



Efficient processes for modern airports.



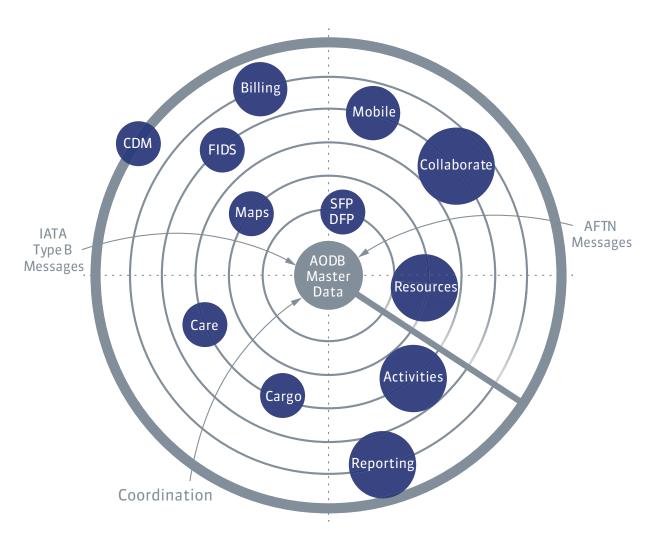
With SKYport, you can optimize your airport operations - from flight planning to daily operations. The powerful suite supports airlines, airports and ground handlers in their digital transformation.

Our Portfolio

With more than 30 years of experience in the airport and aviation industry, ISO-Gruppe's SKYport Suite offers a complete range of software applications to support (multi-)airport operators and ground handlers of all sizes.

ISO's Software Business Processes

Airport Operations	p. 3
Cargo Handling	p. 9
Passenger Experience	p. 12
Aeronautical Charging and Billing	p. 13
Business Intelligence	p. 18
Collaborative Decision Making	p. 19
The ISO-Gruppe	p. 20





Take a look at our SKYport Portfolio - online



Airport Operations

Browser-based Airport Management

Accurate, real-time information is the key to successful airport operations. Many parties are involved in the operation of an airport. Internal staff as well as business partners, airlines and authorities depend on this data to play their part in the integrated business process of an airport.

An intuitive browser-based GUI, exceptional integration capabilities and easy customization make SKYport the ideal, profitable single source of truth for airports of all sizes.

SKYport AODB

The SKYport AODB is the central hub for storing, processing and distributing all flight-related information. Running on an ORACLE or PostgreSQL database server, SKYport ensures the availability and integrity of all operational data and provides secure access to this data for all legitimate users.

Master Data Management

Reliable master data is the basis for the efficient use of software systems. SKY-port AODB has a master data module that can be easily customized to meet the needs of the customer. The master data module supports daily operations with reliable data for airlines, flights and airport facilities. For convenient data entry, all master data is available in pull-down menus or auto-completers. To ensure high quality information, all operational data entries are checked against the corresponding master data.

Rules Engine

The intuitive management of business rules allows a high degree of automation in all SKYport applications. Business rules can be based on a variety of database parameters – for flexible management of resource allocation, fully automated invoicing and document dispatch. Depending on the business process, hard and soft rules can be defined to determine the best possible scenario.

Scheduler

The SKYport Scheduler provides intuitive automation of routine tasks such as daily flight plan creation, automated report generation and distribution.

Going Beyond Airports

- Did you know that SKYport customers use the SKYport AODB to manage not only aircraft, but also trucks and even ships?
- The quality features of SKYport allow you to flexibly manage all your traffic operations
- Airports use the daily flight plan to manage road feeder service trucks handling cargo
- Some customers even manage ship movements in their inland port with the SKYport AODB



SKYport Connect

SKYport Connect - the integration suite of the SKYport AODB - ensures real-time data exchange with external systems covering multiple protocols and data formats. SKYport Connect enables rapid integration of new interfaces and data processing rules. SKYport Connect supports more than one hundred interfaces to third-party systems of airport operators, business partners or public information platforms. Available data exchange procedures include airport-specific standard interfaces as well as individually customizable interfaces for local requirements.

SKYport Connect Examples

IATA Type B Messages
 Send, receive and process standardized
 IATA message formats via SITATEX,
 ARINC or email. Supported message
 types include MVT, LDM, PTM as well as
 FFM, FSU, SAM/SRM and many others.

- Schedule Messages
 Initialize seasonal schedules and import daily updates from regional coordinators or airline systems. Supported message types include German FLUKO, SCORE, SSIM, SIR and many others.
- ATC Tower Systems
 Real-time communication with local ATC
 based on ADEX-P or AFTN.
- Provision of real-time data for third party systems such as
 - Human Resource Management Systems
 - Flight Information Display Systems (FIDS)
 - Gate Access Verification
 - And many others

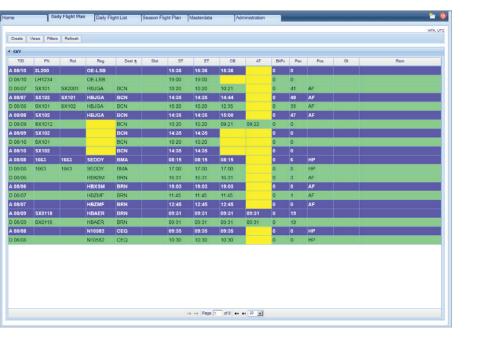


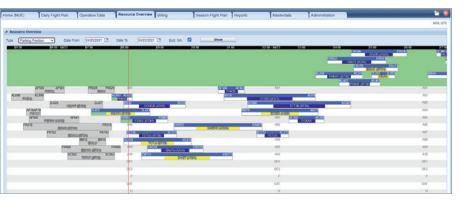
SKYport Applications

Seasonal Flight Plan

The seasonal flight plan offers the first wide-angle of future airport capacity and resource allocation. The SKYport AODB allows you to interactively create seasonal flight plans. Alternatively, SKYport Connect offers interfaces to download and import your seasonal flight plan from regional flight plan coordinators

and airline systems. Resource utilization for gates and parking positions can be planned on a seasonal basis. Automatic composition of rotations supports accurate apron occupancy planning. Multiple simultaneous seasons reflect different planning states.





Daily Flight Plan

The daily operational flight plan is automatically generated from the seasonal flight plan and allows the interactive management of scheduled traffic as well as general aviation flights. The SKYport Daily Flight Plan user interface presents detailed information in tabular form. The tabular view can be easily configured according to the user's specific business processes. Simultaneous data entry from multiple workstations is fully supported. SKYport provides the user with a variety of validation tools such as plausibility checks against master data references (e.g. number of passengers exceeds number of seats) and color coding for missing information (e.g. block time entered but aircraft registration missing).

SKYport Daily Flight Plan supports both IATA and ICAO standards for data entry. All time entries can be entered and displayed in UTC or local time. Flight detail screens provide insight into additional information such as transfer passengers, final destination of travelers or incoming IATA messages. Configurable filters can be used to retrieve both current and historical flight data.

SKYport AODB Add-ons

SKYport Resources

SKYport Resources adds resource management capabilities to your SKYport AODB - for easy management of gates, parking positions, baggage belts and more. The allocation of resources can be done either by the auto-allocator - which automatically finds the most suitable solution - or by a GANTT chart using drag & drop. Each resource can be assigned specific preferences based on airline, aircraft type/size, flight details and many other attributes. Automatic conflict detection ensures that users can only allocate resources that are suitable for a specific flight. SKYport Resources is fully integrated with the SKYport AODB. All resource allocation changes are stored directly in the AODB and are available to all users in real time.

SKYport Maps

For larger airports and airport control centers, SKYport Maps provide an intuitive overview of airport operations. Real-life representations of your airfield are used to display flight movements, aircraft stand allocations and potential resource allocation conflicts. The data displayed in the situation map is real-time data from the AODB or third-party sources - for the highest accuracy and a quick, yet comprehensive overview of your current operational situation.

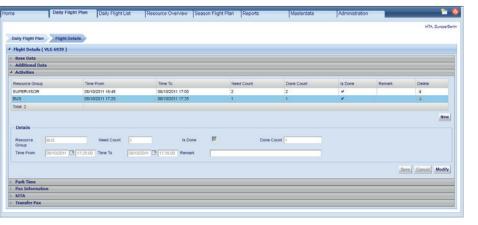
In addition to airfield status, SKYport Maps can also provide a quick overview of airport resources. A map of your terminal can be used to display resource availability (e.g. a gate is unavailable due to scheduled maintenance). To provide real-time information on airport infrastructure, SKYport Connect can interface with your integrated building management system or any other data source that provides operational information.





SKYport Activities

SKYport Activities extends the SKYport AODB standard with ground handling management functions. Existing airline contracts can be used to define mandatory and optional ground handling activities per airline/flight/aircraft type. When generating the daily flight plan, the SKYport Activities rule engine also generates a set of work orders for the supervisor, listing the mandatory and optional activities per flight. These work orders can either be printed or accessed via a web GUI using mobile devices such as rugged tablets or smartphones.



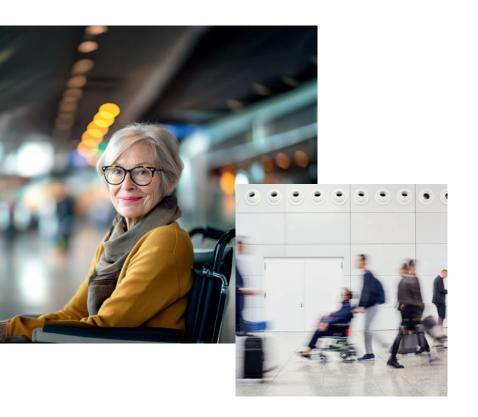
SKYport Mobile

SKYport Mobile is a platform designed to make various tasks available on mobile devices. Because it is based on a Progressive Web Application (PWA), it gives you the look and feel of a native app with the ease of a website. Combined with access to the mobile device's hardware, such as the camera or GPS sensors, it can be used to deliver comprehensive business processes.

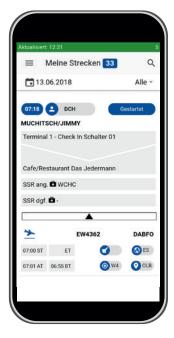
SKYport Collaborate

SKYport Collaborate enables versatile workflow management. With its flexible rule engine, workflows can be easily designed using a BPMN editor, ensuring complete documentation and tracking of workflow processes and actions. SKYport Collaborate supports various use cases, such as the daily trigger for runway inspections or the confirmation that master data has been changed by a supervisor, thus requiring the dual control principle.









SKYport Care

Airports are facing a new logistical challenge: transporting passengers with reduced mobility to check-in, the gate or the aircraft - in the most comfortable way possible, with little or no waiting time. This is not only a service for the customer, but also a passenger right according to EU regulations.

SKYport Care can be used anywhere, on a PC or mobile device. All relevant information - such as passenger name, flight data, flight number, arrival, departure, parking position or Special Service Request (SSR) - can be checked directly on your Android device. User access to the data can be customized on a needto-know basis. Dispatcher mode allows dispatchers to contact PRM personnel for planning and deployment. Real-time information on current flight status provides dispatchers with updated data to take appropriate action, such as alerting management if an employee has not yet been assigned to a PRM route. If the user does not respond to an alarm notification, SKYport Care automatically releases the routes so that another employee can take over the task.

Route Overview & Employee Management

You can create, edit or delete new PRM routes with just a few clicks. In the airport route overview, you and your employees can see at a glance who has to accompany "whom, when, where", as well as the status of the current task. For maximum clarity, tasks can be viewed and sorted by PRM, route or employee.



Cargo Handling

Integrated Cargo Handling and Billing



Today, cargo handling is an important source of revenue for airports. Because cargo handling is a high-volume, time-critical process, applications must be tightly integrated with the airport's system environment.

For example, integration with the SITA network can dramatically reduce the effort required to process airway bills - all the information needed can be derived from the FFM messages.

Another way to speed up processes is to integrate with aeronautical billing.

However, cargo handling is often managed separately from the existing AODB and aeronautical billing software. The ISO-Gruppe has taken a step towards a fully integrated airport operations suite with SKYport Cargo, which becomes an integral part of the SKYport AODB.

Cargo Handling

SKYport Cargo extends the seasonal and daily flight plans of the SKYport AODB with special flight types to support road feeder services - providing a common interface for both flight and cargo handling. Customizable views ensure that your cargo teams receive information in a user-friendly manner.

Managing Freight Shipments

Manage an unlimited number of cargo shipments for each flight, identified by their Master Air Waybill (MAWB). MAWB details are accessed directly from the daily flight plan.

The intuitive dialog is optimized for quick and easy data entry:

- Quantity
- Weight
- Volume
- Damage/Loss notes
- Storage location





Cargo Billing

SKYport Cargo is fully integrated with SKYport AODB, making all cargo information available in SKYport Billing for faster billing cycles. The powerful rules engine of SKYport Billing allows flexible and automated billing of all cargo charges. Whatever the charge - basic cargo handling, warehousing, declaration to ATLAS or splitting – SKYport Billing can calculate the charges automatically. Additional fees can be configured individually and further services can be entered manually.

SKYport Billing also handles invoicing, such as the generation and printing of collective invoices, even with customer-specific rates. The software allows you to transfer data to financial accounting and can manage cash payments specifically for the settlement of storage fees with the collecting party.

Advanced Handling Options for Import Shipments

In addition to managing airway bills, SKYport Cargo offers a variety of advanced handling options, such as generating customs declarations (via ATLAS or other web services), warehouse documents (i.e. manifests) and release documents for collection (i.e. pick-up vouchers). Other options include the ability to retrieve the shipment from the warehouse (pickup), calculate storage time (based on working hours and holiday calendar), and split shipments into individual HAWBs. SKYport Cargo also allows status messages (FSUs) to be issued via SITA.

- Fully integrated with the SKYport AODB
- Manage cargo flights and road feeder services from a single user interface
- Quick capture of all cargo relevant data
- Integration with SITATEX dramatically reduces manual data entry



Customs

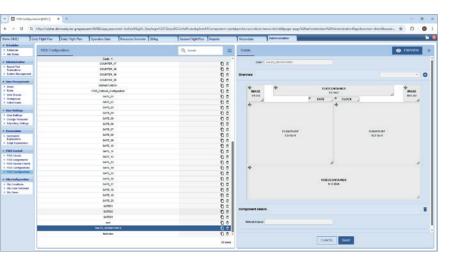
Customs clearance can be done directly from SKYport Cargo using interfaces such as:

ATLAS (D) The connection to the ATLAS customs system is made via the ZABIS® solution of the service provider BlueJay. All relevant customs messages are automatically generated by SKYport Cargo, sent to the provider via a website interface and then transmitted to customs. Feedback can also be transmitted in this way. The specific process must be adapted according to local regulations.

- Automated calculation of all cargo charges
- Cash payment, invoicing and electronic invoicing
- IS-XML compliant billing



Passenger Experience



SKYport FIDS

Passenger experience is a hot topic in the industry.

As flap boards or LED boards are phased out and replaced by flat screens, multimedia FIDS applications are taking over.

SKYport FIDS, a browser-based Flight Information Display System, offers a range of display components to create media-rich output for your passengers. Create added value for your passengers by displaying destination weather at the boarding gate, providing destination information or integrating video advertising on FIDS screens. With SKYport FIDS, it is all just a click away.

Counter & Gate Management

The counter/gate application of SKYport FIDS allows customer-facing operations staff to manage FIDS screens directly from their workstations. Based on actual demand, FIDS screens can be easily switched between normal check-in, bag drop, priority check-in and boarding, or any other desired screen.



- Directly integrated into the SKYport AODB, displaying all data in real-time without additional interfaces
- Efficient update mechanisms keep the workload of the FIDS client to a minimum
- Deliver FIDS information to any screen in your terminal using low cost, low power single board computers
- Includes a WYSIWYG layout editor so your staff can create media-rich FIDS screens on the fly



Aeronautical Charging and Billing

SKYport Billing

The Market Leader for Airport and Ground Handling Billing

An airport needs a billing and charging process that works closely with both operations and administration. All relevant information must be made available as parameters for the calculation of charges. Thanks to its flexible rules, SKYport Billing can be adapted to any fee structure.

The ISO-Gruppe is the European market leader in billing systems for airport operators and ground handlers, with installations at more than 60 airports. In addition, the ISO has implemented its systems at airports/ground handlers in the Americas, Asia and Africa.

ISO's airport expertise ensures benefits far beyond the standard implementation of new standard implementation of new software. Our focus is on business process optimization and system integration.

The ISO-Gruppe offers three solutions for airport billing. We have a solution that fits your preferred technology.

Three Alternatives for Airport Billing / Aeronautical Invoicing

Most airports today have a standard ERP (Enterprise Resource Planning) system, such as SAP ERP, to integrate business processes and data. In addition, the airport billing system/aeronautical invoicing requires flight movement data from the airport operational database (AODB).

One Integrated View -Three Options for Airport Billing / Aeronautical Invoicing

- SKYport Billing is tightly integrated with the AODB. An automated upload process allows the billing system to work with data from the AODB. A rules engine calculates the applicable charges and generates the corresponding billing line items, invoices and receipts. Financial data is transferred to your accounting system via interfaces.
- SKYport Billing for SAP is a module within your ERP system. All operational data is uploaded from your AODB to SAP.
- SKYport Hybrid Billing combines the advantages of SAP and AODB, as the fees are calculated via the flexible SKYport Billing engine, resulting in billing items. These items are transferred to the ERP system for taxation and invoicing. Synchronization makes the data available and up-to-date in both systems.



- Save administrative overhead by streamlining your billing processes
- Reduce manual calculations and media breaks across your system landscape
- Invoice faster, more frequently, and more accurately
- Realize your revenue earlier and reduce your billing efforts
- Send invoices electronically, not just on paper
- Save IT costs by replacing costly custom systems with standard software
- Make your billing data available for business intelligence - for more insight into your airport's potential



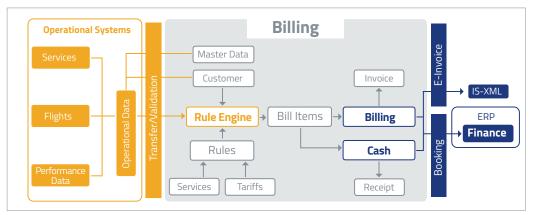
Calculating in two steps

1 Determine the charges to be calculated

Based on the selected attributes of a flight, the system determines the scope of relevant charge types to be calculated. The list of charge types and their descriptions (e.g. "Landing Charge", "Charge for CUTE and FIDS usage") can be maintained by the user, as well as their relation to certain flight attributes (e.g. passenger charges for commercial flights only).

2 Calculate the charges

A flexible rules engine calculates the actual amounts to be invoiced. Of course, this engine can also handle customer-specific conditions such as discounts or surcharges. The result of the calculation is stored in a separate table (Bill Items) without reference to a later invoice. These billing items can be edited and modified before the final invoice is the final invoice.



The calculation of flight fees is the core function of SKYport Billing. Charges are calculated automatically on the basis of rules, most of which are maintained by the user through the GUI.

Two Ways to create Invoices from Billing Items

1 Commercial invoicing.

The user can define the scope of the items to be invoiced using several parameters, including

- Date of delivery
- Customer
- Charge types

Within such a selection, all items of a customer are collected and assigned a unique serial invoice number. These invoices are stored in a dedicated database table, the respective invoice items are updated with a link to their invoice and marked as "invoiced" to prevent multiple processing.

2 Cash settlement

All bills/invoice items related to a specific flight are combined into a single cash receipt. The user can influence the cash settlement process in a special dialog:

- Insert additional items (e.g. services on demand).
- · Change customer
- Set payment currency
- Issue a charge slip without actual payment
- · Complete transaction and print receipt



As in commercial invoicing, the system prevents an item from being invoiced twice. The invoice amount is simultaneously recorded as a cash payment. Cash Ledger Management allows you to record cash receipts and disbursements, for example, to record the transfer of funds from the local cash ledger to a central account. A standard interface is provided to transfer invoices to a financial accounting system.

It creates a text file and determines the accounts to be used:

- Charge type
- Tariff
- Flight type
- Flight origin/destination (e.g. domestic or international)
- Tax rate

The interface can be adapted to the requirements of the ERP system.





SKYport Billing for SAP

With SKYport Billing for SAP, SAP ERP can upload flight data from an AODB and make the data available for pricing and billing in SAP SD.

The SKYport Billing for SAP interface module uses a graphical user interface, giving you full control over the status of uploads from your airport operations systems.

SAP offers highly flexible functions for modeling your airport fees (landing fees, passenger fees, parking fees, infrastructure fees, ground handling agreements, etc.) and processes. Even Standard Ground Handling Agreements (SGHA) according to IATA AHM 810 can be managed.

SAP is the market leader in business software. There is no other ERP system available to airports that can compete with SAP ERP. SKYport Billing for SAP is also certified by SAP ("Powered by SAP NetWeaver").

Thanks to its SAP standard functions, the software is fully integrated into the SAP world. This eliminates the need for separate reconciliations between systems. Direct posting to accounts receivable and management accounting brings airport billing and accounting closer together.

Going beyond Airports

Did you know that SKYport Billing does not only cover aeronautical revenue?

The SKYport Billing rule engine can be easily configured to calculate non-aeronautical revenues such as airport passport issuance, rentals or any consumption-based charges such as telephone or energy.

Can the approaches be combined?

SKYport Billing and SKYport Billing for SAP

Yes, the solutions can be combined - especially for multi-airport operators. For example, Copenhagen Airports A/S manages not only Copenhagen Airport but also Roskilde Airport. Copenhagen uses SKYport Billing for SAP because of the advantages of close integration with the SAP system. Roskilde uses SKYport Billing because Roskilde is more focused on operational requirements.

Stuttgart Airport has a similar scenario and uses SKYport Billing for SAP with great success. A subsidiary at the remote Baden Airport also uses SKYport Billing for SAP with a powerful online integration of the SKYport AODB. The online interface uses SAP's Remote Function Call capabilities to provide a cash payment process that is completely controlled by the SKYport AODB. GAT users can generate cash receipts from SKYport Billing for SAP without even logging into the Stuttgart system. Even cancellations and recalculations can be managed directly from the AODB.

SKYport Hybrid Billing

In addition to the scenarios described above, ISO also offers a billing solution that integrates even more closely with your ERP system.

SKYport Hybrid Billing as a side-by-side extension takes care of all Aero Billing calculations and provides the generated billing items to your ERP sales module. From here, the ERP system takes over, applies the financial rules and generates the invoices. This provides a high level of integration while leveraging the advantages of both systems: SKYport Billing with its aeronautical billing engine and the ERP system with its localizations such as tax, government interfaces, financial accounting, dunning and payment reconciliation.





Billing of Air Navigation Facilities

Automate the Billing of En-route and Approach Fees

Air traffic volumes continue to grow and route utilization is approaching capacity limits. This drives the need for advanced and often costly air traffic control equipment and systems. Air navigation service providers - whether state-owned or privatized - need to ensure that these investments are recouped through the implementation of automated air navigation facility charging systems.

With its background in airport billing and air traffic control, ISO can provide commercial off-the-shelf solutions for ATC authorities to recover such air navigation charges.

- 100% web based
- Can be integrated with various FDP systems
- Flexible user interfaces for data verification
- Sophisticated, user maintainable rule engine for ATC charges
- User maintainable master data for routes, waypoints, entry and exit points
- Can be integrated with various ERP/ Financial Accounting systems
- Integrated reporting engine for statistics
- Based on ISO's Dynamic Components development environment

Business Intelligence

SKYport Reporting

Whether you want to produce printed lists for your operations staff or create colorful graphics for use on tablet computers at board meetings and customer presentations, your reporting tools need to deliver reliable, up-to-date numbers.

How do incidents at a major destination affect your affect your traffic?

How will a rate change affect your traffic and rates?

What scenarios arise from the arrival of an aggressive low-cost carrier at your airport (or a competing neighboring airport)?

These and many other questions are the reality at every airport. To answer such questions, airports need reliable figures, up-to-date information and tools to simulate the impact of their decisions.

SKYport Reporting provides an easy-touse approach to retrieve data from your AODB and/or billing solution.

Based on the market-leading open source business intelligence standards Jasper Reports and iReport, a wide variety of reports and forms can be easily designed by the user.

Key Benefits

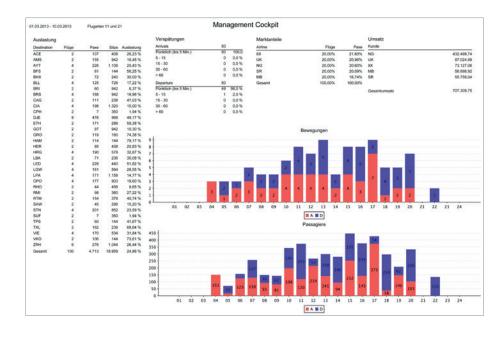
- Seamlessly integrates with your SKYport landscape as well as third party products
- Easy to use reporting engine
- Wide range of output formats
- Access reports from any mobile device

SKYport Reporting Options:

- Formatted lists
- Grouped reports with totals and subtotals
- Crosstabs
- · Various chart types
- Integration of graphical elements
- Output in csv, xls, pdf and html

SKYport Reporting includes Standard Reports

- Operational schedules and worksheets
- Passenger and capacity utilization
- · Revenue reports





Collaborative Decision Making

SKYport CDM

CDM in Airport Management

In the coming years, airports will reach their operational limits and further expansion will be difficult to achieve. Therefore, all available capacity reserves must be better utilized. This requires close cooperation between all air transport stakeholders.

To support such cooperation, Eurocontrol, together with Airports Council International (ACI) and the International Air Transport Association (IATA), has developed the concept of Collaborative Decision Making to harmonize IT processes in the airport business.

SKYport CDM Standard Features

The basic components of the SKYport AODB, combined with the versatile communication options of SKYport Connect, provide your airport with an efficient tool for implementing CDM projects with your local partners:

- Open web-based AODB
- Communication platform
- SKYport Connect

SKYport CDM Advanced Features

These options can be extended with SKYport CDM, which adds sophisticated process management to SKYport, giving you a best-in-class CDM application.

- All essential phases of the aircraft handling processes can be precisely monitored
- Status information and alarm procedures ensure a common situational awareness of all parties involved
- Web interfaces deliver data directly to the user - on mobile devices and CUTE terminals

SKYport CDM is not limited to the linear turnaround process described in the standard. It also supports parallel aircraft handling processes such as

- Boarding
- · Cleaning or
- Catering

and thus integrates the handling agent even more intensively into the common decision processes.



- Flexible planning and monitoring of handling up to the minute
- Optimized resource utilization and improved punctuality of air traffic
- Exception monitoring
- Calculate the impact of process delays
- Control service level agreements
- Log all events and alarms
- Documentation of requests for optional handling services
- Access via browser independent of workstation
- Accurate data entry via mobile devices



About us: ISO-Gruppe

Products and solutions for

- Automation
- Data Quality
- Aviation
- Managed Services
- Medical Technology
- Public Services
- Travel

Founded: 1979 Employees: >700

National locations:

- Nuremberg
- · Frankfurt a. M.
- Würzburg
- Munich
- Berlin
- Karlsruhe

International locations:

- · Vienna, Austria
- · Czestochowa, Poland
- · Montréal, Canada

The companies in the ISO-Gruppe have a quality management system certified in accordance with **DIN EN ISO 9001:2015**.

Contact us

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Dedicated to Airport Success since 1987

- High reliability and performance through industry standards
- Easy to use graphical user interfaces
- High level of data security and validation
- Excellent integration capabilities
- Easy adaptation to customer-specific requirements through multiple levels of customization
- 100% browser-based (no client installation required)
- Easily adapts to mobile devices
- FIDS runs on almost any hardware platform (incl. Raspberry Pi)
- Hosting and SaaS options available from ISO's own data center
- All necessary implementation and maintenance services provided by ISO Software Systeme