

Simmod *PLUS!* 7.5 Changes and Enhancements

Engine Change Descriptions

- **Corrected push back logic.** In some situations, departures would power back from a gate even though the gate type is defined as “push back only”. Fixed.
- **Corrected departure logic.** 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.
- **Corrected procedure input logic.** Previous engines would crash if no aircraft groups were assigned to a procedure. Now a message is written to SIMU02.
- **Enhanced gate selection logic.** 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.
- **Enhanced gate departure logic.** 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.
- **Enhanced SIMU26 output.** Aircraft heading information is now written to SIMU26 to allow animators to properly orient aircraft icons.
- **Enhanced departure logic.** The MAX_Q_THRESH field has been added to departure queue groups. When the number of aircraft taxiing toward the member queues of the group exceeds this threshold, subsequent departures will either hold at the gate or taxi to a staging area.

Network Builder, Animator, Reporter, and cdf2simu Change Descriptions

- **Network Builder:** The Transform Nodes tool did not previously move the curved link control points. These are now moved correctly.
- **Network Builder:** If the user immediately drew a link without moving the mouse after drawing a link, the initial node of the second link would have the same initial node as the previous link rather than using the final node of the previous link. Fixed.
- **Network Builder:** The Probability Distribution Builder now properly refreshes its data from the database.
- **Network Builder:** Editing tables in spreadsheet mode now allows copy/paste within the spreadsheet as well as to/from other software. When saving the data, the spreadsheet also now checks for duplicate entries with records that are not included in the spreadsheet.
- **database and cdf2simu:** Added GATE_PUSHBACK, GATE_PUSHBACK_NODES, and GATE_PUSHBACK_LINK tables to allow the user to define multi-link pushbacks and forward.