

Interoperability concept in a COM thermodynamic server architecture. Example of integration in Microsoft® Excel™.

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This article presents the new StarDust® thermodynamic server architecture developed by ProSim. From their origin, simulation tools have had to respond to a more and more demanding market and to adapt to the new hardware and software technologies. Today, they have to satisfy, among others, criteria such as interoperability, integration and reusability. The StarDust® Research and Development project, centred around a new software architecture, aims to provide such an environment. Although founded on an owner specification, this project integrates CAPE-OPEN standard and rests on the Microsoft® COM/DCOM middleware, widely diffused within its Windows® operating system. Within StarDust® framework, great care was taken in the thermodynamic server development, rightly considered as the cornerstone of any simulation application in process engineering. These server concepts make it possible to take advantage of the new architecture capacities, which can be illustrated by an example of integration in Microsoft® Excel™.