Who we are

- David Boundy
  - Executive committee of PTAAARMIGAN, a nonprofit representing Patent and Trademark Attorneys, Agents, and Applicants
  - Former software engineer—invited to lecture at MIT, Hewlett-Packard's alternate representative on an ANSI standards committee. Software used by Boeing and other high-reliability users.
  - Expertise in administrative law—in 2018, United States Court of Appeals for Federal Circuit (Jay Plager's court) flew me down to D.C. for a day to coach on *Chevron* deference
    - https://www.potomaclaw.com/professionals-David-Boundy
- Brad Forrest
  - General Counsel and Chairman of the Board of Schwegman Lundberg in Minneapolis, one of the ten largest filers of patent applications
  - Former Counsel and Manager of Intellectual Property Law for a division of IBM (1984-1993)
  - Currently Vice Chair of the AIPLA Legislation Committee (AIPLA is the American Intellectual Property Law Association, a nonprofit, and the largest organization of patent attorneys)
  - https://www.slwip.com/people/bradley-forrest/
- Rich Baker
  - President of NAPP, the National Association of Patent Practitioners, a nonprofit, the third-largest organization of patent attorneys and agents, generally representing small entities
  - President of New England Intellectual Property in Massachusetts
  - Former Director of Intellectual Property for Bottomline Technology, 3Com Corporate, and Schneider Automation
  - Former Director of Patent Sales for HP
  - Former Trustee for the Licensing Executives Society, a nonprofit organization of technology transfer professionals
  - Computer scientist with 20 years experience in developing and leading software teams
  - https://www.newenglandip.com/#h.5twh6ycmz7z
- All three appearing today *pro bono*

Issue 1: DOCX filing

The Patent Office proposes to displace a voluntary consensus standard for patent filing–PDF–with a single company software product – Microsoft Word – that does not observe any standard, let alone a voluntary consensus standard. This violates OMB Circular A-119.

The Patent Office adopted a DOCX filing system in which (a) the Patent Office *changes* the document that the applicant uploads, and (b) the Patent Office's computers render the file differently than the applicant's computer. Both of these factors introduce errors.

The Patent Office's ICR does not recognize the costs of proofreading or error correction. Comment letters estimate burden at $200 million to $600 million (assuming sufficient proofreading to elevate the reliability of DOCX filing to the same reliability as PDF).

The process followed by the Patent Office was flawed

Patent applications require extraordinary precision

Except in extraordinarily narrow circumstances, a patent application can't be modified or corrected to add new material after it is filed without sacrificing the original filing date. If the Patent Office's software makes an error, the applicant is stuck. Almost every other legal document can be revised or amended after initial filing—but for patent applications, that door is *very* narrow.

About half of U.S. filings serve as a basis for foreign filings. Any correction to a U.S. application also has to meet the requirements of foreign law (and in many countries, the rules are even stricter).

Thus, the Patent Office's upload software must be uniquely reliable. The form in which a patent application is filed must be reliable, and must be uniform so that a given file will appear *identical* on every computer that displays it. The Patent Office's software must reflect high-reliability design principles.

An entire patent's life (26 years) depend on correctness on day 1. Other parts of a patent's life are more error-tolerant, but not initial filing.

Part 1 of this presentation: text-based PDF meets those requirements. DOCX violates them.

Upshot:

When a patent application is filed in DOCX, the Patent Office <u>cannot</u> guarantee that what the Patent Office's computers see will be the same as what the patent applicant saw on his/her computer before filing.

We have observed a number of differences.

Some are innocuous, formatting only—

- Different pagination
- Different indents, which can lead to very different layouts for paragraphs and pages
- Different fonts
- A pain in litigation when cites to individual pages are required, and different readers will see different displays, but not substantively catastrophic

Some are catastrophic, potentially rendering a patent application valueless:

- Multiple examples in the 60-day letter in ICR 202309-0651-002, https://www.reginfo.gov/public/do/DownloadDocument?objectID=135 640900, at PDF pages 68-94

Example 1: During 2019 NPRM comment period, commenters pointed to errors introduced by the PTO's DOCX software:

> DOCX is stable and governed by two international standards (ECMA-376 and ISO/IEC 29500).

This statement is simply false. There is no single DOCX standard to which Microsoft Word and the other word processors are all compliant.

To give a simple example, consider this math equation in a patent application that I recently filed as a PDF-based PCT application using Libre Office:

$$f(u)=\cos(u)^3 \exp\boxed{(0.2\,u)} \qquad \textbf{(Equation 14)}$$

As an experiment I uploaded the DOCX file of this PCT application to EFS-Web as if I were filing a domestic US patent application. The way the USPTO has designed EFS-Web, what happens next is that the practitioner sees this message in red letters:

> **The PDF(s) have been generated from the docx file(s). Please review the PDF(s) for accuracy. By clicking the continue button, you agree to accept any changes made by the conversion and that it will become the final submission.**

It is easy to see that this filing procedure, as contemplated by USPTO, imposes an enormous professional liability risk on the practitioner. The practitioner is obligated to proofread the entire patent application, from top to bottom, for any corruption introduced by the USPTO's rendering system.

Here is how the USPTO rendered this math equation:

$$f(u) = \cos(u)^3 exp\boxed{(10.2u)} \qquad \textbf{(Equation 14)}$$

The alert reader will notice that the USPTO inserted a spurious digit "1" into the math equation. Had I overlooked this corruption of the document by the USPTO, I might then have clicked "continue", at which point it would have been USPTO's position that I had agreed to accept USPTO's change of "0.2" to "10.2". TYFNIL the accused infringer would be able to seize upon this. ———— *ten years from now in litigation*

There are a dozen other places in this patent application where USPTO corrupted math equations; Equation 14 is merely the most striking so that is the one that I quoted here.

As a beta-tester of USPTO's DOCX systems, I have used a pretty simple way of choosing which of my patent applications I am willing to subject to the risks of filing in DOCX. Basically if there is any math equation or chemical formula, or anything other than very simple alphanumerical characters, I don't take the risk. Every now and then, on a whim, I will experiment with something like this "Equation 14" document, but I don't risk any actual substantive rights of a client by actually clicking "submit" in such a case.

46956   **Federal Register** / Vol. 85, No. 149 / Monday, August 3, 2020 / Rules and Regulations

providing ample time for applicants to transition to this new process.

Comment 43: One commenter questioned the statement made by the USPTO Acting Deputy Director in the September 2018 PPAC Fee Setting Hearing that ''fees for search and examination are set below cost,'' and

Therefore, they will continue to be automatically removed, and a warning will be provided.

To date, the Office has not received notifications of any issues resulting from the filing of applications in DOCX format. If there is an instance in which an error occurs, the Electronic Business

non-DOCX surcharge. Furthermore, the fee is reduced by 50 percent for small entities and 75 percent for applicants that qualify as micro entities.

The Office recognizes the need for freedom of choice to file in different formats. Therefore, image-based PDFs will continue to be accepted for

Perhaps this is literally true: as Carl's letter explains, after Carl detected the error to be introduced by the PTO's DOCX software, Carl abandoned the attempt, and filed that patent application as a reliable PDF. Thus, taken hyper-literally, there was no "issue resulting from the filing of an application in DOCX format."

This is a symptom of a larger disease: in the Final Rule and Supporting Statements, the Patent Office made dozens of representations to OMB that are only true if read hyper-literally.

For a Libre Office user (like Carl), (a) the error cannot be detected except by sharp-eyed character-by-character proofreading, and (b) this error cannot be overcome except by resorting to PDF. The very same bits mean different things to Carl's Libre Office and to the Patent Office's DOCX engine.

The Patent Office has never responded to the public's concern that this is not a problem of individual bugs. The problem is a design that can never be reliable, no matter how much debugging. The Patent Office's foundation is built on sand that is designed to shift.

publication automatically route into the U.S. national stage application in PDF form. However, the commenter stated that this highlights the unwarranted nature of the non-DOCX surcharge. If a relatively moderate increase in price for PCT national stage entry applications is believed to be fiscally sustainable within the proposed fee structure, then the same should be true of regular non-provisional application filings, and the imposition of a new non-DOCX filing surcharge fee for one and not the other is thus inconsistent.

Response: Processing DOCX in national stage applications presents additional challenges and burdens on the Office and applicants that are not encountered with a standard utility application. Further investigation is needed as to the possibility of alternative means for obtaining text data (*i.e.,* via the International Bureau) that would not burden applicants. This is being considered for the future.

Comment 45: One commenter stated that filing in DOCX is a wonderful idea in theory, but says that bugs have not been worked out of the process. The commenter writes that EFS-Web should stop removing ''text ornaments.'' Until it stops doing this, and until a DOCX filing will reliably result in an identical PDF document, there should be no penalty for filing PDF specifications or other application elements.

Response: ''Text ornaments,'' or text decorations, may not be presented in a form that allows direct reproduction of readily legible copies. *See* CFR 1.52.

Response: The use of image-based PDFs incurs many costs over the lifetime of an application. There are large costs associated with the USPTO's systems and personnel, from pre-examination, examination, and publication, due to the need to apply OCR to convert image-based PDFs into structured text that can be leveraged by downstream systems. The surcharge is applied not only to account for these inefficiencies, but also to address rising expenses.

This answer is evasive. No one suggested "image-based PDFs." The suggestion was text-based PDFs, specifically PDF/A. Nowhere in 2019-2020 NPRM phase nor 2020 triennial ICR for 0651-0032 nor 2023 DOCX 0651-0089 does the PTO respond to the suggestion.

As patent applications have become increasingly complicated, the non-DOCX surcharge is an effective measure to recover the cost of converting PDFs to text. The text is essential for efficient examination and maintaining the quality of patents issued. According to surveys conducted by the USPTO, the majority of applicants use word-processing software, such as Microsoft Office and LibreOffice, to author applications in DOCX format. These applicants will now be able to submit applications in this same format to the USPTO, therefore avoiding the new

to provide a PDF version of the patent application being filed, along with the DOCX file. The PDF version would serve as the controlling version in the event of any discrepancy in the USPTO's rendering of the DOCX file.

Response: Many applications are originally created in DOCX and subsequently converted to PDF by applicants prior to submission. An advantage of submitting in DOCX format directly is that submitted files from all applicants are validated and converted to PDF by USPTO systems in a consistent manner. This eliminates the unnecessary step for applicants to generate and attach their own PDF documents. The generated PDF is available pre-submission to provide the applicant an opportunity to review the document before selecting the submit button.

As a part of the DOCX intake process, preliminary validation is performed on DOCX documents at the time of upload. The system immediately detects and supplies the applicant with useful error and warning messages, allowing for adjustments to patent applications early in the process. This saves time, reduces potential costs, and prevents delays in processing by minimizing notices of missing parts or incomplete applications from the Office. Furthermore, the USPTO continuously performs rigorous testing to ensure that document integrity is preserved.

Comment 49: One commenter asked whether the surcharge would be waived if an applicant filed on paper because the electronic filing system was not

Example 2

- **Uploaded DOCX:**
- **[0128]**   **[h,w]=size(Iin);**
               Iout=zeros(size(Iin));
               for i=1:h,
                     for j=1:w,
                           x=j;
                           y=i;
                           S=dZ/(f*H);
                           x1=x(:)-x0;
                           y1=y(:)-y0;
                           y2=y1./(1+y1*S);
                           x2=x1./(1+y1*S);
                           x2=x2+x0;
                           y2=y2+y0;
                           Iout(i,j)=bilinearInterpolate(Iin,x2,y2);
                     end;
               end;

- **Patent Office's "validated" DOCX:**
- **[0128]**   **[h,w]=size(Iin);**   **Iout=zeros(size(Iin));**   **for i=1:h,**   **for j=1:w,**   **x=j;**   **y=i;**   **S=dZ/(f*H);**   **x1=x(:)-x0;**   **y1=y(:)-y0;**   **y2=y1./(1+y1*S);**   **x2=x1./(1+y1*S);**   **x2=x2+x0;**   **y2=y2+y0;**   **Iout(i,j)=bilinearInterpolate(Iin,x2,y2);**   **end;**   **end;**

The top pseudocode listing (uploaded DOCX) is what was displayed on the applicant's computer. The bottom listing (Patent Office's "validated" DOCX) is what showed up when displayed on the Patent Office's system. All the formatting showing how the code worked is missing from the Patent Office's DOCX.

Example 3

Example 3 shows images of an equation copied directly from a display of the applicant. The Patent Office's displayed version shows squares for many of the parameters.

$$M(x)[Z] \leq \exp(\epsilon \cdot d(x, x')) \cdot M(x')[Z].$$

$$M(\square)[Z] \leq \exp(\square \cdot \square(\square, \square')) \cdot M(\square')[Z].$$

Example 4

Example 4 shows equation parameters converted to squares by the Patent Office's DOCX software:

[0002] $PL_{b,f,c}(q_d))$ [0002] $\square\square_{\square,\square,\square}(\square_\square))$

[0003] $P_{O\_PUSCH,b,f,c}(j))$ [0003] $\square_{O\_PUSCH,\square,\square,\square}(j))$

[0004] $\alpha_{b,f,c}(j))$ [0004] $\square_{\square,\square,\square}(j))$

Example 5

Pages of text missing

PDF resulted in blank pages in PTO version

USPTO programmer says it has been fixed after we provided an example

- Temporary system resource constraint
- But - hyperlink error returned.
  - P [272] – Javascript hyperlink
  - Now it works

We worked with a programmer at the Patent Office to try and correct some errors during testing. Many hidden errors, like a hyperlink that may not even be visible in the display of the DOCX file can result in an error message that prevents filing of the application. Many hidden errors have been found and will continue to be found. After spending tens of hours drafting an application that needs to be filed quickly, these errors, can both prevent filing, or lie undetected potentially threatening the enforceability of the patent.

Example 6

Both Adobe Sign and the Patent Office's DOCX software changed this equation

$$V_{D_P/2}$$

to this:

$$\boxed{?}_{\boxed{?}_P}/2$$

In Example 6, as displayed on the applicant's computer, the equation was displayed perfectly. In filing the application, Adobe sign was used to generate an auxiliarly PDF to use to correct the Patent Office's "validated" version. Both Adobe Sign and the Patent Office's DOCX software generated the incorrect formula, replacing good symbols V and D with boxed question marks. Similar boxes with question marks were sprinkled through out the 50 plus pages of the application.

If the developer of the PDF standard can't reliably convert a DOCX file, what chance does the Patent Office have of getting it correct?

Example 7 (April 2024)
Prevented filing until fixed

We are getting a DocX file being rejected due to "document automation fields". One error shows up just after the title

as:
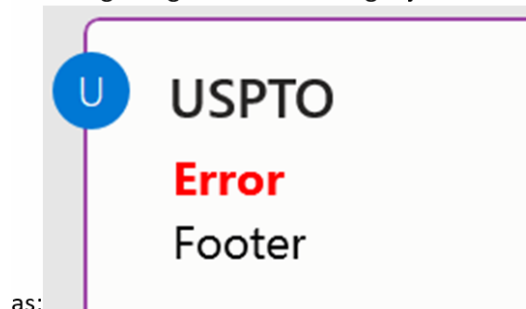
In Example 7, an error prevented filing of the application using a DOCX file. The cause of the error was unviewable when performing normal editing. The error code is shown above. We could not figure out how to fix it.

A Patent Office programmer we contacted recommended "press ALT &F9 to reveal the automation field code. Highlight/select the field code then hold down CTRL+SHIFT+F9 to remove the field code."

That did not work. We finally figured out how to fix it a couple days later by using a feature in MS Word: click: **FILE**, **INFO** and then **Check for Issues**

The solution was found by a specialist in our sophisticated word processing group who had never used that function before. What about small entities, like individual inventors who use open source word processing that may not have a super-specialist that can do that kind of diagnosis?

Can you imagine trying to file your taxes using DOCX files and having the IRS version show that you under reported income by 10 fold and then not let you correct it? Next stop, big fine and criminal prosecution. Some of the patents we work on are worth millions of dollars, and the mistakes introduced by the DOCX rendering can render them worthless.

Example 8   Page 012

Claims

1.   A laser amplifier device comprising:

an amplification element comprising a solid-state gain medium; said amplification element comprising a first main face and a second main face separated from each other by a distance which is at least ten times smaller than the lateral dimensions of said first and a second main faces,

a solid-state heat spreader thermally connected to the first main face of the amplification element and substantially covering the surface of said first main face; the solid-state heat spreader being optically transparent to a pump light configured to optically excite the gain medium of the amplification element; said solid-state heat spreader being further in thermal contact with a heat sink,

a first reflector substantially covering and facing said first main face and a second reflector substantially covering and facing the second main face; said reflectors being configured to reflect said pump light for at least a range of incidence angles,

wherein the solid-state heat spreader and the first reflector are arranged such that when said pump light is directed towards the amplification element, the pump light passes through the solid-state heat spreader and through the first reflector,

wherein the first and second reflectors are configured to produce multiple reflections of said pump light across the amplification element, between the first and second reflectors; and

wherein said first reflector is not in physical contact with the amplification element and the solid-state heat spreader.

2.   The laser amplifier device according to claim 1, wherein the amplification element comprises a gain medium layer sandwiched between two surrounding layers, the gain medium layer constituting the gain medium of the amplification element and the surrounding layers being made from a transparent material approximately matching the index of refraction of the gain medium layer.

3.   The laser amplifier device according to claim 2, wherein the gain medium layer has a thickness between 100 μm and 3 mm; preferably,

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between 200 μm and 300 μm, and wherein each of the surrounding layers has a thickness between 200 μm and 1 mm, preferably between 200 μm and 300 μm.

4.   The laser amplifier device according to claim 2, wherein the gain medium layer comprises a doped ceramic or crystalline material and the surrounding layers comprise the same undoped ceramic or crystalline material.

5.   The laser amplifier device according to claim 4, wherein the material of said gain medium layer comprises Yb-dopped YAG and, the material of the surrounding layers comprises undoped YAG.

6.   The laser amplifier device according to claim 1, wherein said solid-state heat spreader is made of a material comprising diamond or sapphire.

7.   The laser amplifier device according to claim 1, wherein the pump light comprises an array of locally spatially confined pump beams; and

wherein the first reflector comprises an array of small apertures configured to allow the passage of said array of locally spatially confined pump beams into the amplification element.

8.   The laser amplifier device according to claim 7, wherein the first reflector comprises a substrate comprising an array of tap-holes defining said array of small apertures, said substrate being coated on at least one side with a reflective coating.

9.   The laser amplifier device according to claim 7, wherein the first reflector comprises a transparent substrate comprising a patterned reflective coating defining said array of small apertures.

10.   The laser amplifier device according to claim 1, wherein the pump light comprises a collimated beam;

the amplifier device being oriented relative to the collimated beam such as to provide a predetermined angle of entrance of the collimated beam into the amplification element;

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wherein the second reflector makes a non-zero reflector angle relative to the first reflector such that the multiple reflections across the amplification element occur at other angles of incidence different from the predetermined angle of entrance;

said first reflector comprising a dielectric angle-dependent optical coating
5   having transmitting properties for the collimated beam at the predetermined angle of entrance and having reflective properties for the collimated beam at said other angles of incidence.

11.   A system comprising a laser amplifier device comprising:

an amplification element comprising a solid-state gain medium; said
10   amplification element comprising a first main face and a second main face separated from each other by a distance which is smaller than the lateral dimensions of said first and a second main,

a solid-state heat spreader thermally connected to the first main face of the amplification element and substantially covering the surface of said first main face; the
15   solid-state heat spreader being optically transparent to a pump light configured to optically excite the gain medium of the amplification element; said solid-state heat spreader being further in thermal contact with a heat sink,

a first reflector substantially covering and facing said first main face and a second reflector substantially covering and facing the second main face; said reflectors
20   being configured to reflect said pump light for at least a range of incidence angles,

wherein the solid-state heat spreader and the first reflector are arranged such that when said pump light is directed towards the amplification element, the pump light passes through the solid-state heat spreader and through the first reflector,

wherein the first and second reflectors are configured to produce multiple
25   reflections of said pump light across the amplification element, between the first and second reflectors, and

wherein said first reflector is not in physical contact with the amplification element and the solid-state heat spreader;

the laser amplifier device further comprising a light source configured to
30   generate pump light adapted to optically excite the gain medium of the amplification element, the pump light substantially covering the surface of said first main face.

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12.   The system according to claim 11,

wherein the light source is configured to generate an array of locally spatially confined pump beams;

wherein the first reflector comprises an array of small apertures configured to allow the

5   passage of said array of locally spatially confined pump beams into the amplification element.

13.   The system according to claim 12,

wherein the light source comprises an array of optical fibers; and

wherein each optical fiber comprises an output face emitting one of the locally spatially

10   confined pump beams, each output face being aligned in front of each of said small apertures.

14.   The system according to claim 12,

wherein the light source comprises an array of micro-lenses generating the array of

locally spatially confined pump beams, the array of micro-lenses being arranged to

15   focus said locally spatially confined pump beams into said small apertures.

15.   The system according to claim 14,

wherein the light source is configured to generate a collimated beam.

Claims

1. A laser amplifier device comprising:

an amplification element comprising a solid-state gain medium; said amplification element comprising a first main face and a second main face separated from each other by a distance which is at least ten times smaller than the lateral dimensions of said first and a second main faces,

a solid-state heat spreader thermally connected to the first main face of the amplification element and substantially covering the surface of said first main face; the solid-state heat spreader being optically transparent to a pump light configured to optically excite the gain medium of the amplification element; said solid-state heat spreader being further in thermal contact with a heat sink,

a first reflector substantially covering and facing said first main face and a second reflector substantially covering and facing the second main face; said reflectors being configured to reflect said pump light for at least a range of incidence angles,

wherein the solid-state heat spreader and the first reflector are arranged such that when said pump light is directed towards the amplification element, the pump light passes through the solid-state heat spreader and through the first reflector,

wherein the first and second reflectors are configured to produce multiple reflections of said pump light across the amplification element, between the first and second reflectors; and

wherein said first reflector is not in physical contact with the amplification element and the solid-state heat spreader.

2. The laser amplifier device according to claim 1,

3. wherein the amplification element comprises a gain medium layer sandwiched between two surrounding layers, the gain medium layer constituting the gain medium of the amplification element and the surrounding layers being made from a transparent material approximately matching the index of refraction of the gain medium layer.

4. The laser amplifier device according to claim 2,

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5. wherein the gain medium layer has a thickness between 100 μm and 3 mm; preferably, between 200 μm and 300 μm, and wherein each of the surrounding layers has a thickness between 200 μm and 1 mm, preferably between 200 μm and 300 μm.

6. The laser amplifier device according to claim 2,

7. wherein the gain medium layer comprises a doped ceramic or crystalline material and the surrounding layers comprise the same undoped ceramic or crystalline material.

8. The laser amplifier device according to claim 4,

9. wherein the material of said gain medium layer comprises Yb-dopped YAG and, the material of the surrounding layers comprises undoped YAG.

10. The laser amplifier device according to claim 1,

11. wherein said solid-state heat spreader is made of a material comprising diamond or sapphire.

12. The laser amplifier device according to claim 1,

13. wherein the pump light comprises an array of locally spatially confined pump beams; and

14. wherein the first reflector comprises an array of small apertures configured to allow the passage of said array of locally spatially confined pump beams into the amplification element.

15. The laser amplifier device according to claim 7,

16. wherein the first reflector comprises a substrate comprising an array of tap-holes defining said array of small apertures, said substrate being coated on at least one side with a reflective coating.

17. The laser amplifier device according to claim 7,

18. wherein the first reflector comprises a transparent substrate comprising a patterned reflective coating defining said array of small apertures.

19. The laser amplifier device according to claim 1,

20. wherein the pump light comprises a collimated beam;

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the amplifier device being oriented relative to the collimated beam such as to provide a predetermined angle of entrance of the collimated beam into the amplification element;

wherein the second reflector makes a non-zero reflector angle relative to the
5   first reflector such that the multiple reflections across the amplification element occur at other angles of incidence different from the predetermined angle of entrance;

said first reflector comprising a dielectric angle-dependent optical coating having transmitting properties for the collimated beam at the predetermined angle of entrance and having reflective properties for the collimated beam at said other angles of
10   incidence.

21.   A system comprising a laser amplifier device comprising:

an amplification element comprising a solid-state gain medium; said amplification element comprising a first main face and a second main face separated from each other by a distance which is smaller than the lateral dimensions of said first
15   and a second main,

a solid-state heat spreader thermally connected to the first main face of the amplification element and substantially covering the surface of said first main face; the solid-state heat spreader being optically transparent to a pump light configured to optically excite the gain medium of the amplification element; said solid-state heat
20   spreader being further in thermal contact with a heat sink,

a first reflector substantially covering and facing said first main face and a second reflector substantially covering and facing the second main face; said reflectors being configured to reflect said pump light for at least a range of incidence angles,

wherein the solid-state heat spreader and the first reflector are arranged such
25   that when said pump light is directed towards the amplification element, the pump light passes through the solid-state heat spreader and through the first reflector,

wherein the first and second reflectors are configured to produce multiple reflections of said pump light across the amplification element, between the first and second reflectors, and
30   wherein said first reflector is not in physical contact with the amplification element and the solid-state heat spreader;

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the laser amplifier device further comprising a light source configured to generate pump light adapted to optically excite the gain medium of the amplification element, the pump light substantially covering the surface of said first main face.

22.   The system according to claim 11,

23.   wherein the light source is configured to generate an array of locally spatially confined pump beams;

24.   wherein the first reflector comprises an array of small apertures configured to allow the passage of said array of locally spatially confined pump beams into the amplification element.

25.   The system according to claim 12,

26.   wherein the light source comprises an array of optical fibers; and

27.   wherein each optical fiber comprises an output face emitting one of the locally spatially confined pump beams, each output face being aligned in front of each of said small apertures.

28.   The system according to claim 12,

29.   wherein the light source comprises an array of micro-lenses generating the array of locally spatially confined pump beams, the array of micro-lenses being arranged to focus said locally spatially confined pump beams into said small apertures.

30.   The system according to claim 14,

31.   wherein the light source is configured to generate a collimated beam.

The Patent Office charges fees per claim. Because the Patent Office's software changed 15 claims to 31, the fees increased by over $8000.

4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Steve Lecomte, et al.
Appln No.: 17/935,676
Filed: September 27, 2022
Title: MAGNETORESISTIVE ELEMENT FOR A 2D MAGNETIC
SENSOR HAVING A REDUCED HYSTERESIS RESPONSE
Conf. No.: 5463
Customer No.: 86378
Docket No.: P&TS-66813

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR REFUND

Dear Sir:

This application was filed through Patent Center on September 09/27/2022. The application was uploaded as an MS Word DOCX file with 15 claims (including 2 independent claims). All corresponding fees were paid during submission of the application.

On 04/17/2023, our deposit account was charged $8300 for additional claim fees ($1100 for 11 claims in excess of 20 and $7200 for 15 independent claims in excess of 3).

Upon seeing the additional claim fees, applicant's representative discovered that the USPTO's conversion of the uploaded DOCX application had renumbered the claims. Based on the renumbering of the claims, it appears that Patent Center interpreted the second line of each dependent claim as a new independent claim. See the warnings in the attached feedback copy.

It is clear from the format of the claims in the application in Patent Center that the application had only 15 claims and there was a conversion error in Patent Center. This is further evidenced by review of the DOCX application we uploaded (copy attached). A preliminary amendment has been filed to correct the conversion error by entering new (renumbered) claims matching the originally submitted claims.

Accordingly, applicant requests a refund of the $8300 additional claim fees that were erroneously charged. Please credit the refund to the deposit account 16-0820, order P&TS-66813.

Respectfully submitted,
PEARNE & GORDON LLP

Dated: May 15, 2023   By: ___/michaelwgarvey/___
                                  Michael W. Garvey, Reg. No. 35878

1801 East 9th Street, Suite 1200
Cleveland, OH 44114

Example 8 (continued): The Patent Office's first decison was to deny the refund. (This is one example of a general principle -- whenever fees are at issue, the Patent Office is extremely reluctant to admit or fix its own errors.)

United States Patent and Trademark Office

Office of the Chief Financial Officer

January 02, 2024

86378
PEARNE & GORDON LLP
Attn: MICHAEL GARVEY
1801 EAST 9TH STREET,
SUITE 1200
CLEVELAND, OH 44114

Dear Sir/Madam,

The United States Patent and Trademark Office (USPTO) has reviewed your refund request for Reference Number **17935676** - Refund Request ID **REFND-20231229-19314**. Below is the current status of your refund request assigned to the following processing area: Office of Patent Application Processing

Fee code	Decision	Decision Reason(s)	Refund Amount
1201	Dismissed	Other - see attached page(s)	$0.00
1202	Dismissed	Other - see attached page(s)	$0.00

Please refer to the following page to review the detailed dismissal reason(s).

You will receive a separate decision letter for any additional fee codes assigned to other processing areas, if applicable. Decisions may be subject to change if an error is identified.

For questions related to this refund request, contact the Office of Patent Application Processing at (703) 756-1158.

Thank you,
Refund Branch

Enclosure: Refund Dismissal Reason(s)

Refund Dismissal Reason(s) for fee code 1201:

- Other - The Office cannot refund excess claim fees that were properly paid merely because applicant cancels the excess claims prior to the first Office action. Preliminary amendments canceling or adding claims, will be taken in to account in determining the appropriate fees due. No, refund will be made for claims being canceled that have already been paid for. See MPEP § 607.02. The fees that were charged, are fees that are set forth in 37 CFR 1.16 and 37 CFR 1.17. Thus, the fees were properly charged to the deposit account. Authorization was given on September 22, 2022, to credit any overpayment to Deposit Account No. 16-0820

Refund Dismissal Reason(s) for fee code 1202:

- Other - The Office cannot refund excess claim fees that were properly paid merely because applicant cancels the excess claims prior to the first Office action. Preliminary amendments canceling or adding claims, will be taken in to account in determining the appropriate fees due. No, refund will be made for claims being canceled that have already been paid for. See MPEP § 607.02. The fees that were charged, are fees that are set forth in 37 CFR 1.16 and 37 CFR 1.17. Thus, the fees were properly charged to the deposit account. Authorization was given on September 22, 2022, to credit any overpayment to Deposit Account No. 16-0820

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor: Steve Lecomte, et al.
Appln No.: 17/935,676
Filed: September 27, 2022
Title: MAGNETORESISTIVE ELEMENT FOR A 2D MAGNETIC
SENSOR HAVING A REDUCED HYSTERESIS RESPONSE
Conf. No.: 5463
Customer No.: 86378
Docket No.: P&TS-66813

Office of Petitions
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION UNDER 37 C.F.R. § 1.181 TO THE DIRECTOR REQUESTING RECONSIDERATION OF REQUEST FOR REFUND

Dear Sir:

This petition was originally filed on February 20, 2024 but it has come to Applicant's attention that the filed copy was not signed. Accordingly, this petition is resubmit with the present date and signed.

For the reasons set forth below, applicant respectfully petitions the Director pursuant to 37 CFR § 1.181 to request reconsideration of the Dismissal of the Request for Refund filed on May 15, 2023.

Statement of Facts

This application was filed through Patent Center on 09/27/2022. The application was uploaded as an MS Word DOCX file with 15 claims (including 2 independent claims). All corresponding fees were paid during submission of the application.

On 04/17/2023, our deposit account was charged $8300 for additional claim fees ($1100 for 11 claims in excess of 20 and $7200 for 15 independent claims in excess of 3).

Upon seeing the additional claim fees, applicant's representative discovered that the USPTO's conversion of the uploaded DOCX application had renumbered the claims. Based on the

Application No. 17/935,676

renumbering of the claims, it appears that Patent Center interpreted the second line of each dependent claim as a new independent claim.

It is clear from the format of the claims in the application in Patent Center that the application had only 15 claims and there was a conversion error in Patent Center. This is further evidenced by review of the uploaded DOCX application.

A refund request was submitted on 05/15/2023 and a decision issued on 01/02/2024 indicating that request was dismissed. As noted therein, the decision may be subject to change if an error is identified. This petition sets forth that error and request change of the request.

Errors in Decision

The Decision indicates that a refund is not warranted where "excess claim fees that were properly paid merely because applicant cancels the excess claims prior to the first Office action." That is, the Decision relies on an interpretation of the facts in which Applicant submitted a number of claims requiring excess fees, and then decided to cancel those additional claims at a later date. But that is not true. Rather, the USPTO systems improperly renumbered Applicant's claims and then incorrectly calculated the total number of claims based on that renumbering. Put another way, the application as filed did not include additional claims warranting excess fees, and the preliminary amendment submitted by Applicant merely corrected numbering errors *caused by the Office*. The Decision is thus based on an incorrect understanding of the present situation.

More particularly, a technical review indicated the DOCX file uploaded by Applicant included a line break character (↵) between various lines/limitations of the claims, and the claims were numbered subject to Microsoft Word's 'automatic numbering.' During the USPTO's conversion of the DOCX file after being uploaded to Patent Center, the line break character (↵) between the preamble and subsequent limitations in each dependent claim was converted to a paragraph break character (¶). This conversion then caused each dependent claim to be renumbered as if it were two or more claims. By way of example, Applicant included the following Claim 2 in their uploaded DOCX file:

2.   The laser amplifier device according to claim 1, ↵

wherein the amplification element comprises a gain medium layer sandwiched between two surrounding layers, the gain medium layer constituting the gain medium of the amplification element and the surrounding layers being made from

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Application No. 17/935,676

a transparent material approximately matching the index of refraction of the gain medium layer.

During processing in Patent Center, this claim was reformatted and renumbered as:

2. The laser amplifier device according to claim 1, ¶

3. wherein the amplification element comprises a gain medium layer sandwiched between two surrounding layers, the gain medium layer constituting the gain medium of the amplification element and the surrounding layers being made from a transparent material approximately matching the index of refraction of the gain medium layer.

This numbering resulted in the improper calculation of the additional claim fees, counting the portion numbered "2" as a dependent claim and the portion numbered "3" as an independent claim. Considering this, the excess claim fees were not the result of Applicant's submission of any additional claims, but rather the result of errors in the USPTO systems. This was not considered in the Decision, and thus refund is warranted and the Decision should be changed.

Notwithstanding the above renumbering error, refund is also warranted because Applicant did not actually submit more than twenty (20) total claims and three (3) independent claims. That is, 35 USC § 112(d) defines a dependent claim as one having both "a reference to a claim previously set forth" and "a further limitation of the subject matter claimed." 37 CFR § 1.75 further identifies that each clam has a "preamble comprising a general description of . . . elements or steps . . . which are conventional or known", a "[transitional] phrase such as 'wherein the improvement comprises,'" and the substantive "elements, steps and/or relationships which constitute that portion of the claimed combination which the applicant considers as the new or improved portion." Claims are identified by these features, not by their numbering.

Using the above example Claim 2, it is clear that the elements thereof present only a single claim where "The laser amplifier device according to claim 1" constitutes the preamble and reference to a previously set forth claim, and the remainder of the claim constitutes the transitional phrase and substantive further limitation. That is, neither phrase on its own constitutes a complete claim and thus neither can be counted as a separate or independent claim. When reviewing the submitted claims then, it becomes clear that the application as-filed contained only fifteen (15) total claims and two (2) independent claims, regardless of how those claims were numbered. The excess claim fees are thus the result of an improper calculation based only on the claims as-numbered, rather than the substantive definition of a claim as provided by the US Code and Code of Federal Regulations. Considering this, regardless of any renumbering errors caused by the

3

Application No. 17/935,676

USPTO DOCX processing, the Applicant did not actually include additional claims as the Decision suggests. This issue was also not considered in the Decision, and thus refund is warranted and the Decision should be changed for this additional reason.

Finally, as a policy matter, it is not equitable to impose these fees on Applicant. That is, this issue arises from the Applicant's participation in the USPTO's beta trials for DOCX filing. As noted above, the fees were charged automatically and as a result of bugs in the USPTO's own systems, which Applicant's participation was helping to identify. Applicant should not be punished for this participation, and imposition of these fees serves only to discourage future stakeholder participation in these programs. This is particularly true of programs such as DOCX filing, which has been highly controversial and subject to intense scrutiny, and which was subject to many delays in implementation due to a litany of other errors in the USPTO systems.

For at least the above reasons, Applicant was erroneously charged excess claim fees in the amount of $8300 and the prior refund Decision was based on an misunderstanding of the present facts. It is thus requested that the Decision be changed and those fees be refunded. Please credit the refund to the deposit account 16-0820, order P&TS-66813.

Respectfully submitted,

PEARNE & GORDON LLP

Dated: March 6, 2024

By: /Andrew W. Jenkins/
Andrew W. Jenkins, Reg. No. 70836

Pearne & Gordon LLP
1801 East 9th Street, Suite 1200
Cleveland, OH 44114
216-579-1700 (telephone)
216-579-6073 (fax)

4

United States Patent and Trademark Office

Office of the Chief Financial Officer

Example 8 (continued): Finally, on May 3 (last Thursday, over a year after the original error), the Patent Office refunded the error

Document Code:WFEE

User :Gloria Arias

Refund Accounting Date:05/03/2024

Effective Date	Sale Item Reference Number	Refund Total
05/03/2024	17935676	$8,300.00

Document Number	Fee Code	Fee Code Description	Amount Paid	Payment Method	Account Number
I202453805235309	1201	INDEPENDENT CLAIMS IN EXCESS OF 3	$7,200.00	DA	160820
I202453805235309	1202	CLAIMS IN EXCESS OF 20	$1,100.00	DA	160820

Lessons from these examples:

1. the DOCX software introduces errors. This is inevitable for three reasons.   (a) the Patent Office's software quality and testing functions are far below private-sector standards. (b) the DOCX standard is very complex (3X to 9X more pages than the PDF standard, depending on how you count) -- complexity invites error.   (c) DOCX is not designed to be a reliable vehicle for archival text or inter-computer interchange, and can never be. The standard makes no such guarantees. Further, Microsoft makes undocumented changes to DOCX/Word all the time (one of the central design goals of Microsoft Office 365 is to make it easier for Microsoft to distribute updates).

2. Catching these errors is very difficult for applicants, and the Patent Office compounds the problem by making error correction very difficult. This error came to light because of the $8000 charge--the error is very hard to catch at the moment a patent application is filed. For most of these errors, the first time they will be visible to the applicant is when the patent application publishes (at 18 months) or issues (typically 3-5 years). In the past, proofreading of issued patents has been common, but no one proofreads the 18 month publications. The Patent Office's Federal Register notices state that correction requests will only be entertained within the first year.

3. Error correction requests will be necessary. The PTO books the extra petitions at zero.

4. Procedure matters. The ICR regulations require an agency to gather information and analyze it fairly. When an agency skips procedure, bad decisions that should be caught early, while they're easy to fix, propagate for years and can only be backed out at far greater costs. Those costs should be borne by the agency that skipped procedure, not the public that exercised every possible procedure to encourage the Patent Office to not make the error.

The solution is simple:
(a) The "of record" copy must be the file uploaded by the applicant, bit-for-bit, no changes. No tampering in the name of "validation" or "uniform format." This is mandated by Federal Records Act and Federal Rule of Evidence 1002.
(b) The "of record" copy must be in a format that is uniform, stable, reproducible across all software and hardware implementations.   PDF makes exactly that promise.   The DOCX standard, and Microsoft's web pages, promise the opposite.
That's what all courts and other agencies do. The Patent Office should not be an outlier.

In 2015, the Patent Office had a legitimate problem to solve

The Patent Office was an early adopter of electronic document systems. Their first systems worked by scanning paper documents to TIFF (a bitmap photograph format.)

When the Patent Office began to accept electronic uploads of patent applications (2004 or so), the Patent Office gave instructions that resulted in a reliable text-based PDF generated on the users computer, for upload.
https://www.uspto.gov/sites/default/files/ebc/portal/efs/pdf-creation.pdf

20 years ago, the Patent Office made a fateful choice: upload full-text PDFs, but flatten them to a bitmap, and then try to OCR. In other words, applicants *upload* PDFs that have the text in *perfect* form. Instead of maintaining that PDF in perfect full-text form, the Patent Office programmed its computers to flatten the text-rich PDF into bitmaps (photographs). Then the Patent Office has to OCR to reconstruct the characters *that flattening had discarded*.

Here's a patent application I filed a year ago, at 1600% magnification. On the left is the text-based PDF as I uploaded it. On the right is the same patent application after filing, as downloaded from the Patent Office's web site.

As you can see in the left, the characters in a text-based PDF are *perfect*. But in the right, they've been pixilated by the Patent Office's computers.

Good software design would say "accept text-based PDF as the input, and don't change it." That's what every court and agency does (including the Eastern District of Virginia, the Court of Appeals for the Federal Circuit, the Supreme Court, and the Patent Office's own Patent Trial and Appeal Board).

- We're as sure as we can be (as outsiders) that scraping text from a text-based PDF is no more complex than from a DOCX, and probably easier.

- We believe there's no advantage in flattening to bitmap: a text-based PDF is typically 1/6 to 1/10 the size of the bitmap PDF.

- By law, patent applications must be one column, text only (with tables, equations, and chemical formulae). As far as we know, patent applications present no difficulties in text scraping (and despite several queries, the Patent Office has provided no documentary evidence to the contrary).

To formulate a solution to the OCR problem, the PTO commissioned a study. The study concluded:

-- In PDF, "The appearance of everything that each page contains is completely specified."

-- PDF-to-text "takes the right approach towards achieving the objectives"

-- a commercially-available PDF-to-text product largely solves the problem

Text2PTO Proof of Concept White Paper

Version 1.0

24 March 2015

American Environmental and Engineering Consultants (AEEC, LLC)
1925 Ballenger Ave, Suite 450,
Alexandria, VA 22314
http://www.americanconsultants.com
Phone: (703) 317-0800

1 Introduction

This white paper presents details about a Text2PTO prototype for extracting text, layout, and formatting information from PDF files that have text behind them. A proof-of-concept (POC) was conducted to design a solution that could accept incoming PDF files and extract text content along with formatting and layout information. This document is presented by AEEC's Application Architecture Software Engineering Team (AASET) to the United States Patent and Trademark Office (USPTO).

1.1 BACKGROUND

USPTO currently accepts patent applications through its Electronic Filing System (EFS). EFS accepts PDF documents during application submission. Applicants can use various tools to create PDFs for EFS submission. More than 45% of these submitted PDFs have text behind them. Due to the differences in the COTS or open source tools used by the applicant to generate the PDFs, the format and structure of the PDFs differ. Currently, USPTO relies on OCR to extract text from TIFF representations of these submitted PDFs. The OCR-extracted text and layout information is used to generate XML4IP documents.

3 Solution Analysis

3.1 PDF Brief Introduction

A PDF file encapsulates a complete description of a fixed-layout flat document, including the text, fonts, graphics, and other information needed to display it. The appearance of everything that each page contains is completely specified. The structure of a PDF file does not match the structure of the PDF document it describes. PDF documents are display-oriented and the specification is not built to address text extraction concerns. The underlying structure of a PDF is multi-layered and very complex. Elaborating on the intricacies of extracting text from a PDF is outside the scope of this document. However, additional details can be found by referring to the following articles:

http://partners.adobe.com/public/developer/tips/topic_tip31.html

http://www.planetpdf.com/developer/article.asp?
ContentID=navigating_the_internal_struct&page=0

3.2 Selecting a Tool

As discussed in the previous section, text / format extraction from a PDF is a complex task. There are several tools in the market that have sought to solve this problem with varying degrees of success. Most of these tools do a good job extracting text from PDFs, but they lack reliability and consistency in extracting the document's format, layout, and structures. Developing a tool from scratch to extract text, format, and layout information from PDF documents would be a very complex task, and may not produce an acceptable output. Therefore, this prototype effort focuses instead on identifying a tool that could get as close as possible to our objective.

3.3 Solution Overview

We followed a 3-step process to identify and develop a solution:

1. Identify format, layout, and structural elements of PDF documents to be extracted.
2. Conduct market research on tools that can extract the identified elements from PDFs.
3. Develop a Java-based solution around selected tools in order to:
   a. Integrate the tool in the USPTO environment
   b. Support batch processing
   c. Output an XML document
   d. Address shortcomings of the tool

http://en.wikipedia.org/wiki/Private_Use_Areas
- A custom character set and does not provide mapping between the character codes and Unicodes
  http://blogs.adobe.com/insidepdf/2008/07/text_content_in_pdf_files.html

At this point, it is not clear if there is a resolution for the two scenarios above. The PDFxStream team has been notified about this and they are looking into it.

Math and Chemical Formulae

Though the prototype attempted to detect and extract math and chemical formulae, the solution is not complete. Please refer to section 5.3.3 for details.

List Processing

List detection is not built into PDFxStream and there are no indications it will be supported in the future. This needs to be custom built into the application.

5.9 CONCLUSION

Although the presented solution has some limitations, it takes the right approach towards achieving the objectives. Limitations may be addressed in the long term by extending the Java application and using future releases of PDFxStream to customize / enhance the product to suit USPTO's needs.

Recommendations:
- Obtain support from PDFxStream to fix issues with Vector Images and Special Characters
- Implement additional logic to handle Chemical / Math formula
- Implement custom logic to extract List and Superscript / Subscript information

The PDF standard guarantees the properties that matter:

- PDF is a voluntary consensus standard, designed for "exchange [of] electronic documents … reliably, independent of the environment in which they were created or the environment in which they are viewed or printed"

- A text-based PDF has perfect characters
- A text-based PDF file, regardless of the software that generated it or that views it, is *guaranteed* to appear *identically* on all computers
- PDF is standardized as ISO 32000, a voluntary consensus standard
- Many vendors, some of whose products are free

- If you want to test that PDF documents are *perfect*, open almost any ICR letter in Adobe Acrobat.
  - Do View > Zoom > 1600%. You will see no pixels. Every character exists in a *perfect* form that captures every characteristic.
  - Go back to Zoom 100%, then do View > Zoom > Reflow. You will see that the document has characters and most of the paragraphs perfectly encoded. (Page breaks are sometimes handled correctly, sometimes not. There's a switch setting that the Patent Office could recommend to take care of that.)

- Because PDF is so universally used, there are commercial products for "scraping" text out of text-based PDF documents.

ISO 32000-2:2020(E)

The very first paragraph of the ISO standard (ISO 32000-2) guarantees reliability and "independence" from hardware and software variability

The standard guarantees perfect character-by-character fidelity—the file encodes the difference between the Latin letter X, the Greek letter X, the Cyrillic letter X, and the multiply symbol ✕

Introduction

0.1   PDF

PDF is a voluntary consensus standard (19 participating members in standard committee). Dozens of implementations, many free

PDF enables users to exchange and view electronic documents easily and reliably, independent of the environment in which they were created or the environment in which they are viewed or printed.

At the core of PDF is an advanced imaging model derived from the PostScript®[1] page description language. This PDF Imaging Model enables the description of text and graphics in a device-independent and resolution-independent manner at a complete, precise and professional level. Unlike PostScript, which is a programming language, PDF is based on a structured binary file format that is optimised for high performance in interactive viewing.

PDF includes objects such as annotations and hypertext links that are not part of the page content itself but are useful for interactive viewing and document interchange. PDF also includes data structures such as tagged PDF, XMP and an associated files mechanism, that are useful for document management and content reuse.

PDF files can be created natively in PDF form, converted from other electronic formats. Since PDF supports a wide range of image and compression technologies, it is a suitable format for documents digitised from paper, microform, or other hard copy formats. Businesses, governments, libraries, archives and other institutions and individuals around the world use PDF to represent considerable bodies of important information. Since its introduction in 1993, aided by the explosive growth of the Internet, PDF has become widely used for the electronic exchange of documents.

There are several specific applications of PDF that have evolved in which limiting the use of some features of PDF while requiring the use of others, enhances the usefulness of PDF. The following International Standards address specialised uses of PDF:

- PDF/X (ISO 15930) is the industry standard for the intermediate representation of printed material in electronic prepress systems for conventional printing applications.

- PDF/A (ISO 19005) is the industry standard for the archiving of digital documents.

- PDF/UA (ISO 14289) is the industry standard for accessible PDF documents and processors.

- PDF/E (ISO 24517) provides a mechanism for representing engineering documents and exchanging engineering data.

PDF works great for interchange of text documents.

Every court and agency (U.S. and international) that we know of accepts its papers in PDF.

Every court and agency that we talked to issues its decisions in PDF, and gives those PDFs to legal publishers (Lexis, Westlaw, Bloomberg, etc.) in PDF form. The publishers scrape the text out of the PDFs.   The entire legal system relies on the reliability of PDF.

Patent applications by law must be text only (no pictures). The only complexity allowed is tables. Court decisions are more complex and less uniform. PDF has every capability any patent office could ask for patent applications.

Sustainability of Digital Formats: Planning for Library of Congress Collections

Introduction | Sustainability Factors | Content Categories | Format Descriptions | Contact
Format Description Categories >> Browse Alphabetical List

PDF/A Family, PDF for Long-term Preservation

>> Back
Table of Contents

- Identification and description
- Local use
- Sustainability factors
- Quality and functionality factors
- File type signifiers
- Notes
- Format specifications
- Useful references

Format Description Properties ⓘ

- ID: fdd000318
- Short name: PDF/A_family
- Content categories: text
- Format Category: family, file-format, encoding
- Other facets: unitary, binary, structured, symbolic
- Last significant FDD update: 2020-12-31
- Draft status: Full

The Library of Congress has a discussion of multiple documents and their utility for archival document storage.

The LoC's discussion of PDF (specifically the PDF/A variant states the properties we would all want:

• long-term preservation
• voluntary consensus standard with wide range of participants in standard committee

Identification and description ⓘ

Full name	ISO 19005. Document management - Electronic document file format for long-term preservation
Description	PDF/A is a family of ISO standards for constrained forms of PDF (see PDF_family) intended to be suitable for long-term preservation of page-oriented documents for which PDF is already being used in practice. The PDF/A standards are developed and maintained by a working group with representatives from government, industry, and academia and active support from Adobe Systems Incorporated. The working group is WG 5 of Technical Committee ISO/TC 171,

The DOCX standard does not make the relevant promises, and therefore does not guarantee identical document display on different systems:

- DOCX has many "implementation defined" or "unspecified" behaviors that can change the way a document displays by merely moving it from one computer to another:
  - Different versions of Word—for Latin characters vs. Hebrew characters vs. Asian characters, Word for Windows vs. Word for Mac, Word 2023 vs. Word 2013—render/display the very same PDF file differently
  - The standard allows extensions and plugins—no guarantees possible
  - Office 365 exacerbates the problem: updates without notice, on Microsoft's schedule

- **Zero** vendors conform to the DOCX standard: *even Microsoft concedes that standard conformance is not considered, and it allows Word to "vary from or extend the specification"*

- Patent Office ignores OMB Circular A-119, which directs agencies to adopt voluntary consensus standards such as PDF.

4.   Terms and Definitions

For the purposes of this document, the following terms and definitions apply. Other terms are defined where they appear in *italic* typeface, on the left side of a syntax rule, or within subclauses of language-specific grammars (§17.16 and §18.17). Terms explicitly defined in this Part of ISO/IEC 29500 are not to be presumed to refer implicitly to similar terms defined elsewhere. [*Note*: This Part uses OPC-related terms, which are defined in ISO/IEC 29500-2. *end note*]

application — A consumer or producer.

behavior — External appearance or action.

behavior, implementation-defined — Unspecified behavior where each implementation is expected to document that behavior, which would thereby promote predictability and reproducibility within any given implementation. (This term is sometimes called "application-defined behavior".)

behavior, locale-specific — Behavior that depends on local conventions of nationality, culture, and language.

behavior, unspecified —Behavior where ISO/IEC 29500 makes no recommendations. (This term is sometimes called "application-dependent behavior".) [*Note*: To add an extension, an implementer must use the extensibility mechanisms described by ISO/IEC 29500 rather than trying to do so by giving meaning to otherwise unspecified behavior. *end note*]

byte — A sequence of 8 bits treated as a unit.

comment — A note that an author or reviewer attaches to content in a document. Although a consumer might chose to display comments, they are not considered part of the body of the document. A comment might include the text of the note, the comment author's name and initials, and date of creation, among other things.

The Library of Congress page relating to DOCX explains:

- Interoperability with non-Microsoft word processors is not reliable—if one opens a DOCX file in Libre Office, and stores the result as a DOCX, "a round-trip to an identical document should <mark>never</mark> be expected."

Sustainability of Digital Formats: Planning for Library of Congress Collections

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Go

Introduction I Sustainability Factors I Content Categories I Format Descriptions I Contact
Format Description Categories >> Browse Alphabetical List

DOCX Transitional (Office Open XML), ISO 29500:2008-2016, ECMA-376, Editions 1-5

Conversion between DOCX and ODT: Acknowledging the

medium, or *low*. The challenges are significant since the two formats use different underlying models. Although simple documents can be effectively converted, a round-trip to an identical document should never be expected. Display differences will be common after conversion, most of no semantic significance, but many resulting in different pagination or spacing. Among the

[MS-OI29500]: Office Implementation Information for ISO/IEC 29500 Standards Support

Article • 03/08/2023

Specifies information about how Microsoft Office implements ISO/IEC-29500 Office Open XML File Formats [ISO/IEC-29500:2012], including areas where additional detail may be of benefit to other implementers and areas where the product is known to vary from or extend the specification.

This page and associated content may be updated frequently. We recommend you subscribe to the RSS feed   to receive update notifications.

Published Version

The list of departures from the standard is 936 pages.

⌖ **Expand table**

Date	Protocol Revision	Revision Class	Downloads
4/16/2024	22.0	Major	PDF	DOCX

Click here to download a zip file of all PDF files for Word, Excel, and PowerPoint Standards Support.

Previous Versions

⌖ **Expand table**

Date	Protocol Revision	Revision Class	Downloads
2/20/2024	21.3	None	PDF	DOCX
11/13/2023	21.3	Minor	PDF	DOCX
8/15/2023	21.2	Minor	PDF	DOCX
3/9/2023	21.1	Minor	PDF	DOCX

One of the 2019 NPRM comment letters https://www.uspto.gov/sites/default/files/documents/ Comment_Seventy_Three_Patent_Practitioners_092719.pdf gave the PTO a tutorial on the problem, and listed several important examples of "implementation defined" or "unspecified" behaviors.

The same DOCX file can be rendered differently depending on the word processor, fonts installed, which font vendor supplied the font, whether the word processor chooses a vector form or bitmap form for the font, and add-ins for the word processor (especially for equations, pictures and drawings, and chemical formulae). Because a single word processor's rendering engine is used to display on screen, print on paper, and print-as-PDF, the applicant has a trustworthy what-you-see-is-what-you-get. But if that same DOCX is transmitted to the PTO, for the PTO to render using unidentified software and unidentified environment, the results will be different.

> **2.** **The factual representations in the NPRM relating to two standards and portability of DOCX are incorrect**

The PTO does not tell us what rendering engine will be used within the PTO. Will it be MS Word or some other rendering engine? The "viewer" software in Firefox, Internet Explorer, or Chrome, or the viewer in Google gmail, Word 2003, 2013, or 2016? For Mac or Windows? All behave differently. With DOCX, no amount of care by a practitioner can possibly ensure how the document will be interpreted by the PTO's rendering or conversion software. It is unreasonable to expect the filer to undertake to proofread, carefully, word-by-word, any specimen of the conversion result the PTO may provide just before the filing is finally submitted. Indeed, the very requirement to proofread the rendering (noted below in red text) is an admission by the PTO that it recognizes that DOCX is a shaky foundation for a legal document filing system (there's no such warning in today's system). For lengthy, complex specifications, the 60-minute timeout in EFS would preclude effective review. In the case of a timeout, the subsequent re-submission would still require the filer to review the entire conversion result from the beginning.

Standards ECMA-376 and ISO/IEC 29500 themselves disclaim the kind of interoperability that the PTO assumes. Some example sentences:

- "a software application should be accompanied by documentation that describes what subset of ECMA-376 it supports" ECMA-376 expressly states that there is no common set of features that are required to be implemented; all the standard guarantees is that *if* certain features are implemented, they will behave in a certain manner. A standard useful for an electronic filing system cannot rely on features that are optional in some implementations and unimplemented in others.

- "The application need not implement operations on all XML elements defined in ECMA-376." Some implementations of DOCX are permitted to have features that will cause errors in others.

- "A batch tool that reads a word-processing document and reverses the order of text characters in every paragraph with 'Title' style before saving it can be conforming even though ECMA-376 does not recommend this behavior. [A conforming word processor may] transform the title 'Office Open XML' into 'LMX nepO eciffO'. Its documentation

should declare its effect on such paragraphs." The ECMA standard *expressly allows* for entirely different renderings, so long as it's documented.

- "These application descriptions should not be taken as limiting the ability of an application provider to create innovative applications. They are intended as a mechanism for labelling applications rather than for restricting their capabilities." A standard useful for an electronic filing system can't rely on features that are optional in some implementations and unimplemented in others.

- "[*Note*: A possible application description would be a 'standard' application description for a wordprocessing application. This could be created by taking the intersection of the features available in common wordprocessing applications such as Word 2000, OpenOffice 2, WordPerfect, and iWork Pages. … *end note*]" ECMA-376 expressly states that there is no common set of features that are required to be implemented; all ECMA-376 guarantees is that *if* an implementer wants to implement a given feature, there is a format in which to implement it. There are very few behavioral guarantees.

- ECMA-376 leaves a number of features "implementation defined," including whether and how to save any element that is under the control of a plug-in, how dates are rendered, how embedded pictures are rendered, whether numerical values are rendered with a "." or a "," as a decimal point, how fonts are chosen in rendering, line number spacing, and other characteristics. Documents copied from one DOCX program to another have no guarantee of being rendered consistently.

- A Microsoft blog[17] writes "One of the great things about ISO/IEC 29500 is its extensibility mechanisms - implementers can extend the file format while remaining 100% compliant with the standard." That statement is the admission—there is no uniform interoperability standard. ISO/IEC 29500 is a baseline, minimum functionality standard, not an interoperability standard that guarantees bilateral consistency between any two implementations. That may be a good feature for software developers, but it's catastrophic for the use that the PTO contemplates. That bilateral interoperability is the whole point of the PDF standard.

As technically-trained lawyers, we don't understand how any person could read ECMA-376 and not have immediately noticed the glaring deficiencies as a "standard" for legal documents.

One of the signatories of this letter was among the very first of the beta-testers of PTO's system for DOCX filings. As implemented by the PTO, the practitioner would upload a DOCX file, and PTO would render the DOCX file in a human-readable PDF image format. As part of the e-filing process, the practitioner was expected to proofread the rendered image as provided by the PTO's e-filing system. The notion was that the practitioner would be obliged to catch any instances of PTO's system rendering the DOCX file differently from the way the practitioner's word processor had rendered that same DOCX file. If, for example, some math equation or chemical formula had gotten corrupted in PTO's system, the practitioner would expected to catch this *prior to* clicking "submit."

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[17] https://blogs.msdn.microsoft.com/chrisrae/2010/10/06/where-is-the-documentation-for-offices-docxxlsxpptx-formats-part-2-office-2010/

**The Patent Office's response to comments
in the August 2020 Final Rule:**

[not a single word, not even a paraphrase of the comment]
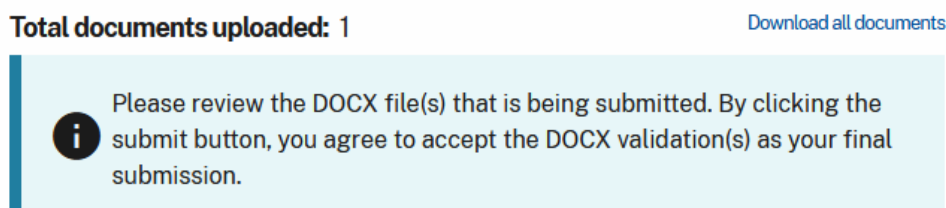
DOCX screws up law firms' workflow

- For decades, the way it was done was:
  - o Often, the inventor writes the first draft of the application. Attorneys can't control the inventor's use of Word features. In the conversion to PDF, the word processor takes care of it, and it just works.
  - o Attorney writes and finishes the patent application in the attorney's choice of word processor, prints the last version as text-based PDF—because this is all done on one computer, it is reliable.
  - o Hands off the text-based PDF to a legal assistant
  - o Assistant uploads the text-based PDF to the Patent Office, hits "submit"
  - o Because all word processing is on one computer, and all motion from one computer to another is in PDF and PDF is guaranteed to be uniform, it all works

- Under DOCX filing:
  - o Many advanced features used by sophisticated Word users (inventors or attorney) are rejected by the Patent Office's software. Attorney must review the inventor's draft for advanced Word features, and remove them (without introducing error).
  - o If the attorney is using a word processor other than Microsoft Word, export from that word processor's native form to DOCX. But no software vendor makes it easy to assist a competitor—the "export to DOCX" features of Word Perfect, Libre Office, Google Docs, Apple Pages, etc. are not robust. These non-Microsoft processors generate a DOCX, but for even simple patent applications, the result is often substantially changed. So this requires a significant proofread. (The Patent Office's claim that these other processors "support" DOCX is true in a hyper-literal sense—but in any practical sense, it's not true.)
  - o Hands off the DOCX to a legal assistant
  - o Assistant uploads the DOCX to the Patent Office
  - o Assistant downloads the tampered and "check" documents from the Patent Office
  - o Hands them back to the attorney for review
  - o Attorney has to do a detailed review—there is no predicting where the errors may be introduced.
    - **This review is not necessary in the existing PDF "reporting and recordkeeping" workflow.** It is *very* time consuming, and despite the issue raised in three prior ICRs, the PTO continues to book it at zero.
    - This review compares a DOCX *on the applicant's computer*, so it tells nothing about how the document will appear to the *PTO*'s computer.
  - o Then the attorney hands back the review to the assistant, who completes the upload
  - o **Three** handoffs instead of **one**. No possibility of reliable review, because the DOCX document can appear differently on different computers.

Sources of burden

- Proofreading
  - After the Patent Office's DOCX system tampers with the applicant's uploaded DOCX (potentially introducing error, as in example 8), the DOCX system gives the applicant a "review copy" for review, with this instruction box to accept it as the authoritative version:

    Total documents uploaded: 1   Download all documents

    ℹ️ Please review the DOCX file(s) that is being submitted. By clicking the submit button, you agree to accept the DOCX validation(s) as your final submission.

    The Patent Office has **never** acknowledged any burden for this additional review, let alone requested clearance. The Office neither acknowledges nor requests it now.
  - The Patent Office's "review" happens **on the applicant's computer**. That means that the "review" cannot reliably evaluate how **the Patent Office's computers** will receive/render the very same file.
  - The Patent Office's system has a timeout of about 20 minutes. For applications of any length or complexity, the timeout precludes effective review.
  - By requesting this additional review, the Patent Office's acknowledges that its DOCX requirement imposes substantial burden without any practical utility.
  - "With DOCX, no amount of care by a practitioner can possibly ensure how the document will be interpreted by the Patent Office's rendering or conversion software." *Seventy-Three* letter, page 15.
  - Microsoft changes Word with no advance notice, in ways that will break the Patent Office's software, and that will make review ineffective (it will be on the applicant's computer, which will have been updated, while the Patent Office's software is still stale). The Patent Office has never addressed those comments.
- Papers for error correction
  - As you see in Example 8, that can be substantial.
  - The Patent Office never stores the application *as uploaded by the applicant*. The best copy the Patent Office stores has already been document tampered (in the name of "validation" and "uniform format.") Proving that an error was introduced by the Patent Office will be *extremely* difficult.
- **Malpractice risk:** How does OMB value the burden of malpractice risk?
  - Defending suit, increased malpractice premiums.
  - Raised in public comment letters; no response from Patent Office.
- Comment letters give build-ups of burden ranging $200 million per year to $600 million per year. There's a list of those letters toward the end of this document. The Patent Office has never responded to those comments or disputed their showings, or offered any alternative estimate with any rationale or supporting record.

Procedural shortcutting

- During NPRM phase (NPRM in July 2019, final rule August 2020), the Patent Office claimed to have a clearance, but had made no filing.
    - During NPRM phase, Patent Office never made the "yearlong study" public—not even mentioned in the NPRM, cited for the first time in final rule. Not published. Kept secret, until we got it by FOIA in 2023
    - The Patent Office entirely ignored many comments, misparaphrased others to avoid fair response, or otherwise answered with only a *non sequitur*.
    - Not a word of mention in the Regulatory Impact Analysis.
- March 2021: original effective date. (Delayed nearly three years—proving that DOCX is not " necessary for the proper performance of the functions of the agency")
- September 2020 to May 2021, triennial renewal of 0651-0032, ICR 202011-0651-006: public comment letters noted that the Patent Office had no clearance for the DOCX rule. In its May 2021 revised Supporting Statement, the PTO acknowledged that burden would arise, and admitted that it had no current clearance:

    > impacted by the new rule. Speculating further on any potential impact of the forthcoming non-DOCX filing surcharge on the 0031 and 0032 renewal applications at hand would be premature and not meaningful to the cause of estimating public burden currently created by those collections. 37 CFR 1.16(u) will require applicants to pay a $400 surcharge if they opt to submit documents in non-DOCX format, but the rule will not create any additional paperwork or time burden for the public. Upon actual implementation of 37 CFR 1.16(u), the USPTO will notify OMB accordingly of any subsequent changes to the estimated public burden associated with collections 0031 and 0032.

- In September to December 2023, 0651-0089, ICR 202309-0651-002 estimated only the short-term burden of "adjusting existing ways to comply" during a transition period. The PTO evades the major burden in this information collection, "completing and reviewing" burden for proofreading and filing for correction of software errors.
    - The PTO estimated hourly burden at $50 million per year. The Patent Office provided no rationale or record. $50 million is credible estimate *but only for the interim "adjusting" burden, without considering proofreading and error correction.*
    - In our 30-day comment letter (Oct 27, 2023) we go though the Supporting Statement line by line, pointing out cases in which the Supporting Statement:
        - evades fair response via misparaphrase of the public comment
        - makes a statement that reflects sampling error: for example, the PTO's claim to have seen no errors at 18 month publication is meaningless if the rule hasn' tbeen in effect for 18 months.
        - The Patent Office discards the applicant's filing—the Patent Office cannot possibly test for its own errors.
        - relies on *non sequitur*, or "facts" that have no supporting evidence
        - statements that are simply false, and must have been known to be false
- January 17, 2024: the mandatory surcharge went into effect
- In this triennial renewal, ICR 202304-0651-001, the PTO again omits any discussion of the DOCX issue. It still isn't cleared.

M. Unfunded Mandates Reform Act of 1995: The proposed changes set forth in this rulemaking do not involve a Federal intergovernmental mandate that will result in the expenditure by State, local, and tribal governments, in the aggregate, of 100 million dollars (as adjusted) or more in any one year, or a Federal private sector mandate that will result in the expenditure by the private sector of 100 million dollars (as adjusted) or more in any one year, and will not significantly or uniquely affect small governments. Therefore, no actions are necessary under the provisions of the Unfunded Mandates Reform Act of 1995. *See* 2 U.S.C. 1501 *et seq.*

N. National Environmental Policy Act: This rulemaking will not have any effect on the quality of the environment and is thus categorically excluded from review under the National Environmental Policy Act of 1969. *See* 42 U.S.C. 4321 *et seq.*

O. National Technology Transfer and Advancement Act: The requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) are not applicable because this rulemaking does not contain provisions which involve the use of technical standards.

P. Paperwork Reduction Act: The Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) requires that the Office consider the impact of paperwork and other information collection burdens imposed on the public. This proposed rule involves information collection requirements which are subject to review by the OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3549). The collection of information involved in this proposed rule has been reviewed and previously approved by OMB under control numbers 0651–0012, 0651–0016, 0651–0020, 0651–0021, 0651–0031, 0651–0032, 0651–0033, 0651–0059, 0651–0063, 0651–0064, 0651–0069, and 0651–0075.

Notwithstanding any other provision of law, no person is required to respond to nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB control number.

List of Subjects

37 CFR Part 1

Administrative practice and procedure, Biologics, Courts, Freedom of information, Inventions and patents, Reporting and recordkeeping requirements, Small businesses.

37 CFR Part 11

Administrative practice and procedure, Inventions and patents, Lawyers, Reporting and recordkeeping requirements.

37 CFR Part 41

Administrative practice and procedure, Inventions and patents, Lawyers, Reporting and recordkeeping requirements.

37 CFR Part 42

Administrative practice and procedure, Inventions and patents, Lawyers.

For the reasons set forth in the preamble, 37 CFR parts 1, 11, 41, and 42 are proposed to be amended as follows:

PART 1—RULES OF PRACTICE IN PATENT CASES

■ 1. The authority citation for 37 CFR part 1 continues to read as follows:

Authority: 35 U.S.C. 2(b)(2), unless otherwise noted.
■ 2. Section 1.16 is amended by:
■ a. Revising paragraphs (a) through (e);
■ b. Adding table headings in paragraphs (f) and (g);
■ c. Revising paragraph (h);
■ d. Adding a table heading in paragraph (i);
■ e. Revising paragraphs (j) and (k);
■ f. Adding a table heading in paragraph (l);
■ g. Revising paragraphs (m) through (s);
■ h. Adding a table heading in paragraph (t); and
■ i. Adding paragraph (u).
The revisions and additions read as follows:

§ 1.16   National application filing, search, and examination fees.

(a) Basic fee for filing each application under 35 U.S.C. 111 for an original patent, except design, plant, or provisional applications:

TABLE 1 TO PARAGRAPH (a)

By a micro entity (§ 1.29)	$80.00
By a small entity (§ 1.27(a))	$160.00
By a small entity (§ 1.27(a)) if the application is submitted in compliance with the Office electronic filing system (§ 1.27(b)(2))	$80.00
By other than a small or micro entity	$320.00

(b) Basic fee for filing each application under 35 U.S.C. 111 for an original design patent:

TABLE 2 TO PARAGRAPH (b)

By a micro entity (§ 1.29)	$55.00
By a small entity (§ 1.27(a))	$110.00
By other than a small or micro entity	$220.00

(c) Basic fee for filing each application for an original plant patent:

TABLE 3 TO PARAGRAPH (c)

By a micro entity (§ 1.29)	$55.00
By a small entity (§ 1.27(a))	$110.00
By other than a small or micro entity	$220.00

(d) Basic fee for filing each provisional application:

TABLE 4 TO PARAGRAPH (d)

By a micro entity (§ 1.29)	$75.00
By a small entity (§ 1.27(a))	$150.00
By other than a small or micro entity	$300.00

(e) Basic fee for filing each application for the reissue of a patent:

TABLE 5 TO PARAGRAPH (e)

By a micro entity (§ 1.29)	$80.00
By a small entity (§ 1.27(a))	$160.00
By other than a small or micro entity	$320.00

(f) * * *

TABLE 6 TO PARAGRAPH (f)

*	*	*	*	*

(g) * * *

TABLE 7 TO PARAGRAPH (g)

*	*	*	*	*

(h) In addition to the basic filing fee in an application, other than a provisional application, for filing or later presentation at any other time of each claim in independent form in excess of 3:

The public comment letters (esp. the "Seventy Three Practitioners" letter) pointed out that no clearance in the relevant time window had sought clearance for the DOCX rule (or for the CLE rule that was proposed in this same NPRM)

In the Final Rule, the PTO falsely claimed to have a clearance.

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F. Executive Order 13132 (Federalism)

This rulemaking does not contain policies with federalism implications sufficient to warrant preparation of a Federalism Assessment under Executive Order 13132 (Aug. 4, 1999).

G. Executive Order 13175 (Tribal Consultation)

This rulemaking will not: (1) Have substantial direct effects on one or more Indian tribes, (2) impose substantial direct compliance costs on Indian tribal governments, or (3) preempt tribal law. Therefore, a tribal summary impact statement is not required under Executive Order 13175 (Nov. 6, 2000).

H. Executive Order 13211 (Energy Effects)

This rulemaking is not a significant energy action under Executive Order 13211 (May 18, 2001) because this final rulemaking is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Therefore, a Statement of Energy Effects is not required under Executive Order 13211.

I. Executive Order 12988 (Civil Justice Reform)

This rulemaking meets applicable standards to minimize litigation, eliminate ambiguity, and reduce burden as set forth in sections 3(a) and 3(b)(2) of Executive Order 12988 (Feb. 5, 1996).

J. Executive Order 13045 (Protection of Children)

This rulemaking does not concern an environmental risk to health or safety that may disproportionately affect children under Executive Order 13045 (Apr. 21, 1997).

K. Executive Order 12630 (Taking of Private Property)

This rulemaking will not affect a taking of private property or otherwise have taking implications under Executive Order 12630 (Mar. 15, 1988).

L. Congressional Review Act

Under the Congressional Review Act provisions of the Small Business Regulatory Enforcement Fairness Act of 1996 (5 U.S.C. 801 *et seq.*), prior to issuing any final rule, the United States Patent and Trademark Office will submit a report containing the rule and other required information to the United States Senate, the United States House of Representatives, and the Comptroller General of the Government Accountability Office. The changes in this Final Rule are expected to result in an annual effect on the economy of $100 million or more, a major increase in costs or prices, or significant adverse

effects on competition, employment, investment, productivity, innovation, or the ability of United States-based enterprises to compete with foreign-based enterprises in domestic and export markets. Therefore, this Final Rule is a ''major rule'' as defined in 5 U.S.C. 804(2).

M. Unfunded Mandates Reform Act of 1995

The changes set forth in this rulemaking do not involve a federal intergovernmental mandate that will result in the expenditure by state, local, and tribal governments, in the aggregate, of $100 million (as adjusted) or more in any one year, or a federal private sector mandate that will result in the expenditure by the private sector of $100 million (as adjusted) or more in any one year, and will not significantly or uniquely affect small governments. Therefore, no actions are necessary under the provisions of the Unfunded Mandates Reform Act of 1995. *See* 2 U.S.C. 1501 *et seq.*

N. National Environmental Policy Act

This rulemaking will not have any effect on the quality of the environment and is thus categorically excluded from review under the National Environmental Policy Act of 1969. *See* 42 U.S.C. 4321 *et seq.*

O. National Technology Transfer and Advancement Act

The requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) are not applicable because this rulemaking does not contain provisions that involve the use of technical standards.

P. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) requires that the Office consider the impact of paperwork and other information collection burdens imposed on the public. This Final Rule involves information collection requirements that are subject to review by the OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3549). The collection of information involved in this Final Rule have been reviewed and previously approved by the OMB under control numbers 0651–0012, 0651–0016, 0651–0020, 0651–0021, 0651–0031, 0651–0032, 0651–0033, 0651–0059, 0651–0063, 0651–0064, 0651–0069, and 0651–0075. In addition, updates to the aforementioned information collections as a result of this Final Rule have been submitted to the OMB as non-substantive change requests.

Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information has a currently valid OMB control number.

List of Subjects

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Administrative practice and procedure, Biologics, Courts, Freedom of information, Inventions and patents, Reporting and recordkeeping requirements, Small businesses.

37 CFR Part 11

Administrative practice and procedure, Inventions and patents, Lawyers, Reporting and recordkeeping requirements.

37 CFR Part 41

Administrative practice and procedure, Inventions and patents, Lawyers, Reporting and recordkeeping requirements.

37 CFR Part 42

Administrative practice and procedure, Inventions and patents, Lawyers.

For the reasons set forth in the preamble, 37 CFR parts 1, 11, 41, and 42 are amended as follows:

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■ c. Revising paragraph (h);
■ d. Adding a heading to the table in paragraph (i);
■ e. Revising paragraphs (j) and (k);
■ f. Adding a heading to the table in paragraph (l);
■ g. Revising paragraphs (m) through (s);
■ h. Adding a heading to the table in paragraph (t); and
■ i. Adding paragraph (u).

The revisions and additions read as follows:

§ 1.16   National application filing, search, and examination fees.

(a) Basic fee for filing each application under 35 U.S.C. 111 for an original patent, except design, plant, or provisional applications:

board adjustment fees and current fees, the "current fees" column displays the fees that are in effect as of January 2018.

Alternative 4: Baseline (Current Fee Schedule)

The Office considered a no-action alternative. This alternative would retain the status quo, meaning that the Office would continue the small and micro entity discounts that Congress provided in section 10 of the Act and maintain fees as of January 2018.

This approach would not provide sufficient aggregate revenue, based on the assumptions found in the FY 2021 Budget, to accomplish the Office's rulemaking goals as set forth in Part III of this Final Rule or the Strategic Plan. IT improvement, progress on backlog and pendency, and other improvement activities would continue, but at a significantly slower rate, as increases in core patent examination costs that are necessary to implement the strategic objective to issue highly reliable patents—such as increasing the time examiners are provided to work on each application—crowd out funding for other improvements. Likewise, without a fee increase, the USPTO would deplete its operating reserves, leaving the Office vulnerable to fiscal and economic events. This would expose core operations to unacceptable levels of financial risk and would position the Office to have to return to making inefficient, short-term funding decisions.

The fee schedule for Alternative 4: Baseline (Current Fee Schedule) is available at *https://www.uspto.gov/ FeeSettingAndAdjusting* in the document entitled "Final Regulatory Flexibility Analysis Tables."

Alternatives Specified by the RFA

The RFA provides that an agency should also consider four specified "alternatives" or approaches, namely: (1) Establishing different compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) clarifying, consolidating, or simplifying compliance and reporting requirements under the rule for small entities; (3) using performance rather than design standards; and (4) exempting small entities from coverage of the rule, or any part thereof (5 U.S.C. 604(c)). The USPTO discusses each of these specified alternatives or approaches below and describes how this Final Rule is adopting these approaches.

Differing Requirements

As discussed above, the changes in this Final Rule would continue existing fee discounts for small and micro entities that take into account the reduced resources available to them as well as offer new discounts when applicable under AIA authority. Specifically, micro entities would continue to receive a 75 percent reduction in patent fees under this proposal and non-micro, small entities would continue to pay 50 percent of the fee.

This Final Rule sets fee levels but does not set or alter procedural requirements for asserting small or micro entity status. To pay reduced patent fees, small entities must merely assert small entity status to pay reduced patent fees. The small entity may make this assertion by either checking a box on the transmittal form, "Applicant claims small entity status," or by paying the basic filing or basic national small entity fee exactly. The process to claim micro entity status is similar in that eligible entities need only submit a written certification of their status prior to or at the time a reduced fee is paid. This Final Rule does not change any reporting requirements for any small or micro entity. For both small and micro entities, the burden to establish their status is nominal (making an assertion or submitting a certification), and the benefit of the fee reductions (50 percent for small entities and 75 percent for micro entities) is significant.

This Final Rule makes the best use of differing requirements for small and micro entities. It also makes the best use of the redesigned fee structure, as discussed further below.

Clarification, Consolidation, or Simplification of Requirements

This Final Rule pertains to setting or adjusting patent fees. Any compliance or reporting requirements in this rule are *de minimis* and necessary to implement lower fees. Therefore, any clarifications, consolidations, or simplifications to compliance and reporting requirements for small entities are not applicable or would not achieve the objectives of this rulemaking.

Performance Standards

Performance standards do not apply to the Final Rule.

Exemption for Small and Micro Entities

The final patent fee schedule maintains a 50 percent reduction in fees for small entities and a 75 percent reduction in fees for micro entities. The Office considered exempting small and micro entities from paying increased patent fees but determined that the USPTO would lack statutory authority for this approach. Section 10(b) of the

Act provides that "fees set or adjusted under subsection (a) for filing, searching, examining, issuing, appealing, and maintaining patent applications and patents *shall* be reduced by 50 percent [for small entities] and *shall* be reduced by 75 percent [for micro entities]" (emphasis added). Neither the AIA nor any other statute authorizes the USPTO simply to exempt small or micro entities, as a class of applicants, from paying increased patent fees.

C. Executive Order 12866 (Regulatory Planning and Review)

This Final Rule has been determined to be economically significant for purposes of Executive Order 12866 (Sept. 30, 1993). The Office has developed an RIA as required for rulemakings deemed to be economically significant. The complete RIA is available at *https://www.uspto.gov/ FeeSettingAndAdjusting.*

D. Executive Order 13563 (Improving Regulation and Regulatory Review)

The Office has complied with Executive Order 13563 (Jan. 18, 2011). Specifically, the Office has, to the extent feasible and applicable: (1) Made a reasoned determination that the benefits justify the costs of this Final Rule; (2) tailored this Final Rule to impose the least burden on society consistent with obtaining the regulatory objectives; (3) selected a regulatory approach that maximizes net benefits; (4) specified performance objectives; (5) identified and assessed available alternatives; (6) involved the public in an open exchange of information and perspectives among experts in relevant disciplines, affected stakeholders in the private sector, and the public as a whole, and provided online access to the rulemaking docket; (7) attempted to promote coordination, simplification, and harmonization across government agencies and identified goals designed to promote innovation; (8) considered approaches that reduce burdens and maintain flexibility and freedom of choice for the public; and (9) ensured the objectivity of scientific and technological information and processes.

E. Executive Order 13771 (Reducing Regulation and Controlling Regulatory Costs)

This Final Rule is not subject to the requirements of Executive Order 13771 (Jan. 30, 2017) because this Final Rule involves a transfer payment.

Though some components of the 2020 rule legitimately "involve a transfer payment," several components (including the DOCX rule, and the CLE rule curbed in 2023) did not.

The 2015 "yearlong study" was not mentioned in the NPRM, and has never been made available to the public (we obtained it by FOIA). Yet the PTO relies on it extensively (four mentions in Final Rule, and several in Supporting Statements.)

functioning and a DOCX version was later filed within a certain time period.

Response: The current policy regarding significant unplanned electronic business system outages is available at: *https:// www.federalregister.gov/documents/ 2018/08/30/2018-18897/filing-patent-applications-electronically-during-designated-significant-outages-of-the-united-states.* The USPTO will post a notice on its website in the event of a designated significant unplanned electronic business system outage and indicate the dates during which the alternative electronic filing means are available due to such an outage. An application filed via the alternative electronic means during a designated significant unplanned electronic business system outage will be considered to have been filed by the USPTO's electronic filing system and thus will not incur the non-DOCX surcharge or the fee required by section 10(h) of the AIA for a patent application not filed by the USPTO's electronic filing system.

Comment 50: One commenter stated that PDF format is the best and safest format for ensuring that no text becomes garbled or otherwise corrupted by the USPTO system.

Response: There have been cases where an applicant submitted PDF documents that have been corrupted or garbled that were traced back to specific PDF creation software. By submitting in text format, the extra step to convert to

Response: DOCX is a word-processing file format that is part of Office Open XML (OOXML), an XML-based open standard approved by the Ecma International® consortium and subsequently by the ISO/IEC joint technical committee.

For more information about the OOXML standard, please see:

- ECMA–376 at *http://www.ecma-international.org/publications/standards/Ecma-376.htm*
- ISO/IEC 29500 at *https://www.iso.org/committee/45374/x/catalogue/*
- NIST votes for US. Approval of OOXML at *https://www.nist.gov/news-events/news/2008/03/nist-votes-us-approval-modified-office-open-xml-standard*

The USPTO conducted a yearlong study of the feasibility of processing text in PDF documents. The results showed that searchable text data is available in some PDFs, but the order and accuracy of the content could not be preserved. With DOCX, the Office is able to use the text directly and pass it on to USPTO downstream systems, which results in increased data accuracy and a more streamlined patent process.

PDFs are not immune to viruses or hidden malware. However, the USPTO filing system is equipped with malware and virus detection.

DOCX is supported by many popular word-processing applications, such as Microsoft Word, Google Docs, Pages, and LibreOffice.

a word processor. The commenter expressed concerns about how to rectify such a situation and stated that knowing that there is a problem and being able to fix the problem in a timely manner may be two completely different things.

Response: If there is an instance in which an error occurs, the EBC should be contacted for investigation at 1–866–217–9197 (toll-free), 571–272–4100 (local), or *ebc@uspto.gov.* The EBC is open from 6:00 a.m. to 12:00 midnight ET, Monday through Friday.

Comment 54: A few commenters noted that the USPTO places the responsibility on the practitioner to check the generated PDF for accuracy. One commenter wanted to confirm that the authoritative document will be the USPTO-generated PDF rather than the DOCX that was submitted. Another commenter felt that USPTO-generated PDFs remove the applicant's ability to control accuracy, and applicants who choose to guarantee accuracy by filing a self-generated PDF should not be penalized with increased fees.

Response: The authoritative document will be the PDF that the USPTO systems generate from the DOCX. The filer has always been responsible for the accuracy of the documents being submitted. According to surveys conducted by the USPTO, the majority of applicants use word-processing software, such as Microsoft Office and LibreOffice, which can produce a DOCX file.

The "yearlong study" makes no such finding that "order and accuracy [of TEXT as opposed to drawings] could not be preserved," and especially not for patent applications. (Complex and free-form docs, like newspaper display ads, present problems. Patent applications, which must be a single column, do not.) This is at best misleading. An inference of outright fabrication would be justified.

The "yearlong study" never mentions DOCX--the suggestion that it made a finding "With DOCX, the Office is..." is at best misleading.

Comment 51: One commenter wrote that PDF files are easier to manage when filing, are better for long-term archival use, can be generated in text-searchable form, will not require fragmented filings using both PDF and DOCX files, carry fewer concerns with respect to malware and viruses, and carry no licensing concerns. The commenter expressed that the DOCX file format is intended for facile editing and by design is not suited for archival purposes, will require fragmented filing with different file formats, will require archiving of files in multiple file formats, carries increased risk of malware and viruses, is no better than other editable file formats, and carries some uncertainty regarding licensing status.

validated and converted to PDF by USPTO systems in a consistent manner. The USPTO continuously performs rigorous testing to ensure that document integrity is preserved. To date, the Office has not received notifications of any issues resulting from the filing of applications in DOCX format. If there is an instance in which an error occurs, the EBC should be contacted for investigation at 1–866–217–9197 (toll-free), 571–272–4100 (local), or *ebc@ uspto.gov.* The EBC is open from 6:00 a.m. to 12:00 midnight ET, Monday through Friday.

Comment 53: One commenter asked about a situation in which the USPTO's rendering engine has changed the result relative to what the practitioner saw on

generate PDF documents for the uploaded DOCX files. At this time, applicants are encouraged to review the PDF documents before submission. The step of applicants reviewing their self-generated PDF is being replaced with their review of the USPTO-generated PDF document. The amount of time required by an applicant to review the self-generated PDF is comparable to the time to review the USPTO-generated PDF.

As a part of the DOCX intake process, preliminary validation is performed on DOCX documents at the time of upload. The system immediately detects and supplies the applicant with useful error and warning messages, allowing for adjustments to patent applications early

December 2023 Supporting Statement

In its December 2023 Supporting Statement for 202309-0651-002,
https://www.reginfo.gov/public/do/DownloadDocument?objectID=135781702
the Patent Office claims that DOCX presents information correctly, "in a manner that is independent of software, hardware, and operating system:"

> Like the PDF standard, DOCX presents documents, including text and formatting, in a manner that is independent of software, hardware, or operating system. A particular operating system will have its own process for interpreting and showing those text and format elements. However, the DOCX file is itself a stable carrier for the textual elements of the document. The open standard means that anyone has access to the information

> **Response:**
> The USPTO has not experienced the issue raised by commenters. The DOCX file acts as an effective vehicle for sending the structured text to the USPTO. Like the PDF standard, DOCX presents documents, including text and formatting, in a manner that is independent of software, hardware, or operating systems. If you experience any issues with viewing the DOCX on a different computer, please report it to the Electronic Business

There is no statement in any standards document or any other source to support a claim that a DOCX is presented in an "independent" manner.

- Perhaps the PTO means that if one reads the sentences hyper-literally to refer only to "text," and ignores the other content that governs correctness of a patent application. In that case, while not literally false, the PTO's statement is materially misleading.

- If the sentence is read at face value, it's just not true.

- In either case, the PTO breached its obligation of candor to the tribunal.

- The earliest that significant error checking is possible is 18-month publication. The bulk of that publication will not begin until July **2025**.

The PTO claims:

> **Response:**
> The USPTO made the decision to encourage submissions of applicant files via DOCX format in order to leverage the structured text and not rely upon the OCR process of the PDF conversion. This decision was reached based on internal IT considerations and initiatives, external sources, and industry practices, not solely based on any one study. The USPTO referenced the study in its Patent Fee Rule as part of responses to comments received (88 FR at 46957).

None of these materials were made available to the public during NPRM notice-and-comment, and none have been included in the record of any ICR. The PTO's "yearlong study" was not mentioned in the NPRM, and was not made available during the NPRM comment period. One copy was produced by FOIA; it is still is not available to the public. Though requested by FOIA two years ago, the Patent Office has produced none of the other documents implied here. The PTO relies on secret documents.

Additional gotchas

- The Patent Office's DOCX software doesn't accept the "standard"
  - The standard allows multiple features to be combined: chemical formulas inside tables, equations inside quote fields, equations in specific fonts, etc. The PTO's DOCX software won't allow these combinations—some yield error messages, sometimes the PTO appears to accept and then screws it up.
  - Word provides a number of features that patent attorneys use to reduce the likelihood of error: bookmarks, cross references, fields, merge fields, and the like. The PTO's DOCX software gives error messages and refuses to accept patent applications that use these standard features.
  - The PTO's filing system sometimes renders Greek letters (among other characters) as a box ☐--Greek letters are common in the scientific notation used in patent applications.
  - For wide tables and wide chemical formulae, past practice was to put the wide tables on landscape pages, and rotate them by 90° in the PDF. That's easy for PDF submissions. But the PTO's DOCX filing system refuses to accept the document. We have reported this error several times over several years. The PTO has not fixed it, and we have not figured out a work-around.
  - The PTO has no published document that gives a full explanation for which parts of the "standard" are accepted by the PTO's DOCX filing system, which are rejected, or anything else about the PTO's implementation of DOCX, and no description of work-arounds. From an applicant's point of view, the PTO's DOCX filing system is completely random.

- The PTO's rationale for DOCX filing is that "DOCX is a standard." But the PTO doesn't implement the standard. Implementing only the easy part of a standard is not standard conforming.

- A detailed explanation of standard DOCX features that are rejected by PTO's software is in our 60-day letter for 202309-0651-002 https://www.reginfo.gov/public/do/DownloadDocument?objectID=135639300 at pages 6-7 and Exhibit 4 at pages 83-94.

- Detailed lists of procedural defects in April 29 letter and October 2023 letter for 202309-0651-002 at https://www.reginfo.gov/public/do/DownloadDocument?objectID=136723102

Document tampering

- PTO software uploads the document from the user, then tampers with it before storing it. The stated rationales are uniformity of format, and "validation."
  - o The PTO's document tampering introduces error, and erases the audit trail so there's *no possibility whatsoever* of seeking correction
    - In Example 8, the $8000 in extra claim fees, the problem arose because the PTO converts "new line" characters (↵) to paragraph characters (¶). Perhaps it appeared innocuous, but because of the complexity of the DOCX standard and the variability of DOCX documents, it's impossible to predict all the cases. Any kind of document tampering will necessarily introduce error.
    - In some cases, if a patent claim uses a number (such as "2" in "2 inches") the Patent Office's document tampering misinterprets the meaning of "2" and starts renumbering paragraphs.

- The PTO discards the copy the applicant uploads. The only copy that's stored is the PTO's tampered "validated" copy.
  - o Violates Federal Records Act. The record that should be the "of record" copy is tampered with, and the original is discarded.
  - o Violates Federal Rule of Evidence 1002, the "original document" rule.
  - o The PTO must follow courts and other agencies, and take a "hands off" approach—the document that the applicant uploads **must** be **the** "of record" copy, for all purposes

Public burden estimates

Public comment letters have given detailed work-ups of burden, ranging from $200 million to $600 million (assuming an apples-to-apples comparison, in which proofreading yields the same level of reliability as PDF). Several of these estimates have been given to the Patent Office on multiple occasions. The Patent Office has never even *acknowledged* any of these estimates, let alone disagreed with them:

- David Boundy, estimating $200 million
    - November 30, 2020, ICR 202011-0651-001, 30-day letter at https://www.reginfo.gov/public/do/DownloadDocument?objectID=107472802 at pages 3-5
    - August 7, 2023, ICR 202309-0651-002, 60-day letter at https://www.reginfo.gov/public/do/DownloadDocument?objectID=135639300, at PDF pages 111-113

- Brad Forrest, estimating $200 million
    - November 30, 2020, ICR 202011-0651-001, 30-day letter at https://www.reginfo.gov/public/do/DownloadDocument?objectID=107472802 at pages 31-39
    - December 29, 2020, ICR 202011-0651-001, 30-day letter at https://www.reginfo.gov/public/do/DownloadDocument?objectID=107472602 PDF pages 12-20
    - August 7, 2023, ICR 202309-0651-002, 60-day letter at https://www.reginfo.gov/public/do/DownloadDocument?objectID=135639300 , at PDF pages 99-107

- Carl Oppedahl, on behalf of One Hundred Seven Patent Practitioners, estimating $600 million
    - August 6, 2023, ICR 202309-0651-002, 60-day comment letter at https://www.reginfo.gov/public/do/DownloadDocument?objectID=135640900, at pages 6-10 works up a total of $600 million.

- Kilpatrick Townsend & Stockton, estimated $600 to $700 million per year
    - August 2023, 60-day letter in ICR 202309-0651-002 https://www.reginfo.gov/public/do/DownloadDocument?objectID=135640600 at page 2-3

The Patent Office has never disagreed. Instead, the PTO has simply ignored these two specific elements of burden. The PTO has *never* acknowledged the proofreading and error correction burden, let alone disagreed with the public's estimates.

Questions to ask the agency

- In 1992, 1999, and 2012, Congress amended the Patent Act to make Patent Office "more like a business." Congress gave the Patent Office lots of exemptions from Title 5. For example:
  - o Other federal bonuses capped at 10%, with a handful allowed at 20%. For Patent Office, SES officers eligible for 50% bonuses. 35 U.S.C. § 3(b)(2)(B)
  - o The Patent Office keeps its own fee collections. Fees do not flow into the general treasury, and are not subject to appropriations oversight. 35 U.S.C. § 42(b) and (c).

- Bonuses are set by a "Performance Review Committee" that does not observe private sector rules for independent members of compensation committees. *E.g.*, 88 Fed. Reg. 52131 (Aug. 7, 2023) (all members but one are PTO executives setting their own bonuses); 86 Fed. Reg. 49001 (Sep. 1, 2021) (zero outside members).

- Speculation: what contracts has the PTO entered relating to DOCX? What *quid pro quo* to the agency? To individuals?

- Toward that end, I filed a FOIA request in 2021 for all information underlying the DOCX rule. FOIA Request F-21-00169 (Jul. 12, 2021).
  - o The PTO promised a rolling production of 500 pages per month. The PTO made one production in January 2023 (six months late), and another in November 2023. The communications with OMB relating to the Paperwork Reduction Act were blank-sheet redacted, in violation of § 3507(e)(2).
  - o I followed up with a request for all documents underlying the "yearlong study." FOIA Request F-22-00092 (March 28, 2022). Two years later, the PTO has produced **zero** documents.

- Is there a coverup?

Issue 2: decommissioning of old software before the new software works

Issue 2: decommissioning of old software before the new software works

- PTO has had an electronic filing system since about 2004. For its age, it wasn't bad. Over the years, it became quite reliable.

- The PTO began a project to replace its software systems in around 2015. The replacement project has been a fiasco. Multiple Inspector General and GAO Reports (e.g. OIG-22-026-A) not multi-year delays, 6X cost overruns, etc. largely the product of poor software engineering.

- Nonetheless, the PTO shut down the old reliable software in November 2023. The public had raised strenuous objection. PTO was quite dismissive.

- The full set of AIPLA slides from June 2023 are attached to our April 29 letter, as Exhibit A (pages 52-78)

- A number of us sent letters to the Patent Office and OMB in late October and early November 2023. Those letters might be informative.

- The new software is not yet reliable—features are missing, the new software loses filings, the user interface is misleading (non-standard wording, the treatment of "window close" is inconsistent), "limit exceeded" red boxes, etc.

- The costs of the PTO's unreliable software continue to mount. The costs should be booked. The public estimated them at about $50 million in the first year, declining over several years.

- Remedy: no practical remedy now. The only remedy is fair burden estimates:
  o The Patent Office receives about 3 million filings per year
  o 1 in 50 takes an extra hour -- 60,000 hours in first year
  o 1 in 10 takes an extra five minutes – 30,000 hours in first year
  o 90,000 hours, $39 million in first year – 75% ($29 million) in 0651-0031 Patent Processing, 25% ($10 million) in 0651-0032 Initial Patent Applications
  o Over the next three years, the PTO will fix bugs. Burden will fall 50% for FY 2025, 75% for FY 2026.
  o OMB should remind the Patent Office of its legal obligations, and how those obligations should influence future decision-making.

Issue 3: new burden by guidance

Issue 3: new burden by guidance

- Explained in our April 29 letter at pages 48-50
- Burden:
  - A pure money grab by the Patent Office—several tens of millions of dollars in additional fees. (No measured data available to the public to evaluate actual examiner implementation of amended guidance. The Patent Office almost certainly has the data, and has not disclosed it.)
  - Several hundred million dollars per year in hour burden, in 0651-0032 and 0651-0031 (difficult to estimate for same reasons.)
  - Additional complexity for competitors: the Patent Office's amendments to guidance result in "patent thickets" that are very difficult for competitors to evaluate. Explained in Julie Burke, *Recent MPEP Changes Complicate the Sticky Wicket of Restriction Thickets* (Mar. 14, 2023) https://ipwatchdog.com/2023/03/14/recent-mpep-changes-complicate-sticky-wicket-restriction-thickets/id=157729
- Remedy:
  - Direct the Patent Office to rescind 2022 amendments to MPEP (*Manual of Patent Examining Procedure*) Chapter 800. (Alternatively, clearance should be limited to Chapter 800 as it stood in 2006. For dozens of small changes incrementally implemented since 2006, the PTO has effectively ignored the PRA.)
  - Remind the Patent Office that it does not have authority to change the rules without adhering to the APA and PRA
  - Remind the Patent Office that it does not have authority to change the rules retroactively
  - Remind the Patent Office that it may not impose burden on the public without the notice-and-comment required by 44 U.S.C. § 3506(c)(2)(A), 5 C.F.R. § 1320.5(a), § 1320.8(d)(1) and § 1320.10(a).
  - Remind the Patent Office that it may not amend a significant guidance document (in a direction adverse to applicants) without observing the *Good Guidance Bulletin*.

Public comments and articles

- At 2019-2020 NPRM phase:
  - o *Seventy-Three Patent Practitioners*, https://www.uspto.gov/sites/default/files/documents/Comment_Seventy_Three_Patent_Practitioners_092719.pdf
  - o Carl Oppedahl, https://www.uspto.gov/sites/default/files/documents/Comment_Carl_Oppedahl_081219.pdf

- 2020 triennial ICR for 0651-0032
  - o there were **fifty-four** letters, mostly on this topic
  - o In this Supporting Statement, the PTO avoided the DOCX issue by stating it would be "premature" to consider burden of DOCX filing

- At 2023 ICR 202309-0651-002 for a new information collection, limited to transition costs for DOCX, and leaving the core "completing and reviewing" burden for this triennial ICR
  - o there were **fifteen** letters, all specific to DOCX
  - o Especially relevant, **if you read only one**: 60-day letter of *152 Patent Practitioners*, https://www.reginfo.gov/public/do/DownloadDocument?objectID=135639300 which gives an extended tutorial on the technology issues, and the 30-day letter https://www.reginfo.gov/public/do/DownloadDocument?objectID=136723102 which discusses the pattern of misleading non-responses to comments in the PTO's Supporting Statement
  - o The two letters of Carl Oppedahl are both well-researched, https://www.reginfo.gov/public/do/DownloadDocument?objectID=135640200 and https://www.reginfo.gov/public/do/DownloadDocument?objectID=135640900

- Articles:
  - o Julie Burke, *The Trains, Planes and Automobiles of Correcting DOCX-Related Errors*, (Mar. 19, 2024), https://ipwatchdog.com/2024/03/19/trains-planes-automobiles-correcting-docx-related-errors/id=174452/
  - o Julie Burke, *USPTO Flexes Its AIA Powers To Make Retroactive Substantive MPEP Policy Changes* (Mar. 23, 2023) https://ipwatchdog.com/2023/03/23/uspto-flexes-aia-powers-make-retroactive-substantive-mpep-policy-changes/id=158222/ and *Recent MPEP Changes Complicate the Sticky Wicket of Restriction Thickets* (Mar. 14, 2023) https://ipwatchdog.com/2023/03/14/recent-mpep-changes-complicate-sticky-wicket-restriction-thickets/id=157729/ both relate to the MPEP guidance issue in our 30-day letter