

WHITE PAPER

# Qlik Alerting with the App Metadata Analyzer

Automated Threshold-based Alerting

Daniel Pilla | Principal Enterprise Architect

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## NOTES

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- This document references the Qlik Sense App Metadata Analyzer application. A walkthrough of the application (not including the alerting portion, which was added after the application was released) can be found [here](#).
- While this document focuses largely on the integration with the App Metadata Analyzer application along with Qlik Alerting, the overall end-state of this document does not explicitly *require* Qlik Alerting. The point of this document is to illustrate how this process could be streamlined and made to be far more efficient and automated.

## INTRODUCTION

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This document illustrates various methods and example policies of alerting on application metadata related thresholds in a Qlik Sense Enterprise on Windows environment. The **App Metadata Analyzer** application readily exposes this data and is plug-and-play. Combined with Qlik Alerting, Qlik's add-on product which allows for simple and powerful data alerting, this important information can now be delivered to an administrator's inbox with little effort.

For example, an administrator might want to be alerted on applications that have a base RAM footprint of over  $n$  GB in RAM, or contain over  $n$  million records, have synthetic keys or data islands, have over  $n$  fields in the data model, and so on. This allows an administrator to quickly get in front of any potential issues, and to help them maintain a clean, optimized, and timely governed site. In addition, the App Metadata Analyzer also allows for the option to *tag* applications as part of a review process, minimizing the amount of alerts and adding a layer of process.

As stated in the summary section of this document, this process does not explicitly require Qlik Alerting, as it could also be achieved by NPrinting, or by manual review with no automation (though this could prove to be painful in a large environment). That being said, Qlik Alerting is the natural fit for this scenario as it was built specifically for this type of data alerting.

All in all, the goal of this document is to help simplify and provide access to administrative data alerts by leveraging the App Metadata Analyzer, which has now been enhanced to make plugging in Qlik Alerting that much easier.

## Prerequisites

### **App Metadata Analyzer version 2.1.x +**

The App Metadata Analyzer was introduced with the Qlik Sense Enterprise on Windows product as of September 2019. At the outset of the application's release, the "Alerting" sheet that this document will be referencing was not yet created. Any Qlik Sense Enterprise on Windows site that is running June 2018 or later can go and download this version of the App Metadata Analyzer from Qlik Community here: <https://community.qlik.com/t5/Qlik-Monitoring-Administration/Sense-App-Metadata-Analyzer/gpm-p/1592163>.

This version of the App Metadata Analyzer is planned to be updated in the official product release as well, but at the time this document was written, the specific release is not yet determined.

The primary benefits of the App Metadata Analyzer are as follows:

- **Ease of integration with Qlik Alerting for application metadata threshold alerting!**
- Insight into the composition of all data models across an entire Qlik site.
- Visibility into what apps have synthetic keys, data islands, and circular references.

- Visibility of base RAM footprints—which allows for sizing/load balancing considerations.
- Indicators of what fields could be dropped/optimized by clearly displaying their size/proportion of the application.
- Ability to apply thresholds at the application level such as: total records, total number of fields, total number of tables, disk size, etc – allowing one to employ gating-like mechanisms to ensure data modeling standards and best practices across the site.

For more documentation on the application, please refer to:

- The Qlik Sense Admin Playbook entry: [https://adminplaybook.qlik-poc.com/docs/asset\\_management/apps/analyze\\_app\\_metadata\\_analyzer.html](https://adminplaybook.qlik-poc.com/docs/asset_management/apps/analyze_app_metadata_analyzer.html)
- Qlik Help: [https://help.qlik.com/en-US/sense-admin/Subsystems/DeployAdministerQSE/Content/Sense\\_DeployAdminister/QSEoW/Administer\\_QSEoW/Monitoring\\_QSEoW/app-metadata-analyzer-app.htm](https://help.qlik.com/en-US/sense-admin/Subsystems/DeployAdministerQSE/Content/Sense_DeployAdminister/QSEoW/Administer_QSEoW/Monitoring_QSEoW/app-metadata-analyzer-app.htm)

### Qlik Alerting (any version)

This document will be referring specifically to the App Metadata Analyzer's integration points with Qlik Alerting, however this document could be interpreted for NPrinting, manual analysis, or integration with another third-party tool.

## App Metadata Analyzer Alerting Configuration

There is a minor amount of additional configuration that is regarding the alerting customization, and this is only if the following two features are appealing:

- Disable alerting for specific applications
  - For example, the Operations Monitor which is a shipped application that one will likely not modify
- Flag applications as “Under Review”

### Initial Configuration

For initial configuration of the App Metadata Analyzer, please refer [here](#).

- The intent here being that as an admin is alerted of an application, they might task a developer to go adjust it accordingly, and want a method to show that the application is “being worked on”. This also allows them to not get alerted on it daily by providing the ability to easily set up another dedicated alert.

## Configuring Tag Names

Each of the bullets above (both “Disabling” and flagging as “Under Review”) are controlled by two unique tags. By default, these tags are already pre-named and defined in the script as follows:

- SET vu\_ignore\_alert\_tag\_name = 'AMA\_App\_Alert\_Ignore';
- SET vu\_review\_alert\_tag\_name = 'AMA\_App\_Alert\_Review';

To change the desired name of the tags, simply adjust them here. These tags will need to then be manually created in the QMC, and then applied to any applications that are desired to have a “Disabled” or “Under Review” effect. Once the App Metadata Analyzer is reloaded, it will adjust them accordingly in the model and UI. If the administrator does not want to leverage these tags, the script can be left alone entirely without any effect.

```
1 TRACE Configuration;
2
3 ////////////////////////////////////////////////////
4 // *Required* Configuration
5
6 // 1- Central Node Hostname.
7 //   Examples: "my_central_node.domain.com" or "sense_central_node"
8 SET vu_central_node_host_name = 'localhost';
9
10 // 2- Virtual proxy prefix if your windows-authenticated virtual proxy has a prefix *
11 //   Example w/ virtual proxy prefix: "my_virtual_proxy_prefix"
12 SET vu_virtual_proxy_prefix = 'default'; // Leave blank if no virtual proxy prefix is used
13
14 ////////////////////////////////////////////////////
15
16 ////////////////////////////////////////////////////
17 // ~Optional~ Configuration (No need to change these unless you desire)
18
19
20 SET vu_months_in_reload_interval = 3; // Width of app last reload date for grouping apps in this app
21 // Visual Thresholds - change these if you want to highlight specific apps based on these attributes
22 SET vAppDiskSizeThreshold = 524288000; // 500 MB
23 SET vAppRAMSizeThreshold = 1073751824; // 1 GB
24 SET vRAMToFileSizeRatioThreshold = 6; // RAM / File Size is typically between 4-6x
25 SET vAppRecordCountThreshold = 10000000; // Number of records in an app
26 SET vTableRecordCountThreshold = 10000000; // Number of records in a table
27 SET vFieldValueCountThreshold = 10000000; // Number of field records
28 SET vFieldCardinalityThreshold = 1000000; // Number of distinct field values
29 SET vNoOffFields = 150; // Number of Distinct Fields
30 SET vReloadCPUtimeThreshold = 1800000; // CPU Time spent on last reload (milliseconds); default = 1,800,000 = 30 Minutes
31
32
33 // ~Optional~ Configuration for Alerting
34 // To be used with Qlik Alerting or NPrinting. Tag applications in the QMC.
35
36 SET vu_ignore_alert_tag_name = 'AMA_App_Alert_Ignore'; // ex: AMA_App_Alert_Ignore | Optional Qlik application tag to disable alerts for specific applications.
37 SET vu_review_alert_tag_name = 'AMA_App_Alert_Review'; // ex: AMA_App_Alert_Review | Optional Qlik application tag to modify alerts for specific applications that are "under review" after h
38
39 ////////////////////////////////////////////////////
```

## Reviewing Available Thresholds

As can be seen from the screenshot above, there are a number of thresholds that are easily customizable. In fact, many are intended to be. For a quick summary, here are the available thresholds and flagged items (all of which are accessible in the App Metadata Analyzer's UI under the "Measure" field—the primary driver of the threshold alerts used for Qlik Alerting. Note that the first three are Booleans that are non-customizable for obvious reasons:

- Contains Circular Reference(s)
- Contains Data Island(s)
- Contains Synthetic Key(s)
- Field Cardinality Exceeded (vFieldCardinalityThreshold)
- Field Count Exceeded (vFieldValueCountThreshold)
- File Size Exceeded (vAppDiskSizeThreshold)
- RAM Exceeded (vAppRAMSizeThreshold)
- RAM/File Ratio Exceeded (vRAMToFileSizeRatioThreshold)
- Record Count Exceeded (vAppRecordCountThreshold)
- Reload CPU Time Exceeded (vReloadCPUTimeThreshold)
- Table Rows Exceeded (vTableRecordCountThreshold)

## App Metadata Analyzer Alerting Sheet

As of the the 2.1.x+ release of the App Metadata Analyzer, a new sheet titled "Alerting" is available. This sheet can of course be manually viewed at any time without any automated alerts, but it is designed so that the information surfaced here can be very easily integrated with tools such as Qlik Alerting and NPrinting.

The screenshot displays the Qlik Alerting interface. On the left, there are two filter panes: 'App Alerts' and 'Measure'. The 'App Alerts' pane shows a list of 12 categories with their respective counts: App RAM Exceeded (3), App File Size Exceeded (3), App Record Count Exceeded (4), App Field Count Exceeded (5), App Has Synthetic Keys (1), App Contains Data Island(s) (11), App Contains Circular Reference(s) (1), App Reload CPU Time Exceeded (0), App RAM/File Ratio Exceeded (0), Table Rows Exceeded (3), and Field Cardinality Exceeded (12). The 'Measure' pane shows a table with columns for various metrics: RAM Exceeded, File Size Exceeded, Record Count Exceeded, Table Rows Exceeded, Field Cardinality Exceeded, Field Count Exceeded, Contains Data Island(s), Contains Synthetic Key(s), Contains Circular Reference(s), Reload CPU Time Exceeded, and RAM/File Ratio Exceeded. The main table lists applications with their status (Published or Unpublished) and values for these metrics. Below the main table, there are two smaller tables: 'Table Alerts' and 'Field Alerts'. 'Table Alerts' shows 'LINEITEM' and 'Transacctions' with 1 row exceeded each, totaling 3. 'Field Alerts' shows various field names like 'L\_ORDERKEY', 'L\_PARTKEY', 'L\_EXTENDEDPRICE', 'L\_COMMENT', 'L\_ORDERKEY', 'L\_PARTKEY', 'L\_EXTENDEDPRICE', 'L\_COMMENT', and 'OppHistory.Id' with 1 cardinality exceeded each, totaling 12.

## Content

On this sheet:

- Two filter panes:
  - App Alerts
    - Every application is mapped to one of the following:
      - “App Alert Enabled” – applications that may be alerted on freely
      - “App Under Review” – applications explicitly tagged as in a review stage
      - “App Alert Disabled” – applications to be ignored by alerting
    - “App Alert Enabled” is the default value for this field, so that if no applications are tagged as otherwise in the QMC, all applications will be available to be alerted on.
  - Measure
    - This field allows for the customization of what threshold an admin wants to be alerted on. For example, an admin may only want to be alerted on whether an



application contains synthetic keys if it is published, otherwise, it could simply be that the developer is still building the data model and encountering some issues while doing so. This field allows the administrator to select only the appropriate measures to be alerted on in specific scenarios. More on this to come.

- 11 KPIs on the left-hand side of the screen that show all of the possible pre-configured thresholds that are available in the application in totality.
- Three visualization objects:
  - The “App Alerts” pivot table with selectable columns. This is the primary visualization on the page and illustrates every application that has breached at least one threshold, where each threshold is a column, and the color of the rows are white, blue, or gray, which map to “App Alert Enabled”, “App Under Review”, and “App Alert Disabled” respectively. The “Total Thresholds Exceeded” dimension and faux column is the summation of *each column that has been breached at least once*. This is the primary metric that will be tied into the alerting process. More on that to come.
  - The “Table Alerts” visualization, which only contains the table names that have breached the number of rows allowed for a single table.
  - The “Field Alerts” visualization, which only contains the field names that have breached the allowed cardinality for a field.

## Filtering

“App Alert Enabled” selected, with all possible measures as thresholds.

The screenshot shows the Qlik Alerting interface with the following data in the main table:

App Name	App Owner	App is Published	Total Exceeded	RAM Exceeded	File Size Exceeded	Record Count Exceeded	Table Rows Exceeded	Field Cardinality Exceeded	Field Count Exceeded	Contains Data Island(s)	Contains Synthetic Key(s)	Contains Circular Reference(s)	Reload CPU Time Exceeded	RAM/File Ratio Exceeded
100M	QLIK-POC/dpi	Published	5	1	1	1	1	1	1	0	0	0	0	0
AzureSQL Test (DSN)	QLIK-POC/itu	Unpublished	5	1	1	1	1	4	0	0	0	0	0	0
AzureSQL Test (Bundled)	QLIK-POC/itu	Unpublished	5	1	1	1	1	4	0	0	0	0	0	0
EA Opps Dashboard	QLIK-POC/dpi	Unpublished	3	0	0	1	0	3	1	0	0	0	0	0
QlikWorld - NFL	QLIK-POC/dpi	Unpublished	2	0	0	0	0	0	1	1	0	0	0	0
App Metadata Analyzer 2.0.12(1)	QLIK-POC/dpi	Unpublished	1	0	0	0	0	0	0	1	0	0	0	0
synth	QLIK-POC/dpi	Unpublished	1	0	0	0	0	0	0	0	1	0	0	0
SetAnalysis	QLIK-POC/dpi	Unpublished	1	0	0	0	0	0	0	1	0	0	0	0
App Metadata Analyzer 2.0.12	QLIK-POC/dpi	Published	1	0	0	0	0	0	0	1	0	0	0	0
_test	QLIK-POC/dpi	Unpublished	1	0	0	0	0	0	0	1	0	0	0	0
os-data-connection-analyzer-v1.5.2	QLIK-POC/dpi	Unpublished	1	0	0	0	0	0	0	1	0	0	0	0
Circular	QLIK-POC/dpi	Unpublished	1	0	0	0	0	0	0	0	0	1	0	0

Summary statistics on the left sidebar:

- App Alert Enabled: 1
- App Under Review: 0
- App Alert Disabled: 0
- App Contains Data Island(s): 6
- App Contains Circular Reference(s): 1
- App Reload CPU Time Exceeded: 0
- App RAM/File Ratio Exceeded: 0
- Table Rows Exceeded: 3
- Field Cardinality Exceeded: 12

Table Alerts summary:

Table Name	Table Rows Exceeded
LINEITEM	1
LINEITEM	1
Transactions	1
<b>Totals</b>	<b>3</b>

Field Alerts summary:

Field Name	Field Cardinality Exceeded
L_ORDERKEY	1
L_PARTKEY	1
L_EXTENDEDPRICE	1
L_COMMENT	1
L_ORDERKEY	1
L_PARTKEY	1
L_EXTENDEDPRICE	1
L_COMMENT	1
OppHistoryId	1
<b>Totals</b>	<b>12</b>

“App Alert Enabled” selected, as well as 5 measures that an admin would likely want to be alerted on for unpublished apps (with “Unpublished” selected).

The screenshot shows the Qlik Alerting interface with the following data in the main table:

App Name	App Owner	App is Published	Total Exceeded	RAM Exceeded	File Size Exceeded	Record Count Exceeded	Table Rows Exceeded	Reload CPU Time Exceeded	RAM/File Ratio Exceeded
QLIK-POC/dpi	Published	4	1	1	1	1	1	0	0
QLIK-POC/itu	Unpublished	4	1	1	1	1	1	0	0
QLIK-POC/itu	Unpublished	4	1	1	1	1	1	0	0
QLIK-POC/dpi	Unpublished	1	0	0	0	1	0	0	0

Summary statistics on the left sidebar:

- App Alert Enabled: 1
- App Under Review: 0
- App Alert Disabled: 0
- App RAM Exceeded: 3
- App File Size Exceeded: 3
- App Record Count Exceeded: 4
- App Field Count Exceeded: 2
- App Has Synthetic Keys: 1
- App Contains Data Island(s): 6
- App Contains Circular Reference(s): 1
- App Reload CPU Time Exceeded: 0
- App RAM/File Ratio Exceeded: 0
- Table Rows Exceeded: 3
- Field Cardinality Exceeded: 12

Table Alerts summary:

Table Name	Table Rows Exceeded
LINEITEM	1
LINEITEM	1
Transactions	1
<b>Totals</b>	<b>3</b>

Field Alerts summary:

Field Name	Field Cardinality Exceeded
L_ORDERKEY	1
L_PARTKEY	1
L_EXTENDEDPRICE	1
L_COMMENT	1
L_ORDERKEY	1
L_PARTKEY	1
L_EXTENDEDPRICE	1
L_COMMENT	1
OppHistoryId	1
<b>Totals</b>	<b>12</b>

Notice how the “Total Exceed” adjusts based on the selections in the “Measure” field. This is important, as if one does not want to be alerted on specific measures, this can be configured via a selection in a field vs a change in set analysis or otherwise. This allows for simple integration with Qlik Alerting, NPrinting, etc.

## Alerting Example Policies

The following alerts are simply examples that an administrator might want to be notified of. These can of course be customized (and likely should be customized) at the organizational level. The exact selection states and methods to implement these policies within Qlik Alerting are described in the following section.

### 1. Published Apps Over Thresholds (Daily)

The purpose of this alert is for the administrator to be alerted of any published application that has breached any threshold for an “active” app (meaning it is not marked as disabled or otherwise). This could of course be customized to only include specific measures, or perhaps even a specific target stream if there is one used for staging purposes, etc. The cadence might be daily or even weekly.

### 2. Unpublished App Thresholds (Daily)

Here, the administrator likely only wants specific measures (thresholds) to be alerted on, as throughout the development lifecycle of an application, synthetic keys can occur along with circular references, the presence of many fields, etc. These are typically adjusted along the way, so they can likely be allowed in an unpublished stage. Thresholds that an administrator might care about for unpublished applications could contain the following:

- RAM Exceeded
- File Size Exceeded
- Record Count Exceeded
- Table Rows Exceeded
- Field Cardinality Exceeded

This alert is again focusing on “active” applications with the selection of “Unpublished”.

### 3. Apps Under Review (Weekly)

This next alert could be classified as more of a reminder than anything, and is specifically focused on applications that have been marked as “App Under Review”. The idea here is that an administrator would contact a developer that owned an app that breached  $n$  Thresholds, and the developer would then go work to adjust that application. The administrator would then need to navigate to the QMC, and tag the app with the tag for “Under Review” that was configured above. Now, at a weekly cadence (or otherwise), the administrator would get an alert if that application was still sitting as “Under Review”. The administrator could then reach back out to the developer and so on and so forth. The only selections in the application here would need to be “App Under Review”.

### 4. Apps Passed Review (Daily)

Related to **Apps Under Review (Weekly)**, this alert is intended to indicate whether a developer has successfully resolved the issues of an application. The selection would also be focused on “App Under Review”, however, this time where the total thresholds would be equal to 0. This alert is simultaneously a reminder for the administrator to then go into the QMC and “untag” the alert as “Under Review”—that way, if the application breaches a threshold again in the future, it will not be immediately marked as “Under Review”, but will have to repeat the process.

## Alerting Policies Implemented with Qlik Alerting

This section takes the policies defined above and illustrates how they can be implemented inside of Qlik Alerting.

The measure that will be of the most importance is the “**Total Thresholds Exceeded**” measure. This measure is the count of each distinct threshold (measure) that has been breached at least once. As stated above, this measure reflects the selected dimensions of the “**Measure**” field.

**Note** – As of the April 2020 release, Qlik Alerting allows only a single dimension field. To add in faux dimensions in Qlik Alerting, provided the dimension is at the same level of granularity, **Only(<DimensionName>)** can be used.

**Note** – many of the fields in this applications are **Duals**, meaning that they have both a numeric and text representation. As of the April 2020 release, Qlik Alerting shows the numeric representation.

## Alert 1 - Published Apps Over Thresholds (Daily)

**Alert Name:** AMA – Published App Thresholds (Daily)

**Alert Description:** Published apps with alerting enabled that breach one or more thresholds.

**Sheet:** Alerting

### Measures:

1. "Total Thresholds Exceeded"

2. Custom:

Custom Expression: Only(StreamName)

Custom Label: Stream

3. Custom:

Custom Expression: Only(AppOwnerUserID)

Custom Label: App Owner

### Drill to dimension:

- App Name (Unique)

### Added filters:

- AppPublished
  - "Published"
- AppAlerts
  - "App Alert Enabled"

### Data Alert

**Alert Name**  
AMA - Published App Thresholds (Daily)

**Alert Description**  
Published apps with alerting enabled that breach one or more thresholds.

1 Data — 2 Condition — 3 Schedule — 4 Distribution — 5 Notification

**Data source**

Source (Qlik Sense app)  
App Metadata Analyzer

Sheet  
Alerting

**Add measures**

Custom Measure

Custom Expression

Custom Label

Format  
Auto

Add measure

**Added measures**

Total Thresholds Exceeded	Auto	🗑️
Stream	Auto	🗑️
App Owner	Auto	🗑️

**Drill to dimension (optional)**

Split up the measures per dimension for a more specific result.

Dimension  
App Name (Unique)

**Filters (optional)**

Filter by selecting a bookmark or create a custom filter using fields and values

Bookmark

Filter Field

Values

Add filter

**Added filters**

AppPublished	1	🗑️
AppAlerts	0	🗑️

**Preview (first ten rows)**

Sort By: Total Thresholds ... | Sort Ascending: Descending

App Name (Unique)	Total Thresholds Exceeded	Stream	App Owner
100M	5	Everyone	QLIK-POCIdpi
App Metadata Analyzer 2.0.12	1	Monitoring apps	QLIK-POCIdpi

## Conditions:

- A.
- a. Column: "Total Thresholds Exceeded"
  - b. Operator: "Greater than (>)"
  - c. Type: "Manual Value"
  - d. Value: 0

### Data Alert

**Alert Name**  
AMA - Published App Thresholds (Daily)

**Alert Description**  
Published apps with alerting enabled that breach one or more thresholds.

1 Data — 2 **Condition** — 3 Schedule — 4 Distribution — 5 Notification

#### Conditions

**A** Total Thresholds Exceeded Greater than (>) 0

Column: Total Thresholds Exceeded

Type: Manual Value

Operator: Greater than (>)

Value: 0

[Delete](#)

[Create New Condition](#)

#### Rules

A  [Remove](#)

[Add Rule Step](#) [Validate Conditions](#)

#### Preview

Positive: 2 (33.3%) Negative: 4 (66.7%) Total: 6

App Name (Unique)	Total Thresholds Exceeded	Stream	App Owner
100M	5	Everyone	QLIK-POC\dpi
App Metadata Analyzer 2.0.12	1	Monitoring apps	QLIK-POC\dpi

The schedule, distribution, and notification is up to the administrator. This alert is suggested to be run daily and targeted to administrators.

## Email Alert (with the Filters section removed):

Hi **QAService**,

Your drill alert, **AMA - Published Apps Over Threshold(s) (Daily)**, has been triggered. Please see below for the details.

Alert Name	AMA - Published Apps Over Threshold(s) (Daily)
Application Link	<a href="#">App Metadata Analyzer</a>
Measure	Total Thresholds Exceeded
Condition	Greater than 0
Drill to Dimension	App Name (Unique)
Dimension Values Count	2

Current Data			
App Name (Unique)	Total Thresholds Exceeded	Stream	App Owner
<a href="#">100M</a>	5	Everyone	QLIK-POC\dpi
<a href="#">App Metadata Analyzer</a>	1	Monitoring apps	QLIK-POC\dpi

## Alert 2 – Unpublished App Thresholds (Daily)

**Alert Name:** AMA – Unpublished App Thresholds (Daily)

**Alert Description:** Unpublished apps with alerting enabled that breach one or more of RAM, File Size, App Record Count, Table Record Count, or Field Cardinality thresholds.

**Sheet:** Alerting

**Measures:**

1. “Total Thresholds Exceeded”

2. Custom:

Custom Expression: Only(AppOwnerUserID)

Custom Label: App Owner



### **Drill to dimension:**

- App Name (Unique)

### **Added filters:**

- AppPublished
  - “Unpublished”
- AppAlerts
  - “App Alert Enabled”
- Measure
  - “RAM Exceeded”
  - “File Size Exceeded”
  - “Record Count Exceeded”
  - “Table Rows Exceeded”
  - “Field Cardinality Exceeded”

### Data Alert

**Alert Name**  
AMA - Unpublished App Thresholds (Daily)

**Alert Description**  
Unpublished apps with alerting enabled that breach one or more of RAM, File Size, App Record Count, Table Record Count, or f

1 Data — 2 Condition — 3 Schedule — 4 Distribution — 5 Notification

**Data source**

Source (Qlik Sense app)  
App Metadata Analyzer

Sheet  
Alerting

**Add measures**

Custom Measure

Measure  
[Empty]

Format  
Auto

Add measure

**Added measures**

Total Thresholds Exceeded	Auto	🗑️
App Owner	Auto	🗑️

**Drill to dimension (optional)**

Split up the measures per dimension for a more specific result.

Dimension  
App Name (Unique)

**Filters (optional)**

Filter by selecting a bookmark or create a custom filter using fields and values

Bookmark  
[Empty]

Filter Field  
[Empty]

Values  
[Empty]

Add filter

**Added filters**

AppAlerts	0	🗑️
AppPublished	0	🗑️
Measure	1, 2, 3, 4, 5	🗑️

**Preview (first ten rows)**

Sort By: Total Thresholds ...  
Sort Ascending: Descending

App Name (Unique)	Total Thresholds Exceeded	App Owner
AzureSQL Test (Bundled)	5	QLIK-POC\ltu
AzureSQL Test (DSN)	5	QLIK-POC\ltu

### Conditions:

1.
  - a. Column: "Total Thresholds Exceeded"
  - b. Operator: "Greater than (>)"
  - c. Type: "Manual Value"
  - d. Value: 0

**Data Alert**

Alert Name: AMA - Unpublished App Thresholds (Daily) | Alert Description: Unpublished apps with alerting enabled that breach one or more of RAM, File Size, App Record Count, Table Record Count, or I

1 Data — 2 Condition — 3 Schedule — 4 Distribution — 5 Notification

**Conditions**

A Total Thresholds Exceeded Greater than (>) 0

Create New Condition

**Rules**

A [✓] Remove

Add Rule Step | Validate Conditions

**Preview**

Positive: 3 (14.3%) Negative: 18 (85.7%) Total: 21

App Name (Unique)	Total Thresholds Exceeded	App Owner
AzureSQL Test (Bundled)	5	QLIK-POC\itu
AzureSQL Test (DSN)	5	QLIK-POC\itu
EA Opps Dashboard	2	QLIK-POC\dpi

The schedule, distribution, and notification is up to the administrator. This alert is suggested to be run daily and targeted to administrators.

**Email Alert (with the Filters section removed):**

Hi **QAService**,

Your drill alert, **AMA - Unpublished App Thresholds (Daily)**, has been triggered. Please see below for the details.

Alert Name	AMA - Unpublished App Thresholds (Daily)
Application Link	<a href="#">App Metadata Analyzer</a>
Measure	Total Thresholds Exceeded
Condition	Greater than 0
Drill to Dimension	App Name (Unique)
Dimension Values Count	3

Current Data		
App Name (Unique)	Total Thresholds Exceeded	App Owner
<a href="#">AzureSQL Test (Bundled)</a>	5	QLIK-POC\itu
<a href="#">AzureSQL Test (DSN)</a>	5	QLIK-POC\itu
<a href="#">EA Opps Dashboard</a>	2	QLIK-POC\dpi

## Alert 3 – Apps Under Review (Weekly)

**Alert Name:** AMA – Apps Under Review (Weekly)

**Alert Description:** Any applications that are marked as "Under Review" that breach any threshold.

**Sheet:** Alerting

### Measures:

1. "Total Thresholds Exceeded"

2. Custom:

Custom Expression: Only(StreamName)

Custom Label: Stream

3. Custom:

Custom Expression: Only(AppOwnerUserID)

Custom Label: App Owner

### Drill to dimension:

- App Name (Unique)

### Added filters:

- AppAlerts
  - "App Under Review"

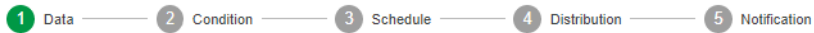
## Data Alert

### Alert Name

AMA - Apps Under Review (Weekly)

### Alert Description

Any applications that are marked as "Under Review" that breach any threshold.



### Data source

#### Source (Qlik Sense app)

App Metadata Analyzer

#### Sheet

Alerting

### Add measures

Custom Measure

#### Custom Expression

#### Custom Label

#### Format

Auto

Add measure

### Added measures

Total Thresholds Exceeded	Auto	🗑️
Stream	Auto	🗑️
App Owner	Auto	🗑️

### Drill to dimension (optional)

Split up the measures per dimension for a more specific result.

#### Dimension

App Name (Unique)

### Filters (optional)

Filter by selecting a bookmark or create a custom filter using fields and values

#### Bookmark

#### Filter Field

#### Values

Add filter

### Added filters

AppAlerts

1



### Preview (first ten rows)

#### Sort By

Total Thresholds ...

#### Sort Ascending

Descending

App Name (Unique)	Total Thresholds Exceeded	Stream	App Owner
QlikWorld - NFL	2	SSE	QLIK-POC\qservice

## Conditions:

1.
  - a. Column: "Total Thresholds Exceeded"
  - b. Operator: "Greater than (>)"
  - c. Type: "Manual Value"
  - d. Value: 0

**Data Alert**

Alert Name: AMA - Apps Under Review (Weekly)

Alert Description: Any applications that are marked as "Under Review" that breach any threshold.

1 Data — 2 Condition — 3 Schedule — 4 Distribution — 5 Notification

**Conditions**

A Total Thresholds Exceeded Greater than (>) 0

Column: Total Thresholds Exceeded

Type: Manual Value

Operator: Greater than (>)

Value: 0

Delete

Create New Condition

**Rules**

A [✓] Remove

Add Rule Step Validate Conditions

**Preview**

Positive: 1 (100.0%) Negative: 0 (0.0%) Total: 1

App Name (Unique)	Total Thresholds Exceeded	Stream	App Owner
QlikWorld - NFL	2	SSE	QLIK-POC\qservice

The schedule, distribution, and notification is up to the administrator. This alert is suggested to be run daily and targeted to administrators.

## Email Alert (with the Filters section removed):

Hi **QAService**,

Your drill alert, **AMA - Apps Under Review (Weekly)**, has been triggered. Please see below for the details.

Alert Name	AMA - Apps Under Review (Weekly)
Application Link	<a href="#">App Metadata Analyzer</a>
Measure	Total Thresholds Exceeded
Condition	Greater than 0
Drill to Dimension	App Name (Unique)
Dimension Values Count	1

Current Data			
App Name (Unique)	Total Thresholds Exceeded	Stream	App Owner
<a href="#">QlikWorld - NFL</a>	2	SSE	QLIK-POC\qservice

## Alert 4 – Apps Passed Review (Daily)

**Alert Name:** AMA – Apps Passed Review (Daily)

**Alert Description:** Applications that are marked as "Under Review" but have been rectified (now breach zero thresholds) that need to be untagged in the QMC.

**Sheet:** Alerting

### Measures:

1. "Total Thresholds Exceeded"
2. Custom:

Custom Expression: Only(AppOwnerUserID)

Custom Label: App Owner

### 3. Custom:

Custom Expression: Only(AppAlerts)

Custom Label: Status

### Drill to dimension:

- App Name (Unique)

### Added filters:

- AppAlerts
  - “App Under Review”

**Data Alert**

Alert Name: AMA - Apps Passed Review (Daily) | Alert Description: Applications that are marked as "Under Review" but have been rectified (now breach zero thresholds) that need to be untagged

1 Data — 2 Condition — 3 Schedule — 4 Distribution — 5 Notification

**Data source**  
Source (Qlik Sense app): App Metadata Analyzer  
Sheet: Alerting

**Add measures**  
 Custom Measure  
Measure: [ ]  
Format: Auto  
Add measure

**Added measures**

Measure	Format	Remove
Total Thresholds Exceeded	Auto	🗑️
App Owner	Auto	🗑️
Status	Auto	🗑️

**Drill to dimension (optional)**  
Split up the measures per dimension for a more specific result.  
Dimension: App Name (Unique)

**Filters (optional)**  
Filter by selecting a bookmark or create a custom filter using fields and values  
Bookmark: [ ]  
Filter Field: [ ]  
Values: [ ]  
Add filter

**Added filters**

Filter	Count	Remove
AppAlerts	1	🗑️

**Preview (first ten rows)**

Sort By: Total Thresholds ... | Sort Ascending: Descending

App Name (Unique)	Total Thresholds Exceeded	App Owner	Status
QlikWorld - NFL	2	QLIK-POC\qservice	1
qs-admin-playbook-v1.0.0	0	-	-
R In Script	0	QLIK-POC\dpi	1
_test	0	-	-



## Conditions:

1.
  - a. Column: "Total Thresholds Exceeded"
  - b. Operator: "Equal to (=)"
  - c. Type: "Manual Value"
  - d. Value: 0
  
2.
  - a. Column: "Status"
  - b. Operator: "Equal to (=)"
  - c. Type: "Manual Value"
  - d. Value: 1

### Data Alert

**Alert Name**  
AMA - Apps Passed Review (Daily)

**Alert Description**  
Applications that are marked as "Under Review" but have been rectified (now breach zero thresholds) that need to be untagged

1 Data — 2 Condition — 3 Schedule — 4 Distribution — 5 Notification

#### Conditions

A Total Thresholds Exceeded Equal to (=) 0

B Status Equal to (=) 1

Create New Condition

#### Rules

A  Remove

B  Remove

Add Rule Step Validate Conditions

#### Preview

Positive: 2 (5.1%) Negative: 37 (94.9%) Total: 39

App Name (Unique)	Total Thresholds Exceeded	App Owner	Status
R In Script	0	QLIK-POCIdpi	1
Executive Dashboard	0	QLIK-POCIdpi	1

The schedule, distribution, and notification is up to the administrator. This alert is suggested to be run weekly and targeted to administrators.

## Email Alert (with the Filters section removed):

Hi **QAService**,

Your drill alert, **AMA - Apps Passed Review (Daily)**, has been triggered. Please see below for the details.

Alert Name	AMA - Apps Passed Review (Daily)
Application Link	<a href="#">App Metadata Analyzer</a>
Measure	Total Thresholds Exceeded
Condition	Equal to 0
Drill to Dimension	App Name (Unique)
Dimension Values Count	2

Current Data			
App Name (Unique)	Total Thresholds Exceeded	App Owner	Status
<a href="#">R In Script</a>	0	QLIK-POC\dpi	1
<a href="#">Executive Dashboard</a>	0	QLIK-POC\dpi	1

## About Qlik

Qlik's vision is a data-literate world, one where everyone can use data to improve decision-making and solve their most challenging problems. Only Qlik offers end-to-end, real-time data integration and analytics solutions that help organizations access and transform all their data into value. Qlik helps companies lead with data to see more deeply into customer behavior, reinvent business processes, discover new revenue streams, and balance risk and reward. Qlik does business in more than 100 countries and serves over 50,000 customers around the world.

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