Summary of Project

Project:
MBSE for Quick and Informed Decision Making in Facilities Management and Master Planning

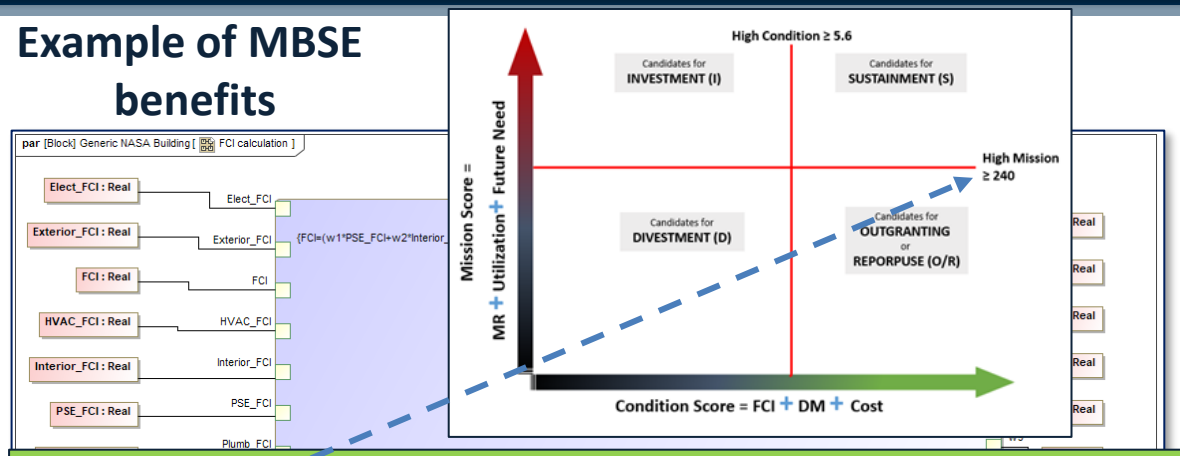
Description:
This model is developed to replace traditional, document-based methods of facilities management using model-based systems engineering (MBSE). A model is developed that connects master planning requirements, facility condition score, building information systems, workorder systems, standards, and more, and links them to stakeholders' needs. This model acts as a sole source of truth, allows for easier access to information at relevant granularity, and enables better connectivity and traceability. It reduces cost, risk, and enables better decision-making for resource allocation.

Benefits:
The model connects different sources of information, such as buildings' capabilities, facility condition scores, etc. When information needs to be updated, it can be updated once and propagate automatically, rather than having to make changes manually in many documents, which takes significant time and risks errors.

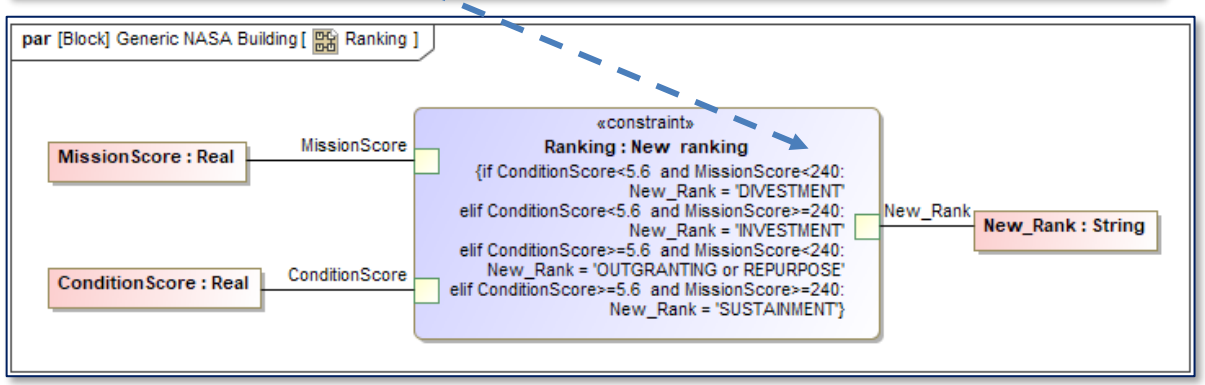
The model is traceable and accessible. Users can view information at whatever level of granularity is needed. See how changes will affect all related systems, enabling better and easier evidence-based decisions, budget making, and investment planning.

Stakeholders' needs are integrated to the model, ensuring that requirements and intent is never lost throughout the lifecycle of the facility.

Example of MBSE benefits



Example: It takes 10 seconds to change the mission score threshold from 240 to 220, and it propagate across the model automatically and updates the ranking. Incomparable to the time and cost of doing that in all NASA centers and documents using the traditional document-based approach.



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