



Tree Manager for Windows (TMW) was developed and is distributed by ACRT based in Cuyahogo Falls, Ohio. ACRT has regional offices in California, Pennsylvania, and Tennessee. ACRT has recently upgraded their software to Windows® and is no longer marketing their MS-DOS® based version. There are over 200 communities using Tree Manager nationally and internationally.

Services

- Street and park tree inventories
- Mapping using GIS and GPS
- Contract urban foresters
- Tree management plans
- Data recorders
- Development of tree ordinances
- Hazard tree inventories

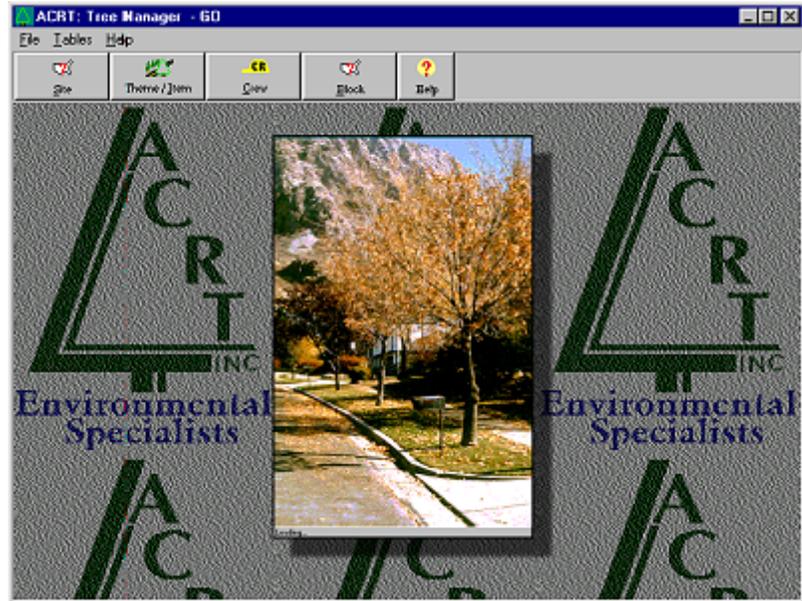
System requirements

- Windows® 95, 98, NT®
- Pentium® processor or equivalent
- 16 MB of RAM (32 recommended)
- 50 MB of free hard disk space
- Graphics card

TMW was used on a Gateway™ P5-166 Pentium® PC using Windows® 95. The directory for the demonstration version of TMW uses 3.03 MB of hard disk space which includes sample inventory data. The Stevens Point study area inventory data were not entered.

Software cost

Tree Manager is available from ACRT at a base price of \$5,500.00. Contact ACRT for further details.



▲ Figure 3.8.1: Tree Manager splash screen and main window.

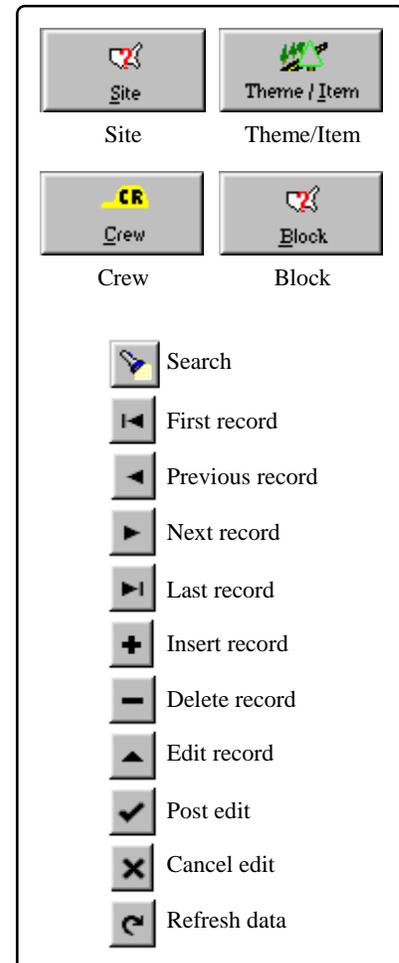
Technical support

A manual and online documentation are provided with TMW. ACRT offers 60 days of free technical support. Onsite training is available at an additional cost.

Contact

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2545 Bailey Road
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Cuyahoga Falls, Ohio 44221

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▲ Figure 3.8.2: TMW main window and tool bar buttons and functions.

The **bold** text in the following description refers to window names indicated in the title bar of each window. *Italicized* text refers to either commands, buttons, menu items, or field names.

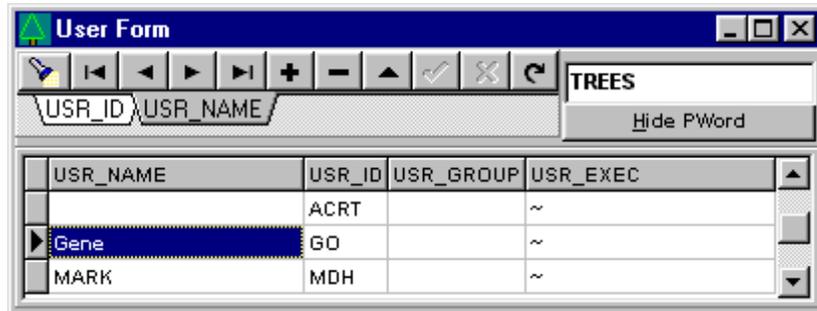
The TMW main window contains menus and command buttons used for accessing the databases described below (Figure 3.8.1). Database window command buttons and their functions are indicated in Figure 3.8.2.

Defining users

TMW requires entering a *user name* and *password* to gain access to the system. These are defined in the **user form** window (Figure 3.8.3). User passwords are also changed in this window.

Defining management areas

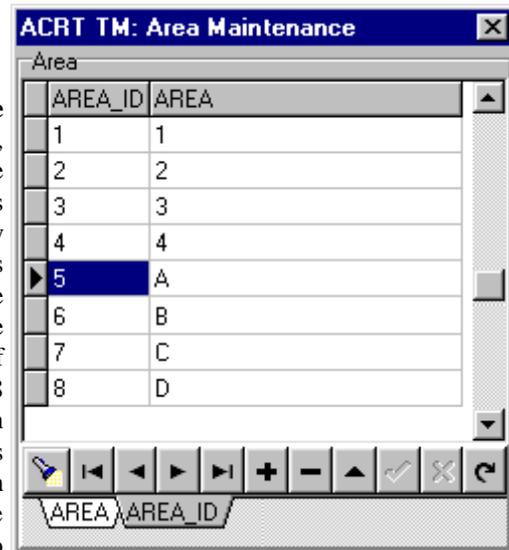
The **area maintenance** window is used for defining management areas (Figure 3.8.4). An *area identification* number up to four characters must be entered, along with up to a 25 character *area name*.



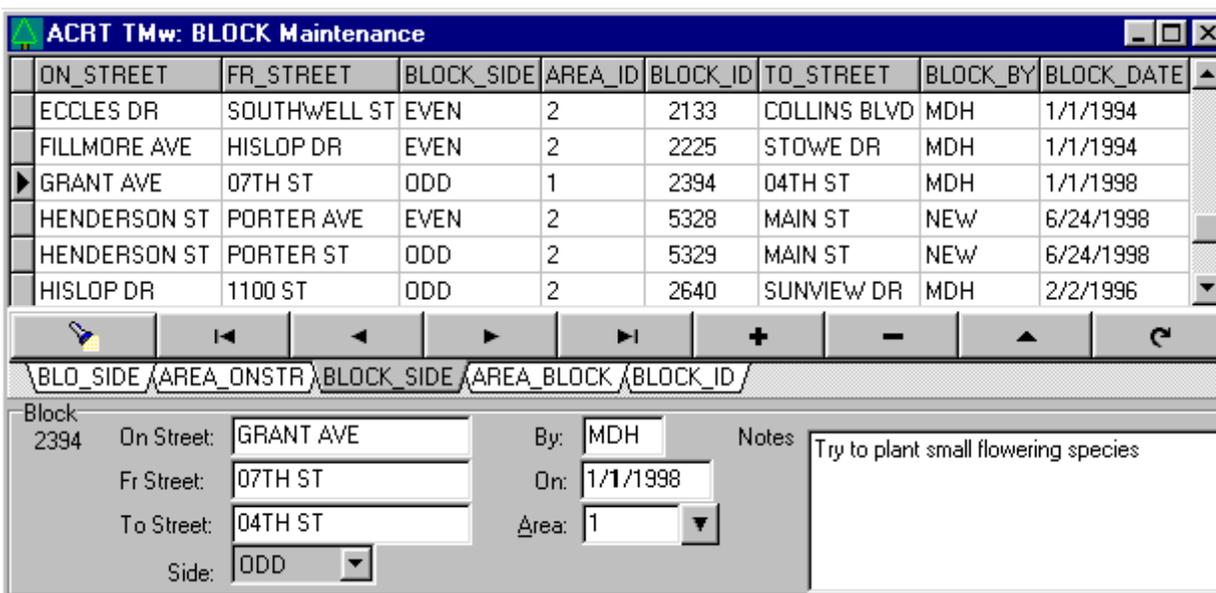
▲ Figure 3.8.3: User names and passwords must be defined to gain access to the system.

Defining blocks

The **block maintenance** window allows for defining *on*, *from*, and *to* streets (Figure 3.8.5). The *on* street indicates where the tree site is physically located. *From* and *to* streets refer to the cross streets at the lower and upper end of the block, respectively. Each of these can be up to 18 characters. Other information that can be entered includes whether the site is on the even side, odd side, or median of the street; the employee who collected the data; date; management area; and notes.



▲ Figure 3.8.4: An area identification number and name must be entered when defining management areas.



▲ Figure 3.8.5: Block information is defined in the block maintenance window.

Defining addresses

An *address number* up to six characters and a *street* name up to 18 characters are entered when defining addresses (Figure 3.8.6). An identification number is automatically assigned to each address. An *assigned* checkbox is available for a fictitious address number that was not identifiable on the building during data collection.

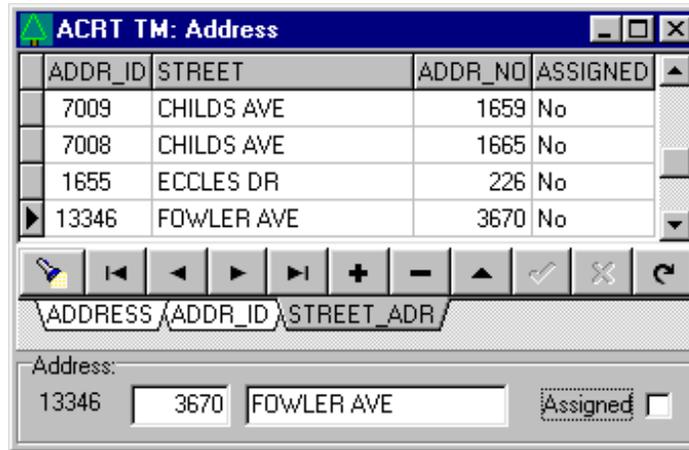


Figure 3.8.6: An address number and street name are entered when defining addresses.

Defining crews and resources

Work crews are viewed and defined through the **crew resources** window (Figure 3.8.7). Current work crews and their resources are listed in the upper portion of this window. The resource database, which includes both employees and equipment, is indicated in the lower portion of this window. Resources are defined and added to crews in the **crew builder** window (Figure 3.8.8). A *resource identification* number up to three characters is entered, and a resource *type* of either *emp* (employee) or *eqp* (equipment) is selected from a drop-down list. A *resource* description up to 20 characters can be entered. Other information that can be entered includes *hourly rate*, and the *beginning* and *ending* dates of the resource.

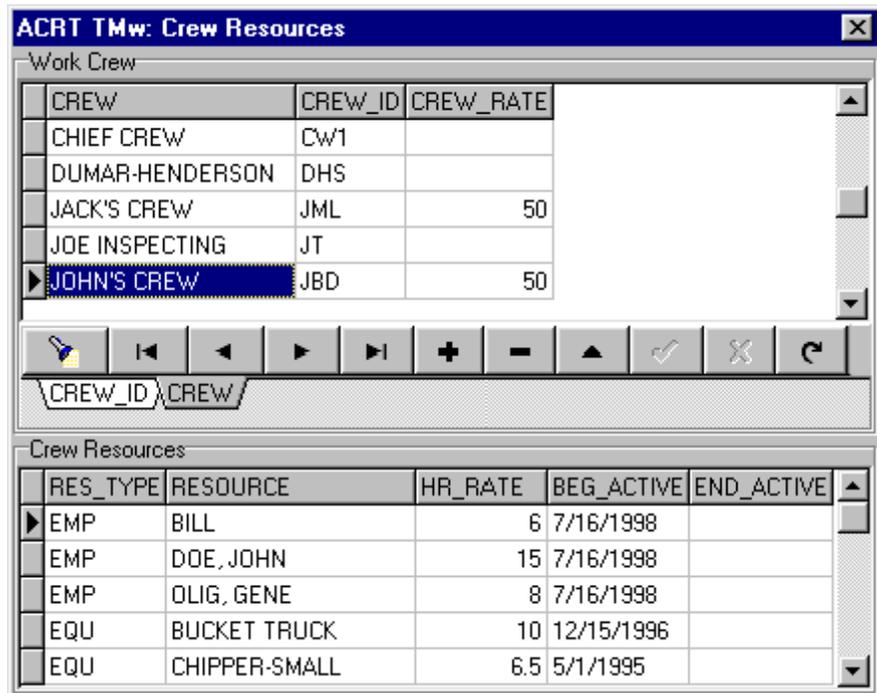


Figure 3.8.7: Work crews and their resources are defined through the crew resources window.

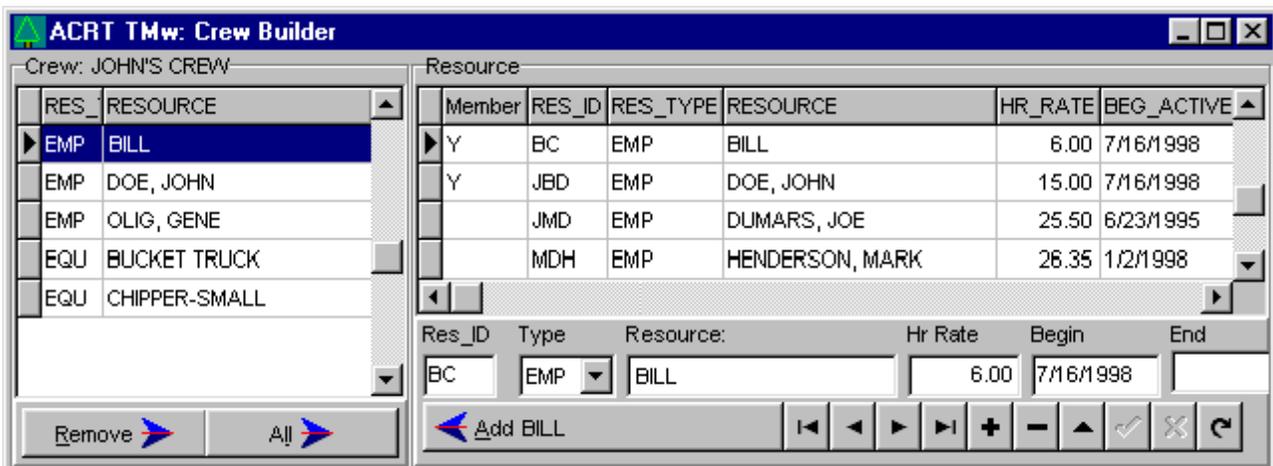


Figure 3.8.8: Resources are added to crews using the crew builder.

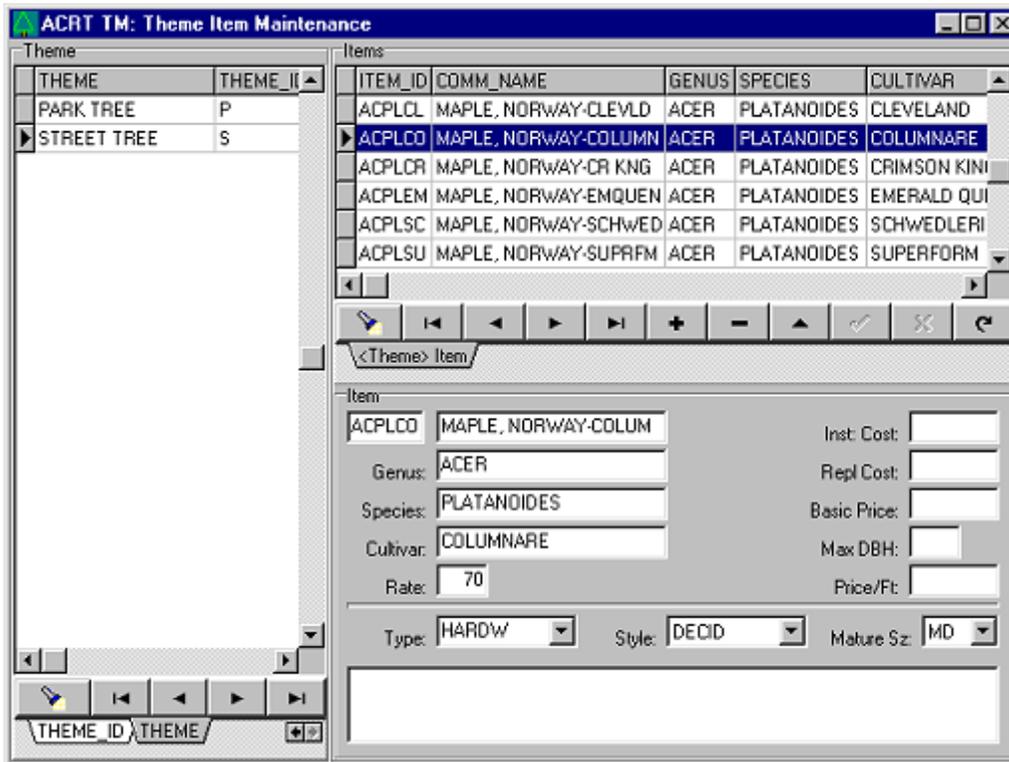
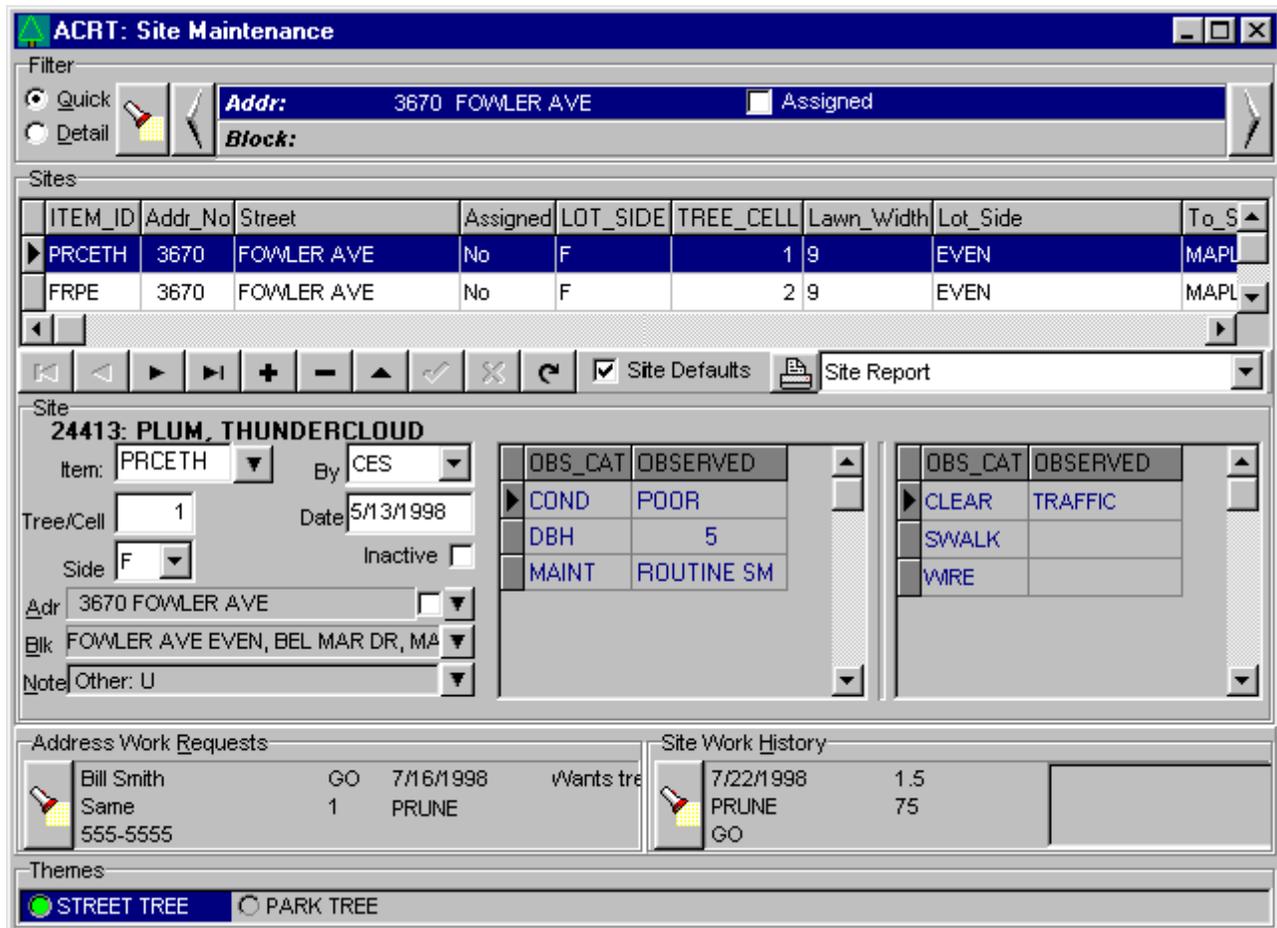


Figure 3.8.9: Street and park tree species are referred to as themes and are defined in separate databases.

Defining Species

Street and park tree species are defined in the **theme item maintenance** window (Figure 3.8.9). Street and park trees are referred to as themes and are defined in separate databases. A tree identification code (*item*) up to seven characters and a common name up to 20 characters must be entered. The *genus*, *species*, and *cultivar* for the tree can also be entered and can each be up to 20 characters. Additional data fields include species *rating* (CTLA valuation), *installation cost*, *replacement cost*, *basic price*, *maximum DBH*, and *price per foot*. Drop-down lists are available for *type* (conifer, hardwood, palm, or shrub), *style* (evergreen or deciduous), and *mature size* (small, medium, or large) fields.



▲ Figure 3.8.10: Tree sites are added, edited, searched, and printed in the site maintenance window.

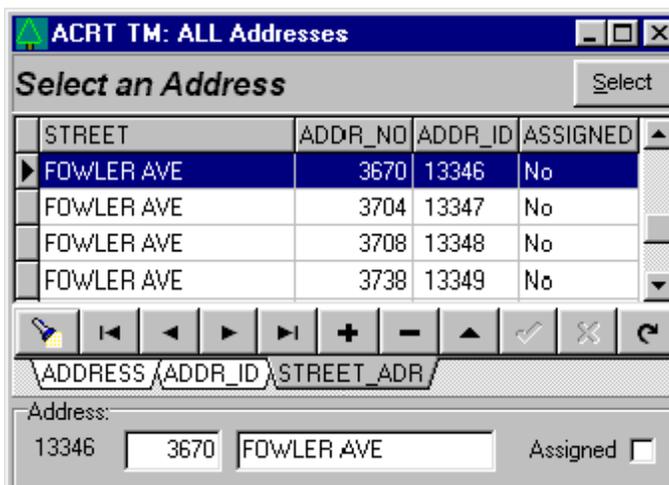
Adding tree sites

A theme of either *park* or *street tree* must be selected before entering data in the **site maintenance** window (Figure 3.8.10). Tree location descriptors include *tree/cell*, *side*, *address*, and *block*. *Tree/cell* represents either the tree site number at the address or its grid cell number when a grid location system is used. A *side* of either *front*, *island*, *median*, *off ROW*, *rear*, or *side* can be selected from a drop-down list. The site *address* must be selected from the **all addresses** window (Figure 3.8.11). New address information can be entered in this window if needed. *Block* represents the block segment that the address is located on, and is selected in a window similar to **block maintenance** (Figure 3.8.5). New block

information can be entered in this window if needed.

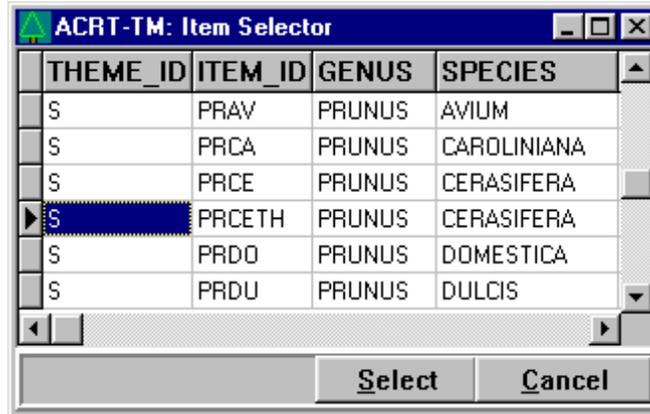
Tree descriptors include *item*, *condition*, and *DBH*. *Item* can be entered by either typing in a species code or selecting the species from the **item selector** window (Figure

3.8.12). *Condition* and *DBH* are selected in the **build site observation set** window (Figure 3.8.13). Headings in this window include *category*, *observation*, and *site observations*. A *category* of either *condition* or *DBH* must be selected to show its respective *observations*. An



◀ Figure 3.8.11: Addresses are selected from the all addresses window during data entry. A new address can be created if needed.

Figure 3.8.12: Species can be selected from the item selector window during data entry.



observation value is then selected to indicate the site observation. Figure 3.8.13 indicates a poor observation for the condition category. The same technique is used for selecting a DBH class. DBH observations are from zero to 60 inches in one inch increments. A maintenance category is also included in this window. Maintenance observations include natural; plant; priority 1 and 2; removal 1, 2, and 3; routine large and small; stump; train; and woods.

A separate build site observation set window is used to enter environment observation data. Categories in this window include clearance, sidewalk, and wire. The clearance category contains light, pedestrian, sign, and traffic observations. Multiple observations can be selected. The sidewalk category contains no, light, medium, and severe damage observations. The wire category

contains high, low, and both observations. Category and observation selections within build site observation set windows could not be modified by the authors.

Other fields in the site maintenance window include by, date, inactive, and notes. The by field represents the employee who collected the data, and the date indicates the inventory date. An inactive check box is available for making a tree inactive after it is removed. This function keeps the linked information about the tree in the database. Notes for the tree site are entered in a note pad window.

Work requests and history

Multiple work requests can be entered for an address in the work requests window (Figure 3.8.14). This window is accessed through the site maintenance window. Information that can be entered includes caller name, caller location, phone number, work type (either prune, fertilize, plant, remove, routine, stump, train, or water), work priority (an integer from 0 to 9), received date, and the employee who received the request. The address link field in the work requests window indicates the current address by default. Inspection information is entered in the lower portion of this window. Inspector name, inspection date, site identification number, and field comments can be entered.

The work history window is used for entering, editing, and searching work history information (Figure 3.8.15). The employee who scheduled the work, the scheduled date, and the estimated hours for completion can be entered. A checkbox is available for indicating whether the work is contracted. Further information that can be entered includes work type, work category (emergency, routine, scheduled), work date, crew, number of person hours, and comments. Crew rate and cost are calculated automatically.

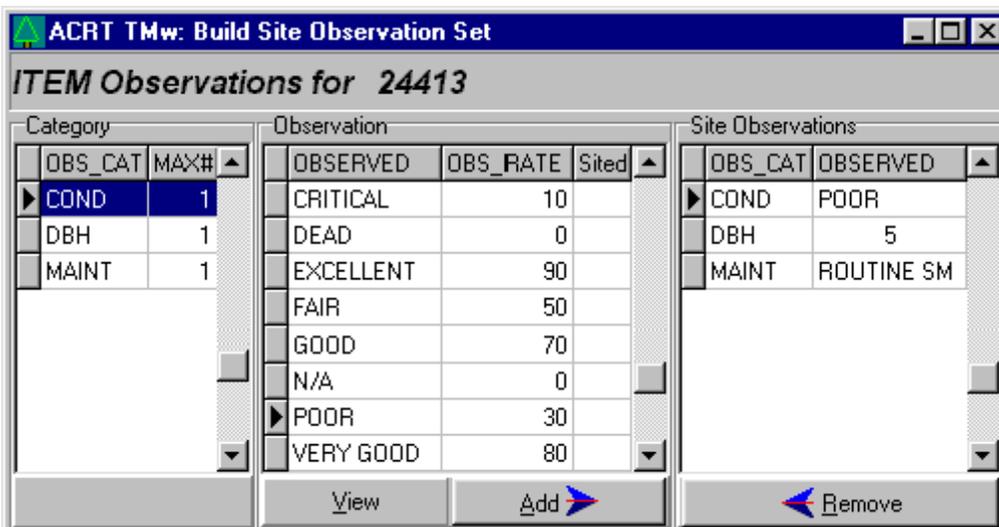
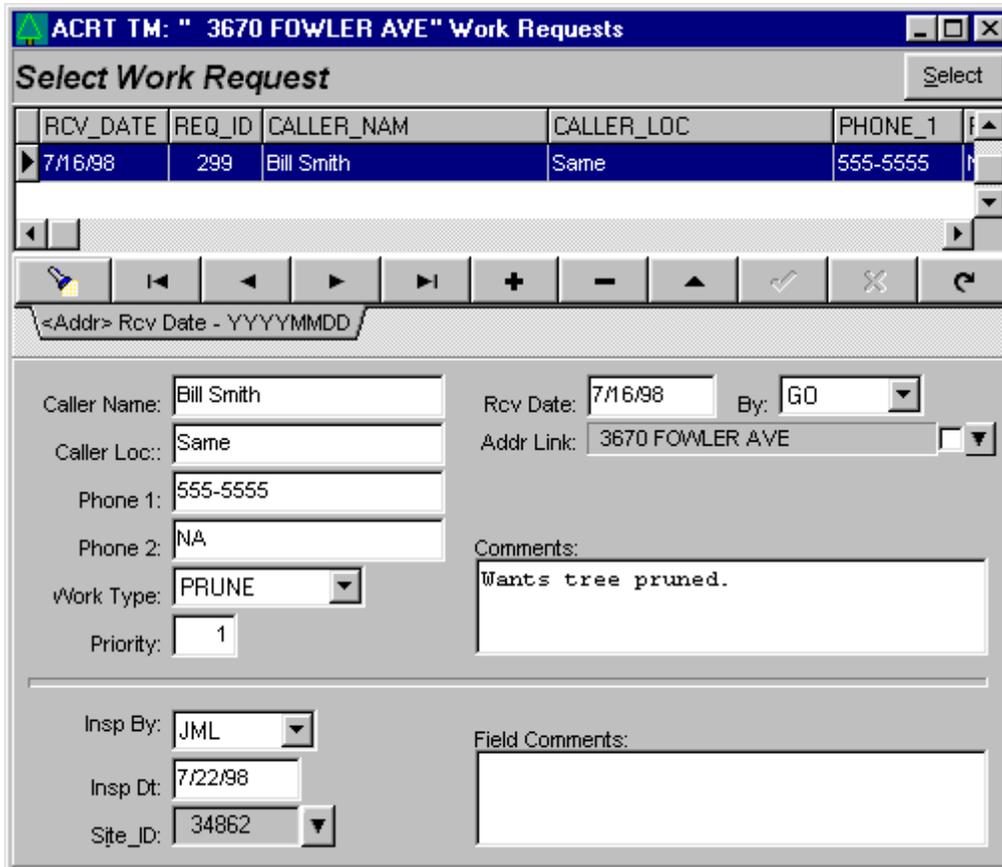


Figure 3.8.13: Item observations include condition, DBH, and maintenance.

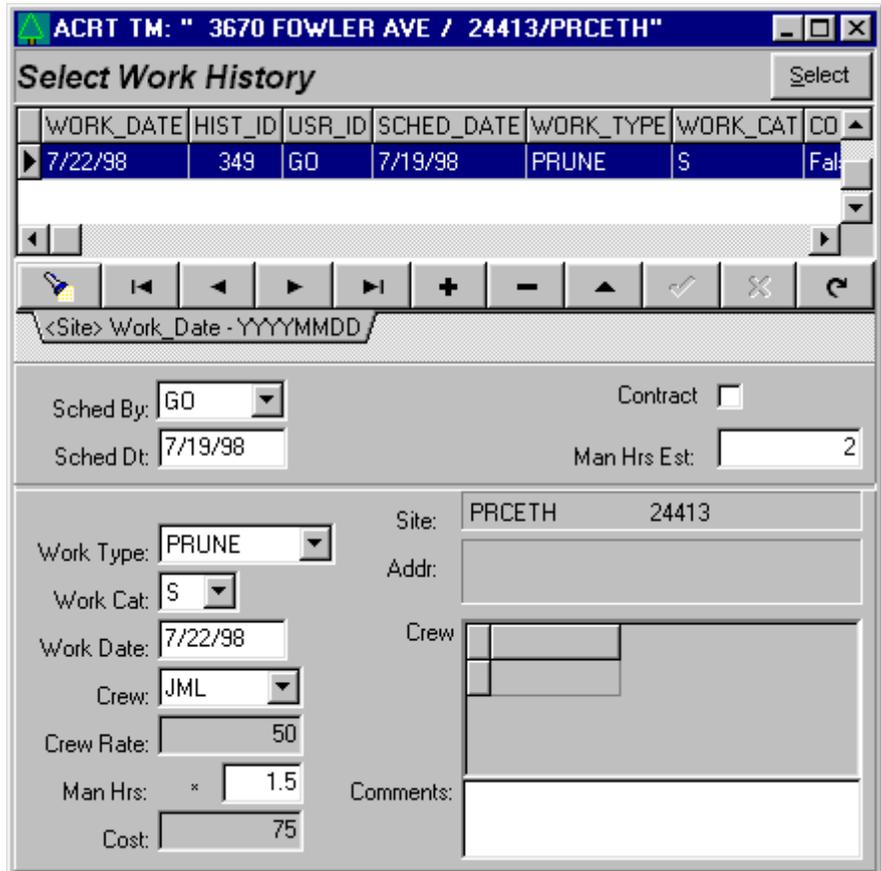


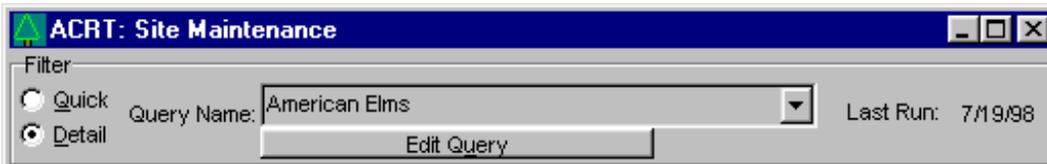
◀ Figure 3.8.14: Work requests and inspection information are added, edited, and searched in the work request window.

▼ Figure 3.8.15: The work history window allows for entering, editing, and searching completed work orders.

Queries

Queries are performed after selecting the *detail* radio button at the top of the **site maintenance** window (Figure 3.8.10). A saved query can be selected from a drop-down list or a new query can be specified (Figure 3.8.16). Queries are created, edited, and saved in the **query builder** window (Figure 3.8.17). Queries can only be performed on one theme at a time. Fields and field names along with *observation categories* and *observations* are used in conjunction with Boolean operators to create queries. Figure 3.8.17 indicates all species equal to American Elm (*Ulmus americana*). Executing the query lists the selected site *identification numbers* in the upper right corner of the **query builder** window. Detailed query results are viewed in the **site maintenance** window (Figure 3.8.10).



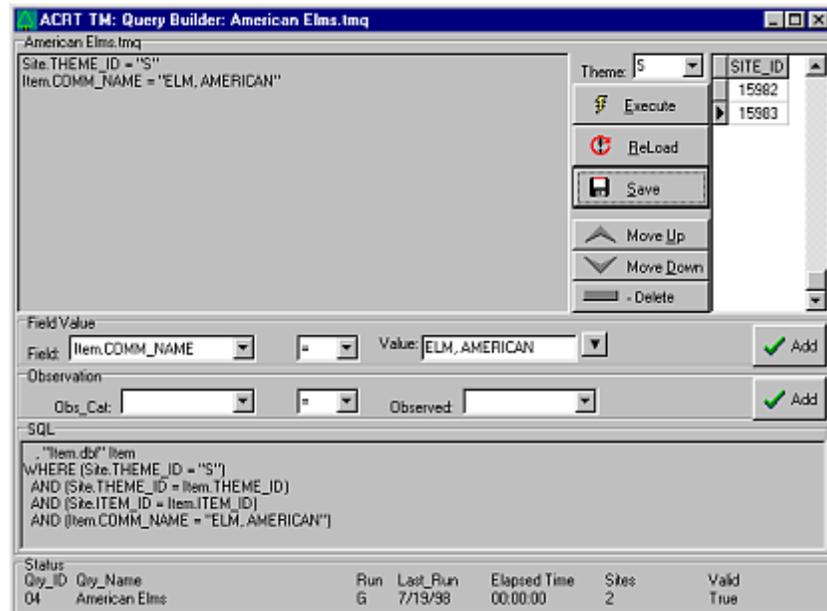


▲ Figure 3.8.16: A saved query can be performed by choosing it from a drop-down list after selecting the detail radio button. Queries are created and edited in the query builder window.

Reports

Reports are created through the **site maintenance** window and can be printed or saved to file. Report formats in the *site report* drop-down list include *site*, *address*, *block*, *history site*, *history block*, *request site*, and *request address* (Figure 3.8.10). The *site report* drop-down list changes for query reports after the *detail* radio button is selected. Query report formats include *sites by address*, *sites by block*, *sites and history by address*, *sites and history by block*, and *sites and requests by address*.

The **tree and site listing window** is used to either save or print reports. Reports can be saved in either *.grp* or *.csv* (comma separated values) file formats. The report date and time are listed for each of the report formats. A *site* report lists only the information for the selected site as indicated in the **site maintenance** window. This includes *tree/cell* number; *address*; *on*, *from*, and *to* streets; *block side*; *lot side*; *management area*; *genus*; *DBH*; *condition*; *maintenance*; *sidewalk damage*; *presence of utilities*; *clearance*; *inventory date*; and the *resource identification* code of the employee who conducted the inventory. The *address* report contains the information from the *site* report for all sites at the address. The *block* report contains the information



▲ Figure 3.8.17: Queries are created, edited, and saved in the query builder window. Site identification numbers are indicated for query results. Detailed site information is viewed in the site maintenance window.

for the *address* report for all sites and addresses on the block. *History* reports include *work date*, *work type*, *work category*, *crew identification* code, *person hours*, and *cost* information in addition to the site report information. The *request* reports include the *received date*, *work type*, *caller name*, *caller comments*, and *field comments* from the work request in addition to the site report information. Report formats for queries have similar outputs to those listed above.