CAMEOfm 2.0

MARPLOT 4.1

CAMEO
Companion

ALOHA 5.4.1.2

CAMEO Chemicals 1.0

Arizona Emergency Response Commission
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FOREWORD

The **CAMEO Companion** is designed as a written resource for all CAMEO Suite users, particularly those who utilize the software on an occasional basis. The Companion developers recognize that while many persons attend CAMEO training courses, the skills gained in those training sessions fade when persons operate the programs infrequently. The CAMEO Companion provides explanations and step-by-step instructions to help CAMEO users perform emergency response and planning activities.

It is an integrated resource, compiling information and assistance for the four CAMEO components. It is not intended, nor does it claim to be comprehensive; the Companion might better be characterized as a "field guide" for the CAMEO Suite. The Companion is intended to augment, not replace, the User Manuals produced by the Environmental Protection Agency and the National Oceanic and Atmospheric Administration, which are freely available on the CAMEO website.

The CAMEO Companion features three main sections: CAMEO Companion for Responders, CAMEO Companion for Planners, and CAMEO Companion for Administrators. The text allows publication of one book containing all sections, or each section may be published as a stand-alone product. The decision as to how best to publish the Companion is left to the discretion of those providing this resource to their constituents.

The developers recommend that questions related to the operation of the CAMEO Suite applications be addressed to the Yahoo CAMEO Users Group at:

> http://groups.yahoo.com/group/CAMEOUSERS/

The developers welcome all comments, criticisms, corrections, and suggestions related to this work. Questions or comments related to CAMEO Companion content may be addressed to:
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ACKNOWLEGEMENTS

DEDICATION

This book is dedicated to the tireless efforts of all emergency planners and first responders both nationally and internationally. Without their efforts we could not feel confident in the manner in which hazardous materials incidents are handled. This book provides the guidance necessary to prepare, respond, detect, prevent, and recover from such events.

Mark Howard, Executive Director
Arizona Emergency Response Commission (AZSERC)

CAMEO Companion for Responders

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Companion

for

Responders

CAMEO Chemicals

FINDING A CHEMICAL RECORD IN CAMEO CHEMICALS

Basic Search for Chemical Name, CAS Number, or UN/NA Number

1. Open CAMEO Chemicals.
2. Select the "Search" icon.
3. Enter the Chemical Name, CAS Number, or UN/NA Number.
4. Select the appropriate "search" button.

> **Hint:** *CAMEO Chemicals employs literal searches only. It does not offer spell check or "did you mean?" options. It is **not** case sensitive, but is "space" and letter sensitive. Spelling counts!*

What if your search returns multiple chemical names?

A CAMEO Chemicals "Name" Search may produce several "found" records because the search examines both the "preferred chemical name" list and the "alternate chemical names" list (synonyms). There are about 5,300 chemicals in the preferred chemical name list, and about 80,000 alternate chemicals names listed. The "highest match" for the "literal" search terms will be listed first on the found records list.

> **Hint:** *CAMEO Chemicals advanced searches are always "and" searches. Users cannot search for items such as "UN/NA number is either 1555 or 2379;" or "Chemical Name is either Certox or Sertox."*
>
> *Use the "smallest amount of information possible at first (a single word, a short series of numbers), then add information as necessary.*

What if you do not have a name, CAS number, or UN/NA number?

Advanced Searches

1. Select the CAMEO Chemicals "Home" button.

2. Select "Advanced Search" from the bottom of the Basic Search screen.

3. Enter text, numeric, or regulatory information.

For more information on Basic and Advanced Search operations, see the CAMEO Chemicals Help menu "Searching for Chemicals" entries.

CAMEO Chemicals Datasheets, ERG, and CHRIS Information

CAMEO Chemicals incorporates three independent chemical information sources, the CAMEO Datasheets (formerly known as RIDS), the 2008 ERG, and the CHRIS manual. Much of the chemical data is redundant between the three sources; however, some fields are unique to each source. For example, Immediate Isolation Zone, and Downwind Protection Distances are only provided in the ERG. Some of the technical properties fields are only found in the CHRIS manual. Some materials will not have entries for all three sources, and users should consult all three sources for chemical information when possible.

Getting the Chemical Information: Chemical Name and CAS Number Searches

1. Conduct a Chemical Name or CAS number search.

2. Select the "View Datasheet" button or double-click on the Chemical Name.

3. Double click on the UN/NA link (in blue below the UN/NA number).

4. Select the "Response Guide" link (in blue on the right side of the page); this opens the associated ERG Guide page in a separate *.pdf* file.

5. Select "CAMEO Chemicals" from the bottom computer taskbar, this leaves the ERG *.pdf* file open while returning the user to the CAMEO Chemicals software.

6. Use the "back" button to return to the Datasheet.

7. Select the "CHRIS Code" link (in blue on the right side of the page); this opens the associated CHRIS Guide page in a separate *.pdf* file.

8. Navigate between the Datasheet, ERG Page, and CHRIS Guide using the bottom taskbar.

Getting the Chemical Information: ERG Number Searches

ERG number searches work identically to Name and CAS number; however, CAMEO Chemicals first display the ERG link page rather than the Datasheet.

1. Conduct an ERG number search; the ERG link page will be displayed.

2. Select "CAMEO Chemicals has 1 chemical datasheet" to view the Datasheet.

3. Refer to above steps to view the ERG and CHRIS pages.

Getting the Chemical Information: Advanced Searches

Advanced searches always display the Datasheet, even if the search criteria include the UN/NA number.

UNDERSTANDING THE CHEMICAL INFORMATION: CAMEO CHEMICALS HELP MENU AND GLOSSARY

Users may not understand all the acronyms and other information on the Datasheets, ERG, and CHRIS pages. Use the Help Menu and Glossary for clarification of information fields and terminology.

1. Select the Help link From CAMEO Chemicals screen from CAMEO Chemicals screen.

2. Select "Working with Datasheets" for more information.

3. Select "Glossary" for term definitions.

WORKING WITH SEVERAL CHEMICALS AT THE SAME TIME

Making a List of Chemicals in CAMEO Chemicals

1. Select any entry from the Chemical library.

2. Select the "Add to My Chemicals" button.

3. Select a different entry from the Chemical library.

4. Select the "Add to My Chemicals" button.

5. Repeat above steps until all desired chemicals have been added to My Chemicals.

6. Select the "View MyChemicals" button.

Saving a List of Chemicals For Future Import Back to CAMEO Chemicals

1. Make a list of MyChemicals.
2. Select the "View MyChemicals" button.
3. Select the "Export" button.
4. Name and Save the file to your computer.

Importing a Saved List of Chemicals

1. Open CAMEO Chemicals.
2. Select the "View MyChemicals" link.
3. Select the "Import" button.
4. Use the browser to select the saved *.txt* chemical list file from your computer.

Saving a List of Chemicals to Microsoft Word

1. Make a list of MyChemicals.
2. Select the "View MyChemicals" button.
3. Select "Print Report."
4. Select "Preview Report."
5. Highlight the text you wish to paste into Word.
6. Copy and paste the highlighted text to Word.

CAMEO Chemicals Predict Reactivity

1. Make a list of MyChemicals.
2. Select the "Predict Reactivity" link.
3. View the reactivity worksheet.

> **Hint:** *The CAMEO Chemicals Predict Reactivity worksheet only predicts potential outcomes for two substances interacting. While you may enter any number of substances to the worksheet via the MyChemicals list, the reactivity predictions are always "paired," and only apply to mixing two chemicals at a time.*
>
> *Users should also realize that the "Predict Reactivity" process is based on reactivity groups reacting with one another (two at a time) and do not account for "real world" scenarios – incorporating concentrations, heat, contaminants, and other variables. Users should use their own chemistry knowledge and the situation to further guide them.*

Printing Information from CAMEO Chemicals

At any time during operation of CAMEO Chemicals, the File/ Print menu is active. Users may print any active screen at any time using the File menu.

ERG and CHRIS pages print via the File menu or the Print symbol from the *.pdf* screen.

There is no single button in CAMEO Chemicals that will print the Datasheet, ERG, and CHRIS together; each source prints independently.

Users may use "copy and paste" operations to move Datasheet, ERG, and CHRIS information into Word, then print the Word document.

CAMEOfm

CAMEOFM HOME SCREEN

1. Launch CAMEOfm.

2. The software will open to the CAMEOfm "Home" screen.
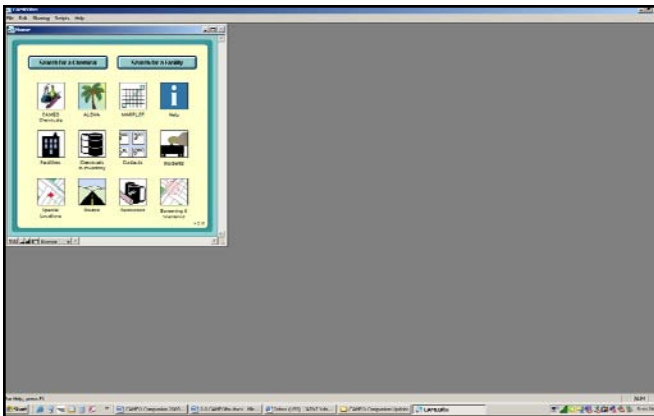
CAMEOfm Home Screen "Search for a Chemical" Button

The "Search for a Chemical" button takes the user out of CAMEOfm and launches CAMEO Chemicals Home screen. From here, the user may employ the operations discussed in the **CAMEO Chemicals** section of the CAMEO Companion.

CAMEOfm Home Screen "Search for a Facility" Button

The "Search for a Facility" button takes the user directly to the Facilities module Basic Search screen. From here, the user may initiate a search for a desired facility record as discussed later in this section of the CAMEO Companion.

CAMEOfm Home Screen Link Icons

The CAMEOfm Home Screen displays 12 "link" icons that provide user access as indicated by the name below the icon. From here, users may launch the CAMEO Chemicals, ALOHA, or MARPLOT applications; open the CAMEOfm Help menu; or open any of the eight individual CAMEOfm spreadsheet modules.

CAMEOfm Terminology and Operations for Menus, Hot Buttons, and Link Buttons

CAMEOfm is a relational database, which means it stores information on multiple spreadsheets which are "linked" internally to the software (much like Microsoft Access software). Users access information from the various spreadsheets using CAMEOfm menu, hot button, and link options. When using the CAMEO Companion, it is helpful to understand what the "menu," "hot button," and "link" terms mean, and where they are located on the CAMEOfm screens.

CAMEOfm Menu Bar

The "menu bar" is located across the top of the CAMEOfm display screen and includes:

File   Edit   Record   Search   Sharing   Scripts   Help

The menu bar titles are identical for all of the eight CAMEOfm modules.

CAMEOfm Hot Buttons

The hot buttons are located at the top of any CAMEOfm record, below the menu bar. The hot button options are identical for all CAMEOfm modules and include:

Home   View Record (View List)   New Search   Edit   Help

Home:	Opens Home Screen, hot buttons disappear
View Record (View List):	Toggles between a List View and Record View
New Search:	Open Basic Search screen, hot buttons disappear
Edit:	Opens record for editing, hot buttons disappear
Help:	Opens CAMEOfm Help as an independent screen

CAMEOfm Link Buttons

The "link" buttons are displayed as a "green button." There are only two link buttons found in CAMEOfm. One is the "Datasheet" link button found on Chemicals in Inventory and Screenings and Scenarios records, and the other link button is "Show on Map," found on Screenings and Scenarios records.

CAMEOfm List View versus Record View

List View means that the screen displays all the module records in spreadsheet format. A limited amount of record information is available via the List View.

Record View means that the screen displays all the module records in a customized CAMEOfm format. All the record information contained in the active CAMEOfm module is available via the Record View. Related record information contained in other CAMEOfm modules is available via the "Record/Show Related" menu.
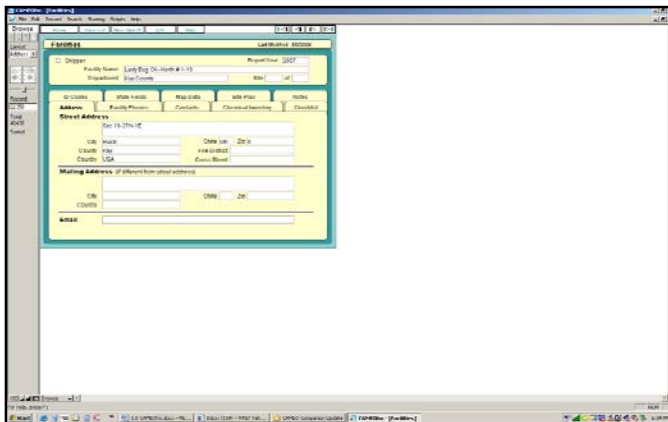
CAMEOfm Show Related

CAMEOfm records contained on a spreadsheet are "related" to other CAMEOfm spreadsheets. To view the related information:

1. Open any CAMEO record from any module.

2. Select the "File/Show Related" menu.

The available related spreadsheets are listed in the displayed menu.

> **Note:** *Information must have been entered into these "related" records, otherwise the user will get a message stating there are no related records.*

RESEARCHING CAMEOFM TIER 2 INFORMATION

Finding and Selecting the Facility Record

There are three methods of selecting a CAMEOfm Tier 2 facility record:

1. Open the CAMEOfm Facilities module; scroll through the list and double-click on the desired record.

2. Open the CAMEOfm Facilities Basic Search:

    a. From the Home screen, use "Search for a Facility Button."

    b. From the Facilities module, use "Search/Start Search" menu.

    c. From the Facilities module "New Search" hot button.

3. From MARPLOT, select the associated Facility map object and use the MARPLOT – CAMEOfm Sharing menu operation (this method is discussed in the **MARPLOT** section of the CAMEO Companion).

Selecting a CAMEOfm Facility Record: Scrolling

1. Open CAMEOfm Facilities module.

2. Use the right-side scroll bar to locate the desired record.

3. Double-click on the desired record to change from List view to Record View.

Selecting a CAMEOfm Facility Record: Search Operations

1. Open CAMEOfm Facilities module.

2. Select the "Search/Start Search" menu.

3. Enter the known information in the appropriate field, i.e., Facility Name, Address, County, Zip Code, etc.

4. Select the "Search" button from the bottom of the Basic Search screen.

5. Double-click on the desired record to change from List View to Record View.

> **Hint:** *CAMEOfm searches are literal. If the facility name, address, or any other information appears differently on the record than what you enter as the "search" text, CAMEOfm will not find and display the desired record. CAMEOfm does not incorporate "spell check" or "did you mean" types of searches. Users should enter the minimum amount of information needed to reduce chance for errors.*

Selecting a CAMEOfm Facility Record: Marplot, Sharing Menu Operations

Refer to the **MARPLOT** section of the CAMEO Companion.

Returning to the List of Facilities or Other Records After a Search

1. Select the "Record/Show All Records" menu.

Viewing and/or Printing All Facility Record Information

1. Open the desired Facility record in CAMEOfm.
2. Select the File/Print Report menu.
3. Select "Current Record" and "Select All."
4. Select "Preview Report" or "Print Report."

All of the available Facility information, including Contacts, Chemicals in Inventory, Phone Numbers, Map Information, etc. is displayed on the screen. Use copy and paste to insert this information into any word processor program.

Where is the facility located?

1. Open the desired Facility in record view.
2. View the "Street Address" field.

If the CAMEOfm Facilities Have Been Linked to MARPLOT

1. Open the desired Facility record in CAMEOfm.

2. Select the "Sharing" menu.

3. Select "MARPLOT/Show on Map."

Who can I call and what are their phone numbers?

> **Hint:** *Although the Facilities Record View offers a "Phone Numbers" tab, rarely are any phone numbers found there, which can be frustrating to CAMEOfm users. The Tier 2 records are typically entered from Tier 2 Submit software or from paper Tier 2 reports, and all the phone numbers are attached to the Contact records. Data management can input the phone numbers to the Facilities Phone Numbers tab; again, this is rarely done.*

There are three methods to find facility contacts and phone numbers.

Method 1: Facility Phone Numbers (recommended method for responders)

1. Open the desired Facility record in CAMEOfm.

2. Select the File/Print Report menu.

3. Select "Current Record" and "Contacts;" as an alternative, you may select "Current Record" and "Select All."

4. Select "Preview Report" or "Print Report."

All the contact and associated phone numbers are displayed on the screen. This information may be copied and pasted into any word processor program.

Method 2: Facility Phone Numbers

1. Open the desired Facility record in CAMEOfm.
2. Select the Contacts tab.
3. Double-click one of the available contact records from the List View screen, or
4. Select the File/Print report menu.

Method 3: Facility Phone Numbers

1. Open the desired Facility record in CAMEOfm.
2. Select the Record/Show Related menu.
3. Select "Contact Records."
4. Double-click one of the available contact records from the List View screen, or
5. Select the File/Print report menu.

What chemicals are present at the facility?

> **Hint:** *The CAMEOfm Chemicals in Inventory information is typically based on data submitted from Tier 2 reports entered from Tier 2 Submit software or from paper Tier 2 reports. The quality and quantity of the CAMEOfm Chemical Inventory information is thus completely dependent on the accurateness and completeness of the information submitted on the Tier 2 report.*

There are three methods to view a listing of the Chemical Inventory records for a Facility.

Method 1: Facility Chemical Inventory (recommended method for responders)

1. Open the desired Facility record in CAMEOfm.
2. Select the Record/Show Related menu.
3. Select "Chemical in Inventory Records."
4. Select the File/Print report menu.
5. Select "Found Set" and "Select All."
6. Select "Preview Report" or "Print Report."

All Chemical Inventory information is displayed on individual print screens. This information may be copied and pasted into any word processor program.

Method 2: Facility Chemical Inventory

1. Open the desired Facility record in CAMEOfm.
2. Select the Chemical Inventory tab.
3. Double-click one of the available chemical records from the list view screen, or
4. Select the File/Print report menu.

Method 3: Facility Chemical Inventory

1. Open the desired Facility record in CAMEOfm.
2. Select the File/Print Report menu.
3. Select "Current Record" and "Chemicals in Inventory;" as an alternative, you may select "Current Record" and "Select All."
4. Select "Preview Report" or "Print Report."

Viewing the CAMEO Chemicals Datasheet, ERG, and CHRIS for a CAMEOfm Chemical Inventory Record

1. Select any CAMEOfm Chemical Inventory record in Record View.

2. Select the "Datasheet" link from the right side of the screen.

This will open CAMEO Chemicals for that substance.

Making a List of All the Chemicals in Inventory at a Facility with Datasheets, ERG, and CHRIS

1. Use one of the above methods to view the list of chemicals present at the facility.

2. Select the "Datasheet" button from one of the Facility chemical records; this will open CAMEO Chemicals to the datasheet record for that chemical.

3. In CAMEO Chemicals, select the "Add to My Chemicals" button.

4. Return to CAMEOfm using the computer task bar at the bottom of the screen.

5. Repeat the above steps for each Facility chemical.

6. To place Facility chemical and associated CAMEO Chemicals response information, use copy and paste methods to place both the Chemical Inventory information (from the CAMEOfm File/Print Report menu) and the CAMEO Chemicals response information into Microsoft Word.

What quantity of the chemical is present at the facility, and where is it located onsite?

1. Select any Chemical Inventory record in Record View.

2. Review the information displayed on the Location tab.

3. Left-click directly on the word "Type" to display a list of the code meanings.

4. Left-click directly on the words "Press" and "Temp."

5. Select the "Physical State and Quantity" tab.

6. Select the "Components" tab.

> **Hint:** *The CAMEOfm Chemicals in Inventory information is typically based on data entered from Tier 2 Submit software or from paper Tier 2 reports.* **Typically, Tier 2 regulations do not require the entry of exact amounts onsite; thus, the Max Daily Amount, Average Daily Amount, and Max Amount is Largest Container fields are often blank***. This does* **not** *mean that there is zero quantity of the substance(s) onsite; it simply means the facility did not include that information on the submitted Tier 2 report. As stated above, the quality and quantity of the CAMEOfm Chemical Inventory information is completely dependent on the accurateness and completeness of the information submitted on the Tier 2 report.*

Viewing the Facility Site Plan

1. Open any CAMEOfm Facility record in Record View.

2. Select the "Site Plan" tab.

> **Hint:** *CAMEOfm Site Plans may been in many different formats; including, image files such as .jpg, .bmp, .tif; Word documents; Excel spreadsheet files; CAD drawings; and .pdf files. More information concerning Site Plans is found in the **CAMEO for Planners** section of the Cameo Companion.*

Creating an ALOHA Threat Zone for a Selected Facility Chemical Record

1. Open any CAMEOfm Chemical Inventory record.

2. Select the Datasheet link; this will open the CAMEO Chemicals record.

3. Select the "ALOHA/Select this chemical in ALOHA" link from the CAMEO Chemicals Datasheet to open the ALOHA software and choose the chemical from the ALOHA Chemical Library.

4. Refer to the **ALOHA** section of the CAMEO Companion to create the Threat Zone.

CAMEOFM SPECIAL LOCATIONS, ROUTES, RESOURCES, AND INCIDENT MODULES FOR RESPONDERS

If data has been entered to the remaining CAMEOfm modules, responders may wish to access that information during the incident. There will be no information in these modules unless someone in the local jurisdiction has entered data.

All operations for Special Locations, Routes, Resources, and Incident modules are identical to operations for the Facilities, Chemicals in Inventory, and Contact modules. Only the *field names* will differ, because the information contained in the various modules is different.

How can I find "Special Locations" that are near the incident or in the ALOHA Threat Zone?

Refer to the **MARPLOT** section of the CAMEO Companion.

How can I find "Resources" that may be available for use during the incident?

1. Open the CAMEOfm Resources module in List View; see if any Resources records have been entered to CAMEOfm.
2. Select the "Search/Start Search" menu.
3. Enter the "Supplier Name" or "Resource Type."
4. Select the "Search" button.

Have there been incidents at the facility in the past?

1. Open the CAMEOfm Facility record.
2. Select the "Record/Show Related/Incident Records" menu.
3. If Incidents records for the Facility have been entered into CAMEOfm and linked to the Facility, those records will be displayed in a List View.

Is there a pre-planned CAMEOfm screenings and scenarios for this incident?

1. Open the CAMEOfm Facility record.

2. Select the "Record/Show Related/Screening and Scenario Records" menu.

If any Screening and Scenario records for the Facility have been entered into CAMEOfm and linked to the Facility, those records will be displayed in a List View.

How do I show the CAMEOfm facility, chemical inventory, special locations, resources, screenings, incidents, or routes on the MARPLOT map?

1. Select any CAMEOfm record except a Contact record.

2. Select the "Sharing/MARPLOT/Show on Map" menu; select "Show All on Map" to display multiple CAMEOfm records on MARPLOT maps.

If the selected record(s) are have been "linked" to MARPLOT maps, they will be displayed on the MARPLOT map.

If the selected CAMEOfm record is not "linked" to the MARPLOT map, and the record Address is known, refer to the **MARPLOT Address Finder** section of the CAMEO Companion.

Printing from CAMEOfm

1. Select any CAMEOfm record(s) from any module.

2. Select the File/Print Report menu.

3. Choose "Current Record" or "Found Set" as appropriate.

4. Choose the "Select All" button.

5. Select the "Print Report" button.

Copying Information from CAMEOfm to Word or Other Software Programs

1. Select any CAMEOfm record(s) from any module.

2. Select the File/Print Report menu.

3. Choose "Current Record" or "Found Set" as appropriate.

4. Choose the "Select All" button.

5. Select the "Preview Report" button.

6. Highlight the text you wish to copy and paste to Word.

7. Right-click and choose "copy" or press "control/c."

8. Open Word and paste the text into the desired document.

Showing CAMEOfm Facilities or Other Records on the MARPLOT Map

Displaying a Single CAMEOfm Record

1. Select any CAMEOfm record from any module.

2. Select the "Sharing/MARPLOT/Show on Map" menu.

Displaying a Group of CAMEOfm Records

1. Open the desired CAMEOfm module.

2. Conduct a "Search" to select the records you wish to display on MARPLOT.

3. Select the "Sharing/MARPLOT/Show All on Map" menu.

MARPLOT

> **Hint:** *The CAMEO Companion MARPLOT section assumes the user is operating a "standard" installation of the CAMEO Suite, with all the CAMEO Suite executable applications in c:/Program Files, and both the MARPLOT Maps and CAMEO Data folders in the Shared Documents folder. For installation options, see the* **Installation of CAMEO Programs** *section of the CAMEO Companion.*

NAVIGATING TO A DESIRED LOCATION IN MARPLOT

Navigating When the Internet Is Active on Your Computer

Address Search When an Internet Connection Is Active

1. Open MARPLOT.
2. Right-click on the MARPLOT screen.
3. Select "Go To Address" (or choose Go to Address from View menu).
4. Enter the desired street address including the city/state or zip code.
5. Select the "Find" button.
6. Select "Show on Map" if the correct address is displayed in the found window.

> **Hint:** *You must include either the "city, state" or the "zip code" for any MARPLOT internet Address search. If the search is not successful using the "city, state," try it again with the "zip code."*

Street Intersection Search When an Internet Connection Is Active

1. Open MARPLOT.

2. Right-click on the MARPLOT screen.

3. Select GO TO "Address."

4. Enter the desired street intersection joined with "and" or "&" including the city/state or zip code.

5. Select the "Find" button.

6. Select "Show on Map" if the correct address is displayed in the found window.

> **Hint:** *You must include either the "city, state" or the "zip code" for any MARPLOT internet address search. If the search is not successful using the "city, state" try it again with the "zip code." Also, you may need to try different spellings for the words "highway" or "interstate"; such as "hwy", "SH", "state road", "IH-", etc.*

Navigating Without Internet Access

Address Search Without an Internet Connection via Overlay Manager Search

Some MARPLOT systems may have local "address points" imported to the Overlay Manager and available for searches. If the address points are available in MARPLOT, use the following steps to navigate to the desired address.

1. Open MARPLOT.

2. Select the Edit/Search Overlays menu.

3. Set the search criteria as follows:

a. Search for objects "with names that contain."

b. Enter the desired street name or street address.

c. Overlay(s) to search: Single Overlay...
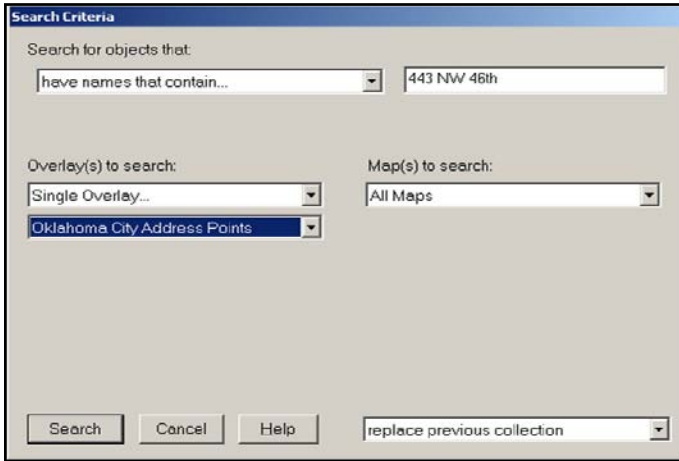
d. Select the Overlay containing the address points.

e. Set to "All Maps."

> **Note:** *The layers discussed above are not part of a standard installation, but are "user" installed.*

f. Select the "Search" button.

4. Highlight the desired address and select "Show on Map and Zoom" if the correct address is displayed in the found window.

Address Search Without an Internet Connection Using Imported TIGER Files

Some MARPLOT systems may have the Census Bureau TIGER file street maps imported to the Overlay Manager and available for searches. If the TIGER files are available in MARPLOT, the following steps could navigate the user to the desired address.

1. Open MARPLOT.

2. Select the Edit/Search Overlays menu.

3. Set the search criteria as follows:

   a. Search for objects "with names that contain."

   b. Enter the desired street name (you cannot specify a street address number).

   c. Select Overlay(s) to search: Single Overlay.

   d. Select the Overlay containing the TIGER files.

   e. Set to "All Maps."

   f. Select the "Search" button.

4. The MARPLOT screen should display a list of street segments that include the entered street name; users may select one entry from the list and select "Show on Map" or "Show All on Map." In some cases, this process may navigate the user to a spot near the desired map location. In many cases, this process will not lead to the desired map location because there are too many street segments from which to choose.

> **Note:** *The layers discussed above are not part of a standard installation, but are "user" installed.*

What if none of the address search options work?

Navigating to the Known Lat/Long Value

1. Open MARPLOT.
2. Right-click on the MARPLOT screen.
3. Select Go To "Lat/Long."
4. Enter the known lat/long values.
5. Select the "OK" button.

Navigating Using Pre-set View Menu Views

In some cases, users may have access to pre-set locations via the View menu.

1. Open MARPLOT.
2. Right-click on the MARPLOT screen.
3. Select Go To "View."
4. Select from the displayed list of views.
5. Select the "OK" button.

Navigating Using Quick Zoom

1. Open MARPLOT.
2. Select the Zoom-in tool.
3. Left-click and drag a rectangle around the desired map area.
4. Release the left-click.

What if local streets are not displayed in MARPLOT?

Here are some reasons why local streets may not display:

- Quicktime software has not been installed on the computer; see the **Installation of CAMEO Programs** section of the CAMEO Companion.

- The screen window width is currently wider than 20 miles; use zoom-in or set scale to reduce the window width to less than 20 miles.

- The "Roads" layer or the "Map" Layer Group in the Basemap Builder is set to "off"; open the Basemap Builder and set both "Map" and "Roads" as active.

- The street maps for the local area have not been downloaded from the Internet; open the Basemap Builder, select the Download Manager, select Download More County Layers, select the desired State/County and download the streets.

- The computer has locally-generated street centerline maps installed to either the Overlay Manager or Basemap Builder. Check both the Overlay Manager and Basemap Builder to see if there is a "streets," "centerlines," "roads," or other layer that could contain street data and make that layer active.

If none of the above steps rectify the problem, you will most likely need to consult the person who installed the MARPLOT software.

Viewing Aerial Photos and Topographic Maps

When Internet Access is Available

1. Open MARPLOT.
2. Select the "Satellite" button from the top toolbar.
3. Select the "Topo" button from the top toolbar.

When Internet Access is Not Available

> **Hint:** *Most MARPLOT systems will feature aerial photos and topo maps stored directly on the local computer, rather than depend on active Internet access. All aerial photos and topo maps will be controlled via the Basemap Builder. It is impossible to know what the aerial and topo Layers will be named on every MARPLOT system.*
>
> *The layers discussed above are not part of a standard installation, but are "user" installed.*

1. Open MARPLOT.
2. Open the Basemap/Basemap Builder.
3. Activate the aerial photos or topographic layer.

What if the aerial photos or topographic maps do not display?

Usually, there are three reasons why the aerial photos or topo maps will not display.

1. If you are using the "Satellite" and "Topo" buttons from the MARPLOT view screen, you are actually accessing aerial photos and topo maps from the Internet. If neither is displaying, your Internet access is not working.

2. If you are using aerial photos and topo maps that have been imported into the Basemap Builder, it is possible that the actual photo images were moved to a different folder on your computer *after* the import process. If the image files have been relocated on the computer, the user will need to re-import them to the Basemap Builder and specify the new storage folder.

3. The aerial photos or topo maps are being "covered" or obscured by a Layer or Overlay higher in the draw order. All other objects are drawn on top of *.sid* files, thus *.sid* files always reside at the bottom of the MARPLOT draw order hierarchy. Any objects with solid fill patterns will obscure aerials or topo maps.

Quick Solution that May Solve the Problem

1. Open the Basemap Builder.

2. Turn off the "Cities" and "Indian Areas" Layers.

3. Select OK.

4. Open the Overlays Manager.

5. Make sure any Overlays that may have "solid fill pattern" objects are set to "Hide."

6. Select OK.

Getting Weather and Elevation if the Internet Connection is Active

1. Right-click on the MARPLOT screen.

2. Select "Get Weather Conditions" or "Get Elevation" as desired.

Weather and elevation functions operate *only* if an Internet connection is active.

MARPLOT View Operations

Setting a Home View

1. Adjust the MARPLOT screen to the area you would like to set as your Home view.

2. Right-click and select "Save Current View."

3. Name the view and select the "Make this the Home View" box.

Saving any MARPLOT Screen as a View

1. Adjust the MARPLOT screen to the area you would like to save.

2. Right-click and select "Save Current View."

3. Name the view and **do not** select the "make this the Home View" box.

Using Saved Views for Navigation

1. Right-click and select "Go To View."

2. Double-click on the desired view from the View list.

Editing, Deleting, or Re-Naming Saved Views

1. Select the View/Edit Views menu.

2. Left-click on the desired view from the View list

3. Select "Rename," "Set as Home View," or "Delete" as appropriate.

Marked Point Operations

Marking the Incident Location

1. Left-click on the incident location.

2. Select the Extras menu.

3. Select Marked Point.

4. Select "Mark Click Point."

Moving a Marked Point

1. Left-click on the point you wish to "mark."

2. Select the Extras menu.

3. Select Marked Point.

4. Select "Mark Click Point."

Deleting a Marked Point

1. Select the Extras menu.

2. Select Marked Point.

3. Select "Clear Click Point."

Choosing What Map Information is Displayed; MARPLOT Overlay Manager and Basemap Builder

Setting Overlays as Show or Hide

1. Right-click and open the Overlay Manager.

2. Left-click to highlight a single MARPLOT Overlay; it is not possible to select multiple Overlays unless they are assigned to an Overlay Group (see below).

3. Left-click to set the selected overlay as "Show plus Names," "Show," "Range," or "Hide."

4. Select "OK."

5. Do not select the global settings buttons at the top of the overlay manger dialog box; selecting any of the global settings buttons changes the "show" or "hide" for all Marplot overlays. If you select the global settings button accidentally, choose the "cancel" button at the bottom of the overlay manager dialog box and start over.

Setting Basemap Layers as On or Off

1. Right-click and open the Basemap Builder.

2. Left-click to assign Layers or Layer Groups as "On" or "Off."

3. Select "OK."

GATHERING MAP INFORMATION FOR THE INCIDENT LOCATION AREA

MARPLOT systems contain information in addition to street maps, aerial photos, and topographic maps. Some information will be found in the Overlay Manager while other information is stored in the Basemap Builder. Typically, information generated and imported locally is contained in the Overlay Manager, and information obtained from National Atlas or other national sources is contained in the Basemap Builder.

Users should search both the Overlays and Basemap for map data surrounding the incident location.

Using Quick Search for Overlay Manager and Associated Linked CAMEO Data Records

> **Hint:** *Only "active" Overlays and Basemap layers are selectable via the Quick Search method. If an Overlay or Basemap layer is set to "Hide" or otherwise is not visible on the map, the Quick Search will not be able to select map objects from those layers. Inactive Overlays may be selected using the MARPLOT Edit/Search menu.*

1. Open MARPLOT.

2. Select either of the Pointer Tools (rectangle or circle pointer tools).

3. Left-click and drag to identify the map area you wish to search. The Search Selection box will appear on the screen.

4. Select Overlays/Select Objects. The "Select on Overlays" dialog box will appear.
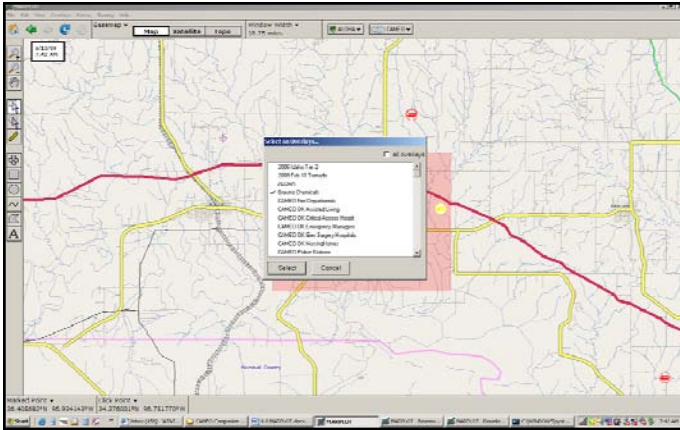
5. Checkmark the desired Overlays and select the Search button. Objects stored in the Overlay Manager in the selected Overlays will appear as selected.

6. Select the Sharing/CAMEO/Get info menu.

The CAMEO records linked to the selected map objects will be displayed.

Using Quick Search for Basemap Information

1. Open MARPLOT.

2. Select either of the Pointer Tools (rectangle or circle pointer tools).

3. Left-click and drag to identify the map area you wish to search. The Search Selection box will appear on the screen.

4. Select Basemap/Get info. The "Information About Selected Basemap Layers" dialog box will appear.
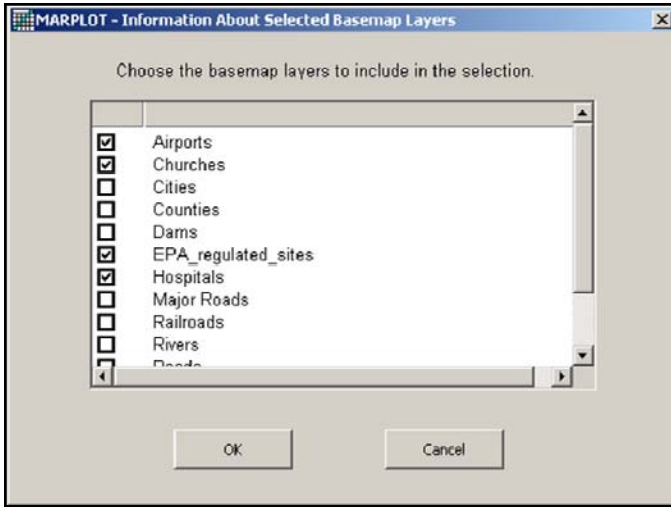
5. Checkmark the desired Overlays and select the "OK." The "Information About Selected Basemap Layers" dialog box will appear.
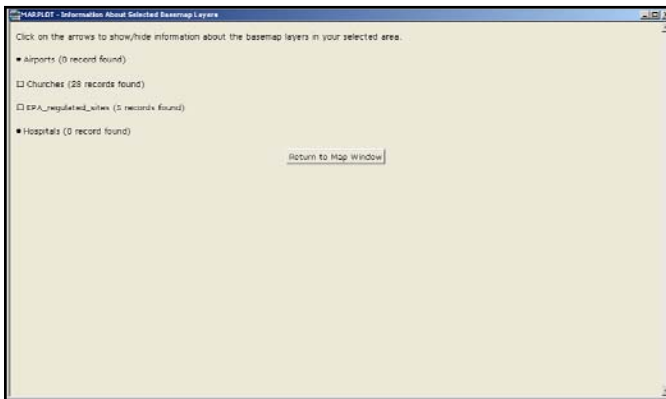
6. Select any of the layers with found records (churches are used in this example).

7. If an Internet connection is active, select any of the listed Basemap records for further information.

8. Use the mouse to select, copy, and paste this list to a spreadsheet (such as Excel), or a text document (such as Word); the Internet links will remain active in the spreadsheet or document.

9. Click on the "churches" down arrow to return to the "Information About Selected Basemap Layers" list.

USING THE EDIT/SEARCH MENU TO FIND OVERLAY MANAGER AND ASSOCIATED LINKED CAMEO DATA RECORDS

Hint: *Only information stored in the Overlays Manager is searchable via the Edit/Search menu. Both "Active" and "Inactive" Overlays may be selected using the MARPLOT Edit/Search menu.*

Edit/Search Menu

Searching for All Objects on an Overlay(s)

1. Open MARPLOT

2. Select the Edit/Search menu.

3. Set the Search operator to "with any name."

4. Set the Overlays to Search to "individual overlay" (to select all the objects on a single overlay) or "multiple overlays" (to select all the objects on more than one overlay).

5. Set the Maps to Search to "All Maps."

6. Select the "Search button."

All objects on the selected overlay(s) are included in the search collection.

7. To view all search collection objects, select "Show All on Map;" to view a single object, highlight the desired object name and select "Show on Map and Zoom."

8. To view the associated CAMEOfm record for the selected object(s); select the Sharing/CAMEOfm/Get Info menu.

Select the Edit/Show Search Collection menu to return to the Search Collection dialog box.

Searching for Specified Objects on an Overlay(s)

1. Open MARPLOT.

2. Select the Edit/Search menu.

3. Set the Search operator to "with names that start with" or "with names that contain."

4. Set the Overlays to Search to "individual overlay" (to select all the objects on a single overlay) or "multiple overlays" (to select all the objects on more than one overlay).

5. Set the Maps to Search to "All Maps."

6. Select the "Search" button.

Searching a Radius from a Selected Point or a Polyline

1. Open MARPLOT; set the "click point" with your mouse or select a polyline.

2. Select the Edit/Search menu.

3. Set the Search operator to "that are within" and set a "distance."

4. Set the Overlays to Search to "individual overlay" (to select all the objects on a single overlay) or "multiple overlays" (to select all the objects on more than one overlay).

5. Set the Maps to Search to "All Maps."

6. Select the "Search" button.

Searching Inside of User-Drawn Circles, Rectangles, and Polygons

1. Open MARPLOT; select the desired user-drawn object.

2. Select the Edit/Search menu.

3. Set the Search operator to "that are inside of or touched by."

4. Set the Overlays to Search to "individual overlay" (to select all the objects on a single overlay) or "multiple overlays" (to select all the objects on more than one overlay).

5. Set the Maps to Search to "All Maps."

6. Select the Search button.

Viewing Linked CAMEOfm Records of MARPLOT Search Results

1. Conduct any of the above MARPLOT searches.

2. Select the MARPLOT "Show all on Map" command.

3. Select the Sharing/CAMEOfm/Get Info menu.

Saving and Retrieving MARPLOT Searches

Saving the Search Collection For Future Reference

1. Conduct any Edit/Search menu search.

2. Select the "Save Collection" button from the Search Collection dialog box.

3. Name and save the file to your computer.

Retrieving a Saved MARPLOT Search Collection

1. Conduct any Edit/Search menu search.

2. Select the "Load Collection" button from the Search Collection dialog box.

3. Use the browser to locate and double-click on the saved *.msn* file.

Adding Your Own Objects To the Map

Unless otherwise specified by the user, all "added" MARPLOT objects are assigned to the "Temporary Overlay." Users may assign added objects to any overlay via the Overlay Manager.

Creating a New MARPLOT Overlay For Storing User-added Map Objects

1. Right-click on the screen.

2. Open the Overlay Manager.

3. Select the "New" button located at the bottom of the Overlay Manager dialog box.

4. Type in a "name" for the new Overlay; note that all MARPLOT Overlay names must be unique.

5. Select OK.

6. Select OK.

This new Overlay is now available to store any map objects added by the user.

Creating a New MARPLOT Overlay Group For Managing Multiple Overlays

Users may wish to create several new Overlays when using MARPLOT to manage and document response activities. It may be helpful to assign these several new Overlays into a single Overlay Group.

1. Right-click on the screen.

2. Open the Overlay Manager.

3. Select the "New" button located at the bottom of the Overlay Manager dialog box.

4. Select "create overlay group" from the "New Overlay or Group" dialog box.

5. Type in a "name" for the new Overlay Group; note that all MARPLOT Overlay Group names must be unique.

6. Select OK.

7. Notice that the new Overlay Group has been added to the Overlay Manager.

8. Notice that the new Overlay Group is placed at the bottom of the Draw Order.

9. Left-click to select (or highlight) an Overlay you wish to assign to the new Overlay Group.

10. Select the "Move" button; select "into group" from the resulting drop-down list.

11. Double-click on the desired Overlay Group from the "Move Overlay into Group" dialog box.

12. Repeat as needed to assign more Overlays to the Overlay Group.

Overlays that are assigned to an Overlay Group will have the overlay name displayed as indented.

Moving the New Overlay Group to the Top of the Draw Order

1. Left-click to select (highlight) the Overlay Group.

2. Select the "Move" button; select "top" from the resulting drop-down list.

The selected Overlay Group should now be positioned at the top of the Overlay Manager Draw Order.

MARPLOT Drawing Tools

MARPLOT has six drawing tools available from the left-side toolbar. They are:

Symbol Tool	Used for "simple point" Objects only
Rectangle Tool	Draws rectangles, including squares
Circle Tool	Draws circles from a specified center point lat/long
Polyline Tool	Draws a series of connected straight lines
Polygon Tool	Draws any multi-sided enclosed object
Text Tool	Allows the user to type text on the map

Working with MARPLOT Map Symbols or Simple Point Objects

Putting Symbols or Simple Point Objects on the Map

1. Select the Symbol tool from the left-side toolbar.

2. Place your cursor on the map where you wish to place the symbol.

3. Left-click on the exact spot. The "Object Settings" dialog box will appear.

4. Select the "Overlay" and "Map" to which you wish to assign the new object; only "unlocked" or "active" Overlays will be available to accept the new object.

5. Ignore the "class" setting.

6. Set the Color as desired; for more color choices, select "Other" from the color list.
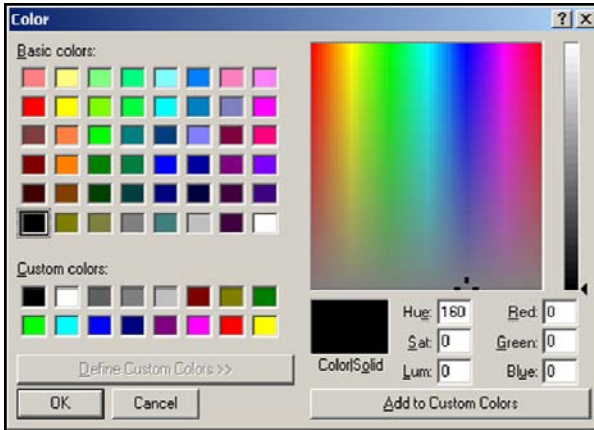
7. Select the "Set" button next to the "Symbol" box.
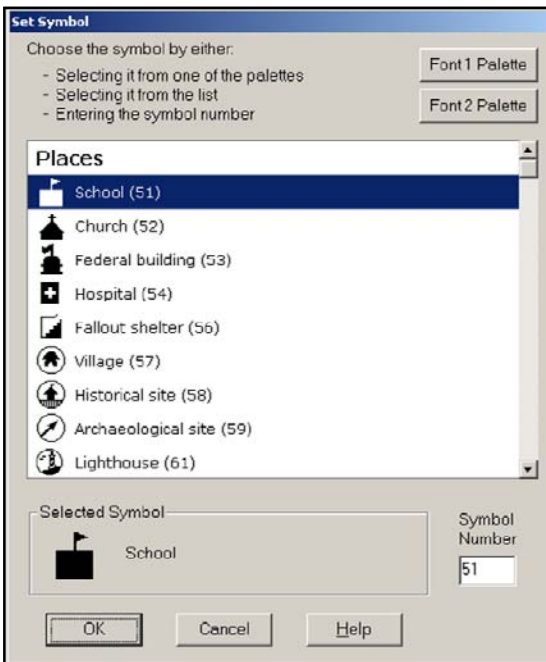
8. Select Font 1 for original MARPLOT symbol font choices.

9. Select Font 2 for official DHS/FEMA symbol font choices.

10. Select any symbol from either Font 1 or Font 2 to return to the Set Symbol dialog box if you don't see the symbol choice you want.

11. Select "OK" from the Set Symbol dialog box.

12. Select "OK" from the object setting dialog box.

Editing Symbol Objects, Unlocking Overlays, and Choosing Graphics Default Settings

To move or alter any MARPLOT Symbol object, the Overlay to which it is assigned must be "unlocked" or in "edit mode" and the Overlay must be assigned as "graphic display" mode (the overlay checkmark must be under the "one blue/one red flag" column on the right side of the Overlay Manager dialog box).

To determine to which Overlay an object is assigned, and to ensure the graphic default display setting is active:

1. Double-click on the desired Symbol object; this will open the Object Setting dialog box. The assigned Overlay is displayed near the top of the dialog box.

2. Select "OK" to close the dialog box.

3. Right-click to open the Overlay Manager dialog box.

4. Locate the appropriate overlay and "unlock" it (click on the lock on the left side of the Overlay Manager dialog box).

5. Highlight the appropriate Overlay row and set the Graphic Display checkmark to the one blue/one red flag column.

6. Select "OK" to exit the Object Settings dialog box.

Moving a Map Symbol to a New Spot on the Map

Once the appropriate overlay is unlocked, left-click and drag the symbol object to any map location.

Moving a Map Symbol to a specified Lat/Long Coordinate

1. Double click on the desired symbol object.

2. Select the "Position" button from the lower left of the Object Setting dialog box; if the lat/long coordinates are "grayed out," "unlock" the overlay.

3. Enter the desired lat/long coordinates.

4. Select "OK."

5. Select "OK."

Changing Color, Size, and Symbol Type for Any Single Symbol Map Object

1. Double-click on the desired symbol object.

2. Select your desired settings from the Object Setting dialog box; if the setting choices are "grayed out," "unlock" the overlay.

3. Select "OK."

4. Select "OK."

Changing Color, Size, and Symbol Type for Any Group of Symbol Map Objects

1. Select the group of object you wish to edit using Quick Search or Edit/Search menu operation.

2. Choose the "Show all on Map" option from the Search Collection box.

3. Select the "Overlays" menu.
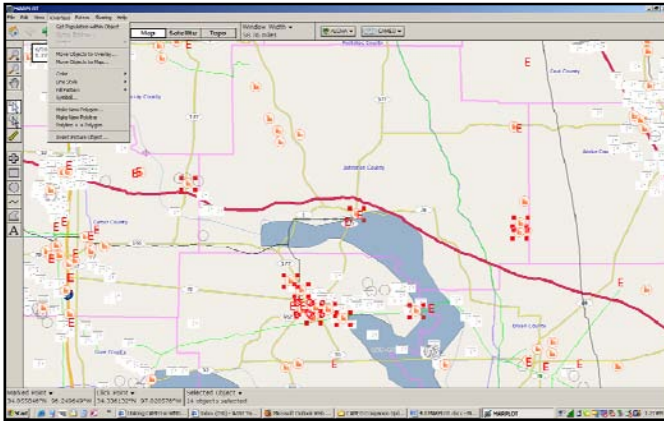
4. Select one of the following:

   a. Move Objects to Overlay

   b. Move Objects to Map

   c. Color

   d. Line Style

   e. Fill Pattern

   f. Symbol

5. Do not select any of the other choices listed on the Overlays menu; those are for other types of operations.

6. Repeat above steps as necessary to achieve the desired object settings.

What if you get a message stating that your graphical changes will not show on the map while the given overlay is in "graphics override" mode?

See the "Editing Symbol Objects, Unlocking Overlays, and Choosing Graphics Default Settings" section above.

Repositioning Symbol Objects that are Inaccurately Placed on the Map

See the previous Moving a map Symbol to a new spot on the map section.

Working With MARPLOT Map, Rectangle, and Circle Objects

Drawing a New Rectangle or Circle

1. Select either the Rectangle or Circle tool from the MARPLOT drawing tools.

2. Place your cursor on the map; left-click and drag to create the object.

3. Release the left-click; the Object Settings box will appear.

4. Set the Overlay, Map, Color, Line Size, and Fill Pattern as desired.

Drawing an Exact Size Circle

1. Select the Circle tool from the MARPLOT drawing tools.

2. Place your cursor on the map; left-click and drag to create any size circle.

3. Release the left-click; the Object Settings box will appear.

4. Select the "Position/Size" button.

5. Enter the desired Radius distance.

6. Select "OK."

7. Select "OK."

Placing a Circle at a Specified Lat/Long Coordinate Center Point

1. Create or double-click on the desired circle.

2. Select the "Position/Size" button.

3. Enter the lat/long coordinates for the desired center point of the circle.

4. Select "OK."

5. Select "OK."

Working with MARPLOT Map Polyline and Polygon Objects

Drawing a New Polyline or Polygon

1. Select either the Polyline or Polygon tool from the MARPLOT drawing tools.

2. Place your cursor on the map; left-click to set the start point for the polyline or polygon.

3. Drag to create a line on the map.

4. Left-click to set a "vertex" or line junction.

5. Drag in any direction.

6. Continue to left-click and drag until the polyline or polygon is finished.

7. Double-click to end the drawing; the Objects Settings dialog box will appear.

8. Set the Overlay, Map, Color, and Line Size as desired.

9. Select the "Position/Size" button for distance and area information.

Editing a Polyline or Polygon

1. Select the desired Polyline or Polygon.

2. Left-click on any of the vertex points and drag to edit the object.

Adding a New Vertex or Junction Point to a Polyline or Polygon

1. Select the desired polyline or polygon.
2. Left-click on the spot where you wish to add or insert a new vertex point.
3. Select the Overlays menu.
4. Select "Vertex" and "Insert Vertex" at click point.

Using a Polyline to Measure Any Map Distance

1. Create a polyline that displays the distance you wish to measure.
2. Open the Object Settings dialog box and select the "Position/Size" button.
3. The distance is given as the polyline length.

Changing from Miles to Feet, Yards, and Meters

1. Select the "Window Width" box (middle of top toolbar).
2. Select the desired units of measurement.

Determining Distance, Perimeter, and Area with MARPLOT

Responders often need to use MARPLOT to measure various distances from map points, and to determine perimeter and area for various response zones. Distance is measured using the Polyline tool; perimeter and area are determined using the Circle or Polygon tools.

Distance

1. Select the desired units of measurement (feet, yards, meters, miles) using the "Window Width" box.
2. Activate the Polyline Drawing tool from the left-side toolbar.

3. Place your cursor at the map point you wish to start the distance measurement.

4. Left-click and drag to start the Polyline drawing.

5. Left-click to change directions with the Polyline tool.

6. Double-click to end the Polyline drawing; the Object Settings box will appear.

7. Select the "Position/Size" button from the Object Settings box.

8. The distance will be displayed near the top of the Position/Size box.

9. Select "OK" to return to the Object Settings box.

10. Select "Cancel" to delete the Polyline, or "OK" to save the Polyline.

Perimeter and Area

1. Select the desired units of measurement using the "Window Width" box.

2. Activate either the Circle or Polygon Drawing tool from the left-side toolbar.

3. For Circle objects, left-click and drag to create the Circle drawing.

4. For Polygon objects, left-click and drag to start the Polygon drawing; left-click to change directions; double-click to end the Polygon drawing. After completing the Circle or Polygon object, the Object Settings box will appear.

5. Select the "Position/Size" button from the Object Settings box. The "perimeter" and "area" will be displayed near the top of the Position/Size box

6. Select "OK" to return to the Object Settings box.

7. Select "Cancel" to delete the object, or "OK" to save the object.

Saving and Printing MARPLOT Maps

Printing the Visible MARPLOT Screen

1. Set the MARPLOT screen to the area and objects you wish to display.

2. Select the File/Print menu.

MARPLOT will print what is currently displayed on the screen, including the aerial or topographic map information.

Saving the Visible MARPLOT Screen as a Picture

1. Set the MARPLOT screen to the area and objects you wish to display.

2. Select the File/Save as a Picture menu.

3. Use the browse box to name the file and save to your computer.

The resulting saved file is a bitmap (.*bmp*) and may be treated as any computer image file. For example, you may attach it to an email, save the *.bmp* file to a flash drive or insert it into a document.

Copy and Paste the MARPLOT Screen to Other Software Application

1. Set the MARPLOT screen to the area and objects you wish to display.

2. Press the "Print Screen" button on your computer keyboard.

3. Open the document, spreadsheet, or slide where you wish to paste the MARPLOT screenshot.

4. Simultaneously press the "control" and "V" keys from your computer keyboard.

Transferring User-Created MARPLOT Map Objects from Forward Operations to the EOC or Incident Command

Transferring user-created information between MARPLOT systems may be easily accomplished using Import/Export operations. The person preparing the export file to be transferred must understand a few basics of MARPLOT. The following process is written for those who are not experienced MARPLOT users.

Which Overlay(s) contain the map objects that will be exported?

To determine the Overlay assignment for any MARPLOT object, the user may double-click on the object; the Overlay Name is displayed on the Object Settings screen.

The default "overlay" for user-created objects is the Temporary Overlay. Users who are unfamiliar with MARPLOT Overlay Manager operations will usually place user-created objects on the Temporary Overlay.

ALOHA Threat Zones are always placed on the ALOHA Overlay. The below process can be utilized to transfer ALOHA information by replacing the instructions for "Temporary Overlay" with "ALOHA Overlay."

The following steps assume the user-created map objects are assigned to the Temporary Overlay.

How do I select the desired objects for export?

1. Select either the Rectangle or Circle Selection Tool (Pointer Tool).
2. Left-click and drag to create a rectangle or circle that will encompass all the desired export objects.
3. Choose "Select Objects" for the Overlays from the search select box.
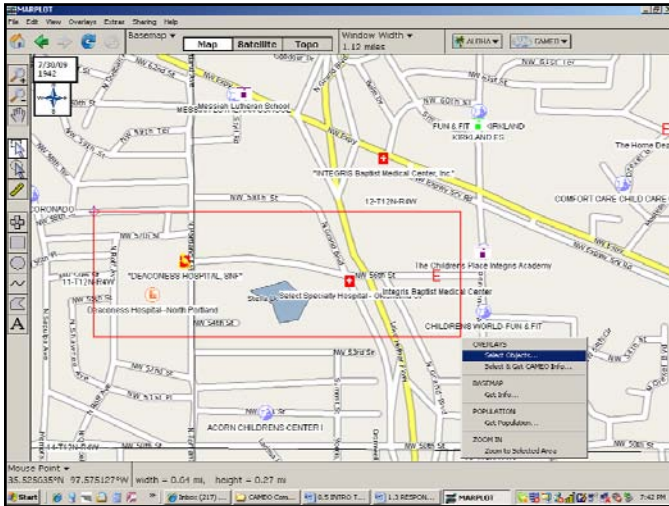
4. Choose "Temporary Overlay" from the Select on Overlays box.
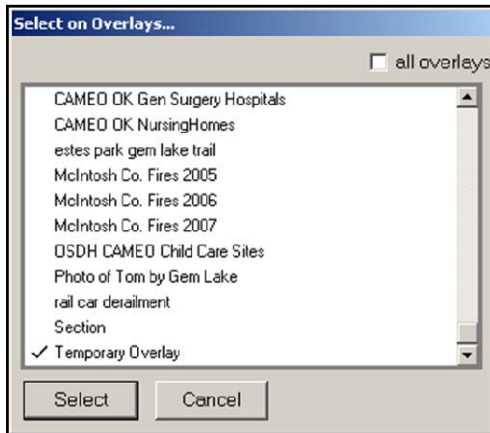
5. Choose the "Select" button.

The MARPLOT map should now display the group of objects for the desired export as "selected."
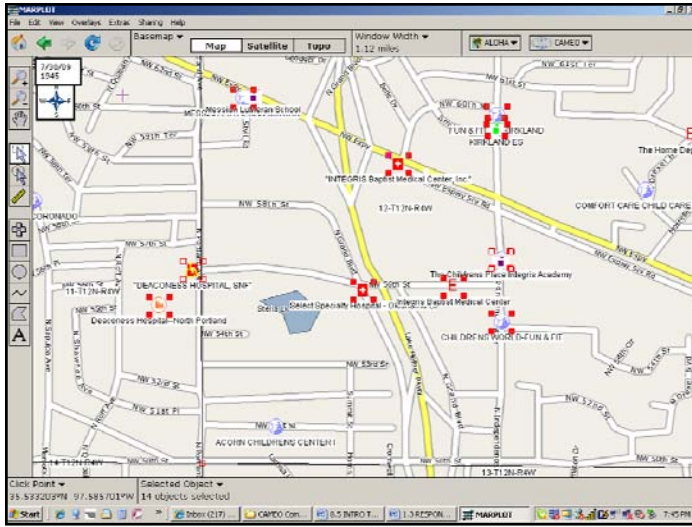
Which export file format is compatible with the import computer?

1. Select the File/Export Overlay Objects menu.

2. Choose the appropriate export format:

    a. Use *.mie* files to transfer this information to another MARPLOT user.

    b. Use *.shp* files to transfer this information to a different GIS application.

3. Name the file and save to your computer.

4. Transfer the file to other computers via portable drive or email attachment.

Note: *During a shapefile export, users may see a message box as follows:*

Choose Type of Object

Shapefiles can only contain one type of object.

Choose the type of object to export:

- ⊙ Points (14 objects)
- ○ Polylines (0 objects)
- ○ Polygons (2 objects)

[OK] [Cancel]
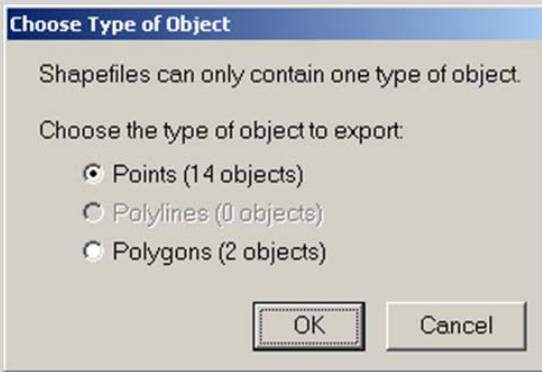
This means the user has selected both "area" and "point" objects. Creating both "area" and "point" objects is common during response operations. The user will need to select either "Points" or "Polygons" and continue with the export process. Then, the user will need to repeat the process, choosing to export the other object type. Both export files should be transferred and imported to the target (importing) computer.

MARPLOT Population Estimates

MARPLOT can produce population estimates for:

- A circle or radius from a designated point
- An area surrounding a Polyline
- An area inside of a Rectangle, Polygon, or ALOHA Threat Zone
- An area inside of a Quick Search circle or rectangle

Population Estimate for a Circle or Radius from a Designated Point

1. Right-click on the point you wish to use as the designated point.

2. Select "Get Population within a Radius of click point" from the right-click menu.

Population Estimate for an Area Surrounding a Polyline

1. Left-click on the desired polyline.

2. Select the Overlays menu.

3. Select "Make New Polygon."

4. Enter the distance surrounding the polyline for which you want the population estimate and select "OK."

5. Right-click on the new area surrounding the polyline.

6. Select "Get population within object" from the right-click menu.

Population Estimate for an Area Inside of a Rectangle, Polygon, or ALOHA Threat Zone

1. Right-click on the Rectangle, Polygon, or ALOHA Threat Zone.

2. Select "Get population within object" from the right-click menu.

Population Estimate for an Area Inside of a Quick Search Circle or Rectangle

1. Use either the Pointer Tool Circle or Rectangle tool to designate the area.

2. Select "Get population" from the quick search selection dialog box.

ALOHA

ENTERING ALOHA DATA – SITE DATA MENU

Choosing a Location From the ALOHA Location List

1. Activate ALOHA.

2. Select the "Site Data" menu.

3. Select "Location."

4. Scroll and select the "city" closest to the release point.

Adding Your Own Location to the ALOHA Location List

To add your own location to the ALOHA City List, you will need to know:

• Lat/long in degrees/minutes

• Elevation in feet or meters

> **Note:** *This data can be accessed from MARPLOT version 4.1.*

1. Open the ALOHA "Location List" box (see above).

2. Select the "Add" button.

3. Enter data to available text fields.

4. Select "OK."

> **Note:** *Remember to select the correct "state" from the list.*

Setting Parameters for Buildings Downwind of the Release Point

1. Select the "Site Data" menu.

2. Select "Building Type."

3. Only use "No. of air changes per hour" if you can accurately determine that information.

> **Note:** *This is for buildings DOWNWIND of the release, not a building from which the release occurred. ALOHA cannot model indoor releases. ALOHA uses the "Building Type" information in its Indoor Concentration calculations.*

Setting the Date and Time

ALOHA defaults to "real time" taken from your computer clock. You may set a constant time, either a future time (for planning purposes), or a past time (for accident investigations).

ALOHA INPUT - SETUP MENU

Entering Release Information

ALOHA Chemical Library – Selecting the Chemical

1. Select the "Setup" menu.

2. Select "Chemical."

3. Choose "Pure Substance" or "Solutions."

4. Scroll (or use Quick Typing from below) to locate the desired chemical.

5. Select "OK."

Note: *In some cases, the CAMEO Chemicals/ALOHA "Sharing" menu allows you to navigate between the Chemical Datasheet information and the ALOHA program. However, you can achieve the same functionality by selecting the substance in both programs and using the bottom task bar to transport between CAMEO Chemicals and ALOHA.*

ALOHA 5.4.1.2 can estimate the evaporation release rates for five chemicals commonly found in industry.

Quick Find Typing Function

1. Open the ALOHA Chemical Library.

2. Quickly type the first three or four letters of the chemical name.

Using the CAMEO Chemicals to ALOHA Link

1. Find the desired "Chemical Datasheet" in the CAMEO Chemicals Library.

2. Select the "Sharing" menu.

3. Select "ALOHA/Select this Chemical in ALOHA."

Note: *You may add to or modify substances in the ALOHA Chemical Library (see **Adding Information to ALOHA** later in this section).*

Atmospheric Menu

ALOHA allows for three types of weather data entry. These data types are:

- User-input of weather conditions

- Connection to any of a number of SAM or MET stations; a list of vendors with ALOHA-integrated portable weather stations is available on the CAMEO Website, under the Support Forum link

- ALOHA's built-in "fake" SAM station (use for training purposes only)

Manually Entering Weather Conditions

1. Select the "Setup" menu.
2. Select "Atmospheric."
3. Select "User Input."
4. Enter user-estimated weather conditions.

Using a MET or SAM Station

1. Select the "Setup" menu.
2. Select "Atmospheric."
3. Select "SAM station."
4. Select the appropriate COM option (Serial Port); usually this will be COM-1.
5. Select "OK."
6. Enter Inversion, Ground Roughness, and Station Height data.
7. Enter Cloud Cover and Humidity data.

ALOHA will take approximately five minutes to display the weather data. You must wait for the first weather data transmission before continuing with Source Data input.

Using the ALOHA Demo SAM Station

(Used for Training Only)

1. Select the "Setup" menu.

2. Select "Atmospheric."

3. Press and hold the Control (CTRL) key on your computer keyboard.

4. Select "SAM Station."
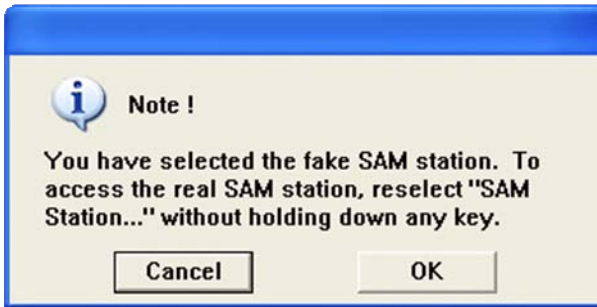
Note: *Continue with ALOHA screens as if enabling a "real" SAM station. Use "fake" SAM station for training purposes only!*

Source Menu

The Source Menu allows selection of four different source models. This provides the model with an estimate of the amount of product that is "in the air" and ready to move downwind.

- *Direct Source* specifies the amount of product that goes directly into the air.

- *Puddle Source* estimates the rate of evaporation of the product based on the puddle parameters entered.

- *Tank Source* estimates the rate at which a product will escape from the tank and determines if it goes directly into the air (gases and pressurized liquids), or if it forms an evaporating puddle. If the product forms an evaporating puddle, the puddle model will determine the evaporation rate.

- *Gas Pipeline Source* estimates the amount of gaseous product directly entering the atmosphere from a broken pipe.

Depending on the Source used, the possible Threat Zone outputs may be different. Below is a list of the four Sources, Release Options and possible Threat Zone outputs:

Direct Source

1. Toxic Area of Vapor Cloud

2. Flammable Area of Vapor Cloud

3. Blast Area of Vapor Cloud Explosion

Puddle Source

1. Evaporating Puddle – Not Burning

   a. Toxic Area of Vapor Cloud

   b. Flammable Area of Vapor Cloud

   c. Blast Area of Vapor Cloud Explosion

    2. Burning Puddle – Pool Fire

       a. Thermal Radiation

Tank Source – Gases or Liquids

1. Leaking Tank - Not Burning – Vapor Cloud or Evaporating Puddle

    a. Toxic Area of Vapor Cloud

    b. Flammable Area of Vapor Cloud

    c. Blast Area of Vapor Cloud Explosion

2. Leaking Tank – Burning - Jet Fire or Pool Fire

    a. Thermal Radiation

    b. BLEVE

3. BLEVE – Tank Explodes and Fireball

    a. Thermal Radiation

Gas Pipeline Source – Gases

1. Not Burning – Vapor Cloud

    a. Toxic Area of Vapor Cloud

    b. Flammable Area of Vapor Cloud

    c. Blast Area of Vapor Cloud Explosion

2. Leaking – Burning - Jet Fire

    a. Thermal Radiation

Direct Source – Data Input

Using the ALOHA "Direct" Source Option When Only Total Amount Released is Known

1. Select the "Setup" menu.

2. Select "Source."

3. Select "Direct."

    a.   Select desired units.

    b.   Select "Instantaneous."

    c.   Enter estimated total release amount.

    d.   Enter Source Height.

> **Note:** *This is critical input information for ALOHA. ALOHA depends on accurate release rate input data to accurately produce downwind concentration estimates. The more accurate the Source Input Data, the more accurate ALOHA's output data. The Direct/ Instantaneous Source option generally represents a "worst-case" scenario. You must enter only the total amount released.*

Using the ALOHA Direct Source Option When Total Amount Released and Total Time Elapsed are Known

1. Select the "Setup" menu.
2. Select "Source."
3. Select "Direct."
   a. Select desired units.
   b. Select "Continuous."
   c. Calculate the release rate:
      i. Divide total amount released by "minutes" (e.g., 1500 pounds divided by 30 minutes = 50 pounds per minute.
      ii. Enter user-calculated release rate.

4. Select "OK."

5. Review the Text Summary/Source Strength information to ensure Total Amount Released is correct.

Note: *Using the Direct/Continuous Source option requires you to know the amount of product released during a specific time period and will produce more accurate results than the Direct/ Instantaneous Source option. You may find the Continuous Source option particularly useful for review of past chemical spills, when the release amount and time duration may be known or effectively estimated.*

What does flash boil and two-phase flow mean?

Products that are liquefied under pressure and are stored at temperatures above their boiling points will boil violently inside the tank (flash boil) and will be released as both liquid and gas in an aerosol (two-phase flow).

Why should I run both dispersion models?

As aerosol escapes, liquid droplets will weigh down the cloud and as the liquid evaporates, the cloud will cool down and become more dense, which can cause a lighter than air vapor to behave like a heavy gas. ALOHA recognizes this effect and suggests running and comparing both dispersion models. ALOHA defaults to the Gaussian model due to the vapor density of the product, so forcing the model to run the heavy gas dispersion will allow for comparison.

Puddle Source

When using the Puddle Model, first determine if it is an evaporating puddle, which can have toxic, flammable, and overpressure hazards, or if it is a burning puddle which will have a thermal radiation hazard.

Using the ALOHA Puddle Source Option

General puddle releases require you to know the puddle surface area (size) and any one of the following three parameters:

- Gallons, liters, or cubic feet of product: use "volume of puddle"

- Pounds, grams, or tons of product: use "mass of puddle"

- Average puddle depth: estimate unconfined puddle on flat surface as 0.2 inches

Puddle Source for Toxic Products

1. Select the "Setup" menu.
2. Select "Source."
3. Select "Puddle."
4. Enter the "Area" or "Diameter" of the puddle.
5. Enter the "Volume," "Average Depth," or "Mass" of the puddle.
6. Select "OK."
7. Select "Ground Type."
8. Enter appropriate "Ground" and "Puddle" temperature values.
9. Select "OK."

Puddle Source for Toxic and Flammable Products

1. Select the "Setup" menu.
2. Select "Source."
3. Select "Puddle."
4. Select "Puddle Type" – Evaporating or Burning.
5. Enter the "Area" or "Diameter" of the puddle.
6. Enter the "Volume," "Average Depth," or "Mass" of the puddle.
7. Select "OK."
8. If "Evaporating Puddle," continue with steps 9 through 11, if "Burning Puddle" skip to step 12.
9. Select "Ground Type."
10. Enter appropriate "Ground" and "Puddle" temperature values.
11. Select "OK."
12. Enter "Initial Puddle Temperature."
13. Select "OK."

Releases from Storage Tanks with Containment

You may utilize a "Puddle Source" if the product was released into a containment area. However, if the product is still actively leaking from a tank, the "Tank Source" option should be used.

Tank Source

Using the ALOHA Tank Source Option

Tank Source can be used for either gas or liquid substances. Tank Source requires you to know or estimate:

- Tank Dimensions: length, diameter, and capacity

- Physical State of Chemical: liquid or gas

- Amount in Tank: pounds, gallons, or cubic feet; or tank pressure

- Release Point Dimensions: opening size

Tank Source for Gases

> **Note:** *Many gaseous substances are stored as a "liquid under pressure." Common substances include chlorine, propane, and ammonia. ALOHA considers these chemicals "liquids". You should **not** model these as "gases" in ALOHA (see **Liquefied Gases**).*

1. Select the "Setup" menu.
2. Select "Source."
3. Select "Tank."
4. Select "Tank Type."
5. Enter any two of the following (for spherical tanks, enter only either "Diameter" or "Volume"):

    a.   Diameter

    b.   Length

    c.   Volume

6. Select "OK."

7. Select "Tank contains gas only."

8. Enter appropriate temperature value.

9. Enter either Tank Pressure or Tank Volume.

10. If a flammable gas, select the type of tank failure (burning or not burning).

11. Enter Opening Size, and Type.

> **Note:** *ALOHA will automatically compute many of the tank and amount parameters based on your inputs. It is not necessary for you to "know" values for all ALOHA Tank Source input fields.*

Tank Source for Liquefied Gases

1. Select the "Setup" menu.

2. Select "Source."

3. Select "Tank."

4. Select "Tank Type."

5. Enter any two of the following (for spherical tanks, enter only either "Diameter" or "Volume"):

    a.   Diameter

    b.   Length

    c.   Volume

6. Select "OK."

7. Select "Tank contains liquid."

8. Enter any of the four available fields:

    a. Mass

    b. Volume

    c. % Full

    d. Adjust Slider Bar

9. If product has toxic and flammable hazards, select type of tank failure:

    a. Leaking – not burning – forming vapor cloud or evaporating puddle

    b. Leaking – burning – jet or pool fire

    c. BLEVE – tank explodes – chemical burns in fireball (skip to Step 12)

10. Enter "Opening Size" and "Type."

11. Enter "Height of Tank Opening."

12. Enter the "BLEVE Percent Mass" in the fireball. Use ALOHA Help for guidance. **Some products will default to 100% (such as propane) and will return to the Text Summary screen**. Use 100% for Worst Case Scenario with highest heat output. Using less than 100% will form a *pool fire* with the remaining product. ALOHA calculates the heat output for both the fireball and pool fire in these threat zone predictions.

13. Select "OK."

Note: *With a Pressurized Liquid release (liquefied gases and two-phase flow releases), the Tank Source model will predict a higher release rate for the "hole" option as the "short pipe/valve" can restrict the product flow.* ***This is not a concern with pure gas or unpressurized liquid releases.***

Tank Source for Liquids

1. Select the "Setup" menu.

2. Select "Source."

3. Select "Tank."

4. Select "Tank Type."

5. Enter any two of the following (for spherical tanks, enter only either "Diameter" or "Volume"):

   a. Diameter

   b. Length

   c. Volume

6. Select "OK."

7. Select "Tank contains liquid."

8. Enter any of the four available fields:

   a. Mass

   b. Volume

   c. % Full

   d. Adjust Slider Bar

9. If product has toxic and flammable hazards, select type of tank failure:

   a. Leaking – not burning – forming vapor cloud or evaporating puddle

   b. Leaking – burning – jet or pool fire

   c. BLEVE – tank explodes – chemical burns in fireball (skip to step 18)

10. Enter "Opening Size" and "Type."

11. Enter "Height of Tank Opening."

12. If "Evaporating Puddle" continue with steps 13 through 15, if "Burning Puddle" skip to step 16.

13. Select "Ground Type."

14. Enter appropriate "Ground" and "Puddle" temperature values.

15. Select "OK."

16. For "Burning Puddle," enter "Maximum Puddle Size."

17. Select "OK."

18. Enter the "BLEVE Percent Mass" in the fireball. Use ALOHA Help for guidance. Use 100% for worst case scenario with highest heat output. Using less than 100% will form a *pool fire* with the remaining product. ALOHA calculates the heat output for both the fireball and pool fire in these threat zone predictions.

19. Select "OK."

For Tanks Containing Liquids with Containment Area

The final input screen for liquids allows you to input *puddle parameters*, including type and size of any *dike* or *containment area*. You may input dimensions of a containment area surrounding a tank as either a *diameter* or *area*, and ALOHA will compute the release duration based on those parameters.

```
SOURCE STRENGTH:
  Leak from short pipe or valve in horizontal cylindrical tank
  Flammable chemical escaping from tank (not burning)
  Tank Diameter: 10 feet              Tank Length: 50 feet
  Tank Volume: 29,376 gallons
  Tank contains liquid                Internal Temperature: 84° F
  Chemical Mass in Tank: 81.4 tons    Tank is 80% full
  Circular Opening Diameter: 8 inches
  Opening is 2 feet from tank bottom
  Ground Type: Default soil
  Ground Temperature: equal to ambient
  Max Puddle Area: 500 square feet
  Release Duration: ALOHA limited the duration to 1 hour
  Max Average Sustained Release Rate: 58.6 pounds/min
    (averaged over a minute or more)
  Total Amount Released: 3,434 pounds
  Note: The chemical escaped as a liquid and formed an evaporating puddle.
  The puddle spread to a diameter of 8.4 yards.
```

The screenshot above lists a containment area expressed as "500 square feet."

Gas Pipeline Source

Using the ALOHA Gas Pipeline Source Option

The Gas Pipeline Source option can be used for pressurized gas or vapor substances. The Gas Pipeline Model is designed for pipes that are on the surface of the ground, not buried.

Gas Pipeline Source requires you to know or estimate the following:

- Pipe dimensions: length and diameter (length must be at least 200 times the diameter)

- Pipe internal roughness and temperature

- Pipe pressure (must be at least twice atmospheric pressure)

- Release point dimensions: opening size

Gas Pipeline Source for Gases

> **Note**: *Many gaseous substances can be liquefied under pressure. These products (such as propane) can be modeled using the Gas Pipeline model up to the pressure that will liquefy them. ALOHA will warn you when the temperature and pressure will liquefy the product and will suggest running the Tank Model.*

Pipe is Connected to an Infinite Source

1. Select the "Setup" menu.

2. Select "Source."

3. Select "Gas Pipeline."

4. Select "Type of Gas Pipeline Failure" – Not Burning or Burning (Jet Fire).

5. Enter the "Pipe Diameter."

6. Enter the "Pipe Length" – must be at least 200 times the diameter.

7. Select the pipe is connected "Infinite Source" option.

8. Select "Pipe Roughness" (smooth or rough).

9. Select "OK."

10. Enter pipe pressure value – must be at least twice atmospheric pressure.

11. Enter pipe temperature.

12. Note that the "Hole Size equals the Pipe Diameter."

13. Select "OK."

> **Note:** *The Infinite Source option will default to a sheared off pipe where the hole size equals the pipe diameter.*

Pipe is Connected to a Closed-off Source

1. Select the "Setup" menu.

2. Select "Source."

3. Select "Gas Pipeline."

4. Select "Type of Gas Pipeline Failure" – not burning or burning (jet fire).

5. Enter the "Pipe Diameter."

6. Enter the "Pipe Length" - must be at least 200 times the diameter.

7. Select the pipe is connected "Closed Off" option.

8. Select "Pipe Roughness" – smooth or rough.

9. Select "OK."

10. Enter pipe pressure value – must be at least twice atmospheric pressure.

11. Enter pipe temperature.

12. Enter "Hole size."

13. Select "OK."

Note: *The Closed-off Source option will allow the hole size equals the pipe diameter or entering a smaller opening in the pipe. This will provide a short-term release with a high initial release rate that drops off quickly as the product escapes. For a long-term release through the smaller opening, you can use the initial release rate as a "Direct – Continuous" source for the duration of the release. This will provide a more accurate representation of a small leak from a gas pipeline.*
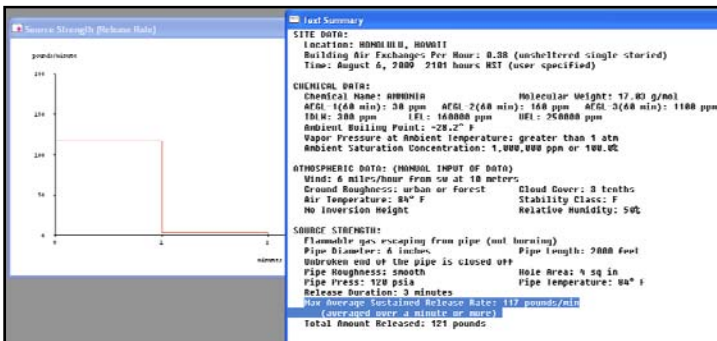
ALOHA OUTPUTS: DISPLAY MENU

Interpreting the Results

ALOHA will display Threat Zones for all of the possible hazards for the chemical involved. If a product is toxic, ALOHA will display the Toxic "Level of Concern" (LOC) selection screen. If the product is also flammable, ALOHA will ask you to select the Hazard to Analyze, then select the LOC units for the selected hazard.

For toxic products, ALOHA estimates the threshold concentration of an airborne pollutant, above which a hazard exists.

For flammable products ALOHA can estimate three different potential hazards: *flammability*, *thermal radiation* and *overpressure* from a vapor cloud explosion.

The flammability threat zone estimates the threshold concentration of fuel in air, above which a flammable hazard could be present. The thermal radiation threat zone estimates the threshold level of thermal radiation, above which a hazard is present. The overpressure threat zone estimates the threshold level of pressure from a blast wave, above which presents a hazard.

Areas inside the threat zone areas are estimated to have concentrations at or above the LOC values.

ALOHA Threat Zone Menu

Toxic Area of Vapor Cloud

1. Select the "Display" menu.

2. Select "Threat Zone."

3. Select the "Toxic Area of Vapor Cloud" option.

4. Set the LOC values, if desired.

5. Select "OK."

> **Note:** *ALOHA version 5.4.1.2 automatically sets values for three LOCs. You may select to display one, two, or three Threat Zones by changing the LOC values. ALOHA defaults to display the worst hazard with the Red threat zone. For toxic products, ALOHA defaults to LOC values in the following order: AEGL, ERPG, TEEL, and IDLH. If none of these values are available, the user must specify a LOC value for ALOHA to draw a Threat Zone graphic.*

For more information on Level of Concern choices, see ALOHA Help, or the NOAA website, Level of Concern Page at http://response.restoration.noaa.gov/cameo/locs/LOCpage.html

Flammable Area of Vapor Cloud

1. Select the "Display" menu.

2. Select "Threat Zone."

3. Select the "Flammable Area of Vapor Cloud" option.

> ⊙ **Flammable Area of Vapor Cloud**
>
> Local areas of flame can occur even though the average concentration is below the LEL. ALOHA finds the flammable area by using 60% of the LEL.

> **Note:** *The Flammable Area is estimated using 60% of the Lower Flammable (Explosive) Limit (LEL or LFL). ALOHA uses 60% to compensate for the time-averaged concentrations. With he concentration patchiness effect in an actual vapor cloud, there may be pockets where the chemical is in the flammable range, while the estimated average is below the LEL. While ALOHA uses a shorter averaging time for flammables, it cannot completely compensate for this effect. Experiments have shown flame pockets may occur where the average concentration is above 60% of the LFL, and ALOHA uses this 60% LEL concentration as the default setting.*

4. Set the LOC values, if desired.

5. Select "OK."

Blast Area of Vapor Cloud Explosion

To model a Vapor Cloud Explosion, additional data is necessary, such as the timing and type of ignition (spark/flame or detonation). View the ALOHA Help system for an explanation of these factors.

1. Select the "Display" menu.

2. Select "Threat Zone."

3. Select the "Blast Area of Vapor Cloud Explosion" option.

4. Enter "Time of Ignition" of known, or leave as "unknown" to show composite of all possible ignition timings.

5. Select the "Type of Ignition."

6. Select "Level of Congestion."

7. Set the LOC values, if desired.

8. Select "OK."

Thermal Radiation Level of Concern

This LOC is used for Jet/Pool Fires from the Tank and Gas Pipeline models, and for the BLEVE option in the Tank model.

1. Select the "Display" menu.

2. Select "Threat Zone."

3. Set the LOC values, if desired.

4. Select "OK."

Changing the Level of Concern: Temporary (Display/ Threat Zone menu)

1. Select the "Display" menu.

2. Select "Threat Zone."

3. Click on the drop-down arrow for each LOC value.

4. Select desired "LOC value" from the drop-down list.

5. Select "user specified."

6. Enter your chosen LOC values.

7. Select "OK."

Changing the Level of Concern: Permanent (ALOHA Chemical Library menu)

1. Select the "Setup" menu.

2. Select the desired chemical from the ALOHA Chemical List.

3. Select "Modify."

4. Select "Default LOC-1 (Yellow)."

5. Enter desired LOC value.

6. Set units to either "ppm" or "mg/(m3)."

7. Repeat Steps 4 - 7 for both LOC-2 (Orange) and LOC-3 (Red).

> **Note:** *This process will permanently set the LOC to user-specified concentration values. To follow the default ALOHA standards, the "largest" LOC value* **must** *be used for LOC-3 (Red); the smallest LOC value must be entered to the LOC-1 (Yellow) option.*

Displaying Only One Threat Zone

1. Select the "Display" menu.

2. Select "Threat Zone."

3. Set the "LOC-1 (Red) Threat Zone" to the desired value.

4. Click on the drop-down arrow for the LOC-2 (Orange) Threat Zone.

5. Set to "none."

6. Repeat Steps 4 and 5 for the "LOC-3 (Yellow) Threat Zone LOC."

7. Select "OK."

ALOHA TIME-DEPENDENT INFORMATION

Threat At Point

After a Threat Zone plot (either toxicity, flammability, thermal radiation or overpressure) has been displayed, select the Threat at Point option to provide specific information about the hazards at points in and around the threat zones. Threat at Point data can be displayed as either a graph or as text.

The following is an example of a Threat at Point for a toxic gas dispersion scenario displayed as a graph of concentration vs. time.
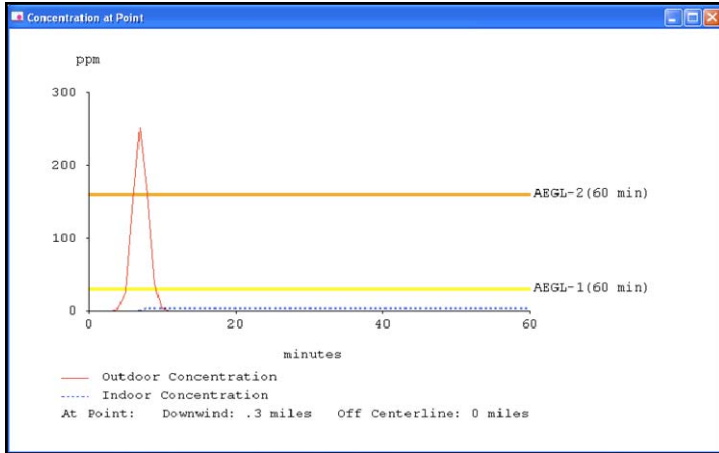
Overpressure Threat at Point data is displayed as text, as shown below.
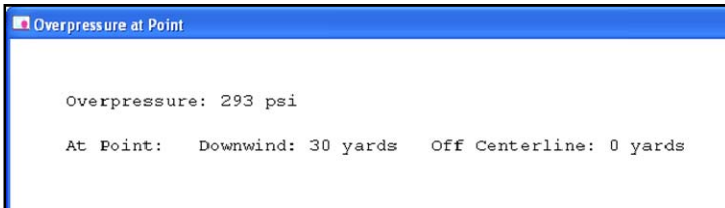
Thermal Radiation Threat at Point data is displayed as a graph of heat levels vs. time.
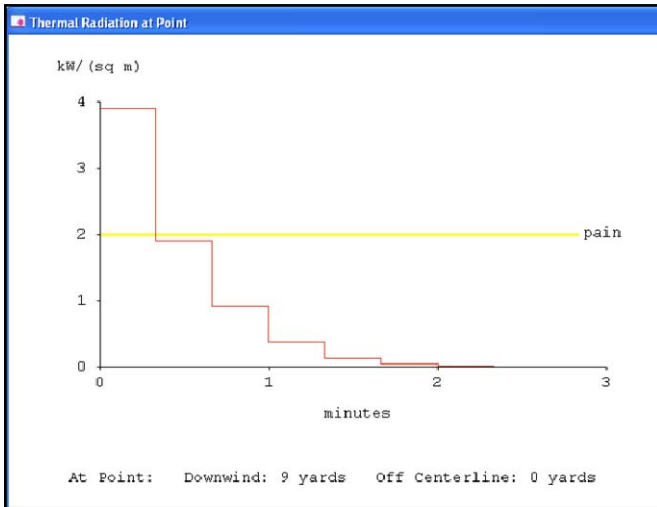
Setting the Threat at Point Graph in ALOHA

There are two methods for establishing the threat points in ALOHA.

Method 1

1.   Select the "Display" menu.

2.   Select "Threat At Point."

3.   Enter the desired downwind and off-axis distances.

4.   Select "OK."

Method 2

1.   Display the ALOHA Threat Zone.

2.   Use your mouse to select the desired Threat Point location.

3.   Double-click.

After either method, the Threat At Point graph will appear on your screen.

ALOHA can model one or more of the following hazards: toxicity, flammability, thermal radiation or overpressure. The Threat At Point graph will display the currently modeled threat at the selected point.

Setting the Threat at Point Graphs in MARPLOT

You may set the threat points directly from MARPLOT.

1. Activate MARPLOT while the ALOHA Threat Zone is displayed.
2. Select the pointer tool.
3. Use your mouse to set the click point at the desired threat point.
4. Click once.
5. Select the "Sharing" menu or the ALOHA button.
6. Select "Set Threat Point."

The threat point graph for the selected point will now be displayed on your screen.

Estimating the Time for the Vapor to Reach a Specific Point

1. Activate MARPLOT while the ALOHA threat zone is displayed.
2. Select the pointer tool.
3. Use your mouse to set the pointer tool at the desired point.
4. Click once.
5. Select the "Sharing" menu.
6. Select "Set Threat Point."

You may now estimate the length of time for the contaminant to reach the selected point by interpreting the concentration graph. The X-axis represents time elapsed.
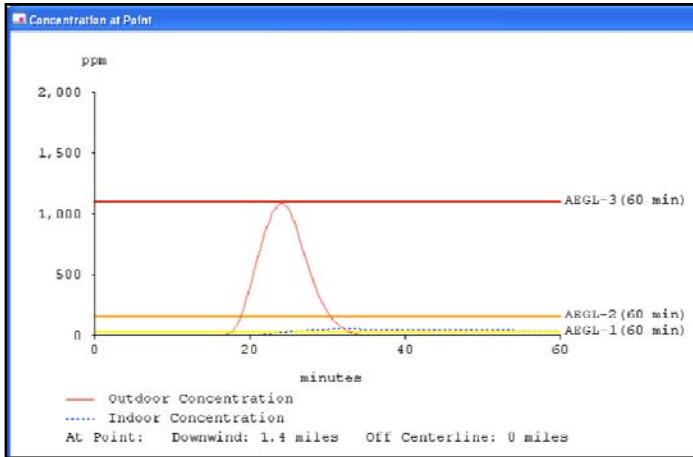
The graph shows the approximate time it takes for the product (the red dotted line) to reach the threat point (about 17 minutes) and the maximum concentration and the duration of the exposure at that location. The blue dotted line represents the estimated indoor concentration for the selected building type.

Estimating Chemical Amount at a Specific Point Over Time

1. Repeat previous Steps 1 – 6.

2. Use the resulting concentration graph to estimate the amount and length of time the chemical is present at the selected point.

What if the concentration graph does not appear?

If you get the following message, your selected point is outside the ALOHA-predicted contaminated area.
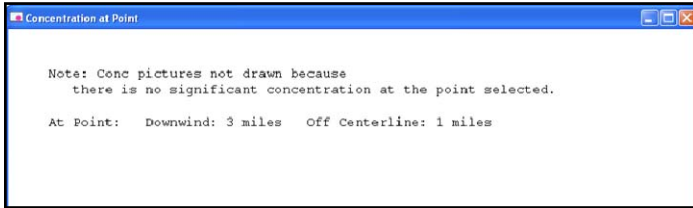
If ALOHA fails to open after a "Sharing/ALOHA/Set Threat Point" command, the most likely cause is a lost connection between ALOHA and MARPLOT. You can check the connection status by returning to ALOHA, altering the threat zone in some manner, then returning to MARPLOT to see if the ALOHA changes have been reflected in the map. If not, you will likely need to restart the ALOHA and MARPLOT applications and/or reboot your computer.

Source Strength

Estimating Length of Time for Tank to Become Empty or Puddle to Evaporate (Display/Source Strength Menu)

ALOHA provides estimates of the time necessary for a tank to empty or a puddle to evaporate or volatilize. Under the "Display/Source Strength" menu, the information is given in graphical format. The Text Summary provides the estimated release rate, duration, and total product released information in text format. ALOHA considers a product to be released when it has vaporized. Product that has escaped from a tank and formed a puddle has just become a different source to be modeled.

Estimating Time for Tank to Empty or Puddle to Volatilize

Review the Text Summary/Source Strength Information/Release Duration for ALOHA's estimate of time necessary for the tank to empty or a puddle to disappear. This information is displayed as "Release Duration." Release Duration does not necessarily mean the tank is empty. Liquefied, pressurized gases will auto-refrigerate as they evaporate and may stop releasing as they have cooled to below their boiling point.

Review the Text Summary/Source Strength Information/Release Duration for ALOHA's estimate of time necessary for the tank to empty or the puddle to disappear.

Sometimes, the Release Duration will display "ALOHA limited the duration to 1 hour." This means the release of product into the atmosphere continues after the 60-minute ALOHA limitation period.

To produce your own release duration estimate for either Tank or Puddle Sources:

1. Find the "Max Average Sustained Release Rate" value in the Text Summary.

2. Estimate "total amount of product released."

3. Divide "total amount" by "max average sustained release rate."

4. Make sure your units are consistent (i.e., do not use "pounds" for the total amount with "gallons" for average release rate). For example:

   a. 600 gallons of product was spilled.

   b. ALOHA estimates a release rate of 5.29 pounds per minute.

c. Convert product "gallons" to "pounds" (e.g., assume product specific gravity is 1.21 [this is the hydrochloric acid value from the CAMEO Chemicals Datasheet]) In this example, 1.21 S.G. multiplied by 8.33 lbs per gallon multiplied by 600 gallons = 6048 total pounds.

d. Divide total pounds by release rate (In this example, 6048 Total Pounds divided by 5.29 pounds per minute = 1143 minutes, or 19 hours, total release time duration [this is a conservative estimate]).

Displaying ALOHA Threat Zones On MARPLOT Maps

> **Note:** *Communication between ALOHA and MARPLOT is accomplished via the "Sharing" menu available in either program.*

Displaying ALOHA threat zones on MARPLOT maps always begins with an active MARPLOT map.

1. Open or activate MARPLOT.

2. Select the pointer tool (or arrow tool).

3. Use your mouse to position the pointer at the release location and click once.

4. Select "ALOHA" from the Sharing Menu or use the ALOHA button.

5. Select "Set Source Point."

The ALOHA threat zone(s) should now be displayed at the selected source point.

If the threat zone does not appear, see the troubleshooting section of the ALOHA and MARPLOT manuals.

Moving the ALOHA Threat Zone to a Different Map Location

Unlike other MARPLOT objects, you cannot click-and-drag an ALOHA threat zone.

To relocate the ALOHA plume, you must select a new source point by repeating previous Steps 1 – 6.

Changing ALOHA Conditions, Then Showing New Threat Zone In MARPLOT

The communication between ALOHA and MARPLOT is always active. Thus, **any** change to the ALOHA threat zone(s) (e.g., selecting a new LOC, changing the wind direction, selecting a different source option, or altering the release rate) will change the dimensions of the ALOHA threat zone. The changes will automatically be displayed in MARPLOT.

Saving the ALOHA Threat Zone in MARPLOT Before Changing ALOHA Conditions

You may wish to keep the previous ALOHA threat zone dimensions visible while altering ALOHA parameters. This will allow you to compare the various ALOHA threat zones.

There are two methods to save and display ALOHA threat zones in MARPLOT. One method preserves the threat zone shapes by exporting them as shapefiles. The names and the display attributes can be adjusted after re-importing to a different overlay. The second method creates a new "polygon" shape by selecting two or more threat zone polygons and making a new polygon that is the union of the selected shapes. This creates an unnamed object that needs to be named and adjusted to display properly.

Method 1

To save an ALOHA Threat Zone:

1. Move to MARPLOT with the ALOHA threat zone displayed.

2. Select the ALOHA threat zones, using the shift-click or quick-search method.

3. From the "File" menu, select "Export Overlay Objects."

4. Export "selected objects" as "Shapefiles."

5. Name as appropriate.

6. Update ALOHA scenario to display modified threat zone.

7. From "File" menu, select "Import as Overlay Objects."

8. Select saved Threat Zone file.

9. Leave the Object ID set to "Name," name the overlay to import the objects on and click "Start Import."

10. Imported threat zone objects will appear as thin black lines, named the same as when they were exported. Select each object (double click on the threat zone) and adjust display attributes.
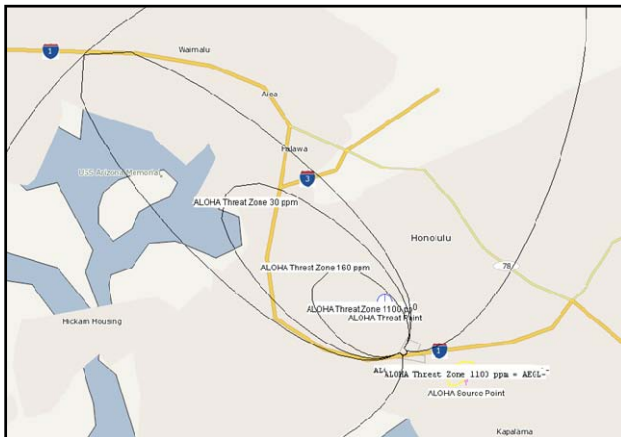
> **Note:** *The screenshot above shows the imported threat zone shapefiles, before any editing.*

Method 2

To save an ALOHA Threat Zone:

1. Move to MARPLOT with the ALOHA Threat Zone displayed.

2. Right click on the map and select "Overlay Manager."

3. Select the "New" button.

4. Name the new overlay (e.g., "ALOHA Threat Zones").

5. Select "OK."

6. Select the "ALOHA Threat Zones" and "Confidence Lines" (use shift-click method).

7. Select the "union" option to make a new polygon shape representing the threat zone.

8. Name the resulting polygon (e.g., "ALOHA Direct/ Instantaneous Threat Zone" or "ALOHA Chlorine IDLH Threat Zone") and set it to the new overlay.

9. Associate the new polygon with the User's Map.

10. Modify the display attributes as desired (line style, color, fill pattern).

11. Select "OK."

> **Note:** *The pink polygon is a "union" of the 1st ALOHA Threat Zone. The updated ALOHA Threat Zone is displayed smaller and with a different wind direction.*

You are now ready to return to ALOHA and change the input parameters. The ALOHA threat zone will automatically be "updated" on MARPLOT and the "user-drawn" will also be displayed. This allows comparisons between the two threat zones.

ALOHA OUTPUTS: PRINTING AND SAVING

Viewing ALOHA Outputs: Text Summary, Threat Zone, Threat at Point Graph, and Source Strength Graph

Each of the ALOHA outputs can be viewed individually or simultaneously. As you "select" each output item from the Display menu, the item will display on the screen.

Viewing all ALOHA Outputs Simultaneously

1. Select the "Display" menu.

2. Select "Tile Windows;" all "active" ALOHA outputs will be displayed on your screen.

Printing Aloha Outputs: Text Summary, Threat Zone, Threat at Point, Graph, and Source Strength Graph

Active ALOHA outputs may be printed individually or simultaneously.

1. Select the "File" menu.

2. Select "Print;" the currently active output will print.

You can also select "Print All" to print all output screens.

Printing ALOHA Outputs when Using a SAM Station

There are additional outputs when using a SAM station. These are also printable using the Print and Print All menu commands.

Saving ALOHA Information

When selecting the File/Save command, ALOHA automatically paths your computer to the ALOHA Export Files folder. You may use the "browse box" to path to a user-selected save folder. ALOHA files may be "saved" only in *.alo* format.

Copy and Paste the ALOHA Threat Zone/MARPLOT Screen to Any Other Software Application

1. Set the MARPLOT screen to display the Threat Zones.

2. Select the "Print Screen" button from your keyboard.

3. Open the document, spreadsheet, or slide in which you wish to paste the screenshot.

4. Simultaneously press the "control" and "V" keys from your computer keyboard.

CAMEO

Companion

for

Planners

CAMEOfm Data Management: Overview

MANAGING FACILITIES, SPECIAL LOCATIONS, RESOURCES, ROUTES, AND INCIDENTS WITH THE CAMEO SUITE

CAMEOfm offers several distinct modules, or spreadsheets, for users to enter and manage various data related to emergency response and planning. Each spreadsheet is comprised of *rows* and *columns* which intersect at a *cell* containing *data*. Generally, each spreadsheet row in CAMEOfm is the same as a *record*.

Any CAMEOfm record (except a Contact Record) may be linked to a MARPLOT map object, thereby operating as a geographic information system (GIS).

Each CAMEOfm module is uniquely designed to manage specific data sets. The following chart lists some typical uses for the CAMEOfm data modules.

CAMEOfm Module	Unique Data Fields	Links to Other CAMEOfm Modules	Example Uses
Facilities	Chemical Inventory, ID Codes, Site Plans	Chemical Inventory, Contacts, Incidents, Screenings, Site Plans	Tier 2 reports, any location with chemicals
Special Locations	Daily Population, Maximum Population, Average Population, Hours of Operation, Average Age, Peak Season	Contacts, Site Plans	Schools, hospitals, shopping malls, shelters, arenas, health facilities, prisons, day cares
Routes	Types of Vehicles, Start Point, End Point, Chemical Inventory,	Chemical Inventory, Incidents, Screenings	Chemical Inventory, Incidents, screenings
Resources	Resource Type, Items, Number of Items	Contacts	Listing of resources for pre-planning or emergency, using NIMS Resource Types
Incidents	Location, Source, Cause, Response, Evaluation	Facilities, Routes	Keep records of past HazMat incidents and responses, tracking exercises
Contacts	Name, Address, Phone Number	Facilities, Special Locations, Resources, Incidents	Attach list of persons to other CAMEOfm records
Site Plans	Can connect CAMEOfm to *.xls, .doc, .pdf, .cad, .jpg,* and other types of files	Facilities, Special Locations	Attach image of data files to CAMEOfm Facilities and/or Special Location records, link to programs such as Word or Excel

CAMEOfm Site Plans

CAMEOfm integrates Site Plans in a wide variety of formats, including *.jpg, .xls, .doc, .bmp, .cad,* and *.png.* Only the CAMEOfm Facilities and Special Locations modules may be linked to such Site Plan files.

CAMEOfm and Excel Data Exchange Process

Because all data in CAMEOfm is in spreadsheet format, it is possible to exchange data between CAMEOfm and Microsoft Excel and Access. Transferring data to/from an Excel spreadsheet and CAMEOfm is a very valuable and time-saving method of data entry and data management. Users may export CAMEOfm data and open the exported files in Excel, which can be very useful for making reports utilizing CAMEOfm data. Excel spreadsheets can be used to quickly "link" or "connect" hundreds or thousands of CAMEOfm records and MARPLOT map objects via the *MapData.mer* file.

CAMEOfm to Excel Data Exchange Process

This is a useful method for transferring data from CAMEOfm to Excel, where the data may be altered, revised, or printed using standard Excel operations.

A typical CAMEOfm to Excel process is as follows:

1. Activate CAMEOfm.
2. Select the record(s) you wish to transfer to Excel.
3. Select the File/Export menu.
4. Export records for the "Found Set."
5. Save the export file as *.zip* file to your computer.
6. Open the saved *.zip* file and extract the desired *.mer* files.

Examples of this process are provided in the individual **CAMEOfm** module management sections of the CAMEO Companion.

Excel to CAMEOfm Data Exchange Process

In many cases, data may be available to the user in Excel spreadsheet format and the user may wish to transfer the Excel data to CAMEOfm without manually entering data.

After the Excel data is successfully transferred to CAMEOfm, users may link those records to MARPLOT map objects, and operate them as a GIS.

A typical Excel to CAMEOfm process is as follows:

1. Activate CAMEOfm.

2. Select the CAMEOfm module to which you wish to transfer the Excel data.

3. Make a "dummy" record in CAMEOfm (the dummy record process is discussed in the individual **CAMEOfm** module management sections of the CAMEO Companion).

4. Export the dummy record as a *.zip* file to your computer.

5. Open the saved *.zip* file and extract the desired *.mer* files.

6. Change the file extension from *.mer* to *.csv*.

7. Open the *.csv* file in Excel.

8. Use the dummy record data as a guide to input (copy and paste) data from the Excel spreadsheet to the *.csv* file.

9. Create correctly-formatted CAMEOfm ID numbers for each record.

10. After completing the data input process, save the *.csv* file.

11. Change the *.csv* file to a *.mer* file.

12. Place the *.mer* file into a *.zip* file.

13. Import back to CAMEOfm.

> **Note:** *The Excel to CAMEOfm transfer process does* **not** *place any of the data records on the MARPLOT map; this process simply places the data from the Excel spreadsheet into CAMEOfm. Steps to link the CAMEOfm records to MARPLOT map objects are discussed later in the CAMEO Companion.*

Excel and Word files as CAMEOfm Site Plans

For the CAMEOfm Facilities and Special Location modules, users may find value in managing Excel and/or Word files as "Site Plans." This greatly reduces the need for Excel to CAMEOfm data transfers.

CAMEOfm Site Plans may not be linked to MARPLOT map objects. The CAMEOfm records to which the Site Plans are attached may be linked to MARPLOT.

Transferring a Set of Excel Equipment Lists to CAMEOfm

Example: The user has a list of fire stations with addresses and equipment lists in Excel format and would like to be able to link each fire station to a MARPLOT map object and view the associated equipment listings. It is not necessary to link each piece of equipment to a map object.

In this case, the user has two options:

1. Use the Excel to CAMEOfm process to transfer the fire stations to CAMEOfm Resources module, then use additional transfer methods to transfer the equipment lists to CAMEOfm as *ResourceEquip.mer* files. This process will involve a large number of steps and will require a thorough understanding of CAMEOfm record allocation and ID numbers. Updates to the equipment list must be performed using CAMEOfm.

2. Manually create a CAMEOfm Special Location record for each fire station; split the equipment list into separate Excel files for each fire station and attach a single *.xls* equipment list file to each CAMEOfm fire station record as a site plan. This process will involve some manual data entry for the user, but no knowledge of CAMEOfm record allocation of ID number format is needed. Since the Excel file containing the equipment list resides outside of CAMEOfm (the Excel file is still and *.xls* file which is simply linked to a CAMEOfm record), the user may update the equipment list using Excel.

In both cases, the user will need to manually link each CAMEOfm fire station record to an associated MARPLOT map object. The manual linking process requires no knowledge of CAMEOfm and MARPLOT linking files or ID number formatting.

At the end of this process, the fire stations will be linked to MARPLOT objects, but the individual pieces of equipment will **not** be linked to MARPLOT. The user will be able to select fire station records and display them on the map or select fire station map objects and obtain data records for each (including the associated equipment list for each fire station). The user will **not** be able to select equipment symbols from the map (for example, select a group of ladder trucks).

Transferring an Excel Listing of Schools to CAMEOfm

Example: The user has an Excel file of schools including name, address, contacts, phone numbers, and number of students and would like to transfer these to CAMEOfm and link to MARPLOT objects.

In this case, the user has two options:

1. Use the Excel to CAMEOfm process to transfer the schools to CAMEOfm Special Locations module, then use additional transfer methods to transfer the personnel list to CAMEOfm as *Contact.mer* files, transfer the phone numbers as *Phones.mer* files. This process will involve a large number of steps, and will require a thorough understanding of CAMEOfm record allocation and ID numbers. Updates to the equipment list must be performed using CAMEOfm.

2. Manually create a CAMEOfm Special Location record for each school; split the personnel, phone numbers, etc. into separate Excel files for each school, and attach a single *.xls* or *.doc* file to each CAMEOfm school record as a Site Plan. This process will involve some manual data entry for the user, but no knowledge of CAMEOfm record allocation of ID number format is needed. Since the file containing the school data resides external to CAMEOfm (the *.xls* or *.doc* file is simply linked to a CAMEOfm record), the user may update the personnel, phone numbers, and other data using Excel or Word.

Importing Shapefiles to MARPLOT Without CAMEOfm Records

Users may elect to transfer GIS files to MARPLOT without transferring any of the associated data to CAMEOfm. When a shapefile is imported to the MARPLOT Basemap Builder, users retain access to the *.dbf* file that is associated with the imported shapefile. This may eliminate the need to transfer the *.dbf* data to CAMEOfm, greatly simplifying and expediting the data transfer process. More information on this topic is found in the **Importing Shapefiles to MARPLOT** section of the CAMEO Companion.

CAMEOfm Data Management: Tier 2 Reports

MANAGING EPCRA TIER 2 REPORTS WITH THE CAMEO SUITE

Entering Tier 2 Report Information

There are generally only two methods of entering Tier 2 report information to CAMEOfm:

- Importing a *.t2s* or *.zip* file from Tier 2 Submit software; or a *.zip* file from another CAMEOfm user or one of the commercial software packages

- Manually via user data entry

Importing a *.t2s* or *.zip* File to CAMEOfm

1. Activate CAMEOfm.

2. Select the File menu.

3. Select "Import/Export."

4. Select "Import" from the Data Backup warning message box.

5. Use the browser to locate and double-click on the desired *.t2s* or *.zip* file.

6. After the import is complete, select the "Done" and "Close" buttons from the Import log.

Note: *If the import file came from Tier 2 Submit or another CAMEOfm user, the data will likely all be placed in the correct CAMEOfm data cells, and the Site Plans, Notes, and MARPLOT map links will likely all be correct and functional. Data imports from commercial applications vary as to correct placement of data; it is unlikely that imports from any other software will not incorporate Site Plans, Notes field text, or MARPLOT map links.*

Entering Paper Tier 2 Reports Using Tier 2 Submit

Note: *It is possible to manually enter paper Tier 2 report to CAMEOfm; however, this practice is discouraged. Users will find it easier and quicker to use Tier 2 Submit software.*

1. Activate Tier 2 Submit software.

2. Select "Start Tier 2 Submit" from the welcome screen.

3. If this is the first Tier 2 record entered, Tier 2 Submit will automatically open to a blank Facility screen. In this case, simply begin entering the information from the paper report.

If there are existing Tier 2 records in Tier 2 Submit, it will open to the Facilities list view; in this case do the following:

4. Select the Record/New Facility menu.

5. Enter the Facility Name, Address, and other text fields.

Note: *Generally, it is not necessary to enter the "Mailing Address" field; this information will be entered to the Contact "Owner/Operator" record. The "Department," "County," and "Fire District" fields are considered optional in many jurisdictions.*

6. Select the "Location and ID" tab.

7. Enter the ID Codes and Lat/Long from the paper report.

Note: *A wide variety of "ID" fields are possible, depending on the requirements for the local or state jurisdiction. "Number of employees" is generally considered an optional field. Latitude and longitude must be entered in decimal degree format. However, many Tier 2 reports are filed with the lat/long values in degrees/minutes or degrees/minutes/seconds. Sometimes, it is not possible for the data entry person to know which format is being submitted.*

*The data entry person should **always** evaluate the submitted Tier 2 report lat/long value using the MARPLOT "Go To Lat/Long" function. Instructions on using the Go To Lat/Long function are found in the CAMEO Companion for **Responders** section.*

When no lat/long coordinate is provided on the Tier 2 report, the data entry person should utilize MARPLOT, Google, or any mapping software to determine an accurate lat/long for the facility location and enter to the Tier 2 Submit software. Both MARPLOT and Google provide "address search" engines which may be used to determine the Facility location, and both applications provide a method to determine the lat/long for the entered address.

8. Select the Contacts tab.

9. Select the "Add Contact" button from the bottom of the screen; this will open the Contacts list view.

10. If the Contact record is present in the existing Contact list, left-click on the desired Contact record and choose the "Select" button. This will attach the selected Contact record to the active Facility record. Selecting the Contact from the existing list eliminates duplicate entering of Contact records.

11. If the Contact record is not present in the existing Contact list, select the "Add New" button and enter the Contact text from the paper Tier 2 report.

12. Select the State Fields tab; for many states, there are no additional Tier 2 requirements, so there will be no data fields under the State Fields tab.

13. Select the Certification tab and enter the Signature and Date text fields; select the checkboxes as appropriate for the report information; if desired, select the Site Plan tab and attach a site plan file to the record.

> **Note:** *The Signature and Date fields are required by federal law. All other text boxes in the Certification page are optional.*

14. From the top hot button list, choose "Chemical Inventory" list; this will open a blank chemical inventory form.

15. Enter the chemical inventory information from the paper report.

> **Note:** *It is generally best to begin by entering the CAS number from the paper report, and then choose the "Lookup Chemical Name" button and select the chemical name from the resulting list. In some cases, the paper report will not include the CAS number, or the submitted CAS number will not match any of the Tier 2 Submit chemical names list. The data entry person may need to contact the facility or submitter to resolve any CAS and chemical name conflicts.*

16. Select the "Storage Locations" tab to continue entering the paper report information.

17. If the paper report includes Mixture information, select the Mixture Components tab and enter the text fields.

18. Select the "State Fields" tab; enter information if needed.

Attaching a Site Plan to a Tier 2 Submit Facility Record

1. Activate the record to which you wish to attach a Site Plan.

2. Select the "Certification" tab.

3. Select the "Site Plan" tab.

4. Use the browser to locate and double-click on the desired file.

5. A wide variety of Site Plan file formats are acceptable, including *.pdf*, *.jpg*, *.doc*, *.tif*, *.xls*, *.cad*, and *.gif.*

Tier 2 Submit Validation Function

After completing the data entry, use the Tier 2 Submit validation function to check the report for completeness.

1. Select the "Record/Validate Record" menu.

2. If the record passes, proceed to the next report.

3. If the record fails, select the "Go To Field" button; enter the correct data to the "failed" field.

> **Note:** *Sometimes, the data entry person will not be able to resolve the "failed" validation issue due to inaccurate, incomplete or missing information. from the paper Tier 2 report. The data entry person may need to contact the Facility or Submitter to resolve any validation conflicts.*

Entering Multiple Facilities for a Single Owner/Operator or Company; Duplicate Record Menu

> **Note:** *Sometimes, a single Owner/Operator or company will submit several Facility locations for the jurisdiction. In those cases, use the Tier 2 Submit "Duplicate Record" function.*

1. Enter a single Facility for the Owner/Operator.

2. After the record "passes" validation, select the "Record/ Duplicate Record" menu.

Tier 2 Submit will create an identical Facility entry that is linked to identical Contact and Chemical Inventory records. This process reduces the amount of time for the data entry person to enter these Tier 2 reports.

3. Alter the duplicate record as needed.

4. After revising the duplicate record, use the Record/ Validate Record menu to check it.

5. Repeat as needed for all the similar reports.

Printing Tier 2 Submit Records

1. Activate Tier 2 Submit.

2. Select the File/Create Submission menu.

3. Select "Current Record," "Found Set," or "All Records" as desired.

4. Select "Start Validation."

5. If the record(s) pass validation, select the "Print Original Style Paper Report" button.

If the record(s) fail validation, select the "View Validation Report" button; locate and fix the failed report field(s).

Transferring Tier 2 Submit Records to CAMEOfm

Preparing a Transfer File from Tier 2 Submit

1. Activate Tier 2 Submit.

2. Select the File/Create Submission menu.

3. Select "Current Record," "Found Set," or "All Records."

4. Select "Start Validation."

5. If the record(s) pass validation, select the "Print Original Style Paper Report" button.

6. If the record(s) fail validation, select the "View Validation Report" button; locate and fix the failed report field(s).

7. Continue until the record(s) pass validation.

8. Select "Create Electronic File."

9. Use the browser to "save" the file in *.t2s* format to your computer.

> **Note:** *The software is designed to include any linked Site Plan files with the .t2s or .zip file and will transfer the linked Site Plan(s) to CAMEOfm.*

Importing the Tier 2 Submit file to CAMEOfm

See the previous **Importing a** *.t2s* **or** *.zip* **File** section.

Transferring the Tier 2 Submit records to Excel or Access

> **Note: *Do not use this method to open the Tier2ChemicalsInInventory.mer file!*** *Doing so will alter many of the CAS numbers.*

1. Prepare and save *.t2s* or *.zip* file to your computer as per previous instructions.
2. Locate the *.t2s* or *.zip* file on your computer.
3. Unzip or extract the *.t2s* or *.zip* file to a folder.

Inside the folder containing the extracted files, you should see seven individual files in *.mer* format. Each *.mer* file is a comma-separated value (*.csv*) spreadsheet file.
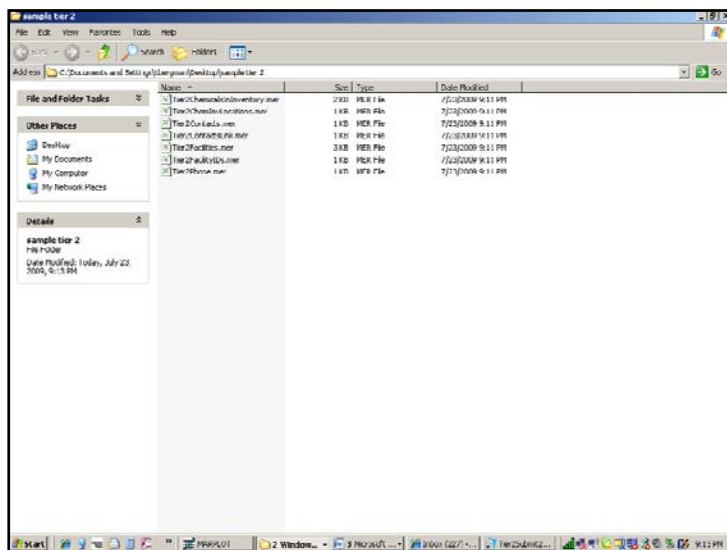
To View an Individual *.mer* File in Excel

1. Right-click on the desired *.mer* file.

2. Select "Rename" and change the file extension from *.mer* to *.csv*.

3. Double-click on the new *.csv* file, it will usually open in Excel.

> **Note:** *Do not use this method to open the*
> *Tier2ChemicalsInInventory.mer FILE!*
> *Doing so will alter many of the CAS numbers.*

To View the Files in Access

1. Change all the file extensions from *.mer* to *.csv*.

2. Create a new *.mdb* in Access and import the *.csv* files as per normal Access operations.

CAMEOfm Site Plans for Tier 2 Reports

> **Note:** *When importing Tier 2 Submit files, all Site Plans that are resident in the Tier 2 Submit software should transfer directly to the CAMEOfm Site Plans folder.*

A few things to know about all CAMEOfm Site Plans:

- Site Plans may be linked to only Facilities and Special Location records.

- Site Plans can be any file type that is recognized and read by the host computer, including *.jpg, .xls, .doc, .pdf, .ppt, .png, .cad, .bmp*, and others.

- Any file intended to be used as a CAMEOfm Site Plan must be placed in the CAMEO Data/Site Plans folder.

- Any aerial photo of the Tier 2 report site or Special Location area can be saved as a *.jpg* or *.bmp* and used as a Site Plan.

- Any digital photo may be used as a Site Plan; for example, photos of the chemical storage locations, vessels, piping, etc. can be saved to the Site Plans folder and linked to the desired Facility record.

- Digital photos of chemical storage locations, vessels, piping, etc. can be inserted to MARPLOT and linked directly to the Chemical Inventory record.

- CAMEOfm Site Plans may be included in export files.

Instructions on saving files to the Site Plans folder, attaching to CAMEOfm records, and editing the files are found in the **Digital Photos and Other Image Files: CAMEOfm** section of the CAMEO Companion.

Instructions on inserting digital photos of chemical storage and linking directly to Chemical Inventory records are found in the **Linking an Inserted Image File to a CAMEOfm Chemical Inventory Record** section of the CAMEO Companion.

Adding CAMEOfm Tier 2 Reports to MARPLOT

The user will generally want to link or connect all CAMEOfm Tier 2 records to MARPLOT maps. The key to this effort is to accurately spot the facility location on the map and to assign it to a relevant MARPLOT Overlay. For more information on MARPLOT Overlays, see the **Managing MARPLOT Overlays** section of the CAMEO Companion.

Creating an Appropriate Overlay and/or Overlay Group for CAMEOfm Facility Records

Creating an Overlay Group for Tier 2 Records

1. Activate MARPLOT.
2. Right-click and open the Overlay Manager.
3. Select the "New" button.
4. Select "Create Overlay Group."
5. Name the new group "_____ County Tier 2 Reports."
6. Select "OK."

Creating Overlays for Tier 2 Records

1. Activate MARPLOT.

2. Right-click and open the Overlay Manager.

3. Select the "New" button.

4. Select "Create Overlay."

5. Name the new Overlay "*current year* EHS Tier 2."

6. Select "OK."

7. Use the "Move" button to assign the EHS Overlay to the _____ County Tier 2 Reports Overlay Group.

8. Select the "New" button.

9. Select "Create Overlay."

10. Name the new Overlay "*current year* non EHS Tier 2."

11. Select "OK."

12. Use the "Move" button to assign the non EHS Overlay to the _____ County Tier 2 Reports Overlay Group.

13. Use the "Move" button to move the _____ County Tier 2 Overlay Group to the top of the Draw Order.

14. Select "OK."

You have now created overlays for both EHS and non-EHS Tier 2 reports, assigned to a Tier 2 Overlay Group, and put the entire group at the top of the draw order so that all Tier 2 report symbols will be drawn on top of all other MARPLOT objects.

Linking a Single CAMEOfm Facility to MARPLOT

1. Activate CAMEOfm.

2. Open the Tier 2 record you wish to link to a MARPLOT map object.

3. Open the Map Data tab; check to see if the record is already linked to MARPLOT; if the "Record is linked to MARPLOT object" box is checked, use the Sharing/ MARPLOT/Show on Map to see if the link is functional.

If the Facility record is already linked to MARPLOT, consult the **Managing a CAMEO Suite System** section of the CAMEO Companion.

If the Facility record is not linked to MARPLOT, proceed with the following steps.

Plotting a CAMEOfm Tier 2 Record Using Lat/Long Coordinates

1. Open the Map Data tab; check to see if the lat/long values are present.

2. If the lat/long values are present, follow these steps:

    a. Activate MARPLOT.

    b. Open the Overlay Manager; check to make sure the Tier 2 EHS and Tier 2 non-EHS Overlays are unlocked.

    c. Close the Overlay Manager.

    d. Select the Symbol Tool.

    e. Left-click anywhere on the map to place the symbol, this will open the Object Settings box.

    f. Make sure the new Symbol object is assigned to the correct Overlay and to the CAMEO Map.

    g.   Select the "Position/Size" button.

    h.   Copy and paste the lat/long values from the CAMEOfm Map Data fields to the MARPLOT lat/long fields.

    i.   Select "OK."

MARPLOT will place the Symbol object at the Lat/Long coordinates pasted into the fields.

Plotting a CAMEOfm Tier 2 Record Using the Street Address

1. Open the Address tab.
2. If the location address is present, follow these steps:

    a.   Activate MARPLOT.

    b.   Open the Overlay Manager and check to make sure the Tier 2 EHS and Tier 2 non-EHS Overlays are unlocked.

    c.   Close the Overlay Manager.

    d.   Right-click and select "Go To Address."

    e.   Enter (or copy and paste) the Facility Address to the Find Address box; make sure to include the city, state or zip code.

    f.   Select the "Find" button.

    g.   If MARPLOT finds the address, select the "Show on Map" button.

    h.   Select the Symbol tool.

    i.   Left-click on the map and place the symbol at the desired address spot, this will open the Object Settings box.

j.   Make sure the new Symbol object is assigned to the correct Overlay and to the CAMEO Map.

k.   Select "OK."

MARPLOT will place the Symbol object at the Lat/Long coordinates pasted into the fields.

Linking the MARPLOT Map Object to the CAMEOfm Facility Record

After placing the Symbol object on the MARPLOT map, link it to the desired CAMEOfm record:

1.   Select the desired MARPLOT object.

2.   Select the Sharing/CAMEOfm/Link Object menu; this will open the CAMEOfm software.

3.   Make sure the desired CAMEOfm record is open!

4.   In CAMEOfm, select the "Link/Link this record" menu.

Testing the Link

After completing the linking process, it is always a good idea to test the link.

1.   In CAMEOfm, select the Sharing/MARPLOT/Show on Map menu.

This should activate MARPLOT and display the linked symbol object at a 0.07 mile window width.

Linking Multiple CAMEOfm Tier 2 Reports to MARPLOT

It is possible to link hundreds or thousands of CAMEOfm Tier 2 reports to MARPLOT using Excel spreadsheet operations. For instructions, see the **Linking CAMEOfm Records to MARPLOT Objects** section of the CAMEO Companion.

Editing, Adding Information, Correcting CAMEOfm Tier 2 Reports

> **Note:** *Users will sometimes need to correct or add information to CAMEOfm Tier 2 reports.*

Altering a Single CAMEOfm Facility Record

1. Select the CAMEOfm record you wish to alter.
2. Select the "Edit" button.
3. Revise the record as desired.
4. Select the "Save Changes."

Altering Multiple CAMEOfm Tier 2 Reports

It is possible to revise, correct, or change hundreds or thousands of CAMEOfm Tier 2 reports to MARPLOT using Excel spreadsheet operations. For instructions, see the **Editing CAMEOfm Records using Excel** section of the CAMEO

CAMEOfm Data Management: Small Data Sets

It is impossible to define "small" versus "large" data sets in CAMEOfm; each user will have their own ideas of what amount of data records could be classified as small or large. For purposes of the CAMEO Companion, *small* is defined as *less than 100 records* and *large* as *more than 100 records*.

For data entry and data management of less than 100 records, the standard CAMEOfm and MARPLOT menu operations are usually sufficient. The CAMEOfm and MARPLOT menus require very little user understanding of CAMEOfm and MARPLOT ID numbers, record allocation, and other "behind the scenes" software operations.

For data sets of hundreds, thousands, or even tens of thousands of records, users will likely want to employ data management methods discussed in the **CAMEOfm Data Management for Large Data Sets** section of the CAMEO Companion.

Entering a Single Record to Any CAMEOfm Module

1. Activate CAMEOfm.
2. Select the desired CAMEOfm module.
3. Select the "Record" menu.
4. Select "New _____."
5. Enter data as desired.

Editing Any Single CAMEOfm Record

1. Activate CAMEOfm.

2. Select the desired CAMEOfm module.

3. Select the desired record.

4. Select the "Edit" button.

5. Enter data as desired.

6. When finished, select "Save Changes."

Attaching Site Plans to CAMEOfm Special Locations Records

In CAMEOfm, Site Plan files may be attached to either Facility or Special Location records. The process is identical for either. In addition, the same Site Plan file may be attached to both a Facility and a Special Location record.

Consider the following example: a user wishes to enter a local hospital as both a Facility and a Special Location, and to use a group of Site Plan files for both records. Using the following steps, the "same" Site Plan file may be attached to both.

1. Save the desired Site Plan file(s) to the CAMEO Data Site Plans folder; generally located at C:\Documents and Settings\All Users\Documents\CAMEO Data\SitePlans. Any number of Site Plans may be placed in the folder; or the user may elect to create "subfolders" in the Site Plans main folder and store the desired files there.

2. Launch or Open CAMEOfm.

3. Select the desired Facility or Special Location record.

4. Select the Site Plan tab and the "Edit" button.

5. In the blank space, enter the name of the desired file; make sure to include the file extension as part of the filename (*siteplan.doc*, *siteplan.jpg*, etc.)

6. Select the "Add" button.

7. Continue until all desired Site Plan files have been attached to the record.

8. Go to CAMEOfm Home.

9. Select the Facilities or Special Locations module and select the desired record.

10. Repeat the above steps to attach any of the Site Plan files to other CAMEOfm records.

> **Note:** *Future versions of CAMEOfm will use a "browse and select" method for selecting the desired Site Plan file rather than the current "type in filename with extension" method.*

Linking CAMEOfm Records to MARPLOT for a Single CAMEOfm Record

The user will generally want to link or connect many, if not all, CAMEOfm records to MARPLOT maps. The key to this effort is to accurately spot the CAMEOfm record location on the map, and to assign it to a relevant MARPLOT Overlay. For more information on MARPLOT Overlays, see the **Managing MARPLOT Overlays** section of the CAMEO Companion.

Creating an Appropriate Overlay and/or Overlay Group for CAMEOfm Records

> **Note:** *Effective management of CAMEOfm Facility record in MARPLOT depends on the number and nature of the facility records. The following steps are suggestions only; each user and jurisdiction should discuss this prior to linking the records to the map.*

Creating an Overlay Group for CAMEOfm Special Location Records

1. Activate MARPLOT.

2. Right-click and open the Overlay Manager.

3. Select the "New" button.

4. Select "Create Overlay Group."

5. Name the new group "_____ County CAMEO Special Locations"; you may need to abbreviate the jurisdiction name.

6. Select "OK."

Creating Overlays for CAMEO Special Location Records

1. Activate MARPLOT.

2. Right-click and open the Overlay Manager.

3. Select the "New" button.

4. Select "Create Overlay."

5. Name the new Overlay "current year Nursing Homes."

6. Select "OK."

7. Use the "Move" button to assign the EHS Overlay to the _____ County CAMEO Special Locations Overlay Group.

8. Use the "Move" button to move the _____ County Tier 2 Overlay Group to the top of the Draw Order.

9. Select "OK."

You have now created an overlay for Nursing Homes, assigned to a Tier 2 Overlay Group, and put the entire group at the top of the draw order so that all CAMEO Special Location symbols will be drawn "on top" of all other MARPLOT objects.

Alter the above process as necessary for CAMEOfm records other than Nursing Homes.

Linking a Single CAMEOfm Special Location to MARPLOT

1. Activate CAMEOfm.

2. Open the Special Location record you wish to link to a MARPLOT map object.

3. Open the Map Data tab; check to see if the record is already linked to MARPLOT; if the "Record is linked to MARPLOT object" box is checked, use the Sharing/ MARPLOT/Show on Map to see if the link is functional.

If the Facility record is already linked to MARPLOT, consult the **Managing a CAMEO Suite System** section of the CAMEO Companion. If the Special Location record is not linked to MARPLOT, proceed with the following steps.

Plotting a CAMEOfm Special Location Record Using Lat/ Long Coordinates

1. Open the Map Data tab; check to see if lat/long values are present.

2. If lat/long values are present, do the following:

   a. Activate MARPLOT.

   b. Open the Overlay Manager and make sure the appropriate Overlay is unlocked.

   c. Close the Overlay Manager.

   d. Select the Symbol Tool.

   e. Left-click anywhere on the map to place the symbol, this will open the Object Settings box.

   f. Make sure the new Symbol object is assigned to the correct Overlay and to the CAMEO Map.

   g. Select the "Position/Size" button.

   h. Copy and paste the lat/long values from the CAMEOfm Map Data fields to the MARPLOT lat/long fields.

   i. Select "OK."

MARPLOT will place the Symbol object at the lat/long coordinates pasted into the fields.

Plotting a CAMEOfm Tier 2 Record Using the Street Address

1. Open the Address tab.

2. If the location address is present, do the following:

   a. Activate MARPLOT.

   b. Open the Overlay Manager and check to make sure the appropriate Overlay is unlocked.

   c. Close the Overlay Manager.

   d. Right-click and select "Go To Address."

   e. Enter (or copy and paste) the Address to the Find Address box; make sure to include the city, state or zip code.

   f. Select the "Find" button.

   g. If MARPLOT finds the address, select the "Show on Map" button.

   h. Select the Symbol tool.

   i. Left-click on the map and place the symbol at the desired address spot, this will open the Object Settings box.

   j. Make sure the new Symbol object is assigned to the correct Overlay and to the CAMEO Map.

   k. Select "OK."

Linking the MARPLOT Map Object to the CAMEOfm Facility Record

After placing the Symbol object on the MARPLOT map, link it to the desired CAMEOfm record:

1. Select the desired MARPLOT object.

2. Select the Sharing/CAMEOfm/Link Object menu; this will open the CAMEOfm software.

3. Make sure the desired CAMEOfm record is open!

4. In CAMEOfm, select the "Link/Link this record" menu.

> **Note:** *CAMEOfm records may be linked to any type of MARPLOT maps object. Typically, the MARPLOT Symbol Tool is used to represent most CAMEOfm records; however, the user may elect to link to MARPLOT digital images instead. In other words, the user could take a photo of the building, insert the photo to MARPLOT, and link the CAMEOfm record to the inserted photo.*

Testing the Link

After completing the linking process, test the link.

1.   In CAMEOfm, select the Sharing/MARPLOT/Show on Map menu.

This should activate MARPLOT, and display the linked symbol object at a 0.07 mile window width.

Extracting Information from CAMEOfm for Single Records or Small Set of Records

Generally, users will need to view or extract data from CAMEOfm as the product of a "search" using either the CAMEOfm Search menu, or using the MARPLOT "Quick Search" operations.

Obtaining Information for a Single or Small Set of CAMEOfm Record(s)

1.   Activate CAMEOfm.

2.   Open the desired CAMEOfm module.

3.   Select the Search/Start Search menu.

4.   Enter the Search criteria.

5.   Select the "Search" button.

6.   Double-click the record of interest.

Transferring Single Record Information from CAMEOfm to Word

1. Choose the CAMEOfm record of interest.
2. Select the File/Print Report menu.
3. Select "for the Current Record."
4. Select "View Report" and "Select All" buttons.
5. Select the "View Report" button.
6. Copy and paste text from the report screen to Word.

Obtaining Information for a Single or Small Set of CAMEOfm Record: MARPLOT Search Method

1. Activate MARPLOT.
2. Use the Quick Search method to define a geographic area in which you wish to search.
3. Select the record(s) of interest from the resulting Search Collection.
4. Select the "Show All on Map" button; this should display the desired map object(s) as "selected."
5. Select the Sharing/CAMEOfm/Get Info menu; this should open the selected record(s) in CAMEOfm.

Transferring a Small Set of Records from CAMEOfm to Excel

Note: ***Do not use this method to open the cheminventory.mer file.*** *Doing so may alter the associated CAS numbers.*

1. Choose the CAMEOfm record(s) of interest.

2. Select the File/Export menu.

3. Select "Export Data for Found Set."

4. Save to your computer as a *.zip* file.

5. Open the *.zip* file and extract the *.mer* files contained there.

6. Change the *.mer* file extension(s) to *.csv* and open the *.csv* file(s) in Excel.

Note: *The information you wish to transfer to Excel may be found in several of the .csv files. Users may need to utilize Excel copy and paste operations to combine the desired information into a single .xls file.*

CAMEOfm Data Management: Large Data Sets

If the user is attempting to input and manage hundreds, thousands, or tens of thousands of data records to CAMEOfm, standard CAMEOfm and MARPLOT menu operations may be impractical. Users may wish to expedite data entry and management by transferring data between CAMEOfm/MARPLOT and Excel, Access, or other spreadsheet applications.

CAMEOfm and MARPLOT ID Number Format

Entering or linking CAMEOfm and MARPLOT data using spreadsheet operations requires users to understand CAMEO Suite ID formats.

- Every CAMEOfm record and every MARPLOT map object must have a unique ID number.

- All "links" between CAMEOfm records and MARPLOT objects are accomplished via the respective ID numbers; other data has no impact on the link. Lat/long values, street addresses, record names, etc. are not related to the link. The CAMEO Suite utilizes only the ID numbers for linking.

- Generally speaking, CAMEOfm to MARPLOT links are "one-to-one;" users generally do not link a single CAMEOfm record to multiple MARPLOT objects, or link a single MARPLOT map object to multiple CAMEOfm records. Multiple linkages are possible, but are not recommended.

- CAMEOfm and MARPLOT ID number format cannot be altered.

MARPLOT ID format is always:

- 16 character

- Hexadecimal only; meaning that only digits and the letters A – F may be used in MARPLOT ID number

CAMEOfm ID format is always:

- 20 characters

- The first two characters identify the CAMEOfm module for the record

CAMEOfm first two character ID number format is:

CI – Chemical Inventory	CK – Contact Link
CL – Chemical Location	CM – Chemical Mixtures
CT – Contact	FA – Facilities
FD – Facility ID Code	IM – Incident Material
IN – Incident	MD – Map Data
PH – Phone	RE – Resource
RN – Route Intersection	RQ – Resource Equipment
RT – Routes	SK – Site Plan Link
SP –Special Location	SS – Screening/Scenario

Note: *Any improperly formatted ID number will be ignored by both CAMEOfm and MARPLOT.*

CAMEOfm List of Spreadsheets and Formats

There are 18 spreadsheets in CAMEOfm. Any CAMEOfm record will likely have data residing is several of the spreadsheets:

ChemicalsInInventory.mer   *ChemInvLocations.mer*

ChemInvMixtures.mer   *Contacts.mer*

ContactsLink.mer   *Facilities.mer*

FacilityIDs.mer   *IncidentMaterials.mer*

Incidents.mer   *MapData.mer*

Phone.mer   *ResourceEquipt.mer*

Resources.mer   *RouteIntersections.mer*

Routes.mer   *ScreeningAndScenarios.mer*

SitePlanLink.mer   *SpecialLocations.mer*

> **Note:** *The list of 18 spreadsheets correspond to the 18 different ID number formats.*

For example, a typical Tier 2 record will have data entered to 10 *.mer* files. Each *.mer* file contains information entered from the Tier 2 report.
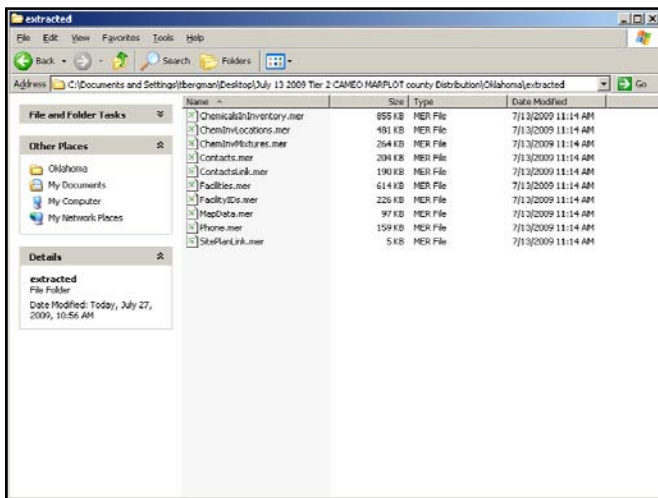
Entering a group of Tier 2 reports to Facilities from an Excel spreadsheet requires users to copy and paste to 10 different CAMEOfm spreadsheets and to assign at least 15 different sets of ID numbers.

The number of CAMEOfm spreadsheets utilized per record depends entirely on the nature of the data transfer. For example, if a Special Location record includes a contact person and a phone number, there will be five CAMEOfm spreadsheets involved.

If the user incorporates the contact and phone number into the Special Location Address tab, one spreadsheet will be used to house the CAMEOfm data, one spreadsheet (*MapData.mer*) will be used to store the MARPLOT map links, and one spreadsheet (*SitePlansLink.mer*) may be used to store the Site Plan links. Since neither the *MapData* or *SitePlanLink* files are generally entered from Excel data files, the concept of storing the contacts and phone numbers on the address page greatly simplifies the data transfer from Excel to CAMEOfm.
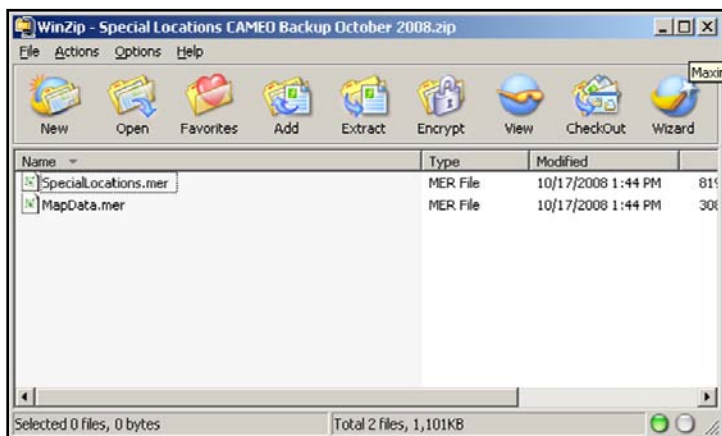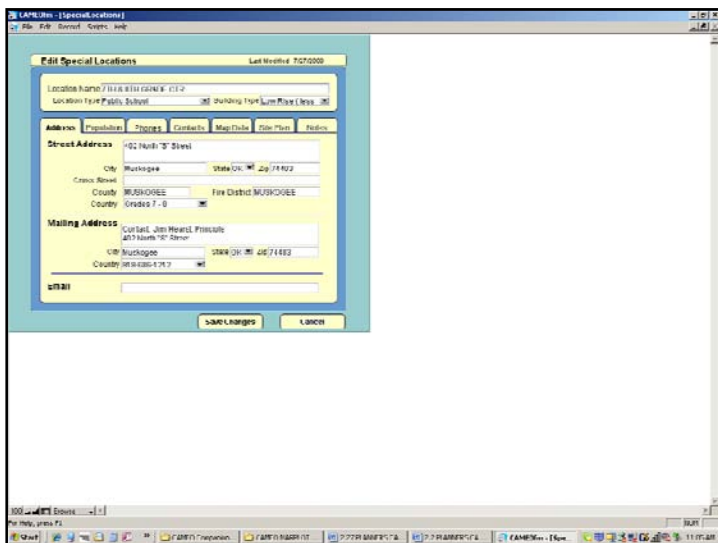
CAMEOfm and Excel for Large Data Sets

CAMEOfm to Excel Data Exchange Process

This is a useful method for transferring data from CAMEOfm to Excel, where the data may be altered, revised, or printed using standard Excel operations.

A typical CAMEOfm to Excel process is as follows:

1. Activate CAMEOfm.
2. Select the record(s) you wish to transfer to Excel.
3. Select the File/Export menu.
4. Export records for the "Found Set."
5. Save the export file as *.zip* file to your computer.
6. Open the saved *.zip* file and extract the desired *.mer* files.
7. Change the file extension from *.mer* to *.csv*.
8. Open the *.csv* file in Excel.

Excel to CAMEOfm Data Exchange Process

In many cases, data may be available to the user in Excel spreadsheet format and the user may wish to transfer Excel data to CAMEOfm without manually entering data.

After Excel data is successfully transferred to CAMEOfm, users may link those records to MARPLOT map objects and operate them as a GIS system.

A typical Excel to CAMEOfm process is as follows:

1. Activate CAMEOfm.

2. Select the CAMEOfm module to which you wish to transfer the Excel data.

3. Make a "dummy" record in CAMEOfm (the dummy record process is discussed in the individual **CAMEOfm** module management sections of the CAMEO Companion).

4. Export the dummy record as a *.zip* file to your computer.

5. Open the saved *.zip* file and extract the desired *.mer* files.

6. Change the file extension from *.mer* to *.csv*.

7. Open the *.csv* file in Excel.

8. Use the dummy record data as a guide to input (copy and paste) data from the Excel spreadsheet to the *.csv* file.

9. Assign unique ID numbers for each record using CAMEOfm ID number format.

10. After completing the data input process, save the *.csv* file.

11. Change the *.csv* file to a *.mer* file.

12. Place the *.mer* file into a *.zip* file.

13. Import back to CAMEOfm.

> **Note:** *This Excel to CAMEOfm transfer process does **not** place any of the data records on the MARPLOT map; this process simply places the data from the Excel spreadsheet into CAMEOfm. Steps to link the CAMEOfm records to MARPLOT map objects are discussed later in the CAMEO Companion.*

Excel and Word files as CAMEOfm Site Plans

For the CAMEOfm Facilities and Special Location modules, users may find value in managing Excel and/or Word files as Site Plans. This greatly reduces the need for Excel to CAMEOfm data transfers.

CAMEOfm Site Plans may not, however, be linked to MARPLOT map objects. The CAMEOfm records to which the Site Plans are attached may be linked to MARPLOT.

EXCEL TO CAMEOFM DATA EXCHANGE PROCESS

Note: *Users may transfer data from any spreadsheet into CAMEOfm. The complexity of the transfer process is dependent on the quantity and nature of the data fields to be transferred. This process is recommended only for users with a good understanding of typical spreadsheet operations.*

Entering Records from an Excel Spreadsheet to Any CAMEOfm Module

Transfer Process

1. Create a "dummy" record.
2. Export the dummy record as a *.zip* file.
3. Extract the *.zip* file(s).
4. Change the file extension(s) from *.mer* to *.csv*.
5. Open the file(s) using Excel.
6. Open the files with the data you wish to transfer into CAMEOfm.

7. Copy and paste from the host spreadsheet to the target spreadsheet.

8. Assign unique ID numbers for each row on the target spreadsheet.

9. Save the target spreadsheet(s) as *.csv* file.

10. Change the file extension(s) from *.csv* to *.mer*.

11. Place new *.mer* files into a *.zip* file.

12. Import the new *.zip* file to CAMEOfm.

Example: List of equipment at local fire station(s) without any associated Contacts

1. Open the Excel file containing the resource list.

2. Review the data field headings.

3. Activate CAMEOfm/Resources module.

4. Enter dummy text to each data field that corresponds to a field contained in the Excel resource list.
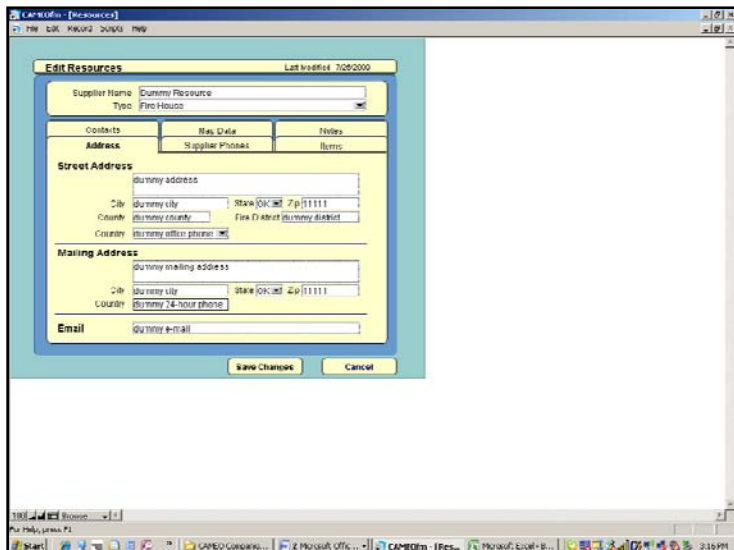
> **Note:** *The "Country" fields are being used to house Phone Numbers in this example. Using existing Address tab fields greatly simplifies the data transfer process. Since it is unlikely that users need to record "USA" as the "Country," this field may be used for other data. However, users may not change the Field Label from "Country" to "Phone Number." Changing the Field Label will result in inability to transfer this record to another CAMEOfm user.*
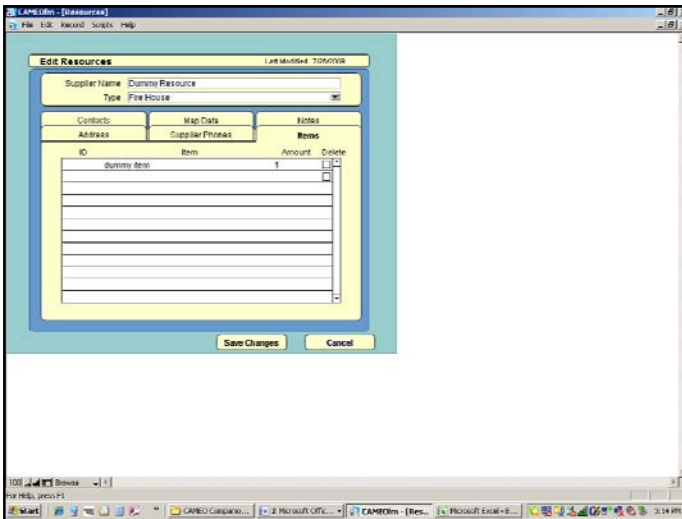
> **Note:** *The Amount field contains only the digit "1" rather than the text "dummy amount." The CAMEOfm Amount field is formatted for digits only; users may not enter text to the Amount field.*

5. When finished entering dummy information, use the File/Export menu to export the dummy file as a *.zip* file and save to your computer; a suggestion is to create a folder named "CAMEOfm Excel Transfers," and save the dummy file to that folder.
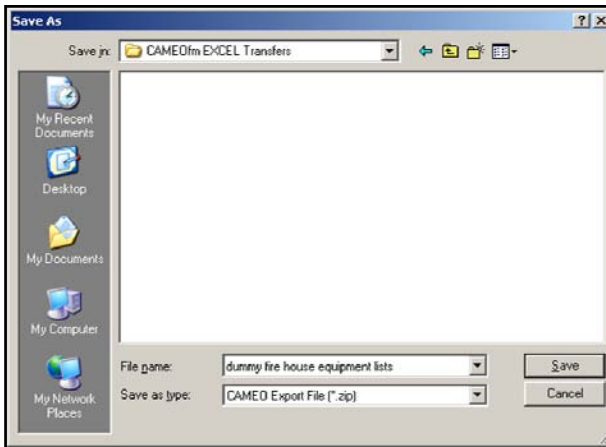
> **Note:** *In this example, a folder titled "CAMEOfm Excel Transfers" is used to store the exported dummy record.*

6. Minimize CAMEOfm.

7. Extract the *Resources.zip* file; there should be two *.mer* files extracted.
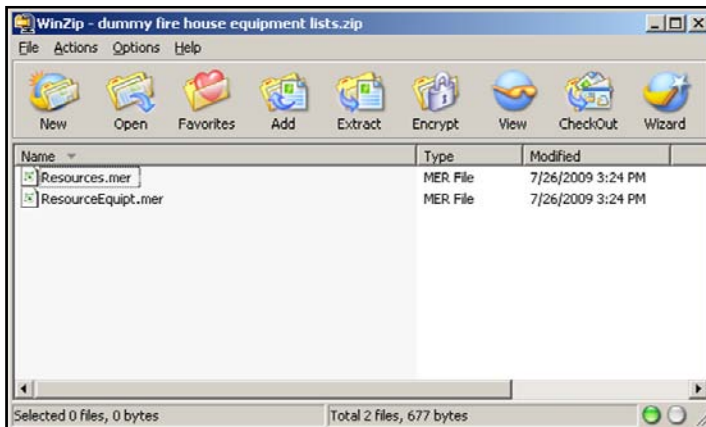
8. Change the file extensions from *.mer* to *.csv*.
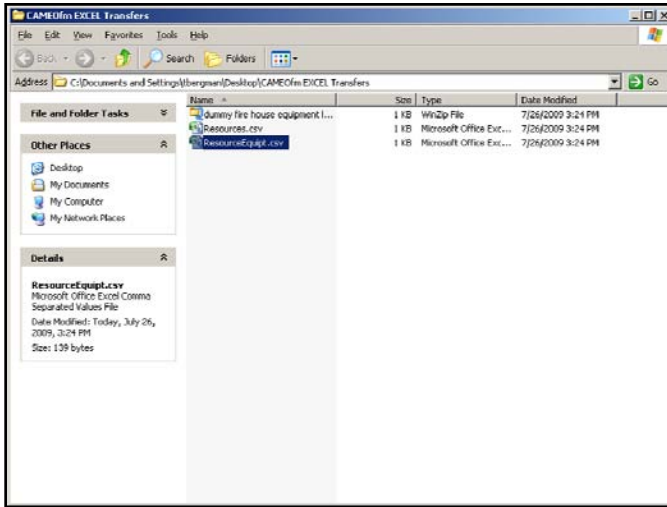
9. Open *Resources.csv* file in Excel.
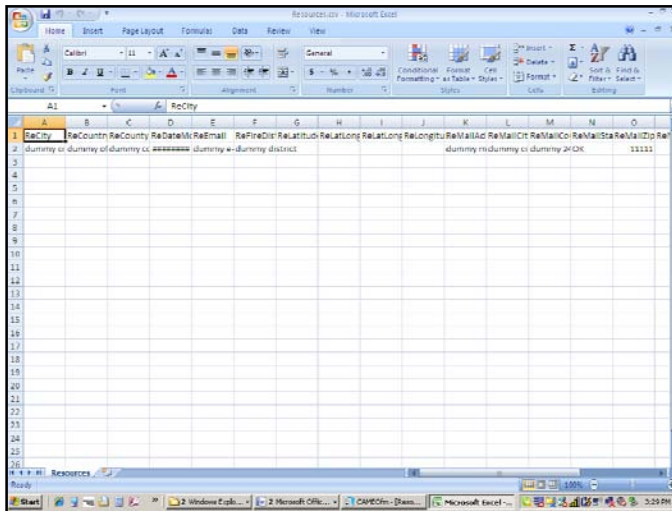
Note that the file contains the information you typed into CAMEOfm, but without the "Item" and "Amount" fields. Those fields are contained in the *ResourceEquipt.csv* file and must be dealt with separately.

10. If working with only one fire house, enter the correct information for all the desired fields in the Resources spreadsheet; do **not** change the "ResourceRecordID" field. The number in this field will look something like "RE0000006MXZGC0072C5." All CAMEOfm records MUST have a unique ID number. The format is **always** 20-character, with the first two characters identifying the CAMEOfm spreadsheet in which the information will be stored.

11. If working with more than one fire house, copy and paste from your existing spreadsheet to the appropriate columns on the Resources spreadsheet. You will need to create a unique ID number for each fire house row; each ID number must be 20-character and begin with the letters "RE," which informs CAMEOfm that these records are assigned to the Resources module. Users may consider using Excel "series/autofill" operations to simplify the ID number creation process. For more information on using Excel "series/autofill" operations to create unique CAMEOfm ID numbers, send a query to the YAHOO! CAMEOUsers Group, or to tom.bergman@sbcglobal.net.

> **Note:** *Do not alter the column names or the column order of the spreadsheet! Doing so will prevent import of data back to CAMEOfm.*

12. Open the *ResourceEquip.csv* file in Excel; note that the Item and Amount fields, along with the RecordKey and ResourceRecordID fields are present.
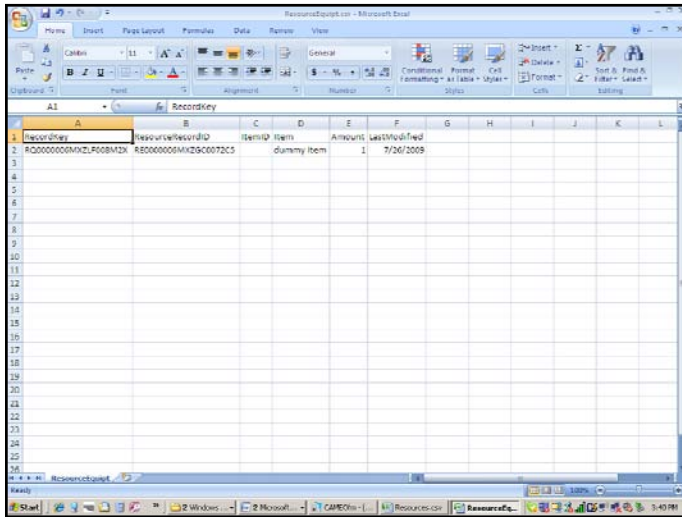
The RecordKey identifies the CAMEOfm Resource record to which the Item and Amount fields will be linked, or connected (in this case, the single fire house where the equipment is located). The ResouceRecordID is the unique ID number for each individual resource item (this can be any number of equipment types).

13. Copy and paste the resources information from the existing spreadsheet to the appropriate Item and Amount field on the *ResourceEquip.csv* spreadsheet.

If you are working with only one fire house, you may copy and paste the RecordKey field into each new data row. Then, assign a unique ID number for each row for the ResourceRecordID field.

If you are working with more than one fire house, then you must be careful to correctly match the RecordKey and ResourceRecordID fields. Failure to correctly match these ID numbers will result in incorrect data being transferred to CAMEOfm.

14. When finished, save the files as *Resources.csv* and *ResourceEquip.csv.*

15. Change the file extensions from *.csv* to *.mer*.

16. Place both inside a *.zip* file.

17. Import back to CAMEOfm.

Note: *While this transfer process may seem lengthy and complex, it is invaluable for transferring hundreds or thousands of existing Excel records into CAMEOfm. Manually entering 10 or more fire house records, each with 10 or more associated equipment items could easily require several days of data entry by one person. Transferring from existing Excel files using this method may take less than one hour for users who are proficient with the transfer process and are familiar with CAMEOfm ID number formats.*

Editing Multiple CAMEOfm Records Using Excel Spreadsheet Operations

Note: ***Do not use this method to edit CAMEOfm Chemicals in Inventory records!*** *Opening the ChemicalsinInventory.mer file as a .csv file will automatically change many of the CAS numbers to dates.*

1. Select the CAMEOfm records you wish to edit.

2. Export to a *.zip* file.

3. Follow the above process for opening the file(s) in Excel.

4. Alter the information in Excel as desired.

5. Follow the above process for importing the edited files back to CAMEOfm.

Linking CAMEOfm Records to MARPLOT: Multiple CAMEOfm Records

The user will generally want to link or connect many, if not all, CAMEOfm records to MARPLOT maps. The key to this effort is to accurately spot the CAMEOfm record location on the map and assign it to a relevant MARPLOT Overlay.

For a single CAMEOfm record, the Sharing menu process given earlier in this section of the Companion is quick, easy, and effective; however, linking hundreds or thousands of CAMEOfm records via the Sharing menu is time-consuming.

Users may employ Excel spreadsheet operations to link multiple CAMEOfm records to multiple MARPLOT map objects. The principles are identical whether linking a single record or linking thousands of records:

- The data records must be available in CAMEOfm.

- Corresponding map objects for each CAMEOfm data record must be available as MARPLOT map objects.

- The data records and map objects must be exported from CAMEOfm and MARPLOT, and opened as Excel spreadsheets.

- Users may open the CAMEOfm *MapData.mer* file in Excel to link any number of records/object via their unique ID numbers.

The process for transferring multiple CAMEOfm data records via Excel is discussed earlier in this section of the CAMEO Companion.

The process for importing multiple MARPLOT map objects via Excel is discussed in the **MARPLOT** section of the CAMEO Companion.

Following are the steps needed to link CAMEOfm data records to corresponding MARPLOT map objects via the *MapData.mer* file using Excel spreadsheet operations.

Plotting the Desired Set of CAMEOfm Data Records onto MARPLOT Using Lat/Longs

Preparing a Spreadsheet of Lat/Long Coordinates

1. Activate CAMEOfm.

2. Select the group of data records you wish to link to MARPLOT.

3. Export the data records as a *.zip* file.

4. Extract and open the appropriate *.mer* file from the following choices:

   a. *Facilities.mer*

   b. *SpecialLocations.mer*

   c. *Routes.mer*

   d. *ChemicalsinInventory.mer*

   e. *Incidents.mer*

   f. *Resources.mer*

5. Change the file extension from *.mer* to *.csv* and open in Excel.

6. Find the Latitude and the Longitude columns on the spreadsheet.

If all the entries have lat/long values, the user may copy and paste them into a new Excel spreadsheet, along with the record "Name" and "ID Number." The lat/long values can be used to place MARPLOT Symbol objects on the map at the appropriate spots; the Name and ID Number fields are necessary in order to link the map objects to the correct data records.

7. Create a new Excel spreadsheet containing these fields:

   Longitude   Latitude   Name   ID Number

8. Copy and paste from the *.csv* file into the new Excel spreadsheet.

Note: *Keep this spreadsheet active; you will need it later.*

Using a MARPLOT Dummy Record

1. Activate MARPLOT.

2. Open the Overlay Manager.

3. Create or unlock the Overlay to which the CAMEO data records will be assigned.

4. Close the Overlay Manager.

5. Use the Symbol tool to place a dummy map object.

6. Use the Object Settings box to set the object criteria; make sure to assign the dummy object to the correct Overlay and to the CAMEO Map.
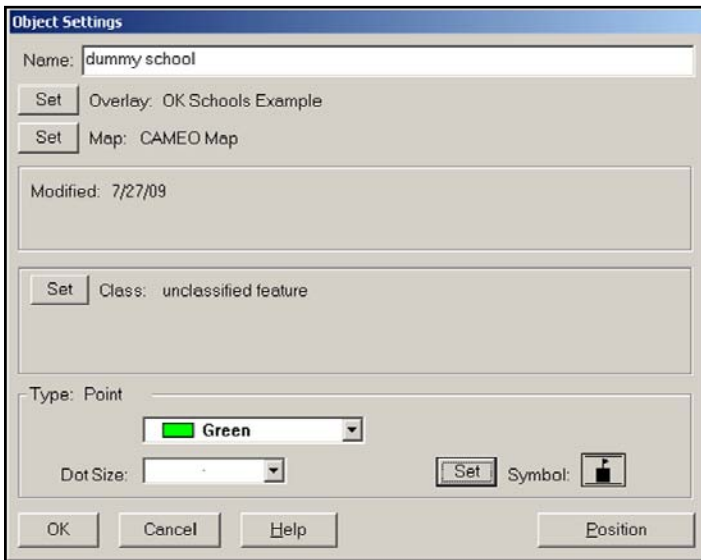
7. Select "OK."

8. Select the File/Export Overlay Object menu.

9. Select "MARPLOT Simple Point Format."

10. Save the export file as "____ dummy export."

Preparing the MARPLOT Import File

1. Open the _____ dummy export *.txt* file in Excel.

2. Copy and paste the Longitude, Latitude, and Name
    fields from the spreadsheet created from the *.csv* file.
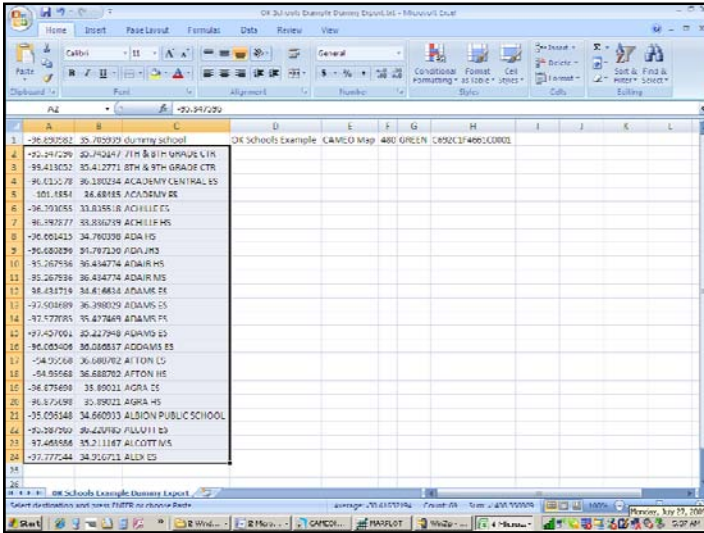
3. Copy and paste columns D, E, F, and G onto the
    spreadsheet. Notice you did **not** copy and paste the ID
    numbers. MARPLOT cannot import CAMEOfm ID
    numbers.

4. Add MARPLOT ID numbers to Column H; MARPLOT ID
   numbers must be 16-character, and hexadecimal,
   which means only digits and the letters A – F can be
   used in the ID number. Users may use the dummy row
   assigned MARPLOT ID number as an example. Note that
   the ID numbers must be unique!

5. Delete the first row (dummy row) from the spreadsheet.
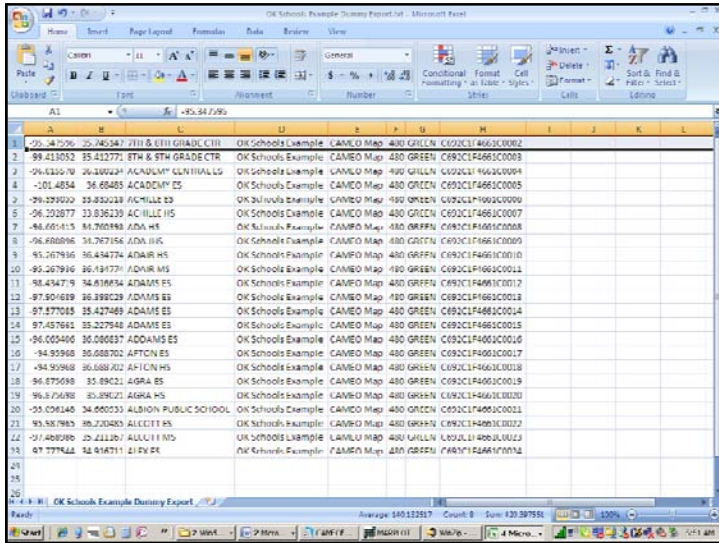
6. Save this spreadsheet as a text tab delimited (*.txt*) file; this is the only type of spreadsheet file that can be imported to MARPLOT. Do not save as an *.xls* file.
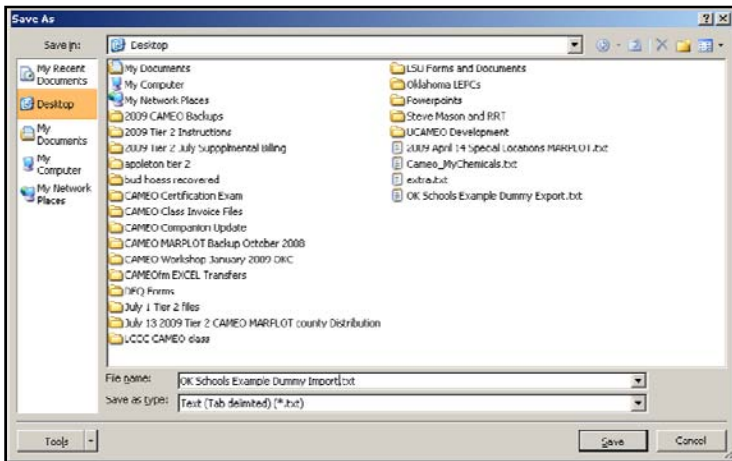
7. Close this spreadsheet file; it will not import to MARPLOT if it is still open in Excel.

This file is now ready to import to MARPLOT

1. Activate MARPLOT.

2. Import the *.txt* file saved from above.

MARPLOT should have created a new Overlay or added these objects to an existing Overlay. Users may unlock the desired Overlay, use a search to select all objects on the layer, and change the display attributes as desired.

Linking the CAMEOfm Data Records to the MARPLOT Objects

The CAMEO Suite uses ID numbers to link CAMEOfm records and MARPLOT objects. The links are contained in the *MapData.mer* file.

1. Activate CAMEOfm.

2. Delete the previously created dummy record.

3. Select a single CAMEOfm record to link.

4. Use the standard Sharing menu process to link the single record to a MARPLOT object.

5. When finished, export the single CAMEOfm record as a *.zip* file.

6. Open and extract the *MapData.mer* file from the *.zip* file.

7. Change the file extension to *MapData.csv* and open in Excel.
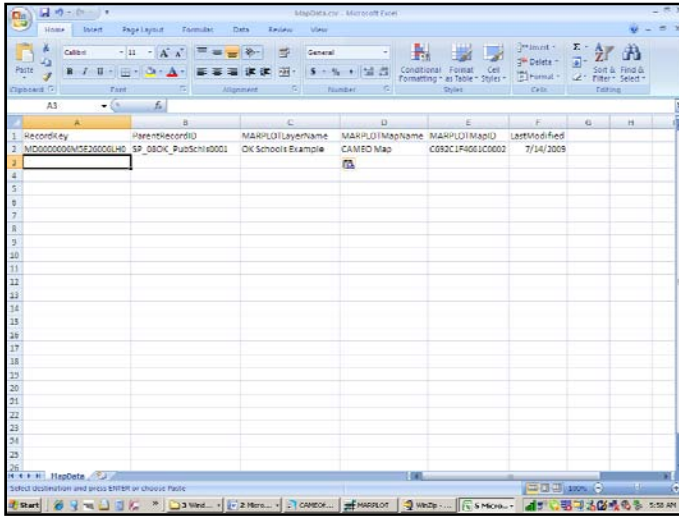
8. Copy and paste from the CAMEOfm spreadsheet with ID numbers and the MARPLOT spreadsheet with ID numbers. Copy and paste the ID numbers along with the record and object names to ensure they match.
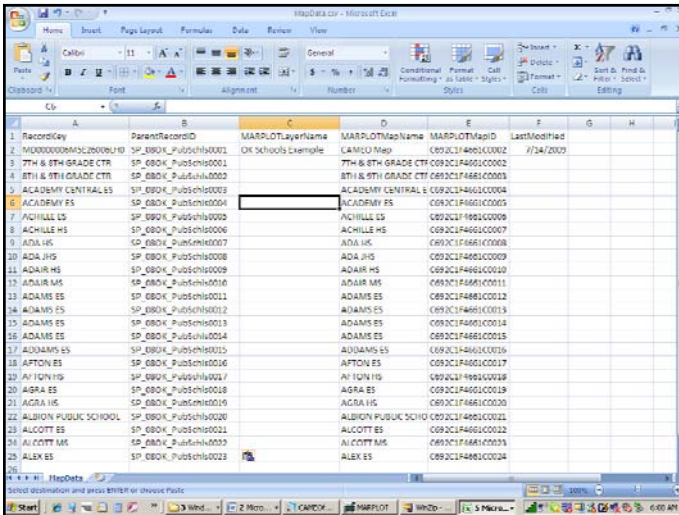
9. Make sure the names match!

10. Copy and paste the MARPLOT Layer and Map Names.
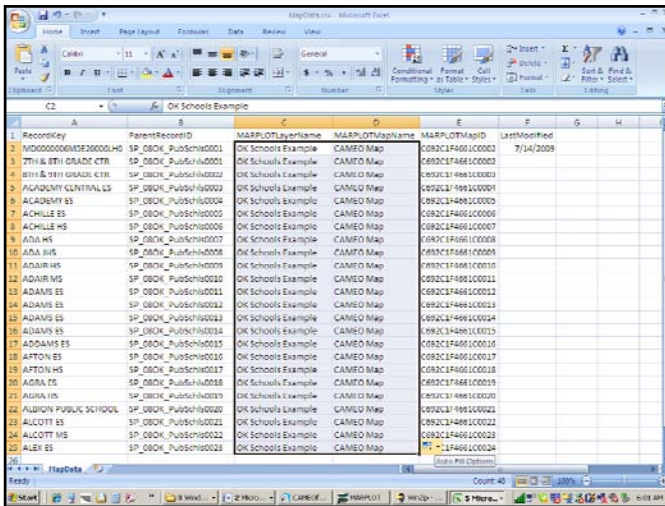
11. Create CAMEOfm Record Key ID numbers for column A; as with all CAMEO ID numbers, they must be unique, 20 characters in length, and begin with "MD" for Map Data IDs.
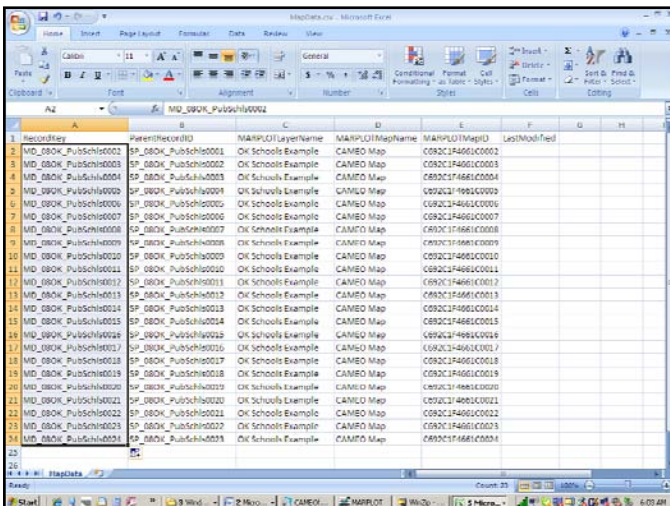
12. Save this file as *MapData.csv* and exit Excel.

13. Change the file extension to *MapData.mer*.

14. Place the *MapData.mer* file into a *.zip* file and import to CAMEOfm.

Users should check a few of the records to ensure they are properly linked.

MARPLOT and Excel for Large Data Sets

MARPLOT "simple point" objects (symbols) may be manipulated using standard spreadsheet operations. Other MARPLOT objects, such as circles, polylines, polygons, and ALOHA Threat Zones are not able to be modified with spreadsheets. For further information on MARPLOT and Excel operations, see the **MARPLOT Data Management** section of the CAMEO Companion.

Digital Photos and Image Files for the CAMEO Suite

> **Note:** *Both CAMEOfm and MARPLOT can incorporate digital image files, such as aerial photographs and digital photos. CAMEO and ALOHA offer export files that may be imported to Google Earth/Google Map. Digital photography can be a great asset to your CAMEO Suite.*

Aerial Photos and Topographic Maps Without an Internet Connection: MARPLOT

Save the desired photograph(s) on your computer. While a standard installation of MARPLOT provides user access to both aerial photos and topographic maps that reside on the Internet, most users find it more practical to have the aerials and topo maps on the local computer. This allows the user to view them without an Internet connection.

Importing Aerial Photos/Topographic Maps to MARPLOT

1. Create a folder on your computer named "MARPLOT Aerials and Topos."

2. Copy and paste or save the desired aerial photo or topographic map file to the folder; generally, the aerial photo file(s) will be in either MrSID (*.sid*) or JPEG2000 (*.jp2*) format.

3. Activate MARPLOT.

4. Open the Basemap Builder.

5. Select the "Add Layer" button.

6. Set the "Look in" to the MARPLOT Aerials and Topos folder.

7. Set the "Files of Type" to *.sid*, *.jpg*, or *.tif* as appropriate.

8. Double-click on the desired aerial or topo file.

9. Enter the Projection type and format as appropriate.

10. Enter a Layer and Layer Group name.

11. Select "OK."

The aerial photo or topo should now be added to the Basemap Layers list.

Viewing Aerial Photos/Topographic Maps Without an Internet Connection in MARPLOT

1. Open the Basemap Builder.

2. Activate the Layer Group and Layer where the aerial or topo is stored.

3. Select "OK."

The aerial or topo should now be displayed in MARPLOT.

> **Note:** *It is not possible to view both the aerial photo and the topographic map simultaneously.*

Digital Photos and Other Image Files: MARPLOT

MARPLOT allows users to insert any image file in *.jpg*, *.bmp*, *.gif*, *.tif*, *.wmf*, *.emf*, or *.png* format. A common format for photos taken with a digital camera is *.jpg*; therefore, any digital photo may be inserted to MARPLOT.

Once the digital photo or image file is inserted to MARPLOT, it may be relocated, resized, and/or linked to a CAMEOfm data record.

Inserting Digital Photographs/Image Files to MARPLOT

1. Create a folder on your computer named "MARPLOT Digital Photos."

2. Copy and paste or Save the desired digital image to the folder.

3. Activate MARPLOT.

4. Select the View/Overlay Manager menu.

5. Create or Unlock an Overlay where the digital image will reside.

6. Close the Overlay Manager.

7. Select the Overlays/Insert Picture Object menu.

8. Select "Use Existing Map."

9. Select "File."

10. Set the "Look in" to the MARPLOT Digital Photos folder.

11. Set the "Files of Type" as appropriate.

12. Double-click on the desired image file.

This will open the Object Settings dialog box. It is important to note that MARPLOT treats the inserted image file as an "object," as if you had used the drawing tools to put a symbol on the map, or to draw a circle, polyline, or polygon.

13. Select "OK."

The image file will now display in MARPLOT. However, the image file will not be "geo-referenced," meaning it may not be displayed at the correct location, or be drawn to the desired scale (size).

Getting an Inserted Image File to the Correct Size and Location

Point and Click Method

For the point and click method, users simply select the inserted image file and alter it exactly as with other MARPLOT objects, such as circles, polygons, and symbols.

1. To reposition the image file, the user may "left-click and drag" to the desired map location.

2. To resize the image file, the user may "left-click and drag" any of the object vertices (the red squares found at each corner of the inserted image).

Geo-reference Method

For the geo-reference method, the user must know **either**:

- Two lat/long values for places found on the image file

- One lat/long value for a point on the image file and a distance to another point on the image file

1. Double-click on the inserted image file; this will open the MARPLOT Object Settings dialog box.

2. Select the "Geo-reference" button.

3. Select the "1" pencil.

4. Left-click on the image at the known lat/long location.

5. Left-click on the "2" pencil.

6. Left-click on the image at the known lat/long or Distance location.

7. Select "Lat/Long" or "Distance" as appropriate.

8. Enter the lat/long or distance value.

9. Select "OK."

10. Select "OK."

The image file should now be displayed at the correct size at the correct map location.

Linking an Inserted Image File to Any CAMEOfm Data Record

Since MARPLOT considers the inserted image file to be an "object," it may be linked to a CAMEOfm data record. The linking process is identical to linking a MARPLOT Symbol object to a CAMEOfm record.

Users may then "view and select" a photo of a building, a chemical storage area or container, an equipment trailer, a photo of a person, etc.; then use the Sharing menu to view the CAMEOfm data record associated with the selected photo.

1. Activate CAMEOfm.

2. Open the desired CAMEOfm module and select the desired data record.

3. Activate MARPLOT.

4. Select the desired inserted image.

5. Select the Sharing/CAMEOfm/Link Object menu. This should return you to CAMEOfm with the desired data record displayed.

6. In CAMEOfm, select the Link/Link this record menu.

The inserted image file is now linked to the CAMEOfm data record.

Linking an Inserted Image File to a CAMEOfm Chemical Inventory Record

1. Activate CAMEOfm.

2. Open the CAMEOfm Chemical Inventory module; select a chemical data record.

3. Activate MARPLOT.

4. Select the desired inserted image file of the chemical storage or container.

5. Select the Sharing/CAMEOfm/Link Object menu. This should return you to CAMEOfm with the desired data record displayed.

6. In CAMEOfm, select the Link/Link this record menu.

The inserted image file is now linked to the CAMEOfm Chemical Inventory record.

Linking an Inserted Image File to a CAMEOfm Resource Record

1. Activate CAMEOfm.

2. Open the CAMEOfm Resources module; select a Resources record.

3. Activate MARPLOT.

4. Select the desired inserted image file of the equipment or other resource.

5. Select the Sharing/CAMEOfm/Link Object menu. This should return you to CAMEOfm with the desired data record displayed.

6. In CAMEOfm, select the Link/Link this record menu.

Digital Photos and Other Image Files: CAMEOfm

CAMEOfm allows users to attach image files to any data record contained in the Facilities or Special Locations module. The desired image file(s) must be stored in the CAMEO Data/Site Plans folder.

CAMEOfm Site Plans are not limited to image files. Almost any file format may be stored in the Site Plans folder and attached to a CAMEOfm data record; including files such as *.doc*, *.xls*, *.ppt*, *.pdf*, and *.cad*. Any file format that the local computer can open can be attached as a CAMEOfm Site Plan.

Saving/Storing the File to the CAMEO Data Site Plans Folder

1. Select the desired file; could be a *.jpg*, *xls*, *.doc*, *.cad*, *.pdf*, etc.

2. Copy and paste or save the desired file to the CAMEO Data/Site Plans folder; for a standard installation of CAMEOfm, the folder will be found at C:\Documents and Settings\All Users\Documents.

Attaching the File(s) to a CAMEOfm Site Plan

1. Activate CAMEOfm.

2. Open either the Facilities or Special Locations module.

3. Open the desired data record.

4. Select the "Edit" button.

5. Select the "Site Plans" tab.

6. Use the browser to select the desired file from the CAMEO Data/Site Plans folder.

7. Repeat as desired to attach multiple Site Plans to the data record.

8. Select "Save Changes."

Editing CAMEOfm Site Plans

1. Activate CAMEOfm.

2. Open either the Facilities or Special Locations module.

3. Open the desired data record.

4. Select the "Site Plans" tab.

5. Double-click on the file you wish to edit.

6. Select "To view or print this site plan, please click this button to open the file in an external program."

7. Edit the file in the external program.

8. Save the edited file as the same name to the CAMEO Data/Site Plans folder.

Using Aerial Photos with User-Drawn Objects as CAMEOfm Site Plans

1. Activate MARPLOT with an aerial photo displayed.

2. Use the MARPLOT drawing tools to sketch the desired planning information.

3. In MARPLOT, select the File/Save as Picture menu.

4. Save the picture to the CAMEO Data as a bitmap (*.bmp*) file.

5. Attach the *.bmp* file to the desired CAMEOfm data record as per above instructions.

Using MARPLOT Maps with ALOHA Threat Zones as CAMEOfm Site Plans

1. Create an ALOHA Threat Zone and display on MARPLOT; the Threat Zone may be displayed on aerial photos, topo maps, or street maps.

2. In MARPLOT, select the File/Save as Picture menu.

3. Save the picture to the CAMEO Data as a bitmap *(.bmp)* file.

4. Attach the *.bmp* file to the desired CAMEOfm data record as per above instructions.

Exporting CAMEOfm Data Records to Google Earth

1. Activate CAMEOfm.

2. Select the desired Facility record(s).

3. Select the "File/Make KML" File menu.

4. Save the file to your computer.

5. Activate Google Earth and import the *.kml* file.

Data Management: Printing Reports from CAMEOfm

> **Note:** *CAMEOfm can produce printed materials in text, Word, or Excel format.*

Printing Reports from CAMEOfm

1. Select the record(s) you wish to print.
2. Select the File/Print Report menu.
3. Select "Current Record," "Found Set," "Entire Module," or "All CAMEO Data" as appropriate.
4. Choose "Select All" or specific data fields as desired.
5. Select the "Print Report" button.

Printing Reports from CAMEOfm Using Microsoft Word

1. Select the record(s) you wish to transfer to Word.
2. Select the File/Print Report menu.
3. Select "Current Record," "Found Set," "Entire Module," or "All CAMEO Data" as appropriate.
4. Choose "Select All" or specific data fields as desired.
5. Select the "Preview Report" button.
6. Select the desired text using "left-click and drag" or "ctrl/a."
7. Activate Word.
8. Paste the CAMEOfm report text into the desired Word document.

Printing Reports from CAMEOfm Using Microsoft Excel

1. Select the record(s) you wish to transfer to Excel.

2. Select the File/Import\Export menu.

3. Select "Export."

4. Select "Current Record," "Found Set," "Entire Module," or "All CAMEO Data" as appropriate.

5. Use the browser to save the *.zip* export file to your computer.

6. Minimize or exit CAMEOfm.

7. Locate the saved *.zip* file on your computer.

8. Extract the zipped files to a new folder on your computer.

9. Change the file extension(s) from *.mer* to *.csv*.

10. Open the *.csv* file(s) using Excel.

MARPLOT Data Management

MARPLOT data management is generally concerned with obtaining and displaying map data from external sources, accurately entering the user's map information, connecting map objects to data records, extracting the map information and associated data records when needed, and sharing the MARPLOT information with other users.

Obtaining Map Data from Other Sources

- Downloading map data from the National Atlas and Census Bureau websites via the Download Manager

- Importing map data from other MARPLOT users or other GIS software systems via either the File/Import menu or the Basemap Builder

Importing Road and Street Maps: Census Bureau TIGER Files

TIGER file road maps may be imported to either the Overlay Manager or the Basemap Builder. Importing to the Overlay Manager provides more user control of the road maps, but is less automated than importing to the Basemap Builder. Both methods require Internet access for the initial download, but neither require Internet access to utilize the road maps after downloading.

Some users may elect to download the TIGER files to both the Overlay Manager and the Basemap Builder. The roads display should exactly match, but with different display attributes. For example, the "roads" contained in the Basemap Builder are not "selectable" and therefore cannot be linked to CAMEOfm data records. No Basemap Builder map objects are linkable to CAMEOfm. Thus, users who may need to edit or link road lines to data records will want to have the roads available in the Overlay Manager.

Importing TIGER files to the Basemap Builder

1. Activate MARPLOT.

2. Select the View/Download Manager menu.

3. Select the "Download More County Layers" button.

4. Click on the "Select Counties From" box.

5. Choose a state from the drop down list.

6. Choose the desired county(s) from the list.

7. Select the "Download" button.

MARPLOT will download and install the selected road maps.

Importing TIGER files to the Overlay Manager

1. Go to http://www.census.gov/cgi-bin/geo/shapefiles/national-files.

2. Select the state of interest.

3. Choose the desired county.

4. Download the "All Lines" file and save to your computer; it will save as a *.zip* file.

5. Extract the saved *.zip* file; it will contain several files, including a *.shp* file.

6. Use the File/Import as Overlay object to import the *.shp* file to MARPLOT.
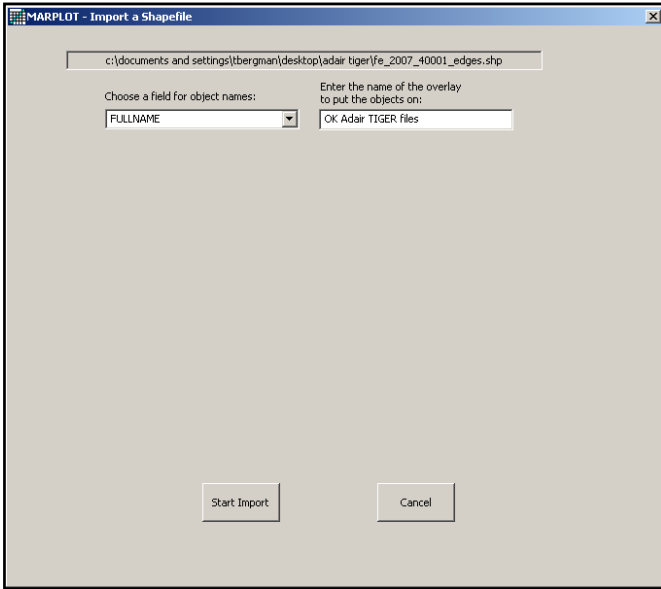
> **Hint:** *Name the MARPLOT Overlay "state_county_*TIGER Files*" to keep the files organized.*

After the TIGER file road maps are imported, users will need to open the Overlay Manager, set the imported overlay to "Range," and adjust the "Scale Ranges" as desired.

Importing Road and Street Maps: Centerline Shapefiles

Many jurisdictions will have locally-created *centerline* shapefiles available, which are sometimes more accurate and more recent than the TIGER files. As with the TIGER files, centerline shapefiles may be imported and managed via the Overlay Manager or Basemap Builder. For shapefile importing instructions, see Importing Shapefiles to MARPLOT discussed later in this section.

Importing Population Data and National Atlas Data: MARPLOT Download Manager

1. Select the View/Download Manager menu.

2. Select "Download More Population Layers" to import Census data.

3. Select "Download More National Layers" to import National Atlas data.

Importing Files From Other MARPLOT Users

MARPLOT can transfer files in *.mie* (MARPLOT import/export), *.txt* (simple point only files), or *.shp* (common GIS format).

Importing *.mie* and *.txt* files: MARPLOT to MARPLOT Transfers Only

.mie files are capable of transferring all types of MARPLOT area and point objects and *.txt* files can transfer only "simple point" objects. Import and export for both are accomplished via the File menu. *.mie* files are used only for the Overlay Manager and are the most common file for transfer of user-generated MARPLOT objects.

1. Activate MARPLOT.

2. Select the File/Import as Overlay Objects menu.

3. Use the browser to select the desired *.txt* or *.mie* file.

MARPLOT will import the selected file and will add the information to the Overlay Manager, either by adding to existing overlay(s) or by creating new overlay(s). The object settings (color, position/size, line size, fill pattern, and symbol type) are transferred; however, Overlay Group assignments and Scale Range settings are not transferred via *.mie* or *.txt* files. Use the Overlay Manager to alter any Group assignments or Range settings for the imported objects.

Exporting Area Objects as .txt Files: Linking Multiple MARPLOT Objects to CAMEOfm Records and Listing Area Object Exact Center Points

.txt files are used when linking multiple MARPLOT object to CAMEOfm records. For linking purposes only, users may wish to export "area" objects in *.txt* file format. The *.txt* file will contain the MARPLOT Object Name and ID Number, which are the two items that must be pasted into the CAMEOfm *MapData.mer* file for linking to CAMEOfm records.

Another feature of area object *.txt* exports is that the lat/long coordinates given in columns A and B will be the "center point" for the area object. For example, when a circle, rectangle, or polygon object is exported in *.txt* format, the column A and B values will be the lat/long for the exact center of the object.

Importing a Spreadsheet With Lat/Long Coordinates to MARPLOT

Any spreadsheet comprised of lat/long coordinates may be imported to MARPLOT.

Lat/Long Spreadsheet to MARPLOT Transfer Process

Preparing MARPLOT and Creating a Dummy Object

1. Activate MARPLOT.
2. Open the Overlay Manager.
3. Create or unlock an overlay to house the new simple point data.
4. Close the Overlay Manager.

5. Use the Symbol Tool to place a dummy point object on MARPLOT:

    a. Make sure the dummy object is assigned to the correct overlay.

    b. If the imported object will be linked to CAMEOfm records, make sure to assign the dummy object to the CAMEO Map; otherwise, assign it to the Users Map.

    c. Select the desired "color" and "symbol."

    d. When finished, select "OK."

6. Use the File/Export menu to export the dummy object as a Simple Point object.

Preparing the Spreadsheet for Import to MARPLOT

1. Open the exported dummy record using Excel.

2. Enter the lat/long coordinates and the Object Name to columns A, B, and C of the dummy file.

3. Copy and paste columns D, E, F, and G for each of the rows containing data.

4. Create unique ID numbers for column H, or leave column H blank.

5. Save the file as a "Text Tab Delimited" file type; do not save as an *.xls* file.

At this point, the user may save the *.txt* file and import to MARPLOT. MARPLOT will create unique ID numbers in MARPLOT format during the import process. The user may also create unique ID number and enter to column H, as long as the created ID numbers are consistent with MARPLOT ID number format (16 –character, hexadecimal).

Importing Files from Portable GPS Units to MARPLOT

Typical outputs for a portable GPS unit are *.txt* files comprised of paired sets of lat/long coordinates along with a waypoint object name. These are point objects only; portable GPS units typically do not transfer circles, polylines, or polygons to MARPLOT.

.txt files may be opened and manipulated using Excel. This allows users to obtain sets of lat/long coordinates and import to MARPLOT using the process provided in the preceding section.

Importing Shapefiles to MARPLOT

Shapefiles are common for most GIS software. While shapefile exports both area and point objects, they require an individual export for each type of object. In other words, exporting a group of map objects that contain both point and area objects requires two export files, one for the point objects and one for the area objects. Thus, shapefile imports may also require two files.

Shapefiles may be imported to either the Overlay Manager or the Basemap Builder, or both.

Typical shapefiles will be in a folder containing a several accompanying files, including *a.prj* (projection) and *.dbf* (database) files. MARPLOT needs information from both the *.prj* and the *.dbf* file to import the *.shp* file.

Users must determine the projection prior to initiating the import process. The shapefile folder must be resident on your computer.

1. Open the shapefile folder and open the *.prj* file; generally, the *.prj* file may be opened using Notepad.

2.   Determine the projection format; for some projection formats, it is best to leave the *.prj* file open during the import process in order to enter the projection values into the MARPLOT import box.

Users need to review the *.dbf* file to determine which column they wish to use as the MARPLOT Object Names.

> **Hint:** *If you have difficulty understanding the projection format, send an e-mail the Yahoo CAMEOUsers Group. There are simply too many possibilities for different projection formats to include in the CAMEO Companion.*

3.   Open the shapefile folder and open the *.dbf* file; generally, the *.dbf* file may be opened using Excel or some type of *.dbf* file editing software.

4.   Choose one of the columns to use as the MARPLOT Object names.

It is not necessary to leave the *.dbf* file open during the import process.

> **Hint:** *After importing a shapefile to the Basemap Builder, users may access the associated .dbf file information via Quick Search operations. Users should review the .dbf file data to determine which, if any, columns of information they will want to access and utilize. Operations to access the .dbf data area discussed later in this section.*

Importing Shapefiles to the Overlay Manager

1. Select the File/Import as Overlay Objects menu.

2. Use the browser to locate and double-click on the desired *.shp* file.

3. Choose a projection format and enter information from the *.prj* file.

4. Designate the *.dbf* column to be used as the Object Names.

5. Assign to the desired MARPLOT Overlay.

6. Select the "Start Import" button.

Display attributes (color, symbol type, line size, fill pattern) are not transferred from the *.shp* file to MARPLOT. Users will need to utilize Overlay Manager operations to assign their desired display attributes.

Importing Shapefiles to the Basemap Builder

1. Select the Basemap Builder/Add Layer button.

2. Use the browser to locate and double-click on the desired *.shp* file.

3. Choose a projection format and enter information from the *.prj* file.

4. Designate the *.dbf* column to be used as the Object Names.

5. Assign to the desired MARPLOT Overlay and Overlay Group.

6. Select the "Start Import" button.

Display attributes (color, symbol type, line size, fill pattern) are not transferred from the *.shp* file to MARPLOT. Users will need to utilize Basemap Builder operations to assign their desired display attributes.

> **Hint:** *Basemap settings may also be altered via the "Global.map" file located in the C:\Program Files\MARPLOT folder. This is recommended only for highly experienced MARPLOT users.*

Altering the Display Attributes for Basemap Builder Layers

1. Open the Basemap Builder.

2. Left-click on the Layer name you wish to alter.

3. Alter the Settings using the right side options on the Basemap Builder screen.

Setting Basemap Builder Layers as Transparent

1. Open the Basemap Builder.

2. Left-click on the Layer name you wish to display as transparent.

3. Change the "Transparency" settings using the right side options on the Basemap Builder screen.

4. "100" is opaque, "0" is invisible; you may need to try several transparency values to determine the desired setting.

Accessing the *.dbf* Files After a *.shp* Import to the Basemap Builder

1. Conduct a Quick Search.

2. Select Basemap/Get Info from the search selection box.

3. Select the Layers for which you want information.

4. Select "OK."

Transferring the Displayed .dbf File Information to Excel or Word

Users may utilize standard select, copy, and paste operations to transfer the displayed *.dbf* file data to Excel or Word.

1. Left-click and drag to select the desired text from the "Information about Selected Basemap Layers" box.

2. Use left-click/copy or "ctrl/c" to copy the text to the computer clipboard.

3. Paste into Word or Excel.

Differences in Data Management of Imported Shapefiles Using Overlay Manager versus Basemap Builder

Users have more control of MARPLOT display attributes (symbol type, color, line size, and fill pattern) for imported shapefile data using the Overlay Manager. However, the Overlay Manager does not permit access to the original *.dbf* file that is associated with the *.shp* file. Overlay Manager does allow imported shapefile objects to be linked to CAMEOfm records for data management purposes.

MARPLOT does provide user access to the associated *.dbf* information for *.shp* files imported via the Basemap Builder, provided the *.dbf* file stays resident in the folder from which the *.shp* file was originally imported.

The capability to access the *.dbf* information will eliminate the need to create and link to CAMEOfm data records for many imported *.shp* files.

Adding Special Locations, Resources, Routes and Other Types of Records from Commercial GIS Applications as MARPLOT Objects and CAMEOfm Data Records

In some cases, users will have access to Special Locations, Resources, and Routes that are already linked to map objects in a commercial GIS system. There are two methods of transferring those data sets to the CAMEO Suite—import to MARPLOT and CAMEOfm, and import only to the MARPLOT Basemap Builder.

If the record data for the imported map objects can be accessed via the *.dbf* file associated with the imported *.shp* file, users may prefer to import the *.shp* file to the Basemap Builder to avoid the work required to transfer the *.dbf* file information to CAMEOfm and to link those CAMEOfm records to the MARPLOT map objects (see previous section).

Transferring *.shp* File Information to MARPLOT and CAMEOfm

> **Hint:** *If the shapefile import set contains only simple point lat/long objects, (which is typical for Special Location and Resource records) the user may find it simpler to transfer the Longitude, Latitude, and Object Name data to an Excel spreadsheet and import to MARPLOT using the* **Importing a spreadsheet with Lat Long coordinates to MARPLOT** *operations.*

1. Import the shapefile to MARPLOT Overlay Manager.

2. Transfer the *.dbf* file information to CAMEOfm (see the **CAMEOfm and Excel for large Data Sets** part of the **CAMEO Data Management for Large Data Sets** section of the CAMEO Companion). For these operations, open the *.dbf* in Excel and treat exactly as an *.xls* file.

3. Link the imported MARPLOT map objects to the transferred CAMEOfm data records (see the **Linking CAMEOfm Records to MARPLOT: Multiple CAMEOfm Records** part of the **CAMEO Data Management for Large Data Sets** section of the CAMEO Companion.

Transferring MARPLOT Map Data to Other MARPLOT Users

This topic is addressed in the **Administrators** section of the CAMEO Companion.

Creating New Overlay Groups

1. Open the Overlay Manager.
2. Select the "New" button.
3. Select "create overlay group" from the New Overlay or Group dialog box.
4. Enter a name for the new Overlay Group.
5. Select "OK" to close the dialog box.

The new Overlay Group will be placed at the bottom of the draw order; it cannot be moved in the draw order hierarchy until at least one overlay has been assigned to it.

Assigning Overlays to Overlay Groups

1. Open the Overlay Manager.
2. Select an Overlay to "move" to the desired Overlay Group.
3. Select the "Move" button; select "into group."
4. Double-click on the desired Overlay Group.
5. Repeat as needed to move Overlays into Overlay Groups.

Changing a Group of Objects to a Different Overlay and/or Map

1. Open the Overlay Manager.

2. Unlock the overlay(s) from which you want to transfer the objects.

3. Unlock or create the overlay to which to you want to transfer the objects.

4. Close the Overlay Manager.

5. Use Search to select the objects for transfer; use the "Show All on Map" to show all the objects as selected.

6. Select the "Overlays" menu.

7. Select "Move Objects to Overlay" or "Move Objects to Map" as appropriate.

8. Select the desired overlay or map from the "Move Select Objects…" dialog box.

The objects have now been transferred to the new Overlay or Map.

> **Note:** *Assigning MARPLOT Objects to different Overlays will destroy any existing CAMEOfm linkages. In other words, changing any CAMEO -linked MARPLOT object to a different Overlay will render the CAMEOfm-MARPLOT link inoperable. This is because the Overlay Name is a column in the MapData.mer file which is the file where all CAMEOfm-MARPLOT links reside. Users may employ spreadsheet operations to re-link the objects; see the "Linking the CAMEOfm Data Records to the MARPLOT Objects" section of the* **CAMEOfm Data Management for Large Data Sets** *section of the CAMEO Companion.*

Changing a Group of Objects to a Different Color, Line Style, Fill Pattern, and/or Symbol

1. Open the Overlay Manager and unlock the overlay(s) you wish to edit.

2. Close the Overlay Manager.

3. Use a search or quick search to select the desired objects.

4. Select the Overlays menu.

5. Select Color, Line Style, Fill Pattern, or Symbol as appropriate.

6. Repeat as needed to change the object(s) display attributes.

Note: *The above processes "permanently" change the object overlay group and map assignments, and/or display attributes. Objects exported after conducting the above steps will import to other MARPLOT systems with the altered display attributes intact. Display attributes may be temporarily altered by placing the desired Overlay assignment into the Graphics Override column (two blue flags column) and using the Default Graphics "Set" button to assign different display attributes. Graphics Override display attribute settings are **not** transferred into other MARPLOT systems via Import/Export operations; the original display attributes will be active in the target MARPLOT software.*

ALOHA

OPENING A SAVED ALOHA FILE

ALOHA files may be opened in one of two formats:
- Response Mode
- Planning Mode

Response Mode

The *Response Mode* should be chosen if ALOHA is being used during a real emergency. As it opens the file, ALOHA will restore all the information contained in the file that is expected to stay the same from day to day.

This information includes location, chemical of concern, and the dimensions of existing storage vessels and containment areas. You will need to enter information specific to your incident, including current weather conditions and the circumstances of the release (e.g., the dimensions and location of a hole in a tank or the area of a puddle of spilled liquid).

Planning Mode

Choose the *Planning Mode* when you need to be able to recreate the scenario saved in the ALOHA saved file. When you reopen a saved file created during Planning Mode, all input values will be restored to their state when you saved the file.

If using the computer's clock, ALOHA will use the time when the file was saved as the constant time. If using a MET Station, the last transmission was used while you entered atmospheric data.

Adding Information to ALOHA

Adding Locations to ALOHA

1. Activate ALOHA.
2. Select "Site Data" menu.
3. Select "Location."
4. Select "Add."
5. Enter Name, Elevation, Lat/Long, and State.
6. Select "OK."

Adding New Chemicals to ALOHA

The ALOHA Chemical List features mainly "pure" chemicals, along with five "solution" substances. You are free to add more chemicals to the list, provided sufficient chemical property information can be obtained.

Refer to "Adding or Modifying Chemical Data" in the ALOHA Help system for the data required for the different source and dispersion models to work.

To Add a Chemical to ALOHA

1. Obtain Chemical Property Data.
2. Activate ALOHA.
3. Select "Setup" menu.
4. Select "Chemical."
5. Select "Add."
6. Enter data to appropriate fields.

Modifying/Editing Chemical Properties In ALOHA

You may modify or alter some of the values in the ALOHA Chemical List. The chemical properties data provided by the Design Institute for Physical Properties Data (DIPPR) **cannot** be modified.

You may wish to set default LOC values. For example, LOC values for several chemicals default to AEGL; however, you may use the Modify function to set those to ERPG, IDLH, or other user-selected LOC values.

Displaying ALOHA Threat Zones on Other Maps: ArcView, Mapinfo, and Paper Maps

ALOHA and Google

To display ALOHA Threat Zones on Google Earth:

1. Create the ALOHA Threat Zone.

2. Select "Create KML" from the File/Export menu.

3. Export as a *.kml* file and import to Google Earth.

ALOHA and ArcView

ALOHA Threat Zones can be displayed on ArcView products. The instructions are available from the NOAA website at:

http:// response.restoration.noaa.gov/cameo/dll8.html

ALOHA and MAPInfo Professional

ALOHA threat zones can be displayed on MAPInfo Professional. The instructions and Plot ALOHA Application download are available from the CAMEOfm website at:

http://www.uaienvironmental.com/PlotALOHA.asp

ALOHA and Paper Maps

You can manually attach ALOHA threat zones on printed paper maps (such as, ordinary roadmaps, assessment maps, and floodplain maps). To do this, match the ALOHA output scale to the desired map scale. One method for doing so is:

1. Examine the desired paper map to determine its "scale"; the scale MUST be expressed as either "1 in = _____"; or "1 cm = _____."

2. Create a Threat Zone in ALOHA, and then select the "Display menu."

3. Select "Options."

4. Select "Use user-specified scale."

5. Select "OK."

6. Set the ALOHA scale to same values as the paper map scale.

7. Select "OK."

8. Print the ALOHA Threat Zone.

9. Attach the printed Threat Zone to the paper map.

The ALOHA Threat Zone may also be printed on a transparency or traced onto the paper map.

> **Hint:** *The ALOHA Threat Zone will not be "wind direction" justified. You will need to "orient" the printed Threat Zone as per current wind direction.*

CAMEO

Companion

for

Administrators

Installing CAMEO Programs

You will be installing at least five different computer programs to operate the CAMEO Suite. Begin by creating a new folder on your computer named "CAMEO Installer Programs" to store the installer programs. If the software fails, you will be able to re-install from the CAMEO Installer Programs folder.

GET THE SOFTWARE

Go to the CAMEO Homepage

http://www.epa.gov/emergencies/content/cameo/index.htm

You will need to install five programs to operate the CAMEO Suite are:

> CAMEO Chemicals, CAMEOfm, ALOHA, MARPLOT: http://www.epa.gov/emergencies/content/cameo/request.htm
>
> Quicktime: http://www.apple.com/quicktime/download/

> **Hint:** *Quicktime is necessary to operate MARPLOT. Some computers will already have Quicktime installed; there is no need to re-install it.*

Downloading the Installer Programs

1. Create a folder on your computer named "CAMEO Installer Programs."

2. Go to the CAMEO Web site: http://www.epa.gov/emergencies/content/cameo/index.htm.

3. Select the "Get CAMEO" link.

4. Select the "CAMEO Download page" link.

5. Select "Download CAMEO Chemicals" for Windows or MacIntosh as appropriate for your computer.

6. At the prompt screen, select "Save."

7. Save the *installer.exe* file to your CAMEO Installer Programs folder.

8. Repeat the above steps for CAMEOfm, ALOHA, and MARPLOT.

9. Go to the Quicktime Website: http://www.apple.come/quicktime/download/.

10. Select the "Download Quicktime for Windows" option.

11. Select the "Free Download Now" link.

12. At the prompt screen, select "Save."

13. Save the installer.exe file to your CAMEO Installer Programs folder.

Running the Installer Programs

1. Open your CAMEO Installer Programs folder

2. Double-click the CAMEOChemicals *installer.exe* file.

3. Accept the agreements and default installation options (unless you have decided to place the CAMEO Data and MARPLOT Maps folders in alternate directories, see "Installation Options" below).

4. Select "create desktop shortcut" from the appropriate dialog box (recommended).

5. When finished, close the installer.

6. Repeat the above steps for CAMEO, ALOHA, MARPLOT, and Quicktime.

Setup for CAMEO Chemicals and ALOHA

Using CAMEO Chemicals and ALOHA does not require any additional setup steps. Because both of those programs install all the data and information files needed for operation during the installation process.

Setup for CAMEOfm

Installing CAMEOfm does not place any data into any of the various modules. Information is placed into CAMEOfm via only two methods:

- Manual user data entry

- Importing *.zip* files

Both data entry methods are discussed extensively in the **Entering Information to CAMEOfm** section of the Companion.

Setup for MARPLOT

MARPLOT installation does **not** install or download any maps or map data. No street or roads maps, local data, aerial photos, topographic maps or any other information can be accessed by simply installing the MARPLOT program.

After installing MARPLOT, each user will need to perform several operations before the software can be used. A typical MARPLOT setup process involves operations for:

- Using the View/Save Current View menu to set a Home View

- Using the File/Preferences menu to set user default preferences

- Using the Download Manager to import local street/ road maps

- Using the Basemap Builder to import local aerial photos and/or topo maps

- Altering Basemap Builder settings for the Maps Layer Group

- Using the File/Import as Overlay Objects to import vector map objects

Instructions for these operations may be found in the **MARPLOT for Responders** and **MARPLOT Data Management** sections of the CAMEO Companion.

Installation Options

A "default" installation of the CAMEO Suite places all the executable parts of the applications into the c:\Program Files directory. For windows users, CAMEO Data and MARPLOT Maps folders are placed into the Shared Documents folder generally located under the C:\Documents and Settings\All Users\Documents or C:\Documents and Settings\All Users\SharedDocuments for Windows users. **This may not be an appropriate folder location for all users!**

Users may install the CAMEO Data and MARPLOT Maps folders to alternate directory locations. Installation of those folders will not impact software operation if the target directories are selected during the installation process. Users may wish to consult IT staff to ensure that access to all CAMEO Suite programs and folders will be available following the installation process.

Finding the CAMEO Data and MARPLOT Maps Folders After Installation

1. Select the "Start" button found in the lower right of your computer screen.

2. Select "Search" from the Start menu.

3. Search for "Files and folders" with the name "CAMEO Data" or "MARPLOT Maps."

The computer search should locate the folder and display the current location.

What To Do If There Are More Than One CAMEO Data and/or Marplot Maps Folders on the Computer

Multiple CAMEO Data and/or MARPLOT Maps folders are likely the result of multiple installations of the applications. Users should have only one data folder for each version of CAMEOfm and MARPLOT installed and should delete additional folder(s).

System Requirements

Information concerning the system requirements for each of the four programs is found in each of the associated Help menus.

1.   Open CAMEOfm.

2.   Select the Help menu.

3.   Select the "Managing Your CAMEO System" link.

4.   Select "Overview."

Drive Space

Typical available c: drive space necessary for the program folders is:

ALOHA:	3.5 MB (megabytes)
CAMEO Chemicals:	93.0 MB
CAMEOfm:	34.0 MB
MARPLOT:	60.0 MB
QuickTime:	80.0 MB

The CAMEO Suite also requires installation of separate data folders for CAMEOfm and MARPLOT. The folder size for these is completely dependent on the amount of data used by the individual user. For example, a relatively complex CAMEO system might exhibit the following folder sizes:

CAMEO Data:	100 MB
MARPLOT Maps:	3.5 GB (gigabytes)

User Rights

For the CAMEO Suite to operate properly, each user must have a minimum of "Full Control" rights for each of the program folders. It is not necessary for each user to have administrative rights, or full control of the entire c: drive. It is necessary for the user to have Administrative Rights to install the programs.

VISTA Operating Systems

VISTA users should consult the CAMEO Web site information found at: http://www.epa.gov/emergencies/content/cameo/vista.htm

Installing Multiple Versions of CAMEO Suite

Generally, there is no need to install additional versions of CAMEO Chemicals or ALOHA. Some users may want to have multiple versions of CAMEOfm and/or MARPLOT on the same computer in order to accommodate various data management needs. Any number of CAMEOfm and MARPLOT versions may be installed on the same computer, as long as each application is placed in a unique folder along with unique installations of the CAMEO Data and MARPLOT Maps folders. However, only one version of each may be operated at a time; it is not possible to simultaneously operate two independent CAMEOfm or MARPLOT applications on one computer.

1. Open your CAMEO Installer Programs folder.

2. Double-click the CAMEO2.0 *Installer.exe* file (or whatever CAMEOfm installer is the current version)

3. Accept the agreement.

4. Enter the name and location of the folder to which you wish to install CAMEOfm; the example screenshot will install CAMEOfm to a new folder named "My_Working_CAMEO."
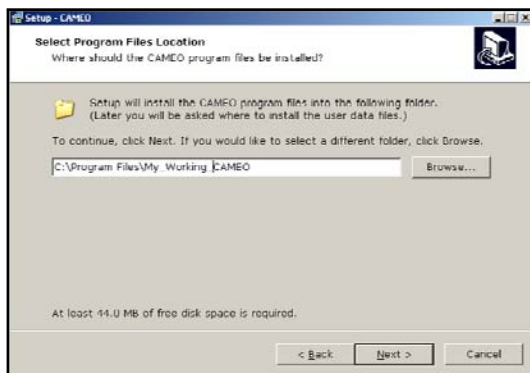
5. Enter a new folder name and location to which you wish to install the user data files; it doesn't have to be named "My_Working_CAMEO Data," however, with multiple installations, you may find it easer to manage your system if the CAMEOfm executable program and the associated user data folder have similar folder names.
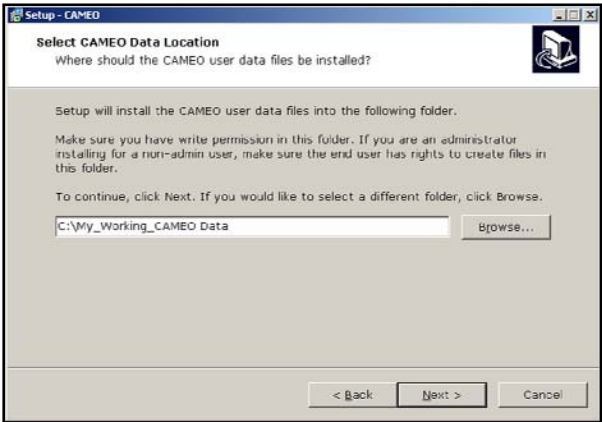
6. **Do not create a desktop icon**; you already have a desktop icon for your main version of CAMEOfm.
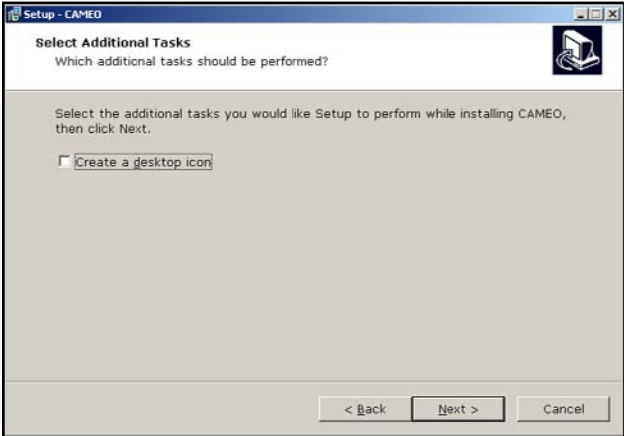
7.   You may want to take a screenshot of the "Ready to Install" screen and paste it into a Word document. This will allow you to easily locate both folders later if needed.

You now have two versions of CAMEOfm installed and ready to use on your computer. It is impossible to operate both CAMEOfm programs at the same time. It is possible to export files from the "main" CAMEOfm, then close/exit the main CAMEOfm and import those files into the "working" CAMEOfm. The data may then be manipulated in the working CAMEOfm, and then exported and imported back into the main CAMEOfm if desired.

This is an exceptionally useful option for those who are managing large CAMEOfm datasets, or for keeping different types of CAMEO system operable.

8.   If desired, repeat the above process to install an additional version of MARPLOT.

Other Software Programs That Can Be Used With CAMEO

In addition to these programs, you may want to install the WISER software, which is an Internet-based application developed by the U.S. National Institute of Health. WISER offers useful HazMat functions that are currently unavailable in the CAMEO Suite.

For more information about WISER, visit their Web site at: http://wiser.nlm.nih.gov/

You may also wish to install two other EPA programs:

RMP Comp: http://www.epa.gov/oem/content/rmp/
rmp_comp_download.htm

Tier 2 Submit: http://www.epa.gov/OEM/content/epcra/
statetier2.htm

RMP Comp provides air modeling predictions for 187 chemicals
listed under the Clean Air Act (CAA). While RMP Comp does not
directly integrate with CAMEO, it is good (when possible) to
compare air dispersion results using ALOHA, CAMEOfm
Scenarios, RMP Comp, and WISER (more about this in the
Planners/ALOHA section of the CAMEO Companion).

Tier 2 Submit is a CAMEOfm companion software that is used to
prepare and manage EPCRA Tier 2 reports. Tier 2 Submit
operations are discussed in the **Planners** section of the CAMEO
Companion.

Using CAMEOfm with Other Software Applications

The CAMEO Suite can share information with many other software applications in various ways. This section provides a brief discussion of various methods to integrate the CAMEO Suite with some common programs. More information on each integration method is found in ensuing parts of the **Data Management** section of the CAMEO Companion.

Microsoft Office: Excel, Word, Access, PowerPoint

Probably the most ubiquitous software suite is Microsoft Office. Information may be exchanged between the CAMEO Suite and Microsoft Office products in many ways. Some common exchange methods are as follows.

CAMEO Chemicals

Word: Any text from CAMEO Chemicals may be copied and pasted into Word documents with no loss of format.

Excel: Any text from CAMEO Chemicals may be copied and pasted into Excel spreadsheets; however, the chemical data may not be pasted into the spreadsheet cells as desired by the user. The paired prediction chart from the CAMEO Chemicals Reactivity Worksheets may be copied and pasted directly into an Excel spreadsheet with no loss of format.

Access: CAMEO Chemicals does not share data with Access.

PowerPoint: Text from CAMEO Chemicals may be copied and pasted onto PowerPoint slides.

CAMEOfm

Word: Any text from CAMEOfm may be copied and pasted into Word documents with no loss of format. Any text may be copied and pasted from Word into the CAMEOfm Notes field for any CAMEOfm record.

Excel: Transferring data to/from Excel spreadsheet and CAMEOfm is a very valuable and time-saving method of data entry and data management. CAMEOfm is a "relational database" program, much like Access. As a relational database, all CAMEOfm data is kept in spreadsheets. Users may export CAMEOfm data and open the exported files in Excel, which can be very useful for making reports utilizing CAMEOfm data. Also, users may utilize Excel spreadsheets to quickly "link" or "connect" hundreds or thousands of CAMEOfm records and MARPLOT map objects via the *MapData.mer* file.

Access: As both CAMEOfm and Access are relational databases, it is possible to directly transfer data between the two applications. Users must have a detailed knowledge of CAMEOfm record ID number format.

PowerPoint: Text from CAMEO Chemicals may be copied and pasted onto PowerPoint slides.

CAMEOfm Site Plans

Any Word, Excel, or PowerPoint file may be placed in the CAMEO Data Site Plan folder and linked to any CAMEOfm Facilities and Special Locations records. This can be an incredibly useful data management option.

MARPLOT

Word: Screenshots of any MARPLOT map screen may be copied and pasted into Word using the "print screen/paste" keystrokes. This includes MARPLOT screenshots featuring aerial photos. Pasting MARPLOT screenshots into Word documents is particularly useful for augmenting reports, documenting response/planning activities, and preparing grant proposals.

Excel: MARPLOT imports and exports "simple point" data as *.txt* files that may be opened/edited using Excel. Users may prepare spreadsheets containing hundreds or thousands of lat/long coordinates in Excel spreadsheets and import directly to MARPLOT.

Access: Other than screenshot copy and paste operations, MARPLOT does not share data with Access.

PowerPoint: Screenshots of any MARPLOT map screen may be copied and pasted into PowerPoint using the "print screen/paste" keystrokes. This includes MARPLOT screenshots featuring aerial photos. Pasting MARPLOT screenshots into PowerPoint slides is particularly useful for augmenting many types of presentations.

ALOHA

Word: Any text from the ALOHA Text Summary may be copied and pasted into Word documents. Screenshots of ALOHA Threat Zone, Threat at Point, and Source Strength may be copied and pasted into Word using the "print screen/paste" keystrokes. A very effective method of documenting HazMat response activities is to copy and paste MARPLOT screenshots of ALOHA Threat Zones along with the associated ALOHA Text Summary for that Threat Zone prediction.

Excel: ALOHA does not share data with Excel.

Access: ALOHA does not share data with Access.

PowerPoint: Screenshots of any MARPLOT map screen displaying ALOHA Threat Zones may be copied and pasted into PowerPoint using the "print screen/paste" keystrokes. This includes screenshots featuring ALOHA Threat Zones displayed on aerial photos.

Other Mapping Software Applications (ArcView, Google, etc.)

MARPLOT imports/exports information in shapefile, text, and MrSID format. Thus, map objects and other map information is relatively simple to transfer between MARPLOT and other mapping applications that accept shapefile format.

CAMEOfm and ALOHA export *.kml* files, which may be imported into several mapping applications, including Google Earth.

CAMEO Chemicals does not share information with any mapping software.

Portable GPS Units (Garmin DeLorme, etc.)

Typically, portable GPS units output "waypoints" containing lat/long coordinates in *.txt* file format. It is possible to import any lat/long *.txt* file directly to MARPLOT via spreadsheet operations.

Image File Software (Photoshop, Paint, Digital Cameras, AutoCad, etc.)

CAMEOfm Site Plans can accept and display image files in any format that can be read on the local computer. Typical image file formats usable for CAMEOfm Site Plans include *.jpg*, *.bmp*, *.gif*, *.tif*, *.png*, *.cad*, etc. Image files may be stored in the CAMEO Data folder and edited using any common photo editor software.

Many types of image files can be "inserted" and displayed in MARPLOT. Image file formats that may be displayed in MARPLOT include *.jpg*, *.jpg2000*, *.bmp*, *.gif*, *.tif*, *.wmf*, *.emf*, and *.png*.

Currently, neither CAMEO Chemicals nor ALOHA integrate with image files.

CAMEO Suite Data Backups and Data Recovery

Note: *If you are reading this section because your CAMEOfm data and MARPLOT Map information is gone, it may be too late to do anything about it. If your CAMEOfm data is gone, and you did not make a backup file, try the "Data Recovery" section below. If your MARPLOT data is gone, and you didn't make a backup file, it may be gone forever. There is no "data recovery" method for MARPLOT.*

*If you keep good backup files, and you keep the CAMEOfm and MARPLOT installer programs on your computer, you can **always** get the CAMEO Suite operating again (even if it crashes) unless the computer is damaged. If you keep good backup files and the installer programs on a portable drive (flash drive), you can install the CAMEO programs and import the data to another computer in about 10 minutes.*

There is no reason to "Back Up" and CAMEO Chemicals or ALOHA data. If either of these programs fails to operate properly, reinstall from the CAMEO Installer Programs folder. If reinstalling does not fix the problem, consult the CAMEOUSERS Group at http:// groups.yahoo.com/group/CAMEOUSERS/.

Always backup your data for CAMEOfm and MARPLOT!

First, create a permanent folder on your computer named "CAMEO Backup Files." It is recommended that you keep a separate copy of your CAMEO Backup Files on an external or portable drive in case your computer crashes. Then, you can always reinstall CAMEOfm and import the data from the external drive.

MARPLOT

Backup Files: Copy and Paste MARPLOT Maps folder method

For MARPLOT, a simple method of "backing up" all your data is as follows:

1. Open the "Explore" menu; one way to do this is to right -click on the "Start" button and select "Explore" from the resulting menu.

2. Locate the MARPLOT Maps folder; for a standard installation, the MARPLOT Maps folder will be located at C:\Documents and Settings\All Users\Documents.

3. Copy and paste the entire MARPLOT Maps folder to the CAMEO Backup Files folder or to an external drive.
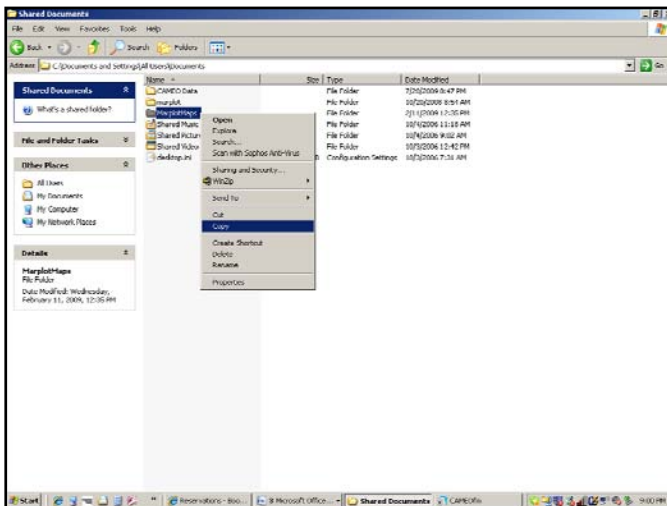
This "copy and paste" method provides a backup of everything in the MARPLOT Maps, with the exception of any aerial photos and/or inserted image files. Of course, if the aerial photos and image files are stored in MARPLOT Maps, then this method provides a backup also. This is one reason it is suggested that users store their MARPLOT aerials and images in the MARPLOT Maps folder.

MARPLOT Backup Files: Export Your Data Method

1. Launch MARPLOT.

2. Select the Edit/Search menu.

3. Conduct a search for object "with any name" on "multiple overlays."

4. Choose all the user-entered overlays (all of the overlays you created or entered) from the Search Criteria dialog box; this should select all the objects on all of the indicated overlays.

5. Select "Show All on Map."

6. Select the File/Export Overlay Objects menu.

7. Choose "selected objects" and ".*mie*" format from the Export dialog box.

8. Name and Save the file to your computer.

MARPLOT Data Recovery

There is no method for MARPLOT data recovery. This is why you should **always** have current backup files.

CAMEOfm

Backup Files: Copy and Paste CAMEO Data Folder Method

For CAMEOfm, a simple method of backing up data is as follows:

1. Open the "Explore" menu; one way to do this is to right -click on the "Start" button and select "Explore" from the resulting menu.

2. Locate the CAMEO Data folder; for a standard installation, the MARPLOT Maps folder will be located at C:\Documents and Settings\All Users\Documents.

3. Copy and paste the entire CAMEO Data folder to the CAMEO Backup Files folder or to an external drive.

CAMEOfm Backup: File/Export Method – All Data

1. Activate CAMEOfm.

2. Select the "File" menu.

3. Select "Import/Export."

4. Select "Export."

5. Select "Export All CAMEO data."

6. Save the resulting file as "*year_today's date_All CAMEO Backup*" to your CAMEO Backup Files folder.
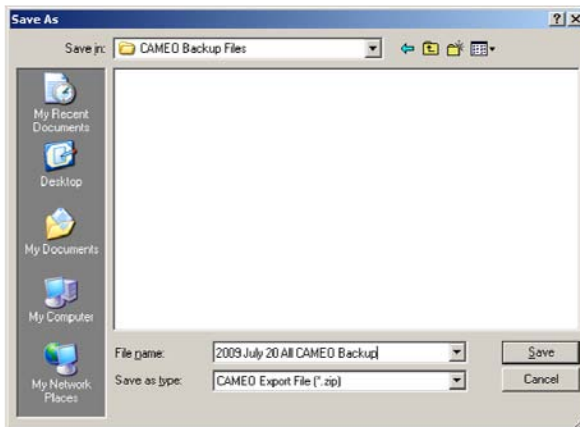
CAMEOfm Backup: File/Export Method – Partial Data

1. Activate CAMEOfm.

2. Open the CAMEOfm module (Facilities, Special Locations, Routes, etc) you wish to back up.

3. If desired, conduct a Search to select the information you wish to back up

4. Select the "File" menu.

5. Select "Import/Export."

6. Select "Export."

7. Select "Export All CAMEO data."

8. Save the resulting file as "*year_today's date_specific name* CAMEO Backup" to your CAMEO Backup Files folder.

CAMEOfm Data Recovery

Note: *Sometimes, you will get an error message in CAMEOfm stating "_____file is damaged and must be recovered"; you may be able to recover your lost CAMEOfm data using this method.*

1. Make a note of the CAMEOfm file that the error message lists as "damaged."

2. Close CAMEOfm.

3. Start CAMEOfm while pressing "ctrl/shift."
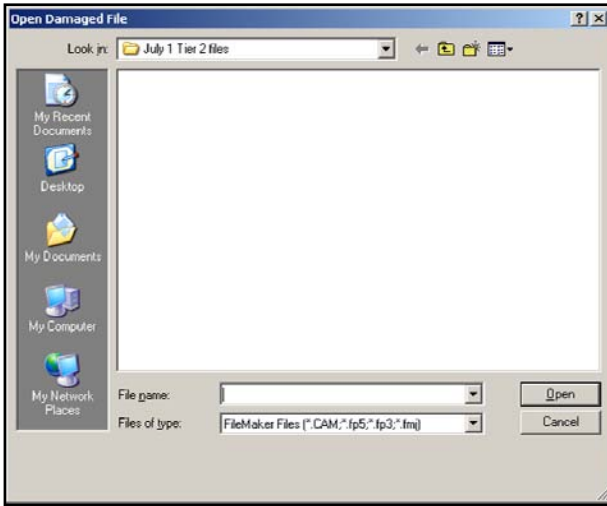
4. Set the browser to "Files of type" "All files."
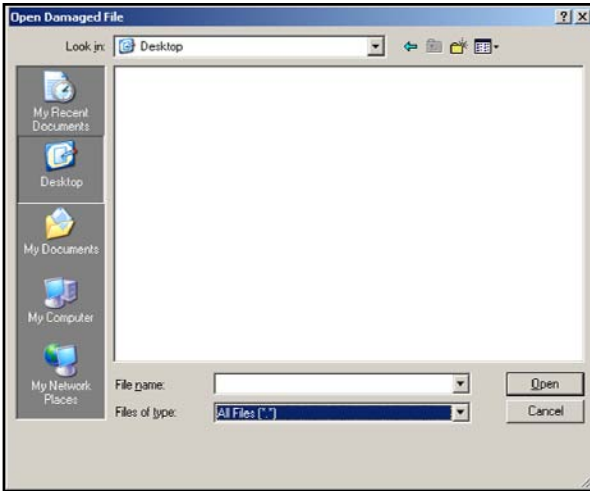
5. Set the browser to "Look in" the CAMEO Data folder. This is most likely found on your c: drive, Documents and Settings, All Users, Shared Data folder; however, if you installed the CAMEO Data folder to a different location (see Installation Options from above section), you must set the browser to look in that CAMEO Data folder.
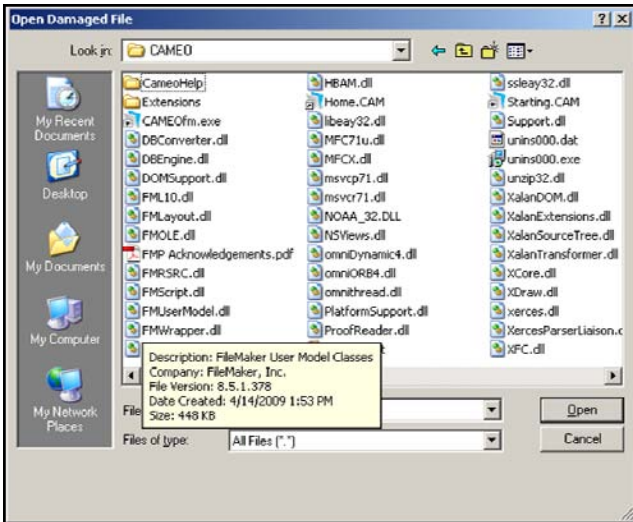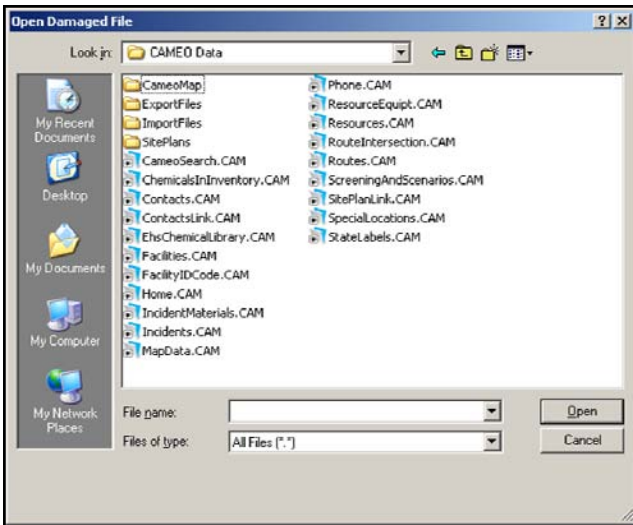
6. Double-click on the damaged file that was listed in the error message.

7. CAMEOfm (or Filemaker Pro which performs the data recovery) will automatically generate a new recovered file, and name the previous file (which was the damaged file) _____*old.CAM*. In the example Screenshot below, the *Contacts.CAM* file is the recovered file.
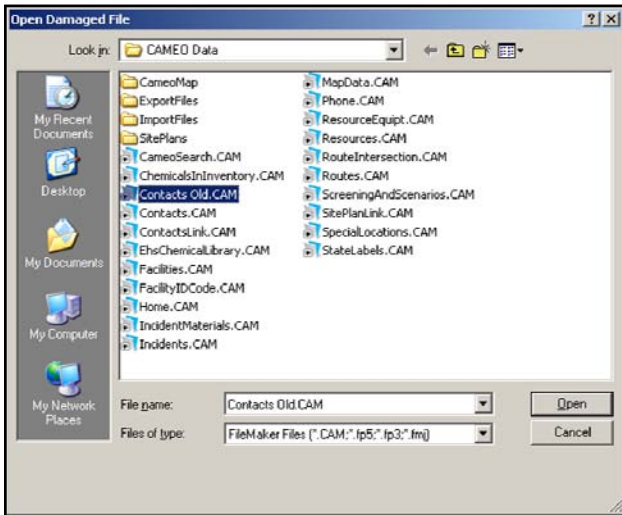
8. At this point, it is generally advisable to delete the *Contacts Old.CAM* file.

9. CAMEOfm should be open now.

> **Hint:** *Immediately use the File/Export/Export All Data to create a CAMEOfm backup file!*

10. Re-install CAMEOfm and import the backup file.

What if my computer crashes and CAMEO won't operate?

1. Install a new version of CAMEOfm.

2. See if this fixes the problem.

3. If it doesn't fix the problem, try importing your CAMEOfm backup file to the newly-installed CAMEOfm program.

4. If this doesn't fix the problem, try to copy and paste the saved CAMEO Data folder to the appropriate location on your computer.

5. If this doesn't fix the problem, send an e-mail to tom.bergman@sbcglobal.net or consult the CAMEO Users Group at http://groups.yahoo.com/group/CAMEOUSERS/.

Sharing Information with Other CAMEO Suite Users

CAMEOFM AND MARPLOT

There are two methods for transferring information between CAMEO users:

- Copy and paste of various folders

- Import/export operations (not usable for any basemap data)

Copy and Paste Data Transfer Operations

Copy and paste operations are good for CAMEO Suite data management when a "master/slave" system is employed. All data record and map object management is performed on a "master" computer and transferred to any number of "slave" or "target" computers. However, copy and paste methods will delete any information on the target computer that is not present on the master computer.

Copy and paste operations are particularly useful for CAMEO Suite systems with large data sets. Copy and paste is also a good method for transferring aerial photos and other basemap data between MARPLOT users.

Transferring All MARPLOT Data: Copy and Paste MARPLOT Maps Folder Method

A simple method to transfer all data is as follows:

1. Launch the master computer.

2. Open the "Explore" menu; one way to do this is to right-click on the "Start" button and select "Explore" from the resulting menu.

3. Locate the MARPLOT Maps folder; for a standard installation, the MARPLOT Maps folder will be located at C:\Documents and Settings\All Users\Documents.

4. Copy and paste the entire MARPLOT Maps folder to the MARPLOT Maps folder on the target computer(s).

This copy and paste method provides a backup of everything in the MARPLOT Maps, with the exception of any aerial photos and/or inserted image files. Of course, if the aerial photos and image files are stored in MARPLOT Maps, then this method does provide a backup for them as well. This is one reason it is suggested that users store their MARPLOT aerials and images in the MARPLOT Maps folder.

Transferring Partial MARPLOT Data: Copy and Paste MARPLOT Maps Folder Method

As shown above, all MARPLOT data is contained in the MARPLOT Maps folder, which can be transferred to a target computer via copy and paste operations.

Inside the MARPLOT Maps folder are three subfolders:

Basemap Files: Contains all Basemap data except MrSID files imported via Add Layer operations

Overlay Maps: Contains all Overlay data

Settings: Contain any saved "Views," saved "Searches," and all Overlay Group assignments
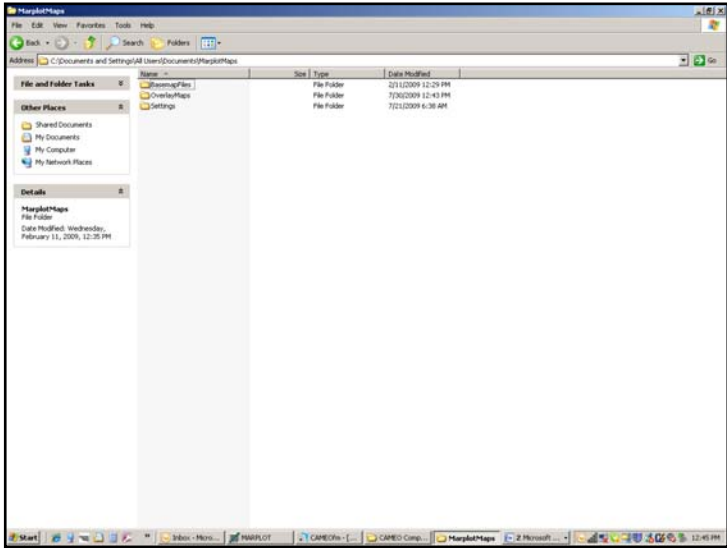
For cases where the users wishes to transfer partial MARPLOT data, for example a user may want to transfer only the Overlay data without the Basemap data, the Overlay Maps and Settings folders could be transferred to the target computer using copy and paste operations.

Transferring the Overlay Maps folder without the Settings folder will transfer the Overlays without the accompanying Overlay Groups.

Transferring Partial MARPLOT Data: CAMEO Map or User Map Only

Both the CAMEO Map and the User Map reside inside the MARPLOT Maps/OverlayMaps folder. Users may transfer there via copy and paste operations.

Transferring the CAMEO Map or User Map folder(s) without the Settings folder will transfer the Overlays without the accompanying Overlay Groups.

CAMEOfm: All Data Transfer; Copy and Paste CAMEO Data Folder Method

For CAMEOfm, a simple method of all the data is as follows:

1. Open the "Explore" menu; one way to do this is to right-click on the "Start" button and select "Explore" from the resulting menu.

2. Locate the CAMEO Data folder; for a standard installation, the MARPLOT Maps folder will be located at C:\Documents and Settings\All Users\Documents.

3. Copy and paste the entire CAMEO Data folder to the target computer(s).

Import/Export Data Transfer Operations

Import/export operations are useful for transferring smaller data sets, and for transferring between individual CAMEO Suite users who are not operating on a "master/slave" system. MARPLOT and CAMEOfm data can be transferred with low danger of impacting either computer's existing files.

- MARPLOT Basemap data cannot be transferred via Import/Export operations.

- Aerial photos and topo maps cannot be transferred between CAMEO users via import/export operations.

- All files resident in the CAMEOfm Site Plans may be transferred via import/export operations.

Basic CAMEO Suite Import/Export Process

1. Use Search and Sharing menu operations to select the information to be transferred from CAMEOfm and/or MARPLOT.

2. Export from CAMEOfm and/or MARPLOT via the File menu.

3. Transfer the export files to the target computer.

4. Import the file(s) to CAMEOfm and/or MARPLOT via the target computer File menu.

CAMEOfm All Data Transfer: File/Export Method

1. Activate CAMEOfm.

2. Select the "File" menu.

3. Select "Import/Export."

4. Select "Export."

5. Select "Export All CAMEO data."

6. Save the resulting file as "*year_today's date_All CAMEO.zip*."

7. Import the "*year_today's date_All CAMEO.zip*" file to the target computer(s).

CAMEOfm Partial Data Transfer: File/Export Method

1. Activate CAMEOfm.

2. Open the CAMEOfm module (Facilities, Special Locations, Routes, etc) you wish to back up.

3. If desired, conduct a Search to select the information you wish to back up.

4. Select the "File" menu.

5. Select "Import/Export."

6. Select "Export."

7. Select "Export All CAMEO data."

8. Save the resulting file as "*year_today's date_specific name CAMEO Data.zip*"

9. Import the "*year_today's date_specific name CAMEO Data.zip*" file to the target computer(s).

MARPLOT Partial Data Transfer: File/Export Method

MARPLOT data may be exported in any of three formats:

.mie **files**	Transfers both area and point objects to other MARPLOT users only
.txt **files**	Exports simple point objects with lat/long coordinates as a tab delimited text file; exported file may be opened using Excel; *.txt* file may be imported to other MARPLOT
.shp **files**	Exports either area or point objects, but not both types simultaneously; files may be imported to other types of mapping software applications

1. Activate MARPLOT.

2. Use Search operations to select the MARPLOT objects for export.

3. Select the File/Export menu.

4. Select ".*mie*," ".*txt*," or ".*shp*" as desired.

5. Select "Export" and save the file to your computer.

6. Import the saved file to the target computer.

Transferring Linked CAMEOfm and MARPLOT Data via Import/Export Operations

Transferring linked data from CAMEOfm and MARPLOT requires two exports and two imports, one from each software. The export process can be initiated in either CAMEOfm or MARPLOT.

Linked Data Export: Initiated in CAMEOfm

1. Activate CAMEOfm.

2. Open the module from which data will exported.

3. Select the data records for export.

4. Select the Sharing/MARPLOT/Show All on Map menu.

5. In MARPLOT, the associated records should be displayed as "selected."

6. In MARPLOT, select the File / Export as Overlay objects menu.

7. Select *.mie*, *.txt*, or *.shp* as desired and save the export file.

8. Return to CAMEOfm; the selected data records should still be active.

9. Select the File/Import/Export/Export menu.

10. Select "For the Found Set."

11. Select the "Export" button and save the export file.

Both export files need to be transferred and imported to the target computer(s).

Linked Data Export: Initiated in MARPLOT

1. Activate MARPLOT.

2. Select the map objects to be exported.

3. Use the Sharing/CAMEOfm/Get info menu to select the associated CAMEOfm data records.

4. In CAMEOfm, select the File/Import/Export/Export menu.

5. Select "For the Found Set."

6. Select the "Export" button and save the export file.

7. Return to MARPLOT.

8. In MARPLOT, select the File/Export as Overlay objects menu.

9. Select "*.mie*," "*.txt*," or "*.shp*" as desired and save the export file.

Both export files need to be transferred and imported to the target computer(s).

Sharing Information with Other CAMEO Suite Users: ALOHA

When sharing ALOHA information with others, users should include both the "graphic outputs" and the "text summary". Other users need the text summary in order to replicate the ALOHA predictions.

ALOHA Transfers: Import/Export Method

1. Create the ALOHA predictions on the master computer.

2. Select the "File/Save As" menu.

3. Name and save the *.alo* file.

4. Transfer the *.alo* files to the target computer.

5. On the target computer, select the "File/Open" menu.

6. In most cases, the target users will select Open In "Planning Mode."

The ALOHA information is now entered to the target computer.

ALOHA Transfers: Copy and Paste to Word

Method 1: Screenshot of Threat Zone only

1. Create the ALOHA predictions on the master computer.

2. Select the Display/Threat Zone menu; the ALOHA Threat Zone should be displayed on the computer screen.

3. Select the "print screen" key on the computer keyboard.

4. Open Word.

5. Paste into Word; the ALOHA Threat Zone screen should be displayed in Word.

6. Return to ALOHA.

7. Select the Display/Text Summary menu.

8. The ALOHA Text Summary information should be displayed on the screen.

9. Left-click and drag, or use "control A" to select all the Text Summary text.

10. Right-click or us "control C" to copy the text to the computer clipboard.

11. Return to Word.

12. Paste into Word.

The user may now transfer the ALOHA Graphical screen and the associated Text Summary text to other users via a Word document.

ALOHA Transfers: Copy and Paste to Word

Method 2: Screenshot of ALOHA Threat Zone(s) displayed on MARPLOT map

1. Create the ALOHA predictions on the master computer.

2. Display the ALOHA Threat Zone(s) onto MARPLOT.

3. Select the "print screen" key on the computer keyboard.

4. Open Word.

5. Paste into Word; the MARPLOT Map Screen, including the ALOHA Threat Zone(s), should be displayed in Word.

6. Return to ALOHA.

7. Select the Display/Text Summary menu.

8. The ALOHA Text Summary information should be displayed on the screen.

9. Left-click and drag, or use "ctrl/a" to select all the Text Summary text.

10. Right-click or us "ctrl/c" to copy the text to the computer clipboard.

11. Return to Word.

12. Paste into Word.

The user may now transfer the MARPLOT map screen with the ALOHA Threat Zone displayed and the associated Text Summary text to other users via a Word document

Sharing Information with Other CAMEO Suite Users: CAMEO Chemicals

The only data sharing method available for CAMEO Chemicals is the export of a My Chemicals list, and subsequent import by another CAMEO Chemicals user.

Users may employ standard copy and paste methods to share CAMEO Chemicals information with others.

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