DCMTK - Patch #810

Slim read/write locks on Windows

2018-01-29 16:22 - Marco Eichelberg

Status: Closed Start date: 2018-01-29

Priority: Normal Due date:

Assignee: Marco Eichelberg % Done: 100%

Category: Estimated time: 0:00 hour

Module: Compiler:

Operating System:

Description

Target version:

Accesses to the data dictionary are protected by a critical section and a semaphore implemented in class OFReadWriteLock. Since Windows Vista, Windows offers "Slim Reader/Writer Locks" (

https://msdn.microsoft.com/en-us/library/windows/desktop/aa904937%28v=vs.85%29.aspx?f=255&MSPPError=-2147217396) that offer better concurrency when there are parallel threads that only read the data dictionary.

The attached patch replaces the existing implementation with SRW locks, which, however, different unlock methods for read locks and write locks.

The patch may also affect Android (via POSIX_INTERFACE_WITHOUT_RWLOCK) - this was not considered when developing the patch

and may require special handling.

Submitted 2018-01-24 by Christian Fremgen < Christian.Fremgen@ith-icoserve.com >.

History

#1 - 2018-06-23 18:24 - Marco Eichelberg

- Status changed from New to Closed
- Assignee set to Marco Eichelberg
- % Done changed from 0 to 100

Closed by commit #1e6aefd.

Files

dcmtk-3.6.2-SlimReaderWriterLock.patch	23.5 KB	2018-01-29	Marco Eichelberg
main.cpp	576 Bytes	2018-01-29	Marco Eichelberg

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