

IBM Enterprise Content Management System Monitor

Probes and Situations Guide



IBM Enterprise Content Management System Monitor

Version 5.8.0

Probes and Situations Guide

SC27-9242-09

Table of Contents

Preface	2
About this document	2
Who should read this guide?	2
Before you start	2
Feedback on documentation	3
Wordings within ESM and Interactions	4
Situation (definition)	4
Sample (definition)	4
Incident (definition)	4
Probe (definition)	4
Interaction	5
Background information for server and agents before setting up probes	6
Directory structure (ESM Server)	6
Directory structure (ESM Agent)	6
Buttons above the List - Description of the buttons:	12
Button for adding a new situation	12
Button for adding a new situation group	12
Button for copying of a situation or situation group	13
Button for modifying of a situation or situation group	13
Button for deletion of a situation or situation group	14
Button for filtering of a situations by name	15
Button for (de-)activating of a situations from selected situation group	15
Defining a Situation Group (example)	17
Setting up a Probe (example for CPU Usage on LocalAgent)	19
Probe configuration (Page1)	20
Agent Assignment (Page1)	22
Schedule (Page1)	22
Evaluation (Page 2)	27
Shared Evaluation	28
Mappings	30
Escalate and Filter Duplicates (Page 2)	33
Automation (Page 3)	35
Condition	35
Mode	35
Tasks	35
Actions	35
Default (standard) base probes for all agent	37
CPU Load (Probe "CPU")	37

Memory Usage (Probe "Memory")	37
Diskspace (Probe "Diskspace")	37
Available Probes including all Parameters based on Subsystem Type.....	38
Subsystem Type AzureServer	38
MailCount	38
Subsystem Type BawCaseManager	39
BawCaseManagerCaseStatus	39
BawCaseManagerPingPageStatus	40
BawCaseManagerSolutionStatus	41
BawCaseManagerTaskStatus	43
Subsystem Type BawWorkflowServer	45
BawContainerSnapshotCount	45
BawExposedItemExists	45
BawNewInstanceCount	48
Subsystem Type BusinessAutomationWorkflow	50
Subsystem Type CEBI	50
CEBIBatchStatus	50
CEBIProcesses	51
CEBIStatistics	52
Subsystem Type ContentCollector	54
ContentCollectorServiceStatus	54
Subsystem Type ContentIntegratorConnector	55
ContentIntegratorStatus	55
Subsystem Type ContentNavigator	56
ContentNavigatorActiveStatus	56
ContentNavigatorDesktopStatus	57
ContentNavigatorPingPageStatus	58
LoadDocumentPerformance	59
StoredSearchPerformance	61
SyncServerPingPageStatus	62
Subsystem Type CPE	63
CeAdvancedStorageDirectReplicasFailed	63
CeAdvancedStorageRemoteReplicasFailed	66
CeEngineStatus	68
CE GraphQL Query	69
CeHealthPageStatus	70
CeJobSweepStatistic	72
CeObjectstoreChangesFailed	74
CeObjectstoreIndexingExceptions	76
CeObjectstorePublishRequestsFailed	78
CeObjectstoreQueueItemsFailed	80
CeObjectstoreSweepBackgroundSearchesFailed	82
CeObjectstoreSweepFrameworkExceptions	85

CePolicySweepStatistic	87
CeQueueSweepStatistic	89
CeRpcRequestsFailed	91
CeWebServicesStatus	93
ContentSearchServicesFTSPerformance	94
ContentSearchServicesIndexRequests	96
ContentSearchServicesIndexingErrors	97
IccMailInstances	98
IccMailObjects	100
ListenerCEUser	101
ListenerCpu	103
ListenerDisk	105
ListenerNetwork	107
ListenerUser	109
ListenerUserServer	111
ListenerUserStatic	113
ObjectsNotStoredFinally	115
ObjectstoreCustomQuery	117
ObjectstoreCustomQueryCount	120
ObjectstoreDocumentUploadPerformance	122
ObjectstoreDocumentIndexingErrors	124
ObjectstoreLoadDocumentPerformance	128
ObjectStoreNewObjects	129
ObjectStorePerformance	131
ObjectstoreRecoveryBin	133
ObjectStoreStorageAreaInformationSql	135
ObjectStoreStorageAreaStatusSql	137
PeLoadStatus	139
PeLockedQueueWorkObjects	140
PeLockedRosterWorkObjects	142
PePingPageStatus	143
PeQueueCount	144
PeQueueStatistic	146
PeRosterCount	147
PeRosterStatistic	149
PevwUserSyncExceptions	151
PeWebServicesStatus	152
StorageAreaSpaceUsed	153
SubscriptionRetryError	154
Subsystem Type Database	156
ContinuousDatabaseQuery	156
CustomDatabaseQuery	157
DatabaseActiveQueryCount	159

DatabaseConnectionStatus	160
DatabasePerformance	160
Subsystem Type DatacapApplication	162
DatacapBatchesProcessedCount	162
DatacapBatchStatusCount	165
DatacapDocumentsProcessedCount	166
DatacapJobDuration	169
DatacapPagesProcessedCount	170
DatacapPagesQueuedCount	173
DatacapScanClientWebservicesBatchesCount	174
DatacapTaskPagesProcessedPerMinute	175
Subsystem Type Datacap	177
FpServiceAvailable	177
FpserviceMemoryConsumption	178
Subsystem Type DB2	179
ContinuousDatabaseQuery	179
CustomDatabaseQuery	180
DatabaseActiveQueryCount	182
DatabaseConnectionStatus	183
DatabasePerformance	183
DB2DatabaseStatistic	185
DB2TablespaceFree	187
DB2TablespaceStatus	188
DB2TablespaceUsed	189
DB2TransactionLogStatistic	190
Subsystem Type FilePath	191
FileCount	191
Subsystem Type Host	193
CenteraStatus	193
CPU	194
CPUUsagePerProcess	194
Custom	196
Diskspace	198
Memory	200
MemoryUsagePerProcess	201
NetworkPing	202
NetworkResolution	203
NetworkRouting	204
PortCheck	205
PortReachable	207
ProcessCount	208
Swapspace	210
Subsystem Type lcc4Sap	210

lcc4SapArchiveStatus	210
lcc4SapProcess	212
lcc4SapServerStatus	212
Subsystem Type ImageImport	213
ImageImportBatchStatus	213
ImageImportProcesses	214
ImageImportStatistics	215
Subsystem Type ImageServices	217
CeInfoImportAgentStatistic	217
CourierStatistic	219
DeserializeCalls	222
DynamicBatchRecord	224
ElogFileExistence	226
FindObjectCalls	227
ImageServicesCachePercentageFree	229
ImageServicesCachePercentageFull	231
ImageServicesCachePercentageLocked	233
ImageServicesCacheSectorsFree	234
ImageServicesCacheSectorsFull	236
ImageServicesCacheStatistic	240
ImageServicesSystemStatus	242
IndexDatabaseAvailability	243
LoggedOnUsers	244
MKFDataBlocks	246
MKFDatabaseAvailability	248
MKFDescriptionBlocks	250
MKFEmptyBlocks	252
MKFEmptyListBlocks	254
MKFHitsDel	255
MKFHitsFmbr	257
MKFHitsFunc	259
MKFHitsGrp	260
MKFHitsObj	262
MKFHitsSys	264
MKFHitsTotal	265
MKFIndexBlocks	267
MKFNonemptyBlocks	269
MKFNonvirginBlocksPercentage	271
MKFReservedBlocks	273
MKFRestartImportBlocks	275
MKFVirginBlocks	277
PPMOIdleRequestHandlers	278
PPMOInoProcOccurrence	280

PPMOIPercentageTotalByMax	282
PrintQueueStatistics	284
PrintQueueStatus	286
RejectedUsers	288
ServiceLogonCalls	290
SoftSLUViolations	291
WorkflowQueueEntries	293
Subsystem Type JMX	295
Jmx	295
LibertyJmx	296
MBeanAttribute	297
Subsystem Type Kubernetes	299
KubernetesPodStatusCount	299
Subsystem Type Ldap	300
LDAPConnection	300
LDAPPerformance	301
Subsystem Type LibraryServer	302
CustomQueryCount	302
NetSearchExtenderDiskSpace	303
NetSearchExtenderError	304
NetSearchExtenderProcesses	306
ResourceManagerHeartbeat	307
ResourceManagerWebStatus	308
WorknodeLoadPercentage	309
WorkpackagesPerProcessCount	311
WorkpackagesPerWorklistCount	314
Subsystem Type Listener	315
Listener	316
ListenerForLicences	318
ListenerPathPercentage	320
Subsystem Type Logfile	323
ApacheAccessLogfile	324
Logfile	325
P8TraceLogDbQueryTime	328
Subsystem Type Mssql	329
ContinuousDatabaseQuery	329
CustomDatabaseQuery	331
DatabaseActiveQueryCount	332
DatabaseConnectionStatus	333
DatabasePerformance	334
MSSQLDatabaseSize	336
MSSQLDatabaseStatus	337
MSSQLDataspaceUsed	338

MSSQLDataspaceUsedPercentage	339
MSSQLLogspaceUsed	340
MSSQLLogspaceUsedPercentage	341
MSSQLNumberOfProcesses	342
MSSQLProcesses	343
Subsystem Type Mq	344
MqQueueDepth	344
Subsystem Type Objectstore	344
AuditTrailLog	344
ContentSearchServicesServerStatus	346
ContentSearchServicesStatistics	347
ObjectStoreInfoSQL	349
Subsystem Type OnDemand	351
FullTextSearchServerStatus	351
FullTextSearchStatistics	352
OnDemandAPILogonPerf	354
OnDemandDocumentRetrievalTime	355
OnDemandGroupAddCount	357
OnDemandGroupAddSize	358
OnDemandGroupQueryStatus	360
OnDemandGroupQueryTime	361
OnDemandLogonStatus	363
OnDemandPingStatus	364
OnDemandPingTime	365
OnDemandReportLoadedStatus	366
OnDemandReportLoadedTime	368
OnDemandResourceRetrieval	369
OnDemandServiceStatus	371
OnDemandSyslogAnalysis	372
OnDemandSystemLog	374
OnDemandThreadCount	376
OnDemandThreadCpu	377
OnDemandThreadMemory	378
Subsystem Type Oracle	378
ContinuousDatabaseQuery	378
CustomDatabaseQuery	380
DatabaseActiveQueryCount	381
DatabaseConnectionStatus	382
DatabasePerformance	383
OracleDatafileAvailable	385
OracleFreeTablespace	386
OracleNonActiveRedologs	387
OracleProcesses	388

OracleRollbackSegmentOnline	389
OracleTablespaceAvailable	390
OracleUserAccountStatus	391
Subsystem Type Postgre	392
ContinuousDatabaseQuery	392
CustomDatabaseQuery	394
DatabaseActiveQueryCount	395
DatabaseConnectionStatus	396
DatabasePerformance	397
Subsystem Type ResourceManager	399
ResourceManagerServices	399
ResourceManagerVolumeSpace	400
Subsystem Type RMI	402
Rmi	402
Subsystem Type RuleExecutionServer	402
RuleAppNotifyChanges	402
RuleAppPropertiesCount	403
RuleAppWithHighestNumber	404
RuleAppsCount	405
RuleAppsByNameCount	406
RuleSetNotifyChanges	406
RuleSetPropertiesCount	407
RuleSetSignature	408
RuleSetWithHighestNumber	409
RuleSetsByNameCount	410
RuleSetsCount	411
Subsystem Type Search	412
SearchClusterStatus	412
Subsystem Type ServiceManager	413
ServiceManagerStatus	413
Subsystem Type SpectrumProtect	414
ActivityTransferVolume	414
ActivityWaittime	415
Capacity	417
CustomQuery	418
ElapsedMigrationTime	420
ElapsedRestoreTime	422
LibraryScratchVolumes	423
SessionRuntime	424
SessionStateCount	425
StoragePoolScratchVolumes	426
StoragePoolVolumeStatus	427
Subsystem Type Url	428

CertificateExpiration	428
CertificateValidation	429
HTTPCallback	430
HttpResponseTime	432
HttpStatus	433
Prometheus	434
Rest	435
Subsystem Type WindowsEventlog	437
WindowsEventlog	437
Subsystem Type Wmi	440
WmiQuery	440
Required database permissions	441
Subsystem ContentPlatformEngine	441
Subsystem Database	441
Subsystem Datacap	443
Subsystem Db2	443
Subsystem ImageServices	444
Subsystem LibraryServer	444
Subsystem Mssql	444
Subsystem ObjectStore	445
Subsystem Oracle	445
Subsystem ResourceManager	445
Special permissions needed for probes	446
Subsystem Cebi	446
Subsystem Content Collector	446
Subsystem DB2	446
Subsystem Host	447
Subsystem Icc4Sap	448
Subsystem Image Import	448
Subsystem ImageServices	448
Subsystem LibraryServer	449
Subsystem Logfile	449
Subsystem MS SQL	449
Subsystem Objectstore	450
Subsystem OnDemand	450
Subsystem Oracle	451
Subsystem Spectrum Protect	451
Subsystem Windows Event Log	451
Subsystem WMI	451
Appendix A: Copyright notice	453
IBM Enterprise Content Management System Monitor	453
Appendix B: Notices	454

Appendix C: Trademarks.....456

This document describes the monitoring functionality of the IBM Enterprise Content Management System Monitor. The target audience for this guide are the users of the ESM.

Preface

About this document

This document is written as plain text document and provided as html / pdf. The newest ESM related documents can be found in the help section of the console.

Who should read this guide?

The target audience for this guide are those who install or maintain ESM environments.

Every effort has been made to provide you with complete installation instructions. If information becomes available after the creation of the installation media from which you accessed this guide, we will provide an updated version of the guide on the IBM Customer Service and Support web site (<https://www.ibm.com/support>). As a general rule, you should refer to the IBM web site to obtain the current version of this guide.

This guide provides instructions for installing and/or upgrading IBM Enterprise Content Management System Monitor, and identifies the IBM/FileNet and 3rd Party products that are certified for the current release. Be aware that each release of IBM Enterprise Content Management System Monitor may have multiple Interim Fixes, or Fix Packs available for installation, each with potentially different dependencies and installation requirements. Therefore, before you attempt to install or upgrade IBM Enterprise Content Management System Monitor, review the list of releases and their associated dependencies on the IBM Support web site (<https://www.ibm.com/support>).

Before you start

Users of the guide should have knowledge about Unix and/or Microsoft Windows® operating system, web servers, database systems and middleware platforms. The configuration of managed systems (clients) requires advanced knowledge of all IBM ECM systems that should be monitored.

You should read the Upgrade Notes section below!

If you lack the requisite skill sets it is strongly recommended to have IBM Lab Services or a certified ValueNet Partner in order to install this product.

TIP

For tips and tricks regarding the configuration and maintenance of IBM Enterprise Content Management System Monitor please check the CENIT Field Guides at [IBM ESM Field Guides](#).

The PDFs of the eGA documentation can be found on the [IBM support pages](#). In the installed product you will always find the newest documentation.

Feedback on documentation

Send your comments by e-mail to comments@us.ibm.com. Be sure to include the name of the product, the version number of the product, and the name and part number of the book (if applicable). If you are commenting on specific text, include the location of the text (for example, a chapter and section title, a table number, a page number, or a help topic title)

Wordings within ESM and Interactions

The infrastructure of ESM 5.8.0 is different to previous versions. Therefore some new wordings for the different parts were defined which will be described in this chapter. Additionally the interactions of the different parts will be clarified.

Situation (definition)

A situation defines a certain state of one (default) or more samples. Situations can be grouped in a "Situation Group". Tags can be defined to do so. A situation will evaluate the sample(s) and create an incident. This incident can be observed in the monitoring dashboard. During the configuration of a situation, the probe that delivers the sample is also defined.

Sample (definition)

A sample is created on an agent once the probe was executed. The sample contains information that are sent to the ESM server. The sample will be evaluated in the situation.

Incident (definition)

An incident is the evaluated situation. The incident describes the status of the situation and can be displayed in the monitoring dashboard. An incident consists of several pieces of information, such as:

- Severity
- Timestamp updated
- Timestamp created
- Message
- ...

Probe (definition)

A probe (in former times monitor) is configured during the situation configuration and runs on a certain agent. The agent creates a sample for the probe and sends the sample to the ESM Server. The sample does not contain a severity or evaluation.

NOTE

A sample of a logfile probe does already contain information for the severity represented by a certain value since the severity is usually already shown in the logfile.

10 represents a HARMLESS
20 represents a WARNING
30 represents a CRITICAL
40 represents a FATAL

Interaction

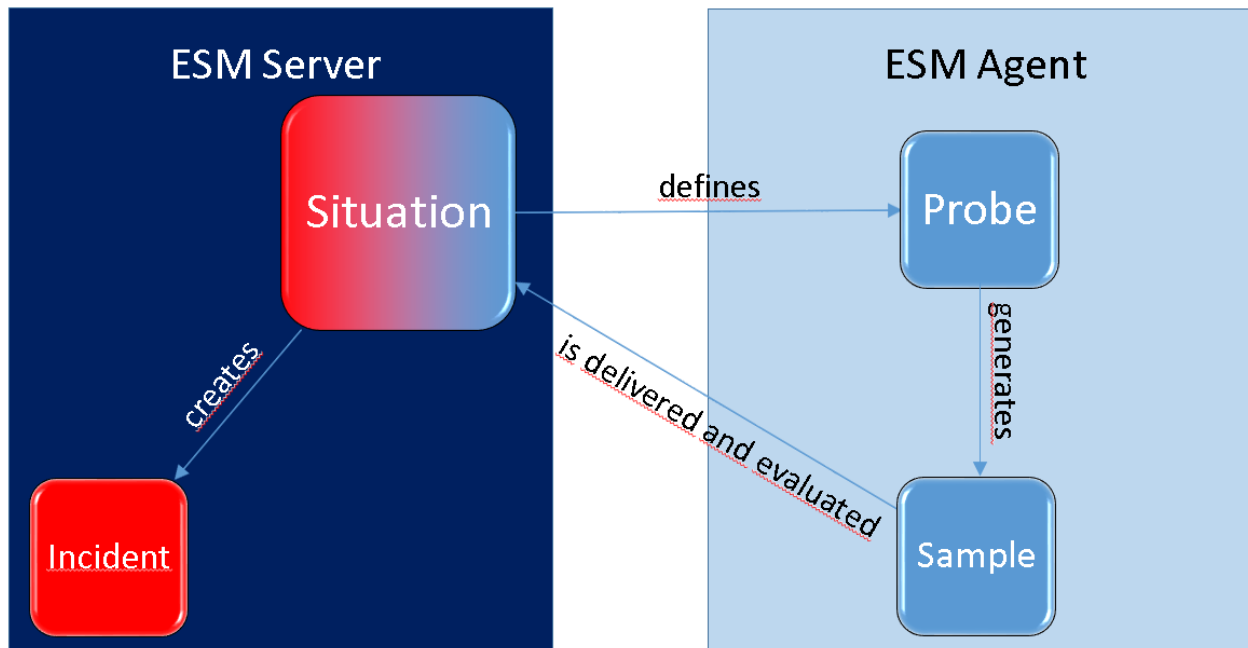


Image of Wording

Background information for server and agents before setting up probes

Directory structure (ESM Server)

```
$INSTALL_DIR/karaf/  
|  
+ sync/  
| |  
| + agents/  
| | |  
| | + all/
```

sync

This folder contains a subfolder named agents which also contains a subfolder named all. Files and folders that are placed in the all folder are replicated to all agents. The replication entry point on the agents is the installation root directory of the agent.

E.g. /opt/ESM/Agent or C:/Program Files/ESM/Agent

Based on this it is possible to replace or add agent files. If a file on the agent is overwritten, the original file is maintained and restored in case the file in the all folder on the server is removed.

Directory structure (ESM Agent)

```
$INSTALL_DIR/karaf/  
|  
+ deploy/  
+ agent/  
| |  
| + cm8-api/  
| |  
| + cm8-runtime/  
| |  
| + formats/  
| |  
| + icc4sap-api/  
| |  
| + ici-api/  
| |  
| + ondemand/  
| | |  
| | + locale/  
| |  
| + ondemand-api/  
| |  
| + p8-api/  
|
```

NOTE

The folders `cm8-api`, `icc4sap-api`, `ici-api`, `ondemand` and its subfolder, `ondemand-api` and `p8-api` must be created manually if they are needed.
The folder `cm8-runtime` is created on start if `cm8-api` is present.

deploy

Copy additionally needed jar files to this location. Needed files are jdbc driver jar for Oracle, MSSQL or DB2. For DB2 also copy the corresponding license jar and the `dataaccess.jar` located in the `jr/lib` directory of the ESM installation. This is needed for communication with DB2 11 FP1 and later.

This folder also contains the `*-api` bundles (jar files) that are created if files exist in one or more of the `*-api` folders. Delete the bundle file and replace the files in the corresponding `*-api` folder with newer versions in order to create a newer bundle file.

CAUTION

Do not keep any outdated files or backups in this directory and do not create any subdirectories! The agent will try to load all files located here regardless of name, extension and directory structure!

NOTE

If you want to include any oracle jdbc file here, stop the agent first, remove the `tmp` and `cache` directory from `<Installation-Root>/karaf/data` and restart the agent afterwards.

agent

Directory for agent specific files. E.g. format files for monitoring of logfiles and `p8-api` jars.

cm8-api

Unpack the file `CMJavaOEMAPIToolkit.jar` from the `<CM8Installation-root>/lib` directory on the Library Server to a temporary directory. Then copy all files from the `lib` subdirectory of the unpacked content to this location. The files are needed to create a bundle in the `deploy` folder in order to be able to use the CM8 API. After the files have been copied, the agent must be restarted.

NOTE

It is recommended to use API version 8.7 FP1 or newer. Older versions may cause connection issues in very rare cases.

cm8-runtime

This directory is created automatically and contains files that are required by the CM8 API during runtime.

CAUTION

Do not change or remove the contents of this directory!

formats

Contains the format files for monitoring of logfiles.

icc4sap-api

Copy the following files from an ICC4SAP system to this location. The files are needed to create a bundle in the `deploy` folder in order to be able to use the ICC4SAP API. After the files have been copied, the agent must be restarted.

Table 1. Files for ICC4SAP API

Files to copy	Typical location on ICC4SAP system	Remark
<code>archcheck.jar</code>	<code><Icc4SapInstallation-root>/server/bin</code>	

ici-api

Copy the following files from a Content Integrator (ICI) system to this location. The files are needed to create a bundle in the `deploy` folder in order to be able to use the ICI API. After the files have been copied, the agent must be restarted.

Table 2. Files for ICI API

Files to copy	Typical location on ICI system	Remark
<code>vbr.jar</code>	<code><IciInstallation-root>/lib</code>	

ondemand

Copy the following files from an OnDemand system to this location. The files are needed in order to be able to remotely connect via the ODWEK API.

IMPORTANT

The native library must match the OS of the agent. This means if you want to monitor an OnDemand on AIX from a Linux ESM agent, you'll need to get the Linux library.

NOTE

The name of some files may differ between OnDemand versions. This is represented with a * at the below list. Typically this is a two-digit number. Copy the files where all have the same and highest number in case you have several files.

Table 3. Files for OnDemand API

Agent OS	Files to copy	Typical location on OnDemand system	Remark
AIX	libars3wapi64.so	<OnDemandInstallation-root>/www	
Linux	libars3wapi64.so	<OnDemandInstallation-root>/www	
Windows	ars3wapi32.dll	<OnDemandInstallation-root>/www	
	icudt*.dll	<OnDemandInstallation-root>/www/bin	
	icuin*.dll	<OnDemandInstallation-root>/www/bin	
	icuio*.dll	<OnDemandInstallation-root>/www/bin	
	icuuc*.dll	<OnDemandInstallation-root>/www/bin	
	arsgsk64.dll	<OnDemandInstallation-root>/www/bin	

In addition, the following files must be copied from the OnDemand server for SSL-based OnDemand systems:

Table 4. Additional Files for SSL-based OnDemand API

Files to copy	Typical location on OnDemand system	Remark
<KeyringFile> (usually ondemand.kdb)	<OnDemandInstallation-root>/config (see entry SSL_KEYRING_FILE in ars.ini)	
<KeyringStash> (usually ondemand.sth)	<OnDemandInstallation-root>/config (see entry SSL_KEYRING_STASH in ars.ini)	

IMPORTANT

The Keyring Stash file should have very restrictive permissions (readable by ESM agent only).

If you plan to monitor several SSL-based OnDemand systems from one agent, you can rename the copied Keyring and Keyring Stash files on the agent. The filenames can be configured in the respective subsystems.

In addition, you will need the IBM Global Security Kit (GSKit) for SSL connections. Copy all files and subdirectories from the `lib64` subdirectory of a GSKit installation that matches the OS of your ESM agent to this location. For more information about GSKit see <https://www.ibm.com/docs/en/cmofm/10.5.0?topic=support-global-security-kit-gskit>.

locale

Copy the following files from an OnDemand system to this location. The files are needed in order to be able to remotely connect via the ODWEK API.

NOTE

The name of the file may differ between OnDemand versions. Example: For OnDemand 10.5, the file is named `icudt58l.dat`.

Table 5. Files for OnDemand API

Files to copy	Typical location on OnDemand system	Remark
<code>icudt*.dat</code>	<code><OnDemandInstallation-root>/locale</code>	

ondemand-api

Copy the following files from an OnDemand system to this location. The files are needed to create a bundle in the `deploy` folder in order to be able to remotely connect via the ODWEK API. After the files have been copied, the agent must be restarted.

NOTE

The name of the `gson` jar may differ between OnDemand versions. Example: For OnDemand 10.5, the file is named `gson-2.8.6.jar`.

Table 6. Files for OnDemand API

Files to copy	Typical location on OnDemand system	Remark
<code>ODApi.jar</code>	<code><OnDemandInstallation-root>/www/api</code>	
<code>gson-*.jar</code>	<code><OnDemandInstallation-root>/jars</code>	

p8-api

Copy the following files from a CPE to this location. The files are needed to create a bundle in the `deploy` folder in order to be able to connect to the CPE JAVA api. After the files have been copied, the agent must be restarted.

Table 7. Files for CPE JAVA api

Files to copy	Typical location on CPE	Remark
Jace.jar	<CPEInstallation-root>/lib or <CPEInstallation-root>/cdapi	
log4j.jar	<CPEInstallation-root>/lib or <CPEInstallation-root>/cdapi	only until P8 Ver. 5.5.5
pe.jar	<CPEInstallation-root>/lib or <CPEInstallation-root>/cdapi	
petools.jar	<CPEInstallation-root>/lib or <CPEInstallation-root>/cdapi	
stax-api.jar	<CPEInstallation-root>/lib or <CPEInstallation-root>/cdapi	only until P8 Ver. 5.5.4
xlxpScanner.jar	<CPEInstallation-root>/lib or <CPEInstallation-root>/cdapi	only until P8 Ver. 5.5.4
xlxpScannerUtils.jar	<CPEInstallation-root>/lib or <CPEInstallation-root>/cdapi	only until P8 Ver. 5.5.4

For the Case Manager probes, the following additional jars need to be copied:

Table 8. Additional files for Case Manager JAVA api

Files to copy	Typical location on Case Manager	Remark
acmapi.jar	<CaseManagerInstallation-root>/CaseAPI/lib	
JSON4J_Apache.jar	<CaseManagerInstallation-root>/CaseAPI/lib	

Buttons above the List - Description of the buttons:

Button for adding a new situation

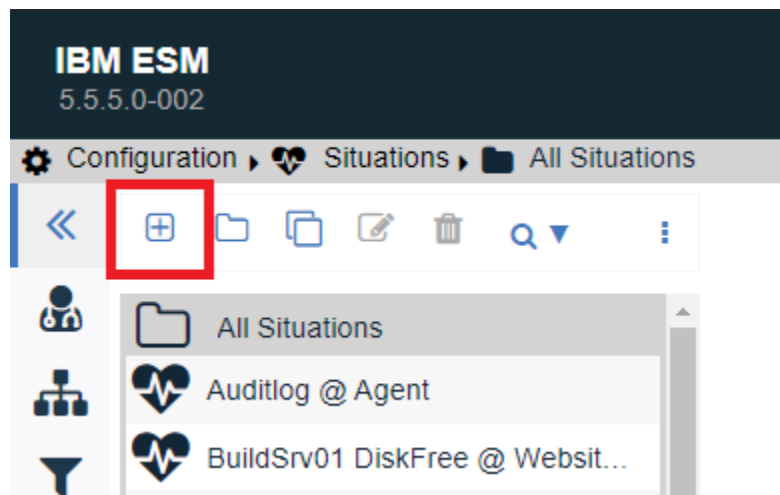


Image of creating new situation

Use this button to add a new situation.

Button for adding a new situation group

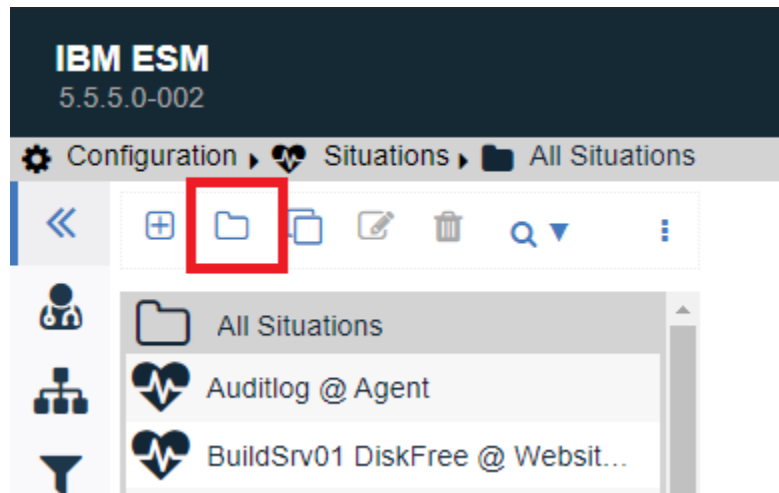


Image of creating new situation group

Use this button to add a new situation group.

Button for copying of a situation or situation group

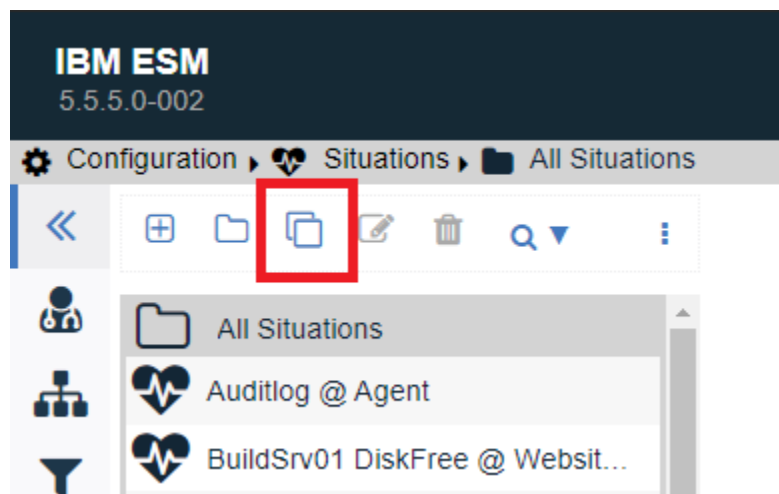


Image of copying of a situation or situation group

Use this button to create a copy of the currently marked situation or situation group.

Button for modifying of a situation or situation group

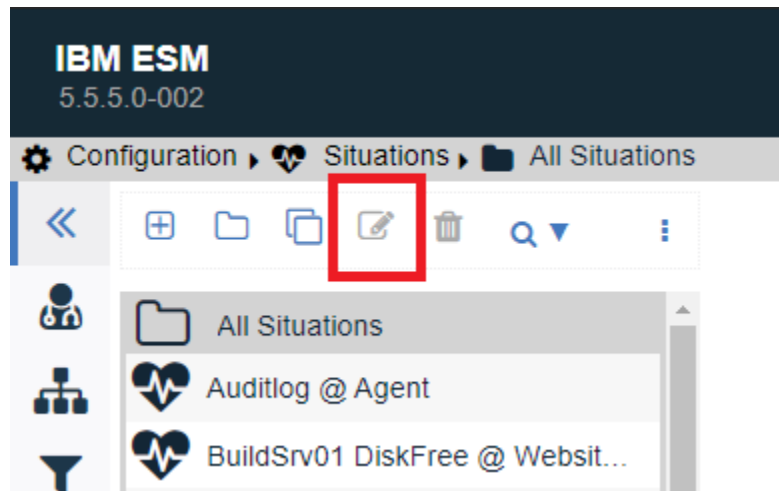


Image of modifying of a situation or situation group

Use this button to edit the currently marked situation or situation group - you can also double-click on the entry instead.

Button for deletion of a situation or situation group

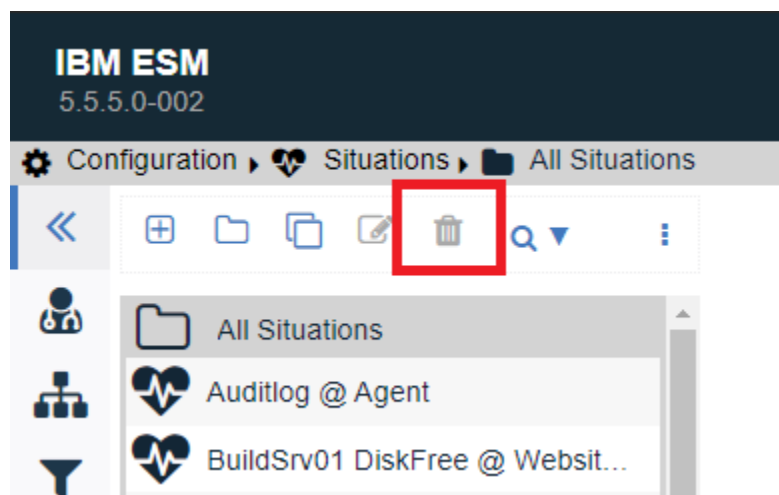


Image of deletion of a situation or situation group

Use this button to delete the currently marked situation or situation group.

NOTE

The default "All Situations" group cannot be deleted anymore.

Button for filtering of a situations by name

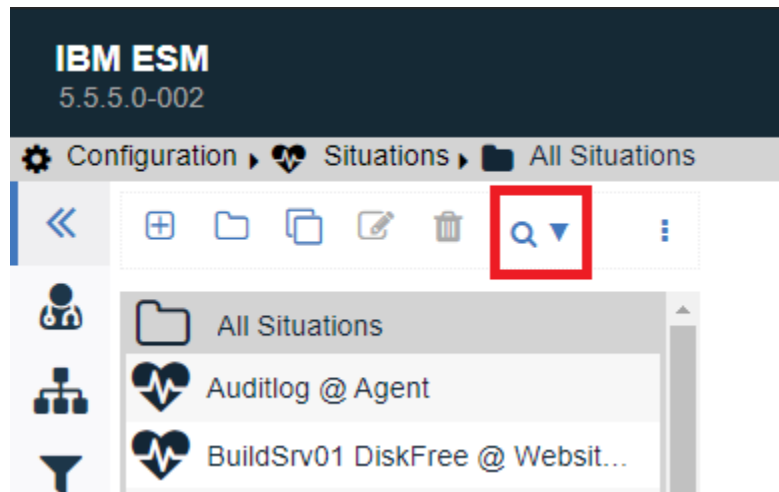


Image of filtering of a situations by name

Use this button to filter the available situation for the string entered. Filtering will start directly after typing the first character.

Button for (de-)activating of a situations from selected situation group

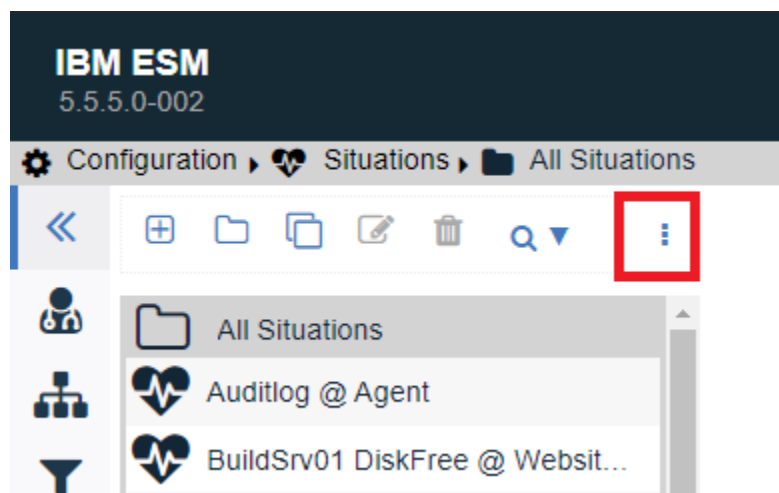


Image of (de-)activating of a situations from selected situation group

Use this button to (de-)activate all situation of the marked situation group.

Defining a Situation Group (example)

First of all switch to the configuration console. Choose the situation icon from the sidebar. This will open a list with the already configured situations. You have the possibility to create a new situation or situation group and duplicate, modify or delete the selected item.

Furthermore you can filter the situation based on the name.

- The toolbar of the situation sidebar has a filter icon that opens a filter input dialog.
 - The dialog is made up by a single lined text input field and the filter pattern is applied immediately when typing.
 - Clearing the text field will disable the filtering immediately without pressing the return key. This will lead to an unfiltered list of items.
 - If a filter is active the icon in the toolbar changes to an icon signalling the filter is active. ("pressed state") or the icon is highlighted in a specific manner.
- The filter pattern is applied on the names of all situations.
- The other groups are not made invisible.
- If the pattern does not match any situation's name, only the message "No Situation available" is shown in the sidebar in the area of the current situation group.
- The filter pattern is not a regular expression (regex), but static text to look for.
- The text entered is looked for in any position in the items under investigation.
- The filter pattern is case-insensitive.
- The filter pattern is trimmed for the search, so white spaces at the beginning and the end are not used for the filtering.

Example:

Given "foo", "bar", "bazFOO", "foobaz", "abcfooxyz", "fob" as the list of items and "Foo " as filter input, the result will be "foo", "bazFOO", "foobaz", and "abcfooxyz".

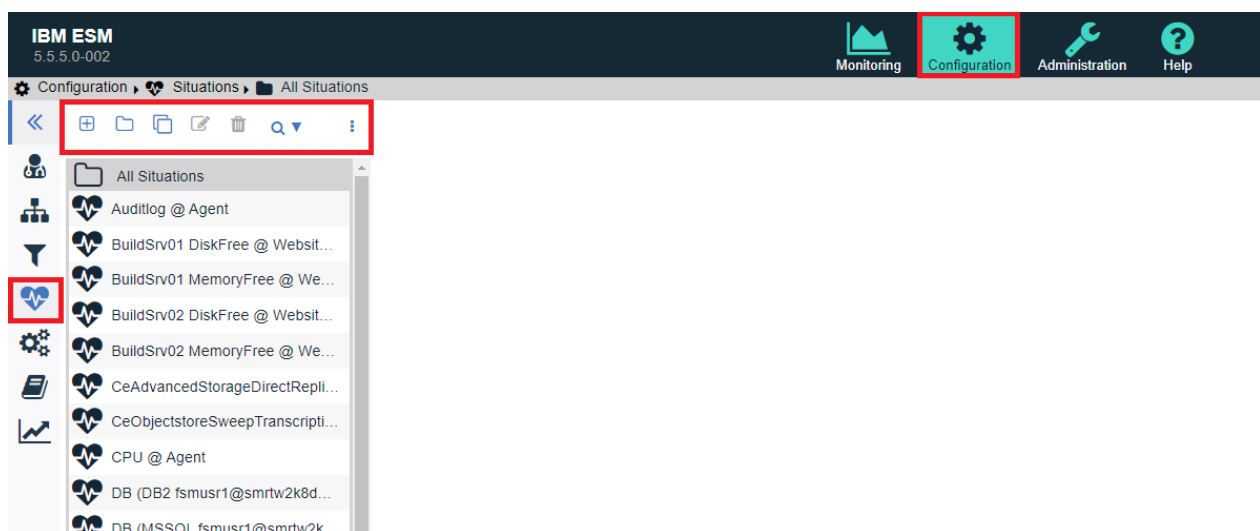


Image of Configuration Situation Group

Click on the "Create a new Situation Group" icon at the top of the list:

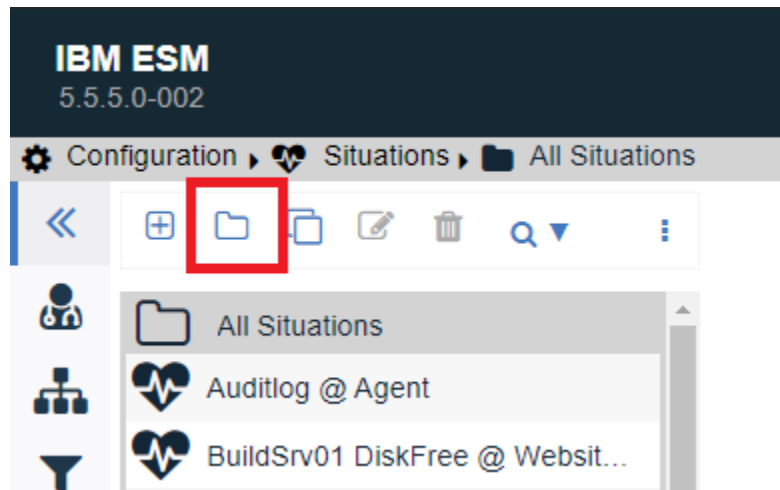


Image of Configuration Situation Group Add Situation Group Icon

This will open the editor for "Situation Groups" on the right of the sidebar. Specify a name and define one or more tags that should be used for this situation group. For adding a tag click in the field where Add Tag is specified and add it by clicking on the icon at the right of the field. Tags can be removed by clicking on the - icon on the right of an already existing tag. The screenshot shows an example of a situation group with the name "MySituationGroup" and one tag named "MyTag". Click on the save icon at the top.

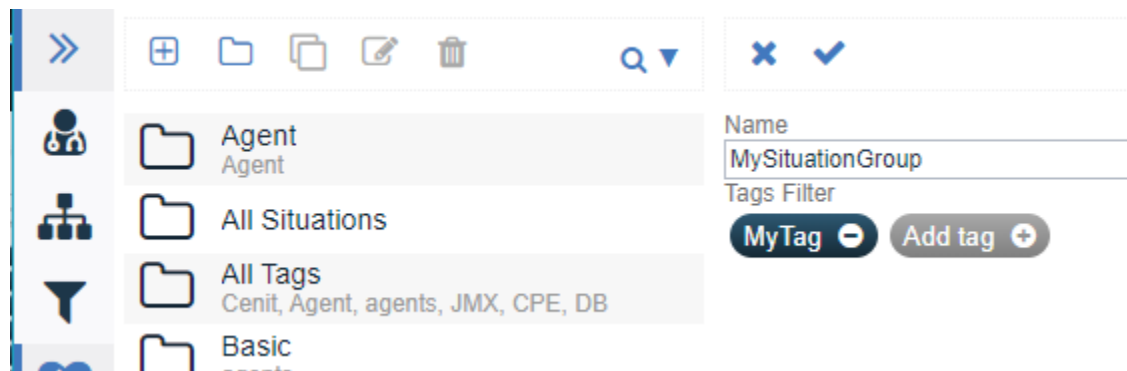


Image of Configuration New Situation Group

Setting up a Probe (example for CPU Usage on LocalAgent)

The availability of probes depends on the configured subsystems. Subsystem specific probes become available once the subsystem has been configured. Take a look in the configuration guide to see how subsystems are configured.

Currently probe and situation is a 1 to 1 relationship. Adding a probe means adding a situation.

For adding a probe switch to the configuration console. Choose the situation icon from the sidebar. This will open a list with the already configured situations. You have the possibility to create a new situation or new situation group and duplicate, modify or delete the selected item. Furthermore you have the possibility to filter the available situations based on the name.

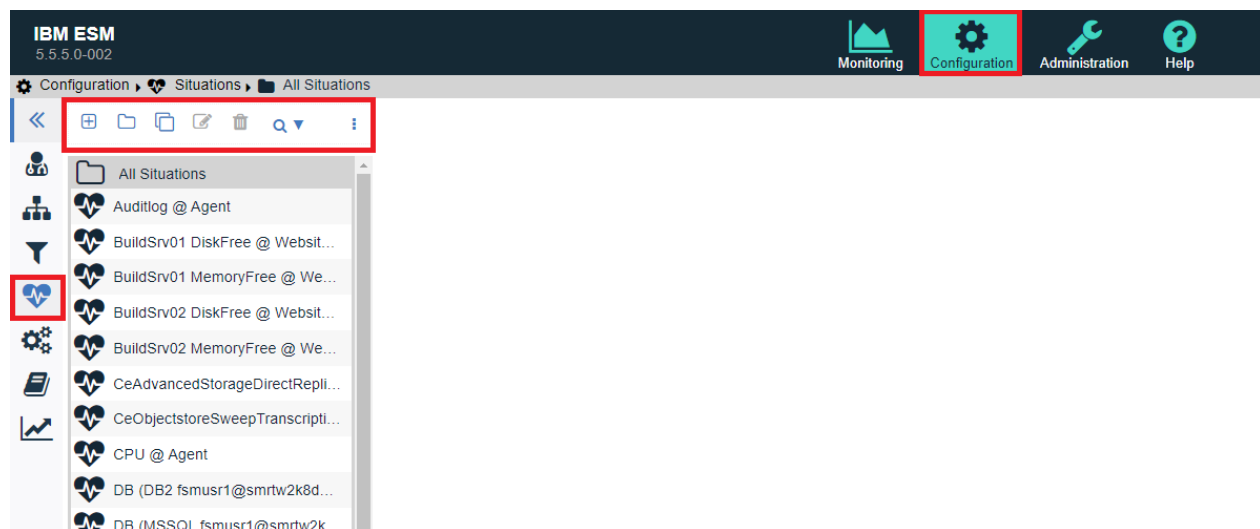


Image of Configuration Situation Group Add Probe Icon

Click on the "Create a new Situation" icon at the top of the list:

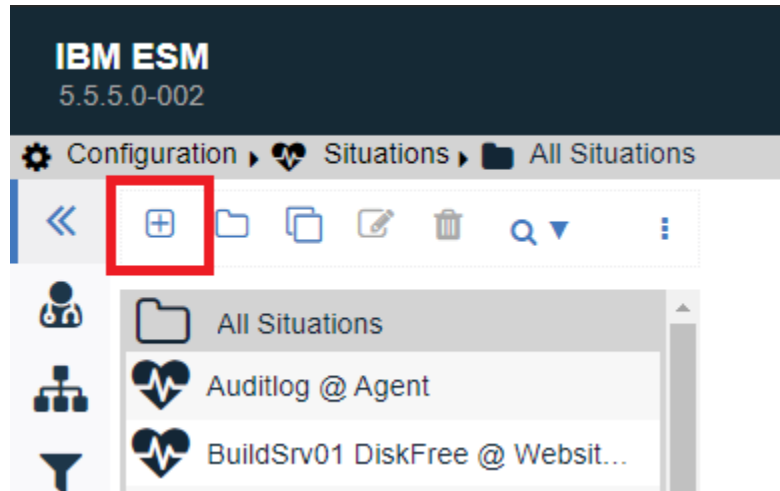


Image of Configuration Situation Group New Probe

This will open the editor for "Situation" on the right of the sidebar.

A screenshot of the 'Probe Configuration' editor. The top bar has navigation icons: a close icon, a left arrow, a right arrow, and a checkmark. Below the bar, there are three tabs: 'Probe Configuration', 'Agent Assignment', and 'Schedule'. The 'Probe Configuration' tab is active. It contains the following fields: 'Subsystem' (dropdown menu with 'ISAgent' selected), 'Probe' (dropdown menu with 'CenteraStatus' selected), 'Name' (text field with 'CenteraStatus @ ISAgent'), 'active' (checkbox), 'Centera Tool' (text field), and 'Centera Connection String' (text field). The 'Agent Assignment' tab shows a dropdown menu with 'ISAgent' selected. The 'Schedule' tab shows a section for 'When and how often should the probe collect samples from the target subsystem?'. It has two radio buttons: 'Interval' (selected) and 'Cron'. Below the radio buttons are fields for 'Start', 'End', and 'Interval' (set to '10 Minute(s)').

Image of Configuration Situation Group New Probe Overview

The editor has a total of 3 pages. You can browse through the pages using the icons in the top bar. Either use < or > to return to previous page or proceed to the next page or one of the "o o o" to directly switch to a page.

Probe configuration (Page1)

Per default the Probe Configuration has the following entries:

- Subsystem - Select the Subsystem from the drop-down. Depending on your selection, the available probes will change.
- Probe - Select the Probe you want to configure from the drop-down. Depending on your selection additional parameters will appear.
- Name - Give a name for the Probe Configuration. The situation will be stored with this name.
- Dropdown to change between Metric (default for scheduled probes like CPU) and Event mode

(default for continuous delivery probes like logfiles) - Metric means the incident for this probe is updated by each new sample. Event means each new sample creates a new incident.

- Checkbox - For marking the probes as active.
- Additional Parameters - 0-n parameters depending on the probe

Probe Configuration

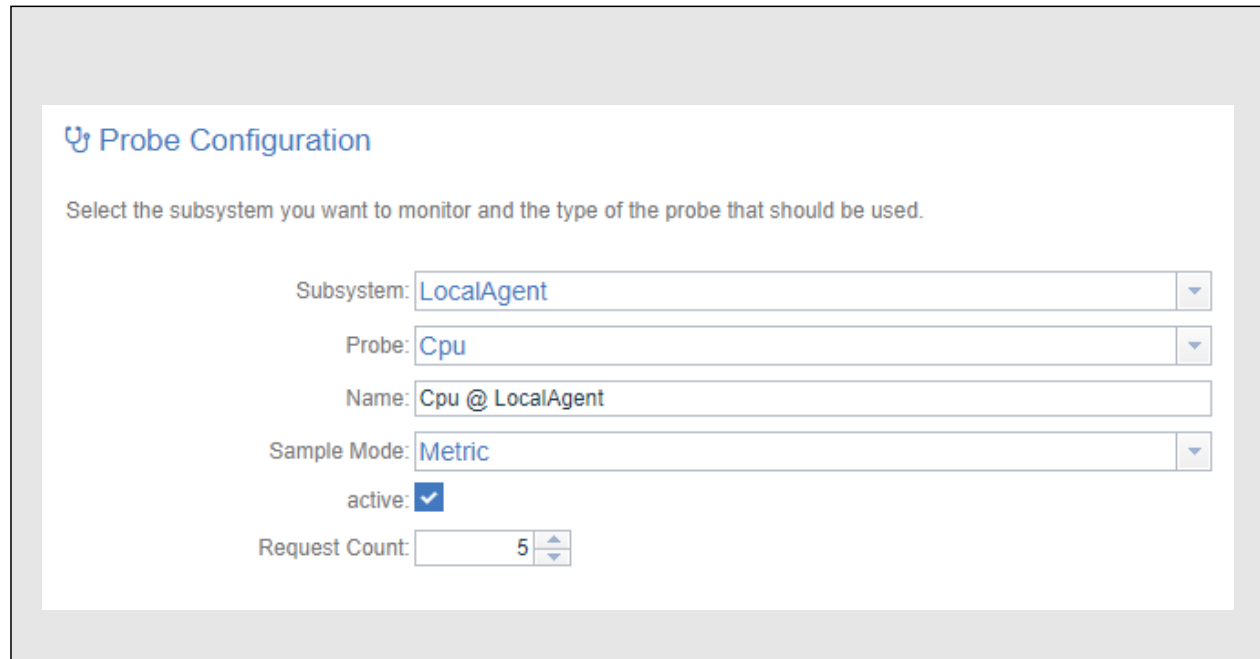
Select the subsystem you want to monitor and the type of the probe that should be used.

Subsystem:	Server_Agent	▼
Probe:	Cpu	▼
Name:	Cpu @ Server_Agent	
Sample Mode:	Metric	▼
active:	☐	
Request Count:	5	▲▼

Image of Configuration Situation Group Probe Configuration

For this example, select LocalAgent from Subsystem, CPUUsage from Probe and set the checkbox next to "Active" to activate the probe once stored. A "Name" is automatically given, you can rename it if you like. Specify 5 for the "Request Count" which means the average of 5 counts will be returned as value.

Example 1. ProbeConfigurationSetup



The screenshot shows a 'Probe Configuration' window with a title bar and a close button. The main content area has a heading 'Probe Configuration' with a gear icon. Below it is a instruction: 'Select the subsystem you want to monitor and the type of the probe that should be used.' There are five input fields: 'Subsystem' (dropdown menu with 'LocalAgent' selected), 'Probe' (dropdown menu with 'Cpu' selected), 'Name' (text field with 'Cpu @ LocalAgent'), 'Sample Mode' (dropdown menu with 'Metric' selected), and 'active' (checkbox that is checked). At the bottom is a 'Request Count' field with a text input '5' and a spinner control.

Agent Assignment (Page1)

The Agent Assignment defines on which agent the probe should be deployed. In the example "LocalAgent" is selected.

Agent Assignment

On which agent should the probe be deployed?



A dropdown menu with 'LocalAgent' selected and a blue arrow icon on the right.

Image of Configuration Situation Group Probe Agent Assignment

Schedule (Page1)

You have the possibility to either schedule the execution as an "Interval" or a "Cron" job.

Interval

Optional select a "Start" and "End" date and time. You can do this from the drop-down. In "Every" specify your execution period. You can choose between "Second(s)", "Minute(s)", "Hour(s)", "Day(s)", "Week(s)", "Month(s)" and "Year(s)".

 [Schedule](#)

When and how often should the probe collect samples from the target subsystem?

☒ Interval ☐ Cron

Start:

End:

Interval:

- Second(s)**
- Minute(s)
- Hour(s)
- Day(s)
- Week(s)
- Month(s)
- Year(s)

Image of Configuration Situation Group Probe Interval Schedule

Cron

This scheduler option works like a normal cron scheduler. ESM uses "Quartz". By default "Minutes", "Hours", "Days of Months" and "Months" are filled with "*" and "Days of Week" is filled with "?".

"*" is equal to all

"?" is equal to any

Because of these circumstances "Days of Month" and "Days of Week" can be defined.

 [Schedule](#)

When and how often should the probe collect samples from the target subsystem?

☐ Interval
 ☒ Cron

Minute(s): *

Hour(s): *

Day(s) of month: *

Day(s) of week: ?

Month(s): *

Image of Configuration Situation Group Probe Cron Schedule

Once you click into one of the fields, a wizard opens that let you choose from the possibilities. Your selection will automatically reflect in correct syntax in the field.

The following screenshot shows the wizard for

Minutes:

Schedule

When and how often should the probe collect samples from the target subsystem?

☐ Interval ☒ Cron

Minute(s):

Hour(s):

Day(s) of month:

Day(s) of week:

Month(s):

Please select items from below. You may also select a range of items.

0	1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18	19
20	21	22	23	24	25	26	27	28	29
30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59

Image of Configuration Situation Group Probe Cron Minutes Schedule

Hours:

Schedule

When and how often should the probe collect samples from the target subsystem?

☐ Interval ☒ Cron

Minute(s): *

Hour(s): *

Day(s) of month:

Day(s) of week:

Month(s):

Please select items from below. You may also select a range of items.

0	1	2	3	4	5
6	7	8	9	10	11
12	13	14	15	16	17
18	19	20	21	22	23

Image of Configuration Situation Group Probe Cron Hours Schedule

Days of Month:

Schedule

When and how often should the probe collect samples from the target subsystem?

☐ Interval ☒ Cron

Minute(s): *

Hour(s): *

Day(s) of month: *

Day(s) of week:

Month(s):

Please select items from below. You may also select a range of items.

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31					

Image of Configuration Situation Group Probe Cron Days Of Month Schedule

Days of Week:

Schedule

When and how often should the probe collect samples from the target subsystem?

☐ Interval ☒ Cron

Minute(s): *

Hour(s): *

Day(s) of month: *

Day(s) of week: ?

Month(s):

Please select items from below. You may also select a range of items.

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Image of Configuration Situation Group Probe Cron Days Of Week Schedule

Months:

Schedule

When and how often should the probe collect samples from the target subsystem?

☐ Interval ☒ Cron

Minute(s): *

Hour(s): *

Day(s) of month: *

Day(s) of week: ?

Month(s): *

Please select items from below. You may also select a range of items.

January	February	March
April	May	June
July	August	September
October	November	December

Image of Configuration Situation Group Probe Cron Months Schedule

After you have finished the schedule, proceed with page 2 (Evaluation).

Evaluation (Page 2)

In the evaluation (in former times escalation) the incident for a Probe / Situation will be defined. Depending on different conditions different statements can be executed. E.g. severity can be set etc. Furthermore Base Fields settings can be reviewed and adjusted (only do this if really needed). In addition tags can be set to group the probe in Situation Groups.

An evaluation setup has two parts, the "Mappings" and the "Escalate and Filter Duplicates".

The "Escalate and Filter Duplicates" is not used in this example scenario and therefore the following screenshot just shows the "Mappings" within the setup for the configured CPUUsage probe:

Situation

A situation evaluates a probe's samples and yield incidents. Assign tags here to organize those incidents on the dashboard.

CpuUsage @ Agent

Probe:CpuUsage @ Agent Subsystem:Agent Add tag

Evaluation

Define the mapping of probe sample content to incident fields. Use conditional mappings to specify the interpretation of a sample's fields.

Shared Evaluation: ☐

► Base Fields: severity=WARNING, message=Sample.message, error=Sample.error, value=Sample.value, source=Sample.source, classification=Sample.classification

Mappings

Condition	Statements			
value >= 80	Set Severity to Critical	X	↺	↻
value >= 50	Set Severity to Warning	X	↺	↻
value >= 0	Set Severity to Harmless	X	↺	↻
Else:	Set severity to FATAL	X		

Image of Configuration Situation Group Probe Evaluation

Shared Evaluation

Once an evaluation was or is created, it can be shared. Shared evaluations can be loaded during the setup of other situation and therefore they can be reused. In the case the evaluation is shared between different situation setups, changing such an evaluation means it is adjusted for all of them. This can be very helpful in case you have lots of same situations e.g. for CPUUsage.

Presets of shared evaluations

Some predefined shared evaluations are available out of the box. To use them, simply mark the checkbox next to "Shared Evaluation" as active and select one of the available. The following predefined shared evaluations are available:

- Count
 - error: FATAL
 - >=0: HARMLESS
- Count Errors

- error: FATAL
- >0: CRITICAL
- 0: HARMLESS
- Log
 - error: FATAL
 - classification: BLOCKING: FATAL / UNBLOCKING: HARMLESS
 - classification: File Found: HARMLESS / FILE NOT FOUND: FATAL
- Log Levels
 - error: FATAL
 - classification: BLOCKING: FATAL / UNBLOCKING: HARMLESS
 - classification: File Found: HARMLESS / FILE NOT FOUND: FATAL
 - 10: HARMLESS
 - 20: WARNING
 - 30: CRITICAL
 - 40: FATAL
- Percentage Low Critical
 - error: FATAL
 - >=20 HARMLESS
 - >=10 WARNING
 - <10: CRITICAL
- Percentage High Critical,
 - error: FATAL
 - ≤80 HARMLESS
 - ≤90 WARNING
 - >90 CRITICAL
- Status
 - error: FATAL
 - 1: HARMLESS
 - 0: CRITICAL

Sharing a new evaluation

If a new situation should be shared for having the possibility to be reused in the future, simply mark the checkbox next to "Shared Evaluation" as active. Now you can define a name by clicking in the drop-down and start typing. Specify a meaningful name that points out to which kind of evaluation this is belonging. Keep the checkbox active so the evaluation is shared and save the situation setup once completed.

Shared Evaluation: ☒ CPU   Changes to this shared evaluation affect 1 situation(s)!

Image of Configuration Situation Group Probe Evaluation Shared Evaluation

Reusing shared evaluations

If shared evaluations exist, they can be reused. Therefore mark the checkbox next to "Shared Evaluation" as active and select the evaluation you want to use from the drop-down. The evaluation is then loaded and applied to the "Mappings" and "Escalate and Filter Duplicates" sections.

Once you have loaded the evaluation and you don't want to mark it as shared in this particular situation setup, simply just uncheck the "Shared Evaluation". In this case changes made in the "Mappings" and "Escalate and Filter Duplicates" are not shared.

If the loaded info is not what was expected, you can select a different shared evaluation from the drop-down to reload or click on the "Reset Evaluation" button - second button on the right to the drop-down - to reload the default evaluation. The default evaluation is maintained as long as you did not save the situation.

Deleting shared evaluations

Shared evaluations can also be deleted if they are no longer needed. The "Delete the selected shared Evaluation" button - first button on the right to the drop-down - is enabled if the selected evaluation is only "shared" in the current situation setup. If it is shared in others as well, the button is disabled.

Mappings

In the "Mappings" setup, "Conditions" and "Statements" can be defined.

Condition

NOTE | The first entry that matches in the condition will win.

Condition		
value	>	0

Image of Configuration Situation Group Probe Evaluation Condition

You can choose between the following sample fields:

- value = return value of the sample.
- error = error id included in the sample.
- message = message text of the sample.

The following operators are available:

- "!=" = not equals
- "=" = equals
- "<" = smaller than
- ">" = greater than
- "<=" = equal or smaller than
- ">=" = equal or greater than
- "contains" = containing the followed expression
- "matches" = matching the followed expression

MultiPartConditions

You can create MultiPartConditions by clicking into the cell of a condition and then clicking on the "Copy" icon that appears to the right of the condition.

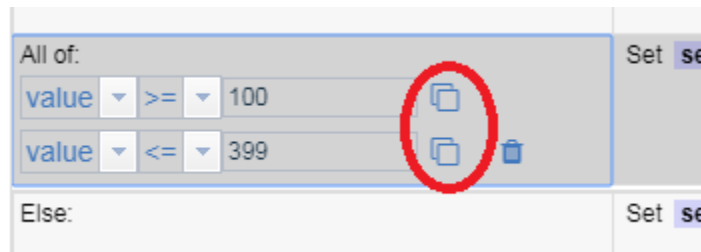


Image of Configuration Situation Group Probe Evaluation MultiPartCondition

Statements

Statements		
Set	severity	Critical
Set	severity	Harmless
Set	severity	Fatal
Set	severity	Harmless
Set	message	\$Sample.value - Everything is OK

Image of Configuration Situation Group Probe Evaluation Statements

It is possible to use either one (single) statement or several (multiple) statements per condition. Clicking on the copy button next to the statement adds an additional line.

Statements for the following slots can be used:

- classification
- error
- message
- severity
- source
- value

For the Severity the content is predefined and can only be selected from a drop-down. For all others the content is plain text which can be either self created or the content of the sample slots can also be used by specifying e.g. \$Sample.value as shown in the screenshot.

Actions



Image of Configuration Situation Group Probe Evaluation Actions

On the right side actions can be taken:

- An entry can be copied.
- An entry can be deleted.
- An entry can be moved up.
- An entry can be moved down.

For this example, we choose the following conditions:

value >= 90 | Set severity to Critical
value >= 50 | Set severity to Warning
value >= 0 | Set severity to Harmless

Mappings	
Condition	Statements
value >= 90	Set severity to Critical
value >= 50	Set severity to Warning
value >= 0	Set severity to Harmless

Image of Configuration Situation Group Probe Evaluation Condition Setup

IMPORTANT

For Logfile Probes choose one of the available shared (log or log levels) evaluation. Log levels does have a default mapping for entries to a certain severity, log will not create an event for the entry in the logfile. Only the samples will be shown and you have to create the evaluation to match your requirements.

Escalate and Filter Duplicates (Page 2)

The Escalate and Filter Duplicate function is used to act on a certain amount of incidents from the same type in a certain period.

NOTE

The duplicate detection will have no effect for metric mode samples. This is because the metric mode implies per definition an active duplicate detection all the time.

A duplicate incident is identified by the fields:

- Classification
- Severity
- First x characters of message text (select able)
- First x characters of error text (select able)

The default setup looks like this:

Escalate and Filter Duplicates

Define when duplicates of occurrences shall lead to escalation of the situation and how duplicates can be trimmed to single incidents.

Escalation: ☐	Duplicate Filter: ☐
Period: 3.600 Second(s)	Period: 3.600 Second(s)
Matching message characters: 15	Matching message characters: 15
Matching error characters:	Matching error characters:
Escalate after x duplicates: 15	Pass every nth duplicate: 15
Mode: Once	

NOTE | Only one setup per probe is possible - all incidents are handled with the same settings.

Description of the parameters

Checkboxes

Check the box to set active.

NOTE | If both is selected, the escalation is done before the filtering of the duplicate!

Period

Specify the period for checking as a duplicate in seconds.

Matching message characters

Specify the amount of matching character for identify as a duplicate. The first x characters are compared. 0 means no characters are compared, empty means all characters will be compared.

Matching error characters

Specify the amount of matching character for identify as a duplicate. The first x characters are compared. 0 means no characters are compared, empty means all characters will be compared.

Escalate after x duplicates

If x duplicates appeared in the specified period, the current incident is escalated.

Pass every nth duplicate

The x duplicate is passed as a new incident to the console.

Mode

Once → Only escalated one time, the severity can only be raised to the next level.
Multiple → Escalation can happen several times over several levels.

Escalation and Filter Mechanism - How does it work

Once a sample is received at the server, the processing of the sample starts. The processing reviews the amount of already received samples for the given period.

For escalation: If the amount is less than the specified amount, the new incident stays at same level. If the amount is equal or higher, the level is raised.

For filtering: If the amount is less than the specified amount, the new incident is discarded. If the amount is the same, a new incident is created.

NOTE

For now, HARMLESS and FATAL incidents do not get escalated. The behaviour for HARMLESS might change in the future.

After you have finished the evaluation and escalate and filter duplicate setup proceed with page 3 (Automation).

Automation (Page 3)

In automation, tasks can be configured based on conditions. Click on the "AddTask" button to add an entry.

Condition

The available conditions are the same as in the evaluation, but it must not use the same settings. Furthermore all matching entries will be processed. Not only the first one.

Mode

Two modes are available, Always and First. Always: Anytime the condition matches the task is triggered. First: Only the first time (on change) the condition matches the task is triggered.

Tasks

Choose from the available tasks in the drop-down.

Actions

- An entry can be copied.
- An entry can be deleted.

Automation

Task Configuration

+

Condition	Mode	Tasks
severity > Critical	Always	Filesystem Cleanup

Image of Configuration Situation Group Probe Automation

For this example, we do not choose anything.

Save the setup of the Probe by clicking on the ✓ icon.

The resulting incident in the console looks like this:

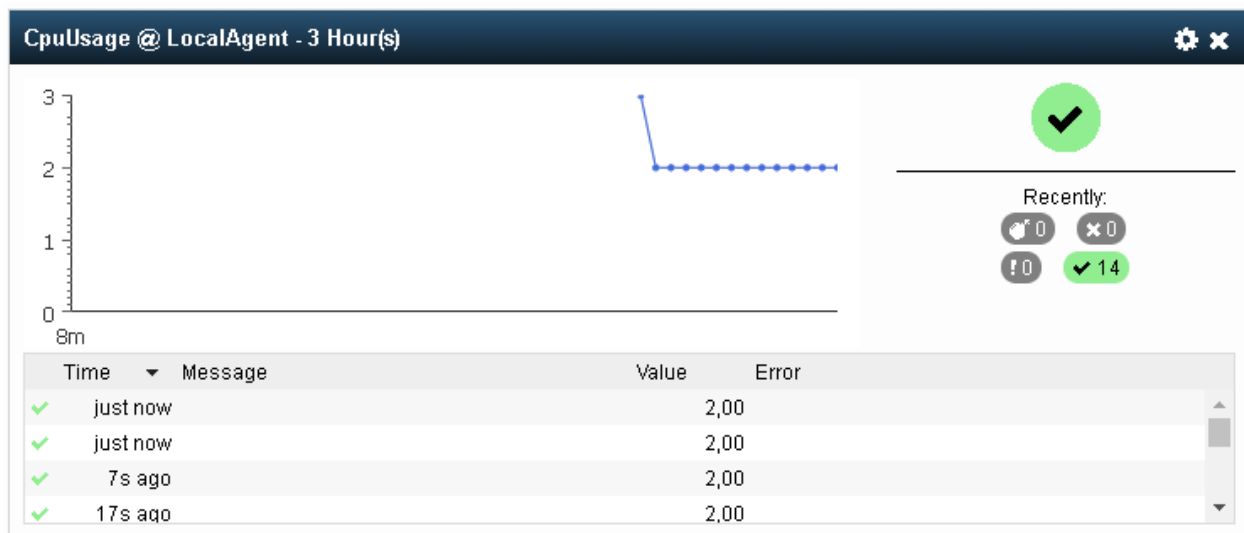


Image of Incident in Console

Default (standard) base probes for all agent

ESM installs the following default probes on each agent:

NOTE

This mechanism can be disabled. On the ESM Server in the folder <Installation-Root>/karaf/etc is a file named "de.cenit.phoenix.server.services.agents.AgentBasicMonitoringInitializer.cfg". If the file does not exist, create it. The content of the file must be set to "disable=true" (without " ") for disabling the automation.

CPU Load (Probe "CPU")

all 30 seconds

Name the situation "Cpu @ <agent>"

Evaluation:

Value greater or equals 80 → CRITICAL

Value greater or equals 50 → WARNING

Value greater or equals 0 → HARMLESS

Memory Usage (Probe "Memory")

all 2 minutes

Name the situation "Memory @ <agent>"

Evaluation:

Value less or equals 5 → FATAL

Value less or equals 20 → CRITICAL

Value less or equals 30 → WARNING

Value greater or equals 30 → HARMLESS

Diskspace (Probe "Diskspace")

all 15 minutes

Name the situation "Diskspace @ <agent>"

Evaluation:

Value less or equals 5 → CRITICAL

Value less or equals 10 → WARNING

Value greater or equals 10 → HARMLESS

Available Probes including all Parameters based on Subsystem Type.

Subsystem Type AzureServer

MailCount

Description

This probe returns the number of mails in the selected folder on an Azure mail server.

Recommended Schedule

Approx. 45 min

Parameters

Folder

Select a folder from the list.

The list is based on the list of well-known folders from Microsoft. See <https://learn.microsoft.com/en-us/graph/api/resources/mailfolder?view=graph-rest-1.0> for details.

Mail Address

The email address of the account to monitor. If the field is left empty, the account specified in the `From Address` field in the subsystem will be monitored.

IMPORTANT

The `Mail Address` must be a valid user principal name (identical to the email address) or Object ID (UUID) of an existing user.

Return Values

>=0

Number of mails

List of possible error conditions

- Authorization failed
 - Authorization against the Azure server failed. Check the settings in the related Azure subsystem.
- Unexpected HTTP code
 - The mail count request returned an unexpected HTTP response code. See error field for details.

Subsystem Type BawCaseManager

BawCaseManagerCaseStatus

Description

This probe returns the number of ICM cases with a specific case status (for instance 'FAILED').

NOTE | This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT | Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 10 min

Parameters

Case Names

Comma separated list of all Cases to be checked (case-sensitive).
Leave empty for all cases.

Case Status To Check

Possible values are: 'NEW', 'INITIALIZING', 'WORKING', 'COMPLETE', 'FAILED'. If unset the default value 'FAILED' will be used.

Target Objectstore Name

Name of the Target Object Store for the cases to be checked.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 2. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Number of cases with specific case status

-1

An error has occurred.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to monitor the Case Manager are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- An error occurred while collecting data
 - An internal error occurred while requesting data for cases, tasks or solutions. Check the error field of the sample for more information.

BawCaseManagerPingPageStatus

Description

The BawCaseManagerPingPage probe returns the HTML table information of the CaseManager Ping Page.

Recommended Schedule

Approx. 5 min

Parameters

Custom Rest Address

Optional. Custom base address for the CASEREST API. If specified, the address from the Url subsystem will be ignored.

Example 3. Custom Rest address

```
http://localhost:9081/
```

Return Values

1

Ping page was requested successfully and has the expected content

0

Ping page was requested successfully but does not have the expected content.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200

BawCaseManagerSolutionStatus

Description

This probe returns the number of ICM solutions with a specific solution status (for instance 'FAILED').

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 15 min

Parameters

Solution Names

Comma separated list of all Solutions to be checked (case-sensitive).
Leave empty for all solutions.

Solution Status To Check

Possible values are: 'INITIATED', 'COMPLETE', 'COMPLETE_WITH_WARNINGS', 'FAILED', 'UNKNOWN'. If unset the default value 'FAILED' will be used.

Target Objectstore Name

Name of the Target Object Store for the solutions to be checked.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 4. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Number of cases with specific solution status

-1

An error has occurred.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to monitor the Case Manager are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- An error occurred while collecting data
 - An internal error occurred while requesting data for cases, tasks or solutions. Check the error field of the sample for more information.

BawCaseManagerTaskStatus

Description

This probe returns the number of ICM task with a specific task status (for instance 'FAILED').

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 15 min

Parameters

Case Names

Comma separated list of all Cases to be checked (case-sensitive).
Leave empty for all cases.

Task Names

Comma separated list of all Tasks to be checked (case-sensitive).
Leave empty for all tasks.

Task Status To Check

Possible values are: 'READY', 'WORKING', 'COMPLETE', 'WAITING_ALL', 'WAITING_PRECONDITION', 'WAITING_PREDECESSORS', 'FAILED'. If unset the default value 'FAILED' will be used.

Target Objectstore Name

Name of the Target Object Store for the tasks to be checked.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 5. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Number of tasks with specific task status

-1

An error has occurred.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to monitor the Case Manager are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- An error occurred while collecting data
 - An internal error occurred while requesting data for cases, tasks or solutions. Check the error field of the sample for more information.

Subsystem Type BawWorkflowServer

BawContainerSnapshotCount

Description

This probe will return the count of (unnamed) snapshots of a specific process app or toolkit.

Recommended Schedule

Depends on how often unnamed snapshots are produced in the customer's environment. An unnamed snapshot will be created for every saved change in a model. Usually every 30 min should be enough.

Parameters

Container Type

Choose between ProcessApp and Toolkit from the drop-down.

Container Acronym

Short name/acronym of container that should be used for the search. E.g. App01 for ProcessApp or TK01 for Toolkit

Return Values

value

Count = Numeric value of the request -1 = (wrong configuration etc.)

BawExposedItemExists

Description

This probe check the existence of exposed item of type (service, process, report or scoreboard).

Recommended Schedule

Depends on the checked item type. Approx. every 10 min.

Parameters

Exposed Item Type

Select any of the item types from the dropdown.

Exposed Service Sub Type

Optional; if left empty, all sub types will be used.

Display

Enter the display name here. -

NOTE

To find exposed items.

<https://yourServer:9446/rest/bpm/wle/v1/exposed/service>

<https://yourServer:9446/rest/bpm/wle/v1/exposed/process>

<https://yourServer:9446/rest/bpm/wle/v1/exposed/report>

Sub Types can be found in the <subtype> tag (only for Exposed Item Type = service; otherwise leave empty)

Display is the display name, can be found in <display> tag

Return Values

value

0 = not_ok (Item does not exist) 1 = ok (Item exists) or -1 = error (wrong configuration etc.)

message

Information regarding the searched item.

error

"HTTP status code = <HTTP status code> calling <url>. <text from API documentation for the status code|message body> "HTTP status code = <HTTP status code> calling <url>. <text of message body>" and/or a stacktrace ==== BawInstanceStatusCount

Description

This probe returns the number of process instances in a certain state.

Recommended Schedule

Approx. 15 min

Parameters

Process Applications

Comma separated list of process application short names.
Leave empty for all process applications.

Exclude Process Applications

Check this option to exclude the process applications given in the field above from monitoring.

Status Values

Comma separated list of status values. Valid Status values are: Active, Completed, Did_not_Start, Failed, Suspended, Terminated, At_risk, Late.
Leave empty for all status values.

Exclude Status Values

Check this option to exclude the status values given in the field above from monitoring.

Break Down By Process Application

Check this option to create one sample per process application.
This option can be combined with Break Down By Status Value to create one sample per process application / status value combination. If both options are unchecked, one sample with the overall count will be created.

Break Down By Status Value

Check this option to create one sample per status value.
This option can be combined with Break Down By Process Application to create one sample per process application / status value combination. If both options are unchecked, one sample with the overall count will be created.

Return Values

>=0

number of process instances

List of possible error conditions

- CSRF token request failed with code <code>: <response>
 - The request for a valid CSRF token did not return the expected HTTP code (201).
- Could not parse csrf_token from response <response>
 - The response returned for the CSRF token request did not contain the expected content.
- Encountered exception during CSRF token request
 - An exception occurred during request for a valid CSRF token. For details see stack trace in the

error field.

- Request failed with code <code>: <response>
 - An HTTP request did not return the expected HTTP code (200).
- Error executing HTTP request for URL <address>
 - An exception occurred during an HTTP request. For details see stack trace in the error field.
- No process applications defined
 - There are no process applications defined in the BAW system.
- '<process app>' not defined; defined ProcessApps: <list of defined apps>
 - The specified process application name is not defined in the BAW system.
- All defined process applications excluded
 - All process applications defined in the BAW system are excluded.
- '<status value>' not defined; defined ProcessApps: <list of known status values>
 - The specified status value is not known.
- All defined status values excluded
 - All known status values are excluded.

BawNewInstanceCount

Description

This probe checks the number of new process instances. Depending on the configuration, the probe can return the count for these time periods:

- since the last probe run
- since midnight of the current day (option `Show Full Day`)
- for a specific period in the past (option `Last Finished Period`)

NOTE

The computations for `Show Full Day` and `Last Finished Period` are based on the time zone of the agent.

Recommended Schedule

Approx. 15 min

Parameters

Process Applications

Comma separated list of process application short names.
Leave empty for all process applications.

Exclude Process Applications

Check this option to exclude the process applications given in the field above from monitoring

Show Full Day

If this option is checked, the probe will count new instances created since midnight of the current day. In this case, `Last Finished Period` will be ignored.

Last Finished Period

If this option is checked, the fields `Period Count` and `Period Type` define the time period the probe will look at.

If this option is unchecked, the fields `Period Count` and `Period Type` will be ignored. The probe will return the count since the last probe run or since midnight.

+ `.Last Finished Period` checked

```
probe is scheduled to run every hour
Period Count= 1
Period Type= Day
⇒ each probe run will return the batch count for the previous day 0:00 to 23:59.
```

NOTE

This parameter reflects the last finished period, so the returned values are always for the previous period of the given period type.

Period Count

Enter a period count. (This parameter is only used when Last finished period is checked)

Period Type

Select a period type from the list. Available options are minute, hour, day, week, and month. (This parameter is only used when Last finished period is checked)

Aggregation Type

Select an aggregation type from the list.

If `NONE` is selected, one sample per job will be created. For all other aggregation types, one aggregated sample will be created.

Return Values

`>=0`

number of new process instances

List of possible error conditions

- CSRF token request failed with code <code>: <response>
 - The request for a valid CSRF token did not return the expected HTTP code (201).
- Could not parse csrf_token from response <response>
 - The response returned for the CSRF token request did not contain the expected content.
- Encountered exception during CSRF token request
 - An exception occurred during request for a valid CSRF token. For details see stack trace in the error field.
- Request failed with code <code>: <response>
 - An HTTP request did not return the expected HTTP code (200).
- Error executing HTTP request for URL <address>
 - An exception occurred during an HTTP request. For details see stack trace in the error field.
- No process applications defined
 - There are no process applications defined in the BAW system.
- '<process app>' not defined; defined ProcessApps: <list of defined apps>
 - The specified process application name is not defined in the BAW system.
- All defined process applications excluded
 - All process applications defined in the BAW system are excluded.

Subsystem Type BusinessAutomationWorkflow

To monitor your BAW system, use the dedicated probes for BawWorkflowServer and BawCaseManager.

Subsystem Type CEBI

CEBIBatchStatus

Description

This probe checks for failed CEBI image scans. The name of the failed batch and the content of the corresponding error file can be found in the sample message.

Recommended Schedule

Approx. 15 min

Parameters

Parent Directory

Directory under which the *.err files are located.

Ignore Structure

If selected, the CEBI directory structure is ignored. If not selected, there must be corresponding directories for each of the *.err files. Each of the directories must contain a file named `transact.dat`.

Return Values

1

No errors occurred during batch processing.

0

Errors occurred during batch processing. One sample per failed batch will be created. The message field contains details about the failed batch.

List of possible error conditions

- '<parent directory>' does not exist or is no directory
 - Check the parent directory defined in the probe configuration
- Error getting *.err files from '<parent directory>'
 - An exception occurred while trying to get the list of *.err files. See error field for details.
- Error reading file '<file>'
 - An exception occurred while reading a specific .err file. See error field for details.

CEBIProcesses

Description

This probe checks whether the relevant CEBI Java process instance is running or not.

Recommended Schedule

Approx. 5 min

Parameters

None.

Return Values

1

The CEBI Java process instance is running.

0

The CEBI Java process instance is not running.

List of possible error conditions

- Error getting data from ProcessDetailProvider
 - The list of running processes could not be obtained.

CEBIStatistics

Description

This probe is used for CEBI statistics. The probe analyses the end-of-day file (parameter eod directory and eod file format) and returns numeric values (percentage or numbers) based on the selected statistic (parameter: statistic value). If you enter the name of a batch only the results of the selected batch will be processed.

The following statistics are possible:

Passed Batches	Total number of passed batches
Failed Batches	Total number of failed batches
Percentage Passed Batches	Percentage of passed batches (0 to 100)
Percentage Failed Batches	Percentage of failed batches (0 to 100)
Send Docs	Total number of documents of the day
Send Pages	Total number of pages of the day

Passed Docs	Total number of passed documents
Passed Pages	Total number of passed pages
Failed Docs	Total number of failed documents
Failed Pages	Total number of failed pages
Percentage Passed Docs	Percentage of passed documents (0 to 100)
Percentage Passed Pages	Percentage of passed pages (0 to 100)
Percentage Failed Docs	Percentage of failed documents (0 to 100)
Percentage Failed Pages	Percentage of failed pages (0 to 100)

Recommended Schedule

Approx. 15 min

Parameters

End Of Day File Directory

Directory where the end-of-day file is located

End Of Day File Format

Pattern for end-of-day file name including a date placeholder (YYYYMMDD or YYMMDD), e.g.
YYYYMMDDfn.eod

Statistic Value

Statistic value to check (see list above)

Batch Name

name of batch to check (optional). If no batch name is specified, all batches will be checked.

Return Values

>=0

Absolute number or percentage, depending on the specified statistic value

List of possible error conditions

- End Of Day File Directory '<directory>' does not exist or is no directory
 - Check the End Of Day File Directory defined in the probe configuration
- End Of Day file '<file>' does not exist",
 - Check the End Of Day File Format defined in the probe configuration
- Error reading EOD file '<file>'

- An exception occurred while reading the End Of Day file. See error field for details.

Subsystem Type ContentCollector

ContentCollectorServiceStatus

Description

This probe checks if IBM Content Collector, Email Manager and Records Crawler Windows services are running. The probe checks the following services if they are installed and enabled:

- eMgr Exchange Connector
- eMgr Universal File Importer
- eMgr PST Connector
- eMgr Lotus Connector
- YTG File System Connector
- YTG Universal File Importer

Recommended Schedule

Approx. 5 min

Parameters

Check Manually Started Services

If checked ICC, EM or RC related Services are checked, even if the Windows Service is configured for manual startup.

Return Values

1

All services are running as specified.

0

One or more services are not running. See message field for details.

List of possible error conditions

- IBM Content Collector monitoring is supported on Windows Systems only
 - This probe can only be run on Windows agents.
- Error getting list of installed services
 - The list of running services could not be obtained.

Subsystem Type ContentIntegratorConnector

ContentIntegratorStatus

Description

The probe requests the Content Integrator (ICI) configuration via RMI. It can either follow the URLs from that configuration to check all remote connectors (mode `Check All`) or check only one single connector (mode `Check_One`).

Recommended Schedule

Approx. 5 min

Parameters

Check Mode

- `Check All` - check the connector defined by the subsystem and all remote connectors found in its Content Integrator configuration
- `Check One` - only check the connector defined by the subsystem

Number Of Samples

- `One Summary Sample` - create one sample with a summary of all checked connectors; may contain the status of more than one URL if `Check All` is selected and more than one connector with one URL is present
- `One Sample Per Connector` - create one sample for each checked connector; may contain the status of more than one URL if a clustered connector is checked
- `One Sample Per Url` - create one sample for each checked URL

Perspective

- `Count Successful Connections` - the sample value indicates how many URLs were reachable

- `Count Unsuccessful Connections` - the sample value indicates how many URLs could not be reached

Output Type

- `Count` - the sample value indicates the absolute count according to the selected `Perspective`
- `Percentage` - the sample value indicates a percentage of reachable / unreachable URLs based on the number of URLs that are covered by this sample (see `Number Of Samples`).

Return Values

>=0

Number or percentage of reachable / unreachable URLs depending on the selected options.
The message contains a list of all checked URLs and their respective status.
If a URL cannot be reached, the error field contains a stack trace with more information.

List of possible error conditions

- Error reading bridge configurations
 - The list of configured bridges could not be read. The error field contains a stack trace with more information.

Subsystem Type ContentNavigator

ContentNavigatorActiveStatus

Description

The Content Navigator Active Status probe checks the api health page information of the Content Navigator for status information.

Recommended Schedule

Approx. 5 min

Parameters

Custom ICN Address

Optional. Custom base address for the ICN. If specified, the address from the Url subsystem of the ICN will be ignored.

Example 6. Custom ICN address

<http://localhost:9082/navigator>

Return Values

1

IBM Content Navigator active status is up

0

IBM Content Navigator active status is not up

List of possible error conditions

- Error configuration for Content Navigator Subsystem, like incorrect URL or a missing keystore if CN uses HTTPS URL.
- General HTTP error.
- Invalid Result: HTTP request returns invalid JSON response or response without status key.

ContentNavigatorDesktopStatus

Description

The Content Navigator Desktop Status probe check whether a desktop page can be loaded correct or only an error page is returned.

Recommended Schedule

Approx. 5 min

Parameters

Custom ICN Address

Optional. Custom base address for the ICN. If specified, the address from the Url subsystem of the ICN will be ignored.

Example 7. Custom ICN address

<http://localhost:9082/navigator>

Desktop Name

Enter the ID of the desktop that should be checked here. The ID can be equal to the name, but also different. Please check the desktop info in the admin desktop of navigator.

Return Values

1

IBM Content Navigator Desktop page was requested successfully and has the expected content.

0

IBM Content Navigator Desktop page did not load as expected.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200
- Logon failed - security settings missing or incomplete
 - Logon to ICN failed. The security settings to authenticate subsequent requests are unavailable. Check the username and password given in the Content Navigator subsystem.

ContentNavigatorPingPageStatus

Description

The ICNPingPage probe returns the HTML table information of the Content Navigator Ping Page of a dedicated Content Navigator application.

Recommended Schedule

Approx. 5 min

Parameters

Custom ICN Address

Optional. Custom base address for the ICN. If specified, the address from the Url subsystem of the ICN will be ignored.

Example 8. Custom ICN address

```
http://localhost:9082/navigator
```

Return Values

1

IBM Content Navigator Ping page was requested successfully and has the expected content

0

IBM Content Navigator Ping page was requested successfully but does not have the expected content.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200
- Logon failed - security settings missing or incomplete
 - Logon to ICN failed. The security settings to authenticate subsequent requests are unavailable. Check the username and password given in the Content Navigator subsystem.

LoadDocumentPerformance

IMPORTANT

This probe only works in combination with a Content Platform Engine repository!

Description

This probe loads a document from an ICN repository and measures the time to load the document.

Recommended Schedule

Approx. 10 min

Parameters

Repository Id

The id of the repository as shown in the ICN UI.

Document Id

The id of the document to download.

Document Version

The version of the document to download, e.g. `current`, `released`, or a specific version number.
The default is `current`.

Statistical Value

The statistical value that the probe shall return as result.

Download Average

average download transfer rate in KB/s

Download Duration

absolute duration of the download in milliseconds

Execution Duration

absolute duration of the HTTP requests / responses including all redirections in milliseconds

Total Duration

absolute duration of the complete processing (HTTP request and data download) in milliseconds
This is the default value.

Custom ICN Address

Optional. Custom base address for the ICN. If specified, the address from the Url subsystem of the ICN will be ignored.

Example 9. Custom ICN address

<http://localhost:9082/navigator>

Return Values

>=0

Selected statistical value.

The message field contains detailed information about download size and the durations of each step.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200
- Logon failed - security settings missing or incomplete
 - Logon to ICN failed. The security settings to authenticate subsequent requests are unavailable. Check the username and password given in the Content Navigator subsystem.

StoredSearchPerformance

IMPORTANT

This probe only works in combination with a Content Platform Engine repository!

Description

This probe executes a stored search for an ICN repository and measures the time.

Recommended Schedule

Approx. 10 min

Parameters

Repository Id

The id of the repository as shown in the ICN UI.

Stored Search Name

The case-sensitive name of the stored search to execute.

NOTE

Make sure that the name of the search is unique. Otherwise, it is impossible to determine which one of the searches with the same name will be executed.

Custom ICN Address

Optional. Custom base address for the ICN. If specified, the address from the Url subsystem of the ICN will be ignored.

Example 10. Custom ICN address

```
http://localhost:9082/navigator
```

Return Values

>=0

Time to execute the stored search in milliseconds.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200
- Logon failed - security settings missing or incomplete
 - Logon to ICN failed. The security settings to authenticate subsequent requests are unavailable. Check the username and password given in the Content Navigator subsystem.
- Invalid stored search name: '<name>'
 - A stored search with the given name could not be found.
Check the `All Searches` entry on the `Search` tab on the ICN desktop for valid names. The name is case-sensitive.

SyncServerPingPageStatus

Description

The ICNPingPage probe returns the HTML table information of the Content Navigator Sync Server Ping Page of a dedicated Content Navigator application.

Recommended Schedule

Approx. 5 min

Parameters

Custom ICN Address

Optional. Custom base address for the ICN. If specified, the address from the Url subsystem of the ICN will be ignored.

Example 11. Custom ICN address

```
http://localhost:9082/navigator
```

Return Values

1

IBM Content Navigator Sync Server Ping page was requested successfully and has the expected content

0

IBM Content Navigator Sync Server Ping page was requested successfully but does not have the expected content.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200

Subsystem Type CPE

CeAdvancedStorageDirectReplicasFailed

Description

This probe returns the number of failed direct replicas for the given Object Store based on the following Listener path:

```
/USER/<objectstore>/Advanced Storage/Connectivity Task/Replicas Failed Direct/Total  
Count
```

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE | One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Return Values

>=0

number of failed direct replicas

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This

can be checked in the output of the task **Collect Listener Paths**.

- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host (Port: port)`
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CeAdvancedStorageRemoteReplicasFailed

Description

This probe returns the number of failed remote replicas for the given Object Store based on the following Listener path:

```
/USER/<objectstore>/Advanced Storage/Connectivity Task/Replicas Failed Remote/Total  
Count
```

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE | One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Return Values

>=0

number of failed remote replicas

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host (Port: port)`
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem

- The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CeEngineStatus

Description

This probe returns the result of requesting the CE Engine Status.

Recommended Schedule

Approx. 2 min

Parameters

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 12. Custom CPE address

```
http://localhost:9081/
```

Return Values

1

The CE Engine Status page was requested successfully and has the expected content.

0

The CE Engine Status page was requested successfully but does not have the expected content.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>

- The HTTP request returned with a response code other than 200

CE GraphQL Query

Description

This probe parses JSON responses from the CPE GraphQL API.

Recommended Schedule

Approx. 15 min

Parameters

Http Method

Required. Specify the HTTP method that should be used. Default is `POST`.

Query

Required. Specify the request body that should be sent with the request. +

Example 13. Sample Query: Number of documents matched by a search

```
{
  documents (
    repositoryIdentifier:"CONTENT"
    from:"Document"
    where:"[DateCreated] > 20260101T070000Z AND [IsCurrentVersion] =
True"
    orderBy:"DocumentTitle"
    options:"COUNT_LIMIT 5000"
    pageSize:20
  ) {
    pageInfo {
      totalCount
    }
  }
}
```

Value Json Path

Optional. Specify the JSON path that identifies the value property in the response. The path must point to a numeric property.

The format of the path follows the JsonPointer specification (<https://datatracker.ietf.org/doc/rfc6901/>).

Example 14. Sample Value Json Path: Match document count

```
/data/documents/pageInfo/totalCount
```

Search String

Optional. Specify a string to search in the response.

Return Values

>= 0

If `Value Json Path` is specified (with or without `Search String`), the probe returns the value identified in the JSON response.

If `Value Json Path` is not found or does not point to a numerical value, an error is returned.

If only `Search String` is specified, the probe returns 1 if the text is found in the response or 0 if the text is not found

If neither `Value Json Path` nor `Search String` is specified, the probe returns the HTTP response code as value.

-1

An error has occurred.

List of possible error conditions

- `IOException`
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- JSON path does not match
 - The `Value Json Path` either does not point to a numeric value or does not match at all.
- JSON could not be parsed
 - The HTTP response could not be parsed as JSON string.

CeHealthPageStatus

Description

This probe returns the result of requesting the CE health page.

Components to check can be selected.

The probe first checks the overall status in the base health page for each selected component. If a component is not listed as healthy, the probe requests the corresponding sub health page and lists the details in the message field.

Recommended Schedule

Approx. 2 min

Parameters

One Summary Sample

Select this option to create one single sample that summarizes the status of all selected components.

If not selected, one sample per component will be created. In this case, the component can be found in the source and message fields.

Component list

Select the components to monitor:

- Global Configuration Database
- Directory Configurations
- PE Connection Points
- PE Isolated Regions
- Fixed Content Devices
- Object Stores
- Storage Areas
- Content Cache Areas
- Sites

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 15. Custom CPE address

<http://localhost:9081/>

Return Values

1

Component is listed as healthy on the CE Health page.
For the summary sample, this value indicates that all selected components are listed as healthy.

0

Component is not listed as healthy on the CE Health page (that is, it is in an error state or not configured at all).
For the summary sample, this value indicates that at least one of the selected component is not listed as healthy.
In both cases the message field contains details if they are available.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200.

CeJobSweepStatistic

Description

This probe returns the selected statistical value for job sweeps.

The probe processes all job sweeps that have ended since the last probe run.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Depends on configuration and criticality.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Class Names

Comma separated list of Sweep Job Class names or leave empty for all.
You can find all defined Sweep Job classes for an objectstore in the ACCE below Data Design → Classes → Other Classes → Sweep → Sweep Job.
Please use the "Symbolic Name" as given in the properties of the class.

Exclude Classes

Check this option to exclude the classes given in the field above from monitoring.

Display Name Filter

Optional. Enter a regular expression to filter the job sweeps by display name.

Exclude Display Names

Check this option to exclude job sweeps that match the name filter given in the field above from monitoring.

Statistical Value

Select a statistical value from the list.

EXAMINED

Return the count of examined objects of a job sweep

FAILED

Return the count of failed objects of a job sweep

PROCESSED

Return the count of processed objects of a job sweep

Aggregation Type

Select an aggregation type from the list.

If `NONE` is selected, one sample per object store, class and display name will be created. For all other aggregation types, one sample will be created according to the option `Aggregate Over Objectstores`.

Aggregate Over Objectstores

If this option is checked, one sample will be created per class, with an aggregated value over all objectstores.

If this option is unchecked, one sample will be created per combination of objectstore and class.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 16. Custom CPE address

```
http://localhost:9081/
```

Return Values

>=0

Number of objects according to the aggregation type.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - An objectstore name given in the `Objectstore Names` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from a selected subsystem cannot be found on the CPE. The name of the related subsystem can be found in the source field.
- Unknown Class Name '<class name>' for object store '<objectstore name>'
 - A Sweep Job class name given in the `Class Names` field is not defined in the object store.

CeObjectstoreChangesFailed

Description

This probe returns the number of failed changes for the given Object Store based on the following Listener path:

```
/USER/<objectstore>/Changes/Changes Failed/Total Count
```

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE

One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Return Values

>=0

number of failed changes

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.

- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CeObjectstoreIndexingExceptions

Description

This probe returns the number of indexing exceptions for the given Object Store based on the following Listener path:

/USER/<objectstore>/CBR/Indexing Batch/Batch Exceptions/value

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE

One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Return Values

>=0

number of indexing exceptions

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.

- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CeObjectstorePublishRequestsFailed

Description

This probe returns the number of failed publish requests for the given Object Store based on the following Listener path:

`/USER/<objectstore>/Publish Requests/Items Process-Failed/Total Count`

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE

One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Return Values

>=0

number of failed publish requests

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.

- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CeObjectstoreQueueItemsFailed

Description

This probe returns the number of failed queue items for the given Object Store based on the following Listener path:

```
/USER/<objectstore>/Queue Items/Items Process-Failed/Total Count
```

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE

One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Return Values

>=0

number of failed queue items

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.

- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CeObjectstoreSweepBackgroundSearchesFailed

Description

This probe returns the number of failed Sweep Framework background searches for the given Object Store based on the following Listener path:

```
/USER/<objectstore>/Sweep Framework/Background Search: <searchsubpara>/Objects  
Failed/Total Count
```

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE | One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Background Search Parameter

The background search sub-parameter which shall be checked e.g. `INOCDataUsageByUserRecord`
or `INOCShareRecordsByUserRecord`.

Return Values

>=0

number of failed Sweep Framework background searches

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`

- A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CeObjectstoreSweepFrameworkExceptions

Description

This probe returns the number of unexpected Sweep Framework exceptions for the given Object Store based on the following Listener path:

/USER/<objectstore>/Sweep Framework/<ParamToCheck>/Unexpected Framework
Exceptions/Total Count

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE | One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Sweep Framework Parameter

The Sweep Framework sub-parameter which shall be checked, e.g. 'Policy Sweep: UT_ClInterestBase' or 'Sweep Queue: Transcription Request Sweep'

Return Values

>=0

number of unexpected Sweep Framework exceptions

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.

- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CePolicySweepStatistic

Description

This probe returns the selected statistical value for policy-based sweeps.

The probe processes all enabled policy sweeps regardless of their last run and returns the statistical values of the last iteration.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in `.../Agent/jre/lib/security` and named `cacerts`.

The agent must be restarted afterwards.

Recommended Schedule

Depends on configuration and criticality.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.

Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Class Names

Comma separated list of Sweep Policy Class names or leave empty for all.
You can find all defined Sweep Policy classes for an objectstore in the ACCE below Data Design → Classes → Other Classes → Sweep Policy.
Please use the "Symbolic Name" as given in the properties of the class.

Exclude Classes

Check this option to exclude the classes given in the field above from monitoring.

Display Name Filter

Optional. Enter a regular expression to filter the policy sweeps by display name.

Exclude Display Names

Check this option to exclude policy sweeps that match the name filter given in the field above from monitoring.

Statistical Value

Select a statistical value from the list.

EXAMINED

Return the count of examined objects of a policy sweep

FAILED

Return the count of failed objects of a policy sweep

PROCESSED

Return the count of processed objects of a policy sweep

Aggregation Type

Select an aggregation type from the list.

If `NONE` is selected, one sample per object store, class and display name will be created. For all other aggregation types, one sample will be created according to the option `Aggregate Over Objectstores`.

Aggregate Over Objectstores

If this option is checked, one sample will be created per class, with an aggregated value over all objectstores.

If this option is unchecked, one sample will be created per combination of objectstore and class.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 17. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Number of objects according to the aggregation type.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - An objectstore name given in the `Objectstore Names` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from a selected subsystem cannot be found on the CPE. The name of the related subsystem can be found in the source field.
- Unknown Class Name '<class name>' for object store '<objectstore name>'
 - A Sweep Policy class name given in the `Class Names` field is not defined in the object store.

CeQueueSweepStatistic

Description

This probe returns the number of queue sweep entries with the selected state.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in `.../Agent/jre/lib/security` and named `cacerts`.

The agent must be restarted afterwards.

Recommended Schedule

Depends on configuration and criticality.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Class Names

Comma separated list of Queue Entry Class names or leave empty for all.
You can find all defined Queue Entry classes for an objectstore in the ACCE below Data Design → Classes → Other Classes → Abstract Queue Entry.
Please use the "Symbolic Name" as given in the properties of the Queue Entry class.

Exclude Classes

Check this option to exclude the classes given in the field above from monitoring.

Queue Entry Status

Select a queue entry status from the list.

WAITING

Indicates that the operation did not start on the queue entry.

IN_PROGRESS

Indicates that the operation is in progress.

RETRY_WAIT

Indicates that the operation failed and is being retried on the queue entry. Alternatively, the queue sweep deferred processing on the queue entry because certain conditions are not met, but can be corrected.

FAILED

Indicates that the operation failed on the queue entry and is no longer being retried.

Aggregation Type

Select an aggregation type from the list.
If `NONE` is selected, one sample per object store and queue entry class will be created. For all other aggregation types, one sample will be created per queue entry class.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 18. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Number of queue entries according to the aggregation type.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - An objectstore name given in the `Objectstore Names` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from a selected subsystem cannot be found on the CPE. The name of the related subsystem can be found in the source field.
- Unknown Class Name '<class name>' for object store '<objectstore name>'
 - A queue entry class name given in the `Class Names` field is not defined in the object store.

CeRpcRequestsFailed

Description

This probe checks Listener parameters from the following path:

`/RPC/<paramprefix>/Requests Failed/Total Count`

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

RPC Search Parameters

The RPC sub-parameter which shall be checked, e.g. ExecuteChanges or ExecuteSearch

Return Values

>=0

number of failed RPC requests

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

CeWebServicesStatus

Description

This probe returns the result of requesting the CE WebServices Status.

Recommended Schedule

Approx. 5 min

Parameters

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 19. Custom CPE address

```
http://localhost:9081/
```

Return Values

1

The CE WebServices page was requested successfully and has the expected content.

0

The CE WebServices page was requested successfully but does not have the expected content.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200

ContentSearchServicesFTSPerformance

Description

This probe returns the duration in milliseconds as value for a full text search of a certain search string. The object store and document class where the search should be done can be defined.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 10 min

Parameters

Object Store

Specify the Objectstore subsystem name for which the search should be executed.
Only one Objectstore can be given here.

Text to Search

Enter the search string here. The search text must be a known coherent text (aka 'text snippet') from a specific document.

Document Class

Specify the document class here. The "Text to search" must be found in this document class

Timeout

Search timeout in seconds.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 20. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Duration in milliseconds the search took.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined

- The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - The objectstore name given in the `Objectstore Name` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from the selected subsystem cannot be found on the CPE.
- Wrong text search parameter is given in the probe config.
- Loading content during probe execution throwing exception.

ContentSearchServicesIndexRequests

Description

This probe returns the number of Content Search Services indexing requests of an ObjectStore.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

Approx. 15 min

Parameters

ObjectStore Name

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Calculation Type

Possible values are: `NONE` (one sample per ObjectStore), `SUM` (summation of all values), `AVG` (average of all values), `MAX` (maximum detected value) or `MIN` (minimum detected value).

Return Values

>=0

Number of indexing requests (depending on the parameter settings). All ObjectStores and their

corresponding number of indexing requests are listed in the message field.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following object stores are undefined
 - Check the list of object store names in the probe configuration.

ContentSearchServicesIndexingErrors

Description

This probe returns the number of Content Search Services indexing errors for an ObjectStore.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

Approx. 15 min

Parameters

ObjectStore Name

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Return Values

>=0

Highest number of indexing errors. All ObjectStores and their corresponding number of indexing errors are listed in the message field.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following object stores are undefined
 - Check the list of object store names in the probe configuration.

IccMailInstances

Description

This probe returns the number of instances each ICCMail or ICCMail3 mail object has. (IBM Content Collector 2.2 or 3.0x)

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

IMPORTANT

For ObjectStores with a large number of documents, this probe can have a significant impact on the performance of the database while running. It is therefore recommended to start with a cron schedule that runs the probe only once within 24 hours, preferably at night.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Symbolic Name

Possible values are: `ICCMailInstance` or `ICCMailInstance3`.

Calculation Type

Possible values are: `NONE` (one sample per ObjectStore), `SUM` (summation of all values), `AVG` (average of all values), `MAX` (maximum detected value) or `MIN` (minimum detected value).

Return Values

>=0

Number of ICC Mail or Mail3 instances

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following object stores are undefined
 - Check the list of object store names in the probe configuration.

IccMailObjects

Description

This probe returns the number of a specific object symbolic name (for instance ICCMail or ICCMail3) of an ObjectStore (IBM Content Collector 2.2 or 3.0x)

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

IMPORTANT

For ObjectStores with a large number of documents, this probe can have a significant impact on the performance of the database while running. It is therefore recommended to start with a cron schedule that runs the probe only once within 24 hours, preferably at night.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Symbolic name

Possible values are: `ICCMailInstance` or ``ICCMailInstance3`.

Calculation type

Possible values are: `NONE` (one sample per ObjectStore), `SUM` (summation of all values), `AVG` (average of all values), `MAX` (maximum detected value) or `MIN` (minimum detected value).

Return Values

>=0

Number of ICC Mail or Mail3 objects

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following object stores are undefined
 - Check the list of object store names in the probe configuration.

ListenerCEUser

Description

This probe checks Listener parameters from the following path:

`/USER/<object_store>/<param_prefix>/<param_to_check>/Total Count`

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

NOTE

One sample is created for each selected Object Store.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

ParamPrefix

The listener path to the parameter specified as ParamToCheck. This path includes all path components starting after the Object Store name up to the parameter that must be checked.

ParamToCheck

The parameter which shall be checked.

Example 21. Configuration

```
To return the value of the parameter /USER/CEWINOBJSTORE1/Independent Object
Retrieval/StorageArea/Total Count, specify:
• Object Store = CEWINOBJSTORE1
• ParamPrefix = Independent Object Retrieval
• ParamToCheck = StorageArea
```

Return Values

>=0

Numeric result of the checked parameter (Listener path).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`

- The connection to the requested application has not yet been established. This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ListenerCpu

Description

This probe checks Listener parameters from the following path:

`/CPU/<param_to_check>/Total Count`

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Param To Check

The parameter which shall be checked.

Return Values

>=0

Numeric result of the checked parameter (Listener path).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ListenerDisk

Description

This probe checks Listener parameters from the following path:

`/DISK/<param_to_check>/Total Count`

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Param To Check

The parameter which shall be checked.

Return Values

>=0

Numeric result of the checked parameter (Listener path).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ListenerNetwork

Description

This probe checks Listener parameters from the following path:

/NETWORK/<param_to_check>/Total Count

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

ParamToCheck

The parameter which shall be checked.

Return Values

>=0

Numeric result of the checked parameter (Listener path).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.

- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ListenerUser

Description

This probe checks Listener parameters from the following path:

`/USER/<param_prefix>/<param_to_check>/Total Count`

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Param Prefix

The listener path to the parameter specified as ParamToCheck. This path includes all path components starting after the string `USER` up to the parameter that must be checked.

ParamToCheck

The parameter which shall be checked.

Example 22. Configuration

```
To return the value of the parameter /USER/GetSearchMetadata/Requests In
Progress/Total Count, specify:
• ParamPrefix = GetSearchMetadata
• ParamToCheck = Requests In Progress
```

Return Values

>=0

Numeric result of the checked parameter (Listener path).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.

- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a `ContentEnginePlatform` subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ListenerUserServer

Description

This probe checks Listener parameters from the following path:

`/USER/Server Based Counters/<param_prefix>/<param_to_check>/Total Count`

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Param Prefix

The listener path to the parameter specified as `ParamToCheck`. This path includes all path components starting after the string `Server Based Counters` up to the parameter that must be checked.

ParamToCheck

The parameter which shall be checked.

Example 23. Configuration Example

```
To return the value of the parameter /USER/Server Based  
Counters/ActiveDirectoryProvider/GetUserBySid/Requests Failed/Total Count, specify:  
• ParamPrefix = ActiveDirectoryProvider/GetUserBySid  
• ParamToCheck = Requests Failed
```

Return Values

>=0

Numeric result of the checked parameter (Listener path).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ListenerUserStatic

Description

This probe checks Listener parameters from the following path:

```
/USER/*Static*/<param_prefix>/<param_to_check>/Total Count
```

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

ParamPrefix

The listener path to the parameter specified as ParamToCheck. This path includes all path components starting after the string `*Static*` up to the parameter that must be checked.

ParamToCheck

The parameter which shall be checked.

Example 24. Configuration

```
To return the value of the parameter /USER/*Static*/Repository Objects/Objects
Loaded/Total Count, specify:
  • ParamPrefix = Repository Objects
  • ParamToCheck = Objects Loaded
```

Return Values

>=0

Numeric result of the checked parameter (Listener path).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ObjectsNotStoredFinally

Description

This probe returns the number of P8 objects (any document class) not stored finally in an ObjectStore. As an optional parameter the number of process attempts can be specified.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

Approx. 60 min

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Calculation type

Possible values are: `NONE` (one sample per ObjectStore), `SUM` (summation of all values), `AVG` (average of all values), `MAX` (maximum detected value) or `MIN` (minimum detected value).

Number Of Process attempts

If this parameter is set to a value larger than zero, only those objects having more process attempts than the specified number are taken into account to calculate the total number of objects not finally stored.

Return Values

>=0

Number IBM FileNet P8 objects not stored finally

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following object stores are undefined
 - Check the list of object store names in the probe configuration.

ObjectstoreCustomQuery

Description

The probe allows you to execute a custom query against the specified Objectstore that follows the query standard of FileNet. The Query must return the "Result" and "Value" properties that are specified in the parameters. The "Result" properties will be shown in the message and the value property in the value. For each returned object, one sample will be created.

NOTE

Although the probe can handle huge amounts of returned object, it can happen that the executed query takes a long time. Therefore, the execution is limited to 3 minutes and the execution will be killed after that to prevent high load on the CPE.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

The schedule depends on the criticality of the given query.

Parameters

Object Store

Specify the Objectstore subsystem name for which the search should be executed.
Only one Objectstore can be given here.

Custom SQL

Enter the custom query you want to execute here. The query uses the FileNet specific query language.

Example 25. Custom SQL Query:

```
select Id, IndexationId, CmIndexingFailureCode FROM Document WHERE  
CmIndexingFailureCode is not null
```

Result Properties

Specify the result properties that should be returned for the message here. e.g. Id, IndexationId, CmIndexingFailureCode

Value Property

Specify the value property that should be used for the value here e.g. CmIndexingFailureCode.

Book Mark Date Time Property

Default: DateCreated. The bookmark is used to only search entries that became available for this property since the last run of the probe. The field is optional and can be left empty. In that case all entries matching the query will be searched. Other (custom) Date/Time properties can be specified.

NOTE

If the bookmark is specified, the following mechanism is used to determine the "WhereClause" for it:

WhereClause = WHERE (<DateProperty> >= <Value of the book keeping> AND <DateProperty> < <Current Time>)

If no "Where", "OrderBy" and "Option" is used in the custom sql query, the "WhereClause" is just added:

Example 26. Example SQL:

```
select * from document "WhereClause"
```

If no "Where" and "OrderBy" but an "Option" is used, the "WhereClause" is added before the "Options".

Example 27. Example SQL:

```
select * from document "WhereClause" "Options"
```

If no "Where", but an "OrderBy" and "Option" is used in the custom sql query, the "WhereClause" is added in front of the "OrderBy" and "Options".

Example 28. Example SQL:

```
select * from document "WhereClause" "OrderBy" "Options"
```

If "Where", "OrderBy" and "Option" is used in the custom sql query, the whereClause is added after the "Where" of the SQL statement and in front of "OrderBy" and "Options".

Example 29. Example SQL:

```
select * from document "Where" "WhereClause" "OrderBy" "Options"
```

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 30. Custom CPE address

```
http://localhost:9081/
```

Return Values

>0

Value from the field `Value Property`. One sample will be created for each row of the result.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - The objectstore name given in the `Objectstore Name` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from the selected subsystem cannot be found on the CPE.
- No Sample found
 - No (new) entry matching the search criteria
- Value property can not be converted to a double (Value is set to -1)
 - Value property does not contain numerical value.
- Property can not be found in the property cache
 - Expected property is missing in the property cache
- Value property can not be found in the property cache (Value is set to -1)
 - Expected value property is missing in the property cache

ObjectstoreCustomQueryCount

Description

The Probe allows you to execute any custom query against the specified Objectstores that follows the query standard of FileNet. The probe returns the amount of found objects for the query.

NOTE

Although the probe can handle huge amounts of returned objects, it can happen that the executed query takes a long time. Therefore, the execution is limited to 3 minutes and the execution will be killed after that to prevent high load on the CPE.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

The schedule depends on the criticality of the given query.

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.

Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Custom SQL

Enter the custom query you want to execute here. The query use the FileNet specific query language.

Example 31. Custom SQL Queries:

```
select [ID] from [FOLDER] == Returns amount of all Folders
select [ID] from [DOCUMENT] == Returns amount of all Documents
```

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 32. Custom CPE address

```
http://localhost:9081/
```

Return Values

>=0

Amount of objects found for the query

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - An objectstore name given in the `Objectstore Names` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from a selected subsystem cannot be found on the CPE. The name of the related subsystem can be found in the source field.

ObjectstoreDocumentUploadPerformance

Description

This probe uploads a document to an object store, stores it and deletes it afterwards again. The duration for the action is measured and returned to the value slot so it can be verified against thresholds.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 5 min

Parameters

Object Store

Specify the object store subsystem name for which the search should be executed.
Only one object store can be given here.

Document Name

Specify the name how the document should be stored in the object store. Default: PerformanceProbeDocument

Folder Name

Specify the object store folder name in which the document should be stored. Use a leading "/" + additional "/" between folders to create your structure. We recommend to create a Test folder for storing this at top level in the object store.

Document Class

Specify the document class that should be used for storing the document e.g. Document.

Local File Path

The document that should be uploaded must be stored at the used agent first. The path that you must specify here includes the file name. It is either relative to the Agent install directory or must be given fully qualified.

Storage Area

Optional. By default the document is stored in the storage area that is defined via the storage policy. If you want to change that you can specify a different storage area here.

Document Properties

Optional. Enter a list of property name and value pairs that should be set on the document.
Each property must be specified on a new line. Name and value must be separated by the equals sign (=). Leading and trailing blanks will be trimmed.

Example 33. Property format

```
property 1 = value 1  
property 2 = value 2
```

Wait Before Deletion Seconds

Amount of seconds to wait before the document is deleted after the upload. Set to zero (0) to delete the document immediately.

The wait interval is not included in the upload duration.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, this address for uploading will be used and the address from the Url subsystem of the CPE will be ignored.

Example 34. Custom CPE address

```
http://localhost:9081/
```

Return Values

>=0

Duration in milliseconds for uploading the document.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - The objectstore name given in the Objectstore Name field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from the selected subsystem cannot be found on the CPE.

ObjectstoreDocumentIndexingErrors

Description

The probe searches for documents that had an indexing error since the last probe run. The document class for which the search should be done must be specified. For each document found one sample will be returned. The document id is written in the message and the error code for the indexing error to the value.

NOTE

Writing the indexing error to the document must be activated. Otherwise, the probe will not return anything. This can be done for each objectstore independently via the setting "Indexing failure recording level: Propagate to source".

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

The schedule depends on the criticality of the given query.

Parameters

Object Store

Specify the Objectstore subsystem name for which the search should be executed.
Only one Objectstore can be given here.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 35. Custom CPE address

```
http://localhost:9081/
```

Document Class

Specify the document class for which indexing errors should be identified. Default is Document

Excluded Indexation Error Codes

Specify error codes (Value) here that must not be identified by the probe. The error codes can be given as comma separated list.

Table 9. List of Indexation Error Codes (Taken from the official IBM Documentation - links have been removed)

Failure code	Value	Description
OTHER	1	The indexing of object text failed for an uncommon reason. For information about the failure, search for the identifier of the object in the FileNet® P8 server log.
TRUNCATED	2	The indexing of some object text failed because of text truncation.
ENCRYPTED	4	The extraction of text from a content element document failed because the document is encrypted.
PASSWORD_PROTECTED	8	The extraction of text from a content element document failed because the document is password protected.
MALFORMED	16	The extraction of text from a content element document failed because the document is corrupt.
UNSUPPORTED_TYPE	32	Text extraction for a content element document failed because the document does not belong to an indexable document type. "An indexable document is a document that Content Platform Engine deems eligible for indexing and that the Oracle Outside In Search Export product can convert to text. The specific types of convertible documents depend on the version of the Oracle product that is used in your Content Platform Engine release. Content Platform Engine determines the eligibility of a document for indexing by identifying the MIME type of the document. Some MIME types are considered to be ineligible for indexing.").
NO_TEXT_EXTRACTED	64	The extraction of text from a content element document failed because the document is empty.
UNRECOGNIZED_ENCODING	128	The recognition of the character encoding for object text failed. The text might use a mixture of encodings.
CONVERSION_DISABLED	256	Text extraction for a content element document failed.
PARTIALLY_INDEXED_CONTENT	512	The indexing of some object text failed because of system resource constraints.
MALFORMED_XML	1024	The parsing of the XML in a content element document failed because the XML is not well formed.
FALLBACK_PARSER_INVOKED	2048	The parsing of some object text might have failed.
SIZE_LIMIT_EXCEEDED	4096	The extraction of text from a content element document failed because the size of the binary or XML document exceeds a predefined limit.
CONTENT_NOT_FOUND	8192	The retrieval of the content for the object failed.

Failure code	Value	Description
MARKED_AS_SKIPPED	16384	The object was marked as skipped for indexing. Object text was not indexed. "To prevent Content Platform Engine from indexing an object, mark the object as skipped. Any index request for a marked object terminates with the index failure code MARKED AS SKIPPED. Skipping indexing in this manner is useful when repeated attempts by Content Platform Engine to index the object fail. Because an index job remains in progress until all index requests for the job complete, a request that never completes blocks the job from completing."
TIME_OUT	32768	Object text was not indexed because indexing was not completed within the index period as defined by the server parameter <code>documentTimeout</code> . "The configuration tool has a number of parameters, some of which are supported by Content Platform Engine."

Return Values

Any Number

Error Code for the indexing error.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - The objectstore name given in the `Objectstore Name` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from the selected subsystem cannot be found on the CPE.

ObjectstoreLoadDocumentPerformance

Description

This probe loads a document from an objectstore and measures the time to load the document. The duration is returned to the value slot and can be verified against thresholds. In addition, you can specify whether you want to load the document from the storage or the cache.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 10 min

Parameters

Object Store

Specify the Objectstore subsystem name for which the search should be executed.
Only one Objectstore can be given here.

Document ID

Specify the ID of the Document that should be loaded.

Load Type

Distinguish between loading from Cache or Storage here.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 36. Custom CPE address

```
http://localhost:9081/
```

Return Values

>=0

Duration in milliseconds for loading the document.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - The objectstore name given in the `Objectstore Name` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from the selected subsystem cannot be found on the CPE.
- Wrong or invalid Document ID is given in the probe config.
- Loading document content during probe execution throwing exception.

ObjectStoreNewObjects

Description

The Probe measures the amount of new objects from the specified objectstores and type for the current day. It will start from scratch every day and return the newly created objects over the day. For each Objectstore a separate sample is created.

NOTE

Although the probe can handle huge amounts of returned object, it can happen that the executed query takes a long time. Therefore, the execution is limited to 3 minutes and the execution will be killed after that to prevent high load on the CPE.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

IMPORTANT

For ObjectStores with a large number of documents, this probe can have a significant impact on the performance of the database while running. It is therefore recommended to start with a cron schedule that runs the probe only once within 24 hours, preferably at night.

Depending on the schedule, it can happen that at the end of the day not all new objects are shown, e.g. if the last execution of the probe is 10 min prior to the day change and still new objects are created afterward. To avoid this, we recommend a cron with a start time of 23:59..

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Object Type

Select from one of the object types of the drop-down. Possible values are CustomObject, Document or Folder.

Custom Type

In addition to the predefined object type, you can specify a custom type. The corresponding object type is mandatory and must be given. Only the new objects from this custom type are counted in this case.

Return Values

>=0

Amount of objects created for the day

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- there is no database subsystem referenced by `<objstore>`
 - Add a database subsystem to the ObjectStore.
- There is no object store subsystem referenced by `<objstore>`
 - Check the object store names in the probe configuration.

ObjectStorePerformance

Description

The ObjectStorePerformance probe returns the time to connect to an ObjectStore through WCM API and/or to search for documents in the object store.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in `.../Agent/jre/lib/security` and named `cacerts`.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 30 min

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Custom SQL statement

Optional. Custom P8 SQL query to execute against ObjectStore. Leave empty to measure connection time to the ObjectStore only.

Example 37. Custom SQL Statement to measure the time to search for a specific document

```
SELECT d.DocumentTitle FROM Document d WHERE DocumentTitle = 'myDocumentName'
```

Search Time Only

Check this option to return the time for the SQL execution only. Leave unchecked to return the full execution time (connect to ObjectStore + SQL execution).

Page Size

Number of rows to return per result page. This option can impact the performance of the search.

value < 0

switch paging off; the maximum number of rows will be determined by the option `Non Paged Query Max Size` in the `Server Cache Configuration` of the CPE domain

value = 0

use default page size defined by the option `Query Page max Size` in the `Server Cache Configuration` of the CPE domain

value > 0

use this value as page size

First Page Only

Check this option to measure the time to return the first page of results only. Leave unchecked to measure the time to page through all results.

This option does not have any effect if `Page Size` is set to a value < 0.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the `Url` subsystem of the CPE will be ignored.

Example 38. Custom CPE address

```
http://localhost:9081/
```

Return Values

>=0

Time in milliseconds.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - An objectstore name given in the `Objectstore Names` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from a selected subsystem cannot be found on the CPE. The name of the related subsystem can be found in the source field.
- Error executing custom query
 - An exception has occurred while processing the custom SQL query. More information can be found in the stack trace shown in the error field.

ObjectstoreRecoveryBin

Description

The Probe returns the summarized amount of objects in the specified recovery bins of the specified objectstores.

NOTE

Although the probe can handle huge amounts of returned objects, it can happen that the executed query takes a long time. Therefore, the execution is limited to 3 minutes and the execution will be killed after that to prevent high load on the CPE.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Every 30 minutes

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.

Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Exclude Objectstores

Check this option to exclude the objectstores given in the field above from monitoring.

Recovery Bin Name

Comma separated list of Recovery Bin names or leave empty for all. Please use the "Display Name" as given in the properties for the recovery bin in ACCE.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 39. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Summarized amount of objects of all monitored recovery bins.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- No ObjectStore subsystems defined
 - The ContentPlatformEngine subsystem for which this probe instance is configured does not have any ObjectStore subsystems.
- '<objectstore name>' not defined; defined ObjectStores subsystems: [<list of defined names>]
 - An objectstore name given in the `Objectstore Names` field doesn't match any of the defined object store subsystems.
- '<objectstore name>' not found in CPE
 - The symbolic object store name from a selected subsystem cannot be found on the CPE. The name of the related subsystem can be found in the source field.

ObjectStoreStorageAreaInformationSql

Description

The ObjectStore Storage Area Information Sql probe returns the number of objects in an IBM Content Engine ObjectStore StorageArea or the amount of data in MB or KB. If Storage Area Type is left empty, the complete ObjectStore storage amount is returned

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

Approx. 30 min

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Output type

Possible values are:

COUNT

Number of objects

KB

Used space in kilobyte

MB

Used space in megabyte

GB

Used space in gigabyte

TB

Used space in terabyte

Calculation Type

Possible values are: `NONE` (one sample per ObjectStore), `SUM` (summation of all values), `AVG` (average of all values), `MAX` (maximum detected value) or `MIN` (minimum detected value).

Storage Area Names

Optional: Specify a comma separated list of Storage areas to check. If unset all Storage Areas of the defined type (parameter Storage area type) are searched. If defined the above specified type will be ignored.

Storage Area Type

Specify which storage area type(s) should be checked

NOTE

You can either check for all types or one specific. Leave empty for all types together. For one specific, specify the symbolic name of the type e.g. DatabaseStorageArea or CmAdvancedStorageArea ...

Return Values

>=0

Number of objects or amount of data in KB or MB depending on probe configuration

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following Object Stores named are undefined
 - Check the list of Object Stores named in the probe configuration.

ObjectStoreStorageAreaStatusSql

Description

The ObjectStore Storage Area Status Sql probe returns the amount of objectstores that do or do not have the "Desired State" depending on the "Count Deviators" switch. Make sure to specify only objectstores that should have the same state in the "Objectstore Names" parameter.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

Approx. 5 min

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Storage Area Names

Optional: Specify a comma separated list of Storage areas to check. If unset all Storage Areas of the defined type (parameter Storage area type) are searched. If defined the above specified type will be ignored.

Storage Area Type

Specify which storage area type(s) should be checked

NOTE

You can either check for all types or one specific. Leave empty for all types together. For one specific, specify the symbolic name of the type e.g. DatabaseStorageArea or CmAdvancedStorageArea ...

Desired State

Select the desired state that should be matched. Choose from CLOSED, FULL, OPEN, STANDBY and UNAVAILABLE.

Count Deviators

If checked, the Storage Areas that are not in the desired state are counted. If unchecked, the Storage Areas that are having the desired state are counted.

Return Values

>=0

Number of objectstores that do not have the desired state.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following Object Stores named are undefined
 - Check the list of Object Stores named in the probe configuration.

PeLoadStatus

Description

This probe returns a specific loadstatus value for a PE 5.x.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 30 min

Parameters

Connection Point

Specify the Connection Point name here.

Loadstatus Value

Name of the loadstatus value.

Loadstatus Type

Name of the loadstatus type.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 40. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Selected loadstatus value.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- loadstatus() did not return any result
 - The P8 API did not return any data.

PeLockedQueueWorkObjects

Description

This probe checks for work objects of a queue, that are locked longer than a specified time frame (in seconds).

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 45 min

Parameters

Connection Point

Specify the Connection Point name here.

Queue Name

Comma-separated list of queue names whose number of entries is monitored.
Leave empty for all queues.
The queue name entered here is case-insensitive.

Time frame

Time frame in seconds to check for locked work objects. It is important that the system time and time zone are specified properly. Otherwise the time frame cannot be calculated correctly.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 41. Custom CPE address

<http://localhost:9081/>

Return Values

1

The specified queue(s) do not contain work objects locked longer than the time frame.

0

At least one specified queue contains locked work objects older than the time frame. Check the output for further information.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.

- no queues defined
 - The P8 API did not return any queue data.

PeLockedRosterWorkObjects

Description

This probe checks for work objects of a roster, that are locked longer than a specified time frame (in seconds).

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 45 min

Parameters

Connection Point

Specify the Connection Point name here.

Roster Name

Comma-separated list of roster names whose number of entries is monitored.
Leave empty for all rosters.
The roster name entered here is case-insensitive.

Time frame

Time frame in seconds to check for locked work objects. It is important that the system time and time zone are specified properly. Otherwise the time frame cannot be calculated correctly.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 42. Custom CPE address

```
http://localhost:9081/
```

Return Values

1

The specified roster(s) do not contain work objects locked longer than the time frame.

0

At least one specified roster contains locked work objects outside the time frame. Check the output for further information.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.
- no rosters defined
 - The P8 API did not return any roster data.

PePingPageStatus

Description

This probe returns the result of requesting the PE Ping Page.

Recommended Schedule

Approx. 5 min

Parameters

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 43. Custom CPE address

```
http://localhost:9081/
```

Return Values

1

The PE ping page was requested successfully and has the expected content.

0

The PE ping page was requested successfully but does not have the expected content.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200

PeQueueCount

Description

This probe returns the number of entries in the specified IBM FileNet P8 PE queue (version 5).

NOTE

This probe can be used as a replacement for the Queue statistics values '7' or 'CURR_QUEUE_DEPTH' (Current Queue Depth), if PE statistics are disabled.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 15 min

Parameters

Connection Point

Specify the Connection Point name here.

List of Queues

Comma-separated list of queue names whose number of entries is monitored.

Leave empty for all queues.

The queue name entered here is case-insensitive.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 44. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Largest number of queue entries; the values for all specified queues are listed in the message field.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.

PeQueueStatistic

Description

This probe checks a specific statistical value for a given IBM FileNet P8 PE queue.

NOTE This probe requires enabled Process Engine statistics. If PE statistics are disabled you can use the probe 'PE Queue Count' to probe the number of entries in the queue.

NOTE This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 30 min

Parameters

Connection Point

Specify the Connection Point name here.

Queue Name

Comma-separated list of queue names whose number of entries is monitored.
Leave empty for all queued.
The queue name entered here is case-insensitive.

Statistic Value

Name of the statistic value.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 45. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Largest selected statistical value; the values for all specified queues are listed in the message field.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.

PeRosterCount

Description

This probe returns the number of entries in the specified IBM FileNet P8 PE roster (version 5).

NOTE

This probe can be used as a replacement for the Roster statistics values '7' or 'CURR_WO_ACTIVE' (Current Total Number of Active WOs), if PE statistics are disabled.

NOTE

This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 30 min

Parameters

Connection Point

Specify the Connection Point name here.

Roster Name

Comma-separated list of roster names whose number of entries is monitored.

Leave empty for all rosters.

The roster name entered here is case-insensitive.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 46. Custom CPE address

```
http://localhost:9081/
```

Return Values

>=0

Largest number of roster entries; the values for all specified rosters are listed in the message field.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the required jar files.
- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.

PeRosterStatistic

Description

This probe checks a specific statistical value for a given IBM FileNet P8 PE roster.

NOTE This probe requires enabled Process Engine statistics. If PE statistics are disabled you can use the probe 'PE Roster Count' to probe the number of entries in the roster.

NOTE This probe requires the P8API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

IMPORTANT

Due to restrictions in the P8 API, it is necessary to import the corresponding certificates for HTTPS communication into the cacerts truststore of the agent JRE before activating this probe.

The cacerts truststore is located in .../Agent/jre/lib/security and named cacerts.

The agent must be restarted afterwards.

Recommended Schedule

Approx. 30 min

Parameters

Connection Point

Specify the Connection Point name here.

Roster Name

Comma-separated list of roster names whose number of entries is monitored.

Leave empty for all rosters.

The roster name entered here is case-insensitive.

Statistic Value

Name of the statistic value.

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 47. Custom CPE address

<http://localhost:9081/>

Return Values

>=0

Largest selected statistical value; the values for all specified rosters are listed in the message field.

List of possible error conditions

- P8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the P8 API are missing in the p8-api directory from which the p8-api-*.jar file is created. Please refer to the documentation for a list of the

required jar files.

- Exception
 - An exception has occurred while requesting data from the P8 API. More information can be found in the stack trace.

PewwUserSyncExceptions

Description

This probe returns the number of user sync exceptions based on the following Listener path:

`/USER/Threads/Tasks/VWUserSync/Exception/value`

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

None

Return Values

>=0

number of user sync exceptions

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.

- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

PeWebServicesStatus

Description

This probe returns the result of requesting the PE WebServices Status.

Recommended Schedule

Approx. 5 min

Parameters

Custom CPE Address

Optional. Custom base address for the CPE. If specified, the address from the Url subsystem of the CPE will be ignored.

Example 48. Custom CPE address

```
http://localhost:9081/
```

Return Values

1

The PE WebServices page was requested successfully and has the expected content.

0

The PE WebServices page was requested successfully but does not have the expected content.

List of possible error conditions

- Request failed
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: <responseCode>
 - The HTTP request returned with a response code other than 200

StorageAreaSpaceUsed

Description

This probe reads the current space that is used in a storage area. For each objectstore that is given, one sample will be created. The space used of all Storage Areas will be summarized. If you are interested in the usage of a specific Storage Area you have to specify that accordingly. In addition to the summarized value, the message contains detailed information for the space used of each Storage Area.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

Approx. 60 min

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Storage Area Names

Optional: Specify a comma separated list of storage areas to check. If unset all storage areas are searched.

Unit

Select between GB (GigaByte) and TB (TeraByte) from the drop-down. The space used in the value is returned in this unit.

Return Values

>=0

Space used in the given unit

SubscriptionRetryError

Description

This probe returns the number of subscriptions that haven't got any further retries (retry_count = 0). This number should be as low (0) as possible.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

Approx. 30 min

Parameters

Objectstore Names

Comma separated list of ObjectStore subsystem names.
Leave empty for all ObjectStore subsystems referenced by the selected CPE.

Calculation type

Possible values are: `NONE` (one sample per ObjectStore), `SUM` (summation of all values), `AVG` (average of all values), `MAX` (maximum detected value) or `MIN` (minimum detected value).

Return Values

>=0

Number of subscriptions without further retries

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following object stores are undefined
 - Check the list of object store names in the probe configuration.

Subsystem Type Database

ContinuousDatabaseQuery

Description

The probe monitors entries of a specific table like a logfile probe would. It continuously reacts to new entries added to the table. For each new entry (a new row in the table) a sample is created if it matches the select criteria. The values from that new entry can be added to the message field through a message template. A specific field must be defined to hold the data for the value field of the samples. If that field is non-numeric, the number of new entries since the last samples were created is used as value.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Depends on query, criticality and the expected number of new rows per schedule. If many entries in a short period of time are expected a shorter schedule should be considered.

IMPORTANT

This probe can create a significant load to the database and to the monitoring system. Use with care.

Parameters

Table Name

Required parameter, that specifies the database table to check for new entries regularly.

Sort Column

Required parameter. It specifies the column of the above defined table to be used for ordering and only get the newest ones per probe run. A maximum of 100 entries in descending order is processed.

Message Template

Required parameter, which defines the template used for the sample's message field. An example is specified when creating a new probe configuration. Normal text can be entered here and also a placeholder for each value from a new entry of a specific column of the defined table. The placeholder must be defined as \$<column name>. For timestamp values an optional output formatting pattern can be added right after the column's name. The pattern must be enclosed in curly braces and has to be conformant to the timestamp formatting patterns of the Java programming language. No spaces are allowed between the opening curly brace and the last character of the column name. If no format is specified, the timestamp will be formatted according to ISO-8601.

Timestamp Column

If a timestamp column is used in the message template, the column's name must be entered here, too. If not, this field can be left empty. If set, the value of this field will also be used as the sample's timestamp. If unset, the probe's execution time will be used as the sample's timestamp. The timestamp will always be calibrated to the timezone defined in the Timezone Offset parameter.

Timestamp Column Format

Only required if the format of the field defined in the Timestamp Column parameter is not of type datetime or a numeric value defining a timestamps in milliseconds., like e.g. "1584109881748". The format should not include milliseconds, but for Oracle databases, because of technical restrictions. Oracle needs the milliseconds.

Value Column

Optional parameter. Entries of that column are used for the sample's value field. If the field is not numeric or the parameter is left blank, the number of rows returned for a probe run will be used as value.

Timezone Offset

Required parameter. It defines the timezone offset to be used when inserting the value of a timestamp field to the message field. As a default the UTC value of "+00.00" is already entered when creating a new probe configuration.

Return Values

Possible return values

The value of the specified value field if it is numeric else the number of rows returned by the database query, that is the size of the result set. No result will be returned if there are no new entries since the last probe run was executed. So this probe will not always create samples in each probe run. -1 is returned if an error occurred.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

CustomDatabaseQuery

Description

This probe runs the specified query against the database and returns the result.

This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT

This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Depends on query and criticality.

Parameters

SQL Query

Any SQL Query can be specified here.

Timeout

Specify the timeout for the query in seconds.
Set the value to 0 (zero) to run the query without timeout.

Return Values

Possible return values

Any numeric or alphanumeric
If the returned result is numeric, it can be evaluated as value. If the returned result is alphanumeric, it can be evaluated as message.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseActiveQueryCount

Description

This probe returns the number of active queries for the referenced database. It is especially useful to identify long-running queries when the "Started Before Seconds" parameter is used.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

Started Before Seconds

Count queries that have been active for at least the given number of seconds.
Set to 0 to count all active queries.

Return Values

>= 0

Number of active SQL queries.
The message contains a list of details for each query.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseConnectionStatus

Description

This probe checks the Database connection for the referenced database.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

The connection to the specified database is available

0

The connection to the specified database is unavailable

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabasePerformance

Description

This probe executes any SQL select-statement against a supported database and calculates the required time.

NOTE This probe supports SQL Select statements that do not return a result (empty result set). This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Approx. 45 min

Parameters

Performance Type

The type of performance to be measured.

COMPLETE

Measures the complete time required to logon and execute the given SQL statement.

EXECUTION

Measures the time required to execute the given SQL statement.

LOGON

Measures the time required to logon.

NOTE Oracle databases require an SQL statement even if `LOGON` is selected as performance type. You can use the following statement which works on every Oracle database:
`select dummy from dual`

SQL Query

SQL statement to be executed.

Example 49. SQL Query

```
SELECT count(*) from mytables where ID = '15'
```

NOTE

The format of the SQL statement must be valid for the database on which it is to be executed (e.g. do not specify any delimiter at the end of the statement when monitoring an Oracle database).

NOTE

The SQL SELECT statement supported by this probe can return more than one result line.

Return Values

Any numeric value

The numeric return value describing the elapsed time in milliseconds.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

Subsystem Type DatacapApplication

DatacapBatchesProcessedCount

Description

The probe monitors the number of processed batches.

The value returned by the probe includes all batches that have reached the status `Job done` in the reporting period. The reporting period is determined either by the probe schedule (if `Last Finished Period` is unchecked) or by the `Period Count` and `Period Type` (if `Last Finished Period` is checked).

NOTE

This probe can be configured on any agent that has got the required JDBC drivers installed. Additionally, the Datacap Application Subsystem incl. DB settings needs to be configured.

NOTE

If you plan to use the data returned by this probe for billing purposes, make sure to take any Datacap Autodelete jobs into account during probe setup! This probe can only access data that is still available in the JobMonitor view.

NOTE

The computation for `Last Finished Period` is based on the time zone of the agent.

Recommended Schedule

Approx. 15 min

Parameters

Admin Database Name

Required. Enter the database subsystem name of the admin DB.

Engine Database Name

Required. Enter the database subsystem name of the engine DB.

Job Names

Comma separated list of job names.
Leave empty for all job names.

Exclude Job Names

Check this option to exclude the job names given in the field above from monitoring

Last Finished Period

If this option is checked, the fields `Period Count` and `Period Type` define the time period the probe will look at.

If this option is unchecked, the fields `Period Count` and `Period Type` will be ignored. The probe will return the count since the last probe run or since midnight.

+ .Last Finished Period checked

```
probe is scheduled to run every hour
Period Count= 1
Period Type= Day
⇒ each probe run will return the batch count for the previous day 0:00 to 23:59.
```

NOTE

This parameter reflects the last finished period, so the returned values are always for the previous period of the given period type.

Period Count

Enter a period count. (This parameter is only used when Last finished period is checked)

Period Type

Select a period type from the list. Available options are day, week, month and year. (This parameter is only used when Last finished period is checked)

Aggregation Type

Select an aggregation type from the list.

If **NONE** is selected, one sample per job will be created. For all other aggregation types, one aggregated sample will be created.

Return Values

>=0

number of processed batches

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Admin database name is invalid
 - Check the name of the admin database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Engine database name is invalid

- Check the name of the engine database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Query returned an empty result set
 - Database query did not return any result.
- No jobs defined
 - There are no jobs defined in the Admin database.
- '<jobname>' not defined; defined jobs: <list of defined names>
 - The specified job name is not defined in the Admin database.
- All defined jobs excluded
 - All job names defined in the Admin database are excluded.

DatacapBatchStatusCount

Description

The probe counts batches in specific states optionally only for specific jobs, without specific tasks, and only with a start date older than x minutes.

NOTE

This probe can be configured on any agent that has got the required JDBC drivers installed. Additionally the Datacap Subsystem incl. DB settings need to be configured.

Recommended Schedule

Approx. 15 min

Parameters

Engine Database Name

Required. Enter the database name of the engine DB.

Job Name

Optional, empty by default. Specify a Job name if Batches for certain Jobs should be checked.

Job Status

Required, default: pending, running. Specify the status of the Jobs the should be checked.

Tasks To Exclude

Optional, default: Verify, DataEntry, Create Documents'

Started Before

Default: 120 (Minutes) Timeframe for the initialization of the start

Return Values

==0

No batches found [with status <job status>].

>=1

Amount of batches[with status <job status>] for default setup or amount of found combinations.

== -1

Technical error (error sample)

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Engine database name is invalid
 - Check the name of the engine database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Query returned an empty result set
 - Database query did not return any result.
- The following task name is undefined
 - Check the task name in the probe configuration.

DatacapDocumentsProcessedCount

Description

The probe monitors the number of processed documents.

The value returned by the probe includes all batches that have reached the status `Job done` in the reporting period. The reporting period is determined either by the probe schedule (if `Last Finished Period` is unchecked) or by the `Period Count` and `Period Type` (if `Last Finished Period` is checked).

NOTE This probe can be configured on any agent that has got the required JDBC drivers installed. Additionally, the Datacap Application Subsystem incl. DB settings needs to be configured.

NOTE If you plan to use the data returned by this probe for billing purposes, make sure to take any Datacap Autodelete jobs into account during probe setup! This probe can only access data that is still available in the JobMonitor view.

NOTE The computation for `Last Finished Period` is based on the time zone of the agent.

Recommended Schedule

Approx. 15 min

Parameters

Admin Database Name

Required. Enter the database subsystem name of the admin DB.

Engine Database Name

Required. Enter the database subsystem name of the engine DB.

Job Names

Comma separated list of job names.
Leave empty for all job names.

Exclude Job Names

Check this option to exclude the job names given in the field above from monitoring

Last Finished Period

If this option is checked, the fields `Period Count` and `Period Type` define the time period the probe will look at.

If this option is unchecked, the fields `Period Count` and `Period Type` will be ignored. The probe will return the count since the last probe run or since midnight.

+ `.Last Finished Period` checked

```
probe is scheduled to run every hour
Period Count= 1
Period Type= Day
⇒ each probe run will return the batch count for the previous day 0:00 to 23:59.
```

NOTE

This parameter reflects the last finished period, so the returned values are always for the previous period of the given period type.

Period Count

Enter a period count. (This parameter is only used when Last finished period is checked)

Period Type

Select a period type from the list. Available options are day, week, month and year. (This parameter is only used when Last finished period is checked)

Aggregation Type

Select an aggregation type from the list.

If `NONE` is selected, one sample per job will be created. For all other aggregation types, one aggregated sample will be created.

Return Values

>=0

number of processed documents

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Admin database name is invalid
 - Check the name of the admin database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Engine database name is invalid
 - Check the name of the engine database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Query returned an empty result set
 - Database query did not return any result.
- No jobs defined
 - There are no jobs defined in the Admin database.
- '<jobname>' not defined; defined jobs: <list of defined names>
 - The specified job name is not defined in the Admin database.

- All defined jobs excluded
 - All job names defined in the Admin database are excluded.

DatacapJobDuration

Description

The probe monitors the duration of jobs that are in the status `Job done` . Each probe run returns information about all jobs that have finished since the previous run.

NOTE

This probe can be configured on any agent that has got the required JDBC drivers installed. Additionally the Datacap Subsystem incl. DB settings need to be configured.

Recommended Schedule

Approx. 15 min

Parameters

Admin Database Name

Required. Enter the database name of the admin DB.

Engine Database Name

Required. Enter the database name of the engine DB.

Job Names

Comma separated list of job names.
Leave empty for all jobs.

Exclude Job Names

Check this option to exclude the job names given in the field above from monitoring

Aggregation Type

Select an aggregation type from the list.
If `NONE` is selected, one sample per job name and batch id name will be created. For all other aggregation types, one sample will be created per job name.

Return Values

>=0

Job duration in seconds

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Admin database name is invalid
 - Check the name of the admin database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Engine database name is invalid
 - Check the name of the engine database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Query returned an empty result set
 - Database query did not return any result.
- The following job names are undefined
 - Check the list of job names in the probe configuration.

DatacapPagesProcessedCount

Description

The probe monitors the number of processed pages.
The value returned by the probe includes all batches that have reached the status `Job done` in the reporting period. The reporting period is determined either by the probe schedule (if `Last Finished Period` is unchecked) or by the `Period Count` and `Period Type` (if `Last Finished Period` is checked).

NOTE

This probe can be configured on any agent that has got the required JDBC drivers installed. Additionally, the Datacap Application Subsystem incl. DB settings needs to be configured.

NOTE

If you plan to use the data returned by this probe for billing purposes, make sure to take any Datacap Autodelete jobs into account during probe setup! This probe can only access data that is still available in the JobMonitor view.

NOTE

The computation for `Last Finished Period` is based on the time zone of the agent.

Recommended Schedule

Approx. 15 min

Parameters

Admin Database Name

Required. Enter the database subsystem name of the admin DB.

Engine Database Name

Required. Enter the database subsystem name of the engine DB.

Job Names

Comma separated list of job names.
Leave empty for all job names.

Exclude Job Names

Check this option to exclude the job names given in the field above from monitoring

Last Finished Period

If this option is checked, the fields `Period Count` and `Period Type` define the time period the probe will look at.

If this option is unchecked, the fields `Period Count` and `Period Type` will be ignored. The probe will return the count since the last probe run or since midnight.

+ `.Last Finished Period` checked

```
probe is scheduled to run every hour
Period Count= 1
Period Type= Day
⇒ each probe run will return the batch count for the previous day 0:00 to 23:59.
```

NOTE

This parameter reflects the last finished period, so the returned values are always for the previous period of the given period type.

Period Count

Enter a period count. (This parameter is only used when Last finished period is checked)

Period Type

Select a period type from the list. Available options are day, week, month and year. (This parameter is only used when Last finished period is checked)

Aggregation Type

Select an aggregation type from the list.

If `NONE` is selected, one sample per job will be created. For all other aggregation types, one aggregated sample will be created.

Return Values

>=0

number of processed pages

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Admin database name is invalid
 - Check the name of the admin database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Engine database name is invalid
 - Check the name of the engine database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Query returned an empty result set
 - Database query did not return any result.
- No jobs defined
 - There are no jobs defined in the Admin database.
- '<jobname>' not defined; defined jobs: <list of defined names>
 - The specified job name is not defined in the Admin database.
- All defined jobs excluded
 - All job names defined in the Admin database are excluded.

DatacapPagesQueuedCount

Description

The probe monitors the number of queued pages.

NOTE

This probe can be configured on any agent that has got the required JDBC drivers installed. Additionally the Datacap Subsystem incl. DB settings need to be configured.

Recommended Schedule

Approx. 15 min

Parameters

Admin Database Name

Required. Enter the database name of the admin DB.

Engine Database Name

Required. Enter the database name of the engine DB.

Task Names

Comma separated list of task names.
Leave empty for all tasks.

Return Values

>=0

number of queued pages

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established

- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Admin database name is invalid
 - Check the name of the admin database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Engine database name is invalid
 - Check the name of the engine database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Query returned an empty result set
 - Database query did not return any result.
- The following task names are undefined
 - Check the list of task names in the probe configuration.

DatacapScanClientWebservicesBatchesCount

Description

The probe counts the number of waiting batches whose upload was initialized by the Scan Client web service.

NOTE

This probe can be configured on any agent that has got the required JDBC drivers installed. Additionally the Datacap Subsystem incl. DB settings need to be configured.

Recommended Schedule

Approx. 15 min

Parameters

Engine Database Name

Required. Enter the database name of the engine DB.

Task Name

Default: Upload

Status

Default: pending

NOTE

Each possible combination of "Task Name" and "Status" can be requested with this probe. The available combinations can be found in the EngineDB queue table in columns qu_task and qu_status.

Return Values

==0

No ScanClient web service batches of task <task-name> found with state <status>.'

>=1

Amount of batches is in state 'pending' for default setup or amount of found combinations for Task Name and status.

== -1

Technical error (error sample)

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Engine database name is invalid
 - Check the name of the engine database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Query returned an empty result set
 - Database query did not return any result.
- The following task name is undefined
 - Check the task name in the probe configuration.

DatacapTaskPagesProcessedPerMinute

Description

The probe monitors the number of processed pages per minute within the specified time interval.

NOTE

This probe can be configured on any agent that has got the required JDBC drivers installed. Additionally the Datacap Subsystem incl. DB settings need to be configured.

Recommended Schedule

Approx. 15 min

Parameters

Admin Database Name

Required. Enter the database name of the admin DB.

Engine Database Name

Required. Enter the database name of the engine DB.

Task Names

Comma separated list of task names.
Leave empty for all tasks.

Interval in Minutes

interval to check

Return Values

>=0

number of processed pages per minute

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Admin database name is invalid
 - Check the name of the admin database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Engine database name is invalid

- Check the name of the engine database in the probe config. It must match the name of a database subsystem referenced by the Datacap subsystem.
- Query returned an empty result set
 - Database query did not return any result.
- The following task names are undefined
 - Check the list of task names in the probe configuration.

Subsystem Type Datacap

FpServiceAvailable

Description

The probe checks if the Datacap Fingerprint webservice is available.

NOTE

Requirement for this probe is a configured Uri subsystem that references the Datacap subsystem.

Recommended Schedule

Approx. 3 min

Parameters

ServiceSuffix

Required. Default: fpSERVICE/Service.asmx - Enter the Service Suffix URL Part for finger print service here.

Port

Optional. Default: 80 - Enter the used port of finger print service here.

Return Values

1

Service is available

0

Service is not available

== -1

Technical error (error sample)

FpServiceMemoryConsumption

Description

The probe checks the total memory consumption of the Datacap Fingerprint webservice.

NOTE

Requirement for this probe is a configured Uri subsystem that references the Datacap subsystem.

Recommended Schedule

Approx. 3 min

Parameters

Service Suffix

Required. Default: fpService/Service.asmx - Enter the Service Suffix URL Part for finger print service here.

Port

Optional. Default: 80 - Enter the used port of finger print service here.

Return Values

>=0

Memory

== -1

Technical error (error sample)

Subsystem Type DB2

ContinuousDatabaseQuery

Description

The probe monitors entries of a specific table like a logfile probe would. It continuously reacts to new entries added to the table. For each new entry (a new row in the table) a sample is created if it matches the select criteria. The values from that new entry can be added to the message field through a message template. A specific field must be defined to hold the data for the value field of the samples. If that field is non-numeric, the number of new entries since the last samples were created is used as value.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Depends on query, criticality and the expected number of new rows per schedule. If many entries in a short period of time are expected a shorter schedule should be considered.

IMPORTANT

This probe can create a significant load to the database and to the monitoring system. Use with care.

Parameters

Table Name

Required parameter, that specifies the database table to check for new entries regularly.

Sort Column

Required parameter. It specifies the column of the above defined table to be used for ordering and only get the newest ones per probe run. A maximum of 100 entries in descending order is processed.

Message Template

Required parameter, which defines the template used for the sample's message field. An example is specified when creating a new probe configuration. Normal text can be entered here and also a placeholder for each value from a new entry of a specific column of the defined table. The placeholder must be defined as \$<column name>. For timestamp values an optional output formatting pattern can be added right after the column's name. The pattern must be enclosed in curly braces and has to be conformant to the timestamp formatting patterns of the Java programming language. No spaces are allowed between the opening curly brace and the last character of the column name. If no format is specified, the timestamp will be formatted according to ISO-8601.

Timestamp Column

If a timestamp column is used in the message template, the column's name must be entered here, too. If not, this field can be left empty. If set, the value of this field will also be used as the sample's timestamp. If unset, the probe's execution time will be used as the sample's timestamp. The timestamp will always be calibrated to the timezone defined in the Timezone Offset parameter.

Timestamp Column Format

Only required if the format of the field defined in the Timestamp Column parameter is not of type datetime or a numeric value defining a timestamps in milliseconds., like e.g. "1584109881748". The format should not include milliseconds, but for Oracle databases, because of technical restrictions. Oracle needs the milliseconds.

Value Column

Optional parameter. Entries of that column are used for the sample's value field. If the field is not numeric or the parameter is left blank, the number of rows returned for a probe run will be used as value.

Timezone Offset

Required parameter. It defines the timezone offset to be used when inserting the value of a timestamp field to the message field. As a default the UTC value of "+00.00" is already entered when creating a new probe configuration.

Return Values

Possible return values

The value of the specified value field if it is numeric else the number of rows returned by the database query, that is the size of the result set. No result will be returned if there are no new entries since the last probe run was executed. So this probe will not always create samples in each probe run. -1 is returned if an error occurred.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

CustomDatabaseQuery

Description

This probe runs the specified query against the database and returns the result.

This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT

This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Depends on query and criticality.

Parameters

SQL Query

Any SQL Query can be specified here.

Timeout

Specify the timeout for the query in seconds.
Set the value to 0 (zero) to run the query without timeout.

Return Values

Possible return values

Any numeric or alphanumeric
If the returned result is numeric, it can be evaluated as value. If the returned result is alphanumeric, it can be evaluated as message.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseActiveQueryCount

Description

This probe returns the number of active queries for the referenced database. It is especially useful to identify long-running queries when the "Started Before Seconds" parameter is used.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

Started Before Seconds

Count queries that have been active for at least the given number of seconds.
Set to 0 to count all active queries.

Return Values

>= 0

Number of active SQL queries.
The message contains a list of details for each query.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseConnectionStatus

Description

This probe checks the Database connection for the referenced database.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

The connection to the specified database is available

0

The connection to the specified database is unavailable

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabasePerformance

Description

This probe executes any SQL select-statement against a supported database and calculates the required time.

NOTE This probe supports SQL Select statements that do not return a result (empty result set). This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Approx. 45 min

Parameters

Performance Type

The type of performance to be measured.

COMPLETE

Measures the complete time required to logon and execute the given SQL statement.

EXECUTION

Measures the time required to execute the given SQL statement.

LOGON

Measures the time required to logon.

NOTE Oracle databases require an SQL statement even if `LOGON` is selected as performance type. You can use the following statement which works on every Oracle database:
`select dummy from dual`

SQL Query

SQL statement to be executed.

Example 50. SQL Query

```
SELECT count(*) from mytables where ID = '15'
```

NOTE

The format of the SQL statement must be valid for the database on which it is to be executed (e.g. do not specify any delimiter at the end of the statement when monitoring an Oracle database).

NOTE

The SQL SELECT statement supported by this probe can return more than one result line.

Return Values

Any numeric value

The numeric return value describing the elapsed time in milliseconds.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DB2DatabaseStatistic

Description

The DB2 Database Statistic probe checks any numeric statistic information that the DB2 MON_GET_DATABASE table function provides.

Recommended Schedule

Approx. 30 min

Parameters

Metrics

Required. Comma-separated list of metric names.
See documentation for [MON_GET_DATABASE](#) for list of valid names.

Calculate Delta

If this option is checked, the probe returns the delta compared to the last probe run instead of the absolute value of the selected metric(s).
If an aggregation type other than `NONE` is selected, the aggregation will be applied before the delta is computed.

Aggregation Type

Select an aggregation type from the list.
If `NONE` is selected, one sample per server and metric will be created. For all other aggregation types, one sample will be sent per metric.

Servers

Comma-separated list of member names (host names) as provided by the `MON_GET_SERVERLIST` table function.
Leave empty for all servers and for non-clustered DB2 installations.

Return Values

>=0

Numeric result of the (single) checked DB2 parameter.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Could not determine server list
 - The `MON_GET_SERVERLIST` table function returned an unexpected result.

DB2TablespaceFree

Description

This probe checks the amount (in kByte or pages) or the percentage of the space free of one DB2 tablespace (depending on the parameter settings).

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

Tablespace Name

List of tablespaces (comma separated).
Leave this parameter empty for all tablespaces.

NOTE

Leaving this parameter empty is not recommended, because some System tablespaces are almost 0% free by default and other critical user tablespaces would not be recognized in this case.

Measuring Unit

Select from one of the available units: Amount in bytes, Amount in pages OR Percentage

Return Values

>=0

Minimum amount of free space (in kByte or pages) or percentage used tablespace (depending on the parameter settings).

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.

- Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DB2TablespaceStatus

Description

This probe checks status of DB2 tablespaces.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

Tablespace Name

List of tablespaces (comma separated).
Leave empty for all tablespaces.

Database on z/OS

Check if the DB is located on a z/OS system.

Return Values

1

All checked tablespaces are in 'normal' mode.

0

At least one checked tablespace in not in 'normal' mode. See probe details for more information.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.

- Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DB2TablespaceUsed

Description

This probe checks the amount (in kByte or pages) or the percentage of the space used of one DB2 tablespace (depending on the parameter settings).

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

Tablespace Name

List of tablespaces (comma separated).
Leave this parameter empty for all tablespaces.

NOTE

Leaving this parameter empty is not recommended, because some System tablespaces are almost 100% used by default and other critical user tablespaces would not be recognized in this case.

Measuring Unit

Select from one of the available units: `Amount in bytes`, `Amount in pages` or `Percentage`

Return Values

>=0

Maximum amount of used space (in kByte or pages) or percentage used tablespace (depending on the parameter settings).

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DB2TransactionLogStatistic

Description

The DB2 Transaction Log Statistic probe checks any numeric statistic information that the DB2 `MON_GET_TRANSACTION_LOG` table function provides.

Recommended Schedule

Approx. 30 min

Parameters

Metrics

Required. Comma-separated list of metric names.
See documentation for [MON_GET_TRANSACTION_LOG](#) for list of valid names.

Calculate Delta

If this option is checked, the probe returns the delta compared to the last probe run instead of the absolute value of the selected metric(s).
If an aggregation type other than `NONE` is selected, the aggregation will be applied before the delta is computed.

Aggregation Type

Select an aggregation type from the list.
If `NONE` is selected, one sample per server and metric will be created. For all other aggregation types, one sample will be sent per metric.

Servers

Comma-separated list of member names (host names) as provided by the `MON_GET_SERVERLIST` table function.
Leave empty for all servers and for non-clustered DB2 installations.

Return Values

>=0

Numeric result of the (single) checked DB2 parameter.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Could not determine server list
 - The `MON_GET_SERVERLIST` table function returned an unexpected result.

Subsystem Type FilePath

FileCount

Description

This probe checks the number of files in the path that was specified in the filepath subsystem.

Recommended Schedule

Approx. 45 min

Parameters

Include Subdirectories

Check this option to count files in subdirectories as well.

Search Pattern

Specify a regular expression to count only files that match a specific pattern. This pattern will be appended to the `Directory` specified above.
The default is `.*` (match all files).

IMPORTANT

The `Search Pattern` must be a valid regular expression.

Example 51. Possible entries for Search Pattern

- To count all files, specify: `.*`
- To count all files with an extension of `.log`, specify: `.*\.log`
- To count all files with an extension of `.log` that reside in a subdirectory that starts with `err`, specify: `err.*\/.*\.log` on (Unix) or `err.*\\.*\.log` (Windows)

Older Than X Minutes

Specify a value greater than zero to count only files that are older than the given number of minutes.

Content Search Pattern

Optional: Enter a search string information here. All files found within the search parameters (FilePath and Search Pattern) will be analyzed for this content search pattern. Only the matching files will be reported.

Delete Files

Optional: Check this box if the files found should be deleted as well when the probe is executed.

IMPORTANT

Use the delete feature with care. The probe always deletes all files that meet the above criteria.

Return Values

>=0

Number of matching files

List of possible error conditions

- Directory '`<directory>`' does not exist or is not a directory
 - The specified `Directory` is not valid
- Error counting files below '`<directory>`'
 - Files could not be counted due to an `IOException`. See error field for details.

Subsystem Type Host

CenteraStatus

Description

This probe checks the connection to the configured EMC Centera system or a specific node.

Recommended Schedule

Approx. 5 min.

Parameters

Centera Tool

Full path for the tool to check
Valid tools are: `c-ping`, `CenteraPing`.

Centera Connection String

Specify the complete EMC Centera connection string or only one separate node to check

Return Values

- 1**
EMC Centera or a node of a Centera system is connected.
- 0**
EMC Centera cannot be reached using the configured tool.

List of possible error conditions

- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- Execution of 'toolname' returned an error
 - Execution of the given Centera command returned with an error. See error field for details.

- Execution of 'toolname' was interrupted
 - Processing of the external given Centera command was interrupted.
- IOException during execution of 'toolname'
 - In most cases, this exception happens because the given Centera command cannot be found. See error field for details.

CPU

Description

Returns the average percentage of CPU usage of the operating system over the given number of requests.

Recommended Schedule

Approx. 2 min

Parameters

Request count

Number of requests to make, with a pause of 1 second after each request. The probe will return the average value over all requests.

The number of requests must be between 1 and 60.

Return Values

>=0

Average CPU usage in percent.

List of possible error conditions

-1

Error during probe execution.

CPUUsagePerProcess

Description

This probe returns the CPU usage per process. The probe searches for all processes that apply to the process search patterns.

Recommended Schedule

Approx. 10 min

Parameters

Process Search Pattern

Comma-separated list of case-insensitive process search patterns to check.

IMPORTANT

The entries in `Process Search Pattern` are treated as regular expressions.

This means that you can include valid regular expression patterns in the process name. Leading and trailing `.*` are added automatically to make sure that the whole process name including the path and any parameters are matched.

It also means that backslashes in process names must be doubled to create valid regular expressions (e.g. specify `bin\\java` to check for Windows processes that have `bin\java` in their process name).

Example 52. Possible entries for Process List

- To check all processes that contain java, specify: `java`
- To check all java processes that have been started from a directory named Server, specify: `/Server/.*java` (Unix) or `\\Server\\.*java.exe` (Windows)
- To check all java and all sendmail processes, specify: `java,sendmail`

Number of Seconds To Check

Optional. Number of seconds to measure (default: 5). Minimum value is 1, max. value is 60 seconds.

Calculation Type

NONE, AVG, MIN, MAX or SUM.

If NONE is specified, one sample per process will be created.

The default value is MAX

Return Values

>=0

Average CPU usage over the specified period in percent. The process name(s) can be found in the message field.

NOTE

For the average only the actual execution time of a process in the specified period is used.

List of possible error conditions

- Error getting data from ProcessDetailProvider
 - The list of running processes could not be obtained.
- No results found for pattern '<pattern>'
 - A search pattern was given that does not match any running process.

Custom

Description

This probe is used to execute any process. A process can be a system process or a script located on the agent.

Sample fields can be set by using specific markers in the output to stdout. The general format of the markers is `sample.[<sample-reference>.<sample-field-name>=<sample-field-value>.`

Valid `<sample-field-name>` entries are:

value

numerical value to set the sample value; default is the exit code of the external process

classification

a classification for the sample; this field is empty by default

source

a source for the sample; this field is empty by default

message

each line with this marker is added to the message field of the sample and will replace the original (unmarked) stdout output; default is the output to stdout of the external process

error

each line with this marker is added to the error field of the sample, in addition to any output to stderr of the external process; default is the output to stderr of the external process

The `<sample-reference>` is optional. It may contain letters, numbers, dash (-) and underscore (_) and is case-insensitive. All lines with the same `<sample-reference>` will be combined into one sample. Using different values for `<sample-reference>` allows creation of more than one sample. Lines with different `<sample-reference>` entries can be mixed (see examples below).

Example 53. Output that creates one sample with custom value and classification

```
sample.value=4711
sample.classification=MyClassification
```

Example 54. Output that creates two samples, one with custom value, the other with custom value and custom classification

```
sample.A.value=4812
sample.B.value=4711
sample.A.classification=MyOtherClassification
```

Example 55. Output that creates two samples, one with custom value, the other with custom value and multiline custom message

```
This line will be the message of "sample.one".
sample.2.message=Message for second sample
sample.one.value=4711
sample.2.value=4812
sample.2.message=Additional message for second sample
```

Recommended Schedule

Depends on process and criticality.

Parameters

Command

Enter the command or script (full qualified path) here.

Working Directory

The working Directory is needed in case the script uses any relative paths or variables. If not needed leave with the default.

Timeout In Seconds

The probe will be terminated if it runs longer than the given time in seconds.

Return Values

Any Value, this depends on the setup of the probe.

List of possible error conditions

- A `sample.value` marker line with a non-numeric value was found
- Command not found or not executable
- All other messages depend on the custom probe implementation.

Diskspace

Description

Queries the amount of free or used disk space for each filesystem.

NOTE

In the following, `filesystem` is used as a general term for drives, mountpoints and filesystem names. `Filesystem name` is used to indicate the name of a filesystem on UNIX / Linux systems.

Recommended Schedule

Approx. 30 min

Parameters

Unit

The unit in which to return the amount. Valid values are %, MB, GB and TB.

Perspective

The disk space perspective to return. Valid values are `Used` and `Free`.

Filesystems To Include

Comma-separated list of filesystems to check, e.g. `C:,D: or /home,/usr`.

Leave empty to check all items.

Filesystems To Exclude

Comma-separated list of filesystems to exclude from checking.

This option only makes sense when `Filesystems To Include` is left empty.

NOTE

On UNIX / Linux, the following mountpoints will automatically be excluded: `/dev`, `/proc`, `/run`, `/snap`, `/sys`.

View By

This option controls the interpretation of the fields `Filesystems To Include` and `Filesystems To Exclude`, the content of the classification and the number of samples that are created.

`Filesystem Name`: select the filesystems to include / exclude by filesystem name; if the same filesystem is mounted on more than one mountpoint, only one sample will be created

`Mountpoint`: select the filesystems to include / exclude by mountpoint; if the same filesystem is mounted on more than one mountpoint, one sample per mountpoint will be created

NOTE

This option is only relevant for UNIX / Linux systems. On Windows, the drive letter is always used.

Include Network Drives

Check this option to include NFS mounts on UNIX / Linux.

NOTE

This option is only relevant for UNIX / Linux systems. On Windows, it is not possible to monitor network drives due to technical limitations.

Return Values

>=0

Disk space amount according to the given parameters.

One Sample per filesystem is created. The classification follows the pattern `disk:<filesystem>`, e.g. `disk:/dev/sda2`, `disk:/` or `disk:C:`.

List of possible error conditions

-1

Error during probe execution. See the error field for details.

Memory

Description

Queries the amount of free or used physical memory of the operating system.

Recommended Schedule

Approx. 5 min

Parameters

Unit

The unit in which to return the amount. Valid values are %, MB, GB and TB.

Perspective

The memory usage perspective to return. Valid values are Available, Free and Used, where $Used = Total - Available$.

NOTE

Free memory is the amount of memory (RAM) that is currently not used for anything.

Available memory is the amount of memory that is available for allocation to new or existing processes. Available memory is then an estimation of how much memory is available for use without swapping.

Return Values

≥ 0

Memory amount according to the given parameters

List of possible error conditions

-1

Error during probe execution

MemoryUsagePerProcess

Description

This probe returns the memory usage per process. The probe searches for all processes that apply to the process search patterns.

Recommended Schedule

Approx. 10 min

Parameters

Process Search Pattern

Comma-separated list of case-insensitive process search patterns to check.

IMPORTANT

The entries in `Process Search Pattern` are treated as regular expressions.

This means that you can include valid regular expression patterns in the process name. Leading and trailing `.*` are added automatically to make sure that the whole process name including the path and any parameters are matched.

It also means that backslashes in process names must be doubled to create valid regular expressions (e.g. specify `bin\\java` to check for Windows processes that have `bin\java` in their process name).

Example 56. Possible entries for Process List

- To check all processes that contain java, specify: `java`
- To check all java processes that have been started from a directory named Server, specify: `/Server/.java` (Unix) or `\\Server\\.java.exe` (Windows)
- To check all java and all sendmail processes, specify: `java,sendmail`

Output format

Select one of the following output formats: BYTE (bytes), KB (kilobytes), MB (megabytes) or GB (gigabytes)

Calculation Type

NONE, AVG, MIN, MAX or SUM.
If NONE is specified, one sample per process will be created.
The default value is MAX

Return Values

>=0

Memory usage. The process name(s) can be found in the message field.

List of possible error conditions

- Error getting data from ProcessDetailProvider
 - The list of running processes could not be obtained.
- No results found for pattern '<pattern>'
 - A search pattern was given that does not match any running process.

NetworkPing

Description

This probe returns the amount of milliseconds the `ping` command takes for a remote ping to the given system. In the case `AVG` is used as calculation type, the average timespan is returned. Otherwise the lowest value (calculation type `MIN`) or the highest value (calculation type `MAX`) is returned.

Recommended Schedule

Approx. 5 min

Parameters

Hostnames To Check

Comma separated list of IP addresses or host names. One sample per host will be generated.

Number Of Pings

Optional. Number pings to send to the remote host (default: 1).

Calculation Type

MIN, MAX or AVG (default).

Return Values

>=0

Time in milliseconds.

List of possible error conditions

- <hostname> not reachable or unknown
 - The given host cannot be reached via `ping`.
- Unexpected ping output
 - The `ping` command returned output in an unexpected format.
- Execution of ping returned an error
 - Execution of the `ping` command returned with an error. See error field for details.

NOTE

This error will also occur on Linux systems if a hostname cannot be resolved.

- Execution of ping was interrupted
 - Processing of the external `ping` command was interrupted.
- IOException during execution of ping
 - In most cases, this exception happens because the `ping` command cannot be found. See error field for details.

NetworkResolution

Description

This probe checks the Network (IP) resolution or reverse resolution of systems. The probe can check only one system or a list of systems specified by the hostname or the IP address. In the case the IP address is specified the reverse-resolution will be verified. This probe can be set to only verify the resolution of systems or it can compare the resolved IP name against an expected host name. In this case only one system can be verified and not a list of systems.

Recommended Schedule

Approx. 15 min

Parameters

Hostnames To Check

Comma separated list of IP addresses or host names. One sample per host will be generated.

Ip Version

V4 or V6.

Expected Resolved FQDN

Optional: Expected result of resolved (full qualified) host name.

If this parameter is specified, `Hostnames To Check` must contain only one host name or IP address to match the expected resolved name.

Return Values

1

Host can be resolved. The expected FQDN (if specified) is matched.

0

Host can not be resolved or expected FQDN (if specified) does not match.

List of possible error conditions

- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- If an expected hostname is given, only one host to check can be specified
 - Either adjust the `Hostnames To Check` parameter so that it contains only one hostname or remove the `Expected Resolved FQDN`.

NetworkRouting

Description

This probe tests Network (IP) routing to a remote system. The probe tests Network (IP) routing to a list of systems specified as parameter. In the case one or more systems cannot be reached the probe indicates an error. This probe uses the system tool 'traceroute' (UNIX, Linux) or 'tracert' (Windows), therefore access is required to the used system tool by the account running the probe.

Recommended Schedule

Approx. 15 min

Parameters

Hostnames To Check

Comma separated list of IP addresses or host names. One sample per host will be generated.

Return Values

1

Route to host can be resolved.

0

Route to host cannot be resolved.

List of possible error conditions

- Execution of <toolname> returned an error
 - Execution of the <toolname> command returned with an error. See error field for details.
- Execution of <toolname> was interrupted
 - Processing of the external <toolname> command was interrupted.
- IOException during execution of <toolname>
 - In most cases, this exception happens because the <toolname> command cannot be found. See error field for details.

PortCheck

Description

This probe tests the status of one or more local TCP ports. If all specified local ports have the status LISTEN or LISTENING the probes returns 'ok'. If at least one port is not LISTENING the value 'not_ok' or an error value is returned.

NOTE

The probe uses the external command `netstat` on Windows / AIX and `ss` on Linux. If an IP address is configured, the input is used for a simple text comparison; see example below for details.

Recommended Schedule

Approx. 5 min

Parameters

List Of Port Numbers

Specify a comma separated list of ports to be checked. One sample per port will be generated.

Ip Address

Optional: Specify the local IP address (IP 4 or IP 6) to be checked. If this parameter is not specified then the probe checks all local IP addresses.

The value in this field must exactly match the complete IP address in the command's output.

Example 57. Exact match for IP address

To match the following line from `ss`:

```
tcp    LISTEN  0        4096      [::ffff:127.0.0.1]:1234      0:0
```

you must use `[::ffff:127.0.0.1]` for **Ip Address**. Specifying only `127.0.0.1` for **Ip Address** will not match.

NOTE

This parameter does only support one single IP address, no list. Do not specify an IP name (host name), only IP addresses are allowed for this parameter.

Return Values

1

The port has the status LISTENING / LISTEN.

0

The port does not have the status LISTENING / LISTEN or is not bound to the specified `IpAddress`.

List of possible error conditions

- Execution of <command> returned an error
 - Execution of the external command returned with an error. See error field for details.
- Execution of <command> was interrupted
 - Processing of the external command was interrupted.
- IOException during execution of <command>
 - In most cases, this exception happens because the external command cannot be found. See error field for details.

PortReachable

Description

This probe tests the status of one TCP port. If the port is not reachable within the defined timeout, the probe returns '0'. If the port is available '1' is returned.

Recommended Schedule

Approx. 10 min

Parameters

Port

Specify port to be checked.

Timeout Millis

Specify the timeout in milliseconds.

Return Values

1

The specified port was available within the specified timeout.

0

The specified port was not available within the specified timeout.

List of possible error conditions

- UnknownHostException: <hostname>
 - Hostname is unknown. Check the probe configuration
- A network error occurred
 - Network error. See error field for details.

ProcessCount

Description

This probe counts the number of running instances for the given processes and services. It returns one sample for each process or service with the corresponding count.

NOTE

On MS Windows, it is possible that the probe can not monitor so called Protected Process Light (PPL) processes. These processes are protected by the operating system and can only be accessed by other processes that have the same or higher level of protection. If the probe is running with a lower level of protection than the PPL processes, it will not be able to access them and therefore will not be able to count them. If you need to monitor PPL processes, you may need to run the probe with elevated privileges or adjust the protection level of the probe to match that of the PPL processes. Please refer to the documentation of your operating system for more information on how to do this.

Recommended Schedule

Approx. 5 min

Parameters

Process List

Comma-separated list of case-insensitive process names to check.

Service List

Comma-separated list of case-insensitive Windows service names to check. Please use the "Display Name" as shown in the properties of the service.

IMPORTANT

The entries in both Process List and Service List are treated as regular expressions.

This means that you can include valid regular expression patterns in the process or service name. Leading and trailing `.` and `*` are added automatically to make sure that the whole process name including the path and any parameters are matched.

It also means that backslashes in process and service names must be doubled to create valid regular expressions (e.g. specify `bin\\java` to check for Windows processes that have `bin\java` in their process name).

Example 58. Possible entries for Process List

- To count for all processes that contain java, specify: `java`
- To count for all java processes that have been started from a directory named Server, specify: `/Server/./*java` (Unix) or `\Server\.*java.exe` (Windows)
- To count for all java and all sendmail processes, specify: `java,sendmail` (this will create two samples)

Return Values

>=0

Number of running instances. The name of the process or service can be found in the message field.

List of possible error conditions

- Process list not specified (UNIX / Linux)
- Neither processes nor services specified (Windows)
 - The configuration for the probe is incomplete.
- Error getting data from ProcessDetailProvider
 - The list of running processes or services could not be obtained.

Swapspace

Description

Queries the amount of free or used swap space of the operating system.

Recommended Schedule

Approx. 15 min.

Parameters

Unit

The unit in which to return the amount. Valid values are %, MB, GB and TB.

Perspective

The swap space perspective to return. Valid values are `Used` and `Free`.

Return Values

>=0

Swap space amount according to the given parameters

List of possible error conditions

-1

Error during probe execution

Subsystem Type lcc4Sap

lcc4SapArchiveStatus

Description

The probe checks the connection between the Collector Service and the archive for the given instance.

NOTE | This probe supports ICC for SAP version 3.0 and newer only.

Recommended Schedule

Approx. 5 min

Parameters

List Of Archive Names

Required. Comma-separated list of archives to check. The probe will return one sample per archive.

Timeout In Seconds

Timeout for connection to the ICC4SAP server.

Authentication Type

Select `None` for http based connections.

Select `Server` for https based connections without client authentication. For this authentication type, you need to add a Keystore subsystem with the required certificate to the lcc4Sap subsystem. Select `Server` and `client` for https based connections if the Collector Server requires client authentication. For this authentication type, you need to add one Keystore subsystem with the required certificate and a second with the required private key to the lcc4Sap subsystem. The certificate and private key can also be combined into one file, resulting in a single Keystore subsystem.

See documentation of archint.ini parameters at https://www.ibm.com/support/knowledgecenter/en/SSRW2R_4.0.0/doc/r_srv_profile_global.html for details.

Return Values

1

The connection between Collector Service and archive is available.

0

The connection between Collector Service and archive is not available or another error occurred.

List of possible error conditions

None.

lcc4SapProcess

Description

The probe checks the ICC4SAP process availability of a locally installed ICC4SAP Instance.

Checks `<instpath>/Server/bin/archpro`, `<instpath>/[^]*Java/jre/bin/java.*P8AgentStarter` and on Windows the service `ICCSAP (iccsap_service)` as well.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

All required processes and services are running.

0

At least one required process or service is not running.

List of possible error conditions

- Error getting list of running processes or services
 - The list of running services could not be obtained.

lcc4SapServerStatus

Description

The probe checks if the Collector Server is running for the given instance.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

The Collector Server is running.

0

The Collector Server is not running or another error occurred.

List of possible error conditions

- Error reading port from ini file 'filename'
 - The ini file specified by the fields `Archint Ini Path` and `Archint IniFile` in the subsystem cannot be found.
- Port not found in ini file 'filename'
 - The ini file specified by the fields `Archint Ini Path` and `Archint IniFile` in the subsystem can be found but it does not contain an entry for `ARCHPRO_PORT`.
- Execution of archadmin was interrupted
 - Processing of the external archadmin command was interrupted.
- IOException during execution of archadmin
 - In most cases, this exception happens because the archadmin command cannot be found. See error field for details.

Subsystem Type ImageImport

ImageImportBatchStatus

Description

This probe checks for failed Image Imports. The name of the failed batch and the content of the corresponding error file can be found in the sample message.

Recommended Schedule

Approx. 60 min

Parameters

Parent Directory

Directory under which the *.err files are located.

Ignore Structure

If selected, the ImageImport directory structure is ignored. If not selected, there must be corresponding directories for each of the *.err files. Each of the directories must contain a file named `transact.dat`.

Return Values

1

No errors occurred during batch processing.

0

Errors occurred during batch processing. One sample per failed batch will be created. The message field contains details about the failed batch.

List of possible error conditions

- '<parent directory>' does not exist or is no directory
 - Check the parent directory defined in the probe configuration
- Error getting *.err files from '<parent directory>'
 - An exception occurred while trying to get the list of *.err files. See error field for details.
- Error reading file '<file>'
 - An exception occurred while reading a specific .err file. See error field for details.

ImageImportProcesses

Description

This probe checks if the processes required for ImageImport are running. The process `HPII_import` or `MRII_import` is monitored by default, depending on the ImageImport Type setting. On Windows, the `HPIIService` or `MRIIService` is checked as well.

Recommended Schedule

Approx. 5 min

Parameters

Processes

ImageImport processes, separated by , or ; (e.g. `HPII_import,HPII_val`)

Return Values

1

The specified ImageImport processes are running.

0

One or more of the specified ImageImport processes are not running. The message field contains the list of processes that are not running.

List of possible error conditions

- Error getting data from ProcessDetailProvider
 - The list of running processes / services could not be obtained.

ImageImportStatistics

Description

This probe is used for HPII/MRII statistics. The probe analyzes the end-of-day file (parameter `eod` directory and `eod` file format) and returns numeric values (percentage or numbers) based on the selected statistic (parameter: statistic value). If you enter the name of a batch only the results of the selected batch will be processed.

The following statistics are possible:

Passed Batches	Total number of passed batches
Failed Batches	Total number of failed batches
Percentage Passed Batches	Percentage of passed batches (0 to 100)
Percentage Failed Batches	Percentage of failed batches (0 to 100)
Send Docs	Total number of documents of the day
Send Pages	Total number of pages of the day
Passed Docs	Total number of passed documents
Passed Pages	Total number of passed pages
Failed Docs	Total number of failed documents
Failed Pages	Total number of failed pages
Percentage Passed Docs	Percentage of passed documents (0 to 100)
Percentage Passed Pages	Percentage of passed pages (0 to 100)
Percentage Failed Docs	Percentage of failed documents (0 to 100)
Percentage Failed Pages	Percentage of failed pages (0 to 100)

Recommended Schedule

Approx. 30 min.

Parameters

End Of Day File Directory

Directory where the end-of-day file is located

End Of Day File Format

Pattern for end-of-day file name including a date placeholder (YYYYMMDD or YYMMDD), e.g.
YYYYMMDDfn.eod

Statistic Value

Statistic value to check (see list above)

Batch Name

name of batch to check (optional). If no batch name is specified, all batches will be checked.

Return Values

>=0

Absolute number or percentage, depending on the specified statistic value

List of possible error conditions

- End Of Day File Directory '<directory>' does not exist or is no directory
 - Check the End Of Day File Directory defined in the probe configuration
- End Of Day file '<file>' does not exist",
 - Check the End Of Day File Format defined in the probe configuration
- Error reading EOD file '<file>'
 - An exception occurred while reading the End Of Day file. See error field for details.

Subsystem Type ImageServices

CeInfoImportAgentStatistic

Description

The probe returns information about FileNet IS CE-Info import agent statistics.

Recommended Schedule

Approx. 60 min

Parameters

Statistic Value

Possible values are:

- Number CE Info records allocated
- Number of active CE IS_import_agent(s)

Return Values

numeric value greater than 0

Numeric result of the checked parameter.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.

- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

CourierStatistic

Description

The Courier Statistic probe checks statistic information of Server and client Courier requests. Check the FileNet IS / IM documentation about CORH state details.

Recommended Schedule

Approx. 30 min

Parameters

CORH state

Supported CORH states checking Server and Client connections status:

- BLKABRT --- Abort bulk data transfer
- BLKGET --- Receiving bulk data
- BLKPUT --- Sending bulk data
- DBYTES --- Deserialize bytes from the Courier network buffer
- DCSS --- Deserialize a sequence from the Courier network buffer
- DESER --- Internal Courier deserialization
- DLWORD --- Deserialize a long word from the Courier network buffer
- DLWORDS --- Deserialize long words from the Courier network buffer
- DMOVE --- Move the Courier network buffer pointer
- DSTRUCT --- Deserialize a structure from the Courier network buffer
- DWORD --- Deserialize a word from the Courier network buffer
- DWORDS --- Deserialize words into the Courier network buffer
- ISSUE --- Send a message on the network
- NOSTATE --- Unknown; probably a connection being established
- PEEK --- Check network for out-of-band attention
- RCV --- Blocked, waiting for network data
- RCVTO --- Same as RCV with a timeout
- SBYTES --- Serialize bytes into the Courier network buffer
- SERIAL --- Internal Courier serialization

- SLWORD --- Serialize a long word into the Courier network buffer
- SLWORDS --- Serialize long words into the Courier network buffer
- SNDATT --- Send an out-of-band attention on the network
- SSTRNG --- Serialize a string into the Courier network buffer
- SSTRUCT --- Serialize a structure from the Courier network buffer
- SVER --- Serialize the Courier version into the Courier network buffer
- SWORD --- Serialize a word into the Courier network buffer
- SWORDS --- Serialize words into the Courier network buffer

Supported CORH states checking Server ONLY connections status:

- ATTNMSG --- Send an out-of-band attention on the network.
- CHLDAL --- OCOR_Listen child received an ALARM signal
- CHLDEX --- OCOR_Listen child has exited
- CLOSEMSG --- Close the connection
- CRAPC --- Request handler is getting the connection
- CRPIPE --- Create a named pipe
- DCALL --- Deserialize a Courier Call message
- DELETE --- Delete the handle and close the connection
- DELMSG --- Delete the handle and close the connection
- FLUSHMSG --- Flush the Courier network buffer
- GETPPM --- Looking for an available request handler
- GETRPC --- Blocked, waiting to get an RPC over the network
- IDLEMSG --- Obsolete - no longer used
- INITH --- Initialize handle
- PEEKMSG --- Check network for out-of-band attention
- QUEUED --- Connection is queued
- RCVFD --- Request handler is receiving the connection file descriptor
- RCVFDE --- Error occurred while getting the connection file descriptor
- RCVFDN --- Notify sender of connection file descriptor
- RCVMSG --- Blocked, waiting for network data
- RELMSG --- Connection termination sequence has started
- RXATTNMSG --- Out-of-band attention has been received
- RXDATAMSG --- Network data has been received
- SABORT --- Serialize a Courier Abort message
- SNDBLKMSG --- Sending bulk data
- SNDFD --- Send a connection file descriptor
- SNDFDW --- Wait for completion of the SNDFD state
- SNDMSG --- Send a message on the network

- SREJ --- Serialize a Courier Reject message
- SRET --- Serialize a Courier Return message
- TXDATMSG --- Network data has been sent
- TXEXDATMSG --- Out-of-band attention has been sent
- WREQH --- OCOR_Listen child is waiting for the request handler
- ZOMBIEMSG --- Connection is in an unstable state

Supported CORH states checking Client ONLY connections status:

- CLOSE --- Close the connection
- CONN --- Received an open reply
- CONNE --- Error occurred waiting for an open reply
- CONNW --- Wait for the open reply
- DABORT --- Deserialize a Courier Abort message
- DREJ --- Deserialize a Courier Reject message
- DRET --- Deserialize a Courier Return message
- FLUSH --- Flush the Courier network buffer
- OPEN --- Establish a connection
- SCALL --- Serialize a Courier Call message

Return Values

>=0

Number of connections of the specified CORH state.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.

- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '`<processName>`' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '`<command>`' with input '`<stdin>`' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '`<command>`' with input '`<stdin>`' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '`<command>`' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '`<mkfDbType>`' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '`<mkfDbName>`' for type '`<mkfDbType>`' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type '`lockType`' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type '`lockType`'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '`<mkfDbName>`' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

DeserializeCalls

Description

This probe returns the number of `deserialize` calls.

Recommended Schedule

Approx. 60 min

Parameters

None

Return Values

>=0

This probe returns the number of `deserialize` calls.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated

ImageServices subsystem.

- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

DynamicBatchRecord

Description

The Dynamic Batch Record probe returns the number of batches, which have the status of 'PhaseStatus' parameter. The probe can check only one batch or all batches of a ImageManager system. You can additionally specify the phase of a batch (see below for possible values), which will be checked. If the phase parameter is not specified all phases will be checked.

If the PhaseStatus parameter is not specified, then the probe checks for all Batches, which have got an `Error occurred` status.

Recommended Schedule

Approx. 15 min

Parameters

Batch Name

optional, can be unset for all batches

Phase

Select a phase from the list:

- All phases
- Batch Creation
- Scanning
- Image Verification
- Rescan

- Assembly
- Indexing
- Index Verification
- Batch Totaling
- Committal
- Cataloging
- Recommit

Phase Status

Select a phase status from the list:

- Not started
- In progress
- Interrupted
- Completed
- Unnecessary
- Error occurred
- Optional

Return Values

>=0

number of batches that match the given parameters

NOTE

If there are no batches defined in the system, the probe will return with value -1 and the message `Execution of '[<installpath>/MKF_tool]' with input '[select batch_dyn_hdr * showing phase_status]'` did not return any result. This special case can be handled in the evaluation.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`

- There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- Phase status '<PhaseStatus>' is invalid
 - The specified phase status is invalid. Refer to the documentation for correct values.
- Phase '<Phase>' is invalid
 - The specified phase is invalid. Refer to the documentation for correct values.

ElogFileExistence

Description

The probe monitors the presence of a ImageManager log file that matches the given path/name pattern.

Recommended Schedule

Approx. 60 min

Parameters

Elog Path

Path(s), where the log file is to be looked for (e.g. `/fnsw/local/logs/elogs`)

Elog Format

File name format string (e.g. `eelogYYYYMMDD` on UNIX, `e1YYYYMMDD` on Windows).

Return Values

1

This value indicates that an ELOG file with current date exists.

0

This value indicates that an ELOG file with current date has not been created yet or that an existing ELOG file with current date was removed. See message for details.

List of possible error conditions

- ELOG format '<ElogFormat>' is not valid
 - The file name pattern for the ELOG file is invalid. It must contain a date placeholder in the format `YYYYMMDD`, e.g. `eelogYYYYMMDD`.

FindObjectCalls

Description

The probe monitors the number of `find_object` calls.

Recommended Schedule

Approx. 30 min

Parameters

None

Return Values

>=0

This probe returns the number of `find_object` calls.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.

- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

ImageServicesCachePercentageFree

Description

The probe monitors the percentage of free space in a ImageManager cache.

Recommended Schedule

Approx. 15 min

Parameters

Cache Name

(part of) cache name (e.g. `page_cache1`, `bes_cache1` or `sys_print_cache`). If no cache name is specified, all caches for the IS domain will be checked.

Return Values

>=0

Integer value representing the percentage of free space in the specified cache.
If more than one cache is checked, the lowest value will be returned.
The message field contains the names and percentages of all caches that were checked.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.

- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No cache entries found
 - No cache entries were found in the CSM_tool output.
- No cache entry containing cache name '<CacheName>' found
 - No cache entries that match the specified cache name were found in the CSM_tool output.

ImageServicesCachePercentageFull

Description

The probe monitors the percentage of used (full) space in a ImageManager cache.

Recommended Schedule

Approx. 15 min

Parameters

Cache Name

(part of) cache name (e.g. `page_cache1`, `bes_cache1` or `sys_print_cache`). If no cache name is specified, all caches for the IS domain will be checked.

Return Values

>=0

Integer value representing the percentage of used space in the specified cache.
If more than one cache is checked, the highest value will be returned.
The message field contains the names and percentages of all caches that were checked.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.

- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No cache entries found
 - No cache entries were found in the CSM_tool output.
- No cache entry containing cache name '<CacheName>' found
 - No cache entries that match the specified cache name were found in the CSM_tool output.

ImageServicesCachePercentageLocked

Description

The probe monitors the percentage of locked space in a ImageManager cache.

Recommended Schedule

Approx. 15 min

Parameters

Cache Name

(part of) cache name (e.g. `page_cache1`, `bes_cache1` or `sys_print_cache`). If no cache name is specified, all caches for the IS domain will be checked.

Return Values

>=0

Integer value representing the percentage of locked space in the specified cache.
If more than one cache is checked, the highest value will be returned.
The message field contains the names and percentages of all caches that were checked.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.

- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '`<processName>`' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '`<command>`' with input '`<stdin>`' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '`<command>`' with input '`<stdin>`' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '`<command>`' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '`<mkfDbType>`' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '`<mkfDbName>`' for type '`<mkfDbType>`' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type '`lockType`' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type '`lockType`'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '`<mkfDbName>`' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No cache entries found
 - No cache entries were found in the CSM_tool output.
- No cache entry containing cache name '`<CacheName>`' found
 - No cache entries that match the specified cache name were found in the CSM_tool output.

ImageServicesCacheSectorsFree

Description

The probe monitors the number of free sectors in a ImageManager cache.

Recommended Schedule

Approx. 15 min

Parameters

Cache Name

(part of) cache name (e.g. `page_cache1`, `bes_cache1` or `sys_print_cache`). If no cache name is specified, all caches for the IS domain will be checked.

Return Values

>=0

Integer value representing the number of free sectors in the specified cache.
If more than one cache is checked, the lowest value will be returned.
The message field contains the names and values of all caches that were checked.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.

- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No cache entries found
 - No cache entries were found in the CSM_tool output.
- No cache entry containing cache name '<CacheName>' found
 - No cache entries that match the specified cache name were found in the CSM_tool output.

ImageServicesCacheSectorsFull

Description

The probe monitors the number of used (full) sectors in a ImageManager cache.

Recommended Schedule

Approx. 15 min

Parameters

Cache Name

(part of) cache name (e.g. `page_cache1`, `bes_cache1` or `sys_print_cache`). If no cache name is

specified, all caches for the IS domain will be checked.

Return Values

>=0

Integer value representing the number of used sectors in the specified cache.
If more than one cache is checked, the highest value will be returned.
The message field contains the names and values of all caches that were checked.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.

- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No cache entries found
 - No cache entries were found in the CSM_tool output.
- No cache entry containing cache name '<CacheName>' found
 - No cache entries that match the specified cache name were found in the CSM_tool output. ==== ImageServicesCacheSectorsLocked

Description

The probe monitors the number of locked sectors in a ImageManager cache.

Recommended Schedule

Approx. 15 min

Parameters

Cache Name

(part of) cache name (e.g. `page_cache1`, `bes_cache1` or `sys_print_cache`). If no cache name is specified, all caches for the IS domain will be checked.

Return Values

>=0

Integer value representing the number of locked sectors in the specified cache.
If more than one cache is checked, the highest value will be returned.
The message field contains the names and values of all caches that were checked.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.

- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No cache entries found
 - No cache entries were found in the CSM_tool output.
- No cache entry containing cache name '<CacheName>' found
 - No cache entries that match the specified cache name were found in the CSM_tool output.

ImageServicesCacheStatistic

Description

The probe monitors statistic information of ImageManager cache.

Recommended Schedule

Approx. 30 min

Parameters

Cache Name

cache name (e.g. `page_cache1`, `bes_cache1` or `sys_print_cache`) or `Physical space summary`, if the physical space that cache uses should be checked.

Statistic type

Statistic type that should be monitored. Note that not all combinations of cache name and statistic value are valid.

- If a dedicated cache is checked (e.g. `page_cache1`, `bes_cache1` or `sys_print_cache`) then the following statistic values are allowed:
 - `min_cache_sectors`
 - `locked_sectors`
 - `inuse_sectors`
 - `max_cache_sectors`
 - `locked_objects`
 - `inuse_objects`
 - `free_sectors`
- If the physical space ('virtual' cache name `Physical space summary`) is checked then the following statistic values are allowed:
 - `reserved_sectors`
 - `locked_sectors`

- inuse_sectors
- max_cache_sectors
- locked_objects
- inuse_objects
- free_sectors
- largest_fs_blk

Return Values

>=0

Integer value representing the monitored statistic type.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception

- Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- Cache '<CacheName>' not found
 - The specified cache name was not found in the CSM_tool output.
- Cache '<CacheName>' found but no value for statistic type '<StatisticType>' detected
 - The specified cache name was found in the CSM_tool output but the selected statistic type is not valid for this type of cache.
- Non-numeric value for cache '<CacheName>' and statistic type '<StatisticType>': '<Value>'
 - The selected statistic type was found for the specified cache but does not contain a numeric value.
- Value missing for cache '<CacheName>' and statistic type '<StatisticType>'
 - The selected statistic type was found for the specified cache but does not contain a value.

ImageServicesSystemStatus

Description

Verifies the status of the ImageManager server.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

The ImageManager system is running.

0

The ImageManager system is stopped, in backup or restore mode or the status is currently changing (undefined).

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.

IndexDatabaseAvailability

Description

This probe checks the availability of the Index Database (Oracle, MSSQL or DB2).

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

The Index database is available.

0

The Index database is not available.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

LoggedOnUsers

Description

This probe returns the number of users actually logged on to the specific ImageManager server. This probe can be used for SLU usage analysis.

Recommended Schedule

Approx. 60 min

Parameters

Domain

domain or server to check. If parameter domain is empty, total number of sessions will be returned.

Return Values

>=0

number of users logged in at selected server or domain

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent

- The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No logged on users found
 - No logged on users were found in the SEC_tool output.
- No logged on user containing domain name '<DomainName>' found
 - No logged on users that match the specified domain name were found in the SEC_tool output.

MKFDataBlocks

Description

The probe monitors the number of data blocks in a MKF database.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 15 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Value Type

Type of value. Valid values are `count`, `nonvirgin` and `total`.

Return Values

>=0

For value type `count`: Highest number of data blocks in the specified MKF databases.

For value types `nonvirgin` and `total`: Highest percentage of data blocks in the specified MKF databases.

The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent

- The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFDatabaseAvailability

Description

The probe monitors availability of the specified MKF databases (permanent, transient, security).

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 5 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Return Values

1

All selected MKF databases are running.

0

One or more of the selected MKF databases is not running.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds

- Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFDescriptionBlocks

Description

The probe monitors the number of description blocks in a MKF database.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 15 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Value Type

Type of value. Valid values are `count`, `nonvirgin` and `total`.

Return Values

>=0

For value type `count`: Highest number of description blocks in the specified MKF databases.

For value types `nonvirgin` and `total`: Highest percentage of description blocks in the specified MKF databases.

The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.

- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFEmptyBlocks

Description

The probe monitors the number of empty blocks in a MKF database.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 15 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Value Type

Type of value. Valid values are `count`, `nonvirgin` and `total`.

Return Values

>=0

For value type `count`: Highest number of empty blocks in the specified MKF databases.

For value types `nonvirgin` and `total`: Highest percentage of empty blocks in the specified MKF databases.

The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support

with the full error message if the problem persists.

- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsfw -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFEmptyListBlocks

Description

The probe monitors the number of empty list blocks in a MKF database.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 15 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Value Type

Type of value. Valid values are `count`, `nonvirgin` and `total`.

Return Values

>=0

For value type `count`: Highest number of empty list blocks in the specified MKF databases.

For value types `nonvirgin` and `total`: Highest percentage of empty list blocks in the specified MKF databases.

The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support

with the full error message.

- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFHitsDel

Description

The probe monitors the number of MKF database hits for `del` objects of the selected type.

Recommended Schedule

Approx. 60 min

Parameters

Object type

Object type (`finds`, `adds`, `deletes`)

Return Values

`>=0`

This probe returns the number of `del` objects of the selected type.

List of possible error conditions

- Service '`<serviceClass>`' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for `mkfDbType`: '`<mkfDbType>`'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '`<serviceName>`' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '`<processName>`' not running
 - A required process is not running. Check if the ImageServices system is running correctly.

- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFHitsFmbr

Description

The probe monitors the number of MKF database hits for `fmbr` objects of the selected type.

Recommended Schedule

Approx. 60 min

Parameters

Object type

Object type (`finds`, `adds`, `deletes`)

Return Values

>=0

This probe returns the number of `fmbpr` objects of the selected type.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds

- Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFHitsFunc

Description

The probe monitors the number of MKF database hits for `func` objects of the selected type.

Recommended Schedule

Approx. 60 min

Parameters

Object Type

Object type (`finds`, `adds`, `deletes`)

Return Values

>=0

This probe returns the number of `func` objects of the selected type.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.

- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFHitsGrp

Description

The probe monitors the number of MKF database hits for `grp` objects of the selected type.

Recommended Schedule

Approx. 60 min

Parameters

Object Type

Object type (`finds`, `adds`, `deletes`)

Return Values

>=0

This probe returns the number of `grp` objects of the selected type.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.

details.

- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFHitsObj

Description

The probe monitors the number of MKF database hits for `obj` objects of the selected type.

Recommended Schedule

Approx. 60 min

Parameters

Object Type

Object type (`finds`, `adds`, `updates`, `deletes`)

Return Values

>=0

This probe returns the number of `obj` objects of the selected type.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.

- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFHitsSys

Description

The probe monitors the number of MKF database hits for `sys` objects of the selected type.

Recommended Schedule

Approx. 60 min

Parameters

Object Type

Object type (`finds`, `updates`)

Return Values

`>=0`

This probe returns the number of `sys` objects of the selected type.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running

- A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFHitsTotal

Description

The probe monitors the total number of MKF database hits.

Recommended Schedule

Approx. 60 min

Parameters

None

Return Values

>=0

This probe returns the total number of MKF database hits since last reboot.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated

ImageServices subsystem.

- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFIndexBlocks

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Description

The probe monitors the number of index blocks in a MKF database.

Recommended Schedule

Approx. 45 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Value Type

Type of value. Valid values are `count`, `nonvirgin` and `total`.

Return Values

>=0

For value type `count`: Highest number of index blocks in the specified MKF databases.

For value types `nonvirgin` and `total`: Highest percentage of index blocks in the specified MKF databases.

The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '`<serviceClass>`' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for `mkfDbType`: '`<mkfDbType>`'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '`<serviceName>`' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '`<processName>`' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '`<command>`' with input '`<stdin>`' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '`<command>`' with input '`<stdin>`' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '`<command>`' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '`<mkfDbType>`' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '`<mkfDbName>`' for type '`<mkfDbType>`' not found

- The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFNonemptyBlocks

Description

The probe monitors the number of non-empty blocks in a MKF database.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 15 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Value Type

Type of value. Valid values are `count`, `nonvirgin` and `total`.

Return Values

>=0

For value type `count`: Highest number of non-empty blocks in the specified MKF databases.

For value types `nonvirgin` and `total`: Highest percentage of non-empty blocks in the specified MKF databases.

The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.

- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFNonvirginBlocksPercentage

Description

The probe monitors the percentage of non-virgin record blocks in MKF databases.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 15 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Return Values

>=0

Numeric value representing the highest percentage of non-virgin blocks in the specified MKF databases. The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support

with the full error message if the problem persists.

- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsfw -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFReservedBlocks

Description

The probe monitors the number of reserved blocks in a MKF database.

NOTE

This probe is only supported for ImageManager version 3.6 or newer. In older versions, this probe always returns -50.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 45 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Value Type

Type of value. Valid values are `count`, `nonvirgin` and `total`.

Return Values

>=0

For value type `count`: Highest number of reserved blocks in the specified MKF databases.

For value types `nonvirgin` and `total`: Highest percentage of reserved blocks in the specified MKF databases.

The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.

- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFRestartImportBlocks

Description

The probe monitors the number of restart import blocks in a MKF database.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `Skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 30 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Value Type

Type of value. Valid values are `count`, `nonvirgin` and `total`.

Return Values

>=0

For value type `count`: Highest number of restart import blocks in the specified MKF databases.

For value types `nonvirgin` and `total`: Highest percentage of restart import blocks in the specified MKF databases.

The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support

with the full error message if the problem persists.

- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

MKFVirginBlocks

Description

The probe monitors the percentage of virgin record blocks in MKF databases.

By default, the probe checks all MKF databases configured in the corresponding subsystem (`PERMANENT`, `SECURITY` and `TRANSIENT`). Use the `skip` parameters described below to override this behaviour.

Recommended Schedule

Approx. 15 min

Parameters

Skip Permanent Mkf Database

Check this option to skip monitoring of the Permanent MKF database.

Skip Security Mkf Database

Check this option to skip monitoring of the Security MKF database.

Skip Transient Mkf Database

Check this option to skip monitoring of the Transient MKF database.

Return Values

>=0

Numeric value representing the lowest percentage of virgin blocks in the specified MKF databases.
The message field contains a list of all specified MKF databases and the respective values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`

- There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

PPMOIdleRequestHandlers

Description

The probe monitors the number of request handlers currently loaded.

Recommended Schedule

Approx. 60 min

Parameters

Program Name

Select a program name from the list or `ALL` to check all programs.

Return Values

`>=0`

The number of request handlers currently loaded.

If `ALL` is selected, the highest value will be returned. The message field contains the names and values of all program groups.

List of possible error conditions

- Service '`<serviceClass>`' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for `mkfDbType`: '`<mkfDbType>`'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '`<serviceName>`' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '`<processName>`' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '`<command>`' with input '`<stdin>`' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.

- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- Could not acquire lock with type 'PPMOI' within 60 seconds
 - One or more PPMOI probe(s) are not finished their queries when the probe starts the querying.

PPMOI NoProc Occurrence

Description

The probe monitors the number of "no process" occurrences for a specified type of request handler (i.e. the number of times this process was not available, because the maximum number of instances had already been reached).

Recommended Schedule

Approx. 15 min

Parameters

Program Name

Select a program name from the list or `ALL` to check all programs.

Return Values

>=0

The number of no process occurrences for the specified type of request handler.
If **ALL** is selected, the highest value will be returned. The message field contains the names and values of all program groups.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing getServiceList()
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem

does not exist on this agent. Check the associated ImageServices subsystem.

- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- Could not acquire lock with type 'PPMOI' within 60 seconds
 - One or more PPMOI probe(s) are not finished their queries when the probe starts the querying.

PPMOIPercentageTotalByMax

Description

The probe monitors the percentage of the total number of request handlers in relation to the maximum number of available request handlers since last reboot.

Recommended Schedule

Approx. 15 min

Parameters

Program Name

Select a program name from the list or `ALL` to check all programs.

Return Values

>=0

Percentage (0..100) of the total number of request handlers in relation to the maximum number of available request handlers.

If `ALL` is selected, the highest value will be returned. The message field contains the names and values of all program groups.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.

- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- Could not acquire lock with type 'PPMOI' within 60 seconds
 - One or more PPMOI probe(s) are not finished their queries when the probe starts the querying.

PrintQueueStatistics

Description

The Print Queue Statistics probe checks the Printer queue statistics. The selected statistic type will be checked for one specified printer queue or all printer queues.

Recommended Schedule

Approx. 45 min

Parameters

Printer Queue Name

Printer queues.
Leave empty for all printer queues.

Statistic Value

Statistic type that should be monitored. Note that not all combinations of printer queue name and statistic value are valid.

- Possible statistic types, if one dedicated printer is monitored:
 - RequestsQueued
 - RequestPrinting
 - PagesQueued
 - PagesPrinting
 - PrintError
- Possible statistic types, if all printer queues are monitored:
 - RequestsQueued
 - RequestsPrinted
 - PagesQueued
 - PagesPrinted
 - PrintError

Return Values

>=0

Print queue statistic value (depending on the parameter settings).

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds

- Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- Statistic value '<StatisticValue>' is invalid
 - The selected statistic value is invalid in combination with the print queue name.
- Invalid printer '<PrintQueueName>' does not exist
 - The specified printer queue does not exist.
- No value found for statistic value '<StatisticValue>'
 - The external tool did not return a value for the selected statistic value.

PrintQueueStatus

Description

The Print Queue Status probe checks the status of Printer queues. All specified queues or all queues will be checked against the specified error conditions. If all error conditions (except 'redirected') should be checked leave the parameter 'Status conditions' unset.

Recommended Schedule

Approx. 5 min

Parameters

Printer Queue Name

Printer queues.
Leave empty for all queues.

Check Status "unknown"

Select to check for queues with status "unknown".

Check Status "down"

Select to check for queues with status "down".

Check Status "suspended"

Select to check for queues with status "suspended".

Check Status "needs_attention"

Select to check for queues with status "needs_attention".

Check Status "needs_service"

Select to check for queues with status "needs_service".

Check Status "redirected"

Select to check for queues with status "redirected".

Return Values

1

All checked queues are running (do not meet one of the specified error conditions).

0

At least one queue is not running. Check the probe details for further information.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.

details.

- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

RejectedUsers

Description

The probe monitors the number of rejected user logins since last reboot.

Recommended Schedule

Approx. 60 min

Parameters

License Type

specific license type (1..16); select 0 (zero) for all

Return Values

>=0

Rejected user login count.

If all license types are checked, the highest number is returned. The message field contains a list of all license types and corresponding values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.

- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No user rejections entry containing licence type '<LicenseType>' found
 - No user rejections entries that match the specified licence type were found in the SEC_tool output.

ServiceLogonCalls

Description

The probe monitors the number of `service logon` calls.

Recommended Schedule

Approx. 45 min

Parameters

None

Return Values

>=0

This probe returns the number of `service logon` calls.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.

- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing getProcessList()
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.

SoftSLUViolations

Description

The probe monitors the number of Soft SLU violations (SLU = Simultaneously Logged on Users).

Recommended Schedule

Approx. 60 min

Parameters

License Type

specific license type (1..16); select 0 (zero) for all

Return Values

>=0

Number of Soft SLU violations (SLU = Simultaneously Logged on Users).
If all license types are checked, the highest number is returned. The message field contains a list of all license types and corresponding values.

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfnsw -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.

- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.
- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- No soft SLU violations entry containing licence type '<LicenseType>' found
 - No soft SLU violations entries that match the specified licence type were found in the SEC_tool output.

WorkflowQueueEntries

Description

The Workflow Queue Entries probe returns the number of queue entries of the specified Workflow queue of the specified Workspace.

Recommended Schedule

Approx. 15 min

Parameters

Workspace Name

Workspace Name

Queue Name

Queue Name

Return Values

>=0

number of queue entries

List of possible error conditions

- Service '<serviceClass>' is not available
 - A required internal service of the agent is not running. Try restarting the agent. Contact support with the full error message if the problem persists.
- Invalid value for mkfDbType: '<mkfDbType>'
 - An unknown MKF database type has been specified. This is an internal error. Contact support with the full error message.
- ImageServices currently not running
 - The result of `initfns -y status` indicates that the ImageServices system is stopped.
- Error while executing `getServiceList()`
 - There was an error when requesting the list of running services. See full error message for details.
- Service '<serviceName>' not running
 - A required service is not running. In most cases, this is the service specified in the ImageServices subsystem. Check if the ImageServices system is running correctly.
- Error while executing `getProcessList()`
 - There was an error when requesting the list of running processes. See full error message for details.
- Process '<processName>' not running
 - A required process is not running. Check if the ImageServices system is running correctly.
- Execution of '<command>' with input '<stdin>' returned with error
 - Execution of an external command failed with an unexpected exit code. See full error message for details.
- Execution of '<command>' with input '<stdin>' did not return any result
 - Execution of an external command did not return a result in stdout. See full error message for details.
- Execution of '<command>' failed with exception
 - Execution of an external command failed with an exception. See full error message for details.
- MKF DB type '<mkfDbType>' is not available on this agent
 - The specified MKF database is not configured on this agent. Check the associated ImageServices subsystem.

- MKF Database file '<mkfDbName>' for type '<mkfDbType>' not found
 - The specified MKF database is configured but the file given in the ImageServices subsystem does not exist on this agent. Check the associated ImageServices subsystem.
- Could not acquire lock with type 'lockType' within 60 seconds
 - Another probe has been holding a lock of the same type for 60 seconds. Check for any ImageServices processes that are stuck. Try restarting the agent.
- Execution interrupted while waiting for lock with type 'lockType'
 - This is an external error. Try restarting the agent. Contact support with the full error message if the problem persists.
- MKF database '<mkfDbName>' is not running
 - The given MKF database is currently shut down. Check if the ImageServices system is running.
- WQS_tool returned an invalid result: <result>
 - The external tool returned an unexpected result.
- WQS_tool output contains non-numeric count: <result>
 - The external tool returned a non-numeric value as count.

Subsystem Type JMX

Jmx

Description

This probe is used for the native integration for reading information from a JVM. It returns the information of the attribute for the given object of the JVM.

Recommended Schedule

Depends on the object and criticality.

Parameters

Object Name

The name of the JVM object.

Example 59. Example ObjectName

```
java.lang:type=Threading
```

Wildcards (*, ?) can be used.

Attribute Path

The (path to the) attribute to be queried. This can be a simple attribute name or the dot-separated path to the value within a complex structure.

Example 60. Example AttributePath

```
ThreadCount
```

Return Values

-1 In case of error in the config ≥ 0 depends on the value of the requested object

List of possible error conditions

In case of any error the value is -1 and the error text is a description of the error. Conditions may be as follows.

- The connection could not be established.
- The user credentials are not valid.
- The user is not allowed to query the information.
- The attribute (path) leads to an invalid request.

LibertyJmx

Description

This probe is used for the native integration in combination with WebSphere Liberty for reading information from a JVM. It returns the information of the attribute for the given object of the JVM.

Recommended Schedule

Depends on the object and criticality.

Parameters

Object Name

The name of the JVM object.

Example 61. Example ObjectName

```
java.lang:type=Threading
```

Wildcards (*, ?) can be used.

Attribute Path

The (path to the) attribute to be queried. This can be a simple attribute name or the dot-separated path to the value within a complex structure.

Example 62. Example AttributePath

```
ThreadCount
```

Max Wildcard Results

Limits the amount of results in case of wildcard(s) used for the object - Limits the amount of http queries against the JVM.

Return Values

-1 In case of error in the config >=0 depends on the value of the requested object

List of possible error conditions

In case of any error the value is -1 and the error text is a description of the error. Conditions may be as follows.

- The connection could not be established.
- The user credentials are not valid.
- The user is not allowed to query the information.
- The attribute (path) leads to an invalid request.

MBeanAttribute

Description

Queries the specified attribute of the specified MBean from the given MBean attribute web application.

TIP

Currently no mbean browser is available within ESM. For finding the settings for Object Name and Attribute Path you can browse the mbeanwebapp. Open a browser and goto `http(s)://<servername>:<port>/contextroot/?html=true`

Example 63. MbeanWebApp URL

```
http://ceserver01:9089/mbeanwebapp/?html=true
```

Recommended Schedule

Depends on mbean object and criticality.

Parameters

Object Name

The name of the MBean object. Follows the common format `domain:parameter1=value,parameter2=value,...` (see official documentation). Wildcards (*, ?) can be used to replace e.g. version or id information in the Object Name string. This is usefull e.g. the AppServer is updated etc.

Attribute Path

The (path to the) attribute to be queried. This can be a simple attribute name or the dot-separated path to the value within a complex structure as an array, a stats object or composite data. For example `myArray.1` (for the element at index 1) or `myStatsObjectName.myStatisticKey.myStatisticMethodName` or `myCompositeDataName.myDataKey`.

Return Values

If the query yielded an attribute the message is the text representation of that item. If that item is a number it is available via the value field. Else the value is 0.

If the query yielded a complex structure, its elements are listed in the message.

If the object name is ambiguous the possible object names are listed in the message.

List of possible error conditions

In case of any error the value is -1 and the error text is a description of the error. Conditions may be as follows.

- The connection could not be established.
- The user credentials are not valid.
- The user is not allowed to query the information.
- The attribute (path) leads to an invalid request.

Subsystem Type Kubernetes

KubernetesPodStatusCount

Description

This probe checks the amount of Pods in the specified status

Recommended Schedule

Approx. 5 min

Parameters

Namespace

Enter the Kubernetes namespace to check the pods in.

Status

Choose from the dropdown between Failed, Pending, Running, Succeeded and Unknown. Default is Running

Labels

The entered label information acts like a filter on the pod. In the manifest of the pod you will find information like this for the labels:

Example 64. Example for labels

```
labels: app: fncmdeploy-cpe-deploy app.kubernetes.io/instance: fncmdeploy-cpe-deploy
app.kubernetes.io/managed-by: fncmdeploy-cpe-deploy app.kubernetes.io/name: fncmdeploy-cpe-deploy
com.ibm.fncm.ecm.networking/egress-allow-db: "true"
com.ibm.fncm.ecm.networking/egress-es: "true" com.ibm.fncm.networking/egress-allow-all:
"true" com.ibm.fncm.networking/egress-allow-cpfs: "true" com.ibm.fncm.networking/egress-allow-k8s-services:
"true" com.ibm.fncm.networking/egress-allow-ldap: "true" com.ibm.fncm.networking/egress-allow-kafka: "true"
com.ibm.fncm.networking/egress-allow-same-namespace: "true" com.ibm.fncm.networking/egress-deny-all: "true"
com.ibm.fncm.networking/egress-external-app: "true" com.ibm.fncm.networking/egress-external-app-component: FNCM
pod-template-hash: 5c4d4cc65 release: 5.7.0
```

If you want to check for the particular app, use app=fncmdeploy-cpe-deploy all pods with the same label will be counted.

If you want to count all pods in the namespace, no matter what the label is, just use "app" for the labels parameter.

Return Values

>= 0

The amount of pods with the specified status for the namespace.

List of possible error conditions

- Error during logon for user <user>
 - An exception occurred during logon. See error field for details.

Subsystem Type Ldap

LDAPConnection

Description

This probe checks the Status of a LDAP connection including user authentication.

General information: The probe requires the file login.conf (all LDAP types) and the file krb5.conf (ADS LDAP server only).

Recommended Schedule

Approx. 5 min

Parameters

Username

The LDAP user name to access the directory system
For NTLM authentication, a domain user must be specified, for instance `MYDOM\myName`. For all other authentications, use the simple user name without domain.

Password

The password of the user. Required, if a user name is specified, otherwise ignored

Return Values

1

The LDAP connection is working

0

The configured LDAP connection cannot be accessed

List of possible error conditions

- Error during logon for user <user>
 - An exception occurred during logon. See error field for details.

LDAPPerformance

Description

This probe returns the duration of an LDAP logon in milliseconds.

General information: The probe requires the file `login.conf` (all LDAP types) and the file `krb5.conf` (ADS LDAP server only).

Recommended Schedule

Approx. 30 min

Parameters

Username

The LDAP user name to access the directory system
For NTLM authentication, a domain user must be specified, for instance `MYDOM\myName`. For all

other authentications, use the simple user name without domain.

Password

The password of the user. Required, if a user name is specified, otherwise ignored

Return Values

>=0

logon time to LDAP system in ms

List of possible error conditions

- Error during logon for user <user>
 - An exception occurred during logon. See error field for details.

Subsystem Type LibraryServer

CustomQueryCount

Description

This probe executes the given query and returns the number of matching items.

NOTE

This probe requires the CM8 API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

Recommended Schedule

Depends on query and criticality.

Parameters

Query

Query to select items in the document routing process.

For syntax and examples see <https://www.ibm.com/docs/en/content-manager/8.7.0?topic=language-query-examples>

Return Values

>=0

Count of items that match the given query.

List of possible error conditions

- Database subsystem missing for Library Server subsystem '<subsystem>'
 - The Library Server subsystem needs a database and related RDBMS subsystem to be able to use the CM8 API. Check the subsystem configuration and add a database and RDBMS.
- Required jar file not found: '<jarfile>'
 - The CM8 API needs the given jar file to function properly.
The file is copied during agent startup from the `cm8-api` directory. Make sure that all jar files required by the CM8 API have been copied to that directory.
See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide" for a list of the required files.
- CM8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the CM8 API are missing in the `cm8-api` directory from which the `cm8-api-*.jar` file is created.
See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide" for a list of the required files.
- Error while connecting to CM8
 - Connection to the CM8 system (Library Server) could not be established. See error field for details.
- Error while executing CM8 query
 - The query created by the probe could not be executed. See error field for details.
- Error while disconnecting from CM8
 - An error occurred during disconnection from the CM8 system (Library Server). See error field for details.

NetSearchExtenderDiskSpace

Description

This probe returns the filling rate of all working and index directories of all NetSearch text indexes.

NOTE

This probe can only run on the Library Server system. The parameter "Text Search Schema" in the LibraryServer subsystem must be set!

Recommended Schedule

Approx. 30 min

Parameters

Index Names

List of index names (comma separated)
Leave empty for all indexes.

Return Values

>=0

Filling rate of a working or index directory.
The probe creates one sample with classification
`NetSearchExtenderDiskSpaceProbe:work:<directory>` for each working directory and one
sample with classification `NetSearchExtenderDiskSpaceProbe:index:<directory>` for each
index directory respectively.

List of possible error conditions

-1

Error during probe execution. See the error field for details.

NetSearchExtenderError

Description

This probe checks for any error of all or a specified list of NetSearch indexes.

NOTE

The parameter "Text Search Schema" in the LibraryServer subsystem must be set!

NOTE

This probe can only be activated on an agent with appropriate JDBC drivers to access the CM8 Resource Manager database.

Recommended Schedule

Approx. 15 min

Parameters

Index Names

List of index names (comma separated).
Leave empty for all indexes.

Timeframe in Minutes

Specify the timeframe in minutes to check. As a result all errors of all specified indexes that occurred during the last <timeframe> minutes are detected. +

NOTE

The probe schedule should be adjusted with this value. Otherwise, overlapping or gaps within the monitoring cycle will result.

Database on z/OS

Check if the Library Server DB is located on a z/OS system.

Return Values

1

All checked indexes do not contain an error within the timeframe period.

0

At least one checked index contains one or more errors.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.

- The following index named are undefined
 - Check the list of index named in the probe configuration.

NetSearchExtenderProcesses

Description

On UNIX, the probe checks NetSearch processes, IPCS shared memory and Semaphore status.

On Windows, the DB2EXT service for the specified DB2 instance is checked.

Recommended Schedule

Approx. 5 min

Parameters

DB2 Instance

Specify the name of the DB2 Instance here, the NetSearch process, the IPCS resources (semaphores and shared memory) are checked and the probe returns an error, if NetSearch Extender is stopped. Because NetSearch Extender is not required to run permanently this can cause detected errors, when NetSearch Extender doesn't have to run.

Return Values

1

All required NetSearch Extender resources are available.

0

Not all required NetSearch Extender resources are available. See message field for details.

List of possible error conditions

- Error getting list of running processes / services
 - The list of running processes / services could not be obtained.
- Execution of ipcs was interrupted
 - Processing of the external `ipcs` command was interrupted.
- IOException during execution of ipcs
 - In most cases, this exception happens because the `ipcs` command cannot be found. See error field for details.

ResourceManagerHeartbeat

Description

This probe checks the heartbeat of one to all configured Resource Managers.

NOTE

This probe can only be activated on an agent with appropriate JDBC drivers to access the CM8 Resource Manager database.

Recommended Schedule

Approx. 5 min

Parameters

Resource Manager name(s)

List of Resource Managers. Specify the Resource Managers in the format `<hostname-or-ipaddress>,<resourcemanagername>`. Separate multiple Resource Managers by semicolon. You can leave the hostname or the resourcemanagername empty, e.g. `resmgr1.example.com`, or `,ResourceManager1`.
Leave empty for all Resource Managers.

Return Values

>=0

Amount of error conditions for the request. See message text for details. 0 = no errors, 1 = one error, etc.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy`

directory on the agent.

- Query returned an empty result set
 - Database query did not return any result.
- The following Resource Manager named are undefined
 - Check the list of Resource Manager named in the probe configuration.

ResourceManagerWebStatus

Description

This probe checks the Web Application status of one to all configured Resource Managers.

NOTE

This probe can only be activated on an agent with appropriate JDBC drivers to access the CM8 Library server database.
It checks the CM8 Resource Manager Web Application status (heartbeat) as well as the snoop servlet webpage from remote.

Recommended Schedule

Approx. 5 min

Parameters

Resource Manager Names

Comma-separated list of Resource Managers. Leave empty for all Resource Managers.
One sample per host will be generated.

Use Resource Manager Name Instead Of Library Server Name

If checked, the probe uses the ResourceManager Name for the heartbeat check.

Return Values

1

Both heartbeat URL and snoop servlet are reachable and return the expected content.

0

Both heartbeat URL and snoop servlet are reachable but at least one of them did not return the expected content.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Resource manager information could not be read from the database.
- Request failed
 - An IO exception has occurred while processing an HTTP request. More information can be found in the stack trace shown in the error field.
- Unexpected response code: `<responseCode>`
 - An HTTP request returned with a response code other than 200

WorknodeLoadPercentage

Description

This probe computes the load of a worknode in percent based on the current number of items in the node in relation to the worknode overload limit.

If the worknode overload limit is 0 (unlimited), the probe will return 0 as value.

NOTE

This probe requires the CM8 API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

Recommended Schedule

Depends on configuration and criticality.

Parameters

Worknodes To Include

Comma-separated list of worknodes to include in the check.
Leave empty to include all worknodes.

Worknodes To Exclude

Comma-separated list of worknodes to exclude from the check.
Use in combination with an empty include list.

Node Type

All: include all node types

Split Nodes, Join Nodes, Decision Points, Sub-processes, Regular Nodes, Collection Points, Business Application Nodes; include only nodes of this specific type

All Non-Virtual Nodes: include only nodes of type Regular Node, Collection Point and Business Application Node

All Virtual Nodes: include only nodes of type Split Node, Join Node, Decision Point and Sub-process

The default value is All.

Aggregation Type

NONE, AVG, MIN, MAX OR SUM.

If NONE is specified, one sample per worknode will be created, with the name of the worknode in the source field.

The default value is NONE.

Return Values

>=0

Worknode load in percent (0 .. 100), either per worknode or aggregated according to Aggregation Type

List of possible error conditions

- Database subsystem missing for Library Server subsystem '<subsystem>'
 - The Library Server subsystem needs a database and related RDBMS subsystem to be able to use the CM8 API. Check the subsystem configuration and add a database and RDBMS.
- Required jar file not found: '<jarfile>'
 - The CM8 API needs the given jar file to function properly.
The file is copied during agent startup from the `cm8-api` directory. Make sure that all jar files required by the CM8 API have been copied to that directory.
See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide" for a list of the required files.
- CM8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the CM8 API are missing in the `cm8-api` directory from which the `cm8-api-*.jar` file is created.
See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide" for a list of the required files.

- Error while connecting to CM8
 - Connection to the CM8 system (Library Server) could not be established. See error field for details.
- Error while executing CM8 query
 - The query created by the probe could not be executed. See error field for details.
- Error while disconnecting from CM8
 - An error occurred during disconnection from the CM8 system (Library Server). See error field for details.
- No Worknodes of type <type> found
 - No worknode in the system matches the selected `Node Type`
- No matching Worknodes found
 - No worknode of the selected type matches after applying the include and exclude list.
If an `Include` list is specified, check the entries in that list for typos.
If an `Exclude` list is specified, make sure that not all worknodes are excluded via this list.
- Worknode '<name>' not defined
 - The `Include` list contains an undefined worknode name.
Note: incidents for this type of error must be closed manually after fixing the worknode name.

WorkpackagesPerProcessCount

Description

This probe counts the number of workpackages in the selected worklists.

NOTE | This probe requires the CM8 API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

Recommended Schedule

Depends on configuration and criticality.

Parameters

Processes To Include

Comma-separated list of processes to include in the check.
Leave empty to include all processes.

Processes To Exclude

Comma-separated list of processes to exclude from the check.
Use in combination with an empty include list.

Worknodes To Include

Comma-separated list of worknodes to include in the check.
Leave empty to include all worknodes.

Worknodes To Exclude

Comma-separated list of worknodes to exclude from the check.
Use in combination with an empty include list.

Node Type

All: include all node types

Split Nodes, Join Nodes, Decision Points, Sub-processes, Regular Nodes, Collection Points, Business Application Nodes; include only nodes of this specific type

All Non-Virtual Nodes: include only nodes of type Regular Node, Collection Point and Business Application Node

All Virtual Nodes: include only nodes of type Split Node, Join Node, Decision Point and Sub-process

The default value is All.

Itemtypes To Include

Comma-separated list of itemtypes to include in the check.
Leave empty to include all itemtypes.

Itemtypes To Exclude

Comma-separated list of itemtypes to exclude from the check.
Use in combination with an empty include list.

Notify State

Count only items where the Notify flag ist SET or UNSET or count ALL items regardless of Notify flag.
The default value is ALL;

Suspend State

Count only items where the Suspend flag ist SET or UNSET or count ALL items regardless of Suspend flag.
The default value is ALL;

Last Accessed Before

If a value > 0 is specified, only those items will be selected whose last access timestamp is at least the given number of hours in the past.
The default value is 0 (ignore last access timestamp).

Scope

The scope describes the detail level for the requested data.

- Process: Count per process, over all selected worknodes and itemtypes
- Worknode: Count per worknode, over all selected processes and itemtypes
- Itemtype: Count per itemtype, over all selected processes and worknodes
- Process / Worknode: Count per combination of process and worknode, over all selected itemtypes
- Process / Itemtype: Count per combination of process and itemtype, over all selected worknodes
- Worknode / Itemtype: Count per combination of worknode and itemtype, over all selected

processes

- `Process / Worknode / Itemtype`: Count per combination of process, worknode and itemtype; this is the most detailed level

The default value is `Process`.

Aggregation Type

`NONE, AVG, MIN, MAX OR SUM`.

If `NONE` is specified, one sample per scope will be created, with the scope in the source field.

In all other cases, the probe will first determine the counts per scope and apply the aggregation on these values.

The default value is `NONE`.

Return Values

>=0

Number of workpackages, either per scope or aggregated according to `Aggregation Type`

List of possible error conditions

- Database subsystem missing for Library Server subsystem '<subsystem>'
 - The Library Server subsystem needs a database and related RDBMS subsystem to be able to use the CM8 API. Check the subsystem configuration and add a database and RDBMS.
- Required jar file not found: '<jarfile>'
 - The CM8 API needs the given jar file to function properly.
The file is copied during agent startup from the `cm8-api` directory. Make sure that all jar files required by the CM8 API have been copied to that directory.
See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide" for a list of the required files.
- CM8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the CM8 API are missing in the `cm8-api` directory from which the `cm8-api-*.jar` file is created.
See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide" for a list of the required files.
- Error while connecting to CM8
 - Connection to the CM8 system (Library Server) could not be established. See error field for details.
- Error while executing CM8 query
 - The query created by the probe could not be executed. See error field for details.
- Error while disconnecting from CM8
 - An error occurred during disconnection from the CM8 system (Library Server). See error field for details.
- No Worknodes of type <type> found
 - No worknode in the system matches the selected `Node Type`
- No matching Processes / Worknodes / Itemtypes found

- No element matches after applying the include and exclude list.
If an `Include` list is specified, check the entries in that list for typos.
If an `Exclude` list is specified, make sure that not all elements are excluded via this list.
- Process / Worknode / Itemtype '<name>' not defined
 - The `Include` list contains an undefined element name. Note: incidents for this type of error must be closed manually after fixing the element name.
- No combination of filtered Processes and Worknodes found
 - After applying the include / exclude lists for processes and worknodes, there are no worknodes left in the selection that are part of the selected processes.

WorkpackagesPerWorklistCount

Description

This probe counts the number of workpackages in the selected worklists.

NOTE

This probe requires the CM8 API jars. See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide".

Recommended Schedule

Depends on configuration and criticality.

Parameters

Worklists To Include

Comma-separated list of worklists to include in the check.
Leave empty to include all worklists.

Worklists To Exclude

Comma-separated list of worklist to exclude from the check.
Use in combination with an empty include list.

Aggregation Type

NONE, AVG, MIN, MAX or SUM.

If `NONE` is specified, one sample per worklist will be created, with the name of the worklist in the source field.

The default value is `NONE`.

Return Values

>=0

Number of workpackages, either per worklist or aggregated according to `Aggregation Type`

List of possible error conditions

- Database subsystem missing for Library Server subsystem '<subsystem>'
 - The Library Server subsystem needs a database and related RDBMS subsystem to be able to use the CM8 API. Check the subsystem configuration and add a database and RDBMS.
- Required jar file not found: '<jarfile>'
 - The CM8 API needs the given jar file to function properly.
The file is copied during agent startup from the `cm8-api` directory. Make sure that all jar files required by the CM8 API have been copied to that directory.
See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide" for a list of the required files.
- CM8 API bundle missing or incomplete
 - One or more jar files that are required to connect to the CM8 API are missing in the `cm8-api` directory from which the `cm8-api-*.jar` file is created.
See the chapter "Background information for server and agents before setting up probes" in the "Probes and Situation Guide" for a list of the required files.
- Error while connecting to CM8
 - Connection to the CM8 system (Library Server) could not be established. See error field for details.
- Error while executing CM8 query
 - The query created by the probe could not be executed. See error field for details.
- Error while disconnecting from CM8
 - An error occurred during disconnection from the CM8 system (Library Server). See error field for details.
- No matching Worklists found
 - No worklist matches after applying the include and exclude list.
If an `Include` list is specified, check the entries in that list for typos.
If an `Exclude` list is specified, make sure that not all worklists are excluded via this list.
- Worklist '<name>' not defined
 - The `Include` list contains an undefined worklist name. Note: incidents for this type of error must be closed manually after fixing the worklist name.

Subsystem Type Listener

Listener

Description

The probe checks FileNet Listener (FileNet System Manager API) parameters.

Configuration hints

To obtain a list of Listener paths, use the task **Collect Listener Paths**. This task creates a downloadable ZIP file that contains a list of all known Listener paths on all ESM agents with active Listener probes. You can simply copy the full-qualified paths from the ZIP file into the configuration of this probe. See task description in the **Task Guide** for details.

For more information about different Listener counter types see <https://www.ibm.com/docs/en/filenet-p8-platform/5.7.0?topic=p8-counter-interpretation>.

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available. This is just a placeholder in this case.

Parameters

Application Name

Required, case-sensitive. Specify the name of a Listener application to monitor.
Use * to match all application names.

Application Instance

Required, case-sensitive. Specify the name of a Listener application instance to monitor.
Use * to match all application instances.

Application Version

Required, case-sensitive. Specify the version of a Listener application to monitor.
Use * to match all application versions.

Listener Path

Required, case-insensitive. The full-qualified Listener path to check.
The Listener path may contain the wildcards * and ?.

NOTE

If wildcards are used, one sample is created for each matching combination of application name, application instance and Listener path so use wildcards carefully when you define parameters.

Return Values

>=0

Numeric result of the checked parameter (Listener path).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.

- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ListenerForLicences

Description

The IBM FileNet Listener (IBM FileNet System Manager API) provides functionality to request the number of users who did at least one RPC call (licence request) in a period of 15 minutes and counts all requests which were made within this period by all users. The users are handled as licences in monitoring context, because every user finally needs a licence. This is called usage.

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data every 15 minutes. This is just a placeholder in this case.

Parameters

Request Type

There are two different values which can be requested by the probe.

LICENCE

Returns the number of currently logged in users.

USAGE

Returns the total number of RPCs made within the last 15 minutes by all logged in users.

Application Name

Specify the name of a Listener application to monitor.
Use * to match all application instances.

Application Instance

Specify the name of a Listener application instance to monitor.
Use * to match all application instances.

Application Version

Specify the version of a Listener application to monitor.
Use * to match all application versions.

NOTE

If wildcards are used, one sample is created for each matching combination of application name and application instance so use wildcards carefully when you define parameters.

Return Values

>=0

Numeric result of the checked parameter.

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.

ListenerPathPercentage

Description

The probe correlates two FileNet Listener (FileNet System Manager API) paths to compute a percentage value. One path is used as base value (100%), the other is used as part for which the percentage is computed.

Configuration hints

To obtain a list of Listener paths, use the task **Collect Listener Paths**. This task creates a downloadable ZIP file that contains a list of all known Listener paths on all ESM agents with active Listener probes. You can simply copy the full-qualified paths from the ZIP file into the configuration of this probe. See task description in the **Task Guide** for details.

The probe yields the best results when used for Listener counters of type Event. These can be identified in

the task output by the `/count` suffix and contain the delta value since the last check.

For more information about different Listener counter types see <https://www.ibm.com/docs/en/filenet-p8-platform/5.7.0?topic=p8-counter-interpretation>.

Recommended Schedule

This probe does not need a schedule, since the probe will automatically receive new data as it becomes available.

Parameters

Application Name

Required, case-sensitive. Specify the name of a Listener application to monitor.
Use * to match all application names.

Application Instance

Required, case-sensitive. Specify the name of a Listener application instance to monitor.
Use * to match all application instances.

Application Version

Required, case-sensitive. Specify the version of a Listener application to monitor.
Use * to match all application versions.

Listener Path For Base Value

Required, case-insensitive. The full-qualified Listener path to the counter to use as base value (the value that corresponds to 100%).
The Listener path may contain the wildcards * and ?. In this case, both **Listener Path For Base Value** and **Listener Path For Part Value** must have the same number of wildcards that match the same values (see example below).

Listener Path For Part Value

Required, case-insensitive. The full-qualified Listener path to the counter to use as part value (the value that corresponds to the percentage returned by the probe).
The Listener path may contain the wildcards * and ?. In this case, both **Listener Path For Base Value** and **Listener Path For Part Value** must have the same number of wildcards that match the same values (see example below).

Example 65. Using wildcards in Listener Path For Base Value and Listener Path For Part Value

Listener paths returned by application:

```
1: /USER/OS01/Requests Total/count
2: /USER/OS02/Requests Total/count
3: /USER/OS01/Requests Failed/count
4: /USER/OS02/Requests Failed/count
```

Field settings in the probe configuration:

```
Listener Path For Base Value = /USER/*/Requests Total/count
Listener Path For Part Value = /USER/*/Requests Failed/count
```

This will create 2 samples with different **Source** fields, one for OS01 (computed from path 1 and 3) and one for OS02 (computed from path 2 and 4).

Return Values

>=0

Percentage value (part * 100 / base).
Always 0 (zero) if the base value is 0 (zero).

-1

An error has occurred.

List of possible error conditions

Informational messages

- Successfully connected to listener `name:instance`
 - A connection to the requested application has been established. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Using existing connection to listener `name:instance`
 - There is already another probe that requests data from this application so the existing connection is reused. Samples will arrive as soon as the application sends the requested data.
If no samples arrive, this indicates that there is either a configuration error (e.g. a typo in the requested path or object name) or that the application does not provide the requested data. This can be checked in the output of the task **Collect Listener Paths**.
- Waiting for listener connection for `name:instance`
 - The connection to the requested application has not yet been established.
This is normally followed by a message indicating the successful connection. If the connection

cannot be established and no samples arrive, this indicates that there is either a problem with the configuration (wrong hostname / port in the Listener subsystem or a typo in the application name or instance) or that the requested application is currently down.

NOTE

The sequence of the "Waiting for listener connection" / "Successfully connected" messages may be mixed up during agent startup or when the configuration for an agent changes.

Error messages

- Error: Invalid host name or address
 - The requested application has encountered a problem with the given host name or port. Check the settings in the Listener subsystem.
- Unknown error (`#code`). No further information available.
 - An unknown error code has been sent by the requested application.
- Unknown host: `host` (Port: `port`)
 - An unknown host or port was provided in the Listener subsystem
- I/O error. Unexpectedly lost connection.
 - An error has occurred while the connection was still being established.
- Connection to Listener `name:instance` was lost
 - The connection to the requested application has been closed. This indicates that the application has been shut down.
- Received nonnumeric value: `value`
 - The requested application has sent invalid data.
- CPE does not have a Listener subsystem
 - The probe was configured for a ContentEnginePlatform subsystem which does not have a reference to a Listener subsystem. The Listener subsystem is required for this probe to work.
- Base path and part path must be different
 - Using the same Listener path for base and part value does not make sense as the probe would always return 100. Change either the base or the part path to a different Listener path.
- Did not receive matching '[base|part]' value for <existingPath>
 - Either the base or part path was not found in the data received from the Listener. This can happen if the monitored application has just been started and does not provide all paths yet. If the error persists, verify the paths in the probe configuration against the output of the task **Collect Listener Paths**.

Subsystem Type Logfile

ApacheAccessLogfile

Description

This probe analyzes the Apache Access log file. For the analyzation client IPs and Http codes can be specified. The count of connections for the given IPs and Http codes combinations are returned. The pattern specified in the subsystem is used to find the newest apache logfile, which is used to search for the given configuration parameters of the probe.

NOTE

This probe creates one sample for each combination of IP and Http code. If a combination is not found in the log, the sample that is returned contains the value 0.

Recommended Schedule

The schedule depends on the needs. The count of connections that are returned are higher if you chose a longer interval.

Parameters

Client IPs

A regexp to define IPs to be searched for in the Apache Access log file can be given here. If no regexp is set, all IPs in the log are considered by the probe.

More than one regexp for several "ranges" of IPs separated by commas can be specified.

Example 66. Regexp for Client IPs

```
192\.\168\.\112\.[123],127\.\0\.\0\.\1,10\.\0\.[56]1\.\123
```

Http Codes

A pattern to define the HTTP return states to be looked for per matching IP can be given. The pattern can look like 1xx, 2xx, or you can also use regex, e.g. 1.. or 2.*, 3.*. The string will be split at the comma before the resulting regex(es) are analyzed.

The default setting is 1XX, 2XX, 3XX and covers all "good" HTTP codes.

If no pattern is set, all HTTP status codes are considered by the probe.

Log Format

Specify the logfile format here. This describes the information on how the log is created and usually can be found somewhere in the logger definition.

The http status code part is usually specified with %s and %>s. If both are used for the log, the probe will

use %>s for the analyzation.

The IP address is usually given with %a and %{X-Forwarded-For} for the client name/ip. If both are used, %{Forwarded-For} is used by the probe. A modifier like "i" for %{X-Forwarded-For} is fine, but has no relevance for the probe.

Example 67. Logfile Format

```
%h %l %u %t "%r" %>s %b "%{Referer}i" "%{X-Forwarded-For}i" "%{User-Agent}i" **%T/%D**
```

Return Values

>=0

Count of connection for the given IP and Http codes combination.

-1

An error has occurred.

List of possible error conditions:

- Invalid/ wrong Log Format:
Log format configuration does not contain formats for client ip and/ or http status(code)
- Dissection Failure:
A dissection failure has occurred while parsing log entries. More information can be found in the stack trace shown in the error field.
- IOException:
An IO exception has occurred while trying to read log entries. More information can be found in the stack trace shown in the error field.

Logfile

Description

This probe checks the configured logfile for new entries and parses it based on the selected Parser Config. The output of the probe can be limited with flow limiter and duplicate detection possibility.

NOTE

Technically it is possible to setup several probes for the same logfile using different setting for flow limiter, duplicate detection etc. - Logically this does not make sense and therefore it is not recommended.

Recommended Schedule

In fact, the logfile probe does not need a schedule, since the probe will continuously check the logfile for new entries.

Parameters

Parser Config

Select the matching parser v2s from the drop down.

- acsap = FileNet ACSAP logfile
- apache_access = Apache Access logfile
- apache_error = Apache Error logfile
- auditlog = Auditlog of ESM
- cfs = Content Federator and Federator Trace logfile
- css = Content Search Services logfile
- db2diaglog = DB2 diag logfile
- fnislog = FileNet Image Services logfile
- ftscss = Only relevant for the statistics Probes of CSS and FTS - not really logfile monitoring.
- ibm_cm8_icmsrvlog = ICM Server logfile
- ibm_cmrm_asyncr = CM8 Resource Manager DB Manager asyncr logfile
- ibm_cmrm_log = CM8 Resource Manager logfile
- ibm_cmrm_migrator = CM8 Resource Manager Migrator logfile
- icc = IBM Content Collector logfile
- icc4sap = ICC4SAP Error logfile
- liberty = Liberty message logfile
- netapp = Netapp Filer logfile
- oraalert = Oracle DB alert logfile
- oralist = Oracle DB listener logfile
- p8pe50 = IBM P8 PE logfile (pe_system0.log)
- p8srverror = IBM P8 CE logfile (ce_system0.log)
- sapic = SAPIC Error logfile
- spectrumprotect = IBM Spectrum Protect ISP logfile
- waslog = Websphere SystemOut and SystemError logfile

Flow Limiter Enabled

Checkbox for enabling the flow limiter. Once a new entry in the logfile occurs, the flowlimiter checks the amount of entries within the specified period. If the amount has reached the blocking threshold, a blocking incident will be created. The system pauses the log parsing for 30 seconds and starts again by checking if blocking is still required or not. If the amount is less or equal the unblocking threshold within the period an unblocking sample is created and new entries will be shown as incidents afterwards.

Flow Limiter Check Period In Seconds

This settings defines the timeframe that is used to check the amount of entries in the logfile.

Number Of Entries For Blocking

Define the threshold for blocking. If the threshold (amount of entries in the logfile within the timeframe) is reached (equal or greater), a blocking incident will be created.

Number Of Entries For Unblocking

Define the threshold for unblocking. If the threshold (amount of entries in the logfile within the timeframe) is reached (equal or less), a unblocking incident will be created.

Return Values

10

HARMLESS log entry

20

WARNING log entry

30

CRITICAL log entry

40

FATAL log entry

IMPORTANT

For Logfile Probes choose one of the available shared (log or log levels) evaluation. Log levels does have a default mapping for entries with value 10, 20, 30 and 40 to a certain severity, log will not have this default mapping. No events are created in this case for the entries in the logfile. Only the samples will be shown and you have to create the evaluation to match your requirements.

NOTE

The probe creates an initial sample with value = "10" and classification = "FILE FOUND" when the specified logfile is accessible. If the logfile cannot be found or disappears a sample with value = "40" and classification = "FILE NOT FOUND" is created.

How to add custom format files

Custom format files must be added in two places. There is currently no automatic process for deploying new files from the server to an agent or vice versa.

On the server, put the new file in the directory `$KARAF_HOME/agent/formats`. This adds the file to the choice list in the probe configuration.

Additionally, the new formatfile must be copied to all agents where logfile processing with this format file shall be deployed. The directory on the agent is also called `$KARAF_HOME/agent/formats`.

Current limitations

- no additional mapping on the server side
- no support for wildcards in logfile names or directories
- no support for date placeholders in logfile names
- the timestamp in the sample is the date of the sample creation and so does not necessarily reflect the timestamp in the logfile
- truncation of a logfile that is currently being read is not detected

P8TraceLogDbQueryTime

Description

This probe analyzes the P8 Trace Log for long running DB queries. The query time threshold can be defined. Only queries that run longer than the defined threshold will be reported. As value the time in milliseconds is returned. The FlowLimiter settings are used only for identified (valid) entries, that match the criteria.

For showing the DB Query in the trace log, the following trace level must be set: `Search Trace Flags` with option `Moderate und Timing`

If the user that requested the query information should also be shown the following trace level must be activated in addition (this produces a lot of entries in the log and a high load on the system and the ESM agent): `API Trace Flags` with option `Detail`

IMPORTANT

Depending on the selection of the trace information in the CPE it can happen that tons of entries in the trace log are written. Because of this it is most likely that the probe cannot produce the information as "live (real time)" incident anymore.

Parameters

Query Time Threshold Millis

Default 10000 milliseconds. Only queries where the execution took longer than this threshold will be reported.

Include User Names Filter

Comma separated list (no space) of usernames for which only the entries in the log should be analyzed.

Exclude User Names Filter

Comma separated list (no space) of usernames for which the entries in the log should not be analyzed.

Flow Limiter Enabled

Checkbox for enabling the flow limiter. Once a new entry in the logfile occurs, the flowlimiter checks the amount of entries within the specified period. If the amount has reached the blocking threshold, a blocking incident will be created and all entries from this time on will be blocked until an entry is created and the amount is less or equal the unblocking threshold within the period. In that case a unblocking incident is created. This incident will contain the amount of blocked entries since the blocking started. New entries will be shown again as incidents.

Flow Limiter Check Period In Seconds

This settings defines the timeframe that is used to check the amount of entries in the logfile.

Number Of Entries For Blocking

Define the threshold for blocking. If the threshold (amount of entries in the logfile within the timeframe) is reached (equal or greater), a blocking incident will be created.

Number Of Entries For Unblocking

Define the threshold for unblocking. If the threshold (amount of entries in the logfile within the timeframe) is reached (equal or less), a unblocking incident will be created.

Return Values

>=0

Time in milliseconds of the query execution in the log.

Bookkeeping

The bookkeeping files are stored on the agent in the directory `$KARAF_HOME/data/monitoring`.

The file name has the format `<probeconfig-id>.bkf`.

The file content has the format `<monitored-logfile-name> <last-position>`.

Subsystem Type Mssql

ContinuousDatabaseQuery

Description

The probe monitors entries of a specific table like a logfile probe would. It continuously reacts to new entries added to the table. For each new entry (a new row in the table) a sample is created if it matches the select criteria. The values from that new entry can be added to the message field through a message template. A specific field must be defined to hold the data for the value field of the samples. If that field is non-numeric, the number of new entries since the last samples were created is used as value.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Depends on query, criticality and the expected number of new rows per schedule. If many entries in a short period of time are expected a shorter schedule should be considered.

IMPORTANT

This probe can create a significant load to the database and to the monitoring system. Use with care.

Parameters

Table Name

Required parameter, that specifies the database table to check for new entries regularly.

Sort Column

Required parameter. It specifies the column of the above defined table to be used for ordering and only get the newest ones per probe run. A maximum of 100 entries in descending order is processed.

Message Template

Required parameter, which defines the template used for the sample's message field. An example is specified when creating a new probe configuration. Normal text can be entered here and also a placeholder for each value from a new entry of a specific column of the defined table. The placeholder must be defined as \$<column name>. For timestamp values an optional output formatting pattern can be added right after the column's name. The pattern must be enclosed in curly braces and has to be conformant to the timestamp formatting patterns of the Java programming language. No spaces are allowed between the opening curly brace and the last character of the column name. If no format is specified, the timestamp will be formatted according to ISO-8601.

Timestamp Column

If a timestamp column is used in the message template, the column's name must be entered here, too. If not, this field can be left empty. If set, the value of this field will also be used as the sample's timestamp. If unset, the probe's execution time will be used as the sample's timestamp. The timestamp will always be calibrated to the timezone defined in the Timezone Offset parameter.

Timestamp Column Format

Only required if the format of the field defined in the Timestamp Column parameter is not of type datetime or a numeric value defining a timestamps in milliseconds., like e.g. "1584109881748". The format should not include milliseconds, but for Oracle databases, because of technical restrictions. Oracle needs the milliseconds.

Value Column

Optional parameter. Entries of that column are used for the sample's value field. If the field is not numeric or the parameter is left blank, the number of rows returned for a probe run will be used as value.

Timezone Offset

Required parameter. It defines the timezone offset to be used when inserting the value of a timestamp field to the message field. As a default the UTC value of "+00.00" is already entered when creating a new probe configuration.

Return Values

Possible return values

The value of the specified value field if it is numeric else the number of rows returned by the database query, that is the size of the result set. No result will be returned if there are no new entries since the last probe run was executed. So this probe will not always create samples in each probe run. -1 is returned if an error occurred.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

CustomDatabaseQuery

Description

This probe runs the specified query against the database and returns the result.

This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT

This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Depends on query and criticality.

Parameters

SQL Query

Any SQL Query can be specified here.

Timeout

Specify the timeout for the query in seconds.
Set the value to 0 (zero) to run the query without timeout.

Return Values

Possible return values

Any numeric or alphanumeric
If the returned result is numeric, it can be evaluated as value. If the returned result is alphanumeric, it can be evaluated as message.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseActiveQueryCount

Description

This probe returns the number of active queries for the referenced database. It is especially useful to identify long-running queries when the "Started Before Seconds" parameter is used.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

Started Before Seconds

Count queries that have been active for at least the given number of seconds.
Set to 0 to count all active queries.

Return Values

>= 0

Number of active SQL queries.
The message contains a list of details for each query.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseConnectionStatus

Description

This probe checks the Database connection for the referenced database.
This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

The connection to the specified database is available

0

The connection to the specified database is unavailable

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabasePerformance

Description

This probe executes any SQL select-statement against a supported database and calculates the required time.

NOTE

This probe supports SQL Select statements that do not return a result (empty result set). This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT

This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Approx. 45 min

Parameters

Performance Type

The type of performance to be measured.

COMPLETE

Measures the complete time required to logon and execute the given SQL statement.

EXECUTION

Measures the time required to execute the given SQL statement.

LOGON

Measures the time required to logon.

NOTE

Oracle databases require an SQL statement even if `LOGON` is selected as performance type. You can use the following statement which works on every Oracle database:
`select dummy from dual`

SQL Query

SQL statement to be executed.

Example 68. SQL Query

```
SELECT count(*) from mytables where ID = '15'
```

NOTE

The format of the SQL statement must be valid for the database on which it is to be executed (e.g. do not specify any delimiter at the end of the statement when monitoring an Oracle database).

NOTE

The SQL SELECT statement supported by this probe can return more than one result line.

Return Values

Any numeric value

The numeric return value describing the elapsed time in milliseconds.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

MSSQLDatabaseSize

Description

This probe checks the database size for the associated database.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 45 min

Parameters

Check Dataspace

Check size of data space (yes / no)

Check Logspace

Check size of logspace (yes / no)

Return Values

>=0

Database size in MB. Depending on the selection, this is the size of data space or logspace or the total size (data space logspace).

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

MSSQLDatabaseStatus

Description

This probe checks the database status for the associated database.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

Database is in normal processing mode.

0

Database is in an error state. See message field for the actual state information.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

MSSQLDataspaceUsed

Description

This probe checks the amount of used data space for the associated database.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

None

Return Values

>=0

Amount of used data space in MB.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

MSSQLDataspaceUsedPercentage

Description

This probe checks the percentage of used data space for the associated database.

This probe requires advanced access rights on the MSSQL database. The following command is executed within the probe: DBCC SQLPERF (LOGSPACE). To allow this open the Database Server properties in MSSQL Management Studio, select "Permissions", and grant "View Server State" for the specified database user.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

None

Return Values

>=0

Percentage of used data space.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

MSSQLLogspaceUsed

Description

This probe checks the amount of used logspace for the associated database.

This probe requires advanced access rights on the MSSQL database. The following command is executed within the probe: DBCC SQLPERF (LOGSPACE). To allow this open the Database Server properties in MSSQL Management Studio, select "Permissions", and grant "View Server State" for the specified database user.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

None

Return Values

>=0

Amount of used logspace in MB.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

MSSQLLogspaceUsedPercentage

Description

This probe checks the percentage of used logspace for the associated database.

This probe requires advanced access rights on the MSSQL database. The following command is executed within the probe: DBCC SQLPERF (LOGSPACE). To allow this open the Database Server properties in MSSQL Management Studio, select "Permissions", and grant "View Server State" for the specified database user.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

None

Return Values

>=0

Percentage of used logspace.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

MSSQLNumberOfProcesses

Description

This probe checks the number of processes for the associated database.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

>=0

Number of active processes.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException

- An SQL exception has occurred while processing the request.
- Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

MSSQLProcesses

Description

Monitors the `MSSQLServer` service or the specified server instances.

This probe can only be run on an MSSQL Database Server on Windows systems.

Recommended Schedule

Approx. 5 min

Parameters

Server Instances

Comma-separated list of local database instances. If the field is left empty, the `MSSQLServer` service is monitored.
One sample will be created for each monitored instance.

Return Values

1

Instance is running.

0

Instance is not running.

List of possible error conditions

- Invalid platform
 - This probe can only be run on Windows agents.
- Error getting list of services
 - The list of installed services could not be obtained.

Subsystem Type Mq

MqQueueDepth

Description

This probe checks the configured MQ queue manager for queue depths, in absolute or percentage values. A comma-separated list of queue names or wildcards (*) allow to filter for several queues.

Recommended Schedule

Approx. 5 min

Parameters

Percentage

If checked the value is in relation to the maximum depth.

Queue Manager

The name of the queue manager to check

Queue Names

The queues to check, can be comma-separated or with wildcards (*).

Return Values

Current queue depth (absolute or percentage)

-1

Error during probe execution.

Subsystem Type Objectstore

AuditTrailLog

IMPORTANT

When you use the audit trail information please make sure to comply with all data protection regulations applicable to your organization-

Description

This probe allows the logging/tracing of actions continuously stored in the FileNet P8 audit trail. The probe monitors entries in the Event table of a FileNet P8 database. It allows the monitoring of specific actions of specific users for specific object types.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

IMPORTANT

For ObjectStores with a large number of documents, this probe can have a significant impact on the performance of the database while running. It is therefore recommended to start with a cron schedule that runs the probe only once within 24 hours, preferably at night.

The final schedule depends on query, criticality and the expected number of new rows per schedule. If many entries in a short period of time are expected a shorter schedule should be considered.

Parameters

Object Type

Required parameter. Defines for what type of objects changes shall be monitored. The user can choose from a pre-defined set of object types only.

Message Template

Required parameter. Defines the output written to the message field of a sample. It can contain simple text and references to columns in the format `$(table name).<column name>`. Technically it can contain any field from the according FileNet P8 tables, but it is not recommended to change the default without any need or assistance by your support team.

Filter Field

Optional field. This allows additional filtering by a specific column, e.g. `EVENT.MODIFY_USER` to only monitor entries for a specific user.

Filter Value

Semi-optional field as it is required if a filter field was specified above. For the example above it would be the user name (logon name/identifier).

Return Values

Possible return values

The value of the specified value field if it is numeric else the number of rows returned by the database query, that is the size of the result set. No result will be returned if there are no new entries since the last probe run was executed. So this probe will not always create samples in each probe run. -1 is returned if an error occurred.

include:.../Errorcodes/Database.adoc

- CPE does not have a Database subsystem
 - Incomplete subsystem configuration.

ContentSearchServicesServerStatus

Description

On AIX and Linux the CSS server process is monitored with the adminTool.sh. On Windows systems the Windows Service of the configured CSS system is monitored.

Recommended Schedule

Approx. 2 min

Parameters

None

Return Values

1

ok, the CS Server is running as expected.

0

not_ok, the CS Server is not running as expected.

List of possible error conditions

- CSS Server Name not set
 - The `Css Server Name` field in the associated ObjectStore subsystem is not set.

- CSS Directory not set
 - The `Css Directory` field in the associated ObjectStore subsystem is not set.
- CSS Directory '<directory>' does not exist
 - The `Css Directory` specified in the associated ObjectStore subsystem does not exist.
- CSS config file '<configfile>' does not exist
 - The file `css-servers.xml` does not exist in the `Css Directory` specified in the associated ObjectStore subsystem.
- Error parsing config file '<configfile>'
 - The file `css-servers.xml` could not be parsed. See error field for details.
- Cannot determine service name from config file '<configfile>'
 - The file `css-servers.xml` does not contain the required entry for the service name.
- Cannot determine directory name from config file '<configfile>'
 - The file `css-servers.xml` does not contain the required entry for the directory name.
- Error getting list of services
 - The list of installed services could not be obtained.
- Cannot determine service display name for '<servicename>'
 - The display name of the service could not be determined. In most cases, this error indicates that the service is not installed on the agent.
- ProcessCountProbe returned invalid result / ProcessProbe returned invalid result
 - These probes are used internally to determine the server status. See logfile for more information.

ContentSearchServicesStatistics

Description

The Content Search Services Statistics monitor checks various statistical values for a CSS system.

For details about the statistics functionality within IBM Content Search services 5.2, see Monitoring system performance and Configuration tool parameters in the IBM online documentation.

Recommended Schedule

None. The probe sends new data as soon as it becomes available.

Parameters

Statistic Value

Comma-separated list of statistical values. One sample per statistical value will be generated.

Valid values for the statistical value are:

ADD_FAIL	Total number of add requests that failed
ADD_OK	Total number of successful add requests
ADD_SIZE	Total size of successful add requests (KB)
BATCH_COUNT	Batches in progress
BATCH_QUEUED	Number of documents from all batches in progress that are in the input queue
BATCH_RECVD	Number of documents that were received so far for all batches in progress
DEL_FAIL	Total number of delete requests that failed
DEL_OK	Total number of successful delete requests
DOCS_PROC	Total number of processed documents
DOCS_SIZE	Total size of processed documents (in KB)
FREE_MEM	Free Physical Memory
HEAP_USED	Used Heap Memory (MB)
INDEX_CURRENT	Documents currently being indexed
INDEX_WAIT	Documents waiting for indexing
INPUT_NUMBER	Documents in the input queue
INPUT_SIZE	Input queue size (in bytes)
MERGES_ACTIVE	Total number of active merges
MERGES_SIZE	Total size of merges (in MB)
OPEN_FILES	Open File Descriptors
OUTPUT_NUMBER	Documents in the output queue
OUTPUT_SIZE	Output queue size (in bytes)
PREPROC_CURRENT	Documents currently in preprocessing
PREPROC_WAIT	Documents waiting for preprocessing
QUERIES_CNCR	Number of concurrent queries
QUERIES_TOTAL	Total number of queries
SYSTEM_LOAD	System Load
THREAD_COUNT	Thread Count

Return Values

>=0

current value of the statistical value

List of possible error conditions

- CSS path '<path>' does not exist or is no directory
 - The CSS installation path specified in the ObjectStore subsystem is not valid.
- Cannot parse '<configfile>'
 - The configuration file for CSS cannot be parsed. See error field for details.
- Cannot determine location of monitor0.csv from '<configfile>'
 - The configuration file for CSS was found but does not contain the required entry for the installation directory.
- Invalid entry in '<filename>'
 - A line that could not be parsed was found in the monitor0.csv file. Monitoring will continue with the next valid line.
- '<statVal>': invalid Statistic Value name
 - An unknown statistical value name was specified. The unknown entry will be skipped, all other (known) statistical values will be processed normally.

ObjectStoreInfoSQL

Description

This probe returns the number or size of all objects of the selected type in the given ObjectStore.

NOTE

This probe can be run on any agent that has the required JDBC drivers installed. Additionally, the selected ObjectStore subsystem(s) need to reference a database subsystem.

Recommended Schedule

IMPORTANT

For ObjectStores with a large number of documents, this probe can have a significant impact on the performance of the database while running. It is therefore recommended to start with a cron schedule that runs the probe only once within 24 hours, preferably at night.

Parameters

Output Type

Select from the drop-down which output you want to use.

COUNT

Number of objects

KB

Used space in kilobyte

MB

Used space in megabyte

GB

Used space in gigabyte

TB

Used space in terabyte

NOTE

COUNT is the only supported option for Object Type `CustomObject` and `Folder`.

Object Type

Select an object type from the drop-down.

Return Values

>=0

Number of objects or amount of used space in the selected unit.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.

Subsystem Type OnDemand

NOTE

Before setting up ODWEK-based probes, please copy the required files to the agent. A list of the required files can be found in the chapter [Background information for server and agents before setting up probes](#).

FullTextSearchServerStatus

Description

Monitors the Full Text Search server status.

Recommended Schedule

Approx. 2 min

Parameters

None

Return Values

1

The Full Text Search Services server is running.

0

The Full Text Search Services server is not running

List of possible error conditions

- FTS Directory not set
 - The `Fts Directory` field in the associated OnDemand subsystem is not set.
- FTS Directory '<directory>' does not exist
 - The `Fts Directory` specified in the associated OnDemand subsystem does not exist.
- FTS config file '<configfile>' does not exist

- The file `windowsService.properties` does not exist in the subdirectory `config` of the `Fts` Directory specified in the associated OnDemand subsystem.
- Error parsing config file '<configfile>'
 - The file `windowsService.properties` could not be parsed. See error field for details.
- Cannot determine service name from config file '<configfile>'
 - The file `windowsService.properties` does not contain the required entry for the service name.
- Error getting list of services
 - The list of installed services could not be obtained.
- Cannot determine service display name for '<servicename>'
 - The display name of the service could not be determined. In most cases, this error indicates that the service is not installed on the agent.
- ProcessCountProbe returned invalid result / ProcessProbe returned invalid result
 - These probes are used internally to determine the server status. See logfile for more information.

FullTextSearchStatistics

Description

The Full Text Search Statistics probe checks various statistical values for an FTS system.

Recommended Schedule

None. The probe sends new data as soon as it becomes available.

Parameters

Statistic Value

Comma-separated list of statistical values. One sample per statistical value will be generated.

Valid values for the statistical value are:

ADD_FAIL	Total number of add requests that failed
ADD_OK	Total number of successful add requests
ADD_SIZE	Total size of successful add requests (KB)
BATCH_COUNT	Batches in progress
BATCH_QUEUED	Number of documents from all batches in progress that are in the input queue

BATCH_RECVD	Number of documents that were received so far for all batches in progress
DEL_FAIL	Total number of delete requests that failed
DEL_OK	Total number of successful delete requests
DOCS_PROC	Total number of processed documents
DOCS_SIZE	Total size of processed documents (in KB)
FREE_MEM	Free Physical Memory
HEAP_USED	Used Heap Memory (MB)
INDEX_CURRENT	Documents currently being indexed
INDEX_WAIT	Documents waiting for indexing
INPUT_NUMBER	Documents in the input queue
INPUT_SIZE	Input queue size (in bytes)
MERGES_ACTIVE	Total number of active merges
MERGES_SIZE	Total size of merges (in MB)
OPEN_FILES	Open File Descriptors
OUTPUT_NUMBER	Documents in the output queue
OUTPUT_SIZE	Output queue size (in bytes)
PREPROC_CURRENT	Documents currently in preprocessing
PREPROC_WAIT	Documents waiting for preprocessing
QUERIES_CNCR	Number of concurrent queries
QUERIES_TOTAL	Total number of queries
SYSTEM_LOAD	System Load
THREAD_COUNT	Thread Count

Return Values

>=0

current value of the statistical value

List of possible error conditions

- FTS path '<path>' does not exist or is no directory
 - The Fulltext Search installation path specified in the OnDemand subsystem is not valid.
- Invalid entry in '<filename>'
 - A line that could not be parsed was found in the monitor0.csv file. Monitoring will continue with the next valid line.
- '<statVal>': invalid Statistic Value name
 - An unknown statistical value name was specified. The unknown entry will be skipped, all other

(known) statistical values will be processed normally.

OnDemandAPILogonPerf

Description

This probe checks OnDemand API Logon performance and returns the time in milliseconds.

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 15 min

Parameters

None

Return Values

>=0

Time in milliseconds to logon to OnDemand

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist

- This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- OnDemand connector did not return any result
 - API call returned empty result.
- OnDemand connector returned unexpected result
 - API call did not return the expected result. See error field for details.
- Logon failed
 - Logon via API failed. See error field for details.

OnDemandDocumentRetrievalTime

Description

This probe returns the document retrieval time (OD SYSLOG message 66).

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 10 min

Parameters

Application Group

Optional: Specify the Application Group. If unset OD Syslog entries of all Application Groups will be verified.

Calculation Type

Specify the calculation type that should be used to calculate the result.

Possible calculation types are summation (value: SUM), average (value: AVG), minimum (value: MIN) or maximum (value: MAX)

Return Values

>=0

document retrieval time in milliseconds

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandGroupAddCount

Description

This probe returns the count of added entries for the specified application group based on the entries in the system log.

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 20 min

Parameters

Application Group

Optional: Specify which application group should be checked.
Leave empty for all groups.

Calculation Type

Optional: Specify the calculation type if all groups should be checked.
Possible calculation types are summation (value: SUM), average (value: AVG), minimum (value: MIN) or maximum (value: MAX)

Return Values

>=0

number of added documents

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information

can be found in the stack trace.

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandGroupAddSize

Description

This probe returns the size in MB of added entries for the specified application group based on the entries in the system log.

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 20 min

Parameters

Application Group

Optional: Specify which application group should be checked.
Leave empty for all groups.

Calculation Type

Optional: Specify the calculation type if all groups should be checked.
Possible calculation types are summation (value: SUM), average (value: AVG), minimum (value: MIN) or maximum (value: MAX)

Return Values

>=0

size of added documents

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for](#)

[server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandGroupQueryStatus

Description

This probe verifies the time of Application Group queries against a specified threshold (OD SYSLOG message 226). In the case one or more Group queries last longer than the specified threshold the probe will return 0 ('not_ok'). In the case all Group queries completed faster than the specified threshold the probe will return 1 ('ok').

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 15 min

Parameters

Application Group

Optional: Specify which application group should be checked.
Leave empty for all groups.

Threshold

Specify the threshold in milliseconds all Report Loads actions should be compared to.

Return Values

1

all application group queries completed faster than the given threshold

0

at least one application group queries completed slower than the given threshold

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandGroupQueryTime

Description

This probe returns the time of Application Group queries in milliseconds (OD SYSLOG message 226).

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 15 min

Parameters

Application Group

Optional: Specify which application group should be checked.
Leave empty for all groups.

Calculation Type

Optional: Specify the calculation type if all groups should be checked.
Possible calculation types are summation (value: SUM), average (value: AVG), minimum (value: MIN) or maximum (value: MAX)

Return Values

>=0

query time for application groups

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents](#)

[before setting up probes](#) for a description of the correct agent setup for this probe.

- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandLogonStatus

Description

This probe checks whether OnDemand Server Logon is possible or not.

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

- 1
Logon to OnDemand server is possible
- 0
Logon to OnDemand server is impossible

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- OnDemand connector did not return any result
 - API call returned empty result.
- OnDemand connector returned unexpected result
 - API call did not return the expected result. See error field for details.

OnDemandPingStatus

Description

This probe checks whether OnDemand Server ping is `ok` or not.

Recommended Schedule

Approx. 2 min

Parameters

Servers

Comma separated list of servers. If unset all servers will be pinged. One sample per server will be created.

Return Values

1

The server has ping status `Okay`

0

The server has not ping status `Okay` or no servers to check were found.

List of possible error conditions

- `<server> (<archive>): unknown host`
 - The `Servers` field contains a server that cannot be found in the `arsockd` output.
- Execution of `arsockd` returned an error
 - Execution of the `arsockd` command returned with an error. See error field for details.

OnDemandPingTime

Description

This probe checks the ping time of an OnDemand Server using `arsockd`.

Recommended Schedule

Approx. 10 min

Parameters

Servers

Comma separated list of servers. If unset all servers will be pinged.

Calculation type

Supported values are `NONE`, `MIN` and `MAX`.

If `NONE` is specified, one sample per server will be sent. If `MIN` or `MAX` is specified, one sample with the minimum or maximum ping time will be sent and all servers will be listed in the message.

The default value is `MAX`.

Return Values

>=0

OnDemand server ping time in seconds

List of possible error conditions

- `<server> (<archive>): unknown host`
 - The `Servers` field contains a server that cannot be found in the `arsockd` output.
- Execution of `arsockd` returned an error
 - Execution of the `arsockd` command returned with an error. See error field for details.

OnDemandReportLoadedStatus

Description

This probe verifies the time to load reports against a specified threshold (OD SYSLOG message 87) In the case one or more Report Load actions lasted longer than the specified threshold the probe will return `0` ('not_ok'). In the case all Report Load actions completed faster than the specified threshold the probe will return `1` ('ok').

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 30 min

Parameters

Application Group

Optional: Specify the Application Group. If unset OD Syslog entries of all Application Groups will be verified.

Threshold

Specify the threshold in milliseconds all Report Loads actions should be compared to.

Return Values

1

loading of all reports completed faster than the given threshold

0

loading of at least one report completed slower than the given threshold

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required

native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandReportLoadedTime

Description

This probe returns the time to load reports in milliseconds (OD SYSLOG message 87).

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 30 min

Parameters

Application Group

Optional: Specify the Application Group. If unset OD Syslog entries of all Application Groups will be verified.

Calculation Type

Specify the calculation type that should be used to calculate the result.+ Possible calculation types are summation (value: SUM), average (value: AVG), minimum (value: MIN) or maximum (value: MAX)

Return Values

>=0

report loading time

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandResourceRetrieval

Description

This probe returns the Resource retrieval time in milliseconds (OD SYSLOG message 67).

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 30 min

Parameters

Application Group

Optional: Specify the Application Group. If unset OD Syslog entries of all Application Groups will be verified.

Calculation Type

Specify the calculation type that should be used to calculate the result.

Possible calculation types are summation (value: SUM), average (value: AVG), minimum (value: MIN) or maximum (value: MAX)

Return Values

>=0

resource retrieval time

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for](#)

[server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandServiceStatus

Description

This probe checks the following services for the current state:

- OnDemand LibSrvr
- OnDemand ObjSrvr
- OnDemand Load Data
- OnDemand MVSD Server
- OnDemand Scheduler (if selected)
- OnDemand Distribution Facility (selected)

This probe can only be run on Windows agents.

Recommended Schedule

Approx. 5 min

Parameters

Check Scheduler Service

Select if the Scheduler Service should be monitored.

Check Distribution Facility Service

Select if the Distribution Facility Service should be monitored.

Check Manual Services

Select if services specified with manual startup should be monitored as well.

Return Values

1

all services are running as expected.

0

At least one service is not running as expected.

List of possible error conditions

- Invalid platform
 - This probe can only be run on Windows agents.
- Error getting list of services
 - The list of installed services could not be obtained.
- Invalid agent
 - Found no OnDemand services to check. The probe is probably running on an agent without OnDemand.

OnDemandSyslogAnalysis

Description

This probe checks the OnDemand SYSLOG and returns the information based on the specified parameters.

NOTE

The probe uses the ODWEK Java API.

Parameters

Severities

Optional. Specify, as comma (,) separated list, the Severity(s) that should be used for the analysis. Possible values are: ALERT, WARNING, INFO, DEBUG and ERROR. The default is ERROR. Leave empty for ALL.

Severity Exclusion

Optional: Check to exclude the specified Severities from the search criteria.

Message Numbers

Optional: Specify, as comma (,) separated list, the Message Number(s) that should be used for the analysis. Leave empty for ALL.

Message Number Exclusion

Optional: Check to exclude the specified Message Number from the search criteria.

User Ids

Optional: Specify, as comma (,) separated list, the User Id(s) that should be used for the analysis.
Leave empty for ALL.

User Ids Exclusion

Optional: Check to exclude the specified User Ids from the search criteria.

Views

Optional: Specify, as comma (,) separated list, the View(s) that should be used for the analysis.
Leave empty for ALL.

Views Exclusion

Optional: Check to exclude the specified Views from the search criteria.

Consolidate By

(none)

no consolidation, each entry will be counted

LogId

all entries with the same log id and the same severity since the last probe run are counted as one entry

UserId

all entries with the same user id and the same severity since the last probe run are counted as one entry

Recommended Schedule

Approx. 5 min

Return Values

>=0

Number of OnDemand Log messages found. One sample per defined severity is sent.

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on

the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat
 - The file icu*.dat is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandSystemLog

Description

This probe returns all entries since its last run from the OnDemand System Log folder (SL2).

NOTE | The probe uses the ODWEK Java API.

Recommended Schedule

Approx. 15 min

Parameters

None

Return Values

For this probe choose the following conditions and statements during setup:

- value == 10 | Set severity to HARMLESS
- value == 20 | Set severity to WARNING
- value == 30 | Set severity to CRITICAL
- value == 40 | Set severity to FATAL

List of possible error conditions

- Exception
 - An exception has occurred while requesting data from the OnDemand server. More information can be found in the stack trace.
- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- Cannot load required classes - check OnDemand API bundle
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent or that the bundle created from these jar files in the deploy directory could not be loaded. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- Required external bundle <InstallDir>/karaf/deploy/ondemand-x.x.x.jar does not exist
 - This error indicates that the required jar files were not copied to the ondemand-api directory on the agent so that no bundle could be created in the deploy directory. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand does not contain required library files
 - This error indicates that there are no regular files in the `ondemand` subdirectory. The required native libraries have probably not been copied to the agent yet. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not exist or is no directory
 - A required directory is missing on the agent. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.
- <InstallDir>/karaf/agent/ondemand/locale does not contain required file icu*.dat

- The file `icu*.dat` is required on the agent for correct localization in the OnDemand API. See [Background information for server and agents before setting up probes](#) for a description of the correct agent setup for this probe.

OnDemandThreadCount

Description

This probe returns the number of the threads of the OnDemand server process that match the given filter(s).

Recommended Schedule

Approx. 10 min

Parameters

Thread Types

Comma-separated list of thread types to monitor. Leave empty for all thread types.

Exclude Thread Types

Check this option to exclude the thread types given in the field above from monitoring.

Info Content Filter

Text to match in the INFO column for each thread.

Exclude Info Content

Check this option to exclude threads where the INFO column contains the text given in the field above from monitoring.

Return Values

>=0

Count of threads matching the specified filter(s).

List of possible error conditions

- Execution of `arssockd` returned an error
 - Execution of the `arssockd` command returned with an error. See error field for details.
- Unexpected number of 'Program' entries
 - The output of `arssockd` does not contain exactly one line for the 'Program' thread. See error field

for details.

OnDemandThreadCpu

Description

This probe returns the CPU percentage used by the threads of the OnDemand server process.

Recommended Schedule

Approx. 10 min

Parameters

Thread Types

Comma-separated list of thread types to monitor. Leave empty for all thread types.

Exclude Thread Types

Check this option to exclude the thread types given in the field above from monitoring.

Request Interval

Interval between thread information requests in seconds.

Aggregation Type

If `NONE` is selected, one sample per thread will be sent. Otherwise, a single sample with an aggregated value over all threads will be created.

Return Values

>=0

Computed CPU usage in %

List of possible error conditions

- Execution of `arsockd` returned an error
 - Execution of the `arsockd` command returned with an error. See error field for details.
- Unexpected number of 'Program' entries
 - The output of `arsockd` does not contain exactly one line for the 'Program' thread. See error field for details.
- No matches found for thread type filter '<threadtypes>'

- All threads from the `arsockd` result have been filtered out.

OnDemandThreadMemory

Description

This probe returns the amount of memory used by the 'Program' thread of the OnDemand server process.

Recommended Schedule

Approx. 10 min

Parameters

None.

Return Values

>=0

Memory used by the 'Program' thread.
Unit may differ between platforms. See IBM documentation for details.

List of possible error conditions

- Execution of `arsockd` returned an error
 - Execution of the `arsockd` command returned with an error. See error field for details.
- Unexpected number of 'Program' entries
 - The output of `arsockd` does not contain exactly one line for the 'Program' thread. See error field for details.

Subsystem Type Oracle

ContinuousDatabaseQuery

Description

The probe monitors entries of a specific table like a logfile probe would. It continuously reacts to new entries added to the table. For each new entry (a new row in the table) a sample is created if it matches the select criteria. The values from that new entry can be added to the message field through a message template. A specific field must be defined to hold the data for the value field of the samples. If that field is non-numeric, the number of new entries since the last samples were created is used as value.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Depends on query, criticality and the expected number of new rows per schedule. If many entries in a short period of time are expected a shorter schedule should be considered.

IMPORTANT

This probe can create a significant load to the database and to the monitoring system. Use with care.

Parameters

Table Name

Required parameter, that specifies the database table to check for new entries regularly.

Sort Column

Required parameter. It specifies the column of the above defined table to be used for ordering and only get the newest ones per probe run. A maximum of 100 entries in descending order is processed.

Message Template

Required parameter, which defines the template used for the sample's message field. An example is specified when creating a new probe configuration. Normal text can be entered here and also a placeholder for each value from a new entry of a specific column of the defined table. The placeholder must be defined as \$<column name>. For timestamp values an optional output formatting pattern can be added right after the column's name. The pattern must be enclosed in curly braces and has to be conformant to the timestamp formatting patterns of the Java programming language. No spaces are allowed between the opening curly brace and the last character of the column name. If no format is specified, the timestamp will be formatted according to ISO-8601.

Timestamp Column

If a timestamp column is used in the message template, the column's name must be entered here, too. If not, this field can be left empty. If set, the value of this field will also be used as the sample's timestamp. If unset, the probe's execution time will be used as the sample's timestamp. The timestamp will always be calibrated to the timezone defined in the Timezone Offset parameter.

Timestamp Column Format

Only required if the format of the field defined in the Timestamp Column parameter is not of type datetime or a numeric value defining a timestamps in milliseconds., like e.g. "1584109881748". The

format should not include milliseconds, but for Oracle databases, because of technical restrictions. Oracle needs the milliseconds.

Value Column

Optional parameter. Entries of that column are used for the sample's value field. If the field is not numeric or the parameter is left blank, the number of rows returned for a probe run will be used as value.

Timezone Offset

Required parameter. It defines the timezone offset to be used when inserting the value of a timestamp field to the message field. As a default the UTC value of "+00.00" is already entered when creating a new probe configuration.

Return Values

Possible return values

The value of the specified value field if it is numeric else the number of rows returned by the database query, that is the size of the result set. No result will be returned if there are no new entries since the last probe run was executed. So this probe will not always create samples in each probe run. -1 is returned if an error occurred.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

CustomDatabaseQuery

Description

This probe runs the specified query against the database and returns the result.

This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT

This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Depends on query and criticality.

Parameters

SQL Query

Any SQL Query can be specified here.

Timeout

Specify the timeout for the query in seconds.
Set the value to 0 (zero) to run the query without timeout.

Return Values

Possible return values

Any numeric or alphanumeric
If the returned result is numeric, it can be evaluated as value. If the returned result is alphanumeric, it can be evaluated as message.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseActiveQueryCount

Description

This probe returns the number of active queries for the referenced database. It is especially useful to identify long-running queries when the "Started Before Seconds" parameter is used.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

Started Before Seconds

Count queries that have been active for at least the given number of seconds.
Set to 0 to count all active queries.

Return Values

>= 0

Number of active SQL queries.
The message contains a list of details for each query.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseConnectionStatus

Description

This probe checks the Database connection for the referenced database.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

The connection to the specified database is available

0

The connection to the specified database is unavailable

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabasePerformance

Description

This probe executes any SQL select-statement against a supported database and calculates the required time.

NOTE

This probe supports SQL Select statements that do not return a result (empty result set). This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT

This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Approx. 45 min

Parameters

Performance Type

The type of performance to be measured.

COMPLETE

Measures the complete time required to logon and execute the given SQL statement.

EXECUTION

Measures the time required to execute the given SQL statement.

LOGON

Measures the time required to logon.

NOTE

Oracle databases require an SQL statement even if `LOGON` is selected as performance type. You can use the following statement which works on every Oracle database:
`select dummy from dual`

SQL Query

SQL statement to be executed.

Example 69. SQL Query

```
SELECT count(*) from mytables where ID = '15'
```

NOTE

The format of the SQL statement must be valid for the database on which it is to be executed (e.g. do not specify any delimiter at the end of the statement when monitoring an Oracle database).

NOTE

The SQL SELECT statement supported by this probe can return more than one result line.

Return Values

Any numeric value

The numeric return value describing the elapsed time in milliseconds.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

OracleDatafileAvailable

Description

Checks whether a specified Oracle datafile is available

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 15 min

Parameters

Datafile

Comma-separated list of full-qualified datafile names (e.g. `/usr/ora/920/oradata/IDB/fntmp_ts.dbf,/usr/ora/920/oradata/IDB/fnusr_ts.dbf`).
Leave empty for all datafiles.

Return Values

AnyNumericValue

The value represents the amount of data files that are unavailable meaning:

```
0 = all data files are available.  
1...n = some data files are not available.
```

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

OracleFreeTablespace

Description

This probe returns the total amount of free space in kByte for all data files in the specified tablespace.
This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

Tablespace Name

Tablespace name (e.g. `SYSTEM`)

Return Values

>=0

Numeric value representing the total amount of free space in kByte.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

OracleNonActiveRedologs

Description

Returns the number non active Oracle Redologs. Non active redologs are redologs with state `STALE`, `CURRENT` or `INACTIVE`.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

None

Return Values

>=0

Number of non-active redologs.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

OracleProcesses

Description

Monitors Oracle processes or Oracle Windows services for an Oracle database.

Monitored processes are: `ora_pmon_<database ID>`, `ora_smon_<database ID>`, `ora_lgwr_<database ID>`, `ora_dbwr_<database ID>`.

Recommended Schedule

Approx. 2 min

Parameters

Oracle Home

ORACLE_HOME path. Only required if Check Listener With Tools is checked.

Check Listener With Tools

Enable to check the listener with the tool `lsnrctl`.

Listener Name

Specify the Listener name here.

Listener Password

Password of the listener. Leave this field empty if no password exists.

Return Values

1

All required services and processes are running.

0

At least one required service or process is not running.

List of possible error conditions

- Error getting list of running processes / services
 - The list of running processes / services could not be obtained.
- Execution of lsnrctl was interrupted
 - Processing of the external `lsnrctl` command was interrupted.
- IOException during execution of lsnrctl
 - In most cases, this exception happens because the `lsnrctl` command cannot be found. See error field for details.

OracleRollbackSegmentOnline

Description

Checks whether a specified Oracle Rollback Segment is online or not.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 60 min

Parameters

Rollback Segment

Comma-separated list of rollback segment names (e.g. `RS0,RS1,SYSTEM`).
Leave empty for all rollback segments.

Return Values

online

All specified rollback segments are online.

offline

At least one of the specified rollback segments is offline. The message field contains a list of all rollback segments that are offline.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

OracleTablespaceAvailable

Description

Monitors a specified Oracle Tablespace for availability.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min.

Parameters

Tablespace

Comma-separated list of tablespace names (e.g. `SYSTEM,FNTMP_TS,FNSYS_TS`).
Leave empty for all tablespaces.

Return Values

available

All specified tablespaces are available.

unavailable

At least one of the specified tablespaces is not available. The message field contains a list of all tablespaces that are offline.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

OracleUserAccountStatus

Description

Monitors whether a specified Oracle account will expire within the next days.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 30 min

Parameters

User Name

name of user account to check

Days

number of days to check from current date

Return Values

1

The Oracle account will not expire within specified number of days.

0

The Oracle account will expire within the specified number of days.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

Subsystem Type Postgre

ContinuousDatabaseQuery

Description

The probe monitors entries of a specific table like a logfile probe would. It continuously reacts to new entries added to the table. For each new entry (a new row in the table) a sample is created if it matches the select criteria. The values from that new entry can be added to the message field through a message template. A specific field must be defined to hold the data for the value field of the samples. If that field is non-numeric, the number of new entries since the last samples were created is used as value.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Depends on query, criticality and the expected number of new rows per schedule. If many entries in a short period of time are expected a shorter schedule should be considered.

IMPORTANT

This probe can create a significant load to the database and to the monitoring system. Use with care.

Parameters

Table Name

Required parameter, that specifies the database table to check for new entries regularly.

Sort Column

Required parameter. It specifies the column of the above defined table to be used for ordering and only get the newest ones per probe run. A maximum of 100 entries in descending order is processed.

Message Template

Required parameter, which defines the template used for the sample's message field. An example is specified when creating a new probe configuration. Normal text can be entered here and also a placeholder for each value from a new entry of a specific column of the defined table. The placeholder must be defined as `$<column name>`. For timestamp values an optional output formatting pattern can be added right after the column's name. The pattern must be enclosed in curly braces and has to be conformant to the timestamp formatting patterns of the Java programming language. No spaces are allowed between the opening curly brace and the last character of the column name. If no format is specified, the timestamp will be formatted according to ISO-8601.

Timestamp Column

If a timestamp column is used in the message template, the column's name must be entered here, too. If not, this field can be left empty. If set, the value of this field will also be used as the sample's timestamp. If unset, the probe's execution time will be used as the sample's timestamp. The timestamp will always be calibrated to the timezone defined in the Timezone Offset parameter.

Timestamp Column Format

Only required if the format of the field defined in the Timestamp Column parameter is not of type datetime or a numeric value defining a timestamps in milliseconds., like e.g. "1584109881748". The format should not include milliseconds, but for Oracle databases, because of technical restrictions. Oracle needs the milliseconds.

Value Column

Optional parameter. Entries of that column are used for the sample's value field. If the field is not numeric or the parameter is left blank, the number of rows returned for a probe run will be used as value.

Timezone Offset

Required parameter. It defines the timezone offset to be used when inserting the value of a timestamp field to the message field. As a default the UTC value of "+00.00" is already entered when creating a new probe configuration.

Return Values

Possible return values

The value of the specified value field if it is numeric else the number of rows returned by the database query, that is the size of the result set. No result will be returned if there are no new

entries since the last probe run was executed. So this probe will not always create samples in each probe run. -1 is returned if an error occurred.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

CustomDatabaseQuery

Description

This probe runs the specified query against the database and returns the result.

This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT

This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Depends on query and criticality.

Parameters

SQL Query

Any SQL Query can be specified here.

Timeout

Specify the timeout for the query in seconds.
Set the value to 0 (zero) to run the query without timeout.

Return Values

Possible return values

Any numeric or alphanumeric

If the returned result is numeric, it can be evaluated as value. If the returned result is alphanumeric, it can be evaluated as message.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseActiveQueryCount

Description

This probe returns the number of active queries for the referenced database. It is especially useful to identify long-running queries when the "Started Before Seconds" parameter is used.

This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

Started Before Seconds

Count queries that have been active for at least the given number of seconds.
Set to 0 to count all active queries.

Return Values

>= 0

Number of active SQL queries.
The message contains a list of details for each query.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabaseConnectionStatus

Description

This probe checks the Database connection for the referenced database.
This probe can only be used with the appropriate JDBC driver installed.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

The connection to the specified database is available

0

The connection to the specified database is unavailable

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

DatabasePerformance

Description

This probe executes any SQL select-statement against a supported database and calculates the required time.

NOTE | This probe supports SQL Select statements that do not return a result (empty result set). This probe can only be used with the appropriate JDBC driver installed.

IMPORTANT | This probe should be used with care as it will execute any SQL-statement with the privileges of the user account configured in the associated database subsystem. You should know what you are doing. If in doubt, ask your database administrator.

Recommended Schedule

Approx. 45 min

Parameters

Performance Type

The type of performance to be measured.

COMPLETE

Measures the complete time required to logon and execute the given SQL statement.

EXECUTION

Measures the time required to execute the given SQL statement.

LOGON

Measures the time required to logon.

NOTE

Oracle databases require an SQL statement even if `LOGON` is selected as performance type. You can use the following statement which works on every Oracle database:
`select dummy from dual`

SQL Query

SQL statement to be executed.

Example 70. SQL Query

```
SELECT count(*) from mytables where ID = '15'
```

NOTE

The format of the SQL statement must be valid for the database on which it is to be executed (e.g. do not specify any delimiter at the end of the statement when monitoring an Oracle database).

NOTE

The SQL SELECT statement supported by this probe can return more than one result line.

Return Values

Any numeric value

The numeric return value describing the elapsed time in milliseconds.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- IllegalStateException
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- IllegalArgumentException
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.

Subsystem Type ResourceManager

ResourceManagerServices

Description

This probe checks the configured Resource Managers components

NOTE | This probe can only be activated on an agent with appropriate JDBC drivers to access the CM8 Resource Manager database.

Recommended Schedule

Approx. 2 min

Parameters

Check Migrator

Indicates if the component service should be checked.

Check Replicator

Indicates if the component service should be checked.

Check Purger

Indicates if the component service should be checked.

Check Stager

Indicates if the component service should be checked.

Return Values

>=0

Amount of error conditions for the request. See message text for details. 0 = no errors, 1 = one error, etc.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.

ResourceManagerVolumeSpace

Description

This probe checks the space of all configured RM volumes.

Supported volume space types are Local volumes, remote volumes, Spectrum Protect / TSM (Tivoli Storage Manager), Spectrum Protect / TSM archive (meaning, volume is under retention control), VideoCharger, VideoCharger media archive volume and BLOB (Binary large object volume).

The probe requires the use of a numeric representation of the volume space type as follows:

- Local volume: 0
- Remote volume: 1
- Spectrum Protect / TSM: 99
- Spectrum Protect / TSM archive: 100
- VideoCharger volume: 181
- VideoCharger media archive volume: 182
- BLOB: 183

NOTE

This probe can only be activated on an agent with appropriate JDBC drivers to access the CM8 Resource Manager database.

Recommended Schedule

Approx. 10 min

Parameters

Volume Types

Comma separated list of volume types to be checked or leave empty for ALL. Supported volume types are described above. See IBM CM v8 documentation for further information about volume types.

Return Values

>=0

Amount of error conditions for the request. See message text for details. 0 = no errors, 1 = one error, etc.

List of possible error conditions

- The connection manager is not available
 - This is an internal error. If the error persists after an agent restart, contact support.
- `IllegalStateException`
 - An SQL exception has occurred while processing the request.
 - Connection could not be established
- `IllegalArgumentException`
 - No datasource factory available. Check that the appropriate driver is available in the `deploy` directory on the agent.
- Query returned an empty result set
 - Database query did not return any result.
- The following volume types are undefined
 - Check the list of volume types in the probe configuration.

Subsystem Type RMI

Rmi

Description

Checks if the specified Remote Object exists.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Remote Object Name

Specify the Remote Object Name that should be checked.

Return Values

- 1**
Object exists
- 0**
Object does not exist / cannot be found.
- 1**
Error during probe execution.

Subsystem Type RuleExecutionServer

RuleAppNotifyChanges

Description

This probe returns a notification for reloading all rule sets of the specified rule app.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Rule App Version

Specify the Version of the desired RuleApp. The Version can be gathered from the "Explorer" tab of the RES console.

Return Values

value

1 = everything ok or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleAppPropertiesCount

Description

This probe fetches the amount of all properties of the specified RuleApp.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Rule App Version

Specify the Version of the desired RuleApp. The Version can be gathered from the "Explorer" tab of the RES console.

Return Values

value

Count = Numeric value of the request or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleAppWithHighestNumber

Description

This probe fetches the highest version number of the specified RuleApp.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Return Values

value

1 = everything ok or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleAppsCount

Description

This probe fetches the amount of all rule apps.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

None

Return Values

value

Count = Numeric value of the request or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleAppsByNameCount

Description

This probe fetches the amount of all rule apps of the specified name.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Return Values

value

Count = Numeric value of the request or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleSetNotifyChanges

Description

This probe returns a notification for reloading of the specified rule set and rule app.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Rule App Version

Specify the Version of the desired RuleApp. The Version can be gathered from the "Explorer" tab of the RES console.

Rule Set Name

Specify the Name of the RuleSet. The name can be gathered from the "Explorer" tab of the RES console via the RuleApp.

Rule Set Version

Specify the Version of the RuleSet. The Version can be gathered from the "Explorer" tab of the RES console via the RuleApp.

Return Values

value

1 = everything ok or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleSetPropertiesCount

Description

This probe fetches the amount of all properties of the specified RuleApp and RuleSet.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Rule App Version

Specify the Version of the desired RuleApp. The Version can be gathered from the "Explorer" tab of the RES console.

Rule Set Name

Specify the Name of the RuleSet. The name can be gathered from the "Explorer" tab of the RES console via the RuleApp.

Rule Set Version

Specify the Version of the RuleSet. The Version can be gathered from the "Explorer" tab of the RES console via the RuleApp.

Return Values

value

Count = Numeric value of the request or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleSetSignature

Description

This probe fetches the signature of the specified RuleApp and RuleSet and returns it to the message.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Rule App Version

Specify the Version of the desired RuleApp. The Version can be gathered from the "Explorer" tab of the RES console.

Rule Set Name

Specify the Name of the RuleSet. The name can be gathered from the "Explorer" tab of the RES console via the RuleApp.

Rule Set Version

Specify the Version of the RuleSet. The Version can be gathered from the "Explorer" tab of the RES console via the RuleApp.

Return Values

value

1 = everything ok or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleSetWithHighestNumber

Description

This probe fetches the highest version number of the specified RuleSet.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Rule App Version

Specify the Version of the desired RuleApp. The Version can be gathered from the "Explorer" tab of the RES console.

Rule Set Name

Specify the Name of the RuleSet. The name can be gathered from the "Explorer" tab of the RES console via the RuleApp.

Return Values

value

1 = everything ok or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleSetsByNameCount

Description

This probe fetches the amount of all rule sets of the specified rule app.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Rule App Version

Specify the Version of the desired RuleApp. The Version can be gathered from the "Explorer" tab of the RES console.

Rule Set Name

Specify the Name of the RuleSet. The name can be gathered from the "Explorer" tab of the RES console via the RuleApp.

Return Values

value

Count = Numeric value of the request or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

RuleSetsCount

Description

This probe fetches the amount of all rule set for the specified rule app.

Recommended Schedule

No default schedule specified, depends on the IBM CM system settings.

Parameters

Rule App Name

Specify the Name of the RuleApp. The name can be gathered from the "Explorer" tab of the RES console.

Rule App Version

Specify the Version of the desired RuleApp. The Version can be gathered from the "Explorer" tab of the RES console.

Return Values

value

Count = Numeric value of the request or -1 = http response code other than 200 like, 400, 404 and also for 204 - no content - for invalid ruleapp this could happen in case the ruleapp does not exist or typo in the config.

message

http response body or requested <ruleappname/.../ruleset name/...t> resource is unknown

error

null or <httpResponseCode > : <httpResponseBody>

Subsystem Type Search

SearchClusterStatus

Description

This probe checks the status for OpenSearch Cluster.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

Open Sarch cluster is in working state.

0

Open Search cluster is in an error state. ==== SearchNodeStatus

Description

This probe checks the status for all Nodes of an OpenSearch cluster. For each node an individual sample will be created.

Recommended Schedule

Approx. 5 min

Parameters

None

Return Values

1

Open Search Node is in working state.

0

Open Search Node is in an error state.

Subsystem Type ServiceManager

ServiceManagerStatus

Description

The ServiceManagerStatus probe checks the specified Service Manager Services against a desired state. For each service a separate sample will be created.

Recommended Schedule

Approx. 5 min

Parameters

Service ID

Comma separated list of Service IDs. Leave empty to check all services. Review the deploy.xml of the service to find ID.

Desired Service State

Select the state from the drop-down, that the given services should have. All services that are specified and do not have this state are recognized as not ok.

Return Values

==0

Not ok - At least one of the given services do not have the desired state.

==1

Ok - All of the given services do have the desired state.

== -1

- Url missing - Message: Incorrect or missing Service Manager URL. Configure a Uri subsystem below the Service Manager subsystem.
- Response Code != 200 - Message: "Service " + serviceId + " does not exist." Check the specified service ids for correctness.

Subsystem Type SpectrumProtect

ActivityTransferVolume

Description

This probe checks the data transfer volume of activities.

Recommended Schedule

Approx. 10 min

Parameters

Activities To Include

Comma-separated list of activities to include in the check. Supported values are client-side activities like `BACKUP`, `RESTORE`, `ARCHIVE`, `RETRIEVE` and server-side activities like `MIGRATION`, `RECLAMATION`, `EXPIRATION`.

Leave empty to include all activities.

Activities To Exclude

Comma-separated list of activities to exclude from the check. Supported values are client-side activities like `BACKUP`, `RESTORE`, `ARCHIVE`, `RETRIEVE` and server-side activities like `MIGRATION`, `RECLAMATION`, `EXPIRATION`.

Use in combination with an empty include list.

Direction

Specify either `SENT` or `RECEIVED` for the desired data transfer direction to check.

Aggregation Type

Possible values are: `MAX` (maximum value), `MIN` (minimum value), `AVG` (average of all values) or `SUM` (sum of all values).

Return Values

>=0

aggregated number of sent or received bytes; one sample per activity

List of possible error conditions

- Execution of '`<command>`' with query '`<query>`' returned with error
 - The `dsmdmc` command returned with an error. This can be caused either by `dsmdmc` itself or by the query that has been specified. Check error field for details.
- Execution of '`<command>`' with query '`<query>`' did not return any result
 - The `dsmdmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '`<command>`' with query '`<query>`' failed with exception
 - The `dsmdmc` command returned with an exception. Check error field for details.

ActivityWaittime

Description

This probe checks the wait time of activities.

Recommended Schedule

Approx. 15 min

Parameters

Activities To Include

Comma-separated list of activities to include in the check. Supported values are client-side activities like `BACKUP`, `RESTORE`, `ARCHIVE`, `RETRIEVE` and server-side activities like `MIGRATION`, `RECLAMATION`, `EXPIRATION`.
Leave empty to include all activities.

Activities To Exclude

Comma-separated list of activities to exclude from the check. Supported values are client-side activities like `BACKUP`, `RESTORE`, `ARCHIVE`, `RETRIEVE` and server-side activities like `MIGRATION`, `RECLAMATION`, `EXPIRATION`.
Use in combination with an empty include list.

Time Period

Only activities that have been started during the given time period in seconds are checked. The default value is `3600` (1 hour).

Aggregation Type

Possible values are: `MAX` (maximum value), `MIN` (minimum value) or `AVG` (average of all values).

Return Values

>=0

aggregated wait time in seconds; one sample per activity

List of possible error conditions

- Execution of '`<command>`' with query '`<query>`' returned with error
 - The `dsmdmc` command returned with an error. This can be caused either by `dsmdmc` itself or by the query that has been specified. Check error field for details.
- Execution of '`<command>`' with query '`<query>`' did not return any result
 - The `dsmdmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '`<command>`' with query '`<query>`' failed with exception
 - The `dsmdmc` command returned with an exception. Check error field for details.

Capacity

Description

This probe checks the capacity of one or multiple storage objects. The probe returns either an absolute value (quantity) or a percentage value which indicates either the used or the free capacity.

Recommended Schedule

Approx. 15 min

Parameters

Storage Object Type

Supported values are `StoragePool`, `Volume` and `Library`.

Storage Objects To Include

Comma-separated list of storage objects to include in the check.
Leave empty to include all storage objects.

Storage Objects To Exclude

Comma-separated list of storage objects to exclude from the check.
Use in combination with an empty include list.

Device Classes To Include

Comma-separated list of device classes (e.g. `DISK`, `TAPE`, `FILE` or `SERVER` - see `query devclass`) to include in the check.
Leave empty to include all device classes.

Device Classes To Exclude

Comma-separated list of device classes (e.g. `DISK`, `TAPE`, `FILE` or `SERVER` - see `query devclass`) to exclude from the check.
Use in combination with an empty include list.

Access Mode

Supported values are `ReadOnly`, `ReadWrite`, `Unavailable`, `Offsite`, `Destroyed`. The default value is `ReadWrite`.

Perspective

Supported values are `Used` and `Free`.

Output Type

Supported values are `MB`, `GB` and `Percentage`.

Return Values

>=0

capacity value according to the given parameters

List of possible error conditions

- Execution of '<command>' with query '<query>' returned with error
 - The `dsmadmc` command returned with an error. This can be caused either by `dsmadmc` itself or by the query that has been specified. Check error field for details.
- Execution of '<command>' with query '<query>' did not return any result
 - The `dsmadmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmadmc` command returned with an exception. Check error field for details.

CustomQuery

Description

This probe executes the given query using `dsmadmc`. The result of the `dsmadmc` execution is then post processed using the user defined value calculation.

Recommended Schedule

Depends on query and criticality.

Parameters

Options

Options for `dsmadmc`; optional, default is `-commadelimited -dataonly=yes`

Query

Query for `dsmadmc`

The query must start with `SELECT` or `QUERY` (case-insensitive).

Value Calculation

Required. Formula to compute the sample value from the result of the `dsmadmc` query.

Use `$n` to reference column `n` from the result, e.g. `$1 + $2` to add the values of column 1 and 2. Make sure that the referenced columns contain numerical values.

The formula may only contain numbers (0 - 9), dot (.) for decimal places, parenthesis ((and)),

arithmetic operators (+, -, * and /), the dollar sign (\$) to indicate a column reference and spaces to improve readability.

If the formula contains invalid characters or references a column that does not exist or that does not contain numerical values, the whole formula will be ignored.

The default value is \$1 which simply tries to parse the content of the first result column as numeric value.

Aggregation Type

Possible values are: `SUM` (summation of all values), `MAX` (maximum value), `MIN` (minimum value), `AVG` (average of all values) or `NONE` (no aggregation, send one sample per result row).

The aggregation will be applied after the value calculation.

Message Template

Optional. The message template will be applied to each row of the result from `dsmadm`.

Use `$n` to reference column `n` from the result and `$value` to reference the calculated value for this result row, e.g. Calculated value for Storage Pool \$1 is \$value.

If the message template references a column that does not exist or uses `$value` on a result where the value calculation could not be applied, the invalid reference will be replaced by the text `<undefined>`.

If no message template is specified, the message will contain a comma-separated list of all columns from the result row and the computed value (if applicable).

Example 71. Used space in a storage pool

Query:	SELECT pct_utilized FROM stgpools WHERE stgpool_name='BACKUPPOOL'
Value Calculation:	\$1

Example 72. Free space in all storage pools in percent

Query:	SELECT SUM(pct_utilized) FROM stgpools
Value Calculation:	100 - \$1

Example 73. Free space in all storage pools in MB

Query:	SELECT SUM(pct utilized), sum(est_capacity_mb), COUNT(*) FROM stgpools
Value Calculation:	\$2 - (((\$1/\$3) /100) *\$2)

Return Values

<return value>

Depends on the query, the value calculation and the aggregation type.

If a value can be computed using the value calculation (that is, all columns referenced in the formula have numeric values), the aggregation will be applied to these computed values. For aggregation `NONE`, one sample per row will be created with the computed value. For all other aggregation types, one single sample with the aggregated value will be created.

If no value can be computed, one sample per row with value 1 will be created.

List of possible error conditions

- Execution of '<command>' with query '<query>' returned with error
 - The `dsmdmc` command returned with an error. This can be caused either by `dsmdmc` itself or by the query that has been specified. Check error field for details.
- Execution of '<command>' with query '<query>' did not return any result
 - The `dsmdmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmdmc` command returned with an exception. Check error field for details.
- Cannot parse formula '<formula>' for value calculation
 - The specified value calculation formula cannot be parsed. See error field for details.

ElapsedMigrationTime

Description

This probe checks the elapsed storage pool migration time.

Recommended Schedule

Approx. 15 min

Parameters

Storage Pools To Include

Comma-separated list of storage pools to include in the check.
Leave empty to include all storage pools.

Storage Pools To Exclude

Comma-separated list of storage pools to exclude from the check.
Use in combination with an empty include list.

Pool Type

Supported values are `PRIMARY`, `COPY` and `ACTIVEDATA`. Select `IGNORE` to filter the result by storage pool and device class only.

Device Classes To Include

Comma-separated list of device classes (e.g. `DISK`, `TAPE`, `FILE` or `SERVER` - see `query devclass`) to include in the check.
Leave empty to include all device classes.

Device Classes To Exclude

Comma-separated list of device classes (e.g. `DISK`, `TAPE`, `FILE` or `SERVER` - see `query devclass`) to exclude from the check.
Use in combination with an empty include list.

Aggregation Type

Possible values are: `MAX` (maximum value), `MIN` (minimum value) or `AVG` (average of all values).

Return Values

>=0

aggregated migration time in seconds; one sample per storage pool and device class

List of possible error conditions

- Execution of '<command>' with query '<query>' returned with error
 - The `dsmadmc` command returned with an error. This can be caused either by `dsmadmc` itself or by the query that has been specified. Check error field for details.
- Execution of '<command>' with query '<query>' did not return any result
 - The `dsmadmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmadmc` command returned with an exception. Check error field for details.

ElapsedRestoreTime

Description

This probe checks the elapsed restore time.

Recommended Schedule

Approx. 15 min

Parameters

Nodes To Include

Comma-separated list of nodes to include in the check.
Leave empty to include all nodes.

Nodes To Exclude

Comma-separated list of nodes to exclude from the check.
Use in combination with an empty include list.

Filespaces To Include

Comma-separated list of filespaces to include in the check.
Leave empty to include all filespaces.

Filespaces To Exclude

Comma-separated list of filespaces to exclude from the check.
Use in combination with an empty include list.

Restore State

Supported values are `Active` and `Restartable`. Select `IGNORE` to filter the result by nodes and filespaces only.

Aggregation Type

Possible values are: `MAX` (maximum value), `MIN` (minimum value) or `AVG` (average of all values).

Return Values

>=0

aggregated restore time in minutes; one sample per node and filesystem

List of possible error conditions

- Execution of '<command>' with query '<query>' returned with error

- The `dsmdmc` command returned with an error. This can be caused either by `dsmdmc` itself or by the query that has been specified. Check error field for details.
- Execution of '<command>' with query '<query>' did not return any result
 - The `dsmdmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmdmc` command returned with an exception. Check error field for details.

LibraryScratchVolumes

Description

This probe checks the number of scratch volumes available in library volume inventory.

Recommended Schedule

Approx. 15 min

Parameters

Libraries To Include

Comma-separated list of libraries to include in the check.
Leave empty to include all libraries.

Libraries To Exclude

Comma-separated list of libraries to exclude from the check.
Use in combination with an empty include list.

Output Type

Supported values are `Quantity` and `Percentage`.

Return Values

>=0

number or percentage of available scratch volumes; one sample per library

List of possible error conditions

- Execution of '<command>' with query '<query>' returned with error
 - The `dsmdmc` command returned with an error. This can be caused either by `dsmdmc` itself or by

the query that has been specified. Check error field for details.

- Execution of '<command>' with query '<query>' did not return any result
 - The `dsmdmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmdmc` command returned with an exception. Check error field for details.

SessionRuntime

Description

This probe checks the runtime of sessions in specific states.

Recommended Schedule

Approx. 15 min

Parameters

Session State

Supported values are `End`, `IdleW`, `MediaW`, `RecvW`, `Run`, `SendW` and `Start`.

Time Period

Only sessions that have been started during the given time period in seconds are checked. Specify 0 (zero) to check all sessions (default).

Aggregation Type

Possible values are: `MAX` (maximum value), `MIN` (minimum value) or `AVG` (average of all values).

Return Values

>=0

runtime of sessions in seconds

List of possible error conditions

- Execution of '<command>' with query '<query>' returned with error
 - The `dsmdmc` command returned with an error. This can be caused either by `dsmdmc` itself or by the query that has been specified. Check error field for details.
- Execution of '<command>' with query '<query>' did not return any result

- The `dsmadmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmadmc` command returned with an exception. Check error field for details.

SessionStateCount

Description

This probe checks the number of sessions remaining in a specific state.

Recommended Schedule

Approx. 10 min

Parameters

Session State

Supported values are `End`, `IdleW`, `MediaW`, `RecvW`, `Run`, `SendW` and `Start`.

Return Values

>=0

number of sessions in the selected state

List of possible error conditions

- Execution of '<command>' with query '<query>' returned with error
 - The `dsmadmc` command returned with an error. This can be caused either by `dsmadmc` itself or by the query that has been specified. Check error field for details.
- Execution of '<command>' with query '<query>' did not return any result
 - The `dsmadmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmadmc` command returned with an exception. Check error field for details.

StoragePoolScratchVolumes

Description

This probe checks number of scratch volumes that are remaining to be assigned to the storage pool (difference between available number `maxscratch` and number of already used scratch volumes `numscratchused`). The probe returns either an absolute value (quantity) or a percentage value.

Recommended Schedule

Approx. 15 min

Parameters

Device Classes To Include

Comma-separated list of device classes (e.g. `DISK, TAPE, FILE` or `SERVER` - see `query devclass`) to include in the check.

Leave empty to include all device classes.

Device Classes To Exclude

Comma-separated list of device classes (e.g. `DISK, TAPE, FILE` or `SERVER` - see `query devclass`) to exclude from the check.

Use in combination with an empty include list.

Storage Pools To Include

Comma-separated list of storage pools to include in the check.

Leave empty to include all storage pools.

Storage Pools To Exclude

Comma-separated list of storage pools to exclude from the check.

Use in combination with an empty include list.

Output Type

Supported values are `Quantity` and `Percentage`.

Return Values

>=0

number or percentage of available scratch volumes; one sample per device class and storage pool

List of possible error conditions

- Execution of '`<command>`' with query '`<query>`' returned with error

- The `dsmdmc` command returned with an error. This can be caused either by `dsmdmc` itself or by the query that has been specified. Check error field for details.
- Execution of '<command>' with query '<query>' did not return any result
 - The `dsmdmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmdmc` command returned with an exception. Check error field for details.

StoragePoolVolumeStatus

Description

This probe checks the state of the given volumes and / or storage pools depending on the specified status type.

Recommended Schedule

Approx. 5 min

Parameters

Volumes To Include

Comma-separated list of volumes to include in the check. One sample per volume and storage pool will be created.
Leave empty to include all volumes.

Volumes To Exclude

Comma-separated list of volumes to exclude from the check.
Use in combination with an empty include list.

Storage Pools To Include

Comma-separated list of storage pools to include in the check. One sample per volume and storage pool will be created.
Leave empty to include all storage pools.

Storage Pools To Exclude

Comma-separated list of storage pools to exclude from the check.
Use in combination with an empty include list.

Status Type

Status type to check
Supported values are `Availability`, `AccessMode` and `ErrorState`.

Error Status List

Specify a comma-separated list of error status values for the selected status type. If at least one of the volumes / storage pools has a status that occurs in the list, the probe will return 0. Otherwise, 1

will be returned as value.

The possible status values depend on the selected Status Type:

- Availability: online | offline | empty | pending | filling | full
- AccessMode: readwrite | readonly | unavailable | offsite | destroyed
- ErrorState: yes | no

Return Values

1

The status of the volume / storage pool is not listed in the Error Status List

0

The status of the volume / storage pool is listed in the Error Status List

List of possible error conditions

- Execution of '<command>' with query '<query>' returned with error
 - The `dsmdmc` command returned with an error. This can be caused either by `dsmdmc` itself or by the query that has been specified. Check error field for details.
- Execution of '<command>' with query '<query>' did not return any result
 - The `dsmdmc` command was successful but the query did not return any result. In most cases, this is a misconfiguration of the probe.
- Execution of '<command>' with query '<query>' failed with exception
 - The `dsmdmc` command returned with an exception. Check error field for details.
- Status type '<type>' is invalid
 - The selection for `Status Type` contains an invalid value.
- Filtered result of `damadm` is empty
 - Execution of `dsmdmc` returned a valid result but after applying the include / exclude filters, no lines to process remain. Check the probe configuration settings.
- Item '<item>' in include filter for '<fieldname>' was never matched
 - At least one of the include filters contains an item that was not found in the output of `dsmdmc`. Check the probe configuration settings.

Subsystem Type Url

CertificateExpiration

Description

Queries the SSL certificate expiry information from a URL.

Recommended Schedule

Once a day

Parameters

None.

Return Values

>0

Number of days the certificate is still valid.

0

Certificate has expired.

List of possible error conditions

-1

Error during probe execution

CertificateValidation

Description

This probe opens a secure connection using the certificates found in the specified truststore.

Recommended Schedule

Depends on requested URL and criticality.

Parameters

Truststore Filename

Specify the location and filename of an existing truststore file that contains the certificate(s) for the URL.

Truststore Type

Specify the type of the given truststore file. Possible values are jks and pkcs12.

Truststore Password

Specify the password of the given truststore file.

Return Values

1

The connection was successful. The certificate of the target website can be validated against the truststore.

0

The connection was not successful. The certificate of the target website can not be validated against the truststore (e.g. because the certificate has expired or because the certificate on the target system has been changed).

List of possible error conditions

- IOException
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.

HTTPCallback

Description

This probe requires a specific setup of the Url Subsystem that the probe uses. The address in the subsystem must be configured to identify the logstash URL on the local Agent Jetty where the logstash container is forwarding its information to. A Servlet will be registered on the agent with the Url's address as endpoint in the Agent's Servlet container. e.g.: URL: "/logstash" → Logstash can HTTP-POST requests to <agentHostname>:<agentJettyPort>/logstash. It can processes HTTP POST requests in the logstash HTTP output plugin default JSON format.

Recommended Schedule

- The probe is a callback probe and does not run in a scheduled period. It will report automatically whenever a new info is identified.

Parameters

Host Filter

Request which do not match the filter will be discarded. Default is "*" ("*" is converted to regex ".*", no other special characters, resulting value is processed as regex) meaning no specific filter is active, everthing will match. Regex is used as filter option.

Source Filter

Request which do not match the filter will be discarded. Default is "*" ("*" is converted to regex ".*", no other special characters, resulting value is processed as regex) meaning no specific filter is active, everthing will match. Regex is used as filter option.

Example 74. Example for Filter with regex

```
available Host or Source: A1,A2,A3  
Regex (A1|A2)  
Filters out A3 → not shown
```

Return Values

Sample values

Timestamp and Message are taken from the incoming request (timestamp is message creation date from FileBeat/Logstash, not from the timestamp which is possibly included in the message itself).

```
Classification is the app_id if available.  
Value is the character offset in the logfile (rolling logfile is visible in  
graph...).
```

```
Source is "<host(name)>:<source(a.k.a. logfilePath)>" (both properties of the  
request).
```

The message itself is not parsed but forwarded as it is.

For the evaluation a regex for e.g. message contains must be used.

HttpResponseTime

Description

This probe checks the response time and the average download rate of a web server.

Recommended Schedule

Approx. 15 min

Parameters

Statistical Value

The statistical value that the probe shall return as result.

Download Average

average download transfer rate in KB/s

Download Duration

absolute duration of the download in seconds or milliseconds

Execution Duration

absolute duration of the HTTP requests / responses including all redirections in seconds or milliseconds

Total Duration

absolute duration of the complete processing (HTTP request and data download) in seconds or milliseconds

This is the default value.

Time Unit

The time unit to use for durations.

Milliseconds

All durations will be shown in milliseconds.

This is the default value.

Seconds

All durations will be shown in seconds. This will result in decimal numbers for the probe result if a duration is selected as statistical value.

Content Type

Specify the content type that will be accepted from the server.
Default is */* which means that any content type will be accepted.

Return Values

>=0

Selected statistical value.
The message field contains detailed information about download size and the durations of each step.

-1

An error has occurred.

List of possible error conditions

- IOException
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.

HttpStatus

Description

This probe checks http or https Web Pages with or without authentication (i.e. user and password).

Recommended Schedule

Approx. 2 min

Parameters

Http Codes

The comma separated list of http codes that result in the ok return value, use X as digit wildcards like 2XX or 30X.

The default setting 1xx, 2xx, 3xx covers all "good" HTTP codes.

You can also use regex, e.g. 1.. or 2.*, 3.*. The string will be split at the comma before the resulting regex(es) are analyzed.

Search String

Optional: Case sensitive search string. Specify a search string the probe searches in the http(s) output. In the case the search doesn't return a result the probe returns 0.

Address Suffix

Enter the Address suffix that should be added to the base address given in the subsystem.

Content Type

Specify the content type that will be accepted from the server.
Default is */* which means that any content type will be accepted.

Return Values

1

The HTTP request returned one of the expected HTTP codes. If a search string was specified, it was found in the body of the HTTP response.

0

The HTTP request either returned an unexpected HTTP code or the search string (if any) was not found in the response. Check the message field for details.

-1

An error has occurred.

List of possible error conditions

- IOException
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.

Prometheus

Description

This probe can exactly scrape one metric of a prometheus exporter. Such as those that are delivered with containers.

Recommended Schedule

Depends on how often the metrics are provided by the prometheus exporter, e.g. once every minute.

Parameters

Metric Pattern

The info for the parameter can be derived from the prometheus exporter website. To match one single entry, specify the full prometheus metric in here. "*" can be used as wildcard. This is usefull

for metrics that contain changing numbers e.g. for versioning or in case multiple metrics should be returned. In this case for every line that matches the given Metric Pattern, one sample will be returned. Usually the parameter consists of a metric and labelkey-value pairs. The Value after the label and the Timestamp must not be part of the parameter.

Example 75. Example for prometheus metric

```
collectd MBeanMonitor_gauge{MBeanMonitor="MBeanMonitor.WebSphere.GCDDS.ConnectionPoolStats.C  
onnectionHandleCount",instance="cpe-prod-release-ibm-dba-contentservices-69f7dbc687-47njz"}  
0 1579783196952
```

The example is of this format:

Metric{labelKey1="labelValue1", labelKey2="labelValue2", ...} Value Timestamp

Return Values

Any value

Value that is given by the exported metric.

Rest

Description

This probe parses JSON responses from REST APIs.

Recommended Schedule

Approx. 15 min

Parameters

Address Suffix

Optional. Specify the suffix that should be appended to the address from the related Url subsystem.

Example 76. Address Suffix

```
/ibmmq/rest/v1/admin/qmgr/QM1/queue/Q1?status=*
```

Http Method

Required. Specify the HTTP method that should be used. Default is `GET`.

Request Body

Optional. Specify the request body that should be sent with the request.

Authentication Header

Optional. Specify the name of the request header that should be used to send the authentication token.

Authentication Token

Optional. Specify the authentication token that should be used for the request.

If either `Authentication Header` or `Authentication Token` is not specified, the probe will only use the credentials specified in the related Url subsystem.

Value Json Path

Optional. Specify the JSON path that identifies the value property in the response. The path must point to a numeric property.

The format of the path follows the JsonPointer specification (<https://datatracker.ietf.org/doc/rfc6901/>).

Example 77. Value Json Path

```
/queue/0/status/currentDepth
```

Search String

Optional. Specify a string to search in the response.

Return Values

>= 0

If `Value Json Path` is specified (with or without `Search String`), the probe returns the value identified in the JSON response.

If `Value Json Path` is not found or does not point to a numerical value, an error is returned.

If only `Search String` is specified, the probe returns `1` if the text is found in the response or `0` if the text is not found

If neither `Value Json Path` nor `Search String` is specified, the probe returns the HTTP response code as value.

-1

An error has occurred.

List of possible error conditions

- `IOException`
 - An IO exception has occurred while processing the HTTP request. More information can be found in the stack trace shown in the error field.
- JSON path does not match

- The Value `Json Path` either does not point to a numeric value or does not match at all.
- JSON could not be parsed
 - The HTTP response could not be parsed as JSON string.

Subsystem Type WindowsEventlog

WindowsEventlog

Description

The probe configuration for Windows Eventlog monitoring contains filter definitions that control which events are selected and which are suppressed (discarded).

All events matched by the Select filter will be selected for processing. All other events will be ignored (discarded). If the Select filter is empty, all events will be selected for processing. The Suppress filter is applied to all events that are selected by the Select filter. Furthermore the output of the probe can be limited with flow limiter and duplicate detection possibility.

NOTE

Technically it is possible to setup several probes for the same logfile using different setting for flow limiter, duplicate detection etc. - Logically this does not make sense and therefore it is not recommended.

Recommended Schedule

In fact, the logfile probe does not need a schedule, since the probe will continuously check the logfile for new entries. This is just a placeholder in this case.

Parameters

Select Filter

Optional: Defines the entries in the event logfiles that will be monitored. If empty all entries will be monitored.

Suppress Filter

Defines the monitored entries that will be discarded. E.g. harmless entries.

Filter format

The filter format is based on structured XML queries.

The complete format is described here: [https://msdn.microsoft.com/en-us/library/windows/desktop/dd996910\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/windows/desktop/dd996910(v=vs.85).aspx)

You can group filters with parentheses. The key words `and` and `or` are supported as well.

You don't have to enter the full XML shown in the reference page. Only the inner part of the filter needs to be entered.

Suppose you want to suppress all `Informational` events from the `Application` log:

- define the subsystem for the `Application` log from Type `WindowsEventlog`
- define a probe configuration with the following settings:
 - Select filter: leave empty
 - Suppress filter: `Level = 0 or Level = 4`

This will create the following complete filter definition "under the hood":

```
<Select Path="Application">
  *
</Select>
<Suppress Path="Application">
  *[System[Level = 0 or Level = 4]]
</Suppress>
```

How to filter by...

eventid

`EventID = nnnn` where `nnnn` is the eventid as shown in the Event Viewer

eventtype (severity)

`Level = n` where `n` is the numerical representation of the level shown in the Event Viewer

numerical value	Value shown in Event Viewer	Severity
0	Undefined	HARMLESS
1	Critical	FATAL
2	Error	ERROR
3	Warning	WARNING
4	Information	HARMLESS
5	Verbose	will be discarded

source

`Provider[@Name = 'xxx']` where xxx is the source as shown in the Event Viewer

Examples

Example 78. Simple filter

```
Level = 1 or Provider[@Name = 'SceCli']
```

This filter will match:

- all events with Event Type `Critical`
- all events with Event Source `SceCli`

Example 79. More complex filter combination

```
Level = 1 or Level = 2 or (Provider[@Name = 'TermDD'] and EventID = 50) or  
Provider[@Name = 'W32Time'] or Provider[@Name = 'Print']
```

This filter will match for:

- all events with Event Type `Critical`
- all events with Event Type `Error`
- all events with Event Source `TermDD` and Event ID 50
- all events with Event Source `W32Time`
- all events with Event Source `Print`

Return Values

As the sample value reflects the severity detected in the event log, the following evaluation is recommended:

value == ...	set severity to...
10	HARMLESS
20	WARNING
30	CRITICAL
40	FATAL

Subsystem Type Wmi

WmiQuery

Description

Queries the specified values from a Windows system via WMI connection.

Recommended Schedule

Parameters

Query

The WMI query (see official documentation).

Return Values

1

WMI query was successful. One sample per result row is created. The result row content can be found in the message.

List of possible error conditions

In case of any error the value is -1, the error text is the name of the error occurred and the message is a description of the error. Conditions may be as follows. * The connection could not be established. * The user credentials are not valid. * The user is not allowed to query the information. * The WMI query is not valid.

Required database permissions

The following tables show the database permissions required by each probe, grouped by subsystem.
All probes only require READ access to the listed tables.

Subsystem ContentPlatformEngine

Probe	Permissions	Note
ContentSearchServicesIndexingErrorsProbe	INDEXREQUESTS	
ContentSearchServicesIndexRequestsProbe	INDEXREQUESTS	
IccMailInstancesProbe	ClassDefinition, Generic	
IccMailObjectsProbe	ClassDefinition, DocVersion	
ObjectsNotStoredFinallyProbe	CONTENTQUEUE	
SubscriptionRetryErrorProbe	QUEUEITEM	

Probe	Permissions	Note
ContentSearchServicesIndexingErrorsProbe	INDEXREQUESTS	
ContentSearchServicesIndexRequestsProbe	INDEXREQUESTS	
IccMailInstances	Generic, ClassDefinition	
IccMailObjects	DocVersion, ClassDefinition	
ObjectstoreStorageAreaInformationSqlProbe	StorageClass, ClassDefinition	
ObjectstoreStorageAreaStatusSqlProbe	StorageClass, ClassDefinition	

Subsystem Database

These probes can be configured for the DB2, MSSQL and Oracle subsystems as well.

Probe	Permissions	Note
CustomDatabaseQueryProbe		As the SELECT statement is a probe argument, the required permissions depend on the given SELECT statement. There are no default database permissions required by this probe.
DatabaseActiveQueryCountProbe	DB2 One of the following authorizations is required: • SELECT privilege on the MON_CURRENT_SQL administrative view • CONTROL privilege on the MON_CURRENT_SQL administrative view • DATAACCESS authority • DBADM authority • SQLADM authority • ACCESSCTRL authority • SECADM authority MSSQL sys.dm_exec_requests, sys.databases, sys.dm_exec_sessions, sys.dm_exec_sql_text Oracle v\$sqlsession, v\$sqlstats PostgreSQL pg_stat_activity	
DatabaseConnectionStatusProbe		only performs a database connect
DatabasePerformanceProbe		As the SELECT statement is a probe argument, the required permissions depend on the given SELECT statement. There are no default database permissions required by this probe.

Subsystem Datacap

Probe	Permissions	Note
DatacapPagesProcessed	queue, qstats, taskstats	
DatacapPagesQueued	queue, qstats, tmbatch	Oracle

Subsystem Db2

These probes are available for all subsystems with a DB2 database component.

Probe	Permissions	Note
Db2TablespaceFreeProbe	SYSIBMADM.SNAPTbsp_PART	
Db2TablespaceStatusProbe	SYSIBMADM.SNAPTbsp_PART	
Db2TablespaceUsedProbe	SYSIBMADM.SNAPTbsp_PART	
Db2DatabaseStatisticProbe	One of the following authorizations is required: • EXECUTE privilege on <code>MON_GET_SERVERLIST</code> and <code>MON_GET_DATABASE</code> • DATAACCESS authority • DBADM authority • SQLADM authority	
Db2TransactionLogStatisticProbe	One of the following authorizations is required: • EXECUTE privilege on <code>MON_GET_SERVERLIST</code> and <code>MON_GET_TRANSACTION_LOG</code> • DATAACCESS authority • DBADM authority • SQLADM authority	

Subsystem ImageServices

Probe	Permissions	Note
IndexDatabaseAvailabilityProbe		only performs a database connect

Subsystem LibraryServer

Probe	Permissions	Note
NetSearchExtenderDiskSpace	DB2EXT.TTEXTINDEXES	only supported for DB2
NetSearchExtenderError	DB2EXT.TTEXTINDEXES	only supported for DB2
ResourceManagerHeartbeat	ICMSTRESOURCEMGR	only supported for DB2 and Oracle
ResourceManagerWebStatus	ICMSTRESOURCEMGR, ICMSTRMACCESSTYPES	only supported for DB2 and Oracle

Subsystem Mssql

These probes are available for all subsystems with an MSSQL database component.

Probe	Permissions	Note
MssqlDatabaseSizeProbe	sys.database_files	
MssqlDatabaseStatusProbe	sys.databases	
MssqlDataspaceUsedPercentageProbe	sys.database_files	
MssqlDataspaceUsedProbe	sys.database_files	
MssqlLogspaceUsedPercentageProbe	sys.database_files	
MssqlLogspaceUsedProbe	sys.database_files	
MssqlNumberOfProcessesProbe	sys.sysprocesses, VIEW SERVER STATE	

Subsystem ObjectStore

Probe	Permissions	Note
ObjectstoreInfoSqlProbe	StorageClass, ClassDefinition, DocVersion	

Subsystem Oracle

These probes are available for all subsystems with an Oracle database component.

Probe	Permissions	Note
OracleDatafileAvailableProbe	sys.dba_data_files	
OracleFreeTablespaceProbe	sys.dba_free_space	
OracleNextExtendProbe	sys.dba_tablespaces, sys.dba_tables, dba_free_space, sys.dba_indexes, sys.dba_clusters, sys.dba_rollback_segs, sys.dba_segments, v\$parameter	
OracleNonActiveRedologsProbe	v\$log	
OracleRollbackSegmentOnlineProbe	sys.dba_rollback_segs	
OracleTablespaceAvailableProbe	sys.dba_tablespaces	
OracleUserAccountStatusProbe	dba_users	

Subsystem ResourceManager

Probe	Permissions	Note
ResourceManagerServices	RMVERSION, RMCONFIGURATION	only supported for DB2 and Oracle
ResourceManagerVolumeSpace	RMVOLUMES	only supported for DB2 and Oracle

Special permissions needed for probes

The following tables lists probes that do need special, mostly administrative/root permissions to work properly or will be limited if executed under a non-administrative account.

NOTE

In the following the term "[the] account" means the account/user that is used to execute the agent's main java process.

Subsystem Cebi

Probe	Note
CebiBatchStatus	The account must have access read access to the given directories and the *.err files in these directories. It must also have access to the transact.dat files in the directories.
CebiProcesses	The account must have the permission to list the relevant CEBI Java process via WMI (MS Windows) or ps (AIX, Linux).
CebiStatistics	The account must have the permission to read CEBI's end-of-day file of the configured batches or all batches.

Subsystem Content Collector

Probe	Note
ContentCollectorServiceStatus	The account must have the permission to read process details via WMI (MS Windows).

Subsystem DB2

NOTE

For special database permissions see the chapter "Required database permissions".

Subsystem Host

NOTE

- traceroute on AIX and Linux: Normally you have to be root to be able to execute these commands and get the necessary data for monitoring.
- tracepath on Linux: tracepath is an alternative to traceroute especially created to allow non-root users to trace routes to hosts. Probes will try to execute tracepath first and switch to traceroute in case tracepath could not be executed.
- ping on AIX and Linux: On some installations ping can only be executed as root as it is not in the standard path of a non-root user.

Probe	Note
CenteraStatus	The account must have the permission to execute c-ping or CenteraPing.
CpuUsagePerProcess	Only processes the account can list via WMI (MS Windows) or ps (AIX, Linux) can be monitored.
Custom	The account must have the permission to execute the given command.
Diskspace	The account must have the permission to access the to be monitored disks and filesystems. On MS Window the account must have the privilege to read the information via WMI.
FileCount	The account must have read permission for the directories and files in these directories.
MemoryUsagePerProcess	Only processes the account can list via WMI (MS Windows) or ps (AIX, Linux) can be monitored if not executed with administrative privileges.
NetworkPing	The account must have the permission to execute the ping command.
NetworkRouting	The account must have the permission to execute traceroute (AIX), tracepath or traceroute (Linux), or tracert (MS Windows).
PortCheck	The account must have the permission to execute ss (AIX, Linux) or netstat (MS Windows).
ProcessCount	Only processes the account can list via WMI (MS Windows) or ps (AIX, Linux) can be counted.
Swapspace	On MS Window the account must have the privilege to read the information via WMI.

Subsystem lcc4Sap

Probe	Note
lcc4SapProcess	Only processes the account can list via WMI (MS Windows) or ps (AIX, Linux) can be counted. On MS Windows the account must also have the permission to read details of the ICCSAP service process via WMI.
lcc4SapServerStatus	The account must have the permission to execute archadmin. The account must also have the permission to read the configured INI-file of lcc4Sap.

Subsystem Image Import

Probe	Note
ImageImportBatchStatus	The account must have read access to the given directories and the *.err files in these directories. It must also have access to the transact.dat files in the directories.
ImageImportProcesses	Only processes the account can list via WMI (MS Windows) or ps (AIX, Linux) can be counted. On MS Windows the account must also have the permission to read details of the HPIIService or MRIIService service process via WMI.
ImageImportStatistics	The account must have the permission to read HPII/MRII end-of-day files of the configured batches or all batches.

Subsystem ImageServices

Probe	Note
all probes	The account must have the permission to successfully execute programs and scripts located in <image services install dir>/bin/. It also must have read access to check the existence of the MKF databases. On MS Windows the account also must have the permission to read the list of services via WMI.
ElogFileExistence	The account must have read access for the given ImageManager log file aka elog.

Subsystem LibraryServer

Probe	Note
NetSearchExtenderDiskSpace	The account must have the permission to access the working and index directories defined in the given tablespaces.
NetsearchExtenderProcesses	The account must have the permission to execute ipcs (AIX, Linux), ps (AIX, Linux), and on MS Windows the permission to read details of the DB2EXT service process via WMI.

Subsystem Logfile

Probe	Note
all probes	The account must have read access to the given log files and the directories they are in.

Subsystem MS SQL

NOTE | For special database permissions see the chapter "Required database permissions".

Probe	Note
MSSQLProcesses	The account must have the permission to read the list of services via WMI (MS Windows) and read the details of the MS SQL services via WMI (MS Windows).

Subsystem Objectstore

Probe	Note
all probes	The account must have read access to the given CSS directory, the CSS configuration, and the CSS error file.
ContentSearchServicesServerStatus	The account must have the permission to execute the adminTool.sh (AIX, Linux) and on MS Windows the permission to read details of the CSS service via WMI (MS Windows).

Subsystem OnDemand

Probe	Note
FullTextSearchServerStatus	The account must have the permission to execute the adminTool.sh (AIX, Linux) and on MS Windows the permission to read details of the CSS service via WMI (MS Windows). The account must have read access to the given FTS directory, the FTS configuration, and the FTS error file.
OnDemandPingStatus	The account must have the permission to execute arsockd from <ondemand install dir>/bin/.
OnDemandPingTime	The account must have the permission to execute arsockd from <ondemand install dir>/bin/.
OnDemandServiceStatus	The account must have the permission to read the list of services via WMI (MS Windows) and read the details of services via WMI (MS Windows).

Subsystem Oracle

NOTE For special database permissions see the chapter "Required database permissions".

Probe	Note
OracleProcesses	The account must have the permission to execute ps (AIX, Linux), and the lsnrctl command. The account must have the permission to read the list of services via WMI (MS Windows) and read the details of the Oracle services via WMI (MS Windows).

Subsystem Spectrum Protect

Probe	Note
all probes	The account must have the permission to execute the dsmadm command from <spectrum protect install dir>/bin/.

Subsystem Windows Event Log

Probe	Note
all probes	The account must have the permission to read the MS Windows Event log for the given subsystems. Especially access to the Security subsystem needs administrative permissions.

Subsystem WMI

Probe	Note
all probes	The account must have the permission to read the results for the given WMI (MS Windows) queries.

Appendix A: Copyright notice

IBM Enterprise Content Management System Monitor

© Copyright CENIT AG 2000, 2026, © Copyright IBM Corp. 2005, 2026 including this documentation and all software.

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual, or otherwise, without prior written permission of the copyright owners. The copyright owners grant you limited permission to make hard copy or other reproductions of any machine-readable documentation for your own use, provided that each such reproduction shall carry the original copyright notice. No other rights under copyright are granted without prior written permission of the copyright owners. The document is not intended for production and is furnished as is without warranty of any kind. *All warranties on this document are hereby disclaimed including the warranties of merchantability and fitness for a particular purpose.*

NOTE

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Appendix B: Notices

This information was developed for products and services offered in the U.S.A.

IBM® may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan, Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
J46A/G4
555 Bailey Avenue
San Jose, CA 95141-1003
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs.

Appendix C: Trademarks

IBM, the IBM logo, and ibm.com® are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.

Java™ and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Microsoft, Windows, and Windows NT are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others



Product Number: 5724-R91

Printed in USA

SC27-9242-09