

DemoMELA is an Internet-based application and user interface for illustrating the principles and for exploring the application possibilities of the MELA System. In DemoMELA you have access to MELA parameters and commands, but the initial forest resource data is limited to prefixed datasets. DemoMELA is intended for demonstrations and education under the instruction of an experienced MELA user.



# DemoMELA

Message: Mela simulation and optimization

Available forest resources: K001-037, K038-10

Available parameter files: MELA2016, MH2014\_DEFAULT\_PARAMETERS

Available optimization tasks: CS.MDL

Upload parameter files: Choose Files No file chosen

Upload Mela command files: Choose File No file chosen

Enter Mela commands:

Simulation  
 INCLUDE SUMTABLE.BM.PAR  
 SIMULATE MS K001-037  
 EXIT

Optimization  
 INCLUDE SUMTABLE.BM.PAR  
 INCLUDE MPS\_VARIABLES.PAR  
 SOLVE P4 K001-037  
 REPORT SUMMARY  
 EXIT

Prefixed sets of initial forest resource data.  
 Data sets to be used in simulation and optimization are defined in SIMULATE and SOLVE commands.

Parameters define application dependent options, for example  
 - optional events (natural processes and human activities) for the simulation of management schedules  
 - the unit prices for each timber assortment  
 - decision data records to be stored in management schedule  
 - the content and layout of the MELA forest level summary report

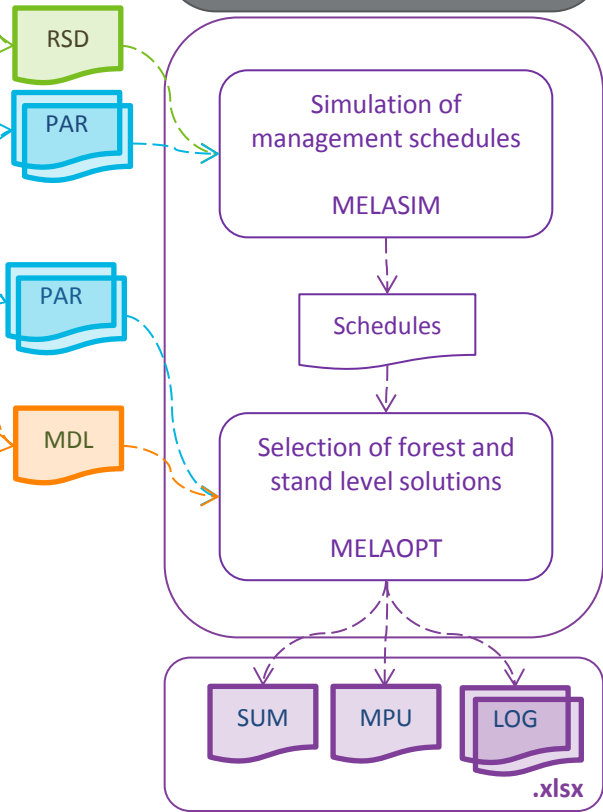
Each optimisation problem defines one set of conditions (i.e. goals for forestry) for the selection of a production program among management schedules by optimisation. Conditions are expressed by goal and constraint functions of linear programming (using JLP notation).

The MELA programs are controlled using commands and parameter definitions

The MELA command INCLUDE makes it possible to include a set of input lines stored in a file, usually a par type file. The included files may contain any types of input lines, also nested INCLUDE commands.  
 MELASIM command SIMULATE simulates feasible management schedules for the management units of the forestry unit(s).

MELAOPT command SOLVE finds a production program for the forestry unit and relevant management schedules for the management units.  
 MELAOPT command REPORT generates requested reports and files from the MELAOPT solution for the whole forestry unit as well as its sub-units and other domains

Simulation of management schedules prepares input data for the compilation of production programs in optimization. Optional management schedules indicate the production potentials of the project stands in the future. Optimization solution comprises (usually) one management schedules for each stand.



MELA run Clear Simulation Commands Clear Optimize Commands Restore Default Commands

Download results K001-037\_K001-037\_P4\_O\_2.xlsx

The Excel file containing the results of the MELA run consists of the forest level summary report (.SUM), management unit variables of the management units for the selected solution (.MPU) and session logs (.LOG) for checking simulation and optimization details and error messages, if any

You can edit prepared parameter files, optimization tasks and commands or you can upload additional files. Modifications and uploaded files are available until you finish the DemoMELA session by closing the browser.