Contents

Read the *Informatica® PowerExchange® Release Notes* to get important information about enhancements, fixes, and known limitations in PowerExchange 10.4.0 HotFix 1. The release notes also include upgrade considerations, if applicable. The 10.4.0 HotFix 1 release is specifically for PowerExchange only.

To access the PowerExchange 10.4.0 HotFix 1 documentation, browse the Informatica Documentation Portal at https://docs.informatica.com.

PowerExchange HotFix Installation Overview

To install a PowerExchange hotfix, you can complete a first-time installation, an upgrade installation, or a hotfix installation. Use the install files that are listed in these release notes by installation type and operating system.

To determine which type of installation to perform, use the following criteria:

- If PowerExchange is not currently installed, complete a first-time installation. Use the install files that are provided for a first-time or upgrade installation.

- If a PowerExchange version earlier than 10.4.0 is installed, complete an upgrade installation. Use the install files that are provided for a first-time or upgrade installation.

- If PowerExchange 10.4.0 is currently installed, complete a hotfix installation. Use the hotfix install files.

  PowerExchange hotfixes are cumulative. The latest hotfix includes changes from all previous hotfixes on the current version.

Note: If you perform a first-time or upgrade installation on a Linux, UNIX, or Windows system, you can use a localized version of the PowerExchange installer. When you run the installer, you get localized PowerExchange messages. On Windows, you also get a localized version of the PowerExchange

Navigator. If you copy the localized help files to the helpdoc folder, you can get localized help through the PowerExchange Navigator.

For more information about installation procedures, upgrade considerations, and software requirements, see the latest *PowerExchange Installation and Upgrade Guide*.

First-Time and Upgrade Installation Files

Use the files from the software folder of the CD image to perform a first-time or upgrade installation of the PowerExchange 10.4.0 software, including the latest hotfix.

The following table provides the installation file name for each operating system:

Operating System	File Name
IBM i 64-bit	pwx1040_01_i5os.exe
Red Hat Linux x64 (Opteron, EM64T) 64-bit	pwx1040_01_linux_em64t.tar
SUSE Linux Enterprise Server x64 (Opteron, EM64T) 64-bit	pwx1040_01_suse11_x64.tar
Windows x64 (Opteron, EM64T) 64-bit	pwx1040_01_win_x64.exe
z/OS	pwx1040_01_zos.exe

HotFix Installation Files

If you have PowerExchange 10.4.0, use the files from the patches folder of the CD image to install 10.4.0 HotFix 1.

The following table provides the installation file name for each operating system:

Operating System	File Name
IBM i 64-bit	pwx1040_hotfix1_i5os.exe
Red Hat Linux x64 (Opteron, EM64T) 64-bit	pwx1040_hotfix1_linux_em64t.tar
SUSE Linux Enterprise Server x64 (Opteron, EM64T) 64-bit	pwx1040_hotfix1_suse11_x64.tar
Windows x64 (Opteron, EM64T) 64-bit	pwx1040_hotfix1_win_x64.exe
z/OS	pwx1040_hotfix1_zos.exe

Enhancements

The following table describes closed enhancement requests:

Enhancement	Description
PWX-8766	PowerExchange has been enhanced to decrease the latency for low-volume CDC workloads.
PWX-8757	The new ODBC_CONN_PARMS statement in the dbmover configuration file allows you to specify parameters for DataDirect ODBC connections to Microsoft SQL Server, MySQL, and PostgreSQL CDC sources. Depending on your site security policies, you might need to specify ODBC parameters for SSL encryption, specific cryptographic protocols, or the use of self-signed or third-party signed SSL certificates. The parameters you add will be used to connect to databases for change data capture and for creating, deleting, or modifying capture registrations.
PWX-8751	The PowerExchange Logger for Linux, UNIX, and Windows now issues message PWX-33264 to report the Microsoft SQL Server article ID that is associated with a capture registration that was loaded for a source table.
PWX-8586	PowerExchange Express CDC for Oracle adds toleration support for Oracle 19*c* CDC sources on Red Hat Linux. Toleration support means that PowerExchange can capture change data from Oracle 19*c* sources but does not support new features introduced in 19*c*. **Note:** If Oracle 19*c* redo logs reside on AIX, Solaris, or Windows, you can run the PowerExchange Listener and PowerExchange Logger on Linux to capture changes from the logs.
PWX-8558	PowerExchange adds support for Microsoft SQL Server 2019 sources on Windows for CDC.

Fixes

The following table describes fixed limitations:

Bug	Description
PWX-8836	During PowerExchange Express CDC for Oracle, a segmentation fault (SIGSEGV) might occur if PowerExchange encounters a compressed row that includes supplementally logged columns that are not valid.
PWX-8813	Db2 for i change data capture shuts down unexpectedly during a PowerExchange Navigator row test if the registered table has a date column.
PWX-8788	If you delete a z/OS extraction map from the PowerExchange Navigator, the extraction maps file is locked and subsequent operations time out.
PWX-8786	If remote Oracle system tables are registered for Oracle Streams Apply, the PowerExchange Logger for Linux, UNIX, and Windows might fail during startup for PowerExchange Express CDC with the following message: `PWX-36310 ORAD: Missing TAB$ for table object object_id`
PWX-8778	A PowerCenter session might fail at shutdown with an abend on the client machine.
PWX-8777	On Db2 for z/OS, PowerExchange does not execute certain SQL statements, such as MERGE, that are specified in the **Pre SQL** or **Post SQL** attribute for the PowerCenter session.

Bug	Description
PWX-8765	During PowerExchange bulk data movement, PowerExchange might encounter an 0C4 abend when mapping invalid Julian dates.
PWX-8753	The PowerExchange Logger for Linux, UNIX, and Windows might end with the following timeout error because of excessive scanning of the Db2 log after a compressed record from a source table is encountered: `PWX-20036 Internal error, prog=source/dtecapd/dtecapdt.cpp, line=709, desc=Join call timed out`
PWX-8748	During Express CDC for Oracle, if PowerExchange encounters an Update record for a column that has been split by row chaining, the column data might be truncated. As a result, date and number validation errors can occur, such as: `PWX-02150 Date-time conversion error. Field="`*`field_name`*`". Table="`*`table_name`*`". Record=`*`record_number`*`. Row=`*`row_number`*`. Reason: PWX-00301 CNVDT Date/time/timestamp data error.`
PWX-8740	For Microsoft SQL Server 2016 SP2 CU3 or later CDC sources, PowerExchange incorrectly interprets the server ID of the publication and consequently incorrectly queries SQL Server article information.
PWX-8676	During PowerExchange Express CDC for Oracle processing, the PowerExchange Logger for Linux, UNIX, and Windows might end with the following error message: `PWX-36000 ORAD: Internal error iDtlLength (21) < iLen (75) in module PwxOrlOpa:1343.`

PWX-8561	PowerExchange issues the following error messages when trying to read data from a column that has a name of exactly 128 characters:
	
	`PWX-07006 Data truncated.`
	`PWX-03002 Code page translation error. Field `*`column_name`*`. Buffer length "128". Type="2".`

Known Limitations

The following table describes known limitations:

Bug	Description
PWX-8563	In the PowerExchange Navigator, if you open a Microsoft SQL Server capture registration and click **Save**, the PowerExchange Navigator creates a new Microsoft SQL Server article and deletes the previous one even if no changes were made to the registration. The data associated with the previous SQL Server article is deleted. Workaround: Do not click **Save** unless making changes to the capture registration.
PWX-8527	After a PowerExchange IMS ECCR REFRESH operation, CDC processing might fail with an SVC99 error because of an IMS log deletion. Workaround: Stop and restart the IMS ECCR and the PowerExchange Listener on the system where change capture occurs.

Bug	Description
PWX-8333	During PowerExchange Express CDC for Oracle, a transaction assembler error might occur for indexed-organized tables (IOTs) that contain OVERFLOW tables with chained rows. The following error message is issued: `PWX-36465 ORAD Info: DML sequence error: Subordinate DML sequence and active DML sequence is not only kdolkr/kdolmn/kdollb.`
PWX-8328	During PowerExchange Express CDC for Oracle, the following internal error might occur: `PWX-36000 Error Unexpected chain sequence: unchained into chained during large row chains for compressed tables`
PWX-8323	To access MySQL 8.0 CDC sources, you cannot use passwords that are encrypted with the SHA256 algorithm because the currently installed DataDirect ODBC driver does not support this authentication type.
PWX-7917	If you select the **Pre SQL run once per Connection** check box in a PWXPC connection definition for a nonrelational target, any SQL statements that you specify in the **Pre SQL** connection attribute will not be executed. Workaround: Clear the **Pre SQL run once per Connection** check box to allow the SQL to run one or more times for the connection.
PWX-7104	If you issue a pwxcmd command such as displaystats to an ECCR on a z/OS system, the pwxcmd command handler might hang. This problem occurs when the amount of command output is greater than 4 KB.
PWX-7033	If the PowerExchange Agent encounters an error in the DBMOVER configuration file, it does not end processing as expected. As a result, the Agent cannot successfully connect to the PowerExchange Listener for change data capture. Workaround: Shut down the PowerExchange Agent by using the SHUTDOWN COMPLETELY command. Edit the DBMOVER configuration file to correct the error and then restart the PowerExchange Agent.
PWX-6917	For PowerExchange on z/OS, if you use the IPV6 protocol for a TCP/IP connection, the IP address is truncated in SMF reports. The connection is not affected, but the IP address is not complete in SMF.
PWX-2160	If you create an alias for an i5/OS physical file and import the object into Informatica Developer, the Developer tool does not successfully import the metadata for the object. Workaround: Import the physical file and then rename it to match the alias. (277298)
PWX-2031	If you include hidden columns in capture registrations for Db2 for i tables, PowerExchange extraction processing ends abnormally with the following error message for each hidden column: `PWX-06714 Table schema.table_name Field field_name missing (DB2 for i5/OS CDC)` This error occurs because PowerExchange cannot detect the hidden columns. Workaround: Register tables that contain hidden columns in the PowerExchange Navigator so that you can selectively omit the hidden columns from the capture registrations. (463305)
PWX-2017	If a PowerCenter bulk data movement session uses a PWX DB2zOS relational connection and the Db2 for z/OS LOAD utility to load data to a Db2 for z/OS target and you specified RETLOGINFOMSG=Y in the **PWX Override** connection attribute, the message output for the utility step is not copied to the session log when the load operation ends successfully. If the load operation ends unsuccessfully and the utility message output is large, the output might be truncated. (462651)

Bug	Description
PWX-1971	If the file permissions on the directory path that is defined in the LOGPATH statement in the DBMOVER configuration file on the Linux Data Integration Service machine are not set correctly, a core dump occurs and a Java Runtime Environment fatal error is reported. Workaround: Ensure that the file permissions are not too restrictive. Permissions of 755 are sufficient. (459102)
PWX-1922	PowerExchange Express CDC for Oracle ends abnormally when trying to capture direct-path load operations for tables that use Exadata Hybrid Columnar Compression (EHCC). Workaround: If you have a source table that uses EHCC, do not enable the capture of direct-path load operations. Use the default setting of N for the SUPPORT_DIRECT_PATH_OPS parameter in the OPTIONS statement of the PowerExchange Express CDC for Oracle configuration file. (451128)
PWX-1831	When the **Write Mode** connection attribute is set to **Confirm Write Off** or **Asynchronous Write with Fault Toleration** for a PowerCenter batch session, and rows are rejected from the target, the write process logs each rejected row. This logging can cause slow processing even if you try to stop the session. Workaround: Set the **Write Mode** connection attribute to **Confirm Write On.**
PWX-1827	PowerExchange Express CDC for Oracle capture processing ends with the following error message when a source index-organized table (IOT) is altered to add an overflow tablespace, a mapping table, or an INCLUDING *column_name* clause: `PWX-36000 ORAD: Internal error TableImpl::UpdateTAB unexpected condition: m_ObjId (object_id) !=rB.obj (object_id) in module PwxOrlDictImpl:10116.` In this situation, loss of column data in a row might occur. Workaround: Re-materialize the target table. Then cold start the CDC session to recover the lost column data. (438982)
PWX-1799	When you create a PowerExchange Listener Service by using the Administrator tool, if you do not select a license on the first page of the **Create Service** wizard, the **Finish** button on the second page is not active. Workaround: Select a license on the first page of the wizard. (435047)
PWX-1752	PowerExchange Express CDC for Oracle does not properly process Quick Multi Insert (QMI) operations for IOTs. The PowerExchange Logger for Linux, UNIX, and Windows might end abnormally with a return code of 9980 if you perform the following types of actions that produce QMIs: - Use SQL*Loader to load a source IOT. - Run the Oracle Data Pump Import utility (impdp command) to load an IOT.
PWX-1715	If the LOGPATH statement in the DBMOVER configuration file on a PowerCenter system specifies a directory other than the default directory for the detail log file, the user under which the PowerCenter Integration Service runs might not have write permissions on the detail log file. In this case, PowerExchange writes error message PWX-07501 to the PowerCenter session log. However, this message is not useful for diagnosing the error. Workaround: Do not specify the LOGPATH statement. The detail log is then located in the PowerCenter `server/bin` directory by default. The user under which the PowerCenter Integration Service runs usually has write permissions on files in this directory. (417340)

Bug	Description
PWX-1672	A CAPXRT database row test in the PowerExchange Navigator for an IMS complex table source returns no changes even though the PowerExchange Logger for z/OS contains data for the source. This problem occurs when a capture registration is re-created for the source with the same tag name as the previous registration and the new registration includes an additional IMS segment. As a result, PowerExchange cannot map the new registration to the data in the PowerExchange Logger log files. Workaround: None available. Contact Informatica Global Customer Support. (409991)
PWX-1637	When a PowerCenter workflow with a Db2 for i source or target connection fails, error message PWX-31211 reports incomplete information. (404217)
PWX-1521	If you capture change data from a Db2 for Linux, UNIX, and Windows source table that uses range partitioning and a DDL operation that adds, attaches, or detaches a partition is performed on the table, data loss might occur and cause data corruption on the target. Workaround: Do not issue DDL statements that add, attach, or detach a partition for a source table. Alternatively, if you must perform these DDL operations on a source, before you start CDC processing, synchronize the source and target tables by using PowerExchange bulk data movement or another tool. (395055)
PWX-1494	If a distribution key that has multiple columns was used to partition a source table that is included in a PowerCenter session, the session log shows an incorrect number of requested and applied Update operations. (392219)
PWX-1493	A PowerCenter session that uses a PWX DB2LUW connection to write data to a Db2 target fails if the target table metadata contains non-ASCII characters. (392218)
PWX-1480	If you import a source or target table that contains columns with the datatype of graphic, vargraphic, or long vargraphic from PowerExchange into PowerCenter Designer, the columns are imported with a character datatype. Workaround: After you import the table definition, edit the column datatypes in PowerCenter Designer. However, if you imported a CDC extraction map, you cannot edit the datatypes. (390778)
PWX-1479	If you specify UTF-8 as the PowerExchange code page and create a capture registration in the PowerExchange Navigator for a Db2 for Linux, UNIX, and Windows source table that has a table name, schema name, or column name with non-ASCII characters, the Navigator fails to identify the primary key columns for the table. Workaround: Do not use non-ASCII characters in the table metadata if you use the UTF-8 code page. (390724)
PWX-1412	If you run the LISTTASK command of the DTLUTSK utility, tasks that use pooled connections do not display the correct access method or mode. (379283)
PWX-1387	If you use PowerCenter to write Updates to a PowerExchange target and an Update fails, the PowerCenter session log displays an incorrect counts of Update rows in the Load Summary. An Update might fail, for example, because the target record does not exist. (375568)
PWX-1271	When you import a copybook that contains certain German-language characters, such as ' ß' or vowels with umlauts, into a PowerExchange data map, the lines that contain these characters are not imported. Workaround: If these German-language characters appear within comments, edit the comments to remove or replace the characters. (350646)

Bug	Description
PWX-1184	When you create a data map in the PowerExchange Navigator, if you import a PL/I copybook and enter **Start** and **End** values that define a column range that includes line sequence numbers, the PowerExchange Navigator might add an extraneous "NEW_RECORD__" record and then either fail or produce unpredictable results. Workaround: When importing a PL/I copybook, do not define a column range or accept a default column range that includes line sequence numbers. (331003)
PWX-1143	When you import a PL/1 copybook for a z/OS source into a data map from the PowerExchange Navigator, the import succeeds, but the import record is not created.
PWX-825	When you run a CDC session that includes a password-protected Adabas data source and uses the CAPXRT access method and offload processing, the session fails. (257540)

Note: The current bug tracking system uses bug IDs that begin with the "PWX-" prefix. The previous tracking system used bug IDs that consist of six numbers. For known limitations that carried over from an earlier release and now have a PWX-*nnnn* bug ID, you can find the previous bug ID at the end of the description in parentheses.

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