DCMTK - Bug #718

OFStandard::atof() cannot handle NaN

2017-02-06 09:47 - Marco Eichelberg

Status:	Closed	**Start date:**	2017-02-06
Priority:	Normal	**Due date:**	
Assignee:	Nikolas Goldhammer	**% Done:**	0%
Category:	Library	**Estimated time:**	0:00 hour
Target version:	3.6.2		
Module:	ofstd	**Compiler:**	
Operating System:			

Description

Alexander Karaivanov writes: I'd like to report bug in OFStandard::atof(), the version when DISABLE_OFSTD_ATOF is not defined (the version that does not use sscanf()). The problem is that this version cannot handle conversion of the string NaN to a NaN floating point value. As result, DcmFloatingPointSingle::putString("NaN") and DcmFloatingPointDouble::putString("NaN") would not work and return EC_CorruptedData instead.

Comment: Before fixing this it should be clarified whether NaN values are actually permitted in DICOM FL/FD elements.

History

#1 - 2017-02-07 10:06 - Marco Eichelberg

- Assignee set to Marco Eichelberg

- Priority changed from Low to Normal

- Target version changed from 3.6.3 to 3.6.2

- Update: According to the following specification, atof() should support "NaN" and "NaN(..chars..)": http://en.cppreference.com/w/cpp/string/byte/atof
- Since DICOM FL and FD are defined based on IEEE 754, which does support NaN, so should atof() in DCMTK: https://en.wikipedia.org/wiki/IEEE_754-1985#NaN

#2 - 2017-03-01 11:45 - Jan Schlamelcher

- Assignee changed from Marco Eichelberg to Nikolas Goldhammer

#3 - 2017-03-15 11:12 - Jan Schlamelcher

- Status changed from New to Closed

#4 - 2017-03-15 11:16 - Jan Schlamelcher

Fixed in commits #048b15696b8 and #967a05d5906c