Patent Public Advisory Committee
Quarterly Meeting

Examination Time Analysis (ETA)

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Examination Time Analysis (ETA)

- Comprehensive analysis of examination time.
- Goals:
  - Enable the organization to have a better comprehension of factors that impact examination time
  - Make more informed decisions about examination time
  - Devise methodologies to streamline future updates to examination time
Why?

“We will establish the optimal pendency and quality levels for both patents and trademarks that will enable us to operate efficiently and effectively in a steady-state maintenance mode, while considering the expectations of the IP community.”

USPTO Strategic Plan 2014-2018
Why now?

• Properly calibrated examination time is critical for establishing optimal pendency and quality levels.
• Patent prosecution has substantially changed since goals were established.
• Oversight bodies, such as the General Accounting Office and Office of the Inspector General, have recommended that the USPTO reevaluate examination time.
Major Items Affecting Examination Time

- Differing Technologies
- Using data to analyze time
- Quality Enhancements/Expectations

Technology/Data
- Organizing like technologies together based on CPC
- Determine examining hours based on technology data and application characteristics

Outreach
Obtain and analyze input from:
- Examiners and SPEs
- IP community
- Academic Community

Quality and Clarity Actions
Determine expectations based on outreach data and internal quality programs/data

Recommendations
OUTREACH EFFORTS
ETA Examiner & SPE Survey

- Gather the ideas, experiences, and priorities concerning individual productivity and the production system
  - Examiner point of view – impediments and enhancements to effectively examine in a timely manner
  - SPE point of view – impediments and enhancements to effectively manage in the current production system
- All examiners and SPEs were invited to participate in the survey.
  - Examiner Respondents: 6,912 (83% of examiners)
  - SPE Respondents: 425 (68% of SPEs)
# Productivity and Ability to Examine in a Timely Manner

| Tasks/characteristics/resources | 1. Well drafted applications  
|------|--------------------------|
|     | 2. Appropriate number of claims  
|     | 3. Relevant Information Disclosure Statements (IDS)  
|     | 4. Related cases  
|     | 5. International search reports.  |

| Activities/examining parameters | 1. Evolving application complexity  
|------|--------------------------|
|     | 2. Poor application quality (e.g. poorly written specification or claims)  
|     | 3. Changes in examination policy or practice  
|     | 4. IT issues  
|     | 5. Multiple inventions present in an application  |
## Indicators of Time Requirements

| Variables that indicate an application will take **more time** than average to examine | 1. Greater than the typical number of claims |
| | 2. Complexity of application subject matter |
| | 3. Poor claim quality (e.g. 112 issues) |
| | 4. Greater than typical number of independent |
| | 5. Extensive claim amendments |

| Variables that indicate an application will take **less time** than average to examine | 1. Fewer than the typical number of claims |
| | 2. RCE |
| | 3. Part of application family (continuation, divisional) |
| | 4. Pertinent IDS |
| | 5. Personal expertise in the claimed art |
Additional Survey Takeaways

• Quality improvements can best be achieved by investing more time early in prosecution, in particular, in performing the initial search

• Top benefits/advantages for enhancing productivity
  – Flexibility (e.g. work schedules, ability to plan work)
  – Personal expertise in the claimed art
  – Effective management/staff support

• Dissatisfied with time allotted for tasks after final rejection
Goals of Public Outreach

• Gather public feedback regarding expectations of the IP community
• Understand interests regarding quality, pendency, and cost for services
• Shed light on characteristics of patent applications which lead to a more time-consuming examination
Public Outreach Approach

- Published a [Federal Register Notice](#)
- Conducted 4 roundtables in Alexandria and the USPTO regional offices in Dallas, Denver, and San Jose
  - Approximately 90 participants
- Collected written comments:
  - 36 emailed (27 individuals, 6 companies, 3 IP Organizations)
  - 6 comments on [IdeaScale](#)
- Analyzed comments from the roundtable events and written submissions to identify trends
Priorities from Public Comments

- Measurable quality
- Thorough, high-quality searches
- Effective oral communication, including formal interviews and calls/discussions, early and throughout prosecution
- Examiners with a thorough understanding of the examined technology and applicable law
# Impacts to Complexity, Time, & Quality

<table>
<thead>
<tr>
<th>Examiner-related factors</th>
<th>Applicant-related factors</th>
<th>Office-influenced factors</th>
<th>The court system</th>
<th>Rapidly developing technology</th>
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</thead>
<tbody>
<tr>
<td>• Experience in the technology</td>
<td>• Interdisciplinary inventions</td>
<td>• Proper classification of the application</td>
<td>• New case law (101)</td>
<td>• Established field/terminology</td>
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<tr>
<td>• Time in office/seniority</td>
<td>• Claim breadth</td>
<td>• Consistent application of statutes</td>
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<td>• Volume of prior art</td>
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<tr>
<td>• Sufficiency of expectancy</td>
<td>• Length of the application</td>
<td>• Consistent consideration of evidence</td>
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<td>• Legal training</td>
<td>• Language used to describe the invention</td>
<td>• Degree of supervisory oversight</td>
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<tr>
<td>• Search training</td>
<td>• Globalization – filing in multiple countries</td>
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Rapidly developing technology

- Established field/terminology
- Volume of prior art
Common Observations Across Examiners, SPEs, & IP Community

• Benefit of examiners’ expertise in the claimed art
• Importance of clear communication between applicant and examiner
• Importance of thorough search
• Many factors can influence the complexity of an application, the time needed to prosecute the application, and the quality of the examination
Academic Outreach

• ETA Team and Chief Economist’s Office collaborated to host an information gathering session with scholars with expertise in personnel economics, business and human resource management, and organizational incentive mechanisms.

• Goals of outreach:
  – To find out what is currently known in the academic literature about incentives for knowledge workers, such as examiners
  – To get ideas about how to improve our current incentive system
  – To get ideas about how empirical studies (i.e. data, research designs, and methods) could be used to analyze current and new incentives at USPTO
Considerations Identified in Academic Outreach

• Trade-offs between examination time and examiner performance
• Variety of incentives available and potential impacts
• Impact of aligning quality measurements, monitoring mechanisms, and agency objectives
• Importance of effective management practices and employee-management relationships
QUALITY & CLARITY of ACTIONS
Quality and Clarity of Actions

• Capture Quality Activities as they apply to today’s examination practices

• Identify key priorities regarding quality and clarity

• Analyze potential impacts to examination time
IMPACTS of TECHNOLOGY & CPC
Examination Complexity

• Identify factors that influence examination complexity from historical data and input from examiners, SPEs, and IP community

• Considerations for Quantifying Complexity
  – What is the best method for defining factors that impact complexity?
  – What factors increase or decrease complexity?
  – Do the factors or level of impact vary across technologies?
  – What other variables may impede or enhance an examiner's ability to effectively examine in a timely manner?
# Examples of Factors Affecting Complexity

## Application Factors
- **Specification**
  - Number of Pages
- **Claims**
  - Total number
  - Total Pages
  - Number of Dependent/Independent
- **Drawings**
  - Number of sheets/figures
  - Number of pages
- **Other**
  - Entity Size
  - Number of Patents in Continuity Chain

## Search Factors
- **CPC/USPC**
  - Number of documents in relevant field (volume of search)
  - Number of CPC symbols
  - Pages/# of PTO-1449
  - Pages/# PTO-892
- **Other**
  - Number/Pages of Search Notes
  - Number/Pages of NPL
  - Number/Pages of Foreign Priority Documents
  - Number/Pages of Foreign References

## Prosecution Factors
- **Restrictions**
  - Number/Pages
- **Applicant Remarks**
  - Number/Pages
- **Amendments**
  - Number of CLM documents
  - Number of Amendments
  - Number/Pages of After finals
  - Number/Pages of Appeals
- **Number of Interviews**
- **Office Actions**
  - Number/pages of non-finals
  - Number/pages of Finals
  - Number/pages of Allowances
- **Petitions**
- **Number of RCEs**
- **Actions in disposal**
CPC Considerations

The ETA team is evaluating a number of approaches for assigning time in a manner compatible with Cooperative Patent Classification (CPC):

- Application specific correlations between USPC and CPC
- Technology relationships between different CPC symbols within the scheme
- Diversity of CPC symbols on an application
- Fields of Search with CPC
Next Steps

• Continue to evaluate factors impacting examination time
• Consider potential changes to examination time
• Seek to devise methodologies to streamline future updates to examination time
Thank you!

Thank you to the multiple, cross-functional ETA team members and support:

• TC Directors
• SPEs
• POPA representatives
• PPAC, particularly members who participated in the public roundtable panels
Questions and Comments

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