Sample Portfolio of Data Visualizations

Andrei Pandre

Tools: Tableau, Qlikview, Spotfire, Omniscope, Google Charts

Andrei’s Blog: http://apandre.wordpress.com/
40-years long timeline of Federal Deficit, Revenue and Spending (Google Charts, triple combo (Area + Line Charts + Column Chart))
Attempt to Visualize 20 Colors with 2-Dimensional Charts (Tableau)
Sales Dashboard by Location, Country and Month (Omniscope)
HR Dashboard for Visual Analytics of Payrises by Performance, Salary, Seniority and Location (Omniscope)
Agile SDLC –

Software Development Life Cycle for Data Visualization – Iterative Waterfall integrated with Scrum
Visualization of 20 Clusters for 100 million Sales transactions (Spotfire)
Visualization of Weekly Sales of Retail Giant discovered 3 Clusters: 2 very different Retail Chains and all other stores (Tableau)
Visualization of Trends for website Visitors (hourly, daily, weekly, monthly), using Sparklines, MicroColumn Charts and Radar Chart (Qlikview)
Evolution of Data Visualization

Origins of Data: Unstructured -> Files -> Tables -> DBs -> DWs -> Cubes -> Stores -> Visible Data

- Data, bytes
  - $10^{14}$
  - $10^{13}$
  - $10^{12}$
  - $10^{11}$
  - $10^{10}$
  - $10^{9}$
  - $10^{8}$
  - $10^{7}$
  - $10^{6}$
  - $10^{5}$
  - $10^{4}$

- Size of Datasets
  - Excel, 1-2-3, Access, xBase
  - SQL Server, Oracle, MySQL, DB2
  - SSAS, SAS, Essbase, TM1
  - PowerPivot, KDB, Vertica, xVelocity

- In-Memory, Columnar Databases
- Multidimensional Cubes: OLAP & BI
- Relational Databases
- Database Management Systems
- Spreadsheets
- Unstructured Data, Flat files

- Data Visualization & Visual Analytics

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Visualization of Time Series of Weekly Sales (for 3+ years) for retail giant, showing repeating patterns – Outliers – much large sales during 2 Weeks of: Thanksgiving Day and Christmas (Tableau)
Near Real-time Visualization of the simultaneous Background Tasks on Tableau Server (Tableau)
Visible Time Series

OHLC-Volume Stock Chart
Motion Chart
(5-dimensional Bubble Chart), showing dynamically population of multiple countries by population size, income, fertility, year (Qlikview)
Google Motion Chart (6-dimensional Bubble Chart), showing dynamically population of multiple countries by population Size, Income, Life Expectancy, Fertility, Year
Visio Diagram, showing typical Server Infrastructure for Data Visualization: Application Servers, DB, DW, ETL and File Servers, Analytical and Monitoring Servers, Routers, Switches and Load Balancers
Counties of USA, colored by their average ZIP Code (Tableau)
2009 Population by ZIP Code (Tableau)
Links to Downloadable Data Visualization Demos (Qlikview, Tableau, Spotfire)

- Qlikview Demo application, showing the Motion Chart, similar to Hans Rosling Demo: [https://sites.google.com/site/pandre/files/MotionChart.qvw?attredirects=0&d=1](https://sites.google.com/site/pandre/files/MotionChart.qvw?attredirects=0&d=1)

- Interactive Visual Drill-Down Demo (each Chart as Filter) with Qlikview: [https://sites.google.com/site/pandre/files/DrillDown.qvw?attredirects=0&d=1](https://sites.google.com/site/pandre/files/DrillDown.qvw?attredirects=0&d=1)

- Visualization of AdventureWorks data from Microsoft (using Qlikview): [https://sites.google.com/site/pandre/files/SalesAW.qvw?attredirects=0&d=1](https://sites.google.com/site/pandre/files/SalesAW.qvw?attredirects=0&d=1)

- Sales Demo with Qlikview: [https://sites.google.com/site/pandre/files/SalesApp11.qvw?attredirects=0&d=1](https://sites.google.com/site/pandre/files/SalesApp11.qvw?attredirects=0&d=1)

- Andrei’s Tableau Public Profile with multiple online and Downloadable Demos with Tableau: [http://public.tableausoftware.com/profile/andrei5435#/](http://public.tableausoftware.com/profile/andrei5435#/)

Q&A:

Please email your questions to pandre@gmail.com