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

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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.
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

Color Key
Black font: CPC Classifying Offices
Green font: Future CPC Classifying Offices

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### CPC within the European Patent Organization

![Map of Europe showing CPC coverage](image)

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### CPC Coverage

44.3 million documents classified in CPC, as of January 2016

<table>
<thead>
<tr>
<th>Country</th>
<th>Country Code</th>
<th>Number of documents</th>
<th>Number of publications classified in CPC (family or document level)</th>
<th>% publications classified in CPC (family or document level)</th>
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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.

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.
Organization of CPC Schemes

<table>
<thead>
<tr>
<th>Sections A-H</th>
<th>Section Y</th>
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<tr>
<td><strong>Main Trunk</strong></td>
<td>Tagging of emerging cross-sectional technologies</td>
</tr>
<tr>
<td>(Class/Subclass/Main Group/Subgroups, non-2000 series)</td>
<td>- Y02: Climate Change mitigation technologies (CCMTs)</td>
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<tr>
<td></td>
<td>- Y04: Smart grids</td>
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<tr>
<td>About 162,000 symbols</td>
<td>United State Patent Classification (USPC) related</td>
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<tr>
<td></td>
<td>- Y10S: Technical subjects covered by former USPC cross-reference art collections (XRACs) and Digests</td>
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<tr>
<td></td>
<td>- Y10T: This subclass was introduced to accommodate for technical subjects formerly covered by USPC</td>
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<tr>
<td>2000 series</td>
<td>About 17,600 symbols</td>
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<tr>
<td>About 80,500 symbols</td>
<td></td>
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</tbody>
</table>

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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 5th 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 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

For Internal Stakeholders:
• CPC web page on USPTO Intranet

Patent Quality Chat:
Glossary Pilot Report Out

Seema Rao
Director of Technology Center 2100

Paul Rodriguez
Supervisor, Office of Patent Quality Assurance
Glossary Pilot Topics for Discussion

– Background
– Statistics
– Pilot Evaluation

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.”

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

Glossary Pilot Statistics – Filings

![Bar chart showing Glossary Pilot Statistics]

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

Examiner Survey – Types of Glossary Definitions

- 76% Functional Terms
- 66% Structural Elements
- 28% Abbreviations or Acronyms
- 63% Substantive Terms
- 17% New Technical Terms
- 20% Relative Terms

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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.

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

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

• 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 glossaries.

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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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Supervisory Patent Examiner, 1700

Seema Rao
Director of Technology Center 2100

Derris Banks
Director of Technology Center 2600

Paul Rodriguez
Supervisor, Office of Patent Quality Assurance

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Thank you for joining us today!

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Webinar Series 2016 (3 of 11)
March 8, 2016

Next Patent Quality Chat:
Tuesday, April 12th
Excellence in Customer Service:
Meet the Regional USPTO Offices
To send in questions or comments related to the USPTO’s Enhanced Patent Quality Initiative, please email:

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