Calculator: OPAS – Air Traffic Control Simulator

http://www.egis-group.com/

Summary

OPAS is a fast time simulator co-developed by Egis Avia and french Civil Aviation DSNA, used to optimise ground movements, traffic flows and airspace usage.

Developers: Egis Avia (the Aviation branch of Egis), French Civil Aviation DSNA

Applicable sectors							Themes		
All Infrastructure	Buildings	Roads	Water	Energy	Transport	Construction	Materials	Ecology	Wastewater
							Potable Water	Carbon/GHG	Other

Countries	France	**Access**	Commercially available from Egis
Compatibility with other tools	The tool is compatible with other Egis tools such as Tandem Empreinte.	**Guidance for users**	Tool support comes in the form of Egis consulting services.
Inputs & outputs	OPAS produces a variety of information on aspects of noise, carbon emissions, parking, airspace traffic, in order to optimise these. Output files can usefully be presented as graphics such as trajectories, density maps, contours and 3D views.	**Methodology**	OPAS is made of three components for en-route, approach, and ground simulations. It is a fast time simulator that implements Air Traffic Control pseudo instructions sent to an aircraft in the simulation, so as to adjust speed, level, or headings and ensure separation. Therefore trajectories generated by the simulator are very close to radar tracks as observed in real life. The accuracy of the simulator allows for comparing the emissions of an aircraft in different airspace configurations but also on the ground, evaluating different routings, using rapid exit taxiway, evaluating aircraft
Database library	OPAS contains inbuilt data and functions so as to imitate Air Traffic Control and to simulate aircraft behaviour.	**Data intensity & flexibility**	Data intensity is reduced by the tool's accompanying databases and consultancy services.