

Impact of IPC reform on patent information users and providers

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The International Patent Classification system provides a single scheme to organize and access the world's patent literature. The planned revision of this system has far-reaching implications for patent information users and providers—discussed here. In a future article, we will review the detailed changes required to Thomson Scientific patent databases, to bring patent information users the maximum benefit from IPC 8 reform.

A bit of history

Remember Y2K? A simple change was required to most of the world's systems software to accommodate the arrival of the new century without aircraft dropping out of the sky, chaos with payroll and pensions, emergency services, telephone systems and the general collapse of civilisation as we know it. The fact that none of these events transpired—to any noticeable extent at least—was due in large part to the painstakingly methodical planning and implementation of necessary changes before January 1, 2000.

The revision of the International Patent Classification (IPC) system due to be introduced next year may not have such universal implications for society as a whole, but for patent information users and providers, the need to plan ahead is every bit as important as it was for Y2K.

The advent of the IPC system in 1968 was an important milestone. For the first time, patent offices were able to apply, and patent users able to use, a single classification scheme to organize and access the world's patent literature. Prior to this, only selected national classification schema such as the US Class, JP, DE, or GB Classifications had been available, each with differing structures and philosophies. Although the volume of information in those days was far less than today, conducting a comprehensive prior art search to establish the novelty of a particular innovation must have been a challenge for both patent applicants and examiners alike.

Since then, the IPC system has undergone a number of revisions at regular intervals to ensure it has kept up to date with changes in technology over time. New codes have been added to reflect the appearance of new technologies, and existing codes have been sub-divided or discontinued to reflect changes in volumes of patenting in established technology areas.

The changes

The latest revision, IPC Version 8—planned for introduction on January 1 2006—is the most radical change since the inception of the IPC. It is more appropriate to refer to it as a reform rather than just a revision. Much has been written elsewhere about the changes (see, for example, www.wipo.int/classifications/ipc/en/reform/ipc_reform.html) but in brief, they are as follows:

1. Two levels of IPC, Core and Advanced, will be created for use by patent offices. Advanced classification will be applied by offices with sufficient resource (generally the larger offices). Core classification will be applied by remaining offices.
2. Classification rules will change. The complete patent document will be classified, with “inventive” classes being applied to inventive features described within the claims and “additional” classes being applied to inventive features described in the body of the patent specification.
3. The entire body of patent information held within the EPO’s worldwide Master Classification Database (MCD) will be subject to ongoing reclassification with each future revision of IPC codes.

Each of these changes has far-reaching implications for both patent information users and providers alike. Let’s consider their impact in turn.

Core vs Advanced

IPC classes forming the Core level of the IPC will not simply be a truncation of classes forming the Advanced level; rather they will be a selected sub-set. This means that worldwide retrieval for subject matter classified with IPC will, in future, only be possible by using Core level classes. Use of an Advanced level class will restrict retrieval to only those documents published by the patent offices using Advanced level IPC (unless the Advanced level class happens to be the same as the Core class).

To illustrate this, consider the following situation:

We wish to retrieve prior art for inventions relating to foldable spectacles. There will be an Advanced level classification, G02C-005/08, available as shown below:

G02C SPECTACLES

5/00 Constructions of non-optical parts

- 5/02 . Bridges; Browbars; Intermediate bars
(nose-engaging surfaces 5/12)
- 5/08 . . foldable

The equivalent Core level classification scheme will be as follows:

G02C SPECTACLES

5/00 Constructions of non-optical parts

- 5/14 . Side-members
- 5/22 . Hinges (pivotal connection in
general F 16 C 11/00)

Therefore, to ensure worldwide retrieval of prior art to the specific example of foldable spectacles, it will be necessary to search the Core level class at the highest level which will ensure retrieval of these inventions (G02C-005/00), as well as the Advanced level class (G02C-005/08). Of course, this will result in retrieval of non-relevant material classified within Core level G02C-005/00, as well as relevant information.

From a patent information provider's point of view, consideration needs to be given to creating a "super-class" within patent information databases, to retain sufficient granularity to serve differing user needs for quick, broad, and fully comprehensive searching.

Classification rule changes

With the availability of "inventive" and "additional" IPCs to capture inventive features described within the claims and the body of the specification respectively, users will have the flexibility to focus on inventions with key inventive features described in the claims—or broader, more "serendipitous" retrieval of inventions with inventive features described elsewhere within the document. Again, this will require patent information providers to make available appropriate search fields to ensure the necessary flexibility to meet differing user needs.

Ongoing reclassification

Previous revisions of the IPC have been effective from the date of introduction forwards only, and not retrospectively. This created the need to use the different classifications in force over the different time periods to ensure complete retrospective retrieval of patents within a given technology. With the IPC 8 reform due next year, a radical change is planned: to re-classify the entire worldwide patent collection (or at least the 52 million documents that will reside in the MCD

Database currently in preparation by the EPO) on a regular basis, with the latest version of codes in force at any one time.

The intention behind this is laudable: to make patent information users' lives easier by ensuring that only one version—the current version of IPC8 at the time of searching—is needed for complete retrieval of all relevant documents within the description of the IPC used for retrieval. And eventually this will be the case. In practice, however, until this project is complete, it will add another version of codes to be considered alongside the previous seven. Current indications are that this situation is likely to exist for some time after January 1, 2006.

In addition, users who maintain patent alerts, on online or in-house patent information systems, will need to consider the impact of potentially frequent and transient changes to classifications within their area of technological interest, and plan how to manage such an environment of continuing change. To help with this issue, WIPO plans, in future, to release IPC revisions some months prior to adoption on published documents, which will help people running profiles. This is an advance on what happened under the old edition release scheme, when first sight of the new schedules was on January 1: the day of implementation.

From a providers point of view, this change is the most profound of all those proposed. It requires the database provider to build in the capability to update selected fields within database records on a frequent, ongoing basis—and potentially massive scale. The initial release of the MCD is likely to contain changes in classification to at least 30 million patent documents. If we allow for equivalency of documents within patent families, this translates for a database like *Derwent World Patents Index*[®] to something like half the 13 million+ records in the database. Thereafter, it is planned to provide quarterly updates to the MCD database which, whilst containing nothing like the numbers of changes within the initial release, will still entail substantial updating capability of the patent information databases affected.

Conclusion

The impact discussed above is profound and far-reaching for both patent information users and providers alike. For us at Thomson Scientific, a major project has been in place since September 2004, working on the implications of the forthcoming changes and putting in place corresponding plans to accommodate them. This involves working closely with EPO and WIPO, who are responsible for driving these changes, with our online partners who share the responsibility for bringing these changes to users as seamlessly as possible by the January 1, 2006 deadline, and, most importantly, with users—to ensure our plans meet their information searching requirements, and that we deliver the changes in the best way possible.