
OVERVIEW	1
Additional Features	1
CHAPTER 1 - SOFTWARE INSTALLATION AND OFFICE NAVIGATION	3
SOFTWARE INSTALLATION	3
STARTING RMS OFFICE	5
Profiles Menu	6
System Menu	6
Tools Menu	8
RMS FOLDERS	9
Bin Folder	9
Data Folder	10
Names Folder	10
Profile Folder	10
Base Maps Folder (Optional)	11
CHAPTER 2 - PROFILES	13
AGENCY PROFILE	14
CHEMICAL MIXTURE PROFILE	17
Creating a New Chemical Mixture	20
Creating a Chemical Profile	25
Creating a Personnel Profile	28
Spray Configuration Profile	30
CHAPTER 3 - TOOLS	35
EXPORT	36
MAP MANAGER	37
NAME MANAGER	37
Name Database File Format	37
REPORT WIZARD	39
Generating a Session Report	39
Select Spray Session	40
Select Report Information	41
Spray Campaign	41
Spray Swath Map	42
Post Session Notes	43
Report Banner	44
Output Report	47
CHAPTER 4 - MAP MANAGER	51
Viewing Data	52
Base Maps	52
Object Information Query	53
MAP MANAGER TOOL BAR	53

Text Tool	55
File Menu	56
Layers Menu	57
View Menu	59
File Tree Menu	60
Edit Objects Menu	61
Tools Menu	62
PRINTING MAPS IN MAP MANAGER	62
SHAPE FILE CONVERSION	63
Exporting RMS Data to Shape File Format	63
Importing Shape Files to RMS Data Files	68
Convert Templates	72

OVERVIEW

Welcome to the TeeJet Roadway Management System (RMS) Office Suite. The TeeJet RMS Office product is a comprehensive software package designed specifically for the support of roadway spraying applications using the TeeJet Legacy 6000 console. The Legacy 6000 console must be loaded with RMS Application Rate Management software.

Roadway applications are more effectively managed using RMS Office. RMS Office allows the building of specific profiles (small databases) for company, personnel, contracting agencies, chemicals, and chemical mixes, as well as vehicle and spray configurations. The export function allows profile information to be transferred to the Legacy 6000 console via a PC Card.

When installed on the Legacy 6000, profile information is combined with a GPS-based map created during the application process. This will produce final roadway application data. The data from the completed roadway application session can then be transferred back to RMS Office where application reports are generated. Maps included with the reports can show all spray activity including boom and channel activity for an entire roadway spraying session.

This User Guide is configured into the following sections that comprise the RMS Office Suite:

- Chapter 1 - Software Installation and Office Navigation: provides an overview of basic layout and software navigation
- Chapter 2 - Profiles: building small databases for agencies, chemicals, personnel, and spray configurations
- Chapter 3 - Tools: several useful utilities include Export, Name Manager, and Report Wizard, which allows for the building of a final report for spraying sessions
- Chapter 4 - Map Manager: a data viewing and management tool (although this is a part of Tools, Map Manager requires a comprehensive chapter of its own)

Additional Features

Base Map Images

Geo-Tif (.DRG) image files are viewable in the background of most RMS mapping applications such as *Mapper* and *Record Spray Session*, as well as *Map Manager*.

Names Database Manager

This utility application located under *RMS Launcher/Tools* allows for the construction of a list of commonly-used attribute names. Any of the names in the database can be accessed from any of the mapping applications.

Export Application

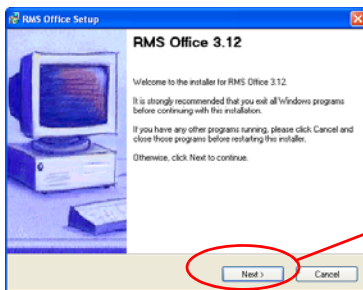
This utility allows for the transfer of profiles from RMS Office to the Legacy 6000 console. This keeps the Legacy 6000 profiles current and in-sinc with RMS Office.

CHAPTER 1 - SOFTWARE INSTALLATION AND OFFICE NAVIGATION

SOFTWARE INSTALLATION

A CD ROM entitled Office CB 3.12 is included in the RMS Office kit. Insert the CD ROM into the computer to install the RMS Office software. The software is self-extracting, so users should be prompted to the menu illustrated below. If for some reason the software does not self-launch, access the CD ROM drive designated on the computer and located the (.EXE) file on the CD. Double click on the icon to begin software installation.

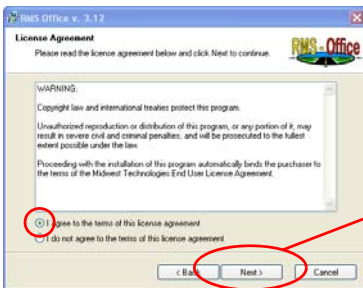
Figure 1-1: Software Installation



Press the Next button

Software installation is intuitive and will navigate the user through a series of prompts and messages. Follow the information displayed on the screen to successfully install the software.

Figure 1-2: Software Installation (continued)



Select the "I agree" radio button and press the Next button

Figure 1-3: Software Installation (continued)

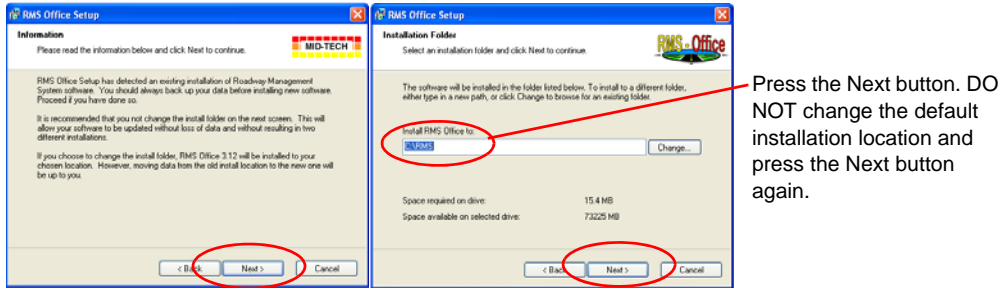


Figure 1-4: Software Installation (continued)

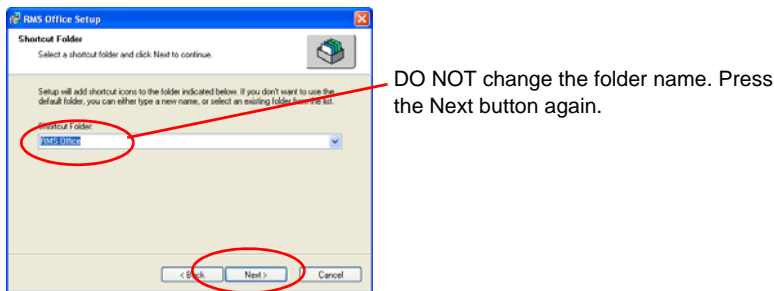
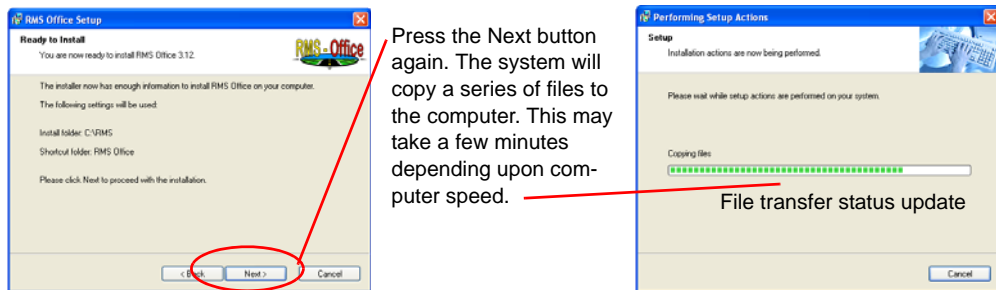
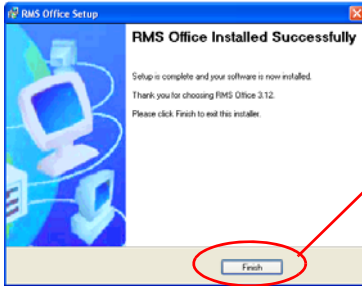


Figure 1-5: Software Installation (continued)



The software installation has been successfully completed when the following screen is displayed. Press the *Finish* button to exit from the screen.

Figure 1-6: Software Installation (continued)



Press the Finish button to exit the Installation process.

A shortcut icon will be added to the computer desktop. The icon will look like this:



STARTING RMS OFFICE

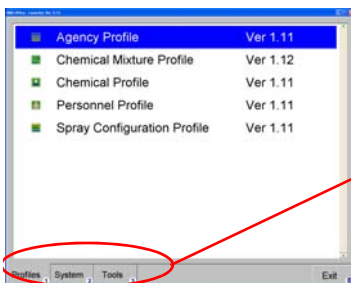
To start RMS Office, double click the RMS Office icon located on the computer desktop.

RMS Office is divided into three menu pages:

- Profiles
- System
- Tools

Access to these menus is available by selecting one of the tabs located at the bottom of the *Launcher* window. The number located on each tab indicates the function key that can be pressed to also access the appropriate menu.

Figure 1-7: Launcher Window

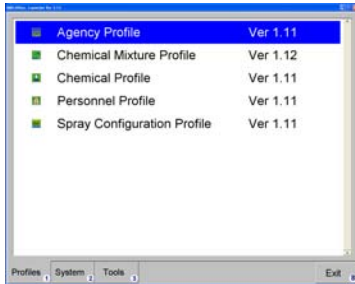


Menu tabs

Profiles Menu

The *Profiles* menu contains information such as agency, chemical mixture, chemical profile, personnel, and spray configuration. These profiles are small databases that must be populated prior to running the RMS Record Spray Session application. For additional information regarding Profiles, refer to *Chapter 2 - RMS Profiles*.

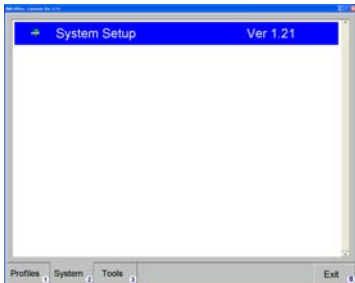
Figure 1-8: Profiles Menu



System Menu

The *System* menu contains the System Setup application. The units of measurement for the RMS Office software are established in this location. To begin the process, select *System Setup* on the *System Launcher* page and press *Enter*.

Figure 1-9: System Menu



System Setup must be run the first time RMS Office software is used. It is only necessary to run System Setup once unless changes are made to system units. Switching from English to Metric units is an example of when updating System Setup would be appropriate a second time.

Unit of Measure

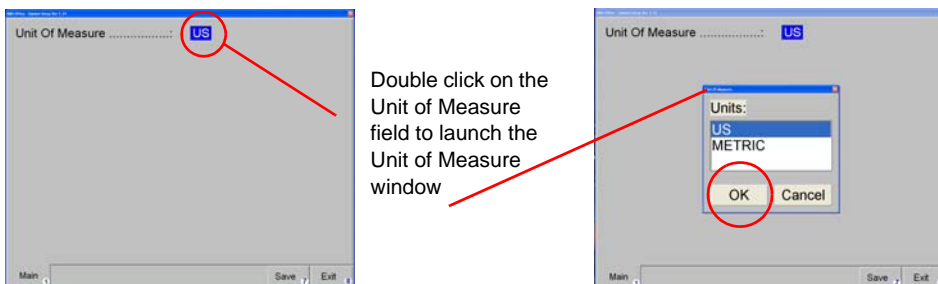
The Unit of Measure menu item allows for the selection of the measurement unit used for the mapping software. Choices include:

- English - distance is displayed in feet and miles, areas in square feet and acres, vehicle speed in miles per hour, liquid volume in ounces and gallons, and weight in pounds.
- Metric - distance is displayed in meters and kilometers, areas in square meters and hectares, vehicle speed in kilometers per hour, liquid volume in liters, and weight in kilograms.

Table 1-1: Units of Measurement

Unit Name	Description
English	Distance - Feet (F) and Miles (Mi) Area - Square Feet (Ft ²) and Acres (Ac) Vehicle speed - Miles per hour (MPH) Liquid volume - Ounces (Ou) and Gallons (Gal) Weight - Pounds (Lb)
Metric	Distance - Meters (M) and Kilometers (Km) Area - Square Meters (M ²) and Hectares (H) Vehicle speed - Kilometers per hour (Km/hr) Liquid volume - Liters (l) Weight - Kilograms (Kg)

Figure 1-10: Unit of Measurement Menu



To change the units of measurement, double click on the blue area (where it displays the units), select the appropriate units, and click on OK to accept the units.

Tools Menu

The *Tools* menu contains utility programs such as Export, Map Manager, Name Manager, and Report Wizard. Each of these tools is explained in greater detail in *Chapter 3 - Tools*.

Figure 1-11: Tools Menu



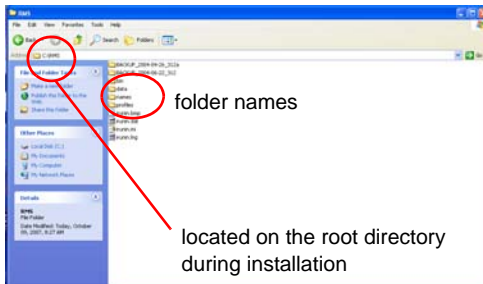
Table 1-2: Tools Descriptions

Tool	Description
Export	The Export tool allows Profiles to be transferred to the Legacy 6000. Profiles and Names cannot be copied directly to the Legacy 6000 console. The Export program must be used.
Map Manager	The Map Manager is used for data editing, viewing, and printing. This version of Map Manager includes layering and a full suite of drawing tools.
Name Manager	The Name Manager is used to build databases for specific mapping themes such as “weed mapping” and “spray route campaigns”. A names database specific to “weed mapping” could contain the names of the most commonly-encountered weeds for the region. Instead of typing the names of weeds each time they are mapped, the name can easily be selected from an existing database. For additional information, refer to <i>Chapter 4 - Map Manager</i> .
Report Wizard	The Report Wizard allows for detailed reporting to be generated from roadside applications. It incorporates the Profiles information and any additional information entered by the operator during the actual roadside application process.

RMS FOLDERS

RMS folders are established on the computer in the same location where RMS Office is installed. The default location is the root directory of the hard drive, unless it was reassigned during the installation process.

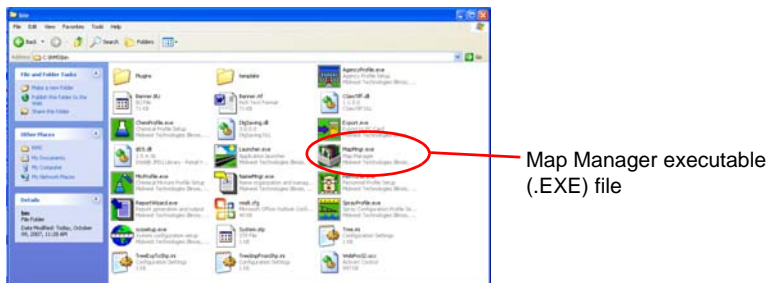
Figure 1-12: RMS Folders



Bin Folder

The Bin Folder contains all of the RMS Office executable (.EXE) files. All files located in this folder at the time of installation must remain in this folder for the RMS Office applications to work properly. Shortcuts to the executables located in this folder can be placed on the desktop for easy access if they are desired. For example, to place a shortcut to Map Manager on the desktop, look for the Map Manager executable (.EXE) file in this folder.

Figure 1-13: Bin Folder



Data Folder

The Data Folder is used for storing roadside data. This is simply a convenient location to store the data. This software allows for other folders to be used as well.

Names Folder

The Names Folder is the storehouse for the names databases. One of the features of RMS Office is the ability to construct names databases. The names of any of the RMS Mapping Applications that may require attribute names for a graphic object (such as a point) can be accessed from this location. Names databases can be constructed for specific mapping themes such as “weed mapping” or “spray route campaigns”. A names database specific to “weed mapping” could contain the names of the most commonly-encountered weeds for the region. Instead of typing the names of weeds each time they are mapped, the name can easily be selected from an existing database. All names databases created are stored in the Names Folder. For additional information about the Name Manager application, refer to *Chapter 3 - Name Manager*.

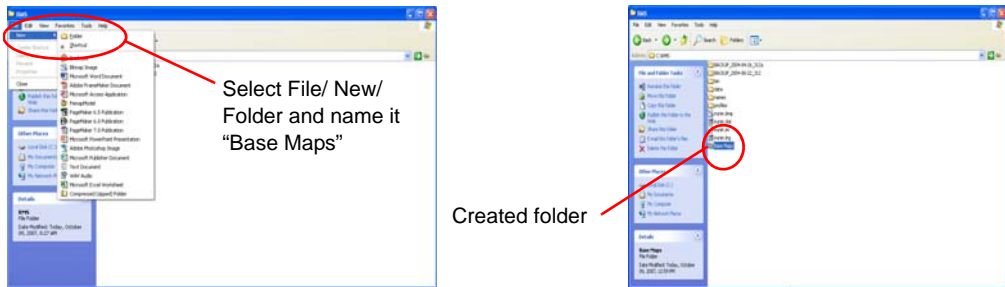
Profile Folder

All profiles are stored in this location. Profiles contain information such as agency, chemical mixture, chemical profile, personnel, and spray configuration. These profiles are small databases that must be populated prior to running the RMS Record Spray Session application. For additional information regarding Profiles, refer to *Chapter 2 - RMS Profiles*.

Base Maps Folder (Optional)

The Base Maps Folder can be established if the user desires. To create this folder, select the menu File and the option New. Select “Folder” and name the folder “Base Maps”.

Figure 1-14: Creating a Base Maps Folder



All of the base map images (those images used in the background of the mapping software applications) can be stored in this folder. This version of RMS Office allows for the display of Digital Raster Graphics (.DRG) image files in the form of a Tagged Image File Format (.TIF), also known as a Geo-Tif. This image data is useful as a backdrop onto which other collected data, such as spray routes, no spray zones, and weed patch locations can be overlaid

Base Maps Folder

The base map images that are displayed in the background of the mapping software applications are stored in the Base maps Folder.

CHAPTER 2 - PROFILES

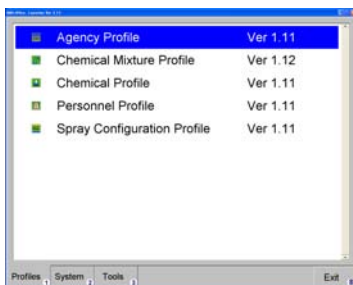
Profiles are small databases that are created to store typical information pertaining to agencies, chemicals, chemical mixtures, personnel, spray configuration, and vehicles. This profile information is used to generate spray application reports once a spray session is completed. There are five individual profiles required to successfully start a roadside application session using the Application Rate Management (ARM) software:

- Agency
- Chemical Mixture
- Chemical
- Personnel
- Spray Configuration

All profiles are created using RMS Office and then can be transferred using a PC Card to the Legacy 6000 using the Export program. For additional information on the export process, refer to *Chapter 3 - Tools*.

To select the desired profile, access the *RMS Office - Launcher* and select the *Profiles* page. Profiles can be created, edited, and deleted at this point.

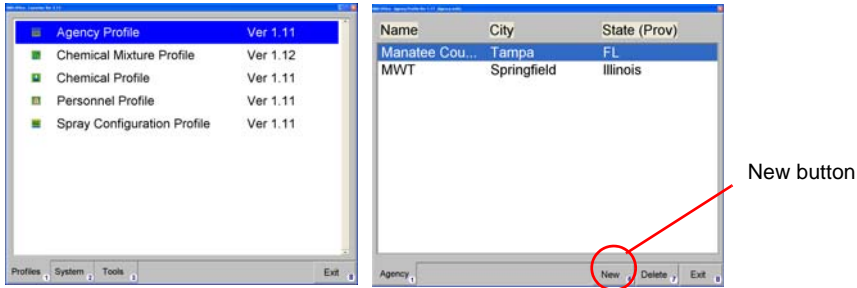
Figure 2-1: Profiles Page



AGENCY PROFILE

The Agency Profile contains information about the agency or organization that is contracting the services. To create or edit an agency profile, double click on “Agency Profile” located on the *Launcher* Page. The first page displayed is a list of agencies currently entered in the database. If no profiles exist (i.e., this is the first entry) the window will be empty.

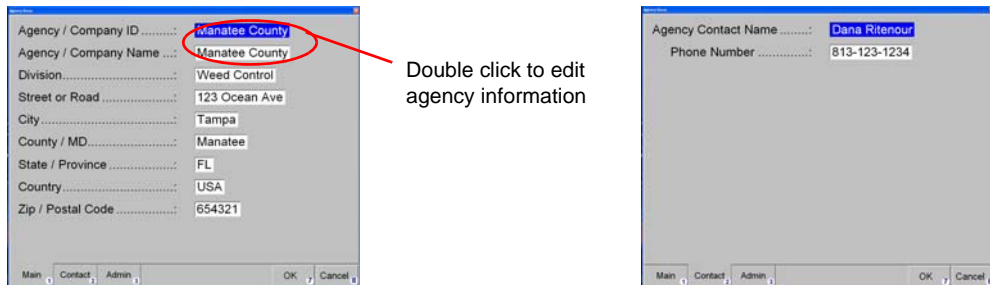
Figure 2-2: Agency Profile



To create a new agency, press the *New* button.

To edit an existing agency, select the desired agency from the list and press the *Enter* button, or double click on the name of the agency.

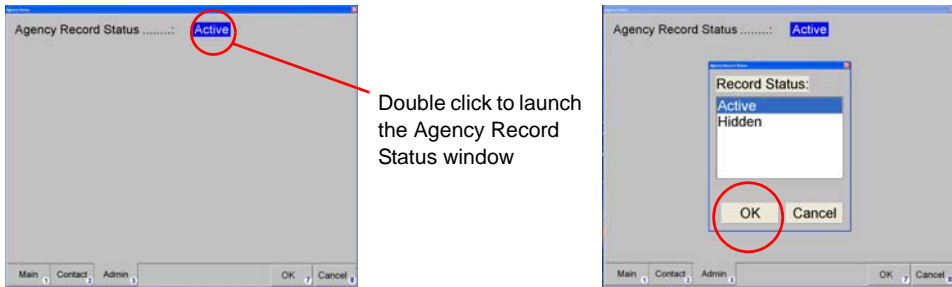
Figure 2-3: Editing Agency Information



To delete an existing agency, highlight the desired agency name and press the *Delete* button.

Agency information can also be displayed (Active) or hidden. To select the status of the record, choose the *Admin* tab, located at the bottom of the *Agency Profile* window and double click on the *Agency Record Status* window. Choose the appropriate setting and select "OK".

Figure 2-4: Agency Record Status



All agency profiles are created in RMS Office and can then be transferred to the Legacy 6000 console via a PC Card using the Export program. For additional information on the export process, refer to *Chapter 3 - Tools*.

To exit the Agency Profile, press the *Exit* button. The program will return to the *RMS Launcher Profiles* window.

Table 2-1: Agency Profile Information (Main Page)

Profile Field	Description
Agency ID	A unique identification used to identify the specific agency.
Agency Name	The name of the agency.
Division	The agency division.
Street	The physical street address of the agency.
City	The city where the agency is located.
County/MD	The county where the agency is located.
State/Province	The state or province where the agency is located.
Country	The country where the agency is located.
Zip/Postal Code	The zip or postal code for the agency.

Table 2-2: Agency Profile Information (Contact Page)

Profile Field	Description
Contact Name	The name of the person at the agency who can be contacted.
Phone Number	The phone number of the contact person.

Table 2-3: Agency Profile Information (Admin Page)

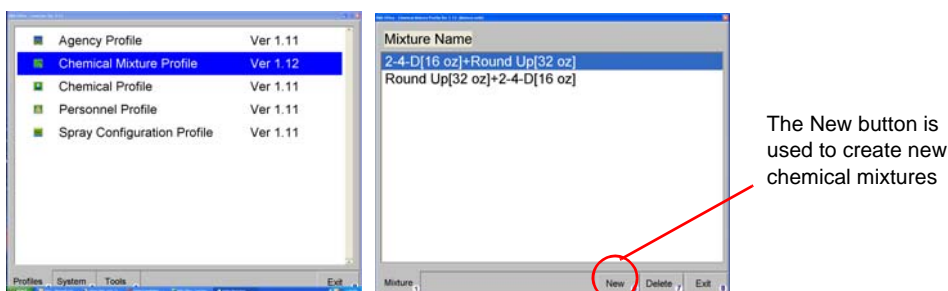
Profile Field	Description
Record Status	Setting a profile to ACTIVE will allow the file to be viewable and selectable when transferring data to the Legacy 6000. Setting the profile to HIDDEN prevents the file from being selectable and/or viewable to the operator and it cannot be transferred to the Legacy 6000. This will allow the system manager to limit the number of in-field selections an operator must make while in the field.

CHEMICAL MIXTURE PROFILE

BEFORE CREATING A NEW CHEMICAL MIXTURE PROFILE, CHEMICALS MUST BE ENTERED INTO THE CHEMICAL DATABASE. REFER TO *CREATING A CHEMICAL PROFILE* FOR ADDITIONAL INFORMATION.

The Chemical Mixture Profile contains information regarding specific created chemical tank mixtures. To access the *Chemical Mixture Profile* window, select *Chemical Mixture Profile* on the *RMS Launcher* window. The first page contains a list of chemical mixes currently entered into the database. If no profiles exist (i.e., this is the first entry) the window will be empty.

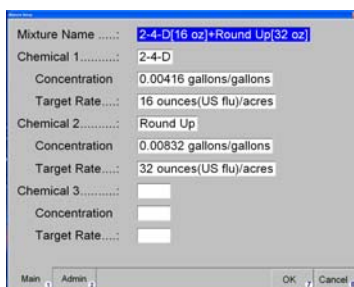
Figure 2-5: Chemical Mixture Profile Window



To create a new chemical mixture, press the *New* button. Enter the desired information and press the *OK* button. If for some reason the mixture shouldn't be added to the database, press the *Cancel* button to return to the *Chemical Mixture Profile* list.

To edit an existing chemical mixture, select the desired mixture from the list and press the *Enter* button, or double click on the name of the mixture.

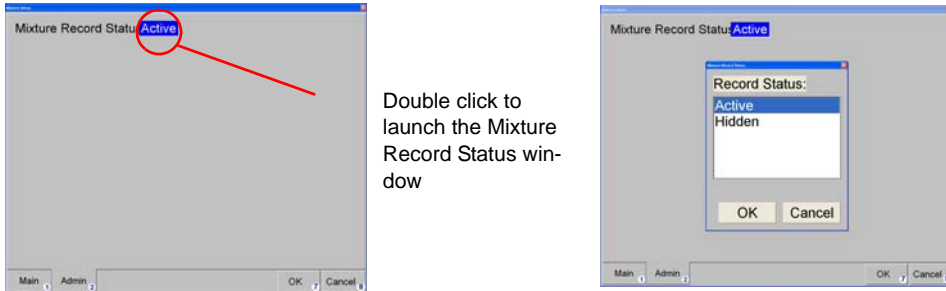
Figure 2-6: Editing Mixture Information



To delete an existing chemical mixture, highlight the desired mixture name and press the *Delete* button.

Chemical mixture information can also be displayed (Active) or hidden. To select the status of the record, choose the *Admin* tab, located at the bottom of the *Mixture Setup* window and double click on the *Mixture Record Status* window. Choose the appropriate setting and select “OK”.

Figure 2-7: Agency Record Status



Double click to launch the Mixture Record Status window

All chemical mixture profiles are created in RMS Office and can then be transferred to the Legacy 6000 console via a PC Card using the Export program. For additional information on the export process, refer to *Chapter 3 - Tools*.

To exit the Chemical Mixture Profile, press the *Exit* button. The program will return to the *RMS Launcher Profiles* window.

Table 2-4: Chemical Mixture Profile Information (Main Page)

Profile Field	Description
Mixture Name	The name of the mixture being created. When a name is entered into this field, the RMS Chemical Calculator will be displayed. Completing this field is optional. When the chemical calculations for the mixture are complete, the system will automatically generate a Mixture Name.
Chemical # 1	The name of the first chemical in the mixture.
Concentration	The concentration of Chemical 1 used in the mixture. The Chemical Calculator will fill in this menu field automatically.
Target Rate	The target rate entered into the Chemical Calculator for Chemical 1. The Chemical Calculator will fill in this menu field automatically.
Chemical # 2	The name of the second chemical used in the mixture. The Chemical Calculator will fill in this menu field automatically.
Concentration	The concentration of Chemical 2 used in the mixture. The Chemical Calculator will fill in this menu field automatically.
Target Rate	The target rate entered into the Chemical Calculator for Chemical 2. The Chemical Calculator will fill in this menu field automatically.
Chemical # 3	The name of the third chemical used in the mixture. The Chemical Calculator will fill in this menu field automatically.
Concentration	The concentration of Chemical 3 used in the mixture. The Chemical Calculator will fill in this menu field automatically.
Target Rate	The target rate entered into the Chemical Calculator for Chemical 3. The Chemical Calculator will fill in this menu field automatically.

Table 2-5: Chemical Mixture Profile Information (Admin Page)

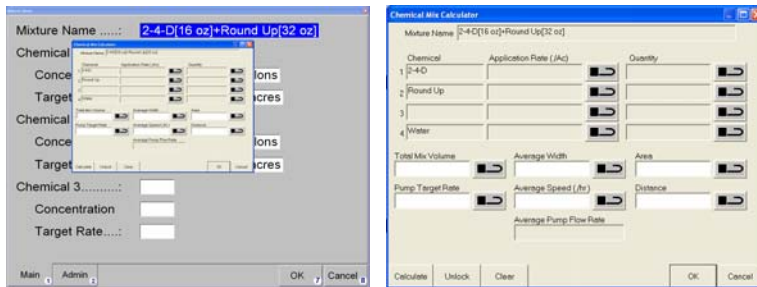
Profile Field	Description
Record Status	Setting a profile to ACTIVE will allow the file to be viewable and selectable when transferring data to the Legacy 6000. Setting the profile to HIDDEN prevents the file from being selectable and/or viewable to the operator and it cannot be transferred to the Legacy 6000. This will allow the system manager to limit the number of in-field selections an operator must make while in the field.

Creating a New Chemical Mixture

BEFORE CREATING A NEW CHEMICAL PROFILE MIXTURE, CHEMICALS MUST BE ENTERED INTO THE CHEMICAL PROFILE DATABASE. REFER TO *CREATING A CHEMICAL PROFILE* FOR ADDITIONAL INFORMATION.

To create a new chemical mixture, use the Chemical Mix Calculator. The Chemical Mix Calculator is accessed through the *Mixture Name* menu field, located on the *Chemical Mixture Main* menu page. Before entering a new chemical mixture, please review the following information thoroughly to understand how the process is completed.

Figure 2-8: Chemical Mix Calculator



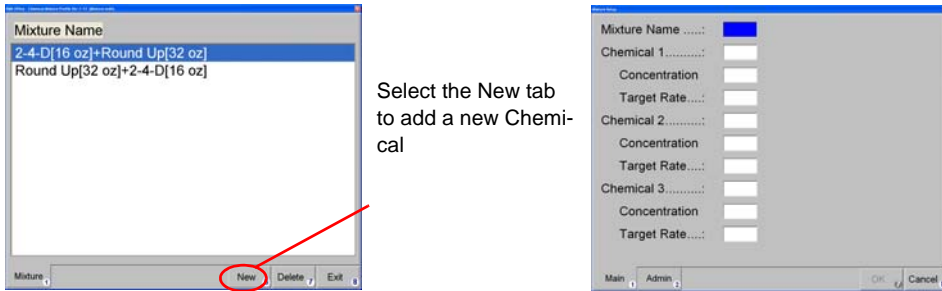
Chemical Mix Calculator

The Chemical Mix Calculator is a powerful chemical mix utility program used to combine up to three chemicals plus a carrier into a single mixture. The chemicals in the mixture must appear in the *Chemical Profiles* list, so be sure they are entered before trying the mix a new chemical.

The Chemical Mix Calculator accesses the chemical profile for information such as chemical type and unit for each chemical added to the mixture. The calculator requires an application rate for each chemical in the mixture, as well as the tank volume or amount of mixture to be created. When the chemicals are added to the mix, the Chemical Mix Calculator will determine the amount of each chemical and carrier required for the mixture tank volume.

Start the Chemical Mix Calculator by selecting the first mixture name in the Mixture Name menu field (double click the name).

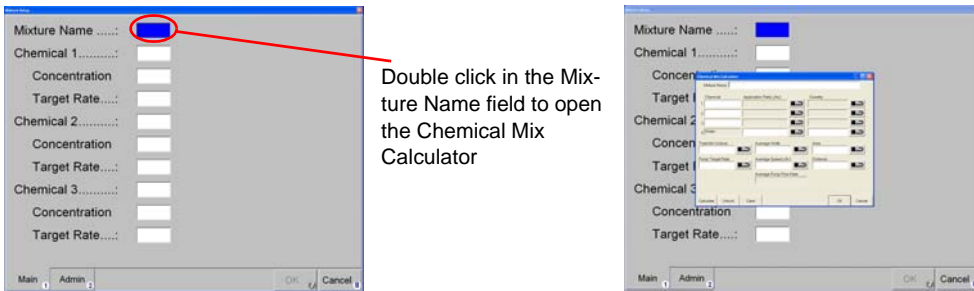
Figure 2-9: Open the Chemical Mix Calculator



Select the New tab to add a new Chemical

On the RMS Office - *Chemical Mixture Profile* window, select the New tab (located at the bottom of the window). This will open the Mixture Setup window. To open the Chemical Mix Calculator, double click in the Mixture Name menu field.

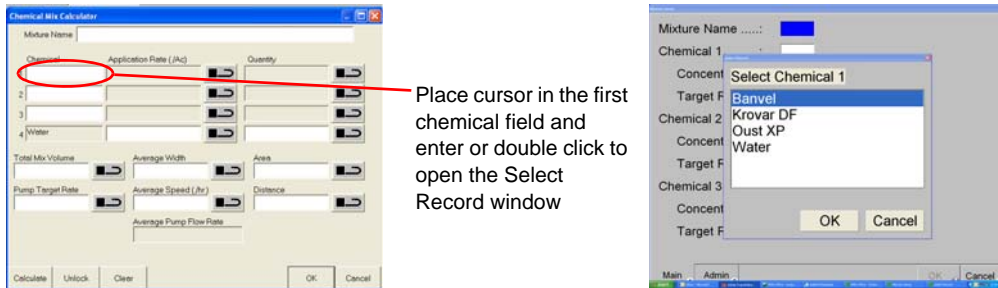
Figure 2-10: Open Chemical Mix Calculator



Double click in the Mixture Name field to open the Chemical Mix Calculator

Enter the first chemical by placing the cursor in the *Chemical 1* menu field and either press the *Enter* button or double click. This will open a *Select Record* window. All of the Chemicals that are currently in the system will be available for selection. For information regarding entering chemicals, refer to *Creating New Chemical Profiles*.

Figure 2-11: Entering the First Chemical



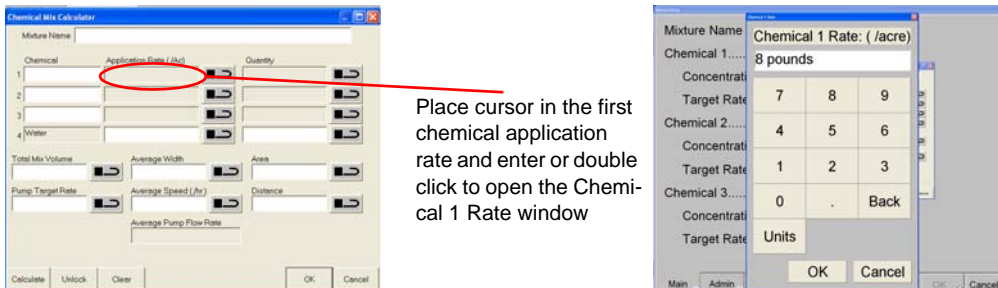
Place cursor in the first chemical field and enter or double click to open the Select Record window

Select the desired chemical from the list displayed on the *Select Record* window and press the *Enter* button or the *OK* button. The *Chemical 1* menu field will be populated with the chemical name.

Double click on the Application Rate field to open the Chemical 1 Rate window. The unit of measurement for the chemical will automatically be populated. The application rate information is available on the product label and can be entered during the *Creating New Chemical Profiles* process. This will eliminate the need to remember application rates in the future.

Press the *Enter* button or the *OK* button and the *Application Rate* menu field will be populated.

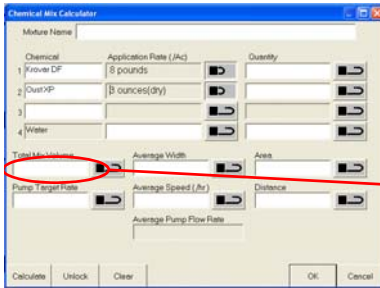
Figure 2-12: Entering Chemical 1 Application Rate



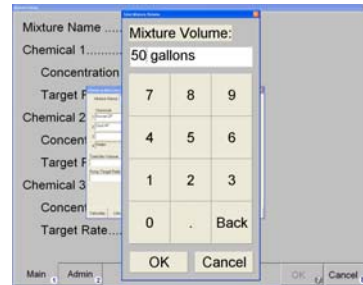
Place cursor in the first chemical application rate and enter or double click to open the Chemical 1 Rate window

Repeat the process with the second chemical in the mixture. For illustration purposes, the second chemical will be "Oust". Once both chemicals have been added to the *Chemical Mix Calculator*, enter the total mix volume by placing the cursor in the *Total Mix Volume* menu field and double clicking or pressing the *Enter* button.

Figure 2-13: Calculating Total Mixture Volume



Once all the chemicals are entered, place the cursor in the Total Mix Volume menu field and double click or press the Enter button to open the Total Mixture Volume window



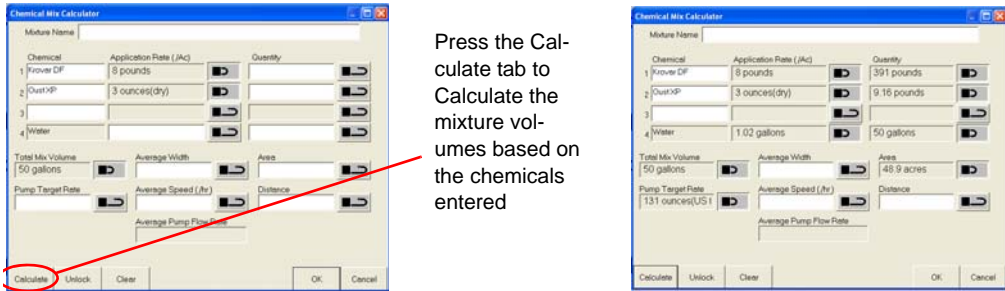
Enter the total volume to be applied and press the *OK* button or the *Enter* button. The field will be populated. The *Application Rate* fields as well as the *Total Mix Volume* fields will be locked so no additional adjustments can be made to these rates. If changes need to be made to the rate at this point, these fields will manually need to be unlocked using the *Unlock* tab located at the bottom of the window.

Calculating the Mixture

Once the chemicals are entered and the chemical application rates and total mix volume are established, the next step in the process is to calculate the mixture. To calculate the mixture, press the *Calculate* button, located on the lower left side of the window. The *Chemical Calculator* will calculate the following values:

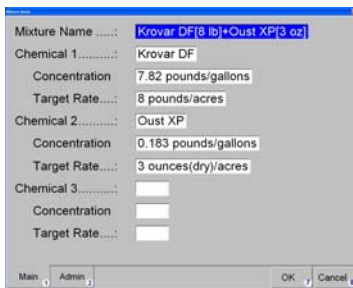
- TeeJet console rate
- Quantity of required material for Chemical 1
- Quantity of required material for Chemical 2
- Quantity of required carrier
- Application rate of carrier (calculated from the Maximum Mix Ratio entered for the dry material in the Chemical Profile)
- Area that this mixture can cover based on application rates

Figure 2-14: Calculating the Chemical Mix



Once the calculation is complete, press the *OK* button to save the results and return to the *Mixture Setup* window. The fields will be populated based on the chemicals entered and the mixture will be named appropriately.

Figure 2-15: Completed Mixture Setup

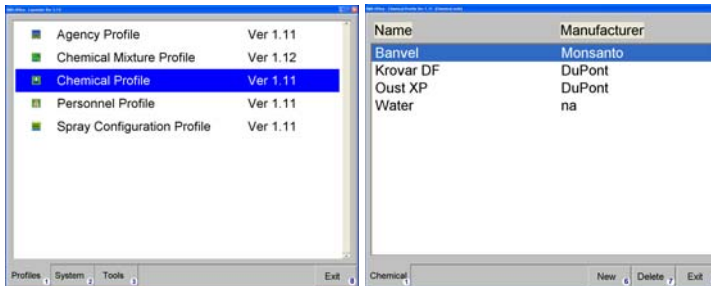


Press the *OK* button to return to the *Chemical Mixture Profile* page. Press the *Exit* button to return to the *RMS Office Launcher*.

Creating a Chemical Profile

Chemical Profiles are a collection of data stored in a database that including information regarding the name, manufacturer, and pertinent information of the chemicals used during the application process. To access the *Chemical Profile* window, select *Chemical Profile* on the *RMS Launcher* window. The first page contains a list of chemicals currently entered into the database. If no chemicals exist (i.e., this is the first entry) the window will be empty.

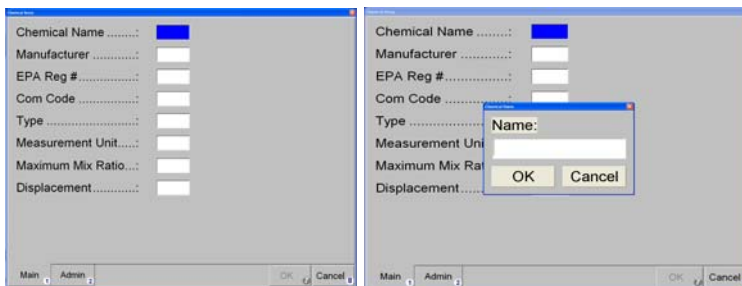
Figure 2-16: Chemical Profile Window



To create a new chemical, press the *New* button. Double click on the desired field, enter the appropriate information, and press the *OK* button. If for some reason the chemical shouldn't be added to the database, press the *Cancel* button to return to the *Chemical Profile* list.

To edit an existing chemical profile, select the desired mixture from the list and press the *Enter* button, or double click on the name of the chemical.

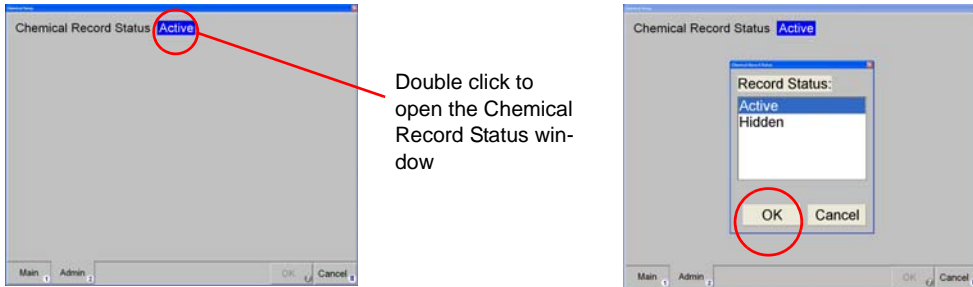
Figure 2-17: Adding Chemical Information



To delete an existing chemical, highlight the desired name and press the *Delete* button.

Chemical information can also be displayed (Active) or hidden. To select the status of the record, choose the *Admin* tab, located at the bottom of the *Mixture Setup* window and double click on the *Mixture Record Status* window. Choose the appropriate setting and select "OK".

Figure 2-18: Agency Record Status



All chemical profiles are created in RMS Office and can then be transferred to the Legacy 6000 console via a PC Card using the Export program. For additional information on the export process, refer to *Chapter 3 - Tools*.

To exit the Chemical Profile, press the *Exit* button. The program will return to the *RMS Launcher Profiles* window.

Table 2-6: Chemical Profile Information (Main Page)

Profile Field	Description
Chemical Name	The name of the chemical being entered into the database.
Manufacturer	The name of the chemical manufacturer.
EPA Reg #	The chemical EPA registration number.
Com Code	The chemical commodity code.
Type	The type of chemical being entered. When entering this menu item, a dialog box will be displayed listing chemical types (dry, liquid, or dry flowable).
Measurement Unit	The unit of measure associated with the chemical being entered. When entering this menu item, a dialog box will be displayed listing the unit choices available in either English or Metric units.
Maximum Mix Ratio	The maximum concentration of dry material in a single gallon of liquid carrier. This menu field is only activated if the chemical type selected is "dry" or "dry flowable".
Displacement	The amount of liquid displaced by a unit of dry material in a single gallon of carrier. This menu field is only activated if the chemical type selected is "dry" or "dry flowable". A typical displacement unit would be "liquid ounces".

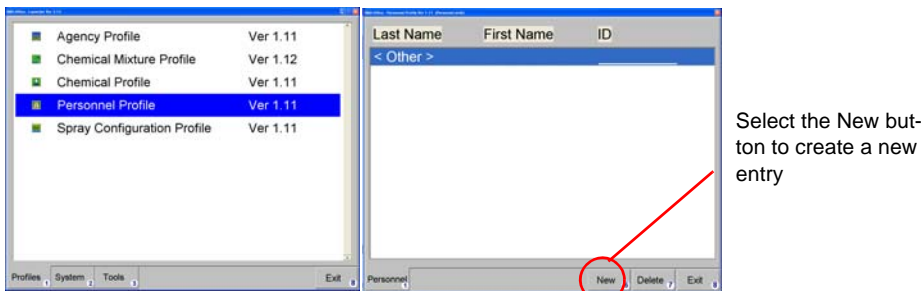
Table 2-7: Chemical Profile Information (Admin Page)

Profile Field	Description
Record Status	Setting a profile to ACTIVE will allow the file to be viewable and selectable when transferring data to the Legacy 6000. Setting the profile to HIDDEN prevents the file from being selectable and/or viewable to the operator and it cannot be transferred to the Legacy 6000. This will allow the system manager to limit the number of in-field selections an operator must make while in the field.

Creating a Personnel Profile

Personnel Profiles are a collection of data stored in a database that includes information regarding the employees associated with a spraying application. Typically, a personnel profile is created for vehicle drivers and sprayer operators. To access the Personnel Profile window, select *Personnel Profile* on the *RMS Launcher* window. The first page contains a list of profiles currently entered into the database. If no names exist (i.e., this is the first entry) the window will be empty.

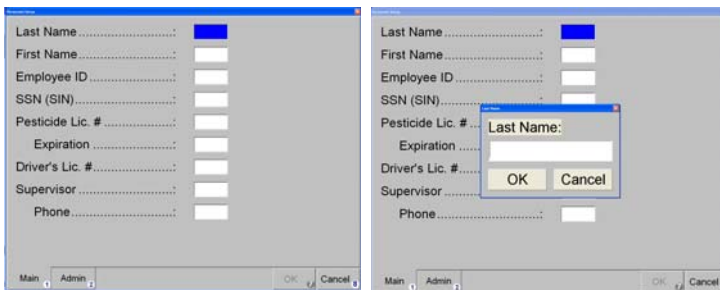
Figure 2-19: Personnel Profile Window



To create a new personnel profile, press the *New* button. Double click on the desired field, enter the appropriate information, and press the *OK* button. If for some reason the individual shouldn't be added to the database, press the *Cancel* button to return to the *Personnel Profile* list.

To edit an existing personnel profile, select the desired individual from the list and press the *Enter* button, or double click on the name of the person.

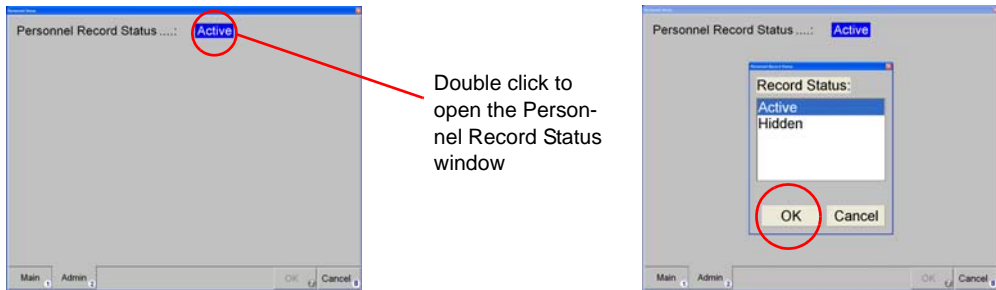
Figure 2-20: Adding Personnel Information



To delete an existing individual, highlight the desired name and press the *Delete* button.

Personnel information can also be displayed (Active) or hidden. To select the status of the record, choose the *Admin* tab, located at the bottom of the *Personnel Setup* window and double click on the *Mixture Record Status* window. Choose the appropriate setting and select "OK".

Figure 2-21: Personnel Record Status



All personnel profiles are created in RMS Office and can then be transferred to the Legacy 6000 console via a PC Card using the Export program. For additional information on the export process, refer to *Chapter 3 - Tools*.

To exit the Personnel Profile, press the *Exit* button. The program will return to the *RMS Launcher Profiles* window.

Table 2-8: Personnel Profile Information (Main Page)

Profile Field	Description
Last Name	The last name of the employee.
First Name	The first name of the employee.
Employee ID	The employee's identification number.
SSN (SIN)	The employee's Social Security Number or Social Insurance Number.
Pesticide Lic #	The employee's pesticide license number.
Expiration	The pesticide license expiration date.
Driver's Lic #	The employee's drivers license number.
Supervisor	The employee's supervisor.
Phone	The telephone number where the supervisor or employee can be contacted.

Table 2-9: Personnel Profile Information (Admin Page)

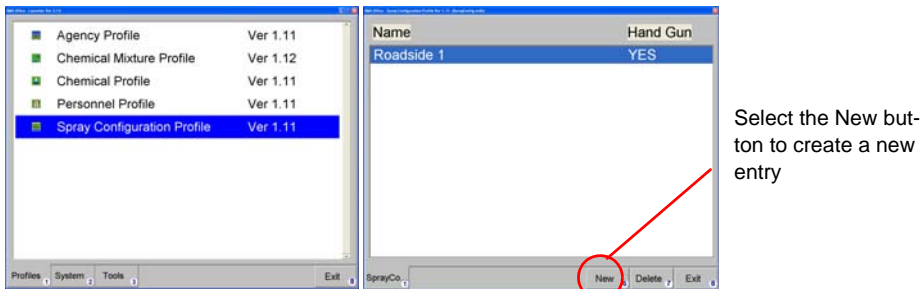
Profile Field	Description
Record Status	Setting a profile to ACTIVE will allow the file to be viewable and selectable when transferring data to the Legacy 6000. Setting the profile to HIDDEN prevents the file from being selectable and/or viewable to the operator and it cannot be transferred to the Legacy 6000. This will allow the system manager to limit the number of in-field selections an operator must make while in the field.

Spray Configuration Profile

Spray Configuration Profiles allow for the creation of different spray boom configurations for the fleet. When the actual spray application session begins, select the specific spray boom configuration for the vehicle.

To access the Spray Configuration Profile window, select *Spray Configuration Profile* on the *RMS Launcher* window. The first page contains a list of profiles currently entered into the database. If no names exist (i.e., this is the first entry) the window will be empty.

Figure 2-22: Spray Configuration Profile Window



To create a new spray configuration profile, press the *New* button. Double click on the desired field, enter the appropriate information, and press the *OK* button. If for some reason the configuration shouldn't be added to the database, press the *Cancel* button to return to the *Spray Configuration Profile* list.

To edit an existing spray configuration profile, select the desired configuration from the list and press the *Enter* button, or double click on the name of the configuration.

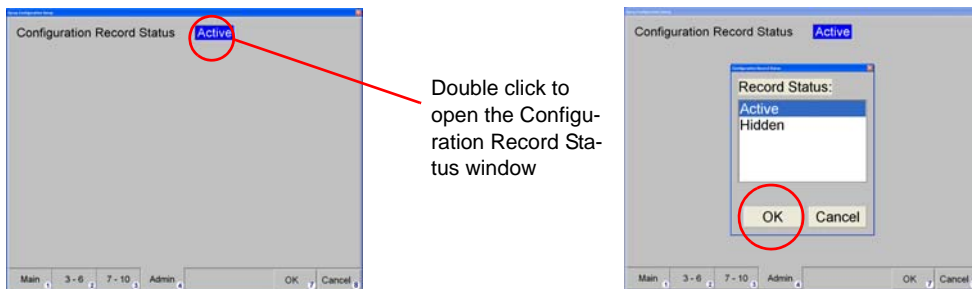
Figure 2-23: Adding Spray Configuration Information



To delete an existing spray configuration, highlight the desired name and press the *Delete* button.

Spray Configuration information can also be displayed (Active) or hidden. To select the status of the record, choose the *Admin* tab, located at the bottom of the *Spray Configuration Setup* window and double click on the *Configuration Record Status* window. Choose the appropriate setting and select "OK".

Figure 2-24: Spray Configuration Record Status



All spray configuration profiles are created in RMS Office and can then be transferred to the Legacy 6000 console via a PC Card using the Export program. For additional information on the export process, refer to *Chapter 3 - Tools*.

To exit the Spray Configuration Profile, press the *Exit* button. The program will return to the *RMS Launcher Profiles* window.

Table 2-10: Spray Configuration Profile Information (Main Page)

Profile Field	Description
Spray Config Name	Enter the name of the new spray configuration. Try to use a name that best describes the configuration.
Hand Gun	Selecting this menu field activates the Hand Gun dialog box. If using a hand gun, select “yes”. If not using a hand gun, select “no”.
Boom 1 Width	Selecting this menu field activates the Boom Width dialog box. Enter the width of Boom 1 in inches (centimeters). When entered, the boom section is drawn in the vehicle diagram located at the bottom of the page.
Offset	Selecting this menu field activates the Boom Offset dialog. Enter the offset distance from the center line of the vehicle to the closest point in the boom to be programmed. Select which direction (left or right) from the center line of the vehicle to place the boom. If the boom is to be centered on the vehicle's center line, select “Center” for the offset direction. Always use the vehicle graphic at the bottom of the page to ensure the created boom section is in the proper location.
Boom 2 Width	Selecting this menu field activates the Boom Width dialog box. Enter the width of Boom 2 in inches (centimeters). When entered, the boom section is drawn in the vehicle diagram located at the bottom of the page.
Offset	Same as Offset above

Table 2-11: Spray Configuration Profile Information (3-6 Page)

Profile Field	Description
Boom 3 - 6 Width	Selecting this menu field activates the Boom Width dialog box. Enter the width of Booms 3 - 6 in inches (centimeters). When entered, the boom section is drawn in the vehicle diagram located at the bottom of the page.
Offsets 3 - 6	Selecting this menu field activates the Boom Offset dialog. Enter the offset distance from the center line of the vehicle to the closest point in the boom to be programmed. Select which direction (left or right) from the center line of the vehicle to place the boom. If the boom is to be centered on the vehicle's center line, select “Center” for the offset direction. Always use the vehicle graphic at the bottom of the page to ensure the created boom section is in the proper location.

Table 2-12: Spray Configuration Profile Information (7-10 Page)

Profile Field	Description
Boom 7 - 10 Width	Selecting this menu field activates the Boom Width dialog box. Enter the width of Booms 7 - 10 in inches (centimeters). When entered, the boom section is drawn in the vehicle diagram located at the bottom of the page.
Offsets 7 - 10	Selecting this menu field activates the Boom Offset dialog. Enter the offset distance from the center line of the vehicle to the closest point in the boom to be programmed. Select which direction (left or right) from the center line of the vehicle to place the boom. If the boom is to be centered on the vehicle's center line, select "Center" for the offset direction. Always use the vehicle graphic at the bottom of the page to ensure the created boom section is in the proper location.

Table 2-13: Spray Configuration Profile Information (Admin Page)

Profile Field	Description
Record Status	Setting a profile to ACTIVE will allow the file to be viewable and selectable when transferring data to the Legacy 6000. Setting the profile to HIDDEN prevents the file from being selectable and/or viewable to the operator and it cannot be transferred to the Legacy 6000. This will allow the system manager to limit the number of in-field selections an operator must make while in the field.

NOTE: RMS does not proceed with the spraying unless the boom widths programmed into the selected Spray Configuration are the same as those programmed into the TASC rate controller.

CHAPTER 3 - TOOLS

RMS - Tools consists of four applications:

- Export
- Map Manager
- Name Manager
- Report Wizard

All four of these tools are accessed from the *Tools* menu.

Figure 3-1: Tools



Table 3-1: Tools Applications Descriptions

Tool	Description
Export	The Export tool allows for the transfer of information to the Legacy 6000 console.
Map Manager	The Map Manager tool is used to view, edit, and manage data.
Name Manager	Name Manager allows for the building of attribute databases and is used for naming objects during the mapping process.
Report Wizard	The Report Wizard tool is used to generate detailed reports of roadside spray applications or sessions.

EXPORT

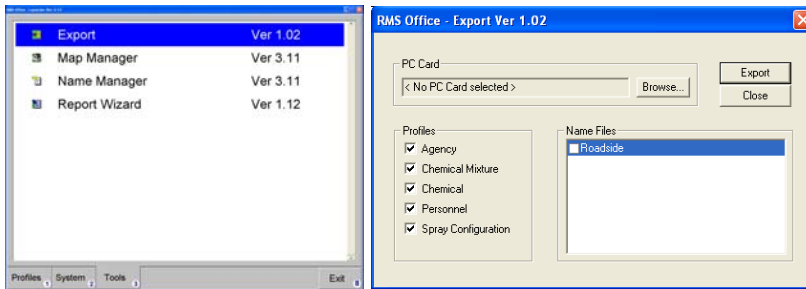
The Export tool is used to transfer information between RMS Office and the Legacy 6000. As profile information changes over time, the Legacy 6000 must be updated. Information can be transferred between RMS Office and the Legacy 6000 via a PC Card.

Information cannot be directly copied from Profiles and Names via the PC Card. The Export tool must be used to compress and reformat the data. The following steps must be performed in order for the data to be successfully transferred.

Exporting Information:

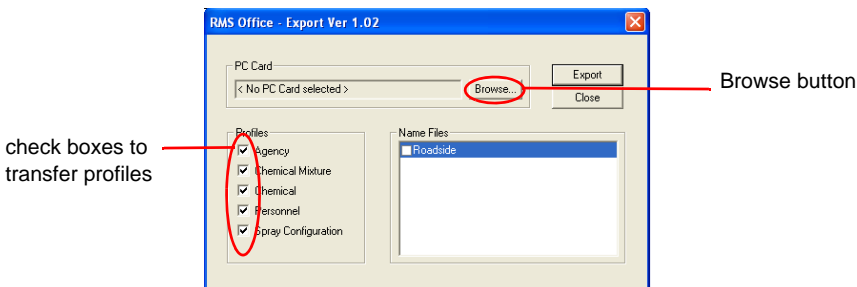
1. Once information has been updated in RMS Office, insert a PC Card into the PC Card drive.
2. Double click on *Export* which is located on the *Tools* tab of the *RMS Launcher* window.

Figure 3-2: Exporting Information



3. Select the PC Card Drive by choosing the *Browse* button and locating the card.
4. Select the profiles to be exported by checking the appropriate boxes to the left of the profile names.

Figure 3-3: Exporting Information



5. Press the *Export* button to begin the file transfer to the PC Card. An “Import” file will be created on the PC Card. Profiles and Names files will be exported to sub folders within the “Import” file. **DO NOT MOVE OR MODIFY THESE FILES ON THE PC CARD.**
6. Safely remove the PC Card from the drive.
7. Insert the PC Card into the Legacy 6000. Power on the Legacy 6000 console.
8. The Legacy 6000 will detect that new profile and names are ready for installation. Use the Arrow keys to make the appropriate selections to import the files.
9. The import process will perform a file comparison with the modified files. Files are updated with new information and will not be over-written. The import process moves files from the PC Card to the console’s flash memory. The files cannot be copied to the console - the Export process must be used.

MAP MANAGER

Map Manager is a tool used for viewing, editing, and managing data. This tool will be discussed in detail in *Chapter 4*.

NAME MANAGER

The Name Manager application allows for the construction of a database of commonly-used attributes. This database information can be accessed from any of the RMS applications such as Mapper, EXT, or CAN. Using a names database helps to efficiently store, select, and name mapping objects while in the field during the application process. Database file names can be created for specific tasks or themes.

All Names files are created in RMS Office and can then be transferred to the Legacy 6000 console via a PC Card using the Export program.

Name Database File Format

Name database files are ASCII text files (.TXT). These can be created by several different editors, spread sheets, and word processors. A single column of names typed onto an Excel spreadsheet can be copied to the Windows clipboard and pasted into any Names database. This makes it easy to move existing attribute information into the names database file format. It may be easier, however, to simply type the name attributes, one name per line into a word processor or editor, and save the file as a text file with the extension (.TXT).

All name databases that will be exported to the Legacy 6000 console must be stored in the directory C:\RMS\NAMES. Do not store names databases in any other folder. The program automatically alphabetizes names entered into the database.

Figure 3-4: Name Manager

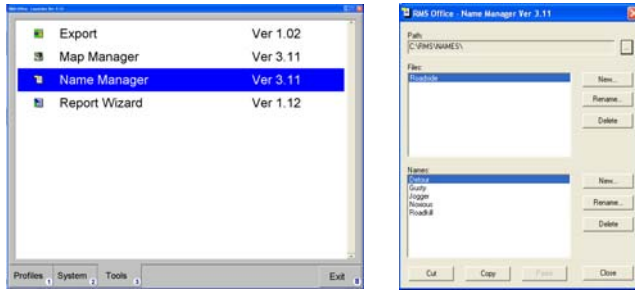
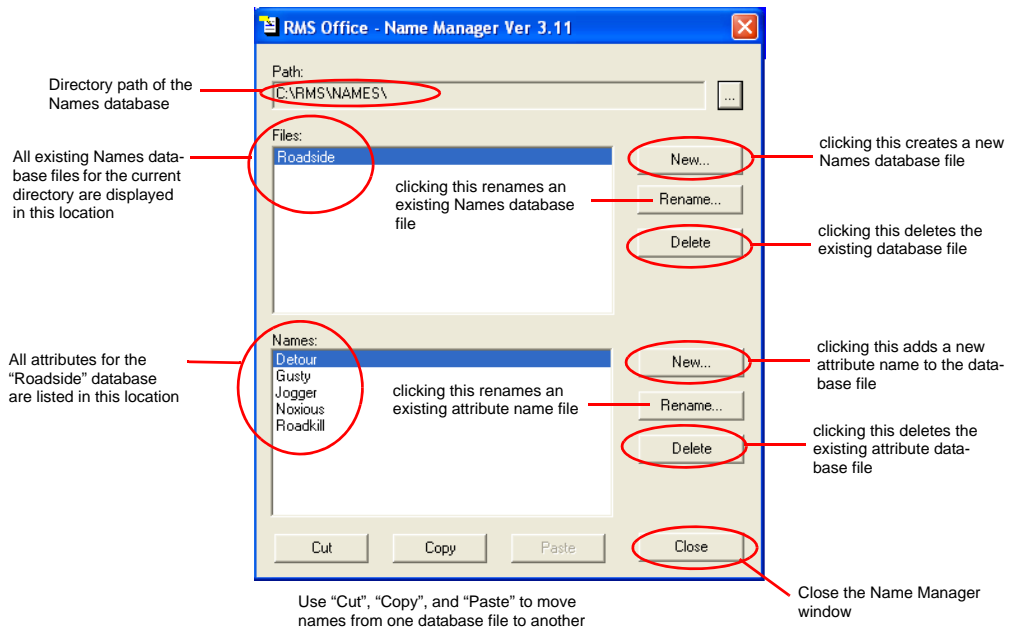


Figure 3-5: Name Manager Overview

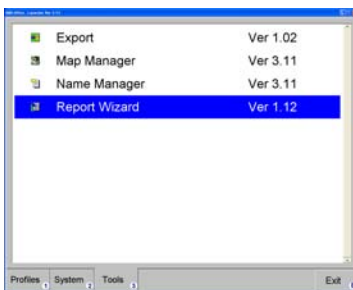


REPORT WIZARD

The Report Wizard compiles all the information, map data, and profiles associated with an application session into an organization spray session report. The final report can contain all profiles associated with the spray session as well as any maps created during the session. The final report can be customized by adding different map views, as well as by adding the corporate logo and address to the front page.

To launch the Report Wizard, double click on *Report Wizard* from the *RMS Program Launcher* Menu.

Figure 3-6: Report Wizard

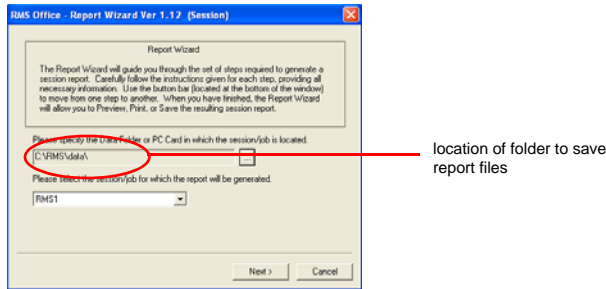


Generating a Session Report

In order to generate a session report, a completed spray session must exist, as well as all associated data. The data must be stored and collected on the PC Card and must be located in the Job ID folder under the name for that session. The session information can be transferred from the folder to the PC on the computer, or reports can be generated directly from the PC Card if it is inserted into the PC Card slot on the computer. This will provide a backup for computer data. In addition, this will free up information space on the PC Card. The C:\RMS\data folder is the recommended location for job folders on the office computer.

Once Report Wizard is running, the Report Wizard dialog will appear.

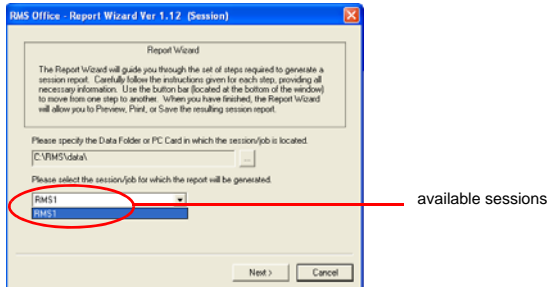
Figure 3-7: Report Wizard Dialog



Select Spray Session

The first step in the report generation process is to select a spraying session. Browse the location of the job sessions. Data will reside either on the PC Card or in the folder designated to store it (typically in the c:\RMS\data folder). Select the spray session from the list. Highlight the desired spray session and press the *Next* button.

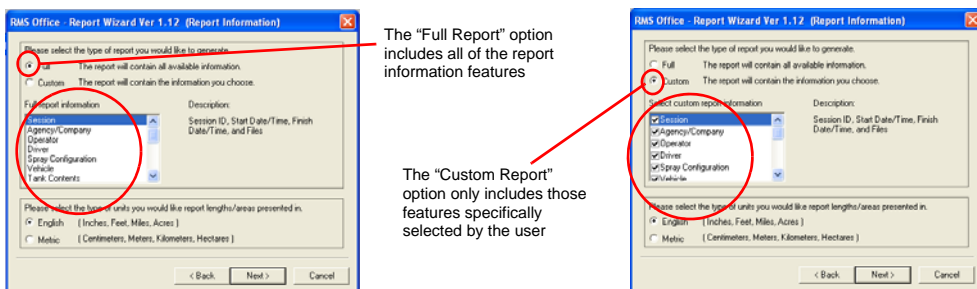
Figure 3-8: Select Spray Session



Select Report Information

The report information dialog allows for the customization of the final spraying session report. With this dialog, the user can select the session profile information to be included in the report. The units of measurement can also be selected. The “Full Report” option will include all profiles associated with the selected spray session. If the “Custom Report” option is selected, check boxes will become available so individual selections are allowed by report information items on the scroll menu.

Figure 3-9: Select Report Information

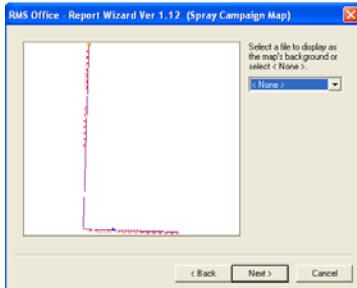


Once the desired information has been selected, press the *Next* button. A status box will be displayed indicating that the information is being loaded. The process may take a few seconds while information is loaded.

Spray Campaign

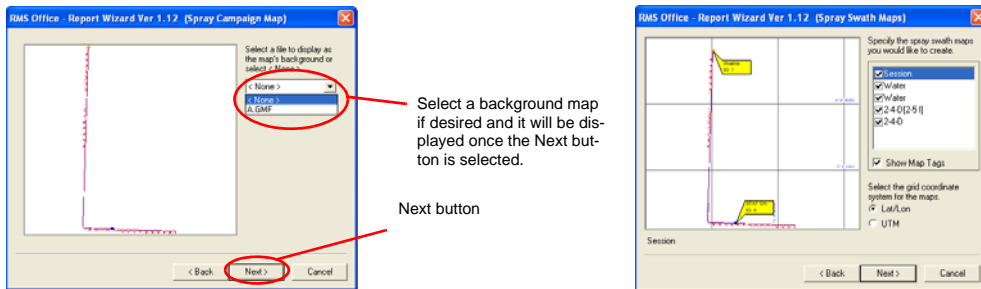
The Report Wizard Spray Campaign dialog will display the session (.EVP) map. An option is also available to display a background map if one is available for display. In the following example session, a background map is used during the spray session. The background map selection and completed spray campaign dialog are displayed, along with the background map. Once the Spray Campaign dialog is complete, press the *Next* button to move to the next Report Wizard dialog window.

Figure 3-10: Spray Swath Map



If a background map is desired, select the map from the available options and it will be populated when the *Next* button is selected.

Figure 3-11: Spray Swath Map with Background



Spray Swath Map

The Spray Swath Map allows for the selection and de-selection of various spray swath map data that was collected during the application process. The spray swath data is contained in the (.RCD) file. There should be an (.RCD) file for each product or mixture including the carrier applied during a spraying session.

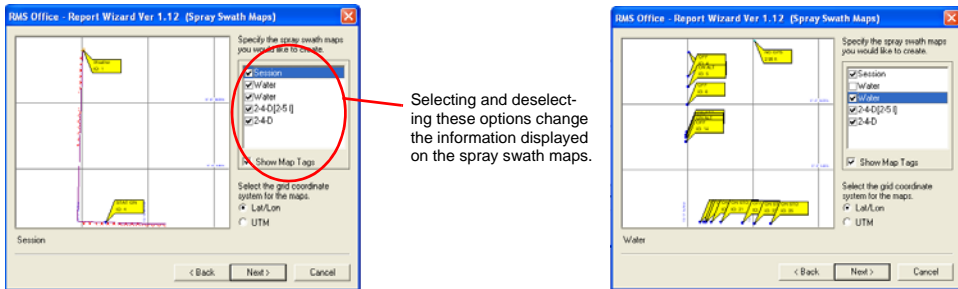
Map options are viewable by selecting and deselecting the various swath map options available. If all of the map options are selected, all will be displayed on the final report.

In addition, grid coordinates can be selected for the background output. The two choices available include:

- Latitude/longitude
- UTM

Once the desired spray swath map selections have been chosen, press the *Next* button to proceed to the next Report Wizard window.

Figure 3-12: Spray Swath Map Options

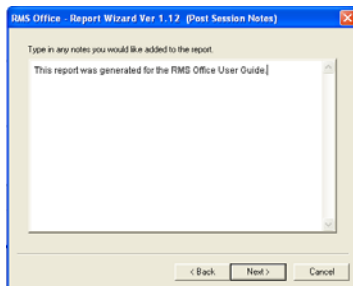


Post Session Notes

The Post Session Notes dialog allows for the entry of notes to be appended at the end of the report. Information can be included in a free form text box to be included in the final report.

Once the text has been entered, press the *Next* button to advance to the next Report Wizard window.

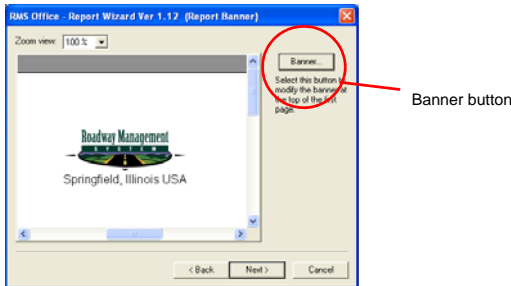
Figure 3-13: Post Session Notes



Report Banner

The Report Banner dialog allows for the addition of information (such as a corporate logo and address) to the first page of the final report.

Figure 3-14: Report Banner



Customizing the Report Banner

To customize the report banner, press the *Banner* button, located in the upper right corner of the window. A word processor window will launch. This window will allow many of the same editing features similar to traditional word processors.

To insert a logo, select the *Insert* pull down menu and select "Picture". A Windows Explorer browser window will be launched that will allow for a corporate logo to be located, opened by selecting the *Open* button, and placed into the banner editor. The logo should appear at the cursor position in the Banner Editor window.

Figure 3-15: Banner Editor

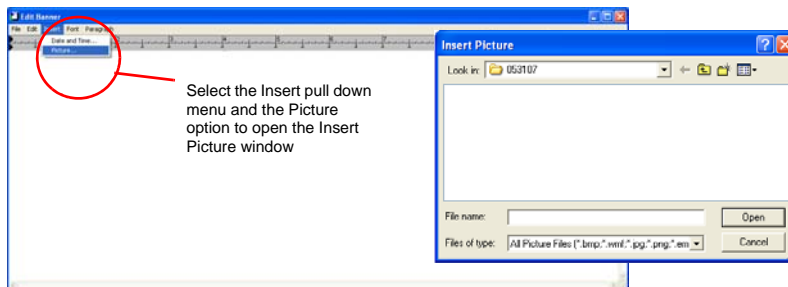
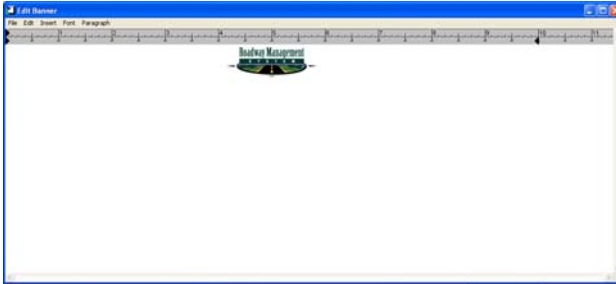
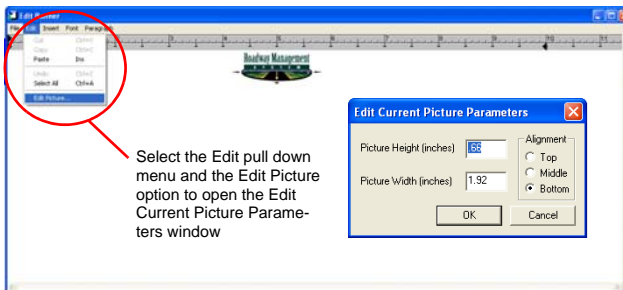


Figure 3-16: Banner Editor, Logo Placed



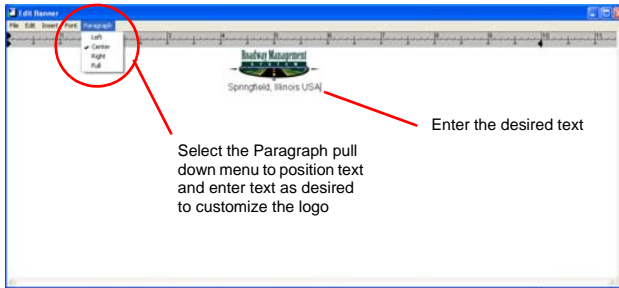
Once the logo has been added it can be positioned. Select the *Edit* pull down menu, followed by the *Edit Picture* option. The *Edit Current Picture Parameters* window will be displayed, which will allow for the positioning of the logo. Select the *OK* button once the logo is in position.

Figure 3-17: Editing the Logo



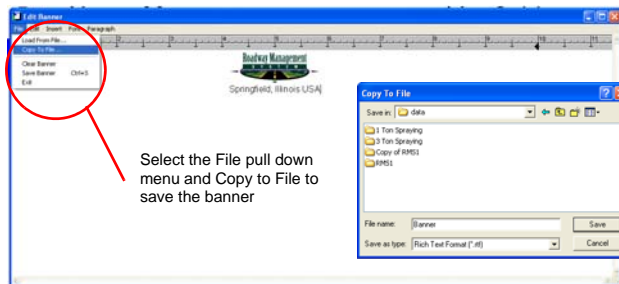
Once the logo has been placed, text can be added such as the company name and address. Select the *Paragraph* pull-down menu to select the position of the text and insert text as desired.

Figure 3-18: Inserting Text



Once the desired logo and text have been entered, save the banner to a file by selecting the *File* pull-down menu and selecting *Copy to File*. Selecting the *Copy to File* menu item will launch a prompt requesting a file name and location to save the file. Once the file is saved, select *Exit* to return to the *Report Wizard Report Banner* dialog.

Figure 3-19: Saving the Banner

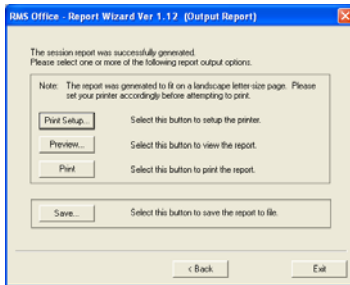


Once the banner is saved, press the *Next* button on the Report Wizard. A message will be displayed indicating a report is being generated.

Output Report

The final Report Wizard dialog is the *Output Report* window. From this area it is possible to print preview, preview, print, and save the generated report. Previewing the report is always a good idea before printing or saving the report.

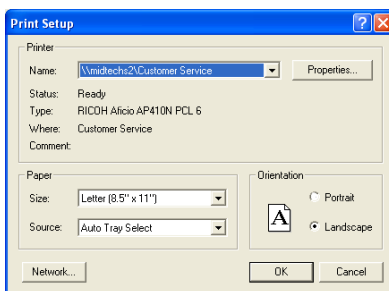
Figure 3-20: Output Report



Print Setup

Print setup is used to establish the print parameters for the report. This determines what printer is used and the source of the paper. IT IS IMPORTANT TO NOTE THAT ALL REPORTS ARE PRINTED IN LANDSCAPE ORIENTATION ON 8 1/2 X 11 INCH PAPER ONLY. ANY OTHER PAPER ORIENTATION WILL PRINT INCORRECTLY.

Figure 3-21: Print Setup



Preview

Preview allows the user to view the report before additional action is taken. This is a good feature in order to check banner placement, to ensure data is accurate, and to double check information is available before the report is saved or printed.

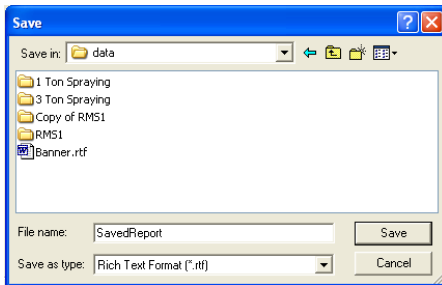
Print

Print is used to send the final report to the printer, which was established during Print Setup.

Save

Save is used to save the report to a folder in (.RTF) format. Press the *Save* button and a Windows dialog box will be launched. Using this dialog window, name the report and select the folder in which to save the report.

Figure 3-22: Saving the Report



Once the report is saved in (.RTF), it can be opened and edited in various word processors (Microsoft Word, WordPad, NotePad, Adobe PageMaker, WordPerfect, Corel), etc.

Sample Report

The following figures provide illustrations of a sample report that was generated by the Report Wizard. The first three pages contain profile information regarding the spray session. Page 4 is the Spray Campaign map. The map was generated as an event record (.EVP) during the spraying process and shows the route traveled during the spray session. Pages 5-9 are the individual Spray Swath maps. There is a Spray Swath map for each product mixture or mixture plus carrier applied during the spray session.

Figure 3-23: Report Pages 1 and 2

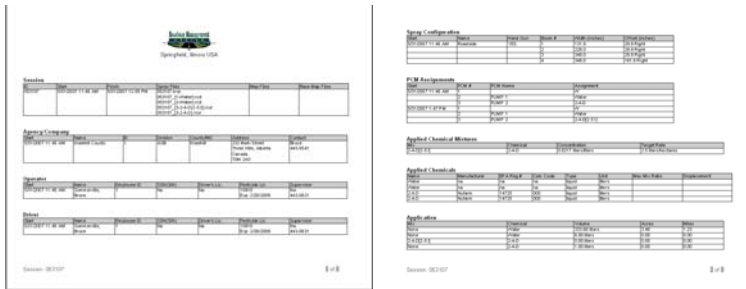


Figure 3-24: Report Pages 3 and 4

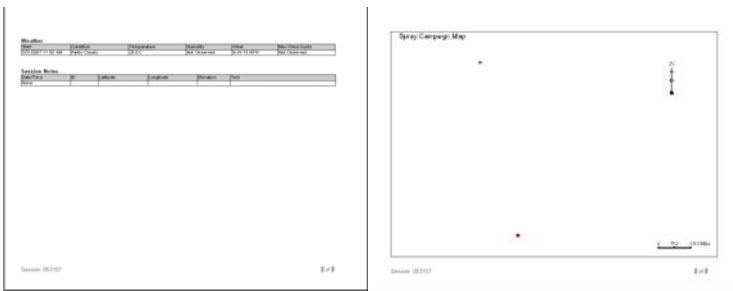


Figure 3-25: Report Pages 5 and 6

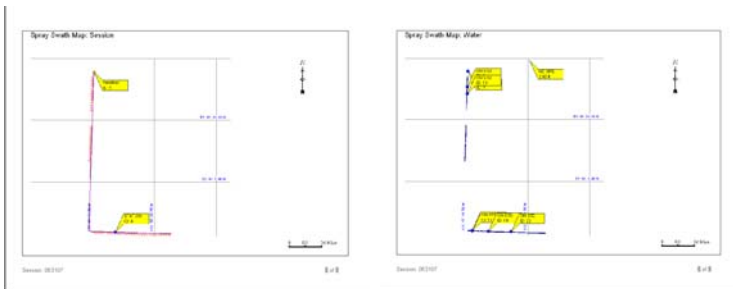


Figure 3-26: Report Pages 7 and 8

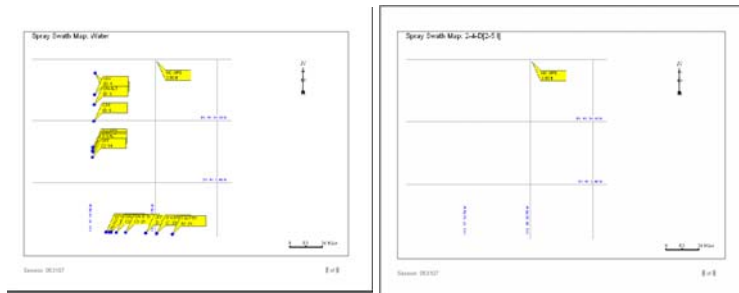
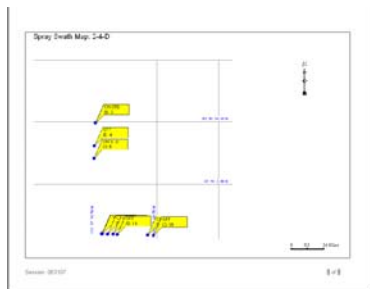


Figure 3-27: Report Page 9



CHAPTER 4 - MAP MANAGER

Map Manager is a data file viewing, editing, and management tool. Map Manager allows for the viewing of all roadside application data collected using the Legacy 6000 and RMS software. RMS data can also be converted to the ESRI (.SHP) file format using Map Manager. To start Map Manager, double click on *Map Manager* from the *RMS Office Tools* menu.

Figure 4-1: Map Manager

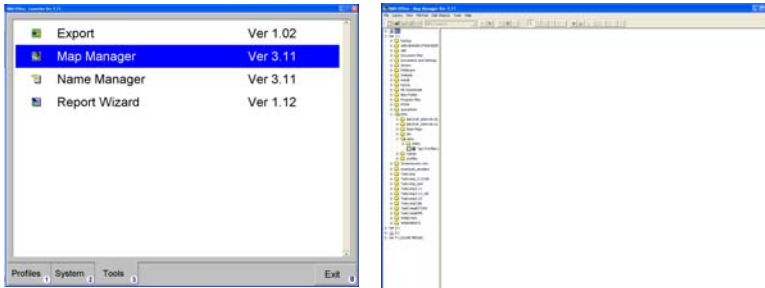


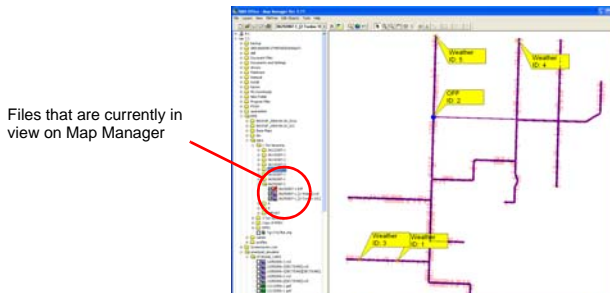
Table 4-1: Types of Data

Data Type	Description
GMF	General Mapping File
RCD	Record File containing vehicle trajectory and application rates
EVP	Event File
SHP	ESRI Shape File
ARM	Prescription Map File (not implemented yet)

Viewing Data

Map Manager can view any combination of RMS file types as well as zoom, pan, and print. The following illustration shows a roadside trajectory in the form of an (.EVP) file. The left side of the *Map Manager* window is the directory and file tree. The right side is the data viewing window. Data files are loaded into the window by double clicking on the file in the directory and file tree. Files can be viewed from different spray sessions within the same view window. Each map is loaded into the view window in layers, so when new files are opened, they are layered on top of the already opened files.

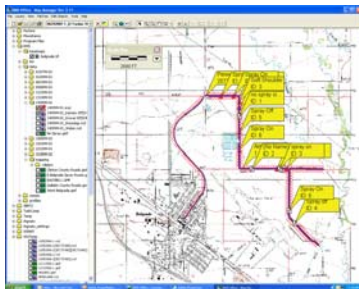
Figure 4-2: Map Manager



Base Maps

Background base maps, such as USGS topography maps can be viewed in Geo-Tif formats. Base maps are typically stored in the C:\RMS\basemaps folder.

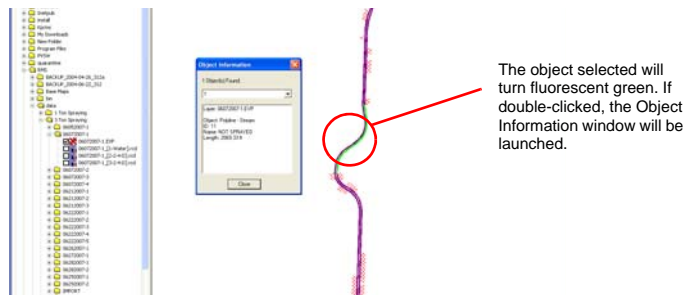
Figure 4-3: Base Maps



Object Information Query

It is possible to query any type of data that appears in *Map Manager*. Using the pointer tool, select the area of the view that contains the item to be queried. The area selected will change to a fluorescent green color. If the object is double clicked, an *Object Information* window will be launched, which will display object information such as the name, what layer the object is displayed on, and the length of the object. If multiple objects are stacked on top of each other, information can be viewed for each object by selecting the arrows in the pull down menu of the *Object(s) Found* dialog window.

Figure 4-4: Information Query



MAP MANAGER TOOL BAR

The tool bar allows for the manipulation of how data is viewed in the window. Drawing tools are accessed from the tool bar as well as zoom, pan, and measure. Layers can be added, removed, and unloaded from view. The current or active layer is the layer that is in front of all the other layers. To remove or unload a layer, select it as current and select the *Remove Layer* button. Only the layer that is current can be removed.

Figure 4-5: Map Manager Tool Bar



Table 4-2: Map Manager Tool Bar Buttons


















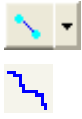





Button	Description
	New File (Layer) - creates a new file (layer) and places it at the current (top) layer in the map view. A prompt will request a new file name.
	Open File (Layer) - opens an existing file and allows for the selection of the top layer on the map view.
	Save File (Layer) - saves the current (top) layer on the map view.
	Save All - saves all the file (layers) displayed on the map view.
	Print - prints the current map view with all visible layers.
	Remove Layer - removes (not deletes) the current (top) layer from the view. This does not delete the file.
	Layers On/Off - opens the Layers On/Off dialog. Turns layers on or off.
	Zoom to Current Layer - zooms to the data extents of the current (top) layer.
	Zoom to Extent - zooms to the data extents of all visible layers.
	Undo Zoom - returns to the previous zoom state.
	Selection Arrow - activates the selection (pointer) arrow.
	Zoom In - enlarges (magnifies) the map view. There are two modes: drag box and point and click.
	Zoom Out - increases the area displayed on the map view. There are two modes: drag box and point and click.
	Pan - select this button and place the hand on the map view. While holding down the left mouse button, move the mouse and view the map in a "panning" fashion.
	Measuring Tool - select this button to measure the distance between two points. There are two modes: mark and stream. Mark mode returns the distance between the end points (straight lines only). Stream mode returns the length of the line distance (curved lines).

Table 4-3: Map Manager Tool Bar Buttons (Continued)

Button	Description
	<p>Point Object - select this button and left click on the map view to place a point object in the view. During application, the user is notified when approaching a point. Highlight the object and right click to edit the object properties.</p>
	<p>Hazard Object - select this button and left click on the map view to place a hazard object in the view. During application, the user is notified when approaching a hazard. Highlight the object and right click with the mouse to edit the properties.</p>
	<p>Polygon Object - select and draw a polygon object in the map view. Double click the left mouse button to close and stop drawing the polygon. This object has two modes: mark and stream. Mark mode creates straight objects. Stream mode creates curved objects. Highlight the object and right click with the mouse to edit the object properties.</p>
	<p>Polyline Object - select and draw a polyline in the map view. Double click the left mouse button to stop drawing. This object has two modes: mark and stream. Mark mode creates straight objects. Stream mode creates curved objects. Highlight the object and right click with the mouse to edit the object properties.</p>
	<p>Circle Tool (Drag) - select to draw a circle by pressing and holding down on the left mouse button. Drag the mouse with the left button held down to create the desired radius. Release the left mouse button to create the circle object. Select and hold down the left mouse button on the circle tool and two other circle options (radius and 3-point) will appear in the drop down tool.</p>
	<p>Circle Tool (Radius) - select and click the left mouse button at the center location of the desired circle on the map view. A small radius dialog box will be displayed. Enter the desired circle radius and select <i>OK</i>.</p>
	<p>Circle Tool (3-Point) - select and click the left mouse button on three different locations that the circle perimeter is to intersect. Once the third point has been selected, the circle will be populated.</p>
	<p>Text Tool - select this tool to add text to the maps.</p>

Text Tool

The Text tool allows for the addition of text to any (.GMF) generated map. To add text, select the Text tool from the Tools menu bar. Left click the mouse at the location on the map where the text is to be placed. The *Text Tool Dialog* box will be launched. Type the desired text into the *Text Tool Dialog* window. The window allows for the editing of text object properties such as font,

size, and color. Once the desired edits are complete, press the *Apply* button to insert the text onto the map.

Figure 4-6: Text Tool Dialog Window



File Menu

Most of the tool button's functionality is duplicated in the drop down menus. The *File* menu allows for various file related actions to occur, such as edit, save, delete, print, convert, and exit *Map Manager*.

Figure 4-7: File Menu Pull-down

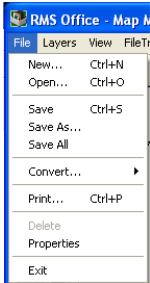


Table 4-4: File Menu Item Descriptions

Menu Item	Description
New	New File (Layer) - creates a new file (layer) and places it on the current (top) layer in the map view. A prompt will request a new file name.
Open	Opens Existing File (Layer) - allows for the selection of an existing file (layer) which will be displayed as the top layer in the map view.
Save	Save File (Layer) - saves the current (top) layer in the map view.
Save As	Save File As - saves the current (top) layer with a different file name. A Save As dialog window will request a new file name.
Save All	Save All - saves all files (layers) displayed in the map view.
Convert	Starts the conversation application which allows for the conversion of RMS data files to ESRI shape files and back.
Print	Prints the current map view with all visible layers.
Delete	Deletes the highlighted file in the file tree.
Properties	Displays the file properties for the highlighted file in the file tree.
Exit	Exits the Map Manager program.

Layers Menu

The Layers Menu allows for the manipulation and query of information associated with a map layer in the map view window.

Figure 4-8: Layers Menu Pull-down

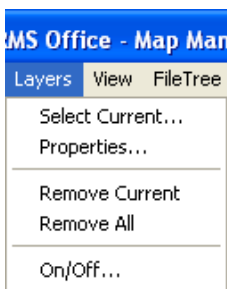


Table 4-5: Layers Menu Item Descriptions

Menu Item	Description
Select Current	Allows for the selection of the current (top) layer. This can also be accomplished from the Tools Menu bar.
Properties	Activates the Layers Properties dialog box.
Remove Current	Removes the current layer. This can also be accomplished from the Tools Menu bar.
Remove All	Removes all layers from the map view.
On/Off	Activates the Layers On/Off dialog window. This can also be accomplished from the Tools Menu bar.

View Menu

The View Menu configures the *Map Manager* window.

Figure 4-9: View Menu Pull-down

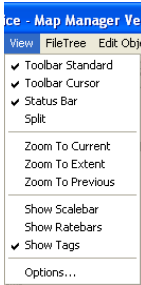


Table 4-6: View Menu Item Descriptions

Menu Item	Description
Tool Bar Standard	Adds or removes the first set of Tool Bar items on the Map Manager window. Items affected are from New to Undo Layer.
Toolbar Cursor	Adds or removes the second set of Tool Bar items on the Map Manager window. Items affected are from Point to Text Tool.
Status Bar	Adds or removes the Status Bar at the bottom of the Map Manager window and displays the current action as well as the coordinate position of the pointer.
Split	Activates the split screen function, allowing the resizing of the map view and file tree.
Zoom To Current	Zooms to the current layer's data extents. This can also be accomplished from the Tools Menu bar.
Zoom To Extent	Zooms to the data extent of all visible layers. This can also be accomplished from the Tools Menu bar.

Table 4-7: View Menu Item Descriptions (Continued)

Zoom To Previous	Returns to the prior zoom state. This can also be accomplished from the Tools Menu bar.
Show Scalebar	A map scale dialog window will be displayed on the map view.
Show Ratebars	Selecting this when viewing (.RCD) files causes a rates scale dialog window to be displayed on the map view.
Show Tags	Displays a small yellow tag next to each object in the map view. The tag contains information about the object.
Options	Options allows for the editing of the system units and coordinates system.

File Tree Menu

The File Tree Menu allows for the control of file types that are viewed on the file tree.

Figure 4-10: File Tree Menu

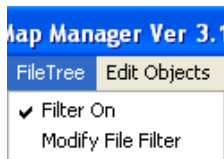


Table 4-8: File Tree Menu Item Descriptions

Menu Item	Description
Filter On	The file tree will display only the files selected in the File Filter.
Modify File Filter	Allows the selection of the files viewed when the filter is "On".

Edit Objects Menu

The Edit Objects Menu handles most of the graphics object editing including cut, copy, and paste. Many of these object editing items can be selected as well by clicking the right mouse button.

Figure 4-11: Edit Objects Menu

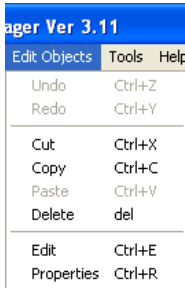


Table 4-9: Edit Objects Menu Items Descriptions

Menu Item	Description
Undo	Reverses the last edit made to the object.
Redo	Reverses the "Undo".
Cut	Cuts the highlighted object from view.
Copy	Makes a copy of the highlighted object.
Paste	Pastes a copy of the highlighted object that was previously cut or copied.
Delete	Deletes the highlighted object.
Edit	Activates the Edit dialog window which allows for the modification of object attributes such as object names.
Properties	Displays the Object Information dialog window.

Tools Menu

The Tools Menu has one option: Snap On/Off. The snap tool is used to “snap” the object item in the map view to the nearest object during placement on the map. A good use for the snap tool is to find the distance between two points.

Figure 4-12: Tools Menu



PRINTING MAPS IN MAP MANAGER

Pressing the *Print* button on the button bar or selecting *Print* from the *File* menu will launch the *Print Settings* dialog window. Print options are controlled on the window.

Figure 4-13: Print Settings Dialog Window

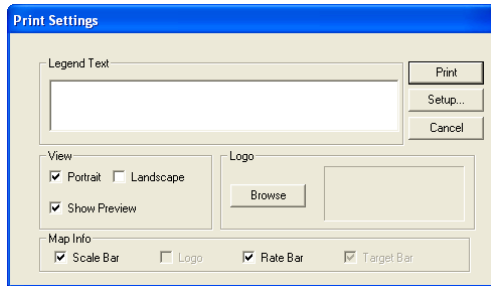


Table 4-10: Print Settings Descriptions

Setting	Description
Portrait	Displays the map in a portrait mode.
Landscape	Displays the map in a landscape mode.
Show Preview	Displays a preview of the printed map in the <i>Map Manager Map View</i> . It is recommended that the maps be previewed before saving and printing.
Legend Text	Adds a map title and additional text to the printed map. To add text, start typing in the <i>Legend Text</i> box window.
Logo	Include a corporate logo on the printed map. To add a logo, press the <i>Browse</i> button and select the desired logo file.
Scale Bar	Includes a distance scale bar on the printed map.
Rate Bar	Includes a rates legend on the printed map. The map view must contain an (.RCD) file.
Target Bar	Includes a distance Application Target Rate legend on the printed map. The map must contain an (.ARM) file.

SHAPE FILE CONVERSION

Map Manager contains a file option named Convert that provides a means of transferring data between RMS data files and ESRI shape files. Convert was designed to be both flexible and simple. It allows beginning users to perform conversions in several simple steps while offering advanced users full control over the data transfer process.

The conversion process is broken into two step:

- exporting RMS data files to shape files
- importing shape files to RMS data files

Shape files must be in NAD83 or WGS84 Lat/Long coordinates. No other projections or datums are supported. ESRI shape files of (.SHP), (.SHX), and (.DBF) files all share the same file name.

Exporting RMS Data to Shape File Format

The export process allows for RMS data to be exported to a shape file. Export files one at a time or batch multiple export files or folders. The export process is populated with several export templates that can be edited to best fit user needs. New export templates can also be created.

Export to Shape Dialog

The Export to Shape Dialog is used to select the file(s) to convert. It is also used to start the conversion process. Review this dialog prior to converting a file.

To access the Shape Export Dialog, select *File, Convert, Shp Export*.

Figure 4-14: Export to Shape Dialog

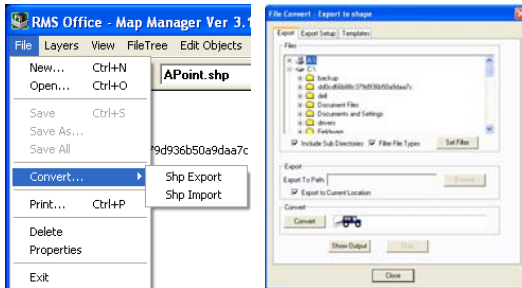


Table 4-11: Export to Shape Dialog Descriptions

Function	Description
Export Tree	Select the files to be exported from the Tree View. The Tree supports multiple selections. Select multiple files with standard explorer style CNTRL/LEFT click and SHIFT/LEFT click.
Include Sub Directories	When selected, the program will export all the files selected and all the files located in the sub-directories. The program will search all sub-directories within the selected directories and keep opening files until nothing else is located. When this is de-selected, the program will export the selected files and only those files in the selected folders (not the sub-directories).
Filter File Types	When selected, only filter type files and directories will be displayed (see Set Filter). When de-selected, all files and directories will be displayed.
Set Filter	Select the file types to be displayed.
Export to Path	Type in the export path for the shape files. The Export to Current Location check box cannot be checked if an export path is identified.
Browse	Browse for the path location.

Table 4-12: Export to Shape Dialog (Continued)

Function	Description
Export to Current Location	When selected, all exported files will be stored in the same location as the original file. This is not valid for "All Files Into 1 File" exporting when files from multiple directories are selected. Perform an "All Files Into 1 File" export for a single job using this check box. De-select to send all of the exported files to the location specified in the export path edit control
Convert	Starts the conversion process.
Show Output	Shows or hides the output dialog. The shape file conversion progress is displayed in the dialog window.
Stop	Pauses the export process. A prompt will be displayed and will request whether to continue or abort the export process.

Export to Shape Setup Dialog

The Export to Shape Setup Dialog controls and establishes the parameters involved in the export process. This dialog should be reviewed prior to exporting any files. The primary function of the Export Setup dialog is to define which RMS objects are exported and to describe how the objects are transferred/combined to create one or more shape files.

Figure 4-15: Export to Shape Setup Dialog Window



Figure 4-16: Export to Shape Setup Dialog Descriptions

Function	Description
Create Import Templates	When selected, the program will automatically generate an import template for any ARC-Polyline, Point-Point, and Polygon-Polygon object exported. This template is a reverse image of the export template used for the object. The new template name begins with the word "Import" followed by the name of the export template. For example, if PointToShp.tpl was exported, the import template would be Import[PointToShp].tpl.
2D Radio Button	When selected, the program will load all available 2D templates into the template combo box. The templates are located in the \bin template folder.
3D Radio Button	When selected, the program will load all available 3D templates into the template combo box. The templates are located in the \bin template folder.
Merge Points	When selected, the program will merge all point types in a given file into a single shape point file. When de-selected, the program will export different point types in a given file to their own point shape files.
Merge Arcs	When selected, the program will merge all arc types in a given file into a single shape arc file. When de-selected, the program will export different arc types in a given file to their own arc shape files.
Merge Polygons	When selected, the program will merge all polygon types in a given file into a single shape polygon file. When de-selected, the program will export different arc types in a given file to their own arc shape files.
Merge All Files Into 1 File	When selected, the program will merge all exported point shape files into a single point shape file, all arc files into a single arc shape file, and all polygon files into a single polygon shape file.
Arc (Polyline) Templates Polyline	Defines how to convert any polyline in the shape export.
Arc (Polyline) Templates Record	Defines how to represent a swath from a Record (.RCD) in a shape file.
Arc (Polyline) Templates ITV	Defines how to represent an interval in the record file in a shape file.
Arc (Polyline) Templates Handgun	Defines how to convert a handgun object in the shape file export.
Arc (Polyline) Templates Circle Arc	Defines how to convert a circle arc in the shape export.
Point Templates - Points	Defines how to convert any point in the shape export

Function	Description
Point Templates - Weather	Defines how to convert any weather point in the shape export.
Polygon Templates - Polygon	Defines how to convert any polygon in the shape export.
Polygon Templates - Circle	Defines how to convert any polygon circle in the shape export.
Polygon Templates - Circle Pie	Defines how to convert any polygon circle pie in the shape export.

Export to Shape Template Dialog

An export template is essentially a set of instructions for transferring the selected object type to a shape file. The Template Dialog provides a list of available templates for the selected conversion and allows for the management of the templates using the *New*, *Delete*, and *Edit* buttons.

The export template dialog is used to edit an existing template or create a new template. When creating a new template, a new template name must be selected in the appropriate template combo box, which is located in the *Export Setup Dialog*.

Figure 4-17: Export to Shape Template Dialog



Table 4-13: Export to Shape Template Dialog Descriptions

Function	Description
Available Templates	Displays all available templates located in the \bin template directory that match the 2D or 3D radio button selection.
Edit	Allows for the editing of the current template selection.
Delete	Allows for the deletion of the current template selection.
2D Radio Button	When selected, the program will load all available 2D templates into the template combo box. The templates are located in the \bin template folder.
3D Radio Button	When selected, the program will load all available 3D templates into the template comb box. The templates are located in the \bin template folder.
Object Types	Displays all available object types for which templates can be created.
New	Allows for the creation of a new template for the current object selection.

Importing Shape Files to RMS Data Files

The second conversion process is importing shape files into RMS data files. For example, there are many background files such as roadways that are in the shape format. These can be imported into a (.GMF) file and viewed in the background of any application, such as *Mapper*.

Import from Shape Dialog

Use the Import from Shape Dialog to select the files or folders to be converted from the shape file format to a data file. Review the Import Setup dialog prior to running the import process.

Figure 4-18: Import from Shape Dialog

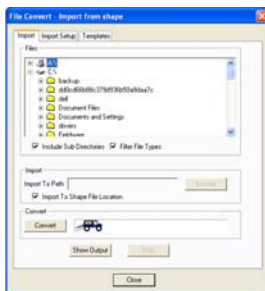


Table 4-14: Import from Shape Dialog Description

Function	Description
Import Tree	Select files to import from the import tree. The tree supports multiple selects. The user can make multiple selections with standard explorer style CNTRL/LEFT click and SHIFT/LEFT click.
Include Sub Directories	When selected, the program will import all files selected and all files located in the sub-directories. The program locates all sub-directories within the directories. When de-selected, the program will import all files selected and only those files located inside the selected folders.
Filter File Types	When selected, only shaped files and directories will be displayed (see Set Filter). When de-selected, all files and directories will be displayed.
Import to Path	Type in the import path for the shape files. The Import to Current Location check box cannot be checked if an import path is identified.
Browse	Browse for the path location.
Import to Shape File Location	When selected, all imported files will be stored in the same location as the original file. De-select to send all of the imported files to the location specified in the import path edit control
Convert	Starts the conversion process.
Show Output	Shows or hides the output dialog. The shape file conversion progress is displayed in the dialog window.
Stop	Pauses the import process. A prompt will be displayed and will request whether to continue or abort the import process.

Import Setup Dialog

The Import Setup Dialog is used to define what import templates are used for the import process. The type of data file to import data into is also selected at this time.

Figure 4-19: Import Setup Dialog



Table 4-15: Import Setup Dialog Description

Function	Description
Create Export Templates	When selected, the program will automatically generate an export template for any Point, Polyline, or Polygon object imported. This template is a reverse image of the import template used for the object. The new template name begins with the word "Export" followed by the name of the import template. For example, if ShpToPoint.tpl was imported, the export template would be Export[ShpToPoint].tpl.
2D Radio Button	When selected, the program will load all available 2D templates into the template combo box. The templates are located in the \bin template folder.
3D Radio Button	When selected, the program will load all available 3D templates into the template combo box. The templates are located in the \bin template folder.
Templates - Point	Select the type of import conversion by choosing the conversion template. This template defines how to represent a point in a shape file in an RMS data file.
Templates - Polyline	Select the type of import conversion by choosing the conversion template. This template defines how to represent an arc in a shape file as a polyline in an RMS data file.
Templates - Polygon	Select the type of import conversion by choosing a conversion template. This template defines how to represent a polygon in a shape file in an RMS data file.
Import File Types Point	Defines the file types to be imported - whether they are (.GMF) or (.RCD).
Import File Types Polyline	Defines the file types to be imported - whether they are (.GMF) or (.RCD).
Import File Types Polygon	Defines the file types to be imported - whether they are (.GMF) or (.RCD).

Import Template Dialog

The Import Template Dialog is used to edit an existing template or create a new template. To create a new template, a new template name must be selected in the appropriate name template combo box located in the *Import Setup* dialog.

Figure 4-20: Import Template Dialog



Table 4-16: Import Template Dialog Description

Function	Description
Available Templates	Displays all available templates located in the \bin template directory that match the 2D or 3D radio button selection.
Edit	Allows for the editing of the current template selection.
Delete	Allows for the deletion of the current template selection.
2D Radio Button	When selected, the program will load all available 2D templates into the template combo box. The templates are located in the \bin template folder.
3D Radio Button	When selected, the program will load all available 3D templates into the template comb box. The templates are located in the \bin template folder.
Object Types	Displays all available object types for which templates can be created.
New	Allows for the creation of a new template for the current object selection.

Convert Templates

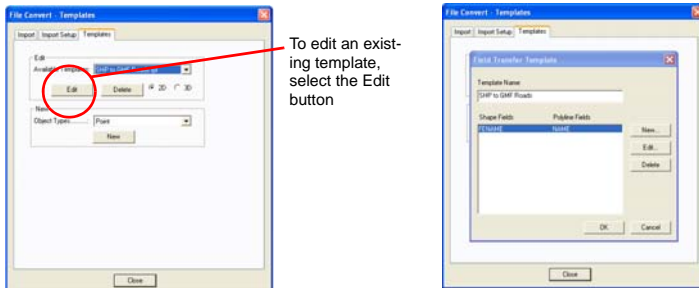
A template contains the information required to convert an RMS file object to a shape file object (Export), or create an RMS file object from a shape file object (Import). To better understand templates, it is important to understand the data that comprises the RMS file or shape file object.

An object (polygon, polyline/arc, or point) is just a shape - one or more positions with an associated set of attributes or fields. The shape's fields specify information about the shape, such as its name or ID. RMS file shapes and shape file objects are essentially the same. However, the fields associated with the shapes are different. To transfer the contents of an RMS file object to or from a shape file object, object fields must be specified so that RMS file fields can be transferred to shape file fields and vice versa. The template is where the file transfer information is stored.

Experimenting with the Export or Import dialog will illustrate that different templates are provided for each object type. This is due to the fact that fields for each RMS object type are unique. The Export or Import dialog only displays templates that make sense for a selected object type.

Templates are managed using the *New*, *Delete*, and *Edit* buttons which are located on the *Templates* dialog. To create a new template, press the *New* button. To delete an existing template, press the *Delete* button. To edit an existing template, press the *Edit* button.

Figure 4-21: Field Transfer Template



Establishing a Field Transfer Template

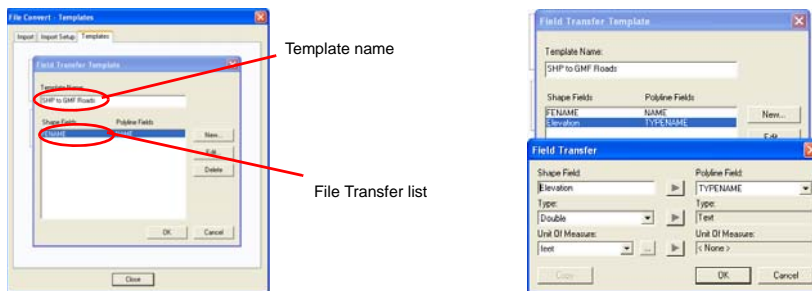
The Field Transfer Template window is used to establish a field transfer template. The Template Name edit box will be displayed at the top of the window. Templates should be assigned a unique name that identifies the type of conversion it handles.

Below the *Template Name* edit box is the *Field Transfer* list. The list contains the field transfers or mappings that are performed between the given source file and the destination file objects. The source file object fields will be displayed in the lists' left column and the destination file object fields will be displayed in the lists' right column.

Use the *New*, *Edit*, and *Delete* buttons to change the entries in the list. *New* creates a new field transfer. *Edit* allows for the altering of an existing transfer. *Delete* will allow for the removal of an existing transfer.

Several buttons in the *Field Transfer Template* window only appear when the actual transfer occurs. Use the *Up/Down Arrow* buttons to change the order of the field transfers on the list. The order of the transfers determines the order that the program will write the fields to the shape file. The *Copy All* button will copy all of the fields in the RMS file object to the shape file object.

Figure 4-22: Field Transfer Template



Configuring Field Transfers

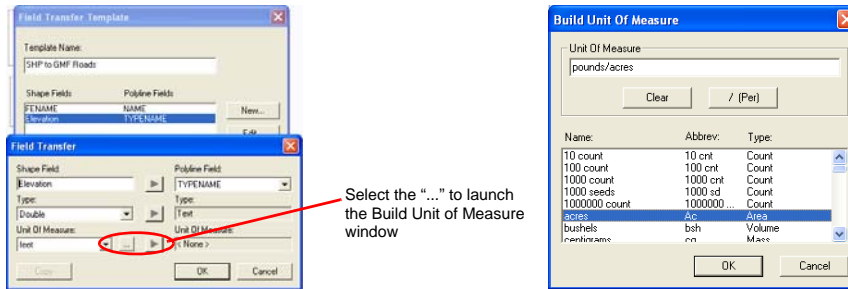
The Field Transfer dialog is used to configure a single field transfer. The left side of the window defines how to transfer a source field to the destination field, which is shown on the right side. Each field setting on the left is followed by an arrow button and a matching field setting on the right. When the arrow button is active, it can be used to transfer the contents of the left setting to the right. Pressing the *Copy* button at the bottom of the screen is equivalent to pressing all of the active arrow buttons (inactive buttons are gray).

Use the top pair of settings to define the names of the fields. These settings may take the form of a combo box or an edit box. If a combo box is present, one of the names can be selected from the list. The list will contain all of the names located in or compatible with the field. If an edit box is present, type the name of the field in the box.

The second pair of settings define the field's type. These settings can either take the form of a combo box or a text box (which cannot be edited). If a combo box is present, the type can be

selected. This will affect how the program will write the field to a file when it performs the conversion. **If a specific type appears in the box on the left, it is best to choose the same for the box on the right.**

Figure 4-23: Configuring Field Transfers



The final pair of settings assign units of measure to the fields. These settings either take the form of a combo box or a text box (which cannot be edited). If a combo box is present, the unit of measure can be selected that the program should store in the field. Take care in selecting a unit of measure. If the field defines a name or some other non-numeric value, specify <None> for the unit of measure. If the field's unit of measure is unknown, specify <Unknown>. When the program transfers the field, it will automatically perform the necessary units of measurement conversions. Therefore, it is important that the source fields and destination fields units of measure are compatible. If the units of measure are incompatible, an error will occur. Press **OK**.

If the Units of Measure setting has a *Browse* button located to its right, a units of measure field can be built. Pressing the *Browse* button will launch the *Build Units of Measure* window. The window will allow for the selection of units of measurement from a long list of options.

Under some circumstances, the Field Transfer dialog's appearance transforms. One such circumstance arises when the source field's name is set to <CONSTANT> or <COUNTER>. <CONSTANT> and <COUNTER> are special, user-defined fields. They do not exist in the source file object. If the source field's name is set to <CONSTANT>, a Value setting replaces the source field's Type setting. The Value setting is a string or number passed to the specified destination field for each object written to the file. If the source field name is set to <COUNTER>, a First Number setting replaces the source field's Type setting. As it's name implies, the First Number setting represents the counter's starting value. Each time the program transfers the counter value to a specified data field, it increments the value by one.

Templates are a complex yet powerful tool. Creating templates takes some practice. However, once understood, they offer a limitless array of RMS/Shape file conversions.