

# 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 [containers.intersystems.com](https://containers.intersystems.com)

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

➤ le référentiel [SAM GitHub](https://github.com/intersystems-community/sam)

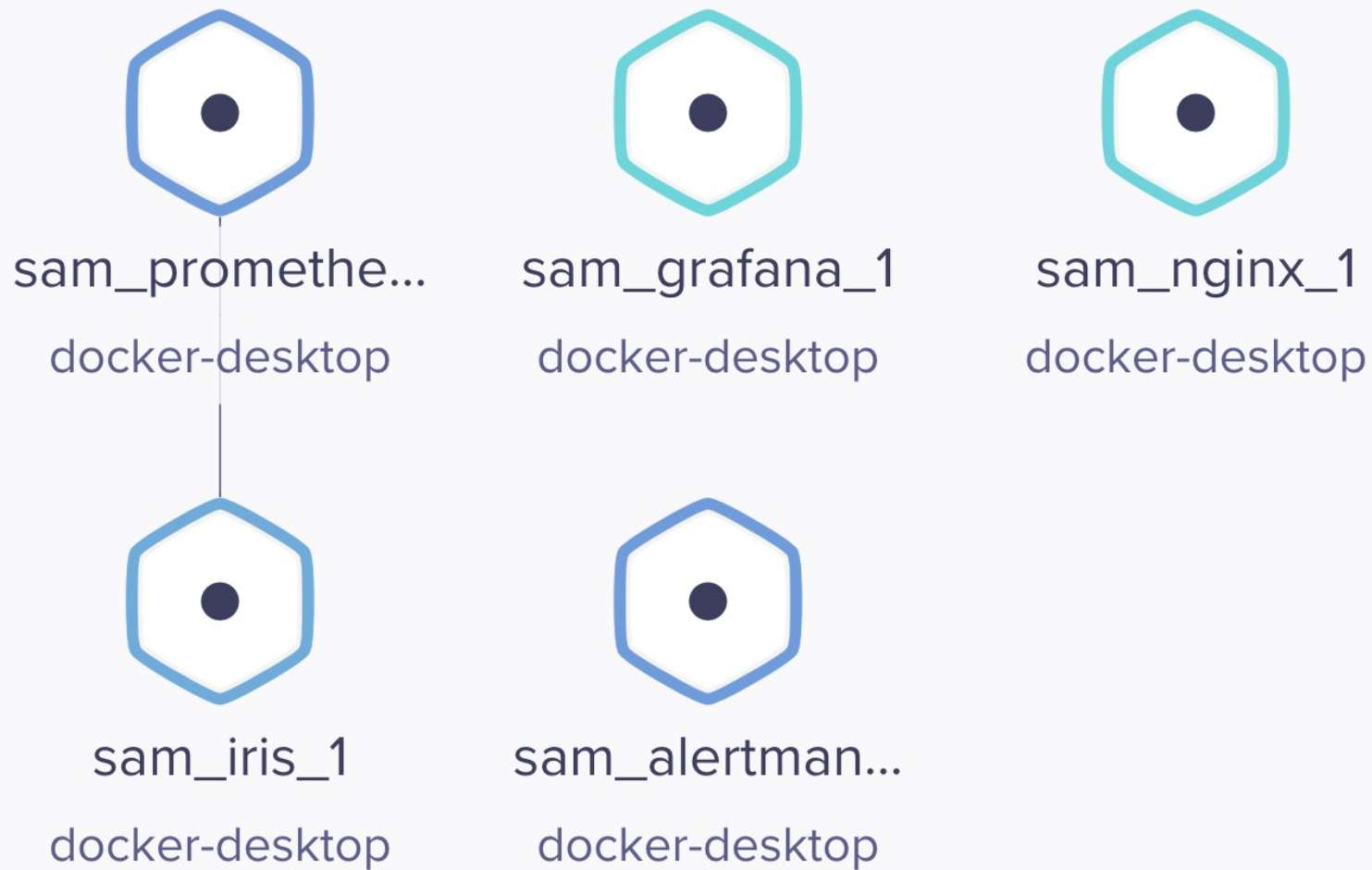
<https://github.com/intersystems-community/sam>

➤ le site [Web de distribution du WRC](https://wrc.intersystems.com/wrc/coDistGen.csp) dans la section Composants.

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

```
— 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



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## 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>



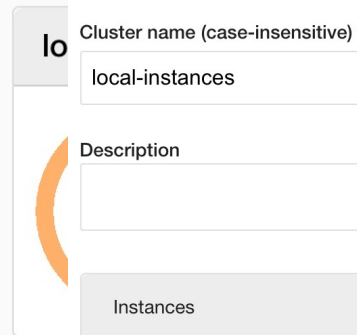
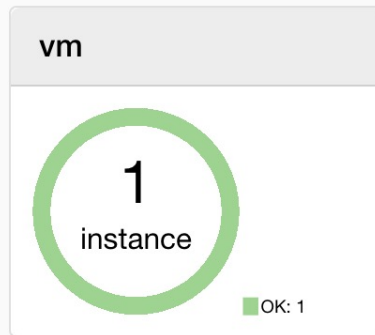
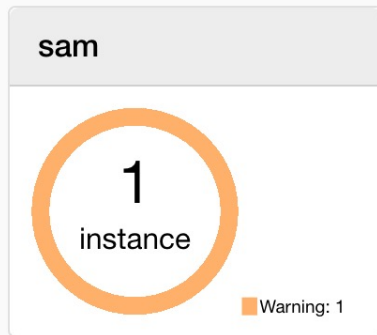
SYSTEM ALERTING & MONITORING



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## Monitor Clusters

+ New Cluster



### Edit Cluster: local-instances

Cluster name (case-insensitive) \*

local-instances

Description

#### Instances

+ New

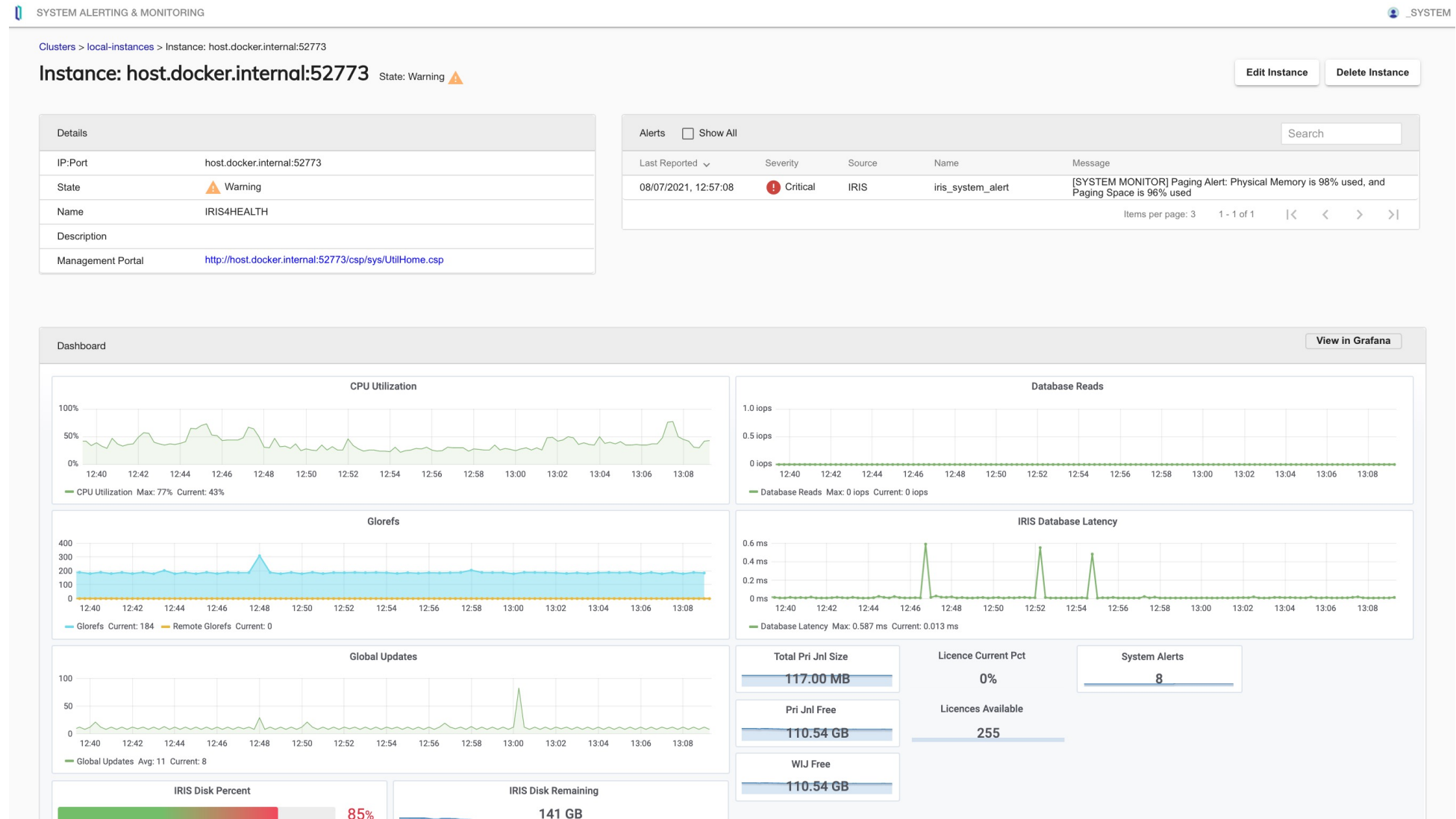
IP:Port ^	Name	Description	Actions	
host.docker.internal:52773	IRIS4HEALTH			
host.docker.internal:52774	IRIS			

#### Alert Rules

+ New

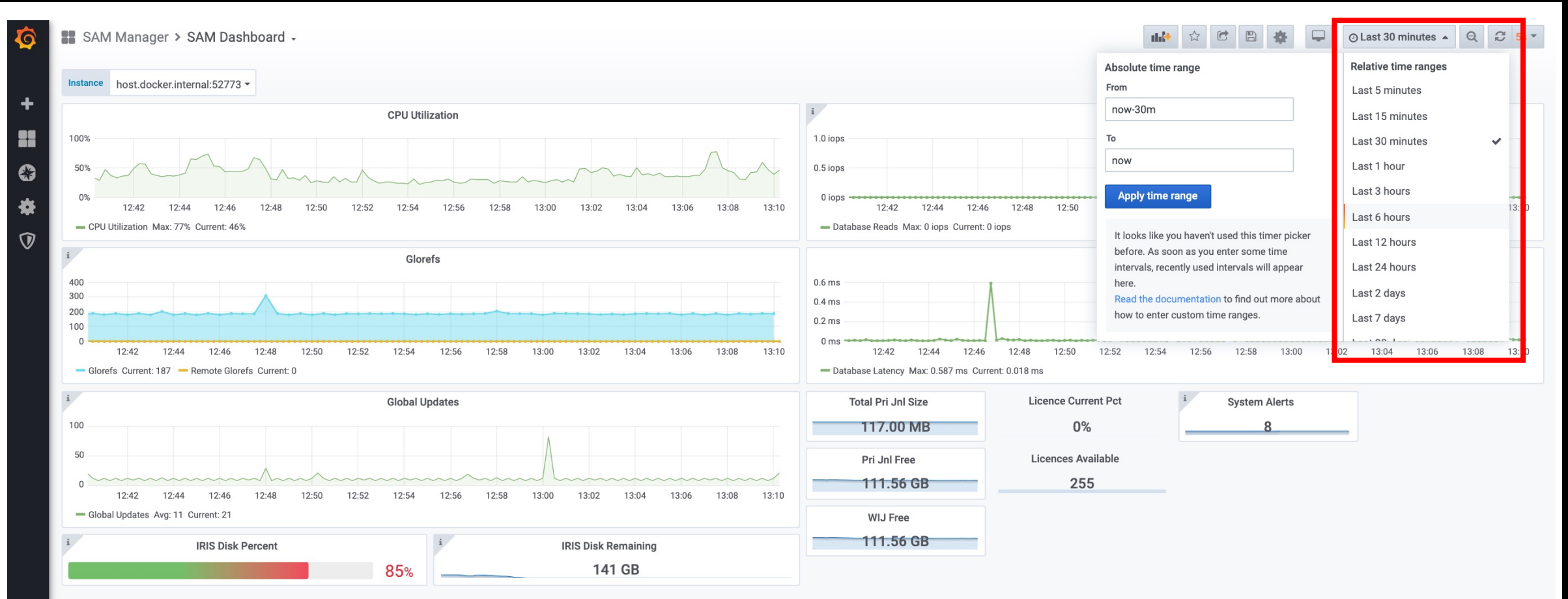
This cluster has no alert rules defined.

# 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

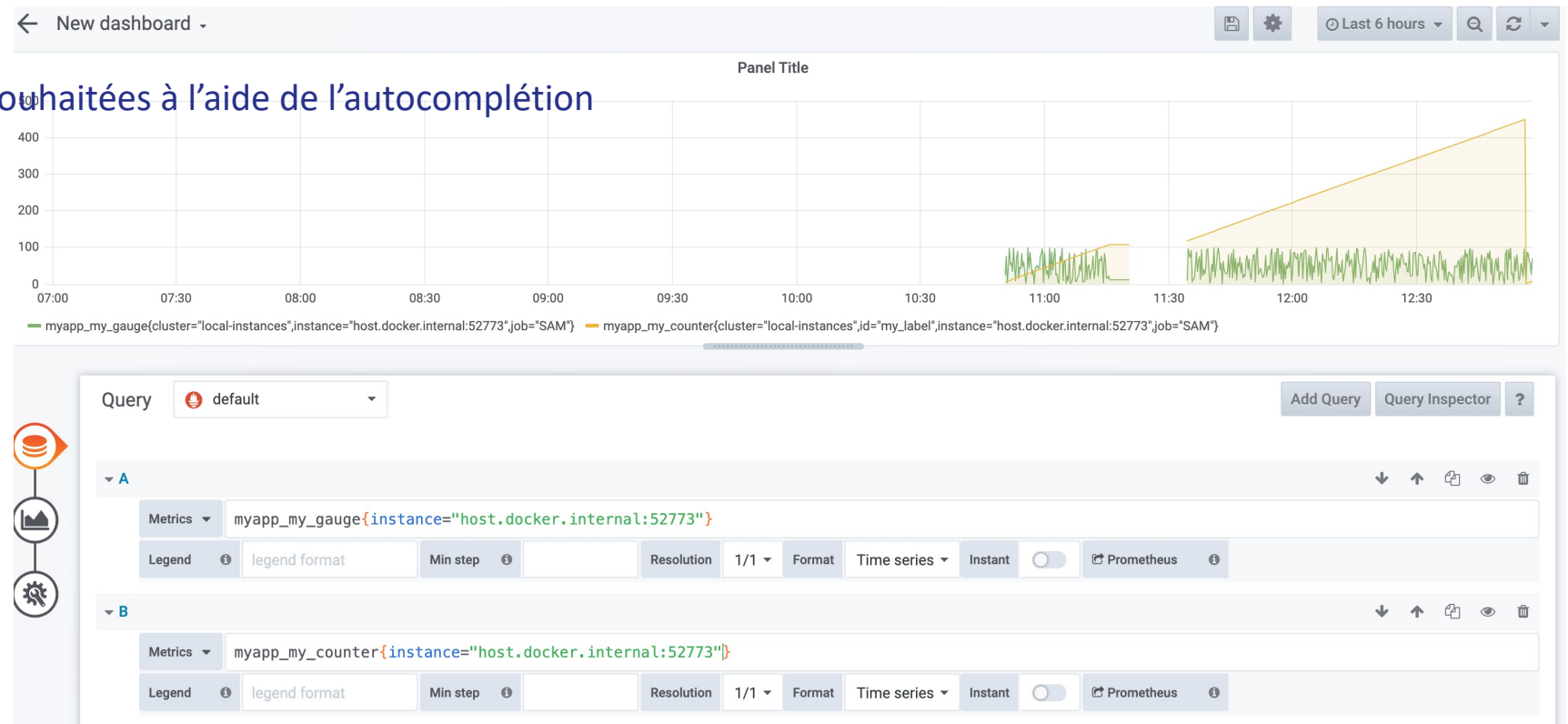
- <http://localhost:8080/api/sam/grafana/>

## 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/>



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**Financial Fraud Prevention with ML and IRIS**

Demo of how to apply Machine Learning and Business Rules to

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**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


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**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.



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Review new features in this release.



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#### Analytics

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#### System Interoperability

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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