



OUR APPROACH TO SEARCHING

Resourceful

Although much patent and technical information is available publicly to the scientific community, the use of commercial databases has proved essential in ensuring a comprehensive search. However, even the commercial systems vary in their coverage and timeliness, and usually no single database possesses the complete collection of data required. So it is often necessary to perform a combination of searches through various databases to achieve comprehensive access to the fast growing corpus of disclosures worldwide.

We have access not only to public databases and resources, but also to the enormous range of commercial patent, scientific, technical and techno-commercial databases available from online hosts such as STN, PatBase, Questel•Orbit, Dialog and Thomson Reuters. We make full use of the full-text and value-added databases available via these hosts. For example, STN alone now hosts more than 20 patent-related databases, providing bibliographic and family data on patents and utility models from 71 patent-issuing organisations. Through this host we also have access to a further 200 bibliographic, factual and full-text databases containing or abstracting some 400 million individual documents, including journals, text books, conference proceedings, trade literature and dissertations.

For chemical and pharmaceutical based searches, we typically use the CAS REGISTRY, CAPLUS, MARPAT, Derwent WPINDEX and Merged Markush Service (MMS) Databases, employing search techniques such as CAS Registry Numbers, chemical name fragments, molecular formulae and chemical structure searching.

For searches involving protein or nucleotide sequences, our database use is extended to include those hosted by STN (Derwent's DGENE, CAS's REGISTRY file, WIPO's PCTGEN and SequenceBase's USGENE) or GenomeQuest (e.g. GQ-Pat). This enables us to utilise the most appropriate search algorithm for each request. These can supplement publicly available databases such as GenBank and its collaborating partners.

Non-patent literature searches on engineering, electronics, optics and computers typically involve at least the use of Compendex, INSPEC and IEEEExplore, and for biomedical subjects a cluster of many databases is usually employed including a minimum of MEDLINE, EMBASE and SCISEARCH.

We make use of the many online national registers and databases available (not just those offered in English). For instance, we are able to search designs in over 20 jurisdictions.

The location of our offices in central London allows us to make full use of the extensive patent and technical literature collections of the British Library and other specialist UK libraries, particularly useful for non-patent literature searches and rapid response to document requests.

We are also happy to take enquiries beyond the confines of the library or the workstation. In one notable case we were required to find date-marked operating manuals for a machine imported into the United Kingdom 20 years previously. Although the importers had destroyed their records, we were able to contact virtually all early purchasers of the equipment, determine the fate of their manuals, and locate and interview five witnesses whose evidence was crucial to a successful outcome for our client.

We continually review and update our practices, taking advantage of the most recent developments in database technology and searching techniques.

Skilful

Searching is a highly skilled art requiring a high degree of experience and knowledge. The untrained or occasional searcher often fails to locate important documentation since the complexities involved in searching are not fully appreciated. For example, even an apparently straightforward class and/or keyword based patent search can raise many questions:

"How do I know that the database or source I am using contains all possibly relevant documents?"

There are many databases available both publicly and privately for the searching of patents and other technical information. Relying on a single database source without an acute awareness of the limitations this brings can easily lead to failure to retrieve key documents. Furthermore, public searches through classified sets of specifications at a Patent Office or library are subject to doubts as to the integrity of the physical file. We have the knowledge to decide which sources are most suitable for each particular request, considering for example, timeliness, coverage, cost and technical suitability.

"How can I be sure I will retrieve very old or very recent publications?"

Classification is never completely up-to-date and it is often necessary to identify recent cases which have not been reclassified and search them using keywords and/or another classification system. Our use of a spectrum of databases also ensures the maximum coverage of both old and new documents.

"Which classes and classification systems should I use?"

Patents may receive multiple classes deriving from a number of classification systems, and yet some publications may have no classification at all. You cannot necessarily expect to find all the patents relevant to your specific question within one class, because the definition of that technology class will not necessarily be an exact match with the definition of what you are interested in. Examiners are only obliged to assign classes for what may be novel in an invention and cannot provide for all the uses that you may wish to make of the classification. They will not know all the invention's possible applications even if they wished to index them. So not all classes which you think would represent your subject query need be assigned by the examiners. It can therefore be difficult to establish which classification system and classes to include in a search.

For example, the International Patent Classification (IPC) assigned to the same invention by examiners in different countries can vary enormously to the extent of ten or more different Subclasses being applied to patents within the same family. Although the situation has improved since the introduction in January 2006 of the IPC 8th Edition, the legacy still affects what is retrieved from the last 20 to 25 years. IPCs on US Patents frequently appear to be assigned in clerical fashion by means of the US Class - IPC Concordance, and often differ sharply from the judgements made in other major patent offices. The same happens with PCT Applications for which the US is the International Searching Authority. These problems are acute for searchers who rely exclusively on a single source, for example a database that accumulates the IPCs assigned by different countries.

We avoid these problems by using more than one source, of which the EPO's reclassification of patents (ECLA) is frequently the core. ECLA is advantageous over most other classification systems since it uses a refined version of the IPC, which often captures the search subject more precisely. ECLA is also subject to continual revision, as part of which all documents in a redefined subject area are reclassified (although the IPC has also been subject to regular revision since 2006). ECLA classifies major industrial countries - chiefly Western Europe, the US and to some extent Japan - and achieves greater consistency than the IPC. It is usually searched in databases which may include the IPCs assigned by most countries, US Classes, German Classes, the Japanese FI Classes and F-Term Index codes, and the ICO Indexing codes of the EPO. It is sometimes the case that the classification systems of individual countries locate more extensive or precise results. Countries not covered by ECLA may require the entire search to be IPC-based, sometimes to group level.

In many instances we use multiple classifications systems simultaneously, particularly when the classes are to be combined with keywords. And a pure keyword search may need to be employed for publications where classification is absent, such as many recent PCT specifications.

"How will I find documents written in another language?"

The key piece of prior art may be written in a foreign language and would therefore not be retrieved by an English language keyword search. We consider translating all the keywords that we employ in our searches and/or use value-added databases in which the document has been analysed by a trained indexer/abstractor who produces an extended and more detailed abstract in English. Our translations are performed using dictionaries and internet or commercial translation tools, supplemented by the language skills of our employees. We are also able to search and view machine translations of the fulltext of Japanese and Chinese documents where available and make decisions within the quality limits afforded.

"How can I be sure that I have used all the terms defining a particular object, substance or process?"

Patents are often written with the objective of getting patent protection that is as broad as possible. Therefore the language is often characterised by the use of very general descriptions of concepts. Instead of using a common word for an element, e.g. "spring", the author may describe it with multiple words that allow for a broader interpretation, e.g. "energy storing means". We have the experience to discover such language and over the last 20 years we have built up an internal "concept library" of terms which is continually updated and improved. This unique source enables us to rapidly access even the most unusual of keywords and phrases, giving an advantage over searchers who rely solely on the use of a thesaurus and their own breadth of knowledge.

Since we employ an interactive approach to document retrieval, we are also able to add new terms to our strategy gained during the document analysis process. Although one can never guarantee absolutely that all classes, phrases, keywords and synonyms defining the subject of interest have been accounted for, the combined use of classes and keywords results in greater reliability compared to using either retrieval method alone.

"My search is generating a large number of hits. How can I get to the key documents?"

Searching entire classes (particularly if they are applied frequently or are over-general in their definition) may result in a very large number of hits to be reviewed. Similarly, the use of keywords or phrases alone can often result in a large retrieval since keywords may occur in patent texts with different meanings to those required. In such instances it may be wise to prepare a carefully constructed combination of classes and keywords.

"I have retrieved a set of documents - now what!?"

Devising a good search strategy and retrieving documents is only half the battle. We have the resources and technical knowledge to establish the relevance and usefulness of the documents retrieved. We examine for relevance every document retrieved by our searches, including the claims, description and drawings, where appropriate. This allows us to provide you with only the material of interest to you, and we are able to rank documents according to significance. Certain checks for internal consistency are also carried out.

"How do I know when to stop a search?"

Often the most difficult decision is when to stop a search. You may feel that you have exhausted all avenues and searched all the classes and keywords that apply - but have you considered citation network searching for instance? On the other hand, you may feel that there is no end to what could be done. Knowing when to be satisfied with the scope of your strategy is a skill only acquired by experience. We are able to guide you with this and provide you with a full list of limitations to the search that may have been applied, together with a list of possible further searches that could be performed.

Our knowledge and expertise allows us to answer all these questions and more, and our approach of using a carefully selected spectrum of overlapping databases, classifications and search strategies enables us to achieve a very high standard of reliability in all our searches.

CONTACT US

To request a free estimate or to discuss how we may be able to help you, please do not hesitate to contact us.

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