ThreatQuotient



ThreatQ User Guide

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ThreatQuotient

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Contents

Warning and Disclaimer	2
Contents	4
Introduction	24
ThreatQ Introduction	24
Concept Overview	24
Threat Library	24
Adaptive Workbench	25
Open Exchange	25
System Access	26
System Access Overview	26
System Login	26
Logging into ThreatQ	26
Session Timeout	27
Managing your User Account	27
Procedure	28
User Avatar Icons	28
Update User Avatar Graphic	29
2 Step Verification	29



Enabling 2 Step Verification	29
Licensing	31
Licensing Overview	31
Viewing the License Status	31
Updating a License	31
User Management	33
User Management Overview	33
User Roles	33
User Account Creation	35
User Account Properties	36
Adding a User	36
User Account Modification	37
Editing a User	37
Resetting User Passwords from the Command Line	38
Deleting a User	38
System Configurations	39
Indicator Statuses	39
Viewing Indicator Statuses	39
Indirect Indicator Status	41
Adding an Indicator Status	41



Editing an Indicator Status	43
Deleting an Indicator Status	44
Indicator Types	46
Event Types	47
Adding an Event Type	50
Editing an Event Type	52
Deleting an Event Type	54
Proxy	56
Access Proxies	56
LDAP Authentication	57
Required Information for Creating LDAP Authentication	60
Configuring Anonymous Bind LDAP Settings	61
Configuring Secure LDAP	65
Configuring Authenticated Bind LDAP Settings	66
Date and Time Format	75
Configuring Date and Time Format	76
Traffic Light Protocol (TLP)	78
TLP Assignment Hierarchy	
Access TLP Settings	79
Configure TLP Visibility	80



Apply TLP Designation to Source	81
Update TLP Schema using TLP Default - Command	83
Convert TLP Command	85
Threat Library	87
Advanced Search	87
Performing an Advanced Search	88
Managing Search Columns	89
Filter Sets	90
Adding Filter Sets	91
Editing Filter Sets	94
Deleting Filter Sets	97
And/Or Order of Operations	98
Global Filters	102
Filtering by Date Created	103
Filtering by Last Modified	104
Filtering by Attribute	105
Common Scenarios	107
Filtering by Relationship	110
Filtering using Tags	112
Filtering by Object Type	115



Filtering by Keyword	119
Filtering by Value Contains	120
List Filters	120
Filtering by Type	121
Filtering by Status	121
Filtering by Score	122
Managing Searches	124
Saving Searches	124
Running Saved Searches	125
Deleting Saved Search	126
Exporting Search Results to CSV	127
System Objects	128
Adversaries	129
Adding Adversaries	129
Editing Adversaries	131
Deleting Adversaries	133
Events	137
Adding Events	137
Editing Events	139
Deleting Events	141



Files	145
Adding Files	145
Editing Files	148
Deleting Files	150
Indicators	154
Adding an Indicator	155
Parsing for an Indicator	156
CSV File Format - Parsing	159
Editing Indicators	161
Deleting Indicators	162
Indicator Search	164
Performing an Indicator Search	164
Making Bulk Updates to Search Results	169
Indicator Status	172
Changing the Status of an Indicator	173
Indicator Expiration	174
Ways an Indicator can Expire	174
Changing an Individual Indicator's Date	175
Expiration Date Displays	176
Automatic Expiration and Policies	177



How ThreatQ Calculates Expiration Dates	177
Selecting an Expiration Policy per Feed	179
Applying Expiration Policy Changes to Data	180
Adding Exceptions	181
Common Expiration Policy Scenarios	182
Indicator Scoring	184
Configure Indicator Scoring	185
Building a Scoring Algorithm	186
Overriding the Scoring Algorithm with a Manual Score	187
Whitelisted Indicators	189
Viewing Existing Whitelist Rules	190
Creating a Whitelist Rule	191
Editing a Whitelist Rule	193
Removing a Whitelist Rule	196
Indicator URL Normalization	198
Supported Defanging Techniques	201
Signatures	202
Signatures Management Page	203
Adding a Signature	203
Adding a Yara Signature	208



STIX	212
STIX Overview	212
ThreatQ STIX Object Types	212
STIX Data Mapping	213
STIX Threat Actors Mapping	213
STIX Indicators Mapping	215
STIX Exploit Targets Mapping	216
STIX Observables Mapping	218
STIX Campaigns Mapping	220
STIX Courses of Action Mapping	221
STIX Incidents Mapping	223
STIX TTP Mapping	225
STIX CIQ Identity Mapping	227
Parsing a STIX File for Indicators	228
Object Details Page	229
Actions Menu	234
Context Panes	237
Attributes Pane	237
Adding an Attribute to an Object	237
Deleting an Attribute	238



Deleting an Attribute Source	239
Adding a Source to an Object	240
Managing Tags	241
Description Pane	241
Relationships Panes	241
Adversaries Pane	242
Linking Adversaries	243
Configuring Confidence Level	244
Commenting on Related Adversaries	245
Unlinking Related Adversaries	246
Indicators Pane	247
Linking Indicators	247
Performing Bulk Updates to Related Indicators	248
Unlinking Related Indicators	249
Files Pane	250
Linking Files	250
Unlinking Related Files	251
Signatures Pane	251
Linking Signatures	252
Unlinking Related Signatures	253



Investigations Pane	253
Events Pane	254
Linking Events	254
Unlinking Related Events	255
Tasks Pane	255
Linking Tasks	256
Unlinking Related Tasks	257
Deleting Related Tasks	257
Comments Pane	258
Adding Comments	258
Editing Comments	259
Deleting Comments	260
Analytics	261
Adversaries Overview	261
Adversaries Summary Table	262
Adversaries Overlap Table	263
Indicator Distribution Pie Chart	264
Events Overview	265
Events History Scatter Plot	266
Monthly Heatmap	268



New Events Summary	270
Files Overview	271
Files Pie Chart	272
Files Table	273
Indicators Overview	274
Attack Phases	276
Attributes Table	278
Most Recent 100 Indicators	280
Recent Sources	281
Recently Created Indicators Histogram	283
Summary Status	285
Signatures Overview	286
Incoming Feeds	288
Incoming Feeds Overview	288
Commercial Feeds	288
OSINT Feeds	288
STIX/Taxii Feeds	289
Labs Feeds	289
Managing Incoming Feeds	289
Install/Upgrade CDF Command	290



Adding or Upgrading a CDF from the ThreatQ Interface	292
Uninstalling a CDF from the ThreatQ Interface	295
Enabling a Commercial Feed	297
Enabling an OSINT Feed	298
Viewing Feed Queues	298
Adding a New STIX/TAXII Feed	299
CrowdStrike CDF	305
CrowdStrike Update Instructions	307
Source Consolidation Command	307
Source Merge Command	308
Feed Activity Log	311
Viewing a Feed's Activity Log	312
Historic Feed Pulls	313
Feeds that do not Support Historic Pulls	313
Performing Manual Feed Runs	313
iSight Historic Pull Command	314
General Historic Pull Commands	314
Threat Intelligence Services Custom Feeds Historic Pull Commands	315
Dashboard	316
Dashboard Overview	316



Overview of Intelligence By Score	316
Incoming Intelligence	317
Watchlist Activity	318
Watchlist	319
Configuring the Watchlist	320
Viewing Tasks on the Dashboard	321
Search	322
Search Overview	322
Basic Search	323
Performing a Basic Search	323
Wildcards and Symbols in Searches	324
Reports	326
Reports Overview	326
Report Options	326
Previewing Report Customization	327
Customizing the Report Header	327
Customizing Report Text Colors	327
Adding a Custom Disclaimer to a Report	328
Generating Reports	328
Turning Off the Pop-up Blocker in Chrome	329



Tasks	330
Tasks Overview	330
Assigning a Task	330
Managing Tasks	331
Operations	333
Operations Overview	333
Managing Operations	334
Installing Operations	334
Deleting Operations	335
Exports	336
Exports Overview	336
Managing Exports	336
Viewing the Exports List	337
Enabling/Disabling an Export	337
Viewing an Export	338
Duplicating an Export	338
Adding an Export	339
Accessing/Editing an Export's Connection Settings	340
Accessing/Editing an Export's Output Format	341
Adding Special Parameters within ThreatQ	343



Using Logical Operators in Export Filters	344
Customizing the Output Format Template	346
Export Output Format Templates	347
Export Adversaries Output Format Template	347
Export Events Output Format Template	350
Export Indicators Output Format Template	354
Export Signatures Output Format Template	357
Deleting an Export	361
Specific Indicator Export Configuration Instructions	361
Configuring Bro Exports	362
Configuring Fidelis Exports	364
Configuring Lancope Exports	374
Configuring Netwitness Exports	376
Configuring OpenIOC Signature Exports	378
Configuring Palo Alto Exports	379
Configuring Reservoir Labs Exports	381
Configuring Splunk Exports	383
Configuring Tenable Exports	384
Common Enrichment and Audit Log Questions	388
Air Gapped Data Sync	389



Air Gapped Data Sync Overview	389
Air Gapped Data Sync System Requirements	390
Understanding threatq:sync-export	391
threatq:sync-export Parameters	391
threatq sync-export Examples	393
No Time Limit, Default Configuration	393
Meta Data Only	394
Time Limit	394
Exclude Malware Files	394
Cron Configuration	395
threatq sync-export Initial Cron Setup for First Time Use	395
Basic Instructions	395
Instructions for Larger Data Sets (Starting from the Beginning of Time)	396
Instructions for Larger Data Sets (Starting from a Specified Date)	397
threatq sync-export Run Scenarios	398
Success	398
Errors	398
threatq:sync-export Dates	399
Start Date	399
End Date	399



threatq:sync-export Configuration	399
Default	399
Cron	400
Start Date Provided	400
threatq:sync-export Output and Sync Report	400
threatq:sync-export Meta Data	400
Meta Data Objects:	401
threatq:sync-export Objects	402
Default Objects:	402
Storage:	402
threatq:sync-export Object Context	404
threatq:sync-export Other Data	405
Attachment Files	405
Object Links	405
Tags	405
Spearphish	406
Investigations	406
threatq:sync-export File Output	407
threatq:sync-export Data Tarball	407
threatq:sync-export Sync Report	407



threatq:sync-export Command Line Output	407
threatq:sync-export Synchronizations	407
Table	407
synchronizations	407
Record Handling	408
Hash	408
Initial Creation	408
Finalization	408
Understanding threatq:sync-import	410
threatq:sync-import Parameters	410
threatq:sync-import Examples	412
Basic Run	412
Set New created_at Dates on the Write System	412
Increase the Object Limit	413
threatq:sync-import Initial Setup	413
Running the threatq:fill-sync-hash-column Command	414
threatq:sync-import Run Scenarios	415
Success	415
Excluded Files	415
Errors	415



threatq:sync-import Data Processing	416
threatq:sync-import Basic Table	416
Sample Basic Table:	416
Sample Sync Table created from Basic Table:	417
threatq:sync-import Tables with Pivots	417
threatq:sync-import File Output	417
threatq sync-import File Output and Sync Report	417
threatq:sync-import Command Line Output	417
threatq:sync-import Synchronizations	418
Table	418
synchronizations	418
Record Handling	418
Hash	418
Initial Creation	418
Finalization	419
Executing Air Gapped Data Sync	420
Running the threatq:sync-export Command	420
Running the threatq:sync-import Command	420
Backup and Restore	422
ThreatQ Backup	422



Backing Up a ThreatQ Instance	423
ThreatQ Restore	423
How to Restore from a ThreatQ Backup	424
Command Line Interface (CLI)	426
Maintenance Mode	426
ThreatQ Purge Command	428
Running the ThreatQ Purge Command	428
Command Reference Table	429



Introduction

The following provides an introduction to the ThreatQ platform.

- ThreatQ Introduction
- Concept Overview

ThreatQ Introduction

ThreatQ is a cyber threat intelligence platform that focuses on centralizing, structuring, and strengthening a security organization's intelligence-driven defensive posture against attacks.

Concept Overview

The following describes how ThreatQ helps organizations manage threat intelligence, allowing them to defend against sophisticated cyber-attacks.

- Threat Library
- Adaptive Workbench
- Open Exchange

Threat Library

A central repository combining global and local threat data to provide relevant and contextual intelligence that is customized for your unique environment. Over time, the library becomes more and more tuned to your environment and fills in the intelligence gaps created by different sources, all providing only some pieces of the puzzle.



Adaptive Workbench

An open and extensible work area for security experts across the organization to work within your processes and tools. A customizable workflow and customer-specific enrichment streamlines investigations and analysis, and automates the intelligence life cycle.

Open Exchange

ThreatQ is the only threat intelligence platform specifically designed for customization to meet the requirements of your unique environment. Get more from your existing security investments by integrating your tools, teams and workflows through standard interfaces and an SDK/API for customization.



System Access

The following describes how to login and log out of the platform.

- System Access Overview
- System Login
- Managing your User Account
- 2 Step Verification

System Access Overview

To access the ThreatQ web UI, you must authenticate yourself with a username and password. You can use the main menu to access ThreatQ functionality.

System Login

When you installed ThreatQ, you set up the default user account, *Maintenance Account*, which you can use to log into the web UI.

Using this account, you can create additional user accounts.

Passwords must be 15 characters or longer. There is no limit on the character type.

Logging into ThreatQ

When you installed ThreatQ, you defined an IP address for the web UI, and set up the *Maintenance Account* and password.

1. In your web browser, navigate to https://your-ThreatQ-web-ip-address.





- 2. Enter your username (email address) and password.
- 3. Optionally, if you have 2-step verification enabled, complete the following steps:
 - Enter your verification code from Google Authenticator.
 - Optionally, choose to Remember this computer for 30 days.
- 4. Click Login or Submit.

Session Timeout

User sessions time out after 30 minutes of inactivity.

Managing your User Account

When you choose the **User Settings icon > My Account**, the system directs you to the Edit User page for your current login. From here, you can edit your user account, set up 2-step verification, view your API credentials, or view your login history.



Procedure

1. Choose the **User Settings icon > My Account**.



Users that have upgraded to **ThreatQ 4.1** will see an avatar icon in place of the **My Account** link. Click on the icon and select **My Account**.

- 2. On the User Profile tab, you can edit the following settings of your user account:
 - Name
 - Title
 - Email
 - Password
- 3. You can view your API credentials, a unique Client ID, which will allow you to connect with ThreatQ's API.
- 4. You can update your user avatar; see Update User Avatar.



The User Avatar feature is only available with ThreatQ 4.1 and later.

- 5. Optionally, you can set up 2-step verification; see 2 Step Verification.
- 6. Optionally, on the Login Activity tab, you can view:
 - The last date and time you logged in.
 - The IP Address where you logged in.
 - Whether the login was successful or not.
- 7. Click Save.

User Avatar Icons



The User Avatar feature is only available with ThreatQ 4.1 and later.



User avatar icons provide a personalized look to your ThreatQ dashboard. Clicking on the avatar icon will reveal the **My Account** and **Log out** options.

Users can update their avatars by clicking on the avatar and selecting **My Account**.

Update User Avatar Graphic

Update User Avatar Graphic



The User Avatar feature is only available with ThreatQ 4.1 and later.

1. Click on avatar icon located to the top-right on the screen and select **My Account**.

The Edit User form will load.

- 2. Select one of two options:
 - Click browse and select the icon graphic to upload.
 - Click and drag the new icon graphic onto the page.
- 3. Click **Save** at the bottom of the page.

2 Step Verification

When you enable 2-Step Verification (also known as two-factor authentication), you add an extra layer of security to your account. After 2-Step Verification is active, you sign in with your password and a code sent to your mobile device.

Enabling 2 Step Verification

Enabling 2 Step Verification

Procedure:

- 1. Choose the User Settings icon> My Account.
- 2. Under Enable 2-Step Verification, click **Enabled**.



- 3. In the Enable 2 Step Verification dialog box, complete the following:
 - Scan the qr code using your Google Authenticator mobile app.
 - Enter the validation code delivered to your mobile device via Google Authenticator.
 - Click Submit.
- 4. Click Save.

What to do next

The next time you log in, you must use the newest verification code.



Licensing

The following provides an overview of licensing for the ThreatQ platform.

- Licensing Overview
- Viewing the License Status
- Updating a License

Licensing Overview

Your ThreatQ deployment requires a license to initialize the platform. ThreatQ Support provides the initial license and any subsequent licenses provided to maintain the platform. You apply the initial ThreatQ license during first boot, as described in the <a href="https://doi.org/10.21/2

Viewing the License Status

ThreatQ licenses are not perpetual. To view the license expiration date, complete the following steps:

Procedure

Choose the **Settings icon >About**.

Updating a License

If you receive a new license from Support, apply the new license by accessing the About page.

Procedure



- 1. Choose the **Settings icon > About**.
- 2. Choose **Update License**.
- 3. Enter the new license key.
- 4. Click Submit.



User Management

The following describes how to manage user accounts.

- User Management Overview
- User Account Creation
- User Account Modification

User Management Overview

ThreatQ uses role-based access control to manage user accounts. The system provides several user roles, each containing a set of permissions for accessing system functionality. You create user accounts, and assign them to a user role. The user role determines each account's set of permissions.

After you create a user account, you can modify the user role group, full name, and email address.

User Roles

User Roles

The following details the user roles and their associated permissions.

User Role	Permissions
Maintenance Account	Members have access to the entire ThreatQ user interface and can edit all data.



User Role	Permissions
	Note: The initial maintenance account, created when installing ThreatQ, can not be deleted
Administrative Access	Members have access to the entire ThreatQ user interface and can edit all data.
Primary Contributor Access	Members have access to most of the ThreatQ user interface, except for: User Management Incoming Feeds Exports Operations Management OAuth Management System Configurations Members can edit: Their own user info Whitelist Management Operations Management Operations Management Object meta data



User Role	Permissions
	Saved Searches
	Members have access to most of the ThreatQ user interface, except for:
	User Management
	 Incoming Feeds
	 Indicator Management
	 Whitelist Management
Read Only Access	• Exports
	 Operations Management
	 OAuth Management
	 System Configurations
	Members cannot edit any data.
	Members can export search res-
	ults.

User Account Creation

When you first install ThreatQ, the system creates a default user account, the Maintenance Account. You cannot delete this account, and you can use it to initially create other user accounts. Each user account must have a unique username.



Only the Maintenance Account and Administrative Access user role have permissions to access user management functionality. You can only create new user accounts if logged in as one of these roles.

- User Account Properties
- Adding a User

User Account Properties

Property	Description	Validation
Name	full name of the user asso- ciated with this account	any alphabetic character and spaces
Title	optional user title	any alphabetic character and spaces
Group	roles which this user account belongs to	at least one role selected
Email	email address associated with this account	valid email address, such as user- @domain.com
Password	initial password asso- ciated with the username	all characters

Adding a User

- 1. From the main menu, choose the **Settings icon > User Manangement**.
- 2. Click Add User.
- 3. Enter the user's **Name**.
- 4. Optionally, enter the user's **Title**.



5. Select the level of access for the user from the **Group** drop-down menu.

Choose from the following options:

- Maintenance Account
- Administrative Access
- Primary Contributor Access
- Read Only Access
- 6. Enter the user's **Email** address.
- 7. Enter a password for the user.
- 8. Retype the password.
- 9. Click Add User.

User Account Modification

After you create a user account, you can modify the account's role group, full name, title, email address, and password.

- Editing a User
- Resetting User Passwords from the Command Line
- Deleting a User

Editing a User

- 1. From the main menu, choose the **Settings icon > User Manangement**.
- 2. Click the name of the user whose profile you wish to edit.

The Edit User page appears.

3. Edit the user fields as desired; see User Account Properties.



- 4. To change the password, click **Change Password**.
- 5. Click Save.

Resetting User Passwords from the Command Line

If you have root access to your ThreatQ installation, you can reset any user's password from the command line.

- 1. SSH to your ThreatQ installation as root.
- 2. Navigate to the api directory:

cd /var/www/api

3. Run the following command:

php artisan threatq:password-reset

- 4. At the prompt, enter the email address for the user whose password you are resetting.
- 5. At the prompt, enter the new password.
- 6. At the prompt, re-enter the new password to confirm.

Deleting a User

Deleting a user cannot be undone.

- 1. From the main menu, choose the **Settings icon > User Manangement**.
- 2. Select the user(s) you wish to delete.
- 3. Click the **Delete.** icon.

A confirmation dialog box appears, asking if you are sure.

4. Click Delete Users.



System Configurations

The following describes how to manage various system configurations in ThreatQ.

- Indicator Statuses
- Indicator Types
- Event Types
- Proxy
- System Configuration: LDAP
- Date and Time Format

Indicator Statuses

Indicator Statuses page allows you to view, duplicate, add, edit, and delete available system-wide indicator statuses. You cannot edit and delete indicator statuses provided by ThreatQ, but you can add new statuses and edit or delete your custom statuses.

Related Topics:

- Viewing Indicator Statuses
- Indirect Indicator Status
- Adding an Indicator Status
- Editing an Indicator Status
- Deleting an Indicator Status

Viewing Indicator Statuses

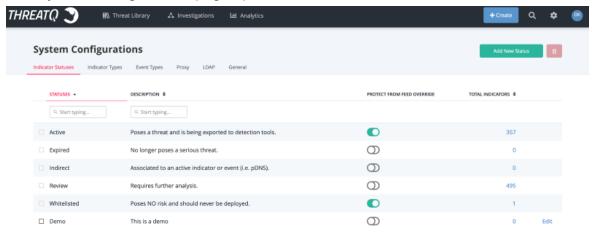
To view existing indicator statuses, complete the following procedure.



Procedure:

1. From the main menu, select **Settings System Configurations**.

The System Configurations page opens to the Indicator Statuses tab.



Statuses found within ThreatQ are listed by status, number, and description within the Indicator Statuses table.

2. Optionally, to sort the table by a column, click the column header. To reverse the column sorting order, click the header a second time.

Indicator Statuses Table Functions:

Function	Description
Change the number of entries displayed in the table.	1. Click the dropdown menu at the top right of the table and select the desired option.
Sort the table by a column.	 Click the column header. To reverse the column sorting order, click the



Function	Description
	header a second time

Indirect Indicator Status

For feeds that set multiple statuses, A status of *Indirect* is assigned to indicators that meet the following criteria:

- Indicators created from the relations array are imported with a status of Indirect.
- If an indicator already exists, its original status value will remain the same. However, if
 the status is *Indirect*, and it is received as a parent indicator, its value will be updated
 as defined in the connector configuration.

Currently, this status only applies to CrowdStrike and iSight feeds, where:

- For CrowdStrike, *Indirect* indicates that ThreatQ received the indicator from the relations list for the parent indicator.
- For iSight Partners, Indirect indicates that ThreatQ received an indicator that does not have an attribute of Attack or Compromised.

Adding an Indicator Status

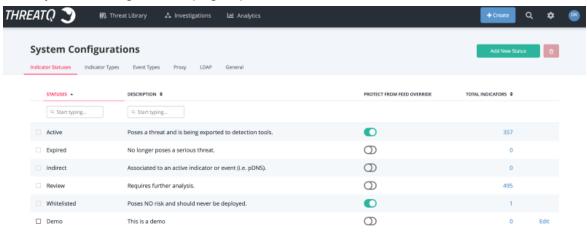
To add an indicator status that can be applied to any system indicator, complete the following procedure.

Procedure:



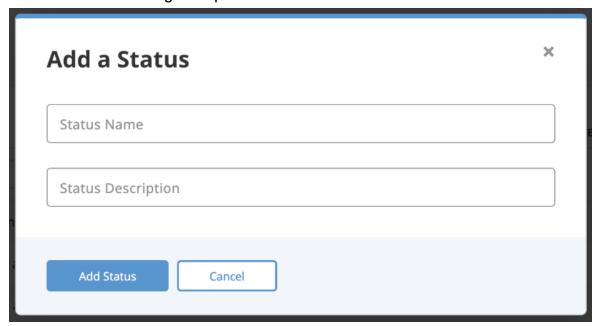
1. From the main menu, select **Settings System Configurations**.

The System Configurations page opens to the Indicator Statuses tab.



2. Click Add New Status.

The Add a Status dialog box opens.



- 3. Enter a Status Name.
- 4. Optionally, enter a Status Description.



5. Click Add Status.

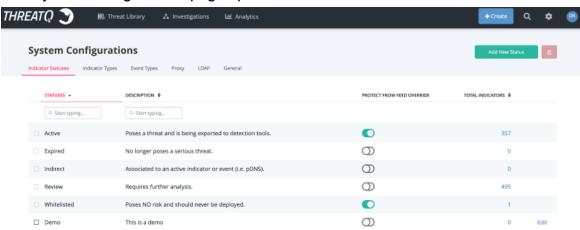
Editing an Indicator Status

To edit an existing indicator status, complete the following procedure. You cannot edit indicator statuses provided by ThreatQ.

Procedure:

1. From the main menu, select **Settings System Configurations**.

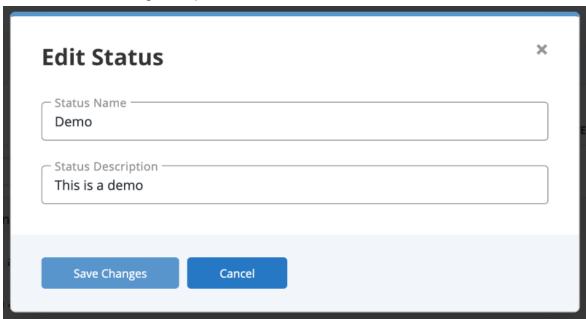
The System Configurations page opens to the Indicator Statuses tab.





2. Determine the indicator you want to edit and click **Edit** in the far right column.

The Edit Status dialog box opens.



- 3. Optionally, enter a new **Status Name**.
- 4. Optionally, enter a new Status Description.
- 5. Click Save Changes.

Deleting an Indicator Status

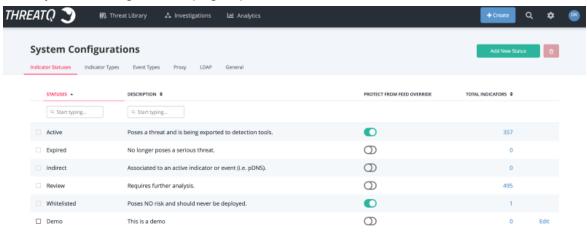
To delete an indicator status, complete the following procedure. You cannot edit and delete indicator statuses provided by ThreatQ. Custom statuses can only be deleted if there are no indicators using that status.

Procedure:



1. From the main menu, select **Settings System Configurations**.

The System Configurations page opens to the Indicator Statuses tab.



- 2. Determine the indicator you want to delete and select the corresponding checkbox in the first column.
- 3. Click the **Delete icon** in the upper right hand corner.

A confirmation dialog box appears.



4. Click Delete Statuses.



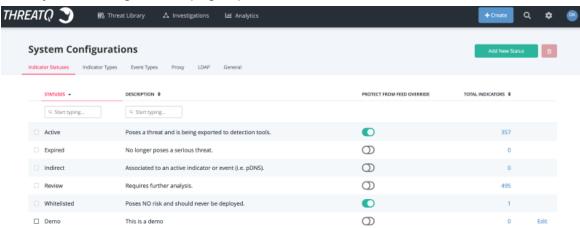
Indicator Types

The Indicator Types table allows you to view a list of indicator types found in ThreatQ and the number of those indicators within the system. Indicators found within ThreatQ are listed by type and number in the Indicator Types table.

To view Indicator Types found within ThreatQ:

1. From the main menu, select **Settings System Configurations**.

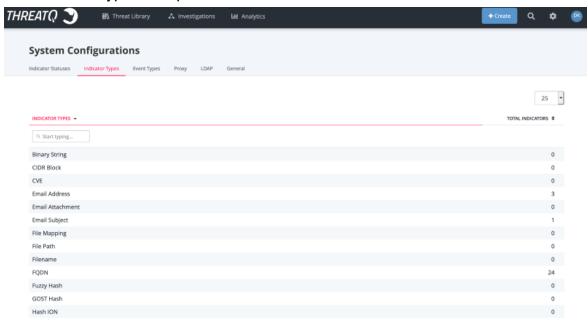
The System Configurations page opens.





2. Click the Indicator Types tab.

The Indicator Types tab opens.

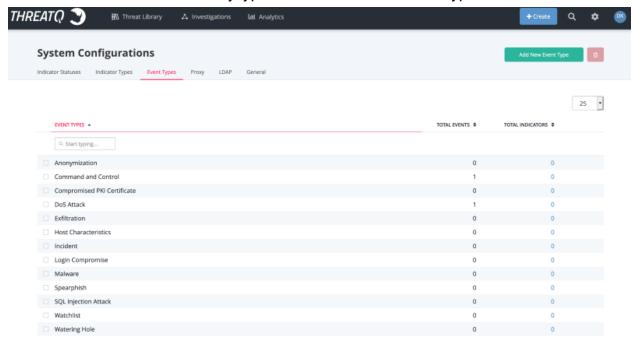


Event Types

Event Types page allows you to view, add, and delete system events. Event Types provided by ThreatQ cannot be edited or deleted, but you can add new event types and edit or delete your event types.



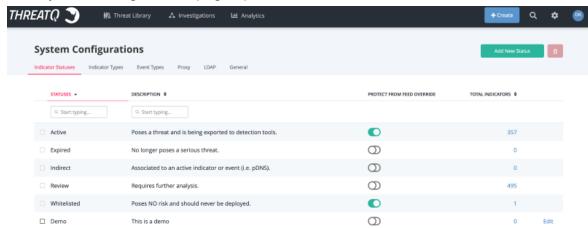
Custom Event Types can only be deleted if there are no events using that event type. Events found within ThreatQ are listed by type and number in the Event Types table.



To view Event Types found withing ThreatQ:

1. From the main menu, select **Settings System Configurations**.

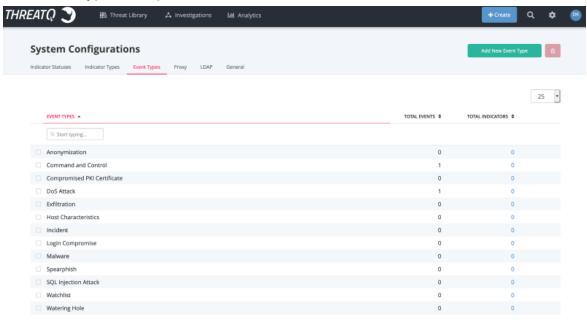
The System Configurations page opens.





2. Click the **Event Types** tab.

The Event Types tab opens.



Event Types Table Functions:

Function	Description
Changing the number of entries displayed in the table	Click the dropdown menu at the top right of the table and select the desired option.
Sorting the table by a column	 Click the column header. To reverse the column sorting order, click the header a second time.

Related Topics:



- Editing an Event Type
- Editing an Event Type
- Deleting an Event Type

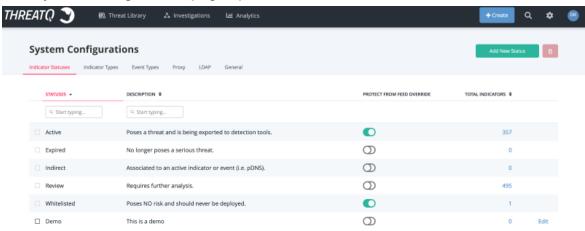
Adding an Event Type

To add an Event Type, complete the following procedure.

Procedure:

1. From the main menu, select **Settings System Configurations**.

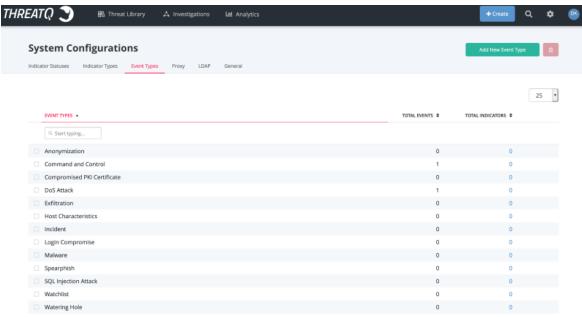
The System Configurations page opens to the Indicator Statuses tab.





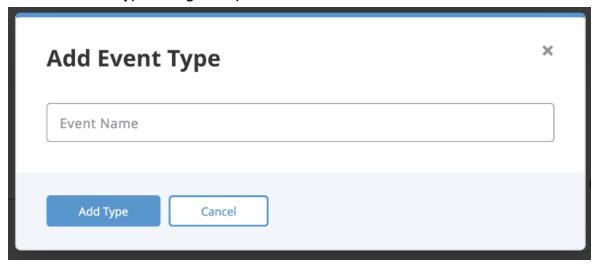
2. Click the **Event Types** tab.

The Event Types tab opens.



3. Click Add New Event Type.

The Add Event Type dialog box opens.



- 4. Enter a Event Name.
- 5. Click Add Type.



Editing an Event Type

To edit a user-generated Event Type, complete the following procedure.

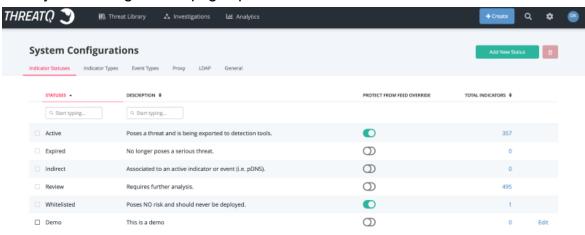


You cannot edit an Event Type provided by ThreatQ.

Procedure:

1 From the main menu, select **Settings System Configurations**.

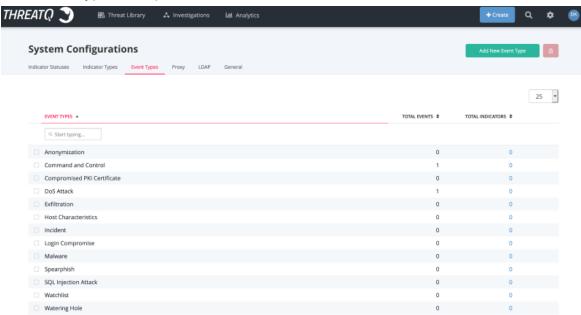
The System Configurations page opens to the Indicator Statuses tab.





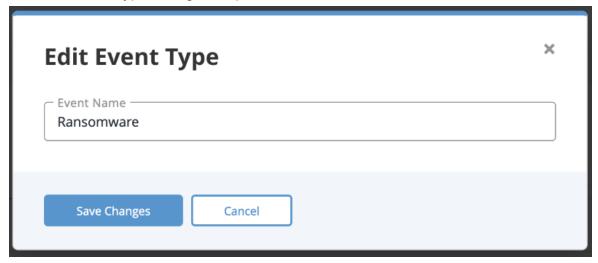
2. Click the **Event Types** tab.

The Event Types tab opens.



3. Determine the Event Type you want to edit and click **Edit** in the far right column.

The Edit Event Type dialog box opens.



- 4. Enter a new Event Name.
- 5. Click **Save Changes**.



Deleting an Event Type

To delete a user-generated Event Type, complete the following procedure.

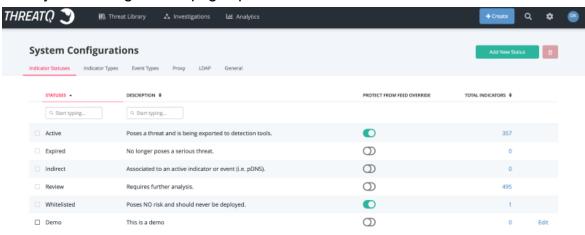


You cannot delete an Event Type provided by ThreatQ.

Procedure:

1 From the main menu, select **Settings System Configurations**.

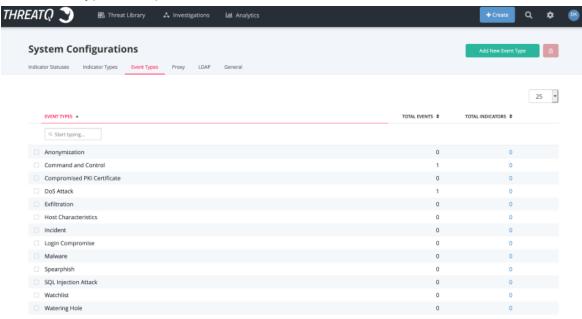
The System Configurations page opens to the Indicator Statuses tab.





2. Click the **Event Types** tab.

The Event Types tab opens.



- 3. Determine the event type you want to delete and select the corresponding checkbox in the first column.
- 4. Click the **Delete icon** in the upper right hand corner.

A confirmation dialog box appears.



5. Click **Delete Types**.



Proxy

The System Configuration: Proxy page allows you to enable or disable proxies.



Users are required to set their proxy server settings to use http: for their https: traffic. The ThreatQ Proxy Configuration page can be found by navigating to Settings > System Configuration > Proxy.

Access Proxies

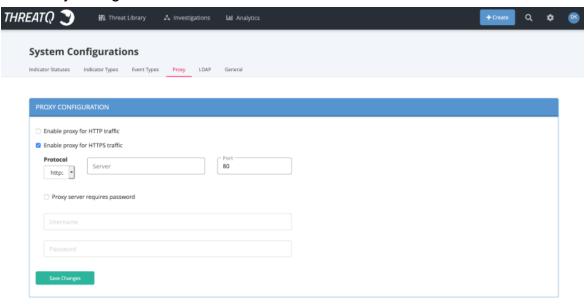
To access proxies:

1 From the main menu, select **Settings System Configurations**.

The System Configurations page opens to the Indicator Statuses tab.

2. Click the **Proxy** tab.

The Proxy Configuration tab loads.



Proxy Table Functions:



Function	Description
Enabling a proxy for HTTP or HTTPS traffic	 Check the correct proxy type and enter configuration details. Click Save Changes. ThreatQ will check that the proxy has been configured properly.
Disabling a proxy for HTTP or HTTPS traffic	 Uncheck the proxy you wish to dis- able, and click Save Changes.

LDAP Authentication

ThreatQ allows you to configure system access via LDAP, the Lightweight Directory Access Protocol. You have two configuration options:

- Anonymous Bind (previously referred to as basic)
- Authenticated Bind



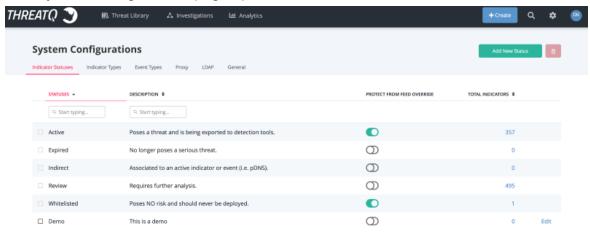
It is highly recommended that you review the <u>Required Information for Creating LDAP Authentication</u> topic before configuring your LDAP settings.

To Access the LDAP tab:



1. From the main menu, select **Settings System Configurations**.

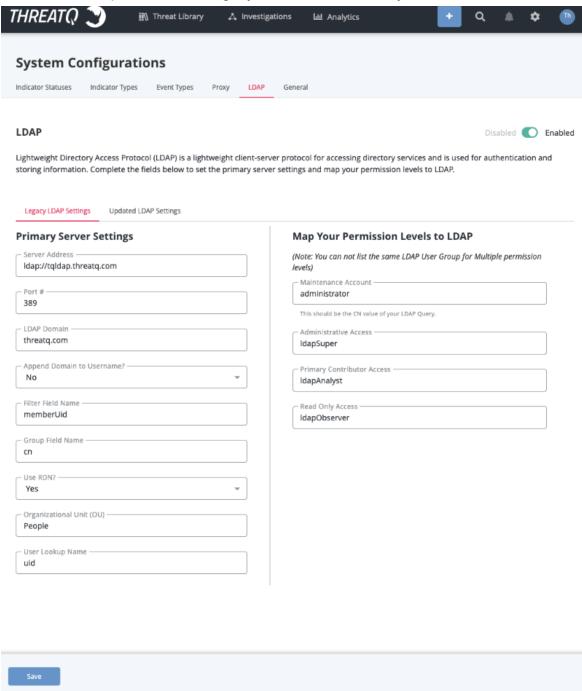
The System Configurations page opens to the Indicator Statuses tab.





2. Click the LDAP tab.

The LDAP tab opens with the Legacy LDAP form loaded by default.



Switching LDAP Connections



To switch between using the Anonymous (Legacy) and Authenticated (Updated) Bind LDAP connections, open the desired connection type's form in the LDAP section and click on the Save button.



Example: A User is using the legacy LDAP Settings option. He switches to the Updated LDAP tab and clicks on Save. ThreatQ will now use the Updated LDAP Settings. If he switches back to the Legacy LDAP tab and clicks on Save again, ThreatQ will start using the Legacy LDAP settings again.

Related Topics:

- Required Information for Creating LDAP Authentication
- Configuring Anonymous Bind LDAP Settings
 - Configuring Secure LDAP
- Configuring Authenticated Bind LDAP Settings

Required Information for Creating LDAP Authentication

Before you configure a connection to your LDAP server, you should work with your LDAP administrator to collect, at minimum, the following information:

Anonymous Bind

- LDAP Server URL
- LDAP Port
- LDAP Group Field Name
- LDAP Filter Field Name
- LDAP group mappings for super, maintenance, analyst, and observer

Authenticated Bind



- LDAP Server name or IP Address
- LDAP port
- LDAP base DN
- LDAP Group Member Field Name
- LDAP Primary Group Name
- Whether to use LDAP over SSL (Idaps or Idap)
- LDAP User ld Key Field Name
- LDAP User Group Member Key Field Name
- LDAP group mappings for super, maintenance, analyst, and observer

Configuring Anonymous Bind LDAP Settings



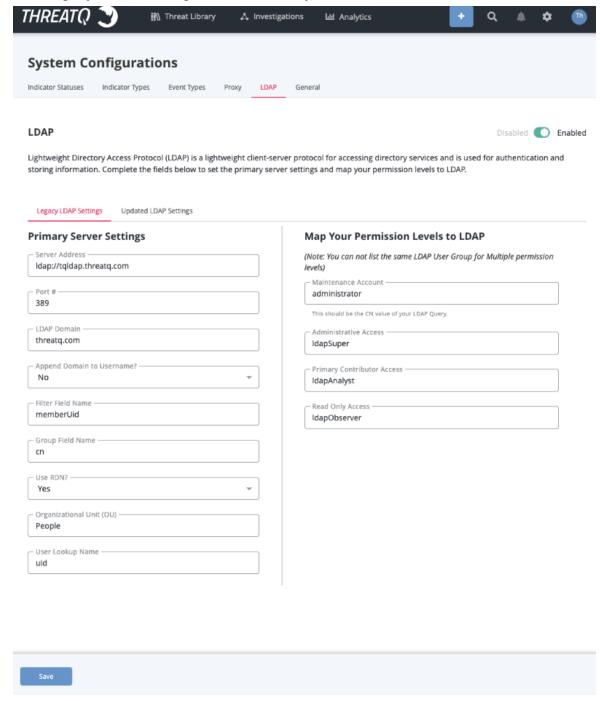
Only users with an Administrative or Maintenance account can access LDAP settings.

Procedure:



- 1 Navigate to Settings > System Configurations.
- 2. Click on the LDAP option.

The Legacy LDAP Settings form will load by default.





3. Complete the following server settings:

Field	Description
Server Address	Enter the name of the server where LDAP is hosted.
	Example: Idap://[servername]
Port#	389 for LDAP
	636 for LDAPS
	If LDAPS is used, the Port # will default to 636.
LDAP Domain	Enter the domain for which LDAP is configured to authenticate.
	Example: threatq.com
Append Domain to	Choose from the following options:
Username	Yes for most Active Directory servers
	No for most Open LDAP servers
Filter Field Name	This field is specific to your LDAP directory configuration.
	AD Example: memberuid
	OpenLDAP Example: uid
Group Field Name	This field is specific to your LDAP directory configuration.
	AD Example: memberof
	OpenLDAP Example: cn



Field	Description
Use RDN?	Choose from the following options:
	Yes to use Relative Distinguished Names.
	No to use full Distinguished Names
Organizational Unit	This field is specific to your LDAP directory con-
(OU)	figuration. Your LDAP administrator should provide the correct value for this field.
User Lookup Name	This field is specific to your LDAP directory configuration.
	AD Example: memberUid
	OpenLDAP Example: uid

4. Complete the MAP your Permission Levels to LDAP section:



You can not list the same LDAP User Group for multiple permission levels. For roles not mapped, you should enter a hyphen: "-." You cannot save the configuration without entering a value in each field.

Field	Example
Maintenance	OpenLDAP Example: IdapSuper
Account	AD Example:
	CN=tq-maintenance,CN=Builtin,DC=yourdomain,DC=com
Administrative	OpenLDAP Example: administrator
Access	AD Example:
	CN=linux-admins,CN=Builtin,DC=yourdomain,DC=com



Field	Example
Read Only Access	OpenLDAP Example: IdapObserver
	AD Example: CN=read-onlyCN=Builtin,DC=yourdomain,DC=com
Primary Contributor Access	OpenLDAP Example: IdapAnalyst AD Example: CN=primary-contributor,CN=Builtin,DC=yourdomain,DC=com

- 5. Click Save Changes.
- 6. Click on the Enable/Disable toggle switch to enable LDAP.



If your LDAP fails to enable or fails to function properly, validate your inputs. If the configuration continues to fail, please contact ThreatQ Support.

Configuring Secure LDAP



This topic is for Anonymous Bind LDAP connections only. The steps needed to create a secured connection authenticated bind are included in the Configuring Authenticated Bind LDAP Settings topic.

To configure secure LDAP, you must complete the following steps:

- Enter your LDAP settings in the ThreatQ user interface. See the <u>Configuring</u>
 Anonymous Bind LDAP Settings topic for more details.
- 2. Access the ThreatQ appliance command line as root and edit and navigate to the following directory: /etc/openIdap/.



3. Use vi to edit Idap.conf and update/confirm that your settings are as follows:

```
#
# LDAP Defaults
#
# See ldap.conf(5) for details
# This file should be world readable but not world writable.

BASE     dc=[your domain],dc=com
URI ldap://[your servername]:389 ldaps://[your servername]:636

#SIZELIMIT 12
#TIMELIMIT 15
#DEREF     never

TLS_CACERTDIR    /etc/openldap/certs
# Turning this off breaks GSSAPI used with krb5 when rdns = false
SASL_NOCANON     on
TLS_REQCERT allow
```



ThreatQ recommends that you edit Idap.conf on the appliance, rather than editing off box and uploading it. If you do edit the file off box, ensure that you use a linux editor. Windows and Mac editors may corrupt the file.

If your LDAP fails to enable or fails to function properly, validate your inputs. If the configuration continues to fail, please contact ThreatQ Support.

Configuring Authenticated Bind LDAP Settings



It is recommended that you contact ThreatQ Support before configuring an authenticated bind connection.





Only users with an Administrative or Maintenance account can access LDAP settings.

Procedure:



1. Navigate to **Settings System Configurations**.

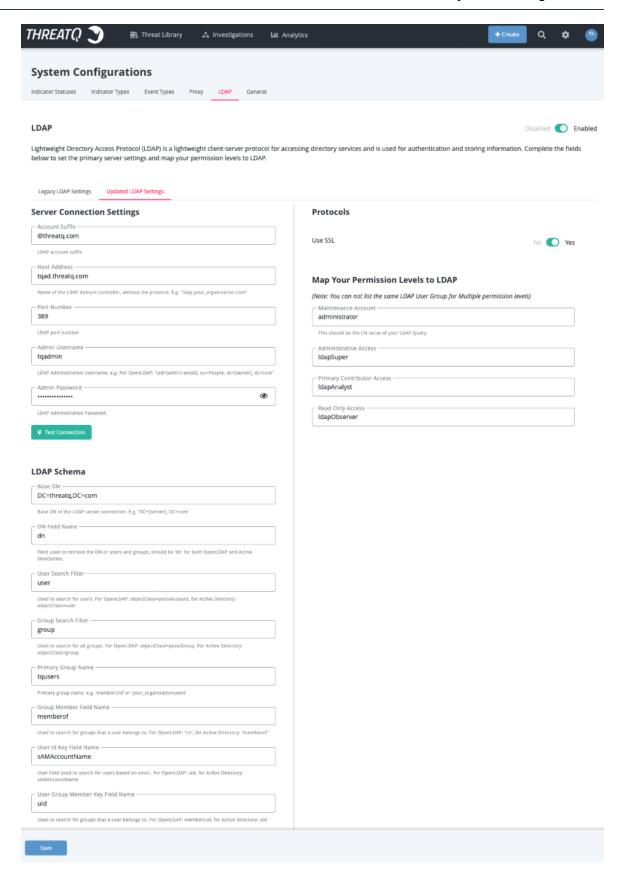


2. Click on the LDAP option and select the Updated LDAP Settings tab.



The Updated LDAP Settings form will load.







3. Complete the **Server Connections Settings** section:

Field	Description
Account Suffix	The LDAP account suffix.
Host Address	Name of the LDAP domain controller without the protocol. Example: tqldap.threatq.com
Port Number	Only standard ports for secured and unsecured connections are supported. Use port 636 if using SSL to create a secured connection.
Admin Username	The LDAP administrative username.
Admin Password	The LDAP administrative password.

- 4. Click on **Test Connections** to verify the settings are correct.
- 5. Complete the **LDAP Schema** section:

Field	Description
Base DN	The Base DN of the LDAP server connection.
	Example: DC=[server], DC="com"
DN Field Name	The field used to retrieve the DN or users and groups.



Field	Description
	This field should be DN for both OpenLDAP and Active Directory.
User Search Filter	The field to search for users.
	For
	OpenLDAP: objectClass=poslxAccount
	For Active Directory: objectClass=user
Group Search Filter	The field to search for grpups.
	For OpenLDAP: objectClass=poslxGroup
	For Active Directory: objectClass=group
Primary Group Name	The primary group name.
Group Member Field Name	This field is used to search for groups that a
	user belongs to.
	For OpenLDAP: cn
	For Active Directory: memberof
User ID Key Field Name	Field used to search for users based on
	email.
	For OpenLDAP: uid
	For Active Directory: sAMAccountName
User Group Member Key Field Name	Field used to search for groups that user



Field	Description	
	belongs to.	
	For OpenLDAP: memberUid	
	For Active Directory : uid	

6. Under the Protocols section, use the **Yes/No** toggle switch to select whether the connection will use SSL.



If the connection will use SSL, confirm that the port number, set in step 3, is 636 to create a secured connection.

7. Complete the MAP your Permission Levels to LDAP section:



You cannot use the same LDAP User Group for multiple permission levels. For roles not mapped, you should enter a hyphen: "-." You cannot save the configuration without entering a value in each field.

Field	Description		
Maintenance Account	The LDAP account the ThreatQ Maintenance group will map to for permissions.		
	Open LDAP Example: IdapSuper		
	AD Example:		
	CN=tq-maintenance,CN=Builtin,DC=yourdomain,DC=com		
Administrative Access	The LDAP account the ThreatQ Administrative group will map to for permissions.		
	Open LDAP Example: administrator		



Field	Description		
	AD Example:		
	CN=linux-admins,CN=Builtin,DC=yourdomain,DC=com		
Primary Contributor Access	The LDAP account the ThreatQ Primary Contributor group will map to for permissions.		
	Open LDAP Example: IdapAnalyst		
	AD Example:		
	CN=linux-admins,CN=Builtin,DC=yourdomain,DC=com		
Read-Only Access	The LDAP account the ThreatQ Read-Only group will map		
	to for permissions.		
	Open LDAP Example: IdapObserver		
	AD Example:		
	CN=read-onlyCN=Builtin,DC=yourdomain,DC=com		

- 8. Click on Save.
- 9. Click on the Enable/Disable toggle switch to enable LDAP.



Green indicates the feature is active.

Date and Time Format

You can configure the date and time format of your choice system-wide within the ThreatQ platform.



Note: If you make changes to the date and time format while another user is working concurrently in the same ThreatQ installation, that user must refresh their browser for the changes to take effect.

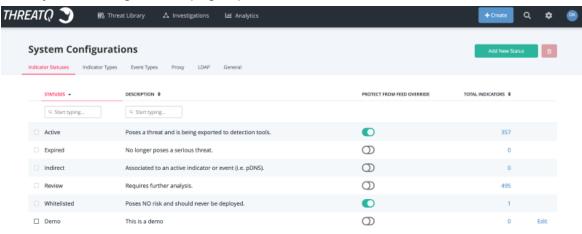
Related Topics:

Configuring Date and Time Format

Configuring Date and Time Format

1. From the main menu, select **Settings System Configurations**.

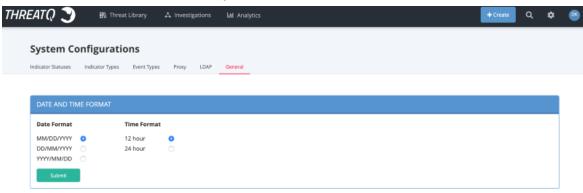
The System Configurations page opens to the Indicator Statuses tab.





2. Click the **General** tab.

The Date and Time Format tab opens.



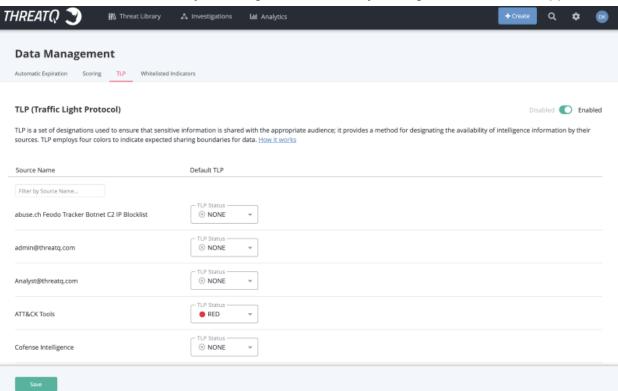
- 3. Select the desired Date Format.
- 4. Select the desired **Time Format**.
- 5. Click **Submit** to save your settings.



Traffic Light Protocol (TLP)

Traffic Light Protocol (TLP) schema provides a set of designations used to ensure that sensitive information is shared with the appropriate audience. ThreatQ provides a method for designating the availability of intelligence information by their sources. Users can also use TLP schema to filter objects when creating an export - see the <u>Adding an Export</u> topic for more details.

Administrators have the ability to configure TLP visibility settings for the ThreatQ application.



TLP employs four lights to indicate the expected sharing boundaries for data:

Light	Designation	Description		
	Red	Not for disclosure, restricted to participants only.		
	Amber Limited disclosure, restricted to participant's organizations.			



	Green	Limited disclosure, restricted to the community.
0	White	Disclosure is not limited.

TLP Assignment Hierarchy

The ThreatQ TLP assignment hierarchy is as follows (highest to lowest precedence):

Method	Details	
Manually Set	Using the Add New Source option when creating an object will allow you to select a TLP designation.	
Source Provided Data	TLP information received from ingested data.	
Source Default	Administrators can set a source's default TLP designation. See the Apply TLP Designation to Source topic for more details.	
No TLP	A TLP designation has not been set for the source.	

Access TLP Settings

Users can manage TLP settings for system sources by accessing the **TLP** tab under the **Data Management** page.

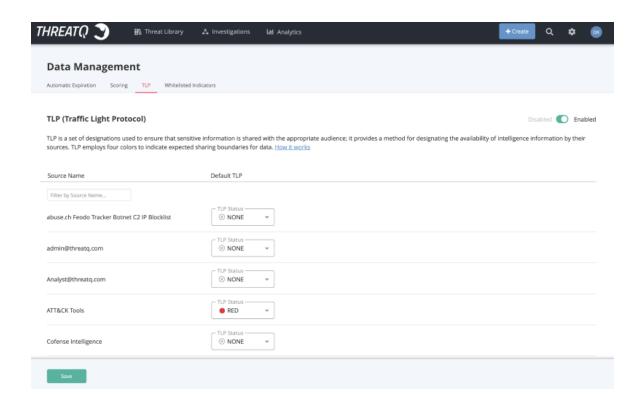
1. From the main menu, select **Settings Data Management**.

The Data Management page will load with Automatic Expiration tab selected by default



2. Click on the TLP tab.

The TLP Setting page will open.



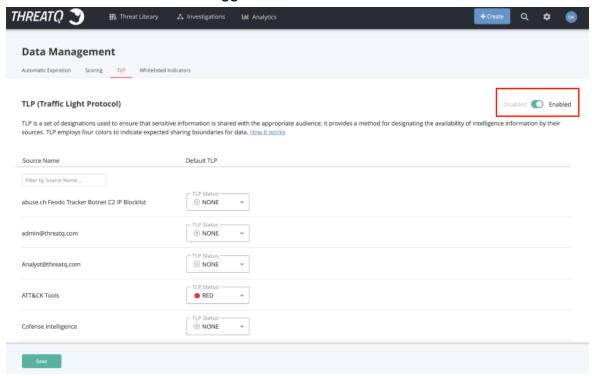
Configure TLP Visibility

System administrators can set visibility settings to either hide or show TLP designation lights to users.

From the TLP Settings Page (see the <u>Access TLP Settings</u> topic):



1. Click on the Enable/Disable toggle switch.



Enabled indicates that TLP designations are visible to users.



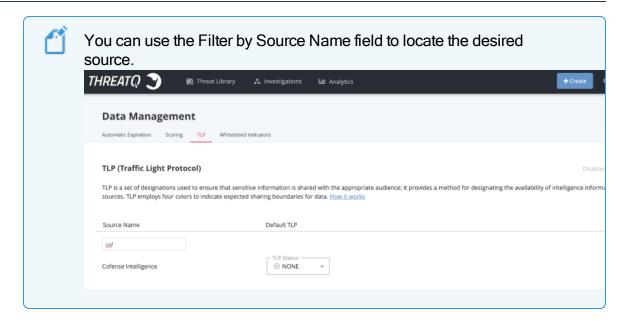
Administrators will not need to click on the **Save** button, changes will be made upon clicking on the switch.

Apply TLP Designation to Source

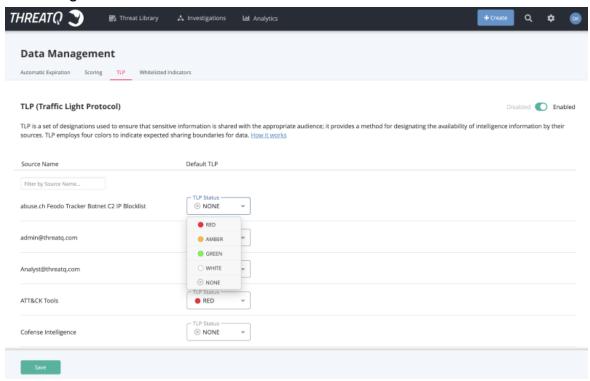
From the TLP Settings Page (see the Access TLP Settings topic):

1. Locate the source to update from the list provided.





2. Click on the TLP dropdown to the right of the source and select the appropriate TLP designation.



3. Click on Save.



Update TLP Schema using TLP Default - Command

Use the following command to update the TLP schema for an Object Source or Object Attribute Source with the source's default TLP designation.



See <u>Apply TLP Designation to Source</u> topic for more details on setting a default TLP designation for a source.

You should use this command to update your system to match default TLP configurations, specifically attributes and sources that were added to the Threat Library prior to the release of the TLP feature introduced with ThreatQ 4.11. This command will override previous TLP schema settings for a source including ones set by users. You will be prompted to confirm the action after entering the command. All updates will be recorded in the audit log.



The command will update using the default TLP designation. If a default designation is set to None, all references to the source will be updated to None.

Update All Sources

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

cd /var/www/api

3. Run the following command:

sudo php artisan threatq:apply-tlp-defaults

4. The application will warn you that this action is not reversible and will require user confirmation before proceeding.



5. Type **Yes** to confirm and proceed with the action.



The application will automatically be placed into maintenance mode. After the command has completed its operation, the application will be automatically be brought out of maintenance mode.

Update a Specific Source

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

cd /var/www/api

3. Run the following command:

sudo php artisan threatq:apply-tlp-defaults -sources="<your source>"



You can apply the command to multiple sources by listing the sources in a comma-delimited format.

Example: --sources="CrowdStrike, AlienVault"

- 4. The application will warn you that this action is not reversible and will require user confirmation before proceeding.
- 5. Type **Yes** to confirm and proceed with the action.



The application will automatically be placed into maintenance mode. After the command has completed its operation, the application will be automatically be brought out of maintenance mode.



Convert TLP Command

Use the following command to update all object sources and object attribute sources that have TLP stored as an object attribute. This command will not affect TLP attributes that have already been converted. Users should use this command for new incoming data, such as migrating data into the system, which has TLP attributes but no TLP set.

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

```
cd /var/www/api
```

- 3. Place the application into maintenance mode see the Maintenance Mode topic.
- 4. Run the following command:

```
sudo php artisan threatq:convert-tlp-attributes
```

5. Bring the application out of maintenance mode - see the Maintenance Mode topic.

Use Scenarios:

Object has one or more TLP Attributes with an invalid TLP (not currently in the TLP options)

- If the Object has just one TLP Attribute none of its Sources or Attribute Sources will be updated.
- If the Object has more than one TLP Attribute any Sources or Attribute Sources that match the Attribute Source of the TLP Attribute will not be updated.

Object has a single valid TLP Attribute



 All of the Object Sources and Object Attribute Sources will be updated to match the value of the TLP Attribute.

Object has multiple TLP Attributes

- Each TLP Attribute will be evaluated separately.
- Any Object Sources or Object Attribute Sources whose source matches that of the TLP Attribute will be updated with the value of the TLP Attribute.
- Any Object Sources or Object Attribute Sources whose sources do not match will not be updated.
- If there are no matches at all between the source of the TLP Attribute and any of the
 Object Sources or Object Attribute Sources, a new Object Source will be added using
 the Attribute's TLP value. Each of the Object Attributes will receive a new Object Attribute Source with the TLP value as well.



Threat Library

The Threat Library is the central repository within ThreatQ that organizes and combines external and internal threat data.

The Threat Library can be broken down into three segments:

System Objects

Threat data, both ingested and manually added, is referred to as System Objects and is sorted and categorized by object type.

Advanced Search

The Advanced Search page is the primary interface for the Threat Library that allows you to search, filter, and sort through System Objects.

Object Details

The Object Details page allows you view detailed information about a specific object.

Advanced Search

The Advanced Search page is the primary interface for the Threat Library. You can search for any system object within the application, filter returned system objects, and apply bulk changes to search results. You can click on an individual object to navigate to its details page.

Depending on how you have navigate to the Threat Library will determine which object types appear on the page.

Threat Library Navigation Menu

You can click on **Threat Library > Object Type** to open the advanced search for a particular object type or select **Browse All**. You can change or add additional object types using the Global Filters.



Search Link

You can click on **Search > Advanced Search** to open the advanced search for all object types within the Threat Library.

Refining Search Results

You can use the Global and List filters to narrow down your search for a specific object or object type.

Related Topics:

- Performing an Advanced Search
- Managing Search Columns
- Exporting Search Results to CSV
- Managing Searches
- Filter Sets
- Global Filters
- List Filters

Performing an Advanced Search



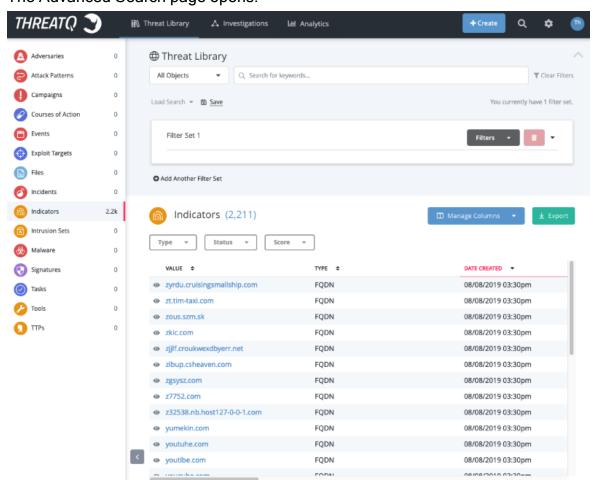
You can also click on **Threat Library > Browse All** to navigate to the advanced search page or click **Threat Library > Object Type** to navigate to the advanced search page for a specific object type.

To perform an advanced search:

1. Choose the Search icon.



In the Search dialog box, choose Advanced Search.The Advanced Search page opens.



Choose your object search category by selecting an object type from the Global Filter dropdown list or selecting an object type from the left-hand list.



See the <u>Global Filters</u> and <u>List Filters</u> topics for more information on narrowing down your search.

- 4. Press Enter or Return.
- 5. Optionally, repeat steps 3 and 4 to further narrow your search.

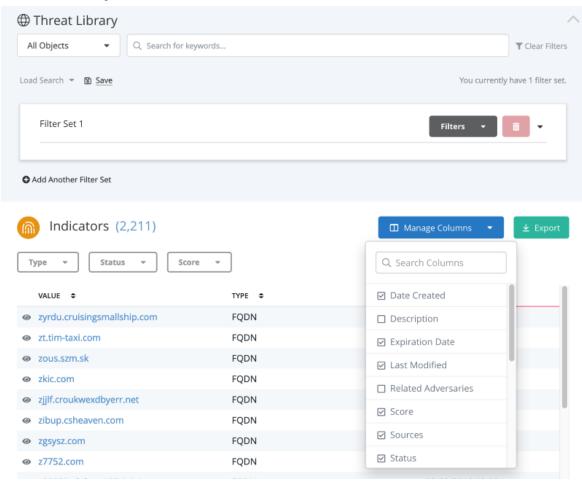
Managing Search Columns

You can choose which columns to display in your search results.



To select columns:

- 1. Navigate to the Advanced Search page.
- 2. Choose Manage Columns.



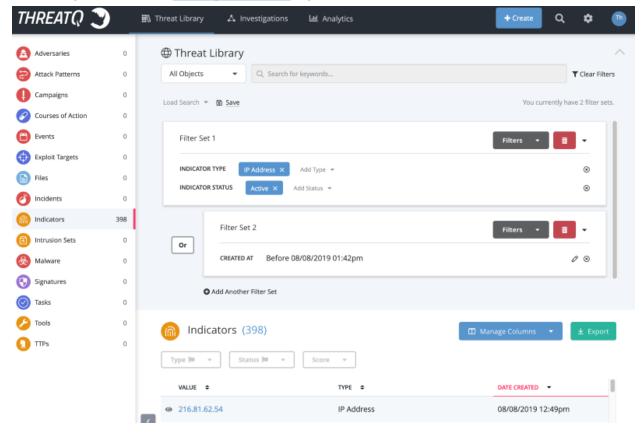
3. Select the columns you wish to display. Clear the columns you wish to hide.

Filter Sets

Filter Sets allow you to create multiple sets of filters that can be applied to the threat library at the same time using AND/OR logic. You can also save your Filter Sets using the Save



Search option - see the Saving Searches topic for more details.



Related Topics:

- Adding Filter Sets
- Editing Filter Sets
- Deleting Filter Sets
- And/Or Order of Operations

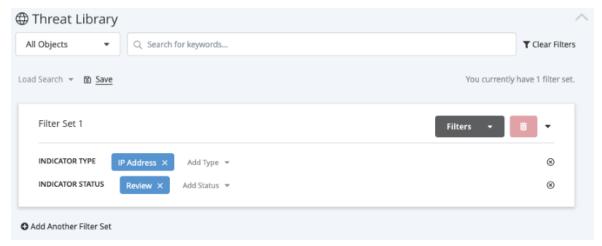
Adding Filter Sets

To Add a Filter Set to the search results:

From the Advanced Search page:

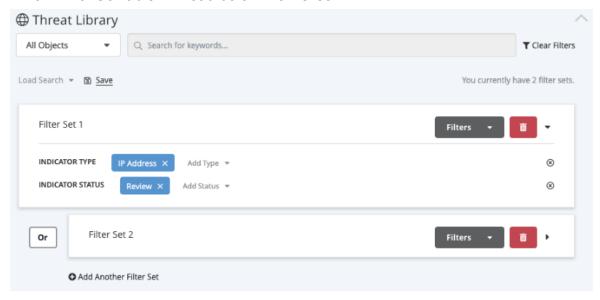


1. Select one or more filters for the search.



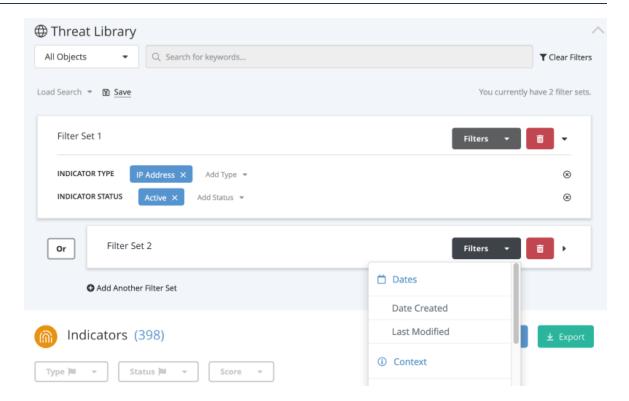
2. Click on Add Another Filter Set.

A new Filter Set table will load below the first set.



3. Use the Filters dropdown next to the new filter set to add filters.

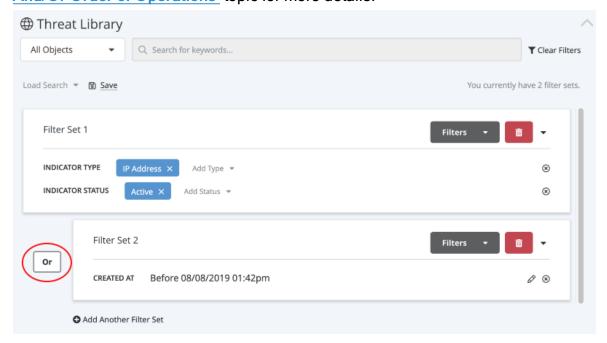




Repeat steps 2-3 to add additional filter sets.



4. Click on the **Or** button to switch between **And/Or** logic for the Filter Sets. See the **And/Or Order of Operations** topic for more details.



Editing Filter Sets

The steps to editing a filter within a Filter Set may differ based on the type of filter.

Editing Filter Set Filter Values

Filter	Steps			
	Dates			
Date Created	1. Click on the pencil Ø icon located to the right of the value.			
	The Date Created dialog box opens.			
	2. Update the date values and click Save .			
Last Modified	1. Click on the pencil Ø icon located to the right of the value.			
	The Last Modified dialog box opens.			



Filter	Steps		
	2. Update the date values and click Save .		
	Context		
Keyword	Keywords already applied to the filter cannot be edited and must be deleted. Perform the following:		
	Click on the X next to the existing keyword to delete it.		
	2. Click on the Filters dropdown and select Keyword .		
	The Filter by Keyword dialog box opens.		
	3. Enter the new keyword and click Add .		
Relationship	Related objects already applied to the filter cannot be edited and must be deleted. Perform the following:		
	Click on the X next to the existing related object to delete it.		
	Click on the Filters dropdown and select Relationship .		
	The Filter by Relationship dialog box opens.		
	3. Use the search box to locate the object and click Add .		
Indicator Score	Click on the Update Score option next to the existing score fil ter.		
	The Define Your Score dialog box opens.		
	Adjust the score range and click Submit .		
Source	Sources already applied to the filter cannot be edited and must be deleted. Perform the following:		
	Click on the X next to the existing source to delete it.		



Filter	Steps			
	2. If another source filter exists, click on Add Source option otherwise click on the Filters dropdown and select Source .			
	The Source dialog box opens.			
	3. Use the search box to locate the source.			
Tag	Tags already applied to the filter cannot be edited and must be deleted. Perform the following:			
	Click on the X next to the existing tag to delete it.			
	 If another tag filter exists, click on Add Tag option otherwise click on the Filters dropdown and select Tag. 			
	The Tag dialog box opens.			
	3. Use the search box to locate the tag.			
Value Contains	Values already applied to the filter cannot be edited and must be deleted. Perform the following:			
	Click on the X next to the existing value to delete it.			
	2. Click on the Filters dropdown and select Value Contains .			
	The Value Contains dialog box opens.			
	3. Select an Object, enter a Value, and click Add .			
With Attribute	With Attribute values already applied to the filter cannot be edited and must be deleted. Perform the following:			
	Click on the X next to the existing value to delete it.			
	2. Click on the Filters dropdown and select With Attribute .			
	The With Attribute dialog box opens.			



Filter	Steps	
	3. Select an Attribute, enter a Value, and click Add .	
Without Attribute	Without Attribute values already applied to the filter cannot be edited and must be deleted. Perform the following:	
	Click on the X next to the existing value to delete it.	
	2. Click on the Filters dropdown and select Without Attribute .	
	The Without Attribute dialog box opens.	
	3. Select an Attribute, enter a Value, and click Add .	
	Types	
Object Type	Click on the Add Type next to the existing types.	
(Indicator, Event,	The Type dialog box opens.	
Signature, File)	Use the checkboxes to select and unselect types.	
Statuses		
Object Status	Click on the Add Status next to the existing status.	
(Indicator, Sig-	The Status dialog box opens.	
nature, Task)	Use the checkboxes to select and unselect statuses.	

Deleting Filter Sets

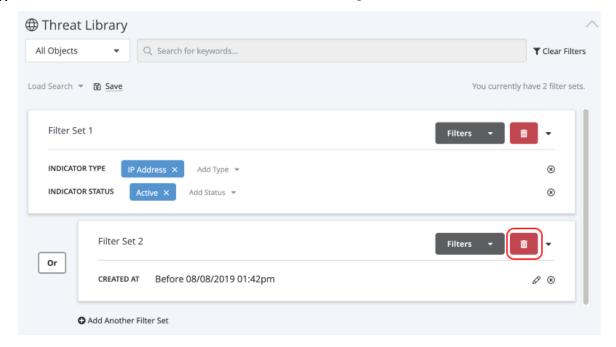


Deleting a Filter Set removes it from the search results and cannot be undone.

To Delete a Criteria Set:



1. Click on the delete III icon located next to the right of the Filter Set's name.





You can click on **Clear Filters**, located at the top-right of the search, to remove all filter sets from the current search.

And/Or Order of Operations

Filter Set AND/OR logic follows the standard mathematical order of operations with ANDs being executed before ORs. The table below provides different scenarios and examples for Filter Sets.



Scenario	Order	Example	
Single AND	Filter 1 AND Filter 2	Filter Set 1 INDICATOR TYPE IP Address × Filter Set 2 INDICATOR STATUS	Add Type ♥ Active × Add State
Single OR	Filter 1 OR Filter 2	Filter Set 1 INDICATOR TYPE IP Address × Filter Set 2 INDICATOR STATUS Add Another Filter Set	Add Type 🕶 Active × Add State



Scenario	Order	Example	
Single AND, Single OR	(Filter 1 AND Filter 2) OR Filter 3	Filter Set 1 UPDATED AT Before 08/06/2019 Filter Set 2 INDICATOR STATUS	05:39pm Active × Add State
		Filter Set 3 CREATED AT Before Add Another Filter Set	08/06/2019 05:40p



Scenario	Order	Example	
Multiple ANDs, Single OR	(Filter 1 AND Filter 2 AND Filter 3) OR Filter 4	Filter Set 1 UPDATED AT Before 08/06	/2019 05:39pm
		Filter Set 2 And INDICATOR STATUS	Active × A
		Filter Set 3 And CREATED AT BE	efore 08/06/2019 0
		Filter Set 4 Or INDICATOR STATUS	Review X
		• Add Another Filter Se	et



Scenario	Order	Example	
Multiple ANDs, Multiple ORs	(Filter 1 AND Filter 2) OR (Filter 3 AND Filter 4)	Filter Set 1	
		UPDATED AT Before 08/0	5/2019 05:39pm
		Filter Set 2	
		INDICATOR STATU	Active X Ad
		Filter Set 3	
			efore 08/06/2019 05
		Filter Set 4	
		INDICATOR STATU	Review X
		• Add Another Filter S	et

Global Filters

Global filters allow you to filter advanced search results by specific details associated with an object.

Additional Topics:

- Filtering by Attribute
- Filtering by Date Created
- Filtering by Keyword
- Filtering by Last Modified
- Filtering by Object Type



- Filtering by Relationship
- Filtering by Value Contains

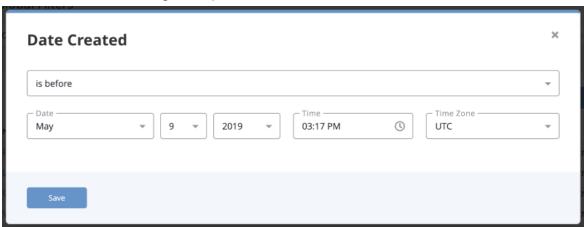
Filtering by Date Created

Complete the following procedure to filter Advanced Search results by the date the objects were created.

To filter by Date Created:

1. Click on the Filters option and select Date Created.

The Date Created dialog box opens.



2. Select one of the following options to determine how the filter is applied:

Option	Result	
is before	Search results include items before a selected date	
is after	Search results include items after a selected date	
is in the range	Search results include items in a selected range of dates	



Option	Result
is within the last	Search results include items within the selected number of
	days.

- 3. Use the controls to select date options based upon the selection in step 2.
- 4. Click Save.

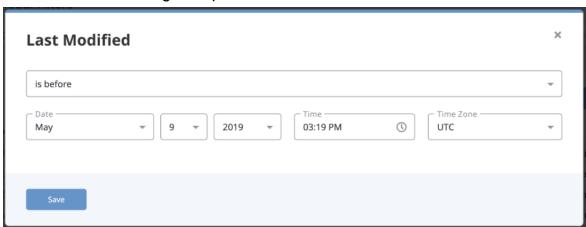
Filtering by Last Modified

Complete the following procedure to filter Advanced Search results by the date objects were last modified.

To filter by Last Modified:

1. Click on the Filters option and select either Last Modified.

The Last Modified dialog box opens.



2. Select one of the following options to determine how the filter is applied:

Option	Result	
is before	Search results include items before a selected date	
is after	Search results include items after a selected date	



Option	Result	
is in the range of	Search results include items in a selected range of dates	
is within the last	Search results include items within the selected number of days.	

- 3. Use the controls to select date options based upon the selection in step 2.
- 4. Click Save.

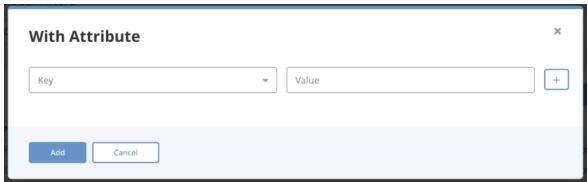
Filtering by Attribute

You can filter the Threat Library list to include or exclude objects with a specific attribute.

From the search results:

1. Click on the **Filters** option and select either **With Attribute** or **Without Attribute**.

The Attribute Filter dialog box opens.



- 2. Select an Attribute Type.
- 3. Enter an Attribute Value associated with the Attribute Type.



Users can leave the **Attribute Value** field blank to filter for *any value* associated with the selected **Attribute Type**.



- 4. Click on the **Plus** icon to the right of the dialog box to add another attribute and repeat steps 2-3. This step is optional.
- 5. Click on the **Add** button.

The filters will be applied to the search results.

The following section applies to using multiple attribute filters.



The **Match Any/All** toggle option will allow users to configure the filter to include objects that either fit one attribute filter or all. The **Any** option will be selected by default. This means the filter will display results that fit any of the attribute filters. The **All** option means the filter will display results that fit all attribute filters.

Example:

ANY - Match Toggle Selection			
Setting	Field	Value	
Filter A	Attribute Type	Attack Phase	
	Attribute Value	C2	
Filter B	Attribute Type	Severity	
	Attribute Value	High	
Filter Options	Any/All Toggle	Any	
Result	Search Results are filtered to include/exclude objects with Attack		
	Phase: C2 OR Severity: High attributes.		

ALL - Match Toggle Selection			
Setting	Field	Value	



Filter A	Attribute Type	Attack Phase
	Attribute Value	C2
Filter B	Attribute Type	Severity
	Attribute Value	High
Filter Options	Any/All Toggle	All
Result	Search Results are filtered to include/exclude objects with Attack	
	Phase: C2 AND Severity: High attributes.	

Common Scenarios

The following scenarios demonstrate the Attribute Filter option in use with search results.

Applying a "With Attribute" filter (All items with an Attribute Type and Value)

- 1. User clicks on the **Threat Library** tab and selects on the **Indicators** tab.
- 2. User clicks on the Filters button and select With Attribute.

The Attribute Filter dialog box opens.

- 3. User selects Attack Pattern as the Attribute Type and C2 as the Attribute Value.
- 4. User clicks on Add.

The User will now see a search parameter With Attribute with Attack Pattern: C2 listed. The search results update to show all Indicators with an attribute of Attack Pattern: C2.

Applying a "Without Attribute" filter (All items without an Attribute Type and Value)

- 1. User clicks on the **Threat Library** tab and selects on the **Indicators** tab.
- 2. User clicks on the **Filter** button and select **Without Attribute**.



The Attribute Filter dialog box opens.

- 3. User selects Attack Pattern as the Attribute Type and C2 as the Attribute Value.
- 4. User clicks on Add.

The User will now see a search parameter With Attribute with Attack Pattern: C2 listed. The search results update to show all Indicators without an attribute of Attack Pattern: C2.

Applying a "Without Attribute" filter (All items Without a specific Attribute Type with any Value)

- 1. User clicks on the **Threat Library** tab and selects on the **Indicators** tab.
- 2. User clicks on the **Filters** button and select **Without Attribute**.

The Attribute Filter dialog box opens.

- 3. User selects Attack Pattern as the Attribute Type and leave the Attribute Value blank.
- 4. User clicks on Add.

The User will now see a search parameter **Without Attribute** with **Attack Pattern** listed. The search results update to show all Indicators that do not have an **Attribute User Type** of **Attack Pattern** assigned to them.

Applying keyword filters then applying a "With Attribute" filter

- 1. User clicks on the **Threat Library** tab and selects on the **Indicators** tab.
- 2. User searches for keyword: demo.



The User will see a search parameter listed Keyword: "demo" and the results update to show only indicators that mention demo.

3. User clicks on the **Filters** button and select **With Attribute**.

The Attribute Filter dialog box opens.

- 4. User selects Attack Pattern as the Attribute Type and C2 as the Attribute Value.
- 5. User clicks on **Add**.

The User will now see a search parameter **With Attribute** with **Attack Pattern: C2** listed. The search results will update to show all Indicators that mention the keyword **demo AND** have an attribute of **Attack Pattern: C2**.

Editing multiple attributes that were applied as part of the search parameters

- 1. User clicks on the **Threat Library** tab and navigates to the **Indicators** tab.
- 2. User clicks on the Filter button and select With Attribute.

The Attribute Filter dialog box opens.

- 3. The User specifies two attributes:
 - Attack Pattern:C2
 - Severity: High
- 4. User clicks on Add.

The User will now see two search parameters under the **With Attribute** section - **Attack Pattern: C2** and **Severity: High**. The search results updates to show all



Indicators with an attribute of **Attack Pattern: C2** and **Severity: High**. The search parameter for attributes is defaulted to Any. This indicates that objects with an attribute of **Attack Pattern: C2** or **Severity: High** are displayed.

5. User clicks on the **Filters** option and selects **With Attribute**.

A form will load with all applied filter attributes.

6. The User clears the Attack Pattern's Attribute Value field and clicks Add.

The User will now see two search parameters under the **With Attribute** section: **Attack Pattern: Any** and **Severity: High**. The search results updates to show all Indicators with an attribute type of **Attack Pattern OR Severity: High**.

Add multiple attributes and toggle Match from Any to All

 User applies two attribute filters to the indicators results: Attack Phase: C2 and Severity: High.

The filtered results will display any indicators that has either of those attributes.

2. User clicks on the Any/All Match toggle button and select All.

The filtered results will display any indicator that has both of those attributes

Filtering by Relationship

The Relationship Filter option allows you to filter the Threat Library by related objects. Using the Relationship filter, you can:



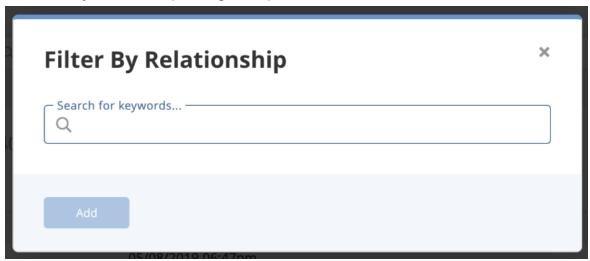
- Filter search results to include objects related to a specific object.
- Filter search results to include objects using multiple related object filters. You will
 also have the option to set the filter to include objects that fit one of the multiple filters or all.

To Filter by Related Object:

From the search results:

1. Click on the **Filters** option and select **Relationship**.

The Filter by Relationship dialog box opens.



2. Use the textbox provided to select an object.



Repeat step 2 to add multiple object filters.

3. Click on **Add** to apply the filter.



The Match Any/All toggle option will allows you to configure the filter to include objects that either fit one related object filter or all. The Any option will be selected by default. This means the filter will display results that fit any of the related object filters. The All option means the filter will display results that fit all related object filters.



Examples:

ANY - Match Toggle Selection			
Setting	Related Object		
Filter A	ABC Indicator		
Filter B	DEF Event		
Filter Option	Any		
	Search Results are filtered to		
Result	include objects related to the ABC		
	Indicator OR the DEF Event.		

ALL - Match Toggle Selection			
Setting	Related Object		
Filter A	ABC Indicator		
Filter B	DEF Event		
Filter Option	All		
Result	Search Results are filtered to		
	include objects related to the ABC		
	Indicator AND the DEF Event.		

Filtering using Tags

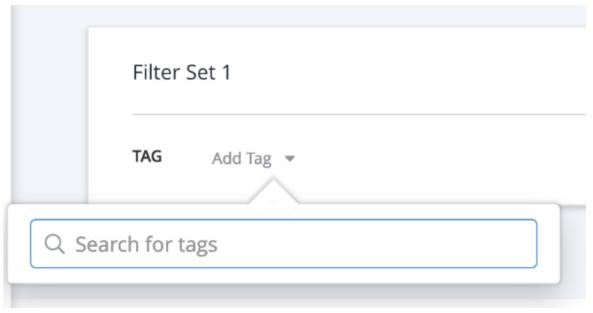
Using the **Tags** filter allows you to filter search results based on tags applied to an object.

From the search results:



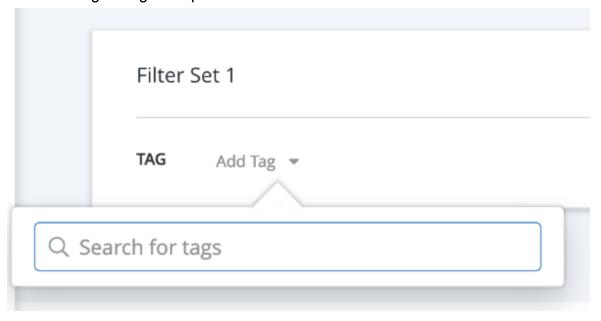
1. Click on the **Filters** option and select **Tags**.

The Filter by Tag row opens.



2. Select Add Tag.

The Add Tag dialog box opens.



3. Use the supplied text field to select a tag.



4. Repeats steps 2-3 to apply multiple tag filters.



The **Match Any/All** toggle option will allows you to configure the filter to include objects that either fit one tag filter or all. The **Any** option will be selected by default. This means the filter will display results that fit any of the tag filters. The **All** option means the filter will display results that fit all-tag filters.

Examples:

ANY - Match Toggle Selection			
Setting	Tag		
Filter A	Phishing		
Filter B	DDoS		
Filter Option	Any		
	Search Results are filtered to		
Result	include items with either Phishing		
	OR the DDoS tags.		

ALL - Match Toggle Selection			
Setting	Tags		
Filter A	Phishing		
Filter B	DDoS		
Filter Option	All		
Result	Search Results are filtered to		
	include items with both Phishing		
	AND DDoS tags.		

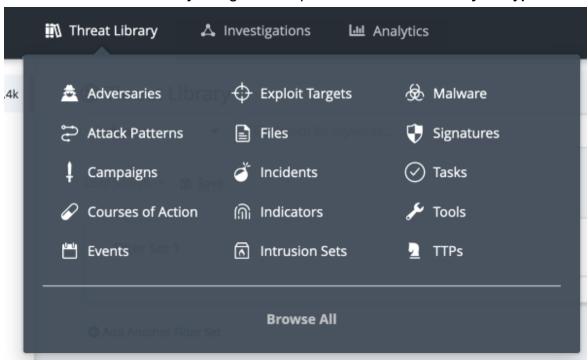


Filtering by Object Type

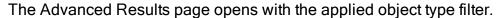
You can filter the Threat Library by object type using the following methods:

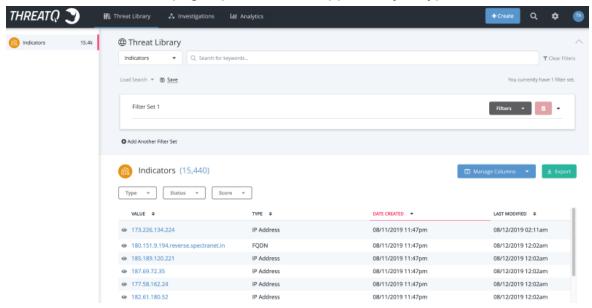
Threat Library Navigation Menu:

1. Click on the Threat Library navigation dropdown and select an Object Type.









Object Global Filter Dropdown List

You can use the Global Filter dropdown list to select more than one object type.



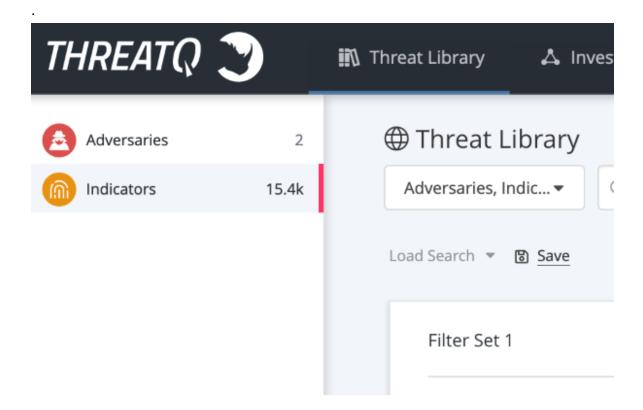




Indicators	•	Q Search for k
☐ All Objects		
☐ Adversaries		
☐ Attack Patte	rns	
☐ Campaigns		
☐ Courses of A	Action	
☐ Events		
☐ Exploit Targe	ets	
☐ Files		
☐ Incidents		Sco
☑ Indicators		



The Advanced Search Results page updates the list with the selected object type (s)

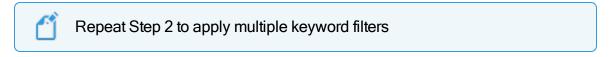


Filtering by Keyword

You can filter the Threat Library items on the Advanced Search by keyword.

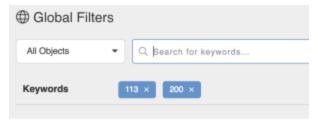
To filter by keyword:

- 1. Navigate to the Advanced Search page.
- 2. Enter a keyword in the Keyword text field and press **<Enter>** or **<Return>**.





Each keyword filter appears in a box below the keyword text field."



3. Click on the X for each filter to remove it or select Clear All Filters to remove all filters

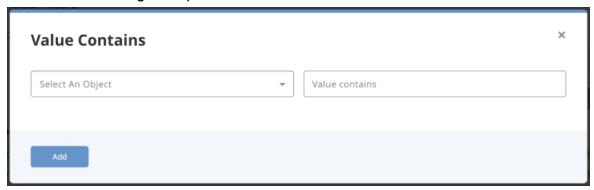
Filtering by Value Contains

You can now filter Threat Library objects by a specific value or string within the value using the Value Contains filter.

To filter by contains:

1. Click on the Filters option and select Value Contains.

The Contains dialog box opens.



2. Select an **Object**, enter a **Value**, and click **Add** to apply the filter.

List Filters

List filters allow you to apply object type-specific filters to the advanced search results.





List filter options vary based the object type currently being viewed. Example: the score filter can only be applied to indicators.

- Filtering by Type
- Filtering by Status
- Filtering by Score

Filtering by Type

You can filter Indicators, Signatures and Files by specific types of each.

Example: Filter the Signature list to include YARA types only.

To filter by status:

1. Click on the Filters dropdown and select **Object Type>Type**.



The Type filter row will appear in the filter set.

2. Click on **Add Type**.



You can select multiple types using the check boxes.

The search results will update with the applied filter.

Filtering by Status

You can filter Indicators, Signatures and Tasks by Status.

To filter by status:

1. Click on the Filters dropdown and select **Object Type>Status**.



The Status filter row will appear in the filter set.



2. Click on Add Status.



You can select multiple statuses using the check boxes.

The search results will update with the applied filter.

Filtering by Score

You can filter indicators in the advanced search results by score.



This option is only available for indicators.

To filter by score:

Navigate to the Advanced Search results page by selecting Search > Advanced
 Search then selecting Indicators from the left-hand object type menu.

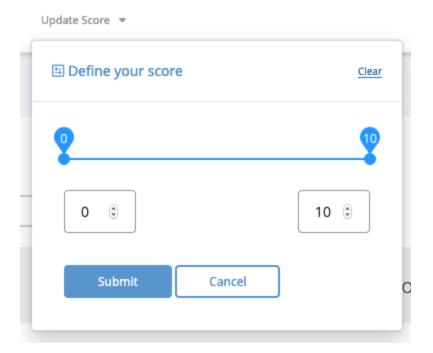


You can also select **Threat Library > Indicators** from the main menu.

2. Click on the Filters dropdown and select the Indicator Score filter option.

The Indicator Score dialog row will load in the filter set.







The scale offers a range of 1-10.

3. Adjust the score scale to filter the results.

Filtering by Scoring Range

You can move the two scale markers to select a scoring range.

Example: Move the left marker to 6 and the right marker to 8 to filter the search results to include indicators with a score between 6 and 8.

Filtering by Specific Score

You can move the scale makers to the same scoring number to filter by a specific score.

Example: Move the left and right markers to 8 to filter the search results to only include indicators with a score of 8.





Select the **Update Score** filter again and select **Clear** to remove the filter.

Managing Searches

If you are following a particular area of interest, you can create a Saved Search. Saved Searches can then be run at any time.

Related Topics:

- Saving Searches
- Running Saved Searches
- Deleting Saved Search

Saving Searches

To save a search:

- 1. Choose the **Search** icon.
- 2. In the Search dialog box, choose **Advanced Search**.



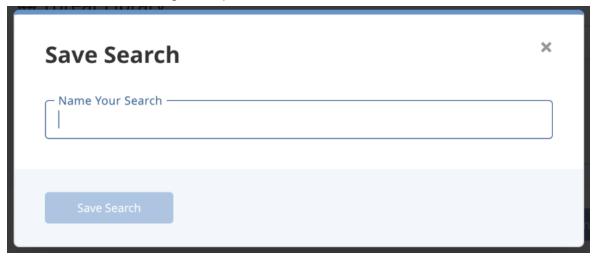
You can also select **Threat Library** > **Object Type** to navigate to the advanced search page for a specific object type.

3. Perform an Advanced Search.



4. Choose Save.

The Save Search dialog box opens.



- 5. Enter a name for the search in the Save Search dialog box.
- 6. Choose Save Search.

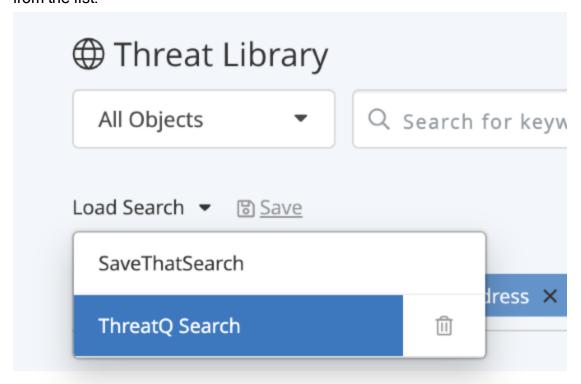
Running Saved Searches

To run a saved search:

1. Navigate to the Advanced Search page.



2. Click on the **Load Search** dropdown list and then select the desired saved search from the list.



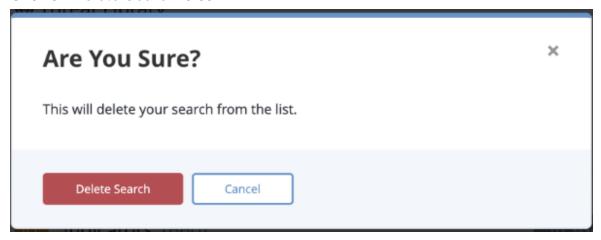
Deleting Saved Search

To delete a saved search:

- 1. Navigate to the Advanced Search page.
- 2. Click on the **Load Search** dropdown, hover the mouse over the saved search to delete, and click on the iii icon.



Click on Delete Search to confirm.



Exporting Search Results to CSV

You can export your search results as a CSV file, which allows you to use the data in another application, such as external spreadsheet software.



If you export a file with too many search results, the file may be too large to open in desktop applications. If you encounter this issue, you should separate your exports into smaller chunks of data.



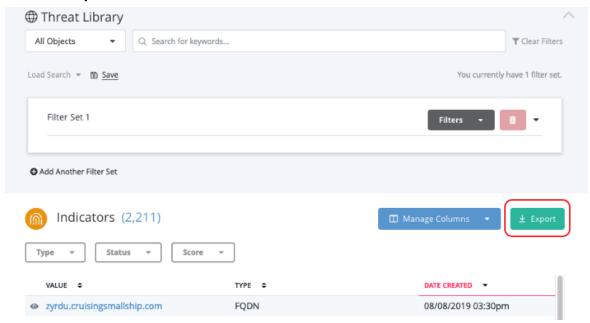
When exporting search results to a CSV file, if you include additional columns beyond the default, this modification will impact the performance of the export process.

To export search results to a CSV file:

- 1. Navigate to the Advanced Search page.
- 2. Perform your search.



3. Choose Export.



The CSV file downloads to your desktop.

System Objects

Threat data, both ingested and manually added, is referred to as System Objects and is sorted and categorized by object type.

See the topics below to learn more about each object type and how to manage them.

System Objects:

- Adversaries
- Events
- Files
- Indicators
- Signatures
- STIX Overview



Adversaries

Adversaries are the suspected groups that are attempting to do malicious activity.

Related Topics

- Adding Adversaries
- Editing Adversaries
- Deleting Adversaries

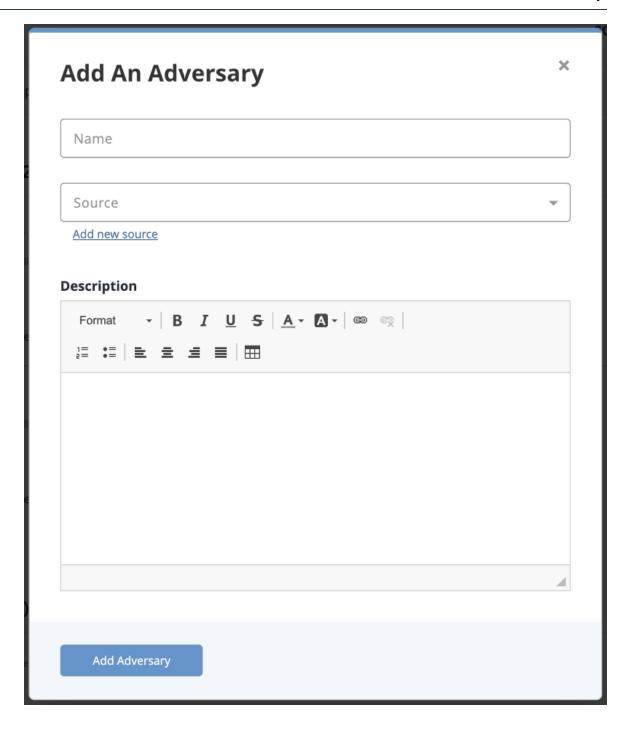
Adding Adversaries

To create an Adversary:

1. Go to Create > Adversary.

The Add an Adversary dialog box opens.

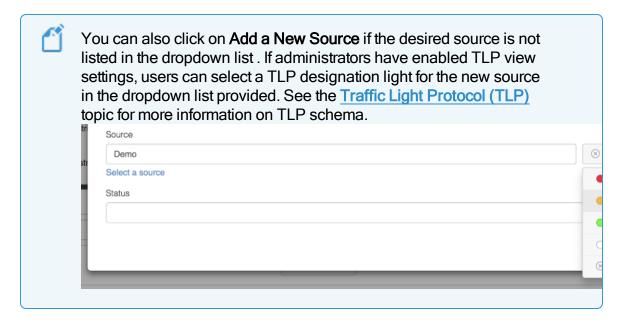




2. Enter a name.



3. Select a **Source** from the dropdown provided.



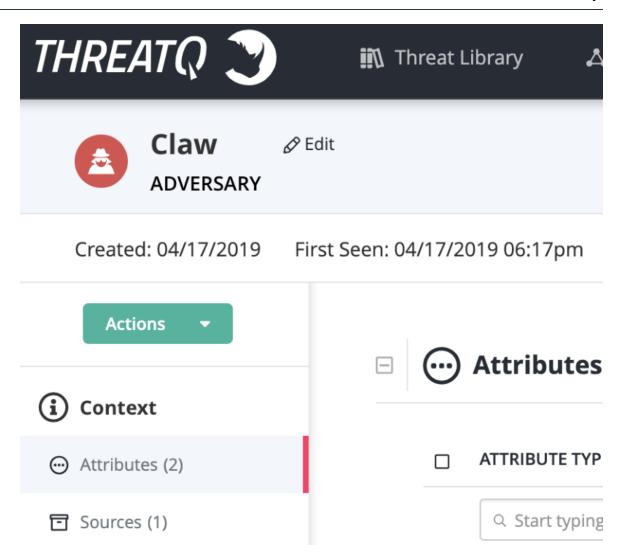
- 4. Enter a description.
- 5. Click **Add Adversary**.

Editing Adversaries

To edit the name of an Adversary:

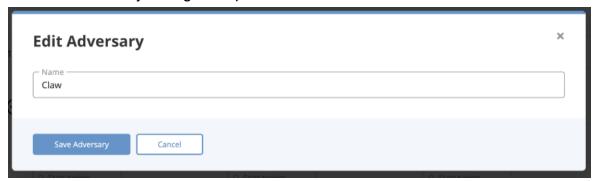
Locate and click the adversary.
 The Adversary Details page opens.





2. Click on **Edit** next to the Adversary name.

The Edit Adversary dialog box opens.



3. Make the desired change to the Adversary name.



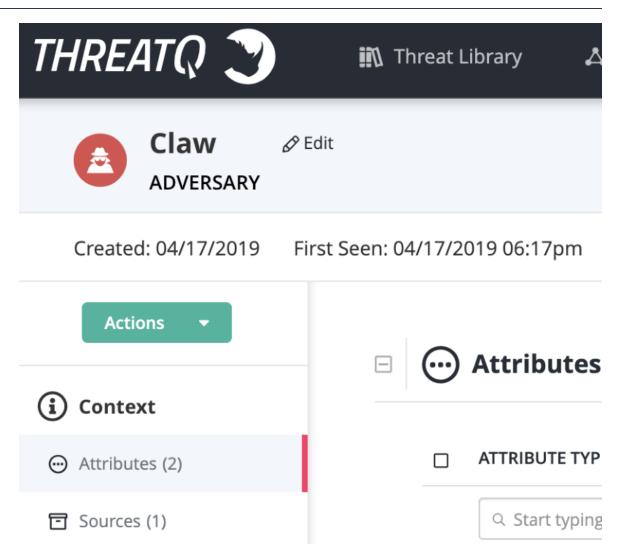
4. Click on **Save Adversary**.

Deleting Adversaries

To delete an Adversary:

Locate and click on the adversary.
 The Adversary Details page opens.

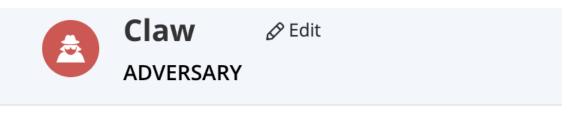




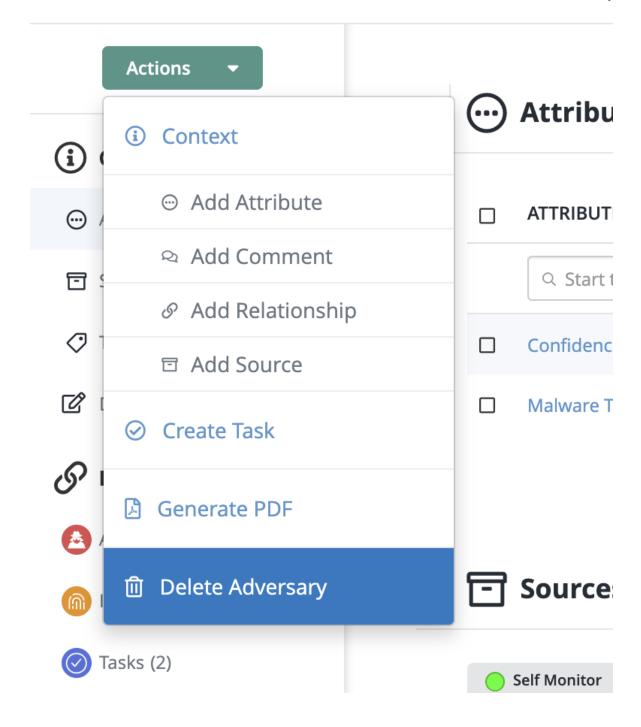


2. Click on the **Actions** menu and select **Delete Adversary**.





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A confirmation dialog box appears.



3. Click on **Delete Adversary**.

Events

Events are observations made by the threat intelligence community of adversaries' malicious attempts.

Related Topics:

- Adding Events
- Editing Events
- Deleting Events

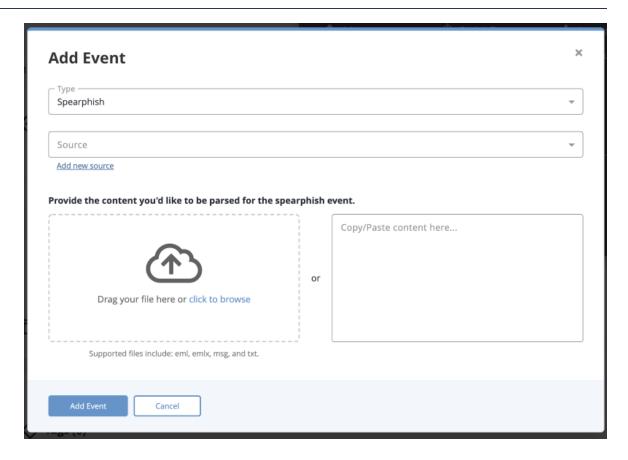
Adding Events

To add an Event:

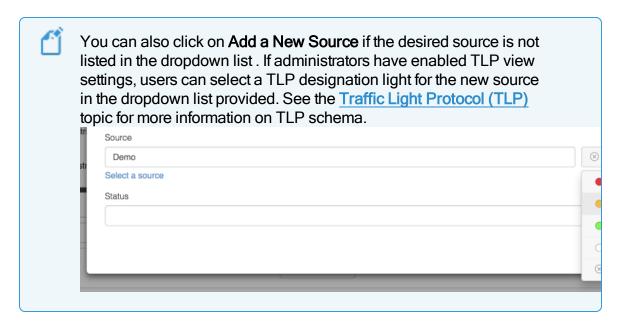
1. Go to Create > Event.

The Add Event dialog box opens.





- 2. Select the Event Type.
- 3. Select a **Source** from the dropdown list provided.





- 4. Add the date and time the event occurred in the **Date of Occurrence** fields.
- 5. Add an **Event Title**.
- 6. Click Add Event.

Editing Events

To edit an Event:

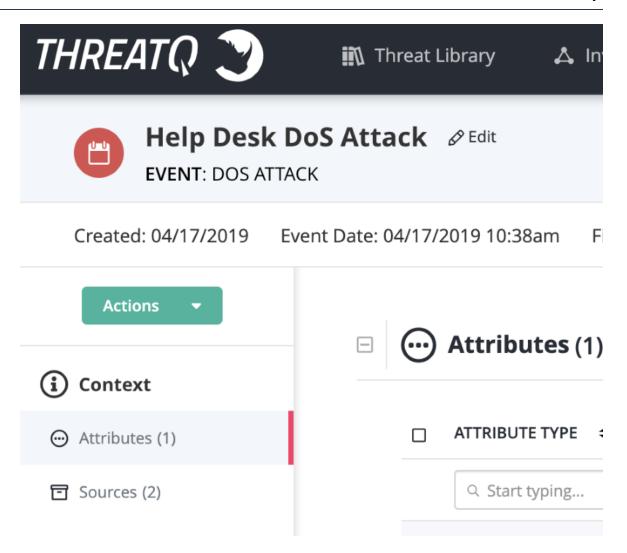


You can also update the Event Type by clicking on the **Type** dropdown located to the top-right of the Event's Object Details page.

1. Locate and click on the event.

The Event Details page opens.

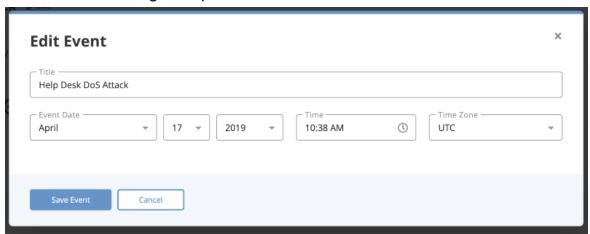






2. Click on **Edit** next to the Event name.

The Edit Event dialog box opens.



- 3. Make the desired change to the Event Name and Event Date.
- 4. Click on Save Event.

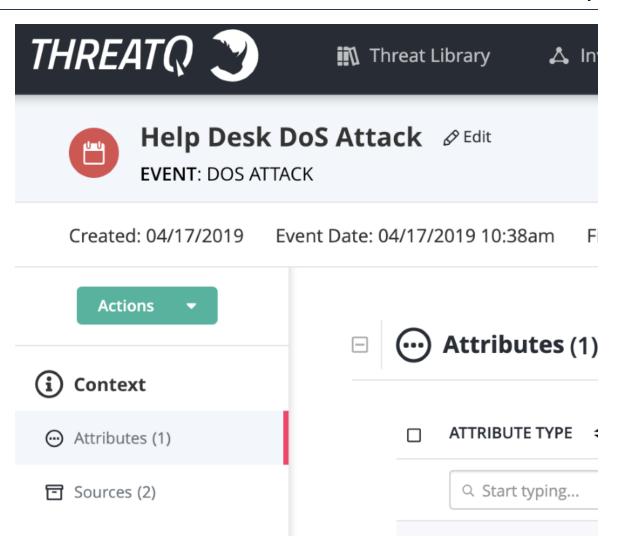
Deleting Events

To delete an Event:

1. Locate and click the event.

The Events Details page opens.



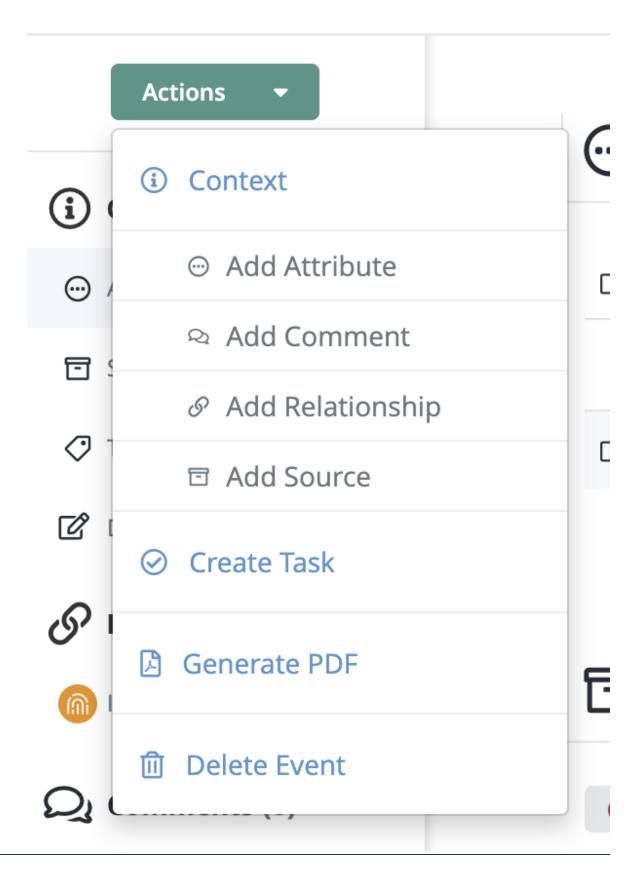




2. Click on the **Actions** menu and select **Delete Event**.



Created: 04/17/2019 Event Date: 04/1





A confirmation dialog box appears.



3. Click on Delete Event.

Files

Files are received from various intelligence providers and contain information on indicators, adversaries, and events within ThreatQ.

Related Topics:

- Adding Files
- Editing Files
- Deleting Files

Adding Files

To add a File:

1. Click Create New > File.

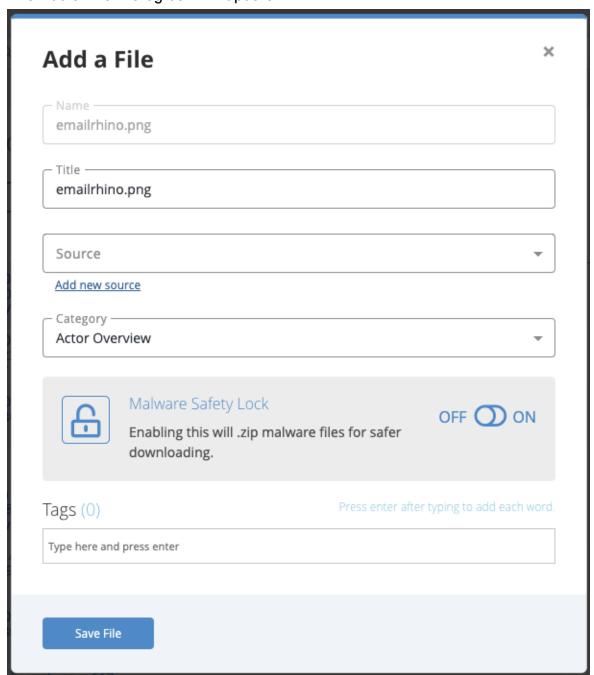
The Add a File dialog box opens.







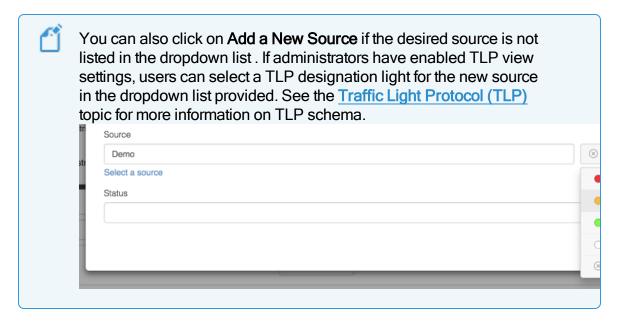
Drag the file into the dialog box or browse and locate the file.The Add a File Dialog box will update.



3. Update the **Title** if desired.



4. Select a **Source** from the dropdown list provided.



- 5. Select a Category.
- 6. Select whether to have the Malware Safety Lock on or off.



Enabling the safety lock will create a .zip file so any malware is safer for download.

7. Add any desired tags.



Tags added appear on the File Details page.

8. Click Save File.

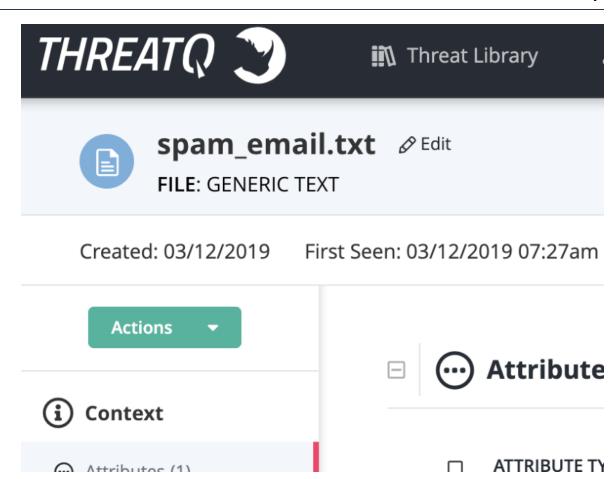
Editing Files

To edit a File Name:

1. Locate and click on the file.

The File Details page opens.





2. Click on Edit next to the File name.

The Edit File dialog box opens.



- 3. Make the desired change to the File Name.
- 4. Click on Save File.



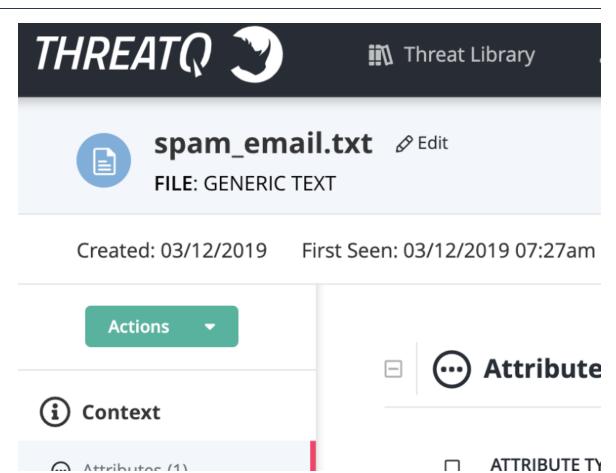
Deleting Files

To delete a File:

1. Locate and click the file.

The File Details page opens.

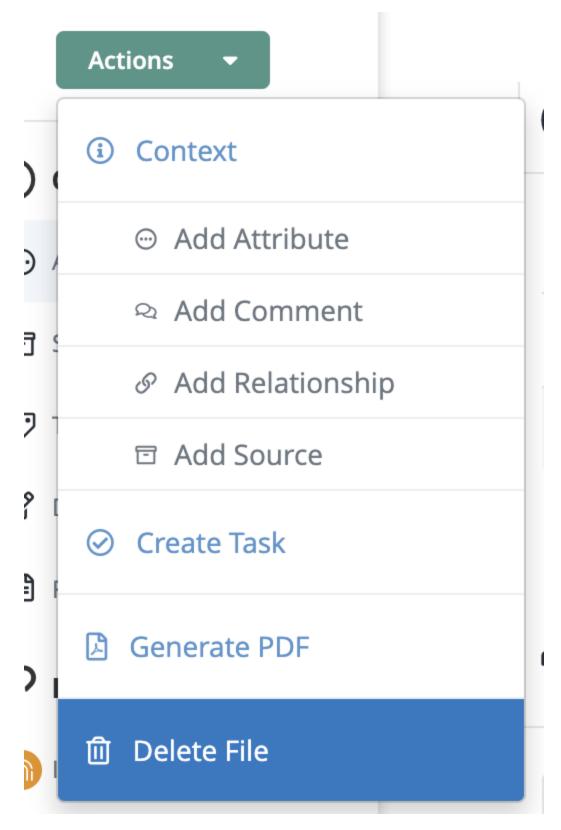






2. Click on Actions menu and select Delete File.





A confirmation dialog box appears.



Are You Sure? Deleting this File can not be undone.	×
Delete File Cancel	

3. Click on Delete File.

Indicators

Indicators are the so called "finger prints" associated with a malicious attempt or adversary group.

Indicators can be scored to allow you to apply weighting using contextual information, such as sources, attributes, and indicator types, as they are added to ThreatQ. You can also set a manual score per indicator.

You can also apply expiration dates to an indicator to when it is determined to pose less of a threat to your infrastructure than other indicators.

Related Topics:

- Adding an Indicator
- Parsing for an Indicator
- Indicator Search
- Indicator Expiration
- Automatic Expiration and Policies
- Indicator Scoring



- Whitelisted Indicators
- Indicator URL Normalization

Adding an Indicator

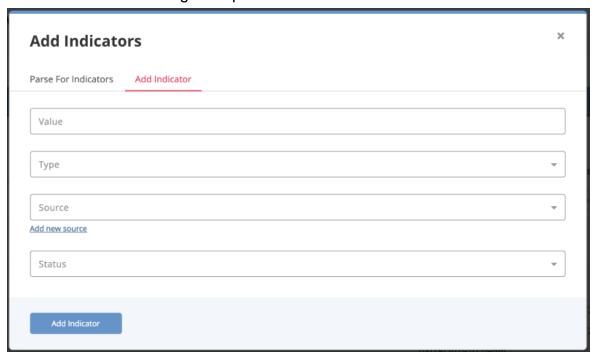
To add an Indicator:

1. Click on Create > Indicator.



You can also select **Indicator Parser** from the Create menu if importing a file. The option is located under the Import section of the Create menu. See the **Parsing for an Indicator** topic.

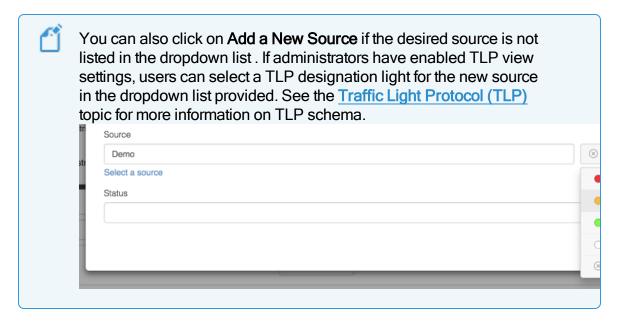
The Add Indicators dialog box opens.



- 2. Enter a value in the Value field.
- 3. Select the **Type** of Indicator.



4. Select a **Source** from the provided dropdown list.



- 5. Select a **Status** for the indicator.
- 6. Click Add Indicator.

Parsing for an Indicator

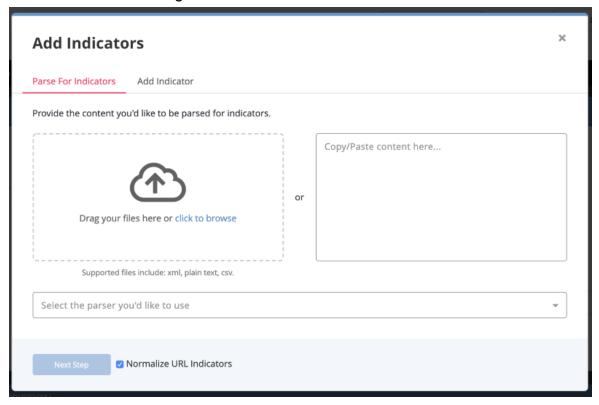
Click on the Create button, located at the top of the dashboard and select Indicator
 Parser under the Import heading.



You can also click on **Create** > **Indicator** and then select the **Parse for Indicators** option at the top of the **Add Indicators** modal.



The Add Indicators dialog box will load.



- 2. Do one of the following:
 - Drag your file(s) into the left pane.
 - Click on **Click to Browse**, and locate the file you wish to upload.
 - Copy/paste the content in the right pane.
- 3. Select the **Parser** to use and click on **Next Step**.
- 4. Select whether to save or delete the file after the import.

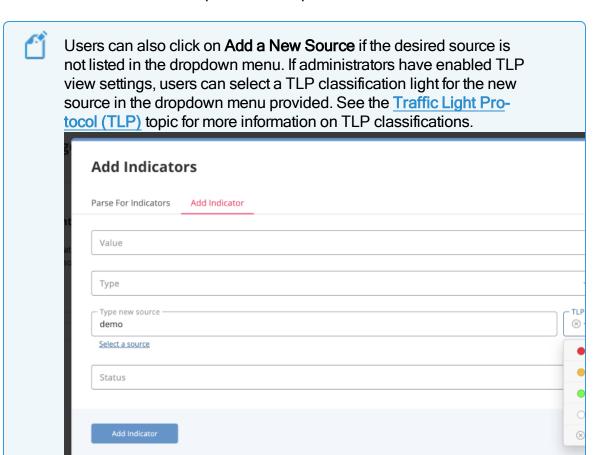


Steps 5-7 pertain to saving the file. Skip to step 8 if you are not saving the file after import.

- 5. Update the **File Title** if needed.
- 6. Enter an optional **File Description**.



- 7. Confirm or update the File Category.
- 8. Select a **Source** from the dropdown menu provided.



- 9. Select a **Status** to be applied to the extracted indicators.
- 10. Select any optional Attributes to be applied.
- 11. Click on Next Step.



If the file contains events that are detected, the Step 2: Review Events page opens. Indicators may be new or pre-existing. Pre-existing indicators are identified by a badge within the table. You can isolate new and pre-existing indicators by using the tabs at the top of the right hand panel.

12. Locate and select one or more indicators using one of the following options:



- From within the contents (on the left)
- From the table (on the right)
- By using the Select dropdown menu
- 13. Once you have selected one or more indicators, you can perform these functions:
 - Add Info Click the Add Info button to open the Add Info dialog box where you can perform the following functions:
 - Add Attributes to the indicator: add one or more attributes to the selected indicator(s). Once completed, click Add Attributes.
 - Link to Another Object: Link the selected indicator(s) to another object (indicator, event, adversary, file) and click Link Object.
 - Set Status: Select a status and click Set Status.
 - 2. **Edit** the type or status of an indicator by clicking its type or status in the table and selecting an option from the dropdown menu.
 - 3. Add Indicator If you notice an indicator on the left that was not extracted, you can add it by clicking Add Indicator and completing the process.
 - 4. If you want to search within the table, use the fields at the top of the columns.



If at any point, you wish to abandon the import, click **x ABANDON THIS IMPORT**.

15. Click on **Finish Import**.

CSV File Format - Parsing

When importing a .csv file to parse for indicators using the ThreatQ CSV File Parser, the .csv file **must** meet the following criteria:



- The file must be comma-delimited.
- The file must include at least the following columns:
 - Indicator
 - Type: This column cannot contain types that are not already established in ThreatQ. You cannot add custom indicator types and indicator types are case sensitive. Choose from the following:
 - CIDR Block
 - CVE
 - Email Address
 - Email Attachment
 - Email Subject
 - File Path
 - Filename
 - FQDN
 - Fuzzy Hash
 - GOST Hash
 - IP Address
 - MD5
 - Mutex
 - Password
 - Registry Key
 - SHA-1
 - SHA-256
 - SHA-384
 - SHA-512



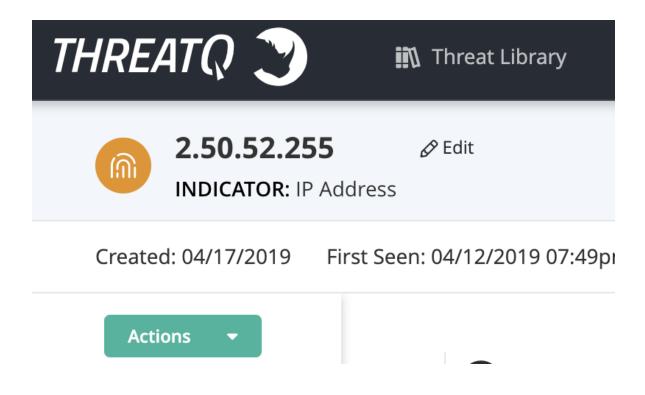
- String
- URL
- URL Path
- User-agent
- Username
- X-Mailer
- Status

If the file is not properly delimited, missing a required column, or containing a valid type, it will fail upon upload.

Editing Indicators

To edit an Indicator:

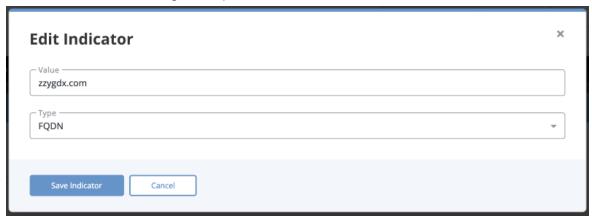
Locate and click on the indicator.
 The Indicator Details page opens.





2. Click on **Edit** next to the Indicator name.

The Edit Indicator dialog box opens.



- 3. Make the desired change to the indicator Value and Type.
- 4. Click on Save Indicator.

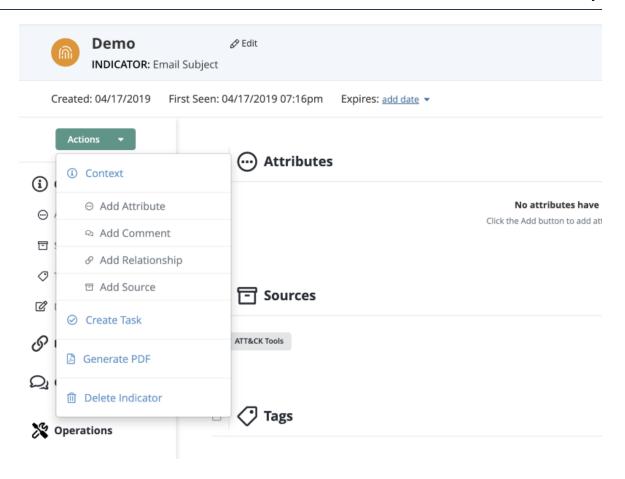
Deleting Indicators

To delete an Indicator:

1. Locate and click on the Indicator.

The Indicator Details page opens.





2. Click on **Delete this Indicator** located to the top right of the page.

A confirmation dialog box appears.



3. Click on Delete Indicator.



Indicator Search

Indicator Search allows you to search indicators based on a wide range of modifiers and search criteria. For example, when searching for an event, the results will include all indicators related to that event.



Using indicator search will provide the total number of indicators matching the criteria of your search, however, the page will only load 1,000 indicators within the results table.

With respect to searching for IP Address or CIDR Block indicators, your results will be as follows:

- If searching for an IP Address, CIDR blocks will be returned if they fall within the range.
- If searching for CIDR blocks, IP addresses will be returned if they fall within the range.



This will search indicator values as well as Attribute of type "IP Address" (for instance, if an IP address is associated to another IP address through a passive DNS relationship).

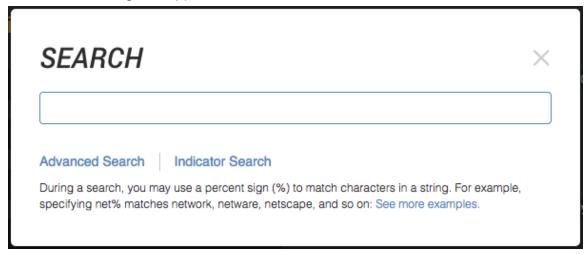
Performing an Indicator Search

To perform an Indicator Search:



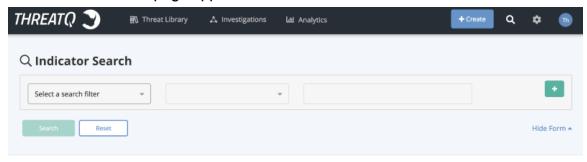
1. From the main menu, click the **Search** icon.

The Search dialog box appears.

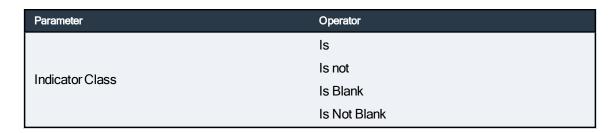


2. Click Indicator Search.

The Indicator Search page appears.



Select the desired search parameters and operators using the dropdowns, and enter the values.





Parameter	Operator
	Contains
	Does Not Contain
L. F. a. M. L.	Is
Indicator Value	Is not
	Is Blank
	Is Not Blank
	Contains
	Does Not Contain
List of Indicators	Is
List of marcators	Is not
	Is Blank
	Is Not Blank
	Is
Indicator Status	Is not
mulcator Status	Is Blank
	Is Not Blank
	Is
Indicator Type	Is not
mulcator rype	Is Blank
	Is Not Blank
	Is
	Is not
	Is after
Date Created	Is before
	Is in the range of
	Is Blank
	Is Not Blank
	Is
	Is not
	Is after
Date Last Modified	Is before
	Is in the range of
	Is Blank
	Is Not Blank



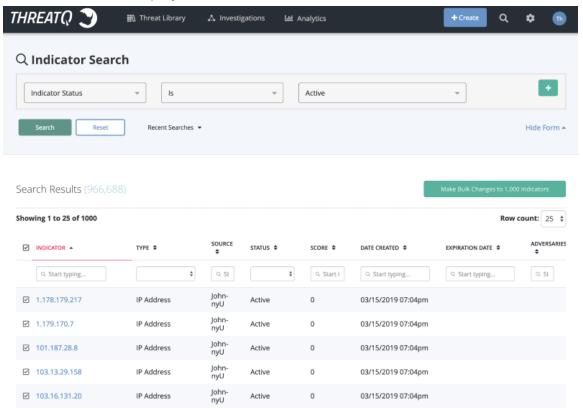
Parameter	Operator
	Contains
	Does Not Contain
Attachment Title	Is
Attachment ritle	Is not
	Is Blank
	Is Not Blank
	Contains
	Does Not Contain
Adversary	Is
Auversary	Is not
	Is Blank
	Is Not Blank
	Contains
	Does Not Contain
Event Title	Is
Lvent ride	Is not
	Is Blank
	Is Not Blank
	Is
Event Type	Is not
Lvent Type	Is Blank
	Is Not Blank
	Contains
	Does Not Contain
Attribute	Is
, tuilbato	Is not
	Is Blank
	Is Not Blank

Click + to add more parameters. When your search consists of more than one parameter, you can select **and** or **or** using the dropdown between the search parameters.



4. Click Search.

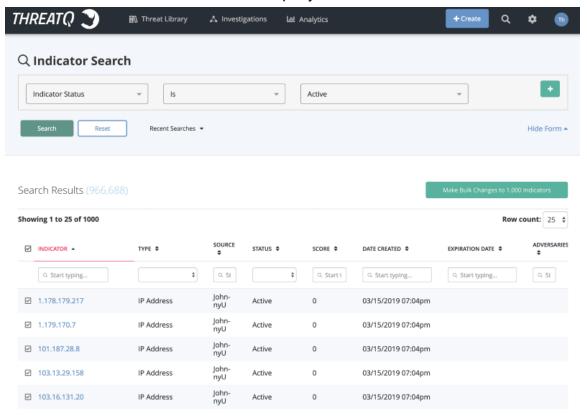
Search results are displayed in a search results table.



- 5. (Optional) Change the number of entries shown in the search results table by clicking the dropdown menu at the top right and selecting the desired option.
- (Optional) Click a column header to sort the data by column, and click again to reverse sort order.
- 7. (Optional) Search within a column by clicking within the search field at the top of the column, entering a search keyword, and pressing Enter.



Results will be shown below the search query.



You can hide the query to view more of the search results.

Making Bulk Updates to Search Results

The bulk update tool allows you to make batch changes to the objects in your Search results. The tool is limited to 1000 objects per update.

To make bulk updates to search results:



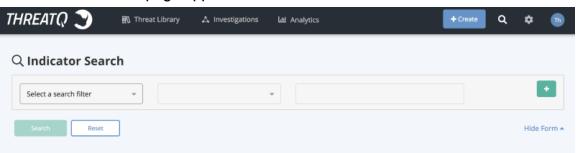
1. From the main menu, click the Search icon.

The Search dialog box appears.



2. Click Indicator Search.

The Indicator Search page appears.

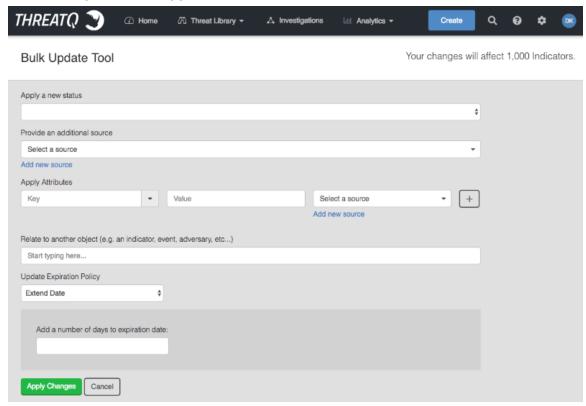


3. Perform your Indicator Search.



4. At the top of the Search Results, choose Make Bulk Changes to 1,000 Indicators.

The Bulk Update Tool appears.



- 5. Optionally, apply a new object status by choosing from the dropdown.
- 6. Optionally, enter an additional source.
- 7. Optionally, apply one or more attributes:
 - a. Choose an Attribute Type from the dropdown.
 - b. Enter an Attribute Value.
 - c. Enter an Attribute Source.
 - d. Optionally, choose the add icon to apply additional attributes.
- 8. Optionally, relate your search results to another object in the platform. As you enter the related object, ThreatQ offers type-ahead suggestions.



- 9. Optionally, update the object's expiration policy, by choosing an option from the Update Expiration Policy dropdown.
- 10. Click Apply Changes.

Indicator Status

Every indicator in the system will have a status applied to it.

The default statuses that ship with a standard installation of ThreatQ are as follows:

Status	Description
Active	Poses a threat and is being exported to detection tools.
Indirect	Associated to an active indicator or event (i.e. pDNS).
Review	Requires further analysis.
Whitelisted	Poses NO risk and should never be deployed.
Expired	Indicator has reached its expiration and has been is deemed by an analyst to pose less of a threat to their infrastructure than other indicators.



You cannot delete a default status but you can add new custom statuses to be used. See <u>Adding an Indicator Status</u> and the Related Topics section below for more details.

Most exports in ThreatQ are configured to use the Active status to signal deployment to external devices. However this can be modified and each status can be used however your organization sees fit.

Related Topics:

- Changing the Status of an Indicator
- Indicator Statuses



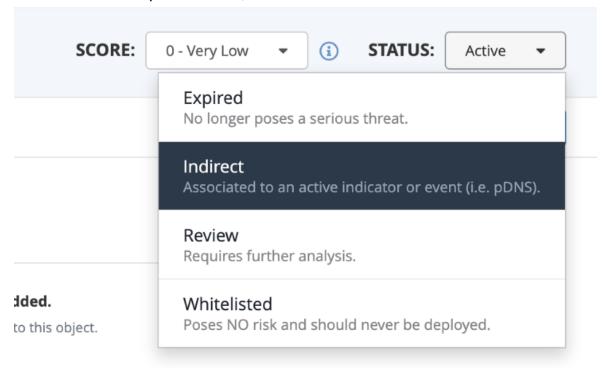
- Indicator Expiration
- Automatic Expiration and Policies

Changing the Status of an Indicator

Changing an indicator's status is straightforward, except in the case of whitelisting CIDR Block indicators. When whitelisting a CIDR Block indicator, this process generates a whitelisting rule. See Whitelisted Indicators for more information.

Changing the status of an indicator:

- 1. Locate and click the indicator to open its details page.
- 2. Click the status dropdown menu, and select the desired status.



The status will be updated.





If an Administrator or the Primary Contributor are whitelisting a CIDR BLOCK indicator, there is a different process, as this actually generates a whitelisting rule. For more information, see the <u>Creating a Whitelist Rule</u> topic.

Indicator Expiration

Expiration ("Expired") is a status that can be assigned to an indicator. The expired status should be used when an indicator is deemed by an analyst to pose less of a threat to their infrastructure than other indicators.

Related Topics:

- Ways an Indicator can Expire
- Expiration Date Displays
- Changing an Individual Indicator's Date
- Automatic Expiration and Policies

Ways an Indicator can Expire

• An analyst manually changes an indicator(s) status to "Expired"

This can be achieved by visiting an individual indicator's details page, then using the Status dropdown in the top right hand corner of the page to change the status.

If the analyst wishes to change the status of multiple indicators at the same time, they can use the advanced search tool to find the indicators they'd like to update, then click the Bulk Update button found directly to the right above the search results.

An analyst manually sets an expiration date for a specific indicator

Each indicator has the option to have an expiration date set, which once past, will toggle the status of that indicator from it's current status to "Expired".



 An expiration policy has been applied to the source reporting an indicator and therefore an expiration date is automatically set for that indicator during ingestion

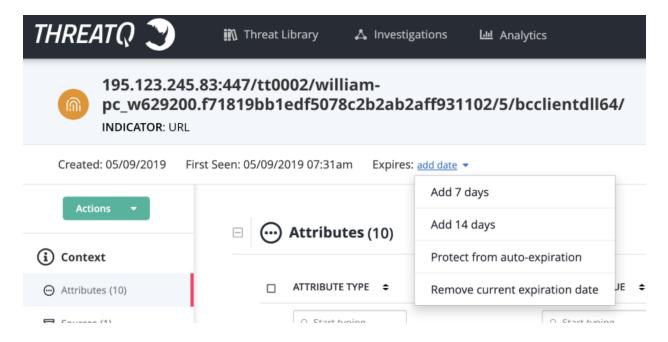
Using the "Expiration" tab on the Indicator Management page, a ThreatQ admin has the ability to apply expiration policies to all ingested information, both new and existing, coming from a specific intelligence source.



If an indicator is reported by multiple sources that have expiration policies, the date will be set using the greater expiration date. For example, if both Feed A (with a 5 day policy) and Feed B (with a 3 day policy) report the same indicator on the same day, that indicator will automatically expire 5 days from now.

Changing an Individual Indicator's Date

When viewing a specific indicator, its expiration date can be changed by clicking on the link next to the expiration information.



Options include:



Option	Description		
Add 7 Days	This will extend the current expiration date by 7 days.		
Add 14 Days	This will extend the current expiration date by 14 days.		
Protect from Auto-Expiration	This will set the indicator to "Never Expire". Once set, this indicator will be exempt from all automated expiration processes regardless of circumstances. The only way for this indicator to expire moving forward is by analyst choice.		
Remove Current Expiration Date	This will remove the currently set expiration date. If this indicator is reported by an intelligence feed (with an expiration policy) in the future, a new expiration date will be added at that point in time.		

Expiration Date Displays

Option	Image	Description
No expir-	Evni	In this example, the indicator will not automatically expire
ation date	LXPI	res: add date because an expiration date has not been specified.
has been set		
		This status will be changed if an analyst sets an expiration date
		or a new source (with an expiration policy applied to it) reports
		this indicator in the future.
An expir-	Expires	In this example, the indicator has an expiration date set of
ation date is		1/20/2017. This means that this indicator will expire when the cal-
set		endar day changes from the 19th to the 20th of January (based
		on ThreatQ's server time, not the user's local time).
	Expires	When an expiration date is less than 7 days away, ThreatQ will
		switch to show a relative version of the date.
Protected	Never	Sometimes an analyst will want an indicator to stay "Active" regard-
from auto-	146761	less of any automated circumstances. In this case you can set an



Option	Image	Description	
matic expir- ation (Never Expire)		indicator to be protected from auto-expiration, which will display the words "Never Expire". This can only be "overwritten" by an analyst.	

Automatic Expiration and Policies

Automatic expiration allows you to deprecate stale intelligence based on a set of defined criteria. As the data becomes less relevant, ThreatQ sets the status to Expired, which relieves the data burden on your team or infrastructure.

You can configure automatic expiration from the Data Management page.

1 From the navigation menu, click on settings icon and select **Data Management**.

The Data Management page will open with the Automatic Expiration tab selected by default.

Related Topics:

- How ThreatQ Calculates Expiration Dates
- Selecting an Expiration Policy per Feed
- Applying Expiration Policy Changes to Data
- Adding Exceptions
- Common Expiration Policy Scenarios

How ThreatQ Calculates Expiration Dates

Scenario	Description
Indicator Reported by	If an indicator has an expiration date and it's reported by a new source that has an expiration policy, ThreatQ will set the expiration



Source with an Expiration Policy Indicator Report by a Source with an Expiration	date using the policy with the greater expiration date. If an indicator has an expiration date and it's reported by a new source that has an expiration policy of Never Expire, ThreatQ sets that indicator to Never Expire.
Policy of Never Expire	
Indicator Reported by a Source with an Exception for that Indicator	If an indicator is reported by a source that has an exception for the indicator, the exception expiration date will be used regardless of the greater expiration date. An exception takes precedence over the source's expire policy.
Indicator Reported by Two Different Sources	If an indicator is reported by a source with an Expiration Policy and then reported by a second source with another Expiration Policy, the greatest expiration date is selected to set the expiration date. The expiration date will be set based on the date the second source reported the indicator.
Indicator Reported by Two Different Sources, one with an Excep- tion	If an indicator is reported by a source that has an exception for the indicator and then reported by a second source, the greatest expiration date is selected despite the exception. The expiration date will be set based on the date the second source reported the indicator.



Selecting an Expiration Policy per Feed

You can choose from three options when configuring an expiration policy for a source of intelligence:

Option	Description		
Don't automatically expire (No policy set)	ThreatQ sets all feeds to Don't Automatically Expire until an analyst decides otherwise. When set, indicators reported from this specific feed do not have an expiration date automatically applied to them. If an indicator is reported by Source A (an intelligence feed without an expiration policy), and is later reported by Source B (an intelligence feed that expires data in 7 days), ThreatQ sets		
Automatically Expire	the indicators to automatically expire in 7 days. When setting a specific intelligence feed to Automatically		
Indicators	Expire Indicators, ThreatQ requires you to provide a specific number of days. After you configure this setting, it applies to all intelligence currently in the system, as well as new intelligence as it is ingested. ThreatQ calculates the appropriate expiration date based on the number of days from ingestion. Once an indicator's expiration date is met, its status changes		
	to Expired. Automatic Expiration Unburden your team from the task of manually deprecating intelligence. Based on a set of criteria defined and controlled by you, threat intelligence will automatically expire as it becomes less relevant to your team and infrastructure. How it works Q. Search for a source abuse.ch SSLBL IP Blacklist Don't automatically expire Exceptions INDICATOR TYPE ◆ POLICY ◆ Binary String Delete O Add Exception		



Option	Description		
Never Expire	Using this setting ensures that all intelligence reported by a specific feed is protected from automatic expiration, regardless of scenario.		

Applying Expiration Policy Changes to Data

When updating an expiration policy, the system now applies the update to all selected existing data in the platform to honor the new policy. This process can take a while based on system resources and the number of indicators in the system.

Refer to the following table for estimates on the total time required for the system to apply the selected policy to existing data, based on the following criteria:

• Dataset: 6 Million Indicators

• System Specifications: 32GB VM 4 vCPU

Indicators to reset expiration out of 6m total indicators	Reset and Recal- culate Expiration	Expire Indicators	Total Time for Reset
50,000	3 hours and 30 minutes	53 seconds	3 hours 31 minutes
100,000	4 hours and 51 minutes	1.8 minutes	4 hours 53 minutes
200,000	10 hours 20 minutes	3.5 minutes	10 hours 24 minutes
1.2 million	2 days 7 hours 4 minutes	35 minutes	2 days 7 hours 40 minutes
3.1 million	3 days 16 hours 42	3.5 hours	3 days 20 hours



Indicators to reset expiration out of 6m total indicators	Reset and Recal- culate Expiration	Expire Indicators	Total Time for Reset
	minutes		
5.3 million	4 days 7 hours 17 minutes	4.7 hours	4 days 12 hours

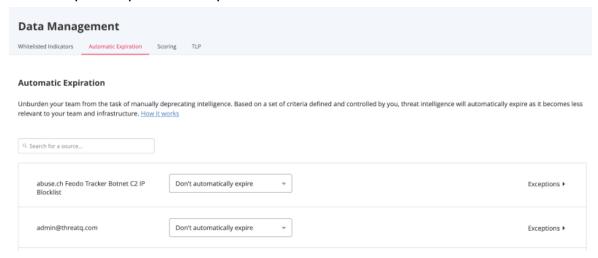
Adding Exceptions

ThreatQ allows you to add exceptions based on specific indicator types within in a feed in addition to setting an expiration policy at a global level for all intelligence ingested by a specific feed.

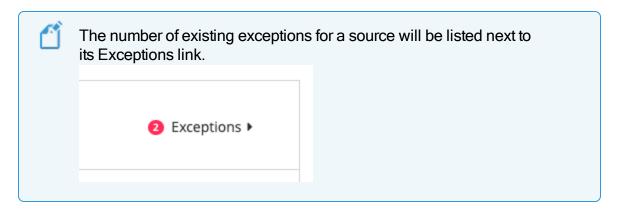
To Add an Exception:

- 1. Navigate to the Automatic Expiration tab under Data Management.
- 2. Locate the source.
- 3. Click **Exceptions** to expand the option.

The Exceptions option menu opens.







- 4. Click Add Exception.
- 5. Select the **Indicator Type** from the dropdown.
- 6. Enter the number of days after the item has been ingested before expiring.



Repeat steps 4-6 to add multiple

- 7. Click on **Delete** next to the row to delete an exception.
- 8. Click on Save.

Common Expiration Policy Scenarios

Scenario	Description
An indicator is reported by a single source (with an expiration policy)	 On 10/1, Source A reports the indicator and the expiration date is set to 10/8. When the date switches from 10/7 to 10/8, this indicator is queued to have its status changed to Expired.
An indicator is reported by Source A (with an expiration policy of 7 days) and 3 days later is reported by	 On 10/1, Source A reports the indicator and the expiration date is set to 10/8. Source B reports the same indicator 3



Scenario	Description
Source B (with an expiration policy of 10 days).	days later (10/4). The indicator's expiration date is set using the greatest expiration date between the two sources. In this example, the new expiration date will be 10/14 (10 days from when it was reported by Source B). 3. When the date switches from 10/14 to 10/15, this indicator is queued to have its status changed to Expired .
An indicator is reported by Source A (with an expiration policy of 7 days) and is later reported by Source B (with an expiration policy of Never Expire).	 On 10/1, Source A reports the indicator and the expiration date is set to 7 days. Source B reports the same indicator 3 days later with a policy of Never Expire. The indicator's expiration date is removed and the indicator is now set to Protect from auto-expiration.
An indicator is currently set to Expired and is reported by Source A (with an expiration policy of 7 days).	 On 10/1, an indicator is in ThreatQ with a status of Expired. On 10/1, Source A reports the indicator. The status of the indicator changes to whatever the default status is for Source A and the expiration date is set to 10/8. When the date switches from 10/7 to 10/8, this indicator is queued to have its status changed to Expired.
An indicator is currently set to	An indicator is in ThreatQ with a status of



Scenario	Description
Expired and is reported by Source A (with an expiration policy of Never Expire).	Expired. 2. Source A, with an expiration policy of Never Expire, reports the indicator. The expiration of that indicator changes to Protect from auto-expiration.
A FQDN indicator is reported by Source A (with an expiration policy of 10 days with an exception for 5 days for FQDN indicators) and is later reported by Source B (with an expiration policy of 15 days).	 On 10/1, Source A reports the FQDN indicator and the expiration date is set to 10/6. An exception takes precedence over the source's expire policy. Source B reports the same indicator 1 day later (10/2). The indicator's expiration date is set using the greatest expiration date between the two sources. In this example, the new expiration date will be 10/17 (15 days from when it was reported by Source B). When the date switches from 10/17 to 10/18, this indicator is queued to have its status changed to Expired.

Indicator Scoring

Indicator scoring allows you to apply weighting to indicators and their contextual information, such as sources, attributes, and indicator types, as they are added to ThreatQ. Indicator scoring allows you to set manual scores or you can rely on ThreatQ's scoring algorithm to cal-



culate scores. After scores are calculated, you can change the score as desired to your custom value or accept the calculated value.

Related Topics:

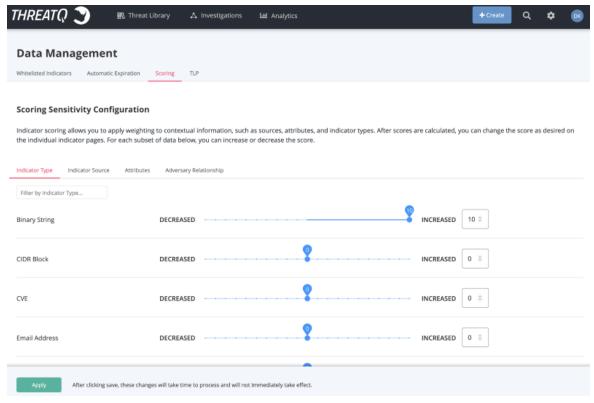
- Configure Indicator Scoring
- Building a Scoring Algorithm
- Overriding the Scoring Algorithm with a Manual Score

Configure Indicator Scoring

1. From the navigation menu, click on settings icon and select Data Management.

The Data Management page will open with the Automatic Expiration tab selected by default.

2. Click on the **Scoring** tab.



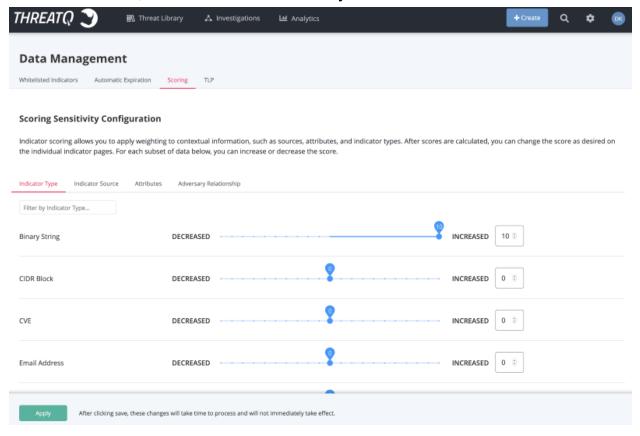


Building a Scoring Algorithm

As you build a scoring algorithm, you influence indicator scores based on the following criteria:

- Indicator Type
- Indicator Source
- Attributes
- Adversary Relationship

Use the slider to determine the sensitivity of the criterion you select. By default, the slider is positioned in neutral position, which in isolation produces an indicator score of zero. You may increase the score up to 10, which creates a score of **Very High**. You may also decrease the score, which creates a score of **Very Low**.



Influencing Score Based on Attributes



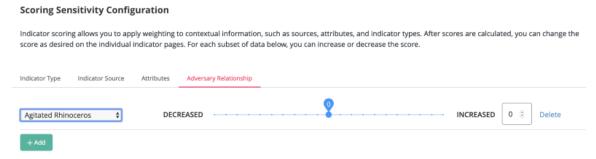
1. Navigate to the Attributes category under Scoring.

Indicator scoring allows you to apply weighting to contextual information, such as sources, attributes, and indicator types. After scores are calculated, you can change the score as desired on the individual indicator pages. For each subset of data below, you can increase or decrease the score. Indicator Type Indicator Source Attributes Adversary Relationship Key Is 8 DECREASED DecreaseD INCREASED Delete

- 2. Click Add
- 3. Designate an Attribute Key / Value Pair
- 4. Adjust the sensitivity using the slider.
- 5. Click Save.

Influencing Score based on Adversary Relationship

1. Navigate to the Adversary category under Scoring.



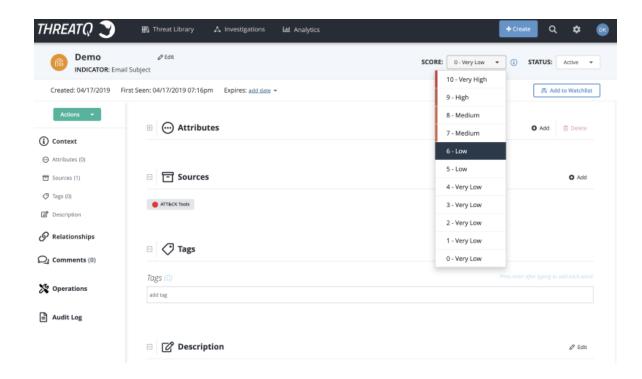
- 2. Click Add
- 3. Select an **Adversary**.
- 4. Adjust the sensitivity using the slider.
- 5. Click Save.

Overriding the Scoring Algorithm with a Manual Score

Setting a manual Indicator Score:

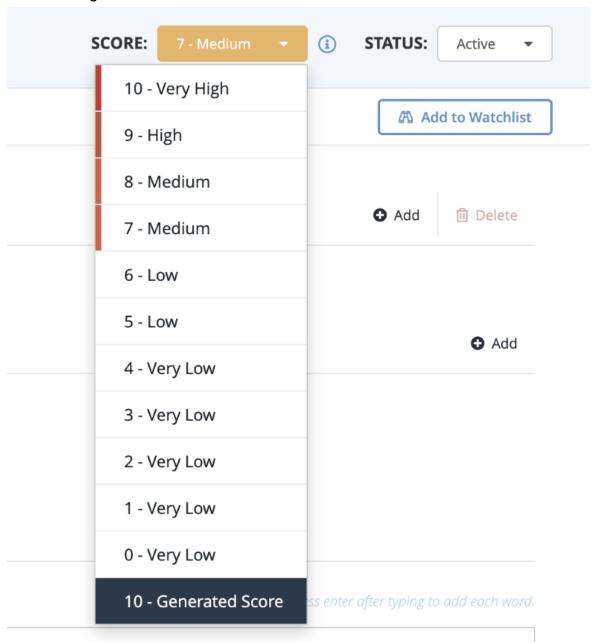


- 1. Navigate to an Indicator's Details page.
- 2. Click the **Score** dropdown and select a score.





Optionally, you may revert to the calculated score by clicking on the Score dropdown and selecting **Generated Score**.



Whitelisted Indicators

There are some indicators that should be considered to be whitelisted, or non-malicious, and we do not want those indicators going out to other systems. For example, a company's



own domain name would never need to be blocked.

The whitelisting process creates rules that apply to particular indicators, so that when those indicators come in in the future, they will be automatically whitelisted.

Within this section, the following options are available:

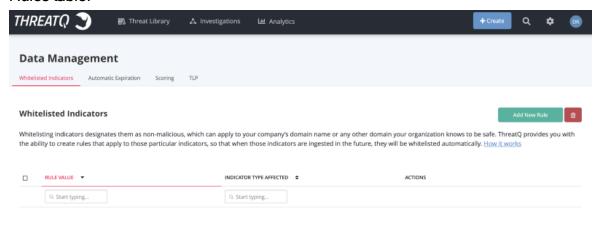
- Viewing Existing Whitelist Rules
- Creating a Whitelist Rule
- Editing a Whitelist Rule
- Removing a Whitelist Rule

Viewing Existing Whitelist Rules

To view existing whitelist rules:

- 1. Click on the settings icon and select **Data Management**.
- Select the Whitelisted Indicators tab

The Whitelist Rules page opens. Existing whitelist rules are listed in the Whitelist Rules table.





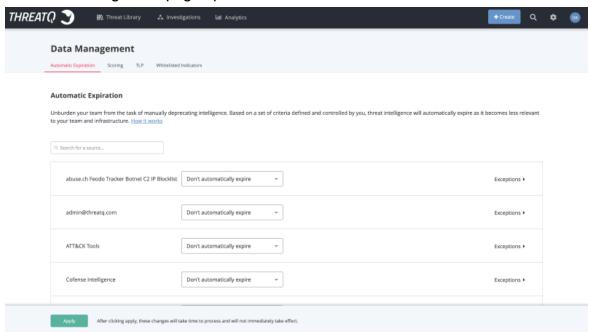
Creating a Whitelist Rule

The process of creating a whitelist rule is almost exclusively available via the Tools menu. However, it is important to note that whitelisting a CIDR Block indicator also creates a whitelist rule.

To create a whitelist rule:

1. Click on the settings icon and select **Data Management**.

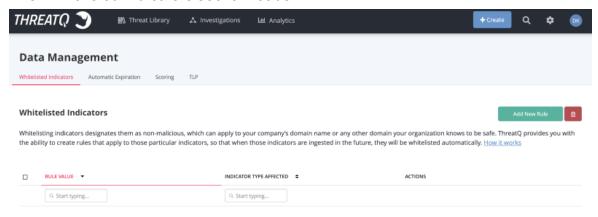
The Data Management page opens.





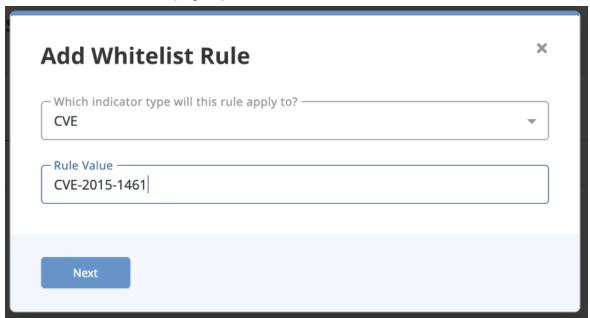
Select the Whitelisted Indicators tab.

The Whitelisted Indicators section loads.



3. Click Add Rule.

The Add Whitelist Rules page opens.



- 4. Select the Indicator type the rule will apply to.
- 5. Add a Rule Value.
- 6. Click Next.



Affected indicators are listed in the dialog box.



7. Review the affected indicators to determine if you are satisfied with the rule.



The rule has not been applied yet, so you still have time to edit it based on whether you are satisfied with how it affects the indicators.

- 8. Click Continue Editing this Rule.
- 9. If you are satisfied with the rule, click **Add Rule**.

The rule is applied to existing indicators, and it is entered into the Whitelist Rules table.

Any new indicators will also have the rule applied to them as they enter the system.

Editing a Whitelist Rule



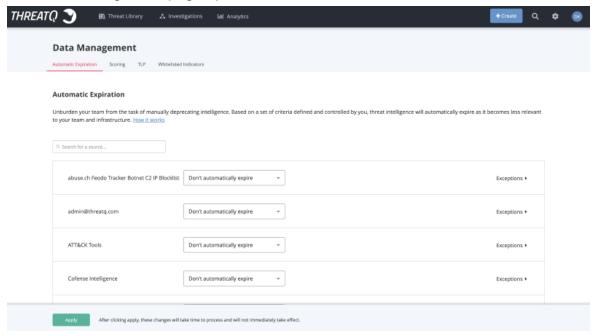
Important: Editing a whitelist rule will not undo any changes the rule had made prior to being edited.

To edit a whitelist rule:



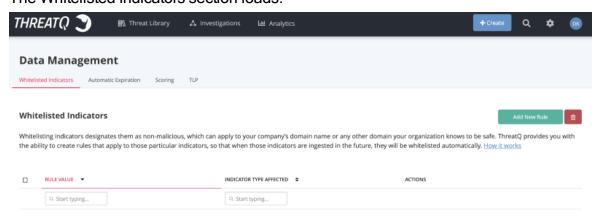
1. Click on the settings icon and select Data Management.

The Data Management page opens.



2. Select the Whitelisted Indicators tab.

The Whitelisted Indicators section loads.



3. In the Whitelist Rules table, locate the rule you wish to edit.



4. Click Edit.

The Edit Whitelist Rule dialog box opens.



5. Make the desired edits and click Next.

Affected indicators are listed in the dialog box.





6. Review the affected indicators to determine if you are satisfied with the rule.



The rule has not been applied yet, so you still have time to edit it based on whether you are satisfied with how it affects the indicators.

7. If you are satisfied, click Edit Rule.

The rule is applied to existing indicators, and it is updated in the Whitelist Rules table.

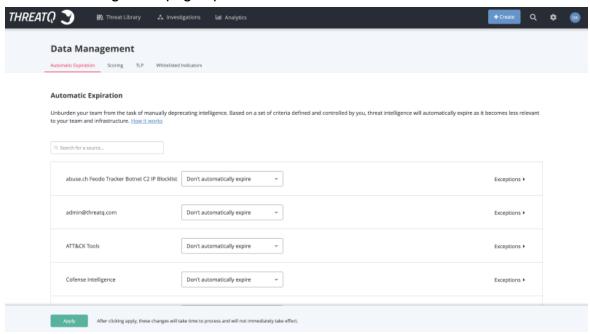
Any new indicators will also have the rule applied to them as they enter the system.

Removing a Whitelist Rule

To remove a whitelist rule:

1. Click on the settings icon and select **Data Management**.

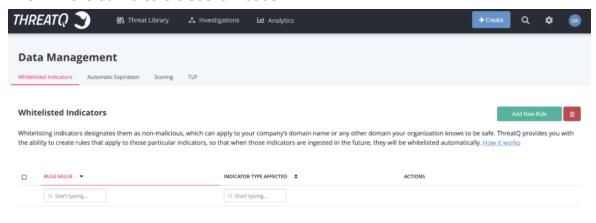
The Data Management page opens.





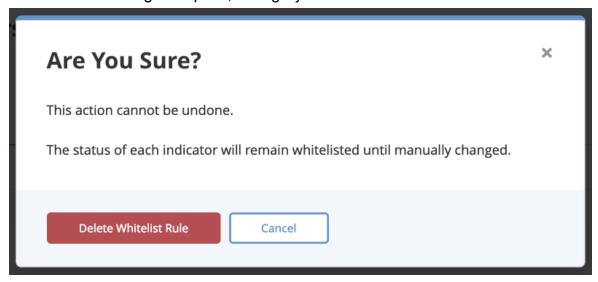
Select the Whitelisted Indicators tab.

The Whitelisted Indicators section loads.



- 3. Locate and select the rule(s) from the table that you wish to remove.
- 4 Click on the delete Icon .

A confirmation dialog box opens, asking if you are sure.





Click Delete Whitelist Rule.

The rule is deleted and a confirmation alert appears in an alert bar at the top of the page.

Indicator URL Normalization

Remove Quotes from the Beginning and/or End of an Indicator

Single and double quote characters are removed if they are the first or last character of an indicator.

Remove Unneeded Spaces found within an Indicator

All spaces irrelevant of their position in the Indicator value are removed (when applicable).

Adjust leading protocol from indicators

Indicators with a leading protocol [http://, https://, ftp://, or ftps://] are extracted and included as an attribute. When applicable, this indicator adjustment could change the indicator type from URL to FQDN.

Example: Original URL indicator of http://evilsubdomain.no-ip.biz/ would convert to a FQDN = evildomain.no-ip.biz.

Adjust the Port from an IP Address

An IP address with a port [ex. 199.7.136.88:8143] will be truncated to the IP address and the port assignment will be added as an attribute.

Using the previous example the following indicator/attribute will be created:

Field	Value	
URL	199.7.136.88	
Attribute > Port	8143	

Adjust Defanged/Neutered Indicators



Indicators that have been defanged/neutered in order to "safely" share them (i.e. www [dot] 3322 [dot] org or badguy [at] gmail.com) need to be adjusted during import in order to ensure the indicators are properly deployed.

Create an IP Address from a URL (when applicable)

Using the previous example the following indicators will be created:

Field	Value
URL	51.255.131.66/civis/viewforum.php
IP Address	51.255.131.66

Create a FQDN from a URL (when applicable)

When a URL contains a domain [ex. bat99-11611.co/gate777.php] a second indicator will be created for the domain [bat99-11611.co].

Using the previous example, the following indicators will be created:

Field	Value	
URL	bat99-11611.co/g-	
	ate777.php	
FQDN	bat99-11611.co	

Extract HTTP Parameters from a URL Indicator

HTTP parameters [chained.j3oil-

gasinc.net/civis/viewforum.php?keywords=9obo&fid0=c27] are important but can significantly limit pattern-matching detection capabilities due to the likelihood of parameter deviations, as well as, hamper the volume of URL indicators being deployed. To increase the probability of detection the http parameters are extracted and created as attributes.

In this example:



Field	Value	
URL IOC	chained.j3oilgasinc.net/civis/viewforum.php	
Attribute = HTTP Para-	Ooho 8 amp:fid0-c27	
meter = keywords	9obo&fid0=c27	

Maintain "WWW" on FQDN Indicators

When parsing or importing a FQDN the "www" will be maintained.

Replace and/or Remove Special Characters

Character	Replacement	
ASCII Values < 32 ASCII Values > 127	<space></space>	
Ascii 96	-	
Ascii145	1	
Ascii146	1	
Ascii147	п	
Ascii148	п	
Ascii151	-	
carriage return and line feed	<space></space>	
Control Characters	Remove	
Convert to UTF8		
Remove leading and trailing space, tab, newline, carriage return, vertical tabs and null characters.		



Supported Defanging Techniques

The table below lists all supported indicator defanging techniques.

[.]	=>	
[dot]	=>	·
(dot)	=>	
[d]	=>	
-dot-	=>	<u>.</u>
dot	=>	-
hxxp://	=>	http://
hxxx://	=>	http://
hxxps://	=>	https://
hxxxs://	=>	https://
[hxxp]	=>	http
hxtp://	=>	http://
htxp://	=>	http://
hxtps://	=>	https://



htxps://	=>	https://
[http]	=>	http
[http://]	=>	http://
[https]	=>	https
[https://]	=>	https://
[at]	=>	@
-at-	=>	@
at	=>	@
-@-	=>	@
@	=>	@
[@]	=>	@
[www]	=>	www

Signatures

ThreatQ allows you to ingest and manage Signatures, such as Snort and OpenIOC. While importing, ThreatQ parses the signature file for Indicators to add. Once signatures are included in your deployment, you can add contextual information and correlate them with Indicators, Events, Adversaries, and Files.

Related Topics:



- Signatures Management Page
- Adding a Signature
- Adding a Yara Signature

Signatures Management Page

The Signatures Overview page displays all signatures in the platform. For each signature, the table displays the Date Created, Signature Type, and Signature Title.

You can filter the table based on criteria to view specific signatures. For each signature, you can click to view expanded details.

From the Signatures Overview page, you can do the following:

- View all signatures in the platform and details for each signature
- Filter signatures by Date Created, Signature Type, and Signature Title
- Add new signatures

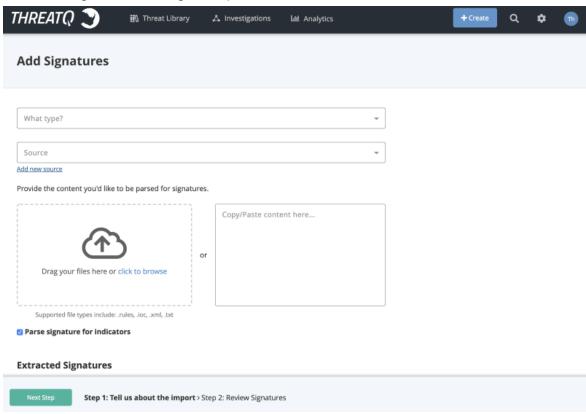
Adding a Signature

To add a Signature:



1. From the main menu, choose **Create > Signature**.

The Add Signatures dialog box opens.



2. Choose the type of signature from the drop-down.



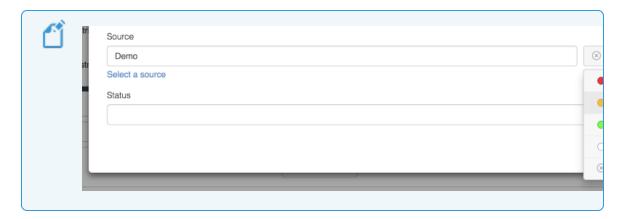
For Yara, see Adding a Yara Signature.

3. Select a **Source** from the dropdown provided.



You can also click on **Add a New Source** if the desired source is not listed in the dropdown list. If administrators have enabled TLP view settings, users can select a TLP designation light for the new source in the dropdown list provided. See the <u>Traffic Light Protocol (TLP)</u> topic for more information on TLP schema.





- 5. Do one of the following:
 - Drag your file(s) into the left pane.
 - Click click to browse, and locate the file you wish to upload.
 - Copy/paste content into the right pane.
- 6. Optionally, select to parse the signature for indicators.
- 7. Choose a **Signature Status** from the drop-down menu.
- 8. Optionally, Apply attributes to all extracted signatures:
 - Select an Attribute Type.
 - Enter an Attribute Value.
 - Enter an Attribute Source.
 - Optionally, click the Add icon for additional attributes.
- 9. Optionally, relate the signature to another object by entering the object in the Relate signatures to another object field.



10. Click Next Step.

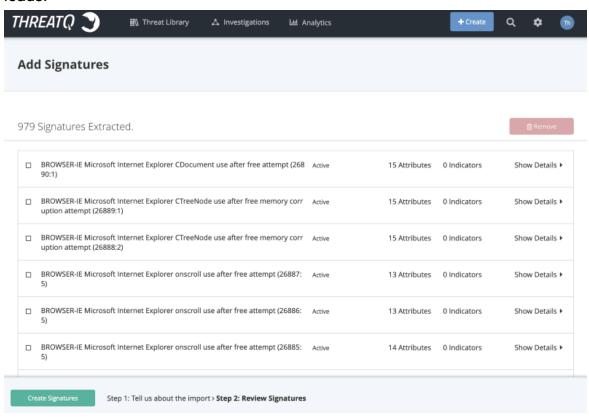
If signatures are discovered, the Results dialog box appears.



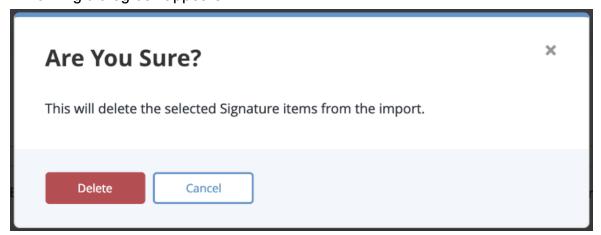
- 11. You can either select **Submit Import** to finish adding the signatures or **Review** to customize what data is imported.
 - If you selected to review signatures, the Add Signatures Step 2: Review page



loads.



- 12. Select one or more signatures and click **Delete**.
- 13. Click on Show Details for a signature to review individual items in a signature.
 Use the checkboxes to select unwanted signature items and click Delete.
 A warning dialog box appears.



14. Click **Delete** to remove the unwanted items.



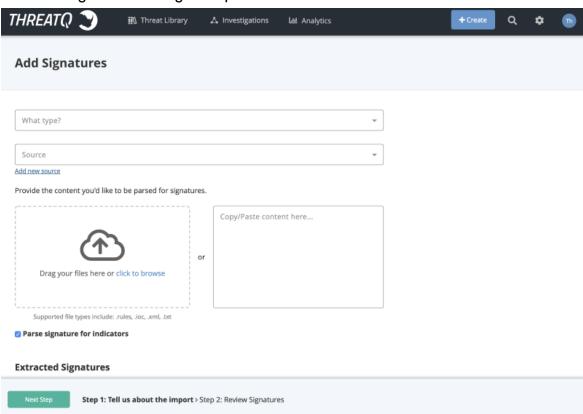
15. Click Create Signatures when finished.

Adding a Yara Signature

To add a Signature:

1. From the main menu, choose Create > Signature.

The Add Signatures dialog box opens.

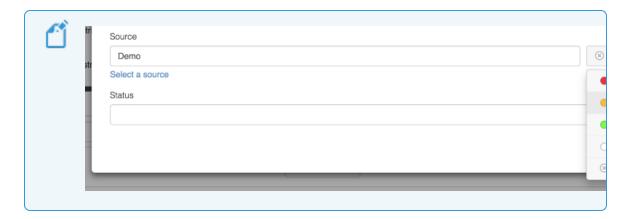


- 2. Select **Yara** as the type of signature from the drop-down.
- 3. Select a **Source** from the dropdown provided.



You can also click on **Add a New Source** if the desired source is not listed in the dropdown list. If administrators have enabled TLP view settings, users can select a TLP designation light for the new source in the dropdown list provided. See the <u>Traffic Light Protocol (TLP)</u> topic for more information on TLP schema.





- 5. Do one of the following:
 - Drag your file(s) into the left pane.
 - Click click to browse, and locate the file you wish to upload.
 - Copy/paste content into the right pane.
- 6. Optionally, select to parse the signature for indicators.
- 7. Determine the method to use if multiple signatures are discovered:
 - Save independently as unique signatures
 - Save as a single signature
- 8. Choose a **Signature Status** from the drop-down menu.
- 9. Optionally, Apply attributes to all extracted signatures:
 - Select an Attribute Type.
 - Enter an Attribute Value.
 - Enter an Attribute Source.
 - Optionally, click the Add icon for additional attributes.
- 10. Optionally, relate the signature to another object by entering the object in the Relate signatures to another object field.



11. Click Next Step.

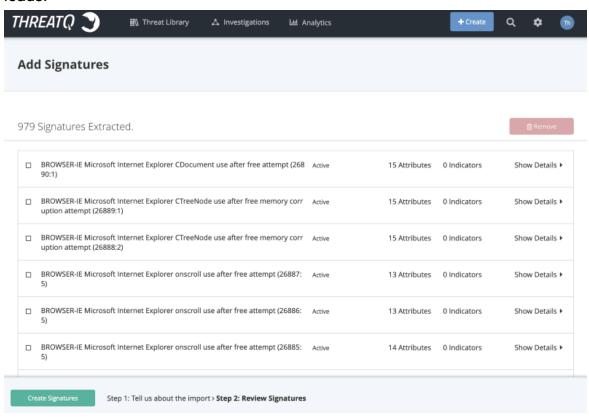
If signatures are discovered, the Results dialog box appears.



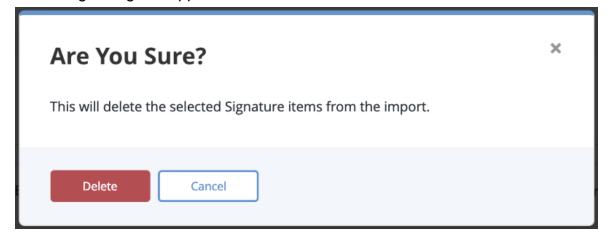
- 12. You can either select **Submit Import** to finish adding the signatures or **Review** to customize what data is imported.
 - If you selected to review signatures, the Add Signatures Step 2: Review page



loads.



- 13. Select one or more signatures and click **Delete**.
- 14. Click on Show Details for a signature to review individual items in a signature.
 Use the checkboxes to select unwanted signature items and click Delete.
 A warning dialog box appears.



15. Click **Delete** to remove the unwanted items.



16. Click Create Signatures when finished...

STIX

The following describes how to use STIX in ThreatQ:

- STIX Overview
- ThreatQ STIX Object Types
- STIX Data Mapping
- Parsing a STIX File for Indicators

STIX Overview

ThreatQ allows you to ingest and manage STIX files. You can ingest STIX data in two ways:

- You can set up a STIX/TAXII Feed, as described in STIX/Taxii Feeds.
- You can upload a STIX file or insert STIX data to parse for indicators, as described in Parsing a STIX File for Indicators.



ThreatQ supports STIX 1.1.1 and STIX 1.2.

Related Topics

- STIX Data Mapping
- ThreatQ STIX Object Types

ThreatQ STIX Object Types

STIX integration provides ThreatQ with the following additional object types.

- Campaigns
- · Courses of Action
- Exploit Targets



- Incidents
- TTP objects

These objects enable better understanding and communication of STIX data. STIX data will be mapped to these objects and existing objects in the system.

STIX Data Mapping

The following sections display how STIX data becomes mapped to indicator objects and attributes in ThreatQ.

- STIX Threat Actors Mapping
- STIX Indicators Mapping
- STIX Exploit Targets Mapping
- STIX Observables Mapping
- STIX Campaigns Mapping
- STIX Courses of Action Mapping
- STIX Incidents Mapping
- STIX TTP Mapping
- STIX CIQ Identity Mapping

STIX Threat Actors Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
Identity	Adversary.value	
ID	Adversary.attribute	STIX Reference ID
Title	Adversary.value	
Туре	Adversary.attribute	Туре
Timestamp	Adversary.published_at	



STIX Field	ThreatQ Field Mapping	ThreatQ Name
Description	Adversary.attribute	Description
Motivation	Adversary.attribute	Motivation
Sophistication	Adversary.attribute	Sophistication
Intended_Effect	Adversary.attribute	Intended Effect
Role	Adversary.attribute	Role
Confidence	Adversary.attribute	Confidence
Handling	Adversary.tlp	
Observed_TTPs	TTP	
Associated_Actors	Adversary	
Associated_Campaigns	Campaign	

Related Topics

- STIX Data Mapping
- STIX Threat Actors Mapping
- STIX Indicators Mapping
- STIX Exploit Targets Mapping
- STIX Observables Mapping
- STIX Courses of Action Mapping
- STIX Incidents Mapping
- STIX TTP Mapping
- STIX CIQ Identity Mapping



STIX Indicators Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
Title	Indicator.attribute	Indicator Title
ID	Indicator.attribute	STIX Reference ID
Timestamp	Indicator.published_at	
Туре	Indicator.attribute	Indicator Type
Description	Indicator.attribute	Description
Short Description	Indicator.attribute	Short Description
Producer	Indicator.source	
Observable	Indicator	
Indicated_TTP	TTP	
Kill_Chain_Phases	Indicator.attribute	Kill Chain Phase
Likely_Impact	Indicator.attribute	Likely Impact
Suggested_COAs	Course of Action	
Handling	Indicator.tlp	
Confidence	Indicator.attribute	Confidence
	Indicator.attribute.source	
Related_Observables		
Related_Indicators	Indicator	
Related_Campaigns	Campaign	
	Signature	



STIX Field	ThreatQ Field Mapping	ThreatQ Name
	Signature.type = "Snort"	
	Signature.value	
	Indicator.source	
	Course of Action	
	Indicator.attribute	Start Time
	Indicator.attribute	End Time
	Indicator.published_at	

Related Topics

- STIX Data Mapping
- STIX Indicators Mapping
- STIX Threat Actors Mapping
- STIX Exploit Targets Mapping
- STIX Observables Mapping
- STIX Courses of Action Mapping
- STIX Incidents Mapping
- STIX TTP Mapping
- STIX CIQ Identity Mapping

STIX Exploit Targets Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
Title	Exploit Target.value	
ID	Exploit Target.attribute	STIX Reference ID



STIX Field	ThreatQ Field Mapping	ThreatQ Name
Description	Exploit Target.attribute	Description
Short Description	Exploit Target.attribute	Short Description
Weakness	Exploit Target.attribute	CWE ID
Weakness	Exploit Target.attribute	Weakness Description
Configuration	Exploit Target.attribute	CCE ID
Configuration	Exploit Target.attribute	Configuration Description
Configuration	Exploit Target.attribute	Configuration Short Description
Vulnerability	Exploit Target.attribute	CVE ID
Potential_COAs	Course of Action	
Related_Exploit_Targets	Exploit Target	

- STIX Data Mapping
- STIX Exploit Targets Mapping
- STIX Threat Actors Mapping
- STIX Indicators Mapping
- STIX Observables Mapping
- STIX Courses of Action Mapping
- STIX Incidents Mapping
- STIX TTP Mapping
- STIX CIQ Identity Mapping



STIX Observables Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
ID	Indicator.attribute	STIX Reference ID
	Indicator.attribute	Description
	Indicator.type	IP Address
	Indicator.value	
	Indicator.type	Filename
	Indicator.value	
	Indicator.type	File Path
	Indicator.value	
	Indicator.attribute	File Size
	Indicator.attribute	File Format
	Indicator.attribute	Packer
	Indicator.type	MD5
	Indicator.type	SHA-256
	Indicator.type	SHA-1
	Indicator.type	SHA-512
	Indicator.value	
	Indicator.type	SSDEEP
	Indicator.value	
	Indicator.type	FQDN



STIX Field	ThreatQ Field Mapping	ThreatQ Name
	Indicator.value	
	Indicator.type	URL
	Indicator.value	
	Indicator.type	Email Subject
	Indicator.value	
	Indicator.type	Email Address
	Indicator.value	
	Indicator.type	IP Address
	Indicator.value	
	Indicator.type	User-agent
	Indicator.value	
	Indicator.type	Filename
	Indicator.value	
	Indicator.type	Mutex
	Indicator.value	
	Indicator.attribute	Port
	Indicator.attribute	Protocol
	Object.Description	
	Spearphish.value	
	Indicator.type	Registry Key



STIX Field	ThreatQ Field Mapping	ThreatQ Name
	Indicator.value	
	Indicator.attribute	Hive

- STIX Data Mapping
- STIX Observables Mapping
- STIX Threat Actors Mapping
- STIX Indicators Mapping
- STIX Exploit Targets Mapping
- STIX Courses of Action Mapping
- STIX Incidents Mapping
- STIX TTP Mapping
- STIX CIQ Identity Mapping

STIX Campaigns Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
Title	Campaign.value	
ID	Campaign.attribute	STIX Reference ID
Description	Campaign.attribute	Description
Short Description	Campaign.attribute	Short Description
Timestamp	Campaign.started_at	
Names	Campaign.attribute	Alias
Status	Campaign.attribute	Status



STIX Field	ThreatQ Field Mapping	ThreatQ Name
Intended_Effect	Campaign.attribute	Intended Effect
Confidence	Campaign.attribute	Confidence
Activity	Campaign.attribute	Activity
Related TTPs	TTP	
Related Incidents	Incident	
Attribution	Adversary	
Associated_Campaigns	Campaign	

- STIX Data Mapping
- STIX Threat Actors Mapping
- STIX Indicators Mapping
- STIX Exploit Targets Mapping
- STIX Observables Mapping
- STIX Courses of Action Mapping
- STIX Incidents Mapping
- STIX TTP Mapping
- STIX CIQ Identity Mapping

STIX Courses of Action Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
Title	Course of Action.value	
ID	Course of Action.attribute	STIX Reference ID



STIX Field	ThreatQ Field Mapping	ThreatQ Name
Description	Course of Action.attribute	Description
Stage	Course of Action.attribute	Stage
Objective	Course of Action.attribute	Objective
Objective Confidence	Course of Action.attribute	Objective Confidence
Туре	Course of Action.attribute	Туре
Short Description	Course of Action.attribute	Short Description
Parameter_Observables	Indicator	
Impact	Course of Action.attribute	Impact
Cost	Course of Action.attribute	Cost
Efficacy	Course of Action.attribute	Efficacy
Related_COAs	Course of Action	

- STIX Data Mapping
- STIX Courses of Action Mapping
- STIX Threat Actors Mapping
- STIX Indicators Mapping
- STIX Exploit Targets Mapping
- STIX Observables Mapping
- STIX Incidents Mapping
- STIX TTP Mapping
- STIX CIQ Identity Mapping



STIX Incidents Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
Title	Incident.value	
ID	Incident.attribute	STIX Reference ID
Timestamp	Incident.published_at	
Description	Incident.attribute	Description
Categories	Incident.attribute	Category
First Malicious Action	Incident.attribute	First Malicious Action
Initial_Compromise	Incident.attribute	Initial Compromise
First_Data_Exfiltration	Incident.attribute	First Data Exfiltration
Incident_Discovery	Incident.attribute	Incident Discovery
Incident_Opened	Incident.attribute	Incident Opened
Incident_Opened	Incident.started_at	
Containment_Achieved	Incident.attribute	Containment Achieved
Restoration_Achieved	Incident.attribute	Restoration Achieved
Incident_Reported	Incident.attribute	Incident Reported
Incident_Closed	Incident.attribute	Incident Closed
Incident_Closed		
Coordinator	Incident.attribute	Coordinator
	Incident.attribute	Coordinator
Reporter	Incident.attribute	Reporter



STIX Field	ThreatQ Field Mapping	ThreatQ Name
	Incident.attribute	Reporter
Responder	Incident.attribute	Responder
	Incident.attribute	Responder
Victim	Incident.attribute	Victim
	Incident.attribute	Victim
Related Indicators	Indicator	
Related Observables	Indicator	
Leveraged_TTPs	TTP	
Intended_Effect	Incident.attribute	Intended Effect
COA_Requested	Course of Action	
COA_Taken	Course of Action	
Confidence	Incident.attribute	Confidence
Attributed_Threat_Actors	Adversary	
Discovery_Method	Incident.attribute	Discovery Method
Related_Incidents	Incident	

- STIX Data Mapping
- STIX Incidents Mapping
- STIX Threat Actors Mapping
- STIX Indicators Mapping



- STIX Exploit Targets Mapping
- STIX Observables Mapping
- STIX Courses of Action Mapping
- STIX TTP Mapping
- STIX CIQ Identity Mapping

STIX TTP Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
Title	TTP.value	
ID	TTP.attribute	STIX Reference ID
Description	TTP.attribute	Description
Handling	TTP.tlp	
Kill_Chain_Phases	TTP.attribute	Kill Chain Phase
Intended_Effect	TTP.attribute	Intended Effect
	TTP.attribute	CAPEC ID
Behavior	TTP.attribute	Attack Pattern
	TTP.attribute	Attack Pattern Description
	TTP.attribute	Attack Pattern Short Description
	TTP.attribute	Malware Type
	TTP.attribute	Malware Name
	TTP.attribute	Malware Description



STIX Field	ThreatQ Field Mapping	ThreatQ Name
	TTP.attribute	Malware Short Description
	TTP.attribute	Malware Detection Vendor
	TTP.attribute	Malware Family
	TTP.attribute	Exploit
	TTP.attribute	Exploit Description
	TTP.attribute	Exploit Short Description
Exploit_Targets	Exploit Target	
Related_TTPs	TTP	
Resources	TTP.attribute	Tool
	TTP.attribute	Tool
	TTP.attribute	Tool Type
	TTP.attribute	Tool Description
	TTP.attribute	Tool Short Description
	TTP.attribute	Infrastructure Type
	TTP.attribute	Infrastructure
	TTP.attribute	Infrastructure Short Description
	TTP.attribute	Infrastructure Description
	Indicator	
	TTP.attribute	Persona
Victim Targeting	TTP.attribute	Victim Name



STIX Field	ThreatQ Field Mapping	ThreatQ Name
	TTP.attribute	Victim <ciq identity="" name=""></ciq>
	TTP.attribute	Targeted Systems
	TTP.attribute	Targeted Information
	Indicator	

- STIX Data Mapping
- STIX TTP Mapping
- STIX Threat Actors Mapping
- STIX Indicators Mapping
- STIX Exploit Targets Mapping
- STIX Observables Mapping
- STIX Courses of Action Mapping
- STIX Incidents Mapping
- STIX CIQ Identity Mapping

STIX CIQ Identity Mapping

STIX Field	ThreatQ Field Mapping	ThreatQ Name
Party Name	Object.attribute	Name
Organization Name	Object.attribute	Organization
Industry Sector	Object.attribute	Industry
Nationality	Object.attribute	Nationality
Languages	Object.attribute	Language



STIX Field	ThreatQ Field Mapping	ThreatQ Name
Address	Object.attribute	Country
Email Address	Object.attribute	E-Mail Address
Chat Handle	Object.attribute	Chat Handle
Phone	Object.attribute	Phone

- STIX Data Mapping
- STIX CIQ Identity Mapping
- STIX Threat Actors Mapping
- STIX Indicators Mapping
- STIX Exploit Targets Mapping
- STIX Observables Mapping
- STIX Courses of Action Mapping
- STIX Incidents Mapping
- STIX TTP Mapping

Parsing a STIX File for Indicators

ThreatQ allows you to upload a STIX file or insert STIX data to parse. for indicators.

To parse a STIX file for indicators:

Click on the Create button, located at the top of the dashboard and select STIX
 Parser under the Import heading.

The Parse For Intelligence dialog box will load.

2. Do one of the following:



- Drag your file(s) into the left pane.
- Click on Click to Browse, and locate the file you wish to upload.
- Copy/paste the content in the right pane.
- Select or clear the Normalize URL Indicators check box. See <u>Indicator URL</u> Normalization for more information.
- 4. Click Next Step.
- 5. Enter an optional **Name**.
- 6. Select a **Source** from the dropdown menu provided.



You can also click on **Add a New Source** if the desired source is not listed in the dropdown menu

- 7. Select any optional **Attributes** to be applied.
- 8. Optionally, enter a comment.
- 9. Optionally, use the **Add relationships** search field to add object relationships.
- 10. Optionally, add any desired **Tags**.



If at any point, you wish to abandon the import, click **Cancel**.

11. Click Apply.

New objects will become available in the Threat Library.

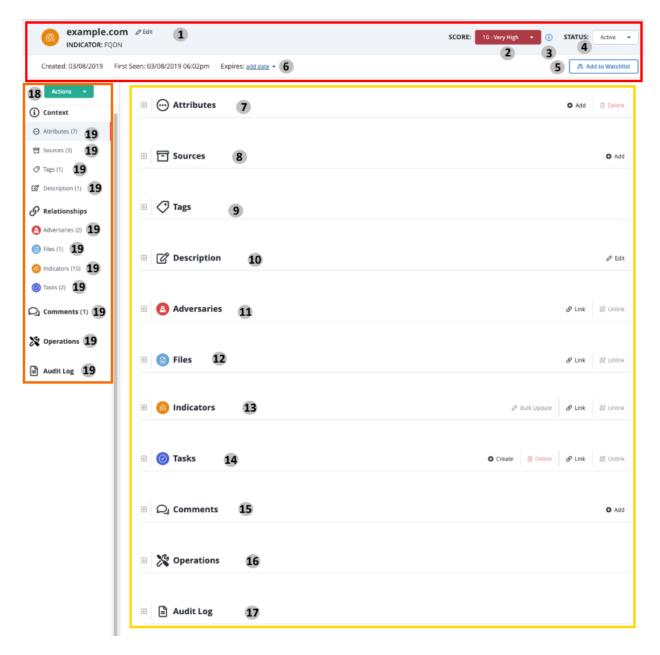
Object Details Page

You can click on an object within the ThreatQ application to access its details page. The Object Details page provides you with an in-depth look at an individual object. You can



enter comments for others to view, link related objects, and view an audit log of all activity associated with the object.

Specific objects, such as Indicators, will display additional information such as the indicator's status, score, and expiration data.







Items marked with an * in the Object Details Legend indicate an option only available to specific object types.

Object Details Page Legend				
	Header Section			
Number	Field	Description	Reference	
1	Edit Object Link	The Edit link allows you to edit specific details about an object. Edit fields will differ based on the type of object.	 Editing Adversaries Editing Events Editing Files Editing Indicators 	
2	Score Selection* Applies to Indicator Object Types Only	The Score Selection dropdown allows you to override an indicator's score set by the scoring algorithm.	Overriding the Scoring Algorithm with a Manual Score	
3	Scoring Influence* Applies to Indicator Object Types Only	You can click on the icon to review the criteria utilized by the application's scoring algorithm to generate the Indicator's score.	 Configure Indicator Scoring Building a Scoring Algorithm 	
4	Status* Applies to Indicator Object Types Only	The Status dropdown menu allows you to manually set the status of an indicator. Default statuses include: Active, Expired, Indirect, Review, and Whitelisted.	Indicator Status	
5	Add to Watchlist	The Watchlist toggle button allows you to add and remove the object from the Watchlist widget.	Configuring the Watchlist	
6	Expiration* Applies to Indicator Object Types Only	The Expire link allows you to set an expiration date for the indicator, protect from auto-expiration	 Indicator Expiration Automatic Expiration and Policies 	



Object Details Page Legend			
		policies, and remove an existing set expiration date.	
		Details Section	
Number	Pane	Description	Reference
7	Attributes	The Attributes pane displays attributes associated with the object. You can Add, Edit, and Delete attributes found in this section.	Attributes Pane
8	Sources	The Sources pane displays sources associated with the object. You can Add additional sources to an object.	Adding a Source to an Object
9	Tags	The Tags pane displays tags associated with the object. You can Add and Delete tags found in this section.	Managing Tags
10	Description	The Description pane allows you to add general information about the object.	Description Pane
11	Adversaries	The Adversaries pane displays adversaries associated with the object.	Adversaries Pane
12	Files	The Files pane displays files associated with the object.	Files Pane
13	Indicators	The Indicators pane displays indicators associated with the object.	Indicators Pane
14	Tasks	The Tasks pane displays tasks associated with the object.	Tasks Pane



Object Details Page Legend			
10	Related Objects	There are several different related panes depending on the types of objects linked to the object. You can use these panes to view and add/remove linked indicators, files, signatures, events, adversaries, tasks, and investigations.	Relationships Panes
15	Comments	The Comments pane allows you to record comments about the object for other users to read and reference.	Comments Pane
16	Operations	The Operations pane allows you to associate third-party attributes and related indicators to the indicator. Note: This options requires the installation of Operations. See the Operations Overview topic for more details.	Operations Overview ThreatQ Operations Development Guide
17	Audit Log	The Audit Log panel displays all actions and changes made to an Object.	Common Enrichment and Audit Log Questions
	I	Left-Hand Navigation	
Number	Field	Description	Reference
18	Action Menu	The Actions menu allows you to execute the following actions for an object: Add a New Attribute Add a New Comment Create a Task	Actions Menu

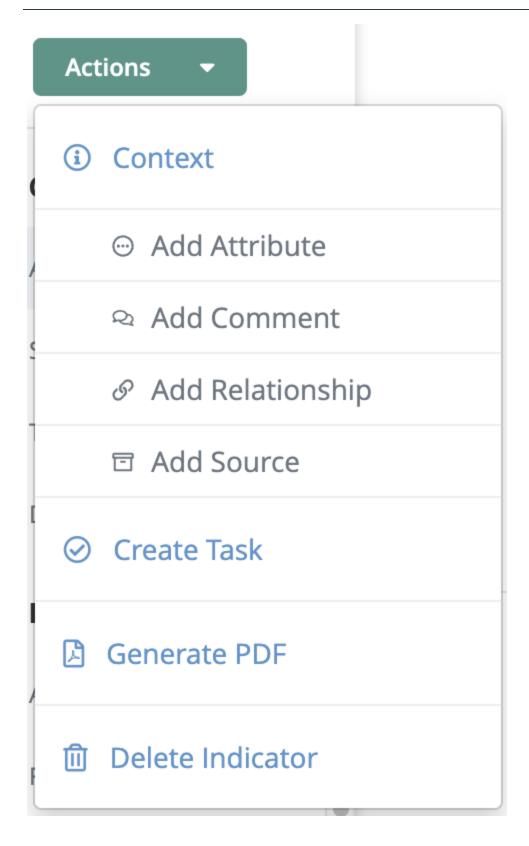


	Object Details Page Legend		
		Generate a Report	
		Add a Relationship	
		Add a Source	
		Delete Object	
19	Details Navigation	This allows you to jump to a par-	N/A
	Tabs	ticular pane on the Object Details	
		page.	

Actions Menu

The Action Menu, located on the left-hand of the Object Details page, allows users to quickly execute system object processes.





Actions Include:



Action	Function	Reference
Add Attrib- ute	Brings up the Add Details dialog box to add an attribute to the object.	Adding an Attribute to an Object
Add Com- ment	Creates a new text box entry in the comment pane.	Adding Comments
Add Relationship	Brings up the Add Relationships dialog box to link other system objects to the object.	 Linking Adversaries Linking Events Linking Files Linking Indicators Linking Signatures Linking Tasks
Add Source	Brings up the Add Details dialog box to add a source to the object.	• Adding a Source to an Object
Create Task	Opens up the Add Task dialog box.	• Assigning a Task
Generate Report	Generates a PDF report of the object.	• Generating Reports
Delete Object	Delete the system object.	N/A



Context Panes

The Context section of the object details page displays attributes, sources, and tags associated with the system object.

Related Topics:

- Attributes Pane
- Adding a Source to an Object
- Managing Tags
- Description Pane

Attributes Pane

The Attributes Pane displays any attributes associated with the system object. You can review attribute details as well as add and remove attributes from this pane.



Related Topics:

- Adding an Attribute to an Object
- Deleting an Attribute
- Deleting an Attribute Source

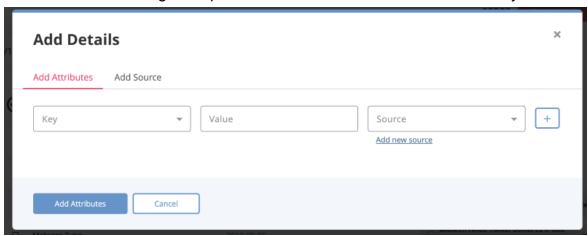
Adding an Attribute to an Object

You can link adversaries to a system object.



To add an attribute:

- 1. Locate the Attributes pane on the object details page.
- Click on the + Add Details link located to the top-right.
 The Add Details dialog box opens with the Add Attributes tab selected by default.



3. Select an **Attribute Type** from the Attributes dropdown and enter an **Attribute Value** and **Source**.



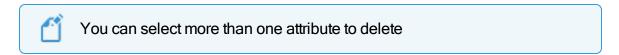
4. Select Add Attributes.

Deleting an Attribute

You can delete an attribute from the object details page.

To delete an attribute:

- 1. Locate the Attributes pane on the object details page.
- 2. Select the checkbox next to the attribute to delete.





3. Select **Delete**.

The confirmation dialog box opens.



4. Select **Delete Attributes**.

Deleting an Attribute Source

You can delete an attribute's source from the object details page.

To delete an attribute source:

- 1. Locate the Attributes pane on the object details page.
- 2. Select the X next to the attribute's source.

The confirmation dialog box opens.



3. Select Delete Attribute Source.

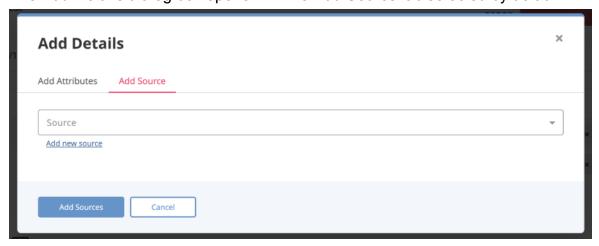


Adding a Source to an Object

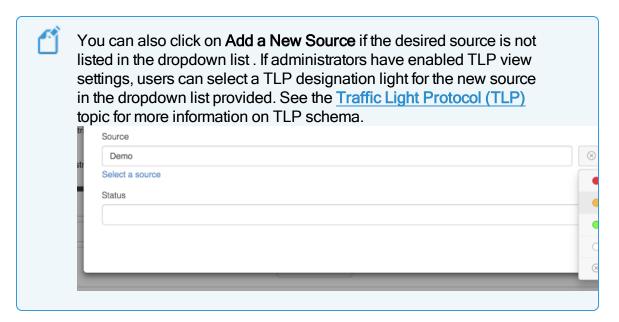
You can add sources to a system object in its details pane.

To add a source:

- 1. Locate the Sources pane on the object details page.
- Click on the + Add link located to the top-right.
 The Add Details dialog box opens with the Add Source tab selected by default.



3. Select a **Source** from the dropdown provided.



4. Select Add Sources.



Managing Tags

You can add and remove tags in the Tags pane on the object details page.

To add a tag:

- 1. Locate the Tags pane on the object details page.
- 2. Select the Tags text field and enter the tag.
- 3. Press [Enter] or [Return].



Repeat steps 2-3 to add additional tags.

To delete a tag:

- 1. Locate the Details pane on the object details page.
- 2. Select the **X** next to the tag to delete.

Description Pane

The Description Pane section of the object details page allows you to add a description for the system object.

To update the Description pane:

- 1. Locate the Description pane on the object details page.
- 2. Select Edit.
- 3. Make the required changes and select **Save**.

Relationships Panes

The Relationship section of the object details page displays other system objects that have been related to the current object.



You can link/unlink system objects from relationship panes and perform bulk updates (related indicators pane only). You can click on a related object to navigate to its object details page.



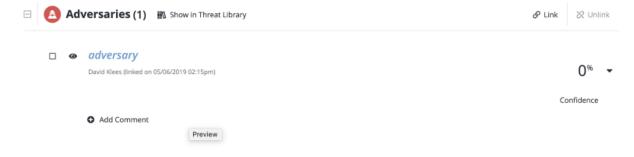
Relationships panes will only appear if a system object is already related to the object. Use the **Actions** button to relate the initial object: **Actions > Add Relationship**.

Related Topics:

- Indicators Pane
- Adversaries Pane
- Files Pane
- Investigations Pane
- Signatures Pane
- Events Pane

Adversaries Pane

The Adversaries Pane allows you to link and unlink adversary to an object. You can also add comments and adjust the adversary's confidence level. You can click on the Show in Threat Library link to view the related adversaries in the Threat Library or on a specific adversary name to open its object details page.







The Adversary pane will only load if there is an existing adversary linked to the object. Click on the **Action Menu** and select **Add Relationship** to add the first adversary.

Related Topics:

- Linking Adversaries
- Configuring Confidence Level
- Commenting on Related Adversaries
- Unlinking Related Adversaries

Linking Adversaries

You can link adversaries to a system object.

To link an adversary:

1. Locate the Adversaries pane on the object details page.

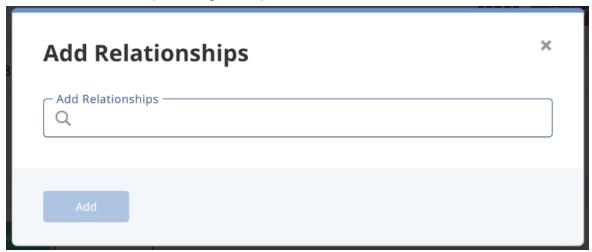


The Adversary pane will only load if there is an existing adversary linked to the object. Click on the **Action Menu** and select **Add Relationship** to add the first adversary.



2. Select the & Link icon.

The Add Relationships dialog box opens.



3. Use the supplied text field to select a file.



Repeat Step 3 to select multiple adversaries.

4. Click Add.

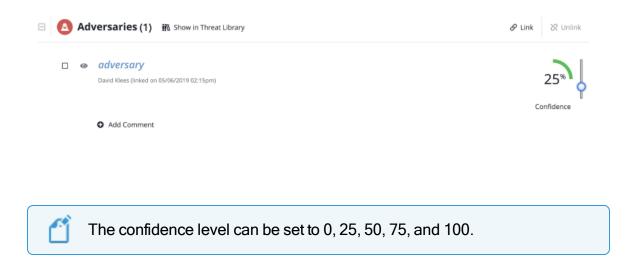
Configuring Confidence Level

You can configure a related adversary's confidence level from the Adversaries pane.

To configure the confidence level of a related adversary:

- 1. Locate the Adversaries pane on the object details page.
- 2. Click the dropdown arrow to the right of the adversary, and slide the scale to the desired confidence level.





The displayed confidence level will be modified to reflect your selection.

Commenting on Related Adversaries

You can add, edit, and remove comments to related adversaries.

To add a comment to a related adversary:

- 1. Locate the Adversaries pane on the object details page.
- 2. Select Add a Comment.

The Comments text field opens.



- 3. Enter a comment.
- 4. Click Add Comment.

To edit a related adversary comment:



- 1. Locate the Related Adversaries pane on the object details page.
- 2. Select **Edit** under the comment to update.
- 3. Update the comment.
- 4. Click Save Changes.

To delete a related adversary comment:

- 1. Locate the Related Adversaries pane on the object details page.
- 2. Select **Delete** under the comment to update.

A confirmation dialog box opens.



3. Select Delete Comment.

Unlinking Related Adversaries

You can unlink related adversaries for an object.

To unlink related adversaries:

- 1. Locate the Adversaries pane on the object details page.
- 2. Select the checkbox(es) next to the adversary(ies) to unlink.
- 3. Select the & Unlink icon.



Indicators Pane

The Indicators Pane allows users to link and unlink indicators to an object as well as perform a bulk update to selected linked indicators.





The Indicators pane will only load if there is an existing indicator linked to the object. Click on the **Action Menu** and select **Add Relationship** to add the first indicator.

Related Topics:

- Linking Indicators
- Performing Bulk Updates to Related Indicators
- Unlinking Related Indicators

Linking Indicators

You can link indicators to a system object.

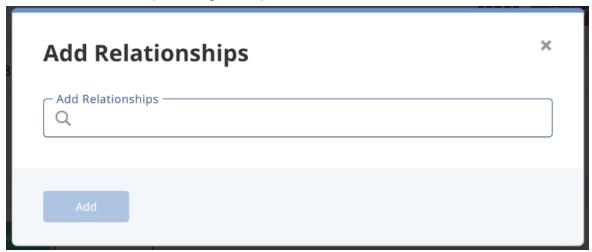
To link an indicator:

1. Locate the Indicators pane on the object details page.



2. Select & Link icon.

The Add Relationships dialog box opens.



3. Use the supplied text field to select an indicator.



4. Click Add.

Performing Bulk Updates to Related Indicators

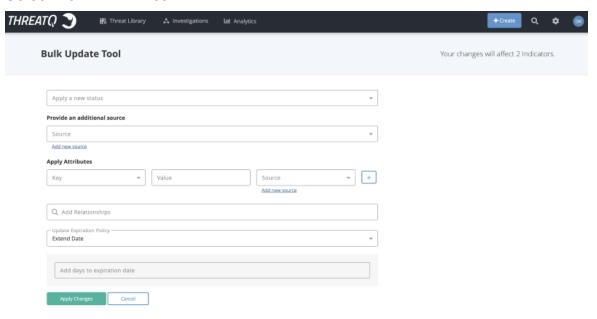
You can perform bulk updates to linked indicators listed in the Indicators pane of an object.

To perform a bulk update:

- 1. Locate the Indicators pane on the object details page.
- 2. Select the checkbox(es) next to the indicator(s) to update.



Select the Bulk Update icon.



The Bulk Update form loads.

4. Select the desired changes and click Apply Changes.

Unlinking Related Indicators

You can unlink related indicators for an object.

To unlink related indicators:

- 1. Locate the Indicators pane on the object details page.
- 2. Select the checkbox(es) next to the indicators to unlink.
- 3. Select the & Unlink icon.



Files Pane

The Files Pane allows you to link and unlink files to an object.



You can view a quick summary of the file by clicking the on the eye icon to the left of the file name or click on the name itself to navigate to its object details page. You can click on the **Show in Threat Library** link to view the related events in the Threat Library or download a copy of the file by clicking on the \checkmark icon .



The Files pane will only load if there is an existing file linked to the object. Click on the **Action Menu** and select **Add Relationship** to add the first file.

Related Topics:

- Linking Files
- <u>Unlinking Related Files</u>

Linking Files

You can link Files to a system object.

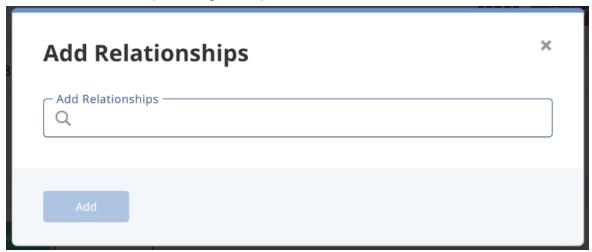
To link a file:

1. Locate the Files pane on the object details page.



2 Select & Link icon.

The Add Relationships dialog box opens.



3. Use the supplied text field to select a file.



Repeat Step 3 to select multiple files.

4. Click Add.

Unlinking Related Files

You can unlink related files for an object.

To unlink related files:

- 1. Locate the Files pane on the object details page.
- 2. Select the checkbox(es) next to the files to unlink.
- 3. Select the & Unlink icon.

Signatures Pane

The Signatures Pane allows you to link and unlink signature to an object. You can click on the **Show in Threat Library** link to view the related signatures in the Threat Library or on a



specific signature name to open its object details page.





The Signatures pane will only load if there is an existing signature linked to the object. Click on the **Action Menu** and select **Add Relationship** to add the first signature.

Related Topics:

- Linking Signatures
- Unlinking Related Signatures

Linking Signatures

You can link Signatures to a system object.

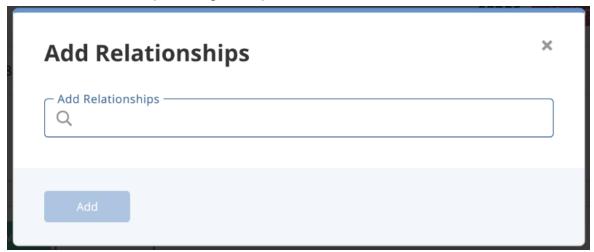
To link a file:

1. Locate the Signatures pane on the object details page.



2 Select & Link icon.

The Add Relationships dialog box opens.



3. Use the supplied text field to select a file.



Repeat Step 3 to select multiple signatures.

4. Click Add.

Unlinking Related Signatures

You can unlink related signatures for an object.

To unlink related indicators:

- 1. Locate the Signatures pane on the object details page.
- 2. Select the checkbox(es) next to the signatures to unlink.
- 3. Select the & Unlink icon.

Investigations Pane



ThreatQ Investigations requires a separate license.



The Related Investigations pane displays any ThreatQ Investigation related to the object. Adding and removing an object to an investigation is controlled through the Investigations interface.

You can click on the investigation to open ThreatQ Investigations.

Events Pane

The Events Pane allows you to link and unlink events to a system object. You can click on the **Show in Threat Library** link to view the related events in the Threat Library or on a specific event name to open its object details page.





The Events pane will only load if there is an existing adversary linked to the object. Click on the **Action Menu** and select **Add Relationship** to add the first event.

Related Topics:

- Linking Events
- Unlinking Related Events

Linking Events

You can link events to a system object.

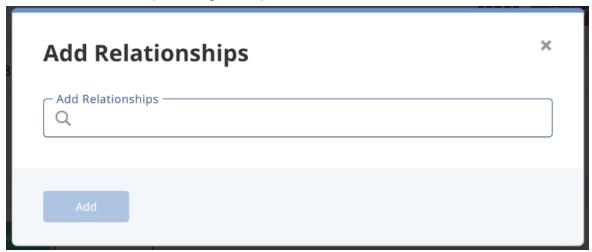
To link an event:

1. Locate the Events pane on the object details page.



Select & Link icon.

The Add Relationships dialog box opens.



3. Use the supplied text field to select a file.



Repeat Step 3 to select multiple events.

4. Click Add.

Unlinking Related Events

You can unlink related events for an object.

To unlink related events:

- 1. Locate the Events pane on the object details page.
- 2. Select the checkbox(es) next to the event(s) to unlink.
- 3. Select & Unlink icon.

Tasks Pane

The Tasks Pane allows you to create, link, unlink, and delete tasks associated with an object. You can click on the **Show in Threat Library** link to view the related tasks in the Threat Library or on a specific task name to open its object details page. You can also view



a quick summary of the task by clicking the on the eye icon to the left of the task name.





The Tasks pane will only load if there is an existing task linked to the object. Click on the **Action Menu** and select **Create Task** to add the first task.

Related Topics:

- Linking Tasks
- Unlinking Related Tasks
- Deleting Related Tasks

Linking Tasks

You can link Tasks to a system object from its object details page.



You can also related a task to a system object while creating a task.

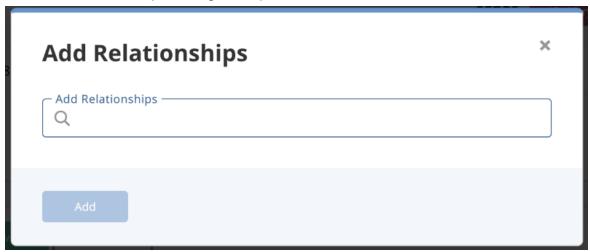
To link a task:

1. Locate the Tasks pane on the object details page.



2. Select the & Link icon.

The Add Relationships dialog box opens.



3. Use the supplied text field to select a file.



Repeat Step 3 to select multiple files.

4. Click Add.

Unlinking Related Tasks

You can unlink related tasks for an object.

To unlink related tasks:

- 1. Locate the Tasks pane on the object details page.
- 2. Select the checkbox(es) next to the files to unlink.
- 3. Select the & Unlink icon.

Deleting Related Tasks

You can delete Tasks related to a system object from its object details page.

To delete a task:



- 1. Locate the Tasks pane on the object details page.
- 2. Select the checkbox next to the task to delete.
- 3. Select the @ Delete icon.

A confirmation dialog box opens.



4. Select Delete Task.

Comments Pane

The Comments pane allows users to record comments about the system object for other users to see.

The following functions can be performed:

- Adding Comments
- Editing Comments
- Deleting Comments

Adding Comments



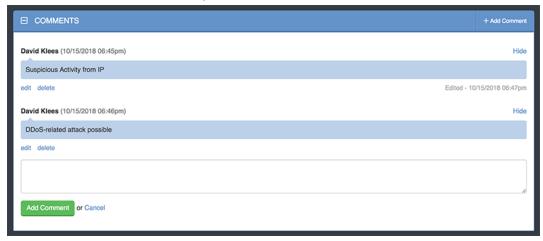
Users can also click on the **Actions** menu and select the **Comment** option.

From the Object Details page:



- 1. Click on the expand icon to expand the Comments pane.
- 2. Click on the **Add Comment** link located at the top-right and lower-left of the pane.

The new comment text box opens.



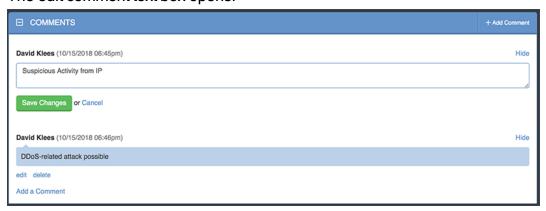
- 3. Enter a comment.
- 4. Click on the Add Comment button.

Editing Comments

From the Object Details page:

- 1 Click on the expand icon to expand the Comments pane.
- 2. Click on the **Edit** link located beneath the comment to update.

The edit comment text box opens.





- 3. Edit the comment.
- 4. Click on the **Save Changes** button.

Deleting Comments

From the Object Details page:

- 1. Click on the expand icon to expand the Comments pane.
- 2. Click on the Edit link located beneath the comment to update..

The delete confirmation dialog text box opens.



3. Click on the **Delete Comment** button.



Analytics

The Analytics tab provides a summary view of Adversary, Event, File, Indicator, and Signature Object Types.



Global and List filters are not available for these views nor can you modify the types of columns used. Use the <u>Advanced Search</u> to utilize these options.

Analytics pages include:

- Adversaries Overview
- Events Overview
- Files Overview
- Indicators Overview
- Signatures Overview

Adversaries Overview

The Adversaries page provides an overview of all the adversaries within ThreatQ as well as overlapping use of specific indicators.

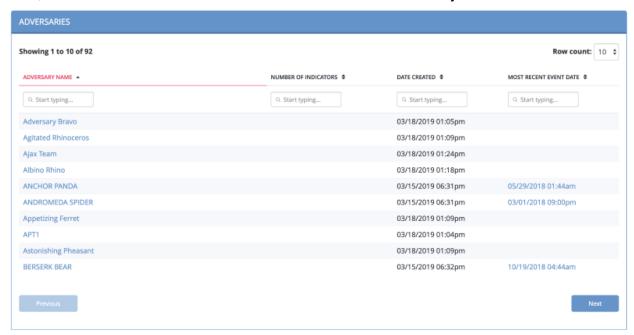
There are three sections:

- Adversaries Summary Table
- Adversaries Overlap Table.
- Indicator Distribution Pie Chart



Adversaries Summary Table

The Adversaries Summary table lists adversaries by name, number of indicators, date created, and the most recent event date associated with the adversary.



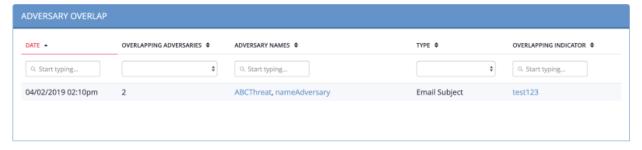
Function	Details
Opening the Adversary Details page for an adversary	Click the name in the Adversary Name column.
Performing a search for related indicators	 Click the number in the Number of Indicators column to set the adversary name as a search criterion and open the Advanced Search page.
Opening the Event Details page for an adversary event	Click the date in the Most Recent Event Date to open the Event Details page.



Function	Details
Changing the number of entries displayed in the table	Click the paging batch option located to the bottom- right of the table.
Sorting the table by a column	Click the column header. To reverse the column sorting order, click the header a second time.
Searching within the Adversary Name column	Click within the search box at the top of the column, and enter your search criteria.

Adversaries Overlap Table

The Adversary Overlap table lists adversaries, the date and time they were created, their type, and any overlapping indicators.



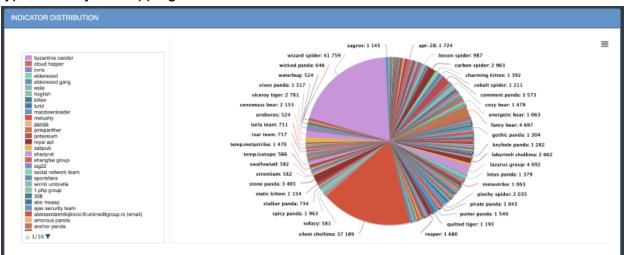
Function	Details
Opening the Adversary Details page for an adversary	Click the name in the Adversary Name column.
Opening the Indicator Details page for an overlapping indicator	Click the identity in the Overlapping Indicator column.
Changing the number of entries	Click the paging batch option located to the



Function	Details
displayed in the table	bottom-right of the table.
Sorting the table by a column	Click the column header. To reverse the column sorting order, click the header a second time.
Searching within a column	Click within the search box at the top of the column, and enter your search criteria.

Indicator Distribution Pie Chart

The Adversary Overlap table lists adversaries, the date and time they were created, their type, and any overlapping indicators.



Function	Details
Viewing more information about a selected value	 Hover over a colored section of the pie chart to open a popup identifying the indicator.
	The number of times the indicator was found within the specified time frame, and what percentage of the total

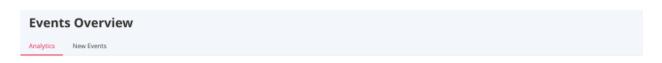


Function	Details
	number of indicators it represents.
Hiding or unhiding one of the values from the pie chart	Click the indicator on the left of the pie chart to remove it; click a second time to reinstate it.
Adjusting the time frame of the information displayed	 Click the dropdown menu at the top right and select the desired timeframe. You can select from: Last 24 Hours Last 7 Days Last 30 Days Last Year User-set custom range
Printing the graph or saving it as a PNG, JPEG, PDF, or SVG	1. Click the hamburger menu

Events Overview

The Events page provides a high-level view of what types of events have occurred and how frequently they are occurring.







To Access the Events Overview page:

1. In the navigation menu, choose **Analytics** > **Events**.

The Events Overview page opens.

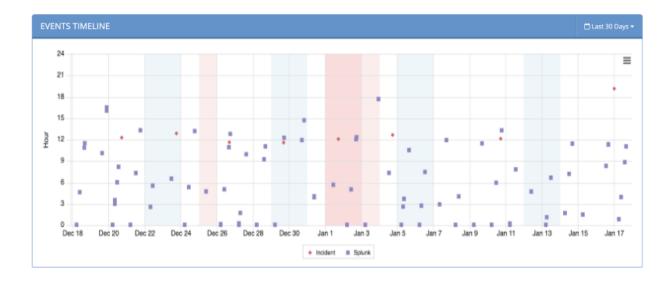
The tab options include:

- Events History Scatter Plot
- Monthly Heatmap
- New Events Summary

Events History Scatter Plot

The scatter plot points are plotted by date (x-axis) and hour (y-axis). The legend under the scatter plot identifies the different kinds of events shown.





Function	Details
Viewing an event's name, date and time, and source	1. Hover your mouse over an event on the scatter plot to see its name, date and time, and source. EVENTS TIMELINE 24 21 Date: 12/23/2018 12:54pm Sources: DigitalShadows Dec 18 Dec 20 Dec 22 Dec 24 Dec 26 Dec 28 Dec 30 Jain 1 Jan 3
Opening the Event Details page for one of the events	Click the event in the scatter plot. For more information, see Object Details Page.
Hiding or unhiding one or more of the event types	Click the event type in the legend immediately below the scatter plot to remove it from the graph; click it again to reinstate it.



Function	Details
Adjusting the time frame of the information displayed	Click the dropdown menu at the top right and select the desired time frame.
	You can select from:
	 Last 24 Hours
	Last 7 Days
	 Last 30 Days
	 Last Year
	User-set custom range
Printing or downloading the	 Click the hamburger menu and select the
scatter plot as a PNG, JPEG,	desired option.
PDF, or SVG file	

Monthly Heatmap

The Monthly Heatmap table lists events that happened per adversary each month. Shading of the monthly totals is used to allow you to quickly scan for patterns in the events and to quickly detect events with higher monthly counts.



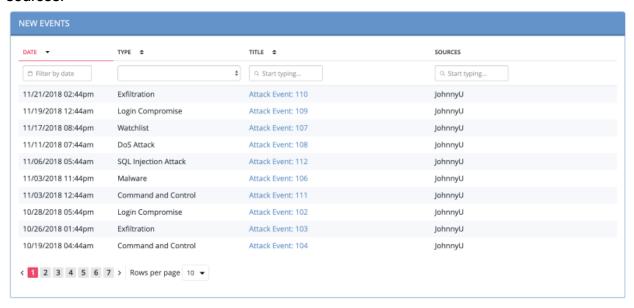


Function	Details	
Viewing an event's name and monthly count	Hover your mouse over an event on the heatmap to see its name and monthly count.	
	MONTHLY HEATMAP	
	Jan 2018 Feb 2018 Mar 2018 May 2018 Jun	
Adjusting the time frame of the information displayed	Click the dropdown menu at the top right and select the desired time frame.	
	You can select from:	
	Last 24 HoursLast 7 Days	
	Last 30 Days	
	Last Year	
	User-set custom range	
Printing the graph or saving it as a PNG, JPEG, PDF, or SVG	 Click the hamburger menu = and select the desired option. 	



New Events Summary

The New Events Summary table provides a breakdown of events by date, type, title, and sources.



Function	Details
Opening the Event Details page	1. Click the event title.
for one of the events	For more information, see Object Details Page.
Changing the number of entries	1. Click the dropdown menu at the top right of
displayed in the table	the table, and select the desired option.
Sorting the table by a column	Click the column header.
	2. Click the header a second time to reverse sort
	order.
Searching within a column	Click within the search box at the top of the
	column, and enter your search criteria.



Files Overview

The Files Overview page provides you with a pie chart displays the percentage of different types of files within the system and a table that lists the files, the date and time they were created, their title, their source, their category, and associated keywords.

Files Overview



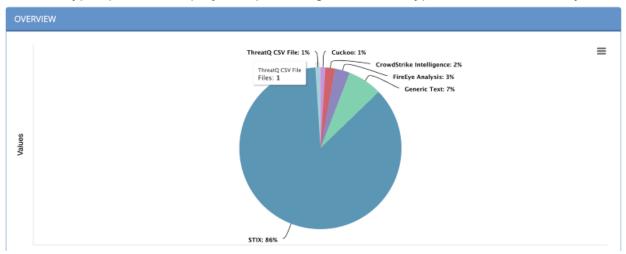
Available views include:

- Files Pie Chart
- Files Table



Files Pie Chart

The File Types pie chart displays the percentage of different types of files within the system.



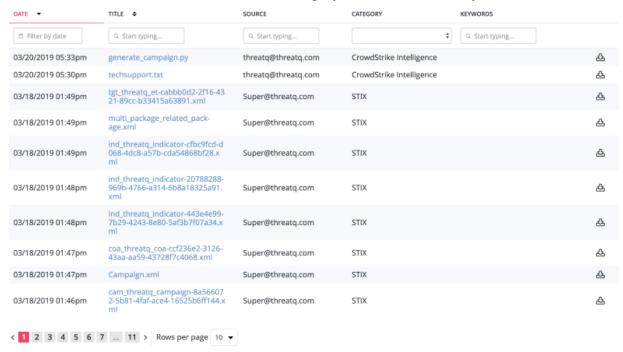
Function	Details
Viewing more information about a selected file	 Hover over a colored section of the pie chart to open a popup that gives the number of attach- ment types.
	Crowds FireEye Analysis Files: 3 FireEye Analysis: 3% Generic Text: 7%
Printing the graph or saving it	 Click the hamburger menu and select the



Function	Details
as a PNG, JPEG, PDF, or SVG	desired option.

Files Table

Immediately below the Browse pie chart is a table that lists the files, the date and time they were created, their title, their source, their category, and associated keywords.



Function	Details
Opening the File Details page for a file	1. Click the name in the Title column.
Changing the number of entries displayed in the table per page	Click the paging batch option located to the bottom-right of the table.



Function	Details
Sorting the table by a column	 Click the column header. To reverse the column sorting order, click the header a second time.
Searching within a column	Click within the search box at the top of a column, and enter your search criteria.
Downloading a file	1. Click the download icon &.

Indicators Overview

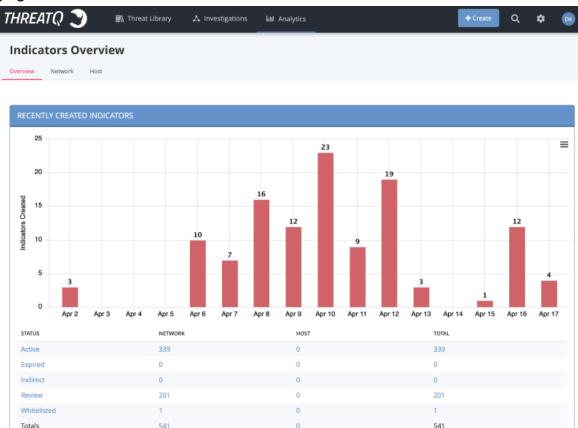
The Indicators Overview page provides an insight into what indicators have been added to the system within the last 15 days, as well as an overview of how many indicators fall under each indicator type.

To Access the Indicators Overview Page:

1. From the navigation menu, click on **Analytics** and choose **Indicators**.



The Indicators Overview page will open with three view tab options at the to of the page.



The page is broken down into different Indicator class views that are accessible via the tabbed navigation located at the top of the page.

The tab options include:

- Overview
- Network (Indicator Class = Network)
- Host (Indicator Class = Host)

Summaries included on the Indicator Overview Page Include:

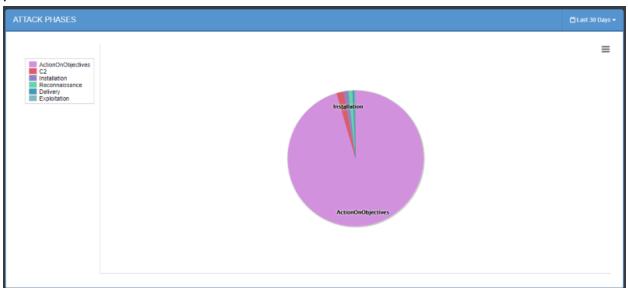
- Recently Created Indicators Histogram
- Summary Status (Overview view only)



- Most Recent 100 Indicators
- Attributes Table (Network and Host views only)
- Recent Sources (Network and Host views only)
- Attack Phases (Network and Host views only)

Attack Phases

Attack Phases are the ways an indicator might be used and are listed as indicator attributes. The Attack Phases pie chart displays the number of indicators that fall under each attack phase.



Function	Details
View the Number of Indicators for an Attack Phase	Hover the mouse over a portion of the pie chart to view a popup the Attack Phase and number of indicators associated with it.
	Clicking on a pie chart section will open the Indicator Search page with the specific filter settings used for



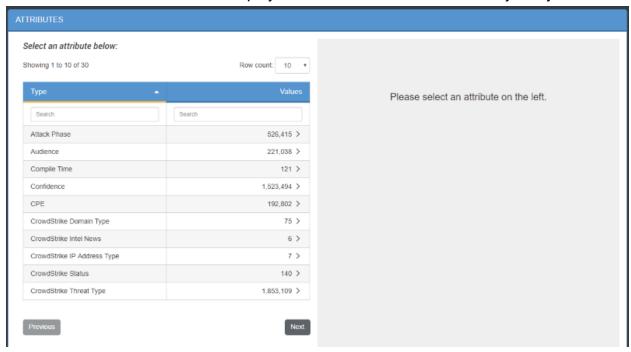
Function	Details
	that selection. Q Indicator Search Attribute spine Attribute typine Indicator Class Is Attribute value Attribute value Indicator Class Is Attribute value Attribute value Indicator Class Is Attribute value Attribute value Attribute value Indicator Class Is Attribute value Attribute value Attribute value Indicator Class Is Attribute value Attribute value Attribute value Indicator Class Is Attribute value Attribute value Attribute value Indicator Class Indicator Class Indicator Class Attribute value Attribute value Attribute value Indicator Class Indicator Class Attribute value Attri
Adjust the Date Range for the Information Displayed	The default Date Range is 30 days. 1. Click the date range icon located to the top-right of the chart and use the dropdown menu select the desired range. Users can select from: Last 24 Hours Last 7 Days Last 30 Days Last Year User-set custom range
Hide a Values from the Pie Chart	Click on a Attack Phase in the legend to the left of the pie chart to hide it. The Attack Phase will be removed from the pie chart and the source in the legend appear greyed out.



Function	Details
	Click on the Attack Phase again to add it back to the pie chart.

Attributes Table

The attributes list on the left side displays attributes related to indicators in your system.



Function	Details
Change the Number of Entries Displayed in the Table	 Click the Row Count icon located to the top-right of the chart and select a new display count from the drop- down.
Search/Filter Attributes and Values	 Click within the search box at the top of the column, and enter your search criteria.



Function Details View More Information 1. Click on an attribute row in the table to view additional About a Selected Attribinformation in the right pane. ute Select an attribute below: Showing 1 to 10 of 30 121 > 1,523,494 > 192,802 > 75 > 6 > 140 > Next 2. Hover the mouse over different portions of the pie chart to reveal the segment's value. 3. Click on an Attribute Value in the summary table below the pie chart to open the Indicator Search page with those attribute values applied. THREATQ 🍞 Q Indicator Search Attribute type -Attack Phase Search Results (4) 03/15/2019 07:10pm north-area bbsindex.com 03/15/2019 07:10pm 03/15/2019 07:10pm Epic Turla FQDN

.



Most Recent 100 Indicators

The Most Recent 100 Indicators list displays the 100 most recently reported indicators.

Most Recent 100 Indicators Row count: 25 ▼ Showing 1 to 25 of 100 Search Search MD5 10/08/2018 05:30pm 6c1423c4c7906e2da1203b9b550b39b3 Active CrowdStrike 10/08/2018 05:30pm 4bc0a199faf792b7c54e49db787a9c60f1842a88 0 SHA-1 Active CrowdStrike 10/08/2018 05:30pm 77ed439dd3fc839cc95d0197ced2717efc0262545b0dd4e0418 0 SHA-256 Active CrowdStrike 779b87a3ea920 10/08/2018 05:30pm 3b76aeb2083e10cd633ede6c20cbf89e4c60da39a07d45ea05 SHA-256 Active CrowdStrike 10/08/2018 05:30pm 16a51225f5e782eebc16d76face0041c MD5 CrowdStrike Active 10/08/2018 05:30pm d5ae9c27ec6a6bb3b6c8aa5583884ae253003959 SHA-1 Active CrowdStrike 10/08/2018 05:30pm 4158734edc64f64fe066c60a0578747e4de684c29bfb15d4b43 SHA-256 Active CrowdStrike 10/08/2018 05:30pm 91dbb6bf198622c957233379042868de 0 MD5 Active CrowdStrike 10/08/2018 05:30pm 1379fe1801679cd33312156ce3193167a150950e3d8bccd1b5 0 SHA-256 CrowdStrike 10/08/2018 05:30pm 0a4f87a79e75f4bef2772c2ff60734042f7081e9 0 SHA-1 Active CrowdStrike 0 10/08/2018 05:30pm f8d24fbacdb0c6d6acb84c3db26d51d7 MD5 Active CrowdStrike 10/08/2018 05:30pm ededaa1a6c982af03a58dcb0a8b8a7f8f48ca72a 0 SHA-1 Active CrowdStrike 10/08/2018 05:30pm 74664b624f5ac2f31132642a3f77e44da7f41cafe566f378e5efb 0 SHA-256 Active CrowdStrike 10/08/2018 05:30pm 37404ed847180bd53c3e35a7e19b8382 0 MD5 Active CrowdStrike

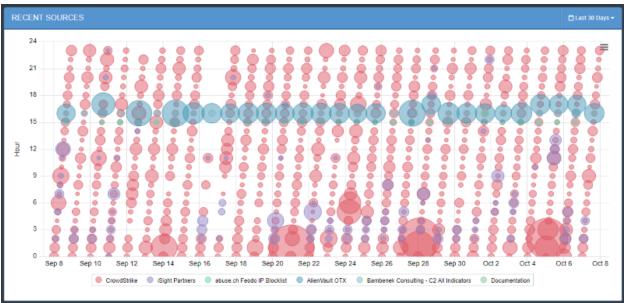
Function	Details
Resort the Table	Click on the different table headings to resort that table by that column.
Search and Filter Table Results	Click on one of the search boxes at the top of the columns and enter a keyword to filter the results.
	You can use the supplied dropdown selections for
	the Status and Type columns to filter by system-available values.
Modify the Number of	1. Click on the Row Count icon located to the top-



Function	Details
Rows Displayed	right of the chart and select a new display count from the dropdown.
Access the Indicator Details Page for a Specific Indicator	Click on the specific Indicator to review to open the Indicator Details page.

Recent Sources

The Recent Sources Scatter plot displays how many indicators were provided by a given source each day within a specified time frame.



Function	Details
View the Date and Number	1. Hover the mouse over one of the scatter plot circles
of Indicators from a Given	to view a popup with the Source, Date, Time and



Function	Details	
Source	Number of Indicators. RECENT SOURCES 2016-09-29 1:00 Commission: 73 indicators 2016-09-29 1:00 Commission: 73 indicators 2016-09-29 1:00 Commission: 74 indicators 2016-09-29 1:00 Commission: 7	Ctable bill Object =
	2. Click on the one of the scatter plot circles to filtered Indicator Search page with those va	alues.
	Indicator Class	× •
	Source Is Coferse intelligence or	
	Indicator Class	× •
	and and Source • Is • Cofense Intelligence • Search Reset Recent Searches •	x +
Adjust the Date Range of the Information Displayed	The default date range is 30 days. 1. Click the date range icon located to the top-right of the chart and use the dropdown menu select the desired range.	
	You can select from: • Last 24 Hours	



Function	Details
	Last 7 Days
	Last 30 Days
	Last Year
	User-set custom range
Hide Values from the Scatterplot	Click on a source in the legend under the scatter plot to hide it.
	The Source will be removed from the scatter plot and the source in the legend appear grayed out.
	Click on the source again to add it back to the scatter plot.

Recently Created Indicators Histogram

The histogram is organized by date. Daily indicator totals are at the top of each column. Each bar is broken down into colors, one for each indicator type.





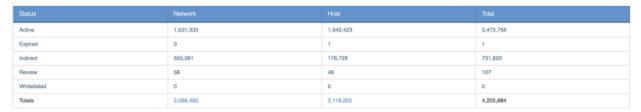
Function	Details
Viewing the number of indicators created each day by type	1. Hover over a colored section to view a popup showing how many attempts of a particular type (for example, MD5, SHA-1, SHA-256) were made on that date.
Zooming in for a closer view	1. Drag your mouse over a section of the histogram, and your view will be magnified. RECENTLY CREATED INDICATORS 228 221,165 229 22,165
	2. Click Reset Zoom to return to the full histogram.
Printing the histogram or downloading it as a PNG, JPEG, PDF, or SVG file	1. Click the hamburger menu ■, and select the desired option.



Summary Status

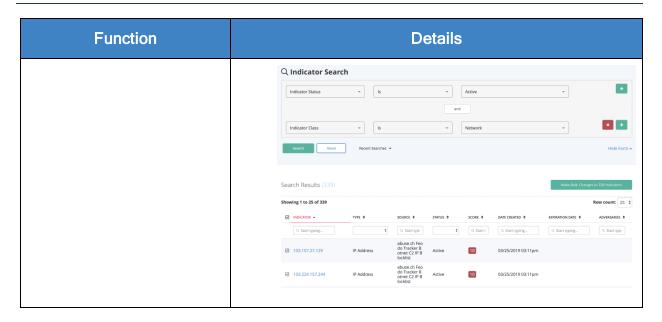
The Status Summary table is located under the Overview tab.

The Status Summary table provides a breakdown of Indicators, categorized by Status, for the Network and Host Indicator Classes.



Function	Details
Search By Indicator Status	1. Click on a Status to load the Indicator Search page with that status applied to the search. THREATQ
	Q Indicator Search Indicator Status Becard Review Hide Form A
	Search Results (7,967) Showing 1 to 25 of 1000 Row count: 25 ¢ NOCATION - THE 8 SOURCE 8 STATUS 8 SCORE 8 DATE CREATED 8 DA
	Cl 3sert pping Q 3sert pping
Search by Indicator Class or	Click on an indicator value to load the Indicator
Indicator Class with a Spe-	Search page with the selected indicator class and
cific Status	status applied to the search.





Signatures Overview

The Signatures page provides an overview of all the signatures within ThreatQ.

You can perform the following functions:

Function	Details
Filtering table by Date	Click within the search box at the top of the column, and enter your search criteria.
Opening the Signature Details page for an signature	Click the name in the Signature Title column.
Filtering table by Signature Type	Click the on dropdown at the top of the Signature Type column and select a type.
Changing the number of entries displayed in the table	Click the paging dropdown option located to the top-right of the table and select a value.
Sorting the table by a column	Click the column header. To reverse the column sorting order, click the header a second time.



Function	Details
Searching within the Sig- nature Title column	Click within the search box at the top of the column, and enter your search criteria.



Incoming Feeds

The following describes how to use incoming feeds to ingest threat intelligence data.

- Incoming Feeds Overview
- Managing Incoming Feeds
- Historic Feed Pulls

Incoming Feeds Overview

You can enable and manage incoming feeds in ThreatQ to ingest threat intelligence data. Incoming feeds are organized into the following categories:

- Commercial
- OSINT or Open Source
- STIX/TAXII Feeds
- Labs

Commercial Feeds

Commercial feeds are provided by paid feed providers as a service. To enable these feeds in ThreatQ, you will need an API ID or API Key from the provider. Commercial feeds typically provide highly contextual threat intelligence data. You can learn more about these feeds on their vendor's websites.

OSINT Feeds

OSINT feeds are open source threat intelligence feeds. Open source feeds are free to use, but some may require you to register with the feed provider to attain an API Key.



STIX/Taxii Feeds

STIX stands for Standard Threat Information Expression, it is an emerging standard for the sharing of machine readable intelligence and incident data. A STIX package is an XML document that can contain many indicators and related context information. For the automated sharing of STIX packages, a protocol called TAXII (Trusted Automated eXchange of Indicator Information) is used to provide a feed to consumers.

ThreatQ provides a feature for consuming STIX/Taxii feeds.

Related Topic

Adding a New STIX/TAXII Feed

Labs Feeds

Labs (formerly known as ThreatQ Labs) are driven by ThreatQuotient's Threat Intelligence Services Team. Labs feeds provide a solution for data ingestion that is not provided by the feeds pre-configured with the ThreatQ platform. You should inquire with a Threat Intelligence Engineer to see what Labs are available.

Managing Incoming Feeds

Manage threat intelligence feeds on the Incoming Feeds page.

The following table describes the actions you can take to manage Incoming Feeds.

То	Do this
Turn a feed on or off	Toggle the switch next to the feed name.
Editing a feed's display name or URL	Click Feed Settings for the feed you wish to edit, and make desired edits.



То	Do this
Install/Upgrade Configuration Driven Feed (CDF)	See the Adding or Upgrading a CDF from the ThreatQ Interface topic.
Uninstall Configuration Driven Feed (CDF)	See the Uninstalling a CDF from the ThreatQ Interface topic.

Install/Upgrade CDF Command

Use the steps below to install or upgrade a Configuration Driven Feed (CDF) using the Command Line Interface (CLI). The command creates connectors for each feed defined in the feed definition file.

To install a CDF:

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

- 3. Place the application into maintenance mode see the Maintenance Mode topic.
- 4. Run the following command:

sudo php artisan threatq:feed-install <Feed
Definition File>



The application will notify you if the feed(s) in the feed definition file already exists in the system and will cancel the installation. See the





<u>To Upgrade a CDF</u> and <u>Changes in User Configurations</u> sections below for more information.

threatq:feed-install 6266 Started > 2019-02-21 18:47:24 threatq:feed-install 6266 Command failed: The provided definition file contains the following installed feeds: Testing at 5 AM. Proceed with the update by using the --upgrade flag.

5. Bring the application out of maintenance mode - see the Maintenance Mode topic.

To Upgrade a CDF



This command can be used to update a feed's Category and Namespace. If the category exists on the appliance, the command will update both fields and link the feed to the designated category. ThreatQ will confirm that the defined category exists before completing the update command. If the category does not exist, ThreatQ will not update the feed.

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

cd /var/www/api

- 3. Place the application into maintenance mode see the Maintenance Mode topic.
- 4. Run the following command:

sudo php artisan threatq:feed-install <Feed
Definition File> --upgrade

5. Bring the application out of maintenance mode - see the Maintenance Mode topic.

Changes in User Configurations



When upgrading an existing feed using the **--upgrade flag**, the application will compare the existing version of the feed with the new version for differences in the user configuration. If a difference is detected, the application will inform you that the current user configuration for that feed will be overwritten. The application will require user input to continue with the feed

```
threatq:feed-install 6674 Started > 2019-02-21 18:48:28
threatq:feed-install 6674 Warning: The provided definition file
contains updated user configurations. It is highly recommended to
create a copy of the configuration values for the following feeds
before proceeding with the update: Testing at 5 AM.
Do you want to continue? (Y/N) Y
threatq:feed-install 6674 Number of connectors in the definition file:
1
threatq:feed-install 6674 Number of existing connectors updated: 1
threatq:feed-install 6674 Finished > 2019-02-21 18:48:34 > 6.19s
upgrade.
```



It is recommended that you create a copy of the existing configuration values before proceeding with the upgrade.

Command Flag Help

You can also see a full list of command flags using the following command while under the /var/www/api directory:

```
sudo php artisan threatq:feed-install --help
```

Adding or Upgrading a CDF from the ThreatQ Interface

You can add or upgrade a CDF from the Incoming Feeds page of the ThreatQ interface.

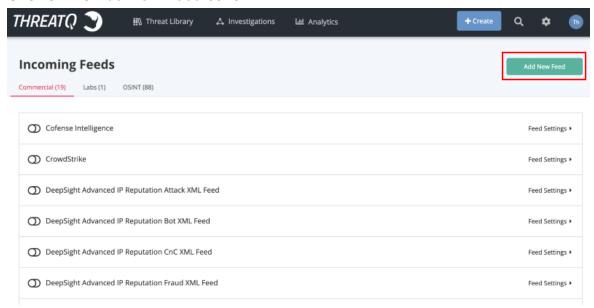


The process to upgrade a CDF is the same as adding a new CDF.

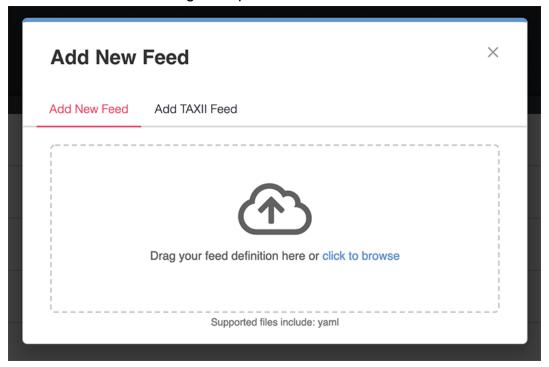
To add a CDF from the ThreatQ Interface:



- 1. Go to System Settings 2 > Incoming Feeds.
- 2. Click on the Add New Feed button.

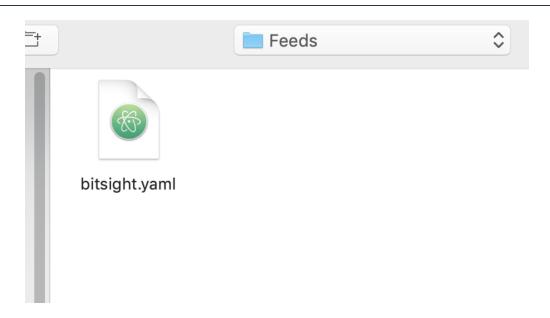


The Add New Feed dialog box opens.



3. Select the file to upload by either clicking and dragging the file onto the dialog box or using the link supplied to browse for the file on your local machine.







Existing Feeds

ThreatQ will inform you if the feed already exists on the platform and will require user confirmation before proceeding.

Upgrade Feed

The provided definition file contains the following installed feeds: BitSight.

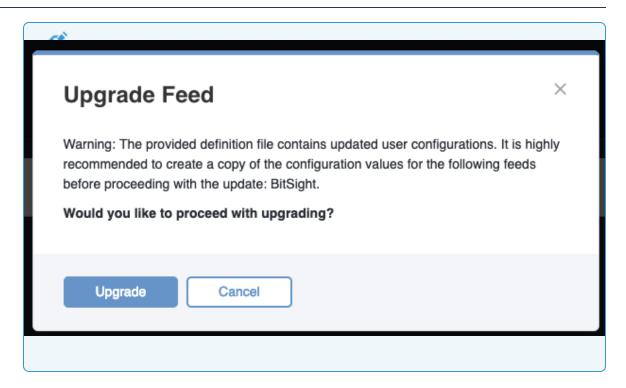
Would you like to proceed with upgrading?

Upgrade Cancel

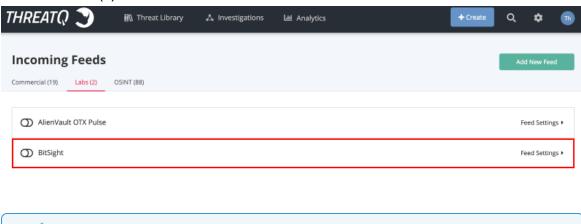
User Configurations

ThreatQ will also inform you if the new version of the CDF contains changes to the user configuration. The new user configurations will overwrite the existing ones for the feed. The platform will require user confirmation before proceeding.





4. The new feed(s) will be added.



Uninstalling a CDF from the ThreatQ Interface

You can uninstall CDFs from the **Incoming Feeds** page of the ThreatQ interface.

You will need to configure and enable the feed.

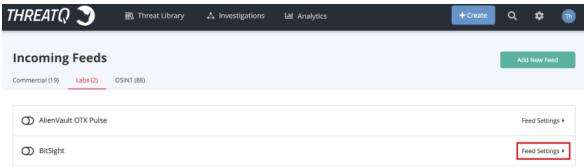


This feature only applies to CDFs.

To uninstall a CDF from the ThreatQ Interface:



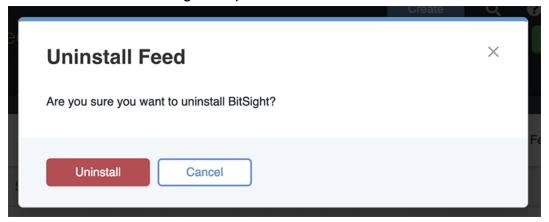
- 1. Go to System Settings 2 > Incoming Feeds.
- 2. Click on the Feed Settings link for the feed.



3. Click on the Uninstall Feed button.



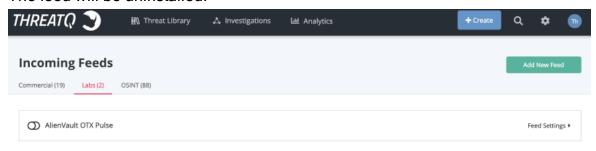
The Uninstall Feed dialog box opens.



4. Click on Uninstall.



5. The feed will be uninstalled.



Enabling a Commercial Feed

To enable a commercial feed, you will need an API ID and API Key provided by the feed provider.

Procedure:

- 1. Choose the **Settings icon > Incoming Feeds**.
- 2. Click the toggle switch next to the feed you want to enable.

Green indicates enabled.

- 3. Expand Feed Settings.
- 4. On the Connection tab, enter:
 - Feed Name the name displayed in ThreatQ
 - API ID provided by the feed vendor for authorization
 - API Key provided by the feed vendor for authorization
 - · Feed URL this field is autofilled
- 5. On the Settings tab, select:
 - the status that incoming indicators from this feed will receive.
 - the frequency that ThreatQ pulls information from the feed.
- 6. Click Save Changes.



Enabling an OSINT Feed

OSINT feeds do not require API IDs, but some may require an API key from the feed provider.

Procedure:

- 1. Choose the **Settings icon > Incoming Feeds**.
- 2. Click the toggle switch next to the feed you want to enable.

Green indicates enabled.

- 3. Expand Feed Settings.
- 4. On the Connection tab, enter:
 - Feed Name the name displayed in ThreatQ
 - API Key (if required) provided the feed vendor for authorization
 - Feed URL this field is autofilled
- 5. On the Settings tab, select:
 - the status that incoming indicators from this feed will receive.
 - the frequency that ThreatQ pulls information from the feed.
- 6. Click Save Changes.

Viewing Feed Queues

When upgrading a feed, it is recommended to allow the previous implementation the feed to complete processing of the data it has already downloaded, prior to upgrade, to avoid any data loss.

Perform the following steps to confirm that the queues have been cleared.



1. Run the following command:

```
/var/www/api/artisan threatq:list-queues -p feeds
```

Locate and confirm that the feed's Indicators and Reports rows display a value of "0" for the Messages Ready and Messages Unacknowledged columns.



The queues should be cleared, reporting 0 values, before proceeding with the update.

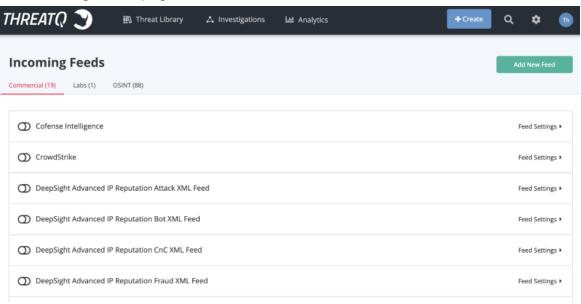
Adding a New STIX/TAXII Feed

Complete the following steps to add a new STIX/TAXII indicator feed.

Procedure:

1 Click on the **Settings** icon and select **Incoming Feeds**.

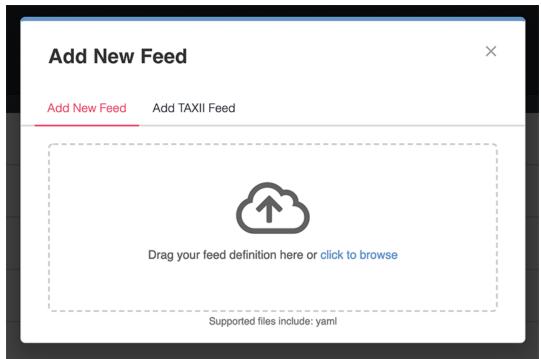
The Incoming Feeds page will load.





2. Click on Add New Feed.

The Add New Feed dialog box opens.



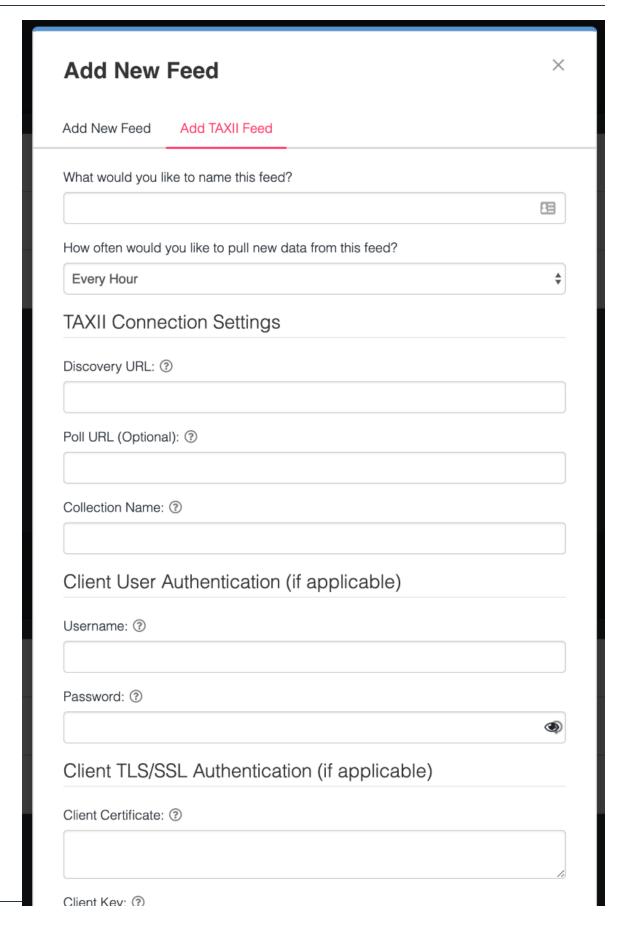


3. Click on Add TAXII Feed.



The Add TAXII Feed form loads.







4. Complete the following fields:

Field	Instructions	
What would you like to name this feed?	Enter the feed's name that will be displayed throughout ThreatQ. The name must be at least 5 characters long It does not need to match the Collection Name.	
How often would you like to pull new data from this feed?	Choose Every Hour or Every Day .	
TAXII Connection Settings		
Discovery URL	This is where the TAXII server can be reached. This field is required.	
Poll URL	An optional URL that specifies a specific endpoint on the TAXII Server to poll for data.	
Collection Name	The name of the collection of data in the feed you will access.	
	This field is required.	
Client User Authentication		
Username	Enter a username if required for the feed.	



Field	Instructions
Password	Enter a password if required for the feed.
Client TLS/SSL Authentication	
Client Certificate	Enter a certificate if required for the feed.
Client Key	Enter a private key if required for the feed.
Server Authentication	
Verify SSL	Leave the checkbox checked to require that the TAXII client verify the provider's SSL certificate.
Host CA Certificate Bundle	The provider's CA Certificate used to verify SSL. The Host CA Certificate Bundle will not be honored if the Verify SSL option is not selected.

5. Click on Add TAXII Feed.

CrowdStrike CDF

Starting with ThreatQ version 4.2, the CrowdStrike feed will be updated to use the configuration driven method. This update will allow users to review an Activity Log that will provide a summary of the feed and including important details such as:



- how the feed was triggered,
- start and completion time,
- raw response received from the vendor,
- how many objects were processed by ThreatQ.

Query Range

Query Range is a new feature with this update that uses the exact date/time that ThreatQ queried CrowdStrike's API for information.

This feature, unique to the updated CrowdStrike feed, ensures that there isn't a gap in feed coverage in the event of a feed run failure or server downtime. ThreatQ will use the last completed run time when performing a new run.

Example: Customer has CrowdStrike configured to perform scheduled runs every hour. The customer powers down the server for three hours for maintenance. The next time the feed runs, it will automatically use the last successful run time in its range which will cover the three-hour gap when the server was down.

PlaceHolder Files

The Placeholder file concept is currently used by the updated CrowdStrike feed with expanded support to other feeds to be added in future releases. Placeholder files prevent linking information delays between the vendor and ThreatQ by creating a placeholder file immediately after receiving a file or report from the vendor. ThreatQ will fulfill the placeholder and update the object information accordingly. ThreatQ will mark placeholder files on the details and file overview pages.

Related Information

- CrowdStrike Update Instructions
- Performing Manual Feed Runs



CrowdStrike Update Instructions



CrowdStrike users must update their proxy server settings to use http: for their https: traffic before upgrading CrowdStrike.

Prior to upgrade, and to avoid any data loss, it is recommended to allow the previous implementation of CrowdStrike to complete processing of the data it has already downloaded.

Perform the following steps to confirm that the gueues have been cleared.

1. Run the following command:

```
/var/www/api/artisan threatq:list-queues -p
feeds
```

2. Locate and confirm that the **CrowdStrike Indicators** and **Reports** rows display a value of "0" for the **Messages Ready** and **Messages Unacknowledged** columns.



The queues must be cleared, reporting 0 values, before proceeding with the update.

3. Proceed with the standard feed update procedures.



The update process is quick. A confirmation message will confirm that the update process is complete. The **Activity Log** feature will load once CrowdStrike is enabled and a feed run instance has been created or completed.

Source Consolidation Command

Use the steps below to consolidate/deduplicate similarly named sources and to remove unused sources from the ThreatQ application. A source that have been removed or merged will have its data mapped to a new source.





The command does not require recalculation of scoring.

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

```
cd /var/www/api
```

- 3. Place the application into maintenance mode see the Maintenance Mode topic.
- 4. Run the following command:

```
sudo php artisan threatq:consolidate-sources
```

5. Bring the application out of maintenance mode - see the Maintenance Mode topic.

Example Scenario:

- 1. User manually adds ABC as a source.
- 2. User enables ABC.

There are now two ABC sources in the system.

- 3. User runs consolidation command.
- 4. The application merges the sources and remaps any items linked to the correct source.

Source Merge Command

Use the steps below to merge a user-created source (source origin) with another source (source destination). After merging, the source origin will be deleted and source changes will be reflected in the Audit log (Example: Source A become Source B).





The command does not affect date stamps nor does it require a recalculation of scoring.

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

cd /var/www/api

- 3. Place the application into maintenance mode see the Maintenance Mode topic.
- 4. Run the following command:

```
sudo php artisan threatq:merge-sources --ori-
gin-source="<source a>" --destination-source-
e="<source b>"
```

5. Bring the application out of maintenance mode - see the Maintenance Mode topic.

Example Scenarios:

Scenario	Details
Merge user-created source (origin source) with a system source (destination source).	 User places the platform into maintenance mode. User runs Source Merge command. User is presented with merge confirmation dialog. User consents to the merge. The platform will merge the origin source into the destination source and then delete the origin source after completion. The platform will record the source merge in the audit



Scenario	Details
	log for affected data.
	7. The user receives a command success message.
	8. The user brings the platform out of maintenance mode.
Merge system source (origin source) with a user-created source (destination source).	 User places the platform into maintenance mode. User runs Source Merge command. The platform will inform the user that a system source cannot be merged into another source. The user brings the platform out of maintenance mode.
Merge user-created source (origin source) with a system source (destination source) with duplicate records.	 User places the platform into maintenance mode. User runs Source Merge command. The platform will inform the user that there are duplicate records between the two sources and prompt the user to run the Source Consolidation Command before proceeding with the merge. User runs the Source Consolidation command. User runs Source Merge command. User is presented with merge confirmation dialog. User consents to the merge. The platform will merge the origin source into the destination source and then delete the origin source after completion. The platform will record the source merge in the audit log for affected data. The user receives a command success message.
	11. The user brings the platform out of maintenance mode.



runs Source Merge command. ris presented with merge confirmation dialog. ronsents to the merge. platform will merge the origin source into the deson source, and then delete the origin source after oletion. platform will then apply the destination source's ult TLP settings to the merged data and record the ce merge in the audit log for affected data. user receives a command success message. user brings the platform out of maintenance mode.
֡֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜

Feed Activity Log

The feed activity log summarizes each feed run, including information such as how the feed was triggered, its start time, completion time, the raw response received from the feed vendor, and how many objects were processed.

The activity log is currently available for the following Configuration-Driven Feeds (CDF):

Commercial Feeds

- CrowdStrike
- Cofense Intelligence (formerly known as Phishme Intelligence)
- Emerging Threats IQRisk Rep List FQDNs
- Emerging Threats IQRisk Rep List IPs



OSINT Feeds

- AlienVault OTX
- All abuse.ch feeds, except for abuse.ch SSBL (Extended)
- Bambenek
- BitSight
- CI Army List IPs
- Cybercrime Tracker
- Emerging Threats Block IPs
- Emerging Threats Compromised IPs
- malc0de Domain
- malc0de IP
- Malware Domain List (IP)
- Malware Patrol
- Phishtank
- www.dan.me.uk Tor Node List

Viewing a Feed's Activity Log

To view a feed's activity log, that feed must be enabled.

Procedure

- 1. From the main menu, choose the **Settings icon > Incoming Feeds**.
- 2. Choose a feed and expand Feed Settings.
- 3. Choose the **Activity Log** tab.



Historic Feed Pulls

Historic pulls provide a method for you to ingest threat intelligence data from a particular vendor prior to the date you enabled the incoming feed. The procedure for running historic feeds varies based on the type of feed.

See the following topics for more information:

- Feeds that do not Support Historic Pulls
- Performing Manual Feed Runs
- iSight Historic Pull Command
- General Historic Pull Commands
- Threat Intelligence Services Custom Feeds Historic Pull Commands

Feeds that do not Support Historic Pulls

The following feeds do not support historic pulls:

- All OSINT feeds
- The following Commercial Feed:
 - DeepSight

Performing Manual Feed Runs

For some feeds, you can perform a manual feed run for a selected date range. This allows you to generate a historic feed pull from the user interface.

You can perform a manual feed run for the following feeds:

CrowdStrike

Procedure:



- 1. From the main menu, choose the **Settings icon > Incoming Feeds**.
- 2. Select a feed and expand Feed Settings.
- 3. Click +Manual Run.
- 4. Select a **Start Date**, **Start Time**, and **Time Zone** for your run.
- 5. Select an **End Date**, **End Time**, and **Time Zone** for your run.
- 6. Click Queue Run.

iSight Historic Pull Command

To run an iSight historic pull, run the following command from the command line, substituting your desired start and end date:

```
sudo isight_connector -s MM-DD-YYYY -e MM-DD-YYYY
```

General Historic Pull Commands

If not called out specifically in <u>Historic Feed Pulls</u>, use the following commands at the command line to run historic pulls for most other connectors, including most TAXII feeds.

1. Run the following command to determine the feed name (\$FEEDNAME):

```
tqconnector -h
```

Take note of the desired feed name.

2. Run the following command to run the historic pull, substituting your desired start and end date:

```
sudo -u threatq tqconnector -f $FEEDNAME -s MM-DD-YYYY
```



Threat Intelligence Services Custom Feeds Historic Pull Commands

Custom feeds provided by Threat Intelligence Services provide a mechanism for you to generate a historic pull during the initial feed run. After the initial feed run, feeds typically perform an hourly pull, but can be adjusted within cron.

Refer to the documentation for your custom feed or integration for more information.



Dashboard

The following describes how to use the dashboard to view various threat intelligence metrics.

Dashboard Overview

Dashboard Overview

The Dashboard displays metrics and visualizations to provide at-a-glance views of your threat intelligence data, including:

- · Overview of intelligence by score
- Watchlist activity
- Incoming intelligence
- Open assigned tasks

The dashboard serves as your landing page when you log in to ThreatQ.

Overview of Intelligence By Score

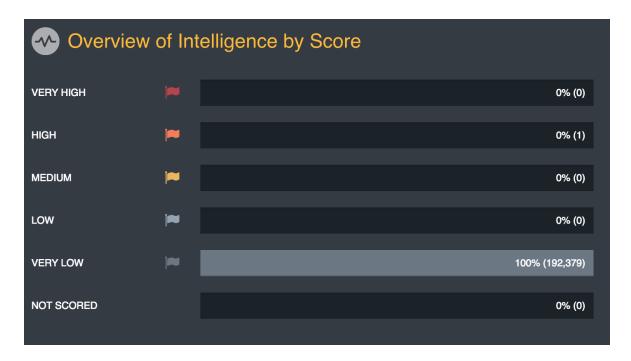
This dashboard graph provides a summary of indicator scoring in the system. It lists total indicators by score in the following order:

- Very High
- High
- Medium
- Low



- Very Low
- Not Scored

You may click on the percentage/number of indicators to launch an advanced search based on that criteria.

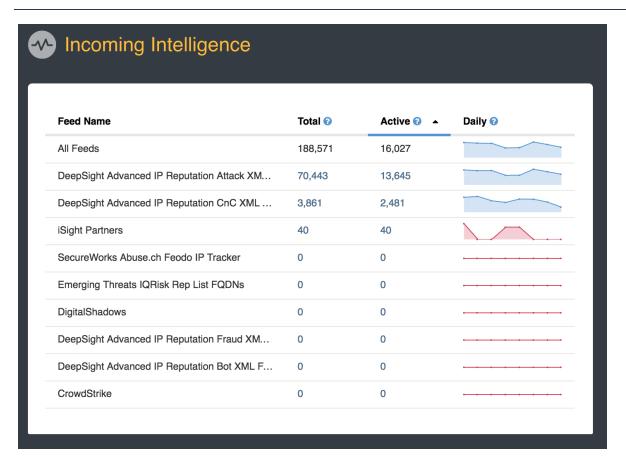


Incoming Intelligence

This dashboard graph provides a view of threat intelligence from all incoming feeds. The system categorizes threat intelligence by:

- Feed Name
- Total number of indicators reported by a source
- Indicators reported by a source with a status of active
- All indicators reported by a source per day (includes existing indicators)

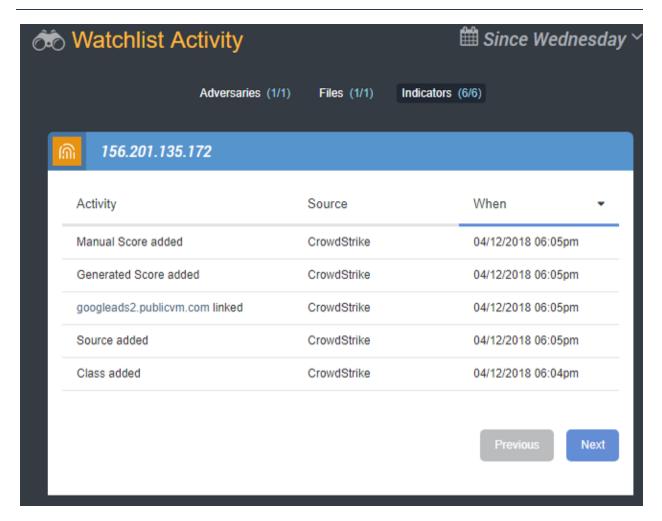




Watchlist Activity

This dashboard section provides a view of the intelligence data that you selected to watch. You may click on any accompanying link to view the details page of the item being watched.

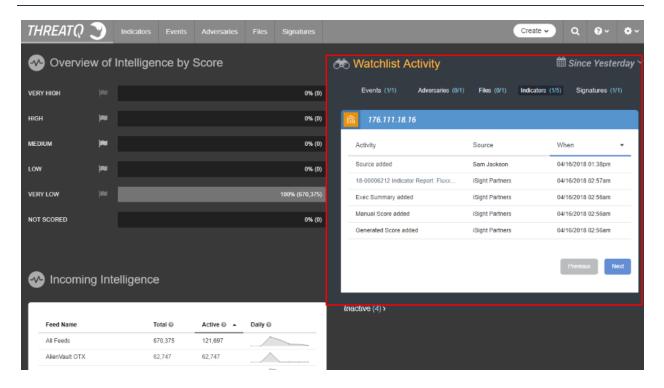




Watchlist

The Watchlist allows you to track threat intelligence data and user activity of interest from a view on the dashboard.



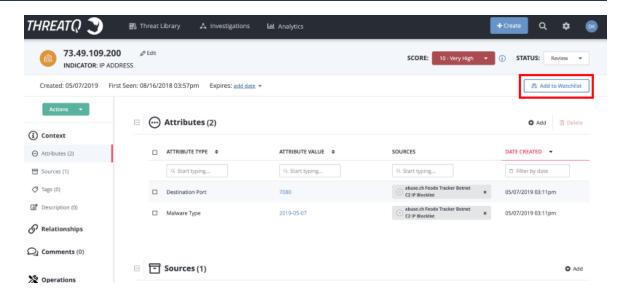


Configuring the Watchlist

To create a watchlist that displays on the dashboard, complete the following steps:

- 1. From the ThreatQ user interface, navigate to the Details page of the indicator, event, adversary, file, or signature you want to track.
- 2. Click Add to Watchlist to track that item.





3. Return to the dashboard to view your watchlist.

Viewing Tasks on the Dashboard

This dashboard widget provides a view of all open tasks in the platform. You can view your open tasks or view all open tasks. Tasks on the dashboard are categorized by:

- Task ID
- Task Name
- User the Task is Assigned To
- · Due Date
- · Status.



Search

The following describes how to search for indicators and other objects using ThreatQ's search features.

- Search Overview
- Wildcards and Symbols in Searches

Search Overview

Search allows you to find objects you are looking for quickly, without having to browse through a large number of objects. There are three search features in ThreatQ:

- Basic Search, which offers a quick method to search if you know exactly what you are looking for.
- Advanced Search, which gives you more options for limiting your search.



The advanced search also serves as the primary interface for the Threat Library.

Indicator Search, which served as the legacy advanced search prior to ThreatQ version 4.0.

Using these varieties of search, you can create as broad or as granular a view of your data as desired.

For more information, see:

- Basic Search
- Advanced Search



Indicator Search

Basic Search

Basic Search allows you to search for all objects in the system: indicators, events, adversaries, files, signatures, and so on. The search capability looks at high level aspects of each object, including:

- Indicators (network or host)
- Attachment titles, hashes, keywords
- Attributes
- Adversary name
- Event title

If searching for *google.com*, the following indicators will also be returned:

- www.google.com (FQDN)
- analytic.google.com (FQDN)
- www.google.com/analytic (URL)
- analytic@google.com (email address)

Related Topics:

- Performing a Basic Search
- Wildcards and Symbols in Searches

Performing a Basic Search

Procedure:



1. Choose the Search icon.

The Search dialog box appears.



- 2. Enter the search criteria.
 - The Search field provides type ahead suggestions, if any, based on what you have typed.
- Select the desired result.
 - If you do not retrieve any search results, we recommend trying the Advanced Search option.
 - If there is only one result, the object details page appears.

Wildcards and Symbols in Searches

During a search, you may use a percent sign (%) to match characters in a string. The percent wildcard specifies that any characters can appear in multiple positions represented by the wildcard. For example, specifying net% matches network, netware, netscape, and so on.

Here are a number of examples showing search terms with percent wildcards:



Search Query	Description
% panda	Finds any adversaries and indicators with <name> panda</name>
%ear	Finds any character string that ends with "ear," such as bear
%panda%	Finds any character string that has panda in any position
panda%	Finds any character string that begins with panda
pan%a	Finds any character string that has pan in the first three positions and ends with an "a"



Reports

The following describes how to generate reports in ThreatQ.

- Reports Overview
- Report Options
- Generating Reports

Reports Overview

You can export a PDF Summary of an object from an object's details page.



The generated PDF may contain active links to internal and external locations. Related objects in the PDF link to an internal ThreatQ instance that may require authentication. Please be aware of potential impacts before distribution of the generated report.



Google Chrome's pop-up blocker prevents object PDF summary reports from downloading. We recommend changing your browser settings to allow pop-ups from your ThreatQ instance.

Report Options

You can navigate to **Settings > Report Options** to customize the PDF reports that are generated. Report options apply to all reports generated platform-wide. You can make the following customizations:

- Previewing Report Customization
- Customizing the Report Header



- Customizing Report Text Colors
- Adding a Custom Disclaimer to a Report

Previewing Report Customization

You can preview report customization to view a representation of a report's output.

Procedure:

- 1. Select the **Settings** icon > **Report Options**.
- 2. Under Customized PDF Reports, click **Preview**.

The sample report downloads to your computer.

Customizing the Report Header

Complete the following steps to add a custom header to your PDF.

Procedure:

- 1. Select the **Settings** icon > **Report Options**.
- 2. Under **Header Banner**, complete one of the following steps:
 - Drag and drop the image you want to use as the header.
 - Click Browse and navigate to the image you want to use as the header.
- 3. Optionally, click **Restore header banner to defaults**.
- 4. Click Save.

Customizing Report Text Colors

Complete the following steps to customize the colors in your PDF.

Procedure:



- 1. Select the **Settings** icon > **Report Options**.
- 2. Under **Colors**, use the drop down menus to select:
 - Header Text
 - Heading Text
 - Body Text
- 3. Click Save.

Adding a Custom Disclaimer to a Report

You can add a custom disclaimer to include with your report to communicate any liabilities or limitations to the end users of the report.

Procedure:

- 1. Select the **Settings** icon > **Report Options**.
- 2. Under **Disclaimer**,enter your disclaimer text and then use the formatting tools to customize your message.
- 3. Click Save.

Generating Reports

Complete the following steps to export a PDF Summary of an object from an object's details page.

Procedure:

- 1. Access the object's detail's page for which you want to generate a report summary.
- Select Actions > Generate PDF.

The PDF summary downloads and opens in a new browser tab.





Google Chrome Users: Google Chrome's pop-up blocker prevents object PDF summary reports from downloading. We recommend changing your browser settings to allow pop-ups from your ThreatQ instance. See Turning Off the Pop-up Blocker in Chrome for more information.



The generated PDF may contain active links to internal and external locations. Related objects in the PDF link to an internal ThreatQ instance that may require authentication. Please be aware of potential impacts before distribution of the generated report.

Turning Off the Pop-up Blocker in Chrome



This topic applies to ThreatQ version 4.7

By default, Google Chrome blocks pop-ups from automatically showing up on your screen. When a pop-up is blocked, the address bar will display a pop-up blocked alert. This pop-up blocker will prevent your PDF from being downloaded. Complete the following steps to allow pop-ups from ThreatQ.

Procedure:

- 1. Go to ThreatQ where pop-ups are blocked.
- 2. In the address bar, click the **Pop-up blocked** alert icon.
- 3. Click the link for the pop-up you want to see.
- 4. To always see pop-ups for the site, select Always allow pop-ups from [your ThreatQ instance].
- Click Done.



Tasks

The following describes how to manage tasks in ThreatQ.

- Tasks Overview
- Assigning a Task
- Managing Tasks

Tasks Overview

ThreatQ allows you to create and assign tasks to yourself or other users in the platform.

Once tasks are included in your deployment, you can add contextual information and correlate them with Indicators, Events, Adversaries, Signatures, and Files. You can also add comments, change the task priority, change the task status, and delete the task.

Assigning a Task

Complete the following steps to assign a task in ThreatQ.

1. From the main menu, choose **Create > Task**.

The Add Task dialog box opens.

- 2. Enter a task Name.
- 3. Enter the assignee's email address in the **Assigned To** field.
- 4. Optionally, use the date picker to select a **Due Date**.
- 5. Select one of the following statuses:
 - To Do
 - In Progress



- Review
- Done
- 6. Select one of the following task priorities:
 - Low
 - Medium
 - High
- 7. Optionally, enter any Associated Objects.
- 8. Enter a **Description** for the task.
- 9. Click Save.

Managing Tasks

After a task is created, you can manage it on the task's Details page.

The following table describes the actions you can take to manage your tasks on a Task Details page.

То	You can
Change task priority	Choose the Priority drop-down and select a new pri- ority.



То	You can
Change task status	Choose the Status drop-down and select a new status.
Add Attributes, Comments, Relationships, and Sources	Choose the Add Context drop-down and select an item.
View and Add Comments	Choose Comments
View the Audit Log	Choose Audit Log.



Operations

The following explains how to configure and manage operations.



API keys for operations are available from the operation's provider.

- Operations Overview
- Managing Operations

Operations Overview

Operations enhance your threat intelligence data by allowing you to add attributes, as well as related indicators, from third party security services, both commercial and open source. You accomplish this by creating objects to connect to a desired service, receive threat intelligence, and display that threat intelligence in ThreatQ.

To develop custom operations, you should possess a basic functional knowledge of Python version 3 development. In ThreatQ version 3.0 and later, you can create operations for:

- Indicators
- Events
- Adversaries
- Files
- Signatures

ThreatQ operations are written in Python v3.5.2. We recommend allocating a non-production ThreatQ appliance for Operations development. You may use this development appliance to troubleshoot your operations before deploying them to production. You may also set up a local Python environment, write your script, and then copy it onto your ThreatQ appliance.



Managing Operations

Manage threat intelligence operations on the Operations Management page.

The following table describes the actions you can take to manage Operations.

То	Do this
Turn an operation on or off	Toggle the switch next to the operation name.
Install an operation	See <u>Installing Operations</u> .
Uninstall an operation	See <u>Deleting Operations</u> .

Installing Operations

Typically, you will receive an operation installation package from a ThreatQuotient representative or download it from a designated repository.



API keys for operations are available from the operation's provider.

To install an operation:

- 1. From the navigation menu, choose the **Settings icon > Operations Management**.
- 2. Click Install Operation.
- 3. Choose one of the following:
 - Drag and drop your operation package onto the Add Operation dialog box.
 - Browse to your operation package, select it, and then click **Open**.

If successful, the operation appears in your list of operations where you can enable or disable it.



Deleting Operations

To delete an operation:

- 1. From the navigation menu, choose the **Settings icon > Operations Management**.
- 2. For the operation you want to delete, expand **Operation Settings**.
- 3. Click **Delete Operation**.
- 4. Click Uninstall.



Exports

The following explains how to configure and manage exports of threat intelligence data from ThreatQ. Please read Exports Overview before proceeding.

- Exports Overview
- Managing Exports
- Specific Indicator Export Configuration Instructions

Exports Overview

Exporting is one of the most important ThreatQ features, as it allows you to output non-whitelisted indicators to an external threat detection system.

ThreatQ provides a number of standard system exports that have previously been identified as useful. You have the option to use those and create your own. ThreatQ Exports are built on the Smarty PHP Template Engine; see https://www.smarty.net/.



You should NOT attempt to export all of your threat intelligence data with a single export. Attempting to do so will cause system degradation and the export will not complete.

Managing Exports

Manage Exports on the Exports page, accessible by navigating to the **Settings icon > Exports**.

The following describes the actions you can take to manage Exports.



- Viewing the Exports List
- Enabling/Disabling an Export
- Viewing an Export
- Duplicating an Export
- Adding an Export
- Accessing/Editing an Export's Connection Settings
- Accessing/Editing an Export's Output Format
- Deleting an Export

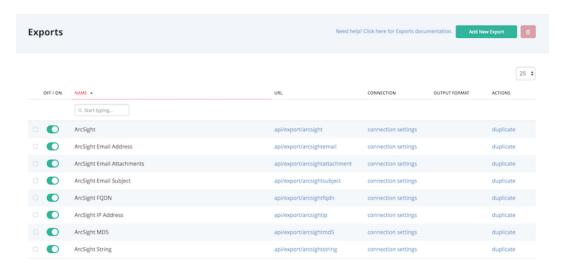
Viewing the Exports List

The Exports page provides a list of all standard and user-defined exports in the platform.

To view the exports list:

Select the Settings icon > Exports.

The Exports page appears with a table listing all exports in alphabetical order.



Enabling/Disabling an Export

To enable/disable an export:



1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

- 2. Locate the export you wish to enable/disable.
- Toggle the switch in the On/Off column to enable/disable the export.A confirmation of your action appears in an alert bar at the top of the page.

Viewing an Export

To view an export:

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click the desired URL.

A new tab opens in your browser, and you are taken to the data returned from that export.

The load time may be lengthy depending on the amount of data being returned.

Duplicating an Export

Duplicating an export allows you to have a version that you can edit.

To duplicate an export:

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

- 2. Locate the Export you wish to duplicate.
- 3. Click duplicate in the Actions column.
- 4. The duplicate appears at the bottom of the Exports table. A confirmation of the



duplication appears in an alert bar at the top of the page.

By default, the copy you just created is toggled Off.

Adding an Export

To add an export

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click + Add Export.

The Connection Settings dialog box opens.

- 3. Enter the Export name.
- 4. Verify or edit the token.
- 5. Click Next Step.

The Output Format dialog box opens.



For detailed information on formatting the Output Format dialog box, see Accessing/Editing an Export's Output Format.

- 6. Select which type of information you would like to export from the first dropdown menu.
- 7. Select the Output type from the second dropdown menu.
- 8. Un-select any of the checkboxes under the **Filter by TLP** section to exclude data by its source TLP classification. All classifications will be selected (included in the export) by default.





The **Filter by TLP** option will only appear if administrators have enabled TLP viewing. See the <u>Traffic Light Protocol (TLP)</u> topic for more information.

- 9. (Optional) Enter special parameters.
- 10. Customize the **Output Format Template** by putting your cursor where you want the variable to go and selecting the variable you'd like to use from the **Insert Variable** select box.
- 11. Verify the information entered.
- 12. Click Save Settings.

The export you just created appears at the bottom of the Exports table, and a confirmation alert appears in an alert bar at the top of the page.

By default, the new export is toggled Off.

Accessing/Editing an Export's Connection Settings

Connection settings are available for each of the exports. The Connection Settings dialog box contains the name of the export as well as the token you'll need to use when connecting a device to ThreatQ.

While you cannot edit or delete any of the exports originally supplied by ThreatQ, you can edit exports you have added to ThreatQ or copies of the original exports.

To edit an export's connection settings:

1. Select the **Settings icon >Exports**.

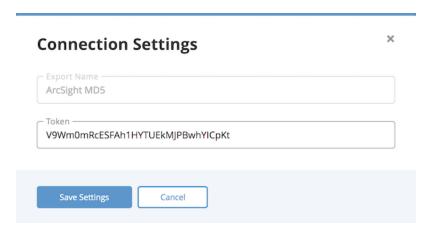
The Exports page appears with a table listing all exports in alphabetical order.

2. Locate the export you wish to edit.



3. Click **connection settings** in the Connection column.

The Connection Settings dialog box opens.



- 4. Make the desired edits.
- 5. Click Save Settings.

The settings are saved, and a confirmation alert appears in an alert bar at the top of the page.

Accessing/Editing an Export's Output Format

While you cannot edit or delete any of the exports originally supplied by ThreatQ, you can edit exports you have added to ThreatQ or copies of the original exports.

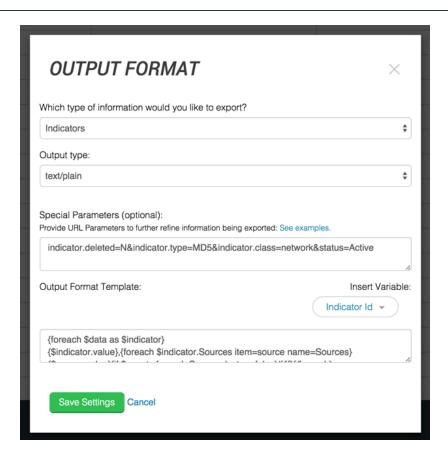
To edit an export's output format:

1. Select the **Settings icon >Exports**.

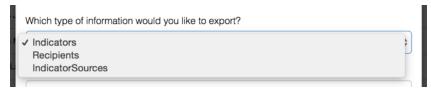
The Exports page appears with a table listing all exports in alphabetical order.

- Locate the export you wish to edit.
- Click output format in the Output Format column.The Output Format dialog box opens.





4. Select which type of information you would like to export from the first dropdown menu.



An admin has the ability to choose between the following options:

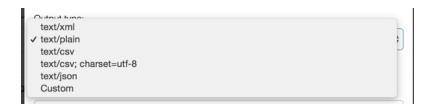
- Indicators Outputs only indicators
- · Recipients Outputs only recipients
- IndicatorSources Outputs indicators with the source as supporting information



5. Select the Output Type from the second dropdown menu.

This sets the content type of the export response to a specific value (e.g. text/csv, text/plain, text/xml). Output Type does not have an impact on how the data is formatted but it does affect the content type within the header of the exported document. For example, if you select Output Type = text/csv, when viewing the source of the export, the header will contain a Content Type = text/csv attribute.

Please see http://www.w3.org/Protocols/rfc1341/4_Content-Type.html for more information.



- 6. (Optional) Enter special parameters. There are two ways to do this:
 - Adding Special Parameters within ThreatQ. One advantage of using this
 option is that the URL for the export remains non-specific and therefore
 you can change what is being exported without having to manage each
 external device individually.
 - Customizing the Output Format Template. Choosing this option means you lose the ability to have one place to manage what is being exported.

Adding Special Parameters within ThreatQ

This is where an admin can provide additional parameters to further specify which data will be output via this export. Here are some examples.

To export all indicators with an active status	Indicator.Status=Active	
To export all CIDR Block indicators that	Indicator.Status=Active&Indicator.Type=cidr	
have an active status	block	



To export all indicators with an active status	Indicator.Status=Active	
To export all CIDR Block indicators and	Indicator.Status=Active&Indicator.Type=cidr	
IP Addresses that have an active status	block&Indicator.Type=ip address	

A wide range of filtering parameters are available:

Parameters for Indicators	Parameters for Recipients	Parameters for Indicator Sources
indicator.id		
indicator.type	recipient.id	indicator.id
indicator.status	recipient.value	indicator.type
indicator.value indicator.class indicator.hash	recipient.count	indicator.status
	recipient.to_count	indicator.value
	recipient.cc_count	
indicator.updated_at	recipient.updated_at	indicator.hash
indicator.last_detected_at	recipient.deleted	indicator.updated at
indicator.deleted	recipient.deleted_at	indicator.last detected at
indicator.deleted_at	recipient.spearphish_count	indicator.deleted
indicator.Attributes	recipient.Adversaries	indicator.deleted at
indicator.Adversary	recipient.Attributes	indicator.source
indicator.Sources	recipient.Sources	ilidicatol.30uloc
indicator.sources_count		

Adding Parameters to the end of the URL

You can append the same parameters listed above to the end of any export URL to achieve the same results. By pursuing this option, you will lose the option of having one place to manage what is being exported via that export.

Using Logical Operators in Export Filters

You can configure exports to output objects matching filter conditions that use logical AND and OR operators. Exports allow the following filters:



- 1. Searching using greater than, less than, or equal to
 - Examples in special parameters string section:

```
indicator.score>=5
```

```
indicator.score<=5</pre>
```

• Examples in request URI:

```
&indicator.score=>=5
```

```
&indicator.score=<=8
```

- 2. Adding multiple criteria for a single field using an OR comparison
 - Example in special parameters string section:

```
indicator.score=5&indicator.score=8
```

• Example in request URI:

```
&indicator.score[]=5&indicator.score[]=8
```

3. Adding multiple criteria for a single field using an AND comparison



• Example in special parameters string section:

```
indicator.score>=5&indicator.score<=8
```

Example in request URI:

```
&indicator.score[]=>=5&indicator.score
[]=<=8</pre>
```

Customizing the Output Format Template

You can customize the output format template for an custom or duplicated export.

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

- 2. Locate the export for which you want to customize the output format template.
- 3. Click **output format**.
- 4. In the Output Format dialog box, customize the output format template by putting your cursor where you want the variable to go and selecting the variable you'd like to use from the **Insert Variable** select box.

This template provides you with the ability to format exactly how your data is printed out within an export.

Important: When formatting your output template, you must wrap all of your declarations within a loop. Please refer to the following as an example:

```
{foreach $data as $indicator}

Your variables go here
```



{/foreach}

The Output Format Template is populated based on your selection.

- 5. Verify the information entered.
- 6. Click Save Settings.

Export Output Format Templates

The following topics contain template files that you can use to customize an export's output format.



The Output Format Template field for an export is found under its Output Format modal. You can access this by clicking on the **Output Format** link for an export from the main exports page.

- Export Adversaries Output Format Template
- Export Events Output Format Template
- Export Indicators Output Format Template
- Export Signatures Output Format Template

Export Adversaries Output Format Template

Use the template below to format exactly how your data is printed out within an export.



Important: When formatting your output template, you must wrap all of your declarations within a loop.

Template



```
{foreach $data as $adversary}
ID: {$adversary.id}
Name: {$adversary.name}
Description: {$adversary.description}
Created At: {$adversary.created}
Updated At: {$adversary.updated_at}
Touched At: {$adversary.touched_at}
Deleted At: {$adversary.deleted_at}
Deleted: {$adversary.deleted}
Your variables go here
```

The following items are variables that can added to the template.

Sources

```
{foreach $adversary.Sources item=source name-
e=Sources}{$source.value} {if !empty($source.tlp)}
({$source.tlp}){/if}
{/foreach}
```

Attributes

```
{foreach $adversary.Attributes item=attribute name-
e=Attributes}
Name: {$attribute.name}
Value: {$attribute.value}
{/foreach}
```



Adversaries

```
{foreach $adversary.Adversaries item=adversary name-
e=Adversaries}
Name: {$adversary.name}
Value: {$adversary.value}
{/foreach}
```

Attachments

```
{foreach $adversary.Attachments item=attachment
name=Attachments}
Name: {$attachment.name}
Value: {$attachment.value}
{/foreach}
```

Events

```
{foreach $adversary.Events item=event name=Events}
Name: {$event.name}
Value: {$event.value}
{/foreach}
```

Indicators

```
{foreach $adversary.Indicators item=indicator name-
e=Indicators}
Name: {$indicator.name}
```



```
Value: {$indicator.value}
{/foreach}
```

Investigations

```
{foreach $adversary.Investigations item-
m=investigation name=Investigations}

Name: {$investigation.name}

Value: {$investigation.value}
{/foreach}
```

Signatures

```
{foreach $adversary.Signatures item=signature name-
e=Signatures}
Name: {$signature.name}
Value: {$signature.value}
{/foreach}
```

Tasks

```
{foreach $adversary.Tasks item=task name=Tasks}
Name: {$task.name}
Value: {$task.value}
{/foreach}
```

Export Events Output Format Template

Use the template below to format exactly how your data is printed out within an export.





Important: When formatting your output template, you must wrap all of your declarations within a loop.

Template

```
{foreach $data as $event}

{$event.title} ID: {$event.id}

Title: {$event.title}

Type: {$event.type}

Happened: {$event.happened_at}

Description: {$event.description}

Created At: {$event.created}

Updated At: {$event.updated_at}

Touched At: {$event.touched_at}

Deleted At: {$event.deleted_at}

Deleted: {$event.deleted}

Your variables go here

{/foreach}
```

The following items are variables that can added to the template.

Sources

```
{foreach $event.Sources item=source name=Sources}
{$source.value} {if !empty($source.tlp)}{/if}
{/foreach}
```

Attributes



```
{foreach $event.Attributes item=attribute name-
e=Attributes}
Name: {$attribute.name}
Value: {$attribute.value}
{/foreach}
```

Adversaries

```
{foreach $event.Adversaries item=adversary name-
e=Adversaries}
Name: {$adversary.name}
Value: {$adversary.value}
{/foreach}
```

Attachments

```
{foreach $event.Attachments item=attachment name-
e=Attachments}
Name: {$attachment.name}
Value: {$attachment.value}
{/foreach}
```

Events

```
{foreach $event.Events item=event name=Events}
Name: {$event.name}
Value: {$event.value}
{/foreach}
```



Indicators

```
{foreach $event.Indicators item=indicator name-
e=Indicators}
Name: {$indicator.name}
Value: {$indicator.value}
{/foreach}
```

Investigations

```
{foreach $event.Investigations item=investigation
name=Investigations}
Name: {$investigation.name}
Value: {$investigation.value}
{/foreach}
```

Signatures

```
{foreach $event.Signatures item=signature name-
e=Signatures}
Name: {$signature.name}
Value: {$signature.value}
{/foreach}
```

Tasks

```
{foreach $event.Tasks item=task name=Tasks}
Name: {$task.name}
Value: {$task.value}
{/foreach}
```



Export Indicators Output Format Template

Use the template below to format exactly how your data is printed out within an export.



Important: When formatting your output template, you must wrap all of your declarations within a loop.

Template

```
{foreach $data as $indicator}
{$indicator.value}
ID: {$indicator.id}
Value: {$indicator.value}
Type: {$indicator.type}
Status: {$indicator.status}
Class: {$indicator.class}
Description: {$indicator.description}
Score: {$indicator.score}
Hash: {$indicator.hash}
Source Count: {$indicator.sources count}
Whitelisted: {$indicator.whitelisted}
Last Detected At: {$indicator.last detected at}
Created At: {$indicator.created}
Updated At: {$indicator.updated at}
Touched At: {$indicator.touched at}
Since Deleted: {$indicator.sincedeleted}
Deleted At: {$indicator.deleted at}
Deleted: {$indicator.deleted}
Your variables go here
```



```
{/foreach}
```

The following items are variables that can added to the template.

Sources

```
{foreach $indicator.Sources item=source name-
e=Sources}{$source.value} {if !empty($source.tlp)}
({$source.tlp})
{/foreach}
```

Attributes

```
{foreach $indicator.Attributes item=attribute name-
e=Attributes}
Name: {$attribute.name}
Value: {$attribute.value}
{/foreach}
```

Adversaries

```
{foreach $indicator.Adversaries item=adversary name-
e=Adversaries}

Name: {$adversary.name}

Value: {$adversary.value}
{/foreach}
```

Attachments



```
{foreach $indicator.Attachments item=attachment
name=Attachments}
Name: {$attachment.name}
Value: {$attachment.value}
{/foreach}
```

Events

```
{foreach $indicator.Events item=event name=Events}
Name: {$event.name}
Value: {$event.value}
{/foreach}
```

Indicators

```
{foreach $event.Indicators item=indicator name-
e=Indicators}
Name: {$indicator.name}
Value: {$indicator.value}
{/foreach}
```

Investigations

```
{foreach $indicator.Investigations item-
m=investigation name=Investigations}
Name: {$investigation.name}
Value: {$investigation.value}
{/foreach}
```



Signatures

```
{foreach $indicator.Signatures item=signature name-
e=Signatures}
Name: {$signature.name}
Value: {$signature.value}
{/foreach}
```

Tasks

```
foreach $indicator.Tasks item=task name=Tasks}
Name: {$task.name}
Value: {$task.value}
{/foreach}
```

Export Signatures Output Format Template

Use the template below to format exactly how your data is printed out within an export.



Important: When formatting your output template, you must wrap all of your declarations within a loop.

Template

```
{foreach $data as $signature}

{$signature.name}

ID: {$signature.id}

Name: {$signature.name}

Value: {$signature.value}

Type: {$signature.type}
```



```
Status: {$signature.status}

Description: {$signature.description}

Hash: {$signature.hash}

Detected At: {$signature.last_detected_at}

Touched At: {$signature.touched_at}

Created At: {$signature.created}

Updated At: {$signature.updated_at}

Deleted At: {$signature.deleted_at}

Deleted: {$signature.deleted}

Your variables go here
```

The following items are variables that can added to the template.

Sources

```
{foreach $signature.Sources item=source name-
e=Sources}{$source.value} {if !empty($source.tlp)}
({$source.tlp}){/if}
{/foreach}
```

Attributes

```
{foreach $signature.Attributes item=attribute name-
e=Attributes}
Name: {$attribute.name}
Value: {$attribute.value}
{/foreach}
```



Adversaries

```
{foreach $signature.Adversaries item=adversary name-
e=Adversaries}
Name: {$adversary.name}
Value: {$adversary.value}
{/foreach}
```

Attachments

```
{foreach $signature.Attachments item=attachment
name=Attachments}
Name: {$attachment.name}
Value: {$attachment.value}
{/foreach}
```

Events

```
{foreach $signature.Events item=event name=Events}
Name: {$signature.name}
Value: {$signature.value}
{/foreach}
```

Indicators

```
{foreach $signature.Indicators item=indicator name-
e=Indicators}
Name: {$indicator.name}
```



```
Value: {$indicator.value}
{/foreach}
```

Investigations

```
{foreach $signature.Investigations item-
m=investigation name=Investigations}

Name: {$investigation.name}

Value: {$investigation.value}
{/foreach}
```

Signatures

```
{foreach $signature.Signatures item=signature name-
e=Signatures}
Name: {$signature.name}
Value: {$signature.value}
{/foreach}
```

Tasks

```
{foreach $signature.Tasks item=task name=Tasks}
Name: {$task.name}
Value: {$task.value}
{/foreach}
```



Deleting an Export

While you cannot delete any of the exports included with your ThreatQ installation, you can delete any exports you have added or copies of the default exports.

To delete an export:

1. Select the **Settings icon > Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

- 2. Locate the export(s) you wish to delete.
- 3. Select one or more exports.
- 4. Click the delete icon at the top right of the Exports table.

Specific Indicator Export Configuration Instructions

The following topics provide instructions on how to export specific indicators for use with an external threat detection system.

- Configuring Bro Exports
- Configuring Fidelis Exports
- Configuring Lancope Exports
- Configuring Netwitness Exports
- Configuring OpenIOC Signature Exports
- Configuring Palo Alto Exports
- Configuring Reservoir Labs Exports
- Configuring Splunk Exports
- Configuring Tenable Exports



Configuring Bro Exports

This topic explains how to export Bro indicators for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the instructions below to export your data.

To export to Bro:

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators.
 - For Output type, choose text/plain.
 - Under Special Parameters, enter indicator.status=Active&indicator.deleted=N
 - Under Output Format Template, enter:

```
#fields{$tab}indicator{$tab}indicator_type{$tab}meta.source{$tab}meta.url
{foreach $data as $indicator}
{$indicator_type=""}
{$source found=0}
```



```
{if $indicator.type eq "CIDR Block"}{$indicator_type="Intel::SUBNET"}{/if}
{if $indicator.type eq "IP Address"}{$indicator_type="Intel::ADDR"}{/if}
{if $indicator.type eq "URL"}{$indicator_type="Intel::URL"}{/if}
{if $indicator.type eq "Email Address"}{$indicator type="Intel::EMAIL"}{/if}
{if $indicator.type eq "FQDN"}{$indicator_type="Intel::DOMAIN"}{/if}
{if $indicator.type eq "MD5"}{$indicator_type="Intel::FILE_HASH"}{/if}
{if $indicator.type eq "SHA-1"}{$indicator type="Intel::FILE HASH"}{/if}
{if $indicator.type eq "SHA-256"}{$indicator type="Intel::FILE HASH"}{/if}
{if $indicator.type eq "SHA-256"}{$indicator_type="Intel::FILE_HASH"}{/if}
{if $indicator.type eq "SHA-384"}{$indicator_type="Intel::FILE_HASH"}{/if}
{if $indicator.type eq "SHA-512"}{$indicator type="Intel::FILE HASH"}{/if}
{if $indicator.type eq "Filename"}{$indicator_type="Intel::FILE_HASH"}{/if}
{if $indicator_type ne ""}
{\$indicator.value}{\$tab}{\$indicator type}{\$tab}{\foreach \$indicator.Sources
item=source name=Sources}{if $smarty.foreach.Sources.first == true}
{\source.value}{\source_found=1}{\if}\{\if}\{\foreach}\{\if\source_found== 0\}-{\if\}
{$tab}https://{$http_host}/indicators/{$indicator.id}/details
{/if}
{/foreach}
```

Click Save Settings.



7. Under **On/Off**, toggle the switch to enable the export.

Configuring Fidelis Exports

This topic explains how to export Fidelis indicators for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the instructions below to export your data for:

- Fidelis FQDN
- Fidelis FQDN Text
- Fidelis IP Address
- Fidelis IP Address Text
- Fildeis MD5
- Fidelis MD5 Text
- Fidelis URL
- Fidelis URL Text

To export to Fidelis FQDN:

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.



- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators
 - For Output type, choose text/xml.
 - Under Special Parameters, enter indicator.statuss=Active&indicator.deleted=N&indicator.type=FQDN&indicator.class=host
 - Under Output Format Template, enter:

```
<MyMD5feed/>
<description>FQDN feed provided by ThreatQuotient. Possible request para-
meters are listed as attributes on the result node. The dateBegin parameter
defaults to one hour prior. Stay secure my friends!</description>
<entries>

<p
```

<Innit>{\strow_count}</innit>
<page>{\strow_count}</page>
<start>{\strow_count}</start>
<end>{\strow_count}</end>
<status>{\strow_count}</status>
<rows_returned>{\strow_count}</rows_returned>
<entry>
{foreach \statua as \strow_count}

<hostname>{\$indicator.value|escape:"url"}</hostname>

<extra_info>https://{\$http_host}/indicators/{\$indicator.id}/details/



{/foreach}

</entry>

</entries>

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

To export to Fidelis FQDN Text:

1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators.
 - For Output type, choose text/plain
 - Under Special Parameters, enter indic-

ator.status-

s=Active&indicator.deleted=N&indicator.type=FQDN&indicator.class=host

• Under Output Format Template, enter:

{foreach \$data as \$indicator}

{\$indicator.value}



{/foreach}

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

To export to Fidelis IP Address:

1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators.
 - For Output type, choose text/xml.
 - Under Special Parameters, enter indicator.status=Active&indicator.deleted=N&indicator.type=IP Address&indicator.class=network.
 - Under Output Format Template, enter:
 - <MyMD5feed/>

<description>IP feed provided by ThreatQuotient. Possible request parameters are listed as attributes on the result node. The dateBegin parameter defaults to one hour prior. Stay secure my friends!

<entries>



```
<limit>{$row_count}</limit>
<start>{$row_count}</start>
<end>{$row_count}</end>
<status>{$row_count}</status>
<rows_returned>{$row_count}</rows_returned>
<entry>
{foreach $data as $indicator}
<ip>{$indicator.value|escape:"url"}</ip>
<extra_info>https://{$http_host}/indicators/{$indicator.id}/details</extra_info>
{/foreach}
</entry>
</entries>
```

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

To export to Fidelis IP Address Text:

1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.

2. Click Add New Export.

The Connection Settings dialog box appears.



- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators.
 - For Output type, choose text/plain.
 - Under Special Parameters, enter indicator.status=Active&indicator.deleted=N&indicator.type=IP Address&indicator.class=network.
 - Under Output Format Template, enter:

```
{foreach $data as $indicator}

{$indicator.value}

{/foreach}
```

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

To export to Fidelis MD5:

1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.

2. Click Add New Export.

The Connection Settings dialog box appears.

3. Enter an **Export Name**.



4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators.
 - For Output type, choose text/xml.
 - Under Special Parameters, enter indicator.statuss=Active&indicator.deleted=N&indicator.type=MD5&indicator.class=host.
 - Under Output Format Template, enter:

```
<MyMD5feed/>
<description>MD5 feed provided by ThreatQuotient. Possible request parameters are listed as attributes on the result node. The dateBegin parameter defaults to one hour prior. Stay secure my friends!
```

<page>{\$row_count}</page>

<limit>{\$row_count}</limit>

<start>{\$row_count}</start>

<end>{\$row_count}</end>

<status>{\$row_count}</status>

<rows_returned>{\$row_count}</rows_returned>

<entry>

<entries>

{foreach \$data as \$indicator}



```
<md5>{$indicator.value|escape:"url"}}</md5>
<extra_info>https://{$http_host}/indicators/{$indicator.id}/details</extra_info>
{/foreach}
</entry>
</entries>
```

- 6. Click Save Settings.
- 7. Under On/Off, toggle the switch to enable the export.

To export to Fidelis MD5 Text:

1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators.
 - For Output type, choose: text/plain.
 - Under Special Parameters, enter indicator.statuss=Active&indicator.deleted=N&indicator.type=MD5&indicator.class=host



• Under Output Format Template, enter:

```
{foreach $data as $indicator}

{$indicator.value}

{/foreach}
```

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

To export to Fidelis URL:

1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators.
 - For Output type, choose text/plain.
 - Under Special Parameters, enter: indicator.status=Active&indicator.deleted=N
 - Under Output Format Template, enter:

<MyMD5feed/>



<description>URL feed provided by ThreatQuotient. Possible request parameters are listed as attributes on the result node. The dateBegin parameter defaults to one hour prior. Stay secure my friends!

```
<entries>
<limit>{$row_count}</limit>
<start>{$row_count}</start>
<end>{$row_count}</end>
<status>{$row_count}</status>
<rows_returned>{$row_count}</rows_returned>
<entry>
{foreach $data as $indicator}
<url>{$indicator.value|escape:"url"}}</url>
<extra_info>https://{$http_host}/indicators/{$indicator.id}/details</extra_info>
{/foreach}
</entry>
</entries>
```

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

To export to Fidelis URL Text:



1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose: Indicators.
 - For Output type: choose text/plain.
 - Under Special Parameters, enter indicator.statuss=Active&indicator.deleted=N&indicator.type=URL&indicator.class=host
 - Under Output Format Template, enter:

```
{foreach $data as $indicator}

{$indicator.value}

{/foreach}
```

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

Configuring Lancope Exports

This topic explains how to export Lancope indicators for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the



instructions below configure an export for your data.

To export to Lancope:

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose Indicators.
 - For Output type, choose text/csv; charset=utf-8
 - Under Special Parameters, enter:

indicator.status=Active&indicator.deleted=N&indicator.type=IP

Address&indicator.type=CIDR Block&indicator.class=network

• Under Output Format Template, enter:

RECORD_NUMBER,GROUP_NAME,GROUP_ID,NETWORK_
DEFINITION,PARENT_NAMESPACE

0,ThreatQ,-1,,/

{foreach \$data as \$indicator}



```
0,"{foreach $indicator.Sources item=source name=Sources}{$source.value}
{if $smarty.foreach.Sources.last != true},{/if}{/foreach}",-1,
{$indicator.value|regex_replace:"/[\r\t\n]/":""|replace:"\"":"""},"/ThreatQ/"
{/foreach}
```

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

Configuring Netwitness Exports

This topic explains how to export Netwitness indicators for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the instructions below to export your data for:

- Netwitness FQDN
- Netwitness IP

To export to Netwitness FQDN:

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.



- 5. Provide the following information:
 - For Which type of information would you like to export? Choose Indicators.
 - For Output type, choose text/csv; charset=utf-8.
 - Under **Special Parameters**, enter:

indic-

ator.status-

=Ac-

ctive&indicator.deleted=N&indicator.type=FQDN&indicator.class=network

• Under Output Format Template, enter:

{foreach \$data as \$indicator}

"{\$indicator.value}","{foreach \$indicator.Sources as \$source}{\$source.value}, {foreachelse}{/foreach}","https://{\$http_host}/indicators/{\$indicator.id}/details" {/foreach}

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

To export to Netwitness IP:

1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.

2. Click Add New Export.

The Connection Settings dialog box appears.

3. Enter an **Export Name**.



4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose Indicators.
 - For Output type, choose text/csv; charset=utf-8.
 - Under **Special Parameters**, enter:

indicator.status=Active&indicator.deleted=N&indicator.type=IP Address&indicator.class=network

• Under Output Format Template, enter:

```
{foreach $data as $indicator}
```

"{\$indicator.value}","{foreach \$indicator.Sources as \$source}{\$source.value}, {foreachelse}{/foreach}","https://{\$http_host}/indicators/{\$indicator.id}/details" {/foreach}

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

Configuring OpenIOC Signature Exports

This topic explains how to export OpenIOC signatures for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the instructions below to export your data.

To export to OpenIOC CSV:



1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose Signatures.
 - For Output type, choose text/csv.
 - Under Special Parameters, enter:

signature.status=Active&signature.deleted=N&signature.type=OpenIOC

• Under Output Format Template, enter:

```
{foreach $data as $signature}
"{$signature.name|replace:"":\""}","{$signature.value|replace:"":\""}"
{/foreach}
```

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

Configuring Palo Alto Exports

This topic explains how to export Palo Alto indicators for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the



instructions below to export your data.

To export to Palo Alto FQDN:

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an Export Name.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose Indicators.
 - For Output type, choose text/plain.
 - Under Special Parameters, enter:

```
indic-
ator.status-
=Ac-
ctive&indicator.deleted=N&indicator.type=FQDN&indicator.class=network
```

• Under Output Format Template, enter:

```
{foreach $data as $indicator}

{$indicator.value}

*.{$indicator.value}

{/foreach}
```



- 6. Click Save Settings.
- 7. Under On/Off, toggle the switch to enable the export.

Configuring Reservoir Labs Exports

This topic explains how to export Reservoir Labs indicators for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the instructions below to export your data.

To export to Reservoir Labs:

1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose Indicators.
 - For Output type, choose text/plain.
 - Under **Special Parameters**, enter:

indicator.status=Active&indicator.deleted=N

Under Output Format Template, enter:

#fields{\$tab}indicator{\$tab}indicator_type{\$tab}meta.source{\$tab}meta.url



```
{foreach $data as $indicator}
{if $indicator.type eq "CIDR Block"}{continue}{/if}
{if $indicator.type eq "SHA-1"}{continue}{/if}
{if $indicator.type eq "SHA-256"}{continue}{/if}
{if $indicator.type eq "SHA-384"}{continue}{/if}
{if $indicator.type eq "SHA-512"}{continue}{/if}
{\$indicator type=\"\}
{$source found=0}
{if $indicator.type eq "IP Address"}{$indicator_type="Intel::ADDR"}{/if}
{if $indicator.type eq "URL"}{$indicator_type="Intel::URL"}{/if}
{if $indicator.type eq "Email Address"}{$indicator type="Intel::EMAIL"}{/if}
{if $indicator.type eq "FQDN"}{$indicator_type="Intel::DOMAIN"}{/if}
{if $indicator.type eq "MD5"}{$indicator_type="Intel::FILE_HASH"}{/if}
{if $indicator.type eq "Filename"}{$indicator_type="Intel::FILE_HASH"}{/if}
{if $indicator type ne ""}
{\$indicator.value}{\$tab}{\$indicator_type}{\$tab}{\foreach \$indicator.Sources
item=source name=Sources}{if $smarty.foreach.Sources.first == true}
{\source.value}{\source_found=1}{\if}\{\if}\{\foreach}\{\if\source_found== 0\}-{\if\}
{$tab}https://{$http_host}/indicators/{$indicator.id}/details
{/if}
```



{/foreach}

- 6. Click Save Settings.
- 7. Under **On/Off**, toggle the switch to enable the export.

Configuring Splunk Exports

This topic explains how to export indicators for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the instructions below to export your data.

To export to Splunk:

Select the Settings icon > Exports.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- Provide the following information:
- For Which type of information would you like to export? Choose Indicators.
- For Output type, choose text/plain.
- Under **Special Parameters**, enter:

indicator.sincedeleted=Y



• Under Output Format Template, enter:

```
#indicator{$tab}indicator_type{$tab}last_modified{$tab}reference_url{$tab}-source{$tab}campaign{$tab}status
```

{foreach \$data as \$indicator}

{\\$indicator.value}{\\$tab}{\\$indicator.type}{\\$indicator.updated_at}

{\$tab}https://{\$http_host}/indicators/{\$indicator.id}/details{\$tab}{foreach \$indicator.Sources item=source name=Sources}{\$source.value}{if \$smarty.-foreach.Sources.last == false}, {/if}{/foreach}{\$tab}{foreach}\$indicator.Adversaries item=adversary name=Adversaries}{\$adversary.value}{if \$smarty.foreach.Adversaries.last == false}, {/if}{/foreach}\${\$tab}{\$indicator.status}\$}

{/foreach}

- 5. Click Save Settings.
- 6. Under On/Off, toggle the switch to enable the export.

Configuring Tenable Exports

This topic explains how to export Tenable indicators for use with an external threat detection system. See Exports Overview for more details about configuring exports. Follow the instructions below to export your data for:

- Tenable FQDN
- Tenable IP Address
- Tenable MD5 Address

To export to Tenable FQDN:



1. Select the **Settings icon >Exports**.

The Exports page appears with a table listing all exports in alphabetical order.

2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.

The Output Format dialog box appears.

- 5. Provide the following information:
 - For Which type of information would you like to export? Choose Indicators.
 - For Output type, choose text/plain.
 - Under **Special Parameters**, enter:

```
indic-
ator.status-
=Ac-
ctive&indicator.deleted=N&indicator.type=FQDN&indicator.class=network
```

• Under Output Format Template, enter:

```
{foreach $data as $indicator}

{$indicator.value},{foreach $indicator.Sources item=source name=Sources}

{$source.value}{if $smarty.foreach.Sources.last == false}/{/if}{/foreach}

{/foreach}
```

- 6. Click Save Settings.
- 7. Under On/Off, toggle the switch to enable the export.

To export to Tenable IP Address:



- 1. From the navigation menu, choose the **gear icon > Exports**.
- 2. The Exports page appears.
- 3. Click Add New Export.
- 4. The Connection Settings dialog box appears.
- 5. Enter an **Export Name**.
- 6. Click Next Step.
- 7. The Output Format dialog box appears.
- 8. Provide the following information:
 - For Which type of information would you like to export? Choose Indicators.
 - For Output type, choose text/plain.
 - Under Special Parameters, enter:
 - indicator.status=Active&indicator.deleted=N&indicator.type=IP Address&indicator.class=network
 - Under Output Format Template, enter:

```
{foreach $data as $indicator}

{$indicator.value},{foreach $indicator.Sources item=source name=Sources}

{$source.value}{if $smarty.foreach.Sources.last == false}/{/if}{/foreach}

{/foreach}
```

- 9. Click Save Settings.
- 10. Under **On/Off**, toggle the switch to enable the export.

To export to Tenable MD5 Address:

1. From the navigation menu, choose the **gear icon > Exports**.

The Exports page appears.



2. Click Add New Export.

The Connection Settings dialog box appears.

- 3. Enter an **Export Name**.
- 4. Click Next Step.
- 5. The Output Format dialog box appears.
- 6. Provide the following information:
 - For Which type of information would you like to export? Choose Indicators.
 - For Output type, choose text/plain.
 - Under **Special Parameters**, enter:

indic-

ator.status-

s=Active&indicator.deleted=N&indicator.type=MD5&indicator.class=network

- Under Output Format Template, enter:
- {foreach \$data as \$indicator}
- {\$indicator.value},{foreach \$indicator.Sources item=source namee=Sources}
- {\$source.value}{if \$smarty.foreach.Sources.last == false}/{/if}{/foreach}
- {/foreach}
- 7. Click Save Settings.
- 8. Under On/Off, toggle the switch to enable the export.



Common Enrichment and Audit Log Questions

The ThreatQ Audit Log tracks every change made to every object in the system. If there is a change to an object, that change is displayed in the audit log. The audit log is only updated if the data itself changes, not just the **updated_at** value.

The following questions below address further details about the audit logging process.

In the case where an activity is triggered (with nothing updated), where will the activity be logged?

The activity will not show in the audit log, as there were no changes to report. While ThreatQ does not track duplicate objects that enter the application, there is a **touched_at** date field on primary objects (Adversaries, Files, Events, Indicators, and Signatures) that indicates when a relation of the object has been changed.

Is there another raw audit log within the system where events are logged?

No, there are no other raw audit logs where events are logged.

Is there an option in the User Interface to enable all activities to be shown in the Audit Log?

There is no option in the User Interface to limit or expand the audit log. All entries are pulled for an object when the Audit Log panel is opened. The audit log displays changes to the individual fields of an object; object comments, sources, attributes, and tags; as well as to object links, object link comments, and object link attributes. Additionally, any changes to the score of an Indicator are included.



Air Gapped Data Sync

The following explains how to configure and complete an Air Gapped Data Sync from a source ThreatQ instance to a target air-gapped ThreatQ instance.

- Air Gapped Data Sync Overview
- Understanding threatq:sync-export
- Understanding threatq:sync-import
- Executing Air Gapped Data Sync

Air Gapped Data Sync Overview

Air Gapped Data Sync allows you to transfer data from a source ThreatQ installation to a target air-gapped ThreatQ installation. ThreatQ defines an air-gapped system as one that is not connected to a public network. This means that **external** feed ingestion will not occur on the air-gapped installation.



You should consult with ThreatQ Support or a Threat Intelligence Engineer prior to performing an Air Gapped Data Sync.

Air Gapped Data Sync consists of two synchronization commands:

- threatq:sync-export: the read command that copies data from the source ThreatQ installation
- threatq:sync-import: the write command that copies data to the target ThreatQ installation



This section includes deployment details and configurations that should not be deviated from or changed without first consulting with





ThreatQuotient. Any deviation of the ThreatQuotient recommended settings could result in system and platform instability, may render the system non-operational, and are not supported.

Air Gapped Data Sync System Requirements

To use Air Gapped Data Sync, ThreatQ installations must meet the following requirements:

- ThreatQ v4.15 or later must be installed.
- All ThreatQ installations must run the same software version.
- All ThreatQ installations must be set to the correct time, time zone, and date, and using a clock source available to all. UTC is recommended.



Understanding threatq:sync-export

The purpose of this command is to pull all objects, object context, tags, and object links from the source ThreatQ installation and then store them in CSV data dump files. You can specify which objects are pulled, based on a date or via configuration. All data pulled into the CSV data dump files can then be transferred to a target air-gapped ThreatQ installation for validation and import. Each run of this command also generates a sync report with output logs for the run.

threatq:sync-export Parameters

The following table outlines the parameters for the command. All parameters for the threatq: sync-export command are optional. If you do not set any parameters, the system runs a default configuration as explained in threatq:sync-export Configuration.

Parameter	Explanation
target	Target directory where the output file should be placed. This value is required. Default: /tmp example:target=/my/directory
start-date	The start date for data selection. This value is required. ex:start-date="2018-01-01 00:00:00"
end-date	The end date for data selection. This value is required. Applies only to objects themselves, not object context or object links.



Parameter	Explanation
	example:end-date="2018-01-02 00:00:00"
include-deleted	Determines whether objects that have been soft-deleted are included in the result set. Options are Y(es) or N(o). Default: N example:include-deleted=Y
include-investigations	Determines whether Investigations and Tasks are included in the result set. This value is required. Options are Y(es) or N(o). Default: N example:include-investigations=N
meta-only	If present, tells the command to only include meta data (no object data) in the result set. No value necessary.
memory-limit	Sets the PHP memory limit in Megabytes or Gigabytes. This value is required. Default: 2G example:memory-limit=4G



	Explanation
object-limit	Sets the limit on the number of objects selected at a time. Recommended use is to set the limit to a number smaller than the default (50,000) on boxes with very large data sets.
	Default: 50,000 example:object-limit=10000
ignore-file-types	Defines a comma-delimited list of ThreatQ File Types for which physical files stored on the source ThreatQ installation should not be transferred to the target air-gapped ThreatQ installation. Database records are still included in the export tarball. example:ignore-file-types="Malware Analysis Report" example:ignore-file-types="Malware Analysis Report, Mal-

threatq sync-export Examples

This command should be run from inside the /var/www/api directory. The following examples provide use cases for air gapped data sync.

No Time Limit, Default Configuration

sudo ./artisan threatq:sync-export



This example will pull all objects in the system (with the exception of Investigations, Tasks, and soft-deleted Objects). The output will appear in /tmp.

Meta Data Only

```
sudo ./artisan threatq:sync-export --meta-only
```

This example will pull only meta data objects from the system (Attributes, Sources, Object Statuses and Types, and so on).

Time Limit

```
sudo ./artisan threatq:sync-export --start-date
="2018-10-01 00:00:00" --end-date="2018-11-01
00:00:00"
```

This example will pull objects whose updated_at or touched_at occurs between the start and end date.

Exclude Malware Files

```
sudo ./artisan threatq:sync-export --ignore-file-
types="Malware Sample"
```

This example will pull all objects, but will exclude the physical files attached to any File objects with the type Malware Sample. The File objects themselves (as well as their context and relationships) will still be included in the export tarball.

Any File Type can be used with this option, and multiple File Types can be included as a comma-delimited list.



```
sudo ./artisan threatq:sync-export --ignore-file-
types="STIX,PDF,Malware Sample"
```

Cron Configuration

```
sudo ./artisan threatq:sync-export
--target=/my/directory --include-deleted=Y
--include-investigations=N
```

This example will do a search for a previous synchronization record with the same hash (comprised of the three options provided). If any hash matches are found, the run will use the started at date of the most recent previous record as the start date for the current run.

If you do not require soft-deleted Objects, Investigations, or Tasks to be transferred to the target ThreatQ installation, then only the --target option is necessary (as the defaults for the other two options are both (N)o).

threatq sync-export Initial Cron Setup for First Time Use

Basic Instructions

Determine what the cron configuration options should be:

- target directory
- whether investigations/tasks should be included
- whether deleted objects should be included

The cron configuration options must be the same for every run, but they only need to be specified if different from the defaults.

Run the command with the cron configuration options:



```
php artisan threatq:sync-export
--target=/my/directory --include-investigations=Y
--include-deleted=N
```

Instructions for Larger Data Sets (Starting from the Beginning of Time)

For larger data sets, it is undesirable to do a full run from the beginning of time (performance will suffer).



ThreatQuotient recommends that you use the --end-date option to specify an upper limit on the date range pulled. Multiple runs will be necessary to process all data up to the current date.

Determine what the cron configuration options should be:

- target directory
- whether investigations/tasks should be included
- whether deleted objects should be included

The cron configuration options will need to be the same for every run, but they only need to be specified if different from the defaults.

For each of the runs, provide the configuration options along with the --end-date option:

```
php artisan threatq:sync-export
--target=/my/directory --include-investigations=Y
--end-date="2017-01-01 00:00:00"
```

Once the current date has been reached, the --end-date option will no longer be necessary.



Instructions for Larger Data Sets (Starting from a Specified Date)

For larger data sets, it is undesirable to do a full run from the beginning of time (performance will suffer).



ThreatQuotient recommends that you use the --end-date option to specify an upper limit on the date range pulled. Multiple runs will be necessary to process all data up to the current date.

If only a subset of data needs to be processed up to the current date, then you should use the --initial-start-date option.

Determine what the cron configuration options should be:

- target directory
- whether investigations/tasks should be included
- whether deleted objects should be included

The cron configuration options will need to be the same for every run, but they only need to be specified if different from the defaults.

For the first run, provide the configuration options along with the --initial-start-date option.

```
php artisan threatq:sync-export
--initial-start-date="2017-01-01 00:00:00" --tar-
get=/my/directory
--include-investiagtions=Y --end-date="2017-02-01
00:00:00"
```

For each of the runs, provide the configuration options along with the --end-date option:



```
php artisan threatq:sync-export
--target=/my/directory --include-investigations=Y
--end-date="2017-01-01 00:00:00"
```

Once the current date has been reached, the --end-date option will no longer be necessary.

threatq sync-export Run Scenarios

Success

When a run of this command completes successfully, a tarball of data will appear in the target directory you specified (or /tmp by default). A report file describing the run will be available in the data tarball, under the /sync directory. There will also be a record in the database synchronizations table for the run.

Errors

If a run of this command fails before completion, the tarball will not be created. There will be a data directory in the target directory (where the data is stored before it is compressed) that contains all the data that was processed before the failure. The report file will appear in this directory under /sync. Error messages will not appear in the report file - though they will appear in the laravel log and in the console.

Regardless of whether the run was part of a cron configuration, it can simply be restarted. The cron configuration will look for the last completed run to find the next start date.



threatq:sync-export Dates

Start Date

A start date is applied to objects according to the column available - touched_at or updated at.

```
touched at Objects
```

Adversaries, Attachments, Events, Indicators, Signatures, Custom Objects

```
updated at Objects
```

Investigations, Tasks, Object Links, Tagged Objects

End Date

An end date is applied only if you provide one at run time. It is applied everywhere a start date is used.

threatq:sync-export Configuration

The configuration used for each run of this command consists of the --target, -include_deleted, and --include_investigations command line options and is
stored in the config_json column of the Synchronization record. The hash column of
each Synchronization record is a md5 hash of the config_json column.

Default

The default configuration is used if the command is run with no options provided:

- target_directory = /tmp
- include_deleted = false
- include_investigations = false



In this configuration, the initial run start date will default to 1970-01-01 00:00:00.

Cron

If the command is run with the <code>--target</code>, <code>--include_deleted</code>, and <code>--include_investigations</code> parameters, the hash of these values will be compared against the hash column of previous runs. Using these three options on every run allows for the command to be incorporated into a scheduled task.

If any hash matches are found, the start date for the run will be set to the started_at date in the Synchronization record of the previous run with the same hash.

If no hash matches are found, the start date will be set to 1970-01-01 00:00:00.

Start Date Provided

If a start date is included in the command run using the <code>--start-date</code> option, any other options also provided will be honored. However, if the <code>--target</code>, <code>--include_deleted</code> and <code>--include_investigations</code> options are also included, a Cron check against the hash of these three options will **not** occur. The start date provided will be included in <code>con-fig_json</code> as the **manual_start_date** so that the run does not collide with any Cron-related runs.

If a "beginning of time" run is necessary, use the option as --start-date="1970-01-01 00:00:00".

threatq:sync-export Output and Sync Report

The following sections detail the data you may find in the export output and sync report.

threatq:sync-export Meta Data

Meta data is transferred with every run of this command by default. You can specify that only meta data (no object data) should be pulled in a run by using the --meta-only option.



Meta data includes information about Sources, Attributes, Tags, as well as Object Statuses and Types (both seeded and user-provided).

While meta data like Connectors and Operations are included in this list, they are not installed on the target ThreatQ installation as part of the air gapped data sync process. They are only placed in the requisite tables for use as Sources of Objects that are transferred. The same is true of any Users that are copied - these will not be enabled Users on the target installation; they will be transferred as disabled.

Meta Data Objects:

- Attributes
- Clients
- Connectors
- Connector Categories
- Connector Definitions
- Content Types
- Groups
- Investigation Priorities
- Object Type> Statuses
- Object Type> Types
- Other Sources
- Operations
- Sources
- Tags
- TLP
- Users



threatq:sync-export Objects

This command covers any objects installed on the system by default, and any custom objects that have been installed by the user. The only objects that can be excluded are Investigations and Tasks (using the --include-investigations command line option).



Custom Objects that are installed on a source ThreatQ installation that have NOT been installed on a target ThreatQ installation will NOT be installed by the air gapped data sync process. If an object is included in the export data, but is not found on the target, it will be ignored.

Default Objects:

- Adversaries
- Attachments (Files)
- Events
- Indicators
- Signatures
- Campaigns
- · Courses of Action
- Exploit Targets
- Incidents
- TTPs

Storage:

The data for each object is copied as a dump file in CSV format using "SELECT * INTO OUTFILE..." MariaDB syntax. The full query for the data is built up using the options you provided (start date, end date, etc).



Dump files contain a maximum object limit of 50,000 (set in the Synchronization base class). Dump files are created (with a counter appended to the file name) until the entire object result has been covered.

To ensure that any Objects present in Object Context (Attributes, Comments, and Sources), Object Links, Tagged Objects, or Investigation Timeline Objects are also included in the base Object data, CSV dump files for each Object type are also created from queries against each of these tables. This is necessary because of the differing date columns used in each query (an object may appear in an Object Link in the specified date range according to the Object Link's updated_at date, even though the Objects themselves saw no change to their touched_at date in that date range). When the data from all of these object files is transferred to the target ThreatQ installation, any duplicates across dump files will be consolidated. Files that contain Object data will always include "_obj_" in the file title.

Sample Object File List (all of these files will contain Adversary records):

- adversaries/adversaries_obj_0.csv
- adversaries/adversaries obj attributes 0.csv
- adversaries/adversaries_obj_comments_0.csv
- adversaries/adversaries obj investigation timelines 0.csv
- adversaries/adversaries_obj_object_links_dest_0.csv
- adversaries/adversaries_obj_object_links_src_0.csv
- adversaries/adversaries_obj_sources_0.csv
- adversaries/adversaries_obj_tags_0.csv



threatq:sync-export Object Context

The date range for queries on Object Context tables uses the updated_at date column, with the exception of Adversary Descriptions, which uses the created at date column.

Adversary Descriptions are handled as part of the Object Context gathering process. The adversary_descriptions table is queried using the created_at date column, and the entirety of the adversary_description_values table is pulled, as it doesn't have a date column.

Not all Objects have all Object Contexts (Attributes, Attribute Sources, Comments, and Sources). Tables are only polled if they exist.

Tables Covered for each Object Type:

- <object type>_attributes
- <object type>_attribute_sources
- <object type> comments
- <object type>_sources

Sample Object Context File List (Indicator Object Type):

- indicators/indicator attribute sources 0.csv
- indicators/indicator_attributes_0.csv
- indicators/indicator comments 0.csv
- indicators/indicator_sources_0.csv



threatq:sync-export Other Data

Attachment Files

Physical files for all attachments included in the date range are copied into the attachments/files directory of the data tarball.

Object Links

The date range for queries on Object Links uses the updated at date column.

Tables Covered (Object Links and Object Link Context):

- object_links
- object_link_attributes
- object_link_attribute_sources
- object_link_comments
- object_link_sources

Sample Object Link File List:

- object_links/object_links_0.csv
- object_links/object_link_attributes_0.csv
- object_links/object_link_attribute_sources_0.csv
- object_links/object_link_comments_0.csv
- object_links/object_link_sources_0.csv

Tags

The date range for queries on Tagged Objects uses the updated at date column.

Tables Covered (Tags themselves are covered in the Meta Data):



tagged_objects

Sample Tagged Objects File List:

tagged_objects/tagged_objects_0.csv

Spearphish

The date range for queries on Spearphish uses the updated at date column.

Tables Covered:

spearphish

Sample Spearphish File List (Spearphish files are stored with Event data):

events/spearphish_0.csv

Investigations

The date range for queries on additional Investigation context tables uses the updated_at column.

Tables Covered:

- investigation_nodes
- investigation_node_properties
- investigation_timelines
- investigation_timeline_objects
- investigation_viewpoints

Sample Investigation additional context File List:

- investigations/investigation_node_properties_0.csv
- investigations/investigation_nodes_0.csv
- investigations/investigation_timeline_objects_0.csv



- investigations/investigation_timelines_0.csv
- investigations/investigation_viewpoints_0.csv

threatq:sync-export File Output

threatq:sync-export Data Tarball

Once all data has been processed, a tarball is created containing all output files. This tarball will be dropped in the directory specified in the --target option, or the /tmp directory by default.

Tarball Naming Convention: tqSync <run date>.tar.gz

Example: tqSync-19-01-16-1547649934-0849.tar.gz

threatg:sync-export Sync Report

The output for each run is stored in a Sync Report output file, which is located in the sync directory of the data tarball. The file is always named sync-export.txt.

threatq:sync-export Command Line Output

Command line output displays command progress, object totals, and files written.

threatq:sync-export Synchronizations

Table

synchronizations

- id The auto-incremented id for the Synchronization record
- type The Synchronization direction (options are "export" or "import")



- started at The date and time the command run was started
- finished at The date and time the command run completed
- config json A JSON representation of the command run configuration
- report_json A JSON representation of the command run parameters (command line options, object counts, files created, etc)
- pid The process id of the command run
- hash Unique identifier for a command run (md5 hash of the config_json column)
- created at The date and time the Synchronization record was created
- updated at The date and time the Synchronization record was updated

Record Handling

Hash

The Synchronization record hash column is automatically calculated as an md5 of the config json column on record creation.

Initial Creation

A Synchronization record is created at the beginning of a command run, right after all command line options have been processed. Initial creation only covers the type, started_at, pid, and config_json columns. For this command (threatq:sync-export), the type will be "export". The command line option portion of the report_json is added as well, but this column will not be complete until the record is finalized. The finished_at column remains NULL.

Finalization

A Synchronization record is finalized when the command run has completed. At this time, the finished at column is filled with the completion datetime, and the report json



column is updated to include information about the run (object counts, files created, etc).



Understanding threatq:sync-import

The purpose of this command is to process the tarball of object data created by the threatq:sync-export command. Temporary sync tables are created on the target to house this object
data, and integrity checks are run against existing data to verify IDs and check for duplicate
objects. Duplicate objects from the source ThreatQ installation are updated, and new objects
are inserted. The temporary sync tables are dropped when data processing is complete.
Each run of this command also generates a sync report without output logs for the run.

threatq:sync-import Parameters

The following table outlines the parameters for the command. With the exception of —— file, which is required, all parameters for the threatq: sync-import command are optional.

Parameter	Explanation
file	File path to the tarball created by the threatq:sync-export command. This command is required to run the threatq:sync-import command. example:file=/tmp/tqSync-19-01-16-1547660837-8345.tar.gz



Parameter	Explanation
keep-created-at	Determines whether the oldest created_at date between the source and target ThreatQ installations should be maintained, or a new created_at is set on the target system. The default if this option is not provided by the user is for the oldest created_at date to be maintained. This value is required. Options are Y(es) or N(o). Default: Y example:keep-created-at=N
object-limit	Integer value used as the limit for the number of objects updated or inserted at a time. This value is required. When using this option, the size of the data sets on both source and target ThreatQ installations should be taken into account. Setting the limit too high may hinder performance. Default: 1000 example:object-limit=50000
memory-limit	Sets the PHP memory limit in Megabytes or Gigabytes. This value is required. Default: 2G example:memory-limit=4G
override-description	Determines whether or not the descriptions on existing objects on the target ThreatQ installation will be updated. If an existing object has a NULL description, it will be updated



Parameter	Explanation
	regardless of the use of this flag.
	Default: Y
	example:override-description=N

threatq:sync-import Examples

This command should be run from inside the /var/www/api directory.

Basic Run

```
sudo ./artisan threatq:sync-import
--file=/tmp/tqSync-19-01-16-1547660837-8345.tar.gz
```

This example will process all the data in the tarball provided in the <code>--file</code> option, using an object limit of 1000 for all inserts and updates. The <code>created_at</code> date of all transferred objects will be updated on the target ThreatQ installation if it is older than the current <code>created_at</code> date (if the object is already present on the source ThreatQ installation). Newly inserted objects will keep the <code>created_at</code> date of the source ThreatQ installation.

Set New created_at Dates on the Write System

```
sudo ./artisan threatq:sync-import
--file=/tmp/tqSync-19-01-16-1547660837-8345.tar.gz
--keep-created-at=N
```

This example will process all the data in the tarball provided in the --file option using an object limit of 1000 for all inserts and updates. The created at date of all transferred will



be left alone in the case of object updates, and to the current time in the case of new object inserts.

Increase the Object Limit

```
sudo ./artisan threatq:sync-import
--file=/tmp/tqSync-19-01-16-1547660837-8345.tar.gz
--object-limit=50000
```

This example will process all the data in the tarball provided in the --file option using an object limit of 50000 for all inserts and updates. The --keep-created-at option has been left out, so it will use the default setting of Y(es) and $created_at$ dates will be maintained from the read system.

threatq:sync-import Initial Setup

You **must** run the threatq:fill-sync-hash-column command, before running the threatq:sync-import command on an air gapped ThreatQ installation. This command prepares the database of an air gapped installation to run the threatq:sync-import command. Upon upgrade to ThreatQ version 4.17 and later, several tables will include a sync_hash column, which stores an MD5 hash of the unique fields for records in each table. This command fills in the data in this column, before attempting an Air Gapped Data Sync import. Data added after upgrade will automatically have their sync_hash columns populated on insert and update, so it is only necessary to run this command once.



The threatq:sync-import command checks for any NULL values in the sync_hash column in the events, indicators, and object_links tables before importing any data, and will fail if any NULL values are found. If the threatq:fill-sync-hash-column command is not run and sync_hash columns are found on the indicators, events, or object_links tables, the import will fail and ask you to run the command to fill that column before continuing.



Running the threatq:fill-sync-hash-column Command

- 1. SSH to your target ThreatQ installation.
- 2. Change directories to /var/www/api.
- 3. Run php artisan down to place ThreatQ into maintenance mode.
- 4. Run the following command:

```
sudo ./artisan threatq:fill-sync-hash-column
```

5. Run php artisan up to bring ThreatQ out of maintenance mode.



threatq:sync-import Run Scenarios

Success

When a run of this command completes successfully, a report will appear in the directory the command was run in (/var/www/api). There will also be a record in the database synchronizations table for the run. Both of these will contain data describing performance metrics and object counts.

Excluded Files

If the <code>--ignore-file-types</code> option was used during creation of the export tarball, then the physical files associated with File objects that have the File Types specified in that option will not be available during the import of those objects. If the import command detects that a file is missing from the export tarball, it will create a placeholder file under the same file path as was set on the read box (this is defined in the path field of the File). This placeholder file will be a simple text file with the phrase "File excluded from export.". Please be aware that because the original physical file associated to the File object has been replaced, it will no longer be possible to open the physical file on the Details page for that File object.

Errors

If a run of this command fails before completion, error messages will not appear in the report file - though they will appear in the laravel log and in the console. There is not currently a means of restarting the command from where it left off. The command will need to be restarted and will run through all the data again. Any data from the tarball that was written during the previous failed run will simply be updated (rather than inserted again), meaning the end result will be the same - all data will be transferred from the tarball to the target system.



threatq:sync-import Data Processing

Data found in CSV dump files for a table from the tarball provided in the <code>--file option</code> is inserted into a corresponding sync table. A sync table is just a copy of a base table, with column structure maintained but indexes excluded. Indexes are added to unique columns on sync tables (which will later be used in table joins and where clauses) once data insertion from dump files is complete, since indexes slow the insertion process down.

The naming convention for a sync table is sync_import_<base table name>_process id>.

Example:

Base table: adversaries

Sync table: sync_import_adversaries_12345

All sync tables are removed from the target ThreatQ installation's database once data processing is complete.

threatq:sync-import Basic Table

A basic table has no foreign keys pointing to other tables in the database. It has a single identifier (id) column for each record. Once all the data stored in the tarball for a basic table has been transferred to a sync table, the sync table has an <code>existing_id</code> column added with a default value of NULL for each record. This column is used to determine whether the record already exists on the target ThreatQ installation. The id for the record on the target system may be different from that of the record from the source ThreatQ installation, so this <code>existing_id</code> column ensures that data integrity is maintained between the two.

Sample Basic Table:

attachment_types - (id, name, is_parsable, parser_class, created_at, updated_at,
deleted_at)



Sample Sync Table created from Basic Table:

sync_import_attachment_types_12345 - (existing_id, id, name, is_parsable,
parser_class, created_at, updated_at, deleted_at)

threatq:sync-import Tables with Pivots

A pivot table has one or more foreign keys pointing to other tables in the database. Once all the data stored in the tarball for a table with pivots has been transferred to a sync table, the sync table has an <code>existing_<pivot>_id</code> column added for each foreign key column, as well as an <code>existing_id</code> column for the record itself (all set to a default value of NULL).

threatq:sync-import File Output

threatq sync-import File Output and Sync Report

Once all data has been processed, a Sync Report will be generated in the /var/www/api directory (where the command is run). This file will be named after the tarball used in the run, with the extension "-sync-import.txt"

Example:

Tarball used: tqSync-19-01-16-1547660837-8345.tar.gz

Sync Report name: tqSync-19-01-16-1547660837-8345-sync-import.txt

threatq:sync-import Command Line Output

Command line output displays command progress and object totals. It will be similar to the output in the Sync Report.



threatq:sync-import Synchronizations

Table

synchronizations

- id The auto-incremented id for the Synchronization record
- type The Synchronization direction (options are "export" or "import")
- started at The date and time the command run was started
- finished at The date and time the command run completed
- config json A JSON representation of the command run configuration
- report_json A JSON representation of the command run parameters (command line options, object counts, tables created, etc)
- pid The process id of the command run
- hash Unique identifier for a command run (md5 hash of the config_json column)
- created at The date and time the Synchronization record was created
- updated at The date and time the Synchronization record was updated

Record Handling

Hash

The Synchronization record hash column is automatically calculated as an md5 of the config json column on record creation.

Initial Creation

A Synchronization record is created at the beginning of a command run, right after all command line options have been processed. Initial creation only covers the type, started_at, pid, and config json columns. For this command (threatq:sync-import), the type



will be "import". The command line option portion of the report_json is added as well,
but this column will not be complete until the record is finalized. The finished_at column
remains NULL.

Finalization

A Synchronization record is finalized when the command run has completed. At this time, the finished_at column is filled with the completion date and time, and the report_
json column is updated to include information about the run (object counts, tables created, etc).



Executing Air Gapped Data Sync

Using artisan commands at the command line of the ThreatQ installation, you execute air gapped data sync in two steps:

- You run the threatq:sync-export command on the source ThreatQ installation; see Understanding threatq:sync-export.
- 2. You run the **threatq:sync-import** command on the target ThreatQ installation, see **Understanding threatq:sync-import**.

Running the threatq:sync-export Command

To run the threatq:sync-export command, complete the following steps:

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

```
cd /var/www/api
```

3. Run the following command appended by the necessary parameters, as described in threatq:sync-export Parameters:

```
sudo ./artisan threatq:sync-export
```

4. Review the Output and Sync report; see threatq:sync-export Output and Sync Report.

Running the threatq:sync-import Command

To run the threatq:sync-import command, complete the following steps:



- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

cd /var/www/api

3. Run the following command appended by the necessary parameters, as described in Running the threatq:sync-import Command:

sudo ./artisan threatq:sync-import

4. Review the Output and Sync report; see threatqsync-importFile Output and Sync Report.



Backup and Restore

The following describes how to back up and restore a ThreatQ instance.

- ThreatQ Backup
- ThreatQ Restore

ThreatQ Backup

Before performing a backup of a ThreatQ instance, note the following:

- The backup process stops and starts all ThreatQ services automatically in order to prevent modifications to the file system and database. Requests made during this time are queued and resumed once the backup process completes.
- The time it takes to back up ThreatQ depends primarily on the size of the database. For this reason, we recommend performing a backup when system availability is not critical, such as during a scheduled maintenance window.
- The resulting backup file can be large. We recommend that you write it to a mounted drive or file location rather than the local file system. For instructions on how to mount a network-available drive, contact ThreatQ Support. If the backup file must be stored locally, you should move it off the local file system at the earliest opportunity.
- By default, the system creates a backup of the threat intelligence data index required for improved search performance and includes it in the backup file. This operation may take hours. You can omit this portion of the backup by running the backup command with the --exclude-solr option. However, this means that your threat intelligence data must be re-indexed during or after the restore process.



Backing Up a ThreatQ Instance

By default, the system creates a backup of the threat intelligence data index required for improved search performance and includes it in the backup file. This operation may take hours. You can omit this portion of the backup by running the backup command with the exclude-solr option. However, this means that your threat intelligence data must be reindexed during or after the restore process.

Before you begin, refer to ThreatQ Backup.

To perform a ThreatQ backup:

- 1. SSH to the ThreatQ command line and elevate your user privilege to root or sudo.
- 2. Change the directory to /var/www/api.
- 3. Choose one of the following options:
 - To create a backup that includes a Threat Library re-index, run the following command: sudo php artisan threatq:backup
 - To create a backup that excludes a Threat Library re-index, run the following
 command: sudo php artisan threatq:backup --exclude-solr
- 4. When prompted, provide the **root mysql** password you configured during first boot.
- 5. Provide the path to the file location where you want to create the backup.

The script generates a backup file in the specified file location. The name of the file will be threatq_backup_x.x.x_yyyy-mm-dd.tgz, where x.x.x is the TQ version and yyyy-mm-dd is the date when the backup was performed.

ThreatQ Restore

To restore from a ThreatQ backup, note the following:



- The target machine must be an existing ThreatQ instance running the same version of the instance captured in the backup.
- The restore process completely overwrites the current installation.
- The backup file needs to be accessible by the target ThreatQ instance, either locally or on a mounted drive.
- The backup file will be unzipped in the same directory where it resides. Ensure
 that the available disk has sufficient space to hold both the backup archive and the
 extracted directory. The extracted directory can be removed after the restore is complete.
- Depending on the size of the instance being restored, the process can take a while.
- The machine running the target ThreatQ instance automatically restarts once the restore process is complete.

How to Restore from a ThreatQ Backup

Before you begin, refer to ThreatQ Restore.

To restore from a ThreatQ backup, perform the following procedure on the target ThreatQ instance.

- Complete the first boot process on the new host by navigating to its IP address in a
 web browser and entering your credentials. If this step is not completed, the remaining steps are not successful.
- 2. SSH to the command line and elevate your user privileges to root or sudo.
- 3. Verify that you have the necessary utilities in place by running: **yum install poli- cycoreutils-python-2.2.5-20.el7.x86_64**.
- 4. Change directory to /var/www/api.



- 5. Issue the following commands:
 - php artisan threatq:restore </path/to/backup_file>
 - php artisan threatq:update-events
- 6. When prompted, provide the root mysql password you configured during first boot.
- 7. If the backup file does not include the intelligence data index required for improved search performance, the system prompts you to either allow an automatic re-index or manually perform it later.

This operation may take hours.

8. After the restore completes, you should reboot the target ThreatQ system to ensure that the system processes start up correctly.



Command Line Interface (CLI)

You can use the CLI to perform tasks and initiate specific platform processes.

Important Notes

- You should SSH into your ThreatQ installation as root or have sudo permission.
- Some CLI commands require you to be in a specific directory to execute. Review the help center topic for each command before running.
- Most CLI commands require that the ThreatQ application be placed into maintenance mode before proceeding. Placing the application in maintenance mode allows you to perform operations which would be delayed or otherwise impeded by regular API operation. Review the Maintenance Mode topic before executing CLI commands.

Related Topics

- Maintenance Mode
- ThreatQ Purge Command
- Command Reference Table

Maintenance Mode

Command Line Interface (CLI) commands and other processes, such as backup and restore, require that you place the ThreatQ application into maintenance mode. Placing the application in maintenance mode allows you to perform operations which would be delayed or otherwise impeded by regular API operation.



Some CLI commands will automatically place the ThreatQ application into maintenance mode when executed. The help center topics for these com-



mands will indicate if the command will automatically place the ThreatQ application into maintenance mode.

Placing the ThreatQ Application into Maintenance Mode

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

```
cd /var/www/api
```

3. Run the following command:

```
sudo php artisan down
```

The platform will now be in maintenance mode.

```
[root@techpubstq api]# php artisan down Application is now in maintenance mode. [root@techpubstq api]# ■
```

Taking the ThreatQ Application out of Maintenance Mode



The following steps assume you are already in the CLI. If not, complete steps 1-2 from above before proceeding.

1. While under the /var/www/api directory, run the following command:

```
sudo php artisan up
```

The platform will now be out of maintenance mode.

```
[[root@techpubstq api]# php artisan up
Application is now live.
[root@techpubstq api]#
```



ThreatQ Purge Command



Read this topic carefully before running the ThreatQ Purge Command. After running this command, your threat intelligence data cannot be recovered.

The ThreatQ Purge command will **permanently** delete all object-related threat intelligence data from your ThreatQ installation, including audit logs. It will maintain any configuration-related settings, such as expiration, scoring, and so on.

Running the ThreatQ Purge Command

- 1. SSH to your ThreatQ installation.
- 2. Navigate to the api directory using the following command:

```
cd /var/www/api
```

- 3. Place the application into maintenance mode see the Maintenance Mode topic.
- 4. Run the following command:

```
sudo php artisan threatq:purge-threat-intel-
ligence
```

5. You will be presented the following prompt:

```
You are about to erase all of your data, are you sure?
```



- 6. Enter **Yes** or **No**.
- 7. Bring the application out of maintenance mode see the Maintenance Mode topic.

Command Reference Table

The table below contains a list of Command Line Interface (CLI) commands available for the ThreatQ application.

Command	Topic	
System ThreatQ Purge	ThreatQ Purge Command	
Feeds		
Add/Upgrace CDF	Install/Upgrade CDF Command	
Source Consolidation	Source Consolidation Command	
Source Merge	Source Merge Command	
Historic Pull	General Historic Pull Commands	
iSight Historic Pull	iSight Historic Pull Command	
User Management		
Reset User Password	Resetting User Passwords from the Command Line	
TLP		
Update TLP Designations	Update TLP Schema using TLP Default - Com- mand	
Convert TLP	Convert TLP Command	
AirGap Data Sync		



Command	Topic
Airgap Import	Running the threatq:sync-import Command
Airgap Export	Running the threatq:sync-export Command