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## **Core Library v.0.4.0**

**for the Planetary Data System**

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## 1.1 Overview

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### About Core Library

The Core Library contains a software library with functionality for product label design, generation, transformation and validation as well as package formation.

Please send comments, change requests and bug reports to the [PDS Operator](mailto:pds_operator@jpl.nasa.gov) at [pds\\_operator@jpl.nasa.gov](mailto:pds_operator@jpl.nasa.gov).

## 1.2 Release Notes

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### Release Notes

The purpose of this section is to provide a description of a Core Library release including any impact that the new or modified capabilities will have on the Discipline Nodes or the PDS user community. If viewing the web-based version of this document, a somewhat itemized list of changes for each release can be found on the [Release Changes](#) page.

#### Release 0.4.0

This release of the Core Library is a component of the integrated release [2.0.0](#) of the PDS 2010 System. This is an operational release of the system components to date. This release includes the latest set of schemas generated from the PDS4 data model.

#### Release 0.3.0

This release of the Core Library is a component of the integrated release [1.2.0](#) of the PDS 2010 System. This release is intended as a prototype release in support of the assessment of the PDS4 standards and the system components to date. This release includes the latest set of schemas generated from the PDS4 data model.

#### Release 0.2.0

This release of the Core Library is a component of the integrated release [1.1.0](#) of the PDS 2010 System. This release is intended as a prototype release in support of the assessment of the PDS4 standards and the system components to date. This release includes the latest set of schemas generated from the PDS4 data model.

#### Release 0.1.0

This release of the Core Library is a component of the integrated release [1.0.0](#) of the PDS 2010 System. This release is intended as a prototype release in support of the assessment of the PDS4 standards. The new or modified capabilities for this release are as follows:

- Support for validating a product label or set of product labels against a specified XML Schema.
- Support for validating against a set of packaged schemas, including determination of the appropriate schema based on the type of product label.



## 1.3 Installation

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### Installation

This section describes how to install the Core Library software contained in the *core* package. The following topics can be found in this section:

- [System Requirements](#)
- [Unpacking the Package](#)

### System Requirements

The Core Library software was developed using Java and will run on any platform with a supported Java Runtime Environment (JRE). The software was specifically developed under Java version 1.6 and has only been tested with this version. The following commands test the local Java installation in a UNIX-based environment:

```
% which java
/usr/bin/java

% java -version
java version "1.6.0_26"
Java(TM) SE Runtime Environment (build 1.6.0_26-b03-384-10M3425)
Java HotSpot(TM) 64-Bit Server VM (build 20.1-b02-384, mixed mode)
```

The first command above checks whether the *java* executable is in the environment's path and the second command reports the version. If Java is not installed or the version is not at least 1.6, Java will need to be downloaded and installed in the current environment. Consult the local system administrator for installation of this software. For the do-it-yourself crowd, the Java software can be downloaded from the [Oracle Java Download](#) page. The software package of choice is the Java Standard Edition (SE) 6, either the JDK or the JRE package. The JDK package is not necessary to run the software but could be useful if development and compilation of Java software will also occur in the current environment.

### Unpacking the Package

Download the *core* package from the PDS [FTP](#) site. The binary distribution is available in identical zip or tar/gzip packages. Unpack the selected binary distribution file with one of the following commands:



```
% unzip core-0.4.0-bin.zip
or
% tar -xzvf core-0.4.0-bin.tar.gz
```

Note: Depending on the platform, the native version of *tar* may produce an error when attempting to unpack the distribution file because many of the file paths are greater than 100 characters. If available, the GNU version of *tar* will resolve this problem. If that is not available or cannot be installed, the zipped package will work just fine in a UNIX environment.

The commands above result in the creation of the *core-0.4.0* directory with the following directory structure:

- **README.txt**

A README file directing the user to the available documentation for the project.

- **LICENSE.txt**

The copyright notice from the [California Institute of Technology](#) detailing the restrictions regarding the use and distribution of this software. Although the license is strictly worded, the software has been classified as Technology and Software Publicly Available (TSPA) and is available for *anyone* to download and use.

- **doc/**

This document directory contains a local web site with the Core Library Guide, javadoc, unit test results and other configuration management related information. Just point the desired web browser to the *index.html* file in this directory.

- **lib/**

This directory contains the dependent jar files for the software along with the jar file (core-0.4.0.jar) containing the Core Library software.

- **schema/**

This directory contains the latest version of the XML Schema documents as of the release of this software.

## 1.4 **Development**

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