Hardware Programming Manager

Version Release 3.53
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Vision Statement

Recognized global leader in providing innovative solutions and services to the election industry. These quality solutions and services are developed and delivered by people dedicated to the highest standards of ethics, integrity and the process of continuous improvement.

The result will allow our present and future customers to have a positive and lasting impact on the growth of democracy worldwide.

Who We Are

The World Leader in Automating the Election Process

ES&S is a company of dedicated people building integrated systems and developing solutions for the election official's total management needs

- Election and voter registration management software
- Ballot counting and tabulation hardware
- Election information management software
Disclaimer

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Chapter 1: Introduction

Welcome to the Election Systems and Software, Inc. (ES&S) computerized, state-of-the-art Hardware Programming Manager. This system is a complete election package that enables the user to create elections, define districts, specify election contests and candidates, create ballot styles, and burn PCM cards or chips.

Like all computerized information systems, the Hardware Programming Manager software operates on compatible hardware and other equipment. The system is composed of PC computers, peripherals, and Hardware Programming Manager application software. The system performs a wide range of tasks that record, monitor, report, and protect all election information. ES&S supplies and installs all the election software required for the Hardware Programming Manager system to function smoothly.

The election information is input into the computer and then stored in an information database. From the database, information can be viewed immediately on the screen or retrieved in printed report form.

Entry into Hardware Programming Manager can be password protected if the user chooses. If password protection is enabled, only persons who know the passwords can access the system. This guards against entry of invalid information or the deletion of valuable election information by those who are not authorized to use Hardware Programming Manager.

Computer Workstations

A computer workstation is equipped to function as an information entry and retrieval point. Information can be viewed on the monitor screen and reports are requested at the workstation. The computer workstation hardware consists of the following:

- CPU (central processing unit)
- Monitor
- Keyboard

The function of each piece of equipment is discussed on the next page.

The CPU houses the electronics and contains the additional computer components necessary to produce images on the screen.

The monitor displays the software system menus used to key in and retrieve all information at the workstations. As information is entered into the system, it is displayed on the screen and can be retrieved later for viewing.
The keyboard is very similar to a typewriter keyboard and is used to enter election information into the system in much the same way a typewriter keyboard is used to print letters and characters on paper. Because the keyboard is attached to the system unit with a special cable, it can be adjusted for easy usage.

Printers

Reports of election results are printed with any of the printers that can be attached to the system. The number and types of printers are chosen to meet the needs of the individual jurisdiction. Printed reports are routed to the printer(s) from individual PC computer workstations.

System Software

The Hardware Programming Manager software generates computerized ballot styles and reports based on the type of election and the districts within a given jurisdiction. Additionally, the system collects and organizes election information in preparation for tabulating election results on both a precinct-by-precinct basis and on a cumulative basis.

Ballot styles are generated based on the districts, precincts, and contests. General precinct and district identifier information is usually entered into the system first. Specific district and precinct information is then generated by the system.

The districts are later linked by the system to contest, party, and candidate information. After all the information is entered, ballot styles for differing districts can be produced.

To complete the tabulation process, the information above is formatted into an information database which, in turn, is used to tabulate election results and generate reports.

The Hardware Programming Manager is designed to allow you to save election information with a backup program that copies election information onto diskettes for permanent storage and easy access when needed for reference.

System Requirements

To run Hardware Programming Manager, you must have DOS Version 3.1 or a later version on your personal computer. DOS will be on your PC when it is installed by the ES&S staff, as will the Hardware Programming Manager software. It is not necessary for you to learn the details of using DOS, but you will need to understand how Hardware Programming Manager data and program files are
organized and how to install updated versions of Hardware Programming Manager.

Note: DOS files RESTORE.COM, BACKUP.COM, and FORMAT.COM must be located in the root directory. (If using DOS 5.0 or higher, these are RESTORE.EXE, BACKUP.EXE and FORMAT.EXE.)

Directory Structure

```
C:\ROOT

C:\ELEC (Programs)

C:\ELECDATA (Election Data)
```

The two directories each contain sets of files. Each program file contains instructions that run a specific part of Hardware Programming Manager. Each of the election data files contains information concerning a specific election. You label these files in your ELECDATA directory when you create an election using the Creation and Definition option of Hardware Programming Manager.

An illustration of this concept appears below.

In the illustration, the file cabinet represents a set of directories that may exist on a computer. The files represent the files contained in the computer directories. Records within each file hold information about one candidate, office, precinct or other election data.
Manual Organization and Usage

The manual is organized to make using Hardware Programming Manager easy for you. The following symbols and keys are used in the manual.

**Note:** A note contains additional information that needs to be considered.

**WARNING:** A warning contains precautionary information that helps you avoid creating a processing or data problem.

**nnn** These stand for variable numbers.

**Fn** Function keys perform various functions that vary depending on the screen.

Messages mentioned in the manual are displayed in a box with black boundaries.

**John Candidate** Exact election information that is to be keyed in by you is shown in the manual in bold type.

Note the following information about this input screen:

- The election name is displayed in the top right-hand corner of the screen.

- The cursor is the blinking mark on the screen and indicates where the information you type is placed on the screen. The cursor blinks in the field needing completion. The fields are the areas reserved for the information you enter. The names of the fields appear in bold print in the manual.

- The instruction area of the screen is located below the screen border. Valid information you will key in is displayed.
Chapter 2: Getting Started

Software Installation for Hardware Programming Manager Version 3.53

The file EINSTALL.BAT will install the ES&S Hardware Programming Manager software from the diskette drive specified to the hard drive specified. In order to complete the installation, though, you must have an ES&S Main Menu System installed. Everything else that you need to run Hardware Programming Manager for your state and equipment type is contained on the installation diskettes.

1. Insert the installation diskettes into the diskette drive A or B.

2. At the C:\ prompt, type A: EINSTALL [D H]. The D represents the diskette drive (A or B) into which you are inserting the diskettes and the H represents the hard drive where you want the program to reside.

   For example, if you want to install the diskettes from diskette drive A to your C drive, you would insert the first installation diskette into the diskette drive A and type the following at the C:\>> prompt:

   A: EINSTALL A C

   Note: The first file on each diskette must be EINSTALL.BAT.
General Information

Keys Frequently Used

It is important to know several keys on your keyboard that are used frequently. They are listed and defined on the next page. Become familiar with these keys before you begin.

<table>
<thead>
<tr>
<th>KEY</th>
<th>USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENTER</td>
<td>This key is pressed to move to a new field.</td>
</tr>
<tr>
<td>UP ARROW DOWN</td>
<td>The arrow keys are used to move the cursor to a new location without altering anything currently displaying on the screen. On the menu screens, they are used to move the cursor to the menu item you want to access.</td>
</tr>
<tr>
<td>ARROW</td>
<td>The function keys F1 - F12 are used frequently to move you from screen to screen within the system. They are located across the top of the keyboard or on the left-hand keypad. Current screens always indicate which function keys to use, if available.</td>
</tr>
<tr>
<td>F9</td>
<td>When a screen is divided into two or more sections, you may press F9 to move to the next section of the screen.</td>
</tr>
<tr>
<td>F10</td>
<td>When the screen is divided into two or more sections, F10 will return you to the previous section.</td>
</tr>
<tr>
<td>ESC</td>
<td>By pressing the escape key ESC, you can back out of the option you have entered.</td>
</tr>
<tr>
<td>BACKSPACE</td>
<td>This key is used to backup and correct any typing errors while entering information.</td>
</tr>
<tr>
<td>PAGE DOWN</td>
<td>Completes a screen by moving the cursor to the bottom and allows you to select update, delete, or ignore.</td>
</tr>
<tr>
<td>PAGE UP</td>
<td>Returns the cursor to the top of the screen to allow additional data entry or data changes.</td>
</tr>
<tr>
<td>INS</td>
<td>Press INS to insert information or characters before the character on which the cursor is positioned. When this is done, the cursor will change to a block. Press INS again to cancel the insert mode and return to the replace mode.</td>
</tr>
<tr>
<td>DEL</td>
<td>When DEL is pressed, the character on which the cursor is positioned will be deleted.</td>
</tr>
<tr>
<td>END</td>
<td>Erases an entire field to the right of the cursor, and moves cursor to the next field.</td>
</tr>
<tr>
<td>CTRL + END</td>
<td>When these two keys are pressed simultaneously, the cursor will move to the end of the field it is currently on. Use only for longer text fields, such as names and titles.</td>
</tr>
<tr>
<td>CAPS LOCK</td>
<td>Press this key to ensure that all typed characters are in upper case. This lock may remain on for the duration of a work session.</td>
</tr>
<tr>
<td>CTRL plus BREAK</td>
<td>Pressing one of these key combinations simultaneously at any time will terminate any program execution and return you to a menu. Only use when absolutely necessary, such as when locked into a screen, as it may ruin your data.</td>
</tr>
<tr>
<td>CTRL, ALT, DEL</td>
<td>If you wish to reproduce a screen in hard copy on your printer, press Print Screen or simultaneously press the Shift + Print Screen keys when the screen you want to print is on your display monitor.</td>
</tr>
<tr>
<td>PRINT SCREEN</td>
<td>If you have chosen to print to disk on the Printer Control File screen, this combination takes you to the Report File Utility screen.</td>
</tr>
<tr>
<td>CTRL plus P</td>
<td>Frequently, when an incorrect entry is made, the system will flag the error. When this occurs, you may hear a beep and see an error message number display on the screen. Most errors flagged by the system are a result of an incorrect entry. You should always try to re-enter the information. If an error occurs, look in Appendix A of this manual to determine the problem and possible solution.</td>
</tr>
</tbody>
</table>

Error Messages
Text entries

All text entries in Hardware Programming Manager allow the user to single space between words, names, etc. However, double spacing is not allowed and will cause the text field to be truncated at the point of the double space in the parameter files.

Initial Password Entry

The Hardware Programming Manager contains a set of system passwords in the System Control File (CNTLFILE.DAT). If these passwords are implemented, anyone accessing the system must correctly enter both passwords before entry to the Hardware Programming Manager system is allowed. If either password is entered incorrectly, you will be expelled from the system. If you do not want to use passwords, press ENTER at the enter password fields. To enter passwords, follow the steps on the next page.

1. Click the Hardware Programming Manager icon.

   - If your screen is showing the DOS prompt (C:\), type MAINMENU and press ENTER. Continue with Step 2.

   - If the ES&S System Menu is on your screen, begin with Step 2.

   Note: The options on this menu may vary depending on your configuration.

2. Press F3 or use the UP ARROW or DOWN ARROW to scroll to the third option on the menu, and press ENTER. The ES&S Release and Copyright screen like the one shown below will display.

![Image of ELECTION SYSTEMS & SOFTWARE Hardware Programming Manager Release 3.53 Revision 06-08-81]

Copyright (c) 1987

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3. At the copyright screen, press F3 and the field **Enter first new password** will display.

   **Note:** Each password may consist of 1-8 characters. Two different persons may be responsible for entering one password each (e.g., one person from each political party).

4. Enter the first password and press ENTER. Then the **Enter second new password** field will display. Enter the second password or press ENTER if using only one password. The main menu will then display. From that time on, both passwords must be entered in order to use the Hardware Programming Manager system.

   **Note:** A command is available to clear the passwords so that they can be changed. However, this command is not published for security reasons. Call ES&S support for more information.

**Accessing the Hardware Programming Manager System**

To begin entering your data into the system, turn on the monitor and the system unit. After the equipment has warmed up, either a blank screen with the cursor at the prompt or the ES&S System Main Menu will display on your screen. To access Hardware Programming Manager, follow the steps below.

1. Click the Hardware Programming Manager icon:

   The ES&S Release and Copyright screen like the one shown below will display.

```
ELECTION SYSTEMS & SOFTWARE
HARDWARE PROGRAMMING MANAGER RELEASE 3.53 REVISION 06-08-01

Copyright (c) 1987

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Press any key to continue...
```
2. Press any key. If passwords are not being utilized, go to Step 4. If passwords are being utilized, continue with Step 3.

3. The **Enter first password** field will display. Enter the first password. If it is entered correctly, the **Enter second password** field will display. Enter the second password, or press ENTER if using only one password.

4. The Election Management Menu illustrated below will display. You may now use the system by selecting one of the options or you may exit the system by typing 99 at the prompt in the **Selection** field.

```
HPM (3.59 06-09-81)  State of Rhode Island
ME001                 Election Management Menu  06-12-81
                      10:23 am

Selection: 0

{ 01 } .......... Creation and Definition
{ 03 } .......... Districts and Precincts
{ 05 } .......... Contests and Candidates
{ 07 } .......... Ballot Styles
{ 09 } .......... Final Preparations
{ 11 } .......... Utilities and Miscellaneous

{ 16 } .......... Select an Election to Work On
{ 99 } .......... Exit from the Menu
```

Read the Instructions area at the bottom of each screen as you enter information.

**Exiting the System**

1. To exit the Hardware Programming Manager system, press ENTER until you reach the Election Management Menu.

2. Type 99 to exit to the System Main Menu.
Report File Utility

A hot key (CTRL + P) is available to view all Hardware Programming Manager reports on screen. In addition, there are options for text searching, page selection, displaying by screen, screen printing and copying to a new file name. In order to access any reports in this utility, you MUST choose to print to DISK on the Printer Control File screen or in the Printer Control File window on the report screen. Those reports printed to DISK are then available for viewing in the Report File Utility.

While in any Hardware Programming Manager menu function, press CTRL + P. The screen will look similar to the one shown below.

<table>
<thead>
<tr>
<th>Line</th>
<th>Report</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EL10  Rotation Listing</td>
<td>3-28-95</td>
<td>11:30 AM</td>
</tr>
<tr>
<td>2</td>
<td>EL11  Precinct Listing</td>
<td>9-16-95</td>
<td>9:09 AM</td>
</tr>
<tr>
<td>3</td>
<td>EL12-01 Precinct Listing</td>
<td>12-30-97</td>
<td>10:27 AM</td>
</tr>
<tr>
<td>4</td>
<td>EL12-02B Precinct Listing</td>
<td>12-30-97</td>
<td>12:50 PM</td>
</tr>
<tr>
<td>5</td>
<td>EL12-03B Precinct Listing</td>
<td>12-30-97</td>
<td>12:50 PM</td>
</tr>
<tr>
<td>6</td>
<td>EL12-1 Precinct Listing</td>
<td>3-27-95</td>
<td>10:34 AM</td>
</tr>
<tr>
<td>7</td>
<td>EL12  Contest Listing</td>
<td>1-28-00</td>
<td>9:51 AM</td>
</tr>
<tr>
<td>8</td>
<td>EL12E Extended Contest Listing</td>
<td>3-27-95</td>
<td>10:35 AM</td>
</tr>
<tr>
<td>9</td>
<td>EL16  Precinct Ballot Style Listing</td>
<td>3-16-95</td>
<td>12:45 PM</td>
</tr>
<tr>
<td>10</td>
<td>EL18A Poll Ballot Style Listing</td>
<td>12-02-98</td>
<td>2:12 PM</td>
</tr>
<tr>
<td>11</td>
<td>EL20  Ballot Style Listing</td>
<td>3-16-95</td>
<td>12:41 PM</td>
</tr>
<tr>
<td>12</td>
<td>EL20A Ballot Detail Listing</td>
<td>3-16-95</td>
<td>12:44 PM</td>
</tr>
<tr>
<td>13</td>
<td>EL27  District Identifier Listing</td>
<td>5-23-95</td>
<td>11:02 AM</td>
</tr>
<tr>
<td>14</td>
<td>EL30  AERO Precinct Report</td>
<td>4-26-94</td>
<td>11:51 AM</td>
</tr>
<tr>
<td>15</td>
<td>EL30P Precinct Report</td>
<td>2-24-98</td>
<td>8:38 AM</td>
</tr>
</tbody>
</table>

Line number? 1  F9=Next page

Esc=Exit  F1=Display  F2=Print  F3=Delete  F4=Copy

All reports that have been printed to DISK are listed on this screen. Select a report by highlighting it using the DOWN ARROW or UP ARROW keys or by entering its line number in the Line number field.
Use the following keys to select options in the Report File Utility:

Esc  To exit back to the menu.
F1   To display the selected report.
F2   To print the selected report. Then enter the printer (e.g., LPT1, COM3, etc.).
F3   To delete the selected report from the list.
F4   To copy this report to a different name. Then enter the new file name. This feature lets you save the report to a new name so that the original file won't be lost when you create the report again.
F9   To advance to the next page of the report list.
F10  To return to the previous page of the report list.

If you want to look at a report, enter the line number of that report and press F1 to display it, your screen will look similar to the one shown below.

<table>
<thead>
<tr>
<th>Contest No: 0006</th>
<th>Title: U.S. Senator</th>
<th>Party:</th>
<th>Selection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Style: 001 (Home)</td>
<td>Style: 002</td>
<td>Style: 003</td>
<td></td>
</tr>
<tr>
<td>1 1 Everett Dirksen</td>
<td>1 1 Billy Smith</td>
<td>1 1 John Hancock</td>
<td></td>
</tr>
<tr>
<td>1 2 Dolly Madison</td>
<td>1 2 Everett Dirksen</td>
<td>1 2 Billy Smith</td>
<td></td>
</tr>
<tr>
<td>1 3 John Hancock</td>
<td>1 3 Dolly Madison</td>
<td>1 3 Everett Dirksen</td>
<td></td>
</tr>
<tr>
<td>1 4 Billy Smith</td>
<td>1 4 John Hancock</td>
<td>1 4 Dolly Madison</td>
<td></td>
</tr>
<tr>
<td>1 5 White-in</td>
<td>1 5 White-in</td>
<td>1 5 White-in</td>
<td></td>
</tr>
</tbody>
</table>

Precincts: 1

Esc=Exit report
End=End Home=Beginning Ctrl+=Right
F9=Next screen
F4=Find text
F5=Find page
Use the following keys to select options in the Rotation Listing screen:

- **Esc**: To exit the report.
- **End**: Advance to the end of the report.
- **Home**: Return to the beginning of the report.
- **CTRL + RIGHT ARROW**: Move to the right.
- **CTRL + LEFT ARROW**: Move to the left.
- **F4**: Find text. Enter the text you want to search for. Press Enter or F4 again if you do not fill the entire field.
- **F6**: Find the same text again.
- **F5**: Find page. Enter the page number you want to advance to. Press Enter or F5 again if you do not fill the entire field.
- **F9**: To advance to the next screen (20 lines) of the report.
- **F10**: To return to the previous screen (20 lines) of the report.
- **PAGE UP**: To return to the previous page of the report.
- **PAGE DOWN**: To advance to the next page of the report.
Chapter 3: The Worksheet

Function of the Worksheet

The purpose of the worksheet that accompanies this manual is to assist you in gathering all the election information that you will need to code your election. Before you actually begin entering the election information into the Hardware Programming Manager system screens, you should fill in your worksheet with the election information needed for the election. This makes the election coding process easier and faster because all your information will be ready.

Make copies of this worksheet and save it as a reference for future new elections.

The worksheet is divided into three sections and each section has areas that continue the numbering sequence of the entire worksheet. These areas are to be filled in with election information for the election you are going to code. The three sections are separated in this manual and are explained below.

Section A is the Creation and Definition section. It consists of areas 1 through 18 and is the first two pages of the worksheet.

Section B is the District and Precinct section. It consists of areas 19 through 25, and is the third page of the worksheet.

Section C is the Contest and Candidate section. It consists of areas 27 through 44, and is the last page of the worksheet.

Section A - Creation & Definition

The first section of the worksheet is Section A, Creation and Definition. This section defines your jurisdiction, specific election information and political parties. This section corresponds with the creation and definition module of Hardware Programming Manager.

The sample illustration of Section A is shown on the following pages. Descriptions of the information you need to enter follows the sample worksheet sections.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Jurisdiction Title:</td>
<td>ANY COUNTY U.S.A.</td>
</tr>
<tr>
<td>2. State Code:</td>
<td>FL</td>
</tr>
<tr>
<td>3. System Type:</td>
<td>P</td>
</tr>
<tr>
<td>4. Equipment Type:</td>
<td>100</td>
</tr>
<tr>
<td>5A. Vote For Selection:</td>
<td>M</td>
</tr>
<tr>
<td>5B. Vote For Sequence:</td>
<td>A</td>
</tr>
<tr>
<td>5C. Vote For Test:</td>
<td>Vote for No More Than</td>
</tr>
<tr>
<td>6A. District Codes:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COM</td>
</tr>
<tr>
<td></td>
<td>CNG</td>
</tr>
<tr>
<td></td>
<td>TWP</td>
</tr>
<tr>
<td>6B. District Titles:</td>
<td>COMMISSIONER</td>
</tr>
<tr>
<td></td>
<td>CONGRESSIONAL</td>
</tr>
<tr>
<td></td>
<td>TOWNSHIP</td>
</tr>
<tr>
<td>11. Rotation?:</td>
<td>N</td>
</tr>
<tr>
<td>12. Absentee Precinct Number:</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>DEM</td>
<td>1</td>
</tr>
<tr>
<td>REP</td>
<td>2</td>
</tr>
<tr>
<td>NOP</td>
<td>3</td>
</tr>
</tbody>
</table>

17. Text Lines at Top:

- GENERAL ELECTION
- ANY COUNTY U.S.A.
- NOVEMBER 7, 2000

18. Text Lines at Bottom:

- WE THE UNDERSIGNED
- SWEAR THAT THE ABOVE
- STATEMENT OF VOTES
- IS A TRUE AND ACCURATE
- STATEMENT OF VOTES
- CAST IN THIS PRECINCT
(1) **Jurisdiction Title**

The name of the jurisdiction that is responsible for running elections. Examples are:

- Oklahoma County, Oklahoma
- City of Dearborn, Michigan

(2) **State Code**

The two-character code that denotes your state or province. A list of valid codes can be found in Appendix B at the back of this manual.

(3) **System Type**

Code denoting central count or precinct count. When using Hardware Programming Manager with the Model 100 only, this code will be P. If using both the Model 100 and the 550, the code may be either P or B.

(4) **Equipment Type**

Code denoting the type of equipment you are using to count votes. This code will always be 100 when using the Model 100.

(5A) **Vote for Selection**

Code describing where you want the Vote for information to appear on the ballot. The options are:

- A - for all contests
- E - for all except question
- M - for multiple vote contests only (default)

In order to use the E option, the Need special Types field on the Election specifications Master must be set to Y, and the special types field on the Contest and Candidate screen must be set to Q for any question, referenda or other contest that you don't want any Vote for text printed for. The Vote for text will then be created according to your specifications when you create the final database and will print on the reports.

(5B) **Vote for Sequence**

Code describing where you want the number of votes allowed to print in relation to the specified Vote for text. The options are:

- A - the number prints after the text (default)
- B - the number prints before the text
(5C) Vote for Text

The user-specific text to use with the number of votes allowed. For example:

- Vote For (default)
- Vote for No More Than
- Elect
- To Be Elected

(6A) District Codes

Codes denoting all types of districts that overlap your jurisdiction. Examples are:

- SEN
- TWP
- ISD

(6B) District Titles

The title describing each district code entered in the above field. Examples are:

- Senate
- Township
- Independent School

(7) Type of Election

Code denoting the type of election you are preparing. Select the one describing your election.

- **GENL** - general election. Defined as containing candidates from all political parties, as well as nonpartisan candidates. May contain straight party voting as well, wherein a vote for the party implies a vote for all party candidates.
- **OPRI** - open primary election. Contests for more than one political party appear on the same ballot, but a voter is limited to voting for only one party. Ballot may also contain nonpartisan races.
- **CPRI** - closed primary election. Only the contests for a given party appear on a ballot. All ballots may contain nonpartisan races. The voter either is registered to a specific party before the election or declares party affiliation upon obtaining a ballot.
- **PICK** - pick-a-party election. A list of political parties appears on the ballot, followed by contests for each of those parties. A voter is limited to voting for only one party. Ballot may also contain nonpartisan races.
- **SPEC** - special election. A nonpartisan election.
(8) **Ballot Columns**

The width of the ballot used. For example:

- 1 column wide = 1
- 2 columns wide = 2
- 3 columns wide = 3

(9) **Special contest types?**

Enter **N** for no, if no special contest types are required. Enter **Y** for yes, if your state law requires you to use one of the special contest types below:

- **Recall** - Used in some western states to tie two races together for removing an official from office by popular vote.
- **Exact vote for** - In a contest where the votes allowed is more than one, a voter must vote for the exact number allowed or any votes cast for that contest will be invalid.
- **Cross endorsement** - Used in some northeastern states to allow a candidate to appear on the ballot as many times as they have been endorsed by different political parties.
- **Questions** - Used for contests that are referenda questions.
- **Group** - Used in Massachusetts to cast a single vote for a group of candidates. (different from straight party voting)
- **Proportional** - used only in “multiple vote for” contests to allow votes to be distributed proportionally if fewer votes are cast than the number allowed. For example, if 3 votes are allowed and the voter votes for only 2 candidates, each candidate receives 1.5 votes. (May be used with 550 only.)
- **S** = usually used for absentee ballot statistics. Contest title and candidate names are user selectable. There must be a target on the ballot for each statistic coded this way. These contests are counted in the normal manner. However, if all contests on a ballot are left unvoted and this one has been punched, it will still be considered a blank ballot.

(10) **Over/Undervote Reporting?**

Enter **Y** for yes if you want overvotes and undervotes counted. Undervotes are counted one per allowed vote minus the actual number of votes. Overvotes are counted in the following manner: if four votes are cast and only three votes are allowed, three votes are added to the overvote count. If your state requires different overvote or undervote calculations than described above, call ES&S for advice. If you enter **Y**, the undervote/overvote status can be turned off and on in Election Reporting Manager. If you enter **N**, the status cannot be changed in Election Reporting Manager.
(11) *Rotation?*

Enter Y if you need to rotate candidates within a contest in this election. As a default, Hardware Programming Manager rotates candidates by precinct within a given district. All available types of rotation are detailed in Appendix C. Other rotations may be available for your jurisdiction. Call ES&S to inquire.

(12) *Absentee Precinct Number*

Enter the number or range of numbers designating your absentee precincts if you count all of your absentee ballots as separate precincts. Leave this field blank if you count your absentee ballots in with your regular ballots.

(13) *3 Party Code*

Three-character code denoting a political party. Examples are:

- DEM
- REP
- IND
- NOP

(14) *Device code*

One-character code denoting a political party. This is used to link a contest or candidate to a specific party. Examples are:

- 1 = Democratic
- 2 = Republican
- 3 = Independent
- 0 = Nonpartisan

**Note:** SPACE and Zero (0) are always used to designate Nonpartisan. The device code MUST be numeric in a primary election and can always be numeric to avoid confusion.

(15) *Party Description*

Enter the text describing the political party. Examples are:

- Democratic Party
- Republican Party
- Independent Party
- Nonpartisan
(16) Registered Voters

Enter Y for yes if you will enter registered voters into your precinct file by party, N for no registered voters, or leave blank.

(17) Text Lines at Top

Lines of text describing your election that will print at the top of your reports. Nine lines are available for heading. Example:

GENERAL ELECTION
NOVEMBER 8, 2000
David Johnson, County Clerk

(18) Text Lines at Bottom

Lines of text for certification information that will print at the bottom of your Election Reporting Manager reports. There are 60 lines available for the certification message.

Section B - Districts & Precincts

The second section of the worksheet is Section B. This section defines the precincts and districts in your jurisdiction. This section corresponds with the precinct and district module of Hardware Programming Manager.

For every precinct in the election, use a separate page for Section B.

For every split precinct in the election, use a separate page for Section B.

Include any absentee precinct(s) with the proper precinct.

The sample illustration of Section B is shown on the following page. A description of the election information you need to enter follows the sample.
# Hardware Programming Manager Worksheet (Section B – Districts and Precincts)

**Election:** 3PMNSTC1

<table>
<thead>
<tr>
<th>19A. Precinct Number: 0101</th>
<th>19B. Precinct Name: PRECINCT 101</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>20. Absentee:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>21. Total Voters: 12345</th>
</tr>
</thead>
</table>

|------------|--------|--------|--------|

<table>
<thead>
<tr>
<th>23. Districts:</th>
<th>24. Registered Voters:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNG 0001</td>
<td>12345</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TWP 11B</th>
<th>2309</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>25. District Identifier Number: 0006</th>
</tr>
</thead>
</table>

---

**Work Sheet - Page 3**

**(19A) Precinct Number**

Use up to a four-digit unique number to designate a precinct. If you have split precincts, more than one page of Section B may have the same split precinct number on it.

**(19B) Precinct Name**

Text description of the precinct.

**(20) Absentee**

Enter A if this is an absentee precinct. This precinct will not be included in the number of precincts counted on the 550. If you wish your absentee precinct to be included in that line, leave this area blank.
(21) **Total Voters**

The total number of registered voters in this precinct. If you have split precincts, this number may be the same on more than one Section B page.

(22) **Voters by Party**

The total number of voters in this precinct registered to a specific party. This party must be defined on Worksheet Section A in area 13 and is valid only in a primary.

(23) **Districts**

Enter all three-character district codes and four-character district numbers in which this precinct lies. Examples are:

- SEN 24
- TWP 11B
- ISD 1

If your jurisdiction contains split precincts, a specific district number cannot appear twice on any given page of Section B. For example: SEN 24 and SEN 25 cannot appear on the same worksheet page. Use two pages of Section B.

(24) **Registered Voters**

Enter the number of registered voters in each defined district if you wish to enter this information in to your district file later.

(25) **District Identifier Number**

A district identifier number is a sequential number assigned to a combination of precincts that appear either entirely or partially in the same group of districts. After you have completed the above portion of Section B, sort your precinct pages into separate stacks for each group of district code/district combinations. For example:

- If precinct 1 is in SEN 24, TWP 11B, ISD 1, place it in stack 1.
- If precinct 2 is in SEN 24, TWP 11B, ISD 2, place it in stack 2.
- If precinct 3 is in SEN 24, TWP 11B, ISD 1, place it in stack 1.
- If another split of precinct 3 is in SEN 24, TWP 11B, ISD 2, place it in stack 2.

Continue this for all of your precincts and split precincts. After you have assigned all precincts and split precincts to a stack, write “1” in the district identifier number area on all the sheets in your first stack, and write “2” in the district identifier area on all the sheets in your second stack. Continue numbering all your stacks of precinct and split precinct pages, 1, 2, 3, 4, etc.
Section C - Contests & Candidates

The third section of the worksheet is Section C. This section defines the contests and candidates in your jurisdiction. This section corresponds with the contests and candidates module of Hardware Programming Manager. Use a separate page of Section C for each contest (office with candidates, referenda, straight party, ballot counter). If a contest has more than twenty candidates running, continue to a second or subsequent Section C page when needed.

The sample illustration of Section C is shown on the following page. Descriptions of the election information you need to enter follow the sample.
(27) Contest Type

There are several types of contests that are available for use in Hardware Programming Manager. Select the type below that describes the contest you are entering on your current worksheet and enter the corresponding code in the contest type area on the worksheet.

- **B** Ballot Counter Contest
  This contest type generates statistical information pertaining to the precincts counted, the registered voters and the ballots cast.

  If you are using any or all of these statistics for your entire jurisdiction, they must all appear before any other contest.

  If you are using more than one, they must appear in this sequence:

  1. Precincts counted
  2. Registered voters

  If these are set up, Ballots Cast/Registered Voters Total must precede Ballots Cast/Registered Voters by Party; and the party order must match the party order in Hardware Programming Manager in order for the percentage to be correct.

  Ballots cast can be repeated for a specific district. Ballots cast and registered voters can be repeated for a specific party. There is one associated total generated on the Election Reporting Manager reports for each ballot counter you define. Precincts counted is valid only in a central count environment.

- **R** Regular Contest
  This contest type includes offices with candidates, referenda, and straight party. These contests make up the bulk of your Section C worksheets. As a rule, these contests must be entered in the same sequence as they appear on the ballot (by beginning ballot position within each contest). There is one associated total generated for each ballot position you enter.

(28) Contest number

Must be entered for all contests.

Using a sequential number for each contest determines the sequence in which these contests appear on your reports. Use the same sequence in which the contests appear on the ballots. You may wait until all contest information is entered on the worksheets, then arrange the worksheets in the order you want the contests to appear on the printout, then enter sequential numbers on the worksheets.
(29) **Model Contest**

This option may be utilized for any contests.

If used, enter the number of a previously entered contest that is very similar to the one you are currently entering. This saves entry keystrokes in Hardware Programming Manager by copying the previous model contest.

(30) **Party Code**

Can be entered for any contests in a primary election.

In a primary election, enter the previously defined one-character party code of the political party that is holding the contest. A zero (0) or space designates a contest as nonpartisan.

(31) **Contest Title**

Must be entered for type R contests.

Enter the title describing the contest you are entering. Enter the title the way you want it to appear on your Election Reporting Manager reports. Two lines are supplied for this title in type R contests and one line is supplied in type B contests.

(31) **AS100 Title**

If you press ENTER at this field, the contest title will display. If you want the Model 100 title that prints on the tape to be the same as the contest title entered above, you won’t have to type it again. If you want this title to be different, you can change it.

(33) **Votes Allowed**

Enter for type R contests only.

Enter the number of votes allowed in the contest you are entering.

(34) **Number Candidates**

Enter for type R contests only.

Enter the number of candidates running in the contest you are currently entering. In a referenda, the number would be two (one for “yes” and one for “no”). In straight party voting, add one candidate for each party.
(35) District

Can be entered for all contest types. Enter the previously defined district code and district number (if any) that applies to the contest you are entering. For jurisdiction-wide contests, leave this area blank.

(36) Special contest type

Enter for R type contests only. If needed, enter the code for the special contest type you wish to associate with the contest you are entering.

- C = recall - used in some western states to tie two contests together for the purpose of removing an official from office by popular vote.

- D = recall - The office immediately following is to be processed if this Recall office is marked in either the YES position or the NO position (but not in both).

- X = exact vote for - in an office where the votes allowed is more than one, a voter must vote for the exact number allowed or any votes they cast for that office will be invalid.

- E = cross endorsement - used in some northeastern states to allow a candidate to appear on the ballot as many times as they have been endorsed by different political parties.

- Q = questions - used if there are any referenda on the ballot.

- S = usually used for absentee ballot statistics. Contest title and candidate names are user selectable. There must be a target on the ballot for each statistic coded this way. These contests are counted in the normal manner. However, if all contests on a ballot are left unvoted and this one has been punched, it will still be considered a blank ballot.

- P = used only in “multiple vote for” contests to allow proportional votes (e.g., if there are 3 votes allowed and the voter votes for only 2 candidates, each candidate receives 1.5 votes).

(37) Rotate?

Enter for type R contests only. Enter Y for yes if you wish to rotate the candidates in the contest you are currently entering.
(38) **Straight Party?**

Enter for type R contests only. Enter Y for yes if the contest you are currently entering is a straight party contest.

(39) **Affected by #**

Enter for type R contests only. Enter the previously defined number of the straight party contest, which, if voted, affects the votes in the contest you are currently entering.

(40) **Column**

Enter for type R contests only. Enter the column on the ballot in which this contest appears.

(41) **Ballot Position**

Enter for type R contests only.

Enter the number (up to three digits) representing the home (non-rotated) position assigned to this candidate on the ballot. A ballot position must be assigned for each candidate that is entered. Candidate positions can be numbered consecutively beginning with 1 in each contest.

(42) **Party**

Enter for type R and B contests in a general election.

In a general election, enter the previously defined one-character party code of the political party that is endorsing this candidate. A 0 (zero) or [Space] designates nonpartisan.
(43) Candidate Name

Enter for type R contests only.

Enter one of the following:

Candidate name

- W/I for write-in
- N/C for no candidate filed (with target but no tabulation)
- N/G for non-grouped candidates in a group voting race
- N/N for no candidate filed (no target)
- I/C for inactive clock (with target)

User-defined AERO-ONLY code (no target)

Note: Enter N/C for no candidate filed. N/C may be used to complete a contest if needed, but may never be used as the only candidate in a contest.

- I/C (inactive clock) is used if a clock is printed on the ballot and is to be ignored. I/C must be included in a previous or following contest (may never be the only candidate position in a contest).
- Enter YES, NO, FOR, AGAINST, or other terminology dictated by your jurisdiction for questions or referenda.
- Enter Democratic Vote, Republican Vote, etc., for straight party contest.
- A candidate name must be entered for each ballot position assigned.
Chapter 4: The Utilities and Miscellaneous Menu

The Utilities and Miscellaneous menu provides functions for listing the System Log, changing the Printer Control File, changing the Hardware Programming Manager Control File, and backing up, restoring, deleting and formatting.

To reach the Utilities and Miscellaneous menu, type 11 in the Selection field on the Main menu. The screen will look similar to the one shown below.

```
HPM (3.59 06-08-01)  State of Rhode Island
Utilities and Miscellaneous Menu   06-13-01
GENR198F
Selection: A
( 01 ) ........... List - System Log
( 05 ) ........... Change Printer Control File
( 07 ) ........... Change H.P.M. Control File
( 09 ) ........... Backup, Restore, Delete, Format
( 13 ) ........... Create/Import H.P.M. Interface File
( 16 ) ........... Listings Printed to Disk Utility
Enter ........... Exit from the Menu
```

Note: Option (11) is available only if you have entered Y in the Using Voter Reg field on the Hardware Programming Manager Control File screen and are using THE ES&S Voter Registration software.

REMEMBER: To view the Hardware Programming Manager and Reporting Manager reports printed to disk, press CTRL + P at any menu screen.

List System Log

The System Log List is now available with or without selection and by record type (contest, rotation, ballot style, district, district identifier, precinct, miscellaneous, final preparations) or by all record types.
To reach the List System Log screen type 01 at the Utilities and Miscellaneous menu. The screen will look like the one shown below.

Note: *Merge Election* on the Creation and Definition menu updates the system log indicating the information copied and the election from which it was copied. The system log also includes a code indicating whether any precincts were added to or deleted from a ballot style.

1. Select one of the following:

   - 01 to list the entire log
   - 02 to list the log by type
   - 03 to list the entire log with selection
   - 04 to list the log by type with selection.

If you selected 01 or 02 and did not enter Y or P in the Display choices by program field on the Printer Control File screen, the report will now print.
If you selected 01 or 02 and if you entered Y or P in the **Display choices by program** field on the Printer Control File screen, the screen will look like the one shown below with the settings from the Printer Control File displayed in the bottom window. Go to Step 3.

```
System Log Listing

01 = List the entire log
02 = List the log by type
03 = List entire log with selection
04 = List by type with selection
Enter = Return to menu
Enter selection: 1
```

Device: LPT1 (DISK, LPTn, COMn)  Printer: P1 (In= Laser Fn=Line)
Lines per inch: 6 (0 or 8)  Characters per inch: 10 (10 or 16)
Send Esc sequence=Yes  Fl=Continue with listing  Esc=Exit to menu

If you selected 03 or 04, a screen like the one shown below will display.

```
System Log Listing

Contests:
Notations:
Ballot Styles:
Districts:
District Identifiers:
Precincts:
Miscellaneous:
Final Preparations:
Enter a 'Y' to include on report
```

2. Enter Y in the fields that you want to print on the log list. If you are not at the last field, press the PAGE DOWN key. If you did not enter Y or P in the **Display choices by program** field on the Printer Control File screen, the report will now print.
If you entered Y or P in the Display choices by program field on the Printer Control File screen, the screen will look like the one shown on the next page with the settings from the Printer Control File displayed in the bottom window.

3. Make any necessary changes to the print controls at the bottom of the screen. Then press F1 to print the listing.

Sample log listings are shown on the following page.
08-30 10:33 am  EMPTY ELECTION WAS CREATED
08-30 10:34 am  JURISDICTION RECORD WAS CHANGED
08-30 10:34 am  ELECTION DEFINITION WAS CHANGED
08-30 10:41 am  TITLES/CERTIFICATION WAS CHANGED
08-30 10:42 am  PRECINCTS 1 THRU 4 WERE ADDED
08-30 10:43 am  PRECINCTS WERE CHANGED - NUMBERS: 4, 4
08-30 10:43 am  PRECINCTS 5 THRU 28 WERE ADDED
08-30 10:46 am  PRECINCT LISTING WAS PRINTED TO PRINTER1
08-30 10:55 am  DISTRICT IDENTIFIERS 1 THRU 12 WERE ADDED
08-30 10:57 am  DISTRICT IDENTIFIER LISTING WAS PRINTED TO PRINTER1
08-30 10:58 am  PRECINCTS UPDATED WITH DISTRICTS FROM DISTRICT IDENTIFIER RECORDS
08-30 10:58 am  DISTRICTS WERE CREATED FROM DISTRICT IDENTIFIERS
08-30 11:01 am  CONTESTS WERE ADDED - NUMBERS: 1, 5, 9000
08-30 11:03 am  CONTEST LISTING DETAILED WAS PRINTED TO PRINTER1
08-30 11:05 am  ROTATIONS WERE CREATED
08-30 11:05 am  ROTATION LISTING WAS PRINTED TO PRINTER1
08-30 11:14 am  BALLOT STYLES CREATED
08-30 11:14 am  PRECINCT/BALLOT STYLES CREATED
08-30 11:15 am  PRECINCT/BALLOT STYLE LISTING WAS PRINTED TO PRINTER1
08-30 12:00 pm  FINAL DATABASE WAS CREATED
08-30 12:41 pm  PARAMETERS WERE CREATED FOR PRECINCTS

09-13 04:05 pm  CONTEST LISTING DETAILED WAS PRINTED TO PRINTER1
09-13 04:10 pm  CONTESTS WERE CHANGED - NUMBERS: 9000, 9000
09-13 04:18 pm  TITLES/CERTIFICATION WAS CHANGED
09-13 04:19 pm  TITLES/CERTIFICATION WAS CHANGED
09-13 04:20 pm  FINAL DATABASE WAS CREATED
09-13 04:20 pm  PARAMETERS WERE CREATED FOR PRECINCTS
09-13 04:22 pm  TITLES/CERTIFICATION WAS CHANGED
09-13 04:22 pm  FINAL DATABASE WAS CREATED
09-13 04:23 pm  PARAMETERS WERE CREATED FOR PRECINCTS
09-13 04:30 pm  TITLES/CERTIFICATION WAS CHANGED
09-13 04:31 pm  FINAL DATABASE WAS CREATED
09-13 04:31 pm  PARAMETERS WERE CREATED FOR PRECINCTS

09-14 06:22 am  PRECINCT/BALLOT STYLE LISTING WAS PRINTED TO PRINTER1
09-14 06:23 am  ROTATION LISTING WAS PRINTED TO PRINTER1
09-14 06:29 am  ROTATIONS WERE CHANGED - CONTEST/ROT: 1-1, 1-1, 1-2, 1-2, 1-3, 1-4, 1-5, 1-6, 1-1, 1-1, 1-1, 1-1, 1-2, 1-2, 1-2, 5-8, 1-3, 5-9, 1-4, 5-7, 1-5, 1-5, 5-8, 1-6, 1-6, 5-9, 5-9, 1-1, 1-2, 1-2, 1-3, 1-4, 1-5, 1-6, 5-1, 5-2, 5-3, 5-4, 5-5, 5-6, 5-7, 5-8, 5-9
09-14 06:54 am  BALLOT STYLES CREATED
09-14 06:54 am  PRECINCT/BALLOT STYLES CREATED
09-14 06:55 am  PRECINCT BALLOT STYLES 1 THRU 12 WERE CHANGED
09-14 06:59 am  PRECINCT/BALLOT STYLES CREATED
09-14 06:59 am  PRECINCT/BALLOT STYLE LISTING WAS PRINTED TO PRINTER1
09-14 07:01 am  FINAL DATABASE WAS CREATED
09-14 07:01 am  PARAMETERS WERE CREATED FOR PRECINCTS
09-14 07:11 am  PACK 1 WAS BURNT
09-14 07:15 am  CONTEST LISTING DETAILED WAS PRINTED TO PRINTER1
08-02 10:59 am JURISDICTION RECORD WAS CHANGED
08-07 09:24 am JURISDICTION RECORD WAS CHANGED
08-09 03:49 pm ELECTION DEFINITION WAS CHANGED
08-09 03:50 pm ELECTION DEFINITION WAS CHANGED
08-09 03:50 pm ELECTION DEFINITION WAS CHANGED
08-09 03:51 pm ELECTION DEFINITION WAS CHANGED
08-09 03:51 pm ELECTION DEFINITION WAS CHANGED
08-09 03:51 pm ELECTION DEFINITION WAS CHANGED
08-09 03:52 pm ELECTION DEFINITION WAS CHANGED
08-09 03:52 pm JURISDICTION RECORD WAS CHANGED
08-14 10:25 am JURISDICTION RECORD WAS CHANGED
08-14 10:25 am JURISDICTION RECORD WAS CHANGED
08-17 08:56 am JURISDICTION RECORD WAS CHANGED
08-17 08:56 am JURISDICTION RECORD WAS CHANGED
08-17 08:59 am JURISDICTION RECORD WAS CHANGED
08-17 09:01 am JURISDICTION RECORD WAS CHANGED
08-17 09:03 am JURISDICTION RECORD WAS CHANGED
08-17 09:03 am JURISDICTION RECORD WAS CHANGED
08-17 09:05 am JURISDICTION RECORD WAS CHANGED
08-17 09:07 am ELECTION DEFINITION WAS CHANGED
08-17 09:08 am ELECTION DEFINITION WAS CHANGED
08-17 09:22 am JURISDICTION RECORD WAS CHANGED
08-17 09:22 am JURISDICTION RECORD WAS CHANGED
08-17 09:22 am JURISDICTION RECORD WAS CHANGED
08-17 09:23 am JURISDICTION RECORD WAS CHANGED
08-17 09:25 am JURISDICTION RECORD WAS CHANGED
08-17 09:26 am JURISDICTION RECORD WAS CHANGED
08-17 09:44 am ELECTION DEFINITION WAS CHANGED
08-17 09:47 am ELECTION DEFINITION WAS CHANGED
08-18 09:47 am ELECTION DEFINITION WAS CHANGED
08-18 09:50 am JURISDICTION RECORD WAS CHANGED
08-18 09:51 am JURISDICTION RECORD WAS CHANGED
08-18 01:34 pm ELECTION DEFINITION WAS CHANGED
08-21 09:45 am JURISDICTION RECORD WAS CHANGED
08-21 09:46 am JURISDICTION RECORD WAS CHANGED
08-21 11:49 am JURISDICTION RECORD WAS CHANGED
08-21 11:55 am JURISDICTION RECORD WAS CHANGED
08-22 08:45 am JURISDICTION RECORD WAS CHANGED
08-22 08:50 am JURISDICTION RECORD WAS CHANGED
08-22 08:50 am JURISDICTION RECORD WAS CHANGED
08-22 08:51 am JURISDICTION RECORD WAS CHANGED
08-22 09:12 am ELECTION DEFINITION WAS CHANGED
08-22 09:13 am ELECTION DEFINITION WAS CHANGED
08-22 11:36 am ELECTION DEFINITION WAS CHANGED
08-22 11:37 am ELECTION DEFINITION WAS CHANGED
08-22 11:37 am ELECTION DEFINITION WAS CHANGED
08-22 11:39 am ELECTION DEFINITION WAS CHANGED
08-22 11:39 am ELECTION DEFINITION WAS CHANGED
<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08-02</td>
<td>10:59 am JURISDICTION RECORD WAS CHANGED</td>
</tr>
<tr>
<td>08-07</td>
<td>09:24 am JURISDICTION RECORD WAS CHANGED</td>
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<tr>
<td>08-09</td>
<td>03:49 pm ELECTION DEFINITION WAS CHANGED</td>
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<td>08-09</td>
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<td>09:01 am JURISDICTION RECORD WAS CHANGED</td>
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<td>08-17</td>
<td>09:03 am JURISDICTION RECORD WAS CHANGED</td>
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<td>09:05 am JURISDICTION RECORD WAS CHANGED</td>
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<td>08-17</td>
<td>09:22 am JURISDICTION RECORD WAS CHANGED</td>
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<td>09:26 am JURISDICTION RECORD WAS CHANGED</td>
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<td>08-17</td>
<td>09:44 am ELECTION DEFINITION WAS CHANGED</td>
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<td>09:45 am JURISDICTION RECORD WAS CHANGED</td>
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<td>08-22</td>
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</tr>
</tbody>
</table>
# Changing the Printer Control File

This option lets you control your printers and offers flexibility for printing listings. To choose this option, type 05 in the **Selection** field of the Utilities and Miscellaneous Menu. Your screen will look like the one shown below.

<table>
<thead>
<tr>
<th><strong>Printer Control File</strong></th>
<th><strong>Display choices by program?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current default device:</strong> LPT1</td>
<td><strong>Line printers P1 — P2 — P3</strong></td>
</tr>
<tr>
<td><strong>Current default printer:</strong> P1</td>
<td></td>
</tr>
<tr>
<td><strong>Laser printers L1 — L2 — L3</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Typeface for 10-12 CPI:</strong> C</td>
<td><strong>Esc seq for 6 LPI:</strong> 4</td>
</tr>
<tr>
<td><strong>Typeface for 16 CPI:</strong> C</td>
<td><strong>Esc seq for 0 LPI:</strong> 5</td>
</tr>
<tr>
<td><strong>Send Esc sequences?</strong></td>
<td><strong>Esc seq for 10 CPI:</strong> 6</td>
</tr>
<tr>
<td></td>
<td><strong>Esc seq for 16 CPI:</strong> 7</td>
</tr>
<tr>
<td></td>
<td><strong>Esc seq for reset:</strong> 0</td>
</tr>
<tr>
<td></td>
<td><strong>Send Esc sequences?</strong> Y</td>
</tr>
</tbody>
</table>

**Reset all programs**

<table>
<thead>
<tr>
<th><strong>Laser printer:</strong></th>
<th><strong>Line printer:</strong></th>
<th><strong>Run the reset?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LPI:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CPI:</td>
<td></td>
</tr>
</tbody>
</table>

**Instructions**

- **Current field:** Blank or DISK, LPT1, LPT2, LPT3, COM1, COM2
- **Previous value:** LPT1
- **Press F1 for a help screen**

**Note:** The first time this screen is accessed, the default escape sequences for the TI880 printer are present.

The first section of the screen lets you define the defaults.

1. In the **Current default device** field, type one of the following:
   - **DISK:** Report will go to the current directory on disk.
   - **LPT1 LPT2 LPT3:** Report will print to the parallel port printer.
   - **COM1 COM2:** The report will print to the serial port printer.

   **Note:** Leave this field blank to print to the current directory.

2. In the **Current default printer** field, type one of the following to define the printer being used:
   - **L1, L2, L3 Laser printers**
   - **P1, P2, P3 Line printers.**
3. In the Display Choices by program field, type one of the following:
   - Y To change the device, printer and specifications (LPI/CPI for line printers and orientation and LPP for laser printers). This will cause a window to display at the bottom of each report screen allowing you to change the device, printer and specifications.
   - P To change device and printer only. This will cause a window to display at the bottom of each report screen allowing you to change the device and printer. The device displayed will be the current default device and the printer displayed will be the current default printer.
   - N To keep the printing the same as it was before. The printer control window will not display at the bottom of each report screen. Use this option if you have no need to control the printers.

Note: For a more detailed explanation of this screen, F1 to access the help screen online.

Laser Printers

1. In the Typeface for 10-12 CPI field, type one of the following:
   - C Courier
   - G Gothic
   - N 16.66

2. In the Typeface for 16 CPI field, type one of the following:
   - C Courier
   - G Gothic
   - N Line printer

3. In the Send Esc sequences field, type Y if you are using an HP Laser. Type N if using a laser printer other than an HP so that no escape sequences will be sent to that printer.

Line Printers

1. In the Esc seq for fields, type the escape sequence for each LPI and CPI. Since these vary by model, refer to your printer operations manual for the correct sequence.

2. In the Send Esc sequences field, type Y if the escape sequences were entered specifically for your printer. Type N if they were not entered specifically for your printer. The default Esc sequences are for the TI880 printer.
Reset All Programs

This option allows you to set defaults for all of your print programs. Since the specifications are preloaded, you may want to run this reset at startup. Any time you have sent escape sequences to the printer, you must run the reset when the printing is complete.

1. In the Laser printer field, type L1, L2 or L3.

2. In the Orientation field, type P for portrait or L for landscape.

3. In the Lines per page field, type the number of lines you want to print on each page.

4. In the Line printer field, type P1, P2 or P3.

5. In the LPI field, type 6 to print six lines per inch or 8 to print eight lines per inch.

6. In the CPI field, type 10 for ten characters per inch or 16 for sixteen characters per inch.

7. In the Run the Reset field, type Y to update the fields with the information you have entered on this screen.

Note: You can reset any combination of specifications by filling in only the ones that you want to change.

Changing the Control File

The Hardware Programming Manager Control File Maintenance screen provides several functions that will be used to define general characteristics of your system. Most of this information will remain the same for the life of the system.

The Hardware Programming Manager Control File Maintenance screen allows you to change the colors on the screen and set important parameters for the Hardware Programming Manager.
To reach the Hardware Programming Manager Control File screen, shown below, type 11 at the Main menu; then type 07 (Change Control File) at the Utilities and Miscellaneous menu. The cursor will be positioned at the **Border Color** field.

![Change H.P.M. Control File](image)

**Border Color:** RED
**Entry Color:** BROWN
**Background:** BLACK
**Display Color:** CYAN
**Error Color:** WHITE
**Background:** RED

**State:** RI
**Backup Method:** D
**Pwr Burner type:** 1
**Pack type:** E
**Using SPR:** Y
**Coding Center?**: 
**Reset file flags?**:

**Selection:** R (Enter=Change/Exit  01=Exit/No change)

---

### Changing Screen Colors

The Hardware Programming Manager allows you to change the colors that display on your screen. Some combinations of background and foreground colors may be difficult to read. If you do not like the default colors, you can experiment until you find colors you like that are easy to read. To do this, follow the instructions listed below after accessing the Hardware Programming Manager Control File screen.

1. Scroll to the field you wish to change, and type in the name of the desired color. The available colors are listed in the top right hand corner of the screen.

2. Type in the new color and press ENTER. You may change one or several of the color choices. Scroll through the fields until the cursor is positioned in the **Selection** field of the message area of the screen.

3. Press ENTER to save the change. Press ESC or type 01 to exit without saving the changes.

**Note:** The colors will not change until you exit to the Main menu.
State Abbreviations

The state abbreviation in the Hardware Programming Manager System Control File controls the menu options that are available and the program modules that are executed when special modules exist for a given state. It remains in effect from one election to the next.

The state abbreviation in the Jurisdiction Master controls the internal processing based on known rules and laws for specific states. It remains in effect for the current election only.

Changing Election Control File Parameters

Before defining an election, you need to check the election parameters in the Hardware Programming Manager Control File to be sure that vital information is correct.

To change the election control file, follow the instructions below after accessing the Hardware Programming Manager Control File screen.

1. Scroll to the field requiring change, and type in the appropriate information. The fields are described below.

- **Using ELECTION REPORTING MANAGER**
  - Type P for PC AERO 3.5x or U for Unity Election Reporting Manager.

- **Using Voter Reg.**
  - Type Y if using the ES&S Voter Registration package. If not, type N.

- **Using Ballot Gen**
  - Type Y if you are using BGS software or type N if not.

- **Polling Place Mode**
  - Type Y if you are using Polling Place mode or N if not.

- **Backup Method**
  - If you are using DOS backup, type D. If you are using BACOPY, type B.

- **Prom Burner Type**
  - Type 1 for single pack or 6 for a 6-pack.

- **Pack Type**
  - Type E for EPROM or R for RAM.

- **Using SPR**
  - Type Y if you are using the Smart Pack Reader or B if you are using both SPR and MPR. Leave blank if you are not using either one.

- **Coding Center**
  - Type Y if you are an ES&S coding center. If not, leave blank.
Reset file flags

Type Y to reset the final database parameter and AERO Create flags when changes are made in the Hardware Programming Manager but don't need to carry over into the Election Reporting Manager files. Type N if you have updated something in the Hardware Programming Manager that needs to carry over into your Election Reporting Manager files. Then run the Final Preparations again.

WARNING: If you update something in the Hardware Programming Manager that needs to carry over into your Reporting Manager files, you should not enter Y in the Reset file flags field on the Control File screen. Doing so will reset the final database parameter and Reporting Manager file create flags that are set when changes are made in the Hardware Programming Manager. Run Final Preparations instead. Enter Y in the Reset file flags field on the Control File screen only when you have made a change that does not affect your final database.

2. Press the PAGE DOWN key. Then press ENTER to save the change, or type 01 to exit without saving the changes.

Backup, Restore, Delete and Format

From time to time, you will need to perform special functions that are vital to maintaining your election data. These functions are available on the Backup/Restore/Delete screen and include backing up election data to diskette, restoring an election from diskette, and deleting an election from the disk drive.

Note: If coding takes more than one session, it is very important to backup to diskette after each session.
To reach the Back-up/Restore/Delete screen (illustrated below), type 11 at the Main menu; then type 09 at the Utilities and Miscellaneous screen. The cursor will be positioned at the Enter selection field.

```
PR016     Back-up/Restore/Delete       3P0NSTC1

01 = Back-up to diskette
02 = Restore from diskette
03 = Delete from hard drive
04 = Format diskette
Enter = Return to menu

Enter selection: 0
```

Refer to the following sections for instructions on how to perform the functions listed on the Back-up/Restore/Delete screen.

**Backup to Diskette**

You will need to backup election data to diskette each time an election is initially created, or any time you have made significant changes to an election. This procedure will provide you with a copy of the election on diskette, should anything happen to the data on your hard drive. The election data on the hard drive will remain untouched when the backup is done.

The standard backup method is DOS. However, an alternative method has been added for special cases when the standard DOS method does not work. To use this method, you must type B (BACOPY) in the Backup method field on the Control File screen. In order to use this non-standard backup utility, the diskettes to be used MUST BE BLANK.
To perform the backup procedure, follow the instructions below after accessing the Backup/Restore/Delete screen.

1. Type **01**. The cursor will move to the **Backup from drive** field.

   **WARNING**: If you are using the DOS backup utility, the system will give you the opportunity to format your diskette at backup time. Otherwise, the diskettes to be used MUST BE BLANK. Your backup method is maintained in the Hardware Programming Manager Control File. See Changing the Hardware Programming Manager Control File.

2. In the **Backup from drive** field, enter the letter of the disk drive where the file to be backed up exists (usually C). The cursor will move to the **Backup to drive** field.

3. Enter the letter of the diskette drive onto which you want to backup the file (must be diskette drive A or B). The cursor will move to the **Election ID** field.

4. Enter the ID (name) of the election you are backing up. Press ENTER if you do not fill the entire field. A message will display warning you that all files on the diskette will be erased.

5. Insert a blank formatted diskette. When ready, press any key. The backup process will begin. If multiple diskettes are required, you will be instructed when to insert them.

6. When the process is complete, press any key to return to the Main menu.

   **WARNING**: Only one election can be backed up per diskette, as the backup process erases all previously existing data on the diskette.

### Restore from Diskette

The Restore from Diskette option allows you to restore or copy an election to your hard drive. You may need to do this if the data on the hard drive has been damaged in some way or to create a new election from a previously defined election that you have saved on diskette.

To restore an election from diskette, follow the instructions below after accessing the Backup/Restore/Delete screen.

1. Type **02**. The cursor will move to the **Restore from drive** field.

2. Enter the drive letter where the file exists (must be diskette drive A or B). The cursor will move to the **Restore to drive** field.
3. Enter the letter of the drive to which you want to restore the file. If you are using the standard DOS restore, proceed to Step 4. Otherwise, enter the ID (name) of the election you are restoring. Press ENTER if you do not fill the entire field. Then enter the number of backup diskettes you wish to restore. Press ENTER if you do not fill the entire field.

4. Insert the diskette that contains the election data that you are restoring. When ready, press any key. The restore process will begin. If multiple diskettes are required, you will be instructed when to insert them.

5. When the process is complete, press any key to return to the Main menu.

Delete from Hard Drive

This procedure is used to delete an entire election from your hard drive. You may need to do this to “clean up” your hard drive. The space used by the election you delete will be available for new elections.

**WARNING:** Use this procedure only after you have made a backup copy of the election.

To delete an election, follow the instructions below after accessing the Back-up/Restore/Delete screen.

1. Type 03. The cursor will move to the **Delete from drive** field.

2. Enter the letter of the hard disk drive (C–H) from which the file is to be deleted. The cursor will move to the **Election ID** field.

3. Enter the ID of the election you are deleting. ENTER if you do not fill the entire field. A message will appear on the screen warning you to make sure that the election is backed up. If you need to exit and backup the file, press ESC. You will return to the Main menu. Otherwise, press ENTER.

**Note:** The system will not allow you to delete your current election.

4. When the process has been completed, press any key to return to the Main menu.

**Formatting Diskettes**

The Format Diskette option is used to format, or prepare your diskettes for use. The format process divides the diskette into sectors making it available to write information from or read information to the hard drive.

To format a diskette, follow the instructions below after accessing the Backup/Restore/Delete screen.
1. Type 04. The cursor will move to the **Format on drive** field.

2. Enter the letter of the diskette drive on which you will be formatting. This will be either A or B. The cursor will move to the **Diskette type** field.

3. If you are using 3.5" diskettes, enter H for a high density (1.44Mb) diskette or L for a low density (720Kb) diskette. If you are using 5.25" diskettes, enter H for high density (1.2Mb) diskette or L for low density (360Kb) diskette.

4. Insert a new diskette or one that contains data you no longer need, as the format process deletes all existing data on the diskette. Press ENTER when ready. The formatting process will begin.

5. When the process is complete, a message will appear on the screen asking if you would like to format another. Do one of the following:

   - Type Y and press ENTER. Insert the next diskette you need to format and press ENTER when ready. The process will begin and you will continue to be asked if you would like to format another diskette. When all diskettes have been formatted, type N and press ENTER. You will return to the Main menu.
   - Type N and press ENTER. You will return to the Main menu.

**Transfer to/from Another Drive**

In order to access this option, You must have entered Y in the **Using Voter Reg.** field in the Hardware Programming Manager Control File. This option is to copy VR files that are usable by the Hardware Programming Manager to and from a diskette, a network or a local drive. Use this option only when VR and the Hardware Programming Manager systems are installed on different drives. Type **11** in the **Selection** field of the Utilities and Miscellaneous menu. A screen like the one shown below displays.

<table>
<thead>
<tr>
<th>Program</th>
<th>Transfer VR files to/from other drive</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Transfer VR file from other drive</td>
<td><strong>01</strong> = Transfer VR file from other drive</td>
</tr>
<tr>
<td>02</td>
<td>Transfer VR file to other drive</td>
<td><strong>02</strong> = Transfer VR file to other drive</td>
</tr>
<tr>
<td></td>
<td>Enter = Return to menu</td>
<td><strong>Enter = Return to menu</strong></td>
</tr>
</tbody>
</table>

Enter selection: 0
Do one of the following:

- Type 01 to copy the VR file VR22.DAT from drive A or B or C:\VR through Z:\VR into the \ELECDATA directory on the current drive. Messages will display on the screen to tell you the status of the copy and how to return to the menu.
- Type 02 to transfer the VR file VR23.DAT from the current drive's \ELECDATA directory to drive A or B or C:\VR through Z:\VR. Messages will display on the screen to inform you of the status of the copy and how to return to the menu.

**Importing an IFC File**

This option allows the Hardware Programming Manager to be used with approved non-ES&S software packages for certain functions such as ballot generation. It is bi-directional in that the file can originate in the Hardware Programming Manager and be exported to a third party or the file can originate outside of the Hardware Programming Manager and be imported. This circumvents duplicate the coding of election data in both systems. Interface file format is available upon request from your ES&S Support person.

1. To use this option, you must first copy the IFC file to your Elecdata directory.

2. Type 13 in the **Selection** field on the Utilities and Miscellaneous menu screen. Your screen will look like the one shown below.

```
PE106 Create or Import Interface file 3PHSSTC1

01 = Create the file
02 = Create the file - Include DIPs
03 = Import the file
Enter = Exit back to Menu

Enter selection:0_
```

3. Type 03 to import the file.
4. Type the name of the file if it is not displayed. The screen will look similar to the one below.

```
PE100    Import Interface file    3F1N2SC1

Interface file name: 3F1N2SC1
Enter 'Y' to replace the corresponding data
Replace all data: _
Party data: _
Precinct data: _
Cont/Cand/Not data: _
Ballot Styles: _
DIF data: _

Run the import?: _
```

5. Type Y in all of the fields, and press ENTER.

**Using A Ballot Generation System with Hardware Programming Manager**

Use the steps below to import from a BGS system into Hardware Programming Manager.

1. Create an empty election with the same election name as the .IFC file by selecting option 01 from the Creation and Definition menu. Then make the new election your current election.

2. Import the data from the .IFC file by selecting Import/export (13) and then Import (03) from the Utilities menu. The data will now load into your election file.
3. Set up the Jurisdiction Master, Election Specification, Headings and Certification Messages. You may either merge this information from a past election and then verify and correct it or you may key it directly.

To merge it from a prior election, from the Creation/Definition menu select option (03). Enter the current election name to merge into and enter the disk drive and the election name that is being used to copy from. Enter Y’s in the Jurisdiction Master and Election Spec/Mesgs fields. If a district file is desired for use with ELECTION REPORTING MANAGER reports and the same election has a valid district file, enter Y in the Districts field, N in the Reset column and Y in the entire file column. Enter N in all other fields in the copy column. After the information is entered, a warning message will display indicating that there is already information in the Jurisdiction Master. Press ENTER to accept the new information. Another warning message will appear indicating that there is information in the Party file. Type 01 to bypass and accept the new information.

4. Go to Change - Jurisdiction Master, Option (07). Enter the desired Jurisdiction Title, State Code, Equipment type (100), System Type, Vote for selection, Vote for sequence, Vote for text and the list of District Codes and titles. Enter the revised information.

5. When the Jurisdiction information is completed, go to Change - Election Specifications Master, Option (08). Enter the Type of Election, Type of Ballot (1, 2 or 3 column), Special Contest types? (Y or N), Over/under reporting? (usually Y), Need Rotation (Y or N) and the ballot disposition and other information that is identified.

6. When the Election Specification information is completed, go to Change Headings or Certification Message, Option (11), and enter or revise the election title. Press F9 and enter or revise the certification message if desired.

Verify Precinct Names and Political Party Information

1. If registration totals by party are being used, go to Change Political Party Master, option (9) on the Creation and Definition menu. Select each party for which totals are to be entered and enter Y for using VR.

2. Go to Print Political Party Master, option (10) on the Creation and Definition menu and print the listing. Proof the listing and, if corrections are required, go to Change Political Party Master to make them. Reprint the listing once corrections are made.
Precinct Information

1. Go to List Precincts, option (6) on the Districts and Precincts menu, and print a precinct listing. Proof the listing and verify precinct titles. Note that if your precinct title in the BGS system is longer than 30 positions they will be truncated.

2. If corrections are to be made or if registration totals are to be entered by party, go to Change - Precinct Master, option (1) on the Districts and Precincts menu. Select the desired precincts and make the necessary changes. When entering registration totals by party, the system automatically calculates the total for the precinct.

3. If only registration totals by precinct are being entered, it can be more conveniently done by selecting Change - Registered Voters, option (4) on the Districts and Precincts menu. This selection also permits the use of a text file to import all registered voter totals including those for the political parties. This file must be in the prescribed format and may be created from a Voter Registration system or manually using a DOS editor.

Enter Statistical Contests and Print Only Contest (if applicable)

All statistical contests, Precincts Counted, Registered Voters and Ballots Counted, are normally located at the beginning of the contest listing. To have sufficient contest numbers available for them, 1000 is added to all BGS contest numbers when importing them into Hardware Programming Manager.

All elections should at least contain a Ballots Counted Total. If turnout percentage is desired, then Registered Voters Total is also required. The Precincts Counted total may also be desired. Other optional statistics include Registered Voters and Ballots Counted by Party if the election is a primary, and Registered Voters, Ballots Counted and Precincts Counted by desired districts (e.g. Cong 1, Leg 2, etc.).

1. If statistical contests are going to be imported (merged) from another election, on the Creation/Definition menu go to Merge - Part of Another Election, Option (03), and merge in the statistical contests by contest number range. This could be done at the same time as step 3.A. if the statistical contests are in the same election as the Jurisdiction and Election Specification information.

2. If the statistical contests have not been merged, manually enter them. If a statistical contest is associated with a specific district, use the proper district code and use district specific text in the title instead of the word TOTAL. In a primary, party statistical contests should contain the proper party designations.
Finalize Contest Title Text and Contest Order

1. Print a contest listing by selecting Option (06) on the Contests and Candidates menu. Use option (02) or (03) to print a full listing.

2. Examine the listing for desired sequence of contests and contest title text. Contest titles may appear identically to the way they appear on the ballot. If the same contest name is associated with different districts, the contest name that appears on ELECTION REPORTING MANAGER reports should contain the district name text in addition to the contest title (e.g., TOWNSHIP TREASURER should be SMITH TOWNSHIP TREASURER to distinguish it from other township treasurer contests.) In some instances, abbreviation of certain contest titles might be desired for appearance on reports or display screens.

3. Make any contest title changes that are desired.

4. If the contests on the contest listing are not in the desired order for reports, select Renumber Contests (11) on the Contest and Candidate menu, and renumber them so that they are in the desired order. Omit any referenda instruction contests that may exist to eliminate them from both the contest listing and ballot styles.

5. If changes have been made, print a new contest listing and verify the changes.

Straight Party/Pick-A-Party Identification

If this is a General election that uses a Straight Party contest or a Pick-A-Party type of Open Primary election, the following steps must be followed.

1. Select Change - Straight Party Contests, Option (03) on the Contest and Candidate menu and select (01), File Maintenance. Enter the contest number of the Straight Party or Pick-A-Party contest.

2. If the contest is a Straight Party contest, all contests affected by the Straight Party contest must also be entered. These may either be individually entered by contest number or entered as one or more ranges of contest numbers or as a combination.

3. Press PAGE DOWN and ENTER to save all of the above information
Update Ballot Styles with Statistical and Print Only Contests

All merged or manually entered statistical and print only contests must be inserted in all appropriate ballot styles. Hardware Programming Manager does this by matching the statistical/print only contest district code against the district codes of the contests in each of the ballot styles. Whenever a ballot style is found which contains a matching district, it inserts the statistical/print only contest into the ballot style. All statistical/print only contests that do not contain any district codes will get inserted in all ballot styles. In a primary, party statistical contests will only be inserted in ballot styles that contain contests of the same party as well as the same district.

To run the program, on the Ballot Styles menu select Add - Stats & Print Only to Ballot Styles, Option (12) and select (01). (Note that any statistical or print only contests defined for districts that don't have any contests in the election will not be inserted in any ballot styles. These will have to be handled manually and may result in having to create extra ballot styles if one style is to have different sets of statistics.)

Polling Place Mode Set Up

If this is an election that uses polling place mode, the following steps must be followed.

1. Verify that the Hardware Programming Manager control file has the Polling Place Mode? option set to Y. This will result in additional options to be displayed on the Districts and Precincts menu.

2. Select Change - Polling Place Master, option (4) on the Districts and Precincts menu. Enter a polling place record for each polling place that is being used. It is recommended that the polling place number match the first precinct number in the polling place. This is especially desired if using the SPR system to modem results. Enter the precincts that are associated with each polling place.

3. Note that if polling place records exist, Add - Polling Places - Full Screen, option (5) on the Districts and Precincts menu, can be used for rapidly re-associating precincts with polling places.

4. When all polling place records have been entered and associated with precincts, print a polling place listing by selecting List - Polling Place Master, option (9) on the Districts and Precincts menu. Proof the listing and make any necessary corrections.
Finalize Header Code Definition

1. Select Ballot Style Control, Option (1), on the Ballot Styles menu. Change the security class to N and set the mask positions to the definition used in the BGS system. If a closed primary election place N's in the party positions. If precinct ID is imbedded in the header, place P's in the precinct ID positions (not used if using "Mixed Mode"). Place S's in all other positions. Enter the revised information.

2. When the ballot style control information has been revised, select Create Ballot Styles/Precinct, Option (08) on the Ballot Styles menu and then option (01) and create ballot styles/precinct.

3. Print a ballot style by precinct listing by selecting Print Ballot Styles/Precinct, Option (10), on the Ballot Styles menu and then 01 to print the listing.

Final Preparations

1. Select Create Final Database, Option (01) on the Final Preparations menu and then 01 to create it.

2. Select Create Parameter file, Option (03) on the Final Preparations menu. Select (01) and enter 0001 for the starting precinct and 9999 for the ending precinct to create all precinct parameters. If listings are not desired, enter N for printing the listings.

3. Use Option (01) to create the final database.

4. PCM cards may now be programmed using option (05) on the Final Preparations menu.

5. All steps are now completed. Exit Hardware Programming Manager and test, test, test!

Listings Printed to Disk Utility

This option allows you to view any of the Hardware Programming Manager and Election Reporting Manager reports on screen. In addition, there are options for text searching, page selection, displaying by screen, screen printing and copying to a new file name. You must choose to print to disk on the Printer Control File screen or in the Printer Control File window on the report screen. Those reports printed to disk are then available for viewing in the Report File Utility.
To access this option, enter 16 in the Selection field of the Utilities and Miscellaneous menu. The screen will look similar to the one shown below.

```
<table>
<thead>
<tr>
<th>Line</th>
<th>Report</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>EL10 Notation Listing</td>
<td>3-29-95</td>
<td>11:30 AM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4-28-95</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>EL11 Precinct Listing</td>
<td>9-16-99</td>
<td>9:00 AM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9:39 AM</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>EL12-01</td>
<td>12-30-97</td>
<td>8:27 PM</td>
</tr>
<tr>
<td>4.</td>
<td>EL12-028</td>
<td>12-30-97</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>EL12-032</td>
<td>12-30-97</td>
<td>12:50 PM</td>
</tr>
<tr>
<td>6.</td>
<td>EL12-1</td>
<td>12-30-97</td>
<td>12:50 PM</td>
</tr>
<tr>
<td>7.</td>
<td>EL12 Contest Listing</td>
<td>3-27-95</td>
<td>10:34 AM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-28-90</td>
<td>9:54 AM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-28-90</td>
<td>9:54 AM</td>
</tr>
<tr>
<td>8.</td>
<td>EL12Z Extended Contest Listing</td>
<td>3-27-95</td>
<td>10:34 AM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-91</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>EL10 Precinct Ballot Style Listing</td>
<td>3-16-95</td>
<td>12:49 PM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-16-95</td>
<td>12:49 PM</td>
</tr>
<tr>
<td>10.</td>
<td>EL10m Poll Ballot Style Listing</td>
<td>12-42-96</td>
<td>2:12 PM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-28-90</td>
<td>9:54 AM</td>
</tr>
<tr>
<td>11.</td>
<td>EL12m Ballot Style Listing</td>
<td>12-42-96</td>
<td>2:12 PM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-28-90</td>
<td>9:54 AM</td>
</tr>
<tr>
<td>12.</td>
<td>EL20m Ballot Detail Listing</td>
<td>3-16-95</td>
<td>12:44 PM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-16-95</td>
<td>12:44 PM</td>
</tr>
<tr>
<td>13.</td>
<td>EL27 District Identifier Listing</td>
<td>5-23-95</td>
<td>11:08 AM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5-23-95</td>
<td>11:08 AM</td>
</tr>
<tr>
<td>14.</td>
<td>EL30 APRO Precinct Report</td>
<td>4-29-94</td>
<td>11:51 AM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4-29-94</td>
<td>11:51 AM</td>
</tr>
<tr>
<td>15.</td>
<td>EL30P</td>
<td>2-24-90</td>
<td>8:30 AM</td>
</tr>
</tbody>
</table>
```

All reports that have been printed to disk are listed on this screen. Select a report by highlighting it using the UP ARROW and DOWN ARROW keys or by entering its line number. The keys used on this screen are described below.

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC</td>
<td>To exit back to the menu.</td>
</tr>
<tr>
<td>F1</td>
<td>To display the selected report.</td>
</tr>
<tr>
<td>F2</td>
<td>To print the selected report. Then enter the printer (e.g., LPT1, COM3, etc.).</td>
</tr>
<tr>
<td>F3</td>
<td>To delete the selected report from the list.</td>
</tr>
<tr>
<td>F4</td>
<td>To copy this report to a different name. Then enter the new file name. This feature lets you save the report to a new name so that the original file won't be lost when you create the report again.</td>
</tr>
<tr>
<td>F9</td>
<td>To advance to the next page of the report list.</td>
</tr>
<tr>
<td>F10</td>
<td>To return to the previous page of the report list.</td>
</tr>
</tbody>
</table>
If you press F1 to display the report, your screen will look similar to the one shown below:

<table>
<thead>
<tr>
<th>STYLE:001 (HOME)</th>
<th>STYLE:002</th>
<th>STYLE:003</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1 EVERETT DIRKSEN</td>
<td>1 1 BILLY SMITH</td>
<td>1 1 JOHN HANCOCK</td>
</tr>
<tr>
<td>1 2 DOLLY MADISON</td>
<td>1 2 EVERETT DIRKSEN</td>
<td>1 2 BILLY SMITH</td>
</tr>
<tr>
<td>1 3 JOHN HANCOCK</td>
<td>1 3 DOLLY MADISON</td>
<td>1 3 EVERETT DIRKSEN</td>
</tr>
<tr>
<td>1 4 BILLY SMITH</td>
<td>1 4 JOHN HANCOCK</td>
<td>1 4 DOLLY MADISON</td>
</tr>
<tr>
<td>1 5 WRITE-IN</td>
<td>1 5 WRITE-IN</td>
<td>1 5 WRITE-IN</td>
</tr>
</tbody>
</table>

PRECINCTS: 1

The keys used on this screen are described below:

<table>
<thead>
<tr>
<th>Key</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC</td>
<td>To exit the report.</td>
</tr>
<tr>
<td>END</td>
<td>Advance to the end of the report.</td>
</tr>
<tr>
<td>HOME</td>
<td>Return to the beginning of the report.</td>
</tr>
<tr>
<td>CTRL + RIGHT ARROW</td>
<td>Move to the right.</td>
</tr>
<tr>
<td>CTRL + LEFT ARROW</td>
<td>Move to the left.</td>
</tr>
<tr>
<td>F4</td>
<td>Find text. Enter the text for which you want to search. ENTER or F4 again if you do not fill the entire field.</td>
</tr>
<tr>
<td>F6</td>
<td>Find the same text again.</td>
</tr>
<tr>
<td>F5</td>
<td>Find page. Enter the page number you want to advance to. Press ENTER or F5 again if you do not fill the entire field.</td>
</tr>
<tr>
<td>F9</td>
<td>To advance to the next screen (20 lines) of the report.</td>
</tr>
</tbody>
</table>
Selecting an Election

The Hardware Programming Manager allows you to have several different elections in the system at one time. The current election ID (name) displays in the top right corner of each screen. Use this option when you need to change from the current election to a different election.

Note: Before making changes to an election, be sure the election name displayed on the screen corresponds with the election name you want to be working on.

To select an election to work on, type 16 at the Main menu. The Select an Election to Work On screen, like the one shown below, will display. The directory of election files will be displayed.

Follow the instructions below for selecting an election.

1. View the directory for the ID of the election you want to work on. If needed, press F9 to view the next page of ID's, or press F10 to go back to the previous page.

Note: If you decide not to change to another election, press ESC. You will return to the Main menu.
2. When you have located the correct ID, press F1. A message similar to the one below will display at the bottom of the screen.

![Message: Current election is 6GHEEPP - change to. Enter new election name and press Enter to exit.]

3. Enter the ID of the election you want to change to. Press ENTER if you do not fill the entire field. The cursor will move to the Selection field at the bottom of the screen.

4. Press ENTER to change to the selected election, or type 01 to exit to the Main menu without changing the election.

5. A message will display on the screen indicating that the election is available. Press ENTER to exit to the Main menu.
Chapter 5: The Creation and Definition Menu

The first step in preparing for an election is to create and define it. An empty election file may be created and the election defined independent of any prior election information. An election may be created by copying a previous election, without changing the previous election. In addition, you may merge part of a prior election with part of a newly created election.

If you intend to create an election from an old election or merge part of a prior election, you will need to know contest numbers, precinct numbers, district codes, and district identification numbers before you begin. You can get this information from the previous election listings. It is more efficient to build an election file based on a prior election than to create a new one.

To access the Election Creation and Definition Menu, type 01 in the Selection field of the Election Management Menu and press ENTER. A menu like the one shown below will display with the cursor in the Selection field. All data entered using this option is on Section A of the worksheet.

To view reports printed to disk, press CTRL + P at any menu screen.

Note: Option (15) is available only if you are using ES&S Voter Registration software.
Creating an Empty Election File

Option 01 is used to create an empty election file. Use this option only if there is not an election currently in the system that can be used to aid in developing a new election.

To create an empty election file, type 01 in the Selection field of the Election Creation and Definition Menu. A screen like the one shown below will display with the cursor in the New Election ID field.

```
PE024 Create Empty Election File 3PMMSTC1

New election I.D.:__________________

Instructions

Current field: Unique identification for new election (or PgDn to exit)
Previous value:
```

1. Type in a unique election name (up to eight characters) for the election you are creating, and press ENTER. Make this election name meaningful, so that you can easily identify exactly which election it refers to. This is item 1A on the worksheet. The Instructions area of the screen displays a Selection field.

Note: You cannot use spaces, periods, asterisks, or either slash character embedded within the election ID's eight allowable spaces. However, spaces following are permitted.

Note: You cannot use Option 02 to create a new election from a prior election when using Option 01 to create the election; but you can merge part of another election (Option 03) to merge data from a previous election.
2. Do one of the following:

- Press ENTER to create the election using the unique name appearing in the **New election ID** field. A message displays on the screen indicating that the new file is being created. When the new file is ready, a screen similar to the one below displays. The cursor is now positioned in the **Selection** field. Continue with Step 3.

- Type **01** to exit this function if you decide not to create the election. You will return to the Election Creation and Definition Menu screen.

![Create Empty Election File](image)

3. Do one of the following:

- Type **Y** in the **Selection** field to continue working on the newly created election. A message like the one below will display.

![Election file](image)

- Press ENTER. You will return to the Election Creation and Definition Menu with the newly created election designated as the current election. To merge part of an existing election with this newly created election, proceed to the *Merging Part of Another Election* section. To manually enter election data, proceed to the *Changing Jurisdiction Master* section.

- Press ENTER to return to the Election Creation and Definition Menu without changing the current election. The newly created election file will exist, but you will not be able to access it until you select it as your current election.
Creating a New Election from a Prior Election

Option 02 is used to create a new election by building on election information already in the system. This option is used when the election you are about to create closely resembles a previous election.

It is not necessary to copy all the files in the election you use as this option allows you to select specific contests, districts, precincts, and district identifiers. However, the files listed below will be duplicated automatically. They can be changed later, if necessary, as can all the specifically selected files.

- Jurisdiction file
- Election Specification file
- Political Party file
- Headings or Certification file

To create an election from a prior election, type 02 in the Selection field of the Election Creation and Definition Menu. A screen like the one shown below displays with the cursor in the Create election ID field.

1. Enter a unique identifying name for the election you are creating. Remember that you cannot use spaces, periods, asterisks, or either slash character within the election ID’s eight allowable spaces. This is at the top right of the worksheet. Press ENTER if you do not fill the entire field. The cursor will move to the From drive letter field.

Note: To exit without creating a new election, press ESC. You will return to the Creation and Definition Menu.
2. Type in the letter of the hard drive where the election you are copying from is stored. The cursor moves to the From Election ID field.

3. Type in the name of the election from which you are copying information. Press ENTER if you do not fill the entire field. The cursor moves to the All files field in the copy column. The instruction message reads:

4. Do one of the following:

   - Type Y if you want to create the new election using all Contests, Precincts/Polls, Districts, and District Identifier information from the prior election. The cursor moves to the Reset column. Proceed to Step 5.
   - Type N if you do not want to copy all information from the previous election, but only one or more of the selections listed. The cursor moves to the Contest field in the Copy column. Proceed to Step 6.

5. Type Y to reset or blank out the appropriate fields of the information being copied, or type N if you do not want to reset the fields. The Selection field will display in the Instructions area at the bottom of the screen. Press ENTER to create the new election, or type 01 to exit to the Creation and Definition Menu without creating the new election. After creating the new election, proceed to the Merging Part of Another Election section, or the Changing Jurisdiction Master section. Both sections are discussed later in this chapter.

When Y is entered in the Reset column of each of the files listed, specific information contained in each of the files is reset or blanked out in the new election. The table below illustrates this concept.

<table>
<thead>
<tr>
<th>IF Y IS SELECTED FOR RESET...</th>
<th>INFORMATION RESET OR BLANKED OUT IS...</th>
</tr>
</thead>
<tbody>
<tr>
<td>All files</td>
<td>The combination of the Contests, Precincts, and Districts categories listed below.</td>
</tr>
<tr>
<td>Contests</td>
<td>Number of votes allowed</td>
</tr>
<tr>
<td></td>
<td>Number of candidates</td>
</tr>
<tr>
<td></td>
<td>All candidate ballot positions, groups, party affiliation, names, and device names.</td>
</tr>
<tr>
<td>Precincts/Polls</td>
<td>All precinct names and numbers</td>
</tr>
<tr>
<td></td>
<td>Number of registered voters</td>
</tr>
<tr>
<td></td>
<td>Registration turnout, absentee and key precinct information</td>
</tr>
<tr>
<td>Districts</td>
<td>All ranges of precinct numbers included in each district</td>
</tr>
<tr>
<td></td>
<td>All individual precinct numbers included in each district</td>
</tr>
<tr>
<td>District Identifiers</td>
<td>All precinct names and numbers included in each DIF</td>
</tr>
<tr>
<td></td>
<td>All district codes and numbers included in each DIF</td>
</tr>
</tbody>
</table>
6. Do one of the following:

- Type Y to copy the contest information from the prior election. The cursor moves to the Reset column. Type Y to reset or blank out the appropriate fields in the contest records, or type N if you do not want to reset the contest records. The cursor moves to the Entire File column. Type Y to copy the entire file and the cursor moves to the Precincts/Polls field in the Copy column; proceed now to Step 7. Type N to enter a range of contests and the cursor moves to the From field. To enter a range, type the first contest number you want to copy and press ENTER if you do not fill the entire field. The cursor moves to the Through column. Enter the last contest number you want to copy and press ENTER if you do not fill the entire field. The cursor moves to the Precincts/Polls field in the Copy column. If you are using the Polling Place mode, this will be the Precincts/Polls field.

Note: To enter more than one range of contests, enter the first range here, then use the Merge (03) option for each additional range required.

- Type N if you do not want to copy the contests information. The cursor moves to the Precincts field in the Copy column. If you are using the Polling Place mode, this will be the Precincts/Polls field.

7. Do one of the following:

- Type Y to copy the precinct information from the prior election. The cursor moves to the Reset column. Type Y to reset or blank out the appropriate fields in the precinct records, or type N if you do not want to reset the fields. The cursor moves to the Entire File column. Type Y to copy the entire file (the cursor moves to the Districts field in the Copy column) and proceed to Step 8. Or type N to enter a range of precincts to copy (the cursor moves to the From field). To enter a range of precincts, type the first precinct number you want to copy; press ENTER if you do not fill the entire field; and the cursor moves to the Thru column. Enter the last precinct you want to copy, press ENTER if you do not fill the entire field, and the cursor moves to the Districts field in the Copy column.

Note: If you are using Polling Place mode, the polls will be copied over only if you copy the entire file. If you request a range or reset, only the precincts will be copied.

Note: To enter more than one range of precincts, enter the first range here, then use the Merge (03) option for each additional range required.

- Type N if you do not want to copy the precinct information. The cursor moves to the Districts field in the Copy column.
8. Do one of the following:

- Type Y to copy the district information from the prior election. The cursor will move to the Reset column. Type Y to reset or blank out the appropriate fields in the district records, or type N if you do not want to reset the district records. The cursor will move to the Entire File column. Type Y to copy the entire file (the cursor will move to the Dist Identifiers field in the Copy column) and proceed to Step 9. Or type N to enter a range of districts to copy (the cursor will move to the FROM field). To enter a range of districts, type the first district you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Thru column. Enter the last district you want to copy and press ENTER if you do not fill the entire field. The cursor will move to the District Identifiers field in the Copy column.

Note: To enter more than one range of districts, enter the first range here, then use the Merge (03) option for each additional range required.

- Type N if you do not want to copy the district information. The cursor will move to the Dist Identifiers field in the Copy column.

9. Do one of the following:

- Type Y to copy the district identifier information from the prior election. The cursor will move to the Reset column. Type Y or N to advance the cursor to the Entire File column. Type Y to copy the entire file (the cursor will move to the Selection field in the Instructions area of the screen) and proceed to Step 10. Or type N to enter a range of district identifiers (the cursor will move to the FROM field). To enter a range of district identifiers, type the first district identifier you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Thru column. Enter the last district identifier you want to copy and press ENTER if you do not fill the entire field. The cursor will move to the Selection field in the Instructions area of the screen.

Note: To enter more than one range of district identifiers, enter the first range here, then use the Merge (03) option for each additional range required.

- Type N if you do not want to copy the district identifier information. The cursor will move to the Selection field in the Instructions area of the screen.
10. Do one of the following:
   
   - Type 01 to exit to the Creation and Definition Menu without creating this new election.
   - Press ENTER to create the new election. The message below will display.

   **Update in progress. Please stand by.**

   When the update is complete, a screen similar to the one shown below will display. Proceed to Step 11.

   ![Screen Image]

   **Create New Election From Prior Election**

   - Create election I.D.: [Enter]
   - From drive letter: [Enter]
   - From election I.D.: [Enter]

   Respond "Y" below to the files you wish to duplicate...

   - Copy?
   - Reset?
   - Entire file? (or specify range)

   - All files:
   - Contests:
   - Precincts:
   - Districts:
   - Dist identifiers:

   Instructions
   - Current field: Unique identification for new election (or ESC to exit)
   - Previous value:

11. Do one of the following:

   - Type Y to make this your current election. You will return to the Creation and Definition Menu. To merge part of another election, proceed to the Merging Part of Another Election section, or to change election data, proceed to the Changing Jurisdiction Master section. Both sections are discussed later in this chapter.
   - Press ENTER to return to the Creation and Definition Menu without designating this newly created election as the current election. The election will exist, but cannot be accessed until it is designated as the current election.
# Merging Parts of Another Election

Use option 03 to merge parts of an existing election with another election that has been created using either option 01 or option 02.

When files are selected using this screen, it is not necessary to copy all the files for a given election. You may select specific contests, districts, precincts, and district identifiers. Remember that any files selected may be modified at a later time.

To use this option, type 03 in the Selection field of the Election Creation and Definition Menu. The screen shown below will display, and the cursor will be in the (Copy to) Election ID field.

```
F9015 -- Merge part of another Election -- 39799737C1

(Copy to) election I.D.:  
(Copy from) drive letter:  
Election I.D.:  

Respond "Y" below to the record types you wish to copy  

Copy? Reset? Entire file? (or specify range)  
Jurisdiction Mast:  
Elec Specs/Msgs:  
Parties:  
Contests:  
From:  
Thru:  
Precincts:  
From:  
Thru:  
Districts:  
From:  
Thru:  
Dist Identiﬁers:  
From:  
Thru:  
Rotations:  

Instructions:  
Current field: Unique identiﬁcation for new election (or ESC to exit)  
Previous value: 
```

Note: This program will update the system log indicating the information copied and the election it was copied from.

1. Enter the name of the election you want the new files to be merged with. This is at the top right on your worksheet. Press ENTER if you do not fill the entire field. The cursor will move to the (Copy from) Drive Letter field.

2. Type in the drive letter where the election you are merging files from is stored. The cursor will move to the Election ID field.

3. Enter the name of the election from which you intend to merge the files. Press ENTER if you do not fill the entire field. The cursor will move to the Jurisdiction Mast field in the Copy column.
4. Do one of the following:

- Type Y if you want to copy the Jurisdiction Master files from the election you are merging. The Jurisdiction Master includes all information that is unique to your jurisdiction and will rarely change. The cursor will move to the Elec Specs/Mesgs field in the Copy column. (Jurisdiction Master information cannot be reset).

**Note:** When Y is entered into the Reset column of each of the files listed, specific information contained in most of the files is reset or blanked out in the new election. The table shown on the following page illustrates this concept.

- Type N if you do not want to copy the Jurisdiction Master files. The cursor will move to the Elec Specs/Mesgs field in the Copy column.

The table shown below illustrates what happens when Y is entered into the Reset column of each of the fields.

<table>
<thead>
<tr>
<th>IF Y IS SELECTED FOR RESET...</th>
<th>INFORMATION RESET OR BLANKED OUT IS...</th>
</tr>
</thead>
<tbody>
<tr>
<td>All files</td>
<td>The combination of the Contests, Precincts, and Districts categories listed below.</td>
</tr>
<tr>
<td>Contests</td>
<td>Number of votes allowed</td>
</tr>
<tr>
<td></td>
<td>Number of candidates</td>
</tr>
<tr>
<td></td>
<td>All candidate ballot positions, groups, party affiliation, names, and device names.</td>
</tr>
<tr>
<td>Precincts/Polls</td>
<td>All precinct names and numbers</td>
</tr>
<tr>
<td></td>
<td>Number of registered voters</td>
</tr>
<tr>
<td></td>
<td>Registration turnout, absentee and key precinct information</td>
</tr>
<tr>
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</tr>
<tr>
<td></td>
<td>All individual precinct numbers included in each district</td>
</tr>
<tr>
<td>District Identifiers</td>
<td>All precinct names and numbers included in each DIF</td>
</tr>
<tr>
<td></td>
<td>All district codes and numbers included in each DIF</td>
</tr>
</tbody>
</table>
5. Do one of the following:

- Type Y if you want to copy the Election Specifications information from the election you are merging. The cursor will move to the Parties field in the Copy column. (Elec Specs/Mesgs information cannot be reset).
- Type N if you do not want to copy the Elec Specs/Mesgs information. The cursor will move to the Parties field.

6. Do one of the following:

- Type Y to copy the party information from the election you are merging. The cursor will move to the Contests field in the Copy column.
- Type N if you do not want to copy the party information. The cursor will move to the Contests field in the Copy column.

7. Do one of the following:

- Type Y to copy the contest information from the election you are merging. The cursor will move to the Reset column. Type Y to reset or blank out the appropriate fields in the contest records, or type N if you do not want to reset the contest records. The cursor will move to the Entire File column. Type Y to copy the entire file (the cursor will move to the Precincts field in the Copy column) and proceed to Step 8. Or type N to enter a range of contest numbers to copy (the cursor will move to the From field). To enter a range of contest numbers, type the first contest number you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Thru field. Enter the last contest number you want to copy and press ENTER if you do not fill the entire field. The cursor will move to the Precincts field. If you are using the Polling Place mode, this will be the Precincts/Polls field.

Note: To enter more than one range of contests, enter the first range here, and then use the merge option again for each additional range required. Or you may merge one range which includes all contests needed, and then delete the contests that you do not need.

- Type N if you do not want to copy the contest information. The cursor will move to the Precincts field in the Copy column. If you are using the Polling Place mode, this will be the Precincts/Polls field.
8. Do one of the following:

- Type Y to copy the precinct/poll information from the election you are merging. The cursor will move to the Reset column. Type Y to reset or blank out the appropriate fields in the precinct records, or type N if you do not want to reset the precinct records. The cursor will move to the Entire File column. Type Y to copy the entire file (the cursor will move to the Districts field in the Copy column) and proceed to Step 9. Or type N to enter a range of precincts to copy (the cursor will move to the From field). To enter a range of precincts, type the first precinct number you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Thru field. Enter the last precinct you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Districts field in the Copy column.

Note: To enter more than one range of precincts, enter the first range here, and then use the merge option again for each additional range required; or merge one range which includes all precincts needed, and then delete the precincts that you do not need.

- Type N if you do not want to copy the precinct information. The cursor will move to the Districts field in the Copy column.

Note: If you are using the Polling Place mode, the polls will be copied over only if you copy the entire file. If you request a range or reset, only the precincts will be copied.

9. Do one of the following:

- Type Y to copy the district information from the election you are merging. The cursor will move to the Reset column. Type Y to reset or blank out the appropriate fields in the districts records, or type N if you do not want to reset the district records. The cursor will move to the Entire File column. Type Y to copy the entire file (the cursor will move to the Dist Identifiers field in the Copy column) and proceed to Step 10. Or type N to enter a range of districts to copy (the cursor will move to the From field). To enter a range of districts, type the first district you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Thru field. Enter the last district you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Dist Identifiers field in the Copy column.

Note: To enter more than one range of districts, enter the first range here; then use the merge option again for each additional range required. Or you may merge one range, which includes all districts needed, and then delete the districts that you do not need.
• Type N if you do not want to copy the district information. The cursor will move to the Dist Identifiers field in the Copy column.

10. Do one of the following:

• Type Y to copy the District Identifier information from the election you are merging. The cursor will move to the Reset column. Type Y to reset or blank out the appropriate fields in the district identifier records, or type N if you do not want to reset the district records. The cursor will advance to the Entire File column. Type Y to copy the entire file (the cursor will move to the Rotation field) and proceed to Step 11. Or type N to enter a range of district identifiers to copy (the cursor will move to the From field). To enter a range of district identifiers, type the first district identifier you want to copy, and press ENTER if you do not fill the entire field. The cursor moves to the Thru field. Enter the last district identifier you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Rotations field.

  Note: To enter more than one range of District Identifiers, enter the first range here; then use the merge option again for each additional range required. Or merge one range, which includes all district identifiers needed, and then delete the district identifiers that you do not need.

• Type N if you do not want to copy the district identifier information. The cursor will move to the Rotations field in the copy column.

11. Do one of the following:

• Enter Y to copy the rotations from the election you are merging. The cursor will move to the Entire file column. (Rotations cannot be reset.) Type Y to copy the entire file (the cursor will move to the Selection field at the bottom of the screen; proceed to Step 12), or type N to enter a range of rotations to copy (the cursor will move to the From field). To enter a range of rotations, type the first rotation you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Thru field. Enter the last rotation you want to copy, and press ENTER if you do not fill the entire field. The cursor will move to the Selection field at the bottom of the screen.

• Type N if you do not want to copy the rotation information. The cursor will move to the Selection field at the bottom of the screen.
12. Do one of the following:

- Press ENTER to merge the requested information with the specified election. The message below will display.

  ![Update in Progress Please Stand by]

  When the update is complete, a message indicating that the requested records have been copied will display on the screen. Press ENTER to return to the Creation and Definition Menu. To continue entering election data, proceed to Changing Jurisdiction Master, discussed in the next section.

- Type 01 to exit to the Creation and Definition Menu without merging the two elections.

**Note:** If you have inadvertently tried to merge a precinct, contest, district, or district identifier already resident in the new election files, a message identifying the conflicting item will display in the Instructions area. You may then choose to override (accept) or reject the item to be merged by following the instructions that display in the Instructions area. One of the messages on the next page may display in the Instructions area.

![ELECFILE already contains contest-0002]

![ELECFILE already contains Precinct-0002]

![ELECFILE already contains District-0002]

![ELECFILE already contains Dist_Ident-0002]

Press ENTER to copy the new record on top of the old record or type 01 to ignore that record and continue processing the next record.

Overflow records are copied if contest records are copied and not reset.

**Note:** Merge Election updates the system log indicating the information copied and the election it was copied from.
4. If you are using the Model 100 only, enter P. If you are using the Model 100 and the 550, you can enter B. This is item 4 on your worksheet. The cursor will move to the Vote for selection field.

5. Enter one of the following:

- A if you want all contests to have vote for text.
- E if you want all contests except those designated as questions or special to have vote for text. In order to use the E option in the Vote for selection field, the Need special types field on the Election Specifications Master must be set to Y. In addition, the Special type field on the Contest and Candidate screen needs to be set to S for statistics or Q for any question, referenda or other contest for which you do not want any vote for text to print.
- M if you want only the contests with multiple vote for to have vote for text. (The default is M.) This is item 5A on the worksheet. The cursor moves to the Vote for sequence field.

Note: If the Vote for selection field is M or A, the vote for text specified here will print on multiple vote for or ALL contests on Election Reporting Manager Canvasses. The E (except) option has no effect in Election Reporting Manager.

6. Enter B if you want the number of votes allowed to be printed before the vote for text (e.g., 2 to be elected). Enter A if you want the number of votes allowed to print after the vote for text (e.g., Vote For 2). The default is A. This is item 5B. The cursor then moves to the Vote for text field.

7. Enter the user-specific text to use with the number of votes allowed (e.g., votes allowed, vote for, elect, to be elected, vote for no more than, etc.). The default is VOTE FOR. (The vote for text will then be created according to user specifications in the Create Final Database step.) This is item 5C on the worksheet. The cursor moves to the Code field in the Districts area of the screen.

Note: If you don't want any vote for text to print for a particular question, referendum or other contest, the Special type field on the Contest and Candidate screen must be set to Q.

8. Enter the district code and press ENTER if you do not fill the entire field. You may use up to three characters for this code. Only the codes entered on this screen can be entered in the Districts and Precincts option. This is item 6A on your worksheet. The cursor moves to the Title field.

WARNING: PRC cannot be used as a district code. It has been reserved by the system for local contest definition.

WARNING: Do not use COM as a district code as it conflicts with the DOS command.
Chapter 6: Changing the Jurisdiction Master

A Jurisdiction Master must be created or copied for each election. A jurisdiction title and the state are entered first on this screen. The Jurisdiction title is used by the system as the heading of any reports, which are printed. The State entry is used by the system to identify special state voting regulations. The Equipment Type, System type, and District Code entries are all critical pieces of information.

Users may supply their own vote for text and may specify for which races they want this text to appear in an election.

To use this option, type 07 in the Selection field of the Election Creation and Definition Menu. The screen illustrated below displays. Instructions for entering data follow.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWP</td>
<td>TOWNSHIP</td>
<td>CTY</td>
<td>CITY</td>
</tr>
<tr>
<td>SEN</td>
<td>SENATE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Enter the name of the jurisdiction, and press ENTER if you do not fill the entire field. You may use up to 30 characters. This Jurisdiction Title will now appear on menus and on printed reports. This is item 1B on the worksheet. The cursor moves to the State field.

2. Enter the two-character state or province abbreviation. (Refer to Appendix B for a listing of abbreviations.) This is item 2 on your worksheet. The cursor moves to the Equipment type field.

3. Type 100. This is the only valid choice. This is item 3 on your worksheet. The cursor will move to the System type field.
Note: At this point, you are only entering the district codes and titles, such as SCH for district code and SCHOOL for district title; not specific districts, such as SCH1 for district code and SCHOOL DISTRICT 1 for district title.

Note: District codes should be meaningful so that you can recognize and remember them later. For example, SEN for Senate or MUN for Municipal. Districts will display in this area if your election was copied from a previous election or merged with a previous election. You may verify them at this time.

WARNING: It is not necessary or desirable to delete district codes or to change from one code to another. This information is a master file to be used for verifying subsequent file sections. It is intended to be entered only once, then remain constant from election to election. By changing or deleting district codes at this time, you may lose access to data in later file selections, because the original entry will no longer exist in the Jurisdiction Master. However, if you MUST change or delete valid district codes, this can be achieved using the instructions in the Changing District Codes and Deleting District Codes sections.

9. Enter the district title, and press ENTER if you do not fill the entire field. This is item 6B on your worksheet. You may use up to 15 characters for the title. The cursor moves to the next Code field.

10. Continue entering all codes and titles as instructed earlier. You may enter up to 20 types of districts.

11. Press the PAGE DOWN key when all codes and titles have been entered. The cursor moves to the Selection field in the Instructions area at the bottom of the screen.

12. Press ENTER to update the Jurisdiction Master for the new election. Type 01 to exit without updating the Jurisdiction Master. You now return to the Election Creation and Definition Menu.

Changing District Codes

Occasionally, it will be necessary to change a district code. To change a district code, follow the instructions below carefully.

1. On the Jurisdiction Master, add the district code you wish to change an existing district code to, leaving the existing district code on the screen as it is.
2. In the precinct and district identifier files, change all references to the previous district code to the new district code. (See Districts and Precincts in chapter 6).

3. In the district file, delete the district records using the previous district code, and add new district records using the new district code. (See Districts and Precincts in chapter 6).

4. If you have contests entered for this election that are tied to the district code you are changing, change the district codes on those contests from the previous district codes to the new district code. (See Contests and Candidates in chapter 7).

5. When ALL references to the previous district have been removed or changed, you can then go back to the Jurisdiction Master and delete that district code, leaving the new district code.

Deleting District Codes

To delete a district code, follow the instructions below.

1. Leave the district code that you want to delete on the Jurisdiction Master. You will be instructed to delete it later.

2. In the precinct and district identifier files, remove all references to the district code you are deleting. (See Districts and Precincts discussed in chapter 6).

3. In the district file, delete the district records using the district code you are deleting. (See Districts and Precincts discussed in chapter 6).

4. If you have contests entered for this election that are tied to the district code you are deleting, remove the district codes on those contests or delete the contests themselves if they are no longer valid. (See Contests and Candidates discussed in chapter 7).

5. When ALL references to the district you are deleting have been removed, you can then go back to the Jurisdiction Master and delete the district code.