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UK Intellectual Property Office CPC implementation

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Intellectual
Property
Office

UK Intellectual Property Office

- Medium-sized office, based in Newport, South Wales



- Responsible for supporting IP framework in UK (IP Policy, IP education, Copyright & granting Patents, Trade marks & Design rights)
- >450 staff in Patent Examining Division, >180 recruited between 2014-2018)
- >20,000 patent applications/year https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/849718/annual-report-and-accounts-2019.pdf

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Intellectual Property Office is an operating name of the Patent Office



Context

- UK Intellectual Property Office was a historical user of ECLA:

	Search	Classification
ECLA	From early 1990s (paper WO/EP/US collection 1990) (electronic from late 1990s)	1/1/2006 - 27/10/2013 (all areas)
CPC	from 1/4/2013	from 28/10/2013 (all areas)



CPC classification

- CPC applied to:
 - domestic applications before A & B publication
 - PCT applications entering the national phase (we republish these as GB A publications)
- CPC not applied to the backfile
- GB documentation = part of collection also classified in the CPC by EPO
- CPC archive = in-house collection of former CPC versions to facilitate updating search and classification after CPC revision
- Examiners & Examiner assistants make use of CPC compilation of changes to understand scheme changes and update CPC prior to publication



CPC classification

- PROSE (Patents Reporting Of Search & Examination) – for report writing & IPC, CPC classification

The screenshot shows the PROSE - Live application window. On the left is a 'Worklist' pane containing a list of patent numbers. The main area is titled 'Application' and displays details for document 'GB1713670.6 (GB2565834)'. Below this, there are tabs for 'UKC', 'IPC', 'ECLA', 'IPC-8', and 'CPC'. The 'CPC' tab is selected, showing a table of classification data.

DocType	Category	SubClass	SubGroup	Version	DocType Pub.	Status
A	Inventive (First)	G03H	0001/26	01/01/2013	A	C
A	Non-Inventive	G02B	0027/0103	01/01/2013	A	C
A	Non-Inventive	G02B	2027/0174	01/01/2013	A	C
A	Non-Inventive	G03H	2001/0224	01/01/2013	A	C
A	Non-Inventive	G03H	2001/2218	01/01/2013	A	C
A	Non-Inventive	G03H	2001/2271	01/01/2013	A	C
A	Non-Inventive	G03H	2223/24	01/01/2013	A	C
A	Non-Inventive	G03H	2225/12	01/01/2013	A	C
A	Non-Inventive	G03H	2225/22	01/01/2013	A	C
A	Non-Inventive	G03H	2225/25	01/01/2013	A	C
A	Non-Inventive	G03H	2225/31	01/01/2013	A	C
A	Non-Inventive	G03H	2225/32	01/01/2013	A	C
A	Non-Inventive	G03H	2225/52	01/01/2013	A	C
A	Non-Inventive	G03H	2225/61	01/01/2013	A	C



CPC classification

- ClassTool (Classification Tool) – for selection of IPC & CPC symbols

The screenshot shows the ClassTool for PROSE - GB1713670.6 (GB2565834) interface. The main window displays a list of CPC symbols and their descriptions. A context menu is open over the symbol G03H 1/22, showing options like Select, Go To, Stop, Refresh, Add To Favourites, and Print. The 'Selected Cpc:' panel on the right shows a table of selected CPC symbols.

Category	SubClass	SubGroup	Version	DocType	Pub.
A Inventive (First)	G03H	0001/26	01/01/2013	A	
A Additional Information	G02B	0027/0103	01/01/2013	A	
A Additional Information	G02B	2027/0174	01/01/2013	A	
A Additional Information	G03H	2001/0224	01/01/2013	A	
A Additional Information	G03H	2001/2218	01/01/2013	A	
A Additional Information	G03H	2001/2271	01/01/2013	A	
A Additional Information	G03H	2223/24	01/01/2013	A	
A Additional Information	G03H	2225/12	01/01/2013	A	
A Additional Information	G03H	2225/22	01/01/2013	A	
A Additional Information	G03H	2225/25	01/01/2013	A	
A Additional Information	G03H	2225/31	01/01/2013	A	
A Additional Information	G03H	2225/32	01/01/2013	A	
A Additional Information	G03H	2225/52	01/01/2013	A	
A Additional Information	G03H	2225/61	01/01/2013	A	

The 'Selected IPC8:' panel on the right shows a table of selected IPC8 symbols.

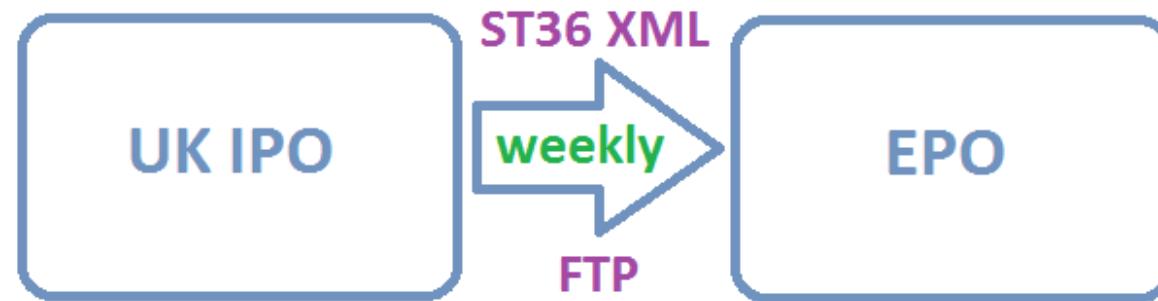
Category	SubClass	SubGroup	Valid From	Valid To	DocType	Pub.
A Inventive (First)	G03H	0001/26	01/01/2006		A	
A Additional Information	G02B	0027/01	01/01/2006		A	

- CPC updated 1st Tuesday after new CPC version enters into force



CPC data exchange

- Patent applications published weekly (A = Weds, B = Thurs) at the end of a 5 week publication cycle
- Data supplied to EPO 3 weeks prior to date of publication
- Bibliographic data for all publications (including CPC data) supplied weekly to EPO via ST36 XML file via file transfer protocol (FTP)



- well-established procedure with no recurring issues



CPC training

ECLA to CPC transition (2012-2013)

- **2012:** early awareness-raising of ECLA > CPC changes
- **Early 2013:** Examiner training on searching CPC - all Examiners searching CPC by 1/4/2013
- **Oct 2013:** ECLA/ICO symbols on all live, pre-grant applications converted to CPC using 1:1 ECLA-CPC concordance
- **From 28/10/2013:** PROSE & ClassTool updated & all Examiners start classifying in CPC



CPC training

Ongoing CPC training

- Established examiners undertake Regular Examiner Training (RET) on various modules, including a module on IPC & CPC Classification, run several times/year
- Examiners expected to complete all RET modules every 5 years
- Examiners have access to intranet library of classification training material as aide memoires, including FST videos via EPOXY
- Participation in CPC FST training



CPC training

New Examiner training

- **1st month:** **Initial Search & Examination Training (ISET)**,
including initial classification training
- **2nd month:** **new Examiners > Examining groups**
1-1 desk training on live patent applications under close supervision of Senior Examiner
- **After 12-18 months:** **Advanced Search & Examination Training (ASET)**,
including further classification training
- **Years 2-3:** **Close revision**
all trainee Examiners' work (including IPC & CPC classification) reviewed by Senior Examiner
- after 2-3 years Examiners become 'independently proficient' & start RET programme, including IPC & CPC classification training



CPC quality assurance

- **Revision** - all trainee Examiner classification supervised by Senior Examiners with expertise in field
- **PEQA** (Patent Examiner Quality Assessment) - all Examiners' work sampled to check all aspects of search/examination, including IPC & CPC classification
- **CPC validation** - automated validation of CPC symbols prior to entry into publication cycle
- **Publication picklist procedures** prevent publication with invalid CPC symbols, due to CPC revision. Applications referred back to Examining groups for reclassification prior to publication
Examiner assistants handle administrative symbol updates (version updates & admin transfers)
- **EPO CPC consideration** - EPO-applied CPC is considered on all applications during prosecution to determine possible additional search/classification areas
- **Statistical EPO-IPO CPC comparison** (next slide)



CPC comparison

- Statistical comparison of UK v EPO CPC (PATSTAT) on GB publications to identify:
 - number of cases in which EPO have classified in 1 or more additional subclasses, and
 - the most frequent subclasses & main groups where EPO have additionally classified

Example comparison @ subclass level:



CPC Subclass	Number of cases	Cases which EPO classified in 0,1,2,3+ additional subclasses				Top 5 subclasses in which EPO additionally classified by frequency										Top 5 main groups in which EPO additionally classified by frequency									
		0	1	2	3+	1st	Freq	2nd	Freq	3rd	Freq	4th	Freq	5th	Freq	1st	Freq	2nd	Freq	3rd	Freq	4th	Freq	5th	Freq
A01B	57	52	5	0	0	A01C	4	B62D	1	-	0	-	0	-	0	A01C 7	3	A01C 5	2	B62D 49	1	-	0	-	0
A01C	34	25	8	1	0	A01M	3	A01G	2	A01N	1	A63B	1	B08B	1	A01M 3	2	A01G 20	1	A01G 22	1	A01M 9	1	A01N 3	1
A01D	111	95	10	3	3	G05D	5	G06T	4	H04N	4	A01G	2	E02F	2	G05D 1	5	G06T 7	4	H04N 13	4	E02F 3	2	E02F 5	2
A01E	17	14	2	0	1	B02C	1	B65G	1	D02J	1	D04G	1	D04H	1	B02C 18	1	B02C 19	1	B02C 21	1	B65G 19	1	D02J 1	1
A01G	256	232	21	2	1	A01K	3	A01D	2	A01M	2	F16K	2	F16M	2	A01D 34	2	A01K 61	2	A01M 29	2	A01K 63	1	A23B 7	1
A01H	10	6	3	0	1	C07K	2	A01G	1	A23L	1	A61K	1	A61Q	1	C07K 14	2	A01G 22	1	A23L 2	1	A61K 8	1	A61K 36	1
A01J	9	9	0	0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
A01K	479	441	29	8	1	A61D	8	A61B	3	A01M	2	A61F	2	G05D	2	A01M 29	2	A61B 5	2	A61D 3	2	A61D 9	2	A61D 17	2
A01L	20	20	0	0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
A01M	116	107	9	0	0	A01K	2	A01C	1	A01N	1	A47B	1	A61N	1	A01C 23	1	A01K 67	1	A01K 79	1	A01N 25	1	A47B 91	1
A01N	175	155	14	3	3	A61K	4	A61Q	3	C05C	3	C05D	3	C05G	3	C05D 9	3	C05G 3	3	A61K 8	2	A61K 31	2	A61Q 17	2



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CPC comparison

Example comparison @ main group level (A01K):



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Source: Informatics Team

CPC Classification Comparison Report

CPC Subclass & main groups	Number of cases	Cases which EPO classified in 0,1,2,3+ additional subclasses				Top 5 subclasses in which EPO additionally classified by frequency										Top 5 main groups in which EPO additionally classified by frequency									
		0	1	2	3+	1st	Freq	2nd	Freq	3rd	Freq	4th	Freq	5th	Freq	1st	Freq	2nd	Freq	3rd	Freq	4th	Freq	5th	Freq
A01K	479	441	29	8	1	A61D	8	A61B	3	A01M	2	A61F	2	G05D	2	A01M 29	2	A61B 5	2	A61D 3	2	A61D 9	2	A61D 17	2
A01K 01	70	60	7	3	0	A61D	3	G05D	2	A61B	1	A61F	1	A61G	1	A61D 3	2	G05D 1	2	A61B 5	1	A61D 9	1	A61D 99	1
A01K 03	3	3	0	0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
A01K 05	39	37	0	2	0	A23N	1	B01F	1	G01F	1	G01G	1	-	0	A23N 17	1	B01F 7	1	B01F 13	1	G01F 1	1	G01F 23	1
A01K 07	5	4	1	0	0	B65D	1	-	0	-	0	-	0	-	0	B65D 21	1	-	0	-	0	-	0	-	0
A01K 09	2	2	0	0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
A01K 11	8	5	1	2	0	A61B	1	A61D	1	H02J	1	H04B	1	H04W	1	A61B 5	1	A61D 17	1	H02J 7	1	H02J 50	1	H04B 1	1
A01K 13	29	21	7	1	0	A61D	2	A01L	1	A01M	1	A41D	1	A44B	1	A01L 9	1	A01M 29	1	A41D 13	1	A41D 19	1	A44B 18	1
A01K 14	5	5	0	0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
A01K 15	34	28	5	1	0	A01M	1	A44B	1	B05B	1	B68B	1	F41A	1	A01M 29	1	A44B 17	1	B05B 11	1	B68B 1	1	F41A 9	1
A01K 19	2	2	0	0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
A01K 23	9	8	0	1	0	A01N	1	A61B	1	-	0	-	0	-	0	A01N 47	1	A01N 59	1	A61B 10	1	-	0	-	0
A01K 25	4	4	0	0	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
A01K 27	24	22	2	0	0	A45C	1	B65H	1	-	0	-	0	-	0	A45C 13	1	B65H 75	1	-	0	-	0	-	0
A01K 29	5	4	1	0	0	A61D	1	-	0	-	0	-	0	-	0	A61D 17	1	-	0	-	0	-	0	-	0
A01K 31	11	9	2	0	0	A01M	1	F24F	1	-	0	-	0	-	0	A01M 29	1	F24F 11	1	F24F 12	1	-	0	-	0
A01K 35	1	0	1	0	0	F04D	1	-	0	-	0	-	0	-	0	F04D 15	1	-	0	-	0	-	0	-	0
A01K 39	23	22	1	0	0	A23K	1	-	0	-	0	-	0	-	0	A23K 20	1	A23K 50	1	-	0	-	0	-	0

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CPC - challenges

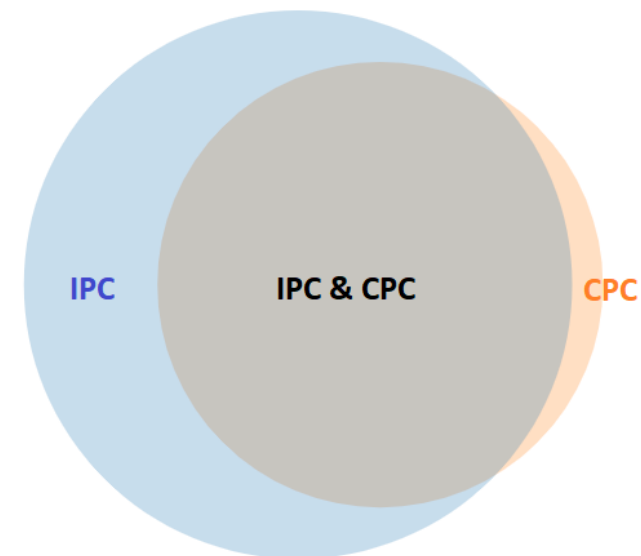
- Regularity of CPC revisions
 - demands upon IT resources (especially the February release so soon after January)
 - maintaining Examiner knowledge of scheme
- Inconsistencies between:
 - IPC & CPC scheme (e.g. H04L 41/00 - 69/00; being addressed)
 - IPC & CPC definitions



CPC - observations

- ✓ 2013 transition from ECLA/ICO to CPC was smooth
- ✓ CPC now well-embedded for search & classification, but IPC remains an essential part of search →
- ✓ Finer subdivision compared to the IPC
- ✓ 2000 series groups for focussed search/classification
- ✓ CPC compilation of changes a helpful addition
- ✓ CPC-INTL changes (24-25/8/19) welcome, however:
 - ❑ limited communication re implementation date & none after confirming success
 - ❑ some EPODOC CPC populations significantly less than population prior to CPC-INTL changes e.g. Section D -6.7%, Section E -9.6% (e.g. E01D -38%), but appeared to recover thereafter

IPC v CPC (EPODOC 14/2/20)



Thank you!

Questions?