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The Legal Description Finally Makes Its Way Into the New Millennium

by Amy Janczy

Your staff can't find or access a particular parcel map. A fire next door singes the door of your arbed plant. You hate the cost of faxing and shipping maps off-site. Even worse, you can't seem to find, train and keep staff capable of reading complicated legal descriptions and using a protractor and compass to draw them out. If your office or plant is still hand-mapping, these are just some of the problems you've probably encountered.

Why, in 2001, when scanners, Pentium PCs and networked offices are commonplace, are title companies still using manual methods to draw out a legal description? Some say they don't draw out enough legals to justify a software purchase. Others are unsure of how digital mapping can fit into their workflow. But, for the most part, title companies are simply too busy to consider any change, until an outside event—perhaps a fire, or the deterioration of existing arb maps—jolts them into re-thinking the consequences of their reliance on paper maps. When a cost/benefit analysis is performed, most title companies find they can realize significant efficiency gains by creating maps in digital, vector form.

Think digital. Digital land records provide many advantages over their paper counterparts in reducing overhead and increasing workplace efficiency. Just a few:

- Digital maps are less easily lost, damaged or incorrectly filed
- Digital maps do not require office storage space
- Digital maps are much less fragile and are fire-safe
- Digital maps can be backed up as often as desired
- Digital maps can be accessed simultaneously by multiple users
- Digital records can be transported over a LAN, WAN, intranet or the Internet, saving on faxing and overnight shipping costs while providing access to staff and partners in far-flung locations

Go for keeps. Digital maps may be stored in two main formats: raster (bitmap) and vector. *Raster files* consist of many individual dots, or pixels, which form shapes when viewed by the human eye at particular resolutions. While a raster file is essentially a digital photograph, a *vector file* is a database of descriptions of geometrical entities created and maintained by a software drawing application.

If you are creating a new parcel map from a legal survey, you should consider going forward with vector parcel maps. Unlike rasters, a vector file can be edited, so that a parcel map created today can be edited to accommodate future splits, joins and easements, or a new addition to an existing shopping center. Previous versions of a map can be stored to visually track changes to a parcel over time.

"Sometimes we created a bunch of paper maps for a parcel and then filed them away," recalls Chuck Hopper, Operations Manager at Stewart Title in Colorado Springs. "Years later, we're searching on an adjacent parcel and if we had only had that previous digital map, it could eliminate a lot of duplication. Also, I think that automated mapping is a whole lot more accurate than hand-mapping. That's important for us when there are discrepancies in boundary lines and parcels do not close."

Besides being mathematically accurate, vector files take up less storage space. Vector files can also be used to display information in multiple layers (i.e. a parcel on one layer, an easement on another, rivers and lakes on another layer) and thus can be used to create maps derived from geocoded information stored in databases. In other words, maps that can be used as the cadastral base layer for a Geographical Information System (GIS). Title companies are now beginning to use GIS applications for a variety of purposes, such as supporting the development of large, master plan communities involving thousands of land records ranging from new legal descriptions to 100-year-old easements.

Build on what you have. When looking at software packages that can create accurate digital vector maps, you may want to choose a package that can work with both raster and vector data. Computer Aided Design (CAD) based packages allow the user to import raster images, such as arb maps or existing scanned subdivision maps. The user can then draw new vector parcel maps on top of the existing raster. Using this method, title companies can slowly work towards building more accurate basemaps.

In fact, the opportunity to obtain raster images of state plane maps from his county was what ultimately persuaded Stewart Title's Chuck Hopper to make the switch to digital vector mapping. Hopper obtained the raster maps with marked state plane coordinates, and now, as he needs to map new parcels, he simply draws the vector parcel boundaries on top. Mike Milos, a drafting technician with Data Trace in Ft. Lauderdale, also works with both raster and vector files in his mapping. "Mostly, we draw plats of condos," explained Milos. "We scan in the interior and draw the outline of the plot."

Milos says his office's "master plan" for the future is to re-draw every section in Palm Beach, Broward and Dade counties with a different scale, and include proper PLSS coordinates. "We will be slowly converting all of them, drawing big vector section maps. Eventually, we could start to e-mail the sections to our customers. Right now we fax our maps." Although his office has not developed a plan to build a GIS, Milos sees definite potential for this capability within Data Trace, a subsidiary of First American, and other information companies. "If we could build a GIS, and link vector maps with raster maps and other things, then you could get all your counties on a screen, and then zoom in to the smallest piece, and get the data you want."

Produce better title reports, faster. Title companies perform parcel mapping for two main reasons: (1) to locate unplatted parcels, and (2) for risk assessment, that is, to check for gaps, overlaps and easements. Digital mapping can decrease turnaround time for searches involving either of these tasks, while providing a visual tool to enable faster, more accurate determinations of parcel boundary issues and encroachments. The resulting map can even be printed in color and provided to customers. How?

- ▶ **Digital basemaps speed the locating process.** Now, when confronted with an unplatted parcel, title searchers must draw out the legal by hand, get up out of their chairs, pull out oversize plat books and "match" the new parcel to a page in the plat book. If the plat book is located in a different office, a copy of the relevant page(s) must be sent by overnight mail. Title companies that operate this way can save a lot of time and money by investing in the scanning of their county's basemaps, allowing for workstation access. A parcel drawing can be overlaid onscreen on top of the raster basemap to locate the parcel.

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- ▶ **Digital parcel mapping is easier and faster, lowering labor costs.** By using a software tool specifically designed for parcel mapping, a novice can create accurate, digital maps with minimal training. Title companies can lower costs by shifting the mapping function to less experienced staff, allowing title examiners to focus on risk assessment. Because scanned raster images and the finished maps can be transported electronically, the mapping function can be easily centralized or located where reliable labor is available.

Many title company owners and managers who have switched over to digital mapping have seen unexpected benefits, as well. One title plant manager said her receptionist uses digital maps to find information and answer questions, improving customer service. Tim Padgett, President of Delta Title in Cincinnati, Ohio, says that digital parcel mapping has saved many of his customers \$2,000-\$3,000 per parcel by allowing his staff to quickly catch and fix surveying errors that would otherwise have required a re-survey. More importantly, Padgett says morale has improved since staff find mapping less of a chore.

By reducing your company's reliance on paper maps that are hard to create, impossible to maintain, and costly to store and access, you can take a giant step towards increasing productivity, while lowering costs. By keeping your experienced title examiners focused on risk assessment and not on drawing out essentially disposable maps, you can help ensure faster, better title reports while producing vector-based maps of real value. Are you really going to miss those protractors?

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