SAP BusinessObjects Data Services
Document Version: 4.1 Support Package 3 (14.1.3.0) - 2013-12-27

Release Notes

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1 About SAP BusinessObjects Data Services 4.1 Support Package 3

Welcome to SAP BusinessObjects Data Services 4.1 Support Package 3, version 14.1.3.0. SAP BusinessObjects Data Services delivers a single enterprise-class solution for data integration, data quality, data profiling, and text data processing that allows you to integrate, transform, improve, and deliver trusted data to critical business processes. It provides development user interfaces (Designer and Workbench), metadata repository, data connectivity layer, run-time environment, and management console—enabling IT organizations to lower total cost of ownership and accelerate time to value. With SAP BusinessObjects Data Services, IT organizations can maximize operational efficiency with a single solution to improve data quality and gain access to heterogeneous sources and applications.

Documentation

To obtain the latest version of documentation including the most up-to-date version of these Release Notes, visit the SAP Help Portal at (*http://help.sap.com/bods41/*) and follow the appropriate product guide links.

You can also access the latest information, including additional installation and configuration troubleshooting, pertaining to the Data Services 4.1 SP3 release by reading *SAP Note 1530081* on the SAP Service Marketplace.

Before you install

Before installing the software, read this entire document. It contains important information about this product release including installation notes, details regarding known issues, and important information for existing customers.

This version may be installed as a new instance of the software or may be used as an update over an existing SAP BusinessObjects Data Services or Data Integrator instance in the same installation directory. For a new or update installation, follow the instructions in your *Installation Guide for Windows* or *Installation Guide for UNIX*.

1.1 SAP BusinessObjects information resources

A global network of SAP BusinessObjects technology experts provides customer support, education, and consulting to ensure maximum information management benefit to your business.

Useful addresses at a glance:

Address	Content
Customer Support, Consulting, and Education services	Information about SAP Business User Support programs, as well as links to technical articles, downloads, and online forums. Consulting services can provide you with information

Address	Content
http://service.sap.com/	about how SAP BusinessObjects can help maximize your information management investment. Education services can provide information about training options and modules. From traditional classroom learning to targeted e-learning seminars, SAP BusinessObjects can offer a training package to suit your learning needs and preferred learning style.
Product documentation *http://help.sap.com/bods41/*	SAP BusinessObjects product documentation.
Supported Platforms (Product Availability Matrix) *https://service.sap.com/PAM*	Get information about supported platforms for SAP BusinessObjects Data Services. Use the search function to search for Data Services. Click the link for the version of Data Services you are searching for.

2 Compatibility update

In the typical SAP BusinessObjects Data Services landscape, you must first install one of the following products. These products provide platform services such as security, scalability, and high availability for Data Services and Information Steward.

> **Note**
>
> At the time of this release, the minimum compatible version of BIP or IPS is 4.0 SP4. However, the availability of this minimum version on the Service Marketplace may change in the future. So, before you begin downloading and installing this version, be sure to refer to the compatibility matrix for the latest supported version. (*SAP Note 1740516*)

- SAP BusinessObjects Information Platform Services (IPS) if you only want to use features of Data Services or Information Steward.
- SAP BusinessObjects Business Intelligence platform (BI platform) if you also want to use Business Intelligence clients such as Web Intelligence documents or Crystal Reports

> **Note**
>
> If you are currently using SAP BusinessObjects Business Intelligence platform (BI platform), we also recommended that you install SAP Business Intelligence Information platform services (IPS) with Data Services on a separate environment to provide flexibility to upgrade Data Services and Information Steward independently from BI platform.

For the latest information regarding Data Services and BI platform/IPS compatability, see *SAP Note 1740516*

For the latest updates in other product compatibility, see the *Product Availability Matrix* document located in the SAP Service Marketplace: *https://service.sap.com/PAM*.

3 Restrictions update

The following restrictions apply to SAP BusinessObjects Data Services version 14.1.3.0.

Installation restrictions

The SAP BusinessObjects Data Services installer is available in English only.

Modify installation restriction

During a “Modify” installation, installed features are incorrectly displayed as unchecked (not installed).

Symptom

In the maintenance installation window, if you choose *Repair* first, then click *Next*, then click *Back*, then choose *Modify*, and then click *Next*, the feature tree selections are incorrect: No feature is shown as already installed.

If you proceed with the incorrect selections, all unselected features (if previously installed) will be uninstalled and only the current features shown as selected will be kept or installed.

Environment

Data Services 4.x

Resolution

Exit the current maintenance installation window by clicking *Cancel* and then clicking *Exit Setup*. Re-launch the maintenance installation, select *Modify*, and click *Next*. This refreshes the feature tree selections and correctly displays the installed features as checked. You can now proceed by adding or removing features as needed for a "Modify" install.

See Also

Other troubleshooting tips can be found in the knowledge base article 1530081

Other restrictions

- Support for SAP Master Data Services as an SAP BusinessObjects Data Services datastore for source or target relies on the availability of the first generally available SAP Master Data Services release.
  SAP Master Data Services is a new SAP MDM solution built on SAP HANA and will provide the capability to consolidate and enrich Customer master data.
- For Sybase IQ versions prior to 15.x, Data Services does not support named pipes if the Job Server and Sybase database are not on the same computer.
- The installation path of Data Services cannot contain multi-byte characters.
- The functionality to create BusinessObjects Universes from datastores is not available from the Windows 64-bit Data Services Designer. This functionality is available from the 32-bit Data Services Designer only.

- The functionality to read from and write to Data Federator data sources is not available on the Windows 64-bit Data Services Designer and Job Server due to unavailability of 64-bit ODBC driver for Data Federator. This functionality is available for the 32-bit Data Services Designer only.
- The Text Data Processing Entity Extraction transform assumes that the format of an input document is consistent. Processing mixed-format input (for example, a binary object embedded in an HTML e-mail message) is not supported.
- The Text Data Processing Entity Extraction transform assumes that the language of an input document has been selected correctly. Processing content using the wrong Text Data Processing language (for example, processing a Simplified Chinese document using the English language) can result in incorrect results or longer processing times.
- When you use an Attunity Connector datastore, all Data Services features are available except the following:
  - Bulk loading
  - Imported functions (imports metadata for tables only)
  - Template tables (creating tables)
  - Datetime data type supports up to 2 sub-seconds only
  - Loading timestamp data into a timestamp column in a table, because Attunity truncates varchar data to 8 characters, which is not enough to correctly represent a timestamp value.
- Bulk loading data to DB2 databases running on z/OS or iSeries systems is not supported.
- For Data Services job servers on UNIX/Linux, connectivity to Microsoft SQL Server (source/target) is available through Data Direct drivers. For these ODBC datastores, bulk loading is not available, so there is no bulkloading to MS SQL Server from UNIX/Linux job servers.
- The following table describes the Data Services support for multi-byte metadata, Data Profiler, the lookup_ext function, and View Data.

> **Note**
>
> Data Services supports multi-byte metadata for table names, column names, file names, and file paths.
>
> Support for multi-byte metadata depends on comparable support in the applications, databases, and technologies with which Data Services interoperates.

Source/Target	Multi-byte metadata	Data Profiler	Lookup_ext	View Data
Adapter	Yes	No	No	No
Attunity connector for mainframe databases	No	Yes	Yes	Yes
BusinessObjects Enterprise	Yes	n/a	n/a	n/a
COBOL Copybook	Yes	No	No	Yes
DB2	Yes	Yes	Yes	Yes
Flat File	Yes	Yes	Yes	Yes
SAP HANA	Yes	Yes	Yes	Yes
Informix	Yes	Yes	Yes	Yes
JD Edwards	No	No	Yes	No

Source/Target		Multi-byte metadata	Data Profiler	Lookup_ext	View Data
Memory Datastore		Yes	Yes	Yes	No
Microsoft Excel		Yes	No	No	Yes
Microsoft SQL Server		Yes	Yes	Yes	Yes
MySQL		Yes	Yes	Yes	Yes
Netezza		No	Yes	Yes	Yes
ODBC		Yes	Yes	Yes	Yes
Oracle		Yes	Yes	Yes	Yes
Oracle E-Business Suite		No	Yes	Yes	Yes
People Tools		No	Yes	Yes	Yes
Persistent Cache		Yes	No	Yes	Yes
Salesforce.com		Yes	No	No	No
SAP Business Suite					
	Extractor	No	No	No	Yes
	Hierarchy	No	No	No	Yes
	IDoc	No	No	No	No
	Table	No	Yes	No	Yes
SAP BW Source					
	IDoc	No	No	No	No
	OpenHub	No	No	No	No
	Table	No	Yes	No	Yes
SAP BW Target		No	No	No	No
Siebel		Yes	Yes	Yes	Yes
Sybase ASE		Yes	Yes	Yes	Yes
Sybase IQ		Yes	Yes	Yes	Yes
Teradata		Yes	Yes	Yes	Yes
XML		Yes	No	No	Yes

- When using Microsoft Excel as a data source, the following restrictions apply:
  - Concurrent access to the same Excel file will not work. For example, View Data will not display if the file is currently open in Excel.
  - Because an Excel column can contain mixed data types, some data type conversions may produce unexpected results; for example, dates might convert to integers.

- Workbooks with AutoFilter applied are not supported. Remove the filter before importing the workbook.
- Workbooks with hidden rows and/or columns are not supported.

- To ensure security for your Data Services environment, use a firewall to prevent remote access to administrative functions. For information about the ports required for Data Services components, see the *Administrator's Guide*.
- SAP HANA SP3 version does not support NULL values for scalar INPUT parameters when calling SAP HANA stored procedures. You are expected to manage the NULL values in the data before invoking the SAP HANA stored procedures.
- When executing a Data Services job from BW, make sure the Data Services job has only one BW load data flow with only one BW loader as a target. Having more than one BW loader results in one of the following error messages:
  - Load data to BW failed: RequestID = <REQU_DDVR1591QKPU07VJMPZX8PUBA20121018153225>, Packet Number = <1>, Error = RFC_ABAP_MESSAGE, , SY-MSGTY: X, SY-MSGID: 00, SY-MSGNO: 341, SY-MSGV1: MESSAGE_TYPE_X)- The current application triggered a termination with a short dump.
  - Load data to BW failed: RequestID = <>, Packet Number = <999999>, Error = RFC_ABAP_RUNTIME_FAILURE-(Exception_Key: PERFORM_PARAMETER_MISSING)- Missing parameter with PERFORM.

  The reason this happens is that when you use two loaders, the BW system will see the same packet number for a request ID two times. The error occurs because it has already received the same packet number before.

4 Product dependencies update

- In order to use the Teradata interface on a Windows 64-bit platform, you must set the following environment variable on the Windows job server machine:
  `LIB_32BIT_TERADATA=<<Teradata 32-bit client location>>`
  This step is necessary due to the unavailability of Teradata client utilities on Windows 64-bit platforms.
- The Microsoft Excel interface has software dependencies in SAP BusinessObjects Data Services 4.1. Special care must be taken when installing Data Services on a machine with a Microsoft Office version lower than 2010. For details, see the *Installation Guide*.
- The SAP BusinessObjects Data Services XI 4.0 (version 14.0.0 and above) Open Hub feature is supported in SAP BW 7.01 patch level 003 and above.
  As a pre-requisite, the following SAP Notes must be implemented before using this feature:
  - *SAP Note 1270828*, *1294774*: Resolves table import issues.
  - *SAP Note 1330568* version 3: Resolves table reading issues.

  For the latest information about Open Hub, refer to *SAP Note 1343606* in the SAP Service Marketplace.
- For the latest information about Data Services SAP extractor support, see *SAP Note 1558737*.
- Support for the Allow Merge option for auto correct load is provided for the following targets: Oracle 9i and above, IBM DB2 89,1 and above, and Microsoft SQL Server 2008.
- Due to a vendor limitation with Oracle 10G, while running Data Services on UNIX using Oracle Client on UNIX and Oracle Server on Windows, the Oracle Client version must be 10.2.0.1 or higher.
- The Data Services log-based changed-data capture (CDC) works with the following database versions:
  - Oracle version 9.2 and above compatible versions for synchronous CDC and Oracle version 10G and above compatible version for asynchronous CDC.
  - Microsoft SQL Server 2000, 2005, and 2008.
  - Attunity for mainframe sources using Attunity Connect version 5.1 and above.
  - Data Services 4.0 and later versions now support extracting data from the SAP Business Suite applications through the business content extractors. In order to fully benefit from this feature, there are some minimum support package requirements for your NetWeaver environment. In addition to the support package, an additional SAP Note needs to be applied to your NetWeaver environment to release the extractors and make them visible for Data Services. These dependencies are documented in *SAP Note 1522554*.
    For older versions of your SAP Business Suite (pre-ECC6) or when the required support package is not installed, extractors can still be used, but with limited functionality. This includes:
    - No support for delta queues
    - Supported extractor types: Transaction and Attribute

5 Deprecated functionality

Data Services 4.1 SP3

- We no longer ship transport files for SAP NetWeaver 6.0 and later versions. Refer to *SAP Note 1919255* for information about obtaining the transport files for SAP NetWeaver 6.0 and later versions.
- Native source and target support for HP Neoview has been removed from this release. However, you will still find references to this support in the documentation and in the product interface (for example, the Datastore editor in the Designer). You can, however, use a generic ODBC connection to connect to HP Neoview sources and targets.

Data Services 4.1

The following functionality, which had been available with Data Services XI 4.0, is no longer available:

- Text Data Processing:
  - Support for subentities in German and English.
  - The Entity Extraction transform no longer normalizes extraction output. For example, dates and currencies appear as they were found in the source text.
- SAP BusinessObjects Metadata Integrator

Data Services XI 4.0

The following functionality, which had been available with Data Services XI 3.x, is no longer available:

- HP-UX has been removed as a supported platform. Disregard mentions of HP-UX in any documentation that may contain references to this platform and refer to the PAM for information on all supported platforms.

Data Services XI 3.x

The following functionality, which had been available with Data Services XI 3.x, is no longer available:

- HP-UX has been removed as a supported platform.
- Data Cleanse dictionary functionality (moved to the Cleansing Package Builder module of Information Steward), including:
  - Creating and deleting dictionaries
  - Adding, editing, and deleting entries, outputs, and classifications
  - Searching
- Data Cleanse tab in a target table's View Data feature
  - Add Firm Standards

    - Add to Dictionary
- BWA/TREX datastore database type and its related functions
- Index Designer
- Graph tabs that depict Gantt charts in the Performance Monitor and Operational Dashboard are not available in the SAP BusinessObjects Data Services XI 3.2 version 12.2.0.0 or later releases. Table views of the data are still available.
- CaShowL

Data Integrator XI Release 2 Accelerated (11.7)

The following functionality, which had been available with Data Integrator XI Release 2 Accelerated (11.7), is no longer available:

- Log-based changed-data capture (CDC) with IBM DB2 UDB for Windows, z/OS, IMS/DB, and IBM VSAM.

Data Quality XI Release 2

The following functionality, which was available with Data Quality XI Release 2, is no longer available in SAP BusinessObjects Data Services:

- Web Services: .Net Deployment
- Compound transforms
- Shared options
- Unique ID Record Stem support in Candidate Selector
- Pre/Post SQL Operations in Reader transform
- Per Dataflow Mode in User-Defined transform (use workflow and scripts instead)
- Enabling and disabling transforms in a dataflow
- Thread and watermark settings on a per-transform basis
- Observer transform
- Progress Service transform
- Integrated batch API
- Admin methods in Message Client API
- JIS_Encoding, UTF-32 for flat files
- Python methods for User-Defined transform
- Generic Per Collection Mode Sort in Sorter transform
- DBASE3 file formats

6 Upgrade considerations

Upgrading to Data Services 4.1 SP3

Before you upgrade, be sure you refer to the Restrictions update section of these *Release Notes* for important installation information about upgrading from previous versions of Data Services (XI 3.x, 4.0, 4.1, and Data Integrator 11.7).

Data Services 4.1 SP3 can be installed on top of an existing version of Data Services 4.0. If you are upgrading from a version of Data Services prior to 4.0, you must uninstall those versions before installing version 4.1 SP3.

> **Note**
>
> Refer to *SAP Note 1723342* for possible upgrade scenarios and known issues.

Compatible version of SAP BusinessObjects Business Intelligence platform or Information platform services

At the time of this release, the minimum compatible version of BIP or IPS is 4.0 SP4. However, the availability of this minimum version on the Service Marketplace may change in the future. So, before you begin downloading and installing this version, be sure to refer to the compatibility matrix for the latest supported version. (*SAP Note 1740516*)

Supported installation scenarios

The following is a list of the typical supported installation scenarios for patching to the Data Services 4.1 Support Package 3 (DS 4.1 SP3):

- Updating an existing installation: [BI 4.0 SP4 + DS 4.0 SP1/SP2] + DS 4.1 SP3
- New installation: BI 4.0 SP4 full + DS 4.1 SP3

> **Note**
>
> Information platform services can be used in place of BI platform in the above scenarios.

Installation sequence

1. If you have an existing installation of Business Intelligence platform or Information platform services (IPS), you must install Business Intelligence platform (BIP) 4.0 SP4 (patch version) or Information platform services (IPS) SP4 (patch version), or higher.

2. Uninstall any Data Services versions prior to 4.0.
3. Install Data Services 4.1 SP3.

Before starting the update procedure, make a backup of your Data Services configuration files (for example, `DSConfig.txt`). During the installation of Data Services 4.1 SP3, you can choose to reuse an existing configuration and repository from previous Data Services 4.0 installation.

Refer to the SAP BusinessObjects Business Intelligence platform "Backing Up and Restoring" topic in the *SAP BusinessObjects Business Intelligence platform Administrator Guide* before uninstalling it.

7 Known issues

This section lists known issues in descending order by internal issue identification tracking number. We also use these numbers in the release notes that accompany our support packages and patches. You can reference the issue ID when searching for the issue on our knowledge base or when speaking to SAP Business User Support.

When possible, workarounds are provided to help you resolve these issues.

Issue ID	Description
ADAPT01715111	If you are using the bundled SQL Anywhere database server for the CMS repository, and plan to use HANA or MySQL as the Data Services repository, here is a prerequisite before deploying DS on top of BI/IPS. 1. You must find out which $ODBCINI for BI/IPS SQL Anywhere you should use. It will be either user a self-defined variable or the BI/IPS bundled one found at **<IPS_INSTALL_DIR>**/sap_bobj/enterprise_xi40/odbc.ini. 2. When you choose the $ODBCINI during the Data Services installation, you must point to the same $ODBCINI configuration as BI/IPS. Repository creation during installation will fail for HANA or MySQL, if the $ODBCINI is not pointing to the BI/IPS configuration for SQL Anywhere.
ADAPT01713377	The disk cost operation in the installer is inherited from the BOE framework. Because BOE seems to be doing the disk cost calculation on the system, it also considers mapped drives. This can lead to a prolonged installation procedure.
ADAPT01713371	When deploying Data Services on Netweaver 7.31, the predeployall step fails with an error for the webservice component. The WebService package is not created as a result. This issue has been fixed, and the fix for this will be available in the Data Services 4.2 SP1 Patch1 release.
ADAPT01713296	If the Data Services Designer is installed on a 32-bit Windows OS, follow the steps below to use HANA ODBC driver with ODBCDriverSelector correctly. 1. Go to `%DS_COMMON_DIR%\conf`. 2. Open `DSConfig.txt`, and find HANA_1_X = HDBODBC. 3. Change the value to HANA_1_X = HDBODBC32.
ADAPT01710495	A mixed case table name in SAP HANA cannot be used as a comparison table when using a Table Comparison transform.
ADAPT01709411	Exporting a Data Quality report fails when password encryption is enabled for a Sybase repository. This occurs in both the Management Console and when utilizing the Export Data Quality Reports option when executing a job. To workaround this issue, disable the password encryption on the Sybase repository.
ADAPT01706418	When reading from a HANA table that contains clob or blob columns, the following error might occur, even though no conversion in the parameter is required: General error;-10427 Conversion of character parameter (2) failed with return code 2 The SAP HANA team is working on a fix and we expect the fix to be available in the next HANA release.

Issue ID	Description
ADAPT01705341	The DB2 bulkload LOAD option is deprecated in this release. In its place, you can use either hte CLI load or import methods.
ADAPT01702525	A Data Services installation of the Designer does not work with a CMS on a IPV6 system. The workaround is to make the CMS box to return an IPV4 address.
ADAPT01688186	Having more than one `.xlsx` source in parallel in a data flow referring to same .xlsx file will result with an error message “External table is not in the expected format”. This issue can be resolved by having different names for the `.xlsx` file in each source.
ADAPT01687744	When doing queries of HDFS files, PIG is used to pushdown math functions. PIG does not support calling of a math function with a null value. Because of this limitation in PIG, if the HDFS files contain records with a null field for which a math function would be applied, then the query will fail.
ADAPT01686554	When exporting or attempting to view the Match Duplicate Sample report from an SAP HANA repository, an "Unexpected database connector" error is issued under certain circumstances. To workaround this issue, disable the automatic generation of Data Quality reports or set the *Generate reports* option in the Match transform to No.
ADAPT01684839	When inserting more than one LOB column into a HANA table, you may get the following HANA ODBC error: "[HDBODBC] General error:-10322 Could not insert LOB. Parameter/column (11) has a NULL/DEFAULT value".
ADAPT01684524	When exporting an object from a Secure Central repository, if the child of a parent object is not owned or not allowed to be viewed or checked out by the current user who is exporting objects, the current behavior still allows the user to export the child object. However, if the top-level object is not authorized, the user will not be able to view the object in the export list page.
ADAPT01678738	When a data flow with HANA sources is optimized with CalcView, a substr() function on VARCHAR source columns with multibyte data fails with error “inserted value too large for column”. The workaround is, for multibyte data, source tables should use NVARCHAR data type (VARCHAR data type should not be used for multibyte data).
ADAPT01656582	The function `day_in_week` behaves differently for HANA, when compared to Data Services documentation. When the `day_in_week` function gets push downed to HANA the result returned is 0-6 (Monday - Sunday) with 0 being Monday and 6 being Sunday which is different than Data Services documented behavior, which is 1-7 (Monday - Sunday).
ADAPT01656567	There are two issues that you may encounter when upgrading from Data Services 4.x that have the same workaround resolution: • Viewing Data Services Auto Documentation fails while analyzing the lineage of a Data Services integrator source column after upgrading from an Data Services 4.0 version. • Upon login to Data Services Management Console (or Workbench), an error message appears “Unable to find servers in CMS <hostname:port> and cluster @<hostname:port> with kind pjs and service DS.AdminService. All such servers could be down or disabled by the administrator.” To work around either (or both) of these issues, you will need to remove and then re-add all Data Services services, except for the Data Quality service:

Issue ID	Description
	1. Log on to the Central Management Console as an administrator. 2. Navigate to *Servers* > *Enterprise Information Management Services*. 3. Right-click on the EIMAdaptiveProcessingServer server, and click *Stop Server*. Wait for the Server to stop. 4. Remove `<SIANodeName>.EIMAdaptiveProcessingServer` folder from this directory: `<INSTALL_DIR>\SAP BusinessObjects Enterprise XI 4.0\java \pjs\container\work` 5. Right-click on the EIMAdaptiveProcessingServer server, and click *Select Services*. 6. Remove all Data Services services, except for Data Quality service. 7. Click *OK*. 8. Right-click on the EIMAdaptiveProcessingServer server, and click *Start Server*. Wait for the Server to start. 9. Right-click on the EIMAdaptiveProcessingServer server, and click *Stop Server*. Wait for the Server to stop. 10. Right-click on the EIMAdaptiveProcessingServer server, and click *Select Services*. 11. Add the Data Services services that you removed previously. 12. Click *OK*. 13. Right-click on the EIMAdaptiveProcessingServer server, and click *Start Server*. Wait for the Server to start.
ADAPT01632475	If a job using Text Data Processing, which is pushed down to Hadoop, is killed, the Hadoop portion of the job will continue to run to completion. You can kill the Hadoop portion of the job by using the Hadoop utilities: `hadoop job -list`: Lists all hadoop jobs. `hadoop job -kill <job-id>`: Kills a hadoop job with given id You can also find the Hadoop job ID by finding the Pig Script directory, which is output by the Data Services job, and search the hdfsRead.err file found within for a line similar to: `12/04/19 15:00:02 INFO mapred.JobClient: Running job: job_201204131948_0015` In this example, the job ID would be `job_201204131948_0015`.
ADAPT01632076	For a high volume of data returned by native extractor, a memory issue can occur. You need to use an R3 dataflow in order to take advantage of RFC streaming to overcome the memory issue.
ADAPT01629085	Data Services limits browsing to only tables and views of a database that is configured in MySQL ODBC DSN for MyODBC driver 3.51.28 and above. Please refer to Oracle bug #13914518 for detail. If you want to import tables or views that belong to other MySQL databases, you can do so by selecting the "Import By Name" option.
ADAPT01619403	If the same XML reader is used twice in the same dataflow and both readers are connected to the same XML_Map transform, incorrect results can occur.

Issue ID	Description
	The workaround is to import the XML schema twice so that you can create two different XML readers (but represent the same hierarchical format).
ADAPT01609303	When you have a data flow containing multiple Hive readers, and a JOIN is pushed down, all readers should have the same value for the Cleanup Working Directory option (True or False) to acheive the desiried results. If a JOIN is not pushed down, the Cleanup Working Directory option works based on the individual reader option set.
ADAPT01604091	Use the Append mode when loading Hive tables carefully. Although Hive 0.8 supports INSERT INTO command syntax for appending the data, it actually overwrites data in many cases. Loading from files as source to non-partitioned Hive tables is the only way the Append mode functions correctly. In other cases, such as loading files as source to partitioned Hive tables, using Hive tables as source, and using Hive tables as target (both partitioned and non-partitioned), the Append mode actually overwrites the existing data.
ADAPT01601340	Hive Table Source: While selecting from Hive table with both GROUP BY and ORDER BY, and when the reader SELECT is pushed to Hive, Hive returns the following error: “Error in semantic analysis: Invalid table alias or column reference”. This is a bug in Hive. To avoid this error, it is recommended that you block ORDER BY by using a Merge transform between GROUP BY and ORDER BY so that ORDER BY is not pushed down to database.
ADAPT01590570	HANA SP3 version does not support NULL values for scalar INPUT parameters when calling HANA stored procedures. Users are expected to manage the NULL values in the data before invoking the HANA stored procedures by filtering out the NULL values.
ADAPT01580380	When joining two tables from Microsoft SQL Server databases on VARCHAR column(s), the database collation sequence should be identical, otherwise the database can not compare the VARCHAR columns, and SQL server gives the error message collation conflict.
ADAPT01541627	Complex dataflows with a large number of columns may throw the error “ODBC data source <tdata_83_64> error message for operation <SQLExecute>: <[Teradata][ODBC Teradata Driver] SQL request exceeds maximum allowed length of 1 MB”. This is the limitation of Teradata ODBC driver.
ADAPT01511272	ABAP function modules cannot be called because of an SAP type conversion error within the ABAP transform due to data type mismatch. The workaround is to add a Query transform to convert all the columns that are used to map to SAP function input parameters, to exactly match the data type of the SAP function input parameters. Then, you must connect the newly added transform to the transform that makes the SAP ABAP function call.
ADAPT01486912	When creating a Sybase repository, the Sybase database must use an UTF-8 code page; otherwise, repository creation fails with a Characters Set error.

8 Fixed issues

The issues that were fixed in the following patch releases, have been also included in the Data Services 4.1 Support Package 3 (14.1.3) release.

Release Version	SAP Note
Data Services 4.0 Patch 3.4	*SAP Note 1854753*
Data Services 4.1 Patch 2.1	*SAP Note 1944958*
Data Services 4.1 Patch 2.2	*SAP Note 1951691*

The following issues have been fixed in the Data Services 4.1 SP3 release. The fixed issues are listed in descending order by an internal issue identification tracking number. You can reference the issue ID when searching for the issue on our knowledge base or when speaking to SAP Customer Support.

Issue ID	Description
ADAPT01714676	Upgrading ATL files from Data Services 3.2 to Data Services 4.1 causes the from clause table sequence to change, which then changes the order of the table in a join. This issue has been fixed in this release.
ADAPT01714507	The Data Quality transforms' Option page has been enhanced to support scrolling in read-only mode.
ADAPT01713938	No updates were happening on a Salesforce.com table, and no errors were reported. This issue has been fixed in this release.
ADAPT01713658	The Data Source field has been restored in the HP Neoview datastore. See the Deprecation section of these Release Notes for the Neoview deprecation notice.
ADAPT01713626	An incorrect date was getting loaded to a Salesforce.com table due to conversion to UTC timezone. A new parameter "Convert date value to UTC" is added to Salesforce Adapter Datastore, by default the value is set to "yes", to prevent data value conversion set this value to "no".
ADAPT01713369	Data Services was retrieving Netezza loader metadata for each column instead of all the columns of table in single database call, which caused a delay in job execution. This issue has been fixed in this release.
ADAPT01712801	Removal of a repository schedule was failing with "Error: Implicit conversion from datatype 'VARCHAR' to 'INT' is not allowed. Use the CONVERT function to run this query." on a Data Services repository on a Sybase ASE database. This issue has been fixed in this release.
ADAPT01711730	RPC-style Web Service functions were not working with a Webservice datastore. This issue has been fixed in this release.
ADAPT01711589	The issue of a core dump occurring when extracting "000000" as a date from a CSV file with SAP environment "Convert SAP null null" checked has been fixed.
ADAPT01711491	If a Data Services job contains data whose type is decimal, and if the data converts to another decimal type with less scale (for example, decimal(23,3) converts to

Issue ID	Description
	decimal(23,2)) and the job is not pushed down, the result would not round. This issue has been fixed in this release.
ADAPT01711187	The issue of the output of AL_Encrypt.exe sometimes ending with an extra space has been fixed.
ADAPT01711132	Extracting data from a file reader may cause the job crash with an access violation. This issue has been fixed in this release.
ADAPT01711073	Salesforce.com CDC jobs were failing with the error "INVALID_REPLICATION_START_DATE". This issue has been fixed in this release.
ADAPT01711071	Job schedules and Exported Execution command was failing with error "Invalid command line syntax" when the CMS server name contains -P or -Q in it. This issue has been fixed in this release.
ADAPT01709147	If you insert data larger than 4000 characters into to a SQL Server table with a varchar data type, the data is truncated. This issue has been fixed in this release.
ADAPT01708714	In a Teradata TPT bulkload, the tenacity settings were not effective, because the job failed with a non-fatal error "Too Many load unload tasks" from Teradata. This release fixes the issue by supressing non-fatal error to a warning and allowing the job to use the tenacity settings correctly.
ADAPT01708245	Reading or loading data to Salesforce using a Salesfoce Adapter would intermittently fail with error "Invalid Session ID found in SessionHeader: Illegal Session. Session not found". This issue has been fixed in this release.
ADAPT01708133	Passing a resource path dynamically was not possible when the Convert input xml option is set to param-list. Pass the URL path using the targetURLPath element name in the input XML.
ADAPT01708130	Multi-byte data was not loaded correctly to Salesforce.com table. This issue has been fixed in this release.
ADAPT01706605	Reading data from Salesforce was failing with error "Adapter Error: <Query>: <org.xml.sax.SAXParseException: Element type "fetchDeletedRecords" must be followed by either attribute specifications, ">" or "/>". ", on a Job server running on a German locale. This issue has been fixed in this release.
ADAPT01706601	Job schedules were failing with error "String index out of range: -1 ", if the password for OS User in the CMS Connection in Management Console is not set and only the username is set. This issue has been fixed in this release.
ADAPT01706595	Webservice functions requiring non-chunked transfer-encoding would fail using a webservice adapter. A new Webservice adapter parameter "Transfer-encoding chunked" has been added to enable you to disable this. Set the value to "Yes" to enable chunked transfer-encoding, or set the value to "No" to disable chunked transfer-encoding.
ADAPT01706389	A WebService datastore would list only the first function from the WSDL for importing, if the WSDL end point contains the "&" character in it. This issue has been fixed in this release.

Issue ID	Description
ADAPT01706380	A Salesforce adapter would not fail in cases where Metadata Resilience is set to "No" and table metadata imported in DataServices in not in sync with object metadata in Salesforce. This issue has been fixed in this release.
ADAPT01705833 ADAPT01699013	The problem of SQL commands in Post-Load Commands being modified unexpectedly after various sequences of actions has been fixed
ADAPT01705447	GA_ENGINE_VERSION is updated to 4.2.1.0 and GA_NZ_SOA_ID is updated to SAP14 for 2014 certifications.
ADAPT01705073	Batch Jobs scheduled to run using the BI (BOE) Scheduler would fail intermittently with error "Fail to get DS.JobLauncherService" when the Adaptive Job Server hosting the Program Job Server is running in multiple SIA nodes, and the Data Services Job Launcher Service is running on only one SIA node. This issue has been fixed in this release.
ADAPT01704601	Salesforce CDC jobs were failing with error "com.sforce.soap.partner.ID cannot be cast to java.lang.String" while retrieving updated records. This issue has been fixed in this release.
ADAPT01704146	A job started from a third-party scheduler would get an incorrect return code from Job Launcher. This issue has been fixed in this release.
ADAPT01703387	If the Excel sheet contains a blank FIRST row and the 'Use First Row Values as Column Names' option is selected, then the job errors with ":..Thread[Thread-15,5,main] java.lang.NullPointerException...". This issue has been fixed in this release.
ADAPT01703084	The loading mechanism for Local and Central Object Libraries has been optimized to handle a large number of elements.
ADAPT01703010	Data Services OpenHub reading jobs started from BW Scheduler would fail intermittently with error "Invalid operation: Connection is closed". This issue has been fixed in this release.
ADAPT01702523	A Data Services standalone installation does not allow you to change a CMS connection during an update installation. The workaround is to uninstall and re-install, if the original CMS connection is not available or is changed.
ADAPT01701872	The Job Monitor and Error log page would fail to display the logs in the Management Console from Batch Job History page in Internet Explorer, with default language set to French. This issue has been fixed in this release.
ADAPT01700706	A Data Services job containing ltrim and/or rtrim functions returns different results each time when Row_Propagation_Threshold is not 1. This issue has been fixed in this release.
ADAPT01698039	On Solaris, a Teradata 14 reader or loader fails with TPT method. You can use other loader method.
ADAPT01697556	In a Data Services job containing data with a Decimal type, if the first character is "+" or "-", then it will change to ";". This issue has been fixed in this release.
ADAPT01678648	This problem was caused by narrow fields in the structure that was passing parameters to the ABAP program. The fix consists of widening these fields.

9 Documentation additions and corrections

Improvements to Global Address Cleanse transform suggestion lists

In this release, a new Global Address engine Suggestion List option, *Combine Overlapping Ranges*, has been added that allows you to choose whether ranges are combined in suggestion lists. This option was previously supported only in the Canada and US engines.

> **Note**
>
> It is recommended that if the *Combine Overlapping Ranges* option is set to *No*, you should consider increasing the size of the Suggestion_List output field from its default of 60,000 bytes so that it can contain all of the suggestions.

We have also increased the maximum values for two options:

- *Max Number Address Lines* increased from 200 to 10,000.
- *Max Number Lastlines* increased from 120 to 10,000.

To display the new option and values in the Designer with a 4.1.1 or higher repository, import the `gac.atl`, which by default is in the `C:\Program Files (x86)\SAP BusinessObjects\Data Services\admin\repo` folder.

Documentation correction for the index() function

The *Data Services Reference Guide* incorrectly states that, "If **<index_string>** is not found in **<input_string>**, the function returns 0."

This sentence should read: "If **<index_string>** is not found in **<input_string>**, the function returns NULL."

The *Reference Guide* will be updated in a future release.

Correction for filtering documentation

Currently, the *Designer Guide* incorrectly states that, when you select an command tha uses the filtering option, "The *Version Control Confirmation* window displays your selected object and any dependent objects. You can exclude objects by selecting the object and changing the *Target status* from *create* or *replace* to *exclude*."

The *replace* option has been removed. The *Designer Guide* will be updated in a future release.

9.1 CompoundEmployee entity

Data Services can extract information from a SuccessFactors data entity called CompoundEmployee.

The CompoundEmployee entity can be found under an already configured SuccessFactors datastore in the Data Services Designer.

In order to view and extract CompoundEmployee information, you first need to import the data. To import the data, right click on the CompoundEmployee entity and select Import or you can import by name by entering CompoundEmployee as the entity name.

The CompoundEmployee data will be visible under the Documents category because it has a nested structure.

9.1.1 Importing data from an .xsd file

After importing CompoundEmployee into a datastore, Data Services automatically creates and writes the CompoundEmployee metadata into: **<DS_COMMON_DIR>**/ext/SFSF/EC_API_CompoundEmployee.xsd.bak

If there is only a .bak file in the SFSF directory at the time of import, Data Services imports the schema from SuccessFactors.

To read CompoundEmployee metadata from an .xsd file instead of importing it from the SuccessFactors API, you must do the following:

1. Put the EC_API_CompoundEmployee.xsd file into the SFSF directory. For example,

   <DS_COMMON_DIR>/ext/SFSF/EC_API_CompoundEmployee.xsd. See *SAP Note 1900616* for information about how to download the .xsd file.
2. In the Designer, re-import the CompoundEmployee object into the datastore.

9.1.2 Using CompoundEmployee as a source

You can use the CompoundEmployee entity as a source in a data flow and then select what information you want to receive.

Once you open the source, you can specify filters. You can input text, global variables, or substitution parameters as filter values.

Field	Valid Operations	Examples

LAST_MODIFIED_ON	=, >, >=, <, <=	Example 1:
		`> to_date('2013-02-28','YYYY-MM-DD')`
		Range example:
		`> $v1 and < $v2`
		`Expand to LAST_MODIFIED_ON > to_date('2013-02-25','YYYY-MM-DD') AND LAST_MODIFIED_ON < to_date('2013-02-28','YYYY-MM-DD')`

Field	Valid Operations	Examples
COMPANY_TERRITORY_CODE	=, IN	`= 'IND'` `IN ('IND','USA')`
PERSON_ID	=, IN	`= '99'`

PERSON_ID_EXTERNAL	=, IN	IN operator example:
		`IN ('nkoo1', 'cgrant1')`
		Global variable example:
		`= '$v1'`
		Note
		You need to use single quotes for character data.
		Substitution parameter example:
		`= [$$param1]`
		Note
		You need to use single quote as part of the parameter.

COMPANY	=, IN	`= 'SFIDC01'`
		`= $$sp`
		`Where $$sp = 'SFIDC01'`

EMPLOYEE_CLASS	=, IN	`= '2'`

DEPARTMENT	=, IN	Examples:
		`= 'US010001'`
		`= 'DE010001'`

DIVISION	=, IN	`= 'DE01'` `= 'divi1'`
BUSINESS_UNIT	=, IN	`= '1107bufd'`
LOCATION	=, IN	`= 'SE010010'`

Field	Valid Operations	Examples
JOB_CODE	=, IN	`= 'US_U2'`
PAY_GROUP	=, IN	`= 'A1'`
EFFECTIVE_END_DATE	=, >=	`>= to_date('2013-02-10','YYYY-MM-DD')`

Example

Data Services pushes down filters to SuccessFactors. The following is an example of a filter and the resulting query that Data Services sends to SuccessFactors.

Filter

```
EFFECTIVE_END_DATE >= to_date('2013-02-10','YYYY-MM-DD')
PAY_GROUP IN (‘01’, ‘02’)
JOB_CODE = ‘$JC’
LOCATION IN (‘DE010001’, ‘$loc’)
BUSINESS_UNIT IN ('DE01','FR01')
DIVISION IN (‘FR01’, ‘DE01’)
DEPARTMENT IN (‘FR010000’, ‘DE010001’)
EMPLOYEE_CLASS = ‘1’
COMPANY IN (‘FR01’, DE01’)
PERSON_ID_EXTERNAL IN (‘99999’, ‘9999_SACHIN’,’ RAHUL’, ‘11223347’)
PERSON_ID IN (‘16116’, ‘15636’, ‘14276’)
COMPANY_TERRITORY_CODE IN (‘FRA’, ‘DEU’)
LAST_MODIFIED_ON >= $low_lmo AND <= $high_lmo
```

Where

```
$jc = ‘DE_00’
$loc = ‘FR010000’
$ec = ‘1’
$low_lmo = to_date('2013-03-01','yyyy-mm-dd')
$high_lmo = to_date('2013-05-30','yyyy-mm-dd')
```

Resulting query

```
SELECT person, personal_information, address_information, phone_information,
email_information, employment_information, job_information,
compensation_information, paycompensation_recurring,
paycompensation_non_recurring, payment_information, accompanying_dependent,
alternative_cost_distribution, job_relation, direct_deposit, national_id_card,
person_relation FROM CompoundEmployee WHERE LAST_MODIFIED_ON >=
to_date('2013-03-01','YYYY-MM-DD') AND LAST_MODIFIED_ON <=
to_date('2013-05-30','YYYY-MM-DD') AND COMPANY_TERRITORY_CODE IN ('FRA', 'DEU')
AND PERSON_ID IN ('16116', '15636','14276') AND PERSON_ID_EXTERNAL IN ('99999',
'9999_SACHIN','RAHUL', '11223347') AND COMPANY IN ('FR01', 'DE01') AND
EMPLOYEE_CLASS = '1' AND DEPARTMENT IN ('FR010000', 'DE010001') AND DIVISION IN
('FR01', 'DE01') AND BUSINESS_UNIT IN ('DE01','FR01') AND LOCATION IN
('DE010001','FR010000') AND JOB_CODE = 'DE_00' AND PAY_GROUP IN ('01', '02') AND
EFFECTIVE_END_DATE >= to_date('2013-02-10','YYYY-MM-DD')
```

9.1.3 Retrieving the information you want from CompoundEmployee

To retrieve the CompoundEmployee data you want from SuccessFactors, you need to use the XML_Map tranform, after the CompoundEmployee reader, in your data flow.

You can turn on the Trace SQL Readers option to view the SQL that Data Services sends to SuccessFactors. For more information about this option, see "To configure web service information using the Administrator" in the Integrator Guide.

You can get information from the following schema levels:

```
person
    personal_information
    address_information
    phone_information
    email_information
    employment_information
        job_information
        compensation_information
        paycompensation_recurring
        paycompensation_non_recurring
        payment_information
        accompanying_dependent
        alternative_cost_distribution
        job_relation
    direct_deposit
    national_id_card
    person_relation
```

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