

DCMTK - Bug #1074

Infinite loop in sendDcmDataset() when using deflated transfer syntax

2023-04-21 18:31 - Marco Eichelberg

Status:	Closed	Start date:	2023-04-21
Priority:	Normal	Due date:	
Assignee:	Marco Eichelberg	% Done:	100%
Category:	Library and Apps	Estimated time:	3:00 hours
Target version:	3.6.8	Compiler:	
Module:	dcmdata, dcmnet		
Operating System:			
Description			
<p>The sendDcmDataset() function in the dcmnet module can get into an infinite loop when trying to send a dataset in Deflated transfer syntax.</p> <p>This happens when the input buffer of the compressed stream filter has only 2, 4 or 6 bytes left, and DcmSequence::write() or DcmItem::write() return EC_StreamNotifyClient because the tag and length for the sequence or item tag do not fit into the buffer. In this case, DcmOutputStream::write() is never called, so the compression filter will never compress and clean the input buffer, the output buffer remains empty and repeated calls to DcmDataset::write() always return EC_StreamNotifyClient, causing an infinite loop.</p> <p>The bug can be demonstrated by starting storescp with</p> <pre>storescp 11112 --prefer-deflated</pre> <p>and then running storescu with the attached sample file:</p> <pre>storescu --propose-deflated localhost 11112 EndlessLoopAnonymized.dcm</pre> <p>This issue probably affects all DCMTK releases that support network transmissions in Deflated transfer syntax, i.e. 3.5.2 to 3.6.7.</p>			

History

#1 - 2023-04-21 19:06 - Marco Eichelberg

- Status changed from New to Closed
- % Done changed from 0 to 100
- Estimated time set to 3:00 h

Closed by commit #3aafabe88.

Files

endless_loop.zip	25.1 KB	2023-04-21	Marco Eichelberg
------------------	---------	------------	------------------