

DCMTK - Bug #892

dcmcjpls may generate JPEG-LS images that dcmdjpls cannot decode

2019-08-03 18:49 - Marco Eichelberg

Status:	Resolved	Start date:	2019-08-03
Priority:	Normal	Due date:	
Assignee:	Marco Eichelberg	% Done:	80%
Category:	Library and Apps	Estimated time:	0:00 hour
Target version:		Compiler:	
Module:	dcmjpls		
Operating System:			
Description			
Under certain (rather unusual) conditions, dcmcjpls will create a compressed DICOM image that dcmdjpls cannot decode:			
<ul style="list-style-type: none">• The command line option --interleave-none is used• The image is a color image with BitsStored > 12			
This is caused by the CharLS library, which in this case writes multiple LSE marker segments to the JPEG-LS bitstream, which is permitted, but apparently the library is unable to decode such files.			
This bug has been registered as Issue 25 in the CharLS bug tracker: https://github.com/team-charls/charls/issues/25			

History

#1 - 2019-10-11 10:35 - Jan Schlamelcher

- Target version changed from 3.6.5 to 3.6.6

#2 - 2020-05-13 19:14 - Marco Eichelberg

- Status changed from New to Resolved

- % Done changed from 0 to 80

Unfortunately, the author of the CharLS library has decided to only fix this issue in the 2.x branch of the CharLS library, since fixing it in 1.x would be too much effort.

DCMTK uses the CharLS 1.x and cannot yet be switched to CharLS 2.x, because that requires C++14 whereas DCMTK still supports a number of pre-C++11 compilers such as Visual Studio 2008. Therefore, the bug cannot be fixed before DCMTK gives up support for pre-C++14 compilers.

As a stopgap measure, the creation of such images is prevented now by removal of the --interleave-none option on command line and library level. Images from third parties may still cause the decoder to fail, but color images with > 12 bits/sample are extremely unusual, so this should be a very rare phenomenon.

See DCMTK commit #6b03bc98b.

#3 - 2020-05-25 13:29 - Michael Onken

- Target version deleted (3.6.6)

#4 - 2020-05-25 13:34 - Michael Onken

- Target version set to 3.6.6

Should be fix or tagged as open issue (won't fix).

#5 - 2021-01-26 21:10 - Jörg Riesmeier

- Target version changed from 3.6.6 to 3.6.7

#6 - 2021-11-12 11:34 - Michael Onken

- Target version deleted (3.6.7)