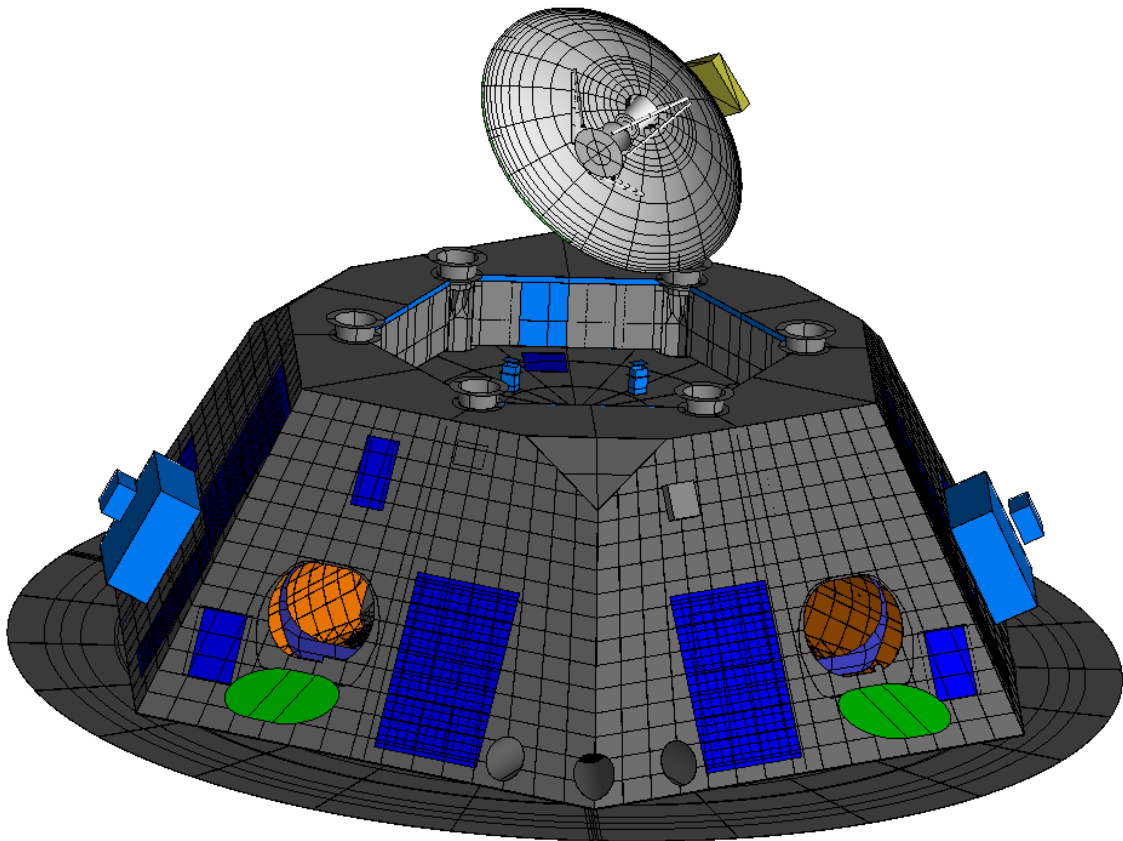


ESATAN-TMS

Installation Notes



Front page picture courtesy of Thales Alenia Space Italy

Table of Contents

1 System Requirement..... 4

 General Requirements 4

 Platform Requirements 4

2 Installation Instructions..... 6

 PC Installation Instructions 6

 Linux Installation Instructions 7

 FLEXIm Licence Manager 8

 Python..... 9

3 Contact Information 10

1 System Requirement

General Requirements

Display	Minimum 1024 * 768
Graphics Card	1024MB Minimum memory with 2048MB recommended
Physical Memory	Recommended minimum 4GB (more may be required for larger models)
Disk Space	Typically 1.2Gb for installation
Virtual Memory/Swap Space	Minimum 4Gb
Software	Java Run-time Environment (JRE), see the platform specific details below for the required Java version.
Fortran Compiler	See the platform specific details below for the required version
Libraries	OpenGL 3.3 or above required
Licences Libraries	FLEXlm 11.19

Platform Requirements

PC MS Windows 10 version 1607 (64-bit)

- Java version 21.0.2 is now installed by ESATAN-TMS under the installation directory
- C/Fortran compiler: GCC v4.9.1 from the MinGW-W64 project (provided with installation)
- FORTRAN compiler assumed pathname: (provided with installation)
- Python 3.12.x (3.12.4 or later recommended) – if the ESATAN-TMS API functionality is required

Linux Kernel Number 5.14.0-427.37.1.el9_4 (64-bit)

- Tested on Rocky Linux release 9.5 (Blue Onyx)
- Java version 21.0.2 is now installed by ESATAN-TMS under the installation directory
- C/FORTRAN compiler: gcc/gfortran 11.4.1
- Fortran compiler assumed pathname: /usr/bin/gfortran
- Python 3.12.x (3.12.4 recommended) – if the ESATAN-TMS API functionality is required

Please note that ESATAN-TMS is provided on all platforms with its own version of the library **libGLU**. This library may already be available on your system and therefore conflict with the provided one. If so, please remove the version located in the installation directory under Radiative/lib/esarad/lib.

2 Installation Instructions

If you wish to view the PDF Help pages, Adobe Acrobat Reader must be installed on your machine. Acrobat Reader can be downloaded free of charge from the Adobe web site.

PC Installation Instructions

This process requires administrator access on Windows 10 platforms and therefore you must login under an administrator account in order to install Java.

The PC installation is contained in the zip file *ESATAN-TMS2025sp1_Windows.zip*. Once you have unzipped the file, run *ESATAN-TMS2025sp1.exe* and follow the on-screen instructions.

Note that the installation directory path name must not contain any white space - therefore you cannot install ESATAN-TMS in "Program Files" because of the space between the "m" and the "F".

We strongly recommend that you install ESATAN-TMS on the local machine and not on the network.

The following environment variables must be set up for each user:

- The ESATAN_TMS_HOME environment variable should point to the directory that will/does contain the .esaradrc file - this file contains the user preferences used for a session of ESATAN-TMS, such as the location of the model directory, the user's preferred editor, etc. This file is generated automatically by ESATAN-TMS if it does not exist. If you wish to use separate model directories on different projects (for example) then the ESATAN_TMS_HOME variable can be used to switch between them by having one .esaradrc file per project.

Example: To have your models stored in C:\ESATAN_TMS_Model, you have to set ESATAN_TMS_HOME=C:\ESATAN_TMS_Model\

- The PATH environment variable will need to contain the following arguments in order to run ESATAN-TMS in a batch mode: path to ESATAN-TMS\2025sp1\Radiative\bin and ESATAN-TMS\2025sp1\Radiative\lib\esarad\lib.

Example:

Add C:\ESATAN-TMS\2025sp1\Radiative\bin;C:\ESATAN-TMS\2025sp1\Radiative\lib\esarad\lib;
to the PATH variable to enable the batch mode for ESATAN-TMS

In order to run ESATAN-TMS, it is necessary to start the licence manager. This is achieved with the ESATAN-TMS Start menu "Start Licence Manager"

If you wish to set up the licence manager to run as a service, use the lmtools utility located in the ESATAN-TMS Start menu group. Full instructions for the configuration of the licence manager are provided in the FLEXnet End User Guide available from the Start menu.

Linux Installation Instructions

Copy the zipped tar file to where you wish ESATAN-TMS to be installed:

```
cp ESATAN-TMS2025sp1_linux.tgz X
cd X
```

where **X** is the chosen installation directory

Extract the files from the archive thus:

```
tar xf ESATAN-TMS2025sp1_linux.tgz
```

Once ESATAN-TMS has been extracted change directory to the ESATAN-TMS directory and run install

```
cd ESATAN-TMS
./install
```

This will generate the ESATAN-TMS executables in ESATAN-TMS directory.

The following environment variables need to be set up for each user:

- The ESATAN_TMS_HOME environment variable should point to the directory that will/does contain the .esaradrc file - this file contains the user preferences used for a session of ESATAN-TMS, such as the location of the model directory, the user's preferred editor, etc. This file is generated automatically by ESATAN-TMS if it does not exist. If you wish to use separate model directories on different projects (for example) then the ESATAN_TMS_HOME variable can be used to switch between them by having one .esaradrc file per project.

Example: If you wish to store your models in the following directory /user_name/ESATAN-TMS/ESATAN_TMS_Models/, you will need to set type:

```
ESATAN_TMS_HOME=/user_name/ESATAN-TMS
```

```
export ESATAN_TMS_HOME
```

- The **PATH** environment variable will need to contain the following arguments in order to run ESATAN-TMS in a batch mode: path to ESATAN-TMS\Radiative\bin, ESATAN-TMS\Radiative\lib\esarad\lib and ESATAN-TMS\Thermal\bin.

Example:

```
PATH=X/ESATAN-TMS/Radiative/bin:$PATH
```

```
export PATH
```

where **X** is the chosen installation directory.

In order to run ESATAN-TMS it is necessary to start the licence manager. This is achieved with Imgrd that can be found in the "licences" directory under the ESATAN-TMS installation. The licence can be started with the following command:

```
lmgrd -c esatantms.lic
```

Full instructions for the configuration of the licence manager are provided in the FLEXnet End User Guide located in the ESATAN-TMS/radiative/lib/doc/pdf directory.

ESATAN-TMS Workbench can be invoked by starting the following command:

```
esatan-tms
```

FLEXlm Licence Manager

In order to run ESATAN-TMS, a valid licence is required. Please run the process lmhostid from the directory "licences" under the ESATAN-TMS installation. Send the number returned by this function to our user support desk (support@esatan-tms.com) to receive the licence code required. The licence file must be called esatantms.lic and be contained within the licences directory under ESATAN-TMS.

Please note that the version of the FLEXlm licence manager used by ESATAN-TMS 2025 sp1 has been updated. Users will need to ensure they are running a licence server using the latest version of the FLEXlm utilities supplied with the ESATAN-TMS software. Attempting to use an older version of the utilities to licence the software will fail with an error message due to the age of the vendor daemon. The new licence utilities will work with all versions of ESATAN-TMS.

Python

The ESATAN-TMS Workbench API requires a Python installation. Please ensure you have installed Python 3.12.x (3.12.4 or later recommended) on your system before using the API, Windows users who have Python 3.9 installed please read note below before proceeding. The Python installer for Windows is available from <https://www.python.org/downloads/windows>. For Linux, it may be available via your package manager, alternatively the source is available from <https://www.python.org/downloads/source>.

ESATAN-TMS can be used without Python being installed, but in this case the ESATAN-TMS Workbench API functionality will not be available.

Windows - Updating from Python 3.9

Installation errors can occur when attempting to install Python 3.12 on a Windows machine that already has Python 3.9 installed. To avoid these errors, it is advisable to uninstall Python 3.9 before installing Python 3.12.

3 Contact Information

If you have any questions regarding the new version or require further information please contact our customer support at:

ESATAN-TMS User Support



+44 (0)116 284 5748



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www.esatan-tms.com

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