



Europäisches  
Patentamt  
European  
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des brevets

# XML Filing and Exchange



# Overview of the Briefing

- Context
- Current situation
  - For Applicants
  - For the EPO
  - For exchanges with other Offices
  - The Challenges
- Proposal
  - Existing XML standard (Office Open XML)
  - Benefits for Applicants
  - Benefits for then EPO
- Next Steps
  - Annex F update
  - Implementation
  - Managing the Transition
  - User consultation

# Context

- On-line filing has been operational since 2000
- Operationally it is working well
  - Approximately 95% of new filings at the EPO are now online
- There are new opportunities
  - Technology has moved on
  - PDF is no longer the only option
  - Publishing houses are now promoting online processing with word processor based XML
  - EPO's IT Roadmap has created new possibilities (e.g. eDossier)
- Questions
  - Can we be more efficient on both sides?
  - Are there better ways to exchange documents?
  
- This presentation proposes a possible “state-of-the-art” answer

# Current Situation

# Current Situation - Applicants

- Drafting
  - 98% of filers at the EPO prepare application documents in MS Word
  - Current word processors not able to generate WIPO ST 36 XML directly
- Conversion
  - 50% convert to PDF using AmyUni
  - 40% convert using Adobe products
  - 5% scan a printed copy
  - 5% use other software to create PDF
- Submission
  - Current mixture of formats
  - PDF-Image also includes 1mio pages per year by fax

PDF-Text	PDF-Image	Paper	PatXML	
82%	9%	8%	1%	

# Current Situation – EPO Receiving Office

- EP and PCT new applications 94,5% online v. 5% paper/fax
- Amendments 40% online v. 60% paper/fax
- PCT Ch I, II and Euro-PCT 100% image from WIPO or RO (except RO/EP)
- Estimated volumes in 2016

<b>Pages</b>	<b>2016</b>
Total EP Direct	2.616.000
Total EP SFD	724.000
Total PCT RO-EP	1.471.000
Total PCT Ch I	3.413.000
Total PCT Ch II	376.000
Total Euro-PCT	4.301.000
Total National	1.069.000
<b>Grand total</b>	<b>13.970.000</b>

- All online filings automatically loaded into PHOENIX\*\* as Image and PDF
  - Never printed and scanned
- All paper filings scanned and loaded into PHOENIX as Images
- All incoming documents sent for Search Quality OCR (99,5%)
  - Used for EPOQUE and other EPO search and examination purposes

\*\* PHOENIX is EPO's current electronic dossier

# Current Situation – The Challenges

- The volume of OCR
  - 10mio pages per year for incoming application documents
- The volume of re-OCR
  - Search Quality XML (99,5%) to Publication Quality XML (99.95%) for publication
- EPO Board of Appeal (BoA) Decision G1/10
  - No more correction of some obvious OCR errors after publication
  - Reinforced responsibility on the applicant to check the final specification
- Systematic exchange of image dossiers during the PCT phase
  - Image is the lowest common denominator in Annex F
- Applicants are asking for a simpler solution
  - But looking for something that will fit into their workflows

# Proposal



# Proposal – Word-processor XML standard

- Based on “Office Open XML” (ISO 29500:2008)
- Provide standard document templates and rules to ensure compliance
  - Single Unicode font
  - Complex tables, chemical and mathematical formulae foreseen as images
  - Paragraph styles for claims, description, drawings, abstract, headings
- Widely available
  - Native format for MS Word
  - Read and written by other word processors
    - e.g. LibreOffice, GoogleDocs
  - Available cross platform Windows/Mac/Linux
  - Already in use as the internal format by 98% of European Applicants
- Provide one, common validation engine for use:
  - By applicants before filing
  - By the EPO after filing
- Allows direct publication and use of the XML in the patent grant process

# Benefits for Applicants

- "What you file is what we use"
  - An answer to BoA Decision G1/10 and correction of obvious errors
- Simpler process
  - Takes advantage of technology improvements in the last 15 years
  - Widely used on the publishing industry
  - No more need for conversion to PDF
  - Attach and send in-house document saved directly from word processor
- Secure process
  - Existing digital signature used to guarantee no changes after submission
  - Applicant has the digital "hash" to prove it
- Provides a solid basis for the future
  - Opens the door for colour support
  - An existing, well understood model for track-changes in amendments
  - Will also allow improved communications (e.g. hyperlinks for citations)

# Benefits for the EPO

- No more OCR for valid XML filings
- Ready to publish document always available
- Content of XML filing directly loaded into EPO systems
  - Automatic extraction and Quality Control
- End-to-end electronic process in XML
  - Filing (eOLF/CMS\*\*\* Filing/WebForm)
  - Search (EPOQUE/ other search tools & eDossier)
  - Examination (eDossier & electronic publication editing)
  - A and B Publication
  
- Opens up similar opportunities for other offices that adopt the new standard

\*\*\* eOnLine Filing/Content Management System

# Next Steps

# Next Steps - Implementation

- Prepare updates to Annex F
- EPO implementation project
  - Includes building a prototype to demonstrate the new approach
  - MS Word Templates for applicants
  - eOLF/CMS\*\*\* Filing/Web-form filing to attach docx files
  - Validation engine for Applicants and EPO (same engine for both)
  - Loading XML text into existing EPO systems
- Design will include preparation for integration into new National Office hosted filing solution
- Pilot with selected users once Annex F approved
- Prepare any rule changes for approval by EPO's Administrative Council

\*\*\* eOnLine Filing/Content Management System

# Next Steps – Managing the Transition

- Support
  - Communication on using the new templates
  - User Days and Conferences to offer training
  - Show how simple and secure it really is
  - Explain advantages of re-filing in XML with any amendments
- Encourage
  - Look at adjusting fee policy to promote XML filing and staying in XML up to grant
- Balanced approach
  - Ensure a suitable transition period (e.g. two years)
  - Continue a parallel PDF-Text OCR chain for the diminishing number of remaining filings
- User Consultation

# Conclusions

# Conclusions

- The current filing systems work well operationally
  - 94% online
  - Predominately PDF
- Challenges due to OCR conversion of the PDF
  - Costs
  - EPO Board of Appeal Decision G1/10
  - Multiple conversion steps
- Opportunity to adopt new technology and move forward
- Proposal to adopt word processing format already used by 98% of applicants
- This is expected to bring:
  - A simple and secure option for applicants
  - End-to-end XML processing inside the EPO
- Need to support and encourage users to transition
- Next step: Consultations with Users and other Offices