ANSWER Software Update

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ANSWER Software Update - Overview

- Assorted enhancements previewed at Firenze ETSAP Meeting made available in ANSWER version 5.4.1 released Feb. 2005
- ANSWER-TIMES single-region “prototype” from 2000 updated to handle December 2004 TIMES GAMS code
- New “Batch Management” feature allows user to store named batches of cases to facilitate use of Batch Run feature
- New “smart” ANSWER Excel calibration and load spreadsheets to facilitate assembly and loading of MARKAL model data into ANSWER
Enhancements in ANSWER version 5.4.1

- ANSWER now handles cross-region emission constraints and cross-region user constraints
- Operation of Batch Run facility greatly simplified
- Multi-select for various facilities, e.g. Run Model scenario select
- ‘Import Results Automatically’ option for Run Model, Batch Run
- ‘Remember Case Definition’ option for ‘Delete Case’
- New ‘Edit, Delete All Cases’ facility
- Big speedups for various operations, e.g. generation of DD files
- Many forms now user-resizable
- SAGE GAMS DDs may be imported into ANSWER

ANSWER-TIMES single-region updated

- ANSWER-TIMES single-region “prototype” created in 2000 (Visual Basic 4, Spread 2, Access 95)
- ANSWER-TIMES single-region “prototype” now updated to Visual Basic 6, Spread 3, Access 2000 (same as ANSWERv5)
- GAMS code needed for Import TIMES GAMS DD, ANSWER-specific parts of Run Model, updated to be compatible with Dec. 2004 GAMS TIMES code
- Large German single-region TIMES DD imported into, and run out of, ANSWER-TIMES giving same LP matrix
- Latest ANSWER-TIMES available to ETSAP participants
- Thanks to Uwe Remme, IER
New Batch Management feature - 1

- Allows user to store Named batches of cases to facilitate use of Batch Run feature
- New “Batch Management” button on home screen

New Batch Management feature - 2

- After clicking on “Batch Management” button:

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New Batch Management feature - 3

◆ After clicking “Edit…” button on “Batch Management” form:

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New Batch Management feature - 4

◆ New “Load Batch” and “SaveBatch” buttons on “Run Batch” form:

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New ANSWER “smart” Excel spreadsheets - 1

- Gary Goldstein request to facilitate assembly and loading of MARKAL model data into ANSWER
- Link to ANSWER database to assist with Units, Set Memberships, Parameters specification

New ANSWER “smart” Excel spreadsheets - 2

- Special Commodities, Technologies, Constraints sheets with “smart” buttons:
New ANSWER “smart” Excel spreadsheets - 3

After clicking on “Energy Sets” smart button and selecting Renewable (ERN):

Special Commodity Data, Technology Data, Constraint Data sheets with “smart” buttons:
After clicking on “CommName, CommDesc, CommUnit” smart button and selecting TX (Automobile Transport):

CommData sheet with CommName (and CommDesc) linked via cell references to Commodities sheet:
After clicking on "Parameter" smart button and selecting DEMAND parameter:

After clicking on "Parameter" smart button and selecting FR(Z)(Y) parameter:
New ANSWER “smart” Excel spreadsheets - 9

◆ After clicking on “Qualifier” smart button:

![Qualifier smart button interface]

New ANSWER “smart” Excel spreadsheets - 10

◆ Comprehensive checking - “Check Sheet” smart button:

![Check Sheet smart button interface]
New ANSWER “smart” Excel spreadsheets - 11

- Necessary changes to ANSWER’s “Import Model Data from Excel” facility are under way
- Commodity Data, Technology Data, Constraint Data column-oriented Parameter format focused more on calibration of a new model
- CommData-TS, TechData-TS, ConstrData-TS format where Parameters are rows and columns are time periods will be added
- Substantial input from Gary Goldstein