



Notification of upcoming changes to the schema's (xsd) of the CPC scheme and definitions

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Contents

1. Introduction.....	3
2. Changes to CPC-scheme schema	3
2.1. New attributes in <classification-item> element	3
2.1.1. Attribute “status”	4
2.1.2. Attribute “ipc-concordant”	4
2.1.3. Attribute “definition-exists”	5
2.1.4. Attributes “level” and “sort-key”	5
2.2. New attribute in <media> element	6
2.2.1. Attribute “file-name”	6
2.3. New elements	7
2.3.1. Elements <sub> and <sup>	7
2.4. Modified element <notes-and-warnings>	7
2.4.1. Attribute “type”	7
2.4.2. Attribute “warning-type”	8
2.4.3. <Note> element.....	9
2.4.4. Redundant elements	9
2.5. Image files – Naming convention	10
3. Changes to the CPC definitions schema	10
3.1. New attributes in <media> element	10
3.1.1. Attribute “file-name”	10
3.2. New elements	11
3.2.1. Elements <sub> and <sup>	11
3.3. Image files – Naming convention	11

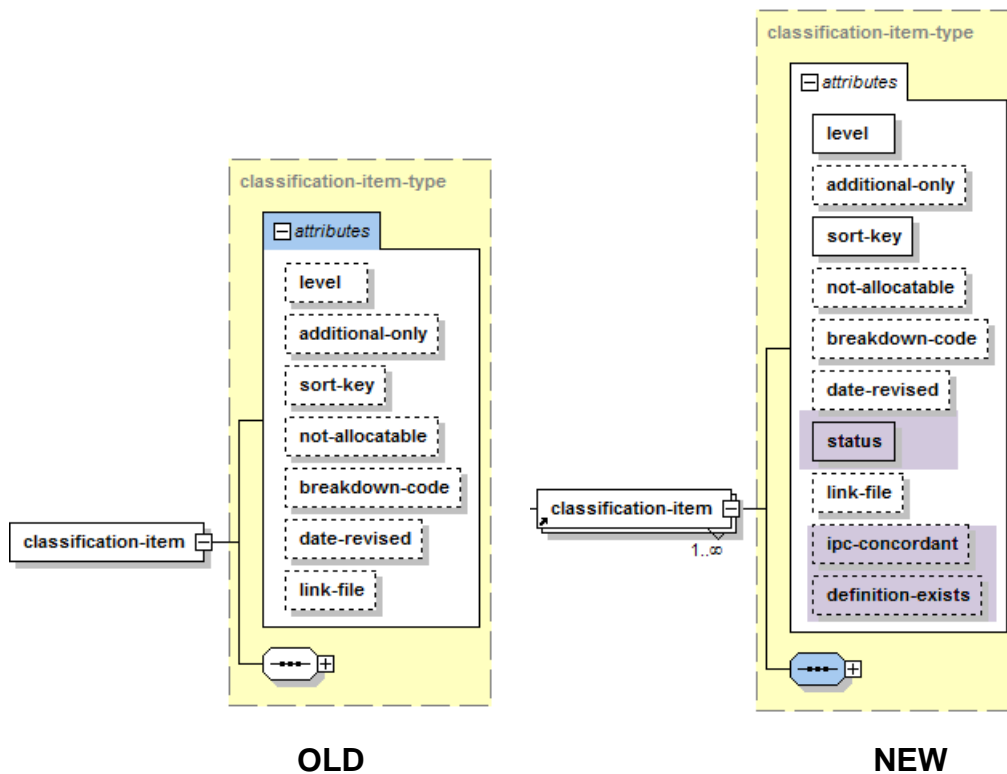
1. INTRODUCTION

The EPO and USPTO have agreed to introduce improvements to the schema's of the CPC scheme and definitions. The changes will enter into force with the April 2015 scheme revisions. The full set of files for scheme and definitions will be available for prepublication on Tuesday 3 March 2015 on www.cpcinfo.org

In this document the changes are described and illustrated. This document is supported with sample files that will illustrate in more detail the changes, including the xsd's. The content of data in the sample files might not reflect the current official data, however the format is according to the introduced changes.

2. CHANGES TO CPC-SCHEME SCHEMA

2.1. NEW ATTRIBUTES IN <CLASSIFICATION-ITEM> ELEMENT



2.1.1. Attribute “status”

The mandatory attribute “**status**” will be added to the `<classification-item>` element. The attribute “**status**” will have 2 possible values:

- published
- frozen (the “frozen” status attribute will be used for “to be deleted subgroups”: symbols that are still valid, but will be deleted in the near future after the reclassification has been finished)

Example 1:

```
<classification-item status="published" date-revised="2013-01-01" definition-exists="false" sort-key="A61K6/0005" additional-only="false" level="9" not-allocatable="false" breakdown-code="false" ipc-concordant="A61K6/00">
<classification-symbol>A61K6/0005</classification-symbol>
```

Example 2:

```
<classification-item status="frozen" date-revised="2014-09-01" definition-exists="false" sort-key="A63F13/06" additional-only="false" level="9" not-allocatable="false" breakdown-code="false" ipc-concordant="A63F13/20">
<classification-symbol>A63F13/06</classification-symbol>
```

2.1.2. Attribute “ipc-concordant”

The CPC-to-IPC concordance will be introduced as an additional optional attribute to `<classification-item>` element, as “**ipc-concordant**”. This attribute will only be populated for all symbols at level 7 or higher.

The value can be:

- CPCONLY, in case the symbol has no concordance to an IPC symbol
- the IPC symbol, that is concordant to the CPC symbol
-

Example 1:

```
<classification-item breakdown-code="false" not-allocatable="false" level="10" additional-only="false" sort-key="A61K8/062" date-revised="2013-01-01" status="published" ipc-concordant="A61K8/06" definition-exists="true">
<classification-symbol>A61K8/062</classification-symbol>
```

Example 2:

```
<classification-item breakdown-code="true" not-allocatable="false" level="10" additional-only="true" sort-key="A61K8/048" date-revised="2013-01-01" status="published" ipc-concordant="CPCONLY" definition-exists="false">
<classification-symbol>A61K2008/048</classification-symbol>
```

2.1.3. Attribute “definition-exists”

The optional new attribute “**definition-exists**” will be included to the <classification-item> element, to indicate if a given symbol has a definition. The value is “true” or “false”.

Example 1:

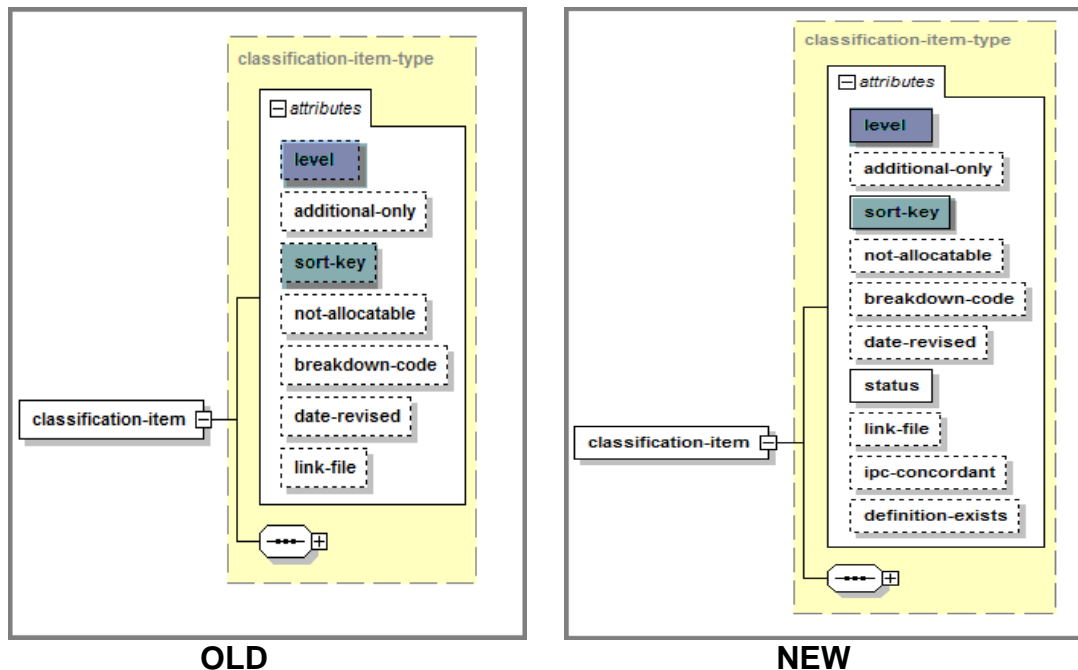
```
<classification-item breakdown-code="false" not-allocatable="false" level="10" additional-only="false" sort-key="A61K8/06" date-revised="2013-01-01" status="published" ipc-concordant="A61K8/06" definition-exists="true">
<classification-symbol>A61K8/06</classification-symbol>
```

Example 2:

```
<classification-item breakdown-code="true" not-allocatable="false" level="10" additional-only="true" sort-key="A61K8/048" date-revised="2013-01-01" status="published" ipc-concordant="CPCONLY" definition-exists="false">
<classification-symbol>A61K2008/048</classification-symbol>
```

2.1.4. Attributes “level” and “sort-key”

The attributes “**level**” and “**sort-key**” are set from optional to mandatory attributes in the <classification-item> element.



```

<xs:attribute name="level" use="required">
  <xs:simpleType>
    <xs:restriction base="xs:integer">
      <xs:minInclusive value="1"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
<xs:attribute name="sort-key" type="symbol-type" use="required"/>

```

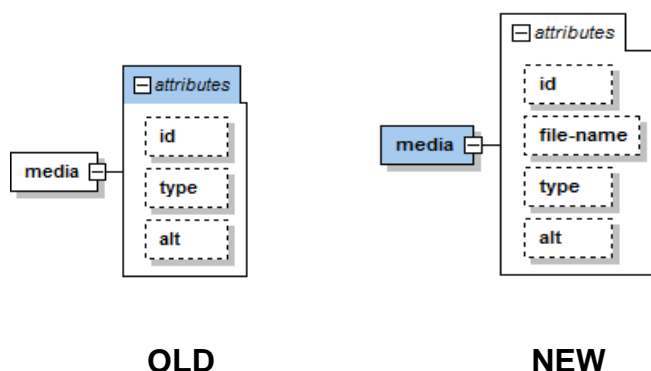
2.2. NEW ATTRIBUTE IN <MEDIA> ELEMENT

2.2.1. Attribute "file-name"

A new optional attribute "file-name" attribute will be added to the <media> element. The value for the attribute "file-name" is

cpc-sch-<subclass>-<seq_number.png>

The <seq_number> is 4 digits, (see also § 2.5)



Example:

```

<classification-symbol>A61K31/43</classification-symbol>
<class-title date-revised="2013-01-01">
<title-part>
<text scheme="ipc">
Compounds containing 4-thia-1-azabicyclo [3.2.0] heptane ring systems, i.e. compounds containing a
ring system of the formula
<media type="png" file-name="cpc-sch-A61K-0952.png" id="952"/> e.g. penicillins, penems
</text>

```

2.3. NEW ELEMENTS

2.3.1. Elements <sub> and <sup>

The addition of “**sup**” (superscript) and “**sub**” (subscript) to wherever text is allowed.

Example 1:

```
<class <classification-symbol>A61K31/5575</classification-symbol>
- <class-title date-revised="2013-01-01">
- <title-part>
- <text scheme="ipc">
  having a cyclopentane, e.g. Prostaglandin E2, Prostaglandin F
  <sub>2-alpha</sub>
</text>
</title-part>
```

Example 2:

```
<class-ref scheme="cpc">A61K51/0474</class-ref> (3 dots): complexes or complex-forming
compounds, i.e. wherein a radioactive metal (e.g. <sup>111</sup>In<sup>3+</sup>) is complexed
or chelated by e.g. a N<sub>2</sub>S<sub>2</sub>, N<sub>3</sub>S, NS<sub>3</sub>,
N<sub>4</sub> chelating group.....</paragraph-text>
```

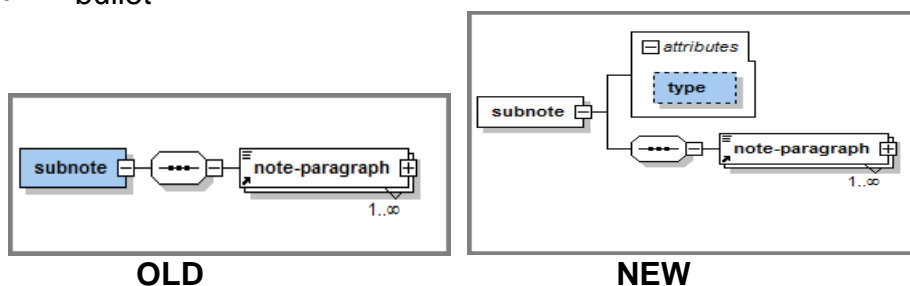
2.4. MODIFIED ELEMENT <NOTES-AND-WARNINGS>

To standardise the different types of warnings, 4 changes will be introduced.

2.4.1. Attribute “type”

A similar bullet/numbering indicator attribute “**type**” for <subnote> as in IPC will be introduced. Possible values are:

- Roman
- roman
- number
- Alpha
- alpha
- bullet



Example (A61K):

```
<notes-and-warnings date-revised="2013-01-01">
<note type="note">
<note-paragraph>
  This subclass
  <u>covers</u>
  the following subject matter, whether set forth as a composition (mixture), process of preparing the
  composition or process of treating using the composition:
  <subnote type="alpha">
  <note-paragraph>
  Drug or other biological compositions which are capable of:
  <subnote type="bullet">
  <note-paragraph>
  preventing, alleviating, treating or curing abnormal or .....
```

2.4.2. Attribute “warning-type”

An optional attribute “**warning-type**” at the *<note-paragraph>* level will be introduced. Possible values for the attribute are:

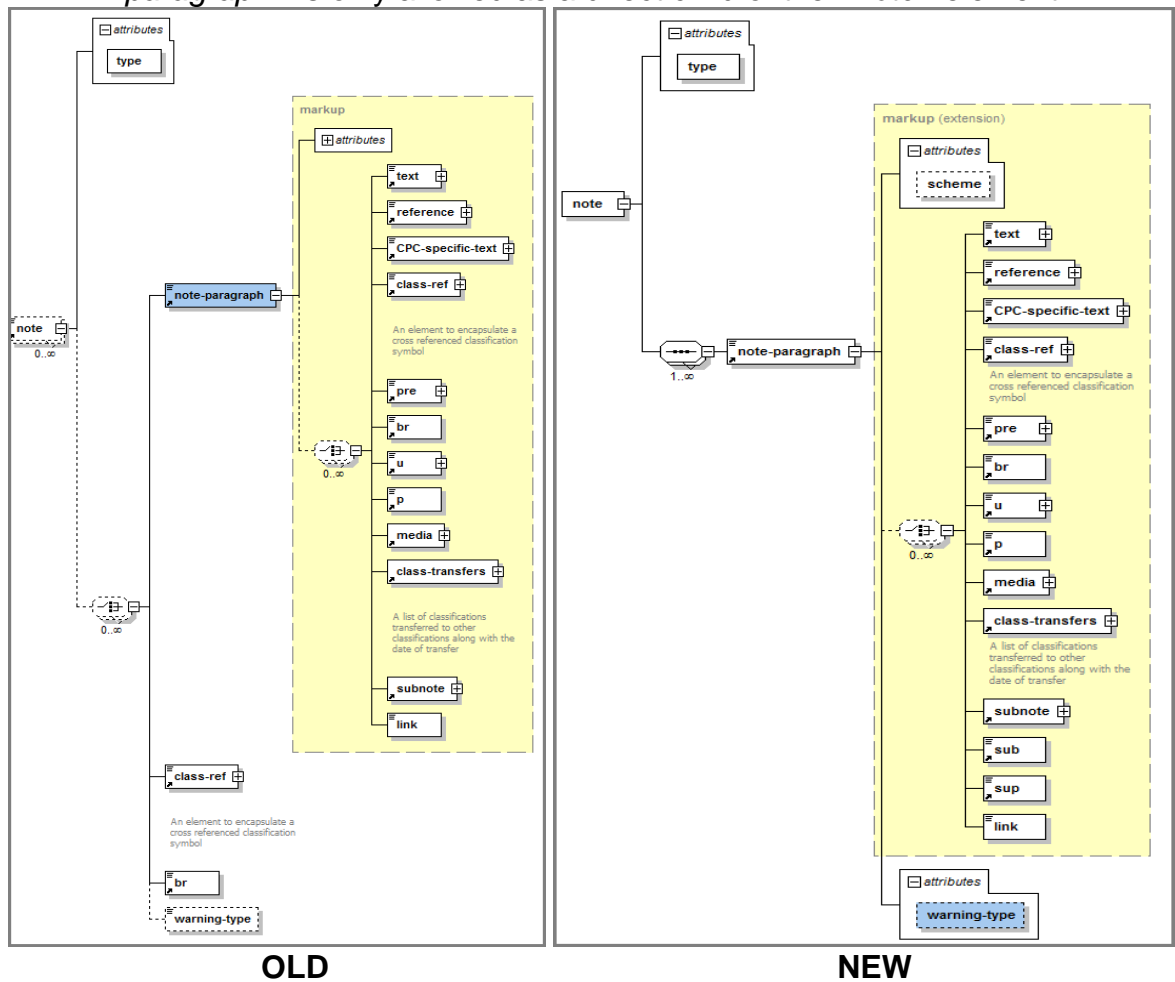
- reclass-source
- reclass-destination
- ipc-not-used

Example (A61K):

```
<note type="warning">
<note-paragraph warning-type="ipc-not-used">
<subnote>
<note-paragraph>
  The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups
  is classified in the following CPC groups:
  <br />
  <pre>
  <class-ref scheme="cpc">A61K6/033</class-ref>
  covered by
  <class-ref scheme="not-mapped">A61K6/06A</class-ref>
  <br />
```


2.4.3. <Note> element

The <note> element will no longer allow a mixed content model. The <note-paragraph> is only allowed as a direct child of the <note> element.



2.4.4. Redundant elements

The following redundant “warning-type” values have been abolished:

- incomplete
- transferred-to
- ipc-discordance
- ecl-a-reform
- idt
- miscellaneous

2.5. IMAGE FILES – NAMING CONVENTION

The image file names will be renamed from

<###>.ext

to

cpc-sch-<subclass>-<seq_number>.ext

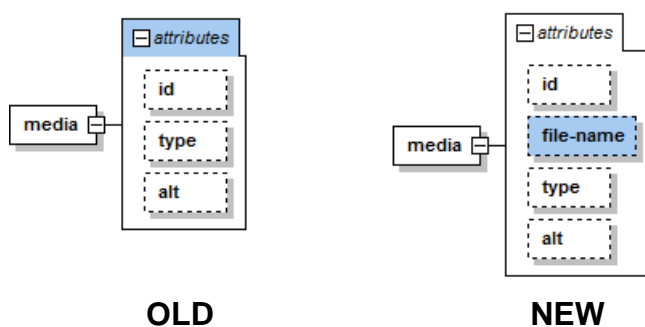
(e.g. the first image to appear in the D01B scheme would be cpc-sch-D01B-0001.png)

Example:

```
<classification-symbol>A61K31/175</classification-symbol>
<class-title date-revised="2013-01-01">
<title-part>
<text scheme="ipc"> having the group <media id="950" type="png" file-name="cpc-sch-A61K-
0950.png"/> , &gt;N-C(O)-N=N- or <media id="951" type="png" file-name="cpc-sch-A61K-
0951.png"/> , e.g. carbonohydrazides, carbazones, semicarbazides, semicarbazones </text>
```

3. CHANGES TO THE CPC DEFINITIONS SCHEMA

3.1. NEW ATTRIBUTES IN <MEDIA> ELEMENT



3.1.1. Attribute “file-name”

A new optional attribute “file-name” attribute will be added to the <media> element:

The value for the attribute “file-name” is

cpc-def-<subclass>-<seq_number.png>

The <seq_number> is 4 digits, (see also §3.3)

Example:

```
<paragraph-text type="body">
  A fusion heteroatom, i.e. a heteroatom which is shared by two (or more) rings in a fused ring system
  is to be counted for all adjacent rings. Example: indolizine is correctly classified in
  <class-ref scheme="cpc">A61K31/437</class-ref>
  .
</paragraph-text>
<paragraph-text type="body">
  <media id="media0.png" type="png" preferred-width="2.56cm" preferred-height="1.58cm" file-
  name="cpc-def-A61K-0000.png" />
</paragraph-text>
```

3.2. NEW ELEMENTS

3.2.1. Elements <sub> and <sup>

The addition of “sup” (superscript) and “sub” (subscript) to wherever text is allowed.

Example 1:

```
<class-ref scheme="cpc">A61K51/0474</class-ref> (3 dots): complexes or complex-forming
compounds, i.e. wherein a radioactive metal (e.g. <sup>111</sup>In<sup>3+</sup>) is complexed
or chelated by e.g. a N<sub>2</sub>S<sub>2</sub>, N<sub>3</sub>S, NS<sub>3</sub>,
N<sub>4</sub> chelating group.....</paragraph-text>
```

Example 2:

```
definition-item><classification-symbol scheme="cpc">A61H2033/145</classification-symbol>-
<definition-title>{ with CO<sub>2</sub> }
```

3.3. IMAGE FILES – NAMING CONVENTION

The image file names will be renamed from

media<#>.png

to

cpc-def-<subclass>-<seq_number>.png

(e.g. the first image to appear in the D01B definition would be *cpcdef-D01B-0001.png*)

The four digits before “.png” represent a sequential number that is added to ensure the uniqueness of each image file name.

Example:

```
<paragraph-text type="body">  
  The compounds in this subgroup share the core structure of tetracycline</paragraph-text>  
<paragraph-text type="body">  
<media type="png" preferred-width="5.67cm" file-name="cpc-def-A61K-0041.png" preferred-  
  height="3.18cm" id="media41.png"/>  
</paragraph-text>
```