

Terminal Management System

A modular suite of resource allocation tools

Global Aviation Industry

To remain competitive and achieve sustainable profitability in the global air transport industry, airport operators must address the many challenges facing the industry today and beyond.

As demands on existing infrastructure grow in response to increasing slot demand and passenger growth, airport operators need to find costeffective ways to economically manage airport resources on the day-of-operation and plan effectively into the future.

To address these challenges, airport operators need to adopt reliable and proven IT solutions that help them manage growth without compromise, and at the same time meet and exceed the demands of their customers.

Airport Resource Allocation System

Terminal Management System (TMS) is a modular suite of resource allocation tools that are used to reliably manage a wide range of airport resources. The integrated airport suite is designed as both a real-time resource management system and as an advanced multiscenario planning tool.

TMS comprises distinct modules, capable of working together or as stand alone resource management applications. Individual modules include Gate, Towings, Check-in and Baggage.

Terminal Management System Real-Time Resource Management



Fig.1Terminal Management System Resource Management







Fig.3 Gate Gantt - Display Gate Information For Flights





Fig.4 Terminal Management System Planning Modules



Fig.5 Standard Stand Gantt - Stand Allocation Dialog

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Fig.6 Scenario Console - TMS Schedule Editor

Gate and Stand Allocation

The gate module maximizes the utilization of apron parking and passenger handling resources by allocating flights to the most appropriate parking positions and passenger gate lounges.

Using airport and customerdefined mandatory and operational business rules, Gate determines the best overall resource allocation solution for an airport's schedule - both operationally and in a forward planning environment.

In the event of flight delays or other operational disruptions, Gate can quickly and easily reassign gate resources to minimize potentially costly impacts. For analytical and forecasting purposes, Gate offers a reporting add-on module (Gate Reporter) that provides detailed analysis of planning and historical data. The multi-dimensional view of information allows convenient 'slice and dice' and drill down analysis.

Supplementary operational viewing tools, including Airport View, Web View and Arrival Flights Display are also available for enhanced visualization of allocations and real-time activity at gates and stands.

Check-in

The check-in module facilitates the planning and day-of-operation management of an airport's landside and airside check-in and service desk requirements. Checkin uses mandatory requirements and operational business rules to optimally allocate desk resources based on the demand for departure flight processing and other flight related passenger servicing needs.

Baggage

The baggage module provides airports with a mechanism to handle arrival baggage carousel allocations in both real-time and planning mode. Taking into consideration the configuration of each baggage resource and essential business rules, Baggage will optimally allocate baggage carousels and continually assess the suitability of each allocation in response to ongoing changes of flight information.

Our Customers

TMS customers include Gatwick, Heathrow, Stansted (UK), Auckland International (New Zealand), Beijing Capital International (China), Hong Kong International (China), Ben Gurion (Israel), Stockholm Arlanda (Sweden), Vancouver International (Canada), Kuala Lumpur International (Malaysia).

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Fig.7 Ground Resource Process

Business Benefits

Revenue can be increased due to:

- More efficient use of existing airport resources
- Improved short and long-term capacity planning, through the identification of resources excess or shortage
- Accurate movement data for airline billing
- Improved service levels and increased customer satisfaction.

Operating costs can be decreased due to:

- Improved disruption management
- Reduction in operator workload
- Better management of infrastructure and resources
- Optimization of future investments in infrastructure through better planning and timing.



Fig.8 Daily Assigned Staff Gantt Chart



Level 7, 224 Queen Street Melbourne VIC 3000 Australia

Telephone +61 3 9604 9800 Facsimile +61 3 9602 2124

UK Office Riverbridge House, Guildford Road Leatherhead, Surrey, KT22 9AD UK Telephone: +44 (0)1372 365729 Mobile: +44 (0)7968 847345