

# 2<sup>nd</sup> CPC Annual Meeting



Lombard, IL, 01 May 2015

C. Kim, M. Koval (USPTO)  
F. Lequeux (EPO), M. Lee (KIPO)

F16M11/2021  
••• {around a horizontal axis} [ ]  
F16M11/2028  
•••• {for rolling, i.e. for creating a landscape-portrait rotation}  
F16M11/2035  
••• {in more than one direction}  
F16M11/2042  
•••• {constituted of several dependent joints}

# Highlights of last year's meeting (USPTO)

F16M11/2028

F16M11/2035

F16M11/2042

\*\*\* {around a horizontal axis} (L)

\*\*\* {for rolling, i.e. for creating a longitudinal groove}

\*\*\* {in more than one direction}

\*\*\* {constituted of two parts}

# The 1<sup>st</sup> CPC Annual Meeting

- **Held on 24 and 25 February 2014 at WIPO premises in Geneva**
  - one day with industry users (7 participants)
  - one day with national offices (14 offices represented)
- More than **14 presentations**
- **Question and answer sessions**
- Numerous **feedback** collected
- Many **improvement suggestions** made

# Main outcomes

- **“interleaved” presentation** of the scheme was **favoured**
  - became the **official version** of the scheme since the 2014.09 version
- List of fields where **C-sets** are used was **made public**
- **Training material about C-sets and 2000-series** was made available
- A **C-set workshop** was available at the **“2015 Search Matters”**
- The **“pre-release”** of CPC products was implemented as of the 2014.06 version
- The **“list of valid symbols”** has been made public as of the 2014.06 version

# Main outcomes

- Publication of the **CPC coverage of national collections**
  - data is ready, **will be published after this meeting**
- **Improvements to Espacenet**, e.g. **CPC scheme viewer** (clarity of the dates displayed, embedded Definitions), **CPCNO allocations**, **C-sets**
- Possibility of **dealing with CPCNO outdated symbols** was investigated
- **CPC outreach directly in Asia**
  - CPC conference for industry users to be organised in June in Korea
- In 2015, **two CPC annual meetings with users**:
  - one in **Europe on 14 April 2015**, Geneva
  - one in the **USA on 1 May 2015**, Lombard, IL

# CPC – Update on status (USPTO)

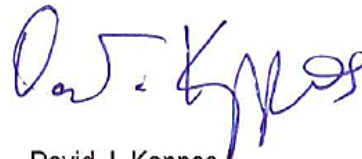


- USPTO/EPO agree to co-operate on a joint classification system derived from IPC-based ECLA (October 2010)
- USPTO to move from USPC to CPC; EPO to move from ECLA to CPC
- CPC planned to be bi-laterally operational at EPO and USPTO by end of December 2012

### USPTO and EPO Work Toward Joint Patent Classification System

"In view of the significant benefit to stakeholders of developing a transparent and harmonized approach to a global classification system for patent documents; in order to make the search process more effective; and in the belief that cooperation between their two offices will facilitate progress in undertaking classification harmonization projects under the IP5 Common Hybrid Classification initiative, the USPTO and the EPO have agreed together to work toward the formation of a partnership to explore the development of a joint classification system based on the European Classification system (ECLA) that will incorporate the best classification practices of the two offices. This system would be aligned with the World Intellectual Property Organization (WIPO) classification standards and the International Patent Classification (IPC) structure. Accordingly, they have initiated discussions on governance and operational aspects of such a partnership.

The IP5 partner offices will be continually apprised of progress at appropriate IP5 forums. Stakeholders will receive regular updates on the substance and progress of classification partnership discussions between the two offices."



David J. Kappos



Benoît Battistelli

October 25, 2010

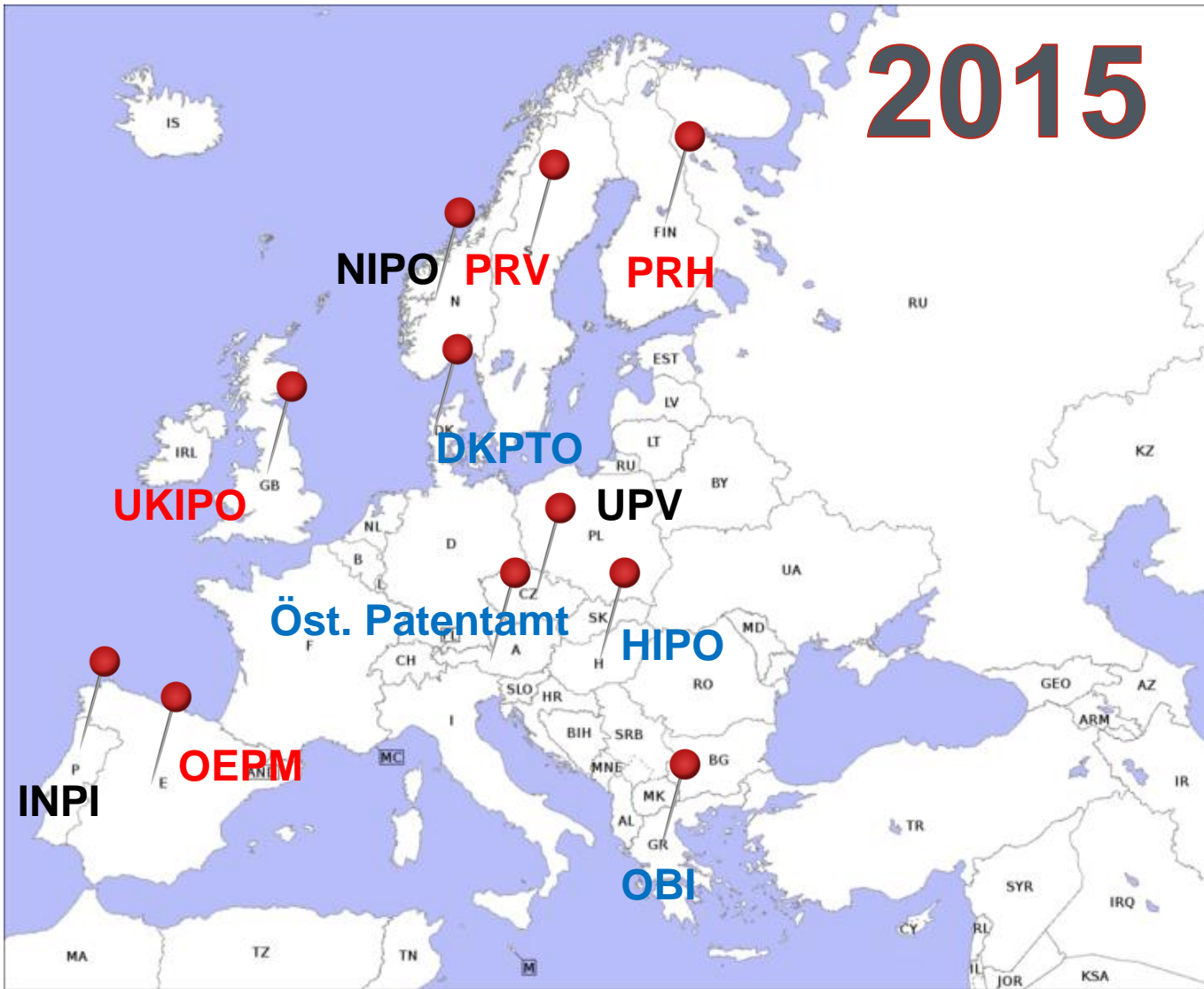
# CPC: a truly international system (USPTO)

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a longitudinal movement}  
F16M11/2042 --- {constituted of two parts}



# Who's on-board within the European Patent Organisation?

Former "ECONO"



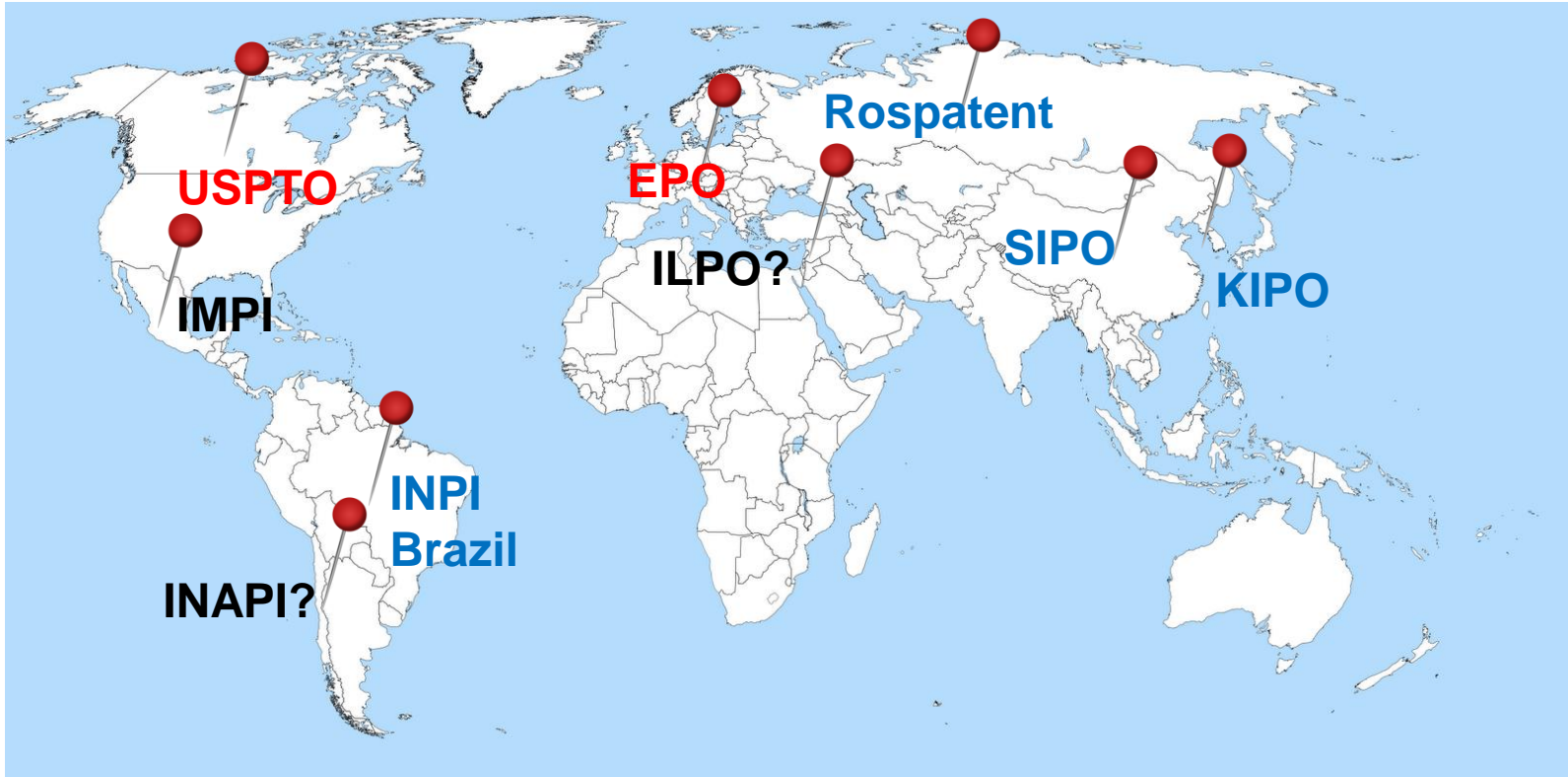
New in 2013-14

# Who's on-board around the world?

# Soon ?

Since 2010

2013-2014



Furthermore, CPC is used for search by more than 45 Patent Offices and by more than 25 000 examiners

# KIPO

# Implementation of

# CPC

# Status of the CPC Implementation at KIPO

**2<sup>nd</sup> CPC Annual Meeting  
May 1, 2015**

**Korean Intellectual Property Office**

- **Timeline of Proceedings**
- **Overview of Pilot Project**
- **Details of CPC Implementation**
- **Further Plan**

# Timeline of Proceedings

June, 2013

KIPO-USPTO MOU on **CPC Pilot Project**



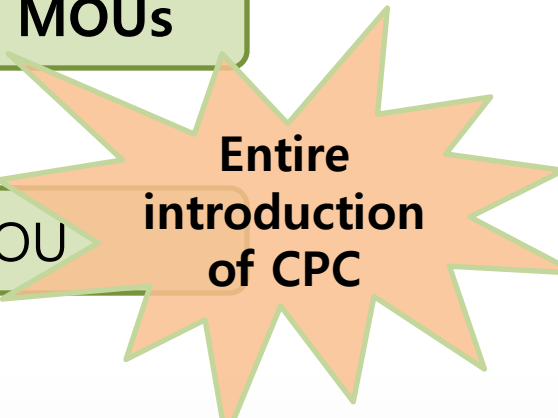
June, 2014

KIPO-EPO and KIPO-USPTO **CPC Cooperation MOUs**



September, 2014

**Revision** to KIPO-USPTO CPC Cooperation MOU



**Entire  
introduction  
of CPC**



January, 2015

Classification for **Newly filed applications**(whole fields)



April, 2015

**CPC/IPC** written in **patented** document

- 2013
  - Internal training for all examiners (25 fields)
  - Training for examiners and classifier by USPTO (25 fields)
  - Intensified training for examiner and classifier by USPTO & EPO
  - Training at USPTO for examiners and classifiers
  - Intensive training for classifiers by USPTO
  - Training at EPO for examiners and classifiers
- 2014
  - Internal training for all examiners
  - Distribute 'CPC guidance'
  - Training at USPTO for examiners
  - Intensive training for classifiers by USPTO
  - Internal training for all examination divisions
- 2015
  - Internal training for quality nominees

- Focuses on the most active 25 fields at KIPO

Fields	Mechanic	Chemistry	Electrical
# of project	5	6	14

<b>No.</b>	<b>IPC</b>						
1	G06F 3/041	7	H01L 29/78	13	C22C 38/00	19	C01B 31/02
2	H05B 37/02	8	H04B 7/26	14	H01L 27/115	20	C01B 31/04
3	H01L 51/50	9	H04J 11/00	15	C12Q 1/68	21	F03D 11/00
4	H01L 21/027	10	B63B 9/00	16	H01L 51/52	22	C09J 7/02
5	G06F 3/01	11	H04B 7/04	17	G06F 9/44	23	H01M 8/04
6	H01L 29/786	12	H01L 21/677	18	G06F 1/16	24	G03F 7/004
						25	F24F 11/02



- **Classification for newly filed applications**

<b>Classification</b>	<b>2014</b>
IPC	210,292
<b>CPC</b>	<b>7,831</b>



**~ 3.7% of total applications**

- **Reclassification for recent 10 years back files**

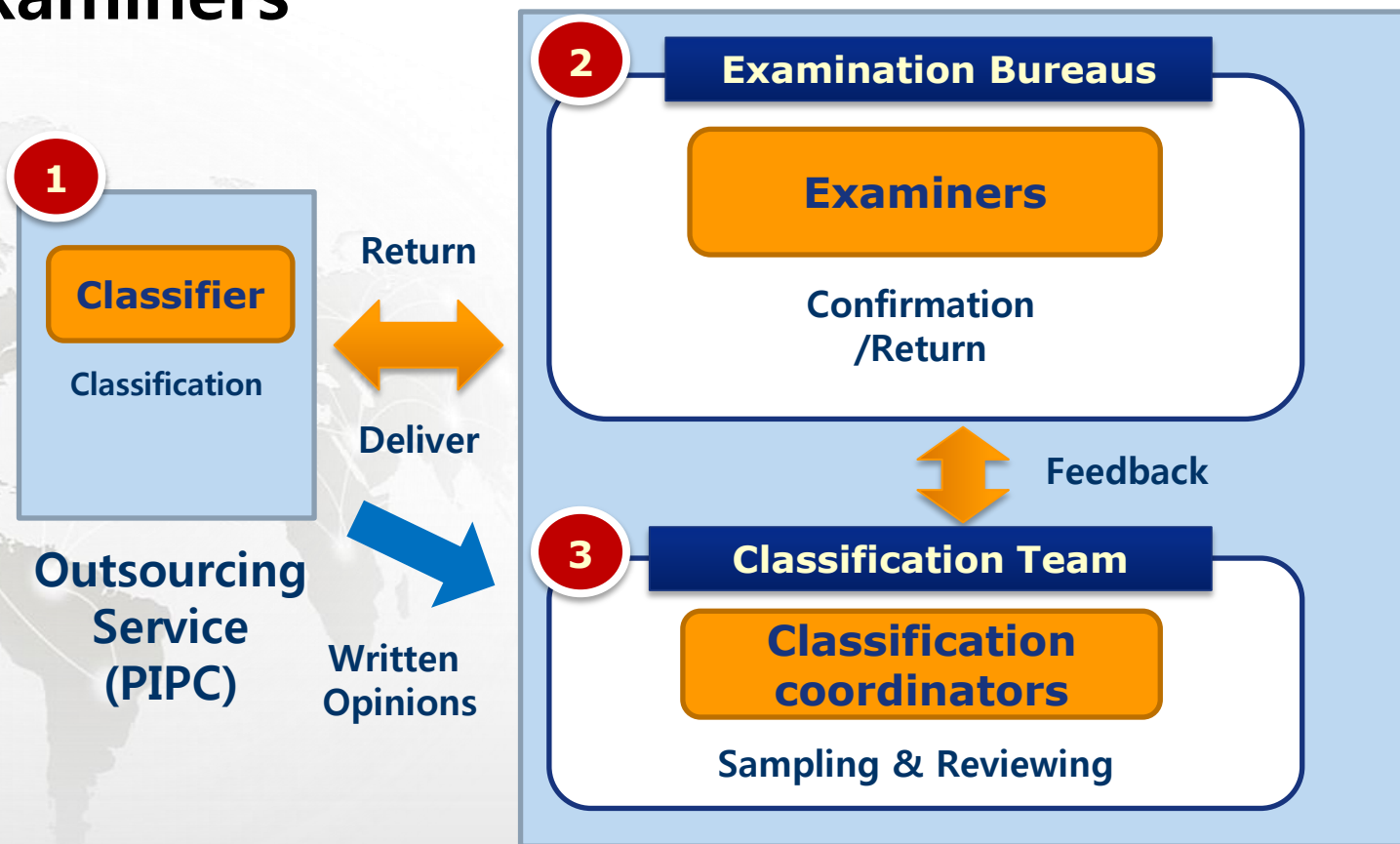
- Number of reclassified back files = 120,716



~ 7.4 % in total

- Dec., 2014 : Upload of 120,716 data in KIPO system

- **Classification is performed by Classifiers and Examiners**



- **Review/Confirmation of Classification**

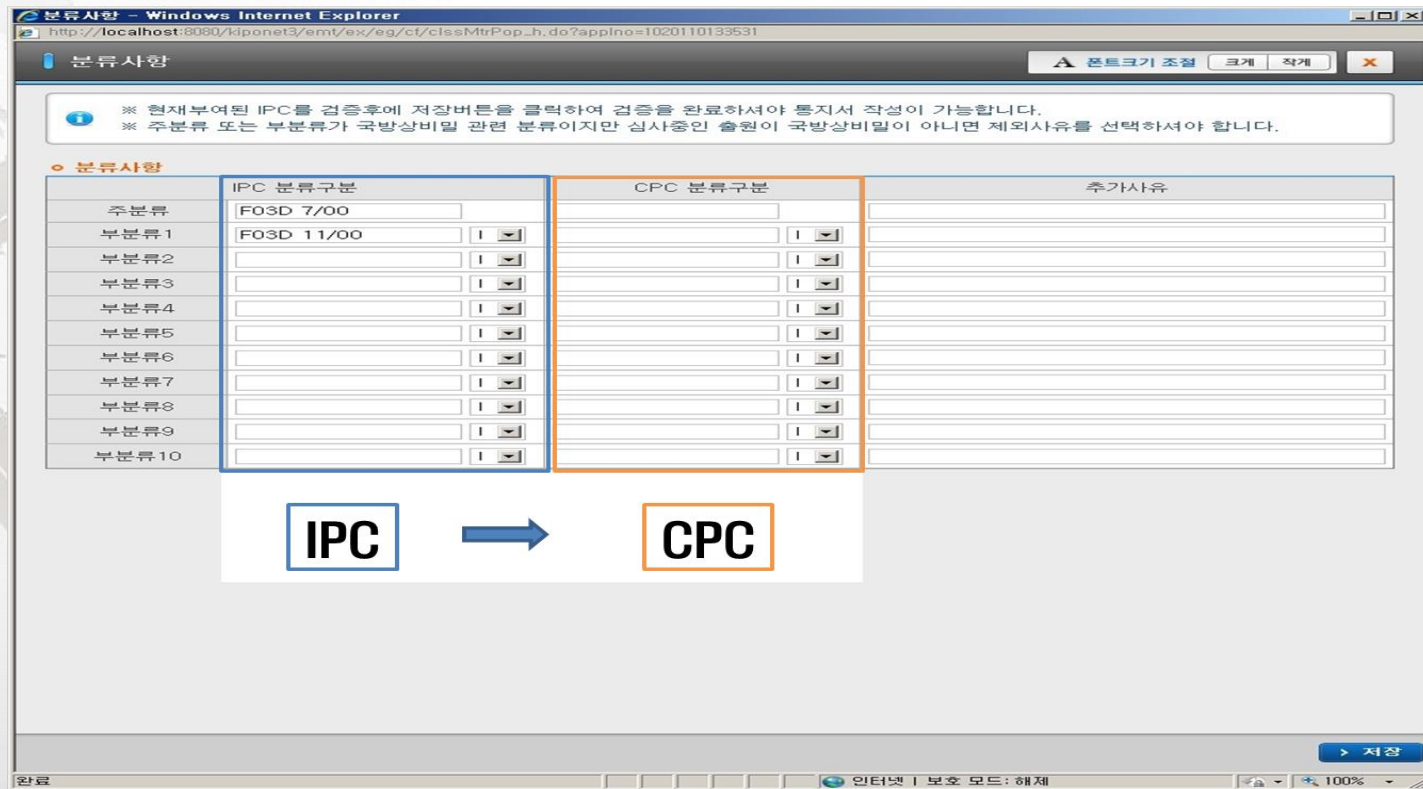
- IPC is automatically matched via CPC-IPC Concordance table

<b>CPC</b>	<input type="text" value="H01L 51/0508"/>				
	1 <input type="text" value="H01L 21/4807"/>   ▾	2 <input type="text" value="C23C 14/355"/>   ▾	3 <input type="text" value="F16J 15/064"/>   ▾	4 <input type="text" value="H01L 2221/00"/>   ▾	5 <input type="text"/>
	6 <input type="text"/>   ▾	7 <input type="text"/>   ▾	8 <input type="text"/>   ▾	9 <input type="text"/>   ▾	10 <input type="text"/>
<b>IPC</b>	<input type="text" value="H01L 51/05"/>				
	1 <input type="text" value="H01L 21/48"/>   ▾	2 <input type="text" value="C23C 14/35"/>   ▾	3 <input type="text" value="F16J 15/06"/>   ▾	4 <input type="text"/>   ▾	5 <input type="text"/>
	6 <input type="text"/>   ▾	7 <input type="text"/>   ▾	8 <input type="text"/>   ▾	9 <input type="text"/>   ▾	10 <input type="text"/>

**confirm**

## • Reclassification

- Pending Applications are reclassified from IPC to CPC during Examination



분류사항 - Windows Internet Explorer

http://localhost:8080/kiponet3/emt/ex/eg/ct/clseMtrPop\_h.do?applNo=1020110133531

분류사항

※ 현재 부여된 IPC를 검증후에 저장버튼을 클릭하여 검증을 완료하셔야 통지서 작성이 가능합니다.  
※ 주분류 또는 부분류가 국방상비밀 관련 분류이지만 심사중인 출원이 국방상비밀이 아니면 제외사유를 선택하셔야 합니다.

○ 분류사항

	IPC 분류구분	CPC 분류구분	추가사유
주분류	F03D 7/00		
부분류 1	F03D 11/00		
부분류 2			
부분류 3			
부분류 4			
부분류 5			
부분류 6			
부분류 7			
부분류 8			
부분류 9			
부분류 10			

IPC → CPC

저장

완료 인터넷 | 보호 모드: 해제 100%

## • CPC/IPC written in Patent Document (April, 2015)



(19) 대한민국특허청(KR)

(12) 등록특허공보(B1)

(45) 공고일자 2015년04월07일

(11) 등록번호 10-1509537

(24) 등록일자 2015년04월01일

**IPC**

(51) 국제특허분류(Int. Cl.)  
E05B 37/00 (2006.01) E05B 65/00 (2006.01)

**CPC**

(52) CPC특허분류  
E05B 65/02 (2006.01)  
E05B 37/0041 (2013.01)  
E05B 65/0075 (2013.01)

(21) 출원번호 10-2015-0016569

(22) 출원일자 2015년02월03일

심사청구일자 2015년02월03일

(56) 선행기술조사문헌

JP2012026249 A\*

KR101048109 B1\*

KR101145145 B1\*

\*는 심사관에 의하여 인용된 문헌

(73) 특허권자

황상식

경기도 파주시 문산읍 우계로 457번길 29,102동  
102호(진흥소슬마을)

(72) 발명자

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(74) 대리인

유기현

전체 청구항 수 : 총 3 항

심사관 : 손동현

(54) 발명의 명칭 사물함용 다이얼 자물쇠

- **CPC Training for Examiners**
  - FST training at EPO, USPTO
- **CPC Assignment**
  - Classify newly filed applications (about 210,000 docs a year)
  - Reclassify KR backfiles
- **CPC Infrastructure**
  - Translation (IPC-CPC-FI table)
  - Update Search System and CPC lookup table
  - Distribute CPC guidance
- **CPC conference**
  - For external users (June or July of 2015)

# Thank You



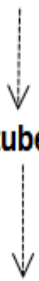


# CPC Scheme (USPTO)

- the “interleaved” presentation is the **official presentation of the CPC scheme**
  - since CPC scheme version September 2014
  - the “original” presentation with further breakdown symbols at the bottom of the scheme is discontinued
  - the following remains at the bottom of the scheme:
    - IPC indexing codes
    - CPC orthogonal codes

**A61M 1/00 Suction or pumping devices for medical purposes; Devices for carrying-off, for treatment of, or for carrying-over, body-liquids; Drainage systems**

- A61M 1/0001 . {Containers for suction drainage, e.g. rigid containers}
- A61M 1/0003 .. {Self-contained vacuum aspirators}
- A61M 1/0005 .. {with means for emptying the suction container, e.g. by interrupting suction}
- A61M 2001/0007 ... Emptying the suction container without interrupting suction
- A61M 1/0009 .. {incorporating a movable wall to create suction, e.g. syringes}
- A61M 1/0011 .. {Drainage containers incorporating a flexible member creating suction, e.g. bags in a low-pressure chamber, bellows}
- A61M 1/0013 .. {Two- or three-bottle systems for underwater drainage, e.g. for chest cavity drainage}
- A61M 2001/0015 .. Mechanical means for preventing flexible containers from collapsing when vacuum is applied inside
- A61M 2001/0017 .. Bag or liner in a rigid container, with suction applied to both
- A61M 1/0019 . {Drainage containers not being adapted for subjection to vacuum, e.g. bags}



**A61M 39/00 Tubes, tube connectors, tube couplings, valves, access sites or the like, specially adapted for medical use**

**A61M 2250/00 Specially adapted for animals**

# CPC scheme – Y section

- General tagging of new technological developments; general tagging of **cross-cutting technologies** spanning over several sections of the IPC
  - **Y02**: Climate change mitigation technologies (CCMTs)
  - **Y04**: Smart grids
- Technical subjects covered by former USPC cross-reference art collections [**XRACs**] and **Digests and** technical subjects from selected USPC
  - **Y10S**
  - **Y10T**

# CPC scheme layout

Sections A-H	Section Y
<p style="text-align: center;"><b>Main trunk</b></p> <ul style="list-style-type: none"><li>• 647 subclasses</li><li>• for invention or additional information</li><li>• {...} and green colour used to distinguish CPC text from IPC one</li><li>• “breakdown” indexing codes<ul style="list-style-type: none"><li>• for additional information only</li></ul></li></ul> <p style="text-align: center;"><b>About 160 000 symbols</b></p>	<ul style="list-style-type: none"><li>• tagging of emerging cross-sectional technologies<ul style="list-style-type: none"><li>• Y02B, C, E, T</li><li>• Y04S</li></ul></li><li>• USPC-related<ul style="list-style-type: none"><li>• Y10S, T</li></ul></li></ul>
<p style="text-align: center;"><b>“2000 series”</b></p> <ul style="list-style-type: none"><li>• IPC-based indexing codes (numbering 2100+)</li><li>• “orthogonal” indexing codes (numbering: 2200+)</li><li>• for additional information only</li></ul> <p style="text-align: center;"><b>About 82 000 symbols</b></p>	<ul style="list-style-type: none"><li>• for additional information only</li></ul> <p style="text-align: center;"><b>About 13 000 symbols</b></p>

# Classification Practice at the EPO

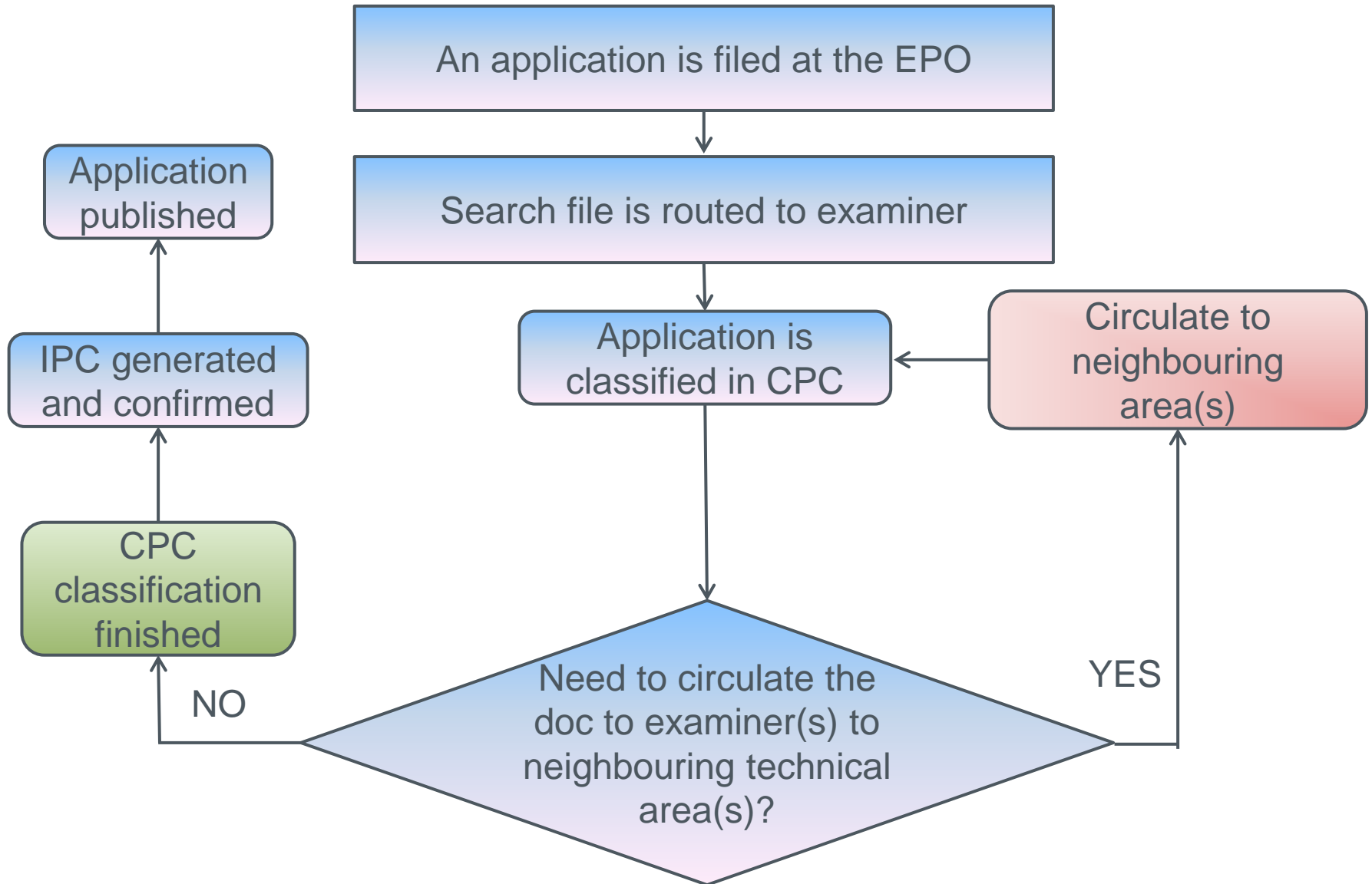
## (EPO)

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a rolling motion}  
F16M11/2042 --- {constituted of a...

# Classification Practice at the EPO

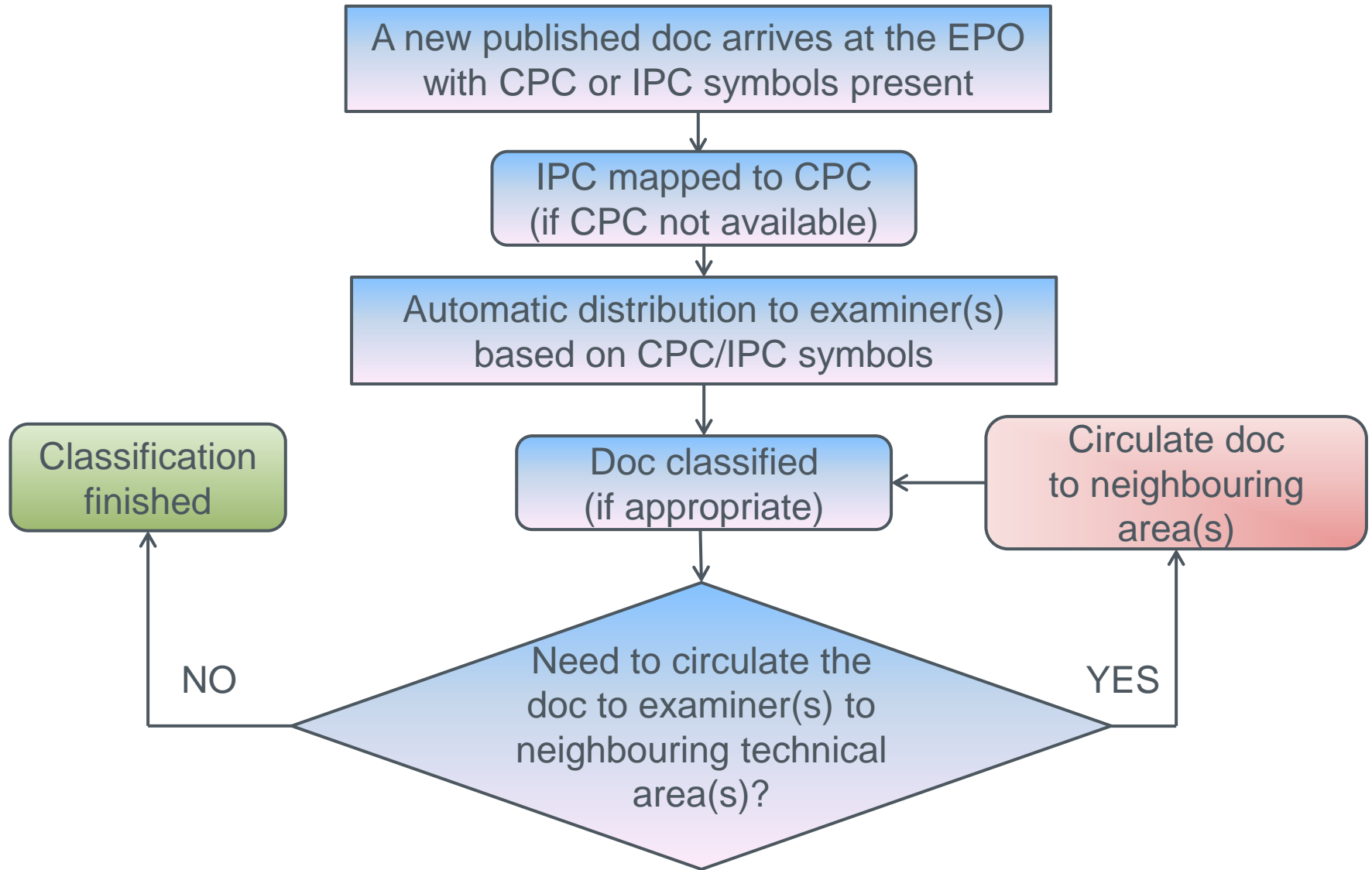
- Frontfile Classification Workflow
- Definition of “Backlog”
- CPC Coverage

# Classification of EPO search files





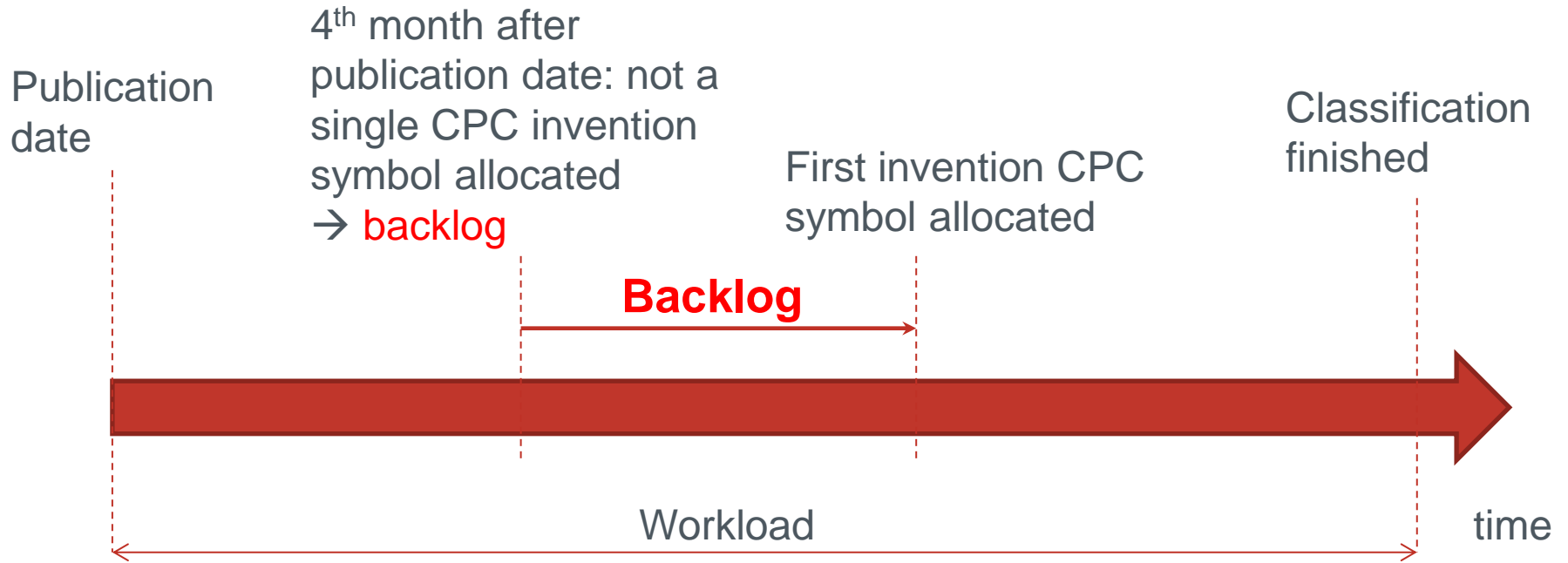
# Frontfile classification workflow



# Classification Backlog Definition

- A document is considered to belong to the classification backlog when **four months** after its publication, not a single CPC symbol for “invention information” has been allocated to it

# Classification backlog



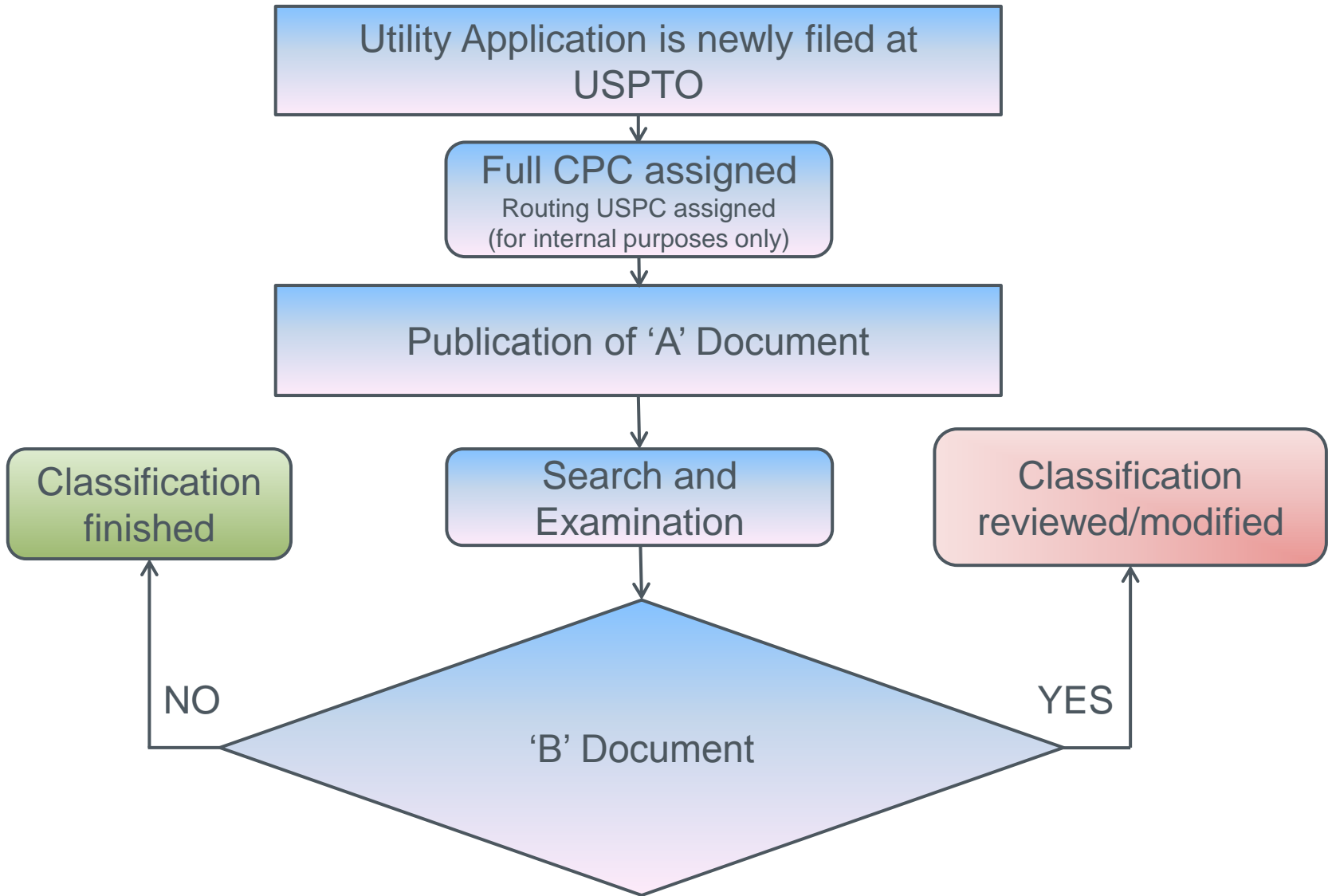
# Classification Practice at the USPTO (USPTO)

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a longitudinal groove}  
F16M11/2042 --- {constituted of a...

# Classification Practice at the USPTO

- Full classification picture at time of publication
- No backlog
- Classifications are assigned and reviewed twice –
  - At time of publication of ‘A’ document
  - At time of publication of ‘B’ document
- A and B documents have the same family classification picture in CPCDB

# Classification workflow for utility applications



# CPC Updates at USPTO

April 2015  
(USPTO)

# CPC Transition Status at USPTO

- USPTO scheduled transition to CPC from USPC ended December 31, 2014
- CPC is the main classification system at USPTO
- USPTO Examiner issues regarding CPC are being addressed
- External training will be provided for CPC search



# CPC Transition Status at USPTO

## New Subclass Y10T in Y section (USPTO)

- USPC technical areas with some transition issues
- **TEMPORARY** measure until USPTO transition is perfected in the relevant area
- Primary classification in main CPC area. Secondary (ADD) classification by USPTO only on these areas
- Y10T scheme available since January 2015

# Additional CPC Activities

## USPTO-EPO Examiner Exchanges

- **USPTO Examiner visits to EPO**
  - September 2014 – 32 USPTO participants
  - April 2015 - 26 USPTO participants
  - June 2015 - 38 USPTO participants
  
- **EPO Examiner visits to USPTO**
  - Accomplished during EPO Technical visits to USA on an as needed basis
  
- **Virtual EPO-USPTO examiner communications**
  - On going on an as needed basis
  - USPTO conducts Quality Enhancement Meetings at USPTO. EPO examiners are invited to participate via video-conferencing as needed

# CPC Transition Status at USPTO

- What does transition mean for :
- Publication ?
- Search ?
- Assignment of Work ?

# CPC Transition Status at USPTO

- **PUBLICATIONS**                      USPC    →    CPC
- US patent publications formerly had USPC, CPC, IPC
- As of January 1, 2015, US Patent applications are no longer classified in USPC (except designs and plants)
- December 2014/January 15 2015
  - **A documents will only have CPC (100%) (and IPC) \*\*\***
  - **B documents will only have CPC (100%) (and IPC) \*\*\***

\*\*\* April 2015 (due to IT issues)

# CPC Transition Status at USPTO

- For the A and B patent publications:

INID code (52):

**USPC is removed**

- Everything else is unchanged (including Field of Classification search)
- The effective date for change was 4/9/2015 Pre-grant Publication (A)
- The effective date for change was 4/7/2015 Patent Grant (B)



US 20150100310A1

(19) **United States**

(12) **Patent Application Publication**

**CHA et al.**

(10) **Pub. No.: US 2015/0100310 A1**

(43) **Pub. Date: Apr. 9, 2015**

(54) **APPARATUS AND METHOD OF REDUCING NOISE AND AUDIO PLAYING APPARATUS WITH NON-MAGNET SPEAKER**

(71) Applicant: **SAMSUNG ELECTRONICS CO., LTD., Suwon-si (KR)**

(72) Inventors: **A-ran CHA, Goyang-si (KR); Gun-woo LEE, Suwon-si (KR); Sang-chul KO, Seoul (KR); Young-sang LEE, Siheung-si (KR); Yoon-jae LEE, Seoul (KR)**

(73) Assignee: **SAMSUNG ELECTRONICS CO., LTD., Suwon-si (KR)**

(21) Appl. No.: **14/509,447**

(22) Filed: **Oct. 8, 2014**

**Related U.S. Application Data**

(60) Provisional application No. 61/888,137, filed on Oct. 8, 2013.

(30) **Foreign Application Priority Data**

Jul. 8, 2014 (KR) ..... 10-2014-0085353

**Publication Classification**

(51) **Int. Cl.**  
*G10L 21/0208* (2006.01)  
*G01R 33/28* (2006.01)  
*H04R 9/06* (2006.01)  
*G10L 21/0232* (2006.01)  
*H04R 1/28* (2006.01)  
*H04R 15/00* (2006.01)

(52) **U.S. Cl.**  
 CPC ..... *G10L 21/0208* (2013.01); *H04R 1/288* (2013.01); *H04R 15/00* (2013.01); *H04R 9/06* (2013.01); *G10L 21/0232* (2013.01); *G01R 33/283* (2013.01)



(57) **ABSTRACT**

An audio apparatus is provided. The audio apparatus includes an input configured to receive an audio signal containing noise; a period estimation unit configured to estimate a period of a noise pattern in the audio signal; a noise reducer configured to subtract and remove the noise pattern from the audio signal in a frequency domain by using the estimated period of the noise pattern; a noise updater configured to update the noise pattern according to a change in amplitude of the noise; and an output configured to output the audio signal obtained by removing the noise pattern.



(12) **United States Patent**  
**Kohl**

(10) **Patent No.:** **US 9,003,255 B2**  
(45) **Date of Patent:** **Apr. 7, 2015**

(54) **AUTOMATIC TEST-PATTERN GENERATION FOR MEMORY-SHADOW-LOGIC TESTING**

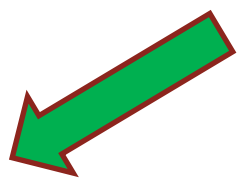
(75) Inventor: **Nishu Kohl, Noida (IN)**

(73) Assignee: **STMicroelectronics International N.V., Amsterdam (NL)**

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 305 days.

(2013.01); **G11C 11/4063** (2013.01); **G01R 31/318342** (2013.01); **G11C 29/56004** (2013.01)

(58) **Field of Classification Search**  
CPC ..... **G11C 29/00; G11C 29/10; G11C 29/14; G11C 29/24; G11C 29/50; G11C 29/52; G11C 29/54; G11C 29/56004; G11C 29/56008; G11C 11/2273; G11C 11/2275; G11C 11/34; G11C 11/4063; G11C 11/4078; G01R 31/318307; G01R 31/318371; G01R 31/318342**  
USPC ..... **714/718, 742, 738; 365/200, 201, 203, 365/208, 230.01, 230.02, 230.08**  
See application file for complete search history.



(21) Appl. No.: **13/175,530**

(22) Filed: **Jul. 1, 2011**

(65) **Prior Publication Data**  
US 2013/0007548 A1 Jan. 3, 2013

(56) **References Cited**  
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5,544,106 A *	8/1996	Koike	365/200
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5,745,420 A *	4/1998	McClure	365/201
5,930,185 A *	7/1999	Wendell	365/201
5,936,892 A *	8/1999	Wendell	365/189.03
6,055,200 A *	4/2000	Choi et al.	365/201
6,101,618 A *	8/2000	McClure	714/27
6,216,239 B1 *	4/2001	Lien	714/718
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6,754,094 B2 *	6/2004	McClure	365/145
7,136,314 B2 *	11/2006	You	365/201

(51) **Int. Cl.**

<b>G01R 31/28</b>	(2006.01)
<b>G11C 29/00</b>	(2006.01)
<b>G11C 7/00</b>	(2006.01)
<b>G11C 8/00</b>	(2006.01)
<b>G01R 31/3183</b>	(2006.01)
<b>G11C 29/24</b>	(2006.01)
<b>G11C 29/10</b>	(2006.01)
<b>G11C 29/14</b>	(2006.01)
<b>G11C 29/54</b>	(2006.01)
<b>G11C 29/52</b>	(2006.01)
<b>G11C 29/50</b>	(2006.01)
<b>G11C 29/56</b>	(2006.01)
<b>G11C 11/34</b>	(2006.01)
<b>G11C 11/22</b>	(2006.01)
<b>G11C 11/4063</b>	(2006.01)



(52) **U.S. Cl.**

CPC ..... **G01R 31/318371** (2013.01); **G11C 29/24** (2013.01); **G11C 29/10** (2013.01); **G11C 29/00** (2013.01); **G11C 29/14** (2013.01); **G11C 29/54** (2013.01); **G11C 29/52** (2013.01); **G11C 29/50** (2013.01); **G11C 29/56008** (2013.01); **G11C 11/34** (2013.01); **G11C 11/2275** (2013.01); **G11C 11/2273** (2013.01); **G01R 31/318307**

(Continued)

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(57) **ABSTRACT**

An embodiment of a method for automated test pattern generation (ATPG), a system for ATPG, and a memory configured for ATPG. For example, an embodiment of a memory includes a first test memory cell, a data-storage memory cell, and a test circuit configured to enable the test cell and to disable the data-storage cell during a test mode.

**15 Claims, 6 Drawing Sheets**



# CPC Transition Status at USPTO

- For Red Book XML ICE products:
  - Patent Grant Full Text
  - Patent Application Publication Full-Text

**USPC will not be in these products**  
**for any utility application**

- The effective date for Pre-grant Publication (A) and Patent Grant Full (B) change is **6/2/2015**



# CPC Transition Status at USPTO

- The eOG changes are more extensive
  - mid May implementation date
  - change in Mid-May for the eOG of **6/2/2015**
- **Listing of patents issued will now be arranged by CPC Sections A-H**

← → ↻ 🏠 [www.uspto.gov/web/patents/patog/week09/OG/index2.htm](http://www.uspto.gov/web/patents/patog/week09/OG/index2.htm) 🔍 ☆ ☰

📱 Apps 📄 New Tab 📁 Favorites 📍 USPTO Intranet ...

**United States Patent  
Trademark Office**

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- [Classification of Patents](#)
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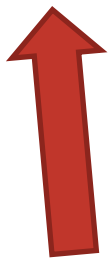
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United States Patent  
Trademark Office

Browse by  
Class/Subclass:

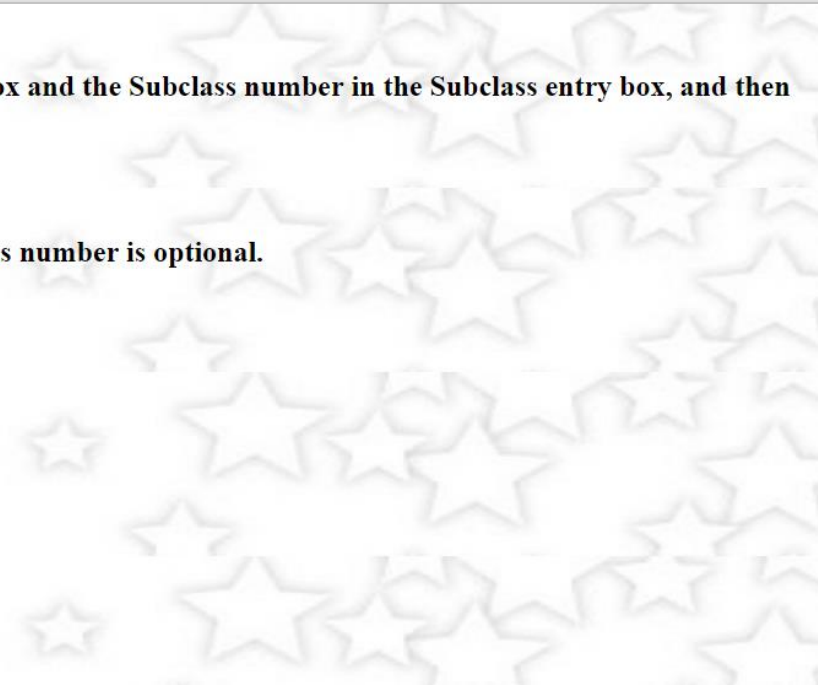
Class:      Subclass



Enter the Class number in the Class entry box and the Subclass number in the Subclass entry box, and then click on the  button.

Note:

You **must** enter a Class number, a Subclass number is optional.



# CPC Transition Status at USPTO

- **SEARCH**                      USPC → CPC
- US collection is static in USPC (frozen)
- As of January 1, 2015, internal and external users should use CPC for complete classifications search
- USPC will be available as a historical collection
  - unreliable for front file collection (2015 - )
  - B documents will only have CPC (IPC)

# CPC Transition Status at USPTO

- **ASSIGNMENT OF WORK**

USPC  CPC

- USPC will continue to be used in the near term
- USPC will only be used for organizational purposes

# CPC Coverage (EPO)

Much more than simply EP and US documents ...

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a longitudinal groove}  
F16M11/2042 --- {constituted of ...}

# CPC-Classified Documentation

- US, CH, DE, FR, GB  
EP, WO (WIPO), AP (ARIPO), OA (OAPI)
  - i.e. min PCT with one family member in one of the EPO languages
    - JP, RU, ES are excluded because of languages
      - but we classify WO issued at these offices via English abstracts and figures
- BE, NL, LU (historical reasons)
- AT, AU, CA (first filing residents)
- Selected Non-Patent Literature (NPL) in EPO-only collection (NOT part of CPCDB)
  - pre-selected journals (field-dependent)
  - any article on examiner's request
  - identified by XP numbers

# CPC documentation coverage

Country	CC	Code	Systematically classified**	Non-systematically classified
<b>ARIPO</b>	<b>AP</b>		complete from 1 (3/7/1985)	
<b>Austria</b>	<b>AT*</b>	<b>A,B</b>	from 288 286 (15/1/1971)	from 100 022 (1925)
<b>Australia</b>	<b>AU*</b>	<b>B,D</b>	from 18/1/1973 (first filing: 1971)	from 1 019 332 (1933)
<b>Belgium</b>	<b>BE</b>		from 100 486 (1892)	years 1959-1962
<b>Canada</b>	<b>CA*</b>		from 848 159 (4/8/1970) for first filling residents from 939 101 (1/1/1974)	from 114 746 (1908)
<b>Switzerland</b>	<b>CH</b>	<b>A,B</b> <b>D</b>	from 208 320 (31/1/1939) from 1968	from 1 (1888)
<b>Germany</b>	<b>DE</b>	<b>A,B,C</b> <b>U</b>	from 1 (1877) from 6 609 798 (04/1/1973)	from 1 037 492 (1928)
<b>EPO</b>	<b>EP</b>	<b>A</b>	complete from 1 (20/12/1978)	
<b>France</b>	<b>FR</b>	<b>A,B</b> <b>E</b>	from 292 (1844) from 92 701 (20/12/1968)	
<b>United Kingdom</b>	<b>GB</b>	<b>A,B</b>	from 1909 02 488 (27/1/1910)	from 1817 04 136 (1817)
<b>Luxembourg</b>	<b>LU</b>		from 555 (<1920)	
<b>The Netherlands</b>	<b>NL</b>		from 28 (1913)	
<b>OAPI</b>	<b>OA</b>		complete from 1 (15/01/1966)	
<b>The United States</b>	<b>US</b>	<b>A,B</b>	complete from 1 (13/07/1836)	
		<b>E</b>	complete from 8 (23/4/1839)	
		<b>I (defensive)</b> <b>I (trial, project)</b>	complete from 120 (04/10/1855)	
		<b>H</b>	complete from 1 (03/12/1985)	
<b>World(PCT)</b>	<b>WO</b>		complete from 7800001 (19/10/1978)	

\* for first filings only ie. without foreign priorities

\*\* when the indication "complete" is not present, this means that some documents in the collection may not be classified in CPC

F16M11/2028 --- (around a horizontal axis) (L)  
F16M11/2036 --- (for rolling, i.e. for creating a longitudinal groove)  
F16M11/2042 --- (in more than one direction)  
--- (constituted of ...)



## CPC coverage of other patent documents (directly classified and via the family concept – as of 15.03.2015)

Country	Docs present in DocDB	Docs classified in CPC (DocDB & CPCDB)	% Docs classified in CPC
Japan	16.886.236	4.123.806	24,4%
China	8.579.224	1.627.479	18,8%
Korea	2.810.926	878.787	31,3%
Brazil	527.234	310.234	58,8%
Russian Fed.	2.070.407	244.158	11,8%

# CPC coverage – Classification at document level by National Offices (status 15.03.2015)

Country code	Total number of documents (DocDB)	Number of publications with CPC or CPCNO	Number of publications with CPCNO
AT	999.778	643.087	2.098
ES	1.017.109	589.522	27.853
FI	191.815	110.446	4.563
GB	2.351.431	2.094.392	104.312
GR	98.582	51.990	4.654
SE	518.545	327.845	136.940
CN	8.579.098	1.627.479	29.560
<b>Total:</b>	<b>13.756.358</b>	<b>5.444.761</b>	<b>309.980</b>

**Over 42 million docs classified in CPC**

F16... found a horizontal...  
 F16... (for rolling, i.e. for...  
 F16... (in more than one...  
 F16M1/2042... (constituted...

# CPC Amendments (USPTO)

# CPC Scheme Revisions

## 2013

- April 2013
- July 2013
- September 2013
- November 2013
- December 2013

## 2014

- February 2014
- June 2014
- July 2014
- September 2014
- October 2014
- November 2014

## 2015

- January 2015
- April 2015
- May 2015
- July 2015
- September 2015

# Advance information?

[www.cpcinfo.org](http://www.cpcinfo.org)

- Short summary of the ongoing CPC revision projects:  
<http://www.cooperativepatentclassification.org/CPCRevisions/Projects.html>

- Latest news
- About CPC
- Objectives
- CPC Scheme and Definitions
- CPC Revisions**
  - Notice of Changes
  - Projects**
  - Pre-release
- CPC Concordances
- CPC Training
- Impact
- Events
- Publications



## Ongoing CPC Projects

The CPC areas currently undergoing maintenance (MP) or revision (RP) are listed in the table below together with the corresponding project number. Once finalized, the outcome of these projects will be summarized in a Notice of Change to be published one to two months before the corresponding changes are implemented in the CPC Scheme.

Project number	Status	CPC	Title
RP0023	Active	A01H1/00-1/08;5/00-5/12	Flowering Plants
RP0025	Active	B64D	Equipment for fitting in or to aircraft
RP0027	Active	F04D	...

F16M11/2028  
F16M11/2036  
F16M11/2042

--- {around a horizontal axis} (L)  
--- {for rolling, i.e. for creating a longitudinal movement}  
--- {in more than one direction}  
--- {constituted of ...}

# More detailed information?

- **CPC Notices of Changes (NoC) (PDF)**

- documents detailing the changes made to the scheme following a CPC Scheme revision as well as their impact
- available one to two months prior to the entry into force of a new version of the CPC Scheme

The screenshot shows a navigation menu on the left with the following items: Home, Latest news, About CPC, Objectives, CPC Scheme and Definitions, **CPC Revisions**, Notice of Changes, Projects, Pre-release, CPC Concordances, CPC Training, Impact, Events, and Publications. A red arrow points from the 'Notice of Changes' link under 'CPC Revisions' to a list of notices on the right. The right side of the screenshot shows a blue header with 'F16M11/203' and a 'Notice of Changes' section. Under 'CPC 2014.11:', there is a list of notices: [CPC Notice of Changes 38](#), [CPC Notice of Changes 39](#), [CPC Notice of Changes 40](#), [CPC Notice of Changes 41](#), [CPC Notice of Changes 42](#), and [CPC Notice of Changes 43](#). Under 'CPC 2014.10:', there is a list of notices: [CPC Notice of Changes 32](#).

# Pre-release of the CPC scheme

- **Pre-release of the CPC scheme** on [cpcinfo.org](http://cpcinfo.org) one month before the entry into force of a new version:
  - Pre-release on first Tuesday of the month preceding entry into force of new version
  - New version of the CPC scheme enters into force on the first day of the month

For example:

- entry into force 1 July 2015
- pre-release on 2 June 2015

# Beyond CPC (USPTO)

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a longitudinal movement}  
F16M11/2042 --- {constituted of a...



# IPC2015.1 ↔ CPC

IPC sub-classes/main groups with more substantive modifications in IPC2015.01	
<b>A61K 35/00</b>	<b>Medicinal preparations containing materials or reaction products thereof with undetermined constitution</b>
<b>A63B 49/00 – 102/00</b>	<b>Stringed rackets (e.g. for tennis) and golf clubs, including new indexing scheme for clubs, bats and rackets (A63B 102/00)</b>
<b>B33, B33Y</b>	<b>Additive manufacturing technology – also known as “3D printing”</b>
<b>E05F 15/00</b>	<b>Power-operated mechanisms for wings</b>
<b>F21V 29/00</b>	<b>Protecting lighting devices from thermal damage; Cooling or heating arrangements specially adapted for lighting devices or systems</b>
<b>G02B 1/00</b>	<b>Optical elements characterised by the material of which they are made</b>
<b>H01Q 5/00</b>	<b>Arrangements for simultaneous operation of aerials on two or more different wavebands Indexing scheme for special adaptation of control arrangements for generators</b>
<b>H04B</b>	<b>Transmission</b>

# CPC Allocation Standard (EPO-USPTO)

An allocation standard for CPC, based on WIPO's Standard 8

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a rolling motion}  
F16M11/2042 --- {constituted of a...

# CPC allocation standard - based on WIPO ST.8

Position(s)	Content	Values
1	Section	A, ..., H <b>and Y</b>
2,3	Class	01, ..., 99
4	Subclass	A, ..., Z
5 to 8	Main Group (right aligned)	1, ..., 9999, blank
9	Separating character	/ ("Slash")
10 to 15	Subgroup (left aligned)	00, ..., 999999, blank
16 to 19	For future use	4 blanks
20 to 27	Version indicator	YYYYMMDD date format
28	Classification level	<del>G, A, S</del>
29	First or later position of symbol	F, L
30	Classification value (invention or additional)	<del>I, N</del> <b>A</b>
31 to 38	Action date	YYYYMMDD date format
39	Original or reclassified data	B, R, <del>V, D</del>
40	Source of classification data	H, <del>M</del> , G <b>C</b> (Concordance)
41-42	Generating office	<del>AA, ..., ZZ (ST.3)</del> only for CPCNO
43-50	For future use	8 blanks

Version 1.0

```

F16M11/2028 --- (around a horizontal axis) (L)
F16M11/2036 --- (for rolling, i.e. for creating a longitudinal groove)
F16M11/2042 --- (in more than one direction)
F16M11/2042 --- (constituted of)
    
```

# CPC Allocation standard ( EPO DOCDB tags )

WIPO/ST8 tags supported	Pos. in ST.8	Description	Values
<classification-symbol>	1	section	A ,...,H and Y
	2,3	class	01,.....,99
	4	subclass	A,.....,Z
	5 to 8	main group	1,.....,9999 right aligned
	9	separator	/ ("slash")
	10 to 15	subgroup	00,.....,999999
<classification-scheme><date>	20 to 27	version-indicator	CCYYMMDD
<classification-level>	28	core/advanced	not applicable
<symbol-position>	29	first / later	F/L
<classification-value>	30	invention	I
		additional	A
<action-date>	31 to 38	date format	CCYYMMDD
<classification-status>	39	original	B
		reclassified	R
<classification-data-source>	40	human	H
		concordance	C
		generated	G
<generating-office>	41, 42	country-code	only for CPCNO

# CPC Allocation standard ( USPTO XML tags)

XML tag	Pos. in ST.8	Description	Permissible Values
<b>&lt;classification-cpc&gt;</b>		CPC symbol	
<b>&lt;section&gt;</b>	1	section	A, ..., H and Y
<b>&lt;class&gt;</b>	2,3	class	01, ..., 99
<b>&lt;subclass&gt;</b>	4	subclass	A, ..., Z
<b>&lt;main-group&gt;</b>	5 to 8	main group	1, ..., 9999 right aligned
	9	separator	/ ("slash")
<b>&lt;subgroup&gt;</b>	10 to 15	sub group	00, ..., 999999
<b>&lt;cpc-version-indicator&gt;</b>	20 to 27	version-indicator	CCYYMMDD
	28	classification level	not used
<b>&lt;symbol-position&gt;</b>	29	First or Later	F, L
<b>&lt;classification-value&gt;</b>	30	Invention or Additional	I, A
<b>&lt;action-date&gt;</b>	31 to 38	Date symbol recorded	CCYYMMDD
<b>&lt;classification-status&gt;</b>	39	Original or Reclassified	B, R
<b>&lt;classification-data source&gt;</b>	40	Source of allocation	H, C, M, G
<b>&lt;generating-office&gt;</b>	41-42	country code	US, other ST.3

```

F16M11/2028    --- (around a horizontal axis)
F16M11/2036    --- (for rolling, i.e. for creating a longitudinal groove)
F16M11/2042    --- (in more than one direction)
                --- (constituted of a)
    
```

# New XML schema for scheme and definitions

**(EPO)**

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a rolling motion}  
F16M11/2042 --- {constituted of a...

# Changes to CPC-scheme schema

- ❖ New attributes in <classification-item> element
- ❖ New attribute in <media> element
- ❖ New elements
- ❖ Modified element <notes-and-warnings>
- ❖ Image files - Naming convention

on [cpcinfo.org](http://cpcinfo.org) under “Publication”



## CPC XML schemas:

- Changes introduced in April 2015:
  - [Notification of schema \(xsd\) changes for CPC scheme and definitions](#)
  - [Schema and sample files](#)

# New attributes in <classification-item> element

## Attribute “status”

The mandatory attribute “**status**” has been added to the <*classification-item*> element.

The attribute “**status**” will have 2 possible values:

- published
- frozen



# New attributes in <classification-item> element

## Attribute “ipc-concordant”

The CPC-to-IPC concordance has been introduced as an additional optional attribute to the <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
- the IPC symbol

# New attributes in <classification-item> element

## Attribute “definition-exist”

The optional new attribute “**definition-exists**” has been introduced in the <*classification-item*> element. It indicates if a given symbol has a definition.

□ The value is “true” or “false”.

## Attribute “level” and “sort-key”

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

# New attribute in <media> element

## Attribute “file-name”

A new optional attribute “**file-name**” attribute has been introduced to the <*media*> element.

The value for the attribute “file-name” is:

**cpc-sch-<subclass>-<seq\_number.png>**

(The <seq\_number> is 4 digits)

**Example:**

**file-name="cpc-sch-A61K-0952.png"**

# New elements

## Elements <sub> and <sup>

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

A61K 51/0474 ... {complexes or complex-forming compounds, i.e. wherein a radioactive metal (e.g.  $^{111}\text{In}^{3+}$ ) is complexed or chelated by e.g. a  $\text{N}_2\text{S}_2$ ,  $\text{N}_3\text{S}$ ,  $\text{NS}_3$ ,  $\text{N}_4$  chelating group}

<class-ref scheme="cpc">A61K51/0474</class-ref> (3 dots): complexes or complex-forming compounds, i.e. wherein a radioactive metal (e.g.  $^{111}\text{In}^{3+}$ ) is complexed or chelated by e.g. a  $\text{N}_2\text{S}_2$ ,  $\text{N}_3\text{S}$ ,  $\text{NS}_3$ ,  $\text{N}_4$  chelating group.....</paragraph-text>

# Modified element <notes-and-warnings>

## Attribute “type”

A similar bullet/numbering indicator attribute “**type**” for <*subnote*> as in IPC has been introduced.

Possible values are:

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

# Modified element <notes-and-warnings>

## Attribute “warning-type”

An optional attribute “**warning-type**” at the <*note-paragraph*> level has been introduced.

Possible values for the attribute are:

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

# Modified element <notes-and-warnings>

## <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.

## Redundant elements

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

- |                   |                 |
|-------------------|-----------------|
| * incomplete      | * ecla-reform   |
| * transferred-to  | * idt           |
| * ipc-discordance | * miscellaneous |

# Image files – Naming convention

The image file names are 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**)



# Changes to CPC definition schema

- ❖ New attributes in <media> element
- ❖ New elements
- ❖ Image file names - Naming convention

# New attribute in <media> element

## Attribute “file-name”

A new optional attribute “**file-name**” attribute has been introduced to the <*media*> element.

The value for the attribute “file-name” is:

**cpc-def-<subclass>-<seq\_number.png>**

(The <seq\_number> is 4 digits)

**Example:**

**file-name="cpc-def-A61K-0001.png"**

# New elements

## Elements <sub> and <sup>

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

**A61H 2033/145**

{with CO<sub>2</sub>}

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

# Image files – Naming convention

The image file names are renamed from

media<#>.png

to

cpc-def-<subclass>-<seq\_number>.ext

(e.g. the first image to appear in the D01B definition will be **cpc-def-D01B-0001.png**)

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

# EPO Web services

## (EPO)

# TOPICS

- ❖ Web service for uploading classification data
- ❖ OPS RESTful web services (classification)

# Web service to upload CPC classification data

- Status of the web services
- Introduction
- Example of EPO internal viewer of the web services
- Example of EPO internal viewer of the web services with some error reports
- Type of data errors
- Translation service from ST36 into optimized XML (OX) format
- Example structure OX
- Example of query on transaction data

```
F16M11/2028    --- {around a horizontal axis}
F16M11/2036    --- {for rolling, i.e. for creating a longitudinal groove}
F16M11/2042    --- {in more than one direction}
F16M11/2042    --- {constituted of a...
```

# Status of the classification web services

Web services are in production since  
July 2014



## Introduction (1/3)

- The web service provides a means for a National Office to submit collections of patent documents with CPC allocations (single symbols and C-sets).
- Current bibliographic data format is based on ST36/CPC allocation standard (ST8) and DocDB XML format.
- Current data loading processes in place do not support the update of only one symbol, only replacement of full set of symbols.
- Web service allows the update of a single symbol

## Introduction (2/3)

- To be able to support this single symbol update, the web service expects a so-called “Optimised XML” (OX) format, this will allow the possibility to modify a single allocation (reclassification).
- A separate service is provided that enables a National Office to transform their ST36/96 XML format to the OX format so that it can be processed by the web-service (JAVA-API).
- Every batch of submitted data (transaction) will be posted in a staging area and processed in a nightly batch process, that will upload and validate the data.
- Validation of data (valid symbol, INV, ADD etc.)

## Introduction (3/3)

- The web services provide a means for a national Office to query their uploaded data, for example to query the status of a submitted batch or allocations therein

# Example of EPO internal viewer service for the web services

## National Office Transactions

Use the form controls to select the transactions to view.

Office  Transaction  Document

Transaction 43 was processed on 2014/04/08 and the status is BATCH COMPLETED.

This transaction had no errors.

Transaction	Document	Symbol	Action	Status	Code	Message
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
43	GB2375267B	A01M2200/011	ADD	PROCESSED		
43	GB2375267B	A01M2200/012	ADD	PROCESSED		
43	GB2375267B	A47C20/026	ADD	PROCESSED		
43	GB2375267B	A45F4/08	ADD	PROCESSED		



# Example of EPO internal viewer of the web services with some error reports

## National Office Transactions

Use the form controls to select the transactions to view.

Office

Transaction

Document

Transaction 74 was processed on 2014/09/17 and the status is BATCH COMPLETED.  
 This transaction had errors.

Transaction	Document	Symbol	Action	Status	Code	Message
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
74	CN103339622A	F04D17/12		ERROR	M72003	Symbol already present
74	CN103339622A	F04D17/16		PROCESSED		
74	CN103339622A	A61K31/065		PROCESSED		
74	CN103339622A	A61K31/095		PROCESSED		
74	CN103339622A	A61K31/065,A61K31/075	I	ERROR	M71001	Request invalid.

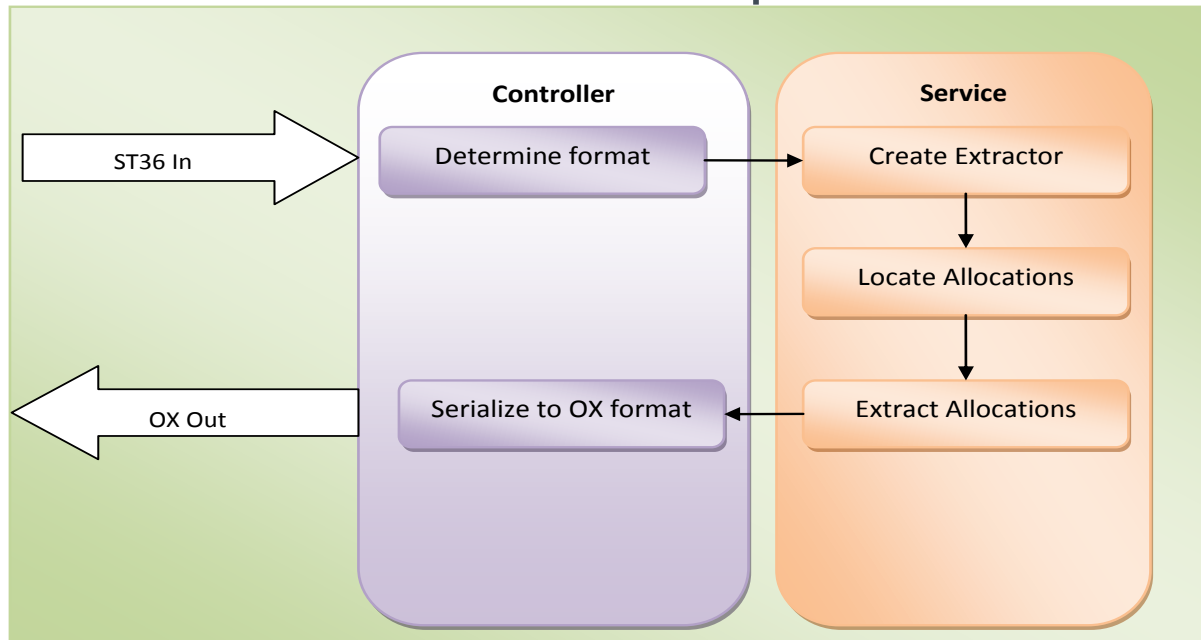


# Type of data errors

- Document not found
- Invalid document
- Invalid classification attribute
- Symbol not found
- Symbol already present
- Invalid request
- Allocated symbol to be deleted is not found

# Translation service from ST36 into OX format

- Acceptance of any form of XML documents confirming to ST36 standards
- All CPC classifications and C-set allocations are extracted and transformed into the OX format
- OX format is returned in the responses



# Example structure optimized XML (OX)

```
<patent-documents>
  <patent-document country="SE" doc-number="7908310" kind="L" status="A">
    ...
  </patent-document>
  <patent-document country="SE" doc-number="5908310" kind="L"
    status="A">
    <patent-classification>
      <classification-scheme office="EP" scheme="CPCNO">
        <date>20130101</date>
      </classification-scheme>
      <classification-symbol>G06F9/06</classification-symbol>
      <classification-value>I</classification-value>
      <classification-status>B</classification-status>
      <classification-data-source>H</classification-data-source>
      <generating-office>SE</generating-office>
      <action-date>
        <date>20130101</date>
      </action-date>
    </patent-classification>
  </patent-document>
</patent-documents>
```

The <patent-classifications> container element may have a mixed content of:

- Classification allocations (<patent-classification>)
- Combination Sets of classification allocations "grouped in sequence". (<combination-set>)



# Example of query on transaction data:

Structure:	GET /service/<version>/office/<country-code>
Example:	<a href="http://ecs-t.internal.epo.org/service/1.0.0/office/GB">http://ecs-t.internal.epo.org/service/1.0.0/office/GB</a>

## Example Response Body

```
<national-office cc="GB" href="/service/1.0.0/office/GB ">  
  <transaction id="101" status="PENDING"  
  href="/service/1.0.0/office/GB/transaction/101" />  
  <transaction id="102" status="PENDING"  
  href="/service/1.0.0/office/GB/transaction/102" />  
</national-office>
```

# OPS RESTful web services

<http://ops.epo.org>

- CPC Retrieval
- CPC Media retrieval
- CPC Search

# CPC Retrieval

## Valid Query-string parameters in the CPC service

Query-string	Description
depth	Determines how many children elements should be included in the response
ancestors	Includes symbols above the requested element
navigation	Includes navigation symbols next & previous in the response

**Request** for the classification B32B7/00 with 1 child element:

<http://ops.epo.org/3.1/rest-services/classification/cpc/b32b7/00?depth=1>

## CPC Classifications

scheme-type: cpc - export-date: 2015-04-01

<b>Item:</b> <a href="#">[@att]</a>	level: 7 - additional-only: false - sort-key: B32B7/00 - not-allocatable: false - breakdown-code: false - date-revised: 2013-01-01 - status: published - link-file: classification/cpc/B32B7/00 - pc-concordant: B32B7/00 - definition-exists: false
<b>Symbol:</b>	<a href="#">B32B7/00</a>
<b>Title:</b> <a href="#">[@att]</a>	date-revised: 2013-01-01
	Layered products characterised by the relation between layers, i.e. products comprising layers having different physical properties and products characterised by the interconnection of layers
<b>Item:</b> <a href="#">[@att]</a>	level: 8 - additional-only: false - sort-key: B32B7/005 - not-allocatable: false - breakdown-code: false - date-revised: 2013-01-01 - status: published - link-file: classification/cpc/B32B7/005 - pc-concordant: B32B7/00 - definition-exists: false
<b>Symbol:</b>	<a href="#">B32B7/005</a>
<b>Title:</b> <a href="#">[@att]</a>	date-revised: 2013-01-01
	[ in respect of orientation of features ( <a href="#">B32B5/12</a> takes precedence ) ]
<b>Meta Data:</b>	D
<b>Item:</b> <a href="#">[@att]</a>	level: 8 - additional-only: false - sort-key: B32B7/02 - not-allocatable: false - breakdown-code: false - date-revised: 2013-01-01 - status: published - link-file: classification/cpc/B32B7/02 - pc-concordant: B32B7/02 - definition-exists: false
<b>Symbol:</b>	<a href="#">B32B7/02</a>
<b>Title:</b> <a href="#">[@att]</a>	date-revised: 2013-01-01
	in respect of physical properties, e.g. hardness
<b>Meta Data:</b>	D
<b>Item:</b> <a href="#">[@att]</a>	level: 8 - additional-only: false - sort-key: B32B7/04 - not-allocatable: false - breakdown-code: false - date-revised: 2013-01-01 - status: published - link-file: classification/cpc/B32B7/04 - pc-concordant: B32B7/04 - definition-exists: false
<b>Symbol:</b>	<a href="#">B32B7/04</a>
<b>Title:</b> <a href="#">[@att]</a>	date-revised: 2013-01-01
	characterised by the connection of layers
<b>Meta Data:</b>	+



# CPC Media retrieval

- To retrieve CPC media referenced in the classification text in the format specified (format gif, jpeg, tif, mp3 etc....)
- The media name and type can be extracted from the CPC retrieval response.

Example request:

[http://ops.epo.org/3.1/restservices/classification/cpc/media/\[image-name\]](http://ops.epo.org/3.1/restservices/classification/cpc/media/[image-name])

## Example

Use the classification retrieval service, extract the media name and type from the response (e.g. **A01N37/12** symbol):

```
<ops:world-patent-data xmlns:ops="http://ops.epo.org"
xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:cpc="http://www.epo.org/cpcexport">
  <ops:meta name="elapsed-time" value="1"/>
  <ops:classification-scheme>
    <ops:cpc>
      <cpc:class-scheme scheme-type="cpc" export-date="2012-10-13">
        <cpc:classification-item level="8" additional-only="false" sort-
key="A01N37/12" not-allocatable="false" breakdown-code="false" date-
revised="2012-10-12" link-file="classification/cpc/A01N37/12">
```

```
  <cpc:classification-symbol>A01N37/12</cpc:classification-symbol>
  <cpc:class-title date-revised="2012-10-12">
    <cpc:title-part>
      <cpc:text scheme="ipc">containing the group <cpc:media
id="classification/cpc/media/100.gif" type="gif"/>, wherein Cn means a
carbon skeleton not containing a ring</cpc:text>
    </cpc:title-part>
    <cpc:title-part>
      <cpc:text scheme="ipc"> This analogues thereof</cpc:text>
    </cpc:title-part>
  </cpc:class-title>
</cpc:classification-item>
</ops:cpc>
</ops:classification-scheme>
</ops:world-patent-data>
```

### Request example:

```
GET http://ops.epo.org/3.1/rest-services/classification/cpc/media/100.gif
Accept: image/gif
```

The image in GIF format will be the response

# CPC Search

In the case you do not know the name of a symbol, this service will identify possible interesting CPC symbols by searching for keywords in title and abstracts in the Espacenet database

The result will be a list of CPC symbols with a percentage value. Only the first 10 CPC symbols with the highest percentage are shown.

Example:

<http://ops.epo.org/3.0/rest-services/classification/cpc/search/?q=laminate>

```
F16M11/2028 --- {around a horizontal axis}
F16M11/2036 --- {for rolling, i.e. for creating a longitudinal
F16M11/2042 --- {constituted of a...
```

# CPC Search

total-result-count: 10 - scheme-type: CPC

## Meta:

Query: titleandabstract = laminate

**[@att]:** syntax: CQL

Search Result: **Classification Statistics:** **Classification symbol:** B32B27/00

**Percentage:** 5.9121623%

**Title:** **[@att]:** date-revised: 2013-01-01

Layered products comprising [ a layer of ] synthetic resin [ ( B32B5/02 , B32B5/16 , B32B5/18 take precedence; thermoplastic elastomer B32B2274/00 ) ]

**Classification Statistics:** **Classification symbol:** B32B37/00

**Percentage:** 3.7162163%

**Title:** **[@att]:** date-revised: 2013-01-01

Methods or apparatus for laminating, e.g. by curing or by ultrasonic bonding [ ( making non-planar products B32B1/00 ; making products characterised by particular features of structure or of composition, see the relevant groups for such products, e.g. making layered products containing glass and synthetic resin layers B32B17/10807 ; coating of single webs or the like ) ]

**Classification Statistics:** **Classification symbol:** B32B38/00

**Percentage:** 2.5337837%

**Title:** **[@att]:** date-revised: 2013-01-01

Ancillary operations in connection with laminating processes

**Classification Statistics:** **Classification symbol:** B32B2250/00

**Percentage:** 2.195946%

**Title:** **[@att]:** date-revised: 2013-01-01

Layers arrangement

**Classification Statistics:** **Classification symbol:** H01L21/00

**Percentage:** 2.195946%

**Title:** **[@att]:** date-revised: 2013-01-01





# USPTO Web services (USPTO)

# TOPICS

- ❖ Web service for uploading classification data for national offices
- ❖ Web service for retrieving classification data for national offices
- Will be available in the future

## Web service to upload CPC classification data

- National offices can send their data to USPTO for loading
- USPTO supports ST.96, ST.36, and other formats

## Web service to download CPC classification data

- National offices can request CPC family picture of priority document

# CPC in Espacenet (EPO)

# CPC in Espacenet

<http://worldwide.espacenet.com/>

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a longitudinal groove}  
F16M11/2042 --- {in more than one direction}  
F16M11/2042 --- {constituted of ...}

# Interleaved presentation



Quick help

- [What is the Cooperative Patent Classification system?](#)
- [How do I enter classification symbols?](#)
- [What do the different buttons mean?](#)
- [Can I retrieve a classification using keywords?](#)
- [Can I start a new search using the classifications listed?](#)
- [Where can I view the description of a particular CPC class?](#)
- [What is the meaning of the stars in front of the classifications found?](#)
- [What does the text in brackets mean?](#)

**Selected classifications**

nothing selected

Find patents

Copy to search form

Search for

View section | [Index](#) | [A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | **[G](#)** | [H](#) | [Y](#)

« G01W G01W2201/00 »

Symbol	Classification and description
<b>Instruments</b>	
<input type="checkbox"/> <b>G01</b>	<b>MEASURING</b> (counting <a href="#">G06M</a> ); <b>TESTING</b>
<input type="checkbox"/> <b>G01W</b>	<b>METEOROLOGY</b> (influencing weather conditions <a href="#">A01G 15/00</a> ; dispersing fog <a href="#">E01H 13/00</a> ; instruments for measuring single variable in general, see the appropriate subclass of <a href="#">G01</a> , e.g. <a href="#">G01K</a> , <a href="#">G01L</a> ; obtaining meteorological information by radar <a href="#">G01S 13/95</a> )
<input type="checkbox"/> <b>G01W 1/00</b>	<b>Meteorology</b>
<input type="checkbox"/> <b>G01W 2001/003</b>	•Clear air turbulence detection or forecasting, e.g. for aircrafts
<input type="checkbox"/> <b>G01W 2001/006</b>	•Main server receiving weather information from several sub-stations
<input type="checkbox"/> <b>G01W 1/02</b>	•Instruments for indicating weather conditions by measuring two or more variables, e.g. humidity, pressure, temperature, cloud cover, wind speed ( <a href="#">G01W 1/10</a> takes precedence)
<input type="checkbox"/> <b>G01W 1/04</b>	••giving only separate indications of the variables measured
<input type="checkbox"/> <b>G01W 1/06</b>	••giving a combined indication of weather conditions (catathermometers for measuring "cooling value" related either to weather conditions or to comfort of other human environment <a href="#">G01W 1/17</a> ; computers per se <a href="#">G06</a> )

display 2000 series (interleaved)





# Combination Sets

## SALTS OF 3-PENTYLPHENYLACETIC ACID AND PHARMACEUTICAL USES THEREOF

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**Page bookmark**     [PT2427417 \(E\) - SALTS OF 3-PENTYLPHENYLACETIC ACID AND PHARMACEUTICAL USES THEREOF](#)

---

**Inventor(s):**     PENNEY CHRISTOPHER [CA]; ZACHARIE BOULOS [CA]; GAGNON LYNE [CA]; GROUX BRIGITTE [CA]; BIENVENU JEAN-FRANCOIS [CA]; PERRON VALERIE [CA] ±

---

**Applicant(s):**     PROMETIC BIOSCIENCES INC [CA] ±

---

**Classification:**     - international: [A61K31/192](#); [C07C51/353](#); [C07C51/36](#); [C07C51/41](#); [C07C57/30](#)  
                              - cooperative: [A61K31/192](#); [C07C51/412](#); [C07C57/30](#); [C07C67/303](#); [C07C67/343](#) → [more](#)

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**Application number:** [PT20100771941T](#) [20100503](#)

---

**Priority number(s):**     [US20090175215P](#) [20090504](#)

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**Classification:**     - international: [A61K31/192](#); [C07C51/353](#); [C07C51/36](#); [C07C51/41](#); [C07C57/30](#)  
                              - cooperative: default [A61K31/192](#); [C07C51/412](#); [C07C57/30](#); [C07C67/303](#); [C07C67/343](#)

---

**C-sets**     [C07C51/412](#), [C07C57/30](#);  
                              [C07C67/303](#), [C07C69/612](#);  
                              [C07C67/343](#), [C07C69/618](#)

---

→ [less](#)



# CPC data from National Offices (field CPCNO)

Classification: - international: C09J201/00; C09J5/00; C09J7/02; H01L21/301

- cooperative default: C09J7/0207; H01L21/6836; H01L21/78; H01L24/27; H01L24/29; H01L24/83; C09J2201/36; C09J2203/326; H01L21/67132; H01L2221/68318; H01L2221/68327; H01L2221/68336; H01L2221/68359; H01L2224/27436; H01L2224/2919

CPCNO: C09J7/0207; H01L21/6836; H01L21/78; H01L24/27; H01L24/29; H01L24/83; C09J2201/36; C09J2203/326; H01L21/67132; H01L2221/68318; H01L2221/68327; H01L2221/68336; H01L2221/68359; H01L2224/27436; H01L2224/2919

C-sets: - H01L2224/2919, H01L2924/0665, H01L2924/00,  
- H01L2924/0665, H01L2924/00,  
- H01L2924/0132, H01L2924/01031, H01L2924/01033, H01L2224/73265,  
H01L2224/32225, H01L2224/48227, H01L2924/00012, H01L2924/15311,  
H01L2224/73265 %2, H01L2224/32225 %2, H01L2224/48227 %2, H01L2924/00,  
- H01L2224/92247, H01L2224/73265,  
- H01L2224/32225, H01L2224/48227, H01L2924/00,  
- H01L2924/3512, H01L2924/00

→ [less](#)

Currently: **AT, CN, ES, FI, GB, SE, GR (document level)**



# Embedded Definitions



<input type="checkbox"/>	<b>C07C 50/00</b>	<b>Quinones</b> (for quinone methides, see unsaturated ketones with a keto group being part of a ring)	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/>	<b>C07C 51/00</b>	<b>Preparation of carboxylic acids or their salts, halides or anhydrides</b> (of acids by hydrolysis of oils, fats or waxes <b>C11C</b> )	<input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/>	<b>C07C 51/02</b>	•from salts of carboxylic acids	
<input type="checkbox"/>	<b>C07C 51/04</b>	•from carboxylic acid halides	
<input type="checkbox"/>	<b>C07C 51/06</b>	•from carboxylic acid amides	
<input type="checkbox"/>	<b>C07C 51/08</b>	•from nitriles	
<input type="checkbox"/>	<b>C07C 51/083</b>	•from carboxylic acid anhydrides	

**References relevant to classification in this group**  
*This subclass/group does not cover:*

Fatty acids by chemical modification of fats, oils or fatty acids obtained therefrom	<b><u>C11C3/00</u></b>
--	------------------------

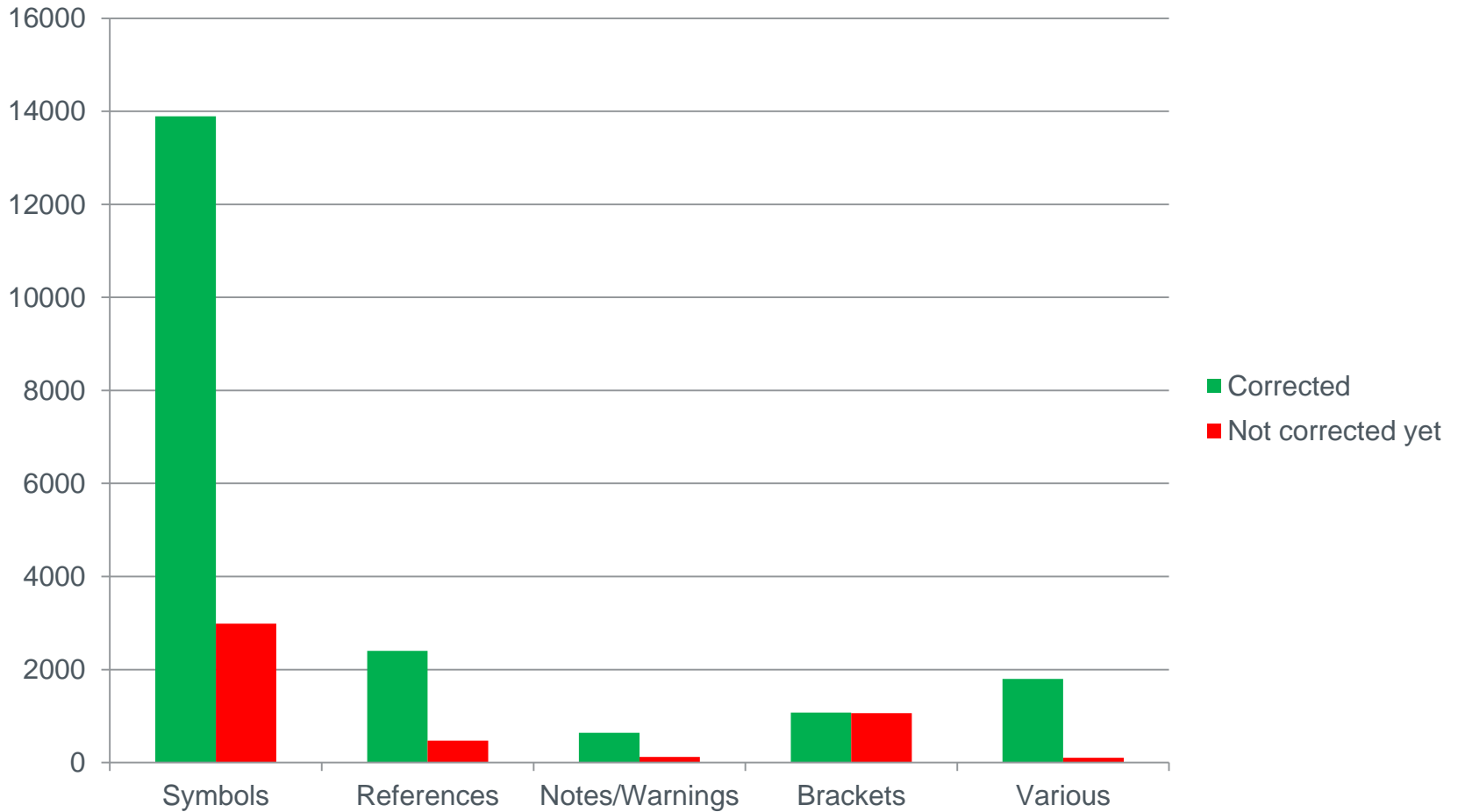
# Future Developments

Future Developments - 1

# CPC Scheme & Definitions cleanup actions (EPO)

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a longitudinal movement}  
F16M11/2042 --- {constituted of ...}

# Corrections made to CPC Scheme & Definitions



# Clean up of Warnings in the CPC Scheme

- ~ 2 200 Warnings present in total
- ~ 400 Warnings refer to differences between CPC and IPC
- ~ 1 800 Warnings need to be removed after finalisation of pre-CPC reclassification
  
- Objective:

**Remove 1800 Warnings** from the CPC scheme by the **end of 2017** after finalisation of the pending pre-CPC reclassification

Future Developments - 2

# Expansion Climate Change Mitigation Technologies (CCMTs) (EPO)

# Climate change mitigation technologies

- Since 2009, EPO has been using a user friendly cross-sectional classification scheme for indexing climate change mitigation technologies (CCMT), with currently 5 subclasses
  - Y02C for Carbon Capture technologies
  - Y02E for Energy production and storage
  - Y02B for Buildings
  - Y02T for Transport
  - Y04S for Smart Grids
- In May 2015, the Y02W will be launched for CCMT related wastewater treatment or waste management technologies
- In the last months of 2015, the Y02P - Production will be launched for energy-intensive industries (e.g. cement, metallurgy)

## Future Developments - 3

# ECLA decommissioning (EPO)



- **April 2015** will see ECLA/ICO disappear from EPO's search tools
- The ECLA database will remain as an archive, not for front-file classification
- No backward mapping from CPC to ECLA/ICO anymore

## Future Developments - 4

# New approach for CPCNO data (USPTO)

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a longitudinal movement}  
F16M11/2042 --- {in more than one direction}  
F16M11/2042 --- {constituted of a...

## CPC data from National Offices

- Currently, CPC data from National Offices are stored at document level, in the C(PC)NO fields:
  - family members can bear different C(PC)NO allocations
  - classification at document level may be different from that at family level
  - unique documents do not get a CPC allocation at family level

# Current situation

document level  
(CPCNO)



family level  
(CPC)



INPI Brazil	BR9910073	H01R 12/71; H01R 13/6581
SIPO	CN1306684	H01R 13/65
EPO	EP1075714	H01R 12/71; H01R 13/6581
UKIPO	GB2353908	H01R 12/73
KIPO	KR20010071195	H01R 13/6581
PRV	SE0003892	H01R 13/6581
USPTO	US6206729	H01R 12/71; H01R 13/6581

# Future situation

document level  
(CPCNO)



family level  
(CPC)



INPI Brazil	BR9910073
SIPO	CN1306684
EPO	EP1075714
UKIPO	GB2353908
KIPO	KR20010071195
PRV	SE0003892
USPTO	US6206729

# Future situation (cont'd)

- The data could be presented as follows:
  - H01R 12/71 (BR, ~~EP~~, US)
  - H01R 13/6581 (EP, KR, SE, US) **GB**
  - ~~H01R 12/73 (GB)~~
  - H01R 13/65 (CN)
- EPO deletes H01R 12/71
- UKIPO deletes H01R 12/73 and gives H01R 13/6581 instead

The new picture will be as follows:

- H01R 12/71 (BR, US)
- H01R 13/6581 (EP, **GB**, KR, SE, US)
- H01R 13/65 (CN)

or

- H01R 12/71 (BR,US); H01R 13/6581 (EP, **GB**, KR, SE, US); H01R 13/65 (CN)

# Advantages

- Each office (including the EPO and the USPTO) **owns only the symbols it allocates** to the families it classifies
- All offices are at **equal level of treatment** in terms of presentation of data
- **Simplified business rules** (cost decrease, less complex exchange)
- Offices can establish (e.g. automated) procedures to copy classification symbols from other offices to their own, in order to benefit from classification work of other offices
- It allows an easy comparison of classification practices for taking measures to harmonise these practices

# Topics for discussion

- Presentation of symbols in CPC in the electronic layer and publications
- Whether CPC FIRST and LATER is still needed.
  - If so, then what are the business rules.
- Need stakeholders' views on FIRST and LATER
- INVENTION information (I) and ADDITIONAL information (A) WILL still remain in CPC.



Future Developments - 5

# Collaborative Environment (CE) (USPTO)

F16M11/2028 --- {around a horizontal axis} (L)  
F16M11/2035 --- {for rolling, i.e. for creating a longitudinal movement}  
F16M11/2042 --- {constituted of two parts}

# CE Services

## High level scope

Directory Service

Revision Project  
Management Service

Revision project  
content  
management  
service

Reference material  
service (official)

Communication  
Service (informal)

Navigation Service

# CPC Products and support (EPO)

# Guide to the CPC

- Available on [www.cpcinfo.org](http://www.cpcinfo.org) since 20 March 2015 under **Publications**

## Publications

In this section, information material is available

### Guide to the CPC:

- [Guide to the CPC \(20 March 2015\)](#)

## Guide to the CPC (Cooperative Patent Classification)

Document owner	EPO and USPTO
Office Contacts	EPO Directorate Classification and USPTO Classification Standards and Development Division
Approved on	
Document ID	Version 1.0
Revision number	2.00

# List of ongoing revision projects

- Available on [www.cpcinfo.org](http://www.cpcinfo.org) under **CPC Revisions / Projects**

## Ongoing CPC Projects

The CPC areas currently undergoing maintenance (MP) or revision (RP) are listed in the table below together with the corresponding project number. Once finalized, the outcome of these projects will be summarized in a Notice of Change to be published one to two months before the corresponding changes are implemented in the CPC Scheme.

Project number	Status	CPC	Title
RP0033	active	G06F11/14	[Admin. Transfers] Digital data processing; Error detection or correction of the data by redundancy in operation

# List of subclasses where 2000 series are used

- Available on [www.cpcinfo.org](http://www.cpcinfo.org) under **Publications**

## Subclasses where 2000 series symbols are used:

- List of subclasses where 2000 series symbols are used

CPC subclasses with indexing codes (2000 series)

A	B < B60	B ≥ B60	C	D	E	F	G	H
A01C	B01D	B60B	C01B	D01H	E01B	F01B	G01B	H01F
A01D	B01F	B60C	C01P	D03C	E01C	F01C	G01C	H01G
A01F	B01J	B60D	C02F	D03D	E01D	F01L	G01G	H01H
A01G	B01L	B60F	C03B	D03J	E01H	F01M	G01J	H01J
A01K	B02C	B60G	C03C	D05B	E02B	F01N	G01K	H01L
A01M	B03B	B60H	C04B	D05D	E02D	F01P	G01L	H01M
A01N	B03C	B60J	C07B	D06B	E03B	F02B	G01N	H01R
A22B	B03D	B60K	C07C	D06C	E03C	F02D	G01P	H01S
A22C	B04B	B60L	C07K	D06F	E03D	F02F	G01R	H02B
A23C	B04C	B60M	C08C	D06H	E03F	F02G	G01S	H02G
A23F	B05B	B60N	C08F	D06M	E04B	F02M	G01V	H02J
A23G	B05D	B60Q	C08G	D06N	E04C	F02N	G01W	H02K
A23N	B06B	B60R	C08J	D06P	E04D	F02P	G02B	H02M
A23P	B07B	B60S	C08K	D07B	E04F	F02W	G02C	H02P
A23V	B07C	B60T	C08L	D10B	E04G	F03G	G02F	H03B

# CPC Training material (1)


- Available on [www.cpcinfo.org](http://www.cpcinfo.org) under **CPC Training**
  - [Updated training modules](#)

- Course main page
- Course content ▲
- Introduction
- Level 1 – Understand...
- Level 2 – Classifyin...
- Level 3 – Tools and ...
- Level 4 – CPC defini...

## Using CPC in classification

### Cooperative Patent Classification

European Patent Office  
United States Patent and Trademark Office

 [Click here to know more about the course](#)

▼ Open all ▲ Close all

Introduction

Level 1 – Understanding the CPC

Level 2 – Classifying with the CPC

Level 3 – Tools and practical matters

Level 4 – CPC definitions

# CPC Training material (2)

- Available on [www.cpcinfo.org](http://www.cpcinfo.org) under **CPC Training**
  - [Combination sets training material](#)

## Training material on Combination Sets in the Polymers area

- [Introduction](#)
- [General](#)
- [Tables for C08 and C09](#)
- [C08F](#)
- [C08G](#)
- [Acrylates Olefin Vinylic Graft C08F](#)
- [Composition Coating Adhesives C08L, C09D, C09J](#)
- [Various examples](#)

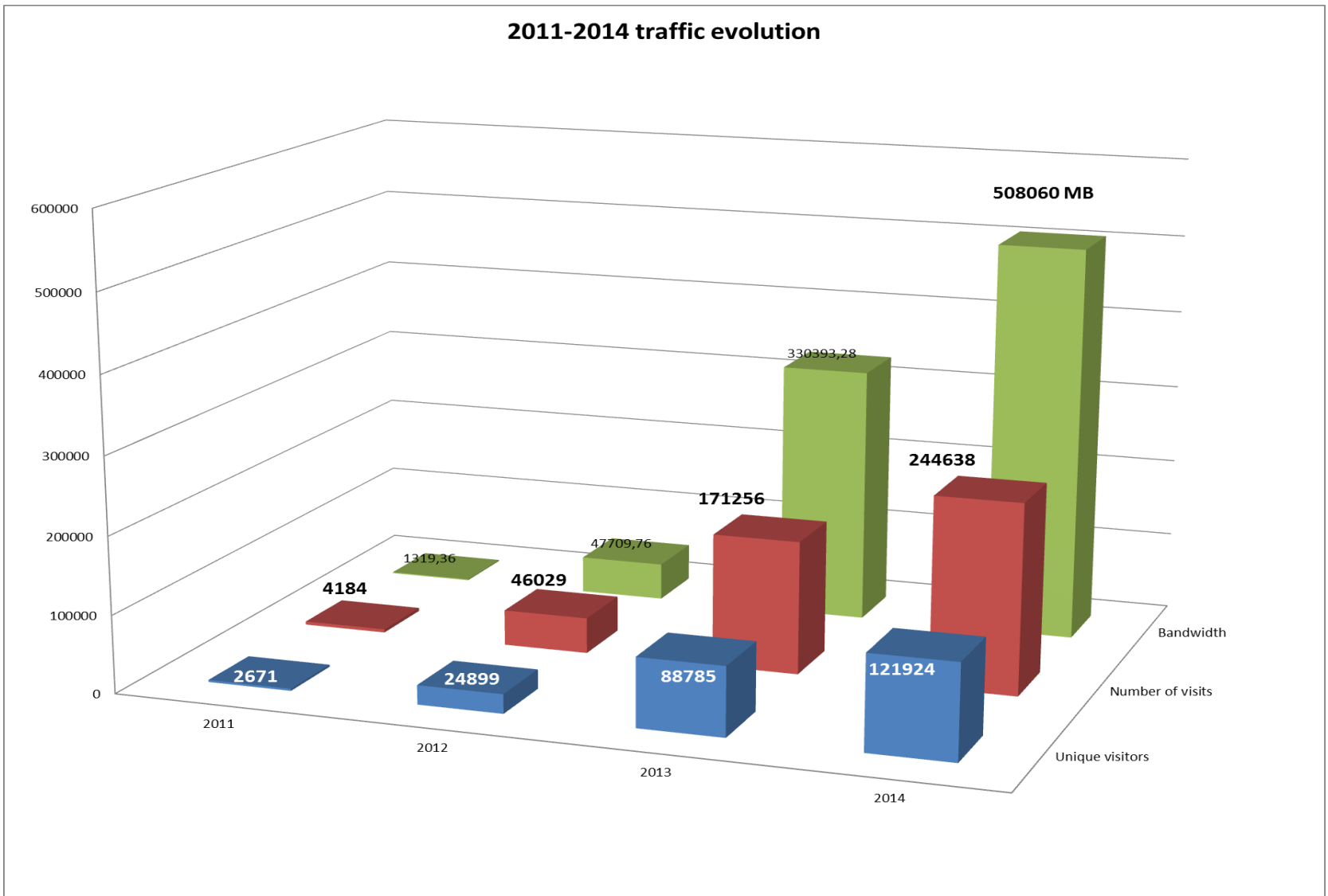


# 2014 Usage Statistics

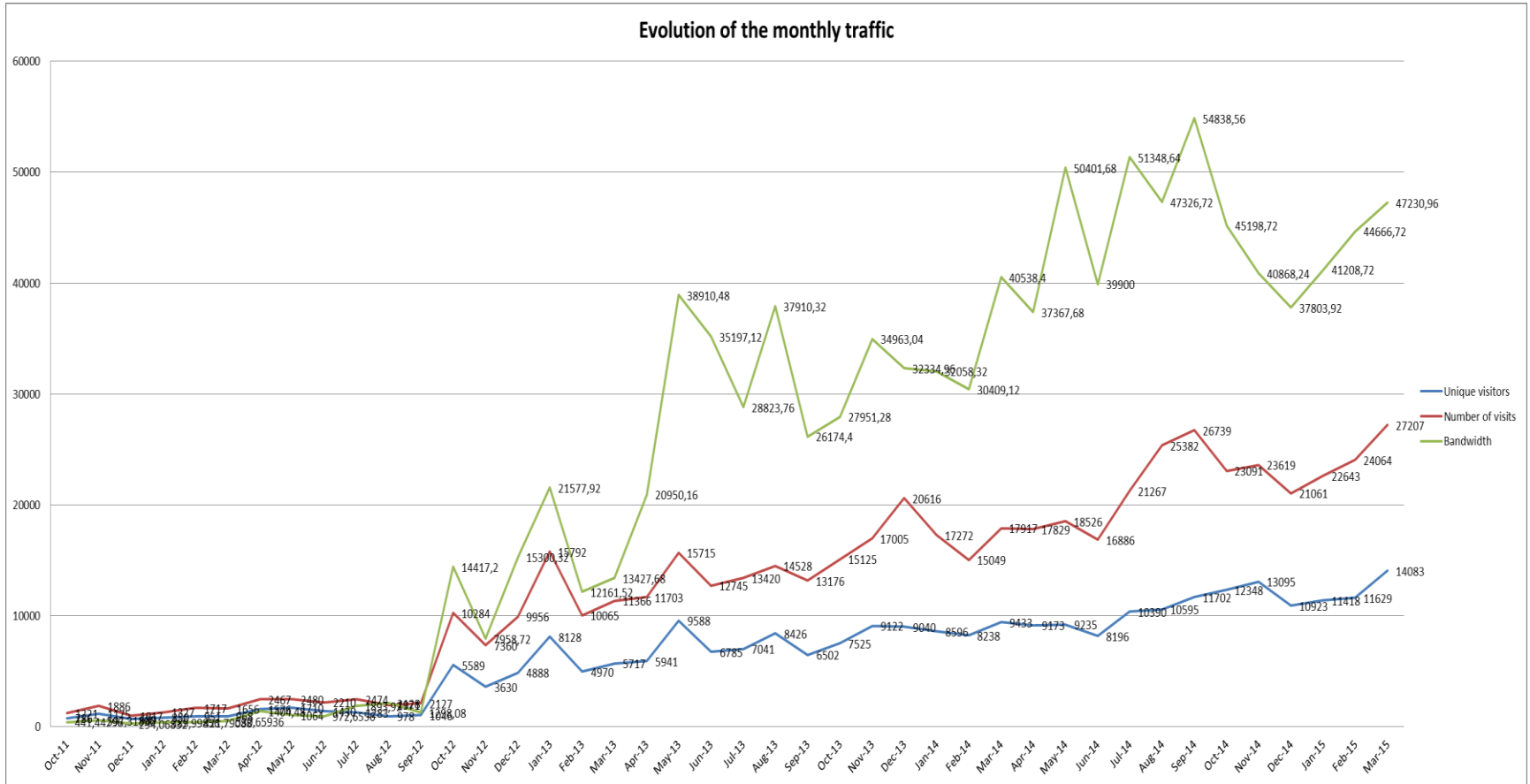
[www.cpcinfo.org](http://www.cpcinfo.org)

(EPO)

# 2011-2014 traffic evolution

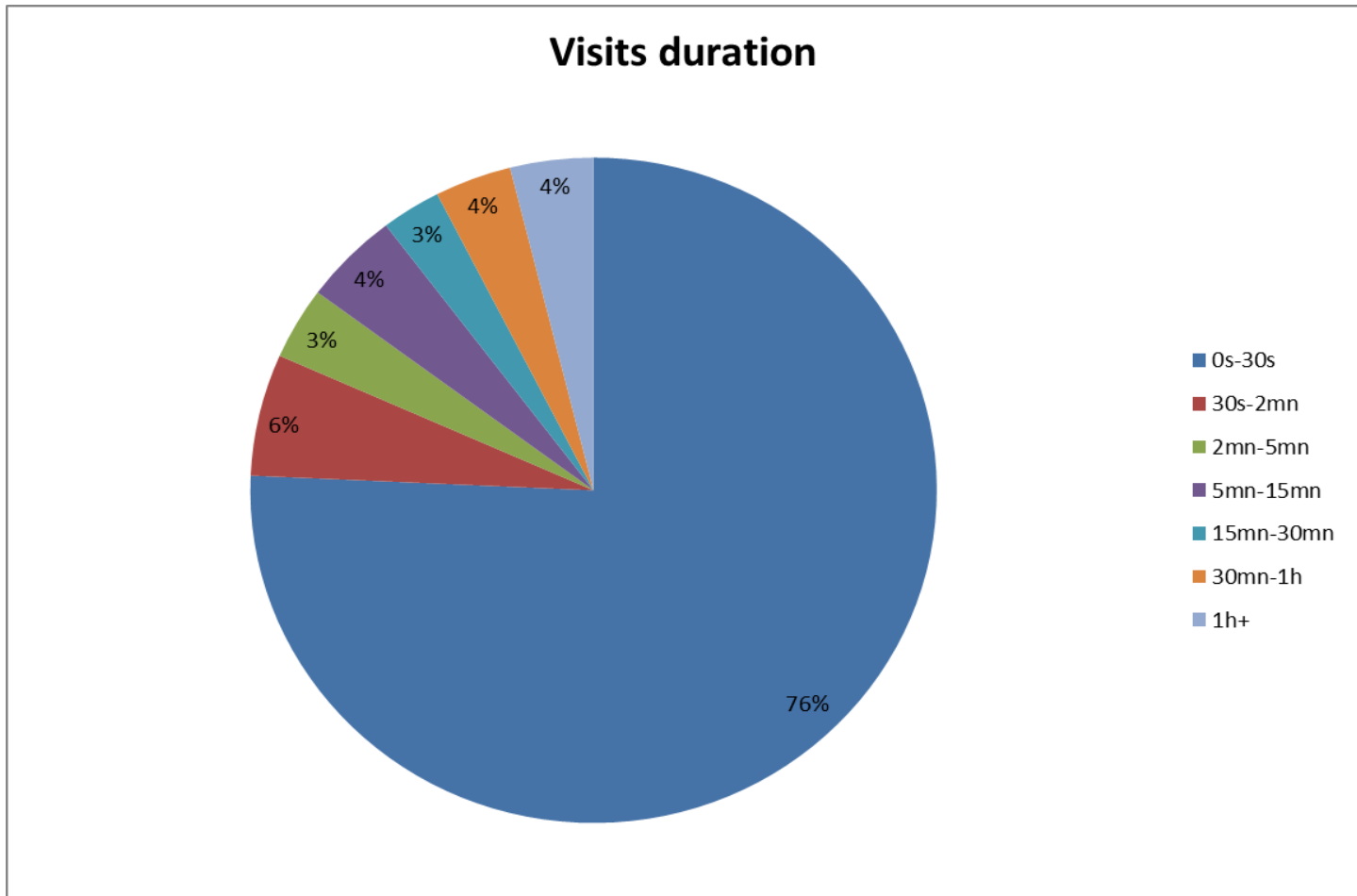


# October 2011 – March 2015 monthly evolution



- Steady increase in number of visitors and bandwidth

# Visits duration



- Average duration per visit was 329s in 2014

# How is the site accessed to?

Connect to site from				
Origin	Pages	Percent	Hits	Percent
<b>Direct address / Bookmarks</b>	1774392	90.3 %	1800154	90.4 %
<b>Links from a NewsGroup</b>				
<b>Links from an Internet Search Engine - Full list</b>	108859	5.5 %	109049	5.4 %
- Google	104776	104966		
- Baidu	1281	1281		
- Sogou	778	778		
- Yahoo!	591	591		
- Yandex	586	586		
- Ask	564	564		
- Unknown search engines	160	160		
- MyWebSearch	36	36		
- AOL	33	33		
- WebCrawler	15	15		
- Others	39	39		
<b>Links from an external page (other web sites except search engines) - Full list</b>	80000	4 %	81617	4 %
- <a href="http://worldwide.espacenet.com/classification">http://worldwide.espacenet.com/classification</a>	41036	41036		
- <a href="http://www.uspto.gov/cgi-bin/exitconf/internet_exitconf.pl">http://www.uspto.gov/cgi-bin/exitconf/internet_exitconf.pl</a>	7112	7112		
- <a href="http://ptoweb.uspto.gov/patents/cpc/tools.html">http://ptoweb.uspto.gov/patents/cpc/tools.html</a>	3067	3067		
- <a href="http://www.epo.org/searching/essentials/classification/cpc.html">http://www.epo.org/searching/essentials/classification/cpc.html</a>	1934	1934		
- <a href="http://worldwide.espacenet.com/searchResults">http://worldwide.espacenet.com/searchResults</a>	1746	1746		
- <a href="http://worldwide.espacenet.com/publicationDetails/biblio">http://worldwide.espacenet.com/publicationDetails/biblio</a>	1494	1494		
- <a href="http://www.bing.com/search">http://www.bing.com/search</a>	901	901		
- <a href="http://www.epo.org/news-issues/news/2011/20111025.html">http://www.epo.org/news-issues/news/2011/20111025.html</a>	852	852		
- <a href="http://worldwide.espacenet.com">http://worldwide.espacenet.com</a>	799	806		
- <a href="http://www.epo.org/searching/subscription/raw/product-14-8.html">http://www.epo.org/searching/subscription/raw/product-14-8.html</a>	598	598		
- Others	20461	22071		
<b>Unknown Origin</b>	138	0 %	139	0 %

```

F16M11/2028 ---* (around a horizontal axis)
F16M11/2036 ---* (for rolling, i.e. for creating a longitudinal groove)
F16M11/2042 ---* (in more than one direction)
F16M11/2042 ---* (constituted of a)

```

# Thank you for your attention!

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[www.cpcinfo.org](http://www.cpcinfo.org)