

# FAST MS

## Frankfurt Airport Surface Traffic Management System



Depiction of the ground traffic situation in movement area in FAST MS

Fraport AG continuously strives to improve its operations supporting systems in order to meet the challenges of high traffic volumes and optimize traffic flow.

One major focus is on the Advanced Surface Movement Guidance and Control System (A-SMGCS) which is used by the apron controllers for guiding ground movements. This complex of systems includes sensor components (radar and a multilateration system), and the Frankfurt Airport Surface Traffic Management System (FAST MS), a state-of-the-art system that provides the controller with the actual situational awareness of the ground traffic activities.

By linking collected data from a number of sensors with current flight schedule information, FAST MS is able to identify aircraft, as well as vehicles like tow trucks equipped with transponders and then plot their movements in realtime on a map at the apron controller's working position. Therefore, FAST MS enables the controller to obtain a comprehensive picture of current ground traffic activities within the movement area. Additionally, the system offers a detailed map which provides much useful information and is convenient and

intuitive to use. It offers several settings of a view for the various working positions. For example, a map with an added layer depicting construction sites can be shown or hidden by the controllers.

FAST MS is an intelligent system that supports apron controllers in efficiently handling high volumes of ground traffic – especially during low visibility.

In view of the expansion of Frankfurt Airport, and the ensuing increase in the complexity of infrastructure, rising traffic numbers and ground movements, Fraport AG is also actively engaged in research and development. To enable A-SMGCS to be used with even greater efficiency in the handling of ground movements in future, new processes and technologies are being developed.

Despite the growing demand and complexity caused by the current expansion program, Fraport AG, through the use of such intelligent systems, consistently aims to reduce the workload of apron controllers, and improve the quality of apron management. As a result, it will meet the highest standards in regards to safety, punctuality and environmental friendliness.

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