MEDEAS-EU User guide

(Vensim Reader)

(February 2018)

Iñigo Capellán-Pérez

Ignacio de Blas Sanz

Research Group in Energy, Economy & System Dynamics of the University of Valladolid

Summary

This document explains how to run a published version of a model (.vpm) using the freeware Vensim Reader. MEDEAS model is implemented in Vensim, and includes an excel template that operates as an interface that allows for those users not familiar with Vensim to design and run their own scenarios.

Table of contents

1. Introduction

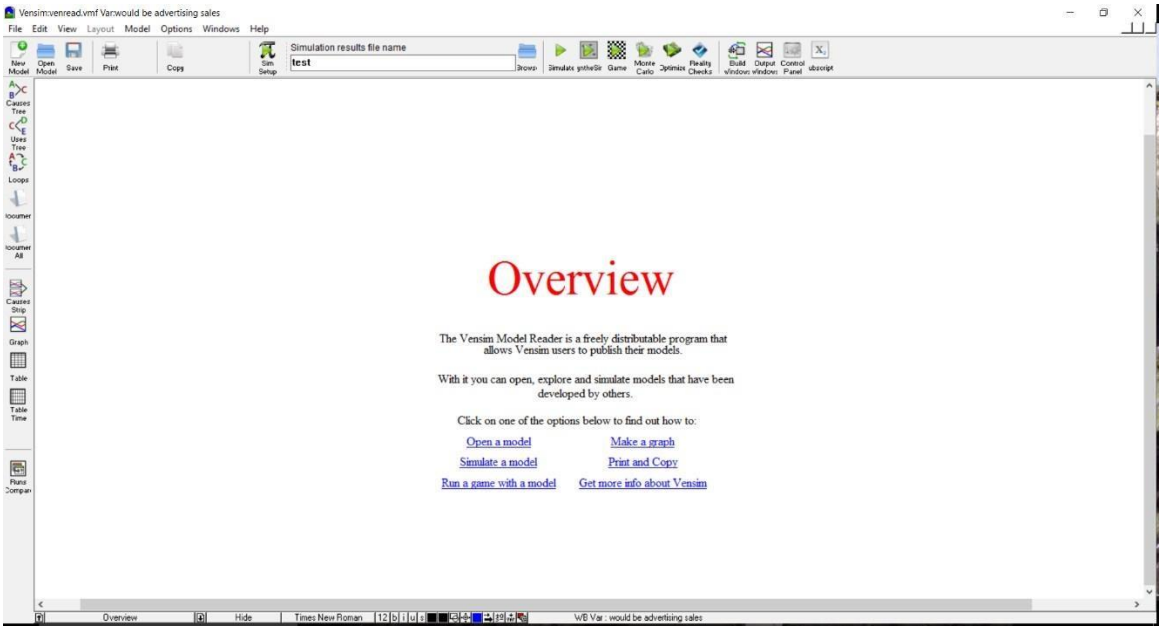
This User's Guide explains the basic software requirements and instructions for any user to be able to run the MEDEAS-EU model with freeware Vensim Reader.

2. Download Vensim Model Reader

Follow instructions and download here: **http://vensim.com/vensim-model-reader/**.

3. Use of Vensim Model Reader

For begginer users using the freeware Vensim Reader software, when opening the software after the installation a short tutorial will appear. It is recommended to follow it to learn the basics (e.g. represent a result in a graph) and get familiar with the tool:



4. Download model and associated files:

When downloading and uncompressing the file ***MEDEAS-EU_v1.0 Jan 2018***, the following files can be found:

Nombre	Fecha de modifica...	Tipo	Tamaño
inputs.xlsx	02/02/2018 15:18	Hoja de cálculo d...	3.547 KB
MEDEAS-EU_v1.0.mdl	02/02/2018 15:19	Vensim model (M...	1.732 KB
MEDEAS-EU_v1.0.vpm	02/02/2018 15:20	Vensim packaged ...	253.094 KB
MEDEAS-Vensim_User_guide_vEU.pdf	02/02/2018 15:28	Documento Adob...	1.419 KB
Wv130_Py.vdf	02/02/2018 14:12	Archivo VDF	249.110 KB

Figure 1

MEDEAS-EU_v1.0.vpm allows to open, explore and simulate the model with the freeware "Vensim Model Reader".

The file **inputs.xlsx** stores the input data required for running the by-default scenarios and creating new ones. This file contains a tab "README" and "Info input variables" which document the way the variables are organized and defined in the data sheet. IMPORTANT: Do not modify the name of the excel file neither those of the tabs since the paths with Vensim are not dynamically set. In order to run the .vmp file properly it is required that the xlsx file is in the same folder.

Wv130_Py.vdf includes the results of the simulation from the MEDEAS-W (this file is not required to run the .vmp).

*Additional software requirements: A version of Microsoft Excel allowing to work with tabs.

[**MEDEAS-EU_v1.0.mdl** is the full model programmed in Vensim, which allows to open, explore, simulate and modify the structure of the model. To run the .mdl model, the file **Wv130_Py.vdf** needs to be located in the same folder. To open and work with this file, the proprietary software Vensim DSS version or superior is required (http://www.vensim.com).

5. Open model

Once the software installed and the short tutorial completed, open the model (file **MEDEAS-EU_v1.0.vpm**) with Vensim Reader. Note that the variables and graphs appear empty since no simulation has still not been run.

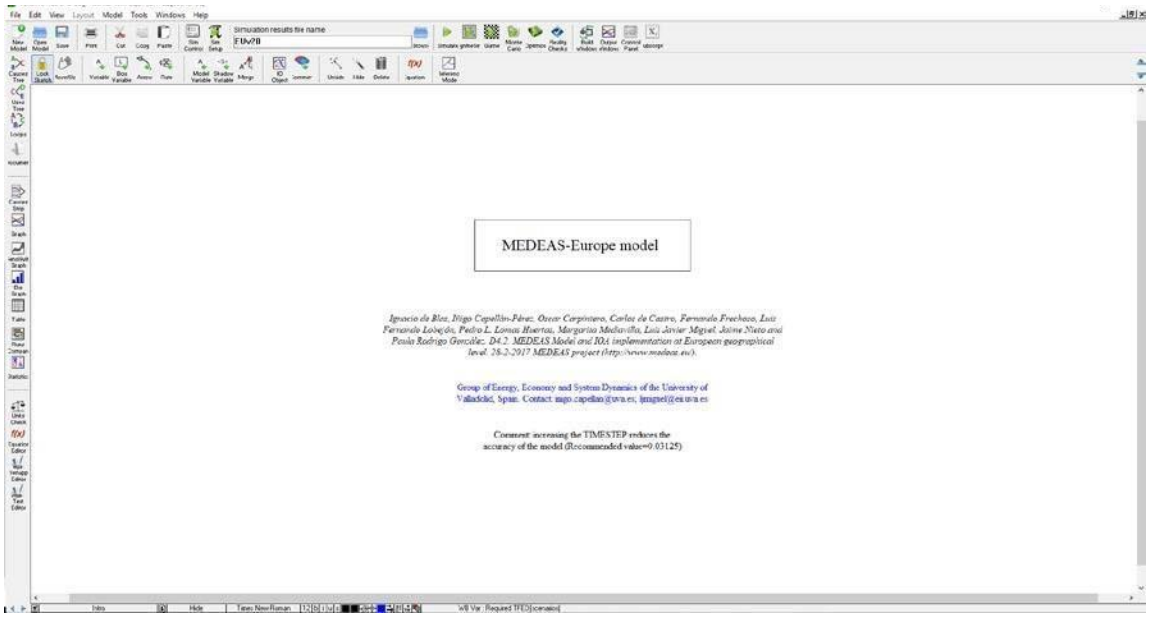


Figure 2

6. Run of scenarios

This model version is programmed vectorially, so 6 scenarios (User defined, BAU, SCEN1, SCEN2, SCEN3 & SCEN4) are always run in parallel. The user can select which one(s) to represent. However, in the current version of the model only the BAU and SCEN2 tabs are filled in.

The user can run customized scenarios through modifying data in the **inputs.xlsx**.

7. Visualization of results

The user can use the Vensim tools to visualize the trajectories of any variable (following the 3 steps described in Figure 3). Outputs of any variable can be exported using Vensim usual tools.

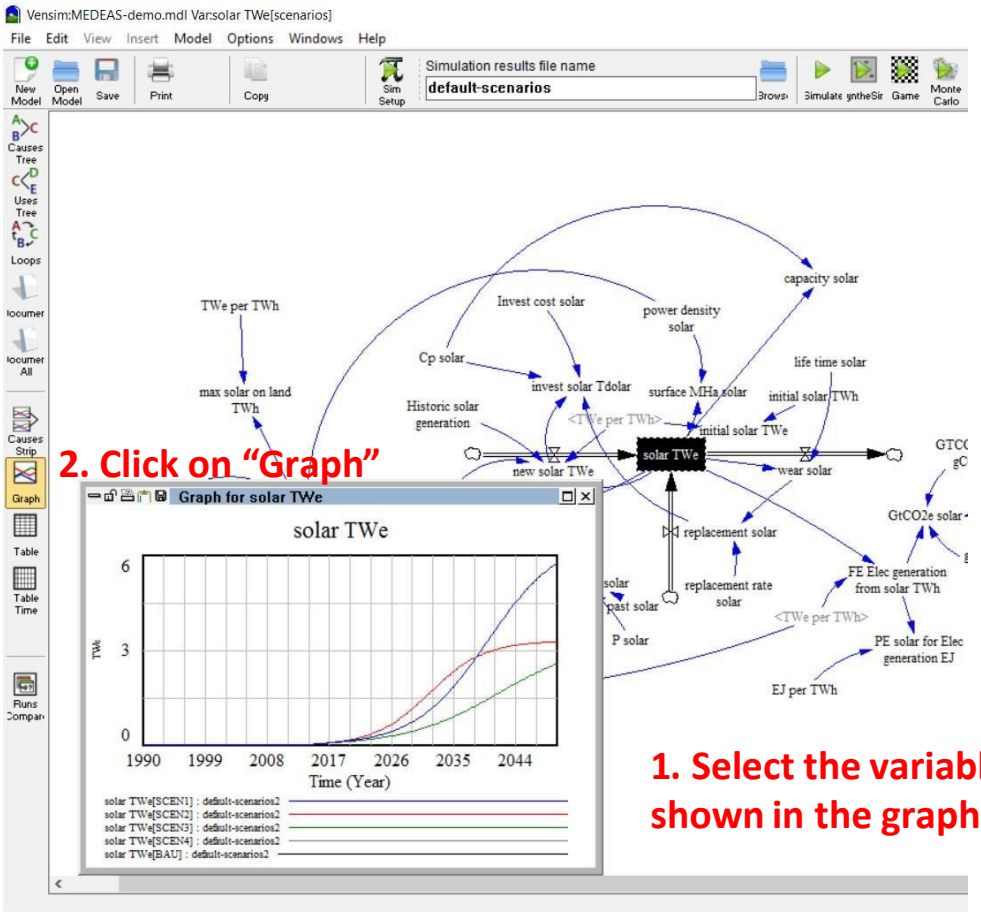


Figure 3