

## A software tool for modeling complex integrated systems natively designed on the CESAM modeling framework & methodology

## • CONTEXT

Safran Engineering Services has rolled out "XATIS", its complex system design optimization software. The software is tailored to assist systems architects in reducing the number of product development cycles, thanks to Model-Based System Engineering (MBSE).

XATIS is a software tool for modelling complex integrated systems, from the requirements gathering phase, through the specification stage and right up to the preliminary design.

It is based on the CESAM modeling methodology, the aim of which is to manage complexity through graphic representations of the system from multiple complementary perspectives, to expand upon its conventional textual description.

## • APPROACH

XATIS is used for developing various architectures, comparing them, and selecting the best one, considering the constraints of production engineering, operations, maintenance and decommissioning of the system.

The ground-breaking aspect of the software is that it permits a collaborative architecture; that is to say, it is based on the active contribution and co-ordination of all the teams involved in the design of the new product.

Moreover, XATIS improves the monitoring of traceability links between the customer requirements and the technical solutions offered, thus providing greater knowledge of the impact analyses, should there be a change in requirements.

It fully covers the system engineering process, from the stakeholders and system requirements definition down to the design and integration of the final product.

Solution for model-based system engineering combining SAFRAN Methodology Guide and CESAM Grid inside



## • CREATED VALUE by CESAMES

XATIS is modeling software (MBSE) that natively embeds the CESAM repository. Consequently, the XATIS metamodel carries all the concepts defined by CESAM. This is a specific feature compared to other solutions on the market.

"XATIS is a tool designed by architects for architects! We wanted it to be particularly intuitive, with a remarkably ergonomic interface and highly efficient modeling accelerators. Therefore, we decided to develop this tool on a proven CESAM architecture framework, already widely used in the industry», **Eric Clavé, XATIS project manager**.

