



QUERY PERFORMANCE WHEN CONNECTING FROM TABLEAU TO OBIEE

A BI CONNECTOR PERFORMANCE WHITEPAPER

Abstract

You can securely connect from Tableau to OBIEE, experience self-service BI like never before, and maximize the value of your Tableau-OBIEE investment by using BI Connector. Read this whitepaper to learn about the query performance aspects of visualizing OBIEE data using Tableau and BI connector.

Introduction

BI connector allows Tableau users to securely connect, analyze, and visualize the business data in OBIEE without any changes in OBIEE. It connects Tableau to OBIEE's presentation layer allowing you to reuse OBIEE data and security models.

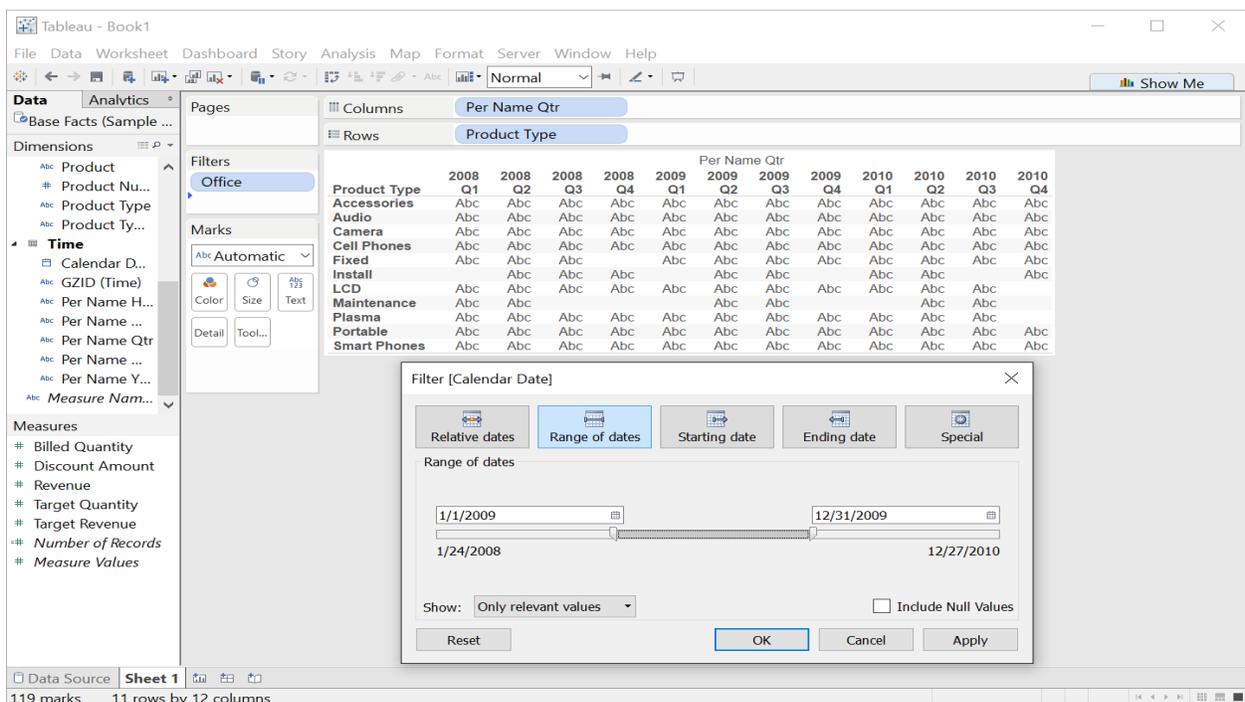
A common question that is asked is what about performance when connecting from Tableau to OBIEE using BI Connector? Another frequently asked question is would BI Connector cause any additional overhead or performance impact on OBIEE?

This white paper addresses these two key topics regarding using BI Connector to connect Tableau to OBIEE. Users can use BI Connector in both Live and Extract modes in Tableau. We will explore both these scenarios.

Live Connection

BI connector seamlessly connects and manages the queries between Tableau and OBIEE. It ensures that the queries are compatible with each other. Tableau connects to BI connector using ODBC interface. This allows users to connect to OBIEE just like another database. On the other side, BI connector connects to OBIEE using web service. This enables Tableau users to connect to OBIEE just like connecting from a web browser.

Using BI connector, a Tableau user can make a live connection from Tableau to OBIEE by connecting to a subject area, select the columns she needs, and add the relevant filter criteria.



Product Type	Per Name Qtr											
	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2009 Q1	2009 Q2	2009 Q3	2009 Q4	2010 Q1	2010 Q2	2010 Q3	2010 Q4
Accessories	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Audio	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Camera	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Cell Phones	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Fixed	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Install	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
LCD	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Maintenance	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Plasma	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Portable	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc
Smart Phones	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc	Abc

Figure 1 Tableau live connection to OBIEE

When this user query is sent from Tableau to OBIEE, BI Connector understands the query that Tableau sends and translates it to a query that OBIEE understands. When this query is sent to OBIEE, the Oracle BI server interprets and runs this query and sends the results back to Tableau through BI Connector. The resulting records are displayed in Tableau ready for visualization.



Figure 2 BI connector data flow

For the majority of the cases, BI Connector sends the queries to OBIEE without any major modifications. In these cases, the performance of a report from Tableau will be very similar to the performance of the same report built in OBIEE. From an OBIEE perspective, a user connecting from Tableau is similar to a user connecting from a web browser to OBIEE. So, there is no additional overhead on OBIEE.

There are a few exceptions where BI Connector has built-in optimizations to prevent unintended queries which return large number of records to Tableau. For example, Tableau BI Connector prevents any “blank” queries unintentionally sent to OBIEE from Tableau. It checks if Tableau is sending queries similar to “select * from table” and blocks it from sending to OBIEE. This prevents any unnecessary long running queries in OBIEE.

Tableau extracts from OBIEE

One of the common uses of BI Connector is to extract OBIEE data into Tableau data extracts. BI Connector supports both full as well as incremental extracts from OBIEE both on Tableau Desktop and Tableau Server.

Users get frustrated with OBIEE performance as it could take several seconds to several minutes sometimes for the results to come back for each small change in the report. For example, if the user drags a new column to a report, or pivots the report OBIEE has a lag time which makes it very hard to use. Tableau’s in-memory capabilities using data extracts allows users to get in-memory data visualization experience with the data from OBIEE.

This powerful capability of Tableau is now available for OBIEE data with BI Connector. BI Connector eliminates the need for complex SQL/ETL scripts to extract data into Tableau environments. In just a few clicks you can extract OBIEE data into Tableau and experience the speed of in-memory database.

Use of this powerful feature however requires some caution to not pull massive amounts of data into a Tableau extract. There are some best practices to follow which we have outlined in our [best practices white paper](#).



How to troubleshoot performance issues when using BI Connector

When you connect from Tableau to OBIEE using BI Connector and experience performance issues, you can do the following to troubleshoot:

1. Check if the same query executed from OBIEE is performing faster. If the same query in OBIEE is slow then look into improving the performance of the query in OBIEE using the help of your OBIEE administrator.
2. If the same query in OBIEE is performing much faster than what you are seeing in Tableau then [clear your BI Connector logs](#) and [generate a new set of logs](#) with just this particular query and submit a ticket to BI Connector [support](#).

Conclusion

Connecting from Tableau to OBIEE using BI Connector provides a powerful new way to visualize and analyze OBIEE data while maximizing the value of your investment in OBIEE and Tableau. The query performance in live connection mode mirrors that of your OBIEE environment. Using Tableau extracts, Tableau users can create a true “in-memory” experience for OBIEE data. This powerful addition to your BI toolkit can be efficiently deployed by following the [best practices](#) for using BI Connector.

Recommended Next Steps

If you haven't tried BI Connector yet, [download a free trial](#) and try out the 7 best practices.

Try out the [7 best practices](#) when you use Tableau and BI Connector to visualize OBIEE data. See how many you have mastered.

Resources to learn more:

1. [BI Connector Website](#)
2. [BI Connector – How it works](#)
3. [14 Day Free Trial of BI Connector](#)
4. [Read the BI Connector blog](#) for the latest update and articles on BI
5. [Contact Us](#)