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Airport-Manager: Your Advantage

irport-Manager helps the specialist in ground handling service, passenger service, aircraft cleaning, deicing, freight transport or baggage handling, to quantify flight schedule dependent operations according to handling rules for subsequent evaluation directly from the flight schedule.

The decisions taken may concern:

- strategic planning in form of customer scenarios
- traffic scenarios
- airport scenarios
- fluctuations in the requirements to reflect seasonal flight schedules
- operations scheduling based on short-term flight schedule information
- evaluation of previous flight schedule days for controlling purposes.

Apart from the timing aspect, Airport-Manager also offers a wide range of possibilities for resource models. The user can set up resource models for

- personnel
- equipment
- facilities

Airport-Manager improves the efficiency of the staff in such areas as

- processing flight schedules
- setting up personnel shift plans
- determining requirements for new equipment and for replacements
- determining the number of staff required on counters
- or evaluation of alternative proposals

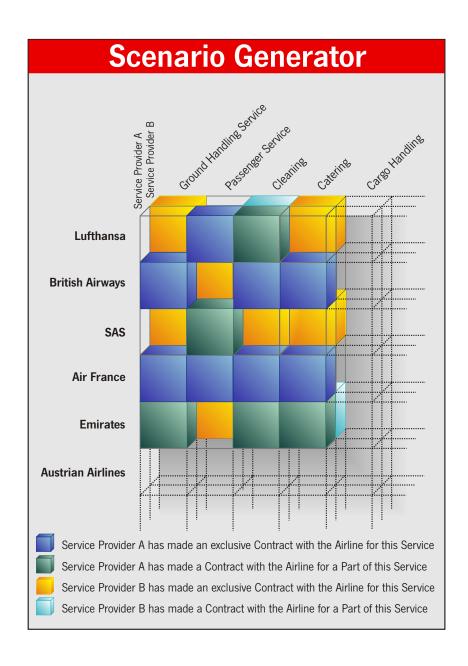
which in turn positively affects the quality of your decisions.



The Task

omplex routines look like chaos. This sentence is a very accurate description of the situation to be found at airports. The flight schedule defines a certain routine, providing a basis for almost all the procedures at the airport: however, the multitude of participating units (resources), the multitude of processes involved

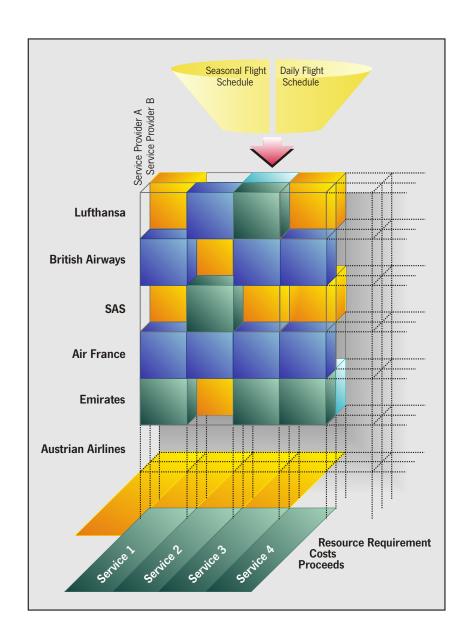
(flights) and the infinitely possible number of combinations of the various market participants (ground services operators) all combine to upset this routine, thus restoring chaos. This applies to all those people, who are not in possession of the appropriate tools for the study and evaluation of handling processes.



Airport-Manager - We Turn Data Into Information

his is the starting point for Airport-Manager. We exploit the flight schedule as a central source of information for resource requirement, shift planning and to plan and control profits and

costs. Our customers' goal is to ensure competitive market pricing by efficient and requirement oriented resource planning.



Our Market Position

e have been offering airport IT management systems on the market since 1993.

Currently the following customers use Airport-

Manager for multifarious tasks from flight schedule evaluation and resource requirement determination to real-time dispatching:

- **▶ ▶ Flughafen Hamburg GmbH (HAM)**
- ▶ ▶ CATS Cleaning and Aircraft Technical Services GmbH (HAM)
- ▶ ▶ Groundstars GmbH & Co. KG (HAM)
- Fraport AG (FRA)
- Salzburger Flughafen GmbH (SZG)
- Secport Security Services GmbH (SZG)
- Portground Abfertigungsgesellschaft mbH (LEJ, DRS)
- Portway, handling de portugal s.a. (LIS, FAO, OPO)
- Acciona Airport Services (MAD, PMI, FRA)
- Billund Lufthavn A/S (BLL)
- Flughafen Graz Betriebs GmbH (GRZ)
- Dornier Consulting GmbH
- University of Applied Sciences Wildau
- Hannover Aviation Ground Services GmbH (HAJ)
- Airline Assistance Ground Handling AG (ZRH)
- Air-Transport IT Services, Inc. (LED)
- Flughafen Frankfurt-Hahn GmbH (HHN)
- Celebi Ground Services Austria GmbH (VIE)
- Wieprecht Gebäude-Management und Reinigungs-Service GmbH & Co KG (MUC)
- Flughafen Linz GesmBH (LNZ)

Airport-Manager Planning

Method

ur customers have the know-how in the form of personnel requirements, price tables and airline contracts. We provide the tool to deposit this knowledge in a system that quantifies the individu-

al components in combination with the flight schedules and summarises respectively evaluates the concurrence of resource operations.

Flight Schedules **Handling Parameters** Generating of Seasonal Flight Schedule Definition of Main and Sub Resources Importing of Seasonal Flight Schedule Classification According to Common Exporting of Daily Flight Schedule Operation Behaviours Key and Parameter Setting According to Management of Daily Flight Schedules Aircraft Positioning Arrival/Departure Time in Order to Group Flight Linking Flights of the Same Kind Calibration of Parameter Deviations from Standard Resource Operations Application of Parameters to Each Flight Schedule Record Adjustment of Ground Time Dependent Parameters for Short Ground Times Decision between Ground Time Handling and Seperated Unloading and Loading Optimization of Man Minute Resources (e.g. Cleaners) Optimization of Handling Operations for Long Ground Times Graphical Display of Flights and Corresponding Resource Operations Capability of Editing Resource Operations in Graphic or Text Mode Requirement Graph Filtering Function for Fast Scenario Calculation Evaluation of Concurrent Resource Operations for Each Minute Stacked Graphic for Different Resources Function to Eliminate Short Term Peaks Peak Value Analysis Showing Every Single Handling Operation Shift Planning System Shift Definition Shift Model Definition Modelling of the Optimum Number of Personel per Shift and Shift Duration, Start and End Times for Each Shift Utilization, Overlapping, Underlapping etc. as Figures and as Graphics Comparison with Other Runs Export of Shift Planning Results

Our algorithms are automated methods for airport planning and not adopted theories from other areas, which have nothing to do with airports. Thus, rapid and practical results are possible, as our customers regularly confirm.

You want to calculate and evaluate customer (airline) scenarios without all the effort of setting up

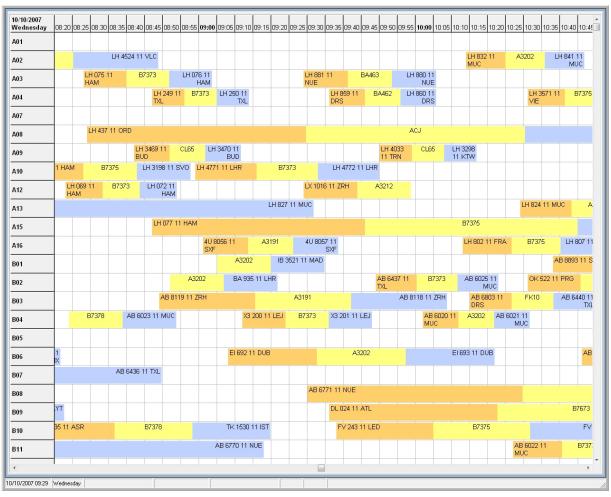
parameters? Due to the user friendly selection of airline filters, by using Airport-Manager, you can create such scenarios in any number almost within minutes. This program feature is a very frequently used function together with the flight schedules of other airports.

Airport-Manager Planning

irport Manager gives you a graphical user interface to the flight schedule. It allows you positioning of aircraft on parking positions, linking and unlinking of flights and comfortable editing of inbound and outbound times. All changes are updated immediately in the flight schedule browser.

Flight Schedule Processing

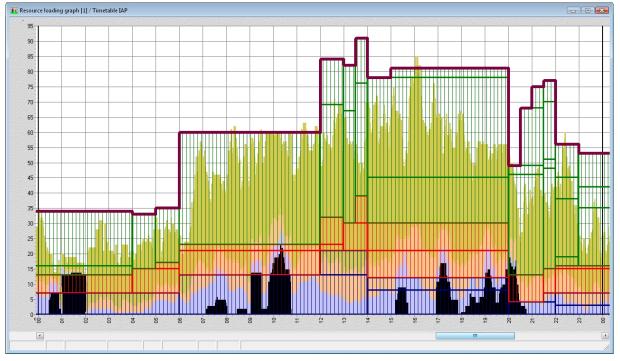
In addition to that Airport-Manager offers tools in the flight schedule table to find matching Inbound and Outbound pairs. With adjustable rules also automatic linking of flights is possible, which gives a very good result within a few seconds.



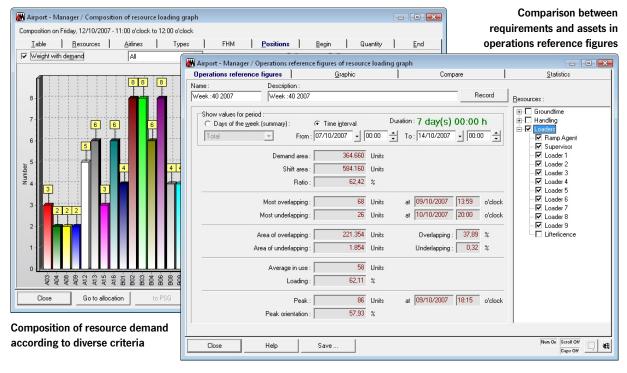
Graphical representation of flight schedule with possibility for modifying

Resource Requirement / Shift Planning

S hift planning in Airport-Manager means modelling of personnel shifts around the requirement graph. By overlapping of shifts, optimizing of breaks, and optimized usage of parttime staff you can increase the utilisation of your recources. You can see the results of your work in the operations reference figures and compare it with former runs. Use the integrated shift generator to create optimal shift models.



Resource demand and shift schedule with fitted breaks

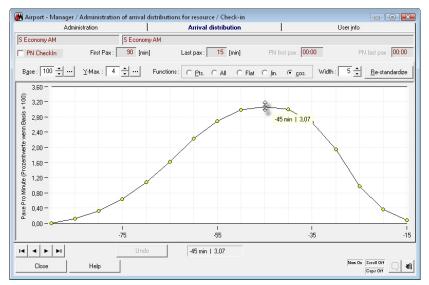


Airport-Manager Planning

Check-in

n Airport-Manager the name check-in stands vicarious for all handling processes where passengers are served individually. Beside the check-in itself this is applicable for passport and

customs control. You can plan counters as well as counter staff. In addition to the flight data the arrival behavior of the passengers plays a significant role.

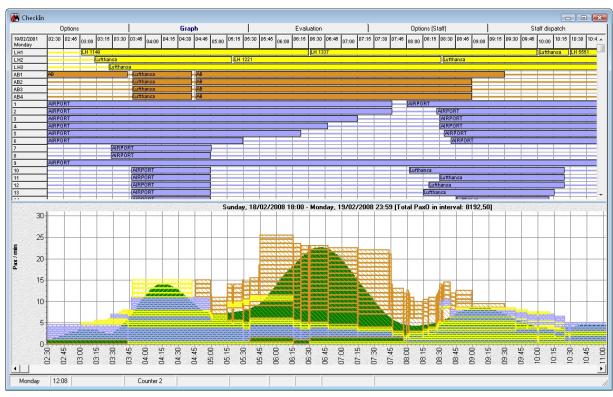


Different profiles of the passenger's arrival behavior can be stored in the system. You can model the profiles in an expressive graph by drag & drop.

Following kinds of check-in can be taken into consideration by the system:

- Common check-in
- Flight check-in
- Late-night check-in
- Self check-in

The planning of check-in resources takes place in graphic environment. The time-related presentation of check-in counters offers the necessary view of the actual planning state.



A graphic comparison between resource's handling rate and passenger's arrival rate supports your check-in planning. Additionally quality characteristics like waiting time and queue length can be shown.

Airport-Manager Online Dispatching

odul Airport-Manager Dispatching was made for allocation of handling tasks to concrete handling units (Loading teams for example).

The procedure contains two steps.

- 1. Combine loaders to teams
- Allocate loading teams to pre-planned handling tasks.

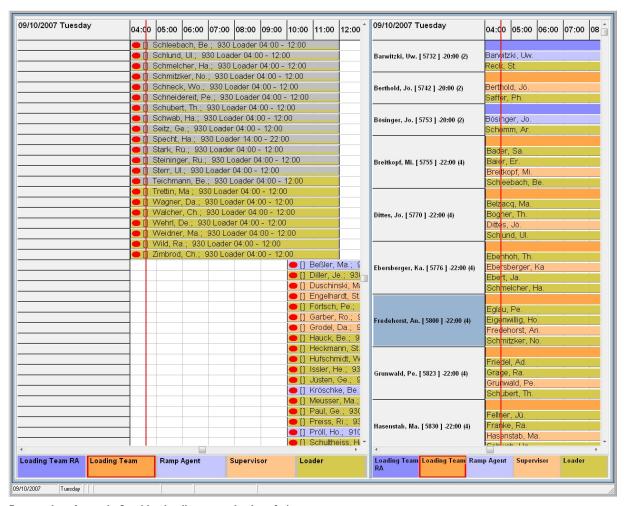
Loading teams are combined from available employees by drag & drop. Actual employees attendance list can be taken over from a sub system (time recording) or can be entered direct

Combine Loaders To Teams

into Airport-Manager. Different colors of employeeor team-bars stand for their different functions. It's possible to filter the graph for these functions.

Graphic presentation on Gantt-charts enables timerelated grouping of loading teams. Groups can be modified every time. Single employees can be time-related moved from one team to another. For instance they can be detached for other tasks.

Recurrent constellations can be defined as standard teams.



Preparations for work: Combine loading teams by drag & drop

Airport-Manager Online Dispatching

Allocate Loading Teams To Pre-Planned Handling Tasks

irport-Manager doesn't replace a dispatcher. But it assists him giving as much information as possible in a clearly arranged presentation. So he can focus on his core activities. As a side effect there grows a complete handling documentation which can be usefull in case of airline complaints.

At two Gantt-charts the dispatcher can see all available loading teams and the pre-planned handling tasks at the aircraft positions. Side-by-side alignment of tasks and loading teams is possible as well as vertical alignment. Tasks can be shown in chronological or position-related order.

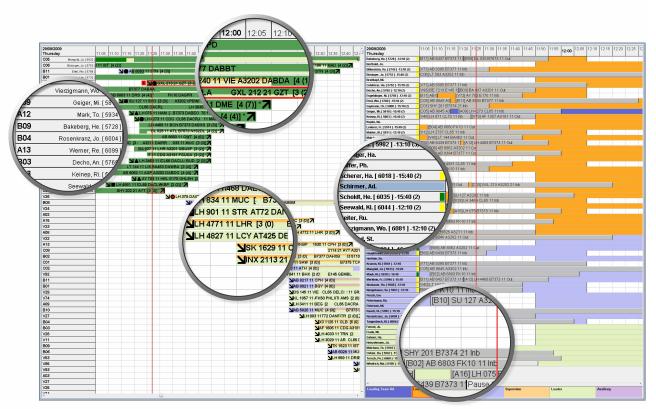
Pre-planned handling tasks are based on the original Airport-Manager handling parameters

determined by the planning department. No loss of information, no double work!

If flight times change, pre-planned handling tasks will be recalculated accordingly and the task bars immediately move in the chart.

A simple drag & drop dispatches loading teams to a task. A more featured dialog is available as well. According to a task's completeness the task bar will be filled with a special dispatch color. Incomplete tasks will remain visible as partial bars.

A lot of field-proven functions assist the dispatcher to always choose optimal decisions.

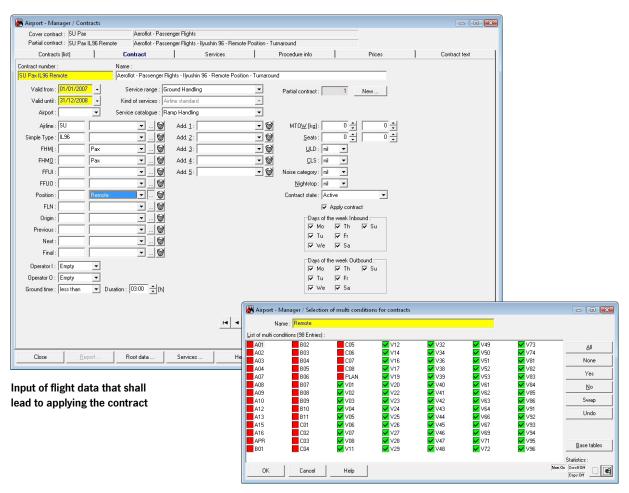


Time-related allocation of loading teams to pre-planned handling tasks with drag & drop

ifferentiated handling contracts with the customer airlines require exact information of staff what services have do be produced for which flight. This module supports the operational department by supplying the specific contract information.

Airline Contract Management

Very detailed contracts can be entered to the system. Beside airline, aircraft type and type of flight also flight numbers, destinations, ground time, aircraft cabin configuration etc. can define the range of application for a contract.



Contract-independent multiple selections enable a low maintenance data management

The IATA standard ground handling agreement or a customized handling service catalogue underlie the airline contracts. From this service catalogue the agreed services will be added to a contract by drag & drop.

Beside invoice related services also procedure information can be added, e.g. exceptions from normal handling operation.

Integration of contract management to the dispatch module enables an automatic contract allocation including all agreed services and related procedure information to a current flight. With this knowledge the dispatcher is able to arrange for services according to contract.

The information meant for handling teams can be printed to the task sheet.

Airport-Manager Contract

Activity Recording

andling activities which are not agreed in a contract are special services. A dispatcher has the opportunity to add special services by drag & drop to the task order. With only one input to the system special services are recorded for further evaluation and billing.

Special services the ramp agent or the aircraft crew apply for, can comfortably be recorded with special functions and offline forms. During manual recording you have permanent access to contract data of treated flight.

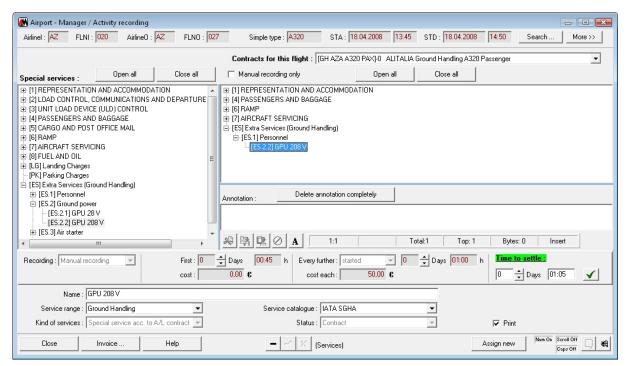
In the course of dispatch activities an integrated data pool grows out of all data from flight schedule,

airline contracts, procedure information and task orders. With this information all prescribed documentation reports can be created automatically.

In addition to that all data are given which are needed for invoice by further systems.

The integration of airline contract management, online flight schedule, dispatch data and manually recorded handling activities offer following advantages:

- Completeness of data
- Small effort for input
- Small susceptibility for errors



Recording of special handling services

would like to provide you, the prospective customer, with some background information on the early days of Airport-Manager and the people, who have worked on this project so far.

Airport-Manager was created from my ideas, i.e. the ideas of a former resource requirements planner at the Frankfurt/Main airport. These ideas consisted of basic solutions and a system structure; they were based on the conviction that airport operators need such a system, on knowing that the system could be expanded as required and on knowing the kind of information needed from the system. At the very beginning, Mr. Drück was solely responsible for converting these ideas into a working concept and finally for the system development.



There were and are not many people in Germanspeaking countries, who are familiar with resource requirements at airports: those who do, are highly specialised. The planning requirements are increasing continually, as the market continues to grow and change.

The market for our product was quite limited, as we first of all concentrated on those airports, where German was spoken. We have also occasionally heard the opinion expressed, that a market for a standard solution does not exist, as the requirements and the procedures vary from airport to airport.

The statement was justified, but only described the necessity of being able to set up individual airport-specific parameters on the system under development, whereas the system functions are kept on general terms. For instance, the quantity factor may differ in size and characteristic from airport to airport, and the resource job parameters will also vary, but the way the parameters, the flight plan and the linkage is saved, as well as the evaluation of the results will be the same at all airports.

he information given above outlines Drück & Pfeiffer's business concept. We offer specialists at airports trade software with which they can quantify their expert knowledge directly via the flight schedule and subsequently make crucial statements regarding the future development of the requirements and costs. We take some of the burden off the airports by developing such a system, based on our own knowledge of the trade. Whoever selected our product, avoided having to prepare concepts and specifications, as the complete scope of the finished product could be compared with his requirements.

We noticed that those functions which we considered to be essential, the development of which however we postponed in order to have at least one complete version, increased, rather than decreased. The users of our system continually submitted more detailed system requirements, not only regarding the pure flight schedule evaluation but also in such areas as flight schedule processing, setting up a seasonal flight schedule, shift planning and dispatching.

Our customers are aware that this has become a permanent project. Specialists have been assigned with a development project, which staff at the airport do not have time to do. In the meantime, we spend approximately 90% of our (increased) resources, just for the system expansion.

e would like to take this opportunity of thanking our customers for their confidence. At the same time, we promise that we will continue to give Airport-Manager the support and attention "our only child" deserves!



It only remains for me to wish all prospective customers good luck when choosing your prospective partner.

Should you decide in our favour, when you purchase Airport-Manager, you receive

- a fully developed system reflecting about 20 years' experience of operation and development
- the latest current version
- and options for the future

Should you have any questions, please do not hesitate to contact us.

Thomas Pfeiffer

Statements Of Our Customers

Airport-Manager in operation at Fraport

We have been using Airport-Manager for flight plan evaluation and resource requirement planning since March 1995. During this time, we have been able to gain a detailed and positive impression of the competence of Drück & Pfeiffer. Already the early version of Airport-Manager solved many problems, since it was practice-orientated. The various functions have been improved and expanded in subsequent





The implementation of user suggestions is an integral part of the contract, which we believe is of great advantage to both parties.

The current version contains the common knowledge gained during the development time and many evaluation features combined with an easy-to-use user interface and the capability of multiuser operation.

The excellent service provided by Drück & Pfeiffer, in particular the rapid response to problems, deserves to be mentioned. Mr. Pfeiffer is the ideal contact person for the user, as he understands the problems of an airport, especially those concerning flight plan processing and ground handling and is in a position to suggest pragmatic solutions.

We intend to continue working with Airport-Manager and Drück & Pfeiffer within the 'Fraport system landscape'. This co-operation has been extended to cover other projects and due to the good results obtained so far, it is safe to assume that other projects will follow.

We wish Drück & Pfeiffer continued success.

Peter Schmitt

Frankfurt Main Airport AG Ground Traffic Services Logistics and Planning

Statements Of Our Customers

Airport-Manager in operation at Salzburg Airport

Dear Sirs,

We would like to take this opportunity to express our gratitude for your cooperation and teamwork, which we have now enjoyed since autumn 1996.

The excellent results obtained by using your programme make us wonder, how we managed to achieve our goals without it.

Without Airport-Manager, we cannot imagine how we would manage the resource planning for the flight plan in the next few months. Its enormous



potential allows us to assign all the required personnel, if necessary to specific tasks, clearly and concisely, and also to determine the exact amount of equipment required. This has been particularly helpful in planning assignments for part-time staff.

Another positive aspect is the possibility of comparing earlier flight plan data for statistical purposes.

Furthermore we would like to commend you on the speed and excellence of your service. Whenever there was a problem, you always presented a solution quickly, efficiently and unbureaucratically.

We trust that his will remain so in the future and remain

Yours sincerely,

Nicolas Karres Head of Ramp Services Salzburg Airport "W. A. Mozart"

Statements Of Our Customers

Airport-Manager in operation at Billund Airport

Billund Handling is situated in Jutland and is the second largest airport in Denmark. About five years ago we were looking for a solution to optimize the planning of our staff and equipment resources. Until that time our planning consisted of pen and paper and comparing figures from season to season.

We got into contact with Drück & Pfeiffer, the vendor of Airport-Manger. After a visit in Frankfurt where we saw a life presentation, and afterwards a meeting back in Billund we agreed to implement the Airport-Manger system in Billund handling for our planning. We were convinced by the skills and possibility of the system and the experience of Thomas and Markus, the founders of Airport-Manager.

A small group was selected to do a training session in Billund Airport with Mr. Thomas Pfeiffer. Here we learned the basic tools and how to use them on a day to day basis. During the whole process of implementing the Airport-Manager system Thomas and Markus have been very helpful.



The system covers a very large pallet of possibilities to allocate your resources accordingly to a flight schedule, and either AC/ type, Airline or flight handling method.

The support is brilliant, it is easy and fast to get qualified help, by phone or via mail, both for questions related to the use of the system or specific question of how to plan for a specific resource. The staff at Airport-Manager have a good experience and are good listening to specific issues and give qualified solutions. Airport-Manager is constantly developing to meet the expectations of the customers.

Jens Henrik Bager Training Manager Billund Lufthavn A/S

Drück & Pfeiffer GmbH

Auf dem Pitzberg 19 · D – 65623 Hahnstätten Tel.: +49 6430/929948 · Fax: 49 6430/929949

Internet: www.airport-manager.de E-Mail: info@airport-manager.de

