## **Xpert BI 4.1.0.2**

#### General

- Updated third party libraries to newest versions.

## Migration

- Fixed bug where a self-referencing object would cause migration to stop.
- Fixed a bug where plaintext values could be logged to the migration log.

## **Change Data Capture**

- Added better tooltip on the enable and disable change data capture button.
- Fixed a bug where starting an already started process could lead to errors in processing.

#### Inline

 Fixed a bug where creating inlines with the same name (but in different schemas) would cause errors.

## **Publish to Azure Data Factory**

- Added check for dependency loops between tables.
- Fixed a bug where publishing more than 40 tables would sometimes fail.

# **Xpert BI 4.1.0.1**

## Migration

- Fixed bug where an empty fact table would cause an error in migration when using source control

# **Xpert BI 4.1.0.0**

### General

- Added support for Change Data Capture

# **Xpert BI 4.0.0.0**

#### General

- Added "Close all tabs" and "Close all but this tab" functionality.
- Added increased security measures regarding connection strings.
- Added Source Control for Xpert Bl. Local Git, GitHub, Azure DevOps Repos (Git)

- Added support for running on Amazon RDS for SQL Server
- Updated Telerik GUI components to the latest available release.
- Redesigned Migration Wizard, making it more granular and added comparison of environments, added better handling of missing info and better logging.

## **Solution Explorer**

- Fixed bug where double-clicking 'Reload' in Solution Explorer would cause errors.
- Fixed bug where inlines would sometimes come out of sync when reloading solution explorer.
- Changed it so that switching between solutions is not possible while the Solution Explorer is busy.
- Changed it so that the reload of the solution explorer is aborted if we cannot connect to any database.

## **Data Source Explorer**

- Added option to Copy a Data Source Version.
- Added option to Copy an Instance.
- Removed Check Source Metadata functionality (replaced by Preview Changes in Import Source Metadata)

## **Import Source Metadata**

- Added option to Preview Changes before importing metadata.
- Changed from using import metadata SQL stored procedures to C#.

#### **Edit Metadata**

- Added automatic handling of "\_Id" columns in edit metadata.

## **Export group**

- Added support for running post-processing per table in export group.
- Added possibility to write description per table in export group.
- Added support for OAuth 2.0 when destination is REST.
- Added support for Databricks as source.
- Added support for Http verb Patch when destination is REST.
- Added "Continue on error" functionality when destination is REST.
- Fixed a bug where special characters in the source table primary key column(s) could lead to errors (Database destination)
- Fixed a bug where Aure SQL Database was not available as target.

## **View Designer**

- Added Drag&Drop to re-order columns in the View Designer.
- Added possibility to stop query execution.
- Added 'Not In' operator to filters.
- Added option to update the designer in edit-mode.

- Added SQL quotation to view name when editing a view.
- Changed it so that Expression is automatically selected as group by function for expressions.
- Fixed bug related to subqueries in filters.
- Fixed bug in the SQL parser sometimes causing incorrect joins to be displayed.
- Fixed a bug where expressions where not correctly parsed when using group by.

## **Azure Data Factory**

- Added indicator that commit message in publish to ADF is required.
- Added region fallback logic for ADF pricing calculator.
- Fixed a bug where host information was missing from the connection string when publishing a data source that used Oracle as source.

#### **DataOps**

- Added rename test in DataOps
- Change Copy Exe Parameters to use name instead of id. The exe file accepts both new and old style.
- Changed the search Functionality in DataOps Explorer to search for test item names and not just folder names.

## **DataOps Unit Test**

- Added support for Oracle, SAP, DB2 and ODBC.

## **Column Lineage**

- Fixed sorting on search in column lineage.
- Fixed a bug where adding a manual dependency through a stored procedure was saved with wrong column name.
- Fixed a bug where views with union all directly inside a parenthesis expression as its main select would cause errors.

## **Master Data Subscription View**

- Added a check (with warning) to see if columns in the ETL view would be deleted or renamed when saving.

#### Collection

- Added raw mode for REST API
- Added possibility to copy the analysed data length into the column size.
- Added page counter as available parameter in pagination.
- Added no rows from SQL query as stop condition in pagination.
- Added possibility to activate/deactivate tables in properties. To process a table, it must be active.
- Added possibility to add columns manually to a collection.
- Added safety checks for pagination.
- Added support for compressed data in REST API.

- Added support for setting a Databricks as destination database.
- Changed it so that missing id-columns are automatically added when processing an "include all xml tables" table with missing child objects.
- Fixed a bug where XSD schema would not read correctly when spanning multiple files.
- Fixed a bug where custom object (pre-processing) belonging to a table was not deleted when the collection table was deleted.

#### **Publish to SSAS Tabular**

- Fixed a bug where column properties were saved even if its table were not included (unchecked).

#### **Publish To Rest**

- Added data pass-through functionality so that data can flow directly from the source without any intermediate storage.
- Improved the auto generated Swagger.
- Added functionality for setting a base URL and auto updating API endpoint URLs shown in the API table

#### **Set Table Filters**

- Added option to change granularity between days (default) and seconds for incremental load on datetime columns. This allows intraday incremental loads.

## **Import Source Metadata SAP**

- Fixed a bug where having domains with different activation status could lead to errors.

#### **Add Data Source Wizard**

- Added the ability to resume creating a dimensional model from an existing data source.
- Fixed a bug where not selecting any views to be created during dimensional modelling would create an error message.

## **Dependency Graph**

- Added dependency between ODS tables and corresponding tracking changing tables.
- Fixed a bug where having the same pipeline name and path in two different factories would cause the dependency graph to fail.

#### **Reports**

- Added report where all managed connections in use are listed with information on where they are used.
- Changed it so that any invalid SQL scripts found when running the Unused Objects report are listed directly in the report pane instead of being logged to the Event Log.
- Fixed a bug where Executable Code report would never finish if it failed.

#### Master data

Fixed bug where scrollbar was disabled when grid was disabled in "Edit Entity".

#### **Set Destination**

- Added support for setting destination to Databricks.

#### **Power BI**

- Changed it so that it is not possible to sync multiple reports with the same name in the same workspace.
- Changed it so that it is not possible to sync multiple workspaces with the same name.
- Fixed a bug where non-dbo schema was not properly interpreted when parsing the power query.
- Fixed a bug where Power BI IDs had inconsistent casing.

#### **Inline Incremental Rules**

- Removed Rows Affected and Execution Time columns from the grid.

#### **Data Source Instance**

- Added check to make sure new instances have unique names.
- Changed it so that the instance name is editable in properties.

#### **Data Interfaces: Tabular**

- Fixed a bug where documenting or refreshing metadata could lead to Display Name being cleared.

## **Data Source Processing**

- Added a warning if table names are changed but check consistency has not been run yet.
- Change the timing of ODS destination table truncate to reduce the timespan where the table is empty.
- Changed it so that when pre-processing fails, the processing will stop.
- Changed copy exe parameters to use datasource name instead of datasource id. Xbi\_batch.exe still supports the use of datasource id.

## **Check Consistency**

- Added check consistency for tracking changing tables.

#### **Grant ODS Permissions**

 Deprecated the feature. Use the following SQL query on the desired tables instead: GRANT SELECT ON [<TableName>] TO [<AD\_Group>]

## **Event Log**

- Changed how data source information is looked up to improve performance.

#### **Inline Processing**

Changed the script so that the primary key is added to the temp table before dropping the
destination table. This is done to prevent missing destination table if adding primary key
fails.

## **Configure Relations**

- Added a new ribbon bar for Configure Relations, which is only open when the pane is open and active.
- Added a preview of which relations will be disabled when using the "Disable/Find Unused Relations" feature.
- Changed "Disable Unused Relations" to "Find Unused Relations" on the ribbon bar.
- Changed the main pane to a diagram, where it is possible to drag-and-drop new relations. The old grid-pane is still accessible via the "Show In Grid" button.

## **Additional Databases**

Added support for adding Databricks databases to a solution.

## Tracking/Changing

- Added option to use "Today" as initial date per table.
- Added option to "Update ToDate On Delete", closing out deleted rows.
- Fixed a bug where Tracking/Changing did not take into account data source destination (using Set Destination).

# Xpert BI 3.1.5.0

## Collection

- Added support for certificates in general SOAP.
- Fixed a bug where some SOAP settings would not save properly when updated.

## **Xpert BI 3.1.4.1**

#### **Set Destination**

- Fixed a bug where setting destination to Default could lead to errors.

## **Xpert BI 3.1.4.0**

# General

- Fixed a bug where unresponsive databases could lead to objects being removed from the solution.

# Xpert BI 3.1.3.2

### **View Designer**

- Added support for column names containing space and special characters.

- Fixed a bug where editing a view referencing objects that was not part of the solution (needing to reload solution explorer) would cause "infinite spinner".

# **Xpert BI 3.1.3.1**

#### General

- Added support for Azure Data Factory.
- Added Create View and Edit view in the Solution Explorer.
- Added Query in the Solution Explorer, used to query views and tables.
- Added Data Lakes button to Transformation ribbon. Used to add data lakes to the solution.
- Added CorrelationId as an optional parameter to the batch files. The value of the parameter is included in the logs.
- Added automatic descriptions to several Xpert BI controlled tables/views and columns.
- Fixed a bug where stack databases (STG, ODS, ETL, ELM) would be created with FULL recovery model on SQL Server.

## **Dependency Graph**

- Changed layout library. Removed Sugiyama layout.
- Fixed a bug where details view for ODS tables would not show table description and columns descriptions added in Edit Metadata.

#### Reports

- Added new Unused Objects report (see user manual for details).
- Added new Inconsistent Executable Objects report. This lists the executable objects that are out of sync (not included in the InlineObjects table).
- Changed the name of the existing Unused Objects report to Not Referenced By Process Groups.

## **Azure Synapse SQL**

- Changed the formatting of the Current-view to look better.

#### **Power BI**

- Added support for parsing SQL queries to find table sources.

## **MDS Data Load**

- Fixed a bug where editing a data load for an entity that was created in MDS could cause the source object to not be found.

## **SAP RFC Collection**

 Fixed a bug that caused data to not be loaded properly when truncate before update was enabled.

## Collection

- Added support for Amazon S3 file storage.
- Added support for RerunFailed flag when running a Collection Folder using the batch file. See user manual for more info.
- Added support for downloading files without processing the content of the files. The Download Only flag is set when creating a new Collection. Only valid for REST and SOAP Collections.
- Added Cancel to dialog asking to skip web call when there are already input files.
- Added optional encrypted flag for OAuth parameters.
- Changed the Copy Exe Parameters from TableId/FolderId to TableName/FolderName. The already copied parameters will still work, but the new ones will be in the new format.
- Fixed a bug where the xsd file would not be complete for complex XML files.
- Fixed a bug where if excel file has no headers and a column between two other columns is excluded, it would not map correct column names.
- Fixed a bug where initial catalog would show in the edit connection window when creating a new database.
- Fixed a bug where user-agent header could not be used in REST collection.
- Fixed a bug where post body content was encoded using ASCII, instead of UTF-8.

#### **Migration Wizard**

- Changed the database backup page to display the database list sorted by database name.

#### **Publish to SSAS Tabular**

- Fixed a bug so that browse model file path remembers the last used path for tabular models.

## **Solution Explorer**

- Added sorting to Data Interface items.
- Changed style of context menu to align more with the rest of the application.
- Changed "Edit" to "Edit ITS Table"/"Edit InlineSP"
- Fixed a bug where reload solution explorer was unable to refresh.
- Removed incorrect right click menus for some top level items.

## **Options**

- Added "Edit Stack Connection" to the Connection tab. Allows changing the credentials for the stack connection string.
- Added "Stack Server Type" to the Connection tab.

#### **Export Group**

- Added support for Data Lake source type.
- Fixed bug where export to REST using post per row would not include column names in the JSON.

### **Edit Metadata**

- Changed it so that it is possible to modify the primary key directly from the GUI. Modified primary key columns will not be overridden when re-importing an existing table.

## **Set Destination Data Lake**

- Added option to include hash keys (primary key and foreign key) in the output files.
- Added support for Amazon S3.

# **Inline Objects**

- Changed the inline views/tables so that the primary key info is no longer saved in the inline view.
- Changed it so that the inline view is not formatted during edit/save.

## **Check Consistency**

- Fixed a bug where the action corrective script was incorrect when dropping columns and changing column datatypes.

#### **Set Table Filters**

- Fixed a bug where wrong date format was used when loading data from DB2.

# **Column Lineage**

- Added better handling for invalid views with union statements.

## **Xpert BI 3.0.0.0**

#### General

- Added support for stack on Azure DB, Azure Synapse and Managed Instance.
- Added support for client credentials when connecting to Azure Data Lake.
- Added pane to add descriptions to database schemas.
- Changed copy exe parameters to use encrypted password in the parameter list.
- Changed the Stop processing functionality to stop the running tasks in a better and safer way.
- Changed input boxes which could contain passwords or secret information to masked input boxes.
- Changed how data is read to improve performance of application start-up, Reload Server Explorer and Reload Solution Explorer.
- Deprecated "Use Uppercase" functionality.
- Redesigned database stack selection window.
- Removed sensitive information in batch console output.

## **Azure Synapse SQL**

- Added support for "Truncate before update"
- Added support for configuring table distribution (Extraction and ITS tables).
- Added support for DateTimeOffset and Time data types when extracting parquet files.
- Added support for Tracking/Changing, Changing Table and Changing Column.
- Fixed a bug where reload solution explorer would stop if Synapse was paused.
- Fixed a bug where check consistency could sometimes fail if a data source were re-added (with different table names) after being removed and ODS-tables where manually deleted as well.
- Fixed a bug where performing check consistency could fail if a column with space in the name had changed datatype.
- Fixed a bug where wrong data types where sometimes used when a table was re-created in check consistency.
- Fixed a bug where the <TableName>\_Id column would become nullable after being recreated in check consistency.
- Fixed a bug where check consistency could go in a "loop" if a primary key column was changed in the source table.
- Fixed a bug where changing table name and changing column data (name, is active or data type) on a column in the same table could lead to errors when performing check consistency.

## **Check Consistency**

- Changed it so that more items show fully qualified table name.
- Fixed a bug where check consistency would return an error when the data source had 10 or more instances.

- Fixed a bug where table renames would not remove the old Current-view on Azure Synapse SQL.

#### Collection

- Added support for Proactima REST API.
- Added SSAS collection.
- Added duplicates check in analyse data.
- Added support for multiple destination servers.
- Added support for Azure Data Lake file storage.
- Added support for custom connection when executing parameter query.
- Added filtering to columns in metadata table.
- Added support for secret manager for SOAP and REST.
- Added dummy files to keep folders visible in Azure Data Lake Gen1.
- Added support for merging files in memory before inserting/merging into destination table.
- Added functionality to delete from destination based on chosen columns in input data.
- Added pagination for generic REST collection.
- Changed output file type from REST call to json when data is in json format.
- Changed XML parsing to allow invalid characters in xml/json documents.
- Fixed a bug where it was possible to create collection folders with same name.
- Fixed a bug where python script would hang if output text is too large.
- Fixed a bug where error messages would not always show if an error occurred during check consistency on all data source instances.
- Fixed a bug where re-saving a newly created collection table with pre-process could lead to errors.

## **Properties**

- Added support for uniqueidentifier in AllowPKNull.
- Changed Connection property to remove secret information when showing the connection string.

## **Migration Wizard**

- Added support for setting remote database connection strings when they are migrated.
- Added support for migrating database objects on remote databases and Azure Synapse SQL.
- Added support for setting connection string when migrating any new data source instance with a non-default destination or with changed destination type.
- Added support for setting missing information (connection strings and folder paths), when migrating collection folders.
- Changed Solution Settings to be two parts, Generic and Managed Connections/Secrets.
- Changed DataOps migration to a tree-style. Added restrictions on when a folder can be migrated and must be migrated.
- Changed DataOps migration to not migrate connection strings.
- Changed the Migrate database stack page, to preview objects included in the migration.
- Changed it so that Rest API Tokens are not migrated.
- Fixed a bug where performing backup of remote databases could lead to errors.

- Fixed a bug where migrating tables with Clustered Indexes could cause errors.
- Fixed a bug where Collection output tables where sometimes included in the migration on page 3 when they should not.

## Object\_All

Added SchemaName column.

## **Import UDFs**

- Changed database selection to use connection window instead of dropdown lists.

#### **Solution Explorer**

- Added schema as a level between database and SQL objects. This is only visible if there are more than one schema in use in the database.
- Fixed a bug where syncing Power BI workspaces could lead to reports showing under "Reports without workspace" if the underlying workspace ID had changed casing.
- Fixed a bug where Object Dependency pane would take focus when reloading solution explorer in the background.

## **Export Groups**

- Added Schema column to the Solution objects grid.

#### **Process Groups**

- Added Schema column to the Solution objects grid.
- Added icon to deleted and non-fact/top-level objects that are included in process groups (in addition to the red text) to make it more colour blind friendly.

## **Custom Objects**

- Added Schema column to the Children and Parent grid.

#### Reports

- Fixed a bug where first report does not load when reload is clicked.

#### **Data Interfaces: Tabular**

- Added support for Copy ELM Descriptions from Azure Synapse SQL and Azure SQL Database.
- Fixed a bug where changing casing on measures, column names or perspective members would cause errors when saving refreshed metadata.

#### **Data Interfaces: Power BI**

- Added sorting functionality to the Sort Order column.
- Added filtering functionality to the Hidden column.

- Changed it so that descriptions for tables, columns, measures and hierarchies are read from the report (if available) during import. If a description is changed in Xpert BI it will be used instead of the one from the report.
- Changed the Description field for report visual so it is editable.
- Changed it so that when a Page is hidden, all visuals on that page is hidden as well.
- Fixed a bug where having SQL queries as source could cause errors.

#### **Set Destination**

- Added support for setting destination to a SQL Server (with connection string) and Azure SQL Database.
- Added support for setting destination to Snowflake.
- Added functionality that will let the user directly add a destination database (if applicable) as an additional database.
- Changed it so that the OK-button cannot be clicked before all required fields are non-empty.
- Fixed a bug where table level schema did not work when the destination was Azure Data Lake.

#### **Edit Connection Window**

- Added ability to override certain parameters when using managed connection.
- Changed database loading to load when clicking on database list.
- Changed behavior to remove initial catalog from connection string when initial catalog is hidden.
- Filtered managed connections to match available database types.
- Fixed a bug where database type would be incorrect after selection managed connection and then selecting (None).
- Fixed a bug where Integrated Security was always Checked, but user was allowed to enter Username and Password for the OLE DB provider.

## **Executable Settings**

- Added context menu to executable item for navigating to dependency graph.
- Added delete button.
- Added red text and icon for executables that does not exist.

## **Additional Databases**

- Fixed a bug where changing a remote database connection string could lead to errors when reloading the Solution Explorer.

#### **Edit Metadata**

- Added support for Deactivate Columns on Azure SQL Database and Azure Synapse SQL.
- Added the value of the single-valued column when deactivating single-valued columns.

### **Column Lineage**

- Added an option to navigate to the Dependency Graph from SQL objects.

- Changed it so that when extractions to Azure Synapse SQL is loaded via Azure Data Lake the Azure Data Lake folder table shows between the data source tables and the ODS tables.
- Fixed a bug where clicking Open Column Lineage on a column description in the dependency graph would sometimes open the wrong column.
- Fixed a bug where lineage was broken between inline view and inline table if the object name had different casing.

#### **Data Source Instance**

- Added description field.
- Added option to copy the source metadata connection into the instance connection.

#### **Azure Data Lake**

- Added support for extracting data from Azure Data Lake to SQL Server, Azure SQL Database and Azure Managed Instance.
- Fixed a bug where the data length could be set to high when importing metadata from Azure Data Lake.

## **Publish To Rest**

- Added schema column.
- Added support for Oauth from Microsoft as security.
- Added support for Azure Managed Identity.

## **License Window**

- Changed license type field from Standard to Restricted when the license is restricted.

#### **Event Log**

- Added a Name column to the grid.

# Tags

- Changed how tags propagate when being added to/removed from a column to improve performance.

# **Managed Connection**

- Changed it so that the database type is resolved on-demand when managed connections are used.

# XBI\_batch.exe

Fixed a bug where using ForceFullLoad when processing a process group could lead to errors
if the process group contained inlines with incremental load option and inlines using set
incremental filters.

#### **Data Source Wizard**

- Changed the first and last page to improve user experience.

# **Xpert BI 2.9.2.0**

#### General

- Added support for importing metadata from Azure Data Lake.
- Added support for loading data into Azure Data Lake.
- Added support for Azure Synapse Analytics.
- Added Data Source Wizard.
- Fixed a bug when metadata modules are missing in management database.
- Fixed a bug where it was possible to upgrade database with restricted license.
- Removed "Execute Object Tree" option when processing a process group from Batch.exe. When processing from client, this option will now execute all descendant objects.

#### **Addition Databases**

- Added support for remote additional databases.

## **Migration Wizard**

- Added the possibility to skip the repair inconsistencies step during check consistency.
- Changed wrapping on error message to always wrap.
- Changed it so that it is possible to migrate a single collection table, instead of just all tables in a folder.
- Fixed a bug where migration would warn about missing databases when they are newly migrated.
- Fixed a bug where migrating an inline surrogate table would cause an error in the migration script.
- Fixed a bug where migration would warn about instance names being out of sync.

#### **Datasource and Version Properties**

- Added Description property.
- Added Datasourceld property.

#### Collection

- Added support for space delimiter in flat file collection.
- Changed error message to show all errors instead of only the first.
- Fixed a bug where loading certificates would fail on some systems.
- Fixed a bug where it was possible to set primary key when automatic primary key was enabled.
- Fixed a bug where dynamic values query would not correctly update post body.

## **Dependency Graph**

- Added right click menu to Details View Title in order to copy name.
- Added highlighting feature in the SQL text section.
- Added support for Data Lake and Synapse lineage.
- Added auto reload when solution explorer is reloaded.
- Fixed a bug where no object found warning would show when changing selection while the graph is loading.
- Fixed a bug where ODS table description would be deleted.

## **Executable Settings**

- Changed the tooltip on the "Add" button.

### **Data Source Explorer**

- Added right click menu to check consistency for all data sources under Operation Data Source folder.
- Changed search behaviour to expand all child nodes when parent matches search text.

#### **Power BI**

NOTE: Import of Power BI reports have changed to include pages and visuals. If you use the Catalog, you must re-import all reports because of this.

- Added handling for partially Norwegian PowerQuery code.
- Added PowerQuery code when comparing report against synced metadata.
- Added handling for extracting PowerQuery code from reports with "enhanced metadata" activated.
- Added sort order and hidden properties to pages and visuals when documenting a report.
- Changed Power BI import to support changes in Power BI REST API.
- Fixed a bug where syncing Power BI workspaces could lead to errors if the underlying workspace ID had changed casing.
- Fixed a bug where missing source type on Dataflow tables could lead to errors when refreshing the solution explorer.
- Fixed a bug where wrong database was compared when checking if a report is changed.
- Fixed a bug where renaming columns in Power Query could sometimes lead to errors when importing a report.

## Reports

- Added Undocumented Objects In Process Group report, which lists all SQL objects without a description.
- Added Used Inactive ODS Tables report, which lists all ODS tables that are inactive or not part of any data source metadata, but still in use.
- Changed sorting order for PerformanceLog report to sort by date descending.
- Fixed a bug where wrong reports where visible to certain licenses.

### **DataOps**

- Added test results or summary to the status icon tooltip for Test Log, Unit Tests and Fact Table Relations.
- Changed the way cells with different values are highlighted to improve performance.

#### **Data Interfaces**

- Added Display Name field for Tabular and OLAP projects.
- Changed "Edit Project Path" to "Edit" and changed the edit window to allow editing of display name. Applies to Tabular and OLAP projects.

## **Solution Explorer**

- Added functionality so that the description of objects dropped/deleted from Xpert BI will be saved in the Object Dropped table (together with the object code).
- Fixed a bug where reloading the solution explorer could lead to errors if the stack contained databases with different collations.

#### **Master Data Load**

- Changed the default operation timeout to 5 minutes.

#### **Custom Code**

- Fixed a bug where the temporary python script would not be accessible.

#### **Data Load Settings**

- Fixed a bug where it was possible to set more than one checkbox when only one was allowed.

## **Import Source Metadata**

- Fixed a bug in the Agresso SQL adapter.
- Fixed a bug in the Agresso Oracle adapter.

## **Fact Table Dependencies**

- Added database abbreviated name.

#### **Solution Modules**

- Fixed a bug where the wrong type of version number could lead to not getting Solution Modules.

## **Column Lineage**

- Added support for set visible levels.
- Changed it so that the schema name is included if it is not "dbo".

## **Xpert BI 2.8.0.3**

#### Collection

- Added support for Bureau Veritas REC75 SOAP.

## **Dependency Graph**

Fixed a memory leak.

# **Xpert BI 2.8.0.2**

## **Dependency Graph**

- Fixed a bug where graph would not properly draw after loading.

# **Xpert BI 2.8.0.1**

#### General

- Added prompt for unsaved changes when configuring XpertBI dB.
- Added Executable Settings with options to skip executables during process groups processing.
- Added Connection Manager.
- Added Secret Manager.
- Added Column Lineage.
- Changed the application versioning so that different versions of Xpert BI (without database changes) can be used with the same Xpert BI stack.
- Fixed a bug where trailing spaces in connection strings could cause errors.
- Fixed a bug where SQL Server name above 50 characters would cause errors in the management database.

## **History Table**

- Fixed a bug where casing changes in column names would lead to errors.

# **Migration Wizard**

- Added options to the database backup page (page 1), with option to enable Copy-Only backup.
- Changed it so that the XBI\_Time is updated in target if it needs to.
- Fixed a bug where backing up a database with a space in its name could lead to errors.
- Fixed a bug where history tables were deleted when they were only removed from the process group being migrated.
- Fixed a bug where inline objects were deleted when they were only removed from the process group being migrated.
- Fixed a bug where column descriptions were deleted if their parent object was removed from the process group being migrated.
- Fixed bug where custom objects where deleted when they were only removed from the process group being migrated.

- Fixed a bug where tags could be deleted if their accompanying column was removed from the process group being migrated.
- Fixed a bug where migrating a deleted collection would also migrate all collection columns.

#### **Collection Client**

- Added logging to the console when database version does not match application version.
- Fixed a bug where wrong connection string was used when running the client from command line.

#### **MDS Data Loader Client**

- Added logging to the console when database version does not match application version.

#### **MDS Data Load**

- Fixed a bug where data loads could fail if the target entity was not uniquely named across models.

## **Document SSAS Tabular project**

- Added better support for projects created with compatibility mode 1400 (SQL Server 2017).
- Changed Copy ELM Descriptions so that it shows the descriptions being copied and gives an option to choose which descriptions should be copied.
- Fixed a bug where query partitions without from table could cause exceptions.
- Fixed a bug where importing models with calculated tables would cause errors.

## **Fact Table Dependencies**

 Fixed a bug where deadlocking in certain situations could lead to deleting all fact table dependencies.

## **Dependency Graph**

- Added collection SQL tables.
- Added support for internal dependencies in Tabular and Power BI.
- Changed details view for ODS tables to show table description and columns descriptions added in extraction (Edit Metadata).
- Fixed a bug where collection table would not connect to collection database table.

#### **Instance and Instance Table Properties**

- Added SourceIsXBICollection property.

### Collection

- Added Dynamic Values Query to the Generic REST Collection type.
- Changed SOAP Collection so that it supports compression.

#### **DataOps**

Added Unit Test.

## Report

- Changed the Tagged Columns report to include all parents of tagged column(s).

## **Custom Objects**

- Added support for Python.

## XBI\_batch.exe

- Fixed a bug where Custom Objects in a process group would not get a run number when executed.

#### **Edit Connection Window**

- Added better error handling for the Test connection functionality.

## **Oracle Connection**

- Added Direct Mode and Fetch Size as properties.

# **Xpert BI 2.7.3.4**

### Collection

- Added support for OAuth 2.0 in generic REST.
- Added support for pagination for CosmosDB.
- Added support for complex input for SOAP.

# **Xpert BI 2.7.3.3**

#### **Data Interfaces Power BI**

- Fixed a bug where some report setups could cause errors when trying to read their visual structure.
- Added better interpretation of DAX-code.
- Fixed a bug where local reports where not always correctly imported.

# **Xpert BI 2.7.3.2**

### **Migration Wizard**

- Fixed a bug which in some situations caused the migration of process groups to be very slow.

## Collection

- Fixed a bug which caused Collection pre-processing to fail.

## **Fact-Table Dependencies**

- Fixed a bug which in very rare cases caused Fact-Table Dependencies to be reset.

# **Xpert BI 2.7.3.1**

#### General

- Changed it so that XBI\_Time is not unnecessarily drop-created.

## **Dependency Graph**

- Fixed a bug where only show derived/non-derived would show incorrect on some nodes.
- Changed Extraction node display name to show source table name.

# **Xpert BI 2.7.3.0**

#### General

- Added DataOps.
- Added support for separate start-up stack per user.
- Added support for Oracle 12.C.
- Added Power BI as a Data Interface, with functionality to sync with PowerBI.com (Licensed with Xpert BI Solution Catalog).
- Changed the script to create a database so that it differentiates between SQL Server and Azure Managed Instance.
- Changed T-SQL parser compatibility to version 140.
- Changed GUI components to version 2019.

## **Process Groups**

 Fixed a bug where differences in casing could lead to objects being falsely marked as deleted.

#### Collection

- Added functionality to execute custom code before processing.
- Added support for JSON files.
- Fixed a bug where copying a collection table with "IncludeAllXmlTables" enabled would give an error.

## **REST Collection**

- Added support for Google API.
- Added support for Azure Cosmos DB.
- Added POST support for Generic REST.
- Added default headers.
- Fixed a bug when REST collection tries to access an invalid webservice id.

#### **SAP RFC Collection**

- Fixed a bug where the Import Metadata button was not enabled correctly.

#### **SOAP Collection**

- Added support for specifying Bloomberg headers.

## **Export Groups**

- Added prefix for target name.
- Added custom target name.
- Added Retry functionality in REST Export.
- Added POST per row functionality in REST Export.
- Added optional JSON conversion in REST Export.
- Fixed a bug where objects deleted from the solution but still included in an export group did not show in the included objects list.
- Fixed bug in export to Azure Fileshare when path was empty.

## **Document SSAS Tabular project**

- Changed it so that the source name for a table is fully qualified.
- Changed it so that the model name is imported.

#### Tags

- Added create tag functionality; tags can be created in Administration->Manage Tags.
- Added assign tag functionality for object columns (Solution Explorer->Click any view->Column Tags tab).

### **Reports**

- Added new report; SourcesInProcessGroup. Refer to user manual for use case.
- Added TaggedColumns report to see which columns have tags.

#### **Check Consistency**

Changed it so that the Create\_All\_Databases sproc is not called when checking consistency.

## **Solution Explorer**

- Added functionality to create Custom Objects that can execute custom code (PowerShell).
- Fixed a bug where reloading the solution explorer with a non-existing database included as an addition database could lead to an empty solution explorer.

- Fixed a bug where reloading the solution explorer could reset the "Auto refresh solution explorer" setting.

## **Dependency Graph**

- Added full lineage to dependency graph.
- Added object grouping.
- Add object visibility.
- Added back/forward-functionality.
- Changed "Show Process Group Dependency Warnings" to "Show Warnings".
- Removed "Show Repeated Structures" from context menu.
- Removed "Show Programmables" from context menu.

## **Migration Wizard**

- Added support for migrating Custom Objects (Transformation and Collection).
- Added support for migrating Power BI documentation.
- Added support for migrating DataOps Automatic Data Quality Items and folders.
- Added support for migrating Tags.
- Changed it so that the backup database page from the migration wizard is skipped if the target is running on an Azure SQL Managed Instance.
- Changed it so that the Server, Solution, DataOps and Master Data Explorers are only reloaded when the Finish button is clicked.

# **MDS Data Loader**

- Changed it so that casing differences between source view/table columns and MDS entity attributes are better handled.
- Fixed a bug where having a domain-based attribute type could cause updates when there should not have been.

#### **Publish to SSAS Tabular**

- Fixed a bug where non-active Fact Table Dependencies where included when generating relationships.

# **Xpert BI 2.7.1.1**

## **Import Source Metadata**

- Fixed a bug in SAP metadata import so that constants are supported.

#### **SOAP Collection**

- Added support for Nullable types.

## **Master Data Load**

- Fixed a bug that prevented empty member identifiers from being updated.

#### **Migration Wizard**

- Fixed a bug so that a new REST Collection can be migrated.

# **Xpert BI 2.7.1.0**

#### General

- Added support for having the database stack on an Azure SQL Database Managed Instance.
- Added IFS metadata adapter.
- Changed the character limit for visible text in description columns to max.
- Fixed a bug where Xpert BI could crash during start-up.
- Fixed a bug where solution explorer would refresh during installation of solution modules when creating a new stack or upgrading, which could cause a crash.
- Fixed a bug that caused an exception when trying to process two inline tables with the same name in different databases.

#### **Publish to SSAS Tabular**

- Added functionality to not autogenerate measure for a column.
- Added functionality to re-create previously removed measure.
- Added functionality to hide/unhide columns.
- Changed it so that relationships (in fact table dependencies) from and to the same object are ignored when creating Tabular relationships.
- Changed it so that table partitions are skipped in the merging process if the target table already has a partition.
- Fixed a bug where Xpert BI generated measures with measure names that already existed in the model.
- Fixed a bug where using objects from additional databases with names not ending in their abbreviation would cause an exception.

#### **Document SSAS OLAP Project**

- Added functionality to edit the project path.
- Changed it so that calculated member IDs are based on the member name instead of the ordinal position.

#### **Document SSAS Tabular project**

Added functionality to edit the project path.

#### **Create ITS Table**

Fixed a bug where clicking Execute before saving could cause an exception.

### **Migration Wizard**

- Added a check to see if the names/ids of data sources and collections are in sync between source and target.
- Added reminders on items that might need to be manually updated/checked after the migration.
- Fixed a bug where self-referencing objects caused an infinite spinner.
- Fixed a bug where objects in new process groups or objects in databases not already used by existing process groups were included in the migration script when they should not be.
- Fixed a bug where objects in additional databases were sometimes falsely included in the migration script.

#### **Master Data Load**

- Added an error message if the source object columns do not match the target entity attributes.
- Added handling for deleting entity members with domain-based attribute relationships to it.
- Changed it so that validation errors are logged as warnings (instead of errors) and does not cause the data load to report error.
- Fixed a bug where data loads to an entity with only name and code column caused an exception.
- Fixed a bug where domain-based attributes where not always properly loaded.
- Fixed a bug where entities where not properly matched when updating data.

# **Master Data Subscription View**

- Changed it so that "Truncate Before Update" is turned on when Extraction configuration is auto-generated.

## **Export Groups**

- Added new export group type: Export to Azure Data Lake.
- Added header and footer to CSV export group.
- Added delimiter and quote options to CSV export group.
- Added support for Azure SQL Data Warehouse as a database target.

## XBI\_batch.exe

- Added quotes around table name source when copying exe parameters for a single extraction table.
- Added functionality to support extraction of multiple tables using a comma separated list of table name source.
- Added information of the current task in the XBI\_batch.exe console window.
- Changed it so that trying to run extraction on a single table that does not exists will return an error.

- Changed so that processing a Process Group that does not exist will now generate an error message in the log.

#### **XML Collection**

- Added functionality to include the file name in a column.
- Fixed a bug in Analyse Data Length where new columns in input file(s) not present in metadata would cause an exception.
- Changed the check for autogenerated column names when using the "include all xml tables" functionality to be more robust.

#### **Flat File Collection**

- Added file extension filter. Only valid files are now processed.
- Fixed a bug where 'path not found' was not logged in Event Log.

## **REST Collection**

- Added support for SAP SuccessFactors API.
- Added better logging when a REST API call fails.
- Added functionality so that the user will get a popup with an option to skip the SOAP/REST call for a single execution if the input/preProcessInput folder already contains files (only applicable when processing from the ribbon bar).
- Fixed a bug that caused the file(s) to always be saved in the input folder when invoking an API manually.

## **SOAP Collection**

- Added functionality so that the user will get a popup with an option to skip the SOAP/REST call for a single execution if the input/preProcessInput folder already contains files (only applicable when processing from the ribbon bar).
- Fixed a bug that caused the file(s) to always be saved in the input folder when invoking an API manually.

#### XBI\_collection.exe

- Added information of the current task in the XBI\_collection.exe console window.

## **Solution Explorer**

- Changed the reloading so that checking if an object is a history table basis object is faster.

## **Server Explorer**

- Added a delay between keypresses and searching in the search text box.
- Changed the icons on the different collection table types and made the folder icon dynamic depending on the type of the children.

## **Object Dependency**

- Changed close button in details view to always be visible.

## **Publish to REST API**

- Fixed a bug where the filtering view for object name and database was not properly reset when changing between APIs.

#### **Event Log**

- Fixed a bug in the event log that made the filter show wrong for instance and version.

## **Transformation Processing**

- Fixed a bug where starting two processing jobs at the same time could cause errors.

## **Analyse Data Source**

- Added 'ODS Size' information to TableInformation.
- Changed TableRowCounts to TableInformation.

#### **Additional Databases**

- Added a description field.

#### **Edit Metadata**

- Changed it so that clicking a checkbox outside a selection will de-select the current selection.
- Fixed a bug where activating/deactivating a table/column multiple times in a row could lead to wrong name being used.

## **Reports**

- Added report that shows all objects/executables included in a process group.
- Added "Run Collisions" report.

# Xpert BI 2.6.3.7

## **Document SSAS Tabular project**

Fixed a bug so that added and deleted tables will be imported when refreshing metadata.

# **Xpert BI 2.6.3.6**

# General

- Added functionality to import, document and manage SSAS OLAP project metadata.
- Added functionality to import, document and manage SSAS Tabular project metadata.
- Added functionality to export data to: Database, CSV, REST. The Export Groups is located in the Publication pane.
- Added support for WELS Operator in the REST Web Service Collection Module.
- Changed and standardized windows for adding data source, version and new instance.

#### Collection

- Added support for Box.com REST API.
- Added functionality for copying a Collection.
- Added check for unsaved changes before processing an open collection pane.
- Fixed a bug where \_TOTAL table remains when using truncate before update and there are no files in Input folder.

#### **Flat File Collection**

- Added possibility to remove old succeeded files before processing new files
- Added sorting for columns: "Is Primary Key", "Allows Nulls" and "Include Columns"
- Fixed a bug where Excel files with uppercase file endings where not correctly recognised as Excel files.
- Changed it so that missing fields are replaced with null values (for CSV files).
- Fixed a bug where pressing "Import Columns" button without a Config File Path value would throw an error message

#### **XML Collection**

- Added better error handling when transforming XML files.
- Added support for missing columns in input file.
- Added possibility to remove old succeeded files before processing new files.

## **SOAP Collection**

Fixed a bug where the input parameters did not show when editing an existing SOAP collection.

## **Edit metadata**

- Changed so that it is possible to multiselect table/columns when activating/deactivating.

#### **Set Table Filters**

- Changed it so that the OK button is always enabled and only checks syntax when the check syntax button is clicked.
- Changed it so that the syntax check informs that it checks for valid T-SQL.
- Fixed a bug where spaces in the source table name would lead to invalid syntax in source selection.

#### **Publish to SSAS Tabular**

- Changed from decimal to double when converting float/real/decimal/numeric SQL datatypes to Tabular data types.
- Changed it so that existing tables are better recognised when publishing to an existing model.
- Changed it so that relationships from or to deleted columns are also deleted.
- Fixed a bug where publishing to a model with calculated columns caused an exception.

## **Solution Explorer**

- Added warning if Solution Explorer has not been refreshed for 7 days.
- Changed searching to improve performance:
  - Can now right click a top level item and select "Search From Here". This appends item name to search filter and limits searching to this database only (keyboard shortcut CTRL+F can also be used instead of selecting from menu)
  - o Added 300 ms delay period from last keypress to start the search
  - o Search will only be performed if search field contains minimum two characters
- Fixed bug where reloading solution explorer does not work in certain states
- Fixed a bug where selecting "Properties" in right-click menu (in top level node) caused an error message

## **Configure Xpert BI dB**

- Added better error handling.

#### **Dependency Graph**

- Added better error handling when loading dependencies.
- Added MDS Entities loaded from a MDS Data Load to the dependency graph.
- Added column description to View Details. Note that this is not included in the Migration Wizard.
- Changed Code Mode to View Details.
- Changed Edit Description to View Details.
- Changed the loading of dependencies to improve performance.

### **Master Data Entity**

- Added a blank row in the code column dropdown, so the user can choose to have no code column.
- Fixed a bug where the data length was not properly set for data length max.
- Fixed a bug that made it impossible to update the text length using the Length field.
- Fixed a bug where unchecking Autogenerate Code Values was not saved properly.

#### **Master Data Load**

- Added Data Load name when logging errors.

- Added support for data loads to entities with no set code column.
- Added functionality to support automatic approval of loaded data.
- Added sorting for Edit Data Load Settings: "Table Name", "Update Only If Changed", "Truncate Before Update", "Insert Only" and "Skip Duplicates" columns.
- Changed the loading to support updating of entity member names.
- Changed the loading to better support SCD Type 2 subscription views. This also removes the Import Type option.
- Fixed a bug where NULL values in the code column could lead to an exception.
- Fixed a bug where editing an entity with the data load pane open could lead to processing with old entity settings.

#### **Migration Wizard**

- Added object column descriptions to the migration.
- Added Tabular projects to the migration.
- Added OLAP projects to the migration.
- Added Export Groups to the migration.
- Added REST APIs (published APIs) to the migration.
- Changed the Management Database Migration (page 2) to an expandable/collapsible hierarchy instead of a list.
- Changed and optimised the script generation algorithms so that the Migrate Database Stack (page 3) performs better.
- Fixed a bug where the corrective script window in the consistency check was hidden behind the consistency check window.

## XBI\_batch.exe

- Added an optional parameter SmartProcessing (only applicable for Process Groups). See User Manual for more information.

## Reports

- Added ObjectsOnlyInAllGroup report
- Added right-click shortcut to open dependency graph for valid report objects
- Added MdsSourceObjects report

## **Options**

- Added "Auto Refresh Solution Explorer" to miscellaneous.

#### License

- Removed "License Information" option from Home->Options tab.
- Changed License window to display more information about the current active license
   (Transformation Module, Master Data Module, Metadata Adapters and Collection Types) .

### **List UDFs**

- Added sorting for columns: "Name" and "Return Data Type" columns.

## **Edit Tracking/Changing**

- Added sorting for "Table Name" column.

#### **Event Log**

- Added sorting for "Version" and "Instance" column.

# **Xpert BI 2.6.1.0**

## General

- Added the Master Data module (licensed).

#### **Rest Collection**

- Added support for parameterising the URL.

#### **SOAP Collection**

- Added Bloomberg SOAP Service adapter (licensed).
- Added support for array parameters.

## **Analysis Models**

- Added SSAS Tabular mode

## **Reports**

- Added a new report which shows objects that are used by multiple process groups.

### Collection

- Fixed a bug where the folder structure could be created even if the table name was already used in the destination database.
- Changed it so that excluded columns are ignored when analysing data lengths.
- Changed it so that existing temp tables are dropped when a collection table is run.
- Changed it so that the "Allow PK Null" and "Automatic PK" checkboxes are mutually exclusive.

# **Flat File Collection**

- Fixed a bug where excluded columns where still used when merging multiple Excel sheets together.
- Changed it so that empty files are handled better.
- Added functionality to include the file name in a column.

## **Fact Table Dependencies**

- Fixed a bug where saving changes when changing between fact tables could lead to dependencies being reset.

# **Import Source Metadata**

- Added Object Type column in the Available Tables grid for data sources which can import metadata for both tables and views.

## **Dependency Graph**

- Fixed a bug where reloading the Dependency Graph while a deleted object was in focus caused an exception.
- Changed it so that self-referencing objects are not detected as a loop. When this happens a warning is logged.
- Added Code Mode.

#### **Set Table Filters**

- Changed it so that tables which are disabled in Edit Metadata will not show in the list.

## **Migration Wizard**

- Fixed a bug where different casing on additional databases in source and target could lead to false positives on the "missing database in target" check.
- Added support for migrating SOAP and REST Web Service Collections.

## Tracking/Changing

- Changed it so that it is possible to copy the exe parameters for a single tracking/changing type instead of all.
- Added functionality to execute the tracking/changing types from the GUI.
- Added option to change initial date behaviour on changing table and changing column.

#### **Edit Metadata**

- Fixed a bug where changing any of the dropdown boxes on the filter settings would cause an exception.

# **Xpert BI 2.5.0.2**

#### General

- Added the SAP RFC Collection Module (licensed).
- Added the SOAP Web Service Collection Module (licensed).
- Added the REST Web Service Collection Module (licensed).
- Added the Publication module, with functionality to publish REST APIs.
- Updated the operations for deleting old logs to minimise the chance of a sql server deadlock when running several .exe files at the same time.
- Added support for NEMS Panorama in the REST Web Service Collection Module.
- Fixed a bug where wrong server name was used in connection string parameter for some modules.

# **Migration Wizard**

- Fixed a bug where migrating a process group with more than 1000 objects would cause an error.

- Fixed a bug where migrating an inlined view would cause an error if the target contained a table with the same name as the view (without the "Inline" suffix).
- Fixed a bug where migrating a new process group could lead to errors in existing inline objects in target.
- Fixed a bug where critical inconsistencies detected in ODS leads to consistency check for collection not being run.
- Fixed a bug where migrating a process group that is empty in source could lead to warning about deleted objects not being shown.
- Added a warning on missing databases in target if Solution Settings (on page 2) has not been migrated and new databases has been added in source.
- Changed the condition for skipping the pre-compare tests (invalid objects etc.) on page 3 to skip if there are only delete-process group changes being migrated.
- Added guard to ObjectAllMappingTable\_Temp table.
- Fixed a bug where object name sometimes would be blank in the deleted objects warning window.
- Fixed a bug where migrating from table T and inline view T\_Inline to table T could lead to missing delete statement for view T\_Inline.
- Added a warning when migrating table changes that can cause data loss.
- Fixed a bug where it was possible to go to page three of the wizard, without a correct connection.
- Added a warning on possible unsupported table changes.

#### Collection

- Changed so that the timeout is used for all queries executed against the collection database.
- Added functionality to automatically generate a Primary Key.
- Added functionality to exclude columns for XML Collection.
- Added Collection Type to the Properties pane.
- Added functionality to allow null values in the Primary Key.
- Fixed a bug where a collection folder structure was created on the collection TopLevelNodePath when the table name was empty.
- Fixed a bug to avoid an exception when reloading the pane before the collection is saved.
- Fixed a bug so that when using Process Data from the ribbon it is the Collection pane in focus that will be processed, not the Collection selected in the Data Source Explorer tree.
- Added Collection ID and Collection Table ID to the Properties pane.
- Fixed a bug to avoid an exception when opening a XML collection where the XSD config file does not exist.
- Changed it so that temporary Excel files (beginning with ~\$) is skipped when processing.
- Added functionality to include all XML tables from an XSD file, instead of selecting only one table.

## **Dependency Graph**

- Fixed a bug where changing the casing on objects could make them show as External Objects in the dependency graph.

- Changed the "Not part of any fact table structures" warning, to a "Not part of any process group structures" warning.

### **Data Source Explorer**

- Changed it so that the icons under Configuration change if a connection is set.
- Changed it so that Collection folders and tables are sorted by name.

## **Import Source Metadata**

- Changed it so that metadata for views are included in the import when the source is SQL Server.
- Fixed a bug where comments were overwritten for tables, columns and relations when reimporting metadata for existing tables.
- Fixed a bug where importing metadata from Oracle failed when the schema/user had access to multiple schemas which included identical table name/column name.

## Tracking/Changing

- Fixed a bug where tracking changes on uniqueidentifier columns caused errors.
- Changed the Tracking/Changing namings.

## **Configure Relations**

- Added better error handling when disabling unused relations.

## **Query Source Data**

- Fixed a bug where the query was formatted incorrectly for iSeries Access ODBC data sources if XBI Exported Metadata was selected as source in Import Source Metadata.

## **Analysis Models**

- Moved the Analysis Models button to the new Publication pane.

#### **Popup Windows**

- Changed it so that the popup windows appear on top of all other windows.
- Added more keyboard shortcuts.

## **Analyse Data Source**

- Fixed a bug where database schemas set on instance level were ignored.

#### **Edit Metadata**

- Fixed a bug so that the "Deactivate Columns" action will use the "Other Command Timeout" when finding single-valued columns.

## **Process Groups**

- Changed the Solution objects list so that it only contains Fact or Top-Level objects.

- Added an Included objects list, which contains the objects included in the selected process group.
- Added Add and Delete/Remove buttons, instead of checkboxes, to select which objects are included in a process group.

#### Report

- Changed the unused objects report so that it now shows objects that are not part of any process group structures.

## **Edit Data Load Settings**

- Added sorting and filtering to the Table Name column.

## **Configure Relations**

- Fixed a bug where the pane could be marked as changed after saving.
- Fixed a bug which could lead to an exception after saving an edited comment.

# **Xpert BI 2.4.0.1**

#### **Set Table Filters**

- Changed so that the timestamp (rowversion) type can be used as incremental value.

# **Xpert BI 2.4.0.0**

## General

- Added the Migrate Environment Module.
- Added the "Analysis Models" module.
- Added functionality to create historical snapshot tables.
- Added functionality to include related tables when extracting.
- Changed the InstallShield setup so that an existing installed Xpert BI version can be updated without uninstalling it.
- Changed the InstallShield setup so that it adds Everyone Full Control NTFS permissions to the install folder.
- Fixed a bug where closing confirmation dialogs could lead to unexpected behaviour.

### Collection

- Changed so that when a new collection table is created it receives focus.
- Changed so that when importing columns on an already existing configuration, Xpert BI will try to preserve column information (primary key, data length etc.) by matching on column names.
- Changed so that the temp table is not deleted when an error occurs during processing.
- Changed so that access denied errors for the Input and PreProcessInput folders are logged to the event log, not the emergency log.
- Changed so that when a collection folder or table is deleted, the associated edit pane is closed if it is open.
- Changed so that the Header Row can be set to 0 to load files without headers.
- Fixed a bug where right-clicking directly on a collection table to edit it could lead to an exception when trying to process afterwards.
- Fixed a bug where editing a collection, opening a different pane, returning to the edit collection pane to process or copy exe parameters could lead to an exception.

#### **Flat File Collection**

- Added support for specifying the last row to read (CSV files).

#### **Edit Metadata**

- Added functionality to activate/deactivate a table or column using a checkbox.
- Added functionality to find and deactivate single-valued columns.
- Changed so that right-clicking a table or column changes focus to the selected item.
- Changed so that duplicate suggested column names are automatically handled by appending the column name source to make it unique.

## **Dependency Graph**

- Added functionality to show only derived dependencies.
- Changed so that the graph shows all parent levels when focus is on a programmable object.
- Changed so that a node with 'i' icon shows description and post process if available.
- Changed Show Derived Dependencies menu item into a sub-menu.

#### **Processing**

- Changed so that the data validation and loading of executable starts immediately when opening a process pane.
- Fixed a bug where Truncate Before Update would run before the staging data validation (create primary key), which would lead to empty ODS table if the source contained duplicate rows.

## **Data Source Explorer**

- Added a search/filter field to the data source explorer.

## **Configure Relations**

- Added a comment field to the relations.

- Added functionality to disable unused relations.
- Fixed a bug where the change asterisk would remain after a Reload.
- Fixed a bug where some old data would remain after a Reload.

## **Edit Data Load Settings**

- Added a new load setting for skipping duplicate records.

#### **ITS Table**

- Added support for post process scripts.
- Changed the error message when trying to inline views containing union on top level.
- Fixed a bug where an open ITS pane would not close when the related ITS table was deleted.

## **Global Filters**

- Changed so that the operator is user selectable, instead of being hard-coded to an equal sign.
- Changed so that the exclude filter checkboxes only has two states.

## XBI\_batch.exe

- Added support for windowed loads on single tables.

## **Import Metadata**

- Added option to not include primary keys.
- Changed so that settings (include relations and include primary key) are saved when clicking save.

## Reports

- Added PostProcess column to Executable Objects report.

#### **Set Table Filters**

- Fixed a bug where using a time (SQL datatype) column in a source selection could lead to a conversion error.

## **Process Groups**

- Redesigned Process Groups. Any object can now be included in a process group.

## **Analyse Data Source**

- Fixed a bug where using non-default schema could lead to an error.
- Fixed a bug where using a table-level connection string could lead to an error.

## **Solution Explorer**

- Fixed a bug where some of the context menu icons where misplaced.

# **Xpert BI 2.3.0.8**

#### General

- Changed the deploy framework from ClickOnce to InstallShield.
- Added the Service Name parameter to all Oracle connection dialog boxes.
- Added the possibility to set username/password for ODBC connection.
- Added DB2 iSeries metadata and data connection options through the iSeries Access ODBC driver.
- Added Analyse Data Source, with functionality to find table row counts and table column lengths.

#### Collection

- Fixed a bug so that it is possible to use the "Copy Exe Param." button and the "Process Data" button from the Collection Ribbon menu.
- Changed so that the cursor focus for "Add Collection", "Add Table Source Flat File", and "Add Table Source XML" is set to the top textbox element.

#### **Flat File Collection**

- Added support for reading Excel files with several worksheets
- Added support for specifying the header row.
- Added support for copying the input file instead of moving it when data is processed.
- Added support for specifying which columns in a file should be included.
- Fixed a bug so that the vertical scrollbar works.
- Added support for specifying the last row to read (Excel only).
- Changed so that editing the Top Level Node Path creates the Collection folder structure on the new path.

#### **XML Collection**

- Fixed a bug so that the vertical scrollbar works.

## **Solution Explorer**

- Changed so that deleted items are removed from the Solution Explorer without having to refresh it.
- Fixed a bug to avoid a 'reference not set to an instance of an object' error that could happen when accessing an environment via RDP where Xpert BI was already opened.

## **Edit Connection Window**

- Fixed a bug so that the username and password are always user editable when not using integrated security.

#### **Import Source Metadata**

- Changed so that filters on Available Tables list is reset when changing database.

#### **Edit Metadata**

- Added a "Comment" field to both tables and columns.
- Changed the column ordering for the column view.

#### **Set Global Filters**

- Fixed a bug so that a change asterisk is no longer triggered on any keypress from anywhere.

#### **Set Incremental Filters**

- Changed so that the load and response time was improved.
- Fixed a bug so that the sort functionality for the Name column works correctly.

## **Process Groups**

- Fixed a bug so that the script order of the non-view objects are correct.
- Fixed a bug so that the group name is logged when processing data, and can later be viewed in the EventLog General pane.
- Changed so that the Delete Group button is located in the rightmost column.

#### **ITS Table**

- Fixed a bug so that the "Check Validity" action will use the "Other Command Timeout" when checking the validity of the inline view.
- Fixed a bug so that the object name is logged when processing data, and can later be viewed in the EventLog General pane.

## **Dependency Graph**

- Added support for different types of tree layouts.

# **Dependency Loops**

- Changed the colour of the arrow marking a derived dependency to be orange.

#### **Reports**

- Added functionality to export reports to Excel files.
- Added Incremental Objects report.

#### **Processing**

- Added a "Do you want to process"-dialog window.
- Added error logging that can be picked up by SSIS or SQL Server Agent jobs.

Added functionality to kill running SQL requests when stopping an ongoing processing task.

# XBI\_batch.exe

- Added an optional parameter ForceFullLoad, which forces a full load even when it is configured as incremental.

# **Xpert BI 2.2.3.0**

#### General

- Added the "Dependency Loops" pane to the Transformation ribbon tab.
- Added the "Reports" pane to the Administration ribbon tab.
- Changed the splash screen so that it does not disappear before the application has fully loaded.
- Added support for an upper case version of the Xpert BI database stack. See the user manual for more information.
- Added the XML Collection module.

# **Import Source Metadata**

- Added a "Connection source" section where the connection can be pointed to the XBI exported metadata database.
- Fixed a bug so that a table which is deleted and then re-added without saving in-between is NOT deleted when doing the final save.

#### **Define Global Filters**

- Fixed a bug so that when more than eight tables are listed in "Exists in" list, the last table is not hidden.

#### **Set Table Filters**

- Fixed a bug so that the default value for a date and a datetime is set correctly in the Source Selection Expression Builder.

## **Edit Tracking/Changing**

- Fixed a bug so that tracking snapshot (TS) works correctly when an Id is removed from the tracked table.

## **Data processor**

- Added better error logging for pre-processing and post-processing problems.

## **Process Groups**

- Changed so that the user is not allowed to use the "Copy Migrations Script" if there is a loop in the object dependencies.

## **Dependency Graph**

- Changed the Edit Description to automatically save the object description after the user clicks 'OK' in the description dialog box.

#### **Solution Explorer**

- Changed the "Reload solution explorer" to be a full reload and optimised the algorithms to make it run faster. Removed the "Full Reload of solution explorer" button.

#### **Flat File Collection**

- Added support for reading Excel files. See the user manual for more information.
- Added a Config folder to the folder structure where the template/config file used for setting up the data import can be located.

## XBI\_batch.exe

- Added an optional parameter MaxThreads for setting the maximum number of threads that should be used when processing data.

# **Xpert BI 2.2.2.0**

#### General

- Changed the install module so that updating the C:\ProgramData\BI\_Builders is done in a more robust way.
- Updated Telerik GUI components to the latest available release. This fixed problems for running on Microsoft Windows Server 2012 R2

## **Import Source Metadata**

- Fixed a bug so that the command timeout is used when importing metadata to prevent possible timeouts.
- Fixed a bug so that any changes to Primary Keys in SAP metadata are imported correctly.

## **Process Groups**

- Fixed a bug to avoid problems when deleting a fact table which is included in a process group. A deleted fact table which is still included in a process group is now marked with a warning icon.

## **Fact Table Dependencies**

 Added functionality so that Bridge tables used for resolving Many-to-Many relationships are supported.

## **Xpert BI 2.2.1.0**

#### General

- Fixed a bug so that the tables under Operation are always sorted by source name.
- Compresses the tree view display slightly in the "Data Source Explorer" and the "Solution Explorer" to make room for more objects.
- Added support for username and password when connection to a management database.
- Added the "Manage Modules" pane to the Administration ribbon tab.
- Added the "Check Source Metadata" pane to Configuration ribbon tab and Instance Table context menu.

#### Collection

- Added the "Edit Collection" menu selection to make it possible to edit the top level Collection.
- Added Allow Nulls property for the destination table setup.

#### **Edit Metadata**

- Added confirmation dialogs for "Use Source" and "Use Suggested".

## **Dependency Graph**

- Added functionality for displaying a specific number of levels in the graph.
- Added functionality for not displaying repeated structures.

## **Properties**

- Changed the Connection String property so that it must be set through the connection dialog box if it is blank.

## **Solution Explorer**

- Added a search box to the toolbar that filters the tree view.

#### XBI\_batch.exe

- Fixed a bug in XBI\_batch.exe to prevent a possible problem when starting several XBI\_batch.exe files at the exact same time.
- Fixed a bug so that the error code 5 is returned when the processing is stopped because of missing heartbeats (for 5 days)
- Updated so that the return code is set correctly if the processing fails

## XBI\_collection.exe

- Fixed a bug in XBI\_collection.exe to prevent a possible problem when starting several
   XBI\_collection.exe files at the exact same time.
- Fixed a bug so that the error code 5 is returned when the processing is stopped because of missing heartbeats (for 5 days)

## **Edit Tracking/Changing**

- Fixed a bug with "Edit Tracking/Changing" menu. When two instances were defined using the same version, it was impossible to open both instance tables at the same time.

# **Import Source Metadata**

- Added columns "Suggested Table Name" and "Description" to Available tables and Imported metadata tables grid views.
- Added "Kit filter" dropdown. Filters the available tables grid view based on selected kit. Only relevant for application specific metadata modules.
- Added import setting "Include Relations". When unchecked, only import table and column metadata is imported.
- All grid view columns are filterable.

## **Xpert BI 2.1.0.3**

#### General

- Added the "Set Incremental Filters" pane to the Transformation ribbon tab.
- Added the Flat File Collection module (controlled by the license file).
- Added DB2 metadata and data connection options.
- Object Explorer was renamed to Solution Explorer.
- Changed the SQL parser module to make it more robust.
- Removed unnecessary time dimension update at startup.
- Added CTRL-C functionality to all grid views.

#### **Edit Metadata**

- Changed the rule for required column. Foreign key columns where the referenced table is not imported are no longer required.

## **Query Source Data**

- Fixed a bug to prevent a column to be listed several times in the select statement (when several instances of the same data source version are defined)

## **Edit Tracking/Changing**

- Fixed a bug to allow for NULL values in the tracked column.

#### **Data Processor**

- Fixed a bug to avoid a race condition that could lead to missing role names in the surrogate foreign key column when processing data.

## **Properties**

- Added the VersionId property to the Source Definition Datasource Version level.
- Added the AllowPKNull property to the Configuration Instance level.
- Added the TablePrefix property to the Configuration Instance and Operation Instance levels.
- Removed the Type property from all levels.

#### **License Validator**

 Fixed a bug which made the application do excessive logging if the license expired while the application was running.

## **Solution Explorer (Object Explorer)**

- Fixed a bug so that when selecting "Create ITS Table" or "Delete ITS Table" the context menu for the view is updated correctly to include/exclude the "Execute Object" menu item.

## **Process Groups**

- Added a "Create Migration Script" button on each Process Group row.

# **Dependency Graph**

 Fixed a bug so that functions used by stored procedures are included correctly in the dependency graph

# Options

- Changed "Update Time Dimension" on the Miscellaneous pane so that it is faster.

# **Configure Xpert BI dB**

- Changed to make it illegal to downgrade a management database.

#### General

- Added the Configure Relations pane.
- Added the Edit Data Load Settings pane. The Table Processing Priority was moved from Properties to this new pane.
- Replaced the Upgrade dB Window with the Configure XpertBI dB Window. The current and the target dB versions were added to the Configure XpertBI dB Window.
- Added "Remove Foreign Keys" to Operation.

## **Import Source Metadata**

- Added support for Oracle, SAP, and Siebel-Sql.
- Added support for Schema.
- Added Metadata Version filter.
- Optimized the import of metadata to make it faster.
- Added "Imported Only" checkbox.
- Fixed a bug that caused tables to get deleted when re-importing source metadata in certain cases.

#### **Edit Metadata**

- Changed the "Suggested Table Name" column and the "Suggested Column Name" column from Read Only to Read/Write.

## **Data Processor**

- Added error handling for dependency loops.

#### **Set Table Filters**

Added a new column named Table Name, renamed an existing column from Table to Table
 Name Source.

## **Options**

- Added a "Copy Batch Files" button to the Miscellaneous pane.

#### **Object Explorer**

- Added functionality for executing an object from the tree view menu

#### General

- Added functionality so that the management database can be located remotely.
- Added Server name to the "Upgrade XpertBI dB" window.
- Changed the install module so that updating the C:\ProgramData\BI\_Builders is done in a more robust way.

## **Configure Xpert BI dB**

- Fixed a bug to avoid a possible race condition when doing a clean install without any existing management databases.

#### **Edit Connection**

- Added ODBC support.

#### **Data Processor**

 Changed the way "max number of threads when processing data" works so that the number of data processing threads will not be influenced by the number of other threads in the application.

## **Dependency Graph**

 Added "Copy Exe Parameters Object" and "Copy Exe Parameters Tree" to the graph object context menu.

#### **Edit Metadata**

- Changed so that it is not allowed to give two tables the same name (an error message will be given and the names will not be saved).

## **Options**

- Changed Time Dimension Range – End so that it is including the specified year (instead of excluding the end year).

## XBI\_batch.exe

- Fixed a bug in XBI\_batch.exe so that loading data from SAP works correctly.
- Added support for processing a single object and for processing a complete tree/structure.
- Added more exception logging.

# **Object Explorer**

- Added a "Copy SQL statement to clipboard" for the Full Reload which provides arguments that can be used when scheduling the SPROC separately.

## General

- Changed all sql commands so that a generic timeout (Home->Options->Miscellaneous) is used. The data processor still uses a separate timeout.

# **Options**

- Fixed a bug so that "Update Time Dimension" works correctly.

# **Export Metadata Database**

- Changed "Export Metadata Database" so that a warning dialog box is shown if there are any problems with the export.

# **Management Database**

- Changed some stored procedures to make the Transformation modules more robust.

#### General

- Added the Transformation module. The activation of the Transformation module is controlled by the license file.
- Changed from .Net 4.0 to .Net 4.5
- Updated Telerik GUI components to the latest available release.

## **Solution Explorer**

- Changed the name of the Solution Explorer to Data Source Explorer
- Removed the Delete button from the Solution Explorer

## **Options**

- Added the Miscellaneous pane where the "Other Command Timeout" and the "Time Dimension Range" can be set.

## **Configure Xpert BI dB**

- Changed the Configure Xpert BI dB dialog box so that it has only one view instead of three views
- Added functionality so that the selected server and database will be filled out when reopening the dialog box.
- Added functionality so that the available management databases are selectable from a dropdown box.

# **Import Source Metadata**

- Removed the Schema filter from the GUI.

#### **Edit Metadata**

- Fixed a bug so that it is possible to copy table and column names when they are scrolled out of view after being selected.

## **Data processor**

- Fixed a bug related to processing data from Oracle by updating the Devart UniConnector to the latest available release.
- Changed the data processor to optimize the data processing (speed and memory use)