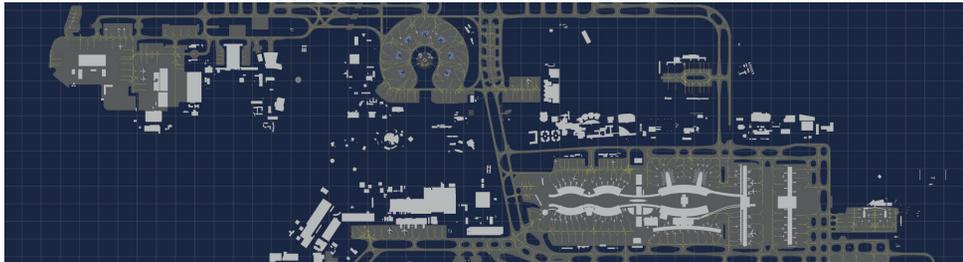# CAST AIRCRAFT SIMULATION

AIRCRAFT TRAFFIC AND PROCESS SIMULATION SOFTWARE

AIRCRAFT TRAFFIC AND PROCESS SIMULATION SOFTWARE

CAST Aircraft is the flexible, comprehensive and most efficient modelling tool for aircraft traffic at airports and in the airspace. CAST Aircraft enables a rapid, scenario based evaluation of systems in scalable levels of detail, for example to remove bottlenecks, plan resources or assess and improve a system's capacity.

APPLICATIONS COVERED BY CAST AIRCRAFT INCLUDE:

INFRASTRUCTURE PLANNING E.G.

» Layout comparison and validation
» Identification of bottlenecks and planning mistakes
» Optimization of construction phasing

OPTIMIZATION OF OPERATIONS E.G.

» Optimization of operational strategies e.g. to reduce delays
» Test and improvement of allocation strategies
» Planning of de-icing and snow clearance operations

CAPACITY ANALYSIS AND OPTIMIZATION OF CAPACITY E.G.

» Capacity determination for all system components
» Balancing of demand and capacity / slot-planning
» Develop and test measures to enhance capacity

Central part of a CAST Aircraft model is the 3D infrastructure and environment, including all relevant airside and airspace elements. Operational concepts individually define how aircraft taxi and how runways are used. Airspace and runway operations are based on ATC rules and consider e.g. wake vortex and radar separations, runway exit behaviour and the individual properties of an aircraft. It is possible to define individual rules or use default settings. The integrated analysis and dashboards enable immediate and automated result generation of standard KPI or individual analysis.
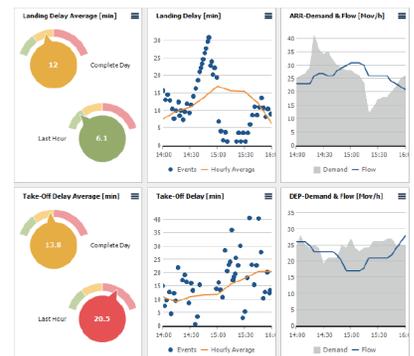
FURTHER FEATURES

» Setup of airspace, runways, taxiways and stand by predefined object library
» Automated CAD data and flight schedule import with several support functions
» Dynamic traffic flow management according to rules and restrictions
» Use of predefined rules or individual configuration
» Accurate calculation of capacities, delays, taxi times and other relevant KPI
» Including A-CDM procedures and A-CDM time-stamps
» Efficient, automated report generation with dashboards and data export
» Modern user interface and high-quality 3D visualisation for highest management attention
» Highly rated training and support services for immediate success

CAST Aircraft can be used stand-alone or as an integral part of the CAST product family:

FACTS AND BENEFITS

✓ Short-, medium- and long-term decision support
✓ Reduced investment costs and risks
✓ Optimized resources and higher efficiency
✓ Enhanced operational quality
✓ More capacity, less delays
✓ Easy communication with stakeholders
✓ Quick return on invest
✓ Individual expert support

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