

# “Educate Industry to Dangers Inherent in ER Mapper Can Leave Patent Case Behind

*Comment by LizardTech:*

*“After careful consideration we have decided not to pursue this case any further. We realize this case has gone on for a long time and we must focus on what is most important to us at this time and that is getting back to competing in the marketplace.”*

*“LizardTech’s commitment in the geospatial community is to its customers and partners by bringing innovative and groundbreaking geospatial software to meet the needs of GIS professionals by helping them overcome the challenges associated with massive satellite imagery and aerial photography.”*

*Carlos Domingo, President and CEO LizardTech.*



**Finally, after a period of six years, the dispute between ER Mapper and Lizardtech has been settled. GeoInformatics recently had an interview on this topic with Stuart Nixon, founder of Earth Resource Mapping (ER Mapper).**

By Sonja de Bruijn

**The patent case (U.S. Patent No. 5,710,835, related to image compression technologies) dates back to '99. There were also other claims of LizardTech and a lawsuit against you personally. Looking back on this now: how did this influence you and the company you founded?**

Beginning in 1999, LizardTech launched three essentially identical US Federal Court legal actions against us; two against the company and one against myself. LizardTech made a whole range of claims. Their core allegation was that we infringed the '835 wavelet compression patent that LizardTech had licensed from the US Federal Government Los Alamos National Laboratory. The court threw out their legal action against me.

The two actions against the company were handled as one by the courts and the final aspects were wrapped up recently when LizardTech's appeal and en banc appeals were rejected. Significantly, we won the cases on Summary Judgement. In other words: LizardTech's three legal actions never went to trial. We were able to show the Federal Judge presiding over the case that LizardTech had no basis for their patent infringement claims.



*Stuart Nixon, founder of ER Mapper.*

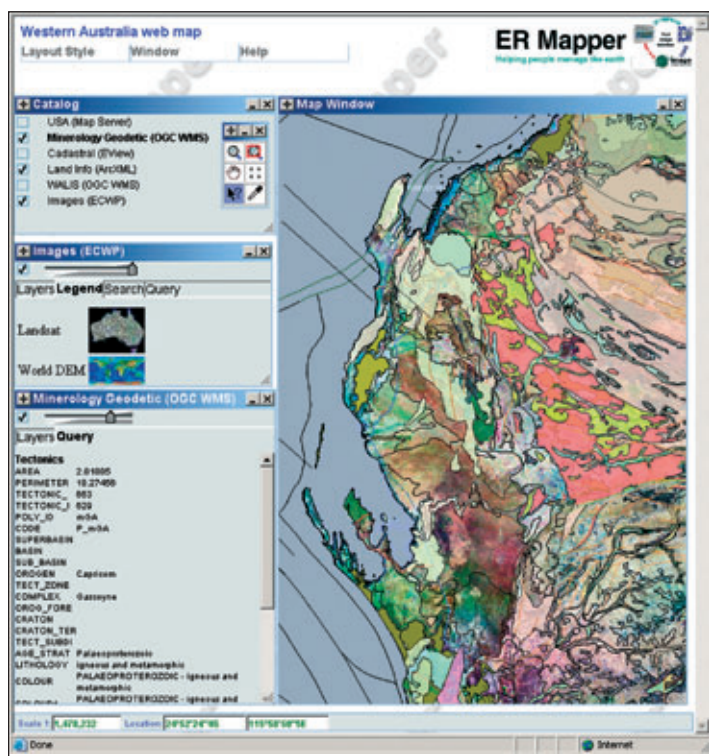
This was my first direct experience with US patent law. It was an eye opener to see how a litigious company can use the US legal system as an anti-competitive tactic. We were heartened by the tremendous and positive encouragement people in the industry gave us during the nearly 6 years it took us to defend ourselves and the ISO JPEG 2000 standard from

LizardTech's actions. Having said that, I really don't think that most people today outside the US appreciate just how all pervasive and damaging the US patent system is. It does not just affect companies in the US. Because the US patent system enables companies to claim a total percentage of product revenue that might arguably use a patent (rather than a percentage measured by the effective value of that patent to the products), companies have strong incentive to launch speculative patent actions. Probably the only thing preventing total mayhem is that the major technology companies all have very large patent portfolios. Any attempt by one major player to start large scale patent litigation against another large player would turn the entire US technology industry into instant grid-lock. However, as we have seen in this instance, actions by smaller companies can still cause tremendous damage to users, competitors, and industry.

**Please indicate some of the points that made the Court decide in favour of ER Mapper.**

There were two key points. First, the Court found that our way of performing the Discrete Wavelet Transformation (DWT) is quite different and so did not infringe. Second, the Court found that Claim 21 of the '835 patent licensed by LizardTech is invalid because it did not describe seamless DWT tiling and so offered nothing new over prior art.

# nt in US Software Patents”



## Is the case really finished now or can the petition by Lizardtech still be of influence? What is the current status?

We believe the case is now really finished and totally over with. After we won some time ago on Summary Judgement, LizardTech appealed to the US Federal Circuit Court of Appeals. After their appeal was rejected, LizardTech then petitioned for an en banc rehearing for Claim 21 only. The en banc hearing was also denied. Given that the Federal District Court and Appeals Court both rejected LizardTech's arguments, it seems unlikely that the Supreme Court would be receptive to any final appeal by LizardTech (assuming they were to try).

## The US Court of Appeals has affirmed the judgement of the United States District Court for the Western District of Washington that ER Mapper does not infringe the '835 patent and that part of the patent is invalid. What exactly does the latest mean?

Essentially, it means that JPEG 2000, ECW and other related wavelet formats are no longer under threat from LizardTech's patent

litigation.

Claim 21 of the '835 patent is missing the crucial add-back step that resulted in generation of a seamless DWT from individual image tiles. Had the claim stood then JPEG 2000's non-seamless tiled DWT method would have infringed. This is perhaps why LizardTech continued to try to keep Claim 21 from being invalidated, even after giving up on appeals against our DWT method non-infringement. In their petition for

an en banc hearing by the entire US Federal Circuit Court of Appeals, LizardTech argued "To reach this novel result, the panel first read a non-existent "seamless" requirement into Claim 21 [...]" (page 4, line 1, emphasis added).

So you can see that in LizardTech's own words they believed Claim 21 covered non-seamless DWT tiling. JPEG 2000 does non-seamless DWT. I frankly find it contemptible that, despite LizardTech's marketing spin claiming they were not after JPEG 2000, their legal actions spoke otherwise.

## Not only did this case have a long history but also an expensive one. Could you give a global indication of the total costs?

Total damage to the industry is hard to quantify. Certainly it cost us many millions of US dollars to defend. It probably cost ER Mapper tens of millions in lost business and lost opportunities. As for the industry itself, the litigation introduced considerable uncertainty for a long time, and held back wide spread use of large geospatial imagery. My own feeling is the total industry cost was well over a hundred million dollars.

## Please comment on "the security of the ISO JPEG 2000 standard", "clients" and "ER Mapper as a company". Which concerned you most and concerns you most now?

Clients need long-term security for use, storage and access of their valuable imagery assets. The ISO JPEG 2000 addresses these needs. This is why we strongly endorse and support the standard, and the reason why we defended it against LizardTech's actions. It is also why we spent years developing the ECW JPEG 2000 Software Development Kit and then released it for free. For this reason we released full source code for the SDK. We also try to make easy imagery access as wide spread as possible through all software products in the industry, not just our own. In short, we realize that the reason we are in business is to support and add value to our clients and partners.

During the litigation, our biggest concern was the endless drain of litigation costs which would have been put to better use in improving software for our clients. Our concern now is to educate the industry to the dangers inherent in US software patents, not just for the US, but also for Europe and Asia.

## How does the outcome of the case influence the future of ER Mapper and its products?

Other than reducing uncertainty for the JPEG 2000 standard and of course for our ECW format, it does not change things. ER Mapper is very focussed on the logical progression of imagery use, which is imagery deployment across the Internet by enterprises.

I still smile and shake my head in wonder whenever I see terabyte image mosaics being served over the Internet using our technology and accessed by users all over the world in all sorts of products and applications. It is exciting and fun. I am proud to have played a part in the development of the geospatial imagery industry.

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More information can be obtained at [www.ermapper.com](http://www.ermapper.com) and [www.lizardtech.com](http://www.lizardtech.com).