ARCAS™





Airside Slot Capacity Assistant

Advanced flight schedule management for airports and airlines

In the face of increasing traffic, airports and airlines have to make continuous efforts to keep up with rising capacity demands.

Successful airports and airlines of tomorrow will only emerge by comprehensively assessing and selectively over-hauling management processes that are used today.

Together with Frankfurt Airport (managed by Fraport AG), one of the busiest airports in Europe, Barco has developed ARCAS, a modular information system for flight schedule and slot management.

ARCAS increases efficiency and transparency in flight schedule processing, reporting, mismatching and distribution to significantly improve service quality and airside capacity resource utilization.



A precise basis for flight schedule management

For airports, airlines and coordinators



Simulation of slot constraints

ARCAS is an innovative solution, which streamlines the workflow among the various airport departments involved in slot reporting, analysis and operation. This improves productivity by freeing up human resources for more complex support tasks and decision processes.

In detail, ARCAS can simulate the airport slot availability with respect to given limitations and constraints like:

- Number of runways and gates
- Aircraft size
- · Night movements
- Noise points and more ...

As a result, ARCAS allows to survey at a glance the existing slot situation and therefore supports the efficient exploitation of airport slots.

Any free slots available?

Handling of slot inquiries in a way that satisfies airline needs and provides optimum utilization of airport resources is becoming an increasingly complex challenge for many airports.

On request, the system identifies free slots for a single flight or a season flight schedule within a given period, specific traffic days and time tolerance.

Nevertheless, ARCAS does not replace the regular slot allocation procedures of airport coordinators.

Automatic report distribution

Automated distribution of up-to-date flight schedule information and any other data connected to ARCAS provides a powerful service for internal and external customers. Each user has the option to define individual reports or letters and assign them to recipients. The flight schedule information is sent via fax or e-mail in various file formats such as Excel, PDF or ASCII.

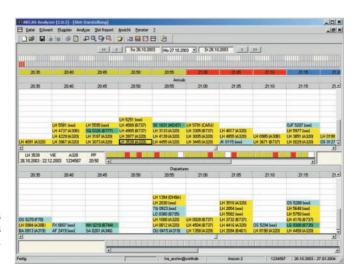
User-defined statistics

Detailed statistical information e.g. about arrivals and departures grouped by airline or destination and comparison with other flight schedule versions can be generated according to the user's needs.

With the built-in slot report the system provides detailed information about slot utilization, on a monthly, daily or hourly basis. If required, ARCAS calculates the slot progression and counts free slots for any flight schedule period available in the database. All statistics can be exported into Excel format for further usage. This forms a valuable basis to support overall process optimizations.

Waiting lists

ARCAS allows to maintain and evaluate a waiting list to support active slot marketing in compliance with given slot constraints. Flight schedules can be added or changed by use of the built-in flight schedule editor.



View by slot, showing details regarding arrivals and departures over a period of three days.

Analysis Reporting Simulation Statistics

Features and capabilities

Schedule quality control

By using ARCAS, it is possible to map the workflow of collecting, processing and distributing flight schedule related data into an automated process. Complete flight schedule seasons can be analyzed and converted into valuable information to support operational needs or evaluate past traffic characteristics in detail.

A pre-configured quality control process is available to match real flights with the original schedule to identify misuse of slots.

Flight schedule mismatching

ARCAS not only helps to analyze the slot situation and to process flight schedules, the system automatically identifies mismatches between flight schedules from different sources or to periodically apply user-defined data integrity checks. As a result operational disruptions are reduced significantly.

Simulation of slot constraints

What happens to the overall slot situation if the airport resource capacity is varied, for example if there are more gates or an additional runway?

ARCAS allows the modeling of complex slot limitation rules and provides answers to such questions within minutes.

Easy integration

ARCAS is an open system composed of individual modules and highly configurable services to allow integration into existing infrastructures and processes. Thanks to its flexible design, changes or functional adaptations according to individual needs are possible in short time and at low costs.

Built-in interfaces enable export of reports and statistics in Excel, PDF, RTF and other formats.



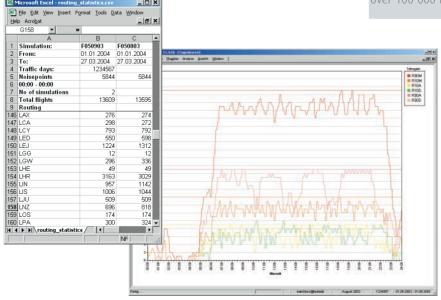
ARCAS in operation at Fraport AG

Since June, 2002 ARCAS is successfully operational at Frankfurt Intern. Airport, responsible for the following tasks:

- Simulation of slot limitation rules
- Slot search and marketing
- Visualization of slot availability
- Mismatching of flight schedules between Fraport and coordinator
- Automatic report generation & distribution via fax and e-mail
- Statistical evaluations, slot reporting



During that time ARCAS has processed more than 30 mill. flights and sent out over 100,000 reports.



View by day, showing the development of slot utilization over a one day interval.

Product Specification

System characteristics

ARCAS is an open system for flight schedule reporting & distribution, slot analysis, mismatching and more. ARCAS is highly configurable for system fine tuning and easy integration into existing infrastructures and processes. Built-in interfaces enable export of reports and statistics in Excel, PDF, RTF and other formats.

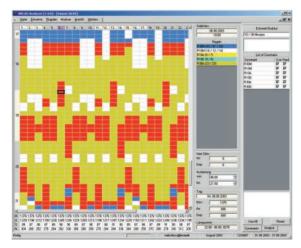
Function overview

- Simulation of slot constraints
- Visualization of slot availability
- Comprehensive slot search (waiting list)
- Automatic report generation & distribution
- User-defined statistics including Excel export
- Mismatching & product quality control
- Flight schedule editor
- Flight schedule optimization (e-conX plug-in)

System requirements

- Windows 2000
- Oracle Database
- Pentium III 500 MHz
- 256 MB RAM
- Fax Server (optional)

View by season, showing slot utilization within the period of a simulation.



Your contact for ARCAS

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Technical specifications are subject to change without prior notice.

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