INVENTION ANALYSIS AND CLAIMING:
Independent Embodiment Claims
PART I[1]

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A patent application should be filed not only with claims defining the invention at its broadest, but with claims of intermediate and narrow scope as well. A claim of intermediate scope includes perhaps one, two or three limitations not required to define the broad invention. A claim of narrow scope includes even more.

Intermediate- and narrow-scope claims serve a number of functions. Most importantly, they implement a Planned Retreat[2] for the invention so that if prior art makes it necessary to retreat from the application's broadest claims, those that remain will have given up as little valuable intellectual property as possible while providing a defensible position for what's left.

Perhaps the most familiar type of intermediate- and narrow-scope claim is the fallback feature claim. Fallback feature claims are the Planned Retreat's front line of defense and are a mainstay of patent claiming practice. A fallback feature claim is typically in dependent form and narrows the subject matter of the claim from which it depends—its "parent"—by reciting a feature of the invention that may be relied on for patentability if prior art renders the parent claim unpatentable.

This column discusses another type of intermediate- and narrow-scope claim that the author calls an "independent embodiment claim."

INDEPENDENT EMBODIMENT CLAIMS

An independent embodiment claim is a claim in independent form that includes one or more details of the disclosed embodiment(s)—details not included in a claim intending to define the invention at its full breadth. As such, an independent embodiment claim necessarily stakes out a more modest parcel of intellectual property than the application's broadest independent claims.

It might seem that there is no need for independent embodiment claims. After all, we can always include embodiment details in one or more *dependent* claims. However, as we will see, independent embodiment claims can eliminate potential infringement loopholes, and overcome other problems, that are actually created by claims being in dependent form.

THE QUESTION OF BREADTH

An independent claim reciting specific embodiment details can actually be broader than a dependent claim reciting those same details. The reason is that the details in a dependent claim may render certain limitations in its parent claim(s) redundant. A dependent claim is always burdened with all of its parent's limitations—redundant or not—and we should take it as a matter of faith that any redundant words in a claim have the potential to narrow it, even if the redundant words seem "harmless enough."

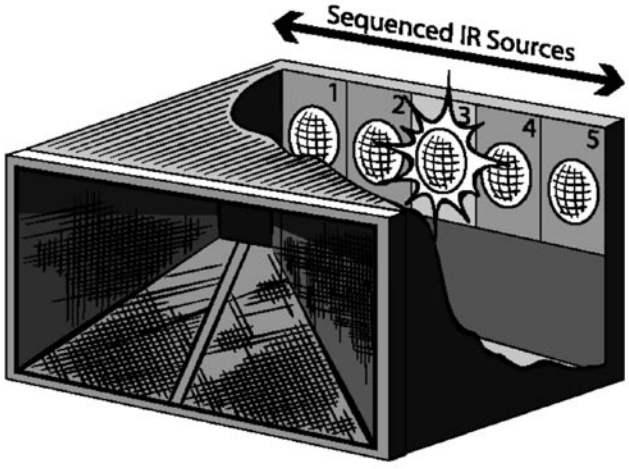
Functional claim language in the parent claim is often redundant in this way. Such language may serve as the very basis for patentability in the parent claim. It may not, however, be needed in order to distinguish the invention from the prior art once a dependent claim adds specific structural elements that carry out the recited function.

Claim 1 is an example of a claim with functional language that may become redundant once certain embodiment details are introduced in a dependent claim. This claim broadly defines an animal trap that lures the animal with an infrared or other electromagnetic energy source that simulates the movement of prey within the trap enclosure. The trap could be used to capture snakes, for example, many of which are able to detect the infrared (heat) energy given off by their prey.

> **1. An animal trap comprising:**
>
> **an enclosure adapted to trap an animal that enters the enclosure, and**
>
> **an energy source within the enclosure that generates electromagnetic energy detectable by the animal, the energy being generated in a way that simulates the movement of prey for the animal.**

The assumed prior art includes a) a trap with a mechanically manipulated lure shaped like a mouse or other prey and b) an insect trap having a stationary visible light source that blinks on and off. Claim 1 distinguishes over both because a mechanical lure does not generate electromagnetic energy and a blinking light does not simulate the movement of prey.

Claim 1 does not limit the invention to the use of infrared energy, nor to any particular pattern that simulates the movement of prey. Those various embodiment details, rather, are pushed down into dependent claims 2 through 4.



Snake trap with sequenced infrared sources simulating the movement of prey.

2. The apparatus of claim 1 wherein the energy of said energy source includes infrared energy.

3. The apparatus of claim 1 wherein said energy source comprises a plurality of individual energy sources that are activated and deactivated in such a way that at least one source is activated while at least one other source is deactivated.

4. The apparatus of claim 3 wherein said individual energy sources are arranged in a line and are activated in sequence along the line.

Now consider independent embodiment claim 5. The hook for patentability in this claim is its recitation that the lure comprises a plurality of individual energy sources that go on and off but not all at the same time. This language was lifted directly out of dependent claim 3 but, unlike the latter, independent embodiment claim 5 is not burdened by claim 1's movement-of-prey limitation.

5. An animal trap comprising:

an enclosure adapted to trap an animal that enters the enclosure, and

a plurality of electromagnetic energy sources that are activated and deactivated in such a way that at least one source is activated while at least one other source is deactivated.

Claim 5 could prove to be quite valuable. The inventor may have *thought* that her trap worked as well as it did because the infrared pattern was simulating the movement of prey. But a competitor may discover that at least some heat-detecting animals are attracted to apparent changes in the position of the infrared source, whether or not those changes mimic the movement of any real-world creature. The competitor may thus produce a product where the on-and-off pattern is random, arguably avoiding the movement-of-prey limitation called for in claims 1 through 4. The competitor's random-pattern trap *would*, however, infringe independent embodiment claim 5 since that claim says nothing about the movement of prey.

BENEFITS IN LICENSING AND LITIGATION

The presence of independent embodiment claims in the issued patent provides benefits beyond their ability to define the invention more broadly than the dependent claims might.

In litigation, for example, judges and juries assessing the validity of a patent's claims may not give separate consideration to the dependent claim limitations, even though they should. Once an independent claim has been found invalid based on prior art, its dependent claims are sometimes declared invalid as a matter of course, improper though that may be. Another possibility is that the limitations in the dependent claims *will* be looked at, but only in isolation and will be deemed to add nothing non-obvious without the law of non-obviousness being properly brought to bear. All in all, then, a litigator's ability to make the case for infringement of an intermediate- or narrow-scope claim may be enhanced by being able to hand to the jury a claim that is self-contained.

Moreover, the dependent claim construct can be confusing to people who do not work with it day in and day out. As a result, jurors may mistakenly import limitations from one dependent claim into another. For example, the fact that claim 2 appears ahead of claim 3 in the claim family presented above might cause jurors to understand claim 3 to include claim 2's infrared energy limitation, even though claim 3 depends from claim 1. Such a misunderstanding is avoided if a claim is in independent form.

Additionally, the more independent claims (of all kinds) appearing in a patent, the more time and money a potential licensee or infringer will have to pay his attorney to study the patent's claims and render an infringement and/or validity opinion. The prospective high legal costs may drive up the minimum license fee that a potential infringer will find palatable.

Next Month: Independent Embodiment Claims—Part II

ENDNOTES

2. *Intellectual Property Today*, June 2007