NEOS Results for Job #13773539

From: support@neos-server.org (support@neos-server.org)

To: etriantaphyllou@yahoo.com

Date: Wednesday, January 17, 2024 at 04:51 PM CST

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Executed on prod-exec-7.neos-server.org
GAMS 44.4.0  06604687 Sep 19, 2023          LEX-LEG x86 64bit/Linux - 01/17/24 16:51:44 Page 1
G e n e r a l  A l g e b r a i c  M o d e l i n g  S y s t e m
C o m p i l a t i o n



COMPILATION TIME     =        0.000 SECONDS      2 MB  44.4.0 06604687 LEX-LEG
GAMS 44.4.0  06604687 Sep 19, 2023          LEX-LEG x86 64bit/Linux - 01/17/24 16:51:44 Page 2
G e n e r a l  A l g e b r a i c  M o d e l i n g  S y s t e m
Range Statistics    SOLVE Optimization_Approach_to_Sensitivity_Analysis_Model_A1 Using NLP From line 342


RANGE STATISTICS (ABSOLUTE NON-ZERO FINITE VALUES)

RHS      [min, max] : [ 4.300E-02, 1.000E+00] - Zero values observed as well
Bound    [min, max] : [        NA,        NA] - Zero values observed as well
Matrix   [min, max] : [ 3.700E-02, 2.000E+00] - Zero values observed as well

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G e n e r a l  A l g e b r a i c  M o d e l i n g  S y s t e m
Model Statistics    SOLVE Optimization_Approach_to_Sensitivity_Analysis_Model_A1 Using NLP From line 342


MODEL STATISTICS

BLOCKS OF EQUATIONS          26     SINGLE EQUATIONS          26
BLOCKS OF VARIABLES          29     SINGLE VARIABLES          29
NON ZERO ELEMENTS            77     NON LINEAR N-Z            10
CODE LENGTH                  57     CONSTANT POOL             16


GENERATION TIME      =        0.002 SECONDS      3 MB  44.4.0 06604687 LEX-LEG
GAMS 44.4.0  06604687 Sep 19, 2023          LEX-LEG x86 64bit/Linux - 01/17/24 16:51:44 Page 4
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G e n e r a l A l g e b r a i c M o d e l i n g S y s t e m
Solution Report SOLVE Optimization_Approach_to_Sensitivity_Analysis_Model_A1 Using NLP From line 342

S O L V E S U M M A R Y

MODEL Optimization_Approach_to_Sensitivity_Analysis_Model_A1
OBJECTIVE Z
TYPE NLP
DIRECTION MINIMIZE
SOLVER BARON
FROM LINE 342

**** SOLVER STATUS 1 Normal Completion
**** MODEL STATUS 2 Locally Optimal
**** OBJECTIVE VALUE 0.3395

RESOURCE USAGE, LIMIT 0.040 10000000000.000
ITERATION COUNT, LIMIT 0 2147483647
EVALUATION ERRORS 0 0

GAMS/BARON 44.4.0 06604687 Sep 19, 2023 LEG x86 64bit/Linux

BARON is a product of The Optimization Firm, LLC. http://www.minlp.com/
Parts of the BARON software were created at the
University of Illinois at Urbana-Champaign.

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BARON version 23.6.22. Built: LNX-64 Thu Jun 22 20:08:45 EDT 2023

BARON is a product of The Optimization Firm.
For information on BARON, see https://minlp.com/about-baron

If you use this software, please cite publications from
https://minlp.com/baron-publications, such as:

Khajavirad, A. and N. V. Sahinidis,
A hybrid LP/NLP paradigm for global optimization relaxations,
Mathematical Programming Computation, 10, 383-421, 2018.
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This BARON run may utilize the following subsolver(s)
For LP/MIP/QP: CLP/CBC, ILOG CPLEX
For NLP: MINOS, SNOPT, External NLP, IPOPT, FILTERSQP

Solution = 0.339472892101379 found at node 1

Best possible = 0.339438948207
Absolute gap = 3.39438943786075E-5 optca = 1E-9
Relative gap = 9.99899996977391E-5 optcr = 0.0001

	LOWER	LEVEL	UPPER	MARGINAL
---- EQU EQ001	0.083	0.083	0.083	.
---- EQU EQ002	0.220	0.220	0.220	.
---- EQU EQ003	0.208	0.208	0.208	.
---- EQU EQ004	0.130	0.130	0.130	.
---- EQU EQ005	0.160	0.160	0.160	.
---- EQU EQ006	0.200	0.200	0.200	.
---- EQU e01_1	.	.	.	.
---- EQU e01_2	.	.	.	.
---- EQU e01_3	.	.	.	.
---- EQU e01_4	.	.	.	.
---- EQU e01_5	.	.	.	.
---- EQU Equation1	.	.	.	1.000
---- EQU Objective~	.	.	.	1.000
---- EQU EQweight1	0.439	0.439	0.439	-1.518
---- EQU EQweight2	0.043	0.043	0.043	4.140
---- EQU EQweight3	0.135	0.135	0.135	4.323
---- EQU EQweight4	0.118	0.118	0.118	0.945
---- EQU EQweight5	0.265	0.265	0.265	2.746
---- EQU Equation2	-1.000	-1.000	-1.000	0.256
---- EQU EQ_PP1	.	.	.	.
---- EQU EQ_PP2	.	.	.	.
---- EQU EQ_PP3	.	.	.	14.072
---- EQU EQ_PP4	.	.	.	.
---- EQU EQ_PP5	.	4.8251E-6	.	-14.072
---- EQU EQ_PP6	.	.	.	.
---- EQU Equation01	.	.	.	-14.072

	LOWER	LEVEL	UPPER	MARGINAL
---- VAR P1	.	0.083	+INF	.
---- VAR P2	.	0.220	+INF	.
---- VAR P3	.	0.208	+INF	.
---- VAR P4	.	0.130	+INF	.
---- VAR P5	.	0.160	+INF	.
---- VAR P6	.	0.200	+INF	.
---- VAR Z	-INF	0.339	+INF	.
---- VAR X_1	-INF	-0.333	+INF	.
---- VAR X_2	-INF	0.089	+INF	.
---- VAR X_3	-INF	0.292	+INF	.

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---- VAR X_4           -INF      0.056    +INF      .
---- VAR X_5           -INF      0.364    +INF      .
---- VAR t_1             .       1.777    +INF      .
---- VAR t_2             .       0.830    +INF  -1.085E-8
---- VAR t_3             .       0.502    +INF  -8.528E-9
---- VAR t_4             .       0.892    +INF  -8.732E-9
---- VAR t_5             .       0.405    +INF      .
---- VAR tt              .       0.339    +INF      .
---- VAR WW_1            .       0.585    +INF      .
---- VAR WW_2            .       0.039    +INF      .
---- VAR WW_3            .       0.096    +INF      .
---- VAR WW_4            .       0.111    +INF      .
---- VAR WW_5            .       0.169    +INF      .
---- VAR PP_1            .       0.074    +INF      .
---- VAR PP_2            .       0.258    +INF      .
---- VAR PP_3            .       0.169    +INF      .
---- VAR PP_4            .       0.133    +INF      .
---- VAR PP_5            .       0.169    +INF      .
---- VAR PP_6            .       0.197    +INF      .


**** REPORT SUMMARY :        0    NONOPT
                          0 INFEASIBLE
                          0  UNBOUNDED
                          0    ERRORS


EXECUTION TIME      =        0.074 SECONDS      3 MB  44.4.0 06604687 LEX-LEG


USER: NEOS Server License prod-exec-7.neos-server.orgS231116/0001AB-GEN
      mac@2c:ea:7f:71:ac:18                              DCE1890
      License for teaching and research at degree granting institutions


**** FILE SUMMARY

Input      /var/lib/condor/execute/dir_136250/gamsexec/MODEL.gms
Output     /var/lib/condor/execute/dir_136250/gamsexec/solve.lst
```