

SCIT.ATR.PI.2005.US

Annual Technical Report 2005 on Patent Information Activities submitted by United States of America (SCIT/ATR/PI/2005/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) 2005, the United States Patent and Trademark Office (USPTO) granted 143,806 utility patents, a decrease of 12.5 percent over the number of grants for CY 2004. The share of grants having foreign origin, as determined by the residence of the first-named inventor, was 48.1 percent for CY 2005, down from 48.7 percent for CY 2004. The top four patenting organizations for CY 2005 are International Business Machines Corporation receiving 2,941 utility patents, Canon Kabushiki Kaisha receiving 1,829 utility patents, Hewlett-Packard Development Company, L.P. receiving 1,790 utility patents, and Matsushita Electric Industrial Co., Ltd. receiving 1,688 utility patents.

There were 390,733 non-provisional utility patent applications filed at the USPTO in CY 2005, a 9.5 percent increase as compared to CY 2004. The share of non-provisional utility patent applications having foreign origin, as determined by the residence of the first-named inventor, is 46.8 percent, down from 46.9 percent for CY 2004.

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

In calendar year 2005, the following active technology areas showed large increases in utility patent activity as compared to CY 2004: 'Communications: Radio Wave Antennas' (up 27 percent), 'Electrical Computers and Digital Processing Systems: Support' (up 22 percent), 'Data Processing: Presentation Processing of Document, Operator Interface Processing, and Screen Saver Display Processing' (up 19 percent), 'Motor Vehicles' (up 13 percent), and 'Facsimile and Static Presentation Processing' (up 11 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.

By the last quarter of calendar year 2005, the USPTO's searchable products of Patent Application (Pre-Grant) documents and Patent (Grant) documents were 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 is 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 PTDL's, 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) was introduced in August 1999. OACS utilizes Visual Basic command language integrated within Microsoft Office 2000 to facilitate creation of written correspondence for both domestic and international applications. Examiners now have a standardized interface to create domestic application actions, including word processing created correspondence, and standard USPTO forms with text editable data entry fields. The interface allows creation of international application correspondence, including PCT forms with text editable data entry fields. OACS is integrated with PALM for extraction of bibliographic data into both the appropriate correspondence element and also into a separately created, local structured records management Microsoft Access database. OACS retrieves data from BRS to automate the citation of references. OACS provides a new multi-user "Post and Review" document editing facility that allows users to post documents to other users for review; the reviewers can make changes that are saved in the originators' files. Additional enhancements relating to IFW systems integration and performance improvements are planned.

Patent Application Capture and Review System (PACR)

The PACR system first came into existence in 1997 to replace the aging microfiche system used to capture initially filed application papers. In subsequent years, it was expanded to support interfaces to PALM, indexing of application processing, OCR, complete security review processing, and support of OEMS and PreGrant publication. PACR version 4.0 was deployed in support of IFW on June 30, 2003. The highlights of this PACR release are the new web-based Classification Security Review (CSR) and License and Review System (LARS) modules in support of initial classification and all stages of national security review of new applications scanned in IFW.

CSR streamlines the initial classification and first-level security review processes into one new user interface. The LARS system provides the application images to L&R examiners to perform second-level security review and allowing examiners to clear an application for foreign filing license or refer it to a DOD agency for third-level security review. PACR now has a new facility to write applications referred for third-level security review to a CD-R. CSR and LARS both use new PALM services so any security or classification changes update the PALM database immediately.

As the old PACR image database is replaced with IFW images files, the PACR modules are being upgraded to a new AIS called Patent Application Security System (PASS).

PASS utilizes the images captured by the new IFW scanning system and continues to support PGPClass and Pre-Grant Publication.

PCT Operations Workflow and Electronic Review (POWER)

POWER supports the administrative processing of PCT applications and related documents by the staff of PCT Operations. Using the electronic application images provided by POIS (see below), POWER conducts automated formalities review of this data, prepares drafts of necessary correspondence and electronically routes the application to the next available paralegal specialist. Via the user interface screens, the paralegal specialist confirms or rejects the system's 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. The workflow subsystem tracks correspondence to which a response is expected and prompts user review if the response is overdue. POWER also updates PALM with any data changes, provides management reporting, and allows for exception processing as needed. All new international applications are processed by the POWER system.

PCT Operations Imaging System (POIS)

POIS supports POWER, the PCT Operations Workflow and Electronic Review system, by providing image capture, key entry of bibliographic data, and security review processing of PCT international applications. An automated first-level security review module reviews an OCR'd version of the contents of the application searching for terms and phrases of national security interest. Such applications are referred to the Licensing and Review System where L&R examiners perform a second-level security review.

Image File Wrapper (IFW)

As part of USPTO's Image File Wrapper (IFW) efforts, the Office developed the Access to IFW/Patent Enterprise Access Integration (AIFW/PEAI) project to manage and coordinate access to IFW data, integrating new and existing functionality, provided by other systems, in a portal architecture. As envisioned, AIFW/PEAI provides Examiners, the public, applicants, and USPTO's international partners access to published patent data in general, and to unpublished data where allowed.

In Phase I, released in July 2004, other I.P. Offices and the general public gained access to public USPTO application images from IFW, via the Internet in PDF format, using the Public Patent Application Information Retrieval (Public PAIR) interface. IFW images previously made available to Private PAIR users only in TIFF format were made available in PDF format. Phase I also provided the capability for customers to receive certified copies of patents and patent application documents via the Internet, or fax. On-line ordering was previously available, however, only uncertified

copies of patents were delivered via the Internet or fax.

A major Patent e-Gov milestone was achieved when the USPTO successfully began deploying the first release of the ePhoenix system to the Patent Corp on June 30, 2003. The following functionality was available in the first release:

- The central scanning facility and subsystem was in full operation
- All incoming new applications are scanned into the ePhoenix system
- Backfile applications are scanned into ePhoenix according to the planned sequence for the Technology Centers (TCs) moving to the Carlyle Campus.
- Follow-on papers for both new and backfile Patent applications are scanned into ePhoenix.
- Existing Patent Application Capture and Review (PACR) images, captured since 1997, are available via ePhoenix.

The USPTO took delivery of the first portion of its new Alexandria campus (Carlyle) in the first quarter of fiscal year 2004. As the USPTO operations were split between two campuses, the movement of papers and paper application files became increasingly more difficult to manage and the cost associated with paper handling increased dramatically. The use of the IFW system by examiners was phased in with the move sequence for the TCs moving to the Carlyle Campus beginning in December 2003, with full deployment completed August 2004.

In order to meet and overcome these operational challenges, the USPTO continued to capture pending back files in order to minimize the need to move paper to the new campus. The IFW system was integrated with the USPTO legacy systems to provide functionality that is unique to the USPTO business process. The integration of IFW into the USPTO environment will be in phased releases, building functionality incrementally to better manage implementation risk and increase productivity benefits of the project. The major functional elements include: image file wrapper management, workflow capability including messaging function, and integration of existing major USPTO automated information systems (such as PALM and OACS) using Enterprise Application Integration (EAI) technology.

During 2005, the planned personnel and facilities transition to the Carlyle campus was completed, resulting in over 5,000 employees relocated on-site without disruption to the business of issuing patents and registering trademarks.

During the fall of 2005, IFW File Inspection became accessible via the Examiner Portal, to provide Corps users an alternative interface to access IFW image content.

During 2005, and expecting to extend into 2006, improvements to the IFW examiner interface (eDAN) will provide added user capabilities. These include the ability to electronically annotate Information Disclosure Statements and enhanced system data sharing/access capabilities with other systems such as PALM, Private PAIR, and Public PAIR.

Trilateral Document Access (TDA) facilitates access by US patent examiners to the content of particular patent applications stored in participating foreign IP offices' 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) to allow US examiners to view EPO application document images for published applications using the examiner's eDAN examination tool. As a result, since March 2005, U.S. patent examiners can conveniently compare selected EP application documents relating to the application under review.

In early summer 2006, USPTO will add 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. In late summer 2006, USPTO and EPO will put TDA Priority Document Exchange (PDX) service into operation. PDX service will make it possible for USPTO to request priority documents from EPO on behalf of US Applicants who have filed claiming priority to an application at the EPO. Similarly, U.S. applicants who have subsequently filed at the EPO will be able to give USPTO permission to provide a priority document to the EPO on the applicant's behalf when the EPO sends a priority document request. PDX service between USPTO and JPO is under development for July 2007.

Patent File Wrapper (PFW)

As part of USPTO's Patent File Wrapper (PFW) efforts, studies 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. This will result in significant improvements in efficiency and file integrity.

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 Derwent's 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 1990, the USPTO began implementation of a set of "Sequence Rules". The Rules require patent applicants who file applications disclosing amino acid and nucleotide sequence information to include a submission of the sequence information in computer readable form (CRF) in a predefined, uniform format (37 CFR §§ 1.821-1.825). On September 8, 2000, the Rules were revised to allow submissions of sequences and associated information on compact discs.

The sequence submission requirement not only facilitates the examination of biotechnology-related patent applications, but also allows the USPTO to compile databases, i.e., Pending, Published, and Issued, of sequence information disclosed in US patent applications, pre-grant publications, and patent grants. As specified in the Rules, the patent applicant creates the CRF comprising the sequence information and submits the CRF to the USPTO's Scientific and Technical Information Center (STIC), which receives and evaluates each sequence submission to assess compliance with technical requirements and with the Sequence Rules. Once the submission is verified as being error-free, according to the Rules, the data are converted into a format compatible with the Automated Biotechnology Sequence Search (ABSS) system, the USPTO sequence search system managed by the Search and Information Resources Administration (SIRA) and the Office of the Chief Information Officer (OCIO). The data are then loaded into the Pending sequence database. Examiners and STIC staff may use the sequence information for prior art, double patenting and interference searches and other analyses. The USPTO retains a copy of applicants' original CRF submission for inclusion in a permanent archive.

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 Bioceleration 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.

More than 20 users, STIC searching staff, and some biotechnology examiners, can access the ABSS system 24 hours per day, seven days per week. The searching staff performs searches on behalf of 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 software tools to 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.

In FY03, USPTO released PatentIn 3.2.3, which can handle up to 100,000 sequences, with each sequence containing up to 4,000,000 residues. It is written in Visual C++, which makes it easily portable to any Windows-based system.

PatentIn 3.3 is an enhanced version of PatentIn 3.2.3 and contains some additional features designed to ease the authoring of sequence listings. It supports Windows 95, Windows 98, Windows ME, Windows NT and Windows 2000. Key enhancements over PatentIn 3.2 included in PatentIn 3.3 included Users do not have to remove the sequence bases from the sequence editor and then delete the related feature and publication information in order to skip a sequence during the sequence listing generation. A checkbox has been added to the sequence window to indicate if a sequence should be skipped. The sequence will be skipped if the box is checked and all data related to the skipped sequence can remain in the PatentIn 3.3 project during the sequence listing generation. PatentIn 3.3 allows sequence type conversion between non-protein type sequences by clicking on the new AlterSeqType button on the sequence window. Direct access from the main window to the database window instead of the journal window is provided in PatentIn 3.3. The system also provides direct access from any publication window to any other publication windows. More date validations are added to PatentIn 3.3. For example: all dates entered into the sequence listing must be earlier than the current date; the Current Filing Date must be more recent than the Prior Application Filing Date; and, the Publication Date must be more recent than the Filing Date.

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. Checker 4.2 features full compatibility with the Microsoft Windows 2000 and XP operating systems as well as all Office 2000/XP products.

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

There are no new developments to report for calendar year 2005.

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

Abstracting, reviewing, translating

Abstracting

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

Reviewing, Translating

STIC's translators and translation contractors provide full or partial English-language versions of patent documents upon request by USPTO staff. The annual workload in FY2005 was over seventeen million written words, the majority of which are Japanese, German, and French. 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.

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 2005, approximately 59,661 patent documents were reclassified and 703 new subclasses were established in 13 classes in the US Patent Classification (USPC) system. Of this total 13,928 were Pre Grant Publications and approximately 45,733 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 to be published in 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's 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 for search purposes

Patent search capabilities provide text search of US Patent Applications (PGPub), US Patents, JPO and EPO abstracts, Derwent's World Patent Index Database, IBM's 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 (TDA) facilitates access by US patent examiners to the content of particular patent applications stored in participating foreign IP offices' 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) to allow US examiners to view EPO application document images for published applications using the examiner's eDAN examination tool.

In early summer 2006, USPTO will add 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. Later in summer 2006, USPTO and EPO will be able to exchange Priority Documents electronically.

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 2005, an average of 3,033 US patents issued each week and were added to the Search file; an average of 13,768 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 2005, an average 5,569 Pre Grant Publications issued each week and an average of 10,082 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 1979, 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.

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 and other technology areas. The types of documents submitted by examiners include journal articles, portions of books, Internet documents, press releases, 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 2005, an average of 8,616 US patent documents (US patents and Pre Grant publications) were published each week and an average of 5,908 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's Data Maintenance Branch and staff performs 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

Currently the USPTO has a configuration of over two hundred servers attached to seventeen storage arrays containing almost 500 Terabytes of storage in four separate Storage Area Network (SAN) islands. The databases for USPTO's six text search servers reside on the SAN. This Storage Area Network (SAN) is USPTO's solution to the need for an infrastructure component to present storage efficiently at an enterprise level. In the last two years, a PTO an environment of isolated islands of direct attached storage and a limited SAN with less than 64 actual attached ports has evolved into an enterprise level network of over one thousand SAN ports. Efficient SAN infrastructure management will be a constant challenge as the new USPTO Data Center grows and the Disaster Recovery capability evolves in the future.

USPTO's text search system for examiners is hosted on two load-sharing servers. Each server accesses its own separate 584 GB text database. USPTO's patent and application search services on the web are each supported by a pair of load-sharing servers, each with their own copy of the database. A Master Data Server Europa2 with its own 2 TB database keeps the master copy of the text database, which gets updated on a weekly cycle.

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's 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's 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/DBJ, 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.

Patents Hoteling Program (PHP)

The USPTO continues to gain recognition as a leader in the U.S. Federal Government for its successful telecommuting program. On November 7, 2003, the USPTO received the "Best Organization for Teleworkers" award from the Mid-Atlantic Advisory Council for its results-oriented telework program that the Council considered a best business practice. The Council is dedicated to encouraging professional development of telecommuting programs.

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. There are presently 255 Patent Examiners who have completed PHP training and are working from home. By December 2006, the USPTO expects to have more than 700 active PHP employee participants. An additional 500 employees are planned to be added each year through 2011 bring the total PHP employees 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. 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's Intranet site.

PHP participants are provided with communication system software as well as a headset and video camera to allow for collaboration between employees on and off-campus. The collaboration software includes such features as integration with the on-campus telephone system, instant messaging, video phone conversations, conference calls, group meetings, file sharing and white boarding.

External databases

USPTO patent examiners and trademark attorneys have access to over 1,000 commercially available databases including those provided by STN (Chemical Abstracts Services and two international organizations), 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

The USPTO continued the phased subsystem delivery with successful delivery of the first subsystem (Infrastructure) in October 1998. The second subsystem (File Ordering) was delivered in October 1999. The third subsystem (Pre-examination system) was delivered in February 2000. The PALM project schedule has been impacted by implementation of the American Inventors Protection Act. All PALM related systems went through a major upgrade to support Legislation for the Pre Grant Publication of Application (PG Pub). This release was deployed throughout the USPTO on 29 November 2000. Exam Post-Exam (EXPO) is the project name for the final migration of the PALM system from the A-16 computer. EXPO encompasses the functionality of Examination, Post Examination and Patent Term Adjustment and was deployed in Fall 2001.

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. During 2002, VPNs were set up for communication with STN and Dialog, allowing for fast, secure searching. New, more technologically advanced VPN devices were deployed in 2006. Examiners establish connections to the external databases through sessions that are set up after logging into the PTO firewall. PTO's Internet access line bandwidth has been upgraded to four full T-3 connections (a total of 180 Mbps); there are plans underway to increase capacity beyond this.

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 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's Search and Information Resources Administration. Although providing a number of services to the public, STIC's primary mission is to serve the examining and professional staff of the USPTO. STIC is composed of three divisions – the Centralized Services Division, the Electronic Information Center Division, and the Digital Resources Division.

The Electronic Information Center Division is responsible for the provision of examination support services through satellite information facilities located in six Technology Centers. These decentralized facilities, called Electronic Information Centers, serve as focal points for information services. The staff provides prior art and document delivery services and transmits requests for other services (e.g. translation, interlibrary loan) to the appropriate STIC unit for action.

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 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's extensive collection of foreign patents as well as the scientific literature collections of the information center's main branch. The Lutrelle F. Parker, Sr. Memorial Law Library, located in the information center's main branch, provides access to legal information for examiners, USPTO staff, and the general public. Access to prior art is provided through the use of in-house and commercial databases and Internet services, as well as print and microform tools for older materials. The staff provides reference services to examiners and maintains self-service facilities for the public, patent examiners, and other USPTO professional staff. The division also provides copies of foreign patent documents to the public for a fee. The staff maintains the USPTO's 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 and the Information Access and Management Branch, which acquires, catalogs, and provides access to print and electronic tools for examiners. 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.

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 are in electronic form. Those portions of the collection maintained in Main STIC and the Chemical-Biotechnology 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

STIC's 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. The STIC participates in the National Commission on New Technological Uses of Copyrighted Works (CONTU). In observance of CONTU requirements, all requests are tracked for the number of occurrences from a journal on the Star system. If a minimum of five articles is requested from a journal not owned by STIC, either a subscription of the journal is purchased or copyright fees are paid to the Copyright Clearinghouse Center (CCC) through the lending library.

Reference and Copy Services

STIC provides reference assistance to examiners in the main facility, the Electronic Information Centers, the Biotechnology-Chemical 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 STIC's internal automated biotechnology search system. With appropriate USPTO user passes, the public may gain access to the main facility and the Biotechnology-Chemical Library and use the collections (on-site), public copiers, and microfilm readers.

STIC's 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's Patent and Trademark Depository Library Program (PTDLP) consists of 83 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's web site.

The 28th Annual PTDL Training Seminar held in Arlington, Virginia from April 7-11, 2005 hosted 89 registrants. Eighty librarians representing 68 PTDLs and representatives from these national patent offices were represented: The State Intellectual Property Office of the People's Republic of China, The Canadian Intellectual Property Office, and the Japan Patent Office.

The PTDL Program was involved in a number of outreach activities during 2005. PTDLP sponsored and staffed exhibit booths at the American Library Association Annual Conference in Chicago, IL and The American Society of Engineering Education Annual Conference in Portland, OR. 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: www.uspto.gov/go/ptdl. The Web site includes information about the Program's mission, history, background, services, and core collections, as well as links to the Program's publications, materials, and reference tools. Each of the 84 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 83 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, Trademarks ASSIST, USAPat, USAApp, and USAMark.

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's 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 USPTO's 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's 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.

USApp: Facsimile Images of United States Patent Application Publications

USApp 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. USApp 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.

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 113 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 20 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.

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.

Medium allowed for filing applications

Electronic Filing System (EFS)

In December 2005, USPTO introduced a new, Web-based electronic file system. Called the Electronic File System Web (EFS-Web), the new system provides applicants with an easier way to electronically file patent applications and documents. EFS-Web eliminates the need for client-side software and makes it possible for anyone to file on the Web using PDF attachments. EFS-Web is scheduled to move into full production during the spring of 2006.

During the development phase of EFS-Web in FY2005, the Patent organization held multiple customer forums with key customer groups to gather requirements for the development of a system that would increase the number of electronically filed patent applications by identifying and addressing applicants' needs. The resulting EFS-Web design, with PDF attachments, was piloted in December 2005.

Prior to the release of EFS-Web, incoming electronically filed utility applications remained below 2% of all utility applications filed. Projections for filing data for the production release of EFS scheduled for March 2006, indicate an average of 1,200 new Utility, 371-National Stage applications, and RCEs will be received per week. If these projections are realized, the total number of electronically filed new applications will exceed the Presidential Goal of 41,000 set forth in FY2006.

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

Patent Application Information Retrieval (PAIR)

The Patent Application Information Retrieval (PAIR) system was deployed in 1998, and 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.

Private PAIR had three minor releases during 2005 that included maintenance fixes and minor enhancements to the user interface. In March, release 5.4 included enhancements to the IFW document list and addressed several problems related to the download and viewing of documents in PDF format. In April, the Employee Locator was modified to display the 'Job Class Code' adjacent to the employee name if the code is DIR, DIRSEC, HSLIE, RCPTN, or SPE. In September the system was enhanced to display Attorney/Agent names and status information for "Limited Recognition" practitioners.

During the Fall of 2005, preparations were underway for porting Private PAIR to the new secure USPTO portal environment along with the Electronic Filing System application. A beta version of the new Private PAIR is scheduled to deploy in January 2006. This deployment requires a major restructuring of the application and rewriting the code in Java to use a J2EE Websphere application server. The PKI infrastructure was also upgraded to use a web based Java applet for customer authentication.

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

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.

Since 1985, the USPTO Visiting Scholars Program has provided participants from foreign countries with two weeks of classroom and hands-on study of the United States' system for protecting intellectual property. The majority of those trained include personnel from industrial property offices. 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 2005, enforcement programs conducted in the Washington, D.C. area for foreign officials included: the USPTO Enforcement Academy, Central America Free Trade Agreement Enforcement Academy, and the USPTO-World Intellectual Property Organization Academy for the Judiciary on the Enforcement of Intellectual Property Rights. The USPTO, in coordination with the International Intellectual Property Institute (IIPI), provided technical assistance in Russia for border enforcement officials in St. Petersburg and Vladivostok. These programs utilized a case study method involving discussions of problem solving exercises. Additional programs in Europe and Central Asia included the United Nations Economic Commission for Europe (UNECE) Intellectual Property Advisory Group consultations with Romania; USPTO Intellectual Property Enforcement Conference in Azerbaijan; and WIPO-UNECE World Customs Organization Sub-regional Seminar on Enforcement of Intellectual Property Rights in Almaty, Kazakhstan.

The USPTO was actively engaged on a number of fronts to strengthen intellectual property administration, protection, and enforcement abroad. Increased technical assistance was offered in China, with a focus on providing the provinces with capacity-building programs relating to civil, criminal, and border enforcement. The programs offered included the World Customs Organization Regional Forum, Shanghai; Criminal Copyright Enforcement Seminar in Guangzhou; Seminar on new Chinese Judicial interpretation for Criminal Intellectual Property Infringements; Criminal Copyright seminar "How to File a Criminal Case", Beijing; and the Pearl River Delta Seminar on Intellectual Property Enforcement in Southern China.

The USPTO partnered with numerous international, governmental, and non-governmental organizations in designing and delivering technical assistance programs including the Association of South east Asian Nations (ASEAN), UNECE, IIPI, WIPO, Asia-Pacific Economic Cooperation, Secretariat for Central American Integration, Bureau for International Narcotics and Law Enforcement Affairs (INL), and the Middle East Partnership Initiative (MEPI).

In Asia, the USPTO conducted intellectual property protection and enforcement programs that included the ASEAN-USPTO Workshop on Optical Media Regulation and Enforcement, Bangkok, Thailand; U.S. -Vietnam Trade Council Program in Ho Chi Minh City, Vietnam; U.S. Consulate-United States Vietnam Trade Council Association of American Publishers Seminar on Copyright Licensing, Ho Chi Minh City, Vietnam; Support for Trade Acceleration Program and Vietnam-KI Asia-IIPI Judicial Education Program on IPR Protection and Enforcement, Hanoi, Vietnam; ASEAN-USPTO Workshop on "Effective Practices in Combating Trade in Counterfeit Hard Goods," Bangkok, Thailand; ASEAN-USPTO Seminar on "IPR Capacity-Building for Small and Medium Size Enterprises" in Bangkok, Thailand; Combating Internet Piracy, Taipei, Taiwan; and intellectual property protection and enforcement workshops and public awareness seminars in Ulaan Baatar, Mongolia.

Through partnership with MEPI, programs focused on a variety of enforcement issues that included a workshop in Tunis, Tunisia, for judges, prosecutors, and customs officials on best practices for effective IPR enforcement; Middle East regional program on intellectual property rights border enforcement in Amman, Jordan; training for Algerian judges, magistrates, and customs representatives in Algiers, Algeria; Enforcement Academy and United States Study tour for judges throughout the Middle East in Washington, D.C., New York, New York, Los Angeles and San Francisco, California; judicial training in Oran, Algeria; and IPR Border Enforcement Program for Moroccan customs participants in Rabat, Morocco.

Technical assistance programs included the IIPI-West Africa regional conference in Dakar, Senegal; Intellectual Property: Policy Priorities to Foster Economic Growth, Public Health and Culture; and Department of State/USPTO Program on Combating Counterfeit Medicines in Sub-Saharan Africa, in Johannesburg, South Africa. In addition, Enforcement programs were conducted in Colombo, Sri Lanka, and Dhaka, Bangladesh.

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's Internet Web site; some reports are available only at the Internet Web site.

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 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.