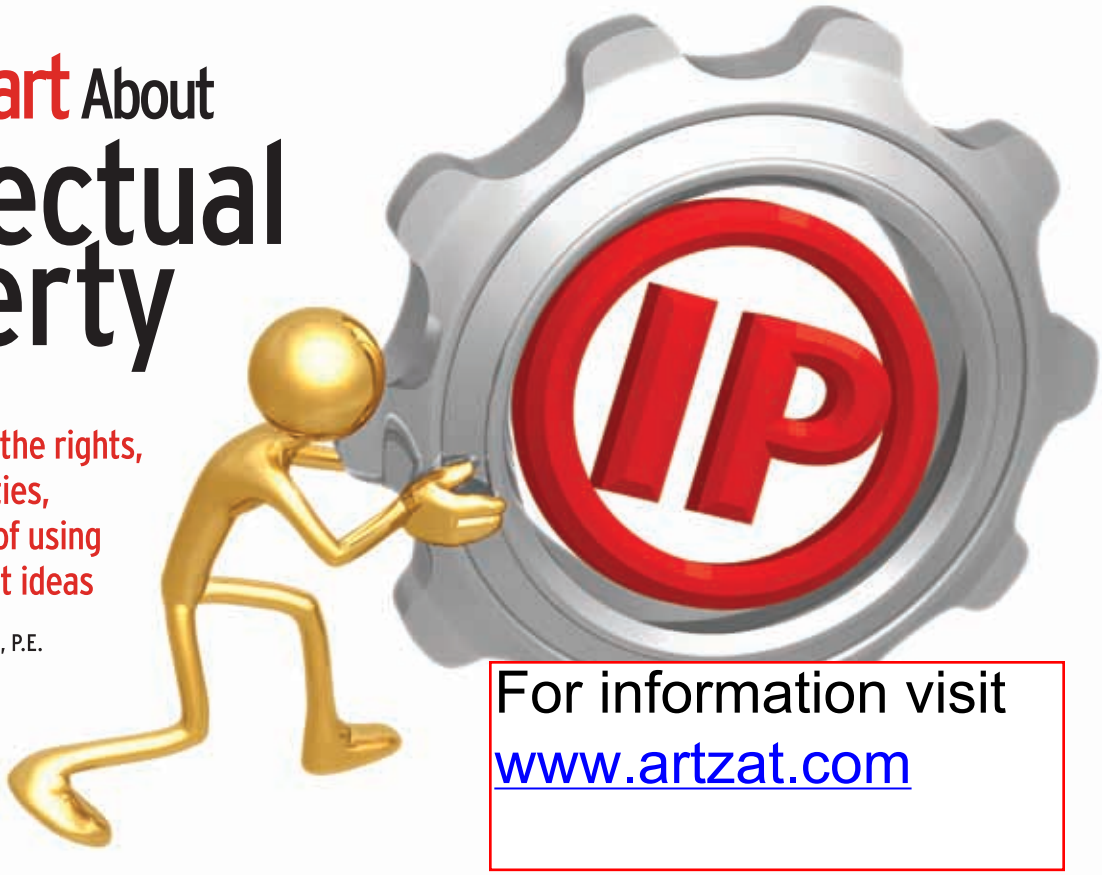
Be Smart About Intellectual Property

Understand the rights, responsibilities, and pitfalls of using others' great ideas

By Arthur Zatarain, P.E.



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I'm not an attorney, nor do I play one on TV. Yet my engineering career often has involved legal issues, the most interesting of which is intellectual property (IP). Inventors and product developers expect to protect their novel ideas, while others want to freely use what they consider "prior art" from the public domain. Expensive legal sparks can fly when those sides disagree. My recent experience relevant to instrumentation and controls reflects the fertile ground of IP disputes:

- The simple display of process data from a connected PLC cost several companies many millions in patent licensing fees.
- A spreadsheet template to record instrument testing spawned a $25 million infringement claim.
- Flow computing methods used by a service provider were claimed to be stolen trade secrets.
- Monitoring of equipment cabinet temperature infringed a patent for cooling remote computer systems.
- Uninterruptible power supplies connected to personal computers infringed a data link patent.

Do these samples of recent IP infringement seem frivolous, and perhaps a bit too familiar? They should, as such seemingly ordinary technology likely can be found within 100 yards of your desk. So, the reality is that nearly every industrial facility is a potential candidate for IP disputes over mundane equipment and controls.

When pondering your present and future IP situations, consider these basic questions:

- What are the common risks of intellectual property?
- How can potential disputes be minimized?
- Who will pay the defense and royalty costs if my company ever faces a claim?

WHAT IS IP?

Intellectual property generally involves patents, copyrights, trademarks, and trade. Each avenue addresses a different aspect of novel ideas that are protected by law. For convenience, this discussion targets patents in an industrial setting. However, every form of IP has similar concerns that deserve equal consideration in any IP initiative.

Some wise person (perhaps me, or maybe Dilbert) noted that "a patent is a good idea." That seemingly obvious statement reflects far more than mere words suggest: a patent is indeed a good idea, but also one that has been granted a period of sole ownership with the right to charge others for its use.

An often misunderstood IP concept is that an issued patent, no matter how seemingly trivial, is legally enforceable. In a practical sense, the alleged infringer is, therefore, essentially guilty until proven innocent, or until the relevant patent is invalidated through a costly process. Because the

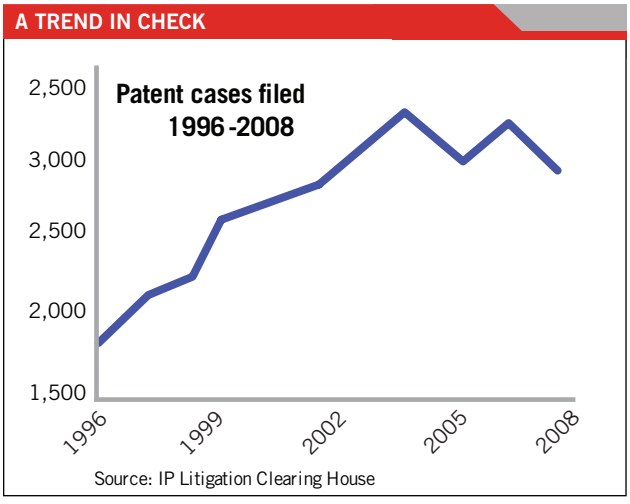

Figure 1. Intellectual property patent cases had been rising and it might be only the recession that slowed the growth lately. (Source: IP Litigation Clearing House)

cost of IP litigation often is rounded to the nearest million dollars, every instance of IP use – be it intentional or otherwise – deserves advance consideration throughout the process of automation system specification, design, fabrication, and ownership.

THE LEGAL LANDSCAPE

Most patents and other IP with easily recognized novelty earn their revenue through undisputed contracts and license agreements. Real value is bought and paid for. But I've also spent time on both sides of legitimate IP disputes that had to work their way through the legal process before reaching an equitable conclusion. In my experience, most IP litigation is productive and far from frivolous. The legal system, therefore, works fairly well for intellectual property – but often at costs that bring a small company to its knees.

Unfortunately, a growing trend exploits not-so-valuable ideas to earn revenue in court rather than at the negotiating table. The technique uses the high cost of a potential defense as leverage to dislodge a relatively low license fee, even for what seems to be a frivolous claim. Therefore, an undisputed settlement is often the path of least resistance. That no-win situation is similar to a "slip and fall" lawsuit, but without the wet floor. Right or wrong, money might change hands without much resistance.

There's been a slight reduction in patent litigation during the recent economic slump (Figure 1). However, that data doesn't reflect the many infringement disputes that settle without formal litigation. The fewer number of actual lawsuits might reflect only the unwillingness of cash-strapped defendants to fight a costly legal battle. Because IP risk never gets laid off, the revenue from claimed infringement is likely immune from hard economic times.

THREE KEY CONSIDERATIONS

The right to use intangible intellectual property is just as important as the right to use the physical material and labor that vendors provide. The production and consumption of IP should, therefore, be addressed adequately in any commercial agreement to clarify the delivery terms going in, and to secure future protection going out.

The three key areas to consider include:

- Rights to existing IP
- Rights to IP arising during project development
- Protection from inadvertent infringement, both claimed and actual, arising from outside parties

USE OF PREEXISTING IP

The most common forms of IP found in instrumentation and controls include device and method patents, software copyrights, and proprietary technology. These elements usually are known in advance to project developers, who should address three aspects of ownership: 1) payment for the intended use, 2) protection of confidential information, and 3) how an initial agreement carries over to later modifications, additional applications, or changes of ownership.

Note that the existing IP being negotiated can belong to either side of a buy-sell agreement, or to a third party who deserves payment or protection. The intentional use of IP, regardless of its source, must be accommodated clearly within each vendor-consumer relationship.

The flow computer dispute referenced above resulted from inadequate advance agreement between an end user and the company hired to develop a prototype. Although the technologies were well established, the developer thought the upfront use of his unique experience would pay royalties in the future. The end user, however, expected to own the design outright. Here, a few simple paragraphs could have eliminated a dispute that neither party wanted, nor could either of them easily afford.

NEWLY DEVELOPED IP

Most new IP evolves over time, often as a derivative of other work, and frequently involving multiple players. This already complex arrangement is further complicated when external parties participate in an internal development process. For example, the nifty production scheme or handy CAD template you think you designed for your facility might later be declared proprietary by an outside contractor working on your team. Without adequate advance planning, ownership of such disputed IP can be determined only with a few hurt feelings and lots of legal dollars.

The instrument calibration spreadsheet mentioned above was developed partially by a low-level contractor who – after being terminated – claimed it as his own. The disgruntled worker whipped up a legal frenzy against the multinational company that had distributed "his" intellectual property

around the globe. That dispute has been underway for several years – in Africa – so you can imagine the substantial legal costs involved.

THIRD-PARTY INDEMNIFICATION

Establishing an equitable agreement between IP supplier and consumer eases concerns over "yours, mine, and ours." But what about those other guys whose IP inadvertently finds its way into your project? Those rights also must be considered upfront, especially for third parties outside the negotiated vendor-customer agreement.

To paraphrase Mr. Webster, "indemnify" means to secure against or make compensation for hurt, loss, or damage. Unfortunately, the indemnification section in a typical commercial agreement often is ignored until after a dispute arises. Properly defining the desired indemnity for IP infringement – including even a mere claim of infringement – is an important contract element that should be crafted by experienced legal hands.

Consider the process data display mentioned above. We've all seen this for decades now: a personal computer linked with a PLC to form a human-machine interface (HMI). Yet, an obscure patent for a specific and outdated form of that simple link spawned an historic dispute over what is sometimes termed the Solaia patent.

Note that the patent owner first targeted the many individual end users rather than the few equipment suppliers. In most cases, the inexperienced end users chose to pay a relatively small license fee rather than risk untold legal dollars. And they weren't necessarily spending their own money to

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make those problems go away; depending on their particular vendor-customer agreements, those end users could potentially pass infringement costs on to their suppliers. Therefore, every player in the designer-supplier-owner triangle had stakes in this dispute. Accordingly, a few key contract terms might have determined the swing in millions of defense and licensing dollars.

Eventually, the Solaia patent was invalidated after suppliers banded together to fight on behalf of their customers. However, the many millions of dollars accumulated by the "patent troll" who instigated the litigation remain legendary within the IP community.

The key lesson here is to establish indemnification agreements that are practical and fair to all parties. An owner who expects a supplier to assume risk for unforeseen infringement should make this clear when an order is placed. Likewise, a vendor denying IP risk should state so at the proposal stage.

A VENDOR DENYING IP RISK SHOULD STATE SO AT THE PROPOSAL STAGE.

Indemnity should be a two-way street, and that street must be open for negotiation based on the dynamics and economics of individual projects. The indemnification burden is just another cost of doing business, and is as real as that of licenses and royalties. That cost should, therefore, be appropriately addressed well before a jury takes the matter under consideration.

WHAT TO DO?

From a practical standpoint, standard text approved by competent legal counsel is the most expedient way to establish a baseline for IP rights and indemnification. Appropriate pre-approved terms belong in every specification, proposal, and purchase agreement.

Unfortunately, such boilerplate clauses can delay project delivery while various legal egos beat up each other over tiny details. The best approach is to establish language that's fair and practical, and remain flexible and involved when negotiations are required.

Edwin Armstrong, the true inventor of FM radio, once opined that the American legal system is a world in which "men substitute words for realities, and then talk about the words." He wrote that following decades of costly and endless patent disputes, shortly before stepping to his death from a 13th floor window. His inventions have served us well, but his words had let him down. So keep in mind that the words you write today might become the reality in which you fight future IP battles. The best legal defense is often a good offense as you prepare for the IP challenges that you hope will never come.

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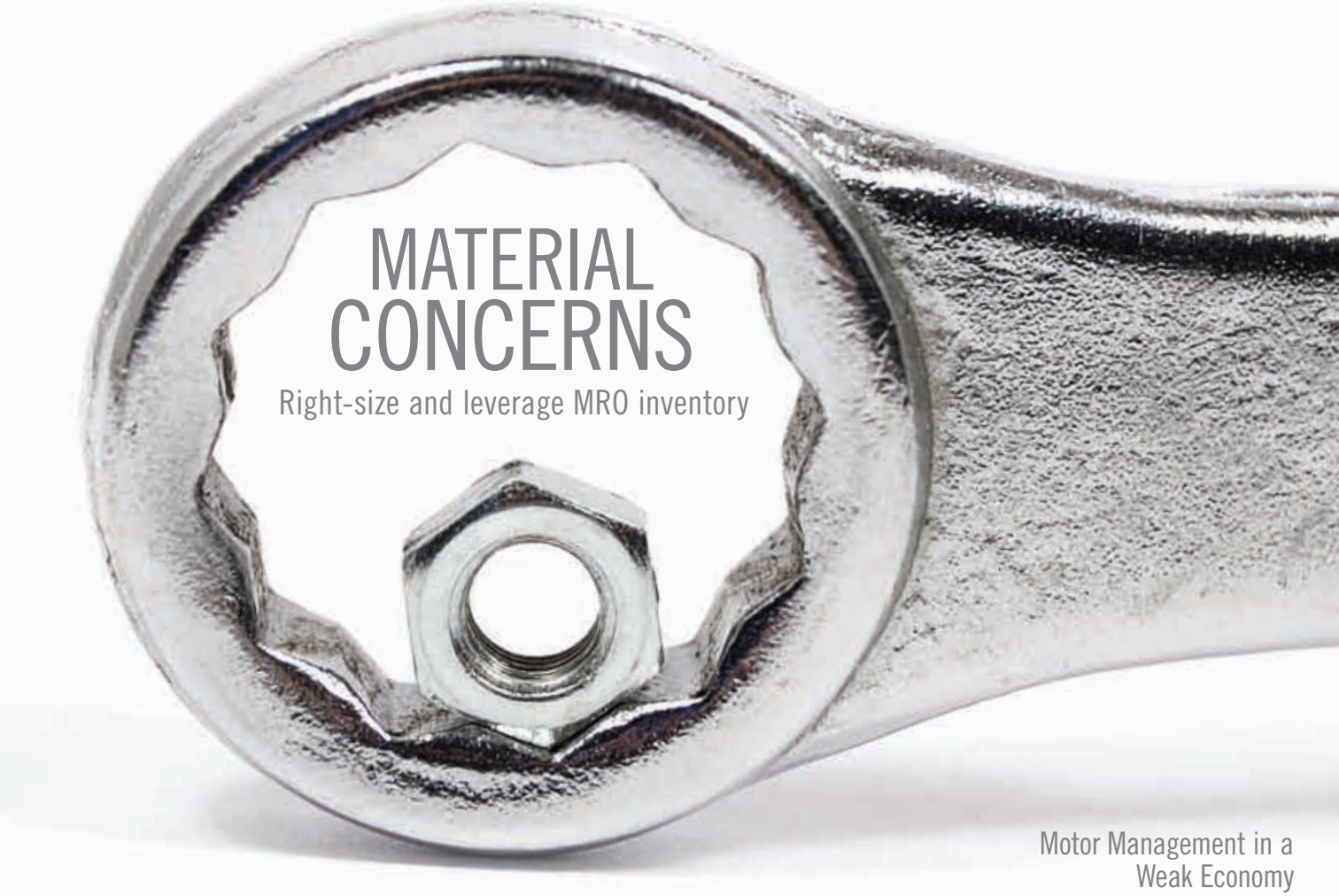

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