

Getting to grips with IPC⁸ — Thomson tackles the changes

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The International Patent Classification (IPC) 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, which were discussed in an earlier KnowledgeLink article (April 2005). Here we provide an update of progress and review the detailed changes Thomson Scientific is making to Derwent World Patents Index[®] (DWPISM), to bring patent information users the maximum benefit from IPC⁸ reform.

Introduction

We are now just a few weeks away from the implementation of IPC⁸, the most radical reform of the IPC system since its inception¹. What are the impacts that we can expect from this reform and how should we adapt to the coming changes? What modifications are being made to DWPI and how will users be able to search these to take maximum benefit from the reformed IPC?

IPC Reform

In summary, the major changes being introduced as a result of IPC reform include:

- Ongoing reclassification of the complete back file of patent documents in line with ongoing IPC changes
- Two-tier IPC classification schema — core and advanced
- More frequent revision of IPC classes: three-year revision cycle for core level, three-monthly revision of the advanced level

The impact of these changes, and the implementation of reformed IPCs within DWPI, are discussed below.

Back file reclassification

The European Patent Office (EPO) project to reclassify the back file of patent documents is underway. The central repository of 54 million documents known as the Master Classification Database (MCD) has been established. A concordance between the ECLA classification and IPC⁸ has been created. This has been used to successfully reclassify 23 million ECLA-classified documents with an equivalent IPC⁸ class.

Remaining steps are underway to reclassify:

- i) 15 million documents from IPC⁷ to IPC⁸; and
- ii) 9 million documents from the Japanese and German patent offices (being reclassified using concordances between their respective proprietary classification schema and IPC⁸)



Other offices have been invited to reclassify their national collections, and it is expected that this will add a further three million reclassified documents in time. Together it is expected that this work will result in 95% of the documents within the MCD being assigned IPC⁸ classes by mid-2006. This compares with the current IPC coverage of between 80 and 85% of documents.

From January 1 2006, all patent documents published on and after that date will be classified using the current version of IPC⁸. The effect of this for users is that, when all the back file conversion work is complete, only one version of the IPC will need to be used for retrieval, instead of the mixture of versions IPC¹ – IPC⁷ that we have today.

Advanced and core











Latest information indicates that many patent offices will use the advanced level IPC to classify documents going forwards. At least the EPO, USPTO, JPO, German and UK offices have signalled their clear intention to use advanced level IPC. Since EPO maintains PCT minimum documentation within the MCD, we can be sure that this collection at least (which represents upwards of 60% of the world's patent literature) will be searchable using advanced level IPC. The latest list of PCT minimum documentation (with effect from June 1 2005) is available at the WIPO web site²

For comprehensive searching, it will be necessary to search both core and advanced level IPC. As an example, consider a search for inventions relating to spectacles with reinforced side members. The relevant subclass for this technology is G02C and the detailed IPC classification scheme is given on the next page:

	G02C	SPECTACLES; SUNGLASSES OR GOGGLES INSOFAR AS THEY HAVE THE SAME FEATURES AS SPECTACLES (trial frames for testing the eyes A61B 3/04 ; goggles or eyeshields not having the same features as spectacles A61F 9/00)	
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Note(s)

This subclass covers also contact lenses for the eyes, monocles, pince-nez, or lorgnettes.

	G02C 5/00	Constructions of non-optical parts	
	G02C 5/14	• Side-members	
	G02C 5/16	• • resilient or with resilient parts	
	G02C 5/18	• • reinforced	
	G02C 5/20	• • adjustable, e.g. telescopic	

G02C-005/18 is an advanced level code. This will retrieve:

- all inventions within the scope of PCT minimum documentation, plus
- documents classified by offices applying the advanced level, plus
- the converted MCD back file.

For comprehensive retrieval, we need also to search the closest appropriate core level class — in this case G02C-005/14 — and exclude any records already retrieved from the advanced level class search. There is a neat trick to help identify only those records that have been classified at the core level, which arises from the way the advanced and core level fields are populated:

For inventions classified with an advanced class, the closest corresponding core class will be automatically applied as well, using the authority concordance file provided by WIPO, so that both advanced and core level fields will be populated. For inventions classified at the core level only, the advanced level field will be empty. We can use this to distinguish between those inventions retrieved by an intellectually applied core class, and those retrieved by an autoposted core class.

The example below uses a generic version of search language and search qualifiers. “ICA” is the search qualifier for IPC Advanced, and “ICC” is the search qualifier for IPC Core. Result numbers are for illustration only.

SS		Results
1	ICA=G02C-005/18	500
2	ICC=G02C-005/14	1675
3	2 NOT ICA=G02C	125

4 1 OR 3 625

- SS1 retrieves all records classified with the advanced level class
- SS2 retrieves all records classified with core level class present both through intellectual classification and through autoposting
- SS3 excludes all records within SS2 with core level class added through autoposting since it excludes those records that have autoposted advanced level classes beginning "G02C" – therefore this retains only those records that have been intellectually classified at the core level
- SS4 combines those records classified with the advanced level class and those records intellectually classified at the core level

Of course, within this set, there will still be some inexact retrieval of spectacles with side-members which do not deal with reinforcement, but no document that does deal with reinforced side-members should be missed (provided the classifications have been applied correctly by the patent offices).

Advanced level revision cycle

The major potential impact of continual updating of the advanced level is on those users who maintain alerts or have stored searches for ad hoc use. If such alerts or stored searches rely in any way on advanced level IPC classes, there is the potential need to modify these on a regular and frequent basis. In practice, it is likely that only a small number of changes will be made with each three month revision cycle.

At the recent EPO Patent Information Conference in Budapest, Heiko Wongel of EPO pointed out that the number of changes should not be any different than under the present system, but the way that they are introduced will be; where previously all changes to IPC were stored over a five year period and introduced all at once (with potential delay of introduction of up to 4 years 11 months in extreme cases), changes can now be introduced at three month intervals, as agreement is reached on each change.

In addition, changes will be published on the Internet three months in advance of the date on which they enter into force. Users will therefore have time to review the changes and modify their alerts or stored searches *before* the changes come into force.

Implementation of IPC reform within DWPI

Implementation of the IPC reform within *DWPI* is intended to provide maximum benefit to users through allowing flexible use of IPC for search:

- IPCs will be represented at two levels: family (invention) and member patent

- The existing IPC field for the *DWPI* family will be redefined as “Current (Latest) IPCs” and existing content updated with reclassification data when available;
- New IPC fields will be added for individual members of *DWPI* family
 - “Original IPCs” as published on specification for individual patent document
 - “Current (Latest) IPCs” as reclassified by EPO

- New fields will also be added to make use of the new IPC “attribute” information
 - IPC⁷: Main/Secondary/Additional/Index
 - IPC⁸: Advanced/Core/Invention/Non-invention

- A “super-index” allowing for a single search across all the available IPC fields will also be made available.

In this way, users will be able to search selectively whatever version of IPC is applied to an invention, together with whatever attribute information may be available for either a patent family or for individual patent documents within that patent family. If the user simply wishes to retrieve all inventions where an IPC has been applied, regardless of whether it is core or advanced, invention or non-invention, that too will be possible using the “super-index” field.

As well as the changes being introduced as a result of the IPC reform, Thomson Scientific is also introducing a number of new features into the *DWPI* online file including, for example, extra back file for Documentation Abstracts and original author data. Detailed documentation of this and training on how to search the new IPC fields will be provided when the changes are fully implemented next year.

IPC⁸ changes in other Thomson databases

We will bring you details of IPC⁸ changes in *Aureka*[®], *Delphion*[®] and *PatentWeb*[®] in our next newsletter.

Grateful thanks are due to Heiko Wongel of EPO for his kind permission to use the search example of spectacles with reinforced side members.

References

1. Available at <http://www.wipo.int/classifications/ipc/ipc8/?lang=en>
2. Patent literature: http://www.wipo.int/pct/en/texts/rules/r34.htm#_34
Non-patent literature: <http://www.wipo.int/scit/en/standards/pdf/04-02-01.pdf>