

DCMTK - Bug #1160

dcmcjpls generates an invalid JPEG-LS bitstream with signed pixel data in cooked mode

2025-06-13 13:14 - Marco Eichelberg

Status:	Closed	Start date:	2025-06-13
Priority:	Normal	Due date:	
Assignee:	Marco Eichelberg	% Done:	100%
Category:	Library and Apps	Estimated time:	2:00 hours
Target version:		Compiler:	
Module:	dcmjpls		
Operating System:			
Description			
<p>The dcmcjpls generates an invalid JPEG-LS bitstream when compressing images that contain signed pixel data (i.e. PhotometricInterpretation=1) when the tool operates in the "cooked mode" (command line option --prefer-cooked), which is not the default, and the number of bits per sample (i.e. BitsStored) is not 8 or 16.</p> <p>The issue is likely caused by the way DCMTK passes negative numbers to the JPEG-LS encoder: DCMTK extends the sign bit to the full 8-bit or 16-bit structure (i.e. represents a 13-bit number with the value -1 as 0xFFFF), whereas the CharLS library apparently requires the unused bits to be zeroed, i.e. a 13-bit number with value -1 to be passed as 0x1FFF.</p> <p>Reported 2025-06-12 by Mathieu Malaterre <mathieu.malaterre@gmail.com></p>			

History

#1 - 2025-06-13 13:32 - Marco Eichelberg

- Status changed from New to Closed
- Assignee set to Marco Eichelberg
- % Done changed from 0 to 100
- Estimated time set to 2:00 h

Closed by DCMTK commit #049a6af4c.