

September 26, 2001

Attn: Ronald Hack  
Acting Chief Information Officer  
Under Secretary of Commerce for  
Intellectual Property and Director of the United States Patent and  
Trademark Office  
Washington, D.C. 20231

Re: Comments on U.S. Patent Office's Plan to Remove  
the Patent and Trademark Classified Paper Files  
from the Public Search Facilities

Dear Mr. Hack:

I have worked in the Intellectual Property field since 1988, and have been a registered Patent Agent since 1992. My relevant experience includes several years of patent searching for a local law firm, numerous years overseeing and coordinating various search staff for the same local firm, and over nine years of patent prosecution experience. During this time, I have extensively searched using the age-old "manual" search system of hard-copy patents and literature classified according to the Manual of Patent Classification. I am also familiar with and have hands-on experience with the various automated databases the U.S. Patent Office has released over the years, including CASSIS, BIB, CLASS, APS, EAST and WEST. I have also used various commercial patent databases from sources including Dialog, Orbit, Lexis, Westlaw, Delphion, and others. Based on this experience, I have the following comments on PTO efforts to phase out the current paper copy environment with a paperless counterpart.

The most recent EAST/WEST database is the closest thing yet to an electronic search tool that can compete with a good manual search. While many patent databases can often find relevant patents through "keyword" searching, we believe that there is no substitute for a good "manual" search. This is because for most inventions, a picture is necessary to convey the invention and because patent terminology may be purposefully creative to achieve either a very generalized broad scope or to help distinguish an otherwise ordinary invention from prior art by creating a new word for an old structure. As such, use of "keyword" searching with words that may be common industry-standard words will often not result in a competent or conclusive search outcome. The old saying "a picture say a thousand words" is true. For many types of inventions, a reference can be readily discounted as irrelevant or flagged as interesting with just a quick glance at the pictures. Thus, once a pertinent classification has been determined, "picture" searching of front pages, titles and Abstracts is often the most efficient method to isolate relevant from irrelevant patents or documents.

To achieve this efficiency and to maintain a similar structural flow to the old school methods of patent searching, a successful electronic search tool must be capable of emulating or improving upon such techniques. Such a system is believed to require at least: 1) a manageable classification breakdown by technology (preferably retaining the current patent classification scheme); 2) the ability to selectively search documents within one or more of these classifications; 3) the ability to quickly index or "flip" front pages of such documents with at least the speed and ease of the old "manual" system; 4) the ability to readily switch between relevant sections of a reference of interest; 5) a reliable integrity of documents being reviewed; and 6) a reliable availability of the research tool.

The current EAST/WEST system appears to meet most of these requirements. Some areas where it may exceed the manual system are its near perfect patent classification integrity compared to the manual counterparts, which often suffer from large integrity gaps for various known reasons. This provides cost savings to searchers when performing high-importance searches such as infringement searches that require integrity verification. EAST/WEST also benefits from its ability to eliminate duplicate patents when multiple patent classifications are combined for a large search. This also increases searcher efficiency. Additionally, its ability to combine both viewing of patents by classification and further narrowing by keyword search integration allows more focused searching to be performed that is cost effective for certain specific searching needs.

While the current EAST/WEST is a great backup or extra resource tool that can supplement a manual search, it also appears to possibly suffer in a few important areas: 1) redundancy; 2) reliability; and 3) ability to support a varying number of users.

First regarding redundancy, there is redundancy built into the paper copy at the U.S. Patent Office. There are at least two sets of paper documents classified in the manual system, one in the public search room and one in the Examiner's search room. Even if one is out for reclassification, the other source is accessible. Further redundancy is in place by the ability to access EAST/WEST for searching. However, in a paperless environment, this redundancy becomes absent. There will be no back up system, unless there are multiple copies of the database or multiple network options available to resolve network crashes or other typical computer problems with availability. If the EAST/WEST system goes down, there is no real backup. The PTO's Internet site may be useful to pull patent copies or do assignment and limited small searches. However, it is NO substitute for a manual search or an EAST/WEST search. This is because the interface just does not work for real day-to-day searchers. As such, the PTO's website has only a niche functionality, much like the Patent Office's CASSIS and CLASS systems. Such systems do not provide redundancy, but instead specialization for particular types of limited searching (i.e., searching for current classification, bibliography information, etc.). Accordingly, systems need to be in place to provide redundancy so that regardless of foreseeable problems, accessibility of the system by anyone who desires access will not be compromised.

Second regarding reliability, this is the need for redundancy because computer systems are inherently unreliable and subject to malfunction, glitch, network error, crash, virus, etc. As such, there would need to be several mechanisms in place to ensure a seamless system that can be switched to a backup system quickly so that accessibility by the public is not compromised. The PTO must also be active in seeking and performing necessary system upgrades to ensure that redundancy and reliability are attained.

Third regarding support, the current paper system is able to accommodate a very large number of users. Thousands of people a day, both Examiners and public searchers are able to tap into and use the paper files on any one given day. There is no real obstacle to access because of the vast number of classes and subclasses, the odds of someone else using the particular subclass you are looking for it quite small. Further, because of the redundancy in the paper system, there is always a backup source to access even if someone is also viewing your desired materials. With a paperless system, however, access is physically limited to the number of terminals provided at the public search rooms and Examiner offices, unless outside dial-up access is used, which creates its own problems with security, integrity, etc. Moreover, access is also physically limited to the capabilities of the network serving the system. As such, it is critical that the PTO at least maintain a sufficient number of available and operational terminals to meet ALL of the needs of the public, including times of high occupancy. From available records, I am sure that the PTO can properly determine the average and peak number of persons using the current facilities in any given day. The paperless system must be capable of accommodating at least this many people so that accessibility to proper patent research tools is not denied to various persons seeking patent information.

While not a current problem, the PTO needs to ensure the integrity of the PTO database. We are unsure what steps can be taken to continue to ensure the integrity of the system. However, with more access, the chances for integrity problems due to system crashes, security breaches, etc. are bound to increase. As such, fail-safe back-up systems and checks should be performed routinely to ensure completeness of the database records.

The present EAST/WEST system appears to have adequate speed such that searching electronically can be performed at nearly the same if not better speed at which manual searching can be performed. That is, searchers are able to "flip" through patents in a desired patent classification with relative ease. However, this is due in great part to the very limited accessibility of the EAST/WEST system currently. To match current search demand for both "manual" searchers and electronic searchers, there would be a very large increase in network demand, which must have the effect of greatly slowing down the speed or accessibility of the system. Much of these same problems have been faced by the various Internet Service Providers (ISPs), when demand for services exceed system capabilities. As such, it will be critical for the Patent Office to identify ways and mechanisms to keep the system accessible to all potential searchers without reducing the access and system use speed to a level that it is inferior to the old "manual" system.

Another requirement to make the paperless file comparable to the current system is to fully continue to reclassify technology so that patent classes and subclasses have workable numbers of patents to minimize search time and needless review of irrelevant art. That is, the present Manual of Classifications should be carried forward to the paperless files and used similarly. This is because functionally, narrowing down by relevant classification is most often the most accurate and cost-effective way to isolate and conduct a thorough patent search and clearly better than reliance on "keyword" searching.

Another important concern to all searchers is the availability of foreign patents and literature because a patent search is only as good as the data that is being searched. Currently, the paper system has various foreign patents and U.S. and foreign literature classified along with the U.S. Patents. This information MUST also be provided to the public in full viewable form, including not only text but drawings and MUST be classified for access along with the U.S. Patents to ensure accessibility. The EAST/WEST system's accessibility to European and Japanese Abstracts is a start, but accessibility needs to be greatly expanded to include more literature and patents, preferably full text with drawings.

In this regard, even the current paper files at the U.S. Patent Office are severely lacking in relevancy and completeness. It has been years since the Patent Office took an active role in accumulating and classifying non-US patents and literature. Many art units do not have any relevant foreign art on newer technologies and others have never reclassified the foreign art so that it only exists under a long since abandoned classification system. Such paper document collections are near worthless because of their inaccessibility due to archaic classification and incompleteness. It is believed that this lack of relevant and pertinent prior art leads to much wasted expenses to patentees, the Patent Office and U.S court systems because there are ever increasing possibilities that issuing U.S. Patents are invalid because relevant art was not before the Patent Examiner and not accessible by the patentee.

The U.S. Patent Office needs to interface more with other Patent Offices around the world and develop database sharing with other countries so that we can have additional research tools at the public's disposal. This is particularly important in today's global economy. The PTO may also considering going into partnership with one or more of the commercial intellectual property database providers and seek access to their databases for Examiners as well as the public. Particularly in the field of "business methods" and other hot patent fields, there appears to be a lacking of relevant patent literature. Accessibility to other sources of this information is critical to maintain a confidence in the patent system and to continue to place a high presumption of validity to issued patents.

Another good and often overlooked research tool and the U.S. Patent Office is it's Scientific Library. I would hope that this great research tool remains in tact. If it too is going to be phased out in favor of a paperless system, the level of accessibility must not decline. In fact, if all of the vast book and magazine collections are scanned into a database for electronic viewing, it would be beneficial for the PTO to make great efforts to modernize the system by

breaking down and classifying this information so that it can be more readily retrieved and used to assist searchers in finding relevant non-patent literature.

Please consider these comments when formulating the Patent Office's plan for paper file replacement.<sup>1</sup>

Sincerely,

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<sup>1</sup> The following views are personal views that also reflect the views of the author's employer, Oliff & Berridge, PLC, an Alexandria, Virginia-based intellectual property firm.