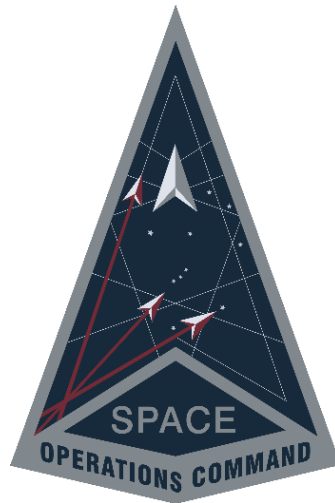Astrodynamics Standards
Shared Library

Environmental Constants

(EnvConst)

Version 9.4

May 2024

Contents

1. Introduction

EnvConst provides the users with functions to setup the Earth constants (GEO) model and fundamental catalogue (FK) model.

If you are on Windows, the shared library files will end in ".dll". For example, "EnvConst.dll". If you are on Linux, the shared library will begin with "lib" and end in ".so", and will be all lowercase. For example, libenvconst.so.

2. Prerequisites

DllMain library MUST be loaded and initialized before using EnvConst.

3. Prerequisites

To get started, please read the README.txt file that came in the root directory of your distribution. In addition to an overall description contained in the distribution, it has a description of a "**wrapper**".

To get started with **EnvConst**, there is a "wrapper" specific to EnvConst, under the **SampleCode** directory. Under your language of choice, you will see a "**DriverExample/wrapper**" subdirectory. The files under this directory will have all the Application Programming Interfaces (APIs) available. For EnvConst specific APIs, you should see a source file labelled with "EnvConst" in the file name. This will be where you will find all the APIs for that specific library. The "DriverExample" directory will also contain several examples of applications that should run by simply running the runExample.bat or runExample.sh script. You can use these examples as a starting point for building your application.

If you do not see your programming language under "SampleCode", look in the HTML documentation for the APIs. Open a browser to the "Documentation/APIDocs/index.html" file. This document will show all the APIs regardless of programming language.

The Astrodynamics Standards libraries should work with any language capable of using Dynamic Link Library (on Windows) or Shared object (on Linux) files.