



DOCUMENTS 4

Installation of a Debug server

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1. Introduction

This document describes what the next steps are if you have problems with the DOCUMENTS 4 Server in following way:

- The DOCUMENTS 4 Server **crashes**
(the DOCUMENTSServer.exe / DOCUMENTSServer_debug.exe process terminated by itself)
- The DOCUMENTS 4 Server **hangs**
(the DOCUMENTSServer.exe / DOCUMENTSServer_debug.exe is running but not responding - e.g. a log in is not possible)

Starting with the release of otrisPORTAL 6.0f / ELC 3.60f, the DOCUMENTS debug process is split in three escalation levels. If your DOCUMENTS-Server crashes, you should start with the first escalation level. If your DOCUMENTS-Server hangs, you have to process the third escalation level.

The three escalation levels in detail:

1. The release DOCUMENTS-Server now creates a so-called Minidump in the **User-data directory** whenever a crash occurs.
2. The debug server, by default, creates the same Minidump files in the **User-data directory** each time a crash occurs, but it is possible to set additional flags to receive additional information in the DOCUMENTS-Server logs.
3. The debug server will be combined with the Microsoft Debugging Tools for Windows and detailed files are created (same behaviour as with previous releases of this documentation).

Notes

The path of the **User-data directory** depends on the Windows version and the user account, which started the DOCUMENTS server.

The path is defined as %HOMEDRIVE%\%HOMEPATH\documents

E.g. for user easy: c:\Users\easy\documents

c:\Benutzer\easy\Eigene Dokumente

The easiest way to find out the path of the User-data directory of your system, is to look into the first lines of the DocumentsServer_[Timestamp].log. Search for "User-data-dir".

The filename of the Minidump looks like

```
DOCUMENTSServer_1814_x64_mssql_2011_09_01-13_43_17.dmp
```

depending on the database, build no etc.

2. Escalation Level 1 – Release Server Minidumps

Whenever a crash occurs, the release version of the DOCUMENTS server automatically creates a file called Minidump in its User-data directory directory.

The name pattern is

```
DOCUMENTSServer_[BUILDNO]_[MEMMODEL]_[DB]_[TIMESTAMP].dmp  
e.g.  
DOCUMENTSServer_1814_x64_mssql_2011_09_01-13_43_17.dmp
```

When a crash occurred, please take this file and place it in a Zip file.

Second, please browse to the ...\\logs directory of your DOCUMENTS installation, and find the appropriate file called

```
DocumentsServer_[TIMESTAMP].log
```

Put it in the same Zip file, and send the Zip to our support email address support@otris.de. Please do not forget to include detailed information about the exact DOCUMENTS server version (including build number and patch level), the Tomcat release used, the J2SDK release being used and both version information about the operating system and the database system.

Wait for further instructions by our support team. Do **not** proceed to the next escalation levels without being ordered to do so!

3. Escalation Level 2 – Debug Server Minidumps

If our support team asks you to install the debug server to create more detailed Minidump information, please follow the instructions explained below:

1. Open an Explorer window and move to the base installation directory of your DOCUMENTS installation.
2. Find the sub directory called `dbginst`.
3. Execute the batch file `dbgServer_install.bat` with administrative rights
4. A popup window asks you to execute “Microsoft® Windows Based Script Host” – it is required to acknowledge this execution.
5. Please confirm the dialog popup “do you really want to install the debug server?”
6. Wait until the final confirmation popup appears which indicates the complete path and file name of the debug server executable.
7. Instead of executing the release server (`DOCUMENTSServer.exe`), run the debug server (`DOCUMENTSServer_debug.exe`) instead. It may run as a service as well.
8. The deinstallation of the debug server will be done by executing the batch file `dbgServer_uninstall.bat`.

Whenever a crash occurs, the debug version of the DOCUMENTS server automatically creates a file called Minidump in its User-data directory.

The name pattern is

```
DOCUMENTSServer_[BUILDNO]_[MEMMODEL]_[DB]_[TIMESTAMP]d.dmp
```

When a crash occurred, please take this file and place it in a Zip file.

Second, please browse to the `...\logs` directory of your DOCUMENTS installation, and find the appropriate file called

```
DocumentsServer_[TIMESTAMP].log
```

Put it in the same Zip file, and send the Zip to our support email address support@otris.de. Please do not forget to include detailed information about the exact DOCUMENTS server version (including build number and patch level), the Tomcat release used, the J2SDK release being used and both version information about the operating system and the database system.

Wait for further instructions by our support team. Do **not** proceed to the third escalation level without being ordered to do so!

4. Escalation Level 3 – Full debugging

If our support team asks you to install the debug server to create more detailed Minidump information, please follow the instructions explained below:

1. Read this section carefully at least once and complete, before you start!

2. Install Windows Debugging Tools (see notes below). Use a default installation, do not change any of the installation settings!
3. Open an Explorer window and move to the base installation directory of your DOCUMENTS installation.
4. Find the sub directory called “dbginst”.
5. Execute the batch file `dbgServer_install.bat` with administrative rights.
6. A popup window asks you to execute “Microsoft® Windows Based Script Host” – it is required to acknowledge this execution.
7. Please confirm the dialog popup “do you really want to install the debug server?”
8. Wait until the final confirmation popup appears which indicates the complete path and file name of the debug server executable.
9. Switch to the `/server` directory and search for a file named `start_debug_mode.bat` for the **Crashmode** or for a file named `debug_mode_hang.bat` for the **Hangmode**.
10. Edit `start_debug_mode.bat` / `debug_mode_hang.bat` with your favourite text editor (it helps a lot if your editor supports Syntax Highlighting for Batch files).
11. Almost at the beginning of the file, there are four configuration instructions, which start with a SET instruction:

```
--- start_debug_mode.bat ---
Set DebuggingToolsPath=C:\WinDDK\7600.16385.1\Debuggers
Set LogPath=c:\tmp
Set AppPath=c:\Programme\DOCUMENTS4\server
Set AppName=DOCUMENTSServer_debug.exe

--- debug_mode_hang.bat ---
Set DebuggingToolsPath=C:\WinDDK\7600.16385.1\Debuggers
Set LogPath=c:\tmp
Set AppName=DOCUMENTSServer_debug.exe
```

Edit the file paths to match your exact system configuration. Especially make sure to define a LogPath directory which really exists!

Save your changes and quit the editor.

12. For Crashmode only:

Perform a test of the batch file by starting a cmd line (windows start, run, type "cmd.exe"), cd to the ..\server directory and start the batch file start_debug_mode.bat. In case of any misconfiguration you receive error messages pointing to your mistakes. Repeat Step 11 and 12 until the debug server runs fine.

13. For Crashmode only:

Create a desktop shortcut to the start_debug_mode.bat file.

Notes

If you want to debug the 32-bit Version (x86) of the DOCUMENTS server, then you have to install the 32-bit Version of the Debugging Tools. For the 64-bit Version (x64) of DOCUMENTS you have to use the 64-bit Version of DOCUEMNTS.

It can be downloaded at:

<http://www.microsoft.com/whdc/devtools/debugging>

Since Version 6.12.2.633 (Feb. 26, 2010) the Debugging Tools for Windows are part of the Windows Driver Kit (WDK) and the Windows SDK.

5. Starting the debug server

Crashmode

Start the debugserver by double clicking the desktop shortcut to your `start_debug_mode.bat` file.

A command line window opens up which invokes the file `cdb.exe` of the Windows Debugging Tools. The debugger again invokes the debug version of the DOCUMENTS-Server.

Hangmode

Start the debugserver by double clicking of the `DOCUMENTSServer_debug.exe` in the `\server` directory.

If otris support asked you to write an `app.log`:

Switch to the *debugserver* console window and change the “*Debug Output*” radio button to “*File*”. Hit the “...” button next to it, which opens a file dialog.

Switch to the `/tmp` directory which you already configured in the installation steps, and hit the “*open*” button.

Now hit the “*Change*” button in the “*Debug-level*” row. Hit the “*All*”-Button in the dialog window which pops up, and finally hit *OK*.

The debug server is now running and collecting data.

6. If a crash occurs

In case of a crash occurring (this means: the debug server console window closes down without any interaction of an administrator hitting the *EXIT* button), perform the steps described as follows:

1. *Do not restart the debug server before performing the following steps!*

2. Open a Windows Explorer.
3. Switch to the `/tmp` directory which you configured to collect the debug data.
4. The directory should now contain a new subfolder matching the pattern

```
yyyymmdd_HHMMSS_Crash_Mode
```

`Date` and `Time` are the startup timestamp of the debugserver. Create a zip file including the complete contents of that newly created subfolder. Make sure to zip the correct folder structure!

5. Create a zip file for the matching `app.log` and the `DOCUMENTS-Server_debug_DATE_TIME.log` as well.
6. Please write a short note which `DOCUMENTS-Server_debug.exe` build (e.g. 1814), the memory model (x86 / x64) and the database (MS SQL Server / MySQL / ORACLE) you have used.
7. Contact otris Support to receive credentials for an FTP account where to upload the files.
8. Now you may restart the Tomcat and the debug mode by exactly following the instructions of the chapter "Starting the debug server".

7. If a hang occurs

In case of a hang occurring (this means: the debug server is running, but will not responding anymore e.g. a log in is not possible), perform the steps described as follows:

1. Start the `debug_mode_hang.bat`. The debugging tools for windows program starts and writes a memory dump into the configured log-directory.
2. After the dumps are written, finish the `DOCUMENTSServer_debug.exe` with the Exit-Button (if possible) or kill the process in the task manager and restart the Tomcat and `DOCUMENTSServer_debug.exe`.
3. Open a Windows Explorer.
4. Switch to the `/tmp` directory which you configured to collect the debug data.
5. The directory should now contain a new subfolder matching the pattern

```
yyyyymmdd_HHMMSS_Hang_Mode
```

Date and Time are the hang timestamp of the debug server. Create a zip file including the complete contents of that newly created subfolder. Make sure to zip the correct folder structure!

6. Please write a short note which `DOCUMENTSServer_debug.exe` build (e.g. 1814), the memory model (x86 / x64) and database (MS SQL Server / MySQL / ORACLE) you have used.
7. Create a zip file for the matching `app.log` and the `DOCUMENTS-Server_debug_DATE_TIME.log` as well.
8. Contact otris Support to receive credentials for an FTP account where to upload the files.