Initial Release of MemsONE

In November of last year, we began releasing an evaluation version (alpha version) of the MEMS design and analysis software developed through a three-year consignment project entitled the MEMS Open Network Engineering System of Design Tools (MemsONE) under the New Energy and Industrial Technology Development Organization (NEDO). As of the end of November, some 250 requests had been received for about 600 licenses. We have been processing and distributing these requests in the order received. We expect to make needed revisions based on user evaluations on the alpha version and release a version for widespread (beta version), including all components developed in the project by May 2007. It is hoped that the software will be used by companies for product development and/or design and by universities for research and as a teaching tool.

1. Goal of the Project and Features of the System

The goal of the MemsONE project was to develop a system capable of providing advanced MEMS-related knowledge and data , not only for leading experts in MEMS research, but also for newcomers (engineers and researchers in a wide variety of fields and of various experience levels to the field of MEMS), with the aim of furthering growth in the MEMS industry.

To develop the MemsONE system, three software development companies took on areas of their respective strengths. Five companies with experience in MEMS devices used their experience and achievements to design specifications and plan evaluations. Faculty members at thirteen universities provided cutting-edge knowledge and wisdom. And one research institute provided measuring techniques fostered over many years. The net result was a system comprising not only a standardized analysis and design tool, but also a unique inverse problem program for designing masks and processes based on the final structure; a program for evaluating joining/packaging, which can be problematic in device development; a knowledge database containing a wealth of information; and a material database containing materials acquired on process lines.

2. Dissemination Activities

In 2006, we expanded our promotional activities aimed at popularizing the MemsONE system. For example, at the 23rd Sensor Symposium on Sensors, Micromachine and Applied Systems held at Sunport Takamatsu in Kagawa in October, we provided a technology exhibit, and our project subleader (Hidetoshi Kotera, professor at Kyoto University) gave a presentation as a guest lecturer on the features of the MemsONE system. These activities enticed many people to try out the evaluation version. In the same month of last year, we provided an exhibit at the 9th Design Engineering and Manufacturing Solutions Expo Kansai held in Osaka at INTEX Osaka, as well as a seminar to promote the products and technologies of various exhibitors. These events offered large stages to promote the features of MemsONE.

We also gave a presentation on the achievements of the MEMS Open Network Engineering System of Design Tools at the 17th Exhibition MICROMACHINE in November, drawing some 250 interested spectators. At the same exhibition, we showed a video explaining the MemsONE project and system in easy to understand terms. Approximately 1,000 pamphlets describing the system were handed out at the exhibition and presentation, showing the large amount of interest in and expectations for MemsONE.

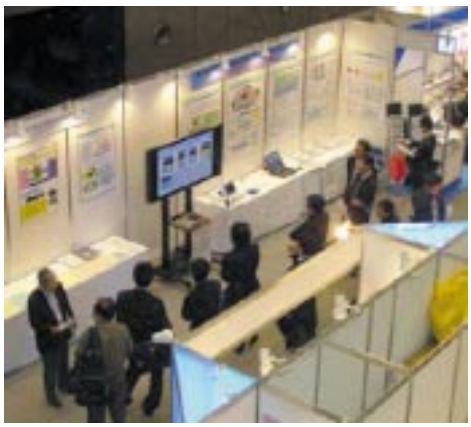

Photo 1 Activity at the exhibition booth

Photo 2 A MemsONE demonstration given by project subleader Hidetoshi Kotera

3. Future Plans

As we prepare to distribute the beta version of the MemsONE system in May this year, we will work toward resolving all remaining development issues in the system and incorporating the comments of people who have been using the evaluation version to complete a user-friendly system. We would like to encourage all who have tried the alpha version, to fill in and submit the questionnaire.