①**Products and Services**
ATM-BankIT — New-model ATM

**Oki aims to develop ATMs that can be used extremely easily and with the utmost confidence.
With the ATM-BankIT, Oki has sought to create a universal design
that will combine optimal security with protection of the environment.**

The Oki Group fulfills its corporate social responsibilities in various ways, including the improvement of customer satisfaction through its products and services. This commitment is also reflected in environmental protection and social contribution activities, and in the respect that Oki shows for its employees. The ATM-BankIT announced in March 2005 is an excellent example of corporate social responsibility through products and services. This single ATM expresses Oki's determination to combine optimal ease of use and security with consideration for the environment.

Universal Design

The "universal design" philosophy concept encapsulates the Oki Group's approach to the creation of products that combine high levels of both usability, defined as fundamental ease-of-use, and accessibility for all users, including the aged and disabled. The goal is to create products and services that can be used precisely, efficiently and satisfactorily by all customers. Oki uses product verification trials and other methods to canvas the views of users so that it can reflect this information in its products and services. This process is based on four concepts. First, products must have interfaces that are easy to understand. Second, mental and physical stress must be minimized. Third, there must be a choice of operating methods. Fourth, products must be friendly and attractive.

The application of these concepts to the design of Oki's new ATM is reflected in characteristics that include consistency, discriminability, conciseness, legibility and clarity. Oki is working actively to standardize universal design. For example, in 1999 and 2000, Oki participated in the project to standardize and develop guidelines for tactile symbols that allow people with visual disabilities to operate ATMs by touch. These symbols have been adopted as one of three systems adopted by the Japan Vending

Features of ATM-BankIT

Based on Universal Design Concepts

The "Easy Operation" mode is especially reassuring for elderly users

Features designed to make ATM operation easier for elderly users include large text messages, a simple flow of operations, and slow screen transitions

Designed with improved access for wheelchair users

Wheelchair accessibility has been significantly improved on the basis of test evaluations by wheelchair users

Enhancement of Security Functions

In addition to IC cards, the new ATM also supports biometric identification, including recognition of palm veins, finger veins and iris patterns

Using palm vein identification on an **ATM-BankIT**

A light filter to prevent others from watching when PIN numbers are entered is a standard feature
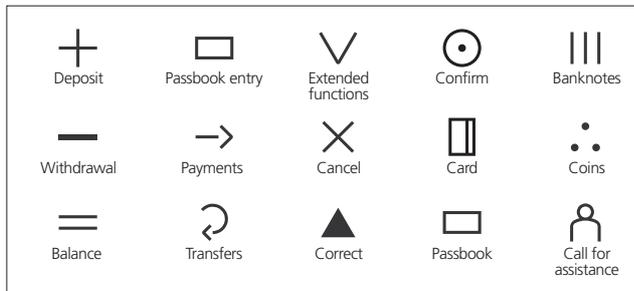
Compliance with RoHS Directive

**Substances listed in the RoHS Directive have been eliminated
(except for a small number of components)**

Lead and hexavalent chromium have been eliminated from the motors used in the ATM-BankIT

Paints: Lead and cadmium eliminated
Touch panels: Lead eliminated
Sheet steel: Hexavalent chromium eliminated
Sensors: Lead in solder eliminated
Screws: Hexavalent chromium eliminated (replaced with trivalent chromium)
Motors: Lead and hexavalent chromium eliminated
Circuit boards: Lead in solder eliminated
Solder: Lead eliminated
Electroplating: Hexavalent chromium eliminated

Machine Manufacturers Association under its design guidelines for ATMs for the visually disabled.

+ Deposit	▭ Passbook entry	V Extended functions	⊙ Confirm	⦀ Banknotes
— Withdrawal	→ Payments	✕ Cancel	▯▯ Card	∴ Coins
= Balance	↻ Transfers	▲ Correct	▭ Passbook	🧍 Call for assistance

Tactile symbols allow visually disabled users to identify functions on the ATM by touch

Extensive Usability Testing

Many elderly people find ATMs difficult to use. The addition of more and more functions has increased complexity of ATMs, and a significant percentage of elderly customers tend to avoid ATMs and use bank counters instead. Oki aims to supply ATMs that all customers, including the elderly and people with disabilities, as well as the staff of financial institutions, will find easy to use. Its "universal design" approach is based on extensive usability testing. The results of this research are reflected in the ATM-BankIT.

Usability testing targeted toward elderly users involved the use of elderly subjects, as well as a control group of younger monitors. Participants tried a variety of operations, such as cash withdrawals and account balance inquiries. In the past, general design enhancements intended to improve usability for elderly users have included improvements to screen visibility, such as the use of bigger displays and buttons. Oki's tests revealed that these measures were not sufficient. This led to the development of an "Easy Operation" mode for the ATM-BankIT.

A key characteristic of this mode, which reflects the characteristics of elderly users, is the use of one screen for each operation. Other features include short, simple instructions, audible user support, and slow screen transitions.

Oki also conducted usability tests for people with disabilities. Subjects in wheelchairs were asked to position themselves in front of the ATM and perform a sequence of operations, including cash withdrawals and deposits and the use of cards and passbooks. The results of this study are reflected in a number of improvements, including a curved body that is easier to approach, a screen inclined at angle of 10 degrees for easier viewing, simple card and passbook slots in low positions, and dispenser slots that allow banknotes and coins to be checked with mirrors if the user cannot view them directly. In addition, tactile symbols and voice guidance were introduced to assist users with visual disabilities.

In the unlikely event that there are problems with an ATM, the "Operational Guidance" on-screen guidance feature, developed and installed based on consultation with financial institutions and maintenance staff, enables the staff in charge to confirm immediately how to rectify the problem.

Sufficient Considerations of Security and Environmental Measures

In addition to these Universal Design features, ATM-BankIT also offers a range of security measures. These include biometric identification, which has been used increasingly by the banking industry in recent years as a way of preventing bankcard forgery and illegal use. As part of its environmental protection activities, Oki has eliminated chemical substances listed in the RoHS Directive*.

Oki's aim is to create ATMs that can be used extremely easily and with the utmost confidence. As a leading vendor with a major share of the ATM market, Oki will continue to develop ATMs that provide enhanced security and ease of use for the widest possible range of users.

*RoHS Directive: Restriction of the use of certain Hazardous Substances in electrical and electronic equipment. European Union (EU) members will enforce the regulations from July 1, 2006, resulting in a ban on the use of six substances (lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyls) and PBDE (polybrominated diphenyl ethers).

Workplace Perspectives

Yuji Isawa
Product Planner
Systems Hardware Company

In planning the ATM-BankIT, we were guided by four concepts: high security, ease of use based on the Universal Design concept, excellent reliability leading to low operating costs, and superior expandability and functionality. With these, we aim to meet customers' needs for increased sophistication and diversity.

Hiroyuki Miki
Universal Design Researcher
Human Interface Laboratory

The "Easy Operation" mode, the "Operational Guidance" feature, and enhancements for users with disabilities were all refined through repeated user testing to provide optimal ease of use and comfort for the widest possible range of users.

Kazuhiro Kondo
Systems Engineer
Systems Hardware Company

When we demonstrated the ATM-BankIT, I became aware of the intensity of customer interest in its operational characteristics. User reaction was very positive, with many commenting that the account transfer function was simpler than expected, that the screen was very clear and the buttons easy to push, and that the body shape was less intimidating.

Comprehensive Assessment of Oki's Universal Design Activities

Ranked 6th out of 122 companies
(Nikkei Design Magazine, 2004)