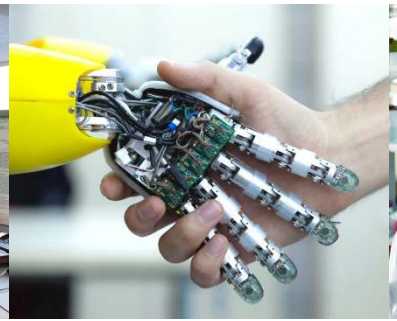
Europäisches Patentamt
European Patent Office
Office européen des brevets

CPC Update - EPO

CPC Annual Meeting for National Offices





Pierre Held – Georg Schiwy

Geneva, 19 February 2019

Agenda:

- CPC implementation at National Offices
- IT Matters
- CPC International project: impact on Epoque (Net)

CPC Implementation at National Offices

CPC Implementation at National Offices

- Training
- Quality measures
- IT Support

CPC training

- CPC Scheme & Definitions

- See **e-learning modules** on the cpcinfo.org website:
  - Using CPC in classification
  - Practical and strategical aspects of the CPC

- CPC General and Advanced training

- CPC Field-specific training material:

  FST videos and training material on Epoxy:

  https://epoxy.epo.org/ (follow the path: CPC >> CPC Presentation Material)

CPC Field-Specific Training 2018

CPC Collective Field-Specific Training for National Offices

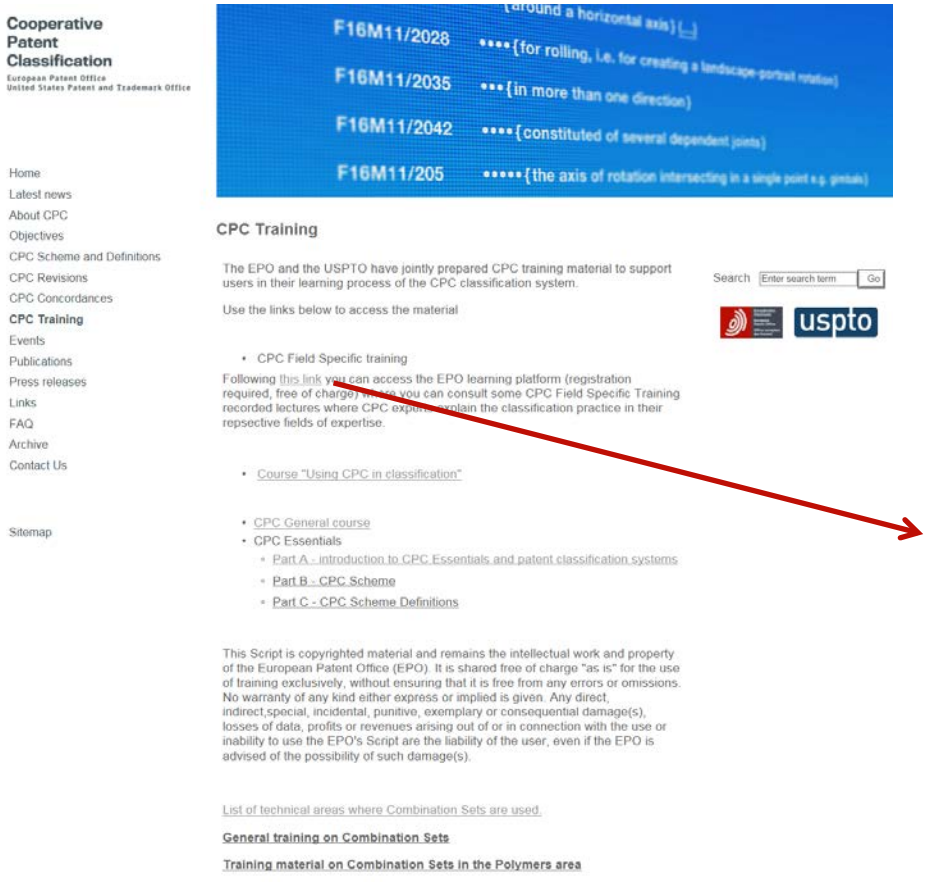
- **5-7 June 2018** at the EPO in The Hague
- **3 tracks** – M&M, ICT and HBC

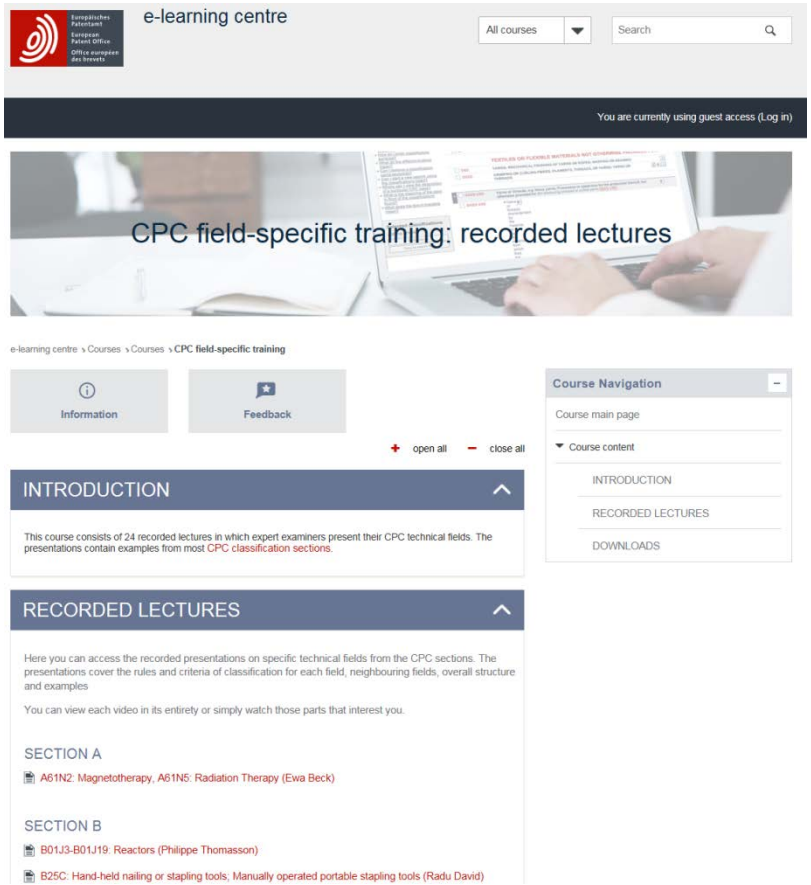
MM	Mechanics & Mechatronics
ICT	Information and Communication Technology
HBC	Health, Biotechnology & Chemistry

- **4-5 fields / track**

Day	MM	ICT	HBC
Tuesday 5 June 2018 am	F01P1, F02F1	G01Q	A61N2, A61N5, A61N5 A61N6, A61N10
Tuesday 5 June 2018 pm	B63B,B63C, B63G, B63H, B63J	G01R31- G01R35	B01J3 - B01J19, B01J13, B01J19/0046
Wednesday 6 June 2018 am	F16K	H04L12	C10G1/00- C10G2300/00, C10G2400/30, C10L1/00- C10L1/08
Wednesday 6 June 2018 pm	B65G	H01J49, F03H1, H05K1	G06F19/10+, C40B30/02, C40B50/02, G16H (former G06F19/30+), B82Y10/00
Thursday 7 June 2018 am	B25C1/00- B25C13/00// B25F1/00- B25F5/029, B25G1/00- B25G3/38, B25H1/00- B25H7/045	B29C64/70, B33Y, B29D99/00- B29D99/0028, B29D99/0089	F16M11, F16M13, F16G1, F16G5
Thursday 7 June 2018 pm	Wrap up		

CPC Training on www.cpcinfo.org





CPC Field-Specific Training 2019

CPC Collective Field-Specific Training for National Offices

- **4-6 June 2019** at the EPO in **Munich**

- Input for technical fields to be covered?

IT Matters

IT Matters

- OPS RESTful web services

- How to send CPC data to the EPO?
  - bibliographic data stream
  - separate file
  - web services

- How to send reclassified data to the EPO?

OPS RESTful web services

Open Patent Services (OPS) is a web service which provides access to the EPO's data via a standardised XML interface. It does this using RESTful architecture. Details at http://ops.epo.org

- Current version 3.2 (released November 2017)
- Next changes expected with CPC-INTL

- API specification, documentation, CPC schema, etc. accessible at https://www.epo.org/searching-for-patents/data/web-services/ops.html#tab-3

Classification services under OPS

The classification web services focus on classification related to:

- CPC retrieval
  e.g. GET http://ops.epo.org/rest-services/classification/cpc/**[classificationsymbol]?query-string**
- CPC media retrieval (gif, jpeg, png, tif, wav, mp3, etc...)
  e.g. GET http://ops.epo.org/rest-services/classification/cpc/**media/[image-name]**
- CPC symbol search
  e.g. GET http://ops.epo.org/restservices/classification/cpc/**search/?q=[QUERY STRING]**
- Classification mapping service
  e.g. GET http://ops.epo.org/rest-services/classification/**map/[inputformat]/[classification-symbol]/[output-format]**

How to send CPC data to the EPO?

- CPC classification data from National Offices is submitted according to **ST.36 format** while considering the **ST.8-based CPC allocation standard**

- CPC symbols are subject to some **validation** before loading into DocDB

- Options for data submission by a National Office:

1. Included in the **bibliographic data stream** (with IPC)
2. **Separate file** for CPC classification data and limited bibliographic data
3. **Web services** with feedback retrieval on batch status (accept/reject)

How to send CPC data to EPO

- The current bibliographic data format is based on ST.36/CPC allocation standard (complementary with ST.8) and DocDB XML format.

Position(s)	Content	Values
1	Section	A,…., H,Y
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	blank
29	First or later position of symbol	F,L
30	Classification value (invention or additional)	I,A
31 to 38	Action date	YYYYMMDD date format
39	Original or reclassified data	B,R
40	Source of classification data	H,C,G
41-42	Generating office	AA,….,ZZ (ST.3)
43-50	For future use	8 blanks

CPC data submission in bibliographic data stream

- Front-file / Back-file using the simple-patent-document-v2-1-1 schema (DTD)

- DTD can be requested through frontoffice@epo.org or accessible at http://epoxy.epo.org/ (https://epoextsa.epo.org/nos/)

CPC data submission as separate file

- With symbol formatting in
  - expanded tagged structure (no slash separator needed), e.g.

```
<section>H</section>
<class>04</class>
<subclass>L</subclass>
<main-group>29</main-group>
<subgroup>08585</subgroup>
```

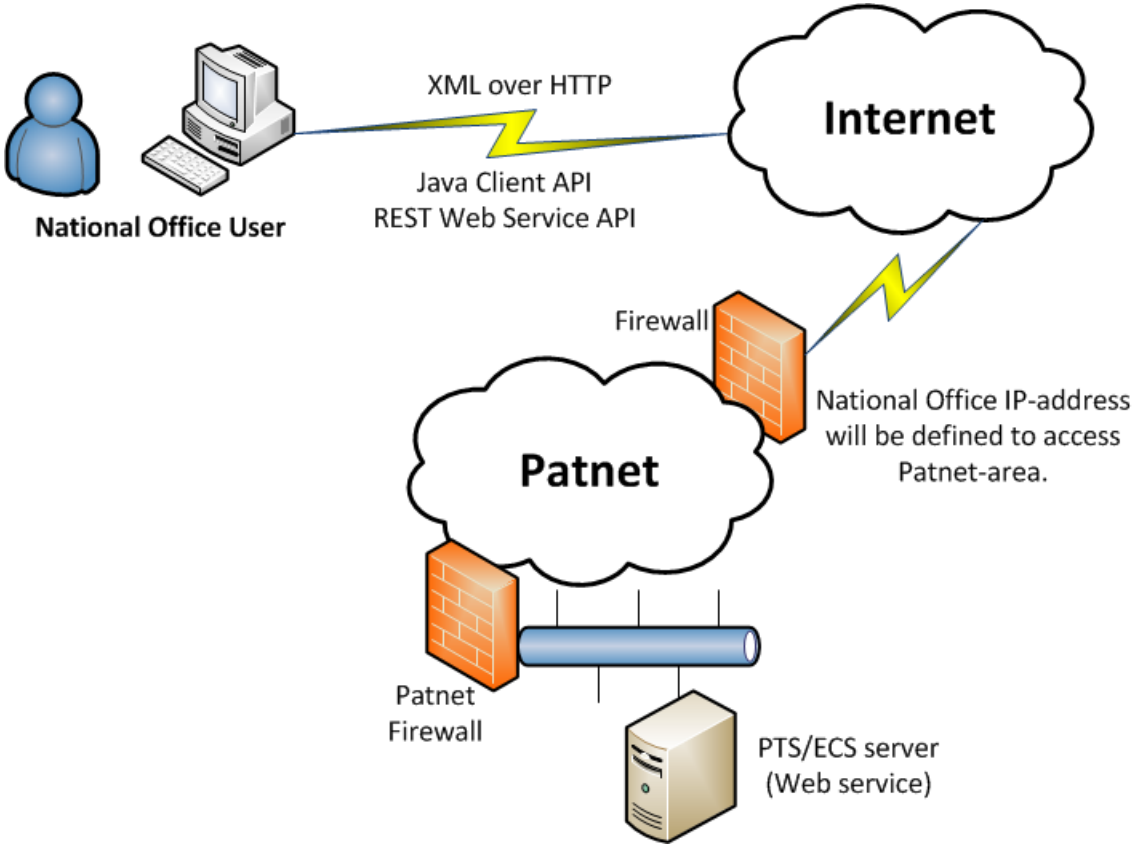
  - as string of characters with/without spaces, but mandatory slash separator
- CPC ST.8 validation rules apply for symbols, breakdown-symbols (“2000” symbols) and C-set symbols

CPC data submission through web services (1/7)

- Web services active through Patnet (Epoxy user-id/password).
- Web service provides a means for a National Office to submit collections of patent documents with CPC allocations (single symbols and C-sets).
- 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**.

CPC data submission through web services (2/7)

- Web services



CPC data submission through web services (3/7)

- To support single symbol update, the web service expects a so-called "**Optimised XML**" (OX) format, which will allow the possibility to modify a single allocation (reclassification).
- A separate **transformation service** is provided that allows a National Office to transform their ST.36 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 at the EPO and processed in a nightly batch process, that will upload and validate the data.
- Validation of data (valid symbol, INV, ADD, etc.)

CPC data submission through web services (4/7)

Common errors

- No action date
- No First/Later indicator present
- Multiple First indicators present on one publication
- Date not in the correct format (YYYYMMDD)
- Missing tags from the standard
- Invention indicator on additional only symbol
- Combination set consisting of only one symbol

CPC data submission through web services (5/7)

```
<further-cpc>
   <classification-cpc>
      <cpc-version-indicator>
         <date>20130101</date>
      </cpc-version-indicator>
      <section>G</section>
      <class>01</class>
      <subclass>N</subclass>
      <main-group>2800</main-group>
      <subgroup>52</subgroup>
      <symbol-position>L</symbol-position>
      <classification-value>I</classification-value>
      <generating-office>
         <country>EP</country>
      </generating-office>
      <action-date>
         <date>2018-10-05</date>
      </action-date>
      <classification-status>B</classification-status>
      <classification-data-source>H</classification-data-source>
  </classification-cpc>
```

“2000” symbol should be “A” = additional only

action-date not in correct YYYYMMDD format

CPC data submission through web services (6/7)

```
<combination-set sequence="8">
<group-number>1</group-number>
<combination-rank>
   <rank-number>1</rank-number>
   <patent-classification>
   <classification-scheme office="EP" scheme="CPC">
   <date>20140201</date>
   </classification-scheme>
   <classification-symbol>
      <section>C</section>
      <class>08</class>
      <subclass>L</subclass>
      <main-group>23</main-group>
      <subgroup>06</subgroup>
   </classification-symbol>
   <symbol-position>L</symbol-position>
   <classification-value>I</classification-value>
   <classification-status>B</classification-status>
   <classification-data-source>H</classification-data-source>
   <generating-office>CN</generating-office>
   <action-date>
            <date>20140815</date>
   </action-date>
   </patent-classification>
</combination-rank>
```

second and/or more combination sets need to be added

CPC data submission through web services (7/7)

- The web service provides the means for a National Office to query their uploaded data, e.g. to query the status of a submitted batch or allocation therein.

- More details of the Classification data loading web services can be requested through cpc@epo.org.

How to send reclassified data to the EPO?

- Submission through **classification data loading web service** indicating Add or Delete in the input.

- Submission as a **separate file in XML format**, with full classification picture for the reclassified publication (unload/reload).

CPC International
Impact on DocDB XML

Impact of CPC International on DocDB XML

From the point of view of DocDB XML, the **changes related to the CPC International** project are **minor**:

- **No impact** on **schema definition**
- **No impact** on the content of element **<patent-classification>**
- **Minor change** in the content of element **<classification-scheme>**
  - currently: value “CPC” (EPO, USPTO) or “CPCNO” (other NO)
  - future: value “CPCI”
- **Minor change** for element **<generating-office>**
  - currently only populated when “scheme” = “CPCNO”
  - future: populated in all cases

Impact of CPC International on DocDB XML

- **Notification** and **documentation** was **sent** in November 2018
- Included **sample files**
- Same package also loaded on the download area under 14.7 DOCDB (notification folder)
- Will be published once CPC International goes live

CPC International
Impact on Epoque (Net)

EPOQUE (Net) – old and new CPC fields in EPODOC

Old

Field	Index	Synonym	Type	Title
AB	BI	ABEN	TEXT	Abstract of the invention in English
ABDE	DE		TEXT	Abstract of the invention in German
ABFR	FR		TEXT	Abstract of the invention in French
ABOL	OLAN		TEXT	Abstract of the invention (other languages)
AN	AN		CODE	Accession number
AP	AP		KW	Application number
CCA	C		KW	CPC Single symbols Confirmed Additional Information
CCI	C		KW	CPC Single symbols Confirmed Invention Information
CLC	CL		KW	CPC Linked symbols Confirmed
CLQ	CL		KW	CPC Linked symbols Raise-Hand by EPO
CLU	CL		KW	CPC Linked symbols Unreviewed
CNOA	CNO		KW	CPC National Office Additional Information
CNOI	CNO		KW	CPC National Office Invention Information
CNOL	CNOL		KW	CPC National Office_Linked symbols
CQA	C		KW	CPC Single symbols Raise-Hand by EPO Additional Information
CQI	C		KW	CPC Single symbols Raise-Hand by EPO Invention Information
CST	CST	ECST	TEXT	CPC Classification status
CT	CTP		KW	Patents cited in the search report
CTNP	CTL		TEXT	Literature cited in the search report
CTSI	CTSI		TEXT	Citation set Information
CUA	C		KW	CPC Single symbols Unreviewed Additional Information
CUI	C		KW	CPC Single symbols Unreviewed Invention Information
DPK	DPK		KW	DPK classification
DT	DT		KW	Document type
EX	CTP		KW	Patents cited during examination
EXNP	CTL		TEXT	Literature cited during examination
FAMN	FAMN		TEXT	EPO family number

New

Field	Index	Synonym	Type	Title
AB	BI	ABEN	TEXT	Abstract of the invention in English
ABDE	DE		TEXT	Abstract of the invention in German
ABFR	FR		TEXT	Abstract of the invention in French
ABOL	OLAN		TEXT	Abstract of the invention (other languages)
AN	AN		CODE	Accession number
AP	AP		KW	Application number
CA	C		KW	Single symbols, Additional information, All Offices
CCA	CC		KW	Single symbols, Additional information, Confirmed, EPO
CCI	CC		KW	Single symbols, Invention information, Confirmed, EPO
CI	C		KW	Single symbols, Invention information, All Offices
CL	CL		KW	Linked symbols, All Offices
CLC	CLC		KW	Linked symbols, Confirmed, EPO
CT	CTP		KW	Patents cited in the search report
CTNP	CTL		TEXT	Literature cited in the search report
CTSI	CTSI		TEXT	Citation set Information
DPK	DPK		KW	DPK classification
DT	DT		KW	Document type
EX	CTP		KW	Patents cited during examination
EXNP	CTL		TEXT	Literature cited during examination
FAMN	FAMN		TEXT	EPO family number

EPODOC fields

FIELD	Content
/CI	Single symbols, Invention information, All Offices
/CA	Single symbols, Additional information, All Offices
/CCI	Single symbols, Invention information, Confirmed, EPO
/CCA	Single symbols, Additional information, Confirmed, EPO
/CL	Linked symbols, All Offices
/CLC	Linked symbols, Confirmed, EPO

EPODOC - Display

[SS 6] ..li 1 clas

1/5.260	© EPOCPC / EPO
PN	- US2018337381 A1 20181122
TI	- SEPARATOR FOR RECHARGEABLE BATTERY AND RECHARGEABLE LITHIUM BATTERY INCLUDING THE SAME
CCI	- H01M2/1653 ; H01M2/166 ; H01M2/1686
CCA	- H01M10/052
CI	- C08F220/48 (CN) - C08J7/047 (US) - C08K3/22 (US) - C09D5/18 (US) - C09D7/61 (EP) - C09D133/20 (US) - H01M2/145 (CN) - H01M2/1653 (EP) - H01M2/166 (EP, US) - H01M2/1686 (EP, CN, US) - H01M10/052 (CN) - H01M10/0525 (US)
CA	- C08J2323/06 (US) - C08J2433/20 (US) - C08K2003/2227 (US) - H01M10/052 (EP)
CL	- C08F220/48, C08F220/06, C08F2220/585, INV (CN)
ICAI	- H01M2/16; H01M2/14; H01M4/131; H01M4/133; H01M4/505; H01M4/525; H01M4/62; H01M4/66; H01M10/0525

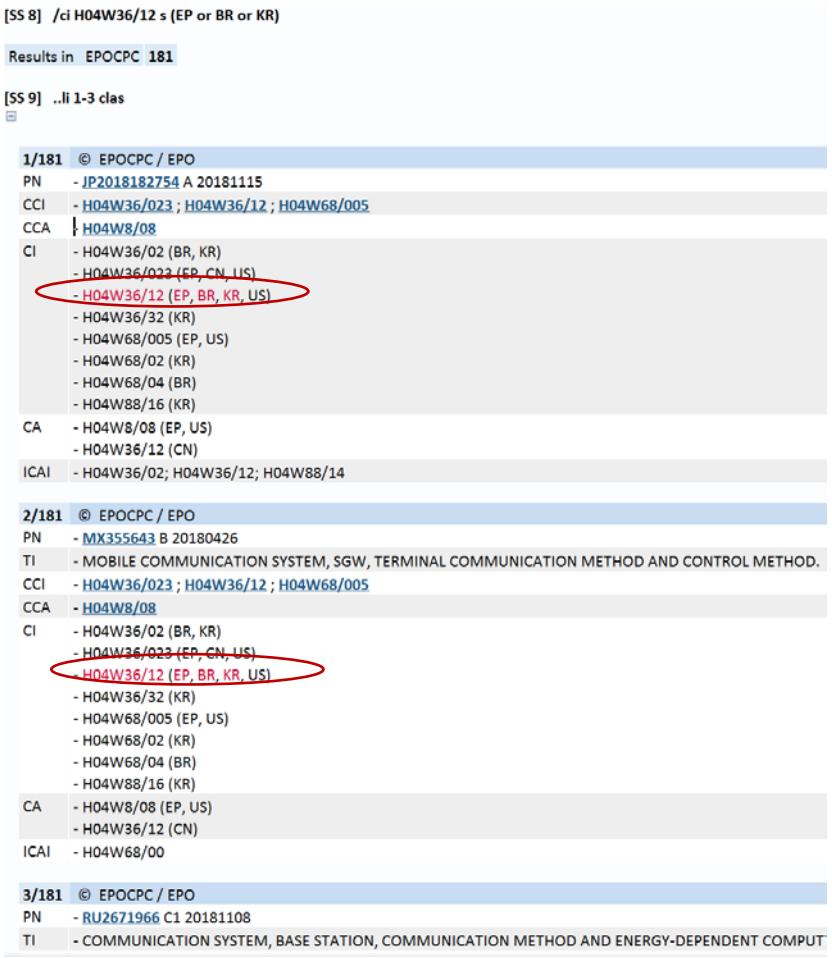
EPODOC – Search

Symbol endorsed by an office, e.g. BR

/CI H04W 36/12 S BR

Symbol potentially endorsed by certain offices, e.g. EP or BR or KR

/CI H04W 36/12 S (EP OR BR OR KR)



[SS 8] /ci H04W36/12 s (EP or BR or KR)

Results in EPOCPC 181

[SS 9] ..li 1-3 clas

1/181	© EPOCPC / EPO
PN	- JP2018182754 A 20181115
CCI	- H04W36/023 ; H04W36/12 ; H04W68/005
CCA	- H04W8/08
CI	- H04W36/02 (BR, KR) - H04W36/023 (EP, CN, US) - H04W36/12 (EP, BR, KR, US) - H04W36/32 (KR) - H04W68/005 (EP, US) - H04W68/02 (KR) - H04W68/04 (BR) - H04W88/16 (KR)
CA	- H04W8/08 (EP, US) - H04W36/12 (CN)
ICAI	- H04W36/02; H04W36/12; H04W88/14

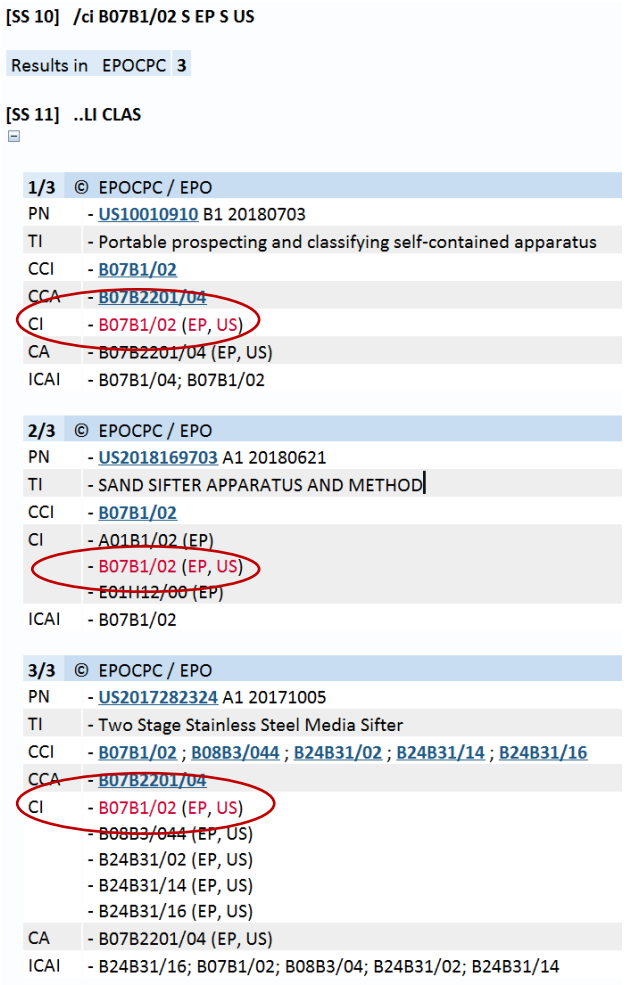
2/181	© EPOCPC / EPO
PN	- MX355643 B 20180426
TI	- MOBILE COMMUNICATION SYSTEM, SGW, TERMINAL COMMUNICATION METHOD AND CONTROL METHOD.
CCI	- H04W36/023 ; H04W36/12 ; H04W68/005
CCA	- H04W8/08
CI	- H04W36/02 (BR, KR) - H04W36/023 (EP, CN, US) - H04W36/12 (EP, BR, KR, US) - H04W36/32 (KR) - H04W68/005 (EP, US) - H04W68/02 (KR) - H04W68/04 (BR) - H04W88/16 (KR)
CA	- H04W8/08 (EP, US) - H04W36/12 (CN)
ICAI	- H04W68/00

3/181	© EPOCPC / EPO
PN	- RU2671966 C1 20181108
TI	- COMMUNICATION SYSTEM, BASE STATION, COMMUNICATION METHOD AND ENERGY-DEPENDENT COMPUT

EPODOC – Search (AND)

Search for symbol endorsed by certain offices, e.g. EP and US:

/CI B07B 1/02 S EP S US



[SS 10] /ci B07B1/02 S EP S US

Results in EPOCPC 3

[SS 11] ..LI CLAS

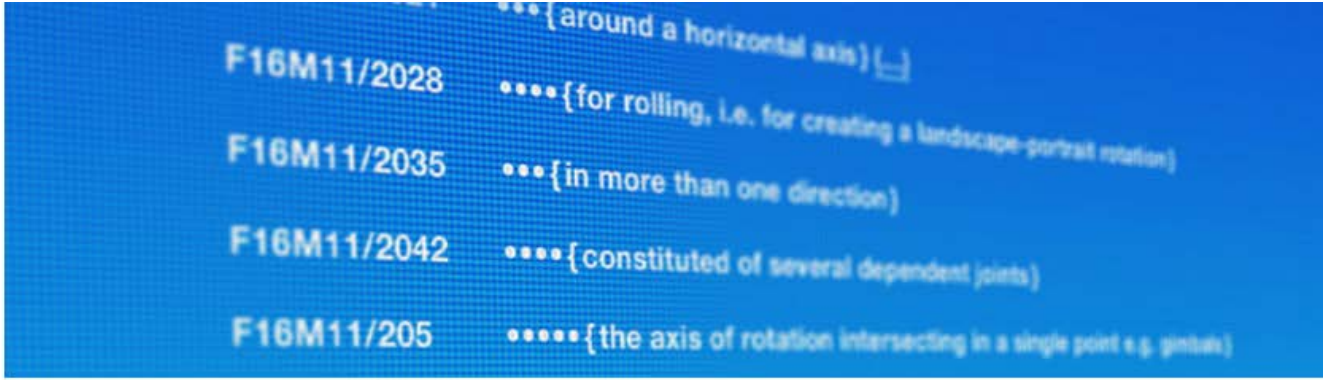
1/3	© EPOCPC / EPO
PN	- US10010910 B1 20180703
TI	- Portable prospecting and classifying self-contained apparatus
CCI	- B07B1/02
CCA	- B07B2201/04
CI	- B07B1/02 (EP, US)
CA	- B07B2201/04 (EP, US)
ICAI	- B07B1/04; B07B1/02

2/3	© EPOCPC / EPO
PN	- US2018169703 A1 20180621
TI	- SAND SIFTER APPARATUS AND METHOD
CCI	- B07B1/02
CI	- A01B1/02 (EP) - B07B1/02 (EP, US) - E01H12/00 (EP)
ICAI	- B07B1/02

3/3	© EPOCPC / EPO
PN	- US2017282324 A1 20171005
TI	- Two Stage Stainless Steel Media Sifter
CCI	- B07B1/02 ; B08B3/044 ; B24B31/02 ; B24B31/14 ; B24B31/16
CCA	- B07B2201/04
CI	- B07B1/02 (EP, US) - B08B3/044 (EP, US) - B24B31/02 (EP, US) - B24B31/14 (EP, US) - B24B31/16 (EP, US)
CA	- B07B2201/04 (EP, US)
ICAI	- B24B31/16; B07B1/02; B08B3/04; B24B31/02; B24B31/14

Cooperative
Patent
Classification

European Patent Office
United States Patent and Trademark Office



Thank you for your attention!