

ES&S Optical Scanners in the News – A Partial List of Documented Failures

Date	Machine	Place/Description
November 1998	Model 100 Precinct-Count Optical Scan	<p>Hawaii. Machines malfunctioned on election night, but a partial manual audit failed to find irregularities. Later, a mechanical test of the machine also showed no problems. A second mechanical test found the problem. Excerpts: ¹</p> <p>Tom Eschberger, a vice president of Election Systems & Software, which provided the computers for the election, said a test conducted soon after the election on the software and the machine that malfunctioned in a Waianae precinct showed the machine worked normally.</p> <p>He said the company did not know about the problem with the machine until after the Supreme Court-ordered recount, when a second test on the same machine detected the malfunction. He said the company is still investigating.</p> <p>... Eschberger said unforeseen problems with a new machine can happen. "But again, in all fairness, there were 7,000 machines in Venezuela and 500 machines in Dallas that did not have problems," he said.</p> <p>[However, during that same election season, the Dallas devices initially failed to count 41,000 votes. And two years later, massive breakdowns and technical difficulties with ES&S systems rocked the Venezuelan national elections, causing the vote to be suspended. Pres. Hugo Chavez and Venezuelan election officials accused the company of "trying to destabilize the country's electoral process," while protesters chanted "Gringos go home!" at ES&S technicians.] ²</p> <p>Yoshina [chief election officer] noted the machines were certified by the Federal Elections Commission. "I would hope that because an independent testing authority had tested the system and it was certified, that all these things are fully tested," he said.</p>
November 1998	Model 100 Precinct-Count Optical Scan	<p>Hawaii (continued). A later article pointed out: ³</p> <p>Faulty ES&S machines used in Hawaii's 1998 elections forced that state's first-ever recount.</p> <p>The company paid \$250,000 to settle contract disputes and \$280,000 to recount the ballots after complaints about poorly trained poll watchers, malfunctioning voting machines and spoiled ballots.</p>

¹ **Voting checks failed to detect fault twice: A flawed ballot counter passed a manual check and a mechanical test**
Star-Bulletin; Wednesday, February 3, 1999; By Craig Gima. <http://starbulletin.com/1999/02/03/news/story1.html>

² **Who Counts The Votes?** By Gary Ashwill and Chris Kromm. <http://www.southernstudies.org/reports/votingmachines-new.htm>

³ **Firm admits errors in counting votes for Hawaii, Venezuela.** The Star Bulletin; June 7, 2000; by Jessica Fargen, Associated Press.
<http://starbulletin.com/2000/06/07/news/story3.html>

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		<p>March 1999. From an official statement about the problems in the previous November election. ⁴</p> <p>There was an obvious problem with seven voting units from Election Systems and Software -- out of 361 units used on Election Day.</p> <ul style="list-style-type: none"> ◆ Five units had lens occlusion ◆ One unit had a defective cable ◆ One unit had a defective "read head"
November 1998	Votronic and Model 100	<p>Dallas, Texas</p> <p>A software programming error caused Dallas County, Texas's new, \$3.8 million high-tech ballot system to miss 41,015 votes during the November 1998 election. The system refused to count votes from 98 precincts, telling itself they had already been counted. Operators and election officials didn't realize they had a problem until after they'd released "final" totals that omitted nearly one in eight votes.</p> <p>The system vendor, ES&S, assured voters that votes were never lost, just uncounted. The company took responsibility and was trying to find two apparently unrelated software bugs, one that mistakenly indicated precinct votes were in when they weren't, and another that forgot to include 8,400 mail-in ballots in the final tally. Democrats were livid and suspicious, but Tom Eschberger of ES&S said, "What we had was a speed bump along the way."⁵</p> <hr/> <p>After Nov. 3, Sherbet was quoted in the Dallas Morning News as saying, "In 17 years of doing this, there's been nothing more troublesome to me, more humiliating."⁶</p>
November 1998	Optical scan	<p>Rhode Island ⁷</p> <p>In Rhode Island, primary election results were delayed until 11 a.m. the next day because of a computer glitch in its new \$1 million system.</p>

⁴ Statement by Marion Higa, State Auditor, and Chair of Elections Oversight Committee. March 15, 1999; www.state.hi.us/elections/review98.html

⁵ **Black Box Voting** by Bev Harris, Chapter 2.

⁶ **Who Counts The Votes?** By Gary Ashwill and Chris Kromm. <http://www.southernstudies.org/reports/votingmachines-new.htm>

⁷ Who Counts The Votes? (see above)

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November 2000	Optech Eagle precinct-count optical scan	<p>San Francisco, California. Huge discrepancies occurred between the number of ballots and the number of votes counted. In some precincts there were more votes counted than the number of ballots cast. In others there were more ballots than votes counted.⁸</p> <p style="padding-left: 40px;">In polling place 2214 in the Western Addition, the city counted 416 ballots, but there were only 362 signatures in the roster, and the secretary of state found only 357 paper ballots.</p>
April 2002	iVotronic and optical scanners	<p>Miami-Dade County, Florida. In Medley, the software used to combine 45 absentee votes with the 309 electronic ballots changed the order of the candidates' names as it computed the results. The initial tally showed wins for two City Council candidates who actually lost the election. David Leahy, Miami-Dade elections supervisor said that all software had been tested before the election without a problem. Election workers who had been watching the results fed into the computer noticed the problem. The tabulation computer didn't give any warning.</p> <p>An ES&S technician had opened the ballot program on the memory cards to change a header. At the same time, he bumped the first candidate to the last position.</p> <p style="padding-left: 40px;">When the technician saved the edit, a prompt most likely popped up on the monitor asking him if he was sure he wanted to change the order of the names. The technician ignored the prompt and confirmed the change.</p> <p style="padding-left: 40px;">"It was something that should have been picked up and caught and was missed and was not flagged because the normal follow-up procedures to making a change in the database were not followed," [Mike] Limas [ESS Chief Operating Officer] said.</p> <p style="padding-left: 40px;">... Leahy said he is concerned because the computer did not raise any red flags, and humans had to spot the error. "If something is amiss you should get some type of error message, but there wasn't one," he said.</p> <p style="padding-left: 40px;">... In the future, Leahy said county election workers, not technicians from the equipment company, will program all the touch-screen and absentee ballot machines before an election to try to limit the possibility of error.</p> <p style="padding-left: 40px;">He also suggested that humans might add up the absentee ballots with the touch-screen voting results to double check the computer's tally.⁹</p>

⁸ **S.F. vote appears flawed but legal; Probe of 2000 election finds work was sloppy.** San Francisco Chronicle. February 11, 2002. By Erin McCormick, Chronicle Staff Writer. <http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2002/02/11/MN209475.DTL>

⁹ **Technician's Error, Not Machines, To Blame In Dade Election Mix-Up.** The Miami Herald. April 4, 2002. By Oscar Corral. [Purchase through Miami Herald online archives: <http://www.miami.com/mld/miamiherald/archives/>]

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April 2002	Optical Scan and iVotronic	<p>Dallas County, Texas. A ballot programming error tallies 18 results incorrectly. Here is one case when flawed ballot data on a paperless electronic voting machine caused a serious election miscount. It was detected only because voters also used optical scan paper ballots in the election.¹⁰</p> <p>Mrs. Hawkins-Curtis, a candidate for Rowlett mayor was added to the ballot four days before the start of early voting. The change in the ballot definition wasn't programmed into all 390 ES&S iVotronic machines until after early voting began. The ballot data was changed only in Rowlett polling places.</p> <p>When the results were combined with the results from ES&S optical scan machines, the error caused the tally software to improperly tally results in the mayor's race as well as 17 other races, including propositions and school board races. Nearly 5,000 of the 18,000 ballots were improperly counted.</p> <p>An initial count didn't reveal a problem, and the results of all races were posted as final but "unofficial" on the Election Department's Web site at 10:17 p.m. Saturday.</p> <p>A few minutes later, a second count - called the reconciliation process - began to show that the number of voters who signed in at numerous precincts didn't match the vote totals, Ms. Pippins-Poole [county's assistant elections administrator] said.</p> <p>The extent of the miscount wasn't discovered until Monday when Election Systems & Software began a thorough investigation, Ms. Pippins-Poole said.</p> <p>...The touch-screen ballots have been used in early voting in 91 elections since 1998 without any problems, Ms. Pippins-Poole said.</p>
August 2002	Central count optical scan	<p>Clay County, Kansas. The machine showed that the challenger (Jennings) had won, but a hand recount showed that the incumbent commissioner (Mayo) won by a landslide – 540 votes to 175.</p> <p>In one ward, which Mayo carried 242-78, the computer had mistakenly reversed the totals.¹¹</p> <p>This statement suggests that the computer in the "one ward" had the candidates mis-mapped to the table that holds the voting results.</p>

¹⁰ **Glitch affects 18 races: Problems in counting early votes could alter some election outcomes.** Dallas Morning News. May 8, 2002. Ed Housewright, staff writer.

¹¹ **Aug. 6 ballot problems alleged: Clay, Barton county candidates seek review of races.** Lawrence Journal-World. August 22, 2002. The Associated Press.
<http://www.ljworld.com/section/election02/story/103526>

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September 2002	Optical scan	<p>Union County, Florida. ¹²</p> <p>In Union County, Florida, a programming error caused machines to read 2,642 Democratic and Republican votes as entirely Republican in the September 2002 election. The vendor, ES&S, accepted responsibility for the programming error and paid for a hand recount.</p>
November 2002	Optech 3P Eagle	<p>Baldwin County, Alabama. Tabulation machine initially handed the gubernatorial election to the wrong candidate.</p> <p>Initial, unofficial results from Baldwin County showed that Democrat Don Siegelman garnered about 19,070 votes in the county, enough to give him a razor-thin victory over Republican challenger Bob Riley. The next morning, however, officials said those totals were inaccurate and certified returns giving Siegelman about 6,300 fewer votes -- enough to swing the election to Riley.</p> <p>... Officials have traced the problem to a data pack from the Magnolia Springs voting location. They said the vote-counting machine there printed out accurate results when the polls closed at 7 p.m. But they said the cartridge, which resembles an eight-track cassette, gave bogus figures when it was plugged into the computer in Bay Minette. ¹³</p> <p>...[Mark] Kelley [general manager of Election Systems & Software] said a power surge at the precinct, static electricity or something else may have caused the glitch. He said technical experts at the company's computer lab in Rockford, Ill., may be able to determine the reason.</p> <p>...He noted that at least three other counties experienced similar glitches on election night. But officials in Madison, Etowah and Barbour counties discovered and corrected the errors, in some cases by manually typing in vote totals.</p>
November 2002	Optical scan	<p>Sarpy County, Nebraska. The optical scan machines failed to tally “yes” votes on the Gretna school-bond issue, giving the false impression that the measure failed miserably. The measure actually passed by a 2-1 margin. Responsibility for the errors was attributed to ES&S, which provided the ballots and the machines. ¹⁴</p>

¹² **Black Box Voting** by Bev Harris, Chapter 2.

¹³ **Voting snafu answers elusive.** The Mobile Register; 28 Jan 2003; by Brendan Kirby, staff writer. Referenced at <http://www.votewatch.us/Members/Unregistered%20User/electionexperience.2004-08-12.9166974619>. Confirmed by VotersUnite! with Sharon Jerkins in the Baldwin County Elections office, who provided the model number of the optical scan machines.

¹⁴ **Omaha World-Herald**, 6 November 2002; “A late night in Sarpy; glitches delay results”. Referenced in *Black Box Voting*, by Bev Harris. Chapter 2.

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November 2002	Optech Eagle	Wayne County, North Carolina. A programming error caused the Optech Eagle optical scan machines to skip several thousand party-line votes, both Republican and Democrat. Correcting the error turned up 5,500 more votes and reversed the outcome for the House District 11 state representative race. ¹⁵
November 2002	Optech 4C	South Dakota. When the optical scanner double counted votes, the error was blamed on a “flawed chip.” ES&S sent a replacement chip, and voters demanded that the original chip be impounded and examined. Only ES&S was allowed to examine the chip. ¹⁶
November 2002	Optical scan	Adams County, Nebraska. During the general election, Adams County was the last in Nebraska to have election results, due to both machine and software malfunctions. ES&S talked about some compensation for the election problems including paying for election worker overtime and not charging for programming adjustments . ¹⁷
November 2002	Optech 3P	Chatham County, North Carolina. A ballot programming error caused Republican votes to go to the Libertarian candidate. ¹⁸ ... every time voters marked a straight Republican ticket, Frederick C. Blackburn, the N.C. House 54 Libertarian candidate, got a vote because of a voting machine programming error.

¹⁵ "Winners' may be losers." The News and Observer; November 12, 2002; By Wade Rawlins and Rob Christensen. Reproduced at: <http://66.102.7.104/search?q=cache:iy0f4rgd7oMJ:www.ncdot.org/news/dailyclips/2002-11-12zz.html+%22%27Winners%27+may+be+losers%22+wayne&hl=en>

¹⁶ **NPR: Morning Edition**, 6 November 2002; “Analysis: Senate races in Minnesota and South Dakota” Referenced in *Black Box Voting* by Bev Harris, Chapter 2.

¹⁷ YorkNewsTimes.com, December 20, 2002; “Omaha election systems firm to pay for county election problems.” Referenced in *Black Box Voting*, by Bev Harris. Chapter 2.

¹⁸ **Mechanic to smooth vote.** New Observer. October 15, 2004. By Jessica Rocha, Staff Writer. <http://newsobserver.com/news/story/1730333p-7996316c.html>

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April 2003	Model 100 Precinct optical scan	<p>Lake County, Illinois. ¹⁹ Machines provided incorrect outcomes for 4 races in Lake County.</p> <p>The problem was caused by a programming error that failed to account for "no candidate" listings in some races on the ballot, Clerk Willard Helander said Thursday. As a result, election results were placed next to the names of the wrong candidates in four different races, including in Waukegan's 9th Ward.</p> <p>Incorrect results also were tabulated in races for the Libertyville Community High School District 128 Board, the North Chicago Community Unit District 187 Board and the Foss Park District Board in North Chicago.</p> <p>The clerk's office corrected the problem shortly after 10 p.m. on election night. But by then, many people who had kept track of the results on the clerk's online Web site believed the unofficial results were complete.</p> <p>... Helander blamed the problem on Election Systems & Software, the Omaha company in charge of operating the county's optical-scan voting machines. She said a company official told her the programmers were unaware the county would have "no candidate" listings on its ballot.</p>
March 2004	Unity Election Management Software	<p>Bexar County, Texas. Misprogramming causes the Unity software to balk at accumulating votes from the optical scan machines used to count absentee ballots. ²⁰</p> <p>Tabulation of the Bexar County votes was delayed for about 1 1/2 hours, beginning about 8 p.m.</p> <p>..."They have big problems," said Nick Peña, a poll watcher for District 28 U.S. Rep. Ciro Rodriguez, D-San Antonio. "They look very worried.</p> <p>"They have a bunch of technicians in the tabulation room, and they are pulling out wires and reattaching them, and the computer screens are all frozen. You can tell that something is happening," Peña said.</p> <p>... Borofsky said the delay occurred after it was discovered the tabulation computers hadn't been properly programmed with updated data in order to count the mail-in paper ballots.</p> <p>The computer system then was taken off line and updated with the information needed to process the 3,000 paper ballots, which were tabulated using high-speed scanners.</p>

¹⁹ **Returns are in: Software goofed – Lake County tally misled 15 hopefuls.** Chicago Tribune; April 4, 2003; By Susan Kuczka, Tribune staff reporter reproduced at <http://www.vote.caltech.edu/mail-archives/votingtech/Apr-2003/0096.html>

²⁰ **Bexar computer glitch delays counting of votes.** San Antonio Express News. March 10, 2004. Tom Bower. <http://www.mysanantonio.com/news/metro/stories/MYSA10.12A.VotingProblems0310.4ea013d9.html>

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March 2004	Optical Scan	<p>Lubbock County, Texas.²¹ The machines failed to count the votes for the Precinct 8 Democratic chairman race. Dorothy Kennedy, Lubbock County elections administrator said they would need to recount all the ballots for all races in the county.</p> <p style="padding-left: 40px;">She said Omaha, Neb.-based ES&S, which prepared the vote tabulators, will foot the bill for the recount.</p>
May 2004	Model 150	<p>Sevier County, Arkansas. The chip programmed by ES&S counted all ballots as blank. The test ballots were printed correctly, and the pre-election testing was successful. But then the ballots for election day were printed in a completely different print run, and the codes on these election-day ballots didn't match the codes on the computer chip prepared by ES&S. ²²</p> <p style="padding-left: 40px;">After consulting with officials from Election Systems & Software, it was determined that the codes on the computer chip and the codes on the ballot didn't match.</p>
May 2004	Optical scanner (possibly Model 150)	<p>Fulton County, Arkansas. The chip programmed by ES&S for the county's optical scanner didn't work. ES&S claimed that the printer didn't send them all 16 ballots needed for the programming. The printer said he did send the entire set of ballots, and his records showed that the weight of the package mailed to ES&S was the weight of 16 ballots. ²³</p> <p style="padding-left: 40px;">Riverside Graphics printer Michael Eaton insisted his company sent ESS [sic] a full set of ballots. "We printed the ballots for Independence County where there are three times as many people and we didn't have any problems. We've had this problem with ESS before," said Eaton.</p> <p style="padding-left: 40px;">... He said Riverside Graphics checked its postage records, and the weight of the package sent to ESS was consistent with a package containing 16 ballots.</p>

²¹ **Software blamed in Precinct 8 Democratic chair race mixup.** Lubbock online.com; March 11, 2004; By Brian Williams, Avalanche-Journal
http://www.lubbockonline.com/stories/031104/loc_031104030.shtml

²² **Ballots counted by hand in primary elections.** The DeQueen Bee; May 24, 2004. http://www.dequeen.com/news/comments.php?id=1188_0_1_0_C

²³ **No explanation for ballot machine malfunction.** South Missourian; May 27, 2004; by George Jared, Staff Writer

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May 2004	Optical scanner (possibly Model 150)	<p>Craighead County, Arkansas. The chip programmed by ES&S for the county's optical scanner gave one candidate all the votes for constable. A manual recount revealed the error.</p> <p>A recount was made in the District 13 constable race because returns from Precinct 20 showed one candidate received all 158 votes cast in the precinct, and the opposing candidate doubted that.</p> <p>The incident was traced back to a computer chip coding error, and the result of the recount was that both candidates had received votes in the precinct. ²⁴</p>
August 2004	Unity Election Management System	<p>Natrona County, Wyoming. The Unity Election Management System, used to tally votes from both optical scan machines and paperless electronic voting machines, failed to tally votes correctly. ²⁵</p> <p>Noticing that the totals for the city of Evansville seemed low, Natrona County Clerk Mary Ann Collins checked the printouts from the precinct voting machines in Evansville and found that the totals didn't match the totals computed by the Unity software, which combines all the totals countywide.</p> <p>The error changes the order in which some candidates finished, but does not affect which candidates will advance to the general election. Only one candidate lost votes but five of the 10 municipal races in the county had changed totals.</p> <p>... Collins determined the software problem only affected nonpartisan races after checking the voting machine printouts and the absentee votes against the Unity software report in several partisan races. There does not appear to be any pattern in the skewed vote totals.</p>

²⁴ **Commission OKs results of elections.** Jonesboro Sun, May 28, 2004. By LeAnn Askins. <http://www.jonesborosun.com/archivedstory.asp?ID=9486>

²⁵ **Clerk changes election vote totals.** August 21, 2004. By Matthew Van Dusen, Star-Tribune staff writer. <http://www.casperstartribune.net/articles/2004/08/21/news/casper/6c2e825b3f9e154187256ef70007adbb.txt>

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August 2004	Optech	<p>Muskegon, Michigan. Optical scan machines failed to detect 2% of the votes for Township Clerk because the marks were too light. Originally, the machines reported that challenger Kris Tabler had lost to incumbent Jim Nielsen, 791-786. ²⁶</p> <p>The ensuing canvassing process, which compares the results from the precinct reports to the results produced by the ballot-counting machines, found the same result.</p> <p>But Tabler paid for a recount in all seven township precincts, and the Muskegon County Board of Canvassers spent Wednesday, Thursday and Friday inspecting the ballots by hand. When they finished, the result was startlingly different.</p> <p>Tabler won the election over Nielsen by two votes, 804-802. Jerry Young, the candidate who finished a distant third, received 258 votes in the recount.</p> <p>Overall, the recount revealed the existence of 39 more votes cast in the clerk's race than the original count did.</p> <p>... Obviously the canvassers, counting by hand, were able to read some ballots that the computer "optical scan" machines didn't pick up, said Tom Higgins, chairman of the county board of canvassers. It's also possible that the machines simply read some ballots wrong.</p>

²⁶ **Election turns around when inspectors 'see the light'.** Muskegon Chronicle. September 04, 2004. By Steve Gunn and Lynn Moore, Chronicle Staff Writers. <http://www.mlive.com/news/muchronicle/index.ssf?/base/news-5/109429297496130.xml>

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September 2004	Optech 4-C	<p>Maricopa County, Arizona. The original totals for State Representative in District 20 showed Anton Orlich in the lead over John McComish by four votes, and the close margin required a recount. The optical scan recount found nearly 500 additional votes for the five candidates in the race and changed the outcome, giving McComish the lead by 13 points.</p> <p>The election was certified by Judge Eddward P. Ballinger Jr.²⁷</p> <p>An attorney for Anton Orlich, the third-place finisher, argued that ballots were mishandled, a tabulation machine malfunctioned and because of these reputed errors, voter intent was not preserved in the recount.</p> <p>Though Lisa Hauser asserted that the county Elections Department violated statutes by excessively handling and improperly storing the 25,000 District 20 ballots, the clearest error was with the machines.</p> <p>"The recount can't be trusted because of this anomaly," Hauser said. "Voters can't trust it. Voters of District 20 can't trust it. I don't believe this court should trust it."</p> <p>...In court, Karen Osborne, the election director for Maricopa County, attributed the mushrooming of votes to the machine's reading of mailed-in early ballots with undervotes, those that indicated a vote for only one candidate instead of two.</p> <p>"The IV-Cs have a great deal more sensitive technology," Osborne said. "They will pick up marks on ballots."</p> <p>All early ballots were read by the machines during the primary and on the day of the recount. However, one machine registered an 18 percent variance in reading undervotes, Hauser said.</p> <p>The mail-in ballots apparently were more susceptible to having small, sometimes imperceptible marks. Or the voter may not have used the correct pencil or pen and the machine picked it up, Osborne said.</p> <p>"It's never going to pick it up perfectly," said Osborne, who said the machines were tested before the recount.</p> <p>A representative from the company that makes the Optech IV-C did not provide testimony, although she works in a county building and was issued a subpoena.²⁸</p>

²⁷ **McComish GOP winner in District 20 by 13 votes, recount shows.** The Arizona Republic. September 21, 2004. <http://www.azcentral.com/community/ahwatukee/articles/0921district20-recount-ON.html>

²⁸ **McComish's District 20 2nd-place finish confirmed.** The Arizona Republic. September 24, 2004. Nedra Lindsey. <http://www.azcentral.com/news/election/legislature/articles/0924recount.html>

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November 2004	Optical scan	<p>Carroll County, Arkansas. A mis-programmed chip from ES&S skewed the results from the JP District 2 race. ²⁹</p> <p>The glitch was discovered by Carroll County Election Commission members when they met to certify election results Monday at the Berryville courthouse.</p> <p>It is believed that the programming alignment was out of kilter, as provided by Election Systems and Software, the company that programs computer chips to read the local ballots.</p> <p>As a result, ballots for the JP District 2 race will either be hand counted, or re-run through the optical scanner machine once the correct computer chip is provided.</p>
November 2004	Optical Scan	<p>Lancaster County, Nebraska. As the optical scanners read the election-day ballots, occasionally, they added votes. While County Election Commissioner David Shively explained that the software was reading ballots twice, ES&S referred to the misread as a mechanical problem. ³⁰</p> <p>Inexplicably, both Shively and the Nebraska deputy secretary of state for elections, Neal Erickson, agreed that "the malfunctions were not the type that taint vote counts."</p> <p>The problem, described by Shively: While machines correctly fed themselves just one ballot at a time, their software at times incorrectly detected two ballots. The machines in all cases stopped short of actually counting two ballots, Shively said, and instead responded by shutting down.</p> <p>... Shively said it became clear after 2 p.m. Tuesday that problems existed. At that time, officials began testing the six machines – four for election-day ballots, two on loan from Election Systems & Software to count absentee ballots – and found that two were not correctly matching results.</p> <p>That came as a surprise, Shively said, because all were tested late last week and performed well.</p> <p>After consulting with ES&S, Shively decided to use the two absentee-ballot machines to speed up the election-day counting. But the problem was apparently contagious.</p> <p>From about 10:30 p.m. to 12:30 a.m., the machines were purring along glitch-free, Shively said. "I thought, 'Boy, we're back in business,'" Shively said.</p> <p>Then the two-ballot problem described by Shively began, plaguing almost all the machines, drastically slowing the count.</p>

²⁹ **Computer glitch blamed for miscount in JP voting.** Carroll County Star Tribune. November 10, 1004. By Anna Mathews. Reproduced at <http://www.votersunite.org/article.asp?id=3889>

³⁰ **Problem machines spur call for recount.** Lincoln Journal Star. November 14, 2004. By Nate Jenkins. <http://www.journalstar.com/articles/2004/11/14/election/doc4189b9c7f14bf764391458.txt>

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November 2004	Optical scanner, central count	<p>Sandusky County, Ohio. An election turnout of 131% tipped off the election officials that the optical scanners had been adding phantom votes to the totals. Officials concluded that ballots had been counted twice and speculated that some ballots had been fed through machine more than once.³¹</p> <p>Barb Tuckerman, director of the Sandusky County Board of Elections, said when she reviewed election information Nov. 8 she discovered the mistake.</p> <p>"Clyde had 131 percent voting," Tuckerman said. "That's not possible. I knew there was something amiss."</p> <p>After reviewing the computer discs used to store precinct tallies, officials came to the conclusion that some ballots in nine precincts were counted twice.</p> <p>The mistake may have occurred when counted ballots were stacked with those waiting to be counted, [Barb] Tuckerman [director of the Sandusky County Board of Elections] said.</p> <p>... The double counting creates a situation that can't be solved until questions are answered.</p> <p>The answers are needed to determine whether Republican Irma Celestino or Democratic incumbent Anna Senior wins the County Treasurer's contest, but Secretary of State Kenneth Blackwell advised against an investigation.</p> <p>Tuckerman said the Secretary of State's office advised against investigating how many twice-counted ballots are included in the election's unofficial results and instead suggested the local board focus on determining the official election results.</p>

³¹ **Some ballots counted twice: Discovery raises further doubt about close treasurer race.** The News-Messenger. November 16, 2004. By LaRaye Brown, staff writer. <http://www.thenews-messenger.com/news/stories/20041116/localnews/1601347.html>

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November 2004	Optical Scan	<p>Sarpy County. Election officials ended up with around 10,000 phantom votes (more votes than voters). They still don't know what went wrong.³²</p> <p>Johnny Boykin lost his bid to be on the Papillion City Council. The difference between victory and defeat in the race was 127 votes. Boykin says, "When I went in to work the next day and saw that 3,342 people had shown up to vote in our ward, I thought something's not right."</p> <p>He's right. There are not even 3,000 people registered to vote in his ward.</p> <p>For some reason, some votes were counted twice.</p> <p>Deputy Sarpy County Election Commissioner Ed Gilbert says, "It affected 32 of the 80 precincts. And I suppose as many as 10,000 votes."</p> <p>... No one is sure exactly what went wrong.</p> <p>Astonishingly, election officials are projecting a winning candidate based on the assumption that the votes were counted twice and that the outcome wouldn't be affected.</p> <p>Election officials say they don't believe the glitch will impact who won and who lost any of the races. They figure that when votes were doubled in a particular race, the totals were doubled for both candidates. Vote totals would be skewed but percentages would not change.</p> <p>In spite of that, the candidates want to know the real numbers.</p> <p>VotersUnite contacted the Sarpy County Elections office and was told that ES&S had analyzed the problem and determined it to be "mechanical and procedural." That was all the election staff knew.</p>
November 2004	Optical scan	<p>Medford, Wisconsin. Four and a half months after the election, a consulting firm discovered that ES&S had programmed the optical scanners incorrectly, failing to account for partisan elections.³³</p> <p>That failure meant that the votes of everyone who voted straight ticket - anyone who voted only for candidates of a single party - were not counted. In all, about 600 of 2,256 ballots cast were not counted, [Taylor County Clerk Bruce] Strama said.</p> <p>... Medford and Taylor County officials have been told by Nebraska-based Election Systems & Software that the city will be reimbursed for the costs of setting up the vote-counting machine in the fall because the program was faulty. A spokeswoman said the company takes full responsibility for the error.</p>

³² **Countinghouse Blues: Too many votes.** WOWT Omaha. November 5, 2004. <http://www.wowt.com/news/headlines/1161971.html>

³³ **About 600 Medford ballots cast in November ignored.** Marshfield News-Herald. March 12, 2004. By Jake Rigdon. <http://www.wisinfo.com/newsherald/mnhlocal/285285292773470.shtml>

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November 2004	Optical scan and Unity	<p>Grays Harbor, Washington. Elections officials started recounting about 28,000 ballots on Tuesday after the ES&S Unity reporting system showed too many votes.³⁴</p> <p>[County Auditor Vern] Spatz said unusually high turnout aroused suspicion that something might be wrong. On Monday, Grays Harbor County was reporting 93 percent turnout, much higher than anywhere else in the state. Officials checked the system and found the problem.</p> <p>After ballots were counted, the results were saved on computer disks and downloaded into another computer to keep a running tally. Some of the disks were apparently downloaded twice by mistake, Spatz said.</p> <p>The recount changed the outcome of the Governor's race in Grays Harbor County.</p> <p>VotersUnite contacted Mr. Spatz and mentioned that ES&S optical scanners had double-counted ballots in other states during the November election. He was surprised and interested. He was also concerned because ES&S Unity Election Management software is supposed to prevent cartridges from being downloaded twice.</p>
November 2004	Model 150 Optical Scanner	<p>Pike County, Arkansas. A damaged optical scanning machine lost nearly 700 votes.³⁵</p> <p>"I'm so upset over this that I can't sleep," said Sandy Campbell, clerk of Pike County, Ark. ... "We had no idea this had happened. But I'll know what to look for in the future. We'll try never to let this happen again."</p> <p>"We sent a technician to Pike County to check," said Meghan McCormick, spokeswoman for Omaha-based Election Systems and Software Inc., which manufactured Pike County's optical scan machine. "There was a scratch on Sensor 'A' that has already been repaired. The scratch probably occurred during the election, but we'll never be certain."</p>

³⁴ **Gray's Harbor County re-count boosts Gregoire.** kgw.com. November 16, 2004. By Rebecca Cook, Associated Press.

<http://www.kgw.com/sharedcontent/APStories/stories/D86D7FA80.html>

³⁵ **Election study finds widespread ballot-counting problems.** Scripps Howard News Service. December 20, 2004. By THOMAS HARGROVE.

<http://www.knoxstudio.com/shns/story.cfm?pk=MISCOUNT-ELECT-12-20-04&cat=AN>

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March 2005	Optical scanner	<p>Medford, Wisconsin. Inaccurate programming by ES&S caused all straight-party votes to be lost, affecting approximately 27% of the ballots.³⁶</p> <p>"There's really nothing voters can do at this point," said Kevin Kennedy, the executive secretary of the State Elections Board.</p> <p>ES&S acknowledged that it was to blame for the error that escaped notice until it was caught by an independent firm.</p> <p>Medford and Taylor County officials have been told by Nebraska-based Election Systems & Software that the city will be reimbursed for the costs of setting up the vote-counting machine in the fall because the program was faulty. A spokeswoman said the company takes full responsibility for the error.</p> <p>The gap first was discovered by Practical Political Consulting, which operates in the state as Wisconsin Voter Lists. It discovered the discrepancy by comparing the number of voters who showed up at the polls with the number of votes for president. Practical Political Consulting is an independent firm that sells voter lists to political candidates.</p>
May 2005	Optical scanner	<p>Forrest County, Mississippi. The number of ballots counted by the optical scanner didn't match the number of votes reported by the computer.³⁷</p> <p>There were also some discrepancies in the Ward 4 Republican race between Andrew Ellard, Lloyd B. "Rink" Russell and Brian Lucas.</p> <p>The problem?</p> <p>ES&S, the Omaha, Neb.-based company that is leasing voting equipment to the city for the primary, runoff and general elections, sent the wrong type of counter to Hattiesburg.</p> <p>The <i>right</i> type of counter - an infrared machine instead of a visible light machine - arrived Thursday night.</p> <p>Note from VotersUnite: The industry is moving toward visible light scanners because they read the ballot marks more reliably than infrared scanners. This article leaves many unanswered questions.</p>

³⁶ **About 600 Medford ballots cast in November ignored.** Mar 12, 2005. Marshfield News-Herald.

<http://www.wisinfo.com/newsherald/mnhlocal/284049485656926.shtml>

³⁷ **Problems delay final vote count.** Hattiesburg American.com. May 7, 2005.

<http://www.hattiesburgamerican.com/apps/pbcs.dll/article?AID=/20050507/OPINION01/505070323/1014/NEWS01>

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March 2006	(optical-scan)	<p>Summit County, Ohio Memory Card problems in Akron cited as same as in North Carolina.³⁸</p> <p>1,000 memory cards supplied by ES&S were defective. ES&S blamed the problem on bad batteries in about 1/3 of the cards. Summit County Board of Elections director Bryan Williams described the problem as “read-back errors, not a battery issue.” For 2/3 of shipment in question. ES&S claims batteries should last between 3 and 5 years and blamed faulty cards on a subcontractor. Officials say they will test all replacements.</p>
March 2006	(optical-scan)	<p>Summit County, Ohio County officials are threatening legal action against ES&S if the company doesn't cooperate more with the county.³⁹</p> <p>Complaining that memory cards for the county's Optical-Scan voting system have been defective in several shipments, and several new problems the county is having with ES&S, officials said ES&S' attitude has become uncooperative, like “pulling teeth.”</p>
March 2006	Optical AIS 315	<p>Webb County, Texas ES&S blamed by county for errors in programming and inadequately training county staff.⁴⁰</p> <p>The company prepared all software for the election. Additional problems cited include delays of three days before receiving coding for electronic ballots, following mistakes involving receipt of nearby McMullen County codes,</p>
March 2006	Optical Scan	<p>Cook County, Illinois Votes being counted 21 hours after polls closed.⁴¹</p> <p>Only half of the county's new voting machines transmitted results on their first time on the job. IL Attorney Gen deployed 160 teams of lawyers to polling places... didn't find “evidence of fraud but did discover problems in just about every county.” Ballots couldn't be tallied in precincts and had to be delivered to receiving station and warehouse.</p>
May 2006	Optical scan	<p>Cleburne County, Arkansas. Scanner problems.⁴² Officials will hand count ballots due to scanner malfunctions.</p>

³⁸ **Voting system's troubles spread** Akron Beacon Journal, March 16, 2006 by Lisa A. Abraham. Story archived at <http://www.ohio.com/mld/ohio/news/14111596.htm>

³⁹ **Election officials threaten legal action against supplier** Akron Beacon Journal, March 22, 2006 by Lisa Abraham. Story archived at <http://www.ohio.com/mld/ohio/living/community/14157502.htm>

⁴⁰ **Election Uproar; County officials say there were plenty of red flags** Laredo Morning Times, March 14, 2006 by Julie Daffern. Story archived at http://www.zwire.com/site/index.cfm?newsid=16299334&BRD=2290&PAG=461&dept_id=473478&rft=8

⁴¹ **County Clerk defends Election Day procedure** WLS-TV/DT (abc7) March 22, 2006 by Chuck Goudie. Story archived at <http://abclocal.go.com/wls/story?section=local&id=4015994>

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May 2006	Optical Scan	Phillips County, Arkansas. Scanner problems. ⁴³ A malfunctioning scanner will be reprogrammed to process ballots, delaying vote counts and results.
May 2006	Optical Scan	Clark County, Arkansas. Because ES&S did not supply special paper ballots on time for elections local officials reprinted or copied blank ballots for voters. ⁴⁴ Those ballots supplied by the county would not work with the vendor's scanners, necessitating hand counting, and delaying reports of vote results. Hand counts needed to be combined with machine records to get a total.

⁴² ibid

⁴³ ibid

⁴⁴ **Ballot problem could prolong count tonight** The Daily Siftings Herald, May 23, 2006 by Donna Hilton. Story archived at <http://www.siftingsherald.com/articles/2006/05/23/news/news1.txt>