Members' Profiles

Nihon Unisys Excelutions, Ltd.

1. Research and Development on Software for Design and Analysis

The Nihon Unisys Group has been conducting research and development on CAD /CAM systems for more than thirty years and today is actively conducting development, support, and sales for CADCEUS, which has the NO1 market share in the metallic mold industry, and is supporting manufacture technology of Japan.

Our company is part of the Japan Unisys Group specializing in CAD/CAM solutions. We are performing positively product development and sale business, such as CADCEUS and DigiD.

In recent years, we have witnessed rapid developments in MEMS parts design and manufacturing technology. MEMS product is increasing the range of applications, such as acceleration sensors for automobiles and inkjet print heads. This technology is expected to become a base technology supporting Japan's manufacturing industry in the 21st century.

In the design and manufacturing of normal-sized parts, simulation softwares play a major role in reducing cost of trial products, decreasing the delivery time, and improving precision. However, there is no inexpensive software that is simple and effective to use for supporting design and manufacturing in the field of MEMS products.

By using our knowledge and assets cultivated over the years in the development of CAD/CAM and CAE systems, we are going to work toward the development of design and analysis software for micromachines such as MEMS.



Toshiro Yamamoto President

2. The present activity in MEMS and Micromachine Technology

As part of our endeavors, we will deal with software development entitled "Simulation Software for MEMS Design and Analysis", primarily in framework functions, which was offered publicly by NEDO and adopted in early June. This simulation software for MEMS design and analysis will be developed in close cooperation with the Micromachine Center, the Fuji Research Institute Corporation, AIST (National Institute of Advanced Industrial Science and Technology) and 10 universities. Compared to existing MEMS simulation software produced overseas, our system will possess features, including (1) low price, (2) being used effectively by beginners and experts alike, (3) containing material&process database and knowledge database, and (4) facilities to add new simulation software.



3-dimensional modeling examples using CADCEUS



Use of simulation software for MEMS design and analysis