

FLIGHT SCHEDULE GENERATION,
TRAFFIC FORECASTING,
AND ANALYTICS



TACTICAL & STRATEGIC FORECAST AND SCHEDULE BUILDING SOFTWARE

CAST Schedule is a comprehensive and flexible software tool for precise and scalable airport traffic and passenger demand forecasting, as well as flight schedule analysis and generation.

Based on a powerful combination of traditional forecasting and advanced machine learning methods it enables highly detailed computations of future traffic volumes based on individual flight events and supports just-in-time, short-term (daily), medium-term (monthly/seasonal), and long-term (year and beyond) forecasts for passengers, baggage, and cargo.



CAST Schedule supports both top-down and bottom-up forecasting approaches by incorporating multiple factors such as future events, regional potential and macroeconomic trends. Through a guided workflow, users can generate realistic growth scenarios that support operational, tactical, and strategic airport planning.

Generated flight schedules are seamlessly integrated into the broader CAST software suite, enabling consistent, scenario-based analysis across all CAST applications and other tools.

Complex forecasting is made simple through intuitive, easy-to-visualize outputs that support collaboration, decision-making, and performance-oriented airport development.

Application Areas

- Precise Prediction: operational, tactical and strategic
- Demand and Capacity Planning
(e.g., gate allocation, terminal congestion prediction)
- Infrastructure Adaptation and Development
(e.g., terminal and airside expansion, baggage handling system upgrades)
- Resource and Workforce Management
(e.g., checkpoint demand estimation, staffing optimization)
- Budget and Financial Forecasting
(e.g., aviation revenues, non-aeronautical income projections)

Users

- Airport operators and infrastructure planners
- Flight schedule managers
- Strategic development and investment planning teams
- Business intelligence and data analytics departments
- C-Level decision makers

Features

- Composition of flight schedules from multiple sources
- Intuitive adjustment of schedules and comparison of different scenarios
- Flexible manipulation of aircraft movements, fleet changes, and loading factors
- Sub-period and peak day considerations for more granular planning
- Short-, medium- and long-term planning and forecasting of traffic volume

Timeline

- CAST Schedule will be released in October 2025

FACTS AND BENEFITS

- ✓ Short-, medium and long-term decision support
- ✓ Support of proactive airport management
- ✓ Efficient, intuitive and user friendly
- ✓ Based on proven CAST technology: AI & machine learning
- ✓ Full integration and modular
- ✓ Customizable dashboards and analysis.



ARC

Bismarckstrasse 61
52066 Aachen | Germany
Phone +49 241 16 84 3 0

info@arc.de

www.arc.de