

# Controlling Kubernetes Workloads

## Monitoring a Kubernetes Workload






Scheer IPAS Administration


Service

Filter



Global Variables

License




Name ↑	Type	Status
 activity-service	pas-service	running
 admin-app	pas-app	running
 asset-repository-service	pas-nestjs	running
 authenticator-service	other	running
 idea-management	xuml-service	stopped

All available services / Kubernetes workloads  are displayed in the list on the administration start page.

The list of services will help you to check the details for a workload at first sight:

Name ↑	Type	Status	Created/Updated	Version
 activity-service	pas-service	running	Mar 15, 2023, 3:41:56 PM	rc
 admin-app	pas-app	running	Mar 15, 2023, 3:41:56 PM	rc

For each workload, the list shows the following information:

Column Name	Description	Possible Values
Name	Name of the service. Click on the name to access the service details page.	 indicates a Kubernetes workload.
Type	Indicates the type of the service. <div><div><div></div><div>What is the difference between <b>pas-app</b> and <b>pas-service</b>?</div><ul style="list-style-type: none"><li><b>pas-app</b>: Applications accessible via UI.</li><li><b>pas-service</b>: Applications without UI.</li></ul></div></div>	<ul style="list-style-type: none"><li>custom</li><li>gitea</li><li>java</li><li>minio</li><li>other</li><li>pas-app</li><li>pas-nestjs</li><li>pas-service</li><li>postgresql</li><li>unknown</li><li>xuml-legacy-service</li><li>xuml-service (= services created in Designer or with deployment wizard)</li></ul> <div><div></div>Other service types may be displayed.</div>
Status	Indicates the status of the service.	<div>running</div> <div>starting</div> <div>restarting</div> <div>stopping</div> <div>stopped</div>

### On this Page:

- Monitoring a Kubernetes Workload
- Starting and Stopping a Workload
- Using the Workload Details
  - Information
  - Kubernetes
    - Pod
    - Networking
  - Logs
  - Configuration

### Related Pages:


- Changing the Log Level of a Workload
- Showing Workload Logs

### Related Documentation:




- Official Kubernetes documentation
  - Resource Management for Pods and Containers
  - Scheduling, Preemption and Eviction















<b>Created /Updated</b>	Shows the date and time of the last update of the service. If the service has not been updated yet, its creation date is displayed.	Datetime in format <i>dd.mm.yyyy, hh:mm:ss</i>
<b>Version</b>	Version tag of the default container defined in the workload.	

## Starting and Stopping a Workload





Use the quick action icons to start, restart and stop a workload:

Icon	Usage
	Start a workload, that is currently stopped.
	Stop a running workload and restart it.
	Stop a running workload.

Name ↑	Type	Status	Created/Updated	Version	Quick Actions
 form-data-transfer-example	k8sml-service	stopped	Feb 17, 2023, 9:55:45 AM	1.0	     
 idea-management	k8sml-service	running	Mar 16, 2023, 2:18:10 PM	1.0	     


You can find the options in the quick actions bar in the services' list...

### Details of pas-designer-service






















← **running** ▶  

- Information
- Kubernetes
- Logs
- Configuration


... and in the header on every workload details page.

 Only applicable actions are enabled.

## Using the Workload Details

<div> <div> Name ↑ Type Status </div> <div> <div>  pas-designer pas-app  </div> <div> <div>  pas-designer-service pas-nestjs  </div> <div> <div>  pas-designer-container-workload pas-nestjs  </div> </div> </div> </div></div>	<p>You can open a details page for each workload.</p> <p>To do so, click on the service name in the list.</p>										
<div> <div> <h3>Details of pas-designer-service</h3> <div> ← <div>running</div> ▶   </div> <div> <div>Information</div> <div>Kubernetes</div> <div>Logs</div> <div>Configuration</div> </div> </div> </div>	<p>Click on a name in the service list to open its details page. The details page shows you the title of the service and some quick action icons:</p> <table> <tr> <th>Icon</th><th>Description</th></tr> <tr> <td></td><td>Shows the current state of the service.</td></tr> <tr> <td></td><td>Starts the service.</td></tr> <tr> <td></td><td>Stops the service.</td></tr> <tr> <td></td><td>Restarts the service.</td></tr> </table> <p>It also contains different collapsable sections:</p> <ul style="list-style-type: none"> <li>• <a href="#">Information</a></li> <li>• <a href="#">Kubernetes</a></li> <li>• <a href="#">Logs</a></li> <li>• <a href="#">Configuration</a></li> </ul> <div>  Go to page <a href="#">Controlling Containerized xUML Services</a> for an overview on the available details of a containerized xUML service. </div>	Icon	Description		Shows the current state of the service.		Starts the service.		Stops the service.		Restarts the service.
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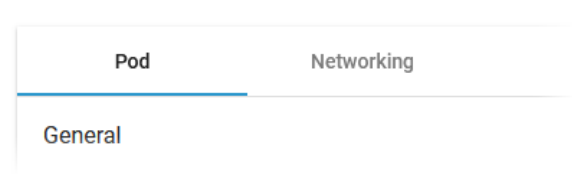
## Information

<div><div>Information</div><div><p><b>Name:</b> file-storage</p><p><b>Source:</b> Kubernetes</p><p><b>Type:</b> pas-service</p><p><b>Created/Updated:</b> Feb 13, 2023, 12:13:02 PM</p><p><b>Version:</b> pas-22.1.2.0.1</p></div></div>	<p>The <b>Information</b> section contains the main information about the Kubernetes workload:</p> <ul style="list-style-type: none"><li>• <b>Name</b></li><li>• <b>Source</b> is <i>Kubernetes</i> for workloads</li><li>• <b>Type</b></li><li>• <b>Created/Updated</b></li><li>• <b>Version</b></li></ul>
<div><div>Information</div><div><p><b>Name:</b> pas-designer-service</p><p><b>Source:</b> Kubernetes</p><p><b>Type:</b> pas-nestjs</p><p><b>Created/Updated:</b> Feb 13, 2023, 12:13:04 PM</p><p><b>Version:</b> rc</p><div> <a href="#">Open Swagger UI</a></div></div></div>	<p>For services of type <b>pas-nestjs</b>, the information section also contains a link to the Swagger UI.</p>

## Kubernetes

<div><div>Kubernetes</div><div><p>API Version: platform.scheer-pas.com/v1alpha2</p><p><b>Labels:</b> <span>app: rc-pas-designer-service</span> <span>app.kubernetes.io/name: rc-pas-designer-service</span> <span>platform.scheer-pas.com/platform: rc</span> <span>platform.scheer-pas.com/type: pas-nestjs</span></p><p><b>Annotations:</b> <span>license.scheer-pas.com/ha: Allowed</span> <span>platform.scheer-pas.com/last-applied: 2023-03-31T14:25:45Z</span></p></div></div>	<p>On top of the <b>Kubernetes</b> section, you find the information about</p>
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- **API Version:** Defines the versioned schema of this representation of a Kubernetes workload.
- **Labels:** Map of string keys and values that can be used to organize and categorize (scope and select) workloads.

	<ul style="list-style-type: none"><li>• <b>Annotations:</b> Unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata.</li></ul> <p>Click <b>Show all</b> to display all available labels or annotations.</p>
	<p>Below this information, you can find the two tabs <b>Pod</b> and <b>Networking</b>.</p>

## Pod

Tab **Pod** contains the sections **General** and **Container**. The information displayed in the two sections is read-only.

### Pod - General

Pod

Networking

General

Name: latest

Type: deployment

Scaling:

1

Apply

Replicas:

Additional Labels:

platform.scheer-pas.com/platform: rc

scheer-pas.com/platform: rc

Section **General** contains common information about the Pod:

<b>N a m e</b>	Version name of the Pod.								
<b>T y p e</b>	Shows the internal type of the replication controller.								
<b>S c a l i n g</b>	If available, you can adapt the number of Pod replicas (see below).								
<b>R e p l i c a s</b>	Shows the number of Pod replicas. <table> <tr> <th>Icon Color</th><th>Status</th></tr> <tr> <td>Green</td><td>Running</td></tr> <tr> <td>Orange</td><td>Starting</td></tr> <tr> <td>Red</td><td>Not running /erroneous</td></tr> </table>	Icon Color	Status	Green	Running	Orange	Starting	Red	Not running /erroneous
Icon Color	Status								
Green	Running								
Orange	Starting								
Red	Not running /erroneous								
<b>A d d i t i o n a l L a b e l s</b>	Shows additional Pod labels if set.								

Type: deployment

Scaling:

2

2

Apply

Replicas:

#### Scaling the Number of Replicas

Move the position of the slider to the desired number of replicas you want to set.

Click **Apply**.

### Scale Pod

Are you really sure you want to scale the pod?

Replicas before: 1

Replicas after: 2

Cancel

Scale

A pop-up window opens displaying the number of replicas before and after the change.

Click **Scale** to confirm your choice or **Cancel** to abort.





**Memory and CPU** Shows the container limitations. If a container exceeds its memory request and the node that it runs on becomes short of memory overall, it is likely that the Pod the container belongs to will be evicted.

Limitations cannot be changed by users. They are set during system deployment

	Limits	Requests
Memory	If the memory limit is exceeded, the container will run in state <b>OutOfMemory</b> and then be killed.	If a container exceeds its memory request and the node that it runs on becomes short of memory overall, it is likely that the Pod the container belongs to will be <b>evicted</b> .
CPU	If the CPU limit is exceeded, the container will be throttled, the process will slow down.	If the CPU memory request exceeds the nodes (server) capacity, the Pod can be stopped and started on a different node.



Visit the [official Kubernetes documentation](#) for more information:

- [Resource Management for Pods and Containers](#) for detailed information about requests and limits.
- [Scheduling, Preemption and Eviction](#) about the rules regarding the termination of pods.

## Details of Container

### Ports

Filter ×

Name	Port	Protocol
app	4112	TCP

### Volumes

Filter ×

Name	Mount Path	Read Only
config	/usr/src/app/config/local	true
logs	/usr/src/app/logs/	

Cancel

If you click the link **Ports and Volumes**, the container details open in a separate pop-up.

- **Ports:** Displays a list of all ports exposed in the internal network.
- **Volumes:** Lists all mounted volumes.

Use the filter on top of each list to search for single ports or volumes.

## Networking

Pod Networking

Filter ×

Name	Port	Protocol
app	8080	TCP

Tab **Networking** gives you an overview on the details of the service mesh.

Use the filter to search for a port name.

## Logs

<div data-bbox="165 147 727 598"><div>Logs ^</div><div>Configuration: Global Custom</div><div>Set log level for all sinks: <div>Log Level verbose</div></div><div>Reset to "INFO" Save</div><div><a href="#">Open Log Analyzer to inspect logs</a></div></div>	<p>In section <b>Logs</b> you can change the log level. Refer to <a href="#">Changing the Log Level of a Workload</a> for detailed information.</p> <p>The link in section <b>Logs</b> gives you direct access to the Log Analyzer, where you can inspect the logs. Refer to <a href="#">Showing Workload Logs</a> and <a href="#">Analyzing Platform Logs</a> for further information.</p>
<div data-bbox="165 1041 727 1201"><div>Logs ^</div><div><a href="#">Open Log Analyzer to inspect logs</a></div></div>	<p>For some service types, the log level cannot be changed but the displayed link still allows you to inspect the logs.</p>
<div data-bbox="165 1388 727 1547"><div>Logs ^</div><div>No logs are available for this type of service</div></div>	<p>The <b>Logs</b> section also informs you if there are no logs available for a service type.</p>

## Configuration

## Configuration

No configuration is available for this type of service

In the Kubernetes setup, it is currently not possible to modify configuration files in the **Configuration** section except for [containerized xUML services](#) and services of type **pas-nestjs** (see below).

Configuration

Filter

Configuration

Type: Data object

Description: Service settings

+ Add

Key	Value	Actions
servers	Group (0)	
service	Data object	
serviceRepository	Data object	
keycloak	Data object	
mongo	Data object	

Save

Configuration

```
1- [
2-   "service": {
3-     "name": "pas-service-template",
4-     "hostname": "pas-pas-service-template-latest-776f4fd5-s7d2p",
5-     "port": "8888",
6-     "protocol": "http",
7-     "useMongoCache": true,
8-     "maxCacheSize": 1000000000,
9-     "worker": 50,
10-    "clusterMode": false,
11-    "registerConfig": true,
12-    "cors": {},
13-    "systemPrefix": "pas",
14-    "endpoint": "u600132.devcluster.pas.scheer.systems",
15-    "swaggerServerUrl": "https://pas.cluster/pas/apl/pas-service-template"
16-  },
17-  "serviceRepository": {
18-    "hostname": "pas-service-repository-nestjs",
19-    "port": "8888"
20-  }
21- ]
```

Ln: 1 Col: 1

Save

- For services of type **pas-nestjs** (= internal services of the PAS platform) developers can define a service-specific schema and documentation.
  - If a schema is available, the display in select

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information. If no schema is available, a JSON Editor is displayed in section **Configuration**.