

Chapter 1: Play Time – Getting Data In

Destination App *

search

Name *

HttpRequest-Success

Search string *

sourcetype=access_combined status=2*

Tag(s)

webservers

Enter a comma-separated list of tags.


The screenshot shows the Splunk Settings menu. The top navigation bar includes Administrator, Messages, Settings, Activity, Help, and Find. The Settings menu is expanded, showing three main categories: KNOWLEDGE, DATA, and SYSTEM. Under KNOWLEDGE, the following items are listed: Searches, reports, and alerts; Data models; Event types (highlighted with a red circle); Tags; Fields; Lookups; User interface; Alert actions; Advanced search; and All configurations. Under DATA, the items are: Data inputs; Forwarding and receiving; Indexes; Report acceleration summaries; and Source types. Under SYSTEM, the items are: Server settings; Server controls; and Licensing. On the left side of the Settings menu, there are two icons: 'Add Data' (a green circle with a downward arrow) and 'Distributed Management Console' (a green circle with a gear icon).

Object should appear in

Keep private This app only (search) All apps

Permissions

Roles	Read	Write
Everyone	<input checked="" type="checkbox"/>	<input type="checkbox"/>
admin	<input type="checkbox"/>	<input checked="" type="checkbox"/>
can_delete	<input type="checkbox"/>	<input type="checkbox"/>
power	<input type="checkbox"/>	<input type="checkbox"/>
splunk-system-role	<input type="checkbox"/>	<input type="checkbox"/>
user	<input type="checkbox"/>	<input type="checkbox"/>

Sharing 

Private [Permissions](#)


Destination app *

search 

Name *

response

Apply to *

sourcetype 

named *

access_combine

Type *

Inline 

Extraction/Transform *

(?i)^(?:[^\s]{8})\s+(?P<response>.+)

Field extractions

View and edit all field extractions. Add new field extractions and update permissions.

The screenshot shows the Splunk web interface navigation menu. At the top, there is a dark header with the following menu items: Administrator, Messages, Settings (selected), Activity, Help, and Find. Below the header, the main navigation area is divided into three columns. The left column contains two large icons: 'Add Data' (a cylinder with a downward arrow) and 'Distributed Management Console' (a gear with a person icon). The middle column is titled 'KNOWLEDGE' and lists several items: Searches, reports, and alerts; Data models; Event types; Tags; Fields (circled in red); Lookups; User interface; Alert actions; Advanced search; and All configurations. The right column is titled 'DATA' and lists: Data inputs; Forwarding and receiving; Indexes; Report acceleration summaries; and Source types. Below these are two more categories: 'DISTRIBUTED ENVIRONMENT' (Indexer clustering, Forwarder management, Distributed search) and 'USERS AND AUTHENTICATION' (Access controls). At the bottom of the middle column, there is a 'SYSTEM' category with items: Server settings, Server controls, and Licensing.

New Search

index=main sourcetype=log4j OR sourcetype=access_combined All time (real-time) 🔍

20 of 20 events matched No Event Sampling

Job ⌵ ⏸ ⏪ ⏩ ⏴ ⏵ ⏶ ⏷ ⚡ Smart Mode ⌵

Events (20) Patterns Statistics Visualization




List ⌵ Format ⌵ 20 Per Page ⌵


Hide Fields		All Fields	i	Time	Event
Selected Fields			>	4/19/16 3:11:26.000 AM	143.77.9.0 - - [19/Apr/2016:03:11:26 +0000] "GET /home HTTP/1.1" 200 1407 "http://www.yahoo.com" "Mozilla/5.0 (Windows NT 5.1) Gecko/20100101 Firefox/14.0 Opera/12.0" "JSESSIONID=52B00F6511172E7F451B96A680591619" 49 host = ip-172-31-12-177 source = /opt/splunk/etc/apps/OpsDataGen/data/access_log sourcetype = access_combined
Interesting Fields			>	4/19/16 3:11:26.000 AM	47.91.235.14 - - [19/Apr/2016:03:11:26 +0000] "GET /home HTTP/1.1" 200 2971 "https://www1.samplesite.ca/updatecart" "Mozilla/5.0 (Windows NT 5.1) Gecko/20100101 Firefox/14.0 Opera/12.0" "JSESSIONID=5A0C47840F2A39536CF5142717F7E1E6" 33 host = ip-172-31-12-177 source = /opt/splunk/etc/apps/OpsDataGen/data/access_log sourcetype = access_combined
			>	4/19/16 3:11:26.000 AM	47.91.235.14 - - [19/Apr/2016:03:11:26 +0000] "GET /updatecart?orderId=1461035435&item=4728475&qty=2 HTTP/1.1" 302 2137 "https://www1.samplesite.ca/viewCart" "Mozilla/5.0 (Windows NT 5.1) Gecko/20100101 Firefox/14.0 Opera/12.0" "JSESSIONID=5A0C47840F2A39536CF5142717F7E1E6" 40

Full path to your data ⌵	Set host ⌵	Source type ⌵	Set the destination index ⌵	Number of files ⌵	App ⌵	Status ⌵
\$SPLUNK_HOME/etc/apps/OpsDataGen/data/access_log	Constant Value	access_combined	main	Linux	OpsDataGen	Disabled Enable
\$SPLUNK_HOME/etc/apps/OpsDataGen/data/app_log	Constant Value	log4j	main	Linux	OpsDataGen	Disabled Enable
\$SPLUNK_HOME/etc/apps/OpsDataGen/data/access_log	Constant Value	access_combined	main	Windows	OpsDataGen	Disabled Enable
\$SPLUNK_HOME/etc/apps/OpsDataGen/data/app_log	Constant Value	log4j	main	Windows	OpsDataGen	Disabled Enable

Command ⌵	Interval ⌵	Source type ⌵	App ⌵	Status ⌵
\$SPLUNK_HOME/etc/apps/OpsDataGen/bin/AppGen.path	300	Linux	AppGenLogs	OpsDataGen Disabled Enable
\$SPLUNK_HOME/etc/apps/OpsDataGen/bin/AppGen-win.path	300	Windows	AppGenLogs	OpsDataGen Disabled Enable

Administrator ▾ Messages ▾ Settings ▾ Activity ▾ Help ▾ Find


Add Data


Distributed Management Console

KNOWLEDGE
Searches, reports, and alerts
Data models
Event types
Tags
Fields
Lookups
User interface
Alert actions
Advanced search
All configurations

DATA
Data inputs
Forwarding and receiving
Indexes
Report acceleration summaries
Source types

DISTRIBUTED ENVIRONMENT
Indexer clustering
Forwarder management
Distributed search

SYSTEM
Server settings
Server controls
Licensing

USERS AND AUTHENTICATION
Access controls

Apps

App "OpsDataGen" was installed successfully

Upload an app

If you have a .spl or .tar.gz app file to install, you can upload it using this form.

You can replace an existing app via the Splunk CLI. [Learn more.](#)

File

Upgrade app. Checking this will overwrite the app if it already exists.

Showing 1-18 of 18 items

Configure receiving

Set up this Splunk instance to receive data from forwarder(s).

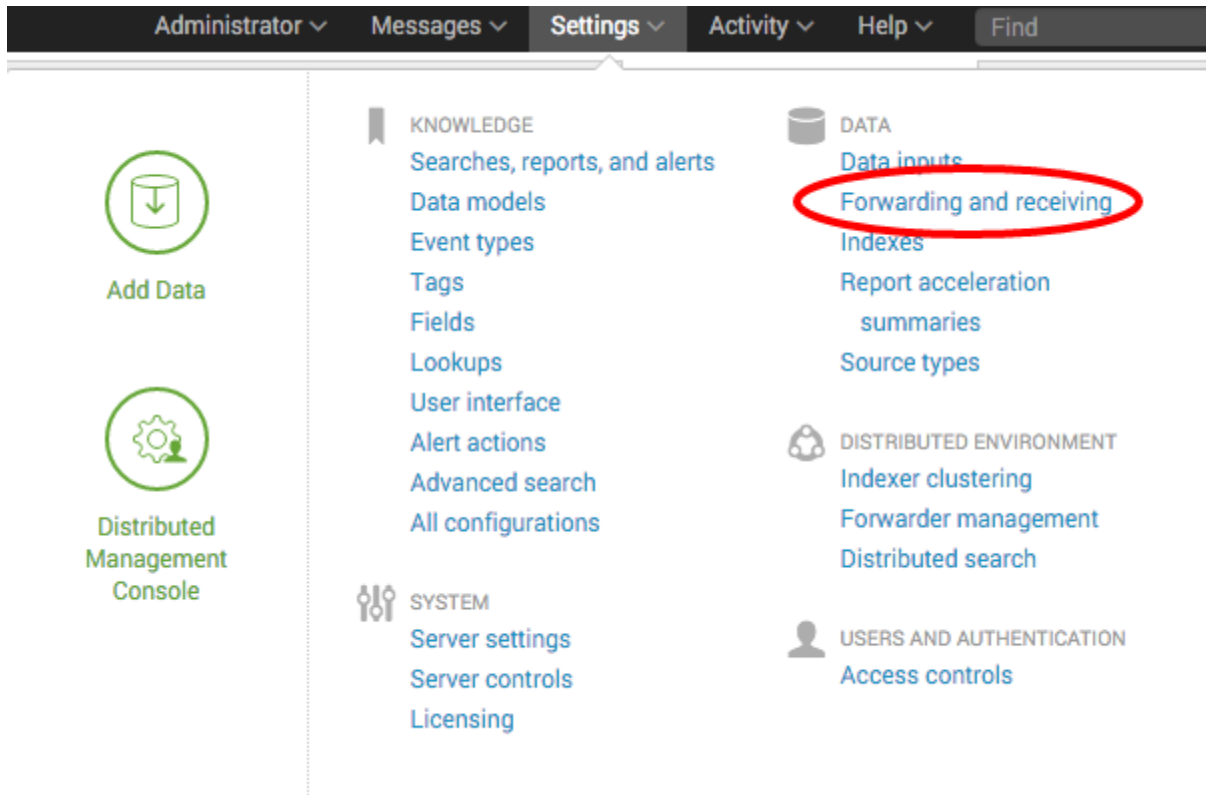
Listen on this port *

For example, 9997 will receive data on TCP port 9997.

Receive data

Configure this instance to receive data forwarded from other instances.

[Configure receiving](#)



✓ Modular input has been created successfully.

Configure your inputs by going to Settings > [Data Inputs](#)

Command Arguments

Arguments string for the command. Environment variables in the format \$VARIABLE\$ can be included and they will be substituted ie: \$SPLUNK_HOME\$

Streaming Output ?

Whether or not the command output is streaming(std out remains open) or not(results received and std out is closed). If it is streaming then "Execution Interval" won't really be relevant.

Command Execution Interval

Interval time in seconds to execute the command, defaults to 60 seconds

Mod Input Name *

SystemInfo

Name of this command input

Command Name *

/usr/bin/vmstat

Name of the system command if on the PATH (ps), or if not, the full path to the command (/bin/ps). Environment variables in the format \$VARIABLE\$ can be included and they will be substituted ie: \$SPLUNK_HOME\$

Add Data



Select Source

Input Settings

Review



Done



Next >

Files & Directories

Upload a file, index a local file, or monitor an entire directory.

HTTP Event Collector

Configure tokens that clients can use to send data over HTTP or HTTPS.

TCP / UDP

Configure Splunk to listen on a network port.

Scripts

Get data from from any API, service, or database with a script.

Command

Command input wrapper for executing commands and indexing the output

Login



Enter your Splunk.com username and password to download the app

[Forgot your password?](#)

This app is provided by a third party and your rights to use the app is in accordance with the license provided by that third-party licensor. Splunk is not responsible for any third-party apps and does not provide any warranty or support. If you have any questions, complaints or claims with respect to this app, please contact the licensor directly, whose contact information can be found on the download page.

[Splunk Software License Agreement](#)

[Splunk Websites Terms and Conditions of Use](#)

I have read the terms and conditions of the license and agree to be bound by them. I accept that Splunk will securely send my login credentials over the Internet to splunk.com

Cancel

Login and Install

CMD Command Modular Input

Install

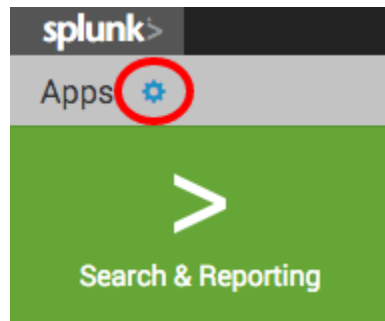
This is a Splunk Modular Input for executing commands and indexing the output. It is quite simply just a wrapper around whatever system commands/programs that you want to periodically execute and capture the output from ie: (top, ps, iostat, tshark, tcpdump etc...). It will work on all supported Splunk platforms.

Category: [Utilities](#) | Author: [Damien Dallimore](#) | Downloads: 1061 | Released: 3 years ago |

Last Updated: 2 years ago | [View on Splunkbase](#)

Browse More Apps


command modular input



Script input has been created successfully.

Configure your inputs by going to [Settings > Data Inputs](#)

	<input type="button" value="Select"/> <input type="button" value="New"/>
Source Type	<input type="text" value="cp01_scripted_input"/>
Source Type Category	<input type="button" value="Custom v"/>
Source Type Description	<input type="text"/>

Configure this instance to execute a script or command and to capture its output as event data. Scripted inputs are useful when the data that you want to index is not available in a file to monitor. [Learn More](#) 

Script Path	<input type="button" value="\$SPLUNK_HOME/bin/scripts v"/>
Script Name	<input type="button" value="cp01_scripted_input.py v"/>
Command?	<input type="text" value="\$SPLUNK_HOME/bin/scripts/cp01_scripted_input.py"/>
Interval?	<input type="text" value="60.0"/>
Source name override?	<input type="text" value="optional"/>

Add Data

Select Source Input Settings Review Done

< Next >

Files & Directories

Upload a file, index a local file, or monitor an entire directory.

HTTP Event Collector

Configure tokens that clients can use to send data over HTTP or HTTPS.

TCP / UDP

Configure Splunk to listen on a network port.

Scripts

Get data from from any API, service, or database with a script.



UDP input has been created successfully.

Configure your inputs by going to Settings > [Data Inputs](#)

Input Settings

Optionally set additional input parameters for this data input as follows:

Source type

The source type is one of the default fields that Splunk assigns to all incoming data. It tells Splunk what kind of data you've got, so that Splunk can format the data intelligently during indexing. And it's a way to categorize your data, so that you can search it easily.

Select New

syslog ▾

TCP UDP

Port? 514

Example: 514

Source name override? optional

host:port

Only accept connection from? optional

example: 10.1.2.3, !badhost.splunk.com, *.splunk.com

Add Data

Select Source Input Settings Review Done

< Next >

Files & Directories

Upload a file, index a local file, or monitor an entire directory.

HTTP Event Collector

Configure tokens that clients can use to send data over HTTP or HTTPS.

TCP / UDP

Configure Splunk to listen on a network port.

Scripts

Get data from from any API, service, or database with a script.



File input has been created successfully.

Configure your inputs by going to Settings > [Data Inputs](#)

Save Source Type ×

Name

Description

Category

App

File or Directory?

On Windows: c:\apache\apache.error.log or \\hostname\apache\apache.error.log. On Unix: /var/log or /mnt/www01/var/log.

Whitelist?

Blacklist?

Add Data

Select Source Set Source Type Input Settings Review Done

Files & Directories
 Upload a file, index a local file, or monitor an entire directory.

HTTP Event Collector
 Configure tokens that clients can use to send data over HTTP or HTTPS.


TCP / UDP
 Configure Splunk to listen on a network port.

Scripts
 Get data from from any API, service, or database with a script.

Configure this instance to monitor directory. Splunk monitors and a problems if there are different of objects in the same directory, cc


File or Directory?

Add Data
 How do you want to add data?



upload
 files from my computer

Local log files
 Local structured files (e.g. CSV)
[Tutorial for adding data](#)



monitor
 files and ports on this Splunk indexer

Files - WMI - TCP/UDP - Scripts
 Modular inputs for external data sources



forward
 data from Splunk forwarder

Files - TCP/UDP - Scripts
[Help me install the universal forwarder](#)

Administrator Messages **Settings**

Add Data

KNOWLEDGE
 Searches, reports, and alerts
 Data models
 Event types
 Tags
 Fields

Chapter 2: Diving into Data – Search and Report

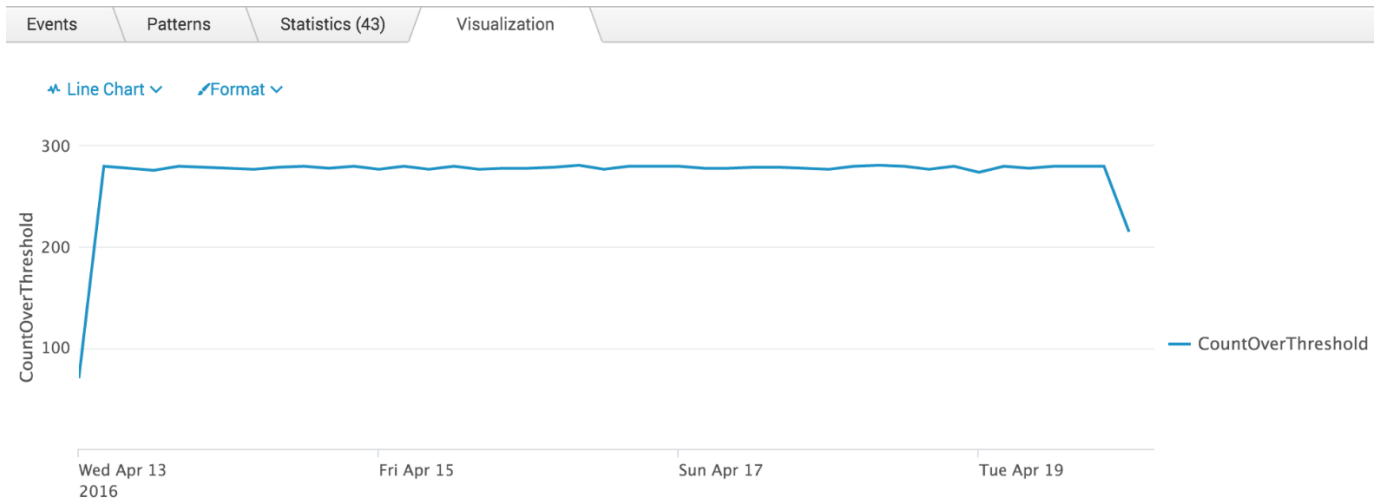
Save As Report ×

Title

Description

Visualization Single Value None

Time Range Picker Yes No



New Search

Save As Close

```
index=main sourcetype=log4j perfType="DB" | eval threshold=con_total/100*70 | where con_used>=threshold |  
timechart span=4h count(con_used) AS CountOverThreshold
```

Last 7 days Q

✓ 11,713 events (4/13/16 3:00:00.000 AM to 4/20/16 3:05:05.000 AM) No Event Sampling

Job || → ↓ Smart Mode

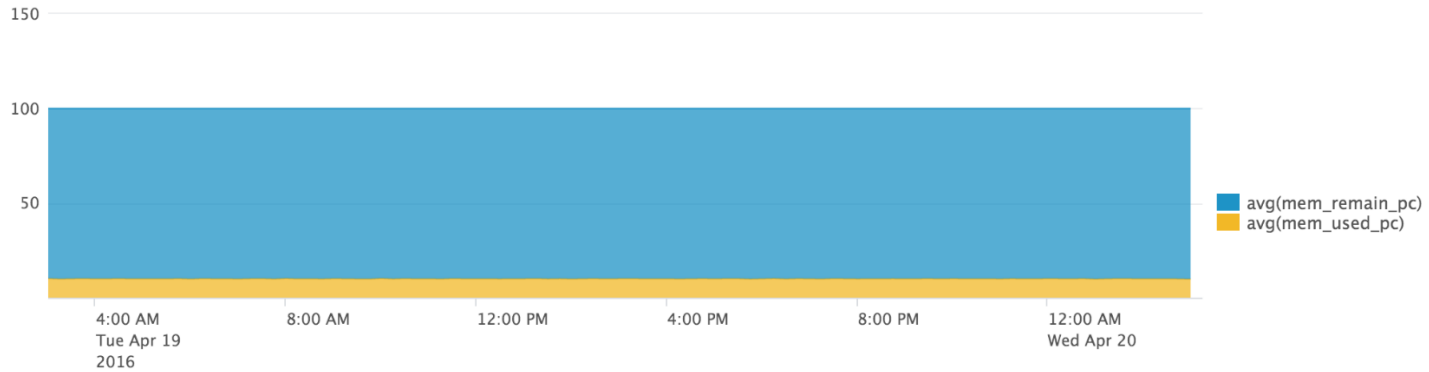
Events Patterns Statistics (43) Visualization

20 Per Page Format Preview

< Prev 1 2 3 Next >

_time	CountOverThreshold
2016-04-13 00:00	70
2016-04-13 04:00	280
2016-04-13 08:00	278
2016-04-13 12:00	276
2016-04-13 16:00	280
2016-04-13 20:00	279
2016-04-14 00:00	278

Area Chart Format



New Search

Save As

```
index=main sourcetype=log4j perfType="MEMORY" | eval mem_used_pc=round((mem_used/mem_total)*100) | eval mem_remain_pc=(100-mem_used_pc) | timechart span=15m avg(mem_remain_pc) avg(mem_used_pc)
```

Last 24 hours

✓ 16,053 events (4/19/16 3:00:00.000 AM to 4/20/16 3:02:05.000 AM) No Event Sampling

Job Smart Mode

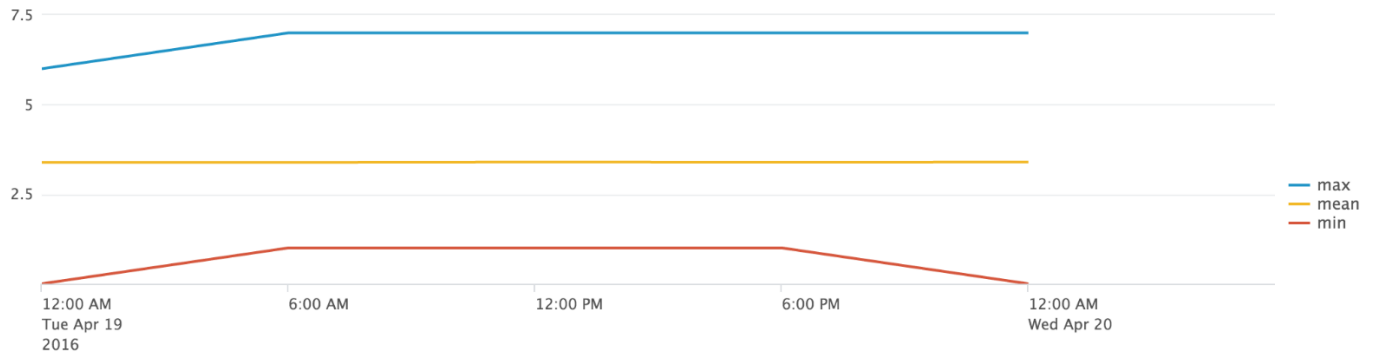
Events Patterns Statistics (97) Visualization

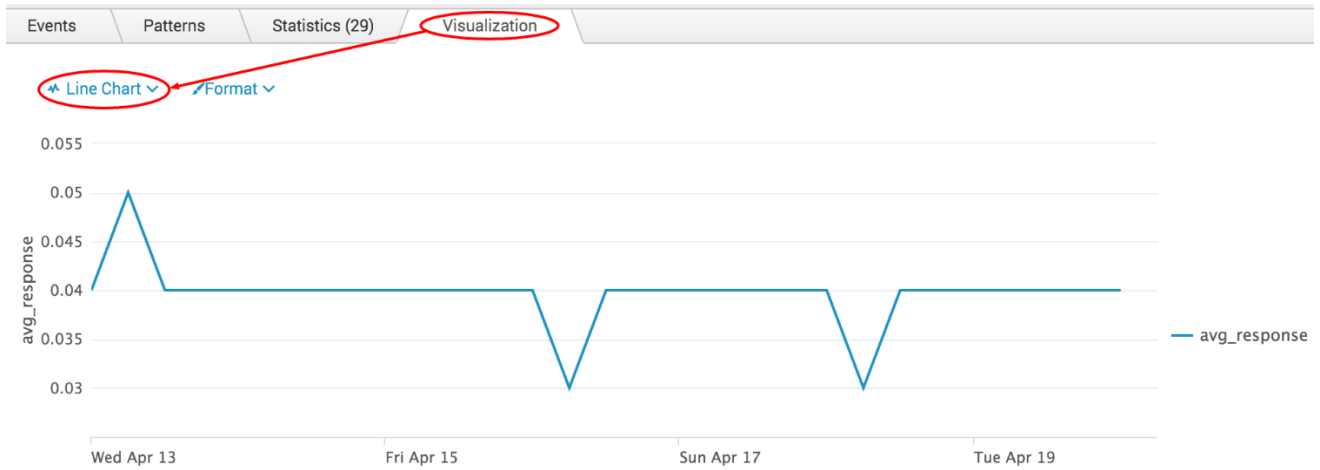
20 Per Page

< Prev 1 2 3 4 5 Next >

_time	avg(mem_remain_pc)	avg(mem_used_pc)
2016-04-19 03:00:00	89.880952	10.119048
2016-04-19 03:15:00	90.113772	9.886228
2016-04-19 03:30:00	89.994083	10.005917
2016-04-19 03:45:00	89.880952	10.119048
2016-04-19 04:00:00	90.048193	9.951807

Events Patterns Statistics (5) Visualization





New Search Save As Close

sourcetype=access_combined | timechart span=6h avg(response) AS avg_response | eval avg_response=round(avg_response/1000,2)

Last 7 days

149,052 events (4/13/16 2:00:00.000 AM to 4/20/16 2:52:05.000 AM) No Event Sampling Job

Events Patterns Statistics (29) Visualization

20 Per Page Format Preview

_time	avg_response
2016-04-13 00:00	0.04
2016-04-13 06:00	0.05
2016-04-13 12:00	0.04
2016-04-13 18:00	0.04
2016-04-14 00:00	0.04
2016-04-14 06:00	0.04

New Search Save As Close

index=main sourcetype=access_combined | eval os=useragent | replace *Windows* with Windows, *Macintosh* with Apple, *Linux* with Linux in os | top limit=3 useother=t os

Last 24 hours

21,852 events (4/19/16 2:00:00.000 AM to 4/20/16 2:45:44.000 AM) No Event Sampling Job

Events Patterns Statistics (3) Visualization


20 Per Page Format Preview

os	count	percent
Windows	16352	74.830679
Apple	4421	20.231558
Linux	1079	4.937763

New Search

Save As ▼ Close

```
index=main sourcetype=access_combined uri_path="/addItem" OR uri_path="/checkout" | chart  
count(eval(like(status,"2%"))) AS Success, count(eval(like(status,"4%") OR like(status,"5%"))) AS Error by uri_path |  
addcoltotals label=Total labelfield=uri_path
```

Last 24 hours ▼ 

✓ 5,001 events (4/19/16 2:00:00.000 AM to 4/20/16 2:50:23.000 AM) No Event Sampling ▼

Job ▼      Smart Mode ▼

Events Patterns Statistics (3) Visualization

20 Per Page ▼  Format ▼ Preview ▼

uri_path ↕	Success ↕	Error ↕
/addItem	3079	579
/checkout	768	0
Total	3847	579

New Search

Save As ▼ Close

```
index=main sourcetype=access_combined | chart count(eval(like(status,"2%"))) AS Success,  
count(eval(like(status,"4%") OR like(status,"5%"))) AS Error by uri_path
```

Last 24 hours ▼ 

✓ 21,902 events (4/19/16 2:00:00.000 AM to 4/20/16 2:48:58.000 AM) No Event Sampling ▼

Job ▼      Smart Mode ▼

Events Patterns Statistics (16) Visualization

20 Per Page ▼  Format ▼ Preview ▼

uri_path ↕	Success ↕	Error ↕
/addItem	3075	579
/admin	0	384
/checkout	767	0
/error	958	0
/help	0	34
/home	3265	0
/login.php	0	27

New Search Save As ▾ Close

index=main sourcetype=access_combined | stats dc(clientip) AS Referrals by referer_domain | sort - Referrals Last 24 hours ▾ 🔍

✓ 21,876 events (4/19/16 2:00:00.000 AM to 4/20/16 2:47:20.000 AM) No Event Sampling ▾ Job ▾ || ▶ 🖨 ⬇ 💡 Smart Mode ▾

Events **Patterns** Statistics (11) Visualization

20 Per Page ▾ Format ▾ Preview ▾

referer_domain ▾	Referrals ▾
http://www.bing.com	350
https://www4.samplesite.ca	362
https://www2.samplesite.ca	365
http://www.yahoo.com	367
http://www.google.ca	383
http://www.aol.com	394
https://www3.samplesite.ca	395

New Search Save As ▾ Close

index=main sourcetype=access_combined | eval browser=useragent | replace *Firefox* with Firefox, *Chrome* with Chrome, *MSIE* with "Internet Explorer", *Version*Safari* with Safari, *Opera* with Opera in browser | top limit=5 useother=t browser Last 24 hours ▾ 🔍

✓ 21,806 events (4/19/16 2:00:00.000 AM to 4/20/16 2:42:46.000 AM) No Event Sampling ▾ Job ▾ || ▶ 🖨 ⬇ 💡 Smart Mode ▾

Events **Patterns** Statistics (4) Visualization

20 Per Page ▾ Format ▾ Preview ▾

browser ▾	count ▾	percent ▾
Firefox	6628	30.395304
Internet Explorer	6551	30.042190
Chrome	4341	19.907365
Opera	4286	19.655141

New Search Save As Close

index=main sourcetype=access_combined | stats count by uri_path | sort - count Last 24 hours

✓ 21,757 events (4/19/16 2:00:00.000 AM to 4/20/16 2:39:19.000 AM) No Event Sampling Job Smart Mode

Events Patterns Statistics (16) Visualization

20 Per Page

uri_path	count
/viewCart	4774
/addItem	4012
/home	3241
/search	1910
/viewItem	1910
/removeItem	1718
/updatecart	1718
/checkout	952
/error	951
/admin	381
/wp-admin	41

New Search Save As Close

index=main sourcetype=access_combined | table _time, referer_domain, method, uri_path, status, JSESSIONID, useragent Last 24 hours

✓ 21,699 events (4/19/16 2:00:00.000 AM to 4/20/16 2:35:26.000 AM) No Event Sampling Job Smart Mode

Events Patterns Statistics (21,699) Visualization

20 Per Page < Prev 1 2 3 4 5 6 7 8 9 ... Next >

_time	referer_domain	method	uri_path	status	JSESSIONID	useragent
2016-04-20 02:35:20	https://www1.samplesite.ca	GET	/viewCart	200	3EC32502F7653FA4FE3745FCC8043429	Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:24.0) Gecko/20100101 Firefox/24.0
2016-04-20 02:35:18	https://www1.samplesite.ca	POST	/removeItem	200	3EC32502F7653FA4FE3745FCC8043429	Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:24.0) Gecko/20100101 Firefox/24.0
2016-04-20 02:35:12	https://www1.samplesite.ca	GET	/viewCart	200	3EC32502F7653FA4FE3745FCC8043429	Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:24.0) Gecko/20100101 Firefox/24.0
2016-04-20 02:35:08	https://www1.samplesite.ca	POST	/addItem	200	3EC32502F7653FA4FE3745FCC8043429	Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:24.0) Gecko/20100101 Firefox/24.0

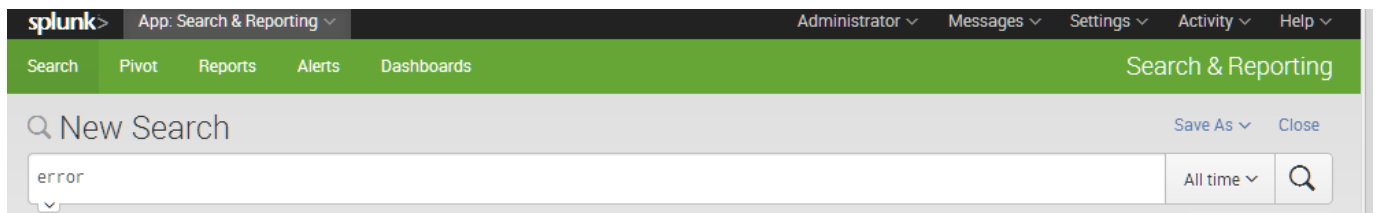
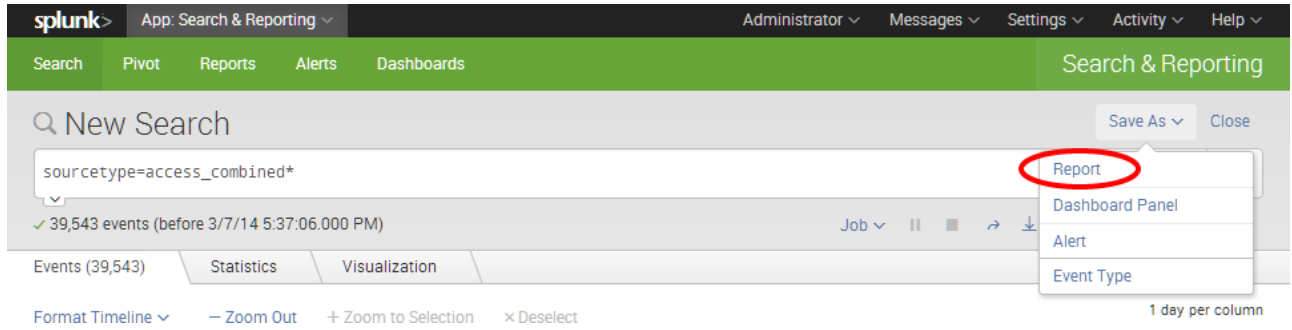
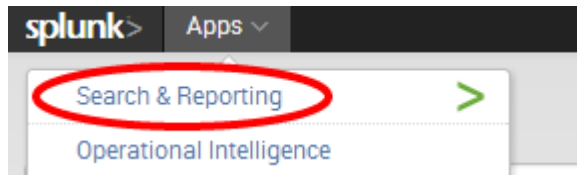
New Search Save As Close

index=main sourcetype=access_combined Last 24 hours

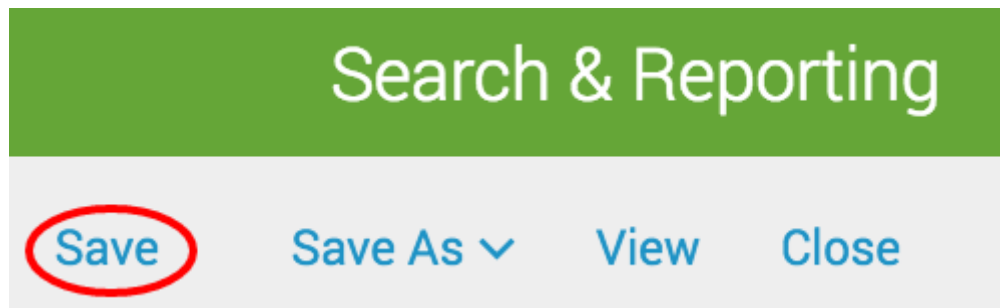
✓ 21,658 events (4/19/16 2:00:00.000 AM to 4/20/16 2:32:34.000 AM) No Event Sampling Job Smart Mode

Events (21,658) Patterns Statistics Visualization





Chapter 3: Dashboards and Visualizations – Making Data Shine



General	Use Colors	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Color	Color by	<input checked="" type="radio"/> Value	<input type="radio"/> Trend
Number Format	Ranges	from min to 0	<input type="checkbox"/>
		from 0 to 30	<input checked="" type="checkbox"/>
		from 30 to 70	<input checked="" type="checkbox"/>
		from 70 to 100	<input checked="" type="checkbox"/>
		from 100 to max	<input type="checkbox"/>
		<input type="button" value="+ Add Range"/>	
	Color Mode	<input checked="" type="radio"/> 42	<input type="radio"/> 42

General

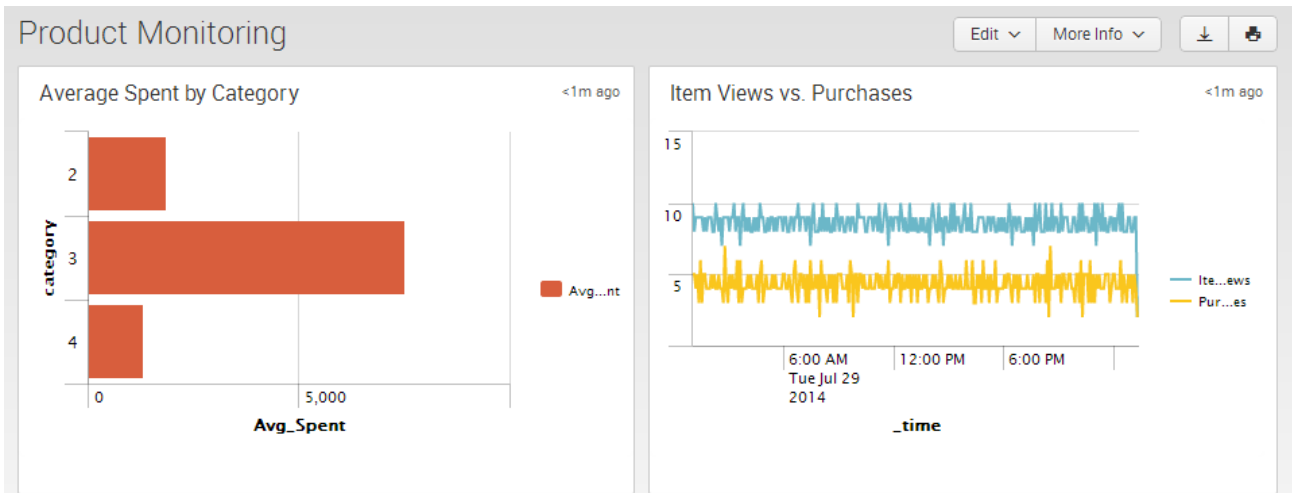
Title Custom ▾ Title A

X-Axis Label Rotation abc abc abc abc abc

Y-Axis Label Truncation Yes No

Chart Overlay

Legend



Save As Dashboard Panel



Dashboard

New

Existing

Dashboard Title

Product Monitoring

Dashboard ID ?

product_monitoring

Can only contain letters, numbers and underscores.

Dashboard Description

optional

Dashboard Permissions

Private

Shared in App

Panel Title

Average Spent by Category

Panel Powered By

Q Inline Search

□ Report

Panel Content

📊 Statistics

☰ Bar

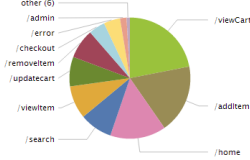
Cancel

Save

Website Monitoring

Edit More Info

Most Accessed Webpages



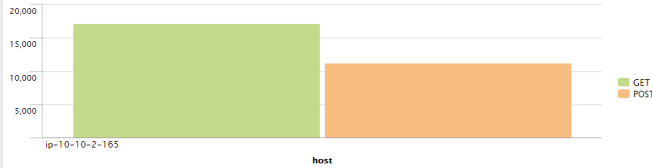
Unique Visitors

111

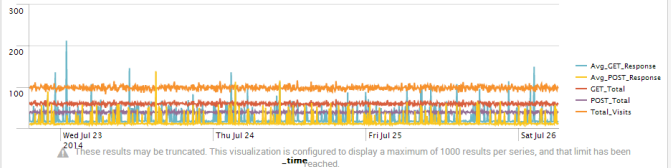
Total Number of Errors



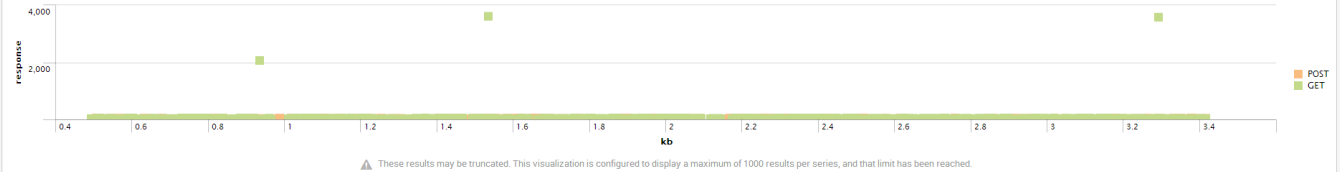
Method Requests by Type and Host



Website Response Performance



Discrete Requests by Size and Response



```
index=main sourcetype=access_combined | eval GET_response=if(method=="GET",response,0) | eval POST_response=if(method=="POST",response,0) | timechart span=5m avg(GET_response) AS Avg_GET_Response, avg(POST_response) AS Avg_POST_Response, count(eval(method=="GET")) AS GET_Total, count(eval(method=="POST")) AS POST_Total, count AS Total_Visits
```

Last 7 days

148,722 events (4/14/16 3:00:00.000 AM to 4/21/16 3:26:52.000 AM) No Event Sampling Job

Events Patterns Statistics (2,022) Visualization

20 Per Page Format Preview < Prev 1 2 3 4 5 6 7 8 9 ... Next >

_time	Avg_GET_Response	Avg_POST_Response	GET_Total	POST_Total	Total_Visits
2016-04-14 03:00:00	17.000000	9.391304	44	25	69
2016-04-14 03:05:00	17.985915	63.591549	41	30	71
2016-04-14 03:10:00	16.888889	9.930556	45	27	72
2016-04-14 03:15:00	18.013699	11.164384	45	28	73
2016-04-14 03:20:00	16.154930	9.323944	44	27	71

Your Report Has Been Created



You may now view your report, add it to a dashboard, change additional settings, or continue editing it.

Additional Settings:

- [Permissions](#)
- [Schedule](#)
- [Acceleration](#)
- [Embed](#)

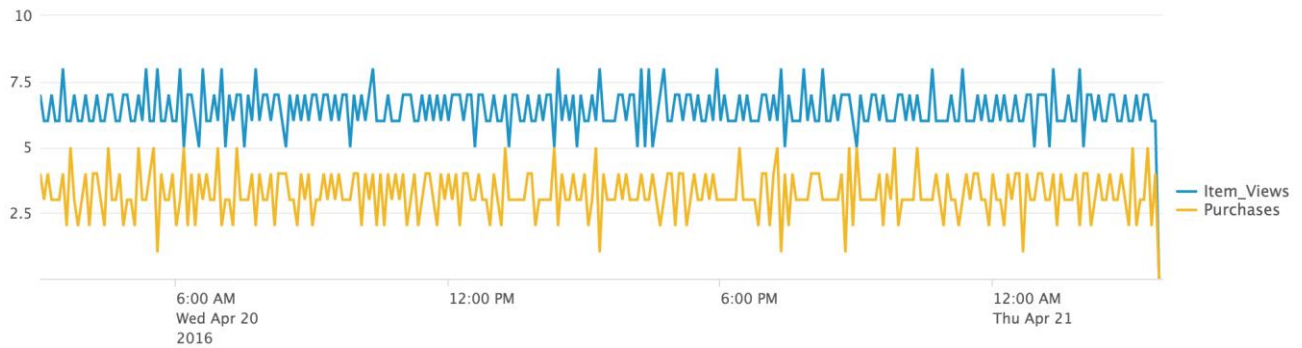
[Continue Editing](#)

[Add to Dashboard](#)

[View](#)

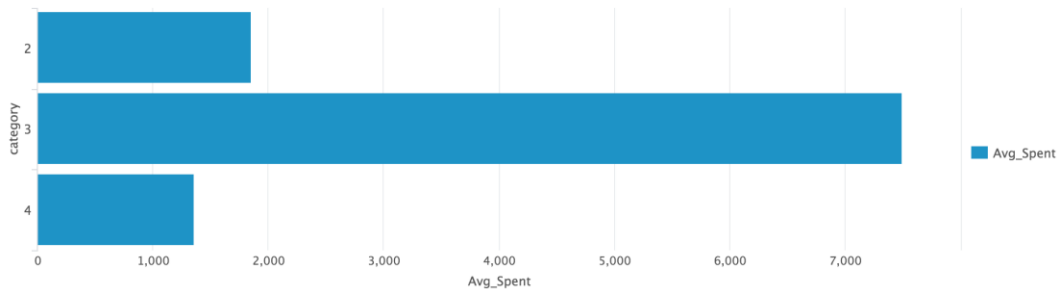
Events | Patterns | Statistics (297) | Visualization

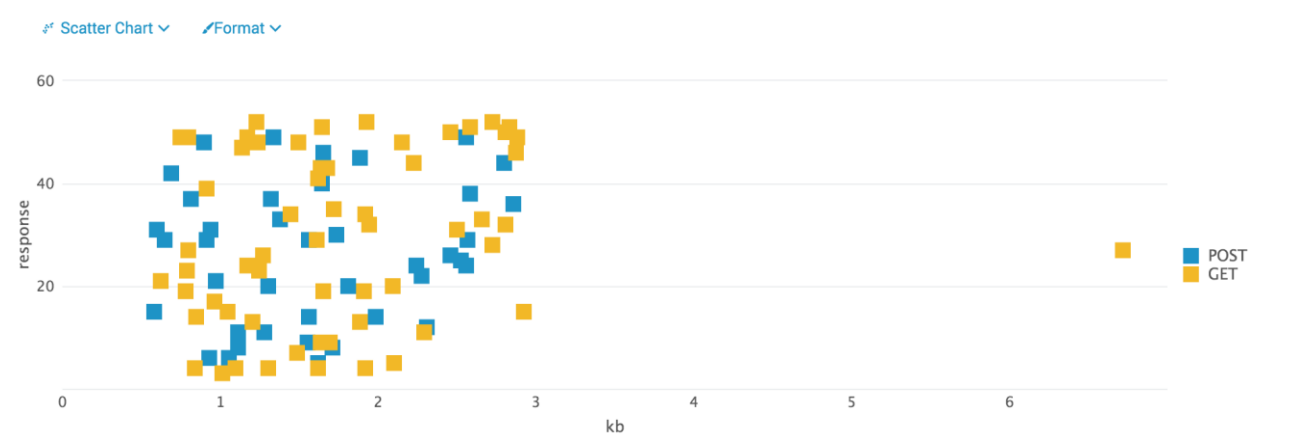
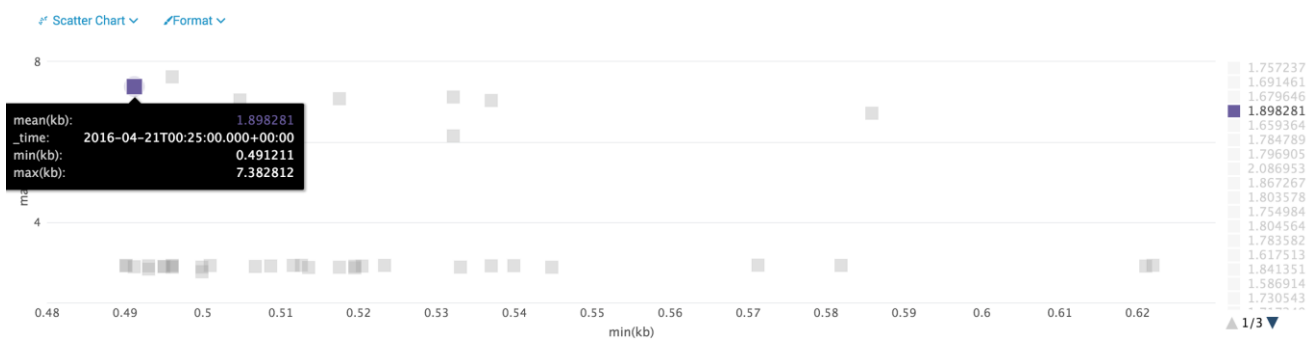
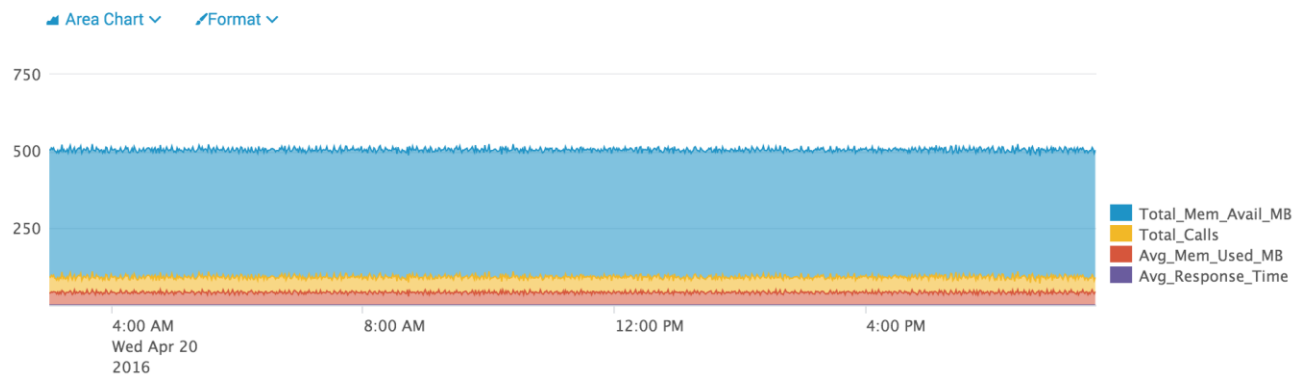
Line Chart | Format

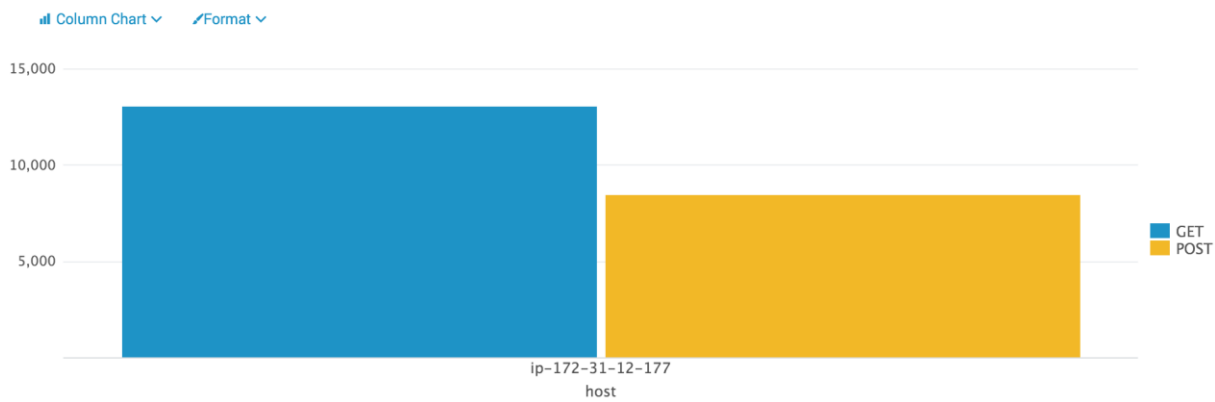
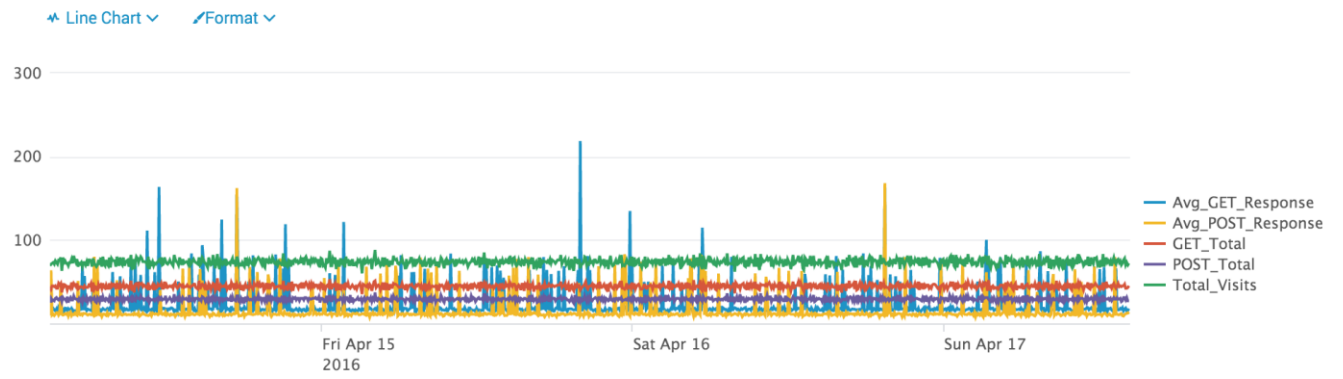


Events | Patterns | Statistics (3) | Visualization

Bar Chart | Format







Website Monitoring

Edit More Info Download Print

Most Accessed Webpages

6m ago

- /updateOrder
- /errorPage
- /updateCart
- /checkout
- /viewItem
- /search
- /removeItem
- /viewCart
- /home
- /addItem

Unique Visitors

6m ago

111

Total Number of Errors

6m ago

103

Radial Gauge

Format

General

Automatic Manual

Color Ranges

Ranges from 0 to 1800

from 1800 to 3000

from 3000 to 5000

+ Add Range



Events Patterns Statistics (1) Visualization

Radial Gauge Format



Events Patterns Statistics (1) Visualization

42 Single Value Format

2,616

This is a caption

42 Single Value ▾

Format ▾

General	Drilldown	<input type="radio"/> Yes	<input type="radio"/> No
Color	Caption	<input type="text" value="This is a caption"/>	
Number Format			

Edit: Website Monitoring

+ Add Panel

+ Add Input ▾

↔ Edit Source

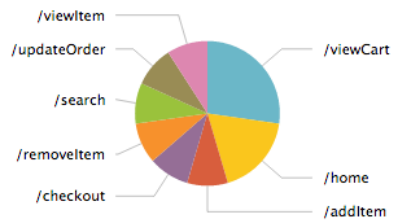
Done

Untitled

⚙️ ▾

Most Accessed Webpages

🔍 ▾ 🌐 ▾ ✎ ▾



Untitled

⚙️ ▾

Unique Visitors

🔍 ▾ 42 ▾ ✎ ▾

107

Edit ▾

More Info ▾

Edit Panels

Edit Source

XML

Convert to HTML

Edit Title or Description

Edit Permissions

Schedule PDF Delivery

Set as Home Dashboard

Clone

Delete

Save As Dashboard Panel ×

Dashboard New Existing

Website Monitoring ▾

Panel Title

Panel Powered By Inline Search Report

Panel Content Statistics Single Value

- Events
- Patterns
- Statistics (1)
- Visualization

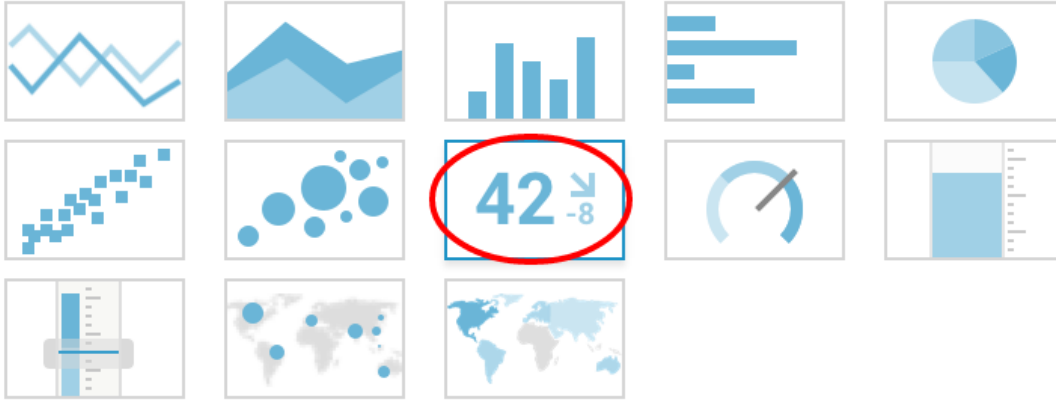
[Single Value ▾](#) [Format ▾](#)

2,708

42 Single Value ▾

Format ▾

Splunk Visualizations



[Find more visualizations](#)

Single Value

Track a metric with context and trends.

Search Fragment
| timechart count

Your Dashboard Panel Has Been Created



The panel has been created and added to website_monitoring. You may now view the dashboard.

[View Dashboard](#)

Save As Dashboard Panel ✕

Dashboard

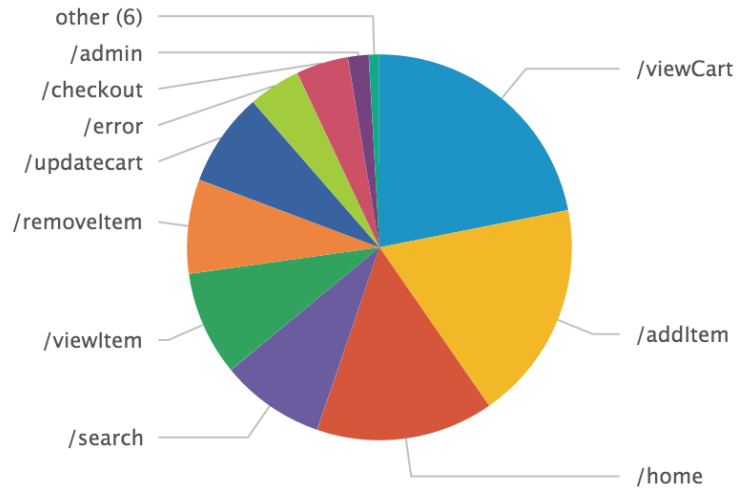
Panel Title

Panel Powered By

Panel Content

- Report
-
- Alert
- Event Type

Pie Chart Format



Pie Chart Format

Splunk Visualizations

[Find more visualizations](#)

Pie Chart
Compare categories in a dataset.

Search Fragment
| stats count by comparison_category

splunk> App: Search & Reporting Messages Settings Activity Help

Search Pivot Reports Alerts Dashboards Search & Reporting

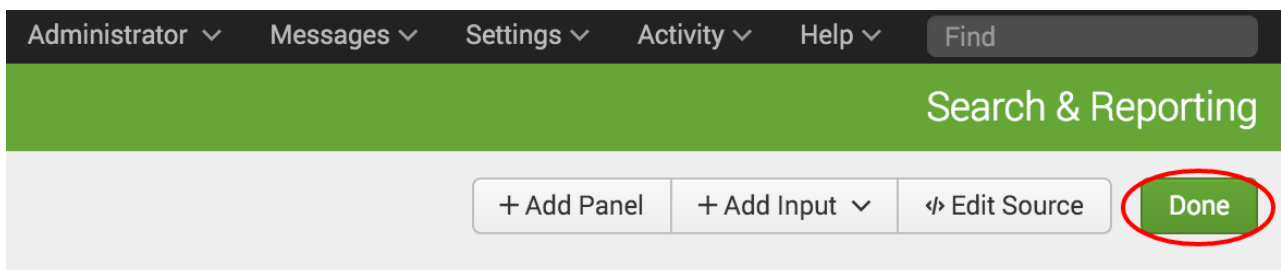
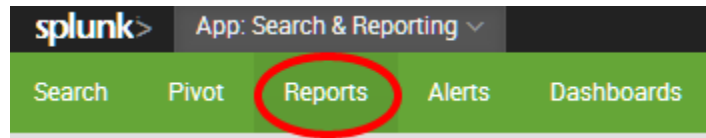
Operational Intelligence

Edit More Info

Most Accessed Webpages <1m ago

uri_path	count
/viewCart	6
/home	4
/addItem	2
/checkout	2
/removeItem	2
/search	2
/updateOrder	2
/viewItem	2

> [most-accessed-webpages](#) **Open in Search** Edit



Create New Dashboard ×

Title

ID ?
Can only contain letters, numbers and underscores.

Description

Permissions

splunk> App: Search & Reporting ▾

Search Pivot Reports Alerts **Dashboards**

Search

enter search here...

No Event Sampling ▾

Chapter 4: Building an Operational Intelligence Application

[Send Test Email](#) [Preview PDF](#)

Paper Size

Letter ▾

Paper Layout

Portrait

Landscape

Email To

Priority

Normal ▾

Subject

Splunk Dashboard: '\$name\$'

Message

A PDF was generated for \$name\$

Schedule

Run every week ▾

On

Monday ▾

at

6:00 ▾

Edit PDF Schedule

×

Dashboard Product Monitoring

Schedule PDF

Cancel

Save

Edit ▾ More Info ▾

- Edit Panels
- Edit Source XML
- Convert to HTML
- Edit Title or Description
- Edit Permissions
- Schedule PDF Delivery
- Set as Home Dashboard
- Clone
- Delete



Add Panel

- ▼ New (15)
- ☰ Events
- ☰ Statistics Table
- ⬆️ Line Chart
- 📊 Area Chart
- 📊 Column Chart
- ☰ Bar Chart
- 📊 Pie Chart
- ☰ Scatter Chart
- 📊 Bubble Chart
- 42 Single Value
- 📊 Radial Gauge
- 📊 Filler Gauge
- ☰ Marker Gauge
- 📍 Cluster Map
- ☰ Choropleth Map

New Choropleth Map

Add to Dashboard

Time Range Scope

Shared Time Picker (field1) ▼
Content Title

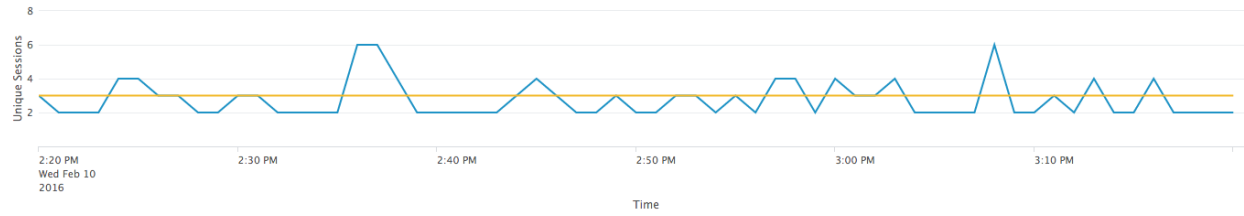
Sessions By Location

Search String

```
index=main sourcetype=access_combined clientip="$ip$" | iplocation clientip
| fillnull value="Unknown" Country | search City="$city$" Region="$region$"
Country="$country$" | stats count by Country | fields Country, count | geom
geo_countries featureIdField=Country
```

[Run Search](#)

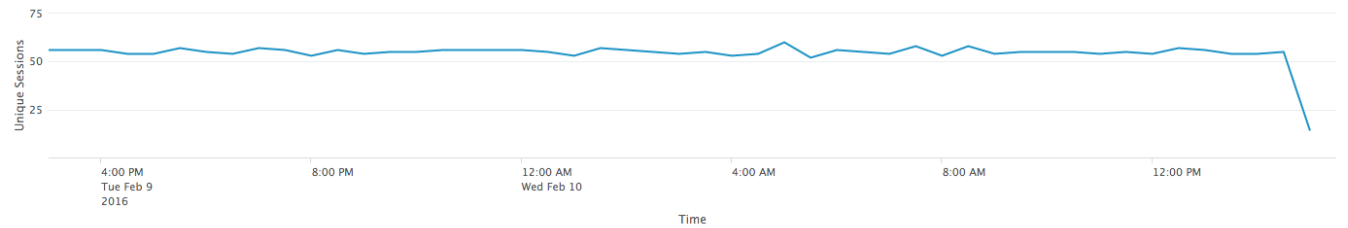
Session Over Time



```
<row>
  <panel>
    <chart>
      <title>Session Over Time</title>
      <search>
        <query>index=main sourcetype=access_combined clientip="$ip$" | iplocation clientip | fi
        average=round(average,0)</query>
        <earliest>$field1.earliest$</earliest>
        <latest>$field1.latest$</latest>
      </search>
      <option name="charting.chart.overlayFields">average</option>
      <option name="charting.chart">line</option>
      <option name="charting.axisLabelsX.majorLabelStyle.overflowMode">ellipsisNone</option>
      <option name="charting.axisLabelsX.majorLabelStyle.rotation">0</option>
    </chart>
  </panel>
</row>
```

Untitled

Session Over Time



Add Panel

- New (15)
 - Events
 - Statistics Table
 - Line**
 - Area
 - Column
 - Bar
 - Pie
 - Scatter

New Line

Add to Dashboard

Time Range Scope
Shared Time Picker (field1) ▾

Content Title
Session Over Time

Search String
`index=main sourcetype=access_combined clientip="Sip$" |
iplocation clientip | fillnull value="Unknown" City,
Country, Region | replace "" with "Unknown" in City,
Country, Region | search City="$city$" Region="$region$"
Country="$country$" | timechart dc(JSESSIONID)`

[Run Search](#)

Operational Intelligence

+ Add Panel + Add Input ▾ Edit Source **Done**

Operational Intelligence

Edit ▾ More Info ▾ ⬇️ 🖨️

Edit Search [X]

Title: Session Listing

Search String: `index=main
sourcetype=access_combined*
clientip=ip | iplocation clientip |
fillnull value="Unknown" City, Country,
Region | replace "" with "Unknown" in
City, Country, Region | stats count by
JSESSIONID, clientip, City, Country,
Region | fields clientip, City, Region,
Country | search City=$city$
Region=$region$ Country=$country$`

Run Search [L]

Time Range Scope: **Shared Time Picker (field1) v**

Cancel Save

[Q] [Grid] [Pencil]

Country: INLINE SEARCH

United States: Edit Title

United States: **Edit Search String**

United States: Convert to Report

Australia: Delete

✎ ✕ Autorun dashboard

T Text

Radio

▼ Dropdown

Checkbox

▼ Multiselect

🔗 Link List

🕒 Time

General

Label

Search on Change

Token Options

Token?

Default

Cancel Apply

Search Pivot Reports Alerts Dashboards Operational Intelligence

Edit: Visitor Monitoring + Add Panel + Add Input Edit Source Done

IP City Region Country

Autorun dashboard

IP

City

T Text General

Radio

▼ Dropdown

Checkbox

▼ Multiselect

↗ Link List

Time

Label

Search on Change

Token Options

Token?

Default?

Initial Value?

Token Prefix?

Token Suffix?

Cancel Apply

+ Add Panel **+ Add Input** ▼ ↗ Edit Source

T Text

Radio

▼ Dropdown

Checkbox

▼ Multiselect

↗ Link List

Time

🔍 Submit

Search, Grid, Edit icons

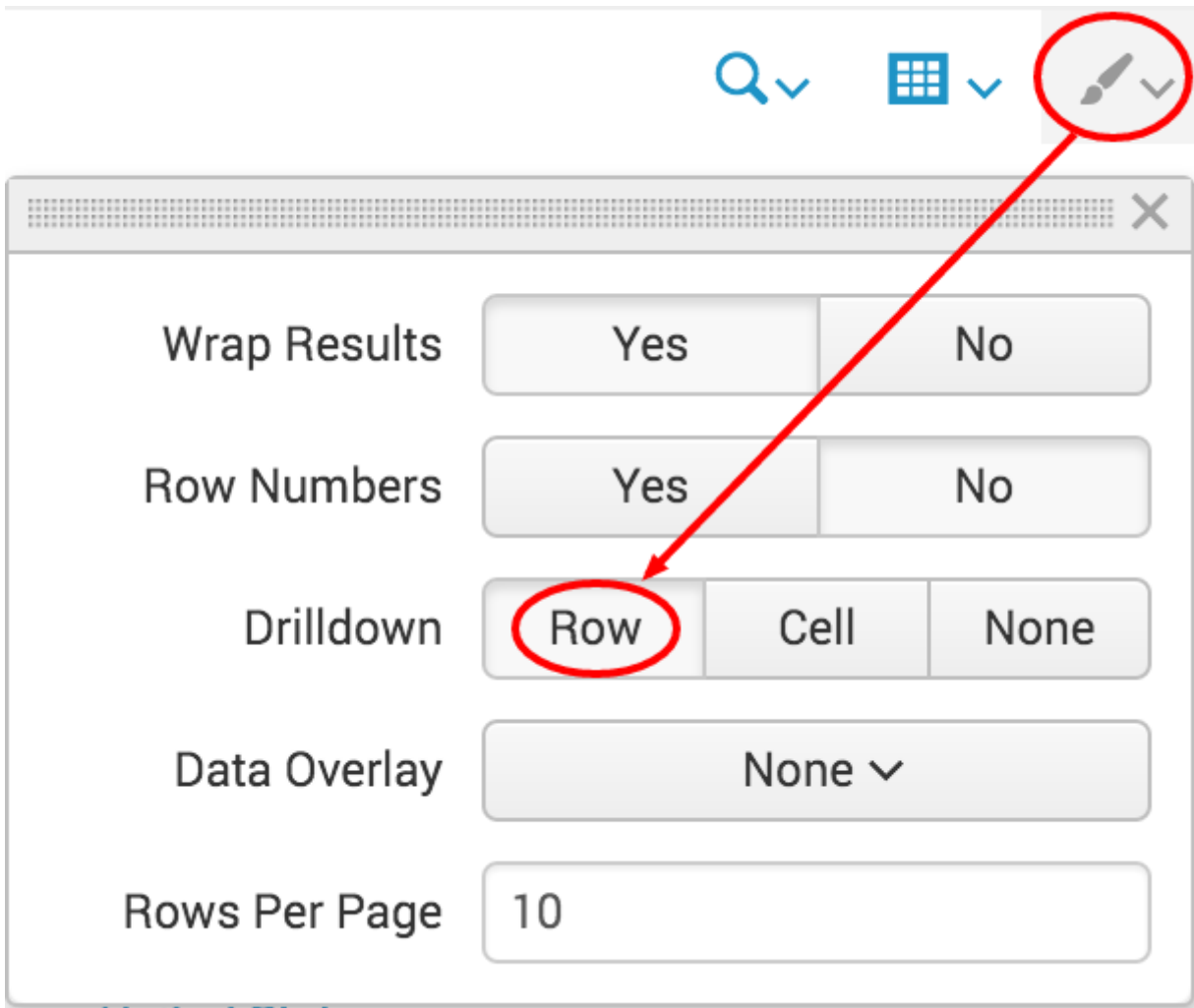
Wrap Results: Yes No

Row Numbers: Yes No

Drilldown: **Row** Cell None

Data Overlay: None

Rows Per Page: 10



Add Panel

find...

New (15)

- Events
- Statistics Table**
- Line
- Area
- Column
- Bar
- Pie
- Scatter

New Statistics Table

Add to Dashboard

Last 24 hours

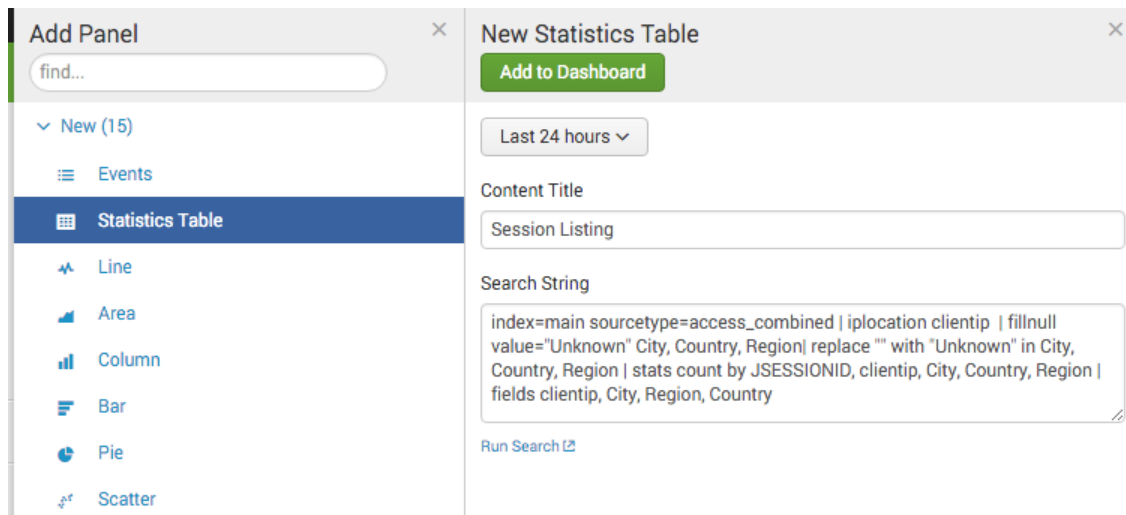
Content Title

Session Listing

Search String

```
index=main sourcetype=access_combined | iplocation clientip | fillnull value="Unknown" City, Country, Region | replace "" with "Unknown" in City, Country, Region | stats count by JSESSIONID, clientip, City, Country, Region | fields clientip, City, Region, Country
```

Run Search



Title

ID?

Can only contain letters, numbers and underscores.

Description

Permissions

Operational Intelligence

+ Add Panel + Add Input ▾ ↻ Edit Source Done

Operational Intelligence

Create New Dashboard

```

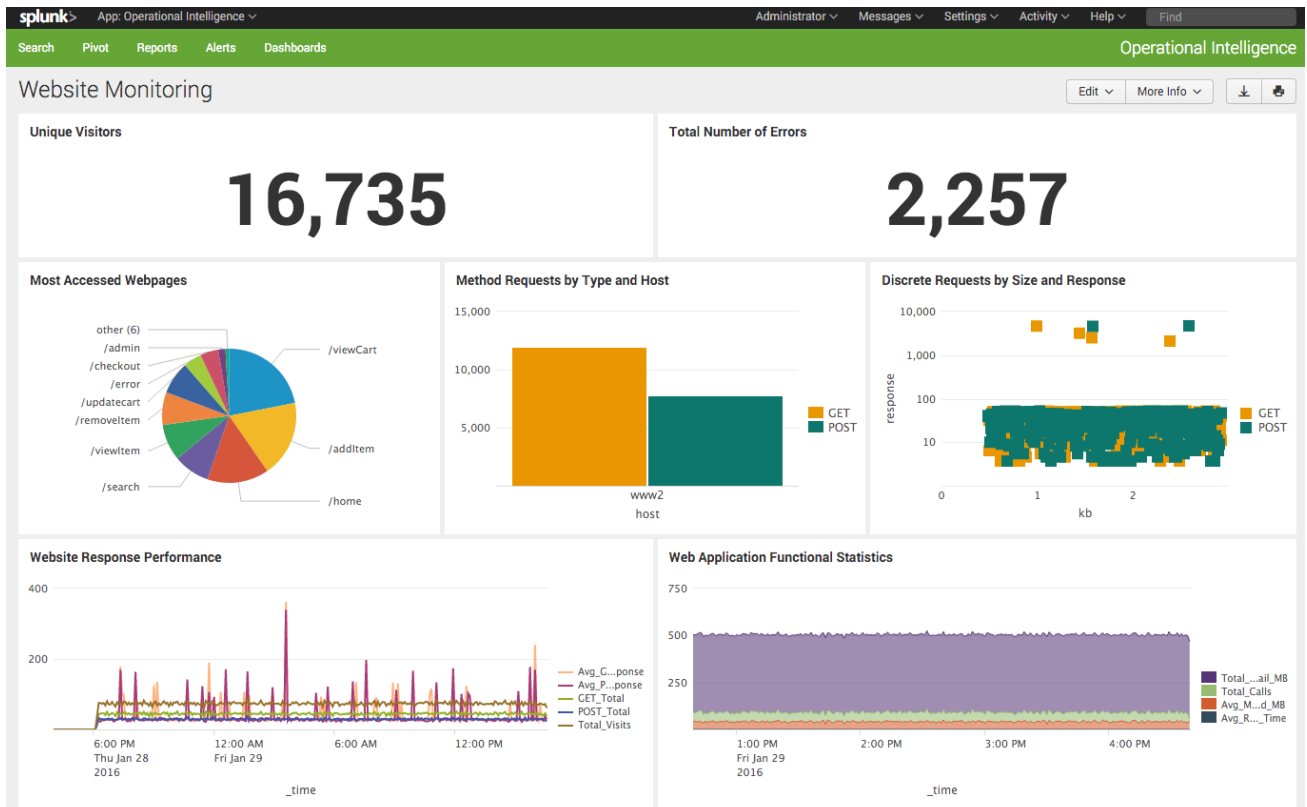
<option name="charting.chart.stackMode">default</option>
<option name="charting.chart.style">shiny</option>
<option name="charting.drilldown">all</option>
<option name="charting.layout.splitSeries">0</option>
<option name="charting.layout.splitSeries.allowIndependentYRanges">0</option>
<option name="charting.legend.labelStyle.overflowMode">ellipsisMiddle</option>
<option name="charting.legend.placement">right</option>
<option name="colorBy">value</option>
<option name="colorMode">none</option>
<option name="numberPrecision">0</option>
<option name="showSparkline">1</option>
<option name="showTrendIndicator">1</option>
<option name="trendColorInterpretation">standard</option>
<option name="trendDisplayMode">absolute</option>
<option name="useColors">0</option>
<option name="useThousandSeparators">1</option>
<option name="drilldown">none</option>
</single>
</panel>
<panel>
  <single>
    <title>Unique Visitors</title>
    <searchString>index=main sourcetype=access_combined | stats dc(JSESSIONID)</searchString>
    <earliestTime></earliestTime>
    <latestTime></latestTime>
  </single>
</panel>
</row>

```

```

<dashboard>
  <label>Website Monitoring</label>
  <row>
    <panel>
      <single>
        <title>Unique Visitors</title>
        <searchString>index=main sourcetype=access_combined | stats dc(JSESSIONID)</searchString>
        <earliestTime></earliestTime>
        <latestTime></latestTime>
      </single>
    </panel>
    <panel>
      <single>
        <title>Total Number of Errors</title>
        <search>
          <query>index=main sourcetype=access_combined NOT status="200" | stats count</query>
          <earliest>-24h</earliest>
          <latest>now</latest>
        </search>
        <option name="linkView">search</option>
        <option name="charting.axisLabelsX.majorLabelStyle.overflowMode">ellipsisNone</option>
        <option name="charting.axisLabelsX.majorLabelStyle.rotation">0</option>
        <option name="charting.axisTitleX.visibility">visible</option>
        <option name="charting.axisTitleY.visibility">visible</option>
        <option name="charting.axisTitleY2.visibility">visible</option>
        <option name="charting.axisX.scale">linear</option>
      </single>
    </panel>
  </row>
</dashboard>

```



Splunk Visualizations

Radial Gauge
Show a single value in relation to customized ranges.
Search Fragment
| stats count

Operational Intelligence

Edit ▾ More Info ▾

Edit Panels
Edit Source XML
Convert to HTML

splunk> App: Operational Intelligence Administrator Messages Settings Activity Help Find

Search Pivot **Reports** Alerts Dashboards Operational Intelligence

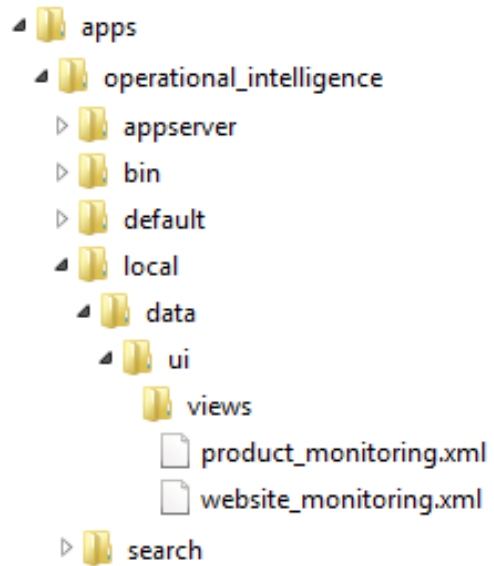
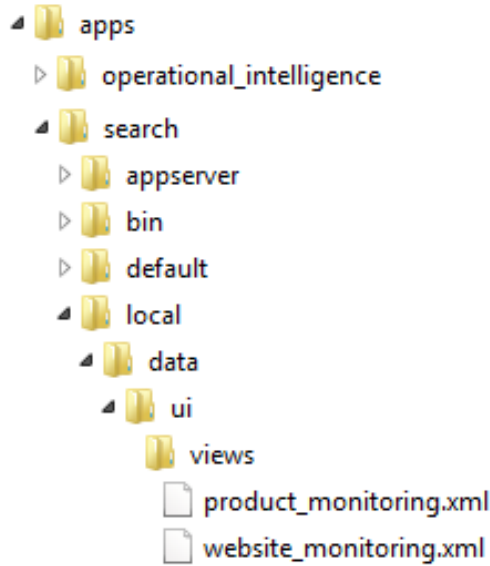
Reports

Reports are based on single searches and can include visualizations, statistics and/or events. Click the name to view the report. Open the report in Pivot or Search to refine the parameters or further explore the data.

4 Reports All Yours This App's filter

i	Title ^	Actions	Owner	App	Sharing	Embedding
>	cp02_application_db_connections	Open in Search Edit ▾	admin	operational_intelligence	Private	Disabled
>	cp02_application_memory	Open in Search	admin	operational_intelligence	Private	Disabled
>	cp02_application_performance	Open in Search	admin	operational_intelligence	Private	Disabled
>	cp02_most_accessed_webpages	Open in Search	admin	operational_intelligence	Private	Disabled

Edit Description
Edit Permissions
Edit Schedule
Edit Acceleration
Clone
Embed
Delete



App context: Search & Reporting (search) | Owner: Any

Show only objects created in this app context [Learn more](#)

Showing 1-2 of 2 items Results per page: 25

Search name	RSS feed	Scheduled time	Display view	Owner	App	Alerts	Sharing	Status	Actions
cp02_application_db_connections		None	None	admin	search	0	Private Permissions	Enabled Disable	Run Advanced edit Clone Move Delete
cp02_application_memory		None	None	admin	search	0	Private Permissions	Enabled Disable	Run Advanced edit Clone Move Delete

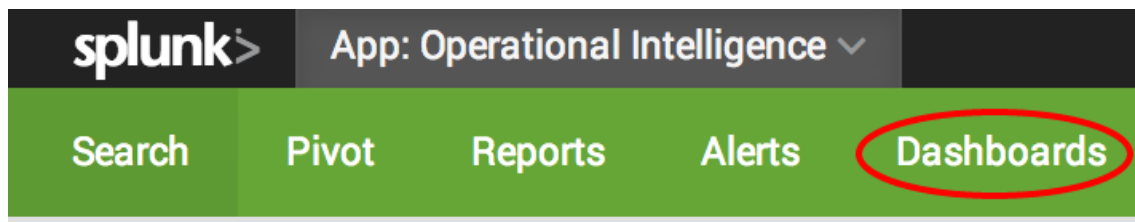
Successfully moved 'product_monitoring' to 'operational_intelligence'

App context: Operational Intelligence | Owner: Any

Show only objects created in this app context [Learn more](#)

Showing 1-2 of 2 items Results per page: 25

View name	Owner	App	Sharing	Status	Actions
product_monitoring	admin	operational_intelligence	App Permissions	Enabled	Open Clone Move Delete
website_monitoring	admin	operational_intelligence	App Permissions	Enabled	Open Clone Move Delete



Move Object ✕

App context:

Operational Intelligence (operational_intelligence) ▼

Move

Views

User interface » Views

App context: Search & Reporting (search) ▼ Owner: Any ▼

User interface

Create and edit views, dashboards, and navigation menus.

[Time ranges](#)

[Views](#)

[View PDF scheduling](#)

[Navigation menus](#)

[Prebuilt panels](#)

[Bulletin messages](#)



Add Data



Explore Data



Distributed Management Console



KNOWLEDGE

Searches, reports, and alerts

Data models

Event types

Tags

Fields

Lookups

User interface

Alert actions

Advanced search

All configurations



SYSTEM

Server settings

Server controls

Licensing



DATA

Data inputs

Forwarding and receiving

Indexes

Report acceleration summaries

Virtual indexes

Source types



DISTRIBUTED ENVIRONMENT

Indexer clustering

Forwarder management

Distributed search



USERS AND AUTHENTICATION

Access controls

operational_intelligence

bin

default

local

metadata

Add new

Apps » Add new

Name

Operational Intelligence 

Give your app a friendly name for display in Splunk Web.

Folder name *

operational_intelligence

This name maps to the app's directory in \$SPLUNK_HOME/etc/apps/.

Version

1.0

App version.

Visible

No Yes

Only apps with views should be made visible.

Author

John Smith


Name of the app's owner.

Description

An application for Operational Intelligence

Enter a description for your app.

Template

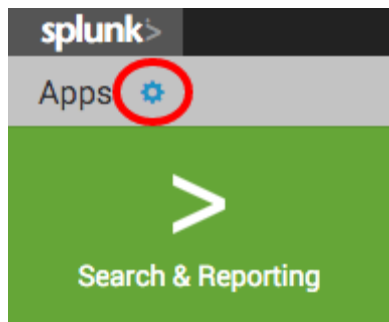
barebones 

These templates contain example views and searches.

[Browse more apps](#)

[Install app from file](#)

[Create app](#)



Chapter 5: Extending Intelligence – Data Models and Pivoting

Filters: Last 24 hours

Split Rows: _time

Split Columns: status

Column Values: Count of Error

Documentation [Documentation](#)

_time	403	404	503
2016-02-23 19:00	18	7	21
2016-02-23 20:00	13	8	24
2016-02-23 21:00	16	8	21
2016-02-23 22:00	16	7	24
2016-02-23 23:00	15	8	24
2016-02-24 00:00	14	7	24
2016-02-24 01:00	18	8	24
2016-02-24 02:00	14	8	21

Save As Dashboard Panel



Dashboard

New

Existing

Dashboard Title

Operational Monitoring

Dashboard ID?

operational_monitoring

Can only contain letters, numbers and underscores.

Dashboard Description

optional

Dashboard Permissions

Private

Shared in App

Panel Title

Page Response

Panel Powered By

🔍 Inline Search

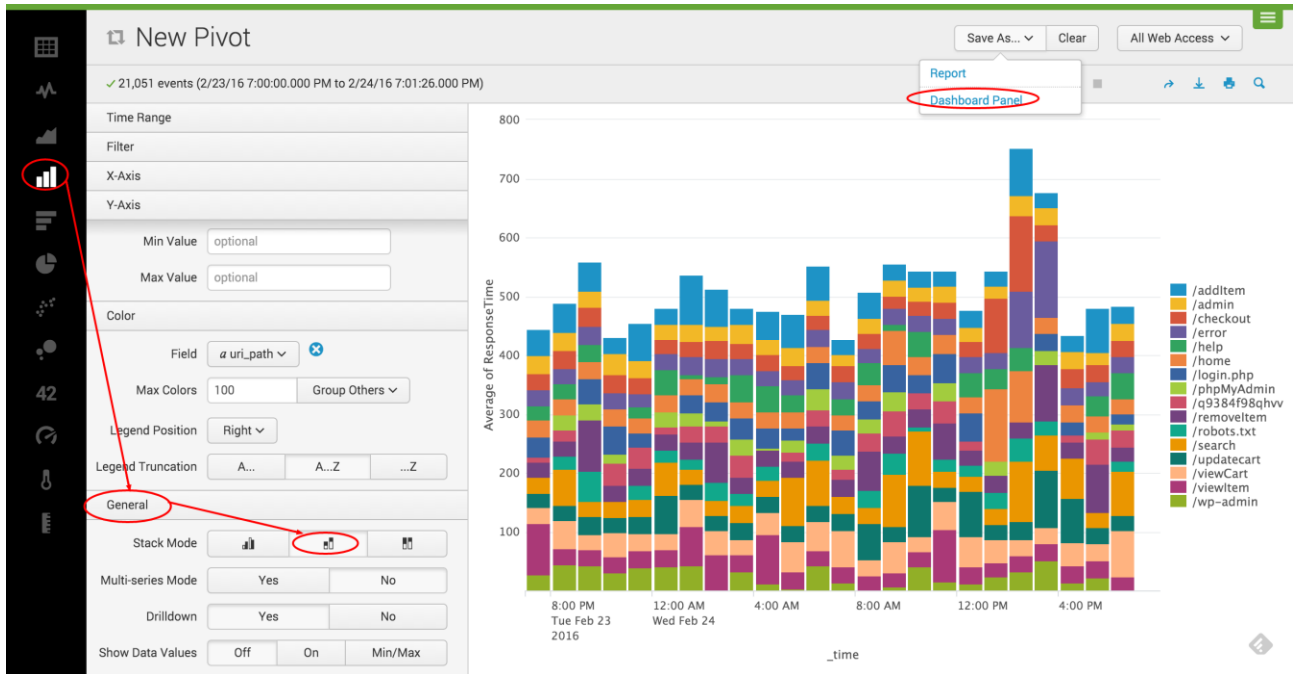
Panel Content

📊 Statistics

📄 Column

Cancel

Save



Split Rows

+

←

_time

Periods **Hours** ▾

All Rows

Sort **Default** ▾

Max Rows **10**

Not applied to a single time split.

Totals **Yes** **No**

Add To Table

New Pivot

✓ 21,926 events (2/23/16 6:00:00.000 PM to 2/24/16 6:55:01.000 PM)

Filters: Last 24 hours

Split Rows: uri_path

Split Columns: +

Column Values: Average of Respo...

Filters: Last 24 hours

Split Rows: uri_path

Split Columns: +


Column Values: Average of Respo...

[Documentation](#)

uri_path	Average of ResponseTime
/search	46.584503
/addItem	42.902179
/updatecart	41.181871
/viewCart	39.710395
/removeItem	39.307337
/viewItem	37.428497
/home	35.409174
/error	34.421875
/login.php	33.685714
/checkout	33.538462



Column Values

Count of All Web ...  

 **ResponseTime**

Label

Value

- Sum
- Count
- Average
- Max
- Min
- Standard Deviation
- Median
- List Distinct Values

New Pivot

✓ 21,773 events (2/23/16 6:00:00.000 PM to 2/24/16 6:42:14.000 PM)

Filters

Last 24 hours



Split Rows



←

uri_path

Label

All Rows

Sort
(By Count of All Web Access) ?

Max Rows

Totals

splunk> App: Operational Intelligence ▾ Administrator ▾ Messages ▾ Settings ▾ Activity ▾ Help

Application

Application

[Back to Data Models](#)

! This Data Model cannot be edited because it is accelerated. Disable acceleration in order to edit the Data Model.

Edit ▾ Download

- Edit Permissions
- Edit Acceleration**
- Clone
- Delete

Objects

All Application
All_Application

New Pivot

✓ 746 events (2/23/16 6:00:00.000 PM to 2/24/16 6:12:08.000 PM)

Filters

Last 24 hours requestType is ch...

Split Rows

Country

Label optional

All Rows

Sort **Descending ▾**
(By Count of Request) ?

Max Rows 100

Totals Yes No

Add To Table

Objects Add Object ▾

EVENTS

All Application

- Performance
 - Memory
 - DB
- Database
- Shop
 - Request
 - Response
 - Success
 - Error

All Application
All_Application

CONSTRAINTS

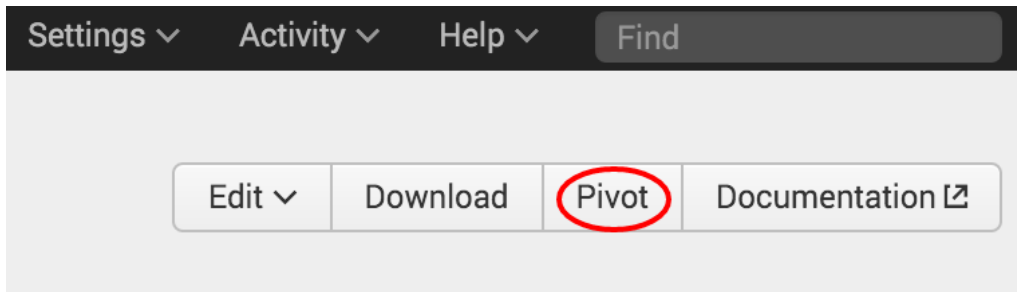
index=main sourcetype

Bulk Edit ▾

- Optional**
- Required
- Hidden
- Shown
- Boolean
- IPv4
- Number
- String

CALCULATED

<input type="checkbox"/>	Service			Regular Expression	Edit
<input checked="" type="checkbox"/>	lon	Number	Required	Geo IP	Edit
<input checked="" type="checkbox"/>	lat	Number	Required		
<input checked="" type="checkbox"/>	City	String	Required		
<input checked="" type="checkbox"/>	Region	String	Required		
<input checked="" type="checkbox"/>	Country	String	Required		



splunk> App: Operational Intelligence ▾ Administrator ▾ Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Add Geo Attributes with an IP Lookup

Data Model: Application Object: All Application Documentation ↗

IP: ipAddress ▾

Attribute(s)

Include:	Field in GeoIP:	Display Name:
<input checked="" type="checkbox"/>	lon	<input type="text" value="lon"/>
<input checked="" type="checkbox"/>	lat	<input type="text" value="lat"/>
<input checked="" type="checkbox"/>	City	<input type="text" value="City"/>
<input checked="" type="checkbox"/>	Region	<input type="text" value="Region"/>
<input checked="" type="checkbox"/>	Country	<input type="text" value="Country"/>

Cancel Preview Save

Events lon lat City Region Country

✓ 1,000 events (before 2/24/16 6:02:47.000 PM) 10 per page ▾ < Prev 1 2 3 4 5 6 7 8 9 ... Next >

Sample: 1,000 events ▾

_time	ipAddress_lon	ipAddress_lat	ipAddress_City	ipAddress_Region	ipAddress_Country	host	source	sourc
2016-02-24 18:02:24	-0.13000	51.50000			United Kingdom	ip-172-31-12-177	/opt/splunk/etc/apps/OpsDataGen/data/app_log	log4j

Edit Attribute

Data Model: Application Object: All Application

Field Name: ipAddress Display Name: Type: Flags:

<input type="checkbox"/> invoice	Number	Edit
<input type="checkbox"/> ipAddress	String	Edit
<input type="checkbox"/> itemId	Number	Edit

EVENTS

All Application

- Performance
 - Memory
 - DB
- Database
- Shop
 - Request
 - Response

CONSTRAINTS

index=main sourcetype=log4j [Constraint](#) [Edit](#)

INHERITED

	_time	Time
<input type="checkbox"/>	host	String
<input type="checkbox"/>	source	String
<input type="checkbox"/>	sourcetype	String

Auto-Extracted

[Eval Expression](#)

[Lookup](#)

[Regular Expression](#)

[Geo IP](#)

New Pivot Save As... Clear Transactions

✓ 574 events (2/23/16 5:00:00.000 PM to 2/24/16 5:46:20.000 PM) Documentation

Filters: Last 24 hours requestType is ch... result is success

Split Columns: +

Column Values: Count of Transact... +

Count of Transactions: 574

Save As Dashboard Panel ×

Dashboard

▾

Panel Title

Panel Powered By

Panel Content

New Pivot Save As... ▾ Clear

✓ 575 events (4/27/16 12:00:00.000 AM to 4/28/16 12:46:00.000 AM) Report

Time Range

Filter

Filter Type

Match ▾

Field ✕

Filter Type

Match ▾

▾

Value

Field ▾

Drilldown

Caption

575

Sales Transactions

New Pivot

Save As... Clear Transactions

✓ 570 events (2/23/16 5:00:00.000 PM to 2/24/16 5:37:08.000 PM)

Filters: Last 24 hours, requestType is ch..., result is success

Split Rows: +

Column Values: Count of Transact... +

Count of Transactions: 570

42

New Pivot

✓ 760 events (2/23/16 5:00:00.000 PM to 2/24/16 5:34:52.000 PM)

Filters: Last 24 hours, requestType is ch...

Split Rows: +

Count of Transactions: 760

result

Filter Type: Match Limit



Match: is success


Add To Table

New Pivot


✓ 16,292 events (2/23/16 5:00:00.000 PM to 2/24/16 5:31:11.000 PM)

Filters


Last 24 hours  

 **requestType**

Filter Type Match Limit

Match is 

- NULL
- viewCart
- addItem
- viewItem
- search
- updateCart
- removeItem
- checkout**

Add Object 

- Root Event
- Root Transaction**
- Root Search
- Child

Add Transaction Object

Data Model: Application

[Documentation](#)

You must specify at least one of the optional fields.

Object Name

Object ID

Can only contain letters, numbers and underscores.

Group Objects

- x
- x
- +

Group by

- x
- +

Duration

Max Pause:
 Seconds v

Max Span:
 Hours v

Cancel **Preview** **Save**

✓ 1,000 events (before 2/11/16 6:46:42.000 PM) 20 per page < Prev 1 2 3 4 5 6 7 8 9 ... Next >

Sample: 1,000 events v

Event
2016-02-11 18:46:37,000 INFO [org.webapp.service.shop] (http--0.0.0.0-8080-47) Execute: threadId="210061455216394", requestType="search", sessionId="9F3BDDA613DD11DAEF7A399067830DE1", customerId="20160211184634", ipAddress="204.111.244.20", terms="Ripple", category="2"
2016-02-11 18:46:32,000 INFO [org.webapp.service.shop] (http--0.0.0.0-8080-47) Execute: threadId="202251455216391", requestType="view Item", sessionId="B89A10F1C85DFFAAB5D73405E121C93D", customerId="20160211184625", ipAddress="148.234.230.222", itemId="4728475"
2016-02-11 18:46:34,000 INFO [org.webapp.service.shop] (http--0.0.0.0-8080-47) Response: threadId="202251455216391", result="success"

Select a Data Object




[< Back](#)



<i>i</i>	11 Objects in Application
>	All Application
>	Performance
>	Memory
>	DB
>	Database
>	Shop
>	Request
>	Response
>	Success
>	Error
>	Transactions

Data Models

Data models enable users to easily create reports in the Pivot tool. [Learn More](#)

2 Data Models [App: Operational Intelligence \(operational_intelligence\)](#) [Visible in the App](#) [Owner: Any](#)

i	Title ^	
	Application	
	MODEL	
	Objects 10 Events, 1 Transaction Edit	
	Permissions Shared in App. Owned by admin. Edit	
	ACCELERATION	
	Rebuild Update Edit	
	Status 83.03% Completed	
	Access Count 0. Last Access: -	
	Size on Disk 146.89MB	
	Summary Range 2678400 second(s)	
	Buckets 5	
	Updated 2/22/16 12:14:00.000 AM	
>	Web Access	

splunk> Apps							Administrator	Messages	Settings	Activity	Help	Find
Data Models							Upload Data Model	New Data Model				
Data models enable users to easily create reports in the Pivot tool. Learn More												
2 Data Models App: Operational Intelligence (operational_intelligence) Visible in the App Owner: Any							filter	20 per page				
i	Title ^		⚡	Actions	App	Owner	Sharing					
>	Application			Edit Pivot	operational_intelligence	admin	App					
>	Web Access			Edit Pivot	operational_intelligence	admin	App					

Edit Acceleration



Data Model Application

Accelerate



Acceleration may increase storage and processing costs.

Summary Range?

1 Month ▾

Cancel

Save

Edit Permissions



Data Model Application

Owner admin

App operational_intelligence

Display For

Owner

App

All apps

	Read	Write
Everyone	<input type="checkbox"/>	<input type="checkbox"/>
admin	<input type="checkbox"/>	<input type="checkbox"/>
can_delete	<input type="checkbox"/>	<input type="checkbox"/>
power	<input type="checkbox"/>	<input type="checkbox"/>
splunk-system-role	<input type="checkbox"/>	<input type="checkbox"/>
user	<input type="checkbox"/>	<input type="checkbox"/>

Cancel

Save

Data Models

Data models enable users to easily create reports in the Pivot tool. [Learn More](#)

2 Data Models App: Operational Intelligence (operational_intelligence) ▾ Visible in the App ▾ Owner: Any ▾

i	Title ^	⚡ Actions	App ↕
>	Application	⚡ Edit ▾ Pivot	operational_intelligence
>	Web Access	<ul style="list-style-type: none">Edit ObjectsEdit Title or DescriptionEdit PermissionsEdit AccelerationCloneDelete	operational_intelligence

splunk> App: Operational Intelligence ▾

Application

Application

[< Back to Data Models](#)

Objects

Add Object ▾

EVENTS

All Application

- Performance
 - Memory
 - DB
- Database
- Shop
 - Request
 - Response
 - Success
 - Error

splunk> App: Operational Intelligence ▾ Administrator ▾ Messages ▾ Settings ▾ Activity ▾ Help ▾ Find

Add Attributes with a Regular Expression

Data Model: Application Object: All Application [Documentation](#)

Extract From:

Regular Expression:

Attribute(s):
 Field Name: Service Display Name: Type: Flags:

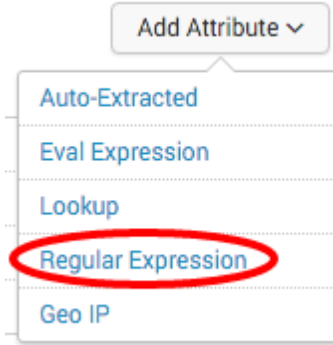
Example:
 From: (?(from>.*) To: (?(to>.*)
[Learn More](#)

Events **Service**

✓ 1,000 events (before 2/11/16 6:32:12.000 PM) 20 per page ▾ < Prev 1 2 3 4 5 6 7 8 9 ... Next >

filter Apply Sample: 1,000 events ▾ All events ▾ All Events Matches Non-Matches

	_raw	Service
✓	2016-02-11 18:32:10,000 INFO [org.webapp.service.shop] (http--0.0.0.0-8080-47) Response: threadId="196571455215527", result="success"	shop
✓	2016-02-11 18:32:09,000 INFO [org.webapp.service.perf] (http--0.0.0.0-8080-47) Execute: threadId="196571455215527", perfType="DB", con_total=10, con_used=2	perf



splunk> App: Operational Intelligence Administrator Messages Settings Activity Help Find

Add Event Object

Data Model: Application [Documentation](#)

Object Name

Object ID

Can only contain letters, numbers and underscores.

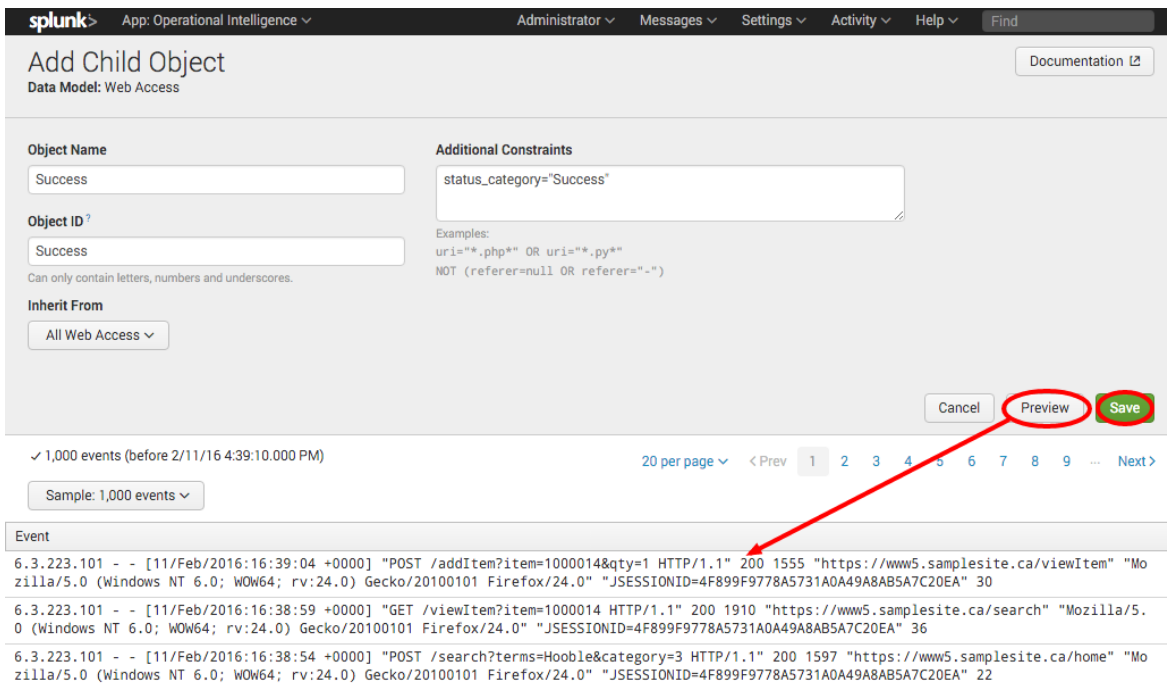
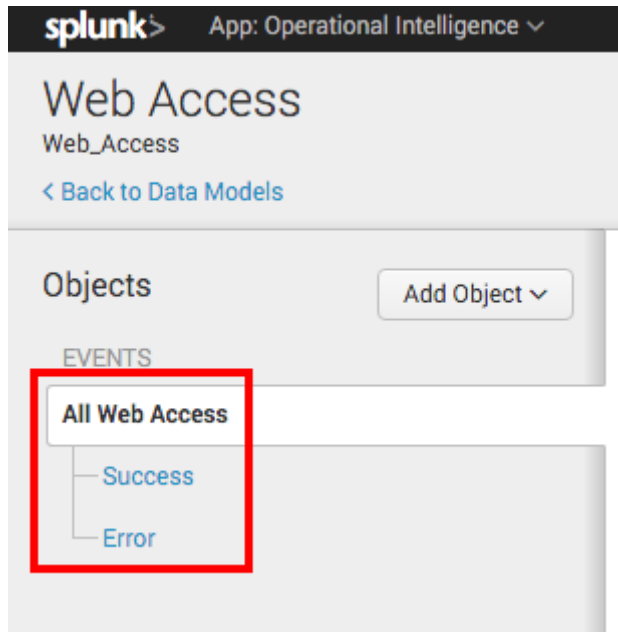
Constraints

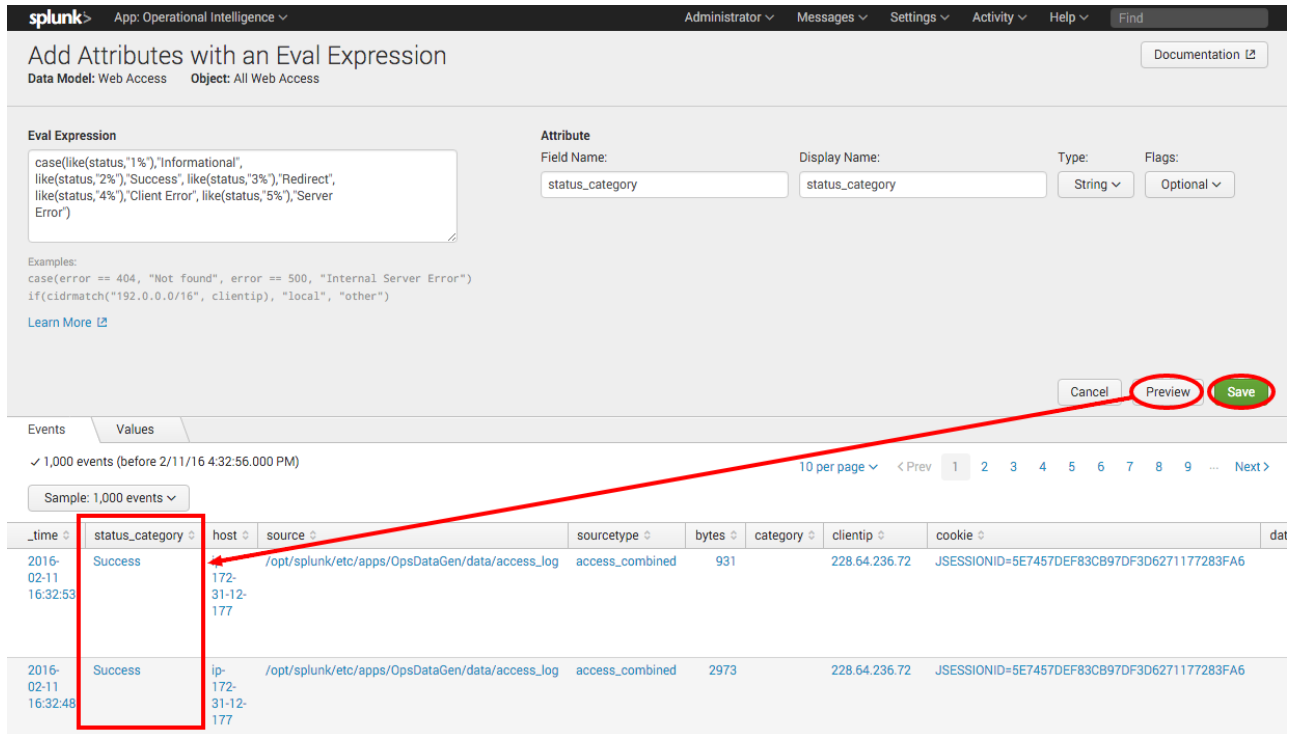
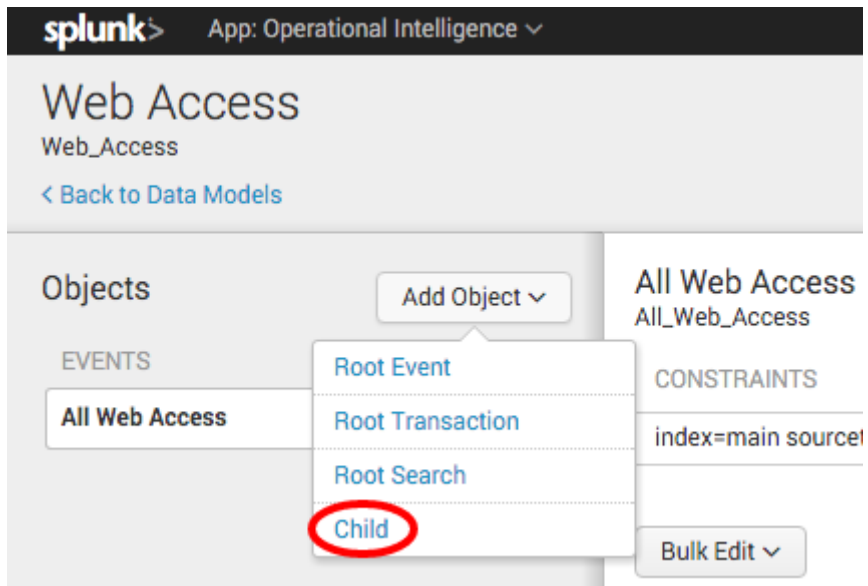
Examples:
uri="*.php*" OR uri="*.py*" NOT (referer=null OR referer="-")

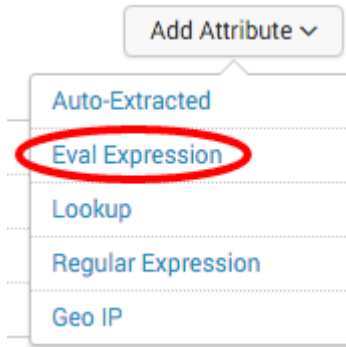
✓ 1,000 events (before 2/11/16 6:28:47.000 PM) 20 per page < Prev 1 2 3 4 5 6 7 8 9 ... Next >

Sample: 1,000 events

Event	
2016-02-11 18:28:44,000 INFO	[org.webapp.service.perf] (http--0.0.0.0-8080-47) Execute: threadId="193431455215321", perfType="DB", con_total=10, con_used=2
2016-02-11 18:28:44,000 INFO	[org.webapp.service.perf] (http--0.0.0.0-8080-47) Execute: threadId="193431455215321", perfType="MEMORY", mem_total=434355534, mem_used=30526023







Add Auto-Extracted Field ×

Sample: 1,000 events ▾ ✓ 1,000 events (before 2/11/16 4:12:15.000 PM) Missing field? [Add by Name](#)

<input checked="" type="checkbox"/> Field	Rename	Type
> <input checked="" type="checkbox"/> JSESSIONID	<input type="text" value="JSESSIONID"/>	String ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> bytes	<input type="text" value="bytes"/>	Number ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> category	<input type="text" value="category"/>	Number ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> clientip	<input type="text" value="clientip"/>	String ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> cookie	<input type="text" value="cookie"/>	String ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> date_hour	<input type="text" value="date_hour"/>	Number ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> date_mday	<input type="text" value="date_mday"/>	Number ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> date_minute	<input type="text" value="date_minute"/>	Number ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> date_month	<input type="text" value="date_month"/>	String ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> date_second	<input type="text" value="date_second"/>	Number ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> date_wday	<input type="text" value="date_wday"/>	String ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> date_year	<input type="text" value="date_year"/>	Number ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> date_zone	<input type="text" value="date_zone"/>	Number ▾ <input type="button" value="Optional ▾"/>
> <input checked="" type="checkbox"/> eventtype	<input type="text" value="eventtype"/>	String ▾ <input type="button" value="Optional ▾"/>

splunk> App: Operational Intelligence Administrator Messages Settings Activity Help Find

Web Access

Web_Access

Back to Data Models

Edit Download Pivot Documentation

Objects

Add Object

EVENTS

All Web Access

All Web Access All_Web_Access

Rename Delete

CONSTRAINTS

index=main sourcetype=access_combined Constraint Edit

Bulk Edit

INHERITED

Attribute	Type
<input type="checkbox"/> _time	Time
<input type="checkbox"/> host	String
<input type="checkbox"/> source	String
<input type="checkbox"/> sourcetype	String

Add Attribute

- Auto-Extracted
- Eval Expression
- Lookup
- Regular Expression
- Geo IP

splunk> App: Operational Intelligence Administrator Messages Settings Activity Help Find

Add Event Object

Data Model: Web Access

Documentation

Object Name

All Web Access

Object ID?

All_Web_Access

Can only contain letters, numbers and underscores.

Constraints

index=main sourcetype=access_combined

Examples:
uri=*.php* OR uri=*.py*
NOT (referer=null OR referer="-")

Cancel Preview Save

✓ 1,000 events (before 2/11/16 4:07:30.000 PM) 20 per page < Prev 1 2 3 4 5 6 7 8 9 ... Next >

Sample: 1,000 events

Event

```
27.37.8.150 - - [11/Feb/2016:16:07:29 +0000] "POST /removeItem?item=1000016&qty=1 HTTP/1.1" 200 637 "https://www1.samplesite.ca/viewCart" "Mozilla/5.0 (compatible; MSIE 10.0; Windows NT 6.1; Trident/6.0)" "JSESSIONID=972CDE41FADC1955371736203DFF7D9C" 12
27.37.8.150 - - [11/Feb/2016:16:07:22 +0000] "GET /viewCart HTTP/1.1" 200 1996 "https://www1.samplesite.ca/addItem" "Mozilla/5.0 (compatible; MSIE 10.0; Windows NT 6.1; Trident/6.0)" "JSESSIONID=972CDE41FADC1955371736203DFF7D9C" 16
```

splunk> App: Operational Intelligence ▾

Web Access

Web_Access

[← Back to Data Models](#)

Objects

Add Object ▾

- Root Event
- Root Search

i To get started, add an object

New Data Model ×

Title

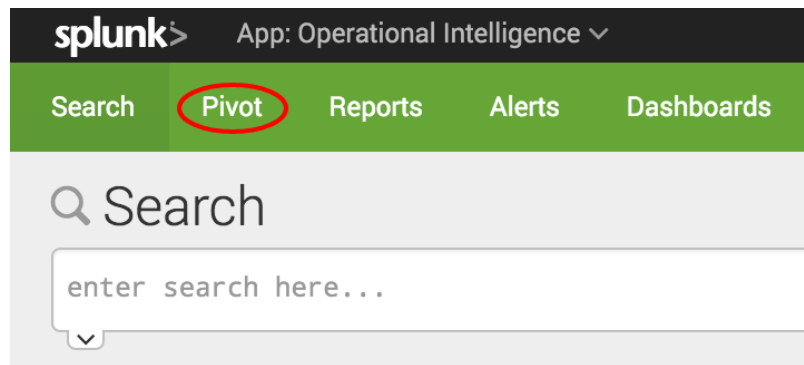
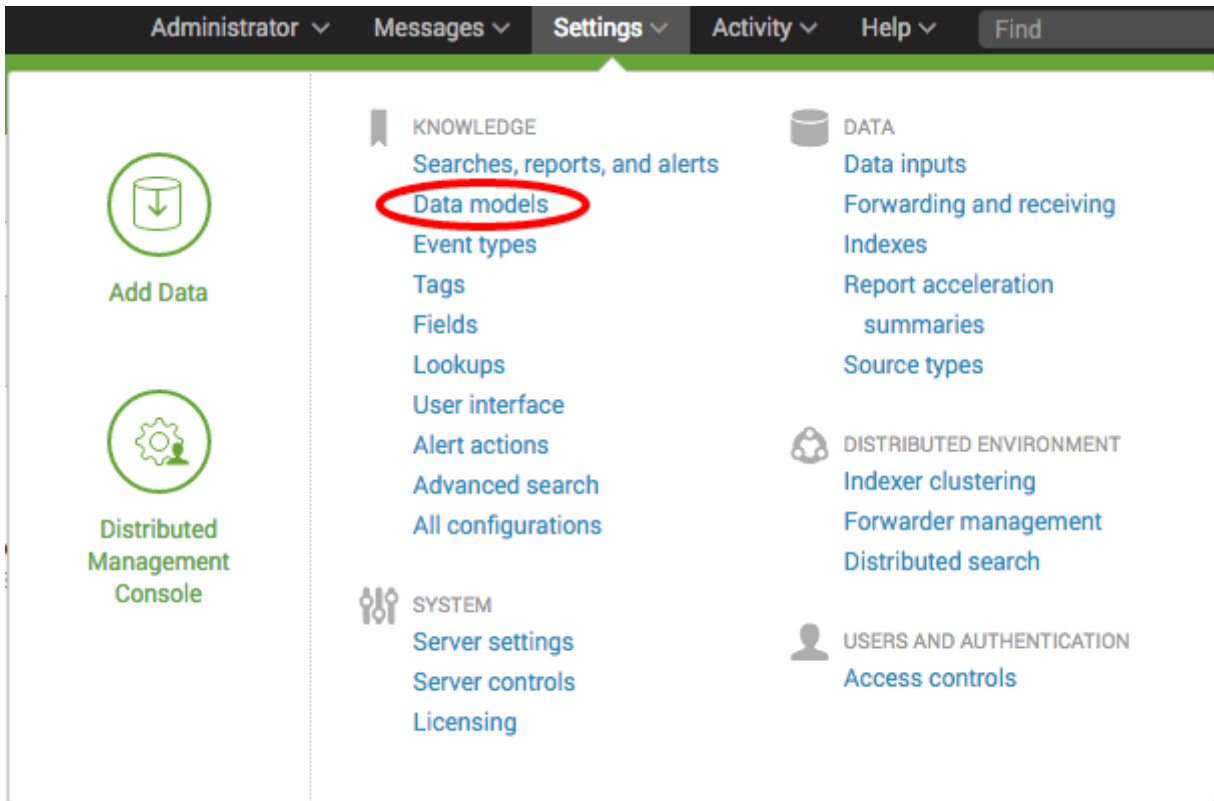
ID?

Can only contain letters, numbers and underscores.

App

Description

Activity ▾ Help ▾ Find



Chapter 6: Diving Deeper – Advanced Searching

42 Single Value

General	Precision	<input type="text" value="0"/>
Color	Use Thousand Separators	<input type="button" value="Yes"/> <input type="button" value="No"/>
Number Format	Unit	<input type="text" value="secs"/>
	Unit Position	<input type="button" value="Before"/> <input type="button" value="After"/>

Save As Dashboard Panel

Dashboard

Panel Title

Panel Powered By

Panel Content

Save As Report ×

Title

Description

Content

Time Range Picker

Save As Dashboard Panel ×

Dashboard

Panel Title

Panel Powered By

Panel Content

Save As Report ✕

Title

Description

Content

Time Range Picker

Events					
Patterns		Statistics (680)		Visualization	
20 Per Page		Format		Preview	
< Prev		1	2	3	4
		5	6	7	8
		9	...	Next >	
_time	clientip	uri	bytes	mean_bytes	Z_score
2016-03-01 02:10:18	18.168.104.117	/viewCart	549	1782.461153	-1.53
2016-03-01 02:06:40	63.55.62.159	/search?terms=Ripple&category=2	6475	1782.461153	5.80
2016-03-01 02:03:24	49.241.185.164	/addItem?item=38492&qty=1	561	1782.461153	-1.51
2016-03-01 02:03:03	189.99.212.41	/home	528	1782.461153	-1.55
2016-03-01 02:01:50	238.135.6.242	/viewCart	553	1782.461153	-1.52
2016-03-01 01:59:29	156.225.142.204	/home	517	1782.461153	-1.56
2016-03-01 01:58:42	39.248.239.203	/home	544	1782.461153	-1.53
2016-03-01 01:58:23	122.204.137.114	/removeItem?item=1000020&qty=1	556	1782.461153	-1.52
2016-03-01 01:57:35	122.217.160.232	/viewCart	555	1782.461153	-1.52
2016-03-01 01:54:47	114.168.173.212	/viewCart	553	1782.461153	-1.52
2016-03-01 01:53:42	109.198.186.156	/addItem?item=4728475&qty=1	562	1782.461153	-1.51
2016-03-01 01:49:37	35.47.168.246	/updatecart?orderId=1456796935&item=1000015&qty=20	517	1782.461153	-1.56
2016-03-01 01:48:45	197.63.182.4	/updatecart?orderId=1456796873&item=1000015&qty=2	526	1782.461153	-1.55
2016-03-01 01:44:19	166.236.9.58	/removeItem?item=1000020&qty=1	537	1782.461153	-1.54
2016-03-01 01:43:50	2.41.134.88	/error	512	1782.461153	-1.57

Save As Dashboard Panel ×

Dashboard New Existing

Dashboard Title

Dashboard ID?
Can only contain letters, numbers and underscores.

Dashboard Description

Dashboard Permissions Private Shared in App

Panel Title

Panel Powered By Inline Search Report

Panel Content Statistics Line Chart

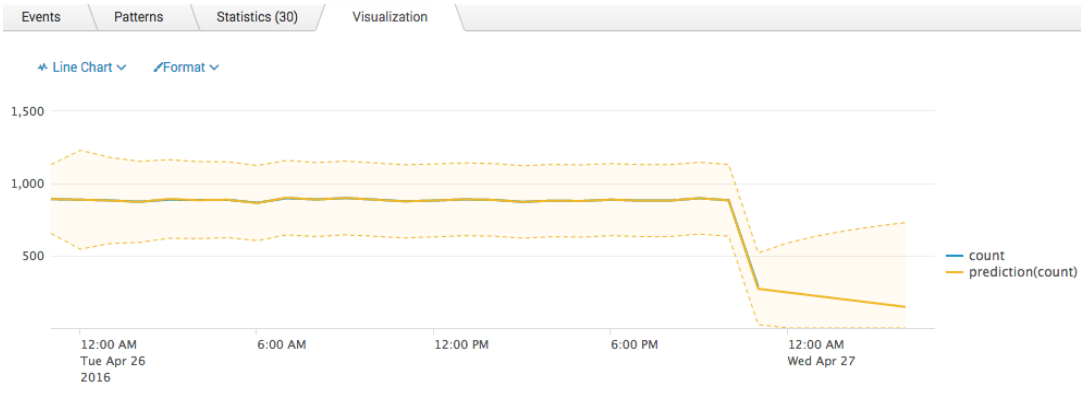
Save As Report ×

Title

Description

Content

Time Range Picker Yes No



Save As Dashboard Panel ✕

Dashboard

Panel Title

Panel Powered By

Panel Content Statistics Table

Save As Report ✕

Title

Description

Content +

Time Range Picker

Description	Reference_Key	Reference_Value	Target_Key	Top_Conditional_Value
When 'status' has the value '403', the entropy of 'uri' decreases from 5.305 to 0.000.	status	403	uri	/admin (15.39% -> 100.00%)
When 'status' has the value '404', the entropy of 'uri' decreases from 5.305 to 2.556.	status	404	uri	/wp-admin (1.76% -> 22.80%)
When 'status' has the value '503', the entropy of 'uri' decreases from 5.305 to 0.000.	status	503	uri	/addItem (23.14% -> 100.00%)
When 'uri' has the value '/addItem', the entropy of 'status' decreases from 1.671 to 0.000.	uri	/addItem	status	503 (23.14% -> 100.00%)
When 'uri' has the value '/addItem?item=1000016&qty=1', the entropy of 'status' decreases from 1.671 to 0.000.	uri	/addItem?item=1000016&qty=1	status	302 (53.76% -> 100.00%)
When 'uri' has the value '/addItem?item=1000020&qty=1', the entropy of 'status' decreases from 1.671 to 0.000.	uri	/addItem?item=1000020&qty=1	status	302 (53.76% -> 100.00%)
When 'uri' has the value '/addItem?item=38492&qty=1', the entropy of 'status' decreases from 1.671 to 0.000.	uri	/addItem?item=38492&qty=1	status	302 (53.76% -> 100.00%)
When 'uri' has the value '/admin', the entropy of 'status' decreases from 1.671 to 0.000.	uri	/admin	status	403 (15.39% -> 100.00%)
When 'uri' has the value '/removeItem?item=1000016&qty=1', the entropy of 'status' decreases from 1.671 to 0.000.	uri	/removeItem?item=1000016&qty=1	status	302 (53.76% -> 100.00%)
When 'uri' has the value '/removeItem?item=1000020&qty=1', the entropy of 'status' decreases from 1.671 to 0.000.	uri	/removeItem?item=1000020&qty=1	status	302 (53.76% -> 100.00%)
When 'uri' has the value '/removeItem?item=38492&qty=1', the entropy of 'status' decreases from 1.671 to 0.000.	uri	/removeItem?item=38492&qty=1	status	302 (53.76% -> 100.00%)

Save As Dashboard Panel ×

Dashboard

Panel Title

Panel Powered By

Panel Content

Save As Report ×

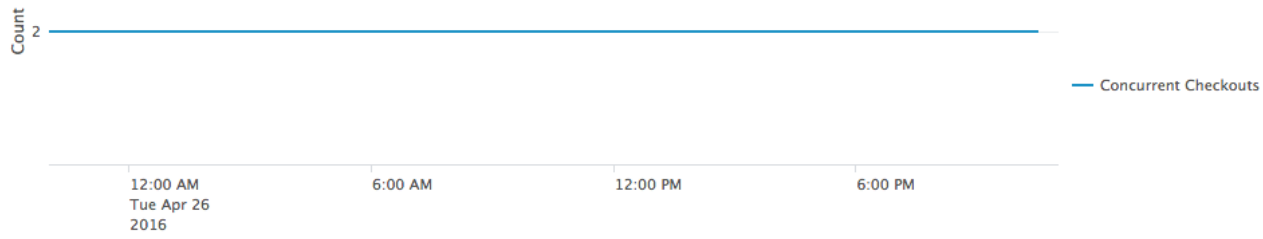
Title

Description

Content

Time Range Picker

Line Chart Format




Line Chart Format

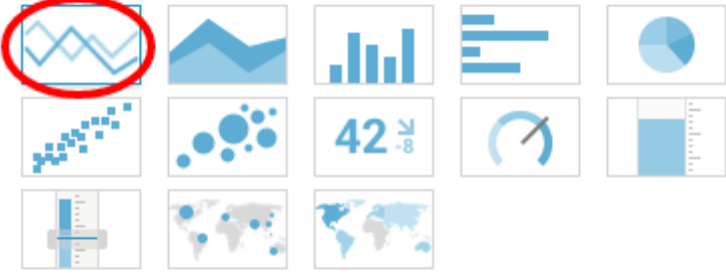
General	Title	Custom	Count
X-Axis	Scale	Linear	Log
Y-Axis	Interval	optional	
Chart Overlay	Min Value	optional	
Legend	Max Value	optional	

Line Chart Format

Recommended



Splunk Visualizations



Find more visualizations

Line Chart
Track values and trends over time.

Search Fragment
| timechart count [by comparison_category]

splunk App: Operational Intelligence Administrator Messages Settings Activity Help Find

Search Pivot Reports Alerts Dashboards Operational Intelligence

Edit: Session Monitoring + Add Panel + Add Input Edit Source Done

<p>Untitled</p> <p>33 secs</p> <p>Avg Session Time</p>	<p>Untitled</p> <p>3.32 secs</p> <p>Avg Request Execution</p>
--	---

Edit ▾ More Info ▾

- Edit Panels**
- Edit Source XML
- Convert to HTML
- Edit Title or Description
- Edit Permissions
- Schedule PDF Delivery
- Set as Home Dashboard
- Clone
- Delete

Save As Dashboard Panel ✕

Dashboard New Existing

Session Monitoring ▾

Panel Title

Panel Powered By Inline Search Report

Panel Content Statistics Single Value

Save As Report ×

Title

Description

Content

Time Range Picker

Events | Patterns | Statistics (1) | Visualization

42 Single Value

3.32 secs

Avg Request Execution

42 Single Value

General

Precision

Color

Use Thousand Separators

Number Format

Unit

Unit Position

42 Single Value ▾

Format ▾

General	Drilldown	<input type="radio"/> Yes	<input type="radio"/> No
Color	Caption	<input type="text" value="Avg Request Execution"/>	
Number Format			

Save As Dashboard Panel

Dashboard

New

Existing

Dashboard Title

Dashboard ID?

Can only contain letters, numbers and underscores.

Dashboard Description

Dashboard Permissions

Private

Shared in App

Panel Title

Panel Powered By

Inline Search

Report

Panel Content

Statistics

42 Single Value

Your Report Has Been Created



You may now view your report, add it to a dashboard, change additional settings, or continue editing it.

Additional Settings:

- [Permissions](#)
- [Schedule](#)
- [Acceleration](#)
- [Embed](#)

[Continue Editing](#)

[Add to Dashboard](#)

[View](#)

Save As Report



Title

Description

Content

42 +

42

Time Range Picker

Yes

No

[Cancel](#)

[Save](#)

Save As

[Close](#)

[Report](#)

[Dashboard Panel](#)

[Alert](#)

[Event Type](#)

42 Single Value ▾

Format ▾

33 secs

Avg Session Time

42 Single Value ▾

Format ▾

General	
Drilldown	<input type="button" value="Yes"/> <input type="button" value="No"/>
Color	
Number Format	
Caption	<input type="text" value="Avg Session Time"/>

Events

Patterns

Statistics (1)

Visualization

42 Single Value ▾

Format ▾

Splunk Visualizations



[Find more visualizations](#)

Single Value

Track a metric with context and trends.

Search Fragment

| timechart count

Chapter 7: Enriching Data – Lookups and Workflows

Finalize your Lookup

6 of 6

1. Choose how often to reload the DB lookup data into the cache

Reload the lookup data into the cache every

2. Specify when to enrich events with lookup results

Run Lookup Automatically Manually

1. Map your Splunk Fields to your database columns

Fields	Columns
itemId	= itemId

2. Output your database columns to New Splunk Fields

Columns	New Output Fields
itemName	Rename Field (optional)
itemInventory	Rename Field (optional)
itemDescription	Rename Field (optional)

Drivers

View a list of supported and installed drivers. [Learn more to install drivers](#)

Redetect

Driver	Installed?	Version Number
DB2	X	-
MS-SQL Server Using MS Generic Driver	X	-
MS-SQL Server Using MS Generic Driver With Windows Authentication	X	-
HyperSQL	X	-
Informix	X	-
MemSQL	✓	5.1
MS-SQL Server Using JTDS Driver	X	-
MS-SQL Server Using JTDS Driver With Windows Authentication	X	-
MySQL	✓	5.1
Oracle	X	-
Oracle Service	X	-
Postgresql	X	-
Sybase ASE (jConnect)	X	-

Quit < Back

> Next

session_state

[Lookups](#) » [Lookup definitions](#) » session_state

Type *

KV Store

Collection Name

session_state

Specify the collection name to use (as defined in collections.conf) for this lookup. Defaults to the lookup name.

Supported fields *

_key,SESSIONID,firsttime,lasttime

A comma-delimited list of the fields supported by the collection.

Add new

[Lookups](#) » [Lookup definitions](#) » Add new

Destination app *

operational_intelligence

Name *

session_state

Type *

File-based

Lookup file *

session_state.csv

Create and manage lookup table files.

index=main sourcetype=access_combined

✓ 224 events (5/2/16 11:49:36.000 PM to 5/3/16 12:04:36.000 AM) No Event Sampling

Events (224) Patterns Statistics Visualization

Format Timeline Zoom Out Zoom to Selection Deselect

List Format 20 Per Page

< Hide Fields All Fields

Selected Fields
 a host 1
 a source 1
 a sourcetype 1

Interesting Fields
 # bytes 100+
 a clientip 29
 a cookie 29
 # date_hour 2
 # date_minute 2

i	Time	Event
5/3/16 12:04:36.000 AM	173.39.134.122 - - [03/May/2016:00:04:31 +0000]	"GET /home HTTP/1.1" 200 2775 "http://www.6.1; Trident/6.0)" "JSESSIONID=82A4F9C21B501879422DC246614B841F" 44

Event Actions

- Lookup 173.39.134.122 in ARIN
- Build Event Type
- Extract Fields
- Open JIRA Issue for
- Show Source

Value	Actions
ip-172-31-12-177	▼
/opt/splunk/etc/apps/OpsDataGen/data/access_log	▼
access_combined	▼
82A4F9C21B501879422DC246614B841F	▼
2775	▼
clientip 173.39.134.122	▼

New Search Save As Close

index=main sourcetype="access_combined" | eval firsttime=_time | eval lasttime=_time | stats last(firsttime) as firsttime, first(lasttime) as lasttime by JSESSIONID | outputlookup createinapp=true session_state.csv

Last 15 minutes

✓ 222 events (5/2/16 11:26:20.000 PM to 5/2/16 11:41:20.000 PM) No Event Sampling Job Smart Mode

Events Patterns Statistics (28) Visualization

20 Per Page Format Preview

JSESSIONID	firsttime	lasttime
023C8FE75A702B1685E4C7324C064BB1	1462231659	1462231708
0BC7E2A0C7D83B20804DFB849FEF3D40	1462231965	1462231965
156AB71A899EE4D5EC9E5589DE810BCE	1462232378	1462232431
1B02C5FD1BA2DFA9344BAA2FB61513A3	1462231721	1462231767
28386710D6D7239F366A05F16BC97863	1462232332	1462232378

> Choose and Preview Table 2 of 6

∨ Choose the Splunk Fields to Base the Lookup on 3 of 6

New Search Saved Search

index=main sourcetype=log4j itemId=* Last 15 minutes

Job ∨ || ■ Smart Mode ∨

✓ 178 events (3/13/16 9:35:44.000 PM to 3/13/16 9:50:44.000 PM)

Select the fields below to base the lookup on Fields Selected 1

10 per Page ∨ Format ∨

« prev 1 2 3 4 5 6 7 8 9 10 next »

trCode	errorMessage	eventtype	host	index	invoice	ipAddress	itemId	iter
			ip-172-31-12-177	main			4728475	
			ip-172-31-12-177	main		82.168.154.242	4728475	

Explorer Operations Health Settings Search RPC Service: Up Splunk DB Connect v2

Filter by name

Splunk DB Connect v2

- DB Inputs
- DB Outputs
- DB Lookups

New DB Lookup

1 of 6

Name Lookup

Name productInventory_dblookup

Description

App Splunk DB Connect v2

Connection product_database

Valid connection

Edit Schedule ✕

Report generate_productInventory_dblookup

Schedule Report [Learn More](#)

Schedule Run every day ▾

At 0:00 ▾

Time Range All time ▶

Schedule Window? No window ▾

Cancel Next

Save As Report ✕

Title generate_productInventory_dblookup

Description optional

Content Statistics Table

Time Range Picker Yes No

Cancel Save

splunk> App: Operational Intelligence Administrator Messages Settings Activity Help Find

Search Pivot Reports Alerts Dashboards Operational Intelligence

New Search Save As Close

dbxquery connection=product_database query="SELECT%20*%20FROM%20productInventory" shortnames=true| fields - _raw, _time | table * All time

7 events (before 5/3/16 8:21:30.000 PM) No Event Sampling Job Smart Mode

Events Patterns Statistics (7) Visualization

20 Per Page Format Preview

itemDescription	itemId	itemInventory	itemName
Stylish men's watch with metal band	4728475	1000	Rolux Navigator
Men's sport watch with timer	38492	200	Rolux Sportsman
13 inch laptop - 5PB HDD/200GB RAM	1000014	150	Ripple BookPro 13
Portable music player - 984 hour battery life	1000015	4000	Ripple Jukebox 500
Video streaming device - HDMI compatible	1000016	156	Poku Castbox
Music streaming device 300GB storage capacity	1000017	895	Ripple Jukebox 300
The latest phone from Ripple - 8 inch with 8TB of storage capacity	1000020	4568	Ripple MyPhone 8

Connection: product_database

Edit Query

Valid connection

SELECT * FROM `productInventory`

7 rows

Enable Syntax Highlighting Advanced Query Mode Save As

	itemId	itemName	itemDescription	itemInventory
1	4728475	Rolux Navigator	Stylish men's watch with metal band	1000
2	38492	Rolux Sportsman	Men's sport watch with timer	200
3	1000014	Ripple BookPro 13	13 inch laptop - 5PB HDD/200GB RAM	150
4	1000015	Ripple Jukebox 500	Portable music player - 984 hour battery life	4000
5	1000016	Poku Castbox	Video streaming device - HDMI compatible	156
6	1000017	Ripple Jukebox 300	Music streaming device 300GB storage capacity	895
7	1000020	Ripple MyPhone 8	The latest phone from Ripple - 8 inch with 8TB of storage capacity	4568

splunk> App: Splunk DB Connect v2 Administrator Messages Settings Activity Help Find

Explorer Operations Health Settings Search RPC Service: Up Splunk DB Connect v2

Filter by name

Splunk DB Connect v2

Identities discovered_intelligence_user

Connections **+**

New Connection

Valid connection

Connection Name: product_database

App: Splunk DB Connect v2

Host: 127.0.0.1

Database Types: MySQL

Default Database: productdb

JDBC URL Format: jdbc:mysql://<host>:<port>/<database>

Generated JDBC URL: jdbc:mysql://127.0.0.1:<port>/productdb

Identity: discovered_intelligence_user

Port:

Enable SSL:

Readonly:

splunk> App: Splunk DB Connect v2 Administrator Messages Settings Activity Help Find

Explorer Operations Health Settings Search RPC Service: Up Splunk DB Connect v2

Filter by name

Splunk DB Connect v2

Identities **+**

Connections **+**

New Identity

Identity Name: discovered_intelligence_user

Username: discovered_intel

Password:

Confirm Password:

JRE Status:

JRE Installation Path (JAVA_HOME): /usr/java/jdk1.8.0_74

JVM Options: -Xmx1024m -XX:+UseConcMarkSweepGC

RPC Server Port: 9998

RPC Server SSL: Enabled Disabled

Save

Welcome to DB Connect!



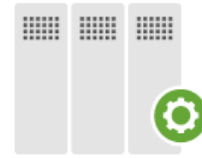
Explorer

Manage Connections and Identities



Health

Monitor Connection Health



Operations

Configure Inputs, Outputs and Lookups

DB Connect requires some basic settings to work properly. [Skip Setup](#)

[Setup](#)

```
mysql> use productdb
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> select * from productInventory;
+-----+-----+-----+-----+
| itemId | itemName          | itemDescription          | itemInventory |
+-----+-----+-----+-----+
| 4728475 | Rolux Navigator   | Stylish mens watch with metal band | 400 |
| 38492   | Rolux Sportsman   | Mens sport watch with timer | 600 |
| 1000014 | Ripple BookPro 13 | 13 inch laptop - 5PB HDD/200GB RAM | 1000 |
| 1000015 | Ripple Jukebox 500 | Portable music player - 984 hour battery life | 405 |
| 1000016 | Poku Castbox      | Video streaming device - HDMI compatible | 605 |
| 1000017 | Ripple Jukebox 300 | Music streaming device 300GB storage capacity | 350 |
| 1000020 | Ripple MyPhone 8  | The latest phone from Ripple - 8 inch with 8TB of | 500 |
+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

Browse More Apps

Splunk DB Connect 2

CATEGORY

- Application Management
- IT Operations Management
- Security and Compliance
- Business Analytics
- Utilities
- Cool Stuff

Best Match

Newest

Popular

300 Apps

< Prev

1

2

3

4

5

6

7

8

9

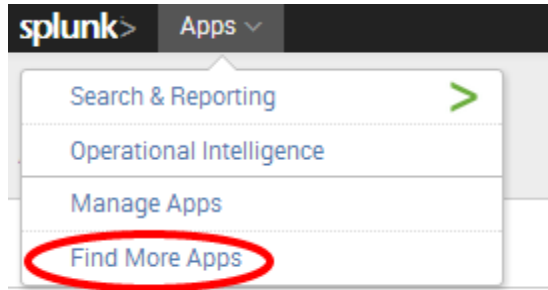
...

Next >

DBX Splunk DB Connect 2

[Install](#)

Splunk DB Connect v2 is a new release of our popular DB Connect add-on. It can help you quickly integrate structured data sources with your Splunk real-time machine data collection. Supports DB2, Informix, MemSQL, Microsoft SQL Server, MySQL, Oracle, PostgreSQL, SAP SQL Anywhere, Sybase ASE, Sybase IQ, and Teradata.



Post arguments

= [Delete](#)

Link configuration

URI *

Enter the location to link to. Optionally, specify fields by enclosing the field name in dollar signs.

Open link in

Link method

Show action in

Action type *

Label *

Enter the label that appears for this action. Optionally, incorporate a field's name in the label.

Apply only to the following fields

Destination app *

operational_intelligence

Name *

Open_JIRA_Issue

Workflow actions

[Fields](#) » Workflow actions

App context Operational Intelligence (opera: ▾

Show only objects created in this app context

New

Fields

View, edit, and set permissions on field extractions. Define event workflow actions:

Type

Field aliases

Edit or add one or more aliases to field names

Calculated fields

Edit or add one or more calculated fields

Field extractions

View and edit all field extractions. Add new field extractions and update permissions.

Field transformations

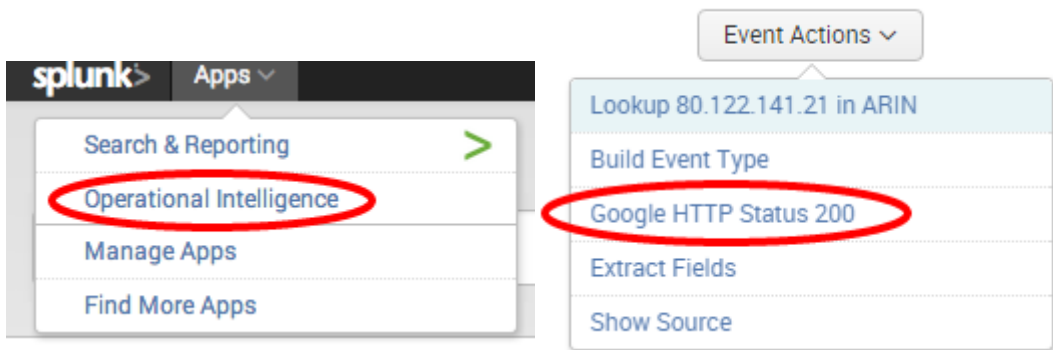
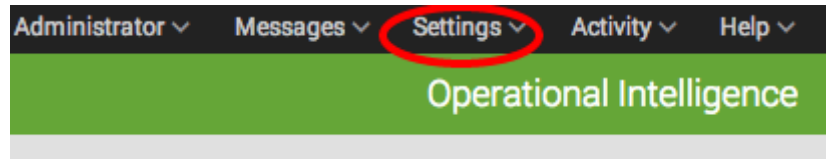
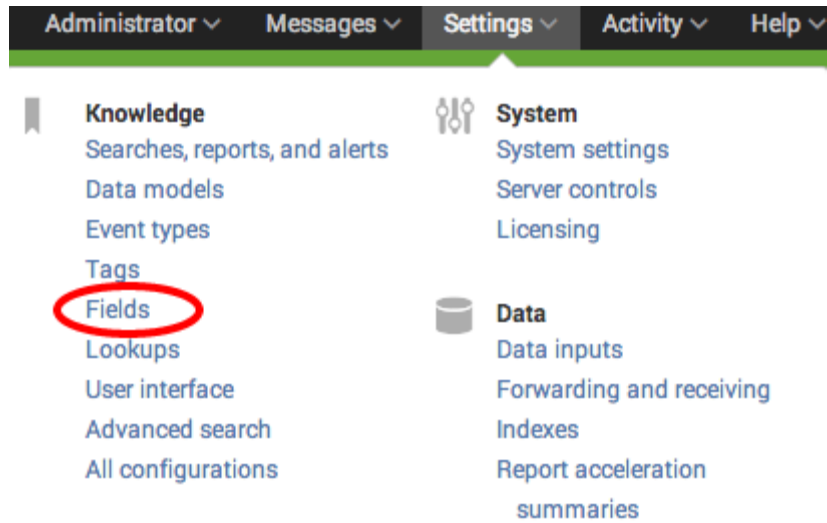
Edit or add transformations for field extractions that use a transform.

Sourcetype renaming

Rename a source type. Multiple source types can share the same name.

Workflow actions

Edit or add workflow actions



Link configuration

URI *

Enter the location to link to. Optionally, specify fields by enclosing the field name

Open link in

Link method

Show action in

Both

Action type *

link

Label *

Google HTTP Status \$status\$

Enter the label that appears for this action. Optionally, incorporate a field's value

Apply only to the following fields

status

Destination app *

operational_intelligence

Name *

Google_Search

Workflow actions

[Fields](#) » Workflow actions

App context Operational Intelligence (opera) ↓

Show only objects created in this app context

New

Fields

View, edit, and set permissions on field extractions. Define event workflow actions.

Type

Field aliases

Edit or add one or more aliases to field names

Calculated fields

Edit or add one or more calculated fields

Field extractions

View and edit all field extractions. Add new field extractions and update permissions.

Field transformations

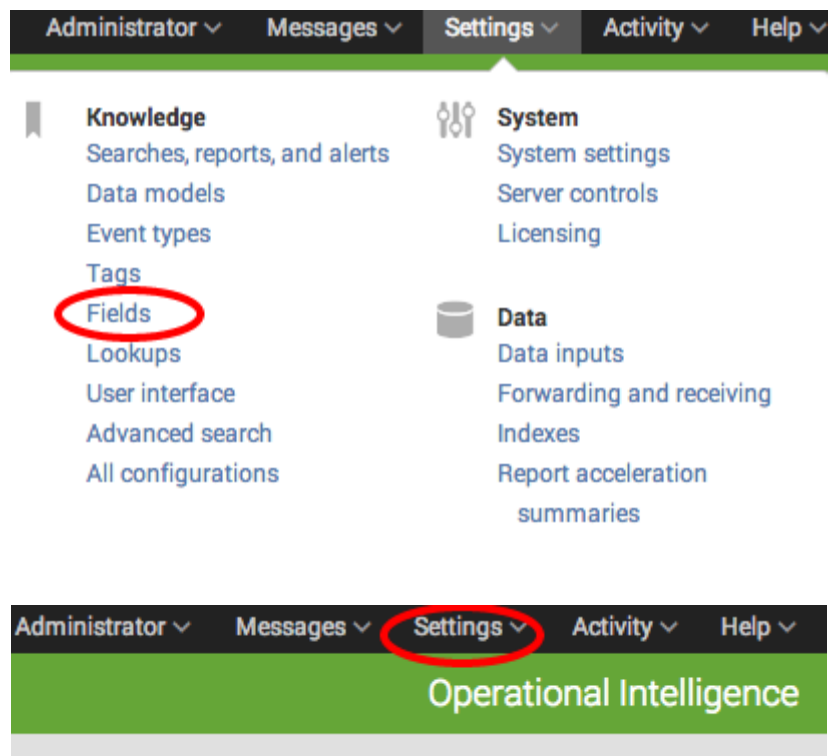
Edit or add transformations for field extractions that use a transform.

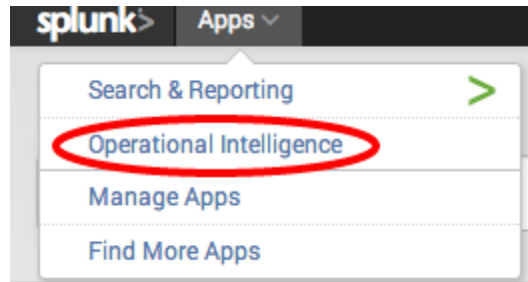
Sourcetype renaming

Rename a source type. Multiple source types can share the same name.

Workflow actions

Edit or add workflow actions





Link configuration

URI *

Enter the location to link to. Optionally, specify fields by enclosing the field name in dollar signs.

Open link in

Link method

Show action in

Action type *

Label *

Enter the label that appears for this action. Optionally, incorporate a field's name in the label.


Apply only to the following fields

Destination app *

Name *

Workflow actions

[Fields](#) » Workflow actions

App context Operational Intelligence (opera 

Show only objects created in this app context

 New

Fields

View, edit, and set permissions on field extractions. Define event workflow actions.

Type

[Field aliases](#)

Edit or add one or more aliases to field names

[Calculated fields](#)

Edit or add one or more calculated fields

[Field extractions](#)

View and edit all field extractions. Add new field extractions and update permissions.

[Field transformations](#)

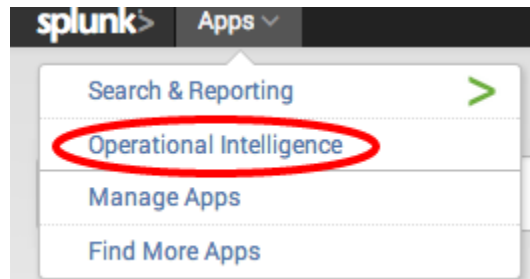
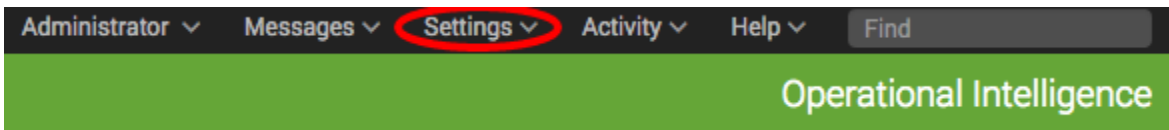
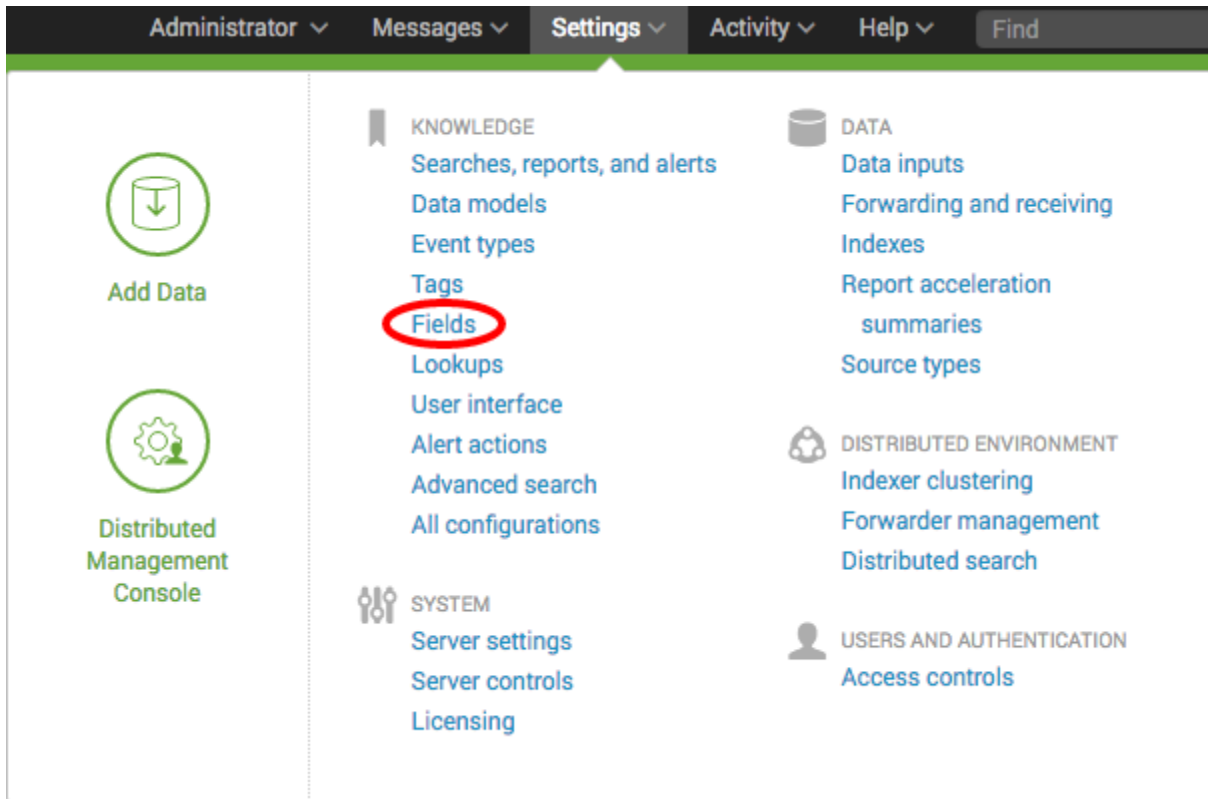
Edit or add transformations for field extractions that use a transform.

[Sourcetype renaming](#)

Rename a source type. Multiple source types can share the same name.

[Workflow actions](#)

Edit or add workflow actions



< Hide Fields All Fields

Selected Fields
a host 1
a source 1
a sourcetype 1

Interesting Fields
bytes 100+
clienthost 8
a clientip 28
a cookie 28
date_hour 1
date_mday 1
date_minute 16
a date_month 1
date_second 60
a date_wday 1
date_year 1
date_zone 1

clienthost

8 Values, 30.909% of events Selected

Reports
Top values Top values by time Rare values
Events with this field

Values	Count	%
1Cust7508.an3.lax33.da.uu.net	12	17.647%
Terrys-iPhone-040016057182.am.lilly.com	12	17.647%
p57B96A49.dip0.t-ipconnect.de	12	17.647%
c-98-198-188-91.hsd1.tx.comcast.net	10	14.706%
bb6a8959.virtua.com.br	9	13.235%
76-204-202-58.lightspeed.hstntx.sbcglobal.net	6	8.824%
ip-176-194-55-57.bb.netbynet.ru	6	8.824%
Dynamic-IP-1908455162.cable.net.co	1	1.47%

New Search

```
index=main sourcetype="access_combined" | lookup dnslookup clientip
```

splunk > Apps

- Search & Reporting >
- Operational Intelligence**
- Manage Apps
- Find More Apps

Edit Schedule



Report cp07_session_state

Schedule Report



[Learn More](#)

Schedule

Run on Cron Schedule ▾

Cron Expression

`*/15 ****`

e.g. 00 18 *** (every day at 6PM). [Learn More](#)

Time Range

Last 15 minutes ▶

Schedule Window?

No window ▾

Cancel

Next

Your Report Has Been Created



You may now view your report, add it to a dashboard, change additional settings, or continue editing it.

Additional Settings:

- [Permissions](#)
- [Schedule](#)
- [Acceleration](#)
- [Embed](#)

Continue Editing

Add to Dashboard

View

Save As Report ✕

Title

Description

Content Statistics Table

Time Range Picker

Save As ▼ Close

- Report**
- Dashboard Panel
- Alert
- Event Type

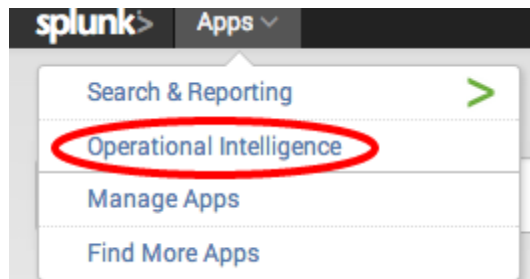
true_sessions.csv All time ▼ 🔍

▼ Presets

Real-time	Relative	Other
30 second window	Today	All time
1 minute window	Week to date	
5 minute window	Business week to date	
30 minute window	Month to date	
1 hour window	Year to date	
All time (real-time)	Yesterday	
	Previous week	
	Previous business week	
	Previous month	
	Previous year	

Search

```
index=main sourcetype="access_combined" | table _time JSESSIONID | inputlookup sessions.csv append=true | sort _time | dedup 1 JSESSIONID | outputlookup createinapp=true sessions.csv
```



Edit Schedule ✕

Report cp07_suspect_ips

Schedule Report [Learn More](#)

Schedule **Run every hour** ▾

At **0** ▾ minutes past the hour

Time Range **Last 7 days** ▶

Schedule Window? **No window** ▾

Cancel Next

Your Report Has Been Created



You may now view your report, add it to a dashboard, change additional settings, or continue editing it.

Additional Settings:

- [Permissions](#)
- [Schedule](#)
- [Acceleration](#)
- [Embed](#)

[Continue Editing](#)

[Add to Dashboard](#)

[View](#)

Save As Report



Title

Description

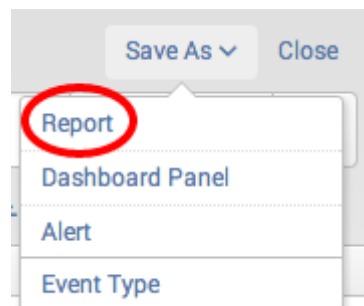
Content Statistics Table

Time Range Picker Yes

No

[Cancel](#)

[Save](#)



All time ▾ 🔍

▼ Presets

Real-time	Relative	Other
30 second window	Today	All time
1 minute window	Week to date	
5 minute window	Business week to date	
30 minute window	Month to date	
1 hour window	Year to date	
All time (real-time)	Yesterday	
	Previous week	
	Previous business week	
	Previous month	
	Previous year	
	Last 15 minutes	
	Last 60 minutes	
	Last 4 hours	
	Last 24 hours	
	Last 7 days	
	Last 30 days	

🔍 Search

```
index=main sourcetype="access_combined" status=403 | stats count by clientip | outputlookup createinapp=true mailiciousip.csv
```

splunk> Apps ▾

- Search & Reporting >
- Operational Intelligence
- Manage Apps
- Find More Apps

New Search Save As ▾ Close

index=main sourcetype="log4j" itemId=* | table itemId ProductDescription, ProductName Last 24 hours ▾ 🔍

✓ 17,601 events (5/1/16 11:00:00.000 PM to 5/2/16 11:33:52.000 PM) No Event Sampling ▾ Job ▾ || ■ ↻ 📄 ⬇️ 🧠 Smart Mode ▾

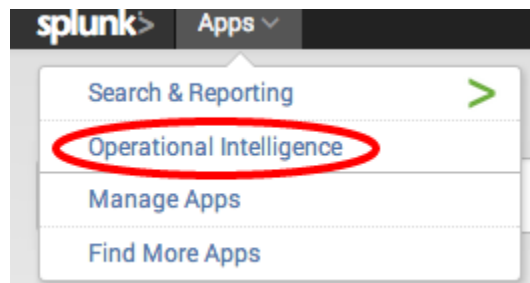
Events Patterns Statistics (17,601) Visualization

20 Per Page ▾ ↗️ Format ▾ Preview ▾ < Prev 1 2 3 4 5 6 7 8 9 ... Next >

itemId	ProductDescription	ProductName
1000015	Portable music player - 984 hour battery life	Ripple Jukebox 500
1000015	Portable music player - 984 hour battery life	Ripple Jukebox 500
1000015	Portable music player - 984 hour battery life	Ripple Jukebox 500
1000015	Portable music player - 984 hour battery life	Ripple Jukebox 500
1000020	The latest phone from Ripple - 8 inch with 8TB of storage capacity	Ripple MyPhone 8
1000020	The latest phone from Ripple - 8 inch with 8TB of storage capacity	Ripple MyPhone 8
1000020	The latest phone from Ripple - 8 inch with 8TB of storage capacity	Ripple MyPhone 8
1000020	The latest phone from Ripple - 8 inch with 8TB of storage capacity	Ripple MyPhone 8
1000015	Portable music player - 984 hour battery life	Ripple Jukebox 500
1000015	Portable music player - 984 hour battery life	Ripple Jukebox 500
1000015	Portable music player - 984 hour battery life	Ripple Jukebox 500
1000015	Portable music player - 984 hour battery life	Ripple Jukebox 500

New Search

index=main sourcetype="log4j" itemId=* | table itemId ProductDescription, ProductName



Lookup output fields

itemDescription = ProductDescription Delete

itemName = ProductName Delete

Apply to * named *

sourcetype log4j

Lookup input fields

itemId = itemId Delete

Destination app *

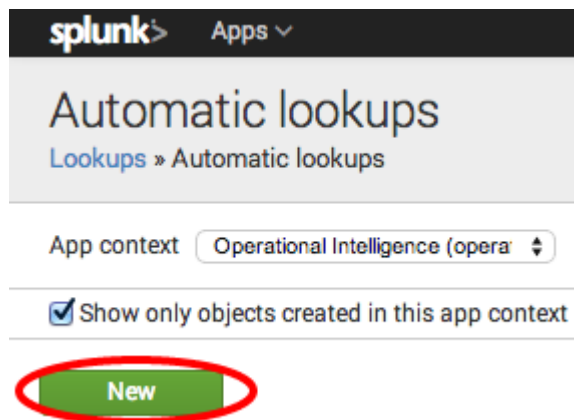
operational_intelligence

Name *

Product_Descriptions

Lookup table *

Product_Descriptions



Lookup table files

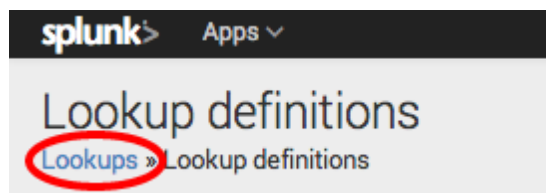
List existing lookup tables or upload a new file.

Lookup definitions

Edit existing lookup definitions or define a new file-based or external lookup.

Automatic lookups

Edit existing automatic lookups or configure a new lookup to run automatically.



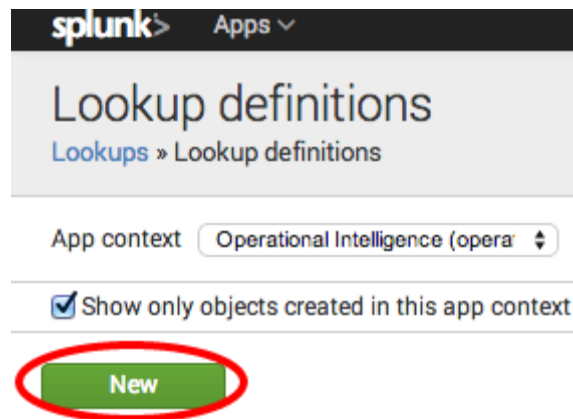
Destination app *
operational_intelligence

Name *
Product_Descriptions

Type *
File-based

Lookup file *
productdescriptions.csv

Create and manage lookup table files.



Lookup table files

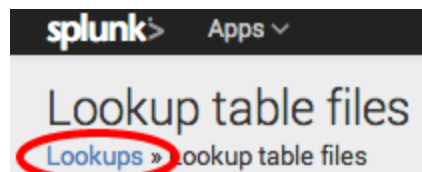
List existing lookup tables or upload a new file.

Lookup definitions

Edit existing lookup definitions or define a new file-based or external lookup.

Automatic lookups

Edit existing automatic lookups or configure a new lookup to run automatically.



Destination filename *

productdescriptions.csv

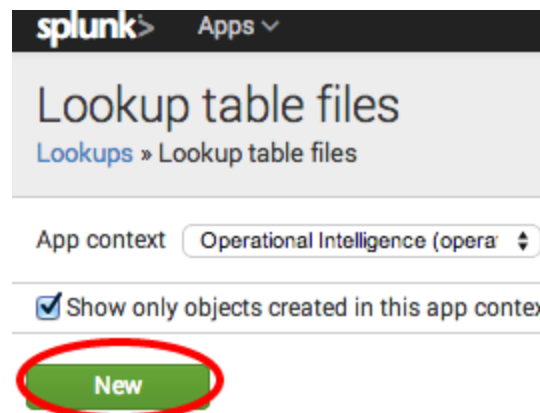
Destination app *

operational_intelligence

Upload a lookup file

Choose File productdescriptions.csv

Select either a plaintext CSV file or a gzipped CSV file.
The maximum file size that can be uploaded through the browser is 500MB.



Lookup table files

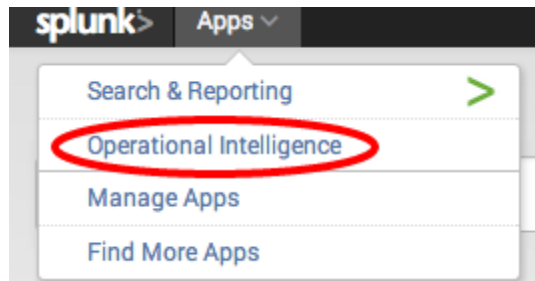
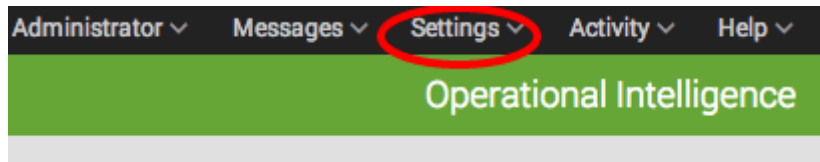
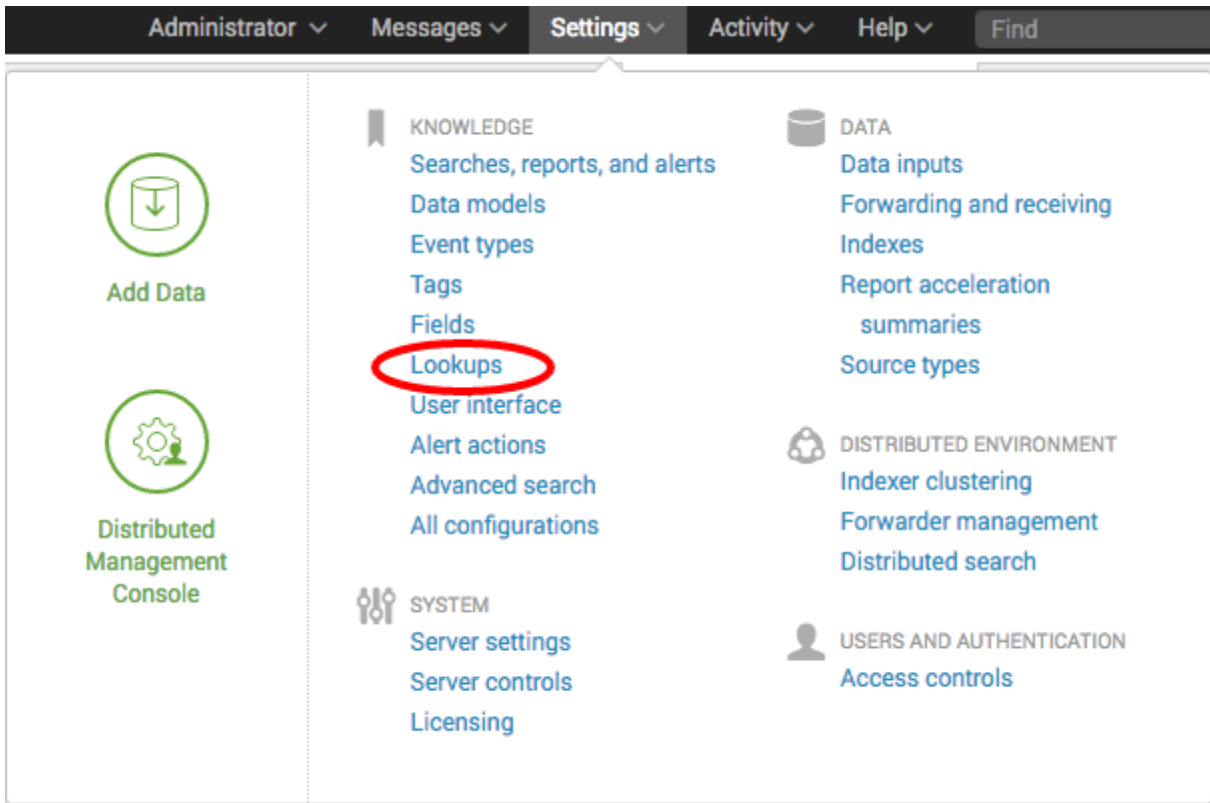
List existing lookup tables or upload a new file.

Lookup definitions

Edit existing lookup definitions or define a new file-based or external lookup.

Automatic lookups

Edit existing automatic lookups or configure a new lookup to run automatically.



Chapter 8: Being Proactive – Creating Alerts

Search name ⇅	RSS feed ⇅	Scheduled time ⇅
cp08_abnormal_purchase		2016-03-30 07:58:00 UTC
cp08_abnormal_webpage_response		2016-03-30 08:15:00 UTC
cp08_predict_sales_inventory		2016-03-30 08:00:00 UTC
cp08_realtime_checkout_error		2016-03-30 07:58:00 UTC
cp08_webserver_failure_script		2016-03-30 07:58:00 UTC

Add to RSS

Enable

The RSS link is available in Settings > Searches, reports, and alerts.

Run a script

Enable

List in Triggered Alerts

Enable

Triggered Alerts are available in Activity located in the upper right navigation.



Add Data



Distributed Management Console

KNOWLEDGE

Searches, reports, and alerts

Data models

Event types

Tags

Fields

Lookups

User interface

Alert actions

Advanced search

All configurations



SYSTEM

Server settings

Server controls

Licensing



DATA

Data inputs

Forwarding and receiving

Indexes

Report acceleration summaries

Source types



DISTRIBUTED ENVIRONMENT

Indexer clustering

Forwarder management

Distributed search



USERS AND AUTHENTICATION

Access controls

Splunk Alert: cp08_predict_sales_inventory

Inbox x



splunk@ip-172-31-12-177.us-west-2.compute.internal
to



The alert condition for 'cp08_predict_sales_inventory' was triggered.

Alert: [cp08_predict_sales_inventory](#)

Trigger Time: 07:45:01 on March 30, 2016.

[View results in Splunk](#)

itemId	origInventory	Sales	currentInventory	salesRate	predictSales	predictInventory
1000014	1000	1281	-281	160.125000	3843	-4124
1000015	405	919	-514	114.875000	2757	-3271
1000016	605	342	263	42.750000	1026	-763
1000020	500	247	253	30.875000	741	-488
38492	600	551	49	68.875000	1653	-1604
4728475	400	1882	-1482	235.250000	5646	-7128

If you believe you've received this email in error, please see your Splunk administrator.

splunk > the engine for machine data

splunk> App: Operational Intelligence ▾ Administrator ▾ Messages ▾ Settings ▾ Act

Search Pivot Reports Alerts Dashboards

cp08_predict_sales_inventory

Enabled: Yes. [Disable](#)

App: operational_intelligence

Permissions: Shared in App. Owned by admin. [Edit](#)

Alert Type: Scheduled. Hourly, at 0 minutes past the hour. [Edit](#)

Trigger Condition: Custom. "search predictInventory<1". [Edit](#)

Actions: ▾ 2 Actions [Edit](#)

- Add to Triggered Alerts
- Send email

Send email Remove

To Comma separated list of email addresses. [Show CC and BCC](#)

Priority ▼

Subject The email subject, recipients and message can include tokens that insert text based on the results of the search. [Learn More](#)

Message

Include Link to Alert Link to Results
 Search String Inline ▼
 Trigger Condition Attach CSV
 Trigger Time Attach PDF

Type

Trigger Actions

+ Add Actions ▼

When **Log Event**
Send log event to Splunk receiver endpoint


Run a script
Invoke a custom script

Send email
Send an email notification to specified recipients

Webhook
Generic HTTP POST to a specified URL

[Manage Alert Actions](#) 🔗
Manage available actions and browse more actions

When triggered

▼  Add to Triggered Alerts

[Remove](#)

Severity

Medium ▼

Trigger Actions

+ Add Actions ▼



Add to Triggered Alerts

Add this alert to Triggered Alerts list



Log Event

Send log event to Splunk receiver endpoint



Run a script

Invoke a custom script



Send email

Send an email notification to specified recipients



Webhook

Generic HTTP POST to a specified URL

[Manage Alert Actions](#)

Manage available actions and browse more actions

Save As Alert
✕

Settings

Title cp08_predict_sales_inventory

Description

Permissions Private Shared in App

Alert type Scheduled Real-time

Run every hour ▾

At minutes past the hour

Trigger Conditions

Trigger alert when Custom ▾

predictInventory<1 e.g. "search count > 10". Evaluated against the results of the base search.

Trigger Once For each result

Throttle?

Trigger Actions

+ Add Actions ▾

Cancel
Save

Search Pivot Reports Alerts Dashboards
Operational Intelligence

Q New Search
Save As ▾ Close

```

index=main sourcetype=log4j earliest=-0d@d requestType=removeItem OR requestType=updateCart OR requestType=addItem
[search index=main sourcetype=log4j requestType="checkout" earliest=-0d@d | fields orderId]
| eval quantity=if(requestType="removeItem",-1,quantity)
| stats sum(quantity) AS quantity by itemId, date_hour
| stats avg(quantity) as salesRate, sum(quantity) as Sales by itemId
| lookup productInventory.csv itemId AS itemId OUTPUT itemInventory AS origInventory
| eval currentInventory=origInventory-Sales
| eval predictSales=round(salesRate*24)
| eval predictInventory=currentInventory-predictSales
| table itemId, origInventory, Sales, currentInventory, salesRate, predictSales, predictInventory

```

- Report
- Dashboard Panel
- Alert
- Event Type

cp08_webserver_failure_script

Enabled: Yes. [Disable](#)

App: operational_intelligence

Permissions: Shared in App. Owned by admin. [Edit](#)

Alert Type: Real-time. [Edit](#)

Trigger Condition: Per-Result. [Edit](#)

Actions: 1 Action [Edit](#)

Run a script

Save As Alert ×

Settings

Title

Description

Permissions

Alert type

Trigger Conditions

Trigger alert when

Throttle?

Trigger Actions

When triggered [Remove](#)

Filename Located in \$SPLUNK_HOME/bin/scripts

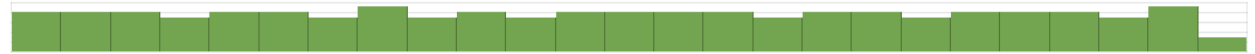
New Search

index=main sourcetype=access_combined status=503

✓ 570 events (5/3/16 12:00:00.000 AM to 5/4/16 12:28:05.000 AM) No Event Sampling

Events (570) Patterns Statistics Visualization

Format Timeline Zoom Out Zoom to Selection Deselect



List Format 20 Per Page Prev 1 2 3 4 5 6 7 8 9 ... Next

i	Time	Event
>	5/4/16 12:21:07.000 AM	187.54.198.100 - - [04/May/2016:00:21:07 +0000] "POST /addItem HTTP/1.1" 503 1961 "https://www3.samplesite.ca/addItem" "Mozilla/5.0 (Windows NT 6.0; WOW64; rv:24.0) Gecko/20100101 Firefox/24.0" "JSESSIONID=F0E8684DE19694620D2E3F22E7A81D08" 3 host = ip-172-31-12-177 ; source = /opt/splunk/etc/apps/OpsDataGen/data/access_log ; sourcetype = access_combined
>	5/4/16 12:21:07.000 AM	187.54.198.100 - - [04/May/2016:00:21:07 +0000] "POST /addItem HTTP/1.1" 503 632 "https://www3.samplesite.ca/addItem" "Mozilla/5.0 (Windows NT 6.0; WOW64; rv:24.0) Gecko/20100101 Firefox/24.0" "JSESSIONID=F0E8684DE19694620D2E3F22E7A81D08" 27

Splunk Alert: cp08_abnormal_purchase

Inbox x

splunk@ip-172-31-12-177.us-west-2.compute.internal
to

The alert condition for 'cp08_abnormal_purchase' was triggered.

Alert: [cp08_abnormal_purchase](#)

Trigger Time: 05:11:57 on March 30, 2016.

[View results in Splunk](#)

ipAddress	numberOfItems	total	invoice	customerId	paymentId	orderId
176.59.232.207	20	3999.8	145931467126748	20160330051111	267481459314671	1459314671

If you believe you've received this email in error, please see your Splunk administrator.

splunk > the engine for machine data

cp08_abnormal_purchase

Enabled: No. [Enable](#)

App: operational_intelligence

Permissions: Shared in App. Owned by admin. [Edit](#)

Alert Type: Real-time. [Edit](#)

Trigger Condition: Per-Result. [Edit](#)

Actions: 2 Actions [Edit](#)

Add to Triggered Alerts

Send email

Send email

[Remove](#)

To

Comma separated list of email addresses.

[Show CC and BCC](#)

Priority

Subject

The email subject, recipients and message can include tokens that insert text based on the results of the search. [Learn More](#)


Message


- Link to Alert
- Link to Results
- Search String
- Inline [Table](#)
- Trigger Condition
- Attach CSV
- Trigger Time
- Attach PDF


Type


Trigger Actions


+ Add Actions ▾

When  **Log Event**
Send log event to Splunk receiver endpoint


 **Run a script**
Invoke a custom script

 **Send email**
Send an email notification to specified recipients

 **Webhook**
Generic HTTP POST to a specified URL

[Manage Alert Actions](#) 
Manage available actions and browse more actions

When triggered

▾  Add to Triggered Alerts


[Remove](#)


Severity


Medium ▾


Trigger Actions


+ Add Actions ▾


 **Add to Triggered Alerts**
Add this alert to Triggered Alerts list

 **Log Event**
Send log event to Splunk receiver endpoint

 **Run a script**
Invoke a custom script

 **Send email**
Send an email notification to specified recipients

 **Webhook**
Generic HTTP POST to a specified URL

[Manage Alert Actions](#) 
Manage available actions and browse more actions

Save As Alert ×

Settings

Title

Description

Permissions

Alert type

Trigger Conditions

Trigger alert when

Throttle?

Trigger Actions

App Owner Status

10 per page ▼

Dispatched at ▼	Owner ▼	Application ▼	Size ▼	Events ▼	Run time ▼	Expires ▼	Status	Actions
3/28/16 6:38:09 AM	admin	operational_intelligence	0.04MB	0	00:00:11	Mar 28, 2016 6:40:20 AM	<input checked="" type="button" value="Running (100%)"/>	Inspect Save Pause Finalize Delete
cp08_realtime_checkout_error [earliest time=3/28/16 6:33:20 AM, latest time=3/28/16 6:38:20 AM]								

Settings ▼ Activity ▼ Help ▼

-
-

Search name	RSS feed	Scheduled time	Display view	Owner	App	Alerts	Sharing	Status	Actions
cp08_abnormal_webpage_response		None	None	admin	operational_intelligence	0	App Permissions	Disabled Enable	View recent Run Advanced edit Clone Move Delete
cp08_realtime_checkout_error		None	None	admin	operational_intelligence	0	App Permissions	Disabled Enable	View recent Run Advanced edit Clone Move Delete

Splunk Alert: cp08_realtime_checkout_error

splunk@jp-172-31-12-177.us-west-2.compute.internal
to

The alert condition for 'cp08_realtime_checkout_error' was triggered.

Alert: cp08_realtime_checkout_error

Trigger Time: 06:14:18 on March 28, 2016.

View results in Splunk

requestType	threadId	sessionId	customerId	orderId	invoice	paymentId	numberOfItems	total	result	count
checkout	218411459145652	FA231FEFCAEB34FD8687D3C33EC06FBD	20160328061323	1459145603	145914560321841	218411459145603	2	2259.8	failure	1

If you believe you've received this email in error, please see your Splunk administrator.

splunk > the engine for machine data

splunk > App: Operational Intelligence > Administrator > Messages > Settings > Activi

[Search](#) [Pivot](#) [Reports](#) [Alerts](#) [Dashboards](#)

cp08_realtime_checkout_error

Enabled: No. [Enable](#)

App: operational_intelligence

Permissions: Shared in App. Owned by admin. [Edit](#)

Alert Type: Real-time. [Edit](#)

Trigger Condition: Number of Results is > 0 in 5 minutes. [Edit](#)


Actions: v 2 Actions [Edit](#)

- [Add to Triggered Alerts](#)
- [Send email](#)

Save As Alert ×

Trigger Actions

+ Add Actions ▾

When triggered ▾  Send email Remove

To Comma separated list of email addresses. [Show CC and BCC](#)

Priority

Subject The email subject, recipients and message can include tokens that insert text based on the results of the search. [Learn More](#)


Message

The alert condition for '\$name\$' was triggered.

Include






<input checked="" type="checkbox"/> Link to Alert	<input checked="" type="checkbox"/> Link to Results
<input type="checkbox"/> Search String	<input checked="" type="checkbox"/> Inline Table ▾
<input type="checkbox"/> Trigger Condition	<input type="checkbox"/> Attach CSV
<input checked="" type="checkbox"/> Trigger Time	<input type="checkbox"/> Attach PDF

Type


>  Add to Triggered Alerts Remove

Trigger Actions

+ Add Actions ▾

- When  **Log Event**
Send log event to Splunk receiver endpoint
-
-  **Run a script**
Invoke a custom script
-
-  **Send email**
Send an email notification to specified recipients
-
-  **Webhook**
Generic HTTP POST to a specified URL
-
- [Manage Alert Actions](#) 
Manage available actions and browse more actions

When triggered

▼  Add to Triggered Alerts

[Remove](#)

Severity

High ▼

Trigger Actions

+ Add Actions ▼



Add to Triggered Alerts

Add this alert to Triggered Alerts list



Log Event

Send log event to Splunk receiver endpoint



Run a script

Invoke a custom script



Send email

Send an email notification to specified recipients



Webhook

Generic HTTP POST to a specified URL

[Manage Alert Actions](#)

Manage available actions and browse more actions

Save As Alert

Settings

Title:

Description:

Permissions: Private Shared in App

Alert type: Scheduled Real-time

Trigger Conditions

Trigger alert when:

in:

Trigger: Once For each result

Throttle?

Suppress results containing field value:

Suppress triggering for:

Trigger Actions

New Search

Save As

```
index=main sourcetype=log4j | transaction threadId maxspan=5m | search requestType="checkout" result="failure" | stats count by requestType, threadId, sessionId, customerId, orderId, invoice, paymentId, numberOfItems, total, result
```

0 of 336 events matched No Event Sampling

- Report
- Dashboard Panel
- Alert
- Event Type

New Search

Save As Close

index=main sourcetype=log4j | transaction threadId maxspan=5m | search requestType="checkout" result="failure" | stats count by requestType, threadId, sessionId, customerId, orderId, invoice, paymentId, numberOfItems, total, result

5 minute window



0 of 265 events matched No Event Sampling

Events Patterns Statistics (1) Visualization

20 Per Page Format

requestType	threadId	sessionId
checkout	243111462310536	11526246D18FA8E86525DB53259C1F0F

Presets

- Real-time
 - 30 second window
 - 1 minute window
 - 5 minute window**
 - 30 minute window
 - 1 hour window
 - All time (real-time)
- Relative
 - Today
 - Week to date
 - Business week to date
 - Month to date
 - Year to date
 - Yesterday
 - Previous week
 - Previous business week
 - Previous month
 - Previous year
- Other
 - All time

- > Relative
- > Real-time
- > Date Range
- > Date & Time Range
- > Advanced

splunk> Apps Administrator Messages Settings Activity Help Find

App Operational Intelligence (operational_intelligen) Owner Administrator (a) Severity All Alert All

Showing 1-1 of 1 result

Time	Fired alerts	App	Type	Severity	Mode	Actions
2016-03-28 04:15:01 UTC	cp08_abnormal_webpage_response	operational_intelligence	Scheduled	Medium	Digest	View results Edit search Delete

Settings Activity Help

Jobs

Triggered Alerts

Splunk Alert: cp08_abnormal_webpage_response



Inbox x



splunk@ip-172-31-12-177.us-west-2.compute.internal

to

The alert condition for 'cp08_abnormal_webpage_response' was triggered.

Alert: [cp08_abnormal_webpage_response](#)

Trigger: Saved Search [cp08_abnormal_webpage_response]: custom

Trigger Time: [04:15:01 on March 28, 2016](#).

[View results](#)

If you believe you've received this email in error, please see your Splunk administrator.

splunk > the engine for machine data

The screenshot shows the Splunk web interface for an alert configuration. At the top, the Splunk logo and 'App: Operational Intelligence' are visible. Below the navigation bar (Search, Pivot, Reports, Alerts, Dashboards), the alert name 'cp08_abnormal_webpage_response' is displayed. The configuration details are as follows:

Enabled:	No. Enable	Trigger Condition:	Custom. "search MAG>5". Edit
App:	operational_intelligence	Actions:	2 Actions Edit
Permissions:	Shared in App. Owned by admin. Edit		Add to Triggered Alerts
Alert Type:	Scheduled. Hourly, at 0 minutes past the hour. Edit		Send email

Send email Remove

To Comma separated list of email addresses. [Show CC and BCC](#)

Priority

Subject The email subject, recipients and message can include tokens that insert text based on the results of the search. [Learn More](#)

Message

Include Link to Alert Link to Results
 Search String Inline [Table](#)

Trigger Condition Attach CSV

Trigger Time Attach PDF

Type

Trigger Actions


+ Add Actions

When

- Log Event**
Send log event to Splunk receiver endpoint
- Run a script**
Invoke a custom script
- Send email**
Send an email notification to specified recipients
- Webhook**
Generic HTTP POST to a specified URL

[Manage Alert Actions](#)
Manage available actions and browse more actions

When triggered

▼  Add to Triggered Alerts

Remove

Severity

Medium ▼

Trigger Actions

+ Add Actions ▼



Add to Triggered Alerts

Add this alert to Triggered Alerts list



Log Event

Send log event to Splunk receiver endpoint



Run a script

Invoke a custom script



Send email

Send an email notification to specified recipients



Webhook

Generic HTTP POST to a specified URL

[Manage Alert Actions](#)

Manage available actions and browse more actions

Save As Alert

Settings

Title

Description

Permissions Private Shared in App

Alert type Scheduled Real-time

At minutes past the hour

Trigger Conditions

Trigger alert when

e.g. "search count > 10". Evaluated against the results of the base search.

Trigger Once For each result

Throttle?

Trigger Actions

+ Add Actions ▼

Cancel Save

Q New Search Save As Close

```
sourcetype=access_combined index=main | stats max(response) AS MAX by uri_path | join uri_path [search earliest=-25h latest=-24h sourcetype=access_combined index=main | stats avg(response) AS AVG by uri_path] | eval MAG=round(MAX/AVG)
```

✓ 883 events (5/3/16 8:03:00.000 PM to 5/3/16 9:03:13.000 PM) No Event Sampling Job || → Alert Event Type

Events Patterns Statistics (13) Visualization

20 Per Page Format Preview

uri_path	MAX	AVG	MAG
/addItem	52	28.159509	2
/admin	52	31.294118	2
/checkout	51	26.450000	2
/error	50	23.642857	2
/home	52	27.666667	2
/login.php	19	13.000000	1
/phpMyAdmin	45	11.000000	4
/removeitem	52	25.253521	2
/robots.txt	44	27.000000	2
/search	52	123.294872	0
/updatecart	52	26.619718	2
/viewCart	3312	28.730964	115
/viewitem	52	27.205128	2



Graphics.zip

Chapter 9: Chapter 9: Speeding Up Intelligence – Data Summarization

Save As Report ×

Title

Description

Content

Time Range Picker

Summary Details

[Report Acceleration Summaries](#) » Summary Details

Summary: 09ffd23e5cccf3e4

Summary Status

Pending (Built summary - 100%) Updated: 10m ago

Actions

Reports Using This Summary

Search name	Owner	App
cp09_maximum_concurrent_sessions	admin	operational_intelligence

[Details](#) [Learn more.](#)

Summarization Load	0.0510
Access Count	4 Last Access: < 1 min ago
Size on Disk	11.41MB
Summary Range	31 days
Timespans	10s, 1d, 1h, 1min, 1mon, 1s
Buckets	9
Chunks	795

Save As Dashboard Panel



Dashboard

New

Existing

Session and Purchase Trends

Panel Title

Maximum Concurrent Sessions

Panel Powered By

Inline Search

Report

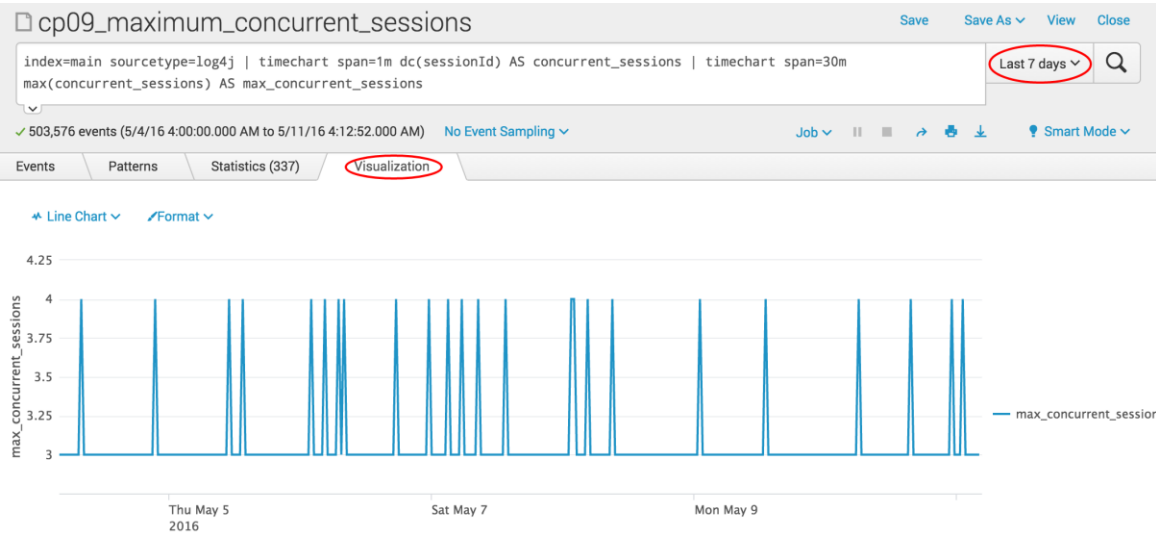
Panel Content

Statistics

Line Chart

Cancel

Save



Search Pivot **Reports** Alerts Dashboards Operational Intelligence

Reports
 Reports are based on single searches and can include visualizations, statistics and/or events. Click the name to view the report.
 Open the report in Pivot or Search to refine the parameters or further explore the data.

1 Reports All Yours This App's maximum

i	Title ^	Actions	Owner	App	Sharing	Embedding
>	cp09_maximum_concurrent_sessions	Open in Search Edit	admin	operational_intelligence	App	Disabled

Summary: 09ffd23e5cccf3e4

Summary Status

Complete Updated: 1m ago

Actions

Verify Update **Rebuild** Delete

Reports Using This Summary

Search name	Owner	App
cp09_maximum_concurrent_sessions	admin	operational_intelligence

Details [Learn more.](#)

Summarization Load	0.1016
Access Count	0 Last Access: Never
Size on Disk	11.41MB
Summary Range	31 days
Timespans	10s, 1d, 1h, 1min, 1mon, 1s
Buckets	9
Chunks	795

Report Acceleration Summaries

Showing 1-1 of 1 item Results per page 25

Summary ID	Normalized Summary ID	Reports Using Summary	Summarization Load	Access Count	Summary Status
09ffd23e5cccf3e4	NS7cd5b15701652c5f	cp09_maximum_concurrent_sessions	0.0000	0 Last Access: Never	39% Complete Updated: < 1 min ago

Administrator Messages Settings Activity Help Find

KNOWLEDGE
Searches, reports, and alerts
Data models
Event types
Tags
Fields
Lookups
User interface
Alert actions
Advanced search
All configurations

DATA
Data inputs
Forwarding and receiving
Indexes
Report acceleration summaries
Source types

DISTRIBUTED ENVIRONMENT
Indexer clustering
Forwarder management
Distributed search

SYSTEM
Server settings
Server controls
Licensing

USERS AND AUTHENTICATION
Access controls

Add Data

Distributed Management Console

Your Report Has Been Created



You may now view your report, add it to a dashboard, change additional settings, or continue editing it.

Additional Settings:

- [Permissions](#)
- [Schedule](#)
- **[Acceleration](#)**
- [Embed](#)

[Continue Editing](#)

[Add to Dashboard](#)

[View](#)

Edit Acceleration ×

Report cp09_maximum_concurrent_sessions

Accelerate Report Acceleration may increase storage and processing costs.

Summary Range? 1 Month ▾

Cancel Save

Save As Report ×

Title cp09_maximum_concurrent_session

Description optional

Content 📊 Statistics Table

Time Range Picker Yes No

Cancel Save

splunk> App: Operatio... Administrator Messages Settings Activity Help Find

Search Pivot Reports Alerts Dashboards Operational Intelligence

New Search Save As Close

```
index=main sourcetype=log4j | timechart span=1m dc(sessionId) AS concurrent_sessions | timechart span=3
max(concurrent_sessions) AS max_concurrent_sessions
```

503,197 events (5/4/16 4:00:00.000 AM to 5/11/16 4:04:53.000 AM) No Event Sampling Job

Events Patterns Statistics (337) Visualization

20 Per Page Format Preview < Prev 1 2 3 4 5 6 7 8 9 ... Next >

_time	max_concurrent_sessions
2016-05-04 04:00:00	3
2016-05-04 04:30:00	3

- Report
- Dashboard Panel
- Alert
- Event Type

Save As Dashboard Panel

Dashboard: New Existing

Panel Title:

Panel Powered By: Inline Search Report

Panel Content: Statistics Line Chart

Save As Dashboard Panel



Dashboard

New

Existing

Dashboard Title

Session and Purchase Trends

Dashboard ID?

session_and_purchase_trends

Can only contain letters, numbers and underscores.

Dashboard Description

optional

Dashboard Permissions

Private

Shared in App

Panel Title

Hourly Sessions vs Completed Trans

Panel Powered By

🔍 Inline Search

📄 Report

Panel Content

📊 Statistics

📈 Line Chart

Cancel

Save

New Search

Save As Close

```
index=summary source=cp09_backfill_purchases_city City!="Unknown" | timechart span=1d useother=F  
sum(Purchases) by City
```

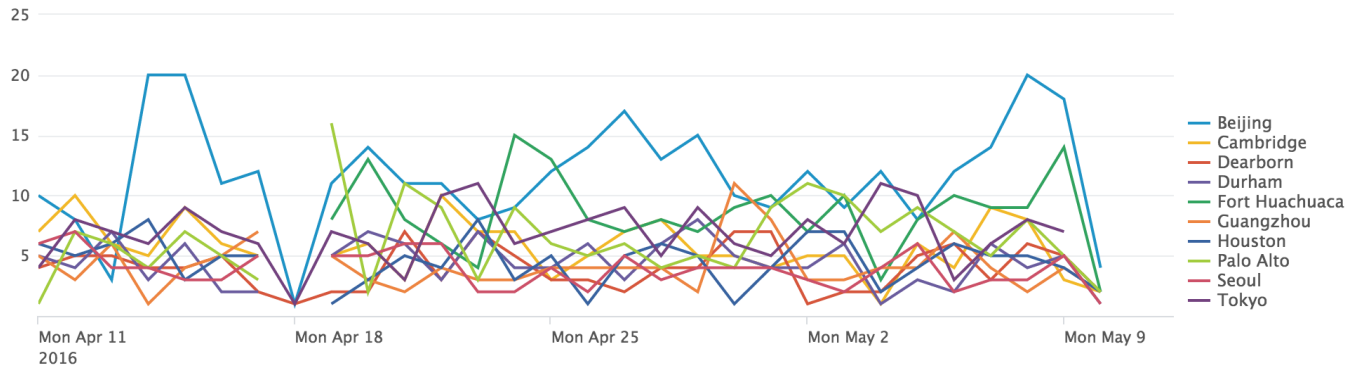
Last 30 days

5,935 events (4/11/16 12:00:00.000 AM to 5/11/16 3:58:23.000 AM) No Event Sampling

Job Smart Mode

Events Patterns Statistics (31) Visualization

Line Chart Format



splunk App: Operation... Administrator Messages Settings Activity Help Find

Search Pivot Reports Alerts Dashboards Operational Intelligence

cp09_backfill_purchases_city

Edit More Info Add to Dashboard

This scheduled report runs daily, at 0:00. Its time range is last 24 hours. The following results were generated a

771 events (5/10/16 3:00:00.000 AM to 5/11/16 3:55:00.000 AM)

206 results 20 per page

City	Purchases
Airdrie	1
Aldenhoven	1
Ann Arbor	3

- Open in Search
- Edit Description
- Edit Permissions**
- Edit Schedule
- Edit Acceleration
- Clone
- Embed
- Delete

Edit Schedule



Report cp09_backfill_purchases_city

Schedule Report



[Learn More](#)

Schedule

Run every day ▾

At

0:00 ▾

Time Range

Last 24 hours ▶

Schedule Window?

No window ▾

Cancel

Next

Edit Permissions ✕

Report cp09_backfill_purchases_city

Owner admin

App operational_intelligence

Display For Owner **App** All apps

Run As Owner User

[Learn More](#)

	Read	Write
Everyone	<input type="checkbox"/>	<input type="checkbox"/>
admin	<input type="checkbox"/>	<input type="checkbox"/>
can_delete	<input type="checkbox"/>	<input type="checkbox"/>
db_connect_admin	<input type="checkbox"/>	<input type="checkbox"/>
db_connect_user	<input type="checkbox"/>	<input type="checkbox"/>
power	<input type="checkbox"/>	<input type="checkbox"/>
splunk-system-role	<input type="checkbox"/>	<input type="checkbox"/>
user	<input type="checkbox"/>	<input type="checkbox"/>

Cancel Save

Save As Report ✕

Title **cp09_backfill_purchases_city**

Description optional

Content Statistics Table

Time Range Picker Yes **No**

Cancel Save

New Search

Save As Close

```

sourcetype=log4j index=main requestType="checkout" | iplocation ipAddress | fillnull value="Unknown"
City | replace "" with "Unknown" in City | stats count AS Purchases by City
    
```

Report
Dashboard Panel
Alert
Event Type

768 events (5/10/16 3:00:00.000 AM to 5/11/16 3:48:37.000 AM) No Event Sampling

Events Patterns Statistics (205) Visualization

20 Per Page Format Preview

< Prev 1 2 3 4 5 6 7 8 9 ... Next >

City	Purchases
Airdrie	1
Aldenhoven	1
Ann Arbor	3
Aomori	1

New Search

Save As Close

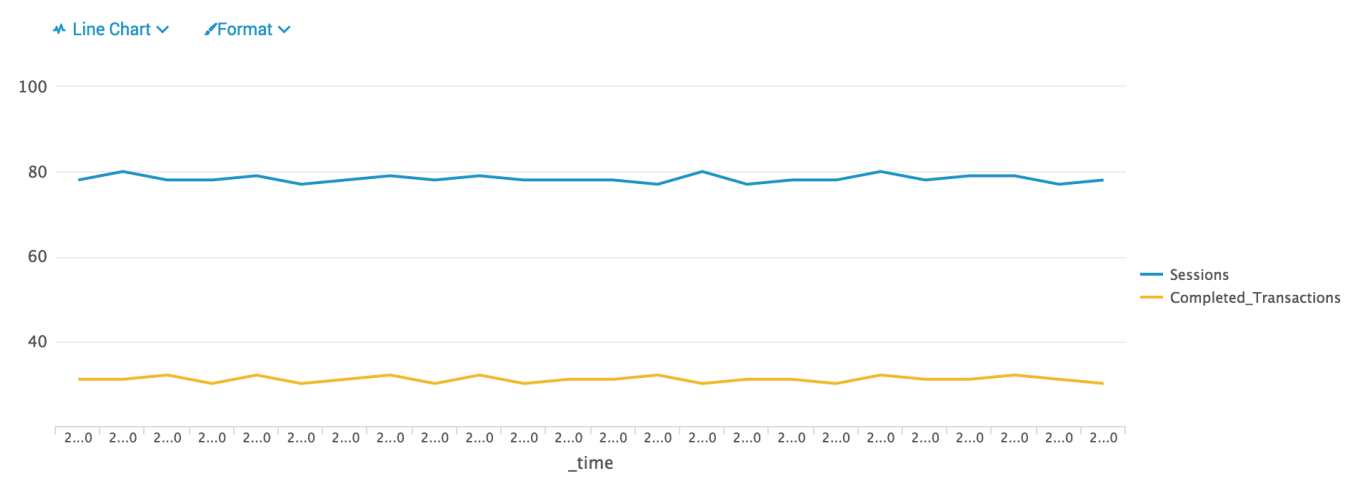
```

index=summary source="cp09_sessions_transactions_summary" | table _time Sessions Completed_Transactions
    
```

Last 24 hours Q

24 events (5/10/16 3:00:00.000 AM to 5/11/16 3:43:07.000 AM) No Event Sampling

Events Patterns Statistics (24) Visualization



Summary indexing

Enable

Enabling summary indexing will set the alert condition to 'always'.

Select the summary index

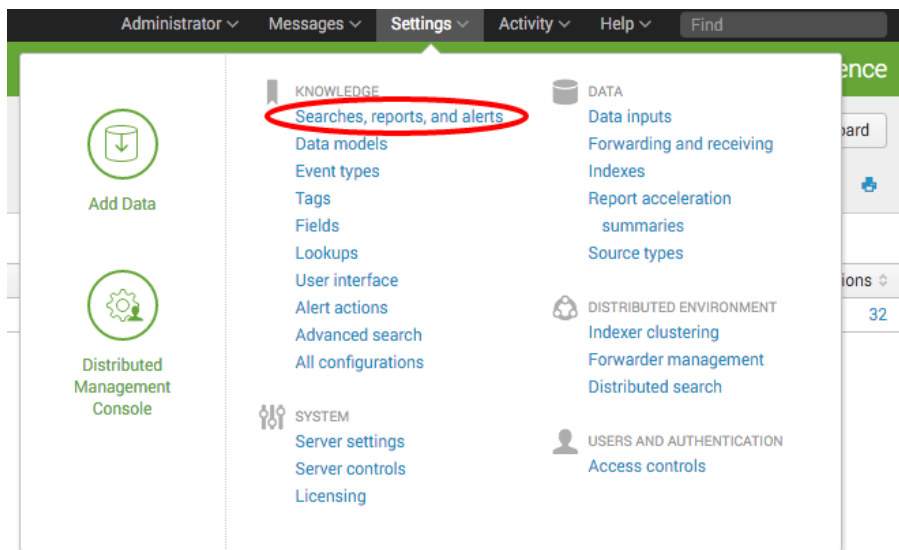
summary

Only indexes that you can write to are listed.

Add fields

= [Delete](#)

[Add another field](#)



Edit Schedule



Report cp09_sessions_transactions_summary

Schedule Report



[Learn More](#)

Schedule

Run every hour ▾

At

0 ▾

minutes past the hour

Time Range

Last 60 minutes ▶

Schedule Window?

No window ▾

Cancel

Next

Your Report Has Been Created



You may now view your report, add it to a dashboard, change additional settings, or continue editing it.

Additional Settings:

- [Permissions](#)
- [Schedule](#)
- [Acceleration](#)
- [Embed](#)

Continue Editing

Add to Dashboard

View

Save As Report ✕

Title

Description

Content Statistics Table

Time Range Picker

splunk> App: Operational Int... Administrator Messages Settings Activity Help Find

Search Pivot Reports Alerts Dashboards Operational Intelligence

New Search Save As Close

Last 60 minutes

✓ 2,981 events (5/11/16 2:39:00.000 AM to 5/11/16 3:39:10.000 AM) No Event Sampling Job || ↶ ↷ ⬇ Smart Mode

Events Patterns **Statistics (1)** Visualization

20 Per Page Format Preview

Sessions	Completed_Transactions
79	32

Policy	Email	Keyword
Base	josh@discoveredintel.com	Apple
Base	josh@discoveredintel.com	Orange
Base	josh@discoveredintel.com	Banana
Base	paul@discoveredintel.com	Mango
Base	josh@discoveredintel.com	Strawberry
Base	paul@discoveredintel.com	Apple
Base	josh@discoveredintel.com	Orange
Base	paul@discoveredintel.com	Banana
Base	josh@discoveredintel.com	Mango
Base	paul@discoveredintel.com	Strawberry
Base	josh@discoveredintel.com	Apple
Base	paul@discoveredintel.com	Orange
Base	josh@discoveredintel.com	Banana
Base	paul@discoveredintel.com	Mango
Base	josh@discoveredintel.com	Strawberry

Raw Log Event Data



Raw Searching

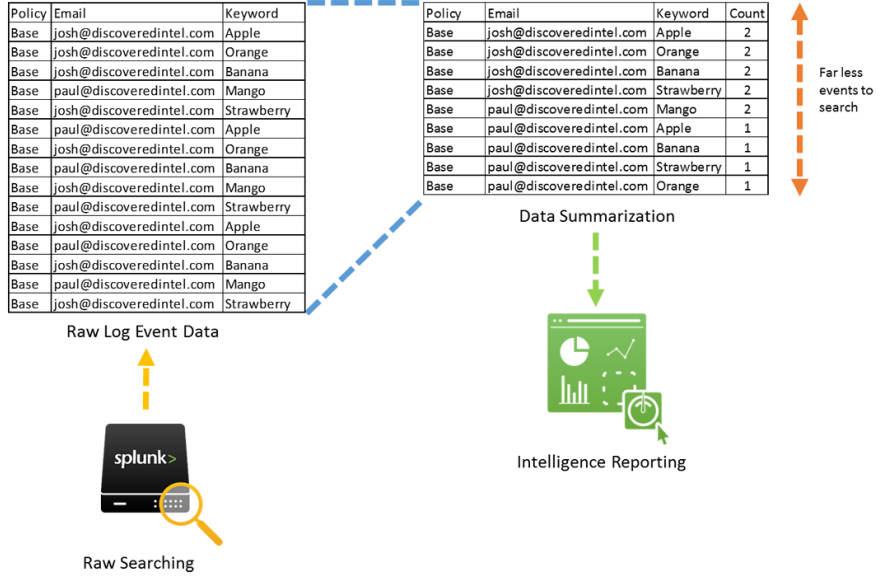
Policy	Email	Keyword	Count
Base	josh@discoveredintel.com	Apple	2
Base	josh@discoveredintel.com	Orange	2
Base	josh@discoveredintel.com	Banana	2
Base	josh@discoveredintel.com	Strawberry	2
Base	paul@discoveredintel.com	Mango	2
Base	paul@discoveredintel.com	Apple	1
Base	paul@discoveredintel.com	Banana	1
Base	paul@discoveredintel.com	Strawberry	1
Base	paul@discoveredintel.com	Orange	1

Data Summarization



Intelligence Reporting

Far less events to search



Chapter 10: Above and Beyond – Customization, Web Framework, REST API, HTTP Event Collector, and SDKs

New Search

index=main sourcetype=inventory:scanner

3 events (5/10/16 5:00:00.000 AM to 5/11/16 5:14:17.000 AM) No Event Sampling

Events (3) Patterns Statistics Visualization

Format Timeline Zoom Out Zoom to Selection Deselect 1 hour per column

i	Time	Event
>	5/11/16 5:13:59.000 AM	{ [-] count: 200 itemId: 1000015 } Show as raw text host = localhost:8088 ; source = inventory.scanner ; sourcetype = inventory.scanner
>	5/11/16 5:13:56.000 AM	{ [-] count: 200 itemId: 1000015 } Show as raw text host = localhost:8088 ; source = inventory.scanner ; sourcetype = inventory.scanner

✓ Token has been created successfully.

Configure your inputs by going to Settings > Data Inputs

Token Value 73354A09-97A6-4190-94DC-173F4EEFF951

Select Allowed Indexes Available item(s) add all Selected item(s) remove all

history
main
summary

main

Select indexes that clients will be able to select from.

Automatic Select **New**

Source Type **inventory:scanner**

Source Type Category Custom

Source Type Description

Name

Source name override?

Description?

Output Group (optional)

Activity ▾ Help ▾ Find

Edit Global Settings ×

All Tokens Enabled Disabled

Default Source Type

Default Index

Default Output Group

Use Deployment Server

Enable SSL

HTTP Port Number?

Local inputs

Set up data inputs from files and directories,

Type

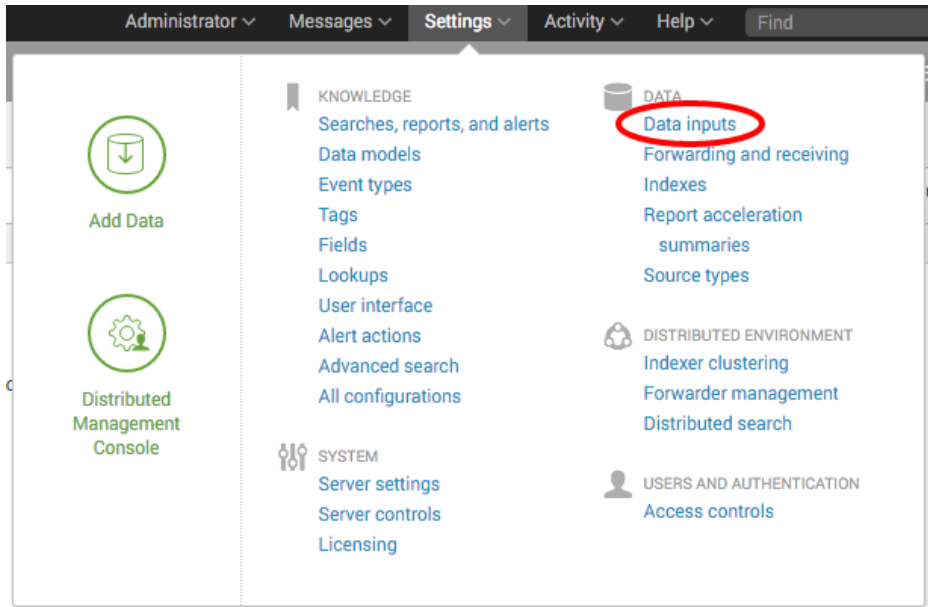
Files & directories

Index a local file or monitor an entire directory.

HTTP Event Collector

Receive data over HTTP or HTTPS.

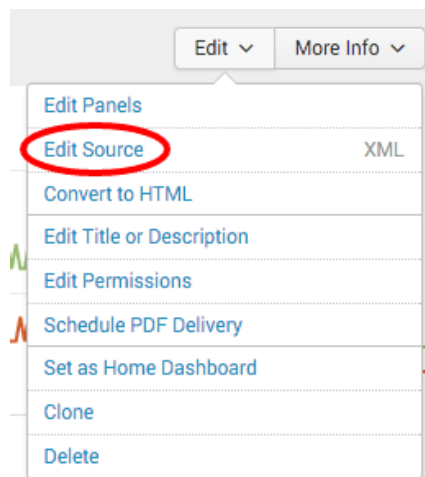
Activity ▾ Help ▾ Find



Average Checkout Product Price

customerid	orderid	numberOfItems	total	avg_price
20160405143053	1459866653	2	2259.8	1129.90
20160404204748	1459802868	2	399.98	199.99
20160404204326	1459802606	2	2259.8	1129.90
20160404204226	1459802546	20	22598.0	1129.90
20160404204004	1459802404	2	599.6	299.80
20160404203912	1459802352	2	2259.8	1129.90
20160404203737	1459802257	20	5996.0	299.80
20160404203549	1459802149	2	2259.8	1129.90
20160404203311	1459801991	2	599.6	299.80
20160404203122	1459801882	2	2259.8	1129.90

« prev 1 2 3 4 5 6 7 8 9 10 next »



Save As Dashboard Panel



Dashboard

New

Existing

Product Monitoring ▾

Panel Title

Average Checkout Product Price

Panel Powered By

🔍 Inline Search

📄 Report

Panel Content

📊 Statistics Table

Cancel

Save

Save As Report ✕

Title

Description

Content Statistics Table

Time Range Picker

splunk> App: Operational Intelligence Administrator Messages Settings Activity Help Find

Search Pivot Reports Alerts Sales Performance Operations Visitors Saved Reports Administration Operational Intelligence

Q New Search Save As Close

`index=main sourcetype=log4j requestType="checkout" | eval avg_price=round(total/numberOfItems,2) | table customerId orderId numberOfItems total avg_price`

✓ 31 events (5/11/16 3:53:00.000 AM to 5/11/16 4:53:23.000 AM) No Event Sampling Job

Events Patterns **Statistics (31)** Visualization

20 Per Page Format Preview

customerId	orderId	numberOfItems	total	avg_price
20160511045143	1462942303	2	599.6	299.80
20160511044916	1462942156	2	599.6	299.80
20160511044523	1462941923	2	399.98	199.99

splunk> App: Operational Intelligence

Search Sales Performance Operations Visitors Saved Reports Administration

Q Search

User interface

Create and edit views, dashboards, and navigation menus.

[Time ranges](#)

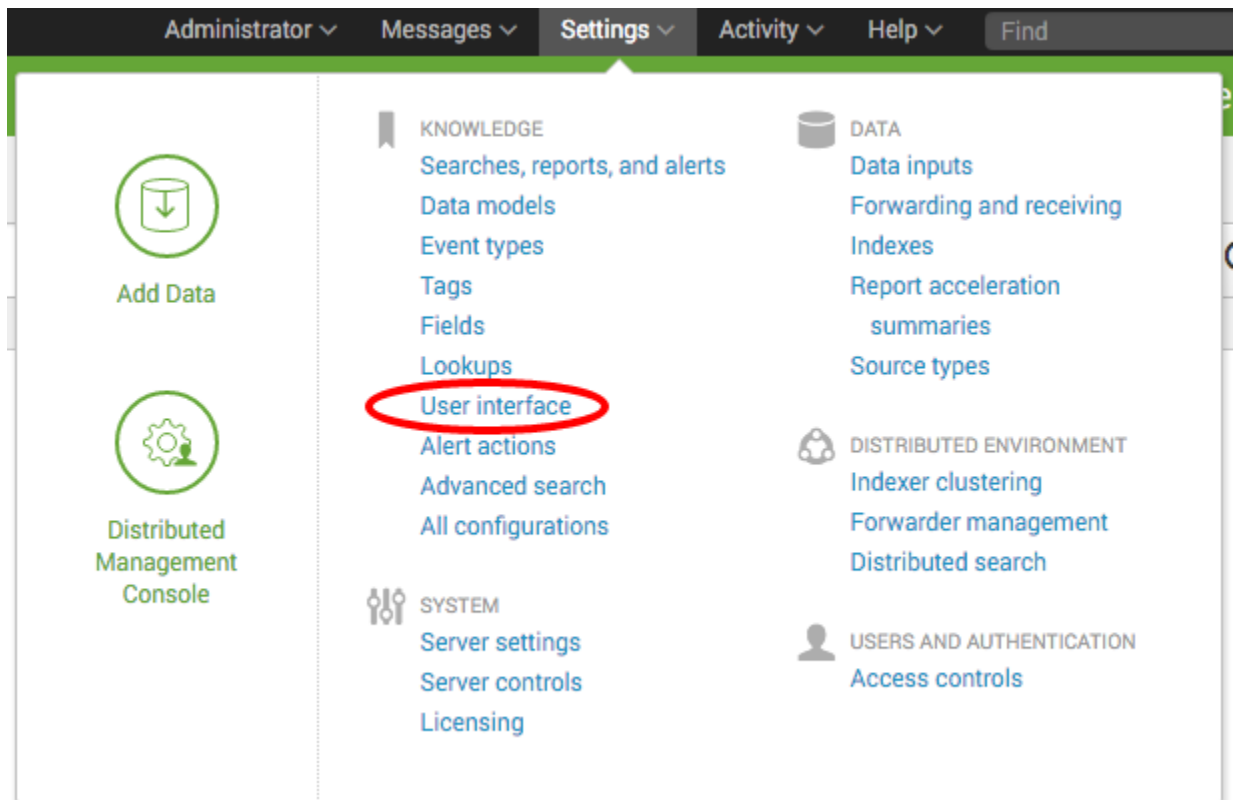
[Views](#)

[View PDF scheduling](#)

[Navigation menus](#)

[Prebuilt panels](#)

[Bulletin messages](#)



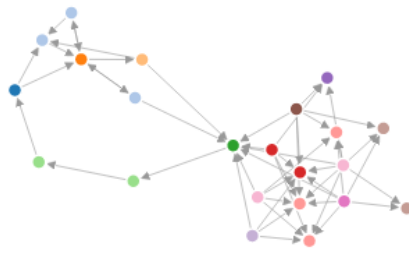
Web Hits

Edit ▾

More Info ▾



Webpage relationship



Purchase Volumes

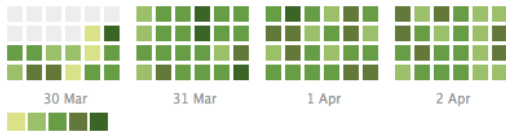
Edit ▾

More Info ▾



Volumes

Heatmap for: Total Purchases(\$)



Create New Dashboard



Title

ID?

Can only contain letters, numbers and underscores.

Description

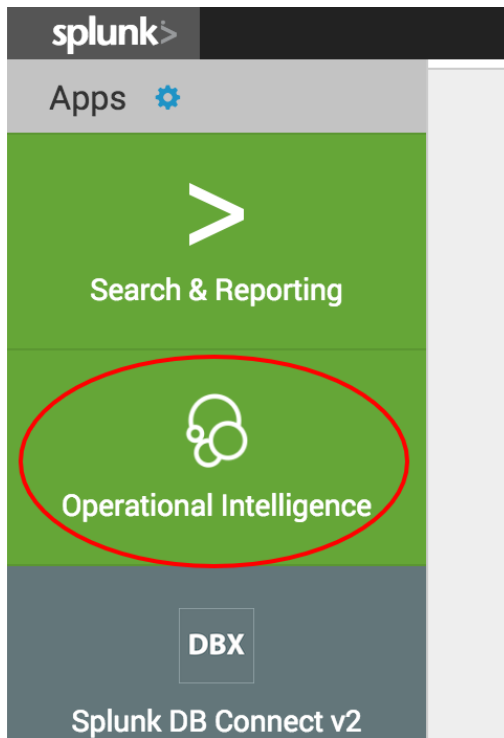
Permissions

Private

Shared in App

Cancel

Create Dashboard



Dashboard has been converted. ×

You may now view your dashboard, change additional settings, or edit the HTML.


Additional Settings:

- [Permissions](#)

[Edit HTML](#)

[View](#)

Convert Dashboard to HTML ×

 This change cannot be undone.

HTML dashboards cannot be edited using Splunk's visual editors.
Integrated PDF generation is not available for HTML dashboards.
[Learn More](#)

Dashboard Create New Replace Current

Recommended

Cancel Convert Dashboard

Operational In

Edit ▾ More Info ▾

- Edit Panels
- Edit Source XML
- Convert to HTML
- Edit Title or Description
- Edit Permissions
- Schedule PDF Delivery
- Set as Home Dashboard
- Clone
- Delete

Operational Intelligence

+ Add Panel + Add Input ▾ ↔ Edit Source Done

Create New Dashboard ×

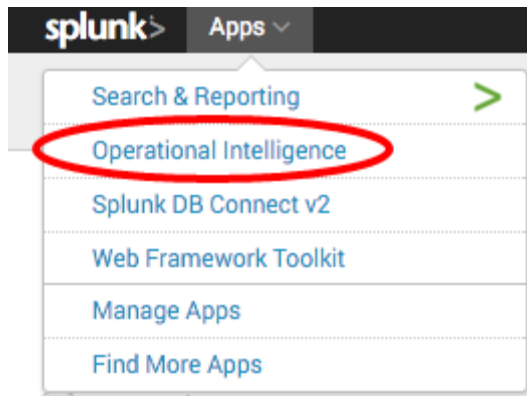
Title **Web Hits**

ID? **web_hits**
Can only contain letters, numbers and underscores.

Description **optional**

Permissions **Private** **Shared in App**

Cancel Create Dashboard



Upload an app

If you have a .spl or .tar.gz app file to install, you can upload it using this form.

You can replace an existing app via the Splunk CLI. [Learn more.](#)

File

Choose File splunk-web-f...lkit_20.tgz

Upgrade app. Checking this will overwrite the app if it already exists.

Cancel Upload

