# **Kiuwan On-Premises System Administration Guide**

This is a guide for system administration (sysadmin) with Kiuwan On-Premises.

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# **KOP** Administrators

There are two types of KOP administrators:

- sysadmin
  - access to KOP sysconsole, with functionalities related to monitoring and tuning KOP execution
- kiuwanadmin
  - access to Kiuwan functional administration modules such as Users, Applications and Model Management (see Admin Guide)

This System Administration Guide is addressed to the sysadmin user.

Please refer to Kiuwan Admin Guide for the Kiuwan functional administration guide.

# SysAdmin Console

SysAdmin Console

The system administration user (sysadmin) has access to the SysAdmin Console :

http://<\$KIUWAN\_HOST>:<\$KIUWAN\_PORT>/saas

Please note that the SysAdmin console uses the same URL that KOP URL, just login in as sysadmin and SysAdmin Console will appear.

Sysadmin console provides access to following functionalities:

- System Administration page
- Account Management
- Analysis Administration
- Insights Administration
- Support

System Administration page is the default page when you log in to SysAdmin Console.

All the other options are available through the drop-down menu.



# **System Administration**

Once you log into SysAdmin Console, the System Administration page is displayed

🛪 kiuwan system administration			Administrator Site
SYSTEM ADMINIS	TRATION		
Licensed products coop, ANALYSIS License expiration date 2019/12/31	CODE_SECURITY GOVERNANCE INSIGHT K	UNIAN, 4, DEVELOPERS HOP UFE, CYCLE UPLOAD,	ANNOVZED_SOURCE_CODE
Please check the documentation if y     How to upgrade Kiuwan on-premise	ou want to upgrade your installation:		
KIUWAN CORE	Installed version	Last available version	Status
Kiuwan on-premise	2.8.1904.7	2.8.1904.7	<ul> <li>You are updated to latest version</li> </ul>
KIUWAN CLIENTS			
	Installed version	Last available version	Status
Local Analyzer	master:1349.p552.q10811	master.1376.p554.q10837	A new version is available
Engine	master.p552.q10811.a1862.i468	master.p554.q10079.a1864.i483	A new version is available
Kiuwan for developers (Eclipse)	master 201906022231	master.201906092246	A new version is available
Kiuwan for developers (Jet Brains)	master 20190507004329	master.20190507004329	<ul> <li>You are updated to latest version</li> </ul>
Kiuwan for developers (Visual Studio)	master 20190528005636	master 20190528005636	<ul> <li>You are updated to latest version</li> </ul>
Kiuwan for developers (Visual Studio Code)	master 2.8.190426004420	master.2.8.190426004420	<ul> <li>You are updated to latest version</li> </ul>
Ninimum Kluwan on-premise version needed	to upgrade clients: 2.8.1904.0		

System Administration page display the following contents:

- Licensed products
  - A list with licensed products for your KOP installation
- License expiration date
  - The expiration date for your KOP license
- Kiuwan Core
  - $^{\circ}~$  Installed version and Last available version for Kiuwan Core
  - $^{\circ}\,$  In case your installed KOP version is not the last available, you may decide to upgrade.
  - For instructions on upgrade your KOP installation, please visit Upgrading your KOP
  - installation
- Kiuwan Clients
  - Installed version and Last available version for each of Kiuwan Clients (Kiuwan Local Analyzer, Kiuwan Engines and Kiuwan 4 Developers for supported IDE's)
  - In case of any installed KOP client is not the last available, you may decide to upgrade.
  - For instructions on upgrade your KOP installation, please visit Upgrading your KOP installation
  - Minimum KOP version needed to upgrade clients
    - There are some dependencies between Kiuwan Clients and Core.
    - This field indicates the minimum KOP Core version needed to be installed in order to upgrade the KOP Clients.
    - If your KOP current version is older than the minimum required, you need to upgrade Kiuwan Core.

#### **Account Management**

The Account Management page lets you change the password for the sysadmin user.

📌 kiuwan system administration 🔅 acco	RUNT	Administrator Site 🐱
CHANGE PASSWORD PASSWORD POLICIES		
CHANGE PASSWORD		
Current Password New Password	Password policy - Minimum length 8 - Number of digits: 2	
Repeat New Password	Allowed characters - Digits: "022496709"	
	Save	
	© Copyright 2019 Kurwen	

## **Analysis Management**

The Analysis Management page lets you access the Queues Monitor

🛪 kiuwan system administration 🌣 analysis	Administrator Site 👻
QUEUES MONITOR	
QUEUES MONITOR	
Process analysis for customers:	Update filter
Messages in Analysis prepared queue: 0 [] Messages in Reports generated queue: 0 []	
In this sector you can see and init the queues. Tou can suit define how many workers can be scaned to indicate the number of analysis that can be launched in parallel in each que analysis/hergare/analyseles/lasge/decountymacs/, excived 1 Countymacs/ reports/encountymacs/, excived 1 Countymacs/	at
If you want to re-queue an analysis that has been "orphaned", enter the analysis code and press the button "Dispatch analysis"	
To know the working directory of an analysis, enter the analysis code and press the button "Get working directory" Get working directory	
Click on each button to see queue messages for 'Active analyses', 'Analysis prepared queue' and 'Reports generated queue' : Active analyses	
AVALYSIS_PREPARED_QUEUE REPORTS_GENERATED_QUEUE	
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A complete Kiuwan analysis involves two-phases:

- 1st Phase Local Analysis
  - KLA analyzes source files and upload reports to Kiuwan
- 2nd Phase Cloud Metrics Calculation
  - Indicators and metrics are calculated in the cloud based on uploaded analysis reports

KOP uses an in-memory message queue to process those reports. This message-based queue ("**Report s** generated queue") allows to process (and manage) analyses in an orderly fashion

Messages in this queue are processed by a JVM (executing WildFly and KOP application).

By default, the queue is attended by one thread in the KOP JVM.

This means that, by default, analyses are sequentially processed.

#### States of an analysis

Once the local analysis finishes, KLA uploads reports to KOP and identifies the analysis by an Analysis Code (e.g. A-7e2-1669fcae0cf).

Then, the analysis could be in either of two possible states:

Analysis State	Meaning
STATIC_ANALYSIS_F INISHED	(1) The local static analysis is finished and results are <b>waiting to be processed</b> (to calculate indicators)
PARSING_REPORTS	(2) The analysis reports are currently being processed (in progress)

Messages in the queue

Queue monitor displays the number of messages in the Reports Generated Queue.

Messages in Reports generated queue: 5 []

This means the number of analyses waiting to be processed.

If this number is constantly greater than 0, that means that there's a bottleneck and you (as sysadmin) should increase the throughput to avoid waiting states.

reportsGeneratedQueueMessageExecutor(max:1, active:1) 1 Change

As said above, by default the KOP JVM listens to the message queue with 1 thread. You can configure the max number of threads by introducing an upper value and click on the **Change** button.

Also, you can stop processing by clicking on the Stop button.

#### **Active Analyses**

Click **Active Analyses** and the queue monitor will display ALL the active analyses, regardless of their state (STATIC\_ANALYSIS\_FINISHED and PARSING\_REPORTS).

#### **REPORTS\_GENERATED\_QUEUE**

Click **REPORTS\_GENERATED\_QUEUE**, the queue monitor will display only the analyses waiting to be processed (i,e STATIC\_ANALYSIS\_FINISHED).

#### **Dispatch selected Analysis**

As said before, messages queues are maintained in memory (in Redis). But, message sates are also maintained in ddbb (MySQL).

Sometimes, Redis and MySql might get unsynced. This is not frequent, but after some JVM crashes (for whatever reason) you could get this situation.

The most frequent unsyncing situation might be that an analysis is in PARSING\_REPORTS state (in MySql) but it's not currently being processed (you will see that is not "red" in Active Analyses table.

This would mean that analysis is "orphaned".

In this case, the analysis needs to be manually enqueued. To do it, just check the analysis and click **Disp** atch selected analysis. This action will re-enqueue the analysis.

## **Support**

The support page allows collecting the most important log files of KOP installation for troubleshooting purposes.

🛪 kiuwan System administration 🔅 Support	Administrator Site 🐱
SUPPORT	
SUPPORT	
Use this section to collect automatically important data about your installation. It will help us to disprose whatever problem you might have, and improve our product overall.	
Press the following button to start collecting current configuration and log files:	
Extract support data	
© Copyright 2029 Human	
■ KiuwarLogi201007	Show all X

Click Extract support data to obtain a zip file with the most relevant log files.