SCIT.ATR.ID.2005.KR

Annual Technical Report 2005 on Industrial Design Information Activities submitted by Republic of Korea (SCIT/ATR/ID/2005/KR)

Where URLs are requested below, it is preferred that either URLs which are likely to remain stable over time (three years or more) are provided, or home (main) page URLs are provided with a short explanation of how to access the corresponding information.

The expression "industrial designs" covers industrial designs and models. Offices which issue design patents should report their design patent information activities in this series of Annual Technical Reports.

I. Evolution of registration activities

Changes experienced in terms of application filings and grants (registrations) with respect to the previous year

In 2005, the number of industrial design applications climbed to 45,222, an increase of 9.8 percent over the previous year. The number of registered trademarks also climbed to 33,993, an increase of 9.6 percent.

II. Matters concerning the generation, reproduction, and distribution of industrial design documents and of secondary sources of industrial design information, i.e., official gazettes

Publishing, including printing, copying techniques and electronic printing

Gazette publication
Beginning July 2001, KIPO began posting daily PDF gazettesincluding granted and laid open applications of industrial designs on its web site. This online version enabled KIPO to offer patent information to the public quickly without charge. Anyone can get relevant information on requesting gazettes through the Internet gazettes mailing service.

Additionally, CD-ROM gazettes are distributed to 32 domestic and foreign organizations twice a month, as well as master CD-ROMs of each publication is archived after the Internet gazette publication.

In February 2005, however, KIPO changed the format of the CD-ROM version to XML format from SGML one with relevant forms. KIPO published gazettes on 1496 trademark applications and 34,330 registered trademarks for the year 2005.

Data Conversion Center
In January 2001, KIPO began operating the Data Conversion Center to digitize paper-based applications for designs including patents, utility models, trademarks, and intermediate documents such as amendments, written opinions, objections, registrations, trials and paper-based gazettes at its Daejeon headquarters and the Seoul branch office.

The Center automatically handles receiving, formality checking and data converting in the same process and prevents delays or errors during the conversion process by applying state-of-the-art technology such as Multi OCR, dual key-inputs, automated verification of electronic data, and color-scanning technology.

In 2005, the Center digitized totaling 297,881 documents, which used a combination of 615 different kinds of paper-based documents, including 5980 trademark applications.

Main types of announcements of the Office in the field of industrial design information

KIPO's Web site
On KIPO's Web site, applicants can find the following:

· Announcements of undelivered notifications due to an applicant's change of address
· Advance notice of patent expiry due to non-payment of fees
· Other notices such as changes in laws or fees

Internet gazette search service
KIPO provided an Internet gazette search service at its web site beginning July 2001. After the publication date, applicants can freely refer to PDF documents via the Internet at any time during the opposition request period. After the opposition request period, applicants can find information on granted and laid open applications from the Korea Institute of Patent Information (KIPI) website . Since May 2003, applicants can see the full text of the corrected applications on KIPO's website. They are also notified about their interests through a push-mail service and Short Message System (SMS).

Databases and office automation

KIPO automated all administrative processes including receiving applications, examining, granting to publishing gazettes. In 2001, we at KIPO enabled communication of examination results to applicants via the Internet or mobile telecommunication service, published official gazettes on the Internet, and handled most registration and opposition procedures on-line. By starting development of the On-line Trial System in 2002, KIPO computerized most IPR administration.

From 2003 to 2004, in order to implement KIPOnet II, the next version of KIPOnet, we collected approximately 740 customers' opinions through Customer Service Requests (CSRs), suggestions from external users groups, KIPOnet supporters, and other users. Based on the results, we analyzed 1800 existing tasks to make detailed measurements in 2003. Consequently, with the launch of the KIPOnet II in 2005, KIPO enabled to provide nonstop service, a work-at-home examination environment, and real-time notification service.

For database regarding industrial designs, please click here to refer to the database loaded in KIPOnet system.

DatabaseofIndustrialDesignsinKIPOnetsystem - Database of Industrial Designs

III. Matters concerning classifying, reclassifying and indexing of industrial design information according to the classification systems applied

Classification and reclassification activities; Classification system used, e.g., International Classification for Industrial Designs (Locarno Classification), other classification (please indicate whether industrial designs are classified by your Office and, if so, which classification is used)

KIPO uses the Korean Industrial Design Classification System, a unique system comprising 73 main classes. Although KIPO has not yet adopted the Locarno Classification, it cross-references the Locarno Classification on official gazettes with a search index containing information such as classification, applicant, application number/date, publication number/date and registration number/date. Additionally, in 2003, KIPO included a screen image with icons and relevant classification.

Bibliographic data and processing for search purposes

With regard to prior application and prior registration, KIPO loaded bibliographic data and images dating back to 1999 into the Industrial Design Search System. It also loaded national designs as well as bibliographic data and full images extracted from JPO, WIPO, and OHIM.

IV. Search file establishment and upkeep

File building

For the searchable database for KIPO's examiners, please refer to the table attached to the databases and automation of the section II. We continue file building and updating for more qualified examination with data acquired from domestic and foreign offices and organizations.

Data Management Center
Since May 2002, KIPO has managed the Data Management Center. The center provides high-quality data services through systematic analysis; it generates and processes data, and fixes data errors. In 2005, data analysis was conducted on the following:

· Data generation: 1.4 million designs from foreign countries and 2 domestic rejected applications
· Data analysis: to understand the causes of data errors and to prevent any delays or errors, KIPO analyzed data of designs in KIPOnet database and fixed 39 thousand partial errors using SQL.
· Data Transfer: In order to improve public data availability and accuracy, KIPO provided KIPI with the 340 thousand raw data pieces for designs in 2005. KIPI serves the public by packaging raw data as well making such raw data available through a free patent information search service on the Internet called the KIPRIS .
· Media management system: In 2005, the Center also established a system for managing information on media collected from foreign offices. It gave its own ID number to 1796 media each and entered relevant information into the system in 2005.

Storage, including mass storage media

We have a search system disk for storing our design search data. By the end of 2005, KIPO had stored 15 million data items for designs, including 11.79 million of domestic data items and 3.22 million foreign data items, in TIFF or SGML format on the disk.

Documentation from other offices maintained and/or considered part of the available search file

Addition to the searchable data introduced at the file building and updating section above, for easy public access, the official gazettes of the GB, CA, CN, TW, RU and TH are available at KIPO's IP Digital Library on microform, roll film or tape cartridge. In 2005, we also accommodated 1.9 million foreign data records acquired from Germany, Benelux, and so on.

V. Activities in the field of computerized search systems for industrial designs

In-house systems (online/offline)

Intelligent Industrial Design Search System
In 2005, for our examiners' convenience, we introduced a function for searching a variety font type and supplement references including US gazettes to our Intelligent Industrial Design Search System. More detailed functions are as follows:

· Half-automatic/Full-automatic scrolling function
· N:N hexahedral drawings comparison
· Book mark function
· Sub-classification search function
· Online help function

Trial and Court Decision Documents Search System
With the launch of KIPOnet system in 1999, KIPO established a Trial and Court Decision Documents Search System for its examiners' convenience. Due to the System, examiners see detailed information on trial or court decisions on trademarks and relevant texts. Key functions of the system are as follows:

· Full text search (or key word search)
· Highlight function
· Individual user interface option on first screen, search items, and search results
· Book mark function

Particularly, in 2005, the following functions were introduced:

· Showing design or trademark images at the same time
· Showing the number of data loaded onto the system in real time
· Searching function on recent three months trial or court decision documents

Administrative management systems (e.g., register, legal status, statistics, administrative support, etc.)

KIPOnet unified approximately 34 subsystems in 2005. Such systems play a role in managing the data produced in each phase of the procedure, dealing with matters that originate in the transfer of data to the next phase, and streamlining the administration of searches.

General Information Management System
The General Information Management System outputs a variety of statistical and policy data related to various types of industrial property such as patents, utility models, trademarks and industrial designs. It does this by using a variety of information retained by KIPO's databases. The system's tools efficiently manage large-volumes of data and provide various features for end-users.

Electronic Approval and Routing System
The Electronic Approval and Routing System enabled electronic approval for IPR and general administration. The system comprises two major parts: an approval system for IPR examinations, introduced with the KIPOnet system in 1999; and an approval system for general administration, launched June 2000. The system is used for the following:

· Electronic approval: preparation, approval, dispatch, and receipt of electronic documents, management of a document box, and circulation of documents.
· Electronic mail: preparation, transmission, receipt, and management.
· Electronic bulletin board: posting and review
· Management and preservation of records.

This system also offers a pop-up window showing messages on the approval status of documents and for managing individual schedules. The electronic approval system covered 99.9 percent of all documents approved in 2005.

Knowledge Management System
The demand for organized management of knowledge inspired KIPO to introduce the Knowledge Management System (KMS), in October 2001. It is dedicated to the efficient management of a variety of knowledge and information created by KIPO staff while doing their work. It allows KIPO staff to utilize various management tools such as knowledge maps, knowledge warehouses, personalized portals, and cyber knowledge communities. It also provides this information optionally through personalized portals. It helps activate knowledge management by improving the productivity of the IP administrative processes through the Knowledge-Portal system for knowledge-based activities.

Equipment used (hardware, including the types of terminal and network used, and software), data carriers used

Hardware
As of the end of 2005, KIPOnet uses 37 UNIX Enterprise servers, and 34 NT servers. For greater availability, we constructed a clustering system between the Receiving and the Sending Severs, the Documents Management and the Publication Servers, the Homepage Server and the Portal Server, and the Administration Automation and the General Information Management Servers. In other words, in case of system failure, the partnered server temporarily substitutes for the other. The interoperability of clustering allows time to address the problem. Since servers based on the clustering structure use the same database when applying the Oracle Parallel System, the accuracy and suitability of data is maintained if any failure occurs in the servers.

The storage capacity is 110 terabytes. RAID 1, 5, 0 are used according to the method of data protection. For security, we also keep 32 pieces of equipment such as VPN and IDS. The peripherals consist of four backup devices, 18 jukeboxes and 304 sets of network equipment.

In 2005, we improved the performance of that hardware by establishing the Performance Management System and upgrading the KMS. We also strengthened security with dualizing our search system, which increased the efficiency of server and system resources due to the separation of online management server from search engine server. Comparing with 2004, the CPU capacity increased 56 percent, 92 percent for memory capacity and 34 percent for the logic capacity of disc.

Network
When KIPOnet system launched in 1999, its network architecture was divided into three sections: extranet (or Internet) to enable electronic filing by applicants; patent network to handle internal IPR administration; and intranet to connect to other government offices. Such exclusive networks were used to exchange information off-line.

Together with the upgrading of the KIPOnet to KIPOnet II in 2005, those three networks were integrated into one network based on four backbones. The integrated network is protected by firewall and information protection systems such as Intrusion Detection System, Enterprise Security Management. Its network topology is Giga Ethernet and the bandwidth is different depending on the layer: Core layer - 2Gbps; Distribution layer - 1Gbps; Edge layer - 100Mbps. Each layer has a Fail-Over function (Active & Stand-By).

All the information is exchanged online and users benefited from one-stop access. In particular, internal users can access the Internet while handling their administrative works simultaneously at the same screen and they can do examination tasks at home. For external users (or applicants) can get the services such as real time notification of errors found in their applications and 24/365 service as well as web-based e-filing service for trademarks.

We keep information on all the configuration implemented in KIPOnet II to separately backup to rapidly recover from disaster and measure network performance in real time and accumulate the information to use as basic reference sources for improving the network operation. We also digitize materials generated during managing network such as work plans, work products, and network configurations and use readily and rapidly.

For additional stability, we duplexed the network backbone between our headquarters and Seoul Branch Office to improve its availability.

Software
As of the end of 2005, we use approximately 82 sorts of commercial software, which are mostly related to database or middleware. To provide 24/365 service for the public, we introduced some software to manage such middleware with development tools for monitoring online service. For databases, we regularly conducted performance tests with the support from Oracle. We continue upgrading backup tools, middleware, and web servers to improve the KIPOnet system in performance and functionality.

VI. Administration of industrial design services available to the public (relating to facilities, e.g., for lodging applications, registering designs, assisting clients with search procedures, obtaining official publications and registry extracts)

Planning, administration, automation, security

The Information Policy Bureau organizes comprehensive service for the public by managing the Intellectual Property Digital Library (IPDL), while each department supports its external customers. Public services are offered online and offline through the facilities below. Since the launch of the KIPOnet system, almost all of public services are also available online such as filing an application, a variety of notifications by email and SMS, requesting a trial, and ordering a copy of certificates.

For security, we accept digital signature for electronic documents based on the public key infrastructure for the encryption and decoding. To protect our customers' computers from external attack, we operate IDS, firewall, and VPN with equipments and servers of ESM 24 hours a day, 365 days a year. We also have key logger security and hacking-diagnosing system to protect their PCs from other risks like spyware and applied a single sign-on system for tighter security in accordance with the standardized Directory Access Protocol.

IP Digital Library
KIPO has supported its customers through the Intellectual Property Digital Library (IPDL) located at KIPO's headquarter so visitors can search IPR information in a variety of formats including on-line, microfilm, and paper. They also can order copies of published patent applications as filed.

Local Patent Information Center
To publicize the IPR system and disseminate IPR information on a national scale, KIPO designated local patent information centers in 2000. These centers disseminate IPR information in areas where IT inexperience is widespread, industrial complexes, and in SME-concentrated areas. In 2005, approximately 77,614 people used these centers for acquiring IP information, or receiving consultation via a visit or on the telephone. Also, 16,658 participants received free IPR education through special local programs.

Call Center
To integrate scattered counseling resources and promptly provide technical advice, KIPO established its Call Center in March 2002. Its roles can be divided as follows:

· Counseling: procedural and technical advice for (electronic) filing, examination, registration, and trial, search and use of patent information, and evaluations for disputes such as IPR infringement
· Customer Relationship Management: customized information offerings based on the consultation records of past phone requests and opinions collected through customers' satisfaction survey for better policies and promotional events
· Other: managing a quick response system on the Internet, dispatching a troubleshooter to help applicants with e-filing, on-line meetings between an examiner and an applicant through the local patent information centers and the Multimedia Center in KIPO.

In 2005, the Center introduced a kind of outreach service: KIPO previously informs applicants that their applications would be extinguished and suggested reasonable solutions.

Collection management, preservation

IP Library
The IP Library archives industrial design documents such as bibliographic data, abstracts and full texts in a variety of media such as paper, microform and CD-ROM. The documents are collected from four countries and one international organization, including 165 CD-ROMs and DVDs. The library also possesses 172 kinds of industrial design journals and catalogs such as Elecgance and Spiegel donated by or purchased from other sources.

Information services available to the public (including computerized services and search files contained in libraries remote from your Office and industrial design information posted by your Office on the World Wide Web).

e-Patent Portal System
KIPO serves the cyber community through the e-Patent Portal System implemented at KIPO's web site.

With the applicant code and digital signature authorized by KIPO via the Internet, applicants can file all kinds of intellectual property online. Also, they can change their own personal information on KIPO's web site. They can pay their fees through Internet banking and are informed of the legal status of their applications by e-mail and SMS (Short Message Service). They can also request and receive seven kinds of certificates, download eight kinds of electronic dossiers such as priority certificates via the Internet, and check how far their requests have been processed.

In 2005, KIPO allowed them to file a trademark application without e-filing software at our website after an initial demonstration.

Korea Industrial Property Rights Information Service
Since January 2001, we have offered domestic trademark information free of charge through the Korea Industrial Property Rights Information Service (KIPRIS), which is a specialized IPR information service provided by KIPI. The service also covers up-to-date information on the legal status of industrial design applications, as well as full text of registered trademarks back to 1950, prior registration from 1996, gazette data in TIFF /PDF/SGML format from 1998.

In 2005, we also started to offer diverse image formats such as thumbnail, JPG, and PDF. Additionally, this service is linked to other websites, and through such has a user base of 4.4 million users.

VII. Matters concerning mutual exchange of industrial design documentation and information

International or regional cooperation in the exchange of industrial design information, e.g., in the form of official gazettes

KIPO disseminates its Official Gazette of Designs on CD-ROM to 23 countries and two international organizations, including the AU, CA, DE, ES, FR, GR, IR, IT, JP, PH, RU, SE, SG, TR, US and the EP. KIPO receives official gazettes on CD-ROM from such IPOs as the JPO, RO, ROSPATENT, and WIPO.

VIII. Matters concerning education and training including technical assistance to developing countries

Training courses for national and foreign participants

International Intellectual Property Training Institute
In 1987, the International Intellectual Property Training Institute (IIPTI) was established in Seoul as a KIPO affiliated organization. It initially offered 11 IPR training courses and moved to Daedeok Science Valley in Daejeon with the support of WIPO and the UNDP in February 1991. As of 2005, of the total 57 courses, IIPTI offers five courses for foreign trainees.

The Institute also jointly launched a distance-learning course with the WIPO Worldwide Academy (WWA) in the March and October of 2005. The course is two and a half month distance-learning course comprising nine English contents of copyrights, international treaty including PCT offered by the WWA, plus three Korean contents of Patent Act, Trademark Act, and Design Act.

IX. Other relevant matters