

SAM

System Alerting & Monitoring



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Prometheus



Grafana



Composants SAM

Prometheus

- outil de surveillance cloud natif efficace
- collecte des données de séries temporelles à intervalle régulier à partir de toutes vos instances InterSystems IRIS cibles

SAM Manager

- stocke ces métriques
- permettant des fonctionnalités de haute disponibilité et d'évolutivité (non présentes dans les bases de données Prometheus par défaut)

Grafana

- outil de visualisation de métriques
- présente ces métriques dans des graphiques qui facilitent l'examen de l'état de votre application

Alert Manager

- regroupe les alertes IRIS, qui sont préconfigurées sur les instances cibles,
- et les alertes Prometheus, que vous configurez à partir de l'application Web SAM

Nginx

- ces 4 conteneurs communiquent via le serveur Web Nginx, qui est défini par défaut sur le port 8080.
- Lorsque vous essayez d'accéder à un composant de SAM, tel que Grafana ou SAM Manager, faites-le en utilisant le port Nginx.
- Nginx sert également l'application Web SAM, qui fournit une interface graphique pour configurer SAM et surveiller vos instances.

Fichiers de distribution de SAM

Vous pouvez obtenir ces fichiers depuis 3 sources :

➤ **le référentiel SAM GitHub**

<https://github.com/intersystems-community/sam>

➤ **le site Web de distribution du WRC dans la section Composants.**

<https://wrc.intersystems.com/wrc/coDistGen.csp>

➤ **le référentiel containers.intersystems.com**

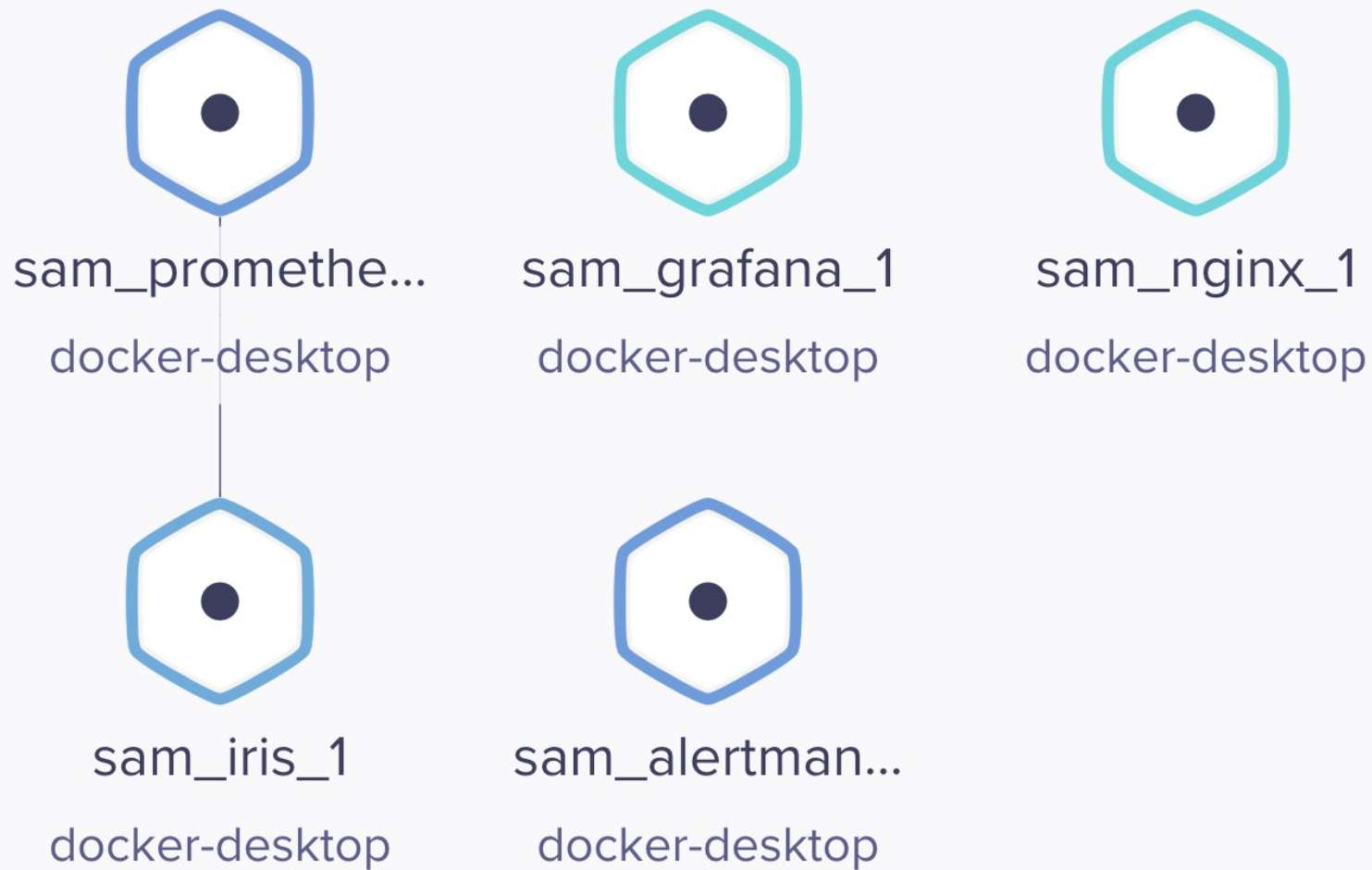
```
$ docker pull containers.intersystems.com/intersystems/sam:1.0.0.115
```

ATTENTION : cette image ne contient que SAM (pas Prometheus, Grafana, NGINX)

Le package SAM complet est disponible sur GitHub et WRC

```
— LICENSE
— README.md
— docs
— img
  └─ 1-SAM-cluster-singlenodeissue.jpg
— sam-1.0.0.115-unix
  └─ config
    └─ alertmanager
      └─ isc_alertmanager.yml
    └─ grafana
      └─ dashboard-provider.yml
      └─ dashboard.json
      └─ datasource.yml
      └─ grafana.ini
    └─ nginx
      └─ nginx.conf
    └─ prometheus
      └─ isc_alert_rules.yml
      └─ isc_prometheus.yml
  └─ docker-compose.yml
  └─ readme.txt
  └─ start.sh
  └─ stop.sh
— sam-1.0.0.115-unix.tar.gz
```

8 directories, 16 files



5 containers SAM

NAMES	IMAGE	PORTS
sam_nginx_1	nginx:1.17.9-alpine	80/tcp, 0.0.0.0:8080->8080/tcp, :::8080->8080/tcp
sam_grafana_1	grafana/grafana:6.7.1	3000/tcp
sam_alertmanager_1	prom/alertmanager:v0.20.0	9093/tcp
sam_prometheus_1	prom/prometheus:v2.17.1	9090/tcp
sam_iris_1	store/intersystems/sam:1.0.0.115	2188/tcp, 51773/tcp, 52773/tcp, 53773/tcp, 54773/tcp

Se connecter à SAM

<http://localhost:8080/api/sam/app/index.csp>



SYSTEM ALERTING & MONITORING



_SYSTEM

Welcome

System Alerting and Monitoring application leverages open source technologies for quick and easy cluster monitoring augmenting their features with enterprise resiliency.

You have no clusters.

[Create Your First Cluster](#)

Ajouter ses clusters et instances SAM

<http://localhost:8080/api/sam/app/index.csp>



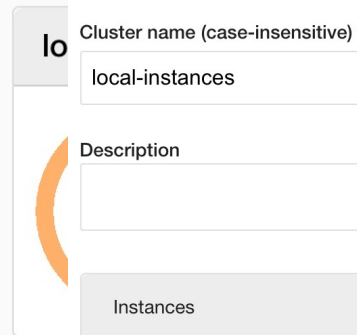
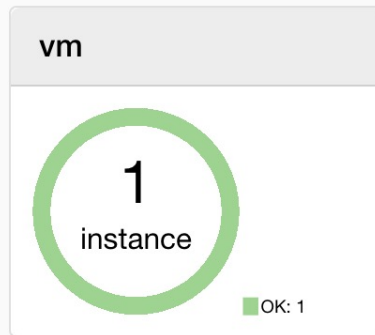
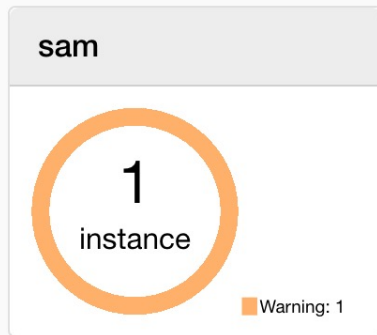
SYSTEM ALERTING & MONITORING



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Monitor Clusters

+ New Cluster



Edit Cluster: local-instances

Cluster name (case-insensitive) *

local-instances

Description

Instances

+ New

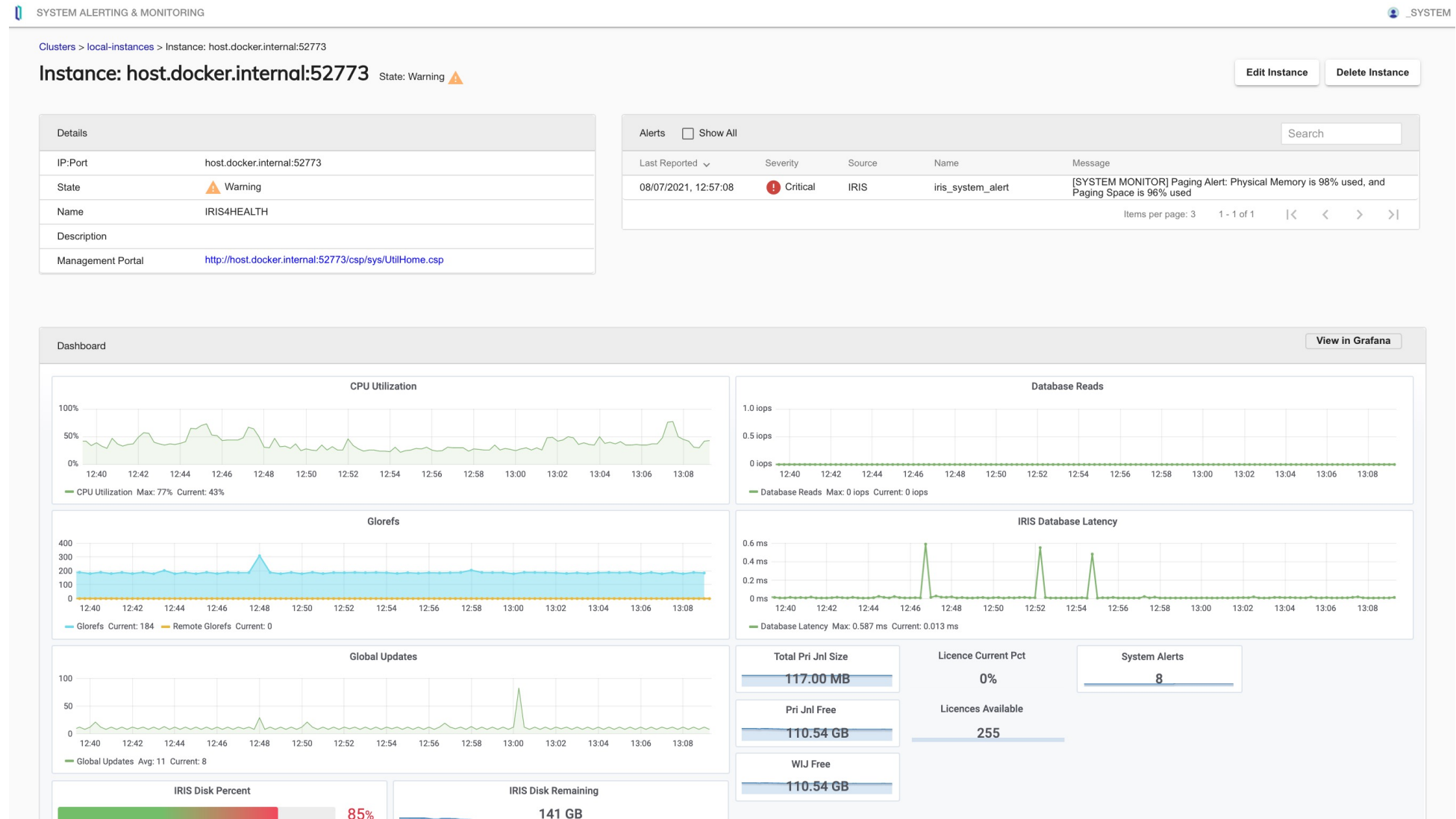
IP:Port ^	Name	Description	Actions	
host.docker.internal:52773	IRIS4HEALTH			
host.docker.internal:52774	IRIS			

Alert Rules

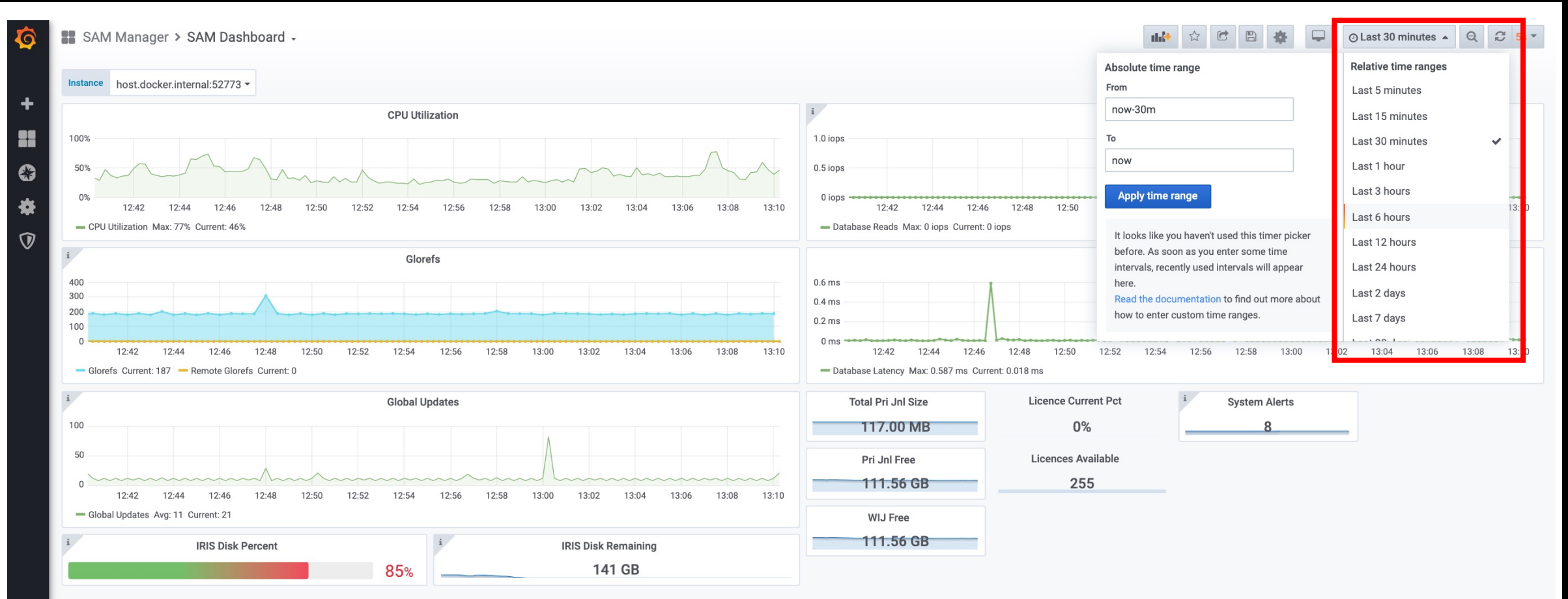
+ New

This cluster has no alert rules defined.

Afficher une instance



Afficher une instance dans Grafana pour plus d'options



Ajouter ses propres métriques

1. Créer une classe héritant de %SYS.Monitor.SAM.Abstract

2. Ajouter le Parameter PRODUCT = "myapp";

3. Ajouter la méthode Method GetSensors()

```
Method GetSensors() As %Status
{
do ..SetSensor("my_counter",$increment(^MyCounter),"my_label")
do ..SetSensor("my_gauge",$random(100))
return $$$OK
}
```

4. Ajouter la classe à la configuration SAM via SYS.Monitor.SAM.Config:AddApplicationClass()

```
set status = ##class(SYS.Monitor.SAM.Config).AddApplicationClass($CLASSNAME(), namespace)
```

5. Ajouter les rôles nécessaires à l'application /api/monitor

6. Vérifier que les métriques remontent bien dans <http://localhost:52773/api/monitor/metrics>

Afficher ses propres métriques dans Grafana

1. Ouvrir Grafana

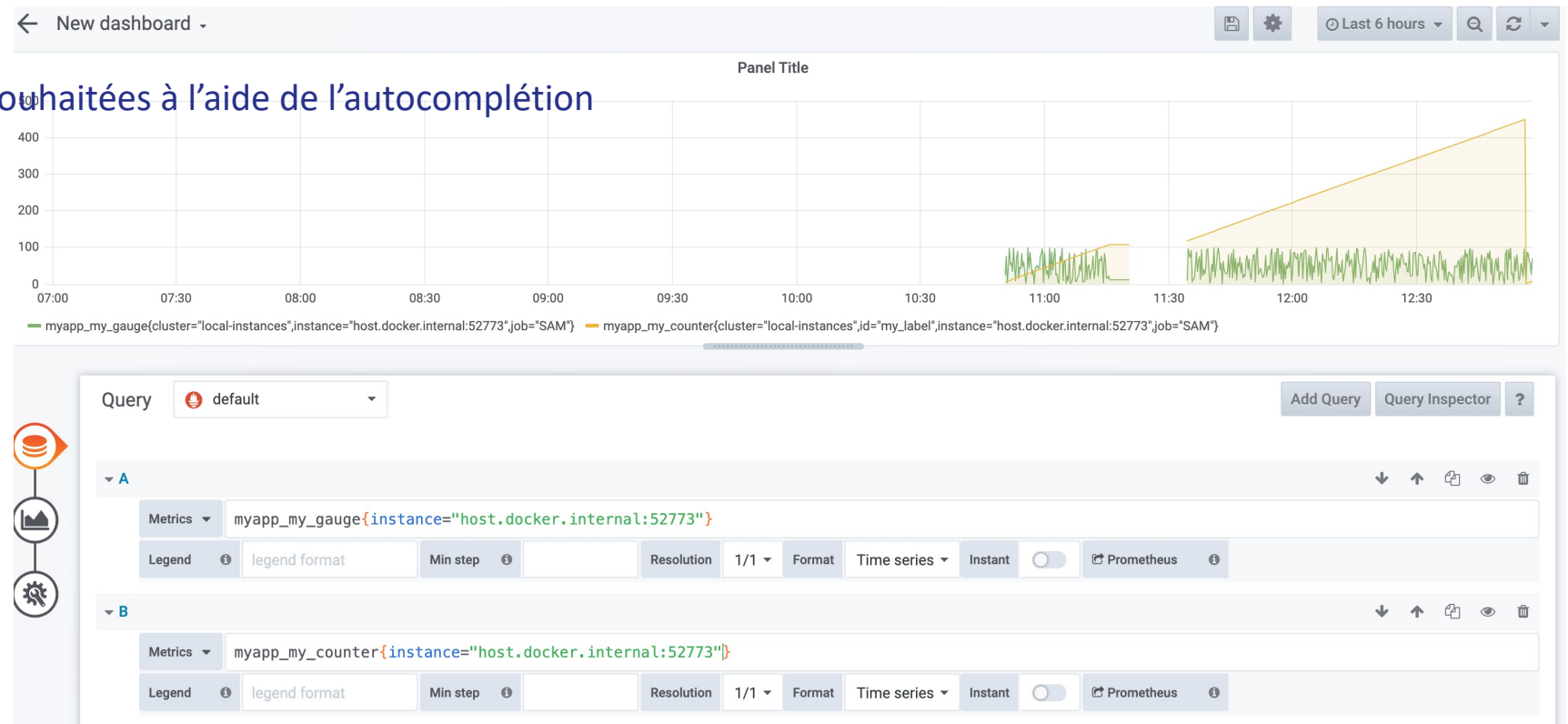
- <http://localhost:8080/api/sam/grafana/>

2. + Create Dashboard

3. Add Query

- Renseigner les Metrics souhaitées à l'aide de l'autocomplétion

4. Sauvegarder





Developer Community


Ask questions and find answers! Sign up or use your InterSystems Learning / WRC credentials to join the conversation.

<https://community.intersystems.com/>



SOLUTIONS

★ 1




Financial Fraud Prevention with ML and IRIS

Demo of how to apply Machine Learning and Business Rules to

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★ 1



Twitter Sentiment Analysis with IRIS

Use IRIS Natural Language Processing and its interoperability


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Kano MDM

Kano MDM - is an efficient Master Data Management software product


SOLUTIONS



Background Jobs over ECP

Running a Background Job using JOB command is a well-known feature.


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DynamicObject Adapter

An adapter that enables you to "serialize" and "deserialize" class

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String Datatype - Regular Expression

A string datatype class that implements regular expression

<https://openexchange.intersystems.com/>





Getting Started

Get introduced to freedom of choice with InterSystems IRIS® data platform.



InterSystems IRIS Release Notes

Review new features in this release.



Architecture

Create a resilient architecture that meets your business needs.



Deployment and Installation

Enjoy a choice of deployment options for your solutions.



Application Development

Create innovative applications with InterSystems IRIS, with your choice of languages and data access modes.



Analytics

Combine your favorite tools and technologies for data exploration, business intelligence, and prediction.



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Connect systems with our native integration and interoperability features.



Management and Monitoring

Manage the database, security, backups, and configuration settings.

<https://docs.intersystems.com/>

Documentation





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Merci

