

TIMES Documentation

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Structure of the TIMES documentation

- Part I: Introduction into TIMES
- Part II: Reference manual for the input data (sets, parameters) and the model equations
- Part III: GAMS implementation; Contents of the *.run file

Part I: Introduction into TIMES

1. Introduction to the TIMES model
2. The basic structure of the TIMES model
3. Economic rationale of the TIMES modeling approach
4. A simplified description of the TIMES optimization program
5. A comparison of the TIMES and MARKAL models
6. Elastic demands and the computation of the supply-demand equilibrium
7. The Lumpy investment option
8. Endogenous technological learning (ETL)

Part II: Reference manual

1. Introduction
 1. Basic notations and conventions
 2. GAMS modeling language and TIMES implementation
2. Sets
 1. Indexes
 2. User-input sets
 3. Definition of internal sets
3. Parameters
 1. User input parameters
 2. Internal parameters
 3. Report parameters
4. Variables
5. Equations
 1. Notational conventions
 2. Objective function
 3. Constraints
6. The endogenous technological learning (ETL) option
7. The TIMES climate module

Part III: GAMS Implementation

1. Structure of the TIMES source code
2. The TIMES *.run file
3. The extension option
4. The TIMES reduction algorithm

Outlook

- First version of documentation available at www.etsap.org
- Your comments and suggestions are welcome!
- Future steps:
 - Inclusion of suggestions and comments.
 - Updates regarding new TIMES features.
 - Addition of “How to ...” receipts/manuals, e.g. how to add new processes and commodities, how to model inter-regional exchanges, flexible processes, issues related to timeslices (load curves, different timeslice resolutions in a model),...