INFORM / GroundStar

Aviation starts on the ground.

The complete software solution for optimizing airport and airline ground operations.

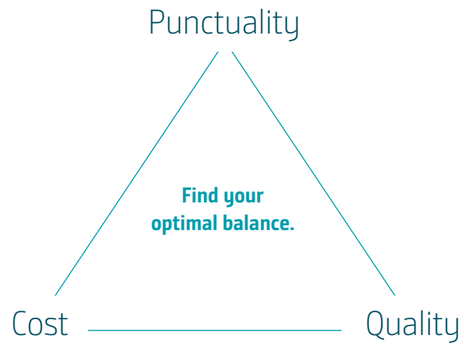
Aviation is a complex matter. Optimization can master this challenge.

Successful ground operations require the coordination of a virtually endless number of processes. Disruptions are part of the daily business. Unpredictable external changes and operational irregularities often need to be resolved within seconds. Any disruption in a single process may immediately cause delays in multiple other processes.

We know that complex situations like these are part of your daily business.

/ There is no alternative to optimization, but many options for achieving it.

Punctuality is an absolute must in aviation. The right balance between cost and service quality is subject to the individual pre-conditions and strategic preferences of each party. Since these factors are dynamic, processes must be optimized to adapt to changes in real-time. The goal is to achieve an optimal balance between costs, punctuality and quality.



Diverse goals. Diverse phases. Their complexities made simple with one single solution.

/ GroundStar – Optimization on an advanced level.

GroundStar is a comprehensive one-stop software solution for staff & equipment, as well as stands & terminals to optimize planning, scheduling, operational and analysis processes in the worldwide aviation business.

Planning

Demand calculation and optimized demand coverage (Stands & Terminals, Staff & Equipment)

Scheduling

Converting demand requirements into an optimized roster which caters to regulations and employee preferences

Operation

Management by exception through operational transparency, monitoring, alerting and optimized allocation based on real-time data

Analysis

Highly configurable KPI reports defined for the situation at hand, enabling real-time dashboards displaying your company's "vital signs"

Choose a standard software which is as individual as your business.

Over the last decades, GroundStar has emerged as the off-the-shelf industry standard in aviation software. At the same time, it can be easily configured to accommodate to the various demands of airlines, airports and ground handlers around the world, as well as to any scale of business. As a result, customers benefit from the efficiency and reliability of a standardized software. The standardization also limits the cost risks of future changes of the software.

The end of blame games.
The beginning of transparent collaboration.

/ The one-stop solution to achieve multiple goals.

The holistic approach of the GroundStar software suite makes sure that the full range of ground operations is covered and all relevant information is shared. GroundStar provides real-time data access and information exchange to all partners involved. The software combines robust planning with optimized decision-making support on the day of operation – leading to streamlined processes as well as lower operational costs.

Airlines

- Hub & Turnaround Management
- Passengers and Baggage Transfer Management

Ground Services

- Ramp Services
- Passenger Services
- Transport Services
- GSE Fleet Management

GroundStar

Airports

- Gates
- Stands
- Flight Information Management
- Check-in Counters
- Baggage Belts

Special Services

- Security
- Special Services/PRM
- Aircraft Maintenance
- Fueling
- Catering
- Deicing

The software solution planners and dispatchers dream of – and your management, too.

GroundStar makes it easier to achieve greater efficiency. The system's holistic approach ensures an optimal utilization of resources, leading to higher productivity and lower operational costs.

/ GroundStar – A good choice for good reasons.

INFORM's customers report impressive results on their installations.

Up to 30 %
cost savings

< 9 months
for system implementation

< 15 months
for payback

Up to 35 %
higher productivity

< 500 >
resource scalability

+ 30 years
success in the market

/ GroundStar at a glance.

Planning
- GS Planning Staff & Equipment
- GS Planning Stands & Terminal

Scheduling
- GS WorkforcePlus

Operation
- GS RealTime Staff & Equipment
- GS GroundFleet
- GS TurnManager
- GS Connect
- GS RealTime Stands & Terminal

Analysis
- GS BIS

/ GS Planning Staff & Equipment

GS Planning Staff & Equipment supports the company's strategic, tactical and operative needs. Powerful optimization algorithms support the planner in creating optimal personnel shift demands and GSE requirements automatically.

Workload Planning

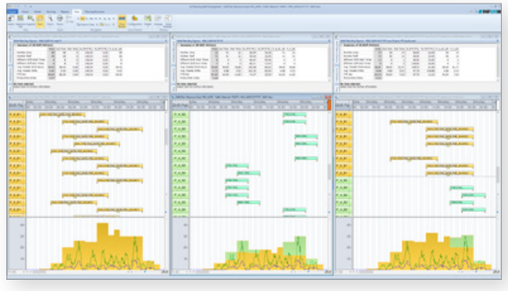
Flight data and SLA-based workload calculation for staff and GSE using rule-based defaults for flight linkage, passenger & baggage figures. GS Planning provides smart workload curve analysis and export options.

Shift Demand Planning

Optimized rule-based shift planning, including optimized workload coverage with shifts, roster lines or shift patterns, supporting curve-based and task-based shift planning approach.

Scenario Capability

What-if analysis of different planning options and optimization strategies and scenario capability.
Analysis and export of planning results via the built-in smart reporting.

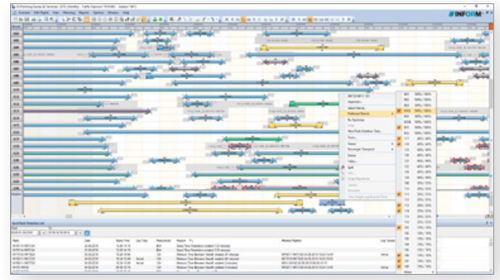


/ GS Planning Stands & Terminal

GS Planning Stands & Terminal allows for automated long-, medium- and short-term planning of aircraft stands and terminal resources, such as check-in counters, baggage belts and passenger gates.

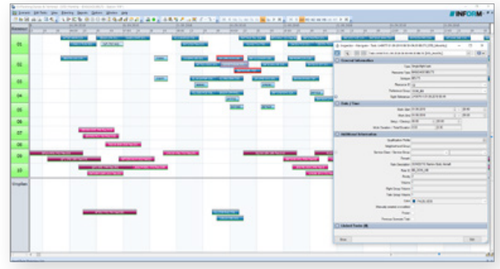
Optimized Infrastructure Usage

Build an optimized stand and terminal resource plan based on a comprehensive set of hard and soft rules with user defined optimization goals. Import the flight schedule in various formats (e.g., SSIM) and enrich it with default values and automated joining.



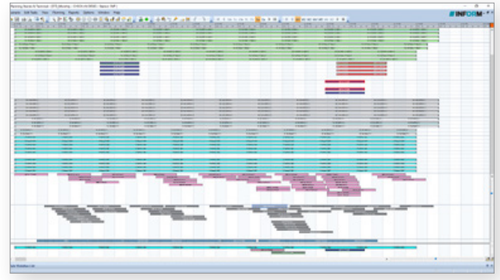
Scenario Capability

Plan for future construction, assess the impact of changes to flight plans or evaluate different optimization strategies with scenarios/what-if analyses.



Evaluate and Share the Plan

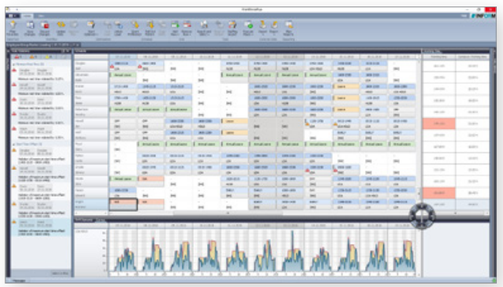
Assess KPIs of the resource plan through pre-defined or customizable reports, share it with all stakeholders via Excel or PDF export and publish the final resource plan to GS RealTime Stands & Terminal as a master plan.



/ GS WorkforcePlus

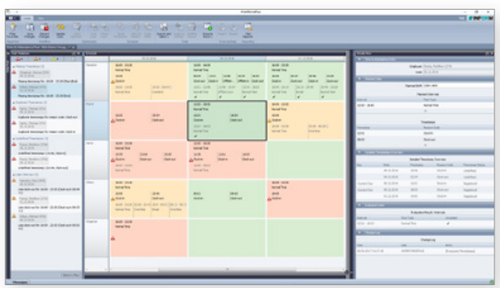
Mobile Employee Portal

Smooth and efficient interaction between planners and employees, e.g., with respect to vacation planning, employee preferences, schedule adjustments and shift swaps.



Flexible Planning Views

All established planning strategies are supported (i.e., fixed shift patterns, free rosters, monthly), as well as working time flexibility, employee participation, use of external service providers, combined and multi-stage procedures.



Integrated Time Management

Accurate evaluation of absences, overtime and premiums – e.g., by target/actual comparison of planned and recorded times.

/ GS RealTime Staff & Equipment

GS RealTime Staff & Equipment offers users the tools they need to manage their ground handling staff and ground service equipment (GSE) on the day of operations. All tasks can be controlled seamlessly even as flight irregularities challenge the completion of the work planned for the day.

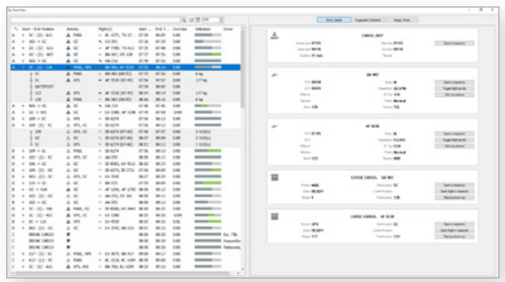
Based on real-time data, dependency information and planned activities, bottlenecks can be predicted reliably and managed proactively.

Management by Exception

Handling activities based on latest flight data are continually assigned by an optimizer. By highlighting required actions to the dispatchers, they can focus on managing the exceptions.

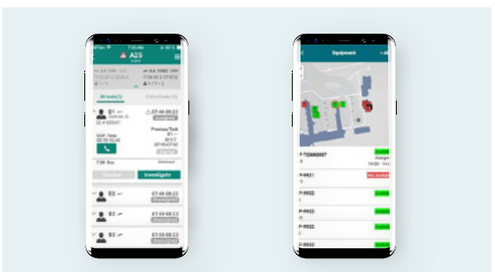
Operational Awareness

Real-time insights into the current situation are provided for the different roles in the operation such as agents, dispatchers and operational managers allowing for effective collaborative decision making.



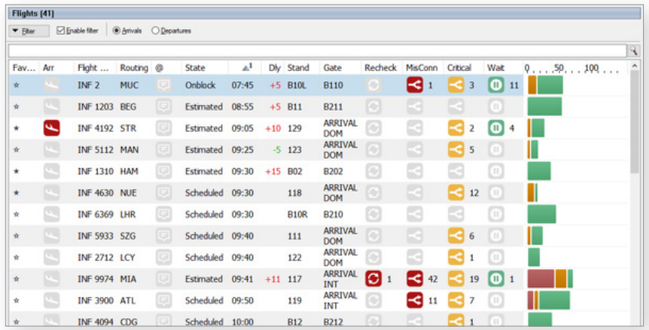
Mobile Communication

Apps for phones and tablets are tailor-made to support the various handling business processes providing exactly the required information to perform a task and to feed back the status information and requests to the dispatcher.



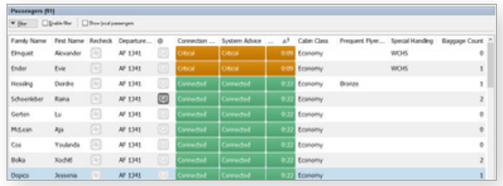
/ GS Connect

GS Connect assists the user to monitor and manage the overall passenger and baggage connection process.



Connection Monitoring

Monitor passenger and baggage connections in real-time in order to identify critical connections proactively and to protect the connection of passengers and their baggage. Identify and prioritize specific passenger groups (e.g., Frequent Flyers [FQTV]).



Transfer and Rebooking Decision Support

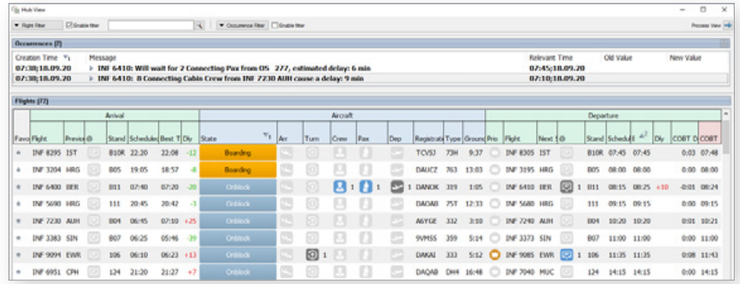
Evaluate gate changes to reduce transfer distances and save passenger connections. Analyze and suggest cost-optimized rebooking options.

Transfer Assistant Allocation

Dispatch staff who help passengers making their connection.

/ GS TurnManager

GS TurnManager provides transparency of the entire aircraft turnaround process. All important activities, milestones, transfer connections for passenger, baggage and crew, as well as their dependencies can be monitored and controlled in real-time.

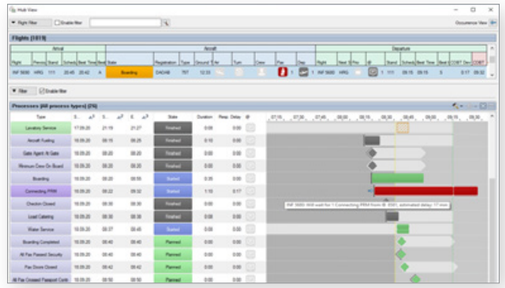


Turnaround Management

Monitor and steer all handling milestone activities of a turnaround, at a hub, at outstations and throughout the network.

Minimization of Delays and Delay Costs

Identify irregularities and their impact on punctuality, and provide reliable delay predictions and asses their cost impact in order to improve the overall on-time performance and reduce delay costs.



Mobile Solutions

Mobile solutions for supervisors and vendors.

/ GS GroundFleet

GS GroundFleet can be understood as the bridge between “classical” fleet management solutions and other operational systems of the GroundStar suite like GS RealTime Staff & Equipment or GS HubControl. The focus is on visualization and processing of telematic information, to make it accessible for INFORMs operational GroundStar modules.

GSE Monitoring

Monitoring and tracking of motorized and non-motorized ground support equipment (GSE), visualization of the GSE location and status on GS AirportMap. GS GroundFleet also provides GSE maintenance functionalities based on operating hours and/or configurable timespans.

Geofencing

Multi-level geofencing allows more precise localization of GSE on the apron and automated status progress of ground handling processes.

Integration with GS Suite

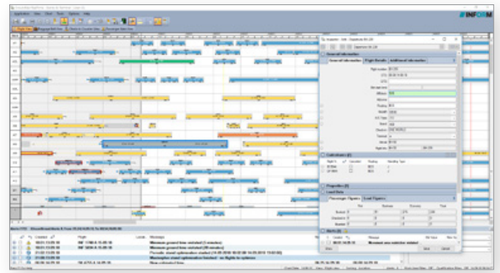
Integration with GS RealTime Staff & Equipment and GS HubControl, providing GSE location and turnaround milestones.

/ GS RealTime Stands & Terminal

GS RealTime Stands & Terminal handles the real-time allocation and monitoring of aircraft stands and terminal resources, such as check-in counters, baggage belts and passenger gates, on the day of operation.

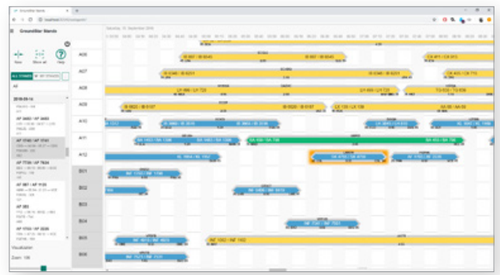
Master Plan Alignment

Optimized alignment of the operational flight schedule with the resource master plan published from GS Planning Stands & Terminal and monitoring of flight schedule changes. Invalid assignments as constraints are permanently identified and evaluated to account for delays, aircraft swaps and other irregularities.



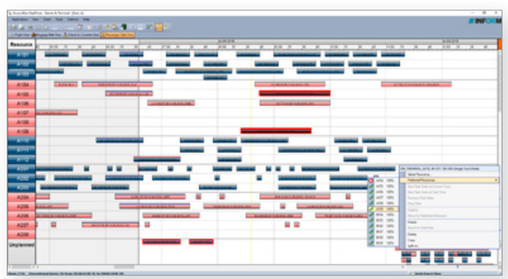
Conflict Resolution

Automatic conflict resolution and optimized assignments within the operational time window, decision support for manual reassignments and problem resolution, management of temporary restrictions by fully or partially closing stands or terminal resources for a certain time.



Publishing to FIDS

Publishing of allocation changes to other stakeholders and systems (e.g. to FIDS).

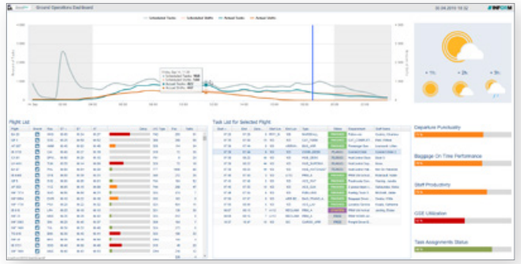


/ GS BIS

GroundStar Business Intelligence System (BIS) comprises tools that address analytics use cases in all phases supported by GroundStar. This includes reporting on operational and historical data, online dashboards with drill-down capability, and data exploration in management cockpits.

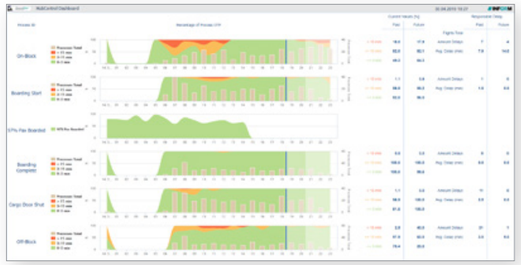
Dashboards

Online evaluation of key performance indicators (KPI) and details on demand to stay on top of the operations. Live overview of the on-time performance of all activities, including past measures and projections.



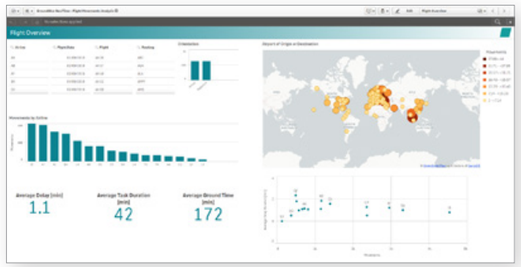
Reporting

Creation and distribution of pixel-perfect reports to key personnel.



Data Exploration

Discovery of hidden relations, providing the flexibility to gain ad-hoc insight into data via an associative data management and an in-memory engine.



Multiple solutions, multiple benefits.

Optimization pioneers since 1990

Worldwide experience: 200+ installations

Scalable solutions

Proven implementation method

Quality improvement

Cost savings

A globally-used, innovative concept you can rely on.

Since its introduction in the late 1980s, GroundStar has held its pioneering position. First, it defined a new segment of software, today it keeps on pushing the benchmark for optimization software through continuous technical development. More than 200 installations worldwide are the best proof that innovation can be very reliable. And staff from more than 30 nations is the best guarantee for ongoing progress on a global scale.

Headquarters in Aachen, Germany

Airports with GroundStar installations

Lufthansa · KLM · Qantas · Schiphol Group · Delta · Finnair · Port of Seattle · Alaska · Fraport · WISAG

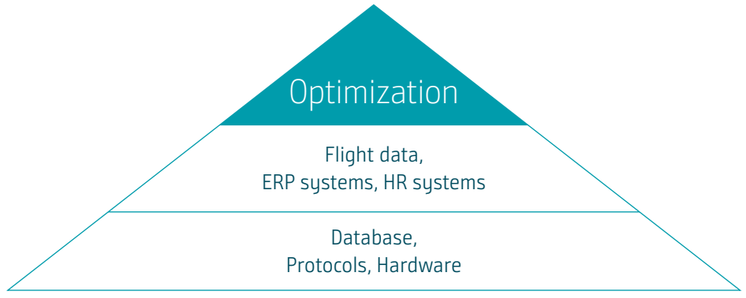
Stuttgart Airport · Çelebi · United · Zurich Airport · Aeroporto di Bologna · HAECO · acciona Airport Services · LSG Sky Chefs · AVIAPARTNER The Network of Excellence

Adapt your optimization solution to your needs – not the other way around.

Choosing GroundStar means the decision for a single-source solution covering all aspects of ground operations. It also means relying on quality software made in Germany. All software development and quality management activities are centralized at our headquarters based in Germany.

More than just a software.
The optimal solution for optimal results.

/ An optimal complement to any information management software system.



/ An advanced optimization for finding your optimal solution.

Finding the optimal solution in a complex environment, like aviation ground services, is a major challenge. Many providers rely on heuristics which simplify the rules in decision-making to limit the solution space. Unlike other software, GroundStar also utilizes global optimization methods which identify the optimal solution for processes from a wide range of possibilities and scenarios.

/ A package combining software and services.

Any software solution is just as good as its implementation process. Our dedicated experts ensure a smooth implementation, making ground operation processes run flawlessly in the long term.

Delivery
- Business Process Analysis
- Solution Specifications
- Turn-key Implementation

Implementation
- Interactive Methodology
- Project Management
- System Configuration
- Quality Assurance
- System Engineering

GroundStar

Development
- Application
- Development
- Customization
- System Integration

Support
- Quality Assurance
- User Hotline
- 24/7 Online Support
- Maintenance

We let the numbers do the talking ...

800+
employees

8
business divisions

100%
internal ownership

1,000+
customers worldwide

Financially independent

/ Every day, with INFORM software.

- over 200,000 employees and over 20,000 flights are coordinated in 170 airports worldwide
- over 6 million shifts are planned for over 200,000 employees
- 50,000 containers are handled
- 31,500 trucks are managed
- 300,000 new and used vehicles are handled
- 10.9 million production planning processes are planned
- over 250 million online, mobile phone and card payment transactions are monitored
- 27,000 claims are checked by property, accident, and health insurance companies

/ More than half a century of optimization experience.

1969
Founded by Prof. Hans-Jürgen Zimmermann, head of the institute for Operations Research at the RWTH Aachen

1983
Standard development software was developed

1990
New business division for airport resource management

1995
1st integrated GroundStar suite
1st Middle Eastern Customer

1998
1st Gates & Stands solution
1st North American customer

2001
1st User Conference

2009
New headquarters building

2016
New business division for Workforce Management

2019
50 years of INFORM

/ GroundStar

/ INFORM – Nothing less than the optimum.

Finding the truly optimal solution for complex problems is what drives INFORM since 1969. We are never satisfied until we can offer the optimal software to our customers: even if it requires a complete reevaluation of supposedly fundamental principles.

One of the most important challenges we adress is ground handling for airlines and airports. Managing numerous, highly-interlinked parallel processes with limited time slots requires powerful software.

GroundStar is an optimization software suite that covers the complete ground handling process and employs unique algorithms and software structures to make planning more efficient, identify potential savings and achieve more than a system which just works – the optimal solution.

Find out more about the individual potential GroundStar offers for your company. Our experts look forward to giving you a demonstration.

www.groundstar.aero
www.inform-software.com

INFORM

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