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National Conference  
Orlando, Florida**

## **2010 Professional Practices Program**

### **The Precinct Atlas<sup>®</sup>**

#### **Cerro Gordo County, Iowa**

**Submitted by:**

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# The Precinct Atlas<sup>®</sup>

## Problem statement

In the 2008 presidential election, Iowa implemented Election Day voter registration (EDR). Although the precinct officials had registered new voters at the primary election the same year, primary turnouts are typically small, with voters who tend to be those that vote in all elections. The November 2008 election set record turnouts across the state, and was the first true test of this new law in Iowa.

With EDR, the duties of the precinct officials were greatly increased in substance and difficulty. For the first time, precinct officials had to make front-line decisions on a voter's eligibility to register and vote; decisions which, if made incorrectly, could not be undone in many cases. Added to that was confusion caused by the integration of EDR requirements with existing laws, including:

- The official list of valid IDs for an EDR voter is similar to but not the same as the list of valid IDs for pre-registered voters.
- The voter's address on a driver's license must be considered in proving identity and residence for an EDR voter, but is irrelevant for a pre-registered voter.
- A pre-registered voter whose status is "Inactive" and who needs another voter to attest for the voter, is required to go through EDR requirements, as opposed to regular ID requirements.

Across the state, one of the results of the new EDR duties was that the precinct officials, despite their best efforts, filled out forms incorrectly or incompletely, filled out the wrong forms, or failed to obtain the required signatures. Another result was that, in an effort to avoid errors, they unnecessarily required many voters to cast provisional ballots or go through the extensive EDR procedures, when a simple change-of-address or proof of identity may have been all that was required for a particular voter.

These new issues compounded the ever-present election problems of illegible forms; balancing the number of voters in the precinct register with the number of ballots in the ballot scanner; precinct officials sending a voter to the wrong precinct, giving a voter the wrong ballot, or marking the wrong voter's name in the precinct register; and staff time to process voter activity after the election.

## The Precinct Atlas

Immediately following the 2008 election Cerro Gordo County Auditor Ken Kline talked with County MIS Director Scott Tepner about purchasing or developing an electronic pollbook program. A few weeks later the two met with vendors at the fall meetings of the Iowa State Association of Counties. After seeing demonstrations for three electronic pollbook programs, Kline and Tepner decided to pursue development of an in-house software program. The deficiency of the vendors' programs was that they did not have the Iowa-specific functionality that a customized, in-house program could provide, while at the same time being expensive and/or requiring proprietary software or hardware. Kline said what was needed was a program that would navigate the precinct official through the dense network of Iowa laws, and offer the user the correct options or instructions, based on the voter's specific circumstances.

Within a period of two weeks Kline and Tepner made the following progress:

- Kline developed and presented an outline of the basic software functionalities and a series of screen layouts to Tepner and the two MIS programmers, Rodney Ross and Mary Imlay.
- Ross and Imlay talked with staff at the Iowa Secretary of State's office about existing data extracts from I-VOTERS, the statewide voter registration software system.
- Tepner suggested a hardware design that included networking two laptop computers at each precinct, with one serving as the "master" computer and the other as the "secondary".

- Tepner suggested attaching a printer to each laptop with a USB cable, and Kline proposed an off-the-shelf, two-spindle label printer loaded with shipping labels.
- Kline developed the concept of using shipping labels printed with voter-specific or situation-specific information to complete the various required election forms.

## **Cooperative approach**

Kline and Tepner decided the County had everything necessary to build a working system and to go forward with developing the software. Kline said he believed other counties would be interested in a precinct election management program that was completely customized for Iowa law. In order to avoid licensing fees for other counties, Tepner suggested building the program in SQL Express, a free version of the more robust SQL Server that the County used for other in-house programs.

## **Copyright**

Tepner said that any software written by the County would belong to the public, and that the County could not make a profit on the program. Kline and Tepner talked with various attorneys and arrived at the conclusions that the County could copyright the software and charge fees to recoup the costs of development. They recommended to the County board of supervisors to pursue a copyright in order to maintain editorial control over the program content, and the board approved the recommendation.

## **Partnership**

Wanting to find a way to share the program with other counties while avoiding contractual and support issues, Kline asked for a meeting with Iowa Secretary of State Michael Mauro on the following:

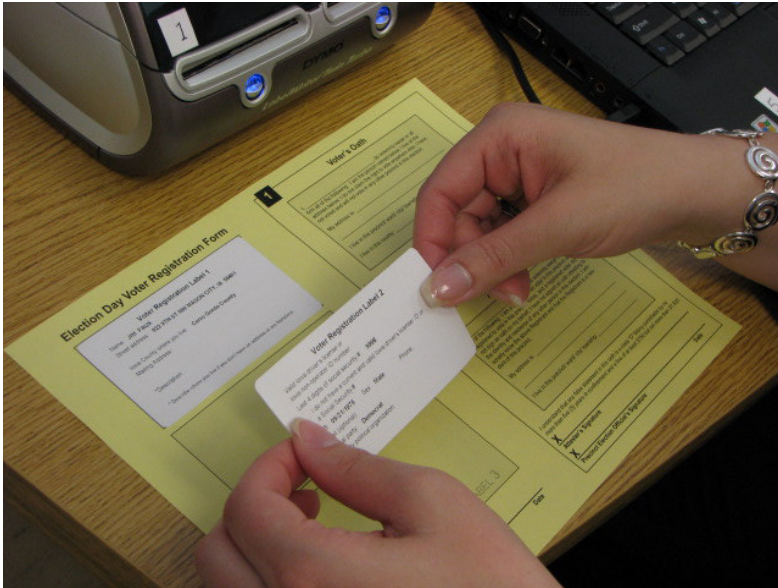
- Revision of the election forms to accommodate the use of labels;
- Review and approval by the Secretary of State of functionality, design logic, and business rules;
- Request for improved data extracts from I-VOTERS, and for new electronic data uploads of voter activity to I-VOTERS after an election;
- Partnership with the Secretary in some manner to distribute the program to other counties.

At a meeting in December 2008, Kline, Tepner, and Ross demonstrated a proof-of-concept to Secretary Mauro and his staff. The Secretary expressed interest in providing the above support, as well as a state contract for a coordinated, multi-county purchase of computers and printers.

Through subsequent meetings, the County sold to the Secretary a license-to-distribute the Precinct Atlas for \$24,000, and the Secretary has since offered the program to all counties at no cost. The Secretary has sponsored multiple demonstrations, training sessions, and group purchases. Based on experiences and suggestions from other counties, Ross and Imlay have revised the program multiple times. Tepner has developed an installation shell to install SQL Express, the Precinct Atlas, printer drivers, and a deployment kit on counties' computers. The Secretary of State's staff has developed a strong lead support system for installation and use of the program, while Tepner and Kline, along with staff from their offices, have assisted in the training and support for dozens of counties.

## **Experiences**

Cerro Gordo County used the Precinct Atlas for the first time in a special election in February 2009, less than eight weeks after making a "go project" decision. In a mock election later that month, precinct officials at two laptop computers processed 511 voters in a three-hour period without a single mistake or omission, including an overly high percentage of new voter registrations, provisional ballots, changes of address, and other special voter situations. By August, five counties had used the program on a pilot basis, and the Secretary had offered the program for widespread distribution and use at the fall school and city elections. By November 2009, less than a year since it was created, thirty-six Iowa counties had used the Precinct Atlas in one or more elections.



Above: printed labels are used to complete election forms.  
Below: a standard precinct setup with two laptops, two printers, and a file folder for blank and completed forms.

Attachments and ports are color coded for easy assembly.

## Quick reference to color-coded form

The Precinct Atlas - GETTYSBURG W4 P2 - ROLLING ACRES CR CHURCH

File Voter / Address Lookups Election Day General Window Help

EDR Voter's Oath Form

EDR Voter's Oath Form

Voter Name: TRACIE L SIEMER

Required Form(s)  
ED Registration

Check off each task as you complete it:

- Step 1: Put the Voter's Oath label on the yellow Election Day Voter Registration form.
- Step 2: Tell the voter to sign the Voter's Oath on the proper line (watch the voter sign it).
- Step 3: As the precinct official, you sign and date the Voter's Oath on the proper line.

Back Terminate Forward

Ready

start 2 Microsoft Of... The Precinct At... 9:50 AM

**Forward button is grayed-out until each task is checked off**

Above: a checklist screen, which provides step-by-step instructions for the precinct officials to follow and check off as they complete each step.

Other types of screens include:

- Search screens are used to search for and select a registered voter, attester, challenger, or valid street
- Selection screens require the precinct official to select one of multiple options
- Data capture screens are used to input data, such as a voter's registration information
- Informational screens are used to tell the precinct official important information



Michael A. Mauro

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## Precinct Atlas

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MICHAEL A. MAURO  
SECRETARY OF STATE



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DES MOINES, IA 50319

### OFFICE OF THE IOWA SECRETARY OF STATE

To Whom It May Concern:

As Iowa Secretary of State, I have been proud to partner with Cerro Gordo County in offering the Precinct Atlas to Iowa's ninety-nine counties.

An electronic pollbook tailored specifically for Iowa, the system is a wonderful example of a local initiative using creative, low-cost solutions to real problems. The software guides the precinct officials through the complex network of election laws with step-by-step instructions in clear, straightforward language.

The Precinct Atlas has enhanced the integrity of Iowa's election process through the correct and consistent application of election laws. It has also provided a speedier process for both election officials and voters, especially those voters casting provisional ballots and those registering at the polls on Election Day.

In my thirty years of public service, the Precinct Atlas program has developed into one of the best examples I know of an effective, working partnership between local and state governments.

Michael A. Mauro  
Iowa Secretary of State

## Comments from County Auditors

"In March 2009, Butler County agreed to test a newly developed poll worker assistance program for a small city special election. The results were overwhelmingly positive for both the voters and poll workers. The Precinct Atlas program has made an immeasurable improvement in the level of confidence of poll workers in handling special circumstances. Not only has it eased their stress level, voters seem to love it as well." Holly Fokkena, Butler County Auditor

"Precinct operations in Iowa have become increasingly complex with legislative changes. Johnson County first implemented the Precinct Atlas as a pilot project in six of 57 precincts in a special election in May 2009. We were so pleased with the results that we used it in all precincts in six subsequent elections. The program makes the precinct officials' job easier, and balancing and crediting each voter has saved time, effort and expense. Problems reading handwriting and filling out forms have virtually been eliminated. Voters are processed more efficiently and are better assured of their voting experience." Tom Slockett, Johnson County Auditor

"It's awesome . . . woooo! Our poll workers are so excited that they are recruiting more friends to work at future elections." Kris Glienke, Cherokee County Auditor

"All the paperwork came back to the office in perfect shape and organized. WOW, this is new. We have uploaded the atlas into I-VOTERS and were impressed with how smooth this went." Betty Ellis, Wright County Auditor

"The response from the precinct election officials was phenomenal! Precinct chairs reported that the on-screen instructions were easy to follow, and as the election day progressed, workers became very efficient as they verified voter information and provided voters with ballots. No provisional ballots were unnecessarily issued, because clear instructions are provided for special situations. Also, balancing at the end of the evening was much easier with the tally report and ballot count features. Efficiency and accuracy were the words of the day!" Joni Ernst, Montgomery County Auditor

"The experience was completely positive. The pollworkers loved it. One even threatened us if we took it away from them. There were voter comments on how the process was faster." Denise Fraise, Lee County Deputy Auditor

"Success! Success! Success! We couldn't be more pleased with the results of our first election using Precinct Atlas." Linda Humphrey, Davis County Auditor

"I used it in five precincts and everyone loved it. At the precinct with only the one person who had computer skills later in the day when the helper had left, they called for assistance and as we were walking them through it on the phone, we could hear the voter telling them what to do. I guess you can advertise the program as 'so easy a voter can do it'." Kay Clark, Worth County Auditor

"There were a few workers that didn't like the computers, but the majority of the poll workers thought it was great. We even had one chairperson tell us that she was thinking about resigning from working the polls, but as long as we keep the laptops she will work." Brenda Peshel, Dallas County Deputy Auditor

"The Precinct Atlas prevents procedural and legal errors made by precinct officials that could disenfranchise voters. I have a renewed confidence that Iowa voters will have their voting rights protected better than they ever have." Dennis Parrott, Jasper County Auditor

"Everything worked great on election day! The election officials were excited about the program. They were disappointed with voter turnout because they wanted to process more voters." Linda Griggs, Iowa County Auditor

"We had nothing but praise from our Precinct Election Officials. They were thrilled with not having to sort through all the detailed instructions and the endless forms. Precinct Atlas walked them through every detail. Our motto has become, 'Just read the screen!'" Marsha Carter, Shelby County Auditor

"The Precinct Atlas has tremendously improved the efficiency and accuracy by our precinct officials. As a trainer, I appreciate the training module provides hands-on experience in the many situations that can occur, and gives the precinct officials confidence that they can process voters properly and efficiently. We recently used the program for a large turnout school bond election that crossed county lines, and the program worked flawlessly. I have received many compliments from voters who noted how organized the precinct officials were, and how much more streamlined the voting process was." Janine Sulzner, Jones County Auditor; President, Iowa State Association of County Auditors; Member, Voting Standards Board of the Federal Election Assistance Commission

## Comments from Precinct Officials

"I said you don't dare take that computer away from us. We want it. We like it so well. It tells us exactly what to do if you need a change of address, change of precinct, change of anything. It just walks you right through it step-by-step." Judy, Lee County Precinct Official

"For one who has very limited computer skills, this program is basically self-explanatory. It was easy for me to follow the step-by step process and also has easy correct-ability." Ted, Jasper County Precinct Official

"I must admit I was a bit hesitant when Dennis announced the use of computers for our elections. However, after good training and one election down, I have to say "Thank You" for this efficient program." Mary Ann, Jasper County Precinct Official

"The system is so friendly for the user. Possibly the best experience I can share is one with my wife, a novice computer user who learned and loves the system. That to me was the ultimate test of acceptability." Gary, Johnson County Precinct Official

"Over the last year I have been able to help teach the Precinct Atlas to the election officials. The most positive comment is how the program walks you through every circumstance you may have in processing a voter and does not require relying on your memory or taking the time to look up procedures in a manual." LaVonna, Johnson County Precinct Official

"It's not as scary as you think, once you get started." Janice, Clinton County Precinct Official