

Chapter 6 Update (March 2024)

Filing patent drawings in PDF

Please check out the following question/answer from the USPTO:

“What documents and submission types can I file without incurring a non-DOCX surcharge? The surcharge pertains to new utility non-provisional applications filed under 35 U.S.C. 111(a) for specifications, claims, and abstracts that are not filed in DOCX. This includes Continuations, Divisional, and continuation-in-part (CIP) applications. Drawings are accepted in DOCX format, but can still be submitted in PDF without incurring a surcharge. Other documents and submission types may still be filed using PDF documents.”

Here let me focus on preparing for filing of patent drawings in PDF. To publish patent drawings as a PDF, you need to

1. Open the existing Microsoft Visio document.
 2. Click the File tab or menu option at the top of the Visio program window.
 3. Click the Export option in the menu (**in a newer version**).
 4. Select the Create PDF/XPS Document option, then click the Create PDF/XPS button.
 5. Choose the desired location to save (publish) the file.
- Or,
1. Open the existing Microsoft Visio document.
 2. Click the File tab at the top of the Visio program window.
 3. Click the Publish as PDF or XPS in the menu (**in an older version**).
 4. Choose the desired location to save (publish) the file.

Chapter 7 Update (April 2024)

Enhanced Proofreading with ClaimMaster Software

A series of manual proofreading steps to take after a patent application draft is completed has been suggested. To further improve the quality of your application, it is advisable to use ClaimMaster software (mentioned in Chapter 11) for more comprehensive proofreading as a lot of patent practitioners do.

ClaimMaster ensures that your application is error-free and well written as it provides automated proofreading of your application document for claim errors, specification errors, and figure errors and makes detailed reports available. Any errors can be corrected prior to filing your application. Their proofreading tools are listed at <https://www.patentclaimmaster.com/step-by-step-claimmaster-tutorials.html#patent-proofreading-tools>. They offer a 30-day free trial.

To use ClaimMaster, you need to get familiar with ClaimMaster system requirements first and then install the software on your computer. For that, visit www.patentclaimmaster.com/help/Systemrequirementsandinstallatio.html. Afterward, you can select Accessing ClaimMaster in Microsoft Word and then proceed to Proofreading Tools.

Chapter 5 Update (May, 2024)

Using AI assistance to complement your prior art searches for efficiency and accuracy

As explained in the chapter, for you to conduct a prior art search before filing a patent application is a smart and essential move. It helps you understand the existing patent landscape, verify the adequacy of your invention to meet the prerequisites of patentability, make proper decisions about the feasibility of applying, avoid unnecessary expenses, and increase your chances of obtaining a valuable patent.

However, patent prior art searching is a needle-in-a-haystack challenge with the aim to find the most relevant prior art documents in this ever-growing and fast-paced world among the millions of published patent and non-patent documents existing globally. Scrutinizing a vast database manually for prior art searches (such as keyword-based and class-based) is an extremely arduous and time-consuming task.

Automated prior art searches using Artificial Intelligence (AI) assisted tool can effectively address drawbacks of manual search methods. It improves the process in the following ways:

- Enhances quality and precision of the prior art search.
- Reviews researcher's intent appropriately.
- Provides in-depth insight into competitor's strategies.
- Reduces false positives and false negatives.
- Boosts the overall efficiency and accuracy.
- Saves a lot of time and manual workload.
- Cuts costs dramatically.

In general, AI techniques effectively automate patent-related searches by replacing conventional search methods such as keyword search, Boolean search, and others, with AI-enabled semantic search. This approach helps retrieve documents that consist of similar concepts and logic. The accuracy of search results is enhanced as the invention text is compared with all the existing publications provided by the patent database. By this means, much more relevant information is extracted. This information considers and includes keywords (and synonyms or related abstract terms) within the respective search documents. In a review process, a document-based similarity model ranks results in order of conceptual relevance.

Review and analysis of the search results will facilitate the determination of patentability of the invention. These searches typically function as a tool for helping to craft claims that are broad enough to protect the invention but not read on the prior art. This can even lead to a reduction of the prosecution time due to fewer potential occurrences of office actions and claim amendments. Nevertheless, remember that while AI tools can enhance efficiency, human verification remains essential to ensure accuracy and avoid missing relevant references.

Speaking of AI-assisted prior art search and analysis, the USPTO faces increasing volumes and complexity of applications that necessitate sophisticated prior art searches. AI solutions powered by highly structured data can dramatically increase search efficiency and results to deliver improvements in examiner productivity, workflows, timeliness, and customer service. Patent examiners nowadays rely on AI-based tools for conducting prior art searches more and more while managing potential risks associated with AI use.

Pursuing my limited research work, I have come across a standout firm that provides AI-based tools for boosting prior art searches. It is known as **Sagacious IP**, whose head of online sales tells me that it is now the largest patent research and support firm globally. About 80 countries choose them regularly for IP support services like – Patent Prior Art Searching and others. One AI-based prior art search tool they provide is known as LivePat™, powered by Amplified API (<https://www.amplified.ai/how-it-works/>). For overview information on that search tool, visit <https://sagaciousresearch.com/blog/looking-for-prior-art-this-ai-based-tool-can-boost-your-searches/>. Its AI system is developed for IP professionals, ensuring efficient and effective patent data access.

In terms of charges, it is “Pay Per Use” for nominal fee, with no volume commitment. Moreover, it is easy to use; just start with a concise invention disclosure or just a paragraph – no hassle of identifying keywords or creating search algorithm or using logic operators. You can further input relevant IPC/CPC classes to make the search even more focused.

The tool doesn’t store any data; it performs the search and deletes all the invention related information entered. The search report is only available in your account for your reference. Further, information exchanged on the tool is covered under the scope of digitally and mutually accepted NDA (NON-DISCLOSURE AGREEMENT).

If interested, please explore this service (and optionally others’) to improve your prior art search results while reducing your manual workload and expenses.

Chapter 1 Update (August, 2024)

Steps to Self-Patenting Your Inventive Ideas

This patenting guide is primarily dedicated to helping independent inventors and small businesses meet their goals of protecting valuable inventions with patents without using a registered patent attorney or agent. It also welcomes others to take advantages of the given guidance and tips on drafting/prosecuting of patent applications.

Drafting a detailed patent application is crucial because it provides a clear and comprehensive description of your invention. This not only helps secure your intellectual property rights but also enhances the chances of your patent being granted, as it demonstrates the novelty, usefulness, and non-obviousness of your invention to the patent examiner.

Generally, steps to take toward filing a patent are as follows:

- Ensure you understand a patent requires that your invention be novel, non-obvious, and useful.
- Decide on what type of patent you qualify for (herein, utility patent): Process, Machine, Article of Manufacture, or Composition of Matter; or in some cases, Improvement on an existing invention.
- Do preparation and research on your invention, such as conduct a patent search, disclose to the patent examiner any relevant art or information that you know of during the patent prosecution, and keep a detailed log of your work on the invention (to authenticate your originality, if necessary).
- Use the given patent application specification template and Visio drawing template, both downloadable from the website at patentsure.com. Then follow the step chart to draft your application (Chapter 7).
- Take one of the two paths to applying for a patent: option 1- filing a Provisional Patent Application (PPA), which the USPTO does not examine, and following up with a Non-PPA within 12 months for examination. Or, option 2, filing a Non-PPA without a PPA.
- Take advantage of a micro entity status (if qualified), which allows applicants to receive an 80% reduction in most fees for getting and maintaining a patent from the USPTO.

An application may qualify for micro entity status if:

- (1) Each applicant, each inventor, and every other party with an ownership interest in the application is a small entity (that is, an individual, a small business with no more than 500 employees, a nonprofit organization, or a university – qualifying for a 60% reduction in patent fees);
- (2) The applicant and all inventors must have each had, counting individually, a gross income equal or less than three times the median household income for the preceding year. (As of September 12, 2023, the maximum qualifying gross income is \$223,740);
- (3) The applicant is not named inventors on more than four previous U.S. patent applications;
- (4) The applicant has not assigned or is not obligated to assign patent rights to an entity with gross income exceeding the specified limit; and
- (5) The applicant files a micro entity certificate (form SB/15A).

Additional helpful information for self-patenting applicants includes the following:

- To facilitate filing patent applications on their own, the USPTO Pro Se Assistance Program provides outreach and education to applicants (but no legal advice) and help them make informed decisions. Be sure to check into that. (Pro Se means “for oneself” or “on one’s own behalf.”)
- Before submitting your application, you may be eligible for free legal assistance in preparing and filing a patent application. Check out some information on Patent Pro Bono

program at the USPTO website. This program is a nationwide network of independently operated regional programs that match volunteer patent attorneys and agents with financially under-resourced inventors and small businesses to provide free legal assistance in securing patent protection.

To apply for the USPTO Patent Pro Bono Program, follow these steps:

- (1) Check Eligibility:** Ensure you meet the eligibility criteria, which typically include income limits, knowledge of the patent system, and having an invention ready for patenting.
 - (2) Find Your Regional Program:** Visit the USPTO Patent Pro Bono Program website to locate the regional program that serves your state.
 - (3) Complete the Application:** Each regional program has its own application process. Generally, you'll need to fill out an application form and provide details about your invention and financial status.
 - (4) Submit Required Documents:** Along with your application, you may need to submit supporting documents such as proof of income and a description of your invention.
 - (5) Wait for a Match:** If you qualify, the program will match you with a volunteer patent attorney or agent who can assist you with your patent application.
- Your patent application may receive an objection or rejection from a patent examiner. Refer to Chapters 12 and 13 for instructions and tips on how to overcome the objection or rejection.