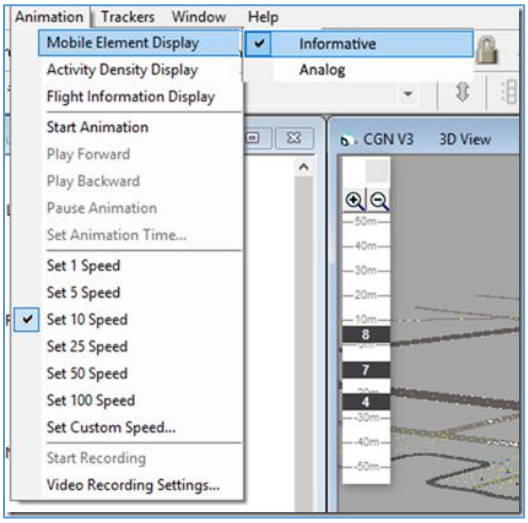
Release Notes for ArcPORT™

2.0.0

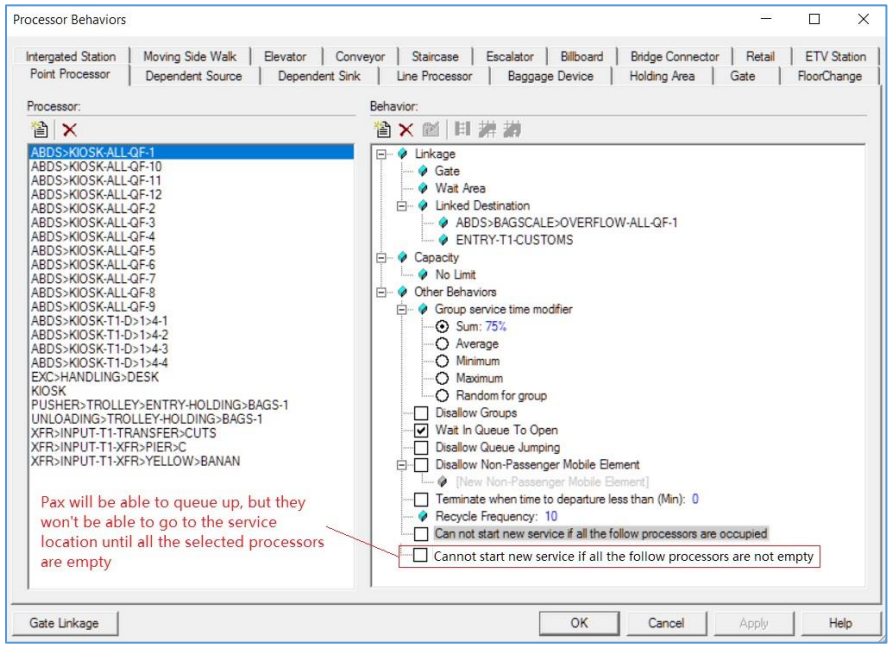
This document describes the notable changes made to ArcPORT since version 1.28.

- **2.0.0.101 (Released on 27 April 2017, requires an active Maintenance Assurance Program (MAP) subscription on 27 April 2017.)**
    a. **Licensing**
        i. Transoft Solutions' license system is now used (Aviation Research Corporation license system used previously).
    b. **Report enhancements:**
        i. Terminal Queue Length, Density, Space Throughput and Processor Throughput reports measurement interval is now up to seconds (instead of minutes).
        ii. Airside Taxiways Delays report shows the segment of the taxiway where the delay occurred.
    c. **Mobile Element Display can now be Informative or Analog:**

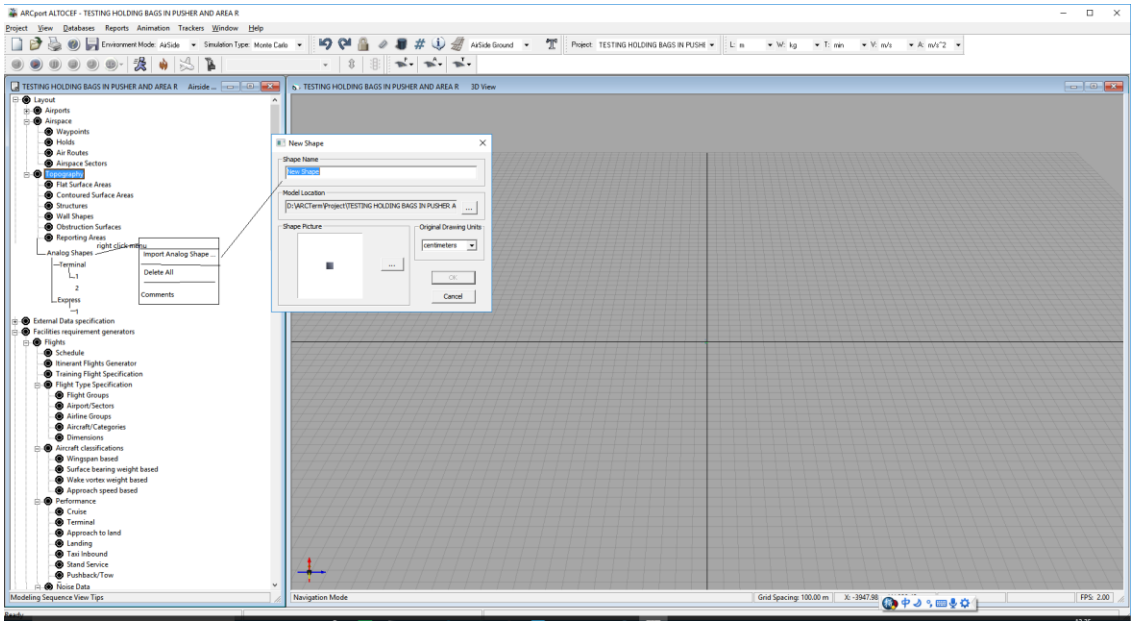


    d. **Improvement on the Tow off strategy engine.**
    e. **Added the maneuverability functions as is in AutoCAD.**
    f. **Added new error message information regarding conflicts between flight plans and flight routes during simulation.**
    g. **ArcPORT will automatically use the high performance Nvida graphic cards, it here is one.**

h. Added a Behavior function to set that a processor cannot start service if some other/s processors are not empty:



i. Complete 3D models of Terminal and Buildings can be imported into ArcPORT Airside:

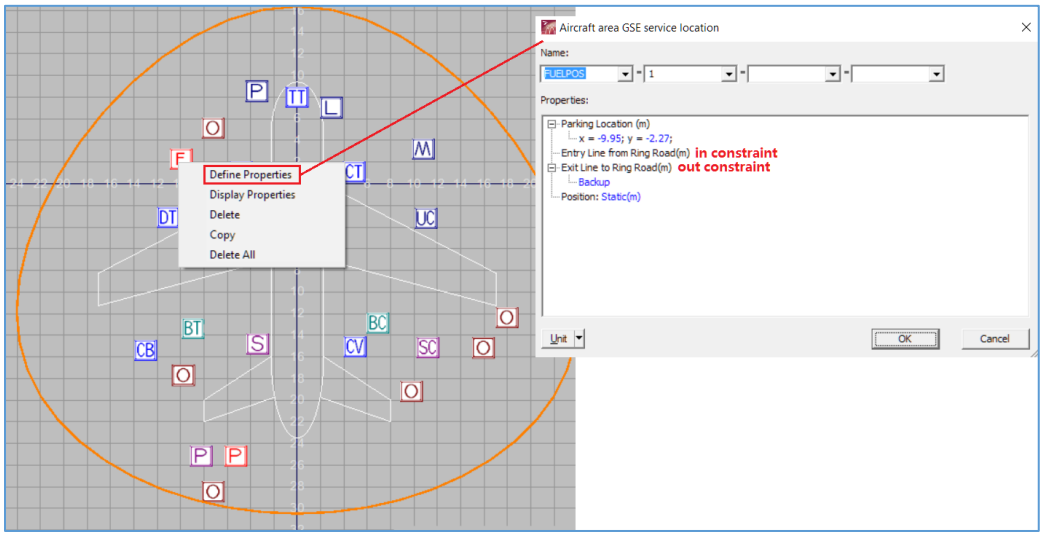


j. GSE Improvements:

i. PaxBus Parking Spot drive in and out lines can be deleted now.

ii. In the service location specification:

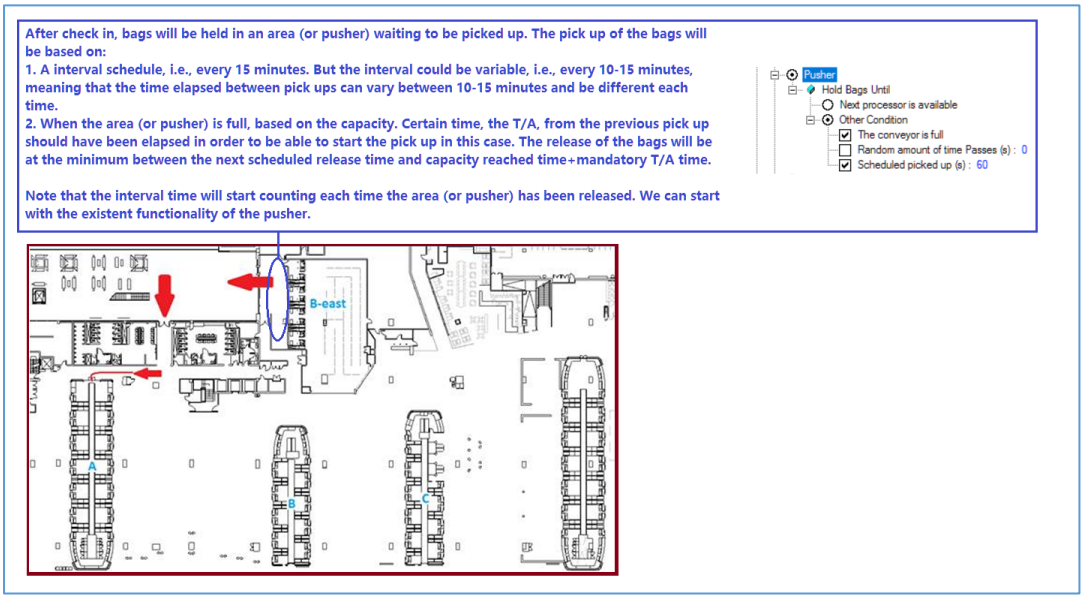
- In/out constraints to/from the service location from/to the ring road can be defined. Right click on the Relative service location and select Define Properties:



- The out constraint can be defined as a drive out or as a backup.
- The service can be defined as static (the vehicle give the service in one location) or dynamic (the vehicle will move around the AC with a defined path to give the service)

k. BHS related enhancements:

i. Added a function to schedule baggage pick up after check in.



ii. EBS/ETV improvements.

iii. Added downtime conveyor function that allows to simulate the impact when a conveyor is down for a certain amount of time repeatedly.

l. Internal algorithm improvements to decrease simulation time.

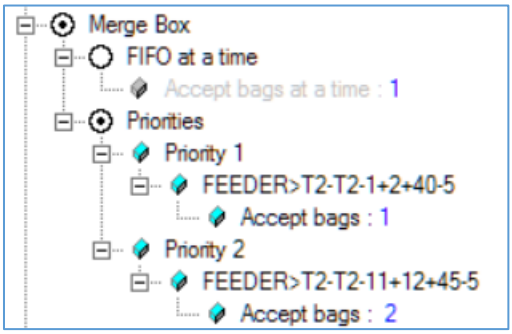
- **1.30.2.0 (Released on July 15, 2016)**

  This release needs to install first the **ArcPORT Resource Package 59.0.**

  a. BHS related enhancements:

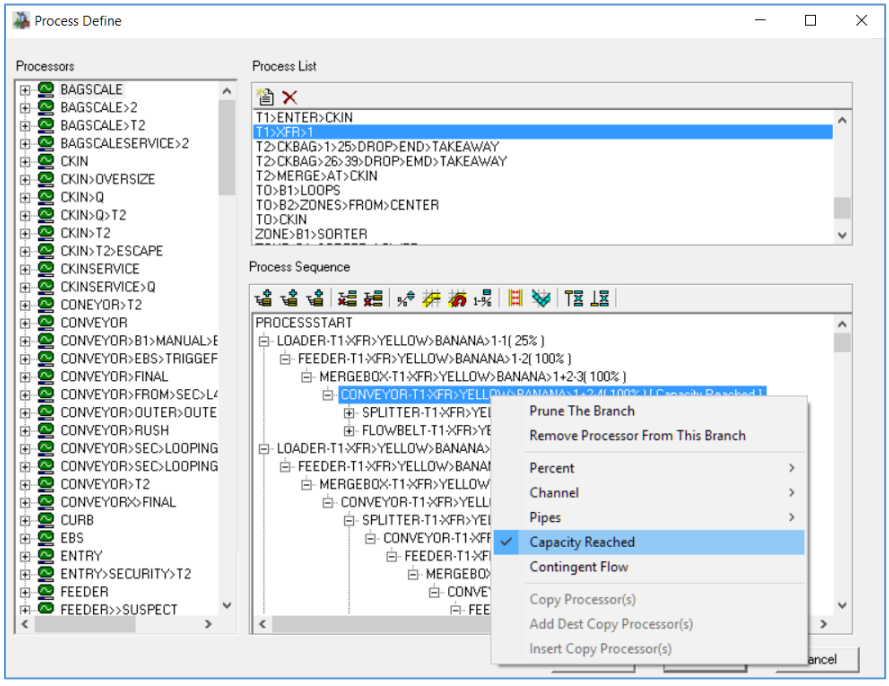
  i. Early bag storage. ArcPORT is capable to recreate early bag storages on BHS. Contact support@arc-us-ca.com for more information.

  ii. Improvement on the mergebox functionality: priorities can be set between the mergebox's feeders.

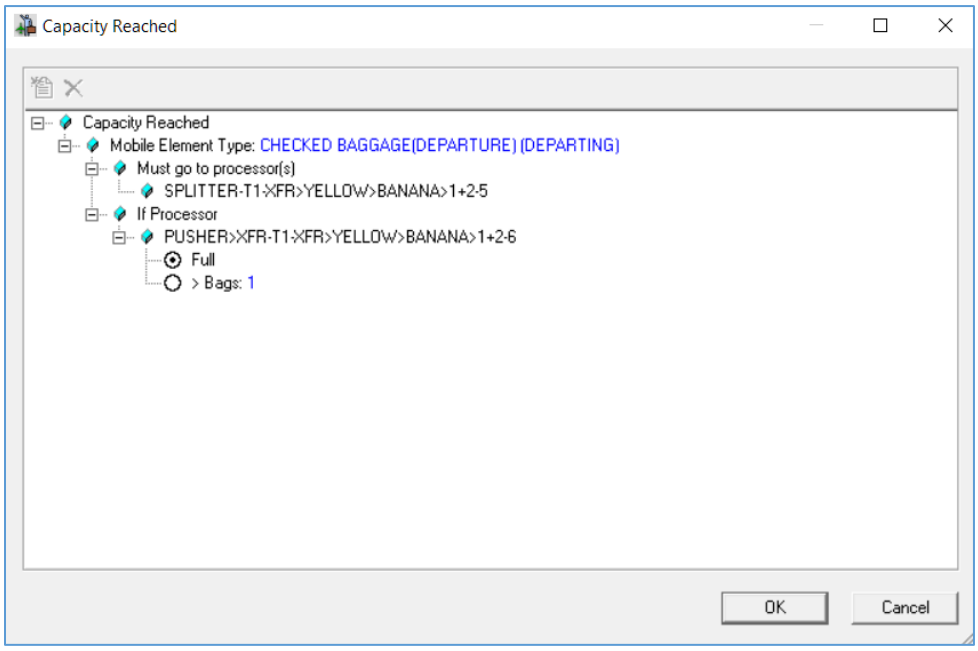


  iii. Capacity reached: this new functionality allows to choose a branch based on if the capacity at a certain processor have been reached. The steps to create a strategy are as follows:

  - Right click on any processor of a flow and go to Flow condition → Capacity Reached. If in a process, right click and select Capacity Reached:

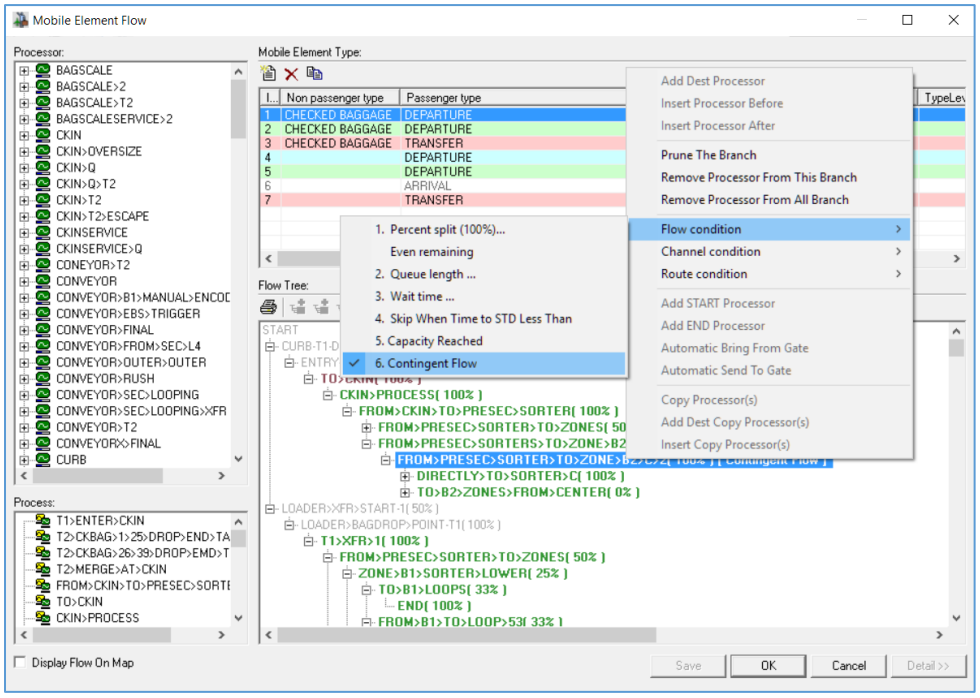


- The below GUI will pop up. User will need to select the passenger type that will be affected, the destination (*Must go to processor(s)*) and the condition of a certain processor's capacity:

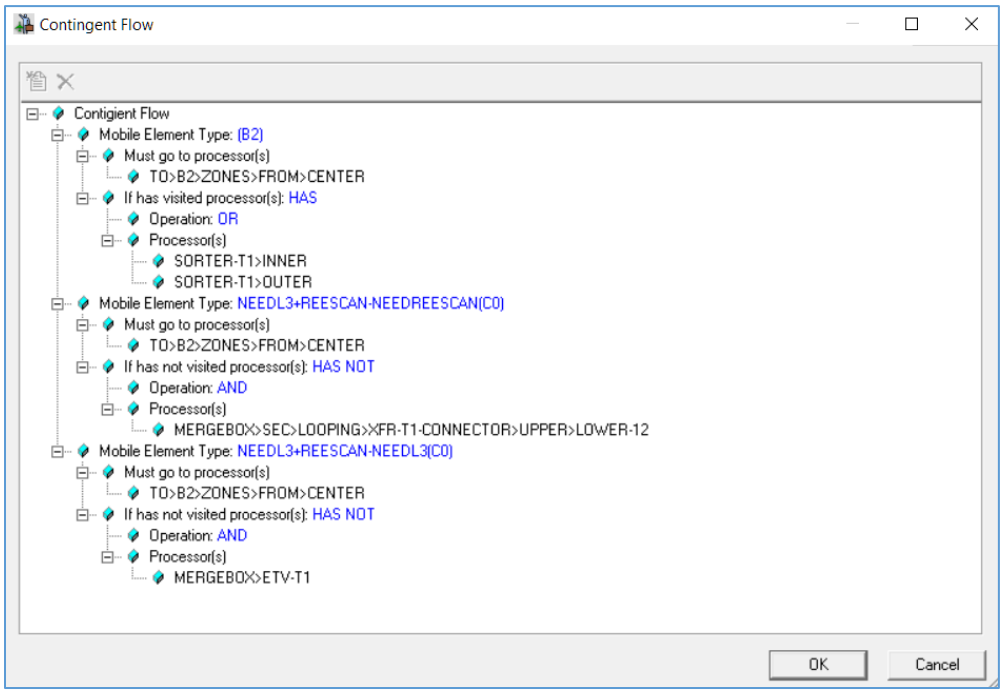


iv. Contingent flow: this new functionality allows to choose a branch based on if a processor has been previously visited. The steps to create a strategy are as follows:

- Right click on any processor of a flow and go to Flow condition → Contingent flow. If in a process, right click and select Contingent flow:



- The below GUI will pop up. User will need to select the passenger type that will be affected, the destination (*Must go to processor(s)*) and the condition of if a certain processor or processors have been visited:



v. Sorter enhancement: bags will keep looping inside the sorter until there is an exit flowbelt available for them.

b. Landside related enhancements:

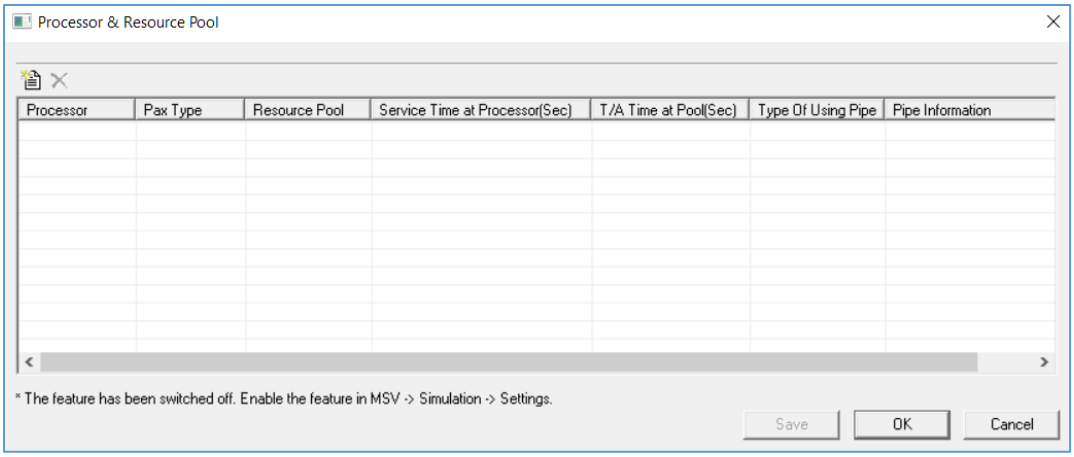
i. Added tollgates functionality.

ii. Added stretch vertical profile functionality (like in the stairs and escalators on the terminal).

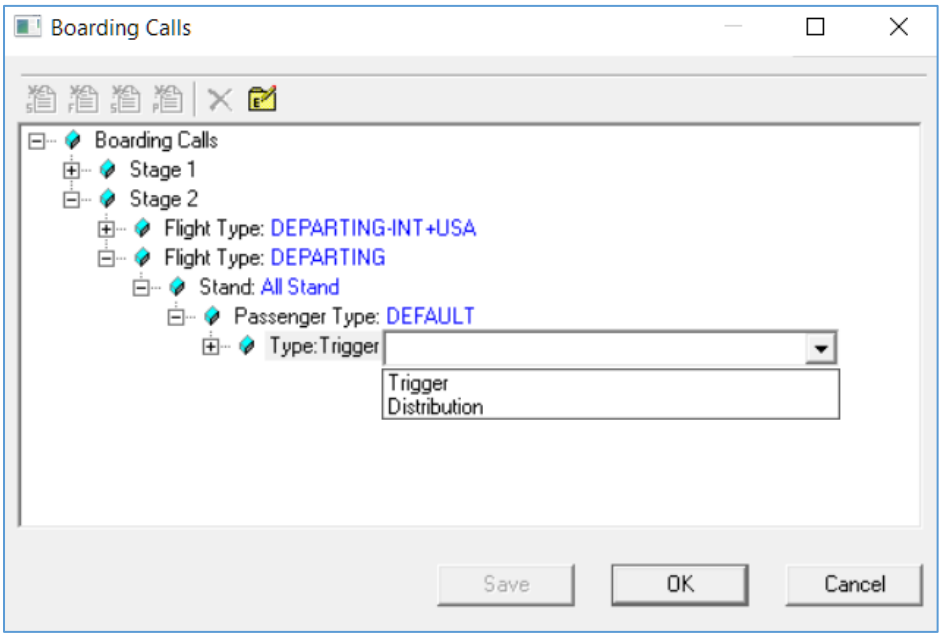
c. Terminal related enhancements:

i. When doing multiple runs, a new column in the simulation status window has been added indicating the Run number to which the error message belongs.

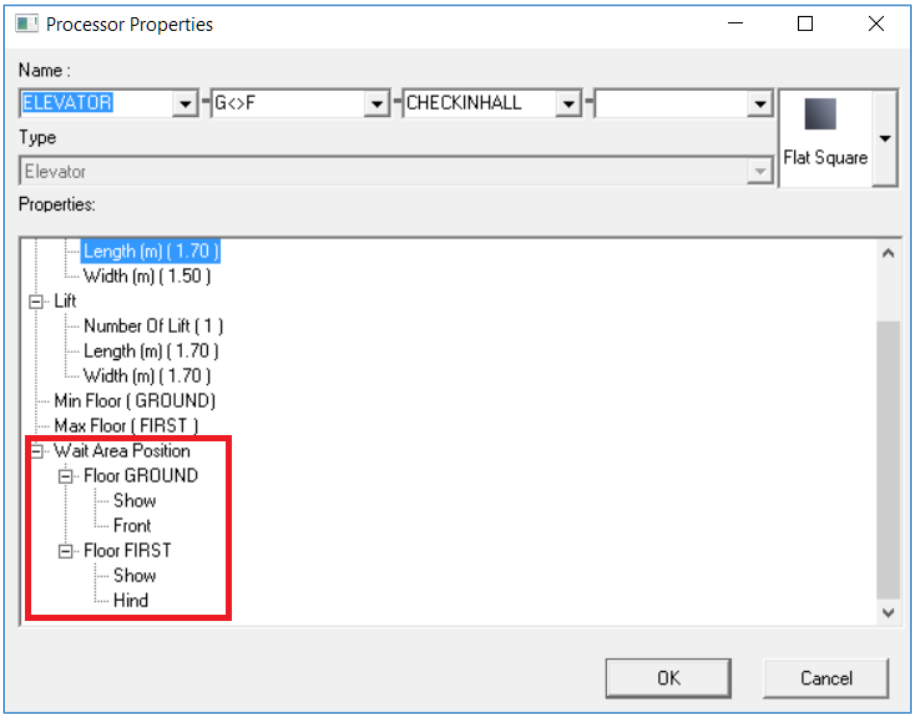
ii. Added a T/A time for resources in the pool:



iii. Added functionalities to boarding calls: it is possible to choose between a continuous distribution or a set of triggers.



iv. Elevator enhancement: Added an option to show or hide the elevator in each floor:



d. Ferry and Cruise Terminals related enhancements:

i. Added Ferry and cruise shapes.

ii.

e. Report related enhancements:

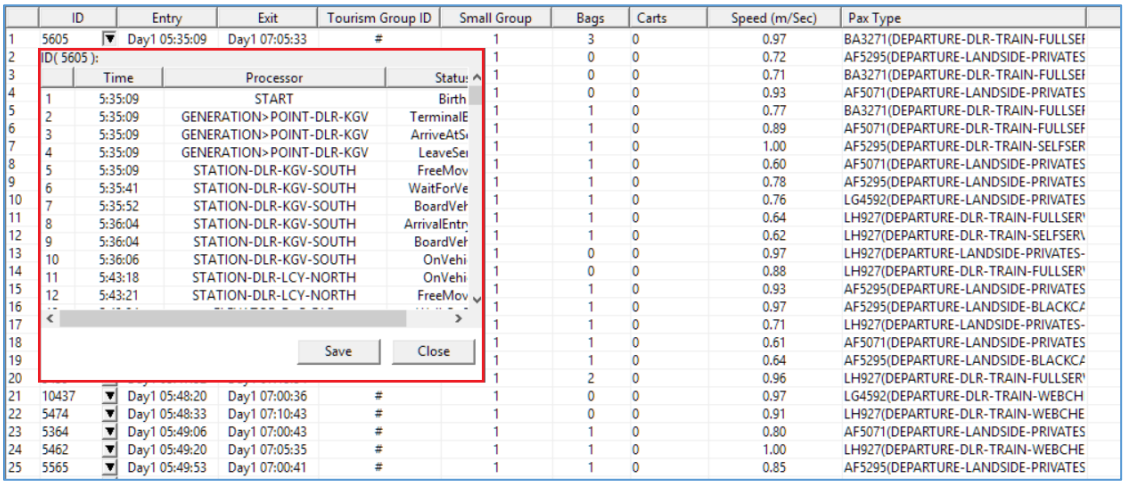
i. Enhancement in Time in Terminal report: added new columns to the detailed report.

	Passenger #	Duration(hh:mm:ss)	Passenger Type	From Processor	To Processor	From Day	Time(hh:mm:ss)	To Day	Time(hh:mm:ss)
1	5605	1:30:24	BA3271(DEPARTURE-DLR-TRAIN-FULLSERVE-WITHE	START	END	1	05:35:09	1	07:05:33
2	5606	42:34:27	BA3271(DEPARTURE-DLR-TRAIN-FULLSERVE-WITHE	START	END	1	05:35:09	1	18:30:47
3	5607	42:34:27	BA3271(DEPARTURE-DLR-TRAIN-FULLSERVE-WITHE	START	END	1	05:35:09	1	18:30:47
4	5608	42:34:27	BA3271(DEPARTURE-DLR-TRAIN-FULLSERVE-WITHE	START	END	1	05:35:09	1	18:30:47
5	5571	1:31:21	AF5295(DEPARTURE-LANDSIDE-PRIVATES-WEBCHE(	START	END	1	05:37:52	1	07:09:13
6	5613	1:29:52	BA3271(DEPARTURE-DLR-TRAIN-FULLSERVE-WITHC	START	END	1	05:39:18	1	07:09:10
7	5357	1:25:37	AF5071(DEPARTURE-LANDSIDE-PRIVATES-FULLSERV	START	END	1	05:40:03	1	07:05:40

ii. Enhancement in Taxi Delay Report: added new columns to the summary part. Now we have columns based in the Total Delay (sum of interventions) and columns based on the interventions.

iii. Enhancement in Gate operations report: added the column *PHASE* to the detailed report to indicate the phase of the aircraft (departure, arrival, tow off).

iv. Enhancement in Activity Log report: it is possible to see the complete list of events of any passenger's life:

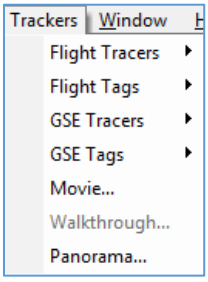


- **1.29.168.0 (Released on February 6, 2016)**

  This release needs to install first the **ArcPORT Resource Package 56.0.**

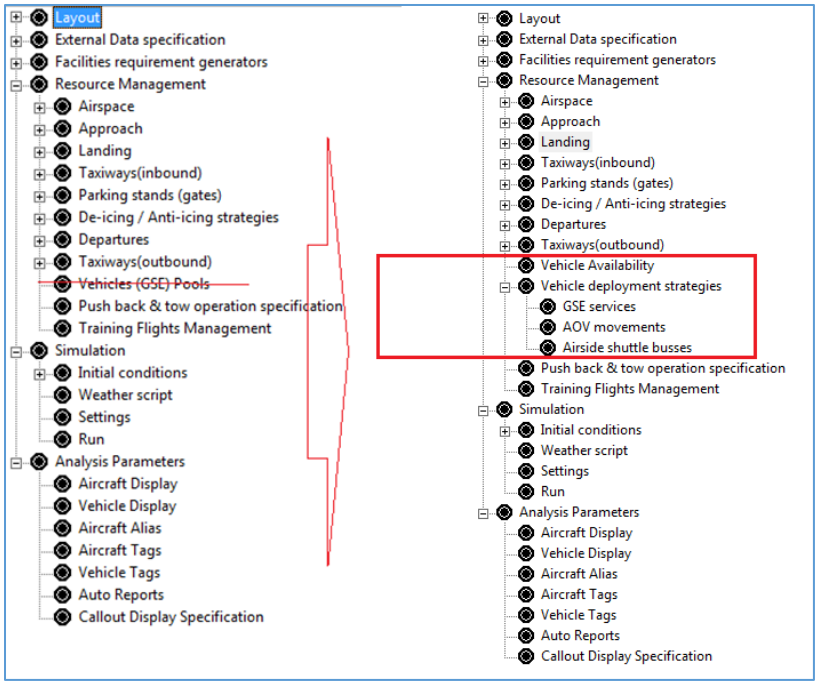
  a. Emergency Evacuation enhancement. ArcPORT is capable to do a complete emergency evacuation simulation analysis on any kind of building: Airport terminals, arenas, train stations, skyscrapers, metro stations, etc. Contact support@arc-us-ca.com for more information.

  b. Improvement on Trackers selection in Airside:

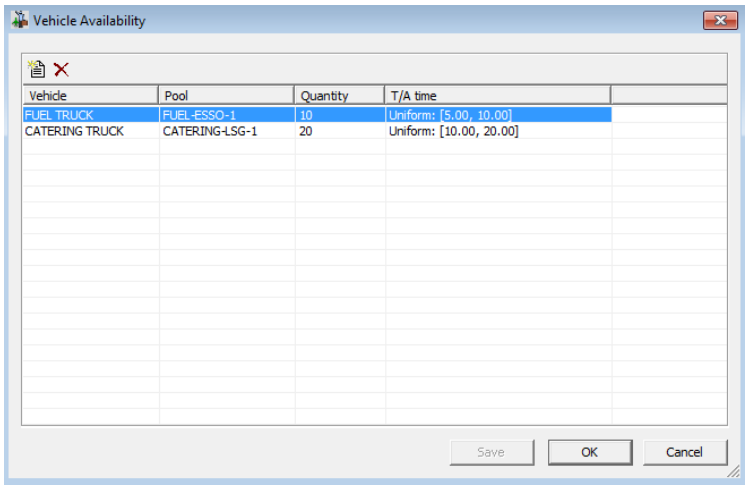


  c. New GSE deployment strategy: ArcPORT originally had an algorithm to deploy vehicles from pools as a function of time relative to the flight operation and independent of one another. The new version introduces the concept of Relative Deployment, which is that at some level of completion of a certain vehicle service, another vehicle will be deployed. This new concept leads to certain enhancements in the software:

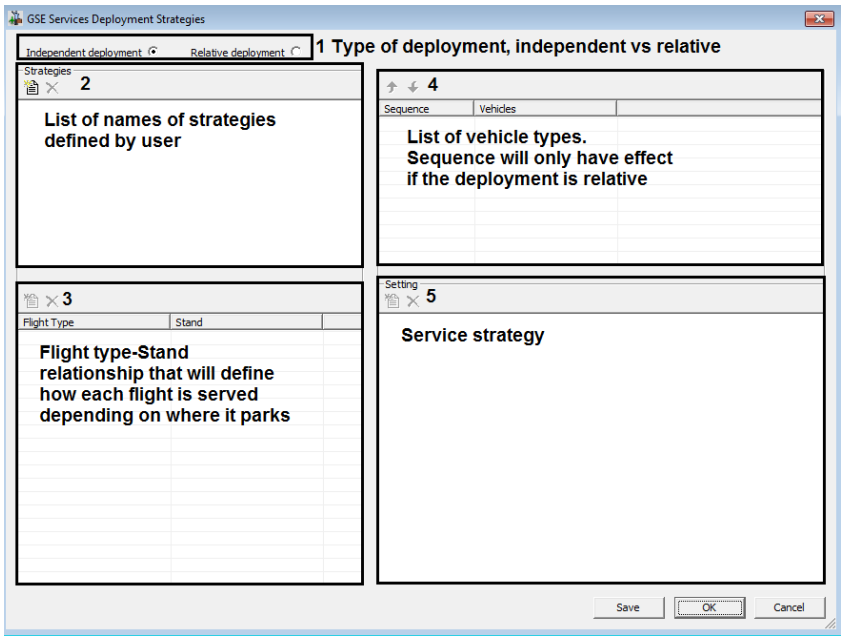
  i. Modification of the MSV:



ii. Vehicle Availability GUI will be used to define how many vehicles are in each of the defined pools and the T/A:

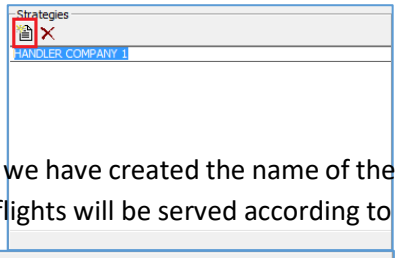


iii. GSE services GUI will have 5 parts:

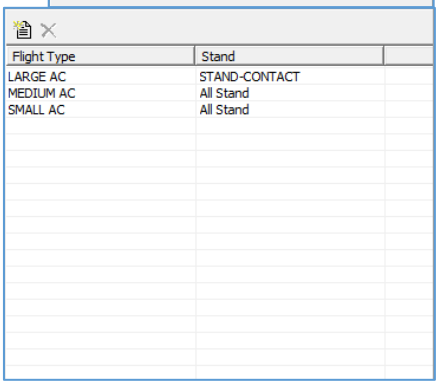


The steps to create a full GSE deployment strategy are as follows:

- First of all, we need to fill the pools with vehicles using the Vehicle Availability GUI.
- Then, we will open the GSE Services GUI and select the type of deployment.
- Next Step is to give a name to our Service strategy by clicking on the *New* button and type in the name:

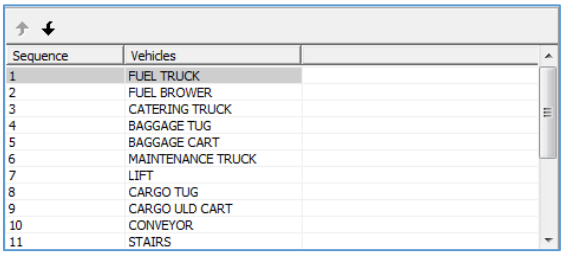


- Once we have created the name of the strategy we will proceed to select how flights will be served according to their type and parking location:



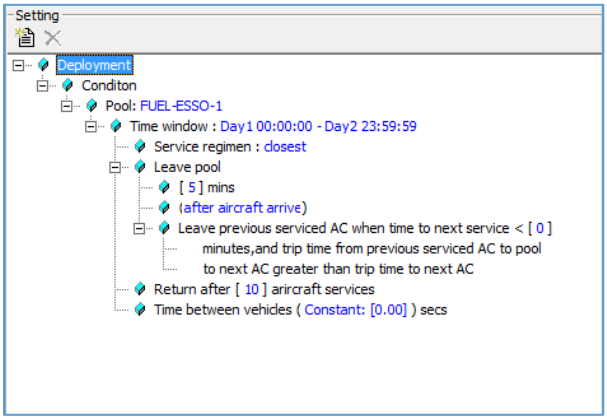
- For each of the flight type-stand combination we can select a sequence for the vehicles. Note that if it is independent deployment the sequence

will be irrelevant because the deployment will be done relative to the time of operation of the flight:

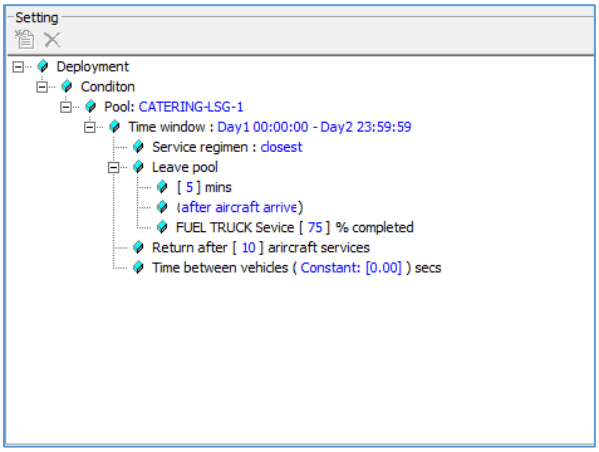


Sequence	Vehicles
1	FUEL TRUCK
2	FUEL BROWER
3	CATERING TRUCK
4	BAGGAGE TUG
5	BAGGAGE CART
6	MAINTENANCE TRUCK
7	LIFT
8	CARGO TUG
9	CARGO ULD CART
10	CONVEYOR
11	STAIRS

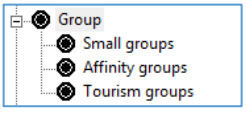
- Finally we can define how the deployment will be done. If we selected independent deployment, for each vehicle we will need to define the settings:



If we selected relative deployment, the first vehicle in the list will be configured as if it was independent deployment. The second vehicle on the list will be configured taking into account the first vehicle. The third vehicle in the list will be configured taking into account the first and the second vehicle and so on:



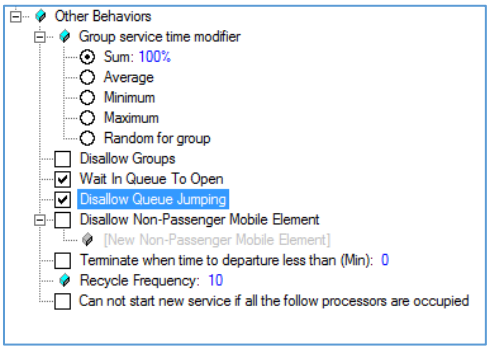
d. Passenger Groups enhancement: ArcPORT originally had a functionality to create group of passengers with the same passenger's types. The development of the Landside and



OnBoard generated the need for more detailed grouping features. With the new release, there will be 3 different kind of Groups:

i. Small groups. This is the original group functionality.
ii. Affinity groups. This will allow creating groups of passengers with different passenger types with specific behaviors. It is still under development.
iii. Tourism groups. This will allow generating passengers being delivered to the terminal in busses with the characteristic of waiting in a specific area until all members of the group have arrived.

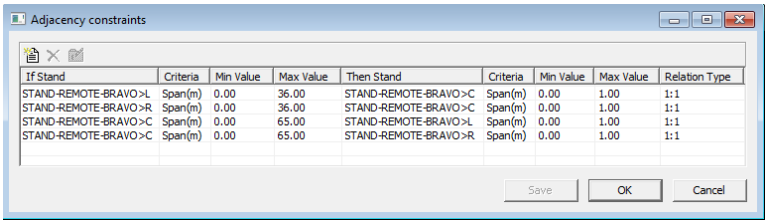
e. Queue Jumping for non-fixed queues can be enabled or disabled in behaviors:



f. Terminal Report enhancement:

i. In the *Reports→Passenger→Time in Queues*, Entry Time and Exit Time columns have been added. This columns show passenger entry and exit time on the queue.
ii. In the *Reports→Passenger→Time in Service*, Entry Time and Exit Time columns have been added. This columns show passenger entry and exit time on the service location.

g. Added the 1:1 feature in the Airside→Resource Management→Parking stands (gates)→Stand Constraints→Adjacency Constraints→Stand Name based:



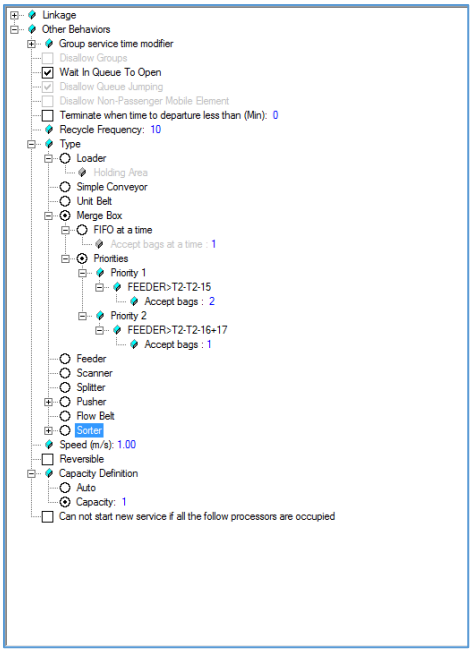
h. Moving Sidewalk definition and usage: moving sidewalks are geographically defined in the same way than any other processor by dragging a shape and defining its properties. Once defined, moving sidewalks have to be embedded in a pipe (no reference is needed on the flow) in order to be able to be used. The way passengers are told to use or not to use a sidewalk is defined under Processors→Moving Sidewalk. This GUI contains three tabs:

i. General: to define the width and the speed of the sidewalk.

ii. Walk Probability: to define the percentage of passengers that will walk on the sidewalk. This means that the walking speed will be added to the sidewalk speed.

iii. Usage Probability: to define the percentage of passengers that will choose to go on the sidewalk.

i. Mergebox new functionality: mergebox can be set to accept bags from feeders in a certain priority or in a FIFO basis:



j. Occupied assigned stand action criteria enhancement. In the airside, when an arrival AC lands and its schedule stand is still occupied by another AC, some reassignment should happen. In ArcPORT there are several options:

i. *Go dynamically reassigned gate*. The AC, will be reassigned to another stand randomly that meets the stand constraints and the stand assignment rules. The AC will be reassigned when it exits the runway.

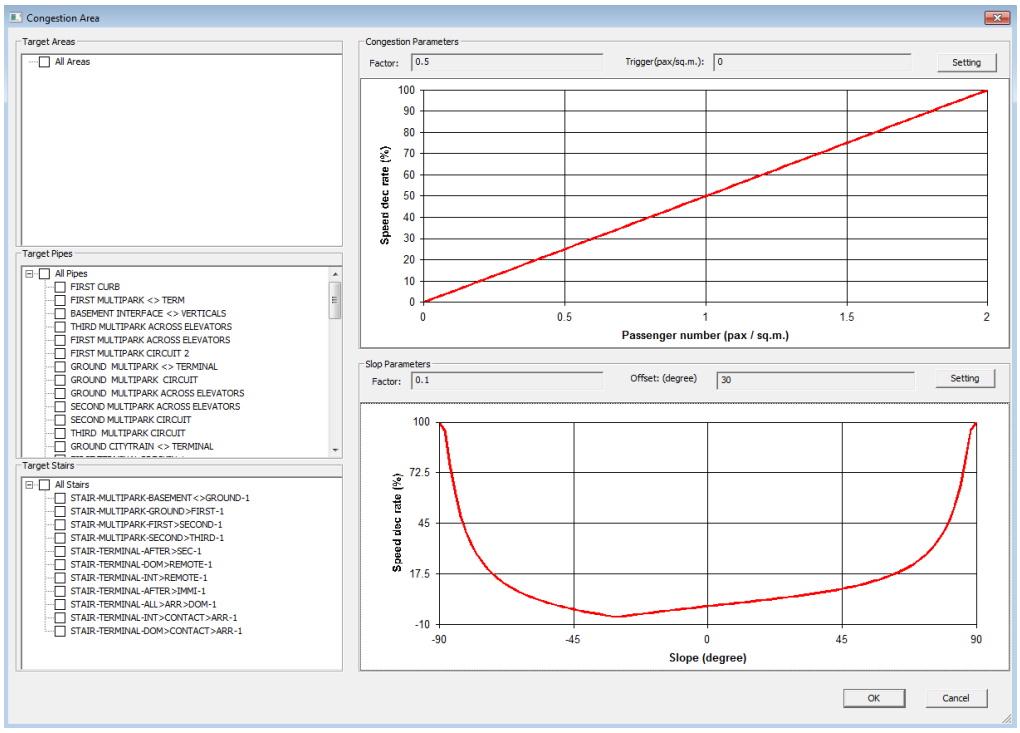
ii. *Stop short of intersection/taxi interrupt line in the inbound Route till assigned stand free*. The AC will stop at an intersection or at an interrupt line and wait until its stand is free. Several intersections and interrupt lines can be selected in the GUI, but they must be in the AC inbound route in order to take effect. If there are several intersections or interrupt lines selected in the route, first one will be chosen. If none of the selected intersections or interrupt lines are in the route, AC will *Go dynamically reassigned gate*.

There are several other options currently under development.

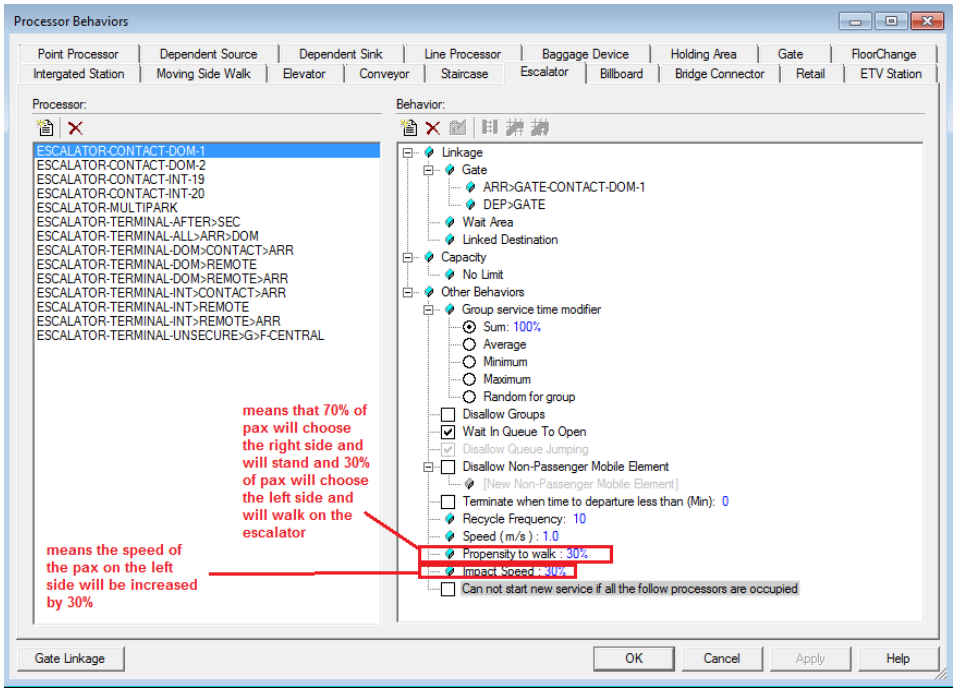
k. Airside Report enhancement:

i. In the *Reports→Aircraft→Operational*, Actual Land Time, Schedule Arr Time, Actual Arr Time, Schedule Dep Time, Actual Dep Time and Actual Take off Time columns have been added.

l. Congestion impact function has been added to stairs:

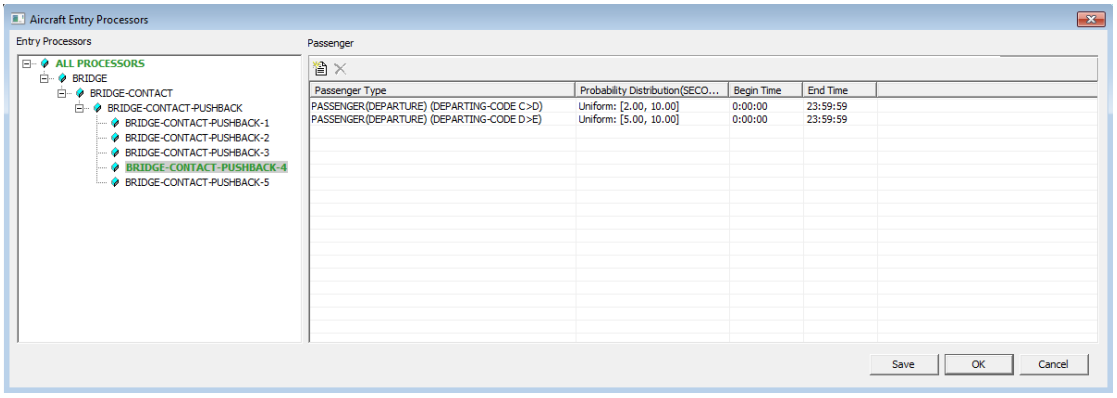


m. Escalators enhancement. In behaviors we can set the percentage of passengers that will use the right side (standing) and the left side (walking on the escalator):

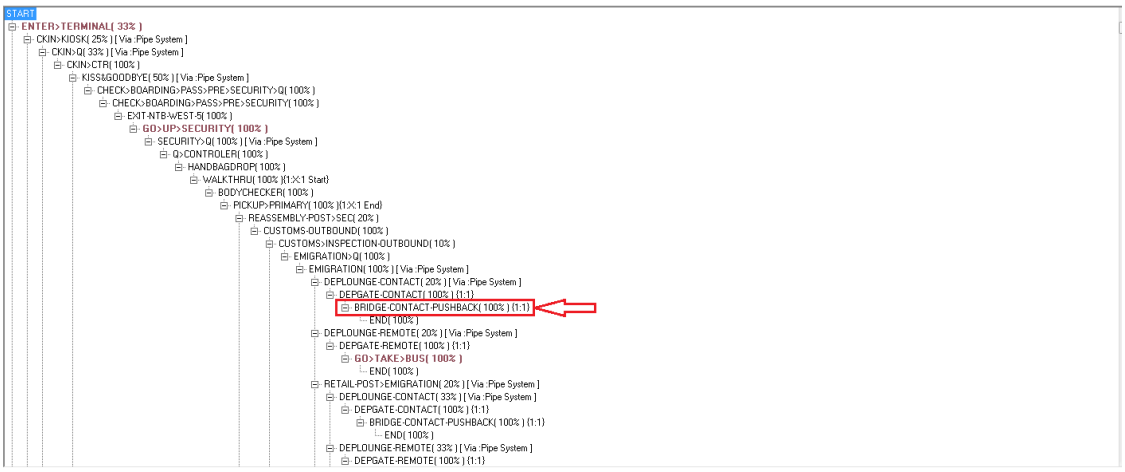


n. Intermediate stand and tow off times can be inserted directly into the schedule.

- **1.29.68.0 (Released on February 12, 2015)**
  This release needs to install first the **ArcPORT Resource Package 43.0**.
  a. Airside Fixed: Runways can be used for Inbound and Outbound taxi routes definition.
  b. Terminal: Added the possibility of applying service time at the AC door when boarding using a bridge:
    i. Under *Processors →Service Times →Aircraft Entry Processors* you can define for different passenger types the time they will spend at the AC door by assigning a time distribution to the bridge from which passengers are boarded. The result will be that passengers will spend a random amount of time at the head of the bridge, generating a queue along the bridge:



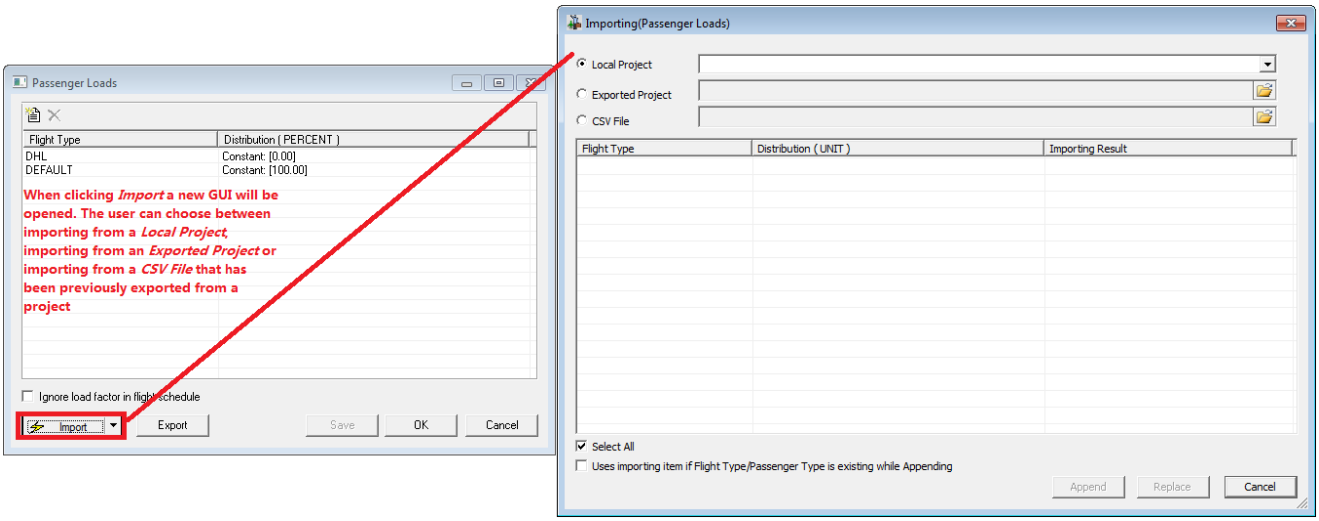
    ii. In order for the service time to be active, the bridges must be included in the flow as if they were another processor:



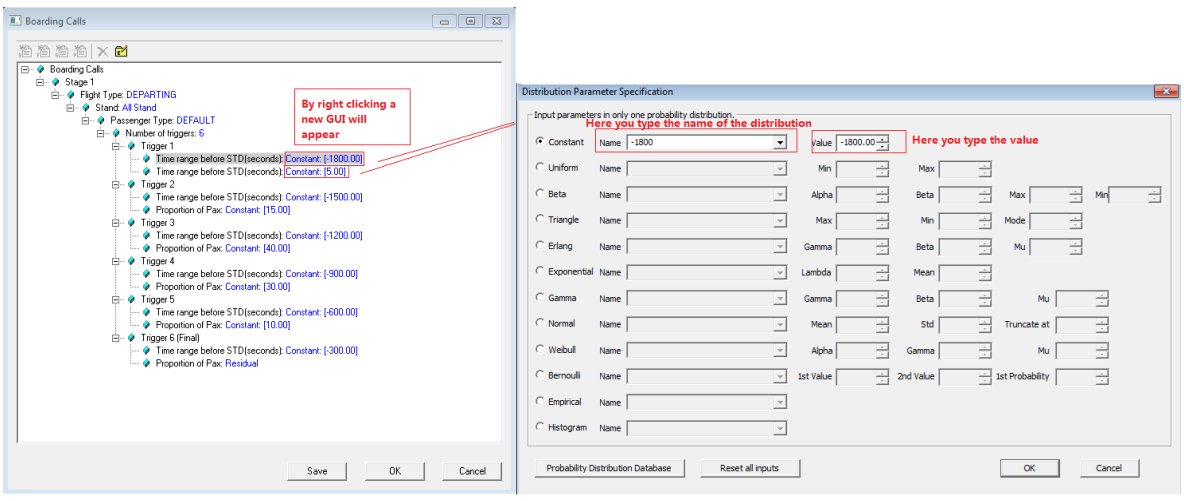
c. Internal software maintenance.

- **1.29.59.0 (Released on December 25, 2014)**
  - **a.** Internal software maintenance.

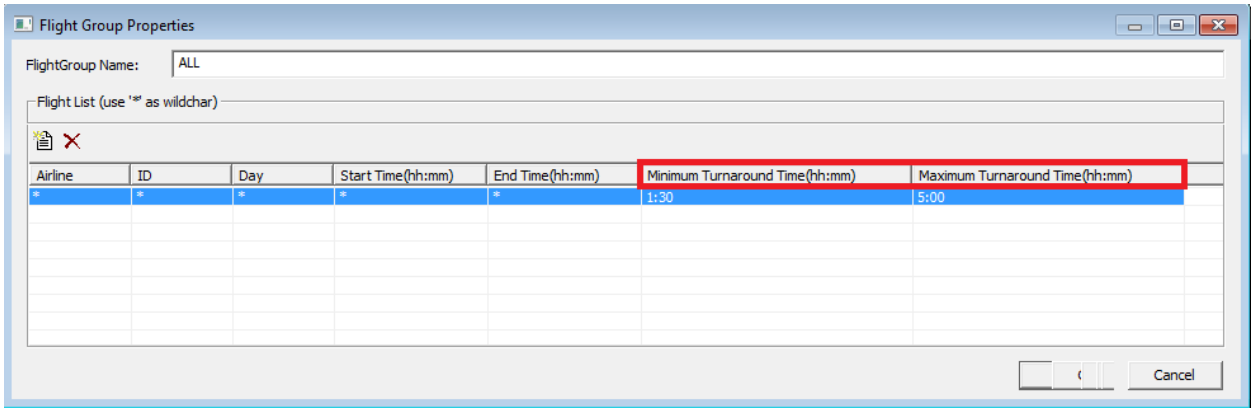
- **1.29.56.0 (Released on December 15, 2014)**
  This release needs to install first the **ArcPORT Resource Package 40.0** and **ArcPORT Admin Update 2.0**.
  - **a.** Terminal: Implementation of Export/Import for the following GUIs:
    - i. Flights Delays
    - ii. Flights Load Factors
    - iii. Flights Aircraft Capacities
    - iv. Passengers Group Size
    - v. Passengers Lead-Lag Time Distribution Visitor STA Trigger
    - vi. Passengers In-Step Distribution
    - vii. Passengers Side-Step Distribution
    - viii. Passengers Speed
    - ix. Passengers Visit Time
    - x. Passengers Entry Flight Time Distribution



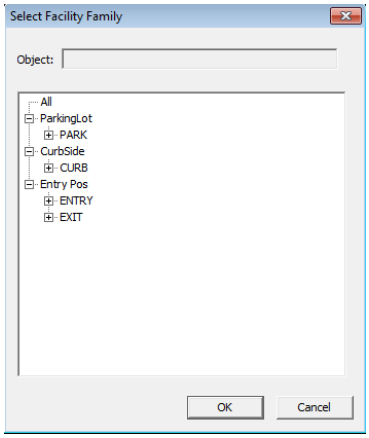
  - **b.** Terminal: Implementation of Quickly Input Distribution GUI (only in Boarding Calls GUI for now):



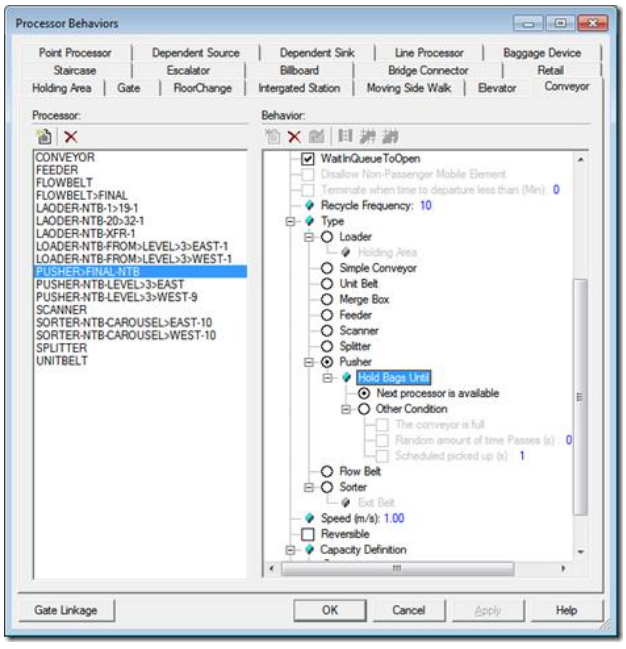
c. Terminal: Implementation of T/A filter in Flight Groups:



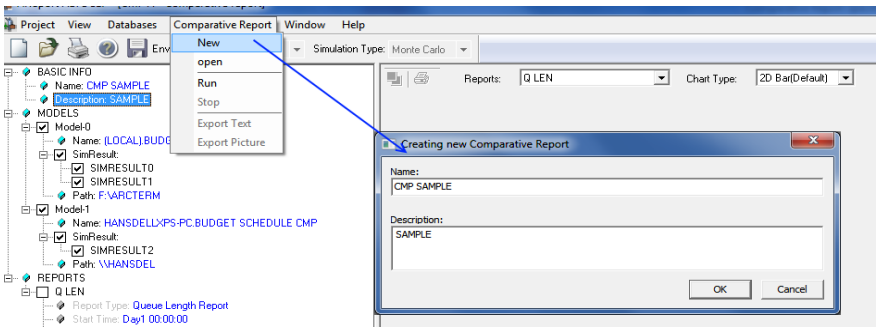
d. Landside: Non-Passenger Related can have set Parking Lots, Curbsides and Entry/Exits as a destination:



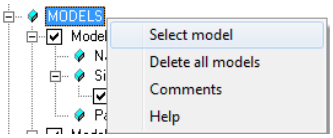
e. Airside NOTE on Baggage tug: When running Airside and Terminal with baggage tug and carts set on the airside, the correct configuration for the final pusher of the BHS in Terminal is *Hold Bags Until Next processor is available*:



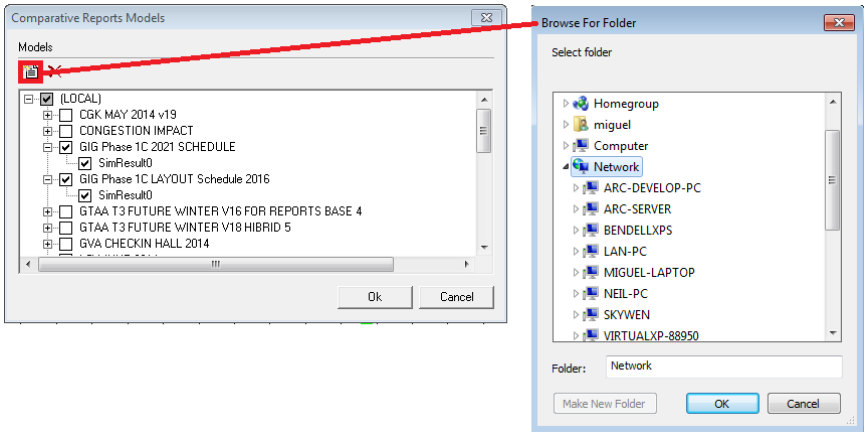
- **1.29.49.0 (Released on October 24, 2014)**
  - **a.** Internal software maintenance.
  - **b.** Comparative Reports: The purpose of Comparative reports is to compare the simulation results between models and runs which have different management settings, then give summary reports, presenting by data and graphs:
    - i. Start ArcPORT and select Comparative Report→New. In the Creating new Comparative Report insert the name and the description. You can also select Comparative Report→Open and a list of comparative reports will be shown to be selected.



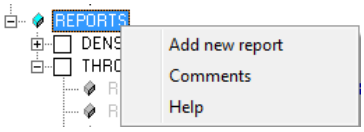
    - ii. Once the comparative report is created, the models &runs that will be compared should be selected. Right click on MODELS and select the models:



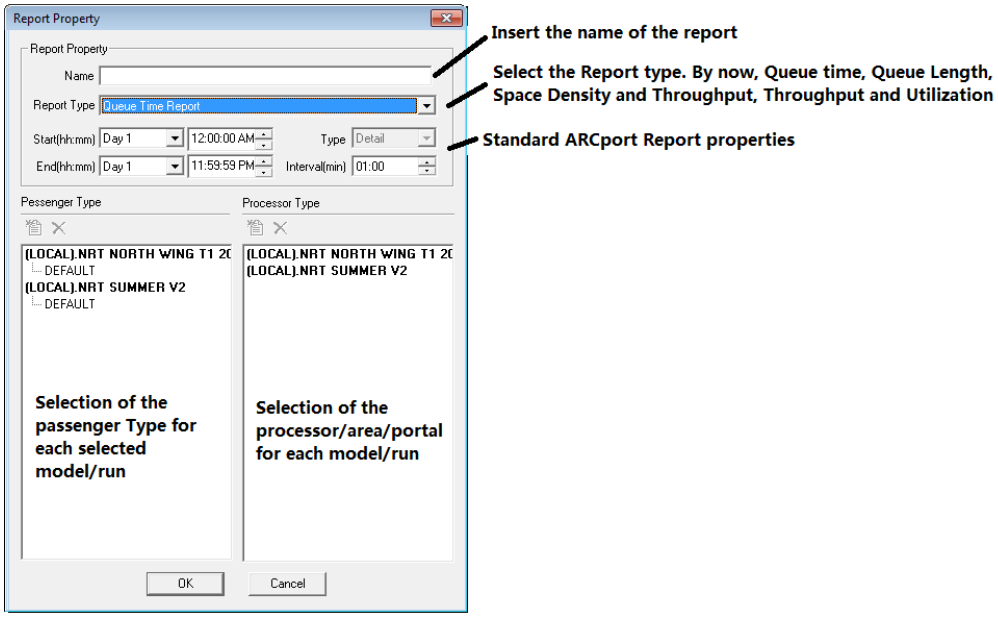
A GUI like below will pop up. You can also select models that are in other computer within your network:



    - iii. Third step is to select the reports to be run. Right click on REPORTS and select Add New Reports:



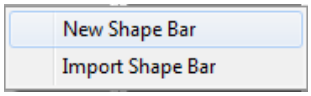
The report property GUI will pop up. This GUI behaves similarly than the standard report ArcPORT GUI:



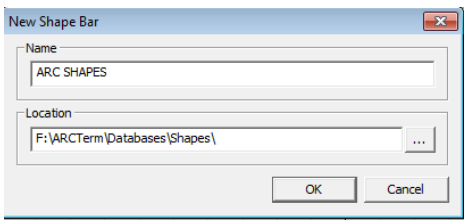
iv. Run the comparative report.

- **1.29.48.0 (Released on October 21, 2014)**
  This release needs to install first the **ArcPORT Resource Package 39.0** and **ArcPORT Admin Update 2.0**.
  a. Internal software maintenance.

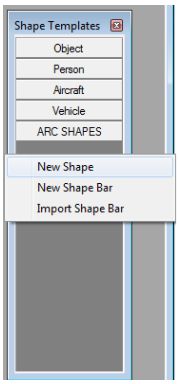
- **1.29.47.0 (Released on September 16, 2014)**
  a. Added functionality to import 3D shapes into ArcPORT. Users can create their own 3D shapes in DXF format and import them into any ArcPORT model:
  i. Right click on the shape bar and then click on *New Shape Bar*:



  ii. Give a name to the new shape bar you want to create and choose a

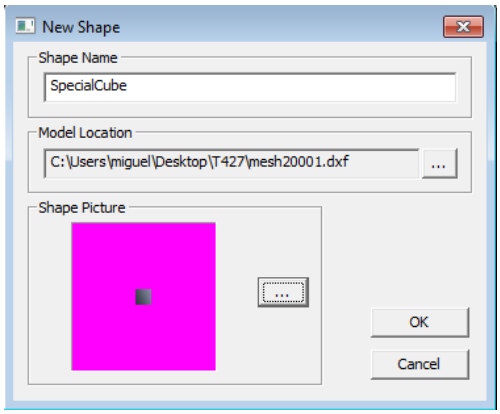


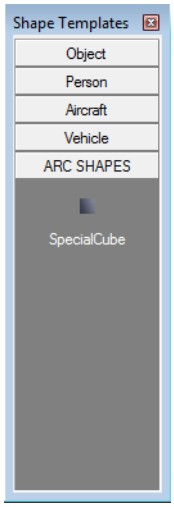
location. By default
the location will be under
DRIVE:\ARCTerm\Databases\Shapes,
but you can choose any other location:



iii. Once the new shape bar is created, right click to import a new shape into the bar:

iv. Give a name to the shape and select the dxf file and the view of the shape in the shape bar (normally a bmp picture). Click OK and the shape will be added to the new created bar:



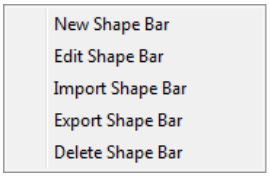


v. The new shape is ready to be used with all the characteristics and functionalities from the default ArcPORT Shapes available – array, rotate, raise, copy, scale, etc.

Note: If the shape is deleted from the bar list or the shape bar is deleted, all the processors using that shape/s will turn into a *Default* shape 

.

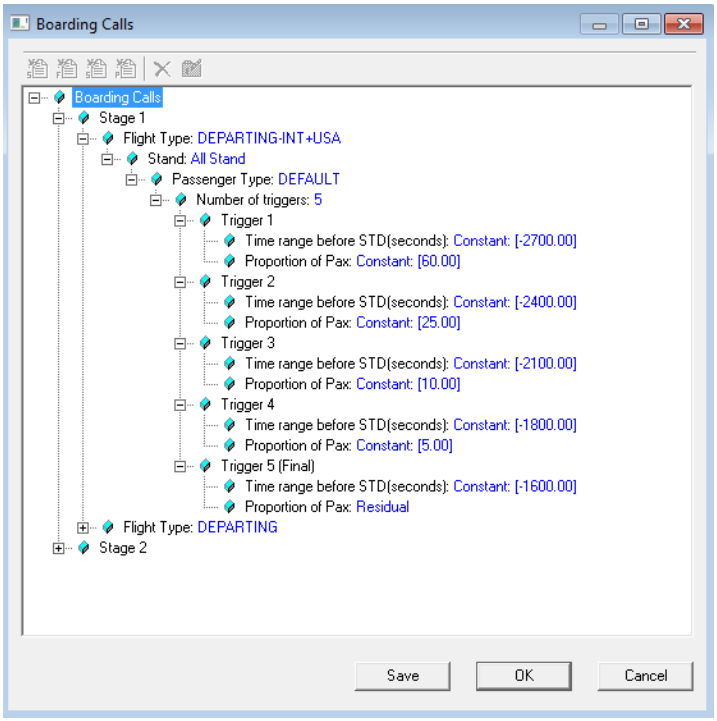
Note II: DXF files could be very big in size, thus, in order to keep the size of the model as light as possible, the user defined shapes are not exported when the model is exported. The new created shape bars can be exported in a zip file (by right clicking on the bar name) and be sent by email or other methods to and then be imported into a model:



b. Internal software maintenance.

- **1.29.46.0 (Released on August 28, 2014)**
  - **a.** Added the multi-run report functionality on the Reports→Aircrafts→Delays.
  - **b.** Internal software maintenance.

- **1.29.45.0 (Released on August 21, 2014)**
  - **a.** Internal software maintenance.
- **1.29.44.0 (Released on August 8, 2014)**
  - **a.** Implemented a new Boarding Call GUI that involves the following design:
    - i. Boarding calls are a function of Flight type, Stand, Stage and Named Passenger type. Note that this is the first instance in ArcPORT where we need to select Fight Type and named passenger types separately.
    - ii. The number of triggers, the time or occurrence of each trigger, and the proportion of passengers affected by each trigger, are themselves random variable (distributions) and the concept of a histogram is no longer valid.
    - iii. The final trigger will contain the residual proportion of passengers up to 100% that have not been assigned in previous triggers.



  - **b.** Extended the bridge functionality: one flight can be boarded using several bridges at the same time. Contact support@arc-us-ca.com for more information.
  - **c.** Improved the enroute Q functionality (Airside)

- **1.29.43.0 (Released on August 7, 2014)**
  - **a.** Internal software maintenance.

- **1.29.42.0 (Released on August 5, 2014)**
  - **a.** Internal software maintenance.

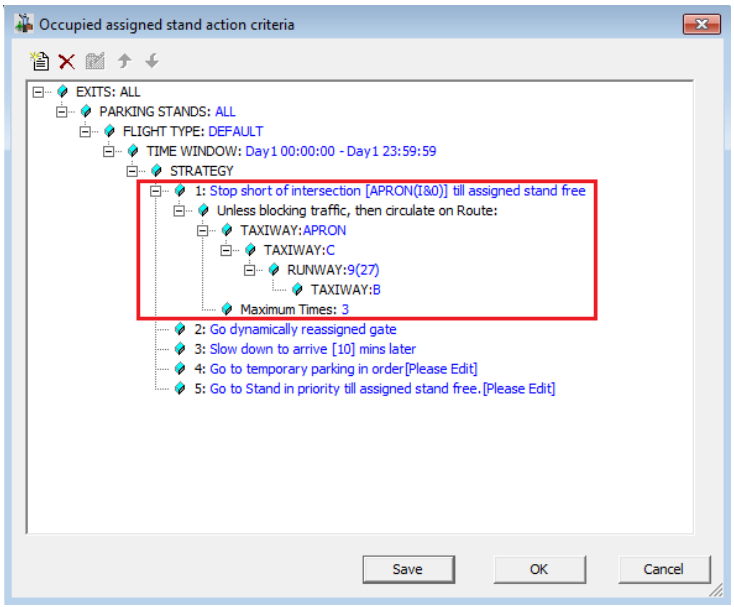
- **1.29.41.0 (Released on August 4, 2014)**
  - **a.** Internal software maintenance.

- **1.29.40.0 (Released on August 1, 2014)**
  - **a.** Internal software maintenance.

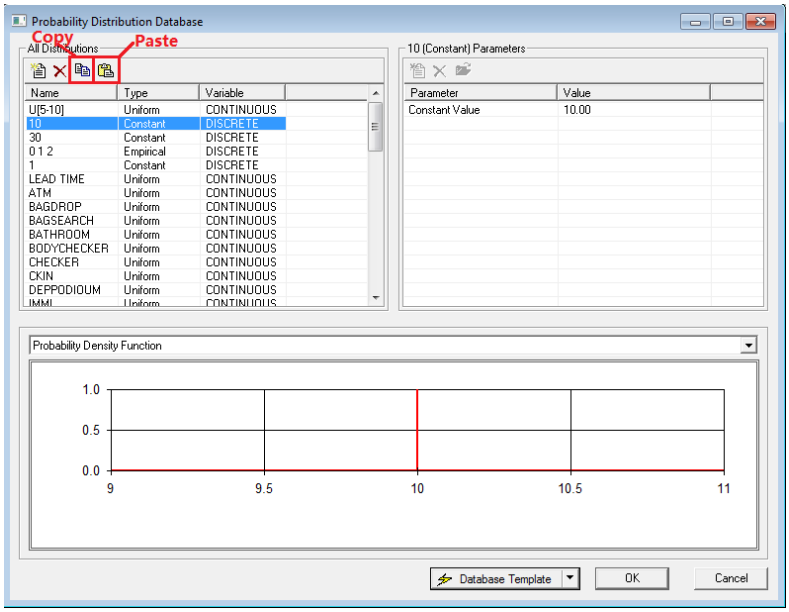
- **1.29.39.0 (Released on July 28, 2014)**
  - **a.** Fixed: Pushback conflicts (Airside).
  - **b.** Internal software maintenance.

- **1.29.38.0 (Released on July 18, 2014)**
  - **a.** Internal software maintenance.

- **1.29.37.0 (Released on July 15, 2014)**
  - **a.** Improved the Occupied assigned stand action criteria function by letting AC circulate on a specific route until the assigned stand is free (Airside):



  - **b.** Added a copy/paste function in the Probability Distribution Database (Terminal):

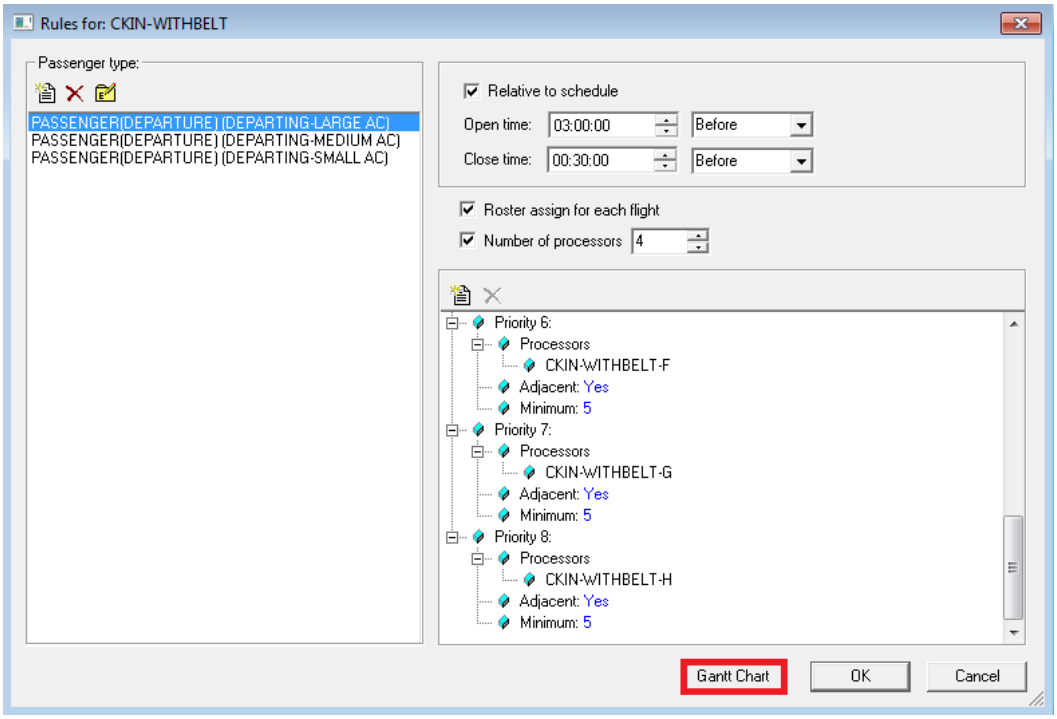


c. Added the functionality for defining Separations based on Approach Speed (Airside).

d. The direction of the curbside decision line will be automatically selected depending on the curbside passenger area location (Landside).

e. Added the Baggage Tug and Baggage Cart functionality (Airside): Bags in the pusher (usually last terminal processor for departure checked bags in terminal) will be picked up by Baggage Carts and brought to the Aircraft. On the other hand, arrival checked bags will be brought by Baggage Carts from the Aircraft to the arrival bag loaders (normally a line processor and the first terminal processor for arrival checked bags).

f. Roster improvement production version. Now we can see the Gantt chart and reposition all the check in allocation as we do with Stand, Arrival Gate and Departure Gate Assignment (Terminal):



g. Fixed compatibility issues with Windows 7.
h. Internal software maintenance.

- **v1.28.144.0 (Released on March 19, 2014)**
  a. Internal software maintenance.

- **v1.28.143.0 (Released on March 6, 2014)**
  a. Fixed: Animation of Baggage Tugs.

- **v1.28.142.0 (Released on March 5, 2014)**
  a. Internal software maintenance.

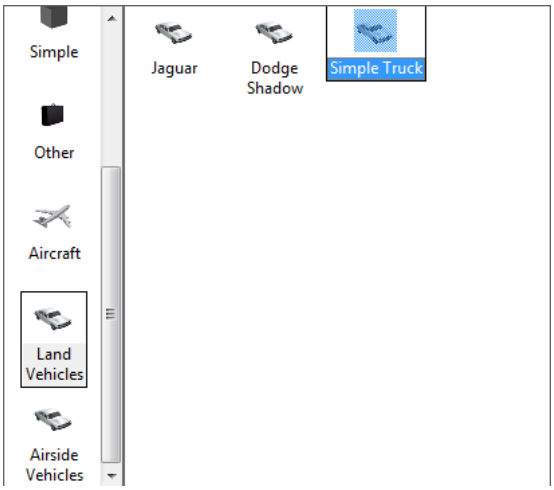
- **v1.28.141.0 (Released on March 3, 2014)**
  a. Internal software maintenance.

- **v1.28.140.0 (Released on February 26, 2014)**
  a. Internal software maintenance.

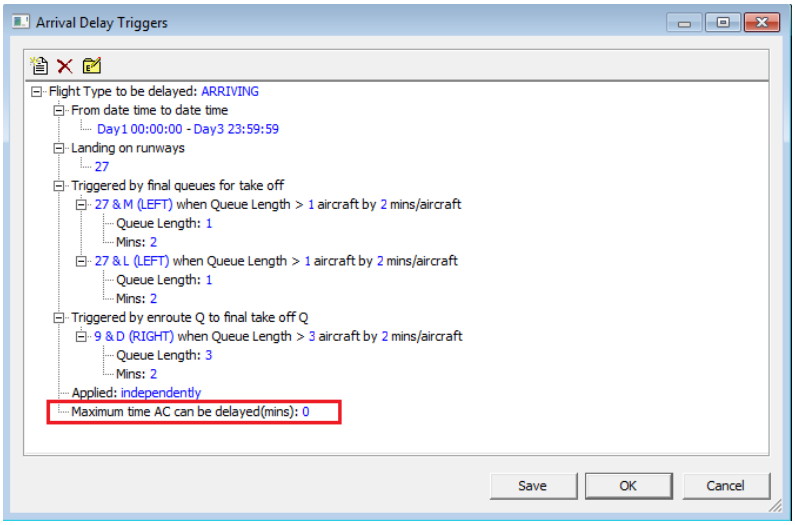
- **v1.28.139.0 (Released on February 20, 2014)**
  a. Internal software maintenance.

- **v1.28.138.0 (Released on February 20, 2014)**
  a. Internal software maintenance.

- **v1.28.137.0 (Released on February 19, 2014)**
  This release needs to install first the **ArcPORT Resource Package 36.0**
  a. Added the Simple Truck shape in the Terminal ME Display:

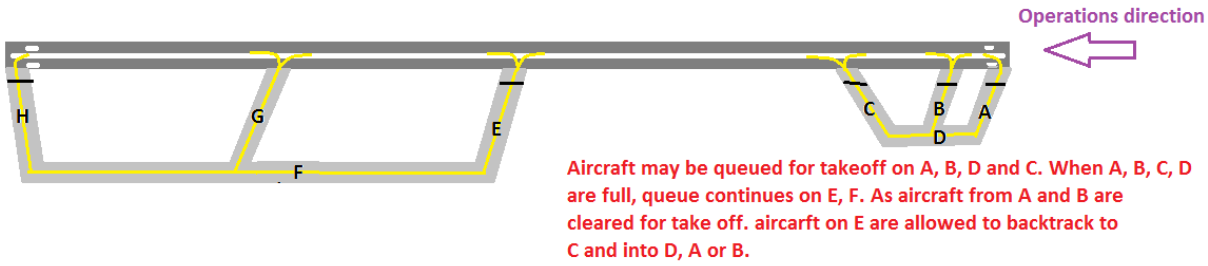


b. Added a constraint in the Arrival Delay Triggers GUI to avoid that a landing AC is delayed too much.



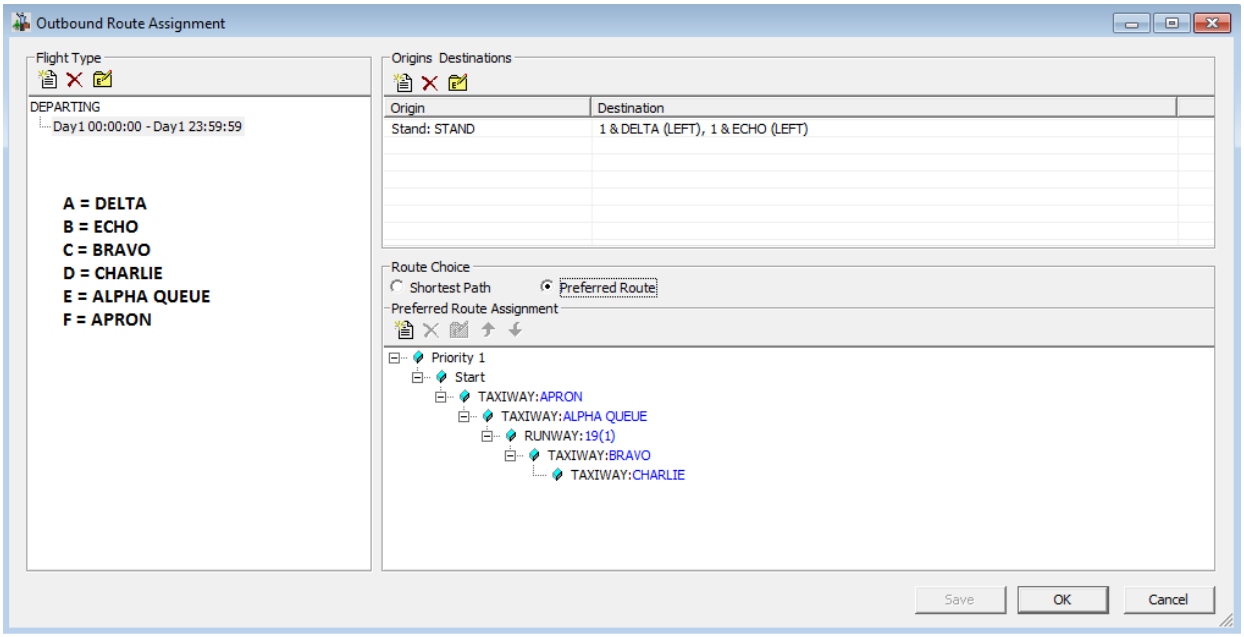
- **v1.28.136.0 (Released on February 15, 2014)**
  - **a.** Internal software maintenance.

- **v1.28.135.0 (Released on February 14, 2014)**
  - **a.** Added Enroute Q functionality to take into account when the runway is used in the outbound taxi route:

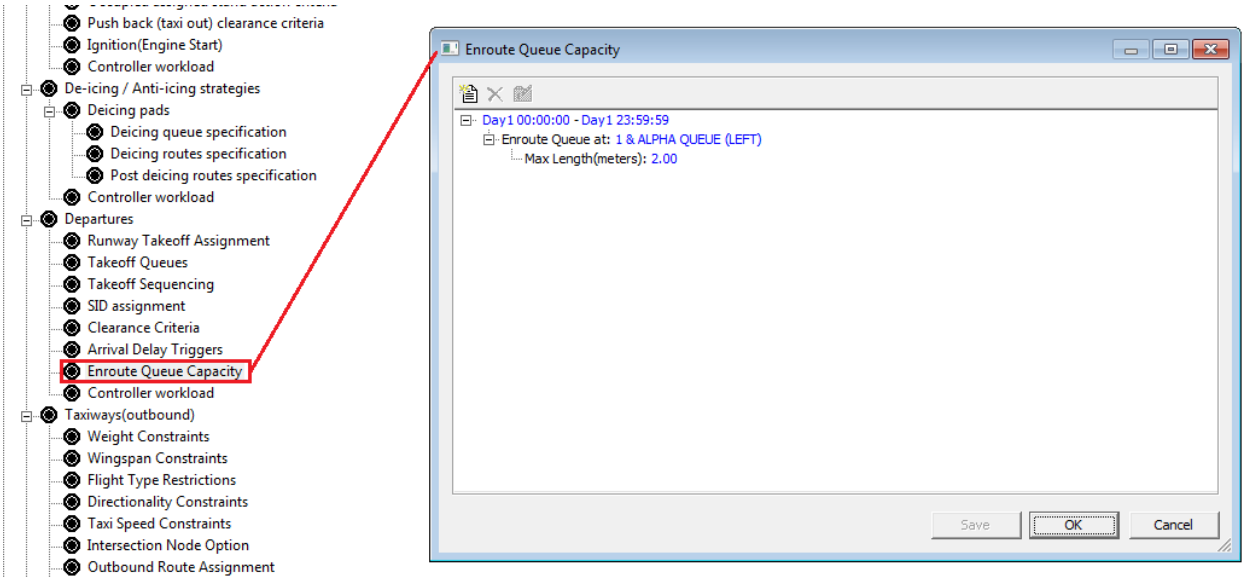


Follow below steps to set up the functionality:

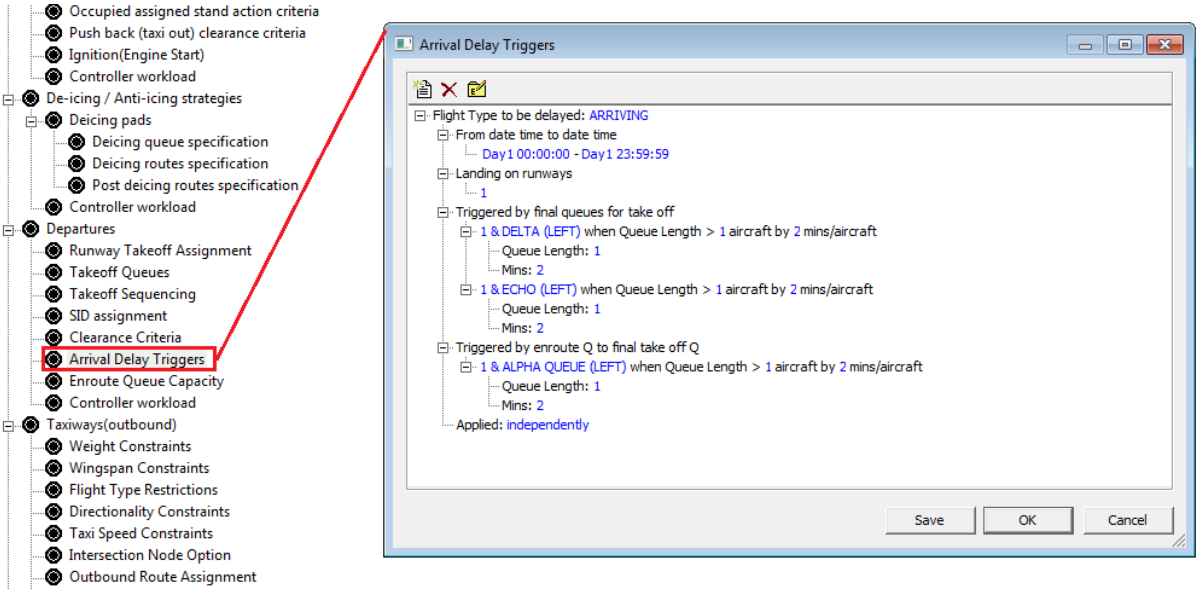
1. Define the outbound taxi route as follows:



2. Under Departures→Enroute Queue Capacity define the settings as desired, in the settings below if there is an aircraft waiting at E all others won´t push back. Note that while there is no aircraft waiting at E, several aircrafts might start pushing back:



3. Under Departures→Arrival Delay Trigger, define when an arrival will be delayed. In the case below, if there is one AC waiting either at Delta, or Echo or Alpha queue, an arrival will be delayed. Independently can be changed to Concurrently, which means that for delaying an arrival it must be one AC at Delta, one at Echo and one at Alpha queue.



- **v1.28.134.0 (Released on February 13, 2014)**
  - **a.** Internal software maintenance.

- **v1.28.133.0 (Released on February 11, 2014)**
  - **a.** Internal software maintenance.

- **v1.28.132.0 (Released on February 7, 2014)**
  - **a.** Internal software maintenance.

- **v1.28.131.0 (Released on January 27, 2014)**
  This release needs to install first the **ArcPORT Resource Package 35.0**
  - **a.** Internal software maintenance.

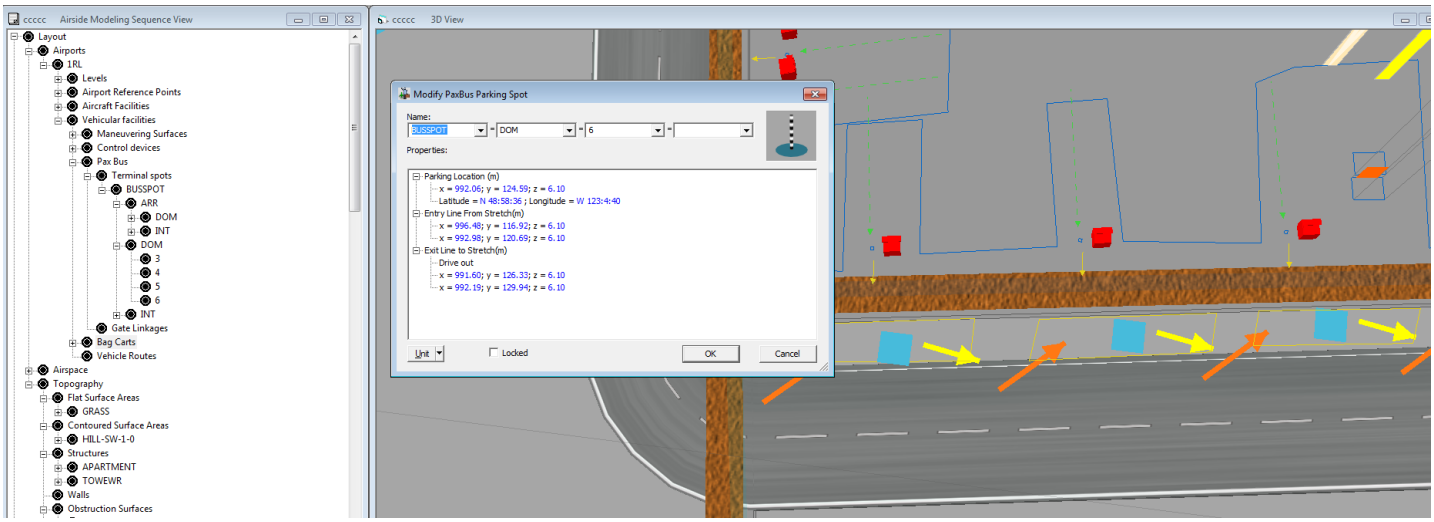
- **v1.28.130.0 (Released on January 23, 2014)**
  - **a.** Internal software maintenance.

- **v1.28.129.0 (Released on January 20, 2014)**
  - **a.** Internal software maintenance.

- **v1.28.128.0 (Released on January 17, 2014)**
  - **a.** Internal software maintenance.

- **v1.28.127.0 (Released on January 14, 2014)**
  - **a.** Internal software maintenance.

- **v1.28.126.0 (Released on January 10, 2014)**
    - **a.** Improved Bus parking using landside logic. Parking locations are now called bus spots and have: i) a Parking Location, which is a point where the head of the bus will be positioned, ii) an entry line from the stretch and iii) an exit line to the stretch.
      Gate linkages GUI that links parking positions and gates remains the same.



- **v1.28.125.0 (Released on January 7, 2014)**
    - **a.** Internal software maintenance.

- **v1.28.124.0 (Released on January 2, 2014)**
    - **a.** Internal software maintenance.

- **v1.28.123.0 (Released on December 19, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.122.0 (Released on December 18, 2013)**
    - **a.** Taxi pool Queue can be multiline.

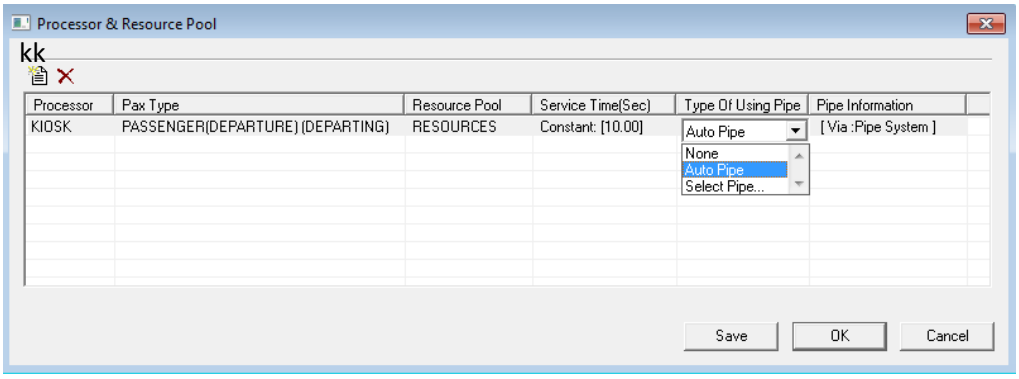
- **v1.28.121.0 (Released on December 13, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.120.0 (Released on December 10, 2013)**
  This release needs to install first the **ArcPORT Resource Package 33.0**
    - **a.** Landside upgrade.

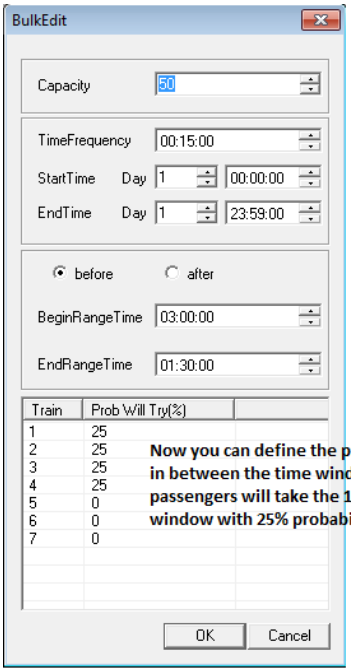
- **v1.28.119.0 (Released on December 9, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.118.0 (Released on December 5, 2013)**
  - **a.** Internal software maintenance.

- **v1.28.117.0 (Released on December 4, 2013)**
  - **a.** Added pipes in Resources, so they are able to follow pipes from the Pool to the processors.



  - **b.** New Bulk profile definition:

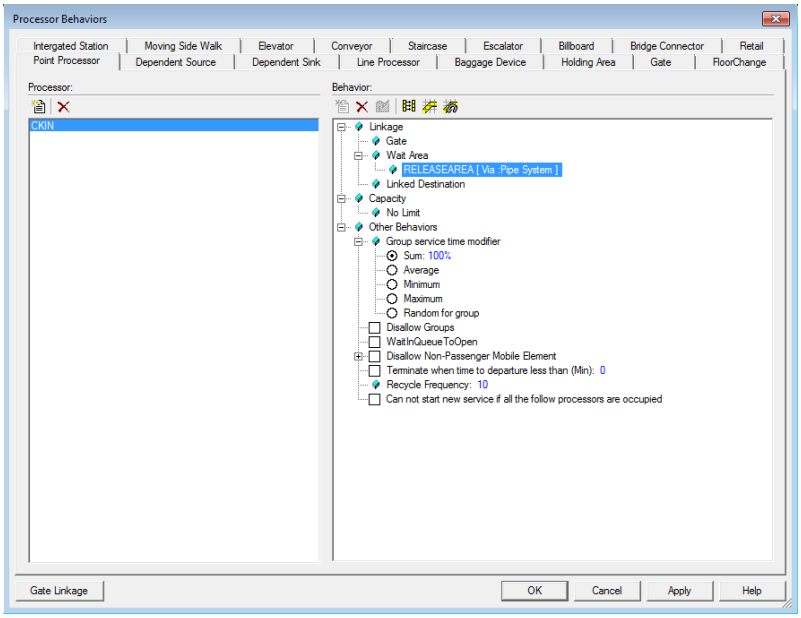


Now you can define the probability of the passengers to take a train in between the time window. So in this example we define that the passengers will take the 1st, 2nd, 3rd or 4th train in their time window with 25% probability each.

  - **c.** Improved the Target Level of Service algorithm.

- **v1.28.116.0 (Released on November 20, 2013)**
  - **a.** Internal software maintenance.

- **v1.28.115.0 (Released on October 30, 2013)**
  This release needs to install first the **ArcPORT Resource Package 32.0**
  - **a.** Fix: Import wizard in roster is able to import the seconds.
  - **b.** Deice pads can be used as normal stands.
  - **c.** Added pipes in Behaviors, so we can define if Passengers that wait in waiting area until processor is open should follow the pipes, as we do with the flow.



- **v1.28.114.0 (Released on October 28, 2013)**
  - **a.** Internal software maintenance.

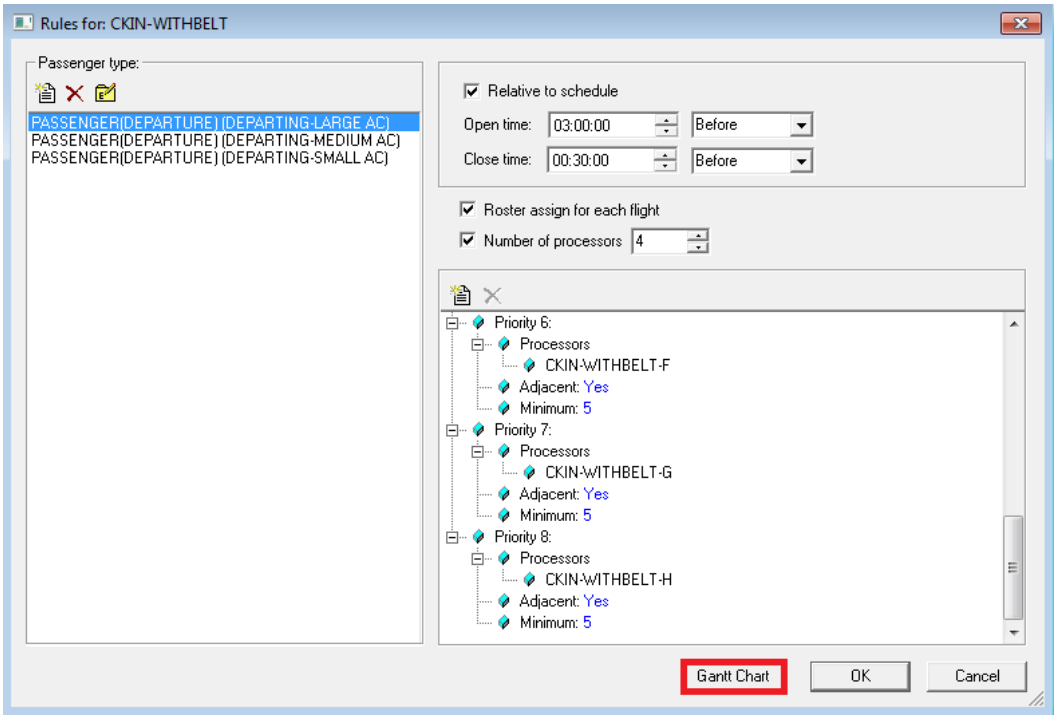
- **v1.28.113.0 (Released on October 25, 2013)**
  - **a.** Internal software maintenance.

- **v1.28.112.0 (Released on October 23, 2013)**
  - **a.** Internal software maintenance.

- **v1.28.111.0 (Released on October 21, 2013)**
  - **a.** Internal software maintenance.

- **v1.28.110.0 (Released on October 18, 2013)**
  This release needs to install first **ArcPORTAdminUpdate_1.8**.
  - **a.** Fix: Double bridge connect correctly with arriving flights.
  - **b.** Internal software maintenance.

- **v1.28.109.0 (Released on October 16, 2013)**
  - **a.** Roster improvement. Now we can see the Gantt chart and reposition all the check in allocation as we do with Stand, Arrival Gate and Departure Gate Assignment. **Note that this feature is still in alpha version and is only used during training; please do not use it in production models. We will have the final version of this feature in next releases.**



- **v1.28.108.0 (Released on October 2, 2013)**
  - **a.** Internal software maintenance.

- **v1.28.107.0 (Released on September 30, 2013)**
  - **a.** Added cellphone lot functionality in landside.

- **v1.28.106.0 (Released on September 29, 2013)**
  - **a.** Internal software maintenance.

- **v1.28.105.0 (Released on September 28, 2013)**
  - **a.** Fix: Passengers that wait in waiting area until processor is open follow the pipes to the processor from waiting area when released.

- **v1.28.104.0 (Released on September 27, 2013)**
  - **a.** Internal software maintenance.

- **v1.28.103.0 (Released on September 26, 2013)**
    - **a.** Fix: Vehicles stop at the crosswalks when passengers crossing.

- **v1.28.102.0 (Released on September 24, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.101.0 (Released on September 18, 2013)**
    - **a.** Implemented the Reorder function of taxi pools.
    - **b.** Implemented the curbside strategy in landside.
    - **c.** Implemented the Max. Stop time function.

- **v1.28.100.0 (Released on September 17, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.99.0 (Released on September 16, 2013)**
  This release needs to install first the **ArcPORT Resource Package 30.0**
    - **a.** Fix: Elevators accept Disallow groups when defined in a process.
    - **b.** Fix: Passenger smoothly move from the platform of the train station to the pipe.
    - **c.** Aircrafts bank in the simulation when turning.
    - **d.** Added Total Delay Report in landside.
    - **e.** Improved Delay Report in landside.

- **v1.28.98.0 (Released on September 10, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.97.0 (Released on August 30, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.96.0 (Released on August 29, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.95.0 (Released on August 27, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.94.0 (Released on August 20, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.93.0 (Released on August 19, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.92.0 (Released on August 14, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.91.0 (Released on July 31, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.90.0 (Released on July 24, 2013)**
    - **a.** Fix: Boarding call and Passenger Bus conflict.

- **v1.28.89.0 (Released on July 18, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.88.0 (Released on July 17, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.87.0 (Released on July 10, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.86.0 (Released on July 5, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.85.0 (Released on July 2, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.84.0 (Released on June 28, 2013)**
  This release needs to install first the **ArcPORT Resource Package 29.0** and the **ArcPORT Admin Update 1.7**.
    - **a.** Change lane behavior improved.
    - **b.** Fix: Bulk profile capacity is shared among all the flights in the schedule.

- **v1.28.83.0 (Released on June 26, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.82.0 (Released on June 24, 2013)**
    - **a.** Improved animation performance.
    - **b.** Added *Entry* and *Exit Position* columns in Landside Vehicle Activity Report.
    - **c.** Fix: Check capacity queues when there is queue jumping.

- **v1.28.81.0 (Released on June 20, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.80.0 (Released on June 19, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.79.0 (Released on June 18, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.78.0 (Released on June 6, 2013)**
  This release needs to install first the **ArcPORT Resource Package 28.0.**
    - **a.** Fix: AC color display.
    - **b.** Internal software maintenance.

- **v1.28.77.0 (Released on June 1, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.76.0 (Released on May 24, 2013)**
  This release needs to install first the **ArcPORT Resource Package 27.0.**
    - **a.** The "*Preferences*" button under *Gate Assignment → Stand linkage* is called now "*Constraints*". The reason is because now, besides setting the gate assignment time and the overlap within flights, it will also restrict the gate to the specified flight. So only flights belonging to the specified flight type will be assigned to the gate.
    - **b.** Vehicles in Landside are able to overpass stopped vehicles using other stretch lines.
    - **c.** Added new textures in the surface structures in Airside.
    - **d.** Internal software maintenance

- **v1.28.75.0 (Released on May 22, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.74.0 (Released on May 20, 2013)**
    - **a.** Internal software maintenance.

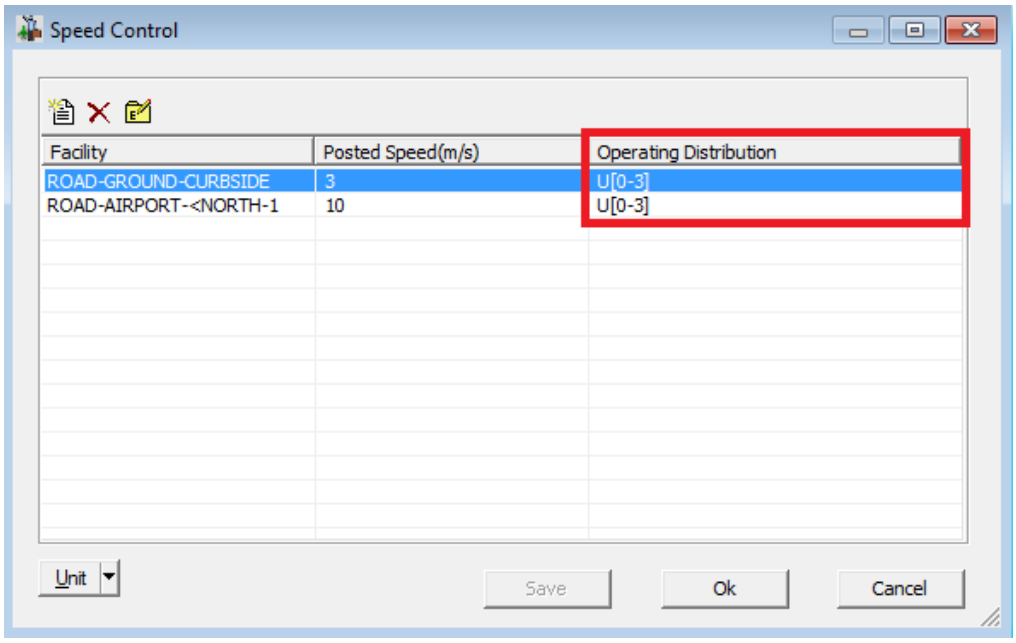
- **v1.28.73.0 (Released on May 17, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.72.0 (Released on May 16, 2013)**
    - **a.** Internal software maintenance.

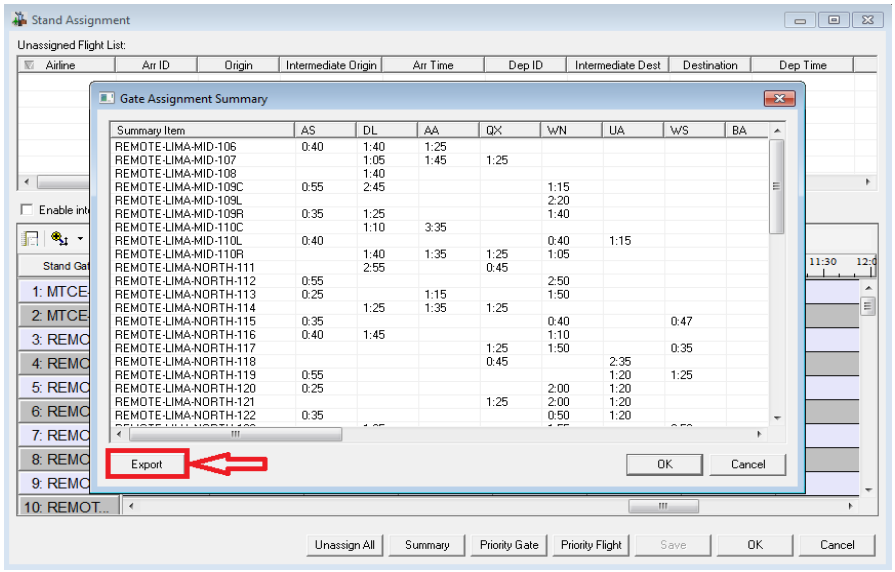
- **v1.28.71.0 (Released on May 15, 2013)**
    - **a.** Internal software maintenance.

- **v1.28.70.0 (Released on May 8, 2013)**
    - **a.** Memory usage when recording videos has been improved.

- **v1.28.69.0 (Released on May 3, 2013)**
  - **a.** Fix: Video Recording problem - sometimes passengers and processors don't appear in the recorded video.
  - **b.** Added the *Operating Distribution* functionality to the Speed Control GUI in the landside.

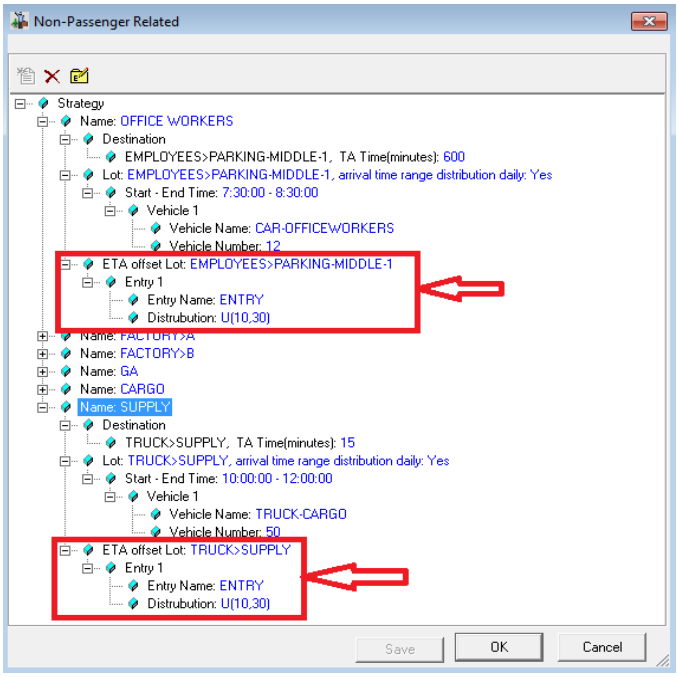


- **v1.28.68.0 (Released on April 28, 2013)**
  - **a.** Stand allocation summary report can be exported to CSV now.



b. Fix: Disallow groups jumping from the out constraint to the meeting point. Now passengers go in a constant movement to the meeting point.

c. Added ETA offset distribution in landside for non-passenger related vehicles.

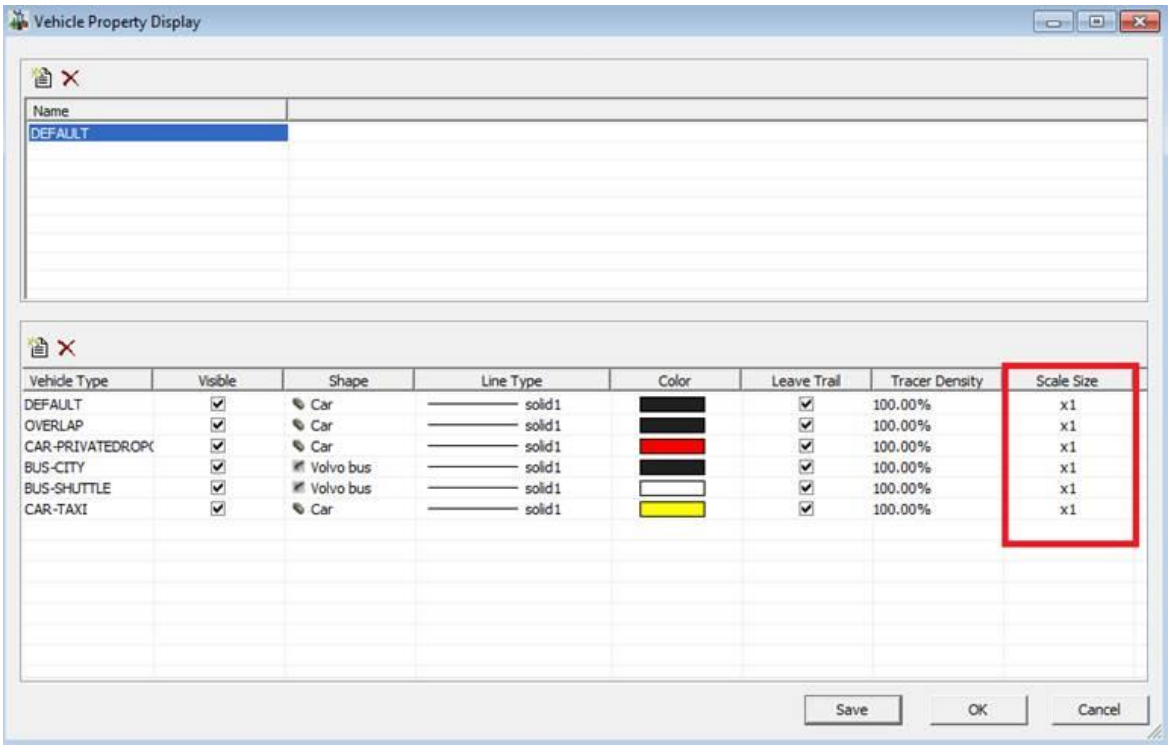


d. Internal software maintenance.

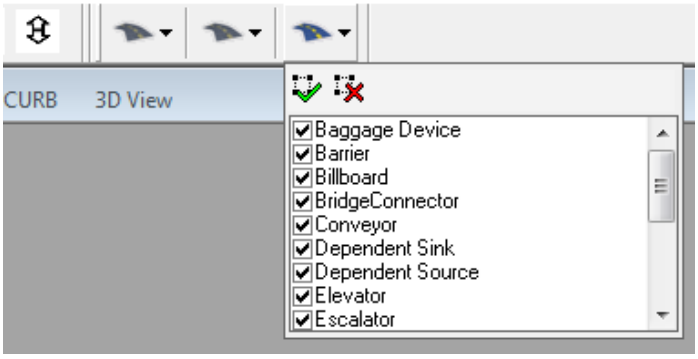
- **v1.28.67.0 (Released on April 23, 2013)**
  - **a.** Fix: Vehicles will stop in front of crosswalks if passengers are crossing.
  - **b.** Fix: 1:1 between landside curbside and terminal curbside in Facility Behavior GUI.
  - **c.** Internal software maintenance.

- **v1.28.66.0 (Released on April 22, 2013)**
  - **a.** Internal software maintenance.

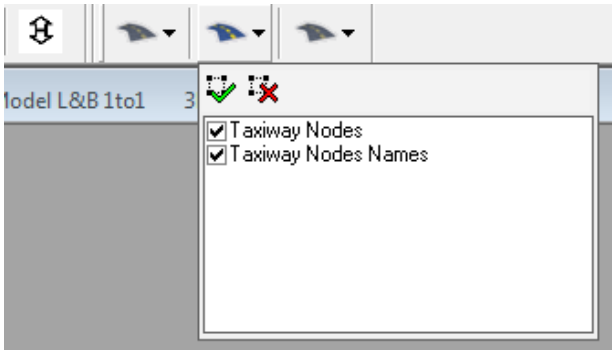
- **v1.28.65.0 (Released on April 17, 2013)**
  - **a.** **Vertical scale of landside vehicles** that will allow you to see vehicles more clearly from a faraway view. You can set this up on the vehicle display GUI, similarly as we do with the aircrafts in airside. You will need to click this button  to activate the feature.



b. **Hide/Show processors by type GUI** that will allow you to choose which type of processor want or do not want to see on terminal side.



c. **Hide/Show taxiways nodes and their names GUI** that will allow you to see where taxiways joints are.



d. **New vertical profile GUI** that will allow you to choose two points in a different vertical position (with several points in between) and make a constant slope between those two points, automatically aligning all the points in between to the slope.