

MDCMSCmdService Installation Instructions for Windows

These instructions provide the customer with the necessary information to install and configure the MDCMS Command Service Application as a windows service to automatically process Pre- and Post-Installation scripts delivered by MDCMS.

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1 Version History

1.2.2022	Former version of document	René Unternährer
15.2.2022	Updated for permission addition	René Unternährer

2 General Information

The MDCMSCmdService Application runs as a service on any windows server. The service processes script files in a designated folder. The script files are placed in the folder via FTP during the MDCMS RFP deployment process of windows components. The contents of the script files must be a set of syntactically correct windows commands that will be executed by MDCMSCmdService. If all of the commands in the script execute without exception, the file is moved to the ok folder for positive confirmation to MDCMS. If a command in the script fails, the file is moved to the nok folder for negative confirmation to MDCMS.

3 Installation and Configuration of MDCMSCmdService for Windows

..3.1 Prerequisites

- Java JDK 5 or newer (with Java EE)
- Windows Operating System

Before you install the windows service, you need to install a JAVA JRE Version 6 or newer (Recommended). Download: <http://java.sun.com/javase/downloads/index.jsp>

NOTE: if you require scripts to run java or jar commands, a JDK should be pointed at rather than a JRE.

The java installation path needs to be set in the installService.bat script explained later in this document.



Create/Designate a folder as the destination for the contents of MdCmdService.zip. It is recommended to have full access rights to that folder.

Unzip the contents into the folder.

The MdCmdService.zip file consists of several files:

Filename	Description
installService.bat	Script to Install the application as a Service
mdcmd.jar	The runtime java application for executing the script commands
MDCMSCmdService Installation Instructions Windows.pdf	these instructions
MDCMSCmdService.exe	GUI application for configuring the installed service
prunsv32.exe	The runtime windows executable for 32-bit JVM environments
prunsv64.exe	The runtime windows executable for 64-bit JVM environments
uninstallService.bat	Script to uninstall the application as a Service
/testscripts-windows	directory containing a valid and invalid script to test the service



..3.2 Configure the Service

installService.bat

Open the installService.bat with an editor:

```
01 set SERVICE_NAME=MDCMSCmdService
02 set SERVICE_PATH=C:\apps\MDCMSCmdService
03 set PRUNSRV=prunsv64.exe
04 set PR_INSTALL=%SERVICE_PATH%\%PRUNSRV%
05 set PR_DESCRIPTION=Executes MDCMS deployment scripts for components installed on
this Server

    REM Service log configuration
06 set PR_LOGPREFIX=%SERVICE_NAME%
07 set PR_LOGPATH=%SERVICE_PATH%\logs
08 set PR_STDOUTPUT=%SERVICE_PATH%\logs\stdout.txt
09 set PR_STDERROR=%SERVICE_PATH%\logs\stderr.txt
10 set PR_LOGLEVEL=Debug

    REM Path to java installation
11 set PR_JVM=C:\Program Files\Java\jre1.8.0_111\bin\server\jvm.dll
12 set PR_CLASSPATH=mdcmd.jar

    REM Startup configuration
13 set PR_STARTUP=auto
14 set PR_STARTMODE=jvm
15 set PR_STARTCLASS=com.md.mdcms.StartService
16 set PR_STARTMETHOD=start
17 set PR_STARTPARAMS=start;%SERVICE_PATH%\drops

    REM Shutdown configuration
18 set PR_STOPMODE=jvm
19 set PR_STOPCLASS=com.md.mdcms.StartService
20 set PR_STOPMETHOD=stop
21 set PR_STOPPARAMS=stop

    REM JVM configuration
22 set PR_JVMMS=256
23 set PR_JVMX=512
24 set PR_JVMSS=512
25 set PR_JVMOPTIONS=-Duser.language=en;-Duser.region=US

    REM Install service
26 %PRUNSRV% //IS//%SERVICE_NAME%
```

Recommended change considerations are:

- 01 the name of the service
- 02 the path of your chosen installation location containing the unzipped files
- 03 either the prunsv64.exe for 64-bit JVM or prunsv32.exe for 32-bit JVM
- 11 the path to your java virtual machine (minimum 1.6 – must correspond with exe in row 3)
- 17 the start parameters, delimited by (;) semicolon
 - 1st parameter (mandatory) must be start (constant value), mandatory
 - 2nd parameter (mandatory) is the directory path where the command scripts should be placed for execution, mandatory
 - 3rd parameter (optional) is if the folder should get full permission. This might be necessary if authority problems arise when ok, nok, etc. folder can't be read because of permission



restrictions. Then the service sets the permission always to that given parameter value. E.g. `full` -
> full access
25 The locale for the logging

IMPORTANT – the directory defined in statement 17 to receive the command scripts at runtime should be empty.

The location of the folder must be accessible from the FTP client on the IBM i and must be the same folder that is defined for the Remote Server Location in MDCMS (based on relative path of the FTP user).

..3.3 Install the Service

Run the installService.bat

After running the installService.bat you should be able to find the service installed as MDCMSCmdService (or the name entered in line 01) in the services list of the windows services. There you can start the service.

It may be necessary to execute the bat file from a command shell for the service to be installed.

..3.4 Uninstall the Service

Edit row 01 of the file uninstallService.bat to match the name of the service (if changed from MDCMSCmdService)

Ensure the PRUNSRV value matches the value used in installService.bat

run uninstallService.bat

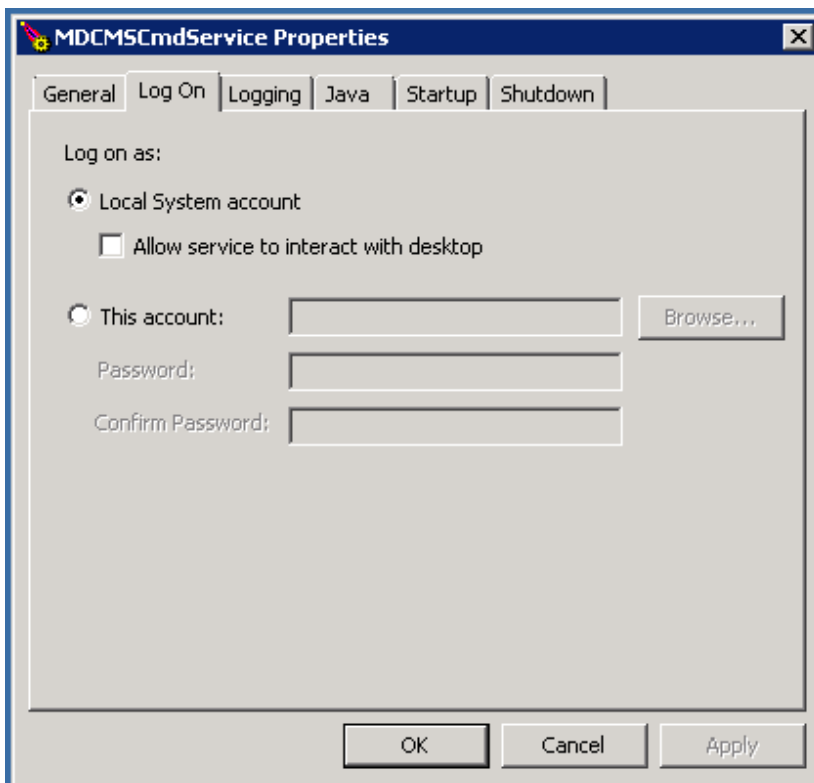
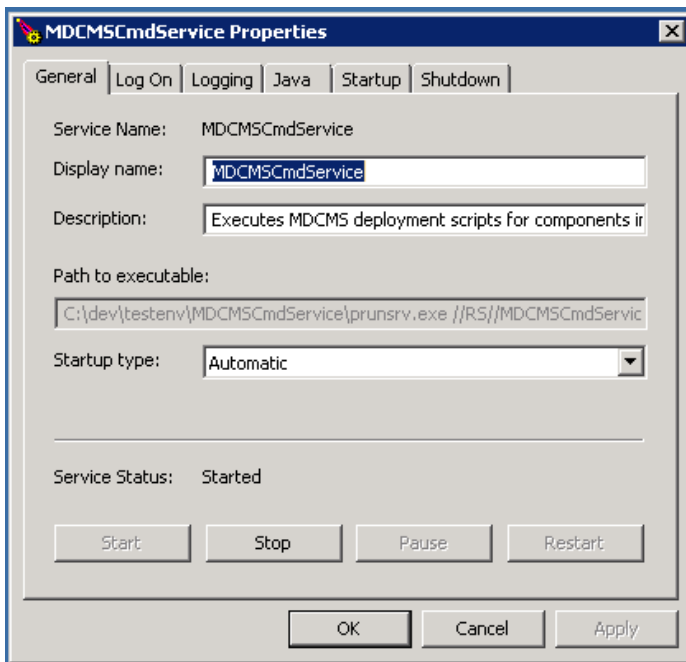
It may be necessary to execute the bat file from a command shell for the service to be uninstalled.

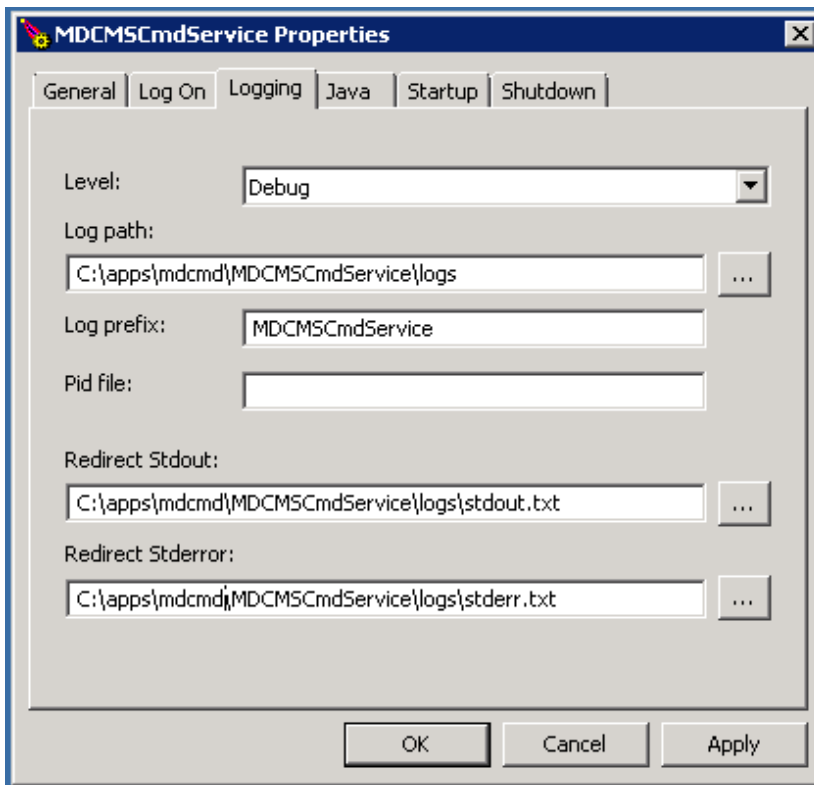
..3.5 Troubleshooting / Modifying Configuration for Installed Service

Rename MDCMSCmdService.exe to the service name (if changed from MDCMSCmdService) and then run the executable file.

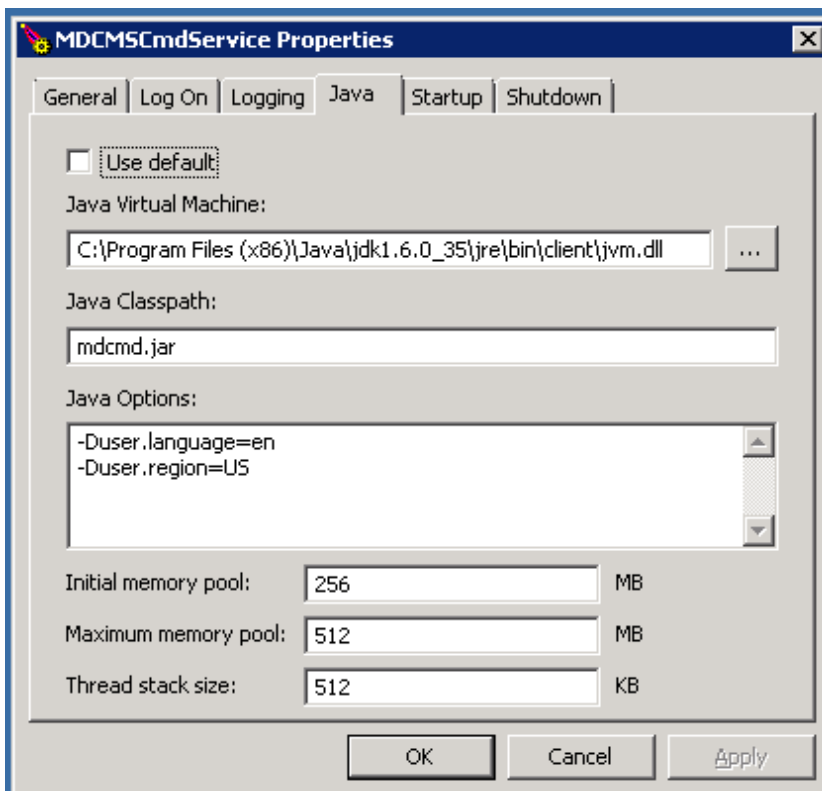
MDCMSCmdService.exe provides all of the options necessary to properly configure the service and to start, restart or stop the service.

See the following Screen shots for the **recommended settings** for each tab for the service and compare those to your settings if something is not functioning properly:





Level – Debug for initial testing/troubleshooting and Error once all is ok are the recommended settings.



Java Virtual Machine – verify pointing to 32 bit jvm.dll with a minimum of 1.5



MDCMSCmdService Properties

General | Log On | Logging | Java | **Startup** | Shutdown

Class:

Image: ...

Working Path: ...

Method:

Arguments:

Timeout: sec.

Mode:

OK Cancel Apply

MDCMSCmdService Properties

General | Log On | Logging | Java | **Startup** | Shutdown

Class:

Image: ...

Working Path: ...

Method:

Arguments:

Timeout: sec.

Mode:

OK Cancel Apply

4 Testing and Using the Service

..4.1 Testing locally

After getting the service up and running, you can test its behaviour.

- 1) Copy the directoryListing.mdscrip file from the test scripts folder into the drops folder for your service (based on row 16 of the installService.bat file.
- 2) within 5 seconds, the file should be moved to the ok folder within the drops folder
- 3) Copy the directoryListing-nok.mdscrip file from the test scripts folder into the drops folder for your service (based on row 16 of the installService.bat file.
- 4) within 5 seconds, the file should be moved to the nok folder within the drops folder

In both cases, the logs should show what and if the process performed

..4.2 Usage

In MDCMS, an RFP contains one or more objects that are to be installed by MDCMS.

The target location for an object is based on its attribute.

If the attribute is of type *REMOTE, a Remote Server Location is defined for it and 0 or more scripts are defined to be run either before or after installation of the object. The script can be set to run once per object or once per RFP.

At installation time, MDCMS uses FTP to send scripts, which are stored as templates within IFS on the IBM System i (AS/400), to the drops folder.

If the service is started, it will pick up the script and attempt to execute each command within it. If all commands execute without exception, the script is moved to the ok folder, which MDCMS checks to know that the script processed.

If a command fails, the script is moved to the nok folder, which MDCMS checks to know that the script did not process.