

SIMMOD Maintenance Work at ATAC

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**North American Simmod Users Group
Meeting**
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Simmod *PLUS!//PRO!* Maintenance

- Version 7.5.4 released 18 November 2009
- Version 7.5.5 in progress
 - Release expected in June 2010
- Goal:
To be as responsive as possible to Simmod users,
and to fix bugs quickly.

Simmod *PLUS!//PRO!* Maintenance

- The Java Runtime Environment has been updated to version 6, update 18. This includes a number of improvements including the anti-aliasing of text and graphics.
- Network Builder
 - The Plans Builder would crash when updating or deleting plans with no pre-plan time. Fixed.
 - The copy/paste function of the Procedures Builder did not work properly with Microsoft Excel. Fixed.

Simmod *PLUS!//PRO!* Maintenance

- Animator
 - The `acshapes.txt` file in the default folder was being used instead of the one in the `applications\<<scenario>\animation` folder. Fixed.
- `cdf2simu`
 - If the user does not specify all the separation combinations in the `STAGGER_SEPARATION` table, the separation values would be incomplete `SIMU03` leading to undesired stagger separations. `cdf2simu` has been modified to write 0 for missing combinations.

SIMMOD Engine Maintenance

- Modified initialization logic
 - Random number seeds may now be specified for each iteration of a multiple-iteration simulation. The seeds may be added to the RUNDATA file or the user can create a text file called `random_number_seeds.txt`. In this file, each row has ten seed values. The first row will be used for iteration 1, the second row will be used for iteration 2, and so on. If you have more iterations than rows, the seed for each subsequent iteration will use the values remaining at the end of the previous iteration, just as the engine does now. The `random_number_seeds.txt` file should be in the `\simulation` folder of the application. If it is missing, the engine will behave as in previous versions.

SIMMOD Engine Maintenance

- Corrected gate logic
 - Previously, aircraft in an arrival staging area would not use a newly freed gate if another arrival was assigned to it, even though that arrival had not yet landed. Now, the staging aircraft will use such gates. This may cause the subsequent arrival to no longer have an available gate.
 - If the number of departures injected at a gate exceeds the capacity of the gate by more than 1, the departures may wait indefinitely for the gate. Fixed.
 - The input logic that reads the GATES inputs was improperly using arrays such that memory was could be exhausted in some situations. Fixed.

SIMMOD Engine Maintenance

- Corrected taxi planning logic
 - Previously, the maximum number of search paths and maximum number of nodes per path allowed by the taxi planning logic was limited by the numbers specified by the TXP_MAX_ALTERNATE and TXP_MAX_NODES_FEASIBLE entries in the GLOBAL_DATA table. These entries are no longer used, and the logic will attempt to use as many search paths/nodes as the computer's available memory allows.

SIMMOD Engine Maintenance

- Corrected procedure logic
 - Departing aircraft may wait an excessive amount of time in the departure queue if a plan change with a pre-plan time goes into effect while the aircraft is taxiing to the departure queue. Fixed.