FSM Monitoring Guide FileNet P8

FileNet System Monitor 3.7.0

FileNet Corporation

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List of Screenshots

Chapter 1. Copyright Notice

FileNet System Monitor

(September, 2006)

Trademarks

Notice

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Chapter 2. Notices

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Chapter 3. About this document

Who Should Read This Guide

The target audience for this guide are system managers who use FileNet.

Users of the guide should have some knowledge of the Unix and/or Winows operating system and FileNet.

List of documents

FileNet System Monitor CALA Guide

Datatypes that can be processed by the FSM CALA

FileNet System Monitor Monitoring Guide

Description of all monitors contained in FileNet System Monitor

FileNet System Monitor Task Guide

Description of all tasks contained in FileNet System Monitor

FileNet System Monitor Users Guide

Installation guide

FileNet System Monitor Release Notes

Description of changes and bugfixes

General information

Where you find this guide

You can find this documentation on the FSM installation CDROM in the following folder:

UNIX: `<Mount point>/INSTALL/docs`

Windows: `<Drive letter>:\INSTALL\docs`

Typeface Conventions

The guide uses several typeface conventions for special terms and actions. These conventions have the following meaning:

code Keywords and code examples occur like this

`varname` Variable names occur like `this`

`filename` File names occur like `this`

`constant` Constants and names of tasks, monitors etc. appear like `this`

command Command names appear like **this**

parameter Parameters and options for commands apperar like *this*

userinput Values that th user must provide appear like **this**

Computer output Output from programs appears like this

guilabel Names of windows, dialogs, and other controls appear like this

Programlistings appear like this:

```
001  # a program listing
002  echo "This is an example program listing (shell script) with nothing bu ↙
...  t an extremly long echo command"
003  exit 0
```

> **Note:** The character ↙ at the end of a line in a computer output or program listing shows, that the line has been wrapped and is continued in the next line.

Contacting FileNet Support

We are very interested in hearing from you about your experience with the product. We welcome your suggestions for improvements.

If you encounter difficulties with the FSM please contact the FileNet support (http://www.filenet.com).

Chapter 4. Overview FSM Monitoring

Overview

The FSM product (FileNet System Monitor) contains the FileNet P8 monitoring collections.

Monitoring components

The product defines 49 monitors for different parts of FileNet P8 environments. More than 150 FileNet P8 parameters / values can be monitored.

- FileNet PE Core Components (Services, Processes)
- FileNet Listener API Monitors
- FileNet PE Queue and Roster
- FileNet PE PPM and Router
- FileNet PE Memory and Cache Usage
- FileNet PE User (Logon / Logon errors) and MKF statistics
- FileNet PE MSSQL Availability
- FileNet PE MSSQL Details
- FileNet PE Oracle Availability
- FileNet PE Oracle Details
- FileNet CE Core Components (Services, Processes, Apache)
- FileNet CE Router
- FileNet CE File and Object store
- FileNet CE MSSQL Availability
- FileNet CE MSSQL Details
- FileNet CE Oracle Availability
- FileNet CE Oracle Details
- FileNet AE Core Components (Services, Router)
- CALA (FSM CALA) Availability
- FileNet PE ELOG logfile management
- FileNet CE and PE Java, RMI, PPM and Router logfiles management

Monitoring Collections

FileNet Process Engine Monitors

The FileNet Process Engine Monitors collection contains monitors that can only be run be run on Process Engine servers. The collection contains database monitors for Process Engine

database as well as monitors that check different parameters provided by **vwtool**. The Component Status monitor can be run on any server of a Process Engine System.

FileNet Content Engine Monitors

The FileNet Content Engine Monitors collection contains monitors that can only be run be run on a Content Engine server. The collection contains mainly database monitors for the Content Engine databases (Object stores).

Overview of Monitor error codes

The numeric monitors return a negative value if an error occurs. The string monitors return error values starting with "ERROR_".

There are seven main error values for the monitors. If one of these general values is returned, you can find more information about the error in the additional information that is available in the message text of the monitoring event.

The following table gives an overview of the main error values. The extended error descriptions can be found in the sections below.

Return value (string / numeric)	**Description**
`ERROR_usage` / `-10`	The monitor configuration is incorrect. Check the parameters and redistribute the monitor profile.
`ERROR_logctlcmd_error` / `-20`	CALA related errors
`ERROR_installation` / `-30`	The target does not support the function of the monitor or is not configured correctly.
`ERROR_rdbms` / `-40`	A database related error occurred.
`ERROR_application` / `-50`	This value is returned if a FileNet related error occurred, e.g. if the FileNet system is down.
`ERROR_mkfdb` / `-60`	An MKF database related error occurred.
`ERROR_system` / `-70`	Any system related error.
`ERROR_itm` / `-99`	Internal ITM error. See event details for more information.

The following table lists the error values in ascending order. The table also contains information about the additional information that is available in the message text of the monitoring event for some error conditions.

The following tables list the detailed error descriptions for the general error values.

ERROR_usage / -10

Extended error message	**Description**
<variable> not specified	A required variable is missing.

Extended error message	Description
<variable> <value> not valid <variable> <value> no directory	The specified value for variable is not valid (out of range, misspelled etc). The second form if this message occurs if the monitor requires a directory but validation failed for the given value.
general usage (Usage: <script> <parm>)	The monitor parameters are incorrect, e.g. an invalid number of parameters was specified or a required parameter is missing.

ERROR_logctlcmd_error / -20

Extended error message	Description
no output file	The execution of **logctlcmd** did not create an output file.
operation failed	The execution of **logctlcmd** *`status`* returned with exit code 0 but the status report contains the text `operation failed`. This can be caused by several conditions: network problems, response from components takes too much time...
port in use	The port used for communication between **logctlcmd** and **logctlsrv** is already in use. This error can occur if you distribute several monitors to one target and more than one of these monitors starts at the same time. In this case, all monitors will use the port specified in the configuration file. You can avoid this by specifying different port numbers as parameter for each monitor (see detailed monitor description).
no "outbound queue" found for <comp>	The CALA status report is incomplete and contains no `outbound queue` information for the specified component. The file might be truncated because the file system is full or due to an internal CALA error.
unknown error	The execution of **logctlcmd** returned a return code <>0 but none of the conditions described above apply. Try to run **logctlcmd** *`status`* manually or run the corresponding task and check for errors.

ERROR_installation / -30

Extended error message	Description
Command not found: <command>	A FileNet command could not be found. This can be caused by invalid configuration of the Plus Module or by an incomplete FileNet installation.
Environment file not found: <filename>	The environment file for the Plus Module could not be found.
<variable> not set	The variable is missing in the environment file.
Database type <type1> not valid, script requires <type2>	A database monitor was distributed either to a non-database server to a server that host a different type of database.
Invalid platform: <interp>	The monitor was distributed to a platform that it does not support. Some monitors can only be run on Windows platforms.

Extended error message	Description
No storage library defined	A monitor was distributed to a server that has no storage libraries (OSAR or MSAR).
Server is no PPM server	The monitor was distributed to a server that is not configured as a PPM server.

ERROR_rdbms / -40

Extended error message	Description
<command> did not return any result	The SQL tool did not return a result, the output file is empty.
<command> returned invalid result: <result>	The SQL tool returned an unexpected result. It does not contain the requested data or more than one row was selected.
Database error: <errortext>	A database error occurred. errortext is the original error message returned by the SQL tool.
Internal error executing SQL statement: <sqlstatement>	The execution of an SQL statement failed.
Database is currently starting or stopping	The RDBMS system is currently being stopped or started.
Database not running	The RDBMS system is down.
Login to database <dbname> with user <user> failed	The connect to the requested database failed. The database name might be wrong or the environment file contains an invalid database user and / or password.

ERROR_application / -50

Extended error message	Description
<command> did not return any result	The FileNet tool did not return a result, the output file is empty.
<command> returned invalid result: <result>	The FileNet tool returned an unexpected result that does not contain the requested data.
<prog> not running	The FileNet system or a specific program is currently not running.
Service <service> not running	A required Windows service is not running. This may be the FileNet service
Directory not found: <directory>	A directory that is required for correct monitor execution does not exist.
File not found: <file>	A file that is required for correct monitor execution does not exist.
Error analyzing <file>	The given file does not contain the expected information.
Error checking RMI registry	The tool that checks the RMI registry returned an error.

ERROR_mkfdb / -60

Extended error message	Description

Extended error message	Description
Invalid MKF database type: <type>	An invalid MKF database type was specified. Valid MKF database types are Trans, Sec and Perm or the numeric equivalent (1 for Perm, 3 for Trans, 11 for Sec).
MKF database file not found: <file>	The file for a specific MKF database type does not exist or cannot be read.
MKF database not running	The required MKF database(s) is (are) not running.
MKF database type <type> not available on server <server>	The monitor requires an MKF database that is not available on the monitoring target.

ERROR_system / -70

Extended error message	Description
Command not found: <command>	A tool could not be found.
Tools directory not found: <directory>	The directory for the tools could not be found.
Cannot change to directory <directory>	The monitor cannot access the given directory.
Cannot convert <file> to UNIX format	The conversion of the given file to UNIX format failed.
Cannot create temporary file <file>	The given file cannot be created. This can happen if the filesystem is full or due to access restrictions.
Internal error while processing file <file>	An internal error occurred.
Product name <product> not valid	The monitor was started for a product for which it is not valid. This is an internal error.

Chapter 5. FileNet Process Engine Monitors

ApplicationServerMonitoring

Description

This monitor checks for processes (or Windows Services), that indicate a running Application server. Additioanally the monitor checks whether a specific WebPage of the Server can be loaded (HTTP load status OK).

Monitoring Frequency

No default schedule

Parameters

Windows Service or UNIX process

Comma separated list of Windows services (use the Display name of the service) or UNIX processes

Port

Port of the Application server.

Web page

Full qualified web page, that should be loaded to verify Application server status

Return Values

ok

Processes / Services are running, specified Web page can be accessed (optional)

not_ok

At least one process / service is not running of the Web page cannot be accessed (optional). Check detailed output for more detailed information.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage
  - Variable not specified

    - Component not installed

- ERROR_installation
    - Command not found
    - Environment file not found
    - Environment variable not set
    - Server not configured for System

- ERROR_system
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Cache Record Size

Description

This monitor returns the size of a specified record in the cache. The cache contains pre-build records that the Process Engine software uses to read rows from the database.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Isolated Region

Number of isolated region to check.

Record Name

Comma-separated list of record types whose cache size is monitored, (e.g. **`VWObject,Inbox`**) or `ALL_RECORDS` (default). The record name is case-insensitive.

Return Values

>=0

Size of largest record in cache. The sizes for all records are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - Variable not valid
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Server not configured for System

    - Server is no PPM server

- -50 (application error)
    - Program not running
    - Service not running
    - Error executing tool

- -70 (system error)
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Component Status

Description

This monitor checks the status of one, a list or all components on a specific server of a Process Engine system.

The checks that are performed depend on the specified component:

IS	analyze output of **initfnsw** *status*
PPM	check if PPM is registered in the RMI registry check if Java process is running
ROUTER	check if router is registered in RMI registry check if corresponding PPM is registered in the RMI registry check if Java process is running
WEB	check if the processes and Services specified during configuration of the Web Application Server are running
EPROCESS	check if the Service `VWService` is running
CM	check if Component Manager is running (CM queues will be checked automatically)
QUEUE	check if Component Manager is running
PA	check if Process Analyzer is running

Note: Due to size limitations, this monitor is not available for Tivoli Classic Monitoring. Use the component specific monitors described below instead.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Component

Comma-separated list of component names or `ALL_COMPONENTS` (default)

Valid component names are: `IS`, `PPM`, `ROUTER`, `WEB`, `EPROCESS`, `CM`, `PA`

Return Values

ok

All specified components are running.

not_ok

At least one of the specified components is stopped. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage
  - Variable not specified
  - Component not installed

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Server not configured for System

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

FileNet WebApplication Status

Description

Hint: This chapter is written for JMX experienced users. For an introduction to JMX and further information about necessary parameters check the chapter "Preparing JMX Support" of the installation guide.

This monitor checks the status of deployed FileNet Web Applications. It connects to an Application server and gathers information via JMX. The monitor checks the overall status of the Web Application and compares pre-defined parameter sets of the Application server sets against thresholds. The following servers are supported:

- JBoss 3.x
- JBoss 4.x
- WebLogic 7
- WebLogic 8.1
- WebSphere 6.0.1

Where to find the connection data:

The first argument of the argument list is called "Connection Data". This parameter needs several information about the application server. The following steps can help finding the attributes.

- JBoss 3.x:

  The **application name** is the name of the application which shall be monitored. So it is the name of the war-file / war-directory of the Web Application. For example Workplace or RecordsManager.

- JBoss 4.x:

  The **application name** is the name of the application which shall be monitored. So it is the name of the war-file / war-directory of the web application. For example Workplace or RecordsManager.

- WebLogic 7:

  Weblogic 7 requires the information domain and server. These parameters can be found in the WebLogic administrative console in the hierarchy tree. The **domain** is the highest level in this tree hierarchy (globe-symbol). Expand the <domain> -> Deployments -> Web Application Modules. The **deployed applications** are listed here. The monitor can check only one application at the same time. Open the desired application, open the tab "Deploy". In the displayed table you'll find a column called "target" which contains the **server**.

- WebLogic 8.1:

  Weblogic 8.1 requires the information domain and server. These parameters can be found in the WebLogic administrative console in the hierarchy tree. The **domain** is the highest level in the tree hirarchy (globe-symbol). Expand the <domain> -> Deployments -> Web Application Modules. The **deployed applications** are listed here. The monitor can check only one application at the same time. Open the desired application, open the tab "Deploy". In the displayed table you'll find a column called "target" which contains the **server**.

- WebSphere 6.0.1:

  WebSphere 6.0.1 needs three hierarchy depending informations. Server, cell and node. These can be found in the WebSphere administrative console. Expand "Server", click "Application Server". In the right frame all available application **servers** are shown. In one column of this table the **version** is shown. Klick on the server, where the application is deployed on. Click the tab "Runtime". There the **node** and **cell** are listed. To find the application name and the application war-file expand "Applications" in the navigation frame and click on "Enterprise Applications". Click on the **application name**. Click on the link "Webmodules". It is on the bottom right of the right frame. There is the **name of the war-file**. Click it to get the URI. The **ThreadPool IDs** can be found out with the JMX Task by entering "#ThreadPool" as search criteria.

Monitoring Frequency

No default schedule

Parameters

PE_SystemName (Mandatory)

Name of the Process Engine System.

Server Connection Data (case dependent)

This parameter is different for each Application server. Several parameters are separated with semicolon.

- JBoss 3:

  <ApplicationName>;<j2eeName>

  Hint: j2eeName is "Local" by default.

  Examlpe: Local;Workplace

- JBoss 4:

  <ApplicationName>;<j2eeName>

  Hint: j2eeName is "Local" by default.

  Example: Local;Workplace

- WebLogic 7:

  <Domain>;<Server>;<ApplicationName>

  Example: myDomain;myServer;Workplace

- WebLogic 8:

  <Domain>;<Server>;<ApplicationName>

  Example: myDomain;myServer;Workplace

- WebSphere 6:

  <Server>;<Node>;<Cell>;<ApplicationName>;<ApplicationsWarFileName>;<Version>;↩

  <MessageListenerThreadPool-ID>;<ORBThreadPool-ID>;<WebcontainerThreadPool-ID>

Hint: The ThreadPool IDs are created dynamically during installation and will vary, depending on the installation.

Example:
server1;w2kfsmenNode01;w2kfsmenNode01Cell;Workplace;app_engine.war;6.0.0.1;↩
1154934251809;1154934251804;1154934251805

Thresholds (case dependent)

The results from the monitor requests are compared against these thresholds. Some of the thresholds can be given as absolute value or a relative value (percentage) to the Application server's maximum value. If no value shall be used for comparison, an underscore "_" can be used. So the value from the server will be taken as threshold.

To use the percentage option give the number with a 'p' as prefix. For example "p80" to use 80 % of the Application server's maximum as threshold. Attributes which have this option are prefixed with a (p) in the list below.

Warning: DO NOT USE "_" and the p-prefix for parameters which are not marked as p-compatible. These attributes can only compare against absolute values.

Hint: The heap size's unit is byte. So the threshold usually is a very huge number.

- JBoss 3:
  <FreeHeap>;<TotalHeap>;<(p)MaximumQueueSize>;<(p)CurrentThreadsBusy>;↩
  <(p)CurrentThreadCount>;<(p)ActiveSessions>;<(p)MaxActiveSessions>;<ExpiredSessions>;↩
  <RejectedSessions>;<DuplicateSessions>;<(p)ConnectionCount>;<(p)MaxConnectionsInUse>;↩
  <(p)InUseConnectionCount>
- JBoss 4:
  <FreeHeap>;<TotalHeap>;<(p)MaximumQueueSize>;<(p)CurrentThreadsBusy>;↩
  <(p)CurrentThreadCount>;<(p)ActiveSessions>;<(p)MaxActiveSessions>;<ExpiredSessions>;↩
  <RejectedSessions>;<DuplicateSessions>;<(p)ConnectionCount>;<(p)MaxConnectionsInUse>;↩
  <(p)InUseConnectionCount>
- WebLogic 7:
  <FreeHeap>;<TotalHeap>;<(p)ThreadCount>;<OpenSessionsHighCount>;↩
  <OpenSessionsCurrentCount>;<ConnectionsCurrentCount>;<ConnectionsHighCount>↩
- WebLogic8:
  <FreeHeap>;<TotalHeap>;<(p)ThreadCount>;<OpenSessionsHighCount>;↩
  <OpenSessionsCurrentCount>;<ConnectionsCurrentCount>;<ConnectionsHighCount>
- WebSphere 6:
  <FreeHeap>;<TotalHeap>;<HeapHighWaterMark>;<MessageListenerPoolSizeCurrent>;↩
  <MessageListenerPoolSizeHighWaterMark>;<ORBPoolSizeCurrent>;<ORBPoolSizeHighWaterMark>;↩
  <WebcontainerPoolSizeCurrent>;<WebcontainerPoolSizeHighWaterMark>;<LiveSessionsCountCurrent>;↩
  <LiveSessionsCountHighWaterMark>

Return Values

ok

All values passed threshold checking.

not_ok

At least one result did not pass threshold checking.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage
  - Parameters not defined or invalid

- ERROR_installation
  - An error while trying to connect to the server occured

- ERROR_application
  - The Java program returned an error
  - The Web Application was not deployed

FileNet WebApplication Thresholds

Description

Hint: This chapter is written for JMX experienced users. For an introduction to JMX and further information about necessary parameters check the chapter "Preparing JMX Support" of the installation guide.

This monitor checks the thresholds of deployed FileNet Web Applications. It connects to an Application server and gathers information via JMX. It is possible to monitor the value of single values (numeric), compare one single value to a threshold (numeric, alpha numeric). Further on it is possible to compare multiple attributes against a threshold or find the maximum, minimum or build the sum of multiple attributes of the same kind of data.

Monitoring Frequency

No default schedule

Parameters

PE_SystemName (Mandatory)

Name of the Process Engine System.

Object name (Mandatory)

The ObjectName(s) of the MBeans which shall be monitored. If multiple ObjectNames are specified they need to be separated with semicolon. The ObjectName parameter require quotes, because ObjectNames may contain spaces which would lead to a missinterpreting during monitor execution.

Action (Mandatory)

The action that shall be performed. The following actions are valid:

- attribute - To call the MBean’s attribute
- operation - To invoke an MBean’s operation

Action name (Mandatory)

The name of the action that shall be performed. There is a restriction on action names for operations. Only operations beginning with the following prefixes are allowed. This is to prevent a non reading operation from being invoked.

- check...
- find...
- get...
- has...
- is...
- list...

- lookup...

The following prefixes are forbidden

- findOr...

The action names are separated via semicolon (;)

Action names can be given in the following variations:

- <actionname> - single action name
- <actionname1>;::;<actionname1>;::;<actionname1>... - This syntax is used for the analyzation type mode (MIN, MAX, SUM). In this mode many actionnames (1 per request) can be given. Only values having the same action name can be used with this mode. As every ObjectName only can have one action with the action name "actionname1", the delimiters (::) are necessary to differ between the several ObjectNames.
- <actionname>,<operator>,<threshold> - single action name with comparison agains threshold.
- <actionname1>,<operator1>,<threshold1>;<actionname2>,<operator2>,<threshold2> ... - multiple actions with comparison against threshold

If several action names are given for several ObjectNames, they are separated with two colons (::). The delimiter (::) tells the monitor, that the following action name belongs to the next ObjectName.

- <actionnames_objectname1>;::;<actionnames_objectname2>... - multiple actions

  Example: `hitCount,<,2000;memory,>=,4000;::;hitCount,<,3000`

  This request reqires that two ObjectNames are given. Of the first ObjectName the actions hitCount and memory are requested, and compared to their thresholds. 2000 for hitCount and 4000 for memory. The two colons define, that the following action names are used for the next (in this case the second) ObjectName. The second ObjectName will be requested for hitCount, which is compared with 3000.

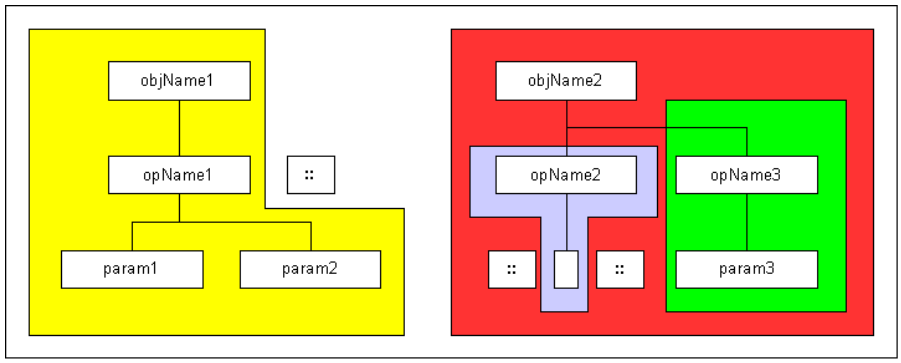
Parameters (Case dependent)

The operation’s parameters, if the action is "operation". Several parameters are separated with semicolon (;). Several parameters for different ObjectNames are separated with two colons(::). The parameters can be numeric or alphanumeric.

Signatures (Case dependent)

The operation’s signatures, if the action is "operation". Several signatures are separated with semicolon (;). Several signatures for different ObjectNames are separated with two colons(::). The signature is the class-type in Java notation. For example "java.lang.Integer" for int.

Example for parameters and signatures with multiple operation calls and multiple ObjectNames:



Example - parameters and signatures

- ObjectNames: "objName1;objName2"
- operation names: "opName1;::;opName2;opname3"
- parameters: "param1;param2;::;::;param3"
- signature: "sig1;sig2;::;::;sig3"

Analyzation Type (Optional)

The analyzation type is used to find the minimun, maximum or the sum of a set of action names with the same name (In this way, the maximum of several UpTime values can be found). This option can only be used, if the same attribute is asked from different ObjectNames. The following options are available:

- MIN - Find the minimum
- MAX - Find the maximum
- SUM - add up all results

Hint: Do not use the MIN, MAX or SUM analyzation type, when running the monitor in threshold comparison mode.

Label (Optional)

The label gives the opportunity to add additional information to the output. It may be used for debugging, but is not necessary to use the monitor.

Return Values

ok

All values passed threshold checking.

not_ok

At least one result did not pass threshold checking.

An error occured

numeric value

If a single value was requested or the analyzation type option is used, a numeric value is returned as result.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage
  - parameters were not defined or were defined not valid
- ERROR_installation
  - An error while trying to connect to the server occured
- ERROR_application
  - The Java program returned an error

FileNet Listener request

Description

The monitor checks FileNet Listener API parameters

Monitoring Frequency

No default schedule defined.

Parameters

Host name to check

Specify a hostname here (unusual) or `localhost` (default)

Listener Application name

Specify a Listener Application here, for instance `Image Services`, `Image Services Resource Adapter`, `Process Engine`, `Content Engine Object Store Service`

JAVA Path

Specify a Java installation path here (unusual) or leave unset (monitor uses the pre-configured Listener Java Path)

Listener threshold (parameter sets)

This parameter defines which Listener paths values will be checked
Each monitor instance contains one or more parameter sets, which are separated by semicolon (';').
Two specific Listener paths exist, that are checked in general: '/<application name>/heartbeat' and
'/<application name>/uptime', which indicate the status and how long the application is running. All other parameter are formatted like:
<Listener path to check<,numeric threshold,<comparison sign> Example: /Image Services/USER/fnsw/dev/1/sec_db0/forupdate,1,<[;next parameter set]
You can list all available Listener paths for the server you want to monitor by executing the
FSM Task/Job: 'Execute/Run Listener request'.

Return Values

ok

None of the checked parameters (Listener path) reached the specified thresholds (multiple parameters checked).

numeric value greater than 0

Numeric result of the (single) checked parameter (Listener path).

not_ok

At least one checked parameters (Listener Path) reached the specified thresholds.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

- ERROR_system
  - Command not found
  - Tools directory not found

Index Database Availability

Description

This monitor checks the availability of the Index Database.

Monitoring Frequency

Default is once every hour.

Parameters

None

Return Values

available

The Index database is available.

unavailable

The Index database is not available.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage
- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Invalid database name
- ERROR_rdbms
  - Sqltool did not return any result
  - Database error
  - Login to database failed
- ERROR_application

    - Error executing database command

- ERROR_system
    - Command not found
    - Tools directory not found
    - Product name not valid
    - Cannot create temporary file

Logged On Users

Description

This monitor returns the number of users actually logged on to the specific FileNet server. This monitor can be used for SLU usage analysis.

Monitoring Frequency

Default is once every hour.

Parameters

FileNet Domain

domain or server to check; default is the local domain

Return Values

>= 0

number of users logged in at selected server or domain

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set

- -50 (application error)
  - Tool did not return any result
  - Tool returned invalid result
  - Program not running

- -60 (MKF database error)
  - Invalid MKF database type

- MKF database file not found
- MKF database not running
- MKF database type not available on server

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Memory Usage

Description

This monitor shows information about memory usage on a PPM server.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Memory Type

Type of memory usage to monitor. Valid values are `allocated` for the total amount allocated by the OS, `used` for the amount of memory that is currently used and `blocks` for the number of OS memory blocks that are allocated.

Return Values

>=0

Memory usage in bytes or blocks

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - Variable not valid
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Server not configured for System
  - Server is no PPM server

- -50 (application error)
  - Program not running
  - Service not running
  - Error executing tool
- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

MKF Non Virgin Blocks

Description

Monitors the percentage of "non-virgin" record blocks in MKF databases.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

DB name

Comma-separated list of MKF database names. Valid values are `Permanent`, `Security` and `Transient` or `ALL` (default).

Return Values

>= 0

Numeric value representing the highest percentage of non-virgin blocks in the specified MKF databases. The additional info contains a list of all specified MKF databases and the respective values.

Suggested thresholds are >85% for a Critical event, >75% for a Warning event and <70% for a Harmless event.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - Variable not valid
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found
- -50 (application error)
  - Tool returned invalid result

- -60 (MKF database error)
  - Invalid MKF database type
  - MKF database file not found
  - MKF database not running
  - MKF database type not available on server
- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Database Size

Description

This monitor checks the database size for the index database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Dataspace

Check size of dataspace (yes / no)

Logspace

Check size of logspace (yes / no)

Return Values

>= 0

Database size in MB. Depending on the selection, this is the size of dataspace or logspace or the total size (dataspace + logspace).

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager

    - Invalid database name

- -40 (database error)
    - Database error
    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Database Status

Description

This monitor checks the database status for the index database

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

None

Return Values

available

The database is in normal processing mode.

unavailable

The database is in an error state. See additional info for the actual state information.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - Database error
  - Database not running
- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Dataspace Used

Description

This monitor checks the amount of used dataspace for the index database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

None

Return Values

>= 0

amount of used dataspace in MB

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Dataspace Used Pct

Description

This monitor checks the percentage of used dataspace for the index database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

None

Return Values

>= 0

Percentage used database space <-> total database space

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Logspace Used

Description

This monitor checks the amount of used logspace for the index database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

None

Return Values

>= 0

amount of used dataspace in MB

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Logspace Used Pct

Description

This monitor checks the percentage of used logspace for the index database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

None

Return Values

>= 0

Percentage used logspace <-> total logspace

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Number Of Processes

Description

This monitor checks the number of processes for the index database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 10 minutes.

Parameters

None

Return Values

>= 0

number of active processes

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Processes

Description

Monitors the MSSQLServer service.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

None

Return Values

up
: The MSSQLServer is running.

down
: The MSSQLServer is not running.

remote
: The MSSQLServer is installed on a remote server.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Invalid platform

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name invalid

DB2 Tablespace Status

Description

This monitor checks status of DB2 tablespaces.

This monitor can only be run on a FileNet Root Index Server or Combined Server (local DB2 Server or DB2-Client installed).

Monitoring Frequency

Default is once every 10 minutes.

Parameters

Tablespace(s)

List of tablespaces (comma or semicolon separated) or 'ALL_TABLESPACES'.

Return Values

ok

All checked tablespaces are in 'normal' mode.

not_ok

At least one checked Ttablespace in not in 'normal' mode. See monitor details for more information.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage
- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System

- Server is no Property Manager
- Invalid database name

- ERROR_database
  - Database error
  - Database not running

DB2 Tablespace Free

Description

This monitor checks the amount (in KBytes or pages) or the percentage of the space free of one DB2 tablespace (depending on the parameter settings).

This monitor can only be run on a FileNet Root Index Server or Combined Server (local DB2 Server or DB2-Client installed).

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Tablespace

Name of the tablespaces.

Result type

Supported values are: percentage, amount_kbytes or amount_pages

Return Values

>= 0

Amount of free space (in KBYtes or pages) or percentage used tablespace (depending on the parameter settings).

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform

    - Invalid database name

- -40 (database error)
    - Database error
    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found

DB2 Tablespace Used

Description

This monitor checks the amount (in KBytes or pages) or the percentage of the space used of one DB2 tablespace (depending on the parameter settings).

This monitor can only be run on a FileNet Root Index Server or Combined Server (local DB2 Server or DB2-Client installed).

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Tablespace

Name of the tablespaces.

Result type

Supported values are: percentage, amount_kbytes or amount_pages

Return Values

>= 0

Amount of used space (in KBYtes or pages) or percentage used tablespace (depending on the parameter settings).

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform

    - Invalid database name

- -40 (database error)
    - Database error
    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found

DB2 Statistic

Description

The DB2 Database Statistic monitor checks any numeric statistic information that the DB2 command tool 'DB2' function 'GET SNAPSHOT for DATASE <DBNAME>' provides. Only 1 parameter can be specified for one instance here. If the specified parameter doesn't exist '-30' is returned, if a aphanumeric value is returned '-99' is returned. Note: Only values that are unique within the DB2 output are allowed. '(' or ')' cannot be used. Please shorten the (unique) parameter strings in this case.

This monitor can only be run on local DB2 Server. The used DB2 command cannot be executed on a system, where only the DB2-Client is installed.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Statistic parameter (parameter sets)

> This parameter defines which DB2 statistic parameter that will be checked. Each monitor instance contains one or more parameter sets, which are separated by semicolon (';'). All other parameter are formatted like:
> <Statistic DB2 parameter to check>,<comparison sign>,numeric threshold
> Example: Log space available to the database,<,1[;next parameter set]

DB2 statistic parameters

Possible statistic parameters are:

- Catalog database partition number
- High water mark for connections
- Application connects
- Secondary connects total
- Applications connected currently
- Appls. executing in db manager currently
- Agents associated with applications
- Maximum agents associated with applications
- Maximum coordinating agents
- Locks held currently
- Lock waits
- Time database waited on locks

- Lock list memory in use
- Deadlocks detected
- Lock escalations
- Exclusive lock escalations
- Agents currently waiting on locks
- Lock Timeouts
- Number of indoubt transactions
- Total Private Sort heap allocated
- Total Shared Sort heap allocated
- Shared Sort heap high water mark
- Total sorts
- Total sort time
- Sort overflows
- Active sorts
- Buffer pool data logical reads
- Buffer pool data physical reads
- Buffer pool temporary data logical reads
- Buffer pool temporary data physical reads
- Asynchronous pool data page reads
- Buffer pool data writes
- Asynchronous pool data page writes
- Buffer pool index logical reads
- Buffer pool index physical reads
- Buffer pool temporary index logical reads
- Buffer pool temporary index physical reads
- Asynchronous pool index page reads
- Buffer pool index writes
- Asynchronous pool index page writes
- Total buffer pool read time
- Total buffer pool write time
- Total elapsed asynchronous read time
- Total elapsed asynchronous write time
- Asynchronous data read requests
- Asynchronous index read requests
- No victim buffers available
- LSN Gap cleaner triggers
- Dirty page steal cleaner triggers
- Dirty page threshold cleaner triggers

- Time waited for prefetch
- Unread prefetch pages
- Direct reads
- Direct writes
- Direct read requests
- Direct write requests
- Direct reads elapsed time
- Direct write elapsed time
- Database files closed
- Data pages copied to extended storage
- Index pages copied to extended storage
- Data pages copied from extended storage
- Index pages copied from extended storage
- Vectored IOs
- Pages from vectored IOs
- Block IOs
- Pages from block IOs
- Physical page maps
- Host execution elapsed time
- Commit statements attempted
- Rollback statements attempted
- Dynamic statements attempted
- Static statements attempted
- Failed statement operations
- Select SQL statements executed
- Update/Insert/Delete statements executed
- DDL statements executed
- Internal automatic rebinds
- Internal rows deleted
- Internal rows inserted
- Internal rows updated
- Internal commits
- Internal rollbacks
- Internal rollbacks due to deadlock
- Rows deleted
- Rows inserted
- Rows updated
- Rows selected

- Rows read
- Binds/precompiles attempted
- Log space available to the database
- Log space used by the database
- Maximum secondary log space used
- Maximum total log space used
- Secondary logs allocated currently
- Log pages read
- Log read time
- Log pages written
- Log write time
- Number write log IOs
- Number read log IOs
- Number partial page log IOs
- Number log buffer full
- Log data found in buffer
- Appl id holding the oldest transaction
- Log to be redone for recovery
- Log accounted for by dirty pages
- File number of first active log
- File number of last active log
- File number of current active log
- File number of log being archived
- Package cache lookups
- Package cache inserts
- Package cache overflows
- Package cache high water mark
- Application section lookups
- Application section inserts
- Catalog cache lookups
- Catalog cache inserts
- Catalog cache overflows
- Catalog cache high water mark
- Workspace Information
- Shared high water mark
- Corresponding shared overflows
- Total shared section inserts
- Total shared section lookups

- Private high water mark
- Corresponding private overflows
- Total private section inserts
- Total private section lookups
- Number of hash joins
- Number of hash loops
- Number of hash join overflows
- Number of small hash join overflows

Return Values

ok

None of the checked DB2 parameters reached the specified thresholds (multiple parameters checked).

numeric value greater than 0

Numeric result of the (single) checked DB2 parameter.

not_ok

At least one checked DB2 parameters reached the specified thresholds.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)/ERROR_usage
  - Variable not specified
  - general usage

- -30 (installation error)/ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Invalid database name

- -40 (database error)/ERROR_database
  - Database error
  - Database not running

- -70 (system error)/ERROR_system
  - Command not found
  - Tools directory not found

Oracle Datafile Available

Description

Checks whether a specified Oracle datafile is available

Monitoring Frequency

Default is once every 20 minutes.

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`**) or `ALL_DATAFILES` to check all datafiles (default)

Return Values

available

All specified datafiles are available.

unavailable

At least one of the specified datafiles is not available. The additional info contains a list of all datafiles that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

    - Invalid database name

- ERROR_rdbms
    - SQL tool did not return any result
    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- ERROR_application
    - Program not running
    - Service not running

- ERROR_system
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Oracle Free Tablespace

Description

This monitor returns the total amount of freespace in Kbyte for all datafiles in the specified tablespace.

Monitoring Frequency

Default is once every hour.

Parameters

Tablespace Name

Tablespace name (e.g. `SYSTEM`)

Return Values

>= 0

Numeric value representing the total amount of freespace in Kbyte.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - SQL tool did not return any result

- SQL tool returned invalid result
- Database error
- Internal error executing SQL statement
- Database is currently starting or stopping
- Database not running
- Login to database failed

- -50 (application error)
  - Program not running
  - Service not running

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not running

Oracle Next Extent

Description

This monitor checks if there is enough freespace available for the next extent. This check is performed against the largest contiguous block of freespace.

The OracleNextExtend monitor checks for each object in the given tablespace if there is enough freespace for two extents of the object. This check is performed against the largest contiguous block of freespace.

The following objects are checked: tables, indexes, clusters and rollback segments.

The check is performed for every single object. The status `available` does NOT imply that there is enough space if all objects request two extents at the same time.

In addition, it is checked if an object has already reached its maximum number of extents.

Monitoring Frequency

Default is once every hour.

Parameters

Tablespace Name

Tablespace name (e.g. `SYSTEM`)

Return Values

available

There is enough free space for the next extent in the specified tablespace.

unavailable

There is not enough freespace one or more objects to extend twice or one or more objects have reached their maximum number of extents. The additional info contains a list of these objects and a specific description of the error.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage
- ERROR_installation

- Command not found
- Environment file not found
- Environment variable not set
- Database type not valid
- Server not configured for Library System
- Server is no Property Manager
- Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle NonActive Redologs

Description

Returns the number non active Oracle Redologs. Non active redologs are redologs with state `STALE`, `CURRENT` or `INACTIVE`.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

None

Return Values

>= 0

Number of non-active redologs.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error

- Internal error executing SQL statement
- Database is currently starting or stopping
- Database not running
- Login to database failed

- -50 (application error)
  - Program not running
  - Service not running

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Processes

Description

Monitors FileNet Oracle processes or Oracle NT services if FileNet is configured to run against Oracle.

Monitored processes are: **ora_pmon_<database ID>**, **ora_smon_<database ID>**, **ora_lgwr_<database ID>**, **ora_dbwr_<database ID>**.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

None

Return Values

up

The Oracle database is running.

down

The Oracle database is not running.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

- ERROR_system

- Command not found
- Tools directory not found
- Product name not valid

Oracle Rollback Segment Online

Description

Checks whether a specified FileNet Oracle Rollback Segment is online or not.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Rollback Segment

Comma-separated list of rollback segment names (e.g. **`RS0,RS1,SYSTEM`**) or `ALL_SEGMENTS` to check all rollback segments (default)

Return Values

online

All specified rollback segments are online.

offline

At least one of the specified rollback segments is offline. The additional info contains a list of all rollback segments that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed
- ERROR_application
  - Program not running
  - Service not running
- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Tablespace Available

Description

Monitors a specified FileNET Oracle Tablespace for availability.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Tablespace

Comma-separated list of tablespace names (e.g. **`SYSTEM,FNTMP_TS,FNSYS_TS`**) or `ALL_TABLESPACES` to check all tablespaces (default)

Return Values

available

All specified tablespaces are available.

unavailable

At least one of the specified tablespaces is not available. The additional info contains a list of all tablespaces that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle User Account Status

Description

Monitors whether a specified Oracle account will expire within the next days.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

User Account

name of user account to check

Days

number of days to check from current date

Return Values

ok

The Oracle account will not expire within specified number of days.

not_ok

The Oracle account will expire within the specified number of days.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

    - Invalid database name

- ERROR_rdbms
    - SQL tool did not return any result
    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- ERROR_application
    - Program not running
    - Service not running

- ERROR_system
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Courier Statistic

Description

The Courier Statistic monitor checks statistic information of Server and client Courier requests. Check the FileNet IS / IM documentation about CORH state details.

Note: This monitor should not be started in Windows based IS / Mini IS servers.

Monitoring Frequency

Default is once every 10 minutes.

Parameters

CORH states

Supported CORH states checking Server and Client connections status:

- 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:

- CHLDAL --- COR_Listen child received an ALARM signal
- CHLDEX --- COR_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
- TXDATAMSG --- Network data has been sent
- TXEXDATAMSG --- Out-of-band attention has been sent
- WREQH --- COR_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(s).

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Invalid platform

- -70 (system error)
  - Command not found
  - Tools directory not found

Process Status

Description

This monitor returns the number of VW processes with the specified status.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Status List

List of states separated by `,` or `;`. The entries of this list are case-insensitive. The entries cannot be abbreviated, e.g. `listen` does not match processes with status `Listening`.

All processes that have a status that is listed here will be counted. If the list starts with a `!`, all processes that do not have a status that is listed here will be counted.

Example: `!sleeping,listening` counts all processes that are neither sleeping nor listening.

Process Name

Optional. If you specify a process name, only processes that match the given name will be counted. The process name is case-insensitive and is treated as a wildcard. For example, if you specify `vws`, the monitor checks for `VWSs` as well as for `vwstat` entries.

Return Values

>=0

Number of processes

The additional info contains a list of all processes that matched the search criteria.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage
- -30 (installation error)

- Command not found
- Environment file not found
- Environment variable not set
- Server not configured for System
- Server is no PPM server

- -50 (application error)
  - Program not running
  - Service not running
  - Error executing tool

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Queue Length

Description

This monitor returns the number of entries currently in memory for a specified queue.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Isolated Region

Number of isolated region to check.

Queue Name

Comma-separated list of queue names whose number of entries is monitored or `ALL_QUEUES` (default). Valid system queue names are `Instruction Sheet Interpreter` and `Delay`. The queue name entered here is case-insensitive.

Return Values

>=0

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

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - Variable not valid
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set

    - Server not configured for System
    - Server is no PPM server

- -50 (application error)
    - Program not running
    - Service not running
    - Error executing tool

- -70 (system error)
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Queue Statistic

Description

This monitor checks a specific statistical value for a given queue.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Isolated region

Isolated Region number

Queue Name

Comma-separated list of queue names whose number of entries is monitored or `ALL_QUEUES` (default). The queue name entered here is case-insensitive.

Statistic Value

Name of the statistic value. Valid values are:

1 | AVG_DELAY	Average Queue Delay
2 | AVG_QUEUE_DEPTH	Average Queue Depth
3 | AVG_THROUGHPUT	Average Throughput
4 | AVG_WO_PROCESSED	Average Processed Wos
5 | AVG_WO_LOCKED	Average WO Locked
6 | AVG_WO_PROC_TIME	Average WO Processing Time
7 | CURR_QUEUE_DEPTH	Current Queue Depth
8 | CURR_WO_LOCKED	Current WOs Locked
9 | RATE_QUEUE_GROW	Queue Grow Rate
10 | RATE_QUEUED	Queued Rate
11 | RATE_DEQUEUED	Dequeued Rate
12 | SUM_TIME_SERVICE	Total Service Time
13 | SUM_TIME_ABORTED	Total Aborted Time
14 | SUM_QUEUE_DEPTH	Summation Queue Depth
15 | SUM_WO_PROCESSED	Summation WO Processed
16 | SUM_WO_LOCKED	Summation WO Locked
17 | SUM_WO_QUEUED	Total WOs Queued
18 | SUM_WO_DEQUEUED	Total WOs Dequeued

19 | SUM_WO_ABORTED	Total WOs Aborted
20 | SUM_WO_DURATION	Summation Duration WOs in Queue
21 | WO_INITIAL	Initial Number of WO Queued
22 | WO_REMAINING	Number of Remaining Queued
23 | WO_PROCESSED	WO Processed

You can specify either the text or the corresponding numerical value.

Return Values

>=0

Largest selected statistical value; the values for all specified queues are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - Variable not valid
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Server not configured for System
  - Server is no PPM server
- -50 (application error)
  - Program not running
  - Service not running
  - Error executing tool
- -70 (system error)
  - Cannot create temporary file
  - Command not found

- Tools directory not found
- Product name not valid

Component Manager Queue Statistic

Description

This monitor checks a specific statistical value for a specified Component Manager queue.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Queue Name

Comma-separated list of queue names whose number of entries is monitored or `ALL_QUEUES` (default). The queue name entered here is case-insensitive.

Statistic Type

Name of the statistic type. Valid values are:

avg_calls_per_min	Average calls per minute
millisecs_per_call	Average duration time (in milliseconds) per call

Return Values

>=0

Statistical (average) value of the selected statistic.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - Variable not valid
  - general usage
- -30 (installation error)

    - Command not found
    - Environment file not found
    - Environment variable not set
    - Server not configured for System

- -50 (application error)
    - Program not running
    - Service not running
    - Error executing tool

- -70 (system error)
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Rejected Users

Description

Monitors the number of rejected user logins since last reboot.

Monitoring Frequency

Default is once every hour.

Parameters

License type

specific license type (1..16) or ALL

Return Values

>= 0

Rejected user login count.

If all license types are checked, the highest number is returned. The additional info contains a list of all license types and corresponding values.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not valid / no directory
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
- -50 (application error)
  - Tool did not return any result
  - Tool returned invalid result
  - Program not running

- -60 (MKF database error)
  - Invalid MKF database type
  - MKF database file not found
  - MKF database not running
  - MKF database type not available on server
- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Roster Statistic

Description

This monitor checks a specific statistical value for a given roster.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Isolated region

Isolated Region number

Roster Name

Comma-separated list of roster names whose number of entries is monitored or ALL_ROSTERS (default). The roster name entered here is case-insensitive.

Statistic Value

Name of the statistic value. Valid values are:

1 | AVG_WO_ACTIVE	Average Number of Active WOs
2 | AVG_WO_ACTIVE_PARENT	Average Number of Active Parents
3 | AVG_WO_ACTIVE_CHILD	Average Number of Active Children
4 | AVG_WO_LIFESPAN	Average Life Span of WOs
5 | AVG_WO_LIFESPAN_PARENT	Average Life Span of Parents
6 | AVG_WO_LIFESPAN_CHILD	Average Life Span of Children
7 | CURR_WO_ACTIVE	Current Total Number of Active WOs
8 | CURR_WO_ACTIVE_PARENT	Current Number of Active Parents
9 | CURR_WO_ACTIVE_CHILD	Current Number of Active Children
10 | RATE_CREATE	Total Creation Rate
11 | RATE_CREATE_PARENT	Parent Creation Rate
12 | RATE_CREATE_CHILD	Children Creation Rate
13 | RATE_TERMINATE	Total Termination Rate
14 | RATE_TERMINATE_PARENT	Parent Termination Rate
15 | RATE_TERMINATE_CHILD	Children Termination Rate
16 | RATE_GROWTH	Total Growth Rate
17 | RATE_GROWTH_PARENT	Parent Growth Rate
18 | RATE_GROWTH_CHILD	Children Growth Rate

19 | SUM_WO_REMAINING	Total Number of Remaining WOs
20 | SUM_WO_REMAINING_PARENT	Number of Remaining Parents
21 | SUM_WO_REMAINING_CHILD	Number of Remaining Children
22 | SUM_WO_CREATED	Total Number of Created WOs
23 | SUM_WO_CREATED_PARENT	Number of Created Parents
24 | SUM_WO_CREATED_CHILD	Number of Created Children
25 | SUM_WO_TERMINATED	Total Number of Terminated WOs
26 | SUM_WO_TERMINATED_PARENT	Number of Terminated Parents
27 | SUM_WO_TERMINATED_CHILD	Number Of Terminated Children
28 | SUM_WO_LIFESPAN	Summation WOs Life Span
29 | SUM_WO_LIFESPAN_PARENT	Summation Parents Life Span
30 | SUM_WO_LIFESPAN_CHILD	Summation Children Life Span
31 | SUM_WO_ACTIVE	Summation Active WOs
32 | SUM_WO_ACTIVE_PARENT	Summation Active Parents
33 | SUM_WO_ACTIVE_CHILD	Summation Active Children
34 | WO_INITIAL	Initial Number of WOs
35 | WO_INITIAL_PARENT	Number of Initial Parents
36 | WO_INITIAL_CHILD	Number of Initial Children

You can specify either the text or the corresponding numerical value.

Return Values

>=0

Largest selected statistical value; the values for all specified rosters are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - Variable not valid
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found

- Environment variable not set
- Server not configured for System
- Server is no PPM server

- -50 (application error)
  - Program not running
  - Service not running
  - Error executing tool

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Security Database Availability

Description

Monitors availability of the MKF Security Database

Monitoring Frequency

Default is once every 20 minutes.

Parameters

None

Return Values

up

: The Security MKF database is running.

down

: The Security MKF database is not running.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage
- ERROR_installation
  - Command not found
  - Environment file not found
- ERROR_application
  - Tool did not return any result
- ERROR_mkfdb
  - Invalid MKF database type
  - MKF database file not found
  - MKF database type not available on server

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Status Component Manager

Description

This monitor checks the status of the Component Manager on a specific server of a Process Engine system.

> **Note:** For Tivoli ITM and the non-Tivoli based version, you can use the monitor ComponentStatus with component `CM` as well.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Return Values

ok

Component Manager is running.

not_ok

Component Manager is stopped. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - Component not installed
  - general usage
- ERROR_installation
  - Environment file not found
  - Environment variable not set
  - Server not configured for System

- ERROR_application
  - Error checking RMI registry

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Status Image Manager

Description

This monitor checks the status of the Image Manager on a specific server of a Process Engine system.

> **Note:** For Tivoli ITM and the non-Tivoli based version, you can use the monitor ComponentStatus with component `IS` as well.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Return Values

ok

Image Manager is running.

not_ok

Image Manager is stopped. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - Component not installed
  - general usage
- ERROR_installation
  - Environment file not found
  - Environment variable not set
  - Server not configured for System

- ERROR_application
  - Interpreter not set

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Status PPM

Description

This monitor checks the status of the PPM on a specific server of a Process Engine system.

> **Note:** For Tivoli ITM and the non-Tivoli based version, you can use the monitor ComponentStatus with component `PPM` as well.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Return Values

ok

PPM is running.

not_ok

PPM is stopped. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - Component not installed
  - general usage
- ERROR_installation
  - Environment file not found
  - Environment variable not set
  - Server not configured for System

- ERROR_application
  - Error checking RMI registry
- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Status Router

Description

This monitor checks the status of all routers on a specific server of a Process Engine system.

> **Note:** For Tivoli ITM and the non-Tivoli based version, you can use the monitor ComponentStatus with component `ROUTER` as well.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Return Values

ok

All routers are running.

not_ok

One or more routers are not running. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - Component not installed
  - general usage
- ERROR_installation
  - Environment file not found
  - Environment variable not set
  - Server not configured for System

- ERROR_application
  - Error checking RMI registry
- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Status VWServices

Description

This monitor checks the status of the Windows service VWServices on a specific server of a Process Engine system.

> **Note:** For Tivoli ITM and the non-Tivoli based version, you can use the monitor ComponentStatus with component `EPROCESS` as well.

Monitoring Frequency

No default schedule.

Parameters

System

Name of the Process Engine System

Return Values

ok

VWServices is running.

not_ok

VWServices is stopped. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - Component not installed
  - general usage
- ERROR_installation
  - Environment file not found
  - Environment variable not set
  - Invalid platform

    - Server not configured for System

- ERROR_application
    - Interpreter not set

- ERROR_system
    - Command not found
    - Tools directory not found
    - Product name not valid

Status Web Server

Description

This monitor checks the status of the Web Server on a specific server of a Process Engine system.

> **Note:** For Tivoli ITM and the non-Tivoli based version, you can use the monitor ComponentStatus with component `WEB` as well.

Monitoring Frequency

No default schedule

Parameters

System

Name of the Process Engine System

Return Values

ok

Web Server is running.

not_ok

Web Server is stopped. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - Component not installed
  - general usage
- ERROR_installation
  - Environment file not found
  - Environment variable not set
  - Server not configured for System

- ERROR_application
  - Interpreter not set

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Chapter 6. FileNet Content Engine Monitors

Centera Status

Description

This monitor checks the connection to the configured EMC Centera system or a specific node.

Monitoring Frequency

Default is once every hour.

Parameters

EMC Centera Configuration String

Specify the complete EMC Centera connection string or only one seperate node to check

Tools to check status

Valid values are: `cping`, `centeraping`.

Return Values

ok

EMC Centera or a node of a Centera system is connected.

not_ok

EMC Centera cannot be reached using the configured tool.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set

- Database type not valid
- Server not configured for Library System
- Server is no Property Manager

- ERROR_system
  - Command not found
  - Tools directory not found

CfsIs Agent Status

Description

This monitor checks the import agent status from the Content Engine to one or more IS domains by executing CfsConnectionMonitor.

Monitoring Frequency

Default is once every 60 minutes.

Parameters

Domain List

Comma-separated list of IS domains; default is ALL to check all IS domains given during configuration.

Return Values

ok

All IS domains can be reached by CfsConnectionMonitor.

not_ok

At least one IS domain is unreachable; add. info contains details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set

- ERROR_system
  - Cannot create temporary file
  - Command not found

- Tools directory not found
- Product name not valid

CfsIs Connection

Description

This monitor checks the connection from the Content Engine to one or more IS domains by executing ping_is.

Monitoring Frequency

Default is once every 60 minutes.

Parameters

Domain List

Comma-separated list of IS domains; default is ALL to check all IS domains given during configuration.

Return Values

ok

All IS domains can be reached by ping_is.

not_ok

At least one IS domain is unreachable; add. info contains details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage
- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
- ERROR_system
  - Cannot create temporary file
  - Command not found

- Tools directory not found
- Product name not valid

CfsIs Domain Status

Description

This monitor checks the connection from the Content Engine to one or more IS domains by executing CfsConnectionMonitor.

Monitoring Frequency

Default is once every 60 minutes.

Parameters

Domain List

Comma-separated list of IS domains; default is ALL to check all IS domains given during configuration.

Return Values

ok

All IS domains can be reached by CfsConnectionMonitor.

not_ok

At least one IS domain is unreachable; add. info contains details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage
- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
- ERROR_system
  - Cannot create temporary file
  - Command not found

- Tools directory not found
- Product name not valid

CfsIs Performance

Description

This monitor collects performance data for the connection from the Content Engine to one or more IS domains by executing CfsConnectionMonitor.

Monitoring Frequency

Default is once every 60 minutes.

Parameters

Domain List

Comma-separated list of IS domains; default is ALL to check all IS domains given during configuration.

Performance Value

Name of the performance value. Valid values are:

1 | AVG_PAGE_STORED	Average number of pages stored / hour
2 | AVG_PAGE_RETRIEVED	Average number of pages retrieved / hour
3 | AVG_CAT_ENTRIES	Average number of catalog entries / hour

You can specify either the text or the corresponding numerical value.

Return Values

>=0

Largest selected performance value; the values for all specified queues are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - Variable not valid
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Server not configured for System
  - Server is no PPM server
- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Files In Filestore

Description

This monitor returns the number of files in the given directory and all its subdirectories.

Monitoring Frequency

Default is once every 60 minutes.

Parameters

Directory Name

Comma-separated list of directories to check. If a wildcard (*) is specified, all directories matching the given pattern will be checked and the highest number will be returned.

Return Values

>= 0

Number of files in the given directory or maximal number if wildcard or list of directories was specified.

The additional info contains a list of all directories that were checked and the number of files in each of the directories.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found

- Product name not valid

Listener Request Monitor

Description

The monitor checks FileNet Listener API parameters

Monitoring Frequency

No default schedule defined.

Parameters

Host name to check

Specify a hostname here (unusual) or `localhost` (default)

Listener Application name

Specify a Listener Application here, for instance `Image Services`, `Image Services Resource Adapter`, `Process Engine`, `Content Engine Object Store Service`

JAVA Path

Specify a Java installation path here (unusual) or leave unset (monitor uses the pre-configured Listener Java Path)

Listener threshold (parameter sets)

This parameter defines which Listener paths values will be checked
Each monitor instance contains one or more parameter sets, which are separated by semicolon (';').
Two specific Listener paths exist, that are checked in general: '/<application name>/heartbeat' and
'/<application name>/uptime', which indicate the status and how long the application is running. All other parameter are formatted like:
<Listener path to check<,numeric threshold,<comparison sign> Example: /Image Services/USER/fnsw/dev/1/sec_db0/forupdate,1,<[;next parameter set]
You can list all available Listener paths for the server you want to monitor by executing the
FSM Task/Job: 'Execute/Run Listener request'.

Return Values

ok

None of the checked parameters (Listener path) reached the specified thresholds (multiple parameters checked).

numeric value greater than 0

Numeric result of the (single) checked parameter (Listener path).

not_ok

At least one checked parameters (Listener Path) reached the specified thresholds.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

- ERROR_system
  - Command not found
  - Tools directory not found

MSSQL Database Size

Description

This monitor checks the database size for the specified databases.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Database Name

Comma-separated list of database names or `ALL_DATABASES` (default).

Dataspace

Check size of dataspace (`yes` / `no`)

Logspace

Check size of logspace (`yes` / `no`)

MSSQL User

User name for connect to database. If no user is specified, the connect uses the `/N` option for a trusted connection with the Windows user.

MSSQL Password

Encrypted password of the MSSQL user.

MSSQL Path

Path to the `binn` directory where the MSSQL tools are installed. The location of this directory depends on the MSSQL Server version:

- MSSQL Server 7: `<drive letter>:/mssql7`
- MSSQL Server 2000 or MSDE 2000: `<drive letter>:/Program Files/Microsoft Server/80/Tools`
- MSSQL Server 2005: `<drive letter>:/Program Files/Microsoft Server/90/Tools`

The monitor searches the `binn` directory for the tools **sqlcmd.exe**, **osql.exe** or **isql.exe** and uses the tools that it finds first.

Note: Use / instead of \ in the pathname.

Return Values

>= 0

Size of largest database in MB. Depending on the selection, this is the size of dataspace or logspace or the total size (dataspace + logspace). The sizes of all specified databases are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name
- -40 (database error)
  - Database error
  - Database not running
- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Database Status

Description

This monitor checks the database status for the specified databases.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

Database Name

Comma-separated list of database names or `ALL_DATABASES` (default).

MSSQL User

User name for connect to database. If no user is specified, the connect uses the *`/N`* option for a trusted connection with the Windows user.

MSSQL Password

Encrypted password of the MSSQL user.

MSSQL Path

Path to the `binn` directory where the MSSQL tools are installed. The location of this directory depends on the MSSQL Server version:

- MSSQL Server 7: `<drive letter>:/mssql7`
- MSSQL Server 2000 or MSDE 2000: `<drive letter>:/Program Files/Microsoft Server/80/Tools`
- MSSQL Server 2005: `<drive letter>:/Program Files/Microsoft Server/90/Tools`

The monitor searches the `binn` directory for the tools **sqlcmd.exe**, **osql.exe** or **isql.exe** and uses the tools that it finds first.

Note: Use / instead of \ in the pathname.

Return Values

available

All specified databases are in normal processing mode.

unavailable

At least one database is in an error state. See additional info for the actual state information of all specified databases.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - Database error
  - Database not running

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Dataspace Used

Description

This monitor checks the amount of used dataspace for the specified databases.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Database Name

Comma-separated list of database names or `ALL_DATABASES` (default).

MSSQL User

User name for connect to database. If no user is specified, the connect uses the *`/N`* option for a trusted connection with the Windows user.

MSSQL Password

Encrypted password of the MSSQL user.

MSSQL Path

Path to the `binn` directory where the MSSQL tools are installed. The location of this directory depends on the MSSQL Server version:

- MSSQL Server 7: `<drive letter>:/mssql7`
- MSSQL Server 2000 or MSDE 2000: `<drive letter>:/Program Files/Microsoft Server/80/Tools`
- MSSQL Server 2005: `<drive letter>:/Program Files/Microsoft Server/90/Tools`

The monitor searches the `binn` directory for the tools **sqlcmd.exe**, **osql.exe** or **isql.exe** and uses the tools that it finds first.

Note: Use / instead of \ in the pathname.

Return Values

>= 0

Largest amount of used dataspace in MB. The amount of used dataspace of all specified databases is listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Dataspace Used Pct

Description

This monitor checks the percentage of used dataspace for the specified databases.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Database Name

Comma-separated list of database names or `ALL_DATABASES` (default).

MSSQL User

User name for connect to database. If no user is specified, the connect uses the `/N` option for a trusted connection with the Windows user.

MSSQL Password

Encrypted password of the MSSQL user.

MSSQL Path

Path to the `binn` directory where the MSSQL tools are installed. The location of this directory depends on the MSSQL Server version:

- MSSQL Server 7: `<drive letter>:/mssql7`
- MSSQL Server 2000 or MSDE 2000: `<drive letter>:/Program Files/Microsoft Server/80/Tools`
- MSSQL Server 2005: `<drive letter>:/Program Files/Microsoft Server/90/Tools`

The monitor searches the `binn` directory for the tools **sqlcmd.exe**, **osql.exe** or **isql.exe**

Note: Use / instead of \ in the pathname.

and uses the tools that it finds first.

Return Values

>= 0

Largest percentage of used dataspace. The percentages of used dataspace of all specified databases are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Logspace Used

Description

This monitor checks the amount of used logspace for the specified databases.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Database Name

Comma-separated list of database names or `ALL_DATABASES` (default).

MSSQL User

User name for connect to database. If no user is specified, the connect uses the `/N` option for a trusted connection with the Windows user.

MSSQL Password

Encrypted password of the MSSQL user.

MSSQL Path

Path to the `binn` directory where the MSSQL tools are installed. The location of this directory depends on the MSSQL Server version:

- MSSQL Server 7: `<drive letter>:/mssql7`
- MSSQL Server 2000 or MSDE 2000: `<drive letter>:/Program Files/Microsoft Server/80/Tools`
- MSSQL Server 2005: `<drive letter>:/Program Files/Microsoft Server/90/Tools`

The monitor searches the `binn` directory for the tools **sqlcmd.exe**, **osql.exe** or **isql.exe** and uses the tools that it finds first.

Note: Use / instead of \ in the pathname.

Return Values

>= 0

Largest amount of used logspace in MB. The amount of used logspace of all specified databases is listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Logspace Used Pct

Description

This monitor checks the percentage of used logspace for the specified databases.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Database Name

Comma-separated list of database names or `ALL_DATABASES` (default).

MSSQL User

User name for connect to database. If no user is specified, the connect uses the `/N` option for a trusted connection with the Windows user.

MSSQL Password

Encrypted password of the MSSQL user.

MSSQL Path

Path to the `binn` directory where the MSSQL tools are installed. The location of this directory depends on the MSSQL Server version:

- MSSQL Server 7: `<drive letter>:/mssql7`
- MSSQL Server 2000 or MSDE 2000: `<drive letter>:/Program Files/Microsoft Server/80/Tools`
- MSSQL Server 2005: `<drive letter>:/Program Files/Microsoft Server/90/Tools`

The monitor searches the `binn` directory for the tools **sqlcmd.exe**, **osql.exe** or **isql.exe** and uses the tools that it finds first.

Note: Use / instead of \ in the pathname.

Return Values

>= 0

Largest percentage of used logspace. The percentages of used logspace of all specified databases are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Number Of Processes

Description

This monitor checks the number of processes for the specified databases.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 10 minutes.

Parameters

Database Name

Comma-separated list of database names or `ALL_DATABASES` (default).

MSSQL User

User name for connect to database. If no user is specified, the connect uses the *`/N`* option for a trusted connection with the Windows user.

MSSQL Password

Encrypted password of the MSSQL user.

MSSQL Path

Path to the `binn` directory where the MSSQL tools are installed. The location of this directory depends on the MSSQL Server version:

- MSSQL Server 7: `<drive letter>:/mssql7`
- MSSQL Server 2000 or MSDE 2000: `<drive letter>:/Program Files/Microsoft Server/80/Tools`
- MSSQL Server 2005: `<drive letter>:/Program Files/Microsoft Server/90/Tools`

The monitor searches the `binn` directory for the tools **sqlcmd.exe**, **osql.exe** or **isql.exe** and uses the tools that it finds first.

Note: Use / instead of \ in the pathname.

Return Values

>= 0

Largest number of active processes. The number of active processes of all specified databases is listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Processes

Description

Monitors the `MSSQLServer` service or the specified database instances.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

Instance Name

Comma-separated list of database instances in the format `servername/instancename`. If the field is left empty, the `MSSQLServer` service is monitored.

Return Values

up

All specified instances are running.

down

At least one instance is not running. See additional info for details.

remote

At least one instance is installed on a remote server. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage
- ERROR_installation
  - Command not found
  - Environment file not found
  - Invalid platform
- ERROR_system
  - Command not found
  - Tools directory not found

- Product name not valid

DB2 Database Status

Description

This monitor checks the database status for the specified DB2 databases.

This monitor can only be run on a FileNet Root Index Server or Combined Server (local DB2 Server or DB2-Client installed).

Monitoring Frequency

Default is once every 5 minutes.

Parameters

Database Instance

DB2 Database Instance name (variable DB2INSTANCE)

DB2 Database Name

Name of the DB2 database

DB2_HOME Path

Path to the `bin` directory (variable DB2_HOME) where the DB2 tools are installed. The location of this directory depends on the DB2INSTANCE variable setting.

DB2 Logon User

User name for connect to database

DB2 Password

Encrypted password of the DB2 logon user.

DB2 OS User

UNIX only. Operating system user that owns the DB2 INSTANCE.

Return Values

available

All specified databases are in normal processing mode.

unavailable

At least one database is in an error state. See additional info for the actual state information of all specified databases.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - Database error
  - Database not running

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

DB2 Tablespace Status

Description

This monitor checks status of DB2 tablespaces.

This monitor can only be run on a FileNet Root Index Server or Combined Server (local DB2 Server or DB2-Client installed).

Monitoring Frequency

Default is once every 10 minutes.

Parameters

Tablespace(s)

List of tablespaces (comma or semicolon separated) or 'ALL_TABLESPACES'.

Database Instance

DB2 Database Instance name (variable DB2INSTANCE)

DB2 Database Name

Name of the DB2 database

DB2_HOME Path

Path to the `bin` directory (variable DB2_HOME) where the DB2 tools are installed. The location of this directory depends on the DB2INSTANCE variable setting.

DB2 Logon User

User name for connect to database

DB2 Password

Encrypted password of the DB2 logon user.

DB2 OS User

UNIX only. Operating system user that owns the DB2 INSTANCE.

Return Values

ok

All checked tablespaces are in 'normal' mode.

not_ok

At least one checked Ttablespace in not in 'normal' mode. See monitor details for more information.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage
- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name
- ERROR_database
  - Database error
  - Database not running

DB2 Tablespace Free

Description

This monitor checks the amount (in KBytes or pages) or the percentage of the space free of one DB2 tablespace (depending on the parameter settings).

This monitor can only be run on a FileNet Root Index Server or Combined Server (local DB2 Server or DB2-Client installed).

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Tablespace

Name of the tablespaces.

Result type

Supported values are: percentage, amount_kbytes or amount_pages

Database Instance

DB2 Database Instance name (variable DB2INSTANCE)

DB2 Database Name

Name of the DB2 database

DB2_HOME Path

Path to the `bin` directory (variable DB2_HOME) where the DB2 tools are installed. The location of this directory depends on the DB2INSTANCE variable setting.

DB2 Logon User

User name for connect to database

DB2 Password

Encrypted password of the DB2 logon user.

DB2 OS User

UNIX only. Operating system user that owns the DB2 INSTANCE.

Return Values

>= 0

Amount of free space (in KBYtes or pages) or percentage used tablespace (depending on the parameter settings).

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found

DB2 Tablespace Used

Description

This monitor checks the amount (in KBytes or pages) or the percentage of the space used of one DB2 tablespace (depending on the parameter settings).

This monitor can only be run on a FileNet Root Index Server or Combined Server (local DB2 Server or DB2-Client installed).

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Tablespace

Name of the tablespaces.

Result type

Supported values are: percentage, amount_kbytes or amount_pages

Database Instance

DB2 Database Instance name (variable DB2INSTANCE)

DB2 Database Name

Name of the DB2 database

DB2_HOME Path

Path to the `bin` directory (variable DB2_HOME) where the DB2 tools are installed. The location of this directory depends on the DB2INSTANCE variable setting.

DB2 Logon User

User name for connect to database

DB2 Password

Encrypted password of the DB2 logon user.

DB2 OS User

UNIX only. Operating system user that owns the DB2 INSTANCE.

Return Values

>= 0

Amount of used space (in KBYtes or pages) or percentage used tablespace (depending on the parameter settings).

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found

DB2 Statistic

Description

The DB2 Database Statistic monitor checks any numeric statistic information that the DB2 command tool 'DB2' function 'GET SNAPSHOT for DATASE <DBNAME>' provides. Only 1 parameter can be specified for one instance here. If the specified parameter doesn't exist '-30' is returned, if a aphanumeric value is returned '-99' is returned. Note: Only values that are unique within the DB2 output are allowed. '(' or ')' cannot be used. Please shorten the (unique) parameter strings in this case.

This monitor can only be run on local DB2 Server. The used DB2 command cannot be executed on a system, where only the DB2-Client is installed.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Statistic parameter (parameter sets)

This parameter defines which DB2 statistic parameter that will be checked. Each monitor instance contains one or more parameter sets, which are separated by semicolon (';'). All other parameter are formatted like:
<Statistic DB2 parameter to check>,<comparison sign>,numeric threshold
Example: Log space available to the database,<,1[;next parameter set]

Database Instance

DB2 Database Instance name (variable DB2INSTANCE)

DB2 Database Name

Name of the DB2 database

DB2_HOME Path

Path to the `bin` directory (variable DB2_HOME) where the DB2 tools are installed. The location of this directory depends on the DB2INSTANCE variable setting.

DB2 Logon User

User name for connect to database

DB2 Password

Encrypted password of the DB2 logon user.

DB2 OS User

UNIX only. Operating system user that owns the DB2 INSTANCE.

DB2 statistic parameters

Possible statistic parameters are:

- Catalog database partition number
- High water mark for connections
- Application connects
- Secondary connects total
- Applications connected currently
- Appls. executing in db manager currently
- Agents associated with applications
- Maximum agents associated with applications
- Maximum coordinating agents
- Locks held currently
- Lock waits
- Time database waited on locks
- Lock list memory in use
- Deadlocks detected
- Lock escalations
- Exclusive lock escalations
- Agents currently waiting on locks
- Lock Timeouts
- Number of indoubt transactions
- Total Private Sort heap allocated
- Total Shared Sort heap allocated
- Shared Sort heap high water mark
- Total sorts
- Total sort time
- Sort overflows
- Active sorts
- Buffer pool data logical reads
- Buffer pool data physical reads
- Buffer pool temporary data logical reads
- Buffer pool temporary data physical reads
- Asynchronous pool data page reads
- Buffer pool data writes
- Asynchronous pool data page writes
- Buffer pool index logical reads
- Buffer pool index physical reads
- Buffer pool temporary index logical reads

- Buffer pool temporary index physical reads
- Asynchronous pool index page reads
- Buffer pool index writes
- Asynchronous pool index page writes
- Total buffer pool read time
- Total buffer pool write time
- Total elapsed asynchronous read time
- Total elapsed asynchronous write time
- Asynchronous data read requests
- Asynchronous index read requests
- No victim buffers available
- LSN Gap cleaner triggers
- Dirty page steal cleaner triggers
- Dirty page threshold cleaner triggers
- Time waited for prefetch
- Unread prefetch pages
- Direct reads
- Direct writes
- Direct read requests
- Direct write requests
- Direct reads elapsed time
- Direct write elapsed time
- Database files closed
- Data pages copied to extended storage
- Index pages copied to extended storage
- Data pages copied from extended storage
- Index pages copied from extended storage
- Vectored IOs
- Pages from vectored IOs
- Block IOs
- Pages from block IOs
- Physical page maps
- Host execution elapsed time
- Commit statements attempted
- Rollback statements attempted
- Dynamic statements attempted
- Static statements attempted
- Failed statement operations

- Select SQL statements executed
- Update/Insert/Delete statements executed
- DDL statements executed
- Internal automatic rebinds
- Internal rows deleted
- Internal rows inserted
- Internal rows updated
- Internal commits
- Internal rollbacks
- Internal rollbacks due to deadlock
- Rows deleted
- Rows inserted
- Rows updated
- Rows selected
- Rows read
- Binds/precompiles attempted
- Log space available to the database
- Log space used by the database
- Maximum secondary log space used
- Maximum total log space used
- Secondary logs allocated currently
- Log pages read
- Log read time
- Log pages written
- Log write time
- Number write log IOs
- Number read log IOs
- Number partial page log IOs
- Number log buffer full
- Log data found in buffer
- Appl id holding the oldest transaction
- Log to be redone for recovery
- Log accounted for by dirty pages
- File number of first active log
- File number of last active log
- File number of current active log
- File number of log being archived
- Package cache lookups

- Package cache inserts
- Package cache overflows
- Package cache high water mark
- Application section lookups
- Application section inserts
- Catalog cache lookups
- Catalog cache inserts
- Catalog cache overflows
- Catalog cache high water mark
- Workspace Information
- Shared high water mark
- Corresponding shared overflows
- Total shared section inserts
- Total shared section lookups
- Private high water mark
- Corresponding private overflows
- Total private section inserts
- Total private section lookups
- Number of hash joins
- Number of hash loops
- Number of hash join overflows
- Number of small hash join overflows

Return Values

ok

None of the checked DB2 parameters reached the specified thresholds (multiple parameters checked).

numeric value greater than 0

Numeric result of the (single) checked DB2 parameter.

not_ok

At least one checked DB2 parameters reached the specified thresholds.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)/ERROR_usage
  - Variable not specified

    - general usage

- -30 (installation error)/ERROR_installation
    - Command not found
    - Environment file not found
    - Environment variable not set
    - Database type not valid
    - Invalid platform
    - Invalid database name

- -40 (database error)/ERROR_database
    - Database error
    - Database not running

- -70 (system error)/ERROR_system
    - Command not found
    - Tools directory not found

Objects In Objectstore

Description

This monitor returns the number of objects in the given objectstore.

Monitoring Frequency

Default is once every 60 minutes.

Parameters

Object Store

Comma-separated list of object stores that must be checked

Object Type

Object types to count.

You can specify a list of objects separated by `,` or `;`. If no object type is specified, all objects except folders are counted.

Valid values are: `CustomObject`, `Document`, `PublishRequest`, `PublishTemplate`, `StoredSearch`, `StyleTemplate`, `WorkflowDefinition`, or `Folder`.

Count Duplicates

Specify `yes` if you want to count references to the same object. If you specify `no`, each object will only be counted once regardless of the number of references.

Return Values

>= 0

Largest number of objects; all specified object stores are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found

    - Environment variable not set

- -50 (application error)
    - java tool returned an error

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name is invalid

ObjectStore Statistics

Description

The monitor checks FileNet Object Store Listener Parameters

Monitoring Frequency

No default schedule defined.

Parameters

Object Store name

Specify a Object Store name here or `ALL_OBJECTSTORES` (default).

Wildcard '*' can be used to check more than one Objectstore, for instance 'Myobjectstore*' that matches for all Objectstores starting with 'Myobjeststore'.

Objectstore parameters (parameter sets)

List of Object Store parameter sets to check. One parameter set contains either the Listener parameter itself, e.g. 'Folder Creations' or the parameter with a threshold and comparison sign. Example: Document Modifications,2,> Parameter sets are separated by ';'. Possible comparison signs are '<', '<=', '>' and '>='.
If parameter sets are specified the monitor returns 'ok', if the returned value doesn't conflict with the associated threshold.
Otherwise 'not_ok' is returned. If only the Listener parameter (without threshold and comparison sign) is specified
the numeric value is returned. Note: Use wildcard '*' carefully when you define parameters.
You can list all available Listener paths for the server you want to monitor by executing the
FSM Task/Job: 'Execute/Run Listener request'.

Analyzation type

Possible values: `MAX`, `MIN`, `SUM`: Checks for the highest, lowest or sum of all detected values (if more than one Object Store or wildcards are specified)

Listener Server

Optional: System name and port or leave unset. Un this case the default value `localhost:32775` is used.

Return Values

ok

None of the checked parameters (Listener path) reached the specified thresholds (multiple

parameters checked).

numeric value greater than 0

Numeric result of the (single) checked parameter (Listener path).

not_ok

At least one checked parameters (Listener Path) reached the specified thresholds.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

- ERROR_system
  - Command not found
  - Tools directory not found

Oracle Datafile Available

Description

Checks whether a specified Oracle Datafile is available

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Oracle SID

Database name

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`**) or `ALL_DATAFILES` to check all datafiles (default)

Oracle User

Oracle database user

Oracle Password

Encrypted password for Oracle database user

Oracle Global Name

Optional. Oracle global name for remote connect.

Oracle Home

Oracle installation directory.

Oracle OS User

UNIX only. Operating system user that owns the Oracle installation (`oracle` in most cases)

Return Values

available

All specified datafiles are available.

unavailable

At least one of the specified datafiles is not available. The additional info contains a list of all datafiles that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Free Tablespace

Description

This monitor returns the total amount of freespace in Kbyte for all datafiles in the specified tablespace.

Monitoring Frequency

Default is once every hour.

Parameters

Oracle SID

Database name

Tablespace Name

Tablespace name (`SYSTEM`, `FNSYS_TS`, `FNTMP_TS`)

Oracle User

Oracle database user

Oracle Password

Encrypted password for Oracle database user

Oracle Global Name

Optional. Oracle global name for remote connect.

Oracle Home

Oracle installation directory.

Oracle OS User

UNIX only. Operating system user that owns the Oracle installation (`oracle` in most cases)

Return Values

>= 0

Numeric value representing the total amount of freespace in Kbyte.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)

    - Variable not specified
    - general usage

- -30 (installation error)
    - Command not found
    - Environment file not found
    - Environment variable not set
    - Database type not valid
    - Server not configured for Library System
    - Server is no Property Manager
    - Invalid database name

- -40 (database error)
    - SQL tool did not return any result
    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- -50 (application error)
    - Program not running
    - Service not running

- -70 (system error)
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Oracle Next Extent

Description

This monitor checks if there is enough freespace available for the next extent. This check is performed against the largest contiguous block of freespace.

The OracleNextExtend monitor checks for each object in the given tablespace if there is enough freespace for two extents of the object. This check is performed against the largest contiguous block of freespace.

The following objects are checked: tables, indexes, clusters and rollback segments.

The check is performed for every single object. The status `available` does NOT imply that there is enough space if all objects request two extents at the same time.

In addition, it is checked if an object has already reached its maximum number of extents.

Monitoring Frequency

Default is once every hour.

Parameters

Oracle SID

: Database name

Tablespace Name

: Tablespace name (`SYSTEM`, `FNSYS_TS`, `FNTMP_TS`)

Oracle User

: Oracle database user

Oracle Password

: Encrypted password for Oracle database user

Oracle Global Name

: Optional. Oracle global name for remote connect.

Oracle Home

: Oracle installation directory.

Oracle OS User

: UNIX only. Operating system user that owns the Oracle installation (`oracle` in most cases)

Return Values

available

There is enough freespace for the next extent in the specified tablespace.

unavailable

There is not enough freespace one or more objects to extend twice or one or more objects have reached their maximum number of extents. The additional info contains a list of these objects and a specific description of the error.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system

- Cannot create temporary file
- Command not found
- Tools directory not found
- Product name not valid

Oracle NonActive Redologs

Description

Returns the number non active Oracle Redologs. Non active redologs are redologs with state `STALE`, `CURRENT` or `INACTIVE`.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Oracle SID

: Database name

Oracle User

: Oracle database user

Oracle Password

: Encrypted password for Oracle database user

Oracle Global Name

: Optional. Oracle global name for remote connect.

Oracle Home

: Oracle installation directory.

Oracle OS User

: UNIX only. Operating system user that owns the Oracle installation (`oracle` in most cases)

Return Values

>= 0

: Number of non-active redologs.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name
- -40 (database error)
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed
- -50 (application error)
  - Program not running
  - Service not running
- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Processes

Description

Monitors Oracle processes or Oracle NT services for all specified SIDs.

Monitored processes are: **ora_pmon_<database ID>**, **ora_smon_<database ID>**, **ora_lgwr_<database ID>**, **ora_dbwr_<database ID>**.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

Oracle SID

Comma-separated list of SIDs.

Return Values

up

All specified SIDs running.

down

At least one SID is not running. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Rollback Segment Online

Description

Checks whether a specified FileNet Oracle Rollback Segment is online or not.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Oracle SID

Database name

Rollback Segment

Comma-separated list of rollback segment names (e.g. **`RS0,RS1,SYSTEM`**) or `ALL_SEGMENTS` to check all rollback segments (default)

Oracle User

Oracle database user

Oracle Password

Encrypted password for Oracle database user

Oracle Global Name

Optional. Oracle global name for remote connect.

Oracle Home

Oracle installation directory.

Oracle OS User

UNIX only. Operating system user that owns the Oracle installation (`oracle` in most cases)

Return Values

online

All specified rollback segments are online.

offline

At least one of the specified rollback segments is offline. The additional info contains a list of all rollback segments that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Tablespace Available

Description

Monitors a specified FileNet Oracle Tablespace for availability.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Oracle SID

Database name

Tablespace

Comma-separated list of tablespace names (e.g. **`SYSTEM,FNTMP_TS,FNSYS_TS`**) or `ALL_TABLESPACES` to check all tablespaces (default)

Oracle User

Oracle database user

Oracle Password

Encrypted password for Oracle database user

Oracle Global Name

Optional. Oracle global name for remote connect.

Oracle Home

Oracle installation directory.

Oracle OS User

UNIX only. Operating system user that owns the Oracle installation (`oracle` in most cases)

Return Values

available

All specified tablespaces are available.

unavailable

At least one of the specified tablespaces is not available. The additional info contains a list of all tablespaces that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle User Account Status

Description

Monitors whether a specified Oracle account will expire within the next days.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Oracle SID
: Database name

User Account
: name of user account to check

Days
: number of days to check from current date

Oracle User
: Oracle database user

Oracle Password
: Encrypted password for Oracle database user

Oracle Global Name
: Optional. Oracle global name for remote connect.

Oracle Home
: Oracle installation directory.

Oracle OS User
: UNIX only. Operating system user that owns the Oracle installation (`oracle` in most cases)

Return Values

ok
: The Oracle account will not expire within specified number of days.

not_ok
: The Oracle account will expire within the specified number of days.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Process Instances

Description

This monitor checks if the Content Engine Wndows services are running. The monitor checks the following services if they are installed and enabled:

- `Apache2`
- `Content Engine Content Cache Service`
- `Content Engine File Store Service`
- `Content Engine Object Store Service`
- `FileNet P8 CFS Server for Image Services`
- `IIS Admin Service`
- `World Wide Web Publishing Service`

Monitoring Frequency

Default is once every 5 minutes.

Parameters

None.

Return Values

ok

All services are running as specified.

not_ok

One or more services are not running. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - Variable not valid / no directory
  - general usage
- ERROR_system
  - Command not found

- Tools directory not found
- Product name not valid

Publishing Queue Entries

Description

This monitor returns the number of entries in the Publishing Queue in the given objectstore.

Monitoring Frequency

Default is once every 60 minutes.

Parameters

Object Store

Comma-separated list of the object stores that must be checked

Entry Types

Entry types to count.

You can specify a list of entry types separated by `,` or `;`. If no entry type is specified, all entry types are counted.

Valid values are: `inQueue`, `inWork`, `inError`, or `allStates`.

Return Values

>= 0

Largest number of Publishing Queue entries; all object stores are listed in the additional info.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found

- Environment file not found
- Environment variable not set

- -50 (application error)
  - java tool returned an error

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name is invalid

WebServerMonitoring

Description

This monitor checks the Apache 2 service and, if configured, the IIS Web Service (W3SVC). Additioanally the monitor checks the accessibility of one Apache and (optional) one IIS Web page.

Monitoring Frequency

No default schedule

Parameters

None

Return Values

ok

Processes / Services are running, specified Web page(s) can be accessed (optional)

not_ok

At least one process / service is not running or the Web page cannot be accessed (optional). Check detailed output for more detailed information.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage
  - Variable not specified
  - Component not installed
- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Server not configured for System
- ERROR_system
  - Cannot create temporary file

- Command not found
- Tools directory not found
- Product name not valid

Chapter 7. FileNet Email Manager and Records Crawler Monitors

NumberOfFiles

Description

This monitor returns the number of files in the temporary directory of the Email Manager and/or Records Crawler. The name of this directory is read directly from the FileNet database.

Monitoring Frequency

Default is once every 60 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_PRODUCTS` (default). If more than one product is specified, the temporary directories for all these products will be checked and the highest number will be returned.

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

>= 0

Number of files in the temporary directory of the given product or maximal number if list of products was specified.

The additional info contains a list of all directories that were checked and the number of files in each of the directories.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found

- Environment file not found
- Environment variable not set

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Database Size

Description

This monitor checks the database size for the Email Manager database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Dataspace

Check size of dataspace (`yes` / `no`)

Logspace

Check size of logspace (`yes` / `no`)

Return Values

>= 0

Size of database in MB. Depending on the selection, this is the size of dataspace or logspace or the total size (dataspace + logspace).

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid

- Invalid platform
- Server not configured for Library System
- Server is no Property Manager
- Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Database Status

Description

This monitor checks the database status for the Email Manager database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

available

The database is in normal processing mode.

unavailable

The database is in an error state. See additional info for the actual state information of the database.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System

- Server is no Property Manager
- Invalid database name

- ERROR_rdbms
  - Database error
  - Database not running

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Dataspace Used

Description

This monitor checks the amount of used dataspace for the Email Manager database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

>= 0

Amount of used dataspace in MB.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running
- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Dataspace Used Pct

Description

This monitor checks the percentage of used dataspace for the Email Manager database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

>= 0

Percentage of used dataspace.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running
- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Logspace Used

Description

This monitor checks the amount of used logspace for the Email Manager database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

>= 0

Amount of used logspace in MB.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running
- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Logspace Used Pct

Description

This monitor checks the percentage of used logspace for the Email Manager database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

>= 0

Percentage of used logspace.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running
- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Number Of Processes

Description

This monitor checks the number of processes for the Email Manager database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 10 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

>= 0

Number of active processes.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error
  - Database not running
- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Processes

Description

Monitors the `MSSQLServer` service or the database instance for the Email Manager database.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

up

The instance isrunning.

down

The instance is not running. See additional info for details.

remote

The instance is installed on a remote server. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Invalid platform

- ERROR_system
  - Command not found

- Tools directory not found
- Product name not valid

Oracle Datafile Available

Description

Checks whether a specified Oracle Datafile is available

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

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`**)
or `ALL_DATAFILES` to check all datafiles (default)

Return Values

available

All specified datafiles are available.

unavailable

At least one of the specified datafiles is not available. The additional info contains a list of all datafiles that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set

- Database type not valid
- Server not configured for Library System
- Server is no Property Manager
- Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Free Tablespace

Description

This monitor returns the total amount of freespace in Kbyte for all datafiles in the specified tablespace.

Monitoring Frequency

Default is once every hour.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Tablespace Name

Tablespace name (`SYSTEM`, `FNSYS_TS`, `FNTMP_TS`)

Return Values

>= 0

Numeric value representing the total amount of freespace in Kbyte.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- -50 (application error)
  - Program not running
  - Service not running

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Next Extent

Description

This monitor checks if there is enough freespace available for the next extent. This check is performed against the largest contiguous block of freespace.

The OracleNextExtend monitor checks for each object in the given tablespace if there is enough freespace for two extents of the object. This check is performed against the largest contiguous block of freespace.

The following objects are checked: tables, indexes, clusters and rollback segments.

The check is performed for every single object. The status `available` does NOT imply that there is enough space if all objects request two extents at the same time.

In addition, it is checked if an object has already reached its maximum number of extents.

Monitoring Frequency

Default is once every hour.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Tablespace Name

Tablespace name (`SYSTEM`, `FNSYS_TS`, `FNTMP_TS`)

Return Values

available

There is enough freespace for the next extent in the specified tablespace.

unavailable

There is not enough freespace one or more objects to extend twice or one or more objects have reached their maximum number of extents. The additional info contains a list of these objects and a specific description of the error.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified

    - general usage

- ERROR_installation
    - Command not found
    - Environment file not found
    - Environment variable not set
    - Database type not valid
    - Server not configured for Library System
    - Server is no Property Manager
    - Invalid database name

- ERROR_rdbms
    - SQL tool did not return any result
    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- ERROR_application
    - Program not running
    - Service not running

- ERROR_system
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Oracle NonActive Redologs

Description

Returns the number non active Oracle Redologs. Non active redologs are redologs with state `STALE`, `CURRENT` or `INACTIVE`.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Return Values

>= 0

Number of non-active redologs.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name
- -40 (database error)

- SQL tool did not return any result
- SQL tool returned invalid result
- Database error
- Internal error executing SQL statement
- Database is currently starting or stopping
- Database not running
- Login to database failed

- -50 (application error)
  - Program not running
  - Service not running

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Processes

Description

Monitors Oracle processes or Oracle Windows services for the SID specified during Email Manager configuration.

Monitored processes are: **ora_pmon_<database ID>**, **ora_smon_<database ID>**, **ora_lgwr_<database ID>**, **ora_dbwr_<database ID>**.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Check Listener With Tools

Specify `Y` to check the listener with the tools **lsnrctl** and **tnsping**. Specify `N` to skip this check.

Listener Name

Listener name.

Listener Password

Encrypted password of the listener. Leave this field empty or enter `__UNSET__` if no password exists.

Return Values

up

The Oracle instance is running.

down

The Oracle instance is not running. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified

    - general usage

- ERROR_installation
    - Command not found
    - Environment file not found
    - Environment variable not set
    - Database type not valid
    - Server not configured for Library System
    - Server is no Property Manager

- ERROR_system
    - Command not found
    - Tools directory not found
    - Product name not valid

Oracle Rollback Segment Online

Description

Checks whether a specified Oracle Rollback Segment is online or not.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Rollback Segment

Comma-separated list of rollback segment names (e.g. **`RS0,RS1,SYSTEM`**) or `ALL_SEGMENTS` to check all rollback segments (default)

Return Values

online

All specified rollback segments are online.

offline

At least one of the specified rollback segments is offline. The additional info contains a list of all rollback segments that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid

- Server not configured for Library System
- Server is no Property Manager

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Tablespace Available

Description

Monitors a specified Oracle Tablespace for availability.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

Tablespace

Comma-separated list of tablespace names (e.g. **`SYSTEM,FNTMP_TS,FNSYS_TS`**) or `ALL_TABLESPACES` to check all tablespaces (default)

Return Values

available

All specified tablespaces are available.

unavailable

At least one of the specified tablespaces is not available. The additional info contains a list of all tablespaces that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid

    - Server not configured for Library System
    - Server is no Property Manager
    - Invalid database name

- ERROR_rdbms
    - SQL tool did not return any result
    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- ERROR_application
    - Program not running
    - Service not running

- ERROR_system
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Oracle User Account Status

Description

Monitors whether a specified Oracle account will expire within the next days.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Product Token

Comma-separated list of product tokens or `ALL_DATABASES` (default).

Valid product tokens are `EM` for Email Manager and `RC` for Records manager.

User Account

name of user account to check

Days

number of days to check from current date

Return Values

ok

The Oracle account will not expire within specified number of days.

not_ok

The Oracle account will expire within the specified number of days.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set

- Database type not valid
- Server not configured for Library System
- Server is no Property Manager
- Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Process Instances

Description

This monitor checks if the Email Manager and Records Crawler Wndows services are running. The monitor 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`

Monitoring Frequency

Default is once every 5 minutes.

Parameters

None.

Return Values

ok

All services are running as specified.

not_ok

One or more services are not running. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - Variable not valid / no directory
  - general usage

- ERROR_system
  - Command not found
  - Tools directory not found

- Product name not valid

Chapter 8. FileNet Capture Monitors

MSSQL Database Size

Description

This monitor checks the database size for the Capture RCS database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Dataspace

Check size of dataspace (`yes` / `no`)

Logspace

Check size of logspace (`yes` / `no`)

Return Values

>= 0

Size of database in MB. Depending on the selection, this is the size of dataspace or logspace or the total size (dataspace + logspace).

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid

- Invalid platform
- Server not configured for Library System
- Server is no Property Manager
- Invalid database name

- -40 (database error)
  - Database error
  - Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Database Status

Description

This monitor checks the database status for the Capture RCS database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

none

Return Values

available

The database is in normal processing mode.

unavailable

The database is in an error state. See additional info for the actual state information of the database.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - Database error
  - Database not running

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Dataspace Used

Description

This monitor checks the amount of used dataspace for the Capture RCS database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

none

Return Values

>= 0

Amount of used dataspace in MB.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Dataspace Used Pct

Description

This monitor checks the percentage of used dataspace for the Capture RCS database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

none

Return Values

>= 0

Percentage of used dataspace.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Logspace Used

Description

This monitor checks the amount of used logspace for the Capture RCS database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

none

Return Values

>= 0

Amount of used logspace in MB.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

- Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Logspace Used Pct

Description

This monitor checks the percentage of used logspace for the Capture RCS database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 30 minutes.

Parameters

none

Return Values

>= 0

Percentage of used logspace.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

    - Database not running

- -70 (system error)
    - Command not found
    - Tools directory not found
    - Product name not valid

MSSQL Number Of Processes

Description

This monitor checks the number of processes for the Capture RCS database.

This monitor can only be run on a Database Server (MSSQLServer) on Windows systems.

Monitoring Frequency

Default is once every 10 minutes.

Parameters

none

Return Values

>= 0

Number of active processes.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Invalid platform
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - Database error

- Database not running

- -70 (system error)
  - Command not found
  - Tools directory not found
  - Product name not valid

MSSQL Processes

Description

Monitors the `MSSQLServer` service or the database instance for the Capture RCS database.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

none

Return Values

up

The instance isrunning.

down

The instance is not running. See additional info for details.

remote

The instance is installed on a remote server. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Invalid platform

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Datafile Available

Description

Checks whether a specified Oracle Datafile is available

Monitoring Frequency

Default is once every 20 minutes.

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`**)
or `ALL_DATAFILES` to check all datafiles (default)

Return Values

available

All specified datafiles are available.

unavailable

At least one of the specified datafiles is not available. The additional info contains a list of all datafiles that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

    - Invalid database name

- ERROR_rdbms
    - SQL tool did not return any result
    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- ERROR_application
    - Program not running
    - Service not running

- ERROR_system
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Oracle Free Tablespace

Description

This monitor returns the total amount of freespace in Kbyte for all datafiles in the specified tablespace.

Monitoring Frequency

Default is once every hour.

Parameters

Tablespace Name

Tablespace name (`SYSTEM`, `FNSYS_TS`, `FNTMP_TS`)

Return Values

>= 0

Numeric value representing the total amount of freespace in Kbyte.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage
- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name
- -40 (database error)
  - SQL tool did not return any result

    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- -50 (application error)
    - Program not running
    - Service not running

- -70 (system error)
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Oracle Next Extent

Description

This monitor checks if there is enough freespace available for the next extent. This check is performed against the largest contiguous block of freespace.

The OracleNextExtend monitor checks for each object in the given tablespace if there is enough freespace for two extents of the object. This check is performed against the largest contiguous block of freespace.

The following objects are checked: tables, indexes, clusters and rollback segments.

The check is performed for every single object. The status `available` does NOT imply that there is enough space if all objects request two extents at the same time.

In addition, it is checked if an object has already reached its maximum number of extents.

Monitoring Frequency

Default is once every hour.

Parameters

Tablespace Name

Tablespace name (`SYSTEM`, `FNSYS_TS`, `FNTMP_TS`)

Return Values

available

There is enough freespace for the next extent in the specified tablespace.

unavailable

There is not enough freespace one or more objects to extend twice or one or more objects have reached their maximum number of extents. The additional info contains a list of these objects and a specific description of the error.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation

    - Command not found
    - Environment file not found
    - Environment variable not set
    - Database type not valid
    - Server not configured for Library System
    - Server is no Property Manager
    - Invalid database name

- ERROR_rdbms
    - SQL tool did not return any result
    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- ERROR_application
    - Program not running
    - Service not running

- ERROR_system
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Oracle NonActive Redologs

Description

Returns the number non active Oracle Redologs. Non active redologs are redologs with state `STALE`, `CURRENT` or `INACTIVE`.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

none

Return Values

>= 0

Number of non-active redologs.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- -10 (usage error)
  - Variable not specified
  - general usage

- -30 (installation error)
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- -40 (database error)
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error

- Internal error executing SQL statement
- Database is currently starting or stopping
- Database not running
- Login to database failed

- -50 (application error)
  - Program not running
  - Service not running

- -70 (system error)
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Processes

Description

Monitors Oracle processes or Oracle Windows services for the SID specified during Capture RCS configuration.

Monitored processes are: **ora_pmon_<database ID>**, **ora_smon_<database ID>**, **ora_lgwr_<database ID>**, **ora_dbwr_<database ID>**.

Monitoring Frequency

Default is once every 5 minutes.

Parameters

Check Listener With Tools

Specify `Y` to check the listener with the tools **lsnrctl** and **tnsping**. Specify `N` to skip this check.

Listener Name

Listener name.

Listener Password

Encrypted password of the listener. Leave this field empty or enter `__UNSET__` if no password exists.

Return Values

up

The Oracle instance is running.

down

The Oracle instance is not running. See additional info for details.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage
- ERROR_installation

- Command not found
- Environment file not found
- Environment variable not set
- Database type not valid
- Server not configured for Library System
- Server is no Property Manager

- ERROR_system
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Rollback Segment Online

Description

Checks whether a specified Oracle Rollback Segment is online or not.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Rollback Segment

Comma-separated list of rollback segment names (e.g. **`RS0,RS1,SYSTEM`**) or `ALL_SEGMENTS` to check all rollback segments (default)

Return Values

online

All specified rollback segments are online.

offline

At least one of the specified rollback segments is offline. The additional info contains a list of all rollback segments that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed
- ERROR_application
  - Program not running
  - Service not running
- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle Tablespace Available

Description

Monitors a specified Oracle Tablespace for availability.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

Tablespace

Comma-separated list of tablespace names (e.g. **`SYSTEM,FNTMP_TS,FNSYS_TS`**) or `ALL_TABLESPACES` to check all tablespaces (default)

Return Values

available

All specified tablespaces are available.

unavailable

At least one of the specified tablespaces is not available. The additional info contains a list of all tablespaces that are offline.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager
  - Invalid database name

- ERROR_rdbms
  - SQL tool did not return any result
  - SQL tool returned invalid result
  - Database error
  - Internal error executing SQL statement
  - Database is currently starting or stopping
  - Database not running
  - Login to database failed

- ERROR_application
  - Program not running
  - Service not running

- ERROR_system
  - Cannot create temporary file
  - Command not found
  - Tools directory not found
  - Product name not valid

Oracle User Account Status

Description

Monitors whether a specified Oracle account will expire within the next days.

Monitoring Frequency

Default is once every 20 minutes.

Parameters

User Account

name of user account to check

Days

number of days to check from current date

Return Values

ok

The Oracle account will not expire within specified number of days.

not_ok

The Oracle account will expire within the specified number of days.

List of possible error conditions

For details see *Overview of Monitor error codes*.

- ERROR_usage
  - Variable not specified
  - general usage

- ERROR_installation
  - Command not found
  - Environment file not found
  - Environment variable not set
  - Database type not valid
  - Server not configured for Library System
  - Server is no Property Manager

    - Invalid database name

- ERROR_rdbms
    - SQL tool did not return any result
    - SQL tool returned invalid result
    - Database error
    - Internal error executing SQL statement
    - Database is currently starting or stopping
    - Database not running
    - Login to database failed

- ERROR_application
    - Program not running
    - Service not running

- ERROR_system
    - Cannot create temporary file
    - Command not found
    - Tools directory not found
    - Product name not valid

Chapter 9. Using CalaMoMa

Using CalaMoMa to modify and create calamon command tables

Starting the CalaMoMa

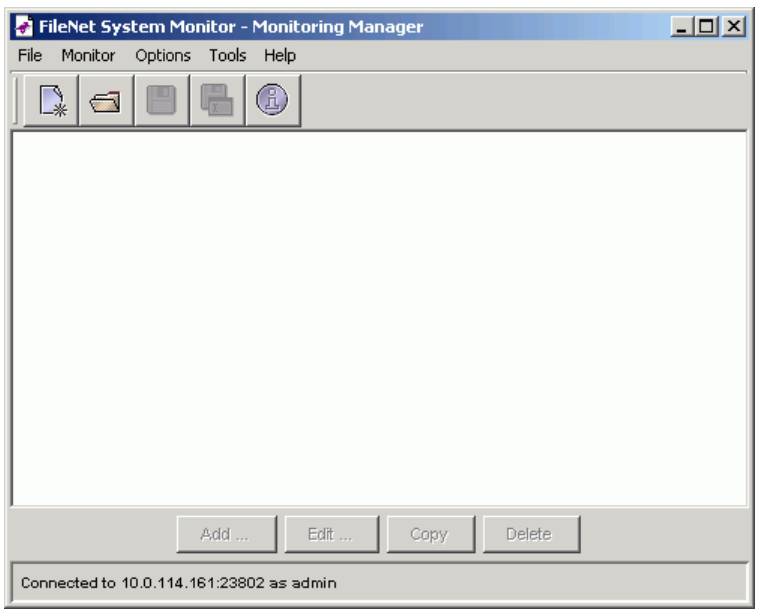
Start the CalaMoMa using Java WebStart. via the WebConsole.

If you installed CalaMoMa locally, you will find a file `calamoma.sh` (or `calamoma.bat` for users of Microsoft Windows) in the installation directory which starts the CalaMoMa program.

If **java** is not in the `PATH` environment, please set the environment variable JDK before executing the script/batch-file.

The main window

After starting the CalaMoMa you get the following window:

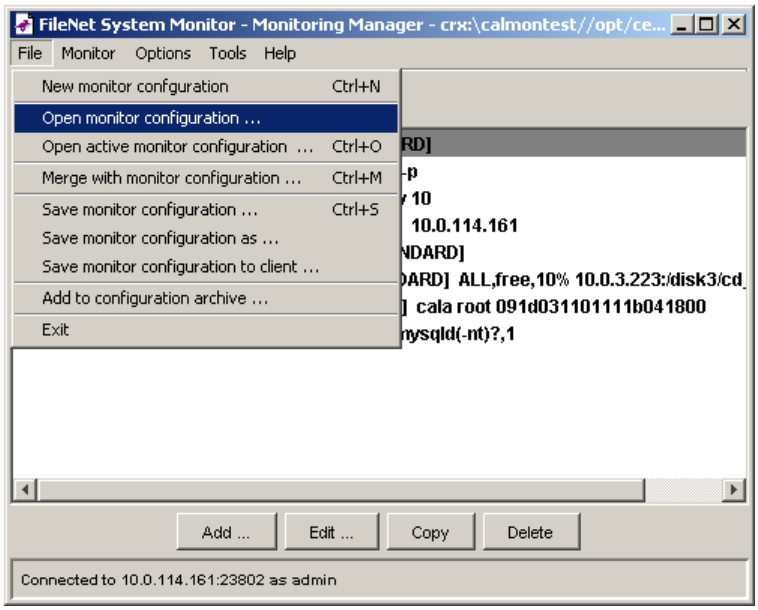


CalaMoMa main window

Note: The screenshots in this guide were taken from a CalaMoMa using the Windows look & feel. If you are using any other look & feel manager, the look of your user interface may differ in some details.

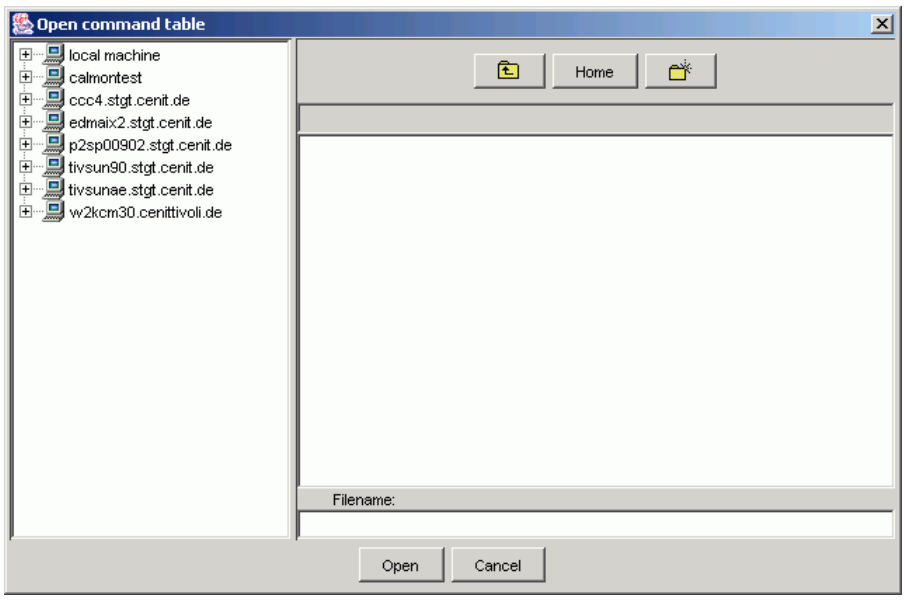
The center part of the window contains a listbox showing all configured monitors. Because there is currently no configuration loaded, this listbox is empty and the edit buttons are all disabled.

An existing configuration can be loaded by selecting File⟶Open monitor configuration ... from the menu.



Menu Open monitor configuration

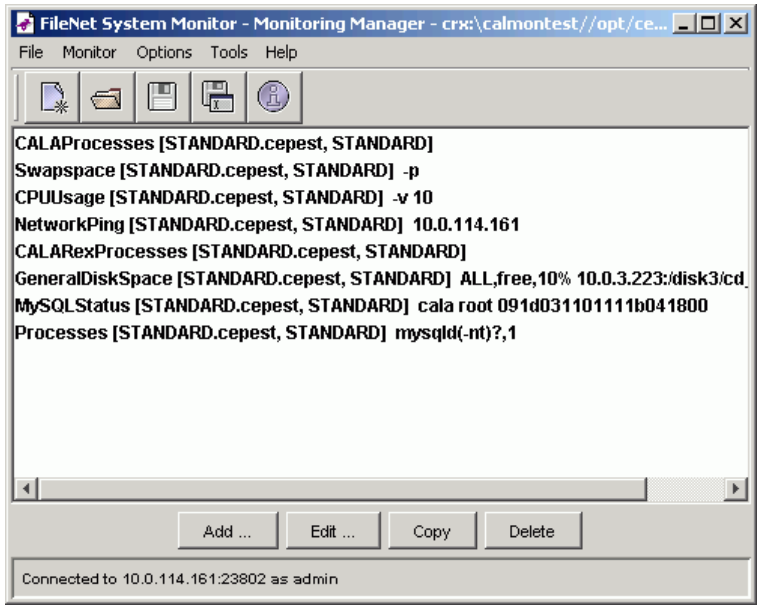
This opens a file dialog box, which can handle local files as well as files on remote systems which are available via cala_rex.



File open dialog

After selecting a command table file and pressing the Open button from the file dialog, the main

window looks a little more interesting:



CalaMoMa main window with loaded monitor configuration

Each line shows a summary of the configured monitor. The selected monitor is marked with a gray background.

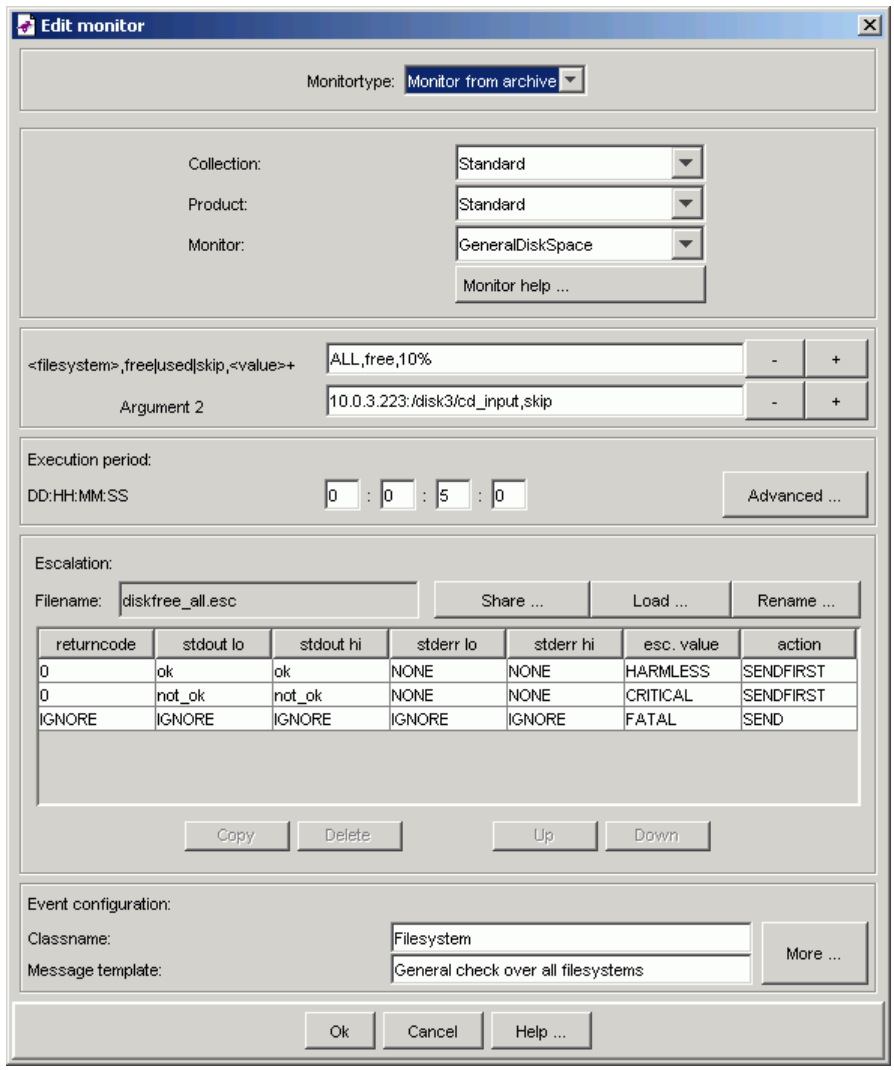
There are four buttons at the bottom of the window:

- the New ... button is used to add a new monitor
- the Edit ... buttons is used to change the configuration of the selected monitor
- the Copy button creates a copy of the selected monitor (useful if two monitor configurations differ only in a few parameters)
- the Delete button removes the selected monitor

If New ... or Edit ... is selected, the monitor configuration window is openend:

The monitor configuration window

The main monitor configuration window shows the details of a configured monitor:



Monitor configuration window

Monitortype

Defines whether to define a custom monitor or to use a monitor from a CEPEST archive

Collection

Defines the collection of the selected archive

Product

Defines the product name of the selected archive

Monitor

Defines the Monitor name (if archive) or the name of the script , which will be executed

<Argument n>

A list of predefined parameters (if archive mode) or free list of parameters, which can be defined (added or removed) by the user

Execution period

DD:HH:MM:SS

These fields (day, out minute, second) are used to specify the schedule of the monitor. Example: If you define 0:00:10:00, the monitor will be started every 10 minutes. Use the Advanced ... button to specify advanced scheduling parameters like execution from Monday to Friday between 5pm and 6am.

Escalation

Filename

Specify the name of the escalation file which will be created or will be shared with any other monitor. Use the Share ... to share the escalation file of another monitor. Use the Load ... button to load an existing escalation file. Use the Rename ... button to rename the escalation file, either for all monitors that use this file or only for the monitor that you are currently editing.

<each escalation line>

defines one monitoring level (indicated by the severity). This level is reached, when the numeric return value of the monitor is within the range of field stdout lo and stdout hi . The stderr output of the monitor can be used for triggering, too. In this case an event will be generated with the defined severity, if action is set to `SEND`, otherwise it will be discarded. If action is set to `SENDFIRST`, only the first event matching this line will be sent. All other events that match this line will be suppressed until an event is generated that matches another line in the escalation file.

In the example escalation file above, only the first `HARMLESS` event will be sent. Subsequent `HARMLESS` events will be suppressed until a `WARNING` or `FATAL` event is generated.

If a monitor has terminated, the escalation table is processed top-down using the monitor's output to stdout, stderr and its return code. The first matching line is executed, so be aware of the sequence of the escalation rows.

To change the sequence of an escalation table, select a row by clicking on one field within this row and use the Up and Down buttons to move the row across the table. To remove a row select it and press the Delete button, to copy it press the Copy button.

Area

Defines the area where events that are generated from this monitor will be displayed (can be changed in the window which appears if the More button is pressed).

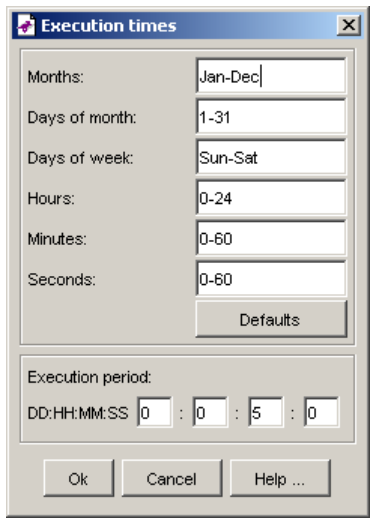
Message template

A message template to create an user-readable message. The message template can contain links to other fields (e.g. the stdout and stderr fields). Links to other fields are indicated by writing the field name enclosed with < and >.

For more information about the message fields refer also to the appendix *The command table file format*.

Advanced execution time settings

The Execution times window is opened by pressing the Advanced ... button in the monitor configuration window. It is used to specify exactly when a monitor is to be executed.



Execution times window

The upper fields define the space(s) of time when the monitor should be exeuted.

Months

Valid values for months are: `Jan`, `Feb`, `Mar`, `Apr`, `Jun`, `Jul`, `Aug`, `Sep`, `Oct`, `Nov`, `Dec` and the numbers from `1` to `12`.

Days of month

Valid values for days of month are: the numbers from `1` to `31`

Days of week

Valid values for days of week are: `Sun`, `Mon`, `Tue`, `Wed`, `Thu`, `Fri`, `Sat`

Hours

Valid values for hours are: the number from `0` to `24` (`0` and `24` are the same)

Minutes

Valid values for minutes are: the numbers from `0` to `60` (`0` and `60` are the same)

Seconds

Valid values for seconds are: the numbers from `0` to `60` (`0` and `60` are the same)

Two valid values may be combined with a dash like in `0-60` which means all values between the boundaries (including the boundary values). Valid values can also be combined with a comma, which means that only the specified values match. Even complex combination like `1-10,15-20,30` are possible .

Execution period DD:HH:MM:SS

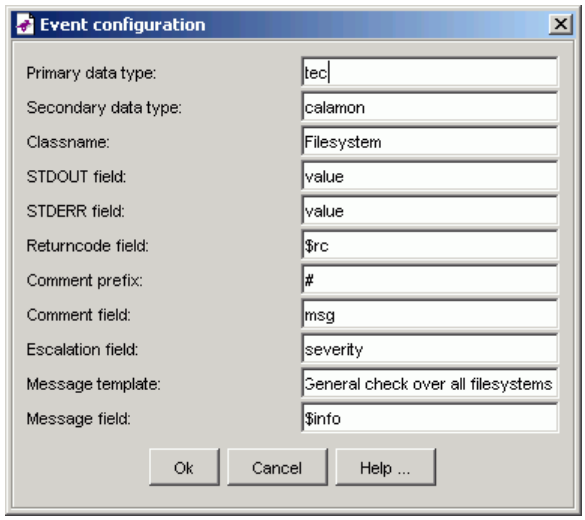
The execution period defines the period in which the monitor is executed within the defined space(s) of time.

The example monitor from the screenshots is defined to run every day and with a period of 2 minutes.

Event configuration

When pressing the More ... button in the Event Configuration area, the Event Configuration dialog appears.

This dialog defines the following fields:



Event configuration

Primary data typa

The primary data type (`$PRITYPE`) for CALA. Default is `tec`. This field should not be changed.

Secondary data type

The secondary data type (`$SECTYPE`) for CALA. Default is `calamon`. This field should not be changed.

Area

This is the area where the monitor value will be displayed

STDOUT field

The field to receive the output of the monitor to stdout. If the same field name is given for stdout and stderr, the output is merged (similar to the 2>&1 shell construct). Default is `value`. This field shouldd not be changed.

STDERR field

The field to receive the output of the monitor to stderr. If the same field name is given for stdout and stderr, the output is merged (similar to the 2>&1 shell construct). Default is `value`. This field shouldd not be changed.

Returncode field

The field to receive the shell return code of the monitor. Default is `rc`. This field shouldd not be changed.

Comment prefix

The monitor may write additional information to stdout this is the prefix for such comments. Lines starting with this prefix are removed from stdout and put into the comment field. The comment prefix has to be the first non-whitespace in a line. Default is `#`.

Comment field

The field to receive the comment output of the monitor. Default is `msg`. This field shouldd not be changed.

Escalation field

The escalation field (which is filled by the escalation table). Default is `severity`. This field should not be changed.

Message template

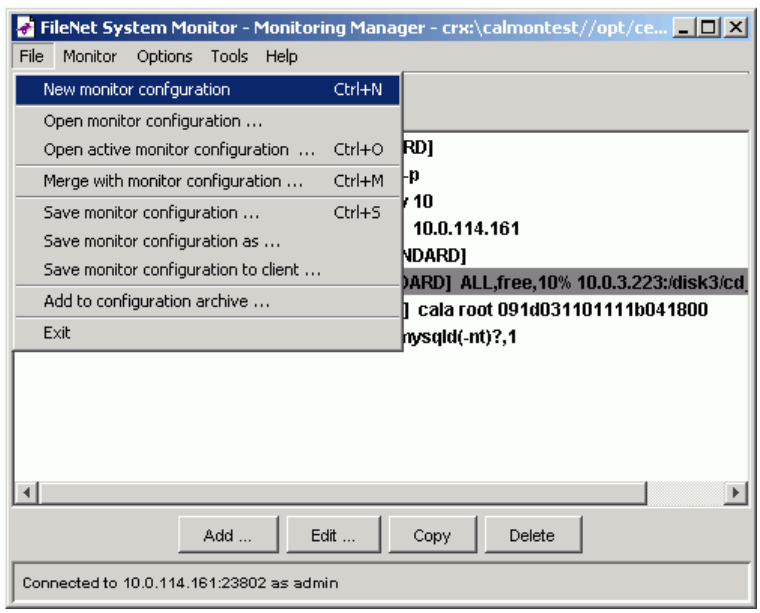
A message template to create an user-readable message. The message template can contain links to other fields (e.g. the stdout and stderr fields). Links to other fields are indicated by writing the field name enclosed with < and >.

Message field

The field to receive the user-readable message. Default is `$info`. This field shouldd not be changed.

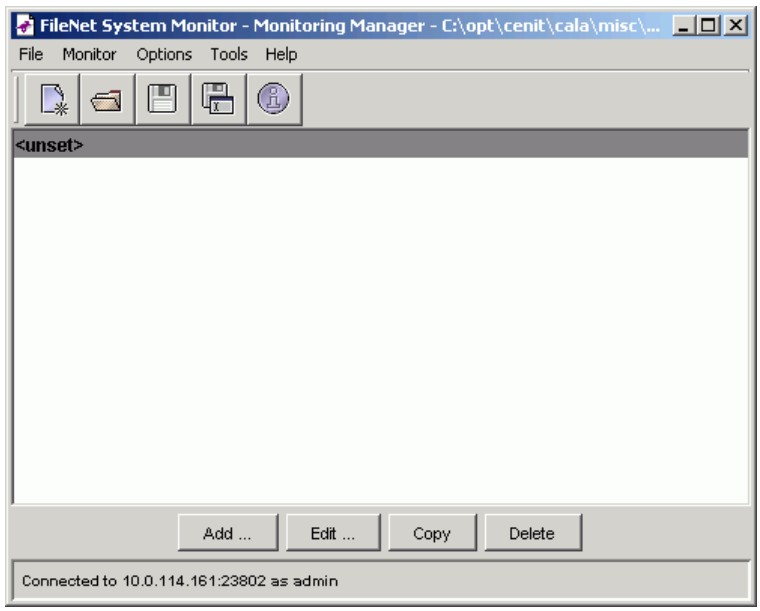
Creating a command table from scratch

If there is no existing command table configuration you can build up from, select File⟶New monitor configuration …from the menu.



Menu New monitor configuration

This creates a new command table with a new unconfigured monitor:



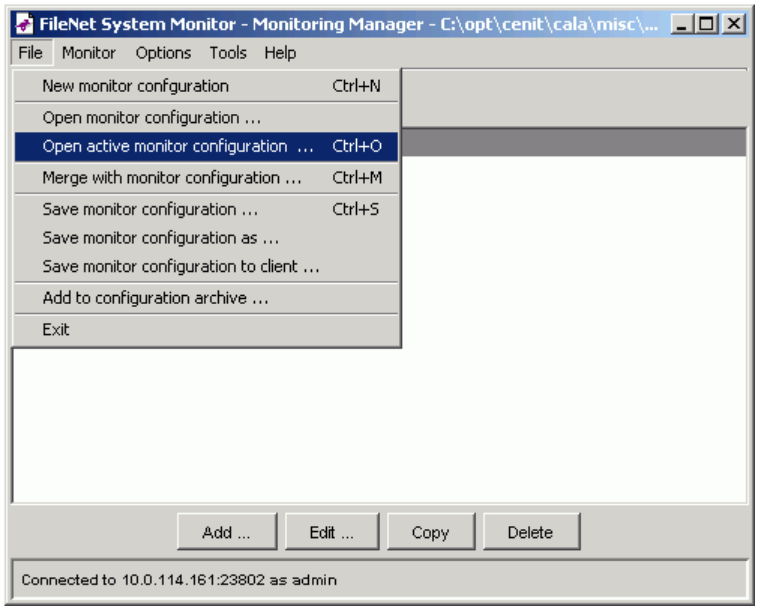
CalaMoMa main window with new monitor configuration

This monitor can be configured as described above. More monitors can be added by using the New ... and the Copy buttons.

Using CalaMoMa to modify remote configurations

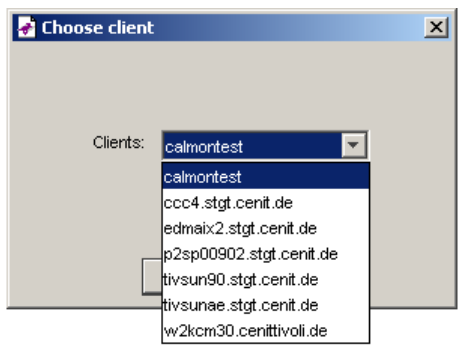
The CalaMoMa can access remote configuration files using the CALA Remote Execution (cala_rex).

To edit a remote configuration from a client select File⟶Open active monitor configuration ... from the menu.



Menu Open active monitor configuration

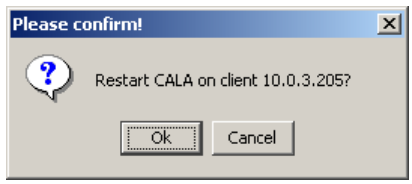
A dialog opens where you can select a client.



Client chooser

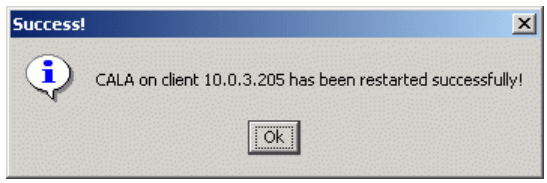
CalaMoMa looks for the file `$CENIT_ROOT/cala/misc/cmdtab_merged.ctb` on the client. The setting of `$CENIT_ROOT` depends on the installation location of the cala_rex client.

If you save a command table that has been loaded using the menu item File⟶Open active monitor configuration ..., you will be asked if CALA should be restarted on the client:



Dialog Confirm CALA restart

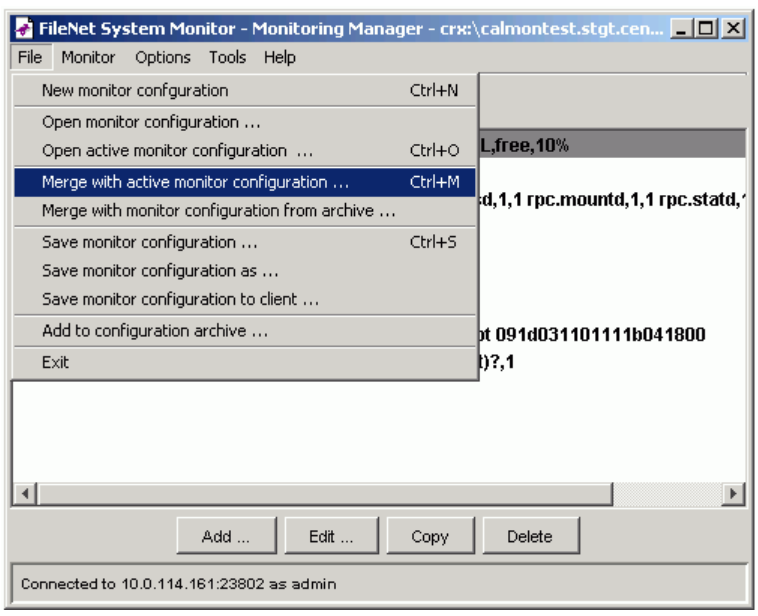
If you click Ok, CALA will be restarted. You will see a message box with a success or error message.



Dialog CALA restart success

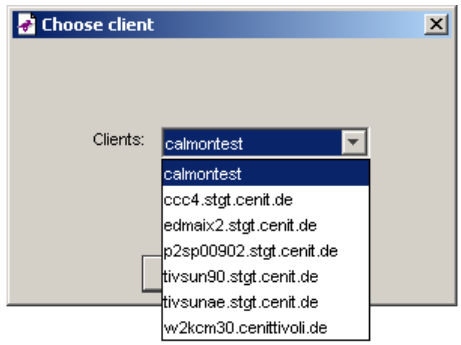
Merging monitor configurations

You can use the menu entry File⟶Merge with monitor active configuration ... to merge the configuration from another client into the monitor configuration that is already loaded.



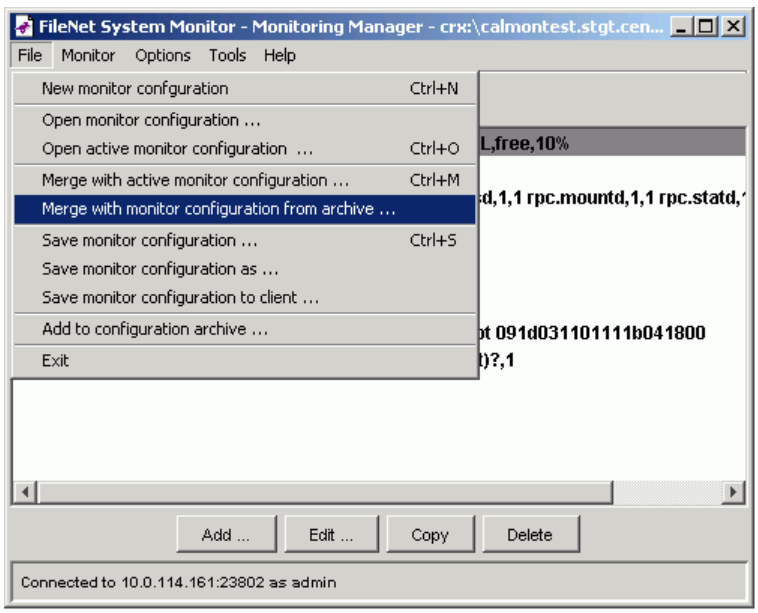
Menu Merge with monitor configuration ...

A dialog opens where you can select a client.



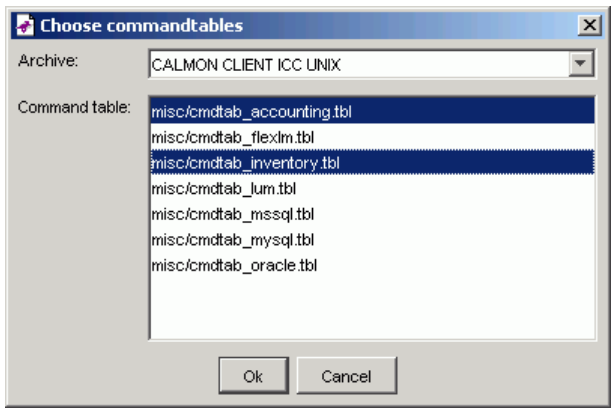
Client chooser

Another possibility is to use the menu entry File⟶Merge with monitor configuration from archive ... to to load preconfigured monitors from a configuration archive into the monitor configuration that is already loaded.



Menu Merge with monitor configuration ...

A dialog opens where you can select a configuration archive. The listbox labeled Command tables: shows all command tables that are preconfigured in the selected archive. Select one or more command tables and press Ok to merge them into the current command table.



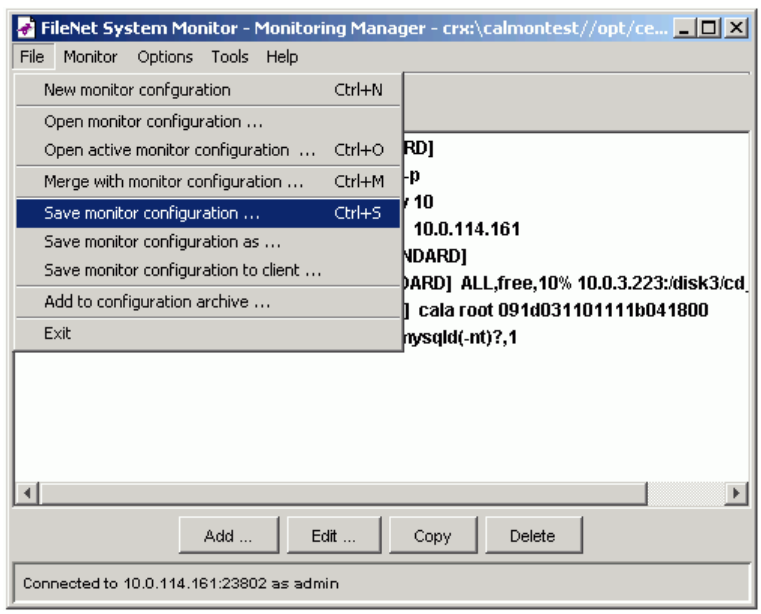
Client chooser

CalaMoMa compares both monitor configurations. Duplicate monitors will be removed from the resulting monitor configuration. A monitor is considered as a duplicate of another monitor if the monitor name is the same and both monitors have the same arguments (count and value). If two monitors only differ in the execution time settings and/or the advanved event configuration, the monitor definition from the configuration that was loaded first will be used.

After adjusting the merged command table, you can save it to any client that is available in the client chooser available via the File⟶Save monitor configuration to client ...menu entry.

Saving configuration and restarting CALA

If the configuration has been changed, it is saved by selecting File⟶Save monitor configuration or File⟶Save monitor configuration as... from the menu.

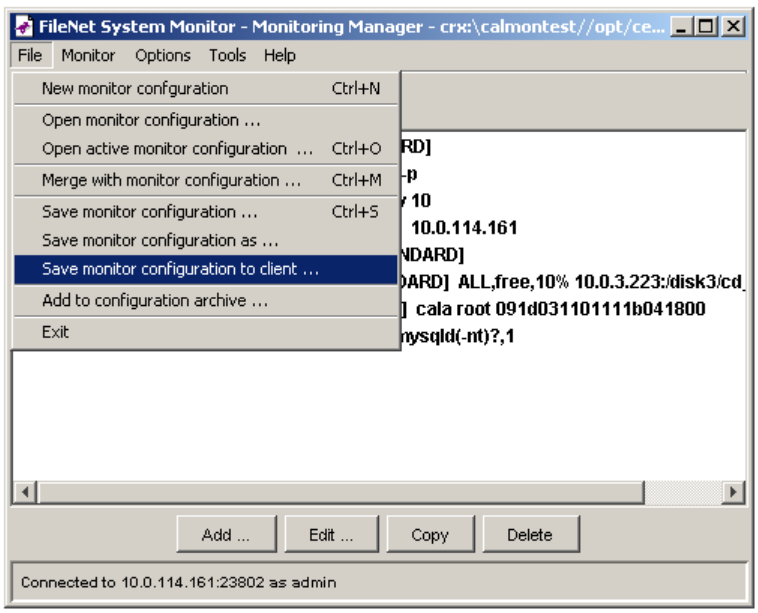


Menu Save monitor configuration

For the saved modifications to take effect, CALA is restarted automatically on the client.

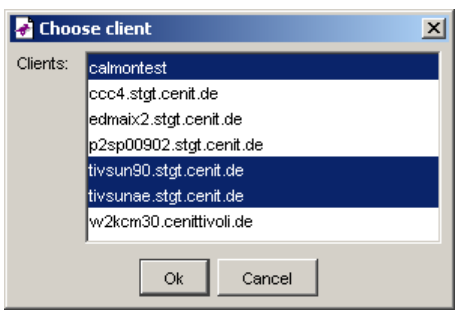
> **Note:** If your CALA configuration on the client did not use the calamon component before, ensure that it is configured in the `logctlsrv.conf` file before saving the monitor configuration.

To save the monitor configuration to a different client or to more than one client at once, choose File⟶Save monitor configuration to... from the menu.



Menu Save monitor configuration to client ...

A client chooser opens where you can select all clients where the current monitor configuration should be saved to.

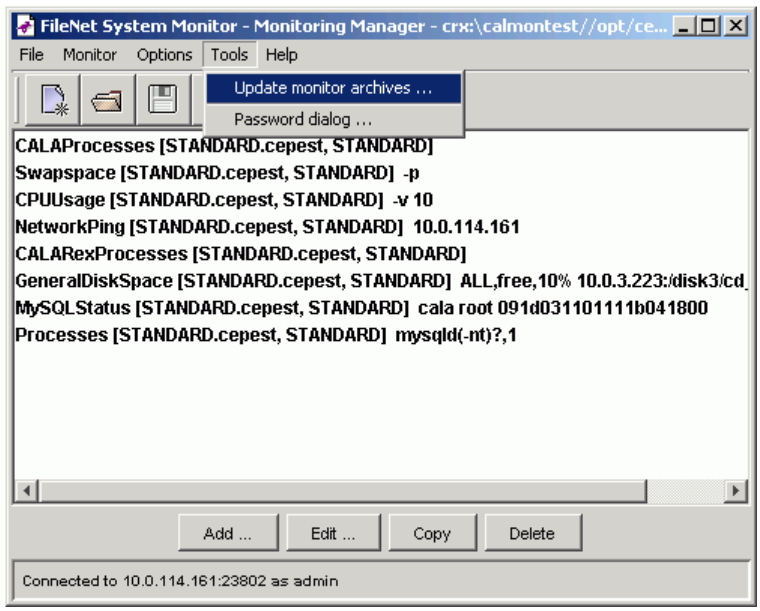


Client chooser for multiple clients

The monitor configuration will be saved to all selected clients. in addition, the cepest archives will be distributed and the CALA will be restarted to activate the changes.

Handling CEPEST monitor archives

As explained in chapter `Monitoring collections`, some standard monitors are bundles in cepest archives. CalaMoMa contains a toolset to update those archives easily from a server.



Menu Update ceepst archives

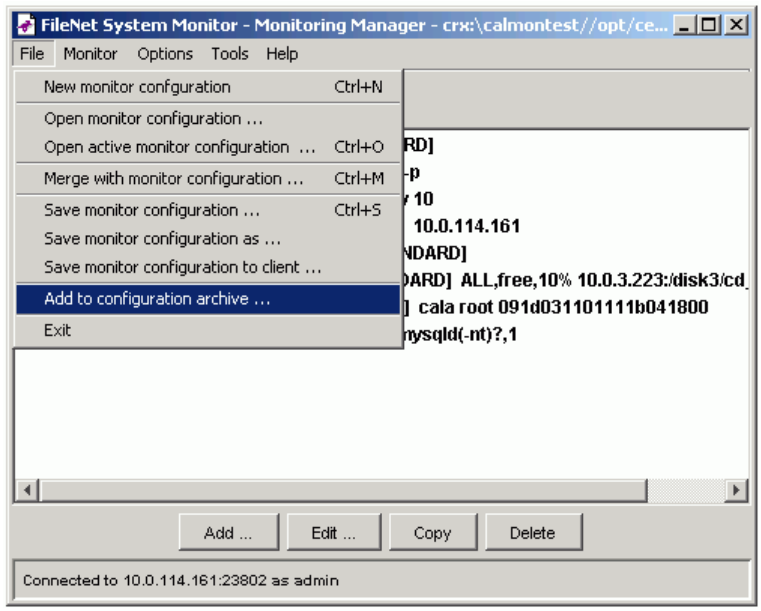
To update the local cepest monitor archives on a cala_rex client from the server, choose Tools⟶Update monitor archives ... from the menu, which opens a dialog for choosing the cala_rex client for update.

Adding a command table to a configuration archive

The CALA installer delivered with FSM uses configuration archives to install clients with prepared configurations. CalaMoMa supports adding custom monitors to such configuration archives.

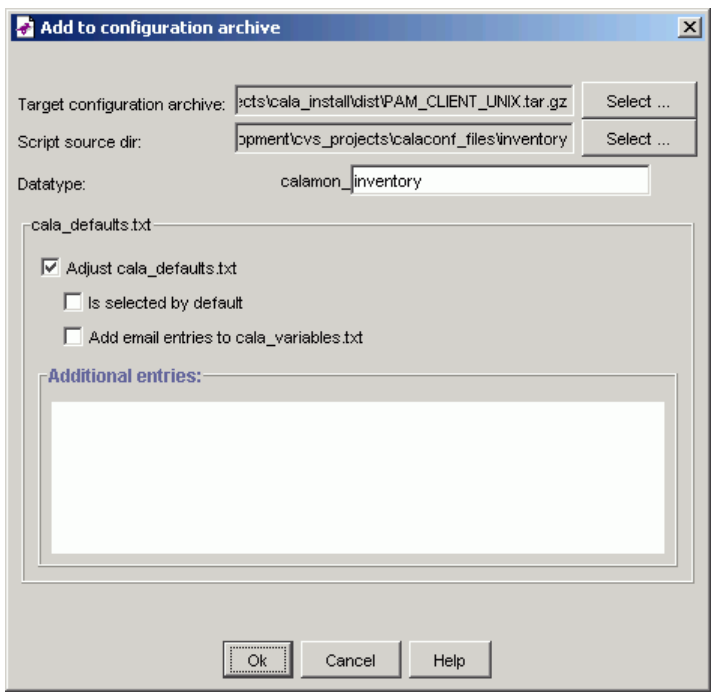
The following steps need to be done:

- create a command table containing the monitors to be added
- configure the monitors
- copy the custom monitors script and programs into one directory
- select File⟶Add to configuration archive ...from the menu



Menu Add to configuration archive

- the Add to configuration archive dialog window appears



Dialog Add to configuration archive

Target configuration archive

select the configuration archive to add the monitor to

Script source dir

select the directory which contains the monitor scripts and programs (they are copied to the archive file)

Datatype

insert the datatype to be used for this command table (the prefix `calamon_` is mandatory and cannot be changed)

These three parameters must be given to unlock the `ok` button. There are also some options depending the `cala_defaults.txt` file:

Adjust cala_defaults.txt

select this checkbox to add the data type to the selection displayed at installation time

Is selected by default

check this to make this datatype pre-selected for installation

Add email entries to cala_variables.txt

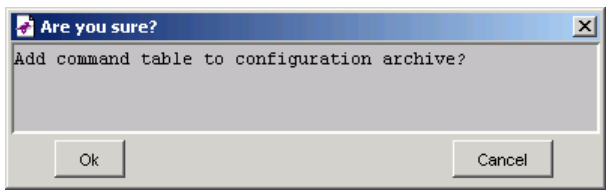
If this is selected, the installation dialog allows to enter the email address of the administrator for this data type.

Additional entries to cala_variables.txt

enter additional entries to cala_variables.txt (e.g. variables to be replaced by installer) here

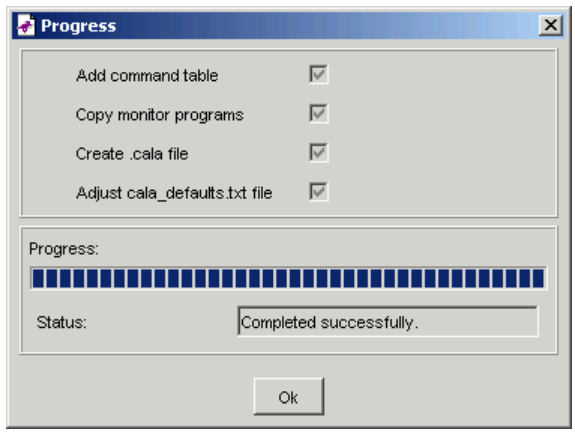
Afer filling out all required fields, the Ok button is activated.

After pressing Ok, a confirmation dialog is displayed.



Dialog Confirm adding to configuration archive

After the action has been confirmed, the progress dialog showing the action progress appears.



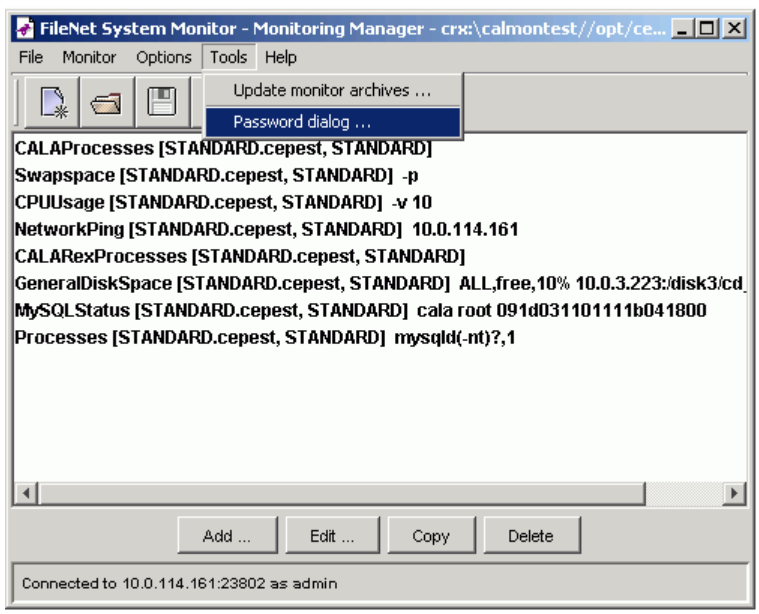
Progress dialog

Clicking Ok closes all open dialogs and returns to the CalaMoMa main screen.

The password encryption dialog

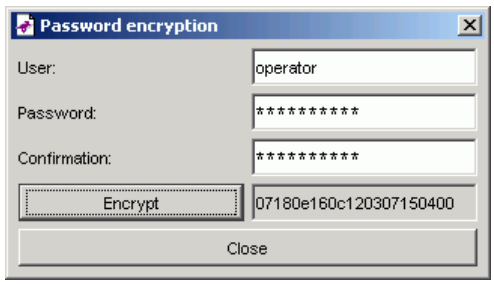
To avoid unencrypted passwords in configuration files or being tranfered over the network, all CALA components that need passwords (e.g. the sqlreaders and writers) use encrypted ones. To get the encrypted password text, the password encryption dialog is used.

The password dialog is opened via the tools menu.



Menu Password dialog

The appearing window shows some entry fields:



Dialog Password encryption

User

Enter the user the password is associated with

Password

Enter the password

Confirmation

Re-enter the password

After the information has been entered in the entry fields, press the Encrypt button. The encrypted password appears in the field on the right of the button.

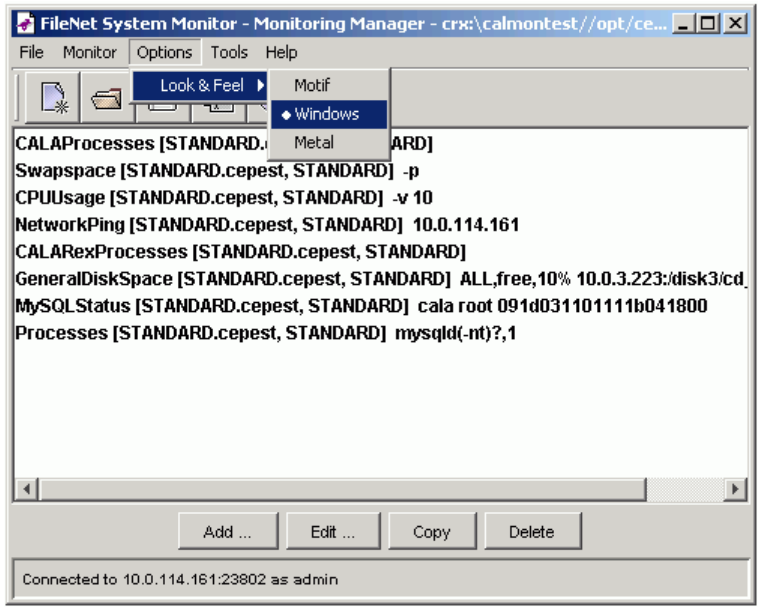
This encrypted password can be copied to the CALA configuration file.

Options and Configuration

Options

The *Options* menu has one submenu:

- The Look & Feel submenu lets you choose the look & feel manager. Changes made in this menu are non-permanent, they are lost if the program is exited.



Menu Options

You can set default values for this options (and many others) in the configuration file (see next section).

The configuration files

The CalaMoMa uses two configuration files which both have to be placed in the directory the CalaMoMa is started from.

The language definition file

The file `CalaCoMa.properties` is the language definition file. All texts displayed from the CalaMoMa are defined in this file. Depending on your `LANG` environment variable, another file named `CalaCoMa_<any_language_id>. properties` can be used.

See java documentation for `java.util.ResourceBundle` for further information.

The personal properties file

Personal preferences like colors, fonts, default look & feel manager etc. can be set in the file `CalaCoMa_personal.properties`.

If this file does not exist, the default configuration is used. A sample properties file `CalaCoMa_personal.properties.example` is shipped with the CalaMoMa and can be adapted for your own preferences.

Refer to appendix for an example personal properties file.

Chapter 10. Writing custom monitors

This chapter explains some things to consider when developing custom monitors.

First there are two types of monitors:

- numerical monitors, which return a numeric value
- alphanumerical monitors, which return a text

The advantage of numerical monitors is that the stdout and stderr high and low feature can be used in the escalation table. (For example, it is possible to specify an escalation like if value is between 90 and 100 set severity to `HARMLESS`, if it s between 80 and 90 set severity to `CRITICAL` and if it s lower than 80 set severity to `ERROR`.

For alphanumerical monitors, all possible return values should be known to create a complete escalation table. Most alphanumerical monitors simply return `ok` or `not_ok` which is enough in many cases.

A monitor should return its value either to stdout or via return code (exit). Although it would be possible to pass a return value via stderr, it s recommended to avoid this.

Alphanumerical monitors should therefore use stdout to pass their return values.

If stdout is used for value return, additional information can be passed to CALA using comment lines.

Comment lines are starting with a defined prefix (the hash symbol # by default) and are not interpreted as the value of the monitor but copied into an separate event field.

This additional information can be used by the administrator to get an idea of the system status, even if everything seems ok.

Last but not least you should keep in mind that a monitor may be needed on several platforms and should therefore be developped as platform independent as possible.

An example monitor

This example monitor checks a directory for core-files:

```
#!/bin/sh dir="$1" output=‘ls -l $dir/core 2>&1‘ value=$?; echo "# $output"
echo "$value" exit 0;
```

A skeleton for a perl monitor is included in the CalaMoMa package and can be found in the `examples/` subdirectory.

Appendix A. The command table file format

The command table file contains a set of parameters for each monitor task. Each of this parameters has to be configured in a separate line. comment lines are prefixed with ## (two #).

The following parameters must be given:

- script name - path and name of the script to be started
- command line parameters - parameters which are passed to the script
- primary data type, secondary data type and event class - type of event to be created
- stdout field - FIR field to receive the script output to stdout
- stderr field - FIR field to receive the script output to stderr
- return code field - FIR field to receive return value of the script
- comment prefix - prefix which marks a line of the script output as comment
- comment field - FIR field to receive comment lines (which are remove from stdout field)
- escalation field - FIR field to receive escalation level (is set from escalation file)
- escalation file - name of escalation file (see escalation file description below)
- the execution times specification (like crontab entries in Unix)
  - execution months
  - execution days of month
  - execution days of week
  - execution hours
  - execution minutes
  - execution seconds
- execution period - length of period in seconds
- message template - a template for the message to be written into the message slot (may contain links to other fields)
- message slot - the name of the message slot

Parameters may be enclosed in double quotes, double quotes within a quoted string have to be masked by backslashes.

Example:

```
001  ##------------------------
002  /home/cala/scripts/check_disk.sh
003  "/dev/hda1 /dev/hda2"
004  tec
005  calamon
006  CALA_Monitors
007  value
008  $stderr
009  $return
010  #
011  $comment
012  severity
013  disk_esc.esc
```

```
014  1-12
015  1-31
016  0-7
017  0-24
018  0-60
019  0-60
020  "Filespace monitor for <proble_arg> returned <value>. Additional inform ↙
...  ation: <$comment>"
021  msg
```

Appendix B. An example personal properties file

```
001 // Filename: CalaCoMa_personal.properties
002 // Date: 23.06.2005
003 // This file is part of the FSM CALA (CALA)
004 // (c) 2001-2005 CENIT AG Systemhaus, Stuttgart (Germany)
005 // General settings for CALA Monitoring Manager.
006 // The settings in this file are given like this:
007 // [property name]=[value]
008 // For properties expecting color values, the following colors are supp ↙
... orted:
009 // black
010 // blue
011 // cyan
012 // darkGray
013 // gray
014 // green
015 // lightGray
016 // magenta
017 // orange
018 // pink
019 // red
020 // white
021 // yellow
022 // All lines starting with // are comments.
023
024 // Options Menu
025
026 // chosse default L&F manager (1=motif, 2=windows, 3=metal)
027 calamoma.menu.options.lookandfeel.defaultmanager=3
028
029 calacoma.opencommandtable.filechooser.path=data
030 calacoma.commandtable.filechooser.extension=.ctb
031
032 // You may use remote locations for cepest, example:
033 // calacoma.calamon.cepest.dir=crx:/tivrdsrv.stgt.cenit.de/cepest
034 calacoma.calamon.cepest.dir=cepest
035 calacoma.calamon.cepest.suffix=.cepest
036 calacoma.calamon.helpfiles.suffix=.help
037
038 // defaut name for command table
039 calacoma.calamon.cmdtab.new.name=unnamed.tbl
040
041 // default name for escalation file
042 calacoma.calamon.monitor.new.escalationfile=unnamed.esc
043
044 // default escalation file settings
045 // the complete escalation file must be configured in one row
046 calacoma.calamon.monitor.new.escalationstring=0 OK * - - HARMLESS SEND ↙
... 0 "NOT OK" * - - WARNING SEND * * * * * FATAL SEND
```

Appendix C. Version information

This documentation applies to internal version 1.03-003.