

2012

Visual Intelligence User Guide

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This document is prepared for easy understand of the software

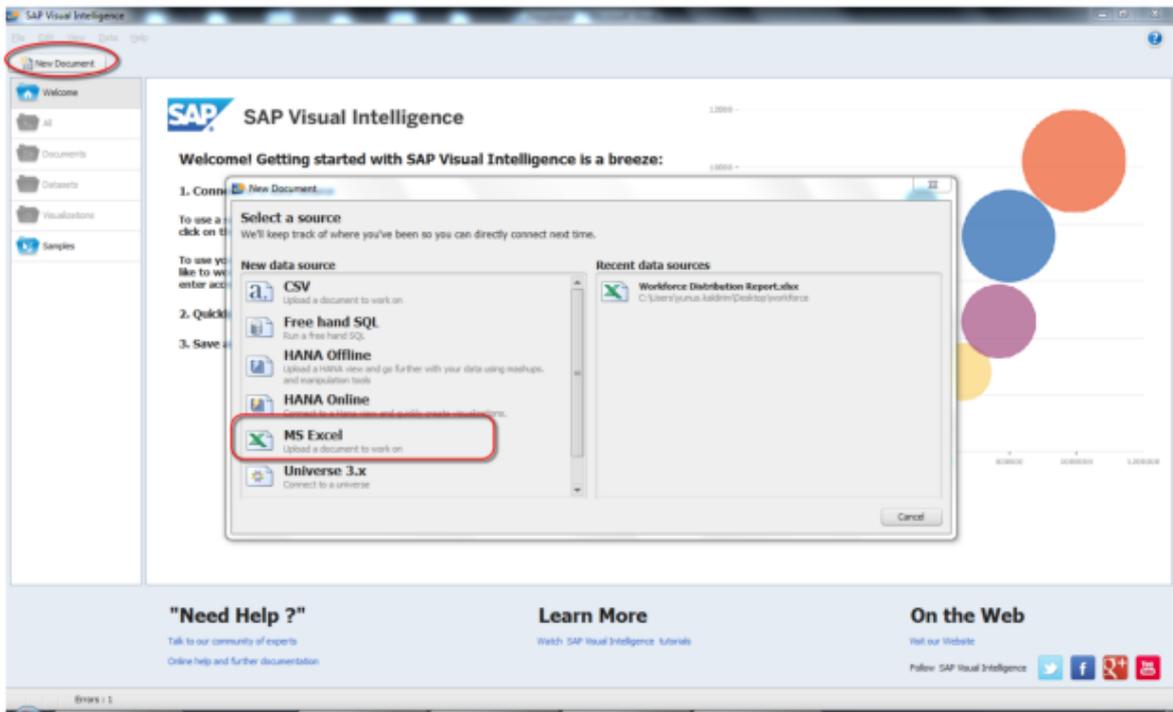
01.01.2012



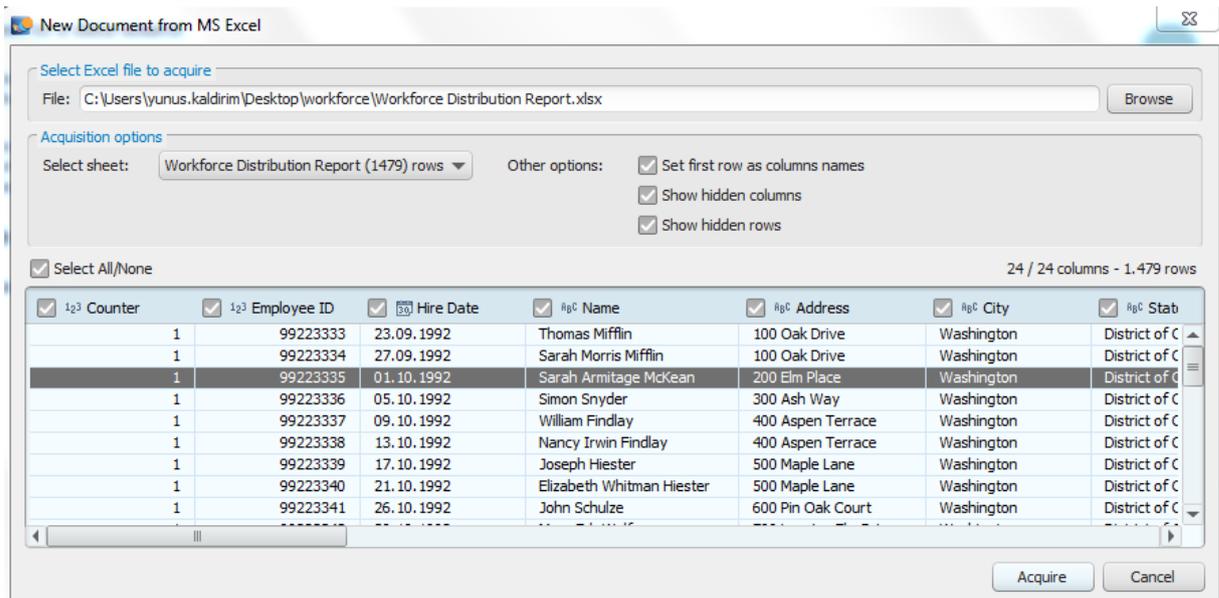
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1. Creating New Document sourced on Excel

We are clicking New document and selecting MS Excel as type. Also We can run recent data source.



Then importing file data.

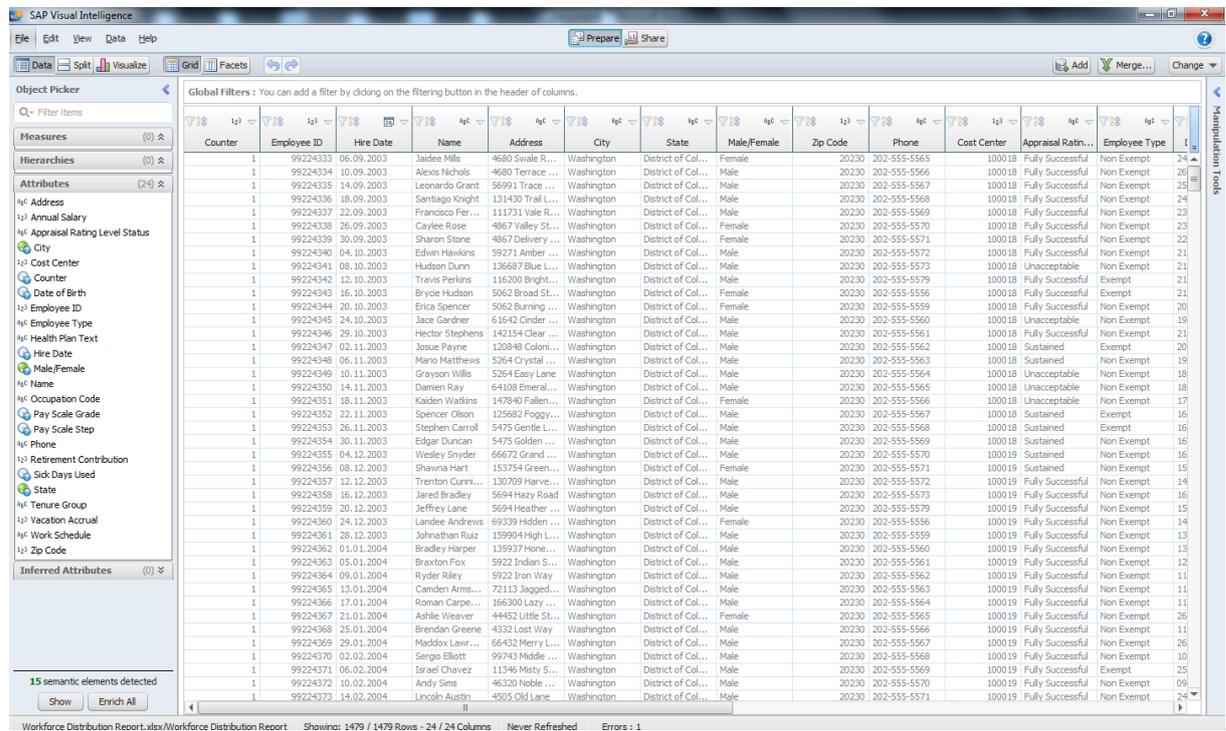


We are able to select sheet and we see some options to define file structure.

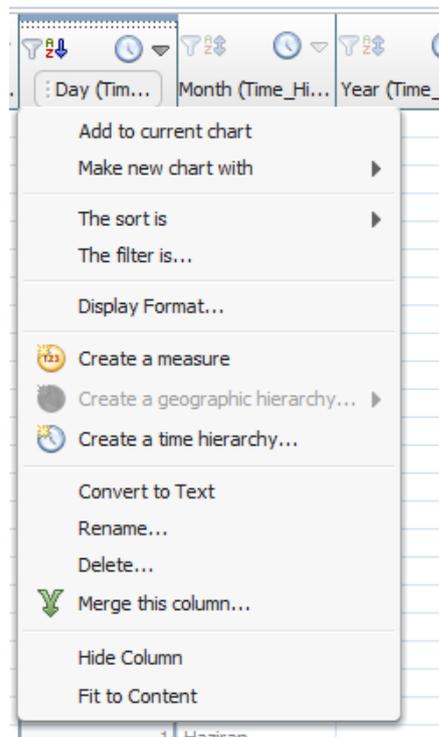
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2. Working on Visual Intelligence Data

We see all imported data. System is automatically creating column names as attributes.

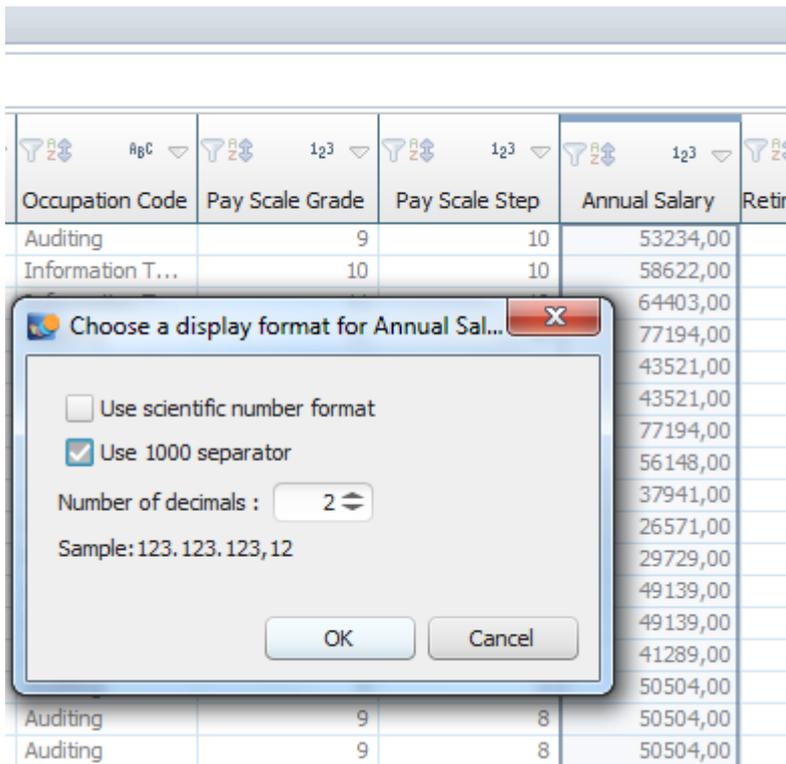


We are able to reorder any column by select and move it or we can change column name as easy as double click column. Also we can sort , filter or change format of data.



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Let's do a format change on Annual Salary. We will use 1000 separator on the field.

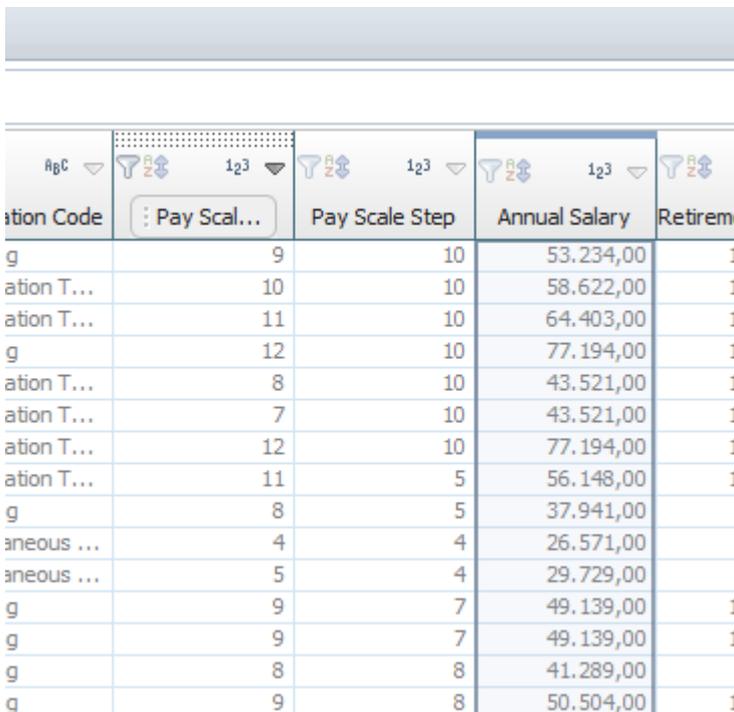


The screenshot shows a data table with columns: Occupation Code, Pay Scale Grade, Pay Scale Step, Annual Salary, and Retirement. A dialog box titled "Choose a display format for Annual Sal..." is open over the Annual Salary column. The dialog has the following options:

- Use scientific number format
- Use 1000 separator
- Number of decimals:
- Sample: 123.123.123,12

Buttons for "OK" and "Cancel" are at the bottom of the dialog.

The Result:



The screenshot shows the same data table after the format change. The Annual Salary values are now displayed with a 1000 separator and two decimal places. The dialog box is no longer present.

Occupation Code	Pay Scale Grade	Pay Scale Step	Annual Salary	Retirement
Auditing	9	10	53.234,00	1
Information T...	10	10	58.622,00	1
Information T...	11	10	64.403,00	1
g	12	10	77.194,00	1
ation T...	8	10	43.521,00	1
ation T...	7	10	43.521,00	1
ation T...	12	10	77.194,00	1
ation T...	11	5	56.148,00	1
g	8	5	37.941,00	1
aneous ...	4	4	26.571,00	1
aneous ...	5	4	29.729,00	1
g	9	7	49.139,00	1
g	9	7	49.139,00	1
g	8	8	41.289,00	1
g	9	8	50.504,00	1

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2.1 Semantic Elements

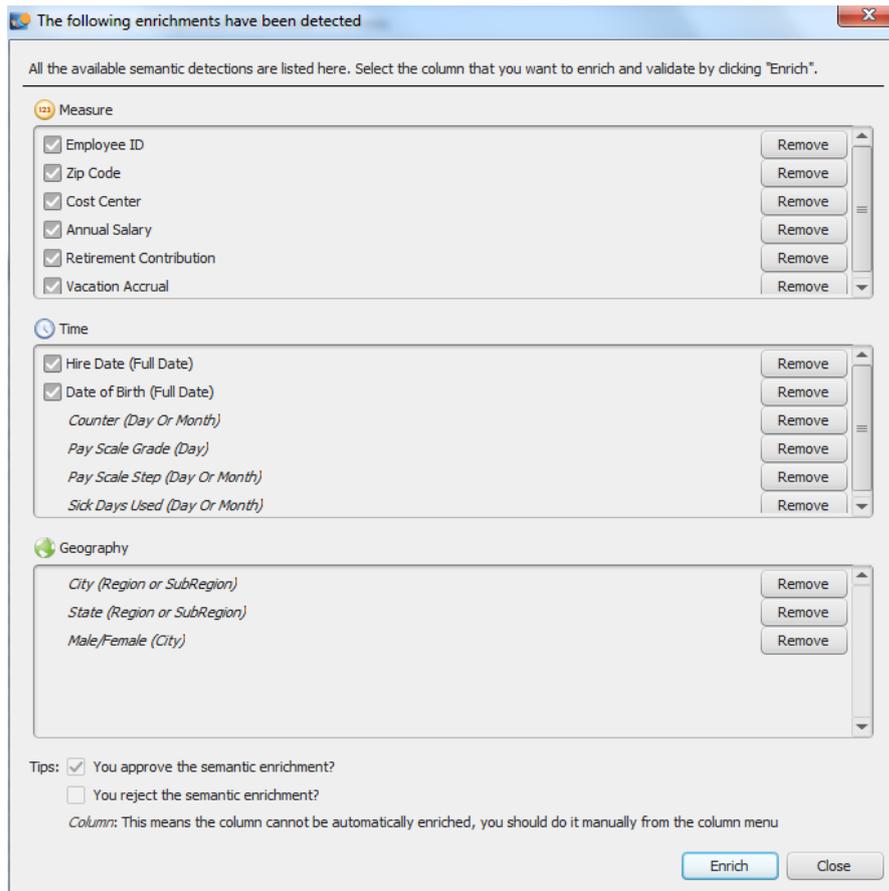
System is automatically informing us for semantic elements.

“Using measures and hierarchies makes charting easier; measures allow easy manipulation of calculations, and hierarchies allow you to use a natural grouping of related columns. You can create measures and hierarchies manually, or let SAP Visual Intelligence detect columns that are potential measures, as well as time and geography hierarchies when you acquire data”

The screenshot displays the SAP Visual Intelligence interface. On the left, a sidebar lists various attributes such as Employee Type, Health Plan Text, Hire Date, Male/Female, Name, Occupation Code, Pay Scale Grade, Pay Scale Step, Phone, Retirement Contribution, Sick Days Used, State, Tenure Group, Vacation Accrual, Work Schedule, and Zip Code. Below this list, a section titled 'Inferred Attributes' shows '(0)' items. A red circle highlights a notification box that states '15 semantic elements detected' with 'Show' and 'Enrich All' buttons. The main area of the interface is a data table with 15 columns and 24 rows. The columns represent various employee data points, and the rows list individual employees with their corresponding values. At the bottom, a status bar indicates 'Workforce Distribution Report.xlsx/Workforce Distribution Report', 'Showing: 1479 / 1479 Rows - 24 / 24 Columns', 'Never Refreshed', and 'Errors : 1'.

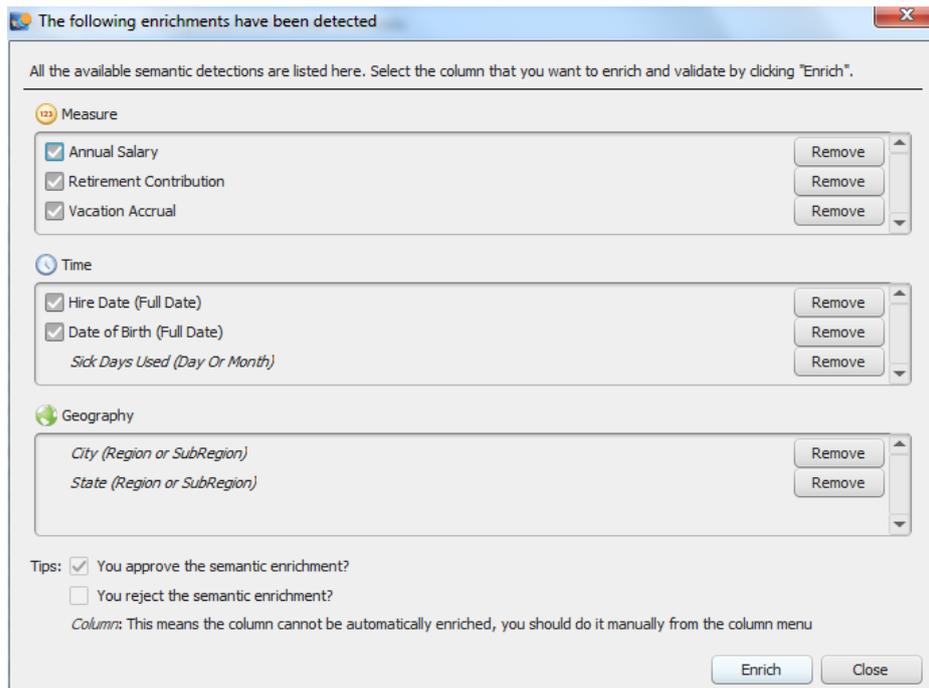
Employee ID	Employee Name	Address	City	State	Gender
99224345	Jace Gardner	61642 Under ...	Washington	District of Col...	Male
99224346	Hector Stephens	142154 Clear ...	Washington	District of Col...	Male
99224347	Josue Payne	120848 Coloni...	Washington	District of Col...	Male
99224348	Mario Matthews	5264 Crystal ...	Washington	District of Col...	Male
99224349	Grayson Willis	5264 Easy Lane	Washington	District of Col...	Male
99224350	Damien Ray	64108 Emeral...	Washington	District of Col...	Male
99224351	Kaiden Watkins	147840 Fallen...	Washington	District of Col...	Female
99224352	Spencer Olson	125682 Foggy...	Washington	District of Col...	Male
99224353	Stephen Carroll	5475 Gentle L...	Washington	District of Col...	Male
99224354	Edgar Duncan	5475 Golden ...	Washington	District of Col...	Male
99224355	Wesley Snyder	66672 Grand ...	Washington	District of Col...	Male
99224356	Shawna Hart	153754 Green...	Washington	District of Col...	Female
99224357	Trenton Cunni...	130709 Harve...	Washington	District of Col...	Male
99224358	Jared Bradley	5694 Hazy Road	Washington	District of Col...	Male
99224359	Jeffrey Lane	5694 Heather ...	Washington	District of Col...	Male
99224360	Landee Andrews	69339 Hidden ...	Washington	District of Col...	Female
99224361	Johnathan Ruiz	159904 High L...	Washington	District of Col...	Male
99224362	Bradley Harper	135937 Hone...	Washington	District of Col...	Male
99224363	Braxton Fox	5922 Indian S...	Washington	District of Col...	Male
99224364	Ryder Riley	5922 Iron Way	Washington	District of Col...	Male
99224365	Camden Arms...	72113 Jagged...	Washington	District of Col...	Male
99224366	Roman Carpe...	166300 Lazy ...	Washington	District of Col...	Male
99224367	Ashlie Weaver	44452 Little St...	Washington	District of Col...	Female
99224368	Brendan Greene	4332 Lost Way	Washington	District of Col...	Male
99224369	Maddox Lawr...	66432 Merry L...	Washington	District of Col...	Male
99224370	Sergio Elliott	99743 Middle ...	Washington	District of Col...	Male
99224371	Israel Chavez	11346 Misty S...	Washington	District of Col...	Male
99224372	Andy Sims	46320 Noble ...	Washington	District of Col...	Male
99224373	Lincoln Austin	4505 Old Lane	Washington	District of Col...	Male

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System can create measures, time and geography elements on detected items. Of course, We should select meaningful items. Eg: Employee id is only numeric item and although system is offering this item as measure but we can remove this item.

From our perspective possible enrichment items may be below.



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System is automatically created measures ,hierarchies and inferred attributesAfter Enriched items.

The screenshot displays the SAP Visual Intelligence interface. On the left, the 'Object Picker' panel is visible, containing three sections: 'Measures' (3 items), 'Hierarchies' (2 items), and 'Inferred Attributes' (10 items). Each section is highlighted with a red box. The 'Measures' section lists 'Annual Salary', 'Retirement Contribution', and 'Vacation Accrual'. The 'Hierarchies' section lists 'default (Time_Hire Date)' and 'default (2) (Time_Date of Birth)'. The 'Inferred Attributes' section lists various time-based attributes like 'Date of Birth (2)', 'Day (2)', 'Month (2)', 'Quarter (2)', 'Year (2)', 'Day', 'Hire Date (2)', 'Month', 'Quarter', and 'Year'. The main area shows a data table with columns: Counter, Employee ID, Hire Date, and Name. The table contains 30 rows of employee data.

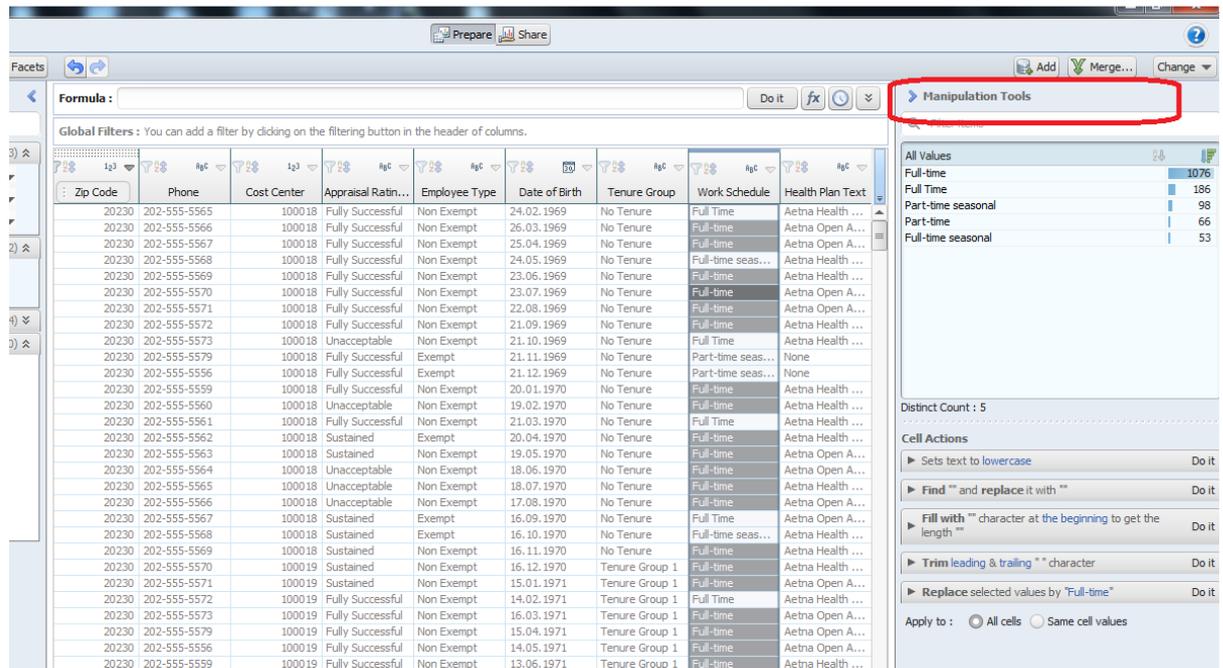
Counter	Employee ID	Hire Date	Name
1	99224333	06.09.2003	Jaiidee Mi
1	99224334	10.09.2003	Alexis Nic
1	99224335	14.09.2003	Leonardc
1	99224336	18.09.2003	Santiago
1	99224337	22.09.2003	Francisc
1	99224338	26.09.2003	Caylee R
1	99224339	30.09.2003	Sharon S
1	99224340	04.10.2003	Edwin Ha
1	99224341	08.10.2003	Hudson C
1	99224342	12.10.2003	Travis Pe
1	99224343	16.10.2003	Brycie Hu
1	99224344	20.10.2003	Erica Spe
1	99224345	24.10.2003	Jace Gar
1	99224346	29.10.2003	Hector St
1	99224347	02.11.2003	Josue Pa
1	99224348	06.11.2003	Mario Ma
1	99224349	10.11.2003	Grayson
1	99224350	14.11.2003	Damien R
1	99224351	18.11.2003	Kaiden W
1	99224352	22.11.2003	Spencer I
1	99224353	26.11.2003	Stephen
1	99224354	30.11.2003	Edgar Du
1	99224355	04.12.2003	Wesley S
1	99224356	08.12.2003	Shawna f
1	99224357	12.12.2003	Trenton C
1	99224358	16.12.2003	Jared Bre
1	99224359	20.12.2003	Jeffrey L
1	99224360	24.12.2003	Landee A
1	99224361	28.12.2003	Johnatha
1	99224362	01.01.2004	Bradley f
1	99224363	05.01.2004	Braxton f

We can change some detail by right clicking items. Eg: Hide or Delete Quarter attribute in view.

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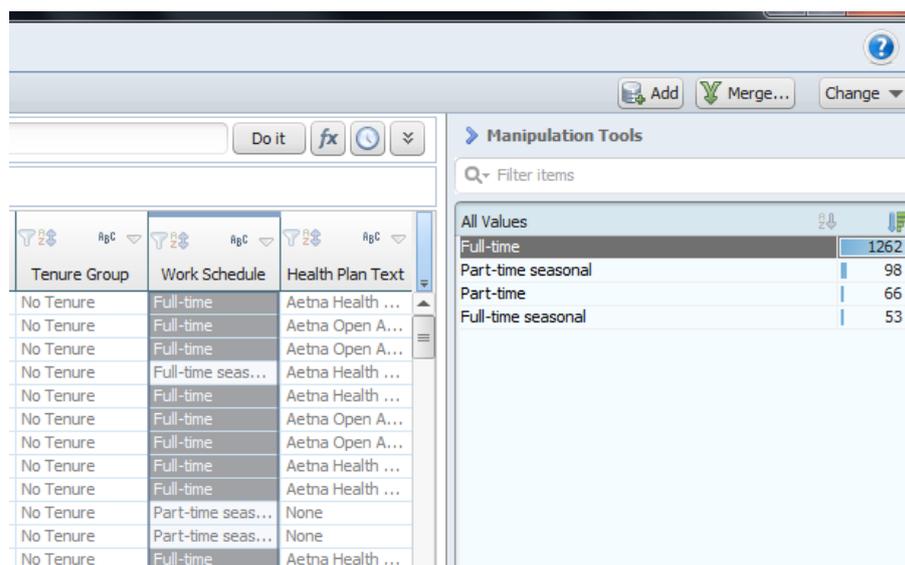
2.2 Manipulation Of Data

You can find manipulation tool at the right top side of screen. We can manipulate (also a kind of summary view of data) any cell with offered actions. Of course we can change all data manually one by one but this kind of tool make everything easier. *“Options are changing selecting cell or selecting column by clicking.”*



We see “full-time” and “Full time” values as different above. But We know these are same. So we can replace one to other.

After Manipulation:

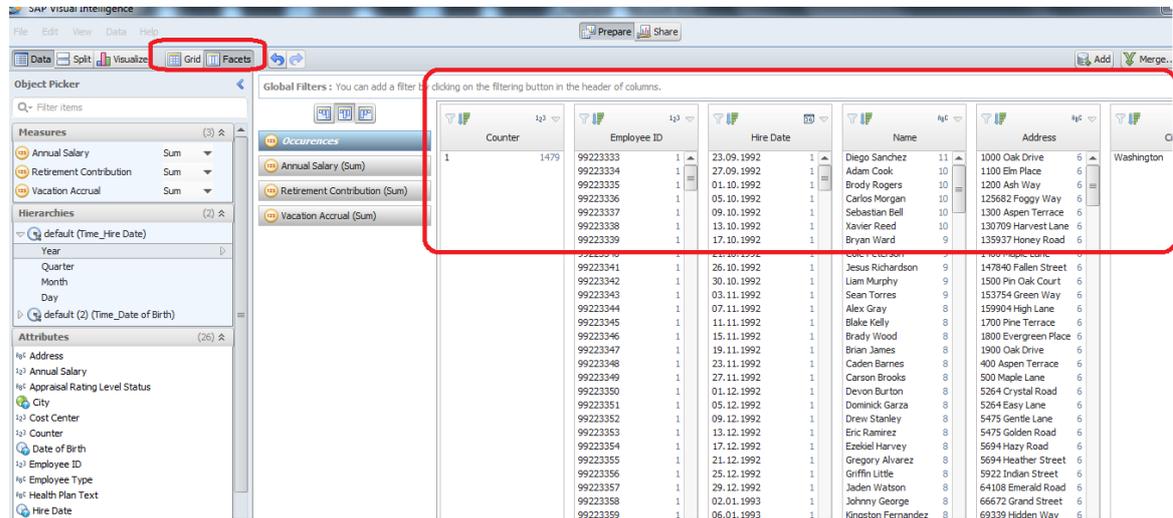


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2.3 Working With Facets

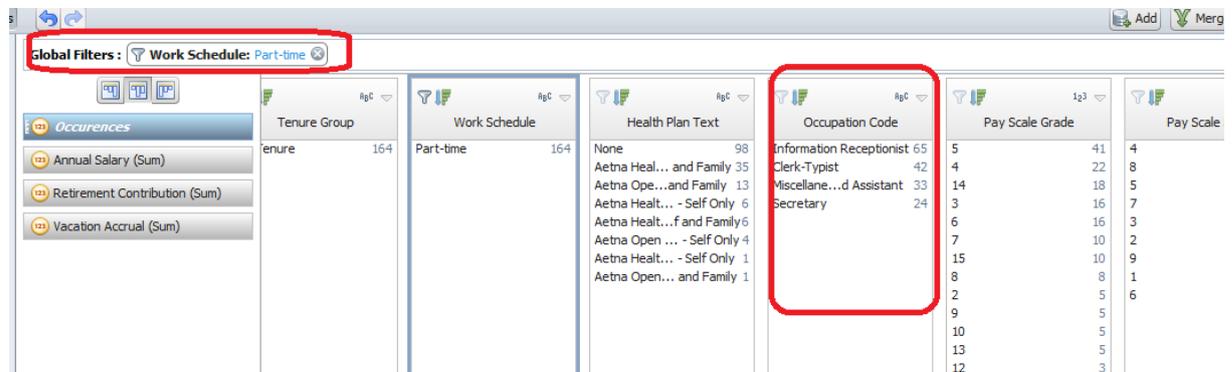
Facets are kind of easily filtering tool to see summary of data. You can double click to a value to filter and see result.

“Data is presented as columns with only the unique values shown. The repeated values in columns are not shown. Using facets can be useful if you have many repeated values.”



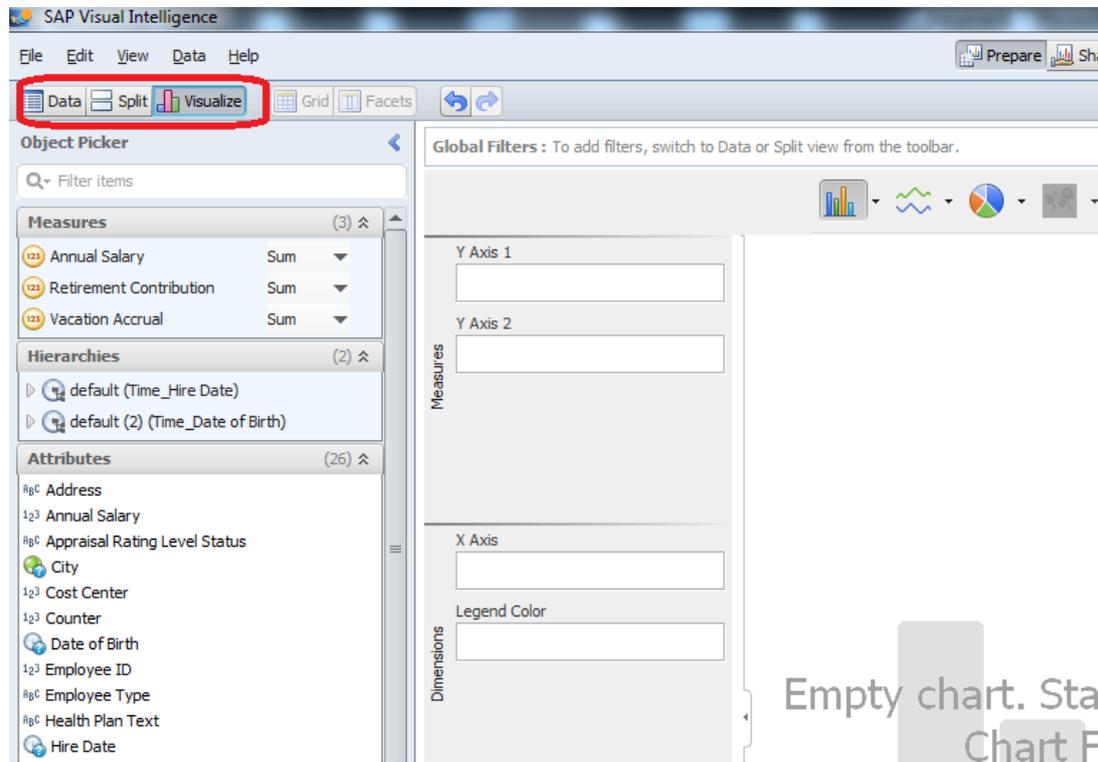
Let's do a filter and an analyse by work schedule and see results

We can say **“24 person's occupation was secretary who is working part-time”**



3. Analyzing And Visualizing Data

We can visualize data by splitting grid or on a single screen.

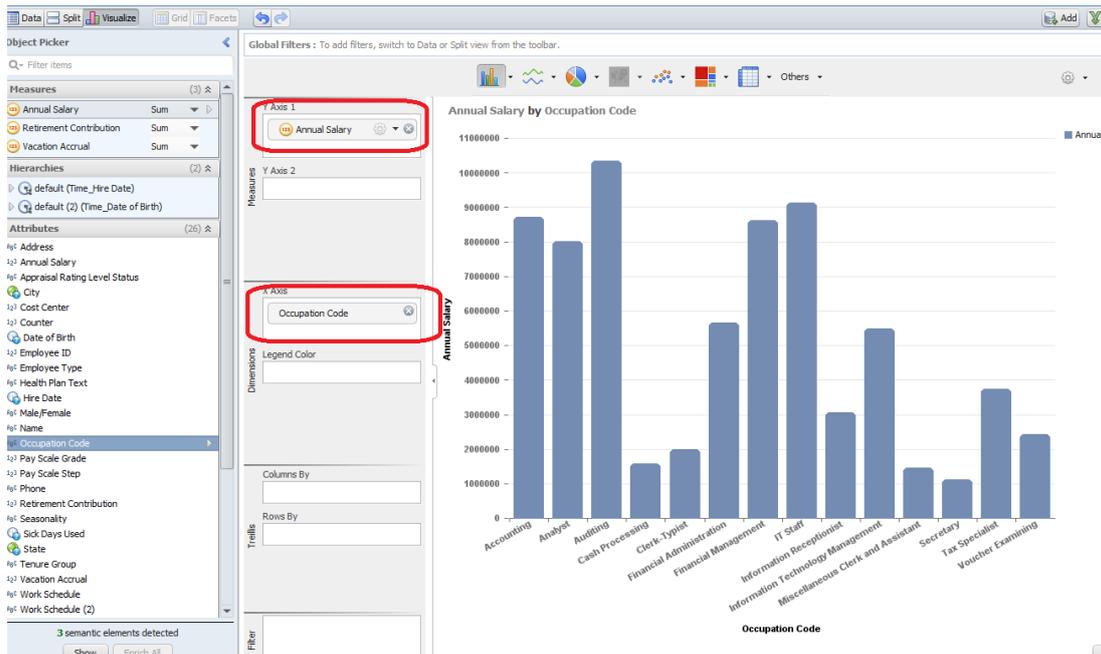


Let's do a visualization on Annual Salary by Occupation Code.

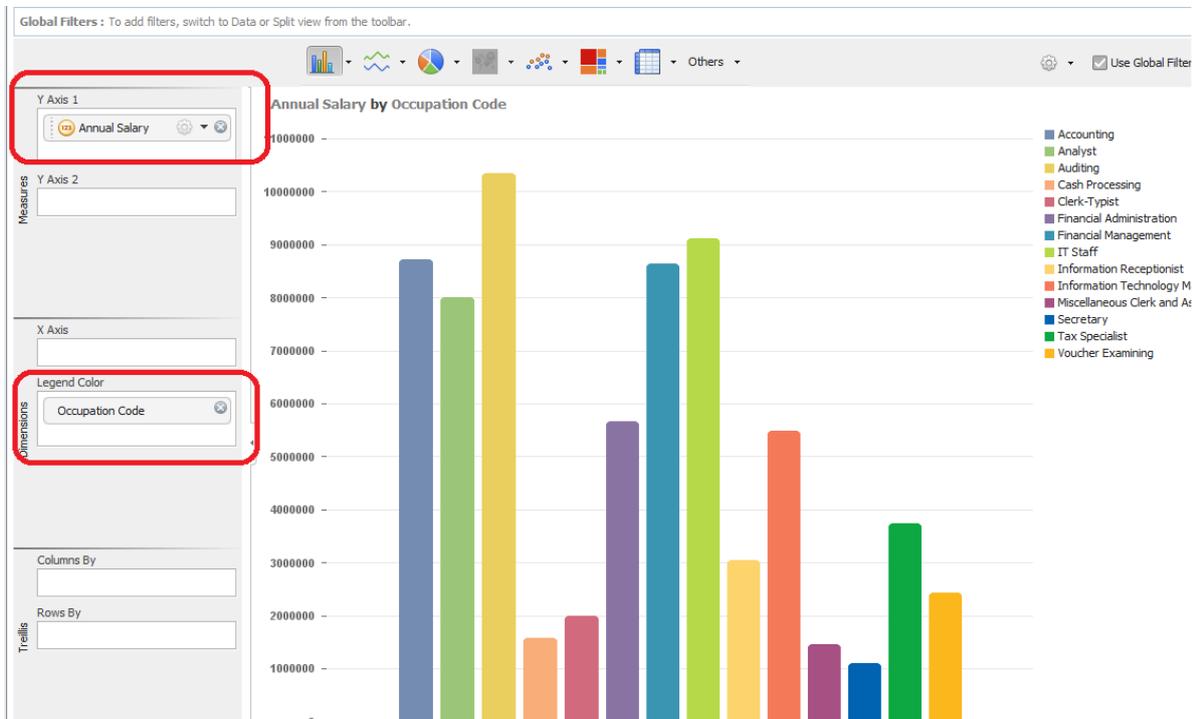
- Select and drop Annual Salary measure to Y axis

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-Select and drop Occupation Code to X axis

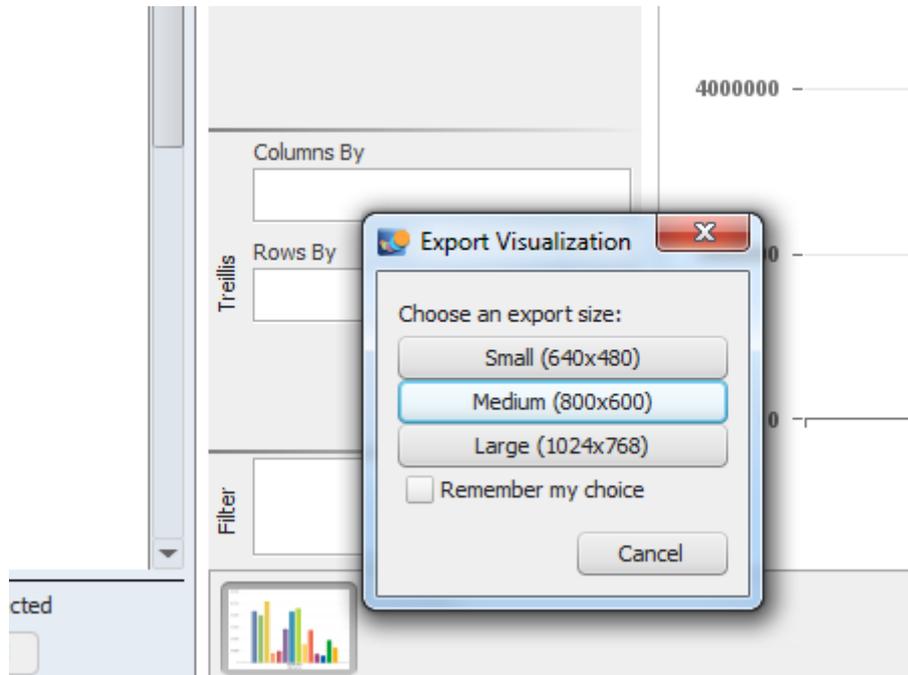


If we want to differentiate by color we can use Occupation Code as Legend Color.



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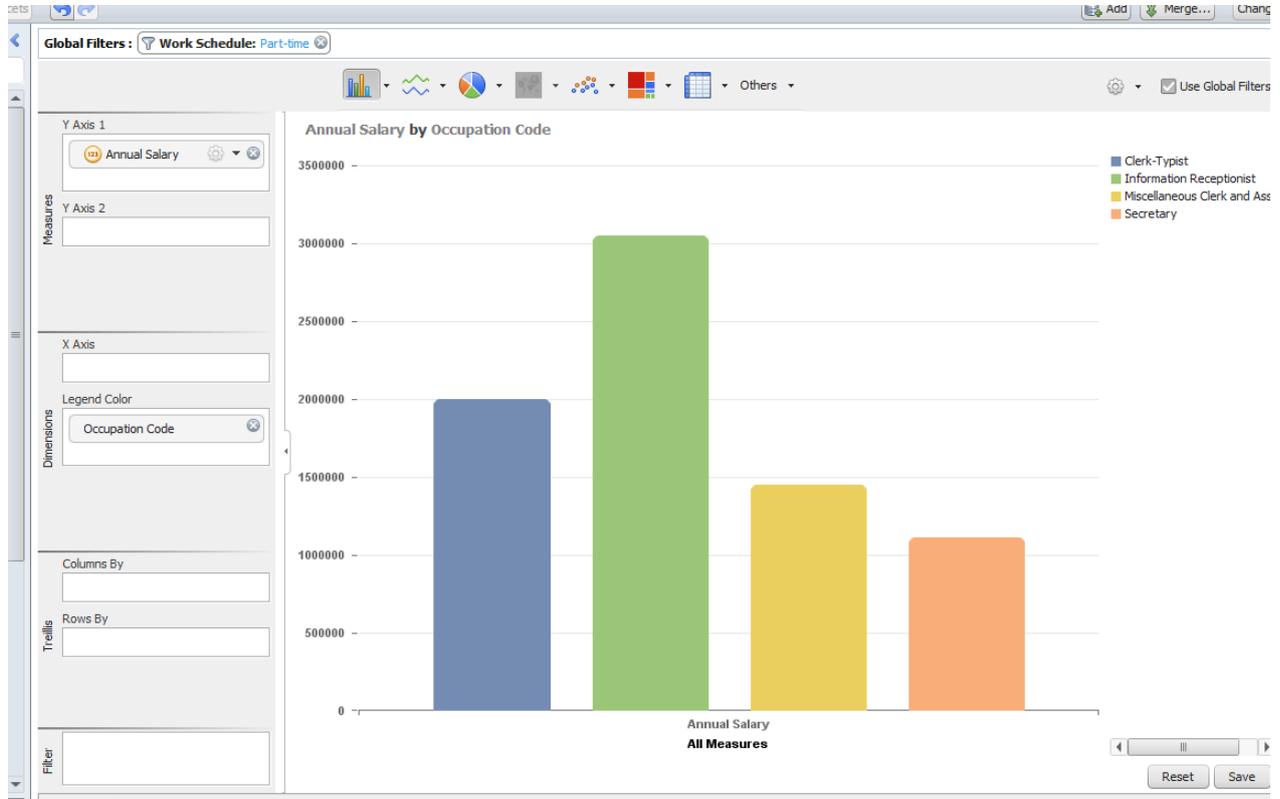
We can export visualisation after “save” visualization. We are selecting item on the pane then clicking “copy” .



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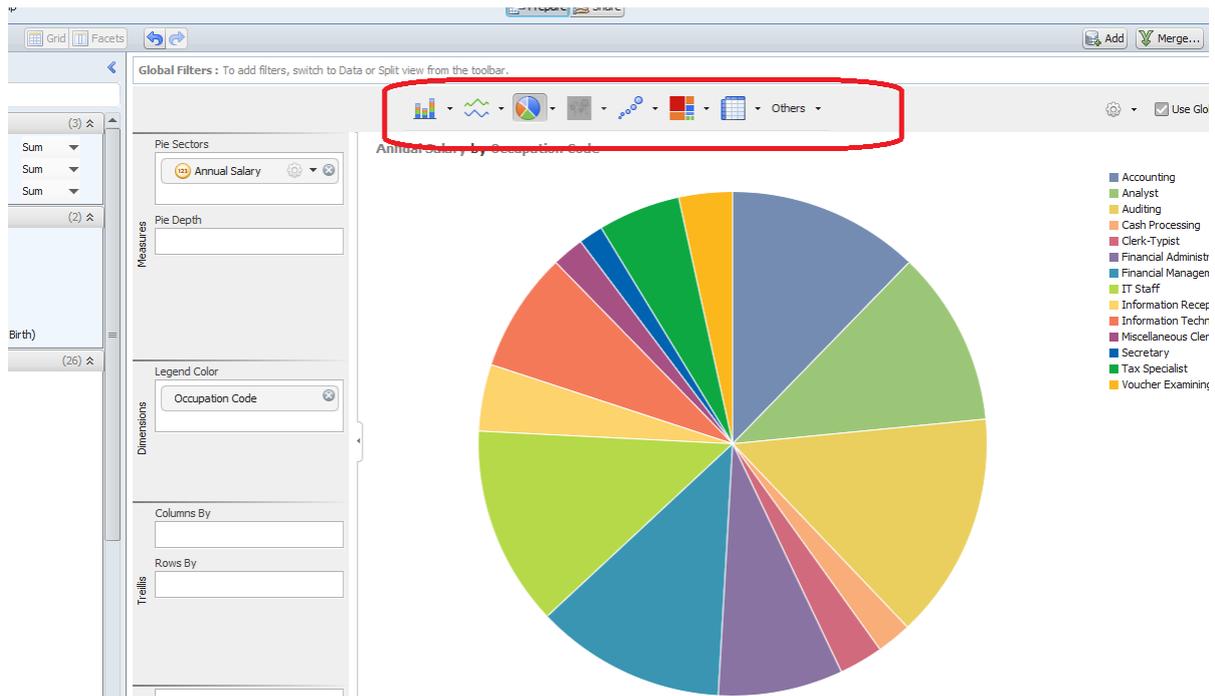
If you want to filter data. You should use data grid or data facets. You can have a look 2.3 item working with facets. We filtered data with work schedule is Part-Time.

The Result:



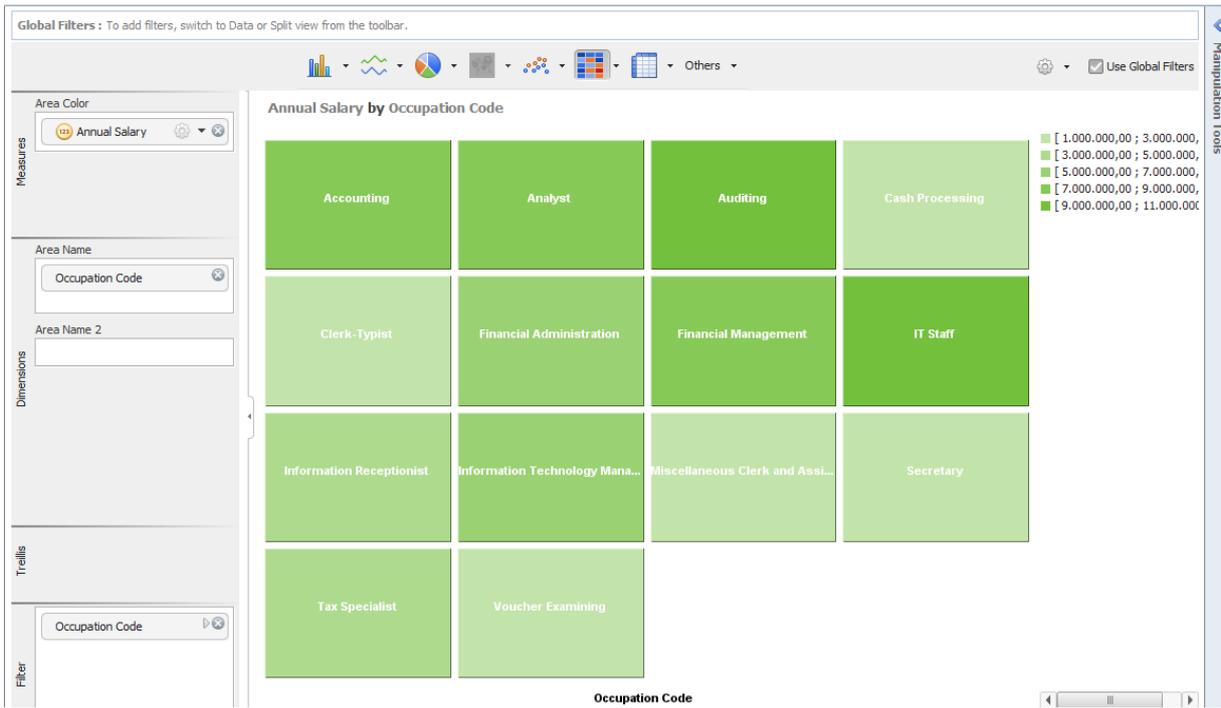
Of course you can change graph style over toolbar.

- Maybe a Pie chart is better



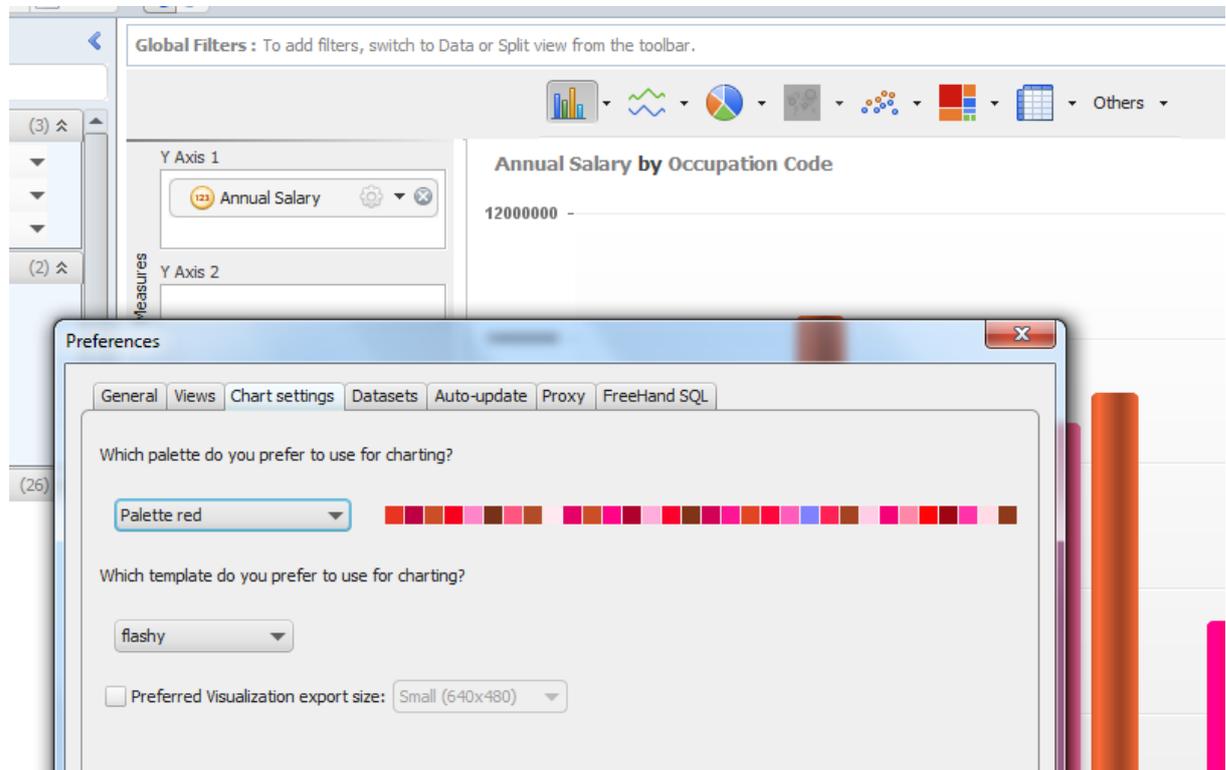
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- Or A HeatMap is better



4. Preferences to better View

You can do changes on chart settings in file>preferences for better view. Select a palette and template for charting.



5. Amazing Question: What is the best graph form my data?

We can answer this question as many as different way.

- The best clarified and result summarized graph is the right one.
- Look advantages and disadvantages of charts and select the best suitable
- Abracadabra is a good fictitious name to use when you can't think of anything better.
- The best way to select the right chart for your data is to ask yourself what you intend to analyze
- Select any graph and see how it looks.

It is pretty difficult to have a guideline for all types of charts that soak in all kinds of data. For that a book will not be enough, let alone a tutorial.

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6. Let's Do Geeks

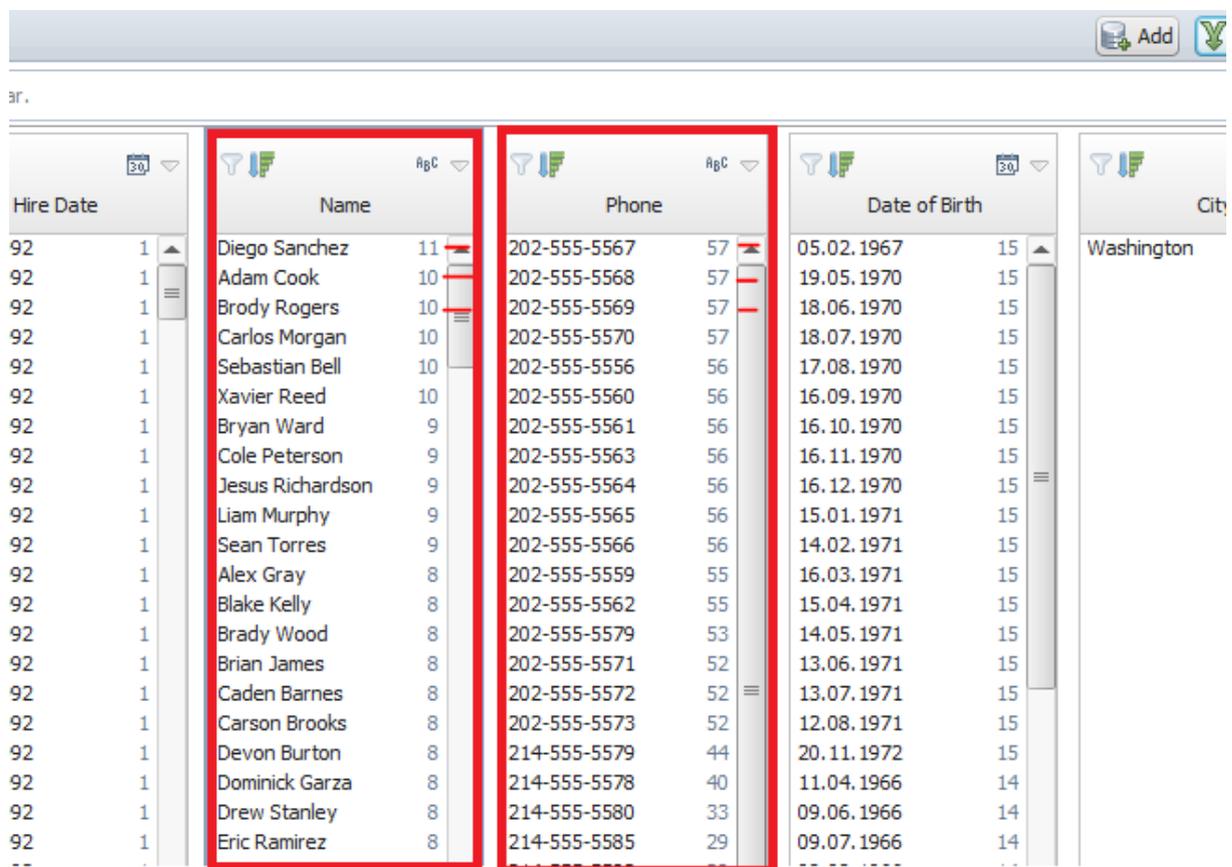
After understanding SAP Visual Intelligence tool.

- First Lesson: Visualizing with nice colors and graphs doesn't mean right result are being shown.
- Second Lesson: If I'm not the owner of data(creator of data) i should understand data.
- Third Lesson: Data source of report should be verified before conclusions. If I have a line in data source, can i create correct report with it?

6.1 Understand data and See Unique Employee

-Let's have a look Names And Phones. Do you think there are repeating data in our data sheet?

Of course 😊 We should clean data with SAP VI easily to make correct analyzing.



The screenshot shows a data table in the SAP Visual Intelligence tool. The table has five columns: Hire Date, Name, Phone, Date of Birth, and City. The Name and Phone columns are highlighted with a red box. The data is as follows:

Hire Date	Name	Phone	Date of Birth	City
92	Diego Sanchez	202-555-5567	05.02.1967	Washington
92	Adam Cook	202-555-5568	19.05.1970	
92	Brody Rogers	202-555-5569	18.06.1970	
92	Carlos Morgan	202-555-5570	18.07.1970	
92	Sebastian Bell	202-555-5556	17.08.1970	
92	Xavier Reed	202-555-5560	16.09.1970	
92	Bryan Ward	202-555-5561	16.10.1970	
92	Cole Peterson	202-555-5563	16.11.1970	
92	Jesus Richardson	202-555-5564	16.12.1970	
92	Liam Murphy	202-555-5565	15.01.1971	
92	Sean Torres	202-555-5566	14.02.1971	
92	Alex Gray	202-555-5559	16.03.1971	
92	Blake Kelly	202-555-5562	15.04.1971	
92	Brady Wood	202-555-5579	14.05.1971	
92	Brian James	202-555-5571	13.06.1971	
92	Caden Barnes	202-555-5572	13.07.1971	
92	Carson Brooks	202-555-5573	12.08.1971	
92	Devon Burton	214-555-5579	20.11.1972	
92	Dominick Garza	214-555-5578	11.04.1966	
92	Drew Stanley	214-555-5580	09.06.1966	
92	Eric Ramirez	214-555-5585	09.07.1966	

First of all we need to clarify relations in data. Eg:We filter Diego sanchez. We have 11 Diego. It seems Phone& Date of Birth& Address are same with specific Diego Sanchez. Hmm 😊

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Global Filters: Name: Diego San...

Occurrences

- Annual Salary (Sum)
- Retirement Contribution (Sum)
- Vacation Accrual (Sum)

Name	Employee ID	Hire Date	Phone	Date of Birth	Address
Diego Sanchez	99223403	30.06.1993	202-555-5560	05.02.1967	31643 Tawny Way
	99223559	17.03.1995	214-555-5585	11.12.1971	4685 Pine Way
	99223746	03.04.1997	214-555-5586	20.09.1972	239 Run Way
	99223936	02.05.1999			
	99224092	16.01.2001			
	99224185	23.01.2002			
	99224191	16.02.2002			
	99224260	19.11.2002			
	99224416	03.08.2004			
	99224538	05.12.2005			
	99224669	12.05.2007			

Conclusion:

“Looking to Facets, ordering and filtering data Hmmm. We can say some measures or attributes (cost center, pay scale, annual salary etc) are being changed and employee having a new number, a new hire date and being added as a new line to the list yearly. But in Any Case we know some Diego’s are same.”