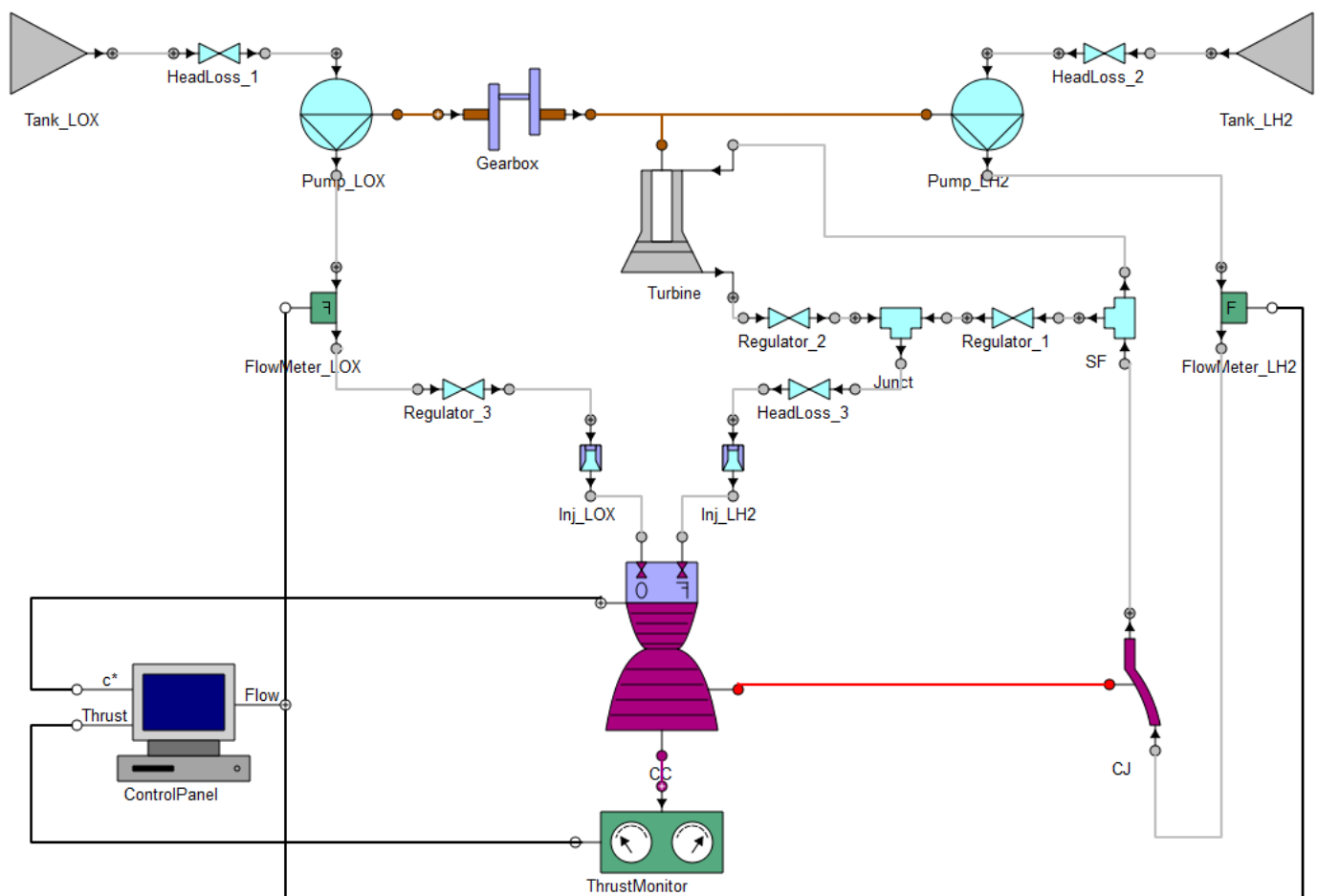


LPRES Library 1.3.6

Installation Manual



EMPRESARIOS AGRUPADOS

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1. Installation Procedure

1.1 Introduction

LPRES Toolkit Version 1.3.6 consists of a collection of libraries for simulating liquid propulsion rocket engine systems.

1.2 Installation Procedure

The PROOSIS libraries needed to model rocket engine are the following: MATH and LPRES. In addition, the LPRES_EXAMPLES library includes several examples of rocket systems. To install these libraries on your hard disk it is recommendable to follow these instructions:

1.2.1 Software Requirements

The following characteristics are required in order to install the libraries:

- Windows 7, 8 or 10 64 bits
- One of the supported C++ compilers to run simulations:
 - ◊ GNU gcc [gcc, g++, gfortran] compiler 4.9 64bits (included with the installation)
 - ◊ Microsoft Visual Studio 2017 64 bits
 - ◊ Microsoft Visual Studio 2015 64 bits
 - ◊ Microsoft Visual Studio 2013 64 bits
 - ◊ Microsoft Visual Studio 2010 32/64 bits
 - ◊ Microsoft Visual Studio 2008 32 bits
- PROOSIS 6.0.2
- A minimum of 1000 Mb of RAM memory should be available and 1 GB of free space on the local Hard Disk.

1.2.2 Installation of the ASYST Libraries

To install the libraries on your hard disk, follow these instructions:

- Run the installation executable file (.exe) that should be accessed by ftp under demand.
- Select a directory of your choice (a default directory is suggested). The following libraries will be copied:
 - ◊ MATH v3.2.7
 - ◊ LPRES
 - ◊ LPRES_EXAMPLES
 - ◊ GTE_TURBOSHAFT
- Open PROOSIS
- Open a Workspace: go to File → Open → Workspace, and select the file "lpres.wsp.xml." which is located in the directory selected when the libraries were installed (i.e. Proosis_libs\ws\ws_lpres)
- Then, a workspace called LPRES appears with the previous libraries.

Then, multiple user and reference manuals can be opened within the PROOSIS interface. Go to Help → Library Manuals. The pdf file can be found inside the "manual" folder of each library

If needed, libraries can be moved/copied to another more convenient folder. In this case,

- Create a new workspace (File → New Workspace) and perform a manual loading of the libraries (File → Open Library) from the folder they are located.
- Previous order of loading respects the reciprocal dependencies of the libraries.
- User models should be created in libraries (File → New Library) different from the delivered ones within the current workspace.

1.3 Running the application examples

The LPRES_EXAMPLES Library is a PROOSIS library which contains useful application examples. The steps for running these models are the following:

- Launch PROOSIS.
- Select a model to be run in the "items" tab.
- Validate partition if necessary and run it with PROOSIS Monitor.

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