

# *Louisiana Transportation Research*

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## **Wet Weather Highway Accident Analysis and Skid Resistance Data Management System (Volume II: User's Manual)**

by

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LOUISIANA STATE UNIVERSITY

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Abstract  The objectives and scope of this research are to establish an effective methodology for wet weather accident analysis and to develop a database management system to facilitate information processing and storage for the accident analysis process, skid resistance testing, and other related tasks. The methodology employed consists of four phases: review and documentation of current LDOTD and LTRC procedures, engineering and statistical review of literature and procedures in the area of accident analysis, identification and recommendation of improvements which may facilitate data management and recovery, and design and development of a new computer information system based on recommendations defined in the third task. An effective wet weather accident analysis, testing, and database management system that allows only needed locations to be identified, tested, and reported is implemented.  Volume II of this report consists of the data base management systems Users manual.  Volume III of this report consists of data base management systems Reference manual.			
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**WET WEATHER HIGHWAY ACCIDENT ANALYSIS AND  
SKID RESISTANCE DATA MANAGEMENT SYSTEM  
(Volume II: User's Manual)**

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conducted for

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT  
LOUISIANA TRANSPORTATION RESEARCH CENTER

in cooperation with  
U.S. Department of Transportation  
FEDERAL HIGHWAY ADMINISTRATION

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MAY 1992

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WET WEATHER HIGHWAY ACCIDENT  
ANALYSIS AND SKID RESISTANCE  
DATABASE MANAGEMENT SYSTEM

USERS MANUAL

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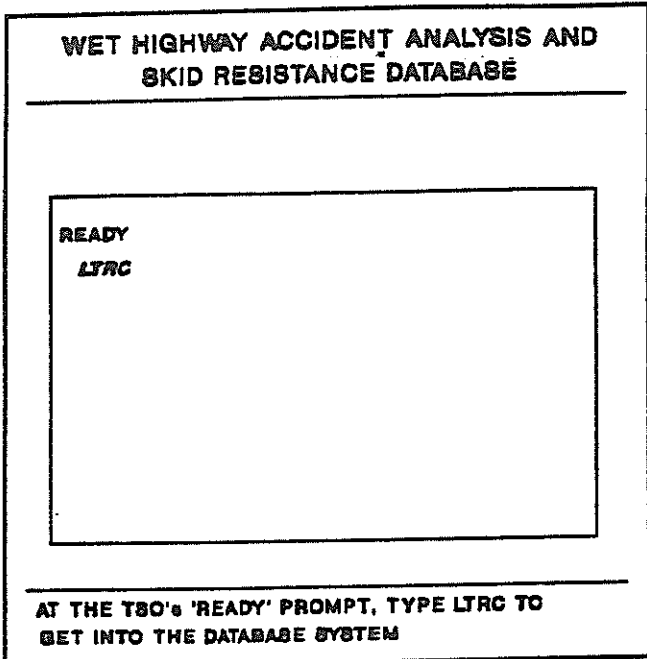
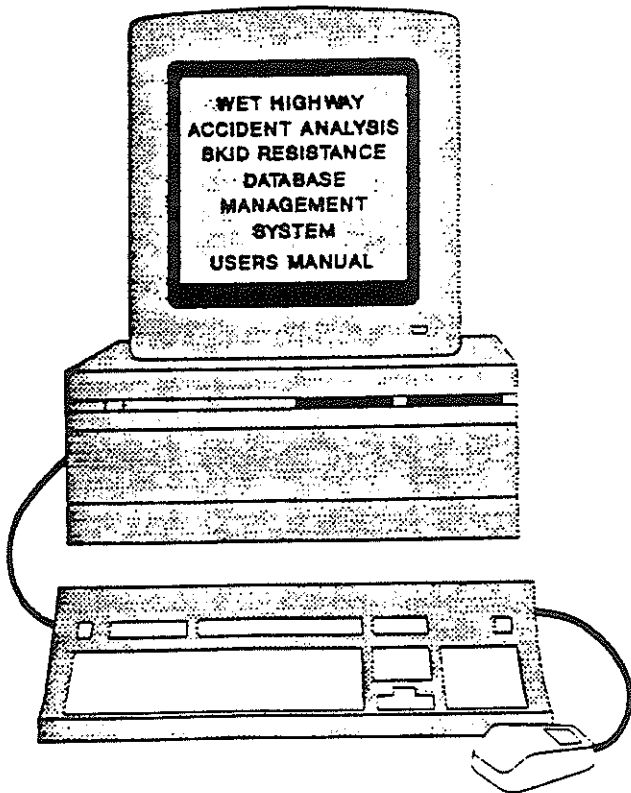


Figure 1

**FREQUENTLY USED KEYS**

- ALT-PF3 TO GO TO PREVIOUS SCREEN
- ALT-PF7 TO SCROLL UP
- ALT-PF8 TO SCROLL DOWN
- ALT-PF10 TO MOVE LEFT
- ALT-PF11 TO MOVE RIGHT
- ALT-CURSOR TO MODIFY THE CURSOR
- RETURN TO MOVE THE CURSOR DOWN
- TAB TO MOVE THE CURSOR LEFT/RIGHT



**WET WEATHER ACCIDENT ANALYSIS  
DATABASE MANAGEMENT SYSTEM**

This software has been implemented on LSU's IBM 370 MODEL 3090600E running MVS/XA with TSO operating system.

To get into this system, first the user will have to get into the TSO environment by entering 'T' at the '====>' prompt. Then enter the user logon-id 'IEKLEE'. The system will then ask the user for password. Current password is '\_\_\_\_\_'. This takes the user to the system's 'READY' prompt.

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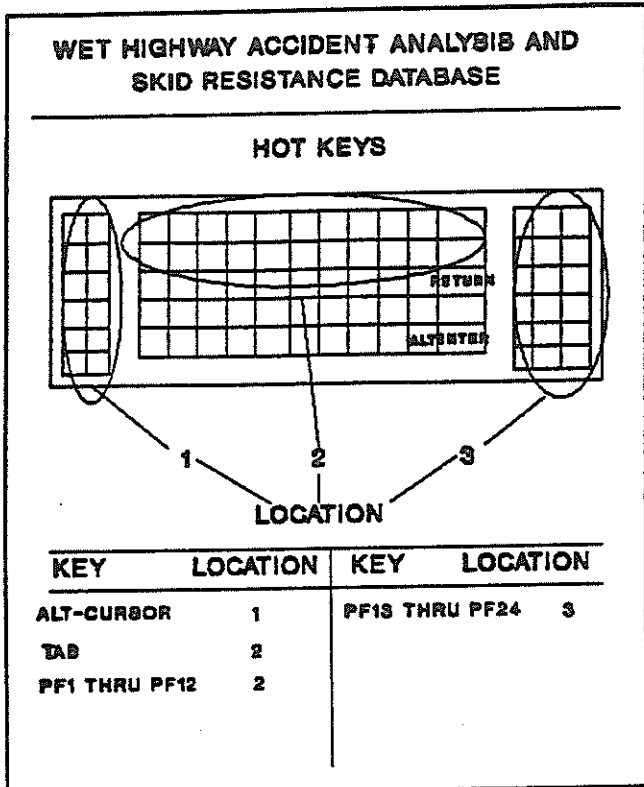
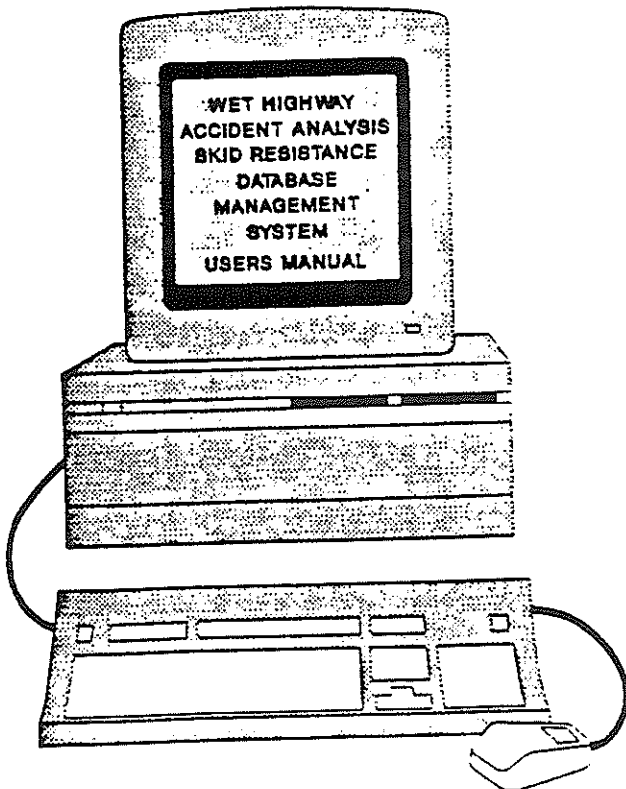


Figure 2

**FREQUENTLY USED KEYS**

- ALT-PF3 TO GO TO PREVIOUS SCREEN
- ALT-PF7 TO SCROLL UP
- ALT-PF8 TO SCROLL DOWN
- ALT-PF10 TO MOVE LEFT
- ALT-PF11 TO MOVE RIGHT
- ALT-CURSOR TO MODIFY THE CURSOR
- RETURN TO MOVE THE CURSOR DOWN
- TAB TO MOVE THE CURSOR LEFT/RIGHT



**HOT KEYS**

Before getting into the database system, the user should make a note of the keys shown in figure 2. These keys have been customized for some specific tasks for the purposes of this database system. Figure 2 will help the user to identify the exact locations of these 'HOT KEYS' on the keyboard.

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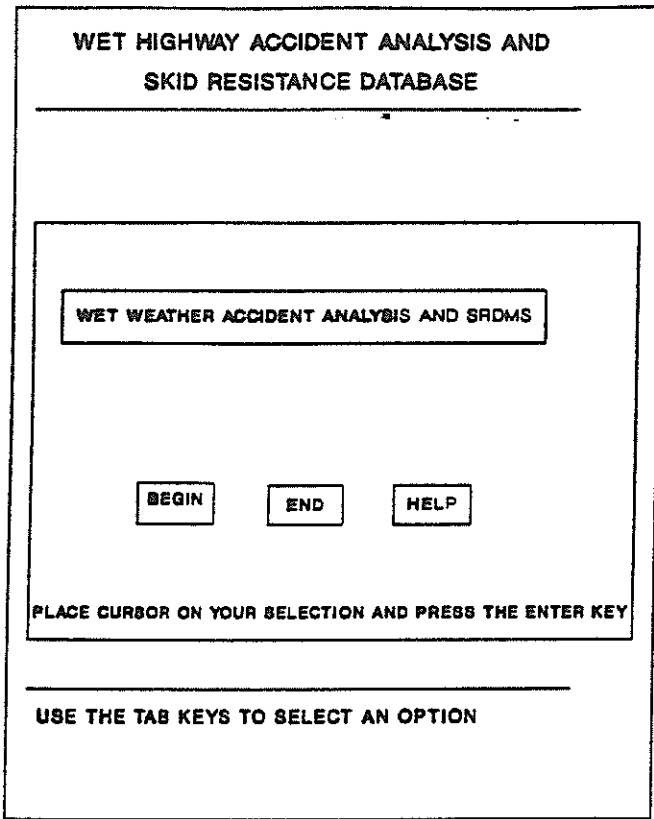
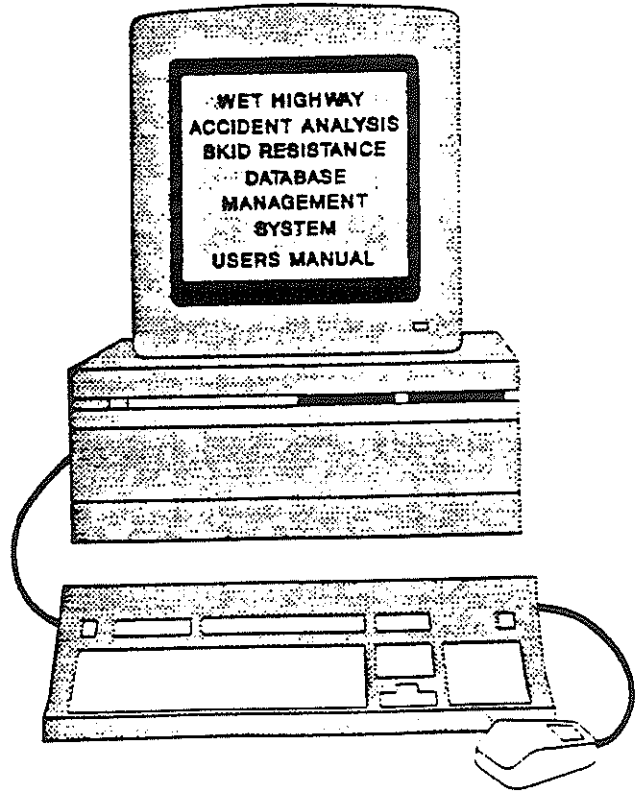
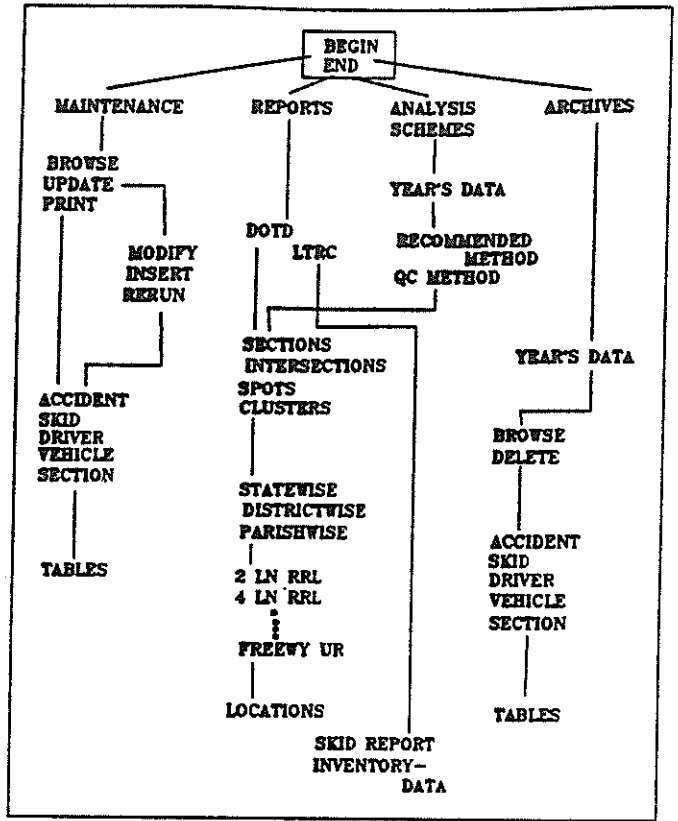


Figure 3



**GETTING STARTED**

Figure 3 shows the starting screen which the users see on entering the DMS. If the user feels that the cursor is not visible/clear then by using the ALT and CURSOR keys the users can change the size and make the cursor blink. To move the cursor from one selection to another, use the TAB keys (location 2). END selection takes the user back to the READY prompt of TSO.



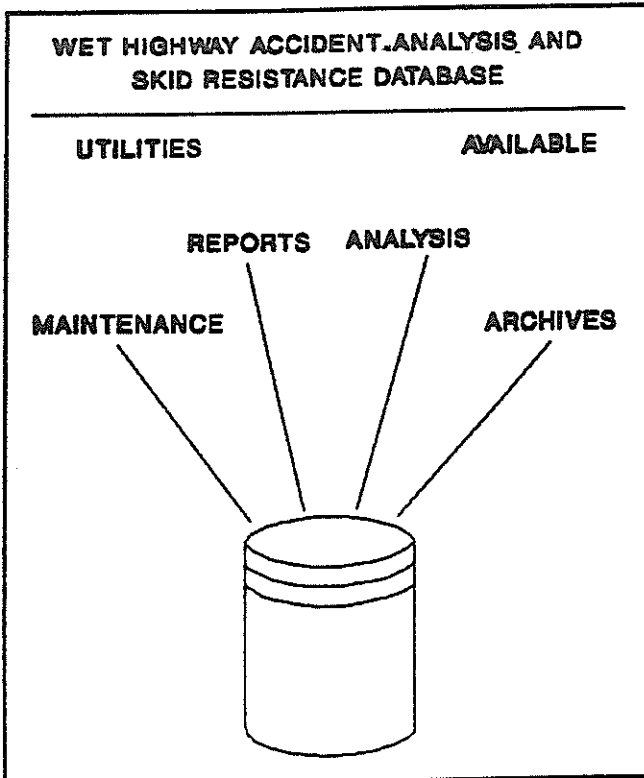
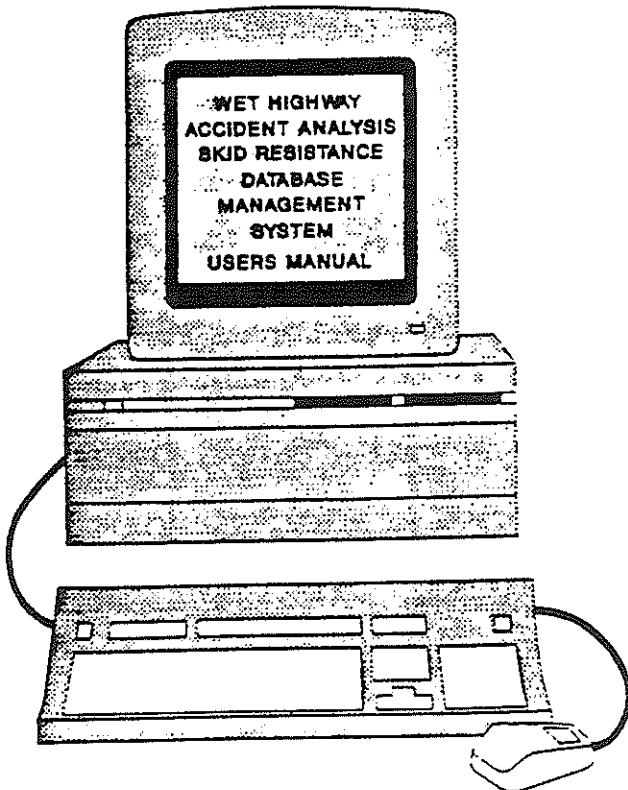


Figure 4

**FREQUENTLY USED KEYS**

- ALT-PF3    TO GO TO PREVIOUS SCREEN
- ALT-PF7    TO SCROLL UP
- ALT-PF8    TO SCROLL DOWN
- ALT-PF10   TO MOVE LEFT
- ALT-PF11   TO MOVE RIGHT
- ALT-CURSOR TO MODIFY THE CURSOR
- RETURN    TO MOVE THE CURSOR DOWN
- TAB        TO MOVE THE CURSOR LEFT/RIGHT



**BASIC UTILITIES**

This figure gives a comprehensive view of the four basic utilities available on this DMS. They are as follows:

1. MAINTENANCE of the database.
2. REPORTS generation.
3. ANALYSIS of schemes.
4. ARCHIVES

To go back to the previous screen, go to the END selection and press ENTER or press ALT-PF3 keys simultaneously.

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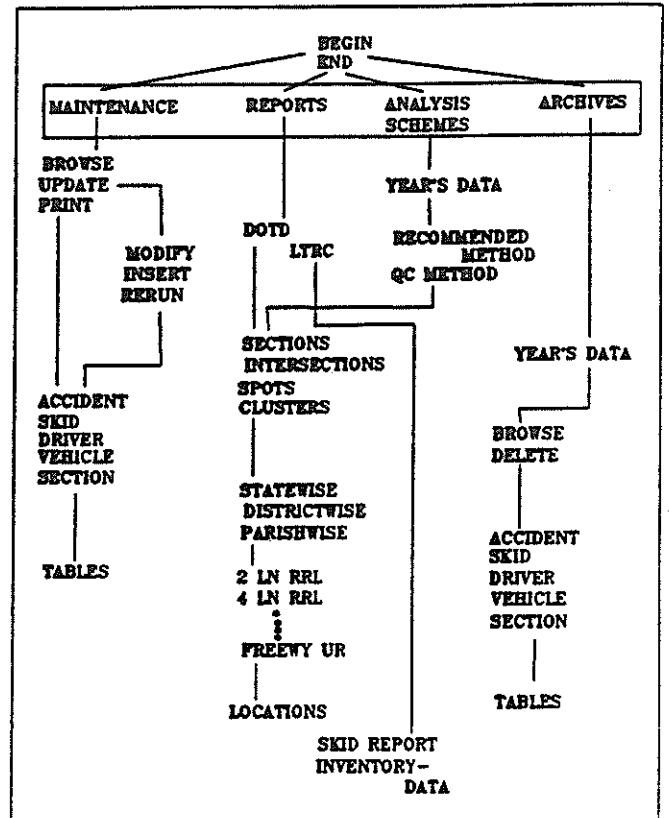
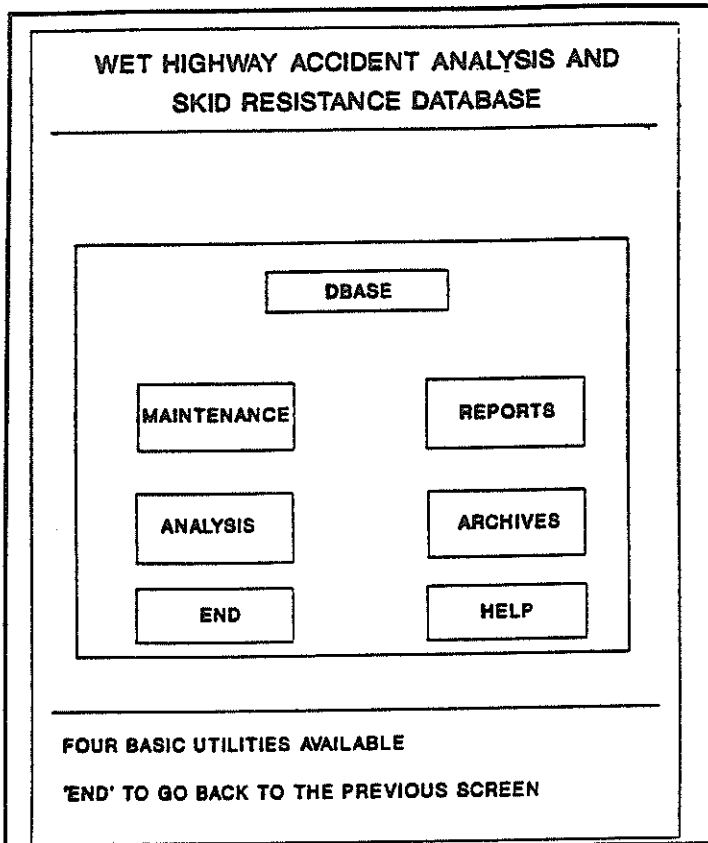
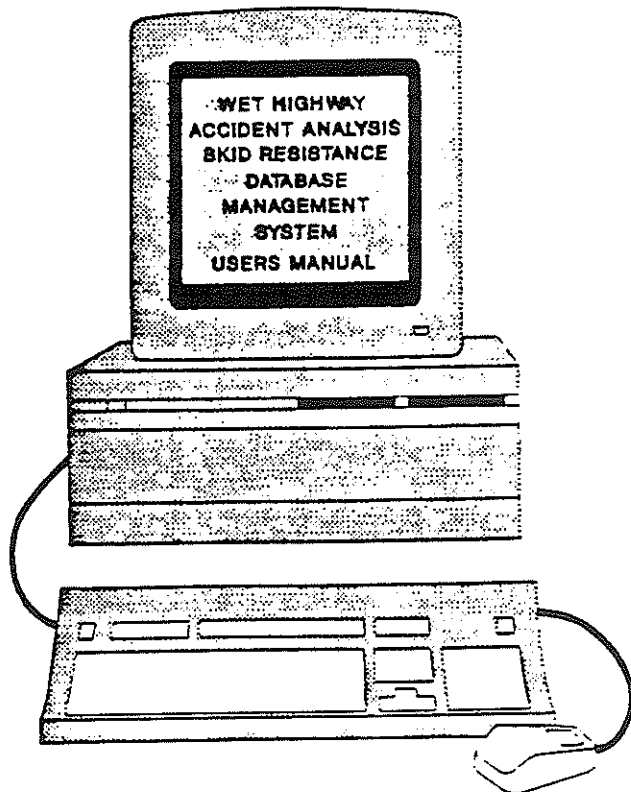


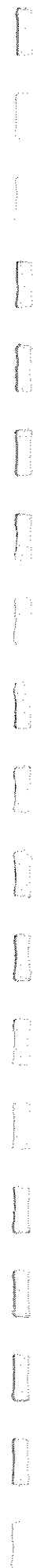
Figure 5



### OPTIONS Screen

This is the OPTIONS screen which pops up on selecting BEGIN from the previous screen i.e. screen shown in figure 3.

To select any option, bring the cursor to that selection and press ENTER. Horizontal movement of the cursor is controlled by the TAB keys, Vertical downward movement the cursor is controlled by the RETURN key.



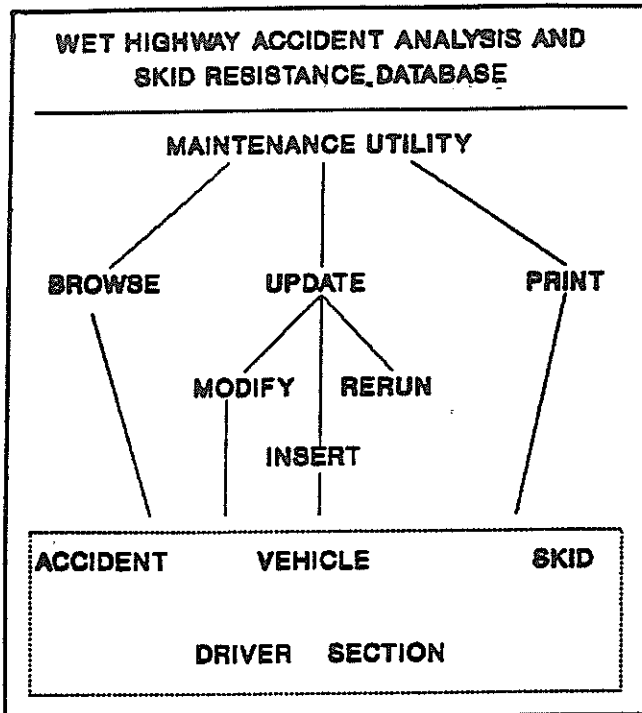
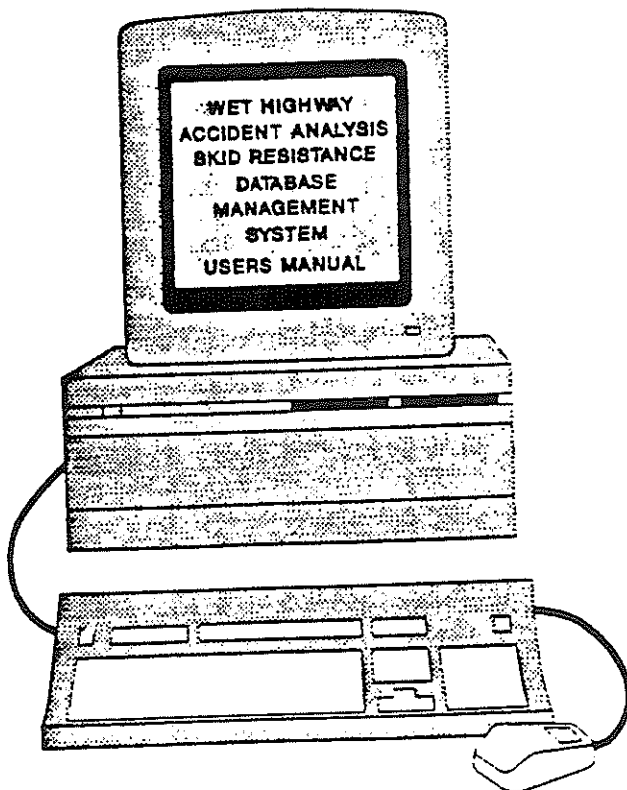


Figure 6

**FREQUENTLY USED KEYS**

- ALT-PF3    TO GO TO PREVIOUS SCREEN
- ALT-PF7    TO SCROLL UP
- ALT-PF8    TO SCROLL DOWN
- ALT-PF10   TO MOVE LEFT
- ALT-PF11   TO MOVE RIGHT
- ALT-CURSOR TO MODIFY THE CURSOR
- RETURN    TO MOVE THE CURSOR DOWN
- TAB        TO MOVE THE CURSOR LEFT/RIGHT



**MAINTENANCE Options**

This figure (figure 6) gives the user a panoramic view of the various options available within the MAINTENANCE utility.

As shown in the figure, user can

1. Browse the various files present in the database. From this screen, the user will have an access to the most recent year's data.
2. Update the database.
3. Take a hard copy of any of the files in the database.

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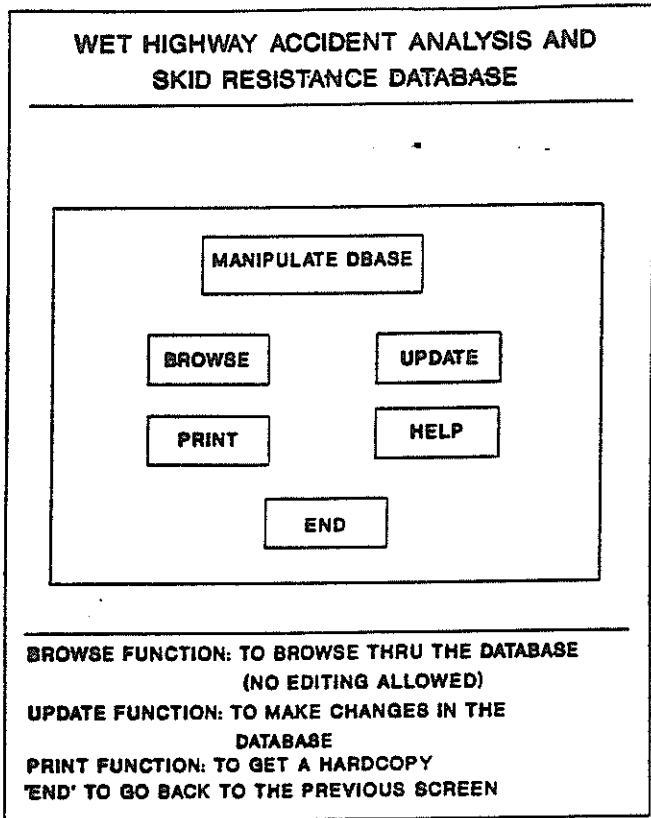
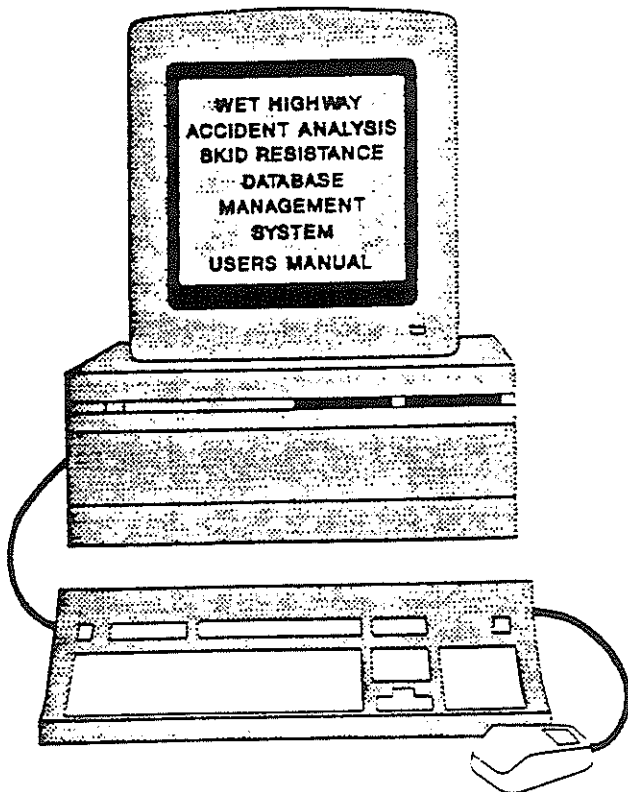
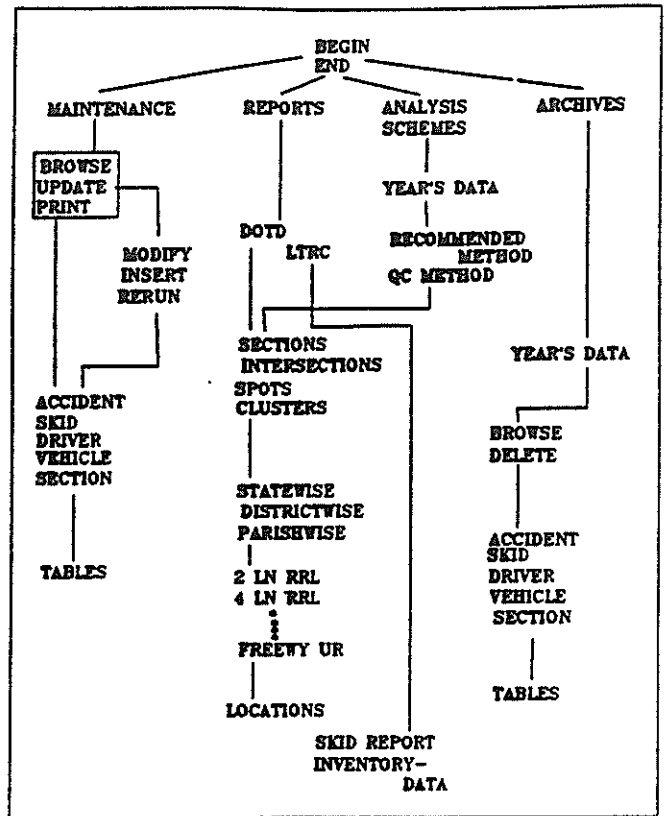


Figure 7



### MAINTENANCE Options

This figure (figure 7) shows exactly the screen associated with the Maintenance options. To get back to the previous screen, press ALT-PF3 keys simultaneously or go to END selection and press ENTER. This alternative command holds good for all the menus in this DMS.

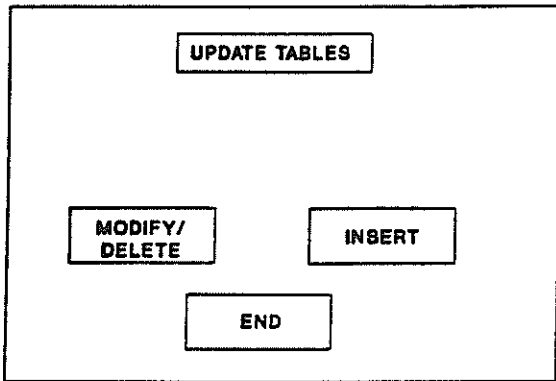
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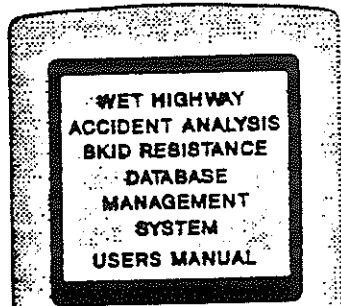
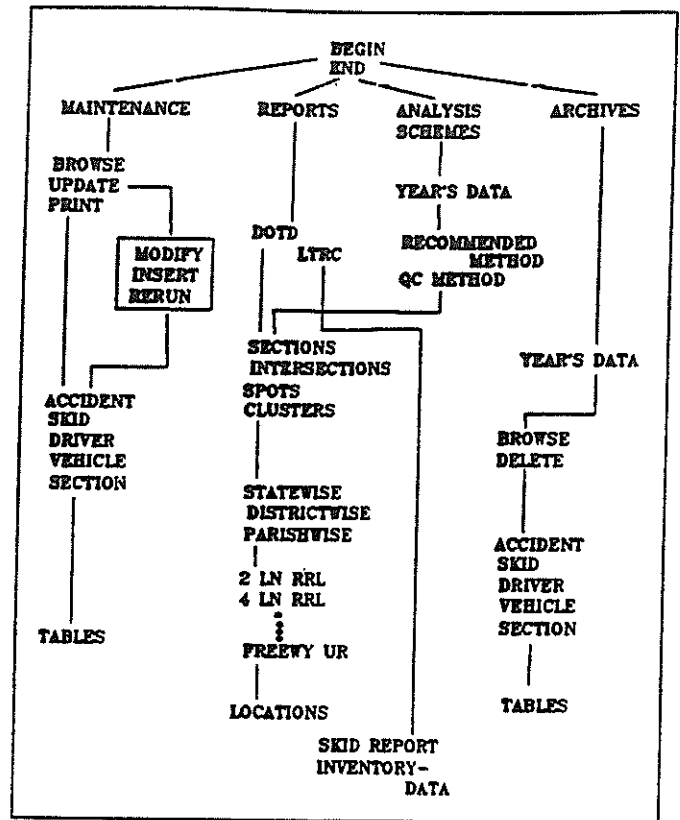
**WET HIGHWAY ACCIDENT ANALYSIS AND  
SKID RESISTANCE DATABASE**



WHILE UPDATING, TO GET TO A SPECIFIC RECORD  
ENTER ITS RECORD NUMBER AT THE COMMAND LINE  
AFTER UPDATING, PRESS ALT-PF3 TO GET BACK  
TO THIS SCREEN

'END' TO GO BACK TO THE PREVIOUS SCREEN

Figure 9



**UPDATE TABLES**

This screen gives the various options available to the user for updating the database.

Before making any changes, the Data base Administrator should be convinced about the need for these changes will be PERMANENT.

RERUN option is for rerunning the analysis programs on the edited data. Once the changes have been made, press ALT-PF3 to get back to this screen.



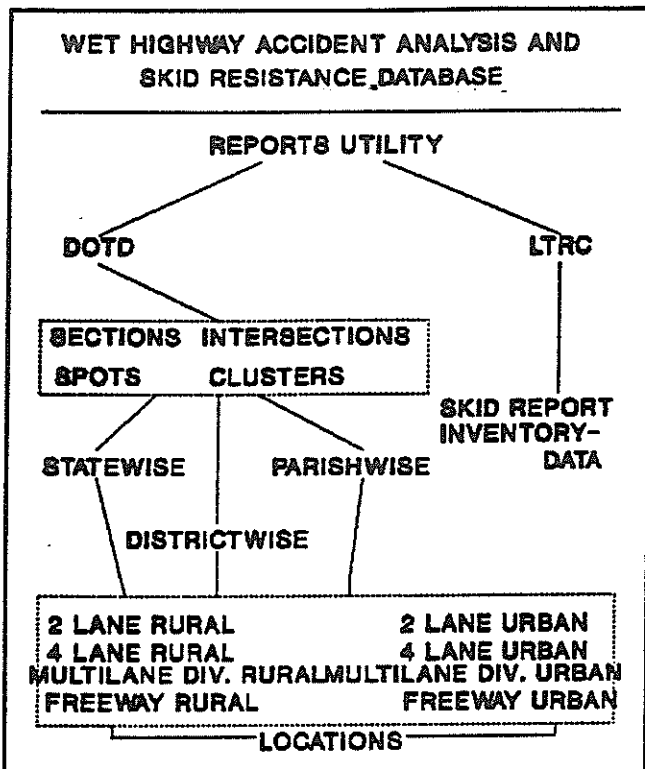
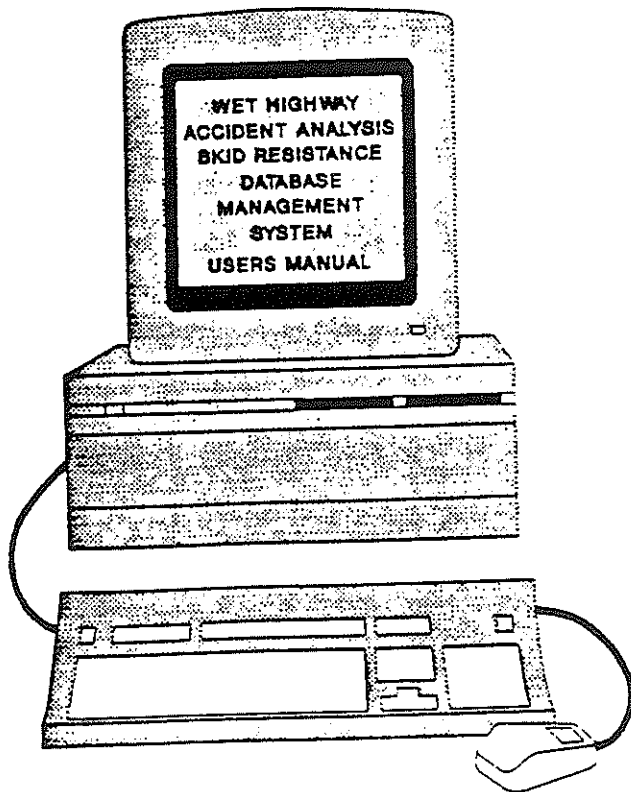


Figure 10

**FREQUENTLY USED KEYS**

- ALT-PF3 TO GO TO PREVIOUS SCREEN
- ALT-PF7 TO SCROLL UP
- ALT-PF8 TO SCROLL DOWN
- ALT-PF10 TO MOVE LEFT
- ALT-PF11 TO MOVE RIGHT
- ALT-CURSOR TO MODIFY THE CURSOR
- RETURN TO MOVE THE CURSOR DOWN
- TAB TO MOVE THE CURSOR LEFT/RIGHT



**REPORTS UTILITY**

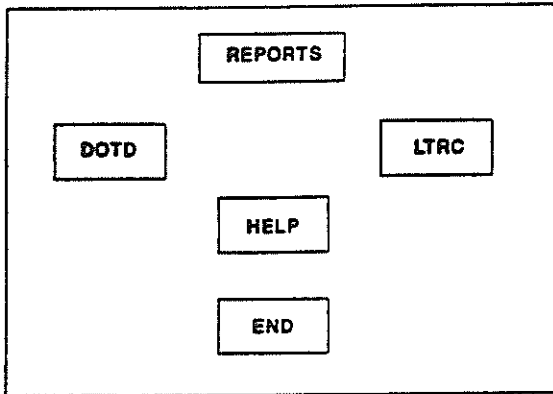
This figure (figure 10) gives a comprehensive view of the various options available to the user in Reports Utility. There are two basic kinds of reports being generated, based on the type of organization the user belongs to.

The DOTD reports rank the hazardous locations based on the analysis scheme recommended by the consultants.

Hazardous locations can be obtained for any combination of location type, area, highway type.

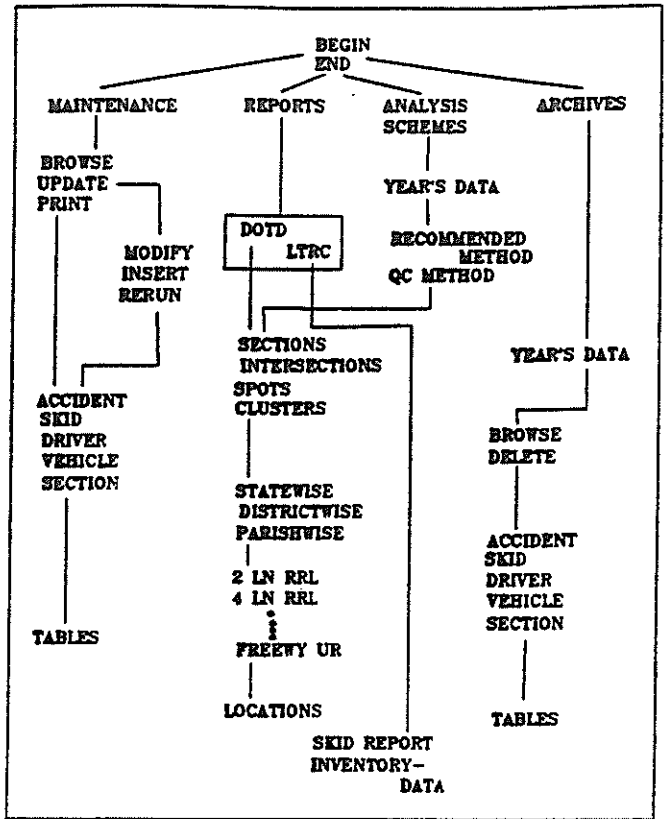
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**WET HIGHWAY ACCIDENT ANALYSIS AND  
SKID RESISTANCE DATABASE**



**DOTD: CURRENT DOTD REPORTS**  
**LTRC: USER-SPECIFIC QUERIES**  
**DOTD REPORTS ARE GENERATED USING THE RECOMMENDED METHOD AND THE LATEST YEARS DATA**  
**'END' TO GO BACK TO THE PREVIOUS SCREEN**

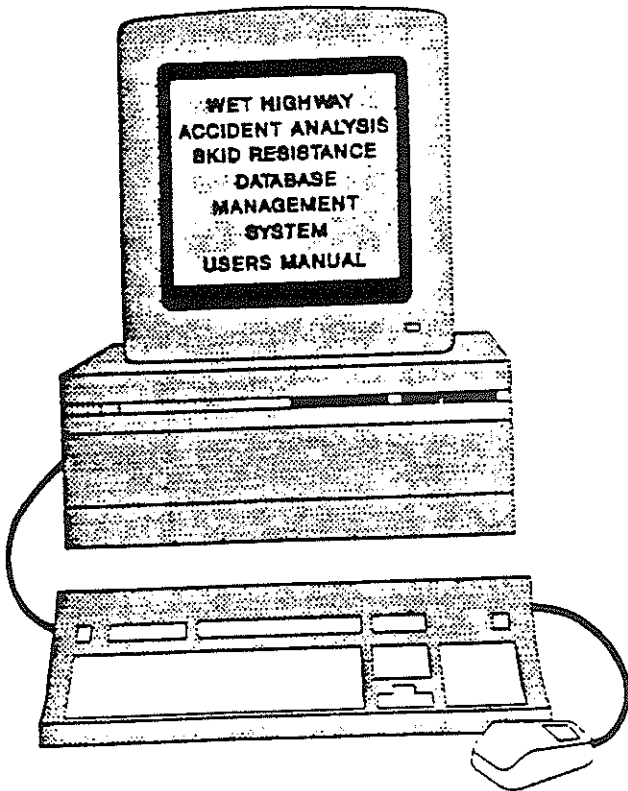
Figure 11



**REPORTS UTILITY**

This figure (figure 11) is an exact replica of the screen obtained on selecting this option. As mentioned earlier, LTRC contains some special user-requests for users at LTRC. Request 1 gives a SKID TEST report for each parish. Request 2 is for retrieving INVENTORY TYPE data.

On selecting the DOTD option the users can have an access to DOTD reports made on the current format being followed by them.



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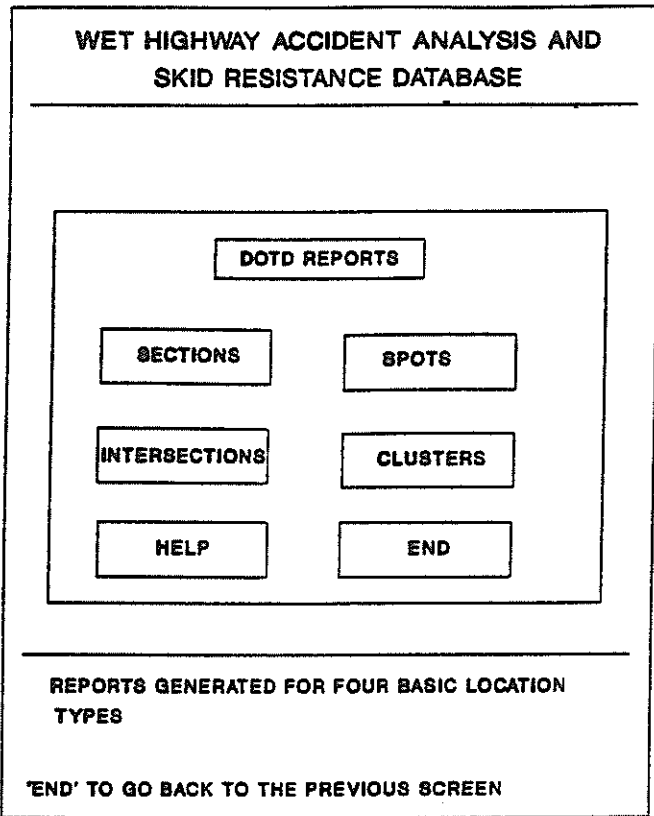
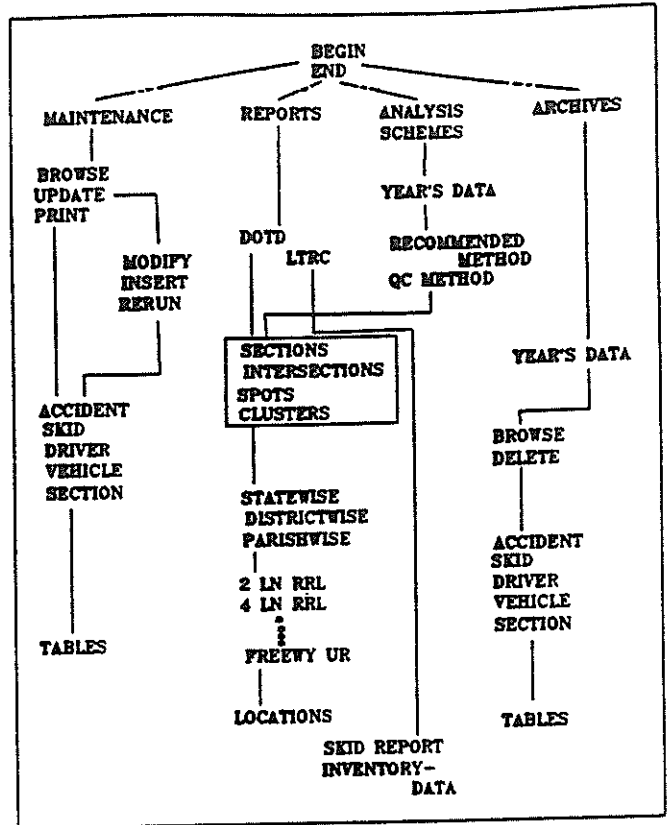
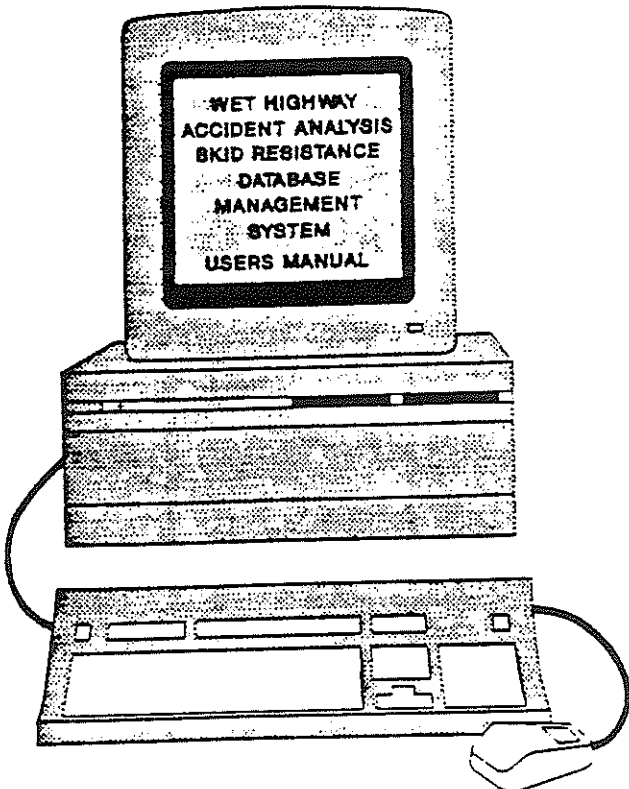


Figure 12



### LOCATION TYPES

This screen (figure 12) shows the basic location types for which the analysis has been performed. In addition to the three location types identified by the DOTD presently (sections, intersections and spots), the consultants felt the need of including another location type i.e. 'clusters' for identification of hazardous locations.



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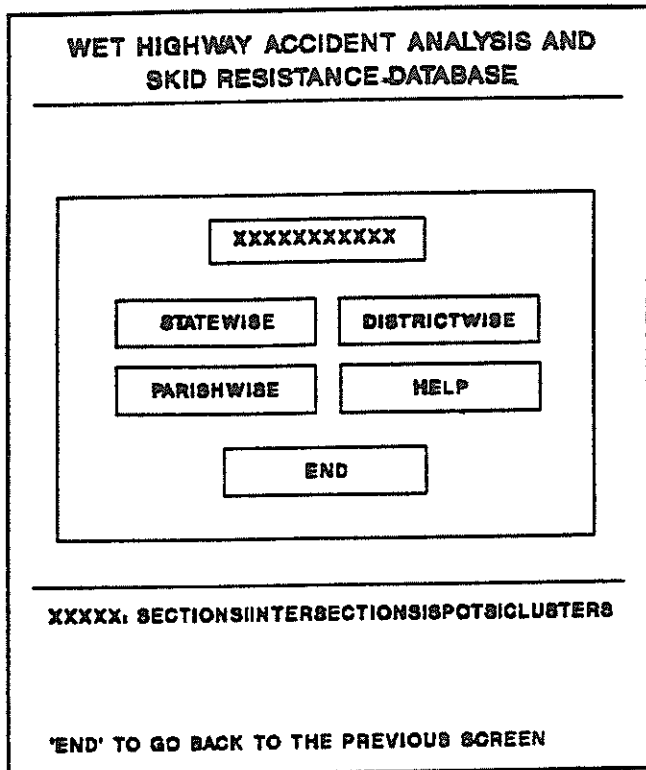
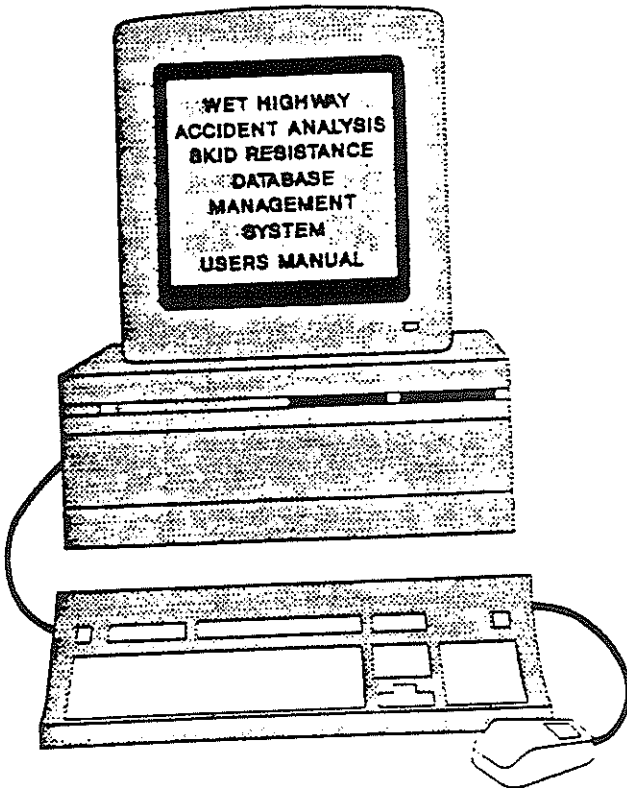
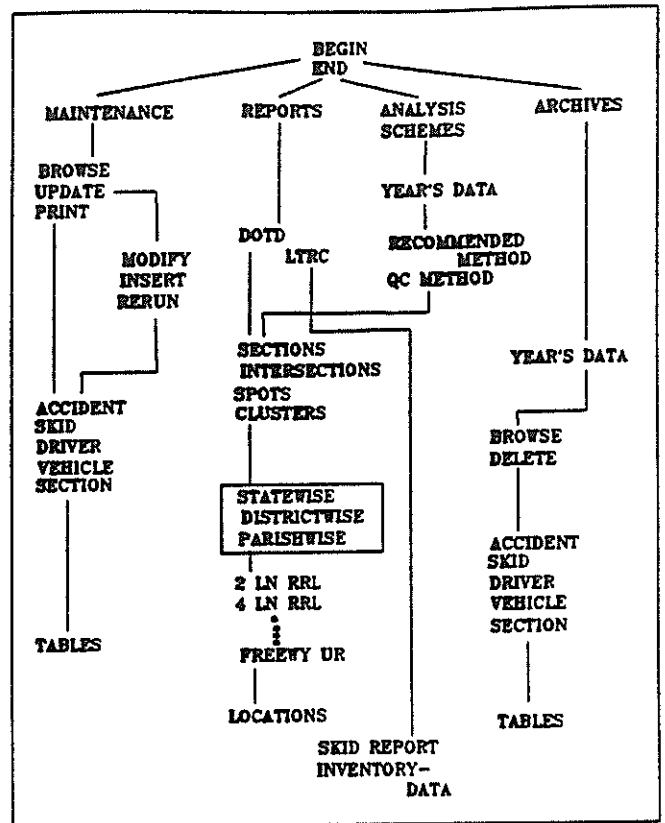


Figure 13



**REGION CLASSIFICATION**

This screen (figure 13) asks the user to input the region classification based on which the results are desired i.e. 'Statewise' selection gives a screen shown in figure 14. The other options give some intermediate screens before going down to that screen.



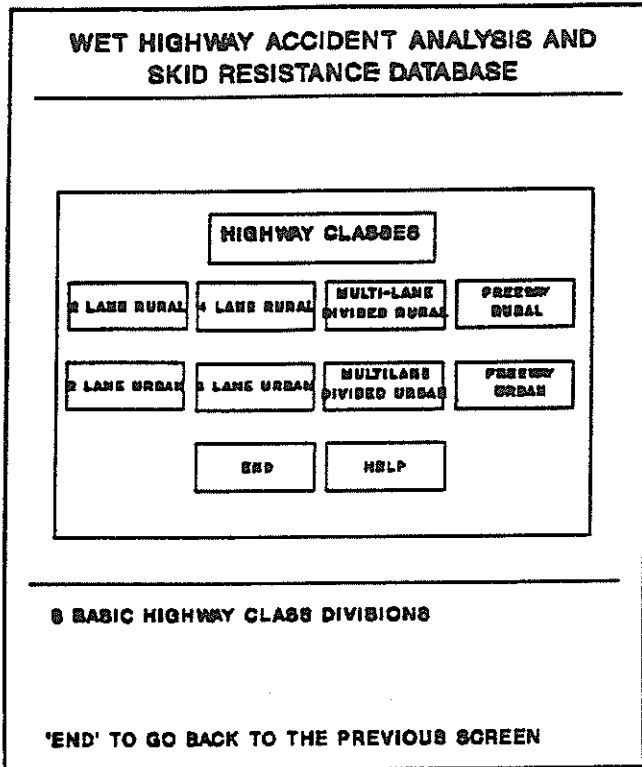
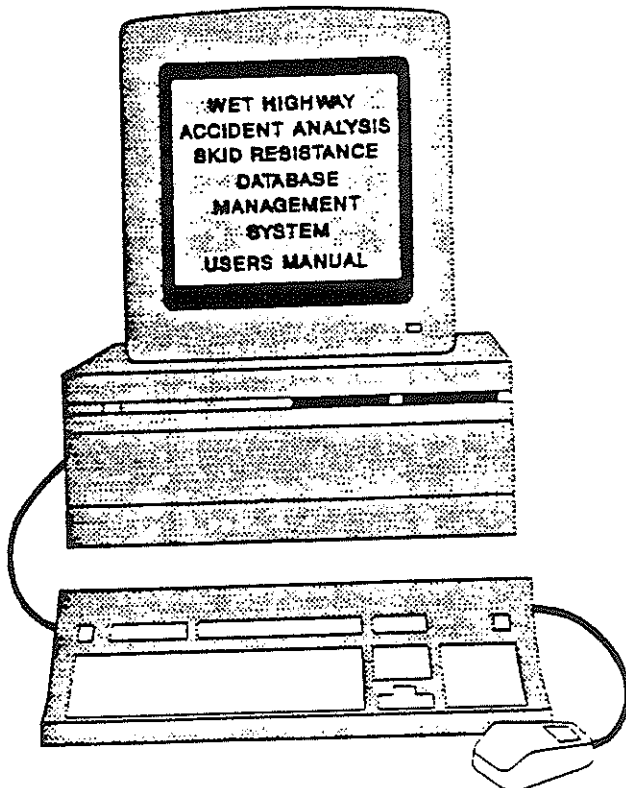
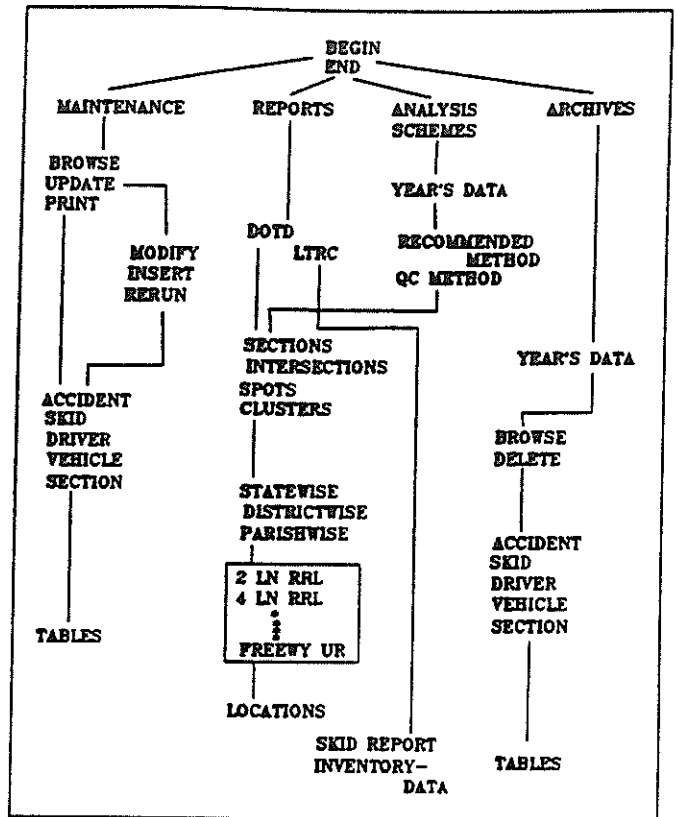


Figure 14



### HIGH TYPE CLASSIFICATION

This screen (figure 14) shows the user the eight basic highway types for which the analysis has been performed. Any selection (except END) made here takes the user to the coordinates of the hazardous locations ranked in order of decreasing hazardity.

#### USEFUL TIPS FOR THOSE SCREENS

To scroll up, press ALT-PF7  
 To scroll down, press ALT-PF8  
 To move right, press ALT-PF10  
 To move left, press ALT-PF11  
 To exit, press ALT-PF3

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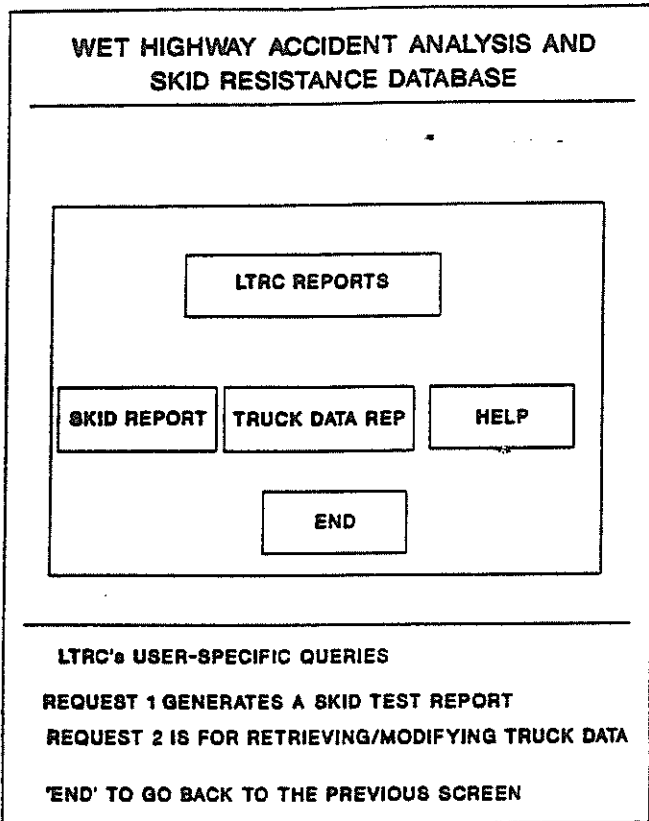
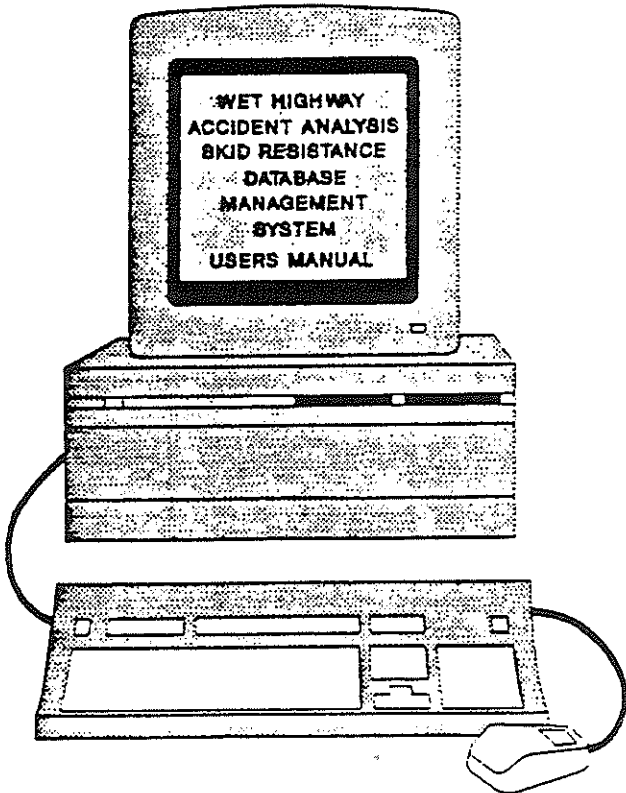
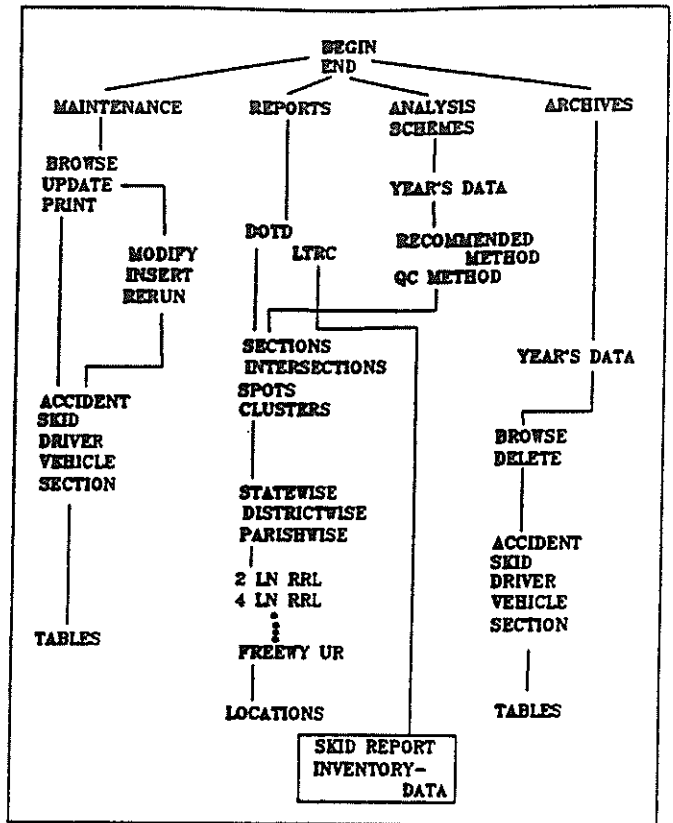


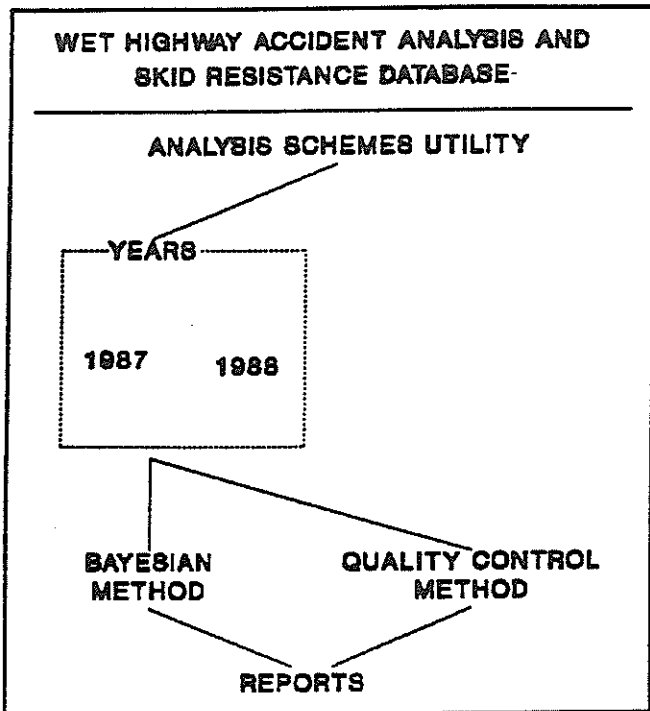
Figure 15



**LTRC REQUESTS**

This screen (figure 15) shows the two LTRC requests. To make a selection, go to that option using the TAB keys and press ENTER. To get back to the previous screen, either press ENTER on END or press ALT-PF3.

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**FREQUENTLY USED KEYS**

- ALT-PF3 TO GO TO PREVIOUS SCREEN
- ALT-PF7 TO SCROLL UP
- ALT-PF8 TO SCROLL DOWN
- ALT-PF10 TO MOVE LEFT
- ALT-PF11 TO MOVE RIGHT
- ALT-CURSOR TO MODIFY THE CURSOR
- RETURN TO MOVE THE CURSOR DOWN
- TAB TO MOVE THE CURSOR LEFT/RIGHT

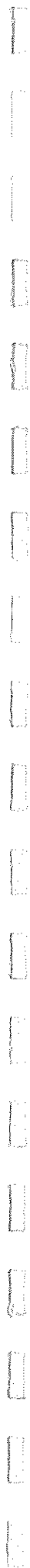
Figure 16



**ANALYSIS SCHEMES Options**

This figure gives the user a broad view of various choices available within the ANALYSIS SCHEMES utility.

As shown in the figure, the user can select a particular year of his interest in order to generate different reports based on any of the available analysis methods.





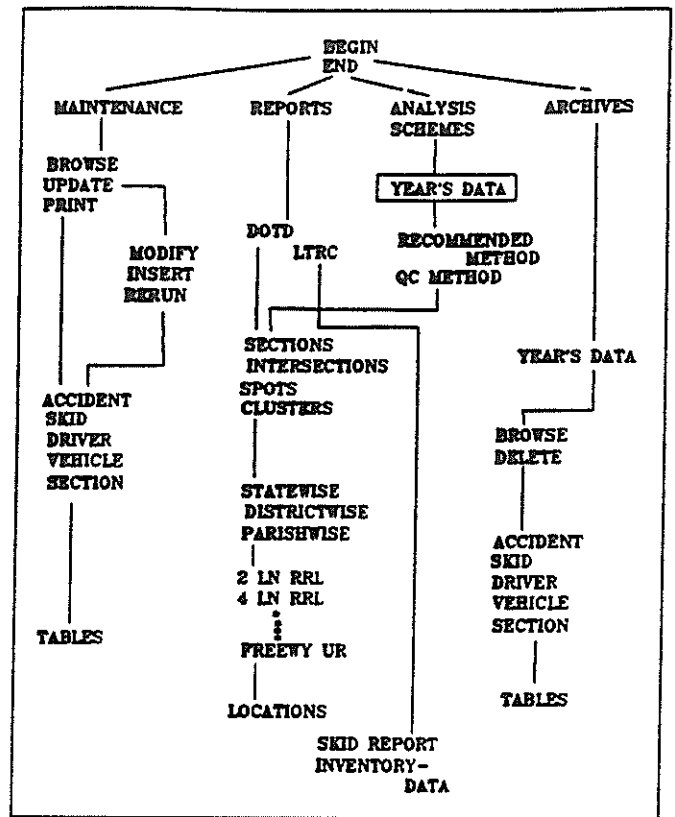
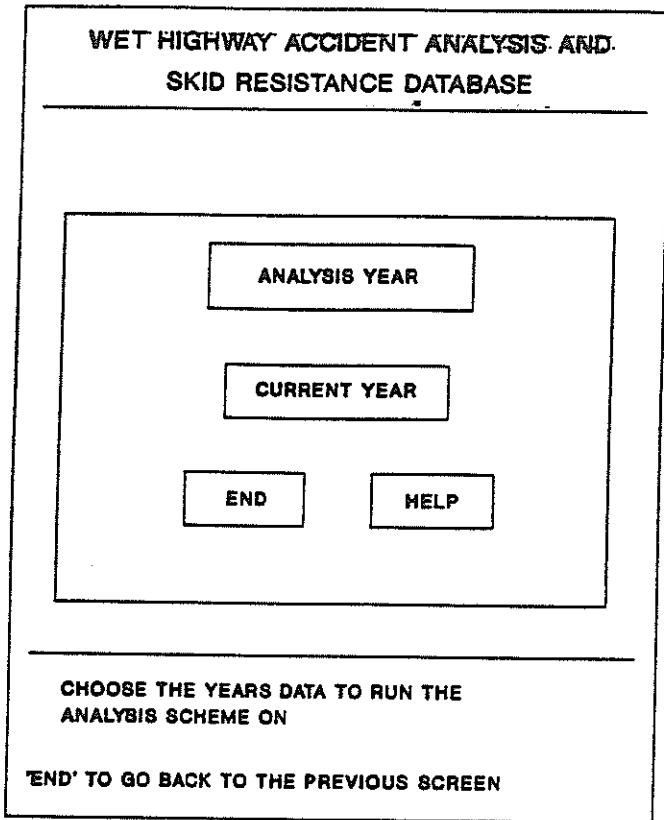
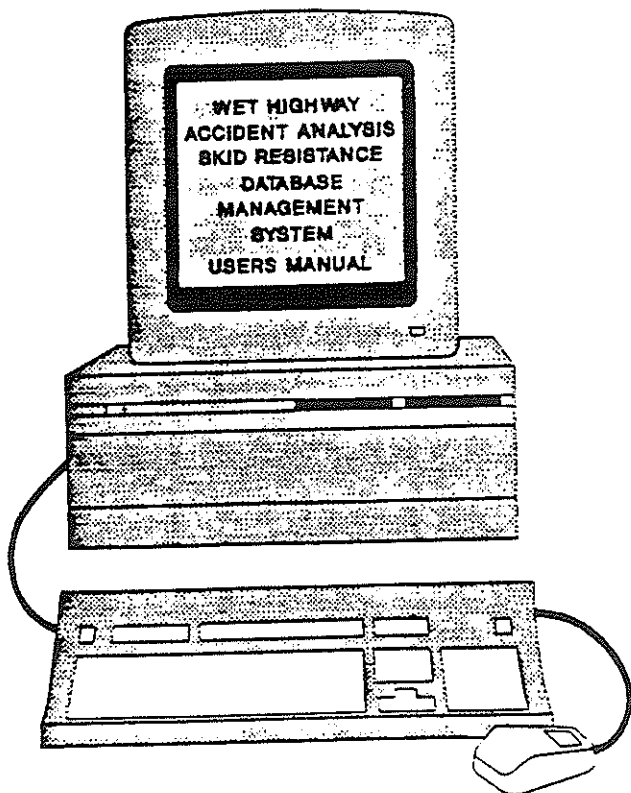


Figure 17



### ANALYSIS YEAR Options

This figure (figure 17) shows exactly the screen associated with the Analysis year option. To get back to the previous screen, press ALT-PF3 keys simultaneously or go to END selection and press ENTER. This alternative command holds good for all the menus in this DMS.

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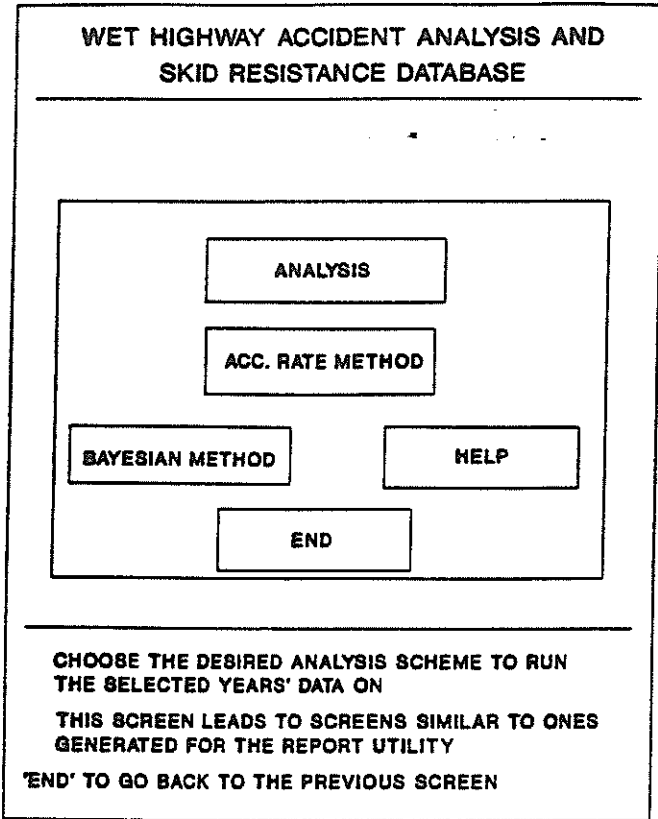
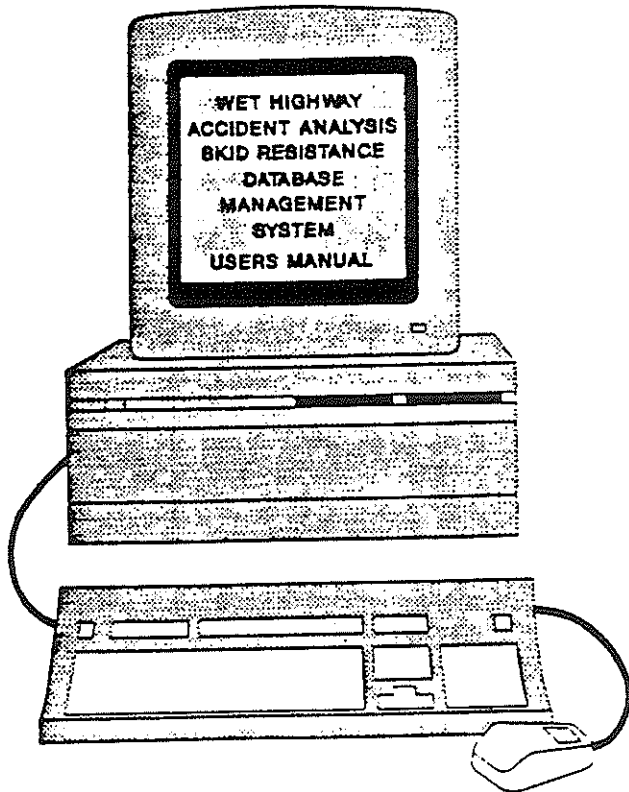
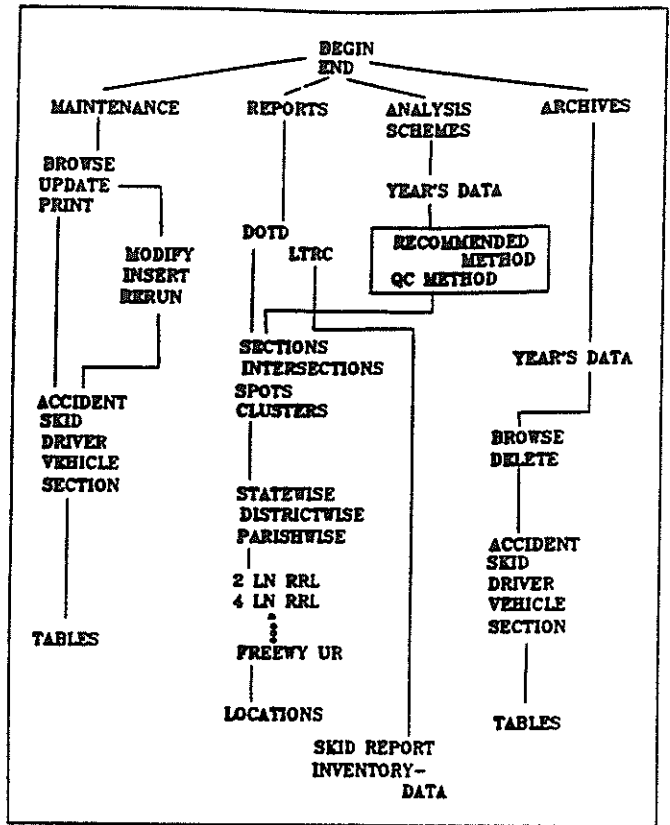


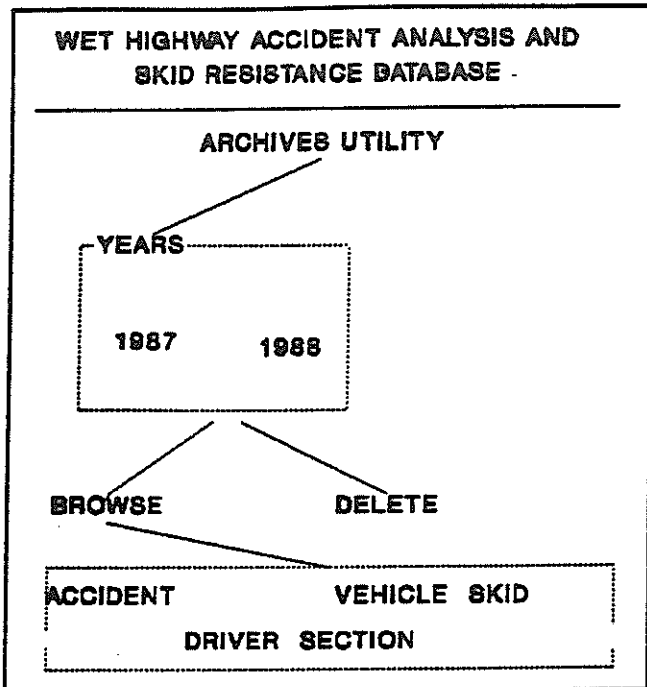
Figure 18



### ANALYSIS SCHEMES

This screen shows the two alternate methods of analysis available within this system. Selection of one of these methods prompts the system to analyze the data corresponding to the year chosen from the previous menu as shown in figure 17.

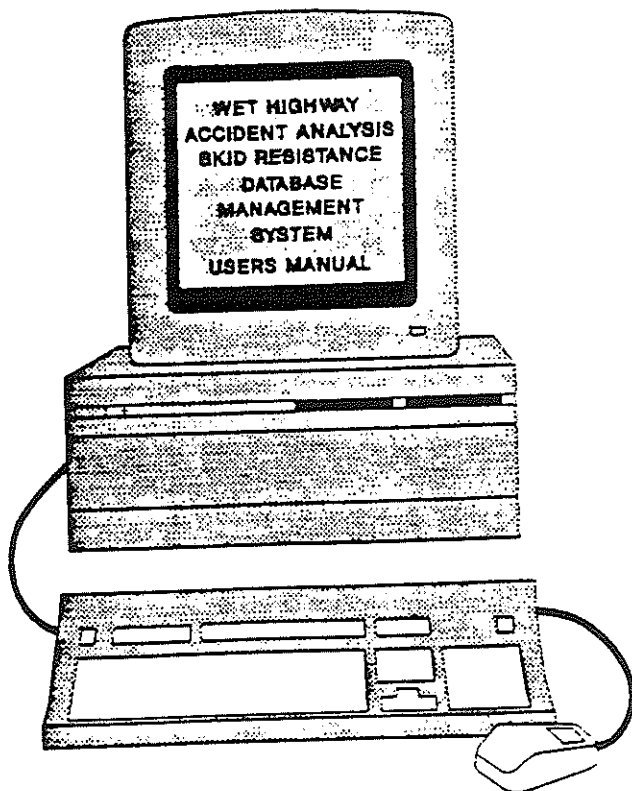




**FREQUENTLY USED KEYS**

- ALT-PF3    TO GO TO PREVIOUS SCREEN
- ALT-PF7    TO SCROLL UP
- ALT-PF8    TO SCROLL DOWN
- ALT-PF10   TO MOVE LEFT
- ALT-PF11   TO MOVE RIGHT
- ALT-CURSOR   TO MODIFY THE CURSOR
- RETURN    TO MOVE THE CURSOR DOWN
- TAB        TO MOVE THE CURSOR LEFT/RIGHT

Figure 19



**ARCHIVES Options**

This figure (figure 19) gives the user an overview of the various options provided with the ARCHIVES utility.

As shown in the figure, the user can have access to the previous year's information not available in the active database.



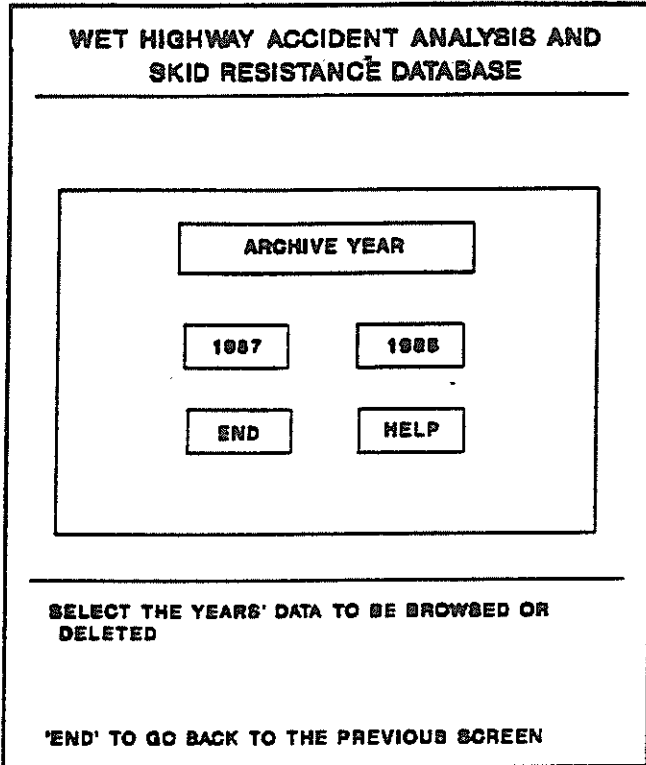
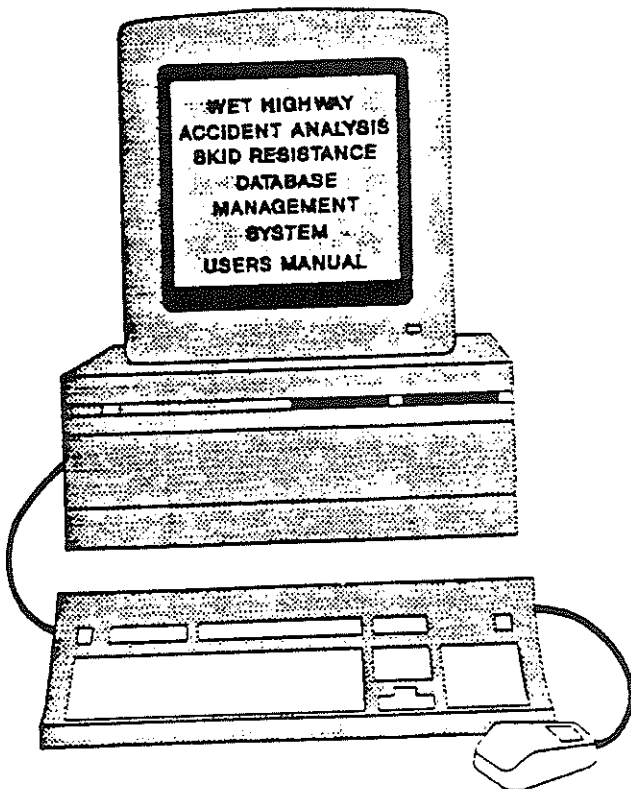
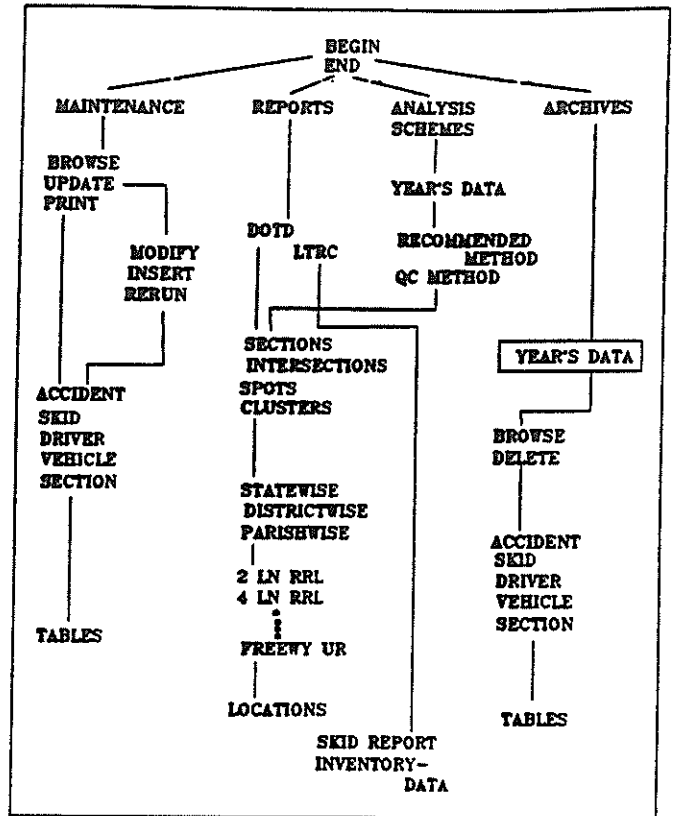


Figure 20



### ARCHIVES YEAR options

This figure (figure 20) shows exactly the screen associated with the Archives year option.

To get back to the previous screen, press ALT-PF3 keys simultaneously or go to END selection and press ENTER. This alternative command holds good for all the menus in this DMS.





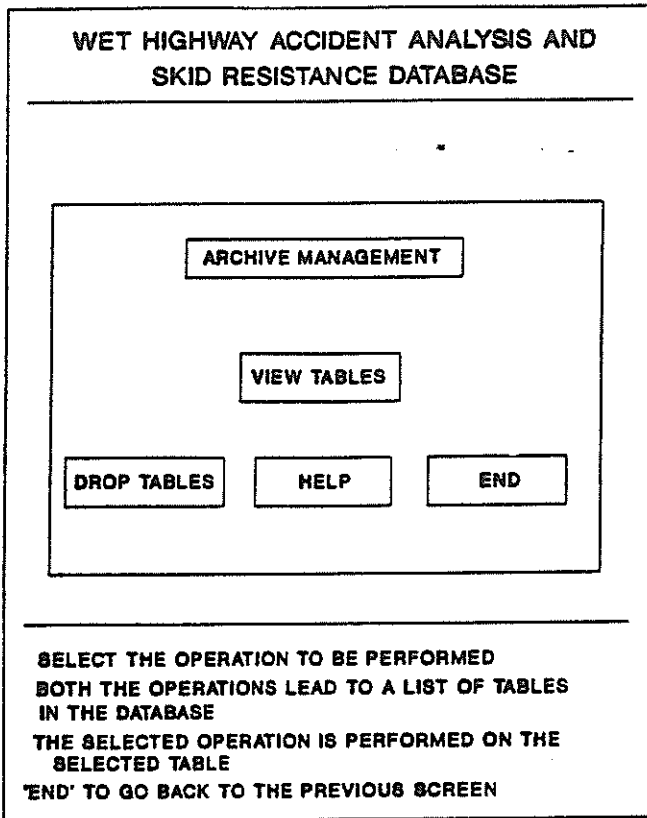
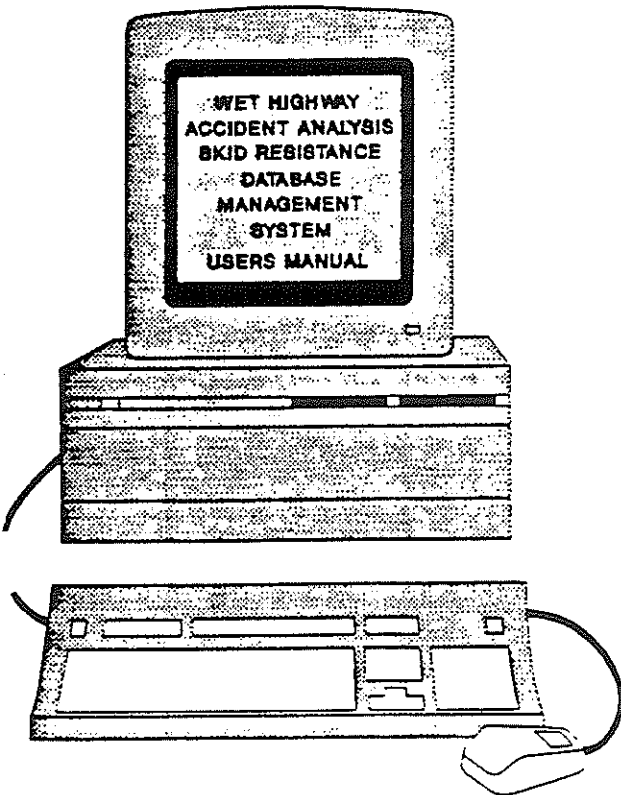
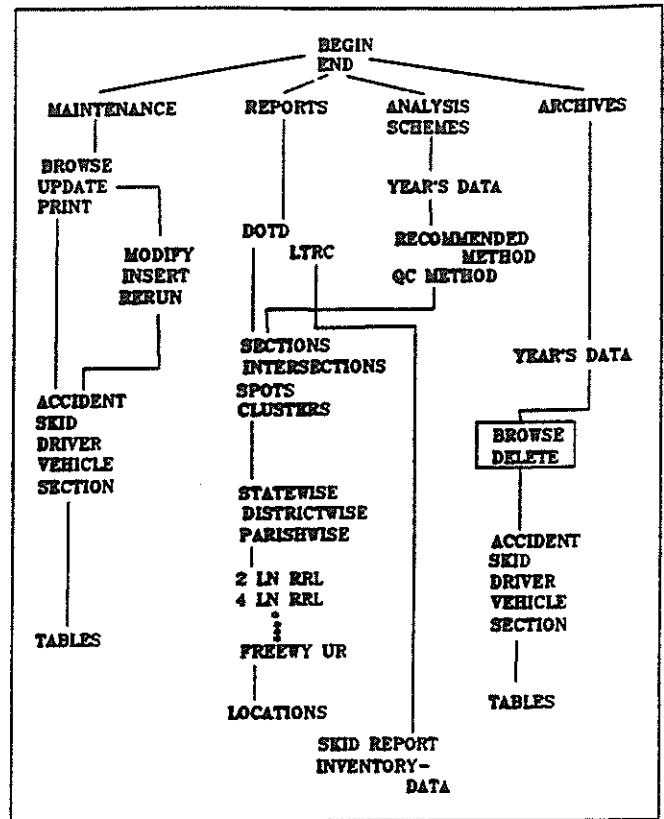


Figure 21



### ARCHIVE MANAGEMENT

This figure (figure 21) gives the user a view of various manipulation options supported by this utility.

As shown in the figure, the user can

1. Browse the various files present in the archive.
2. Delete files corresponding to a year that is no more than five years old.

