



Code: EOCFI-DMS-SRN-0003
Date: 14/03/2012
Issue: 4.3.1

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Earth Observation Mission CFI Software JAVA Libraries. Release Notes - Version 4.3.1

1 INTRODUCTION

Version 4.3.1 is a maintenance release required to resolve anomalies listed in section 4. The libraries are identical to those released with version 4.3, with the exception of the POINTING library that has been modified to deal with the anomalies mentioned above.

More precisely, the header file of such library has been modified in order to ensure full backward compatibility: source code written for a previous version of CFI Software shall compile also on a later version.

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2 NEW RELEASE DESCRIPTION

2.1 CFI Software and Documentation Delivery

The new versions of the CFI software libraries are the following:

Library	Version	Date
EECommon	4.3	06/02/12
FileHandling	4.3	06/02/12

DataHandling	4.3	06/02/12
Lib	4.3	06/02/12
Orbit	4.3	06/02/12
Pointing	4.3.1	14/03/12
Visibility	4.3	06/02/12

The libraries are available for download at the following URL (registration required): http://eop-cfi.esa.int/eo_cfi_distribution/CURRENT/4.3.1

More information can be found at: http://eop-cfi.esa.int/eo_cfi_distribution

The applicable Software User Manuals are the same as per version 4.3:

Title	Issue
General Software User Manual	4.3
EE Common Software User Manual	4.3
FileHandling Software User Manual	4.3
DataHandling Software User Manual	4.3
Lib Software User Manual	4.3
Orbit Software User Manual	4.3
Pointing Software User Manual	4.3
Visibility Software User Manual	4.3

The documentation is available for download at the following URL: http://eop-cfi.esa.int/CFI/EO_CFI_DOCS/4.3

2.2 Supported Platforms

The following platforms are supported by this release of the CFI:

- LINUX32_LEGACY
 - Linux 32-bits (Legacy)
 - Platform Requirements: x86 based PC, Linux Operating System (Kernel version 2.6.x)
 - Software Requirements: Java SE 6, glibc (C Library) version 2.7
- LINUX64_LEGACY
 - Linux 64-bits (Legacy)
 - Platform Requirements: x86 based PC, Linux Operating System (Kernel version 2.6.x)
 - Software Requirements: Java SE 6, glibc (C Library) version 2.7
- LINUX64
 - Linux 64-Bits
 - Platform Requirements: x86 based PC, Linux Operating System (Kernel version 2.6.x)
 - Software Requirements: Java SE 6, glibc (C Library) version 2.12
- WINDOWS
 - Microsoft WINDOWS PC (32-bits)
 - Platform Requirements: x86 based PC, Microsoft Windows XP Operating Systems.
 - Software Requirements: Java SE 6

- MACIN64
 - MACOSX on Intel (64-bits)
 - Platform Requirements: x86_64 based Mac Computer, Mac OS X version 10.5.x
 - Software Requirements: Java SE 6

2.3 Installation Packages

The CFI libraries are provided as zip packages:

- EOCFI-4.3.1-JAVALIB-LINUX32_LEGACY.zip
- EOCFI-4.3.1-JAVALIB-LINUX64_LEGACY.zip
- EOCFI-4.3.1-JAVALIB-LINUX64.zip
- EOCFI-4.3.1-JAVALIB-MACIN64.zip
- EOCFI-4.3.1-JAVALIB-WINDOWS.zip

DEM datasets are distributed separately and are available for download at the following URL: http://eop-cfi.esa.int/eo_cfi_distribution/DEM

2.4 Installation Hints

The CFI libraries can be installed by expanding the installation package in any directory.

For specific hints related to the usage of the libraries, please consult the section 6 "INSTALLATION" of the General SUM and Section 6 "LIBRARY USAGE" of each Library User Manual.

As of version 4.3, dynamic linking to libxml2 external libraries is no longer required.

3 NEW FEATURES

No new features have been introduced. This release is functionally equivalent to version 4.3.

- DataHandling:
 - Support for reading new IERS bulletins A and B.
 - New functions to decimate orbit and attitude data:
 - OrbitFile::decimate
 - AttFile::decimate
- Lib:
 - New Coordinate System added: Pseudo-EF
 - Polar motion included in EF CS.
 - New class constructors for TimeCorrelation to use data already read from Orbit and IERS files
 - Time initialization mode with:
 - IERS Bulletin A
 - Bulletins A+B
 - New time transport formats:
 - XLCFI_TRANS_GENERIC_GPS
 - XLCFI_TRANS_GENERIC_GPS_WEEK
- Orbit:
 - New class constructors for OrbitId to use data already read from Orbit files
- Pointing:

- For target functions, the raytracing model now is determined by the AtmosId (in the Target constructor). The iray input variable becomes dummy.
- New attitude model for SENTINEL2 (XPCFI_MODEL_SENTINEL2)

4 CLOSED ANOMALIES (SOFTWARE PROBLEMS)

The following Software problems have been fixed:

ANR Nr.	Description
486	Pointing Library: target functions (e.g. targetInter): programs using target functions and TargetPointingRayEnum (e.g. iray=XPCFI_NO_REF) may not compile. The anomaly has been corrected by re-introducing TargetPointingRayEnum in the Pointing library.