



Release 4.0

# **BroadWorks Dashboards and Discovery**

Kibana Dashboards Installation Instructions

Version 4.0  
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**Document Revision History**

Version	Date	Author	Comments
1.0	<i>September 2016</i>	DES	Created document

## Preface

The *BroadWorks Dashboards and Discovery Guide* contains instructions to configure Kibana and import the sample visualizations contain in file “BroadWorks Dashboards x.x”.

## Assumptions

These instructions assume that Elasticsearch is installed, functional and collecting data from BroadWorks. Kibana should also be installed with its configuration as instructed by the BroadWorks Dashboards and Discovery toolset installation guide.

## Documentation Suite

The *BroadWorks Dashboards and Discovery* software suite includes the following technical documentation.

Document Title	Description
BroadWorks Dashboards and Discovery -Kibana Dashboards Installation	Provides information Kibana Dashboards Installation
BroadWorks Dashboards and Discovery - initial release	Provides information on deploying the software on system.
BroadWorks Dashboards and Discovery Kibana Plugins	Overview of Kibana BroadWorks Dashboards and Discovery application.

## Acronym List

The following terms have been used in this guide:

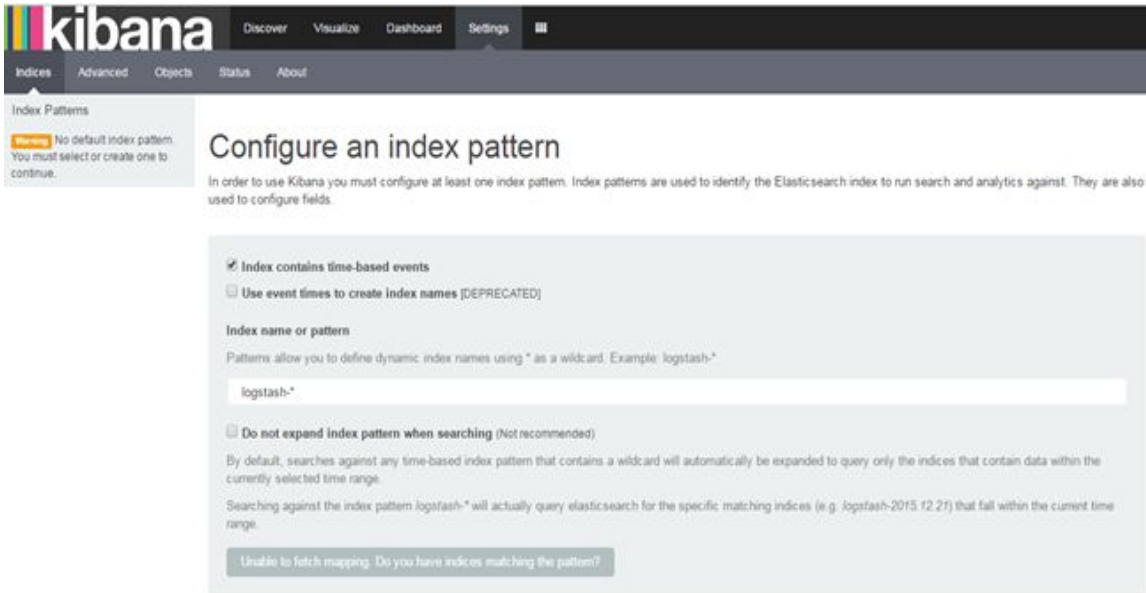
Acronym	Definition
BDD	Broadworks Discovery and Dashboard

# Table of Contents

<b>1</b>	<b>Create the Index Patterns on Kibana</b>	<b>4</b>
<b>2</b>	<b>Configure lucene string parser</b>	<b>9</b>
<b>3</b>	<b>Change calculate call duration format</b>	<b>11</b>
<b>4</b>	<b>Import Dashboards</b>	<b>12</b>
<b>5</b>	<b>Start Dashboards</b>	<b>13</b>
	<b>References</b>	<b>15</b>
	<b>Appendix: Abbreviations</b>	<b>15</b>

# 1 Create the Index Patterns on Kibana

Upon entering a new instance of Kibana the following screen will be presented prompting you to configure the index patterns:



**kibana** Discover Visualize Dashboard Settings

Indices Advanced Objects Status About

**Index Patterns**

**Warning** No default index pattern. You must select or create one to continue.

## Configure an index pattern

In order to use Kibana you must configure at least one index pattern. Index patterns are used to identify the Elasticsearch index to run search and analytics against. They are also used to configure fields.

☒ Index contains time-based events

☐ Use event times to create index names [DEPRECATED]

**Index name or pattern**

Patterns allow you to define dynamic index names using \* as a wildcard. Example: logstash-\*

logstash-\*

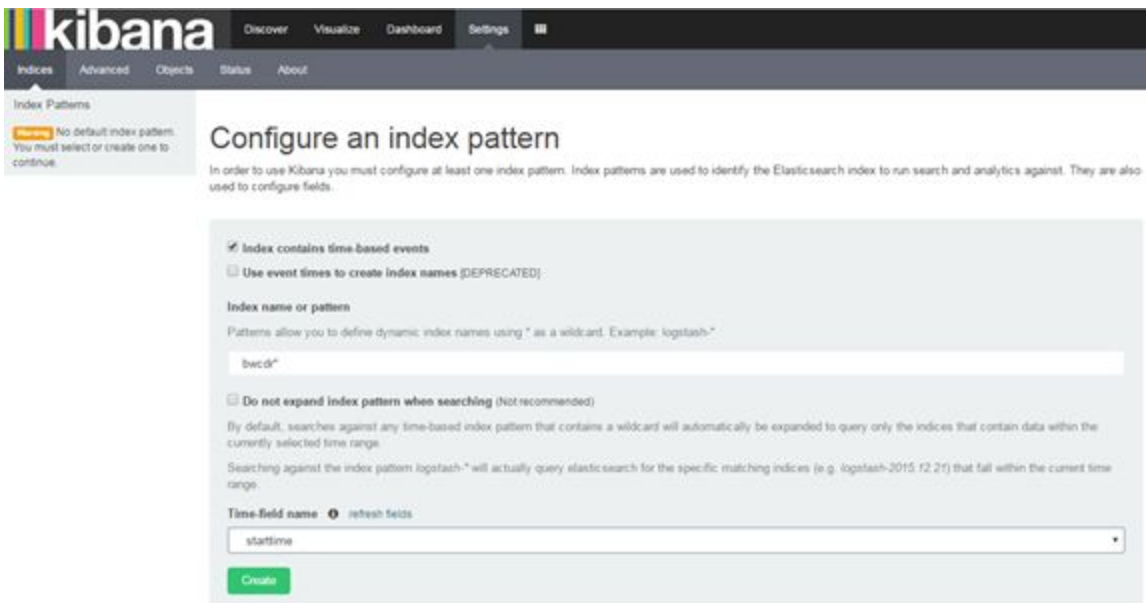
☐ Do not expand index pattern when searching (Not recommended)

By default, searches against any time-based index pattern that contains a wildcard will automatically be expanded to query only the indices that contain data within the currently selected time range.

Searching against the index pattern logstash-\* will actually query elasticsearch for the specific matching indices (e.g. logstash-2015.12.21) that fall within the current time range.

Unable to fetch mapping. Do you have indices matching the pattern?

a. Configure bwcd\* index pattern as follows:



**kibana** Discover Visualize Dashboard Settings

Indices Advanced Objects Status About

**Index Patterns**

**Warning** No default index pattern. You must select or create one to continue.

## Configure an index pattern

In order to use Kibana you must configure at least one index pattern. Index patterns are used to identify the Elasticsearch index to run search and analytics against. They are also used to configure fields.

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**Index name or pattern**

Patterns allow you to define dynamic index names using \* as a wildcard. Example: logstash-\*

bwcd\*

☐ Do not expand index pattern when searching (Not recommended)

By default, searches against any time-based index pattern that contains a wildcard will automatically be expanded to query only the indices that contain data within the currently selected time range.

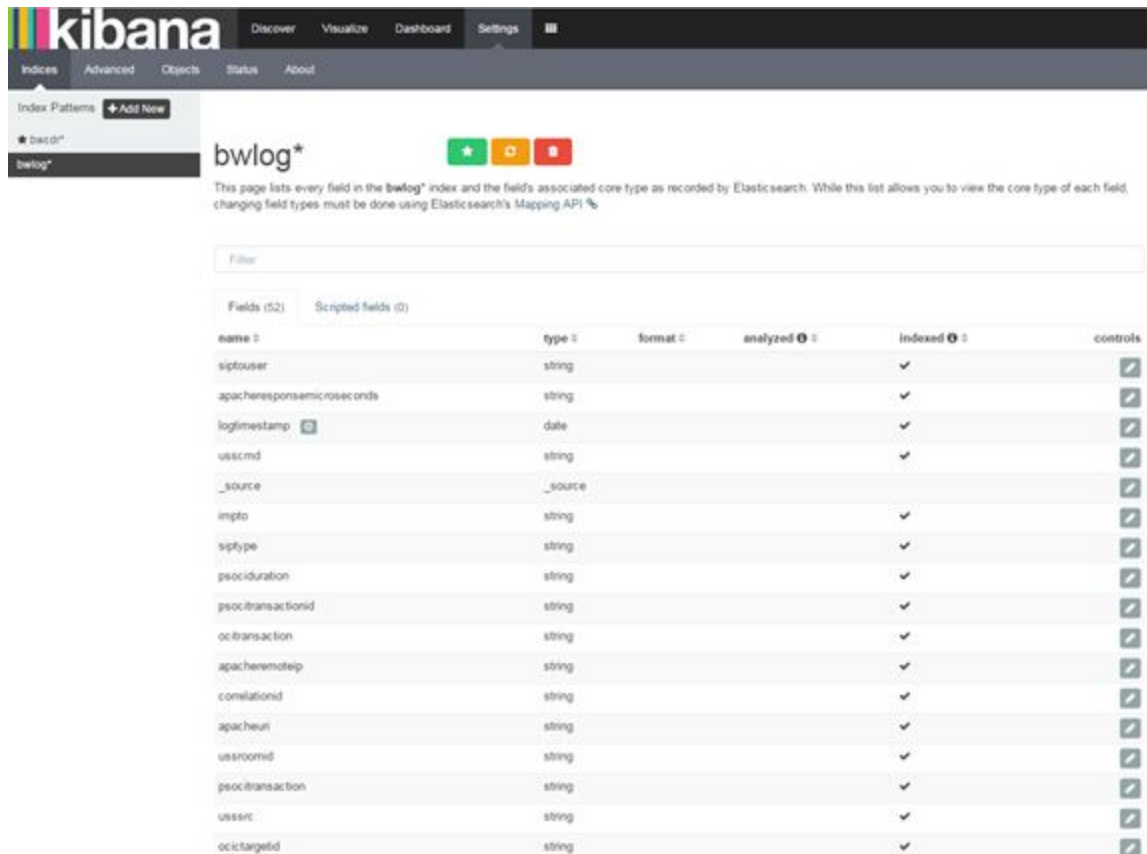
Searching against the index pattern logstash-\* will actually query elasticsearch for the specific matching indices (e.g. logstash-2015.12.21) that fall within the current time range.

**Time-field name** refresh fields

starttime

Create

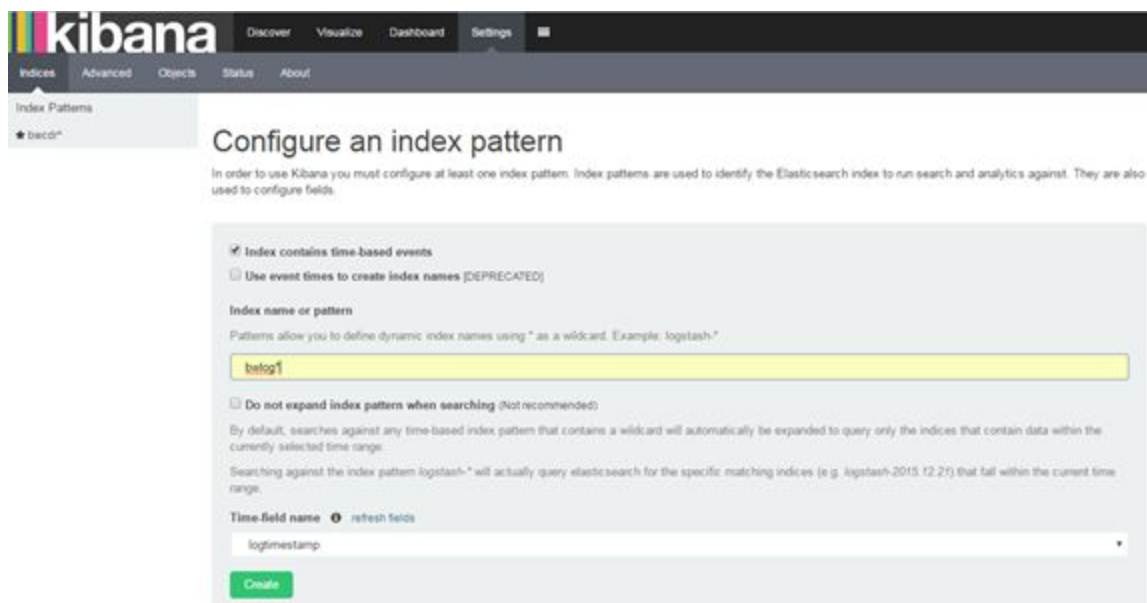
Click “Create”:



The screenshot shows the Kibana Index Patterns page for the 'bwlog\*' index. The page lists 52 fields with their associated core types as recorded by Elasticsearch. The fields are organized into a table with columns for name, type, format, analyzed, indexed, and controls.

name	type	format	analyzed	indexed	controls
siptouser	string			✓	
apachereponsemicroseconds	string			✓	
logtimestamp	date			✓	
usrcmd	string			✓	
_source	_source				
impto	string			✓	
siptype	string			✓	
psociduration	string			✓	
psoctransactionid	string			✓	
octransaction	string			✓	
apachemoteip	string			✓	
comelationid	string			✓	
apacheuri	string			✓	
usroomid	string			✓	
psoctransaction	string			✓	
ussrc	string			✓	
ocitargetid	string			✓	

b. Configure bwlog\* index pattern. Click “+Add New”:



The screenshot shows the 'Configure an index pattern' dialog in Kibana. It includes options for index settings and a text input for the index name or pattern.

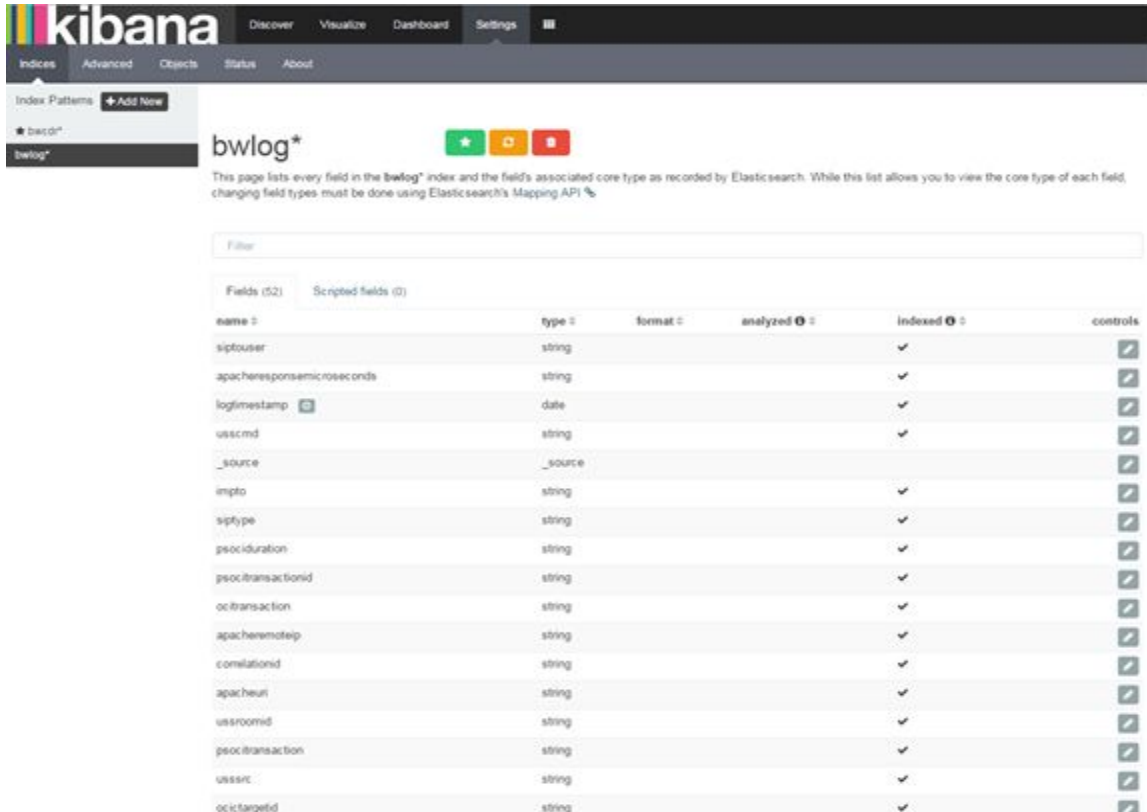
☒ Index contains time-based events  
☐ Use event times to create index names [DEPRECATED]

**Index name or pattern**  
 Patterns allow you to define dynamic index names using \* as a wildcard. (Example: logstash-\*)

☐ Do not expand index pattern when searching (Not recommended)  
 By default, searches against any time-based index pattern that contains a wildcard will automatically be expanded to query only the indices that contain data within the currently selected time range.  
 Searching against the index pattern logstash-\* will actually query elasticsearch for the specific matching indices (e.g. logstash-2013.12.21) that fall within the current time range.

**Time-field name**

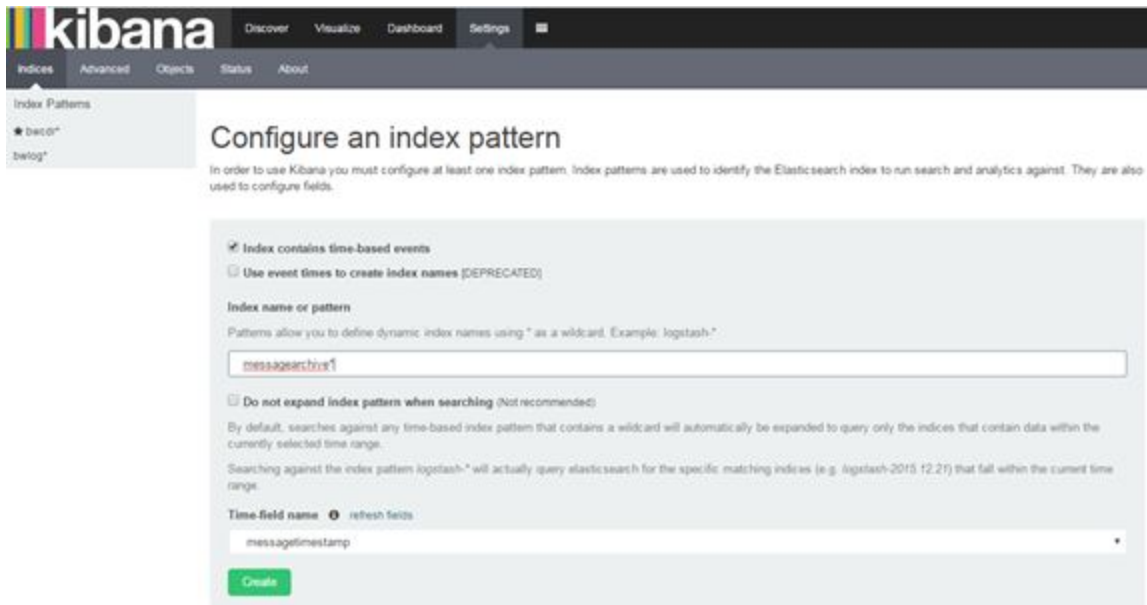
Click “Create”:



The screenshot shows the Kibana 'Index Patterns' page for the 'bwlog\*' index. The page lists 52 fields with their types and formats. The fields are organized into two columns: 'Fields (52)' and 'Scripted fields (0)'. The table below shows the first 15 fields.

name	type	format	analyzed	indexed	controls
sipfouuser	string			✓	
apacheresponsemicroseconds	string			✓	
logtimestamp	date			✓	
usscmd	string			✓	
_source	_source				
impto	string			✓	
sipitype	string			✓	
psocduration	string			✓	
psoctransactionid	string			✓	
octransaction	string			✓	
apacheremoteip	string			✓	
comsationid	string			✓	
apacheuri	string			✓	
ussroomid	string			✓	
psoctransaction	string			✓	
ussrc	string			✓	
ocitargetid	string			✓	

c. Configure messagearchive\* index pattern. Click “+Add New”:



The screenshot shows the 'Configure an index pattern' form in Kibana. The form is titled 'Configure an index pattern' and includes a description: 'In order to use Kibana you must configure at least one index pattern. Index patterns are used to identify the Elasticsearch index to run search and analytics against. They are also used to configure fields.'

The form has the following sections:

- Index contains time-based events** (checked):
  - ☐ Use event times to create index names [DEPRECATED]
- Index name or pattern**:
 

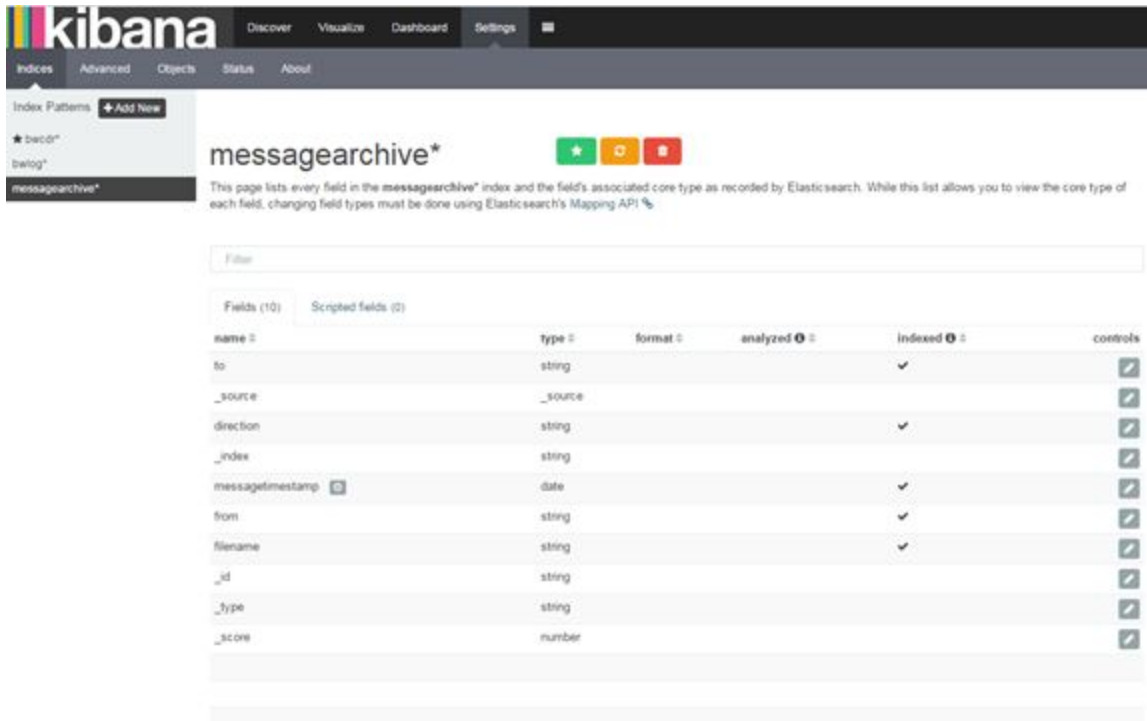
Patterns allow you to define dynamic index names using \* as a wildcard. Example: logstash.\*
- Do not expand index pattern when searching** (Not recommended):
 

By default, searches against any time-based index pattern that contains a wildcard will automatically be expanded to query only the indices that contain data within the currently selected time range.

Searching against the index pattern logstash-\* will actually query elasticsearch for the specific matching indices (e.g. logstash-2015.12.21) that fall within the current time range.
- Time-field name** (refresh fields):

A green 'Create' button is at the bottom of the form.

Click "Create":



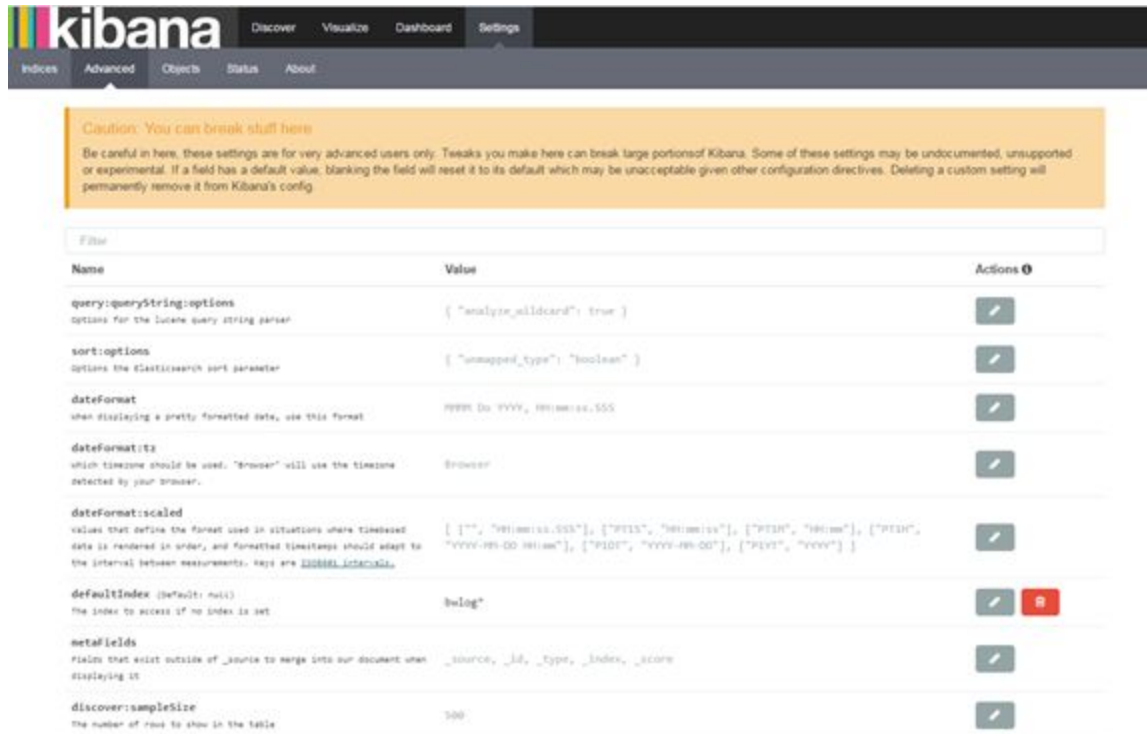
The screenshot shows the Kibana Settings page for the 'messagearchive\*' index pattern. The page displays a list of fields and their associated core types as recorded by Elasticsearch. The fields are listed in a table with columns for name, type, format, analyzed, indexed, and controls. The fields include 'to', '\_source', 'direction', '\_index', 'messageTimestamp', 'from', 'filename', '\_id', '\_type', and '\_score'.

name	type	format	analyzed	indexed	controls
to	string			✓	
_source	_source				
direction	string			✓	
_index	string				
messageTimestamp	date			✓	
from	string			✓	
filename	string			✓	
_id	string				
_type	string				
_score	number				



## 2 Configure lucene string parser

- Click “Settings”, click “Advanced”

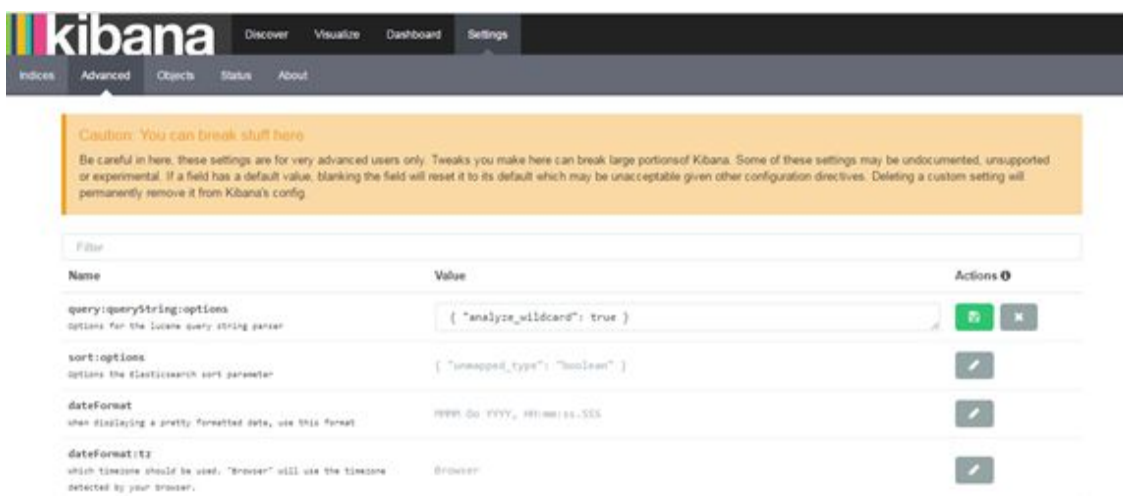


**Caution: You can break stuff here**  
Be careful in here, these settings are for very advanced users only. Tweaks you make here can break large portions of Kibana. Some of these settings may be undocumented, unsupported or experimental. If a field has a default value, blanking the field will reset it to its default which may be unacceptable given other configuration directives. Deleting a custom setting will permanently remove it from Kibana's config.

Name	Value	Actions
<b>query:queryString:options</b> options for the lucene query string parser	{ "analyze_wildcard": true }	
<b>sort:options</b> options the Elasticsearch sort parameter	{ "unmapped_type": "boolean" }	
<b>dateFormat</b> when displaying a pretty formatted date, use this format	MMM Do YYYY, HH:mm:ss.SSS	
<b>dateFormat:tz</b> which timezone should be used. "browser" will use the timezone detected by your browser.	browser	
<b>dateFormat:scaled</b> values that define the format used in situations where timestamp data is rendered in order, and formatted timestamps should adapt to the interval between measurements. Keys are <a href="#">JodaTime</a> intervals.	[{"", "HH:mm:ss.SSS"}, {"PT1S", "HH:mm:ss"}, {"PT1H", "HH:mm"}, {"PT1D", "YYYY-MM-DD HH:mm"}, {"P1D", "YYYY-MM-DD"}, {"P1Y", "YYYY"}]	
<b>defaultindex</b> (default: null) the index to access if no index is set	bw-log*	
<b>metafields</b> fields that exist outside of _source to merge into our document when displaying it	_source, _id, _type, _index, _score	
<b>discover:sampleSize</b> the number of rows to show in the table	500	

- Click Edit icon for **query:queryString:options** (Default: { "analyze\_wildcard": true })

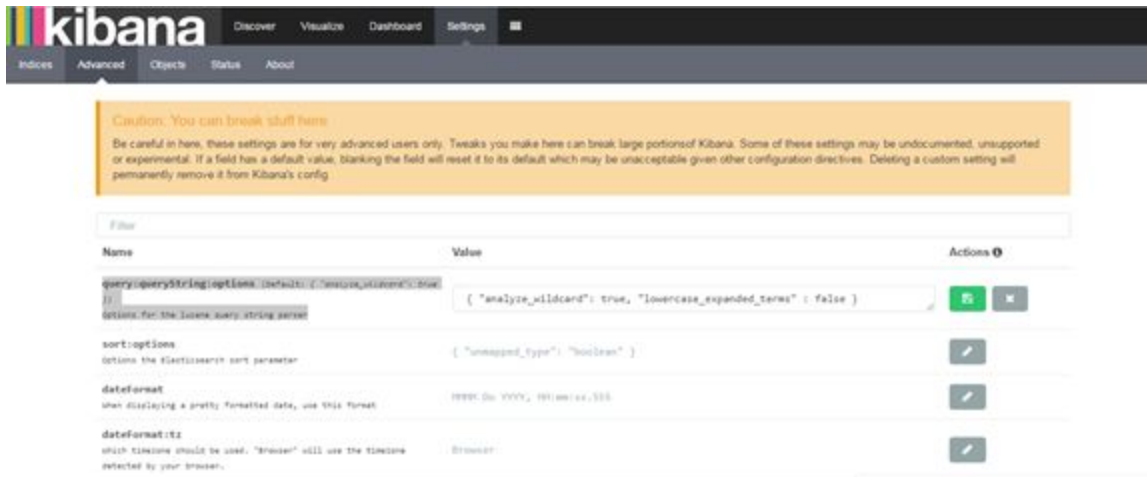
Options for the lucene query string parser



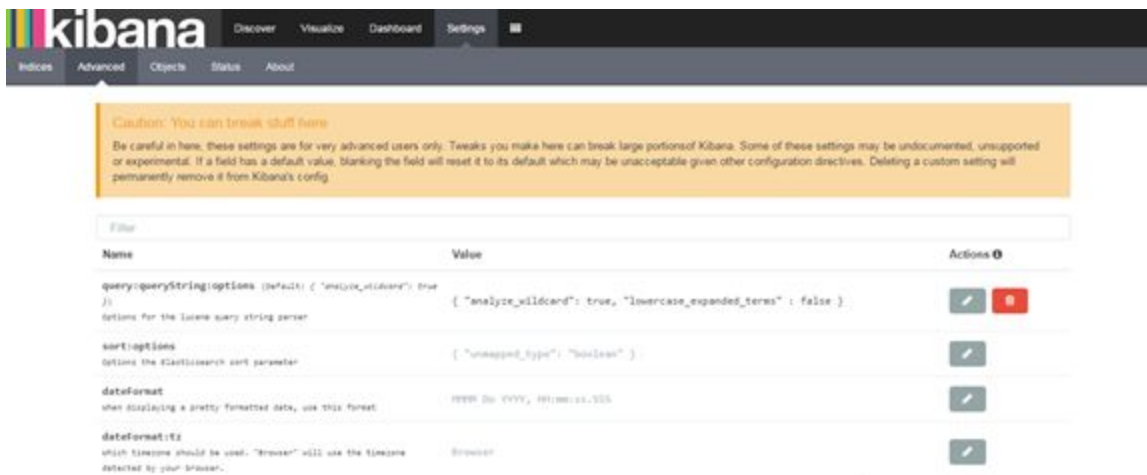
**Caution: You can break stuff here**  
Be careful in here, these settings are for very advanced users only. Tweaks you make here can break large portions of Kibana. Some of these settings may be undocumented, unsupported or experimental. If a field has a default value, blanking the field will reset it to its default which may be unacceptable given other configuration directives. Deleting a custom setting will permanently remove it from Kibana's config.

Name	Value	Actions
<b>query:queryString:options</b> options for the lucene query string parser	{ "analyze_wildcard": true }	
<b>sort:options</b> options the Elasticsearch sort parameter	{ "unmapped_type": "boolean" }	
<b>dateFormat</b> when displaying a pretty formatted date, use this format	MMM Do YYYY, HH:mm:ss.SSS	
<b>dateFormat:tz</b> which timezone should be used. "browser" will use the timezone detected by your browser.	browser	

Enter the following value: { "analyze\_wildcard": true, "lowercase\_expanded\_terms" : false } and click the Save icon



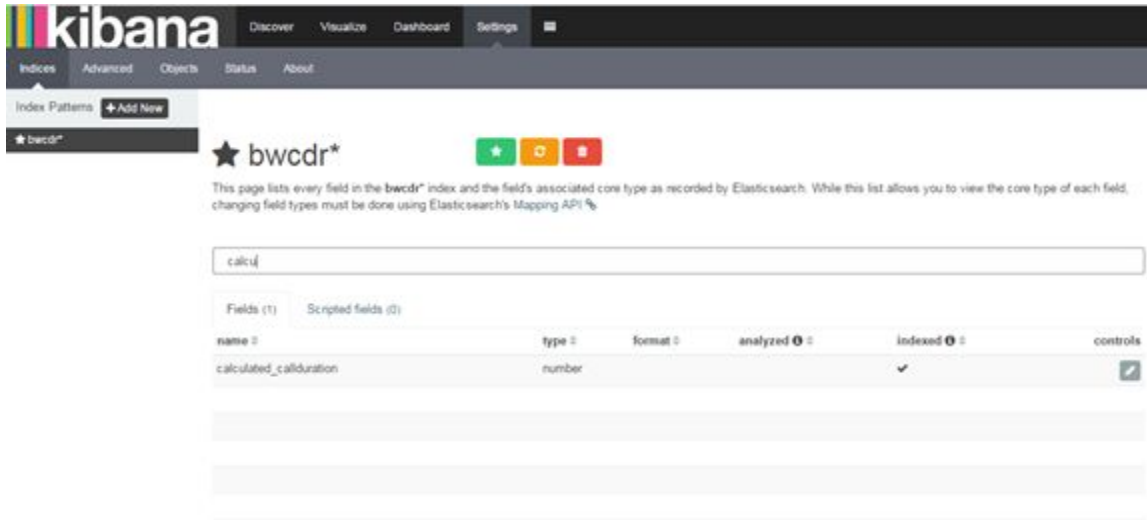
Which results in the following screen:



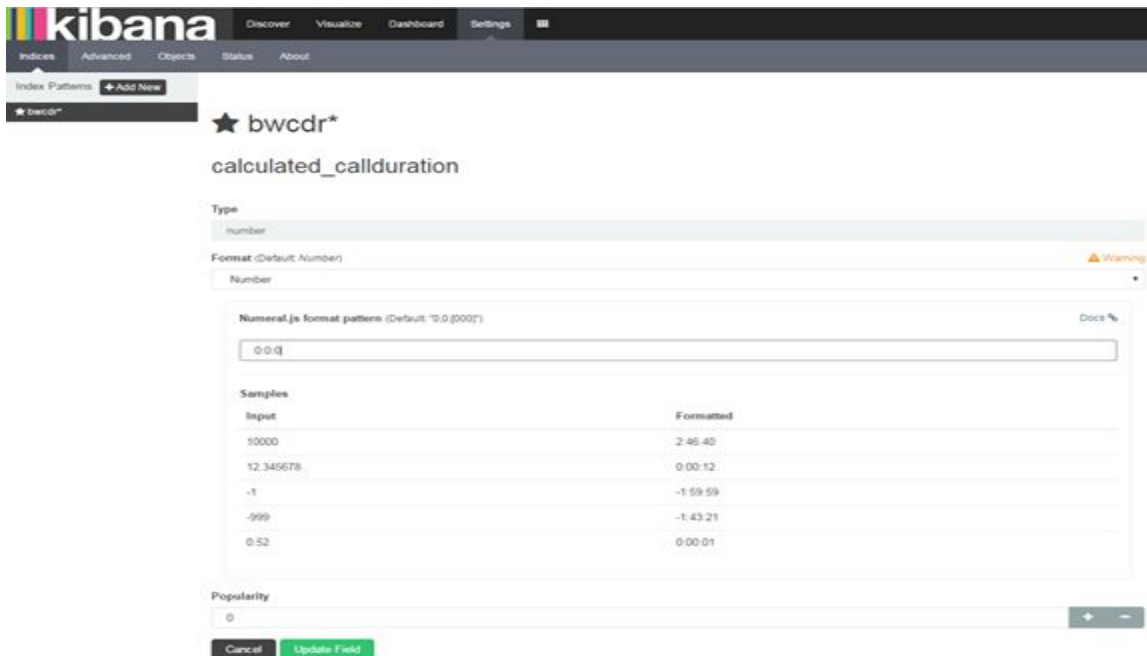
### 3 Change calculate call duration format

By default the calculated\_callduration will be displayed in seconds. To display in hours:minutes:seconds (hh:mm:ss):

- Click “Settings”, then “Indices”, and start entering “calcu” in filter box:

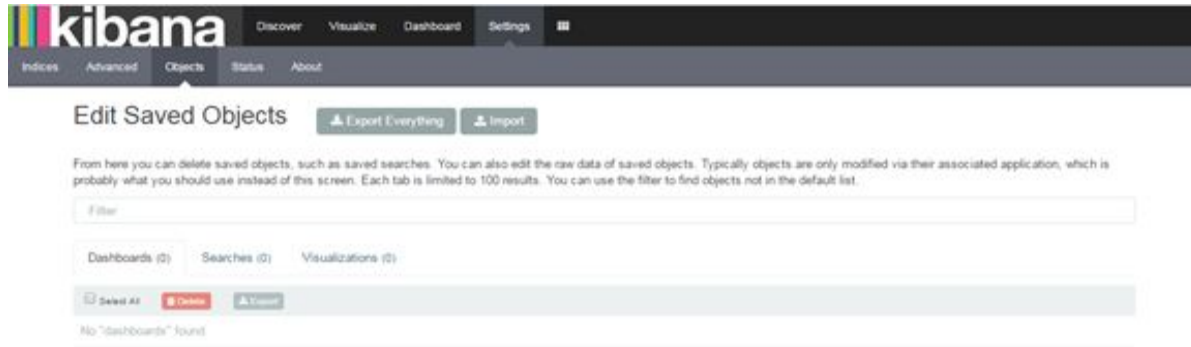


- Click the edit icon under “controls” and enter “0:0:0” in the edit box below “Numeral.js format pattern” (Default: “0,0.[000]”). Click “Update Field”

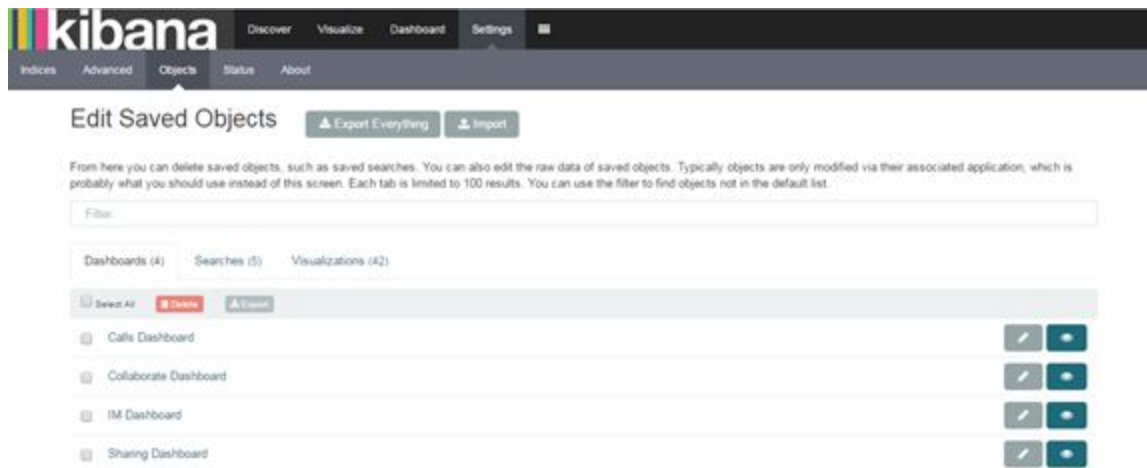


## 4 Import Dashboards

a. Go to “Settings”, click “Objects”, Click “Import”

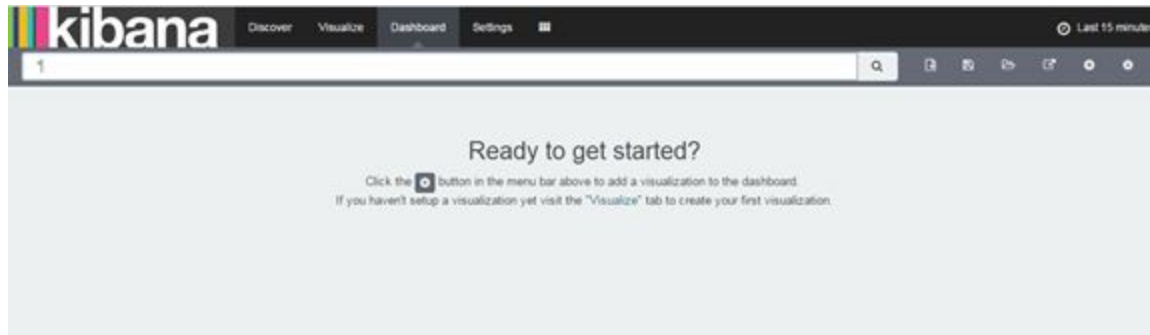


b. Locate file “Broadworks Dashboards 1.0”, click Open. When import completes, the following screen should result:

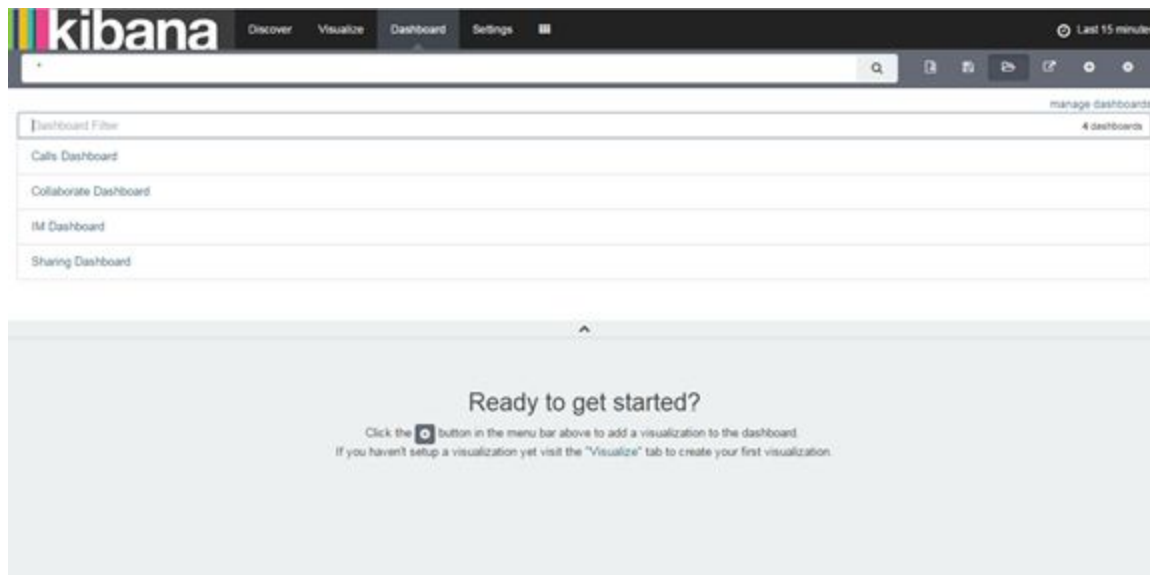


## 5 Start Dashboards

a. Click “Dashboard”



b. Click file open icon:



c. Click “Calls Dashboard”



And you're done! You can switch dashboards by selecting it in the upper left menu.

## References

- Kibana User Guide [6.0] | Introduction| Elastic  
<https://www.elastic.co/guide/en/kibana/current/introduction.html>.
- Tribe node | Elasticsearch Reference [6.0] | Elastic  
<https://www.elastic.co/guide/en/elasticsearch/reference/current/modules-tribe.html>.

## Appendix: Abbreviations

N.A.