Another way to look at software protection

Utility patent protection for software inventions has been severely limited since the Alice decision. **Tracy-Gene G Durkin** considers an alternative: protecting GUIs with design patents

1 MINUTE READ

The mobile app marketplace continues to grow: in June 2015, there were 1.5 million apps available from the Apple App Store alone. For many of these software developers, protecting their intellectual property including GUIs is vital. But obtaining utility patents for software inventions has been challenging since the Supreme Court's *Alice* decision. Could design patents come to the rescue? The law has developed slowly, but design patents are increasingly popular with software developers, particularly for GUIs, and provide a viable and valuable means of protection, and have a number of advantages compared to other IP rights. With some important cases in the pipeline, developments should be followed closely.

Since the introduction of the smartphone, the mobile application marketplace has been growing exponentially. In June 2015, there were 1.5 million mobile applications available for download from the Apple App Store alone, with an average price of $1.16. In December 2015, designers submitted more than 58,500 new applications to the App Store.

As a result of this ever-expanding market, software developers have an increased need to protect their intellectual property, particularly their user-interface design. User interface refers to the means by which a user and a computer system interact. For example, Microsoft Windows is an operating system that popularised graphical user interfaces (GUIs), a widely used subset of user interfaces that rely on graphical icons and visual indicators. For many, GUIs provide a greater ease of use than other interface designs, such as text-based interfaces.

Yet as the urgency to protect their potentially lucrative IP increases, software developers now are facing additional hurdles in light of the 2014 decision by the United States Supreme Court in *Alice Corporation Pty Ltd v CLS Bank International*, which severely limited utility patent protection for software applications. The issue in the case was whether utility patent claims to a computer-implemented, electronic escrow service for facilitating financial transactions covered abstract ideas ineligible for patent protection under 35 USC Section 101. The Court held the patents invalid because the claims were drawn to an abstract idea, and implementing the method of those claims on a computer was not enough to transform that idea into patentable subject matter.

This article will review the history of the applicable case law

regarding GUIs and IP protection and offer insights to developers and IP counsel alike on how to best preserve the value of their software-related intellectual property.

Utility patents and design patents

GUI designs have been protectable in the United States since at least 1992 by design patents, the lesser-known sister of utility patents. Utility patents protect the way an article works and last 20 years from the filing date of a utility patent application. Design patents, on the other hand, protect the way an article looks and are valid 15 years from the issue date of a design patent. Both require that the invention being protected is novel and not obvious under 35 USC §102 and 103, respectively. Utility patents cannot protect inventions that are not useful, or which do not satisfy 35 USC §101. Design patents cannot protect designs that are not ornamental, that is, that are primarily functional.

The two types of intellectual property are not mutually exclusive, and it is common to obtain both utility and design protection for the same GUI invention. An example is Apple's slide to unlock feature of its original iOS, which is protected by both US patent number 7,657,849 and US patent number D675,639 (see figure 1).

Apple's US 7,657,849
Slide-to-Unlock
Utility Patent

Apple's US D675,639
Slide-to-Unlock
Design Patent
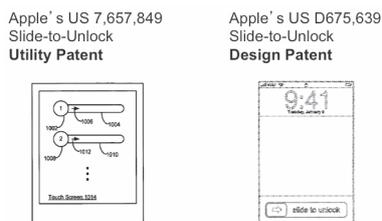
Figure 1

Design patents are governed by 35 USC §171, which provides that: "Whoever invents any new, original and ornamental design for an article of manufacture may obtain a patent therefor, subject to the conditions and requirements of this title." According to *In re Zahn*, 617 F2d 261, 204 USPQ 988 (CCPA 1980), 35 USC, §171 refers not to the design *of* an article but to the design *for* an article, and includes ornamental designs of all kinds, including surface ornamentation as well as configuration of goods.

The *Strijland* case

The distinction between surface ornamentation and the article itself is an important one and became the pivotal issue in *Ex Parte Strijland*, 26 USPQ2d 1259 (Bd Pat App & Int 1992), the case that paved the way for GUI protection through design patent in the US.

Figure 2

The case involved an appeal to the USPTO Board of Patent Appeals and Interferences (BPAI) from an examiner's final rejection under 35 USC §171 of an icon design (figure 2).

The basis for the rejection was that an icon was not an ornamental design for an article of manufacture as required by

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§171 because it was mere surface ornamentation rather than a design applied to an article of manufacture.

The examiner and the Board agreed that the claimed icon design was for use on a computer display. However, no computer display was shown or described in the application as filed. Therefore it was mere surface ornamentation for an article, but no article was disclosed or claimed.

Figure 3

The applicant attempted to address the issue during prosecution of the application. The applicant did this by amending the drawings to add a broken line computer around the icon (figure 3). (Broken lines are often used in design patent applications to show an unclaimed environment in which a design may be used.)

The Board found that had the original application described a display or shown a display in the manner in which the applicant later amended its application, the icon design disclosed would be patentable subject matter. However, since the disclosure of the computer was added after the design patent application was filed, the addition of the computer introduced impermissible new matter into the application and the rejection was maintained.

Articles of manufacture

While the Board may have ultimately rejected the applicant's claim in the *Strijland* case, an important development occurred afterward. As a direct result of the *Strijland* case and the issues regarding GUIs that it raised, the USPTO introduced MPEP §1504.01(a), in 1996. MPEP contains guidelines to assist examiners in evaluating design patent applications for GUIs. The guidelines were most recently updated in October 2015.

According to the guidelines, to be considered statutory subject matter under 35 USC §171, design applications for computer-generated icons must comply with the "article of manufacture" requirement of the statute. Because a patentable design is inseparable from the object to which it is applied and cannot exist alone as mere surface ornamentation, an icon must be embodied on a computer screen, monitor or other display panel or portion thereof. The article of manufacture on which the design is displayed may be shown in broken lines. In other words, a new

criterion for all app developers who wished to successfully receive a design patent would be to specify in the application that the design is displayed on a display or other "article of manufacture" and to reflect this using a broken line image of a display.

GUI patent developments

Since institution of the guidelines, the law has developed slowly in this area. There are no reported decisions by the USPTO Patent Trial and Appeal Board (and its predecessor the BPAI) involving the patentability of GUI designs since *Strijland*. Similarly, there is only one reported court decision on validity and infringement of a GUI design patent. That decision came in 2014 in the high-profile patent litigation between Apple and Samsung involving, among other intellectual property, US patent number D604,305.

In that case, a California jury found that the Apple GUI design patent was not invalid and was infringed by Samsung. The Court of Appeals for the Federal Circuit affirmed. The case is on appeal to the United States Supreme Court on the issue of damages. The patented design and the infringing design are shown in figure 4.

D604,305   Galaxy S

Figure 4

The benefits of design patents for GUIs

Despite the scarcity of reported decisions involving GUI design patents, they are the fastest growing IP asset to protect GUI designs. The following are some facts that reflect the growth in this area.

- Issued GUI design patents make up 2% of the more than 750,000 design patents issued to date.
- It is also the fastest growing area at the USPTO, which corresponds with the increase in app development generally
- The number of patent examiners assigned to examine the burgeoning caseload of GUI design applications has grown from one in 2007 to more than 20 today.
- The top filers of applications for GUI design patents are not surprising. They include Microsoft, Samsung, Apple, Google, Sony and LG Electronics. Other significant filers include companies not normally associated with GUI design or electronics, such as Bank of America, Sears, Nike and PepsiCo.

Design patents can be used to protect GUI designs in colour, grey scale and more traditional patent-style line drawings. Grey scale and colour may often be patented in the same design patent. The USPTO is less consistent about permitting both digital images and line drawings to be granted in the same

patent. An example of an icon design patented in both colour and grey scale is shown in figure 5.

Figure 5

Examples of a GUI design patented in grey scale and separately patented in a line drawing are in figure 6.

Figure 6

In addition to static GUIs, animated or dynamic GUI can also be protected with a design patent. In the case of an animation, the patent application should include at least two figures showing the design sequence to reflect the motion or response of the GUI. As with static GUI designs, the design may be presented as a digital image or by line drawing. An example of a line drawing depicting the animation of a keystroke is in figure 7.
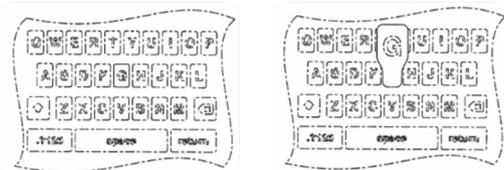
Figure 7

While GUI designs may also be protectable under copyright and trade mark law, design patents offer distinct advantages over other forms of IP protection, including:

- Design patents can be used to protect icons and screen designs that do not function as a trade mark – a requirement of the trade mark law.
- In addition, there is no creativity requirement, as with copyright.
- Design patents also have a presumption of validity.
- Although the term of a design patent is limited to 15 years, they are seldom outlived due to the dynamic nature of design, particularly in the user interface area.
- Design patent rights may also be easier to enforce than trade mark and copyright because no consumer surveys or copying are required to prove infringement.
- The measure of damages is also a significant advantage. 35 USC §289 provides that an infringer "shall be liable to the [patent] owner to the extent of his total profit", a remedy unique to design patents.

Figure 8

Another advantage of design patents for GUIs is that the test for design patent infringement is well settled and fairly straightforward. The test comes from the 1871 US Supreme Court case of *Gorham v White* (see figure 8), which held: "If in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other."

In other words, no written articulation of the claim is required; the patent drawings speak for themselves. Although the scope of a design patent, like all patents, needs to be considered in light of the prior art, the burden is on the challenger, not the patent holder, to produce any relevant prior art to narrow the scope of the design patent claim.

The future of GUI design patents

While the Apple/Samsung case may contain the most recent word on GUI design patent validity and infringement, it will not be the last. In December 2015, Microsoft filed suit in the Northern District of California accusing Corel of, among other things, infringement of several design patents for the Windows operating system. Examples of two of the patents and the accused Corel products are reproduced in figure 9.

D554,140   Corel Calculate

D550,237   Corel Show
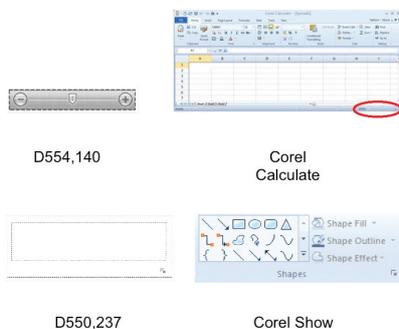
Figure 9

If the case proceeds to a decision, it will surely provide more legal guidance on the validity and enforceability of design patents for GUIs. In the meantime, the number of GUI filings and the diversity of the applicants do not seem to be waning.

Now that utility patent protection is much harder to get for software, companies continue to struggle to find a way to protect their user interface design from copying. Design patents are proving to be a viable and valuable alternative.

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