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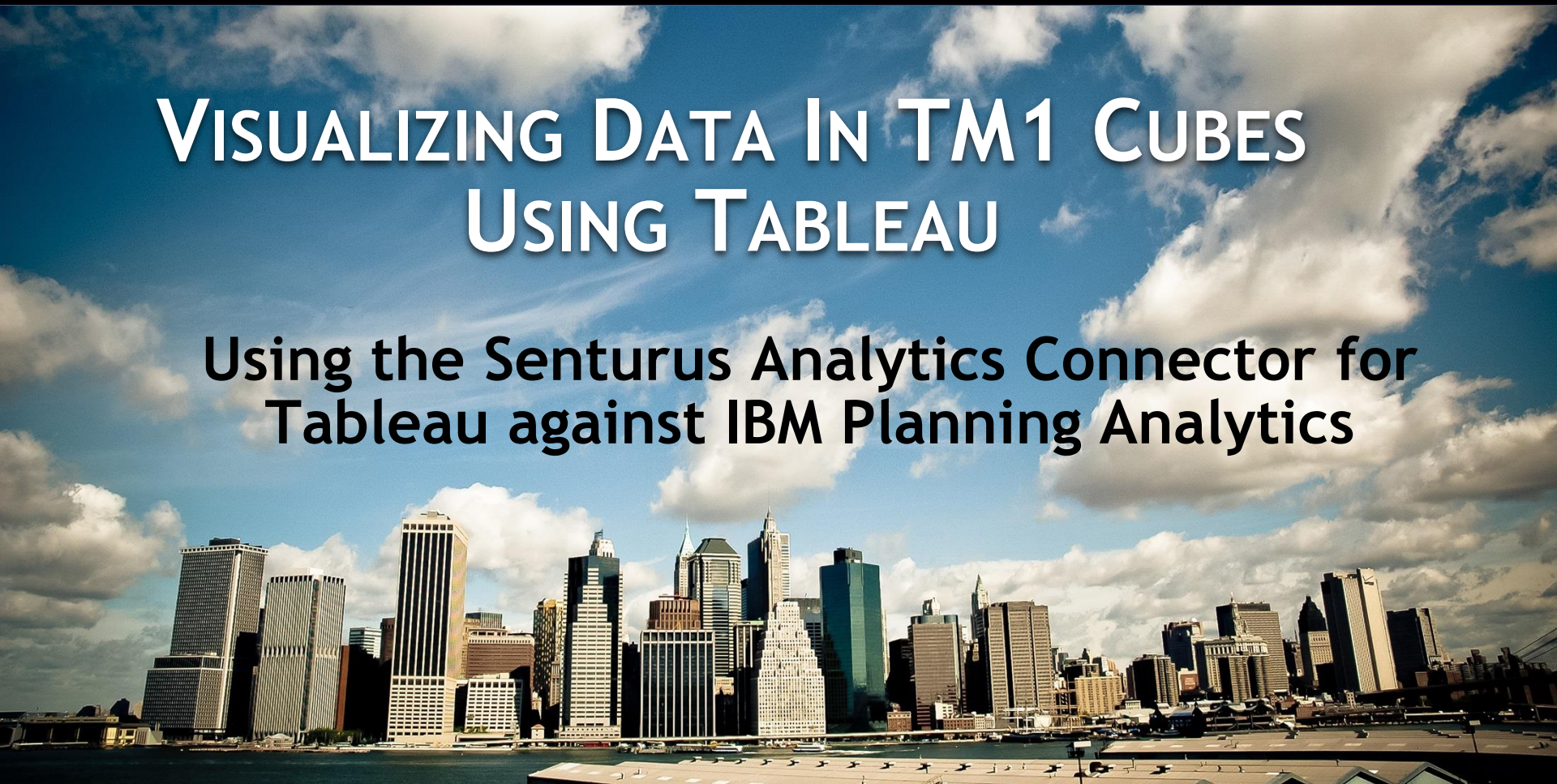
Visualizing Data In TM1 Cubes Using Tableau

Using the Senturus Analytics Connector for Tableau against IBM Planning Analytics



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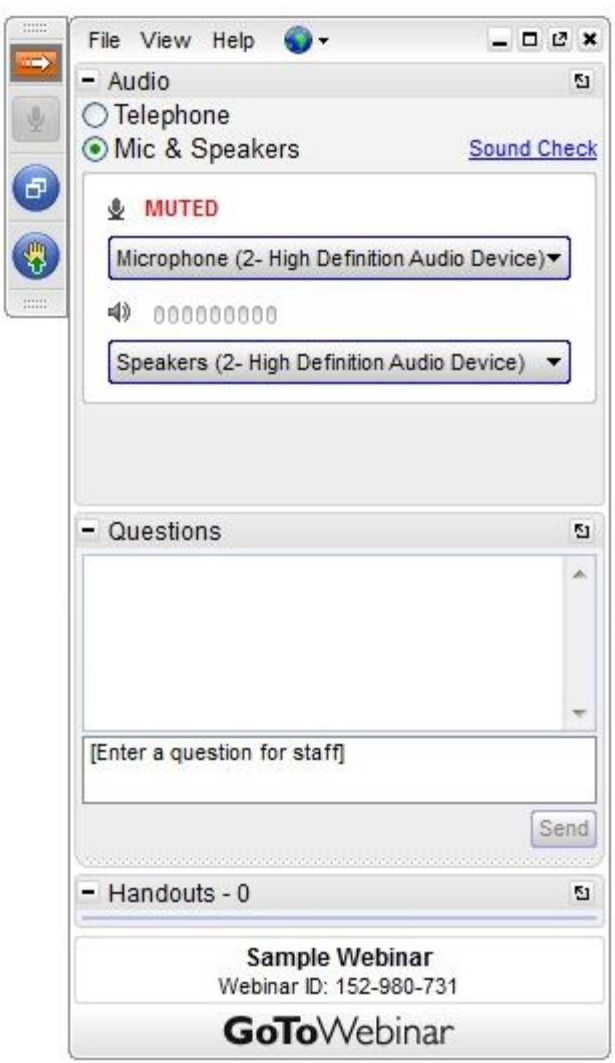

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Submit questions here

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Presentation Slide Deck

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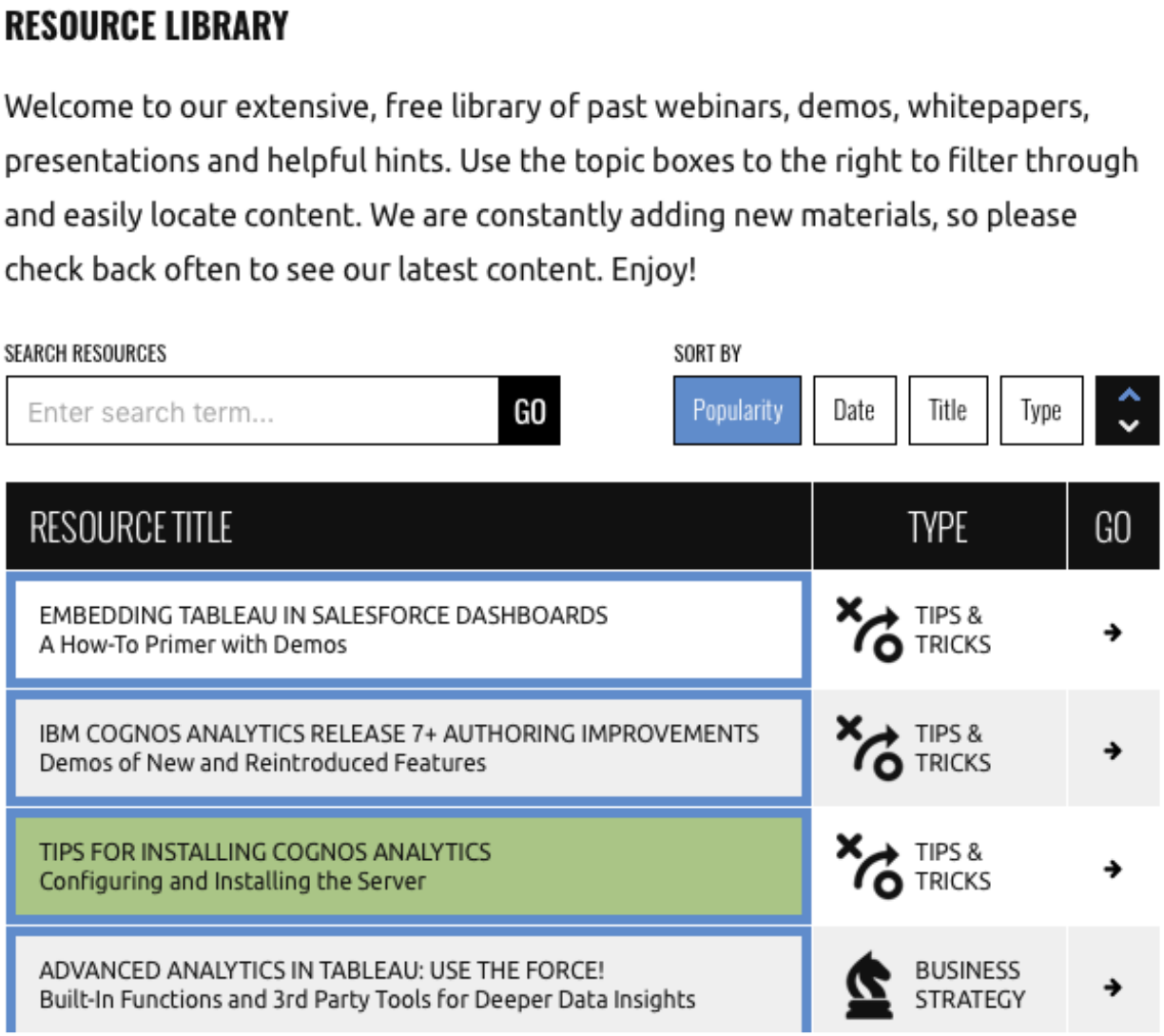

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Agenda

- Introductions
- Overview of Senturus Analytics Connector capabilities with IBM Planning Analytics/TM1
- Demo
  - Tableau visualizations against TM1
  - Creating a Tableau workbook with a TM1 cube source
  - Solution components
  - TM1 cube design considerations with Tableau
- Senturus overview
- Additional resources
- Q&A

Introducing…Today's Presenters

Ken O'Boyle

Senior Planning Architect
Senturus, Inc.

Michael Weinhauer

Practice Area Director/
Product Manager

Senturus, Inc.

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Poll #1

Which do you use currently? (Choose all that apply.)

- Tableau
- Planning Analytics/TM1
- Cognos Analytics/BI

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Poll #2

Which tool is your organization currently using to create visualizations with TM1 data?

- Excel (PAX or Perspectives)
- Planning Analytics Workspace
- Cognos Analytics/BI
- Tableau
- Other or None (we don’t do TM1 visualizations)

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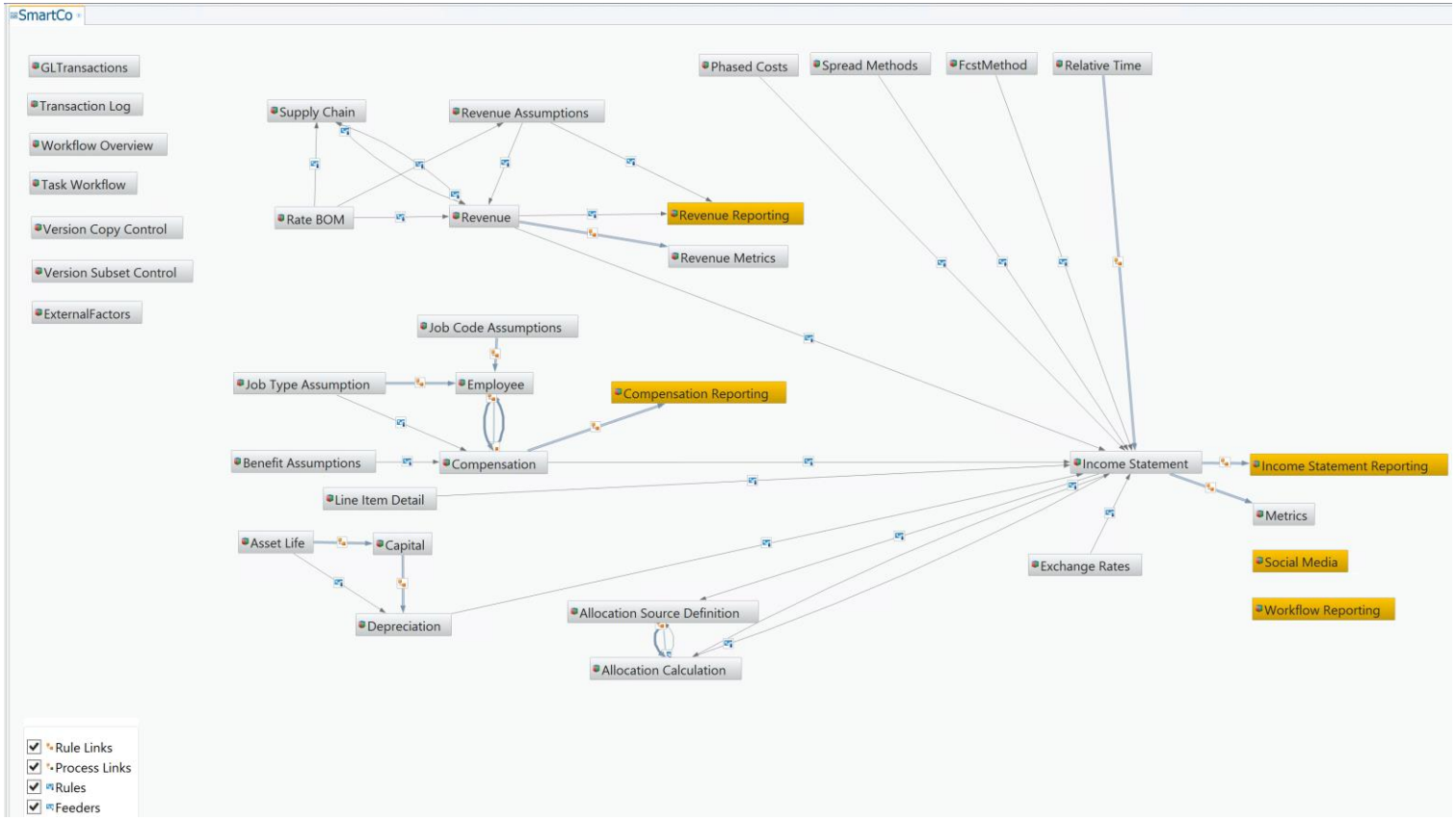
SENTURUS ANALYTICS CONNECTOR WITH IBM PLANNING ANALYTICS/TM1

Huge Value in Existing TM1 Models

Organizations have invested heavily in existing cubes that provide governed, secure, business-friendly, performance results



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BUT…Tableau Users Circumvent Them!

Creating a Tableau data source with TM1 data typically requires:

- Data extracts to a text or Excel files

or

- An expensive installation and implementation of additional server software

One TM1 Cube – Many Tableau Workbooks

Why You Shouldn't (Re)-Create Meta-Data

Time Consuming

Compromises Data Integrity

Compromises Data Security

Creates Data Silos

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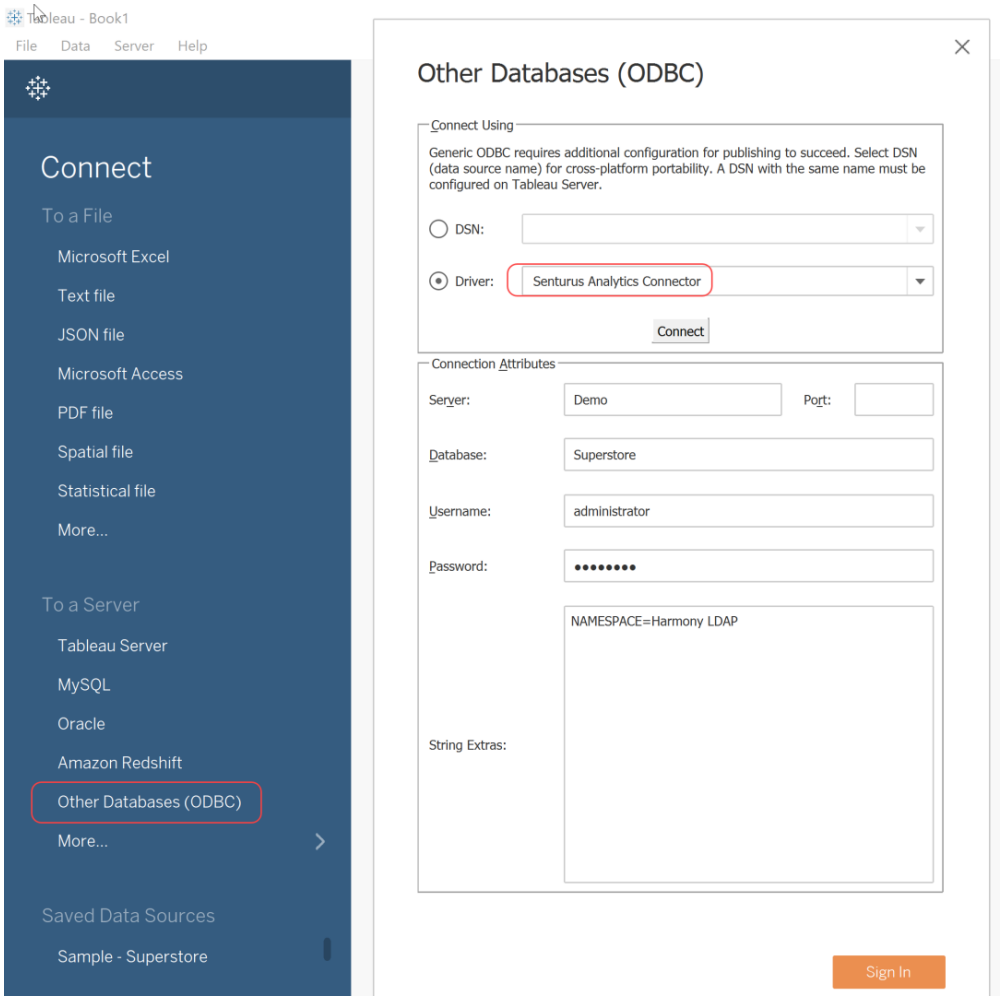
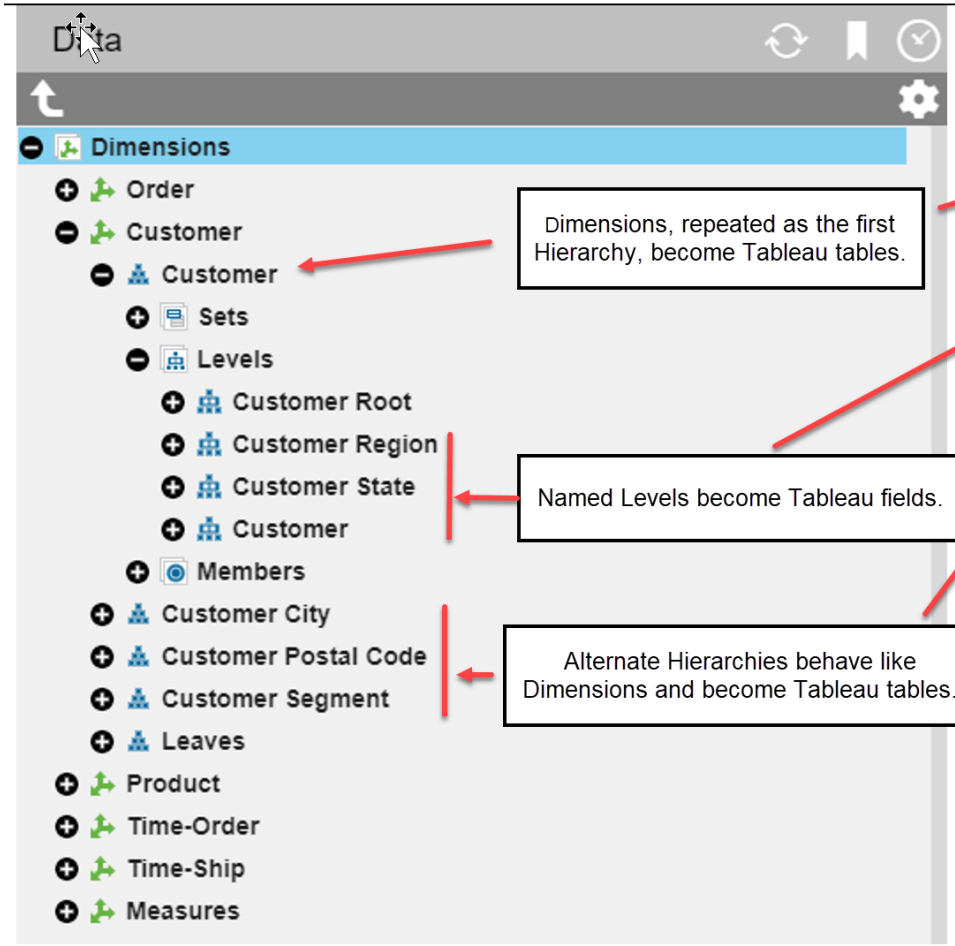
The Solution? The Senturus Analytics Connector!

Tableau users can connect to TM1 cubes, giving them instant access to high quality data

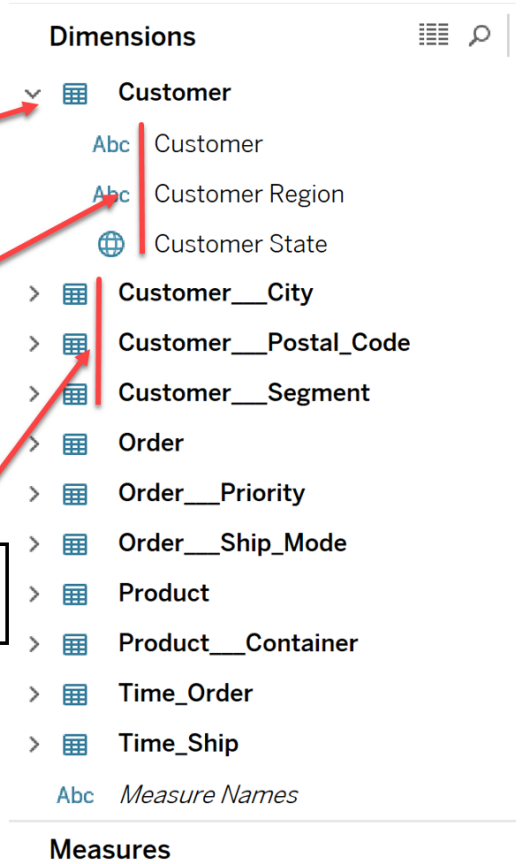


Instant Access to Quality Data Sets

Planning Analytics / TM1



Tableau



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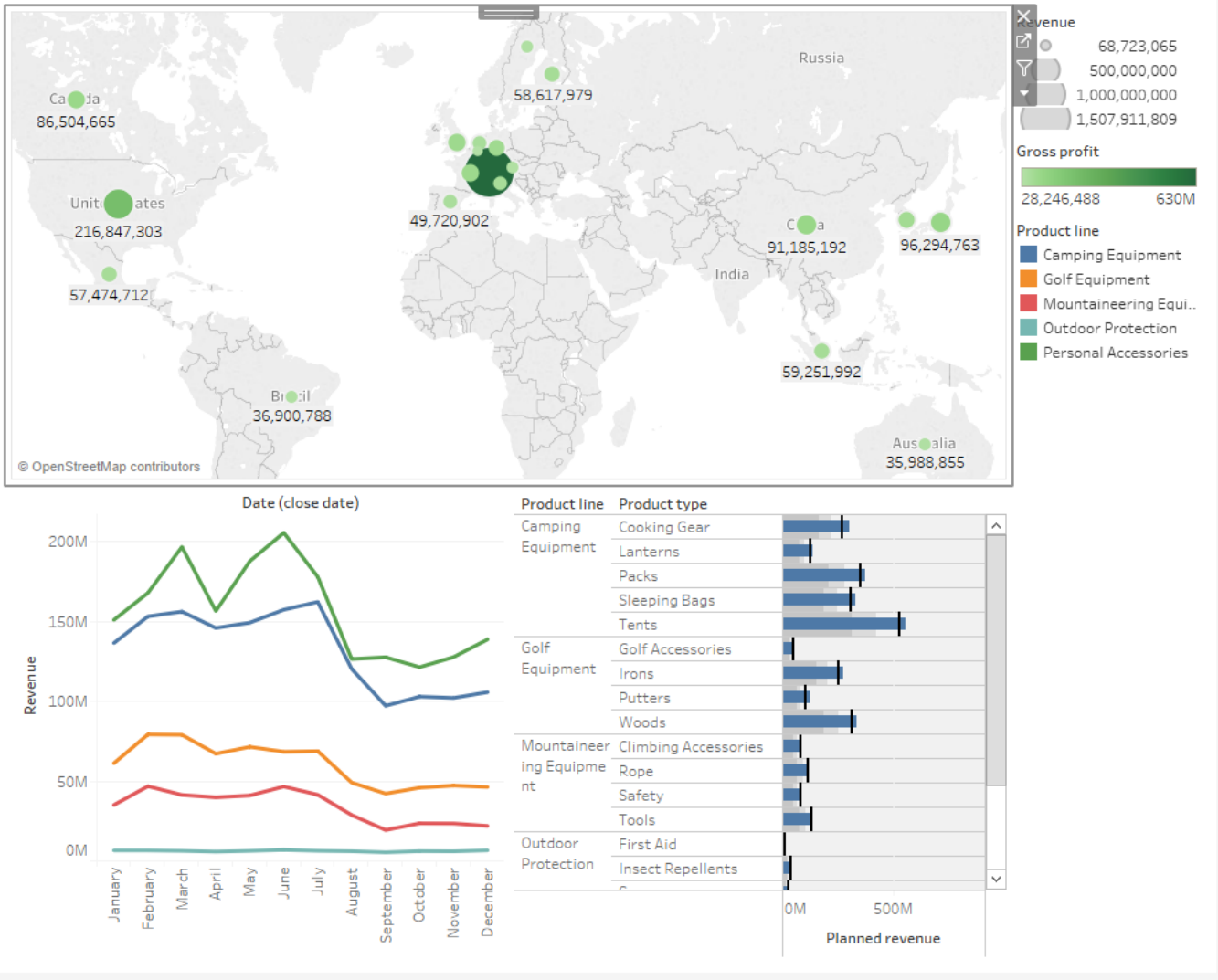
Don’t Sacrifice Integrity for Agility!



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Background

History of the Senturus Analytics Connector

- November 2015 – first release
  - Tableau connection to Cognos packages – extracts only
- September 2017 – version 2.0.1
  - Support for Cognos packages with a TM1 data source
- April 2018 – version 2.5
  - Enhancements and configuration options for Planning Analytics/TM1 data sources

Tableau Behavior with TM1 Cubes

- TM1 dimension/alternate hierarchy = Tableau table
- TM1 named level = Tableau field
- TM1 measures reporting dimension element = Tableau measure
- TM1 geographic named Level = automatically assigned a Tableau geographic role
- TM1 dimension with YYYY-MM-DD elements = can be converted to the Tableau date type
- TM1 aggregate values = returned in Tableau queries

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TM1 Beats Tableau Aggregate Calcs

Benefits of Managing Calculation Logic in TM1

- TM1 strength is complex cell/slice-level calculations at any level
- TM1 calculated values are cached and stored in-memory
- Avoids the need for long, resource intensive client-side queries
- Calculations do not need to be replicated across Tableau workbooks

Planning Analytics/TM1 Cube Design

Key Considerations

- Balanced hierarchies with named levels work best
- Naming – fields sort alphabetically in Tableau
- Named level = Tableau field
- Named levels with country, state, city, etc. automatically convert to Tableau geographic roles
- Elements named as YYYY-MM-DD can be converted to the date type in Tableau to achieve time-based functionality

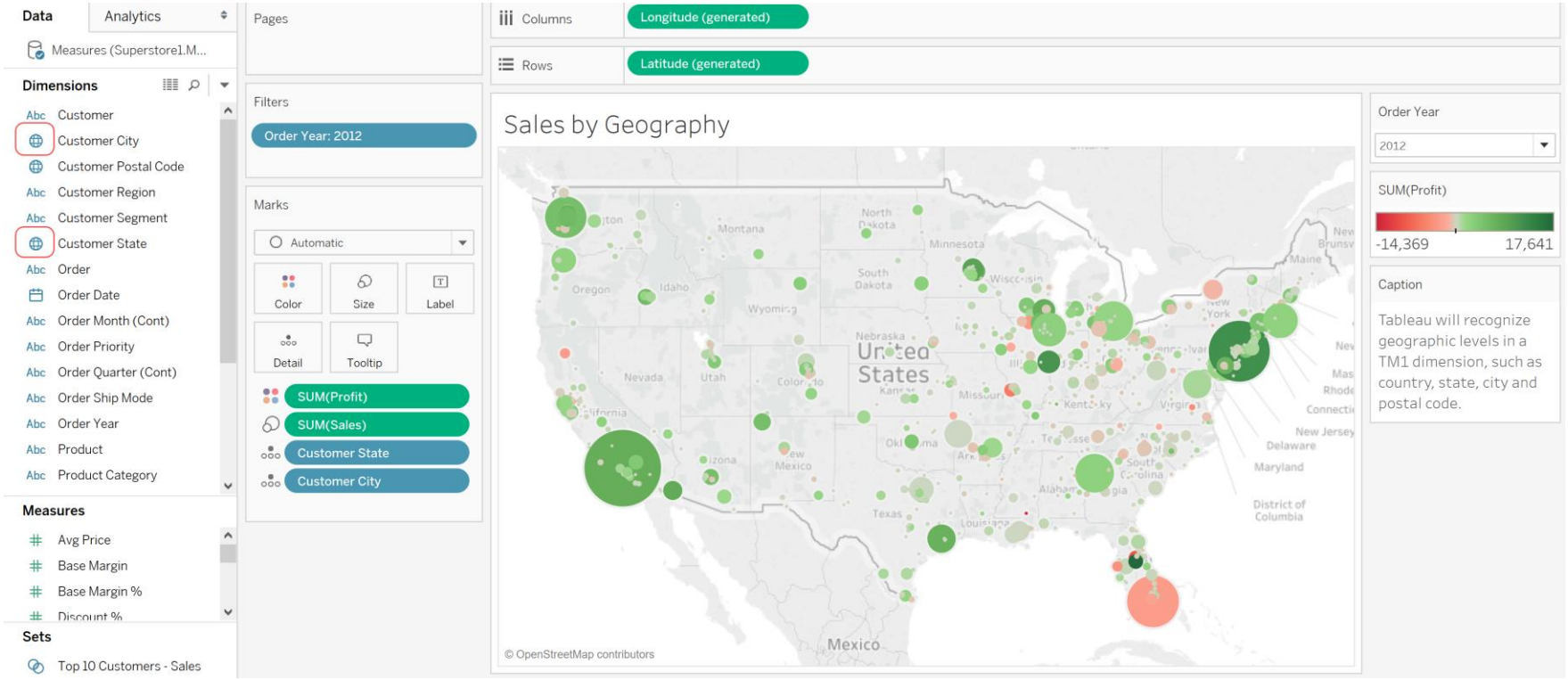
Solution Components

- Cube data source
  Planning Analytics/TM1 (version 10.1.x or above)
- Cognos Package
  Cognos Analytics/BI (version 10.1.x or above)
- Tableau (version 9.3 or above)
- Senturus Analytics Connector (version 2.5 or above)

Demo

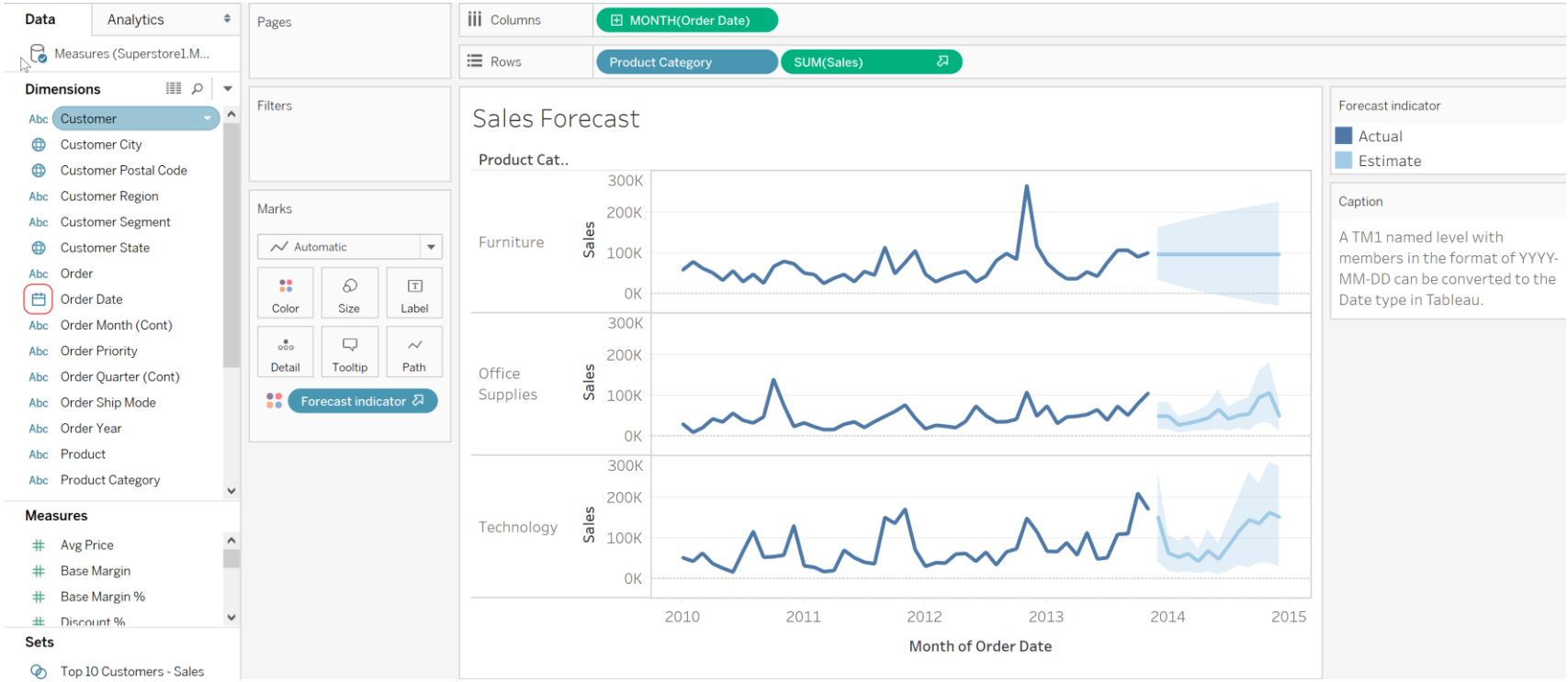
Map Visualizations

Tableau Detects Geographic Fields from TM1



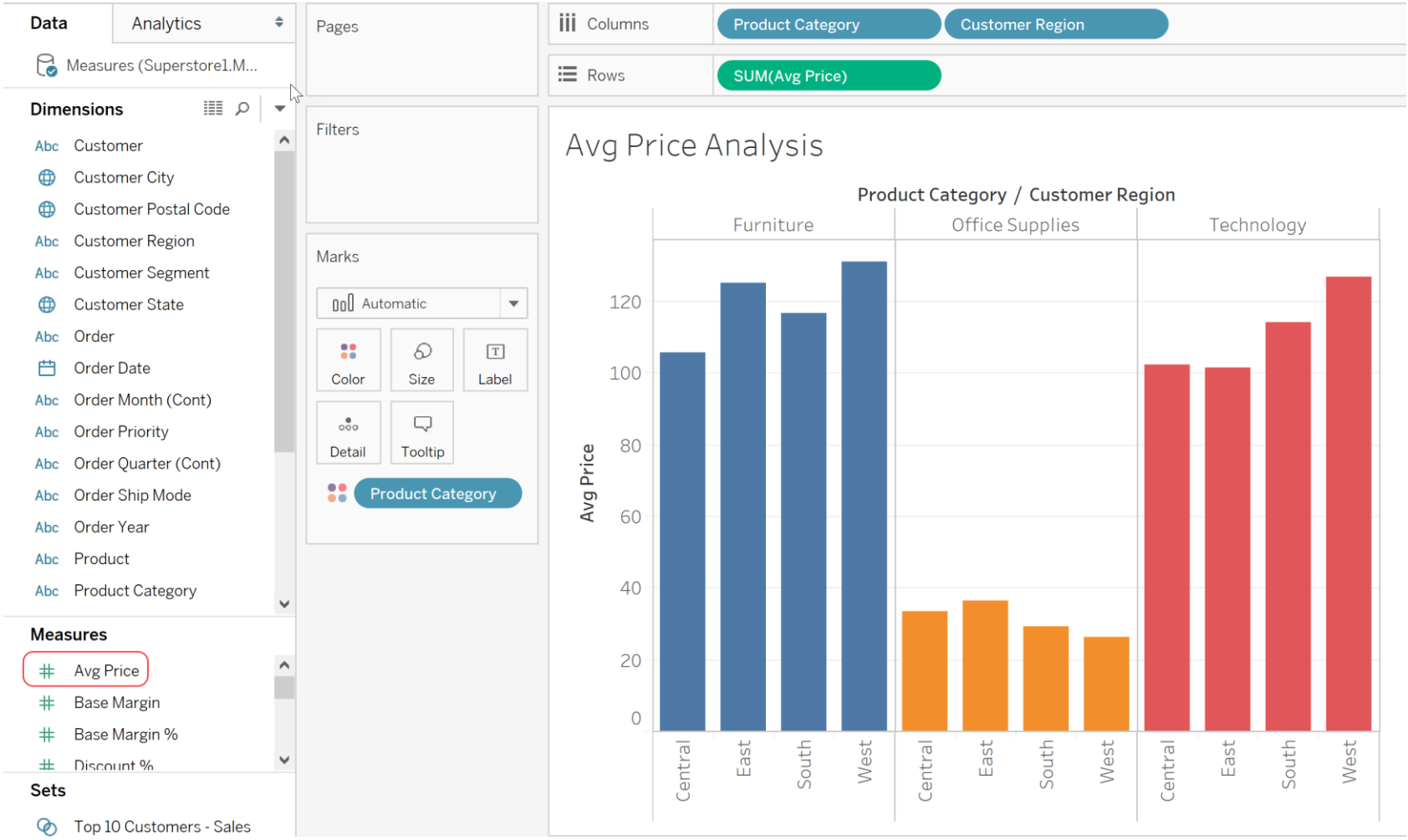
Time-Based Visualizations

Tableau Can Convert yyyy-mm-dd Members to Date Type



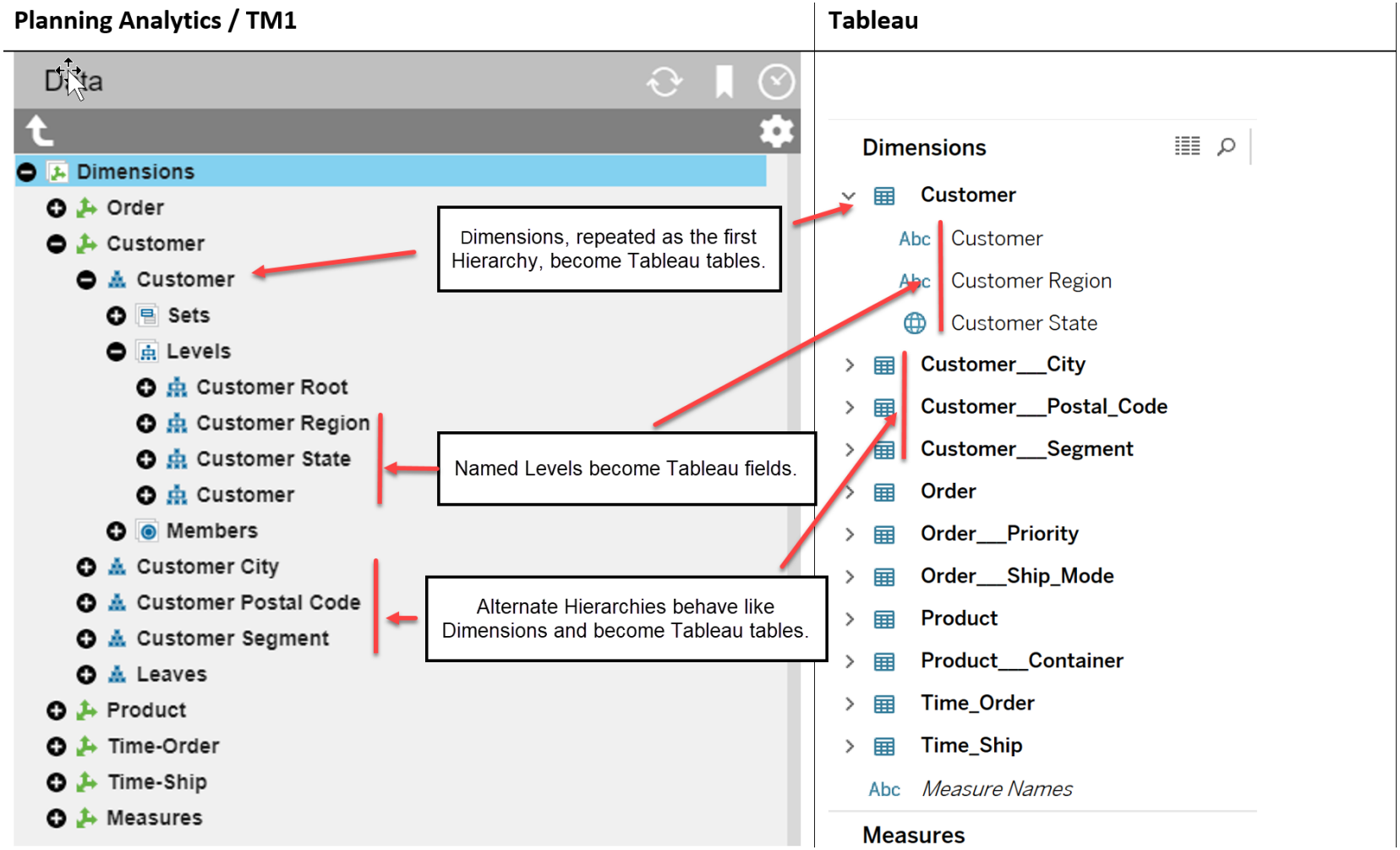
Server-Based Calculations

Tableau Returns Aggregate Values from the Server



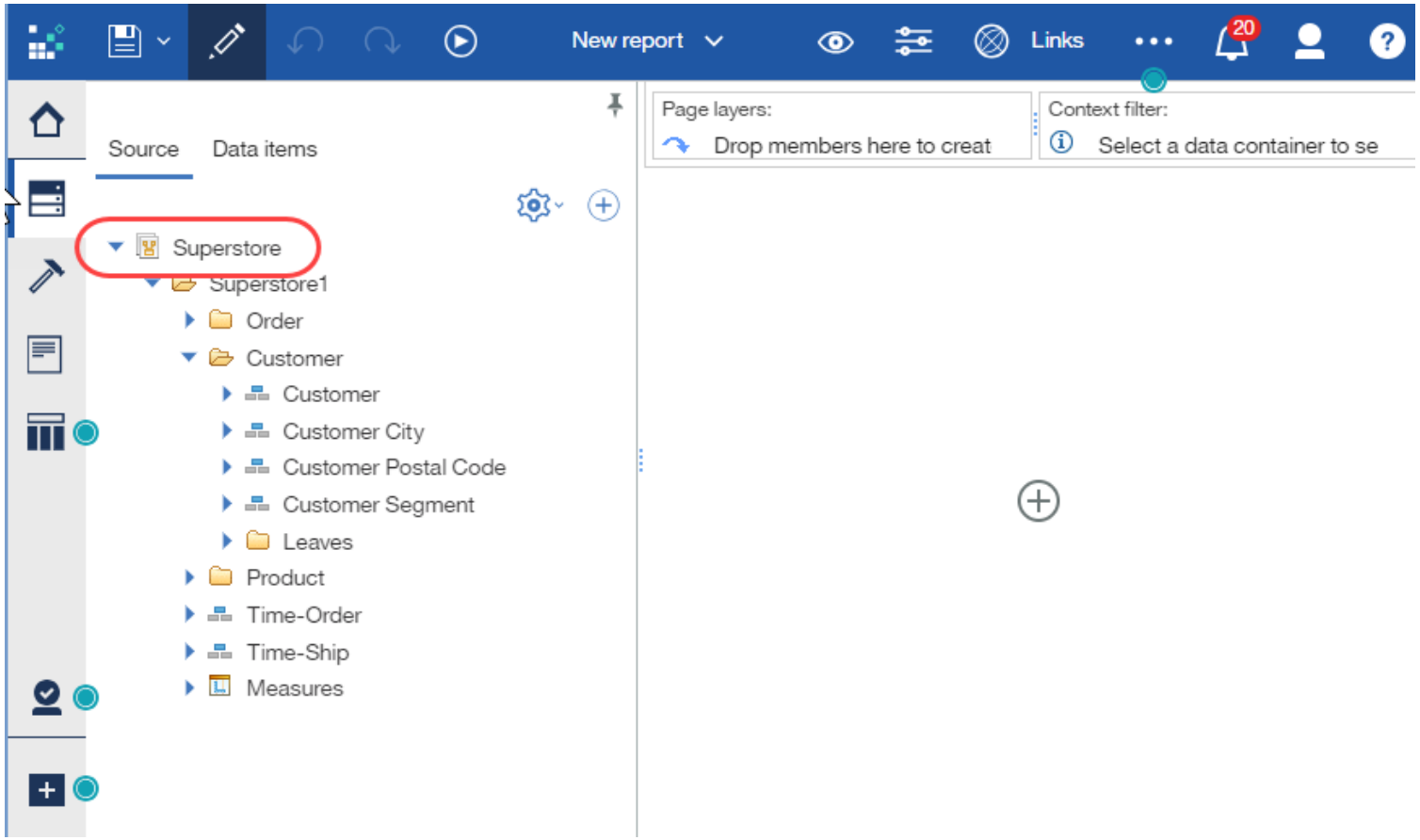
Planning Analytics/TM1 Cube

Cube Design Impacts Tableau Behavior



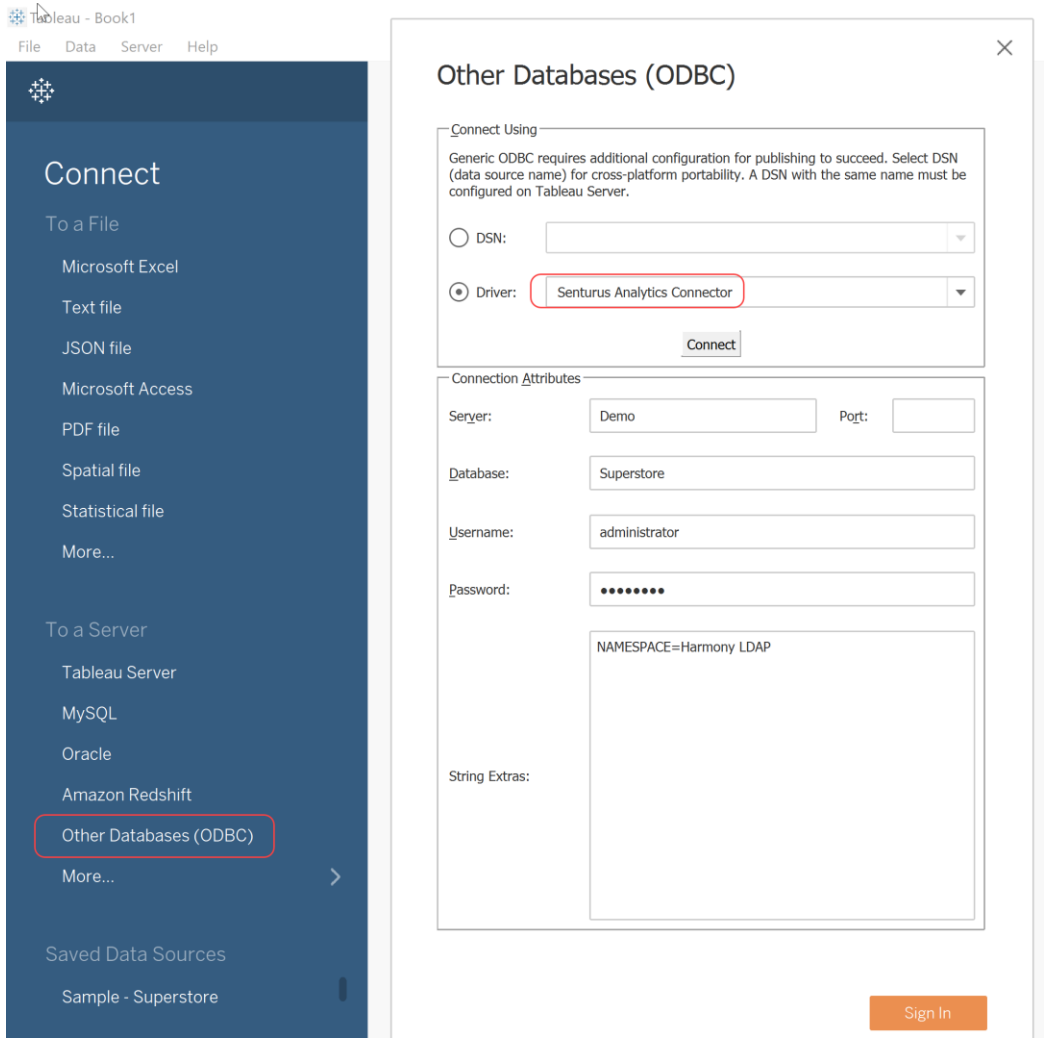
Cognos Package

Use Administration Console to Create Data Source Connection and Package to the TM1 Cube



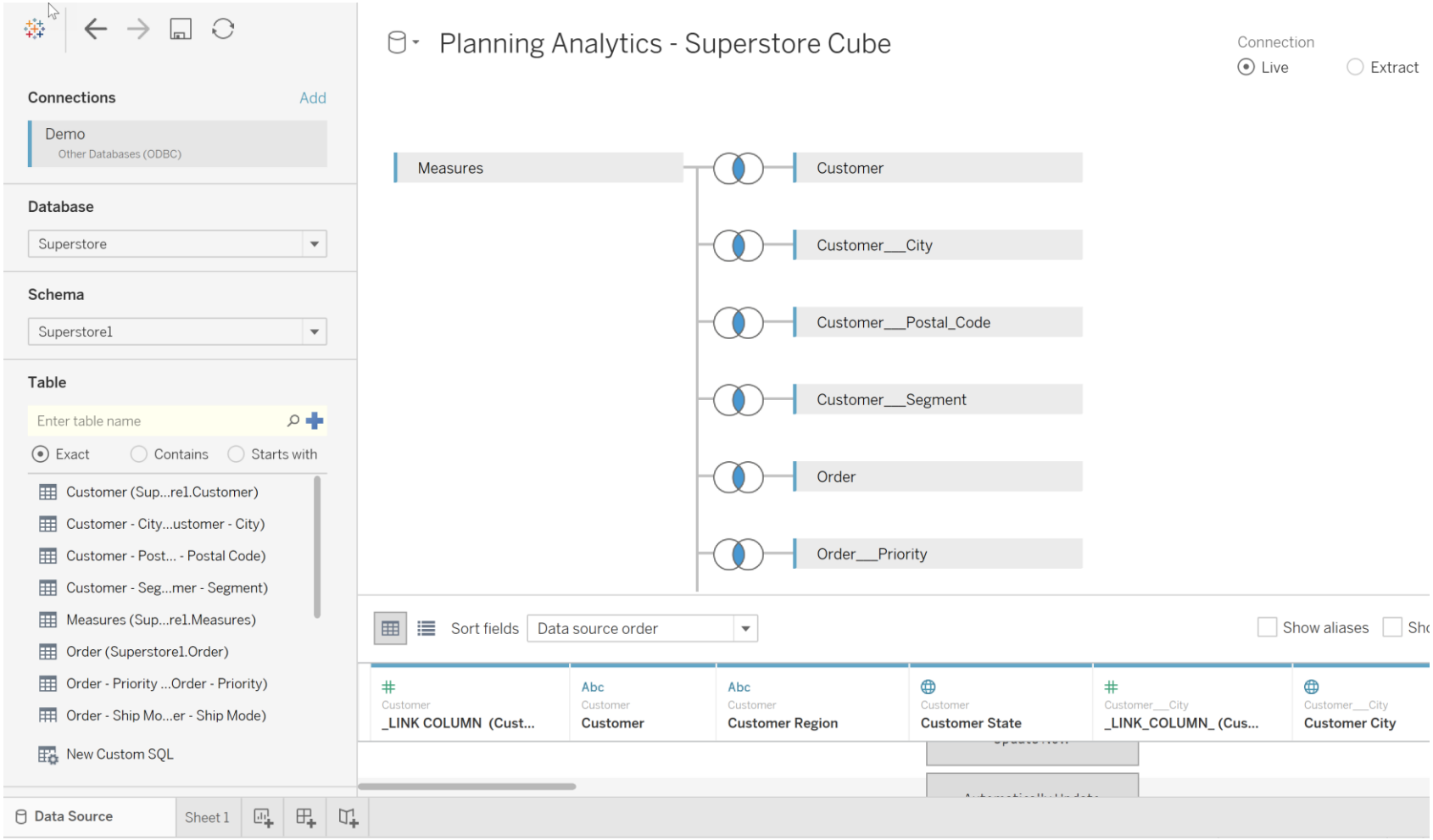
Senturus Analytics Connector

Use Other Databases (ODBC) to Connect to TM1



Data Source Setup

TM1 Dimensions Listed as Tables in Tableau



The Senturus Analytics Connector Benefits

Faster, more accurate reporting

Tableau users spend less time in data prep and more time conducting real analysis. No need to remodel the data since Tableau can now access the rich semantic layers and business-friendly data in your enterprise BI system.

Reduces change management

Changes to the metadata layer are automatically picked up by the Connector, eliminating the need to chase down individually curated workbooks.

Trust in the data

Users access a "single version of the truth," using data that is secure, auditable, compliant and governed.

Improves security

Eliminates redundant replication efforts, reduces risks associated with the use of non-secure data and allows appropriate guardrails to be set up around data access.

Superior Tableau performance

Poorly modeled data in Tableau can dramatically decrease performance. Data modeled in the enterprise BI platform has been optimized.

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FREQUENTLY ASKED QUESTIONS

Frequently Asked Questions

Live vs. Extract

- Both methods are supported

Supported BI Platforms and Versions

- IBM Cognos 10.1.x/11 and higher

Supported Data Sources

- Relational, PowerCubes, DMR, Dynamic Cubes, TM1 Reports

Release Date

- The product was released on 11/7/16

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Frequently Asked Questions

Supported Versions/Platforms

- Tableau 9.x/10.x Desktop, Server and Online via Bridge
- Microsoft Windows operating system (Windows 7, 8, 10, Windows Server 2008 R2, 2012, 2012 R2)

Software Installation Location

- Wherever connectivity to Enterprise BI is required (Desktop or Server)
- Nothing installed on Cognos servers
- Also available as client/server

Minimum Software Requirements

- Similar to those for any other typical ODBC driver

Cognos Environment Impact

- Tableau users leveraging the Analytics Connector will generate load on the Cognos servers similar to an interactive report user on those systems

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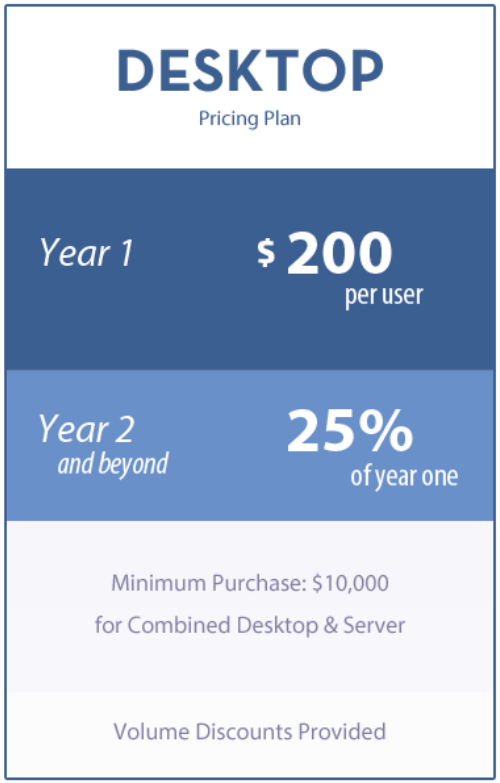
Frequently Asked Questions

Licensing/Pricing

Perpetual



Subscription

- $85/year desktop, $45/year server

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Frequently Asked Questions

Licensing Requirements - Cognos

- **Extracts:** Cognos Analytics user or equivalent to allow extraction creation, Cognos license not required to connect to extracts, just Senturus Analytics Connector license

- **Live Connect**: Cognos BI analytics user or equivalent

Frequently Asked Questions

Security

- Enforces security applied within the Enterprise BI environment

Metadata Modeling Requirements

- No special modeling requirements for the Analytics Connector
- Tableau requires that joins are created between query subjects
- Supports Cognos CQM & DQM

Method for Accessing Tableau

- ODBC connection

Support

- Provided by Senturus and included in the price of the product

Next Steps

Connector Test Drive

Two-week proof of concept

- Senturus Analytics Connector trial subscription
- Includes installation, configuration and testing in your environment*

Register to request a test drive:
http://www.senturus.com/enterprise-bi-connector-tableau

* Assumes IBM and Tableau solution components are in place and operational

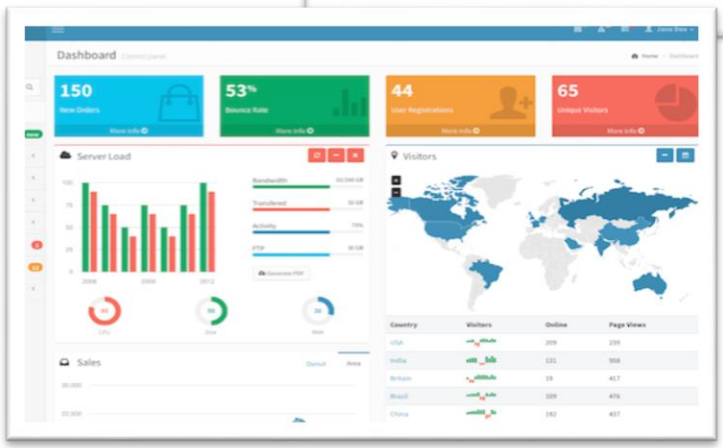
Who We Are

Business Analytics Consultants

Bridging the Gap Between Data & Decision Making

Business Analytics Architects

- Dashboards, Reporting & Visualizations
- Data Preparation & Modern Data Warehousing
- Self-Service Business Analytics
- Big Data & Advanced Analytics
- Planning & Forecasting Systems
- Proprietary Analytics Connector Software



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Upcoming Events

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LUNCH AFTER THE COGNOS ANALYTICS EVENT

HISTORIC JOHN'S GRILL IN SAN FRANCISCO

Tuesday, May 22, 2018 - 11:45am - 120 Minutes

HOW TO CREATE A COGNOS ANALYTICS DASHBOARD

USING THE DRILL-DOWN FEATURE

Thursday, May 24, 2018 - 11am PT/ 2pm ET - 60 minutes

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BLOG

A great place to find out what's top of mind at Senturus.

RESOURCE LIBRARY

An extensive, free library of past webinars, demos, whitepapers, presentations, helpful hints and more.

TM1, Cognos Analytics & Tableau Training

http://www.senturus.com/training/course-schedule/

PLATFORM	VERSION	TOOL	TITLE	DATE	GO
TABLEAU	10	DESKTOP	INTERMEDIATE DATA VISUALIZATION AND DASHBOARDING	MAY 30	→
TABLEAU	10	DESKTOP	ADVANCED DATA VISUALIZATION AND DASHBOARDING	MAY 31 - JUN 01	→
IBM COGNOS	11.0.7	COGNOS ANALYTICS	DIMENSIONAL REPORT AUTHORING	JUN 04 - JUN 05	→
IBM COGNOS	11.0.7	SYSTEM ADMINISTRATION	SYSTEM ADMINISTRATION	JUN 05 - JUN 06	→
TABLEAU	10	DESKTOP	EXPERT TABLEAU DEVELOPMENT	JUN 06	→
IBM COGNOS	11.0.7	COGNOS ANALYTICS	ADVANCED PROFESSIONAL REPORT AUTHORING	JUN 07 - JUN 08	→

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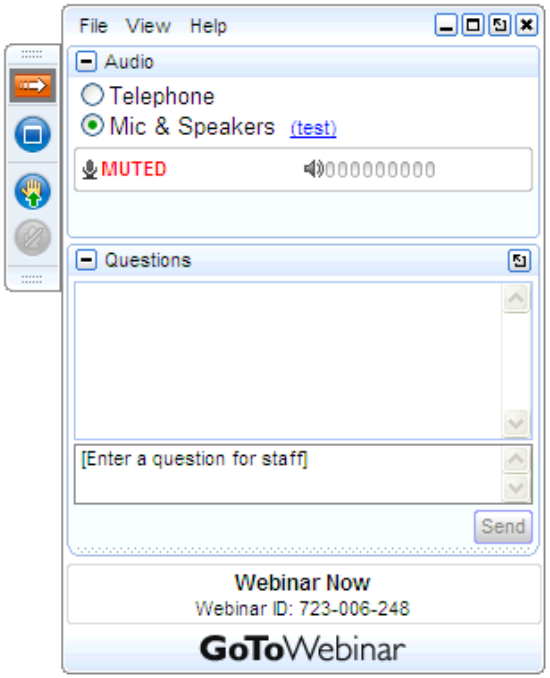
Q&A

If your question or issue is broader than what can be answered today, contact us at

info@senturus.com

and we will set up a free consultation.



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Thank You!

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