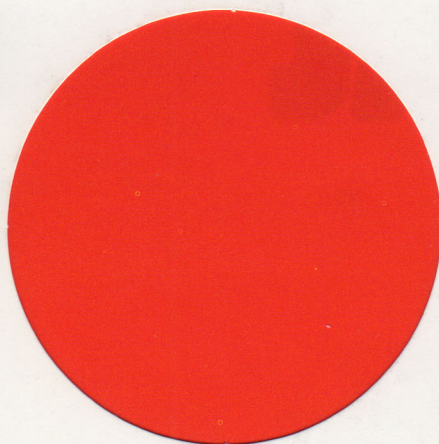# THE BEST OF JAPAN

A culture, society, and its people as revealed by the stories behind 263 innovative products—winners of the Nikkei Annual Awards for Creative Excellence

INNOVATIONS: PRESENT & FUTURE

Pharaoh: Multicapability Personal-Computer Software
Val Laboratory

Pharaoh is a comprehensive software package that has a number of capabilities including word processing, data-base management, search, and graph making. While in the process of making up a report, sales data can be calculated, made into a graph, and inserted into the text. Aside from greatly increasing the number of files, the power of the word-processing capability has been strengthened compared to older versions. Development of Pharaoh was initiated in 1985, and in May 1986 it was put on sale. It can be used with NEC's popular PC-9800 series and the IBM Japan Multistation 5550 series. Its retail price is ¥150,000.

Development Department Chief Takashi Okamura, who was responsible for the development of Pharaoh, says: "In its development, we placed the greatest emphasis on ease of use. Users of business software are not always engineers who are well versed in personal computers and other types of computers. In fact, most operators are office workers in charge of daily business operation and other ordinary company functions. Most likely, there are many who use computers only once a week, and maybe even some who use them only once a month. We must make it easier for them, so that they can feel comfortable using our software only occasionally."

One of the aspects devised for Pharaoh was the creation of a method for conversing with the screen. When using most kinds of software, the user has to wrestle with an unintelligible manual. But with Pharaoh all the user has to do is to act in accordance with the instructions on the screen. And user choices based on these instructions—except text—can be input with a mouse. This completely does away with the keyboard allergy that seems deeply rooted in Japanese users.

In addition, the entire range of software capabilities has been made easy for the user to grasp. Pharaoh has a variety of capabilities, including word processing, data-base management, and search. It can also perform a whole string of different types of work without stopping to change disks. However, the user must completely familiarize himself with the various functions it possesses. Okamura says, "Our greatest efforts went into making sure that the functions would be placed where the user expects them to be."

The experience gained in the development of the comprehensive software package Papyrus in 1984 was extremely helpful in the development of Pharaoh. More than 1,000 suggestions from users were received concerning Papyrus. The company divided them
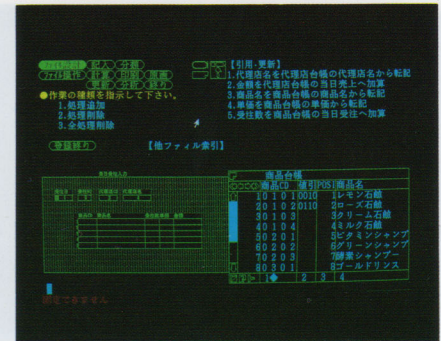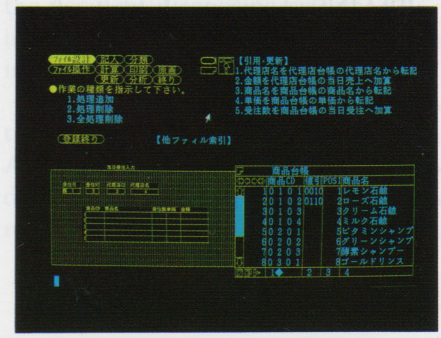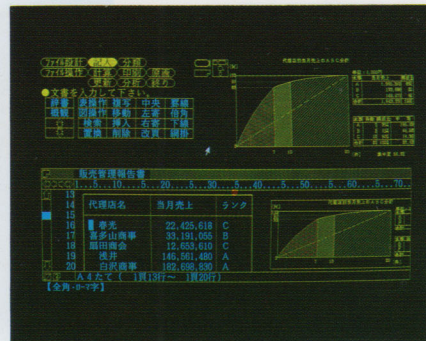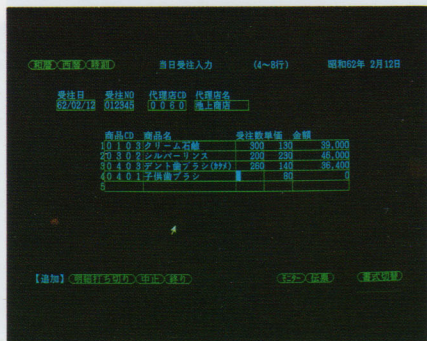
Pharaoh can carry out a broad variety of business processing on a personal computer that had to be done before on more sophisticated office computers; by inputting orders, advancement of any file specified can be carried out

The greatest advantage in the processing of data on a personal computer is the fact that this sort of data can be made into graphs or written up in sentences quickly

Many devices have been provided to assist in the preparation of the user's environment; some of these are ruled lines for the structuring of the readout screen, and selection of the color that is easiest for the individual to read
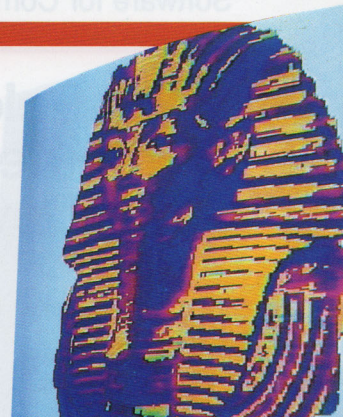
into 300 categories that were then used as guidelines in the development of Pharaoh. Demands of the users concerning such details as the conversion of *hiragana* syllabary to *kanji* and the display of graphics were incorporated into Pharaoh.

Even those unfamiliar with personal computers can use Pharaoh with ease. This is the major attraction of Pharaoh, whose features have been improved in Pharaoh V, developed in the fall of 1986. This latter software is made in such a way that a personal computer fitted with it can be used as a minicomputer on-line terminal. This permits the average user to operate a DEC VAX minicomputer, previously accessible only to a technician with a great deal of knowledge of computers.

The development of telecommunications networks within Japanese enterprises is proceeding at a fast pace. This is highly significant, since a company can then quickly collect sales data that is scattered throughout the nation, analyze that data, and speedily communicate the results back to all

parts of the nation.

For example, a large computer installed in a main office is linked by means of telecommunications circuits to minicomputers in branch offices and personal computers installed in local sales offices operated by those branch offices. In some cases, the local sales offices may have to process the data, operating the minicomputers through personal computers. It is costly and is illogical for the branch office engineers to listen to each and every demand from the individual local sales offices and process that data by themselves.

Pharaoh V can be very useful in operating minicomputers by using both a mouse and a conversation-with-the-screen format. Val Laboratory is convinced that this mode of operation will become increasingly popular in the near future.

Since Pharaoh was put on the market, it has sold 5,000 units, and appears likely to even outstrip Papyrus. High sales expectations derive from the fact that there is a large changeover demand from users of Papyrus. But Pharaoh is

not entirely problem-free. Considered in light of the fact that the present memory capacity of a floppy disk is only 1.2 Mbytes, it is clear that this was inevitable.

Since its inception in 1976, the company's goal has been to create a sophisticated computer language that would be easy to use. At first, it concentrated mainly on consignment development of normal large-computer software. However, since the 1980s it has entered the field of personal-computer software. The main purpose behind developments up to and including Papyrus and Pharaoh has again been simplicity of use.

The president of the company calls their work "end-user computering." Key to this is limiting the number of engineers involved in software development, and designing the program so that the users can do as much of the work as possible. The age when the computer is no longer the property of a few engineers is at hand.

1986 Award for Excellence
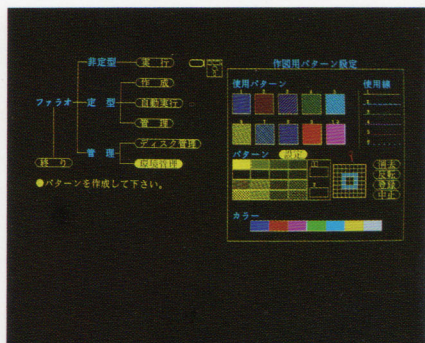
Not only the color of the diagram, but also the pattern of the diagram can be changed according to the user's wishes

With the internal clock, the user can find out how much time it has taken him to do his work; here we see that a certain type of work took 1 minute and 2 seconds to complete; even such detailed calculations as how much time it takes to process 100 bills can be computed
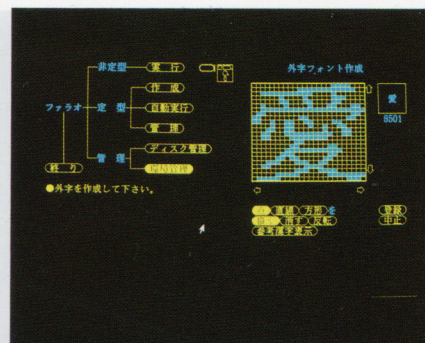
Ordinarily used Chinese characters number around 7,000, but there are more than 50,000 in existence; it is also possible to create characters that are not in the data banks for names of people and places