

Data Sheet



Building a SystemDesigner Environment

SystemDeveloper is a program for building knowledge based systems; systems like EngineDesigner. It has a design environment like EngineDesigner which includes

- Data input
- Analysis
- Results



and also a builder environment like below

- Library
- Object builder
- System Builder



When in building mode both environments are exposed to the developer for purposes of building and validation of the built design system.



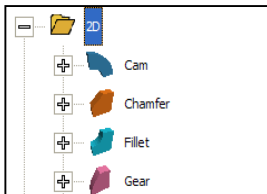
Builder Environment

The builder environment enables programmers, engineers and designers to tailor make a design and analysis environment for their company's needs. An environment that allows the safe repository of its IPR, patents and R & D. whether it's an engine, gearbox, motor or Gas Turbine.



Basic Building block s – Finite Objects and using Object Builder

The basic building blocks of the system is the patented Finite Objects. This is a solid together with its hexahedral mesh representation. Finite Objects are used to build solids (objects). A finite object has connections and interfaces. Connections transfer data internally such as material, shape, and mesh information. Interfaces are used to connect itself to other objects (solids), or interface objects. Object Builder is used to build objects that are saved in a library for later use to build systems.



Connecting objects to build a system - using System Builder

System Builder uses objects to build assemblies and systems. SystemBuilder builds systems by taking objects and connecting them to other objects via interface objects. Interface objects are oil films (Tribology objects), stiffness and contact for example. The built system assembly is saved into the library as a Design System.

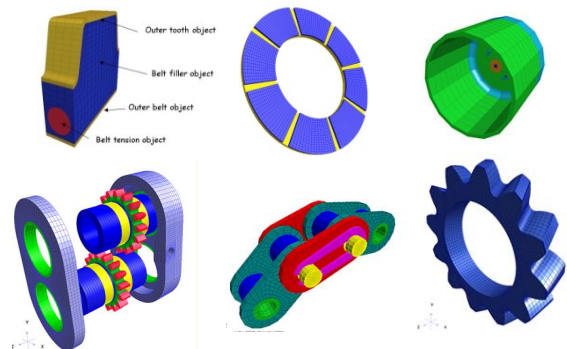


Knowledge Based Systems – what they offer

- Company knowledge capture**
 - Design, IPR & R&D processes captured
- Standardisation**
 - Design and analysis processes
- Reusability & flexibility**
 - Allows building of new objects, system templates and methods
- 3D modelling**
 - Provides the mesh as a bi-product of abstraction choice
- Objects' principal geometric attributes are automatically generated**
 - Drive automatic geometry changes
- Design iterations**
 - Capture design and analysis history
 - Capture design evolution
- Results comparisons**
 - Compare test, with predictions and targets

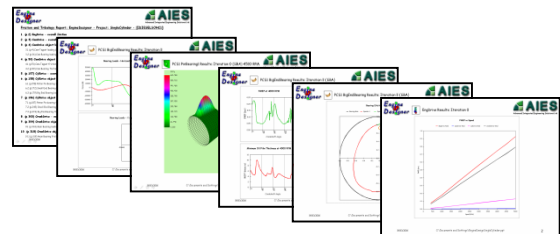


Examples of built objects and assemblies



System design report

- MS PowerPoint format



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