

Getting Started with Asset Manager v4



Asset Manager software, developed by Davey Resource Group, is a Geographic Information Systems tool used to display and manage geographically referenced inventory data, and to track work history. It is designed to be a **simple**, low cost solution.

Asset Manager is specifically designed for ease of use; it consists of:

- A map screen
- An attribute table screen
- A work history table screen
- And a data input form.

Additional screens and dialog boxes allow the user to:

- Color, or thematically map edit map data
- Label edit map data
- Color and label base map data
- View and print and extended "Identify" screen
- Print edit map attribute reports
- Track "To-Do" items for each edit map data layer

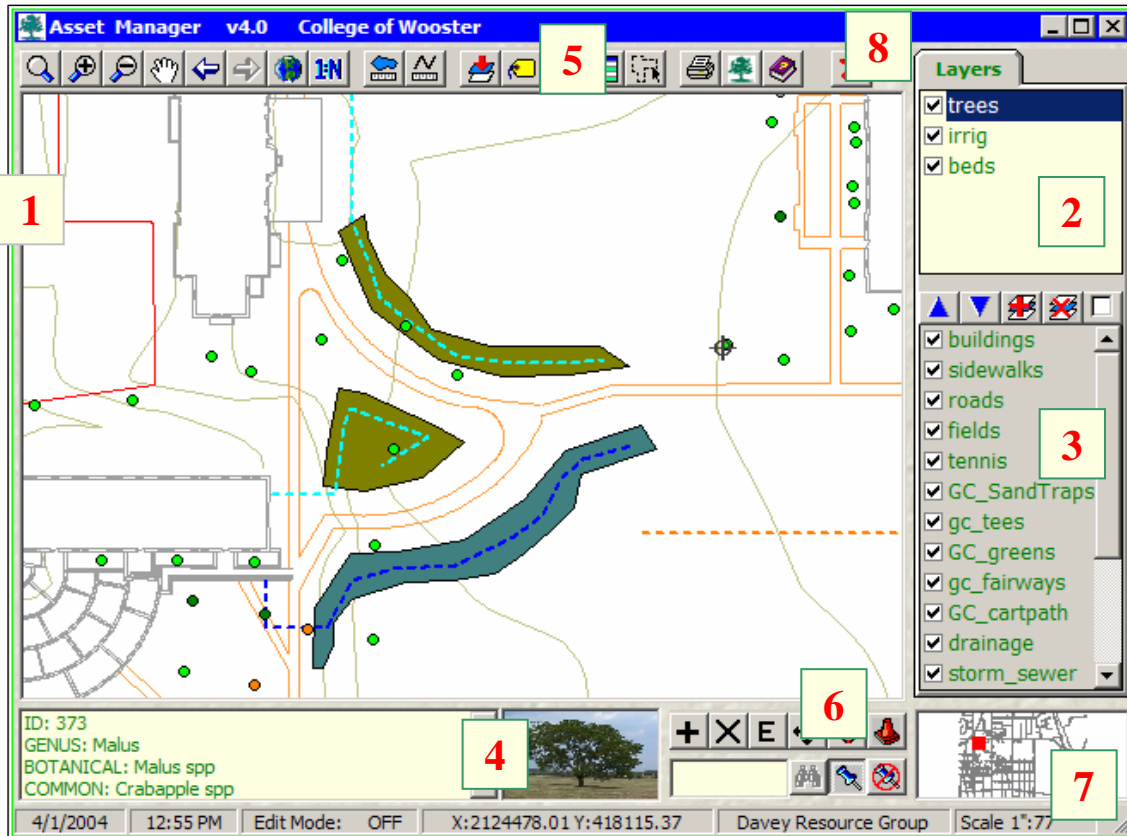
Quick Links:

- How to make a query
- Primary Tool Bar button functions
- Edit Tool Bar button functions

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D) ASSET MANAGER PRIMARY WINDOW



- | | |
|--|------------------|
| 1. Main Map Window | 5. Main Tool Bar |
| 2. EDIT Map Layers Table of Contents (TOC) | 6. Edit Tool Bar |
| 3. BASE Map Layers TOC | 7. Key Map |
| 4. Identify Window and photo #1 thumbnail | 8. Exit Button |

Main Map Window (1):

Displays EDIT map layers and BASE map layers comprised of images (air photos, scanned maps, etc.) and ESRI Shapefiles.

Map Layers Table of Contents (TOC) (2 & 3):

Lists the EDIT and BASE map data and allows user to toggle them on and off via checkboxes as well as modify their properties by selecting the map layer and right clicking.

Identify Window (4):

Displays the attribute information and the first of four photos for a selected EDIT map feature. Click to view and print the extended Identify Screen.

Main Tool Bar (5):

Allows user interaction with the Main Map Window. Pan, Zoom, set scale, etc.

Edit Tool Bar (6):

Allows user interaction with EDIT map features (trees; hydrants; light poles; etc.) contained within the Main Map Window. Add, Edit, Delete, Move, Identify, etc.

Key Map (7):

Displays an overview map and also an inset box indicating the location of the Main Map Window when zoomed in at various scales.

Exit Button (8):

Closes Asset Manager, saving current view extents as well as On/Off state of BASE maps

Main Tool Bar:

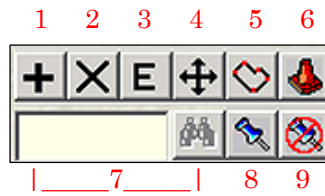
Allows user interaction with the Main Map Window.



1. **Variable Zoom** – User click-drag-releases a rectangle on the map which then zooms to said rectangle.
2. **Fixed Zoom** – User clicks once on the map which zooms in 2x and re-centers itself on clicked location
3. **Zoom Out** – User clicks once on the map which zooms out 1.5x.
4. **Pan** – User clicks-drag the map window to move the base map data without zooming in or out.
5. **Zoom Previous** – Brings the user back to the last map position after a zoom or pan operation.
6. **Zoom Next** – Brings the user forward to the last map position after a zoom previous operation.
7. **Zoom Extents** – Zooms the map to the extents of all features, EDIT and BASE map layers
8. **Set Scale** – Allows user to set a specific scale for the map window, i.e. 1:400
9. **Measure Area** – User click-drag-double-clicks a polygon on the map to define an area. Double click to end the polygon with 3 or more vertices.
10. **Measure Line** – User click-drag-double-clicks a single line or multiple line segments to measure distance. Double click to end the line.
11. **Zoom to Selected EDIT or BASE Map** – Zooms the map to the EDIT or BASE map currently selected (highlighted) in the map TOC.
12. **Label** – Auto-labels the EDIT or BASE map features on the map, based on user-chosen fields. Best used when the map is sufficiently “zoomed” in to avoid label clutter.
13. **Clear Selection** – Clears EDIT features selected via an attribute table Query operation.
14. **Table** – Brings up the EDIT features attribute table for Queries or Reports.
15. **Select EDIT features by polygon** – User click-drag-double-clicks an irregular polygon around EDIT map features to view their attributes in the table window. Warning: sub-queries on these records will suffer performance slowdowns.
16. **To-Do List** – Access the generic “To-Do” list associated with the selected (highlighted) EDIT map layer.
17. **Print Map** – Brings up the Print Preview window. Note: Asset Manager prints Landscape orientation to an 8.5x11 sheet of paper. It attempts to proportionally match the size of the Main Map Window to a letter size page. Some trade-offs in terms of zoom level, scale, and Main Map Window contents occur in the process.
18. **About** – Asset Manager version information and support information.
19. **Help** – Displays this Help document.
20. **Exit** – Closes Asset Manager, saving current view extents as well as On/Off state of BASE maps.

Edit Tool Bar:

Allows user interaction with features (tree; hydrants; light poles; etc.) contained within the Main Map Window.



1. **Add Feature** – User clicks map to add an EDIT feature at clicked location. Attributes of said feature will be listed in the Identify Window.
2. **Delete Feature** – User clicks feature to delete an EDIT feature (user is prompted to verify deletion).
3. **Edit Feature** – User clicks EDIT feature to access input form and change its attributes. Attributes of said feature will be listed in the Identify Window.
4. **Move Feature** – User click-selects-drags EDIT feature to move it to a different location on the map. Feature is highlighted in yellow during the operation.
5. **Edit Polygon Vertices** – With EDIT polygon features, user selects an individual feature with a left click, then right clicks to see and modify its vertices. Vertices may be moved using a left-click drag and drop procedure. When done editing vertices, the user must click this tool button again whereupon a confirmation message will be displayed to save the edits.
6. **Work History** – User clicks directly on an EDIT feature to view its work history, if any exists. Clicking on the map, as opposed to any individual EDIT feature, will bring up all the work records for all features in the selected EDIT layer.
7. **Find Edit Feature** – User clicks on an EDIT feature, or types in its ID number. If the feature exists, the Main Map Window will center the selected feature and zoom in to it. Attributes of said feature will be listed in the Identify Window.
8. **Identify** – User clicks directly on an EDIT feature to view its attributes in the Identify Window. A ‘bulls-eye’ marker is placed on top of the select feature to avoid confusion with surrounding features. Once features are listed in the Identify Window, user may click the Identify Window to view and print the extended Identify Screen.
9. **Identify Clear** – Clear the bulls-eye markers to reduce clutter as needed.

II) TABLE VIEWER

6

ID	GENUS	BOTANICAL	COMMON	CONDITION	DBH	CANOPY	AREA	SITE	MAINTENANC
413	Fraxinus	Fraxinus pennsylvanica	Ash Green	Good	24	31 to 40	P 32	8	Routine Large Pru
425	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	22	31 to 40	P 32	20	Priority Prune Inn
482	Fraxinus	Fraxinus pennsylvanica	Ash Green	Poor	28	50 plus	P 32	42	Removal Schedule
555	Fraxinus	Fraxinus pennsylvanica	Ash Green	Good	28	50 plus	P 32	101	Routine Large Pru
592	Fraxinus	Fraxinus pennsylvanica	Ash Green	Good	32	50 plus	P 32	5	Priority Prune Inn
700	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	31	41 to 50	2	5	Priority Prune Inn
733	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	14	21 to 30	39	39	Priority Prune Inn
743	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	16	31 to 40	46	6	Routine Large Pru
797	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	26	41 to 50	4	10	Priority Prune Inn
816	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	14	21 to 30	4	29	Routine Large Pru
819	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	24	31 to 40	4	32	Priority Prune Inn
838	Fraxinus	Fraxinus pennsylvanica	Ash Green	Good	17	21 to 30	4	51	Routine Large Pru
839	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	21	31 to 40	4	52	Routine Large Pru
945	Fraxinus	Fraxinus pennsylvanica	Ash Green	Good	16	21 to 30	20	17	Routine Large Pru
957	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	26	41 to 50	4	142	Routine Large Pru
958	Fraxinus	Fraxinus pennsylvanica	Ash Green	Fair	28	41 to 50	4	143	Routine Large Pru

Field to Group by: ID, GENUS, BOTANICAL, COMMON, **CONDITION**, DBH, CANOPY, AREA, SITE

Available Values: Critical, Fair, Good, Poor

Sort by: ID

28 of 3107 Records COMMON = 'Ash Green' AND DBH > 12 AND CONDITION <> 'Critical'

1. Feature Attribute Table
2. Query Tools
3. Sort Tools
4. Hide Fields
5. Record Count
6. Close Button

Feature Attribute Table (1):

Displays attribute field values for each feature row (tree; light pole; etc.).

Query Tools (2):

Selection criteria to formulate a query on the feature attributes.

Report Tools (3):

Generate simple report on currently selected feature attributes.

Miscellaneous Tools (4):

Print attribute table or report. Hide various feature attribute fields each time the table is opened for easier viewing if necessary. View the entire query when it has many nested levels.

Record Count and Query String (5):

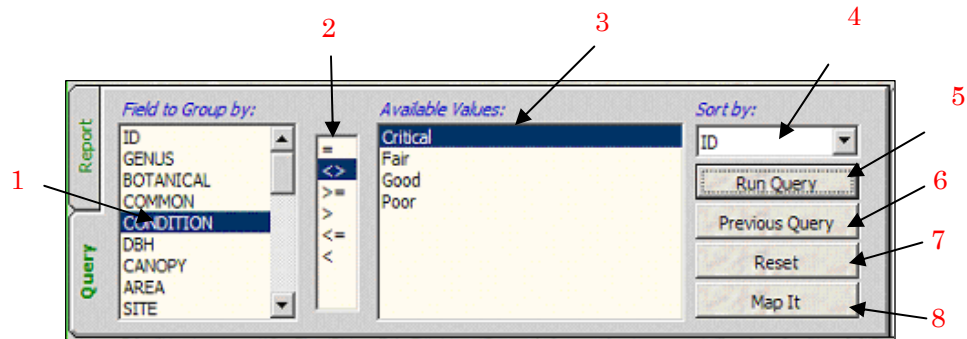
Displays the number of records within the table viewer based on the user's query (or lack thereof). The first few elements of the query string are also displayed.

Close Button (6):

Dismisses the Table Viewer Window.

Query Tools:

Selection criteria to formulate a query on the feature attributes.



1. **Field to Group by**– User selects field name to begin query.
2. **Operator** – User selects operator of choice (operators displayed are appropriate for selected type of field).
3. **Available Values** – User selects field value of choice (only field values that exist in the table are listed).
4. **Sort Results** - User selects field to sort results of query (optional).
5. **Run Query** – User clicks to initiate the query process. Queries can be ‘nested’, i.e. a query can be performed on the results of the previous query, up to 10 levels deep.
6. **Previous Query** – Jump back to the last query performed.
7. **Reset** – User clicks to clear current existing query.
8. **Map It** – User clicks to map the query records (query features are displayed on the map as large red squares).

How to Create a Query:

Start by selecting an attribute field (#1) of interest. In the picture above, the Condition field has been selected. Once a field has been selected, the appropriate operators are listed (#2). Choose “=” and an attribute field value (#3) to select all records whose Condition is Critical.

CONDITION = Critical

Alternative queries select for records whose fields are not equal (<>) to a specific value. Following the query above, one might next select the Common field, the “<>” operator, and the value of “Red Oak” to see all non-Red Oak records whose Condition is Critical. This would be a nested query.

CONDITION = Critical AND COMMON <> Red Oak

One could further nest the query by next choosing the DBH field, the “>” operator, and the field value of ‘12’ to view all non-Red Oak records, whose Condition is Critical and whose DBH is greater than 12 inches.

CONDITION = Critical AND COMMON <> Red Oak AND DBH > 12

Report Tools:

Selection criteria to create a simple report on the feature attributes.

Attributes of the TREES Map Layer

ASSET MANAGER REPORT

GIS Features and Attributes

Date: 4/1/2004 1:10:25 PM
Notes: These trees require immediate attention

EDIT LAYER: TREES

- Priority Prune Immediate**
9 Items in this group:
 - ID: 425
 - DBH: 22
 - CANOPY: 31 to 40
 - AREA: P 32
 - ID: 592
 - DBH: 32
 - CANOPY: 50 plus
 - AREA: P 32
 - ID: 700
 - DBH: 31
 - CANOPY: 41 to 50
 - AREA: 2
 - ID: 733
 - DBH: 14
 - CANOPY: 21 to 30
 - AREA: 39
 - ID: 797
 - DBH: 26
 - CANOPY: 41 to 50

Report Components

Title: Asset Manager Report
 Use as header on multi-page report

SubTitle: GIS Features and Attributes
 Use as header No header

Date: 4/1/2004 1:10:25 PM [Now]

Notes: These trees require immediate attention

Footer: College of Wooster

Report

Field to Group by: SITE, MAINTENANC, TRUNKS, TRUNKDAM, GROW, SIZE, REMOVED, MEMORIAL, DEDICATION

Available Values: Priority Prune Immediate, Priority Prune Scheduled, Removal Scheduled, Routine Large Prune

Fields to List: COMMON, CONDITION, DBH, CANOPY, AREA, SITE

Misc: Print, Export CSV, AutoFit Widths

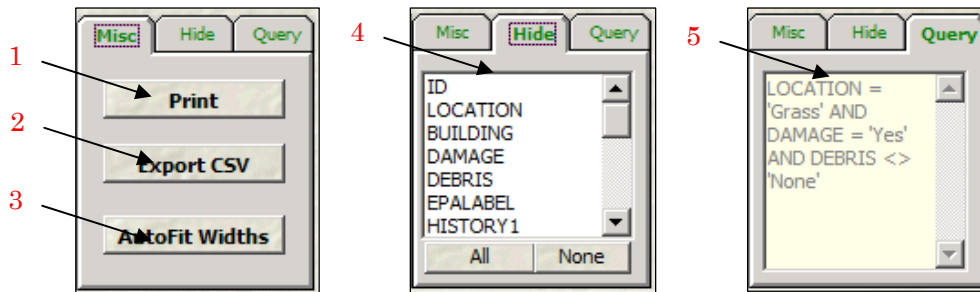
Query: Run, Reset

28 of 3107 Records | COMMON = 'Ash Green' AND DBH > 12 AND CONDITION <> 'Critical'

1. **Report Preview** – The report exactly as it will print. Expand or collapse items as desired (expansion or collapse will be printed accordingly).
2. **Field to Group by** – User selects field name to group the report items.
3. **Available Values** – Attribute values in Field to Group by are listed here.
4. **Fields to List** – User selects additional fields to list with each report item.
5. **Clear** – Clear the additional fields to list.
6. **Run** – Create the report
7. **Reset** – Start the report over.
8. **Title** – Type in a custom title here.
9. **Subtitle** – Type in a report sub-title here.
10. **Use as Header** – User selects whether the title or sub-title will be used as a header on each page.
11. **Date** – Adds Date and Time stamp to report.
12. **Notes** – User can enter a brief note here.
13. **Footer** – Type in a page footer to appear on each report page.

Miscellaneous Tools:

Tools for use with the attribute table or report.



1. **Print** – Print current attribute table records. Letter size, landscape orientation. User is warned if table is too wide to fit across one sheet of paper or if number of pages exceeds 10. Hide fields to fit table across one sheet of paper.
2. **Export CSV** – User clicks to export the query (or all records if no query is present) to a text file compatible with database and spreadsheet programs.
3. **AutoFit Widths** – Attribute Table field widths are user adjustable by hovering over border between fields on Table Window. Use this button to reset the field widths as needed.
4. **Hide Fields** – Click-select multiple fields to hide from view. Click again to make them visible.
5. **Query** – Lists complete query (for long queries that do not fit in status bar at bottom of Table Viewer Window).

III) INPUT FORM

The screenshot shows a software window titled "Asset Manager: Attribute Input Form". On the left, there is a sidebar with fields for "Total Records" (3107), "Record ID Number" (1), "X" (2124466.5613), "Y" (418103.9184), "Time" (01:00:43 pm), "Date" (2004-04-01), and "Staff" (College of Wooster). The main area has tabs labeled 1, 2, 3, 4, and "Photos". The "1" tab is active, showing fields for "Scientific Name" (Vacant Site Small), "Common Name" (Vacant Site Small), "DBH" (3), "Genus" (Vacant), and "Condition" (Good). A red circle icon is next to the "Scientific Name" field. Below the main area is a "Notes" text box (5) and buttons for "Load Last", "Reset", "Cancel", and "OK". A footer note (6) states: "It is BEST to choose values from the pick lists. Do not use special characters such as ., ; : ' / \ | () { } [] when typing in attributes."

- | | |
|-----------------------------|-----------------------------|
| 1) General Information | 4) Input Required Indicator |
| 2) Input Tabs | 5) Notes Input |
| 3) Pick Lists or Text Boxes | 6) Input Form Control |

General Information (1):

Displays basic information about the feature being added or edited. Non-editable.

Input Tabs (2):

Allows user to enter feature attribute data via various text and dropdown boxes.

Pick Lists or Text Boxes (3):

Data is input via one of these two methods.

Required Indicator (4):

When visible, the user must enter a value via the pick list or text box.

Notes Input (5):

Allows user to enter free form notes about the feature being added or edited.

Input Form Controls (6):

Various controls to 'Load the Last Record', Reset (blank) the entire form, Cancel the form, or OK the form to save.

General Information:

Displays basic information about the feature being added or edited. Non-editable.

The screenshot shows a vertical form with the following fields and values:

- Total Records:** 977
- Record ID Number:** 978
- X:** 2293205.9746
- Y:** 535540.1115
- Time:** 12:29:39 pm
- Date:** 2004-06-21
- Staff:** Kent State

1. **Record Count** – Current number of feature records.
2. **ID** – ID number of feature being added or edited.
3. **X Coordinate** – Horizontal or easting coordinate of feature. (**Area** for Polygons; **Length** for Lines)
4. **Y Coordinate** – Vertical or northing coordinate of feature. (**Perimeter** for Polygons)
5. **Time** – Time of feature add or edit.
6. **Date** – Date of feature add or edit.
7. **Inspector** – The person who collects or edits the data.

Input Form Controls:

Various controls for clearing, closing, etc.



- 1
- 2
- 3
- 4

1. **Load Last** – User clicks to load the attributes of the last feature into the input form.
2. **Reset** – User clicks to clear the contents of the current form.
3. **Cancel** – Cancels the add or edit operation (attributes are not saved for Add or Edit operations, and map point is not added to map during Add operation).
4. **OK** – User clicks to accept changes (edit operation) or new (add operation) attribute information for a feature.

IV) WORK HISTORY TABLE

The screenshot shows the 'Asset Manager: Work Records' application. The 'Data Entry' section includes fields for Ticket (101-65009), Feature ID (101), Start Date (3/29/2004), and Completed Date (4/18/2004). The 'Work' section contains 'Remove fallen limbs'. The 'Equipment' section lists 'chainsaw and ax'. The 'Internal \$' field is 25 and 'Hours' is 1. The 'Crew' section lists 'Jay Abercrombie'. The 'Company' field is empty. The 'External Reference Number' is 'FAMIS 0145346'. The 'Notes' section contains 'Storm last week'. The 'Statistics' table shows Internal \$ 50, External \$ 0, and Hours 2. The 'Search' field is set to 'Internal Cost'. The 'Work History' table shows two entries: Feature ID: 100 (Ticket: 100-47557) and Feature ID: 101 (Ticket: 101-65009). The 'Work History' table has columns for ID, Start Date, Completed Date, Work, Hours, Equipment, Internal Cost, External Cost, Crew, Company, External Reference, and Notes.

1. Records/Report View
2. Data input
3. Statistics
4. Simple Query
5. Export and Print Buttons
6. Calendar Tool
7. Calculator Tool
8. Conversion Tool

Records/Report View (1):

Displays work history information about the selected feature.

Data Input (2):

Tool for inputting a work attribute values in appropriate fields.

Statistics (3):

Shows Costs and Hours of currently selected records.

Simple Query (4):

Allows user to search for work records with specific attribute values.

Export and Print Buttons (5):

Prints records currently listed in table.

Tools (6, 7, & 8):

Built in Calendar, Calculator, and Conversion tools to assist Work Record input.