

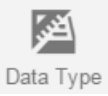

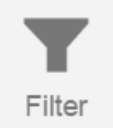












Deep Dive: Pronto Transformations Reference

Available Transformations and Their Icons

Transform	Description	Menu Icon
Add Column on page 2	Important: Not available in Trial. Upgrade to Pro Edition! Add a new column by writing a BQL expression for customized data.	 Add Column
Combine on page 3	Merge two columns into one, with or without a delimiter. By default the delimiter is a comma.	 Combine
Data Type on page 4	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.	 Data Type
Date on page 5	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.	 Date
Filter on page 6	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.	 Filter
Ignore on page 7	Excludes the column from the Birst data store. Does not change the column in the source.	 Ignore
Index on page 8	Creates a new column of ascending sequential numbers titled "Index", most often used as an index on a table.	 Index

Merge on page 10	Merges columns from two tables into a single table.	 Merge
Null Handling on page 10	Replaces empty cells in a column or columns with text of your choice.	 Null Handling
Rename on page 11	Renames the title of the selected column or columns.	 Rename
Replace on page 11	Find and replace a value in the selected column. Can replace multiple values at the same time.	 Replace
Split on page 12	Split one column into two or more columns, based on either a delimiter or a number of characters.	 Split
Split Row on page 13	Duplicates a column based on a selected delimiter.	 Split Row
Summarize on page 14	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.	 Summarize
Text on page 15	Changes case or trims out empty spaces of the selected column.	 Text

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.

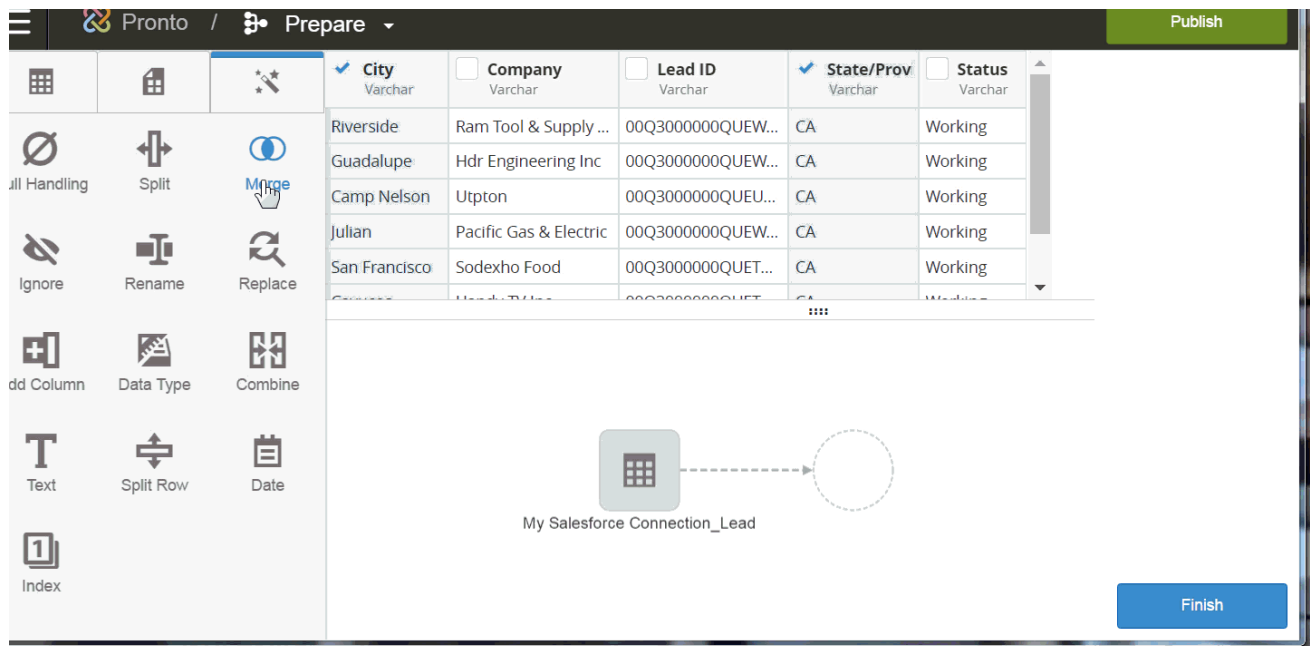
The image shows a 'Data Type' dropdown menu with the following options:

- Varchar
- Integer
- Float
- Date
- DateTime

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:](#)

Deep Dive: Pronto Transformations Reference

Sources	Case ID Varchar	Case Varchar	Case Status Varchar	Case Date DateTime	SFDC A Varchar
SFDC Lead	500500000...	Data Ac...	Closed	08/29/2016 5:39:00.000 AM	001E0000...
TransformDateTime	500500000...	Support...	Closed	06/02/2016 3:45:00.000 PM	001E0000...
	500500000...	Reports ...	Resolved - Cod...	04/21/2016 11:51:00.000 AM	001E0000...
TestDateTimeTransform	500500000...	Birst Ap...	Closed	04/09/2016 5:06:00.000 PM	001E0000...
	500500000...	Support...	Closed	05/01/2016 3:04:00.000 PM	001E0000...
test	500500000...	Data Pr...	Closed	03/25/2016 1:04:00.000 PM	001E0000...
Call Center	500500000...	Reports ...	Resolved - Cod...	03/24/2016 10:30:00.000 PM	001E0000...
	500500000...	Birst Ap...	Closed	04/15/2016 7:58:00.000 AM	001E0000...
My Salesforce Connection_Campaign	500500000...	Birst Ap...	Closed	03/24/2016 10:16:00.000 AM	001E0000...
	500500000...	Reports ...	Closed	03/25/2016 2:43:00.000 PM	001E0000...
My Salesforce Connection_Campai...	500500000...	Birst Ap...	Closed	03/20/2016 4:03:00.000 PM	001E0000...
My Salesforce Connection_Lead	500500000...	Account...	Closed	07/09/2016 4:41:00.000 PM	001E0000...
	500500000...	Birst Ad...	Closed	09/02/2016 6:01:00.000 AM	001E0000...
Imported Files_Call Center Depart...					
Imported Files_Call Center Depart...					
Imported Files_Marketo Leads_xls					

Imported Files_Call Center Department Data_xlsx SupportCases → add step

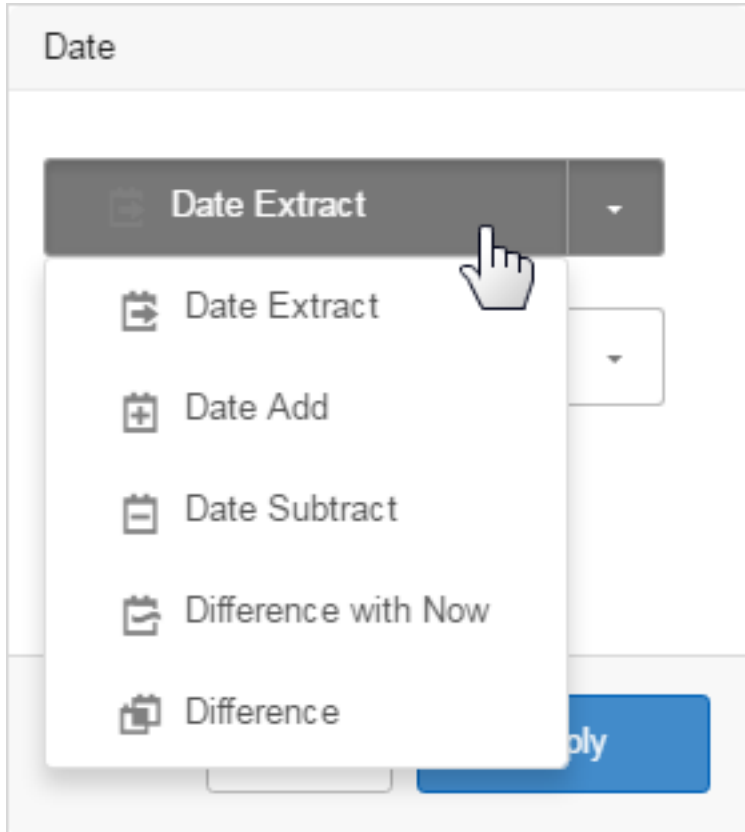
When changing date or datetime columns, you may see the following results:

- 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.

Deep Dive: Pronto Transformations Reference

The screenshot shows the Pronto interface with a 'Prepare' dropdown menu. On the left, a 'Sources' panel lists various data sources, including 'Prepared Employees' (highlighted in blue), 'Summarize Test', and several 'SuperEats_xlsx' sources. The main area displays a table with columns: Employ (Integer), LastNar (Varchar), FirstNar (Varchar), Title (Varchar), TitleOfCour (Varchar), Reports (Integer), and BirthDa (Date). The table contains 10 rows of employee data. Below the table, a diagram shows a 'SuperEats_xlsx Employees' source icon connected by a dashed arrow to a circular 'add step' icon.

	Employ	LastNar	FirstNar	Title	TitleOfCour	Reports	BirthDa
Prepared Employees	3	Leverling	Janet	Sales Director	Ms.	2	08/30/1963
Summarize Test	4	Peacock	Margaret	Sales Director	Mrs.	2	09/19/1937
SuperEats_xlsx Categories	7	King	Robert	Sales Representative	Mr.	5	05/29/1960
SuperEats_xlsx Customers	8	Callahan	Laura	Sales Director	Ms.	2	01/09/1958
SuperEats_xlsx Employees	10	Woods	Devin	Sales Representative	Mr.	1	10/14/1967
SuperEats_xlsx Order_Details	9	Dodsworth	Anne	Sales Director	Ms.	5	01/27/1966
SuperEats_xlsx Orders	5	Buchanan	Steven	Sales Director	Mr.	2	03/04/1955
SuperEats_xlsx Products	2	Fuller	Andrew	Vice President, Sales	Dr.		02/19/1952
SuperEats_xlsx Shippers							

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.

The screenshot shows the Pronto 'Prepare' interface. At the top, there's a navigation bar with 'Pronto / Prepare' and a 'Publish' button. Below this is a table with columns: Company (Varchar), Lead ID (Varchar), State/Prov (Varchar), and Status (Varchar). The table contains several rows of data, including 'Ram Tool & Supply ...', 'Hdr Engineering Inc', 'Utpton', 'Pacific Gas & Electric', and 'Sodexho Food'. To the left of the table is a sidebar with various transformation icons: Null Handling, Split, Merge, Ignore, Rename, Replace, Add Column, Data Type, Combine, Text, Split Row, Date, and Index. Below the table, there's a diagram showing a connection from 'My Salesforce Connection_Lead' to a circular data source icon. A 'Finish' button is located at the bottom right of the interface.

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.

Deep Dive: Pronto Transformations Reference

The screenshot shows the Pronto interface with a data table and a transformation diagram. The table has columns for Company, Lead ID, State/Prov, Status, and City. The transformation diagram shows a flow from 'My Salesforce Connection_Lead' to a 'Replace' transformation, which then connects to a dashed circle representing the output.

Company	Lead ID	State/Prov	Status	City
Ram Tool & Supply ...	00Q3000000QUEW...	California	Working	Riverside
Hdr Engineering Inc	00Q3000000QUEW...	California	Working	Guadalupe
Utpton	00Q3000000QUEU...	California	Working	Camp Nelson
Pacific Gas & Electric	00Q3000000QUEW...	California	Working	Julian
Summit Aeronautic...	00Q3000000QUEU...	California	Working	Woodland Hi...
...

The 'Index' dialog box is shown with a 'Start With' field containing the number '1'. A mouse cursor is pointing at the field. Below the field are 'Cancel' and 'Apply' buttons.

Index

Start With

1

Cancel Apply

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.

<input type="checkbox"/> Issue ID Integer	<input type="checkbox"/> Votes Integer	<input type="checkbox"/> Index Integer	<input type="checkbox"/> Index1 Integer
39374	12	1	0
23651	23	2	1
49290	56	3	2
51886	42	4	3
51568	33	5	4

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.

Deep Dive: Pronto Transformations Reference

The screenshot shows the Pronto interface in the 'Prepare' stage. At the top, there is a navigation bar with the Pronto logo, a 'Prepare' dropdown, and a 'Publish' button. Below this is a table with columns: Campaign ID (Varchar), Campaign Tacti (Varchar), and Name (Varchar). The table contains several rows of data, including 'Search Engine Mar...', 'Email Marketing*', 'Tradeshaw - Spons...', '3rd Party Banners ...', and 'Webinars'. Below the table, a transformation diagram shows a source icon labeled 'My Salesforce Connection_Campaign' connected by a dashed arrow to a circular target icon. A 'Finish' button is located at the bottom right.

	Campaign ID Varchar	Campaign Tacti Varchar	Name Varchar
My Salesforce Connection_Campaign	70130000000Auw0...		Search Engine Mar...
	70130000000Auw1...		Email Marketing*
My Salesforce Connection_Campai...	70130000000Auvk...		Tradeshaw - Spons...
	70130000000Auvm...		3rd Party Banners ...
My Salesforce Connection_Lead	70130000000AuvjA...	Webinars	3rd Party Banners ...
	70130000000Auv...		Google Adwords

Rename

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

The screenshot shows the Pronto interface in the 'Prepare' stage. At the top, there is a navigation bar with the Pronto logo, a 'Prepare' dropdown, a help icon, and a 'Publish' button. Below this is a table with columns: City (Text), Company (Text), Lead ID (Text), State/Prov (Text), Status (Text), and Column1 (Text). The table contains several rows of data, including 'Riverside', 'Camp Nelson', 'San Francisco', 'Guadalupe', 'Cayucos', 'Julian', 'San Ramon', and 'Woodland Hil...'. Below the table, a transformation diagram shows a source icon labeled 'My Salesforce Connection_Lead' connected by a solid arrow to a 'Combine' icon, which is then connected by a dashed arrow to an 'add step' icon. A mouse cursor is pointing at the 'add step' icon.

Sources	City Text	Company Text	Lead ID Text	State/Prov Text	Status Text	Column1 Text
Lead	Riverside	Ram Tool & Supply...	00Q3000000QUEW...	CA	Working	Riverside, CA
Products Prepared Source	Camp Nelson	Utpton	00Q3000000QUEUg...	CA	Working	Camp Nelson, CA
	San Francisco	Sodexho Food	00Q3000000QUETK...	CA	Working	San Francisco, CA
CorpData_xlsx Categories	Guadalupe	Hdr Engineering Inc	00Q3000000QUEW...	CA	Working	Guadalupe, CA
CorpData_xlsx Products	Cayucos	Handy TV Inc.	00Q3000000QUETp...	CA	Working	Cayucos, CA
CorpData_xlsx Suppliers	Julian	Pacific Gas & Electric	00Q3000000QUEW...	CA	Working	Julian, CA
	San Ramon	Yellowstone County...	00Q3000000QUEUD..	CA	Working	San Ramon, CA
	Woodland Hil...	Summit Aeronautic...	00Q3000000QUEUv...	CA	Working	Woodland Hills, C...

Replace

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

City Varchar	Company Varchar	Lead ID Varchar	State/Prov Varchar	Status Varchar
Riverside	Ram Tool & Supply ...	00Q3000000QUEW...	CA	Working
Guadalupe	Hdr Engineering Inc	00Q3000000QUEW...	CA	Working
Camp Nelson	Utpton	00Q3000000QUEU...	CA	Working
Julian	Pacific Gas & Electric	00Q3000000QUEW...	CA	Working
San Francisco	Sodexho Food	00Q3000000QUET...	CA	Working
...

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.

Deep Dive: Pronto Transformations Reference

The screenshot displays the Pronto interface with a data table and a transformation flow diagram. The table has columns for Case ID, Case Category, Case Status, SFDC Account ID, and Date Case I. The flow diagram shows a sequence of steps: Imported Files, Date, Ignore, Rename, and add step.

Case ID	Case Category	Case Status	SFDC Account ID	Date Case I
500500000h6PzS...	Birst Admin, Data ...	Closed	001E000000YsRisiAF	09/02/2016
500500000f6yEO...	Account Privileges ...	Closed	001E000000YsRivIAF	07/09/2016
500500000eVcqP...	Data Acquisition - ...	Closed	001E000000YsRivIAF	06/24/2016
500500000gELqH...	Data Processing	Closed	001E000000YsRjAIAV	08/04/2016
500500000h6PPo...	Space Operations	Closed	001E000000YsRivIAF	09/01/2016
500500000gETKV...	Account Privileges ...	Closed	001E000000YsRivIAF	08/04/2016
500500000d0NBS...	Support Portal	Closed	001E000000YsRivIAF	05/01/2016
500500000f5GfvA...	Data Acquisition - ...	Resolved - Code Change Requested	001E000000YsRjAIAV	07/02/2016
500500000ba02IA...	Reports & Dashboa...	Resolved - Code Change Requested	001E000000YsRivIAF	03/24/2016
500500000h5p3M...	Data Acquisition - ...	Closed	001E000000YsRisiAF	08/23/2016
500500000eUack...	System Availability ...	Closed	001E000000YsRjAIAV	06/20/2016
500500000axrVn...	Reports & Dashboa...	Closed	001E000000YsRivIAF	03/06/2016
500500000aZNI9...	Reports & Dashboa...	Closed	001E000000YsRivIAF	02/19/2016

The transformation flow diagram shows the following steps: Imported Files (grid icon) → Date (calendar icon) → Ignore (eraser icon) → Rename (text icon) → add step (+ icon).

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.

The screenshot shows the Pronto interface with a table of data and a transformation diagram below it.

Sources	Case Category	Category Expe
SFDC Lead	Reports & Dashboards	Steven Gerrard
Call Center	Birst Admin, Data Modeling & Analytics	Christiano Ronal...
TransformDateTime	Others	Lionel Messi
TestDateTimeTransform	System Availability & Performance	Thierry Henry
test	Data Acquisition - Birst Connect & Connectors	Johann Cruyff
My Salesforce Connection_Campaign	Enhancement Request	James Rodriguez
My Salesforce Connection_Campai...	Space Operations	David Beckham
My Salesforce Connection_Lead	How To	Luis Suarez
Imported Files_Call Center Depart...	Documentation & Education	Paulo Maldini
Imported Files_Call Center Depart...	User Management	Eden Hazard
Imported Files_Marketo Leads_xls	Solution Accelerators	Landon Donovan
	Data Processing	Franz Beckenbau...
	Support Portal	David Villa

Below the table, a transformation diagram shows a data source icon labeled "Imported Files_Call Center Department Data.xlsx CaseCategories" connected by a dashed arrow to a plus sign icon labeled "add step".

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.

Summarize

Group by

Value


Text

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

Deep Dive: Pronto Transformations Reference

Pronto / Prepare
Publish

Sources	Case ID <small>Varchar</small>	Case Category <small>Varchar</small>	Case Status <small>Varchar</small>	Case Date <small>DateTime</small>	SFDC Account ID <small>Varchar</small>
SFDC Lead	500500000h6imw...	Space Operations	Closed	09/03/2016 4:58:00...	001E000000YsRivIAF
Call Center	500500000h6PPo...	Space Operations	Closed	09/01/2016 11:56:0...	001E000000YsRivIAF
TransformDateTime	500500000h6ETkv...	Account Privileges ...	Closed	08/04/2016 4:02:00...	001E000000YsRivIAF
TestDateTimeTransform	500500000h6ONBS...	Support Portal	Closed	05/01/2016 3:04:00...	001E000000YsRivIAF
test	500500000h6PzS...	Birst Admin, Data ...	Closed	09/02/2016 6:01:00...	001E000000YsRisIAF
My Salesforce Connection_Campaign	500500000h6PzS...	Data Acquisition - ...	Closed	08/29/2016 5:39:00...	001E000000YsRisIAF
My Salesforce Connection_Campai...	500500000h6KjNAAY	Reports & Dashboa...	Resolved - Code Ch...	04/21/2016 11:51:0...	001E000000YsRivIAF
My Salesforce Connection_Lead	500500000h6v6FA...	Support Portal	Closed	06/02/2016 3:45:00...	001E000000YsRivIAF
Imported Files_Call Center Depart...	500500000h6VcqP...	Data Acquisition - ...	Closed	06/24/2016 3:17:00...	001E000000YsRivIAF
Imported Files_Call Center Depart...	500500000h6ZlFSAAS	Birst Appliance Set ...	Closed	03/24/2016 10:16:0...	001E000000YsRivIAF
Imported Files_Marketo Leads_xls	500500000h6yEO...	Account Privileges ...	Closed	07/09/2016 4:41:00...	001E000000YsRivIAF
Imported Files_Call Center Depart...	500500000h6z5TK...	Birst Appliance Set ...	Closed	03/20/2016 4:03:00...	001E000000YsRivIAF



Imported Files_Call Center Department Data.xlsx SupportCases add step