

SIMMOD Maintenance Work at ATAC

North American Simmod
Users Group

Falls Church, VA
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SCALE

0' 500' 1000'

AIRPORT LAYOUT LEGEND

	EXISTING AIRFIELD CONTOUR
	PROPOSED AIRFIELD CONTOUR
	ELEVATION OF F&O SURFACE
	WATERWAY
	UNDEVELOPED AREA

ACCESS ROAD

Simmod *PLUS!* / *PRO!* Maintenance

Simmod *PLUS!*

- Version 7.3.2 released in March 2008
- Version 7.4 release planned before the end of 2008

Database changes to accommodate new engine features

General look-and-feel improvements throughout

Animator icon headings read from SIMU26

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Re-routeing logic changes:

- An arrival would not re-route if the meter node was the next node downstream of a post node. Fixed.
- Messages associated with arrival re-routeing have been assigned to trace 293 and 299 while departure re-routeing messages remain assigned to trace 60 and 67, respectively.

Airspace logic changes:

- In some situations when incurring air delay, aircraft would hold at nodes rather than vector when vectoring was an option. Fixed.

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Procedure logic changes:

- The procedure inputs were not read properly such that the engine could erroneously report that there were no valid procedures for a given flight. Fixed.
- In some situations, departing aircraft would not leave the departure queue because an arrival aircraft was still completing its landing roll. Fixed.
- Previous engines would crash if no aircraft groups were assigned to a procedure. Now a warning message is written to SIMU02.

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De-icing logic changes:

- Departure flights now properly consider the priority level of de-icing and staging areas when choosing one.

Runway logic changes:

- In simulations of more than one iteration, the priority of departure queues over runway crossings was not being properly reset. Fixed.
- An arrival now checks to see if the planned exit link is filled to capacity. If so, it tries to choose another exit link.

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DSDPath logic changes:

- Taxiing aircraft that were performing a spool-up delay were not entered into the DSDPaths of the next link until they actually began moving. Fixed so that they are entered into the DSDPath as soon as they begin the spool-up activity.
- Aircraft that were takeoff or landing were not considered to be occupying any DSDPaths to which the runway ground links are assigned. Now, aircraft taking off or landing are entered into each DSDPath to each runway link is assigned — even if this violates the capacity constraint of the DSDPath.

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Gate logic changes:

- It is now possible to define both a gate and a concourse for a flight. The flight will be assigned to the specified gate, but if that gate is unavailable (upon landing for an arrival or upon injection for a departure), the flight will examine other gates in the concourse if a concourse is specified. If still no gate is found, the flight will then examine all other feasible gates.
- Improvements were made to the way in which flights choose their gates. This minimizes the likelihood of a flight from being assigned to an occupied gate.

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Gate logic changes:

- New inputs and logic allow the user to define a multi-link pushback or forward routing from a gate. This routing can be specific to taxi destinations and aircraft models. In addition to the routing, the user specifies the speed during the movement and the dwell time at the end of the pushback. New SIMU07 inputs:

GATE_PUSHBACK

- The following inputs are deprecated but still functional for backward compatibility:

GATE_MDL_PP_TIME

PPBACK

PPTIME

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Gate logic changes:

- In some situations, when using the PPBACK and PPTIME inputs, departures would power back from a gate even though the gate type is defined as “push back only”. Fixed.

Taxi planning logic changes:

- The inputs specified in the GATE_RUNWAY_TAXIPATH table were not considered when a plan other than the baseplan was in effect. Fixed.

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Departure logic changes:

- Departures would continue waiting in the departure queue after other procedures have terminated blocking because an aircraft was still on the runway even in cases where the `HOLD_FOR_RWY_CLEAR_FLAG` was set to "F". Now such departures are free to taxi to the runway.

SIMU26 output changes:

- Aircraft heading information is now written to SIMU26 to allow animators to properly orient aircraft icons.

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Enhanced engine efficiency:

- The engine has been compiled with a newer version of the compiler, and various functions devoted entirely to debugging purposes have been deactivated. Simulation execution is noticeably faster.

FAA version 3.0 changes have been incorporated to the ATAC engine.

The ATAC Aviation Modeling Team



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