



How To... Install and Configure MDM 7.1 CCMS Monitoring on Windows and UNIX

Version 1.2 - December 2014

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Document History

| Document Version | Description of Change |
|-------------------------|---|
| 1.2 | Updated section 3.2.2 Properties of MDM_CCMS.INI, for MDM 7.1 SP13. |
| 1.1 | Corrected the download path of the CCMS agent file on SAP Service Marketplace. See step 4 in <i>CCMS Agent Installation</i> . |
| 1.0 | Official first release of guide |

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1 Installation and Configuration of MDM CCMS Monitoring

MDM CCMS monitoring is based on the:

- **Central Monitoring System (CEN)**

CCMS monitoring is based on the ABAP stack of a Web AS (Web Application Server). The CCMS application collects the monitoring information for all connected systems and applications in this system.

This central monitoring system is called CEN. In many cases the CEN is part of the Solution Manager.

Before starting the installation of the MDM 7.1 monitoring environment (**Prerequisite** for this documentation):

- Read the *MDM 7.1 - Solution Operations Guide*.
- Make sure that you have sufficient authorization in the central monitoring system.
- Make sure that you have administration rights to perform all necessary installation steps on the local monitored system.

Installation of the MDM 7.1 CCMS monitoring environment includes:

- Installation of a central monitoring system (CEN) based on a Web AS system (6.40 or higher recommended). **Installation of the CEN is not included in this documentation.**
- Installation of the local agents and tools running on the MDM Server machine for MDM Server monitoring.
- Installation of the standard MDM CCMS monitoring template.

Configuration of the MDM 7.1 CCMS monitoring environment includes:

- Registration of the monitored system components on the CEN.
- Definition of the MDM monitoring tree in the CEN.

This How-to Guide distinguishes between the following **types of monitoring**:

- Monitoring of the MDM Server components (C++ applications running on a Windows PC).
- Monitoring of the MDM ABAP API running on any ABAP system on which the MDM add-on is installed.

All **examples** shown in this guide are based on the following architecture: an MDM Server is running on a PC with Windows OS together with the other MDM components. All activities and the screenshots for the activities described in this How-to Guide in detail are specific to Windows OS. UNIX OS specifics are added only where the approach differs.

2 MDM Server Monitoring Installation and Configuration

MDM Server monitoring is based on the SAP CCMS architecture. The MDM server-specific installation and configuration consists of the following steps:

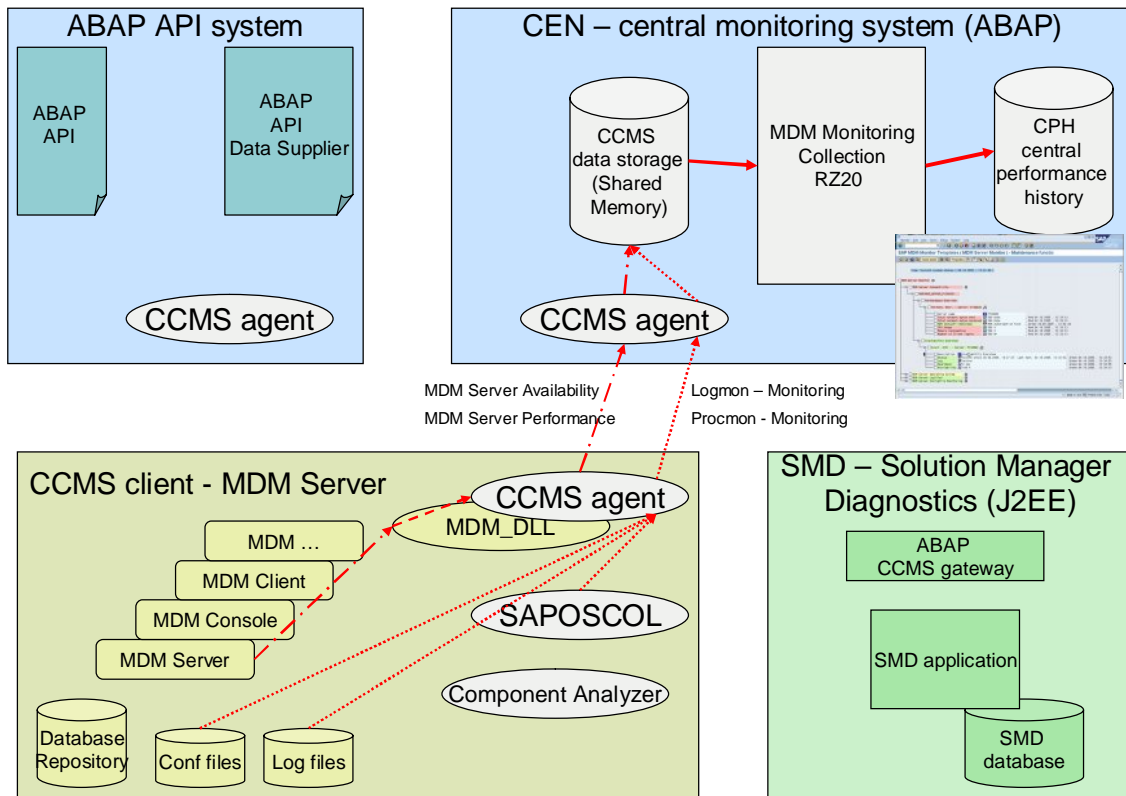
| | |
|---------------|---|
| Step 1 | Installation of a CCMS agent on the local machine on which the MDM Server is running. The SAP Instance Framework now used for MDM 7.1 also contains a CCMS Agent, but that embedded agent does not support the Plug-In technology used to connect the CCMS agent to the MDM server. Therefore a separate CCMS agent needs to be installed. |
| Step 2 | Attach the MDM-specific shared library to the CCMS that contacts the MDM Server and provide monitoring data such as availability and performance criteria to the central monitoring system CEN via the CCMS agent. |
| Step 3 | The SAP OS collector SAPOSCOL delivers operating system-specific data to the CEN via the CCMS agent. This includes CPU and memory consumption as well as ProcMon monitoring for monitoring single processes running or not running on the PC. With MDM 7.1 the SAPOSCOL is installed by the MDM SAPinst installer together with the SAP Instance Framework. |
| Step 4 | Configuration of ProcMon monitoring to retrieve availability information about executables running on the monitored system. |
| Step 5 | Configuration of LogMon monitoring, allowing you to check log files on the monitored system. |
| Step 6 | Configuration of MDM Server monitors in the CEN based on an MDM monitoring template. This also includes the customer-specific implementation of auto-reaction methods (for example send an e-mail on alert) or analysis methods. |
| Step 7 | Configuration of the central performance history (CPH) on the CEN to store the history of selected performance attributes over time. |

Steps 1 and **2** are discussed in chapter 3 of this document.

Steps 3 to **5** are discussed in chapter 4 of this document.

Steps 6 and **7** are discussed in chapter 5 of this document.

MDM Monitoring – MDM Server Monitor



The CCMS agent on the monitored system (for example, the PC on which the MDM Server is installed) collects monitoring information such as the availability of the MDM Server, MDM log files, or OS Collector data about the system status. This data is provided via RFC to the central monitoring system on which the CCMS agent is registered. The CCMS agent can be registered on more than one monitoring system, but one of these monitoring systems is the central monitoring system (CEN).

In the CEN, the data is stored in the CCMS database and can be displayed in different sets of monitors with transaction RZ20.

3 CCMS Agent Installation on a Monitored System

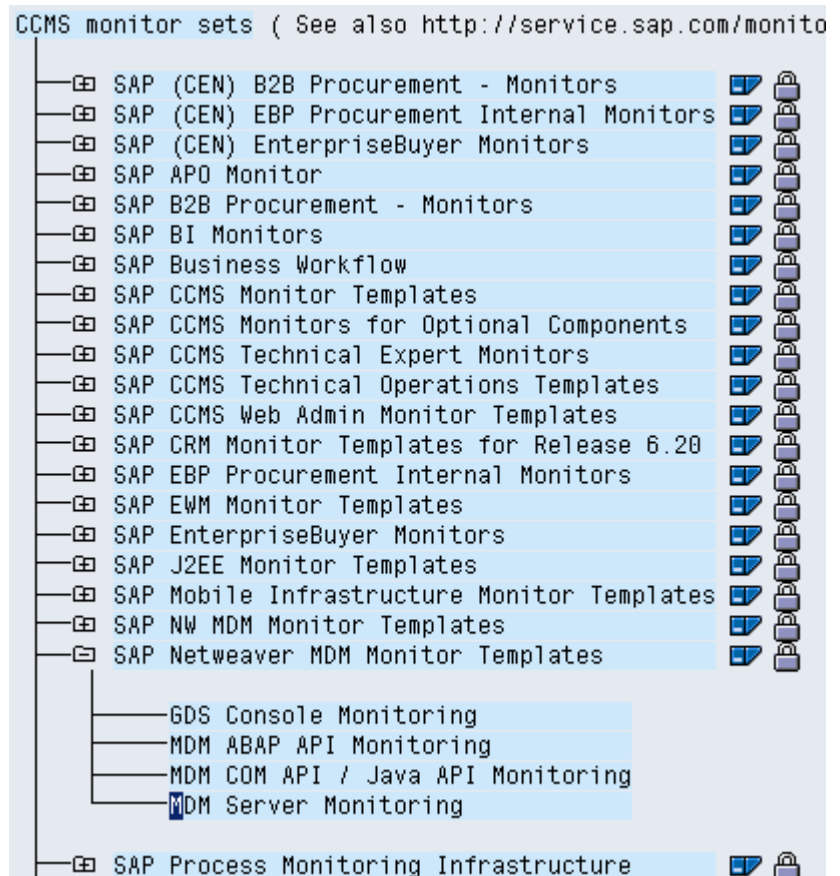
| | |
|---------------|---|
| Step 1 | Installation of a CCMS agent on the local machine on which the MDM Server is running. |
| Step 2 | Attach the MDM-specific shared library to the CCMS that contacts the MDM Server and provide monitoring data such as availability and performance criteria to the central monitoring system CEN via the CCMS agent. |

Since it is a monitored system, you must install the following components:

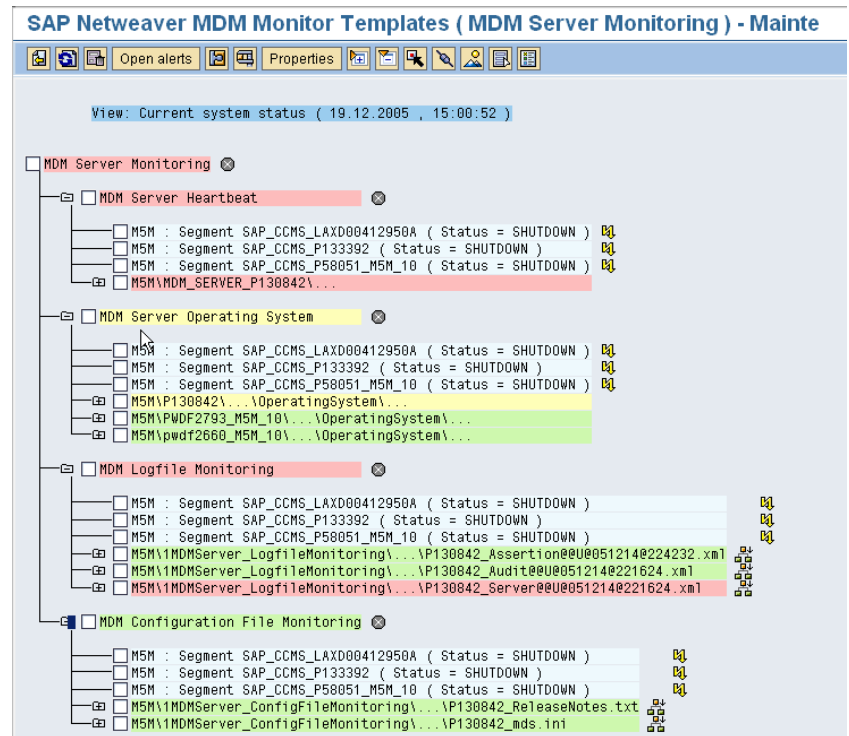
- Install a CCMS agent and register it on the CEN.
- Install the MDM CCMS plug-in (Windows: *mdm_ccms.dll*, UNIX: *mdm_ccms.o* / *.a* / *.so* / *.sl*) and configure the CCMS agent to load the plug-in at startup.

The MDM 7.1 installation is now embedded into the SAP Instance Framework. The Instance Framework delivers a separate CCMS agent, but that agent is not sufficient for the MDM monitoring. Therefore we need to install a specific CCMS agent for MDM that allows the CCMS Plug-In usage.

Start CCMS monitoring in the CEN with transaction RZ20 which contains the MDM monitoring template. The template includes the *MDM Server Monitoring* node which contains the monitoring data for MDM hosts – details about how to get the MDM monitoring template are discussed in chapter 5.



The MDM_CCMS plug-in provides the communication between the CCMS agent and the MDM Server, enabling you to obtain availability and performance data. It also delivers the complete monitoring tree definition displayed in the central monitoring system (CEN) below "MDM Server Monitoring". After running the CCMSAGENT with a plugged-in MDM shared library, the MDM server monitor should appear in the CEN.



3.1 CCMS Agent Installation

The **CCMS agent** (executable SAPCCMSR.EXE) is an independent process that interfaces to the central monitoring system using RFC. The CCMS agent is the transport layer that provides the local data/files to the central monitoring systems and provides heartbeat and availability data to the CEN.

Prepare data for CCMS agent registration on CEN

| | |
|--|--|
| <ol style="list-style-type: none"> 1. In the CEN, start transaction RZ21 (<i>Technical Infrastructure</i> → <i>Configure Central System</i> → <i>Create User CSMREG</i>). Note down your password for CSMREG → CSMREGPWD. | |
| <ol style="list-style-type: none"> 2. To configure the local CCMS agent, you need some data such as the message server and system number. Either retrieve these values from the SAP logon, or create a CSMCONF file in transaction RZ21 (<i>Technical Infrastructure</i> → <i>Configure Central System</i> → <i>Create Start File CSMCONF for AGENTS</i>). 3. Store the file on your local monitored system. | |

Install and Register CCMS Agent with MDM SAPinst Installer

With MDM 7.1 SP2 the MDM SAPinst installer will contain an option to perform the setup of the MDM availability monitoring with the installer. This includes:

- Installation of the CCMS Agent sapccmsr
- Setup of the MDM specific CCMS Plug-In

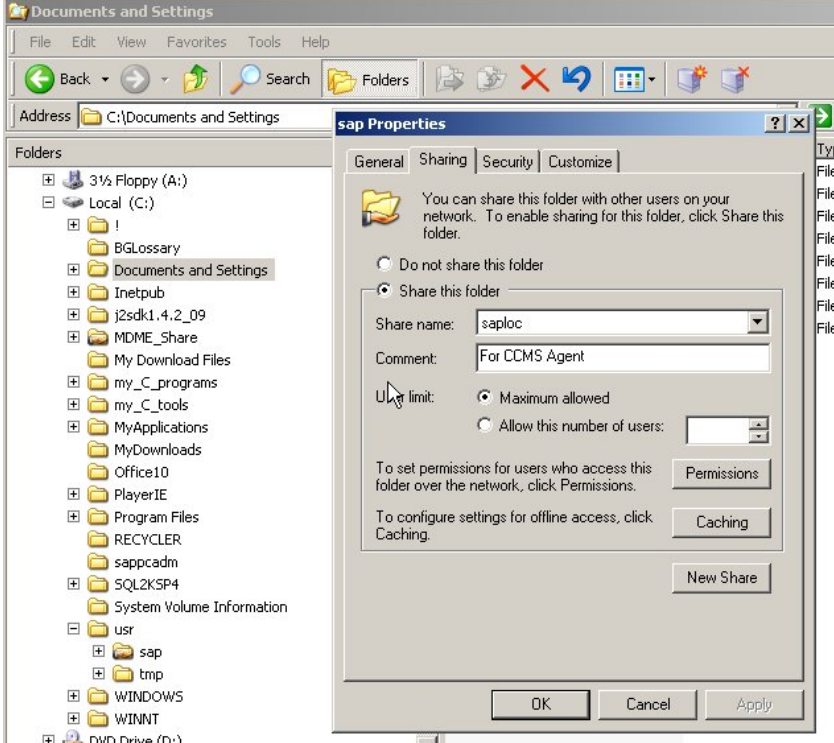
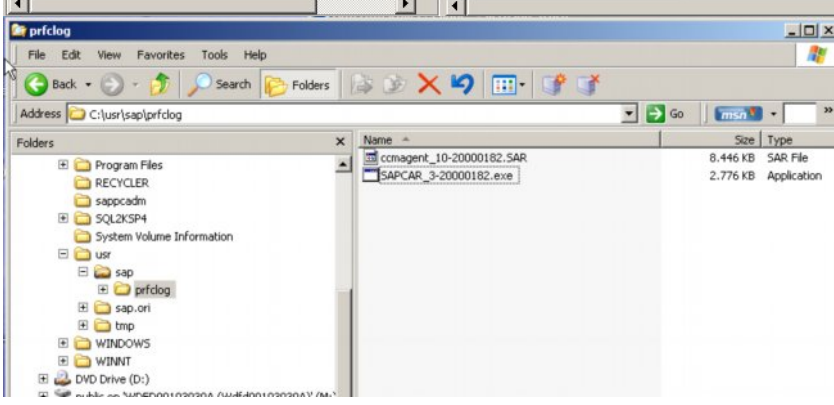

The installer driven setup is described in detail in the MDM 7.1 Installation Guide (for more information, see section *SAPinst Installation Options* in *MDM 7.1 - Installation Guide <Platform>* on SAP Service Marketplace at www.service.sap/installMDM71).

The next sections explain the manual setup of the CCMS agent and the manual attachment of the CCMS Plug-In for the MDM servers. If you install the CCMS environment with the MDM SAPinst option you don't need to follow the next steps.

Manually Install and Register the SAP CCMS Agent

We strongly recommend installation of the latest SAPCCMSR executable. Before you start implementing the CCMS integration, see SAP Note 1315818 (<https://service.sap.com/sap/support/notes/1315818>) for the availability of CCMS agents on UNIX.

| | |
|---|---|
| <p>4. Download the CCMS agent exe file from SAP Service Marketplace.</p> <p>Note: If you are using FTP for file transfer, make sure the transfer mode is <i>binary</i>.</p> | <p>Download the CCMS installation file by following the path defined in the SAP NetWeaver Monitoring Setup Guide (for example <i>Monitoring Setup Guide for SAP NETWEAVER 7.0 EHP1</i>, SPS00, see the SDN operations page: https://www.sdn.sap.com/irj/sdn/operations → <i>Setting up your Monitoring</i> → <i>Monitoring Setup Guide</i>)</p> <p>As MDM is not embedded into a SAP Web AS, chapter 4.8 <i>Standalone Database</i> comes closest to the MDM specifics for CCMS Agent installation.</p> <p>You can find the installation package as follows (this example applies to a Windows 64-bit operating system): http://service.sap.com/swdc → <i>Software Downloads</i> → <i>Support Packages and Patches</i> → <i>Browse our Download Catalog</i> → <i>SAP NetWeaver and complementary products</i> → <i>SAP NETWEAVER</i> → <i>SAP NETWEAVER 7.0</i> → <i>Entry by Component</i> → <i>Application Server ABAP</i> → <i>SAP KERNEL 7.00 64-BIT</i> → <i>Windows Server on x64 64bit</i> → <i>#Database independent</i> → <i>CCMAGENT</i>.</p> <p>On the SDN locations you find also additional material like a SAPtutor showing <i>Installing, Registering and Operating CCMS Agents</i> or a guide for <i>Configuring the Sending of E-Mails as an Auto-Reaction</i>.</p> <p>For more information about the correct release of the agent, see the SAP Help Portal under <i>SAP NetWeaver</i> → <i>SAP NetWeaver by Key Capability</i> → <i>Solution Life Cycle Management by Key Capability</i> → <i>Solution Monitoring</i> → <i>Monitoring in the CCMS</i> → <i>CCMS Agents</i> → <i>Installing/Registering the CCMS Agents for Experts</i> → <i>Downloading CCMS Agents</i>, or follow the link below: http://help.sap.com/saphelp_nw70/helpdata/en/ca/118110ff542640b7c86b570cc61ae3/frameset.htm</p> |
|---|---|

| | |
|--|---|
| <p>5. On SAP Service Marketplace, uncompress the files with SAPCAR. Make sure that the SAPCAR file on a Windows server has extension .exe.</p> | <p>You can find the SAPCAR executable such as SAPCAR_3-20000182.exe at the same location as the SAPCCMSR agent.</p> |
| <p>6. Store the CCMS agents to the default locations defined in http://help.sap.com/saphelp_nw70/helpdata/en/ca/118110ff542640b7c86b570cc61ae3/frameset.htm.</p> <p>7. <u>Windows:</u> Check if the folder [<i>System partition</i>]:\usr\sap is shared as saploc. The central monitoring system looks for the monitoring and analysis data here. With the MDM 7.1 installation this should be done in advance (MDM is installed below /usr/sap/<MDM-SID>).</p> <p>Create sub-directory prfclog (Error! Hyperlink reference not valid.) and copy the downloaded files for SAPCAR and CCMSAGENT to this directory.</p> <p><u>Unix:</u> Copy the CCMAGENT file and the SAPCAR to the directory /usr/sap/ccms/bin.</p> <p>See chapter 4.8.1 (<i>Installing SAPCCMSR and SAPOSCOL</i>) of the <i>Monitoring Setup Guide</i> mentioned before for the CCMS Agent installation and registration procedure. The following sections explain the next steps underlined by screenshots.</p> |   |
| <p>8. Uncompress the CCMS agent using the SAPCAR executable to obtain sapccmsr.exe (Windows) or sapccmsr (Unix).</p> |  <pre> C:\WINDOWS\system32\cmd.exe Microsoft Windows XP [Version 5.1.2600] (C) Copyright 1985-2001 Microsoft Corp. C:\usr\sap\prfclog>dir Volume in drive C is Local Volume Serial Number is B0F2-E124 Directory of C:\usr\sap\prfclog 19.12.2005 15:50 <DIR> . 19.12.2005 15:50 <DIR> .. 14.07.2005 13:23 8.640.118 ccmagent_10-20000182.SAR 14.07.2005 13:23 2.842.624 SAPCAR_3-20000182.exe 2 File(s) 11.490.742 bytes 2 Dir(s) 7.093.723.136 bytes free C:\usr\sap\prfclog>SAPCAR_3-20000182.exe -xvf ccmagent_10-20000182.SAR </pre> |

9. The file CSMCONF, created in step 2 before, contains all information needed to register the local CCMS agent on the CEN. Copy the start file CSMCONF to the appropriate directory, depending on your platform:

Windows:

Create directory <System Partition>\usr\sap\prfclog\sapccmsr and copy file csmconf from step 2 to this directory.

Unix:

Copy the file csmconf to location /usr/sap/tmp/sapccmsr.



```

csmconf - Notepad
File Edit Format View Help
# Configuration file for SAP CCMS agent program sapccmsr
# generated by M5M at 20051219 160206

CEN_CONFIG
  CEN_SYSID=M5M
.

CEN_ADMIN_USER
  CEN_ADMIN_R3NAME=M5M
  CEN_ADMIN_MSHOST=pwdf2660.wdf.sap.corp
  CEN_ADMIN_LOADBALANCING=N
  CEN_ADMIN_ASHOST=PWDF2793.wdf.sap.corp
  CEN_ADMIN_SYSNR=10
  # CEN_ADMIN_LOADBALANCING=Y
  # CEN_ADMIN_GROUP=PUBLIC
  CEN_ADMIN_CLIENT=610
  CEN_ADMIN_USERID=BREITER
  CEN_ADMIN_PASSWORD=
  CEN_ADMIN_LANG=EN
  CEN_ADMIN_TRACE=0
.

CEN_GATEWAY
  CEN_GATEWAY_HOST=PWDF2793.wdf.sap.corp
  CEN_GATEWAY_SYSNR=10
.

CEN_CSMREG_USER
  CEN_CSMREG_R3NAME=M5M
  CEN_CSMREG_MSHOST=pwdf2660.wdf.sap.corp
  CEN_CSMREG_LOADBALANCING=N
  CEN_CSMREG_ASHOST=PWDF2793.wdf.sap.corp
  CEN_CSMREG_SYSNR=10
  # CEN_CSMREG_LOADBALANCING=Y
  # CEN_CSMREG_GROUP=PUBLIC
  CEN_CSMREG_CLIENT=610
  CEN_CSMREG_USERID=CSMREG
  CEN_CSMREG_PASSWORD=
  CEN_CSMREG_LANG=EN
  CEN_CSMREG_TRACE=0
.
  
```

10. You must still register the CCMS agent with CEN and start it. Use the following procedures to do this:

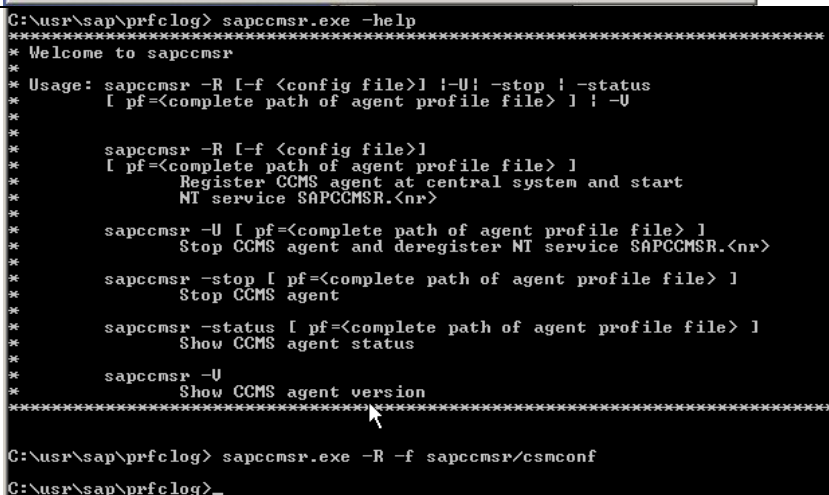
Windows:

Start a command console for directory **Error! Hyperlink reference not valid.** and start command `sapccmsr.exe -R`

Unix:

`/usr/sap/ccms/bin/sapccmsr -R`

This prepares the CCMS agent directory for the next step – registration to the CEN.¹



```

C:\usr\sap\prfclog> sapccmsr.exe -help
*****
* Welcome to sapccmsr
*****
* Usage: sapccmsr -R [-f <config file>] [-U] [-stop] [-status]
*          [-pf=<complete path of agent profile file>] [-v]
*
*          sapccmsr -R [-f <config file>]
*          [-pf=<complete path of agent profile file>]
*          Register CCMS agent at central system and start
*          NT service SAPCCMSR.<nr>
*
*          sapccmsr -U [-pf=<complete path of agent profile file>]
*          Stop CCMS agent and deregister NT service SAPCCMSR.<nr>
*
*          sapccmsr -stop [-pf=<complete path of agent profile file>]
*          Stop CCMS agent
*
*          sapccmsr -status [-pf=<complete path of agent profile file>]
*          Show CCMS agent status
*
*          sapccmsr -v
*          Show CCMS agent version
*****
C:\usr\sap\prfclog> sapccmsr.exe -R -f sapccmsr/csmconf
C:\usr\sap\prfclog>
  
```

¹ Explanation: The file csmconf contains the complete CEN technical information (logon, router, etc.) that the CCMS agent needs to know during the registration to the CEN, but the passwords are not included during the first call.

1. Therefore we recommend to call the -R registration together with the -f for the csmconf file first.

11. To register the CCMS agent in CEN with command `sapccmsr.exe -`, and not using the file `CSMCONF` is shown in the next steps.

See the example in the screenshot.

Most of the entries are defined in file `csmlconf`, and only have to be accepted.

Provide two users during registration. The first user is the Administration user (by default the user that created `csmlconf`).

The second user is user `CSMREG` which was also defined in the CEN. This user is responsible for RFC communication from the CCMS agent to the CEN.

Start type `[auto]` forces the automatic start of the service when the PC is started.

[Values] in brackets are default values that can be confirmed with the Return key.

```
C:\usr\sap\prfclog> sapccmsr.exe -f

INFO: CCMS agent sapccmsr working directory is C:\usr\sap\PRFCLOG\sapccmsr
INFO: CCMS agent sapccmsr config file is C:\usr\sap\PRFCLOG\sapccmsr\csmlconf
INFO: Central Monitoring System is [M5M] (found in config file)

additional CENTRAL system y/[n] ? : n
INFO: found ini file C:\usr\sap\PRFCLOG\sapccmsr\sapccmsr.ini.

INFO: Checking Distributed Statistical Records Library dsrlib.dll
INFO: Distributed Statistical Records not configured, dsrlib.dll not found.
INFO:
  CCMS version 20040229, 32 bit, multithreaded, Non-Unicode
  compiled at Jun 20 2005
  systemid 560 (PC with Windows NT)
  relno 6400
  patch text patch collection 2005/3, OSS note 809007
  patchno 78
  intno 20020600
  running on P130042 Windows NT 5.1 2600 Service Pack 2 2x Intel 801586 (
  pid 3780

INFO: Attached to Shared Memory Key 1008 (size 40141728)

INFO: Connected to Monitoring Segment [CCMS Monitoring Segment for P130042, crea
S version 20040229, 32 bit multithreaded, compiled at Jun 20 2005, kernel 6400
rm 560 (PC with Windows NT)]
  segment status WARM_UP
  segment started at Mon Dec 19 16:06:16 2005
  segment version 20040229

*****
***** M5M *****
*****

Please enter the logon info for an admin user of the
central monitoring system [M5M].
The user should have system administrator privileges

client [610]
user [BREITER]
language [EN]
trace level [0]
application server [PWDF2793.wdf.sap.corp]
system number [10]

Logon info ok n/[y] ? : y

please enter password for [M5M:610:BREITER]: *****
Try to connect ...

INFO: [M5M:610:BREITER] connected to M5M, host PWDF2793.wdf.sap.corp, System Nr.
INFO: M5M release is 640 , (kernel release 640 )

This program will act as registered RFC server later on.
Please enter the info for a gateway of monitoring system M5M

gateway info:
  host: [PWDF2793.wdf.sap.corp]
  service: [sapgw10]

Gateway info ok n/[y] ? : y

**** CCMS agent sapccmsr: RFC client functionality ****

This CCMS agent program sapccmsr is able to actively report
alert data into the monitoring system [M5M].

To enable this feature, you have to setup the user CSMREG
in [M5M]. (refer to SAP Online-help, search for 'CSMREG').

Alternatively use any user in [M5M] that has at least authorization ).
to call per RFC function groups
SALC, SALF, SALH, SALS, SAL_CACHE_RECEIVE, SCSMBK_DATA_OUT,
SCSMBK_RECONCILE, SCSM_CEN_TOOL_MAIN, SVST, RFC1

After entering the RFC logon info for the user, the password
will be stored here on this machine in a Secure Storage.

client [610]
user [CSMREG]
language [EN]
trace level [0]
application server [PWDF2793.wdf.sap.corp]
system number [10]

Logon info ok n/[y] ? : _
```

2. The result may be that the user `CSMREG` is locked in the CEN due to the usage of wrong passwords (RFC error in `sapccmsr.log`). Log on to CEN and unlock user `CSMREG` with transaction `SU01`.

3. Then we recommend to call the `-R` registration command without the `-f`. The existing `csmlconf` is automatically used and the parameters can just be confirmed together with the passwords to be entered.

```

    please enter password for [M5M:610:CSMREG]: ****
Try to connect ...
INFO: [M5M:610:CSMREG] connected to M5M, host PWDf2793.wdf.sap.corp, System
INFO: M5M release is 640 , (kernel release 640 ), CCMS version 20040229
INFO: RFC logon info for [M5M:610:CSMREG] can be updated at any time with
      sapccmsr -R <params>

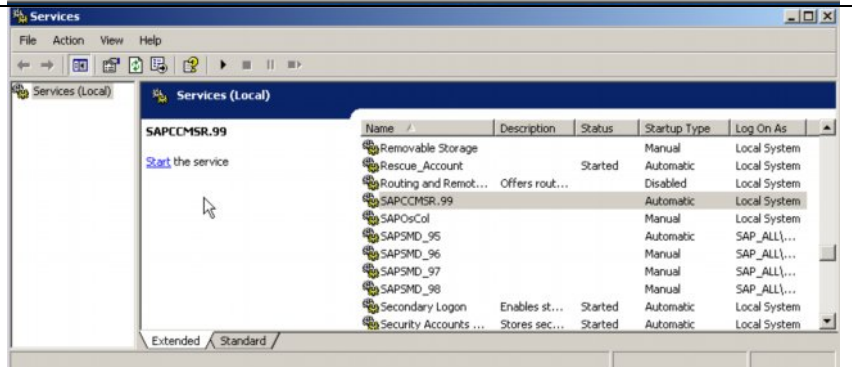
INFO: Updated saprfc.ini in agent work directory C:\usr\sap\PRFCLOG\sapccmsr
INFO: Connected to M5M, CCMS version in ABAP: 20040229
INFO: successfully registered at M5M
INFO: trying to register service SAPCCMSR.99 at Windows Service Control Manager
      starttype of service: manual/automatic :
      DomainName\UserName or [LocalSystem account] :
INFO: Windows Service already exists and will be updated.
INFO: Checking shared memory status of sapccmsr
INFO: Service SAPCCMSR.99 successfully stopped
INFO: trying to start Windows service SAPCCMSR.99 ...
Windows service SAPCCMSR.99 has been started.

INFO: The following service is registered and started:
      SAPCCMSR.99 (command ["C:\usr\sap\prfclog\sapccmsr.exe" -Service] us
INFO: Updated config file C:\usr\sap\PRFCLOG\sapccmsr\csnconf.

EXITING with code 0
C:\usr\sap\prfclog>

```

12. The CCMS agent is displayed in the Windows Services list. Stop the service (default name: SAPCCMSR.99) for the ongoing configuration procedure.



3.2 Plug-in the MDM_CCMS Shared Library to CCMS

This manual step can be skipped if you use the MDM 7.1 SP2 SAPinst installer option to set up the CCMS integration.

Before starting the CCMS agent and using it for the MDM Server heartbeat, you need to install and configure the MDM-specific plug-in *mdm_ccms.dll* (or *mdm_ccms.a / so / sl / .a* on different UNIX platforms) that implements the physical communication between the CCMS agent and the MDM Server.

For MDM 7.1 on WIN64 platform the MDM plug-in *mdm_ccms.dll* is delivered with the MDM servers in the following directory: [*<System partition>*]:\usr\sap\<SID>\MDS<Instance_Nr>\exe. If you do not install the MDM Server but install one of the other servers such as the Import Server or the Syndication Server instead, the plug-in files are also delivered with these servers in their exe folder. The file must later be copied to the sapccmsr folder (as outlined in step 1) *<System partition>*\usr\sap\prfclog\sapccmsr.

For MDM 7.1 on UNIX platforms the MDM plug-in *mdm_ccms.a / .so / .sl* is delivered in an extra package in "Server Installation\Installation_Content", for example MDM_CCMS_LINUX_IA64. The delivery then contains a *ccms.sar* file that can be extracted using the same SAPCAR executable used for the CCMSAgent uncompress. Take the plug-in and copy it to the correct target folder */usr/sap/tmp/sapccmsr*.

3.2.1 Configure CCMS Agent for MDM Plug-In

The CCMS agent is controlled by configuration file *sapccmsr.ini*. Perform the following activities in this file:

1. Copy the OS specific MDM plug-in file *mdm_ccms.xxxx* to the target location.

MDM central executable local:
If the central executable location of your MDM installation (*/usr/sap/<SID>/sys/exe*) is stored locally on your MDM host, we recommend to put the Plug-In to this folder.

MDM central exe folder not local:
Otherwise we recommend to put it to a local MDM server instance executable folder (for example */usr/sap/<SID>/MDS<nr>/exe*).

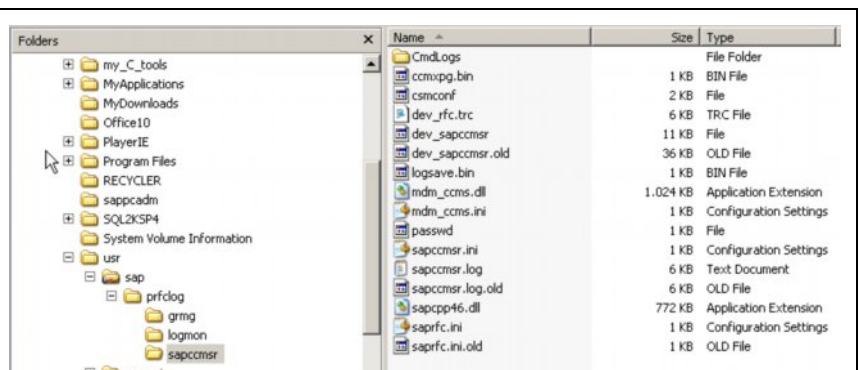
Open file *sapccmsr.ini* for editing. The file is located in

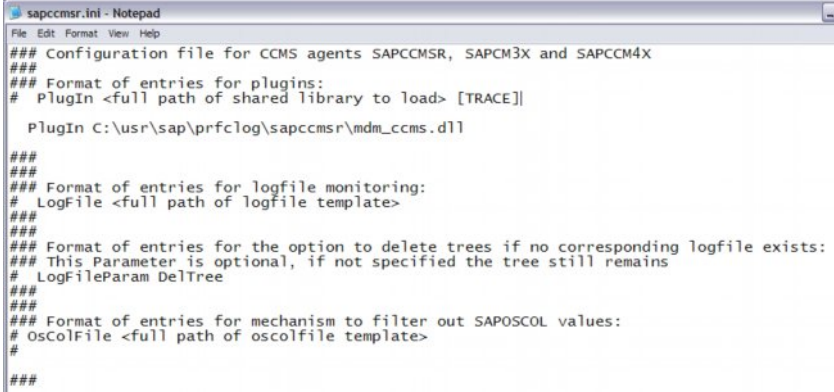
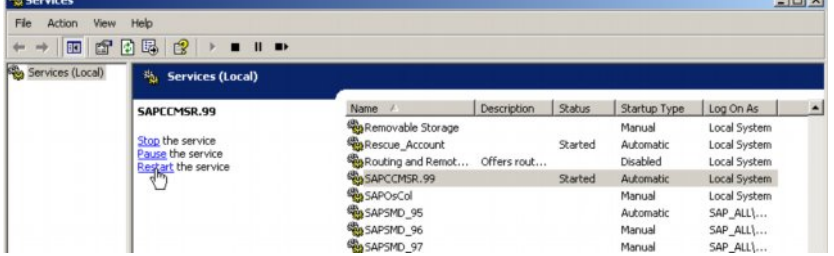
Windows:

Error! Hyperlink reference not valid.

Unix:

/usr/sap/tmp/sapccmsr



| | |
|---|---|
| <p>2. Add MDM plug-in <i>mdm_ccms.dll</i> or <i>mdm_ccms.so</i> / <i>.sl</i> / <i>.a</i> to the plug-in line.</p> <p>Add the following line to the <i>sapccmsr.ini</i>:</p> <p><u>For example Windows:</u> <i>PlugIn <System partition>:\usr\sap<SID>\SYS\exe\mdm_ccms.dll</i></p> <p><u>For example Unix:</u> <i>PlugIn</i> <i>/usr/sap<SID>/MDS<nr>/exe/mdm_ccms.so (.sl, .o or .a)</i></p> <p>If you want to trace the integration you can add optional a TRACE string after the PlugIn command.</p> |  |
| <p>3. Restart the CCMS agent.</p> <p><u>Windows:</u> Go to Service Manager “Services” and restart the CCMS agent</p> <p><u>Unix:</u> Go to the location where the <i>sapccmsr</i> is installed and perform the following commands: <i>./sapccmsr -stop</i> <i>./sapccmsr -DCCMS</i></p> <p><i>Note: When you plan to upgrade the MDM installation please stop the CCMS agent before and restart it after the upgrade has bee done.</i></p> |  |
| <p>4. After successful registration, the plug-in needs no further user interaction. The settings are stored in file <i>csmconf</i>, while the passwords are stored (encrypted) in file <i>passwd</i>.</p> | |

The CCMS agent loads the DLL with the next startup.

3.2.2 Properties of MDM_CCMS.INI

MDM does not deliver the *mdm_ccms.ini* file any longer. The former settings are no longer needed. In the following situation, it is mandatory to add a text file *mdm_ccms.ini* to the folder [*<System Partition>*]:\usr\sap\prfclog\sapccmsr:

If one of the MDM Servers is not installed on the host or if you have configured not to monitor it, you might get RED Alerts in CCMS for the non-existing MDM servers or crashes. In this case, you should disable the CCMS data sending in the corresponding .ini file for the relevant MDM servers (MDIS, MDS, MDSS, MDLS) by adding the line <MDM_SERVER> DISABLED, for example, MDSS DISABLED.

Another interesting parameter is METRICS_PERIOD, where you can control how often the MDM performance metrics are sent to the CEN.

HEARTBEAT_DELAY defines in X*10 seconds, how often the MDM servers are polled (for example 2 means each 20 seconds there is a heartbeat poll).

```
/** Ini file of the MDM Plug-In to the CCMS Agent          */
/** Only change the default values if necessary.          */
/** The default values are:                               */
/**                                                       */
/** HOSTNAME = localhost                                // this machine */
/** HEARTBEAT_DELAY = 2                                // delay times 10 seconds */
/** METRICS_PERIOD = 180                                // around 3 minutes */
/**                                                       */
/** All server types will be monitored by default. To switch */
/** off monitoring of uninstalled server types add some of the */
/** following lines:                                       */
/**                                                       */
/** MDS DISABLED                                         // stop MDS monitoring */
/** MDIS DISABLED                                        // stop MDIS monitoring */
/** MDSS DISABLED                                        // stop MDIS monitoring */
/** MDLS DISABLED                                        // stop MDIS monitoring */
```

Example for a valid *ini* file

No Layout Server and Syndication Server are installed, collection period set down to 2 minutes

```
MDLS DISABLED
MDSS DISABLED
METRICS_PERIOD = 120
```

3.2.3 Modes for Loading the MDM Plug-In Into the CCMS Agent

You can load the MDM plug-in with trace mode. To do so, add the word TRACE at the end of the following line in file *sapccmsr.ini*:

- TRACE Mode

Plug-in C:\usr\sap\prfclog\sapccmsr\mdm_ccms.dll TRACE.

Detailed information about MDM plug-in execution is written to *sapccmsr.log* the next time the CCMS agent is started.

- No Trace Mode

Trace mode is not activated if you do not change the line in file *sapccmsr.ini*:

Plug-in *C:\usr\sap\prfclog\sapccmsr\mdm_ccms.dll*

For example, the following is written to file *sapccmsr.log*:

INFO: Plug-In: trying to load Dynamic Library C:\usr\sap\prfclog\sapccmsr\mdm_ccms.dll, (version 7100.0.11.60626), trace level 0...

INFO: Plug-In: Dynamic Library C:\usr\sap\prfclog\sapccmsr\mdm_ccms.dll successfully loaded. Initializing...

INFO: Plug-In: Dynamic Library C:\usr\sap\prfclog\sapccmsr\mdm_ccms.dll successfully initialized.

3.3 How to Check CCMS Registration and Correct Functioning of MDM Availability Monitoring

To check if the CCMS agent was installed successfully:

1. Log on to CEN and start transaction RZ21 to check if the remote CCMS agent is registered.

In area *Topology*, select *Agents for Local System* and choose *Display Overview*.

Column *Destination* of tab *CCMS Agents* contains the local CCMS agent. For example, if your PC is named P130842, you should see: SAPCCMSR.P130842.99.

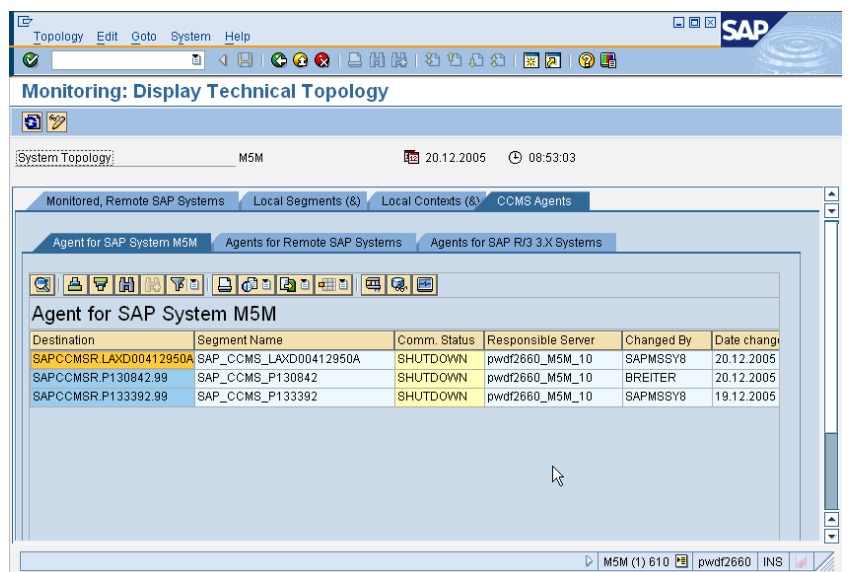
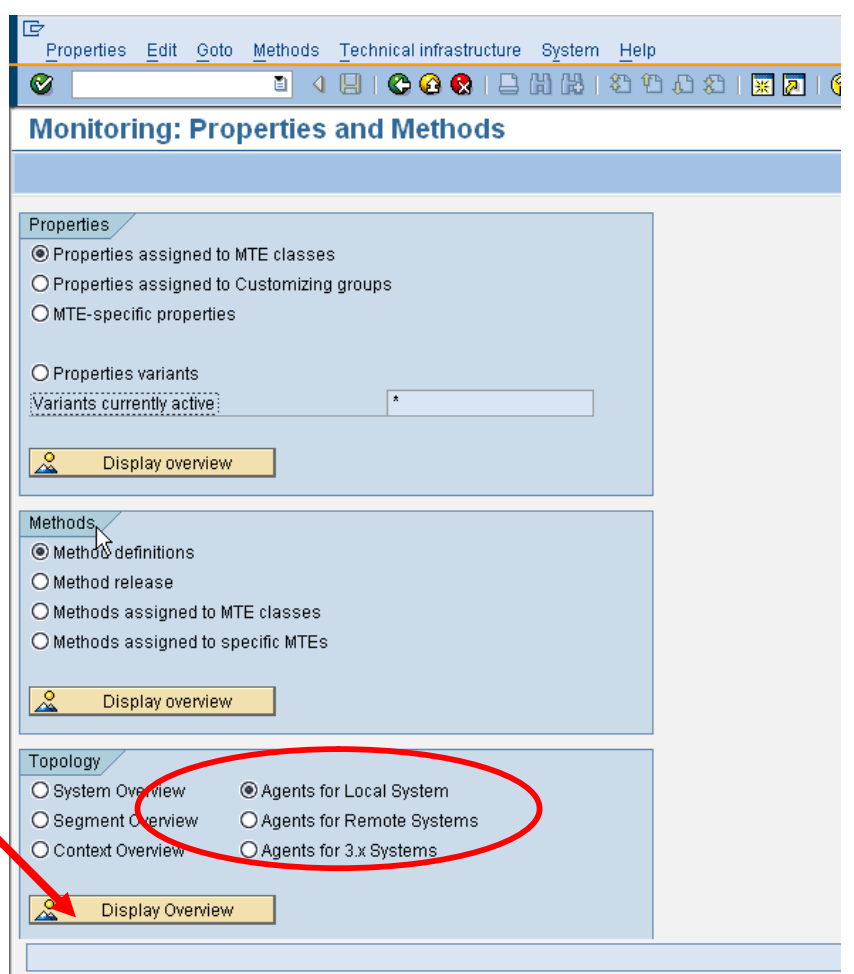
If not, go to your remote system and check the log file of the CCMS installation for errors during registration:

UNIX:

`/usr/sap/tmp/sapccmsr/sapccmsr.log` (or `dev_sapccmsr`)

Windows:

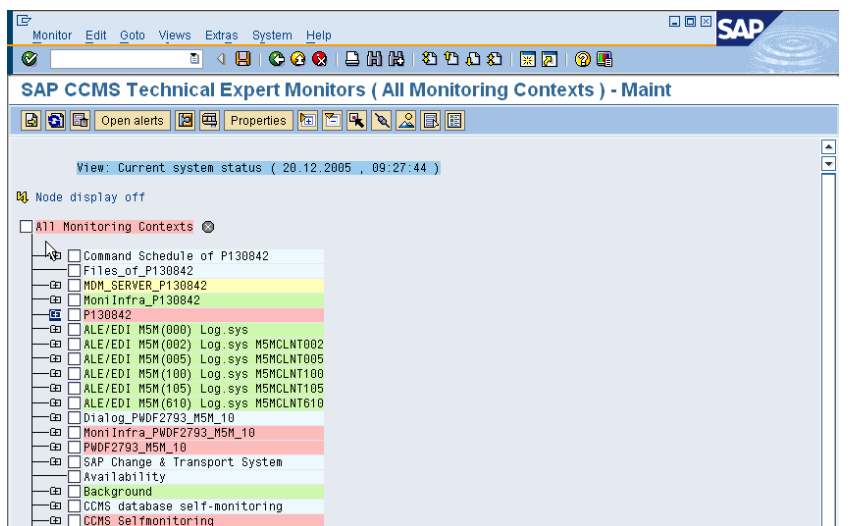
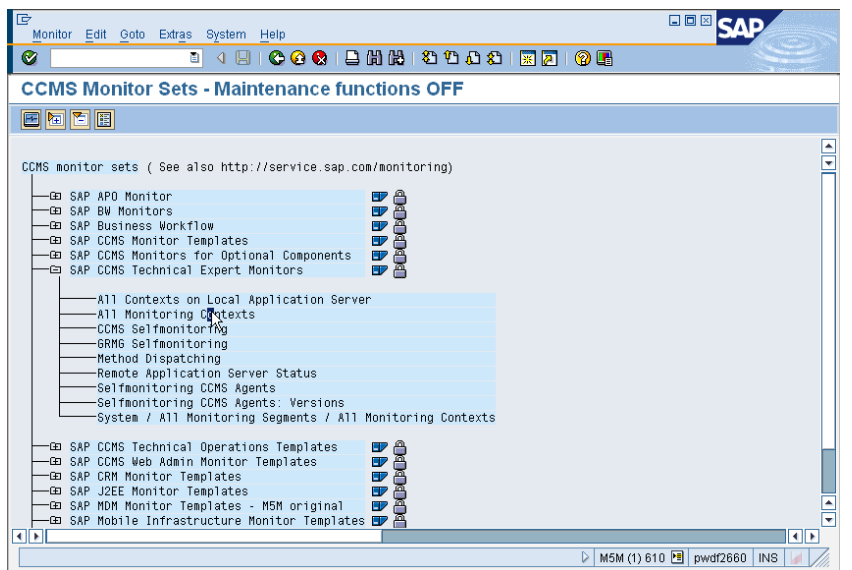
Error! Hyperlink reference not valid. `\\sapccmsr\sapccmsr.log` (or `dev_sapccmsr`)



- Check that the MDM monitor works correctly in transaction RZ20 in CEN.
The MDM templates are not yet installed, but you should see the MDM Server monitor in the set of standard CCMS monitors. Start transaction RZ20. Allow the CCMS system at least 5 minutes for the first data collection and display in the CEN.

Select *SAP CCMS Technical Expert Monitors*.
Select *All Monitoring Contexts*.

You see new subtrees for your remote system.
In the example, the subtrees are
- Files_of_P130842
- MDM_SERVER_P130842
- MonInfra_P130842
- P130842



- You can now check if your MDM Server is available by opening sub-tree MDM_SERVER_P130842.

This is the tree that the MDM plug-in delivers to the CCMS.

Path P130842 also shows that the SAPOSCOL is not yet running.



The CCMS delivers standardized sets of monitors. *SAP CCMS Technical Expert Monitors* contain new subtrees that belong to your monitored system.

- MDM_SERVER_<hostname>*
contains the heartbeat and availability monitoring of the MDM Server running on your remote system. For a detailed description of the MDM Server monitor, see *How To Operate the MDM Monitoring Environment*.

- *Files_of_<hostname>*
contains the results of LogMon monitoring. This is discussed in a subsequent chapter.
- *MonInfra_<hostname>*
contains CCMS internal monitoring (not MDM-specific).
- *<hostname>*
checks the operating system of the monitored system. This is discussed later with ProcMon monitoring. In the current status you see that the SAP Operating System Collector SAPOSCOL is not yet working because it is not yet installed.

As discussed in the previous chapter, the MDM Server monitor is embedded in standard CCMS monitors.

Customers often create their own sets of monitors to combine the monitors they want to access. SAP NetWeaver MDM supports this with an MDM-specific template for monitoring MDM servers and the MDM ABAP API. See chapter 5 of this guide for information about installing the MDM template.

MDM Server Heartbeat Monitor: **System Uptime:** Shows how long the MDM Server is up and running in seconds.

4 Install Additional Tools on the Monitored System

| | |
|---------------|---|
| Step 3 | The SAP OS collector SAPOSCOL delivers operating system-specific data to the CEN via the CCMS agent. This includes CPU and memory consumption as well as ProcMon monitoring for monitoring single processes running or not running on the PC. With MDM 7.1 the SAPOSCOL is installed by the MDM SAPinst installer together with the SAP Instance Framework. |
| Step 4 | [Optional] Configuration of ProcMon monitoring to retrieve availability information about different running executables on the monitored system. |
| Step 5 | [Optional] Configuration of LogMon monitoring, allowing you to check log files on the monitored system. |

Once you have performed the installation steps described in chapter 3, MDM Server Availability and Heartbeat monitoring is available in the CEN. This chapter describes the installation steps to

- **Monitor** the MDM log files in the CEN (**LogMon**)
- Monitor the **processes** running on the machine that hosts the MDM Server installation (**ProcMon**)

For a detailed description of LogMon and ProcMon monitoring, see *How To Operate the MDM Monitoring Environment* and the SAP CCMS standard documentation about PROCMON and LOGMON monitoring (see *6.1 Standard Monitoring Documentation*):

- CCMS Agents: Features, Installation and Usage
- Central Performance History of the Monitoring Architecture
- Predefined Auto-Reaction Methods of the Alert Monitor
- SAPOSCOL: Properties, Installation and Operation

LogMon monitoring is provided by the CCMS agent and is based on configuration files, while ProcMon monitoring is based on an additional executable: SAPOSCOL.

4.1 SAPOSCOL

SAPOSCOL is a data collector for all operating system data on the machine on which the MDM Server is installed. It can be used to monitor specific processes on the MDM PC, such as *mds.exe*. More information about SAPOSCOL: SAP Note 548699.

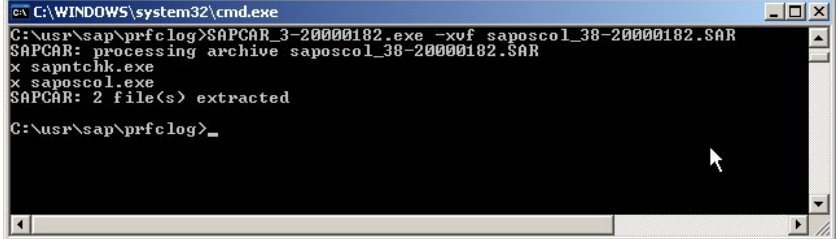
MDM 7.1

MDM 7.1 uses the SAP Instance Framework, where the SAPOSCOL is an integrated part. In this case there is nothing to be done in this step.

To check if SAPOSCOL is running, just check for the SAPOSCOL process on your OS.

MDM 5.5 only

Follow these steps only for MDM releases lower MDM 7.1.

| | |
|--|---|
| <p>1. Download SAPOSCOL from SAP Service Marketplace as described in chapter 3.1. Download the SAPOSCOL installer file to your local monitoring directory <code>\usr\sap\prfclog</code>.</p> <p>If you use ftp, make sure that transfer mode is set to binary.</p> | <p>Download the SAPOSCOL installation file following the path defined in the SAP NetWeaver Monitoring Setup Guide (for example <i>Monitoring Setup Guide for SAP NETWEAVER 7.0 EHP1, SPS00</i>, see the SDN operations page: https://www.sdn.sap.com/irj/sdn/operations → <i>Setting up your Monitoring</i> → <i>Monitoring Setup Guide</i>). See chapter 4.8.1 <i>Installing SAPCCMSR and SAPOSCOL</i>.</p> <p>Currently, the installation package can be found under the same link as the SAPCCMSR package and the SAPCAR executable (the example is valid for 32-bit Windows operating system): http://service.sap.com/swdc → <i>Download</i> → <i>Support Packages and Patches</i> → <i>Entry by Application Group</i> → <i>SAP NetWeaver</i> → <i>SAP NETWEAVER</i> → <i>SAP NETWEAVER 04</i> → <i>Entry by Component</i> → <i>Application Server ABAP</i> → <i>SAP KERNEL 6.40 32-BIT</i> → <i>Windows Server on IA32 32bit</i> → <i>#Database independent</i> → <i>saposcol_38-20000182.SAR</i>.</p> <p>You can find the CCMS agent for other platforms at the platform-specific locations.</p> |
| <p>2. On SAP Service Marketplace, use SAPCAR to uncompress the files. Make sure that the SAPCAR file on your Windows Server has extension .exe.</p> | <p>You can find the SAPCAR executable at the same location as the SAPCCMSR agent, for example <code>SAPCAR_3-20000182.exe</code>.</p> |
| <p>3. Uncompress the SAPOSCOL installer with SAPCAR as described in chapter 3.1. The SAPOSCOL executable SAPOSCOL.EXE is created in your directory.</p> |  |

| | |
|--|--|
| 4. Service registration: Start saposcol.exe as a service on the Windows system (SAP Note 436186 / 618053 ²) | |
|--|--|

4.2 ProcMon Enabling

Together with the SAP CCMS agent, SAPOSCOL provides **ProcMon** monitoring. This allows you to check if specific processes such as the Data Manager (Data Manager.exe) or the MDM Console (Console.exe) are running on the monitored host.

ProcMon monitoring is displayed in the CEN and provides the following information for a defined process:

- **Process Count**
Number of processes running in parallel (such as two Data Manager applications running in parallel)
- **CPU**
CPU usage consumed by this process
- **Resident Size**
Resident memory consumption of the process
- **VM Size**
Memory consumption of the virtual memory

To add ProcMon monitoring, you need to create a file with a specific nomenclature (SAPWP_*promon.ini* at the end). The content is defined as in the following example (for example for mds).

In one line you define the

- Process name (you can use wildcards)
- User who is running the process (optional, in which case processes for all users are selected)
- MTE_NAME used to deploy the monitor to the CEN monitoring tree
- MTE_CLASS used to display this monitor in your set of monitors based on a rule

The configuration file located in directory **Error! Hyperlink reference not valid.***procmon* (or */usr/sap/tmp/procmon* on UNIX) is automatically deployed by SAPOSCOL and the data is provided to the CEN via the CCMS agent.

For details about the ProcMon function, see *SAPOSCOL: Properties, Installation, and Operation* (see 7 Appendix in this document).

ProcMon monitoring is included in the standard MDM monitor template. The example stated above is provided with SAP Note 1272117 (*MDM 7.1 ITSAM: Procmon Monitoring MDM*).

² SAP Note 618053 describes the location where to get the NT registration utility *ntscmgr.exe* from. SAP Note 436186 describes the command how to organize that the *saposcol.exe* is registered as a Windows Service (x is the Windows partition where you have installed the *\usr\sap* path):
`X:\usr\sap\prfclog> ntscmgr.exe install SAPOsCol -b x:\usr\sap\prfclog\saposcol.exe -p service`
 Goto Windows Services and set the start type of the service *saposcol* to *Automatic*.

- Using SAP Note 1272117, download the MDM ProcMon initialization template *SAPWP_MDM71_WIN_procmon.zip* or *SAPWP_MDM71_UX_procmon.zip*.

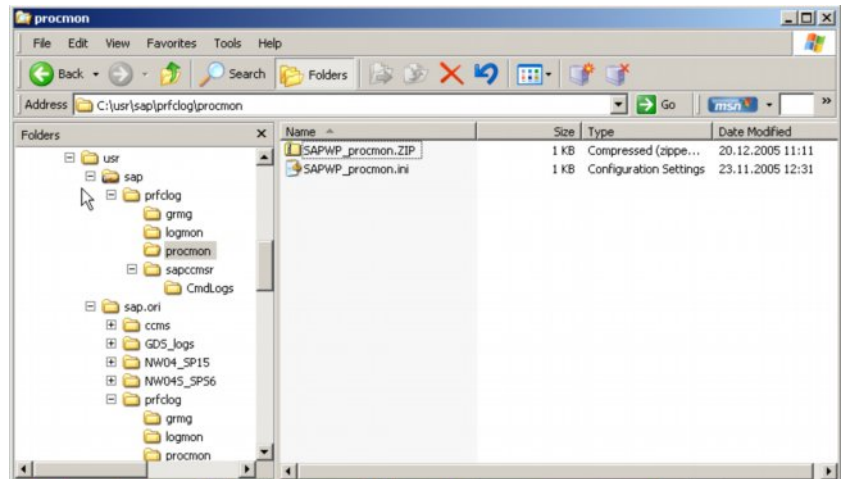
Unzip the zip file and store *its* content *SAPWP_procmon.ini* file in the following directory:

Windows:

Error! Hyperlink reference not valid. \procmon

Unix:

/usr/sap/tmp/procmon (see SAP note 451166



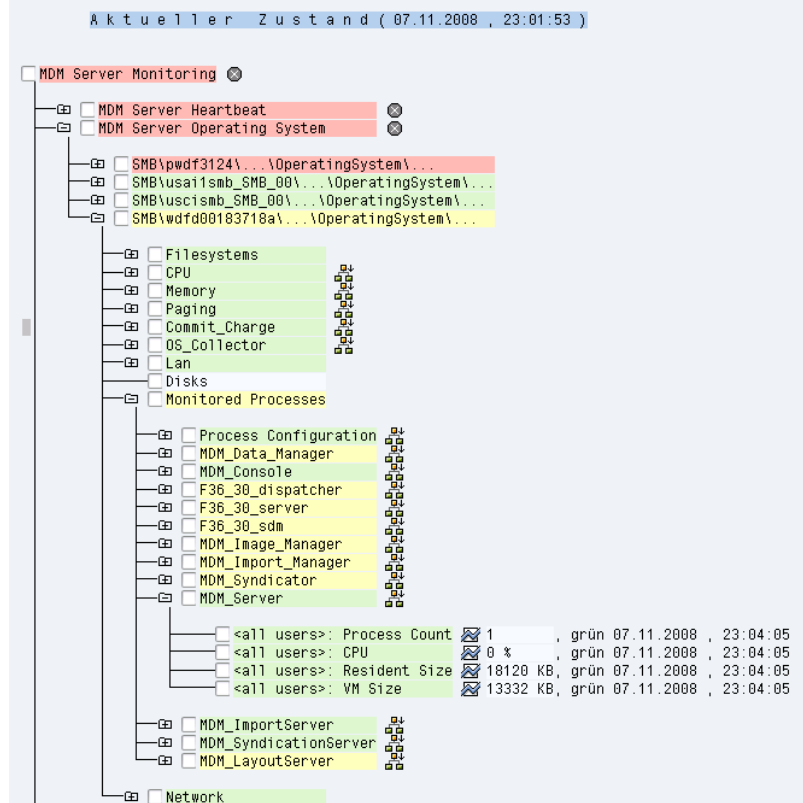
- You do not need to restart the CCMS agent; the executables defined in file *SAPWP_procmon.ini* are displayed in the CEN monitor subtree in RZ20 as soon as SAPOSCOL is running.

The process monitor is displayed in the path:

MDM Server Monitoring
MDM Server Operating System
 <Host>\Operating System
 Monitored Processes

The process monitor is also displayed in the path:

MDM Host Processes
MDM Server Processes



3. The screen shows the process monitor embedded in the MDM monitoring template.

Aktueller Zustand (07.11.2008, 23:01:53)

- MDM Server Monitoring
 - MDM Server Heartbeat
 - MDM Server Operating System
 - MDM Logfile Monitoring
 - MDM Configuration File Monitoring
 - MDM Host Processes
 - MDM Server Processes (OSCOL)
 - SMB\wdf00183718a\...\MDM_ImportServer
 - <all users>: Process Count 1, grün 07.11.2008, 23:00:17
 - <all users>: CPU 0 %, grün 07.11.2008, 23:00:17
 - <all users>: Resident Size 9984 KB, grün 07.11.2008, 23:00:17
 - <all users>: VM Size 7740 KB, grün 07.11.2008, 23:00:17
 - SMB\wdf00183718a\...\MDM_LayoutServer
 - SMB\wdf00183718a\...\MDM_Server
 - SMB\wdf00183718a\...\MDM_SyndicationServer
 - MDM Dialogue Processes (OSCOL)
 - SMB\wdf00183718a\...\MDM_Console
 - <all users>: Process Count 1, grün 07.11.2008, 23:00:17
 - <all users>: CPU
 - <all users>: Resident Size 1876 KB, grün 07.11.2008, 23:00:17
 - <all users>: VM Size 4776 KB, grün 07.11.2008, 23:00:17
 - SMB\wdf00183718a\...\MDM_Data_Manager
 - SMB\wdf00183718a\...\MDM_Image_Manager
 - SMB\wdf00183718a\...\MDM_Import_Manager
 - SMB\wdf00183718a\...\MDM_Syndicator

View: Current system status (20.12.2005, 11:17:53)

- MDM Server Monitoring
 - MDM Server Heartbeat
 - MDM Server Operating System
 - M5M\P130842\...\OperatingSystem\...
 - Filesystems
 - CPU
 - Paging
 - Commit_Charge
 - OS_Collector
 - Lan
 - Monitored Processes
 - Process Configuration
 - MDM_Server
 - <all users>: Process Count 1, Green 20.12.2005, 11:17:51
 - <all users>: CPU 0 %, Green 20.12.2005, 11:17:51
 - <all users>: Resident Size 30512 KB, Green 20.12.2005, 11:17:51
 - <all users>: VM Size 26088 KB, Green 20.12.2005, 11:17:51
 - Layout_Server
 - Data_Manager
 - MDM_Console
 - <all users>: Process Count 1, Green 20.12.2005, 11:17:51
 - <all users>: CPU 0 %, Green 20.12.2005, 11:17:51
 - <all users>: Resident Size 4224 KB, Green 20.12.2005, 11:17:51
 - <all users>: VM Size 7552 KB, Green 20.12.2005, 11:17:51
 - Import_Server
 - Syndication_Server
 - MDM_Publisher
 - Network

4.3 LogMon Enabling

The CCMS agent allows you to monitor a local application's log files and configuration files. The log files can have any format, but if you want to use embedded functions such as pattern matching and alert management when specific patterns appear in a log file, the log files should be in the standard LogViewer format.

With MDM 7.1 the log format has changed from the proprietary MDM 5.5 xml log file format to a spreadsheet based CSV (Comma Separated Values) format that is used for all MDM server logs.

With MDM 7.1 for all MDM server log files the SAP standard LogViewer file format is available (can be switched on in the server specific *.ini* configuration file). MDM provides the following formats of MDM server log files:

- CSV Format (*.csv)
CSV log files are available in the MDM Console.
- LV Format (*.trc, SAP LogViewer format)
LV format files can be displayed with the SAP MMC (Management Console) and can be used from End2End evaluation tools like the SMD Workload analysis.

There is also a need to check the log files from a central access point. For a small subset of MDM log files the CCMS can be the central access point when the LogMon functionality of CCMS agent is used.

To add LogMon monitoring, you need to create configuration files with a specific nomenclature (*logmon.ini* at the end). This is explained in detail in document *CCMS Agents: Features, Installation and Usage* (see 7 Appendix).

LogMon monitoring is included in the MDM monitoring template. With the MDM LV files the pattern matching capabilities of the LogMon functionality can be used much better than for MDM 5.5. With LogMon it is possible to display the LV files and the CSV files in CCMS.

The LogMon configuration files include field MTE_CLASS, which divides log file monitoring into two subtrees in the MDM monitoring templates:

- *MDMLogmon* stores it in the path **MDM Log file Monitoring**
- *MDMConfmon* stores it in the path **MDM Configuration File Monitoring**

For more information about SAPOSCOL, see SAP Note 535199 *CCMS Agents: Monitoring Log Files*.

Some examples of more complex LogMon configuration files are shown below. They show how to search for templates (PATTERN) and permit you to extract values for specific tags from the log file (APPL_INFO).

To adapt a Logmon.ini file for a host, make sure that the following parameters are unique for each host:

- MONITOR_CONTEXT
- PREFIX

Also make sure that the path in DIRECTORY contains the installation path of your MDM 7.1 Server (*/usr/sap/<MDM SID>/MDS<nr>/log*). Set MTE_CLASS to *MDMLogmon* to define this file as a log file for the MDM monitoring template. Define MTE_CLASS as *MDMConfmon* to specify that this file is an MDM configuration file.

Example 1 - MDMServerLogmon.ini

This file is checking for MDM CSV files for the installed Master Data Server (for example Instance MDS01 of SID X76):



```
MDMServerLogmon.ini - Notepad
File Edit Format View Help
LOGFILE_TEMPLATE
DIRECTORY="C:\usr\sap\X76\MDS01\log"
FILENAME="*.csv"
MONITOR_CONTEXT="MB_MDMServer_LogfileMonitoring"
MTE_CLASS="MDMLogmon"
MONITOR_NEWEST_FILES=10
IGNORE_CASE=1
MONITOR_FILESIZE_KB=1000
PREFIX="WDFD00183718A_"
MONITOR_LAST_FILE_MODIF=1
SHOWNEWLINES=1

PATTERN_0="Stopping Repository"
VALUE_0=RED
MESSAGE_ID_0="ZMBR 152"
SEVERITY_0=200

PATTERN_1="MDM Shutting Down"
VALUE_1=RED
MESSAGE_ID_1="ZMBR 153"
SEVERITY_1=100

PATTERN_2="OLEDB error"
VALUE_2=RED
MESSAGE_ID_2="ZMBR 154"
SEVERITY_2=200

APPL_INFO_0="<Server>"
APPL_INFO_MTE_NAME_0="MDE version "

APPL_INFO_1="host="
APPL_INFO_MTE_NAME_1="Host from log file:"

APPL_INFO_2="Load complete"
APPL_INFO_MTE_NAME_2="Repository Load complete:"

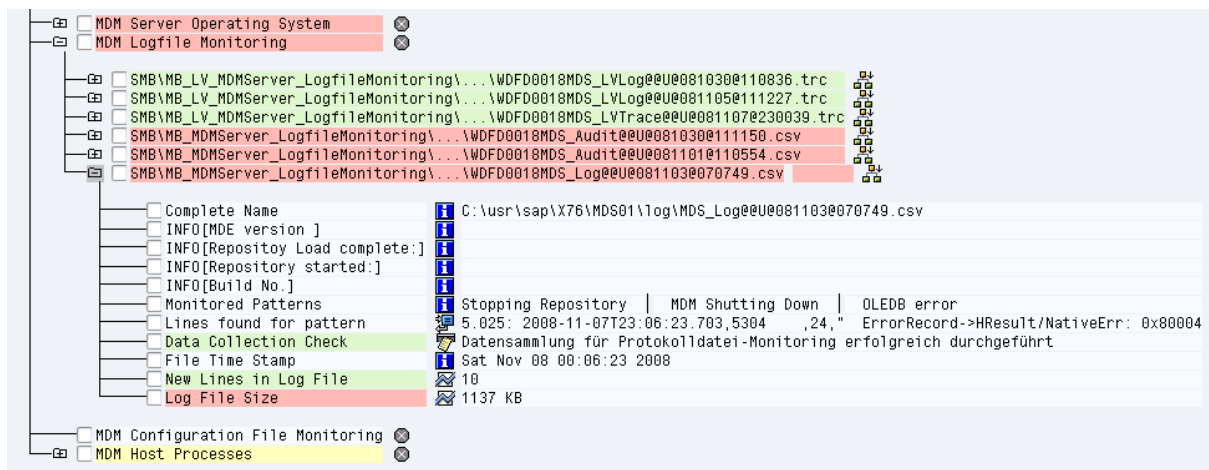
APPL_INFO_3="Starting Repository:"
APPL_INFO_MTE_NAME_3="Repository started:"

APPL_INFO_4="Init Database Tag:"
APPL_INFO_MTE_NAME_4="Database initialised:"

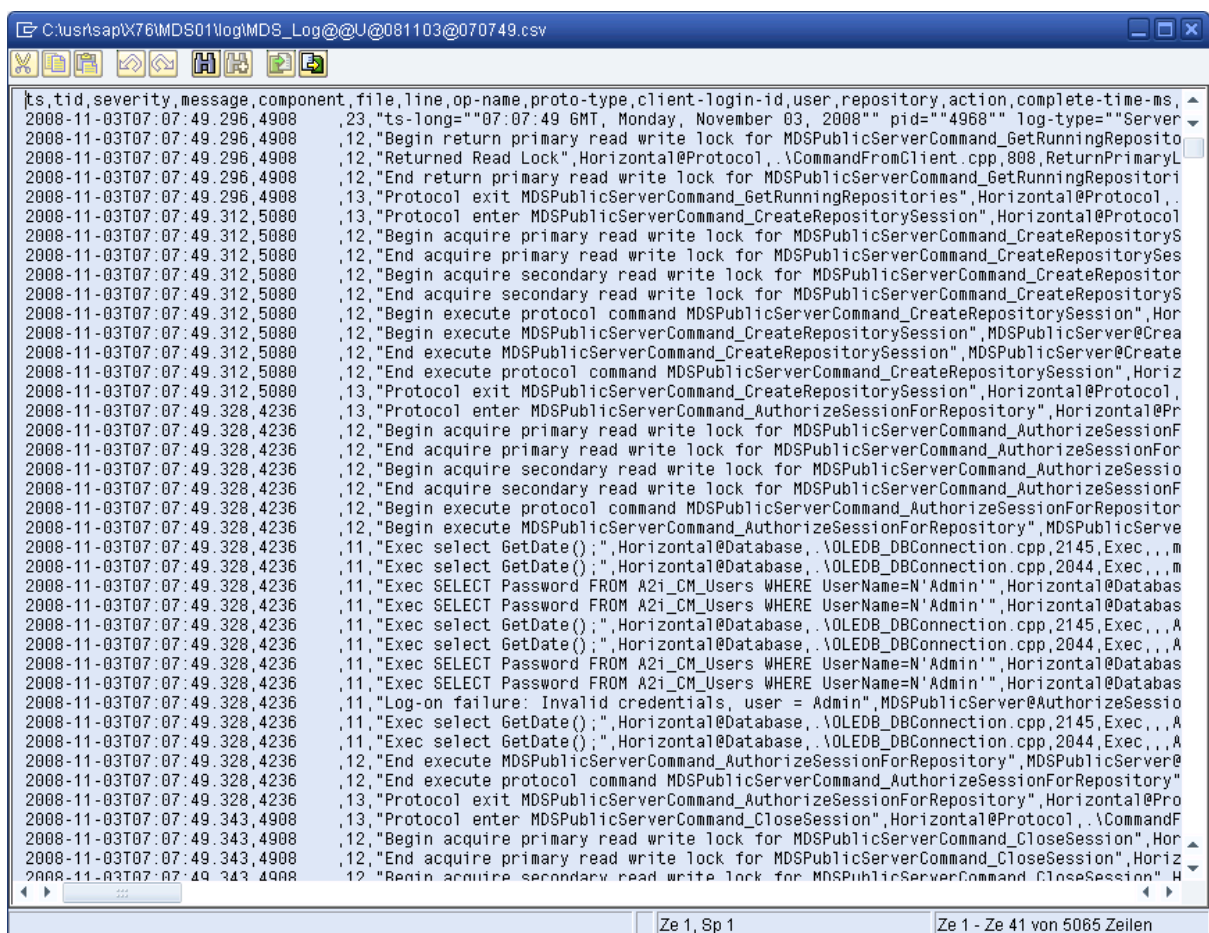
APPL_INFO_5="<Build>"
APPL_INFO_MTE_NAME_5="Build No."

.
```

This is the result of LogMon running on a typical MDM Server CSV file.



Double clicking on the *Complete Name* tag shows the log file on the screen in readable form:



Example 2 - MDMServerLVLogmon.ini

This is a *logmon.ini* file for an LV format MDM log file (*.trc):



```
MDMServerLVLogmon.ini - Notepad
File Edit Format View Help
LOGFILE_TEMPLATE
DIRECTORY="C:\usr\sap\X76\MDS01\log"
FILENAME="*.trc"
MONITOR_CONTEXT="MB_LV_MDMServer_LogfileMonitoring"
MTE_CLASS="MDMLogmon"
MONITOR_NEWEST_FILES=10
IGNORE_CASE=1
MONITOR_FILESIZE_KB=1000
PREFIX="WDFD00183718A_"
MONITOR_LAST_FILE_MODIF=1
SHOWNEWLINES=1

PATTERN_0="Stopping Repository"
VALUE_0=RED
MESSAGE_ID_0="ZMBR 152"
SEVERITY_0=200

PATTERN_1="MDM Shutting Down"
VALUE_1=RED
MESSAGE_ID_1="ZMBR 153"
SEVERITY_1=100

PATTERN_2="OLEDB error"
VALUE_2=RED
MESSAGE_ID_2="ZMBR 154"
SEVERITY_2=200

APPL_INFO_0="<Server>"
APPL_INFO_MTE_NAME_0="MDE version "

APPL_INFO_1="host="
APPL_INFO_MTE_NAME_1="Host from log file:"

APPL_INFO_2="Load complete"
APPL_INFO_MTE_NAME_2="Repositoy Load complete:"

APPL_INFO_3="Starting Repository:"
APPL_INFO_MTE_NAME_3="Repository started:"

APPL_INFO_4="Init Database Tag:"
APPL_INFO_MTE_NAME_4="Database initialised:"

APPL_INFO_5="<Build>"
APPL_INFO_MTE_NAME_5="Build No."

.
```

This is the result of LogMon running on a typical MDM Server *.csv log file



LogMon is able to display the amount of new lines since the last scan in a log file, the log file size and the number of occurrences of a specific pattern.

Double clicking on the *Complete Name* tag shows the LV format log file on the screen in readable form:


```
C:\usr\sap\X76\MDS01\log\MDS_LVLog@@U@081105@111227.trc

<!--LOGHEADER[START]!-->
<!--HELP[Manual modification of the header may cause parsing problem!]!-->
<!--LOGGINGVERSION[2.0]!-->
<!--NAME[D:\BigBear_Patch01\MDM\Servers\MDS\Win32\Debug\Logs\MDS_LVLog@@U@081105@111227.trc]!-->
<!--PATTERN[MDS_LVLog@@U@081105@111227.trc]!-->
<!--FORMATTER[com.sap.tc.logging.ListFormatter]!-->
<!--ENCODING[UTF8]!-->
<!--LOGHEADER[END]!-->
#2.00#2008 11 05 11:12:27:118#+0:00#Info##
#MDM-FN####0#####3992#Plain##
ts-long="11:12:27 GMT, Wednesday, November 05, 2008" pid="5592" log-type="Server" path="D:\BigB
operationName: Open,#

#2.00#2008 11 05 11:12:27:118#+0:00#Info#Background_Thread@Main#
#MDM-FN####Background_Thread@Main#.\XCatServer.cpp:411#####3992#Plain##
=====#

#2.00#2008 11 05 11:12:27:118#+0:00#Info#Background_Thread@Main#
#MDM-FN####Background_Thread@Main#.\XCatServer.cpp:420#####3992#Plain##
Version: Server = 7.1.01.26 Build = Built on 2008-Nov-01 (Debug) Repository major =13 minor =13

#2.00#2008 11 05 11:12:27:118#+0:00#Info#Background_Thread@Main#
#MDM-FN####Background_Thread@Main#.\XCatServer.cpp:423#####3992#Plain##
config filepath: D:\BigBear_Patch01\MDM\Servers\MDS\Win32\Debug\mds.ini#

#2.00#2008 11 05 11:12:27:118#+0:00#Warning#Background_Thread@Main#
#MDM-FN####Background_Thread@Main#.\RfcConnectionManager.cpp:156#####3992#Plain##
No RFC Gateway registered. Maintain SAP RFC Gateways within server configuration file mds.ini .

#2.00#2008 11 05 11:12:27:118#+0:00#Warning#Background_Thread@Main#
#MDM-FN####Background_Thread@Main#.\RfcConnectionManager.cpp:159#####3992#Plain##
RFC Gateway configuration format SAP RFC Gateways=<Gateway Host>:<Gateway Service> || GWHOST:

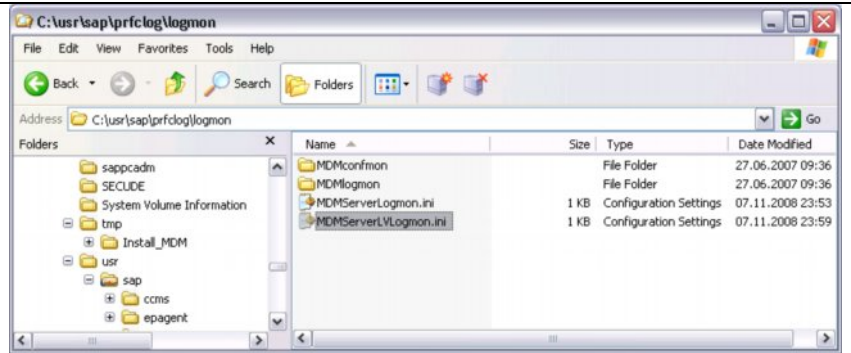
#2.00#2008 11 05 11:12:27:118#+0:00#Info#Background_Thread@Main#
#MDM-FN####Background_Thread@Main#.\XCatServer.cpp:525#####3992#Plain##
mds Configuration setting: "Max Threads Per Operation"= 2#

#2.00#2008 11 05 11:12:28:571#+0:00#Info#Background_Thread@Main#
#MDM-FN####Background_Thread@Main#.\XCatServer.cpp:584#####3992#Plain##
Server does not register to System Landscape Directory. Set parameter 'SLD Registration' to true

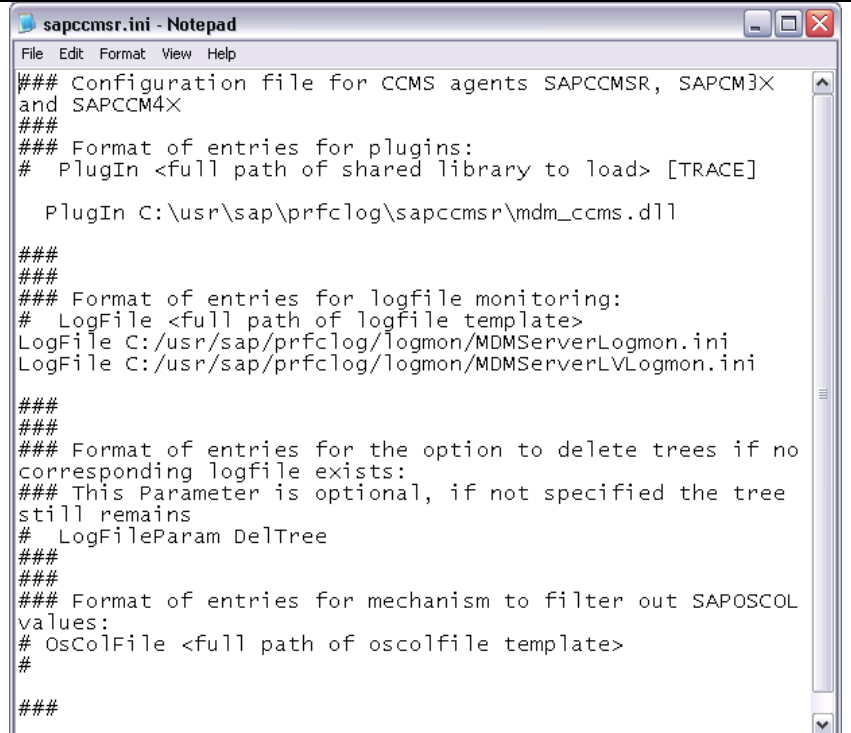
Ze 1, Sp 1 Ze 1 - Ze 41 von 1337 Zeilen
```


1. Prepare MDM specific LogMon files according to the CCMS LogMon definition.

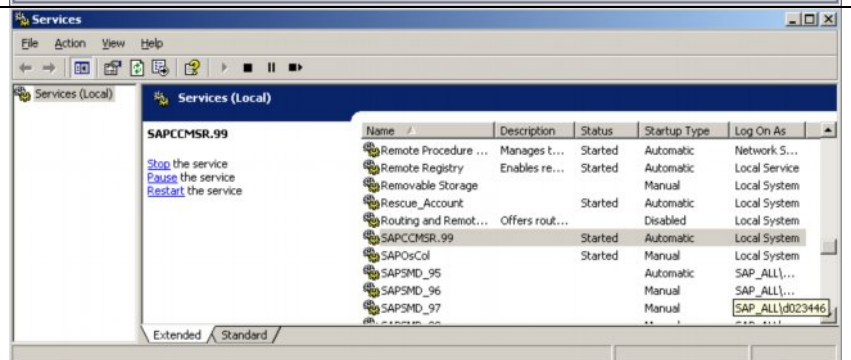
Store the files in directory **Error! Hyperlink reference not valid.**ogmon where they are deployed by the CCMS agent (/usr/sap/tmp/logmon for UNIX).



2. Adapt the configuration files in compliance with CCMS and add the configuration files for the logs you want to monitor to the CCMS agent configuration file sapccmsr.ini.



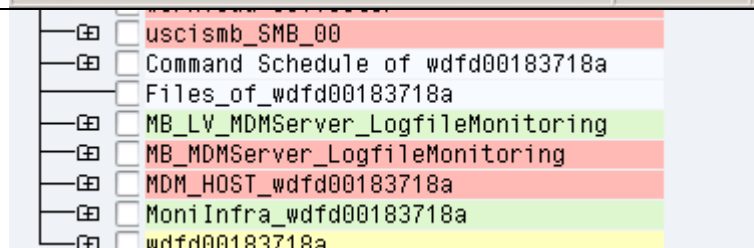
3. Restart the CCMS agent in your services.



4. Go to transaction RZ20 in CEN.

Select *SAP CCMS Technical Expert Monitors*.
Select *All Monitoring Contexts*.

The monitoring contexts defined in your logmon.ini files are displayed, for example:
MB_MDMServer_ConfigFileMonitoring
MB_LV_MDMServer_LogfileMonitoring



6. Double click on
- Complete Name*
- to display the log file of the
MDM Server in the ABAP
system CEN in a new window

The screenshot displays the SAP GUI interface for file monitoring. The left pane shows a tree structure with the following items:

- Files of wdrd00183718a
 - MB_LV_MDMServer_LogfileMonitoring
 - WDRD0018MDS_LVLog@EU0811030@110836.trc
 - WDRD0018MDS_LVTrace@EU0811030@230030.trc
 - WDRD0018MDS_LVLog@EU0811030@110836.trc

The right pane shows the contents of the selected folder, including a list of log files and a detailed view of the 'wdrd0018MDS_LVLog@EU0811030@110836.trc' file. The detailed view shows the log content, including the 'RFC Gateway configuration format' and 'Starting Repository' messages.

C:\usr\isap\X76MDS01\log\MDS_Log@U@081103@070749.csv

| ts | tid | severity | message | component | file | line | op-name | proto-type | client-login-id | user | repository |
|------------------------------|-----|---|---------|-----------|------|------|---------|------------|-----------------|------|------------|
| 2008-11-03T07:07:49.296.4908 | 23 | "ts-long="07:07:49 GMT, Monday, November 03, 2008" | "pid | | | | | | | | |
| 2008-11-03T07:07:49.296.4908 | 12 | "Begin return primary read write lock for MDSPublicServ | | | | | | | | | |
| 2008-11-03T07:07:49.296.4908 | 12 | "Returned Read Lock",Horizontal@Protocol, \CommandFromC | | | | | | | | | |
| 2008-11-03T07:07:49.296.4908 | 12 | "End return primary read write lock for MDSPublicServer | | | | | | | | | |
| 2008-11-03T07:07:49.296.4908 | 13 | "Protocol exit MDSPublicServerCommand_GetRunningReposit | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 13 | "Protocol enter MDSPublicServerCommand_CreateRepository | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 12 | "Begin acquire primary read write lock for MDSPublicServ | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 12 | "End acquire primary read write lock for MDSPublicServ | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 12 | "Begin acquire secondary read write lock for MDSPublicSe | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 12 | "End acquire secondary read write lock for MDSPublicServ | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 12 | "Begin execute protocol command MDSPublicServerCommand_C | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 12 | "Begin execute MDSPublicServerCommand_CreateRepositorySe | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 12 | "End execute MDSPublicServerCommand_CreateRepositorySess | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 12 | "End execute protocol command MDSPublicServerCommand_Cre | | | | | | | | | |
| 2008-11-03T07:07:49.312.5080 | 13 | "Protocol exit MDSPublicServerCommand_CreateRepositorySe | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 13 | "Protocol enter MDSPublicServerCommand_AuthorizeSessionF | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 12 | "Begin acquire primary read write lock for MDSPublicServ | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 12 | "End acquire primary read write lock for MDSPublicServ | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 12 | "Begin acquire secondary read write lock for MDSPublicSe | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 12 | "End acquire secondary read write lock for MDSPublicServ | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 12 | "Begin execute protocol command MDSPublicServerCommand_A | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 12 | "Begin execute MDSPublicServerCommand_AuthorizeSessionF | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec select GetDate();", Horizontal@Database, \OLEDB_DBC | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec select GetDate();", Horizontal@Database, \OLEDB_DBC | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec SELECT Password FROM A21_CM_Users WHERE UserName=N | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec SELECT Password FROM A21_CM_Users WHERE UserName=N | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec select GetDate();", Horizontal@Database, \OLEDB_DBC | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec select GetDate();", Horizontal@Database, \OLEDB_DBC | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec select GetDate();", Horizontal@Database, \OLEDB_DBC | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec SELECT Password FROM A21_CM_Users WHERE UserName=N | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec SELECT Password FROM A21_CM_Users WHERE UserName=N | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Log-on failure: Invalid credentials, user = Admin", MDSF | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec select GetDate();", Horizontal@Database, \OLEDB_DBC | | | | | | | | | |
| 2008-11-03T07:07:49.328.4236 | 11 | "Exec select GetDate();", Horizontal@Database, \OLE | | | | | | | | | |

LV Format

| | |
|--|---|
| |  <pre> C:\usr\sap\X76\MDS01\log\MDL_LVLog@@U@081105@111227.trc <!--LOGHEADER[START]/--> <!--HELP[Manual modification of the header may cause parsing problem!]/--> <!--LOGGINGVERSION[2.0]/--> <!--NAME[D:\BigBear_Patch01\MDM\Servers\MDS\Win32\Debug\Logs\MDL_LVLog@@U@081105@111227.trc]/--> <!--PATTERN[MDL_LVLog@@U@081105@111227.trc]/--> <!--FORMATTER[com.sap.tc.logging.ListFormatter]/--> <!--ENCODING[UTF8]/--> <!--LOGHEADER[END]/--> #2.00#2008 11 05 11:12:27:118#+0:00#Info## #MDM-FN###0#####3992#Plain## ts-long="11:12:27 GMT, Wednesday, November 05, 2008" pid="5592" log-type="Server" path="D: operationName: Open,# #2.00#2008 11 05 11:12:27:118#+0:00#Info#Background_Thread@Main# #MDM-FN###Background_Thread@Main#.\\XCatServer.cpp:411#####3992#Plain## ===== #2.00#2008 11 05 11:12:27:118#+0:00#Info#Background_Thread@Main# #MDM-FN###Background_Thread@Main#.\\XCatServer.cpp:420#####3992#Plain## Version: Server = 7.1.01.26 Build = Built on 2008-Nov-01 (Debug) Repository major =13 mino #2.00#2008 11 05 11:12:27:118#+0:00#Info#Background_Thread@Main# #MDM-FN###Background_Thread@Main#.\\XCatServer.cpp:423#####3992#Plain## config filepath: D:\\BigBear_Patch01\\MDM\\Servers\\MDS\\Win32\\Debug\\mds.ini# #2.00#2008 11 05 11:12:27:118#+0:00#Warning#Background_Thread@Main# #MDM-FN###Background_Thread@Main#.\\RfcConnectionManager.cpp:159#####3992#Plain## No RFC Gateway registered. Maintain SAP RFC Gateways within server configuration file mds. #2.00#2008 11 05 11:12:27:118#+0:00#Warning#Background_Thread@Main# #MDM-FN###Background_Thread@Main#.\\RfcConnectionManager.cpp:159#####3992#Plain## RFC Gateway configuration format SAP RFC Gateways=<Gateway Host>:<Gateway Service> G #2.00#2008 11 05 11:12:27:118#+0:00#Info#Background_Thread@Main# #MDM-FN###Background_Thread@Main#.\\XCatServer.cpp:525#####3992#Plain## mds Configuration setting: "Max Threads Per Operation"= 2# #2.00#2008 11 05 11:12:28:571#+0:00#Info#Background_Thread@Main# #MDM-FN###Background_Thread@Main#.\\XCatServer.cpp:584#####3992#Plain## Server does not register to System Landscape Directory. Set parameter 'SLD Registration' t < > ... Ze 1, Sp 1 Ze 1 - Ze 41 von 1337 Zei </pre> |
| <p>7. The LogMon monitoring is also part of the NW MDM template.</p> |  <pre> MDM Server Monitoring ├── MDM Server Heartbeat │ ├── SMB\MDM_HOST_pwdf3124\... │ │ ├── Availability pwdf3124 │ │ ├── Performance pwdf3124 │ │ └── Repositories pwdf3124 │ └── SMB\MDM_HOST_wdf00183718a\... ├── MDM Server Operating System ├── MDM Logfile Monitoring │ ├── SMB\MDM_Server_LogfileMonitoring\... \WDFD0018MDS_LVLog@@U@081103@110836.trc │ ├── SMB\MDM_Server_LogfileMonitoring\... \WDFD0018MDS_LVLog@@U@081105@111227.trc │ ├── SMB\MDM_Server_LogfileMonitoring\... \WDFD0018MDS_LVTrace@@U@081107@230039.trc │ ├── SMB\MDM_Server_LogfileMonitoring\... \WDFD0018MDS_Audit@@U@081103@111150.csv │ ├── SMB\MDM_Server_LogfileMonitoring\... \WDFD0018MDS_Audit@@U@081101@110554.csv │ └── SMB\MDM_Server_LogfileMonitoring\... \WDFD0018MDS_Log@@U@081103@070749.csv ├── MDM Configuration File Monitoring └── MDM Host Processes </pre> |

5 Configuring the MDM Monitoring Environment in CEN

| | |
|---------------|---|
| Step 6 | Configuration of MDM Server monitors in the CEN based on an MDM monitoring template. This also includes the customer-specific implementation of auto-reaction methods (e.g. send an e-mail on alert) or analysis methods. |
| Step 7 | Configuration of the central performance history (CPH) on the CEN to store the history of selected performance attributes over time. |

5.1 Install MDM Monitoring Template

As discussed in the previous chapter, all MDM monitors are embedded in the standard set of CCMS monitors, but it is difficult to find these monitors. It is preferable to have one entry point for all MDM-specific monitors beside the standard monitors.

For this reason, customers often create their own sets of monitors in which they collect the monitors they want to access. To support this, SAP NW MDM delivers an MDM-specific template for monitoring MDM Servers and the MDM ABAP API.

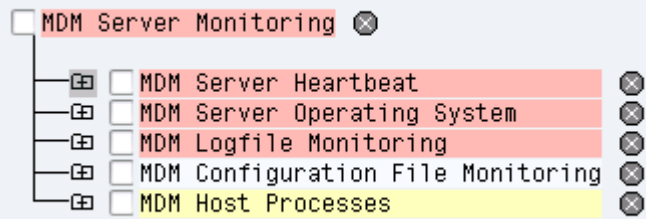
You can install the MDM monitoring template in two ways:

- You installed the MDM ABAP add-on in your CEN.
In this case you see the set of MDM monitors *SAP NetWeaver MDM Monitor Templates* in RZ20. No further steps are necessary. The ABAP add-on MDM_TECH contains mainly the ABAP API plus the MDM specific CCMS monitoring templates.
- You are not able to install the MDM ABAP add-on in your CEN.
In this case follow the steps in SAP Note 956783 (*MDM: CCMS Monitoring: MDM Template*) to download the two transport files for creating an ABAP transport to your CEN. This download creates the MDM monitoring template. Contact your ABAP administrator to import the transport to your system.

All monitors described in this guide are contained in the set of MDM monitors.

| | |
|--|--|
| <p>1. The results of implementing the MDM monitor template in RZ20 are displayed.</p> <p>Note: The MDM ABAP API monitoring tree is not described in this document.</p> | |
|--|--|

2. Choose *MDM Server Monitoring* to display the MDM Server monitoring tree.



The MDM monitor templates contain four subsets:

- **MDM Server Heartbeat**
Heartbeat, availability and performance monitoring for all MDM Servers in the landscape
- **MDM Server Operating System**
Operating system information for all MDM hosts in the landscape together with ProcMon monitoring as described above (contains all SAPOSCOL specific metrics)
- **MDM Logfile Monitoring**
All MDM log files that are configured in LogMon monitoring
- **MDM Configuration File Monitoring**
All MDM configuration files, such as *mds.ini* or Release Notes, that are configured in LogMon monitoring
- **MDM Host Processes**
If you have set up ProcMon monitoring as described before, you see the monitored MDM server processes and the MDM GUI processes within this sub tree.

5.2 Enable Central Performance History (CPH)

The Central Performance History is an application connected to the CCMS in CEN. It has two main functions that are not provided in the CCMS.

1. The CCMS stores performance data over a restricted time period, but not for longer time periods due to the huge amount of data that grows over time. Specific performance criteria (to be defined by the monitoring user) can be collected over time, aggregated to other time units, and displayed using the SAP graphics application.
2. The MDM Server monitor delivers performance and availability data to the CEN, but does not calculate values such as min/max and average for the data. This can be done with the CPH.

6 MDM Server Monitoring – Function Overview

The main MDM CCMS monitoring capabilities include:

A. **MDM Server Heartbeat**

Monitoring the availability of the MDM Servers on all registered MDM Hosts

B. Monitor **additional MDM Server components**

a. Heartbeat and **availability monitoring** of

- *MDM Import Server*
- *MDM Syndication Server*
- *MDM Layout Server*

b. For specific servers, display of new **attributes**, such as

- *Host name*
- *Server release and build info*
- *Server uptime and number of client logons*

C. **Monitor all MDM repositories on the monitored hosts**

This function allows you to control the load / mount status of all repositories running on a specific MDM Server host.

It provides heartbeat and availability monitoring that can be used for alert management if a repository is unloaded accidentally.

As with all availability data for MDM Servers, the repository availability data can be aggregated over time using the CPH (CCMS central performance history) function.

D. **MDM Server OS status**

Based on SAPOSCOL you see all operating system data sent from SAPOSCOL process via the CCMS agent to the CEN.

E. **MDM Log File Monitoring**

Based on the LogMon definition done for the MDM host you are able to display specific MDM log and trade files or MDM repository reports.

F. **MDM Configuration File Monitoring**

Based on the LogMon definition done for the MDM host you are able to display the MDM server specific technical configuration files.

The CCMS agent on the monitored system (for example system on which the MDM Server is installed) collects monitoring information, such as the availability of the MDM Server or MDM log files, or OS Collector data about the system status. This data is provided to the central monitoring system on which the CCMS agent is registered via RFC. The CCMS agent can be registered on more than one monitoring system, but one of these monitoring systems plays the role of the central monitoring system (CEN).

In the CEN, the data is stored in the CCMS database and can be displayed with transaction RZ20 in different monitoring collections.

Examples on MDM CCMS Monitoring

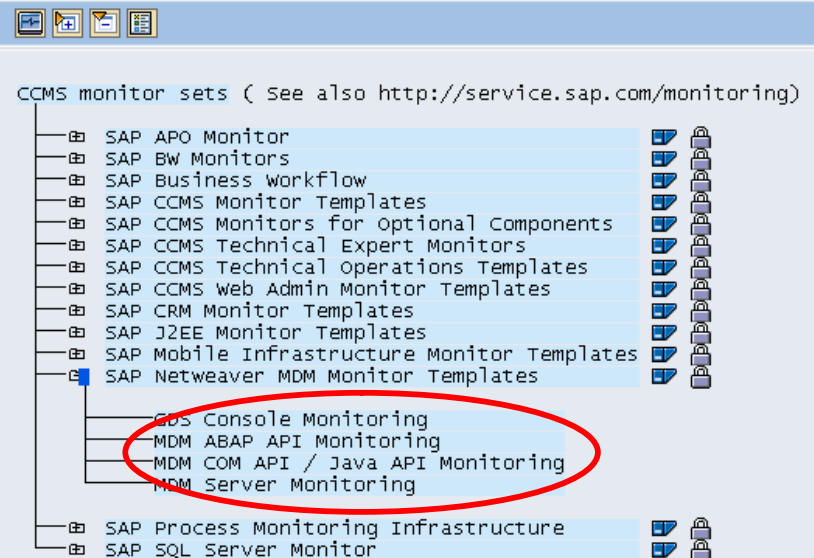
MDM Server Monitoring

1. Start CCMS monitoring.

Start CCMS monitoring in the CEN with transaction RZ20. You can find the new MDM monitoring template here. One part of the template is *MDM Server Monitoring*.

Double click *MDM Server Monitoring* to jump to the MDM Server monitoring tree.

CCMS Monitor Sets - Maintenance functions OFF

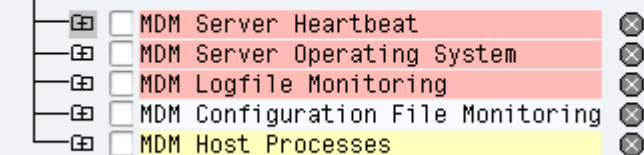


2. Open *MDM Server Monitoring* tree.

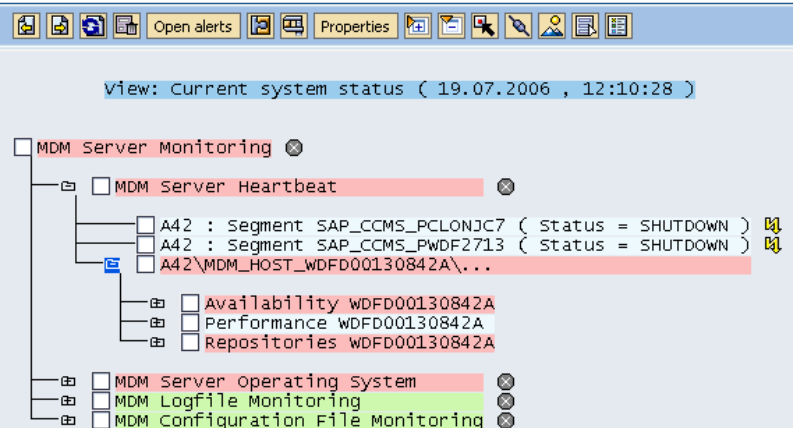
The MDM_CCMS plug-in provides communication between the CCMS agent and the MDM Server to get all monitoring data. The complete monitoring tree shown in the central monitoring system (CEN) below the *MDM Server Monitoring* is delivered.

After running the CCMSAGENT with plugged-in MDM shared library, the CEN displays the following information for MDM Server Monitoring.

MDM Server Monitoring



SAP Netweaver MDM Monitor Templates (MDM Server Monitoring) - M

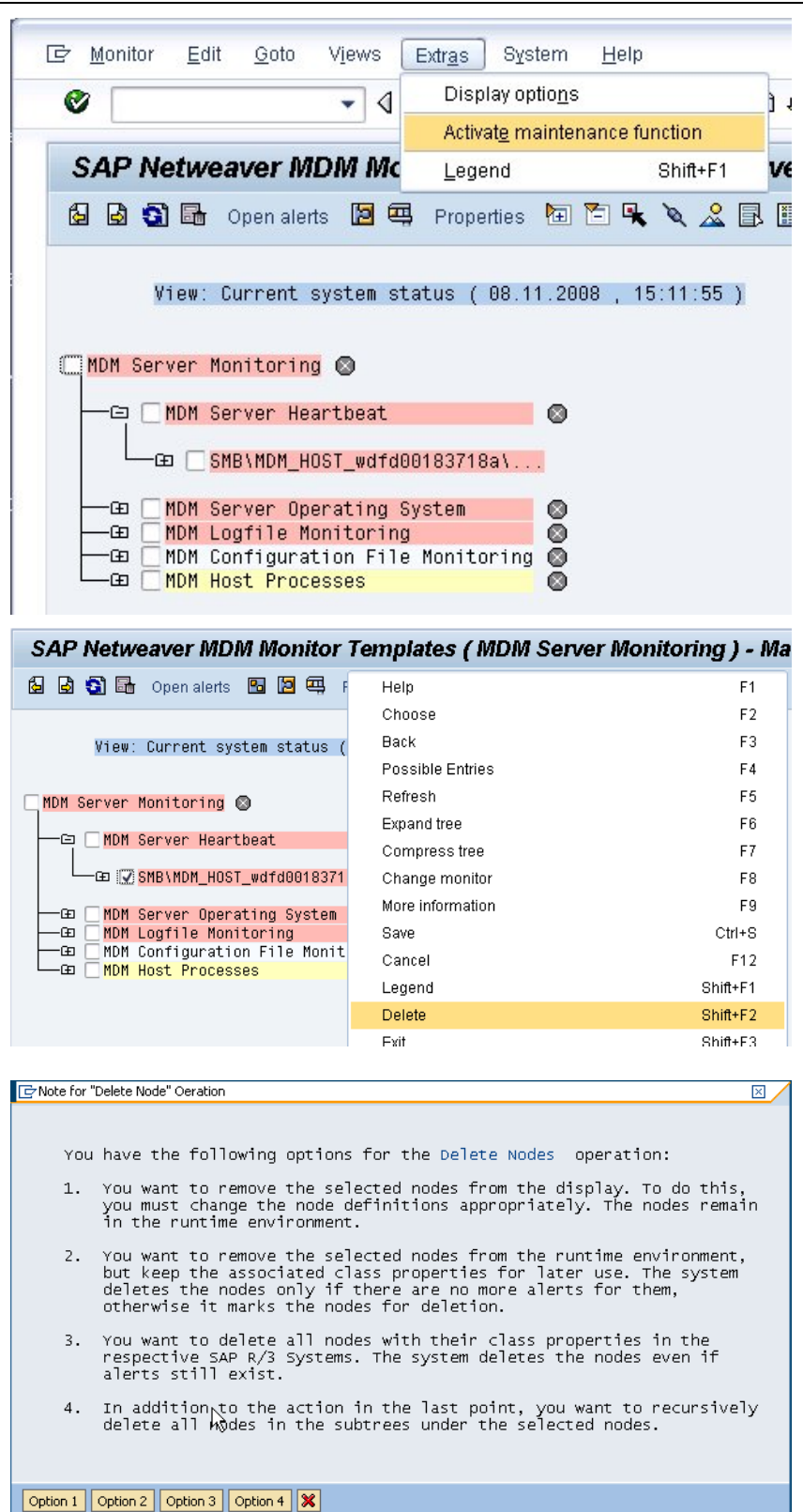


3. Hint:
Delete old MDM Server monitoring tree items
(Refreshing the tree after changes occurred on MDM site).

If you upgraded the MDM Server and now have a new enhanced MDM_CCMS.DLL library, "old" monitoring subtrees that are now obsolete might be displayed.

Here we explain how the CCMS tree can be refreshed:

- Activate the maintenance functions in transaction RZ20.
- Select the tree you want to delete and choose *Delete* in the context menu (use right mouse button).
- Use options 3 or 4 to delete the old monitoring tree elements (MTE). The next call of the CCMS agent on the monitored system displays the current valid monitoring tree.
- Leave transaction RZ20 and re-enter it after a few minutes to see the result.



The screenshot shows the SAP Netweaver MDM Monitor Templates interface. The top menu bar includes Monitor, Edit, Goto, Views, Extras, System, and Help. The 'Extras' menu is open, showing options like Display options, Activate maintenance function, and Legend. The main window displays the 'MDM Server Monitoring' tree, which includes sub-trees like MDM Server Heartbeat, MDM Server Operating System, MDM Logfile Monitoring, MDM Configuration File Monitoring, and MDM Host Processes. A right-click context menu is open over the 'MDM Server Monitoring' tree, showing options like Help, Choose, Back, Possible Entries, Refresh, Expand tree, Compress tree, Change monitor, More information, Save, Cancel, Legend, Delete, and Exit. The 'Delete' option is highlighted. Below the context menu, a 'Note for "Delete Node" Operation' dialog box is displayed, providing instructions for deleting nodes.

SAP Netweaver MDM Monitor Templates (MDM Server Monitoring) - Ma

View: Current system status (08.11.2008 , 15:11:55)

MDM Server Monitoring

- MDM Server Heartbeat
- SMB\MDM_HOST_wdfd00183718a\...
- MDM Server Operating System
- MDM Logfile Monitoring
- MDM Configuration File Monitoring
- MDM Host Processes

Context Menu:

- Help F1
- Choose F2
- Back F3
- Possible Entries F4
- Refresh F5
- Expand tree F6
- Compress tree F7
- Change monitor F8
- More information F9
- Save Ctrl+S
- Cancel F12
- Legend Shift+F1
- Delete Shift+F2**
- Exit Shift+F3

Note for "Delete Node" Operation

You have the following options for the **Delete Nodes** operation:

- You want to remove the selected nodes from the display. To do this, you must change the node definitions appropriately. The nodes remain in the runtime environment.
- You want to remove the selected nodes from the runtime environment, but keep the associated class properties for later use. The system deletes the nodes only if there are no more alerts for them, otherwise it marks the nodes for deletion.
- You want to delete all nodes with their class properties in the respective SAP R/3 Systems. The system deletes the nodes even if alerts still exist.
- In addition to the action in the last point, you want to recursively delete all nodes in the subtrees under the selected nodes.

Option 1 Option 2 Option 3 Option 4 X

4. Note:
If the MDM Server is not up and running, the *Performance* and *Repositories* subtrees cannot display any data (this is obvious because the MDM Server delivers this data).

SAP Netweaver MDM Monitor Templates (MDM Server Monitoring) - Main...

View: Current system status (16.06.2006 , 14:50:53)

- MDM Server Monitoring
 - MDM Server Heartbeat
 - A42\MDM_HOST_WDFD00130842A\...
 - Availability WDFD00130842A
 - Master Data Server
 - Description: Availability WDFD00130842A
 - Status: Inactive since 16.06.2006, 14:44:26. Last
 - Log: inactive
 - Heartbeat: 0 sec
 - Availability: 0 %
 - Master Data Import Server
 - Master Data Syndicator Server
 - Master Data Layout Server
 - Performance WDFD00130842A
 - Repositories WDFD00130842A
- MDM Server Operating System
- MDM Logfile Monitoring
- MDM Configuration File Monitoring

5. Thresholds

In the next screen you see an MDM Server on a selected host that was started a few minutes ago. The last 15 min average is displayed as 88 % available for the MDM Server and for the Import Server, with the tendency of growing. If you check the details in the Availability node, you see that the value is increasing.

In the CCMS you can set thresholds at which the flag should be displayed in green, yellow or red.

If a threshold value is violated, an auto-reaction method can be started automatically by the CCMS system (for example send e-mail if the server is not available).

See standard CCMS documentation about defining the auto-reaction in CCMS.

View: Current system status (08.11.2008 , 15:15:20)

- MDM Server Monitoring
 - MDM Server Heartbeat
 - SMB\MDM_HOST_wdfd00183718a\...
 - Availability wdfd00183718a
 - Master Data Server
 - Description: Master Data Server running on wdfd00183718a
 - Status: Active since 08.11.2008, 15:09:36: Last test: 08.1
 - Log: No Error
 - Heartbeat: 1 sec
 - Availability: 88 %
 - Master Data Import Server
 - Master Data Syndicator Server
 - Description: Master Data Syndicator Server running on wdfd00183
 - Status: Active since 08.11.2008, 15:09:36: Last test: 08.1
 - Log: No Error
 - Heartbeat: 6 sec
 - Availability: 88 %
 - Master Data Layout Server
 - Performance wdfd00183718a
 - Repositories wdfd00183718a

| tit | 12:14 | 12:13 | 12:12 | 12:11 | 12:10 | 12:09 | 12:08 | 12:07 | 12:06 | 12:05 | 12:04 | 12:03 | 12:02 | 12:01 | 12:00 | 11:59 | 11:58 | 11 |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|
| % | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 0 |

Availability and Heartbeat Monitoring of MDM Repositories on Running MDM Server

It is not sufficient to provide an alerting mechanism for MDM Servers that are stopped and that should be up and running.

It is also important to store the status of all repositories from different MDM Servers in the central monitor. For example, if a repository is unloaded from the MDM Console, the CEN is informed by the CCMS about this status and can send an alert.

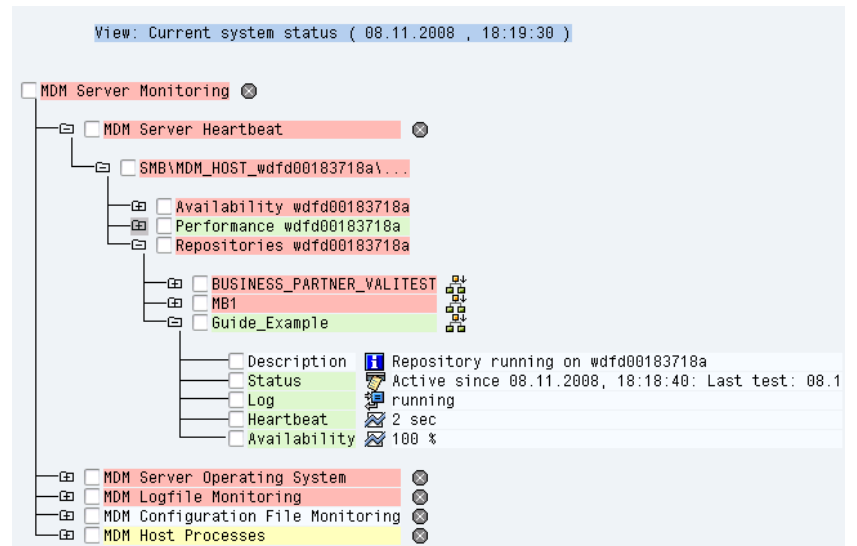
6. *Repository heartbeat and availability monitoring*

Go to MDM Server Monitoring
→ MDM Server Heartbeat →
<CEN>MDM_HOST_<hostname>
<hostname> → Repositories
<hostname>

If the MDM Server is running on a host in this subtree, the availability of all mounted repositories is displayed.

The status can be:

- *mounted* (not loaded)
- *running* (loaded)
- *outdated* (for example DBMS not running)



Display attributes for all running MDM Servers

For each type of MDM server (MDM Server, MDM Import Server, MDM Syndication Server, MDM Layout Server), the CCMS can display additional information, such as:

- Host name on which the server is running
- Server release, including build number (e.g. Version 7.1 (7.1.00.76))
- Build Info (e.g. Unofficial Development Build)
- Build number of the CCMS MDM Plug-in (for self-monitoring)
- Distribution Disk usage (space allocation in Inbound and Outbound ports)
- Number of server logons (such as Data Manager) (MDS only)
- Number of mounted repositories on the server (MDS only)
- Number of running repositories on the server (MDS only)

7. Additional Parameters

Go to *MDM Server Monitoring*
→ *MDM Server Heartbeat* →
<CEN>WDM_HOST_<hostname>
→ *Performance*
<hostname>.

View: Current system status (08.11.2008 , 18:19:30)

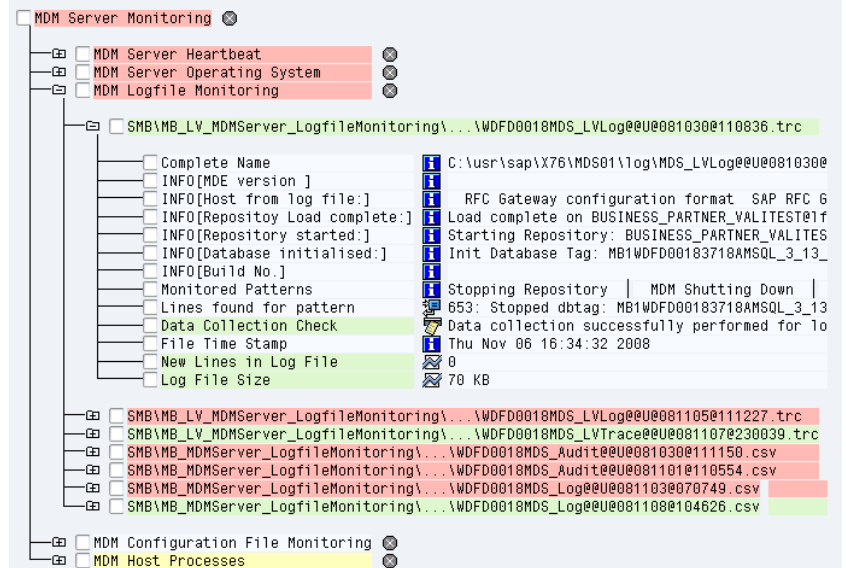
| | | | |
|-------------------------------------|------------------------------|--|---------------|
| SMB\MDM_HOST_wdfd00183718a\... | | | |
| Availability wdfd00183718a | | | |
| Performance wdfd00183718a | | | |
| Master Data Server Attr. | | | |
| Host Name | wdfd00183718a | | |
| Server Release | Version 7.1 (7.1.00.76) | | |
| Build Info | Unofficial Development Build | | |
| MDM Plug-In Version | 7.1.00.76 | | |
| Database Connections | 4 | | 08.11. |
| Distribution Disk Usage | 0 MB | | 08.11. |
| Repositories Mounted | 3 | | 08.11. |
| System UpTime | sec | | Green 0 |
| Server Logons | 10- | | 08.11. |
| Launched Workflow Jobs | 0 | | 08.11. |
| Lookup Table Entries | 0 | | 08.11. |
| Main Table Columns | 2 | | 08.11. |
| Main Table Entries | 0 | | 08.11. |
| Prelaunched Workflow Jobs | 0 | | 08.11. |
| Qualified Links | 0 | | 08.11. |
| Repositories Running | 1 | | 08.11. |
| Repository Logons | 1 | | 08.11. |
| Master Data Import Server Attr. | | | |
| Master Data Syndicator Server Attr. | | | |
| Host Name | wdfd00183718a | | |
| Server Release | Version 7.1 (7.1.00.76) | | |
| Build Info | Unofficial Development Build | | |
| MDM Plug-In Version | 7.1.00.76 | | |
| Principal Name | wdfd00183718a | | Green 08.11.2 |
| Principal Status | Online | | Green 08.11.2 |
| System UpTime | sec | | Green 08.11.2 |
| Repositories wdfd00183718a | | | |

Display MDM log files

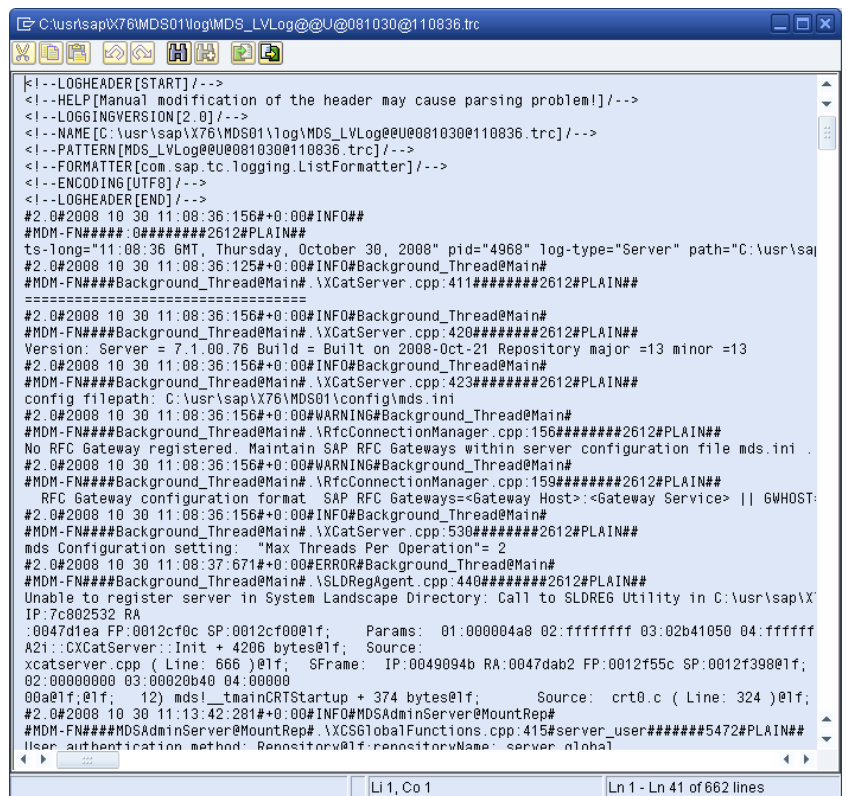
8. Display MDM log files

Go to MDM Server Monitoring
→ MDM Logfile Monitoring →
<CEN>\<Logmon MTE
name>\<LogfileName>.

This is an example for a MDM
generated LogViewer Trace
File.



9. Double click on the Complete Name.



7 Appendix

7.1 Standard Monitoring Documentation

SAP Service Marketplace contains the complete set of standard documentation for CCMS monitoring: service.sap.com/Monitoring → *Monitoring in Detail*. The following guides are available:

- Availability Monitoring and Agent CCMSPING
- CCMS Agents: Features, Installation and Usage
- CCMS System Component Repository
- Central Performance History of the Monitoring Architecture
- Customizing and Operating GRMG Monitoring SAP NW 04
- Customizing and Operating GRMG Monitoring SAP Web AS 6.20
- Design und Integration von SNMP-Funktionen in SAP NetWeaver
- Forwarding Alerts to Alert Management (ALM)
- Functional Trace (Transaction STATTRACE)
- Global Workload Monitor (Transaction ST03G)
- Integration of CPH Data into the Business Warehouse
- Java Monitoring API - Properties and Installation
- Configuration of the Monitoring Architecture
- Creating and Editing Monitors and Sets of Monitors
- Monitoring Jobs with the Alert Monitor
- Monitoring Multiple Systems
- Monitoring Response Times of Transactions or Clients
- Monitoring qRFC and tRFC Calls
- Preconfigured Monitors
- Predefined Auto-Reaction Methods of the Alert Monitor
- SAPOSCOL: Properties, Installation, and Operation
- Sending Alerts as SNMP Traps
- Technical Views of the Alert Monitor
- The SAP Expert Monitor for EMC (SEME)
- Windows Event Log Monitoring with CCMS Agents
- Workload Monitor (Transaction ST03N)

7.2 Important SAP Notes for Monitoring

| SAP Note | Description |
|----------|--|
| 889366 | <i>MDM55 SP03 ITSAM: LogMon Monitoring – Examples</i> |
| 889580 | <i>MDM55 SP03 ITSAM: CCMS Monitoring: MDM template</i> |
| 889579 | <i>MDM55 SP03 ITSAM: Procmon Monitoring MDM Server – Example</i> |
| 436186 | <i>Installing saposcol as a service</i> |
| 618053 | <i>Download Location for NTSCMGR.EXE</i> |
| 548699 | <i>FAQ: OS Collector SAPOSCOL</i> |
| 957036 | <i>MDM55 SP04 ITSAM: Logmon Monitoring – Examples</i> |
| 956783 | <i>MDM55 SP04 ITSAM: CCMS Monitoring: MDM Template</i> |
| 1272117 | <i>MDM 7.1 ITSAM: Procmon Monitoring MDM</i> |