SCIT.ATR.PI.2006.US

Annual Technical Report 2006 on Patent Information Activities submitted by United States of America (SCIT/ATR/PI/2006/US)

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 term "patent" covers utility models and Supplementary Protection Certificates (SPCs). Offices which issue design patents should report their design patent information activities in their Annual Technical Reports on Industrial Design Information Activities.

I. Evolution of patent activities

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

In calendar year (CY) 2006, the United States Patent and Trademark Office (USPTO) granted 173,771 utility patents, an increase of 20.8 percent over the number of grants for CY 2005. The share of grants having foreign origin, as determined by the residence of the first-named inventor, was 48.3 percent for CY 2006, up from 48.1 percent for CY 2005. The top four patenting organizations for CY 2006 are International Business Machines Corporation receiving 3,621 utility patents, Samsung Electronics Co., Ltd. receiving 2,451 utility patents, Canon Kabushiki Kaisha receiving 2,366 utility patents, and Matsushita Electric Industrial Co., Ltd. receiving 2,229 utility patents.

There were 425,967 non-provisional utility patent applications filed at the USPTO in CY 2006, a 9.0 percent increase as compared to CY 2005. The share of non-provisional utility patent applications having foreign origin, as determined by the residence of the first-named inventor, was 47.9 percent, up from 46.8 percent for CY 2005.

Trends or areas experiencing rapid changes with respect to the previous year

In calendar year 2006, the following active technology areas showed large increases in utility patent activity as compared to CY 2005: Telecommunications (up 78 percent), Registers (up 70 percent), Image Analysis (up 69 percent), Electrical Computers and Digital Processing Systems: Support (up 68 percent), Data Processing: Financial, Business Practice, Management, or Cost/Price Determination (up 63 percent), Dynamic Information Storage or Retrieval (up 62 percent).

II. Matters concerning the generation, reproduction, distribution and use of primary and secondary sources of patent information

Publishing, printing, copying (main types of publications of the office in the field of patent information, etc.)

The USPTO has made a business decision to emphasize on-line ordering and delivery of information products and services without abandoning the traditional delivery methods that include: paper copies, fulfilling fax and telephone requests, maintaining on campus search facilities, supporting the nationwide network of Patent and Trademark Depository Libraries (PTDLs), and providing information to private companies that are value added resellers reaching thousands of their own customers.

The USPTO is transferring all data to and from the Patent Data Capture Contractor using electronic data transfer. This is a result of implementing the Image File Wrapper. The office has phased out conventional paper applications.

For its image products of Patent Application (Pre-Grant) documents, Patent (Grant) documents, Certificates of Correction, and Reexamination Certificates, the USPTO uses CCITT Group 4 facsimile images enclosed in TIFF headers.

Since the beginning of calendar year 2006, the USPTO searchable products of Patent Application (Pre-Grant) documents and Patent (Grant) documents are based on the International Common Elements as opposed to WIPO Standard ST.32.

Main types of announcements of the Office in the field of patent information

A wide variety of announcements and notices are provided on-line in the weekly Official Gazette of the USPTO. PCT information, notices of maintenance fees payable, notices of expiration of patents due to failure to pay maintenance fees, lists of patents for which Certificates of Correction issued, lists of reexamination requests filed, and lists of reissue applications filed are among the notices provided on a weekly basis.

The USPTO also provides for the on-line browsing and searching of all notices published in the Official Gazette from January 3, 1995, through the present, as well as the on-line browsing and searching of a consolidated listing of the more important notices and rule changes that were published in the Official Gazette from July 1, 1964, through December 31, 1998.

Mass storage media used (paper, microforms, optical storage, etc.)

In 1998, the USPTO established an Internet database with access to the full-text and images of granted patents from 1976 forward, consisting of two terabytes of full-page images and 120GB of searchable full-text. In 2000, the USPTO acquired an additional 2 terabytes of storage and added images of all US patents from 1790 through 1975. Presently, almost four terabytes of full-page image data for all patents from 1790 to the present is stored on these devices at the USPTO and accessible from the Internet, along with a 200GB file consisting of patent numbers and current US classifications for all patents from 1790 through 1975, as well as searchable full-text for all patents from 1976 to the present. In addition, 4.5 terabytes of storage have been deployed for published patent application from March 15, 2001 forward. The published patent applications storage meets legislative mandates issued in 1998, in the American Inventor Protection Act (AIPA), which requires the timely granting of patents and the early publication of applications.

Each year the USPTO produces nearly 200 Cassis optical disc masters containing a wide variety of patent and trademark information. Production includes four patent text products, two patent image products, one consolidated trademark text product, and one trademark image product. Over 76,000 discs per year are sold to the public, distributed at no charge to intellectual property offices around the world, to PTDLs, and to the USPTO search facilities. An additional 56,000 discs are distributed each year to Federal Depository Libraries directly from the Government Printing Office.

Exchange data products for other IP Offices and commercial customers consist of image data and XML files. The Data Dissemination Branch (DDB) oversees the creation and dissemination of over 250 data files each week. These data files are provided via File Transfer Protocol (FTP) and Digital Linear Tape to approximately 50 external customers worldwide.

Word processing and office automation

Office Action Correspondence Subsystem (OACS)

The Office Action Correspondence Subsystem (OACS) is used by patent examiners and technical support staff to facilitate creation of written correspondence for both domestic and international applications. In calendar year 2006, OACS was modified to support soft scanning of a limited number of forms directly into the Image File Wrapper (IFW) thereby eliminating the need for printing, routing and hard scanning of a physical document. This innovation made it no longer necessary for workers to be co-located with or deliver work to a scanning system, allowing the initiation of a successful work-at-home program for some of the USPTO technical support staff.

In addition, the OACS development team spent much of 2006 in planning and preparation for release of the Electronic Red Folder (ERF), the first step in the implementation of the Patent File Wrapper (PFW), an integrated document management, work flow and image view and manipulation system. Scheduled to be deployed in late calendar 2007, ERF will automatically route work that has been completed by patent examiners to the appropriate reviewing officials and ultimately soft scan approved office actions into IFW. Electronic notification of office action preparation to at least some applicants is also expected to be part of the early implementation of PFW.

Patent Application Security System (PASS)

In 2003, PASS was introduced to support initial formalities review of domestic applications (replacing the earlier Patent Application Capture and Review System (PACR)).

PASS allows users to view documents that have been scanned into the Image File Wrapper (IFW) and, in conjunction with the PALM system, prepare correspondence related to formalities issues.

PASS also includes the web-based Classification Security Review (CSR) and Licensing and Review System (LARS) modules in support of, respectively, initial classification of new applications according to the US Patent Classification system and all stages of national security review of new applications stored in IFW.

CSR streamlines the initial classification and first-level security review processes into one new user interface. The LARS system provides the images of applications identified during first level security screening to Licensing and Review examiners who perform second-level security review. LARS allows the examiners to clear an application for foreign filing license or refer it to a defense agency for third-level security review. PASS writes applications referred for third-level security review to a CD-R which is subsequently made available to the appropriate agencies. CSR and LARS both use new PALM services which support real time updating of the security or classification status of an application in the PALM database.

PASS also performs the patent application exporting services. PASS extracts IFW images and transmits the content to contractors in support of Early Data Capture (EDC), Pre-Grant Publication (PG-Pub), and Grant and Pre-Grant Classification (PGCLASS).

PASS4.4.1 was deployed in February 2007. This release integrated the initial examination processing of international (PCT) applications and US applications into the same workflow.

PCT Operations Workflow and Electronic Review (POWER)

POWER supports the administrative processing of PCT applications and related documents by the staff of PCT Operations. In October 2006, the USPTO abandoned POIS, a scanning and image storage system that was dedicated solely to international applications, in favor of merging international applications into the same process flow as that employed for domestic applications (see IFW, below). At the same time, the USPTO began accepting electronically filed international applications via the same system (EFS-Web) that is used for electronic receipt of domestic applications. The images of documents so submitted are directly loaded into the Image File Wrapper (IFW) system. If the applicant used PCT EASY to author the request form, then this bibliographic data can be attached to the electronic submission and directly loaded into a database for ultimate use by POWER. Otherwise, typists transcribe bibliographic data from the scanned image of the request form.

Also in 2006, POWER began automatically transmitting bibliographic data in text form to the International Bureau as a first step towards electronic transmission of Record Copies and later submitted sheets (which is planned to start in 2007).

POWER conducts automated formalities reviews based on this bibliographic data, prepares drafts of necessary correspondence and electronically routes the application to the next available formalities officer. Via a number of user interface screens, the formalities officer confirms or rejects the system indication of errors and completes any necessary correspondence. Based on pre-programmed business rules, the system automatically routes the electronic file to the next work step. If the applicant has requested that the USPTO prepare a certified copy of the priority document, an order is forwarded to the OEMS system at the appropriate time. POWER also updates PALM with any data changes, provides management reporting, and allows for exception processing as needed. All new international applications and follow-on documents are processed by the POWER system.

Image File Wrapper (IFW)

In 2006, the focus of the USPTO was to minimize the amount of hard scanning that was required in order to capture document images within the Image File Wrapper (IFW) system. To this end, the USPTO enthusiastically promoted use of its web based Electronic Filing System (EFS-Web, q. v.) through which documents created by the applicant could be directly loaded. Further, substantial work was done in 2006 to prepare for soft scanning outgoing correspondence prepared by patent examiners, formalities reviewers and other staff directly into IFW. We expect to implement these features in 2007.

Further, the USPTO implemented a new interface to its IFW system that allows the images and metadata contained on Communication on Request CDs from the International Bureau to be directly uploaded. Previously, these documents, which pertain to international applications entering national stage in the USPTO, had to be printed and hard scanned.

Also in 2006, the USPTO replaced its original document scanning system, an adaptation of the EPO EPOScan system. The new system was developed by RTIS, the contractor responsible for conducting the scans, and supports the functions of:
1. Document image and metadata capture
2. Document titling (assignment of the appropriate document code (“Doc Code”))
3. Quality control
4. Delivery of document images and document metadata to IFW or SCORE via the EAI Hub, and
5. Delivery of application status or other management information to PALM or other USPTO systems.

In addition to being used for all domestic applications, this new scanning system also replaced POIS, the scanning and image storage system that had been dedicated to processing international applications. Coupled with the migration of images from the POIS database for international applications filed on or after 01 January 2004, this change completed the incorporation of international application images into the USPTO general image storage system, IFW. This permits applicants to monitor the progress of their international applications through Private PAIR as well as making published international applications generally available through Public PAIR.

During 2006 modifications and improvements were made to the IFW examiner interface (eDAN) to provide added user capabilities. These included enhanced OCR capability and File Wrapper Access (FWA) to office actions and other application documents for published applications from the JPO. FWA with the EPO was established in 2005.

Patent File Wrapper (PFW)

As part of the USPTO Patent File Wrapper (PFW) efforts, studies were conducted and a multi-year strategy was developed for replacing the current Image-based file wrapper system (IFW) with the next generation, text-based file wrapper system (PFW). PFW will enable smart text handling of all patent application documents. PFW will also incorporate document management and workflow control. This will result in significant improvements in efficiency and file integrity.

In 2006, substantial effort was expended to document the as-is process and develop the to-be process for the PFW environment. Electronic Red Folder (ERF) will be the first step in the implementation of the PFW. Scheduled to be deployed in late calendar 2007, ERF will automatically route work that has been completed by patent examiners to the appropriate reviewing officials and ultimately soft scan approved office actions into IFW. Electronic notification of office action preparation to at least some applicants is also expected to be part of the early implementation of PFW.

Patent Training Academy (PTA or Academy)

On January 23, 2006 the first 128 patent examiners began an enhanced eight-month program at the new USPTO Patent Training Academy. In making the announcement, Commissioner for Patents John Doll noted that, to address our hiring goal of 1,000 new examiners a year for the next five years, we can no longer rely on our traditional methods of training examiners. Our completely redesigned training academy will approach examiner training in a much more comprehensive manner than ever before thereby providing new examiners in the art units with higher examination skill levels. This redesigned training will provide the new examiners with a strong foundation and support system that will last their entire careers.

In a specially designed environment equipped with state-of-the-art instructional and office automation hardware and software, new examiners receive extensive training in the following areas:
1.The patent process, including the impact of patents on the U.S. economy;
2. All aspects of patent examining functions and responsibilities;
3. Communications skills, including technical writing, legal writing, and oral communication through mock interview experiences;
4. Automation tools available to examiners, including search tools and the Microsoft Office Suite; and
5. The state of technologies in the areas in which they will examine.

In addition to extensive lecture and lab training, those attending classes will spend considerable time learning their jobs through the examination of real patent applications in a setting that will provide immediate assistance when it is needed.

The Academy also developed an IDP System in FY 06. The IDP System stores resumes on each new examiner, which are used to determine into which organizational area (i.e., art unit) graduating examiners should be placed. The IDP System provides the training materials and schedules to each examiner workstation. This also allows the examiner to review training materials when needed. The system provides testing and immediate test results to the examiner and trainer. Also, this system allows examiners to provide feedback and evaluation on the training,

All in-coming examiners are provided with training on electronic communication, such as Microsoft Office packages and Collaboration tools. The Academy also uses electronic communication tools to communicate with Trainers and Examiners.

The Academy researched SynchronEyes and purchased it in calendar year 2006. The first workstation installation is targeted to for January 2007. It allows instructors to view the workstations of the students and vice versa for training purposes which calls for "hands-on" instruction during class. The instructor can monitor student progress. The trainer workstation can be projected on the screen in the front of the classroom so they can follow along and do hands-on training on their own workstations simultaneously. The instructor can also do one-on-one training with a student and send questions back a forth from the workstations.

Search Systems

Examiners have access to two search clients, both of which provide text and image search and display capabilities. One is a browser-based client called WEST (Web-based Examiner Search Tool); the other is a coded client called EAST (Examiner Automated Search Tool). WEST is designed for ease of use and rapid deployment of new functionality. EAST has a more complex interface, designed for greater user customization, more rapid retrieval of images, and greater use of the keyboard. Through these search clients, all USPTO patent examiners have access to full U.S. patent images from 1790 and full U.S. patent text search from 1920. The 1920-1970 segment of the U.S. database is the U.S. Patents OCR database. Access to another segment of the U.S. Patents OCR database covering the period from 1790 to 1919 was planned for 2005. Since the introduction of U.S. Published Applications in March 2001, the full text and images of these documents have been made available. Also available are the contents of the First Page DataBase (FPDB) project, IBM Technical Disclosure Bulletins, and the Derwent World Patents Index (WPI).

The FPDB consists of the English-language Patent Abstracts of Japan (PAJ) from 1976, and five European Patent Office (EPO) member states (EP patent documents, France, Germany, Great Britain and Switzerland), and WIPO patent documents (PCT Publications), from 1978. Additionally, examiners have access to full patent document images from 1920 for these same intellectual property authoring countries and organizations. The addition of full English-language text of EPO documents and full patent document images for additional intellectual property countries and organizations is planned.

In 2006, the full text search databases for US Patents and Published Applications migrated to using the International Common Element (ICE) Red Book for Patent Grant Data/XML and Patent Application Data/XML publication format as the input source content. See http://www.uspto.gov/web/offices/ac/ido/oeip/sgml/st32/redbook/rb2004/rb2004.html for more information. Both search clients were updated to facilitate search and display of additional data content.

International Patent Classification (IPC) Reform was implemented for both newly issuing US Patents and newly publishing US Published Applications effective January 1, 2006. Additionally, IPC Reform data was applied to existing US Patents and US Published Applications to supplement the IPC data existing at the time of their original dissemination. Both search clients were updated to present both the old and new IPC data.

The USPTO Internet Patent search web site (http://www.uspto.gov/patft/index.html) was transitioned to being hosted on the USPTO campus.

The Public Search Facility at the USPTO campus was provided access to the USPTO internal Derwent World Patents Index (WPI) text searchable database previously provided only to examiners.

Automated Biotechnology Search System (ABSS)

The USPTO relies heavily on nucleic acid (i.e., DNA, RNA) and amino acid (i.e., protein) sequence information supplied in biotechnology patent applications. This information is used to assess whether the claimed invention complies with the statutory requirements of utility, novelty, non-obviousness, and provides an enabling disclosure of the technology behind the invention. As well as internal USPTO databases, claimed sequences are searched against publicly available nucleotide and amino acid databases for relevant prior art and other information. The USPTO keeps pace with the rapid expansion in sequence information filings by continuing to enhance the ABSS system. The ABSS system comprises a network of Sun Microsystems hardware and Biocceleration Bioaccelerators, which utilize the Smith-Waterman algorithm. Databases included in searches performed by the ABSS system are: EMBL, GenBank, Geneseq, Swiss-Prot, PIR, and SPTREMBL, as well as Pending, Published, and Issued.

STIC searching staff, and biotechnology examiners can access the ABSS system 24 hours per day, seven days per week. The searching staff is available to perform searches on behalf of the more than 400 examiners from Technology Centers 1600 and 1700.

Supplementary Complex Repository for Examiners (SCORE/PSIPS)

SCORE, the Supplemental Complex Repository for Examiners, was deployed in August 2005 to provide Examiner and public access to supplemental file wrapper data through the electronic Desktop Application Navigator (eDAN) and the Patent Application Information Retrieval (PAIR) system. As of spring 2006, the repository is expected to comprise the entire biosequence database, biosequence search results back to June 2005, and other selected supplemental file wrapper information.

SCORE stores and displays Sequence Listings, design drawings, color drawings, sequence search results files, query-by-example search results files, 3-D protein crystal tables, mega tables, mathematical equations, computer source code, and other supplemental file information or mega sections of applications in the native electronic formats. SCORE allows specialized viewing software to be applied to application data, if necessary.

PatentIn and Checker

Since October 1990, the USPTO has made available to customers a set of software tools for creating biosequence listings: PatentIn and Checker. PatentIn and Checker provide customers with an efficient means to create and validate the Sequence Listing that must accompany, in paper form, or approved paper equivalent, and computer readable form (CRF), each biotechnology patent application that contains biological sequence information.

PatentIn, designed and developed in-house by the USPTO, is used by over 60 percent of customers who submit Sequence Listings. Several modifications and improvements to make PatentIn compatible for international use have occurred since 1990. Particularly, in 1996, the USPTO and the EPO began a cooperative effort to develop a Microsoft Windows-based version of PatentIn that would satisfy WIPO Standard ST.25. As a result of these efforts PatentIn 2.0 was released in 1998.

PatentIn 3.4 was released in December 2006 and included a variety of small improvements such as ensuring compliance with section 508 of the Disabilities Act and dropping support for Windows 95, 98, ME, NT, Win2000.

Checker, also designed and developed in-house by USPTO, is a module of the validation and data entry system used by STIC technicians to check and load Sequence Listings into the in-house USPTO sequence database. The software allows public users to check completed Sequence Listings before submitting them to the USPTO. Use of Checker prior to filing Sequence Listings has resulted in fewer Sequence Listing errors discovered by USPTO, therefore fewer Sequence Listings returned to Applicants for correction. Several releases, the last being Checker 4.4.4, deployed in December 2006 corrected a variety of small errors or annoyances.

(New) techniques used for the generation of patent information (printing, recording, photocomposing, etc.)

There are no new developments to report for calendar year 2006.

III. Matters concerning abstracting, classifying, reclassifying and indexing of technical information contained in patent documents

Abstracting, reviewing, translating

The Scientific and Technical Information Center (STIC) does not abstract technical information from patent documents.

The STIC translators and translation contractors provide full or partial English-language versions of patent documents upon request by USPTO staff. The annual workload in FY2006 was over twenty-one million written words, the majority of which were in the Japanese, German, and French languages. In addition, the translation staff reviews with examiners the general contents of patent documents and provides partial oral translations prior to or in place of written translations. Human-edited machine-assisted translations for Japanese patents issued since 1993 are being provided to examiners as a method of improving translation turnaround time and controlling costs. USPTO also began making use of the KIPO machine translations of Korean patents and the EPO German machine translation tool.

Classification and reclassification activities; Classification system used, e.g., International Patent Classification (IPC), other classification (please indicate whether or not patent documents are classified by your Office and, if so, which classification is used)

In 2006, approximately 25,425 patent documents were reclassified and 263 new subclasses were established in 7 classes in the US Patent Classification (USPC) system. Of this total 1,827 were Pre Grant Publications and approximately 23,598 were United States patent original or cross-reference classifications.

The Classification Data Systems automated classification desktop tool was deployed to additional classifiers and examiners in 2005. Classifiers and examiners use the system to create new classification schemes and associated reference materials for the USPC, and to reclassify patent documents into the new scheme.

The Office of Patent Classification coordinated with other USPTO automated internal systems to update as needed in preparation for IPC reform implementation and continued to maintain a concordance between the United States Patent Classification System and the International Patent Classification (IPC 8) system. USPTO also implemented an IPC8 valid symbols file and a new US to IPC8 concordance to PALM for proper IPC symbol assignment for documents published since January 2006.

Foreign Patent Classification (FPC) - The USPTO continued to develop automated systems and processes to assist with the classification of non-US patent documents by USPC. In association with unilateral, bilateral and/or trilateral classification harmonization projects, USPTO has developed a process for assigning USPC codes to unique non-US patent documents. This process will be expanded for incorporation with IPC Reform. The USPTO continues to investigate linguistic tools, namely, the USPTO text search engine and query-by-example (QBE) technology to further assist with the classification of the documents. Non-US patent documents that have USPC codes can be retrieved by those classifications using the Examiner electronic search systems EAST and WEST.

All utility patents issued from 2002 on include both a US Patent Classification designation and an International Patent Classification designation. The electronic search systems EAST and WEST available within the USPTO and at selected Patent and Trademark Depository Libraries provide the capacity for searching US Patent documents with either a US or IPC classification designation.

Further information about the use of the US Patent Classification System is available at:
http://www.uspto.gov/main/patents.htm

Coordinate indexing (domestic deep indexing systems, keyword indexing)

No new activities have been initiated under this topic.

Hybrid system indexing

No new activities have been initiated under this topic.

Bibliographic data and full-text processing

Patent search capabilities provide text search of US Patent Applications (PGPub), US Patents, JPO and EPO abstracts, the Derwent World Patent Index Database, IBM Technical Disclosure Bulletins, and OCR text of US Patents issued between 1920 and 1971. For the OCR file, examiners identify relevant documents by text searching the OCR file and use the document images to determine applicability to applications under review.

Trilateral Document Access: File Wrapper Access (TDA:FWA) facilitates access by US patent examiners to the content of particular patent applications stored in participating foreign IP office application file wrapper systems that correspond to US applications. The first phase of TDA, File Wrapper Access, was implemented with the European Patent Office (EPO) in 2005 to allow US examiners to view EPO application document images for published applications using the examiner eDAN examination tool. In 2006, USPTO added File Wrapper Access with the JPO and examiners of both offices will be able to access the selected application documents in the file wrappers of the other office.

IV. Search file establishment and upkeep

File building

The Examiners' Search File is continually updated to ensure that the file is complete and current. The US patent documents granted each week are processed and added to the Search File. In 2006, an average of 3,374 US patents issued each week and were added to the Search file; an average of 13,628 original and cross reference codes associated with those documents were additionally added to the Search File each week. Also, the Pre Grant Publications are processed each week and added to the Search File. In 2006, an average 5,664 Pre Grant Publications issued each week and an average of 10,632 primary and secondary classification codes associated with those documents were added to the Search File each week.

OCR File

The USPTO has used OCR software to convert images of approximately 166,000 US patents issued between 1970 and 1976 missing from the current text file. It has also converted the US Patent backfile from 1970 to 1790, which is approximately 3.9 million additional documents. Work has been completed to load the converted text into the USPTO search engine, BRS/Search, for access via the search clients EAST and WEST. The load of the U.S. Patent OCR database is being implemented in two segments. One segment covers the time period 1790 to 1919, while the other segment covers the time period 1920 to 1971. As of January 2002, examiner access was provided through both EAST and WEST search clients to the 1920 to 1970 data. USPTO embellished these text records by obtaining and processing an electronic source of titles and inventor names. Providing access to the segment for the time period 1790 to 1919 is being planned in conjunction with the implementation of enhanced system architecture in 2005.

NPL

USPTO examiners have desktop access to over 17,000 journals in electronic format as well as nearly 6,000 electronic books. Such Internet-based services as the IEEE/IEE Xplore, Proquest, ScienceDirect, and the ACM Digital Library are also widely used by examiners.

Development of a database of examiner-identified NPL continued. The database currently contains NPL on business methods, telecommunications, computer software, nanotechnology, designs, and other technology areas. The types of documents submitted by examiners include journal articles, portions of books, Internet documents, press releases, images, and standards. The database contains bibliographic and full text information.

Non-US Patents

The USPTO has undertaken a goal of providing real-time access to patent documents of international Intellectual Property Offices to the Examining Corps, Partnership Patent and Trademark Depository Libraries, and Public Search Room users. Because of the volume of global patent documents, priority has been given to providing access to PCT Minimum (PCT Article 34) patent documents first.

JPO and EPO patent full images commensurate with the text searchable files associated with the Trilateral First Page Database Project have been loaded to magnetic storage devices and made available to examiners through EAST and WEST. Additional JPO and EPO patent full images have been loaded to magnetic storage devices and made available through FPAS (Foreign Patent Access System) and the Foreign Document Retrieval capabilities of WEST.

Updating

The Electronic Search File is continually updated to ensure that the file is complete and current. The US patent documents granted each week are processed and added to the database, along with associated classification information. In 2006, an average of 9,038 US patent documents (US patents and Pre Grant publications) were published each week and an average of 3,374 classification codes associated with these documents were added to the database each week. Every other month, USPC classification information for all records, US and non-US, is updated to account for reclassification projects and miscellaneous transfer requests of examiners.

During 2001, the Index to the US Patent Classification system was expanded to include several hundred new terms relating to US classes and subclasses for business method technologies.

The USPTO Data Maintenance Branch and staff perform the data loading and maintenance of both text and image data for the following domestic databases:

Patent Image Retrieval System (PIRS), Patent Images on the Web (PIW), Application Image Retrieval System (AIRS), Application Images on the Web (AIW), Bibliographic Retrieval Service (BRS) Patent Grant and Application Text Database, Publication Site for Issued and Published Sequences (PSIPS), Patent Application Location and Monitoring (PALM - Tape Creation Process), Patent Application Services and Security (PASS Grants and Application - Tape Creation Process), Electronic Filing System (EFS - Tape Creation Process), CD-Rom Reference Library System and the Trademark Image Capture and Retrieval System.

Storage, including mass storage media

In FY 1997 and FY 1998, the USPTO installed 42 terabytes of Redundant Arrays of Independent Disk (RAID) magnetic disk storage systems to process patent, trademark, and other business data electronically. In FY 1999 through FY 2001 additional capacity was acquired that doubled the amount of online magnetic storage available. The USPTO is continuing its partnership with EMC Corporation for server attached and Storage Area Network (SAN) storage devices. With a long-term lease agreement, the USPTO had acquired over 400 TB of raw disk capacity at the end of FY 2004. Managing this storage will require continued vendor support, and implementation of storage management tools. In FY 2004 and FY 2005 the USPTO extended the SAN to support the agency move to Carlyle and to enhance disaster recovery capabilities.

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

The US Patent and Trademark Office receives, by means of exchange agreements, the patent documents of most countries of the World. The European Patent Office (EPO) provides the predominant number of patent documents for the majority of countries in accordance with WIPO exchange standards (WIPO ST.33 and ST.40). The USPTO has implemented production software to load these patent documents in electronic form to magnetic storage devices. Other countries, which provide independent exchange of documents in electronic form to the USPTO in compliance with the noted WIPO exchange standards, are also loaded to magnetic storage devices. These patent documents are available on the USPTO network through examiner search tools EAST and WEST. A number of countries, which provide independent exchange to the USPTO on CD-ROMs and/or DVD-ROMs but not in compliance with the WIPO exchange standards, are available in the Scientific and Technical Information Center (STIC) at a stand-alone workstation utilizing the source countries software for viewing and printing the patent documents when requested. STIC staff is making increasing use of the Internet sites created and maintained by national patent offices and multinational patent organizations. Access to Internet sites created and maintained by a number of national and multinational patent organizations is also publicly accessible in the STIC Main Branch.

The USPTO has undertaken an effort to assign USPC classifications to foreign patent documents, thereby facilitating electronic retrieval of the full document facsimile images through classified search techniques. A unique preferred foreign patent document from each patent family will be identified for inclusion in the foreign patent electronic database for retrieval using USPTO search tools. The initial phase of this project added the capability to search foreign patents by USPC to the examiner search tools, and loaded over five million foreign patent USPC legacy records. Subsequent phases currently being planned involve the use of patent family information to eliminate the retrieval of duplicates when searching multiple electronic patent databases, and automated language translation capability.

The USPTO Data Maintenance operation and staff is responsible for all text and image data load processes and maintenance of both domestic and foreign patent data. The staff performs the data loading and maintenance of both text and image data for the following foreign databases: Derwent WPI Data Load, Foreign Image Data Load (EPO/JPO Full Image Data, DOCDB, ECLA, JPO FI-Data File, JPO F-Term Data File, JPO IPC Converted and Concordance File, Canadian Mimosa and Australian Mimosa).

V. Activities in the field of computerized and other mechanized search systems

In-house systems (online/offline)

The Examiners Automated Search Tool (EAST) provides examiner search and retrieval capabilities from the desktop using a dedicated client application. It provides a single user interface that can be used to search for prior art of any type and integrates with other activities performed by patent examiners in order to reduce the time required to examine applications. EAST provides access to full text data, full image data, and clipped image data. EAST offers full text and abstract text data search and retrieval on the following databases, using the Bibliographic Retrieval System (BRS) search engine: U.S. Patent Office (USPAT), U.S. Pre-Grant Publications (US-PGPubs), Optical Character Recognition scanned US patents (USOCR), Japanese Patent Office (JPO), European Patent Office (EPO), Derwent World Patents Index, and the IBM Technical Disclosure Bulletin (IBM TDB) database.

The Web-based Examiner Search Tool (WEST) allows US patent examiners to use an Internet Explorer 6 browser on their workstations to perform patent search and retrieve in the following databases: the Derwent World Parent Index (DWPI), US Patents Full Text (USPT), US Pre-Grant Publications (PGPubs), Optical Character Recognition scanned US patents (USOCR), Japanese Patent Office Abstracts (JPAB), European Patent Office Abstracts (EPAB), IBM Technical Disclosure Bulletins (TDB), and Foreign Image Data Load (FIDL).

The Automated Biotechnology Sequence Search (ABSS) system is the database, retrieval, and search system for the electronic form (CRF) of the biosequence submissions that are required of applicants who cite DNA, RNA, or protein sequences in patent applications. The ABSS system utilizes the Smith-Waterman algorithm to search public and internal USPTO databases, including: GENESEQ, GenBank/EMBL/DDBJ, UniProt, Pending, Published, and Issued.

Patent Document Image Retrieval System

Examiners have access to the text and images of US, JPO, and EPO patents, Derwent abstracts, US published applications and IBM technical disclosure bulletins through a browser-based client called WEST and a coded client called EAST. WEST is designed for ease of use, and rapid deployment of new functionality. EAST has a more complex interface, designed for greater user customization, more rapid retrieval of images, and greater use of the keyboard. WEST was deployed in May 1998, and EAST was deployed in August of 1999.

EAST was upgraded several times in FY 2000 to provide rapid improvements and increased functionality in order to ease the transition of examiners from the legacy Messenger-based tools. In FY 2001, PGPub data was deployed and in FY 2003, the OCR back file was deployed. Future enhancements to EAST will provide increased access to foreign patent images. Continuing system performance upgrades and integration with other examiner-automated systems are also planned for future releases of EAST.

In June 2000, WEST 2.0 was deployed; offering foreign patent searching by USPC, patent classification searching in Manual of Classification order, customizable display formats and a host of other enhancements. In 2002-2003 WEST was enhanced to include the OCR back file to support to browsers other than Netscape, and to provide automated classification search query building from the Manual and Index of U.S. patent classifications. Future planned enhancements include performance upgrades and integration with other examiner automation tools.

In October 2000, the patent database on the Web was expanded to include additional U.S. patent image data back to 1790 and other ancillary documents. The patent image data can be accessed by a class/subclass search or by patent number. In FY 2001, the Internet began electronically publishing for Pre-Grant Publication (PGPub) patent applications. Biosequence repository data will be available in FY 2002. In FY 2003, assignment data will be added to the website. Beginning in FY 2004 and completing in FY 2008, perfection of backfile data will be accomplished and placed on the web.

Approximately 80% of the examiners use EAST as their primary search tool, with the remainder using WEST. EAST users also use WEST for retrieving foreign patent images. A future enhancement to EAST will provide this capability in EAST itself.

Telecommuting Program (PHP or Hoteling)

PHP is a flexible telecommuting program that allows eligible USPTO employees to perform their official duties at an alternative work site, predominately at home. The Patents organization launched a telework pilot in FY2005 as a precursor to initiating PHP in January 2006. By December 2007, the USPTO expects to have more than 1000 active PHP employee participants. An additional 500 employees are planned to be added each year through 2011 bringing the total number of PHP participants to over 3000.

Major PHP elements include remote online access to all relevant USPTO patent business systems, collaborative communication technologies, and a hoteling component to reserve office space on the USPTO campus.

PHP incorporates a hoteling component whereby telecommuting participants reserve time in an office suite physically located at the USPTO headquarters one day per week. This year the USPTO reduced the hoteling component office suite availability from the initial one suite per three telecommuters (1:3) ratio, to one suite per five telecommuters (1:5 ratio), to one suite per ten telecommuters (1:10) ratio of office space allocated to the hotelers. This significant reduction in hoteling space realized a savings of office space lease cost avoidance. The suites are outfitted with computers, printers, phones, and administrative resources for hoteling participants use during their on-campus time. PHP participants can reserve suites via an automated desk reservation system remotely accessible through the USPTO Intranet site.

The USPTO responds often to telecommuting program inquires from the following external groups:

1. Federal Reserve
2. Government Services Administration (GSA)
3. Canadian Patent Office (CIPO)
4. Department of Transportation
5. Department Of Interior - Fish & Wildlife
6. Library of Congress
7. Internal Revenue Service
8. Department of Justice
9. Department of Treasury - Treasury Inspector General Tax Administration (TIGDA)
10. Loudoun County Government
11. Congressional Aides
12. United States Senate Staff
13. National Institutes of Health
14. European Patent Office (EPO)
15. Japanese Delegates for the Center for Advanced Study and Research in Intellectual Property (CASRIP)

External databases

USPTO patent examiners and trademark attorneys have access to over 1,000 commercially available databases including those provided by STN, Questel/Orbit, and Dialog

The content of the Derwent World Patent Index file has been brought in-house and is available via WEST and EAST. STIC searchers and patent examiners in the biotechnology field also have access to several public and commercial biosequence databases, including: EMBL, GenBank, Genseq, Swiss-Prot, PIR, and SPTREMBL, as well as the in-house Pending, Published, and Issued databases.

USPTO examiners have desktop access to over 17,000 journals in electronic format as well as nearly 6,000 electronic books. Such Internet-based services as the IEEE/IEE Xplore, Proquest, ScienceDirect, and the ACM Digital Library are also widely used by examiners.

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

Patents Location and Monitoring System (PALM) Migration

PALM continues to constitute the backbone for management information throughout the USPTO. Throughout 2006, the main emphasis was on making changes to provide services to other projects such as TDA:PDX.

PALM on PTOnet

All Patent Examiners have been provided further access to the current Management Information System on their desktop PC via barcode readers and a web browser interface. This system has been found to provide increased case tracking accuracy.

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

PTOnet has an architecture consisting of a campus-wide Gigabit Ethernet switched backbone with closet switches providing switched Ethernet connection to individual workstations. Currently, PTOnet users have dedicated 100 Mbps switched Ethernet connections.

PTOnet

Since desktop applications require increasingly more network bandwidth (through the backbone server attachments) in 2002 PTOnet was upgraded to keep ahead of the requirements. Prior to the most recent network upgrade, PTOnet users had access to a 10 Mbps Ethernet segment. Currently, PTOnet users have dedicated 100 Mbps connections; industry analysis indicates this will be more than sufficient for any forecast client application.

PTOnet provides examiners and other staff with access to the Internet through dual-redundant firewalls. Access zones implemented via firewalls and proxy servers have been implemented to provide a limited amount of controlled access to PTOnet resources for external users. Additional external access capabilities are being developed through the implementation of a variety of access control mechanisms including digital certificate-based authentication supported by a full Public Key Infrastructure (PKI).

Access to external databases

External databases are primarily accessed using software such as STN Express or DialogLink loaded on PTONet. Examiners also use secure communications and servers to search these services via the Internet. VPNs with STN and Dialog allow for fast, secure searching. Examiners establish connections to the external databases through sessions that are set up after logging into the PTO firewall. The PTO Internet access line bandwidth has been upgraded to two full T-3 connections and two full OC-3 connections (a total of 390 Mbps).

Existing online thesauri; their structure, presentation and usefulness for computerized searches

Both of the Search Systems, EAST and WEST, have the Assignee Thesaurus and a general technical thesaurus from the US Defense Technical Information Center (DTIC).

VI. Administration of the industrial property office library and information products and services available to the public (relating to facilities, e.g., for lodging applications, for assisting clients on searching procedures, for obtaining official publications and registry extracts)

Planning, administration, automation, security, buildings

Planning and Administration

The Scientific and Technical Information Center (STIC) is organizationally part of the USPTO Search and Information Resources Administration. Although providing a number of services to the public, the primary mission of the STIC is to serve the examining and professional staff of the USPTO. STIC is composed of four divisions including the Centralized Services Division, the Electronic Information Center Division, the Digital Resources Division, and the Search and Automation Support Division.

The Digital Resources Division manages access to commercial databases and also manages the STIC NPL intranet pages. The Information Access and Management Division, which provides acquisition, cataloging, and NPL web page management is part of this division.

The Centralized Services Division is responsible for assisting examiners and the general public in the use of the USPTO extensive collection of foreign patents as well as the scientific literature collections of the information center main branch. The Lutrelle F. Parker, Sr. Memorial Law Library provides access to legal information for examiners, USPTO staff, and the general public. The division also provides copies of foreign patent documents to the public for a fee. The staff maintains the USPTO collection of print and microform foreign patent documents. The Centralized Services Division is also composed of the Reference Delivery branch, which provides articles, books, and documents to examiners on request. The Translations Branch, which provides examiners with both oral and written English-language translations of foreign patent documents and technical articles, is also part of the Division.

The mission of the Search and Automation Support Division is to enhance patent examiner use of automation tools by providing training and one-on-one support. The training is focused on in-house and commercial tools that support patent search and examination.

Automation

STIC utilizes an automated library system accessible to examiners at the desktop. The catalog includes the post-1977 non-patent literature collection and the most active portion of the pre-1977 collection. The catalog allows searchers to hyperlink to electronic journals and books in the STIC collections.

STIC develops and maintains intranet pages providing access to Internet NPL tools and STIC services by art area. A Web page for each technology center presents links to databases, electronic books and journals, reference tools, and Web resources useful to examiners covering those arts. Specialized pages have also been developed in emerging areas of patent interest including business methods, traditional knowledge, and nanotechnology.

Security, Buildings

The main STIC print and microformat collection is housed in commercially owned buildings along with other USPTO offices. All STIC facilities are accessible to USPTO employees 24 hours a day via a ID card reader system, as are STIC-provided electronic tools and resources. Two STIC libraries are open to the general public during regular business hours, Monday through Friday. STIC takes various security measures to ensure the integrity of the STIC collection, including issuing USPTO security passes to all STIC employees and utilization of a book detection system.

Collecting, acquisitions, preparation

STIC has the mission of identifying, acquiring and maintaining non-patent literature (NPL) in electronic and print formats, devoting special emphasis to literature for new and emerging technologies. The NPL resources acquired focus on the applied science and technology fields, with special emphasis on creating special collections or systems for rapidly developing technologies, e.g. computer software, business methods, nanotechnology, and biotechnology. Staff also identify, evaluate and monitor expenditures for online commercial databases. In addition, STIC manages a support contract for the USPTO, which covers library services, facilities management, and information management functions.

The Centralized Services Division processes and distributes all foreign patent documents and journals received at the USPTO. The majority of foreign documents are now received in CD-ROM format.

Collection management, preservation

The majority of the collections is in electronic form. Those portions of the collection maintained in Main STIC and the Lutrelle F. Parker Sr. Memorial Law Library are open to the public. In accordance with the Patent Cooperation Treaty (PCT), STIC meets minimum documentation requirements for foreign patent documents and non-patent literature and makes these documents available to the public.

Interlibrary lending, resource sharing, networks of patent libraries in the country

Interlibrary Loans

The STIC Reference Delivery Branch was established to expeditiously provide the Examining Corps with non-patent literature references. After an examiner requests a non-patent literature reference, the Branch locates the reference and requests document delivery from a vendor/supplier. This work is increasingly accomplished electronically via fax, Internet, Ariel, CARL/Uncover, and other services. The staff uses OCLC (a national on-line shared cataloging and interlibrary loan system) and an in-house CUADRA Star database as location tools and Dialog and STN for citation verification.

Reference and Copy Services

STIC provides reference assistance to examiners in the main facility, the Electronic Information Centers, Main STIC Library, and the Parker Law Library during regular business hours. Reference service for examiners includes assistance with technical and reference materials, commercial online databases searches, document delivery, and sequence searches on the STIC internal automated biotechnology search system. With appropriate USPTO user passes, the public may gain access to the main facility and the Parker Law Library and use the collections (on-site), public copiers, and microfilm readers.

The STIC foreign patent staff provides assistance with the foreign patent collection to USPTO staff and to the public. Computer searches on commercially available databases such as Questel/Orbit and INPADOC are provided for USPTO staff only. As part of the public services available, the foreign patent staff will help the public locate foreign patent information by providing advice regarding searching, databases, and collections. Public users can make their own copies of foreign documents, or remotely, can request copies of foreign patents from the extensive STIC collections. The copy services are available both directly from the USPTO and as a component of the special service mix at Patent Depository Regional Libraries.

Resource Sharing

STIC, a participant of the OCLC shared cataloging and interlibrary loan system, is a non-supplier for interlibrary loans. STIC is also participating with research networks via the Internet to complement the existing shared cataloging and interlibrary loan system.

Network of Patent and Trademark Depository Libraries (PTDLs)

The USPTO Patent and Trademark Depository Library Program (PTDLP) consists of 85 academic, public, state and special libraries, referred to as PTDLs, located in 47 states, the District of Columbia, and Puerto Rico. A list of PTDLs may be viewed at the USPTO web site.

The 29th Annual PTDL Training Seminar held in Arlington, Virginia from April 2-7, 2006 hosted 85 registrants. Eighty librarians representing 70 PTDLs and representatives from the State Intellectual Property Office of the Peoples Republic of China were present.

The PTDL Program was involved in a number of outreach activities during 2006. PTDLP sponsored and staffed exhibit booths at the American Library Association Annual Conference in New Orleans, LA. and the Special Libraries Association Annual Conference in Baltimore, MD. Public seminars and staff training were also conducted at a number of PTDLs throughout the year. Numerous briefings on the PTDL Program were also provided to international visitors and to various USPTO Technology Centers.

Information on the Patent and Trademark Depository Library (PTDL) Program is available from the PTDLP Web site located at: located at www.uspto.gov/go/ptdl. The Web site includes information about the Program mission, history, background, services, and core collections, as well as links to Program publications, materials, and reference tools. Each of the 85 PTDLs is linked to the USPTO web site PTDL List.

Automated Information in Patent and Trademark Depository Libraries

Web-based online searching for the patent text and image database via Pub West is available at all 85 PTDLs. All PTDLs also provide public access to the USPTO web site.

The USPTO continues to provide optical disc products to PTDLs for direct public use. This includes all Cassis optical disc products; Patents BIB, Patents CLASS, Patents ASSIST, Patents & Trademarks ASSIGN, Trademarks BIB, USAPat, USAApp, USAMark and the Patents (eOG:P).

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

Automated Patent Information in Public Search Facilities

The USPTO Public Search Facility provides public users with access to over 20 types of software applications that provide full-text search and/or document retrieval. When logged onto one of the over 300 Universal Public Workstations located in the Public Search Facility users search multiple sources of patent information using common interfaces. The primary information delivery channel in the Public Search Facility is the Universal Public Workstation (UPWS).

The Universal Public Workstation (UPWS) is a secured access computer providing a single platform and consistent interface to all databases. Public versions of the patent examiner search systems EAST and WEST, and document image print WALK-UP are the heaviest used applications provided on UPWS. Other patent applications on UPWS include the USPTO Web site, DVD-ROM Cassis titles, Assignments Historical Database (AHD) and Patent Assignment Information Retrieval (PAIR). Both EAST and WEST retrieve all U.S. patent images and word search the text contained in U.S. patents granted since 1971. The Optical Character Recognition application allows searching of U.S. patents both text and images back to 1920. EAST and WEST also provide text searching of English language patent abstracts from the European Patent Office and Japan Patent Office, and a set of foreign patent images formerly available only on CD-ROM. Public users search Re-exam file information by logging onto the UPWS Patent Assignment Information Retrieval (PAIR) application.

UPWS now provides access to World Patents Index (WPI), a proprietary database that is also available to USPTO patent examiners. This search tool is accessed through PubEAST. UPWS users also access new text search indexes to retrieve U.S. patents and U.S. published applications associated with International Patent Classification (IPC) data in accordance with IPC reform.

The Public Search Facility recently became one of the USPTO wireless hot spots whereby facility customers may use their personal computers or communication devices in the facility to access Internet resources. This capability allows users to supplement or expand their intellectual property researching activities as they search/retrieve information using the Universal Public Workstation.

Online search/retrieval system use during FY05 totaled over 196,000 hours. An eight-hour training course for novice or first time patent users is available to the public on the WEST system. A four-hour course for advanced users is available on the EAST system. Courses are scheduled

once a month for a nominal fee, or more often as needed. Special one-page guides and Helpful Hints are available in the on-line search areas. Individual assistance is always available from staff.

Public users have opportunities throughout the year to participate in Beta testing of updated versions of software applications. Public users provide comments on how to improve access to patent information by making changes to software applications.

Automated Products Provided to the Public

The USPTO Electronic Information Products Division continues to provide patent information products and services to the public in a variety of formats. The Products and Services Catalog on the USPTO website describes USPTO products and services, and contains details on how to obtain them.

The following DVD-ROM products are available for purchase by the public:

Patents BIB: Selected Bibliographic Information from US Patents Issued 1969 to Present

This Cassis DVD-ROM contains bibliographic information for utility patents issued from 1969 to the present, and for other types of patent documents issued from 1977 to the present. It includes inventor names and addresses (if unassigned at time of issue), assignee at time of issue, status (i.e., withdrawn, corrected, expired for failure to pay maintenance fees, reexamined or term extended), current classifications, patent title, and patent abstracts from September 1988 to date. Patents BIB also refers to patent image locations on USAPat, described below. This DVD-ROM product is updated every two months.

This Cassis DVD-ROM contains current classification information for all utility, design, plant, reissue and X-numbered patents, as well as defensive publications and statutory invention registrations issued from 1790 to the present (over 6 million documents). Indexing of classification information has been optimized for rapid retrieval. This DVD-ROM product is updated every two months.

Patents and Trademarks ASSIGN: US Patents and Trademarks Assignments Recorded at the USPTO 1980 August to Present

This Cassis DVD-ROM includes data derived from assignment deeds for issued patents and registered trademarks, which were recorded at the Patent and Trademark Office after August 1980 for patents, and since 1955 for trademarks. The disc includes assignments recorded before and after the patent issued. This DVD-ROM product is updated every two months. This product is the combination of two previous titles, Patents ASSIGN and Trademarks ASSIGN, now no longer published.

Patents ASSIST: Full Text of Patent Search Tools

This Cassis DVD-ROM is a compilation of many patent search tools including the following: Manual of Classification, Index to the US Patent Classification, Manual of Patent Examining Procedure, IPC - USPC Concordance, and Attorneys and Agents Registered to Practice Before the US Patent and Trademark Office. In addition, Classification Definitions, a Patentee-Assignee Index, and a Classification Orders Index are included. The Patentee-Assignee Index shows ownership at time of issue for utility patents 1969 to present; for other patent types 1977 to present; and inventor names 1975 to present. The Classification Orders Index is a list of classifications abolished and established since 1976 with corresponding Classification Order number and effective date. This DVD- ROM product is updated every three months.

Manual of Patent Examining Procedure (MPEP)

This Manual is published to provide US Patent and Trademark Office patent examiners, applicants, attorneys, agents, and representatives of applicants with a reference work on the practices and procedures relative to the prosecution of patent applications before the Patent and Trademark Office. The MPEP is available in electronic form as an ASCII text file downloadable (no charge) from the USPTO Web site on the Internet at http://www.uspto.gov/, and as a searchable text file on the Patents ASSIST DVD-ROM product, which includes many other useful files. Each revision is fully incorporated into the base edition and republished as a whole.

USAPat: Facsimile Images of United States Patents

This Cassis DVD-ROM product contains facsimile images of US patents from 1790 to present. An image is an actual page of the patent, including all drawings, and looks just like the original printed document. The purpose of USAPat is to serve as a document delivery system, not as a search system. Retrieval is by document number only from a cumulative index. Excellent printed copies of actual documents can be obtained directly from a laser printer. Delivery of weekly discs is usually within 15 days from issue date.

USAApp: Facsimile Images of United States Patent Application Publications

USAApp contains facsimile images of the U.S. patent application publications filed on or after November 29, 2000 and published weekly beginning March 15, 2001. A law effective November 29, 1999, requires publication of patent applications approximately 18 months after the effective filing date. All utility and plant patent applications will be published unless the application is not filed in another country and the applicant expressly requests that the application not be published, or the patent has been granted. Design patent applications will not be published. An "image" looks like an actual page of the application, including all drawings. USAApp is a document delivery system, not a search system. Retrieval is by document number only from a cumulative index. Excellent printed copies can be obtained directly from a laser printer.

Trademarks BIB : Bibliographic Information from Abandoned, Canceled, Expired, Pending, and Registered US TradeMarks

This Cassis DVD-ROM contains the text of all abandoned, canceled, expired, pending, and registered trademarks from 1884 to present with 30 searchable fields. This DVD-ROM product is updated every two months. Trademarks BIB also refers to trademark image locations on USAMark, described below.

USAMark: Facsimile Images of United States Trademark Registrations

This Cassis CD-ROM contains facsimile images of U.S. trademark registration certificates issued from 1870 to the present. An image is an actual page of the trademark, including renewals and modifications, and looks just like the original printed document. USAMark is a document delivery system, not a search system. Retrieval is by document number only from a cumulative index that covers all issued discs. Excellent printed copies of actual documents can be obtained directly from a laser printer. USAMark is published monthly.

Electronic Official Gazette of the U.S. Patent and Trademark Office – Patents (eOG:P)

The eOG:P began publication in July 2002 on both the USPTO Web site (free) and on CD-ROM (subscription). In September 2002, the eOG:P replaced the paper Official Gazette that had been published since 1872. The eOG:P contains the OG record, including an exemplary claim and a representative image (if applicable). Indexes by type of patent (e.g., utility, design), patentee name (both inventor and assignee), geographical

location of the first listed inventor (U.S. state or country), and classification are provided. The eOG:P is available each Tuesday.

The USPTO maintains World Wide Web (WWW) and File Transfer Protocol (ftp) sites on the Internet, which permit the public free access to selected information related to patents and trademarks.

VII. Matters concerning mutual exchange of patent documentation and information

International or regional cooperation in the exchange of machine-readable information, e.g., bibliographic data, abstract and/or full text information

Patent document exchanges are maintained with substantially all patent-issuing intellectual property offices. US patents images and information are provided to 104 intellectual property offices on optical disc products (mostly in DVD-ROM format - see descriptions of the products above). Copies of US plant patents are provided in paper form to 18 intellectual property offices.

The USPTO has been involved in a variety of discussions concerning the exchange of patent documentation and information. Principally, these efforts have taken place in the context of the Trilateral Partnership consisting of the European Patent Office (EPO), the Japan Patent Office (JPO) and the USPTO. The Trilateral Partners continue to work with WIPO on a number of patent-related matters, e.g., developing and updating standards related to storage of patent data on electronic media, etc.

Trilateral Document Access: File Wrapper Access

In June 2006, Trilateral Document Access: File Wrapper Access (TDA:FWA) was established between USPTO and JPO. TDA:FWA facilitates access by patent examiners to the content of particular patent applications stored in participating foreign IP office application file wrapper systems. In particular, TDA:FWA allows a US examiner to review office actions and search results developed by an examiner in another IP office who worked on an application corresponding to a US application. The USPTO implemented a first phase of File Wrapper Access in March 2005 with the European Patent Office (EPO) to allow US examiners to view EPO application document images for published applications using the examiner eDAN examination tool. Similar access to US files was granted to EPO examiners. The new connection with the JPO operates in a similar fashion. The JPO has been making robust use of FWA linkages to US applications with over 6,000 sessions per month. US examiners use FWA several thousand times per month to gain access to EPO or JPO applications.

Trilateral Document Access: Priority Document Exchange

Throughout 2006, the USPTO and EPO worked to establish direct electronic office-to-office exchange of priority documents using Trilateral Document Access: Priority Document Exchange (TDA:PDX) culminating with deployment in January 2007. This system allows an Office of Second Filing to request the Office of First Filing to deliver of a certified copy of an application to which priority has been claimed. The images of the priority documents retrieved from the EPO are loaded directly into IFW eliminating the need to handle any paper. These documents typically are not yet published but the system operates over TRINET thereby ensuring a secure connection. Further, the system was constructed in compliance with the latest version of the TDA Specification, which provides for the exchange of numerous error, fault and status messages that allow both the sender and the receiver to monitor the success of the transmission. TDA:PDX is proving popular with applicants who are exempted from any charge for the service.

Bibliographic Data Delivery to IB

In late fall 2006, the US receiving Office (RO/US) began delivering the bibliographic data for international applications to the International Bureau (IB) in machine readable form. In particular, information authored by the applicants using PCT EASY or transcribed by typists within the USPTO (for those applications not accompanied by PCT EASY data) is now delivered electronically upon completion of record copy examination. The system relies on an EDI connection between the USPTO and IB with the data structured in accordance with the minimal specification requirements of Annex F. In 2007, the USPTO will begin sending images data to the IB, in particular record copies and certified copies of US applications (priority documents) to which priority is claimed in an international application filed in the RO/US.

Medium used for exchange of priority documents

In 2003 USPTO began to provide certified copies for priority documents on CD-R media accompanied by a paper certification sheet when the size of the document exceeds 400 paper pages. Patent applicants now have the ability to order either certified or uncertified unpublished patent applications, if they are entitled, via Private PAIR (Patent Application Information Retrieval) on the web.

In January 2007, the USPTO implemented electronic priority document exchange with the EPO (TDA:PDX, q.v.). Using the secure TriNet network connection, the images of applications-as-filed could be delivered from one office to the other and directly loaded into the image database.

Medium allowed for filing applications

Electronic Filing System (EFS)

In October 2006, EFS-Web began accepting International Applications (PCTs) at the US Receiving Office. In addition to PCTs, EFS-Web began accepting:
1. text files for bio-sequence listings, mega tables, and computer program listings;
2. Pre-Grant publications;
3. the Petition to Accept Unintentionally Delayed Payment of Maintenance Fee in an Expired Patent (automatically granted via EFS-Web); and
4. PCT-EASY .zip files.

Prior to the release of EFS-Web, electronically filed utility applications remained below 2% of all utility applications filed. In 2006, the EFS-Web goal was to receive 10% of the patent applications electronically. EFS-Web exceeded that goal and received 14% of the patent applications electronically. Projections indicate that EFS-Web will receive 215, 000 new utility patent applications by the end of FY07. If these projections are realized, EFS-Web would have reached the Presidential Goal of capturing 50% of new utility applications electronically for FY07.

Continued outreach efforts have been ongoing to ensure customer education and familiarity with the benefits of filing electronically through EFS-Web.

Patent Application Information Retrievel (PAIR)

The Patent Application Information Retrieval (PAIR) system was deployed in 1998, then was upgraded in 2000 when the USPTO database was ported to Oracle. PAIR displays a subset of data maintained in the internal Patent Application Location and Monitoring (PALM) system to Internet users via the USPTO web site. The PAIR site is securely isolated from the internal database and other internal systems. There are two versions of PAIR, Public and Private. Private PAIR displays status information for all USPTO applications whether they are pending, published or abandoned. Private PAIR uses the Public Key Infrastructure (PKI) to provide strong authentication and browser-independent session encryption when displaying pending patent application data.

Public PAIR displays status information for published applications and issued patents. Public PAIR only had two maintenance releases during 2005, 2.2 in April and 2.4 in May. These releases fixed known problems related to the listing of documents from the Information File Wrapper (IFW) database, the listing of customer correspondence addresses, display of parent continuity data, registered practitioner's listings, and the display of USPTO publications.

In 2006, substantial planning and preparation work was undertaken to support the business process changes and technical requirements for Electronic Office Action. This new concept, scheduled to be deployed in late 2007, will enable electronic delivery of outgoing correspondence to the applicant. Further in 2006, the addition of international applications to the IFW database allowed Private PAIR users to view information on applications filed in RO/US.

Implementation of the Statement of Principles Concerning the Changeover to Electronic Data Carriers for the Exchange of Patent Documents (please provide a status report on the extent to which your Office has changed over to electronic data carriers for the exchange of patent documents)

The USPTO began providing copies of its granted patent documents on the USAPat CD-ROM product (see description above) to all of its international exchange partners in 1994. The product is now provided on DVD-ROM. Production and distribution of USAApp, facsimile images of patent application publications, began on schedule in March 2001. Copying of the entire USAPat back file, 1790 through 1999, onto DVD-ROM was completed in October 2002 and distributed to exchange partners.

Offices currently receiving paper copies of color plant patents will continue to receive them until plant patents are available in color on a suitable electronic media.

In a related development, the USPTO began distributing its Official Gazette for Patents only in electronic format (eOG:P) on CD-ROM and on its website (see above for details) in 2002.

VIII. Other relevant matters concerning education and training in, and promotion of, the use of patent information, 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, use of audiovisual means

The USPTO provides technical training relevant to intellectual property law and patent and trademark practice for all attorneys and patent examiners. Additionally, a variety of technical classes are available dealing with search techniques on the USPTO automated system and methods of using a variety of custom computer software to assist in the examination process.

The Office of Patent Training also operates a televideo-conference facility. This has been used to broadcast live meetings and lectures with officials in foreign countries.

Assistance to developing countries (sending consultants and experts, receiving trainees from developing countries, etc.)

The USPTO offers various programs to provide technical assistance to developing countries and to countries moving to a market economy. Programs focus on establishing adequate systems in these countries for the protection of intellectual property rights. They also provide intellectual protection enforcement training. The goal of the various programs is to provide advice and expertise to these countries with the desired outcome being the reduction of losses resulting from piracy of U.S. Intellectual Property.

A Global Intellectual Property Academy (GIPA) was created allowing the USPTO to increase its training and capacity building initiatives on intellectual property protection and enforcement. This Academy also encompasses the USPTO Visiting Scholars Program that was created in 1985 and provides participants from foreign countries with classroom and hands-on study of the United States system for protecting intellectual property. Through GIPA, USPTO brings foreign government officials including judges, prosecutors, police, customs officials, patent, trademark, and copyright officials and policy makers to the U.S. to learn, discuss, and strategize about global IPR protection and enforcement. The goals of the program are to foster a better understanding of international intellectual property obligations and norms; to expose participants to at least one method of providing TRIPs level protection for a variety of intellectual property disciplines, and to promote discussion of intellectual property issues in a friendly and supportive environment.

In FY 2006, the USPTO conducted 17 GIPA programs for foreign officials at its headquarters. One of these included an additional four-city study tour for 21 judges and prosecutors from seven different countries in the Middle East and Northern Africa that highlighted U.S. government and private industry/rights holder initiatives to combat IPR theft and infringement. The program also provided the participants the opportunity to interact with U.S. judges, prosecutors, and private rights holders to learn more about the harm caused by IPR infringement. Another initiative, with 19 Middle Eastern and Northern Africa librarians and legal advisors participating, continued its program by touring seven U.S. cities where participants were provided information on how to modernize their libraries and implement library information management in their countries while balancing the needs for stronger intellectual property protection and enforcement to stimulate research and education.

The USPTO partnered with numerous international and non-governmental organizations in designing and delivering technical assistance programs including the Association of South East Asian Nations (ASEAN), United Nations Economic Commission for Europe (UNECE), International Intellectual Property Institute (IIPI), World Intellectual Property Organization (WIPO), Asia-Pacific Economic Cooperation (APEC), Secretariat for Central American Integration (SIECA), Bureau for International Narcotics and Law Enforcement (INL), and carried out a range of capacity-building programs under the auspices of the Middle East Partnership Initiative (MEPI).

The USPTO conducted programs in Europe and central Asia including: UNECE Intellectual Property Advisory Group consultations with Romania and Turkey; Commercial Law Development Program Workshop on the Implementation and Coordination of IP Border Enforcement for 35 customs officials from Russia and Ukraine; Intellectual Property Enforcement program for government officials in Lithuania; Intellectual Property Enforcement program for government officials from new EU member states on copyright infringement in the digital environment in Estonia; and a joint USPTO-Patent Office of the United Kingdom-Slovenian Intellectual Property Office workshop on IPR border and market enforcement in Slovenia.

In Asia, the USPTO conducted intellectual property protection and enforcement programs that included: ASEAN-USPTO Workshop on Optical Media Regulation and Enforcement; Bangkok, Thailand; International Association for the Protection of Intellectual Property Japan IPR Enforcement Symposia on Anti-Counterfeiting , Tokyo and Fukuoka, Japan; US-Vietnam Trade Council Program in Ho Chi Minh City, Vietnam; Combating Internet Piracy, Taipei, Taiwan; Intellectual Property Enforcement Program for 28 judges from Vietnam in Ho Chi Minh City, Vietnam; USPTO/ASEAN Workshop on IP Office Administration and Enforcement for 88 government officials from 12 countries in the Asian region in Bangkok, Thailand; IP training program for the Thai IP Court in Bangkok, Thailand; IPR Enforcement Program in Phnom Penh, Cambodia; a training program on IPR Enforcement for 29 government officials in Jakarta, Indonesia; International IP Enforcement training event in Delhi, India; four IP enforcement training seminars throughout India; and intellectual property protection and enforcement workshops and public awareness seminars in Ulaan Baatar, Mongolia.
In addition, the USPTO participated in the following programs: IP Judicial Education Program for 36 judges from four Asian countries in Bangkok, Thailand; meeting and training with Government of Vietnam officials regarding amending intellectual property enforcement laws in Vietnam; ASEAN Regional Workshop on IP Enforcement for prosecutors in Kuala Lumpur, Malaysia; ASEAN Workshop on IP Enforcement on Optical Media Piracy for 85 regional government officials in the Philippines; U.S.-Malaysia Roundtable event on IPR enforcement with government officials and business in Malaysia; and Judicial Education Workshop on IP Law and Civil Procedures with USAID for 70 judges in Vietnam.

Through partnership with MEPI, programs were provided that focused on a variety of enforcement issues including: IPR Enforcement Seminar for Kuwaiti officials in Kuwait; Workshop on IP Enforcement for 70 enforcement officials in Kuwait; USPTO/MEPI Border Enforcement seminar for over 20 Moroccan Customs officials in Casablanca; and USPTO/MEPI IPR Enforcement program for copyright officials in Rabat, Morocco. The USPTO also participated in the following programs: USPTO/MEPI regional judicial workshop for judges on IP Enforcement in Dubai, United Arab Emirates; USPTO/MEPI regional workshop for prosecutors on IP Enforcement in Oman; and MEPI regional customs program for 43 government officials in Bahrain. In addition, a special program and study tour was conducted for Middle Eastern librarians and information legal advisors on copyright protection and library management in the digital environment.

Technical assistance programs were offered in Africa including a USPTO-IIPI Botswana program on Making IP Work for Development.

In the Americas and Caribbean, the USPTO organized and/or participated in intellectual property protection and enforcement programs that included: a program on the Enforcement of Intellectual Property Rights at the border for customs officials in Lima, Peru; USPTO/SIECA intellectual property training for judges and prosecutors from seven regional countries in Antigua, Guatemala; a conference for police and prosecutors in San Pedro Sula, Honduras; and a conference for Honduran diplomats in Tegucigalpa, Honduras focusing on intellectual property enforcement obligations under DR-CAFTA.

Several enforcement programs were conducted in the Washington D.C. area for foreign officials including: USPTO Enforcement Academies; the USPTO-WIPO Academy for the Judiciary on the Enforcement of Intellectual Property Rights ; a week-long Enforcement seminar followed by a study tour of the United States for 21 judges and prosecutors from countries throughout the Middle East and North Africa; and Global Intellectual Property Academy (GIPA) training and seminars on intellectual property enforcement including those for the MEPI region and for DR-CAFTA countries plus Belize and Panama.

The USPTO continued technical assistance offered in China, with a focus on providing the provinces with capacity-building programs related to civil, criminal, and border enforcement. In addition to enforcement programs, the USPTO hosted various seminars on substantive intellectual property rights issues, including a seminar on the protection of geographic indications through use of a trademark system in Beijing and Xiamen and a seminar on Traditional Knowledge and Genetic Resources with the China State Intellectual Property Office (SIPO) in Beijing and Kunming.

The USPTO hosted various delegations from China, both from Beijing and from the provinces. The visitors have included Chinese officials from Shanghai and Guangzhou, as well as intellectual property officials from Guangdong, Hubei, and Zhejiang provinces. These officials visited the USPTO to learn about our legal system, the administrative procedures followed by the USPTO, how IPRs are protected and enforced in the U.S., and the functions and responsibilities of the USPTO and other government intellectual property related agencies.

Studies to identify trends in new technology, e.g., by the use of patent statistics, preparation of monographs, etc.

The USPTO maintains the Technology Assessment and Forecast (TAF) database, which allows selected patent bibliographic information to be accessed, retrieved, and analyzed in a variety of ways. Time-series information by country, company, and technology may be obtained and used to identify trends. Specific information, such as patent titles and independent inventor names and addresses, is also available. A variety of prepared TAF database statistical reports containing calendar year data are available to the public.

Many TAF database calendar year statistical reports displaying overall trends by country, state, type of patentee (e.g., corporate, individual, or government), and patentee organization are available free of charge while other prepared reports are available for a nominal charge. Some reports present profiles of patenting activity in selected new and active technologies such as for the Internet, Semiconductors, and Telecommunications; other reports profile regional US patenting by state and locality; still other reports display trends by specific patenting group (e.g., US universities, US women). Many profile reports are updated once or twice annually, and new reports are added as necessary. In addition, customized patent trend reports may be obtained for a fee, subject to available resources. Many of the TAF database general statistical reports may be accessed at the USPTO Internet Web site; some reports are available only at the Internet Web site. These reports include several produced with support from The National Science Foundation.

Assistance furnished by offices to facilitate the changing over of receiving offices to electronic data carriers for the exchange of patent documents (see also sub-item 4 of item VI, above)

The USPTO closely cooperates with its exchange partners and provides detailed responses to requests for information regarding use of its USAPat CD/DVD-ROM products as replacement for paper or microfilm patent documents.

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

See: http://www.uspto.gov

X. Other relevant matters

1.	Classification is allotting one or more classification symbols (e.g., IPC symbols) to a patent application, either before or during search and examination, which symbols are then published with the patent application.
2.	Preclassification is allotting an initial broad classification symbol (e.g., IPC class or subclass, or administrative unit) to a patent application, using human or automated means for internal administrative purposes (e.g., routing an application to the appropriate examiner). Usually preclassification is applied by the administration of an office.
3.	Reclassification is the reconsideration and usually the replacement of one or more previously allotted classification symbols to a patent document, following a revision and the entry into force of a new version of the Classification system (e.g., the IPC). The new symbols are available on patent databases.