

What is Opera

De Wiki

Aller à : [navigation](#), [rechercher](#)
[What is Opera](#)

OPERA is a [CNES](#) tool allowing to estimate long and middle term Earth reentry dates (some months to one week in advance) thanks to [TLE](#).

It allows also to compute the information on other parameters as [S/M](#) or maneuvers previously occurred.

At last, **OPERA** is able to generate automatic [PDF](#) reports with a synthesis of maneuver activity of a given object.

OPERA is usable via three modes:

- [GUI](#): its utilization is made user-friendly thanks to a graphical user interface (developed using [\[GENIUS\]](#) and [\[GENOPUS\]](#)),
- Batch,
- Library via its [Java](#) interface.

Its initialization is made by:

- A list of initial orbital parameters thanks to [TLE](#),
- Solar activity files,
- Several other specific parameters as the reentry altitude or how to filter [TLE](#) inputs.

For flight dynamics aspects, **OPERA** is fully based on the [\[PATRIUS\]](#) library and specially about the orbit extrapolation, the propagation is done thanks to the [\[STELA\]](#) propagator that allows to get interesting [CPU](#) time by comparison to a full numerical propagator while keeping sufficient precision relative to the reentry date.

Récupérée de « http://opera.cnes.fr/index.php?title=What_is_Opera&oldid=391 »

Menu de navigation

Outils personnels

- [10.23.10.23](#)
- [Discussion avec cette adresse IP](#)
- [Créer un compte](#)
- [Se connecter](#)

Espaces de noms

- [Page](#)
- [Discussion](#)

Variantes

Affichages

- [Lire](#)
- [Voir le texte source](#)
- [Historique](#)
- [Exporter en PDF](#)

Plus

Rechercher

OPERA

- [Welcome](#)
- [Quick start](#)
- [News](#)

GUI Mode

- [Overall presentation](#)
- [Operaapp configuration file](#)
- [Configuration panel](#)
- [Solar activity panel](#)
- [Parameters panel](#)
- [Console panel](#)
- [Result files](#)
- [Plots panel](#)

Batch mode

- [How to call it](#)

Java interface

- [Basic principle](#)
- [Reentry or S/M Estimation](#)
- [Maneuvers Estimation and Pdf report](#)

- [Searching Norad Ids](#)
- [Tutorials](#)

Evolutions

- [Main differences between V7.2.3 and V7.2.4](#)
- [Main differences between V7.2.2 and V7.2.3](#)
- [Main differences between V7.2.1 and V7.2.2](#)
- [Main differences between V7.2 and V7.2.1](#)

Documentation

- [Conference Papers](#)

Links

- [CNES freeware server](#)

Outils

- [Pages liées](#)
- [Suivi des pages liées](#)
- [Pages spéciales](#)
- [Adresse de cette version](#)
- [Information sur la page](#)
- [Citer cette page](#)

- Dernière modification de cette page le 20 janvier 2020 à 16:17.

- [Politique de confidentialité](#)
- [À propos de Wiki](#)
- [Avertissements](#)

- 