

Zuora Import Integration

You can import Zuora Data Source objects, such as accounts and invoices, into Treasure Data. The modes of import:

- base
- fetch-related

In fetch related import, you can specify the import of Full objects, which includes all pre-joined objects.

- [Prerequisites](#)
- [Use TD Console](#)
- [Use Command Line](#)
- [Scheduled execution](#)
- [Appendix](#)

Prerequisites

- Basic knowledge of Treasure Data
- Basic knowledge of Zuora

Use TD Console

Create a new connection

Go to Integrations Hub > Catalog and search. Select Zuora.

Create a new Zuora connection ✕

1 Credentials > 2 Name

Username

Password

[Learn more](#) [CONTINUE](#)

Complete the Zuora login information, click Next and provide a connection name:

Create a new Zuora connection ✕

✓ Credentials > 2 Name

Name

Share with others

[BACK](#) [CREATE CONNECTION](#)

Create a new transfer

After creating the connection, you are automatically taken to the Authentications page. Look for the connection you created and click New Transfer.

	zuora_demo_connection by Robert Nguyen	0	NEW TRANSFER	...
---	---	---	------------------------------	-----

Provide information details and click Next.

Transfer data from Zuora ✕

using zuora_demo_connection

1 Fetch from >
 2 Preview >
 3 Transfer to >
 4 When

Fetch related objects?
Check to import pre-joined objects.

Base Object

Account
▼

Name of Zuora SOAP (Base) object to import

Version of Zuora describe API end point

85

Start date

01/01/2017, 12:00 AM

Only imports data since this time

Incremental?
When run repeatedly, attempt to only import new data since the last import

Duration to import

Unit

DAY
▼

Number of unit

1

NEXT

Fetch related objects: Most of Zuora's data sources provide related business objects, which eliminates the need to construct nested queries and improves performance. If you need the related business objects data, check the box and select the data source you want to query.

API Version (default v85): Zuora API Version. Keep the default value v85 (v84 will be deprecated soon).

Duration to import: This option enables you to select the 'end_date' based on the 'start_date' of import.

- If **Start date** is set to = 02/07/2017, 12:00 AM AND **Number of Unit** = 1 DAY, your data transfer includes all data available up until 02/08/2017, 12:00 AM.

In this example, the 'end_date' is calculated as follows:

```
'start_date' + 'number_of_unit' = 'end_date'
02/07/2017, 12:00AM + 1 DAY = 02/08/2017, 12:00AM
```

- If the transfer is scheduled, the 'start_date' constantly changes based on the new 'end_date' since the last import (as calculated previously).
- If incremental is not selected, import is from 'start_date' to now.
- User timezone is reserved.

We highly recommend you re-create a transfer if you'd want to change the 'start_date'. Editing an existing transfer does not affect the 'start_date'.

Preview your data. If you want to change anything, click Advanced Settings or else click Next.

Transfer data from Zuora

using zuora_demo_connection

Fetch from > **2 Preview** > 3 Transfer to > 4 When

48 columns

	Ab account_accountnumber	Ab account_additionalemailaddress	o account_	o account_	.# account_balance	Ab account_batch	Ab account_bcdsettingo
1	A00000012	NULL	false	false	486340.31	Batch1	ManualSet
2	A00000018	NULL	false	true	0	Batch2	ManualSet
3	A00000019	NULL	false	true	0	Batch2	ManualSet
4	A00000014	NULL	false	true	643994.97	Batch2	ManualSet
5	A00000013	NULL	false	true	64461.14	Batch2	ManualSet
6	A00000016	NULL	false	true	552583.32	Batch2	ManualSet
7	A00000017	NULL	false	false	33822788	Batch1	ManualSet
8	A00000015	NULL	false	true	639428.3	Batch2	ManualSet

BACK ADVANCED SETTINGS NEXT

Select the database and table where you want to transfer the data:

Transfer data from Zuora

using zuora_demo_connection

Fetch from > Preview > **3 Transfer to** > 4 When

Database

demo

Create new database?

Table

demo

Create new table?

Append: Add records into existing table.

Replace: Clear table before adding records.

Partition key seed

account_updateddate

Copy these values into the partition key column.

BACK NEXT

Specify the schedule of the data transfer and click Start Transfer:

Transfer data from Zuora

using zuora_demo_connection

✓ Fetch from > ✓ Preview > ✓ Transfer to > 4 When

When

Once now
 Repeat...

Timezone

America/Los_Angeles

BACK START TRANSFER

You will see the new data transfer in progress, listed under the My Input Transfers tab, and a corresponding job will be listed in the Jobs section.

Use Command Line

Install 'td' command v0.11.9 or later

You can install the newest [TD Toolbelt](#).

```
$ td --version
0.15.0
```

Create Configuration File

Prepare configuration file (for eg: load.yml), as shown in the following example, with your Zuora account access information.

```
in:
  type: zuora
  username: xxxxxxxx
  password: xxxxxxxx
  base_object: Account #(required if fetch_related = false, see Appendix B)
  data_source: Account #(required if fetch_related = true, see Appendix C)
  fetch_related: true #(optional, default: false)
  from_timestamp: 12-05-2016T11:00:00.000Z
  incremental: true #(optional, default: true)
  duration: { unit: DAY, num: 1 } #(required if `incremental: true`)
out:
  mode: replace
```

This example dumps Zuora Account Data Source:

- username and password: your login information.
- describe_api_verion: Zuora Describe API version, See [Zuora Describe API](#)
- base_object: name of Zuora SOAP (Base) Object you want to import, required if fetch_related: false
 - See the [Appendix](#) for list of available base objects.
- data_source: name of Zuora Data Source you want to import, required if fetch_related: true
 - See the [Appendix](#) for list of available data sources.
- fetch_related: you can choose to import **base** or **full** object (including all pre-joined objects), default as false
- from_timestamp: from which moment data will be imported, format is: yyyy-MM-ddT'HH:mm:ss.SSS'Z'
- incremental: should data import be continuous or once, default as true. If true, duration is required
- duration: for how long will data be imported, determined by UpdatedDate field of target object. unit has 3 options: DAY, HOUR, and MIN, default as DAY.

Some Limited Availability objects from Zuora require additional configuration settings. The following is a list of additional configuration settings for Billing Preview Run

- from_timestamp : When used with Billing Preview Run, this is the Target Date for the preview run.
- include_evergreen_sub : Indicate whether to include the evergreen subscription. The default is 'false'
- batch : Specify customer batch to include in this preview run
- assume_renewal : Whether to assume renewal for the accounts. Valid value is All, None or Autorenew. The default is 'None'.
- charge_type_to_exclude : The charge types to exclude from the forecast run. Possible values: OneTime, Recurring, Usage, and any comma-separated combination of these values.

For more details on available out modes, see the [Appendix](#).

Preview data to import

You can preview data to be imported using the command `td connector:preview`.

```
$ td connector:preview load.yml
+-----+-----+-----+-----+
| id:long | title:string | body_html:string | ... |
+-----+-----+-----+-----+
| 1       | "33"         | <p>body_html<p>    |     |
| 2       | "34"         | <p>body_html<p>    |     |
| 3       | "35"         | <p>body_html<p>    |     |
| 4       | "36"         | <p>body_html<p>    |     |
| 6       | "37"         | <p>body_html<p>    |     |
+-----+-----+-----+-----+
```

Execute Load Job

Submit the load job. It may take a couple of hours depending on the data size. Users need to specify the database and table where their data are stored.

It is recommended to specify `--time-column` option, because Treasure Data's storage is partitioned by time (see also [data partitioning](#)). If the option is not given, the Data Connector chooses the first long or timestamp column as the partitioning time. The type of the column specified by `--time-column` must be either of long and timestamp type.

If your data doesn't have a time column you can add it using `add_time` filter option. More details at [add_time filter plugin](#)

```
$ td connector:issue load.yml --database td_sample_db --table td_sample_table --time-column updated_date
```

The `connector:issue` command assumes you have already created *database(td_sample_db)* and *table(td_sample_table)*. If the database or the table do not exist in TD, the command fails, so create the database and table [manually](#) or use `--auto-create-table` option with `td connector:issue` command to auto create the database and table:

```
$ td connector:issue load.yml --database td_sample_db --table td_sample_table --time-column updated_date --auto-create-table
```



You can assign Time Format column to the "Partitioning Key" by `--time-column` option.


```
% td connector:history daily_zuora_import
+-----+-----+-----+-----+-----+-----+-----+-----+
+
| JobID | Status | Records | Database | Table | Priority | Started | Duration |
|-----+-----+-----+-----+-----+-----+-----+-----+
+
| 578066 | success | 10000 | td_sample_db | td_sample_table | 0 | 2015-04-18 00:10:05 +0000 | 160 |
| 577968 | success | 10000 | td_sample_db | td_sample_table | 0 | 2015-04-17 00:10:07 +0000 | 161 |
| 577914 | success | 10000 | td_sample_db | td_sample_table | 0 | 2015-04-16 00:10:03 +0000 | 152 |
| 577872 | success | 10000 | td_sample_db | td_sample_table | 0 | 2015-04-15 00:10:04 +0000 | 163 |
| 577810 | success | 10000 | td_sample_db | td_sample_table | 0 | 2015-04-14 00:10:04 +0000 | 164 |
| 577766 | success | 10000 | td_sample_db | td_sample_table | 0 | 2015-04-13 00:10:04 +0000 | 155 |
| 577710 | success | 10000 | td_sample_db | td_sample_table | 0 | 2015-04-12 00:10:05 +0000 | 156 |
| 577610 | success | 10000 | td_sample_db | td_sample_table | 0 | 2015-04-11 00:10:04 +0000 | 157 |
+-----+-----+-----+-----+-----+-----+-----+-----+
+
8 rows in set
```

Delete the Schedule

td connector:delete removes the schedule.

```
$ td connector:delete daily_zuora_import
```

Appendix

Modes for out plugin

You can specify file import mode in out section of load.yml.

append (default)

This is the default mode and records are appended to the target table.

```
in:
  ...
out:
  mode: append
```

replace (In td 0.11.10 and later)

This mode replaces data in the target table. Any manual schema changes made to the target table remains intact with this mode.

```
in:
  ...
out:
  mode: replace
```


Available Base Object

Base Object	Base Object	Base Object
Account	InvoiceItem.	ProductRatePlanChargeTier
AccountingCode	InvoiceItemAdjustment	RatePlan
AccountingPeriod	InvoicePayment	RatePlanCharge
BillingRun	Payment	RatePlanChargeTier
BillingPreviewRun	PaymentMethod	Refund
ChargeMetrics	PaymentMethodTransactionLog	RefundInvoicePayment
Contact	PaymentTransactionLog	RefundTransactionLog
CreditBalanceAdjustment	Product	Subscription
Feature	ProductFeature	SubscriptionProductFeature
Invoice	ProductRatePlan	TaxationItem
InvoiceAdjustment	ProductRatePlanCharge	Usage

Available Data Source

Data Source	Data Source	Data Source
Account	Payment	RatePlanChargeTier
AccountingCode	PaymentGatewayReconciliationEventLog	RevenueChargeSummaryItem
BillingRun	PaymentMethod	RevenueEventItem
Contact	PaymentMethodTransactionLog	RevenueEventItemCreditMemoItem
ChargeMetrics	PaymentPart	RevenueEventItemDebitMemoItem
CreditBalanceAdjustment	PaymentPartItem	RevenueEventItemInvoiceItem
Invoice	PaymentReconciliationLog	RevenueEventItemInvoiceItemAdjustment
InvoiceAdjustment	PaymentTransactionLog	RevenueScheduleItem
InvoiceItemAdjustment	ProcessedUsage	RevenueScheduleItemInvoiceItem
InvoicePayment	Product	RevenueScheduleItemInvoiceItemAdjustment
JournalEntryItem	ProductRatePlanChargeTier	RevenueScheduleItemCreditMemoItem
Order	RatePlan	RevenueScheduleItemDebitMemoItem
OrderAction	RatePlanCharge	Subscription
OrderQuantity	RatePlanChargeTier	SubscriptionProductFeature
OrderMrr	Refund	UpdaterDetail (PaymentMethodUpdate)
OrderTcb	RefundInvoicePayment	Usage
OrderTcv	RefundTransactionLog	

Configure excluded fields for Base Object

When you import data for Base Object, some special fields are excluded by default. This is due to limitations or restrictions applied on each Base Object by Zuora.

For example:

RatePlanCharge DiscountAmount can not be queried together with the following fields: Price, IncludedUnits, DiscountPercentage, OveragePrice. The plugin defaults to exclude the fields. You can change the excluded fields list in the Advanced Configuration UI. Advanced Configuration automatically populate the list of Base Object excluded fields.

Steps to change exclude fields:

1. In base object preview screen, choose Advanced Settings.
2. The Advanced Settings contains a list of predefined excluded fields, if any exist. You can replace or change the fields as well. But be aware that some fields cannot be included together.

Create Transfer ×

Using ████████████████████

Fetch from > **2 Preview** > Transfer to > When

Excluded fields

Set excluded fields in Zuora query, only support non fetch related.

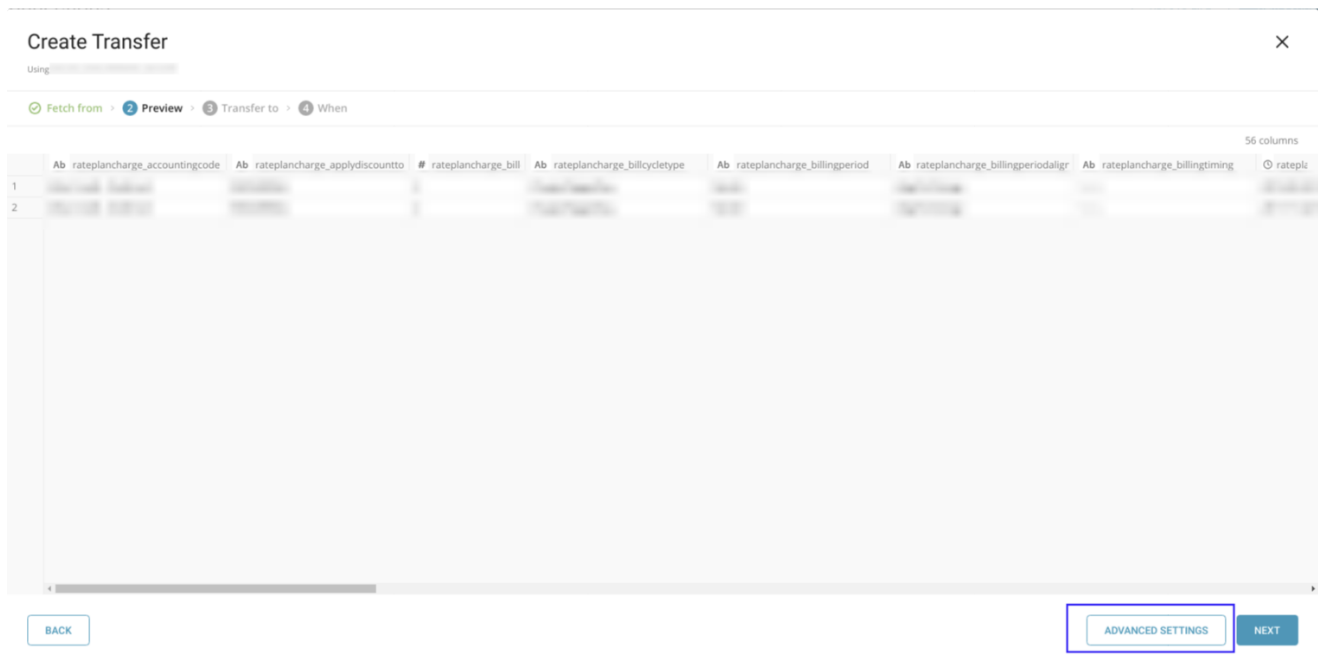
Price	×
DiscountClass	×
RevenueRecognitionRuleNan	×
RolloverBalance	×
OveragePrice	×
IncludedUnits	×
DiscountPercentage	×

Export job timeout

Export job timeout in second. Plugin will only wait for job with execution time not exceed tim...

Polling Interval

Export job polling interval in second.



Note: Excluded fields configuration only works with Base Object targets, and will be ignored for Data Source targets.

Customize timestamp column

Timestamp column

The Timestamp column is the Zuora object column that the data connector uses to apply a time range filter. The column defaults to UpdatedDate or a pre-configured column in plugin internal configuration.

Zuora Object	Incremental Column
PaymentGatewayReconciliationEventLog	CreatedDate
PaymentMethodTransactionLog	TransactionDate
PaymentReconciliationLog	CreatedDate
PaymentTransactionLog	TransactionDate
RefundTransactionLog	TransactionDate

All other supported Zuora objects that are not listed in the preceding table use the default column UpdatedDate.

Customize timestamp column

Sometimes you might want to use a different column as a timestamp column. You can specify a column through the Timestamp column configuration in **Advanced Configuration** screen.

Create Transfer



Using tai_test_zuora_fivestars

Fetch from > **2 Preview** > 3 Transfer to > 4 When

Timestamp column

Set timestamp column that plugin will use to apply for date range filter.

Excluded fields

Set excluded fields in Zuora query, only support non fetch related.

ADD

Export job timeout

Export job timeout in second. Plugin will only wait for job with execution time not exceed timeout.

Polling interval

Export job polling interval in second.

CANCEL

SAVE

The parameter value will have the same format with Zuora ZOQL filter, *ObjectName.ColumnName*, Example : RatePlanCharge.UpdatedAt, RatePlan.UpdatedAt, RatePlanChargeTier.UpdatedAt.



The Column used as a timestamp column must have a DateTime data type in Zuora.