

DFDL4S/DFDL4S++ Version 1.5.3 - Release Notes

1. RELEASE CHANGE LOG

1.1 Bug Fixes

- DFDL4S-ANR-0043: Corrected inability to set values of elements when initializing based on memory buffer

1.2 New Features

- DFDL4S-ANR-0037: Extend API to enable complete creation of ISP based on field structure from scratch
- DFDL4S-ANR-0020: Added example of how to create ISP based on field structure
- DFDL4S-ANR-0038: Enable the retrieval of traits regarding CCSDS time code fields
- DFDL4S-ANR-0045: Enable support for MetOpSG timecode (32bit, seconds; 32bit, nanoseconds)
- DFDL4S-ANR-0046: Extend number of octets allowed in CCSDS Unsegmented Time Code

1.3 Improvements

- DFDL4S-ANR-0036: Add support for multiplication in `dfdl:length` expressions
- DFDL4S-ANR-0049: Align the versions of 3rd party libraries used in Java and C+ packages

2. RELEASE CONTENTS

2.1 Distribution Packages

A DFDL4S (Java library) distribution package consists of one single archive (multi-platform):

- `dfdl4s-1.5.3-bin.zip` (MD5: 38bfcee21b2619e8525406afc8e1f5e7)

A DFDL4S++ (C++ library) distribution package consists of one single archive (one per each supported platform):

- `dfdl4s-1.5.3-win64.tar.gz` (MD5: a01580caf7c4d0a134a26c510e5250a5)
- `dfdl4s-1.5.3-mac64.tar.gz` (MD5: e9d4bb125383c3c4fa18c00ce574879a)
- `dfdl4s-1.5.3-linux64.tar.gz` (MD5: f36a3b444962c6c143a2d7e2367dbee)

To install DFDL4S/DFDL4S++, extract the distribution package into a selected installation directory. Please check the DFDL4S/DFDL4S++ developer manual for further information about the installation steps.

2.2 Documentation

For information related to DFDL4S library usage, please refer to the Developer Manual, in particular:

- DFDL4S (Java API): `DFDL4S_Developers_Manual_S2G-DME-TEC-SUM078-1J.pdf`
- DFDL4S (C++ API): `DFDL4S++_Developers_Manual_S2G-DME-TEC-SUM113-1F.pdf`

All library documentation can be downloaded from the following location:

<https://eop-cfi.esa.int/Repo/PUBLIC/DOCUMENTATION/APPLICATIONS/DFDL4S/>

2.3 Software and Hardware Requirements

DFDL4S (Java library) is available for the following computer platforms:

- Windows XP / Vista / 7 (64-bit)
- Mac OS X Intel 10.9 or above (64-bit)
- Linux (64-bit)

DFDL4S++ (C++ library) is available for the following computer platforms:

- Windows XP / Vista / 7 (64-bit)
 - Microsoft Visual Studio 14.0 Express 64-bit
- Mac OS X Intel 10.9 or above (64-bit)
 - Apple LLVM v8.1.0 (clang-802.0.42) 64-bit
- Linux (64-bit)
 - GNU C++ Compiler (version 4.8.X) 64-bit

For both Java and C++ libraries, the minimum recommended requirements are:

- Version 1.8 or higher of the Java Development kit
- 50+ Mb of hard disk space
- 2 GB RAM

3. ADDITIONAL INFORMATION AND KNOWN PROBLEMS

3.1 Mission Support

The DFDL4S distribution package already includes example mission configuration files (JAR archive containing XML files and schemas). The latest version of the mission configuration files for all supported missions are available in the "Mission Files" section of the S2G website (<http://eop-cfi.esa.int/index.php/applications/s2g-data-viewer/mission-files>) The schema files in the website are compatible with the latest versions of the S2G application and the DFDL4S library.

Please notice that schemas using the DFDL4S-ANR-0013 (dfdl:format/dfdl:defineFormat) and DFDL4S-ANR-0015 (XPath intersect and dfdl:checkInRangeInclusive) features can be used with DFDL4S but are still not supported by S2G.

4. REPORTING PROBLEMS

For any problems or questions contact the DFDL4S helpdesk: dfdl4s@eopp.esa.int