

# Kibana

## Reference Guide

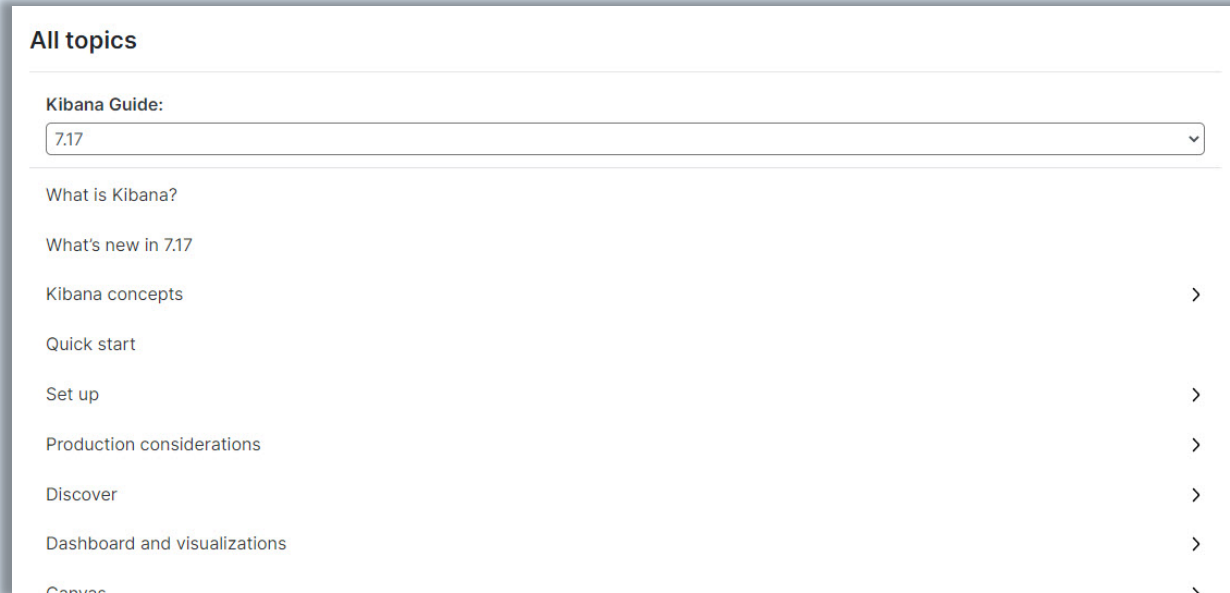
This user reference guide includes instructions for the use of Kibana within the PIEE environment. For further instructions on the use of Kibana, please visit <https://www.elastic.co/guide/en/kibana/7.17/index.html>.

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## Elastic User Guide



To view Elastic's Kibana user guide, navigate to <https://www.elastic.co/guide/en/kibana/7.17/index.html>. Navigate to the bottom of the page and utilize the navigational menu to access training materials relevant to 7.17.1.

## Dashboards

The user may customize the Kibana dashboard to display a collection of searches and visualizations.

# Dashboards

[+ Create dashboard](#)

Search... Tags

<input type="checkbox"/>	Title	Description	Tags	Actions
<input type="checkbox"/>	EDA CLIN ADDR SYN DISA GF	This report contains all the addresses found on the Synopsis XML.		
<input type="checkbox"/>	EDA CLIN LOA DELIVERY SYN DISA GF	This report contains delivery data for Synopsis Line Item.		
<input type="checkbox"/>	EDA CLIN LOA REPEAT ELEMENT SYN DISA GF	This report contains data for line of accounting for the Synopsis XML that can exist one or more times within an XML.		
<input type="checkbox"/>	EDA CLIN LOA SYN DISA GF	This report contains data for line of accounting from Synopsis XML.		
<input type="checkbox"/>	EDA CONTRACT SYN DISA GF	This report contains contractual information from Synopsis XML.		
<input type="checkbox"/>	EDA CONTRACT SYN DISA GF	This report contains data for GFP clauses found		

Select the **Create dashboard** button to customize the dashboard view.

Search

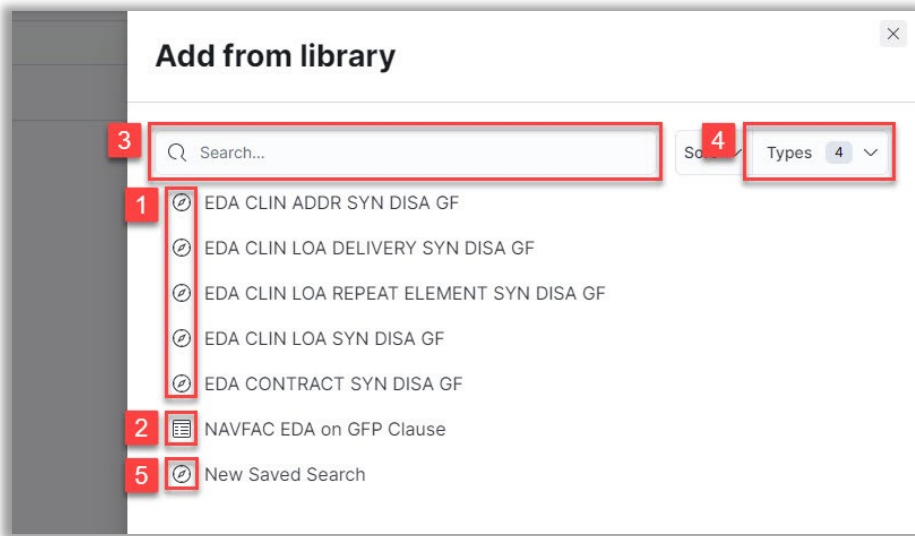
+ Add filter

[Create visualization](#) All types [Add from library](#)

### Add your first visualization

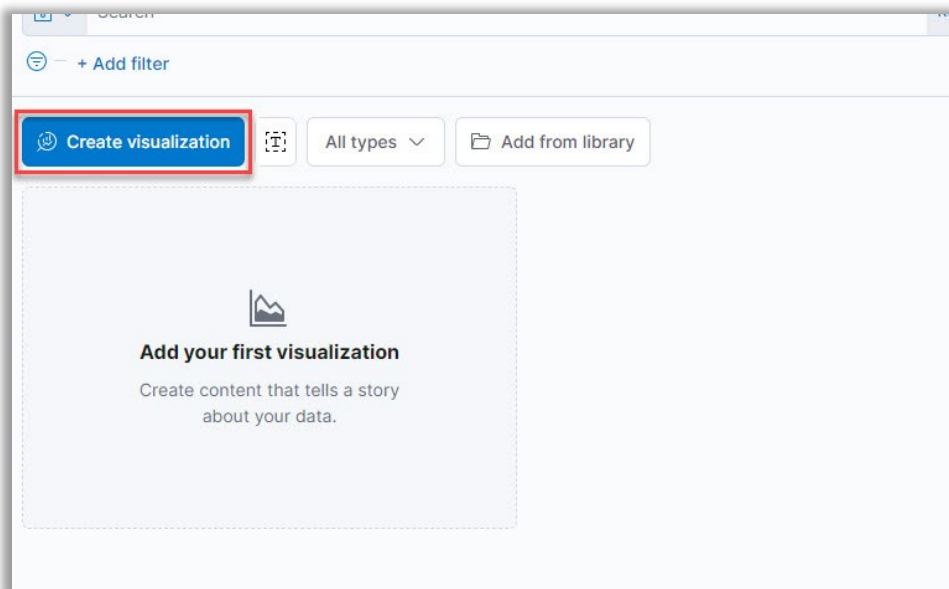
Create content that tells a story about your data.

To add a saved visualization to the dashboard, select the **Add from library** button.



All available saved visualizations and searches are displayed by default.

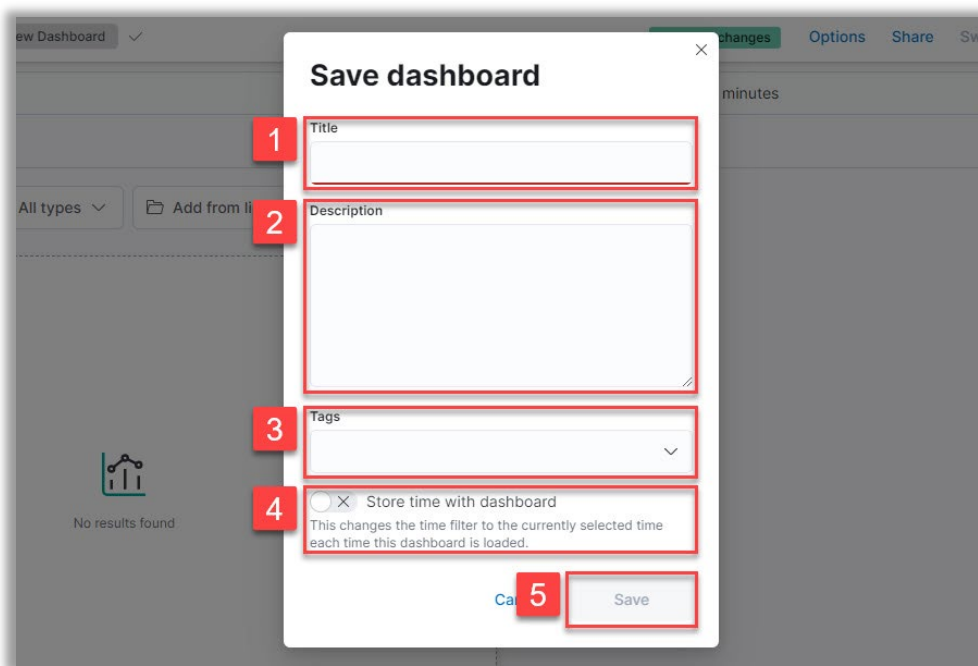
1. Saved visualizations may be selected to add to the dashboard.
2. Saved searches may be selected to add to the dashboard.
3. Visualizations and searches may be located using the **Search** field.
4. Available items may be filtered using the **Types** dropdown menu.
5. A new search may be created using the **New Saved Search** option.



To create a new visualization, select the **Create visualization** button.

Select the desired visualization type from the **Visualization Type** dropdown menu. For more information on creating a visualization, please visit <https://www.elastic.co/guide/en/kibana/7.17/dashboard.html>.

Select **Save** from the Kibana toolbar to save the new dashboard.

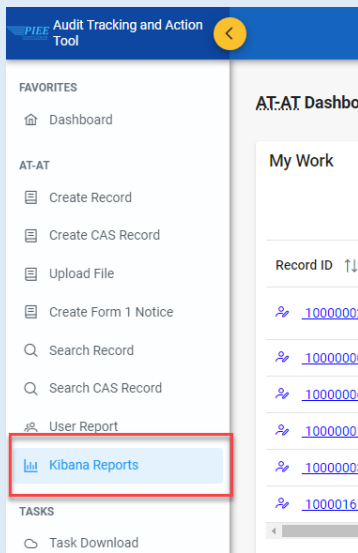


1. Enter the dashboard name in the Title field.
2. Add a description in the Description field, if desired.
3. Add any desired metadata from the Tags dropdown menu.
4. To store the time period specified in the time filter, enable Store time with dashboard.
5. Select **Save** to save the dashboard.

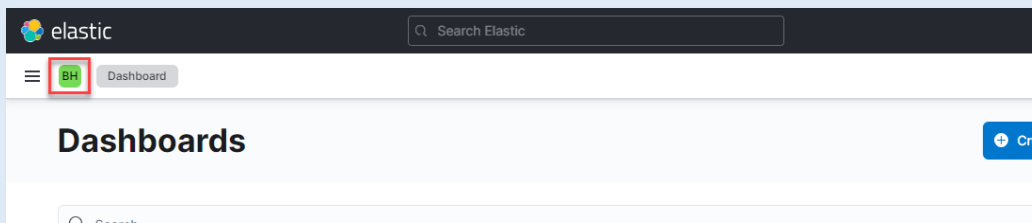
## Collaborative Spaces

### Creating and Editing a Collaborative Space

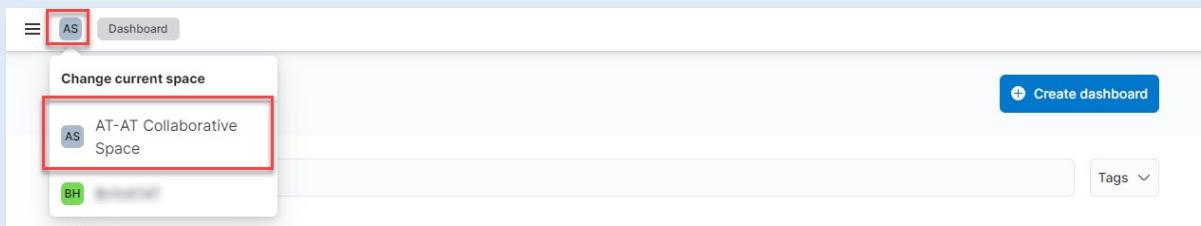
1. Access Kibana (e.g., via AT-AT)



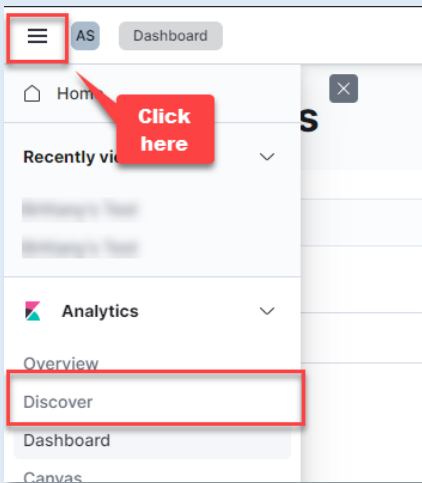
2. Click the small green square with initials in the top left of the page.



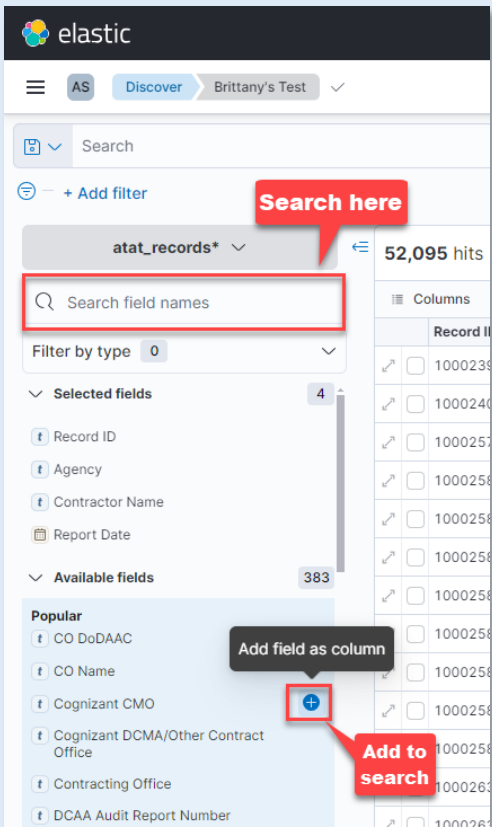
3. Click "Module' Collaborative Space" (e.g., AT-AT Collaborative Space).



4. The "Dashboards" page displays (if it is blank the user is prompted to create a Dashboard). Rather than clicking "Create Dashboard", click the 3 lines in the top left of the page and navigate to "Discover".



5. Search for fields in the “Search field names” bar. Add fields by clicking the “+” button.



6. A table on the right side of the page is populated with the columns and data correlated to the fields added.

The screenshot shows a data discovery interface with a search bar, a filter section, and a table of results. The table has the following columns: Record ID, Agency, Contractor Name, and Report Date. The 'Selected fields' list on the left is highlighted with a red box.

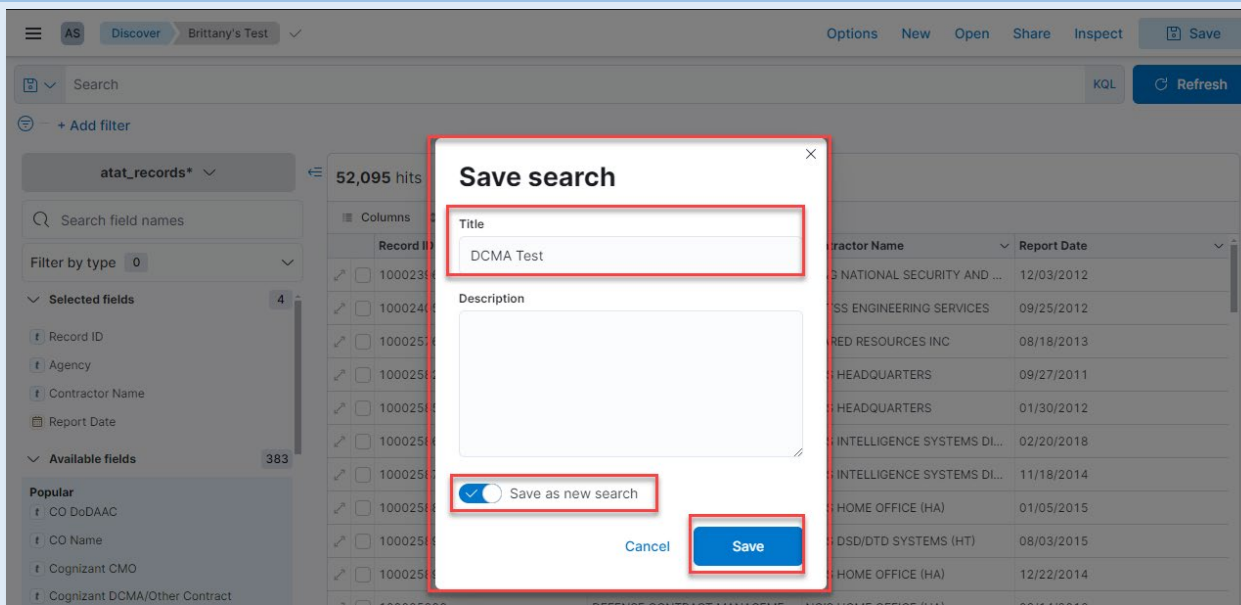
Record ID	Agency	Contractor Name	Report Date
100023962	DEFENSE CONTRACT MANAGEME...	EG&G NATIONAL SECURITY AND ...	12/03/2012
100024056	DEFENSE CONTRACT MANAGEME...	LM TSS ENGINEERING SERVICES	09/25/2012
100025765	DEFENSE CONTRACT MANAGEME...	SHARED RESOURCES INC	08/18/2013
100025820	DEFENSE CONTRACT MANAGEME...	NGIS HEADQUARTERS	09/27/2011
100025854	DEFENSE CONTRACT MANAGEME...	NGIS HEADQUARTERS	01/30/2012
100025867	DEFENSE CONTRACT MANAGEME...	NGIS INTELLIGENCE SYSTEMS DI...	02/20/2018

7. After all fields have been added, click the “Save” button in the top right of the page.

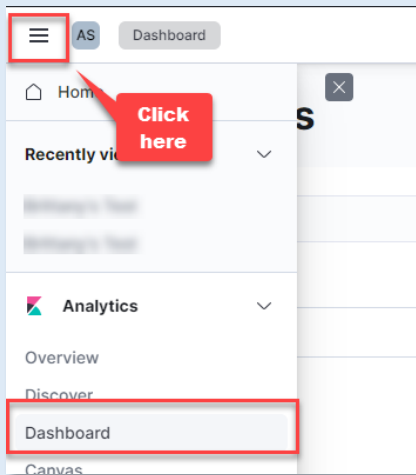
The screenshot shows the same data discovery interface as in step 6, but with the 'Save' button in the top right corner highlighted with a red box.

8. A ‘Save search’ pop-up displays. The “Title” field is required. Toggle ON the “Save as new search” switch. Click the “Save” button, the window closes.

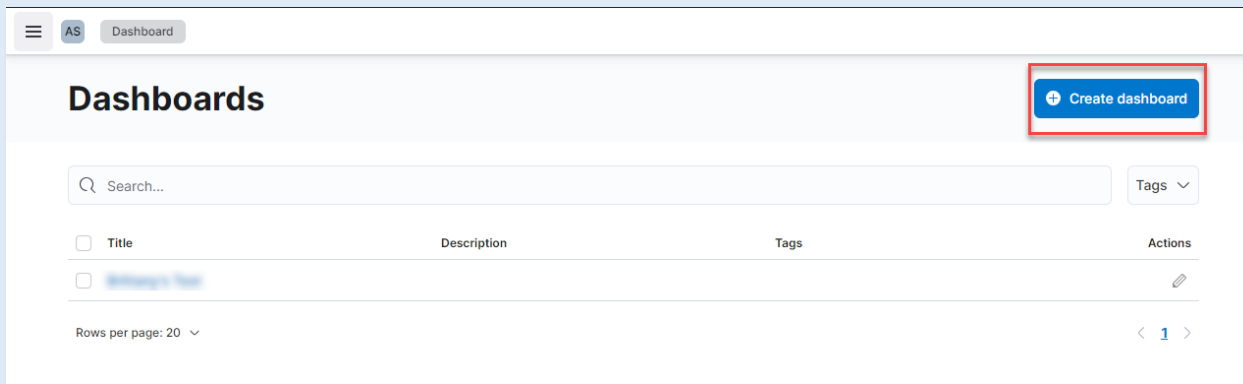




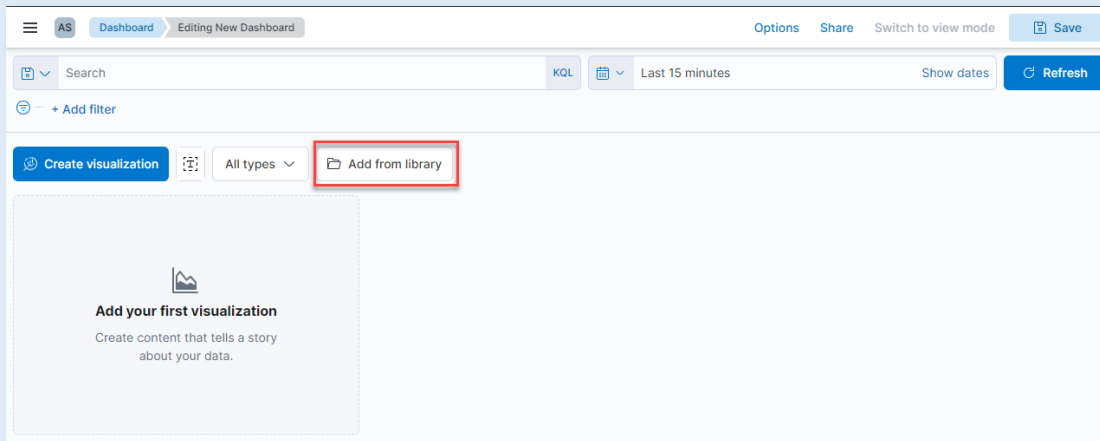
9. Click the 3 lines in the top left of the page and navigate to “Dashboard”.



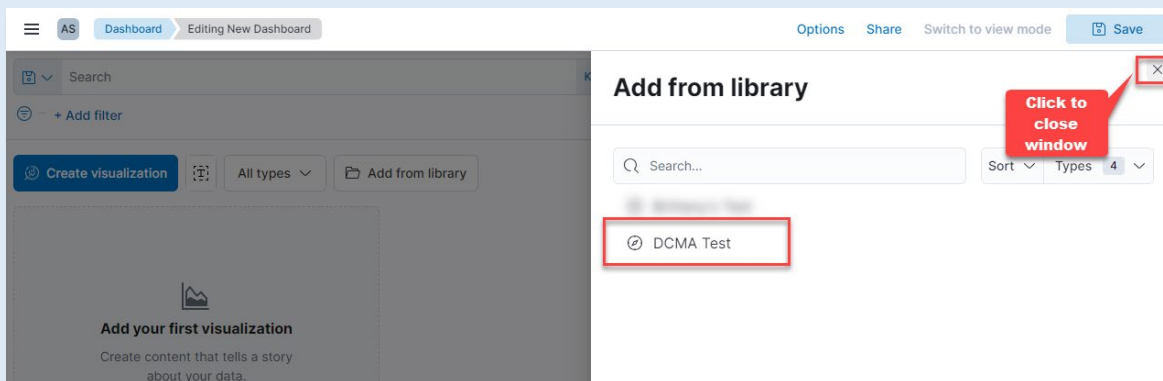
10. The ‘Dashboards’ page displays, click the “Create Dashboard” button in the top right (if the ‘Dashboards’ page is empty, the create button may be in the center of the page).



11. An 'Editing New Dashboard' page displays, click the "Add from library" button to add saved search to the Dashboard.



12. An "Add from Library" sidebar displays, click the search saved earlier in these steps (e.g., search titled "DCMA Test"). The Dashboard will reload in the background. Click the "x" in the top right of the sidebar to close it.



13. The 'Editing New Dashboard' page displays a table with the results from the saved search. At this point, if visualizations are desired, those can be added by clicking the "Create visualization" button.

The screenshot shows the 'Editing New Dashboard' interface. At the top, there are navigation elements: 'AS', 'Dashboard', 'Editing New Dashboard', 'Unsaved changes', 'Options', 'Share', 'Switch to view mode', and 'Save'. Below this is a search bar with 'Search' text, a 'KQL' button, a dropdown for 'Last 15 minutes', 'Show dates', and a 'Refresh' button. A '+ Add filter' button is also present. The main content area features a 'Create visualization' button, a dropdown for 'All types', and an 'Add from library' button. The central part of the page is a table titled 'DCMA Test' with 52095 documents. The table has columns for 'Record ID', 'Agency', 'Contractor Name', and 'Report Date'. The first few rows of data are as follows:

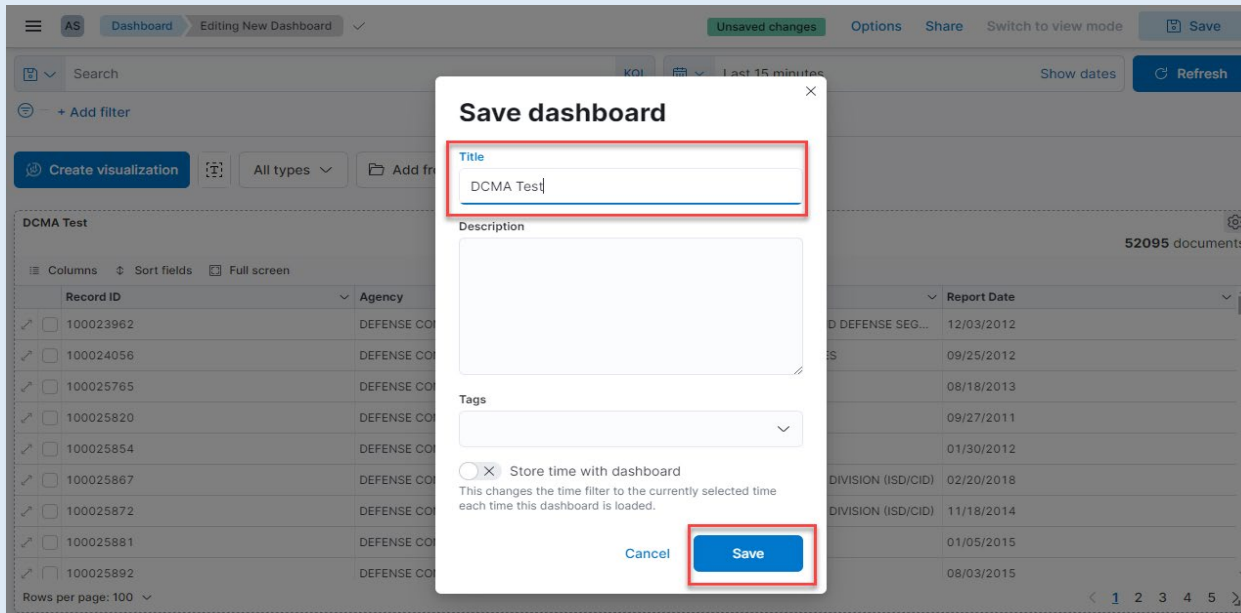
Record ID	Agency	Contractor Name	Report Date
100023962	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	EG&G NATIONAL SECURITY AND DEFENSE SEG...	12/03/2012
100024056	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	LM TSS ENGINEERING SERVICES	09/25/2012
100025765	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	SHARED RESOURCES INC	08/18/2013
100025820	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	NGIS HEADQUARTERS	09/27/2011
100025854	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	NGIS HEADQUARTERS	01/30/2012
100025867	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	NGIS INTELLIGENCE SYSTEMS DIVISION (ISD/CID)	02/20/2018
100025872	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	NGIS INTELLIGENCE SYSTEMS DIVISION (ISD/CID)	11/18/2014
100025881	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	NGIS HOME OFFICE (HA)	01/05/2015
100025892	DEFENSE CONTRACT MANAGEMENT AGENCY (...)	NGIS DSD/DTD SYSTEMS (HT)	08/03/2015

At the bottom of the table, there is a 'Rows per page: 100' dropdown and a pagination control showing '1 2 3 4 5'.

14. Click the "Save" button in the top right corner to save to the 'Module' Collaborative Space dashboard.

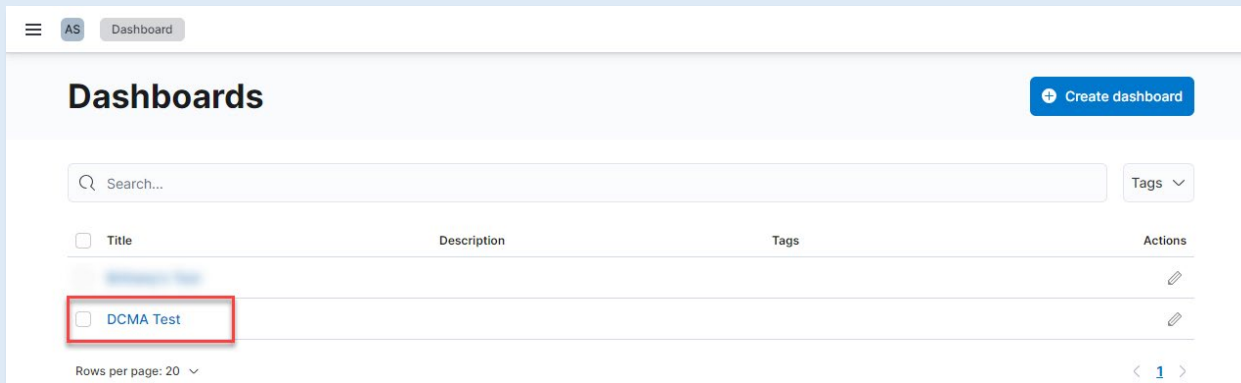
This screenshot is identical to the previous one, but with a red callout box pointing to the 'Save' button in the top right corner. The callout box contains the text: 'Click to save report to Dashboard'.

15. The 'Save Dashboard' pop-up displays. The "Title" field is required ("Description" is optional). Click the "Save" button.



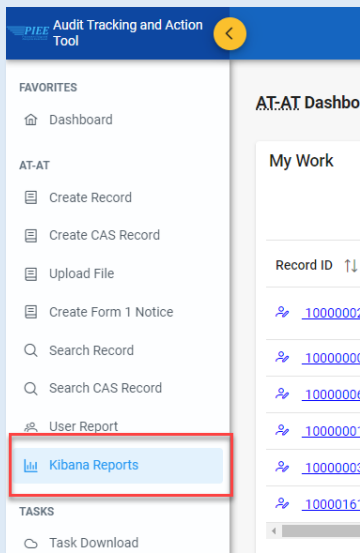
*NOTE: The "Title" entered displays on the 'Module' Collaborative Space dashboard and will be visible to other 'Module' users.*

16. The new report now displays in the list on the 'Dashboards' page. Any changes to this report will reflect for all 'Module' users – and all 'Module' users can make changes to the report. This is what makes the collaborative space different than each individual user's personal dashboard.

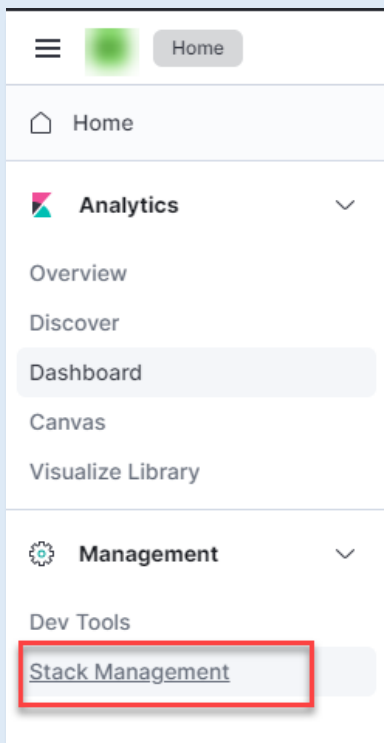


## Sharing from a Personal Space to a Collaborative Space

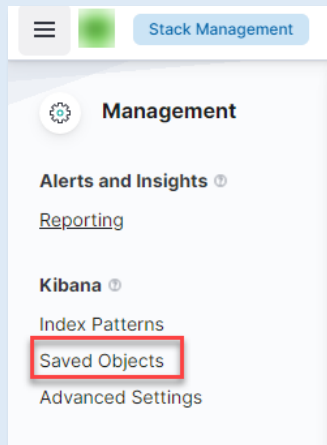
1. Access Kibana (e.g., via AT-AT)



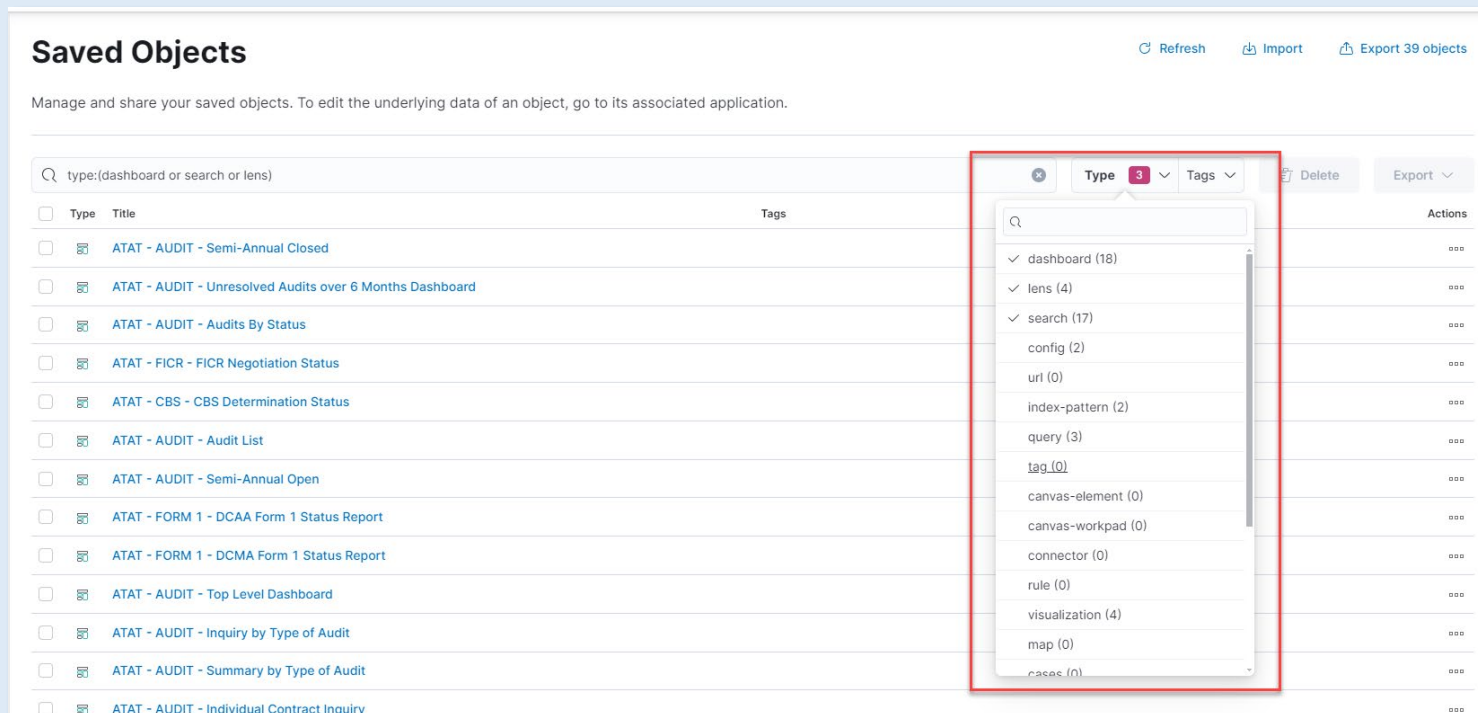
2. Click the 3 lines in the top left of the page and navigate to “Stack Management”.



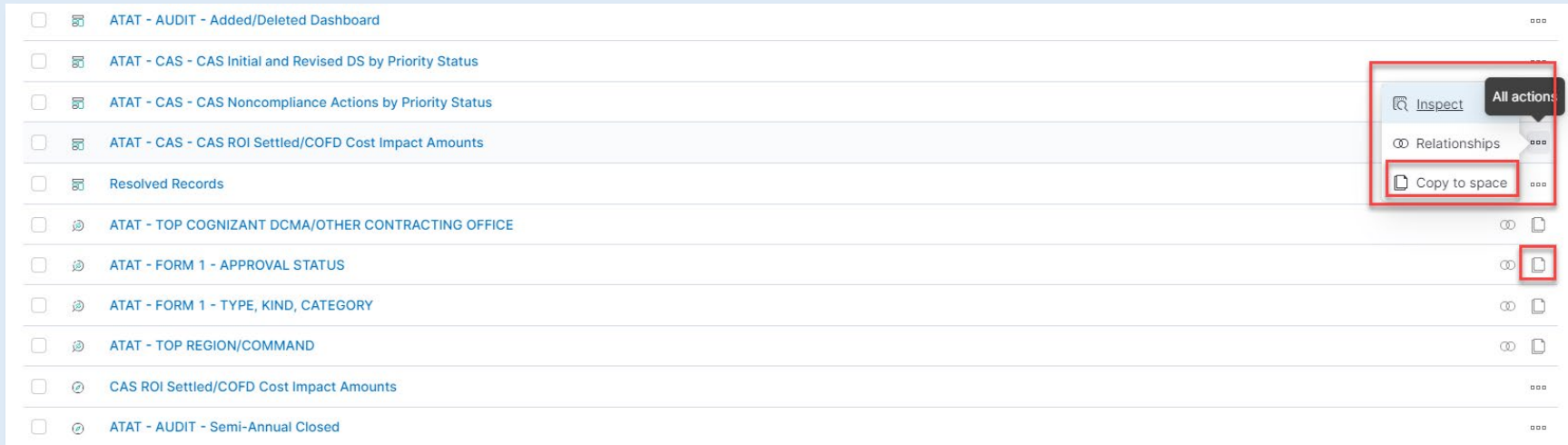
3. The Stack Management page displays. Click the “Saved Objects” link.



4. The Saved Objects page displays. Select “Types” to filter the list of available saved objects (e.g., Dashboard, Search, Lens).

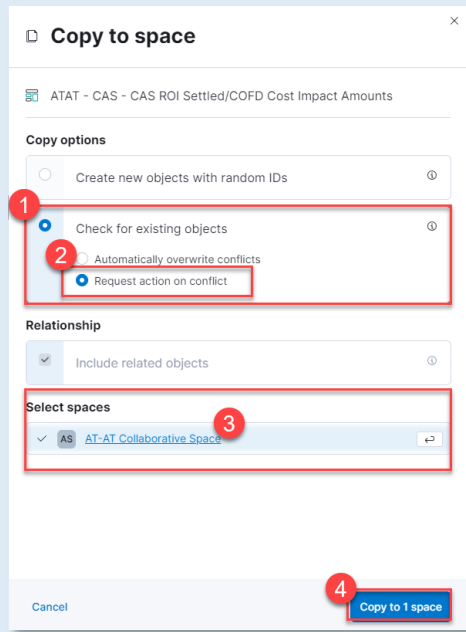


5. Click the 3 dots for All Actions and select “Copy to Space” or the “Copy” icon for the saved object to be shared to the Collaborative Space.



6. The Copy to space sidebar displays.

1. Click the “Check for existing objects” radio button.
2. Click the “Request action on conflict” sub-radio button.
3. Select the Space to be shared to.
4. Click the “Copy to 1 space” button.



7. The Results of the copy display, expand the section and review and resolve any conflicts. Click the “Finish” button.

**Copy to space**

ATAT - CAS - CAS ROI Settled/COFD Cost Impact Amounts

Check for existing objects

Automatically overwrite conflicts

Include related saved objects

**Results**

AS AT-AT Collaborative Space (resolve all) 6

- ATAT - CAS - CAS ROI Settled/COFD Cost Impact Am... Overwrite?
- atat\_records\* Overwrite?
- ATAT - TOP REGION/COMMAND Overwrite?
- ATAT - TOP COGNIZANT DCMA/OTHER CONTRACTIN... Overwrite?
- CAS ROI Settled/COFD Cost Impact Amounts Overwrite?
- ATAT - CAS - CONTROLS Overwrite?

Copied: 0 Pending: 0 Skipped: 6 Errors: 0

Cancel Finish

8. The Saved Objects are now available in the Collaborative Space.

**Dashboards** Create dashboard

Search... Tags

Title	Description	Tags	Actions
<input type="checkbox"/> ATAT - AUDIT - Semi-Annual Closed	ATAT - AUDIT - Semi-Annual Closed		
<input type="checkbox"/> ATAT - AUDIT - Unresolved Audits over 6 Months Dashboard	ATAT - AUDIT - Unresolved Audits over 6 Months Dashboard		
<input type="checkbox"/> ATAT - CAS - CAS ROI Settled/COFD Cost Impact Amounts	ATAT - CAS - CAS ROI Settled/COFD Cost Impact Amounts		
<input type="checkbox"/> DCMA Test			

Rows per page: 20 < 1 >

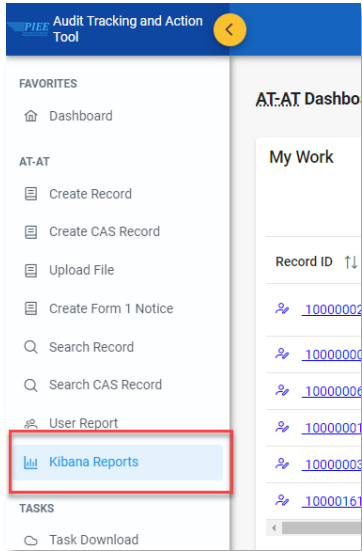
## Sharing Saved Objects from User to User



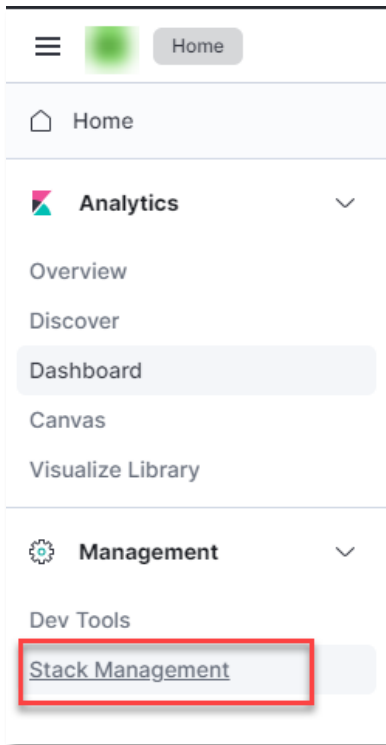
## How to share Saved Objects from one User to another User

### User One (Exporting)

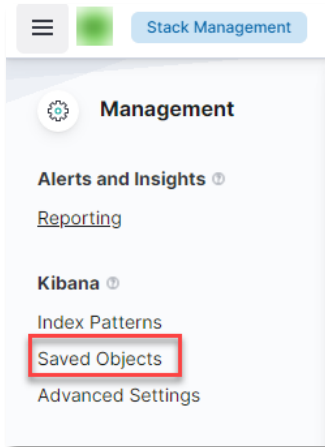
1. Access Kibana (e.g., via AT-AT)



2. Click the 3 lines in the top left of the page and navigate to "Stack Management".

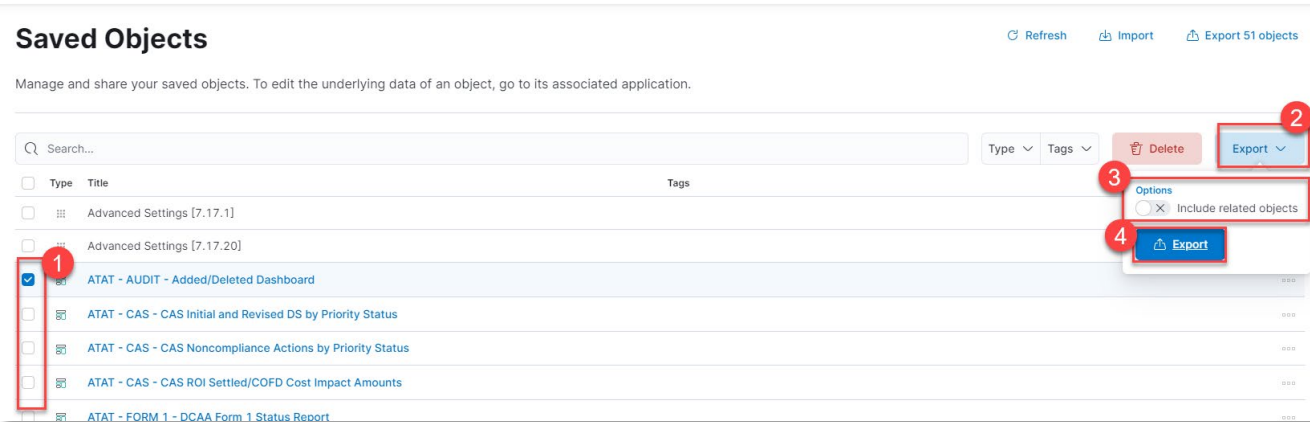


3. The Stack Management page displays. Click the “Saved Objects” link.

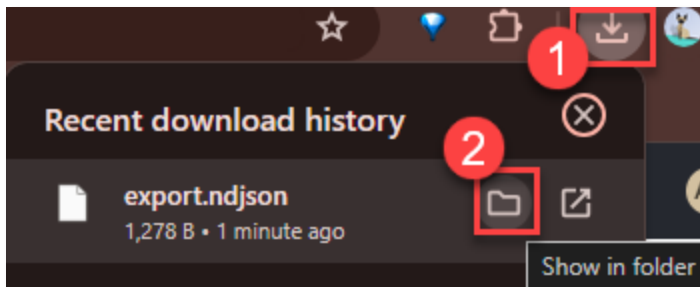


4. The Saved Objects page displays.
1. Select one to many saved objects for export.
  2. Click the Export drop-down.
  3. Unselect the “Include related objects” unless otherwise directed.

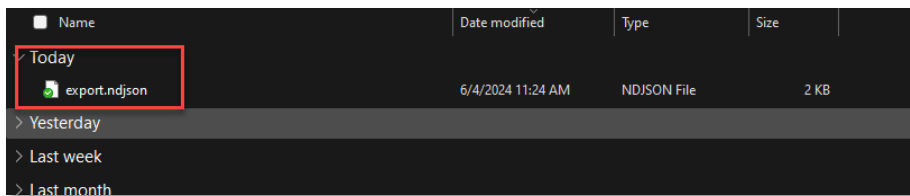
4. Click the "Export" button.



5. An .ndjson file is downloaded to the local machine. Open the folder containing the downloaded export file.

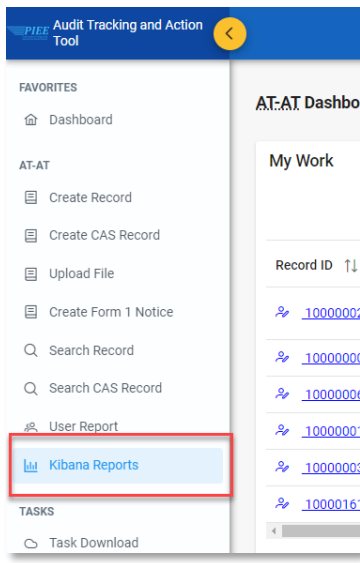


6. Forward the downloaded file to the requesting User (e.g., via email).

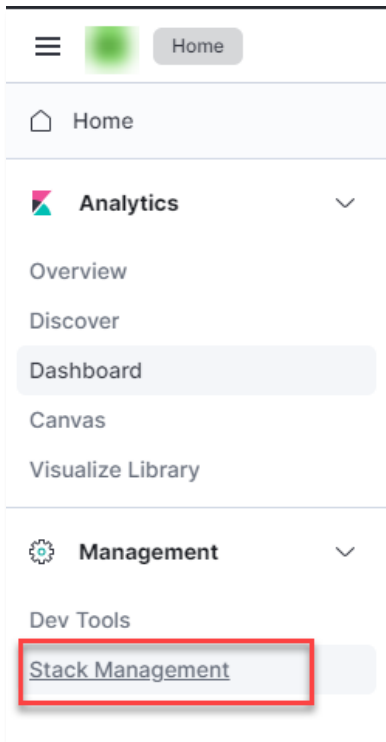


### User Two (Importing)

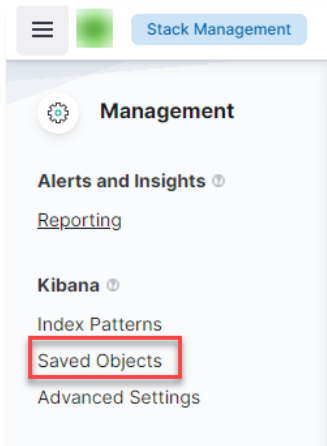
1. After receiving the exported .ndjson file from the sending User, download the file to the local machine.
2. Access Kibana (e.g., via AT-AT)



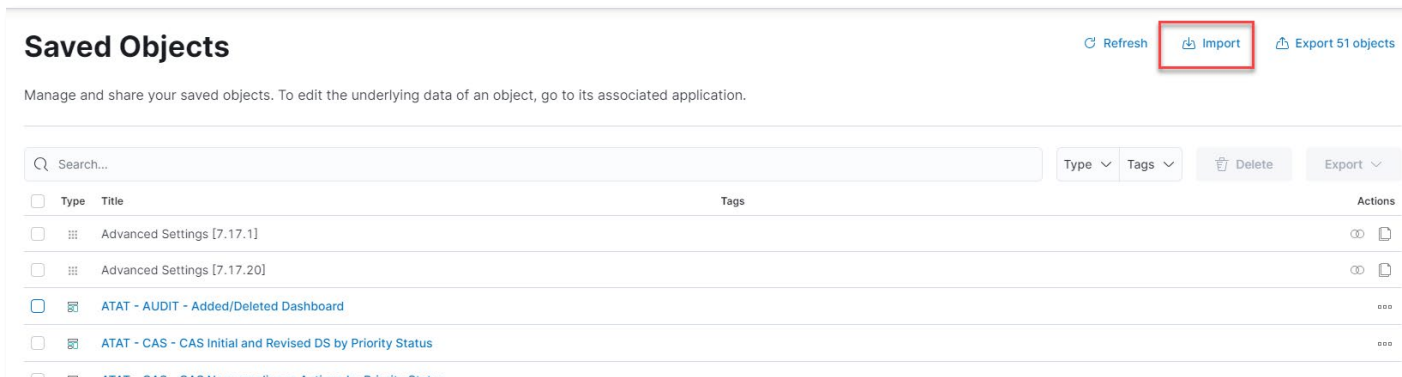
3. Click the 3 lines in the top left of the page and navigate to “Stack Management”.



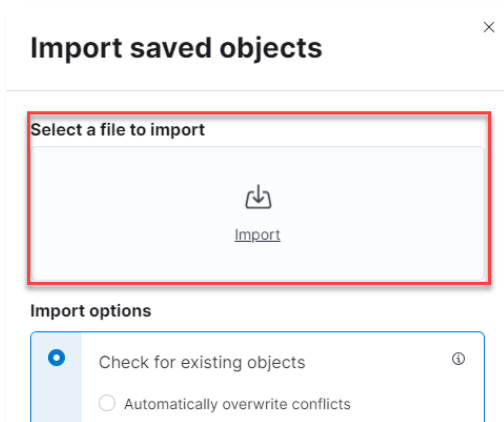
4. The Stack Management page displays. Click the “Saved Objects” link.



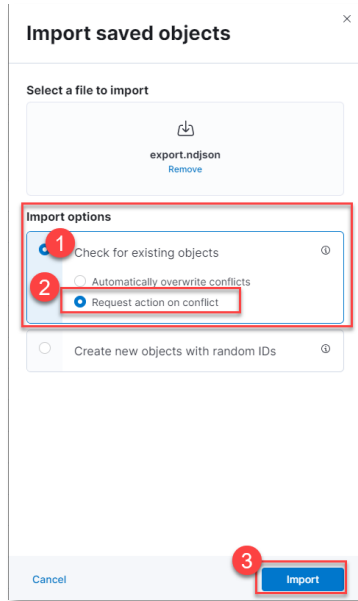
5. The Saved Objects page displays. Click the “Import” button.



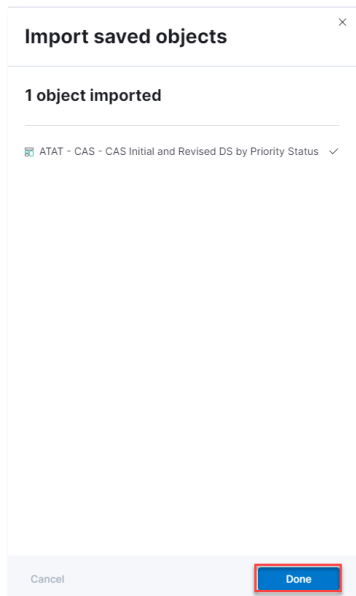
6. The Import save objects sidebar displays. Click the “Import” button or drag and drop the file on top of the sidebar.



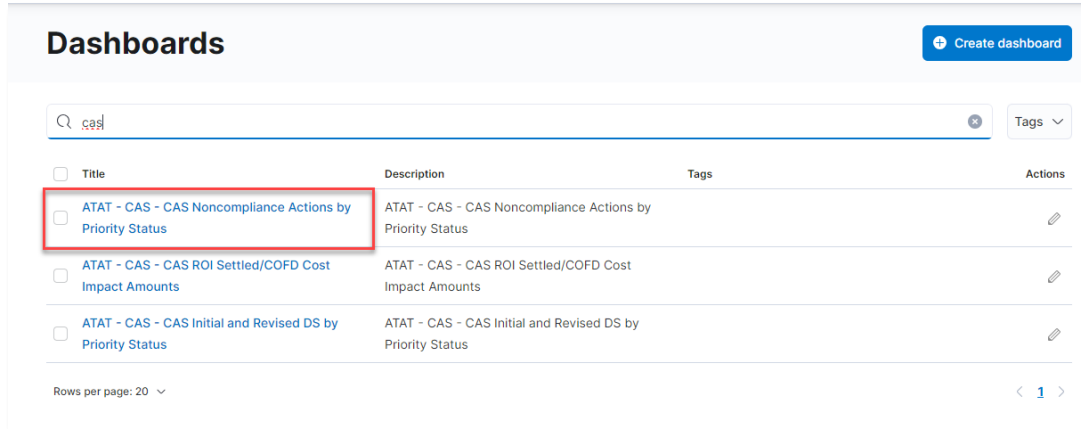
7. The imported file displays in the Select a file to import section.
  1. Select “Check for existing objects” under Import options.
  2. Select the sub-option “Request action on conflict” under “Check for existing objects”.
  3. Click the “Import” button.



8. A success screen displays the number of objects imported. Click the “Done” button.



9. The imported objects display in the Saved Objects page (e.g., dashboard objects are displayed on the users Dashboard).



**Dashboards** + Create dashboard

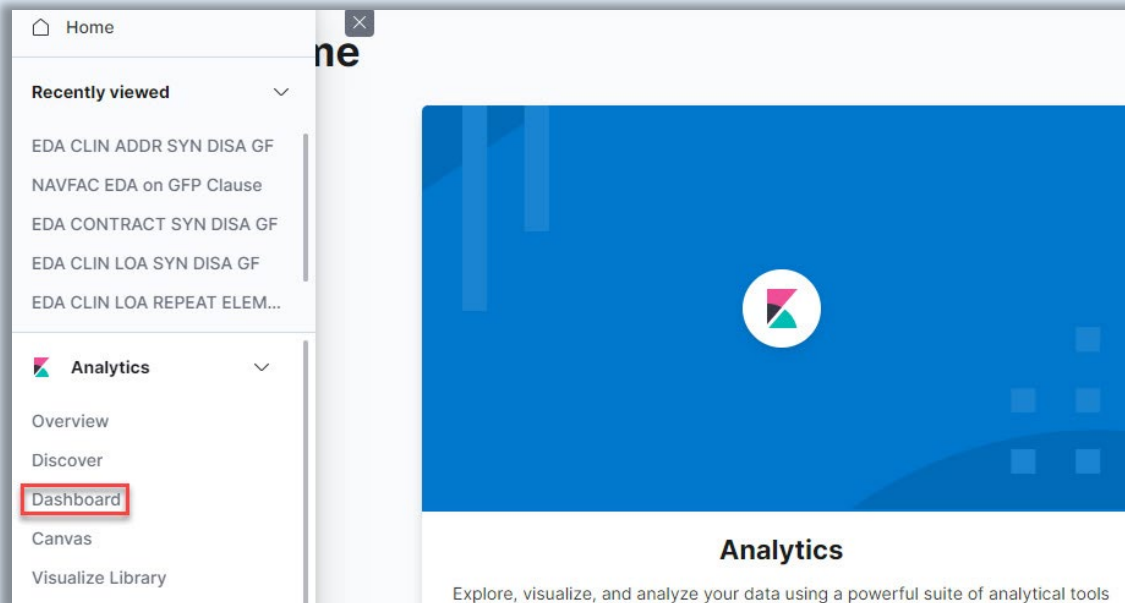
Q cas Tags

<input type="checkbox"/> Title	Description	Tags	Actions
<input type="checkbox"/> <b>ATAT - CAS - CAS Noncompliance Actions by Priority Status</b>	ATAT - CAS - CAS Noncompliance Actions by Priority Status		
<input type="checkbox"/> ATAT - CAS - CAS ROI Settled/COFD Cost Impact Amounts	ATAT - CAS - CAS ROI Settled/COFD Cost Impact Amounts		
<input type="checkbox"/> ATAT - CAS - CAS Initial and Revised DS by Priority Status	ATAT - CAS - CAS Initial and Revised DS by Priority Status		

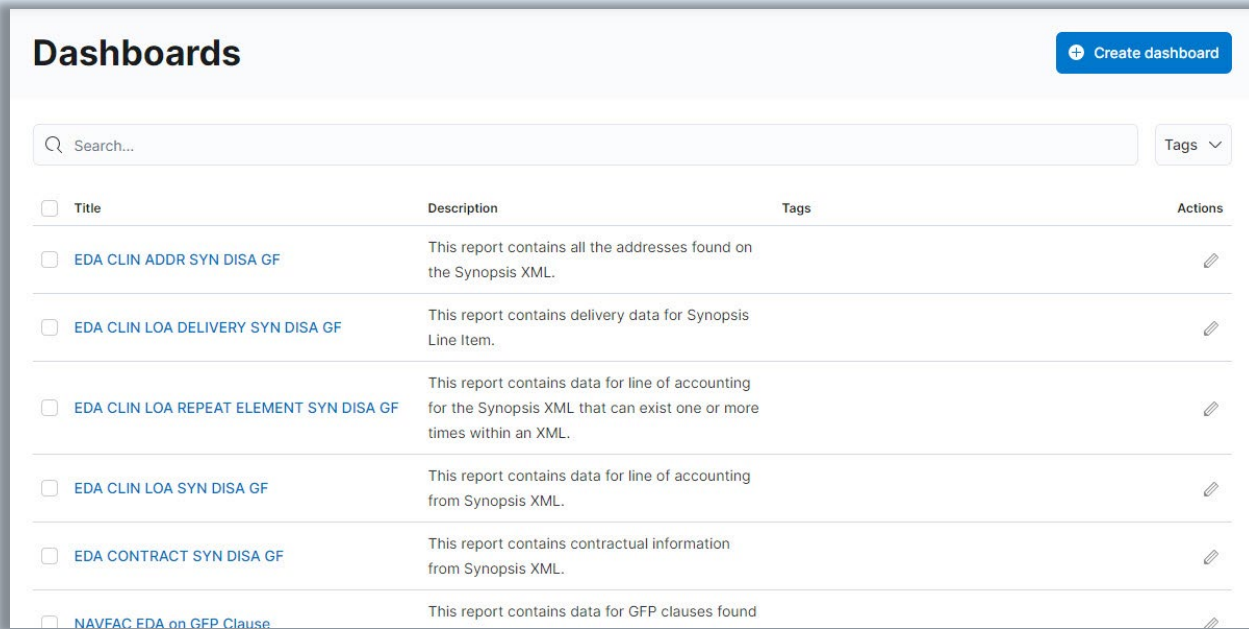
Rows per page: 20 < 1 >

## Viewing Report Data

### Navigation



Navigate to the **Dashboard** tab in the navigation pane.



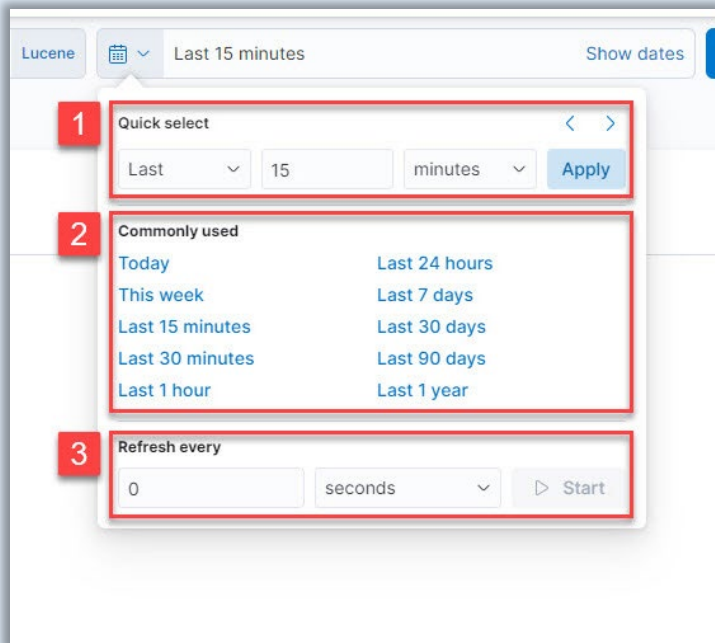
The screenshot shows a 'Dashboards' interface with a search bar and a 'Tags' dropdown. Below is a table listing several reports:

<input type="checkbox"/> Title	Description	Tags	Actions
<input type="checkbox"/> <a href="#">EDA CLIN ADDR SYN DISA GF</a>	This report contains all the addresses found on the Synopsis XML.		
<input type="checkbox"/> <a href="#">EDA CLIN LOA DELIVERY SYN DISA GF</a>	This report contains delivery data for Synopsis Line Item.		
<input type="checkbox"/> <a href="#">EDA CLIN LOA REPEAT ELEMENT SYN DISA GF</a>	This report contains data for line of accounting for the Synopsis XML that can exist one or more times within an XML.		
<input type="checkbox"/> <a href="#">EDA CLIN LOA SYN DISA GF</a>	This report contains data for line of accounting from Synopsis XML.		
<input type="checkbox"/> <a href="#">EDA CONTRACT SYN DISA GF</a>	This report contains contractual information from Synopsis XML.		
<input type="checkbox"/> <a href="#">NAVFAC EDA on GFP Clause</a>	This report contains data for GFP clauses found		

Select the desired report from the Dashboards menu.

**View Report Data**





The time filter restricts the search results to a specific time period. The time filter can be specified if the index contains time-based events, and a time field is configured for the selected index pattern. The time filter defaults to the last 15 minutes.

1. In the Quick Select menu, arrows or fields may be used to select the desired time filter. Select the Apply button to save changes.
2. Commonly used settings may be selected to apply the time filter.
3. A refresh interval may be specified.

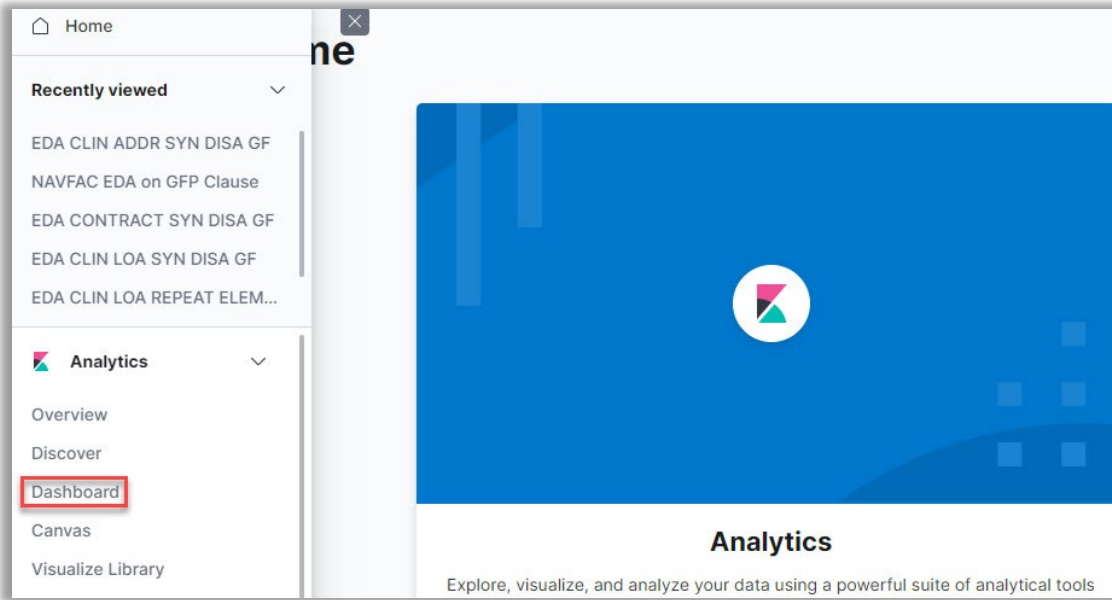
Kibana Reports are displayed on the Kibana Dashboard. Select the **menu expander** to the left of a document to view detailed data for that item.

Select the **Table** tab to view data in table format. In table view, the user will be able to view all the data within the index record. This includes more data than is displayed on the report.

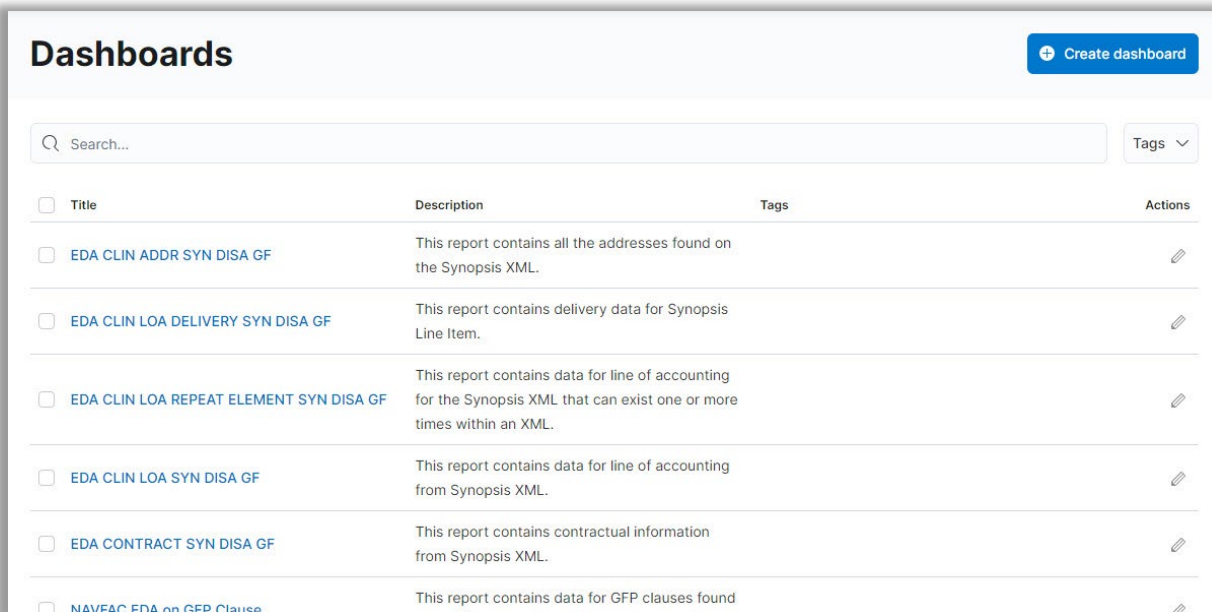
Select the **JSON** tab to view data in JSON format.

## Filtering Report Data

### Navigation



Navigate to the **Dashboard** tab in the navigation pane.



Select the desired report from the Dashboard menu.

## Filter Report Data

Users may utilize filters to return specific data in the report.

### *Option 1: Lucene Queries*

1. Manually enter one or more filter queries in the free text **Search** field. The query must be in the format of field:data (no spaces). As data is entered, matching fields may be displayed in the dropdown menu. The user's search history will also populate in the dropdown menu.

Examples:

clin:0001

parent\_record\_key:12345 AND clin:0001

For information regarding building Lucene queries, please visit <https://www.elastic.co/guide/en/elasticsearch/reference/7.2/query-dsl-query-string-query.html#query-string-syntax>.

2. Select the **Refresh** button to apply the filter.

### *Option 2: Guided Filtering*

1. To select filters from the Add a Filter menu, select the **Add Filter** button below the Search field.
2. The Edit filter modal will be displayed. The user may select the desired field from the **Field** dropdown menu or enter the field name manually. As data is entered into the field, the dropdown menu will display only matching items.
3. The Operator field will now be displayed. Select a search modifier from the **Operator** dropdown menu to apply to the search criteria entered in the Fields field.

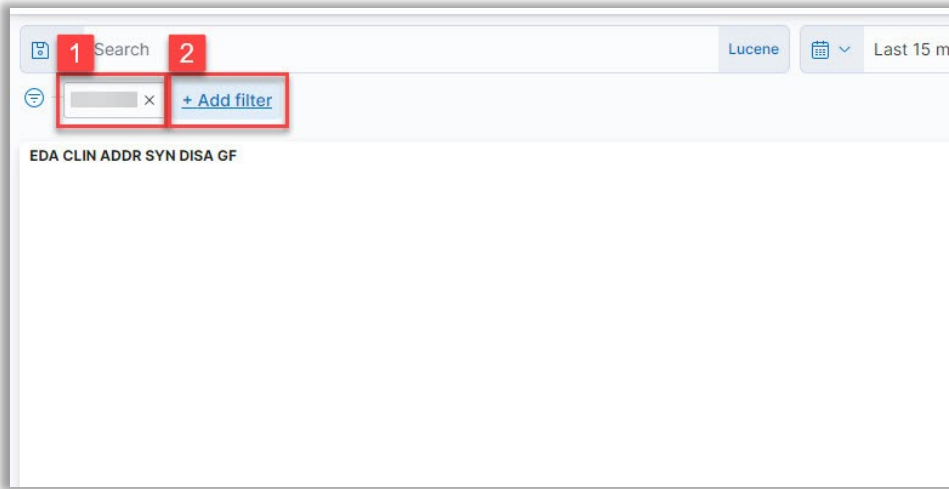
The operators are defined as follows:

- Is: Filter where the value for the field matches the given value.
- Is not: Filter where the value for the field does not match the given value.
- Is one of: Filter where the value for the field matches one of the specified values.

- Is not one of: Filter where the value for the field does not match any of the specified values.
  - Exists: Filter where any value is present for the field.
  - Does not exist: Filter where no value is present for the field.
4. The Value field will now be displayed. The user may select an item from the **Value** dropdown menu or enter a value manually. As data is entered into the field, the dropdown menu will display only matching items.

Note: To search for a NULL value for a string field, select the 'Is' operator and enter 'ZZZULL' in the Values field. For non-string fields, such as dates and numbers, use the 'Exists'/'Does not exist' operators.

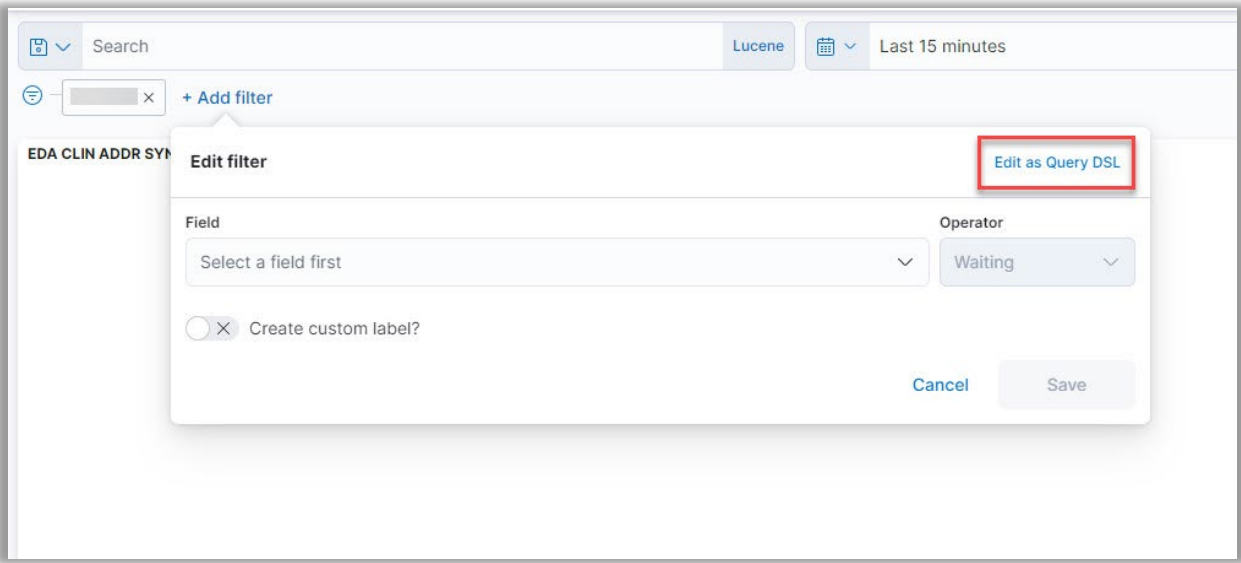
5. Select the **Save** button on the Edit filter modal.



1. The report results are filtered by the user's requested criteria.
2. Multiple filters may be applied simultaneously by selecting the **Add Filter** button and repeating the previous steps.

For more information regarding filtering in Kibana, please visit <https://www.elastic.co/guide/en/kibana/7.17/discover.html>.

*Option 3: Query DSL*



1. To use advanced queries, select the **Edit as Query DSL** link on the Add a Filter menu.

Example: Starts With and Wildcard queries

--- Starts with query ---

```
{
  "query": {
    "prefix": {
      "contract_number": "S0"
    }
  }
}
```

--- Wildcard query ---

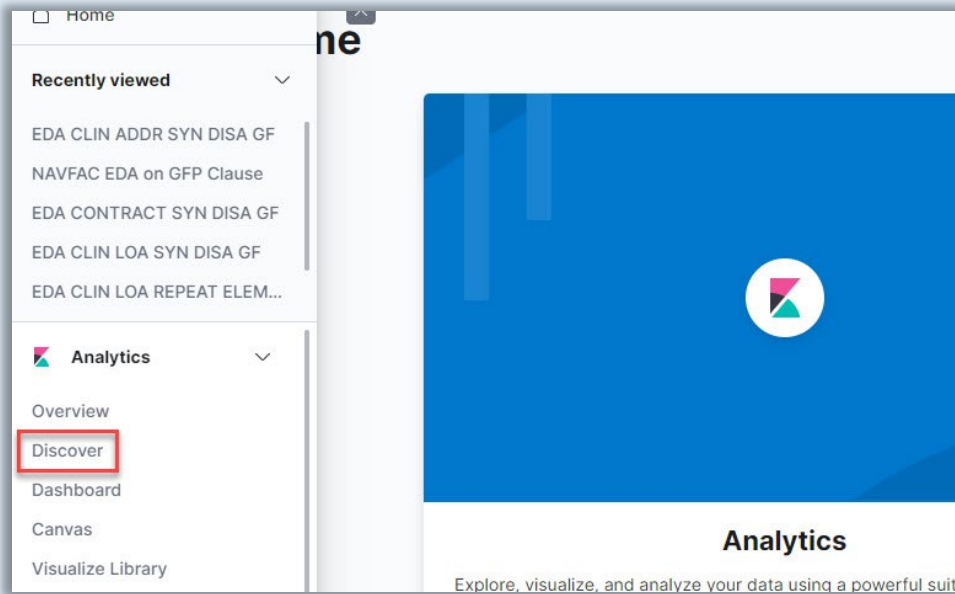
```
{
  "query": {
    "wildcard": {
      "contract_number": "S*"
    }
  }
}
```

Additional filters may be added using the **Edit as Query DSL** link. All entered queries will be chained together to return the desired results.

For more information regarding querying of DSL, please visit <https://www.elastic.co/guide/en/elasticsearch/reference/7.17/query-dsl.html>.

## Exporting Report Data

Users may export report data from Kibana in CSV format.











1. Navigate to the **Discover** tab in the navigation pane.
2. Select the **Open** link in the menu bar.
3. In the Open search modal, select a **Search** from the list of reports.
4. Select the **Share** link in the menu bar.
5. Select **CSV Reports** from the Share This Search dropdown menu.

6. Select the **Generate CSV** button to queue the CSV file for download. The user may select the download link in the popup that will display on the screen, or on the Reports page.
7. To download the CSV file from the Reports page, navigate to the **Stack Management** tab in the Management section of the navigation pane.
8. Select the **Reporting** link under Alerts and Insights in the navigation pane.

## Reports

Get reports generated in Kibana applications.

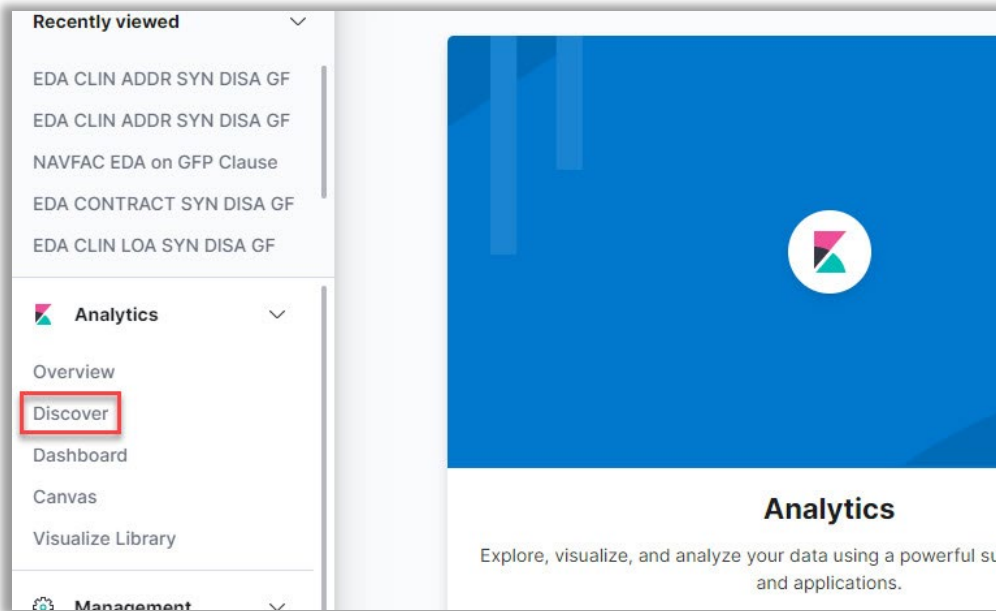
Report	Created at	Status	Actions
<input type="checkbox"/> EDA CLIN ADDR SYN DISA GF search	2022-03-04 @ 05:24 PM	Completed at 2022-03-04 @ 05:24 PM See report info for warnings.	 
<input type="checkbox"/> EDA CLIN LOA SYN DISA GF	2019-07-12 @ 03:19 PM	Completed at 2019-07-12 @ 03:19 PM See report info for warnings.	 
<input type="checkbox"/> EDA CLIN LOA SYN DISA GF	2019-07-10 @ 01:26 PM	Completed at 2019-07-10 @ 01:26 PM See report info for warnings.	 
<input type="checkbox"/> EDA CLIN LOA SYN DISA GF	2019-07-10 @ 01:05 PM	Completed at 2019-07-10 @ 01:06 PM See report info for warnings.	 

< 1 >

1. Select the **checkbox** of the report to be downloaded.
2. The **Download** button will allow the user to download the report with any warnings.
3. The **Warnings** button will display report info and any warnings.

## Searches

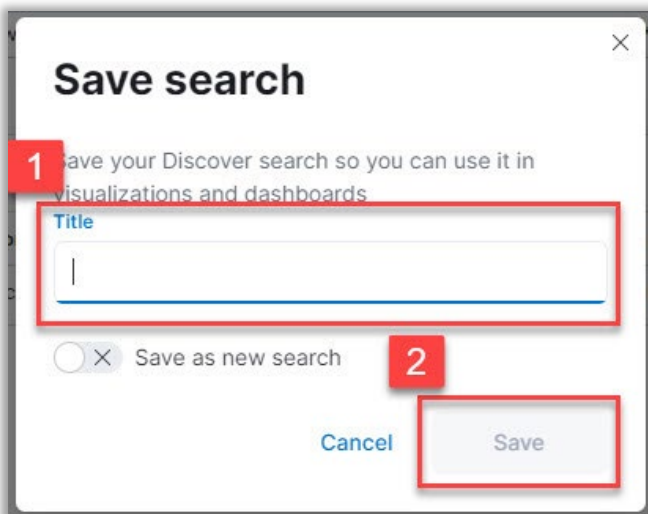
## Navigation



Navigate to the **Discover** tab in the navigation pane.

## Save Search

To save a new search, select **Save** in the Kibana toolbar.

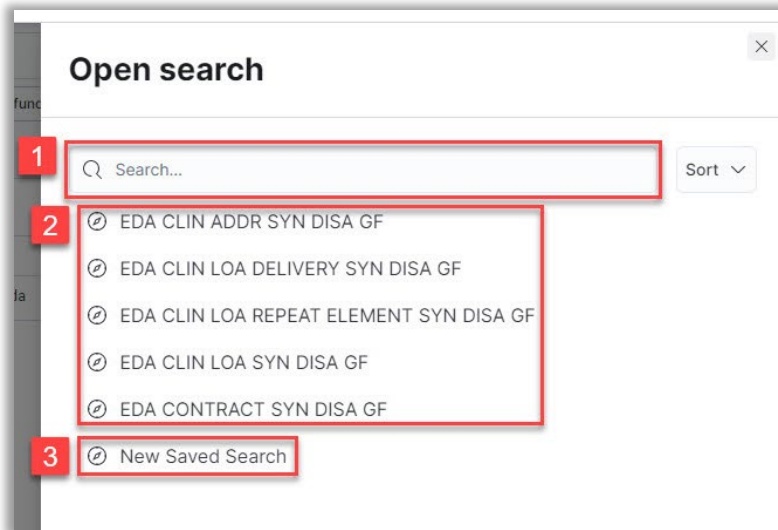




1. Enter the Saved Search title in the **Title** field.
2. Select the **Save** button.

## Open Saved Search

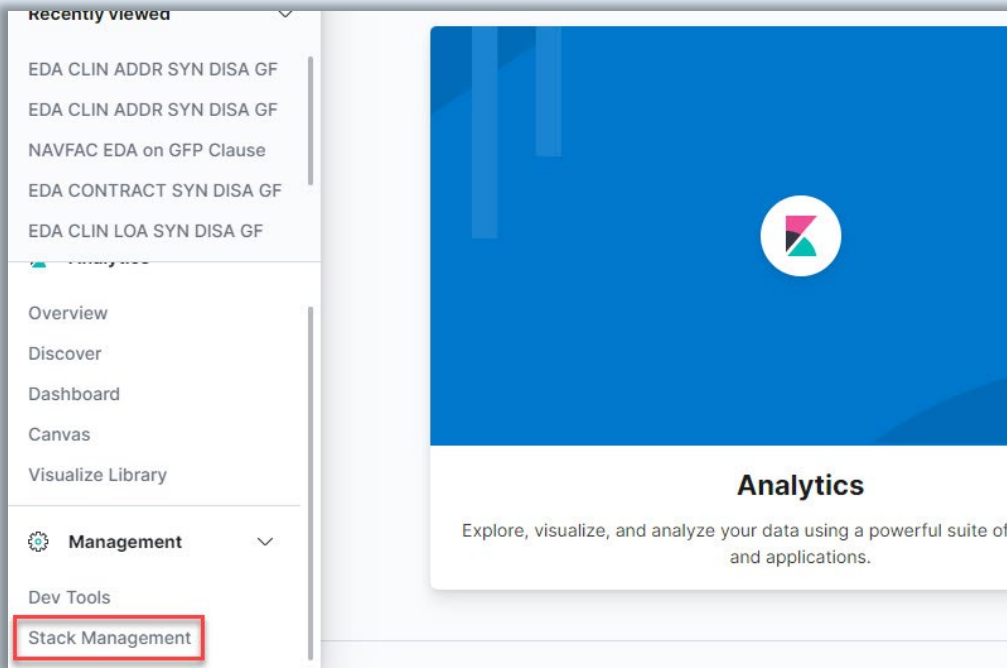
To load a saved search, select **Open** in the Kibana toolbar.



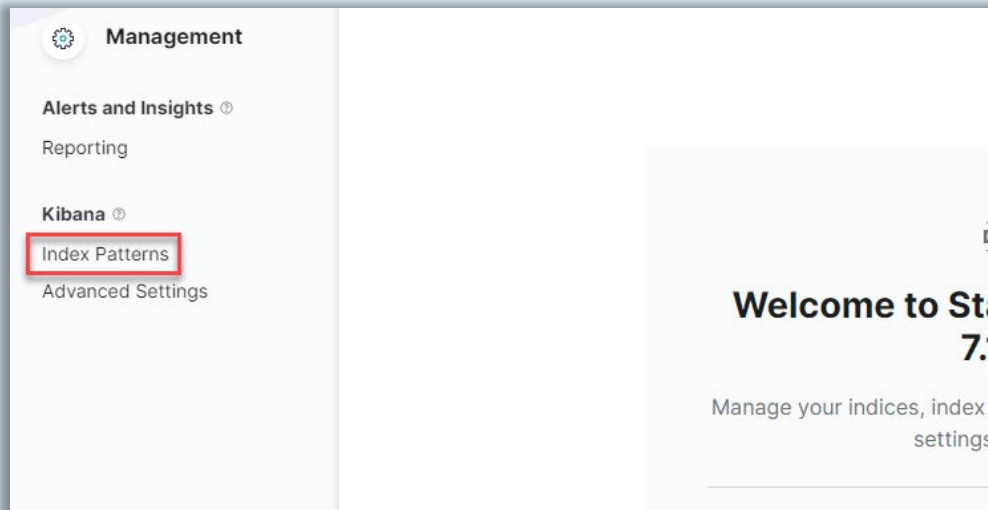
1. The list may be filtered using the **Search** field.
2. Saved searches will be populated in the Open Search menu. Select the desired **search**.
3. A new search may be created using the **New Saved Search** option.

## Index Patterns

### Navigation

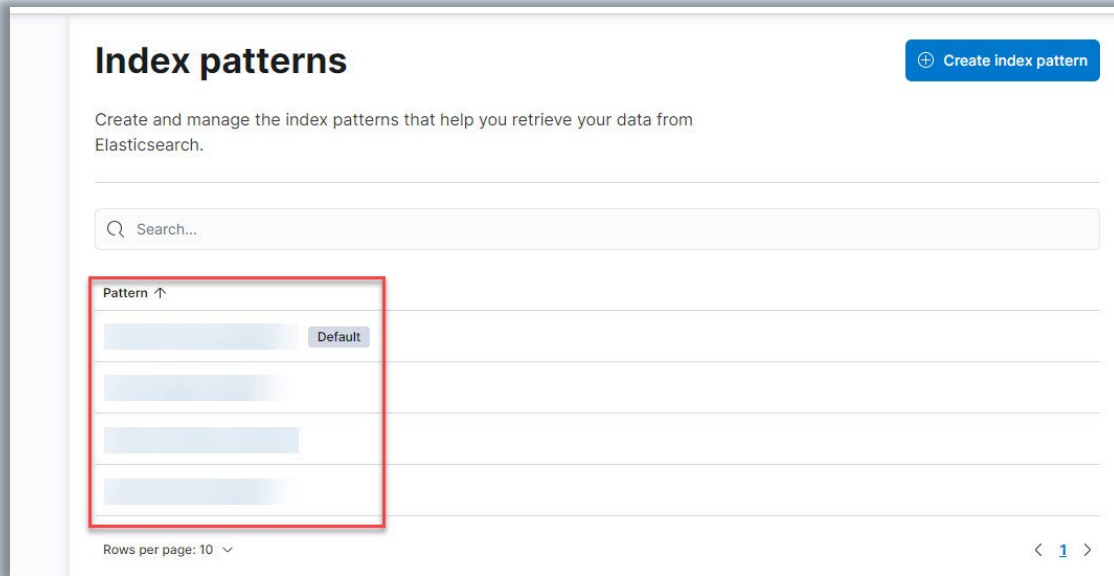


Navigate to the **Stack Management** tab in the navigation pane.



Navigate to the **Index Patterns** link on the Management page.

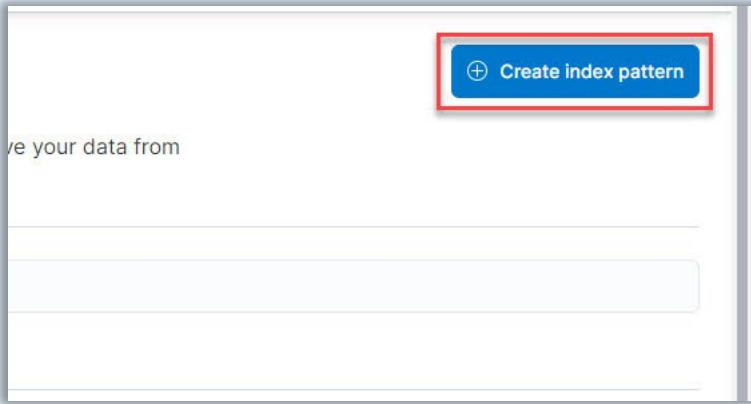
## Viewing Index Patterns



Existing index patterns are listed. Select the desired pattern to view.

## Creating An Index Pattern

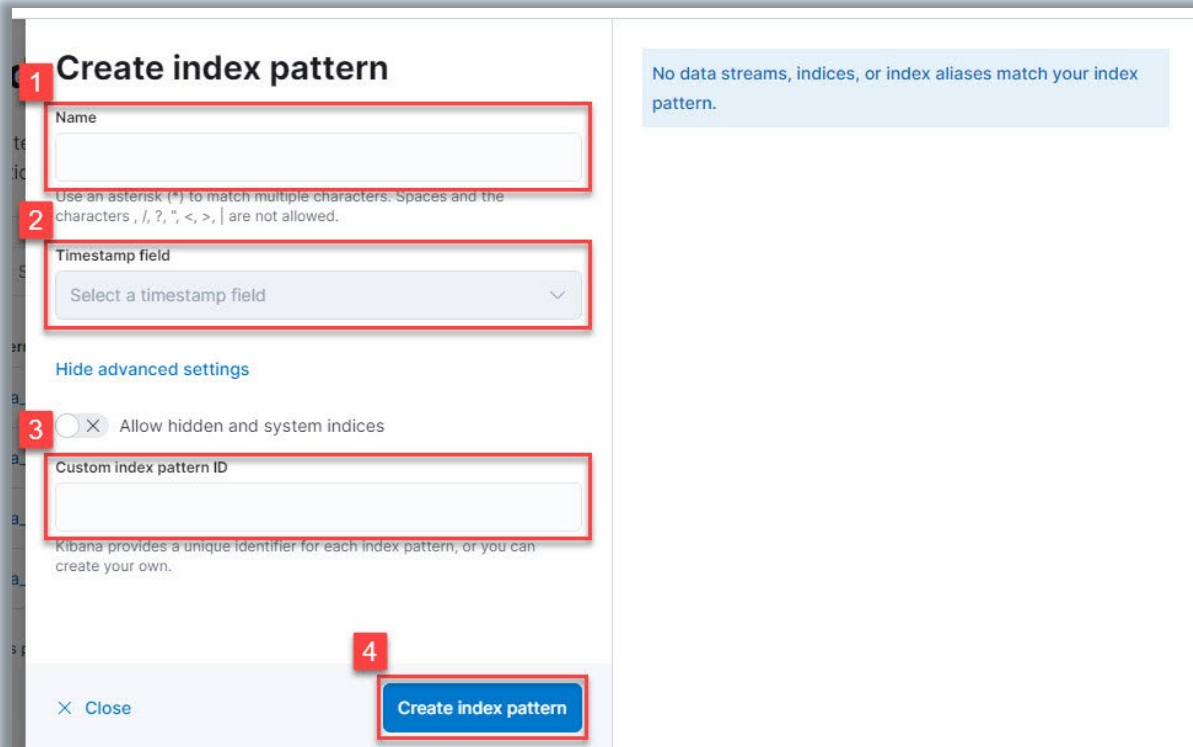
Users may create index patterns to specify which Elasticsearch indices to explore in Kibana. For more information on creating index patterns, please visit <https://www.elastic.co/guide/en/kibana/7.17/index-patterns.html>.



Select the **Create index pattern** button to begin creating a new index pattern.

In the Change Index Pattern dropdown, enter the index name in the **Filter options** field. An index pattern can match the name of a single index or include a wildcard (\*) to match multiple indices. The following characters are prohibited: \, /, ?, ", <, >, |.

If no existing index patterns are available, the Create Index Pattern page will be displayed upon selecting the Create Index Pattern button.



1. Enter a name for the index pattern in the **Name** field. The name must match one or more data streams, indices, or index aliases.
2. A timestamp may be selected from the **Timestamp field** dropdown menu.
3. A unique identifier will be populated in the **Custom index pattern ID** field. This field may be edited to create a custom index pattern ID.
4. Select the **Create index pattern** button.