



ENTRINSICON
LEVEL UP!

September 26th-29th, 2023
Raleigh, NC

Refresh Modes and Snapshots

Preserving and Using Historical Data

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- 1 Append Mode

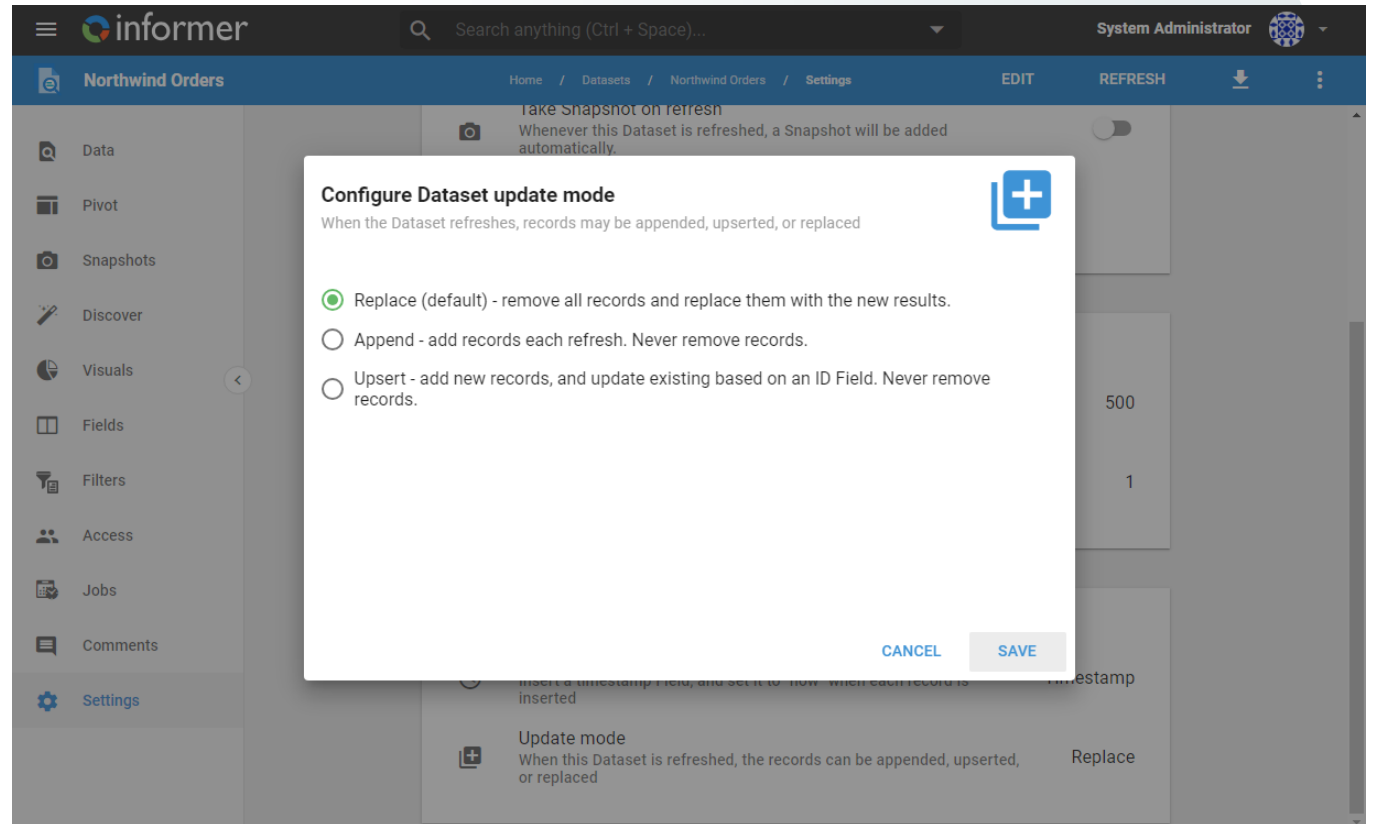
- 2 Upsert Mode

- 3 Snapshots

- 4 Conclusion

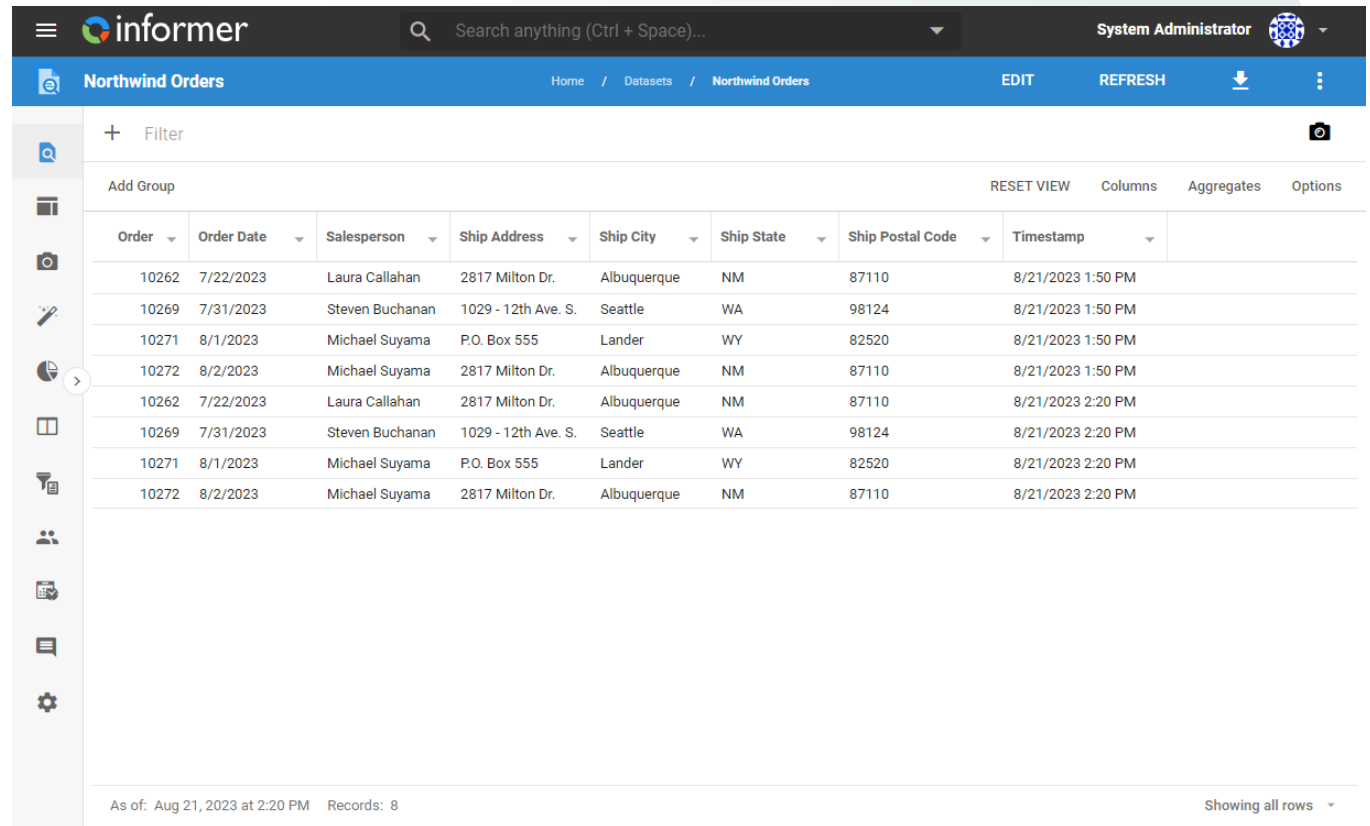
Refresh Behavior

- Three options for refreshing Datasets: Replace, Append, and Upsert.
- Replace is the default option – replaces all records in an existing index with new records fetched by the query
- Users can change the refresh behavior from the Dataset settings page.



Refresh Behavior – Append Mode

- "Append" mode appends a Query's result set to preexisting records.
- This can lead to duplicate records, but is helpful in specific use cases
- The timestamp field helps differentiate between "duplicate" records

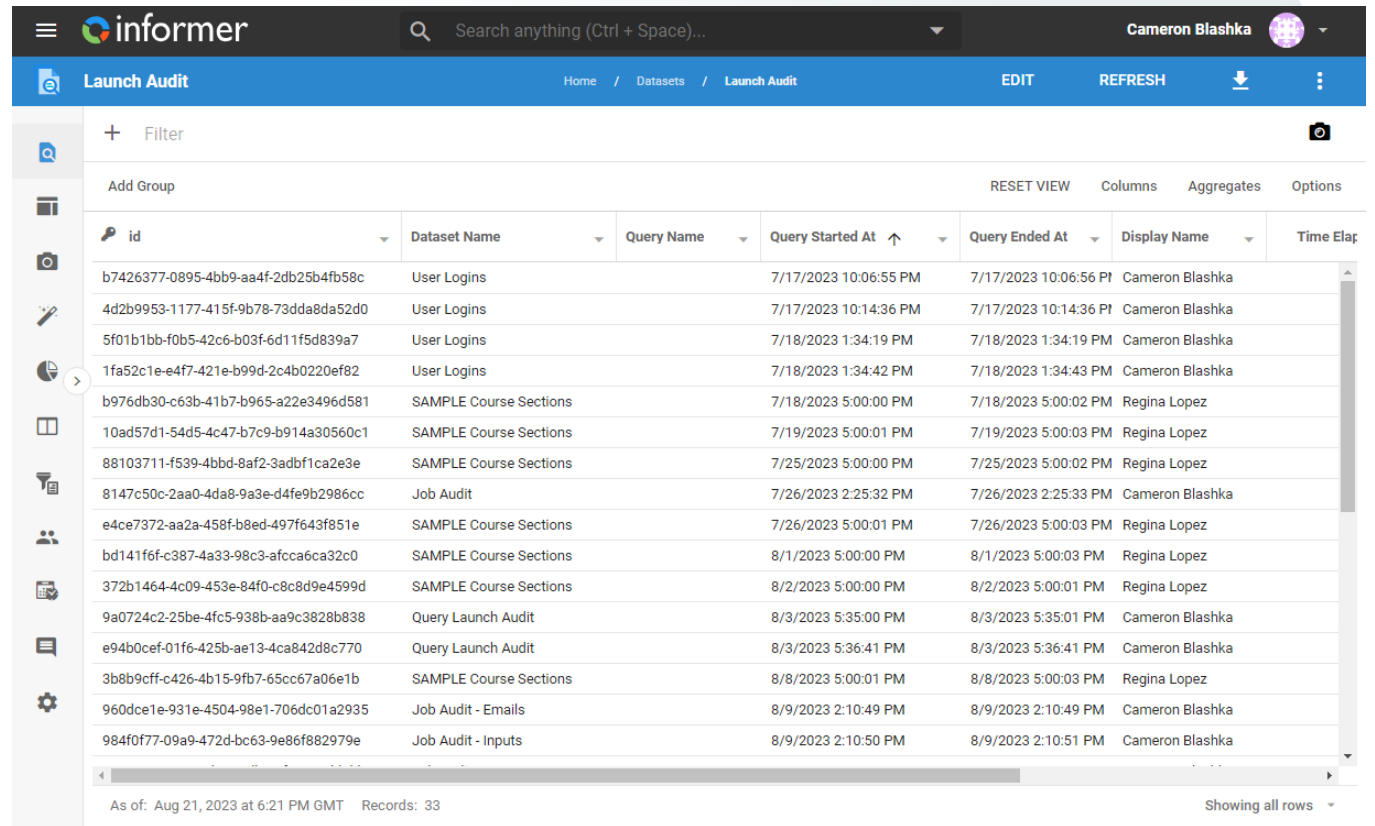


The screenshot shows the Informer web application interface. The top navigation bar includes the Informer logo, a search bar, and the user role "System Administrator". The main header displays "Northwind Orders" with navigation links for "Home", "Datasets", and "Northwind Orders". Action buttons for "EDIT", "REFRESH", and a download icon are visible. A sidebar on the left contains various tool icons. The main content area features a table with columns: Order, Order Date, Salesperson, Ship Address, Ship City, Ship State, Ship Postal Code, and Timestamp. The table contains 8 rows of data, with the first 4 rows having a timestamp of 1:50 PM and the last 4 rows having a timestamp of 2:20 PM. The footer indicates the data is as of "Aug 21, 2023 at 2:20 PM" and shows "Records: 8".

| Order | Order Date | Salesperson | Ship Address | Ship City | Ship State | Ship Postal Code | Timestamp |
|-------|------------|-----------------|---------------------|-------------|------------|------------------|-------------------|
| 10262 | 7/22/2023 | Laura Callahan | 2817 Milton Dr. | Albuquerque | NM | 87110 | 8/21/2023 1:50 PM |
| 10269 | 7/31/2023 | Steven Buchanan | 1029 - 12th Ave. S. | Seattle | WA | 98124 | 8/21/2023 1:50 PM |
| 10271 | 8/1/2023 | Michael Suyama | P.O. Box 555 | Lander | WY | 82520 | 8/21/2023 1:50 PM |
| 10272 | 8/2/2023 | Michael Suyama | 2817 Milton Dr. | Albuquerque | NM | 87110 | 8/21/2023 1:50 PM |
| 10262 | 7/22/2023 | Laura Callahan | 2817 Milton Dr. | Albuquerque | NM | 87110 | 8/21/2023 2:20 PM |
| 10269 | 7/31/2023 | Steven Buchanan | 1029 - 12th Ave. S. | Seattle | WA | 98124 | 8/21/2023 2:20 PM |
| 10271 | 8/1/2023 | Michael Suyama | P.O. Box 555 | Lander | WY | 82520 | 8/21/2023 2:20 PM |
| 10272 | 8/2/2023 | Michael Suyama | 2817 Milton Dr. | Albuquerque | NM | 87110 | 8/21/2023 2:20 PM |

Refresh Behavior – Upsert Mode

- Updates and adds records based on unique IDs
- Does the incoming record exist?
 - Yes - Update it with the new information
 - No - Add it
- Most useful in cases with large amounts of historical, static data



The screenshot shows the Informer web interface. The top navigation bar includes the Informer logo, a search bar, and the user name 'Cameron Blashka'. The main header for the 'Launch Audit' page includes 'Home / Datasets / Launch Audit', 'EDIT', 'REFRESH', and a download icon. The table below has a 'Filter' button and 'Add Group' text. The table columns are: id, Dataset Name, Query Name, Query Started At, Query Ended At, Display Name, and Time Elap. The table contains 15 rows of data.

| id | Dataset Name | Query Name | Query Started At | Query Ended At | Display Name | Time Elap |
|--------------------------------------|------------------------|------------|-----------------------|-----------------------|-----------------|-----------|
| b7426377-0895-4bb9-aa4f-2db25b4fb58c | User Logins | | 7/17/2023 10:06:55 PM | 7/17/2023 10:06:56 PM | Cameron Blashka | |
| 4d2b9953-1177-415f-9b78-73dda8da52d0 | User Logins | | 7/17/2023 10:14:36 PM | 7/17/2023 10:14:36 PM | Cameron Blashka | |
| 5f01b1bb-f0b5-42c6-b03f-6d11f5d839a7 | User Logins | | 7/18/2023 1:34:19 PM | 7/18/2023 1:34:19 PM | Cameron Blashka | |
| 1fa52c1e-e4f7-421e-b99d-2c4b0220ef82 | User Logins | | 7/18/2023 1:34:42 PM | 7/18/2023 1:34:43 PM | Cameron Blashka | |
| b976db30-c63b-41b7-b965-a22e3496d581 | SAMPLE Course Sections | | 7/18/2023 5:00:00 PM | 7/18/2023 5:00:02 PM | Regina Lopez | |
| 10ad57d1-54d5-4c47-b7c9-b914a30560c1 | SAMPLE Course Sections | | 7/19/2023 5:00:01 PM | 7/19/2023 5:00:03 PM | Regina Lopez | |
| 88103711-f539-4bbd-8af2-3adbf1ca2e3e | SAMPLE Course Sections | | 7/25/2023 5:00:00 PM | 7/25/2023 5:00:02 PM | Regina Lopez | |
| 8147c50c-2aa0-4da8-9a3e-d4fe9b2986cc | Job Audit | | 7/26/2023 2:25:32 PM | 7/26/2023 2:25:33 PM | Cameron Blashka | |
| e4ce7372-aa2a-458f-b8ed-497f643f851e | SAMPLE Course Sections | | 7/26/2023 5:00:01 PM | 7/26/2023 5:00:03 PM | Regina Lopez | |
| bd141f6f-c387-4a33-98c3-afcca6ca32c0 | SAMPLE Course Sections | | 8/1/2023 5:00:00 PM | 8/1/2023 5:00:03 PM | Regina Lopez | |
| 372b1464-4c09-453e-84f0-c8c8d9e4599d | SAMPLE Course Sections | | 8/2/2023 5:00:00 PM | 8/2/2023 5:00:01 PM | Regina Lopez | |
| 9a0724c2-25be-4fc5-938b-aa9c3828b838 | Query Launch Audit | | 8/3/2023 5:35:00 PM | 8/3/2023 5:35:01 PM | Cameron Blashka | |
| e94b0cef-01f6-425b-ae13-4ca842d8c770 | Query Launch Audit | | 8/3/2023 5:36:41 PM | 8/3/2023 5:36:41 PM | Cameron Blashka | |
| 3b8b9cff-c426-4b15-9fb7-65cc67a06e1b | SAMPLE Course Sections | | 8/8/2023 5:00:01 PM | 8/8/2023 5:00:03 PM | Regina Lopez | |
| 960dce1e-931e-4504-98e1-706dc01a2935 | Job Audit - Emails | | 8/9/2023 2:10:49 PM | 8/9/2023 2:10:49 PM | Cameron Blashka | |
| 984f0f77-09a9-472d-bc63-9e86f882979e | Job Audit - Inputs | | 8/9/2023 2:10:50 PM | 8/9/2023 2:10:51 PM | Cameron Blashka | |

As of: Aug 21, 2023 at 6:21 PM GMT Records: 33 Showing all rows

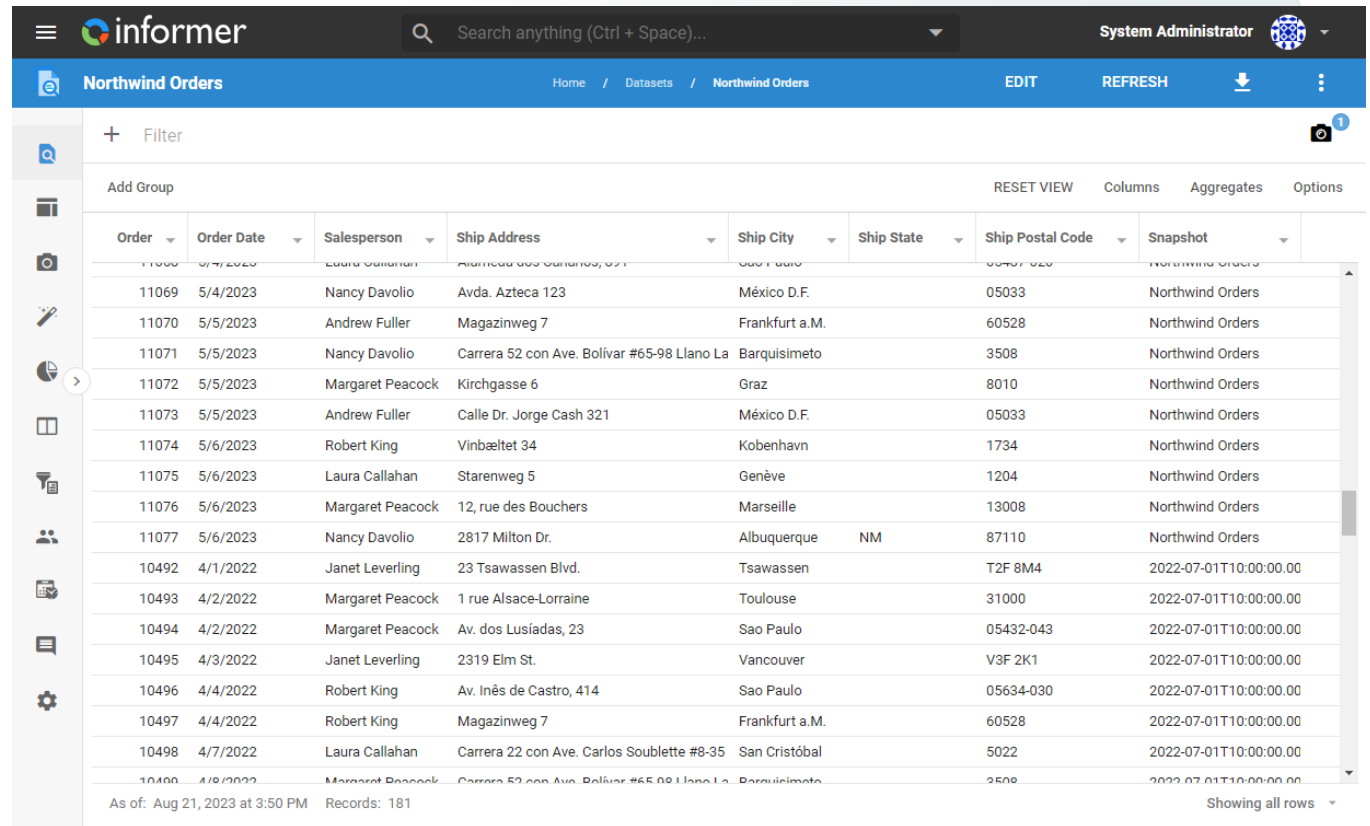
Refresh Behavior – Upsert Mode

- LAST_QUERIED_AT can turn very large queries into more manageable ones
- Changes the query into fetching a subset of results, making it more resource-efficient.

The screenshot displays the Informer 'Launch Audit' interface. The main window is titled 'Launch Audit' and shows a configuration panel on the left and a criteria configuration window on the right. The configuration panel includes sections for 'Query', 'Mapping', 'Fields', 'Aggregate Fields', 'Criteria', 'Aggregate Criteria', 'Order by', 'Row limit', 'Distinct Values', and 'Inputs'. The 'Criteria' section is currently selected, showing 'Query Started At on or after LAST_QUERIED_AT'. The criteria configuration window on the right shows a green plus icon, a dropdown menu set to 'Match all of', and a list of criteria: 'Field: Query Started At on or after Value: LAST_QUERIED_AT'. A green checkmark and a minus icon are visible next to the criteria. The bottom right corner of the window has a 'DONE' button.

Introduction to Snapshots

- Snapshots are captures of a Dataset at a specific point in time.
- Snapshots allow Users to preserve and load data from previous Dataset refreshes.
- Compare historical data with current data.



The screenshot displays the Informer data table interface for 'Northwind Orders'. The table includes columns for Order, Order Date, Salesperson, Ship Address, Ship City, Ship State, Ship Postal Code, and Snapshot. The data is filtered to show records from August 21, 2023, at 3:50 PM, with a total of 181 records. The interface also shows a search bar, a filter icon, and a sidebar with navigation options.

| Order | Order Date | Salesperson | Ship Address | Ship City | Ship State | Ship Postal Code | Snapshot |
|-------|------------|------------------|---|----------------|------------|------------------|------------------------|
| 11069 | 5/4/2023 | Nancy Davolio | Avda. Azteca 123 | México D.F. | | 05033 | Northwind Orders |
| 11070 | 5/5/2023 | Andrew Fuller | Magazinweg 7 | Frankfurt a.M. | | 60528 | Northwind Orders |
| 11071 | 5/5/2023 | Nancy Davolio | Carrera 52 con Ave. Bolívar #65-98 Llano La | Barquisimeto | | 3508 | Northwind Orders |
| 11072 | 5/5/2023 | Margaret Peacock | Kirchgasse 6 | Graz | | 8010 | Northwind Orders |
| 11073 | 5/5/2023 | Andrew Fuller | Calle Dr. Jorge Cash 321 | México D.F. | | 05033 | Northwind Orders |
| 11074 | 5/6/2023 | Robert King | Vinbæltet 34 | Kobenhavn | | 1734 | Northwind Orders |
| 11075 | 5/6/2023 | Laura Callahan | Starenweg 5 | Genève | | 1204 | Northwind Orders |
| 11076 | 5/6/2023 | Margaret Peacock | 12, rue des Bouchers | Marseille | | 13008 | Northwind Orders |
| 11077 | 5/6/2023 | Nancy Davolio | 2817 Milton Dr. | Albuquerque | NM | 87110 | Northwind Orders |
| 10492 | 4/1/2022 | Janet Leverling | 23 Tsawassen Blvd. | Tsawassen | | T2F 8M4 | 2022-07-01T10:00:00.00 |
| 10493 | 4/2/2022 | Margaret Peacock | 1 rue Alsace-Lorraine | Toulouse | | 31000 | 2022-07-01T10:00:00.00 |
| 10494 | 4/2/2022 | Margaret Peacock | Av. dos Lusiadas, 23 | Sao Paulo | | 05432-043 | 2022-07-01T10:00:00.00 |
| 10495 | 4/3/2022 | Janet Leverling | 2319 Elm St. | Vancouver | | V3F 2K1 | 2022-07-01T10:00:00.00 |
| 10496 | 4/4/2022 | Robert King | Av. Inês de Castro, 414 | Sao Paulo | | 05634-030 | 2022-07-01T10:00:00.00 |
| 10497 | 4/4/2022 | Robert King | Magazinweg 7 | Frankfurt a.M. | | 60528 | 2022-07-01T10:00:00.00 |
| 10498 | 4/7/2022 | Laura Callahan | Carrera 22 con Ave. Carlos Soublette #8-35 | San Cristóbal | | 5022 | 2022-07-01T10:00:00.00 |
| 10499 | 4/8/2022 | Margaret Peacock | Carrera 52 con Ave. Bolívar #65-98 Llano La | Barquisimeto | | 3508 | 2022-07-01T10:00:00.00 |

Capturing & Viewing Snapshots

- Users can create Snapshots while viewing a Dataset using the camera icon.
- Users can view the data in a Snapshot from the Data view of the Dataset page.

The screenshot displays the Informer application interface. The top navigation bar includes the Informer logo, a search bar, and the user role 'System Administrator'. The main content area shows a dataset titled 'Northwind Orders' with columns for Order, Order Date, Salesperson, Ship Address, and Ship City. A 'TAKE A NEW SNAPSHOT' dialog box is open, allowing users to select specific snapshots from a list of historical data. The dialog includes a 'Show' section with checkboxes for 'Current Dataset results' and 'Snapshots', and a 'Search' section with a table of snapshots.

| Order | Order Date | Salesperson | Ship Address | Ship City |
|-------|------------|------------------|---|----------------|
| 11069 | 5/4/2023 | Nancy Davolio | Avda. Azteca 123 | México D.F. |
| 11070 | 5/5/2023 | Andrew Fuller | Magazinweg 7 | Frankfurt a.M. |
| 11071 | 5/5/2023 | Nancy Davolio | Carrera 52 con Ave. Bolívar #65-98 Llano La | Barquisimeto |
| 11072 | 5/5/2023 | Margaret Peacock | Kirchgasse 6 | Graz |
| 11073 | 5/5/2023 | Andrew Fuller | Calle Dr. Jorge Cash 321 | México D.F. |
| 11074 | 5/6/2023 | Robert King | Vinbæltet 34 | Kobenhavn |
| 11075 | 5/6/2023 | Laura Callahan | Starenweg 5 | Genève |
| 11076 | 5/6/2023 | Margaret Peacock | 12, rue des Bouchers | Marseille |
| 11077 | 5/6/2023 | Nancy Davolio | 2817 Milton Dr. | Albuquerque |
| 10492 | 4/1/2022 | Janet Leverling | 23 Tsawassen Blvd. | Tsawassen |
| 10493 | 4/2/2022 | Margaret Peacock | 1 rue Alsace-Lorraine | Toulouse |
| 10494 | 4/2/2022 | Margaret Peacock | Av. dos Lusíadas, 23 | Sao Paulo |
| 10495 | 4/3/2022 | Janet Leverling | 2319 Elm St. | Vancouver |
| 10496 | 4/4/2022 | Robert King | Av. Inês de Castro, 414 | Sao Paulo |
| 10497 | 4/4/2022 | Robert King | Magazinweg 7 | Frankfurt a.M. |
| 10498 | 4/7/2022 | Laura Callahan | Carrera 22 con Ave. Carlos Soublette #8-35 | San Cristóbal |

As of: Aug 21, 2023 at 3:50 PM Records: 181

Showing all rows

TAKE A NEW SNAPSHOT

Show

- Current Dataset results
- Snapshots

Most recent 1

Choose specific Snapshots

Search

| Data from | Label |
|--|---------|
| <input type="checkbox"/> Oct 1, 2022 at 6:00 AM | 2022 Q3 |
| <input type="checkbox"/> Oct 1, 2021 at 6:00 AM | 2021 Q3 |
| <input type="checkbox"/> Jul 1, 2023 at 6:00 AM | 2023 Q2 |
| <input checked="" type="checkbox"/> Jul 1, 2022 at 6:00 AM | 2022 Q2 |

CANCEL APPLY

Managing Snapshots

- Users can edit the name and description of previous snapshots.
- Snapshots can be deleted if they are no longer needed.
- Snapshots can be promoted to their own Dataset.

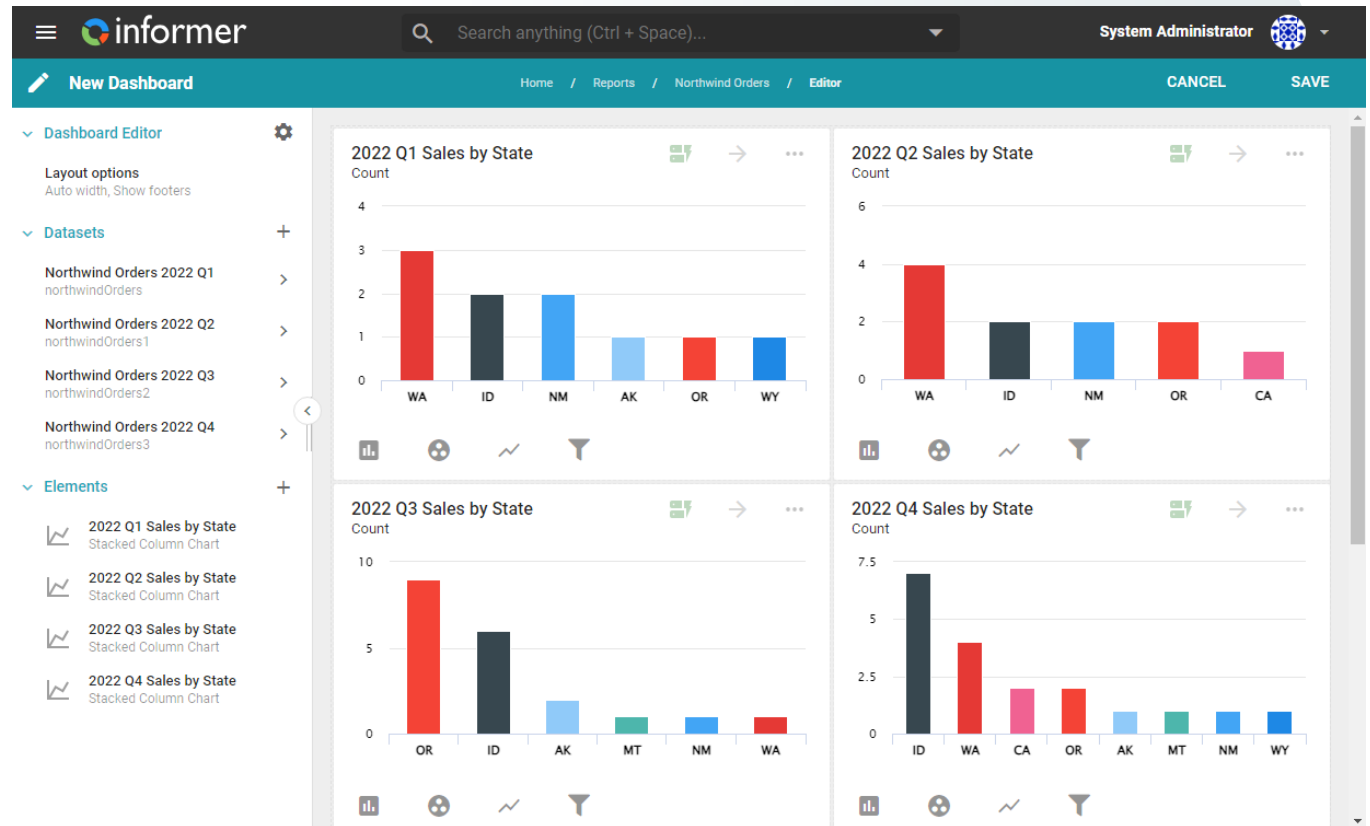
The screenshot displays the Informer interface for managing snapshots. The top navigation bar includes the Informer logo, a search bar, and the user role 'System Administrator'. The breadcrumb trail shows 'Home / Datasets / Northwind Orders / Snapshots'. The main content area is titled 'Snapshots' and features a '+ NEW' button and a search input. Below this is a table with columns for 'Data from', 'Label', 'Description', 'Records', and 'Size'. The table lists 8 snapshots, with the first one selected. A context menu is open over the first snapshot, offering 'Delete', 'Edit', and 'Promote Snapshot' options.

| Data from | Label | Description | Records | Size |
|--------------------------|---------|-------------|---------|---------|
| 2021-10-01T10:00:00.000Z | 2021 Q3 | | 70 | 22.1 kB |
| 2022-01-01T10:00:00.000Z | 2021 Q4 | | 82 | 24.8 kB |
| 2022-04-01T10:00:00.000Z | 2022 Q1 | | 92 | 27.1 kB |
| 2022-07-01T10:00:00.000Z | 2022 Q2 | | 93 | 26.7 kB |
| 2022-10-01T10:00:00.000Z | 2022 Q3 | | 103 | 28.2 kB |
| 2023-01-01T10:00:00.000Z | 2022 Q4 | | 120 | 31.1 kB |
| 2023-04-01T10:00:00.000Z | 2023 Q1 | | 182 | 40.1 kB |
| 2023-07-01T10:00:00.000Z | 2023 Q2 | | 88 | 25.6 kB |

Showing all 8

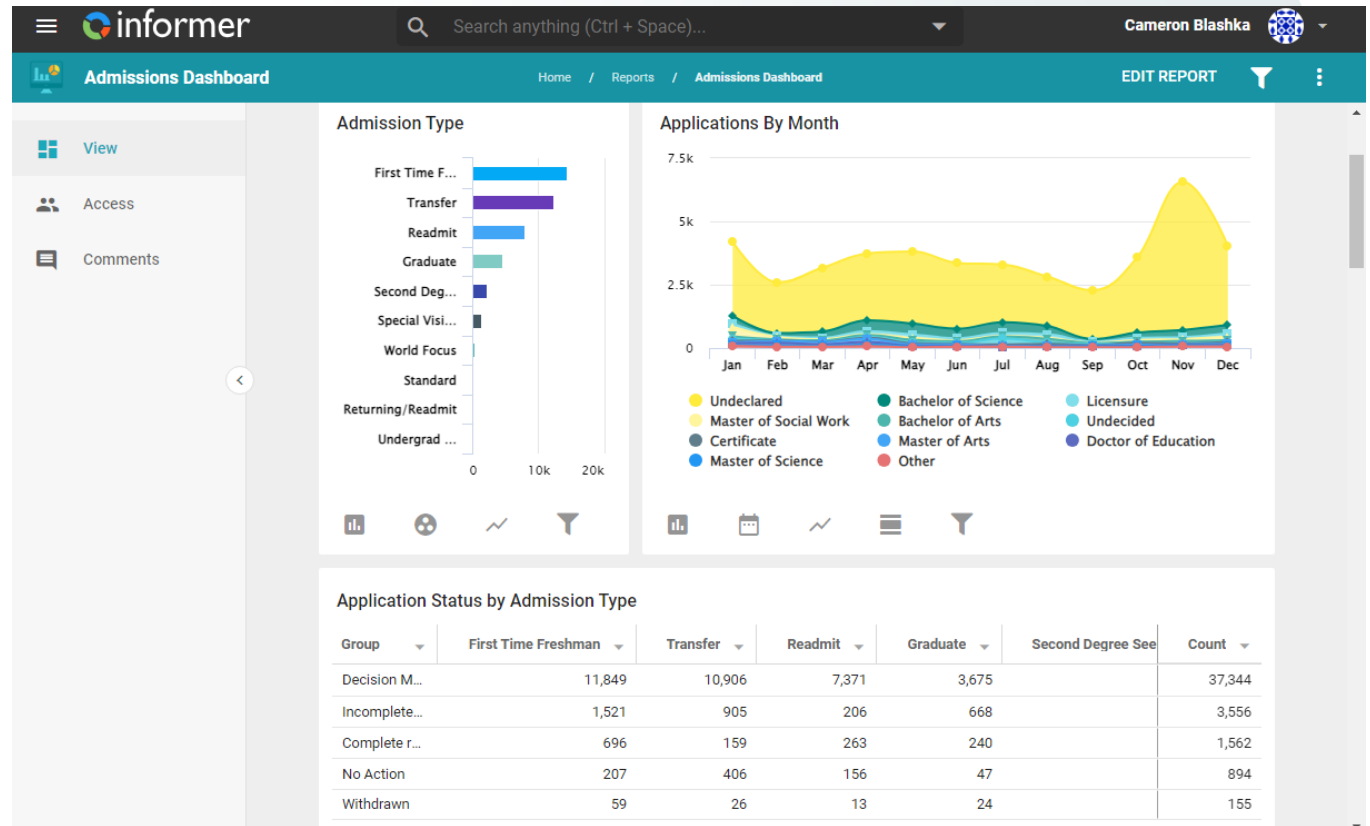
Snapshots in Reports

- Snapshots can be used to create Reports.
- Users can select specific Snapshots to use for a Report.



Conclusion

- There are different refresh modes available for different use cases
- Upsert mode has a big advantage with historical data
- Snapshots provide a powerful way to preserve and utilize historical data.
- By capturing and comparing data from different points in time, Users gain valuable insights into their data.





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September 26th-29th, 2023
Raleigh, NC

Q & A





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Thank You