Creating Optimized Web Maps at 9.3.1: An Overview

Transcript

Hello, and welcome to the ESRI Instructional Series Podcasts. This broadcast is titled *Creating Optimized Web Maps at 9.3.1: An Overview*.

I am Danielle Hopkins, from Educational Services at ESRI in Redlands California, and I specialize in ArcGIS Server and ArcGIS Desktop applications.

In a previous broadcast, I discussed some of the important considerations for designing effective Web maps. Today, I will be talking about the new Map Service Publishing toolbar in ArcMap, and how this will help us in authoring well-designed map documents that will form the basis for fast map services.

When looking at creating fast Web maps, the 9.3.1 release of ArcGIS Server offers a powerful option: the optimized map service. This map service uses a new high performance drawing engine and is based on a map service definition file (MSD). Creating MSD files is a simple process and can be done from any map document in ArcMap. It is this new MSD file that becomes the resource for the optimized map service.

Along with optimized map services, ArcGIS 9.3.1 also provides tools for evaluating the performance of your maps. The Map Service Publishing toolbar, available in ArcGIS Desktop at all license levels, allows you to analyze and preview your maps as you prepare them for publishing.

First, the Analyze tool: This identifies content that affects the performance of your map. The results of the analysis are presented in several ways.

- *Errors* are issues that must be fixed in order to preview or publish as an optimized map service. Examples of these types of things might include a missing spatial reference or maybe a missing data source.

- *Warnings* are items that will affect performance, but will not prevent you from previewing or publishing the optimized map service. Examples of warnings include on-the-fly projection or missing spatial indexes. These warnings have a ranked severity level indicating the amount of influence they will have on performance. It is recommended that you take the time to address these.

- *Messages* include further suggestions of measures you could take with this map document to improve the performance.

In many cases, you can right-click on an error, warning, or message, and take the suggested action to fix the issue. There is also a direct help link so you can understand the details of the problem and what you can do about it.

The second tool I want to tell you about is the Preview map tool. This tool allows you to visually inspect your optimized map drawing performance and graphic quality interactively. When you view the data in the Preview window, the new drawing engine is being used and the preview timer will reflect the change in the map performance as you improve your map document.

When publishing the MSD optimized map services, there are two workflow options: you can now publish directly from ArcMap using the map service publishing toolbar, or the MSD file can actually be saved to any location, then the administrator can take that file and publish it to ArcGIS Server using ArcCatalog or ArcGIS Server Manager.

Before we summarize, I'd like to review one of the first decisions we make as we design an effective Web map: to cache or not to cache the service. Caching, the process of pre-rendering the data, is the fastest way to serve Web maps, but it does require an initial time investment for the cache creation. Datasets that change often and cover a broad extent cannot necessarily be cached and require a dynamically-drawn service, which has traditionally been a little slower. The optimized map service, or MSD-based service, not only speeds up your dynamic map services, it can also shorten the tile creation time for cached services.

In this podcast, we discussed the new Map Service Publishing toolbar available with ArcGIS 9.3.1. This toolbar, which includes the Analysis and Preview tools, is available with all license levels of ArcGIS Desktop to assist you in obtaining the best performance for your Web maps. From here you can publish your map as an MSD-based optimized map service, or for your specialized data formats, you may continue to publish as an MXD-based service.

To learn more about optimized map services, please listen to our free training seminar entitled *Authoring and Deploying Fast Web Maps*, accessible from www.esri.com/training. I would also encourage you to

monitor the ArcGIS Server blog, accessible through blogs.esri.com. It's also available through the ArcGIS Resource Center at resources.esri.com.

For even more resources on creating effective Web maps, please visit www.esri.com/webmaps.

Please stay tuned for further podcasts in this series over the next few weeks.