



VIBES

SOFTWARE SUITE FOR EFFICIENT BAGGAGE HANDLING OPERATION



FLEXIBLE, MODULAR, INTEGRATED PROCESS CONTROL

More flights, more passengers, more baggage. More stringent security checks, tighter schedules and increasing customer demands. Dealing effectively with frequent schedule changes and delays. Minimising costs. These are some of the demands facing airport operators today – and keeping in control of baggage handling helps with all of them.

Today's demands for effective control of your baggage handling processes are delivered by Vanderlande Industries' software suite **VIBES**.

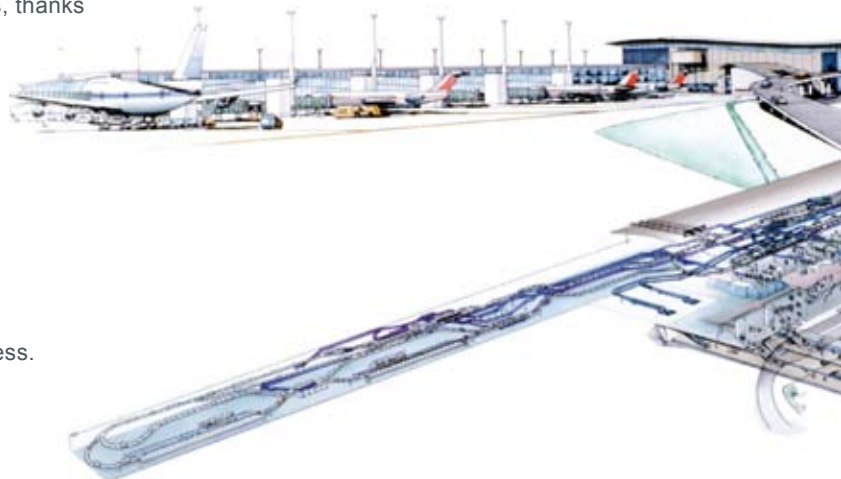
VIBES allows responsiveness to change and insight in the performance of your baggage handling operation.

With **VIBES** you can put the complete operational management of your airport baggage handling system into one hand, ranging from airport system interfaces to baggage reconciliation. The **VIBES** software suite is easily adapted to your business process in an optimal way. What's more, it can easily be adjusted to any future changes and extensions, thanks to the integrated and modular structure.

VIBES - helps you to

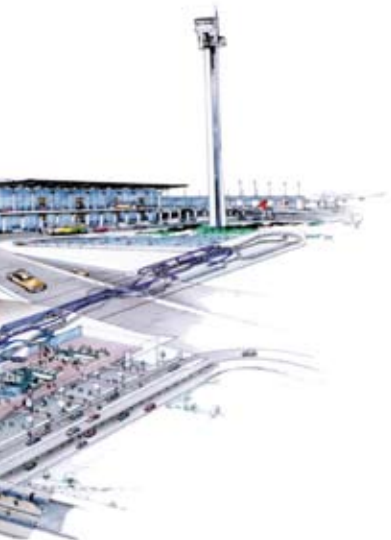
- Reduce your mishandled bag rates
- Analyse system usage & performance by handlers and/or airlines
- Optimally plan your resources
- Optimally schedule in maintenance

and therefore to continuously improve your business.





- Planning
- Sorting and routing
- Manual coding
- Screening
- Bag storage
- System monitoring and control
- Process monitoring
- Make up plan monitoring and control
- Flight make up progress
- Reconciliation
- Analysis
- Departures
- Transfer
- Arrivals





PLAN AND PREPARE

Cost-effective operations is utilising your resources efficiently. Offline preparation of the plan of the day is fully supported by the **VIBES** planning functions. Create your template plan - either for a specific day or a generic one, all combinations are possible.

VIBES allows the baggage operation control room to optimally plan the flight builds to make-up locations. Flight planning and scheduling information are received from the airport host system and together with business rules (e.g. for specific airlines, flights, classes, destinations) the build plan is created. Alternatively it can operate in a stand-alone mode with manual data input. The real-time build plan can be shown on information displays to the users in the field.



Operational planning





EXECUTE

A complete range of bag flow control functions, interfacing with all physical equipment and airport systems is available within the VIBES suite:

- Check-in and Transfer Input
- Baggage Identification
- Baggage Screening
- Baggage Sorting
- Early Bag Storage
- Baggage Flight Building and optionally Reconciliation
- Baggage Reclaim

The latest available function is workflow automation of the flight build, with integrated baggage reconciliation. Baggage reconciliation ensures that bags of passengers that are not on board are not loaded unless they are explicitly screened. This function supports the handler in his work by indicating the container (ULD) or cart in which to load the bag after a positive match, resulting in less mistreated bags.

VIBES is fully IATA compliant and offers additional features for customs inspections of specified baggage flows and security inspections.

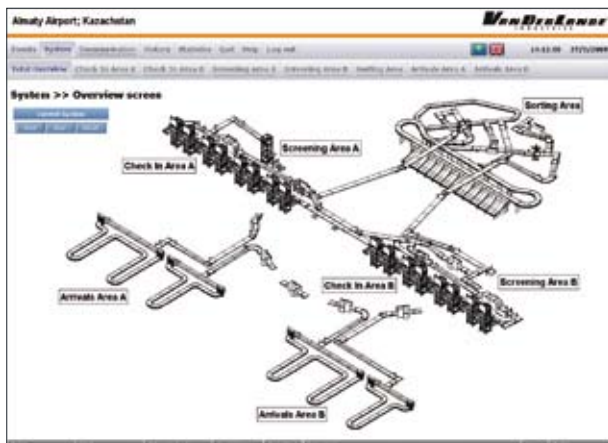
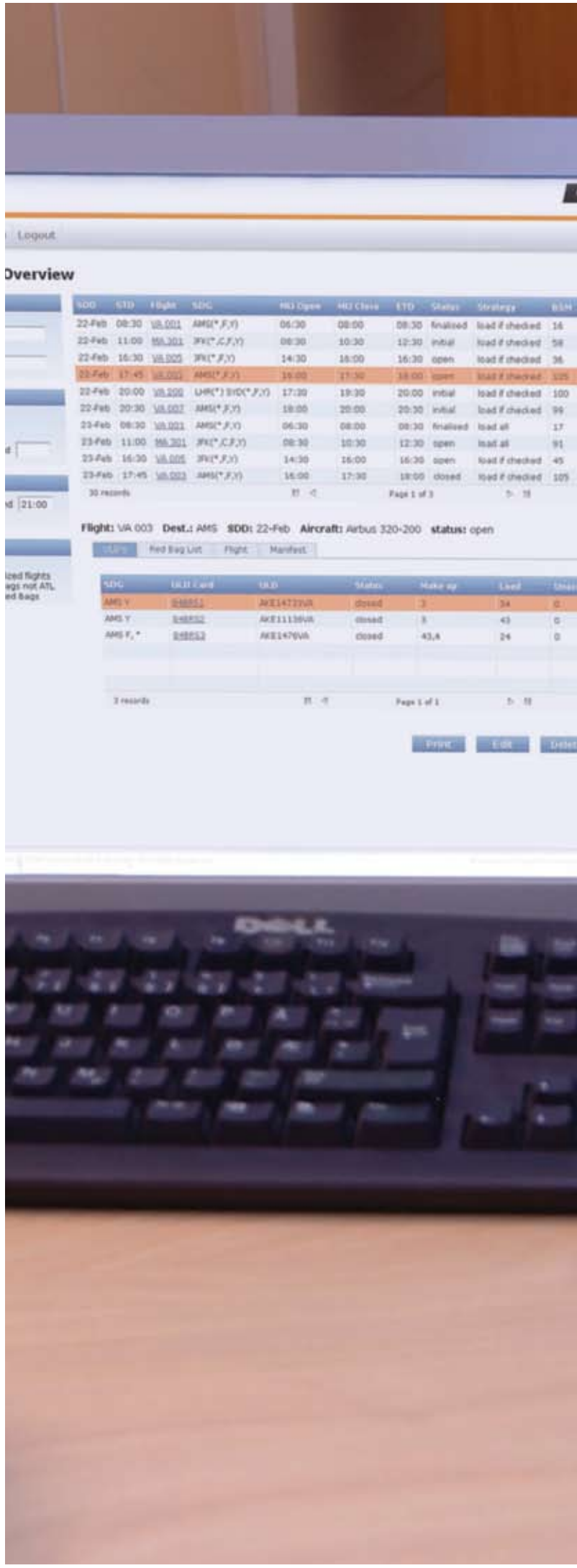




MONITOR AND CONTROL

VIBES includes all functionality to monitor and control the baggage handling processes. Besides equipment status the key performance statistics of the baggage handling processes such as the performance of the screening machines, the progress on flight build and resource usage are monitored. VIBES is designed to minimise downtime and maximise performance. It includes a graphical system layout to provide real-time status information, proactive alerts and problem notifications. Obstruction in the system, like blockage, is reported to the operator in overview and detailed screens, both graphical and in an alarm list format.

All information and functions are displayed in task based screens that enable the operator to quickly react and resolve operational disruptions.



Graphical system layout



OPTIMISE

Analyse and optimise the baggage operation. The **VIBES** suite delivers a full range of analysis and reporting capabilities. It provides one access point for all the information and supports the analysis of reported issues or trend.

The set of standard analysis and reporting functions includes:

- Day summary plus 30 day trend of sort results
- The number of departure, arrival and transfer bags including timeliness
- The number of bags that missed the flight (plus reason)
- The percentage of not cleared bags at screening
- Bag conveyability per airline
- Energy consumption related to the number of handled bags



Day summary



Flight analysis

Technical details

- Windows or Unix OS
- HP brand servers
- Oracle database
- Webfactory or WinCC
- Web-based GUI

Reference projects

Amsterdam Airport Schiphol	- the Netherlands
Antalya International Airport	- Turkey
Cairo International Airport	- Egypt
Cluj International Airport	- Romania
Dalaman International Airport	- Turkey
Eindhoven Airport	- the Netherlands
Izmir Adnan Menderes International Airport	- Turkey
Katowice Airport	- Poland
Kiev International Airport	- Ukraine
London Heatrow Terminal 5	- Great Britain
Moscow Domodedovo Airport	- Russia
Sheremetyevo International Airport	- Russia