

### Introduction

cards PLM Solutions, based in the Netherlands, is a *Preferred Tecnomatix Business Partner* of Siemens UGS PLM Software. Our focus is on the simulation technology of *Plant Simulation* (formerly known as eM-Plant). Our highly skilled consultants have more than 8 years of expertise in the modeling, analysis and optimization of all kinds of processes. We have provided our services in a variety of industries, such as manufacturing, warehousing, healthcare, airport logistics and more. cards PLM Solutions implements the Plant Simulation software and delivers on-site consultancy, customized trainings and help-desk support. The customer case below is a short overview of an Airport Logistics project that we have performed in the past.

### National Aerospace Laboratory (NLR)

#### Company overview



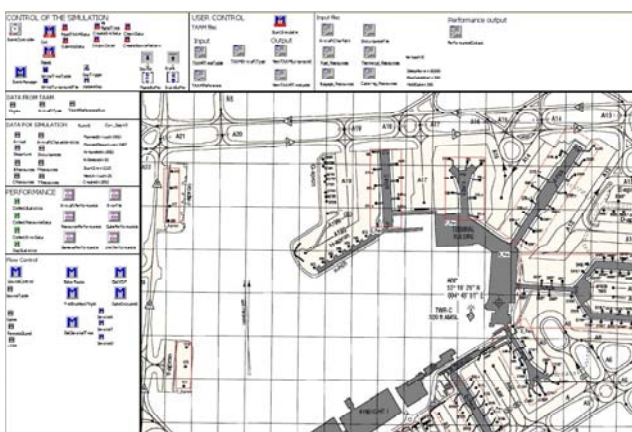
NLR was founded in 1919 as a governmental research institute to support the aviation industry. Nowadays, NLR carries out applied research on behalf of the aviation and space industries. NLR's world-wide clients include governmental authorities, private companies, and aerospace organizations.

#### Business case

From its origin, NLR has developed much knowledge about airside processes (airspace usage, runway usage, etc.). One of the highly sophisticated tools to study these airside processes is called TAAM (Total Airport and Airspace Modeler). However, in the fast growing market of civil aviation, aircraft turnaround processes (cleaning, fuelling, unloading, loading, etc.), landside processes (passenger and baggage handling, etc.) and the link between these processes have become more important with respect to the overall airport's operational capacity. Therefore NLR asked for a simulation model to study the aircraft turnaround processes at Amsterdam Airport Schiphol and the ability to interface between Plant Simulation and TAAM. This enabled the analysis of interactions between aircraft turnaround processes and airside processes.

#### Benefits & results

- Easy to expand simulation model that can be used for a broad range of airport-wide simulation studies.
- Airport-wide insights in the effect of aircraft turnaround disturbances.
- Insight in the airport-wide consequences of the frequency and duration of disturbances.
- Insight in the consequences of turnaround disturbances for different aircraft and flight types.



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