tableau 8

the official guide

george peck

+ a b | e a u SOFTWARE

Mc Graw Hill Education

Conceived by Paul Sochan

About the Author

George Peck has been involved in various IT pursuits for over 35 years. He founded his own consulting and training firm, The Ablaze Group, in 1994 (www.AblazeGroup.com). He has trained, consulted, and developed custom software for large and small organizations throughout the United States, Canada, the United Kingdom, and Puerto Rico.

George works with a variety of Business Intelligence toolsets. In addition to being a certified trainer for Tableau, he consults on Tableau and Tableau Server, as well as SAP BusinessObjects products. George is the best-selling author of several BI books published by McGraw-Hill Education, including multiple editions of *Crystal Reports: The Complete Reference.*

In addition to his software endeavors, George is a broadcaster and voice actor. His voice may be heard on national radio, TV, and web commercials, promotions, and documentaries. He programs his own eclectic music radio station and hosts a regular jazz radio program in Denver, Colorado. He may be reached via e-mail at Author@TableauBook.com.

About the Technical Editor

Molly Monsey is part of Tableau's training team who, since joining in 2011, has developed and conducted customer and partner courses all over the world. Starting at Tableau in 2009 as a product consultant, Molly served as a technical resource, providing support and training for internal and external audiences. Prior to Tableau, Molly worked in finance as a loan specialist responsible for analyzing data for thousands of customers. Molly is a Seattle, Washington, native and a graduate of the University of Washington Business School.

Tableau 8: The Official Guide

George Peck

New York Chicago San Francisco
Athens London Madrid
Mexico City Milan New Delhi
Singapore Sydney Toronto

Copyright © 2014 by McGraw-Hill Education. All rights reserved. Printed in the United States of America. Except as permitted under the Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of publisher, with the exception that the program listings may be entered, stored, and executed in a computer system, but they may not be reproduced for publication.

ISBN: 978-0-07-181677-9

MHID: 0-07-181677-1

e-Book conversion by Cenveo® Publisher Services

Version 1.0

The material in this eBook also appears in the print version of this title: ISBN: 978-0-07-181678-6, MHID: 0-07-181678-X.

McGraw-Hill eBooks are available at special quantity discounts to use as premiums and sales promotions, or for use in corporate training programs. To contact a representative please e-mail us at bulksales@mcgraw-hill.com.

All trademarks are trademarks of their respective owners. Rather than put a trademark symbol after every occurrence of a trademarked name, we use names in an editorial fashion only, and to the benefit of the trademark owner, with no intention of infringement of the trademark. Where such designations appear in this book, they have been printed with initial caps.

Information has been obtained by Publisher from sources believed to be reliable. However, because of the possibility of human or mechanical error by our sources, Publisher, or others, Publisher does not guarantee to the accuracy, adequacy, or completeness of any information included in this work and is not responsible for any errors or omissions or the results obtained from the use of such information.

TERMS OF USE

This is a copyrighted work and McGraw-Hill Education ("McGraw-Hill") and its licensors reserve all rights in and to the work. Use of this work is subject to these terms. Except as permitted under the Copyright Act of 1976 and the right to store and retrieve one copy of the work, you may not decompile, disassemble, reverse engineer, reproduce, modify, create derivative works based upon, transmit, distribute, disseminate, sell, publish or sublicense the work or any part of it without McGraw-Hill's prior consent. You may use the work for your own noncommercial and personal use; any other use of the work is strictly prohibited. Your right to use the work may be terminated if you fail to comply with these terms.

THE WORK IS PROVIDED "AS IS." McGRAW-HILL AND ITS LICENSORS MAKE NO GUARANTEES OR WARRANTIES AS TO THE ACCURACY, ADEQUACY OR COMPLETENESS OF OR RESULTS TO BE OBTAINED FROM USING THE WORK, INCLUDING ANY INFORMATION THAT CAN BE ACCESSED THROUGH THE WORK VIA HYPERLINK OR OTHERWISE, AND EXPRESSLY DISCLAIM ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. McGraw-Hill and its licensors do not warrant or guarantee that the functions contained in the work will meet your requirements or that its operation will be uninterrupted or error free. Neither McGraw-Hill nor its licensors shall be liable to you or anyone else for any inaccuracy, error or omission, regardless of cause, in the work or for any damages resulting therefrom. McGraw-Hill has no responsibility for the content of any information accessed through the work. Under no circumstances shall McGraw-Hill and/or its licensors be liable for any indirect, incidental, special, punitive, consequential or similar damages that result from the use of or inability to use the work, even if any of them has been advised of the possibility of such damages. This limitation of liability shall apply to any claim or cause whatsoever whether such claim or cause arises in contract, tort or otherwise.

For Denise
Let's go another 25

This page has been intentionally left blank

Contents at a Glance

1	Introduction to Tableau 8	1
2	Basic Visualization Design	9
3	Data Connection Details	31
4	Top 10 Chart Types	69
5	Interacting with the Viewer	95
6	Tableau Maps	121
7	Calculated Fields, Table Calculations, and Statistics	155
8	Creating Dashboards	187
9	Distributing and Sharing Your Visualizations	211
A	Function Reference	231
	Index	273

This page has been intentionally left blank

Contents

Acknowledgments xv
About the Media Included with This Book xvii

1 Introduction to Tableau 8 1
What Is Tableau? 1
Tableau User Interface 3
The Data Window 3
Shelves and Cards 4
Basic Tableau Design Flow 5

2 Basic Visualization Design 9
Using Show Me 9
Choosing Mark Types 12
Color, Size, Shape, and Label Options 14
Choosing Color Options 14
Setting Mark Size 15
Choosing Shapes 16
Text Tables and Mark Labels 17
Formatting Options 20
Evaluating Multiple Measures 22
Shared Axis Charts 23
Dual Axis Charts 26

3 Data Connection Details 31
Connecting to Various Data Sources 31
Adding and Joining Multiple Tables from the Same Database 35
Customizing Your View of the Data 38
Modifying Tableau's Default Field Assignments 38
Hiding, Renaming, and Combining Fields 39
Changing Default Field Appearance 43
Using Hierarchies, Groups, and Sets 43
Saving and Sharing Metadata 53

Extracting Data 55
Data Blending 60
Moving from Test to Production Databases 66

4 Top 10 Chart Types 69
Bar Chart 69
Line/Area Chart 71
Tableau 8 Forecasting 73
Pie Chart 74
Text Table/Crosstab 76
Scatter Plot 80
Bubble Chart 83
Bullet Graph 85
Box Plot 88
Tree Map 92
Word Cloud 94

5 Interacting with the Viewer 95
Filtering Data 95
Basic Filtering 95
Interactive Filtering 101
Quick Filters 103
Parameters 106
Creating a Parameter 106
Displaying a Parameter 109
Using a Parameter in a Worksheet 110
Worksheet Actions 112
Filter Actions 112
Highlight Actions 115
URL Actions 118

6 Tableau Maps 121
Geocoded Fields 124
Geographic Hierarchies and Ambiguity 128
Custom Geocoding 131
Background Maps and Layers 140
Map Options 142
Web Map Services 143
Mapping and Mark Types 145
Custom Background Images 148
Generating Your Own Coordinate System 149
Adding a Custom Background Image 151

7 Calculated Fields, Table Calculations, and Statistics 155
Creating Calculated Fields 156
Numeric Calculations 157
String Manipulation 158
Date Calculations 160
Logic Constructs 162
Creating Binned Fields 166
Table Calculations 167
Reference Lines, Bands, and Distribution 179
Single Reference Line 180
Reference Band 181
Reference Distribution 182
Trend Lines 184

8 Creating Dashboards 187
Creating a Simple Dashboard 187
Tiled Placement 189
Floating Placement 196
Associated Dashboard Elements 197
Advanced Dashboard Elements 198
Layout Container 198
Blank 200
Text 200
Image 200
Web Page 201
Setting Dashboard and Element Sizes 201
Dashboard Actions 202
Highlight Action 203
Filter Action 204
URL Action 207

9 Distributing and Sharing Your Visualizations 211
Exporting Worksheets and Dashboards 211
Printing to PDF Format 211
Exporting Worksheet Data 212
Exporting Worksheet Images 214
Exporting Dashboard Images 215
Using Tableau Reader 215
Publishing to the Web 216
Sharing on Tableau Public 217
Publishing to Tableau Server and Tableau Online 218
Using Tableau with iPad, Android, and Other Smartphones and Tablets 221

A Function Reference **231**
Number Functions 231
ABS 231
ACOS 231
ASIN 231
ATAN 232
ATAN2 232
COS 232
COT 232
DEGREES 232
EXP 233
LN 233
LOG 233
MAX 233
MIN 234
PI 234
POWER 234
RADIANS 234
ROUND 235
SIGN 235
SIN 235
SQRT 235
SQUARE 236
TAN 236
ZN 236
String Functions 236
ASCII 236
CHAR 237
CONTAINS 237
ENDSWITH 237
FIND 238
ISDATE 238
LEFT 238
LEN 239
LOWER 239
LTRIM 239
MAX 239
MID 240
MIN 240
RIGHT 240
RTRIM 241
SPACE 241

STARTSWITH 241
TRIM 241
UPPER 242
Date Functions 242
DATEADD 242
DATEDIFF 243
DATENAME 243
DATEPART 243
DATETRUNC 243
DAY 243
ISDATE 244
MAX 244
MIN 244
MONTH 245
NOW 245
TODAY 245
YEAR 246
Type Conversion Functions 246
DATE 246
DATETIME 246
FLOAT 247
INT 247
STR 247
Logical Functions 247
CASE 248
IF 248
IFNULL 249
IIF 249
ISDATE 249
ISNULL 250
ZN 250
Aggregate Functions 250
ATTR 251
AVG 251
COUNT 251
COUNTD 252
MAX 252
MEDIAN 252
MIN 253
STDEV 253
STDEVP 253
SUM 253
VAR 254
VARP 254

Pass-Through Functions 254
RAWSQLAGG_BOOL 255
RAWSQLAGG_DATE 255
RAWSQLAGG_DATETIME 255
RAWSQLAGG_INT 255
RAWSQLAGG_REAL 255
RAWSQLAGG_STR 256
RAWSQL_BOOL 256
RAWSQL_DATE 256
RAWSQL_DATETIME 256
RAWSQL_INT 256
RAWSQL_REAL 256
RAWSQL_STR 256
User Functions 256
FULLNAME 257
ISFULLNAME 257
ISMEMBEROF 257
ISUSERNAME 257
USERDOMAIN 258
USERNAME 258
Table Calculation Functions 258
FIRST 259
INDEX 260
LAST 260
LOOKUP 261
PREVIOUS_VALUE 261
RUNNING_AVG 262
RUNNING_COUNT 262
RUNNING_MAX 263
RUNNING_MIN 263
RUNNING_SUM 264
SIZE 264
TOTAL 265
WINDOW_AVG 265
WINDOW_COUNT 266
WINDOW_MAX 266
WINDOW_MEDIAN 267
WINDOW_MIN 268
WINDOW_STDEV 269
WINDOW_STDEVP 270
WINDOW_SUM 270
WINDOW_VAR 271
WINDOW_VARP 272

Index 273

To obtain material from the disc that accompanies the printed version of this eBook, please **click here**.

Acknowledgments

A book of this magnitude is a combined effort. While the author receives primary credit on the cover, there are lots of other people who have made this endeavor possible.

First and foremost, thanks to Paul Sochan at Tableau Software. Not only did he introduce me to this incredible toolset, but offered up the initial "Hey, you ought to write a book!" thought. Good idea, Paul! Molly Monsey from Tableau is, perhaps, the best technical editor I've ever had the pleasure of working with. Yes, she caught some technical errors. But, more importantly, she brought me back on track, helped me smooth out some awkward language, and just made the book so much more understandable. And, she's just a cool lady!

Francois Ajenstat at Tableau was helpful beyond description. Thanks so much for early alphas and betas, great feedback, and quick answers to every pesky question I asked. Elissa Fink at Tableau has been such a pleasure to work with—let's sell lots of books and software together! And, of course, thanks to Christian Chabot, Chris Stolte, and Pat Hanrahan for coming up with a great idea and founding a wonderful company.

There's a core group at McGraw-Hill Education made up of "behind the scenes" folks that rarely get enough credit. Wendy Rinaldi and I go way back. Wendy, it was great to work with you again, as in the beginning. Thanks to Lisa McCoy for making sense of occasional nonsensical stuff. And Patty Mon and Jean Bodeaux worked so diligently to make this a great final product!

Finally, and most importantly, I give eternal thanks to Denise. You've stood by me and supported me through more of these projects than I can immediately remember, over a longer period of time than I like to remember. I Love You.

George Peck
Author@TableauBook.com
July 2013

This page has been intentionally left blank

About the Media Included with This Book

Tableau 8: The Official Guide includes a companion CD that features videos by the author demonstrating key concepts, as well as sample Tableau 8 workbooks that may be opened directly in Tableau 8.

Videos

To view related videos, insert the included CD into your computer's CD drive. If the disc does not auto-start, perform the following steps:

1. Click the Start button.
2. View the list of drives.
   - In Windows XP, select My Computer.
   - In Windows Vista/7, select Computer.
3. Right-click the CD drive icon.
4. View the files on the CD.
   - In XP/Vista, from the drop-down list, select Explore.
   - In 7, from the drop-down list, select Open.
5. Double-click the icon of the Tableau_8 or Tableau_8.exe file.

Sample Workbooks

You may copy workbooks in the CD Sample Workbooks folder to your hard drive, or open them directly from the CD drive (you won't be able to save changes to the CD drive, however).

All sample workbooks are Tableau Packaged Workbook (.twbx) files. You may open these in Tableau 8 without regard to original data source locations. All data sources, necessary images, custom geocoding, and so forth are included in the packaged workbook.

If you wish to expand the content of the packaged workbook, right-click it in Windows Explorer and choose Unpackage. You may also rename the file extension from .twbx to .zip and use a standard ZIP utility to unzip the packaged workbook contents.

Look for any updated or corrected information at www.TableauBook.com. Questions about the content of these sample workbooks may be e-mailed to Author@TableauBook.com.

Ebook Users: Downloading the Media from the McGraw-Hill Professional Media Center

If you purchased the ebook edition of *Tableau 8: The Official Guide,* you can download all of the example material and video included on the print book CD from the McGraw-Hill Professional Media Center. Instructions for downloading are included at the end of the ebook table of contents.

CHAPTER 1

Introduction to Tableau 8

While social networking, cloud computing, and mobility are three of the biggest growth segments of Information Technology in the second decade of the 2000s, Business Intelligence is no slouch. Demand for new and innovative ways for organizations to view the ever-increasing amount of available data continues to grow. *Data Discovery* is a newer niche area of Business Intelligence that concentrates on visual and graphical analytics, as opposed to more traditional text-based reporting. And while an Internet search on the word *dashboard* might have returned a large number of results relating to part of a car interior several years ago, initial search returns now largely relate to some form of computer-based data visualization.

Tableau fits squarely into this Data Discovery/dashboard realm. While standard Business Intelligence tools for corporate and enterprise reporting abound, newer visualization tools, such as Tableau, are just coming of age. Now in its eighth major release, Tableau continues to sit at the leading edge of this growing segment of Information Technology.

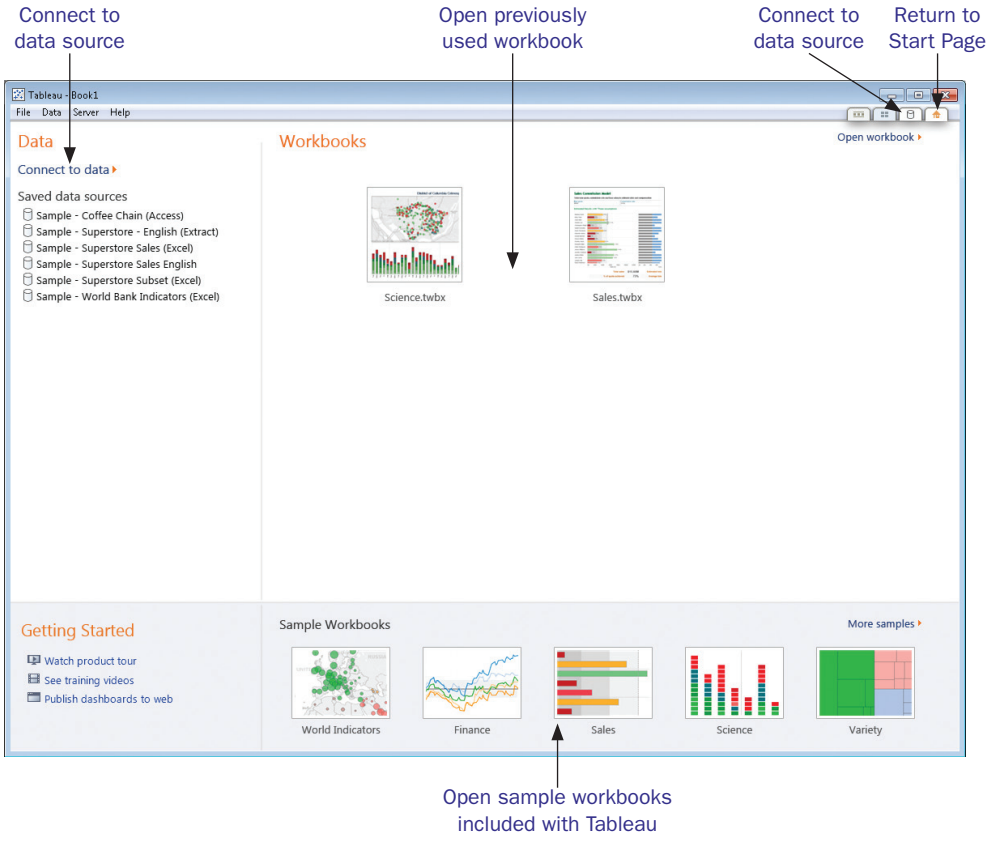
Note *Open the Chapter 1 - First Workbook.twbx file in Tableau to see examples that relate to this chapter.*

What Is Tableau?

Tableau Software has its roots in the Stanford University Computer Science department, in a Department of Defense–sponsored research project aimed at increasing people's ability to rapidly analyze data. Chris Stolte, a Ph.D. candidate, was researching visualization techniques for exploring relational databases and data cubes. Stolte's Ph.D. advisor, Professor Pat Hanrahan, a founding member of Pixar and chief architect for Pixar's RenderMan, was the worldwide expert in the science of computer graphics. Chris, Pat, and a team of Stanford Ph.D.s realized that computer graphics could deliver huge gains in people's ability to understand databases. Their invention VizQL™ brought together these two computer science disciplines for the first time. VizQL lets people analyze data just by building drag-and-drop pictures of what they want to see. With Christian Chabot on board as CEO, the company was spun out of Stanford in 2003.

While Tableau 8 improves on the previous seven major releases of the software, the core approach to visual design remains the same: connect to a desired data source, and drag various data fields to desired parts of the Tableau screen. The result is a basic visualization that can then be enhanced and modified by dragging additional data fields to different destinations in the workspace. Beyond this basic visualization approach, Tableau's *Show Me* feature allows quick choices of predefined visualizations by just selecting relevant data fields and clicking a thumbnail. For more advanced requirements, Tableau features a complete formula language, as well as more robust data connection options.

When you first start Tableau, you are presented with the *Start Page*. The largest portion of the Start Page is reserved for thumbnails of recent workbooks you have used. Simply click on any one of these to open the workbook (like Microsoft Excel, Tableau's format for storing data on your disk drive is in a *workbook*, with a .TWB or .TWBX file extension). You may also open sample workbooks included with Tableau 8 by clicking the desired thumbnail at the bottom of the Start Page.



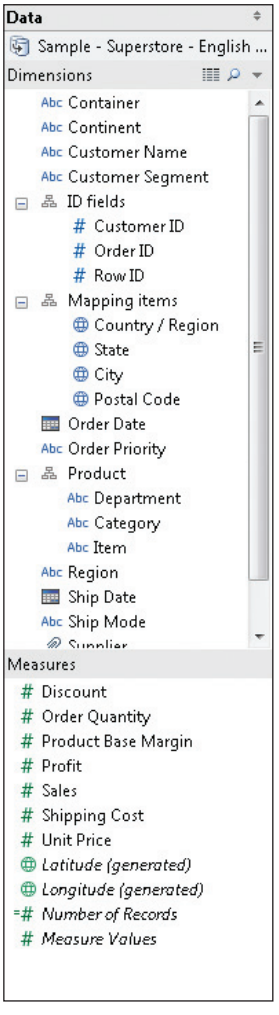
If you want to create a new workbook, you must first connect to a *data source* (types of data sources Tableau works with include industry standard databases such as Oracle or Microsoft SQL Server, Microsoft Excel spreadsheets, text files, and so forth). Unlike

spreadsheet or word processing programs, Tableau must connect to some existing data before you can create a visualization. Certain data sources, known as *saved data sources*, will appear on the left side of the Start Page. These "pointers" to an existing data source can be selected by simply clicking them. If you want to connect to a different data source, click the Connect to Data tab (the tab with the "barrel" icon) in the upper right, or click Connect to Data in the upper left under the Data section. Once you've connected to a data source, a new workspace will appear where you can drag and drop desired data fields.

Note *Detailed discussion of data connections can be found in Chapter 3.*

Tableau User Interface

Once you've connected to data, a new worksheet, labeled Sheet 1, will appear. You'll notice that Tableau shares the "multiple worksheets within a workbook" paradigm of Microsoft Excel. A workbook can contain one or more worksheets, with each worksheet denoted by a tab at the bottom of the screen. As with most other standard Microsoft Windows programs, you'll see a series of drop-down menus and a toolbar. Also, many Tableau functions can be selected from pop-up context menus that will appear when you right-click with your mouse.



The left side of a Tableau worksheet contains the Data window, which breaks down data fields in your data source into dimensions and measures. You'll find a blank visualization containing a single column, row, and center area, each labeled "Drop field here." The remainder of the worksheet consists of a series of shelves and cards, where you can drag fields to control certain behavior and the appearance of your worksheet.

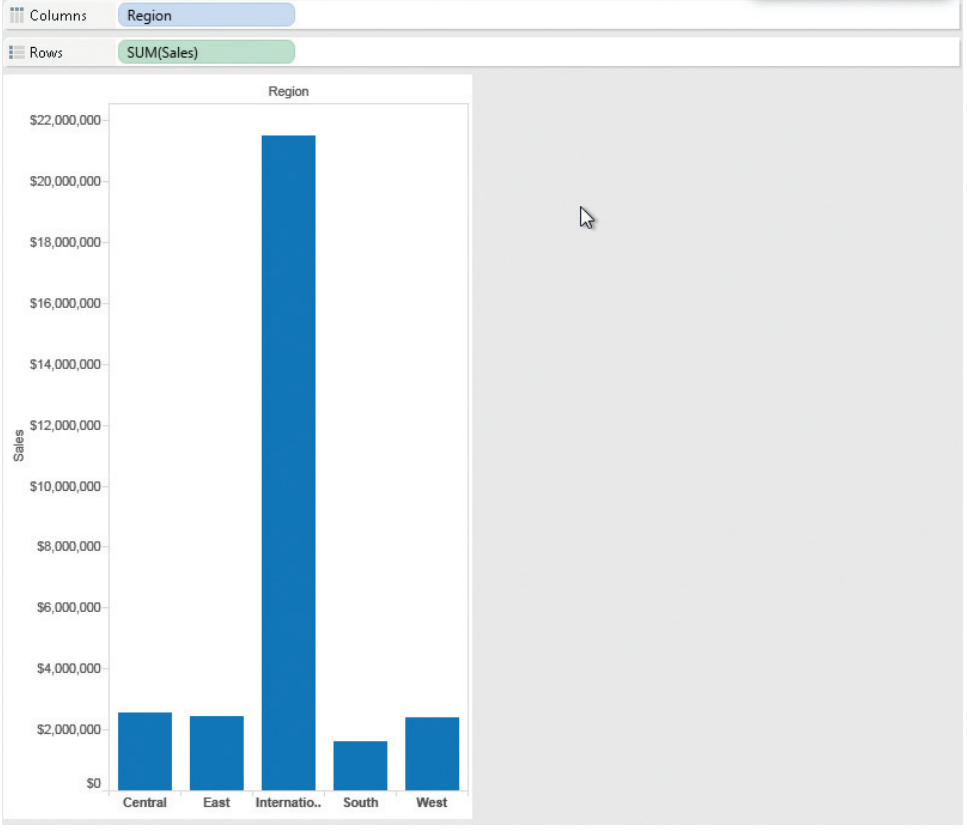
The Data Window

Since all Tableau visualizations start with connection to a data source, the first area you'll need to become familiar with is the *Data window*. Fields from your data source appear here, ready for you to drag and drop to relevant parts of the worksheet. In particular, the Data window is broken down into two sub-windows: Dimensions and Measures. *Dimensions* are categorical fields that tie data together into related groups. *Measures* are numeric fields that are aggregated as sums, averages, and so forth, for each occurrence of the grouped dimension. For example, if you want to create a bar chart showing total sales for each region, the region dimension will be used to create a separate bar for each region, with the size of the bar being determined by the sum of the sales measure.

Note *More details on the Data window, including how to reorganize dimensions and measures, along with detailed discussion of various data types, are available in Chapter 3.*

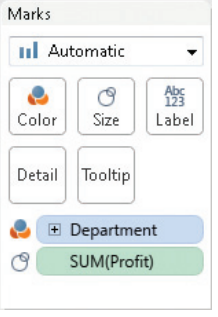
Shelves and Cards

Once you've connected to data and evaluated available dimensions and measures in the Data window, you'll need to decide where to drag desired dimensions and measures. You may choose to drag directly on the visualization area where prompted to "Drop field here." You may also choose to drop on a particular shelf or card. To create a vertical bar chart using the sales-by-region example discussed previously, you would simply drag the region dimension to the top column "Drop field here" area, or the Columns shelf. You would then drag the sales measure to the left of the region columns in the visualization, or the Rows shelf.



The term *shelf* is unique to Tableau, and refers to a particular part of the worksheet where you can drag and drop a field from the Data window. The most common shelves are Columns and Rows, as dimensions or measures dropped on these shelves determine the basic layout of your visualization. However, other shelves are used frequently as well. The Filters shelf will narrow down data included in the visualization based on a field that you drag to it. The Pages shelf acts as a modified Filters shelf, allowing you to "page" through values within a dimension or measure to quickly see changes in data.

Some parts of the workspace allow more than one function to be modified within the same general area. These are referred to as *cards* (also a term particular to Tableau). In particular, the *Marks card* (which has been completely redesigned in Tableau 8) is a single area of the workspace that contains different parts where you can drag and drop fields. For example, you can change the size of marks of your visualization by dropping a field onto the Size icon on the Marks card. You can also change colors by dropping a field on the Color icon on the Marks card. Once you've dropped fields on the Marks card, the fields will appear below the original icons where you dropped them. You'll be able to tell which part of the Marks card the field was dropped on by the associated icon appearing to the field's left.



Note *It's easy to confuse the terms "shelf" and "card" in Tableau. For example, the Pages and Filter shelves include a "Hide Card" option on their pop-up context menus. And the Rows and Columns shelves include* both *"Clear Shelf" and "Hide Card" options on their context menus.*

Basic Tableau Design Flow

Consider the basic bar chart illustrated in Figure 1-1. This is a fairly meaningful visualization, illustrating a comparison of sales by region, broken down by department. Notice the various portions of the worksheet discussed previously, such as the Data window, the Columns and Rows shelves, the Filters shelf, and the Marks card. This visualization was created with a few simple steps.

As is always the case with a new worksheet, a data source must be chosen. In this case, the "Sample - Superstore - English (Extract)" saved data source that ships with Tableau 8 is selected. The resulting Data window breaks down available fields into dimensions (that categorize data) and measures (that are aggregated as sums, averages, and so forth).

The illustrated vertical bar chart requires a dimension to appear on the Columns shelf and a measure to appear on the Rows shelf. Re-creating this chart involves simply dragging Region from the Dimensions portion of the Data window to the Columns shelf. This will create one "column," or bar, for each dimension value, or each region.

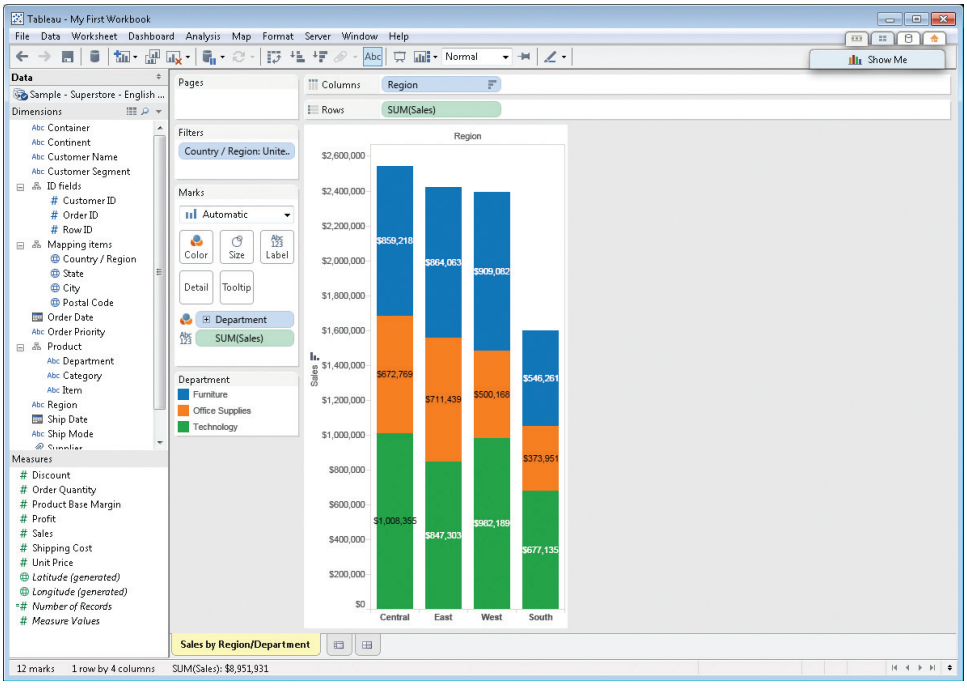
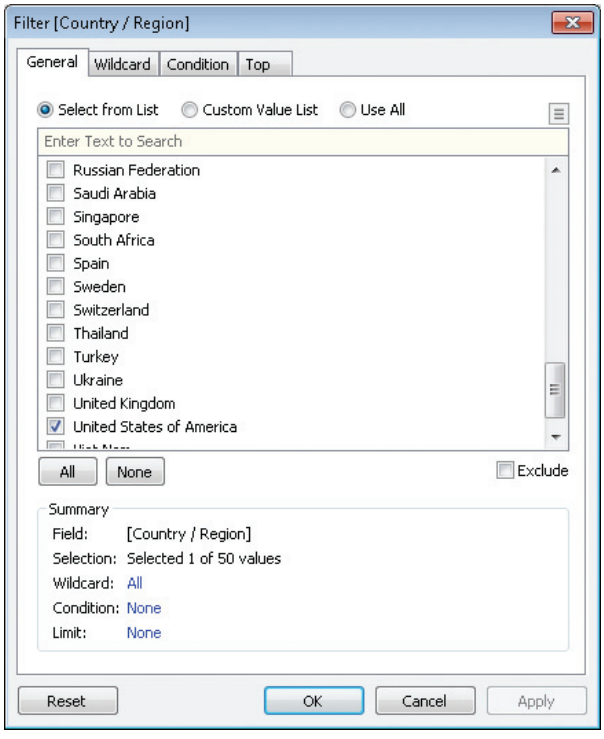


Figure 1-1 Basic Tableau visualization

Then the measure used to determine the height of the bar (in this case, Sales) is dragged to the Rows shelf. By default, Tableau aggregates this measure as a sum, representing total sales as a bar.

Note *You may also begin this bar chart by using Tableau double-click options. If you initially double-click the desired measure, it will automatically be placed on the Rows shelf. Then the desired dimension can be double-clicked, which will place it on the Columns shelf, resulting in the same bar chart. Note that the order in which you double-click is significant. If you double-click on the dimension first and the measure second, the result will be a text table and not a bar chart.*

As the data in the sample data source includes international customers, a large International bar initially appears. As the desire is to only include the four regions of the United States, data must be *filtered* to include only U.S. sales. This is accomplished by dragging the Country/Region dimension to the Filters shelf. The resulting dialog box allows only United States data to be selected.



Notice that the region bars are broken down into three different colors (this is often referred to as a *stacked* bar chart). This is accomplished by dragging the Department dimension onto the Color icon on the Marks card. Note that this field now appears below the icons on the Marks card with a corresponding icon indicating that it was dragged onto Color. The resulting color legend appears on its own card.

To help annotate the values represented by each bar stack, the Sales measure is dropped onto the Label icon on the Marks card. The resulting sales amount appears on each stacked bar. As with the Department dimension, the Sales measure is aggregated to a sum and appears below the icons on the Marks card with the corresponding label icon appearing to the left.

You may notice that the regions are not appearing in alphabetical order (which is default behavior when initially creating a visualization). Instead, they are appearing in high to low order, based on sum of Sales. While there are several ways to accomplish this, the Sort Descending toolbar button is a very quick way to sort a visualization on its primary value.

And, last but not least, don't forget to give your worksheet a meaningful name. As with Microsoft Excel, Tableau's default sheet names are the word "Sheet" followed by a number. This is hardly meaningful when dealing with a workbook containing many worksheets. Just right-click on the sheet tab at the bottom of the screen and choose

Rename Sheet from the context menu. Or just double-click on the tab and type in the desired sheet name. A nifty Tableau 8 new feature is the ability to color worksheet tabs. Just right-click on the tab and choose Color from the context menu and choose one of several colors to assign to the tab.

Tip *Make sure you save Tableau workbooks early and often. Unlike some other applications, there is no auto-save or recovery option in Tableau. If the power fails, or your computer experiences a freeze or hang and you must reboot, you will lose any unsaved work.*

Video *Introduction to Tableau 8*

CHAPTER 2

Basic Visualization Design

One of the compelling benefits of Tableau is how easily and quickly you can visualize your data. By providing a combination of automatic visual best practices, along with quick, shortcut approaches to visual design, you can create meaningful Tableau visuals in, literally, minutes. And, the more familiar you become with Tableau, the quicker it becomes to create more sophisticated and advanced visuals as well.

One of the first choices you'll make for many visualizations is which basic design method to use. The first option, briefly introduced in Chapter 1, simply involves dragging fields to shelves or double-clicking fields in the Data window. The second option, *Show Me*, provides a quick way of choosing from a list of predefined visualization types after selecting desired fields in the Data window.

Note *Open the Chapter 2 - Basic Visualizations.twbx file in Tableau to see examples that relate to this chapter.*

Using Show Me

Any time you're editing a new or existing worksheet, you'll notice the Show Me tab at the upper right of the screen. Clicking that tab will expand the Show Me dialog box (to close the Show Me dialog box, just click the title bar of the dialog again). Show Me will display a series of thumbnail images representing the different types of charts you can create with just a few clicks. You can use Show Me anytime you want—whether you've already created an existing visualization or not. If you've already created a chart, Show Me will replace the existing chart with the type you choose in the Show Me dialog box (and, you can undo using the toolbar button or CTRL-Z key combination if you want to