

# Yamcs: Prometheus Plugin

Release 1.2.3-SNAPSHOT

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# Contents

<b>1</b>	<b>About Yamcs: Prometheus Plugin</b>	<b>1</b>
<b>2</b>	<b>Scrape Configuration</b>	<b>2</b>
<b>3</b>	<b>HTTP API</b>	<b>3</b>
3.1	Get Metrics	3
<b>4</b>	<b>Example Scrape</b>	<b>4</b>

# 1. About Yamcs: Prometheus Plugin

This is a Yamcs plugin for monitoring Yamcs performance using Prometheus.

More specifically this plugin adds an endpoint to the Yamcs HTTP API that can be scraped by Prometheus or any other monitoring product supporting the Prometheus metrics format (e.g. Zabbix).

Current exposed metrics include:

- Process-specific metrics (fds, start time, cpu time)
- Hotspot JVM metrics (GC, memory pools, classloading, thread counts)
- Version info of Yamcs and available plugins
- Yamcs Server ID
- Instance counts (total, and by-state)
- Link counters (in/out)
- Packet counters
- API request/error counters

The metrics output is human-readable and annotated with comments for each metric.

## Usage with Maven

Add the following dependency to your Yamcs Maven project. Replace `x.y.z` with the latest version. See <https://mvnrepository.com/artifact/org.yamcs/yamcs-prometheus>

```
<dependency>
  <groupId>org.yamcs</groupId>
  <artifactId>yamcs-prometheus</artifactId>
  <version>x.y.z</version>
</dependency>
```

## 2. Scrape Configuration

In case you are using a Prometheus server to scrape metrics, you need to update appropriate scrape configuration in its `prometheus.yml` configuration file.

Adapt from the following example:

```
scrape_configs:  
  - job_name: yamcs  
    metrics_path: /api/prometheus/metrics  
    static_configs:  
      - targets: ['localhost:8090']
```

For an authenticated setup on HTTPS, use rather something like this:

```
scrape_configs:  
  - job_name: yamcs  
    scheme: https  
    basic_auth:  
      username: prometheus  
      password: 'password'  
    metrics_path: /api/prometheus/metrics  
    static_configs:  
      - targets: ['localhost:8090']
```

## 3. HTTP API

### 3.1 Get Metrics

Exposes Yamcs server metrics in Prometheus format.

#### URI Template

```
GET /api/prometheus/metrics
```

---

**Note:** For convenience, this plugin also binds to the `/metrics` endpoint.

This is the default location that Prometheus uses for configured targets. This will work, but it is just a redirect to `/api/prometheus/metrics`. If you want to reduce access logs, use the more specific endpoint.

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#### Security

If your installation is password-protected, you will need to make a password-based user to be used by Prometheus.

Authenticated users require the privilege: `Prometheus.GetMetrics`.

## 4. Example Scrape

```
# HELP process_cpu_seconds_total Total user and system CPU time spent in seconds.
# TYPE process_cpu_seconds_total counter
process_cpu_seconds_total 21.494824
# HELP process_start_time_seconds Start time of the process since unix epoch in seconds.
# TYPE process_start_time_seconds gauge
process_start_time_seconds 1.58879792074E9
# HELP process_open_fds Number of open file descriptors.
# TYPE process_open_fds gauge
process_open_fds 153.0
# HELP process_max_fds Maximum number of open file descriptors.
# TYPE process_max_fds gauge
process_max_fds 10240.0
# HELP jvm_classes_loaded The number of classes that are currently loaded in the JVM
# TYPE jvm_classes_loaded gauge
jvm_classes_loaded 7222.0
# HELP jvm_classes_loaded_total The total number of classes that have been loaded since the JVM has
↳started execution
# TYPE jvm_classes_loaded_total counter
jvm_classes_loaded_total 7222.0
# HELP jvm_classes_unloaded_total The total number of classes that have been unloaded since the JVM has
↳started execution
# TYPE jvm_classes_unloaded_total counter
jvm_classes_unloaded_total 0.0
# HELP jvm_gc_collection_seconds Time spent in a given JVM garbage collector in seconds.
# TYPE jvm_gc_collection_seconds summary
jvm_gc_collection_seconds_count{gc="G1 Young Generation"}, 7.0
jvm_gc_collection_seconds_sum{gc="G1 Young Generation"}, 0.115
jvm_gc_collection_seconds_count{gc="G1 Old Generation"}, 0.0
jvm_gc_collection_seconds_sum{gc="G1 Old Generation"}, 0.0
# HELP yamcs_api_requests_total Total requests per API method
# TYPE yamcs_api_requests_total counter
yamcs_api_requests_total{method="EditAlarm",service="AlarmsApi"}, 0.0
yamcs_api_requests_total{method="ListAlarms",service="AlarmsApi"}, 0.0
yamcs_api_requests_total{method="ListParameterAlarms",service="AlarmsApi"}, 0.0
yamcs_api_requests_total{method="ListProcessorAlarms",service="AlarmsApi"}, 0.0
yamcs_api_requests_total{method="CreateBucket",service="BucketsApi"}, 0.0
yamcs_api_requests_total{method="DeleteBucket",service="BucketsApi"}, 0.0
yamcs_api_requests_total{method="DeleteObject",service="BucketsApi"}, 0.0
yamcs_api_requests_total{method="GetObject",service="BucketsApi"}, 0.0
yamcs_api_requests_total{method="ListBuckets",service="BucketsApi"}, 0.0
yamcs_api_requests_total{method="ListObjects",service="BucketsApi"}, 0.0
yamcs_api_requests_total{method="UploadObject",service="BucketsApi"}, 0.0
yamcs_api_requests_total{method="CreateTransfer",service="CfdpApi"}, 0.0
yamcs_api_requests_total{method="GetTransfer",service="CfdpApi"}, 0.0
yamcs_api_requests_total{method="ListTransfers",service="CfdpApi"}, 0.0
yamcs_api_requests_total{method="UpdateTransfer",service="CfdpApi"}, 0.0
yamcs_api_requests_total{method="DeleteClearance",service="ClearanceApi"}, 0.0
yamcs_api_requests_total{method="ListClearances",service="ClearanceApi"}, 0.0
yamcs_api_requests_total{method="UpdateClearance",service="ClearanceApi"}, 0.0
yamcs_api_requests_total{method="GetClient",service="ClientsApi"}, 0.0
yamcs_api_requests_total{method="ListClients",service="ClientsApi"}, 0.0
yamcs_api_requests_total{method="UpdateClient",service="ClientsApi"}, 0.0
yamcs_api_requests_total{method="GetCommand",service="CommandHistoryApi"}, 0.0
yamcs_api_requests_total{method="ListCommands",service="CommandHistoryApi"}, 0.0
yamcs_api_requests_total{method="StreamCommands",service="CommandHistoryApi"}, 0.0
yamcs_api_requests_total{method="Disable",service="Cop1Api"}, 0.0
yamcs_api_requests_total{method="GetConfig",service="Cop1Api"}, 0.0
```

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```
yamcs_api_requests_total{method="GetStatus",service="Cop1Api",} 0.0
yamcs_api_requests_total{method="Initialize",service="Cop1Api",} 0.0
yamcs_api_requests_total{method="Resume",service="Cop1Api",} 0.0
yamcs_api_requests_total{method="SetConfig",service="Cop1Api",} 0.0
yamcs_api_requests_total{method="CreateEvent",service="EventsApi",} 0.0
yamcs_api_requests_total{method="ExportEvents",service="EventsApi",} 0.0
yamcs_api_requests_total{method="ListEventSources",service="EventsApi",} 0.0
yamcs_api_requests_total{method="ListEvents",service="EventsApi",} 0.0
yamcs_api_requests_total{method="StreamEvents",service="EventsApi",} 0.0
yamcs_api_requests_total{method="CloseConnection",service="GeneralApi",} 0.0
yamcs_api_requests_total{method="GetGeneralInfo",service="GeneralApi",} 0.0
yamcs_api_requests_total{method="ListClientConnections",service="GeneralApi",} 0.0
yamcs_api_requests_total{method="ListRoutes",service="GeneralApi",} 0.0
yamcs_api_requests_total{method="CreateGroup",service="IamApi",} 0.0
yamcs_api_requests_total{method="CreateServiceAccount",service="IamApi",} 0.0
yamcs_api_requests_total{method="CreateUser",service="IamApi",} 0.0
yamcs_api_requests_total{method="DeleteGroup",service="IamApi",} 0.0
yamcs_api_requests_total{method="DeleteIdentity",service="IamApi",} 0.0
yamcs_api_requests_total{method="DeleteRoleAssignment",service="IamApi",} 0.0
yamcs_api_requests_total{method="DeleteServiceAccount",service="IamApi",} 0.0
yamcs_api_requests_total{method="GetGroup",service="IamApi",} 0.0
yamcs_api_requests_total{method="GetOwnUser",service="IamApi",} 1.0
yamcs_api_requests_total{method="GetRole",service="IamApi",} 0.0
yamcs_api_requests_total{method="GetServiceAccount",service="IamApi",} 0.0
yamcs_api_requests_total{method="GetUser",service="IamApi",} 0.0
yamcs_api_requests_total{method="ListGroups",service="IamApi",} 0.0
yamcs_api_requests_total{method="ListPrivileges",service="IamApi",} 0.0
yamcs_api_requests_total{method="ListRoles",service="IamApi",} 0.0
yamcs_api_requests_total{method="ListServiceAccounts",service="IamApi",} 0.0
yamcs_api_requests_total{method="ListUsers",service="IamApi",} 0.0
yamcs_api_requests_total{method="UpdateGroup",service="IamApi",} 0.0
yamcs_api_requests_total{method="UpdateUser",service="IamApi",} 0.0
yamcs_api_requests_total{method="ListCommandHistoryIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="ListCompletenessIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="ListEventIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="ListPacketIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="ListParameterIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="RebuildCcscdsIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="StreamCommandIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="StreamCompletenessIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="StreamEventIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="StreamIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="StreamPacketIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="StreamParameterIndex",service="IndexApi",} 0.0
yamcs_api_requests_total{method="CreateInstance",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="GetInstance",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="GetInstanceTemplate",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="GetLink",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="GetService",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="GetSystemInfo",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="ListInstanceTemplates",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="ListInstances",service="ManagementApi",} 1.0
yamcs_api_requests_total{method="ListLinks",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="ListServices",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="RestartInstance",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="StartInstance",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="StartService",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="StopInstance",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="StopService",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="UpdateLink",service="ManagementApi",} 0.0
yamcs_api_requests_total{method="BatchGetParameters",service="MdbApi",} 0.0
yamcs_api_requests_total{method="ExportJavaMissionDatabase",service="MdbApi",} 0.0
yamcs_api_requests_total{method="GetAlgorithm",service="MdbApi",} 0.0
yamcs_api_requests_total{method="GetCommand",service="MdbApi",} 0.0
yamcs_api_requests_total{method="GetContainer",service="MdbApi",} 0.0
yamcs_api_requests_total{method="GetMissionDatabase",service="MdbApi",} 0.0
yamcs_api_requests_total{method="GetParameter",service="MdbApi",} 0.0
yamcs_api_requests_total{method="GetParameterType",service="MdbApi",} 0.0
yamcs_api_requests_total{method="GetSpaceSystem",service="MdbApi",} 0.0
yamcs_api_requests_total{method="ListAlgorithms",service="MdbApi",} 0.0
yamcs_api_requests_total{method="ListCommands",service="MdbApi",} 0.0
```

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```
yamcs_api_requests_total{method="ListContainers",service="MdbApi",} 0.0
yamcs_api_requests_total{method="ListParameterTypes",service="MdbApi",} 0.0
yamcs_api_requests_total{method="ListParameters",service="MdbApi",} 0.0
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yamcs_api_requests_total{method="UpdateParameter",service="MdbApi",} 0.0
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yamcs_api_requests_total{method="ListPacketNames",service="PacketsApi",} 0.0
yamcs_api_requests_total{method="ListPackets",service="PacketsApi",} 0.0
yamcs_api_requests_total{method="StreamPackets",service="PacketsApi",} 0.0
yamcs_api_requests_total{method="DeletePartitions",service="ParameterArchiveApi",} 0.0
yamcs_api_requests_total{method="GetArchivedParameterInfo",service="ParameterArchiveApi",} 0.0
yamcs_api_requests_total{method="GetParameterRanges",service="ParameterArchiveApi",} 0.0
yamcs_api_requests_total{method="GetParameterSamples",service="ParameterArchiveApi",} 0.0
yamcs_api_requests_total{method="ListParameterHistory",service="ParameterArchiveApi",} 0.0
yamcs_api_requests_total{method="RebuildRange",service="ParameterArchiveApi",} 0.0
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yamcs_api_requests_total{method="DeleteProcessor",service="ProcessingApi",} 0.0
yamcs_api_requests_total{method="EditProcessor",service="ProcessingApi",} 0.0
yamcs_api_requests_total{method="GetParameterValue",service="ProcessingApi",} 0.0
yamcs_api_requests_total{method="GetProcessor",service="ProcessingApi",} 0.0
yamcs_api_requests_total{method="IssueCommand",service="ProcessingApi",} 0.0
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yamcs_api_requests_total{method="ListProcessors",service="ProcessingApi",} 0.0
yamcs_api_requests_total{method="SetParameterValue",service="ProcessingApi",} 0.0
yamcs_api_requests_total{method="UpdateCommandHistory",service="ProcessingApi",} 0.0
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yamcs_api_requests_total{method="GetQueue",service="QueueApi",} 0.0
yamcs_api_requests_total{method="ListQueueEntries",service="QueueApi",} 0.0
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yamcs_api_requests_total{method="UpdateQueue",service="QueueApi",} 0.0
yamcs_api_requests_total{method="UpdateQueueEntry",service="QueueApi",} 0.0
yamcs_api_requests_total{method="BackupDatabase",service="RocksDbApi",} 0.0
yamcs_api_requests_total{method="CompactDatabase",service="RocksDbApi",} 0.0
yamcs_api_requests_total{method="DescribeDatabase",service="RocksDbApi",} 0.0
yamcs_api_requests_total{method="DescribeRocksDb",service="RocksDbApi",} 0.0
yamcs_api_requests_total{method="ListDatabases",service="RocksDbApi",} 0.0
yamcs_api_requests_total{method="ListTablespaces",service="RocksDbApi",} 0.0
yamcs_api_requests_total{method="ExportParameterValues",service="StreamArchiveApi",} 0.0
yamcs_api_requests_total{method="GetParameterSamples",service="StreamArchiveApi",} 0.0
yamcs_api_requests_total{method="ListParameterGroups",service="StreamArchiveApi",} 0.0
yamcs_api_requests_total{method="ListParameterHistory",service="StreamArchiveApi",} 0.0
yamcs_api_requests_total{method="StreamParameterValues",service="StreamArchiveApi",} 0.0
yamcs_api_requests_total{method="ExecuteSql",service="TableApi",} 0.0
yamcs_api_requests_total{method="GetStream",service="TableApi",} 0.0
yamcs_api_requests_total{method="GetTable",service="TableApi",} 0.0
yamcs_api_requests_total{method="GetTableData",service="TableApi",} 0.0
yamcs_api_requests_total{method="ListStreams",service="TableApi",} 0.0
yamcs_api_requests_total{method="ListTables",service="TableApi",} 0.0
yamcs_api_requests_total{method="ReadRows",service="TableApi",} 0.0
yamcs_api_requests_total{method="WriteRows",service="TableApi",} 0.0
yamcs_api_requests_total{method="CreateTag",service="TagApi",} 0.0
yamcs_api_requests_total{method="DeleteTag",service="TagApi",} 0.0
yamcs_api_requests_total{method="GetTag",service="TagApi",} 0.0
yamcs_api_requests_total{method="ListTags",service="TagApi",} 0.0
yamcs_api_requests_total{method="UpdateTag",service="TagApi",} 0.0
yamcs_api_requests_total{method="GetLeapSeconds",service="TimeApi",} 0.0
yamcs_api_requests_total{method="SetTime",service="TimeApi",} 0.0
# HELP yamcs_api_errors_total Total errors per API method
# TYPE yamcs_api_errors_total counter
yamcs_api_errors_total{method="EditAlarm",service="AlarmsApi",} 0.0
yamcs_api_errors_total{method="ListAlarms",service="AlarmsApi",} 0.0
yamcs_api_errors_total{method="ListParameterAlarms",service="AlarmsApi",} 0.0
yamcs_api_errors_total{method="ListProcessorAlarms",service="AlarmsApi",} 0.0
yamcs_api_errors_total{method="CreateBucket",service="BucketsApi",} 0.0
yamcs_api_errors_total{method="DeleteBucket",service="BucketsApi",} 0.0
yamcs_api_errors_total{method="DeleteObject",service="BucketsApi",} 0.0
yamcs_api_errors_total{method="GetObject",service="BucketsApi",} 0.0
```

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```
yamcs_api_errors_total{method="ListBuckets",service="BucketsApi",} 0.0
yamcs_api_errors_total{method="ListObjects",service="BucketsApi",} 0.0
yamcs_api_errors_total{method="UploadObject",service="BucketsApi",} 0.0
yamcs_api_errors_total{method="CreateTransfer",service="CfdpApi",} 0.0
yamcs_api_errors_total{method="GetTransfer",service="CfdpApi",} 0.0
yamcs_api_errors_total{method="ListTransfers",service="CfdpApi",} 0.0
yamcs_api_errors_total{method="UpdateTransfer",service="CfdpApi",} 0.0
yamcs_api_errors_total{method="DeleteClearance",service="ClearanceApi",} 0.0
yamcs_api_errors_total{method="ListClearances",service="ClearanceApi",} 0.0
yamcs_api_errors_total{method="UpdateClearance",service="ClearanceApi",} 0.0
yamcs_api_errors_total{method="GetClient",service="ClientsApi",} 0.0
yamcs_api_errors_total{method="ListClients",service="ClientsApi",} 0.0
yamcs_api_errors_total{method="UpdateClient",service="ClientsApi",} 0.0
yamcs_api_errors_total{method="GetCommand",service="CommandHistoryApi",} 0.0
yamcs_api_errors_total{method="ListCommands",service="CommandHistoryApi",} 0.0
yamcs_api_errors_total{method="StreamCommands",service="CommandHistoryApi",} 0.0
yamcs_api_errors_total{method="Disable",service="Cop1Api",} 0.0
yamcs_api_errors_total{method="GetConfig",service="Cop1Api",} 0.0
yamcs_api_errors_total{method="GetStatus",service="Cop1Api",} 0.0
yamcs_api_errors_total{method="Initialize",service="Cop1Api",} 0.0
yamcs_api_errors_total{method="Resume",service="Cop1Api",} 0.0
yamcs_api_errors_total{method="SetConfig",service="Cop1Api",} 0.0
yamcs_api_errors_total{method="CreateEvent",service="EventsApi",} 0.0
yamcs_api_errors_total{method="ExportEvents",service="EventsApi",} 0.0
yamcs_api_errors_total{method="ListEventSources",service="EventsApi",} 0.0
yamcs_api_errors_total{method="ListEvents",service="EventsApi",} 0.0
yamcs_api_errors_total{method="StreamEvents",service="EventsApi",} 0.0
yamcs_api_errors_total{method="CloseConnection",service="GeneralApi",} 0.0
yamcs_api_errors_total{method="GetGeneralInfo",service="GeneralApi",} 0.0
yamcs_api_errors_total{method="ListClientConnections",service="GeneralApi",} 0.0
yamcs_api_errors_total{method="ListRoutes",service="GeneralApi",} 0.0
yamcs_api_errors_total{method="CreateGroup",service="IamApi",} 0.0
yamcs_api_errors_total{method="CreateServiceAccount",service="IamApi",} 0.0
yamcs_api_errors_total{method="CreateUser",service="IamApi",} 0.0
yamcs_api_errors_total{method="DeleteGroup",service="IamApi",} 0.0
yamcs_api_errors_total{method="DeleteIdentity",service="IamApi",} 0.0
yamcs_api_errors_total{method="DeleteRoleAssignment",service="IamApi",} 0.0
yamcs_api_errors_total{method="DeleteServiceAccount",service="IamApi",} 0.0
yamcs_api_errors_total{method="GetGroup",service="IamApi",} 0.0
yamcs_api_errors_total{method="GetOwnUser",service="IamApi",} 0.0
yamcs_api_errors_total{method="GetRole",service="IamApi",} 0.0
yamcs_api_errors_total{method="GetServiceAccount",service="IamApi",} 0.0
yamcs_api_errors_total{method="GetUser",service="IamApi",} 0.0
yamcs_api_errors_total{method="ListGroups",service="IamApi",} 0.0
yamcs_api_errors_total{method="ListPrivileges",service="IamApi",} 0.0
yamcs_api_errors_total{method="ListRoles",service="IamApi",} 0.0
yamcs_api_errors_total{method="ListServiceAccounts",service="IamApi",} 0.0
yamcs_api_errors_total{method="ListUsers",service="IamApi",} 0.0
yamcs_api_errors_total{method="UpdateGroup",service="IamApi",} 0.0
yamcs_api_errors_total{method="UpdateUser",service="IamApi",} 0.0
yamcs_api_errors_total{method="ListCommandHistoryIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="ListCompletenessIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="ListEventIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="ListPacketIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="ListParameterIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="RebuildCcsdsIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="StreamCommandIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="StreamCompletenessIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="StreamEventIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="StreamIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="StreamPacketIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="StreamParameterIndex",service="IndexApi",} 0.0
yamcs_api_errors_total{method="CreateInstance",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="GetInstance",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="GetInstanceTemplate",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="GetLink",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="GetService",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="GetSystemInfo",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="ListInstanceTemplates",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="ListInstances",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="ListLinks",service="ManagementApi",} 0.0
```

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```
yamcs_api_errors_total{method="ListServices",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="RestartInstance",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="StartInstance",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="StartService",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="StopInstance",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="StopService",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="UpdateLink",service="ManagementApi",} 0.0
yamcs_api_errors_total{method="BatchGetParameters",service="MdbApi",} 0.0
yamcs_api_errors_total{method="ExportJavaMissionDatabase",service="MdbApi",} 0.0
yamcs_api_errors_total{method="GetAlgorithm",service="MdbApi",} 0.0
yamcs_api_errors_total{method="GetCommand",service="MdbApi",} 0.0
yamcs_api_errors_total{method="GetContainer",service="MdbApi",} 0.0
yamcs_api_errors_total{method="GetMissionDatabase",service="MdbApi",} 0.0
yamcs_api_errors_total{method="GetParameter",service="MdbApi",} 0.0
yamcs_api_errors_total{method="GetParameterType",service="MdbApi",} 0.0
yamcs_api_errors_total{method="GetSpaceSystem",service="MdbApi",} 0.0
yamcs_api_errors_total{method="ListAlgorithms",service="MdbApi",} 0.0
yamcs_api_errors_total{method="ListCommands",service="MdbApi",} 0.0
yamcs_api_errors_total{method="ListContainers",service="MdbApi",} 0.0
yamcs_api_errors_total{method="ListParameterTypes",service="MdbApi",} 0.0
yamcs_api_errors_total{method="ListParameters",service="MdbApi",} 0.0
yamcs_api_errors_total{method="ListSpaceSystems",service="MdbApi",} 0.0
yamcs_api_errors_total{method="UpdateAlgorithm",service="MdbApi",} 0.0
yamcs_api_errors_total{method="UpdateParameter",service="MdbApi",} 0.0
yamcs_api_errors_total{method="ExportPackets",service="PacketsApi",} 0.0
yamcs_api_errors_total{method="GetPacket",service="PacketsApi",} 0.0
yamcs_api_errors_total{method="ListPacketNames",service="PacketsApi",} 0.0
yamcs_api_errors_total{method="ListPackets",service="PacketsApi",} 0.0
yamcs_api_errors_total{method="StreamPackets",service="PacketsApi",} 0.0
yamcs_api_errors_total{method="DeletePartitions",service="ParameterArchiveApi",} 0.0
yamcs_api_errors_total{method="GetArchivedParameterInfo",service="ParameterArchiveApi",} 0.0
yamcs_api_errors_total{method="GetParameterRanges",service="ParameterArchiveApi",} 0.0
yamcs_api_errors_total{method="GetParameterSamples",service="ParameterArchiveApi",} 0.0
yamcs_api_errors_total{method="ListParameterHistory",service="ParameterArchiveApi",} 0.0
yamcs_api_errors_total{method="RebuildRange",service="ParameterArchiveApi",} 0.0
yamcs_api_errors_total{method="BatchGetParameterValues",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="BatchSetParameterValues",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="CreateProcessor",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="DeleteProcessor",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="EditProcessor",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="GetParameterValue",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="GetProcessor",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="IssueCommand",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="ListProcessorTypes",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="ListProcessors",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="SetParameterValue",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="UpdateCommandHistory",service="ProcessingApi",} 0.0
yamcs_api_errors_total{method="GetMetrics",service="PrometheusApi",} 0.0
yamcs_api_errors_total{method="GetQueue",service="QueueApi",} 0.0
yamcs_api_errors_total{method="ListQueueEntries",service="QueueApi",} 0.0
yamcs_api_errors_total{method="ListQueues",service="QueueApi",} 0.0
yamcs_api_errors_total{method="UpdateQueue",service="QueueApi",} 0.0
yamcs_api_errors_total{method="UpdateQueueEntry",service="QueueApi",} 0.0
yamcs_api_errors_total{method="BackupDatabase",service="RocksDbApi",} 0.0
yamcs_api_errors_total{method="CompactDatabase",service="RocksDbApi",} 0.0
yamcs_api_errors_total{method="DescribeDatabase",service="RocksDbApi",} 0.0
yamcs_api_errors_total{method="DescribeRocksDb",service="RocksDbApi",} 0.0
yamcs_api_errors_total{method="ListDatabases",service="RocksDbApi",} 0.0
yamcs_api_errors_total{method="ListTablespaces",service="RocksDbApi",} 0.0
yamcs_api_errors_total{method="ExportParameterValues",service="StreamArchiveApi",} 0.0
yamcs_api_errors_total{method="GetParameterSamples",service="StreamArchiveApi",} 0.0
yamcs_api_errors_total{method="ListParameterGroups",service="StreamArchiveApi",} 0.0
yamcs_api_errors_total{method="ListParameterHistory",service="StreamArchiveApi",} 0.0
yamcs_api_errors_total{method="StreamParameterValues",service="StreamArchiveApi",} 0.0
yamcs_api_errors_total{method="ExecuteSql",service="TableApi",} 0.0
yamcs_api_errors_total{method="GetStream",service="TableApi",} 0.0
yamcs_api_errors_total{method="GetTable",service="TableApi",} 0.0
yamcs_api_errors_total{method="GetTableData",service="TableApi",} 0.0
yamcs_api_errors_total{method="ListStreams",service="TableApi",} 0.0
yamcs_api_errors_total{method="ListTables",service="TableApi",} 0.0
yamcs_api_errors_total{method="ReadRows",service="TableApi",} 0.0
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yamcs_api_errors_total{method="WriteRows",service="TableApi",} 0.0
yamcs_api_errors_total{method="CreateTag",service="TagApi",} 0.0
yamcs_api_errors_total{method="DeleteTag",service="TagApi",} 0.0
yamcs_api_errors_total{method="GetTag",service="TagApi",} 0.0
yamcs_api_errors_total{method="ListTags",service="TagApi",} 0.0
yamcs_api_errors_total{method="UpdateTag",service="TagApi",} 0.0
yamcs_api_errors_total{method="GetLeapSeconds",service="TimeApi",} 0.0
yamcs_api_errors_total{method="SetTime",service="TimeApi",} 0.0
# HELP yamcs_links_in_total Number of received items since Yamcs has started (e.g. packets)
# TYPE yamcs_links_in_total counter
yamcs_links_in_total{instance="simulator",link="tm_realtime",} 0.0
yamcs_links_in_total{instance="simulator",link="tm2_realtime",} 0.0
yamcs_links_in_total{instance="simulator",link="tm_dump",} 0.0
yamcs_links_in_total{instance="simulator",link="tc_sim",} 0.0
yamcs_links_in_total{instance="simulator",link="UDP_FRAME_OUT.vc0",} 0.0
yamcs_links_in_total{instance="simulator",link="UDP_FRAME_OUT",} 0.0
yamcs_links_in_total{instance="simulator",link="TSE",} 0.0
yamcs_links_in_total{instance="simulator",link="UDP_FRAME_IN.vc0",} 1634.0
yamcs_links_in_total{instance="simulator",link="UDP_FRAME_IN.vc1",} 182.0
yamcs_links_in_total{instance="simulator",link="UDP_FRAME_IN.vc2",} 0.0
yamcs_links_in_total{instance="simulator",link="UDP_FRAME_IN",} 1809.0
# HELP yamcs_links_out_total Number of sent items since Yamcs has started (e.g. telecommand packets)
# TYPE yamcs_links_out_total counter
yamcs_links_out_total{instance="simulator",link="tm_realtime",} 0.0
yamcs_links_out_total{instance="simulator",link="tm2_realtime",} 0.0
yamcs_links_out_total{instance="simulator",link="tm_dump",} 0.0
yamcs_links_out_total{instance="simulator",link="tc_sim",} 0.0
yamcs_links_out_total{instance="simulator",link="UDP_FRAME_OUT.vc0",} 0.0
yamcs_links_out_total{instance="simulator",link="UDP_FRAME_OUT",} 0.0
yamcs_links_out_total{instance="simulator",link="TSE",} 0.0
yamcs_links_out_total{instance="simulator",link="UDP_FRAME_IN.vc0",} 0.0
yamcs_links_out_total{instance="simulator",link="UDP_FRAME_IN.vc1",} 0.0
yamcs_links_out_total{instance="simulator",link="UDP_FRAME_IN.vc2",} 0.0
yamcs_links_out_total{instance="simulator",link="UDP_FRAME_IN",} 0.0
# HELP yamcs_processor_receive_packets_total Processed packets since Yamcs has started
# TYPE yamcs_processor_receive_packets_total counter
yamcs_processor_receive_packets_total{instance="simulator",processor="realtime",packet="/YSS/SIMULATOR/tm2_
↔container",} 183.0
yamcs_processor_receive_packets_total{instance="simulator",processor="realtime",packet="/YSS/SIMULATOR/DHS
↔",} 183.0
yamcs_processor_receive_packets_total{instance="simulator",processor="realtime",packet="/YSS/SIMULATOR/EPS
↔",} 183.0
yamcs_processor_receive_packets_total{instance="simulator",processor="realtime",packet="/YSS/SIMULATOR/
↔FlightData",} 911.0
yamcs_processor_receive_packets_total{instance="simulator",processor="realtime",packet="/YSS/SIMULATOR/RCS
↔",} 183.0
yamcs_processor_receive_packets_total{instance="simulator",processor="realtime",packet="/YSS/SIMULATOR/
↔Power",} 183.0
# HELP jvm_memory_bytes_used Used bytes of a given JVM memory area.
# TYPE jvm_memory_bytes_used gauge
jvm_memory_bytes_used{area="heap",} 9.821012E7
jvm_memory_bytes_used{area="nonheap",} 6.8108536E7
# HELP jvm_memory_bytes_committed Committed (bytes) of a given JVM memory area.
# TYPE jvm_memory_bytes_committed gauge
jvm_memory_bytes_committed{area="heap",} 1.34217728E8
jvm_memory_bytes_committed{area="nonheap",} 7.1852032E7
# HELP jvm_memory_bytes_max Max (bytes) of a given JVM memory area.
# TYPE jvm_memory_bytes_max gauge
jvm_memory_bytes_max{area="heap",} 2.147483648E9
jvm_memory_bytes_max{area="nonheap",} -1.0
# HELP jvm_memory_bytes_init Initial bytes of a given JVM memory area.
# TYPE jvm_memory_bytes_init gauge
jvm_memory_bytes_init{area="heap",} 1.34217728E8
jvm_memory_bytes_init{area="nonheap",} 7667712.0
# HELP jvm_memory_pool_bytes_used Used bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_bytes_used gauge
jvm_memory_pool_bytes_used{pool="CodeHeap 'non-nmethods'",} 1268096.0
jvm_memory_pool_bytes_used{pool="Metaspace",} 4.8098176E7
jvm_memory_pool_bytes_used{pool="CodeHeap 'profiled nmethods'",} 1.074368E7
jvm_memory_pool_bytes_used{pool="Compressed Class Space",} 5269752.0
jvm_memory_pool_bytes_used{pool="G1 Eden Space",} 4.194304E7
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jvm_memory_pool_bytes_used{pool="G1 Old Gen",} 4.8927048E7
jvm_memory_pool_bytes_used{pool="G1 Survivor Space",} 7340032.0
jvm_memory_pool_bytes_used{pool="CodeHeap 'non-profiled nmethods'",} 2728832.0
# HELP jvm_memory_pool_bytes_committed Committed bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_bytes_committed gauge
jvm_memory_pool_bytes_committed{pool="CodeHeap 'non-nmethods'",} 2555904.0
jvm_memory_pool_bytes_committed{pool="Metaspace",} 4.9754112E7
jvm_memory_pool_bytes_committed{pool="CodeHeap 'profiled nmethods'",} 1.081344E7
jvm_memory_pool_bytes_committed{pool="Compressed Class Space",} 5976064.0
jvm_memory_pool_bytes_committed{pool="G1 Eden Space",} 4.8234496E7
jvm_memory_pool_bytes_committed{pool="G1 Old Gen",} 7.86432E7
jvm_memory_pool_bytes_committed{pool="G1 Survivor Space",} 7340032.0
jvm_memory_pool_bytes_committed{pool="CodeHeap 'non-profiled nmethods'",} 2752512.0
# HELP jvm_memory_pool_bytes_max Max bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_bytes_max gauge
jvm_memory_pool_bytes_max{pool="CodeHeap 'non-nmethods'",} 5832704.0
jvm_memory_pool_bytes_max{pool="Metaspace",} -1.0
jvm_memory_pool_bytes_max{pool="CodeHeap 'profiled nmethods'",} 1.22912768E8
jvm_memory_pool_bytes_max{pool="Compressed Class Space",} 1.073741824E9
jvm_memory_pool_bytes_max{pool="G1 Eden Space",} -1.0
jvm_memory_pool_bytes_max{pool="G1 Old Gen",} 2.147483648E9
jvm_memory_pool_bytes_max{pool="G1 Survivor Space",} -1.0
jvm_memory_pool_bytes_max{pool="CodeHeap 'non-profiled nmethods'",} 1.22912768E8
# HELP jvm_memory_pool_bytes_init Initial bytes of a given JVM memory pool.
# TYPE jvm_memory_pool_bytes_init gauge
jvm_memory_pool_bytes_init{pool="CodeHeap 'non-nmethods'",} 2555904.0
jvm_memory_pool_bytes_init{pool="Metaspace",} 0.0
jvm_memory_pool_bytes_init{pool="CodeHeap 'profiled nmethods'",} 2555904.0
jvm_memory_pool_bytes_init{pool="Compressed Class Space",} 0.0
jvm_memory_pool_bytes_init{pool="G1 Eden Space",} 1.572864E7
jvm_memory_pool_bytes_init{pool="G1 Old Gen",} 1.18489088E8
jvm_memory_pool_bytes_init{pool="G1 Survivor Space",} 0.0
jvm_memory_pool_bytes_init{pool="CodeHeap 'non-profiled nmethods'",} 2555904.0
# HELP jvm_threads_current Current thread count of a JVM
# TYPE jvm_threads_current gauge
jvm_threads_current 35.0
# HELP jvm_threads_daemon Daemon thread count of a JVM
# TYPE jvm_threads_daemon gauge
jvm_threads_daemon 8.0
# HELP jvm_threads_peak Peak thread count of a JVM
# TYPE jvm_threads_peak gauge
jvm_threads_peak 35.0
# HELP jvm_threads_started_total Started thread count of a JVM
# TYPE jvm_threads_started_total counter
jvm_threads_started_total 36.0
# HELP jvm_threads_deadlocked Cycles of JVM-threads that are in deadlock waiting to acquire object_
↳monitors or ownable synchronizers
# TYPE jvm_threads_deadlocked gauge
jvm_threads_deadlocked 0.0
# HELP jvm_threads_deadlocked_monitor Cycles of JVM-threads that are in deadlock waiting to acquire object_
↳monitors
# TYPE jvm_threads_deadlocked_monitor gauge
jvm_threads_deadlocked_monitor 0.0
# HELP jvm_threads_state Current count of threads by state
# TYPE jvm_threads_state gauge
jvm_threads_state{state="RUNNABLE",} 20.0
jvm_threads_state{state="TERMINATED",} 0.0
jvm_threads_state{state="NEW",} 0.0
jvm_threads_state{state="BLOCKED",} 0.0
jvm_threads_state{state="TIMED_WAITING",} 12.0
jvm_threads_state{state="WAITING",} 3.0
# HELP jvm_memory_pool_allocated_bytes_total Total bytes allocated in a given JVM memory pool. Only_
↳updated after GC, not continuously.
# TYPE jvm_memory_pool_allocated_bytes_total counter
jvm_memory_pool_allocated_bytes_total{pool="CodeHeap 'profiled nmethods'",} 8667904.0
jvm_memory_pool_allocated_bytes_total{pool="G1 Old Gen",} 3.2149832E7
jvm_memory_pool_allocated_bytes_total{pool="G1 Eden Space",} 5.0331648E7
jvm_memory_pool_allocated_bytes_total{pool="CodeHeap 'non-profiled nmethods'",} 1981696.0
jvm_memory_pool_allocated_bytes_total{pool="G1 Survivor Space",} 7340032.0
jvm_memory_pool_allocated_bytes_total{pool="Compressed Class Space",} 5122792.0
jvm_memory_pool_allocated_bytes_total{pool="Metaspace",} 4.6231112E7
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jvm_memory_pool_allocated_bytes_total{pool="CodeHeap 'non-nmethods'",} 1263616.0
# HELP jvm_buffer_pool_used_bytes Used bytes of a given JVM buffer pool.
# TYPE jvm_buffer_pool_used_bytes gauge
jvm_buffer_pool_used_bytes{pool="mapped",} 0.0
jvm_buffer_pool_used_bytes{pool="direct",} 1.3421908E8
# HELP jvm_buffer_pool_capacity_bytes Bytes capacity of a given JVM buffer pool.
# TYPE jvm_buffer_pool_capacity_bytes gauge
jvm_buffer_pool_capacity_bytes{pool="mapped",} 0.0
jvm_buffer_pool_capacity_bytes{pool="direct",} 1.34219079E8
# HELP jvm_buffer_pool_used_buffers Used buffers of a given JVM buffer pool.
# TYPE jvm_buffer_pool_used_buffers gauge
jvm_buffer_pool_used_buffers{pool="mapped",} 0.0
jvm_buffer_pool_used_buffers{pool="direct",} 12.0
# HELP yamcs_instances_current Current amount of Yamcs instances
# TYPE yamcs_instances_current gauge
yamcs_instances_current 1.0
# HELP yamcs_instances_state Current count of instances by state
# TYPE yamcs_instances_state gauge
yamcs_instances_state{state="INITIALIZED",} 0.0
yamcs_instances_state{state="FAILED",} 0.0
yamcs_instances_state{state="STARTING",} 0.0
yamcs_instances_state{state="INITIALIZING",} 0.0
yamcs_instances_state{state="OFFLINE",} 0.0
yamcs_instances_state{state="RUNNING",} 1.0
yamcs_instances_state{state="STOPPING",} 0.0
# HELP yamcs_info Version info
# TYPE yamcs_info gauge
yamcs_info{version="5.0.0",revision="f5386dfa6e04cb873af9be2f37f42bfb41ce76ee",server_id="mac.fqqb.be",
↔yamcs_prometheus_version="1.0.0",yamcs_tse_version="5.0.0",yamcs_web_version="5.0.0",} 1.0
# HELP jvm_info JVM version info
# TYPE jvm_info gauge
jvm_info{version="11.0.2+9",vendor="Oracle Corporation",runtime="OpenJDK Runtime Environment",} 1.0
```