Report on the Computer Software Contest at 38th Congress of the Japan Society of Anesthesiology

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We held a computer software contest at 38th Congress of the JSA, held in March, 1991. The aim is to encourage the members of the Society to write softwares and to help distribute them, especially as Freewares. We received 25 entries for the contest; two-thirds of these are for computers of NEC PC9801 series and a third are for Macintosh. We received donations 3 million yen worth of instruments and goods for prizes plus some cash, which as prizes were distributed to those who made entries for the contest.

Most of these programs have been registered as freewares at various computer networks, including our Ether-Net, one of the common computer network SIG-BBS's among Japanese anesthesiologists. (Key words: Freewares, JSA, computer network, Ether-Net)

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We held a computer software contest at the 38th Congress of the Japan Society of Anesthesiology (JSA), which was held in March, 1991. This is the report of this contest from the member of the executive committee, explaining what we aimed at, how it was prepared, and how it went along.

Aim

The aim of this software contest is to encourage the members of the Society to write softwares. It also has a specific aim to help distribute them, especially as Freewares, which means those programs may be copied

and used freely personally, while the author still keeps the copy-right.

In Japan as well as in many other countries, methods of distributing computer softwares of limited commercial values have not been established well. Regular commercial routes tend to put too high a price for products of amateurs. Such high price limits the sales, preventing it from being used widely, thereby leading to a vicious cycle. Many authors are willing to distribute them free of charge or at a very modest cost. We have been observing many presentations of various softwares sporadically at various meetings. These products, however, have only a few ways to be distributed and they tend to be used only by the authors themselves. The principal author of this article himself (KS) has experienced this frustration. At the 38th Congress of the Japan Society of

Anesthesiology, special sessions were planned specifically aiming at computer softwares. We negotiated with the President and the Organizing Committee of the Congress and decided to hold a contest together with this session.

The idea of holding a such software contest has originated from a group of people, who have been exchanging information via a computer network, called "Ether-Net" (pronounced as "ehteroo-net", named after the German word for diethylether), and who subsequently formed the core of this committee.

Rules

We set the following rules for the contest. The contest and the rules were then announced.

1. The softwares submitted to the Congress session may be submitted also for the contest.

2. The softwares will receive some prizes according to their quality. Those prize-winning softwares are to become Freewares automatically. The original author retains the copyright, however.

3. The source program should be available as a part of the software. This condition may not be imposed upon if the committee agrees otherwise.

4. The content of the software can be anything. It does not have to be related to anesthesia/medicine directly.

5. Contrary to the session softwares, academic originality is not prerequisite. Softwares not suitable for a scientific meeting yet useful for the member of the Society such as those of some funny games or those specifically aiming at certain products (instruments or drugs), which thereby might advertise them, are permitted to enter the Contest.

Organization

After deciding on holding this contest, seven authors of this paper formed the Executive Committee. We discussed the purposes, methods and procedures for the contest. Of utmost importance is to establish financial basis required for such a contest and for the

prize, and also to request companies to donate various instruments/goods as prizes. We accepted prizes with the name of the company or that of their commercial products, drugs or instruments.

Another committee was formed just before the Congress, independently from the executive committee, to judge which softwares are to receive prizes. Dr. Stephen N. Steen, who was invited to and attended this Congress, participated as a judge to this judging committee.

Result

We received 30 entries for the session/contest, 5 of which were excluded from the prize-winning contest. The authors of these 5 programs expressed their hesitation to make their programs open and available to the members of the Society. Out of These 30, 16 are for computers of NEC PC-9801 series, which are similar yet incompatible to IBM-PC and are most commonly used personal computers in Japan. 9 entries are for Macintosh, one is for both NEC and Macintosh, one is for IBM-compatible, and one for UNIX-based Hewlett-Packard Engineering Work Station. Number of the total co-workers of these softwares are 77.

We received donations from various sources some cash plus 3 million yen worth of instruments and goods for prizes. They were distributed to those who made entries for the contest. This was considerably more than we hoped to obtain originally.

We allowed softwares of specific nature to enter the contest. Those requiring special machines, interfaces, instruments etc. were also allowed. Since one of the aim of the contest is to obtain and to distribute softwares as Freewares, however, we stressed that it is advisable for them to be of workable on standard features of machine components, namely the computer itself, a modest size of memory, an HD, and the OS, with little addition of any hardwares and softwares. We also welcomed data of various nature, although virtually no pure data had been entered.

The grand prize has gone to "A new com-

Table 1. The Author and Title of the top 5 prizes
(the titles translated from Japanese by the authors of this paper)

Nishimura H: Department of Neurosurgical Research, Akita, Prefectural Cerebrovascular
Research Center. "A new computer language of handling numerical data"

Nagata S: Department of Anesthesia, Faculty of Medicine, University of Tokyo.
"A software for analyzing statistics in clinical medicine"

Sanjo Y: Department of Anesthesia, Hamamatsu Medical School. "A man-machine
interface of anesthesia recording system by voice recognition"

Nakayama K, et al.: Department of Anesthesia, Faculty of Medicine, University
of Tokyo. "A computer graphication of nerve block atlas"

Yajima C, et al.: Department of Anesthesia, Faculty of Medicine, University of Tokyo.
"A software for calculating and analyzing the dosis of nondepolarizing muscle
relaxants"

puter language of handling numerical data"
(the title translated by the authors of this
paper), by Dr. Nishimura. It is basically
an editor, yet has a capacity of handling
and directly calculating various mathemat-
ical formulae. It also has a unique feature
of generating a complex program without
writing it beforehand. Just write the formu-
lae together with the sentences, which are
memos to mathematical formulation, then
decide the area to make it a program. The
same calculations can be repeated for differ-
ent numerical values. It run on a Macintosh.
The author received a 32-bit book-computer
with 20M-harddisk drives as the prize. The
other four top prizes were listed on the table
1. All entries received some prizes.

Discussion

In all, prizes of higher rank tended to
go to softwares for Macintosh instruments.
It was rather natural, in retrospect. The
presentation with Macintosh tended to be
more appealing to the judges. The judging
committee did not have time to go into detail
of the program. Judgment was made more
on the way it was presented, rather than
the quality of the program itself. It is a
clear evidence to show also the advantage of
Macintosh (or similar instruments/softwares)
over a more standard IBM type machine.
Although we are reasonably certain that the
quality of the programs and that of the
presentations for the top few prizes correlate

well, this may be one point to be considered
for the next contest of this nature.

All these programs have been registered as
Freewares at various networks, including our
Ether-Net. Some of them were also posted
to a more popular computer network, "Nifty-
Serve", which is closely tied to the Compu
Serve (USA). They have just begun to be
used, and we are waiting to see the impact of
such Freewares.

We plan to hold a similar contest for the
next Congress. It will be announced in this
Journal when it becomes definite. We will
welcome the entries from overseas. We want
to stress that the author should supply the
source program itself as well as an executable
file. There are two reasons for such a request.
One is that we insist to have characters
displayed on CRT to be convertible to any
appropriate languages (mainly Japanese for
our purpose). Therefore, if the programs can
be divided in such a way that the character
displaying part as data and the rest, then
the whole source may be unnecessary. The
second reason is that IBM-compatible ma-
chine is uncommon in Japan. The source is
required to compile the program for NEC
machines under MS-DOS environment. This
reason does not apply to programs to Macin-
tosh machines, however.

We maintain a general standard policy
that the programs entered shall be dis-
tributed freely with all the informations
available to the user.

We will of course welcome overseas companies to sponsor this contest. An appropriate acknowledgment will be made.

Sponsoring companies:

Aika, Inc.; Atom, Inc.; Baxter Company, Inc.; Chuugai Publishing Company, Inc.; Chugai Pharmaceutical Company, Inc.; Ciba-Corning Diagnostics, Inc.; Colin Electronics Company, Inc.; Daiichi Pharmaceutical Company, Inc.; Dainabott Pharmaceutical Company, Inc.; Eizai Pharmaceutical Company, Inc.; Excerpta Medica Japan, Inc.; Fujisawa Pharmaceutical Company, Inc.; Fujitsu, Inc.; Fukuda Sangyou, Inc.; Igakushoin, Inc.; Kanebo Pharmaceutical Company, Inc.; Kayaku Pharmaceutical Company, Inc.; Kyoudou Oxygen Company, Inc.; Kokuseido Publishing Company, Inc.; Mitsubishi Trading Company, Inc.; Midori-juuji, Inc.; Mochida Pharmaceutical Company, Inc.; Murako-Medical, Inc.; Nihon-Behringer, Inc.; NEC-San'ei, Inc.; Nippon-Organon, Inc.; Nihon-Kohden, Inc.; Nihon-Medi Company, Inc.; Nikken-Chemical Company, Inc.; Ohmeda-NEC-San'ei, Inc.; Ono Pharmaceutical Company, Inc.; Shionogi Pharmaceutical Company, Inc.; Shouwa-Denko, Inc.; Soft-Science, Inc.; Tsumura Pharmaceutical Company, Inc.; Terumo, Inc.; Toukibou, Inc.; Torii Pharmaceutical Company, Inc.; Yamanouchi Pharmaceutical Company, Inc.; Yokogawa-Hewlett-Packard, Inc.