

ATAC SIMMOD Activities

North American Simmod Users Group

Falls Church, VA

23 March 2007



Simmod *PLUS! / PRO!* Maintenance

Network Builder and Animator changes:

1. The SETSTAGGER table has been added to the database.
2. The SIMU26 HB for code groundlink/groundlink holding was not correctly processed in the output reports and Animator. Fixed.
3. The DEPARTURE_Q_GROUP: WAIT_DQTHRESH field was not properly written to SIMU07. Fixed.

Simmod *PLUS! / PRO!* Maintenance

Network Builder and Animator changes:

4. The RUNWAY_TAKEOFF_OCCUP entries are now sorted so that entries that RUNWAY_TAKEOFF_OCCUP_MODELS table will take precedence over entries in the RUNWAY_TAKEOFF_OCCUP_TAMPS table. This will allow users to specify an occupancy input for an aircraft airspace group and yet have this input superseded by an occupancy input for a specific aircraft model that is a member of that group.

SIMMOD Engine Maintenance

Ground logic change:

1. Corrected taxi planning logic.
 - The estimated times of arrival at each node of a taxi plan were not correct for towing aircraft if the towing speed was different than the taxi speed.
 - If a towed departing aircraft rolled over a taxi checkpoint, the resulting taxi plan would not properly cause the aircraft to be towed to its gate.

SIMMOD Engine Maintenance

Ground logic change:

2. Enhanced towing logic. If the gate of a towed departure was occupied, the departure would wait at the tow node until that (or another feasible) gate became available before performing the towing movement.
3. Modified taxi logic. Conflicts between the DSDPath logic and the groundlink entry checks could cause gridlocks in rare cases.

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Ground logic change:

4. Corrected groundlink/groundlink blocking input logic. A flaw was fixed in the portion of the AFLINKBLOCKING input logic that automatically discards duplicate combinations.
5. Enhanced runway exit logic. If no gates are specified in an entry in the RUNWAY_EXITS_LINKS and RUNWAY_EXITS_PROHIBITED_LINKS inputs, the entry will now apply to all gates for that entry.

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Ground logic change:

6. Modified gate selection logic. By default, when choosing a gate, a flight will prefer gates that used by a fewer number of airlines. This bias can be disabled by setting the new global variable `disable_gate_airline_bias` to 1.
7. Modified departure logic. Aircraft that were blocked (SIMU26 PD code) from pushing back due to occupied ground links would not necessarily begin to move immediately after the blocking ended.

SIMMOD Engine Maintenance

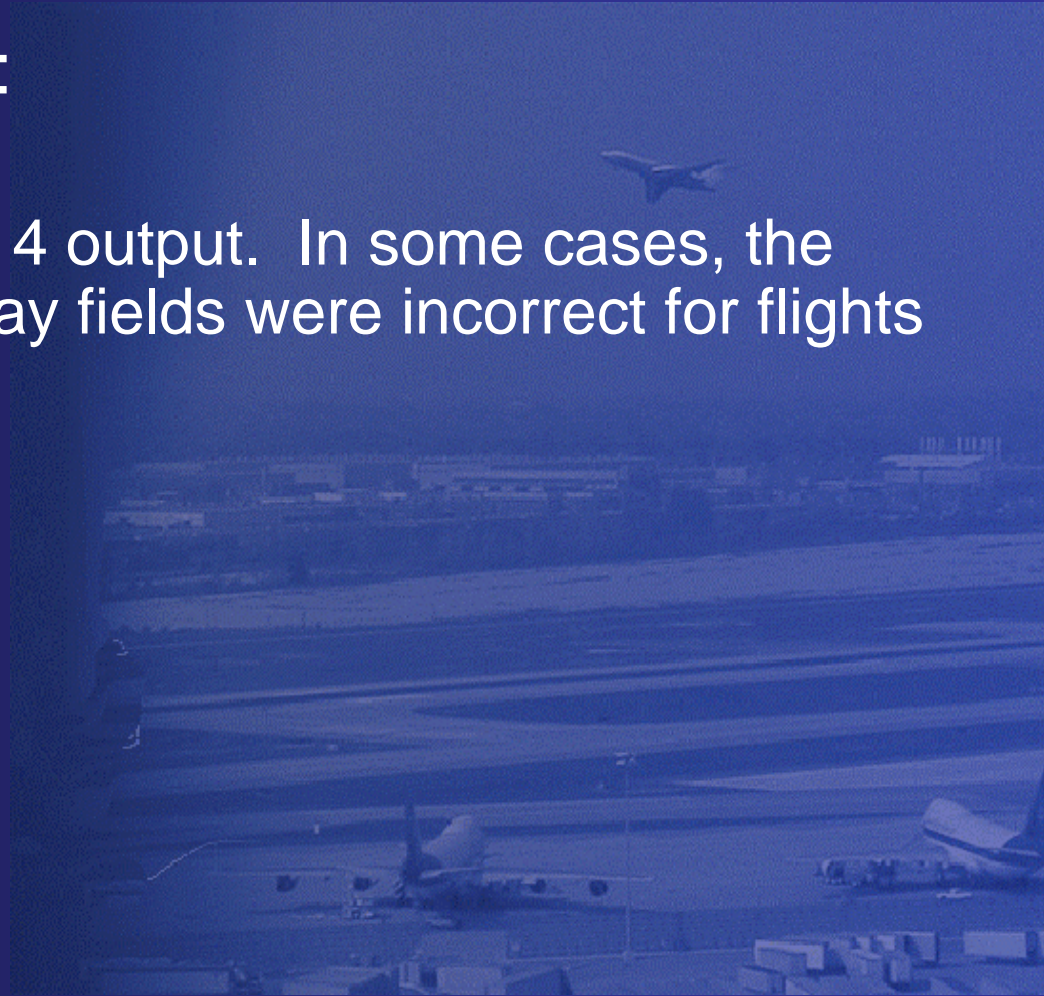
Airspace logic change:

1. Corrected stagger logic. Internal variables associated with the stagger logic were not re-initialized with each iteration or when an aircraft left the simulation. Fixed.
2. Corrected arrival re-routeing. It was possible for a flight to re-route even though the new route did not pass through the same meter post node. Fixed and trace 70 will provide a warning.

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Output logic changes:

1. Corrected SIMU14 output. In some cases, the gate use and delay fields were incorrect for flights that were towed.



ATAC SIMMOD User Base

204 users (including 73 Simmod *PLUS//PRO!* customers) have obtained the ATAC Simmod engine since the release of version 2.5 in October 2001. These users are from the following 37 countries:

Argentina	Denmark	Kazakhstan	South Korea
Australia	Estonia	Malaysia	Spain
Austria	France	Mexico	Sweden
Belgium	Germany	Netherlands	Taiwan
Bosnia and Herzegovina	Greece	Poland	Thailand
Brazil	India	Russia	Turkey
Canada	Indonesia	Serbia	United Kingdom
Chile	Italy	Singapore	United States
China	Japan	South Africa	Vietnam
Croatia			