

SCD Type 1 Accounts Screenshots:

The screenshot shows the Azure Data Factory pipeline configuration for the 'pl_scd1_accounts' pipeline. The top navigation bar includes 'Validate', 'Debug', 'Add trigger', and 'Data flow debug'. The main area displays the 'Data flow' component, which is currently empty. Below the data flow, the 'Settings' tab is selected, showing the following configuration:

- Data flow ***: scd_accounts
- Run on (Azure IR) ***: AutoResolveIntegrationRuntime
- Compute size ***: Small
- Advanced**: Logging level (Verbose)
- Sink properties**
- Staging**

The 'Source settings' tab is selected in the second section, showing the following configuration:

- Output stream name ***: accountsource
- Description**: Import data from AzureDataLakeStorage
- Source type ***: Dataset (selected)
- Inline dataset type ***: Delta
- Linked service ***: AzureDataLakeStorage
- Sampling ***: Disable

The 'Source options' tab is selected in the third section, showing the following configuration:

- Folder path ***: projectdata / Silver/accounts
- Allow no files found**:
- Compression type**: No compression
- Time travel ***: Disable

Source settings	Source options	Projection	Optimize	Inspect	Data preview
Import schema Clear schema Schema options Overwrite schema					
Column name			↑↓	Type	
account_id				12s short	
customer_id				12s short	
account_type				abc string	
balance				1.2 double	

Select Transformation:

Select settings Optimize Inspect Data preview

Output stream name * [Learn more](#)

Description [Reset](#)

Incoming stream * [Reset](#)

Options Skip duplicate input columns [?](#) Skip duplicate output columns [?](#)

Input columns * [Auto mapping](#) [Reset](#) [Add mapping](#) [Delete](#) 1 mappings: All inputs mapped

accountsource's column	Name as
1==1	concat('src_,\$\$')

Hash_key derived column

Derived column's settings Optimize Inspect Data preview [Pre](#)

Output stream name * [Learn more](#)

Description [Reset](#)

Incoming stream * [Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Columns * [?](#) [Column](#) [Expression](#)

<input type="checkbox"/> src_hashkey	<input type="text" value="crc32(concat(toString(src_account_id),toString(sr... 121"/>	+ Delete
--------------------------------------	---	--

Dataflow expression builder [Expression reference documentation](#)

addhashcolumn

Derived Columns [Create new](#)

src_hashkey	Column name * <input type="text" value="src_hashkey"/> Save
	Expression <input type="text" value="crc32(concat(toString(src_account_id),toString(src_customer_id),src_account_type,toString(src_balance))"/>

Target:

Source settings Source options Projection Optimize Inspect Data preview

Output stream name * Target [Learn more](#)

Description Import data from AzureSqlDatabase [Reset](#)

Source type * Dataset Inline

Inline dataset type * Azure SQL Database

Linked service * AzureSqlDatabase [Test connection](#) [Edit](#) [New](#)

Sampling * Enable Disable

Source settings **Source options** Projection Optimize Inspect Data preview

Input Table Query Stored procedure

Query * [①](#) select Account_ID, Hash_Key from accounts [Edit](#)

Incremental column [①](#)

Isolation level [①](#) Read uncommitted

Source settings Source options **Projection** Optimize Inspect Data preview

[← Import schema](#) [Clear schema](#) [Schema options](#) [Overwrite schema](#)

Column name	Type
Account_ID	123 integer
Hash_Key	121 long

Lookup Transformation

Lookup settings Optimize Inspect Data preview

Output stream name * lookup [Learn more](#)

Description Lookup on 'addhashcolumn' from 'Target' [Reset](#)

Primary stream * addhashcolumn

Lookup stream * Target

Match multiple rows [①](#)

Match on * Any row

Lookup conditions *

Left: addhashcolumn's column	Right: Target's column	
12s src_account_id	==	123 Account_ID

[+](#) [-](#)

Conditional Split:

Conditional split settings Optimize Inspect Data preview

Output stream name * conditionalsplit [Learn more](#)

Description Conditionally distributing the data in Account_ID, src_account_id, Account_ID, src_hashkey, Hash_Key groups, based

Incoming stream * lookup

Split on First matching condition All matching conditions

Split condition	Stream names	Condition
	insert	isNull(Account_ID)
	update	(src_account_id==Account_ID)&&(src_hashkey!=Hash_Key)

Insert derived columns:

Derived column's settings Optimize Inspect Data preview [Prev](#)

Output stream name * addingcolumns [Learn more](#)

Description Creating/updating the columns 'src_account_id, src_customer_id, src_account_type, src_balance,

Incoming stream * conditionalsplit@insert

[+ Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Column	Expression
Src_created_by	"Data Flow"
Src_createddate	currentTimestamp()
Src_updated_by	"Data flow"
Src_updateddate	currentTimestamp()

Insert sink:

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name * insertsink [Learn more](#)

Description Add sink dataset

Incoming stream * addingcolumns

Sink type * Dataset Inline Cache

Inline dataset type * Azure SQL Database

Linked service * AzureSqlDatabase [Test connection](#) [Edit](#) [New](#)

Options Allow schema drift [①](#) Validate schema [①](#)

Sink **Settings** Errors Mapping Optimize Inspect Data preview

Schema name * Refresh

Table name *

Table action None Recreate table Truncate table

Update method Allow insert
 Allow delete
 Allow upsert
 Allow update

Use tempdb

Interim table schema Refresh

Pre SQL scripts List of scripts Custom expression

Mapping

Options Skip duplicate input columns Skip duplicate output columns

Auto mapping 9 mappings: All outputs mapped

Input columns	Output columns
12s src_account_id	123 Account_ID
12s src_customer_id	123 Customer_ID
abc src_account_type	abc Account_Type
1.2 src_balance	1.2 Balance
abc Src_created_by	abc created_by
Src_createddate	created_date
Src_updated_by	updated_by
Src_updateddate	updated_date
12l src_hashkey	12l Hash_key

For mapping first uncheck automapping -> import schema-> reset-> Map columns

Update derived columns

Derived column's settings Optimise Inspect Data preview [← Prev](#)

Output stream name * Learn more [↗](#)

Description

Incoming stream * [+ Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Columns * Column Expression

<input type="checkbox"/> Src_Updated_by	"Data flow updated"
<input type="checkbox"/> Src_Updated_date	currentTimestamp()

Update Alter row:

Alter row settings Optimize **Inspect** Data preview

← Previous Next → ▾

Output stream name * alterRow [Learn more](#)

Description Add expressions to alter rows [Reset](#)

Incoming stream * updatedaddcolumns

Alter row conditions * [○ Update if](#) [1=1](#) + -

Update Sink:

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name * updatesink [Learn more](#)

Description Add sink dataset [Reset](#)

Incoming stream * alterRow

Sink type * [Dataset](#) [Inline](#) [Cache](#)

Inline dataset type * [Azure SQL Database](#)

Linked service * [AzureSqlDatabase](#) [Test connection](#) [Edit](#) [+](#) [New](#)

Options Allow schema drift [○](#)
 Validate schema [○](#)

Settings Errors Mapping Optimize Inspect Data preview

Schema name * dbo [Refresh](#)

Table name * accounts

Table action None Recreate table Truncate table

Update method [○](#)
 Allow insert
 Allow delete
 Allow upsert
 Allow update

Skip writing key columns [○](#)

Key columns * [○](#)
 List of columns Custom expression [○](#)

[123 Account_ID](#) + -

Mapping Errors **Mapping** Optimize Inspect Data preview

Options Skip duplicate input columns [○](#)
 Skip duplicate output columns [○](#)

Auto mapping [○](#) [+](#) Add mapping [Delete](#) [Reset](#) [Import schema](#) [View schema](#) 7 mappings: 2 column(s) from the output schema left unmapped [○](#)

Input columns	Output columns
12s src_account_id	123 Account_ID
12s src_customer_id	123 Customer_ID
abc src_account_type	abc Account_Type
1.2 src_balance	1.2 Balance
abc Src_Updated_by	abc updated_by
⌚ Src_Updated_date	⌚ updated_date
12l src_hashkey	12l Hash_key

SCD Type 1 Customers Table:

Source:

Source settings Source options Projection Optimize Inspect Data preview

Output stream name * source [Learn more](#)

Description Import data from AzureDataLakeStorage [Reset](#)

Source type * Dataset [Inline](#)

Inline dataset type * Delta

Linked service * AzureDataLakeStorage [Test connection](#) [Edit](#) [New](#)

Sampling * Disable

Source settings **Source options** Projection Optimize Inspect Data preview

Folder path * projectdata / Silver/customers [Browse](#)

Allow no files found

Compression type No compression

Time travel * Disable Query by timestamp Query by version

Source settings Source options **Projection** Optimize Inspect Data preview

[Import schema](#) [Clear schema](#) [Schema options](#) [Overwrite schema](#)

Column name	Type
customer_id	12s short
first_name	abc string
last_name	abc string
address	abc string
city	abc string
state	abc string
zip	abc string

Select transformation to rename columns:

Select settings Optimize Inspect Data preview

Output stream name * rename [Learn more](#)

Description Renaming source to rename with columns 'src_customer_id', 'src_first_name', 'src_last_name',

Incoming stream * source

Options Skip duplicate input columns Skip duplicate output columns

Input columns * Auto mapping [Reset](#) [Add mapping](#) [Delete](#)

1 mappings: All inputs mapped

source's column	Name as
1==1	concat('src_',\$\$)

Generating hash key:

Derived column's settings Optimize Inspect Data preview

Output stream name * hashcolumn [Learn more](#)

Description Creating/updating the columns 'src_customer_id, src_first_name, src_last_name, src_address, src_city, ...' [Reset](#)

Incoming stream * rename [Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Columns * ⓘ

Column	Expression
src_hash_key	crc32(concat(toString(src_customer_id),src_first_...))

Target:

Source settings Source options Projection Optimize Inspect Data preview

Output stream name * Target [Learn more](#)

Description Import data from AzureSqlDatabase [Reset](#)

Source type * [Dataset](#) [Inline](#)

Inline dataset type * [Azure SQL Database](#)

Linked service * [AzureSqlDatabase](#) [Test connection](#) [Edit](#) [New](#)

Sampling * ⓘ Enable Disable

Source settings Source options Projection Optimize Inspect Data preview

Input Table Query Stored procedure

Query * ⓘ select customer_id,Hash_key from customers

Incremental column ⓘ

Isolation level ⓘ Read uncommitted

Source settings Source options **Projection** Optimize Inspect Data preview

[Import schema](#) [Clear schema](#) [Schema options](#) [Overwrite schema](#)

Column name	Type
customer_id	integer
Hash_key	long

Look up transformation to left join source and target.

Lookup settings Optimize Inspect Data preview

Output stream name * lookup [Learn more](#)

Description Lookup on 'hashcolumn' from 'Target' [Reset](#)

Primary stream * hashcolumn

Lookup stream * Target

Match multiple rows

Match on * Any row

Lookup conditions *

Left: hashcolumn's column	Right: Target's column	
12s src_customer_id	==	123 customer_id

Conditional split for insert and update.

Conditional split settings

Output stream name *: conditionalsplit

Description: Conditionally distributing the data in customer_id, src_customer_id, customer_id, src_hash_key, Hash_key

Incoming stream *: lookup

Split on: First matching condition

Split condition	Stream names	Condition
	insert	isNull(customer_id)
	update	src_customer_id==customer_id && src_hash_key!=Hash_key

Derived column transformation to add columns to insert.

Derived column's settings

Output stream name *: addingcolumnstoinsert

Description: Creating/updating the columns 'src_customer_id, src_first_name, src_last_name, src_address, src_city'

Incoming stream *: conditionalsplit@:insert

Columns *: + Add, Clone, Delete, Open expression builder

Column	Expression
src_created_by	"Data flow"
src_created_date	currentTimestamp()
src_updated_by	"Data flow"
src_updated_date	currentTimestamp()

Insert sink:

Sink

Output stream name *: insertsink

Description: Add sink dataset

Incoming stream *: addingcolumnstoinsert

Sink type *: Dataset

Inline dataset type *: Azure SQL Database

Linked service *: AzureSqlDatabase

Options: Allow schema drift (checked), Validate schema (unchecked)

Sink Settings Errors Mapping Optimize Inspect Data preview

Schema name * dbo

Table name * customers

Table action None Recreate table Truncate table

Update method Allow insert
 Allow delete
 Allow upsert
 Allow update

Use tempdb

Interim table schema Click refresh to load schema options

Sink Settings Errors **Mapping** Optimize Inspect Data preview

Skip duplicate output columns

Auto mapping 12 mappings: All outputs mapped

Input columns	Output columns
12s src_customer_id	123 customer_id
abc src_first_name	abc first_name
abc src_last_name	abc last_name
abc src_address	abc address
abc src_city	abc city
abc src_state	abc state
abc src_zip	abc zip
12l src_hash_key	12l Hash_key
abc src_created_by	abc created_by
src_created_date	src_created_date
abc src_updated_by	abc updated_by
src_updated_date	src_updated_date

Derived column transformation to add columns to update:

Derived column's settings Optimize Inspect Data preview

Output stream name * addingcolumnstoupdate

Description Creating/updating the columns 'src_customer_id, src_first_name, src_last_name, src_address, src_city,'

Incoming stream * conditionalsplit@update Open expression builder

Columns

Column	Expression
src_updated_by	"Data flow updated"
src_updated_date	currentTimestamp()

Alter row transformation to give update condition:

Alter row settings Optimize Inspect Data preview

Output stream name * alterRow

Description Add expressions to alter rows

Incoming stream * addingcolumnstoupdate

Alter row conditions * Update if

Update sink:

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name * updatesink [Learn more](#)

Description Add sink dataset [Reset](#)

Incoming stream * alterRow

Sink type * [Dataset](#) [Inline](#) [Cache](#)

Inline dataset type * [Azure SQL Database](#)

Linked service * [AzureSqlDatabase](#) [Test connection](#) [Edit](#) [New](#)

Options Allow schema drift [?](#) Validate schema [?](#)

Sink Settings Errors Mapping Optimize Inspect Data preview

Schema name * dbo [Refresh](#)

Table name * customers

Table action None Recreate table Truncate table

Update method Allow insert Allow delete Allow upsert Allow update

Skip writing key columns

Key columns * List of columns Custom expression [?](#)

123 customer_id [+](#) [-](#)

Sink Settings Errors **Mapping** Optimize Inspect Data preview

Auto mapping [?](#) [Add mapping](#) [Delete](#) [Reset](#) [Import schema](#) [View schema](#) 10 mappings: 2 column(s) from the output schema left unmapped [?](#)

Input columns	Output columns
123 src_customer_id	123 customer_id
abc src_first_name	abc first_name
abc src_last_name	abc last_name
abc src_address	abc address
abc src_city	abc city
abc src_state	abc state
abc src_zip	abc zip
121 src_hash_key	121 Hash_key
abc src_updated_by	abc updated_by
abc src_updated_date	abc updated_date

SCD type 1 for transaction file:

Source:

Source settings Source options Projection Optimize Inspect Data preview

Output stream name * source [Learn more](#)

Description Import data from AzureDataLakeStorage [Reset](#)

Source type * [Dataset](#) [Inline](#)

Inline dataset type * [Delta](#)

Linked service * [AzureDataLakeStorage](#) [Test connection](#) [Edit](#) [New](#)

Sampling * [Enable](#) [Disable](#)

Source settings **Source options** Projection Optimize Inspect Data preview

Folder path * projectdata / Silver/transactions [Browse](#)

Allow no files found

Compression type No compression

Time travel * [Disable](#) [Query by timestamp](#) [Query by version](#)

Source settings Source options **Projection** Optimize Inspect Data preview

[Import schema](#) [Clear schema](#) [Schema options](#) [Overwrite schema](#)

Column name	Type
transaction_id	12s short
account_id	12s short
transaction_date	date
transaction_amount	1.2 double
transaction_type	abc string

Select transformation to rename columns.

Select settings Optimize Inspect Data preview

Output stream name * Rename [Learn more](#)

Description Renaming source to Rename with columns 'src_transaction_id', 'src_account_id', 'src_transaction_date', [Reset](#)

Incoming stream * source

Options Skip duplicate input columns [\(i\)](#) Skip duplicate output columns [\(i\)](#)

Input columns * Auto mapping [\(i\)](#) [Reset](#) [+ Add mapping](#) [Delete](#) 1 mappings: All inputs mapped

source's column	Name as
1==1	concat("src_",\$\$)

Derived column transformation to create hash key column.

Derived column's settings Optimize Inspect Data preview

Output stream name * hashkey [Learn more](#)

Description Creating/updating the columns 'src_transaction_id', 'src_account_id', 'src_transaction_date', [Reset](#)

Incoming stream * Rename

[+ Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Columns * [Column](#) [Expression](#)

Column	Expression
src_hash_key	crc32(concat(toString(src_transaction_id),toString(...)))

Target:

Source settings Source options Projection Optimize Inspect Data preview

Output stream name * Target [Learn more](#)

Description Import data from AzureSqlDatabase [Reset](#)

Source type * [Dataset](#) [Inline](#)

Inline dataset type * [Azure SQL Database](#)

Linked service * [AzureSqlDatabase](#) [Test connection](#) [Edit](#) [New](#)

Sampling * [Enable](#) [Disable](#)

Source settings **Source options** Projection Optimize Inspect Data preview

Input [Table](#) [Query](#) [Stored procedure](#)

Query * select transaction_id, hash_key from transctions

Incremental column

Isolation level [Read uncommitted](#)

Source settings Source options **Projection** Optimize Inspect Data preview

[Import schema](#) [Clear schema](#) [Schema options](#) [Overwrite schema](#)

Column name	Type
transaction_id	integer
hash_key	long

Lookup transformation to left join source and target.

Lookup settings Optimize Inspect Data preview

Output stream name * lookup [Learn more](#)

Description Lookup on 'hashkey' from 'Target'

[Reset](#)

Primary stream * hashkey

Lookup stream * Target

Match multiple rows

Match on * Any row

Lookup conditions *

Left: hashkey's column	Right: Target's column
src_transaction_id	= transaction_id

Conditional split.

Conditional split settings Optimize Inspect Data preview

Output stream name * Conditionalsplit [Learn more](#)

Description Conditionally distributing the data in transaction_id, src_transaction_id, transaction_id, src_hash_key, hash_key

[Reset](#)

Incoming stream * lookup

Split on [First matching condition](#) [All matching conditions](#)

Split condition

Stream names	Condition
insert	isNull(transaction_id)
update	src_transaction_id==transaction_id && src_hash_key!=hash_key

Derived column transformation to add columns to insert:

Derived column's settings Optimize Inspect Data preview

Output stream name * addingcolumns [Learn more](#)

Description Creating/updating the columns 'src_transaction_id, src_account_id, src_transaction_date, [Reset](#)

[Expand resources pane](#)

[+ Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Columns * ⓘ

Column	Expression
<input type="checkbox"/> src_created_by	<input type="button"/> "Data flow" abc + -
<input type="checkbox"/> src_created_date	<input type="button"/> currentTimestamp() abc + -
<input type="checkbox"/> src_updated_by	<input type="button"/> "Data flow" abc + -
<input type="checkbox"/> src_updated_date	<input type="button"/> currentTimestamp() abc + -

Insert sink:

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name * insertsink [Learn more](#)

Description Add sink dataset [Reset](#)

Incoming stream * addingcolumns

Sink type * [Dataset](#) [Inline](#) [Cache](#)

Inline dataset type * [Azure SQL Database](#)

Linked service * [AzureSqlDatabase](#) [Test connection](#) [Edit](#) [+](#) [New](#)

Options Allow schema drift ⓘ Validate schema ⓘ

Sink **Settings** Errors Mapping Optimize Inspect Data preview

Schema name * dbo [Refresh](#)

Table name * transctions

Table action None Recreate table Truncate table

Update method ⓘ Allow insert
 Allow delete
 Allow upsert
 Allow update

Use tempdb ⓘ

Interim table schema Click refresh to load schema options [Refresh](#)

Pre SQL scripts ⓘ List of scripts Custom expression ⓘ

Mapping Tab Details:

- Options:**
 - Skip duplicate input columns
 - Skip duplicate output columns
- Buttons:** Auto mapping, Add mapping, Delete, Reset, Import schema, View schema.
- Status:** 10 mappings: All outputs mapped.

Input columns	Output columns
12s src_transaction_id	123 transaction_id
12s src_account_id	123 account_id
src_transaction_date	transaction_date
12 src_transaction_amount	12 transaction_amount
abc src_transaction_type	abc transaction_type
12t src_hash_key	12t hash_key
abc src_created_by	abc created_by
src_created_date	created_date
abc src_updated_by	abc updated_by
src_updated_date	updated_date

Derived column to add columns to update:

Derived column's settings Tab Details:

- Output stream name:** addingcolumnstoupdate
- Description:** Creating/updating the columns 'src_transaction_id', 'src_account_id', 'src_transaction_date'.
- Incoming stream:** Conditionalsplit@update
- Columns:**
 - Column: src_updated_by, Expression: "Data flow updated"
 - Column: src_updated_date, Expression: currentTimestamp()

Alter row to add update

Alter row settings Tab Details:

- Output stream name:** alterRow
- Description:** Add expressions to alter rows
- Incoming stream:** addingcolumnstoupdate
- Alter row conditions:** Update if 1==1

Update sink:

Sink Tab Details:

- Output stream name:** updatesink
- Description:** Add sink dataset
- Incoming stream:** alterRow
- Sink type:** Dataset
- Inline dataset type:** Azure SQL Database
- Linked service:** AzureSqlDatabase
- Options:**
 - Allow schema drift
 - Validate schema

Sink Settings Errors Mapping Optimize Inspect Data preview

Schema name * dbo

Table name * transctions

Table action None Recreate table Truncate table

Update method Allow insert
 Allow delete
 Allow upsert
 Allow update

Skip writing key columns

Key columns * List of columns Custom expression

transaction_id

Sink Settings Errors **Mapping** Optimize Inspect Data preview

Options Skip duplicate input columns
 Skip duplicate output columns

Auto mapping Add mapping 8 mappings: 2 column(s) from the output schema left unmapped

Input columns		Output columns
src_transaction_id	→	transaction_id
src_account_id	→	account_id
src_transaction_date	→	transaction_date
src_transaction_amount	→	transaction_amount
src_transaction_type	→	transaction_type
src_hash_key	→	hash_key
src_updated_by	→	updated_by
src_updated_date	→	updated_date

SCD Type 2 loan file:

Source

Source settings Source options Projection Optimize Inspect Data preview

Output stream name * source [Learn more](#)

Description Import data from AzureDataLakeStorage

Source type * Dataset Inline

Inline dataset type * Delta

Linked service * AzureDataLakeStorage

Sampling * Enable Disable

Source settings **Source options** Projection Optimize Inspect Data preview

Folder path * projectdata / Silver/loans

Allow no files found

Compression type No compression

Time travel * Disable Query by timestamp Query by version

Source settings	Source options	Projection	Optimize	Inspect	Data preview	
Import schema Clear schema Schema options Overwrite schema						▼
Column name		↑↓	Y	Type		↑↓
loan_id				12s short		
customer_id				12s short		
loan_amount				1.2 double		
interest_rate				1.2 double		
loan_term				12s short		

Select to rename the column names

Select settings Optimize Inspect Data preview [← Previous](#) [Next →](#) ▾

Output stream name *	rename	Learn more 🔗
Description	Renaming source to rename with columns 'src_loan_id, src_customer_id, src_loan_amount, src_interest_rate,	Reset
Incoming stream *	source	
Options	<input checked="" type="checkbox"/> Skip duplicate input columns ⓘ <input checked="" type="checkbox"/> Skip duplicate output columns ⓘ 	
Input columns *	<input type="checkbox"/> Auto mapping ⓘ Reset + Add mapping Delete 1 mappings: All inputs mapped	
	<input type="checkbox"/> source's column Y Name as Y <input type="checkbox"/> 1==1 Y Y → concat('src_','\$\$') abc + Delete ∞	

Derived column to add hash column

Derived column's settings Optimize Inspect Data preview ^

Output stream name *	hashkey	Learn more 🔗
Description	Creating/updating the columns 'src_loan_id, src_customer_id, src_loan_amount, src_interest_rate,	Reset
Incoming stream *	rename	
Columns * ⓘ 	+ Add Clone Delete Open expression builder	
	<input type="checkbox"/> Column Expression <input type="checkbox"/> src_hash_key Y crc32(concat(toString(src_loan_id),toString(src_c... 121) + Delete	

Target:

Source settings Source options Projection Optimize Inspect Data preview ^

Output stream name *	Target	Learn more 🔗
Description	Import data from AzureSqlDatabase	Reset
Source type *	<input type="radio"/> Dataset <input type="radio"/> Inline	
Inline dataset type *	<input type="radio"/> Azure SQL Database Y	
Linked service *	<input type="radio"/> AzureSqlDatabase Y Test connection Edit + New	
Sampling * ⓘ 	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	

Source settings **Source options** Projection Optimize Inspect Data preview

Input Table Query Stored procedure

Query *

Incremental column

Isolation level

Source settings Source options **Projection** Optimize Inspect Data preview

[← Import schema](#) [Clear schema](#) [Schema options](#) [Overwrite schema](#)

Column name	Type
loan_id	128 integer
Hash_key	121 long

Lookup to left join source and target

tan **Lookup settings** Optimize Inspect Data preview

Output stream name * [Learn more](#)

Description

Primary stream *

Lookup stream *

Match multiple rows

Match on *

Lookup conditions *

Left: hashkey's column	Right: Target's column
128 src_loan_id	= 123 loan_id

Conditional split:

Conditional split settings Optimize Inspect Data preview

Output stream name * [Learn more](#)

Description

Incoming stream *

Split on First matching condition All matching conditions

Split condition

Stream names	Condition
insert	isNull(loan_id)
update	src_loan_id!=loan_id & src_hash_key!=Hash_key

Derived column to add columns to update

Derived column's settings Optimize Inspect Data preview

Output stream name * [Learn more](#)

Description

Incoming stream *

Columns * [Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Column	Expression
src_updated_by	"Data flow updated"
src_updated_date	currentTimestamp()
src_isActive	0

Alter row to upsert condition

Alter row settings Optimize Inspect Data preview

Output stream name * Learn more

Description

Incoming stream *

Alter row conditions *

Update sink

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name * Learn more

Description

Incoming stream *

Sink type *

Inline dataset type *

Linked service *

Options Allow schema drift
 Validate schema

Sink Settings Errors Mapping Optimize Inspect Data preview

Schema name *

Table name *

Table action None Recreate table Truncate table

Update method Allow upsert

Skip writing key columns

Key columns * Custom expression

Sink Settings Errors **Mapping** Optimize Inspect Data preview

Options Skip duplicate input columns
 Skip duplicate output columns

Auto mapping 5 mappings: 6 column(s) from the output schema left unmapped

Input columns		Output columns	
<input type="text" value="123 loan_id"/>		<input type="text" value="123 loan_id"/>	
<input type="text" value="121 Hash_key"/>		<input type="text" value="121 Hash_key"/>	
<input type="text" value="abc src_updated_by"/>		<input type="text" value="abc updated_by"/>	
<input type="text" value="121 src_updated_date"/>		<input type="text" value="121 updated_date"/>	
<input type="text" value="123 src_isActive"/>		<input type="text" value="123 isActive"/>	

Union transformation to join insert and update

Union settings Optimize Inspect Data preview

Output stream name * union [Learn more](#)

Description Combining rows from transformation 'conditionalssplit@insert, conditionalssplit@update' [Reset](#)

Incoming stream * conditionalssplit@insert

Union by * Name Position

Union with * conditionalssplit@update [+](#) [Delete](#)

Derived column to add columns to insert

Derived column's settings Optimize Inspect Data preview [← Previous](#) [Next →](#)

Output stream name * addingcolumns [Learn more](#)

Description Creating/updating the columns 'src_loan_id, src_customer_id, src_loan_amount, src_interest_rate,' [Reset](#)

Incoming stream * union [+](#) [Clone](#) [Delete](#) [Open expression builder](#)

Columns * [Add](#)

Column	Expression
src_created_by	"Data flow"
src_created_date	currentTimestamp()
src_updatedby	"Data flow"
src_updated_date	currentTimestamp()
src_isActive	1

Insert sink

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name * insertsink [Learn more](#)

Description Add sink dataset [Reset](#)

Incoming stream * addingcolumns

Sink type * [Dataset](#) [Inline](#) [Cache](#)

Inline dataset type * [Azure SQL Database](#)

Linked service * [AzureSqlDatabase](#) [Test connection](#) [Edit](#) [New](#)

Options Allow schema drift [?](#) Validate schema [?](#)

Sink **Settings** Errors Mapping Optimize Inspect Data preview

Schema name * dbo [Refresh](#)

Table name * loans

Table action None Recreate table Truncate table

Update method Allow insert
 Allow delete
 Allow upsert
 Allow update

Use tempdb

Pre SQL scripts List of scripts Custom expression [?](#)

[+](#) [Delete](#)

Sink Settings Errors **Mapping** Optimize Inspect Data preview

Skip duplicate input columns

Skip duplicate output columns

Auto mapping 11 mappings: All outputs mapped

Input columns		Output columns		
<input type="checkbox"/> 12s src_loan_id	→	123 loan_id	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input type="checkbox"/> 12s src_customer_id	→	123 customer_id	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input type="checkbox"/> t2 src_loan_amount	→	12 loan_amount	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input type="checkbox"/> 12 src_interest_rate	→	12 interest_rate	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input type="checkbox"/> 12s src_loan_term	→	123 loan_term	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input type="checkbox"/> 12l src_hash_key	→	12l Hash_key	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input type="checkbox"/> abc src_created_by	→	abc created_by	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input checked="" type="checkbox"/> src_created_date	→	src created_date	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input type="checkbox"/> abc src_updatedby	→	abc updated_by	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input checked="" type="checkbox"/> src_updated_date	→	src updated_date	<input type="button" value="Delete"/>	<input type="button" value="+"/>
<input type="checkbox"/> 123 src_isActive	→	123 isActive	<input type="button" value="Delete"/>	<input type="button" value="+"/>

SCD Type 2 for Loan_Payment file

Source

Source settings Source options Projection Optimize Inspect Data preview

Output stream name * [Learn more](#)

Description

Source type * Dataset Inline

Inline dataset type * Delta Parquet

Linked service * [Test connection](#)

Sampling * Enable Disable

Source settings **Source options** Projection Optimize Inspect Data preview

Folder path *

Allow no files found

Compression type

Time travel * Disable Query by timestamp Query by version

Source settings Source options **Projection** Optimize Inspect Data preview

[Import schema](#)

Column name	Type
payment_id	12s short
loan_id	12s short
payment_date	date
payment_amount	t2 double

Select to rename columns

Select settings Optimize Inspect Data preview

Output stream name * rename [Learn more](#)

Description Renaming source to rename with columns 'src_payment_id, src_loan_id, src_payment_date, src_payment_amount' [Reset](#)

Incoming stream * source

Options Skip duplicate input columns [Help](#) Skip duplicate output columns [Help](#)

Input columns *

Auto mapping [Reset](#) [Add mapping](#) [Delete](#) 1 mappings: All inputs mapped

source's column	Name as
1==1	concat('src_',\$\$)

Derived column to add hash key

Derived column's settings Optimize Inspect Data preview

Output stream name * hashkey [Learn more](#)

Description Creating/updating the columns 'src_payment_id, src_loan_id, src_payment_date' [Reset](#)

Incoming stream * rename

[Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Columns *

Column	Expression
src_hash_key	crc32(concat(toString(src_payment_id),toString(s... 121))

Target

Source settings Source options Projection Optimize Inspect Data preview

Output stream name * Target [Learn more](#)

Description Import data from AzureSqlDatabase [Reset](#)

Source type * Dataset

Inline dataset type * Azure SQL Database

Linked service * AzureSqlDatabase [Test connection](#) [Edit](#) [New](#)

Sampling * Enable Disable

Source settings Source options **Projection** Optimize Inspect Data preview

[Import schema](#) [Clear schema](#) [Schema options](#) [Overwrite schema](#)

Column name	Type
payment_id	123 integer
Hash_key	121 long

Source settings **Source options** Projection Optimize Inspect Data preview

Input Table Query Stored procedure

Query * [Edit](#)

```
select payment_id,Hash_key from loan_payments where isActive=1
```

Incremental column

Isolation level [Read uncommitted](#)

Look up to left join source and target

Lookup settings Optimize Inspect Data preview

Output stream name * [Learn more](#)

Description [Reset](#)

Primary stream *

Lookup stream *

Match multiple rows

Match on * [Add dynamic content \[Alt+Shift+D\]](#)

Lookup conditions *

<input type="text" value="125 src_payment_id"/>	<input type="text" value="=="/>	<input type="text" value="123 payment_id"/>	+	Delete
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Conditional split

Conditional split settings Optimize Inspect Data preview

Output stream name * [Learn more](#)

Description [Reset](#)

Incoming stream *

Split on First matching condition All matching conditions

Split condition

Stream names	Condition
<input type="text" value="insert"/>	<input type="text" value="isNull(payment_id)"/> +
<input type="text" value="update"/>	<input type="text" value="src_payment_id==payment_id && src_hash_key!=Hash_key"/> +

Union to join insert and update

Union settings Optimize Inspect Data preview

Output stream name * [Learn more](#)

Description [Reset](#)

Incoming stream *

Union by * Name Position

Union with * [+](#)

Derived column to add columns to insert

Derived column's settings Optimize Inspect Data preview

[← Previous](#) [Next →](#)

Output stream name * [Learn more](#)

Description [Reset](#)

Incoming stream *

[+](#) Add [Clone](#) [Delete](#) [Open expression builder](#)

Column	Expression
<input type="text" value="src_created_by"/>	<input dat="" flow\""="" type="text" value="\"/> abc + Delete
<input type="text" value="src_created_date"/>	<input type="text" value="currentTimestamp()"/> abc + Delete
<input type="text" value="src_updated_by"/>	<input data="" flow\""="" type="text" value="\"/> abc + Delete
<input type="text" value="src_updated_date"/>	<input type="text" value="currentTimestamp()"/> abc + Delete
<input type="text" value="src_isActive"/>	<input type="text" value="1"/> 123 + Delete

Insert Sink

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name * insertsink [Learn more](#)

Description Add sink dataset [Reset](#)

Incoming stream * addinsertcolumns

Sink type * [Dataset](#) [Inline](#) [Cache](#)

Inline dataset type * Azure SQL Database

Linked service * AzureSqlDatabase [Test connection](#) [Edit](#) [New](#)

Options

- Allow schema drift
- Validate schema

Sink Settings Errors Mapping Optimize Inspect Data preview

Schema name * dbo [Refresh](#)

Table name * loan_payments

Table action None Recreate table Truncate table

Update method Allow insert
 Allow delete
 Allow upsert
 Allow update

Use tempdb

Sink Settings Errors **Mapping** Optimize Inspect Data preview

Options

- Skip duplicate input columns
- Skip duplicate output columns

Auto mapping [+ Add mapping](#) [Delete](#) [Reset](#) [Import schema](#) [View schema](#) 10 mappings: All outputs mapped

Input columns	Output columns
src_payment_id	payment_id
src_loan_id	loan_id
src_payment_date	payment_date
src_payment_amount	payment_amount
src_hash_key	Hash_key
src_created_by	created_by
src_created_date	created_date
src_updated_by	updated_by
src_updated_date	updated_date
src_isActive	isActive

Derived column to add columns to update

Derived column's settings Optimize Inspect Data preview [← Previous](#) [Next →](#)

Output stream name * addupdatecolumn [Learn more](#)

Description Creating/updating the columns 'src_payment_id, src_loan_id, src_payment_date, src_updated_by, src_updated_date, src_isActive' [Reset](#)

Incoming stream * conditionalsplit/update [+ Add](#) [Clone](#) [Delete](#) [Open expression builder](#)

Columns * [Column](#) [Expression](#)

Column	Expression
src_updated_by	"Data flow updated"
src_updated_date	currentTimestamp()
src_isActive	0

Alter row

Alter row settings Optimize Inspect Data preview

Output stream name * alterRow [Learn more](#)

Description Add expressions to alter rows [Reset](#)

Incoming stream * addupdatecolumn

Alter row conditions *

Upsert if $1=1$ [+](#) [-](#)

Update sink

Sink Settings Errors Mapping Optimize Inspect Data preview

Output stream name * updatedsink [Learn more](#)

Description Add sink dataset [Reset](#)

Incoming stream * alterRow

Sink type *

- Dataset
- Inline
- Cache

Inline dataset type * Azure SQL Database

Linked service * AzureSqlDatabase [Test connection](#) [Edit](#) [New](#)

Options

- Allow schema drift
- Validate schema

Sink **Settings** Errors Mapping Optimize Inspect Data preview

Schema name * dbo [Refresh](#)

Table name * loan_payments

Table action None Recreate table Truncate table

Update method

- Allow insert
- Allow delete
- Allow upsert
- Allow update

Skip writing key columns

Key columns *

- List of columns Custom expression

123 payment_id [+](#) [-](#)

123 Hash_key [+](#) [-](#)

Sink Settings Errors **Mapping** Optimize Inspect Data preview

Options

- Skip duplicate input columns
- Skip duplicate output columns

Auto mapping [Add mapping](#) [Delete](#) [Reset](#) [Import schema](#) [View schema](#)

5 mappings: 5 column(s) from the output schema left unmapped

Input columns	Output columns
123 payment_id	123 payment_id
121 Hash_key	121 Hash_key
abc src_updated_by	abc updated_by
def src_updated_date	def updated_date
123 src_isActive	123 isActive

Master pipeline:

