# **TIBCO® Data Virtualization and Business Directory**

# Release Notes

Version 8.1

Last Updated: April 3, 2019



#### Important Information

SOME TIBCO SOFTWARE EMBEDS OR BUNDLES OTHER TIBCO SOFTWARE. USE OF SUCH EMBEDDED OR BUNDLED TIBCO SOFTWARE IS SOLELY TO ENABLE THE FUNCTIONALITY (OR PROVIDE LIMITED ADD-ON FUNCTIONALITY) OF THE LICENSED TIBCO SOFTWARE. THE EMBEDDED OR BUNDLED SOFTWARE IS NOT LICENSED TO BE USED OR ACCESSED BY ANY OTHER TIBCO SOFTWARE OR FOR ANY OTHER

#### PURPOSE.

USE OF TIBCO SOFTWARE AND THIS DOCUMENTATION IS SUBJECT TO THE TERMS AND CONDITIONS OF A LICENSE AGREEMENT FOUND IN EITHER A SEPARATELY EXECUTED SOFTWARE LICENSE AGREEMENT, OR, IF THERE IS NO SUCH SEPARATE AGREEMENT, THE CLICKWRAP END USER LICENSE AGREEMENT WHICH IS DISPLAYED DURING DOWNLOAD OR INSTALLATION OF THE SOFTWARE (AND WHICH IS DUPLICATED IN THE LICENSE FILE) OR IF THERE IS NO SUCH SOFTWARE LICENSE AGREEMENT OR CLICKWRAP END USER LICENSE AGREEMENT, THE LICENSE(S) LOCATED IN THE "LICENSE" FILE(S) OF THE SOFTWARE. USE OF THIS DOCUMENTATION IS SUBJECT TO THOSE TERMS AND CONDITIONS, AND YOUR USE HEREOF SHALL CONSTITUTE ACCEPTANCE OF AND AN AGREEMENT TO BE BOUND BY THE SAME.

This document contains confidential information that is subject to U.S. and international copyright laws and treaties. No part of this document may be reproduced in any form without the written authorization of TIBCO Software Inc.

TIBCO and the TIBCO logo are either registered trademarks or trademarks of TIBCO Software Inc. in the United States and/or other countries

TIBCO, Two-Second Advantage, TIBCO Spotfire, TIBCO ActiveSpaces, TIBCO Spotfire Developer, TIBCO EMS, TIBCO Spotfire Automation Services, TIBCO Enterprise Runtime for R, TIBCO Spotfire Server, TIBCO Spotfire Web Player, TIBCO Spotfire Statistics Services, S-PLUS, and TIBCO Spotfire S+ are either registered trademarks or trademarks of TIBCO Software Inc. in the United States and/or other countries.

All other product and company names and marks mentioned in this document are the property of their respective owners and are mentioned for identification purposes only.

THIS SOFTWARE MAY BE AVAILABLE ON MULTIPLE OPERATING SYSTEMS. HOWEVER, NOT ALL OPERATING SYSTEM PLATFORMS FOR A SPECIFIC SOFTWARE VERSION ARE RELEASED AT THE SAME TIME. SEE THE README FILE FOR THE AVAILABILITY OF THIS SOFTWARE VERSION ON A SPECIFIC OPERATING SYSTEM PLATFORM.

THIS DOCUMENTATION IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

THIS DOCUMENTATION COULD INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. CHANGES ARE PERIODICALLY ADDED TO THE INFORMATION HEREIN; THESE CHANGES WILL BE INCORPORATED IN NEW EDITIONS OF THIS DOCUMENTATION. TIBCO SOFTWARE INC. MAY MAKE IMPROVEMENTS AND/OR CHANGES IN THE PRODUCT(S) AND/OR THE PROGRAM(S) DESCRIBED IN THIS DOCUMENTATION AT ANY TIME.

THE CONTENTS OF THIS DOCUMENTATION MAY BE MODIFIED AND/OR QUALIFIED, DIRECTLY OR INDIRECTLY, BY OTHER DOCUMENTATION WHICH ACCOMPANIES THIS SOFTWARE, INCLUDING BUT NOT LIMITED TO ANY RELEASE NOTES AND "READ ME" FILES.

Copyright © 2004-2019 TIBCO Software Inc. ALL RIGHTS RESERVED.

TIBCO Software Inc. Confidential Information

Preface	7
Product-Specific Documentation	7
How to Access TIBCO Documentation.	
How to Contact TIBCO Support	
How to Join TIBCO Community	
TIBCO Spotfire® Advanced Data Services License Restrictions	8
TIBCO Jaspersoft® Advanced Data Services License Restrictions	9
New in 8.1	11
New Features	11
Support for DDL in SQL Scripts.	11
Support for PIVOT / UNPIVOT transformations	12
Massively Parallel Processing Engine Improvements	
Improved capabilities for DB2 z/OS v11	
Support for DECODE and CAST in Vertica capabilities	
Standardization of IncludePolicies	
Support for XQuery 3.0 and XPath 3.0	
Support for GIT configured TFS Servers from Studio with NTLM authentication	
TDV Server support on Windows 2016 server (64 bit)	
Enforcement of STRICT keyword for DST based adapters	
Upgrade of ODBC drivers	14
8.1 Fixed and Known Issues	15
TDV and Business Directory 8.1 Fixed Issues.	15
TDV and Business Directory 8.1 Known Issues	17

# **Preface**

Documentation for this and other TIBCO products is available on the TIBCO Documentation site. This site is updated more frequently than any documentation that might be included with the product. To ensure that you are accessing the latest available help topics, please visit:

https://docs.tibco.com

# **Product-Specific Documentation**

The following documents form the TIBCO® Data Virtualization(TDV) documentation set:

- TIBCO TDV and Business Directory Release Notes Read the release notes for a list of new and changed features. This document also contains lists of known issues and closed issues for this release.
- TDV Installation and Upgrade Guide
- TDV Administration Guide
- TDV Reference Guide
- TDV User Guide
- TDV Security Features Guide
- TDV Business Directory Guide
- TDV Application Programming Interface Guide
- TDV Tutorial Guide
- TDV Extensibility Guide
- TDV Getting Started Guide
- TDV Client Interfaces Guide
- TDV Adapter Guide
- TDV Discovery Guide
- TDV Active Cluster Guide
- TDV Monitor Guide
- TDV Northbay Example

#### How to Access TIBCO Documentation

Documentation for TIBCO products is available on the TIBCO Product Documentation website mainly in the HTML and PDF formats.

The TIBCO Product Documentation website is updated frequently and is more current than any other documentation included with the product. To access the latest documentation, visit https://docs.tibco.com.

Documentation for TIBCO Data Virtualization is available on https://docs.tibco.com/products/tibco-data-virtualization-server.

# How to Contact TIBCO Support

You can contact TIBCO Support in the following ways:

- For an overview of TIBCO Support, visit https://www.tibco.com/services/support.
- For accessing the Support Knowledge Base and getting personalized content about products you are interested in, visit the TIBCO Support portal at https://support.tibco.com.
- For creating a Support case, you must have a valid maintenance or support contract with TIBCO. You also need a user name and password to log in to https://support.tibco.com. If you do not have a user name, you can request one by clicking **Register** on the website.

# **How to Join TIBCO Community**

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature requests from within the TIBCO Ideas Portal. For a free registration, go to https://community.tibco.com.

# TIBCO Spotfire® Advanced Data Services License Restrictions

If you are licensing TIBCO® Data Virtualization as TIBCO Spotfire® Advanced Data Services, you can publish views from all supported data sources to TIBCO Spotfire® via JDBC, ODBC and ADO.NET except the following which are sold as separate license add-ons

Oracle E-Business Suite

- Salesforce.com
- SAP Business Warehouse
- SAP ERP
- Siebel eBusiness Applications

Use of the business directory or clustering requires a full license to TIBCO Data Virtualization. A full TIBCO Data Virtualization license is also required for publishing views as web services or to clients that are not Spotfire® clients.

# TIBCO Jaspersoft® Advanced Data Services License Restrictions

If you are licensing TIBCO® Data Virtualization as TIBCO Jaspersoft® Advanced Data Services, you can publish views from all supported data sources to TIBCO Jaspersoft® via JDBC, ODBC and ADO.NET.

If you are licensing TIBCO® Data Virtualization as TIBCO Jaspersoft® Advanced Data Services, you can publish views from all supported data sources to TIBCO Jaspersoft® via JDBC, ODBC and ADO.NET.

# New in 8.1

The TIBCO® Data Virtualization (TDV) 8.1 release is being distributed as an installable product. For information on the products and components included in TDV, see the *TDV Installation and Upgrade Guide*. For information on the products and components included in Business Directory, see the *Business Directory Guide*.

## **New Features**

TDV 8.1 includes features and enhancements in the following areas:

- Support for DDL in SQL Scripts
- Support for PIVOT / UNPIVOT transformations
- Improved decimal support and additional data sources support for MPPE
- Improved capabilities for DB2 z/OS v11
- Support for DECODE and CAST in Vertica capabilities
- Standardization of IncludePolicies to cover CBS, RBS, Security and Cache policies in both UI and commandline
- TDV Server support for XQuery 3.0 and XPath 3.0
- Support for GIT configured TFS Servers from Studio with NTLM authentication
- TDV Server support on Windows 2016 server (64 bit)
- Enforcement of STRICT keyword for toolkit based adapters
- Upgrade of ODBC Drivers

# Support for DDL in SQL Scripts

TDV SQL Script now supports the following DDLs:

- CREATE/DROP TABLE
- CREATE (TEMP) TABLE AS SELECT
- CREATE/DROP INDEX

### **Support for PIVOT / UNPIVOT transformations**

DV query engine now natively supports PIVOT / UNPIVOT transformations

#### Massively Parallel Processing Engine Improvements

The Massively Parallel Processing Engine has been enhanced to include improved decimal support and additional data sources support.

#### Improved capabilities for DB2 z/OS v11

The following functions are now supported by DB2 z/OS datasource:

#### **Date Functions:**

ADD\_MONTHS

DAYOFMONTH

DAYOFWEEK

**DAYS** 

**EXTRACT** 

HOUR

JULIAN\_DAY

LAST\_DAY

MICROSECOND

MIDNIGHT\_SECONDS

**MINUTE** 

MONTHS\_BETWEEN

NEXT\_DAY

**QUARTER** 

**SECOND** 

**TIMESTAMP** 

WEEK

WEEK\_ISO

#### **Character Functions:**

**ASCII** 

DIFFERENCE

INSERT

LPAD

**REPEAT** 

**RPAD** 

**SUBSTR** 

TRIM

#### Numeric Functions:

ATAN2

**DECFLOAT** 

LN

MOD

NORMALIZE\_DECFLOAT

**QUANTIZE** 

SIGN

UNICODE

# **Binary Functions:**

BITAND, BITANDNOT, BITOR,

BITXOR, BITNOT

#### **Conversion Functions:**

**CAST** 

DECODE

TO\_TIMESTAMP

TO\_CHAR

#### **Conditional Functions**

IFNULL

NVL

#### XML Functions

**XMLAGG** 

#### Support for DECODE and CAST in Vertica capabilities

Support for CAST and DECODE functions has been extended to Vertica data source.

#### Standardization of IncludePolicies

IncludePolicies have been standardized to cover CBS, RBS, Security and Cache policies in both UI and commandline

#### Support for XQuery 3.0 and XPath 3.0

TDV Server support has been upgraded to XQuery 3.0 and XPath 3.0.

#### Support for GIT configured TFS Servers from Studio with NTLM authentication

Visual Studio Team Foundation Server 2015 (TFS) with a Git Front-end is supported for HTTP protocol with NLTM authentication only.

# TDV Server support on Windows 2016 server (64 bit)

TDV Server now supports Windows Server 2016 (64 bit) as a deployment platform

# **Enforcement of STRICT keyword for DST based adapters**

If the function semantics between DV and underlying data sources do not match then the function will not be pushed down and the enforcement will be done using the STRICT keyword in the YAML file.

#### Upgrade of ODBC drivers

ODBC drivers are upgraded to use OpenSSL v1.1.1a.

# 8.1 Fixed and Known Issues

#### This section contains:

- TDV and Business Directory 8.1 Fixed Issues, page 15
- TDV and Business Directory 8.1 Known Issues, page 17

# **TDV and Business Directory 8.1 Fixed Issues**

This section lists issues fixed in this release

8.1 Fixed Issues	Description
CIS-73513	Power BI Connector fails to Load Data and throws OLE DB or ODBC error
CIS-73302	SWAP_ORDER Hint is Ignored in TDV 8 Code Generation
CIS-73298	PowerBI RequestTimeout value handled incorrectly when set to non-zero
CIS-73280	Full server back up of 7.0.x fails to restore in 8.0 server
CIS-73272	ODBC Critical Failures on Clients Running Against TDV 8.0
CIS-73230	Cannot set keyStore/trustStore passwords in 7.0.6.00.02 after upgrading from 7.0.4
CIS-73160	32-bit ODBC Driver is not working with 32-bit Excelsheet
CIS-73153	Correct FORCE_DISK option with UNION ALL documentation
CIS-73014	JDBC-ODBC Bridge Adapter fails during introspection with "Column label not found error"
CIS-72987	Power BI connector data load errors on filters
CIS-72971	SAP Hana data source unable to connect
CIS-72947	Invalid SQL pushed to Oracle when WITH used with semi-join
CIS-72927	TDV 8.0 unable retrieve Hive/Spark tables having partition Column
CIS-72926	REST adapter NPE due to assuming entity and charset is always non-NULL

8.1 Fixed Issues	Description
CIS-72908	Power BI connector improvements to better identify DSN and associated credentials
CIS-72793	Power BI performance issue while expanding catalog
CIS-72792	Power BI Errors When Previewing or Trying to Load a Table in Navigator Page
CIS-72783	Cursor no longer closed when WITH clause is used twice within the WITH definition
CIS-72709	Performance improvements for TDV JDBC driver
CIS-72690	Power BI connector only displaying small subset of schemas under a catalog in the navigator tree after connecting to a TDV instance
CIS-72669	A REST data source authenticating with OAuth2.0 that worked in 7.0.6 no longer fails in 7.0.7
CIS-72465	Increase Print(), Log(), LogError() function input character Limit
CIS-72267	Issues importing CAR file back from 7.0.6.00.01 into 7.0.8.00.01
CIS-71942	Host header attack mitigation
CIS-71661	Issues setting keystore/truststore passwords in 7.0.6.00.02 after upgrading from 7.0.4 have been corrected
CIS-71429	Issues with REST data source erroring out after upgrading from 7.0.6 to 7.0.7 have been corrected
CIS-71104	The server login function now uses a nonce and referrer check during the login process
CIS-71005	Studio "Web Service" type session is not closed if studio closed using "closed" button (without logout)
CIS-70831	Data type changed from CHAR to VARCHAR when select on physical table
CIS-70118	Data type change in a view is not reflecting for its dependent views when change is made in the Grid panel of a view
CIS-69925	Add support for DECIMAL data types in Impala 2.0+ adapters

8.1 Fixed Issues	Description
CIS-69010	Is there a reason Excel files and sheets are exported with an absolute path instead of a relative path?
CIS-65248	Document the tip on using ORDER BY clause on a cached data.
CIS-55469	Unable to create a new username when it contains both Uppercase and Lowercase alphabets.
CIS-45831	Renaming alias does not propagate to depended views. "Open Lineage Panel" on a dependant i.e child view shows the view has dependency on another child view ( both child views have same parent) though the child views are not dependent on each other.
BD-4921	Unable to connect a TDV 8.0 site in Business Directory 8.0
CIS-73661	Power BI connector slow streaming result set performance
CIS-73530	Query Engine pushing invalid SQL to SAP Hana when case sensitivity = true

# **TDV and Business Directory 8.1 Known Issues**

The following are known issues in the release:

8.1 Known Issues	Description
CIS-73271	Using custom columns when in direct query mode could cause incorrect results - This is a known issue of Power BI
CIS-72398	It is not recommended to make any cluster changes while parallel queries are actively running in the MPPE. This might cause hanging of queries.
CIS-71922	Drill adapter handles varchar in different way from TDV. Collation setting per data source affects how sorting of chars is done
CIS-71286	Using MPPE, expressions involving constants and numeric types will need to have explicit casts to ensure that the types are handled correctly.
CIS-73534	CentOS/Red Hat/Oracle Enterprise Linux (OEL) 6.x may have problems connecting to Drill console, but refreshing will usually bring it up eventually.

8.1 Known Issues	Description
CIS-73466	Queries handling time/datetime/timestamp values running may fail during DST cut-over times.
CIS-73198	When installing the Power BI TDV driver, the MEZ file is updated and in doing so the
	previous DSN list is lost.
	To update it again, you can open the ODBC administrator and one of the TDV
	DSNs. You can click 'Okay' on the configuration window which will trigger the
	logic to update the DSN list in the MEZ file. Note: All TDV Power BI DSNs will
	be added to the list, so you only need to perform this step once.
CIS-71487	In parallel execution mode timestamps will only have millisecond precisions.
CIS-67318	slf4j jar in server/common interfering with datasource jars.
	Removing slf4j packages from the datasource driver jar or keeping the same version as that of TDV server bundled slf4j classes in the datasource package will resolve the issues/clashes.
CIS-73689	Users will see errors for Google AdWords and would need to un-deploy the old Google Adwords, and then deploy the new GoogleAds adapter.
CIS-73729	The documentation of MPP Engine is not updated for the following settings:
	The default value of Maximum Heap Memory is 1638.
	The default value of Maximum Heap Memory is 8192.