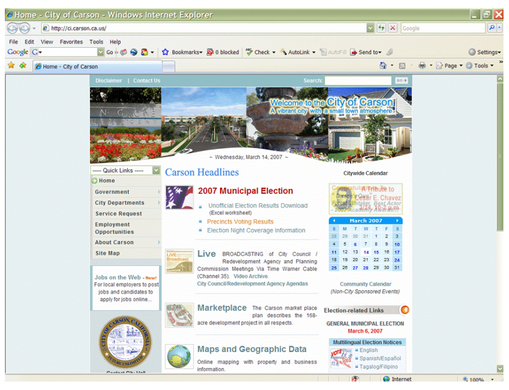
Counting the votes with ArcGIS Server



On election night, GIS staff in the City of Carson, California, posts the results on a giant screen in the community center and on line as the votes are counted. Our elections are often very close, and a crowd watches the count either in person or on the Internet. In the past, we've posted maps showing which precincts have been counted to help citizens see what has been counted. We exported a JPEG in ArcMap and then pasted it onto the web site with FrontPage. It worked, but the maps didn't have much information, and the process was pretty clunky.

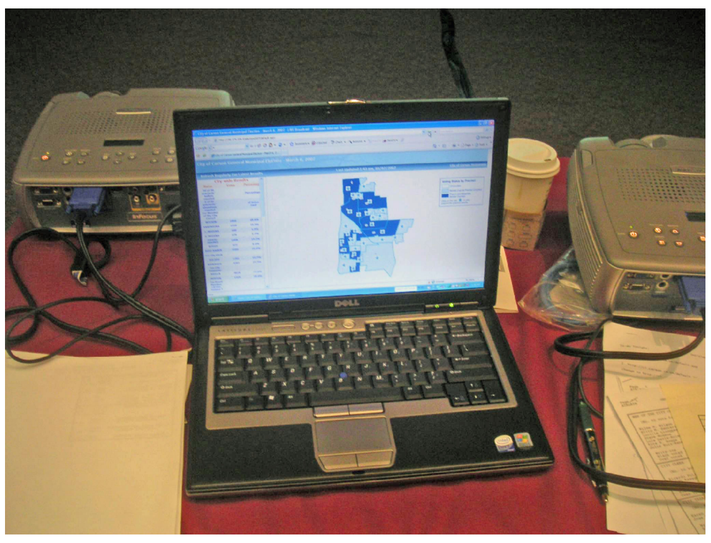
For the March 2007 election, we decided to try something different. How about doing it all in ArcGIS Server? So two weeks before the election, with most of work done in the last three days, we got to work. Luckily, ESRI helped a LOT! Thank you to Crystal, Danny, Jennifer and Rod for the extra effort that made it a success. In the end, we had clickable maps that not only showed what had been counted but also results for each precinct in a very simple yet powerful interface. Because we couldn't connect data directly from the Excel table, we did double data entry. That didn't turn out to be much of a problem.

If only we'd remembered to add a hit counter to see how many people hit the vote results application. We do know there were over 2,000 hits on the city web site that night, and it's unlikely people were looking at council agendas and park schedules. We'll put a counter next time. The application is still up on the city's web site if you'd like to take a look: http://ci.carson.ca.us on the maps and geographic data link.

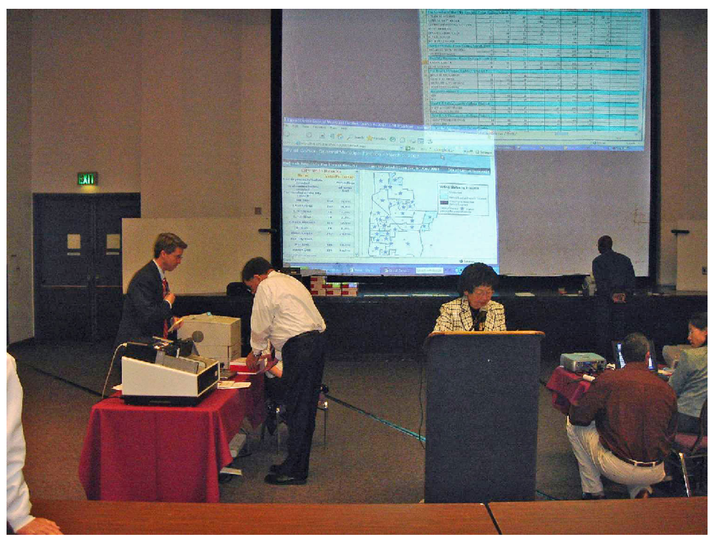
Josi, Alex, Robert & Bing wait for election results early on election night. We finished at 2:30 AM.

Josi and Bing enter the numbers as City Clerk Helen Kawagoe reads the results from the ballot counter.

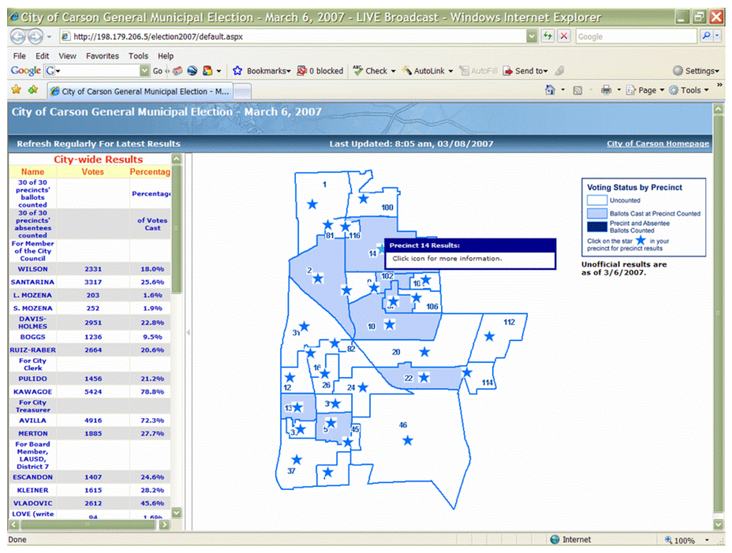
Here's the table in ArcGIS Server. No need to restart map services or any of that fun stuff as we added data.



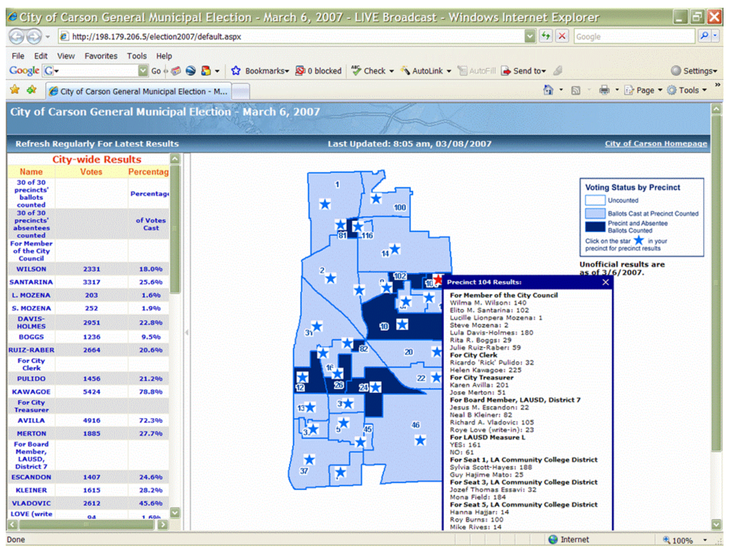
Here's what the folks at home saw on election night. Thank you to Rod from ESRI for supplying us with tea, coffee, and hot chocolate. That's service!



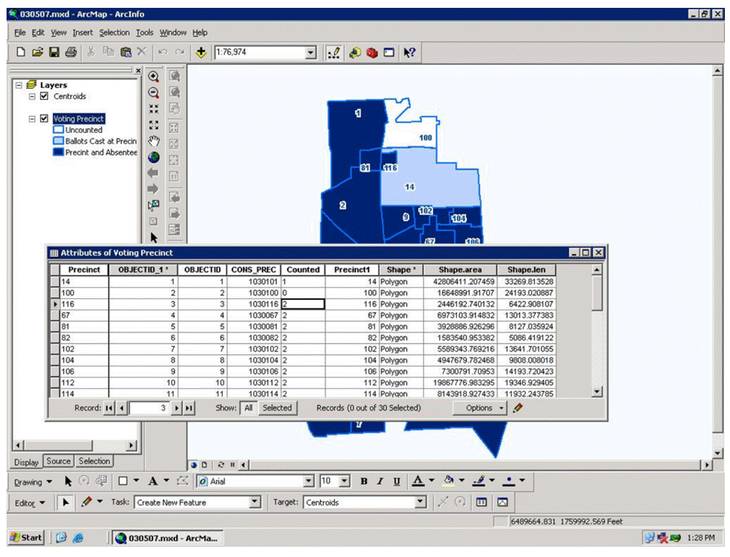
This is what the crowd watching the live count saw. With so many races to follow, the map was easier to read than the Excel table.



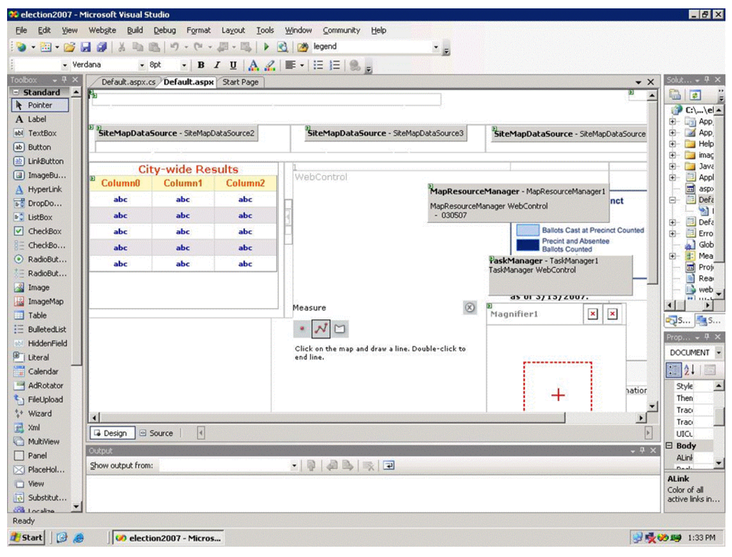
See the summary table on the left while the maps shows what's been counted.



Click on a precinct for detailed results.



Josi input the data by using ArcInfo on a remote desktop connection to the server.



Behind the scenes, the application itself is done in Visual Studio.

Improvements for next time

- ✓ Join the tables so we don't have to do double data entry
- ✓ Add a hit counter (oops!)
- ✓ Prepare a whole week in advance
- ✓ Add charts to show results on the fly
- ✓ Make sure all the computers are working
- ✓ Caffeine, and lots of it

The City of Carson

Taking the geographic approach