

WIPO



IPC/WG/6/2

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GENEVA

**SPECIAL UNION FOR THE INTERNATIONAL PATENT CLASSIFICATION
(IPC UNION)**

IPC REVISION WORKING GROUP

Sixth Session

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CHECKING OF NOTES AND REFERENCES IN THE REFORMED IPC

Document prepared by the International Bureau

1. At its fifth session, held in June 2001, the IPC Revision Working Group agreed that the highest priority should be given to the checking of notes and references in the reformed IPC, which was needed in view of the division of the IPC into the core and advanced levels. Furthermore, it was decided that references or notes pointing from core level places to advanced level groups, which existed already in the sixth edition of the IPC, should be first considered (see document IPC/WG/5/3, paragraphs 16 to 19).

2. In order to obtain experience in carrying out this task, the IPC Revision Working Group agreed to conduct three pilot projects in the following classes, where checking of notes and references would be made by volunteering offices:

- A 23 (Sweden),
- C 10 (United Kingdom)
- G 06 (European Patent Office)

3. Annexes I to III to this document contain the results of the pilot projects submitted by Sweden, the United Kingdom and the European Patent Office, respectively.

[Annexes follow]

ANNEX I

Swedish Patent and Registration Office

Checking of Notes and References in the Reformed IPC

October 17th, 2001

COMMENTS

(in response to IPC/WG/5/3, paragraphs 16 - 19)

We volunteered to check the references pointing to advanced level groups in A23. Here are our results and comments:

The majority of the references investigated were limiting references, and could therefore not simply be removed.

A23B 4/02	A23B 4/26	<p>This reference points to another one-dot group in the same main group. If 4/26 is moved to the core level, the matter covered by it will be transferred to 4/00 in the core level. In order to reflect this correctly there are some solutions possible:</p> <ol style="list-style-type: none"> 1. Keep the reference, but let it point to 4/00. This is not an elegant solution. 2. Create a "disclaimer" for 4/02, for example in the form of a note saying "This group does not cover apparatus". This maintains compatibility, but is not elegant and hardly helpful to the user. 3. Let all one-dot groups to which references point remain in the core level. This is the most elegant solution, and it probably also reflects some symmetry that the creators of the scheme had in mind.
A23B 4/02	A23B 4/32	Equivalent to A23B 4/02
A23B 4/14	A23B 4/12	<p>The title of 4/14 does not make sense if 4/12 is removed from the core level. Although not a reference, the mentioning of 4/14 has the same affect. Possible solutions:</p> <ol style="list-style-type: none"> 1. Introduce a reference, referring the matter of 4/12 to 4/00. Not an elegant solution 2. Create a disclaimer for 4/14, for example in the form of a note saying "This group does not cover preserving with acid or acid fermentation". 3. Keep 4/12 in the core level. This appears to be the easiest solution.
A23B 7/02	A23L 1/216	The reference would have to be changed to 1/214. It should be noted that the core level would not contain the useful example "potatoes", which is the matter of 1/216. This will not make the core level user-friendlier.
A23B 7/14	A23B 7/08	Equivalent to A23B 4/14

A23C 1/00	A23C 15/14	The reference would have to point to the hierarchically superior core level group (15/00)
A23C 1/00	A23C 19/086	The reference would have to point to the hierarchically superior core level group (19/06). Also in this case, useful examples for 19/06 will be lost.
A23C 3/00	A23C 13/08	The reference would have to point to the hierarchically superior core level group (13/00)
A23C 3/00	A23C 15/18	The reference would have to point to the hierarchically superior core level group (15/00)
A23C 3/00	A23C 19/097	The reference would have to point to the hierarchically superior core level group (19/00)
A23C 9/00	A23C 21/06	The precedence reference must be replaced with a limiting reference repeating the title of 21/06 and pointing to 21/00.
A23C 17/00	A23C 9/14	A whole new limiting reference, pointing to 9/00, must be drafted, taking in the title of 9/14 and the relevant parts of 9/00. This will require intellectual input in order to validate the wording.
A23C 19/00	A23J 1/20	The reference would have to point to the hierarchically superior core level group (1/00)
A23C 19/06	A23C 19/097	Equivalent to A23B 4/02. In this case all one-dot groups should probably be kept, since otherwise the symmetry of the scheme would be lost, making classification more difficult.
A23C 20/00	A23C 19/055	Equivalent to 17/00.
A23C 20/00	A23C 19/093	Equivalent to 17/00.
A23C 21/00	A23C 9/14	Equivalent to 17/00.
A23D	C11C 3/12	The reference would have to point to the hierarchically superior core level group (C11C 3/00)
A23F	A47G 19/14	The reference would have to point to the hierarchically superior core level group (A47G 19/00).
A23F	A47G 19/16	The reference would have to point to the hierarchically superior core level group (A47G 19/00). This reference could be merged with the previous one.
A23F 3/06	A23F 3/36	Equivalent to A23B 4/02
A23F 3/06	A23F 3/16	Equivalent to A23B 4/02
A23F 5/24	A23F 5/20	Equivalent to A23B 4/02
A23F 5/24	A23F 5/06	Equivalent to A23B 4/02
A23G 9/04	B65D 85/78	Informative reference that could be removed
A23G 9/22		Note that this group was not picked up by the program. The only simple solution would be to let the four two-dot groups above 9/22 remain in the core level.
A23L 1/221	A23F 3/40	The reference would have to point to the hierarchically superior core level group (A23F 3/00)
A23L 1/221	A23F 5/46	The reference would have to point to the hierarchically superior core level group (A23F 5/00)

A23L 2/00	A23L 1/40	The reference would have to point to the hierarchically superior core level group (A23L 1/39)
A23L 2/52	A23L 2/44	The reference would have to point to the hierarchically superior core level group (A23L 2/42)
A23N 4/00	A23N 7/08	The reference would have to point to the hierarchically superior core level group (A23N 7/00)
A23N 7/00	A23N 15/08	The reference would have to point to the hierarchically superior core level group (A23N 15/00)

We have serious reservations about the feasibility of automatically separating the two levels while still maintaining complete compatibility. A considerable amount of manual intellectual work will be necessary in order to achieve compatibility. The situation would perhaps have been different if the schemes had been drawn up from the beginning in order to make a separation possible, but many schemes are full of references back and forth between parallel hierarchies.

The problem of references in advanced level groups that point to places in advanced level groups that are not within the same hierarchy has not been touched, even though this will also lead to incompatibility between the levels. You will find several examples in A23F 5/00; for example those in 5/36 and 5/46 that refer matter out of the 5/24 area. If 5/36 and 5/46 are just deleted from the core level, together with their references, the two levels will not be compatible. This kind of references will require considerable intellectual work in order to maintain compatibility.

We would suggest adding the following rule when separating the core and the advanced level:

In main groups where references point between different one-dot groups, or between subgroups of different one-dot groups, all one-dot groups to which references point, or to subgroups of which references point, should remain in the core level.

We think the extra groups kept in the core level because of such a rule would not be a disaster, and the core level would be easier to use.

Anders Bruun

[Annex II follows]

ANNEX II

UK Patent and Trademark Office	Tuesday, 13 November 2001
Checking of References in Subclass C10	

Re IPC/WG/5/3, paras. 16-19

UKPTO volunteered to check the references in G10 pointing from core to advanced level groups.

Core reference	Points to	Suggested wording	Reasoning
C10B	E21B 43/295	underground gasification of minerals E21B 43/00	To a particular place from general, but appears to be limiting
C10G 11/00	C10G 9/34	cracking in direct contact with molten metals or salts C10G 9/00	Only informative as 9/00 and 11/00 are mutually exclusive. Therefore it seems best to retain the wording of 9/34
C10G 21/00	C10G 73/02	de-waxing oils 73/00	Special instance of refining and therefore limiting
C10G 33/00	C10G 7/04	by distillation 7/00	Probably limiting but can retain the original wording as this is evident from 7/00 anyway
C10G 47/00	C10G 1/06	destructive hydrogenation of non-melting solid carbonaceous or similar materials 1/00	Limiting and can still point to 1/00
C10G 49/00	C10G 45/32	Put 45/32, 45/44, 45/58 in core level?	Not sure what to do about these as combinations of 45/32, 45/44 and 45/58 would be in 49/00.
C10G 49/00	C10G 45/44		
C10G 49/00	C10G 45/58		
C10G 75/00	C10G 7/10	Inhibiting corrosion during distillation 7/10	Limiting. The precedence references would not make sense pointing to the core level without accompanying wording.
C10G 75/00	C10G 9/16	Preventing or removing incrustation during thermal non-catalytic cracking in pipes or coils of hydrocarbon oils, in the absence of hydrogen 9/16	Limiting. The precedence references would not make sense pointing to the core level without accompanying wording.
C10H	C07C 11/24	purification of acetylene C07C 11/00	Informative reference and as it does not particularly reflect the wording of 11/24 it can point to 11/00
C10J	E21B 43/295	underground gasification of minerals E21B 43/00	Limiting and wording of 43/00 is appropriate
C10K 1/00	C01B 3/50	isolation of hydrogen from mixtures containing hydrogen and carbon monoxide C01B 3/00	Limiting, wording of 3/00 is appropriate

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C10M	C03B 40/02	for glass C03B 40/00	Limiting, wording of 40/02 is appropriate
C10M	A21D 8/08	prevention of sticking of dough [, e.g. to baking plates] A21D 8/00	This is a limiting reference given as one of a list of examples, matter in square brackets may be helpful if included.
C10M 105/02	C10M 101/02	petroleum fractions C10M 101/00	Limiting precedence reference, wording of 101/00 is appropriate
C10M 107/20	C10M 107/18	(a) hydrocarbon polymers modified by oxidation C10M 107/02 (b) hydrocarbon polymers modified by oxidation C10M 107/00	This is a limiting reference from a 1 dot entry in the core to a 2 dot entry in advanced level under 1 dot entry (107/02) in advanced level. Preferred option would be to bring 1 dot entry 107/02 into the core and use the wording in (a) opposite. Other options are to erase the reference completely and place such oxidised polymers in 107/20 (macromolecular compounds containing oxygen) or to direct reference to C10M 107/00 - see (b).
C10M 123/00	C10M 113/16	inorganic materials coated with organic compounds C10M 113/00	Limiting reference, 113/00 wording appropriately reflects s.m.
C10M 127/00	C10M 159/04	petroleum fractions C10M 159/00	Limiting reference, 159/00 wording appropriately reflects s.m.
C10M 129/68	C10M 129/66		This is a limiting reference out from 129/68 esters (2 dot, core) for epoxidised esters to 129/66 epoxidised acids or esters (2 dot, advanced). Best option is to delete reference for core level, and to retain epoxidised esters within group 129/68 for esters.
C10M 133/04	C10M 149/22	polyalkylene polyamines with eleven or more monomer units C10M 149/00	Informative reference as 133 refers to non-macromolecular compounds and 149 to macromolecular compounds and this reference clarifies the boundary between them for nitrogen containing compounds.
C10M 145/00	C10M 143/18	oxidised hydrocarbons C10M 143/00	Limiting reference, wording of 143/00 entirely consistent
C10M 159/00	C10M 129/56	carboxylic acids with less than 30 carbon atoms in the chain, of unknown or incompletely defined constitution C10M 129/26	Limiting reference out to 129/56 in advanced (3 dot entry) under 129/26 (2 dot entry) in core. This refers to carboxylic acids so is entirely consistent with s.m. to be referred out here.
C10M 171/00	C10M 101/02	containing petroleum fractions as base-material C10M 101/00	Expanded wording clarifies limiting reference, 101/00 is appropriately worded core location

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C10M 171/00	C10M 121/02	containing petroleum fractions as thickeners C10M 121/00	Expanded wording clarifies limiting reference, 121/00 is appropriately worded core location
C10M 171/00	C10M 159/04	containing petroleum fractions as additives C10M 159/00	Expanded wording clarifies limiting reference, 159/00 is appropriately worded core location

Comments

We found this a time-consuming task requiring considerable judgement. We doubt whether there is a general rule which could be applied to such references as sometimes the wording of the equivalent core level group to which the reference points is adequate, but other times that wording would not be helpful at all.

We see that areas of low input could be given lower priority but we think that some attention would have to be given to their references eventually to make sure that the core and advanced level were homogeneous.

Jim Calvert
Graham Lynch

[Annex III follows]

ANNEX III



EUROPEAN PATENT OFFICE
Principal Directorate Documentation

Comments
5 October 2001

Checking of Notes and References in the Reformed IPC Subclass: G06

Ref: IPC/WG/5/3, par. 16-19

Introduction

The EPO volunteered to check the references in G06 pointing to advanced level groups.

Legend

HSCLG= Hierarchically Superior Core Level Group

CL = Core level ; AL = Advanced level ; ref.= reference

G06 (1)	A63D 15/20	1) Change ref. to point to HSCLG (A63D 15/00) 2) Keep this group (15/20) in core level
G06 (2)	A63F 1/18	Similar to G06 (1)
G06 (3)	B43K 29/08	Similar to G06 (1)
G06C	A63F 1/18	Similar to G06 (1)
G06C 7/00	G06C 13/02	1) Change ref. to point to HSCLG (G06C 13/00) => the element "pin carriage" should then possibly be inserted as example in the title of main group 13/00 2) Change ref. into "13/00 takes precedence" => not improving readability of CL 3) Keep 13/02 in CL => what to do with the only other one-dot group 13/04 ?
G06C 9/00	G06C 7/10	Change ref. to point to HSCLG (G06C 7/00)
G06C 21/00	G06C 15/08	1) Change ref. into a disclaimer: "This group does not cover mechanisms merely for producing multiplication by repeated addition" => readability ? 2) Change ref. to point to the HSCLG group (15/00). In this case it could be modified into a more general formulation, like "Mechanisms for computing by mere repetition of elementary operations 15/00", but this needs to be checked by experts
G06C 25/00	G06C 7/04	1) Change ref. to point to HSCLG (7/00) 2) Change ref. into: "Interlocks in input mechanisms 7/00" => it needs some check

G06F 3/18	G06K 11/02	The specific element ("automatic curve follower") contained in the title of G06F 3/18 is exactly covered by G06K 11/02 but is not immediately discernable from the title of main group G06K 11/00. As 11/02 and 11/06 are its only two one-dot groups (11/06 further having seven subgroups), we propose to integrate these two into the core level. As a consequence, this ref. wouldn't need any change.
G06F 7/50	G06F 7/49 and 7/544 to 7/556	Move groups 7/49 and 7/544 to core level + modify ref. into "7/49 and 7/544 take precedence"
G06F 7/52	Same	Identical to 7/50
G06F 9/32	G06F 9/42	These two three-dot groups do not belong to the same two-dot group. Two solutions: 1) Keep G06F 9/42 in the CL 2) Modify ref. to point to HSCLG (G06F 9/40)
G06F 13/24	G06F 13/32	Three-dot groups belonging to 13/20. Keep G06F 13/32 in the CL \Leftrightarrow respect original symmetry
G06F 13/28	G06F 13/32	Same as G06F 13/24
G06F 15/80	G06F 15/82	Two-dot groups belonging to 15/76. Keep G06F 15/82 in the CL
G06G 1/00	G01B 5/26	1) Delete 2) Keep G01B 5/26 in CL
G06G 7/18	G06G 7/19	Two-dot groups belonging to 7/12. 1) Keep G06F 7/19 in the CL \Leftrightarrow respect original symmetry 2) Delete 7/18 from CL (see Notes, point ?)
G06J 1/00	G06G 7/06	Change ref. to HSCLG (G06G 7/00)
G06K 1/00	G06K 3/02	Change ref. to HSCLG (G06K 3/00)
G06K 9/00	G01T 5/02	Change ref. to HSCLG (G01T 5/00)
G06K 9/62	G06G 7/19	1) Keep G06F 7/19 in the CL (see also G06G 7/18) 2) Change ref. to G06G 7/12
G06K 11/18	A63F 13/02	Change ref. to HSCLG (A63F 13/00)
G06K 19/067	H04M 1/675	Change ref. to HSCLG (H04M 1/667)
G06M	G01R 11/16	Change ref. to HSCLG (G01R 11/00)
G06M 3/00	H03K 3/84	1) Delete 2) Include H03K 3/84 into CL

General comments:

- I) This exercise was rather time-consuming. Possibly, this factor should be taken into account in the prosecution of this project.
- II) Often, we could not settle for any better solution than addition of the referenced group to the CL
- III) In some cases in which the reference is moved to the hierarchically superior group included in the CL, in order to improve readability, it may be envisaged to modify the group's title by introducing as an example the relevant element characterising the title of the subgroup that was originally referred to.
- IV) Having had a look at the list (of places to be checked) provided by WIPO, we share the reservations expressed by SE and, also in view of point (I), would like to suggest to bring SE proposal to the attention of the Working Group in order for it to be analysed in greater depth.
- V) As a further element for reflection, we would like to add that, during the analysis of G06 references together with our experts, it was pointed out to us that some subclasses thereof (G06C, G06D, G06G, G06J, and G06M) are by now obsolete. Even though containing enough documents to deserve places in the CL according to the quantitative approach, such subclasses do not appear to be of interest for any foreseeable future technical development. The references concerning them and, in general, obsolete subclasses, could possibly be treated in a more economical way. In order to optimise this aspect of the Reform process, we wonder if it would not be desirable to add this further dimension to the considerations of group population in order to contain the investments for checking of references.
- VI) In case that the systematic inclusion of referenced groups into the CL as proposed by SE would lead to an unacceptable growth of CL size, a more layered quantitative approach could be tried out in order to find an economically viable compromise between a complete automatic separation of CL and AL, and a full-scale intellectual check (see point VII).
- VII) Proposal:
 - 1) Some global statistics on the population of only the AL groups involved in the reference check should be produced.
 - 2) Step 1 would provide the WG with some insight on the relevance of said groups, and on the possibility to automatically include into the CL only the most populated ones among them.
 - 3) A further set of groups, with population below a certain threshold, could also be isolated. References pointing to such groups could also be treated in an automatic way (e.g. merely redirected to the HSCLG without check, deleted altogether (?), etc.).
 - 4) Hopefully, this would lead to a sensible reduction in the number of places left to the intellectual check. Such number could easily be 'modulated' by adapting the population thresholds used in steps 2 and 3.

The reasoning behind such approach is twofold:

- the (relatively) high population of some AL groups referenced to from the CL could be taken as an indication of the relevance of the very references pointing to them and, hence, of the interest to keep them in place
- on the other hand, references pointing to groups of negligible population could be considered less critical, and a more economical approach could be applied to them.

P. Foglia

[End of Annex III and of document]