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IMPROVEMENT OF THE IPC

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## IMPROVEMENT OF THE IPC

### 1. Introduction

Although we recognize the preciousness of the IPC, the only one patent classification commonly used in the world, it does not fully function as a search key. As we live in a world where any patent information is electronically processed and an effective global search is indispensable, we should adapt IPC to the situation and make it function well as a common search key.

### 2. Current IPC

We have some difficulties in the use of IPC: the revision proposals would not promptly be reflected on the current IPC; the current IPC would not give us necessary information for searches. Generally, these are caused partly by the inadequate adaptation of IPC to the recent progress of electronic-information-processing technologies in the world. We point out the specific problems as follows, with which a further consideration would be necessary.

#### (2-1) Process of Considering Revision Proposals

The current long term to consider revision proposals would cause the delay in responding to new technologies and increase of patent documents. We think it necessary to shorten the term from presenting the revision proposals to complete consideration of them. We propose to strictly control the consideration process in order to make a final decision on the proposals in one or two years. However, we should not decrease opportunities to exchange opinions even if the term would be shortened. We need to establish a new system by which we can exchange opinions at any time by E-mail. (In fact, we presently use E-mail in some revision projects, only presenting sporadic one-way opinions.) A new system should lead the discussion by E-mail to a fruitful conclusion by occasionally combining our various ideas.

#### (2-2) Time to Issue a Revised Edition of IPC

It is true that the every-five-year revision makes it hard to deal with rapid increase of documents and development of new technologies. Under the present condition, however, where reclassification are not carried out even after a new edition is issued, it would be more inconvenient for us to use IPC if it would be revised more often in a shorter period. We could not agree with the US proposal, therefore, to start using new classification promptly after the completion of revision projects. We prefer to set a time for revision, at least, and to start using a new classification all together.

### (2-3) Reclassification

As no reclassification is made after issuing the Revised Edition of the IPC, it is very inconvenient to use IPC for searches. It is too heavy burden, however, to reclassify all the documents by examining one by one. We think it practical, as in the GB proposal, to create a concordance information between new and former classifications and to update the patent data or to enable an automatic search by using the concordance information.

### (2-4) Comparison with Text Searches

However inconvenient it may be, we do not think it possible to completely give up the classification by IPC symbols. For example, compared with a text search, a search by the IPC gives us more accurate result. Having the technical difficulties in recognition of synonyms, a text search could not be better than IPC search. Besides, even when concordance is made between the different languages, the characteristic of each language should be taken into account in case of text searches. Therefore, it is so hard to make a search only by a text.

On the other hand, the indication of IPC symbols is easy to understand and manage, and it is convenient for us all to use common search tool in the world. In addition, we think, as SE pointed out, that the more the IPC would be elaborated, the less the difference would be between the classification based on IPC symbols and that based on words.

### (2-5) Rule of Assignment of Classification

As it is difficult to give an automatic assignment of classification by making use of a text search, we think a manual check will be required as before. Then, it is necessary to simplify the rule of assigning classification to decrease discrepancies in classifying. We think that there would be no problem if the rule would allow us to give plural classifications or to make further subdivision of the classification, as it is not so troublesome to manage electronic data.

## 3. Present Classification Condition in Japan

We use our own classification schemes developed by renewing IPC as domestic classification in Japan. We would like to introduce them, as we believe that our experience of using these schemes would be a good reference for other Offices when reviewing the IPC scheme.

We use mainly FI and F-term as search keys in Japan. We created FI by subdividing IPC and F-term by redeveloping from various aspects a certain FI area technically related each other.

We find that FI is a very convenient search key as it has more subgroups and revision opportunities than in case of IPC and reclassification is performed at every revision. For example, FI has 185,000 subgroups while IPC has 67,000. This enables us to make finer classification and to conduct a search even in a technical field where so many documents have been published. The structure of FI is based on subdivision of IPC. In a certain technical field, however, it has its own additional classification called "facet" which is subdivided from the different aspects from IPC subdivision items. We can limit a search more easily by using the facet together with FI. And we can deal with the document increase and new technology development relatively sooner as we have an opportunity to review the items once a year. This year, we invited the revision proposals in October, and received the proposals to revise about 2,000 items (approx. 1% of the whole). After the revision, we reclassify the documents of all the years and can search all the documents belonging to the relevant field with a new classification after updating the data. We can manage the data rather easily as the electronic classification data can be changed collectively at a time by a logical expression. We can use a new classification in our search in around six months after revision, except for those documents to be included in official gazettes waiting for publication.

We prepared F-term to be used in about 1,800 technical fields set up in FI and each technical field has 200 terms in average. We can limit a search far easily, as there are detailed terms from various aspects, regardless of the IPC subdivision items. We have an opportunity to revise F-term once a year as in case of FI, and reclassify the documents when necessary.

#### 4. JP Proposal to Improve IPC

As described above, it is desirable for us to have such classification scheme as enabling us to increase subgroups, to deal with the document increase and new technological development flexibly, and at the same time, to limit a great change of classification scheme to the least necessary level. We would like to propose our solution, therefore, which is the usage of a new indexing scheme added to the present IPC scheme. The following four are the main points:

- Use IPC as a common basic classification in the world and revise it every ten (10) years.
- Introduce an index in a form of indexing code to correspond to IPC subdivisions and new technologies.
- Revise indexing codes every year.
- Assignment of indexing codes should be non-obligatory. It should be obligatory, however, for both proposing and Rapporteur countries.

We will specifically explain them as follows:

#### (4-1) Roles of Basic Classification and Indexing Code

We divide the structure of IPC into two parts, one is a stable framework of basic classification and the other is indexing codes easily revised, and assign a role for each part. IPC would be used as a basic classification and would not be revised for 10 years to ensure the stability of the classification applied. Then, we would create a new indexing code which can be revised every year as a supplemental classification to deal with the document increase and new technologies, in addition to the indexing code for a hybrid system currently in use. Thus, two-part structure would allow us to promptly deal with the rapid increase of documents and new technologies with this new indexing code and to ensure the stable framework of IPC. We believe that the structure would be desirable even for smaller patent offices who cannot expect the search efficiency to compensate a burden of assigning indexing codes if we make the assignment of basic classification be obligatory and that of indexing code be non-obligatory.

#### (4-2) Revision of Classification

The classification would be revised in two steps; revise indexing codes first, and the basic classification next after considering the result of revising indexing codes.

We would revise the indexing code at a fixed time every year. This would allow us to deal with the rapid increase of documents as the indexing code can be revised in a short term. Also, as the assignment is non-obligatory, it would be easy to stop assigning the indexing code when the technology becomes well-known to the world.

We would revise the basic classification every ten (10) year without failing to add the result of using indexing code to the revision proposal. Thus, we can ascertain how the revision has improved the search efficiency and could avoid any unnecessary revision affected by a temporarily-prevailing technology.

#### (4-3) Revision Procedure

##### (4-3-1) Acceptance of Revision Proposal

CE would accept the revision proposals of both indexing code and the basic classification. It would accept the revision proposals for indexing code every year and start accepting those for the basic classification about three years before the term (for every-ten-year revision).

##### (4-3-2) Criteria for Presenting Revision Proposal

We may present revision proposals of indexing code freely at any time without the criteria applied for IPC revision proposal, such as file size or increasing rate of documents. WIPO should assume a role to monitor the number of PCT minimum documents and invite the revision proposals in CE circulars regarding the technical field where the number of documents exceeds the criteria.

In case of a basic-classification revision, we should add the result of using indexing code to the revision proposal and determine if the adoption of the proposal would be of any benefit to us.

#### (4-3-3) Selection of Rapporteur

CE would decide Rapporteur after accepting the revision proposals. It would select one country in case of an indexing-code revision and two countries in case of a basic-classification revision in order to ensure more fairness.

Rapporteur should be authorized to decide the procedure and schedule of meetings and reach the conclusion within two years from the presentation of the revision proposal.

#### (4-3-4) Consideration of Revision Proposal

We would discuss the proposals at any time by exchanging opinions by E-mail and should report the content of discussion by electronic means to all the patent offices. Then, we would send a report to CE when we arrive at the conclusion. After receiving the report, CE should finally adopt the proposal in case of the basic classification.

#### (4-3-5) Reflection of Revision

We would start assigning the revised indexing code from next January after the year when the revision has reported to CE. The revision would be informed through Internet.

We would start assigning the revised basic classification from the fixed date of every ten years. The revision would be laid open through Internet and electronic media as CD-ROM. Also, concordance information would be provided through electronic media as Internet and CD-ROM in order to enable us to make reclassification or an automatic search between new and former editions of IPC. The information includes concordance between new and former editions of basic classification (IPC) and that between indexing code and new basic classification.

### 5. Feature of JP Proposal

#### (5-1) Flexibility to Deal with Technological Changes

Our proposal would amount to a every-year revision of classification as indexing code could be revised every year, while the basic classification would be revised every ten years. When a substantial revision of the classification would be performed in one or two years from the proposal, we would be able to deal with almost all the technological changes. Besides, there would be little confusion among users if we would start using a new classification from the fixed date of every year.

#### (5-2) Proper Selection of Revision Proposal

We can provide a revision proposal not satisfying the current quantitative criteria, as there would be no criteria to propose a revision of indexing code. On the other hand, as we would be required to enclose a result of using indexing code in a revision proposal of the basic classification, we could limit the proposals to those inevitable revisions. Also, we would be able to see the long-term effect of the revision of classification.

#### (5-3) Burden Involved in Revision

As assignment of indexing code would be non-obligatory, even a smaller patent office would find it easier to use a new scheme without feeling any burden.

#### (5-4) Consistency of Assigning Classification

We should not make any complicated provisions regarding the assignment of classification to ensure a stable use of the basic classification with little burden for many countries. Thus, there would be less difference among the countries in assigning classification. If WIPO would check the difference among the classification given by various countries, and invite the revision proposals in the field where the remarkable differences should exist, we can expect a gradual unified assignment of classification in the world. We believe it more helpful in the long run to make WIPO take a lead in the revision of classification than to fulfil the relevant seminars or to make a centralized assignment of classification by WIPO, in order to decrease discrepancies in assignment of the classification.

### 6. Conclusion

JPO has not been so enthusiastic for revising IPC, just focusing on development of a domestic classification scheme for an effective search of voluminous patent documents published in Japan.

On the other hand, PAJ has formed about fifty percent of the patent documents published in major countries of the world, providing one of the most important patent information. We believe that it would be of great benefit to various countries in the world as well as Japan to make full use of those documents published in Japan. JPO would cooperate with other Offices in trying to make IPC function well as a common search tool for the world patent documents including PAJ.

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