

GAMS Savepoint and Loadpoint in TIMES

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1 Overview

This document describes the new GAMS control variables to utilize the GAMS savepoint and loadpoint facilities, introduced in version 2.4.0. The savepoint facility makes it possible to save the basis information (levels and dual values of variables and equations) into a.gdx file after model solution. The loadpoint facility makes it possible to load previously saved basis information from a.gdx file and utilize it for a so-called warm start to speed-up model solution.

2 GAMS control variables

The GAMS control variables that can be used for the savepoint and loadpoint features in TIMES models are SPOINT and LPOINT. These control variables are *completely optional*, but can be set in the following ways if desired:

`$SET SPOINT 1`

This setting indicates that the final solution point from the model run should be saved in the file `%RUN_NAME%.p.gdx`, where `%RUN_NAME%` is the GAMS control variable that should always be set to contain the name of the current TIMES model run in the run file for the model.

`$SET SPOINT 2`

This setting indicates that the model generator should make an attempt to load the solution point from the file `%RUN_NAME%.p.gdx`, where `%RUN_NAME%` is the GAMS control variable that should always be set to contain the name of the current TIMES model run in the run file for the model. If the control variable LPOINT has additionally been set as well, this attempt will be made only if the loading from the file `%LPOINT%.p.gdx` fails.

`$SET SPOINT 3`

This setting combines both of the functionalities of the settings 1 and 2 described above.

`$SET SPOINT YES`

This setting is equivalent to `$SET SPOINT 1`

`$SET LPOINT loadname`

This setting indicates that the model generator should make an attempt to load the solution point from the file `%LPOINT%.p.gdx`. If the control variable SPOINT has additionally been set to 2 or 3, a subsequent attempt to load from `%RUN_NAME%.p.gdx` is also made if the loading from the file `%LPOINT%.p.gdx` fails.