CWS.ATR.PI.2011.US

Annual Technical Report 2011 on Patent Information Activities submitted by United States of America (CWS/ATR/PI/2011/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) 2011, the United States Patent and Trademark Office (USPTO) granted 224,505 utility patents, a 2.2 percent increase over the number granted in CY 2010. The share of grants having foreign origin, as determined by the residence of the first-named inventor, is 51.6 percent for CY 2011, up from 50.9 percent for CY 2010. The annual foreign origin share of patent grants has exceeded the domestic origin share for the last four calendar years.

The top five patenting organizations for CY 2011 are International Business Machines Corporation with 6,148 utility patents, Samsung Electronics Co., Ltd. with 4,868 utility patents, Canon Kabushiki Kaisha with 2,818 utility patents, Panasonic Corporation with 2,533 utility patents, and Microsoft Corporation with 2,309 utility patents.

There were 503,582 non-provisional utility patent applications filed at the USPTO in CY 2011, about 2.7 percent more than the number of filings in CY 2010. The share of non-provisional utility patent applications having foreign origin, as determined by the residence of the first-named inventor, was 50.8 percent in CY 2011, up from 50.6 percent in CY 2010. Of these foreign origin patent applications, the largest number originated from Japan (85,184), Germany (27,935), South Korea (27,289), and Taiwan (19,633).

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

In calendar year (CY) 2011, the following active technology areas showed significant increases in utility patent activity as compared to CY 2010: Optics: Image Projectors (up 63 percent), Fluid Reaction Surfaces (i.e., Impellers) (up 60 percent), Electrical Audio Signal Processing Systems and Devices (up 57 percent), Electric Lamp and Discharge Devices: Systems (up 41 percent), Adhesive Bonding and Miscellaneous Chemical Manufacture (up 37 percent), and Aeronautics and Astronautics (up 37 percent).

URLs of web pages of the Office’s website that provide statistics related to patents

General statistics relating to utility patents may be accessed from the following USPTO Web Site pages:
General calendar year utility patent statistics reports can be accessed from the following URL:
http://www.uspto.gov/web/offices/ac/ido/oeip/taf/reports.htm

General fiscal year utility patent statistics and USPTO workload statistics can be accessed from the text and workload tables contained in annual USPTO Performance and Accountability Reports, which may be accessed from the following URL:

http://www.uspto.gov/about/stratplan/ar/index.jsp

Trilateral Statistical Reports containing USPTO utility patent statistics may be accessed from the official Trilateral Web Site at the following URL:
http://www.trilateral.net/statistics.html

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 emphasizes online download and delivery of information products and services without abandoning the traditional delivery methods that include: paper copies, fulfilling fax and telephone requests, maintaining an on-campus search facility 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 automatically loading electronic images of the Pre-Grant Publication Notifications and Patent Grant Issue Notifications into the Image File Wrapper. In addition, as these Notifications are outgoing correspondence, the automatic electronic mail notification exists if the customer has elected to participate in the electronic notification program. The office continues to mail conventional paper copies as well.

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

Presently, almost 4 TB of full-page image data for all patents from 1790 to the present are stored on hard disk drives at the USPTO and accessible from the Internet, along with a 200 GB 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, approximately 600GB of storage have been deployed for the US OCR database (1790-1876) and 4.5 TB of storage have been deployed for published patent applications 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.

The USPTO's Electronic Information Products Division (EIPD) provides patent information products and services to the public in a variety of formats. The Products and Services Catalog on the USPTO Web site provides a Product Listing, a Product Description and XML Resources to obtain sample data. The Products and Services Catalog Product Description also contains details on how to obtain patent and trademark data files.

The USPTO maintains World Wide Web (WWW) and File Transfer Protocol (FTP) internet sites which permit the public free access to selected information related to patents and trademarks through interactive search requests or downloadable data files. Patent and Trademark data files are also available through a Google site.

NOTE: The Cassis and USA optical disc products were discontinued December 31, 2011. The information that was available on the products is available on other products or on the USPTO web site.

The USA products are now available as follows:

Patent Grant Multi-Page Images: Multi-page images of Patent Grants from 1790 to the present are available for free download from Google. The images are in TIFF (Tagged Image File Format) CCITT Group 4 compression and are stored in a series of compressed folders. A cumulative index is located in the archive of the most recent set of weekly images. These multi page images are available for download three weeks following issue.

Patent Application Publication Multi-Page Images: Multi-page images of Published Patent Applications from 2001 to the present are available for free download from Google. The images are in TIFF (Tagged Image File Format) CCITT Group 4 compression and are stored in a series of compressed folders. A cumulative index is located in the archive of the most recent set of weekly images. These multipage images are available for download three weeks following issue.

Trademark Registration Multi-Page Images: This data contains the images of U.S. registered trademarks from 1870 to the present are available for free download from Google. The images are in TIFF (Tagged Image File Format) with CCITT Group 4 Compression. An "image" is an actual page(s) of the trademark, including renewals and modifications, which appear just like the original printed document.

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 2007, OACS was modified to support Electronic Red Folder (eRF). OACS is a major component of eRF. eRF is an integrated file management process that enables electronic beginning-to-end processing of Office Actions. The eRF initiative is part of an ongoing series of efforts at USPTO working toward the Agency's vision, utilizing industry best practices and information technology to improve operations and further the goal of a paperless virtual environment. eRF supports other Agency initiatives, such as the Patent Hoteling Program (PHP), eOffice Action, and eSignature.

The eRF process includes annotation of IDS and other documents in eDAN, NPLs, Bib Data Sheet from PALM, Search Histories from EAST and WEST, and Office Actions in OACS. These documents are created, reviewed, counted, processed, indexed, and scanned into IFW, and mailed to applicants in a seamless electronic process. By bypassing the need for manual indexing and scanning, eRF achieves huge potential cost savings. In addition to providing better oversight and accountability, and time savings for PHP examiners, eRF provides the opportunity to streamline Office Action processing as the Agency moves toward the implementation of Patent File Wrapper (PFW). Deployment of eRF began in July of 2007.

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). Since February 2007, PASS integrated the initial examination processing of international (PCT) applications and US applications into the same workflow.

PASS4.5 was deployed in December 2007. This release modified the workflow logic to support changes in the business process relating to electronic filing via EFSWeb and outsourcing of classification via PGClass. New features such as the deferring of incomplete applications and automatic reinstatement of deferred applications produced improved throughput, quality and eliminated manual intervention.

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 uses PCT EASY to author the request form, then this bibliographic data is 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.

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'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 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 data changes, provides management reporting, and allows for exception processing. All new international applications and follow-on documents are processed by the POWER system.

The first phase of USPTO's PCT electronic transmissions effort was implemented in 2007 with POWER transmitting Record Copies, as well as later submitted sheets, to the IB.

During the second phase completed in 2008, POWER greatly extended its electronic transmission capability by transmitting to IB other PCT documents such as PCT Chapter II documents, priority documents, and Sequence Listings. Furthermore, later in the same year POWER successfully completed the implementation of electronic data interchange with KIPO (Korean Intellectual Property Office) and began to electronically transmit both Search Copies and latter submitted sheets to KIPO.

Additionally starting in 2009, POWER is being expanded to include:
• Electronic receipt of ISA Forms from KIPO
• Electronic transmission of Sequence Listings to KIPO

Both automation tasks will replace manual intensive paper processing in June 2009.

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. These features were successfully implemented 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:
• Document image and metadata capture
• Document titling (assignment of the appropriate document code ("Doc Code"))
• Quality control
• Delivery of document images and document metadata to IFW or SCORE via the EAI Hub, and
• 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. Replacement of eDAN and MADRAS, the interface tools used by the examining corp. to view and act on patent applications will be the first step in the implementation of the PFW. The first component deals with electronic routing of work while also providing the first look at the new interface for viewing applications. In 2008, the first deployment of PFW was made which included much of the functionality of the eDAN and MADRAS applications but introduced the first use of automated workflow for task handling. Completion of the replacement of eDAN and MADRAS is the next step followed by development and deployment of an Action Authoring Tool. Scheduled to be deployed in mid 2011, AAT will automatically route work that has been completed by patent examiners to the appropriate reviewing officials and ultimately soft scan approved office actions into PFW's document management system. Electronic notification of office action preparation to at least some applicants is also expected to be part of the early implementation of PFW which carries on functionality recently added to legacy systems as a precursor to the service to be offered by PFW.

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. Images of all USPTO Design Patents are available in either EAST or WEST with access through domestic and/or international classification assignments.

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.

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 in 2006.

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 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.

In 2008, implementation of the Middle Tier Phase 3 project was completed providing a multi-tiered application to improve the scalability and the performance of the BRS search system. Phase 3 enables data to be distributed across servers for better process management and system utilization. An addition of a new Superdome server also increases the performance to support the demands of more users and data

In 2008 the USPTO began the development on the Unpublished Patent Application Data (UPAD). The USPTO is processing newly filed patent applications to create text and image files similar to the existing Pre-Grant Publication format. The Patent applications are scanned as TIFF images into the Image File Wrapper repository, exported for OCR processing, and data entry resulting in XML Red Book text file and Yellow Book 2 TIFF image file of the unpublished patent applications. The XML Red Book file will be amended throughout the patenting process. The unpublished patent application text and image files are currently being loaded into SCORE for use by the patent examiners. At the completion of the UPAD project, the U.S. Patent Examination Corps will be able to search on unpublished patent application text and retrieve images within 45 days after receipt of an application through EAST and WEST - a major improvement on the current 18-month publication cycle.

Derwent XML implementation Phase 1 was completed in 2008. This included International Patent Classification Reform (IPCR) data for the Derwent abstracts, and involved the change over from subscriber format to full XML, data load and client display changes to EAST and WEST.

Preliminary efforts on the IP5 Foundation project started late 2008. Documents to support the two foundation projects that USPTO leads were created and circulated among the IP5 offices for review and comment, as well as preparation for the January 2009 IP5 Offices meeting to be hosted by USPTO.

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 and an IBM Blade Server added in 2007, which utilize the Smith-Waterman algorithm. Databases included in searches performed by the ABSS system are: GenBank/EMBL/DDBJ, GeneSeq, PIR, and UniProt public databases, as well as the internal USPTO databases: 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, Trilateral partner and public access to supplemental file wrapper data through the electronic Desktop Application Navigator (eDAN) and the Patent Application Information Retrieval (PAIR) system. The repository comprises the entire biosequence database, biosequence search results back to June 2005, and other selected supplemental file wrapper information. In 2008, SCORE will begin supporting a pilot allowing applicants to submit "native" or "source" files for complex data in more usable formats (including text documents in InChITM, MathML, and PDB formats), which will assist in clearer examination, fewer printer queries, and more streamlined publication.

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.

The Publication Site for Issued and Published Sequences (PSIPS) is the electronic publication site for supplemental file wrapper data from U.S. patent grants and pre-grant publications. PSIPS is being modified to be the repository for all published DNA and protein Sequence Listings, including sequence data back to 1990.

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 2006, PatentIn 3.4 was released that was in compliance with section 508 of the Disabilities Act and droped support of Windows 95, 98, ME, NT, Win2000.

In 2007, PatentIn 3.5 was released in November using the latest Microsoft .NET technology to provide better software performance, accessibility, and reliability. Now a PatentIn-generated ST.25 Sequence listing file can be imported to the PatentIn system for further sequence data modification and can be regenerated to produce a new sequence listing. It can also process a sequence as large as 12 MB and generate a sequence listing up to, but not limited to, 12 MB.

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. The last release of Checker was in December 2006.

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.

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 FY2011 was over thirteen million written words, the majority of which were in the Japanese, German, Korean, Chinese and French languages. In addition, the translation staff reviews with examiners the general content of documents, provides partial oral translations prior to or in place of written translations and validates the accuracy of machine translations. STIC translators use machine translation systems available from the websites of the Japanese Patent Office for Japanese patent documents issued since 1993, the Korean Patent Office for Korean documents and the European Patent Office for German and French patent documents. These tools are used for the purpose of improving translation turnaround time and controlling the costs of providing human translations.

Classification[1], preclassification[2] (if applicable), and reclassification[3] 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 2011, approximately 195,623 patent documents were reclassified and 682 new subclasses were established in 12 classes in the US Patent Classification (USPC) system, the primary classification system used at USPTO. Of this total, 75,441 were Pre Grant Publications and 120,182 were United States patent original or cross-reference classifications. The work was performed using a combination of USPTO and contractor resources.

In 2008 USPTO began using a new document based tool to process for reclassification new schemes, definitions, and batches of document lists. The previous system in use, CDS Desktop was intended for interactive use and could not adequately support the batching mode used by contracting support. The new system is used by all internal staff working on reclassification, and supports a two tiered quality assurance review.

The Office of Patent Classification maintains the USPC-to-IPC concordance table linking the United States Patent Classification system and the International Patent Classification (IPC 8) system. The Office of Patent Classification maintains a local copy of the IPC Valid Symbols, which it provides to PALM and the PGPub classification contractor to validate IPC symbols allotted to US documents.

Foreign Patent Classification (FPC) - The USPTO continued to develop automated systems and processes to assist with the classification of non-US patent documents in 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". The "family patent processing" tools developed to identify members of simple families of documents are currently used to produce the working list of documents to be classified for the Trilateral projects. The FPC databases contained approximately 5,235,050 distinct simple families of foreign documents classified in USPC, of which approximately 6,404 were either newly classified or reclassified in USPC during 2011.

All US patent documents are classified in USPC (the United States Patent Classification), and all US utility documents published since 07-Jan-1969 include an IPC classification (International Patent Classification). 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 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) in 2005 to allow US examiners to view EPO application document images for published applications using the examiner's 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. In an effort to further expand accessibility to foreign patent applications, the USPTO and KIPO implemented bi-directional access of TDA:FWA in 2008.

IV. Search file establishment and upkeep

File building

The file of classification symbols is maintained by OPC on a daily basis. Every week new patent grants are issued on Tuesday, and new Pre Grant Publications are published on Thursday. By the end of 2011 the classification file contained 8,114,221 OR classifications, of which 259,850 were added in 2011, and 20,781,376 XR classifications for patent grants, of which 734,859 were added in 2011. The file for maintaining classifications of Pre Grant publications contained approximately 2,950,731 Primary classifications, of which 370,120 were added in 2011, and approximately 3,727,805 Secondary classifications, of which 454,727 were added in 2011.

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 has not been planned.

NPL

USPTO examiners have desktop access to over 53,000 journals in electronic format as well as nearly 109,000 electronic books. Such Internet-based services as IEEE/IEE Xplore, Proquest, ScienceDirect, EBSCO and 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.

Loading of the Korean Patent document images exchanged from KIPO started in 2008. The data was loaded into the Foreign Image and Data Load repository for retrieval through WEST-FISC and FPAS.

Updating

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 has not been planned.

In 2008 the Historic Patent Project was completed with the addition to PIRS of images for over 500 US Patent Grants not previously available through EAST, WEST, and Patent Images on the Web.

The USPTO's 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

At the end of FY 2004, the USPTO acquired over 400 TB of raw disk capacity. Managing this storage required 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. In FY 2006 the USPTO made a significant investment in NAS storage from the vendor NetApp by acquiring 400TB of raw disk capacity, followed by additional storage acquired for Disaster Recovery in FY07. As of FY11, the USPTO has over 2.8 Petabytes of disk storage enabling the processing of all business area needs, both in Carlyle and the remote Disaster Recovery site.

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

The USPTO's Production Services Branch (PSB) is within the Electronic Information Products Division (EIPD) of Public Information Services Group (PISG) of the OCIO. PSB staff are responsible for all text and image data load processes and maintenance of both domestic and foreign patent data. PSB staff perform the data loading and maintenance of 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), BRS Keyword/PLUS Database Update, Automated Biotechnology Search System (ABSS)/STIC, CD-Rom Reference Library System, New Technology Assessment Forecast, Group 1 Address Database Update, and the Trademark Image Capture and Retrieval System. PSB Staff perform the data loading and maintenance of text and image data for the following foreign databases: Derwent Text and Image Data, Foreign Image Data Load (JPO Abstract Data, EPO/JPO Full Image Data, DOCDB, ECLA, JPO FI-Data File, Korean, Brazilian Full Image, Canadian Mimosa and Australian Mimosa).

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.

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 databases including: GeneSeq (Derwent), GenBank/EMBL/DDBJ, UniProt, and PIR, and internal USPTO databases, including: Pending, Published, and Issued. A project has been initiated to replace the current flat file databases with substantially more robust Oracle relational databases at its completion, which will allow for more efficient storage and search of the sequence data. The process of eventually retiring the older servers in the ABSS network by expanding the IBM Blade server array was begun in 2007

To assist examiners determine appropriate classifications where applications may be assigned for examination OPC maintains the Automated Routing Tool (ART). ART is a numerical linguistic tool that analyzes the text of an application in question, and along with optional user input makes available to the examiner the frequency distribution of classifications from the result set from a query generated from the analysis of the text.

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 USPTO began electronically publishing for Pre-Grant Publication (PGPub) patent applications. Biosequence repository data was made available in FY 2002. In FY 2003, assignment data was added to the Web site.

The Patent Application Information Retrieval (PAIR) system provides Public users access to patent application status information via the USPTO web site. Users can view and download bibliographic information as well as document images in both PDF and XML formats.

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 was made available in FY 2002. In FY 2003, assignment data was 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.

In 2008 EAST and WEST were updated to capitalize on the enhanced capabilities made available through the new Middle Tier Phase 3. As of 2008, a majority of patent 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 telecommuting pilot in FY2005 as a precursor to initiating PHP in January 2006. By December 2008, the USPTO had more than 1400 active PHP patent examiner employee participants. An additional 500 patent examiner employees are planned to be added each year through 2011 bringing the total number of PHP examiner participants to over 3000.

As a result of the popularity in the Patent examiners' telecommuting program (referred to as the Hoteling program), the USPTO recently expanded the examiner's Hoteling program by launching a hoteling program (PHP-N) to the positions of the technical support staff. The PHP-N program includes not only the technical support staff but also paralegals and petitions staff positions. Currently there are 89 active participants in the PHP-N program.

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 teleworking participants reserve time in an office suite physically located at the USPTO headquarters one day per week. There is one suite per ten telecommuters (1:10) ratio of office space allocated to the hotelers. 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.

Over the course of this program, the USPTO has responded to telecommuting program inquires from the following external groups:

- Federal Reserve
- Government Services Administration (GSA)
- Canadian Patent Office (CIPO)
- Department of Transportation
- Department Of Interior - Fish & Wildlife
- Library of Congress
- Internal Revenue Service
- Department of Justice
- Department of Treasury - Treasury Inspector General Tax Administration (TIGDA)
- Loudoun County Government
- Congressional Aides
- United States Senate Staff
- National Institutes of Health
- European Patent Office (EPO)
- 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, Proquest/Dialog, LexisNexis and Westlaw.

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

USPTO examiners have desktop access to over 54,000 journals in electronic format as well as nearly 109,000 electronic books. Such Internet-based services as IEEE/IEE Xplore, Proquest, ScienceDirect, EBSCO and ACM Digital Library are also widely used by examiners.

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

Patents Location and Monitoring System (PALM) Migration

PALM continues to constitute the backbone for management information throughout the USPTO. PALM additionally tracks examiner and other employee production, case history and bibliographic data. Via PALM reports and ad-hoc reports, PALM data is used to manage and track the USPTO's pending applications. Throughout 2007, the main emphasis was on making changes to provide services to other projects such as PFW, PAIR and the e-Office Action Pilot.

PALM on PTOnet

All managers, Patent examiners and support staff have been provided access to the current PALM System on their desktop PC via barcode readers and a web browser interface. Efforts at making more PALM interfaces web-browser-based have improved efficiency and increased case tracking accuracy.

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

PTOnet

PTOnet has an architecture consisting of a campus-wide Gigabit Ethernet switched backbone with Telecommunications Room switches providing switched Ethernet connection to individual workstations and Data Center servers.

Since desktop applications require increasingly more network bandwidth; in 2010 PTOnet was upgraded to keep ahead of the requirements including transition to IPv6. PTOnet users now have dedicated 1 Gbps connections and there is a 10 Gbps backbone; 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) and two-factor authentication with authorization and accounting.

Access to external databases

Examiners establish secure connections to the external databases via site to site Internet VPNs and secure Web Browser connections. The USPTO's Internet access line bandwidth is one 1 Gbps connection and two full OC-3 connections (1.3 Gbps total).

The USPTO is in the process of testing three 1Gbps Managed Trusted Internet Protocol Service connections (3 Gbps total) that should be deployed in July 2012. Once they are deployed, the existing 1 Gbps connection and one of the two OC-3 connections will be disconnected. The remaining OC-3 connection will be retained for IPv6 testing.

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 Office of Patent Information Management (OPIM). Although providing a number of services to the public, the primary mission of STIC is to serve the examining and professional staff of the USPTO. STIC is composed of four divisions - 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 and subscription databases, e-books and e-journals. The Division also manages the STIC NPL (Non-Patent Literature) intranet pages and the STIC Online Catalog. The Information Access and Management Branch, 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's 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 Systems Branch reviews sequence listing submissions.

The Electronic Information Center (EIC) Division includes seven distinct branch information centers embedded within the Technology Centers (TCs) they serve. Each EIC maintains a physical collection of print materials related to the discipline of the Technology Center served. All EICs offer examiners a one-stop-shop for all their non-patent literature, foreign patent, reference delivery and search support needs. Staff provides examiners with online Non Patent Literature (NPL) and prior art searches, foreign patent data retrieval and patent family searches as well as document retrieval services for articles, books and journals from both print and electronic STIC collections.

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 users to hyperlink to electronic journals and books in the STIC collections.

STIC develops and maintains intranet pages providing access to Internet NPL resources 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.

STIC's federated search system, NPL Multi-Search, is a federated search interface which allows concurrent searching of Non-Patent Literature, and e-book resources based on Technology Center defined fields of search. It is accessible via the STIC NPL web page on the Examiner's Toolkit with resources selected to meet the Technology Center's subject interest.

Security, Buildings

The main STIC print and microformat collection is housed in various buildings throughout the campus along with other USPTO offices. All STIC facilities are accessible to USPTO employees 24 hours a day via an ID card reader system. STIC NPL Web page resources are also available 24 hours a day. 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/DVD 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

Patent and Trademark Resource Centers
The Network of Patent and Trademark Depository Libraries (PTDLs) has been renamed the Patent and Trademark Resource Center Libraries (PTRCs).

The USPTO Patent and Trademark Resource Center Program (PTRCP) consists of 84 over 80 academic, public, state and special libraries, referred to as PTRCs, located in 46 states, the District of Columbia, and Puerto Rico. A list of PTRCs may be viewed at the USPTO Web site.

The 33rd Annual PTRC Training Seminar held in Alexandria, Virginia from April 11-14, 2011, hosted 85 registrants representing 61 PTRCs and one potential PTRC.

The PTRC Program was involved in a number of outreach activities during CY 2011. Public seminars and staff training were also conducted at a number of PTRCs throughout the year. Briefings on the PTRC Program were also provided to international visitors attending the USPTO Global IP Academy. In addition the first all-electronic PTRC was opened in Davenport, Iowa.

Information on the Patent and Trademark Resource Center (PTRC) Program is available from the PTRC Web site located at: www.uspto.gov/go /ptrc. 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 PTRCs 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 PTRCs. All PTRCs also provide public access to the USPTO Web site.

The USPTO has discontinued providing optical disc products to PTRCs.
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, 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 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 USPTO 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 services such as Questel/Orbit and LexisNexis 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.

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 Facility

The USPTO Public Search Facility (PSF) provides public users with access to over 20 software applications that provide full-text search and/or document retrieval capability. The primary information delivery channel in the PSF is the Universal Public Workstation (UPWS). The UPWS is a secured access computer providing a single platform and consistent interface to all databases. There are over 125 UPWS workstations available to the public and online system use during FY 2011 totaled over 145,000 hours.

Public versions of the patent examiner search system EAST and the Patent Application Information Retrieval (PAIR) are the heaviest used applications provided on UPWS. Other patent software applications available on UPWS include the USPTO Web site, Assignment Historical Database (AHD) and the patent examiner search system WEST.

Both EAST and WEST retrieve all U.S. patent images, and provide text searching back to 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 (EPO) and Japan Patent Office (JPO), and a set of foreign patent images. Public users search Re-exam file information by logging onto the PAIR application. UPWS provides access to World Patents Index (WPI), a proprietary database that is also available to USPTO patent examiners. This search tool is accessed through both EAST and WEST.

The Public Search Facility is 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.

Training courses on EAST and WEST are offered free monthly and on an as needed basis. Special one-page guides and Helpful Hints are available in the on-line search areas. Individual assistance is available from 8 am - 5 pm, with self-service available until 8 p.m. Public users have opportunities throughout the year to participate in Beta testing of updated versions of software applications.
Data Products Provided to the Public

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

The USPTO maintains World Wide Web (WWW) sites on the Internet, which permit the public free access to selected information related to patents and trademarks through interactive search requests or downloadable data files.

The optical disc program was discontinued as of December 31, 2011.

URLs of web pages of the Office's website for electronic filing of patent applications

In March 2006, the USPTO launched a new and improved patent application electronic filing system, EFS-Web. Applicants can use EFS-Web to file patent applications and pay fees online. EFS-Web provides an electronic Acknowledgement Receipt immediately at time of submission. EFS-Web is available 24/7 at https://sportal.uspto.gov/efs.

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

The USPTO provides online help material for EFS-Web, including tools, tutorials, Computer Based Training (CBT), and FAQs, at http://www.uspto.gov/ebc/efs_help.html. In addition, the Patent Electronic Business Center (EBC) provides technical assistance to patent applicants on how to use EFS-Web and other eCommerce systems. Patent EBC hours and contact information are listed at http://www.uspto.gov/ebc/ebc_help.htm.

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

See http://www.uspto.gov

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

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 offices' 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's eDAN examination tool. Similar access to US files was granted to EPO examiners. The connection with the JPO operates in a similar fashion. The JPO makes robust use of FWA linkage 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. The USPTO and KIPO noted increased usage of TDA:FWA among examiners after implementing this service in 2008.

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 delivery of a certified copy of an application to which priority has been claimed from the Office of First Filing. 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 is 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.

A similar exchange was implemented in 2007 between USPTO and JPO and implementation between USPTO and KIPO in 2008.

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 began sending image 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 providing certified copies of priority documents on CD-R media accompanied by a paper certification sheet when the size of the document exceeds 400 paper pages. Patent applicants have the ability to order either certified or uncertified unpublished patent applications, via Private PAIR (Patent Application Information Retrieval) on the web.

Patents

In 2007, the USPTO implemented electronic priority document exchange (TDA:PDX) with the EPO and JPO. Using the secure TriNet network connection, the images of applications-as-filed are delivered from one office to the other and directly loaded into the office's image database. This service was implemented between USPTO and KIPO in 2008. USPTO is planning to extend this service to China.

Medium allowed for filing applications

Electronic Filing System Web (EFS-Web)

In October 2000, the USPTO implemented EFS (Electronic Filing System), to allow applicants to file patent applications electronically. This first generation system was advanced for its time, utilizing PKI (Public Key Infrastructure) and XML (Extensible Markup Language) technology; however, user adoption was slow, reaching near 2% at its peak.

In March 2006, USPTO revamped EFS and launched EFS-Web (Electronic Filing System Web), implementing many suggestions received from its customers in the intellectual property community. Unlike its predecessor, EFS-Web was simple and does not require users to install software on their local machines, nor understand XML. EFS-Web is completely Web-based and allows users to submit their patent application documents as PDF (Portable Document Format) files. Certain documents are also accepted as ASCII text files (e.g., sequence listings, complex tables, and computer program listings) and ZIP format (i.e., PCT-Safe .zip file). EFS-Web also enabled filers to pay fees online in real-time. EFS-Web uses PKI digital certificate to provide strong authentication and SSL/TLS for encrypted secure transmission. Upon submission, EFS-Web provides an immediate electronic Acknowledgement Receipt.

EFS-Web accepts the following application types: utility (nonprovisional), provisional, design, national stage filed under 35 USC 371, international, reissue, and reexam. Drawings for design patent applications, which may include color, are stored in the USPTO SCORE (Supplemental Complex Repository for Examiners) system. The as-filed PDF of these documents in SCORE to preserve the high-fidelity and resolution of images.

When creating application documents, applicants can use a standard word processor and then convert the final version to PDF for filing in EFS-Web. The majority of PDF writer/creator software can be used to convert printable documents to PDFs, as long as the software meets PDF standards. Copiers and scanners can also be used to create PDF files, which must have 300 DPI resolution to ensure proper rendering by USPTO systems.

Most applications also include forms. Applicants can download USPTO PDF fillable forms or use customized forms that they create. In addition, EFS-Web provides a special group of PDF fillable forms call EFS-Web eForms. Data from eForms are automatically loaded to USPTO internal system when submitted in EFS-Web. This process reduces data entry errors and saves time by having data be available in USPTO systems quicker. The following eForms are available: (1) ADS (Application Data Sheet); (2) IDS (Information Disclosure Statement); (3) Petition to Make Special Under Accelerated Examination Program; (4) Provisional Application for Patent Cover Sheet; and (5) Request for Continued Examination (RCE) Transmittal. Two ePetitions are available for automatic processing by EFS-Web: (1) Petition to Accept Unintentionally Delayed Payment of Maintenance Fee in an Expired Patent (37 CFR 1.378(c)); and (2) Petition to make special based on Age. If all petition requirements all met, EFS-Web will grant the ePetition instantly and provide a grant letter at the time of filing.

Customer response to EFS-Web has been enthusiastic. At the end of FY06, less than a year after implementation, EFS-Web received 14.2% of all patent applications filed, exceeding the 10% filing goal set by the agency. Electronic filing rates continued to increase and exceed filing goals, reaching 49.5% in FY2007 and 72.1% in FY2008.

The USPTO continues to make improvements to EFS-Web, based on customer feedback. In 2008, EFS-Web implemented two major software releases, which included the following enhancements: new ePetition to make special based Age for auto-processing; simpler and improved usability of navigation menus; additional validations to help filers identify errors earlier; additional integration with Private PAIR; increased file size limitation for sequence listings; and upgrades in hardware and software platform to enhance availability, performance, and security.

EFS-Web can be accessed 24/7 at https://sportal.uspto.gov/efs. Online help material for EFS-Web, including tools, tutorials, Computer Based Training (CBT), and FAQs, is available at http://www.uspto.gov/ebc/efs_help.html. The Patent Electronic Business Center (EBC) provides technical assistance to patent applicants on how to use EFS-Web and other eCommerce systems. Patent EBC hours and contact information are listed at http://www.uspto.gov/ebc/ebc_help.htm

Patent Application Information Retrieval (PAIR)

The Patent Application Information Retrieval (PAIR) system was deployed in 1998 and then was upgraded in 2003 to include the listing of documents from the Image File Wrapper (IFW) database. PAIR displays a subset of data maintained in the internal Patent Application Location and Monitoring (PALM) and IFW systems 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. Public PAIR displays status information for published applications and issued patents. 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.

The Private PAIR e-Office Action Pilot Program continued in 2008. The e-Office Action program provides patent applicants of the United States Patent and Trademark Office (Office) with the option of receiving e-mail notification when new Office communications have been prepared and are accessible in Private PAIR. The program is designed to be a flexible alternative to receiving mailed paper copies of Office communications.

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 requested public assistance from scientists and experts to provide technical training to patent examiners in order to update the examiners' knowledge and understanding in technical developments, state-of-the-art, emerging trends, maturing technologies and recent innovations in various technical fields. A total of 6,395 Examiners participated in the Patent Examiner Technical Training Program (PETTP) which provides patent examiners with direct access to experts who are able to share their technical knowledge on prior art and industry standards in areas of emerging technologies and established technologies. In CY-11, companies from the fields of Biotechnology, Chemical and Materials Engineering, Communications, Mechanical Engineering, Transportation, Construction, Electronic Commerce and other technology fields provided training for the PETTP.

The Patent Training Academy (PTA) provided training for 523 new examiners in CY-11. Of the 523 examiners hired, 432 were hired into the Entry Level 2-Phase Program. In Phase I, examiners are in residence in the Patent Training Academy for the first 4 months where they are provided entry-level and then more focused training of U.S. statutes, rules, procedures, and practices pertaining to patent examination; as well as hands on work with Patent Applications. During Phase 2, examiners transition to their technology center and periodically return to the Academy for the remaining eight (8) months for more advanced training. In addition to the Entry Level 2-Phase Program, an additional program of training intellectual property (IP) experienced patent examiners was offered. The IP Experienced Program is an initial 20-day in residence in the PTA for new examiners who already have substantial prior work experience in the IP field. Just-In-Time training takes place within the first 12-months of employment. The program provides an overview of U.S. statutes, rules, procedures, and practices as they apply to the examination of patent applications in the USPTO, searching, and automation tools. Ninety-three (93) examiners were hired and trained in the IP Experienced Program in CY 11. Supervisory Patent Examiners, who have completed a trainer orientation workshop, supervised a lab of up to 16 new examiners during either the Entry Level 2-Phase Program or the IP Experienced Training Program. The new examiners attended lectures created by a Curriculum Committee of senior patent managers. These lectures were presented by patent subject matter experts. The new examiners returned to their labs to apply the lecture material, conduct searches, and complete Office actions on pending applications while they were in residence at the Academy. New examiners in the Entry Level Training Program completed their new examiner training program with a three-hour Proficiency Exam. Formal graduations, attended by the senior executives of the Agency, were held, and the new examiners, from both programs, attended.

The success of the PTA is partially due to the collaborative direction of Patents senior executives of the USPTO. The Directors of the Office of Patent Training (OPT) frequently met with the Deputy Commissioner for Patents to assess progress and to review goals and objectives. In addition, the Patent Academy Steering Committee, consisting of the OPT Directors and Group Directors from each Technology Center, met regularly to identify new examiner training and development concerns and to offer solutions to program and administrative issues.

The management team continually assesses the performance of the New Examiner Training Program and identifies and recommends opportunities for improving the effectiveness and efficiency of the PTA. In CY-11, the PTA is the first USPTO organization to obtain and maintain the prestigious ISO-9000:2008 certification. The PTA's ISO 9001 Certification is for the facilitation of the New Examiner Training Program for the USPTO. PTA received the Certificate of Registration in June of 2009.

The Office of Patent Training (OPT) provided training to managers in CY-11. The Management Training Program is a blended approach to management training developed in coordination with the Technology Centers and the Enterprise Training Division (ETD) in the Office of Human Resources. It is a collaboration to provide new supervisory patent examiners (SPEs), as well as experienced SPEs, with the knowledge and skills needed to be successful supervisors.

OPT facilitated with the Technology Centers to provide Examiner Refresher Training in CY-11 to experienced examiners. This program was designed to enhance examiner knowledge and skills in 21 procedural and legal topics pertaining to patent examination.

The Patent Training Academy (PTA) completed an Examiner Overview training course for 12 international examiners for one week in July of 2011. In addition, the PTA completed an Examiner and Training Representative Workshop for one week to a group of 18 international examiners and training representatives in December of 2011.

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

The United States Patent and Trademark Office's Global Intellectual Property Academy (GIPA) offers capacity building programs in the United States and around the world on IPR protection, enforcement, and capitalization.

The USPTO continued its work under a MOU with ROSPATENT to cooperate in capacity building activities, work sharing and public awareness programs in Russia. Specific activities as part of a FY2011 action plan on bilateral cooperation included a multi-city IP awareness program in Russia in June 2011, Roundtables on Patent Examination of Computer Implemented Inventions and Methods of Medical Treatment/Diagnostics in the United States at ROSPATENT in September 2011, Patent Prosecution Highway (PPH) training program at ROSPATENT in April 2011, and Technology Transfer/IP commercialization program at the Moscow State University in September 2011.
In Ukraine, the USPTO participated in the Seminar on IP Management and Technology Commercialization in CIS Countries in March 2011. Participants included universities, government research centers and Small/Medium Businesses (SMEs). Also, in collaboration with the Ukrainian State Department of Intellectual Property (SDIP), the USPTO conducted a workshop on Patent and Trademark Examination.

In Kazakhstan, the USPTO conducted training programs on patent and trademark protection in Almaty and Astana in April 2011 for patent and trademark examiners, SMEs, researchers and the general public.
In Kyrgyzstan, the USPTO staff participated in the CLDP/USPTO/Kyrgyzpatent Seminar on "Intellectual Property and Technology Transfer: Opportunities and Challenges for the Economy of Kyrgyzstan" in September 2011.

In Moldova, the USPTO staff participated in the USPTO/United Nations Economic Commission for Europe (UNECE) Subregional Capacity-building Conference on Economic Aspects and Enforcement of Intellectual Property held Chisinau in November 2011.

The USPTO continued to boost enforcement capacity globally by holding customs and enforcement workshops and capacity-building programs in a number of countries and regions, including the Balkans, East Africa, Colombia, Brazil, Slovenia, Cambodia, and Senegal.

The USPTO partnered with ASEAN on a sub-regional border enforcement program in Brunei, a seminar/tour in the US on innovation and protection/enforcement of IP, a criminal enforcement program in Cambodia, and other sessions on digital piracy, IP management and commercialization, and judicial and prosecutorial education.

In addition, the USPTO emphasized the importance of combating counterfeits, particularly for public health and safety reasons, through specialized programs in Tanzania, India, and Trinidad and Tobago. The USPTO also ramped up its efforts in fighting the growing problem of digital piracy by coordinating and participating in focused programs in Ukraine and Estonia.

In Latin America, the USPTO participated in an intellectual property enforcement program organized by INTERPOL in Mexico City, Mexico (February 2011). The program brought together IP office officials, custom officials, judges, prosecutors and police who are all involved in various

aspects of IP protection and enforcement. The programs provided a forum to discuss the socio-economic impact of piracy and counterfeiting and to share experiences to combat piracy and counterfeiting and improve IP protection and enforcement.

The USPTO, in conjunction with the World Intellectual Property Organization (WIPO), organized a Workshop on IPR Enforcement in Ciudad del Este, Paraguay, (June 2011) which included participation of 82 intellectual property officials from Paraguay, Peru, Brazil, Uruguay, Ecuador and Chile.

In March 2011, the USPTO also organized specific IP enforcement training at its Global IP Academy (GIPA) for judges from Argentina, Chile, Colombia, Mexico and Peru. In August 2011, the USPTO participated in a U.S. Department of Commerce/ITA Trade Facilitation and Public Private Partnership customs workshop targeting the MERCOSUR countries by providing information on intellectual property enforcement issues.

The USPTO provided training on the Patent Prosecution Highway to Mexico's Industrial Property Institute (IMPI). In January 2011, the USPTO organized a Patent Cooperation Treaty (PCT) Office Administration Program where intellectual property officials from Costa Rica, El Salvador, Peru and Uruguay, among others, were in attendance.

In addition, the USPTO organized an Advanced Patent Examination: Computer Implemented Inventions program where IP officials from Colombia, Jamaica, Mexico and Peru participated. The program focused on an overview of patent examination procedures used with computer implemented inventions.

In Sub-Saharan Africa, the USPTO provided training programs on an array of intellectual property and enforcement subjects. On copyright, we were observers at the Southern and Eastern Africa Copyright Network (SEACONET) Workshop in South Africa in January 2011.

The USPTO conducted two workshops on IPR border enforcement; one program in January 2011, at USPTO, for Ethiopia, Ghana, Kenya, Swaziland and Uganda, and one in February 2011 for Cape Verde, Ethiopia, Lesotho and Tanzania.

The USPTO also participated in an Interagency IP Task Force Workshop in Kenya, in May 2011, about IPR enforcement.

In collaboration with WIPO and the Public Intellectual Property Resource for Agriculture (PIPRA), the USPTO also co-organized a program on IP management and technology commercialization in Kenya in May 2011.

To promote plant variety protection and the accession to the International Union for the Protection of New Varieties of Plants (UPOV), the USPTO and the UPOV Office co-sponsored two regional plant variety protection programs, one in Ghana for ARIPO members in July 2011 and the other in Zanzibar in June 2011 for Tanzanian legislators and stakeholders.

The USPTO also presented two programs about geographical indications, one in cooperation with the Department of Commerce Commercial Law Development Program (CLDP) in Mali in December 2010, and the other an ARIPO Regional Geographical Indications Program in Kenya in September 2011.

In Russia, the USPTO partnered with the Investigative Committee of the Russian Federation to conduct a training program in Moscow in March 2011 on Copyright Infringement in the Digital Environment. USPTO, FBI and DOJ, along with various Russian government enforcement agencies, as well as industry representatives, shared their experience and best practices in investigating and prosecuting Internet piracy cases. 60 Russian investigators participated in the program.

Also, in the area of enforcement, the USPTO conducted a regional copyright enforcement program for Russia, Nordic and Baltic States, Vilnius, Lithuania in May 2011. The program was dedicated to IPR protection in the age of digital and internet media. It was one in a series of USPTO IPR regional programs which were previously held in Tallinn, Estonia and Helsinki, Finland. Invitees to the conference included prosecutors, customs, and police officials involved in combating internet piracy from Latvia, Estonia, Finland, Sweden, and Russia. Representatives from DOJ, USPTO, and ICE attended as speakers and as moderators for the conference panels. 6 Russian participants representing various enforcement agencies, both federal level and local (incl. General Procuracy, Investigative Committee, Ministry of Interior, Federal Customs Service, Procuracy of St. Petersburg and Investigative Directorate of St. Petersburg) actively participated and contributed to this program.

In Ukraine, the USPTO conducted the following programs: a training program on Copyright Infringement in the Digital Environment for Ukrainian prosecutors and investigators in Kyiv in June 2011; and a Workshop on Identification and Interdiction of Counterfeit Medicines for Ukrainian customs officials, health officials, prosecutors and investigators in Kyiv in May 2011. The latter program was organized in partnership with CLDP. In the ASEAN Region, the USPTO, in cooperation with the ASEAN Secretariat, conducted several ASEAN regional (not including Burma) programs on IP protection, utilization and enforcement in 2011. The USPTO also conducted several in-country IP training, capacity building, and public awareness programs, separately or in conjunction with the regional programs. Five regional programs concerned IP enforcement and four concerned substantive IP topics. On March 6-8, the USPTO held a Regional Copyright, Digital Piracy and Enforcement Workshop in Bangkok, Thailand. About 50 people from the countries in the region including a large number of Thai officials and stakeholders participated in the program. An Advanced Workshop for Law Enforcement Investigators and Public Prosecutors on Criminal Enforcement of IP was held in Bangkok, on June 28-30.

On June 14-16, the USPTO conducted a 3-day Seminar and Workshop on IP Management and Technology Commercialization in Manila, Philippines. More than 30 IP officials and university technology managers from nine countries including local universities participated in the program to learn about policy and best practices in technology transfer. The participants also shared their experiences and discussed best practices.

On July 19-21, the USPTO held an ASEAN regional program on Train the IP Trainers. The program was attended by 23 participants. The graduates of this program are expected to conduct IP training to others in the respective countries. On September 19-29, the program on IPR Border Enforcement-U.S. Study Visit for ASEAN Customs Officers was held in several cities in the United States. Nineteen officials participated. The participants met with the U.S. counterparts who shared their experiences and best practices.

In March 2011, USPTO conducted a Judicial Round Table Discussion on Intellectual Property Rights for judicial officials in the UAE.

In September 2011, the USPTO held four-day consultations on technology transfer policy and best practices with university and other government officials in Rabat and Casablanca, Morocco.

In October 2011, USPTO conducted an Innovation Ecosystem program in Alexandria, Virginia for Iraqi researchers and other officials.

In November 2011, USPTO conducted intellectual property awareness programs in Tunisia and Algeria for intellectual property-related officials.

In 2011, the USPTO conducted a joint seminar with the State Intellectual Property Office (SIPO) on technology transfer policy, focusing on the law, regulations and policies in each country concerning technology transfer. The seminar attracted a large number of Chinese and US government experts, academics from Beijing area universities in China, and university technology transfer personnel, who were given the

opportunity to speak directly with their US counterparts about technology transfer issues.

In March, 2011, USPTO held a joint program with the Supreme People's Court in Shanghai, where both sides exchanged information on the topic of internet intermediate/joint liability. Attendees included judges from the Supreme People's Court and judges from provincial level courts in China.

In calendar year 2011, the USPTO conducted a total of thirty-seven intellectual property capacity building and technical assistance programs for developing countries in the South Asia region. In January, USPTO held a Residential Capacity Building Workshop on Intellectual Property Rights Law and Industry Perspective for Ministry Secretaries and Senior Civil Servants of Sri Lanka and a Residential IPR Capacity Building Program for the Anti-Piracy and Counterfeit Unit in Sri Lanka. In September, USPTO conducted a Workshop with Customs & NBR; a Workshop on Patents, Designs and Trademarks; and a Workshop with foreign agencies and International Organizations in Dhaka, Bangladesh. In December, USPTO held an IPR Policy Dialogue and Technical Workshop in Kathmandu, Nepal. In addition to these bilateral programs, USPTO sponsored a regional customs training program for participants from India, Pakistan, Sri Lanka, Nepal, the Maldives, Bangladesh, and Bhutan. Throughout the year, in India, USPTO conducted twenty-five programs on a wide range of topics. These programs were held in Ahmedabad, Bangalore, Chennai, Coimbatore, Delhi, Kanpur, Kolkata, Madhurai, Mumbai, Patna, Tirapur, and Tuticorian. These programs included several focusing on assisting SMEs in leveraging their IP assets, as well as "Copyright for librarians in the digital age," a "Roundtable on Innovations in Anti-Counterfeiting Technologies for Drugs," an "Exchange of Best Practices in the Area of Electronics and Computer Related Inventions Patents," a "Seminar on Protection of Plant Variety and Agricultural Biotechnology Inventions," a "Workshop on Collecting and Analyzing Forensic Data "For Computer Crime Incidents," several judicial colloquia, and numerous other anti-piracy and counterfeiting capacity building workshops. In addition to these activities organized in-country, approximately twenty officials from Afghanistan, Bangladesh, India, Nepal, Pakistan, and Sri Lanka participated in programs held at USPTO's headquarters in the Washington, DC area. These programs covered subject matter such as "IP and Green Tech Innovation," "Copyright in the Digital Age," "The Patent Cooperation Treaty and ISA/IPEA, and border enforcement of IPR.

Promotional activities (seminars, exhibitions, visits, advertising, etc.)

In 2011 the Inventors Assistance Program became part of the newly created Office of Innovation Development.

The Office of Innovation Development oversees the USPTO's efforts to assist independent inventors, small business concerns and university affiliated inventors. The office also works closely with other officials and agencies throughout the government in support of the Administrations efforts to promote small business, entrepreneurship and job creation. The Innovation Development office designs and implements outreach programs to a wide range of groups including independent inventors, women, small business concerns, minorities, and other underserved communities.

The office also assists the agency's educational outreach programs that promote intellectual property protection and the valuable role it plays as a key driver of the American economy.

Inventors Conferences and Women's Entrepreneurship Symposium: The IAP sponsors events for inventors and small business concerns nationwide. The USPTO makes supervisory patent examiners available to conduct breakout sessions. USPTO also invites resources from metropolitan area where the conference is located, such as Small Business Development Center (SBDC), Service Corps of Retired Engineers (SCORE), Patent and Trademark Depository Libraries, attorneys from the Intellectual Property Law Associations and subject matter experts in marketing.

Supporting Inventor Organizations: The USPTO also participates in outreach initiatives with inventor organizations throughout the United States. These are typically non-profit inventor organizations that assist inventors with innovations and the desire to start a business based on those inventions.

Minority/UnderServed Communities - Expansion plans are underway to establish additional meaningful partnerships with other organizations such as the Department of Commerce's Minority Business Development Association (MBDA), the Society of Hispanic Professional Engineers (SHPE), the National Society of Black Engineers (NSBE), national professional organizations, and national and local educational institutions.

Pro-Bono Program - The Minnesota (MN) pilot now serves as a model for other IP law associations across the country in the establishment of additional IP pro bono programs. There are five additional regions that will launch during 2012 (Colorado, Washington DC region including all of Maryland and Virginia, Northern California, Southern California and Texas) and we are working with an additional 10 regions for launch in 2013. The ultimate goal is to have regions covering the entire country and to have a single entity that will serve as an intake and referral center for all inventors and small businesses interested in pro bono services.
There is a pro bono Task Force which includes member from the major IP law association, the USPTO, and the Minnesota pilot. The Task Force is working together to determine the best way to coordinate the growth of future programs. They also are working on ways to offer advice

IP Assessment Tool/Small Business Education - In collaboration with the National Institute for Standards and Technology – Manufacturing Extension Partnership (NIST/MEP) have created a tool for use by small businesses that will allow them to self-assess their intellectual property (IP) assets. The tool is a web-based questionnaire that asks small business pertinent questions about products and/or services offered, created or sold by their business. From the answers to these questions a semi-custom report is created according to the specific responses to the questions answered. This report contains basic information about IP and offers web site links that will allow the small business owner(s) or designates to learn more about a particular aspect of IP protection.

The Inventors Resource Page: The Inventor's Resource Page provides "plain language" information about the patent and trademark processes. http://www.uspto.gov/web/offices/com/iip/index.htm

Pro-Se Page: designed for those inventors that are either filing on their own behalf (pro se) or are seeking free or greatly reduced services from patent professionals. This page is meant to be actively dynamic so that as rules change or practices before the United States Patent and Trademark Office change the page will be updated with current information. The pro se portion of the page will eventually contain training on the patent process, training on search techniques, sample provisional applications and direct links to forms and fees needed for filing a patent application. http://www.uspto.gov/inventors/proseprobono/index.jsp

Discrete Email Address: The email address, IndependentInventor@USPTO.GOV, provides a place for inventors and small businesses to submit questions for specific information outside of a public venue.

E-Newsletter: The Inventors Eye newsletter is delivered by email on a bi-monthly basis. This newsletter provides helpful advice and resources as well as a listing of relevant events to all subscribers. http://www.uspto.gov/inventors/independent/eye/201004/index.html

Online public chats: Held every other month, these chats provide ongoing education opportunities, allowing the public to ask questions in a live chat room and receive an answer. The chat lasts for 1 hour, and resources from across the agency (SPE's, Design practitioners, Trademark attorneys and PTDL representative) provide input for the responses. Chat transcripts are converted to FAQ's posted on the Inventors Resource Page. http://www.uspto.gov/inventors/independent/chats/faq/index.jsp

University Outreach: initial effort was directed at universities where we had a well established recruiting effort and those universities within easy driving distance of the focus university.
The lectures are primarily to engineering students, but also provide lectures to business and entrepreneurship students upon requested. At many universities we provided lectures to faculty and staff about the state of IP protection in today's environment.

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

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, 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 Semiconductors, Electrical Computers, 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.

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.