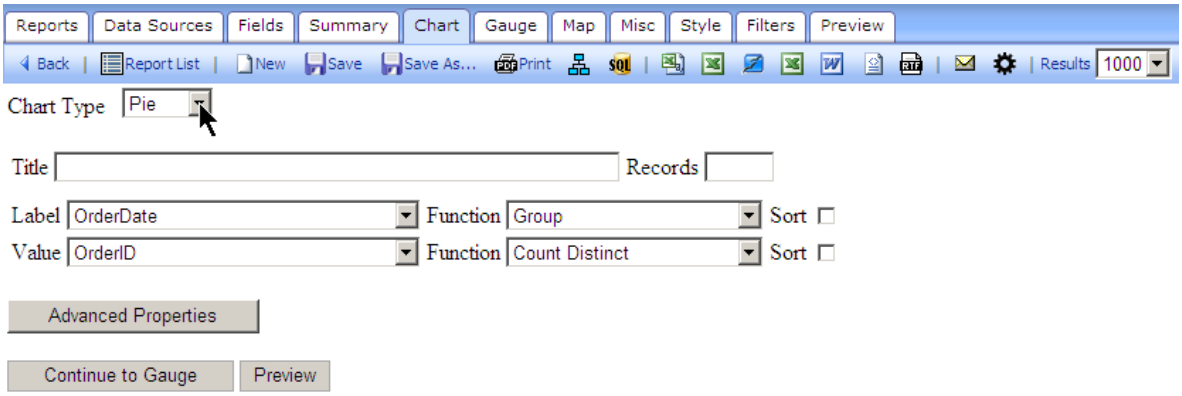



**Instructions**

1. If you did not just complete lesson 2-1 then you will need to load it. This can be done from the reports list or report designer. It will be under the "Training" category and labeled "Lesson 2-1". In report designer just click the name. In reports list you click the pencil next to the name and this will load the report in report designer.
2. Click on the "Chart" tab.
3. Click on the "Show Advanced" button.
4. Click on the "Separator" drop down box and select "OrderDate"
5. Click on the "Separator" "Function" drop down box and select "Group (year)" this is how the data will be separated.
6. Notice that the legend check box is selected.
7. Click on the "Smooth" check box.
8. Click the "Preview" tab. Now the Trend Chart has been enhanced and separated by year. Let's update the title for this report.
9. Click on the "Misc" tab.
10. In the "Title" text box enter "Orders by Month and Year"
11. Click the "Preview" tab. Let's Save it.
12. Click on the "Save as" tool bar button, name your report, for example "Lesson 2-2", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

## 7.3 Pie Chart

The images below show the **Pie** (chart) selection menu of the **Chart** tab.




**Pie (Chart) Selection**

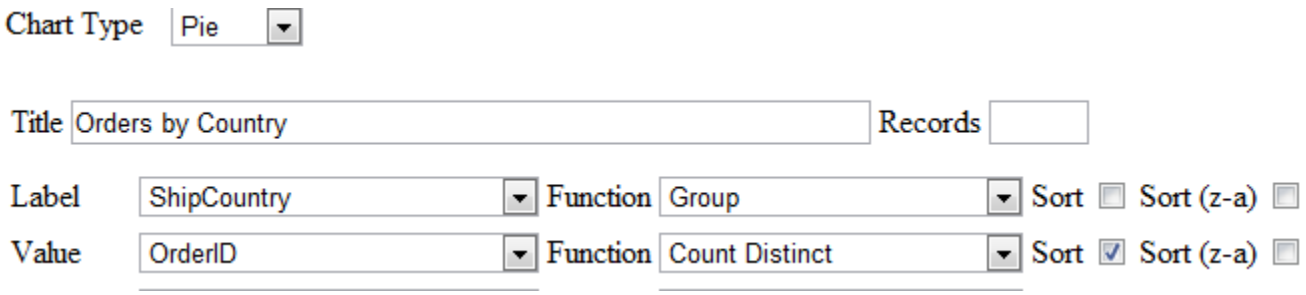
The table below describes the **Pie** chart selection.

| Features | Description |
|---|---|
| **Pie chart** | By choosing chart type **Pie**, the chart appears in **Pie** format. |
| Label dropdown menu | **Choose any label from the dropdown list.** |
| Value dropdown menu | Choose any value from the dropdown list. |

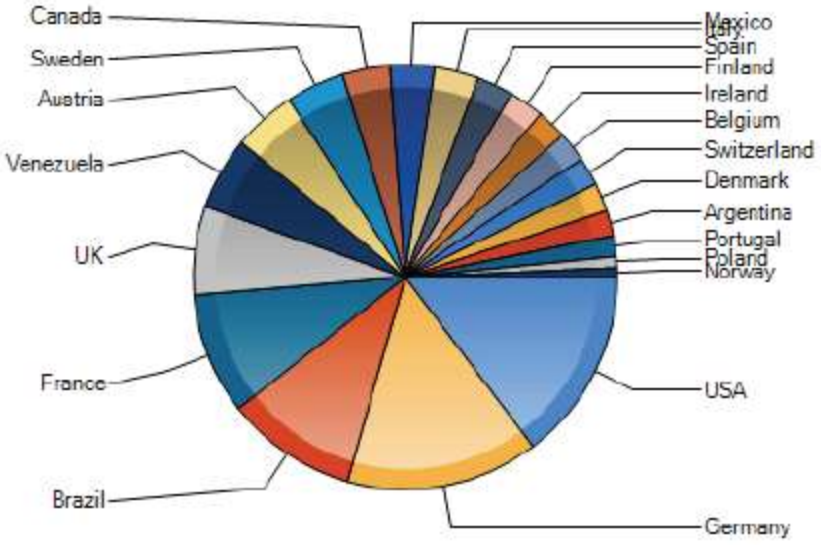
**Description of Pie (Chart) Selection**

### 7.3.1 Creating a Pie Chart showing the percentage of orders from each country

Design This Report
Edit This Report



# Orders By Country



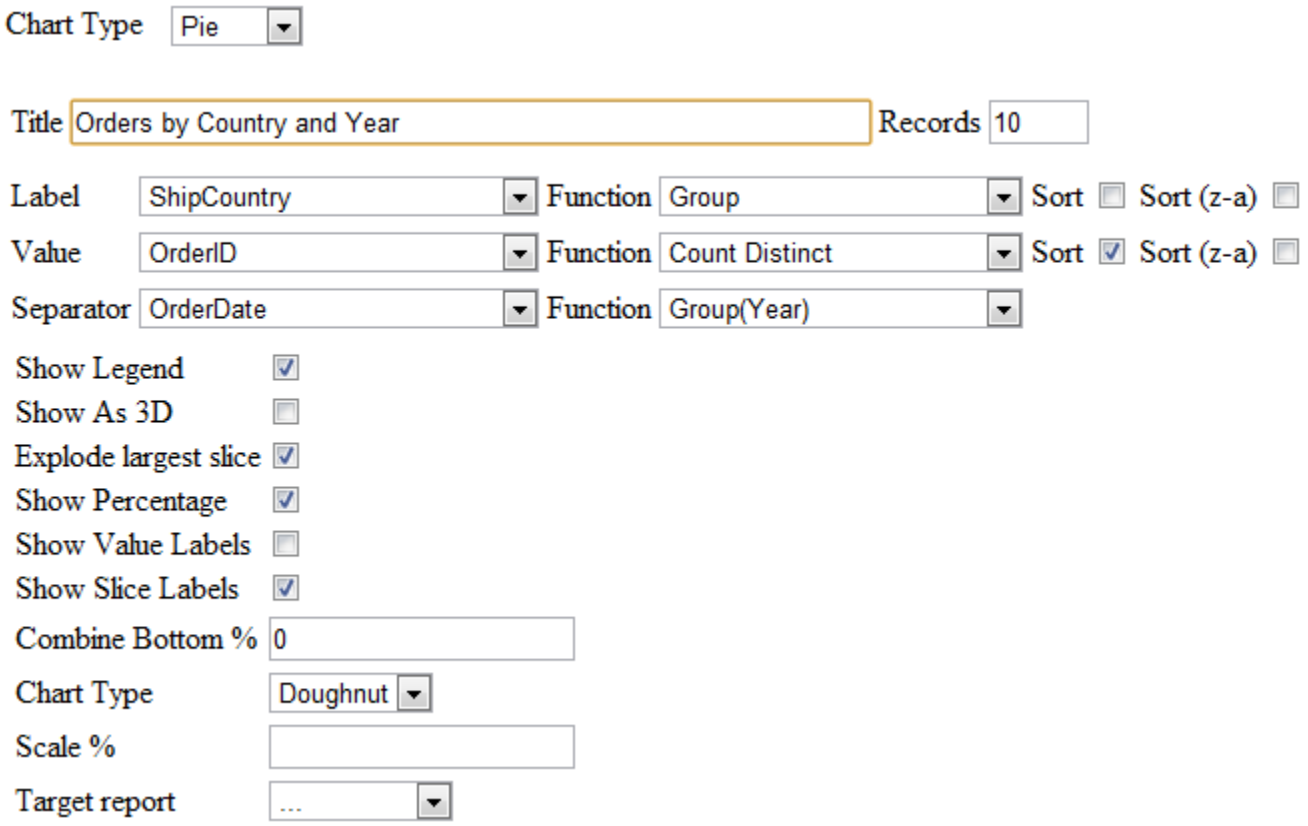

Instructions

1. From the ReportList.aspx page Click on "Design a New Report". Or if you are in report designer click the "New" icon. Now we need to select a data source.
2. Click on the "Data Sources" tab. Then click on the drop down box and choose "Orders".
3. Click on the "Chart" tab. This is where we create charts.
4. Click on the "Chart Type" drop down box and choose "Pie" for the chart type.
5. Click on the "Label" drop down box and select "ShipCountry" for our label field.
6. For the "Label" function select "Group" from the drop down box.
7. Click on the "Value" drop down box and select "OrderID" for our value field.
8. For the "Value" function select "Count Distinct" from the drop down box. Let's sort the values so the countries with the most orders will be together.
9. Click on the sort checkbox for the value field.
10. Click on the "Preview" tab so you can view the report. Let's add a title to this report.
11. Click on the "Misc" tab.
12. In the "Title" text box enter "Orders By Country"
13. Click the "Preview" tab. Now the Report is Titled. Let's Save it.
14. Click on the "Save as" tool bar button, name your report, for example "Lesson 4-1", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

### 7.3.2 Creating an Advanced Pie Chart Report

Design This Report
Edit This Report

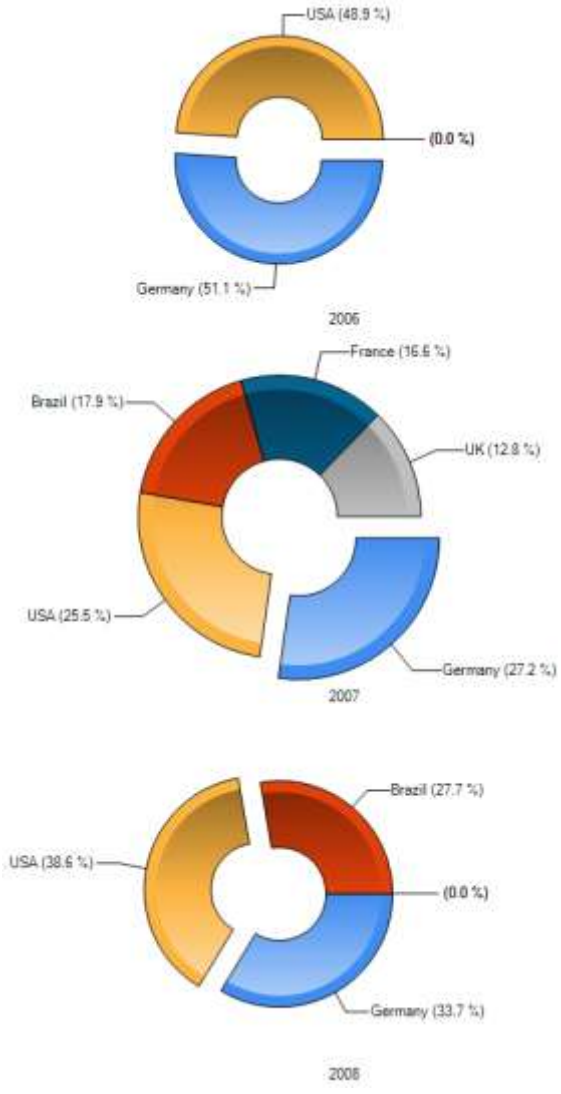
***In this lesson, we will modify the pie chart created in the pie chart above in Figure x-x by separating the data by year so we can see which countries had the most orders each year.***




**Instructions**

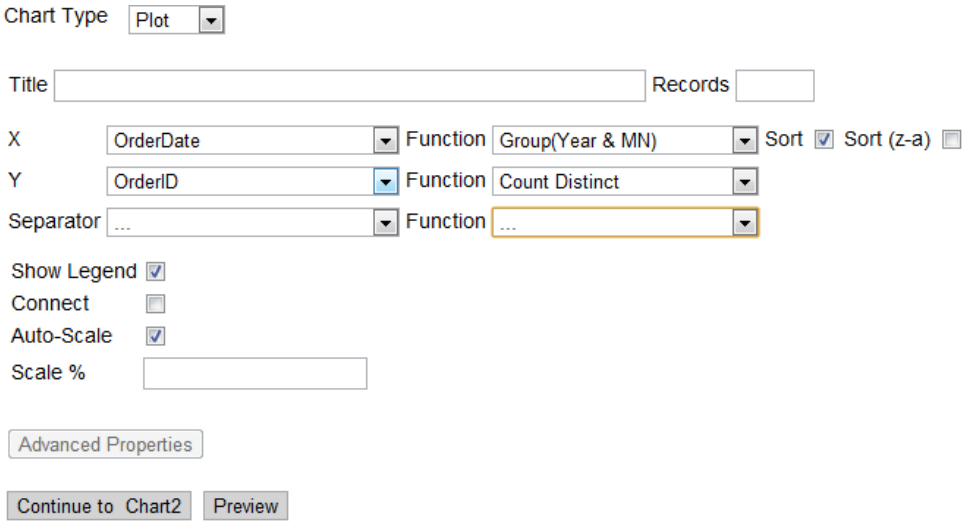
1. If you did not just complete lesson 4-1 then you will need to load it. This can be done from the reports list or report designer. It will be under the "Training" category and labeled "Lesson 4-1". In report designer just click the name. In reports list you click the pencil next to the name and this will load the report in report designer.
2. Click on the "Chart" tab.
3. Click on the "Show Advanced" button.
4. Click on the "Separator" drop down box and select "OrderDate"
5. Click on the "Separator" "Function" drop down box and select "Group(Year)" this is how the data will be separated. Let's limit the number of records shown to 10.

6. Click on the Show records textbox. Enter 10. Let's add a legend.
7. Click on the "Legend" check box to select it. Let's explode the largest slice from each year.
8. Click on the "Explode Largest Slice" check box. Let's add percentages to the pie graph.
9. Click on the "Show Percentage" check box. Let's also change the type of pie chart.
10. Click on the "Chart Type" drop down box and select "Doughnut."
11. Click the "Preview" tab. Now the Pie Chart has been enhanced to show the countries with the most orders separated by year. Let's update the title for this report.
12. Click on the "Misc" tab.
13. In the "Title" text box enter "Orders By Country and Year"
14. Click the "Preview" tab. Let's Save it.
15. Click on the "Save as" tool bar button, name your report, for example "Lesson 4-2", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

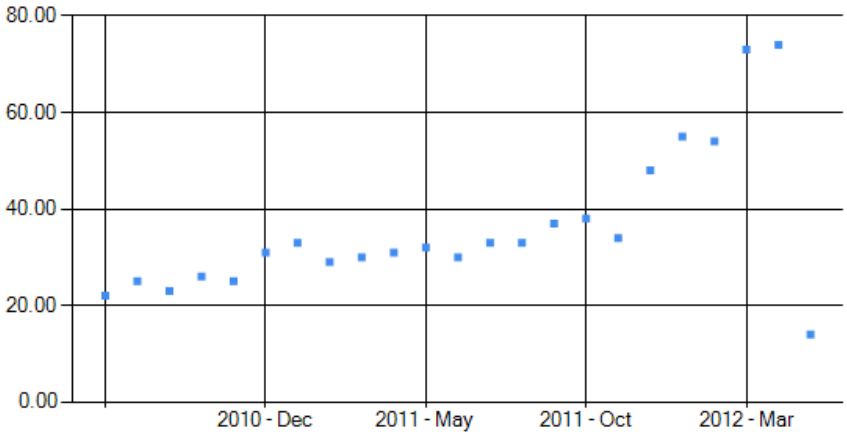


### 7.3.3 Plot Selection

The images below show the **Plot** (chart) selection of the **Chart** tab.




**Plot Selection**



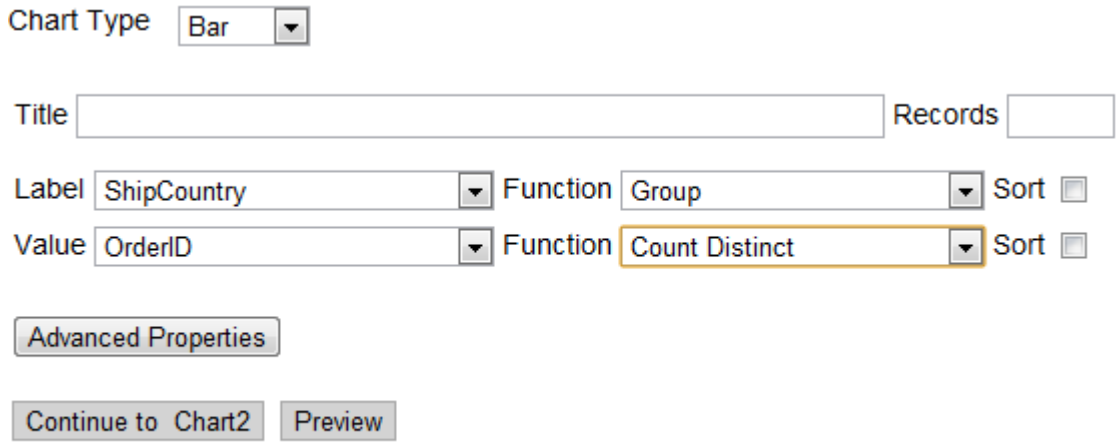

The table below describes the **Plot** (chart) selection.

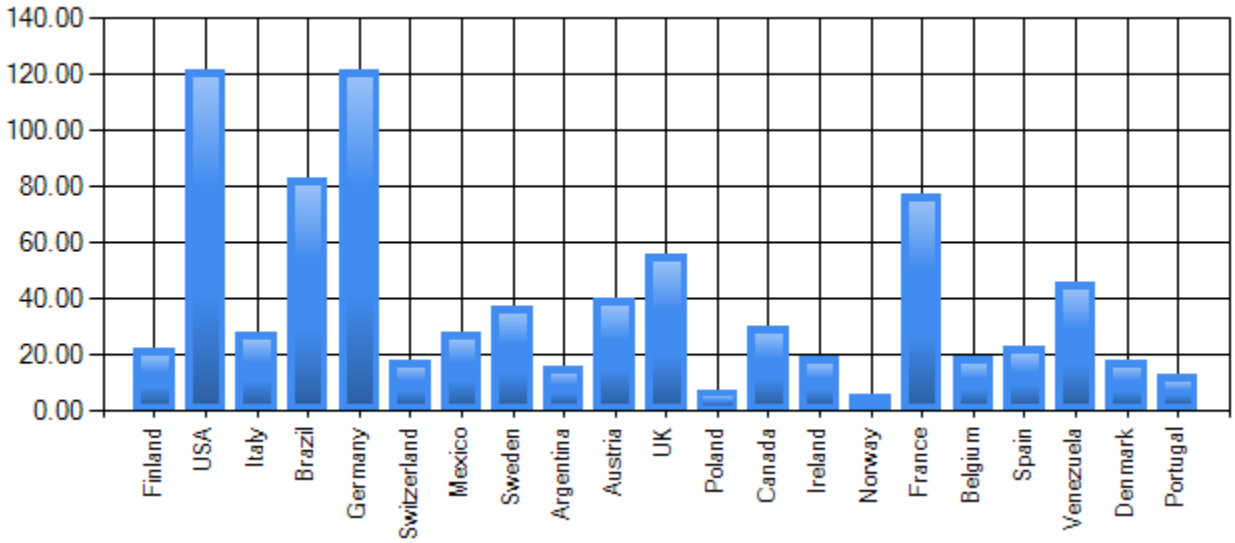
| Features | Description |
|---|---|
| Plot chart | By choosing chart type **Plot**, the chart appears in **Plot** format. |
| X-axis dropdown menu | **Choose any field from the dropdown for the X-axis.** |
| Y-axis dropdown menu | Choose any field from the dropdown for the Y-axis. |

**Description of Plot (Chart) Selection**

## 7.4 Bar Charts

The images bellow show the user selection parameters for a simple Bar Chart which counts the number of distinct orders by country.



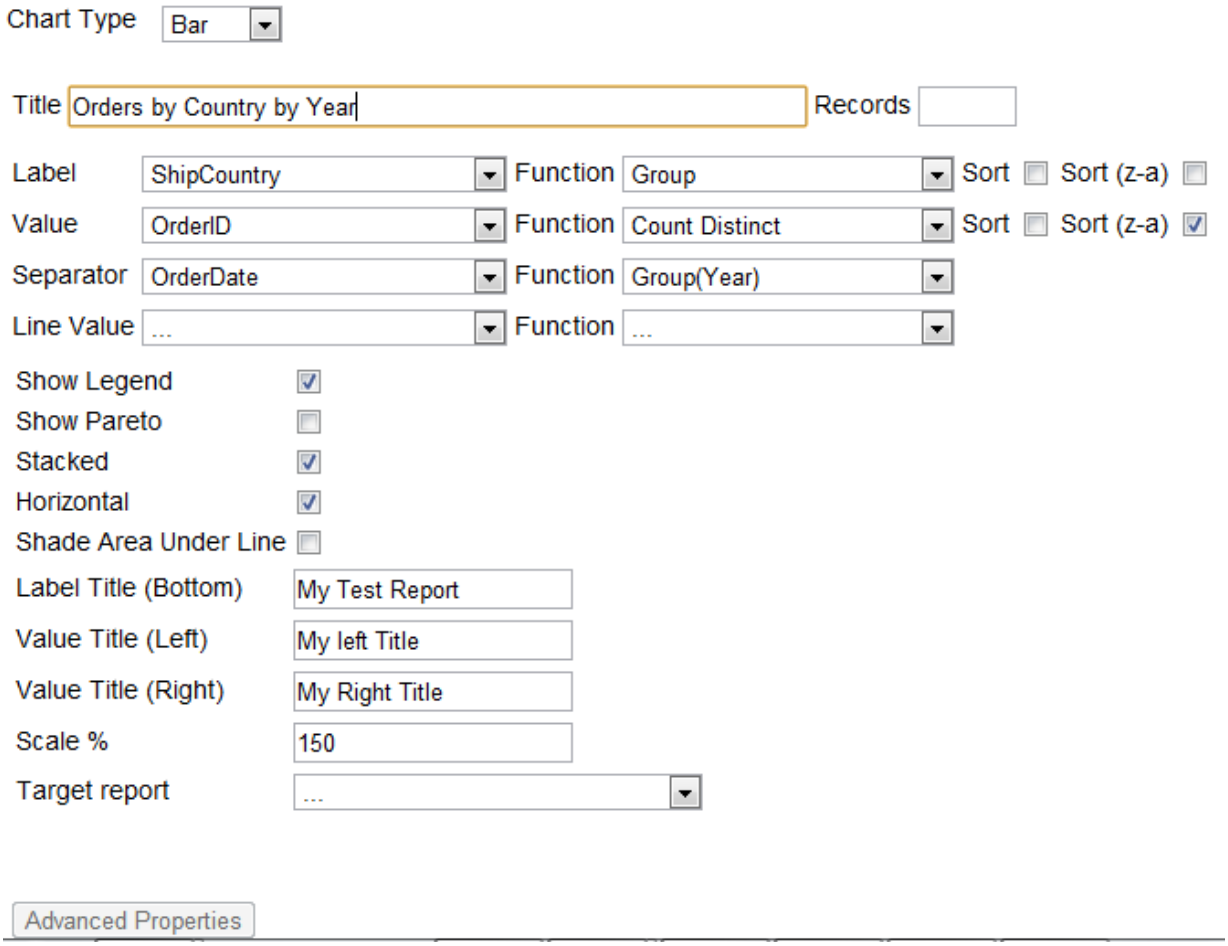



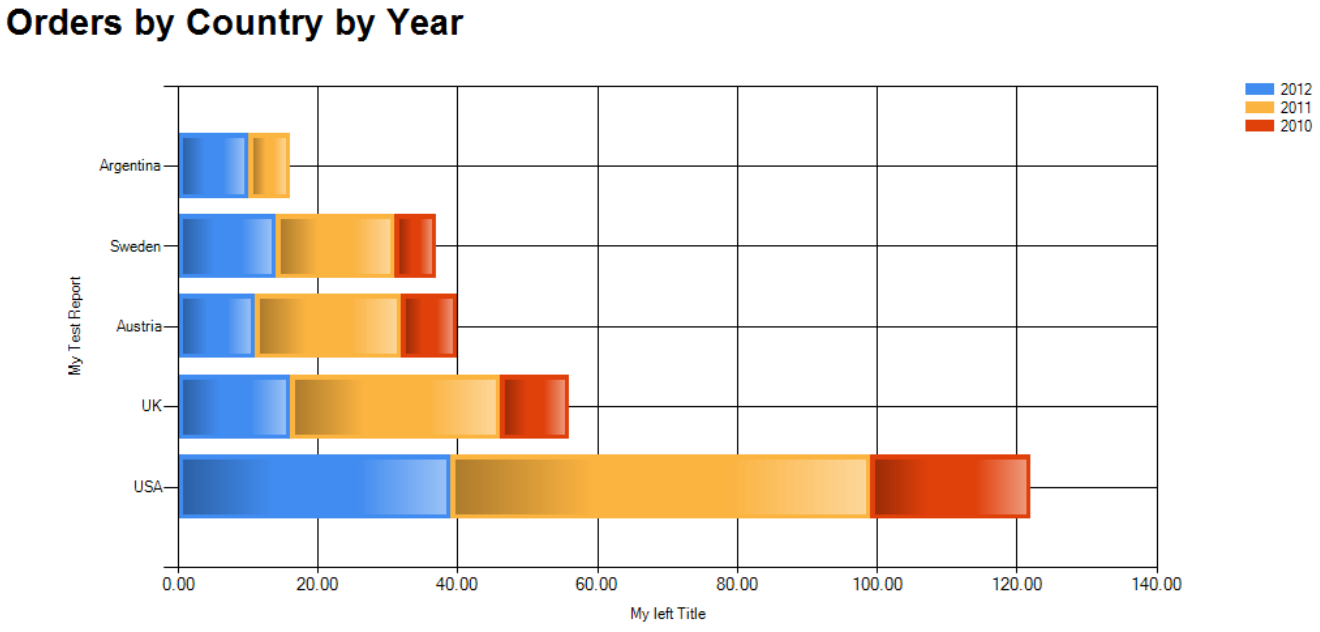

The table below describes the **Bar** (chart) selection entries.

| Features | Description |
|---|---|
| Bar chart | **By choosing chart type Bar, the chart appears in Bar format.** |
| Label dropdown menu | Choose any label from the dropdown list. |
| Value dropdown menu | Choose any value from the dropdown list. |

**Description of Bar (Chart) Selection**

### 7.4.1 Example Bar Chart

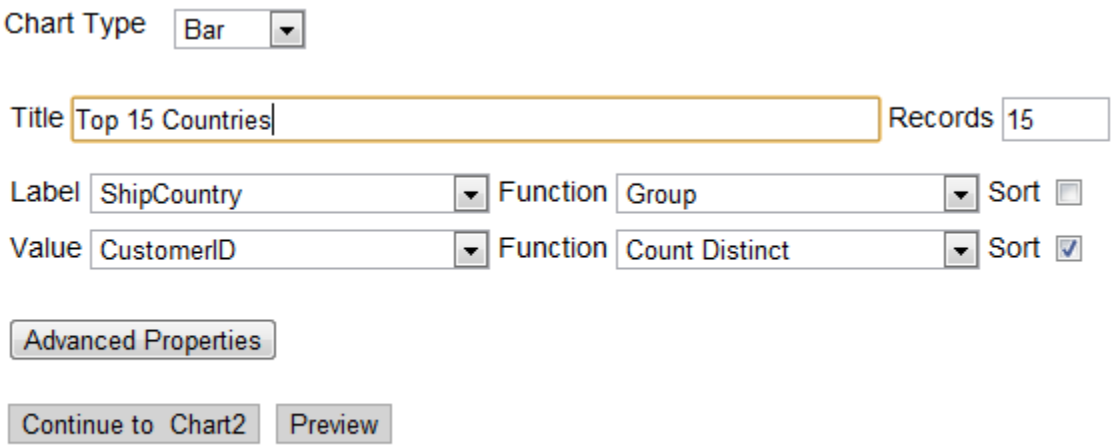


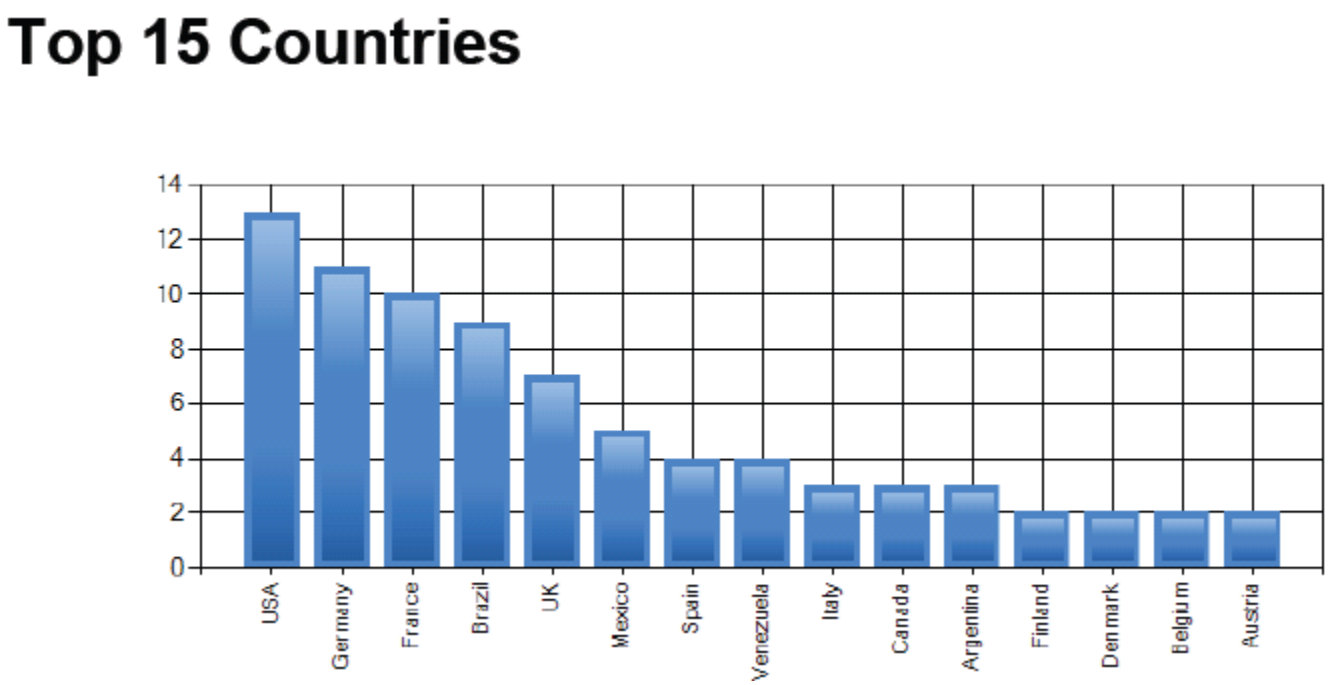



### 7.4.2 Create a Bar Chart Showing the Top 15 Countries

Design This Report
Edit This Report

http://www.izenda.com/demo/ReportViewer.aspx?rn=Training\\Lesson+3-1



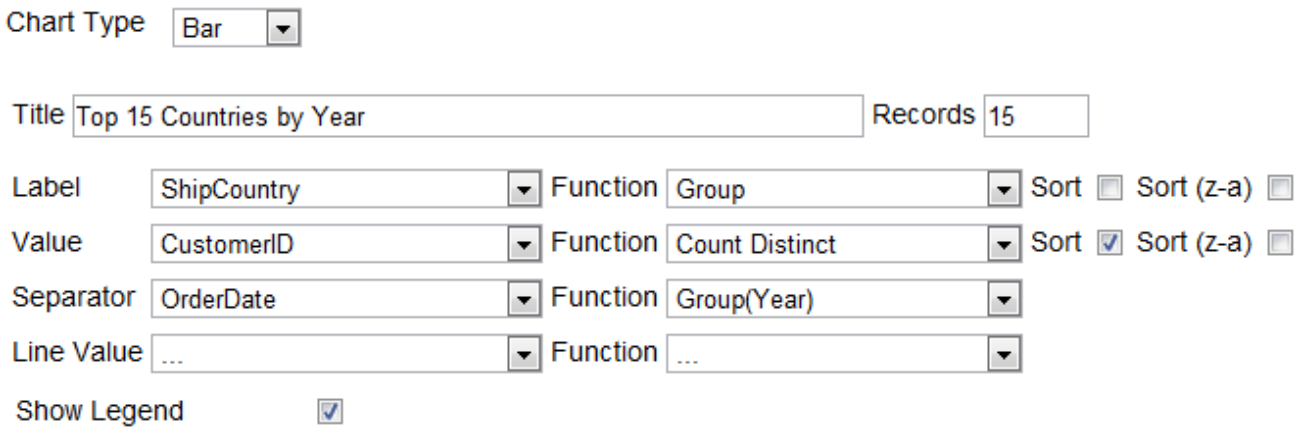



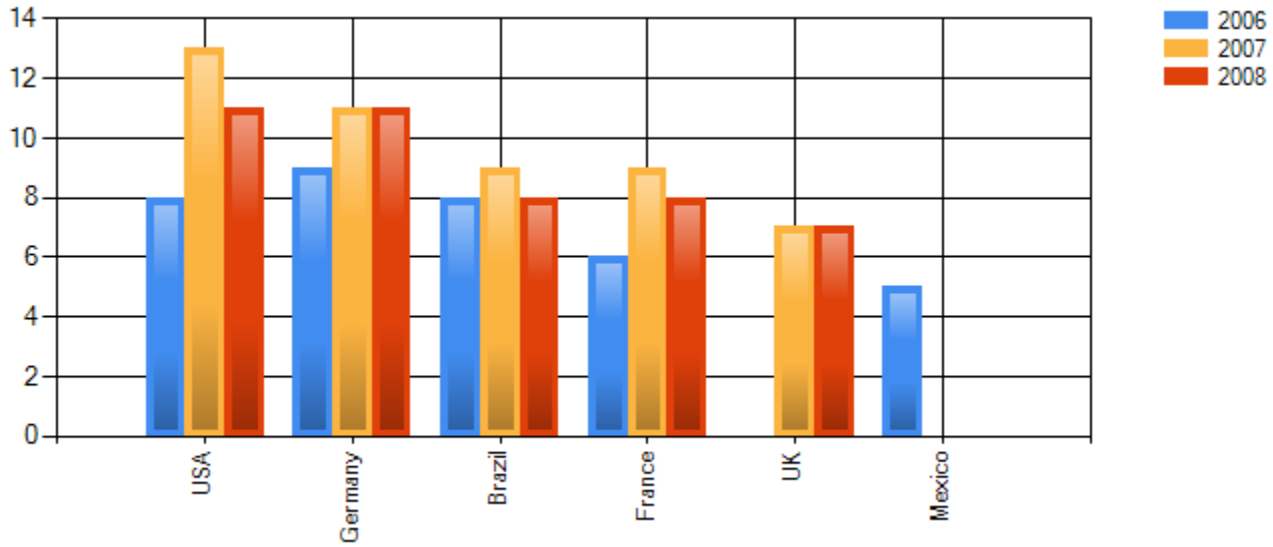
### Instructions

1. From the ReportList.aspx page Click on "Design a New Report". Or if you are in report designer click the "New" icon. Now we need to select a data source.
2. Click on the "Data Sources" tab. Then click on the drop down box and choose "Orders".
3. Click on the "Chart" tab. This is where we create charts.
4. Click on the "Chart Type" drop down box and choose "Bar" for the chart type.
5. Click on the "Label" drop down box and select "ShipCountry" for our label field.
6. For the "Label" function select "Group" from the drop down box.
7. Click on the "Value" drop down box and select "CustomerID" for our value field.
8. For the "Value" function select "Count Distinct" from the drop down box. Let's limit the number of Countries listed on the graph to 15.
9. Click on the Show records textbox. Enter "15". Let's sort the data so we get the Top 15 countries sorted by number of customers.
10. Click on the sort checkbox for the value field.
11. Click on the "Preview" tab so you can view the report. Let's add a title to this report.
12. Click on the "Misc" tab.
13. In the "Title" text box enter "Top 15 Countries"
14. Click the "Preview" tab. Now the Report is Titled. Let's Save it.
15. Click on the "Save as" tool bar button, name your report, for example "Lesson 3-1", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

### 7.4.3 Create a Bar Chart with a Separator

Design This Report
Modify This Report






## Instructions

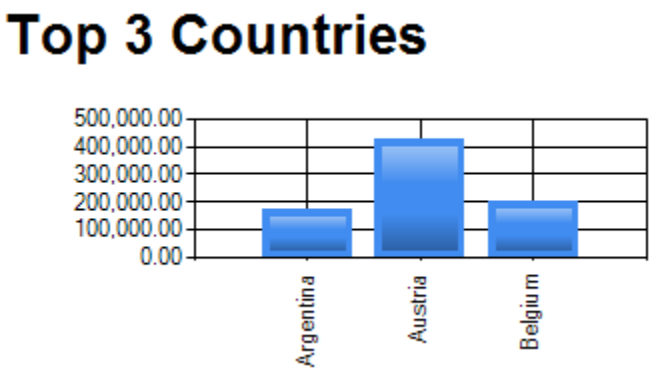
***In this example, the goal is to modify the bar chart created in the preceding example by separating the data by year so we can see who the top customers were each year.***

1. If you did not just complete lesson 3-1 then you will need to load it. This can be done from the reports list or report designer. It will be under the "Training" category and labeled "Lesson 3-1". In report designer just click the name. In reports list you click the pencil next to the name and this will load the report in report designer.
2. Click on the "Chart" tab.
3. Click on the "Show Advanced" button.
4. Click on the "Separator" drop down box and select "OrderDate"
5. Click on the "Separator" "Function" drop down box and select "Group (Year)" this is how the data will be separated.
6. Notice that the legend check box is selected.
7. Click the "Preview" tab. Now the Bar Chart has been enhanced to show the countries with the most customers separated by year. Let's update the title for this report.
8. Click on the "Misc" tab.
9. In the "Title" text box enter "Top 15 Countries by Year"
10. Click the "Preview" tab. Let's Save it.
11. Click on the "Save as" tool bar button, name your report, for example "Lesson 3-2", and enter the category you want the report to be shown under, for example "Training", click ok. The Izenda report is saved.

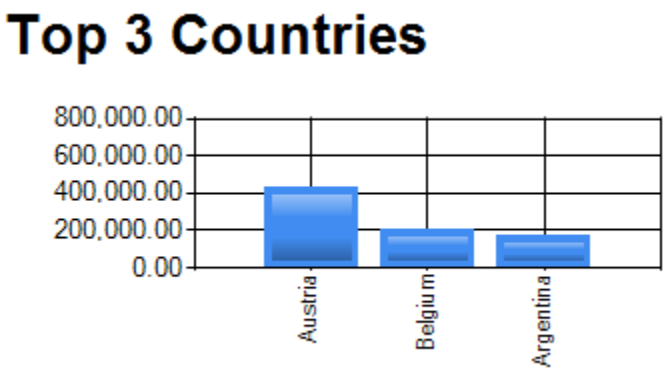
### 7.4.4 Other Bar Chart Options

**Show Pareto**

In a bar graph, the bars are plotted in order of increasing x. The heights of the bars fell where they will.



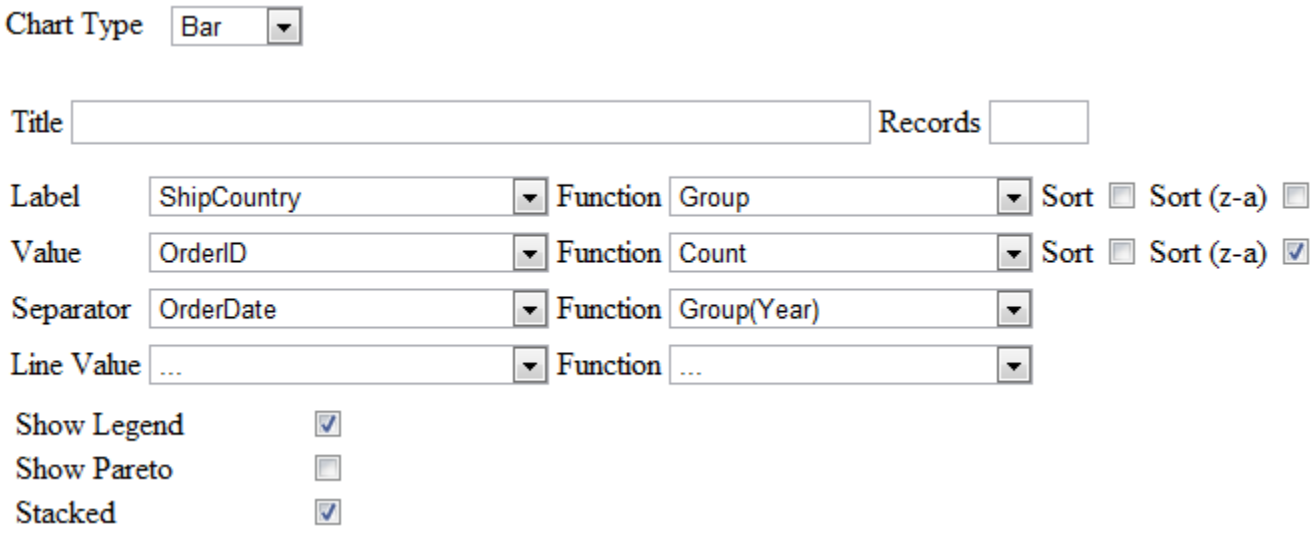

In a pareto chart, the bars are plotted in order of decreasing height, so the tallest bar is on the left, and the bars get shorter as you move to the right.

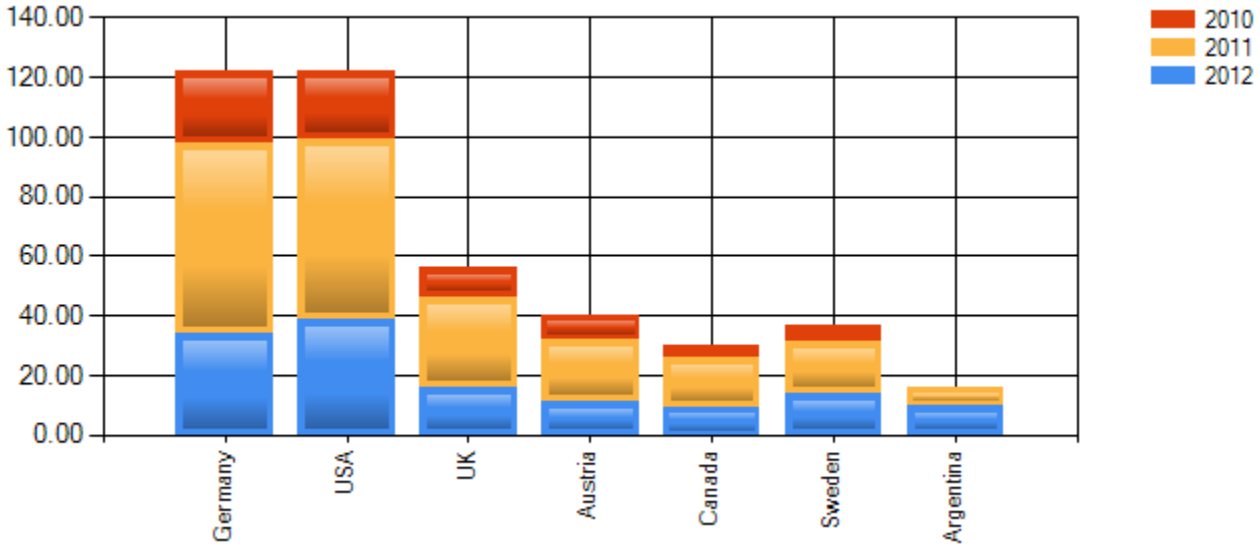


**Stacked**

Stacked bar graph is a graph that is used to compare the parts to the whole. The bars in a stacked bar graph are divided into categories. Each bar represents a total.

If the Stacked bar graph feature is not turned on, please contact your system administrator and ask them to validate this setting, AdhocSettings.AllowStackedBarChart = true;.

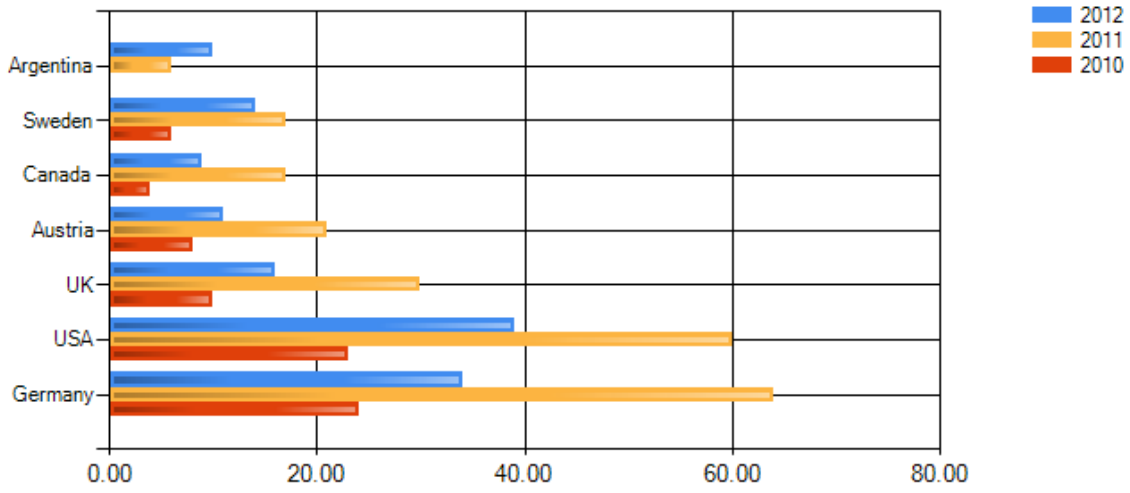



*Report filtered by selected countries to simplify

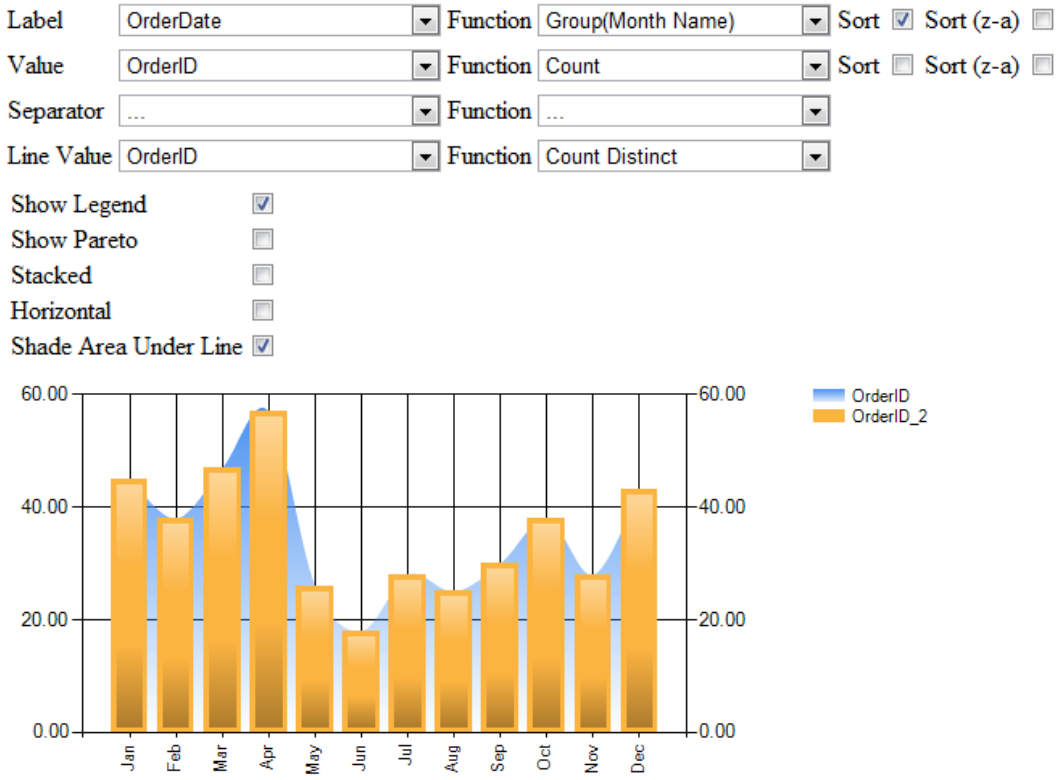
### Horizontal

The selected bar chart will display the Label horizontally.



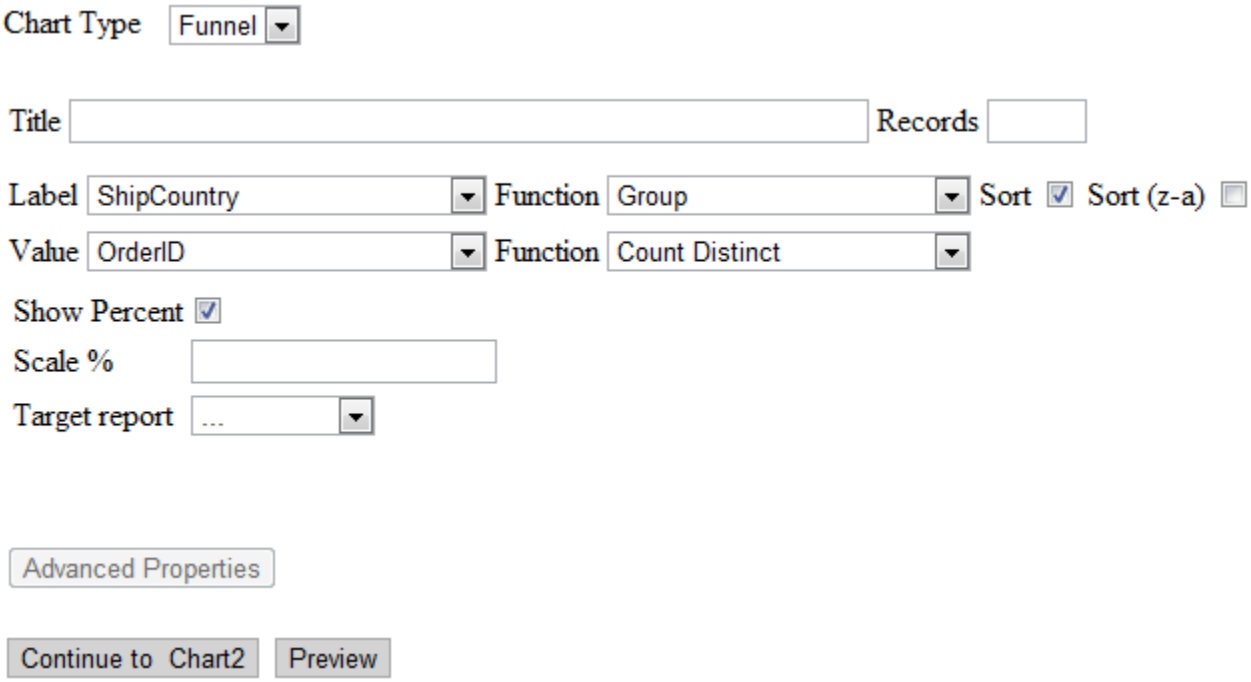

### Shade Area Under Line

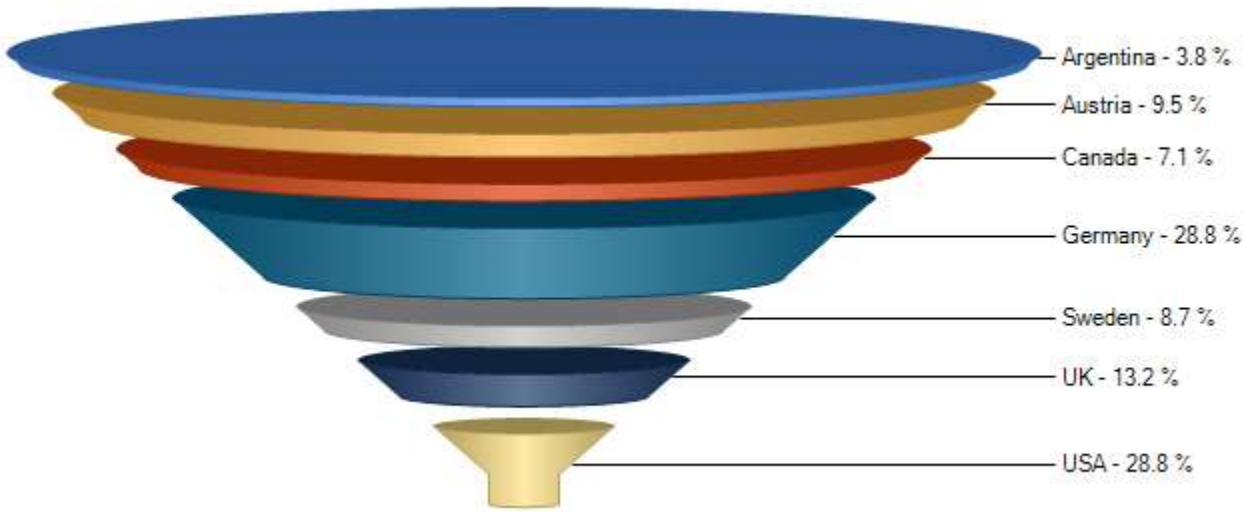
You can use the Share Area Under Line check box when you have a Line Value selected on the same Bar Chart.



## 7.5 Funnel Chart

The images below show the **Funnel** chart selection of the **Chart** tab.



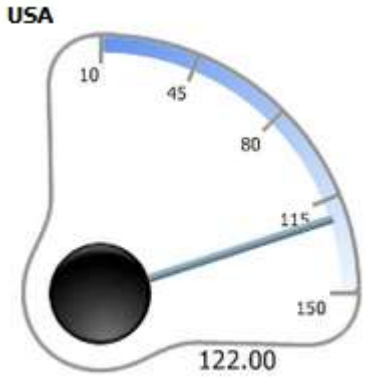
## 8.0 GAUGE TAB

In the Gauge tab, you can add a panel of gauges to a report.

There are four different types of gauges you can create:

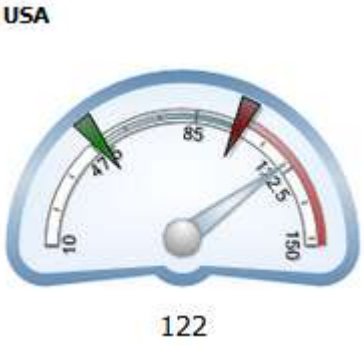
### Radial


### Radial 2

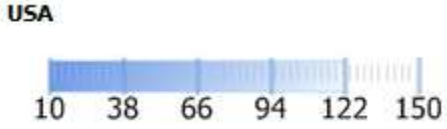



### Animated Half Circle


### Animated Half Circle with KPI's

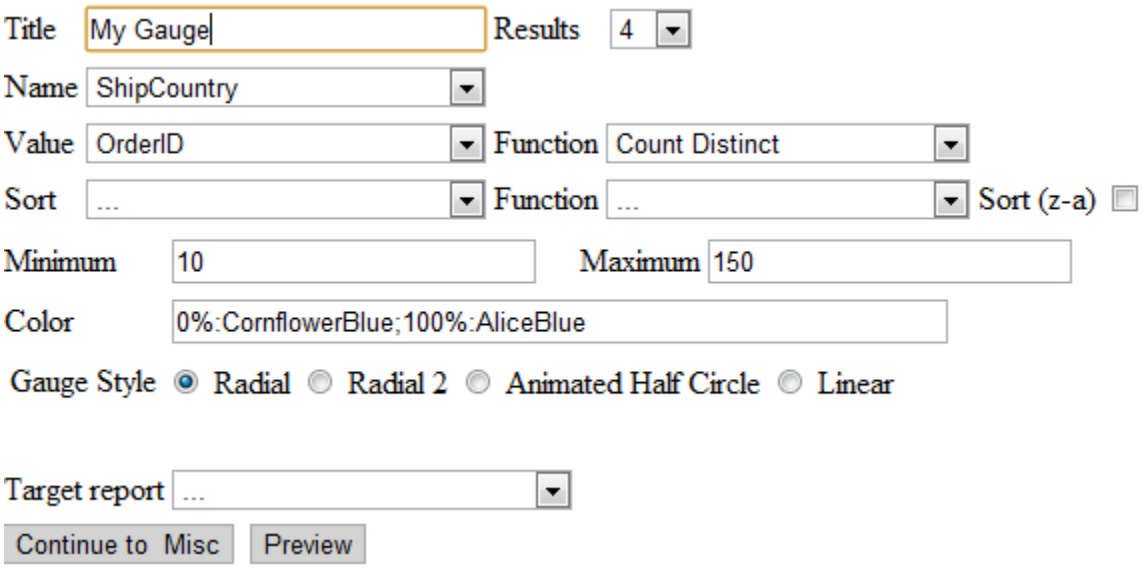



### Linear

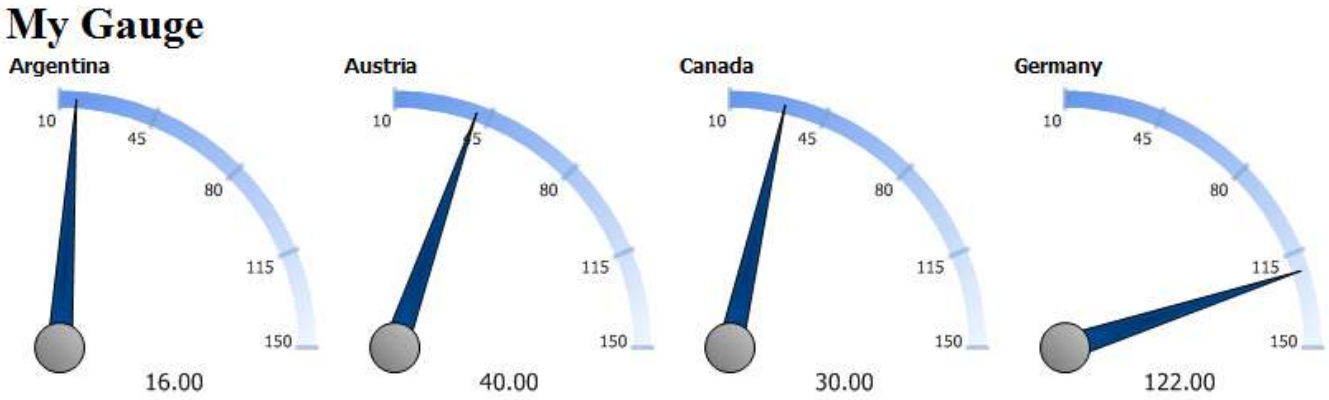


## 8.1 Create First Four Gauges Alphabetically Counting Orders by Country

The Report below is showing the first 4 gauges based on the alphabetical order of the selected countries.



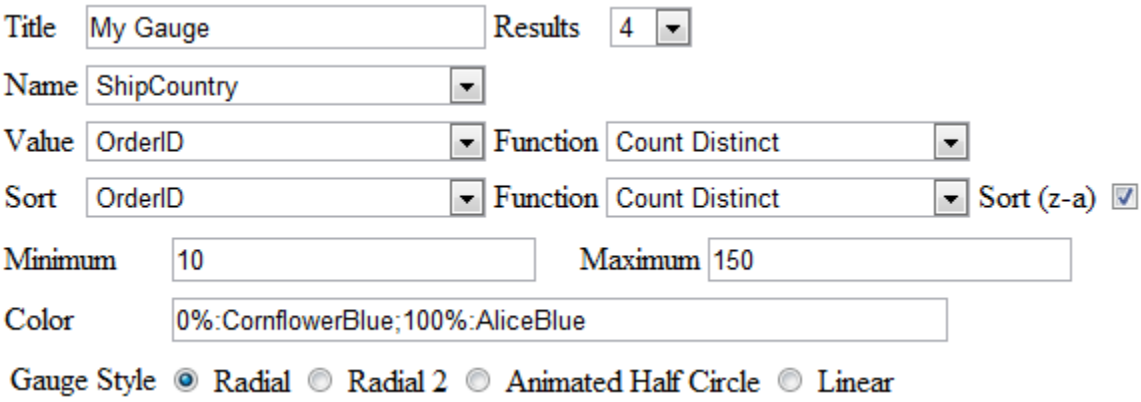

**Gauge tab contents**

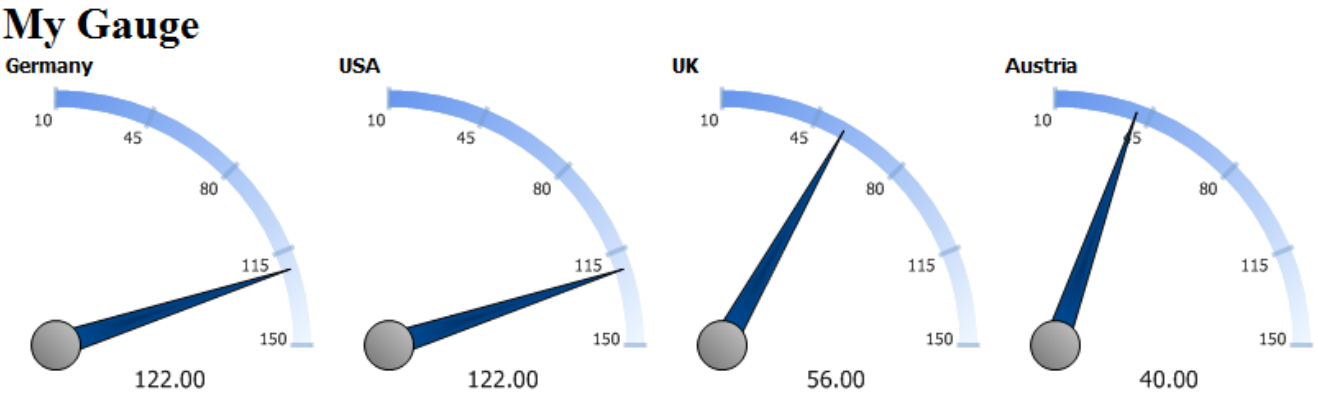


## 8.2 Creating the Top 4 Orders by Country Gauges

In the following example, you will see the gauges of the four countries with the greatest number of orders.

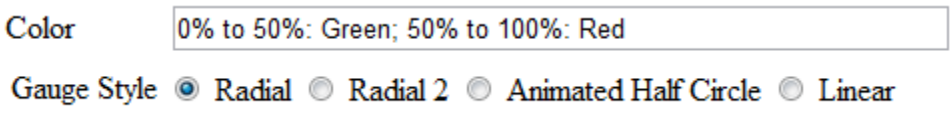
You can add four different types of gauges

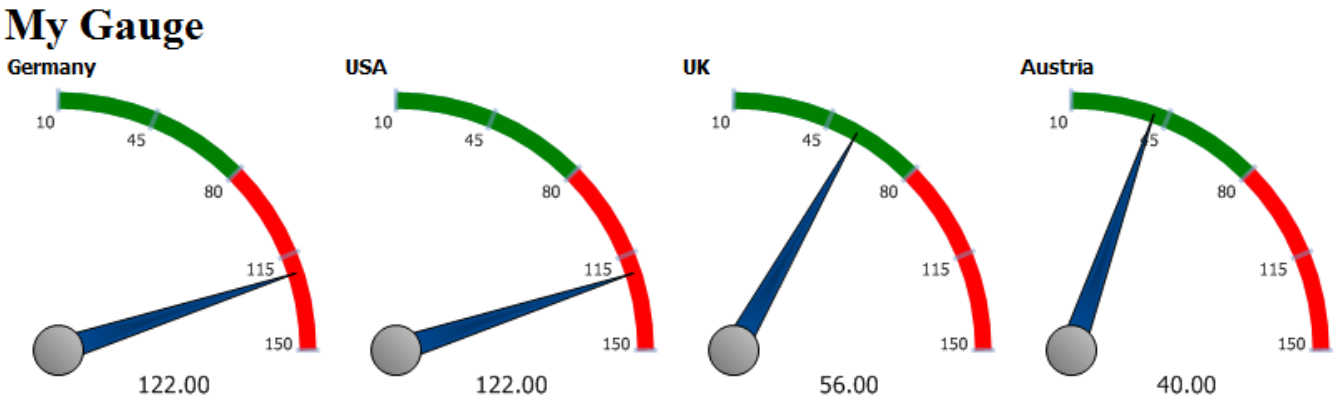


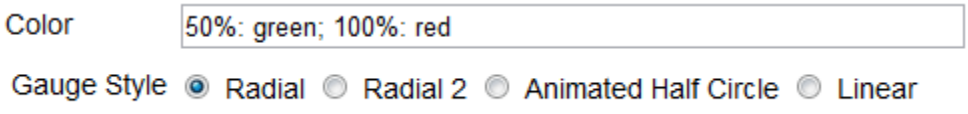
## 8.3 Changing Color Ranges

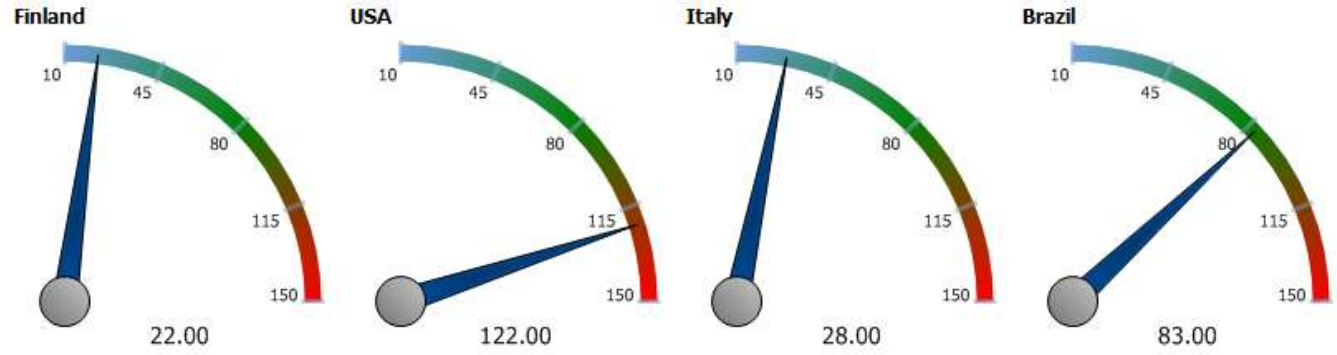
To change color ranges for the gauge, enter in a percentage range for each color, or enter a range of specific values.



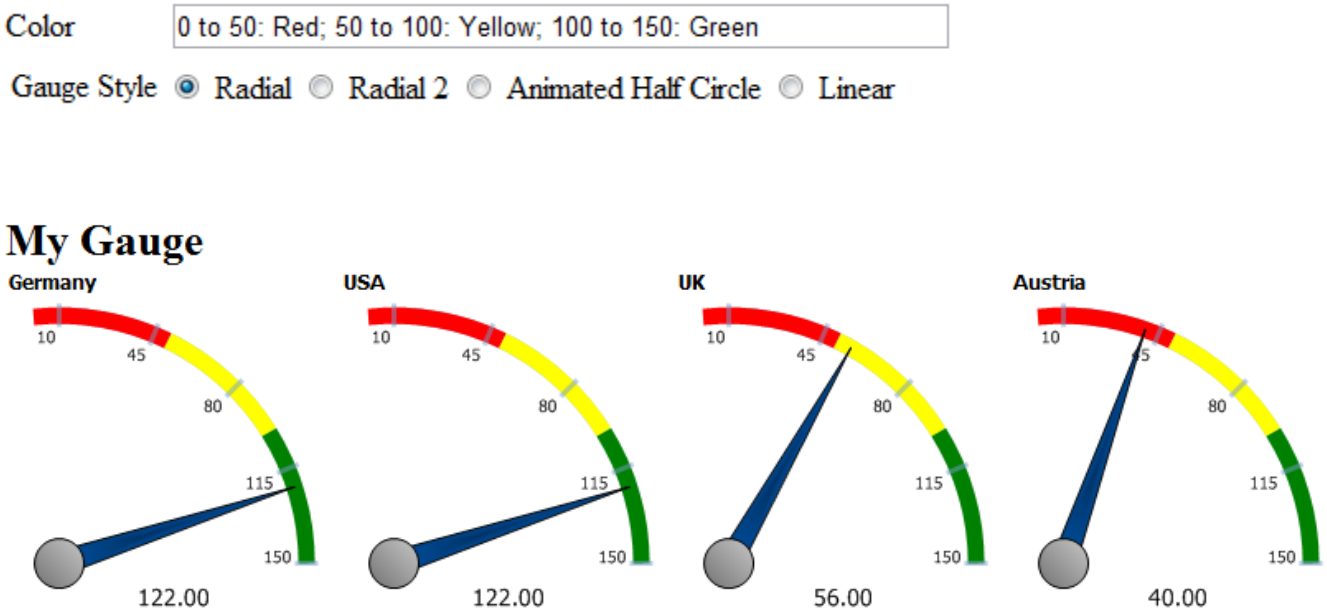




**OR**



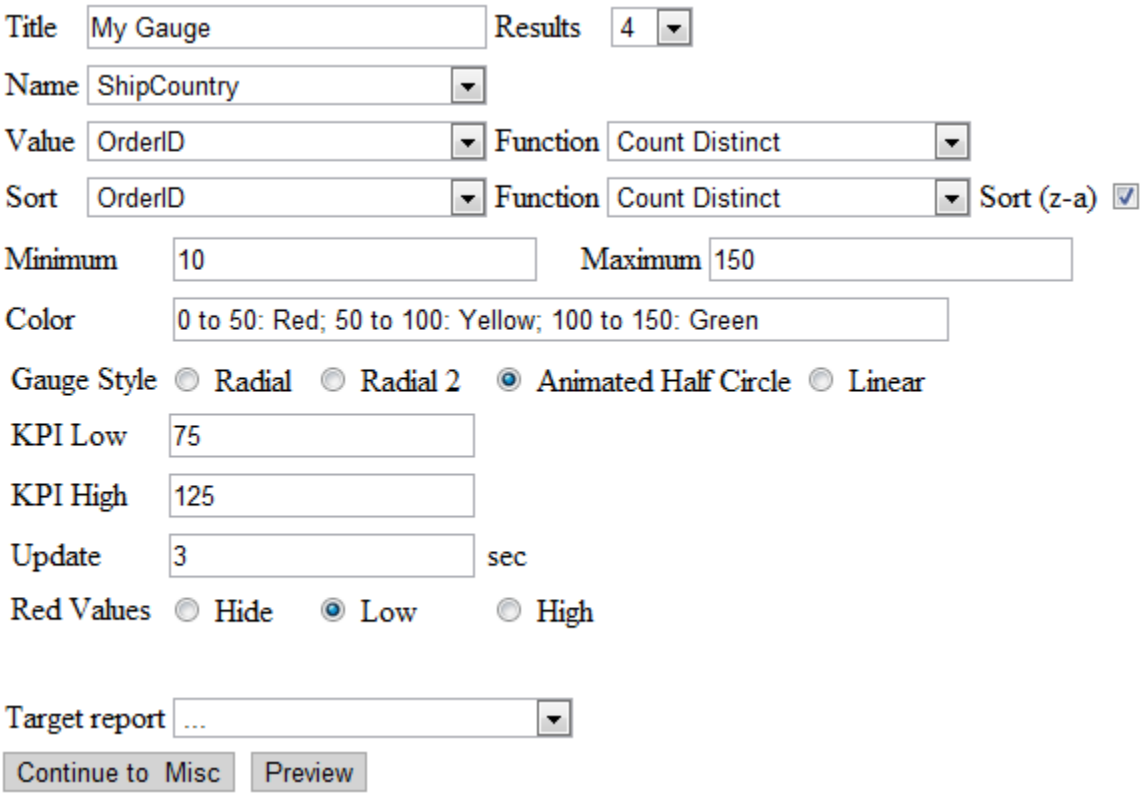



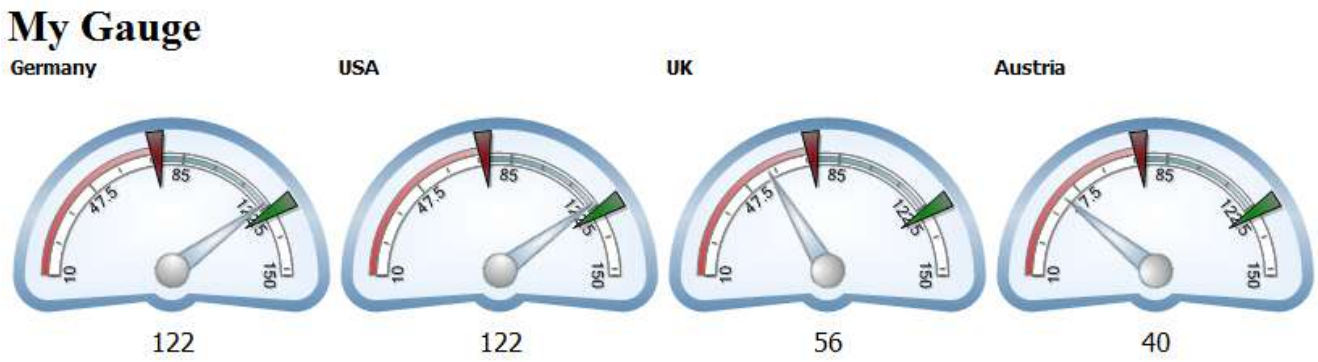
**OR**


Color
0 to 50: Red; 50 to 100: Yellow; 100 to 150: Green
Gauge Style
Radial
Radial 2
Animated Half Circle
Linear
My Gauge
Germany
USA
UK
Austria
10
45
80
115
150
122.00
122.00
56.00
40.00

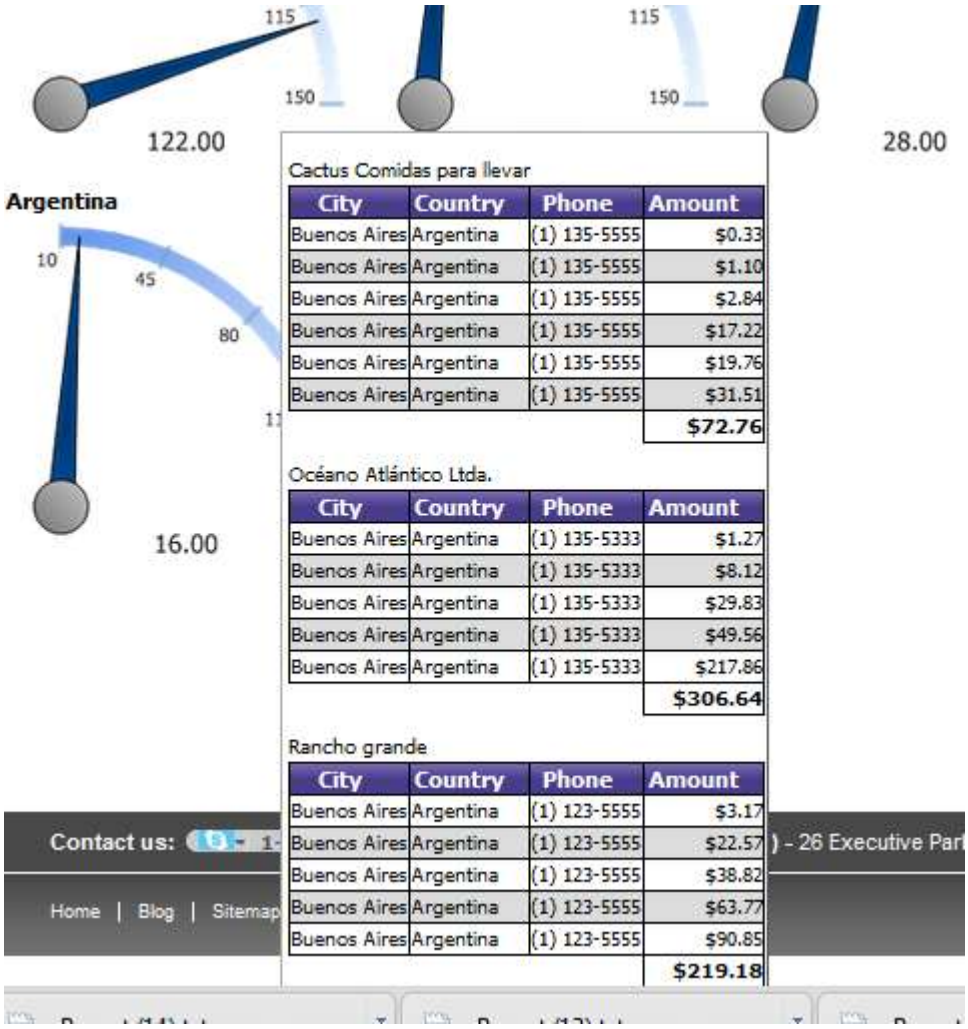
### 8.3.1 KPI's and auto-updating data with Animated Gauges

The Animated Half Circle opens up a few more options under the Gauge Style row.
With these new options, you can select the KPI Low and High, and select whether the Red values will be hidden, on the low side, or on the high side. You can also select how update the date updates.



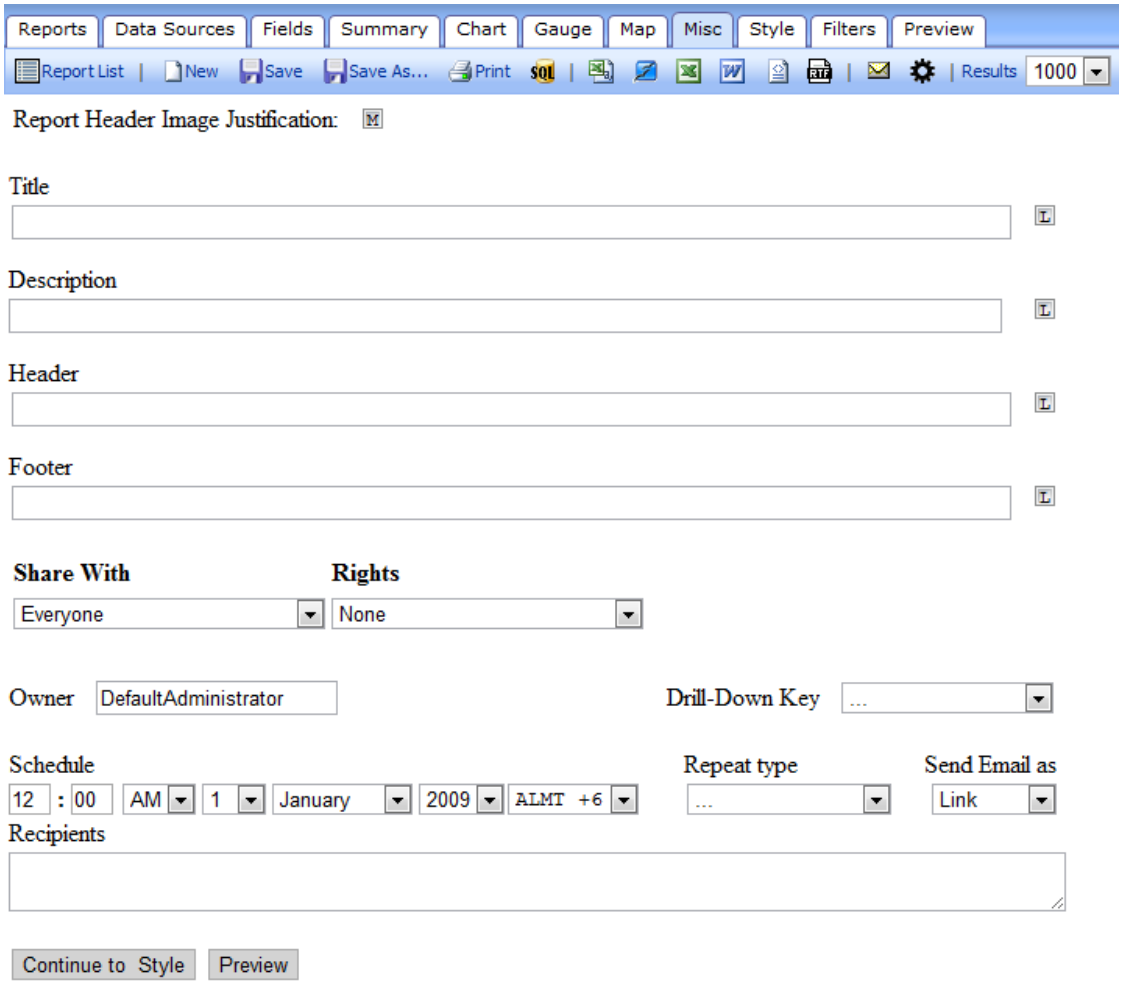



## 8.4 Gauges with Drill-Down Effects



## 9.0 MISC TAB

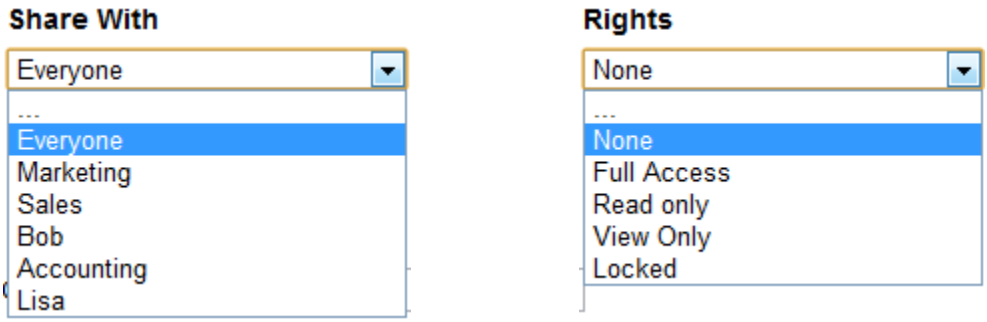
In the Miscellaneous Tab (Misc Tab), you can add a title, description, header and footer to the report, all with left, middle, or right justification. Sharing and Scheduling are the two most popular features under this tab.




**Misc tab contents**

| Feature | Description |
|---|---|
| Report Header Image Justification | Allows you to move the Report Header to the left, middle or right. |
| Title | Enter the title of the report.<br>Examples below use "INSERT TEXT" as input.<br>**INSERT TEXT**<br>Ship Country<br>Finland<br>USA |
| Description | Enter a description for the report.<br>INSERT TEXT<br>Ship Country<br>Finland<br>USA |
| Header | Allows a user to set a report header.<br>INSERT TEXT<br>Ship Country<br>Finland<br>USA |
| Footer | Allows a user to set a report footer.<br>Denmark<br>Portugal<br>INSERT TEXT |

## 9.1 Share With & Rights




Share With allows you to share reports with:

- Everyone
- Other roles like Marketing or Sales
- Other users like Bob or Lisa

Your system administrator will likely determine the list of who you can share with that populates in your drop-down menu. Select who you would like to Share With and determine the level of access you will give them to this report. The table below describes the characteristics of each option for selecting the appropriate rights.

| Rights | Description |
|---|---|
| … | |
| None | Do not share this report with anyone |
| Full Access | Can share with every user and group |
| Read only | Can make changes to Save As but cannot modify the original |
| View Only | Cannot make any changes to the report |
| Locked | Locks the report down so no one else has access to it |

### 9.1.1 Setting Sharing Permissions

The Share With and Roles properties allow reports to be easily shared amongst users and group of users. The values SharedWithValues populate the "Share With" drop-down found on the "Misc" tab in the Izenda Reports application. The "Rights" drop-down which is next to the "Share With" drop-down allow the user to assign Full Access, Read Only, View Only, or None permissions to the selected choice in the "Share With" drop-down.

Roles on a per-user basis are specified by the CurrentUserRoles properities. If a user is given a role, then he will have access to the reports which are shared with that role.

AdHocSettings.CurrentUserRoles and AdHocSettings.SharedWithValues are per-user properties.

```
AdHocSettings.CurrentUserIsAdmin = false;
AdHocSettings.CurrentUserName = "Bob";
AdHocSettings.CurrentUserRoles = new string[] { "Sales" };
AdHocSettings.SharedWithValues = new string[] { "Bob", "Sales", "Bob Smith",
"Admins", "Sam Jones" };
```

In the example above, Bob is a non-admin user who is assigned to the Sales role, therefore, any reports which are "Shared With" the "Sales" role will be accesible by Bob. Bob will only be able to share reports with the shared with values shown in the sample.

## 9.2 Drill-Downs

Drill-down Video KB

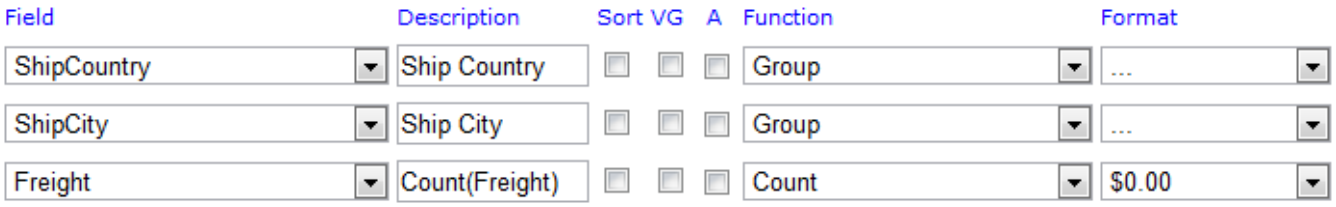
Main Report

Sub-Report

To create a drill-down report, you can start by designing the main report, but in order to be able to select a drill-down report, that sub-report must first have a drill-down key to show up in the selection list. Once the sub-report is available in the selection list for your Sub-Report or Target Report, meaning it has been defined what Drill-down key will link the two reports, you can select you drill-down type.

Example

**Design Sub-Report**

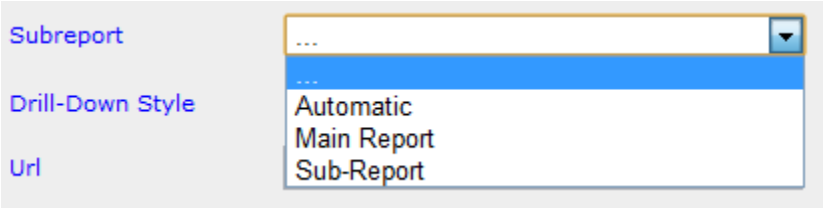



**Set the Drill-Down Key under the MISC tab**

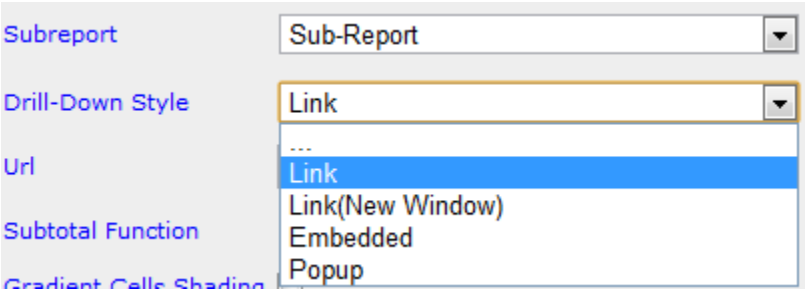

**Design main report**

**Click on Advanced Field Settings in Main Report**


**Select the Subreport**




**Select the Drill-Down Type**




| Option | Description |
|---|---|
| . . . | |
| Link | Opens in the same browser window |
| Link(New Window) | Opens in a new browser window |
| Embedded | Embeds within the main report field selected |
| Popup | Displays as a pop-up window. You must click on the image to clear it from the screen. |
| Hover | Shows the sub-report on the same screen as an overlay when you hover over the current field, chart, or gauge. |

### 9.2.1 Passing Filters from Master Report to Sub-Report

There is a property that your system administrator can set to allow the filters applied in the parent report to automatically pass through to the child report (master report to sub-report). It is called InheritFiltersinSubreports, and gets or sets the value indicating whether filters will be inherited in sub-reports.

Listed below is an example of where you would set this in the code.

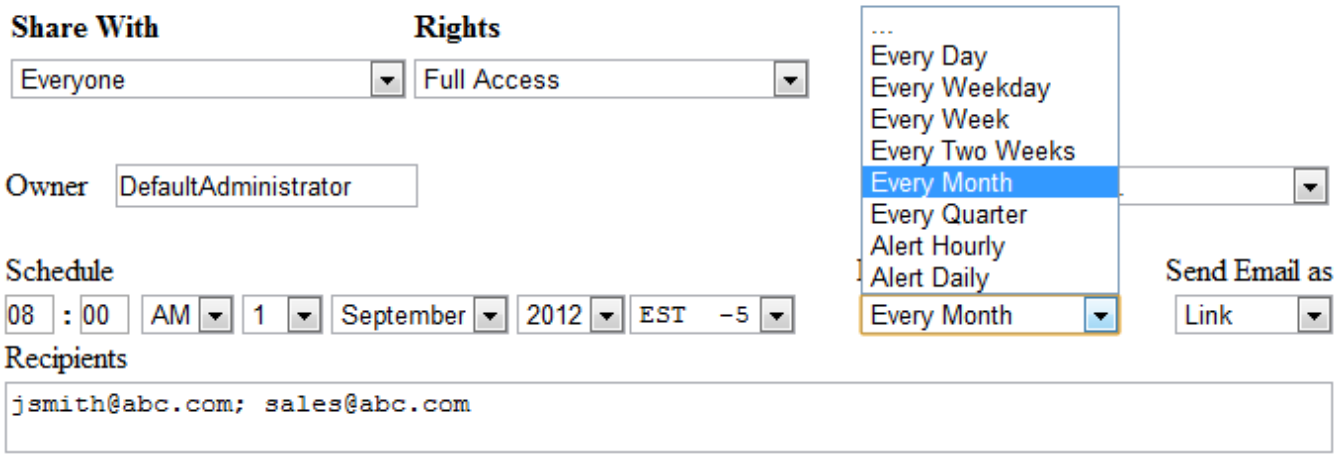
```
public class CustomAdHocConfig : Izenda.AdHoc.DatabaseAdHocConfig
    {
        // Configure settings
        // Add Custom Setting below license key and connection string setting
        public override void ConfigureSettings()
        {
            AdHocSettings.SqlServerConnectionString = "INSERT_CONNECTION_STRING_HERE";
            //AdHocSettings.VisibleTables = new string[] { "VIEW1", "TABLE2" };
            AdHocSettings.InheritFiltersInSubreports = true;

        }
```

## 9.3 Scheduler

The scheduling controls may not be available to all users.
If you do not see them, please speak with your system administrator.

Schedule: Set the schedule date and time.
Repeat Type: Set the repeat frequency.
Send Email As: Sets the format in which the email is sent.
Recipients: Enter a comma separated list of recipients.



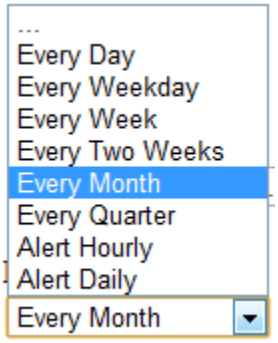
### 9.3.1 How to Set Up the Izenda Scheduler

How to setup and use the Izenda Scheduler

The scheduler requires the use of the IzendaScheduler.exe file, which is found in the root of the directory to which you installed Izenda Reports. You then need to add a scheduled task to your system which runs every minute. The task uses the IzendaScheduler.exe to access a page in our application which determines if any reports need to go out (run_scheduled_reports= on rs.aspx page). The IzendaScheduler.exe file does not actually send out the files or access anything else except for the specific page in our application which you give the exe file as a parameter.

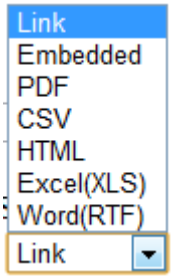
To turn on the scheduler controls for certain users, use the show scheduler controls property. **Izenda.Adhoc.AdHocSettings.ShowScheduleControls = true**;.

**Repeat Type**




Select a time frame like Every Month.
Or select an Alert, which will send an email if filter parameters are not met.
You can also enter in custom time spans, for example, in cases of Fiscal vs. Yearly Quarters – KB Article

**Send Email as**




You can send the email as a number of attachments, like PDF, Word, & Excel, as a Link, which shows a link to click on in the email, or as Embedded, which embeds the report in the body of the email.

### 9.3.2 Report Owner: Setting the User and Admin States

You can select the owner of the report. By default, it is set as the DefaultAdministrator. DefaultAdministrator has admin priveleges and will be able to see and change all other users' reports. In most cases, your system administrator will set this property for you and might even hide it from the scheduler screen.

**Setting the user and their access rights**

By default, Izenda Reports includes a user account called "defaultadministrator". The setting "CurrentUserIsAdmin" is used to set whether or not the current user is an Administrator user. If set to true, then Ad Hoc allows the current user to have Administrator privileges. These privileges are the ability to see all reports both shared and private, change the owner of a report, and over write the Read only reports. If set to false, then the user can only see shared reports. In this case, we must also set the "CurrentUserName" property to the user's name, which for example, can come from the session variable.

After setting the user name and whether or not the user is an Administrator, one can set the database, table, view, or field level access.

**Setting an Administrator user**

C# or VB.NET

```
Izenda.AdHoc.AdHocSettings.CurrentUserIsAdmin = true;
```

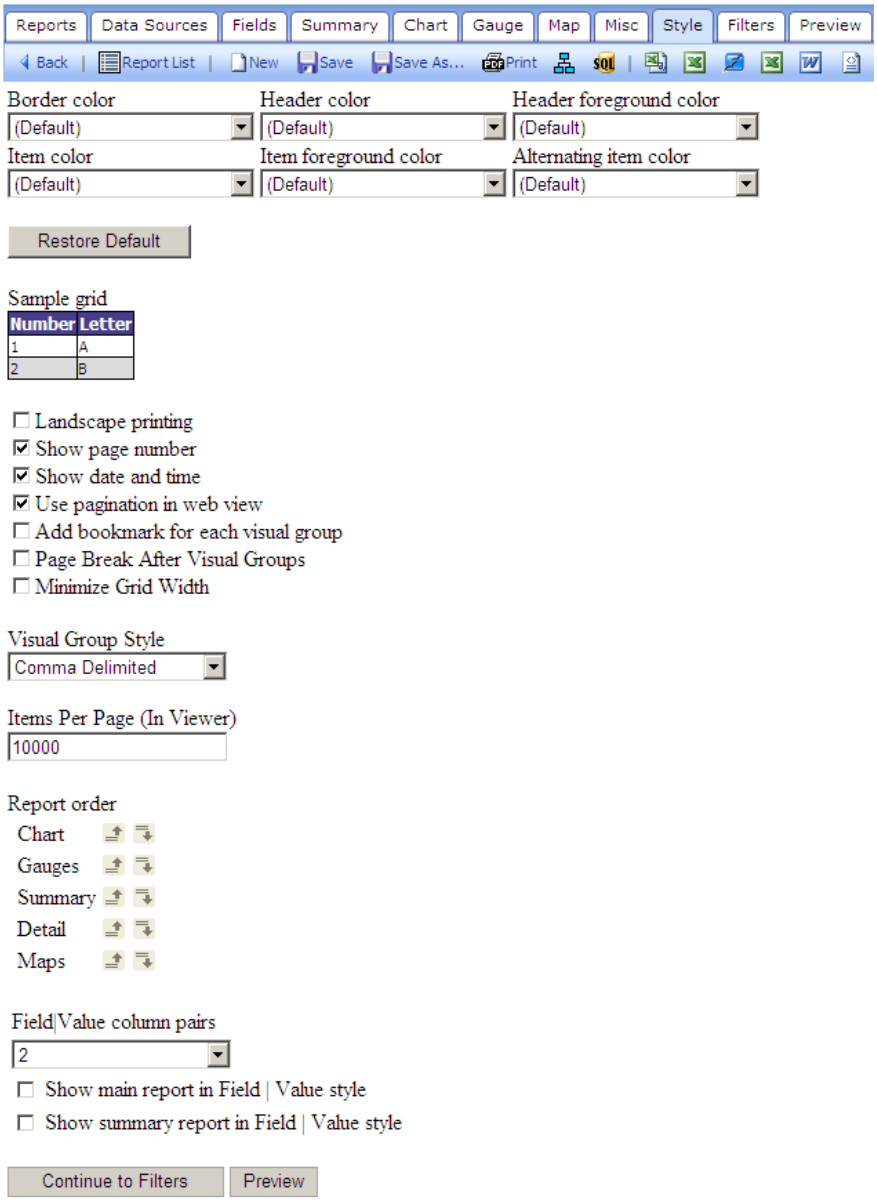
**Setting the user name**

C# or VB.NET

```
Izenda.AdHoc.AdHocSettings.CurrentUserName = "Bob";
```

## 10.0 STYLE TAB

In the **Style** tab, you can customize the look and feel of the report that will be displayed. You can change the color of the border, header, and rows, as well as the order the report items.

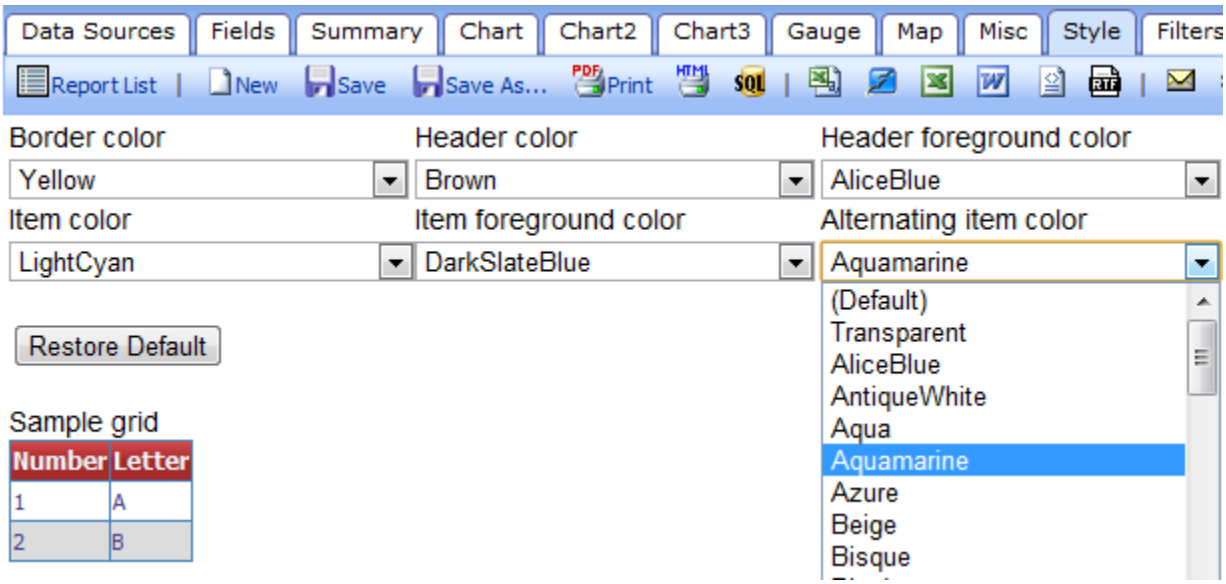



**Style tab contents**

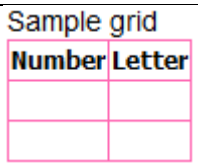
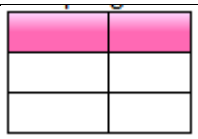
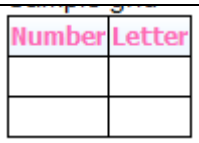
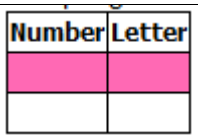
## 10.1 Style Properties

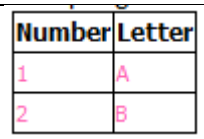
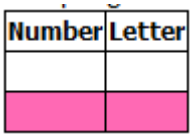
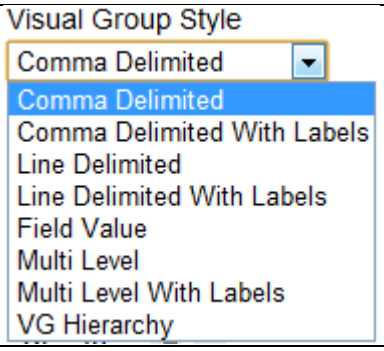
When you change the properties of the various colors within the report, the sample grid below can be used to see the differences.

The colors which can be changed are: Border color, Header color, Header foreground color, Item color, Item foreground color, and Alternating item color.




Explanations of other properties found on tab are given below.

| Feature | Description |
|---|---|
| Border color |  |
| Header color |  |
| Header foreground color |  |
| Item color |  |

| | |
|---|---|
| Item foreground color |  |
| Alternating item color |  |
| Landscape printing | Determines whether the report prints in landscape mode. (It can also be set using print properties in the printer dialogue box) |
| Show page number | Sets whether the page numbers are shown in PDF report exports. |
| Show date and time | Sets whether the date and time are shown in PDF report exports. |
| Use pagination in web view | Sets whether pagination is used in the report viewer. |
| Add bookmark for each visual group | Sets whether bookmarks are used in adobe PDF exports. |
| Page Break After Visual Groups | Sets whether each Visual Group will receive its own page |
| Minimize Grid Width | Adjusts the margins to the smallest width for each column |
| Visual Group Style (explained in more detail below) |  |
| Items per page | Allows a user to set the number of items shown per page in a grid. |
| Report Order | Allows the user to set the order of the Summary, Chart, Gauges, Map, and Detail (Field) grids |
| Field\|Value column pairs | Allows a user to set the field value style for multiple columns displaying on one row. Accounting Report Example |
| Show main report in Field \| Value style | Allows a user to set whether the main detail grid uses Show summary report in Field \| Value style Field-Value style |
| Show summary report in Field \| Value style | Allows a user to set whether the summary grid uses Field-Value style |

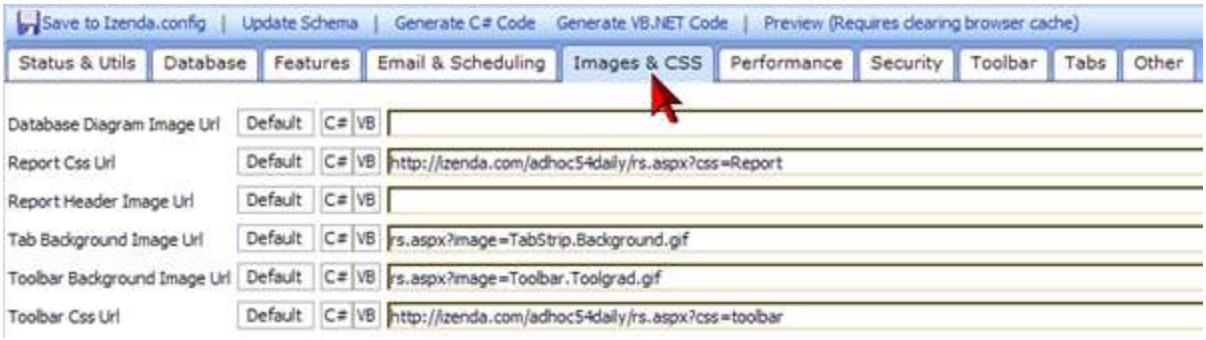
## 10.2 Changing Colors Through CSS

Izenda Reports fully integrates with your application both at the program level and visually. All visual aspects of Izenda Reports are user customizable and can be made to match your existing application's visual look and feel. Listed below are some of the quickest ways to change the look and feel of our application in order to blend seamlessly with your product or application.

You can download the CSS Zip and set the appearance of the report input screens, the toolbar and tabs, as well as the reports output appearance.

The steps are:

- download the CSS file
  - CSS.ZIP
- edit the CSS files, **but do not change the selector names or the filenames**
- save the edited files to your server where they can be access via absolute urls
- navigate to the settings.aspx page
- navigate to the "Images & CSS" tab




- enter the new absolute URLs of the CSS files
- fully clear your cache and restart the application

After resetting and clearing the cache, the CSS changes should reflect in Izenda Reports.

### 10.2.1 Setting the Report List page (ReportList.aspx) CSS

Although the html element styles are hard coded into the application, you can override the CSS in the Reportlist.aspx page by simply placing a style tag into the page right after the end of the form.

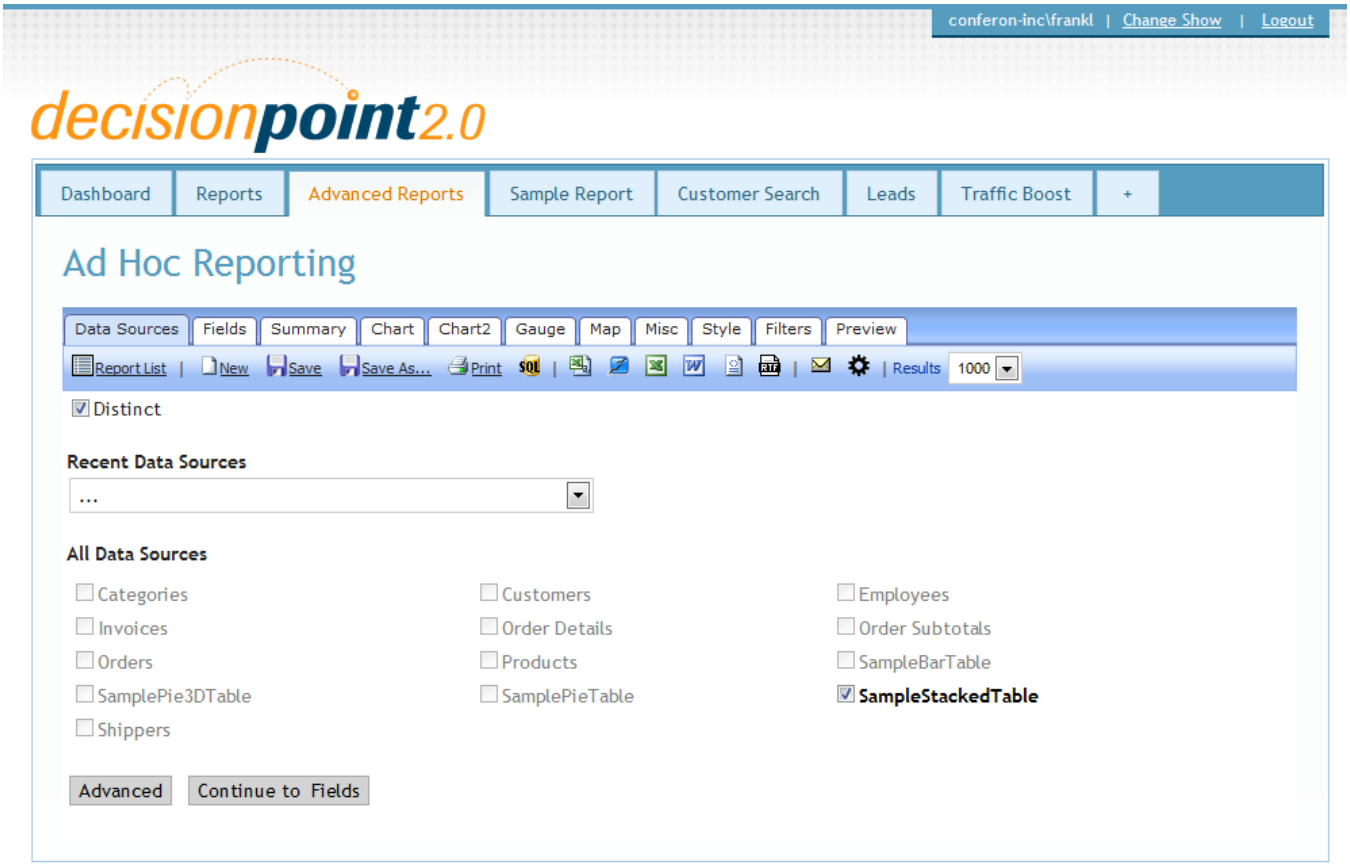
Here is a code sample.

```
<uc1:Header ID="Header1" runat="server" />
<form id="Form1" method="post" runat="server">
<cc1:ReportList runat="server" id="reportList"></cc1:ReportList>
</form>
<style type='text/css'>

A:link {font-family: Verdana, Geneva, Arial, Helvetica;}
A:visited {font-family: Verdana, Geneva, Arial, Helvetica;}
A:active {font-family: Verdana, Geneva, Arial, Helvetica;}
A:hover {font-family: Verdana, Geneva, Arial, Helvetica;}

table.ReportsListTable
{
    border-color:white;
    border-style:solid;
    border-width:2px;
    font-family: Verdana, Geneva, Arial, Helvetica;
}
table.ReportsListTable tr
{
    background-color:red;
}
tr.ReportsListHeader td
{
    border-width:1px;
    border-style:solid;
    border-color:white;
    background-color:silver;
}
</style>
```

### 10.2.2 Customer Integration Example



## 11.0 TOOLBAR AND PREVIEW


**Toolbar Buttons**

The table below describes the functions of the Toolbar buttons.

| Icons | Features | Description |
|---|---|---|
| Back | Back | Goes to the browser's previous page. |
| New | New | Creates a new report. |
| Save | **Save** | Saves a report. |
| Save As... | Save As | Allows a new report name to be saved. |
| Print | Print (PDF Export) | Saves the report as a PDF document. |
| GO | IE | Runs the report in the web browser. |
| | Schema | Display database diagram |
| SQL | SQL | Views the report in SQL mode. |
| | CSV | Saves the report as a CSV file. |
| | Excel Spread sheet | Saves the report as a MS-EXCEL file. |
| | Word Document | Saves the report as a MS-Word document. |
| | XML document | Saves the report as a XML document. |
| | Open office document | Saves the report as an Open Office Document. |
| RTF | RTF document | Saves the report as a RTF document |
| | Back to Report List | Takes you to the Report List screen. |
| | E-mail | E-mails a report to a client |
| | Settings | Takes you to Settings.aspx page. |

**Descriptions of Toolbar Buttons**

## 11.1 How to Modify the Toolbar Through the API

The Toolbar represents a set of controls (mainly - buttons), which allow users quick access to the most often used features. **AdHoc** has a set of classes that allow you to construct any toolbar dynamically using the API, but there are four pre-refined (default) toolbars in **AdHoc:**

- **Report Designer** toolbar (a, below) - the most complex one.
- **Report Viewer** toolbar (b)
- **Dashboard Designer** toolbar (c)
- **Dashboard Viewer toolbar** (d) - the simplest one.

a)


b)


c)


**d)**


**Default** AdHoc **toolbars.** **(**More Detail KB Article)

**AdHoc** allows you the option to either customize the default toolbars or create a completely new toolbar, by manipulating basic toolbar objects using the toolbar API. The Toolbar is implemented by using class**Toolbar**, which has a collection of **ToolbarItem**. Any control derived from **ToolbarItem** represents a basic toolbar object and can be placed at the **Toolbar**. Since **ToolbarItem** is derived from **WebControl**, it has all of its properties and events, like **Enabled**, **Visible**, etc. **AdHoc** has three built-in toolbar controls derived from **ToolbarItem**:

- **ToolbarButton**
- **ToolbarCheckBox**
- **ToolbarSeparator**

## 11.2 Changing What Buttons are Displayed in the Toolbar

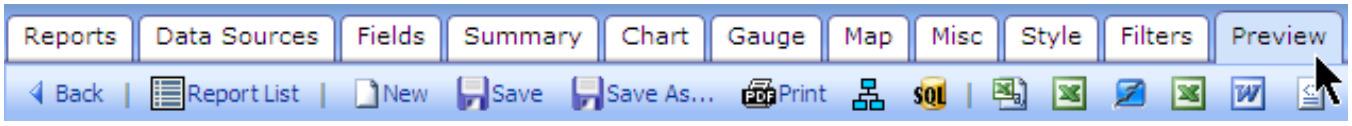
Similar to most other settings, you can turn each button on or off on a per user/per role basis.

```
Izenda.AdHoc.AdHocSettings.CurrentUserIsAdmin = false;
Izenda.AdHoc.AdHocSettings.ShowSettingsButton = false;
Izenda.AdHoc.AdHocSettings.ShowSqlOutputIcon = false;
```

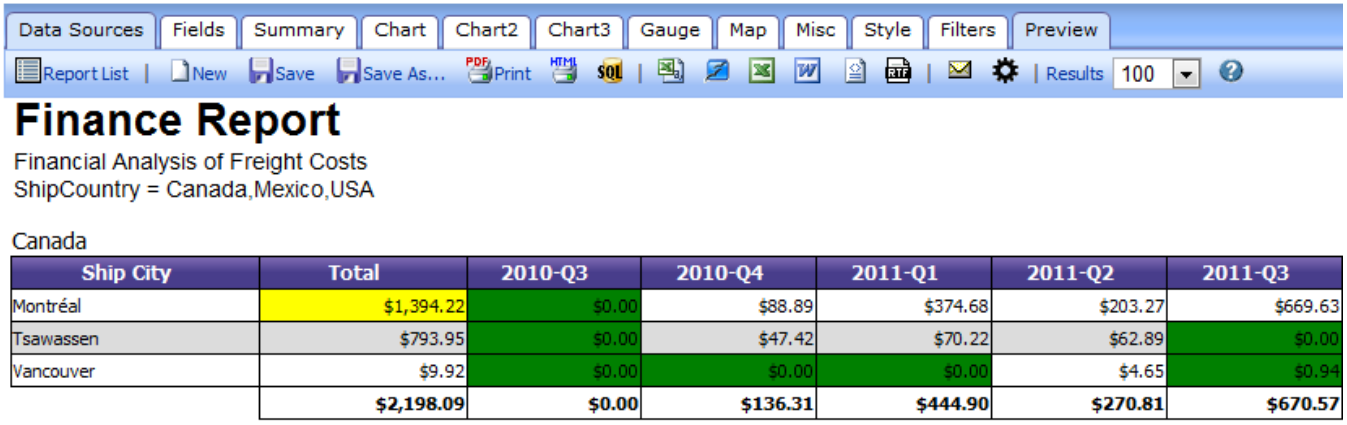
In the example above, we have turned off the Settings Button and the SQL Output Button for non-admin users.

## 11.3 Preview Tab

In the **Preview** tab (see image below), a preliminary version of the created table can be viewed, along with its Summary table, Chart(s), Map, Gauges, along with any other properties that have been set. Go back and change selections in the previous tabs and see how they affect the table by returning to it in the **Preview** tab.




**Preview Tab**

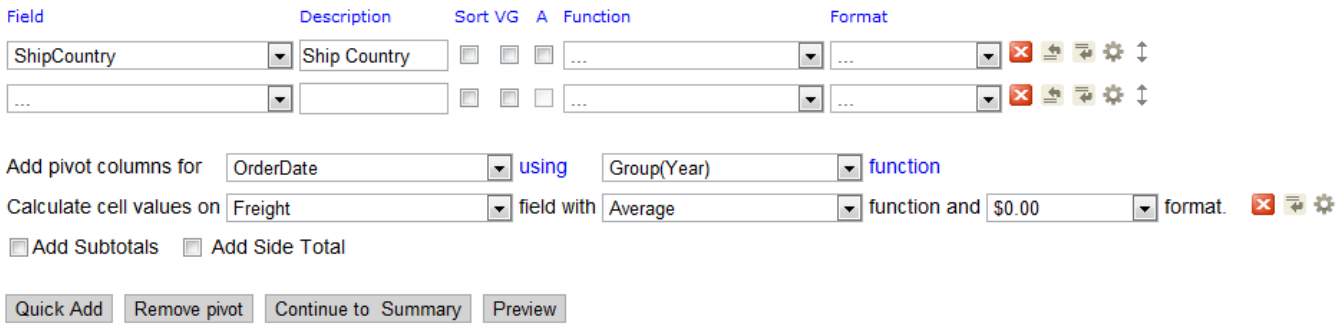



| Ship City | Total | 2010-Q3 | 2010-Q4 | 2011-Q1 | 2011-Q2 | 2011-Q3 |
|---|---|---|---|---|---|---|
| Montréal | $1,394.22 | $0.00 | $88.89 | $374.68 | $203.27 | $669.63 |
| Tsawassen | $793.95 | $0.00 | $47.42 | $70.22 | $62.89 | $0.00 |
| Vancouver | $9.92 | $0.00 | $0.00 | $0.00 | $4.65 | $0.94 |
| | **$2,198.09** | **$0.00** | **$136.31** | **$444.90** | **$270.81** | **$670.57** |

## 12.0 PIVOTS SECTION

The Izenda reports Pivot feature allows users to generate analytical data grids from within Izenda reports. The Pivot feature essentially adds extra pivot columns to the right side of the report. This is useful for comparing data over multiple categorical dimensions.

Below is an example of the Design and Output of a standard Pivot View of the Average Amount Spent on Freight.



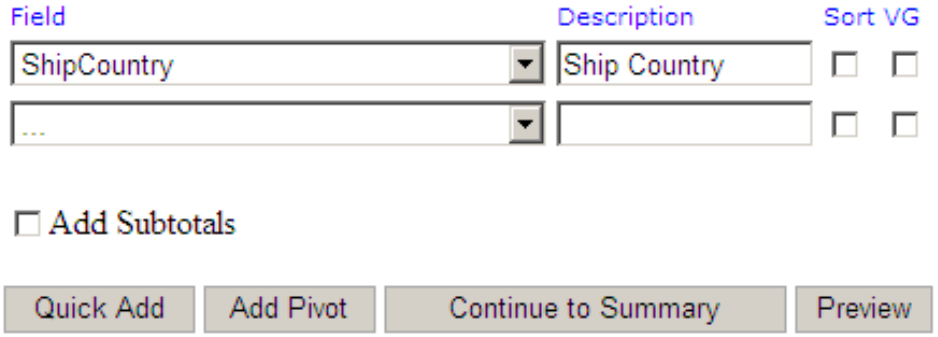

| Ship Country | 2010 | 2011 | 2012 |
|---|---|---|---|
| UK | $56.64 | $39.62 | $74.96 |
| USA | $85.75 | $96.99 | $153.32 |

### 12.1 Create a Simple Pivot Report.

1. Click on the "Data Sources" tab and select desired data sources. (Ex. Orders)

2. Click on the "Fields" tab. Select the desired Field(s) names & attributes (Sorting, VG, Function, & Format) for the report. (Ex. ShipCountry)

Before Pivot:

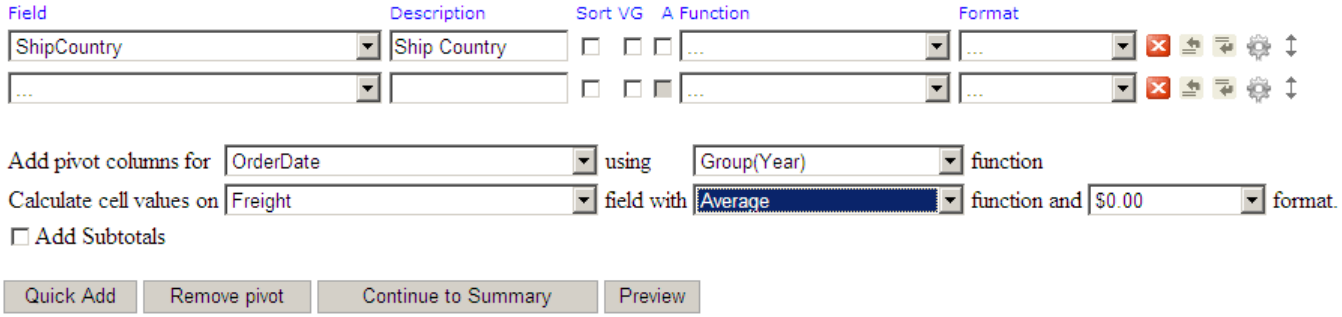


Create pivot view on above report:

1. Under Fields tab, click the "Add Pivot" button.

2. Drop down "Add pivot columns for". Select the field you wish to display across the top of the pivot view (Ex. OrderDate). Next, select the function type from drop down (Ex. Group(Year))
3. Drop down "Calculate cell values on". Select the field you wish to display down the left side of the pivot view (Ex. Freight). Next, select the function & format types from the drop downs (ex. Average & $0.00). **This field's data will also populate the rows within the pivot view.
4. Optional: Select the "Add subtotals using" drop down and apply Advanced Settings.
5. Click Preview

After Pivot:




Essentially, the pivot capability adds additional columns based on the data to the right of the report. In this example, the first column is essentially a standard report and the 2010, 2011, 2012 columns were added by the pivot capability.

Standard Report View:

| Ship Country |
|---|
| UK |
| USA |

Columns added by Pivot:

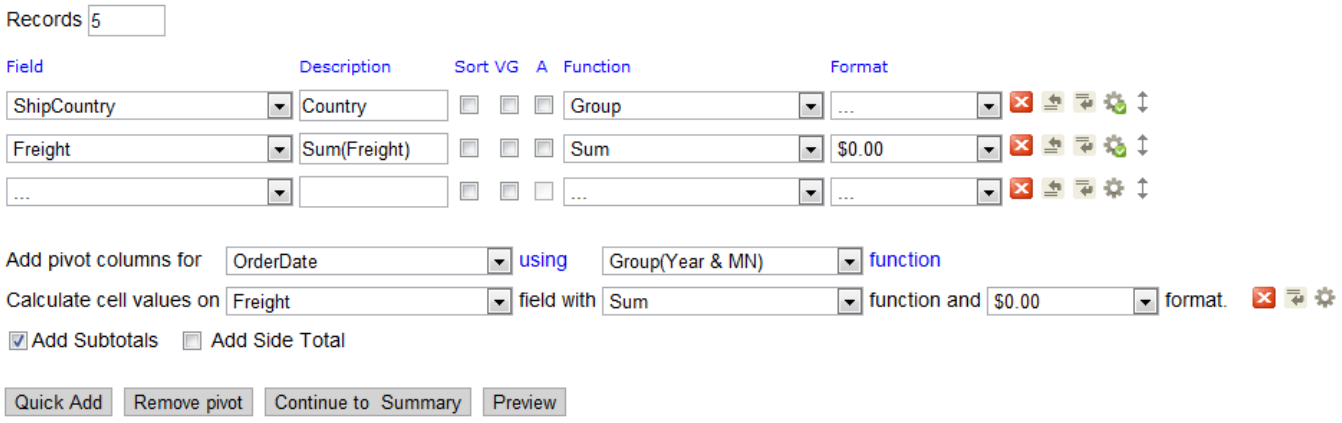
| 2010 | 2011 | 2012 |
|---|---|---|
| $56.64 | $39.62 | $74.96 |
| $85.75 | $96.99 | $153.32 |

## 12.2 Create an Advanced Pivot Report

Let's use these concepts to develop a more sophisticated report that shows us a monthly time-series report for each country visually grouped by employee.

In this report, we want to show the Top 5 companies that accounted for the most freight in 2011 and breakdown the analysis by month.

Here is what the design screen would look like for this report.



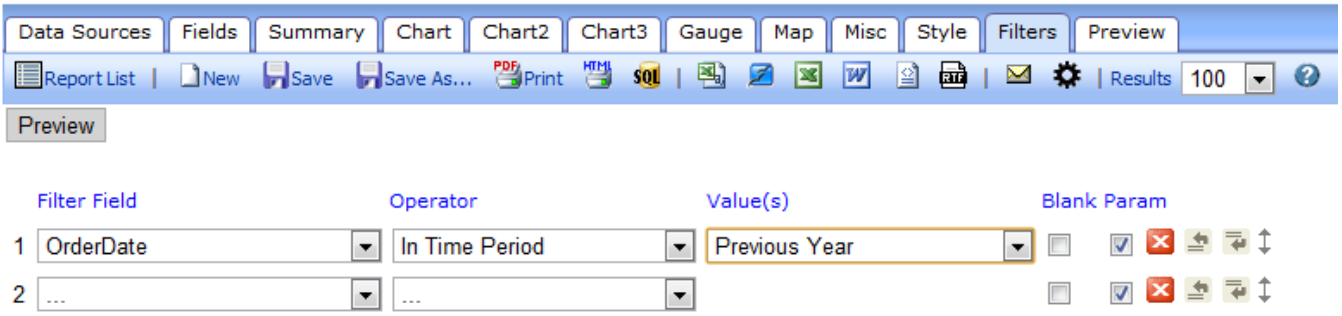

Here's how we add the non-pivot fields.

1. We started off by using the same Data Source for the previous report, Orders.
2. We then Select the Fields, grouping by ShipCountry, and Summing the Freight.
3. Next, we check the Subtotals box to give us a summary line for each country.
4. Then, we click on the advanced icon for the Freight field, sorting from Z-A to list the highest values first.
5. After that, we selected 5 Records in the top left to show the 5 countries with the largest freight amount.

For the pivot portion of the report, we:

1. Select the OrderDate at the Pivot column and Year & MN as the way it will be displayed.
2. Select Freight as what we will measure in our pivot, performing a sum for each column.

The final step is to add the filter to make it calculate the results from only 2011 data.



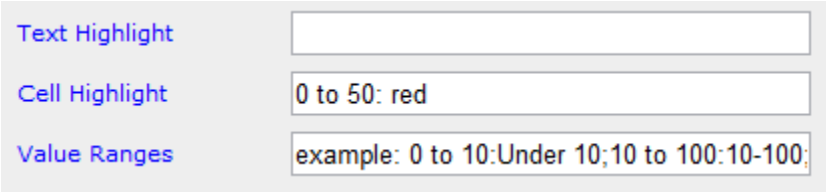

Finally, here are the results of the report with Pivot:

| Country | Sum(Freight) ▼ | 2011 - Jan | 2011 - Feb | 2011 - Mar | 2011 - Apr | 2011 - May | 2011 - Jun | 2011 - Jul | 2011 - Aug | 2011 - Sep | 2011 - Oct | 2011 - Nov | 2011 - Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Germany | $8,232.55 | $109.03 | $231.70 | $49.05 | $426.84 | $1,440.95 | $364.31 | $430.69 | $223.92 | $506.18 | $1,573.00 | $3.52 | $473.36 |
| USA | $5,819.37 | $17.05 | $299.81 | $791.89 | $426.76 | $40.18 | $401.96 | $1,043.70 | $202.26 | $1,040.44 | $837.27 | $441.80 | $276.35 |
| Austria | $3,745.65 | $631.74 | $47.94 | $5.29 | $789.95 | $339.22 | $26.06 | $131.90 | $477.90 | $174.59 | $272.47 | $117.33 | $731.26 |
| France | $2,467.76 | $114.85 | $245.02 | $70.72 | $403.96 | $205.78 | $155.59 | $28.63 | $518.61 | $175.83 | $63.20 | $75.58 | $409.99 |
| Brazil | $2,226.01 | $297.37 | $68.66 | $147.33 | $116.29 | $68.65 | $63.44 | $155.33 | $501.41 | $146.70 | $251.74 | $59.96 | $349.13 |
| | **$8,237.56** | **$1,399.77** | **$306.55** | **$235.92** | **$998.13** | **$482.68** | **$285.64** | **$711.13** | **$1,232.18** | **$321.29** | **$604.53** | **$421.02** | **$1,238.72** |

To make the report more consumable, you might also want to add highlighting to show the months with lows values.

For this, click on the Advanced Field Settings icon on the pivot field where you are calculating cell values, on the far right of the image below.

Then, set the Cell Highlight to 0 to 50: Red.




Here is the result:

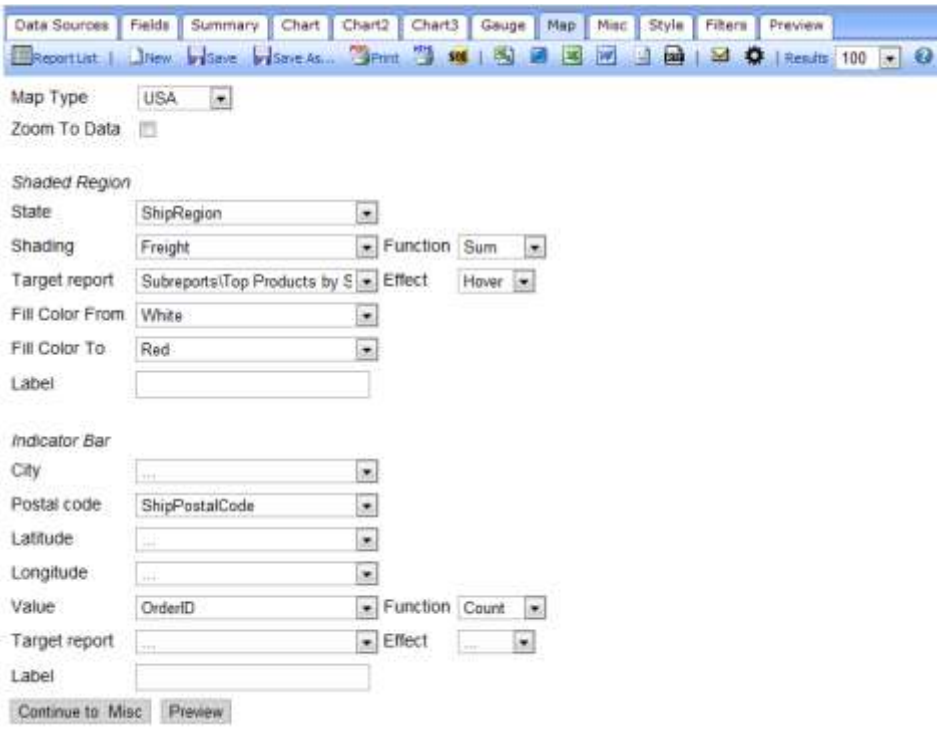
| Ship Country | Sum(Freight) | 2011 - Jan | 2011 - Feb | 2011 - Mar | 2011 - Apr | 2011 - May | 2011 - Jun | 2011 - Jul | 2011 - Aug | 2011 - Sep | 2011 - Oct | 2011 - Nov | 2011 - Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Argentina | $117.66 | $29.82 | $38.82 | $0.00 | $17.22 | $6.12 | $0.00 | $0.00 | $0.00 | $0.00 | $22.57 | $0.00 | $0.11 |
| Austria | $3,745.65 | $631.74 | $47.94 | $5.29 | $789.95 | $339.22 | $26.06 | $131.90 | $477.90 | $174.59 | $272.47 | $117.33 | $731.26 |
| Belgium | $460.48 | $0.00 | $147.06 | $83.30 | $0.00 | $66.69 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $0.00 | $157.23 |
| Brazil | $2,226.01 | $297.37 | $68.66 | $147.33 | $116.29 | $68.65 | $63.44 | $155.33 | $501.41 | $146.70 | $251.74 | $59.96 | $349.13 |
| Canada | $1,687.76 | $440.83 | $0.00 | $0.00 | $74.67 | $0.00 | $196.14 | $423.90 | $246.67 | $0.00 | $57.75 | $243.73 | $0.00 |
| | **$8,237.56** | **$1,399.77** | **$306.55** | **$235.92** | **$998.13** | **$482.68** | **$285.64** | **$711.13** | **$1,232.18** | **$321.29** | **$604.53** | **$421.02** | **$1,238.72** |

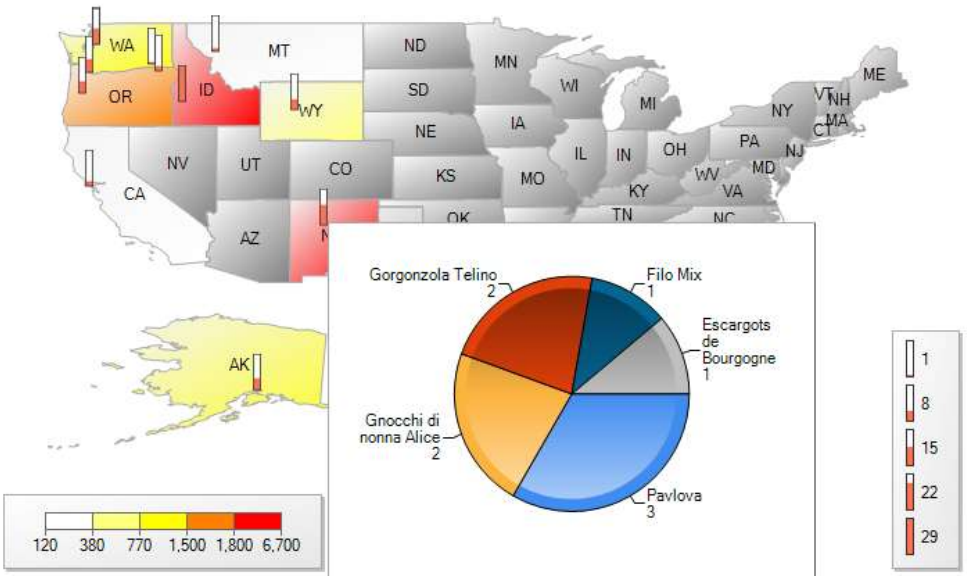
## 13.0 IZENDA MAPS

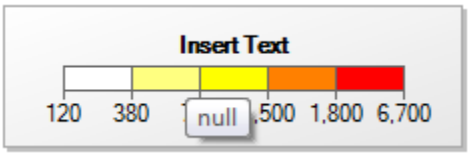
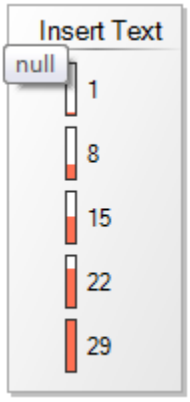
The Izenda Maps add-on provides interactive geographical visualization to the reporting experience. For more information, please click here.

**Please note: You must have purchased the Maps module to access this functionality.

In the report below, we are shading the colors of the states based on the sum of the freight, applying a hover over that shows the top products by state, and displaying an indicator bar on the location of the postal code while showing the number of orders vertically in the bar.



| Feature | Description |
|---|---|
| Map Type |  |
| Zoom to Data | Zooms to the region or state the data is in |
| State | Select the field where state data is located |
| Shading | Selects the field and function you will use for shading |
| Fill Color From - To | Fills the color of the shading from a selected color to a selected color |
| Label (1st one displayed) | Sets the text displayed for the Legend  |
| Postal Code | Select the field where postal code data is located |
| Latitude / Longitude | Select the field where GIS data is located for lat/long |
| Value | Sets the field and function you will use in the indicator bar |
| Label (2nd one displayed) |  |