

UNDERSTANDING THE COLLABORATIVE DATA MODEL (CDM)

Instructional Guide

The move to a consolidated elections calendar resulted in the need to re-evaluate the various pre and post election tasks which must be performed by state, county and local election officials. As a result, responsibility for a number of these tasks has shifted to the county and in some cases is now shared between multiple counties and jurisdictions. The most challenging elections are those involving multiple political subdivisions, or portions thereof, which are referred to as “mixed” elections. The administration of such elections requires considerable communication, consensus building and coordination between state, county and local election officials.

While the QVF was not originally designed to accommodate the administration of mixed elections we have investigated and implemented a number of creative approaches in recent years that are designed to meet the needs of the elections community. For example, the current E Wizard module was implemented as a tool that is used to automate the ballot definition process which is a prerequisite to creating any election. The new “Collaborative Data Model” (CDM) is a tool that will be used to automate the identification of the political subdivisions, or portions thereof, as well as to more clearly define the roles that must be carried out including the establishment of temporary polling locations, the temporary consolidation or combining of precincts and the issuance and return of absent voter ballot applications and absent voter ballots. We believe that the CDM will eliminate much of the confusion resulting from mixed elections as state, county and local election officials will have a more global view of the entire election process.

What’s Included in the CDM?

New Global Geography Module - The “Election Geography Module” has been replaced with the “Global Geography Module.” The “Global Geography Module” provides the user with a more detailed view of the election geography related to an election. This module will be used to define the political subdivisions, or fractions thereof, that are involved in an election. This module will also be used to establish temporary polling locations, temporarily consolidate or combine precincts, define ballot styles, and establish absent voter counting boards.

How Does the CDM Work?

1. E Wizard

The basic steps for setting up an election are the same. You start with the completion of E Wizard, Stage 1 and Stage 2. This must be completed for all jurisdictions regardless of whether the jurisdiction will be participating in the election.

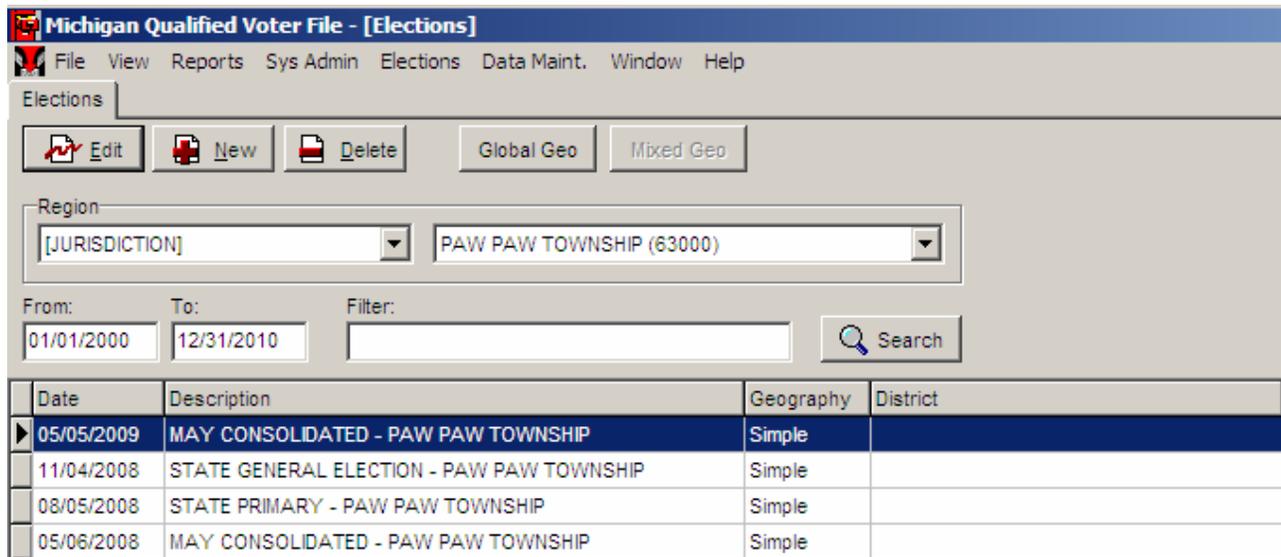
Example: The Grand Traverse County Clerk completes Stage 1 and Stage 2 of the E Wizard survey on behalf of the Traverse City Area Public School District.

2. Creating the Election

After completion of the E Wizard, the State will create all jurisdiction wide, district wide and/or mixed elections based on the answers entered in Stage 1 and Stage 2.

3. Global Geography Module

Once the election(s) is created, you will be able to view the associated geography details in the Global Geography module. With the proper election date selected, click on the Global Geo button to view details.



The screenshot shows the 'Michigan Qualified Voter File - [Elections]' application window. The menu bar includes File, View, Reports, Sys Admin, Elections, Data Maint., Window, and Help. The 'Elections' tab is active. Below the menu are buttons for Edit, New, Delete, Global Geo, and Mixed Geo. The 'Global Geo' button is highlighted. The interface includes a 'Region' section with two dropdown menus: the first is set to '[JURISDICTION]' and the second to 'PAW PAW TOWNSHIP (63000)'. Below this are 'From:' and 'To:' date fields (01/01/2000 and 12/31/2010) and a 'Filter:' field. A 'Search' button is located to the right of the filter field. At the bottom is a table with the following data:

Date	Description	Geography	District
05/05/2009	MAY CONSOLIDATED - PAW PAW TOWNSHIP	Simple	
11/04/2008	STATE GENERAL ELECTION - PAW PAW TOWNSHIP	Simple	
08/05/2008	STATE PRIMARY - PAW PAW TOWNSHIP	Simple	
05/06/2008	MAY CONSOLIDATED - PAW PAW TOWNSHIP	Simple	

The Global Geography screen displays as shown below.

Michigan Qualified Voter File - [Global Geography]

File View Reports Sys Admin Elections Data Maint. Window Help

Elections Global Geography

Save Close Help

Election Date 05/05/2009 - MAY CONSOLIDATED

DPA	Comb Prct	Counting Brd	B Style	Polling Location	HC	Voters	Cty	Juris	WP	V Dis	VP
J63000/W00001 B	00001		00098	PAW PAW TOWNSHIP HA N		3	80	63000	00001	0	
J63000/W00001	00001		00108	PAW PAW TOWNSHIP HA N		22	80	63000	00001	62980	00001
J63000/W00001 A	00001		00098	PAW PAW TOWNSHIP HA N		1,915	80	63000	00001	62980	00001
J63000/W00002	00002		00106	PAW PAW TOWNSHIP HA N		7	80	63000	00002	0	
J63000/W00002 A	00002		00100	PAW PAW TOWNSHIP HA N		86	80	63000	00002	0	
J63000/W00002 B	00002		00101	PAW PAW TOWNSHIP HA N		113	80	63000	00002	0	
J63000/W00002 D	00002		00108	PAW PAW TOWNSHIP HA N		11	80	63000	00002	0	
J63000/W00002 C	00002		00098	PAW PAW TOWNSHIP HA N		1,205	80	63000	00002	0	
J63000/W00002 E	00002		00098	PAW PAW TOWNSHIP HA N		0	80	63000	00002	62980	00001
J63000/W00003	00003		00098	PAW PAW TOWNSHIP HA N		1,001	80	63000	00003	0	

DPA Name: J63000/W00001 B Set

Internal ID: 102006775
Voters: 3

Last Modified On: 10/20/2009 3:18:50 PM

By User: STATE@0

Details:

County	80
Jurisdiction	63000
Ward Precinct	00001
Village District	0
Village Precinct	
School District	27660
School Precinct	00001
State House District	080
State Senate District	20
US Congress District	06
County Commissioner District	05
Library District	0265
Community College District	0
Intermediate School District	80
Appeals Court	00300
Circuit Court	03600
Probate Court	08000

Comb Prct: 00001 Counting Brd: Set Select All

Selected Total: 1 Areas, 3 Voters, 4,363

Test Version 2.56.18 US Congress District = [06]

Notice that scrolling to the right, using the scroll bar at the bottom of the main window, reveals additional precinct and district attributes. Placing your cursor over the columns in the taskbar at the bottom of the window, reveals additional information as shown below.

DPA	Comb Prct	Counting Brd	B Style	Polling Location	HC	Voters	Cty	Juris	WP	V...	VP
J63000/W00001	00001		00108	PAW PAW TOWNSHIP HA N		22	80	63000	00001	62980	00001
J63000/W00001 A	00001		00098	PAW PAW TOWNSHIP HA N		1,915	80	63000	00001	62980	00001
J63000/W00002 E	00002		00098	PAW PAW TOWNSHIP HA N		0	80	63000	00002	62980	00001
J63000/W00002 D	00002		00108	PAW PAW TOWNSHIP HA N		11	80	63000	00002	0	

Comb Prct: 00001 Counting Brd: Set Select All

Selected Total: 1 Areas, 22 Voters, 4,363

Test Version 2.56.18 Village District = [PAW PAW (62980)]

Distinct Political Areas (DPA) Details Tab

You will see a new term, Distinct Political Area or DPA, in Global Geography. A DPA is a geographic area where all election related attributes are identical. Every precinct will have at least one DPA. Precincts with splits will have more than one DPA. In the past, each street range in the QVF Street Index was associated with a long string of electoral districts. Now each street range is associated with a DPA, meaning that numerous street ranges point to the same DPA. This cuts down the amount of work the street index is required to do and greatly simplifies street index maintenance.

The DPA Details tab displays the precinct and district attributes for each row that is highlighted in the Global Geography grid. Included are the number of voters involved, the date that the information was last modified, and the name of the user who made the last modification as shown below. Each DPA represents a different Ballot Style within Global Geography.

DPA Name:
J63000/W00001 A

Internal ID **Voters**
102009377 1,915

Last Modified On:
10/20/2009 3:18:50 PM

By User:
STATE@0

Details:

County	80
Jurisdiction	63000
Ward Precinct	00001
Village District	62980
Village Precinct	00001
School District	27660
School Precinct	00001
State House District	080
State Senate District	20
US Congress District	06
County Commissioner District	05
Library District	0265
Community College District	0
Intermediate School District	80
Appeals Court	00300
Circuit Court	03600
Probate Court	08000
Probate Dist. Court	

When selecting multiple rows within the Global Geography grid, the DPA Details tab allows the user to see all of the precinct and district variations. These precinct and district variations are identified with the word "[various]" in the DPA Details tab. In the example below, 2 rows are highlighted in the Global Geography Grid. Since each row belongs to a different school district the Details tab shows the word "[various]" meaning that there is more than one school district number for the rows highlighted.

Michigan Qualified Voter File - [Global Geography]

File View Reports Sys Admin Elections Data Maint. Window Help

Elections Global Geography

Save Close Help

Election Date 05/05/2009 - MAY CONSOLIDATED

DPA	Comb Prct	Counting Brd	B Style	Polling Location	HC	Voters	Cty	Juris	WP	V Dis	VP
J63000/W00001 B	123	AVCB1	00098	PAW PAW TOWNSHIP HA N		3	80	63000	00001	0	
J63000/W00001	123	AVCB1	RED	PAW PAW TOWNSHIP HA N		22	80	63000	00001	62980	00001
J63000/W00001 A	123	AVCB1	00098	PAW PAW TOWNSHIP HA N		1,915	80	63000	00001	62980	00001
J63000/W00002	123	AVCB1	00106	PAW PAW TOWNSHIP HA N		7	80	63000	00002	0	
J63000/W00002 A	123	AVCB1	00100	PAW PAW TOWNSHIP HA N		86	80	63000	00002	0	
J63000/W00002 B	123	AVCB1	00101	PAW PAW TOWNSHIP HA N		113	80	63000	00002	0	
J63000/W00002 D	123	AVCB1	RED	PAW PAW TOWNSHIP HA N		11	80	63000	00002	0	
J63000/W00002 C	123	AVCB1	00098	PAW PAW TOWNSHIP HA N		1,205	80	63000	00002	0	
J63000/W00002 E	123	AVCB1	00098	PAW PAW TOWNSHIP HA N		0	80	63000	00002	62980	00001
J63000/W00003	123	AVCB1	00098	PAW PAW TOWNSHIP HA N		1,001	80	63000	00003	0	

DPA Name:
[VARIOUS]

Internal ID **Voters**
[various] 199

Last Modified On:
10/20/2009 3:18:50 PM

By User:
STATE@0

Details:

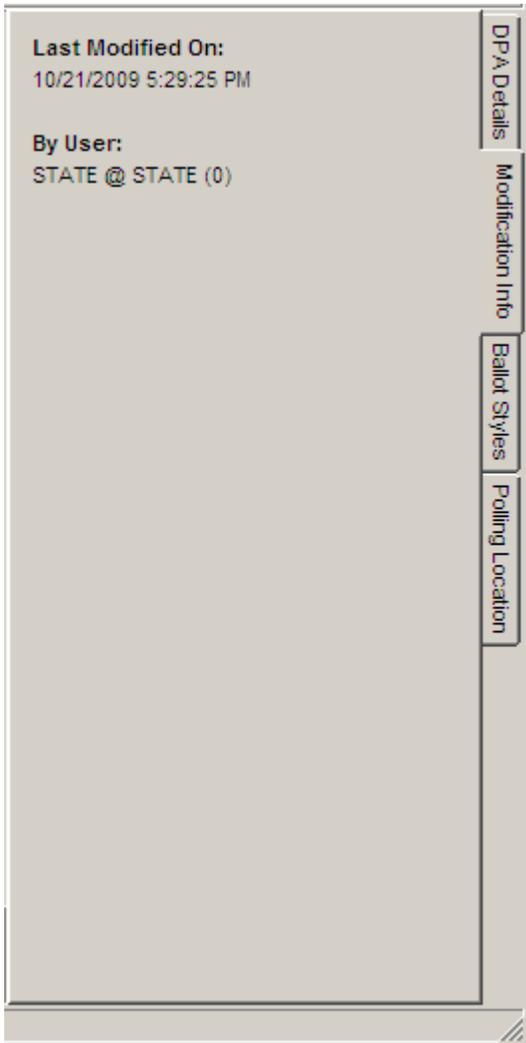
County	80
Jurisdiction	63000
Ward Precinct	00002
Village District	0
Village Precinct	
School District	[various]
School Precinct	00002
State House District	080
State Senate District	20
US Congress District	06
County Commissioner District	05
Library District	0345
Community College District	0
Intermediate School District	80
Appeals Court	00300
Circuit Court	03600
Probate Court	08000
Probate Dist. Court	
District Court	00700

Comb Prct	Counting Brd	Selected	Areas	Voters
123	AVCB1	<input checked="" type="checkbox"/> Select All	2	199
		Total	10	4,363

Test Version 2.56.18 Village Precinct = [00001]

Modification Info Tab

For each row that is highlighted in the Global Geography grid, the Modification Info tab shows the date that a precinct or district attribute was last modified and the name of the user who made the last modification.



The image shows a vertical sidebar menu on the right side of a window. The menu items are: "DPA Details", "Modification Info" (which is highlighted), "Ballot Styles", and "Polling Location". The main content area of the window is light gray and contains the following text:

Last Modified On:
10/21/2009 5:29:25 PM

By User:
STATE @ STATE (0)

Ballot Styles Tab

Once an election is created, the QVF software automatically assigns a Ballot Style Name for each of the different ballot styles needed for the election. The Ballot Style Name is always a numeric value, e.g.: 00108.

Highlighting a row in the Global Geography grid and selecting the Ballot Styles tab to the right allows the user to view the Ballot Style Name, the Last Modified On date, By User and the Ballot Details. The Ballot Details provides a list of the offices and proposals that will appear on the ballot as shown below.

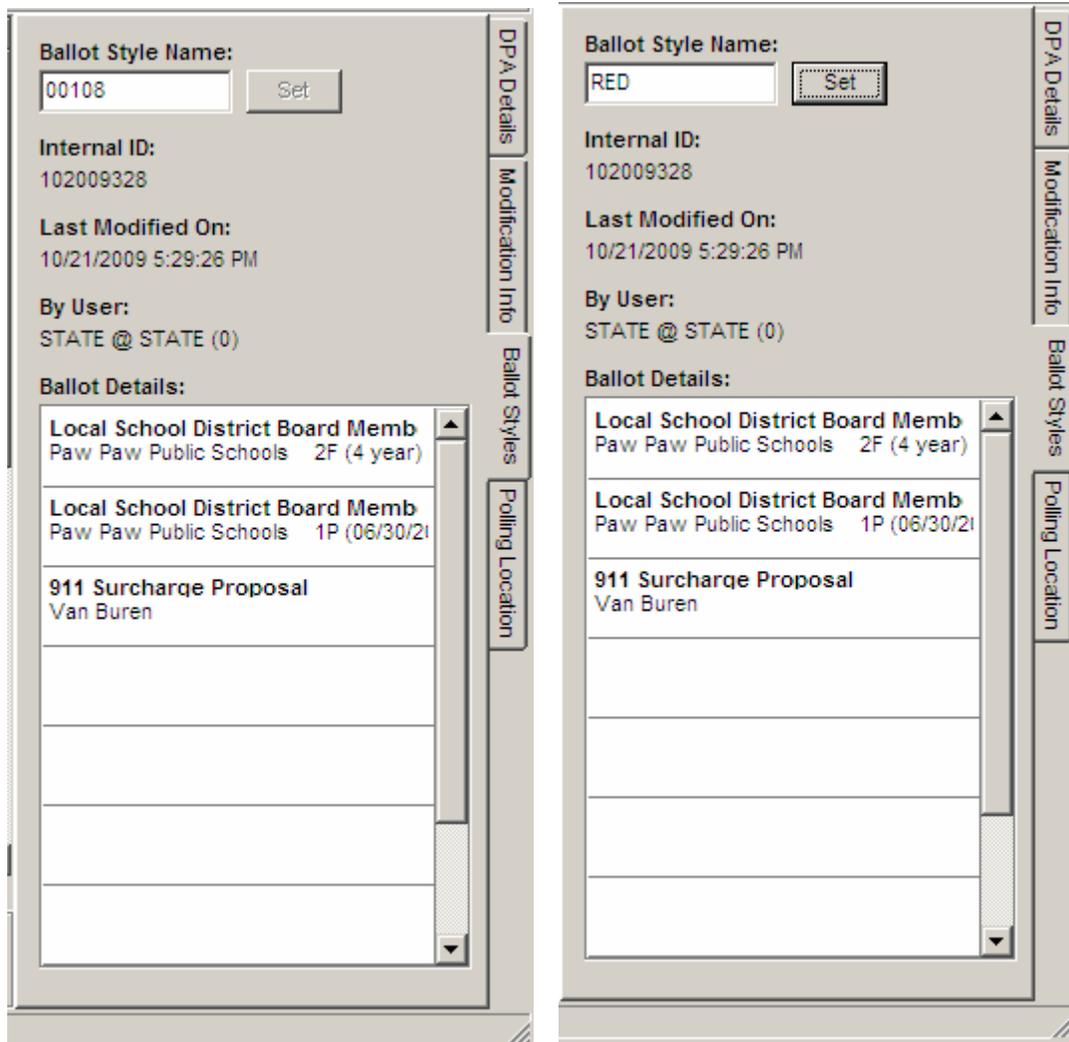
The screenshot shows a software interface for viewing ballot style details. On the right side, there are four vertical tabs: "DPA Details", "Modification Info", "Ballot Styles" (which is selected), and "Polling Location".

The main content area displays the following information:

- Ballot Style Name:** 00108 (with a "Set" button next to it)
- Internal ID:** 102009328
- Last Modified On:** 10/21/2009 5:29:26 PM
- By User:** STATE @ STATE (0)
- Ballot Details:** A list of items with a scroll bar on the right:
 - Local School District Board Memb
Paw Paw Public Schools 2F (4 year)
 - Local School District Board Memb
Paw Paw Public Schools 1P (06/30/21)
 - 911 Surcharge Proposal
Van Buren
 - (Three empty rows follow)

Changing A Ballot Style Name

As stated above the Ballot Style Name assigned by the software is always a numeric value. If you would like to change the name to something more meaningful to you, highlight the row you would like to change in the Global Geography grid. Select the Ballot Styles tab on the right hand side of the screen. Key enter the new name in the Ballot Style Name field and click the **Set** button. Click the **Save** button in the upper left corner of the Global Geography screen to save the new name.



The Global Geography grid now shows RED for each row that was labeled Ballot Style 00108.

DPA	Comb Prct	Counting Brd	B Style	Polling Location	HC	Voters	Cty	Juris	WP	V... ▾	VP	▲
J63000/W00001	00001		RED	PAW PAW TOWNSHIP HAN		22	80	63000	00001	62980	00001	2
J63000/W00001 A	00001		00098	PAW PAW TOWNSHIP HAN		1,915	80	63000	00001	62980	00001	2
J63000/W00002 E	00002		00098	PAW PAW TOWNSHIP HAN		0	80	63000	00002	62980	00001	2
J63000/W00002 D	00002		RED	PAW PAW TOWNSHIP HAN		11	80	63000	00002	0		2

Combining/Consolidating Precincts

To temporarily combine or consolidate one or more whole precincts for a given election, highlight the precincts you wish to combine/consolidate in the Global Geography grid. Enter a name for the combined precinct in the **Comb Prct** field in the lower left hand corner of the screen and click the **Set** button. Click the **Save** button in the upper left corner of the screen. In the example below all 3 of Paw Paw's precincts were combined to precinct "123".

The screenshot shows the Michigan Qualified Voter File - [Global Geography] application. The main window displays a table of precincts with columns for DPA, Comb Prct, Counting Brd, B Style, Polling Location, HC, Voters, Cty, Juris, WP, V Dis, and VP. The table lists 10 precincts, all of which are highlighted in blue, indicating they are selected. The 'Comb Prct' column for all selected rows is '123'. The 'Voters' column shows the number of voters for each precinct, and the 'Total' row shows a total of 10 areas and 4,363 voters.

DPA	Comb Prct	Counting Brd	B Style	Polling Location	HC	Voters	Cty	Juris	WP	V Dis	VP
J63000/W00001 B	123		00098	PAW PAW TOWNSHIP HA N		3	80	63000	00001	0	
J63000/W00001	123		RED	PAW PAW TOWNSHIP HA N		22	80	63000	00001	62980	00001
J63000/W00001 A	123		00098	PAW PAW TOWNSHIP HA N		1,915	80	63000	00001	62980	00001
J63000/W00002 D	123		RED	PAW PAW TOWNSHIP HA N		11	80	63000	00002	0	
J63000/W00002	123		00106	PAW PAW TOWNSHIP HA N		7	80	63000	00002	0	
J63000/W00002 A	123		00100	PAW PAW TOWNSHIP HA N		86	80	63000	00002	0	
J63000/W00002 B	123		00101	PAW PAW TOWNSHIP HA N		113	80	63000	00002	0	
J63000/W00002 C	123		00098	PAW PAW TOWNSHIP HA N		1,205	80	63000	00002	0	
J63000/W00002 E	123		00098	PAW PAW TOWNSHIP HA N		0	80	63000	00002	62980	00001
J63000/W00003	123		00098	PAW PAW TOWNSHIP HA N		1,001	80	63000	00003	0	

At the bottom of the screen, there is a summary table:

Comb Prct	Counting Brd	Set	Select All	Selected	Areas	Voters
123			<input checked="" type="checkbox"/>	Total	10	4,363
					10	4,363

The right-hand side of the application shows a 'Polling Locations' panel with a dropdown menu set to 'PAW PAW TOWNSHIP (63000)'. Below this, there is a list of polling locations, with 'PAW PAW TOWNSHIP HAL, 114 N. G' selected. An 'Assign' button is visible, and the 'Auto Assign Selections' section is set to 'WARD PRECINCT'.

Test Version 2.56.18

Assigning Absentee Voter Counting Boards (AVCBs)

To assign an AVCB in Global Geography, highlight the row(s) (Ward/Precincts) that you wish to assign to a counting board. Enter a name for the counting board in the **Counting Brd** field in the lower left corner of the screen and click the **Set** button. Click the **Save** button in the upper left corner of the screen. In the example below, all Wards/Precincts in the grid have been assigned to a single AVCB named AVCB1.

DPA	Comb Prct	Counting Brd	B Style	Polling Location	HC	Voters	Cty	Juris	WP	V Dis	VP
J63000/W00001 B	123	AVCB1	00098	PAW PAW TOWNSHIP HAL		3	80	63000	00001	0	
J63000/W00001	123	AVCB1	RED	PAW PAW TOWNSHIP HAL		22	80	63000	00001	62980	00001
J63000/W00001 A	123	AVCB1	00098	PAW PAW TOWNSHIP HAL		1,915	80	63000	00001	62980	00001
J63000/W00002 D	123	AVCB1	RED	PAW PAW TOWNSHIP HAL		11	80	63000	00002	0	
J63000/W00002	123	AVCB1	00106	PAW PAW TOWNSHIP HAL		7	80	63000	00002	0	
J63000/W00002 A	123	AVCB1	00100	PAW PAW TOWNSHIP HAL		86	80	63000	00002	0	
J63000/W00002 B	123	AVCB1	00101	PAW PAW TOWNSHIP HAL		113	80	63000	00002	0	
J63000/W00002 C	123	AVCB1	00098	PAW PAW TOWNSHIP HAL		1,205	80	63000	00002	0	
J63000/W00002 E	123	AVCB1	00098	PAW PAW TOWNSHIP HAL		0	80	63000	00002	62980	00001
J63000/W00003	123	AVCB1	00098	PAW PAW TOWNSHIP HAL		1,001	80	63000	00003	0	

Areas	Voters
Selected	10
Total	4,363

4. Global Geography – Overlapping Elections

Overlapping elections can be challenging but are accommodated within the Global Geography Module. For example, the voters of Acme Township will be electing school board members for the Traverse City Area Public School District and will also be voting on a township-wide millage proposal. A simple jurisdiction-wide election is created for Acme Township. In addition, as the school election coordinator, Grand Traverse County has agreed to print the precinct lists for all remaining jurisdictions within the school district. A district-wide election is created for Traverse City Area Public School District. While voters living in Acme Township will be overlapped by both elections, their eligibility to vote is now linked to a single election date.

The 2 screen shots below represent both the Acme Township millage election and the election of school board members in the Traverse City Area Public School District.

Acme Townships Global Geography

Michigan Qualified Voter File - [Global Geography]

File View Reports Sys Admin Elections Data Maint. Window Help

Elections Global Geography

Save Close Help

Election Date 01/07/2010 - CDM TEST JANUARY

DPA	Comb Prct	Counting Brd	B Style	Polling Location	HC	Voters	Cty	Juris	WP	V Dis	VP
J00200W00001	00001		BLUE	FIRE STATION	Y	2,290	28	00200	00001	0	
J00200/W00002	00002		RED	FIRE STATION	Y	288	28	00200	00002	0	
J00200/W00002.A	00001		BLUE	FIRE STATION	Y	846	28	00200	00002	0	

DPA Name: J00200W00001

Internal ID: 102007698 Voters: 2,290

Last Modified On: 12/07/2009 1:51:31 PM

By User: DAUMN@0

Details:

County	28
Jurisdiction	00200
Ward Precinct	00001
Village District	0
Village Precinct	
School District	33870
School Precinct	00001
State House District	104
State Senate District	37
US Congress District	04
County Commissioner District	02
Library District	0342
Community College District	21
Intermediate School District	28
Appeals Court	00400
Circuit Court	01300
Probate Court	02800
Probate Dist. Court	
District Court	08600

Comb Prct	Counting Brd	Set	Select All	Selected	Areas	Voters
00001		<input type="button" value="Set"/>	<input checked="" type="checkbox"/>	1	1	2,290
				Total	3	3,424

Test Version 2.56.18

Traverse City Area Public School District Election Global Geography

Michigan Qualified Voter File - [Global Geography]

File View Reports Sys Admin Elections Data Maint. Window Help

Elections Global Geography

Save Close Help

Election Date 01/07/2010 - CDM TEST JANUARY

DPA	Comb Prct	Counting Brd	B Style	Polling Location	HC	Voters	Cty	Juris	W/P	V Dis	VP
J00200/W00001	00001		BLUE	FIRE STATION	Y	2,290	28	00200	00001	0	
J00200/W00002	00002		RED	FIRE STATION	Y	288	28	00200	00002	0	
J00200/W00002 A	00001		BLUE	FIRE STATION	Y	846	28	00200	00002	0	
J01640/W00001 B	00001		BLUE	ALMIRA TWP FIRE/EMS	Y	848	10	01640	00001	0	
J01640/W00001 C	00001		ELSE	ALMIRA TWP FIRE/EMS	Y	48	10	01640	00001	44460	00001
J08880/W00001 A	00001		BLUE	BLAIR FIRE STATION	Y	1,275	28	08880	00001	0	
J08880/W00002 A	00002		BLUE	BLAIR FIRE STATION	Y	1,543	28	08880	00002	0	
J08880/W00003	00003		BLUE	BLAIR FIRE STATION	Y	1,149	28	08880	00003	0	
J08880/W00004	00004		BLUE	BLAIR TOWNSHIP HALL	Y	1,321	28	08880	00004	0	
J08880/W00004 A	00004		BLUE	BLAIR TOWNSHIP HALL	Y	0	28	08880	00004	0	
J23800/W00001	00001		BLUE	EAST BAY TOWN HALL	Y	1,708	28	23800	00001	0	
J23800/W00001 A	00001		BLUE	EAST BAY TOWN HALL	Y	0	28	23800	00001	0	
J23800/W00002	00002		BLUE	EAST BAY TOWN HALL	Y	2,546	28	23800	00002	0	
J23800/W00003	00003		BLUE	EAST BAY TOWN HALL	Y	1,905	28	23800	00003	0	
J23800/W00004 A	00004		BLUE	EAST BAY TOWN HALL	Y	0	28	23800	00004	0	
J23800/W00004	00004		BLUE	EAST BAY TOWN HALL	Y	2,411	28	23800	00004	0	
J25700/W00001 A	00001		BLUE	TOWNSHIP CENTER	Y	2,412	45	25700	00001	0	
J25700/W00001 B	00001		BLUE	TOWNSHIP CENTER	Y	2	45	25700	00001	0	
J25700/W00002 B	00002		BLUE	FIRE STATION	Y	6	45	25700	00002	0	
J25700/W00002 C	00002		BLUE	FIRE STATION	Y	946	45	25700	00002	0	
J31580/W00001	00001		BLUE	1ST CHRISTIAN CHURCH	Y	1,989	28	31580	00001	0	

Ballot Style Name: RED [Set]

Internal ID: 102010880

Last Modified On: 12/07/2009 12:47:49 PM

By User: STATE @ STATE (0)

Ballot Details:

Local School District Board Memb
Elk Rapids Public Schools F (0 year)

Comb Prct: 00002 Counting Brd: [Set] Selected Total: 1 Areas, 288 Voters

Test Version 2.56.18 Village District = []

5. Good Habits in Global Geography

Be aware that decisions and entries made in the Global Geography module will be viewed by other election officials. If the default settings for an election involving multiple jurisdictions have been changed, it is recommended that you contact the election official who made the change before reversing the setting or making further alternations.

Clerks are encouraged to think globally but act locally when it comes to elections. In other words, clerks should consider all jurisdictions that are affected by a given election date. Be mindful that the changes you make may affect others. When possible, changes should be limited to only those areas for which you are directly responsible.

While the E Wizard responses are used to determine a voter's eligibility to participate in a given election, the information that is entered in the Global Geography module is used to create the file exports needed to define the actual ballots.