

United States Patent and Trademark Office (USPTO)

Report to Congress on the Removal of Classified Paper
From the USPTO's Public Search Facilities
July 24, 2002

SUMMARY: The United States Patent and Trademark Office (USPTO) plans to eliminate the classified paper copies of issued patents and registered trademarks from its public search facilities and to transition to electronic patent and trademark information collections. The USPTO has determined that paper patent and trademark registration collections are no longer needed for public reference due to the availability of mature and reliable electronic search systems in its public search facilities. The USPTO plans to cease support for the collections effective July 26, 2002, and begin transfer or disposal actions effective August 26, 2002.

Section 41(i)(1) of Title 35, United States Code (U.S.C.), requires the USPTO to maintain for use by the public, collections of United States patents, foreign patent documents, and United States trademark registrations arranged to permit search for and retrieval of information. *See* 35 U.S.C. 41(i)(1). Section 4804(d)(1) of the American Inventors Protection Act of 1999 (AIPA), amended 35 U.S.C. 41(i)(1) to provide the USPTO the option of maintaining these documents in electronic form in lieu of paper. Section 4804(d)(2) required that the USPTO discontinue maintenance of its paper collections only pursuant to notice and the opportunity for public comment, and only after submitting a report to the Committees on the Judiciary of the Senate and House of Representatives detailing its plan. After providing an initial opportunity for public comments on development of the plan, a proposed plan was published in the Federal Register on April 9, 2002. A public hearing on the proposed plan was held on May 16, 2002, on USPTO's campus. The public comments in response to the proposed plan are addressed in this report, and the attached final plan for the Electronic Public Search Facility has been revised where appropriate.

Submission of this report and plan, which include a certification that eliminations of the paper files will not negatively impact the public, to the Committees on the Judiciary of the Senate and the House of Representatives completes the process required by Section 4804. As discussed herein, the USPTO will transition to an electronic-only search system.

INTRODUCTION

The USPTO has been actively engaged in a program to automate access to U.S. patents and to U.S. trademark registrations for a number of years. The first automated search systems were publicly deployed in 1985 for U.S. trademarks and 1989 for U.S. patents, and have been upgraded and enhanced to the extent that they now meet or surpass the U.S. paper collections in completeness and in timeliness of newly added material, and provide equivalent or better functionality in search capability. Patent examiners and

trademark examining attorneys have used these systems daily since their inception. As a result, the USPTO has had comprehensive feedback on the operation of these systems and knows that the systems perform all the required tasks and are user friendly.

These replacement electronic search systems now provide the USPTO the ability to migrate away from reliance on paper-based resources in its public search facilities and focus its limited resources on increased support of the electronic resources. The use of electronic systems by public searchers has increased to such a degree that the number of workstations in the public search facilities have increased from 33 in 1999 to 135 in 2002 to meet significantly higher demand. In fiscal year 2001, on-line system hours used by the public in USPTO's public search facilities totaled 90,990 hours, an increase of 36,357 hours over the previous fiscal year. For the first nine months of fiscal year 2002, monthly hourly usage is averaging 9,000 hours a month, approximately 17% higher than for the same time period in fiscal year 2001.

Therefore, consistent with the AIPA, the USPTO has developed its final plan for an electronic public search facility. To complete a transition to electronic resources, the USPTO plans to remove the two paper collections of search files currently available in the USPTO on-campus public search facilities. One collection consists of U.S. patent copies arranged by technology in accordance with the U.S. Patent Classification System. The other collection consists of U.S. trademark registration copies arranged by components specific to the registration.

The USPTO provided several opportunities for the public to comment on issues related to the removal of classified paper collections from the USPTO'S Public Search Facility. *See Notice of Request for Comments on Development of a Plan to Remove the Patent and Trademark Classified Paper Files From the Public Search Facilities*, 66 *Fed.Reg.* 45012 (Aug. 27, 2001), 1250 *Off. Gaz. Pat. Office* 137 (Sept. 25, 2001). The notice was also available on the USPTO web site at www.uspto.gov. A total of 50 comments were received and made available for viewing on the USPTO web site. Comments were reviewed and analyzed. A plan for an electronic public search facility proposing the elimination of paper collections was developed addressing the issues raised during the public comment pertaining to the issue of migrating from a paper-based Public Search Facility to an electronic Public Search Facility.

The Proposed Plan for an Electronic Public Search Facility was subsequently published in the Federal Register in April of 2002. *See Notice of Public Hearing and Request for Comments on the Proposed Plan for an Electronic Public Search Facility*, 67 *Fed. Reg.* 17055 (Apr. 9, 2002), 1258 *Off.Gaz. Pat. Office* 18 (May 7, 2002). The public hearing was held on May 16, 2002, on USPTO's campus. Ten speakers were present, and a total of 22 comments were received and posted to the USPTO web site. The transcript of the public hearing was posted on the USPTO web site on May 31.

In the April 9th notice, governmental entities or non-profit organizations were invited to contact the USPTO on or before May 24, 2002, to indicate a desire to acquire the paper patent and trademark registration collections to be removed from the USPTO's public

search facilities. One request from a non-profit organization was received and efforts to secure NARA approval for a transfer of paper documents to this organization are under way.

PAPER RECORDS IDENTIFIED FOR REMOVAL

The USPTO will remove the following paper collections of patents and trademark registrations, located on USPTO premises in Arlington, Virginia, beginning late summer of 2002.

1. Patent Classified Search Files (Patent Search Room, Crystal Plaza 3/4, Lobby Level-Room 1A01, 2021 South Clark Place)

Copies of printed domestic patents, arranged by group and subgroup, and used to facilitate public patent searches by class and subclass.

2. Registered Trademarks (Trademark Search Library, South Tower Building, Room, 2900 Crystal Drive)

Registered trademarks consisting of individual sheets by registration number cross-filed in the appropriate design categories and in the following groups: words, international registrations, art of manufacturing, and color marks. Includes foreign marks submitted under the Paris Convention by the WIPO and government agencies, which entered their logos and weapons names into the search files, and used as the public reference copy.

These collections do not contain original documents, but rather are copies of USPTO records that have been compiled for use by public searchers. Official record copies of patent and trademark documents are archived in other locations and can be retrieved if required for historical research or other purposes.

The USPTO has determined that these paper search collections are redundant and are no longer needed for public reference due to the availability of mature and reliable replacement in-house electronic search systems in its public search facilities.

CLASSIFIED SEARCHING OF PATENT AND TRADEMARK RECORDS USING PAPER COLLECTIONS VERSUS ELECTRONIC SYSTEMS

This section describes how classified searches are currently conducted using paper collections versus electronic systems for both patents and trademarks. It should be noted that searchers throughout the world conduct searches of U.S. patents and registered trademarks without access to the U.S. paper classified files.

A. Patents--Paper Search Process: The current paper classified patent collection consists of all issued patents organized by their placement(s) in the U.S. Patent Classification System (USPCS). One copy of a U.S. patent is designated as "original" and is classified in a specific class/subclass, based on its controlling claim (this "original" copy should not be confused with the physical original document contained in the USPTO's official record archives). Other copies may be placed in other classes/subclasses as cross-

reference copies, based on additional claimed inventions and/or pertinent unclaimed disclosure. Therefore, a paper copy of each patent is physically located in the Patent Search Room by the appropriate class and subclass references and may be in several locations if it was cross-referenced, as is most often the case. In FY 2001, the USPTO granted an average of 3612 patents per week. The weekly growth rate of shelving to accommodate USPTO paper classified collections is seven ranges (3' wide shelving unit with six shelves). Patent grants have been on a consistent upward trend for the past twenty years so the shelving requirements increase from year to year.

In a "paper search", once a searcher identifies the class(es)/subclass(es) representing a specific technology that needs to be searched, the user will look at the daily updated Patent Locator to identify the Patent Search Room stack location(s) of the respective class(es)/subclass(es). The searcher will remove all the paper copies of the patents in a class/subclass to be searched from the stack location and take them to a desk and look through them. If the searcher finds patents of interest, the searcher must either order a copy or take the search file copy to a copier and make a copy for himself/herself. If a searcher is conducting a patentability search, the searcher must also download a current list of all patents located in that class/subclass from the automated systems, the only place that information is available, to make sure that the paper file is complete, and check them off as they look through the paper. For this reason, many patent searchers prefer not to use the paper classified files.

Patents--Electronic Search Process: Searchers who prefer searching electronic systems to paper rely on EAST or WEST for searching patents by class and subclass. The searcher goes to an electronic search station, inputs the appropriate class(es)/subclass(es) to be searched, electronically flips through the patents (mimicking the paper search), tags patents of interest and orders the tagged patents for printing. Using EAST or WEST can actually reduce the number of documents a searcher needs to review, by retrieving a combined list of subclasses that eliminates duplicate documents, minimizing the number of documents that need to be searched. In addition to facilitating high integrity classified searches, an EAST or WEST search interfaces with the electronic database to provide additional benefits, such as the ability to combine a text or word search with the classified search, the ability to zoom in on drawing pages for greater readability, the ability to quickly find a description of a particular drawing element by using the Find feature in the text, etc. Additional detail on contents of the examiner systems appears in the Final Plan.

B. Trademarks--Paper Search Process: The classified paper trademark registration collection consists of copies of trademark registrations that are organized, for word marks, in alphabetical order, and for design marks, by specific design designations, such as humans, animals, or circles. Records of abandoned applications and cancelled or expired registrations are regularly purged from the paper classified files, rendering the collection less complete in scope than the electronic search system. Copies of a trademark registration are physically located in the paper file by the components that constitute the mark. In certain cases where there are a large number of marks that contain

certain words or letters, e.g., marks that begin with "ex", that file is further broken down by the category of goods or services.

Searchers will move from location-to-location in the paper files to conduct the search for a particular mark. The components of the mark being searched will determine the variety of locations to be consulted in the paper files. The trademark registrations are arranged in metal drawers with each grouping bound together by a ring so as to maintain the proper sequence of the contents of each drawer. These must be physically removed for searching and photocopying. As with the classified paper patent collection, the classified paper trademark registration collection also grows as new trademark registrations issue. In FY 2001, the USPTO registered an average of 5700 trademarks per week. The shelving demands are less than patents, however, because trademark registrations are shorter documents.

Trademark--Electronic Search Process: X-Search is a comprehensive tool that can search the marks in pending and abandoned applications, current registrations and cancelled and expired registrations. Therefore, one search strategy input into X-Search covers a variety of information collections and is not limited only to trademark registrations. Additional information on X-Search may be found in the Final Plan. It is searched in the same manner as the paper classified trademark registration collection; that is, the search query input into the computer is determined by the words, designs or additional strategies required for the search. Search results may then be tagged for printing.

PUBLIC COMMENTS TO THE PLAN NOTICE

Submissions during the second period for public comment raised certain key issues on the removal of paper documents and indicated a need for additional clarification regarding the initiative. The USPTO's analysis and clarification of these issues follows:

1. Plant Patents and Foreign Patents

The USPTO will retain a collection of classified paper copies of plant patents until there are comparable electronic versions, at which time they will also be removed. Also, the only patent records identified for removal in this initiative are domestic patents, not foreign patents. There were suggestions related to improving the electronic text search capability with respect to foreign patents. Concerns regarding the electronic text search capability have been forwarded to the system developers for review and possible incorporation in future system releases.

2. Non-Patent Literature

Comments were received requesting the retention of classified non-patent literature. Non-patent literature will not be removed as a result of this initiative. Comments about the retention and development of non-patent literature hard copy resources will be taken into consideration separately from the project of removing paper patent files.

3. Quality of Patent Database Images

The U.S. patent image database contains the complete set of patents granted from 1790 to date. Every patent included in the paper classified files is included in the image database.

The paper classified files were scanned into the image database over a period of time and scanning technology and techniques improved as the project progressed. Some images of non-text documents scanned early in the process are of less than optimal quality, and in a small number of cases, errors such as page omissions, occurred during this process. As part of its transition plan, the USPTO is identifying patents in the paper classified files to be rescanned to correct these problems. Should problem images be detected after this process is complete, the USPTO will correct the image using its record copy of the patent.

Paper classified patents must be removed from the files when in use, and are sometimes misplaced for longer periods or defaced. Thus, the image database, even prior to completion of the current rescanning effort, is more complete than the paper collection at any given time. Further, paper collections require ongoing maintenance to correct degradation through wear and loss over time, and this degradation occurs most rapidly in the most-used portions of the collections. By contrast, the quality of the image databases can only improve as any remaining flaws are identified and corrected, and this identification process will occur most rapidly with respect to the most-used images. Redirecting resources from maintaining paper files to continuing improvements to the electronic databases will permit the USPTO to provide the most complete and accurate data possible.

4. Patent Text Search Database

There were a number of comments related to various aspects of the patent text search database and problems associated with searching for patents utilizing that system. The patent text search database is not the replacement database for the classified paper copies of U.S. patents; the patent image database is the replacement database. The patent text search system provides a word search strategy of all patent text and provides searches with capabilities and benefits over and above paper search files whose equivalent is the patent image database. Comments received from the participants at the public hearing on the quality of the patent text search database were useful for the agency in understanding customer utilization of systems and will be taken into account in making further improvements.

5. System Back-Up

There are procedures for reporting problems with system access and procedures for tracking progress and resolution to these problems. Since published applications are only available in electronic format, the USPTO has stringent service goals in place to ensure maximum system availability for examiners and public access. The USPTO also continues to provide collections of patents arranged by patent number in microfilm and DVD-ROM, and collections of trademark registrations arranged by registration number in bound volumes and CD-ROM.

6. Training

Some public comments were received concerning the adequacy of training on the use of electronic search systems. These comments did not identify any specific shortcomings, and may have reflected a lack of awareness of currently-available training. Both formal and informal training is available to users based on the expertise and needs of the user, and can be either scheduled in advance or conducted on an ad hoc basis. A thorough description of the training opportunities provided for all levels of customers of the USPTO Public Search Facilities, from novice to expert, has been included in Section III of the Final Plan for the Electronic Public Search Facility. A description of the public training facility is also included. The USPTO's training program is periodically reevaluated, and the USPTO welcomes any specific suggestions for improvement.

7. Trademark Data Quality

The National Intellectual Property Researchers Association (NIPRA) asserted in their comments that in a study of 4000 trademark applications filed during one week in late 2001, they discovered a 52% error rate in the design codes assigned to the various marks by the USPTO.¹ In response to this assertion, the USPTO has conducted its own study evaluating the design coding in 1000 randomly selected trademark applications. The marks in these applications were of two types: marks that were completely designs, e.g., no letters or numbers, and marks that consisted of designs that also contained letters or numbers.² The results of the study are being finalized and the USPTO plans to make those results public.

This study found a much lower, though still unacceptable, error rate of about 19%, in the design codes assigned. In analyzing the results of the NIPRA and the USPTO studies on design code errors, one must remember that only about 4% of the applications filed have marks that consist only of designs. Thus 96% of marks are routinely found doing searches for words, numbers or letters because those marks either have no design elements or have a design element that does not create a separate commercial impression from the words, letters or numbers in the mark. However, 18% of applications have words, numbers or letters and a sufficient design element in the mark to require design coding of the design. Of this 18% of applications that contain designs, the majority will have sufficient words, letters or numbers to allow them to be found by using words, letters or numbers for the search rather than a design code. Put into context this means that in the USPTO study of design coding errors, where an error rate of 19% was found, that 19% represents errors in only 3% of the applications in the database. That 3% is calculated as follows: (4% of applications with marks that contain no words, letters or numbers and, therefore, must be found using design codes plus 18% of applications that have marks with a sufficient design element to require a design code even though the marks may be found using words letters or numbers), x 19%, the coding error rate = 3% the percentage of marks in the database that may be affected by faulty design coding.

¹ Keep in mind that applications in which the mark consists only of a design constitute only about 4% of the trademark files. Thus under the NIPRA study, the percentage of marks affected may be about 2%. 52%, (the asserted error rate), x 4% (the number of design only marks).

² The study did not include marks that consisted of marks made up of words or numbers written in special script. These marks would be found without resort to design coding.

What this means is that 97% of the marks in the database will be found during a routine search. Of the 3% that were miscoded, many will routinely be found by searching words, letters or numbers and less than 1%³ would not be found using good search parameters. Trademark Office Examining Attorneys have relied exclusively on the electronic system to search for confusingly similar marks since the late 1980's. If the electronic search system were inadequate, one would expect the percentage of oppositions to rise, as examining attorneys miss more and more citations due to the errors in coding in the database. In fact, the opposite has occurred. The percentage of oppositions has fallen.

The USPTO has already upgraded its training of the staff members who do the design coding and revised its method of quality review for those staff members. In addition, the Office is running some informational tests against the database to determine how to structure a project to improve the design coding in previously filed applications.

8. Methods Used to Report Errors from the Public

Some public users felt that there was no standard procedure for the public to use in reporting data errors.

When errors are found in resources located in the USPTO public search facilities, there is a mechanism in place to report these errors to the appropriate USPTO office responsible for the data. These error reports are provided to the staff of the public search facilities, which passes them along to the appropriate Office that can address the particular error. The USPTO is also in the process of developing data quality guidelines as required by the Office of Management and Budget, which will be in place by October 1, 2002. These guidelines complement any pre-existing mechanisms for information quality at the USPTO and provide for a feedback loop that ensures a response is provided for each inquiry or error submitted. Section E on Data Quality in the Final Plan for the Electronic Public Search Facility provides additional detail on this issue.

CONCLUSION

The USPTO has devoted significant resources to the successful development of electronic search systems now widely used throughout the USPTO public search facilities. They provide equivalent functionality to the paper files and superior storage, maintenance and efficiency features. The paper classified files are incomplete by nature of the format. There may be missing or misfiled documents, potentially impacting search results which rely only on the paper classified files. The paper classified files also do not contain abandoned trademark applications, which are available in the electronic search systems. The development of these electronic search systems has reached the point where the USPTO can better serve the public by migrating away from reliance on paper-based files in its public search facilities and focusing its limited resources on increased support of the electronic resources.

³ That 1% is calculated by multiplying the 19% (coding error rate) x 4% (the applications that have marks consisting only of designs that can only be found using design codes) = 0.7% of the database.

As demonstrated by this report, and the following plan for the USPTO Electronic Public Search Facility, the move to eliminate paper classified copies of U.S. patents and registered trademarks represents the best approach to maintaining and improving public access to patent and trademark information. I certify that the implementation of the plan will not negatively impact the public.

JAMES E. ROGAN

Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office

United States Patent and Trademark Office

FINAL PLAN FOR AN ELECTRONIC PUBLIC SEARCH FACILITY

July 24, 2002

SUMMARY: The United States Patent and Trademark Office (USPTO) plans to eliminate the classified paper copies of issued patents and registered trademarks from its public search facilities and to transition to electronic patent and trademark information collections. The USPTO has determined that paper patent and trademark registration collections are no longer needed for public reference because of the availability of mature and reliable electronic search systems in its public search facilities. The USPTO plans to cease support for the collections effective July 26, 2002, and begin transfer or disposal actions effective August 26, 2002.

The USPTO has devoted significant resources to the successful development of electronic search systems now widely used throughout the USPTO public search facilities. They provide functionality equivalent to the classified paper files and superior storage, maintenance and efficiency features. The classified paper files are incomplete by nature of the format. There may be missing or misfiled documents, potentially impacting search results which rely only on the paper classified files. Migration from the paper collections provides the USPTO the ability to focus its limited resources on increased support of the electronic resources.

I. Background

The Public Search Facilities of the USPTO serve as the on-campus facilities for the public to access United States patent and trademark information collections, and obtain training on and assistance with using these collections. All industrialized countries provide similar facilities or functionality at or through their respective national intellectual property offices. At the USPTO Public Search Facilities, patent and trademark information is provided to the public in a number of formats including the on-line examiner search systems, paper search files in classified and numeric sets, and multiple formats of source documents as well as additional data made available for a wide variety of research purposes. The public search facilities for patents and trademarks are physically separate.

A. Patent Search Facilities

The Patent Search Facilities consist of the Patent Search Room (PSR) where there are multiple formats of patent data including paper files and automated systems; the Patent Search and Image Retrieval Facility (PSIRF), which is a center for all electronic patent search and retrieval activities; and the Patent Assignment Search Room (PASR), which contains microfilm of ownership deed assignment, card files and automated search

systems. The Patent Search Facilities provide customers access to classified paper files, numeric microfilm files, CD-ROM search collections, assignment systems, and the examiners' automated search systems, Examiner Automated Search Tool (EAST) and Web-based Examiner Search Tool (WEST). Numbers of customers in these facilities have been tracked since October 1999. Highest concurrent use in the Patent Search Facilities occurs at 2:00 p.m. each day with 135 users, accessing electronic search systems via computer. On-line statistics show a daily high of 256 unique users in the PSR and PSIRF combined.

B. Trademark Search Library

The Trademark Search Library (TMSL) provides public user access to paper classified and numeric files as well as the automated search systems used by examining attorneys: X-Search, the USPTO's administrative database for tracking trademark applications and registrations, the Trademark Recording and Monitoring system (TRAM), and finally, the system that retains copies of all incoming applications, Trademark Information Capture and Retrieval System (TICRS). Data collections are maintained in several formats including paper, automated, microfilm, and CD-ROM. The trademark assignment of ownership collection is also available in the TMSL. There are approximately 35 public users daily in the TMSL.

C. Public Search Facilities Customers

The USPTO Public Search Facilities serve customers who are highly skilled professional searchers conducting searches for law firms, business entities, and individuals. There is also a steady stream of new customers who use the facilities for a very limited time and for purposes of a fairly narrow scope. There are approximately 300 new customers every month. Although paper files have been available throughout the deployment of our electronic search systems, use of electronic search systems has increased rapidly. The USPTO has responded by adding extra workstations to ensure ready availability of the electronic search systems for all customers.

D. Conducting Searches

The ability to conduct a complete patent or trademark search depends as much on the capability of the searcher as it does on the availability and completeness of the data. Expert searchers are not limited to residing in the Washington, D.C. area; nor are they limited to using the resources available in the USPTO on-campus search facilities. Electronic patent and trademark searching is also not a new phenomenon. Commercial on-line databases first appeared in the early 1970's. The USPTO has over 16 years of experience in providing on-line access to the public for its searchable databases. These 16 years have seen tremendous change and significant improvement in the systems available from the USPTO.

It should also be mentioned that the AIPA amended 35 U.S.C. 122 to provide for the publication of pending patent applications, with certain exceptions, promptly after the

expiration of a period of eighteen months from the earliest filing date for which a benefit is sought (“eighteen-month publication”). See Changes to Implement Eighteen-Month Publication of Patent Applications, 65 FR 57023, 57024 (Sept. 20, 2000), 1239 Off. Gaz. Pat. Office 63, 64 (Oct. 10, 2000) (final rule). The Office has been publishing patent applications (“patent application publications”) electronically under the eighteen-month publication provisions of the AIPA since March of 2001. The Office does not maintain paper copy collections of these patent application publications in either the Public Search Room or the examiners’ search rooms. The Office expects that, due to their earlier publication date, these patent application publications will over time replace patents as the primary prior art and technology dissemination document. See Changes to Implement Eighteen-Month Publication of Patent Applications, 65 FR at 57042, 1239 Off. Gaz. Pat. Office at 79 (response to comment 27). Thus, a complete prior art search must include a search of relevant patent application publications. Therefore, for the prior art search to be complete, any person conducting a prior art search must conduct an electronic search of these patent application publications.

E. USPTO Information Dissemination Strategy

The USPTO has invested, and continues to invest, substantial resources in the maintenance of patent and trademark electronic databases and the development and enhancement of software search vehicles. As a result, trademark examining attorneys rely solely on electronic records for examining and approving marks for Federal registration. Additionally, in view of patent examiners’ increasing reliance on automated searching, the USPTO began phased elimination of paper copies of U.S. patents from examiner search files in October 2001. It is anticipated that by the time the agency completes its relocation and consolidation at the Carlyle campus in Alexandria, Virginia, in 2005, a substantial portion of the patent examiner paper search files will have been eliminated.

Therefore, the USPTO’s current planning approach to the dissemination of patent and trademark information is to continue enhancing and making publicly available its examiner electronic databases that capture the content of patents and trademarks, and to continue to support the USPTO web site, the network of 87 Patent and Trademark Depository Libraries. A selected inventory of publicly available USPTO searchable databases is included in the Appendix.

II. Replacement Electronic Search Systems

The USPTO has been actively engaged in a program to automate access to U.S. patents and to U.S. trademark registrations for a number of years. The first automated search systems were publicly deployed in 1985 for U.S. trademarks and 1989 for U.S. patents and have been upgraded and enhanced to the extent that they now meet or surpass the U.S. paper collections in completeness and timeliness of newly added material, and provide equivalent or better functionality in search strategy. Patent examiners and trademark examining attorneys have used these systems daily since their inception. As a result, the USPTO has had feedback on the operation of these systems and knows that the systems perform to the task and are user friendly.

The development of these electronic search systems has reached the point where the USPTO can better serve the public by migrating away from reliance on paper-based files in its public search facilities and focusing its limited resources on increased support of the electronic resources. The use of electronic systems has increased by public searchers to such a degree that the number of workstations in the public search facilities have increased from 33 in 1999 to 135 in 2002 to meet significantly higher demand. In fiscal year 2000, on-line system hours used by the public in USPTO's public search facilities totaled 54,733 hours, in fiscal year 2001 the total was 90,990 hours, and the fiscal year 2002 total through May was 73,515 hours. With one-third of the year remaining, the total number of hours of use is expected to reach 110, 273 for fiscal year 2002, or twice what it was two years ago.

A. Patent Examiner Search Systems

The U.S. patent image database contains the complete printed patent image of all patents granted from 1790 to date, including bibliographic information, specifications, drawings and claims. Extensive efforts over a number of years have been undertaken to ensure that this database is as complete as possible. As patents issue each week on Tuesday, this database is updated the same day. The U.S. patent image database is available in the public search facilities through the WEST and EAST search systems, and at no cost for search time. Both offer the ability to mimic the search through paper classified files by allowing users to retrieve patents by technology in accordance with the U.S. Patent Classification System. Both provide a quick flip rate through the documents, the same way that one would conduct a search through a stack of paper patents. But unlike the paper file, the patent image database remains complete at all times and available to multiple users simultaneously.

B. Trademark Examiner Search Systems

The primary search tool used for trademark searches called X-Search, includes a reproduction of the mark, as well as other information, from every pending application and active registration. It also includes the mark, and other information, from any abandoned application, or any cancelled or expired registration, unless the application was abandoned or the registration was expired or canceled before March 1, 1983. The database also includes the marks protected under Article 6ter of the Paris Convention for the Protection of Industrial Property. This database can be searched using a variety of approaches, e.g., by mark, by owner name, by filing date, etc. The database is updated daily, with new information concerning pending and registered trademarks. It surpasses the completeness and timeliness of the paper classified trademark registrations because, among other things, the paper document must be printed from the same system that uploads the data to the trademark database. Then the paper copies must be marked for filing, and then filed. This additional processing needed to maintain the paper classified trademark registration collection makes it a less timely collection, and therefore, less accurate to search. In addition, pending applications that abandoned after 1983 and before 1990 have been purged from the paper files but remain available in the electronic files. This makes the electronic search systems more comprehensive in scope.

C. Electronic Search Systems Support and Backup

The electronic systems that will replace the paper collections in the search facilities were developed specifically for use by USPTO examiners using a well-defined and long established process that guides and controls the development and implementation of information technology initiatives. The USPTO, in making these systems available in the public search facilities, recognized that there might be different requirements for public access. The USPTO makes an effort to obtain public user requirements from internal and external sources, although enhancements required to achieve improved examiner productivity have priority. Enhancements to systems are announced in the search facilities and are often available for demonstration to the public prior to deployment.

USPTO electronic search systems are well supported in the event of unscheduled downtime. Service goals for the public as well as the examining corps are in place and supported by USPTO management. A formal automated Help Desk staffed by the Office of the Chief Information Officer receives reports of unscheduled service interruptions, assigns them for resolution, and tracks remedial efforts until completion. In addition, Help Desk staff contact the Public Search Facilities twice daily to ascertain operational equipment and system status. Redundant formats of source documents are also readily available in the Public Search Facilities in microfilm, CD-ROM, DVD-ROM, and numerically arranged bound paper format, in the event of system downtime. Searchers may also utilize resources on the USPTO web site.

D. Records Management

The USPTO follows the regulations and requirements of Federal agency records management, and the agency provides for effective controls over the maintenance of its records, in all media, paper and electronic, in accordance with 44 U.S.C. 3102. The agency has established effective controls for electronic information. Controls are in place throughout the life cycle of any information system that contains and provides access to computerized Federal records and nonrecord information. The USPTO is committed to ensuring the integrity of data when changes in media and format occur.

E. Data Quality

As with paper files, errors can occur in electronic search systems. However, mechanisms are in place for tracking, reporting and fixing errors that are made as a result of internal processes. The USPTO, as an Executive Branch agency, is also in the process of developing data quality guidelines as required by the Office of Management and Budget, due for final submission in the fall of 2002. In addition, there are mechanisms for obtaining error reports from customers as outlined below.

- Customer Error Reporting Mechanisms:

Patents: Customers of the Patent Search Facilities (PSF) also have mechanisms for reporting errors. Customers report patent image errors to staff. Staff in turn provides the document number(s) to a designated person who verifies the document has pages missing, transposed, or incomplete. The document is then reported to CIO/Data Maintenance Branch for correction. Additional search and data errors or questions are also reported by customers to PSF staff. Staff either resolves the issue or verifies and reports the error by e-mail to the Search and Information Resources Administration (SIRA) for review, correction, or assignment to software bug fixes or enhancement releases.

Trademarks: When a customer reports an error in a trademark resource, Trademark Search Library (TMSL) staff first verifies the error prior to its reporting to Trademark Program Control. Authenticated errors are then forwarded to Trademark Program Control via an electronic mail box. Currently, trademark data errors can be corrected in a day or two, while image errors usually take longer.

- New Data Quality Guidelines: Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Public Law 106-554; H.R. 5658) directed the Office of Management and Budget (OMB) to issue government-wide guidelines that “provide policy and procedural guidance to Federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies.” In response to the OMB guidelines, and the data quality issues raised at the public hearing, the USPTO is taking steps to improve the error reporting, response, and tracking mechanism in order to close the communication loop for errors that get reported. Historically, a variety of mechanisms for achieving patent and trademark information quality have been maintained at the USPTO. The USPTO’s proposed guidelines complement the pre-existing mechanisms for information quality at the USPTO and provide for a feedback loop that ensures a response is provided for the inquiry submitted. In addition to these pre-existing mechanisms, a new procedure for “allowing affected persons to seek and obtain correction of information maintained and disseminated by the agency” will be in place by October 1, 2002.

III. Training

Formal public training on USPTO electronic search systems is conducted in a separate training facility with 12 terminals, divided into two banks of six with a movable partition between them permitting one training session for 12, or two simultaneous training sessions for up to six persons at each session. This arrangement provides flexibility in responding to the training requirements of customers. The USPTO will continue to schedule public training in regular monthly classes as follows:

- Examiner Automated Search Tool (EAST): 4 hours, designed for advanced patent searchers
- Web-based Examiner Search Tool (WEST): 8 hours, designed for novice patent searchers and including an introduction to patent searching
- X-Search: 3 hours for trademark searchers

Additional classes are scheduled as warranted by demand. The calendar is posted in the search facilities and on the USPTO web site at www.uspto.gov. Customers may call to schedule or schedule themselves on a walk-in basis. Classes are recommended but not required. Some computer savvy users can perform basic searching without formal training.

Special classes lasting from 1/2 hour to 3 hours are also scheduled to introduce significant enhancements. For several years, enhancements and search tips have also been disseminated through one-page topic guide sheets available at the on-line desk for self-help, (e.g., Searching by Inventor, Searching by Classification, Saving a Workspace). In addition, new features and search hints are highlighted in the monthly newsletters for the Patent Search Room and the Trademark Search Library.

The USPTO also offers specialized reference services tailored to the particular needs of novice users in patent and trademark searching. Staff is readily available to work with first-time users, and reference assistance is routinely offered. Users are directed to the appropriate resources based on their request and their knowledge, and are provided assistance with their use. If extensive one-on-one assistance is needed, special Assisted Search is available. Examples of assistance provided to first-time users may involve something as simple as a document number request. A document number lookup might be accessed from microfilm or an automated print system. An inventor or registrant search might be referred to the *Official Gazettes* or *Annual Indexes*. Staff routinely assists the inventor or applicant with the classification systems by which patents and trademarks are organized for search.

Service provided to novice users in the USPTO Public Search Facilities is comparable to the in-depth instruction provided to novice users at the nationwide network of Patent and Trademark Depository Libraries. It is tailored to the specific information requested by the individual and the individual's comfort level and ability with the variety of information formats available.

IV. Computer Terminals and Workstations

The USPTO continues to add computer terminals for the public to search examiner and other publicly available databases as demand increases and space is freed up by the removal of paper. Thirty-two workstations have been added since March 2002 for a total of 135 workstations that can access the examiner search systems, plus an additional 25 for searching other USPTO databases currently available in the public search facilities. (e.g., CD-ROM/DVD-ROM products, the Re-exam database called REPS, etc.). Three

hundred workstations will be available in USPTO public search facilities by November 2004. New ergonomic chairs have been purchased and are in place in current space.

The USPTO will continue to refine its planned electronic public search facility for the new space in Alexandria to reflect ongoing developments in public use of the current facilities such as minimizing wait times for system access and designing sufficient work and table spaces to maximize effectiveness of electronic system use. The USPTO held a customer focus session on July 17, 2000, to obtain customer input on features they wished to see in a newly designed space. The report of this session has been used as a springboard for planning the new Electronic Public Search Facility. The early capturing of customer input in the planning process will result in a facility that is designed to meet the needs of customers who spend lengthy sessions on a computer.

Workstation furniture scheduled for new space calls for 6' x 6' workstation space with 6' of clear desktop workspace, light-colored work surfaces for ease in reading materials, task lights with individual control at each workstation, and a CPU sling to keep the CPU off the workspace. Ergonomic chairs with adjustable height, tension and arm height will continue to be provided as workstations are increased. The new space will have diffused lighting more appropriate for work on computers.

V. Charges for Access to Publicly Available Search Systems

Fees to access USPTO electronic search systems were temporarily suspended in the USPTO public search facilities beginning October 1, 1999. These fees will be permanently waived as of July 26, 2002, so that access to all USPTO electronic search systems in the public search facilities will remain free. Charges for printing hard copies will remain in place. Numeric sets of U.S. patents and U.S. trademark registrations will continue to be maintained in combinations of various formats including paper, microfilm, CD-ROM and DVD-ROM although the necessity for these formats will be periodically reviewed.

VI. Timetable for Ceasing Maintenance and Removal of the Classified Paper Collections

The USPTO will cease updating and maintaining paper collections effective July 26, 2002. The USPTO has solicited requests from non-profit organizations and Government entities interested in acquiring both the patent and trademark paper collections. One non-profit organization has expressed an interest in these collections. A transfer of the collection to the non-profit must be authorized by the National Archives and Records Administration (NARA). Should NARA not approve the transfer, or not do so in a timely manner, the USPTO will proceed with the disposal of the paper collections. The patent collection will be removed first, followed by the trademark collection.

The removal of paper will be handled in such a manner as to cause as little inconvenience and disruption to public users as possible. Completion is expected during fiscal year 2003.

The USPTO will advise customers of the public search facilities about progress regarding paper removal through a series of posted public notices, similar to public notices that have been posted in the past regarding equipment, systems and other issues impacting the public.

VII. Conclusion

The USPTO is mandated to operate in a cost-effective manner, and to continue moving toward an on-line environment for service delivery to its customers. The USPTO has devoted significant resources to the successful development of electronic search systems. These systems are now widely used throughout the USPTO public search facilities. They provide equivalent functionality to the paper files and superior storage, maintenance and efficiency features.

Therefore, after careful consideration of the issues brought forward by the public and incorporating their pertinent concerns into the plan, the USPTO will begin the removal of the classified paper patents and trademark registrations from the Patent Search Room located in the Crystal Plaza 3/4, 2021 South Clark Place, and the Trademark Search Library located in the South Tower Building, 2900 Crystal Drive, respectively. Elimination of these paper files will permit the USPTO to redirect resources to maintaining and improving its electronic search systems, and will result in enhancement of public access to patent and trademark information.

APPENDIX

SELECTED USPTO ELECTRONIC DATABASES AND SEARCH TOOLS MADE PUBLICLY AVAILABLE

In the Public Search Facilities:

- Public EAST & WEST Systems: the full text of over 2.5 million U.S. patents issued since January 1971; the full images of over 6.5 million U.S. patents issued since 1790 and over 14.5 foreign patents; English translations of 5.1 million Japanese patent abstracts; and English translations of 3.1 million European patent abstracts
- X-Search System: text and image of over 2.7 million trademark applications and registrations (including active, canceled, expired, and abandoned)
- Cassis2: A suite of optical disc products providing access to patent and trademark search tools, patent classification data, trademark data and selected bibliographic data
- USAPat: Facsimile Images of United States Patents on DVD-ROM and CD-ROM
- USAMark: Facsimile Images of United States Trademark Registrations on CD-ROM
- Assignments: Facsimile Images of United States Patent and Trademark Assignments on CD-ROM
- TICRS: Trademark Image Capture and Retrieval System: trademark applications since May 1999

On the USPTO web site:

- Trademark Electronic Search System (TESS): searchable database including the full text and clipped images of all pending and registered trademarks;
- U.S. patents issued from 1790 through 1975 – searchable by patent number and current U.S. patent classification;
- U.S. patents issued from 1976 to the most recent issue week – searchable by full-text fields that now include current U.S. classification data;
- Published applications; and
- Patent and trademark manuals and search tools.