

SCIT.ATR.ID.2006.KR

Annual Technical Report 2006 on Industrial Design Information Activities submitted by Republic of Korea (SCIT/ATR/ID/2006/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 2006, the number of industrial design applications climbed to 51,039, an increase of 12.9 percent over the previous year. The number of registered designs also climbed to 34,206, an increase of 0.6 percent.

URLs of web pages of the Office's website that provide statistics related to industrial designs

http://www.kipo.go.kr/kpo2/user.tdf?a=user.eng.refermeter.BoardApp&c=1001&board_id=statistics&movePage=ek060300&catmenu=ek60300
http://www.kipo.go.kr/kpo2/user.tdf?a=user.html.HtmlApp&c=3041&catmenu=m03_04_01

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 gazettes including granted and laid open applications of industrial designs on its website. This online version enabled KIPO to offer design information to the public quickly without charge. Anyone can access 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 with relevant forms.

For the year 2006, KIPO published gazettes on 1865 design applications and 34,037 registered designs.

Digitalization Center (Data Conversion Center)

In January 2001, KIPO began operating the Digitalization Center (Data Conversion Center) to digitize paper-based applications for designs 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 2006, the Center digitized 193,961 documents, which used a combination of 647 different kinds of paper-based documents, including 5687 design applications.

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 2006, data analysis was conducted on the following:

- Data generation: digitalization of 2 rejected design applications and 152,000 data from foreign gazettes.
- Data Transfer: In order to improve public data availability and accuracy, KIPO provided KIPRI with 380,000 raw data pieces for designs in 2006. KIPRI serves the public by packaging raw data as well making such raw data available through a free design information search service on the Internet called 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 2800 media each and entered relevant information into the system in 2006.

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

KIPO's Website

On KIPO's Website, applicants can find the following:

- Announcements of undelivered notifications due to an applicant's change of address.
- Advance notice of design 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 publication date, applicants are able to 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 have been able to view 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 applications, examination, and gazette publishing. In 2001, KIPO enabled examination result communication 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 beginning 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 KIPOnet II in 2005, KIPO provided nonstop service, a work-at-home examination environment, and real-time notification service.

In 2006, KIPO began public service to let applicants know when their applications would be examined. We continued to increase the quality of the KIPOnet II as well.

For database regarding industrial designs, please refer to the attached file below.

[Database of Industrial Designs in KIPOnet system](#)

URLs of web pages of the Office's website that provide access to online industrial design gazettes and other sources of industrial design information, including download of bulk industrial design data

<http://eng.kipris.or.kr/>

http://www.kipris.or.kr/new_kipris/index.jsp

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.

Bibliographic data and processing

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. As of the end of 2006, we established a database of 21 million pieces of design information comprised of 12.8 domestic designs and 8.5 foreign designs for internal search.

Storage, including mass storage media

We have stored the design search data mentioned above, in Text, TIFF or SGML format on disk.

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

In 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. We also have 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

For our examiners' convenience, we provide 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

In particular, in 2006, we developed application programs dependent on search engine upgrades. Due to the search system function improvement, our examiners can request error correction while completing their examinations and for re-loading of low-quality designs in the search system. They can also refer to design information of Germany design gazettes.

Trial and Court Decision Documents Search System

With the launch of the 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 designs and relevant texts.

Particularly, in 2006, we upgraded the search engine from version 2.2 to version 6.1 of the Verity and improved the user interface so that it showed Grid style search results.

We also introduced the following functions:

- Document filtering by judgment organization such as KIPO, IP Tribunal or Supreme Court.
- Flexible options for displaying search results.
- Search function by classification code for figures, similar groups, or trials.

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

KIPOnet incorporated approximately 48 subsystems in 2006. 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 industrial designs as well as patents, utility models, and trademarks. 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 99.86 percent of all documents approved in 2006.

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 completing 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.

In 2006, we also made high quality information posted on KMS available to the public through private search portals such as Naver.

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

Hardware

As of the end of 2006, KIPOnet uses 37 UNIX Enterprise servers, 44 NT servers, and 8 Linux servers. For greater availability, we constructed a clustering system between the Receiving and the Sending Servers, the Documents Management and the Publication Servers, the Homepage Server and the Portal Server, Document Management Server and Gazettes Server, and the Administration Automation and the General Information Management Servers, including Search DB1 and DB2, and Search Engine 1 and 2. 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 193 terabytes. RAID 1, 5, 0 are used according to the method of data protection. For security, we also keep 34 pieces of equipment such as VPN and IDS. The peripherals consist of four backup devices, 5 jukeboxes and 418 sets of network equipment.

In 2006, we improved the performance of that hardware by improving the disc performance for input and output of the Administration Automation System and Search System. We also incorporated storage for the Search System and strengthened security with dualizing network cards. All these activities aim to maintain KIPOnet under optimized management in order to cope with rapid changes of information technology by increasing and improving relating servers and system resources. Compared with 2005, the CPU capacity increased 23 percent, memory capacity 15 percent and logic capacity of disc 73 percent.

Network

Together with the KIPOnet upgrade to KIPOnet II in 2005, we integrated its network architecture, which was divided into three sections: extranet (or Internet) to enable electronic filing by applicants; IP network to handle internal IPR administration; and intranet to connect to other government offices.

Based on four backbones, the integrated network is protected by firewall and information protection systems such as the Intrusion Detection System, and 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).

In 2006, we linked our network to the network of the Supreme Court so that information on judicial precedents and applications for industrial designs could be viewed and shared mutually through a 2 megabyte line between both organizations. Besides, we replaced old 104 communication network equipments with the new ones to improve the performance of the KIPOnet II and extend sharing administrative business information with other government agencies.

Software

For databases, we regularly conducted performance tests with support from Oracle. We continue upgrading backup tools, middleware, and web servers to improve the KIPOnet system in performance and functionality.

As of the end of 2006, we use approximately 116 types of commercial software, which are mostly related to database or middleware.

VI. Administration of industrial design information products and 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. Since the launch of the KIPOnet system, almost all public services are also available online. Examples are filing an application, notifications by email and SMS, trial requests, and copy of certificates orders. Public services are offered online and offline through the facilities below.

IP Digital Library & Local IP Information Center

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 design applications as filed.

To publicize the IPR system and disseminate IPR information on a national scale, KIPO designated local IP information centers in 2000. These centers disseminate IPR information in areas where IT inexperience is widespread, such as industrial complexes and SME-concentrated areas.

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, trial, search and use of design 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 customer satisfaction surveys for better policies and promotional events.
- Outreach service: previously informs applicants that their applications would be extinguished and suggests reasonable solutions.
- 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 IP information centers and the Multimedia Center in KIPO.

Security

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 a key logger security and hacking-diagnosing system to protect PCs from other risks like spyware and we have applied a single sign-on system for tighter security in accordance with the standardized Directory Access Protocol.

In 2006, we continued upgrading our security level by attaining ISO 27001 for better web service security for applicants as well as Secure OS for servers' security and individual information protection mark and secure site mark.

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 five 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 Elegance 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 website.

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 website. 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. Beginning October 2006, we also began public service to let applicants know when their applications would be examined in advance.

Korea Industrial Property Rights Information Service

Since January 2001, we have offered domestic industrial design 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 designs back to 1950, prior registration from 1996, gazette data in TIFF/PDF/SGML format from 1998.

URLs of web pages of the Office's website that provide information on business procedures such as: filing, publication, examination and registration procedures related to industrial designs; opposition and appeal procedures related to industrial designs; etc.

<http://www.kipo.go.kr/kpo2/user.tdf?a=user.english.html.HtmlApp&c=30104&catmenu=ek30104>
<http://www.kipo.go.kr/kpo2/user.tdf?a=user.english.html.HtmlApp&c=30300&catmenu=ek30300>
http://www.kipo.go.kr/kpo2/user.tdf?a=user.html.HtmlApp&c=4003&catmenu=m04_02_01_03

URLs of web pages of the Office's website that provide a description of information products and services offered by the Office (e.g., industrial design search service(s), industrial design databases, etc.), as well as information on how to access and utilize them

http://www.kipo.go.kr/kpo2/user.tdf?a=user.html.HtmlApp&c=4012&catmenu=m03_11_01
<http://www.kipo.go.kr/kpo2/user.tdf?a=user.kiporo.html.HtmlApp&c=7001&catmenu=mykipo0101>

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 22 countries and five 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 JP, RO, ROSPATENT, and WIPO.

Exchange of machine-readable information, e.g., data contained on CD-ROM or magnetic tape

VIII. Matters concerning education and training including technical assistance to developing countries (please indicate URLs of web pages of the Office's website wherever appropriate)

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 2006, of the total 77 courses, IIPTI offers six courses for foreign trainees.

IIPTI also gave an opportunity to Least Developed Countries (LDCs) by holding a workshop on formulation and implementation of IP outreach strategies and supported consultation on an establishment of IP training center for Azerbaijan in cooperation with WIPO.

IX. Other general information related to the Office that is available on the Internet -- URLs of web pages of the Office's website that:

provide information on legislation related to industrial designs

<http://www.kipo.go.kr/kpo2/user.tdf?a=user.english.html.HtmlApp&c=60201&catmenu=ek60201>

contain the Annual Report of the Office

<http://www.kipo.go.kr/kpo2/user.tdf?a=user.english.html.HtmlApp&c=60101&catmenu=ek60101>

contain industrial design-related news regarding the Office

http://www.kipo.go.kr/kpo2/user.tdf?a=user.english.board.BoardApp&c=1001&board_id=kiponews&catmenu=ek20200

X. Other relevant matters