“Draft the broadest method and system claims that you can.” This is the advice that most patent practitioners start out with, and more often than not, end up using by default as the basis of their entire claim drafting strategy. This approach essentially guides the practitioner to craft claims limited only by the prior art. However, this approach fails to consider a fundamental purpose of claim drafting: to establish the scope of a useful economic right that reflects the client’s business needs and goals. It also fails to consider the likely prosecution course that the claims will follow once reviewed by the examiner, and how well that course relates to the client’s legal and business strategy. In this article we present a mechanism that guides claim drafting in view of these interrelated objectives.

The mechanism we use is the claim space diagram.

Claim space is defined by two independent axes: Functionality and Application. Functionality is similar to the conventional idea of claim breadth, focused on the specificity of the details of the claim, such as the details of the attributes, couplings, functions, relationships of the various elements or steps of the claim. A simple metric of functional breadth may be the number of elements or steps in a claim. At the ‘broad’ end of the Functional axis are the very terse, two or three step/element claims, with only the minimal specification of the attributes and features of the elements, and essentially claiming a broad functional description of the elements. At the ‘narrow’ end of the axis are the lengthy claims detailing a myriad of elements or steps, with specific attributes and connections for each of the elements.

The Application axis describes the specificity of the claim in terms of the applications of the invention. For example, consider an invention providing a bookstore inventory management system. The ‘specific’ end of the Application axis would be claims for inventory management of books, while the ‘generic’ end of the axis would be claims directed to managing products or goods, not limited to books. The Application axis is thus very similar to a field of use constraint, but varies the fields vertically from industry specific applications to generic “industry independent” applications.

Claim space can be roughly divided into a number of regions, shown as regions 1-4 in the figure. The regions are shown with dashed lines to suggest that their extent is not fixed, but rather based on the particulars of the technology. These regions provide a way of assessing the validity/enforceability risk of different claim sets in the context of their potential business value.

Region 1 claims are focused on the client’s business and market needs. Limited to the particular application or technology that the client is pursuing, yet broad in functional scope, claims in this region are defensible against invalidity attacks based on technologies unrelated to the business of the client, but which would otherwise fall within the scope of more generic claims. Further, because of their more narrowly targeted application, these claims are obtained quickly, which is typically consistent with the client’s goal of obtaining early patent protection in a developing field. This gives the client an early option of enforcing the patent against competitors or licensing it to later entrants.

Region 2 represents claims that are broad in both their functional scope and their applications. These claims are likely to be the most difficult to obtain in prosecution, and also the most difficult to defend. Further, because of their generic application, they are
likely to extend beyond the particular business context of the client. Given these factors, these claims are typically best pursued in a continuation strategy, after having obtained region 1 claims more targeted to the client's business. The additional time taken to obtain these broader claims also allows the client the opportunity to observe how the technology develops and to adapt the broader claims in an attempt to dominate the field as it matures.

Region 3 represents claims that are generic in application, but relatively narrow in functional scope. Claims here typically arise out of inventions motivated as solutions to particular technological problems which current approaches no longer adequately address. The inventions are thus improvements over existing techniques, but are not limited to the particular application space of the client's business, though they may be technology specific. For example, rendering algorithms are useful in computer animation, graphics design, and gaming, yet a software company typically operates in only one of these industries. Claims here are more easily defended because of their narrow functional scope, and also licensable across industries that are complementary and non-competitive with the client, as in the above example.

Finally, region 4 represents claims that are specific to the client's application and technology space, and narrow in functional scope. These claims are easiest to obtain and defend from invalidity. However, they also may have little economic value because of their limited scope. In prosecution, take these claims if allowed early on, or if the client insists on getting a patent as quickly as possible, perhaps for its marketing value, understanding that the likelihood of successfully asserting infringement or licensing the patent is relatively low. Patents issued on such claims should be followed up with a continuation application seeking broader claims in one or more of the other three regions in claim space.

The claim space diagram thus allows the practitioner to develop a claim strategy that reflects both the client's business interests, and the risks of prosecution and enforcement.