

Fast, Off-the-Shelf Testing for Splunk Apps

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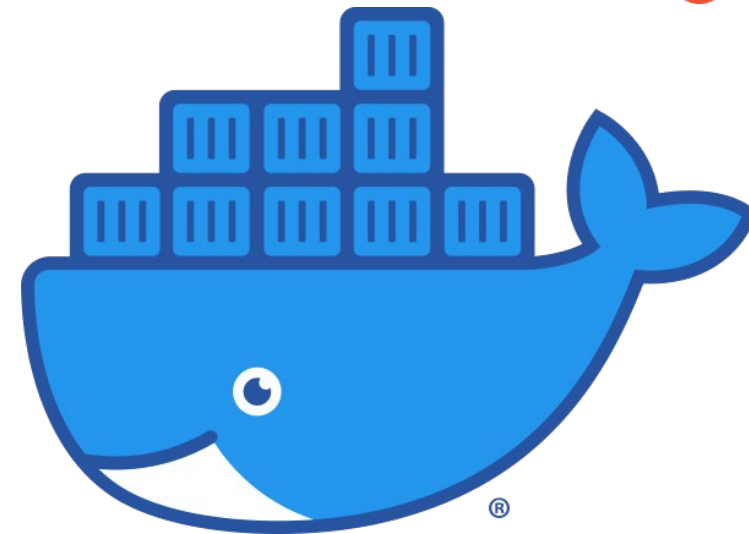
Software Engineer



What We Assume You Know

Or have at least heard of

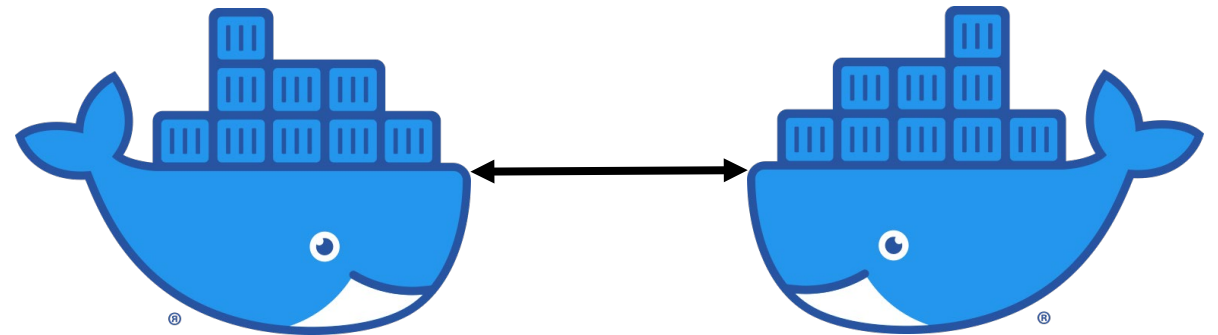
- Splunk Apps
- Docker
- Bash
- Git



splunk[®]>

What We Will Cover

- GitHub & GitLab CI/CD
- Docker networks
- Cypress
- Splunk REST API



Problem

What are we trying to solve?

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- Brittle tests

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- Brittle tests
- Stale data

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- Long pipelines

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- Only one Splunk version

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What are we trying to solve?

- Brittle tests
- Stale data
- Long pipelines
- Only one Splunk version

How do we test against multiple versions of Splunk at the same time with consistent data and results without taking forever?

Goals

What would an ideal pipeline look like?

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1. Fail fast

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2. Use a common set of fresh test data

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3. Use a common set of tests for all versions

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4. Useful test results

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3. Use a common set of tests for all versions
4. Useful test results
5. Test all desired versions of Splunk simultaneously

Goals

What would an ideal pipeline look like?

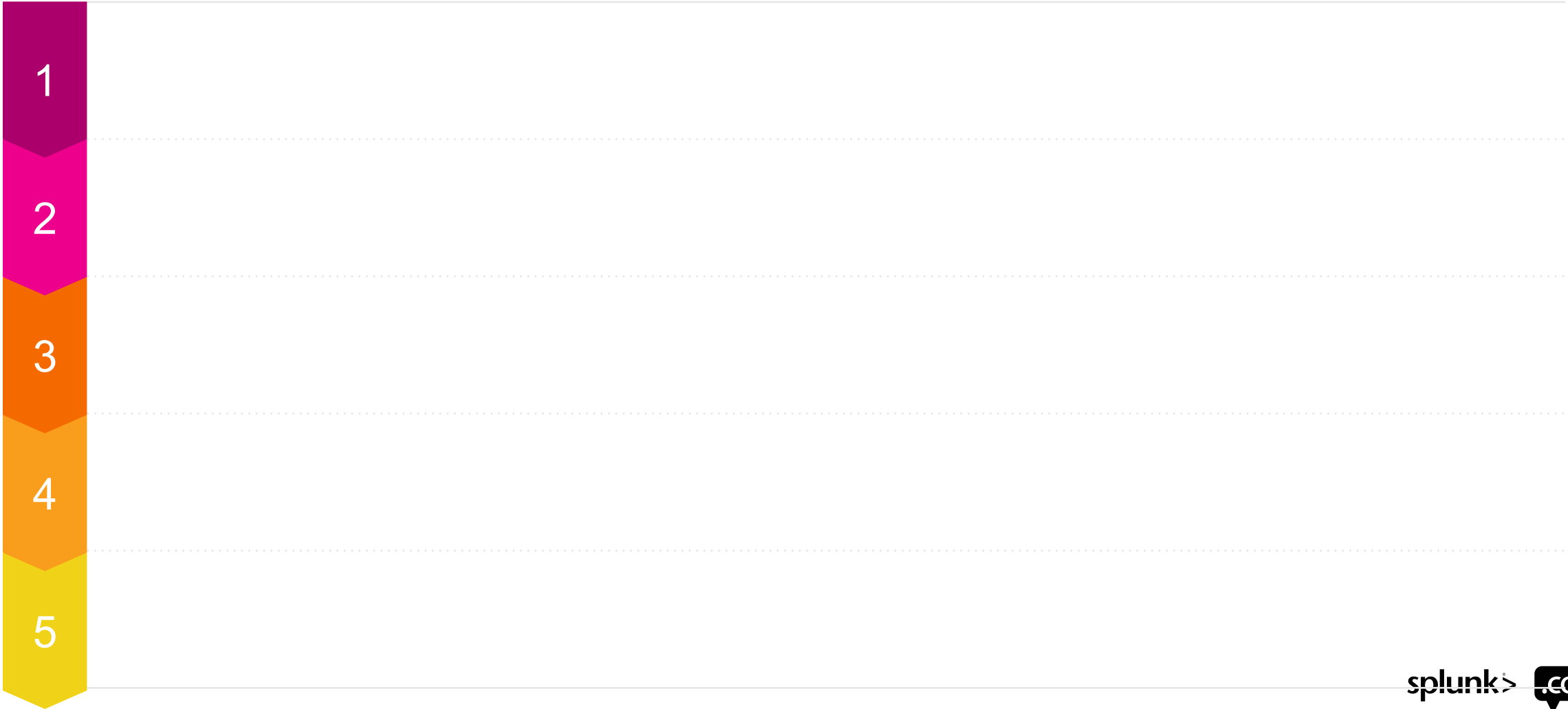
1. Fail fast
2. Use a common set of fresh test data
3. Use a common set of tests for all versions
4. Useful test results
5. Test all desired versions of Splunk simultaneously
6. Modular pipeline components

.conf20
splunk>

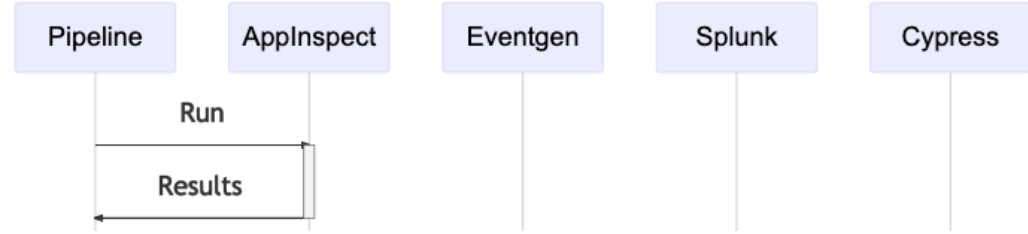
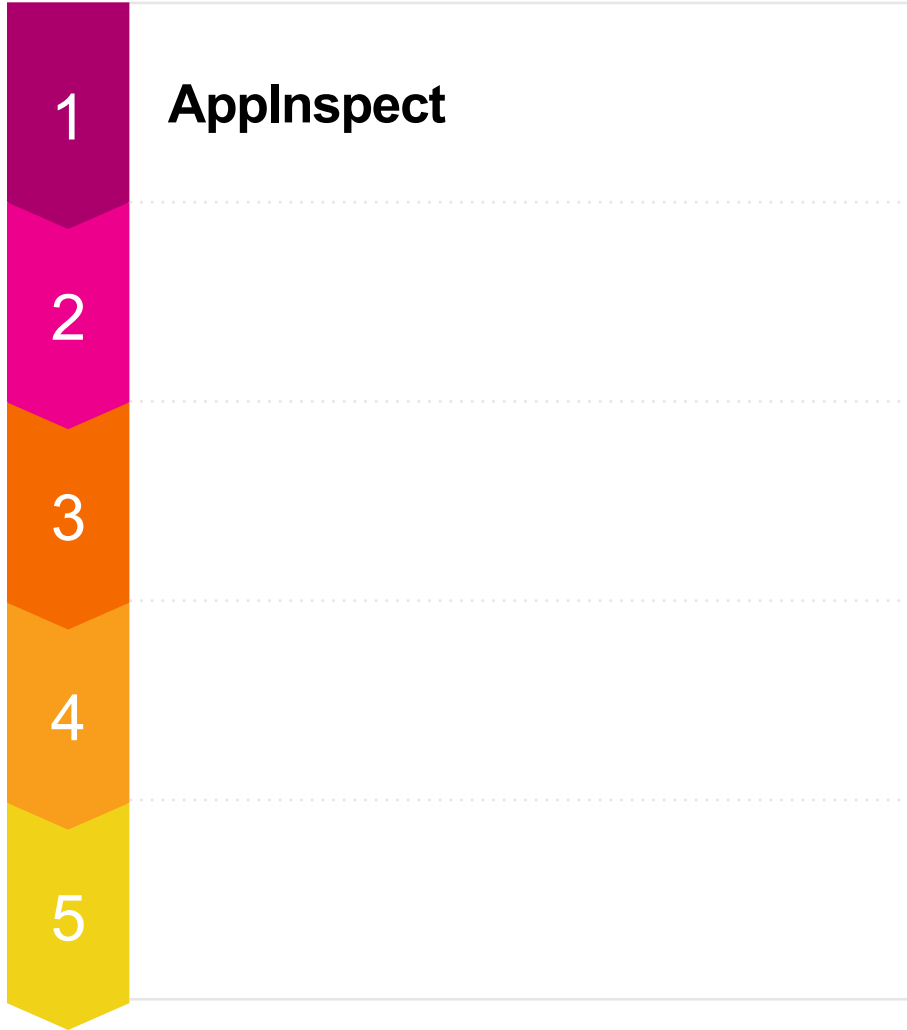


How do we build this?

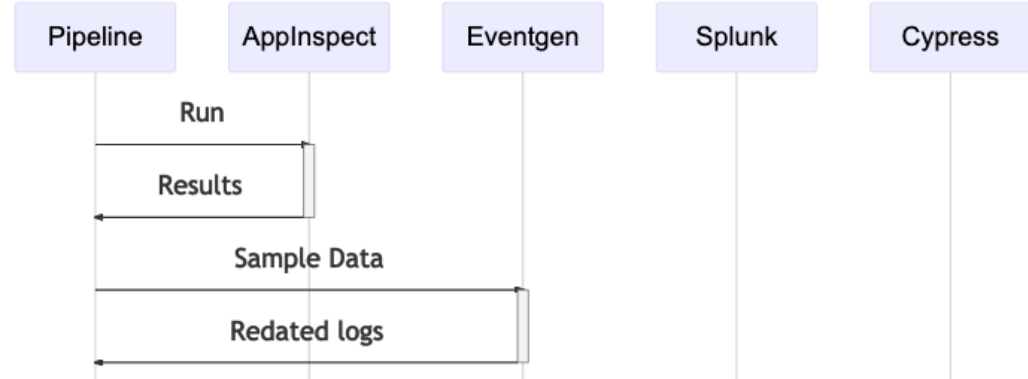
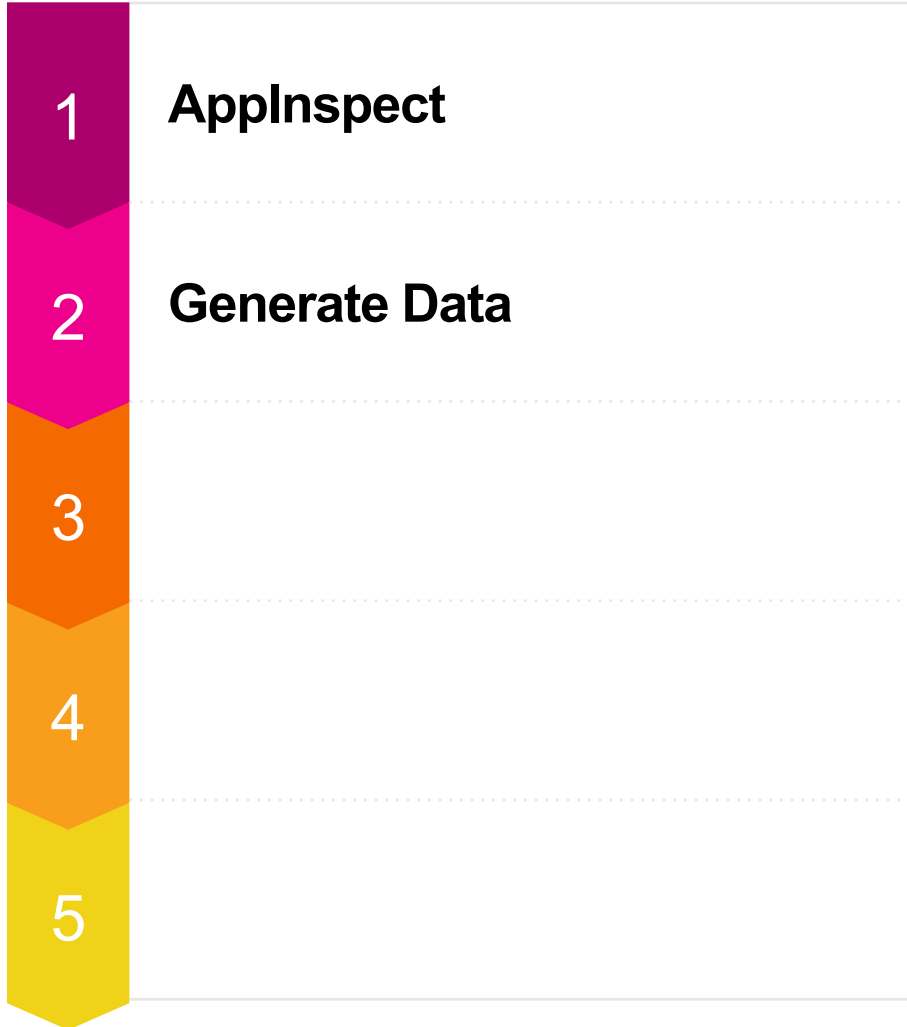
The Key is Stages



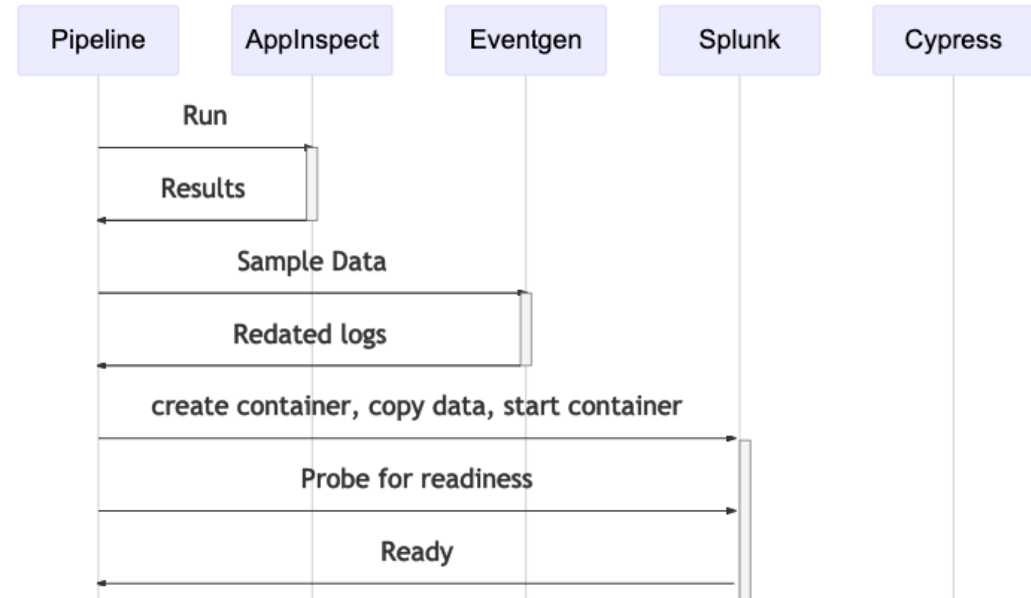
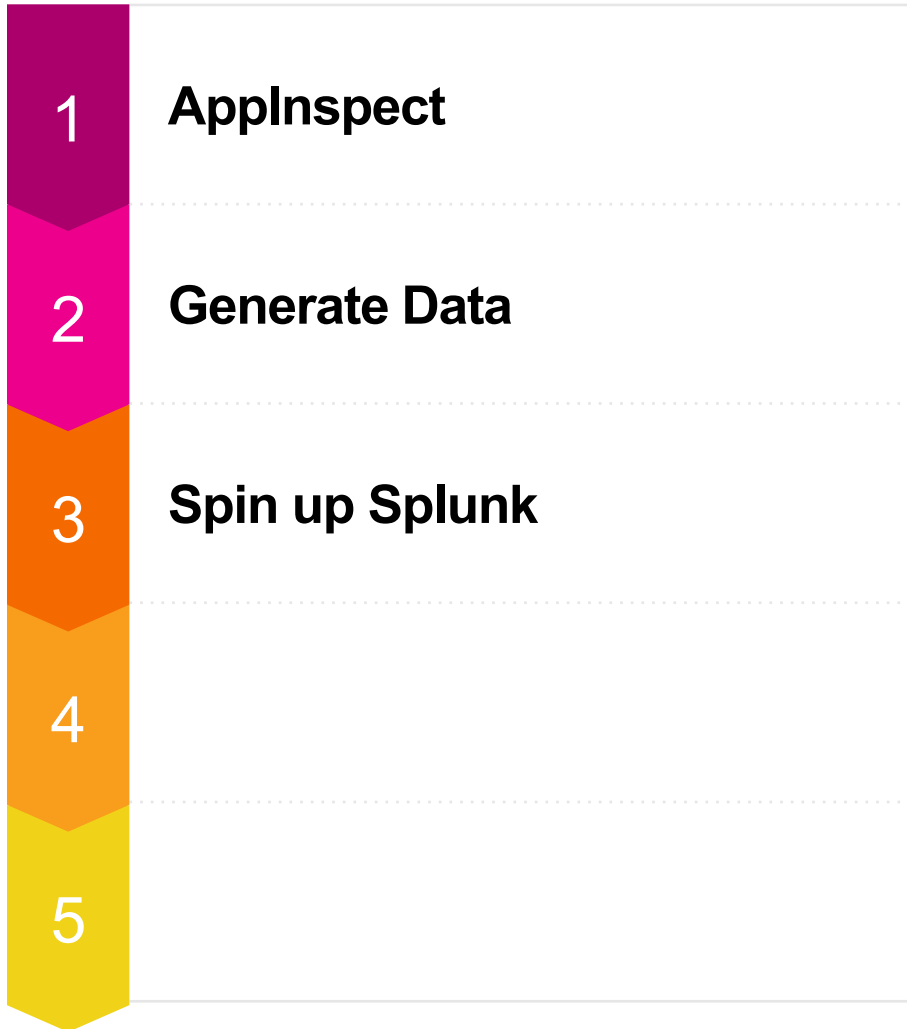
The Key is Stages



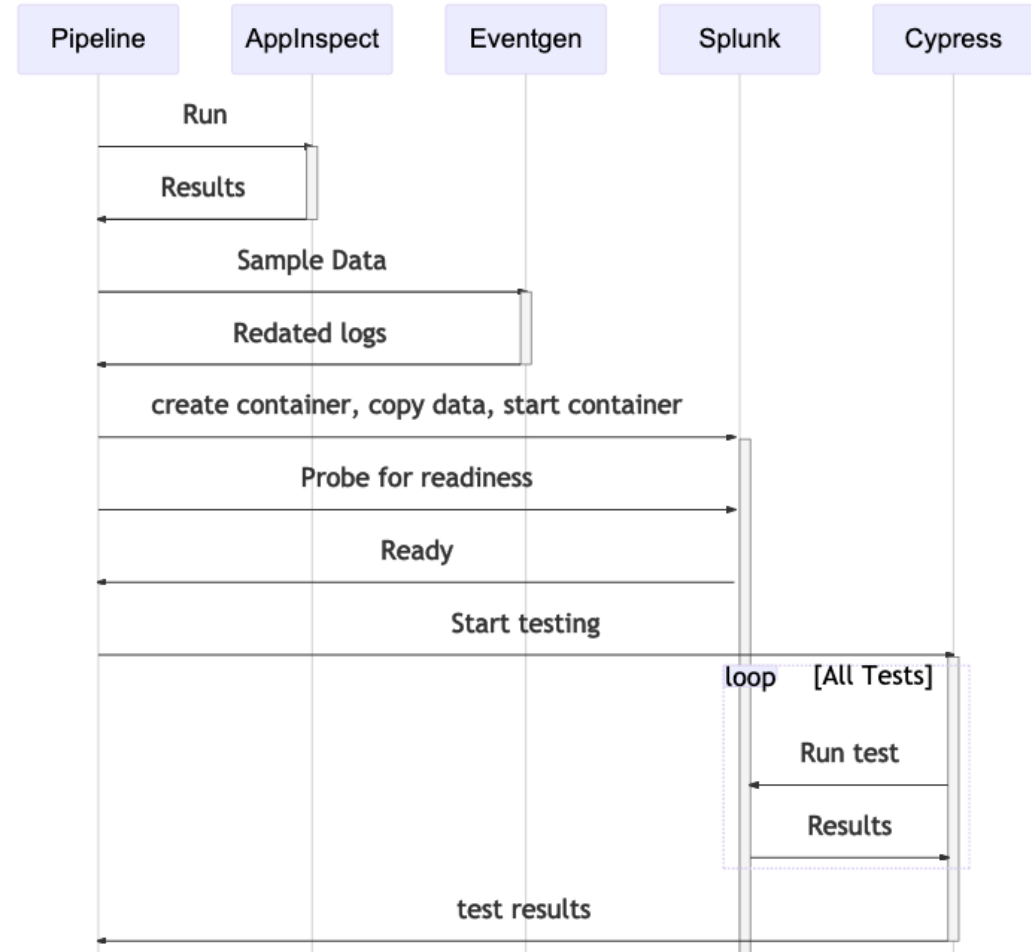
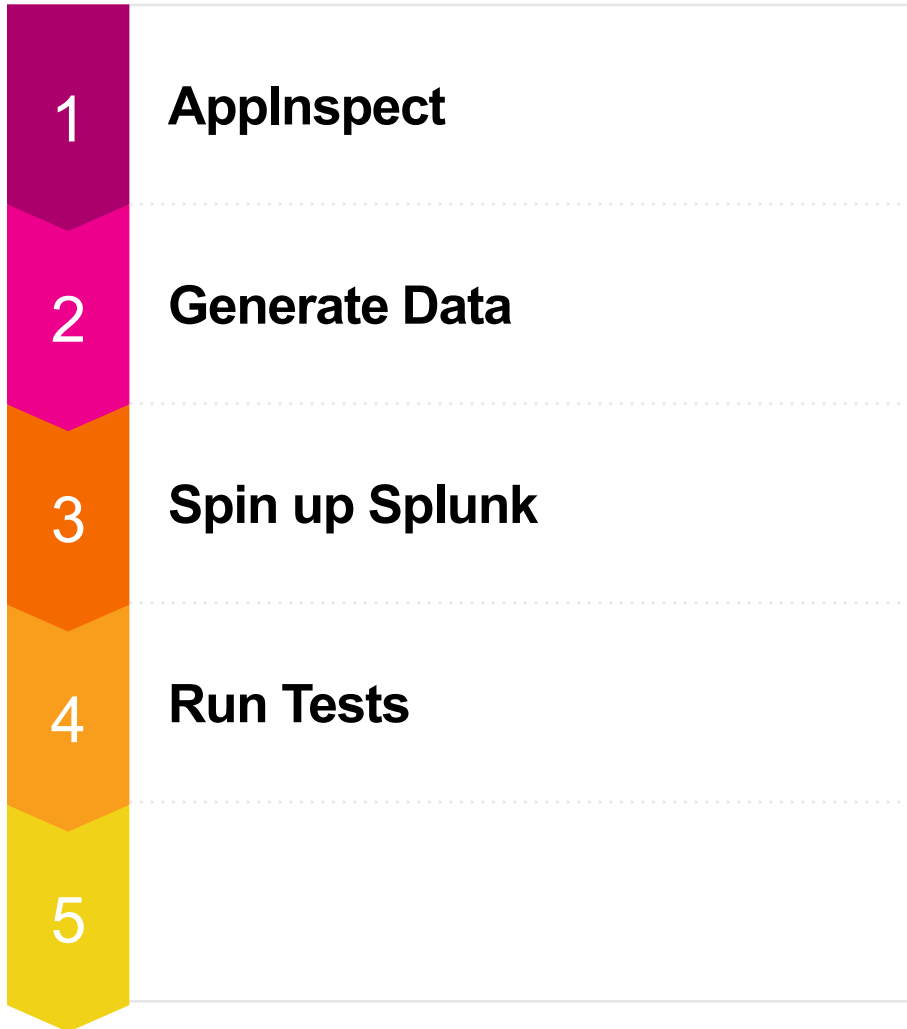
The Key is Stages



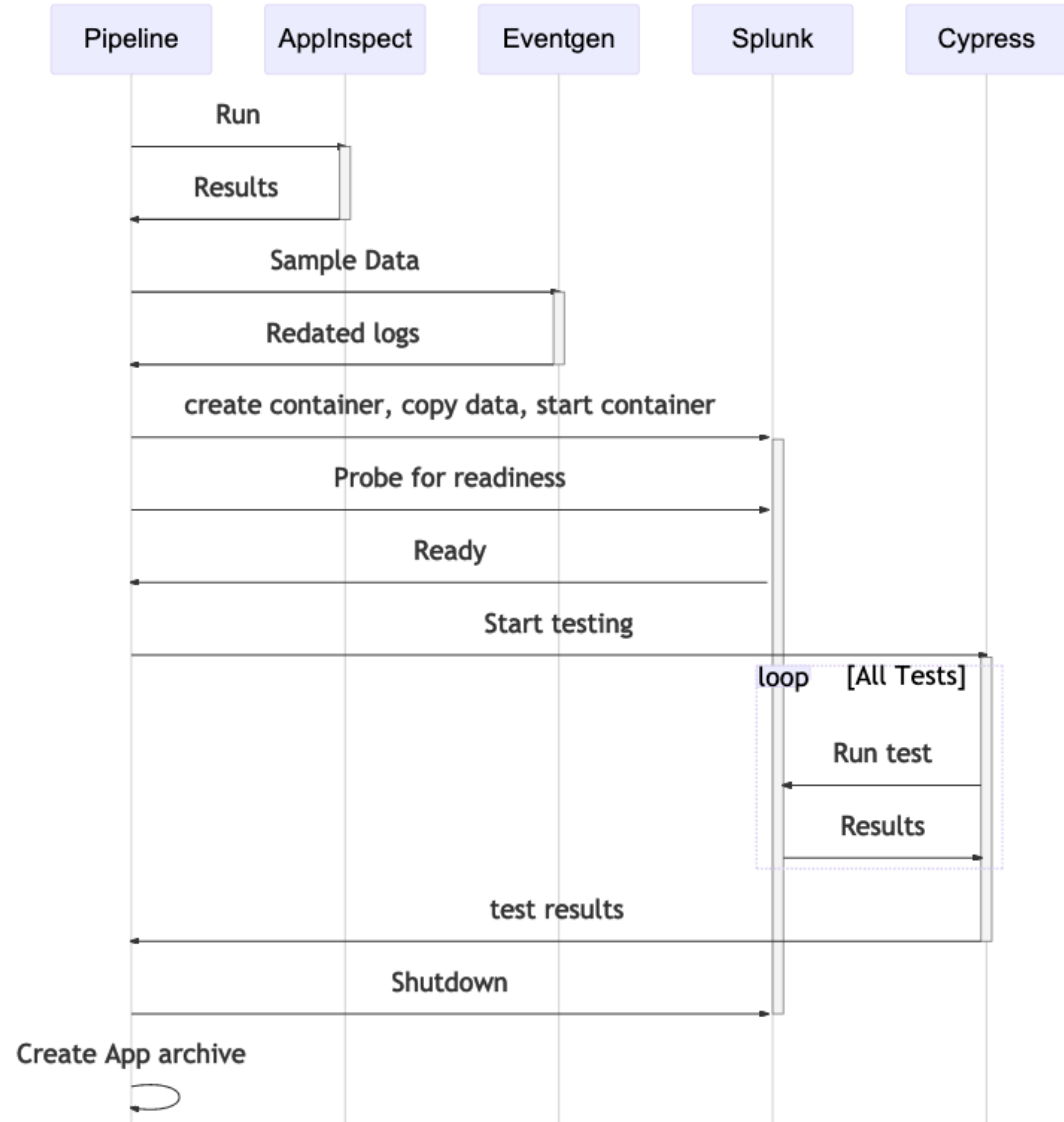
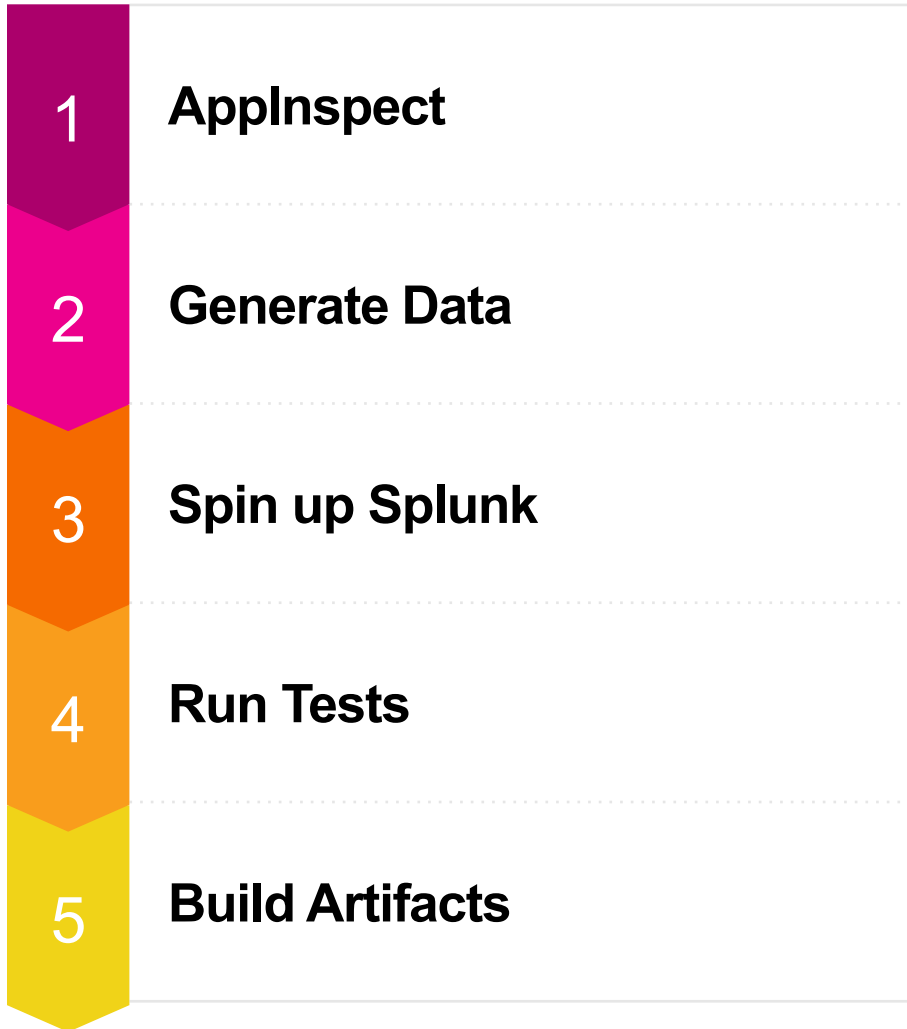
The Key is Stages



The Key is Stages



The Key is Stages



.conf20
splunk>



Let's See It

.conf20
splunk>



Does it work?



1645								
1646	✓	indexes_and_storage_spec.js	00:09	1	1	-	-	-
1647								
1648	✓	indexing_performance_spec.js	00:08	1	1	-	-	-
1649								
1650	✓	infra_license_spec.js	00:09	2	2	-	-	-
1651								
1652	✓	no_infra_license_spec.js	00:09	1	1	-	-	-
1653								
1654	*	overview_spec.js	00:19	1	-	1	-	-
1655								
1656	✓	scheduler_activity_spec.js	00:10	1	1	-	-	-
1657								
1658	✓	search_usage_statistics_spec.js	11ms	2	-	-	2	-
1659								
1660	✓	skipped_scheduled_search_spec.js	00:10	1	1	-	-	-
1661								
1662	✓	summarizer_spec.js	367ms	1	1	-	-	-
1663								
1664	✓	upgrade_readiness.js	28ms	1	1	-	-	-
1665								
1666	✓	user_activity_spec.js	00:09	1	1	-	-	-
1667								
1668	✓	user_detail_spec.js	00:10	1	1	-	-	-
1669								
1670	✓	volume_license_spec.js	00:11	1	1	-	-	-
1671								
1672	*	1 of 26 failed (4%)	04:23	31	27	1	3	-
1673		+ status=1						
1674		+ docker cp cypress_runner:/e2e/cypress/videos /builds/cloudworks/monitoring/cmc-app/cicd/test/cypress/videos						
1675		+ exit 1						
1678		Uploading artifacts...						00:02
1679		/builds/cloudworks/monitoring/cmc-app/cicd/test/cypress/videos: found 28 matching files						
1680		Uploading artifacts to coordinator... ok						
1682		ERROR: Job failed: exit code 1						

splunk-800-play Retry

New issue

Duration: 11 minutes 32 seconds
 Timeout: 1h (from project) ?
 Runner: shared us-west-2a (#452)

Job artifacts
 The artifacts will be removed in 2 days

Keep Download Browse

Commit e24cdb6c 🔗
 fix infinite loop in pipeline

✖ Pipeline #736911 for !158 with [cicd_runner_exit_code](#)

test ▼

- ✖ splunk-712-play
- ✖ splunk-800-play
- 🟢 appinspect
- 🟢 splunk-703-play
- 🟢 splunk-729-play

Tests: ✓ -- ✗ 1 19.93

http://172.17.0.3:8000/en-US/app/splunk_instance_monitoring/overview 1000 x 660 (83%)

Release Notes [Learn More](#)
[Click here for the documentation](#)

Current Active Users (last hour)	Avg Daily Users (last 7d)	Search Count (yesterday)
1	No results found.	No results found.
Indexes with Events	Total Indexes	Ingest Volume
0	0	No results found.

Searches by type (last 24h)

Throughput by Index (last 24h)

No results found.

```
7 GET #releaseNotes
8 - ASSERT expected
  <div#releaseNotes.collapse> to
  be visible
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
(XHR) GET 200 /en-US/splunkd/_raw/servicesNS/a...
```

CypressError: Timed out retrying: expected '<div#releaseNotes.collapse>' to be 'visible'

This element '<div#releaseNotes.collapse>' is not visible because it has an effective width and height of: '925 x 0' pixels.

overview_spec.js

buffers

```
1 describe('Overview', () => {
2   before(() => {
3     cy.visitWithLogin(Cypress.env('cmc_uri') + '/overview')
4   });
5
6   it('checks that panels and text are present', () => {
7     // Check that the modification disclaimer is present
8     cy.get('#disclaimer .info-message', {timeout: 10000}).should('contain.text', 'If you modify this app, you will not receive the latest changes. This in
cludes announcements and bug fixes.');
```

9

```
10    // Check that the release notes can be clicked on
11    cy.get('#releaseNotes', {timeout: 10000}).should($el => {
12      expect($el).to.be.hidden
13    })
14
15    cy.get('button.toggle-button').click() ←
```

16

```
17    cy.get('#releaseNotes', {timeout: 10000}).should($el => {
18      expect($el).to.be.visible ←
19    })
20
21    // Check that the "Indexes with Events" panel displays the right number
22    cy.get('#indexesWithEvents .single-result', {timeout: 10000}).should(($elem) => {
23      expect(Number.parseInt($elem.text())).to.be.greaterThan(-1)
24    })
25  });
26 });
```

NORMAL +0 ~0 -0 ↵ fc979b6 overview_spec.js

javascript.jsx utf-8[unix] 3% ≡ 1/26 ↵ : 1

GitLab Projects Groups More Search or jump to...

cmc

1624	✓	hec_spec.js	00:38	4	4	-	-	-
1625								
1626	✓	index_detail_spec.js	00:48	1	1	-	-	-
1627								
1628	✓	indexes_and_storage_spec.js	00:09	1	1	-	-	-
1629								
1630	✓	indexing_performance_spec.js	00:08	1	1	-	-	-
1631								
1632	✓	infra_license_spec.js	00:09	2	2	-	-	-
1633								
1634	✓	no_infra_license_spec.js	00:08	1	1	-	-	-
1635								
1636	✓	overview_spec.js	00:11	1	1	-	-	-
1637								
1638	✓	scheduler_activity_spec.js	00:19	1	1	-	-	-
1639								
1640	✓	search_usage_statistics_spec.js	24ms	2	-	-	2	-
1641								
1642	✓	skipped_scheduled_search_spec.js	00:58	1	1	-	-	-
1643								
1644	✓	summarizer_spec.js	00:03	1	1	-	-	-
1645								
1646	✓	upgrade_readiness.js	220ms	1	1	-	-	-
1647								
1648	✓	user_activity_spec.js	00:55	1	1	-	-	-
1649								
1650	✓	user_detail_spec.js	00:10	1	1	-	-	-
1651								
1652	✓	volume_license_spec.js	00:11	1	1	-	-	-
1653								
1654	✓	All specs passed!	06:26	31	28	-	3	-
1655		+ docker cp cypress_runner:/e2e/cypress/videos /builds/cloudworks/monitoring/cmc-app/cicd/test/cypress/videos						
1656		+ exit 0						
1660	✓	Uploading artifacts...						00:02
1661		/builds/cloudworks/monitoring/cmc-app/cicd/test/cypress/videos: found 28 matching files						
1662		Uploading artifacts to coordinator... ok id=4432659 responseStatus=201 Created token=bMjGwfNj						
1664	✓	Job succeeded						

»

Top 20 Most Expensive Ad Hoc Searches

Search Time	User	Time Range Start	Time Range End	Search Duration	Search Result Count	Events Scanned	Search
2020-02-03 20:03:10	admin			00:00:00.57	670	670	'search index=_internal sourcetype=scheduler table _time user scheduled_time status run_time result_count savedsearch_name'
2020-02-03 20:03:10	admin			00:00:00.99	10	670	'search index=_internal sourcetype=scheduler table _time user scheduled_time status run_time result_count savedsearch_name sort 10 - run_time'
2020-02-03 20:03:10	admin			00:00:00.57	10	670	'search index=_internal sourcetype=scheduler table _time user scheduled_time status run_time result_count savedsearch_name sort 10 - run_time'
2020-02-03 20:03:10	admin			00:00:00.15	100	0	' makeresults count=100 eval value=random() / 100000'
2020-02-03 20:03:10	admin			00:00:00.85	670	670	'search index=_internal sourcetype=scheduler table _time user scheduled_time status run_time result_count savedsearch_name'
2020-02-03 17:06:24	internal_monitoring	Thu Jun 20 05:44:00 2019	Thu Jun 20 05:59:18 2019	00:00:00.20	1	1,137,065	tstats count where index=_internal by splunk_server stats sum(count) AS event_count count AS indexer_count
2020-02-03 17:06:24	internal_monitoring	Thu Jun 20 05:43:00 2019	Thu Jun 20 05:58:18 2019	00:00:00.17	1	1,581,693	tstats count where index=_internal by splunk_server stats sum(count) AS event_count count AS indexer_count
2020-02-03 17:06:24	internal_monitoring	Thu Jun 20 05:42:00 2019	Thu Jun 20 05:57:18 2019	00:00:00.17	1	1,557,511	tstats count where index=_internal by splunk_server stats sum(count) AS event_count count AS indexer_count
2020-02-03 17:06:24	internal_monitoring	Thu Jun 20 05:41:00 2019	Thu Jun 20 05:56:18 2019	00:00:00.21	1	1,528,334	tstats count where index=_internal by splunk_server stats sum(count) AS event_count count AS indexer_count
2020-02-03 17:06:24	internal_monitoring	Thu Jun 20 05:40:00 2019	Thu Jun 20 05:55:18 2019	00:00:00.13	1	1,494,987	tstats count where index=_internal by splunk_server stats sum(count) AS event_count count AS indexer_count

« Prev 1 2 3 4 5 6 7 8 9 10 Next »

[https://github.com/splunk/
splunk-app-testing](https://github.com/splunk/splunk-app-testing)



Thank You

Please provide feedback via the

SESSION SURVEY

