1. PROJECT

ROOT_OBJECTS

--|examples_AADL\MarsPathfinderTypes|--,

--|examples_AADL\MarsPathfinder|--

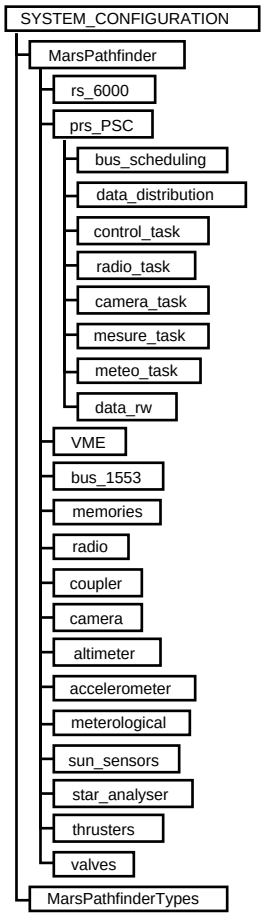
END

1.1. Project Description

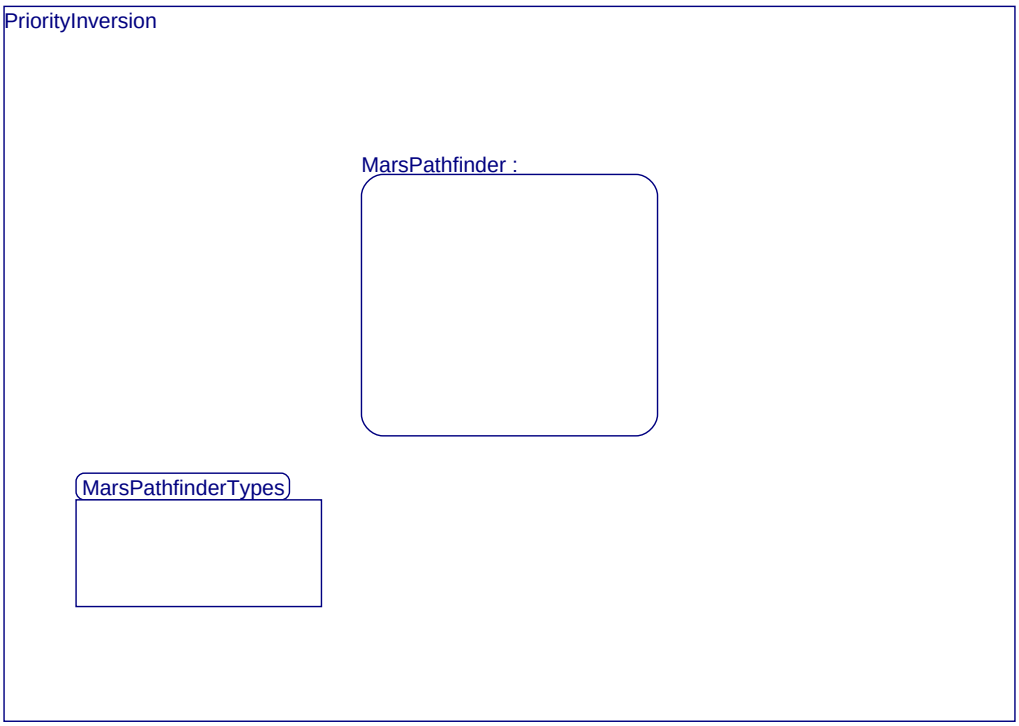
MARS PATHFINDER

This example is a simplified representation of the real-time archiecture of the mars pathfinder spacecraft that landed on Mars in 1997.
Its control software suffured from a priority inversion problem that can be shown with the AADL simulation in AADL Inspector while removing the Concurrency Control Protocol on the shared data component.

1.2. Design Tree



1.3. AADL Diagram



2. SYSTEM MarsPathfinder IS

2.1. DESCRIPTION

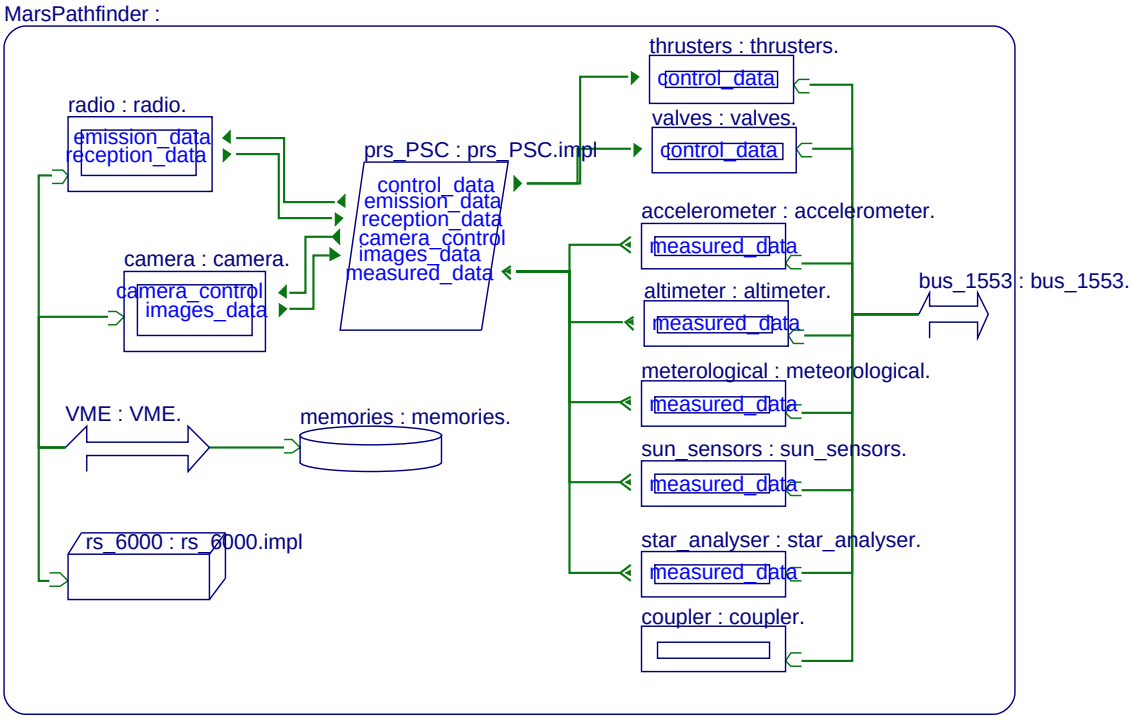
2.1.1. PROBLEM

2.1.1.1. Statement of the Problem (text)

This example is the Stood design corresponding to the one that is proposed on the AADLib site (http://www.openaadl.com).

It is a simplified model of the well known pathfinder probe, and illustrates its priority inversion problem that can been observe
AADL code and running Cheddar and the Marzhin simulator.

2.1.1.2. AADL Diagram



3. PROCESS prs_PSC IS

3.1. DESCRIPTION

3.1.1. PROBLEM

3.1.1.1. AADL Diagram