# Nested Flow File based Data Controls

Creation Date: 1/30/2023

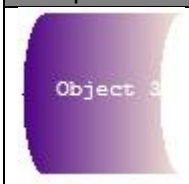
Table Of Contents

# Introduction

NestedFlow framework supprrts multiple file based test data options to support data driven automation scripting methodologies. This document explains each of those options and their usage.

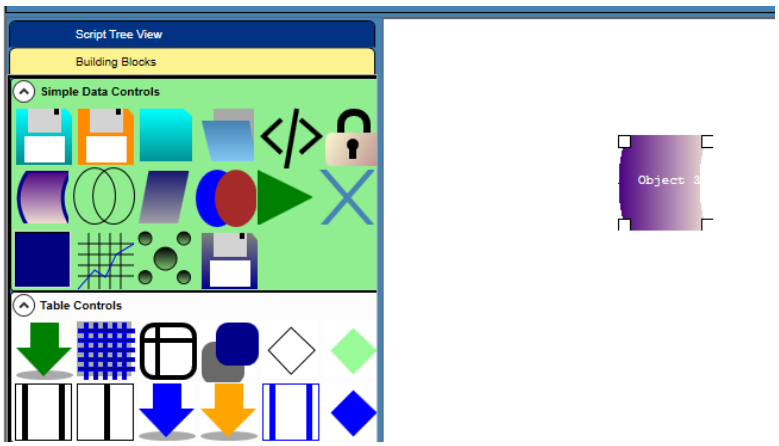
## Excel Sheets

Excel sheets are most frequently used test data options used universally while deploying the data driven test framework. Nestedflow provides 2 components to satisfy Excel operation needs.

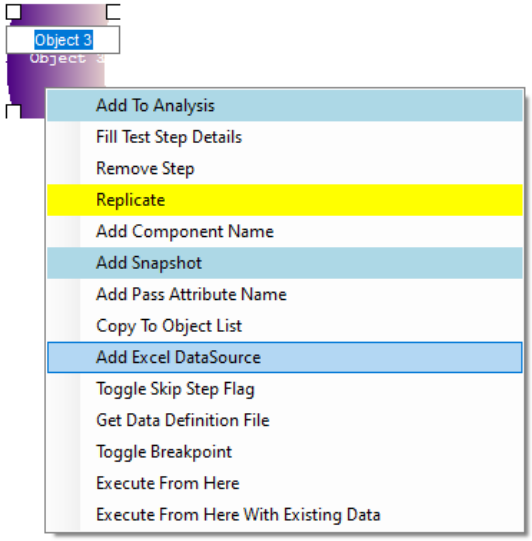
| Components | Operation |
|---|---|
|   | Read Excel Files |
|   | Convert Data Table to Excel |

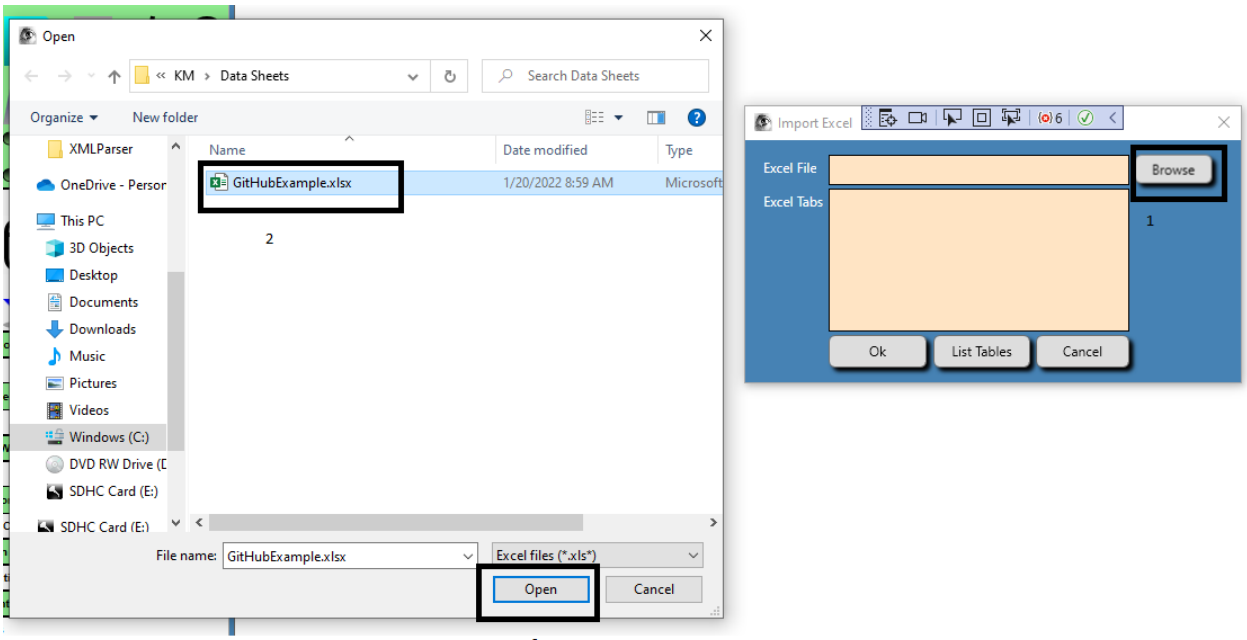
### Read Excel:

Drag the Read Excel component to test canvas



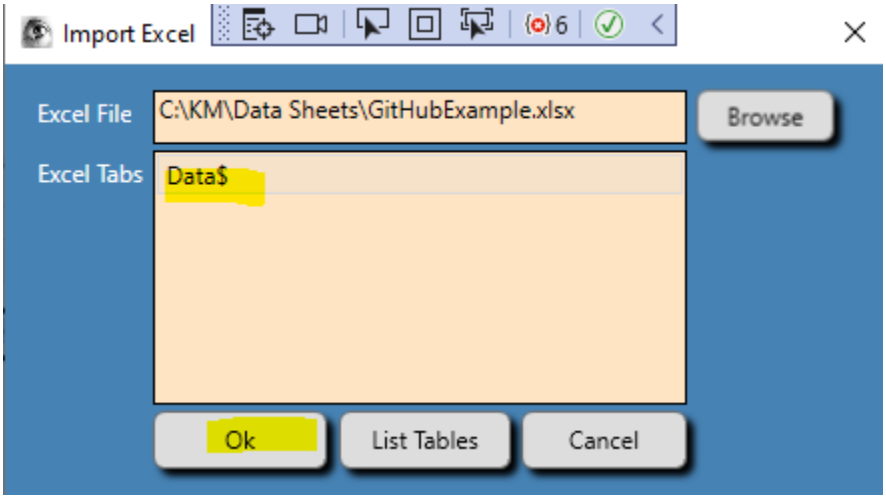

Right click on the component and click on: **Add Excel DataSource**



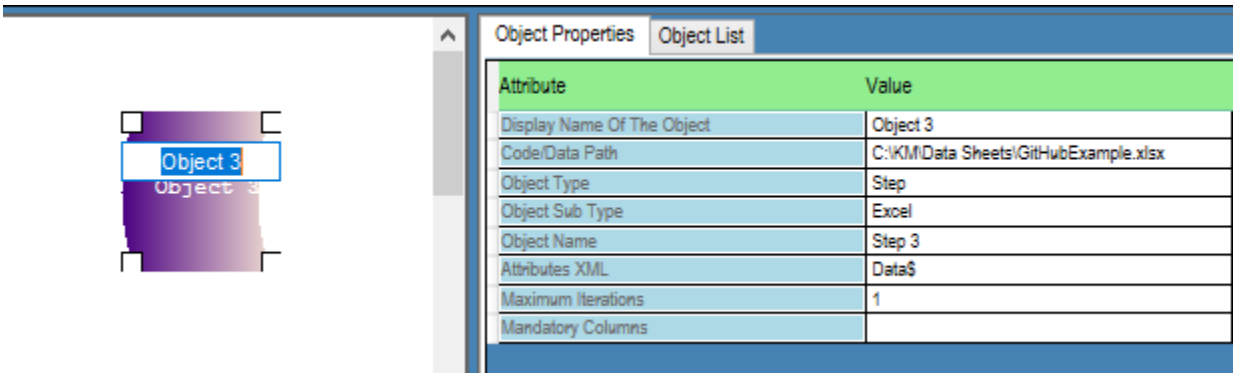



Click on **Browse** button, Choose the Excel file from file navigation window and click on **Open** button

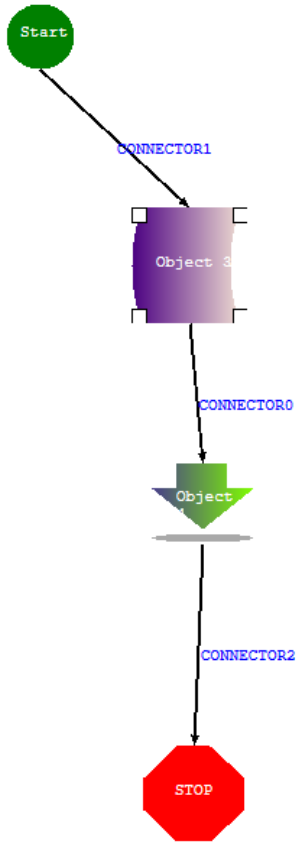
Click on the data sheet relevant from the automatically updated list and click on **Ok** button

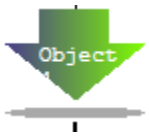



Object properties get updated as per the selection.




When we create a flow using the component

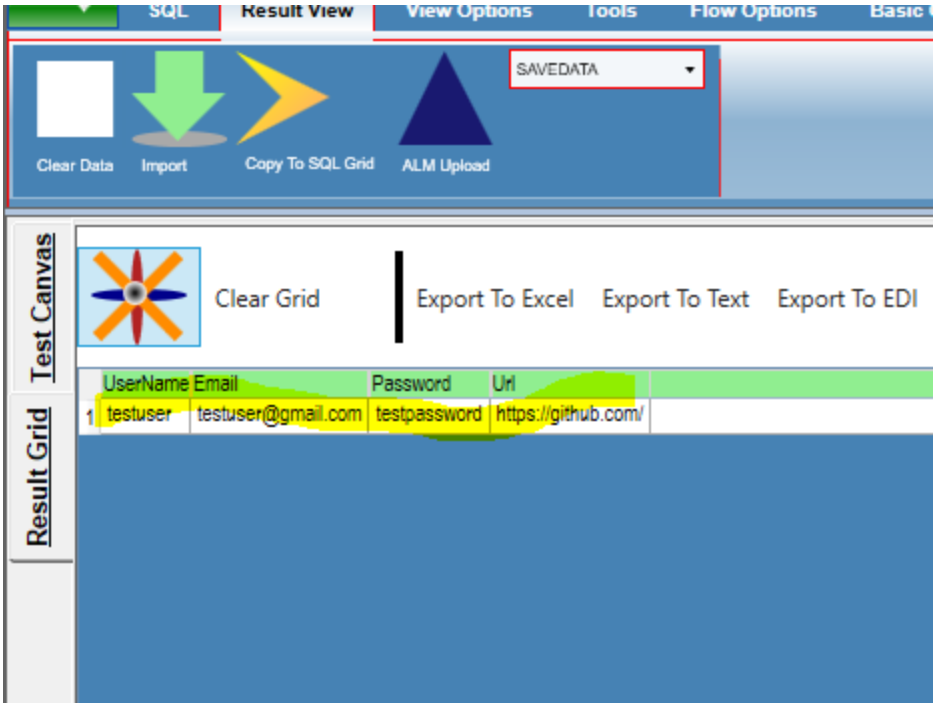



component is used to save the data retrieved in the data block to a named data table (I have entered SAVEDATA as the table name)

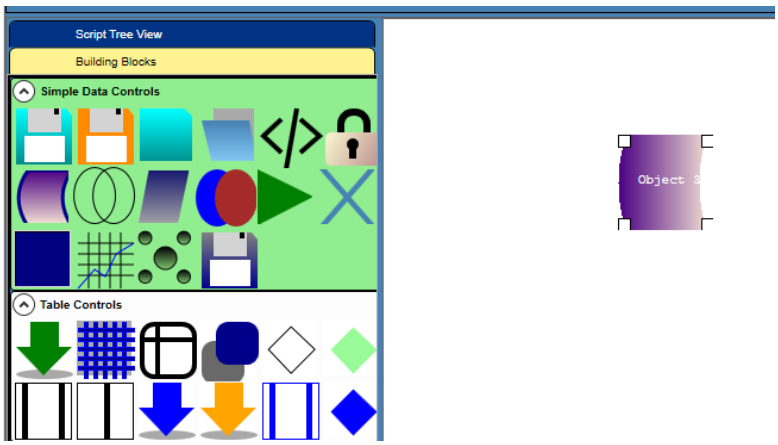
When the flow is executed:

Data will be saved to the table mentioned when we see in the **Result Grid** tab.

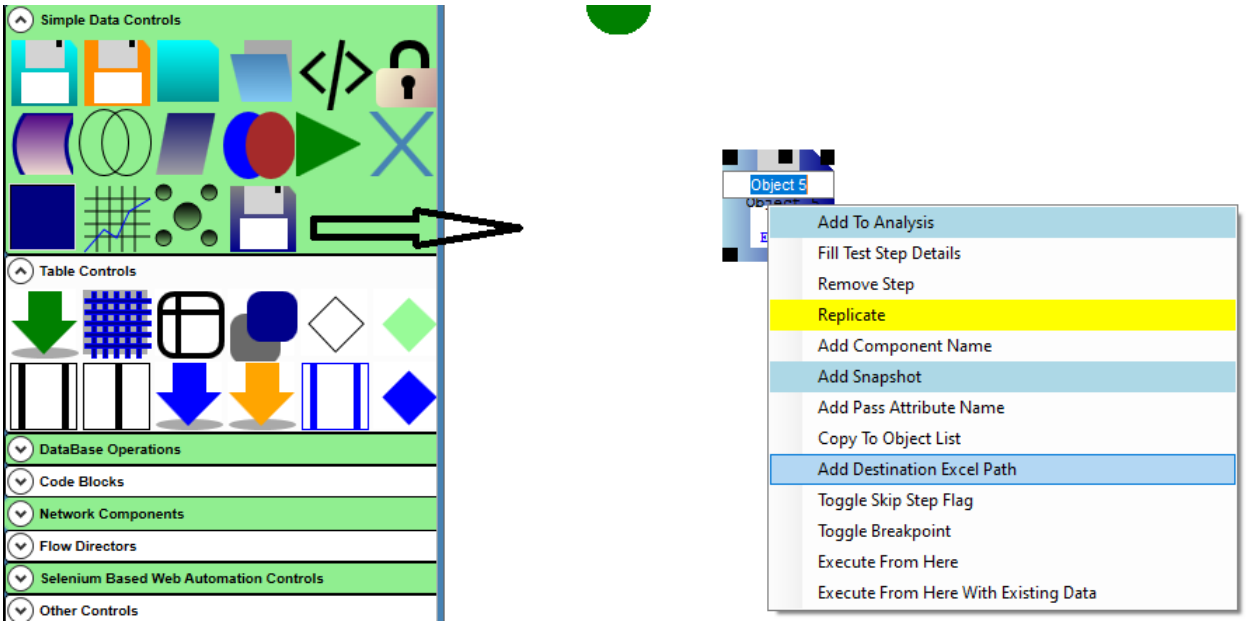



## Write Excel:

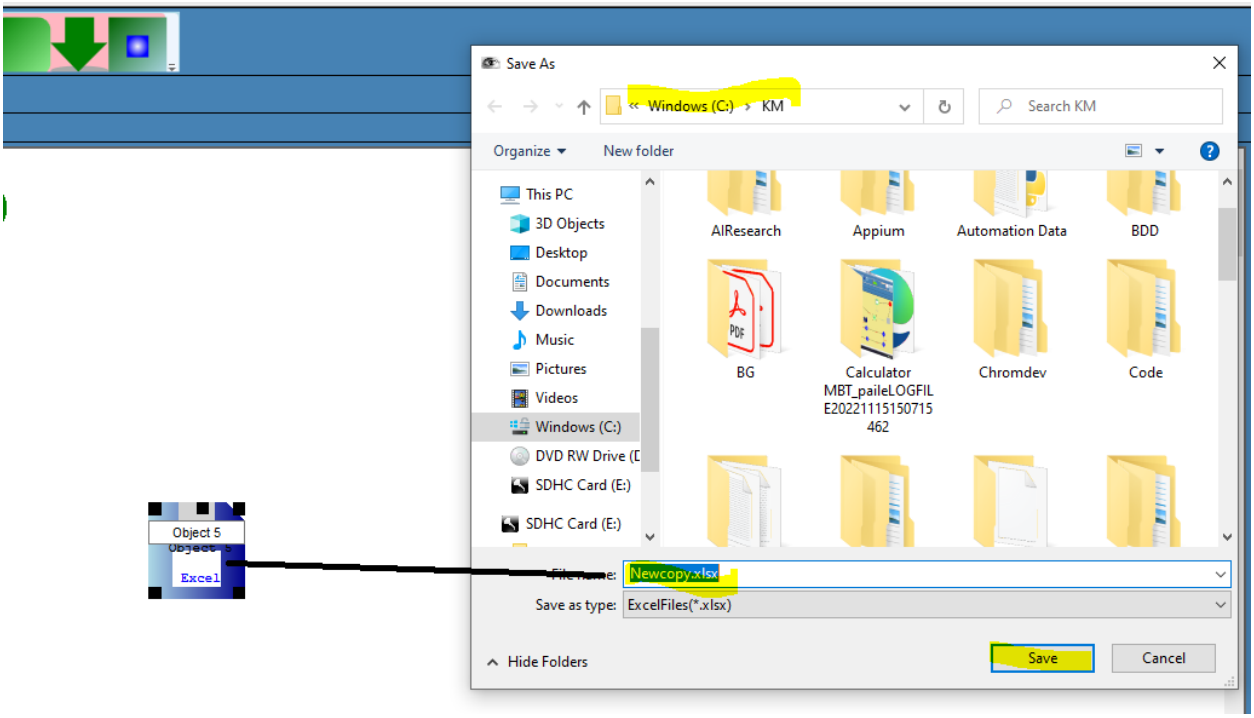
Drag the Read Excel component to test canvas



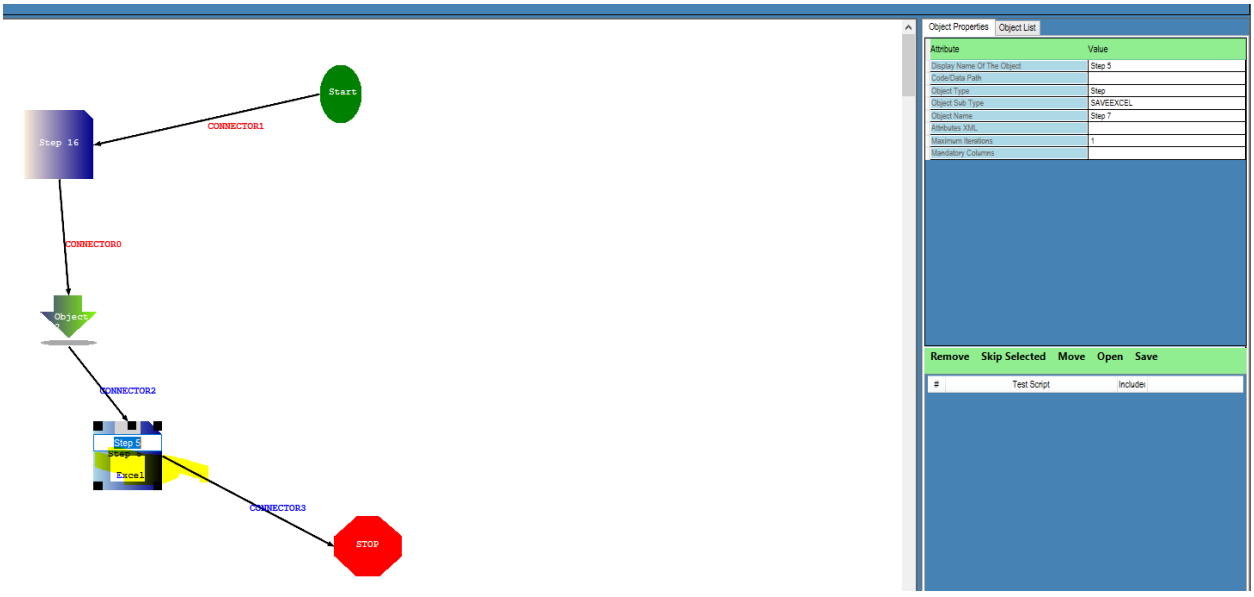

Right click on the component and click on: **Add Excel DataSource**

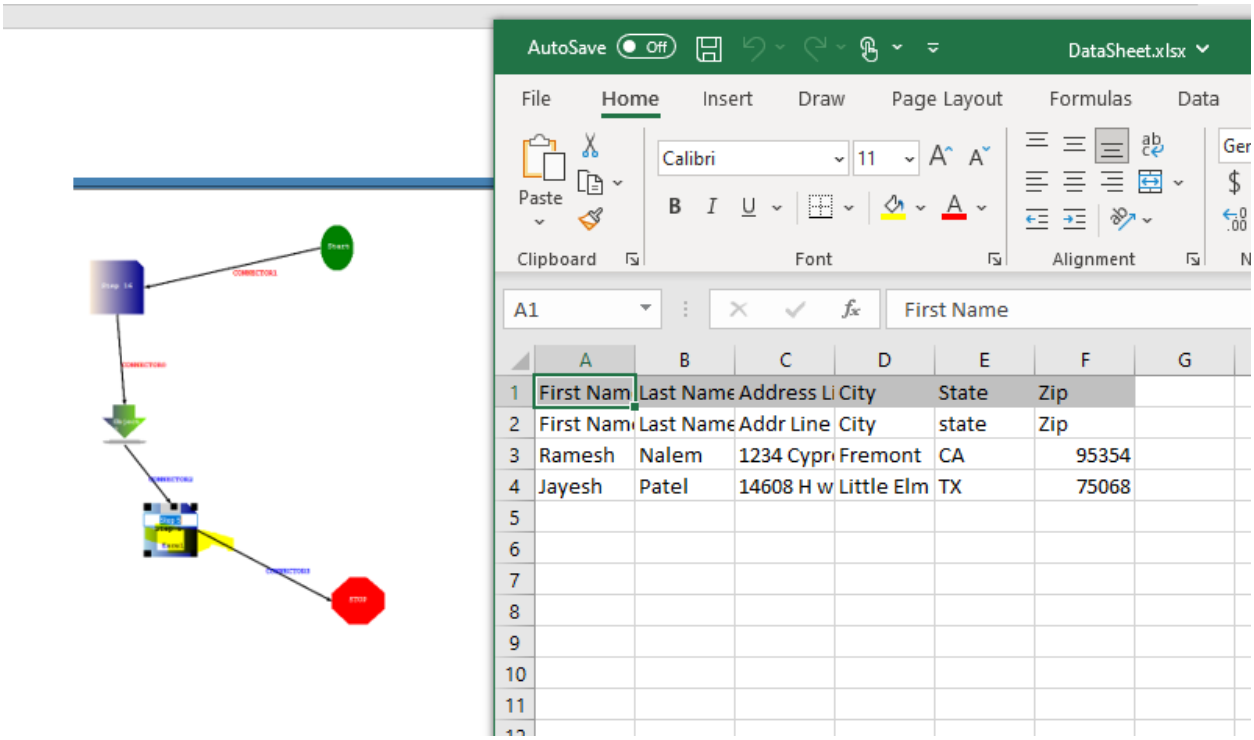



Enter Destination file and click on **Save** button




In the example below we are reading data from a text file and saving it to Excel.


Start
Step 16
CONNECTOR1
CONNECTOR0
Object
CONNECTOR2
Step 5
Excel
CONNECTOR3
STOP
Object Properties
Object List
Attribute
Value
Display Name Of The Object
Step 5
Code/Data Path
Object Type
Step
Object Sub Type
SAVEEXCEL
Object Name
Step 7
Attributes XML
Maximum Iterations
1
Mandatory Columns
Remove
Skip Selected
Move
Open
Save
#
Test Script
Include


AutoSave
Off
DataSheet.xlsx
File
Home
Insert
Draw
Page Layout
Formulas
Data
Paste
Calibri
11
Clipboard
Font
Alignment
A1
First Name
A
B
C
D
E
F
G
1 First Nam Last Name Address Li City State Zip
2 First Nam Last Name Addr Line City state Zip
3 Ramesh Nalem 1234 Cypr Fremont CA 95354
4 Jayesh Patel 14608 H w Little Elm TX 75068
5
6
7
8
9
10
11

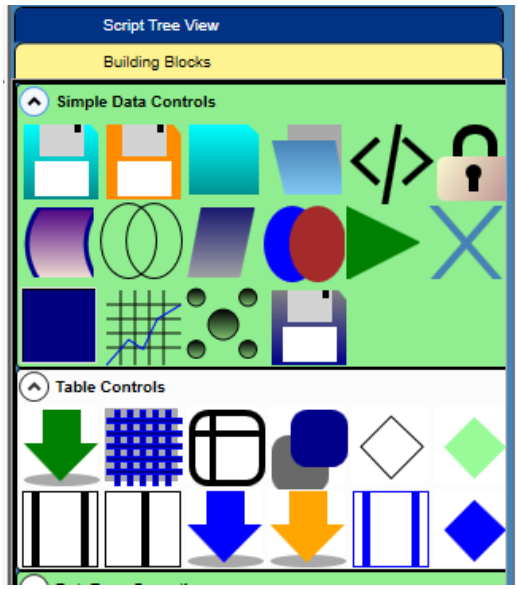
## Text Files

NestedFlow supports both delimited and fixed length text files which can be used as the data files. Below are the components used for text handling:

| Components | Operation |
|---|---|
|  | Read Text files |
|  | Convert Data Table to Text files |

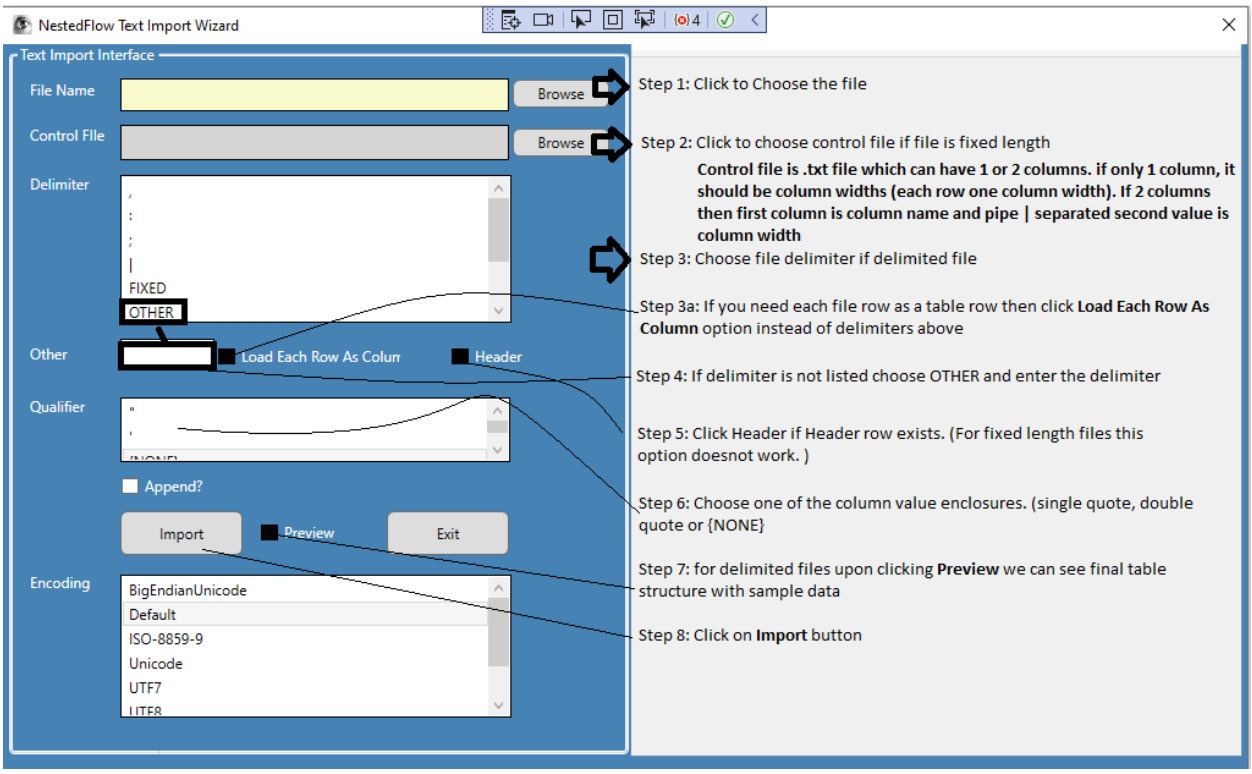
### Read Text:

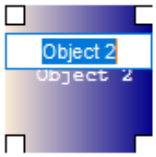
Drag the Read Text component to test canvas

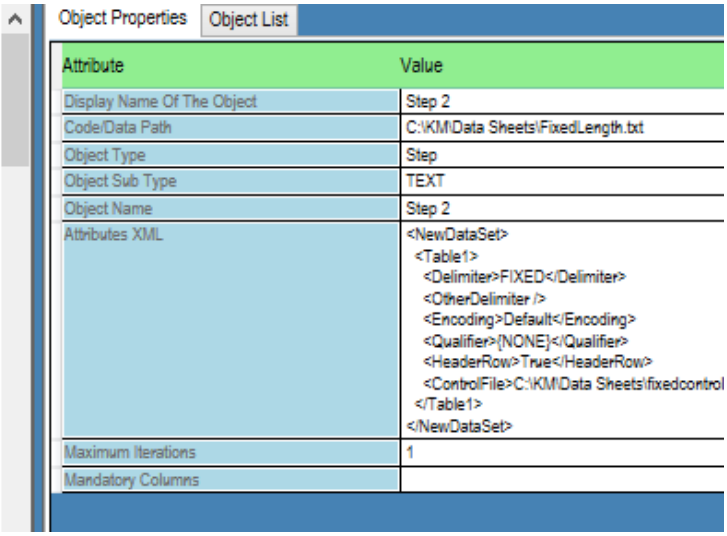




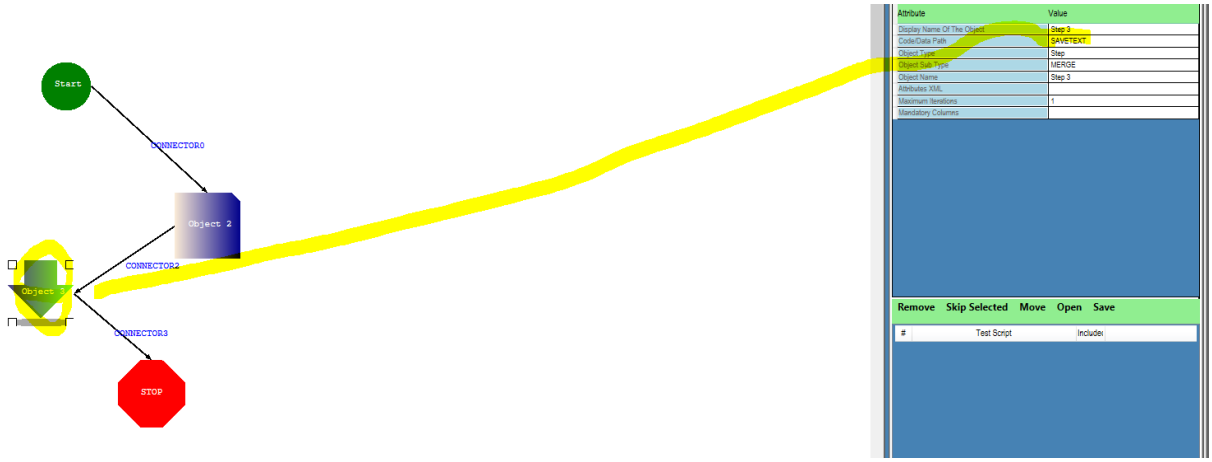
Right click on the component and click on: **Add Text Data Source** menu



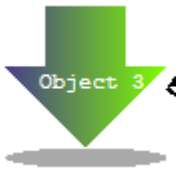



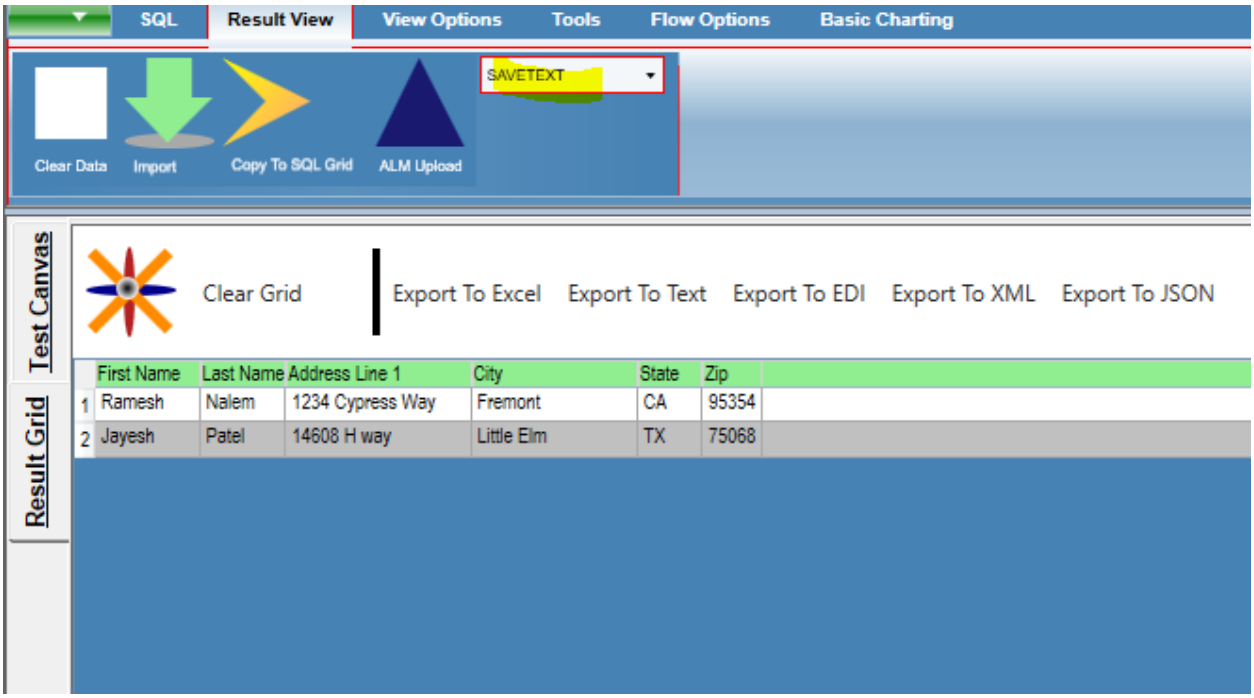

Executing a sample flow:




When the flow is executed:

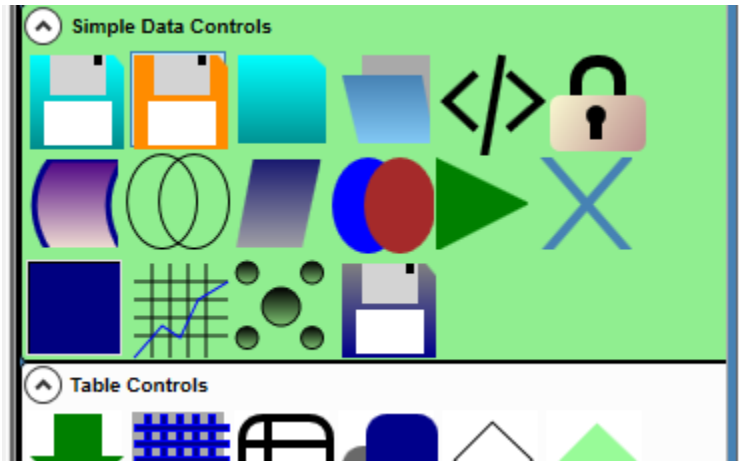
Data will be saved to the table mentioned in 

block when we see in the **Result Grid** tab.




## Write Text:

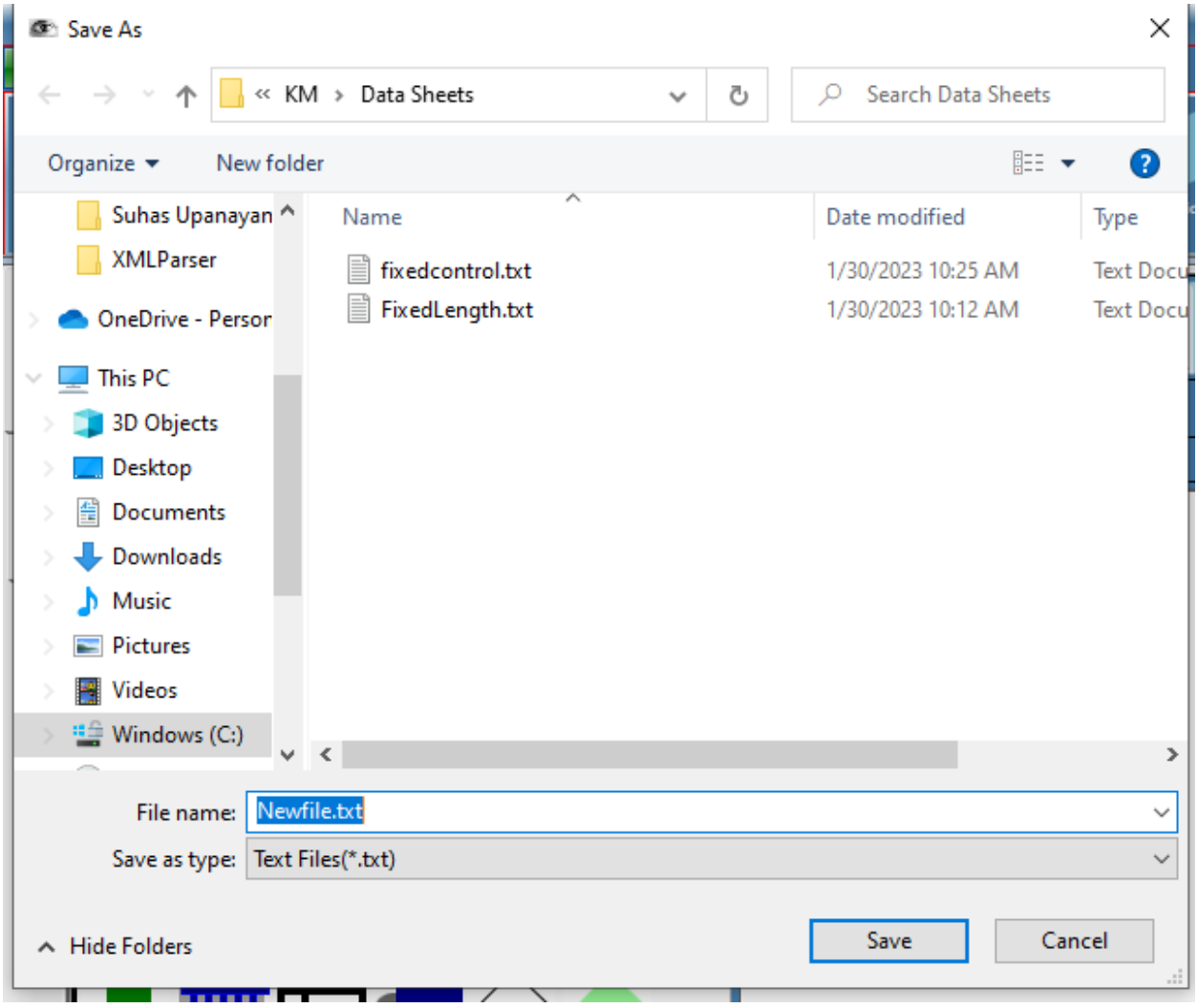
Drag the Read Excel component to test canvas





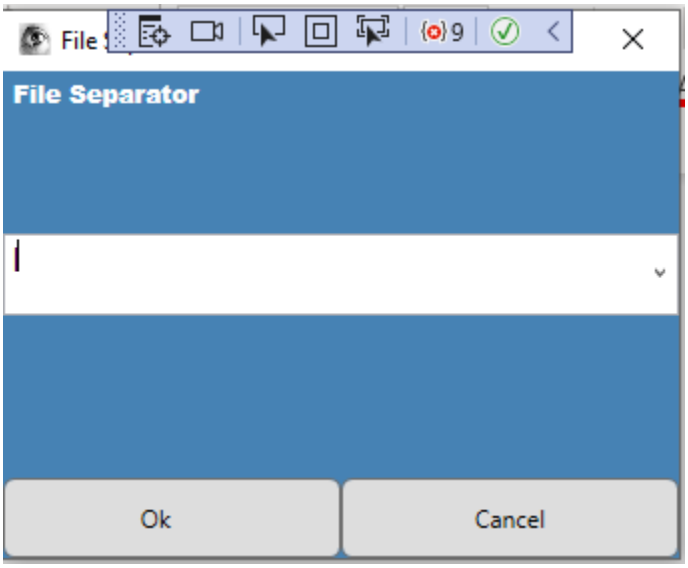
Right Click on the component and click on the menu option: **Add Destination Text File**

Enter File Name:



Click on **Save** button. Another window will be opened asking for delimiter to be used.

Enter Delimiter and click on **Ok** button




Note: The option allows only delimited files to be created

## XML Files

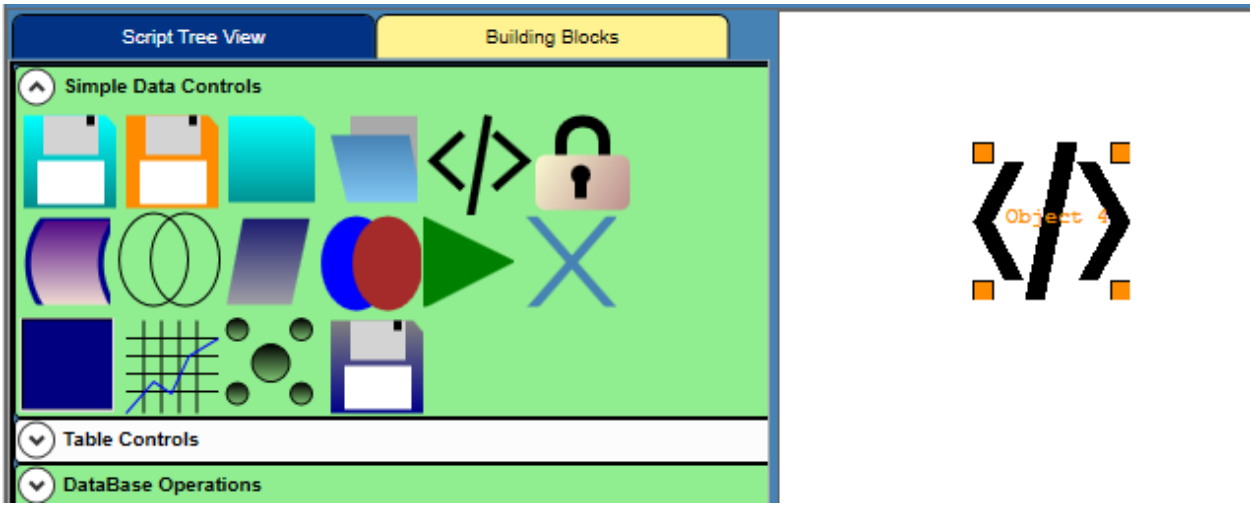
NestedFlow tool allows XML files to be used as data files (as long as the files are in plain Table and rows format)

Below are the components used for text handling:

| Components | Operation |
|---|---|
|  | Read XML files |
|  | Convert Data Table to XML files |

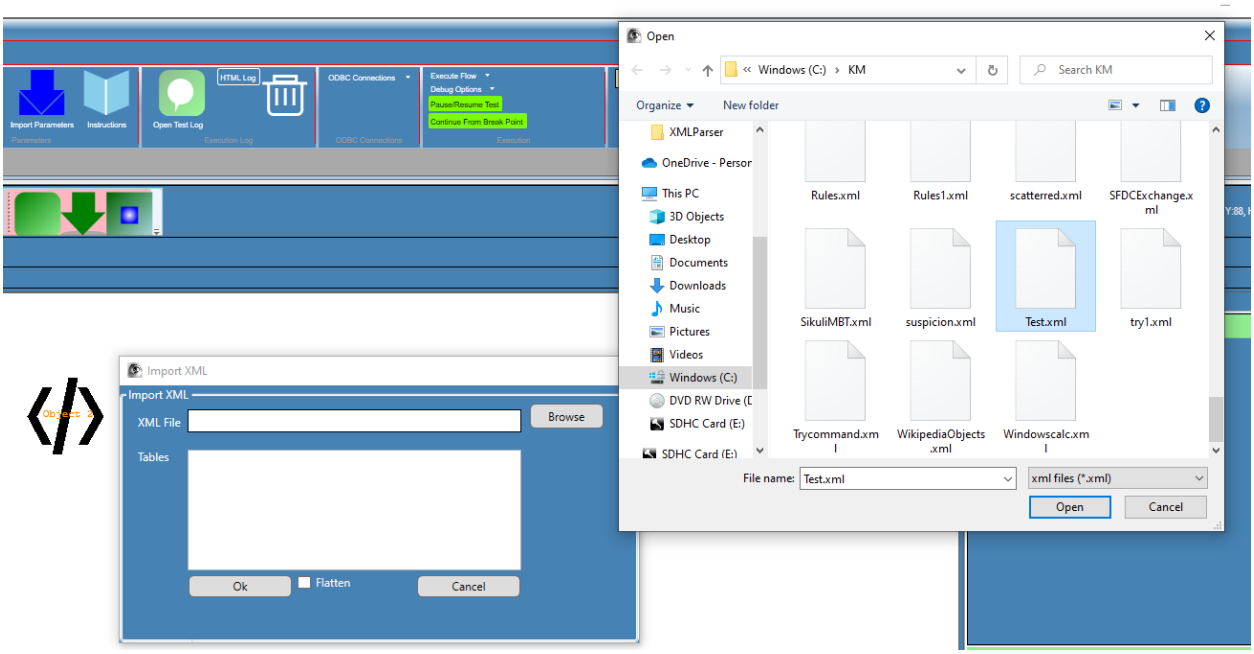
### Read XML:

Drag the Read Text component to test canvas



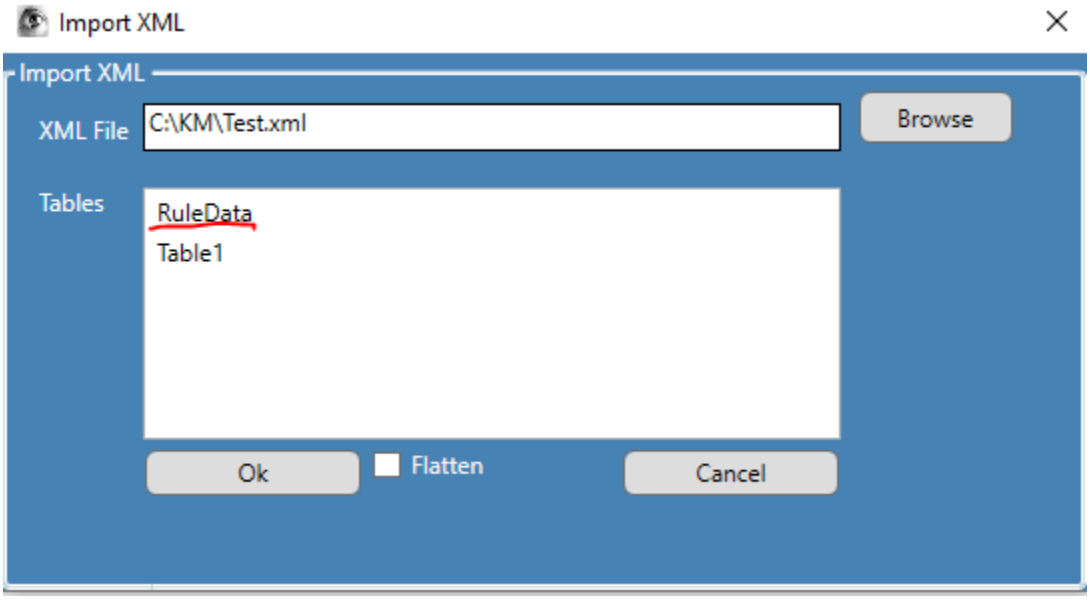

Right click on the component and choose menu option: **Add XML DataSource**

Click on **Browse** button



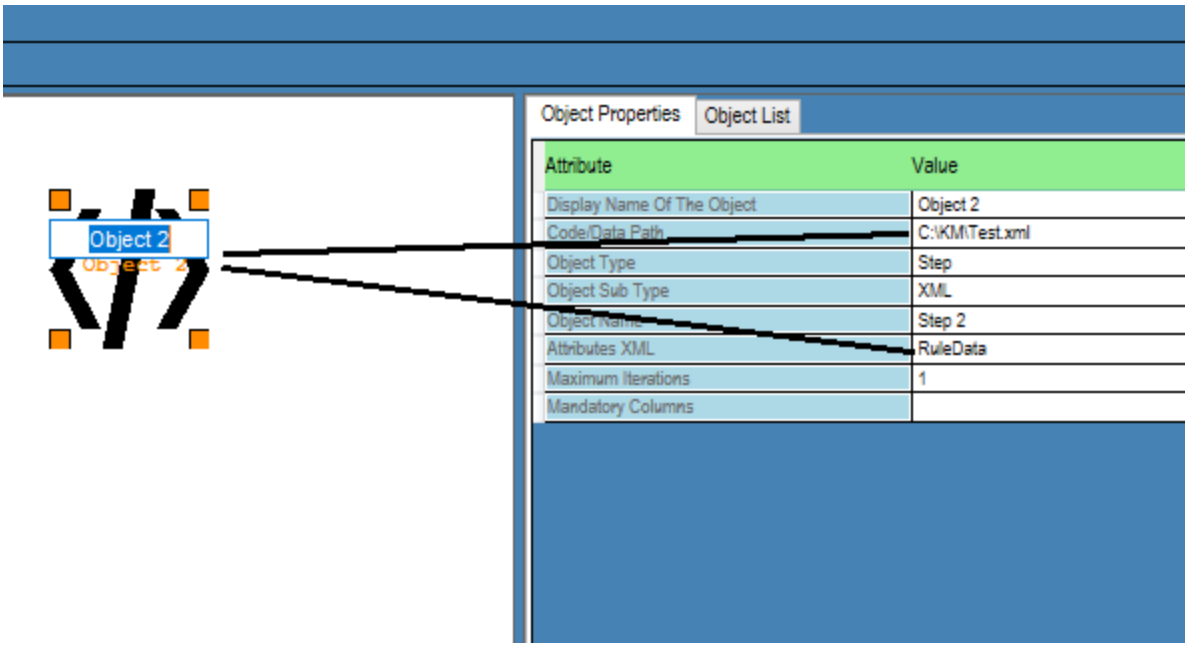

Choose a file and click on **Open** button.

The Tables in the XML will be displayed.



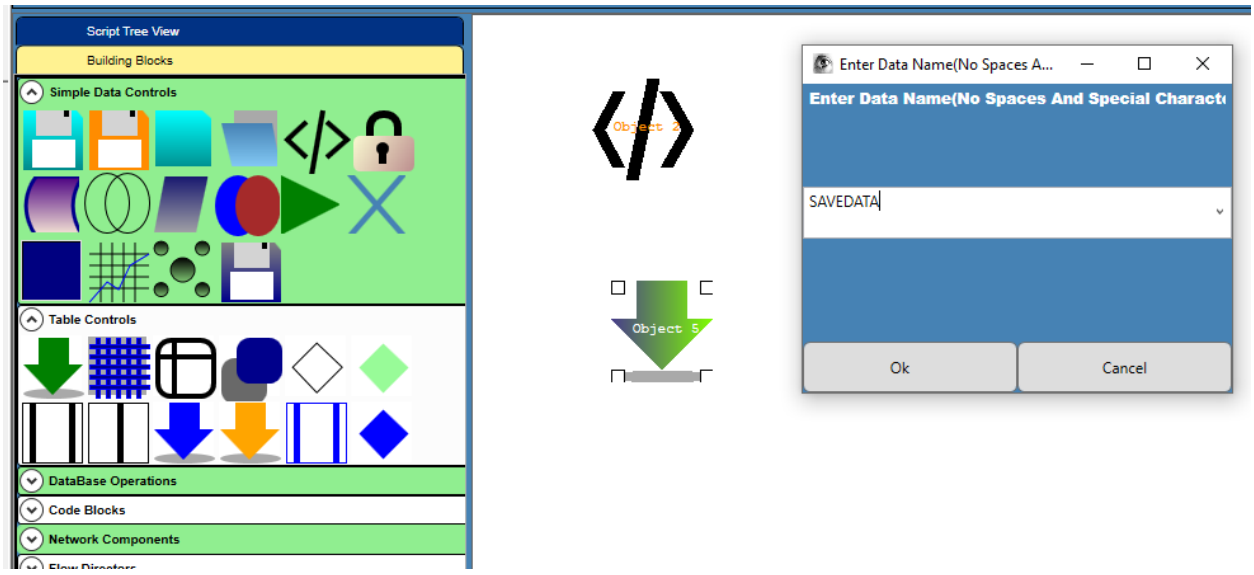

Click on the Table intended and click on **OK** button.
**OR**

Double click on the table name

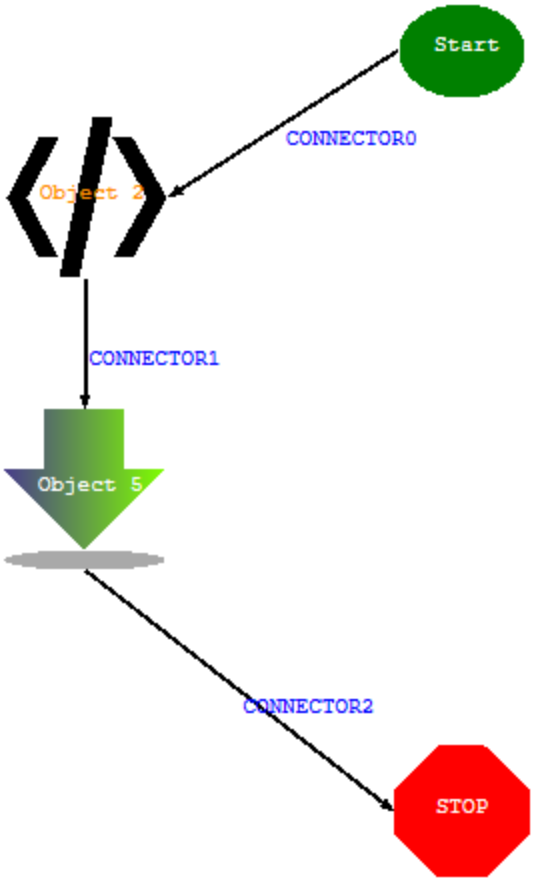



Drag the Merge component from the building blocks to the canvas.

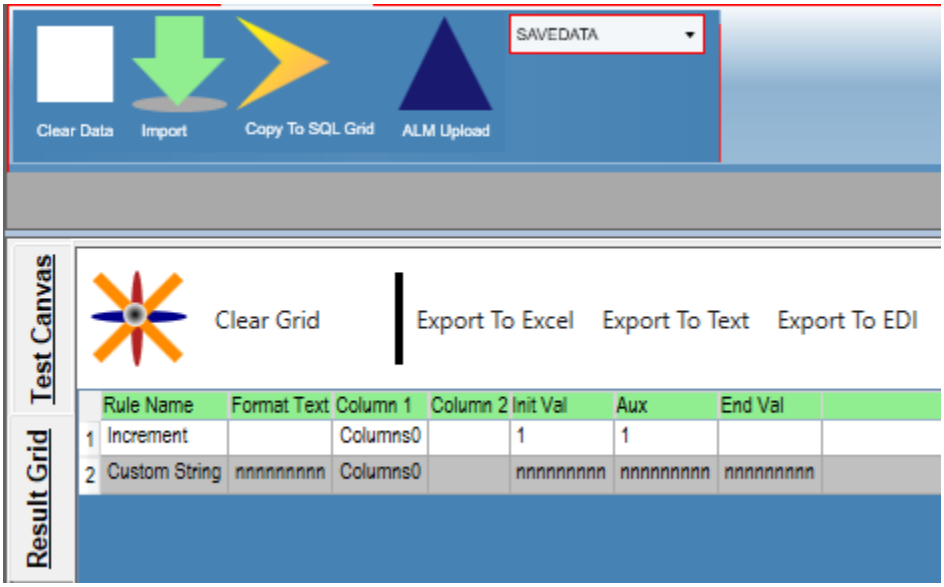
Enter Data name window will open. Enter Data Name and click on **Ok** button




Create a flow using both blocks.

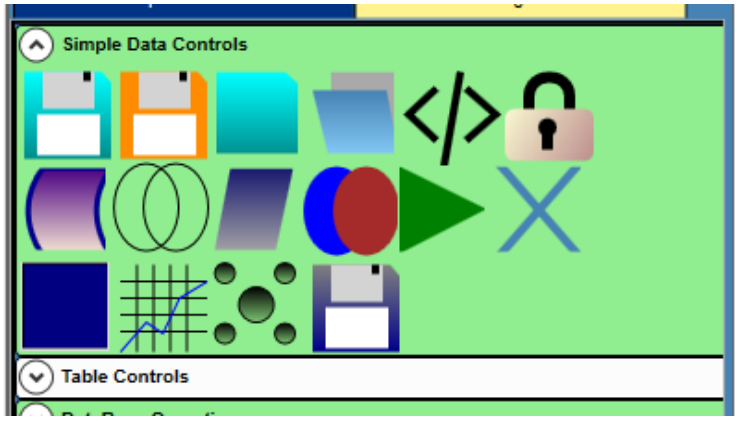



Result grid will show the data.



## Write XML:

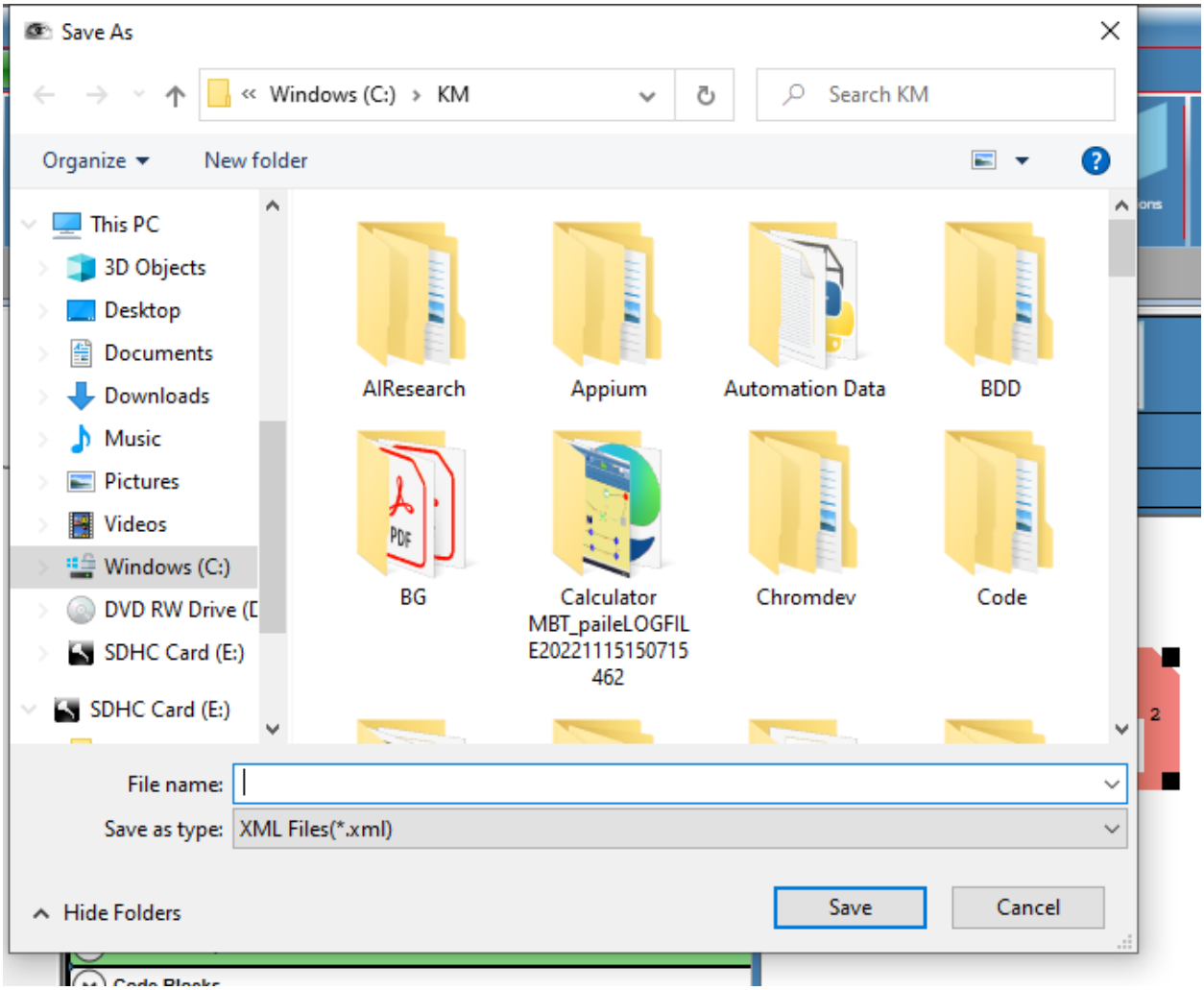
Drag the component to the canvas.





Right click on the document and click on **Add Destination XML Path** menu item.

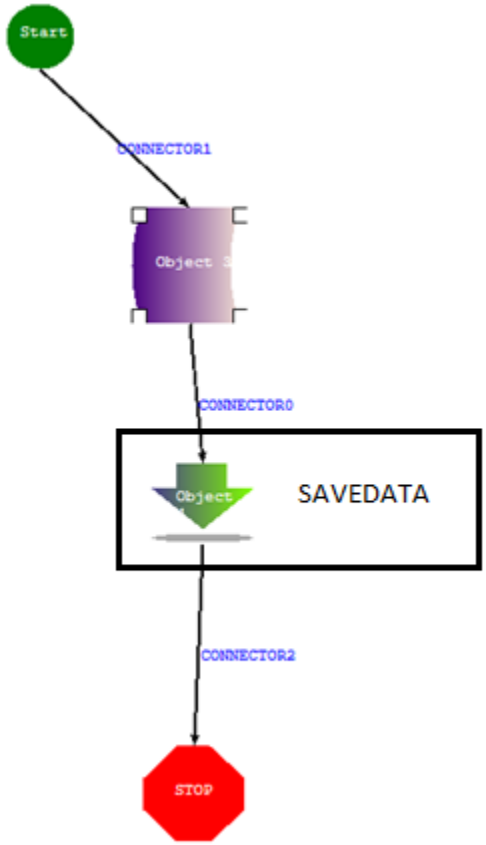
Enter file name and click on **Save** button



## Accessing the Data

This section explains the means of accessing the data which is created using any of the methods (file types) explained above.

For example, let us revisit the flow we created in Excel read block.




Merged Data will have Data table name saved as: **SAVEDATA**.

The table looks like this:

| | First Name | Last Name | Address Line 1 | City | State | Zip |
|---|---|---|---|---|---|---|
| 1 | First Name | Last Name | Addr Line | City | state | Zip |
| 2 | Ramesh | Nalem | 1234 Cypress Way | Fremont | CA | 95354 |
| 3 | Jayesh | Patel | 14608 H way | Little Elm | TX | 75068 |

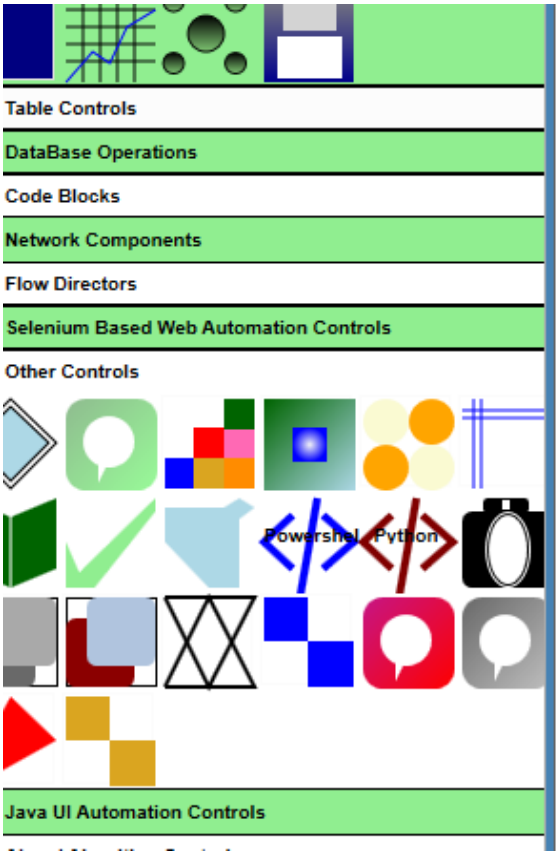
We can access any value using dynamic variables.

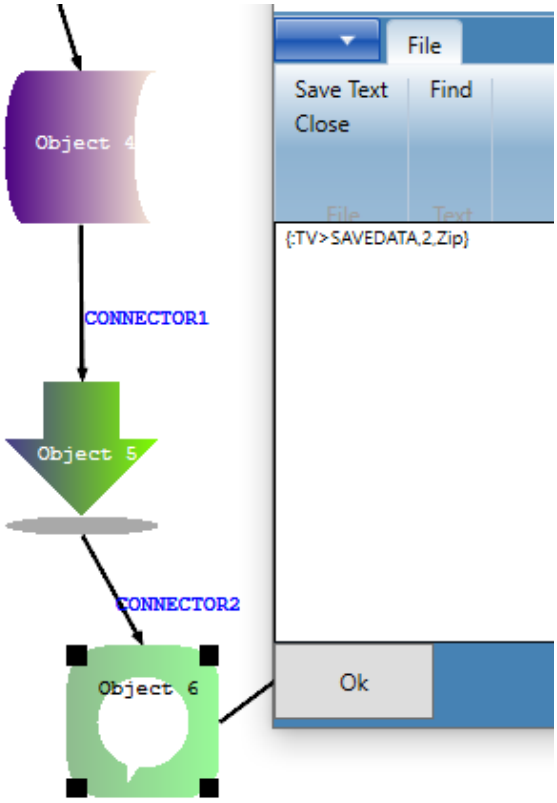
{:TV>TABLENAME,ROWNUM,COLUMNNAME}

For example, let us choose 3rd row 6th column (Zip) which is 75068

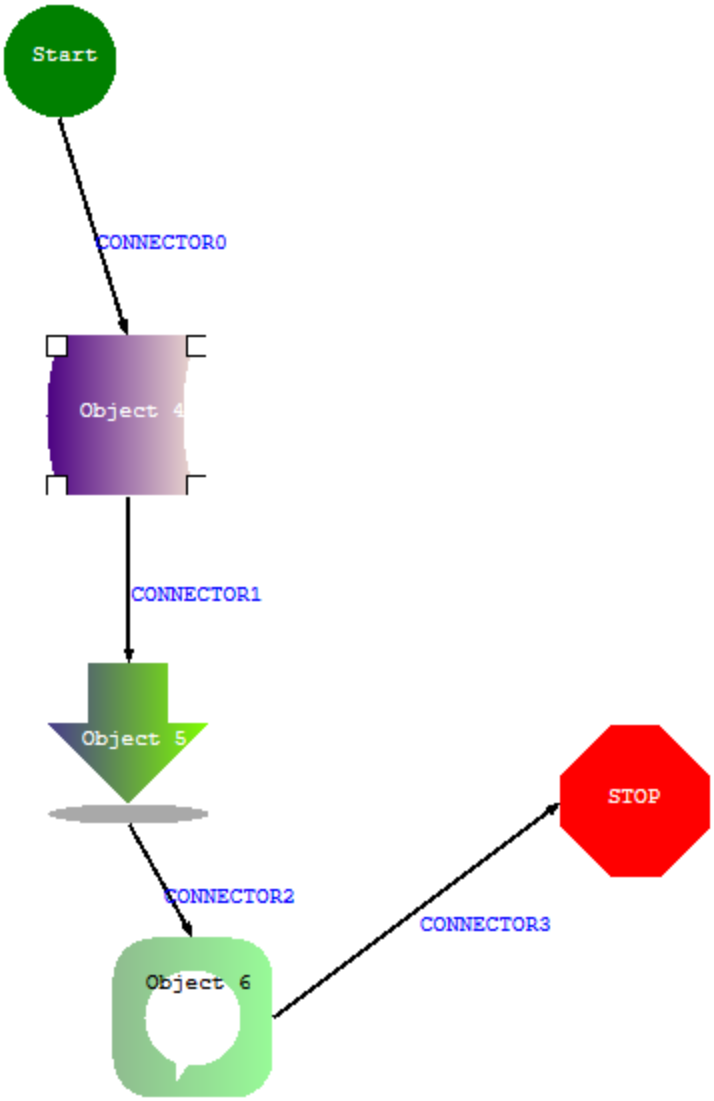
The variable description will be: {:TV>SAVEDATA,2,Zip}

Add a logmessage block and enter message to display the value:

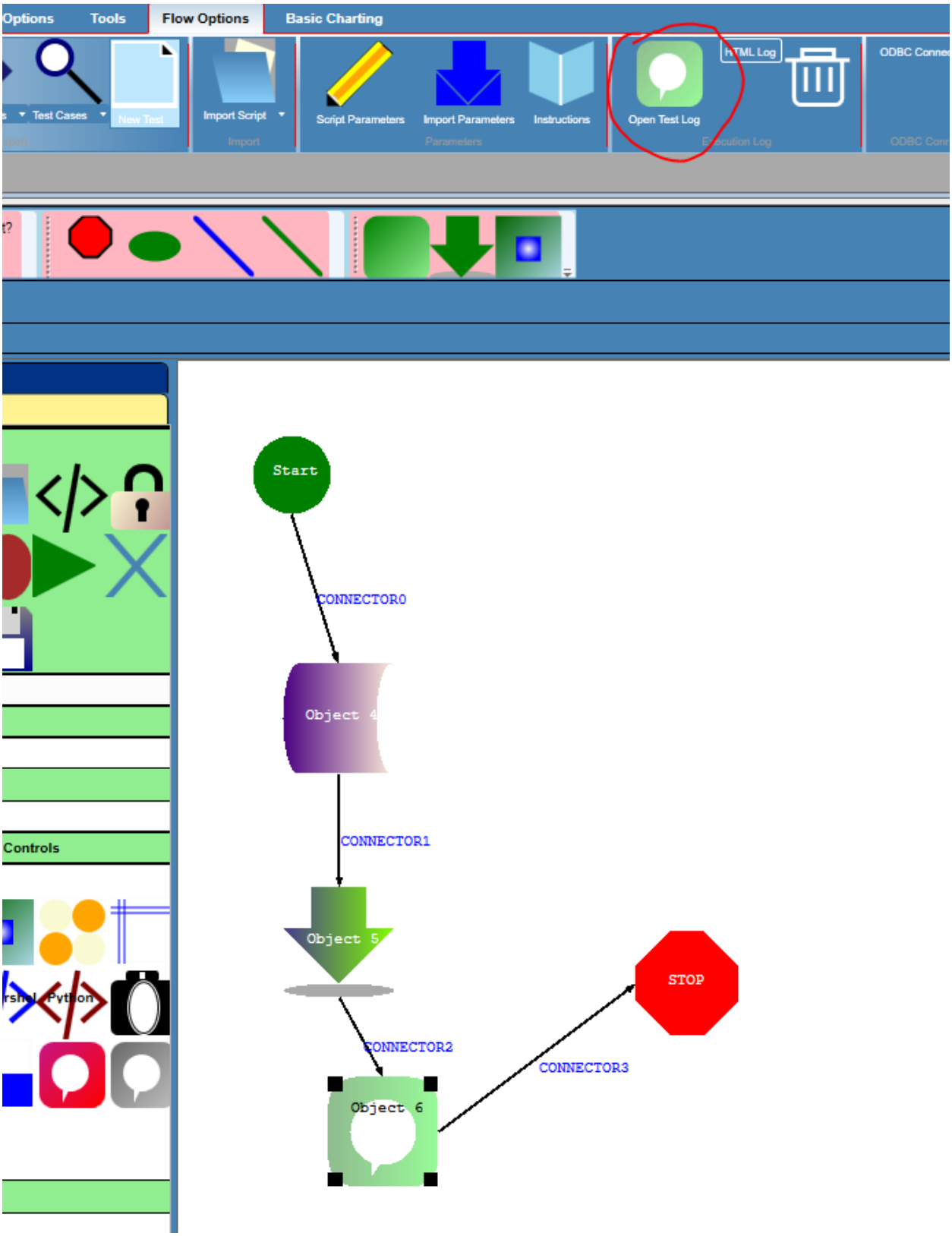


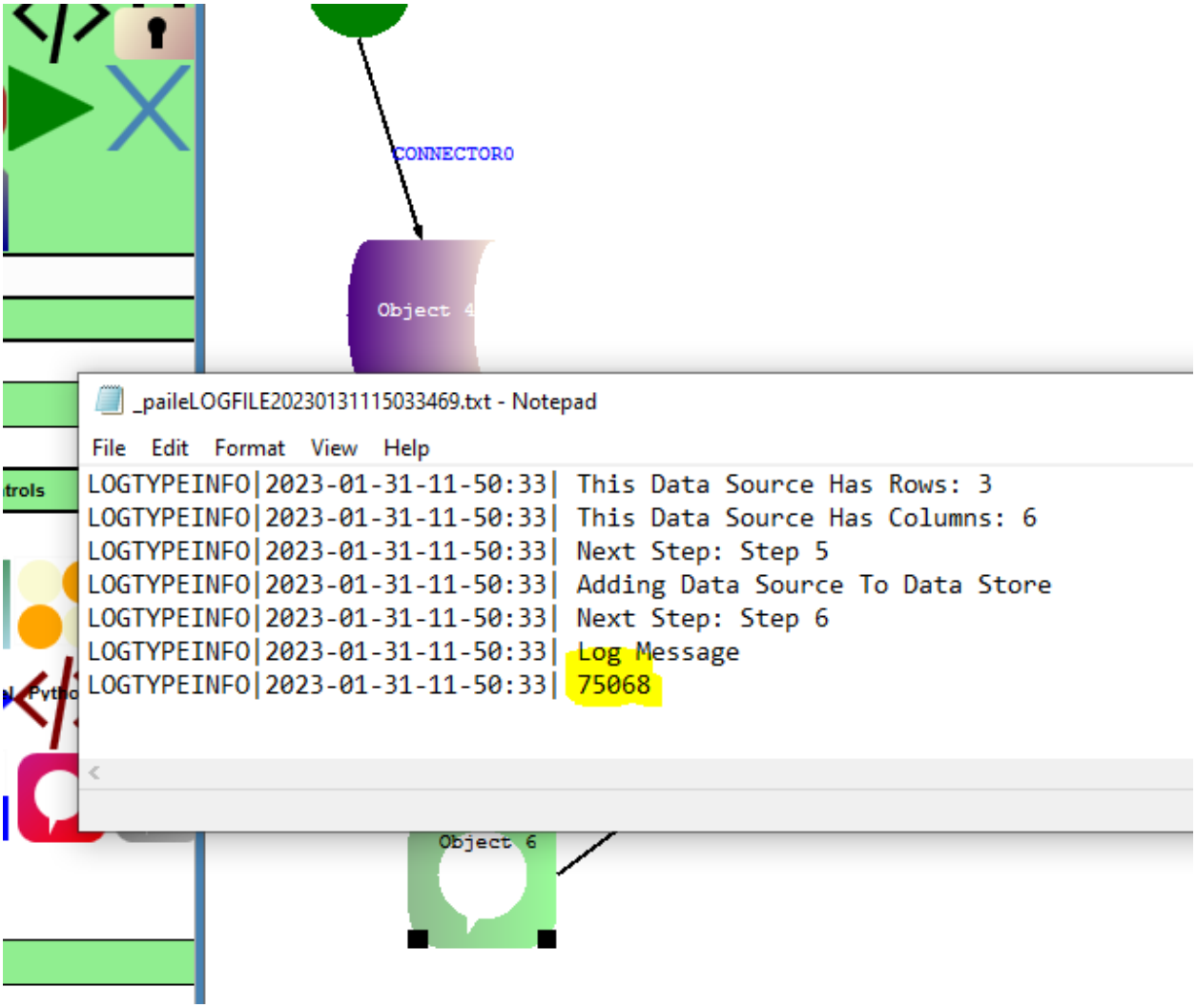

Join components and run the flow.




Once the flow completes, click on **Open Test Log** button




Log file will display the intended value:


CONNECTOR0
Object 4
_paileLOGFILE20230131115033469.txt - Notepad
File Edit Format View Help
LOGTYPEINFO|2023-01-31-11-50:33| This Data Source Has Rows: 3
LOGTYPEINFO|2023-01-31-11-50:33| This Data Source Has Columns: 6
LOGTYPEINFO|2023-01-31-11-50:33| Next Step: Step 5
LOGTYPEINFO|2023-01-31-11-50:33| Adding Data Source To Data Store
LOGTYPEINFO|2023-01-31-11-50:33| Next Step: Step 6
LOGTYPEINFO|2023-01-31-11-50:33| Log Message
LOGTYPEINFO|2023-01-31-11-50:33| 75068
Object 6