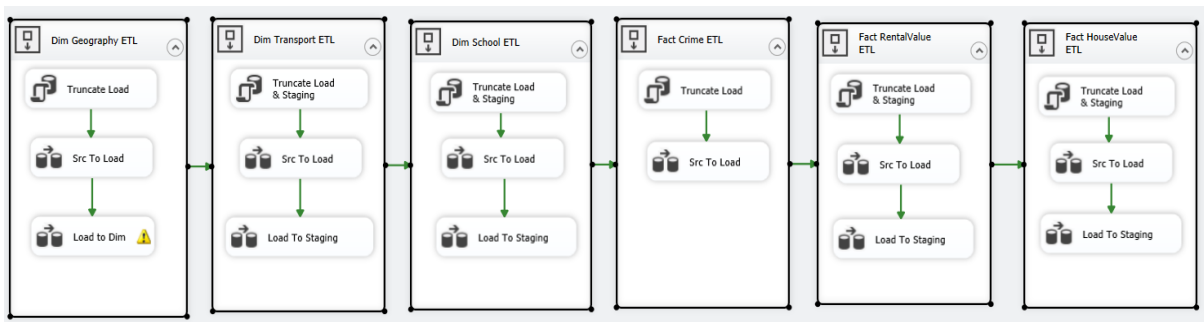


Property Analysis Advanced Sprint Part 2



1. Dim Geography ETL

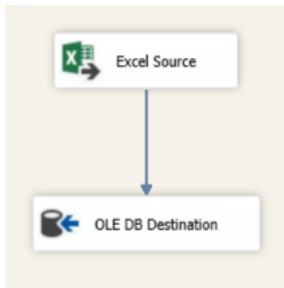
➤ Truncate Load_Geography

The screenshot shows the configuration window for the 'Truncate Load' task. The 'General' tab is active, displaying the following properties:

Property	Value
Name	Truncate Load
Description	Execute SQL Task
TimeOut	0
CodePage	1252
TypeConversionMode	Allowed
Result Set	None
SQL Statement	truncate table adv_LoadGeography
ConnectionType	OLE DB
Connection	DESKTOP-46FA2VH_IC.Property_Analysis
SQLSourceType	Direct input
IsQueryStoredProcedure	False
BypassPrepare	True

The 'SQL Statement' tab is also visible, showing the query: `truncate table adv_LoadGeography`.

➤ Excel Source to adv_LoadGeography



Property Analysis Advanced Sprint Part 2

➤ adv_LoadGeography to adv_DimGeography

Derived Column Name	Derived Column	Expression	Data Type
GeographyID	<add as new column>	state_code + "-" + suburb	Unicode string [DT_W...]
suburb	Replace 'suburb'	LTRIM(RTRIM(LOWER(suburb)))	Unicode string [DT_W...]

Select a Dimension Table and Keys
Select a dimension table to load and map columns in the transformation

Connection manager:

Table or view:

Input Columns	Dimension Columns	Key Type
city	city	Not a key column
GeographyID	GeographyID	Business key
lat	lat	Not a key column
lon	lon	Not a key column
state	state	Not a key column
state_code	state_code	Not a key column
suburb	suburb	Not a key column

Property Analysis Advanced Sprint Part 2

2. Dim Transport ETL

➤ Truncate Load & Staging

The screenshot displays the configuration for a 'Truncate Load & Staging' task in SQL Server Data Tools. The task is configured to execute SQL statements to truncate tables in the 'adv_LoadTransport' schema.

General

- Name: Truncate Load & Staging
- Description: Execute SQL Task

Options

- TimeOut: 0
- CodePage: 1252
- TypeConversionMode: Allowed

Result Set

- ResultSet: None

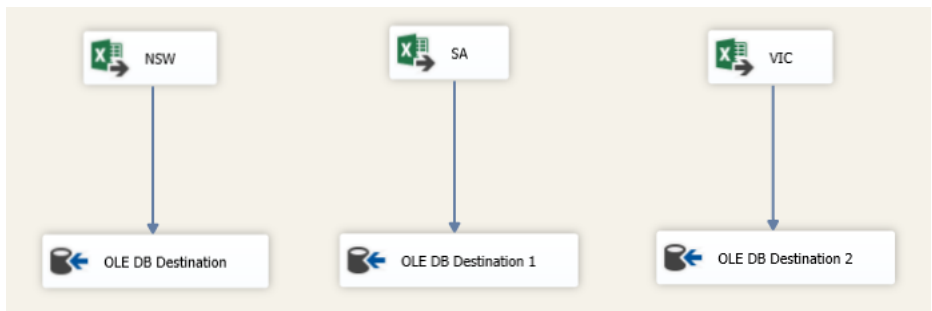
SQL Statement

- ConnectionType: OLE DB
- Connection: DESKTOP-46FA2VH_IC.Property_Analysis
- SQLSourceType: Direct input
- SQLStatement: Truncate table [adv_LoadTransportNSW]; Truncate table [adv_LoadTransportSA]; Truncate table [adv_LoadTransportVIC]; Truncate table [adv_StagingTransport];
- IsQueryStoredProcedure: False
- BypassPrepare: True

SQLStatement

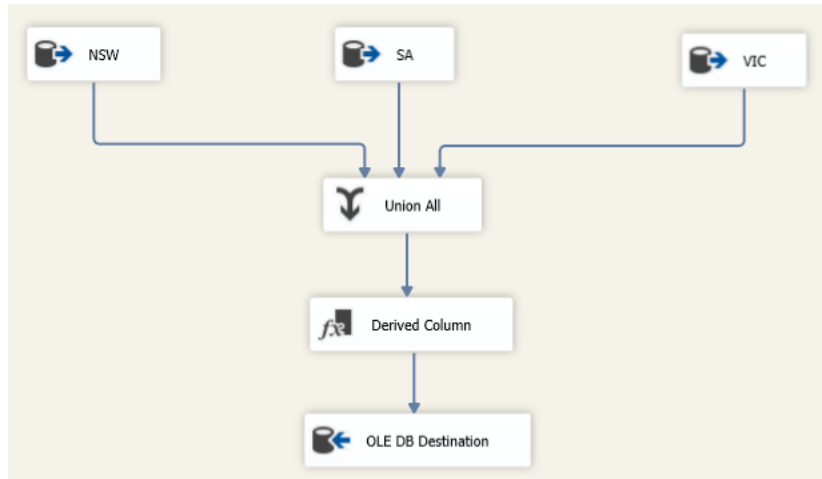
Specifies the query to be run by the task.

➤ Excel Source to adv_LoadTransport



Property Analysis Advanced Sprint Part 2

- **adv_LoadTransport to adv_StagingTransport** - Creating adv_StagingTransport by Combining all Load Table by using Union All



- **Derived Column**

Derived Column Name	Derived Column	Expression	Data Type
TransportID	<add as new column>	state_code + "-" + suburb + "-" + stop_name	Unicode string [DT_W...
suburb	Replace 'suburb'	LTRIM(RTRIM(LOWER(suburb)))	Unicode string [DT_W...
state_code	Replace 'state_code'	LTRIM(RTRIM(LOWER(state_code)))	Unicode string [DT_W...
stop_name	Replace 'stop_name'	LTRIM(RTRIM(LOWER(stop_name)))	Unicode string [DT_W...

- **adv_StagingTransport to adv_DimTransport**

Specify a data source to use. You can select a table in a data source view, a table in a database connection, or the results of an SQL query.

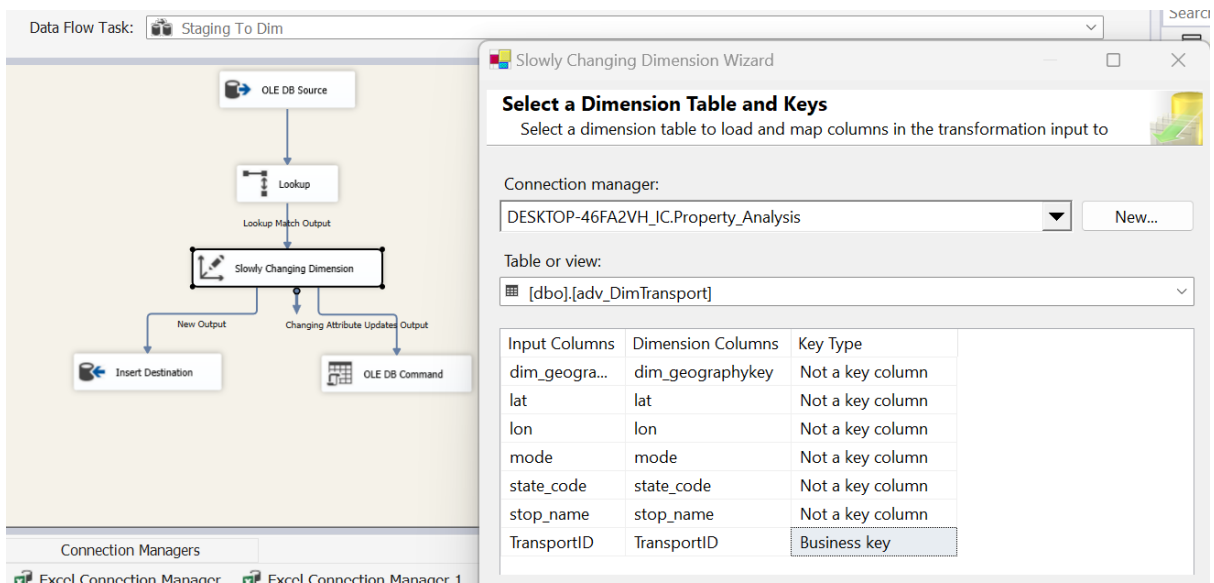
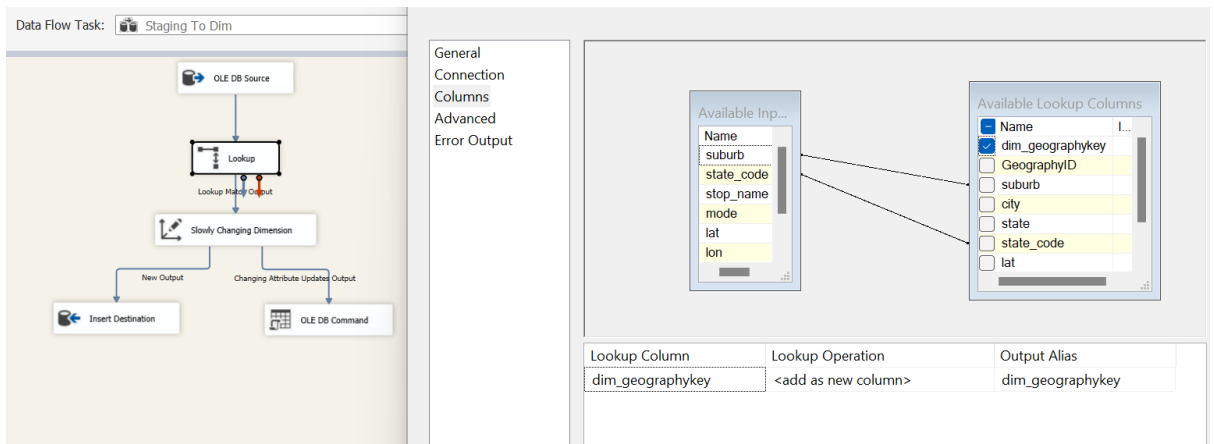
OLE DB connection manager:
DESKTOP-46FA2VH_IC.Property_Analysis New...

☒ Use a table or a view:
[dbo].[adv_DimGeography] New...

☐ Use results of an SQL query:

Build Query...
Browse...
Save Query...

Property Analysis Advanced Sprint Part 2



3. Dim School ETL

➤ Truncate Load & Staging

Enter SQL Query

```
Truncate table [adv_LoadSchoolNSW];  
  
Truncate table [adv_LoadSchoolSA];  
  
Truncate table [adv_LoadSchoolVIC];  
  
Truncate table [adv_StagingSchool];
```

OK Cancel

General

Name	Truncate Load & Staging
Description	Execute SQL Task

Options

TimeOut	0
CodePage	1252
TypeConversionMode	Allowed

Result Set

ResultSet	None
-----------	------

SQL Statement

ConnectionType	OLE DB
Connection	DESKTOP-46FA2VH_IC.Property_Analysis
SQLSourceType	Direct input
SQLStatement	Truncate table [adv_LoadSchoolNSW];Trunca
IsQueryStoredProcedure	False
BypassPrepare	True

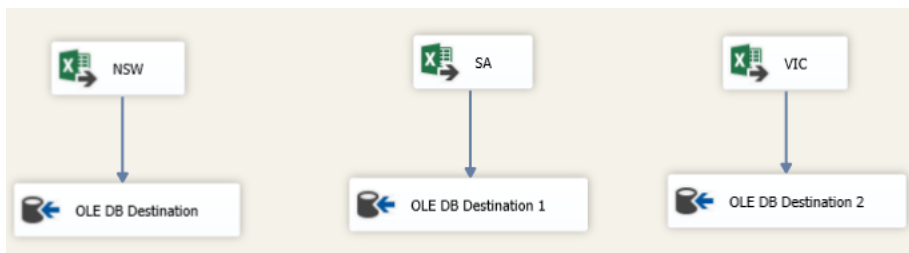
SQLStatement

Specifies the query to be run by the task.

Browse... Build Query... Parse Query

Property Analysis Advanced Sprint Part 2

➤ Excel Source to adv_LoadSchool



➤ adv_LoadSchool to adv_StagingSchool - Creating adv_StagingSchool by Combining all Load Table by using Union All

The screenshot shows a Data Flow Task named 'Load To Staging'. It features three Excel source icons (NSW, SA, VIC) connected to a 'Union All' transformation. The output of the 'Union All' is connected to a 'Derived Column' transformation, which is then connected to an 'OLE DB Destination'.

The 'Derived Column Transformation Editor' is open, showing the following table:

Derived Column Name	Derived Column	Expression	Data Type
SchoolID	<add as new column>	(DT_WSTR,255)state_code + "-" + (DT_WSTR,255...	Unicode string [DT_W...
town_suburb	Replace 'town_suburb'	LTRIM(RTRIM(LOWER(town_suburb)))	Unicode string [DT_W...

➤ adv_StagingSchool to adv_DimSchool

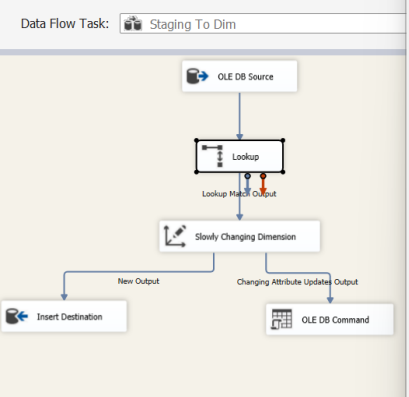
The screenshot shows a Data Flow Task named 'Staging To Dim'. It features an 'OLE DB Source' connected to a 'Lookup' transformation. The output of the 'Lookup' is connected to a 'Slowly Changing Dimension' transformation. The output of the 'Slowly Changing Dimension' is connected to an 'OLE DB Destination'.

The 'Lookup' transformation is configured with the following settings:

- OLE DB connection manager: DESKTOP-46FA2VH_IC.Property_Analysis
- Use a table or a view: [dbo].[adv_DimGeography]

Property Analysis Advanced Sprint Part 2

Data Flow Task: Staging To Dim



General
Connection
Columns
Advanced
Error Output

Available Input...

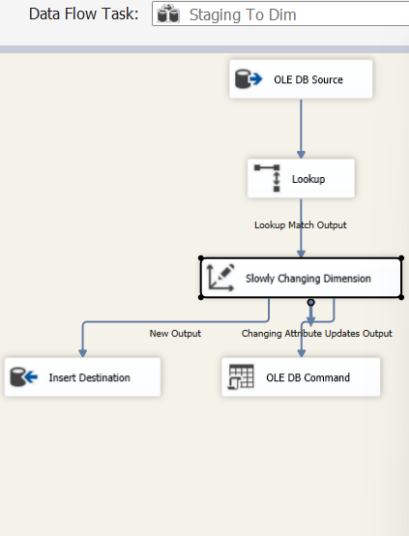
Name
state_code
suburb
postcode
school_code
school_na...
SchoolType
address

Available Lookup Columns

	Name
<input checked="" type="checkbox"/>	dim_geographykey
<input type="checkbox"/>	GeographyID
<input type="checkbox"/>	suburb
<input type="checkbox"/>	city
<input type="checkbox"/>	state
<input type="checkbox"/>	state_code
<input type="checkbox"/>	lat

Lookup Column	Lookup Operation	Output Alias
dim_geographykey	<add as new column>	dim_geographykey

Data Flow Task: Staging To Dim



Connection Managers

- Excel Connection Manager
- Excel Connection Manager 3
- Excel Connection Manager 7
- Excel Connection Manager 11
- Excel Connection Manager 12
- Excel Connection Manager 13
- Excel Connection Manager 14
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- Excel Connection Manager 98
- Excel Connection Manager 99
- Excel Connection Manager 100

Slowly Changing Dimension Wizard

Select a Dimension Table and Keys
Select a dimension table to load and map columns in the transformation input to

Connection manager: DESKTOP-46FA2VH_IC.Property_Analysis

Table or view: [dbo].[adv_DimSchool]

Input Columns	Dimension Columns	Key Type
address	address	Not a key column
dim_geogra...	dim_geographykey	Not a key column
postcode	postcode	Not a key column
school_code	school_code	Not a key column
school_name	school_name	Not a key column
SchoolID	SchoolID	Business key
SchoolType	SchoolType	Not a key column

Help < Back Next > Finish >> Cancel

Property Analysis Advanced Sprint Part 2

4. Dim Crime ETL

➤ Truncate Load

General

Parameter Mapping

Result Set

Expressions

General

Name

Truncate Load

Description

Execute SQL Task

Options

TimeOut

0

CodePage

1252

TypeConversionMode

Allowed

Result Set

ResultSet

None

SQL Statement

ConnectionType

OLE DB

Connection

DESKTOP-46FA2VH_IC.Property_Analysis

SQLSourceType

Direct input

SQLStatement

truncate table adv_loadCrime

IsQueryStoredProcedure

False

BypassPrepare

True

Name

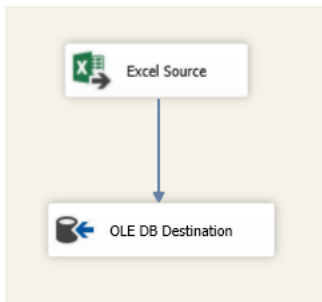
Specifies the name of the task.

Browse...

Build Query...

Parse Query

➤ Excel Source to adv_LoadCrime



Property Analysis Advanced Sprint Part 2

➤ adv_LoadCrime to adv_FactCrime

Data Flow Task: Load To Dim

OLE DB Source

Derived Column

Lookup

Lookup Match Output

OLE DB Destination

Connection Managers

Derived Column Transformation Editor

Specify the expressions used to create new column values, and indicate whether the values update existing columns or populate new columns.

Variables and Parameters

Columns

Mathematical Functions

String Functions

Date/Time Functions

NULL Functions

Type Casts

Operators

Description:

Derived Column Name	Derived Column	Expression	Data Type
suburb	Replace 'suburb'	LTRIM(RTRIM(LOWER(suburb)))	Unicode string [DT_W...
State	Replace 'State'	LTRIM(RTRIM(State))	Unicode string [DT_W...

Data Flow Task: Load To Dim

OLE DB Source

Derived Column

Lookup

Lookup Match Output

OLE DB Destination

General

Connection

Columns

Advanced

Error Output

Specify a data source to use. You can select a table in a data source view, a table in a database connection, or the results of an SQL query.

OLE DB connection manager:

DESKTOP-46FA2VH_IC.Property_Analysis

New...

Use a table or a view:

[dbo].[adv_DimGeography]

New...

Data Flow Task: Load To Dim

OLE DB Source

Derived Column

Lookup

Lookup Match Output

OLE DB Destination

General

Connection

Columns

Advanced

Error Output

Available Input Columns

Available Lookup Columns

Lookup Column

Lookup Operation

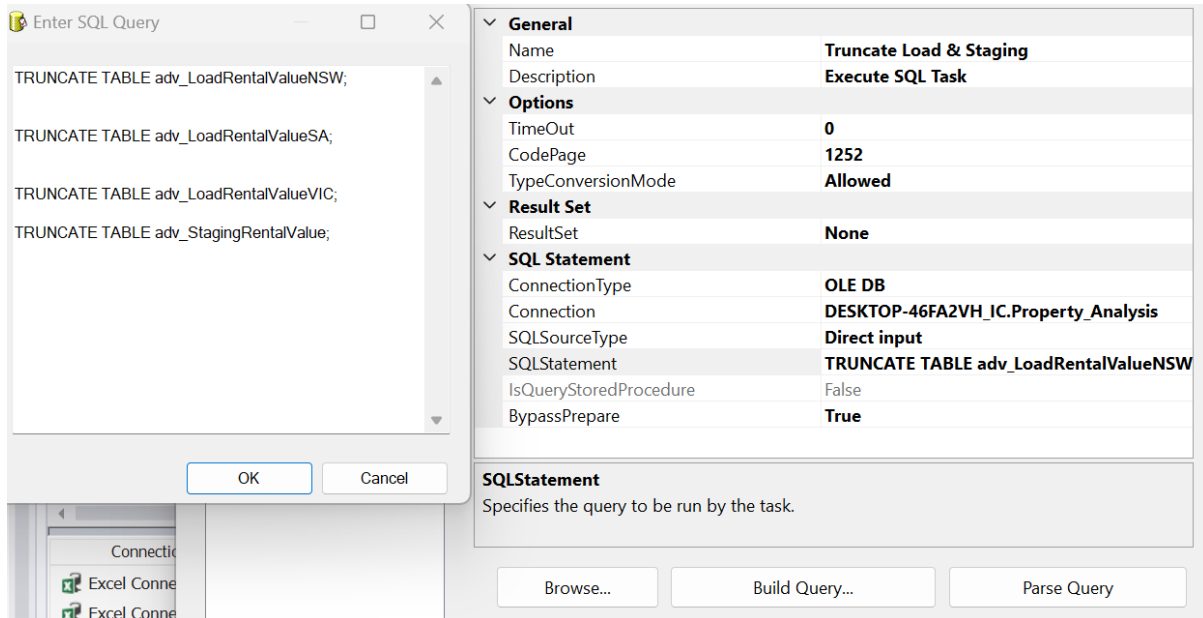
Output Alias

Lookup Column	Lookup Operation	Output Alias
dim_geographykey	<add as new column>	dim_geographykey

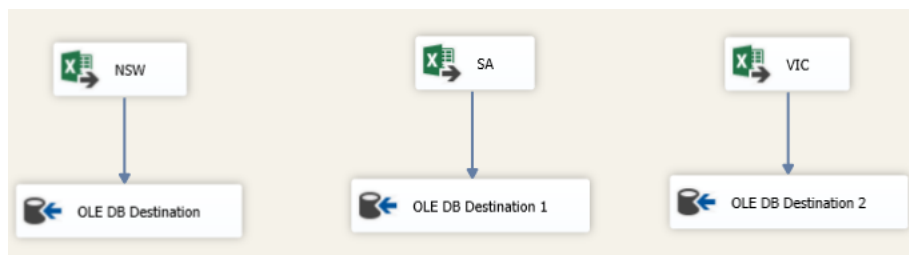
Property Analysis Advanced Sprint Part 2

5. Dim RentalValue ETL

➤ Truncate Load & Staging



➤ Excel Source to adv_LoadRentalValue



Property Analysis Advanced Sprint Part 2

- **adv_LoadRentalValue to adv_StagingRentalValue-** Creating adv_StagingRentalValue by Combining all Load Table by using Union All

The screenshot shows a data flow task in SQL Server Data Tools. The task flow is: **NSW** → **SA** → **VIC** → **Union All** → **Derived Column** → **OLE DB Destination**. The **Derived Column Transformation Editor** is open, showing a list of functions on the right: Variables and Parameters, Columns, Mathematical Functions, String Functions, Date/Time Functions, NULL Functions, Type Casts, and Operators. Below the editor is a table with the following data:

Derived Column Name	Derived Column	Expression	Data Type	Length	Precision
state_code_suburb	<add as new column>	state_code + "-" + Suburb	Unicode string [DT_W...	511	
state_code	<add as new column>	TRIM(state_code)	Unicode string [DT_W...	255	
Suburb	Replace 'Suburb'	(LOWER(TRIM(Suburb)))	Unicode string [DT_W...	255	

- **adv_StagingRentalValue to adv_FactRentalValue**

The screenshot shows a data flow task in SQL Server Data Tools. The task flow is: **OLE DB Source** → **Derived Column** → **Lookup** → **Lookup Match Output** → **OLE DB Destination**. The **Load To Dimension** wizard is open, showing the **General** tab. The wizard is configured to use a table or a view from the **DESKTOP-46FA2VH_IC.Property_Analysis** connection manager. The selected table/view is **[dbo].[adv_DimGeography]**.

Property Analysis Advanced Sprint Part 2

Control Flow Data Flow

Data Flow Task: Staging To Dim

OLE DB Source

Lookup

Lookup Match Output

OLE DB Destination

General
Connection
Columns
Advanced
Error Output

Available Input Columns

Available Input Columns	Available Lookup Columns
Name	<input checked="" type="checkbox"/> Name
state_code	<input checked="" type="checkbox"/> dim_geographykey
Suburb	<input type="checkbox"/> GeographyID
RentalHouseType	<input type="checkbox"/> suburb
	<input type="checkbox"/> city
	<input type="checkbox"/> state
	<input type="checkbox"/> state_code
	<input type="checkbox"/> lat

Lookup Column	Lookup Operation	Output Alias
dim_geographykey	<add as new column>	dim_geographykey

6. Dim HouseValue ETL

➤ Truncate Load & Staging

Enter SQL Query

```
TRUNCATE TABLE adv_LoadHouseValueNSW;  
  
TRUNCATE TABLE adv_LoadHouseValueSA;  
  
TRUNCATE TABLE adv_LoadHouseValueVIC;  
  
TRUNCATE TABLE adv_StagingHouseValue;
```

OK Cancel

General

Name	Truncate Load & Staging
Description	Execute SQL Task

Options

TimeOut	0
CodePage	1252
TypeConversionMode	Allowed

Result Set

ResultSet	None
-----------	------

SQL Statement

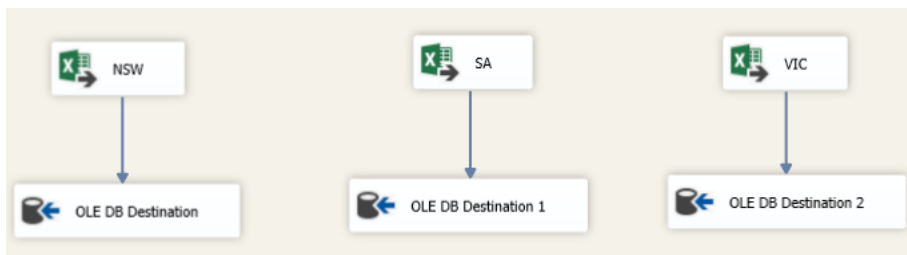
ConnectionType	OLE DB
Connection	DESKTOP-46FA2VH_IC.Property_Analysis
SQLSourceType	Direct input
SQLStatement	TRUNCATE TABLE adv_LoadHouseValueNSW
IsQueryStoredProcedure	False
BypassPrepare	True

SQLStatement
Specifies the query to be run by the task.

Browse... Build Query... Parse Query

Property Analysis Advanced Sprint Part 2

➤ Excel Source to adv_LoadHouseValue



➤ adv_LoadHouseValue to adv_StagingHouseValue- Creating adv_StagingHouseValue by Combining all Load Table by using Union All

The screenshot shows a data flow in SQL Server Data Tools. Three Excel sources (NSW, SA, VIC) are connected to a 'Union All' task. The output of the 'Union All' task is connected to a 'Derived Column' task, which is then connected to an 'OLE DB Destination' task. A 'Derived Column Transformation Editor' window is open, showing the configuration for the 'Derived Column' task.

Derived Column Transformation Editor

Specify the expressions used to create new column values, and indicate whether the values update existing columns or populate new columns.

Derived Column Name	Derived Column	Expression	Data Type
state_code	Replace 'state_code'	TRIM(state_code)	Unicode string [DT_W...]
Suburb	Replace 'Suburb'	(LOWER(TRIM(Suburb)))	Unicode string [DT_W...]

➤ adv_StagingHouseValue to adv_FactHouseValue

The screenshot shows a data flow in SQL Server Data Tools. An 'OLE DB Source' is connected to a 'Lookup' task. The output of the 'Lookup' task is connected to a 'Lookup Match Output' task, which is then connected to an 'OLE DB Destination' task. The 'Data Flow Task: Staging To Dim' is selected, and the 'General' tab is active.

Data Flow Task: Staging To Dim

General

Specify a data source to use. You can select a table in a data source view, a table in a database connection, or the results of an SQL query.

OLE DB connection manager: DESKTOP-46FA2VH_IC.Property_Analysis New...

Use a table or a view: [dbo].[adv_DimGeography] New...

Property Analysis Advanced Sprint Part 2

Data Flow Task: Staging To Dim

OLE DB Source

Lookup

OLE DB Destination

Lookup Match Output

General

Connection

Columns

Advanced

Error Output

Available Input Columns

Name
state_code
Suburb
HouseValue

Available Lookup Columns

<input checked="" type="checkbox"/> Name	I...
<input checked="" type="checkbox"/> dim_geographykey	
<input type="checkbox"/> GeographyID	
<input type="checkbox"/> suburb	
<input type="checkbox"/> city	
<input type="checkbox"/> state	
<input type="checkbox"/> state_code	
<input type="checkbox"/> lat	

Lookup Column	Lookup Operation	Output Alias
dim_geographykey	<add as new column>	dim_geographykey