

Patent Classification and Search key

Japan Patent Office

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We will now begin the patent classification and search key lecture.

- I. IPC
- II. FI
- III. F-term
- IV. Reference tool

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Here is the outline of this lecture.

- 1. IPC
- 2. FI
- 3. F term
- 4. Reference tool

I. IPC

II. FI

III. F-term

IV. Reference tool

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First, let me explain IPC, or International Patent Classification.

A. History - 1/4

- In the past, patent documents were classified according to different classification systems originally developed in each individual country.
- In 1971, the Strasbourg Agreement Concerning the International Patent Classification was sealed, and it came into effect in 1975.
- The IPC had been revised almost every five years, up to the seventh version, to address technological innovations and increased documents.

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This slide shows a brief history of patent classifications.

In the past, patent documents were classified according to the different classification systems in the individual countries where they originated.

These classification systems were not compatible with each other, however.

As patent documents are increasingly used globally, the problem of incompatibility has become a big issue.

The Strasbourg Agreement Concerning the International Patent Classification was signed in 1971, and came into effect in 1975.

All member countries of the Paris Convention took part in the IPC system.

The IPC was revised almost every five years, up to the seventh version, in order to address technological innovations and an increasing number of documents.

A. History - 2/4

The first edition of the Classification was in force from September 1, 1968 to June 30, 1974.

IPC ver. 2	July 1, 1974 to Dec. 31, 1979
IPC ver. 3	Jan. 1, 1980 to Dec. 31, 1984
IPC ver. 4	Jan. 1, 1985 to Dec. 31, 1989
IPC ver. 5	Jan. 1, 1990 to Dec. 31, 1994
IPC ver. 6	Jan. 1, 1995 to Dec. 31, 1999
IPC ver. 7	Jan. 1, 2000 to Dec. 31, 2005
IPC ver. 8 (IPC 2006.01 -)	Jan. 1, 2006 to the present

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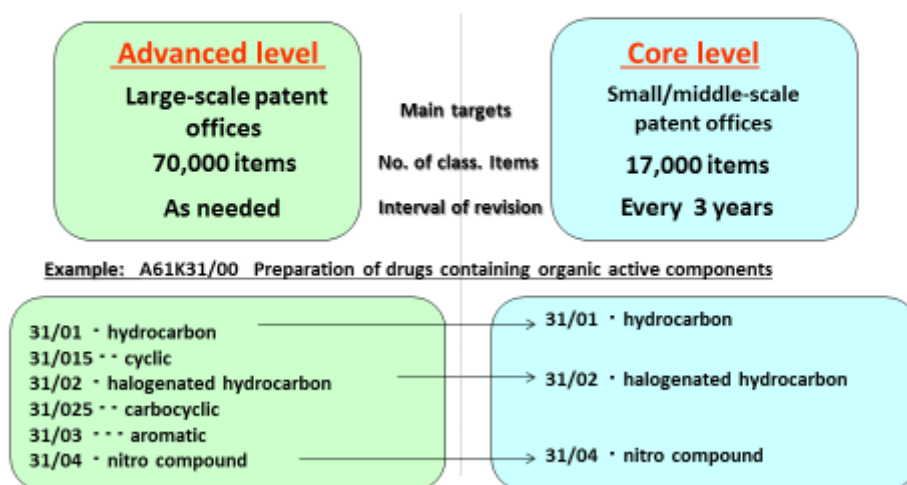
The first edition of the Classification was in force from September 1, 1968 to June 30, 1974.

The IPC is reviewed and revised regularly in order to make improvements in line with ever-evolving technology.

For now, IPC version 8 is the latest.

A. History - 3/4

IPC Reform (2006)



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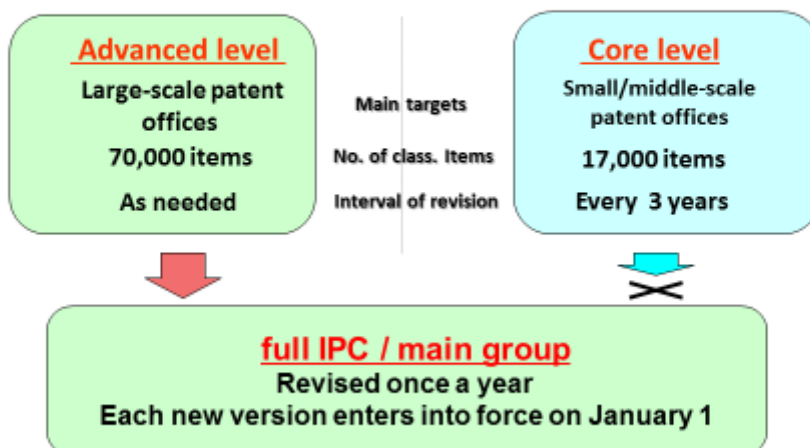
The IPC reform of 2006 divided IPC into two separate categories: the Core Level, or CL, and Advanced Level, or AL.

The revision cycle of the advanced level was three months in order to address flexible advanced techniques. Large-scale patent offices had introduced this level.

The revision cycle of the core level was three years. The number of its classification entries had been narrowed down to around 30% of the advanced level. Small- and mid-size patent offices had introduced this level.

A. History - 4/4

IPC Simplification (2011)



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Division of classifications into core and advanced levels was discontinued on January 1, 2011 in order to resolve conflicts and complications regarding the different revision procedures and publication cycles.

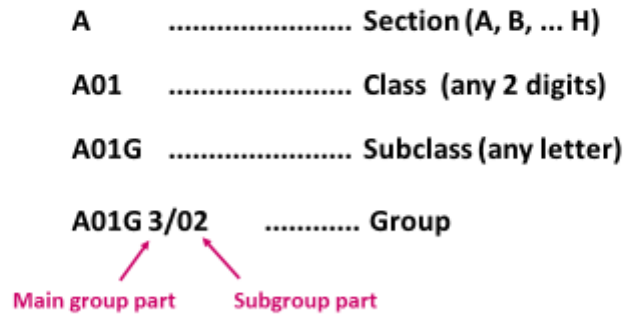
Core level users may now classify the patent documents that they publish using the main groups, which are subsets of the full IPC.

The IPC is revised once a year. Each new version enters into force on January 1.

B. Layout of classification symbols – 1/2

A01G 3/02

complete classification symbol; consists of different components



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Now, I will explain the layout of IPC symbols.

A01G 3/02 is a symbol representing an IPC group. Any group symbol consists of different components.

The first letter indicates the section of the IPC to which it belongs. There are 8 sections, represented by the letters A through H.

The section letter and the following two digits represent a class symbol. Adding another letter to the class symbol generates the symbol of a subclass being part of the class.

The subclass part of the symbol is followed by the group part, which consists of two different elements separated by a slash: the main group part and the subgroup part.

B. Layout of classification symbols – 2/2

Two types of groups: **Main groups**
 Subgroups of main groups

A01G 3/00 Main group xxx/00

A01G 3/02 Subgroup xxx/yy (yy ≠ 00)
xxx/yyyyyy

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Accordingly, there are two different types of groups: main groups and subgroups.

Main groups always have "00" after the slash, while subgroups have any other combination of digits.

Currently, the main group symbols have between 1 and 3 digits on the left side, although WIPO Standard ST.8 allows up to 4 digits.

The subgroup part uses between two and six digits.

It should be noted that patent documents are usually classified either by using the main group or subgroup symbols.

C. Hierarchical structure – 1/3

section	subsections
A: HUMAN NECESSITIES	AGRICULTURE; FOODSTUFFS/TOBACCO; PERSONAL OR DOMESTIC ARTICLES; HEALTH/LIFE-SAVING/AMUSEMENT
B: PERFORMING OPERATIONS; TRANSPORTING	SEPARATING/MIXING; SHAPING; PRINTING; TRANSPORTING; MICRO-STRUCTURAL TECHNOLOGY/NANO-TECHNOLOGY
C: CHEMISTRY; METALLURGY	CHEMISTRY; METALLURGY; COMBINATORIAL TECHNOLOGY
D: TEXTILES; PAPER	TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR; PAPER
E: FIXED CONSTRUCTIONS	BUILDING; EARTH OR ROCK DRILLING/MINING
F: MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING	ENGINES OR PUMPS; ENGINEERING IN GENERAL; LIGHTING/HEATING; WEAPONS/BLASTING
G: PHYSICS	INSTRUMENTS; NUCLEONICS
H: ELECTRICITY	

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Next, I will explain the organization of IPC.

The IPC is arranged in a hierarchy. At the top level, there are 8 different sections covering very broad areas of technology.

A section may have subsections as informative headings.

For example, section A, being HUMAN NECESSITIES, includes the following subsections:

AGRICULTURE

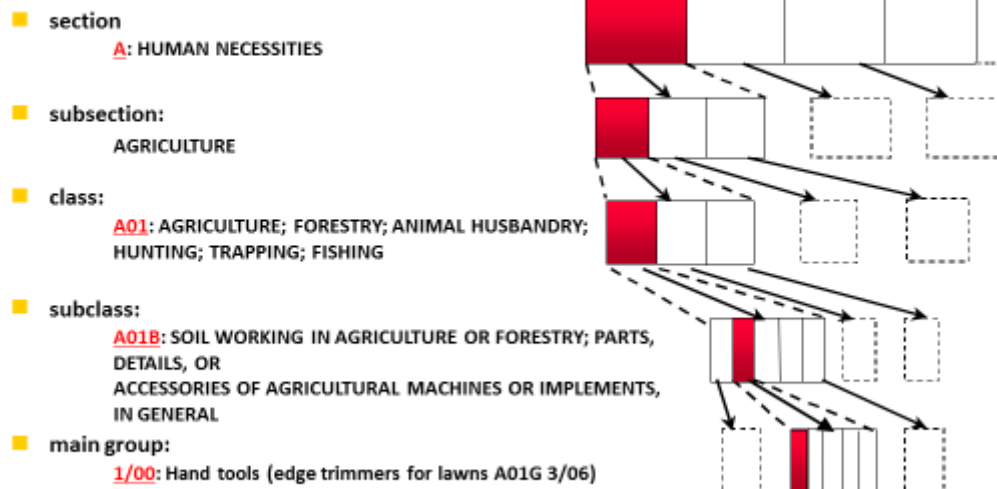
FOODSTUFFS and TOBACCO

PERSONAL OR DOMESTIC ARTICLES

HEALTH, LIFE SAVINGS and AMUSEMENT

Subsections do not have classification symbols.

C. Hierarchical structure – 2/3



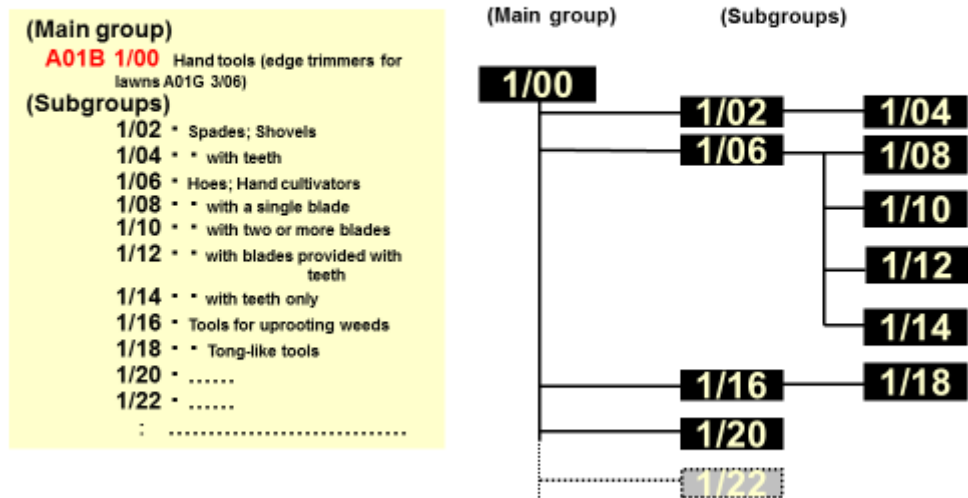
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Each section is subdivided into classes, each class into subclasses, each subclass into main groups, and many but not all main groups into subgroups. Subgroups can again be subdivided into further subgroups.

Thus, there can be many further hierarchical levels below the main groups. However, they all are called subgroups. These subgroups are distinguished by so-called "dots" that indicate their hierarchical position.

C. Hierarchical structure – 3/3



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This shows that subgroup 1/02, which has one dot, is a subdivided classification of the main group 1/00. Subgroup 1/04, which has two dots, is a subdivided classification of the subgroup 1/02 located further down.