

TIBCO OpenSpirit[®] Data Connector for Studio

Release Notes

Software Release 3.6.0

November 2017

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 DOCUMENT 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 DOCUMENT 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, OpenSpirit, and TIBCO OpenSpirit Data Connector for Studio 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 DOCUMENT 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 DOCUMENT 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 DOCUMENT. TIBCO SOFTWARE INC. MAY MAKE IMPROVEMENTS AND/OR CHANGES IN THE PRODUCT(S) AND/OR THE PROGRAM(S) DESCRIBED IN THIS DOCUMENT AT ANY TIME.

THE CONTENTS OF THIS DOCUMENT 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 © 2000-2017 TIBCO Software Inc. ALL RIGHTS RESERVED

TIBCO Software Inc. Confidential Information

Table of Contents

Important Information	ii
Preface	vi
Typographical Conventions.....	vii
Connecting with TIBCO Resources.....	viii
How to Join TIBCOCommunity.....	viii
How to Access All TIBCO Documentation	viii
How to Contact TIBCO Support.....	ix
Release Notes.....	10
New Features	11
Release 3.6.0	11
Release 3.5.1	11
Release 3.5.0	11
Release 3.4.1	11
Release 3.4.0	11
Release 3.3.0	12
Release 3.2.0	12
Release 3.1.0	13
Release 3.0.0	13
Changes in Functionality.....	14
Release 3.6.0	14
Release 3.5.1	14
Release 3.5.0	15
Release 3.4.1	15
Release 3.4.0	15
Release 3.3.0	15
Release 3.2.0	16
Release 3.1.0	16
Release 3.0.0	16
Deprecated and Removed Features.....	17
Release 3.6.0	17
Release 3.5.1	17

Release 3.5.0	17
Release 3.4.1	17
Release 3.4.0	17
Release 3.3.0	17
Release 3.2.0	17
Release 3.1.0	18
Release 3.0.0	18
Migration and Compatibility	19
Release 3.6.0	19
Migration	19
Compatibility	19
Certified Data Stores	20
Release 3.5.1	21
Migration	21
Compatibility	21
Certified Data Stores	21
Release 3.5.0	23
Migration	23
Compatibility	23
Certified Data Stores	23
Release 3.4.1	25
Migration	25
Compatibility	25
Certified Data Stores	25
Release 3.4.0	26
Migration	26
Compatibility	26
Certified Data Stores	26
Release 3.3.0	27
Migration	27
Compatibility	27
Release 3.2.0	28
Migration	28
Compatibility	28

Release 3.1.0	29
Migration	29
Compatibility	29
Release 3.0.0	29
Migration	29
Compatibility	30
Closed Issues	31
Known Issues	40

Preface




TIBCO OpenSpirit Data Connectors provides the ability for applications to connect to diverse data store through a consistent programming interface. Applications may connect and use the OpenSpirit common data model and then be shielded from having to understand the differences between different vendors' data models and storage formats. Alternatively, for most data connectors, an application may choose to connect and access data through the full underlying native data model - still using a consistent programming interface.

The TIBCO OpenSpirit Data Connector for Studio version 3.6.0 is designated with U.S. Department of Commerce Export Control Classification Number **EAR99**.

Typographical Conventions

The following typographical conventions are used in this manual.

Convention	Use
<i>TIBCO_HOME</i> <i>ENV_HOME</i> <i>OSP_HOME</i>	<p>Many TIBCO products must be installed within the same home directory. This directory is referenced in documentation as <i>TIBCO_HOME</i>. The default value of <i>TIBCO_HOME</i> depends on the operating system. For example, on Windows systems, the default value is <i>C:\tibco</i>.</p> <p>Other TIBCO products are installed into an <i>installation environment</i>. Incompatible products and multiple instances of the same product are installed into different installation environments. An environment home directory is referenced in documentation as <i>ENV_HOME</i>. The default value of <i>ENV_HOME</i> depends on the operating system. For example, on Windows systems the default value is <i>C:\tibco</i>.</p> <p>TIBCO < <i>ProductName</i> > installs into a directory referenced in documentation as <i>OSP_HOME</i>. The default value of <i>OSP_HOME</i> depends on the operating system. For example on Windows systems, the default value is <i>C:\Program Files\OpenSpirit</i>.</p>
<i>code font</i>	<p>Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example:</p> <p>Use <i>MyCommand</i> to start the foo process.</p>
<i>bold code font</i>	<p>Bold code font is used in the following ways:</p> <ul style="list-style-type: none">• In procedures, to indicate what a user types. For example: Type <i>admin</i>.• In large code samples, to indicate the parts of the sample that are of particular interest.• In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, <i>MyCommand</i> is enabled: <i>MyCommand</i> [<i>enable</i> <i>disable</i>]

Convention	Use
<i>italic font</i>	<p>Italic font is used in the following ways:</p> <ul style="list-style-type: none"> • To indicate a document title. For example: See <i>TIBCO ActiveMatrix BusinessWorks Concepts</i>. • To introduce new terms For example: A portal page may contain several portlets. <i>Portlets</i> are mini-applications that run in a portal. • To indicate a variable in a command or code syntax that you must replace. For example: <i>MyCommand PathName</i>
Key combinations	<p>Key name separated by a plus sign indicate keys pressed simultaneously. For example: <i>Ctrl+C</i>.</p> <p>Key names separated by a comma and space indicate keys pressed one after the other. For example: <i>Esc, Ctrl+Q</i>.</p>
	The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances.
	The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result.
	The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken.

Connecting with TIBCO Resources

How to Join TIBCOmmunity

TIBCOmmunity is an online destination for TIBCO customers, partners, and resident experts, a place to share and access the collective experience of the TIBCO community. *TIBCOmmunity* offers forums, blogs, and access to a variety of resources. To register, go to <http://www.tibcommunity.com>.

How to Access All TIBCO Documentation

After you join *TIBCOmmunity*, you can access the documentation for all supported product versions here:

<https://docs.tibco.com>

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, please contact TIBCO Support as follows.

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:
<https://support.tibco.com>
select About Support>Getting Started
- If you already have a valid maintenance or support contract, visit this site:
<https://support.tibco.com>
Entry to this site requires a user name and password. If you do not have a user name, you can request one.

Release Notes

Check the TIBCO Product Support web site at <https://support.tibco.com> for product information that was not available at release time. Entry to this site requires a username and password. If you do not have a username, you can request one. You must have a valid maintenance or support contract to use this site.

Topics

[New Features](#)

[Changes in Functionality](#)

[Deprecated and Removed Features](#)

[Migration and Compatibility](#)

[Closed Issues](#)

[Known Issues](#)

New Features

This section lists features added since the last major release of this product.

Release 3.6.0

The following are new features in Release 3.6.0:

- Added support for Studio 2017.1 running on Windows-7 (64-bit) and Windows-10 (64bit)

Release 3.5.1

The following are new features in Release 3.5.1:

- 2D horizon dictionary properties are now returned.
- 3D horizon dictionary properties are now returned.

Release 3.5.0

The following are new features in Release 3.5.0:

- Added support for Studio 2016.2 running on Windows-7 (64-bit) and Windows 10 (64bit).
- Added enhancements to enable Studio 2016 native model copy.



Requires new version of Copy Manager 2015.1.0.


Release 3.4.1

The following are new features in Release 3.4.1:

- Added support for Studio 2015.7 running on Windows 7 (64-bit) and Windows 10 (64bit).

Release 3.4.0

The following are new features in Release 3.4.0:

- Added support for Studio 2015.1 running on Windows 7 (64-bit)
 *There are significant performance slowdowns using Studio 2015.1 these issues have be communicated to Schlumberger who are investigating API fixes.*

- The OpenSpirit **common data model** was modified recently and the following attributes added:
 - EpiInterpretation_FaultPolyline
 - PostStack2d
 - PostStack2dName
 - PostStack3d
 - PostStack3dName
 - EpiInterpretation_HorizonGrid1dProperty
 - PostStack2d
 - PostStack2dName
 - EpiInterpretation_HorizonGrid2dProperty
 - PostStack3d
 - PostStack3dName



Studio 2014 has the ability to handle all these new attributes.

Studio 2013 does not have the ability to get/set the SeismicCube on the Seismic_HorizonInterpretation3D object so the HorizonGrid2dProperty was not modified for 2013.

- The Studio data connector now returns all generic point set data as EpiInterpretation_HorizonPointSet rows which can be seen using the OpenSpirit DataSelector. Previously, the Studio data connector only returned the point set data that was created using OpenSpirit

Release 3.3.0

The following are new features in Release 3.3.0

- Added support for Studio 2014.5 running on Windows-7 (64-bit).

Release 3.2.0

The following are new features in Release 3.2.0

- Added support for SQL Server backend
- The Studio-2013 data connector supporting 2013.3+ running on Windows-7 (64-bit). However there are various serious bugs that exist in the Studio Runtime prior to 2013.7. We highly recommend using a 2013.7+ Studio Runtime. The Studio-2013 data connector can run against a 2013.3 or 2013.4 database (there is no Studio 2013.5 - 2013.7 database version available from Schlumberger)
- Added a new Studio-2014 data connector supporting 2014.1, running on Windows-7 (64-bit).

Release 3.1.0

The following are new features in Release 3.1.0:

- Support Studio 2013.3 SDK and runtime.
- Added support for read/write of 2d/3d seismic trace data.
- Added drilling tables to the native model.
- With this release of the Studio Data Connector, you will be able to use Copy Manager 2013.1 to copy data from any OpenSpirit supported data store into Studio.

Release 3.0.0

The following are new features in Release 3.0.0.

- Add support for Studio 2013.1.
- Added support for delete operations
- Added support for read/write of 3d and 2d seismic bulk data
- Added support for Windows external authentication, as well as account/password authentication
- Add new data source configuration options to specify how data with an original CRS, which is not in the Studio catalog, should be handled. See the ***OpenSpirit Data Connector for Studio User & Installation Guide*** for more information.

Changes in Functionality

This section lists changes in functionality since the last major release of this product.

Release 3.6.0

Performance of the TIBCO OpenSpirit Data Connector for Studio is still problematic, below are the main issues:

- The Schlumberger Studio SDK (Software Developer's Kit) has many severe performance problems that have been reported to Schlumberger but no fixes have yet been made available.
Some major problems are

- A SQL Server back-end will yield much better performance than Oracle,
- Connecting as an account that has an admin role is much faster than running with a user role,
- Reading 2d seismic samples is very inefficient.

As a result, the OpenSpirit data connector has many challenges to achieve respectable performance. OpenSpirit has performance tuned as much as possible, but there are still some data types where the performance is quite poor for large projects. Schlumberger has been notified and knows about these issues.

- The OpenSpirit Data Connector for Studio has been optimized for enhanced performance. More Studio SDK attributes have been identified as being Linq-enabled and more constraints and WHERE clauses are being passed down to the Studio SDK for retrieving query results faster.
- Due to the known Studio SDK performance problems, the Studio Data Connector will perform poorly when using the default OpenSpirit common model view in the Data Selector Tool. We have provided two *performance models* which can be loaded by OpenSpirit administrator. One model serves all versions of the Studio Data Connector for the common model view and another model is provided for the native model view. These can be loaded using the Desktop ModelView Manager Import model view button and selecting the file(s) in: **`$OSP_HOME/plugins/Studio_<version>/modelviews`** folder. This action only needs to be performed once by the OpenSpirit administrator for the entire installation.

Release 3.5.1

- Performance Alert
The Schlumberger Studio SDK (Software Developer's Kit) has many severe performance problems that have been reported to Schlumberger but no fixes have

yet been made available.
Some major issues are

- A SQL Server back-end will yield much better performance than Oracle,
- Connecting as an account that has an admin role is much faster than running with a user role,
- Reading 2d seismic samples is very inefficient.

As a result, the OpenSpirit data connector has many challenges to achieve respectable performance. OpenSpirit has performance tuned as much as possible, but there are still some data types where the performance is quite poor for large projects. Schlumberger has been notified and knows about these issues.

- The OpenSpirit Data Connector for Studio has been optimized for enhanced performance. More Studio SDK attributes have been identified as being Linq-enabled and more constraints and WHERE clauses are being passed down to the Studio SDK for retrieving query results faster.
- Performance Alert:
Due to the known Studio SDK performance problems, the Studio Data Connector will perform poorly when using the default OpenSpirit common model view in the Data Selector Tool. We have provided two ***performance models*** which can be loaded by OpenSpirit administrator. One model serves all versions of the Studio Data Connector for the common model view and another model is provided for the native model view. These can be loaded using the Desktop ModelView Manager Import model view button and selecting the file(s) in: ***\$OSP_HOME/plugins/Studio_<version>/modelviews*** folder. This action only needs to be performed once by the OpenSpirit administrator for the entire installation.

Release 3.5.0

There are no changes in functionality in this release.

Release 3.4.1

There are no changes in functionality in this release.

Release 3.4.0

There are no changes in functionality in this release.

Release 3.3.0

There are no changes in functionality in this release.

Release 3.2.0

- OpenSpirit WellVelocity has been changed to map to the Studio Well_Checkshot object (Studio 2014.1 only).

Release 3.1.0

- Added a number of performance improvements.
- Added a number of memory footprint improvements.

Release 3.0.0

There are no changes in functionality in this release.

Deprecated and Removed Features

This section describes deprecated features (if any), and lists features, if relevant, that may be useful alternatives to the deprecated features. Any use of a deprecated feature should be discontinued as it may be removed in a future release. You should avoid becoming dependent on deprecated features and become familiar with the suggested alternative features.

This section also lists features that are removed (if any).

Release 3.6.0

The following are deprecated or removed features in this release.

- Dropped support for Studio 2014.x

Release 3.5.1

There are no deprecated or removed features in this release.

Release 3.5.0

The following are deprecated or removed features in this release.

- Dropped support for Studio 2013.x

Release 3.4.1

There are no deprecated or removed features in this release.

Release 3.4.0

There are no deprecated or removed features in this release.

Release 3.3.0

There are no deprecated or removed features in this release.

Release 3.2.0

There are no deprecated or removed features in this release.

Release 3.1.0

There are no deprecated or removed features in this release.

Release 3.0.0

There are no deprecated or removed features in this release.

Migration and Compatibility

This section explains how to migrate from a previous release to this release and version compatibility.

Release 3.6.0

Migration

The OpenSpirit Data Connector for Studio 3.6.0 is a full-installation of the data connector, decoupled from the OpenSpirit Runtime 4.2.0 release. This version can be installed into a TIBCO OpenSpirit Runtime v4.2.0 master installation using the InstallConfig tool.

See the Installation & Configuration Guide for further details.



*Hotfix **Runtime-v4.2.0-HF04+** must be installed into the OpenSpirit Runtime 4.2.0 Master installation prior to installing the OpenSpirit Data Connector for Studio 3.6.0.*

You can download Hotfixes from the TIBCO Support Customer Portal (<https://support.tibco.com>).

Log in using your username and password from the TIBCO Support Web page:

- *Select Download*
- *Select Hotfixes*
- *Select AvailableDownloads*
- *Select OpenSpirit*
- *Select Runtime*
- *Select 4.2.0*
- *Select HF0<n>*

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.2.0
- OpenSpirit Runtime-v4.2.0 HF04 or higher
- Studio Runtime (*corresponding with the version of Studio*)
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio Oracle Database Server (*corresponding with the version of Studio*) OR
- Studio SQL Server Database Server (*corresponding with the version of Studio*)

Certified Data Stores

- Studio 2017.1 running on Windows 7 and Windows 10 (64-bit)
- Studio 2016.2 running on Windows 7 and Windows 10 (64-bit)
- Studio 2015.7 running on Windows-7 (64-bit) and Windows 10 (64-bit)

Certified Operating Systems

- Windows 7 (64 bit)
- Windows 10 (64-bit)

Estimated Hardware Requirements

- See the TIBCO OpenSpirit Runtime 4.2.0 Release Notes.

Estimated Disk Requirements

- Binary installation:
 - Windows: 30 Mb

Release 3.5.1

Migration

The OpenSpirit Data Connector for Studio 3.5.1 is a full-installation of the data connector, decoupled from the OpenSpirit Runtime 4.2.0 release. This version can be installed into a TIBCO OpenSpirit Runtime v4.2.0 master installation using the InstallConfig tool.

See the Installation & Configuration Guide for further details.



Hotfix Runtime-v4.2.0-HF04 must be installed into the OpenSpirit Runtime 4.2.0 Master installation prior to installing the OpenSpirit Data Connector for Studio 3.5.1.

You can download Hotfixes from the TIBCO Support Customer Portal (<https://support.tibco.com>).

Log in using your username and password from the TIBCO Support Web page:

- Select Download
- Select Hotfixes
- Select AvailableDownloads
- Select OpenSpirit
- Select Runtime
- Select 4.2.0
- Select HF04

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.2.0
- OpenSpirit Runtime-v4.2.0 HF03 or higher
- Studio Runtime (*corresponding with the version of Studio*)
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio Oracle Database Server (*corresponding with the version of Studio*) OR
- Studio SQL Server Database Server (*corresponding with the version of Studio*)

Certified Data Stores

- Studio 2016.2 running on Windows 7 and Windows 10 (64-bit)
- Studio 2015.7 running on Windows-7 (64-bit) and Windows 10 (64-bit)
- Studio 2014.5+ running on Windows-7 (64-bit)

Certified Operating Systems

- Windows 7 (64 bit)
- Windows 10 (64-bit)

Estimated Hardware Requirements

- See the TIBCO OpenSpirit Runtime 4.2.0 Release Notes.

Estimated Disk Requirements

- Binary installation:
 - Windows: 30 Mb

Release 3.5.0

Migration

The OpenSpirit Data Connector for Studio 3.5.0 is a full-installation of the data connector, decoupled from the OpenSpirit Runtime 4.2.0 release. This version can be installed into a TIBCO OpenSpirit Runtime v4.2.0 master installation using the InstallConfig tool.

See the Installation & Configuration Guide for further details.



Hotfix Runtime-v4.2.0-HF03 must be installed into the OpenSpirit Runtime 4.2.0 Master installation prior to installing the OpenSpirit Data Connector for Studio 3.5.0.

You can download Hotfixes from the TIBCO Support Customer Portal (<https://support.tibco.com>).

Log in using your username and password from the TIBCO Support Web page:

- Select Download
- Select Hotfixes
- Select AvailableDownloads
- Select OpenSpirit
- Select Runtime
- Select 4.2.0
- Select HF03

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.2.0
- OpenSpirit Runtime-v4.2.0 HF03
- Studio Runtime (*corresponding with the version of Studio*)
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio Oracle Database Server (*corresponding with the version of Studio*) OR
- Studio SQL Server Database Server (*corresponding with the version of Studio*)

Certified Data Stores

- Studio 2016.2 running on Windows 7 and Windows 10 (64-bit)
- Studio 2015.7+ running on Windows-7 (64-bit)
- Studio 2014.5+ running on Windows-7 (64-bit)

Certified Operating Systems

- Windows 7 (64 bit)
- Windows 10 (64-bit)

Estimated Hardware Requirements

- See the TIBCO OpenSpirit Runtime 4.2.0 Release Notes.

Estimated Disk Requirements

- Binary installation:
 - Windows: 30 Mb

Release 3.4.1

Migration

The OpenSpirit Data Connector for Studio 3.4.1 is a full-installation of the data connector, decoupled from the OpenSpirit Runtime 4.2.0 release. This version can be installed into a TIBCO OpenSpirit Runtime v4.2.0 master installation using the InstallConfig tool, however **Runtime HF02 is a prerequisite** before installing the new data connector.

See the Installation & Configuration Guide for further details.

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.2.0
- OpenSpirit Runtime HotFix 02 (**HF02**)
- Studio Runtime (*corresponding with the version of Studio*)
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio Oracle Database Server (*corresponding with the version of Studio*) OR
- Studio SQL Server Database Server (*corresponding with the version of Studio*)

Certified Data Stores

- Studio 2013.7 running on Windows-7 (64-bit)
- Studio 2014.5+ running on Windows-7 (64-bit)
- Studio 2015.7 running on Windows-7 (64-bit)

Certified Operating Systems

- Windows 7 (64 bit)

Estimated Hardware Requirements

- See the TIBCO OpenSpirit Runtime 4.2.0 Release Notes.

Estimated Disk Requirements

- Binary installation:
 - Windows: 30 Mb

Release 3.4.0

Migration

The OpenSpirit Data Connector for Studio 3.4.0 is a full-installation of the data connector, decoupled from the OpenSpirit Runtime release.

See the Installation Guide for further details.

This version is included with the TIBCO OpenSpirit Runtime 4.2.0 release.

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.2.0
- Studio Runtime (*corresponding with the version of Studio*)
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio Oracle Database Server (*corresponding with the version of Studio*)
- Studio SQL Server Database Server (*corresponding with the version of Studio*)

Certified Data Stores

- Studio 2013.7 running on Windows-7 (64-bit)
- Studio 2014.5+ running on Windows-7 (64-bit)
- Studio 2015.1+ running on Windows-7 (64-bit)
 - ⚠ *There are significant performance slowdowns using Studio 2015.x, these issues have be communicated to Schlumberger who are investigating API fixes.*

Certified Operating Systems

- Windows 7 (64 bit)

Estimated Hardware Requirements

- See the TIBCO OpenSpirit Runtime 4.2.0 Release Notes.

Estimated Disk Requirements

- Binary installation:
 - Windows: 30 Mb


Release 3.3.0

Migration

The TIBCO OpenSpirit Data Connector for Studio 3.3.0 is a full-installation of the Studio data connector, decoupled from the TIBCO OpenSpirit v4.1.0 Runtime release. This version can be installed into a TIBCO OpenSpirit Runtime v4.1.0 master installation using the InstallConfig tool.

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.1.0 – Master installation (**with HF05 installed**)
 The 4.1.0 Runtime hotfix “**TIBCO OpenSpirit Runtime 4.1.0 HF05**” must be installed *before* installing the data connector
- Studio Runtime 2014.5
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio Runtime 2013.3
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio **Oracle** Database Server 2013.3 or 2014.5
- Studio SQL Server Database Server 2013.3 or 2014.5

Certified Operating Systems

- Windows 7 (64 bit)

Estimated Hardware Requirements

- Microsoft Windows 64-bit operating system
 - 3 GHZ Pentium 4 (or equivalent)
 - At least 8 GB of RAM
 - 80 GB disk drive and
 - Standard graphics card for Windows PC

Estimated Disk Requirements

- Binary installation:

- Windows: 66 Mb

Release 3.2.0

Migration

The TIBCO OpenSpirit Data Connector for Studio 3.2.0 is a full-installation of the data connector, decoupled from the TIBCO OpenSpirit Runtime release.

This version is included with the TIBCO OpenSpirit Runtime v4.1.0 release.

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.1.0 – Master installation
- Studio Runtime 2014.1
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio Runtime 2013.x
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio **Oracle** Database Server 2013.x
- Studio SQL Server Database Server 2013.x or 2014.1

Certified Operating Systems

- Windows 7 (64 bit)

Estimated Hardware Requirements

- Microsoft Windows 64-bit operating system
 - 3 GHZ Pentium 4 (or equivalent)
 - At least 8 GB of RAM
 - 80 GB disk drive and
 - Standard graphics card for Windows PC

Estimated Disk Requirements

- Binary installation:
 - Windows: 35 Mb

Release 3.1.0

Migration

The OpenSpirit Data Connector for Studio version 3.1.0 is a new minor version of the Studio 2013 data connector. If you have an earlier version of the OpenSpirit Data Connector for Studio installed you can deploy this v3.1.0 version on top, see the *OpenSpirit Data Connector for Studio User & Installation Guide* for instructions.

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.0.3 – Master and/or Satellite(s)
- Studio Runtime 2013.3
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio **Oracle** Database Server 2013.3

Certified Operating Systems

- Windows 7 64-bit

Estimated Hardware Requirements

- Microsoft Windows 64-bit running Windows 7 or Windows Vista with Windows Server 2008
 - 3 GHZ Pentium 4 (or equivalent)
 - At least 8 GB of RAM
 - 80 GB disk drive and
 - Standard graphics card for Windows PC

Estimated Disk Requirements

- Binary installation:
 - Windows: 35 Mb

Release 3.0.0

Migration

There is no migration from a previous version.

Compatibility

The OpenSpirit Data Connector for Studio requires the following products to be previously installed and available:

- TIBCO OpenSpirit Runtime 4.0.3 – Master and/or Satellite
- Studio Runtime 2013.1
 - This must be acquired from Schlumberger.
 - The Studio Knowledge Runtime needs to be installed on all Windows machines that will be used to run the Studio Data Connector.
- Studio **Oracle** Database Server 2013.1

Certified Operating Systems

- Windows 7 64-bit

Estimated Hardware Requirements

- Microsoft Windows 64-bit running Windows 7 or Windows Vista with Windows Server 2008
 - 3 GHZ Pentium 4 (or equivalent)
 - At least 8 GB of RAM
 - 80 GB disk drive and
 - Standard graphics card for Windows PC

Estimated Disk Requirements

- Binary installation:
 - Windows: 35 Mb

Closed Issues

The table in this section list issues that were closed in the named releases.

Closed in Release	Key	Summary
3.1.0	various	Fixed many problems related to copying OpenWorks R5000 data to Studio (using Copy Manager 2013.1.0)
3.1.0	31616	Default the ObservationNumber to 1 if the input value is null when inserting a WellPick.
3.1.0	32276	Unable to create 2d DEPTH datasets due to the starting depth and sample rate are not saved correctly. This was a known issue with the Studio 2013.1 SDK. It was logged with Schlumberger as issue #108 and fixed in the Studio 2013.3 SDK.
3.1.0	32304	The Studio 2013.1 SDK was extremely slow when inserting individual fault polylines. It was logged with Schlumberger as issue #107 and is fixed with the Studio 2013.3 SDK.
3.1.0	32313	Copying the 3d volume bulk data to Studio is slow if the inline or xline planes are not fully populated.
3.1.0	32321	Time-based faults Z values now have the correct sign when saved in the database.
3.1.0	32328	Will now create seismic horizons and associate them to the 'General' template if a new template cannot be created using the PropertyType and DataUnit. The returned PropertyType will be 'UNKNOWN'. Previously it associated them to the 'Seismic (default)' template which returned 'AMPLITUDES' for the PropertyType.
3.1.0	32346	The EarthModel is now honored when inserting 2d seismic horizons when both Model and PrimaryDomain attributes are supplied.
3.2.0	32451	The WellBore ElevationDatum column is now managed by the Reference Value Service.
3.2.0	33195	Fixed a problem where the Studio data connector process could hang upon shutdown.
3.2.0	33516	Fixed calculation of well path when only MD, azimuth, and inclination arrays are stored for a well (requires Studio 2013.6 runtime to be installed on the machine(s) where the Studio data connector will run). This was included in Studio_DC v3.1.0 HF03.
3.2.0	33102	Return MD, azimuth, and inclination arrays even when there's no trajectory polyline. This was also released as part of Studio Data Connector 3.1.0_HF01.
3.2.0	33361	Fixed a problem inserting PostStack3d if the Studio storage CRS is geographic (lat/long).
3.2.0	33387	Studio 2013 data connector was fixed to avoid problems creating 3d volumes when the survey original CRS is geographic and the storage is projected or vice versa.

Closed in Release	Key	Summary
3.2.0	33244	If the value for the Country is not known in the OpenSpirit Reference Value Service, return the value rather than defaulting to Unknown.
3.2.0	32850	The Studio native data model returns now returns the time Z values as negative going downwards which is how they are stored in the database. This makes it consistent with the depth Z values. The OpenSpirit carto CompoundSystem has a VerticalSystem. The VerticalSystem has a boolean PositivesUp attribute that indicates the sign of the Z values. Do not make assumptions about the sign; client applications need to use the PositivesUp attribute.
3.2.0	33756	The Studio data connectors now return all 2d and 3d surveys that are associated to a Seismic2DCollection and Seismic3DCollection (includes surveys that are parented by a sub-folder).
3.2.0	33769	Fixed a problem getting a Studio 2013 project listing if using Windows authenticated Studio accounts and the account name was long. Studio Manager is stripping off the "@domainname" if the entire user account name (including "@domainname") is longer than 25 characters. This does not appear to happen if the database is a SQL Server database.
3.2.0	33900	The Studio DC was modified so if CDP array not supplied (EpiSeismic_LineGeometry2d insert) then use the Trace array if it is supplied to populate the CDP numbers. If Trace array not supplied then use the Shotpoint array to populate the CDP numbers like before.
3.2.0	34038	The WellBore TotalDepth attribute is now mapped to MDRange\$Max rather than MDRange\$Max - MDRange\$Min.
3.2.0	34125	The Studio 2014 data connector now maps the OpenSpirit EpiWell_WellVelocity table to Well_CheckShot rather than Well_WellLog.
3.2.0	33554	Added a new configuration option to allow skipping the Reference Value Service mapping of the Studio OspBoreStatus, OspFluidType, OspShowType, and OspFlowDirection to the OpenSpirit BoreStatus, FluidType, ShowType, and FlowDirection attributes, respectively. If this option is checked, the Studio data connector will return the OspBoreStatus, OspFluidType, OspShowType, and OspFlowDirection values from the database as is, without using the Reference Value Service, into the BoreStatus, FluidType, ShowType, and FlowDirection attributes.
3.2.0	33805	Corrected a NullPointerException when IndexKind was not supplied on the insert/update query when inserting/updating the WellLogTrace bulk data.
3.2.0	33066	Add support for using SQL Server with the Studio data connector.
3.2.0	33380	Improved the data connector error message if the Studio Runtime is not installed.

Closed in Release	Key	Summary
3.2.0	32808	The Studio 2013/2014 data connectors can now create collection folders that represent the Earth Model when creating/copying non-seismic grids.
3.3.0	34143	Fixed problem where logs all ended up with identical names when copying from R5000 to Studio. This was originally released as Studio_DC_v320_HF01.
3.3.0	34403	Corrected a problem writing a null WellPick ConFactor value to the Studio database.
3.3.0	35021	Corrected a problem updating the arrays in a Studio 2014 Well Velocity.
3.3.0	34500	Vastly improved performance of query against the borehole table that were querying based on "LastModified\$Time".
3.3.0	34635	Allow Data Connector to start and accept queries even if the "ExternalFilesFolder" path is not correct or does not exist.
3.3.0	34657	The Studio data connector (both 2013 and 2014) now returns the correct data keys in the FaultPolylines (DataKey array) attribute. This was only a problem if client applications tried to use the FaultPolylines data key array in subsequent queries against the EpiInterpretation_FaultPolyline table.
3.3.0	34934	Fixed problems when writing or updating large seismic horizons and non-seismic grids (EpiInterpretation_HorizonGrid2dProperty). The data connector will now successfully write out the entire grid without any missing gaps. This was originally released as Studio_DC_v320_HF08.
3.3.0	35046	The Studio 2013/2014 data connectors have been modified so if a 2d horizon primary Z property is created because it is needed because 2d horizon attribute properties are created then the "dummy" primary Z property grid values are all initialized to 0. This was done to avoid problems in the Petrel 3d window when draping attribute properties over primary Z properties. Previously, the Studio data connector was only populating the "dummy" primary Z property with a single 0 and the rest would all be NaN. Apparently, Petrel (3d window) cannot drape an attribute property and display the sample values if the primary Z property has a NaN for the sample values.
3.3.0	35078	The Studio 2013/2014 data connectors have been fixed so when 3d seismic-based FaultPolylines are created they are associated with a 3d volume (PostStack3d) with the same domain, if one exists. This avoids problems when importing the Studio fault data into Petrel using DBX.
3.4.0	34897	OpenSpirit adds a placeholder Elevation value of 0 when inserting EpiWell_Well, since the Studio Well_Borehole object requires an Elevation. Modified to remove this placeholder Elevation value when inserting EpiWell_WellBore and a valid Elevation value is supplied.

Closed in Release	Key	Summary
3.4.0	35199	Enhanced the Studio Data Connector to properly return MD, Azimuth, and Inclination from planned well trajectories. Previously the Studio Data Connector did not return these attributes. Originally released as Studio-DC-v3.3.0-HF01.
3.4.0	35262	Added support for the recently added OpenSpirit common model attributes: FaultPolyline, PostStack2d, PostStack2dName, PostStack3d, PostStack3dName, HorizonGrid1dProperty, PostStack2d, PostStack2dName, HorizonGrid2dProperty, PostStack3d, PostStack3dName. Studio 2014 has the ability to handle all these new attributes. Studio 2013 does not have the ability to get/set the SeismicCube on the Seismic_HorizonInterpretation3D object so the HorizonGrid2dProperty was not modified for 2013.
3.4.0	35378	Improved performance for certain well table JOIN queries.
3.4.0	35428, 35510	Inserting into the EpiInterpretation_Grid2d table will not result in an "invalid origin" exception under certain data conditions. The algorithm has been fixed so the Studio data connector will always be successful in computing a valid origin.
3.4.0	35525	Copy Manager workflows can now preserve the Studio 2d/3d seismic datasets that are associated to fault polylines and 2d/3d seismic horizons if they are populated in the source project.
3.4.0	35532	The Studio data connector now returns all generic point set data as EpiInterpretation_HorizonPointSet rows and are visible using the OSP DataSelector. Previously, the Studio data connector only returned the point set data that was created using OpenSpirit.
3.4.0	35624	Fixed an "out of memory" problem caused by an ORDER BY being unnecessarily added to a JOIN query.
3.4.0	35763	The Studio data connector has been modified to fix color problems when creating non-seismic grids and their associated properties.
3.4.1	OSPST-13	The Studio data connector was modified and now the EpiInterpretation_HorizonFaultBoundarySet table returns all rows in the Studio Shapes_PolylineSet table. This was preventing the ArcGIS Extension from being able to display any Studio HorizonFaultBoundaries.
3.4.1	OSPST-32	All entities with a SpatialLattice now have a SpatialLattice\$XYPolygon attribute that is an OSP Polygon representing the 4 corner points. This was requested to make native scanning and spatial data operations easier and more sophisticated.
3.4.1	OSPST-36	Updated many data source capabilities values to reflect the current Studio data model.
3.4.1	OSPST-38	Corrected a problem querying for WellBoreList with a PrimaryKey\$ constraint.
3.4.1	OSPST-39	The WellBore AzimuthNorthType column now maps to Trajectory\$AzimuthReference in Studio 2015.

Closed in Release	Key	Summary
3.4.1	OSPST-40	The WellBore CalcMethod column now maps to Settings\$CalculationAlgorithmType in Studio 2015.
3.4.1	OSPST-43	If configured to use external Windows authentication, use both the primary and secondary (if it exists) accounts for getting the project listings, since the primary account may not be sufficient.
3.4.1	OSPST-47	DatumElevation is now returned correctly for time-based Studio point sets if the Shapes_PointSet's ReferenceElevationTime is non-zero. It is now possible to update the DatumElevation for time-based Studio point sets.
3.4.1	OSPST-73	All Studio native tables that have a SpatialLattice attribute now return four XY corner points; previously only three XY corner points were returned. The new fourth corner point (SpatialLattice\$XYWorld_iNjN) represents the XY position opposite of the origin.
3.4.1	OSPST-85	Improved handling of the Well_Zone Name when creating a zone for a Well_Marker.
3.4.1	OSPST-91	Corrected a problem copying a Well from Studio to Studio if the Studio UWI is null.
3.4.1	OSPST-141	Performance improvement - implement constraint processing for AttributeExt and PropertyExt tables.
3.4.1	OSPST-148	Corrected a problem updating the EpiWell_WellBore TotalDepth in the Studio 2015 data connector.
3.4.1	OSPST-149	The Studio Data Connector now allows updating the EpiWell_Well and EpiWell_WellBore Identifier.
3.4.1	OSPST-155	The Studio data connector now returns more 2d lines in the DataSelector's "2D Navigation" tab. Studio does not have the concept of 2d lines in their Studio data model; just 2d datasets. OpenSpirit now returns a 2D line for each 2D dataset.
3.4.1	OSPST-157	The Studio data connector now returns all Studio SeismicInterpretationCollection and CommonCollection folders as an EpiInterpretation_EarthModel. Previously, only the top-level folders were returned. The Studio entities that have associations to collections now return their immediate collection parent as an EarthModel. Previously, they returned an EarthModel for the top-level folder.
3.4.1	OSPST-168	The EpiInterpretation_HorizonFaultBoundary's Points implementation has been modified so the spatial LineString will now be "closed" (e.g. first and last point matches) if the native Studio polygon's IsClosed property is true.

Closed in Release	Key	Summary
3.4.1	OSPST-206	The Studio to Studio copy rules were modified for 3d seismic horizons so the source project's Horizon feature name is used to create the target project's Horizon feature. Previously, it was using the source project's HorizonGrid2d name to create the target project's Horizon feature.
3.4.1	OSPST-225	Improve performance when writing 2D horizons into Studio - now twice as fast as before.
3.4.1	OSPST-227	If the data source configuration specifies an invalid license, the data server will now be shutdown by the framework automatically. Previously the server would correctly report the error correctly, but the process would stay alive and require a manual shutdown.
3.4.1	OSPST-234	Previous Studio Native data models included the Well.Completion tables but never implemented them. Access to these tables has now been implemented in 2014 and 2015 versions but not 2013. Please note that the OpenSpirit common data model does not include Well Completions so these tables will only be seen when using the native Studio data model.
3.5.0	OSPST-27	Now supporting selection of Well Symbol Group on the Data Source configuration panel. Petrel, Shell, Maersk, PDVSA and Russian options are available for 2014 and 2015. In 2016, the UserSymbols option is available along with the others and a text field has been added for specifying which group in the XML file to use. The UserSymbols selection requires the existence of the file '%OSP_HOME%/plugins/Studio_2016/UserSymbolFile.xml' that defines the well symbol groups. The User Defined Group field should be defined with the name of the group in the file that should be used.
3.5.0	OSPST-93	Improved performance retrieving the Bores for a WellBoreList.
3.5.0	OSPST-178	Native model copy now supports the ability to transfer the source SEGY/ZGY file contents to the target using the new ReferenceFileBlob attribute.
3.5.0	OSPST-189	Native model for Studio 2016 now provides an attribute that contains the textual representation of the Ocean CoordinateReferenceSystem where there existed an attribute containing a CRS.
3.5.0	OSPST-217	The Studio 2015 SDK often returned the Well_Borehole LastModified values differently by a second or two for the same borehole in successive queries. This has been fixed in Studio 2016.2
3.5.0	OSPST-232	Now supporting Studio 2016.2 Runtime version.
3.5.0	OSPST-278	Now exposing all the "well-known" extension properties on Borehole, Marker and WellLog tables.

Closed in Release	Key	Summary
3.5.1	OSPST-309	Modified the native Studio 2016 model and added PropertyType (VARCHAR) to Seismic_DictionaryHorizonProperty2D and Seismic_DictionaryHorizonProperty3D. Seismic_DictionaryHorizonProperty2D objects are now returned as HorizonGrid1dSetProperty and HorizonGrid1dProperty rows as attribute properties. Seismic_DictionaryHorizonProperty3D objects are now returned as HorizonGrid2dProperty rows as attribute properties.
3.5.1	OSPST-320	Seismic and Interpretation table queries are much faster if the client application queries (including DataSelector) only require Linq-enabled native attributes because Studio SDK objects no longer need to be created.
3.5.1	OSPST-322	Studio 2015 and 2016 should see better performance because many more Studio SDK native attributes are now identified as being Linq-enabled so that makes them candidates for Linq queries and SDK objects do not have to be created if only Linq-enabled attributes are requested.
3.5.1	OSPST-324	A problem with the Studio Data Connector not able to start due to the setting of the "Well Symbol Group" in the Studio 2016 data source configuration panel to UserSymbols has been fixed.
3.5.1	OSPST-325	Updated the Studio Performance modelview to include attributes left out previously due to native attribute not being linq-enabled. The new modelview must be loaded by OpenSpirit administrator using desktop ModelView Manager to make it available to users. See <i>Changes in Functionality</i> notes.
3.5.1	OSPST-326	Studio Data Connector now honors the basic filter criteria operators (Equal, IN, LIKE, <, >, <>, IS_NULL, IS_NOT_NULL) offered in the OpenSpirit Data Selector. When the selected criteria attributes are allowed for filtering in the native provider, the query will be much faster than before.
3.5.1	OSPST-329	EpilInterpretation_EarthModel processing has been fixed so Studio collection folders with the same name are no longer filtered out.
3.5.1	OSPST-331	Improved performance when querying the EpilInterpretation_HorizonGrid2d table and using one of the following WHERE clauses: <ul style="list-style-type: none"> • SeismicGeometry3d IS NULL • SeismicGeometry3d IS NOT NULL • Grid2d IS NULL • Grid2d IS NOT NULL This will benefit DataSelector performance because it uses these types of WHERE clauses.
3.5.1	OSPST-336	Performance improvements in Studio 2015 and 2016: <ul style="list-style-type: none"> • Now able to push down more constraints (e.g. LastModified) • Now only retrieve native SDK attributes if they are required by OSP query

Closed in Release	Key	Summary
3.5.1	OSPST-342	The DataSelector will be much faster now when scoping 2D Horizons to 2D Surveys.
3.5.1	OSPST-344	Improvements to give faster performance for 2d/3d seismic horizons and non-seismic grids if scoping to Horizons and EarthModel. These are common scoping filters when using the DataSelector.
3.5.1	OSPST-362	Performance improvement for Scan workflows where LineGeometry2d and PostStack2d were being scanned. Reduced memory footprint also.
3.6.0	OSPST-20	Studio SDK Issue #135 is fixed in 2017.1 version; now allowed to set IExtension properties to non-null value after setting to null without needing to restart the process.
3.6.0	OSPST-260, OSPST-304	The Schlumberger Studio 2017.1 SDK fixed a problem (SDK #155) where updating Shapes_DictionaryPointProperty would fail. We have now modified the defined capabilities of Shapes_DictionaryPointProperty's and allow updating.
3.6.0	OSPST-301	Added support for the Drilling_SurveyProgram native table for Studio 2016 and 2017.
3.6.0	OSPST-330	The EpiInterpretation_FaultPointSetProperty and EpiInterpretation_HorizonPointSetProperty tables now return a non-null LastModifiedDate attribute.
3.6.0	OSPST-328	The Schlumberger Studio 2017.1 SDK fixed a problem (SDK #157) where a projected query for the Seismic.LineGeometry.Name property would fail.
3.6.0	OSPST-334	The Schlumberger Studio 2017.1 SDK fixed a problem (SDK #158) in Studio 2017 where a projected query with more than 16 attributes would fail.
3.6.0	OSPST-339	The EpiInterpretation_HorizonGrid1d table now returns the LastModifiedDate attribute.
3.6.0	OSPST-360	The Schlumberger Studio 2017.1 SDK fixed a problem (SDK #160) when writing MarkerCollections, originally discovered in the Studio 2016.3 runtime. This problem did not occur with their Runtime 2016.2 version.
3.6.0	OSPST-388	Corrected a problem computing the Trajectory\$TVD column. Previously was setting to the TrajectoryRecord TVDSS value. Corrected value is Elevation + TrajectoryRecord TVDSS (TVDSS is positive down in Studio).
3.6.0	OSPST-395	An exception will now be thrown when attempting to insert an EpiWell_WellLogTrace with invalid trace data.
3.6.0	OSPST-396	This release of the OpenSpirit Studio data connector removes support for the Studio 2014 version; it now supports 2015, 2016 and 2017 versions only.
3.6.0	OSPST-399	Fixed unit reported for Well.Marker.GeologicalAge attribute; use preferred unit for Measurement = Geologic_Time.
3.6.0	OSPST-405	Studio SDK Issue #135 has been fixed so now the Data Connector can allow setting Extension properties to null.

Closed in Release	Key	Summary
3.6.0	OSPST-416	Corrected a problem where a System.NotSupportedException would occur when issuing a query with a LIKE operator in the WHERE clause and no '%' wildcard in the LIKE value.
3.6.0	OSPST-424	Corrected a problem in the native update copyrule for Well_WellLogVersion when determining if the row should be updated. This problem would occur when running a native Studio 2016 copy job multiple times.
3.6.0	OSPST-426	Corrected a problem querying for EpiWell_WellLogTrace when a 'TraceUnit=?' constraint was part of the query.

Known Issues

The following are the most significant issues known at the time of the release

Key	Summary/Workaround
SLB SDK #159	Performance testing on projects stored in Oracle database show that accessing the project as a user with Administrator privilege will result in reading the data 10 times faster than when accessing the project with non-admin user. OpenSpirit issue OSPST-373. Problem has been reported to Schlumberger.
SLB SDK #160	An exception is thrown by the Studio SDK when saving the project after inserting a Well_Marker. This exception leaves the Marker Collection in a corrupted state where no more markers can be successfully added to that collection. This problem exists in the Studio 2016.3 runtime. SLB fixed this problem in 2017.1.
SLB SDK #137	Studio SDK access of 2D seismic trace samples exhibits extremely poor performance when reading 2D SEGY files. Problem was reported to Schlumberger May 2015 and will be addressed in some future release. OpenSpirit issue OSPST-22/OSPST-229.
35059	Due to an issue that has been reported to Schlumberger, the options on the Studio Data Source Configuration panel to create customized coordinate systems for Studio have been removed. The customized coordinate systems were not getting created correctly. Until this issue is resolved by Schlumberger, any spatial data with customized coordinate systems that is copied into Studio using OpenSpirit products will need to be converted into the default storage coordinate system of that Studio repository.
34067	The Studio data model requires a SeismicCube (3d volume), not a Seismic3DCollection (3d survey), to be associated with a 3d fault segment. If the 3d survey does not have any 3d volumes then the fault polyline cannot be associated to a 3d survey. Clients must copy at least one 3d volume for the 3d survey before they copy 3d faults.
35575	For 3d faults, the Studio data model only associates them to 3d volumes of the same domain. To preserve the 3d survey association, you must copy over at least one 3d volume of the same domain that belongs to the same 3d survey. If there are no 3d volumes then you can still copy the 3d faults but they will not have any 3d survey origin information.

Key	Summary/Workaround
OSPST-129	The Studio SDK automatically re-initializes any associated point set properties (if they exist) to 0 if the point set's XYZ values are updated. This is not a problem if there are no associated properties or if the properties are updated after the XYZ values are updated. It is only a problem if the XYZ values are updated and not the associated properties.
OSPST-153	Studio 2015.5 and 2015.6 cannot retrieve HorizonInterpretation3d domain objects. Customers must use Studio 2015.7 to avoid this problem (or earlier versions of Studio).
OSPST-313	Some native copied SEG Y files will crash DBX in Petrel 2016.2 when being transferred from Studio to Petrel. This is an issue with the transfer behavior in DBX that changed in a recent version. Schlumberger will be fixing this in a future release (SLB issue #156). We have been unable to determine exactly what data condition will trigger this DBX crash.
OSPST-380	The reading of 2D horizons is slow. This is due to the data caching logic in the SDK; our workaround to read data in batches to save process memory space is necessary to be able to run in large projects without taking all memory on the process host machine.
OSPST-21	When copying a 2D horizon comprised of multiple 2D surveys from Studio to any other data source, the 2D horizon is only partially copied to the target project. Workaround: To workaround this problem, create customized copy rules to append the 2D survey name with the 2D horizon name so it has a unique key. This will allow the entire 2D horizon to be copied to the target project.
SLB SDK #156 OSPST - 327	LastModified dates cannot be queried in a Linq-Enabled way in 2016.4 and 2017.1 Studio Runtime releases. This makes Scan and Copy jobs that depend on last modified dates run slower than they did with 2016.2 Studio Runtime version.