

LAUNCH ALTAIR MONARCH COMPLETE

Monarch Complete provides two entry points for working with data:

- **Monarch Data Prep Studio** provides a fast and easy way to clean and prepare your data. It includes more than 80 pre-built functions designed specifically for data preparation. It even allows easy report discovery via automatic parsing and data extraction.
- **Monarch Classic** includes the full range of functionalities found in previous versions of Monarch, such as the capability to define advanced data extraction templates, table summaries, and advanced redaction.

To run Altair Monarch Data Prep Studio, go to **Start > All Programs > Altair Monarch 2022 > Monarch Data Prep Studio 2022**. The application displays the *Start Page*, with the Getting Started video automatically running.

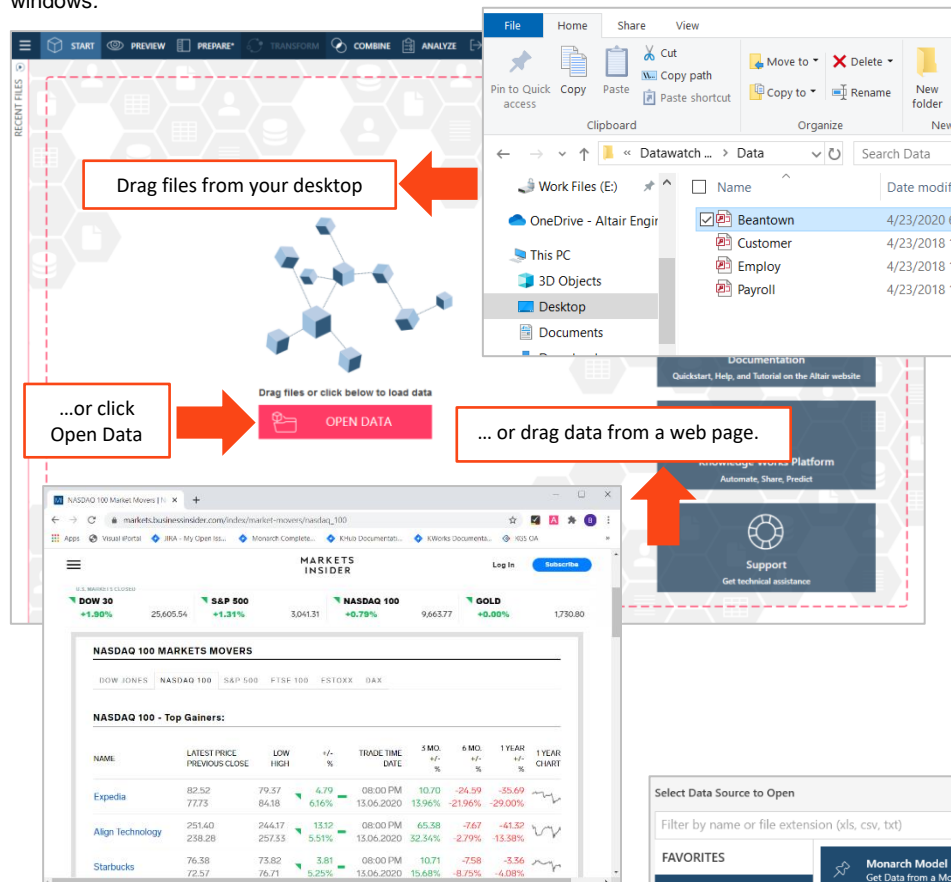
To run Altair Monarch Classic, go to **Start > All Programs > Altair Monarch 2022 > Monarch Classic 2022**.

NOTE: Starting Monarch Complete usually brings you to Data Prep Studio. However, you can switch from one or the other at any time.

WORKING WITH DATA PREP STUDIO

1 ACQUIRE DATA

Click the **Open Data** button to select a file or connect to a data source. You can also load your data directly by dragging and dropping files into the *Start*, *Preview*, *Prepare*, or *Combine* windows.



The screenshot shows the Altair Monarch Data Prep Studio interface. A red box highlights the 'Open Data' button in the bottom left corner. A red arrow points from the 'Open Data' button to a file explorer window. The file explorer window shows a list of files, including 'Beantown', 'Customer', 'Employ', and 'Payroll'. A red box highlights the 'Beantown' file. A red arrow points from the 'Beantown' file to the 'Open Data' button. A red box highlights the 'Drag files from your desktop' text. A red arrow points from the 'Drag files from your desktop' text to the 'Open Data' button. A red box highlights the '...or click Open Data' text. A red arrow points from the '...or click Open Data' text to the 'Open Data' button. A red box highlights the '... or drag data from a web page.' text. A red arrow points from the '... or drag data from a web page.' text to the 'Open Data' button. A red box highlights the 'Drag files or click below to load data' text. A red arrow points from the 'Drag files or click below to load data' text to the 'Open Data' button.

Altair Monarch Data Prep Studio was designed for ordinary people to do extraordinary things with data. After simply dropping a file onto the prep canvas, your data become instantly available in the form of rows and columns.

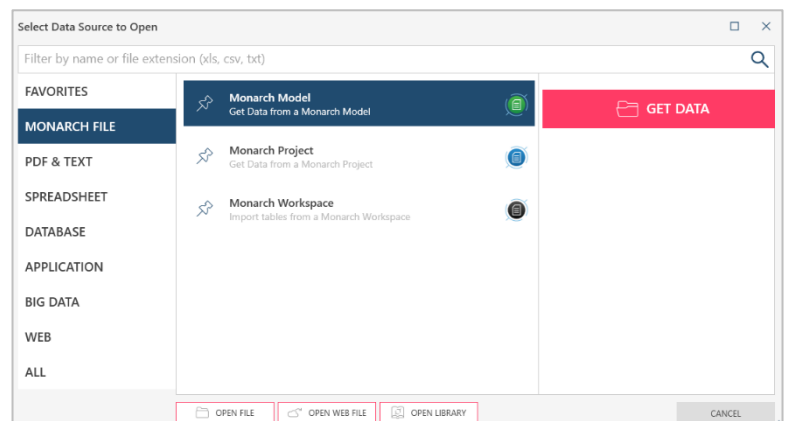
READ MORE

- [Adding Data](#)
- [Working with Data Sources](#)
- [Working with Recent Data Sources](#)

SPECIAL DATA SOURCE? NO PROBLEM.

Altair Data Prep Studio allows you to access almost all types of data, including databases, spreadsheets, and even multi-structured data trapped in existing report files, PDFs, web pages, log files, and much more.

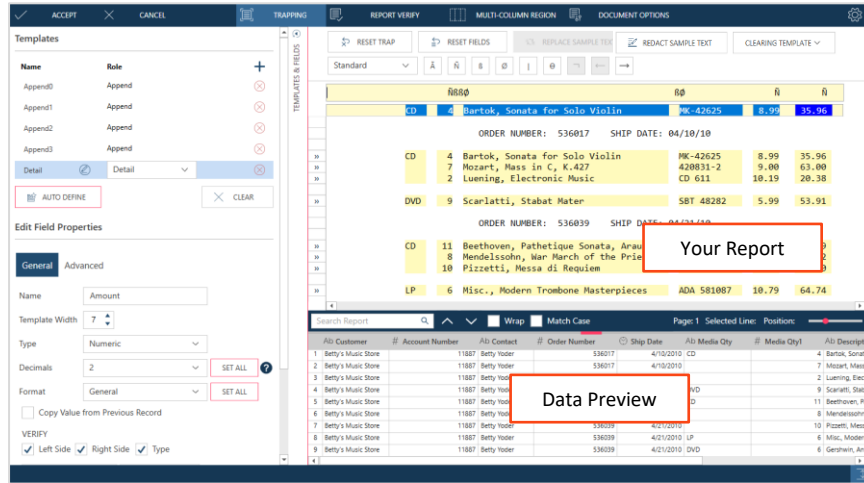
Use any out-of-the-box connectivity tools to connect to all major relational databases, Hadoop, NOSQL, Salesforce, and more.



The screenshot shows the 'Select Data Source to Open' dialog box. It has a search bar at the top. Below the search bar, there are several categories: FAVORITES, MONARCH FILE, PDF & TEXT, SPREADSHEET, DATABASE, APPLICATION, BIG DATA, WEB, and ALL. The 'MONARCH FILE' category is selected. Under 'MONARCH FILE', there are three options: 'Monarch Model' (Get Data from a Monarch Model), 'Monarch Project' (Get Data from a Monarch Project), and 'Monarch Workspace' (Import tables from a Monarch Workspace). A red box highlights the 'GET DATA' button. At the bottom, there are three buttons: 'OPEN FILE', 'OPEN WEB FILE', and 'OPEN LIBRARY'. A 'CANCEL' button is also present.

IS YOUR SOURCE IS A PDF OR PRN DOCUMENT? CREATE A MODEL FOR IT.

If your source is a document or report (e.g., PDF or PRN), you are brought to the Report Design window. Click the **Auto Define** button to automatically identify the columns and rows of your data source and build a table.

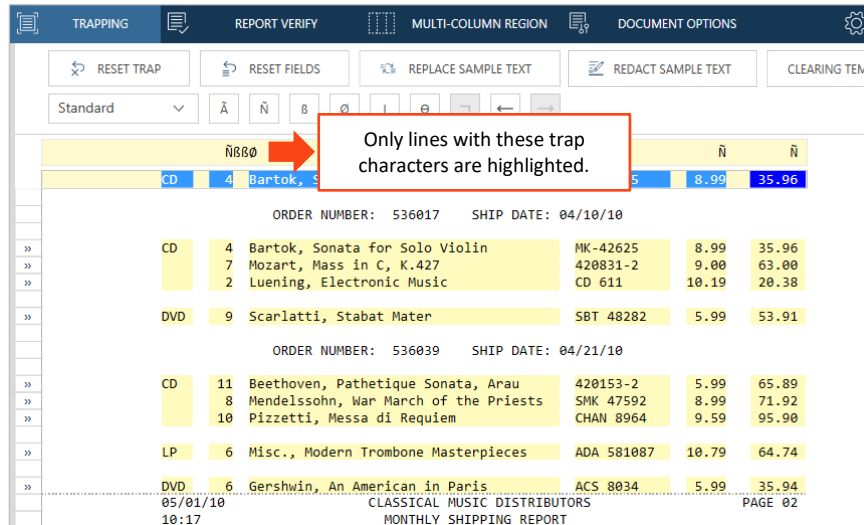


The drag-and-drop feature and powerful Auto Define button of Data Prep Studio make this product different from others. These unique features allow you to automatically identify appropriate rows and columns of data or select only the data you need on screen. With the distinct features of Data Prep Studio, you no longer need scripting skills to prepare your data and access information trapped in PDF reports, log files, JSON, TXT, and more!

READ MORE

- [Working with Report Design](#)
- [Creating Data Extraction Templates](#)
- [Working with PDF Files](#)

You can also directly trap the fields you want to include on the screen. Preview your table as it gets defined.



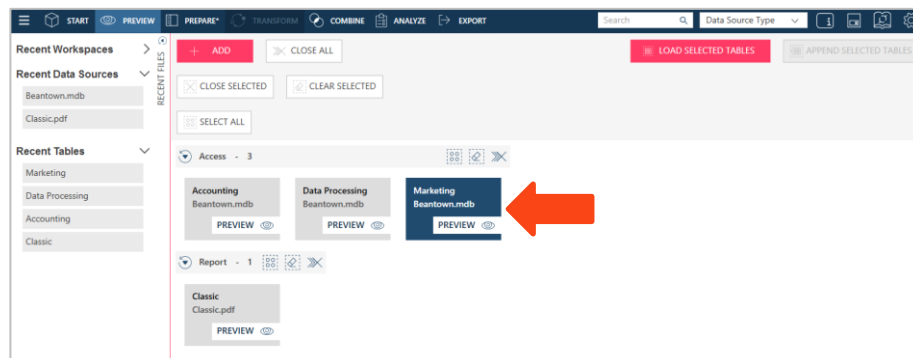
WATCH

[Altair Monarch Use Case | JSON](#)

This extremely useful functionality is unique to Data Prep Studio. Now you can access the information trapped in reports in various formats, including PDF, JSON, TXT, and more!

2 PREVIEW DATA

After a data source has been selected or a document has been prepared, you are brought to the Preview window.



The Preview function allows you to review the information and check the quality of the data before loading these into the Altair Data Prep Studio workspace.

Quickly determine if:

- your table has enough rows for you to work with,
- the column values are meaningful, or
- there are nulls or blanks.

To preview the data found in a table you want to open, click the **PREVIEW** button below the table name.

If your data source is in TXT or PDF format, you can include report metadata when you load your data.

Report metadata refer to information about a report, which includes the following:

- Report File Number
- Report File Name
- Report Page Number
- Report Line Number
- Report Column Number
- PDF Producer
- Report Page Count

Report metadata can help you analyze your data and preserve data lineage.

READ MORE

- [Previewing Data](#)

Column Information

Filter	Name	Type	Unique Values
<input checked="" type="checkbox"/>	Department	Ab	1
<input checked="" type="checkbox"/>	Last Name	Ab	26
<input checked="" type="checkbox"/>	First Name	Ab	23
<input checked="" type="checkbox"/>	Emp_ID	Ab	26
<input checked="" type="checkbox"/>	Hire Date	🕒	24
<input checked="" type="checkbox"/>	Gender	Ab	2

Table Data (Marketing)

Ab	Department	Ab	Last Name	Ab	First Name	Ab	Emp_ID	Ab	Hire Date	Ab	Gender
1	Marketing	April	Anne	1597429	10/23/1993 12:00...	F					
2	Marketing	Banning	David	1607768	12/18/2003 12:00...	M					
3	Marketing	Bartholemew	Anne	1593642	11/18/1993 12:00...	F					
4	Marketing	Bradford	Eugene	1605798	7/24/2005 12:00...	M					
5	Marketing	Carison	Stephen	1588509	3/4/1995 12:00...	M					
6	Marketing	Carpenter	Rae Ann	1598699	6/30/1995 12:00...	F					
7	Marketing	Chandler	Liz	1588291	5/4/1994 12:00...	F					
8	Marketing	Cohen	Danny	1595028	12/12/1997 12:00...	M					
9	Marketing	Connolly	William	1583736	3/12/2000 12:00...	M					

Statistics

Null Count	Row Count	Non-Null Value Count	Blank Count	Minimum Length	Maximum Length	Average Length	Minimum Word Count	Maximum Word Count
0	26	26	0	9	9	9	1	1

3 LOAD SELECTED TABLES

From the *Preview* window, you can

- **Continue adding data to your workspace.** Click on the Add button found in the Preview and Prepare windows.
- **Load your data and perform actual preparation work.** Select the tables you want to work with and then click **Load Selected Tables**.

+ ADD

LOAD SELECTED TABLES

4 PREP YOUR DATA

START PREPARING DATA

All tables that are loaded, appended, or defined via the Report Design window are made available in the *Prepare* window. This window is where all prep and transformation operations are done.

ADD

Tables

Column Operations (via drop-down)

Load Plan

Ab	Department	Ab	Last Name	Ab	First Name	Ab	Emp_ID	Ab	Hire Date	Ab	Gender
1	Accounting	Aldridge	Jeff	1592784	10/13/1995 12:00:00 AM	M					
2	Accounting	Daley	William	1587390	1/30/1993 12:00:00 AM	M					
3	Accounting	Georges	William	1596792	6/4/2005 12:00:00 AM	M					
4	Accounting	Gluck	Anna	1593309	3/12/2005 12:00:00 AM	F					
5	Accounting	Jacobson	Doug			M					
6	Accounting	Marshall	Alana			F					
7	Accounting	Martins	Wayne			M					
8	Accounting	Poretzky	Teresa			F					
9	Accounting	Rosenberg	Kelly			F					
10	Accounting	Russo	Paula			F					
11	Accounting	Stancowicz	Mary Beth	1586498	1/5/1993 12:00:00 AM	F					
12	Accounting	Woodruff	Elizabeth	1593599	10/11/1997 12:00:00 AM	F					
13	Accounting	Bass	Andrew	1600325	6/23/2003 12:00:00 AM	F					
14	Data Processing	Bittner	Herb	1593211	3/18/1999 12:00:00 AM	M					
15	Data Processing	Bittner	Martha	1597596	3/18/2005 12:00:00 AM	M					
16	Data Processing	Condon	James	1604193	12/18/2001 12:00:00 AM	F					
17	Data Processing	Condon	Robert	1597266	6/4/2005 12:00:00 AM	M					
18	Data Processing	Curtis	Robert	1590086	2/28/1995 12:00:00 AM	F					
19	Data Processing	Evans	Neil	1599507	8/14/2002 12:00:00 AM	M					
20	Data Processing	Finn	Mariela	1592913	6/4/2000 12:00:00 AM	F					
21	Data Processing	Horton	Arnold	1594470	2/24/1997 12:00:00 AM	M					
22	Data Processing	Howard	Alice	1598482	9/30/1997 12:00:00 AM	F					
23	Data Processing	Howard	Rae Ann	1588939	1/4/1996 12:00:00 AM	F					
24	Data Processing	Hubbard	Lynn	1593319	6/30/1995 12:00:00 AM	F					
25	Data Processing	Iserberg	Gwen	1594545	4/30/1999 12:00:00 AM	M					
26	Data Processing	Johnston	Barry	1601801	12/28/1996 12:00:00 AM	M					
27	Data Processing	Kelley	Mary Beth	1593184	3/12/2000 12:00:00 AM	F					
28	Data Processing	Lewis	Francis	1603243	10/26/2003 12:00:00 AM	M					
29	Data Processing	Meluso	Linda	1587769	12/3/1993 12:00:00 AM	F					

In the *Preview* window, you can:

- show and review statistics
- edit columns (e.g., change name, format, and data type)
- move, rename, delete, hide, or copy columns
- sort and filter column values
- clean up the data (remove spaces, remove blanks or nulls)
- extract strings
- replace values
- split or combine values

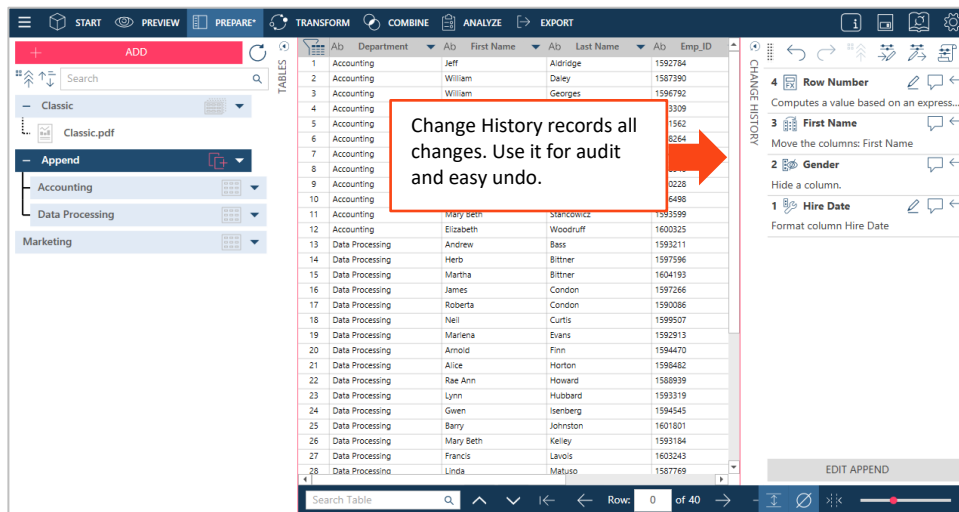
Over 80 pre-built operations and functions are available to transform and manipulate data with mouse clicks. No scripting is needed!

READ MORE

- [Preparing Data](#)
- [Column Operations](#)

From the *Prepare* window, select a table and then work with the columns to prepare them for visualization or analytics.

TRACK CHANGES SO YOU CAN REVERSE THEM OR APPLY TO OTHER TABLES



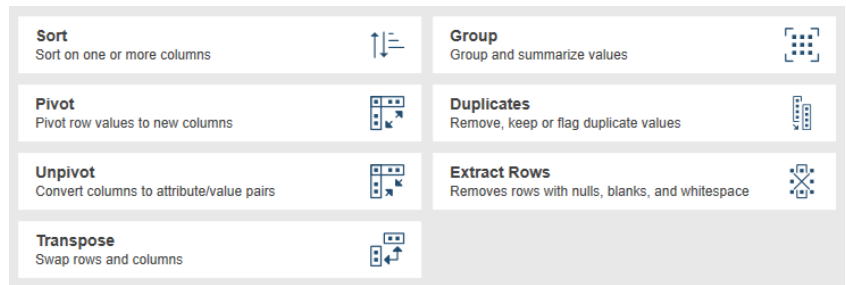
Monarch Data Prep Studio tracks all prep operations you carry out on a table and records these in a Change History. Use Change History to review and audit all operations. You can also use it to undo any operation(s) you have carried out.

TRANSFORM TO GET A DIFFERENT AND BETTER VIEW.

1. While in the Prepare window, click the **TRANSFORM** button and select a transform.

2. Do one of the following:

- sort one or more columns
- create summaries by grouping columns
- determine and remove duplicate records
- remove all empty rows
- pivot/unpivot your table to get different summaries
- transpose rows and columns
- flag/remove duplicates



The Transform Data feature allows you to create new tables.

COMBINE AND CONSOLIDATE TO ENRICH YOUR DATA.

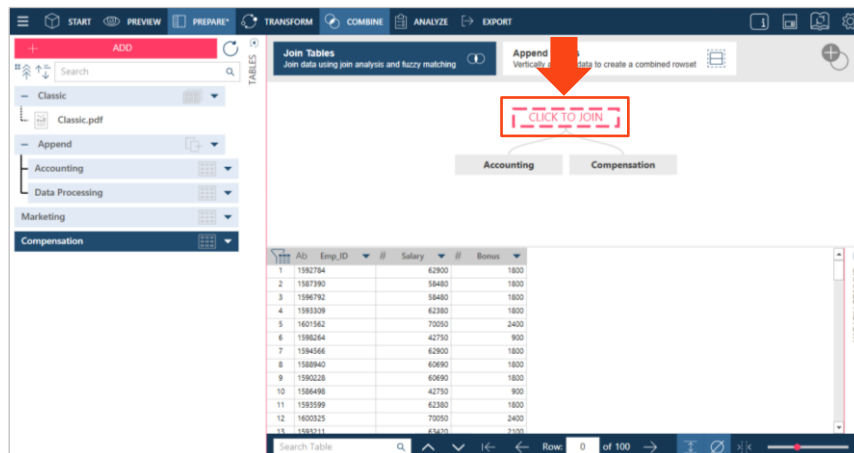
1. While in the Prepare window, click on the **COMBINE** button to display the Combine data stage.

2. Do one of the following:

- Drag a table from the *Table List* panel to the *Drag a Table* box
- Drop a table from a location on your machine (e.g., from your desktop or local/network drive) to the *Drag a Table* box.

3. Select a second table following the same procedure in Step 2.

4. Select **CLICK TO JOIN** to display the *Join Configuration* dialog.

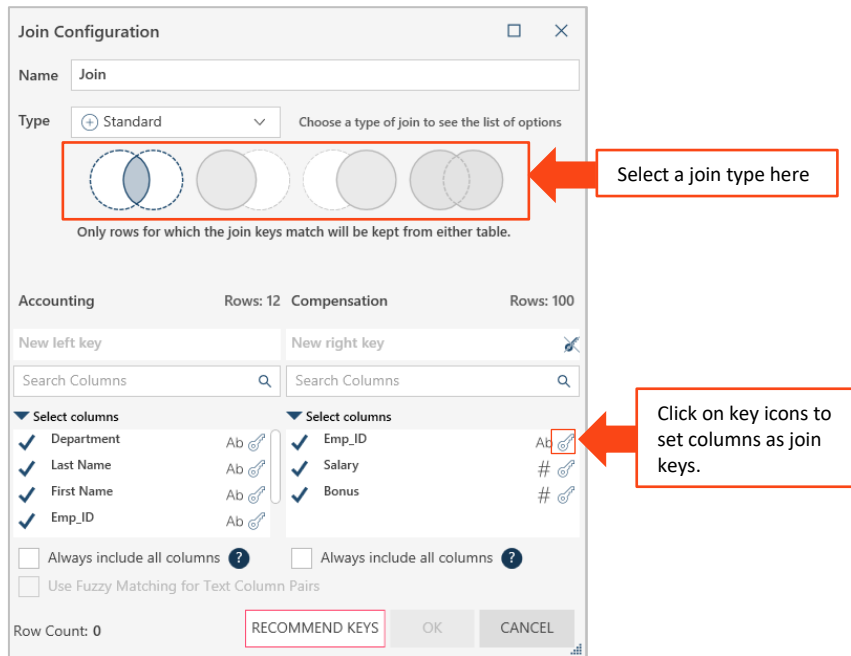


Join disparate data in multiple ways, including left outer, right outer, full outer, and inner joins.

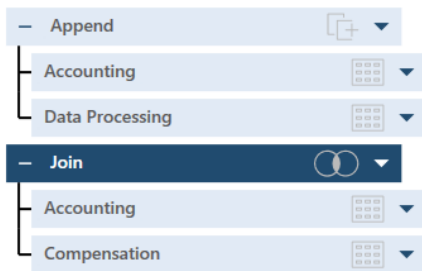
The **Join Analysis** feature suggests the best way to join data by inspecting the data sets and applying powerful algorithms. You don't need to be a data scientist to do this.

Monarch Data Prep Studio also supports fuzzy matching, with which you can match key values that are not 100% identical but are similar. For example, you can set fuzzy matching tolerance levels to match Connecticut and Conecticut or Smith and Smyth.

If tables have an identical structure, you can easily append them to consolidate your data. The **Append Helper** is also available to append records even if they are not 100% identical.



5. Select a join type and set join fields to complete the definition.
6. Continue to join tables as necessary. You can create multiple join sequences.



Load Plan Visualization provides you with a hierarchical view of all of the operations performed on a table. You can easily view, for instance, the tables that have been used to produce a join result.

READ MORE

- [Joining Tables](#)
- [Using Fuzzy Joins](#)
- [Appending Tables](#)

WATCH

[Load Plan Visualization](#)

5 CREATE SUMMARIES FOR DEEPER ANALYSIS

Summaries provide a broader view of your data.

	Customer	Media Qty	Description	Amount
1	Betty's Music Store	CD	Bartok, Sonata for Solo Violin	35.96
2	Betty's Music Store	CD	Beethoven, Pathetic Sonata, Anzu	65.89
3	Betty's Music Store	CD	Luening, Electronic Music	20.38
4	Betty's Music Store	CD	Mendelssohn, War March of the Priests	71.82
5	Betty's Music Store	CD	Mozart, Mass in C, K427	63.00
6	Betty's Music Store	CD	Prokofiev, Mass in D, Op. 26	95.90
7	Betty's Music Store	DVD	Gershwin, An American in Paris	35.94
8	Betty's Music Store	DVD	Scarlett, Stabat Mater	53.91
9	Betty's Music Store	LP	Misc, Modern Trombone Masterpieces	64.74
10	Big Shanty Music	CD	Mozart, Symphony No.23 in D	26.97
11	Big Shanty Music	CD	Schoenberg, Ode to Napoleon	57.54
12	Big Shanty Music	CD	Schubert, Sonata in G, D.958	8.00
13	Big Shanty Music	CD	Shostakovich, 24 Preludes for piano	10.78
14	Big Shanty Music	CD	Stravinsky, Dumbarton Oaks Concerto	53.94
15	Big Shanty Music	DVD	Holst, St. Paul's Suite for Orch.	29.95
16	Big Shanty Music	SACD	Balakirev, Symphony no. 1	86.31
17	Notas Musicales	BLU	Liszt, Les Preludes	67.13
18	Notas Musicales	BLU	Mozart, Serenata Notturna	17.95
19	Notas Musicales	CD	Bizet, Carmen	97.02
20	Notas Musicales	CD	Schumann, Sym. Etudes for piano	71.82
21	Notas Musicales	DVD	Bartok, 4 Dances, piano, Haggopian	10.78
22	Notas Musicales	LP	Greig, Peer Gynt Suites, 1 & 2	62.16
23	Grand Total:			1109.29

A summary tabulates information for selected fields and presents the results in a one- or two-dimensional matrix, thereby allowing deeper analysis of your data.

READ MORE

- [Creating Summaries](#)
- [Exporting Summaries](#)

Select the table for which you wish to create a summary and then click **Analyze**.

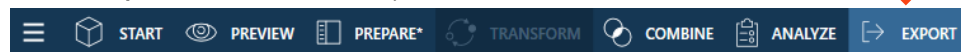
The 'Edit Summary' dialog box is shown with several annotations:

- Set styles if you wish.**: Points to the 'Default style' and 'Title row style' dropdown menus, both set to 'AaBbCcDd'.
- Choose fields to add to your summary.**: Points to the 'Source Fields' list on the left, which includes fields like 'Account...', 'Amount', 'Contact', 'Customer', 'Descript...', 'Label/N...', 'Media', and 'Media...'.
- Choose a measure calculation.**: Points to the 'Measures' section on the right, which includes an 'ADD COUNT' button.

Other visible elements include the 'Name' field (set to 'Summary'), 'Filter' (set to 'Default Filter'), 'Font' (set to 'Tahoma'), 'Rows' and 'Columns' sections, and 'Insert total line' options at the bottom.

6 EXPORT

1. Go to the *Prepare* window.
2. Select the table you want to export.
3. Select **Export Data** from the Data Prep Studio toolbar.



4. Select an export format.
5. Specify the path and file names, define export options, and then click Export.

The 'Manage Exports' dialog box is shown with the 'Classic - Microsoft Excel' format selected. The 'Export Location' is set to 'C:\Users\Public\Documents\Classic.xlsx'. The 'Table Name' is 'Classic'. The 'Filter' is 'No Filter', 'Sort' is 'No Sort', and 'Include Column Headers' is checked. The 'When file exists' and 'When table exists' options are both set to 'Overwrite'. The 'EXPORT' button is highlighted with a red arrow.

Once you're done preparing your data, you can easily export to many different formats, including Microsoft Power BI and IBM Cognos Analytics, and other Altair products, such as Altair Knowledge Hub, Altair Knowledge Studio, and Altair Panopticon.

READ MORE

- [Exporting Data](#)

Your prepped data are exported, ready to be fed into other applications.

*Summaries can only be exported to the CSV and Microsoft Excel formats.

WORKING WITH MONARCH CLASSIC

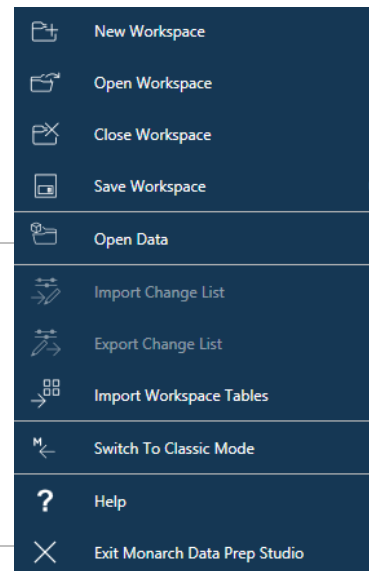
From Data Prep Studio, you can switch to **Monarch Classic** at any time by selecting **Switch to Classic Mode** from the *Data Prep Studio* application menu.

1 OPEN A FILE

Go to **File > Open** to open a file.

Monarch Complete works with both relational and multi-structured data and provides support for a wide range of formats, such as PDF, XML, HTML, text, spool, and ASCII files. Access data from invoices, sales reports, balance sheets, customer lists, inventory, logs, and more.

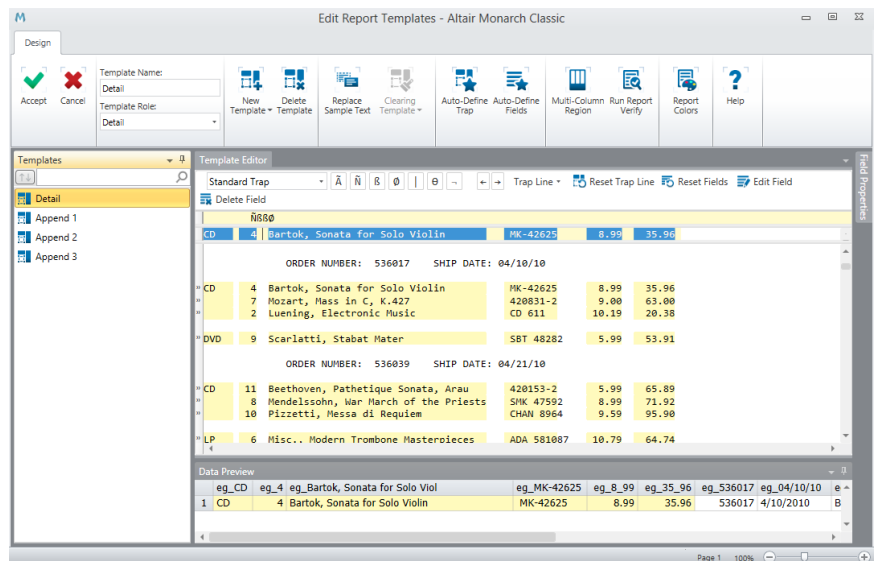
The system is easy to use, allowing you to quickly select any data source and automatically convert it into structured data for analysis.



2 DEFINE DATA EXTRACTION TEMPLATES

After opening a report, Monarch Complete brings you to **Report View**. Switch to **Report Design** view to define **data extraction templates**.

Define traps like you do in *Data Prep Studio Advanced Mode*. When defining traps in *Classic Mode*, you have better control over trapping specific lines because the *Template Editor* allows you to define template levels to match your report hierarchy.



You can also use specialized trapping techniques, including the following:

- Floating traps

To trap data that do not have a constant position on the page. For instance, the date and time field in the report below do not have a fixed position.

```
ezvl-30pppl87.epix.net --- [23/Aug/2010:01:13:43--0400] .GET ./images/find.gif :H:
ezvl-30pppl87.epix.net --- [23/Aug/2010:01:13:44--0400] .GET ./images/newdiscuss.
202.112.36.196 --- [23/Aug/2010:01:18:22 --0400] .GET ./img/anim_thumbtack.gif :HT:
ezvl-30pppl87.epix.net --- [23/Aug/2010:01:13:45--0400] .GET ./images/spot.gif :H:
ezvl-30pppl87.epix.net --- [23/Aug/2010:01:14:14--0400] .GET ./search/index.html
AC855931.ipt.aol.com --- [23/Aug/2010:01:14:45--0400] .GET ./express/search_1.ht
AC855931.ipt.aol.com --- [23/Aug/2010:01:14:51--0400] .GET ./express/125x30_snpoc
AC855931.ipt.aol.com --- [23/Aug/2010:01:14:49--0400] .GET ./img/anim_thumbtack.
202.112.36.196 --- [23/Aug/2010:01:18:22 --0400] .GET ./img/anim_thumbtack.gif :HT:
202.112.36.196 --- [23/Aug/2010:01:18:22 --0400] .GET ./img/anim_thumbtack.gif :HT:
```

- Multi-column regions

To trap and extract data from reports with multiple, adjacent columns of data on each page.

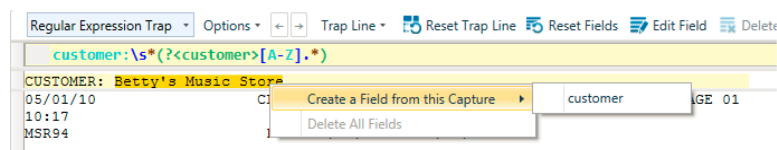
```
PACHBEL, J.
GRIEG, E.
HOLST, G.
ORFF, C.
SCHUMANN, R.
LISZT, F.
BACH, J.S
PAGANINI, N.
HANDEL, G.F
BERLIOZ, H.
SAINT-SAENS, C.
SHOSTAKOVICH, D.
RIMSKY-KORSAKOV, N.
BEETHOVEN, L.v
BERNSTEIN, L.
TCHAIKOVSKY, P.I
WAGNER, R.
BRAHMS, J.

1 MOZART, W.A
2 GERSHWIN, G.
3 CHOPIN, F.
4 MUSSORGSKY, M.
5 RACHMANINOV, S.
6 BRIAN, H.
7 SOR, F.
8 RHEINBERGER, J.G
9 ANGELO, G.
10 ENESCO, G.
11 MOMPOU, F.
12 ISAAC, H.
13 HINDEMITH, P.
14 SOLER, P.A
15 CARULLI, F.
16 SCIELSI, G.
17 SESSIONS, R.
18 PENDERECKI, K.

31 WHEELKES, T.
32 GINASTERA, A.
33 BRIDGE, F.
34 BYRD, W.
35 SWEELINCK, J.P
36 MACHAUT, G.d
37 LUZZASCHI, L.
38 DES PREZ, J.
39 BIBER, H.I
40 BRITTEN, B.
41 DAVIES, P.M
42 RAVEL, M.
43 ADAMS, J.
44 JANEQUIN, C.
45 RAMEAU, J.P
46 VERDI, G.
47 BOCCHERINI, L.
48 JOPLIN, S.
```

- Regular expression traps

To trap data using regular expressions.



You can even use the **Redaction Feature** to replace, or mask out, field values so that only a representation of the field value is displayed and not the actual value.

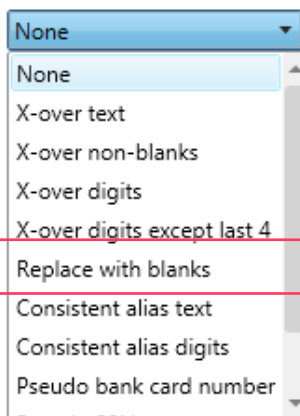
For example, a credit card number like **1345-8716-4432-7892**

in the original report

can be displayed as

XXXX-XXXX-XXXX-77892.

Monarch Complete's advanced redaction capabilities allow you to easily and reliably remove or obscure confidential data, such as customer information, medical records, and employee IDs.



Easily and reliably remove or obscure confidential data, such as customer information, medical records, and employee IDs, with Monarch Complete's intuitive redaction capabilities. This feature allows you to safely distribute reports to partners and customers, even in heavily regulated industries, such as healthcare and financial services, without compromising customer and employee privacy.

READ MORE

- [Creating Data Extraction Templates](#)
- [Redacting Field Values](#)

This feature allows you to safely distribute reports to partners and customers, even in heavily regulated industries, such as healthcare and financial services, without compromising customer and employee privacy.

3 TRANSFORM YOUR DATA IN TABLE VIEW

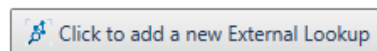
Table View displays fields extracted from a report or imported from a database.

Media	Quantity	Description	Label	Unit Price	Amount	Order No.	Ship Date	Contact
CD	4	Bartok, Sonata for Solo Violin	MK-42625	8.99	35.96	536017	4/10/2010	Betty Yoder
CD	7	Mozart, Mass in C, K.427	420831-2	9.00	63.00	536017	4/10/2010	Betty Yoder
CD	2	Luxembourg, Electronic Music	CD 611	10.19	20.38	536017	4/10/2010	Betty Yoder
DVD	9	Scarlatti, Stabat Mater	SBT 4828	5.99	53.91	536017	4/10/2010	Betty Yoder
CD	11	Beethoven, Pathétique Sonata, Arrau	420153-2	5.99	65.89	536039	4/21/2010	Betty Yoder
CD	8	Mendelssohn, War March of the Priests	SHK 4759	8.99	71.92	536039	4/21/2010	Betty Yoder
CD	10	Pozzetti, Messa di Requiem	CHAN 896	9.99	99.90	536039	4/21/2010	Betty Yoder
LP	6	Misc., Modern Trombone Masterpieces	ADA 5810	10.79	64.74	536039	4/21/2010	Betty Yoder
DVD	6	Gershwin, An American in Paris	ACS 8034	5.99	35.94	536039	4/21/2010	Betty Yoder
CD	6	Stravinsky, Dumbarton Oaks Concerto	SHMD 512	8.99	53.94	536016	4/5/2010	Marvin Mabry
CD	1	Schubert, Sonata in G, D.566	AD-225	9.00	9.00	536016	4/5/2010	Marvin Mabry
CD	3	Mozart, Symphony No.23 in D	CO-77884	8.99	26.97	536016	4/5/2010	Marvin Mabry
CD	6	Schoenberg, Ode to Napoleon	CHAN 911	9.99	57.54	536016	4/5/2010	Marvin Mabry
CD	2	Shostakovich, 24 Preludes for piano.	CDA 6662	5.99	10.78	536029	4/14/2010	Marvin Mabry
SACD	9	Balakirev, Symphony no. 1	ENTPD 41	9.99	86.31	536029	4/14/2010	Marvin Mabry
DVD	5	Holst, St. Paul's Suite for Orch.	CBT-1020	5.99	29.95	536029	4/14/2010	Marvin Mabry
CD	3	Faure, 28 Songs, Stulzmann	RCA 6142	17.98	53.94	536020	4/10/2010	Roberto Gil
CD	3	Takemitsu, Music of Takemitsu	SHK 5247	3.60	10.80	536020	4/10/2010	Roberto Gil
CD	6	Messiaen, Quatuor pour la fin de temp	CDC 5493	9.60	57.60	536020	4/10/2010	Roberto Gil
SACD	8	Strauss, Ein Heldenleben, Op.40	SMSACD-5	8.99	71.92	536020	4/10/2010	Roberto Gil
DVD	9	Schumann, Manfred Overture, Bay SO	SBT 4827	5.99	53.91	536020	4/10/2010	Roberto Gil
CD	10	Hilshaud, 3 Rag Caprices, pn. & orch.	Z-6569	9.60	96.00	536012	4/1/2010	Alain Lebon
CD	5	Strauss, Le Bourgeois gentilhomme	CDG 448	9.60	48.00	536012	4/1/2010	Alain Lebon
CD	5	Scriabin, Preludes, Op. 8	CY 1123	7.79	38.95	536012	4/1/2010	Alain Lebon

Just select your new data source, set linking columns, and you're all set.

Define as many lookups as you need to consolidate information and enrich your view.

You can go to **Table Design** and select **External Lookups** to combine your data with information from other sources.

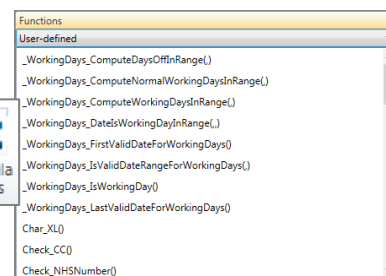


Within **Table Design**, you can also select



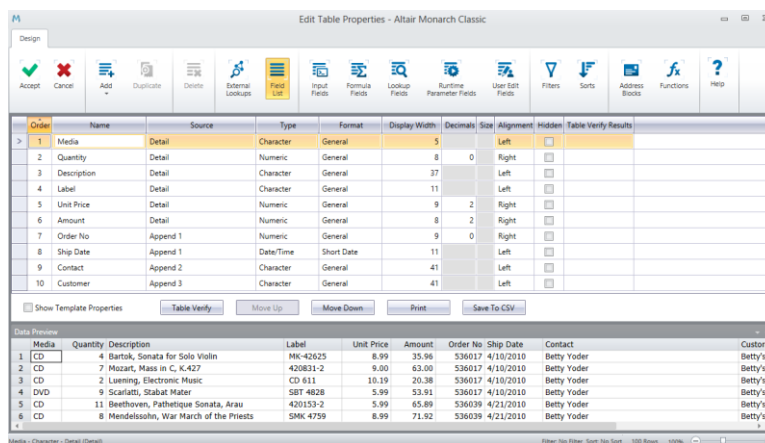
Formula Fields to derive values from existing fields.

Monarch Complete has more than 80 pre-built functions that speed up the transformation of your data into consistent, clean analysis-ready information.



Monarch Classic's *Field List* view allows you to easily keep track of fields. You can set the field alignment, hide fields, or even change the data type.

All changes carried out here are automatically cascaded to all summaries that use the table.



4 CREATE SUMMARIES

A *summary* tabulates information on selected fields and presents the results in a one- or two-dimensional matrix. Monarch Complete provides options that let you sort the summary, add subtotals, and format your summary report for easier viewing.

In *Summary View*, you can even drill-up or drill-down to focus on specific totals.

	Country	Discount	Amount					
1	France	273.64	2736.08					
2	Germany	171.80	1717.86					
3	Ireland	20.90	209.08					
4	Netherlands							
5	Spain	1	France	Chez Rudy	CD		70.68	706.79
6	UK	2			DVD		3.90	38.94
7	USA	3			LP		4.50	44.95
		4	Subtotal Chez Rudy				79.08	790.68
	Customer	January-10	February-10	March-10	SUM(Amount)			
1	Betty's Music Store	507.64	---	270.93	778.57	101.00	1009.97	
2	Big Shanty Music	---	274.49	---	274.49	2.52	25.16	
3	Bluegrass Records	248.17	---	140.84	389.01	4.56	45.54	
4	Canciones	379.14	---	---	379.14	117.67	1176.57	
5	Chez Rudy	320.46	470.22	---	790.68	1.56	15.58	
6	Classic Exchange	---	209.08	---	209.08	64.43	644.22	
7	Das Piano	541.14	---	285.91	827.05	8.02	80.26	
8	Die Harmonie	---	164.50	---	164.50	2.88	28.77	
9	Die Melodie	472.83	---	253.48	726.31	76.89	768.83	
10	Fandangos Records	225.88	105.39	74.93	406.20	273.64	2736.08	
11	Hope's Sweet Notes	---	661.97	---	661.97	47.00	469.86	
12	Mo Town Tunes	234.99	---	---	234.99	4.19	41.93	
13	Musique du Monde	360.94	472.81	342.82	1176.57			

You can create different summaries using the same data to get different views of the information.

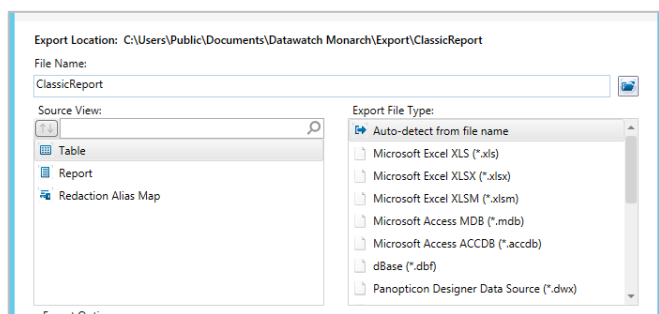
READ MORE

- [Summary View](#)
- [Summary Design](#)

5 EXPORT YOUR DATA

Go to *Export Design* to create and run exports. You can export your report, table, or your summaries (you can export one or all summary levels).

You can export to Excel, Access, DBF, or delimited text.



If you have *Altair Panopticon Designer*, you can export your data to a Panopticon Designer data source for easy visualization.

6 SAVE AND REUSE

Once saved, models and projects can be re-used each time a new version of your report or data become available. Just load the new files and then run your exports again to produce fresh versions of your output.

NEXT STEPS

- Use Monarch Complete's comprehensive documentation to help you prep your data. The Help and Learning Guide files are installed with the product and are available online at <https://help.altair.com/monarch/current>.
- Explore how self-service data prep and visual discovery can bridge the IT and business gap. Visit the [Altair website](#) or call Altair for more details.