Kroll Ontrack

ONTRACK POWERCONTROLS

Ontrack® PowerControls™
User Guide | Version 8.0

Instructions for operating Ontrack PowerControls
in Microsoft® SQL Server® Environments

NOVEMBER 2014

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This manual should not be construed as any representation or warranty with respect to the software named herein. Occasionally, changes or variations exist in the software that are not reflected in the manual.

Generally, if such changes or variations are known to exist and affect the product significantly, a release note or Read Me file will accompany the User Guide, or will be available on the Ontrack PowerControls website. In that event, please read the release notes or Read Me file before using the product.

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CONTACT INFORMATION

For contact information for our worldwide locations, see

http://www.krollontrack.com/contact-us/

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Overview

Welcome to Ontrack® PowerControls™ for SQL 8.0, the granular recovery software that saves time, money, and resources when restoring Microsoft® SQL Server data.

With Ontrack PowerControls for SQL, you can:

- Restore tables from native SQL .BAK files or offline MDF and LDF in seconds or minutes without restoring the entire database
- Preview table contents before restoring table
- Restore from backup or storage tier snapshot directly

Ontrack PowerControls for SQL supports SQL 2008 R2 and SQL 2012 and can read MDF, LDF, NDF, and BAK files from a variety of data sources, such as a local or shared drive, an external hard drive or even a storage tier snapshot from a SAN environment. For more information, see **"Supported in Ontrack PowerControls for SQL" on page 1** and **"Limitations" on page 2**.

About the Free Trial

After installation, Ontrack PowerControls for SQL operates as a free trial by default until a license file is applied. The Free Trial of Ontrack PowerControls for SQL has full functionality time-limited to seven days of use.

If you would like to learn more about the purchasing options and product information for Ontrack PowerControls for SQL, visit our website at http://www.krollontrack.com/software/powercontrols/.

Data Security

The Ontrack PowerControls for SQL user requires:

- Read access to any SQL 2008 R2 and SQL 2012 offline database files or backup files to be opened as a source
- Administrator access to any SQL Server where the data is to be restored

Supported in Ontrack PowerControls for SQL

The following are supported in the Ontrack PowerControls for SQL release:

- SQL 2008 R2 - Native and Compatibility mode
- SQL 2012 - Native and Compatibility mode
- Table level restoring of data
- Snapshots (if presented as a drive letter or volume of files)

- Column (data) types (up to 2 GB):
  - BigInt, Int, SmallInt, TinyInt, Bit
  - Binary, VarBinary
  - Char, VarChar, NChar, NVarChar
  - Computed Columns

    Note: Computed Columns appear in the Source List as <COMPUTED>. Computed Columns referencing an object that does not exist in the target database cannot be copied.

  - DateTime, SmallDateTime
  - Float, Real
  - Image, VarBinary(max)
  - Money, SmallMoney
  - Numeric, Decimal
  - Sql_variant

    Note: If a sql_variant column is copied and:

      - The sql_variant is a Money or SmallMoney type, it is converted to a decimal on the target.
      - The value is a string type, the collation is not preserved.

  - Sparse columns without COLUMN_SET
  - Text, NText, VarChar(max), NVarChar(max)
  - Uniqueidentifier
  - XML

Limitations

The following are not supported in the current Ontrack PowerControls for SQL release:

- Database encryption and compression
- Backup data encryption
- SQL database objects other than tables, rows, and columns (such as system tables, stored procedures, triggers, primary and foreign keys, and CLR) are not supported and do not appear in the Ontrack PowerControls for SQL interface.
- Limited support column (data) types:

    Note: These column types appear in the Source List as either <UNSUPPORTED> or binary and are copied as binary.

- CLR UDT (User Defined Type)

- Cursor

- Date, DateTimeOffset, DateTime2, Time

- Geography, Geometry

- HierarchyId

- TimeStamp/RowVersion

- Unsupported column (data) types:

  - COLUMN_SET column

    Note: *While sparse columns defined by COLUMN_SET column appear in the Source List, tables containing this column cannot be copied.*

  - Filestream

    Note: *Tables containing Filestream columns cannot be accessed.*

- Unsupported backup types:

  - Compression

  - Differential

  - Files and filegroup

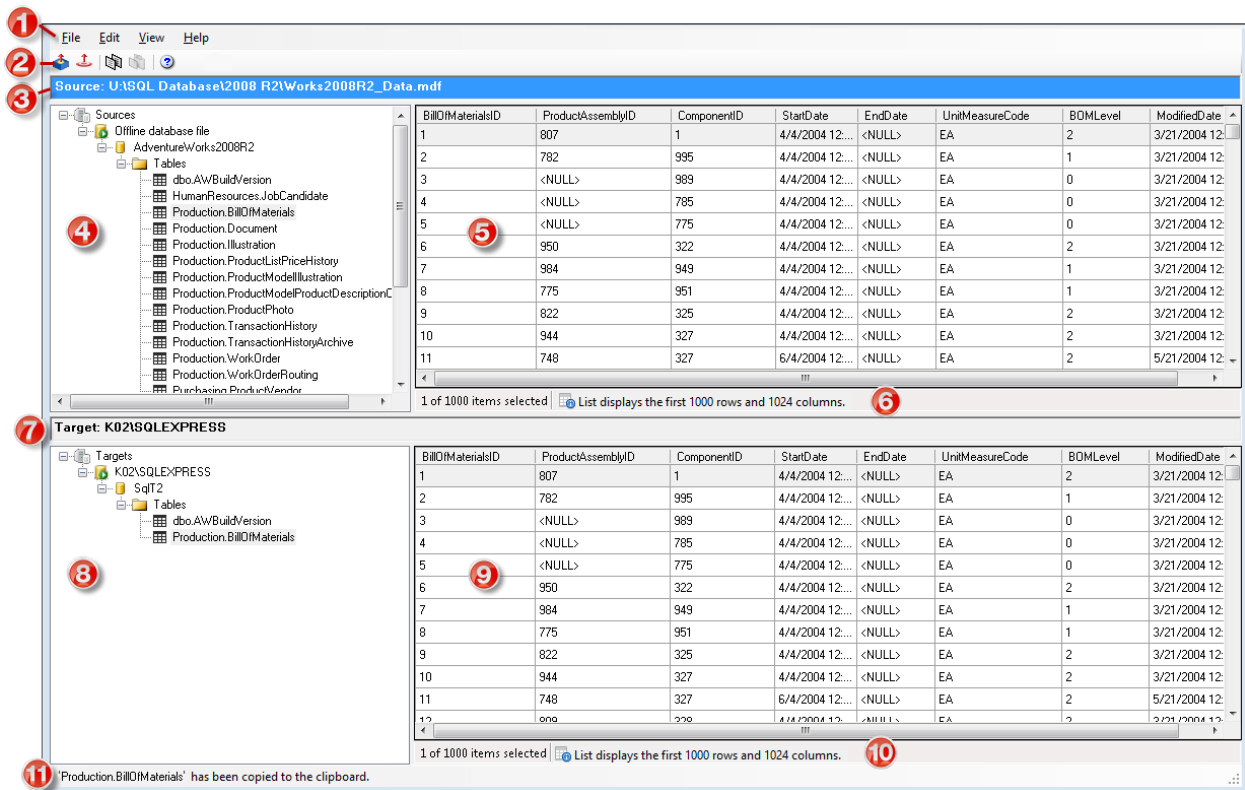 - Multiple file backup

  - Transaction log

Restoring Data

- Referential integrity, indexes, and permissions are not restored.

- When restoring tables with TimeStamp columns, the TimeStamp column is not preserved. The value is the time of the restoration for that row. This is the normal behavior for TimeStamp columns.

- Restoring tables with identity columns does not preserve the value of the identity column; it follows the rules of the identity column on the target table.

EXAMPLE: If the source table has three rows with identity values of *1*, *3*, *5*, once restored, the target will have values of *1*, *2*, *3*. (This is the normal behavior of identity columns.)

Chapter 1: Looking at the Interface

The Ontrack PowerControls for SQL main window is divided into the two Source panes (Source Tree View and Source List) above the two Target panes (Target Tree View and Target List).

Key items:

1. *Menu Bar*
2. *Toolbar*
3. *Source Location*
4. *Source Tree View*
5. *Source List*
6. *Source List Status Bar*
7. *Target Location*
8. *Target Tree View*
9. *Target List*
10. *Target List Status Bar*
11. *Main Window Status Bar*

Source and Target Panes

The Source panes display the contents of the source MDF, NDF, and LDF files, or the first full backup in the source BAK file. The Source Tree View displays the selected source database in a hierarchical view. The Source List displays the columns of the tables selected in the Source Tree View.

Note: Unsupported columns also appear, but the data in the cells may appear as <UNSUPPORTED>

The Target panes act as a container for the restored objects on the target server. The Target Tree View contains the Microsoft SQL Server tables that you copy, drag-and-drop, or add through the Data Wizard. The Target List pane displays the columns of the tables selected in the Target Tree View.

When you select a table in either the Source or Target Tree View, the following appear in the corresponding List:

- Up to the first 1,024 columns (each columns displays up to 300 characters).
- Up to the first 1,000 rows.

Note: A notice appears in the corresponding List's status bar when the selected table exceeds these amounts.

Any functions that can be performed on a source or target are available on the menu bar, the toolbar, or the shortcut menus. For more information, see **"Restoring Microsoft SQL Server Tables" on page 8**

Changing the Appearance of the Main Window

You can change the view in the Ontrack PowerControls for SQL window by:

- Viewing or hiding the Toolbar and Status Bar
- Resizing panes separated by a split bar
- Resizing columns in the Column Lists
- Refreshing the screen

Viewing or Hiding the Toolbar and Status Bar
The toolbar and status bar appear by default in the main window, but you can easily hide them.

To hide or view the toolbar or status bar

- On the **View** menu, select or clear **Toolbar** or **Status Bar**. A check mark indicates that the bar is shown.

Resizing Panes Separated by a Split Bar

You can use a split bar (the horizontal or vertical double line that separates two panes) to increase the area within one pane while simultaneously decreasing the area within the adjacent pane.

To resize panes separated by a split bar

1. Position the cursor over a split bar between the two panes until a double arrow appears. A vertical double arrow appears if you position the cursor over a horizontal split bar.
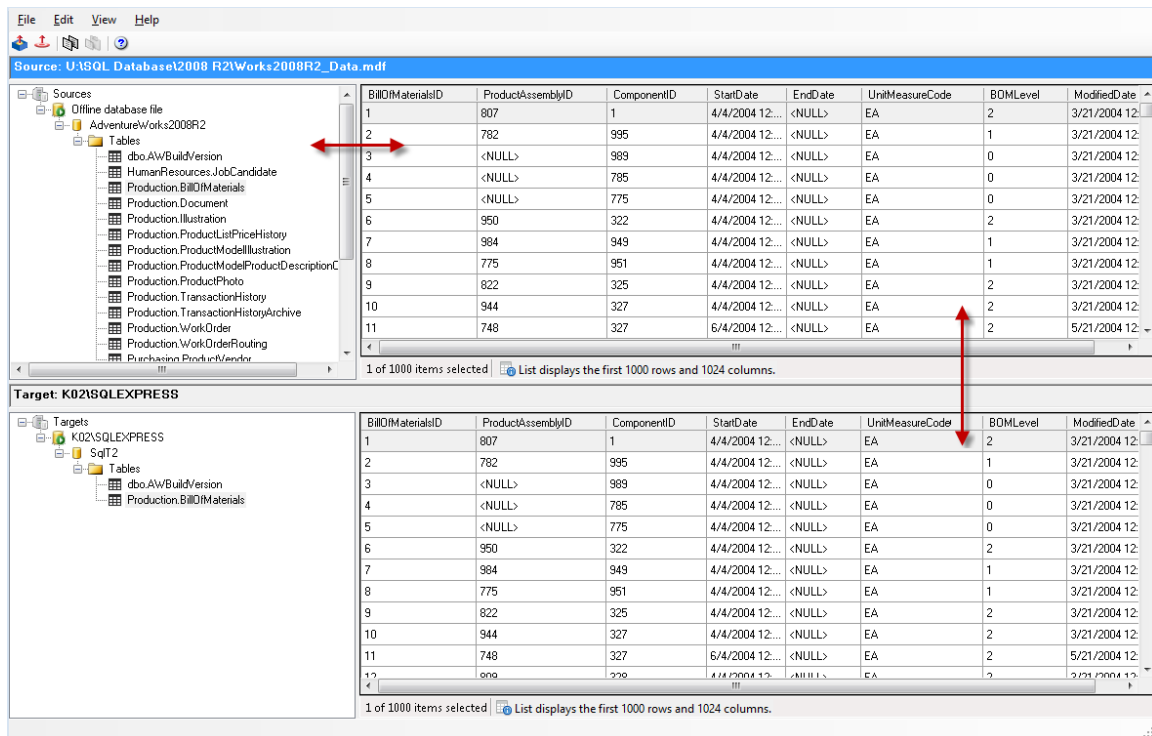

Figure 1-1: Resizing panes with the double arrow

2. Drag the split bar until the two panes are correctly sized.

Resizing Columns in the Column Lists

You can change the width of the columns in the Source and Target Lists. Place the mouse between the columns in the title bar. When the double arrow appears, click and drag it left or right.

Refreshing the Screen

You may want to refresh the screen occasionally when you are connected to a live target server. That is because the information on the server may change while you are connected.

To refresh the screen

■ Do one of the following:

- On the **View** menu, select **Refresh**.
- Press the **F5** key.

Setting Preferences

Use Preferences to set defaults for recurrent operations, such as running the Data Wizard when you start the application.

To change preference settings

1. On the **Edit** menu, select **Preferences**.
2. Select or clear the following check boxes, as needed:

- **Run Data Wizard on startup:** If selected, the Data Wizard starts every time you open Ontrack PowerControls for SQL.

- **Show warning when no log files specified:** If selected, a warning message appears when opening a file if an LDF file path has not been specified.

- **Show referential integrity warning:** If selected, a warning message appears when copying tables with foreign keys.

Chapter 2: Restoring Microsoft SQL Server Tables

You can restore a Microsoft SQL Server table by doing the following:

A. Select the source MDF, LDF, and NDF file paths or the source BAK file path, and the temporary file path.

> **Important:** Verify that the log files and database files were created in the same backup. If your source database contains an NDF file, it must be included with the MDF file.

1. Open the Source Path Selection page of the SQL Data Wizard by doing one of the following:

   - On the toolbar, click **Open Source** .

   - On the **File** menu, select **Open Source**.

   - Press **Ctrl+S**.

   - Drag-and-drop a single MDF file or single BAK file into the Source Tree View of the main window.

2. In the **Source Files** group, do one of the following:

   - Click **Add** and use the Open dialog box to browse for the source MDF file, NDF files, LDF files, or BAK file.

   - Open Windows Explorer and drag-and-drop the source files from their location onto the Source Files box.

   Note: Multiple files can be added to the Source Files box and are listed in the order they were added; however, only a single database can be opened. If you want to remove files from the Source Files box, select the file and click Remove.

3. In the **Temporary File Path** box, accept the default location for the .idx and .dat files or, if the files require more hard drive space, specify a new location by clicking **Browse** (...).

4. Click **Finish**.

B. Connect to the Microsoft SQL Server you are using as the target for your restored data.

1. Open the Target Server Path Selection page of the SQL Data Wizard by doing one of the following:

   - On the toolbar, click **Open Target** .

   - On the **File** menu, select **Open Target**.

- Press **Ctrl+T**.

2. In the **SQL Server Name** box, do one of the following:

- Enter the name of the Microsoft SQL Server you are using as the target.
- Use the drop-down arrow to select a previously used target.

3. In the **Authentication** group, select one of the following:

- **Use Windows Authentication** to use Windows credentials of the currently logged-in user to access the web service.
- **Use SQL Server Authentication** to use Microsoft SQL credentials, then enter the Username and Password of the user.

4. In the **Database** group, do one of the following:

- Select **Connect to Single Database** and enter the database you are using as the target or use the drop-down arrow to select a database on the SQL Server you are using as the target.
- Select **Connect to Server** to connect to the SQL Server you are using as the target and view all its available databases in the Target Tree View pane.

5. Click **Finish**.

C. Copy a table from a SQL database backup (source) and paste, or drag-and-drop, into a live SQL database (target)

To copy a table from the Source Tree View

1. In the Source Tree View, select the table to copy.

2. Do one of the following:

- Click the Copy icon on the toolbar.
- On the **Edit** menu, select **Copy**.
- Press **Ctrl+C** (copy).

To paste a table to the Target Tree View

1. In the Target Tree View, select a Tables node.

2. Do one of the following:

- Click the **Paste** icon on the toolbar.
- On the **Edit** menu, click **Paste**.
- Press **Ctrl+V** (paste).

To use drag-and-drop

- Drag a table from the Source Tree View into a Tables node in the Target Tree View. Dragging and dropping achieves the same results as copying and pasting.

Using the Data Wizard

The Ontrack PowerControls for SQL DataWizard guides you through Steps A and B of **"Restoring Microsoft SQL Server Tables" on page 8**.

To open the Data Wizard

- On the **File** menu, click **Use Wizard**.

Viewing Copy Progress

Each time you attempt to restore objects to the Target Tree View, Copy Progress displays the following information:

- Source, Source Path, Target, and Target Path
- Time of the start of the copy operation
- Number of tables to be processed
- Warnings and errors, if any
- Number of rows processed
- Time the copy operation completed

To print Copy Progress Data as a report

- Click **Print** for a report of the Copy Progress information.

To save Copy Progress Data as a report

- Click **Save** for a text file of the Copy Progress report.

Chapter 3: Troubleshooting

If you have issues not addressed in the user guide or the online Help, call our Technical Support group (1-952-937-2121). When reporting an issue, please include any information that might help us diagnose the problem and have the following:

- The version of Ontrack PowerControls for SQL you are using (on the Help menu, click About)

- The versions of Windows operating systems that you are running

- The circumstances and sequence of steps that led to the problem

- The text of the error messages (if any appeared).

- A list of other Windows-based programs that you were running when the error occurred

About Kroll Ontrack

Kroll Ontrack provides technology-driven services and software to help legal, corporate and government entities as well as consumers manage, recover, search, analyze, and produce data efficiently and cost-effectively. In addition to its award-winning suite of software, Kroll Ontrack provides data recovery, data destruction, electronic discovery and document review. For more information about Kroll Ontrack and its offerings please visit: www.ediscovery.com or follow @KrollOntrack on Twitter.

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