



Intellectual
Property
Office

UK Intellectual Property Office CPC implementation

Jeremy Cowen

Senior Patent Examiner, Patents Division

UK Intellectual Property Office

7th Annual CPC meeting, Geneva, 18th February 2020



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

IPO | Making life better through IP

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' containing a list of patent numbers. The main area displays the 'Application' details for GB1713670.6 (GB2565834), which is 'Disposed of - Not in Order (PROSE: Work in progress)'. Below this, a table shows the CPC classification for the application.

UKC	IPC	ECLA	IPC-8	CPC		
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 interface for PROSE - GB1713670.6 (GB2565834). The search term is G03H1/00. The main pane displays the CPC classification hierarchy for G03H 1/00, including subclasses like G03H 1/02, G03H 1/04, G03H 1/06, and G03H 1/08. A context menu is open over G03H 1/22, with 'Inventive' selected. The right pane shows the 'Selected Cpc' table with columns for Category, Sub-Class, SubGroup, Version, and DocType Pub.

Category	Sub-Class	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

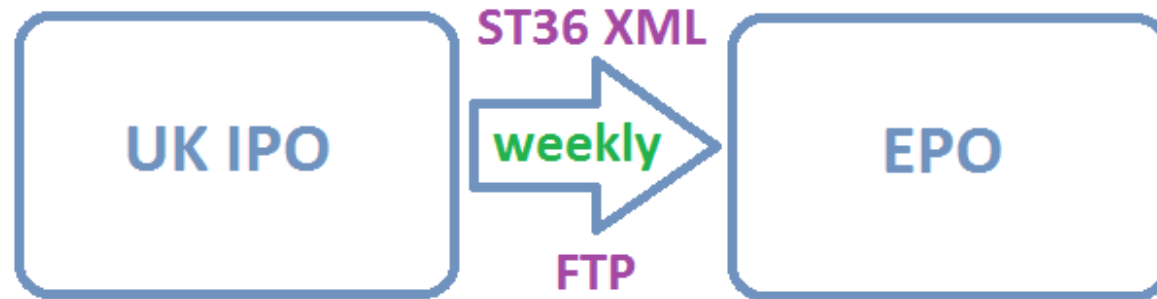
Category	Sub-Class	SubGroup	Valid From	Valid To	DocType Pub.
A Inventive (First)	G03H	0001/26	01/01/2006		A
A Additional Information	G02B	0027/01	01/01/2006		A

- 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	-	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	-	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



CPC comparison

Example comparison @ main group level (A01K):



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	-	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	-	0		
A01K 09	2	2	0	0	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	-	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	-	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	-	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	-	0	
A01K 29	5	4	1	0	0	A61D	1	-	0	-	0	-	0	-	0	A61D	17	1	-	0	-	0	-	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	-	0		
A01K 39	23	22	1	0	0	A23K	1	-	0	-	0	-	0	-	0	A23K	20	1	A23K	50	1	-	0	-	0	-	0	-	0	



CPC - challenges

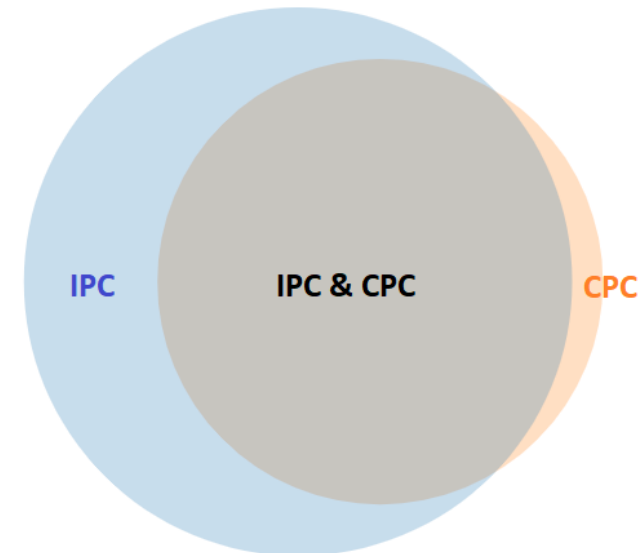
- Regularity of CPC revisions
 - demands upon IT resources (especially the February release so soon after January)
 - maintaining Examiner knowledge of scheme
- Inconsistencies between:
 - IPC & CPC scheme (e.g. H04L 41/00 - 69/00; being addressed)
 - IPC & CPC definitions



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?