

Accueil

De Patrius

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La version imprimable n'est plus prise en charge et peut comporter des erreurs de génération. Veuillez mettre à jour les signets de votre navigateur et utiliser à la place la fonction d'impression par défaut de celui-ci.

WHERE TO GET IT?

Just go [there](#) ...

WHY PATRIUS?

PATRIUS is a core space dynamics **Java** library that enables to quickly develop high level algorithms such as orbit extrapolator. **PATRIUS** contains several low level classes (i.e.: such as matrix, vectors, orbits parameters) as well as high level classes and interfaces (i.e.: numerical propagators, attitude laws, manoeuvres sequences).

MAIN ADVANTAGES

All the main domains of space dynamics are available:

- Analysis, algebra & geometry (quaternions, derivable functions, integrators ...)
- Core objects for space dynamics (dates, orbits, frames...)
- Orbit propagation: analytical, semi-analytical and numerical propagators, a full set of force models
- Maneuvers: impulsive or continuous thrust, sequences
- Attitude: extensible set of attitude laws, sequences and guidance framework
- Events: event detection (orbital, sensor events, etc.) and post-processing (chronograms)
- Spacecraft: characteristics of mass, geometry (drag force), sensors field of view, etc.

PATRIUS got a deep validation by comparison with precise orbitography tools. Moreover, it is now fully used by CNES tools, in particular for operational flight dynamics subsystem (**FDS**). For that reason the criticality level is "C".

Furthermore, **PATRIUS** design relies on extensible **Java** interfaces and robust design patterns.

REMARKS

A data package ([PATRIUS_DATASET](#)) is also provided in addition allowing access to some data models.

Tutorials are available in specific tutorials pages.

CURRENT VERSION: 4.15

PATRIUS V4.15 is a release adding a few features as well as correcting some bugs (see [here](#)).

PREVIOUS VERSIONS (available on the Web site)

- Version 4.14
- Version 4.13
- Version 4.12
- Version 4.11
- Version 4.10
- Version 4.9
- Version 4.8
- Version 4.7
- Version 4.6.1
- Version 4.5.1
- Version 4.4
- Version 4.3
- Version 4.2
- Version 4.1.1
- Version 4.1
- Version 4.0
- Version 3.4.1
- Version 3.3
- Version 3.2

DEPENDENCIES

See when the different PATRIUS versions were released and what JAVA version each is compatible with [here](#)

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- La dernière modification de cette page a été faite le 13 mars 2025 à 09:26.
- Cette page a été consultée 381 180 fois.

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