

Notification of United States Patent and Trademark Office Patent Application

Records being Stored and Processed in Electronic Form

Summary

All patent application related papers received by or mailed from the United States Patent and Trademark Office (USPTO or Office) will be date stamped, indexed, scanned into electronic image form, and loaded into the USPTO's new image storage, retrieval and messaging system called ePhoenix. All processing of the patent applications will be performed on the electronic file and will constitute the official file for all purposes.

Background

The USPTO is installing an electronic image capture system to replace the standard paper processing of patent applications. The file history (including the specification, oath or declaration, drawings, references, amendments, Office actions, foreign and non-patent literature and file jacket notations) of pending patent applications will be electronically scanned and loaded into ePhoenix. All processing and examination will be performed by the examiners, technical support staff, and any other USPTO staff or contractors using the ePhoenix system.

To pilot the ePhoenix system and gain experience in working with automated files and processes, a prototype has been operating in three selected Art Units (1634, 2827 and 2834) since November 2002. The Office has scanned into ePhoenix thousands of new and amended applications for those Art Units. Technical support staff have successfully processed the applications in preparation for examination. Examiners have examined the applications using electronic images of the file. The patent publishing contractor has received the completed examination file history in electronic form to publish issued patents.

During the prototype period, all of the original paper copies constituting the official electronic files have been maintained at the USPTO, unavailable to the Technology Centers for the normal course of business, but retrievable if needed. These paper copies remained the "official copies" of the applications in the prototype (i.e. they constitute the records that are scheduled by the Office, under the direction of the National Archives and Records Administration, for retention as the official records of the Office).

After the prototype period concludes, the electronic images used during the prototype will undergo a quality control regimen and upon successful completion, will be designated as the official electronic records. They will then be merged with the electronic records generated as part of the production scanning process for the rest of the Office. The paper formerly official copies will be re-scheduled as source scanned paper copies, and treated as noted below.

Official Electronic Records

The advantages of having electronic records established and maintained in a standard industry electronic format are readily apparent. For example: applications can be viewed by multiple employees at various locations within the Office and by the public; backup and recovery of lost files can be assured; and parallel processing of applications can be performed by USPTO employees in different locations at the same time.

The advantages to the public are evident: electronic public records made available via the Internet can be viewed on computer terminals anywhere in the world. Confidential records can be reviewed by the respective applicants and attorneys over secure Internet links, so documents that have been submitted can be seen, printed and validated. Documents submitted in paper can be checked for completeness, and documents submitted electronically can be fully reviewed, to help applicants learn to trust electronic submission systems.

The USPTO will rely on the image records stored in ePhoenix as official records. All paper records of pending files, or newly received applications after June 30, 2003, will be processed into the ePhoenix system. Processing steps include: 1) Indexing each paper document by type of document; 2) Scanning a batch of the paper documents, separated by separator sheets, into images; 3) Performing quality control on the files of scanned images; 4) Loading the files of scanned images into the ePhoenix system; 5) Placing the scanned paper documents into boxes for storage.

After this process, Office employees and applicants will view and use the electronic records in ePhoenix for prosecuting the application. Electronic records will be used and accepted as the official records of the USPTO.

After scanning, the paper scanned source copies will be boxed in accordance with their date of scanning by the Office, and maintained by the USPTO in nearby storage for at least two months, allowing sufficient time for review of the electronic copy by a USPTO employee in the normal course of business. Thereafter, the paper scanned source copies will still be available in off-site warehouses, but with a longer retrieval time (e.g. 2-3 days). The system will maintain the box number and location of the source scanned paper copy for each record to ensure prompt retrieval when necessary.

Authority for Electronic Records

Congress has mandated “the Director to develop a user-friendly electronic system for the filing and processing patent and trademark applications. This electronic system must also allow examiners and applicants to send all communications electronically, and should allow the PTO to process, maintain, and search electronically the contents and history of each application.” (*see* Pub. L. No. 107-273, § 13103(a), 116 Stat. 1758, 1899 (2002)). The ePhoenix system described in this notice comprises part of the automation initiatives presented by the Office in response to this directive.

Making Electronic Records Official

To make electronic records official, Office systems must (a) satisfy the requirements of OMB Circular No A-130, especially the standards for Records Management and (b) satisfy both the requirements of the Government Paperwork Elimination Act (GPEA- Pub.L.No. 105-277, Title XVII), 44 USC § 3105 and 36 C.F.R. § 1234 – Standards for the Creation, Use, Preservation, and Disposition of Electronic Records.

The Office 1) has thoroughly reviewed the electronic records management procedures involving all the steps in the conversion of the paper received, generated, or sent by the Office; and 2) generated a request pursuant to 36 CFR § 1234.10 for submission to the National Archives and Records Administration (NARA) to have USPTO electronic files rescheduled as official records.

In anticipation of this process, the USPTO developed a *Technical Standard and Guideline (TSG) for Electronic Records Management (TSG-ERM)*. The *TSG-ERM* includes a compilation in one detailed checklist of all requirements of the records management sections of OMB Circular A-130, of the GPEA, and of 36 C.F.R. §1234. The *TSG-ERM* is available at <http://www.uspto.gov/web/patents/ifw/index.html>. Each of the requirements of the *TSG-ERM* was evaluated and applied to the installed parts of the ePhoenix system, with itemized descriptions of how the requirements were satisfied. The results of this analysis were published as the *ePhoenix ERM Compliance Paper*, which is also available at the ePhoenix web site <http://www.uspto.gov/web/patents/ifw/index.html>. The *ERM Compliance Paper*, which includes quality control and quality assurance methodologies, satisfies the requirements of A-130 and 36 C.F.R. §1234. The Office will ensure that the electronic records are generated and stored in a secure system, and that controls are followed to ensure the integrity of the records.

In a parallel effort, at the request of NARA the Office prepared a Data Location Document that identifies the automated information system (AIS) that stores each of the electronic parts of the set of records that constitute the electronic file. Currently, almost all of the records are maintained on the ePhoenix system itself, with a few data elements maintained on the Office financial system (RAM). In the future, if a more sophisticated file structure using other formats is adopted, the Data Location Document will be revised. The Data Location Document is available at <http://www.uspto.gov/web/patents/ifw/index.html>.

The USPTO's request to NARA seeking to have its electronic files rescheduled as official records was prepared based on the contents of the Data Location Document.

The International Context

The USPTO operates both as a national office administering the U.S. patent laws, and under the Patent Cooperation Treaty (PCT) as a Receiving Office (RO), International Search and Examination Authority and National Office.

Electronic patent files (records) at the USPTO comply with the relevant provisions concerning electronic records under the Patent Cooperation Treaty. The regulations of the Patent

Cooperation Treaty (PCT) were amended in October 2001 to include Rule 89*bis*.1, which reads in part: “International applications may ... be filed and processed in electronic form or by electronic means, in accordance with the Administrative Instructions, provided that any receiving Office shall permit the filing of international applications on paper.”¹

The USPTO’s electronic records will be maintained in accordance with the standards indicated in the PCT Administrative Instructions. The internal automated systems of the World Intellectual Property Organization are of the same general design, facilitating the future transfer of applications under the PCT to and from the International Bureau in an efficient all-electronic manner.

Time Schedule

On June 30, 2003, or soon thereafter when the system meets the Office’s quality control and quality assurance standards, records in the ePhoenix system will become the official records of the USPTO. Any paper records subsequently received, scanned and entered into the ePhoenix system will become official records, and the paper originals will be treated as source scanned copies. All new national applications (except special situations, such as applications under secrecy order) filed after the date of record rescheduling will be stored electronically regardless of whether they are filed on paper or by the Electronic Filing System (EFS).

Between December 2003 and May 2005, the Office plans to physically move its principal office to Alexandria, Virginia. During this transition period, those employees and contractors who process the patent applications will have to share applications across the two sites. The Office goal is to capture in ePhoenix as many of the 600,000 pending patent applications as possible so that all employees can access the files from their respective locations.

Thus the USPTO’s move schedule sets a time goal for the scanning of the patent applications in order to avoid transporting paper files back and forth between the two sites. Ideally, the Office seeks to have each Technology Center’s records fully electronic in advance of its move, in order to minimize the amount of paper that must be transported to the new site.

Quality of Electronic Records

To assure that the records of the Office are admissible, the records will undergo a regimen of quality control and quality assurance procedures. These procedures were developed in consultation with ERM specialists from the industry, and are compatible with those procedures generally used in government and commercial enterprises that convert their paper records to electronic form. Maintenance procedures, page counting and statistical sampling methods, as well as strong quality assurance procedures, are all used to keep the records at the level of quality recommended by Electronic Image Management (EIM) standards as defined in ANSI/AIIM TR34-1996ⁱⁱ. These quality control procedures can be summarized as follows:

First, the completeness of each document is assured by a double counting system; the incoming documents are manually counted in the indexing process that takes place prior to the scanning process, and then a scanner automatically checks that the number of pages scanned conforms to

the number of pages indexed. The scanning machinery checks for misfed papers, the most common source of machine error. Second, quality is assured by pre-calibration of the scanning equipment before each 8-hour shift. Finally, a scientific sampling of the scanned images is made, and the selected documents are hand verified. This check is made each day before the images are uploaded into ePhoenix. The number of images sampled is determined in accordance with standards established in ANSI/AIIM, *Sampling Procedures for Inspection by Attributes of Images in Electronic Image Management and Micrographic Systems* (ANSI/AIIM TR34-1996).

Quality assurance is based on a user-feedback mechanism. In the normal course of business, the users who first view the application after scanning are made aware of their processing just after the scanning operation, and will check that the pages have been scanned. Usually, with a new application, this responsibility will rest with a formalities examiner in the Office of Initial Patent Examination. With amendments, the Legal Instruments Examiners of the Technology Center may be the first users. Whoever the users are, they are alerted to check for problem scans, and given electronic capability to report bad scans to a central location. A designated office (currently the Office of Initial Patent Examination) receives these reports, and investigates the causes of the problem. If a pattern of defects can be noted, the designated office is charged with fixing the root cause of the defects.

Submitted Paper Copies

After being scanned, the paper copies of the documents are no longer official records. The imaged patent application documents are the records used in the regular course of business by the Office to process and examine the patent applications. The Office can use the paper source scanned copy for comparison purposes in the rare circumstance where a question arises concerning the electronic image.

During the early phases of the ePhoenix system deployment, the paper source scanned copies will be retained. However, after the system has been thoroughly tested, the Office ultimately plans to destroy the paper copies under a NARA-approved record schedule. After the schedule is approved, at the end of the retention period authorized by the schedule, the paper copies will be destroyed.

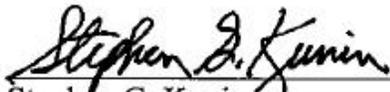
The Office has proposed to amend 37 C.F.R. § 1.14 (b) to limit access to the paper source scanned copies to situations where comparison with the original paper is needed, or where ordered by a court. See *Changes to Implement Electronic Maintenance of Official Patent Application Records*, 68 Fed. Reg. 14365, 14374-76 (Mar. 25, 2003). Ordinarily, access to the paper source scanned copies will not be permitted or required.

Eventually, the paper source scanned copies will be transported in their boxes to the USPTO Records Center for longer-term storage, and ultimately destroyed according to an authorized NARA retention schedule. Historical documents, or those determined by the Director to be of sufficient significance to be retained, may be transferred to archives of the National Archives and Records Administration.

FOR FURTHER INFORMATION CONTACT:

Technical information on the operation of the ePhoenix system can be found on the USPTO website at <http://www.uspto.gov/web/patents/ifw/index.html>. Questions concerning the conversion of USPTO records to electronic records in the ePhoenix system can be submitted to Jay Lucas by e-mail at Jay.Lucas@uspto.gov or by telephone at (703) 308-6868. Comments may also be submitted by mail addressed to: Commissioner for Patents, Box Comments – Patents, Post Office Box 1450, Alexandria, VA 22313-1450, or by facsimile to (703) 305-2919, marked to the attention of Jay Lucas.

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Stephen G. Kunin
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ⁱ Proposed changes to the Administrative Instructions of the PCT will, when promulgated, permit the storage and transmittal of the international applications in electronic form, even when they were submitted in paper form and were converted to electronic form by the receiving Office.

ⁱⁱ AIIM TR34-1996, "*Sampling Procedures for Inspection by Attributes of Images in Electronic Image Management (EIM) and Micrographic Systems*." Silver Spring, MD: Association for Information and Image Management, 1996.