

UNITED STATES  
PATENT AND TRADEMARK OFFICE



# Patent Quality Chat: Cooperative Patent Classification (CPC) System Update and Glossary Pilot Report Out

Patent Quality Chat  
Webinar Series 2016 (3 of 11)  
March 8, 2016



To send in questions or comments during the webinar, please email:

**PatentQualityEventParticipationBox@uspto.gov**



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A screenshot of the USPTO website. The header includes the USPTO logo, navigation links for "About Us", "Careers", and "Contact Us", and a search bar. The main navigation menu has "Patents", "Trademarks", and "Learning and Resources". A large blue banner features the text "First time here? Let us help you find your bearings." and a "Get Going" button. Below the banner, there are sections for "Learn About the Process" with sub-sections for "Patents" (General Information Concerning Patents) and "Trademarks" (Trademark Basics). A red circle highlights the "Patents &amp; Trademarks Initiatives" section, specifically the "Enhanced Patent Quality Initiative" link, which includes the text "Learn about USPTO efforts to increase patent quality." The footer contains the email address "PatentQualityEventParticipationBox@uspto.gov" and the USPTO logo.

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The screenshot shows the USPTO website's 'Enhanced Patent Quality Initiative' page. At the top, the USPTO logo and navigation menu are visible. The main content area features a section titled 'Enhanced Patent Quality Initiative' with a sub-header 'E P Q I SPOTLIGHT'. A green circle highlights a specific event: '2016 Patent Quality Chats Next Chat - March 8, 2016 12 - 1 pm ET'. Below this, there is a section titled 'Leading in Quality Excellence - Every Interaction Counts' with descriptive text about IP-intensive industries and the America Invents Act (AIA). At the bottom of the page, there is a logo for 'Building an Enhanced Patent Quality System' and the USPTO logo.

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# Patent Quality Chat: Cooperative Patent Classification (CPC) System Update and Glossary Pilot Report Out

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# Patent Quality Chat: Cooperative Patent Classification (CPC) System Update

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Derris Banks  
Director of Technology Center 2600



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## What is the CPC?

Cooperative Patent Classification (CPC) is a bilateral classification system jointly developed by the United States Patent and Trademark Office (USPTO) and the European Patent Office (EPO).

CPC is jointly managed and maintained by USPTO and EPO.



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## How Does the CPC Enhance Patent Quality?

The Cooperative Patent Classification (CPC) System:

- provides a more comprehensive patent document search using a single classification system.
- is publicly available for search and may be used by other offices for classification.
- has improved access to more prior art document collections and permits searches of multiple language document collections.

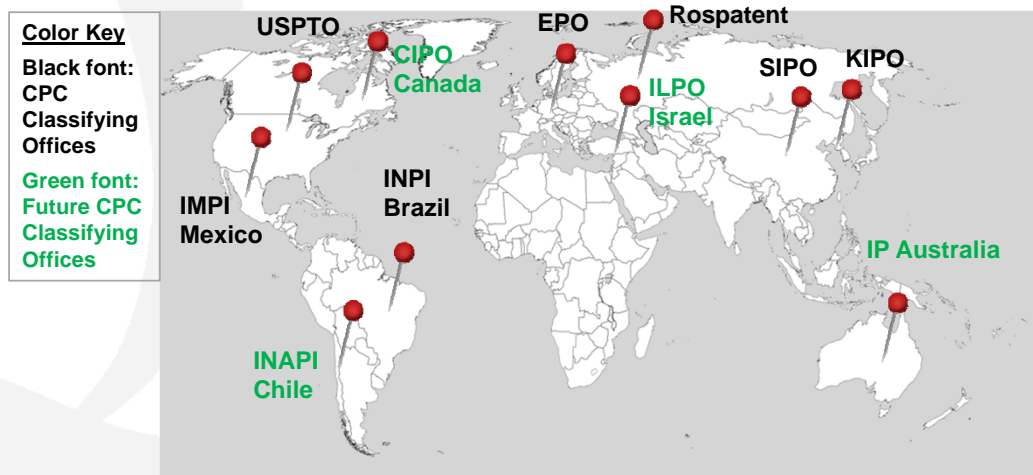


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## CPC Around the World

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



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# CPC within the European Patent Organization



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# CPC Coverage

44.3 million documents classified in CPC, as of January 2016

Country	Country Code	Number of documents *	Number of publications classified in CPC (family or document level)	% publications classified in CPC (family or document level)
EPO	EP	2,960,410	2,953,408	99.8
United States	US	11,561,111	11,239,893	97.2
ARIPO	AP	3,465	3,263	94.2
Austria	AT	1,001,650	644,880	64.4
Australia	AU	1,479,433	1,333,186	90.1
Belgium	BE	585,582	551,528	94.2
Canada	CA	2,314,139	1,233,373	53.3
Switzerland	CH	713,889	574,737	80.5
Germany	DE	5,471,072	4,665,281	85.3
France	FR	2,400,075	2,379,438	99.1
Great Britain	GB	2,361,704	2,104,831	89.1
Luxemburg	LU	61,575	60,538	98.3
Netherlands	NL	548,340	536,372	97.8
OAPI	OA	13,432	13,190	98.2
WIPO	WO	2,776,852	2,768,484	99.7



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# CPC at USPTO

CPC is the official classification system for utility patent applications.

United States Patent Classification (USPC) remains as a historical, static collection.

USPC symbols are no longer included in patent application publications (kind code "A" utility publications) and patents (kind code "B" utility publications) as of April, 2015 for printed publications and June, 2015 for electronic publications.



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# CPC Schemes

CPC schemes are arrangements of concepts.

Subclasses are subdivided large technology areas. The concepts themselves are organized into hierarchical arrays of groups with similar or related aspects, such as technical features.

In a group array, the highest group in the hierarchy (i.e., a group having no higher level parent), is called a main group.

Groups indented under a main group are called subgroups.

SECTION

A01B01/00

CLASS

A01B01/00

SUBCLASS

A01B01/00

MAINGROUP

A01B01/00

SUB GROUP

A01B01/02



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# Organization of CPC Schemes

Sections A-H	Section Y
<p><b>Main Trunk</b> (Class/Subclass/Main Group/Subgroups, non-2000 series) About 162,000 symbols</p>	<p>Tagging of emerging cross-sectional technologies</p> <ul style="list-style-type: none"> <li>- Y02: Climate Change mitigation technologies (CCMTs)</li> <li>- Y04: Smart grids</li> </ul>
<p><b>2000 series</b> About 80,500 symbols</p>	<p>United State Patent Classification (USPC) related</p> <ul style="list-style-type: none"> <li>- Y10S: Technical subjects covered by former USPC cross-reference art collections [XRACs] and Digests</li> <li>- Y10T: This subclass was introduced to accommodate for technical subjects formerly covered by USPC</li> </ul> <p>About 17,600 symbols</p>



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# Update to CPC Schemes

The CPC system is regularly updated to reflect the ever-changing needs of classification of patent documents around the world.

CPC is scheduled to be updated and published four times a year, with an optional 5<sup>th</sup> update annually if needed.

January, May, August and November are regular update months

For 2016, a February release was made to introduce IPC2016.01

Visit [CPCinfo.org](http://CPCinfo.org) to access the Notice of Changes to CPC Schemes and the latest version of CPC Schemes.



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# CPC Resources

For External Stakeholders:

- CPC General Website: <http://www.CPCinfo.org>
- Email CPC questions/comments/feedback to: [CPC@USPTO.GOV](mailto:CPC@USPTO.GOV)

For Internal Stakeholders:

- CPC web page on USPTO Intranet



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## Patent Quality Chat: Glossary Pilot Report Out

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Director of Technology Center 2100

Paul Rodriguez  
Supervisor, Office of Patent Quality Assurance



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# Glossary Pilot Topics for Discussion

- Background
- Statistics
- Pilot Evaluation



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## Background - EXECUTIVE ACTION # 2

**“Tightening Functional Claiming.** The AIA made important improvements to the examination process and overall patent quality, but stakeholders remain concerned about patents with overly broad claims — particularly in the context of software. The PTO will provide new targeted training to its examiners on scrutiny of functional claims and will, over the next six months develop strategies to improve claim clarity, such as by use of glossaries in patent specifications to assist examiners in the software field.”

**FACT SHEET: White House Task Force on High-Tech Issues, 6/4/2013**

<https://www.whitehouse.gov/the-press-office/2013/06/04/fact-sheet-white-house-task-force-high-tech-patent-issues>



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# Glossary Pilot Background

## Preliminary Investigations

- Federal Notice for Partnership for Enhancement of Quality of Software-Related Patents (78 FR 292, January 3, 2013)
- External Stakeholder Roundtables
- Patents Prosecution Study
- OPQA (Office of Patent Quality Assurance) Study
- Internal Focus Sessions and Survey

## Pilot Design and Implementation

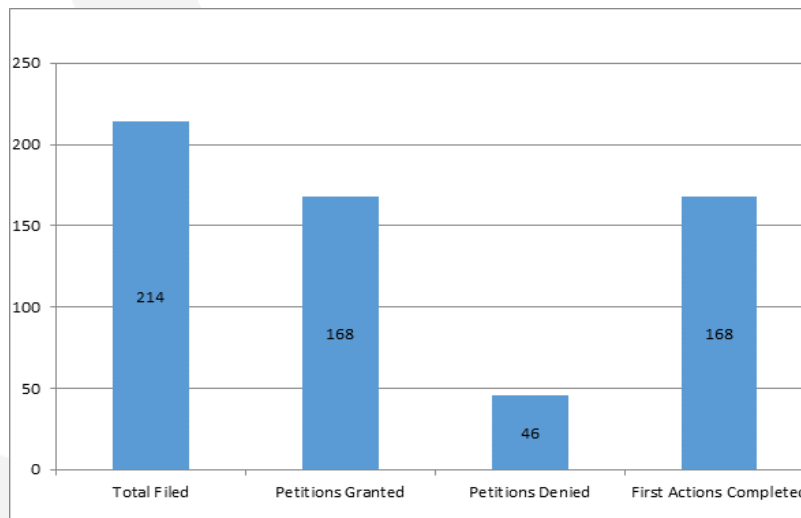
- Filing requirements included providing a Glossary of terms to aid in the understanding of the invention ("Glossary Pilot Program", 79 FR 17137, March 27, 2014)
- Glossary participants received an accelerated first Office action
- For more details, see the Glossary Pilot Program microsite: <http://www.uspto.gov/patent/initiatives/glossary-initiative>



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# Glossary Pilot Statistics – Filings



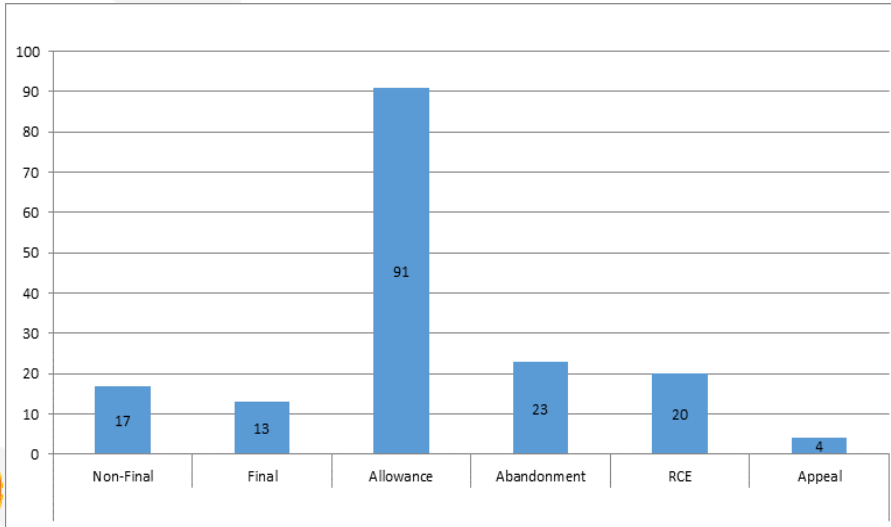
As of 2/25/16



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## Glossary Pilot Statistics – Prosecution Status



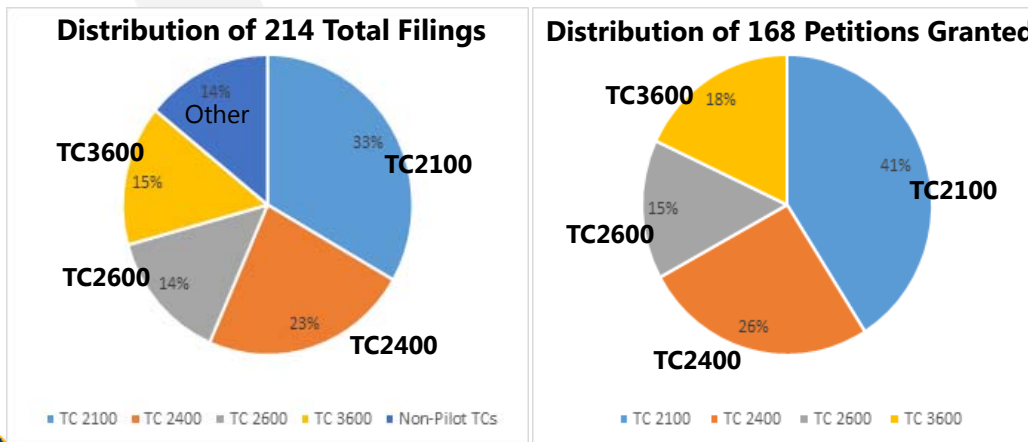
As of 2/25/16



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## Glossary Pilot Statistics - Distribution of Filings



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## Pilot Evaluation

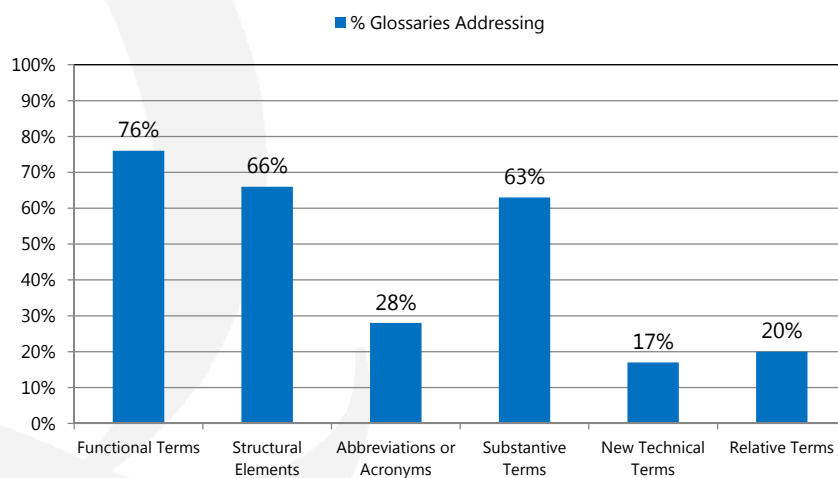
- Feedback
  - Examiner surveys of pilot and non-pilot applications
  - Examiner focus sessions after first Office actions on pilot applications
  - Pilot participant surveys
- Glossary Submission Analysis
  - Completed by members of the Glossary pilot team
- OPQA Office Action Review



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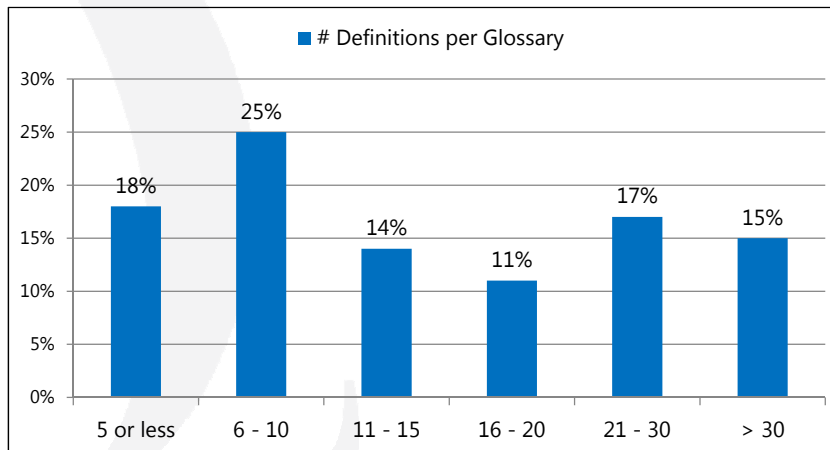
## Examiner Survey – Types of Glossary Definitions



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## Glossary Analysis - Definitions per Glossary Submission



Definitions per glossary: minimum 2; maximum 65.  
94% definitions submitted were compliant with Pilot requirements.

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## Office of Patent Quality Assurance (OPQA) Review

- Glossary Pilot Applications vs Non-Pilot Applications (Control Group)
  - Control group consisting of a sample of 220 applications examined by the same examiners that examined glossary pilot applications
    - Accounts for technology, time frame, examiner experience, applicant practice of defining terms, and other non-glossary-related factors such as presence of interview



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## Review Methodology

- OPQA review of first Office actions of both pilot and control group applications
  - FAOM/Search review form used
    - Facilitates additional comparisons of glossary pilot cases, e.g. historic FAOM quality, other technologies, etc.
  - Source of Office action (pilot or control) was unknown to reviewers to reduce non-sampling biases



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## On-Going Analysis Plan

- Reviewed surveys of examiners and applicants
- Compared overall review "scores" of pilot and control applications
- Looked for correlations between descriptive statistics (e.g., # of glossary-defined terms in the claims) and overall review scores
- Tracking applications throughout prosecution for quality and productivity outcome metrics, such as:
  - Significant deficiencies in subsequent actions
  - Actions per disposal
  - Litigation



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## Preliminary Findings – Survey Data

- Examiner feedback
  - Definitions were considered helpful in 61% of submissions
  - 9% of time examiners conducted an interview to discuss definitions
- Applicant feedback
  - Primary benefit was expedited first Office action
  - Virtually all respondents indicated that the glossary facilitated compact prosecution and improved claim clarity
  - Majority of respondents indicated they would define more claim terms and/or include a glossary in future applications



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## OPQA Review Findings

- Analyses Performed:

- |                                |                                   |                                        |
|--------------------------------|-----------------------------------|----------------------------------------|
| ✓ Overall review scores        | ✓ # of Compliant definitions      | ✓ Presence of abbreviations            |
| ✓ Correctness                  | ✓ % Definitions compliant         | ✓ Presence of substantive terms        |
| ✓ Clarity                      | ✓ # of Definitions with synonyms  | ✓ Presence of new technical terms      |
| ✓ Search assessment            | ✓ # of Defined terms in claims    | ✓ Presence of relative terms           |
| ✓ Technology                   | ✓ % of Defined terms in claims    | ✓ Issuance of 112 rejections           |
| ✓ Number of claims             | ✓ Presence of functional terms    | ✓ Issuance of 101 rejections           |
| ✓ # of Definitions in glossary | ✓ Presence of structural elements | ✓ Examiner perceptions re: helpfulness |
| ✓ # of Defined terms/phrases   |                                   |                                        |

- No significant difference in quality review score of first Office actions when comparing pilot and non-pilot applications.
- No significant difference in quality review score across pilot applications when correlated to descriptive statistics of glossary use.



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## Future Considerations

- Continued monitoring of applications participating the Glossary pilot program for:
  - Actions per disposal
  - Final disposition
  - Quality of post-pilot prosecution
  - Litigation
- Continued partnership with stakeholders on the role that glossaries should play in clarity of patent prosecution in the future



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## Let's Chat about CPC and the Glossary Pilot

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# Next Patent Quality Chat: Tuesday, April 12<sup>th</sup> Excellence in Customer Service: Meet the Regional USPTO Offices



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