



# ibi Golden Summit

**Unleash your data's voice using Data Preparation in Designer**

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# Agenda

- Introduction to Data Tab in Designer
- Creating HOLD Files in Designer

# DATA TAB

The Data Tab is used for adding multiple data sources dynamically within Designer allowing for a more robust and detail oriented Visualization or Report





# Data Tab in Designer

The Data tab allows you to add additional masterfile sources to the data already selected when Designer is first opened. In this view **wf\_retail\_product** master file was selected upon opening Designer. Clicking the DATA tab will open the Data Canvas screen.

The screenshot shows the iBi WebFOCUS Designer interface. The top navigation bar includes the iBi logo, 'WebFOCUS | Designer', and icons for home, refresh, and help. Below this, there are two tabs: 'DATA' (highlighted with a red arrow) and 'VISUALIZATION'. The main workspace is divided into three sections:

- Left Panel:** Contains the 'wf\_retail\_product' masterfile name in a red box, a search bar, and a 'Fields' section with 'Dimensions' and 'Variables' sub-sections. Under 'Dimensions', 'Product Dimension' is expanded to show 'Brand', 'Brand Type', 'Model', 'Price Range High Low', 'Price Range Numeric', and 'Product Category'.
- Middle Panel:** Shows 'Settings' and 'Format' tabs. The 'Display' section is active, showing a list of fields to be displayed in the table: 'Product Category', 'Product Subcategory', 'Product Name', 'Product Cost', and 'Price Dollars'.
- Right Panel:** Features a 'Live data: 1000' indicator, a rich text editor with options for font (ARIAL), size (14), bold, italic, underline, and alignment, and a 'Drop a Filter or Field here' area.

Below the right panel, a table titled 'Product Cost breakdown' is displayed. The table has five columns: Product Category, Product Subcategory, Product Name, Product Cost, and Price Dollars. The data is grouped by Product Category (Accessories and Headphones).

Product Category	Product Subcategory	Product Name	Product Cost	Price Dollars
Accessories	Charger	Cycle Energy Quick with Refresh Charger	16.00	29.99
		Samsung OEM 2.0 Amp Travel Charger	23.00	50.00
		Headphones	Audio Technica ATH-W5000 Dynamic Headphones	500.00
		Denon AH-D5000 Over-Ear Headphones	490.00	699.99
		Grado RS1i Reference Series Headphones	510.00	695.00
		Pioneer HDJ1000 Pro DJ Quality Stereo Headphones	80.00	169.00
		Sony WH5500 Wireless Headphones	300.00	400.00

# Data Tab View

Full view of the Data Tab canvas with a Data Migrator Flow view



WebFOCUS | Designer

DATA VISUALIZATION

Retail Product by country

Modifying your data flow may change or delete any associated visualizations

Dimensions: wf\_retail\_product(T01) -> Select Columns

ID Product	ID Vendor	ID Available Date	ID Discontinued Date	Brand	Brand Type	Model	Price Dollars	Price Range High Low	Price Range Numeric	Product Category	Product Cost	Pro
1000	9	1	6575	JVC	Major Brand	JVC XV-BP10	159.99	A: Low	B: 101 - 300	Media Player	95.00	Work
1001	9	1	6575	JVC	Major Brand	JVC XV-BP11	189.99	A: Low	B: 101 - 300	Media Player	130.00	Regio
1002	9	1	6575	JVC	Major Brand	JVC XV-BP1	279.99	B: Medium	B: 101 - 300	Media Player	190.00	Work
1003	15	1	6575	Panasonic	Major Brand	Panasonic DMP-BD60	279.99	B: Medium	B: 101 - 300	Media Player	220.00	Regio
1004	23	1	6575	Sharp	Major Brand	Sharp BD-HP24U	179.99	A: Low	B: 101 - 300	Media Player	87.00	Plays
1005	17	1	6575	Pioneer	Major Brand	Pioneer BDP-120	299.99	B: Medium	B: 101 - 300	Media Player	205.00	Multi
1006	20	1	6575	Samsung	Major Brand	Samsung BD-P1600	349.99	B: Medium	C: 301 - 500	Media Player	245.00	Regio
1007	15	1	6575	Panasonic	Major Brand	Panasonic DMP-BD30	389.99	B: Medium	C: 301 - 500	Media Player	310.00	Regio
1008	24	1	6575	Sony	Major Brand	Sony BDP-S360	369.99	B: Medium	C: 301 - 500	Media Player	275.00	Regio
1009	20	1	6575	Samsung	Major Brand	Samsung BD-CS500	399.99	B: Medium	C: 301 - 500	Media Player	320.00	Regio

# Data Tab Canvas



The Data Tab Canvas default view shows the selected masterfile view. Here you can add new data to the existing master file, apply functions, adjust fields and overall control the data used for your Visualization.

The screenshot displays the WebFOCUS Designer interface. At the top, the title bar reads "WebFOCUS® | Designer" and includes navigation icons. The interface is divided into two main tabs: "DATA" and "VISUALIZATION", with "DATA" currently selected. Below the tabs, a notification bar states: "Modifying your data flow may change or delete any associated visualizations".

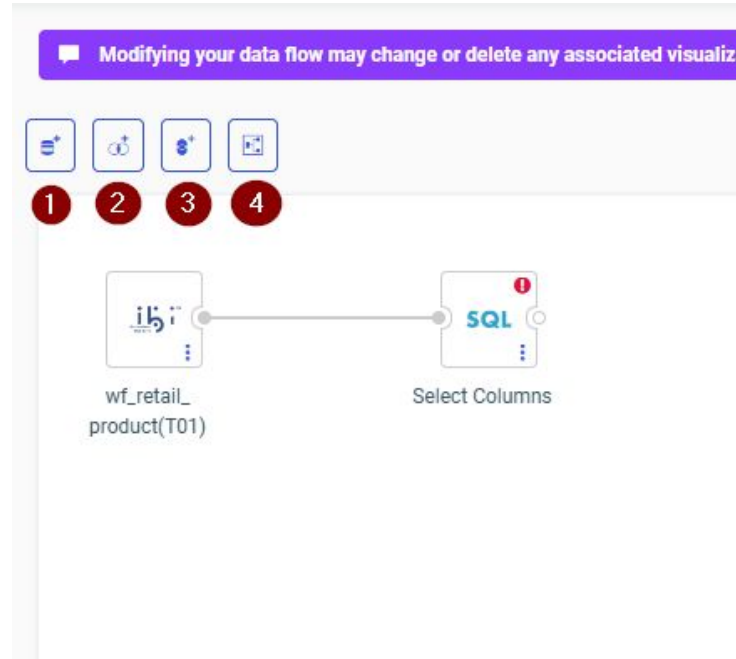
The left sidebar contains a "Data" section with a search filter and a list of data sources, including "date\_test\_wf". Below this is a "Functions" section with a list of functions such as "ed\_type\_lookup", "wf\_retail\_age", "wf\_retail\_currency", "wf\_retail\_customer", "wf\_retail\_customer\_missingdata", "wf\_retail\_customer\_ss1", and "wf retail customer ss2".

The main workspace shows a data flow diagram. It starts with a data source box labeled "wf\_retail\_product(T01)" and connects to a transformation box labeled "SQL" with the text "Select Columns" below it. Above the diagram, there are four icons for data flow operations: a plus sign, a refresh symbol, a minus sign, and a document icon.

# Data Access, Join, Union and CTE buttons



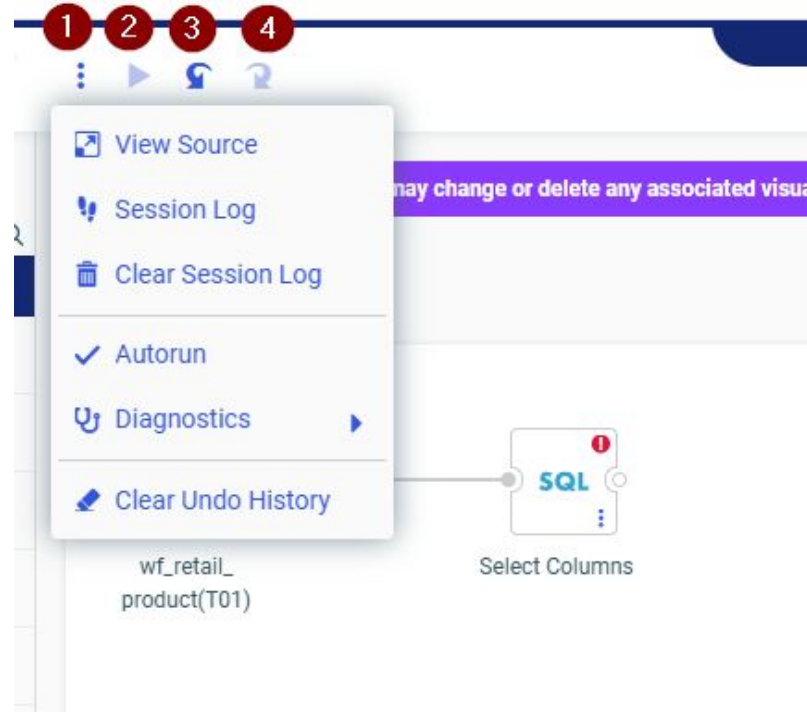
1. Get Data - opens the Get Data screen showing all available Data Adapters that are configured or are available for configuration.
2. Insert Join - opens MFD selection tool and displays JOIN candidates with a confidence score for the join.
3. Insert Union - same screen type and information as the Insert JOIN with candidate confidence but for unions.
4. Create a CTE (Common Table Expression) which opens a similar Data Tab canvas with MFD selections for creation of the CTE



# Data Tab data diagnostics options



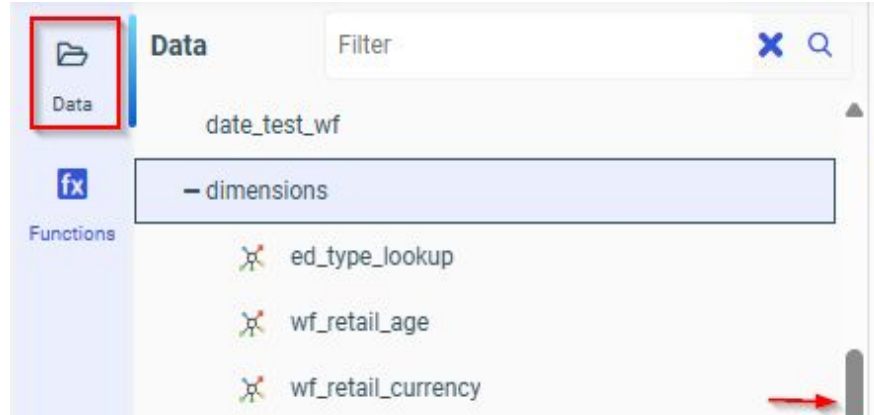
1. Ellipse - Provides options to View Source - shows source code generated by tool.  
Session log - shows session information including code and results of anything that has run  
Clear Session log - clears out existing session  
Autorun - Set/Unsets automatic display of sample data  
Diagnostics - shows APP command override of APP PATH and code  
Clear the Undo History
2. Run/Play - runs code
- 3 & 4 - Undo - Redo



# Data and Functions buttons

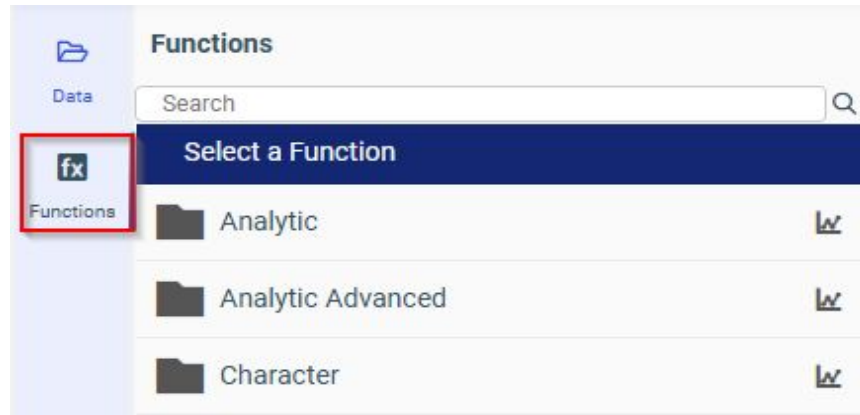


**Data Folder** - The data folder icon when pressed will initially display all the master files in the current APP folder of the initial master file selected. Use the Gray scroll bar (red arrow) to navigate through complete APP folder tree view to select any additional master files



**Functions button** - The functions button displays folders of functions grouped by type.

Click to expand the folders to view and use the function.



# Data Tab Canvas options



**Flow View** - current Data Tab canvas view showing MFD, JOIN and SQL objects.

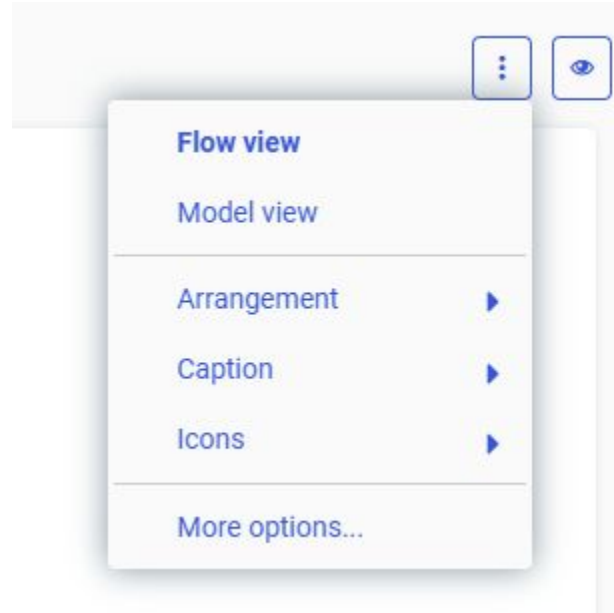
**Model View** - shows master files objects with fields only with links to other master files if JOINS are present. No other objects

**Arrangement** - lists different view choices for objects on the canvas. Selections differ between Flow view or Model view.

**Caption** - Switches between Masterfile name and SQL tag such as T01. (Flow view only)

**Icons** - Changes the MFD object icon sizes. (Flow view only)

**More options...** - opens screen for Advanced options for the canvas



# Adding Data in the Canvas



You can add new data by dragging a new master file from the left side tree onto the canvas. When the master file is released, it will be added to the canvas and automatically JOINed to the existing master file if there are common fields.

The screenshot shows the WebFOCUS Designer interface. At the top, there's a navigation bar with a hamburger menu, the text 'WebFOCUS® | Designer', and some icons. Below this, there are two tabs: 'DATA' and 'VISUALIZATION'. The 'DATA' tab is active, and the text 'Visualization 1' is visible below it. A purple banner at the top of the canvas area reads 'Modifying your data flow may change or delete any associated visualizations'. Below the banner, there are four icons: a list icon, a refresh icon, a plus icon, and a square icon. The main canvas area shows a data flow diagram with two nodes: 'wf\_retail\_product(T01)' and 'Select Columns'. A red arrow points from the 'wf\_retail\_vendor' item in the left-hand 'Data' list to the canvas area. The 'Data' list on the left includes items like 'wf\_retail\_marital\_status', 'wf\_retail\_occupation', 'wf\_retail\_product', 'wf\_retail\_shipping\_options', 'wf\_retail\_store', 'wf\_retail\_time', 'wf\_retail\_time\_lite', and 'wf\_retail\_vendor'. A '+ dm' button is at the bottom of the list.

# Data Tab Model View



**Model View** - showing master files objects and layout with JOIN connections and fields.

The screenshot shows a software interface for a data model. At the top, there are three icons: a table, a join, and a refresh. Below them, two table objects are shown:

- Product Dimension (...)**: Contains fields `ID Pr...` (with a key icon), `ID Ve...` (with a key icon), and `ID Ava...` (with a key icon).
- Vendor Dimension (...)**: Contains fields `ID Vendor` (with a key icon), `ID Geogr...` (with a key icon), and `Vendor ...` (with a key icon).

A grey arrow points from the `ID Ve...` field in the Product Dimension table to the `ID Vendor` field in the Vendor Dimension table, indicating a join relationship.

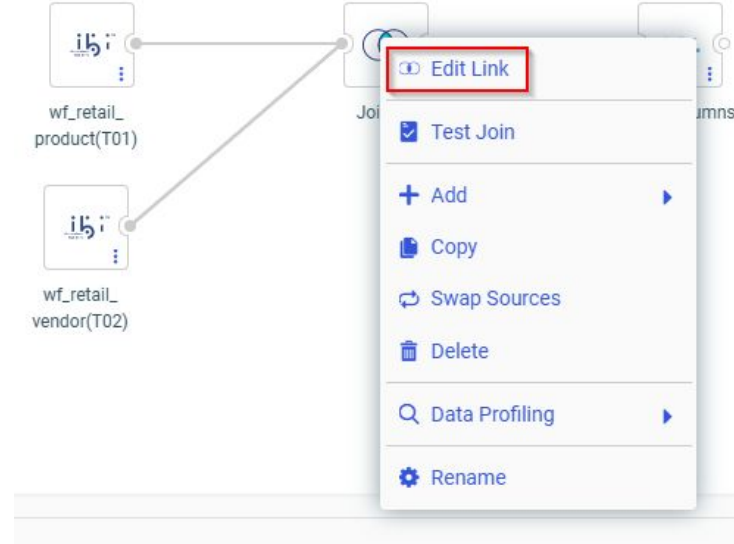
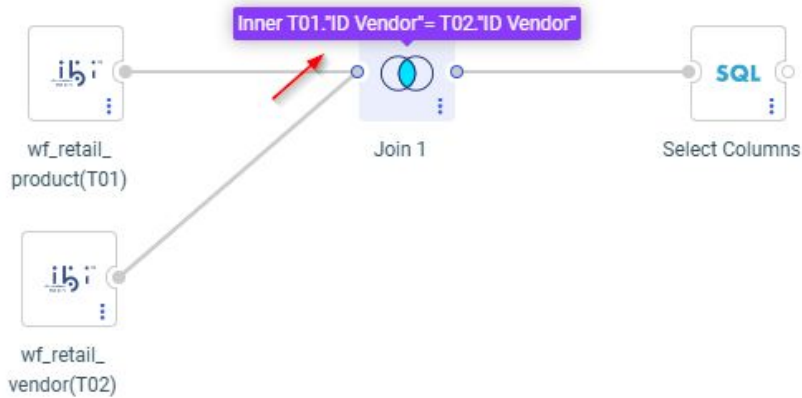
Below the model view, a table displays data with the following columns and values:

ID Product	ID Vendor	ID Available Date	ID Discontinued Date
1000	9	1	6575
1001	9	1	6575

# Joined Data



The new master **wf\_retail\_vendor**, will be JOINed automatically based on the first common field. In this example its the ID field found in both master files. Hovering the mouse will show the join information. Select the SQL object, right click and select the Edit Link to customize the JOIN details if it needed.



# JOIN Details (Configurator and Profiler)



Editing the JOIN Object will display more details such as the type **1** of JOIN, fields used for the join **2** how many records match **3** and the record count per match **4**. Here the JOIN can be changed as needed.

The screenshot shows the 'WebFOCUS | Designer' interface. The main window is titled 'Edit Join from wf\_retail\_product (T01) to wf\_retail\_vendor (T02)'. It is divided into two tabs: 'Sample Data' and 'Join Profiler'. The 'Join Profiler' tab is active, showing a bar chart and a data table.

**Join Configuration (Left Panel):**

- Join Type (1):** A dropdown menu with options: Inner (selected), Left Outer, Right Outer, and Full Outer.
- Join Clauses (2):** A configuration area showing the join condition: wf\_retail\_product (T01) ID Vendor = wf\_retail\_vendor (T02) ID Vendor.

**Join Profiler (Right Panel):**

- Bar Chart:** Shows three bars representing 'Excluded' (0), 'Included' (159), and 'Result' (159).
- Data Table (4):** A table with columns: ID\_VENDOR, Count, Left, and Right. It lists 30 records with their respective counts and match status.
- Summary Table (3):** A table showing the counts for each series: Excluded (0), Included (159), and Result (159).

ID_VENDOR	Count	Left	Right
24	37	✓	✓
20	16	✓	✓
15	14	✓	✓
10	13	✓	✓
9	9	✓	✓
17	7	✓	✓
3	5	✓	✓
16	5	✓	✓
21	5	✓	✓
14	4	✓	✓
23	4	✓	✓
28	4	✓	✓
29	4	✓	✓
30	4	✓	✓
4	3	✓	✓
22	3	✓	✓
26	3	✓	✓
2	2	✓	✓

Series	Left	Right	Result
Excluded	0	0	
Included	159	30	
Result			159

# Data Tab View

Final view of the Data Tab canvas with additional data



WebFOCUS Designer | Designer

DATA VISUALIZATION

Retail Product By country

Modifying your data flow may change or delete any associated visualizations

Filter

ID	ID Product	#	ID Vendor	#	ID Available Date	#	ID Discontinued Date	Brand	Brand Type	Model	Price Dollars	Price Range High Low	Price Range Numeric	Product Category	Product Cost	Pr	Det
	1000		9		1		6575	JVC	Major Brand	JVC XV-BP10	159.99	A: Low	B: 101 - 300	Media Player	95.00	Work	
	1001		9		1		6575	JVC	Major Brand	JVC XV-BP11	189.99	A: Low	B: 101 - 300	Media Player	130.00	Regio	
	1002		9		1		6575	JVC	Major Brand	JVC XV-BP1	279.99	B: Medium	B: 101 - 300	Media Player	190.00	Work	
	1003		15		1		6575	Panasonic	Major Brand	Panasonic DMP-BD60	279.99	B: Medium	B: 101 - 300	Media Player	220.00	Regio	
	1004		23		1		6575	Sharp	Major Brand	Sharp BD-HP24U	179.99	A: Low	B: 101 - 300	Media Player	87.00	Plays	
	1005		17		1		6575	Pioneer	Major Brand	Pioneer BDP-120	299.99	B: Medium	B: 101 - 300	Media Player	205.00	Multi	
	1006		20		1		6575	Samsung	Major Brand	Samsung BD-P1600	349.99	B: Medium	C: 301 - 500	Media Player	245.00	Regio	
	1007		15		1		6575	Panasonic	Major Brand	Panasonic DMP-BD30	389.99	B: Medium	C: 301 - 500	Media Player	310.00	Regio	
	1008		24		1		6575	Sony	Major Brand	Sony RDP-S360	360.00	R: Medium	C: 301 - 500	Media Player	275.00	Regio	

# Visualization Change

When returning back to the Visualization screen, the field tree on the left will now show the new available fields from the Vendor data for adding to the developing Visualization.

The screenshot displays the iBI WebFOCUS Designer interface. The top navigation bar includes the iBI logo, the text "WebFOCUS | Designer", and several utility icons. The main workspace is divided into three vertical sections:

- Left Panel (Field Tree):** Contains a search bar and two tabs: "Fields" and "Variables". Under "Fields", there are two sections: "Dimensions" and "Measures". The "Vendor Dimension" folder is highlighted with a red box in both sections. The "Dimensions" list includes: Brand Type, Model, Price Range High Low, Price Range Numeric, Product Category, Product Description, Product Name, Product Subcategory, and Product Weight Units. The "Measures" list includes: Product Dimension, ID Product, ID Vendor, ID Available Date, ID Discontinued Date, Price Dollars, Product Cost, Product Weight, and another "Vendor Dimension" folder, also highlighted with a red box.
- Right Panel (Settings):** Contains tabs for "Settings" and "Format". The "Display" section includes a summary icon, a "Rows" section with "Product Category", "Product Subcategory", "Product Name", and "Product Cost", and "Column Groups" and "Summaries" sections, each with a "Drop field" prompt. The "Filters" section includes a "Filters" section with a "Drop field" prompt. Below this is a "+ Add Parameter Field List" button and a "Content Settings" section with options for "Enable heading", "Enable footing", "Enable column totals", "Recalculate totals", "Show totals above detail", and "Enable row totals". An "Edit Data Format" button is at the bottom.



# HOLDing Files in Designer

Designer can dynamically hold data during report development on a temporarily or permanent basis.



# Staging Data

The Data Tab Canvas shows the Data, the JOIN(s) and SQL object.

Right clicking on the SQL object shows actions that can be applied to the data.

**Create Session Extract** option holds the data temporarily in foccache.

**Stage Permanent Extract (Target)** option is used to configure the hold data permanently.

The screenshot shows a data flow diagram in the Data Tab Canvas. It features four data objects: wf\_retail\_customer(T01), wf\_retail\_income(T03), wf\_retail\_age(T02), and an SQL object. The flow is: wf\_retail\_customer(T01) and wf\_retail\_income(T03) join at 'Join 1'. wf\_retail\_age(T02) joins 'Join 1' at 'Join 2'. The output of 'Join 2' goes to the SQL object. A context menu is open over the SQL object, showing options: Edit, Properties, SQL Statement, Data Profiling, Test, Flow, Add, Copy, Create Session Extract, and Stage Permanent Extract (Target). Below the diagram is a table with 8 rows of customer data.

ID	Customer	Full Name	Email Address	Customer Income Range
1	Joshua Hines	JoshuaHines6961@jourrapide.com	B: \$25,000 TO \$49,999	
2	Sandra Arzola	SandraArzola857@armyspy.com	B: \$25,000 TO \$49,999	
3	Rebecca Smith	RebeccaSmith9698@einrot.com	D: \$75,000 TO \$99,999	
4	John Nichols	JohnNichols8606@superrito.com	B: \$25,000 TO \$49,999	
5	Hector Briganti	HectorBriganti513@armyspy.com	.	
6	Teresa McKinney	TeresaMcKinney659@armyspy.com	.	
7	Charles Townsend	CharlesTownsend3338@armyspy.com	E: \$100,000 OR MORE	
8	Frank Hetrick	FrankHetrick3263@gustr.com	C: \$50,000 TO \$74,999	



# Data Options

Among items that can be changed are

**Name** - name of the master file

**Location** - location of where the master file can be placed on the Reporting Server. This can be foccache for temporary data.

**Type** - this can be any available adapter that is configured on the Reporting Server or Hold format. The items/options under the Type will change depending on the selection, i.e. flat ftm file vs database table.

WebFOCUS | Designer

DATA VISUALIZATION

Visualization 1

Modifying your data flow may change or delete any associated visualizations

Stage Permanent Extract

After staging, you must still run the flow or visualization to complete saving this extract

Name: wf\_retail\_customer\_extract

Location: ~admin

Type: DATREC - fast binary

Data File Location: ~admin

Data File: wf\_retail\_customer\_extract.ftm

ID Customer	Full Name	Em Adr	
1	Joshua Hines	Jos	
2	Sandra Arzoia	Sar	
3	Rebecca Smith	Ret	
4	John Nichols	Job	
5	Hector Briganti	Hec	
6	Teresa McKinney	Ter	
7	Charles Townsend	CharlesTownsend3338@armyspy.com	E: \$100,000 OR MORE



# Hold Data Creation



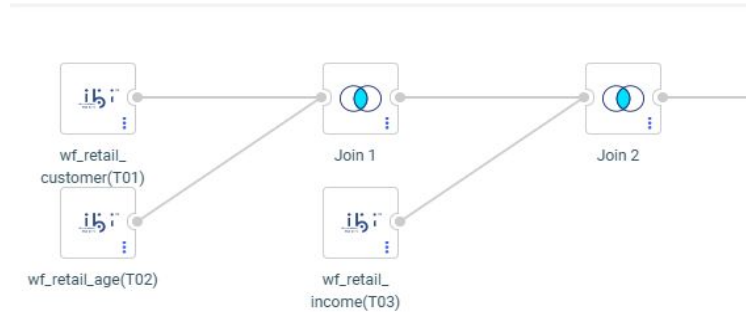
Once the name, data type and all other details of the HOLD file are finalized, the Flow structure must be run to create the HOLD file. Hovering over the red icon inside the Target object will display this message as both a warning and instructions. Pressing the play icon will run the Flow.

The screenshot shows the WebFOCUS Designer interface. On the left is a sidebar with a 'Data' section containing a filter and a '+ date\_test\_wf' entry, and a 'Functions' section listing various data fields like 'ed\_type\_lookup', 'wf\_retail\_age', etc. The main workspace displays a data flow diagram with nodes: 'wf\_retail\_customer(T01)', 'wf\_retail\_age(T02)', 'wf\_retail\_income(T03)', 'Join 1', 'Join 2', 'Select Columns', and 'wf\_retail\_customer\_extract'. A red arrow points from a play button in the top toolbar to a red warning icon on the 'wf\_retail\_customer\_extract' node. A red-bordered box highlights a message: 'Changes have been made to the flow. Run the flow or visualization to create the extract.' Above the diagram, a purple banner reads 'Modifying your data flow may change or delete any associated visualizations'. The top of the interface has tabs for 'DATA' and 'VISUALIZATION', and the text 'Visualization 1' is visible.

# Hold file output

Once the Flow is run, the output will display below with either a success or any error messages that may appear.

**Note:** for existing visualizations that are changed to use a HOLD file, the Visualization will change and it will be blanked out.



```
(ICM18122) Request - foccache/ibi_webconsole_middletierfexinfo_fm mid_7 (Owner: admin) submitted.  
(ICM18741) ~admin/wf_retail_customer_extract01 type DATREC New target  
(ICM18743) Starting Load  
_EDATEMP/sqlhid01 HELD AS DATREC FILE  
1  
0 NUMBER OF RECORDS IN TABLE= 87 LINES= 87  
0  
_EDATEMP/sqlhid02 HELD AS DATREC FILE  
1  
0 NUMBER OF RECORDS IN TABLE= 44 LINES= 44  
0  
~ADMIN/wf_retail_customer_extract01 HELD AS DATREC FILE  
1  
0 NUMBER OF RECORDS IN TABLE= 378498 LINES= 378498  
0  
(ICM18744) Ending Load  
(ICM18440) Request will process data via NON-Pass Through (NON-APT)  
(ICM18040) Return Code = 0  
(ICM18076) Request: foccache/ibi_webconsole_middletierfexinfo_fm mid_7 - finished processing  
(ICM18007) CPU Time : 6156
```



# Prepare/Extract Data



The ability to create the HOLD files or add additional JOIN Data can be done prior to opening the Visualization screen by clicking the Prepare/Extract Data button. It then will open the master file picking screen and open directly into the Data Tab Canvas.

The screenshot shows a 'Select Data Source' dialog box. At the top, there is a workspace selector set to 'My Workspace'. Below that, a breadcrumb path reads 'EDASERVE / wf\_retail / dimensions'. A table lists various data sources with columns for Type, Name, Title, and Folder. The 'wf\_retail\_customer.mas' row is highlighted. At the bottom right, there are three buttons: 'Cancel', 'Prepare/Extract Data' (which is highlighted with a red box), and 'Create Visualization'.

Type	Name	Title	Folder
	wf_retail_age.mas	Age	wf_retail
	wf_retail_currency.mas	Currency	wf_retail
	wf_retail_customer.mas	Customer	wf_retail
	wf_retail_customer_missingdata...	Customer (Missing Data)	wf_retail
	wf_retail_customer_ss1.mas	Customer Union Subset 1	wf_retail
	wf_retail_customer_ss2.mas	Customer Union Subset 2	wf_retail
	wf_retail_discount.mas	Discount	wf_retail
	wf_retail_education.mas	Education	wf_retail
	wf_retail_education_missingrecs....	Education	wf_retail
	ed_type_lookup.mas	Education Type Lookup	wf_retail
	wf_retail_employee.mas	Employee	wf_retail



# Data Tab Canvas

Data Tab Canvas ready for data work.

The screenshot displays the iBI WebFOCUS Designer interface. At the top, the title bar reads "iBI WebFOCUS | Designer" and includes navigation icons. On the right side of the title bar, there are two tabs: "DATA" (which is active) and "VISUALIZATION". Below the title bar, a purple notification banner states: "Modifying your data flow may change or delete any associated visualizations".

The main workspace is divided into two panels. The left panel, titled "Data", contains a search bar labeled "Filter" and a list of data sources and functions. Under the "Data" section, there is a "+ date\_test\_wf" item. Under the "Functions" section, there is a "- dimensions" section which is currently expanded, showing a list of functions: "ed\_type\_lookup", "wf\_retail\_age", "wf\_retail\_currency", "wf\_retail\_customer", "wf\_retail\_customer\_missingdata", and "wf\_retail\_customer\_ss1".

The right panel shows a data flow diagram. It consists of two nodes connected by a horizontal line. The left node is labeled "wf\_retail\_customer(T01)" and has the iBI logo on it. The right node is labeled "Select Columns" and has "SQL" written on it. Above the diagram, there are four icons: a cube, a refresh symbol, a plus sign, and a document icon.