BagGEN

Introducing BagGEN

BagGEN is Analytical Decisions' tool designed to assist Airports, System Designers and Baggage System Users in quantifying baggage system requirements and developing and validating designs.

BagGEN is used directly for fast turnaround studies and preliminary design work and its results are also used to drive dynamic models and simulations.

BagGEN can be used for many purposes, for instance to evaluate the impact of different schedule and passenger behaviour; and to provide data for performance demonstrations.

With BagGEN, Analytical Decisions is able to offer accurate and informative results extremely quickly to support you whether you are designing or assessing baggage handling systems.

BagGEN Approach

BagGEN is designed to take basic flight schedules and convert them into bag by bag information for both direct and transfer passengers.

The tool takes account of many factors such as: check-in reporting profiles, minimum connect and check-in times, transfer dwell characteristics, bag per passenger ratios, manual coding requirements and hold

7% BagGEN	_ 🗆 ×
Actions Help	
Management Direct Transfer Build Plan Containers L3 and MC Analysis	
Minimum Check-In Time	Characteristics File check-in_data2.txt
CLong Haul Premium	-
Alpha 6.5 Alpha 6.4	-
Beta 15.6 Beta 12.5	-
Cong Haul Economy	Domestic
Alpha 5.9 Alpha 7.3	Alpha 4.0
Beta 19.2 Beta 12.2	Beta 16.8
Cong Haul Premium Fraction — Chort Haul Premium Fraction —	Bags Per Terminating Passenger
0.45 0.20	1.13
nanscip- main::updateOrderReady	

baggage screening. Not only does BagGEN produce bag-related data, but it also produces segregated container allocations.

The resulting data can be used with BagGEN's own internal analysis capability, used as inputs to other models or analysed by external programs.

BagGEN Features

BagGEN incorporates a scenario management function which means that it is easy to manage multiple what-if scenarios and studies.

By using Analytical Decisions' unique TransMATCH



algorithm, Bag GEN is capable of creating realistic flight to flight transfer matrices from simple schedules that do not normally contain such information. The TransMATCH algorithm has been developed as a result of Analytical Decisions' research into observed transfer characteristics.

The UK has operated a 100% hold baggage screening protocol for a number of years. BagGEN has capitalised on this and accurately represents real-life HBS experience in its results.

BagGEN includes a smart ULD (container) packing algorithm that models the actual way that ULDs are typically used and packed.

Real-life Results

The tool takes care to ensure that the key correlation effects are properly modelled. So, for instance, not only can manual coding be set to operate on a random bag by bag basis, but also on a flight by flight basis. This means that actual peak demands on functions linke HBS or manual coding are generated.

BagGEN has been developed and extensively validated against actual airline and airport data.