Deep Dive: Pronto Transformations Reference

Available Transformations and Their Icons

<table>
<thead>
<tr>
<th>Transform</th>
<th>Description</th>
<th>Menu Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Column</td>
<td>Important: Not available in Trial. Upgrade to Pro Edition! Add a new column by writing a BQL expression for customized data.</td>
<td><img src="add_column_icon" alt="Add Column" /></td>
</tr>
<tr>
<td>Combine</td>
<td>Merge two columns into one, with or without a delimiter. By default the delimiter is a comma.</td>
<td><img src="combine_icon" alt="Combine" /></td>
</tr>
<tr>
<td>Data Type</td>
<td>Changes the data type of the column or columns. It does not change the data type in the source data, only for the column in Birst.</td>
<td><img src="data_type_icon" alt="Data Type" /></td>
</tr>
<tr>
<td>Date</td>
<td>Allows a variety of functions related to dates. Works only with columns of type date or datetime. If you try to apply this to other types of columns there will be an error.</td>
<td><img src="date_icon" alt="Date" /></td>
</tr>
<tr>
<td>Filter</td>
<td>Filters the rows based on the contents of one or more cells in the column. A filter transformation cannot be edited once you create it.</td>
<td><img src="filter_icon" alt="Filter" /></td>
</tr>
<tr>
<td>Ignore</td>
<td>Excludes the column from the Birst data store. Does not change the column in the source.</td>
<td><img src="ignore_icon" alt="Ignore" /></td>
</tr>
<tr>
<td>Index</td>
<td>Creates a new column of ascending sequential numbers titled &quot;Index&quot;, most often used as an index on a table.</td>
<td><img src="index_icon" alt="Index" /></td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Transformation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Merge</strong> on page 10</td>
<td>Merges columns from two tables into a single table.</td>
</tr>
<tr>
<td><strong>Null Handling</strong> on page 10</td>
<td>Replaces empty cells in a column or columns with text of your choice.</td>
</tr>
<tr>
<td><strong>Rename</strong> on page 11</td>
<td>Renames the title of the selected column or columns.</td>
</tr>
<tr>
<td><strong>Replace</strong> on page 11</td>
<td>Find and replace a value in the selected column. Can replace multiple values at the same time.</td>
</tr>
<tr>
<td><strong>Split</strong> on page 12</td>
<td>Split one column into two or more columns, based on either a delimiter or a number of characters.</td>
</tr>
<tr>
<td><strong>Split Row</strong> on page 13</td>
<td>Duplicates a column based on a selected delimiter.</td>
</tr>
<tr>
<td><strong>Summarize</strong> on page 14</td>
<td>Summarize both groups one or more rows based on matching values, and also shows a calculation based on data another column. A Summarize transformation cannot be edited once you create it.</td>
</tr>
<tr>
<td><strong>Text</strong> on page 15</td>
<td>Changes case or trims out empty spaces of the selected column.</td>
</tr>
</tbody>
</table>

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**Add Column**

**Important:** Not available in Trial. Upgrade to Pro Edition!

The Add Column transformation adds a column to the table. You give it a name and a formula for the contents, or just some text. The formula uses the Birst Query Language, BQL. (BQL is similar to macro or other query languages.) Then you assign a data type for the column.
Combine

One of the most common uses of the combine operation is to put a first name and last name together, or to put address or location columns together. For example you could combine a City column with a State column and separate them with a comma and a space, using the custom delimiter option.

Click the image to run an animation:
Data Type

The Data Type transformation changes the type of data in a column or columns. Sometimes a column from the original source is one type, and you want to relate it to a column from another source that is a different type. You would need to change one of them so that the data types match.

Data type conversions include varchar, integer, float, date, and datetime. When you change a data type, Pronto changes the selected column, it does not create a new column.

Click the image to run an animation:
When changing date or datetime columns, you may see the following results:

- When you change a date to a datetime, Pronto updates the data in the column and adds the timestamp 12:00:00.000AM.
- When you change a datetime to a date, Pronto drops the timestamp.
- When you change a datetime to a varchar, Pronto reformats the date, from the 08/29/2016 5:39:00.000 AM format as a datetime to the 2016-09-02 06:01:00.000 format as a varchar.

When changing varchar columns to integer or float, change or remove any non-numeric characters first. By default if a varchar with non-numeric characters is converted to integer or float, the conversion results in 0.0.

**Date**

The Date transformations are a variety of functions that modify columns of type date or datetime.
Filter

Filter changes the rows in the table based on the values in the cells. Filters use operators including as equal to, not equal to, greater than, greater than or equal to, less than, less than or equal to. For example you can filter data out of a table based on the value of a cell.
Wild cards and partial entries are not supported. The filter value text must exactly match the text in the cell. For text columns, the greater than and less than operators use alphabetical order.

**Ignore**

The Ignore transformation makes the column invisible in the table. The column is still part of the prepared source, but you won't see it.

When you select a column and click Ignore, the screen refreshes and the column is gone. To get it back, click on the Ignore icon in the pipeline and select delete.
FAQ: What is the difference between using Ignore in the Prepare page and just excluding it when you define the connection in the Connect page?

If you won't need a column anywhere in your dashboard or reports, then don't put it in the connection and it won't be extracted from the original source at all. Sometimes you need a column in some reports and not others; in this case you'd extract it, and use it in a prepared source for a report that needs it. Then use the Ignore transform in the prepared source for a report that doesn't need the column.

Index

The Index transformation sets up a new column with numbered rows. You can set the starting number of the index. If you create more than one index column, the column name is appended with a number.
You can set the starting number of the index. If you create more than one index column, the column name is appended with a number.
Index can be used as a way to uniquely identify a row, or as a simple counting mechanism.

**Merge**

The Merge transformation takes the columns from two tables and puts them together into one new table. You can show only some columns from each original table, or take them all.

**Null Handling**

Sometimes there is nothing in a cell, and you don't want to leave it blank. You can put text into the empty cells of a column or columns.
Rename

Rename controls the labels of column headers. Just select a column or columns and type in new names.
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Replace

Replace is a standard search-and-replace in a single column. Select the column and provide one or more text or number replacements.

Split

Split will divide the contents of a cell into multiple cells by adding a column. You can split on a delimiter, or on a count of characters. The new column is next to the original one, and you can use the Rename transform to give it a different name.
Split Row

Split row is a way to duplicate rows based on a delimiter. You can use one of the delimiters in the dropdown list or enter your own. For this example the rows that have an ampersand (&) in the selected column are duplicated.
Summarize (Group By and Show Calculations)

Summarize both groups one or more rows based on matching values, and also shows a calculation based on data another column.

A Summarize transformation cannot be edited once you create it.
Text

Text provides uppercase and lowercase transforms, plus it will trim extra blank spaces.