

Shipper Partner 2.0.II Tool: Data Entry and Troubleshooting Guide 2011 Data Year - United States Version







Shipper Partner 2.0.11 Tool: Data Entry and Troubleshooting Guide 2011 Data Year - United States Version

Transportation and Climate Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency



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Introduction

This document, the "Data Entry and Troubleshooting Guide" for the Shipper Tool, is the second of two guides available to help your company participate fully in the SmartWay Transport Partnership as a Shipper Partner. The Shipper Tool "Quick Start Guide" is a basic walk-through of the process of identifying, gathering, preparing, and submitting your data by using the SmartWay Shipper Partner Tool, and includes several worksheets referenced in this guide. (From this point on, this guide will refer to the SmartWay Shipper Partner Tool as the "Shipper Tool" or simply, the "Tool," for brevity.) The Quick Start Guide may be all you need to successfully complete the Shipper Tool. However, the Data Entry and Troubleshooting Guide is intended for situations in which you have already read the Quick Start Guide and prepared your data for entry, but need more information on how to complete your data submission than is provided in the Quick Start Guide.

The Table of Contents for this guide is laid out so that, if you have a very specific area that you need to review, you can find the relevant information without reading through the entire guide.

In this guide, you will learn how to enter the company and carrier data you collected (as mentioned in the Quick Start Guide and the online data entry forms it references) into the Shipper Tool. This guide covers:

- Downloading and setting up the Tool to run properly
- Basic organization of the Shipper Tool
- Entering your data
- Viewing company performance summary data
- Submitting data to SmartWay
- Troubleshooting the Tool
- **Appendices**



WARNING!

Completing this Tool requires a considerable amount of information about your company/companies and the freight carriers used by your companies. While you will have the ability to save your Tool along the way and return to it at anytime, we STRONGLY ENCOURAGE you to review the Quick Start Guide to understand key information about joining the partnership and preparing the required data BEFORE attempting to complete the Tool.

Downloading and Setting up the Tool

About Microsoft Excel

Microsoft Excel is an electronic spreadsheet program used for storing and manipulating data. The Shipper Tool was built using Microsoft Excel Forms.

Downloading the Shipper Tool

The Tool, and information about the Tool, can be downloaded from the SmartWay website at: http://www.epa.gov/smartwaylogistics/partnership/shippers.htm.

Save the Tool in a folder on your hard drive; this folder will house copies of your data and future updates.

Security Settings for the SmartWay Tools

The following instructions should appear on your screen *if* you need to change your security settings before running the Tool. The instructions differ depending upon what version of Excel you use.

For Excel 2003 Users

Before you begin, be sure to set your Excel security setting level to "Medium."

1. When using Excel 2003, on the menu bar, go to Tools \rightarrow Macro \rightarrow Security Level.

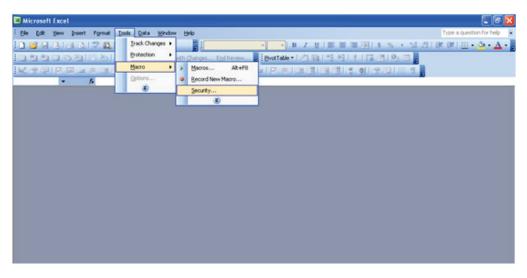


Figure 1: Macro Drop-Down Menu

2. When the "Security" window opens, select the Medium level.

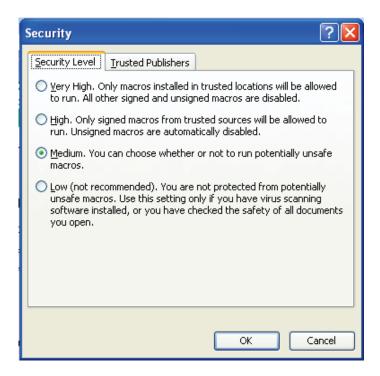


Figure 2: Security Dialog Box

To run the Tool:

- 1) Save the Tool to your computer in a folder on your hard drive; and,
- 2) Go to that folder and double-click on the file to open the Tool.
- 3) You will see a security warning box appear (**Figure 3**). Select the **Enable Macros** button in the security warning box.



Figure 1: Security Warning Box

3) The following screen (**Figure 4**) should appear:

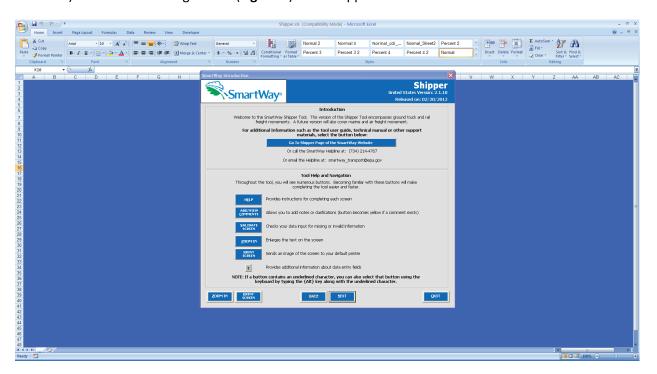


Figure 2: Shipper Tool Welcome Screen

For Excel 2007 Users

The default settings for Excel 2007 should enable you to run the Tool without any changes. To run the Tool:

1) Save the Tool to your computer; and,

2) Open the file, and select the "Options..." button that appears after the Security Warning just below the menu bar (**Figure 5**). Detailed instructions are also provided on the screen itself.

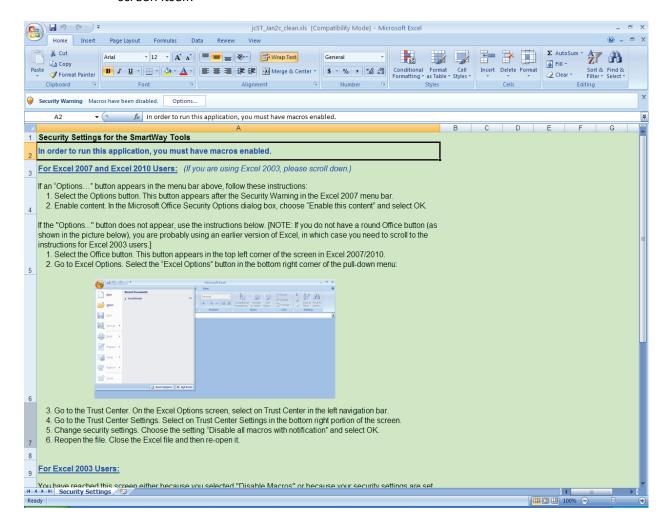


Figure 3: Security Warning Screen

3) In the **Microsoft Office Security Options** dialog box (**Figure 6**), choose "Enable this content" and select **OK**. The Tool should then open after a short delay.



Figure 4: Security Options Dialogue Box

If the Tool opens, skip ahead to the next section, "Basic Organization of the Shipper Tool."

If you reach this point and the Tool does NOT open, you may have your security set too high. To adjust your security settings, select the Office button (in the top left corner of the screen) and then select the "Excel Options" button in the bottom right corner of the pull-down menu (Figure 7). Otherwise, please review the "Software and Hardware Requirements" in the Quick Start Guide.

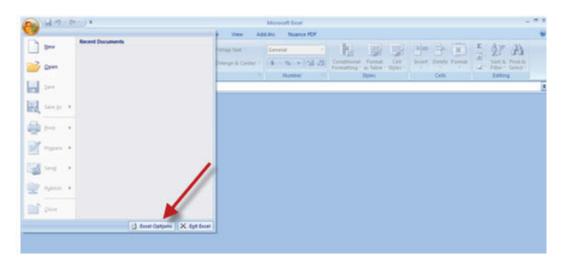


Figure 5: Excel Options Drop-Down Menu

On the Excel Options screen, select Trust Center in the left navigation bar (Figure 8):

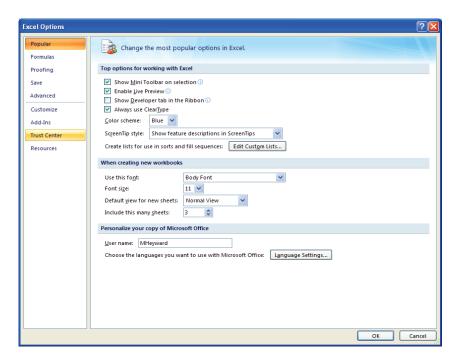


Figure 6: Excel Options Drop-Down Menu

When the Trust Center options display opens, select **Trust Center Settings** in the bottom right portion of the screen (**Figure 9**):

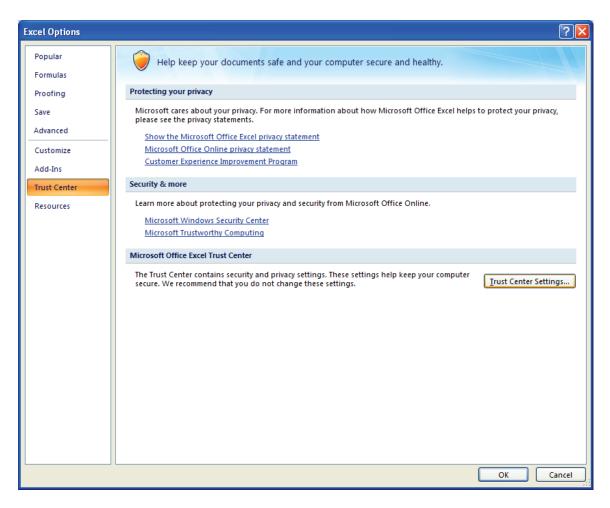


Figure 7: Trust Center Settings Screen

Choose the setting "Disable all macros with notification" (Figure 10) and select OK.

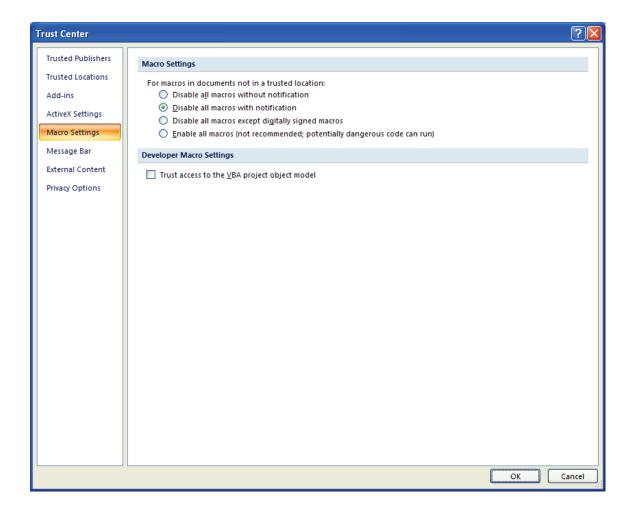


Figure 8: Macro Settings Screen

Next, to run the Tool:

- 1) Save it to your computer.
- 2) Open the file, and select the **Options** or **Enable Content** button as described above.
- 3) In the Microsoft Office Security Options dialog box (**Figure 6**), choose "Enable this content" and select **OK**. The Tool will then open after a brief delay.

If the Tool does not open at this point, return to the Software and Hardware Requirements in the Quick Start Guide. If you after reviewing this section, you cannot determine how to correct the problem, contact your SmartWay Partner Account Manager or the SmartWay help line at 734-214-4767.

Basic Organization of the Shipper Tool

Understanding the Tool Format and Structure

The Shipper Tool is organized around (1) information screens, (2) forms or worksheets, and (3) reports/summaries that guide you through the process joining the SmartWay Transport Partnership and/or providing your annual update to maintain your good standing with the program.

Each screen, or form, opens up within a Microsoft Excel spreadsheet. The screens generally look like the one shown here in **Figure 11**, with the **Report Year** displayed prominently at the top:

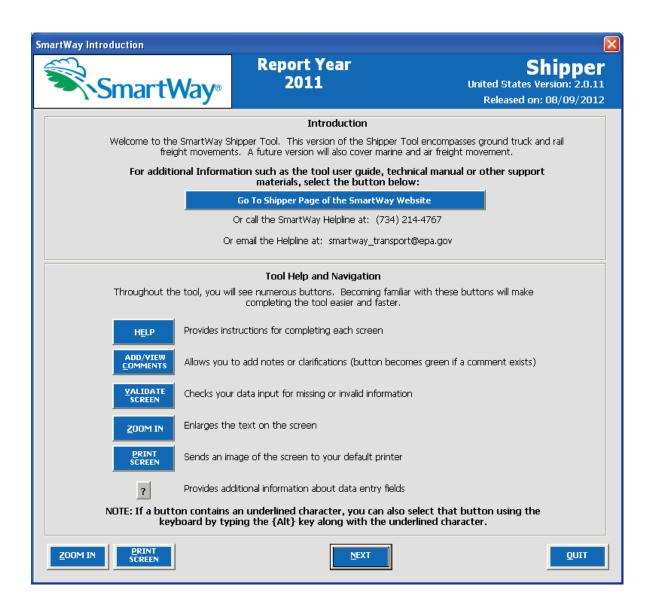


Figure 9: Opening Screen of Shipper Tool

The part of the Tool that you fill out resides in the gray and blue forms that appear on the screen. The Excel workbook that remains in the background – and which normally appears as a blue screen as in **Figure 4** – is where all of the data you enter is actually stored. However, for the purpose of your data entry, disregard the background workbook.

The name of each form appears at the top left-hand corner of the screen, in white text on the blue window bar.



Figure 10: Screenshot of Title of Screen/Form

Each screen contains text instructions or information about the program. Where applicable, the screen will also include buttons linking to the SmartWay website or other sections of the Tool (e.g., the various data entry screens); these buttons will be shown in blue and clearly labeled, as seen in **Figure 13**.



Figure 11: Screenshot of Link in the Tool

The screens also contain navigation buttons to direct you through the Tool (Figure 14).



Figure 12: Example Navigation Buttons in the Tool

Reviewing the Introductory Screens

Before you reach your data entry section of the Tool, you will move through three introductory screens that allow you to review the basics of participation in SmartWay for Shipper Partners:

- The "SmartWay Introduction" Screen
- The "Partnership Agreement" Screen
- The "Required Information" Screen

The features of these screens are described below.

SmartWay Introduction Screen

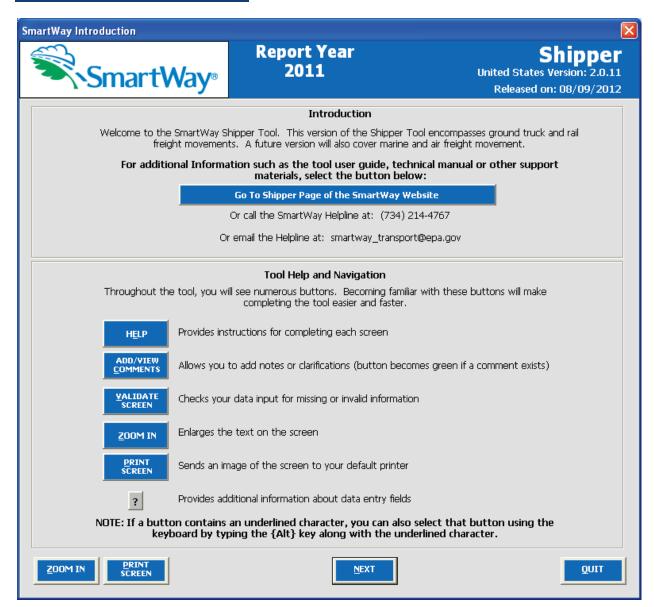


Figure 15: SmartWay Introduction Screen

The **SmartWay Introduction** screen is the first window that appears when the Tool is opened (**Figure 15**). This screen contains a button linking to the SmartWay website where you can view and download additional information about the program, the Tool, and the technical basis for the calculations in the tool.

The screen also points out helpful buttons for Tool Help and Navigation that you will see throughout the Tool. In particular, note the "Validate Screen" button. It's a good idea to use the "Validate Screen" (or

"Validate Company") whenever it appears in the Tool. This valuable function will help you screen for missing data, errors in data entry, or information that may fall out of expected ranges. Taking a moment to validate the screen helps you avoid time-consuming problems later.

When new concepts/topics are introduced on a screen, a small question mark ([?]) appears next to it. When you select the question mark, you will find additional definitions of terms or instructions to help you complete the screen properly.

SmartWay Partnership Annual Agreement Screen

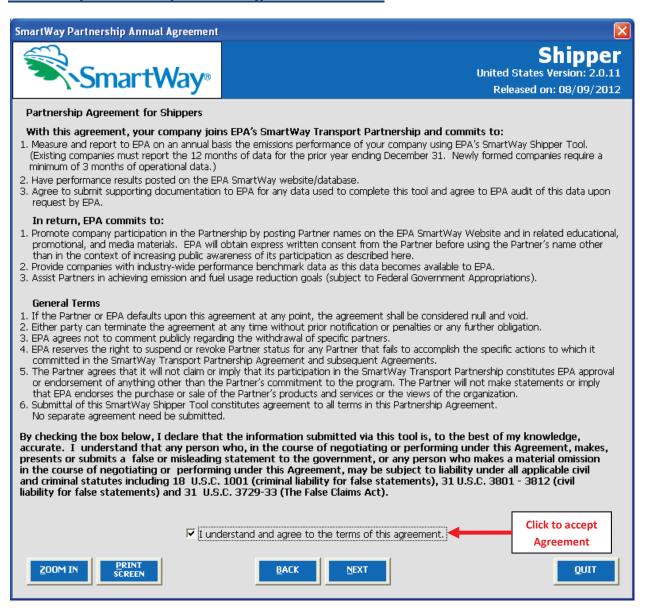


Figure 16: SmartWay Partner Agreement for Carriers

After selecting the button on the SmartWay Introduction screen, the SmartWay Partner

Agreement for Shippers will appear (Figure 16). This screen replicates the agreement language found in Part 1 of this Users Guide series.

Submitting a Shipper Tool to EPA constitutes agreement to all terms of the Partnership Agreement, which is required for a company to join and continue as SmartWay Shipper Partners. Therefore, it is important to review this screen or the text version in **Part 1** of this Users Guide series and receive any necessary approvals *before* trying to input data into the Tool. You will not be able to continue on to the next screen to enter data into the Tool until this box is selected, indicating that your company accepts the terms of the agreement.

Shipper Tool submissions are due on an annual basis; therefore, when you submit your Tool each year, this will constitute your renewal of your partnership agreement. Failure to send your annual Tool update will constitute a violation of the terms of the agreement and will result in immediate removal of your company name(s) from the SmartWay partner list.

NOTE: While in the past, SmartWay supported a lengthy warning process for partners that were delinquent submitting their partnership materials, due to the large number of partners currently joining and submitting materials to SmartWay, this level of customized service **can no longer be supported**.

Required Information Screen

This next screen summarizes the information needed to complete the Shipper Tool. Select in order to retain a hardcopy for reference as you complete the rest of the Tool.

PRINT

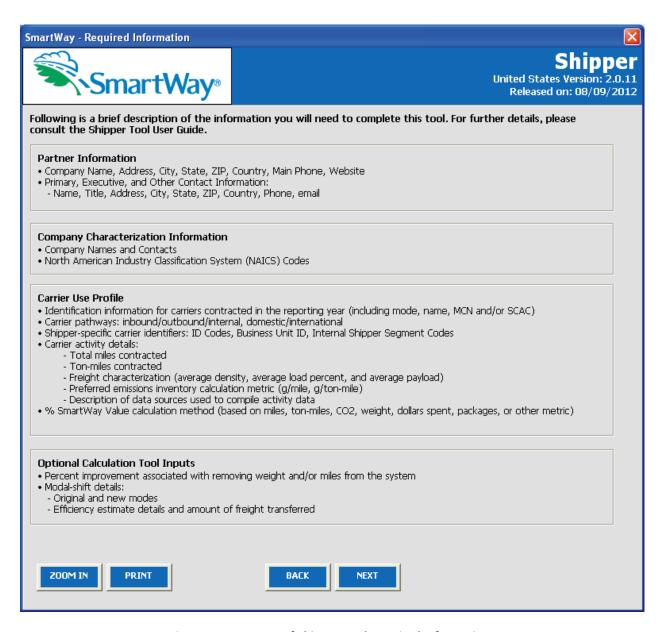


Figure 17: Summary of Shipper Tool Required Information

Once you have navigated through the three introductory screens, you will be taken to the Shipper Tool **Home** screen.

Navigating the Home Screen

Figure 18 displays the structure of the Home screen.



Figure 18: Main Tool Navigation or "Home" Screen

There are seven sections on the **Home** screen, each described briefly below. Each section has buttons linking to additional screens or worksheets within the Tool which are described below. The first five sections of the **Home** screen comprise all the steps needed to complete your Shipper Tool, and you must complete them <u>in order</u>. After they are completed, the last two sections (6. and 7.) allow you to review your output and/or submit your Tool to EPA.

1. Enter Partner Name

Enter the name of your organization exactly as it should appear on the Partner Listing of the SmartWay website.

2. Enter Company Contact Information

Select **Go to Contact Information Screen**. This button takes you to a screen that asks for general company contact information, a primary SmartWay point of contact, and an executive-level contact. Additional contacts may also be included.

3. Characterize Your Companies

Select **Go to Company Characterization Screen**. This button takes you to a screen where you will define all the shipper companies you operate. Once your companies are defined, the software will automatically generate blank data entry forms for each company.

4. Download SmartWay Carrier File

Select **Download Latest SmartWay Carrier File**. Select this button to download the latest SmartWay Carrier performance data for use with your shipper companies. You must download the latest file to ensure you use the most up to date information on SmartWay Carrier Partners.

5. Enter Carrier and Activity Data for Each of Your Shipper Companies

Select **Company for Data Entry**. Selecting a company name will take you to screens asking for the carrier and activity information necessary to calculate efficiency metrics for your company.

6. View Your Data Reports

Select **Go to Reports Menu** to see final summaries of your data. This button takes you to a screen that provides multiple options for viewing reports showing your data inputs and performance results. You may also review a report of all the explanatory comments entered during the compilation of the different data inputs throughout the Tool. These comments can provide a useful reference for documenting data sources and assumptions, as well as for preparation of subsequent year submittals. In addition, you can use this report to view questions and comments from your SmartWay Partner Account Manager after they receive and return your data. (The data reports provided by the Shipper Tool are discussed in detail below in the **View Your Data Reports** section of this guide.)

7. Create Final File to Send to EPA

This button allows you to create an Excel data file that you can attach to an e-mail to your Partner Account Manager (PAM). Selecting the OK button does not automatically submit the data file to EPA – follow the instructions on the popup screens carefully to complete this process.



NOTE: In order to save the data entered into the Tool before exiting, select bottom of the Tool screens. Although you will also be prompted to save your data after selecting

SAVE

we recommend saving your data entry intermittently, especially if you are entering information for large numbers of carriers and/or companies.

Entering Your Data

The next five sections of this guide explain how to enter your data on each of the required screens. Complete them in order.

Section 1: Enter Partner Name

- Enter the name of your organization, exactly as it should appear on the Partner Listing of the SmartWay website. For example, if your company's name includes "Inc." or "Ltd.", you may choose not to include that in your Partner name. Please also pay special attention to proper capitalization, abbreviations, and punctuation.
- Note that the reporting year for your data entry is shown next to "Report Year" to the right of the Partner Name (Figure 19).



Figure 19: Step 1 – Enter Partner Name

Section 2: Enter Contact Information

REFER TO <u>WORKSHEET #1: Company Contact Information</u> in the Quick Start Guide, or go to http://www.epa.gov/smartwaylogistics/partnership/shippers.htm to complete this section of the Shipper Tool.

From the Home screen, select the Go To Contact Information Screen button (Figure 20).



Figure 20: Selecting the Company Contact Information Screen

You will then be taken to the **Company Contact Information** screen. The Partner Name entered in Step 1 will be shown at the top of the screen (**Figure 21**).

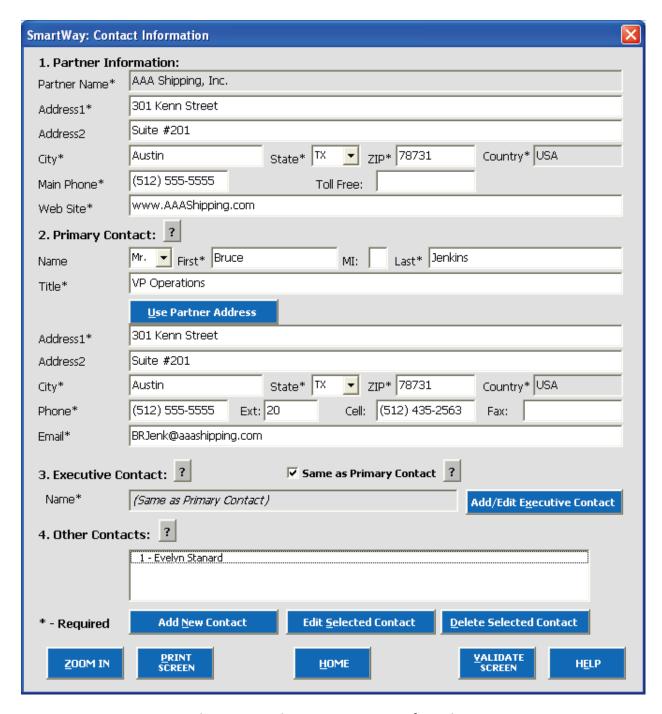


Figure 21: Entering Company Contact Information

You will enter your basic company contact information on this screen, as well as information on particular individuals. You will have to determine in advance which people in your company need to be represented here. For more information on providing this data, read the information on each category below.



NOTE: Each field marked with an asterisk must be filled out. You will not be able to submit the Tool to SmartWay without this information.

Partner Information includes your company's name (as it will appear on the Partner list), followed by its address, phone, and company web site information.

→ Enter the Partner data by filling in all fields for which you have information; at minimum, those indicated by an asterisk.

The **Primary Contact** is the individual designated by the executive contact to directly interface with SmartWay regarding specific tasks involved in the timely submission of the Tool. The primary contact is responsible for coordinating the assembly of information to complete/update company data; completing and updating the Tool itself on time; maintaining direct communication with SmartWay; and keeping interested parties within your company apprised of relevant developments with SmartWay.

→ Enter the necessary data in the indicated fields, **OR**, if the primary contact shares the same address as the company, you may select the use Partner Address button to auto –populate the address section of this record.



NOTE: To ensure that emails from SmartWay/EPA are not blocked, new primary contacts may need to add SmartWay/EPA to their preferred list of trusted sources in their email.

The **Executive Contact** is the company executive who commits your company to compliance with the requirements in the SmartWay Partnership Annual Agreement, makes certain that SmartWay has up to date contact information on the current primary contact designated by your company,, and ensures that the company makes it annual Shipper Tool submission on time. The executive contact also represents your company at awards/recognition events. This person should be a Vice President or higher level representative for the company.

→ Enter the Executive Contact information by selecting the

Add/Edit Executive Contact

button to the right; enter the required data, OR, if the primary contact and executive contact are one in the same, simply check the

Same as Primary Contact box to auto-populate the executive contact information.

You can add more names to the **Other Contacts** box by repeating this process. While this is not required, SmartWay strongly recommends that you provide other contacts to more efficiently direct correspondence if, for example, your company has multiple business units that gather information from different sources within the company, or to ensure that communications can continue if the primary contact is unavailable. If you wish to edit an existing contact's

information, highlight the name you wish to edit and then select the

Edit Selected Contact

button. You can remove an existing contact by highlighting the contact and then selecting

Delete Selected Contact

→ Enter other contacts (if applicable) by selecting the

Add New Contact button. A new contact field will appear, labeled **Other Contact Information** (not pictured), then select **OK** when done.



VALIDATE

NOTE: It is important that you <u>include more than one company contact</u> and that you <u>have a succession plan</u> if the primary contact is no longer in that position. If for some reason your company does not submit its annual report on schedule, and your company's contact person changes or is not available via the contact information provided, your company may miss its annual submission deadline and be removed from the SmartWay Partner list.

Select at the bottom of the screen to make sure you have filled out all required contact information. If any information is missing, a dialogue box will appear informing you what additional information is required.

Next select the <u>Home</u> button to return to the <u>Home</u> screen and go to Step 3.

Section 3: Characterize Your Shipper Companies

REFER TO <u>WORKSHEET #2: Shipper Company Characterization</u> in the Quick Start Guide, or go to http://www.epa.gov/smartway/partnership/shippers.htm to complete this section of the Shipper Tool.

Next, on the **Home** screen select the **Go To Company Characterization Screen** button (**Figure 22**) to display the **Company Characterization** screen. This is the section where you will define the various components of your shipper companies.

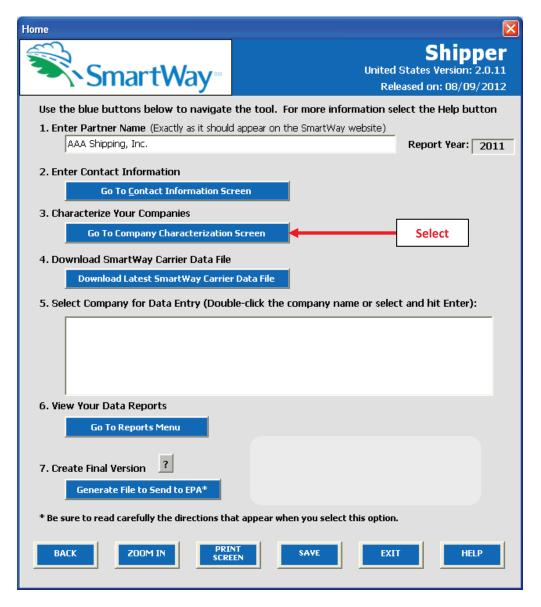


Figure 22: Selecting Shipper Company Characterization on Home Screen

This brings up the Company Characterization screen of the Shipper Tool is shown (Figure 23).

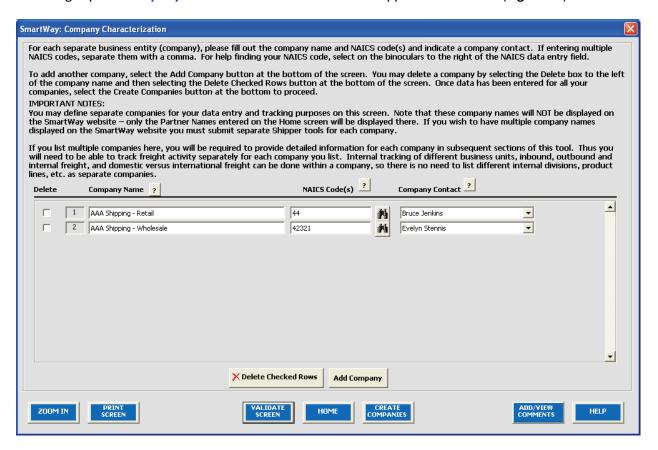


Figure 23: Characterizing Shipping Companies

Steps for Completing the "Company Characterization" Screen

This screen allows you to create multiple company data records. If you operate more than one separate and distinct company you may wish to track each company separately. Each individual data file has the ability to track companies, inbound/outbound freight, and international/domestic freight as well as other user-defined distinctions.

Most partners should create one company; i.e., one line. However, if you are a global conglomerate that, for example, has a large home goods retail company, a wholesale parts supply company, and a product manufacturer, all with separate corporate identities and transportation systems, you may want to create three companies. However, note that these companies will not be listed separately on the Partner Listing on the SmartWay website. If you would like multiple companies displayed on the Partner Listing, submit separate Tools for each company.

Using data collected using Worksheet #2: Shipping Company Characterization in the Quick Start Guide, or go to http://www.epa.gov/smartway/partnership/shippers.htm, enter data for your first company.

- Company Name(s): Name your companies, beginning with your partner name followed by the specific company name. Example: AAA Shipping Retail.
- NAICS Code: NAICS, or North American Industry Classification System codes, are the Federal standard for classifying businesses by activity type. NAICS codes can be from two or three up to six digits in length, and are organized hierarchically, with successive digits providing greater specificity in its description. Use the NAICS code(s) that most appropriately describes your company. You can use the search icon to the right of the data entry field to identify and select NAICS code(s). If you need to enter multiple NAICS codes, you may check multiple boxes on the popup screen while holding down the "Ctrl" key on your keyboard, or simply enter them directly and separate them with commas.

Note: Detailed information on NAICS codes can be found at http://www.census.gov/eos/www/naics/.

• Company Contact: Select your company contact(s). Use the drop-down menu to display the list of contacts you entered in the Contact Information screen and select one. If you need a contact for the company that is not already listed in the Contact Information screen, you will need to return to the Contact Information screen to add the contact information.



NOTE: SmartWay highly recommends developing your list of companies beforehand by using an organization chart or perhaps a customer interface webpage. For example, evaluate how your organization contracts with carriers, identify your companies' different NAICS codes, and determine how they choose what carriers to hire. The best strategy is to have a clear idea of how to define your companies before filling out the Tool.

Adding Companies to Your List of Shipper Companies

To enter a shipper company, select the button and fill in the Company Name, NAICS Code, and Company Contact, as described above. At this point you may add another shipper company by selecting Add Company, or you may choose to delete a company, add notes, or finish data entry

Deleting Companies from Your List of Shipper Companies

on the company characterization screen by following the instructions below.

To delete a company, select the box next to the company you wish to delete, and then select the

➤ Delete Checked Rows

button. Then you may add a company as described above or complete your

shipper company characterization by selecting



Adding Comments/Notes

Creating useful comments assists SmartWay Tool reviewers in approving your Tool as quickly as possible. Your comments help reviewers understand your company operations. Any details that you can provide related to your operations may speed up approval time.



NOTE: Please consider using the button located at the bottom right of the screen. This allows you to enter notes about the collection process, your assumptions and methods, data, or other information. These details could prove useful for your reviewer when you or someone else fills out the Tool next year. If comments have been added for a particular screen,

the button will be highlighted and now read are comments to be read.

indicating to your reviewer that there

A HELP button is also available should you need assistance. You will also notice small gray icons with question marks [?] displayed throughout the Tool. When selected, these icons provide additional information about specific items located on the screen.

Finishing Your Shipper Company Characterization

CREATE

Once you are sure you have entered your information correctly for each of your shipper companies, you

may select the button at the bottom of the screen. Before proceeding to the next screen however, a popup screen will appear asking you to verify your company name(s) (Figure 24).



Figure 24: Shipper Company Name Verification Message

Select **OK** to proceed, or **Cancel** to revise your company name(s).

If, at a point later in the data entry process, you realize that you need to add a new company or delete an existing company, you can return to the **Company Characterization** screen. You can add or delete

companies in the same way as described above, being sure to select the end of the process. When you select this button, the system will create blank data entry forms only for the new company/companies you have added; any existing companies will not be affected. Note that, if you are deleting a company for which you have already generated data entry forms, the system will prompt you to confirm the deletion.

Selecting will take you back to the **Home** screen (see **Figure 25**). At this point you may define another shipper company following the same process, or proceed to **Step 4** on the **Home** screen.

Section 4: Download SmartWay Carrier Data File

On the **Home** screen, select the button below Step 4, Download Latest SmartWay Carrier Data File, as shown in **Figure 25**. This will ensure that you have the latest carrier performance data for your characterizing shipper company's performance. You will not be able to input the required shipper company data in Step 5 without this file. You must have an active Internet connection to perform this step.

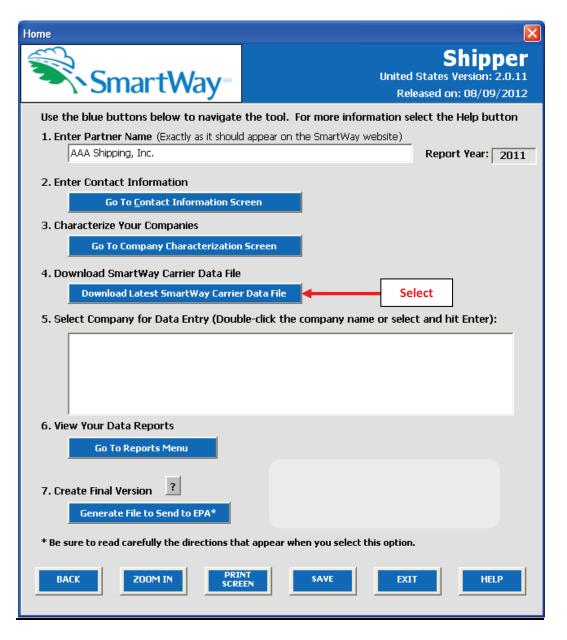


Figure 25: Downloading Latest SmartWay Carrier Data File

After selecting the button, the carrier file will be downloaded to your computer and the date of the file will be displayed to the right on the **Home** screen, as shown in **Figure 26**.

If you already have a SmartWay Carrier Data File located in the same folder as the Shipper Tool (perhaps used to create last year's submittal), the Tool will notify you before downloading the new file. If you would like to retain a copy of the old file for your records you can either rename the old file or move it to another folder before downloading the latest file. Otherwise you can download the new carrier file directly, over-writing the old file.

Section 5: Select Companies for Data Entry

Selecting a Company from Your List

On the **Home** screen, you will now see all the companies you created listed in the window below item **Step 5: Select Company for Data Entry**.

There will be a status message after each company name, indicating whether or not the data entry for that company is complete. The following information may appear beside a company name:

- Not checked Data have not been entered yet.
- Incomplete (Errors) Some data are still missing and/or inconsistent.
- **Complete** All data requirements have been met and validation has occurred.



Figure 26: Home Screen with Shipper Company Status

To add data to a particular company, highlight the company name and then double-click on the name of the company, or simply hit **Enter**. You will then proceed to the Tool's Data Entry Screens for the selected company, shown as buttons under the header "SmartWay Shipper Tool: (company name)."

Steps for Completing the Basic or Comprehensive Screen

After selecting a shipper company for data entry, you will see the **Basic or Comprehensive** screen (**Figure 27**).

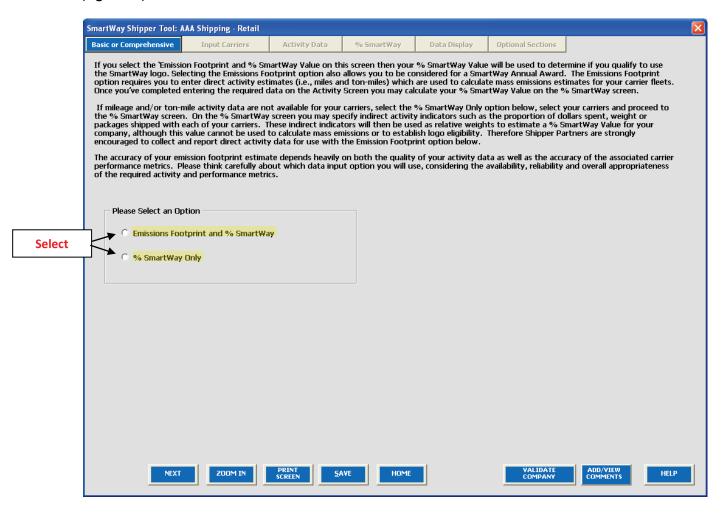


Figure 27: Basic or Comprehensive Screen

Two options are available for assessing the performance of the carriers used by your company on the **Basic or Comprehensive** screen. Selecting **Emissions Footprint and % SmartWay** (Comprehensive option) allows you to calculate the mass emissions associated with your company, as well as to determine your **% SmartWay Value** based on percent of ton-miles or miles traveled or other activity measure attributable to SmartWay Carrier Partners (we will use the name "SmartWay Carriers" to describe this group of Partners). The **Emissions Footprint and % SmartWay** selection also allows you to

determine emission reductions from mileage- or weight-reducing strategies employed by your company, and to estimate the change in emissions due to various mode shifts.

Selecting % SmartWay Only (Basic option) allows you to estimate the relative percentage of your carriers that are SmartWay Carriers, but does not allow you to estimate mass emissions.

If you select the **Emission Footprint and % SmartWay** option then you will be required to enter direct activity estimates (i.e., miles and ton-miles) which are used to calculate mass emissions estimates for your carriers. Once you've entered the required data on the Activity Data screen you will calculate your % SmartWay Value on the % SmartWay screen. In this case, your % SmartWay Value will be used to determine if you qualify to use the SmartWay logo. Selecting the Emissions Footprint and % SmartWay option also allows you to be considered for a SmartWay Annual Award.

If you do not have total mileage and/or ton-mile estimates available for each carrier you have hired in the reporting year, select the % SmartWay Only option. This will allow you to calculate your % SmartWay Value based on the weighted utilization of your carrier selections (using % spent, % weight, % packages, or % custom). However, note that the Shipper Strategies and Modal Shift screens will be unavailable, and you will be ineligible for the SmartWay Annual Award.

NOTE: You must select the **Emissions Footprint and % SmartWay** option to be eliqible for the SmartWay logo and to be considered for a SmartWay Annual Award.

After you make your selection, use the button to proceed to the Input Carriers Screens (Figure 28).

Steps for Completing the Input Carriers Screens

Instructions Screen

The first screen you encounter under the **Input Carriers** tab is the **Instructions** screen, which describes the two basic methods of data input to specify your fleets in detail (**Figure 28**). Carefully read the instructions, using the scroll bar on the right to read the description of all four of the **Input Carrier** screen options. Afterward, you must check the box that will appear at the bottom of the **Instructions** screen acknowledging that you have read and understood the carrier data input instructions before proceeding to the next screen.

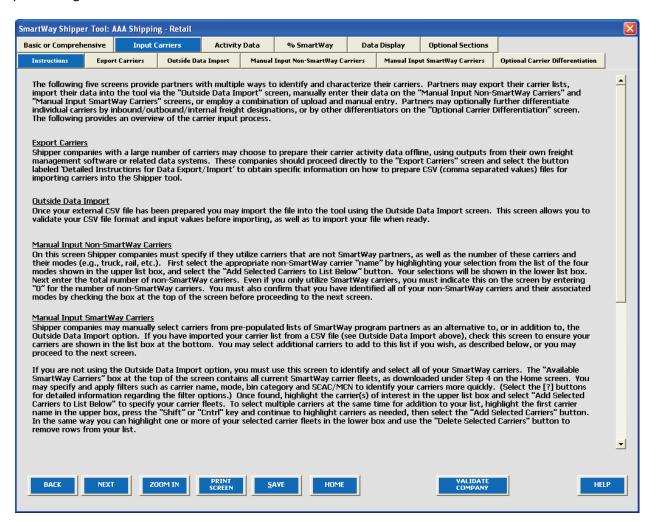


Figure 28: Input Carriers Instructions Screen

Options for Carrier Activity Input

The next three screens (the **Export Carriers Screen**, the **Outside Data Input Screen**, and the **Manual Input Screens**) allow you to choose between approaches available for you to input your carrier activity data. You can develop your carrier details separately and upload your data in a single CSV (comma-

separated value) file using the **Outside Data Import** method, or, if you have a small number of carriers, you may wish to input the carrier activity data **manually**.



NOTE: SmartWay accepts either the **Outside Data Import** method or the **Manual Input** approach. SmartWay has no bias regarding whether you submit data via import or manual entry. The decision is at your discretion.

If you select the **Outside Data Import** method, you have three options for creating a CSV file and populating it with carrier activity data:

- 1. using the **Export Carriers** screen to download a master file to create your CSV file,
- 2. using the **Export Carriers** screen to manually build a CSV file using the **Manual Input Non-SmartWay Carriers** and **Manual Input SmartWay Carriers** screens, or
- 3. creating a custom CSV file on your in-house data system that meets the specifications for data import for this Tool.



Note: You may need to have IT support for the **Outside Data Import** option. The directions for data upload must be followed exactly for the data import to work. If you are not an experienced computer user with familiarity in creating CSV files, we recommend that you ask your IT department for assistance.

Using the Export Carriers Screen to Create a CSV File

Using the **Export Carriers** Screen to prepare data using the first two options above for the Outside Data Input method is optional, but you may be able to save time if your company has a large number of carriers. You can export carrier information to an external file for additional processing using the Export Carriers screen, and then manipulate the file offline, deleting carriers you do not use, and entering activity data and other details regarding how you use your carriers. Both of these methods can be used for preparing data files for use with the **Outside Data Input** option, and have the same required steps for exporting data into a CSV file that you can edit, listed below.

Required Steps for File Export

- 1. Select the appropriate button, upon which method you use (see below for more information).
- 2. A "Save As" screen will pop-up.
- 3. Save document as "XXX.csv" file, where "XXX" is a name of your choosing, in any folder on your computer for which you have read/write access.
- 4. Open this CSV file in Microsoft Excel (recommended) or other software that supports CSV files.

- 5. Delete the SmartWay Carriers that you did not use during the reporting year.
- 6. Add detailed information regarding your carriers and their associated activity from your inhouse spreadsheet.
- 7. Save this modified CSV file to your computer.

After selecting the appropriate button the export status bar will indicate when your export is complete. Both export methods will provide a properly formatted CSV file that can be modified and re-imported into the Shipper Tool using the **Outside Data Import** screen. For both methods you will be prompted to specify the file name (with the .csv extension) and location where you can retrieve the CSV file. Note both of these export functions are also accessible under the **Data Display** section of the Tool for your convenience.

Creating the CSV File Using Data Downloaded from the Master File

The **first option** is to use data on the SmartWay Carriers contained in the Carrier file you downloaded in Step 4 on the **Home** Screen.

To do this, select the current SmartWay Carriers contained in the Carrier File you downloaded previously. (You will be following the Required Steps listed above, continuing from step 2.) After saving the file as described above with a unique name and a ".csv" file extension, reopen it to edit carrier information in that file. If you want to specify a carrier multiple times, to represent a different route (e.g., inbound vs. outbound) or internal code, you can simply copy and paste that carrier row onto a new row within Excel. When you have finished editing your data, save the changes to the file.

You are now ready to upload and import your final CSV file into the SmartWay Shipper Tool.

You may then import the updated CSV file back into the Tool (see Outside Data Import below).

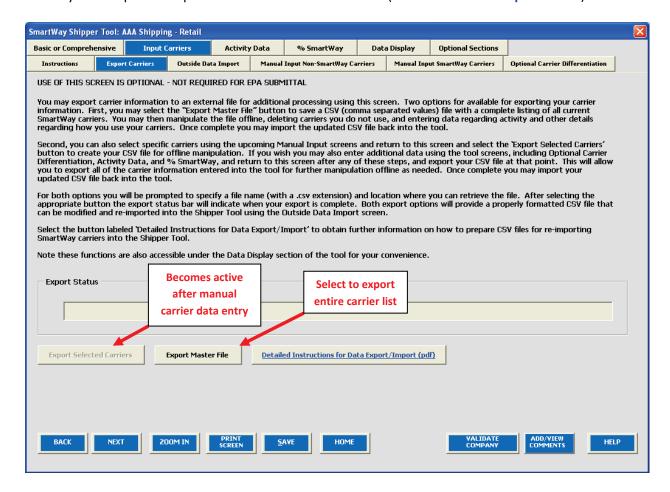


Figure 29: Export Carriers Screen

Creating the CSV file by Using the Manual Input Screens

For the **second option** for using the **Export Carriers** screen, you can select specific carriers and enter activity data using the **Manual Input** screens within the Shipper Tool, and then return to this screen and select the button. This button becomes active after you have selected at least one carrier on the manual input screens (see below.) This approach will allow you to export all of the carrier information entered into the Tool for further offline manipulation as needed after populating the file. Save your completed CSV on your computer—again, make sure you save the file as a .csv file or it will not load into the Tool. (As you continue below, you will be following the Required Steps listed above, continuing from step 3.)

Reopen the CSV file you created in the previous step. At the top of the file are important warnings and descriptions of the data that need to be entered in each column. These warnings and descriptions can be deleted from your CSV, however do not change the header row which begins with the label "Carrier ID." A list of the data fields can also be found in **Appendix A** the end of this User Guide, including a list

of valid values. Populate the CSV file with carrier data from your in-house spreadsheet, then edit the file, adding or deleting carrier activity data as needed. Save the file when you have finished editing your data.

You are now ready to upload and import your final CSV file into the SmartWay Shipper Tool.

Creating a Custom CSV File

Although EPA strongly recommends against this approach, you may also create your CSV from scratch using the third option; *i.e.*, using an in-house data application. If you use this approach, select a few carriers on the **Manual Input SmartWay Carriers** screen and export them so you have a sample CSV. This will aid you and your IT staff in producing a CSV file with the correct format. The Tool cannot read the file unless it is properly formatted. Save this file on your computer—again, make sure you save the file as a .csv file or it will not load into the Tool. Add detailed information regarding your carriers and their associated activity from your in-house spreadsheet. Save this modified CSV file to your computer.

You are now ready to upload and import your final CSV file into the SmartWay Shipper Tool.



NOTE: EPA does not have the resources, due to the variability in Partner data systems, to assist you in creating and importing this file. Please work with your own in-house IT/MIS computer staff to develop the best way to merge your in-house data with the CSV file's fields.



NOTE: You can find additional detail regarding the preparation of CSV files for data import below. However, EPA highly recommends selecting the

<u>Detailed Instructions for Data Export/Import (pdf)</u> button to obtain further detailed information on how to prepare CSV files for re-importing SmartWay Carriers into the Shipper Tool.

Outside Data Import Screen

The purpose of the Shipper Tool's **Outside Data Import** screen is to allow Shipper Partners to import a CSV data file that has been properly formatted directly into the Shipper Tool, eliminating the need to key in these data manually using the Tool's input forms. Although CSV files can be viewed and updated using a variety of different PC applications, SmartWay recommends that you use Microsoft® Excel. Excel has standard support for CSV files, and can easily read and write this type of file.



NOTE: Remember, the activity data file must not only be a CSV file, but have a .csv extension. If you accidently save your file as an Excel workbook, you can easily change the format back to a CSV file by using the **Save As** option in Excel.

Having prepared a CSV file containing your company's carrier activity data, you may now import the data file into the Shipper Tool by specifying the files location on this screen (**Figure 30**). You may also select the **Select File** button to the right of the field in order to find the appropriate file on your computer or network.

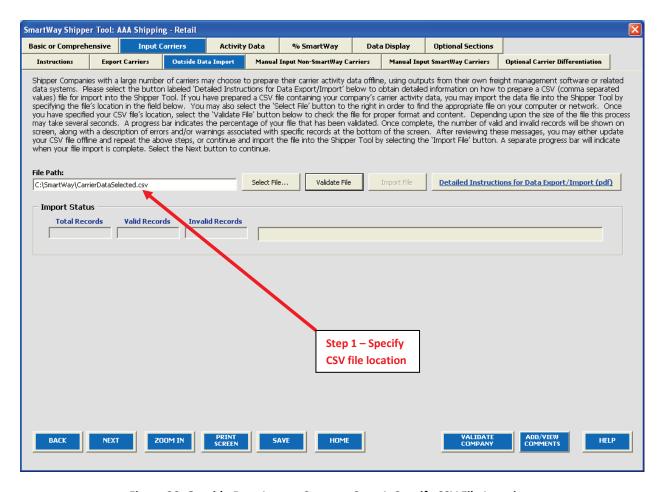


Figure 30: Outside Data Import Screen – Step 1, Specify CSV File Location

Once you have specified your file's location, select the Validate File button to check the file for proper format and content. Depending upon the size of the file this process may take several seconds. A progress bar will indicate the percentage of your file that has been validated over time.

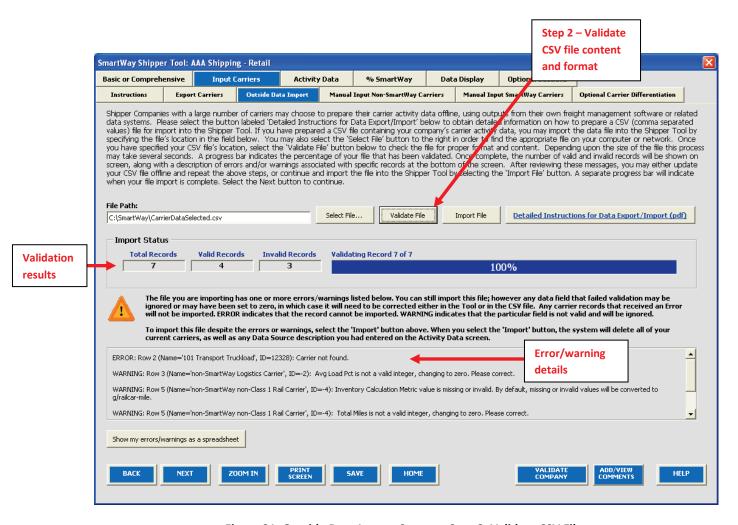


Figure 31: Outside Data Import Screen – Step 2, Validate CSV File

When the Shipper Tool imports your CSV file, it matches the carrier mileage and ton-mile information in the file with emission factors from EPA's SmartWay Carrier Database. The carrier data are matched in one of two ways: (1) using an internal carrier Identifier, or (2) using the carrier's name, mode, and bin category. After attempting to match carriers, the Tool performs additional checks to ensure proper file format and valid content. Once complete, the number of valid and invalid records will be shown on the screen, along with a description of errors and/or warnings associated with the specific records at the bottom of the screen (Figure 31).

If errors or warnings are found in your CSV file, you may correct them offline and re-import the file, or you may proceed by selecting the Import File button (Figure 32). However, any data fields that fail the validation check may be ignored or may be set to zero, in which case you will need to correct them using the Tool's upcoming display screens. Any carrier records that received an error will not be imported. Warnings indicate that a particular field in a record is not valid and will be ignored.

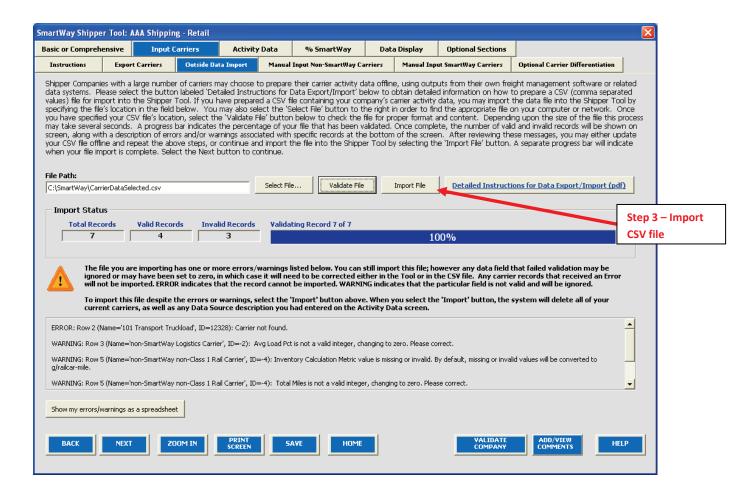


Figure 32: Outside Data Import Screen – Step 3, Import CSV File



NOTE: Any carrier records in your CSV file that have an error will not be imported into the Tool. Fields with warnings will be imported, but the field receiving the warning will either be ignored or replaced with a zero. Zeros will need to be corrected in the Tool if they are imported. For example, total miles and total ton-miles must be an integer value greater than zero and less than 9.99×10^{18} . If you enter 41457.3 as the total miles for one of your carriers, this total miles field will receive a warning because it is not an integer. The import process will not accept these data, and instead insert a zero for the total miles field for this carrier.



NOTE: Depending upon your computer specifications and the number of carriers to be uploaded (e.g., hundreds or thousands of carriers), the Tool may experience noticeable delays in response, requiring a minute or more to perform certain calculations.

After importing your carrier data, view each subsequent data entry screen. The Shipper Tool will

prompt you when data are missing or in error. Alternatively, you may select the the bottom of each screen, which will allow you to see a complete list of errors/warnings.

In addition, after importing your CSV file you will still need to input information regarding your data sources on the **Activity Data** and **% SmartWay** screens (see **Activity Data** section below). Note that the **Data Source** field is deleted each time you perform a new data import.



NOTE: When exporting and then re-importing your selected carriers, if you have also entered information on the **Activity Data** screen prior to the export, any values you may have typed into the **Average Density** and **Average Load Percentage** calculators will be lost (see **Activity Data** section below for details). Any calculated values will still be retained – only the calculator inputs themselves will be deleted.

Adding or Replacing Imported Carrier Data

The Shipper Tool's export and import functions were designed so that you can provide additional carrier data at a later date. If you anticipate adding carrier data in the future, use the button as described above, so that all of the carrier data in the Tool is exported to a CSV file. Then insert your additional carrier data into the exported CSV file.

Once you have imported your CSV file into the Tool, you may augment, correct, or modify any of the carrier data using the Shipper Tool's screen options. If you make any changes to your carrier data using the Tool, export these data using the Export Selected Carriers button on the Export Carriers screen.



NOTE: When you perform a data import, all previously entered or imported carrier data in the Shipper Tool is deleted. If you need to merge carrier data from the Tool with other carrier data, you can enter the additional information into the Tool directly, or enter it into an exported CSV

file. If you chose the latter approach, use the data, add or copy/paste the additional carrier data into this newly exported CSV, and then reimport the updated CSV back into the Shipper Tool.

Manual Input Non-SmartWay Carriers Screen

On the Manual Input Non-SmartWay Carriers screen (Figure 33), Shipper companies must specify if they utilize carriers that are not SmartWay Carriers. Non-SmartWay carriers are assumed to have performance levels equivalent to the lowest performing SmartWay Carriers for a given mode, for calculation purposes.¹

THIS INFORMATION IS MANDATORY – YOU MUST PROVIDE A COMPLETE AND ACCURATE CHARACTERIZATION OF ALL OF YOUR CARRIERS, INCLUDING NON-SMARTWAY CARRIERS IN ORDER TO CALCULATE AN ACCURATE % SMARTWAY VALUE.

To proceed, first enter the total number of non-SmartWay carriers used by your company in the reporting year. Next, select the appropriate Carrier name(s) by highlighting your selection in the upper

¹ These estimates have been developed for carriers from 2011 partner submittals. Currently, the Non-SmartWay Rail selection utilizes industry-average performance metrics. Please see the **Shipper Tool Technical Documentation** for additional details.

list box, (truck, logistics, rail, and/or multi-modal), and select the button. Your selections will then be shown in the lower list box.

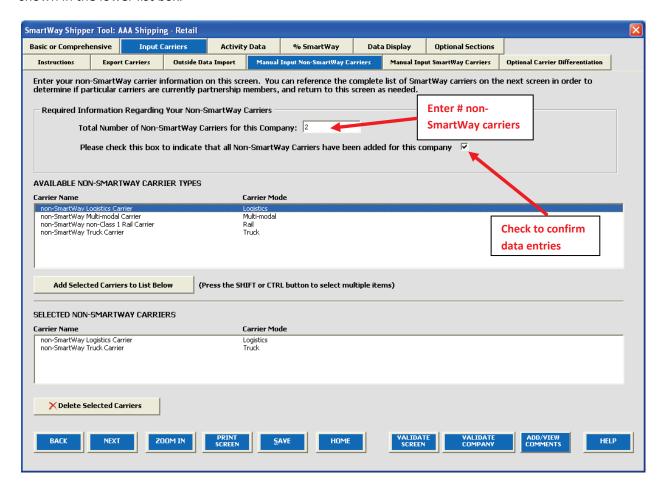


Figure 33: Manual Input Non-SmartWay Carriers Screen



NOTE: Even if you only utilize SmartWay Carriers, you must indicate this on the screen by entering "0" for the number of non-SmartWay carriers. You must also confirm that you have identified all of your non-SmartWay carriers and their associated modes by checking the box below the total number field, before proceeding.



NOTE: You can reference the complete list of SmartWay Carriers on the next screen, **Manual Input SmartWay Carriers**, in order to determine if particular carriers are currently partnership members or not, and return to complete this screen if needed.

Manual Input SmartWay Carriers Screen

If you are not using the **Outside Data Import** option, you must use the **Manual Input SmartWay Carriers** screen to find and select your SmartWay Carriers from the complete list of current SmartWay Partners (**Figure 34**). The **Available SmartWay Carriers** list box contains all of the current SmartWay Carrier fleets, as downloaded under Step 4 on the **Home** screen.

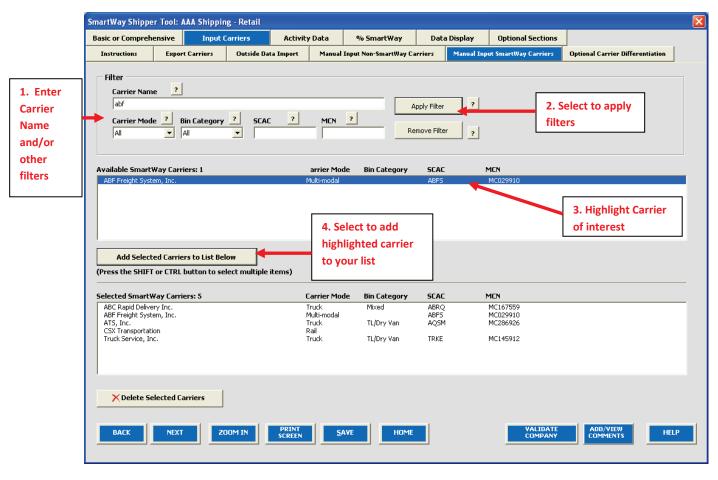


Figure 34: Manual Input SmartWay Carriers Screen

You may specify and apply filters such as mode, bin category, SCAC, and MCN to locate your carriers more quickly. (Select the [?] buttons for detailed information regarding the filter options.) After specifying and applying your filters, carrier names matching those criteria will be displayed in the upper list box. You may also type carrier names directly into the text box and then select the filter button to find the carrier more quickly. Once found, highlight the carrier(s) of interest in the upper list box and select

Add Selected Carriers to List Below to specify your carrier fleets.

To select multiple carriers at the same time for addition to your list, highlight the first carrier name of interest in the upper list box, press the "Shift" or "Ctrl" key and continue to highlight carriers as needed, then select the highlight carriers to List Below button. You can highlight one or more of your selected carrier fleets in the lower list box and use the from your list. Once your list is complete you can provide additional carrier identifiers on the Optional

² In certain cases, a single search selection may require additional filtering. For example, a given carrier may have multiple SCACs associated with its operations.

Carrier Differentiation screen, or you can proceed directly to the **Activity Data** screen to enter carrier-specific mileage and/or ton-mile data.

Optional Carrier Differentiation Screen

If you wish, you may provide additional information to help you reflect how your company uses and tracks its carriers. This screen allows you to differentiate your carriers' activity based on a variety of characteristics, including the following optional "tags":

- Business Unit Identifier
- ID Code
- Inbound/Outbound/Internal
- Domestic/International
- Internal Shipper Segment 1
- Internal Shipper Segment 2

An example Optional Carrier Differentiation screen is provided below (Figure 35).

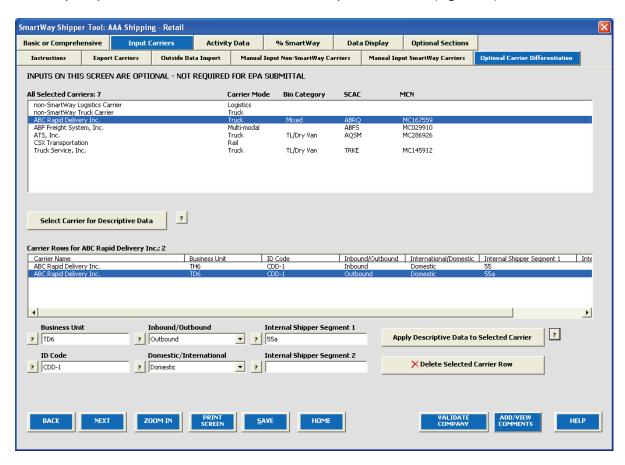


Figure 35: Optional Carrier Differentiation Screen

If you do not wish to provide such information you may proceed directly to the Activity Data screen.

If you do wish to provide additional information, look near the top of the Optional Carrier Differentiation screen for the complete list of carrier names you have specified up to this point, either manually or through data import, along with carrier information such as mode, bin category, and SCAC/MCN. In order to provide additional information for a given carrier, first highlight the carrier name in the upper list box and you will see the carrier name appear in the lower list box. At this point you may enter one or more tags for the selected carrier. Once you enter the desired information, select the

Apply Descriptive Data to Selected Carrier button at the lower right to associate the tag information with the carrier. If you wish to change the tag information, simply highlight the carrier name in the lower list box and repeat the process.

If you wish to differentiate the activity associated with a single carrier (e.g., splitting inbound and outbound freight movements), highlight the carrier name in the upper list box select the

button immediately below the box. You will then see an additional row appear in the lower list box with the same carrier name. Enter the different tag combinations for each row as described above, and repeat the process as many times as necessary. Rows in the lower

button at the bottom right. Once finalized, your complete list of differentiated carrier rows will be brought forward to the **Activity Data** screen.

At this point you may return to the **Export Carriers** screen to export your selected carrier list in CSV format, or you may proceed to the **Activity Data** screen to input the mile and/or ton-mile data associated with each of your carriers using the Tool itself. If you designated multiple tags for a given carrier, you must provide separate activity data inputs for each carrier tag.



NOTE: Before proceeding to the Activity Data screen, check your carrier listing to be sure the list includes all carriers that your company uses, and that the names, SCACs, and MCNs match perfectly. You may review your carrier list using the Input Summary Report available under the Reports Menu on the Home screen.

Steps for Completing the Activity Data Screen

REFER TO <u>WORKSHEET #3B: Activity Data</u> in the Quick Start Guide, or go to http://www.epa.gov/smartwaylogistics/partnership/shippers.htm for additional help to complete this section.

Data reported on this screen are used to calculate your shipper company's overall performance and mass emissions. Carriers specified in the **Input Carriers** screens are automatically listed on this screen, along with their associated mode and bin category, if applicable (**Figure 36**).

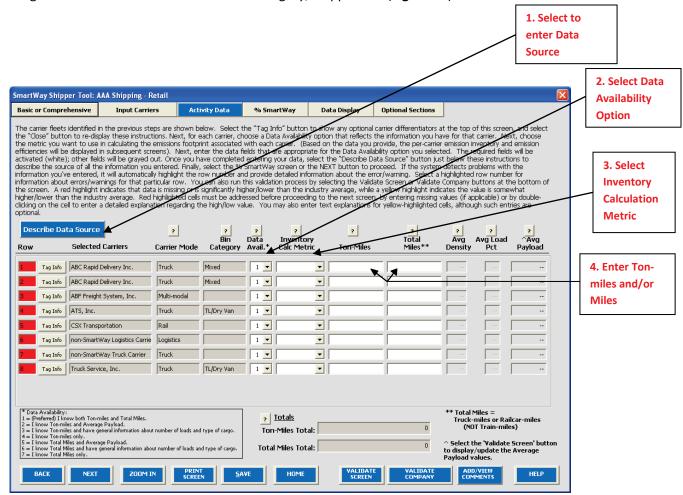


Figure 36: Activity Data Screen



NOTE: The first time you open the Activity Data screen you will see each row highlighted in red. These highlights are the result of the Shipper Tool's data validation function and will disappear upon entry of appropriate data in the required fields.

Before proceeding with your activity data entry, note that you can display detailed tag information for each carrier row on the **Activity Data** screen by selecting the button. Selecting this button will display the specific tags assigned to each carrier on the **Optional Carrier Differentiation** screen, as shown in **Figure 37**. The Shipper Tool provides this feature to assist SmartWay Shipper Partners that have defined multiple rows for a single carrier, in order to determine which activity data should be entered in which row. Select the **Close** button to re-display the screen instruction text.

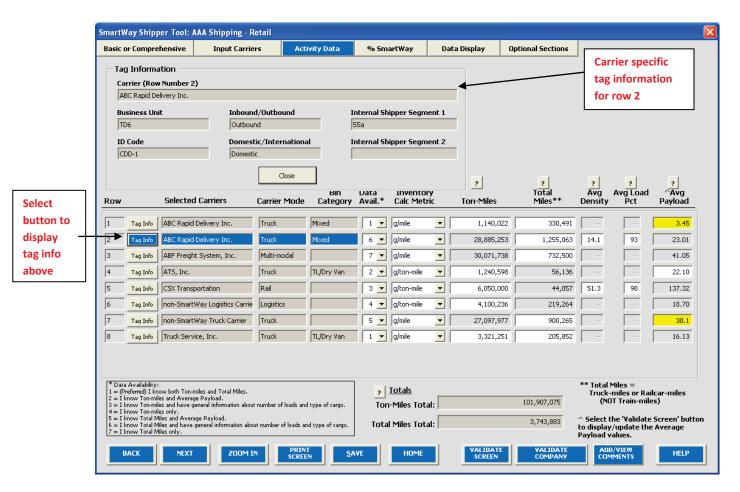


Figure 37: Activity Data Screen with Tag Information Displayed

The following describes the steps required for completing the **Activity Data** screen.

1. Entering Data Source Description

Before you begin entering activity data for your companies, select the button and enter a detailed description of the sources used to generate your activity data in the popup text box (**Figure 38**). Be sure to indicate how you calculated miles and ton-miles, and where these data were obtained.

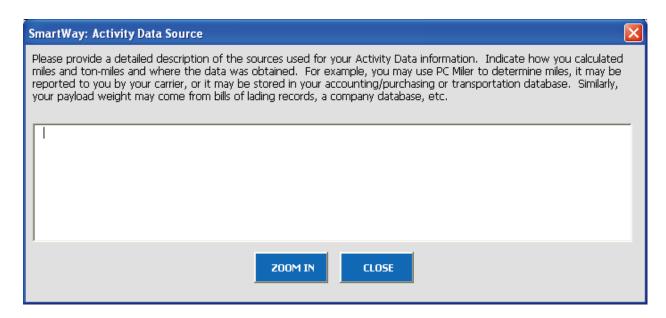


Figure 38: Activity Data Source Description Text Box

2. Selecting the Data Availability Option

To begin entering data regarding how you use each carrier, you must first specify a **Data Availability** option. There are seven Data Availability options offered, as summarized below (and listed near the bottom left area of the **Activity Data** screen for your reference; see Figure 37).

- 1. Enter ton-miles and miles
- 2. Enter ton-miles and average payload
- Enter ton-miles, density, and load percentage
- 4. Enter ton-miles only
- 5. Enter miles and average payload
- 6. Enter miles, density, and load percentage
- 7. Enter miles only

Depending on the Data Availability option selected, the fields on the screen will become active (white) or remain grayed out.



Choose the method that uses the most accurate data at your disposal for each carrier. You can specify various data availability options for carriers, depending on what type(s) of data you have for each and the reliability of that data.

- If you have reliable data for both ton-miles and total miles, select Option 1.
- If you don't have reliable mile data, but do have reliable ton-mile data, select Options 2, 3 or 4. In Option 2, you will need to provide average payload, which will be used to develop a mileage estimate. In Option 3, you may include information on load percentages and the types of cargo, and the Tool will calculate an average payload for you based on the commodities shipped with each carrier. In Option 4, the Tool will use an average payload number based on the bin category of the carrier to estimate a miles number for you. For all of these options, the miles estimates are paired with the carriers' g/mile efficiency factors to estimate mass emissions for each carrier. Although dependent on industry type and product mix, Option 2 is *generally* preferred to Option 3 in terms of data quality, while Option 3 is *generally* preferred to Option 4 (again, depending upon the accuracy of the data available for each carrier).



Providing ton-mile data (Options 2, 3, and 4) is generally preferable to simple mileage data for most modes. For example, when shipping bulk commodities by rail, ton-mile estimates are often available and will result in a more precise estimate of mass emissions (when combined with gram per ton-mile metrics for each carrier) than relying on gram per mile metrics. Ton-mile estimates are also most appropriate for LTL and package delivery truck shipments, given the uncertainty in cargo volume utilization. Ton-miles are also more appropriate for heavier TL shipments. Alternatively, mileage activity measures are most appropriate for light truckload shipments. However, for all calculations, where precise estimates of weight are often unknown, and distance estimates are highly reliable, mileage activity measures may be the better metric. See the SmartWay Shipper Tool Technical Documentation for additional information on these calculations.

• If you don't have reliable ton-mile data, but do have reliable mile data, select Options 5, 6 or 7. In Option 5, you will also need to provide average payload which will be used to develop a ton-miles estimate. In Option 6, you may include information on load percentages and the type of cargo, and the Tool will calculate an average payload for you. In Option 7 (miles only), SmartWay will use an average payload number based on the bin category of the carrier to estimate a ton-miles number for you. (Option 7 requires additional off-line calculation to account for partial loads.) In each of these three options, the ton-miles estimates are paired with the carriers' g/ton-mile efficiency factors to estimate mass emissions for each carrier. Although dependent on industry type and product mix, Option 5 is *generally* preferred to Option 6 in terms of data quality, while Option 6 is *generally* preferred to Option 7 (again, depending upon the accuracy of the data available for <u>each carrier</u>).



NOTE: Do not use Data Availability Option 6 or 7 for rail carriers.

3. Selecting the Preferred Inventory Calculation Metric

For each carrier record in which you have selected Data Availability Option 1, you must define your preferred metric (**Inventory Calculation Metric**) for calculating mass emissions. For all other data availability options, the Tool will designate the metric for you.

Options for Data Availability Option 1 include grams per (truck) mile, grams per railcar-mile, and gram per ton-mile (all modes).



NOTE: The Shipper Tool calculates your emission performance based on the best available data for each of your carriers. Since your mass emissions inventory can be produced using either g/ton-mile or g/mile metrics, you may mix your selected metrics across carriers. Regardless of the metric you select, the Tool will calculate tons of emissions. In order to compare efficiencies across different carriers and/or modes, the Tool expresses performance in both g/ton-mile and g/mile.

Use the metric most appropriate for characterizing your carrier activity where you have selected Data Availability Option 1. Select g/mile metrics for estimating mass emissions for lighter weight truck freight, while g/ton-mile should generally be used for rail and heavier truck freight.



NOTE: If your company uses Package Delivery carriers, choose ton-miles as the calculation metric if possible. However, if it is not properly calculated, you can make significant overestimates of the ton-miles. For example, consider the case in which your company has one pallet on a truck that is also carrying 21 other pallets belonging to other companies. If you base your calculations on miles x the g/mile factor for that truck carrier, your carbon allocation would be overstated a factor of 22. The same calculation for one package on a truck carrying 300 packages would overstate the carbon by a factor of 300.

4. Entering Mile and Ton-Mile Data

After specifying the **Inventory Calculation Metric** for each carrier, enter the total activity data for the carrier for the associated unit type (ton-miles, miles, or railcar-miles). Enter the data to the nearest whole number. If you selected <u>Data Availability Option 1</u>, enter both miles and ton-miles for the given carrier.

If you selected <u>Data Availability Option 2</u>, you must enter ton-miles along with the average payload in short tons (2,000 lbs). In this case the total miles for the carrier will be back-calculated by dividing ton-miles by tons.

If you selected <u>Data Availability Option 3</u>, first enter your ton-miles. Next, you must enter your freight density using the **Average Density Calculator**. The calculator, which is activated by selecting the appropriate **Calc** button in the **Average Density** column, allows you to specify the percentage of shipments that fall into various commodity groupings. Each grouping has an associated average density, expressed in pounds per cubic foot of available cargo space. The densities for a given commodity

category vary for rail and truck modes, since utilized container space varies by mode.³ **Figure 39** presents example inputs for the **Density Calculator**.

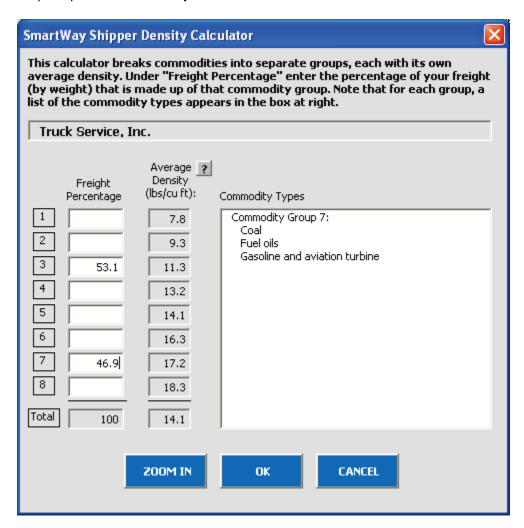


Figure 39: Example Average Density Calculator Inputs (Truck, Logistics, and Multi-modal Carriers)⁴



NOTE: Be as precise as possible entering your mileage and ton-mile data. Enter to the nearest whole number.

After inputting your freight distribution data into the **Average Density Calculator**, use the **Average Load Percent Calculator** to adjust your activity for partial loads. Load percentages can be either weight-based (with full truckloads weighing out), or volume-based (with full truckloads cubing out).

³ The density categories for Logistics and Multi-modal carriers are assumed to be the same as for Truck carriers.

⁴ Average density bins differ for rail carriers.

For example, if 3,000 loads of your LTL shipments are 50% truckload and 5,000 loads are 70% truckload, enter the corresponding load information in the **Average Load Calculator** (**Figure 40**). The calculator will then estimate the weighted average load (in this case, 62 percent) which will be applied to your total miles for this carrier.



NOTE: If you do not convert partial shipments into whole shipments, you will be assigned the carbon impact of the entire load. Refer to the **Shipper Company Tool Technical** Documentation for details regarding the application of the calculator inputs.

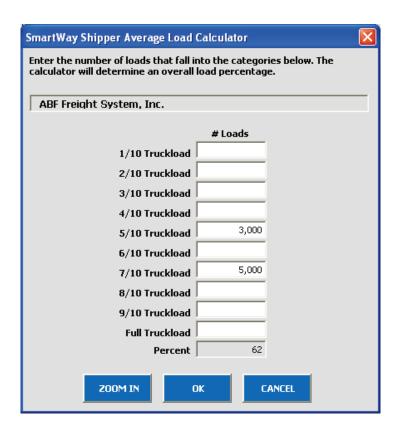


Figure 40: Example Average Load Calculator (Truck, Logistics, and Multi-modal Carriers)⁵

Once the calculator data have been entered, the resulting average density and load percentage will appear on the **Activity Data** screen. The back-calculated mileage values will also appear in gray boxes on the screen.

If you select <u>Data Availability Option 4</u>, simply enter your ton-miles, and the corresponding mileage will be back-calculated using the carrier's average payload value, as determined from the bin category

⁵ A similar calculator is used for calculating railcar load percentages.

averages. This option is the least accurate of the ton-mile-based calculations, since no information is provided regarding your shipper company's payload profile.

If you select <u>Data Availability Option 5</u>, enter your total miles, expressed as either truck miles (for truck, logistics, and multi-modal carriers), or railcar-miles for rail carriers. Next enter your average payload in tons and ton-miles will be back-calculated for you.

Selecting <u>Data Availability Option 6</u> requires total miles to be entered, along with payload density information and load percentages using the calculators described above.

Selecting <u>Data Availability Option 7</u> only requires entry of total miles, and ton-miles will be back-calculated using the carrier's average payload value.



NOTE: Correctly calculating Ton-Miles is **critically important** for the accurate determination of your carbon foot-print.

Enter the ton-miles hauled per year attributable to each carrier. A ton-mile is one ton moving one mile.



NOTE: DO NOT ESTIMATE TON-MILES BY SIMPLY MULTIPLYING TOTAL MILES BY TOTAL TONS - this calculation effectively assumes your entire tonnage is transported on EACH AND EVERY truck, and will clearly overstate your ton-miles.

There are two ways to calculate your company's ton-miles:

1) Companies can determine their average payload per carrier, multiply the average payload by the total miles per carrier, and sum the results for all carriers for the reporting year; or

(total miles per carrier x total tons per carrier)

2) Set Ton-miles per carrier =

total # of trips per carrier

VALIDATE



To check your data, divide ton-miles by miles. The result is your fleet-average payload. If this number is not reasonable, check your calculations.

5. Validating Your Activity Data

The Shipper Tool also contains data validation checks designed to identify missing and potentially

erroneous data. Selecting the screen will allow you to view any potential data entry errors. **Figure 41** provides an example validation screen check result.

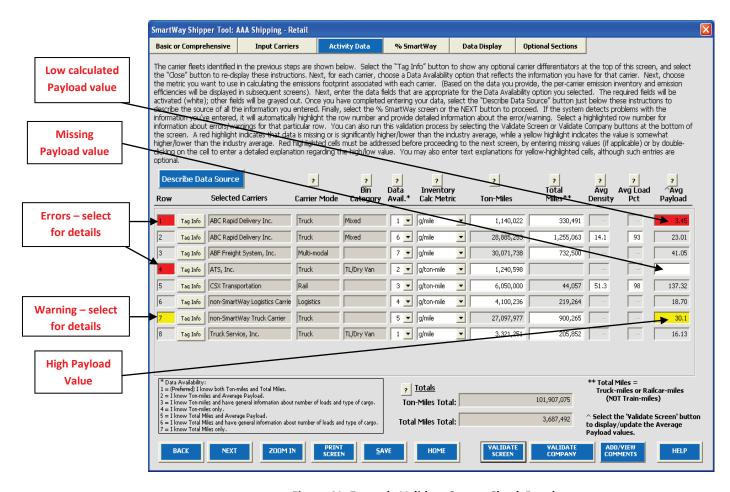


Figure 41: Example Validate Screen Check Result

The red highlighting in Row 4 indicates an error. Errors must be addressed before proceeding with the rest of your data entry. Selecting on the red highlighting will display details – in this case, informing you that an **Average Payload** entry is required for **Data Availability** Option 2.

The yellow highlighting indicates a warning condition. Warnings do not have to be addressed before proceeding, but may indicate a **possible** data entry error. In row 7 above, the average payload entered, 30.1 tons, is greater than the validation threshold of 27.6 tons.

Finally, row 1 indicates a possible error – dividing ton-miles by total miles results in a very low average payload value for this carrier (3.45 tons). By double-clicking on the **Average Payload** cell (highlighted in red on the far right), you may enter an explanation detailing the reasons for the unusual value (see **Figure 42**). After entering your text explanation and selecting **OK**, the highlighting will change from red (error) to yellow (warning) status.

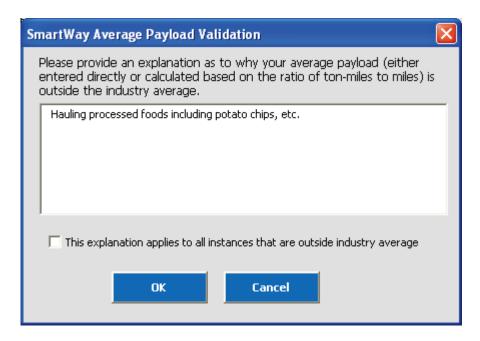


Figure 42: Example Average Payload Validation Explanation



NOTE: By selecting the checkbox at the bottom of the **Average Payload Validation** text box, the user may apply the explanation to all instances of potentially high/low payload values on the **Activity Data** screen. This function is provided primarily for shippers importing large numbers of carriers resulting in the same error/warning condition multiple times.

Other validation messages are presented for the following conditions:

- Average truck/logistics/multi-modal payloads are less than 9.4 tons (error red)
- Average truck/logistics payloads are greater than 33.8 tons (error red)
- Average multi-modal payloads are greater than 90 tons (error red)
- Average railcar payloads are less than 9.4 tons or greater than 125 tons (error red)
- Average truck/logistics/multi-modal payloads are between 9.4 and 15.5 tons (warning yellow)
- Average truck/logistics payloads are between 27.7 and 33.7 tons (warning yellow)
- Average multi-modal payloads are between 60 and 90 tons (warning yellow)
- Payload is less than or equal to zero (error)



NOTE: You must address all errors, whether highlighted in red or yellow. You can do this either by entering an explanation (by double-clicking on the highlighted cells) concerning the validity of the value, or by making any necessary corrections.

Refer to the **Shipper Tool Technical Documentation** for further details regarding the basis for the above validation ranges.

Viewing the % SmartWay Screen

REFER TO <u>WORKSHEET #3C: % SmartWay</u> in the Quick Start Guide, or go to http://www.epa.gov/smartwaylogistics/partnership/shippers.htm to complete this section of the Shipper Tool.

Once you finish entering your data you may proceed to the **% SmartWay** screen (**Figure 43**). The **% SmartWay** screen calculates your **% SmartWay Value**, reflecting the percentage of total emissions attributable to SmartWay Carriers. For Shipper Partners selecting the **Emissions Footprint and % SmartWay** option on the **Basic or Comprehensive** screen, the **% SmartWay Value** is used to determine logo eligibility in the SmartWay program. Shippers who move the required percentage of freight on SmartWay Carriers are eligible to use and display the SmartWay logo.

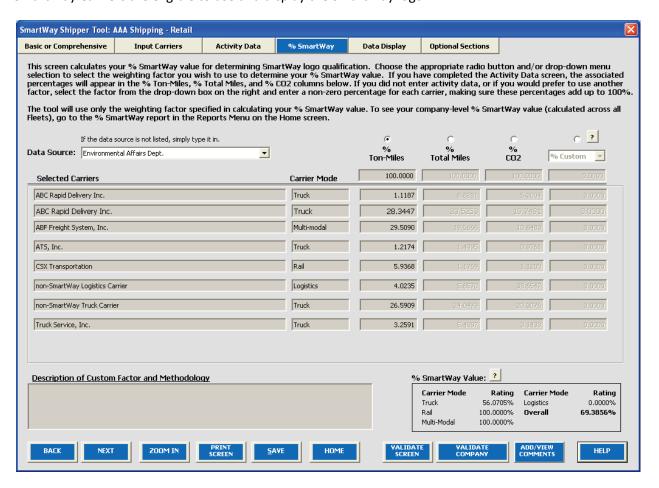


Figure 43: % SmartWay Screen

Carriers identified in the **Input Carriers** screens are automatically carried over to this screen. In addition, if the **Activity Data** screen has been completed, the fractional mileage, ton-mile, and CO₂ amounts attributable to each carrier are also shown here, and may be used as weighting factors across

your carriers to calculate your % SmartWay Value. If you prefer, you may select other weighting factors (using the drop-down selection on the far right column) for calculating your % SmartWay Value, including the percentage of total payments, the percentage of total weight or total packages, or an alternative "custom" factor, across the different carriers. (If you selected % SmartWay Only on the Basic or Comprehensive screen, you will not see the Ton-Mile, Total Mile, or CO2 columns.)

Enter the type of data you use for your percentage allocation estimates using the drop-down menu at the top left, ⁶ and then enter the percent allocated to each carrier. Percentages must sum to 100. The resulting weighted average **% SmartWay Value** is displayed at the bottom right of the screen.

Viewing the Data Display Screens

Once you finish entering your data, you may view your performance on the Emissions Summary or Carrier Performance screens under the Data Display tab. Based on the shipper company activity data inputs and the carrier performance data downloaded from the EPA website, weighted average g/mile and g/payload ton-mile factors are calculated for CO₂, NOx, PM10, and PM2.5 for each carrier, as well as total mass emissions (based on the preferred metric designated for each carrier). The company-specific g/mile and g/ton-mile factors, as well as total mass emissions, are shown on the Emissions Summary screen.⁷ A full range of summary data is displayed on the Carrier Performance screen. Note that mass emissions displays are only provided for partners selecting the Emissions Footprint and % SmartWay option on the Basic or Comprehensive screen.

The **Emissions Summary** screen (see **Figure 44**) displays emissions performance by carrier and for your shipper company as a whole, presented in terms of grams per mile and grams per ton-mile. Select the pollutant to display using the buttons at the top of the screen.

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⁶ If you select the "% Custom" option for allocating your % SmartWay value, you must provide a detailed description of the custom factor used in the text box at the lower left of the screen.

⁷ The gram per mile and gram per ton-mile values provided for SmartWay Truck carriers actually represent "bin averages" for a given truck operating category (e.g., TL Dry Van operators), indicating bin midpoints for the ranked set of all operators in this category. In this way precise performance metrics are not attributed to any given carrier. Alternatively, performance metrics for rail are carrier-specific.

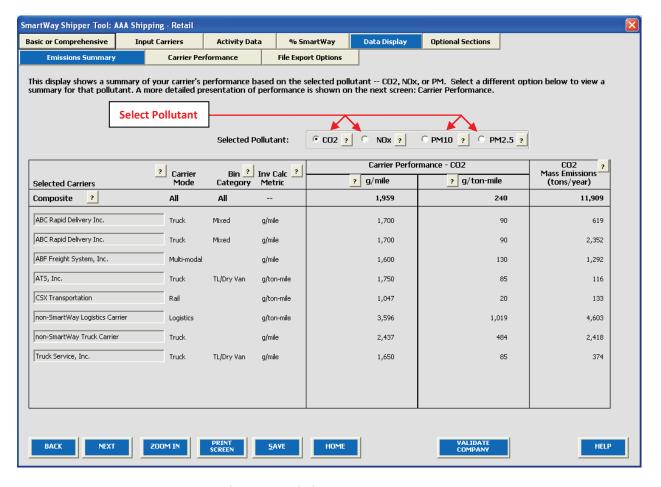


Figure 44: Emissions Summary Screen

The **Emissions Summary** screen also displays the "bin category" ranking for any truck carriers. Truck carrier emission factors are determined by placing similar trucking companies in groups called "bin categories." There are 13 current bin categories for truck carriers:

- Truckload-dry van /container
- Less than truckload-dry van
- Refrigerated
- Tanker
- Flatbed
- Package delivery
- Dray
- Auto Carrier
- Expedited
- Heavy/bulk
- Moving
- Specialized hauler
- Mixed

The fleets in each bin category are divided by performance into five roughly equal sets (bins.) The midpoint of performance for each bin represents the emission factor for all fleets in that bin. Thus, a fleet will have a ranking for each of the four pollutants and two performance metrics. Rankings are currently used for truck, logistics, and multi-modal carriers. Mass emissions in tons per year are also calculated in the right hand column of the **Emissions Summary** screen. The **Composite** row at the top of the table provides the activity-weighted average performance metrics across all carriers and modes. This summary, plus other detailed reports can be printed by returning to the **Home** screen and selecting **View Your Data Reports**.

The **Carrier Performance** screen displays data at a more detailed level than the **Emissions Summary** screen. Emission factors or mass emissions may be selected for display using the **Display Type** dropdown box (**Figure 45**).

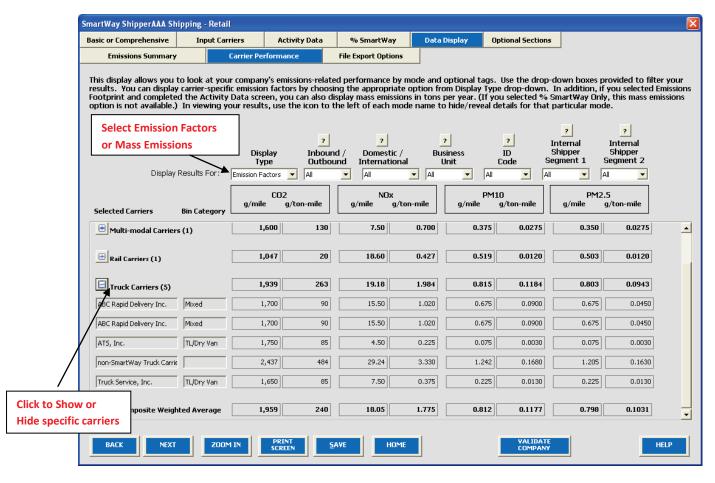


Figure 45: Carrier Performance Screen

You may also expand or aggregate the display rows to show carrier performance by individual carrier by clicking the icons to the left.

Finally, note that the **File Export Options** screen is also located under the **Data Display** section for your convenience, providing the same functionality as the **Export Carriers** screen.

These data, plus other detailed reports, can be printed out by returning to the **Home** screen and selecting Go To Reports Menu.

Viewing Optional Sections

The Shipper Strategies Screen

REFER TO <u>WORKSHEET #4A: Shipper Strategies</u> in the Quick Start Guide, or go to http://www.epa.gov/smartwaylogistics/partnership/shippers.htm to complete this section.

The Shipper Tool calculates the emissions savings impacts for a range of activities and best practices which are known to impact the emission footprint of the transportation supply chain. Using the **Shipper Strategies** screen (**Figure 45**), you can input specific information pertaining to your company's strategies to impact emissions that are *already being implemented for the reporting year*. On this screen, all strategies are based on eliminating miles or weight from the system.

NOTE: The use of this screen is optional and not required for submitting the Tool to SmartWay.

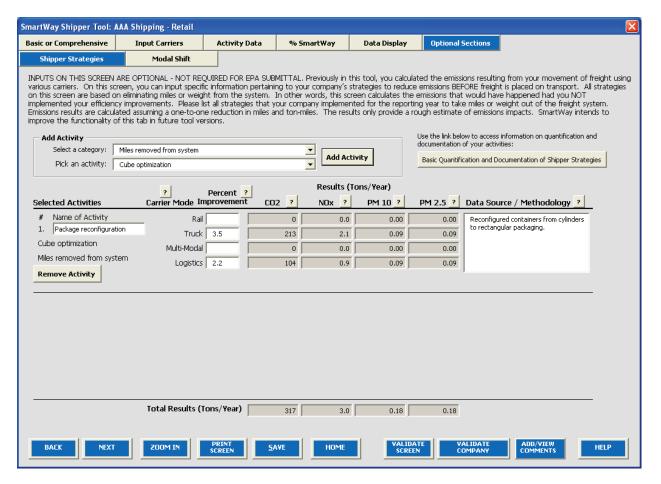


Figure 46: Shipper Strategies Screen

First, select an activity category from the drop-down menu at the upper left, and then chose a specific activity from the options provided. You may select from the following options:

- Miles Removed from the System
 - Distribution center relocation
 - Retail sales relocation
 - o Routing optimization
 - Cube optimization
 - o Larger vehicles and/or trailers
- Weight Removed from System
 - Product weight reduction
 - o Package weight reduction
 - o Vehicle weight reduction

For each strategy selected, you must provide an estimate of the percentage impact (in terms of miles or ton-miles, as appropriate), for each mode of interest, along with a text description of the strategy itself and details regarding the methods and assumptions used to estimate the changes. Based on actual data

from your current carriers, the Tool will calculate the quantity of emissions changed for each pollutant. You can repeat this process for each strategy that your company has implemented.

The Tool assumes that total mass emissions are changed in direct proportion with the specified mileage or weight reductions. This assumption should be accurate for weight reduction strategies when applied to truck-load shipments that weigh out. Additional uncertainty arises though in the case of LTL and package delivery shipments, where such reductions may not result in one-to-one impact in miles hauled. Uncertainties are even greater for non-truck modes, where the shipper commonly does not control the entire content of the container.



Please carefully document the procedure used to estimate the percentage impacts associated with your different measures, including how you established your baseline performance

levels. Use the Basic Quantification and Documentation of Shipper Strategies button on the upper right of the screen to obtain additional information regarding how shipper strategies should be quantified and documented. If you have questions regarding calculations and/or documentation, contact your SmartWay Partner Account Manager.

Modal Shift Screen

REFER TO <u>WORKSHEET #4B: Modal Shift</u> in the Quick Start Guide, or go to http://www.epa.gov/smartwaylogistics/partnership/shippers.htm to complete this section of the Shipper Tool.

The **Modal Shift** screen is intended for scoping purposes and scenario evaluations only. Shippers should develop carrier emissions inventories (and associated average emissions factors for their company) by inputting activity data in the **Activity Data** screen.



Note: The use of this screen is optional and not required for submitting the Tool to SmartWay.

The Modal Shift screen allows you to estimate the emissions impact of shifting modes by selecting one or more modal shifts between air, marine, truck, logistics, multi-modal and rail operations. The resulting estimates of emissions impacts are for partner information only and are not used in determining SmartWay Ratings or Logo Scores.

On the Modal Shift screen (Figure 47), you can specify the mode from which you have shifted freight or are considering shifting freight ("From Mode"), as well as the target mode ("To Mode"). Your have several options for selecting an emissions factor for both the "From Mode" and "To Mode":

Shipper's Carrier Average – This option will utilize the weighted average gram per mile or grams per ton-mile metric from your carriers, for a specified mode (e.g., rail or truck), based on data you provided in the Activity Data screen. If this option is selected for the "From" mode, filters can also be applied to evaluate a subset of your current operations (e.g., inbound/domestic only). Note that in most cases performance metrics represent midpoints for the given bin category, rather than the precise value for a given carrier. If you have data specific to your carriers, select the User Input option (see below). Note that the Shipper Carrier Average option is not available for air and marine modes at this time.

Modal Average – This option will use an industry-average performance metric for the mode in question. Metric options include g/ton-mile and g/mile (or g/railcar-mile, as appropriate). The data sources and assumptions used to derive these values are discussed in the **Shipper Tool Technical Documentation**. You may want to use this option to investigate shifting freight to a transportation mode that you have not used previously, although we recommend that you use a more representative emission factor to analyze scenarios whenever possible. The **Modal Average** option is not available for air and marine modes at this time.

User Input – This option allows you to input performance metric estimates for any carrier mode, using alternative data sources. This is the only option available for Air and Marine modes at this time. If you select this option, you MUST provide a description of the data sources that you used to develop these estimates (by clicking the User Input Data Source button.) This option may prove particularly useful in those cases when you have access to carrier-specific performance estimates. We also encourage you to use this option when you have access to an emissions factor that reflects the full emissions impact (e.g., including likely drayage emissions) and/or that best represents the fleet equipment and operational type that you are most likely to work with for your unique freight movement.

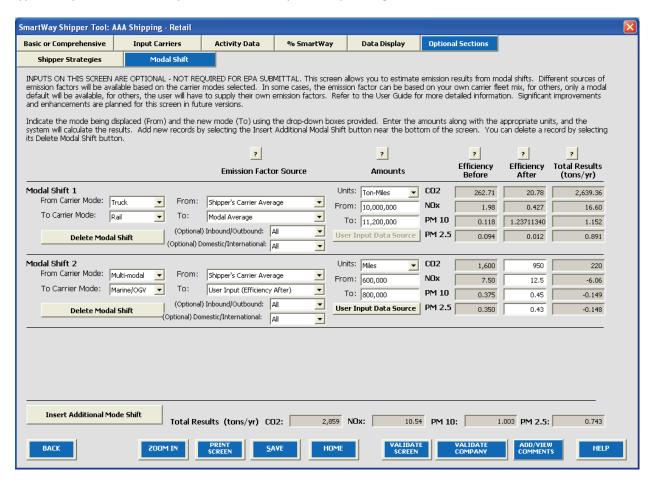


Figure 47: Modal Shift Screen

Note that emissions factors that automatically appear in the **Modal Shift** screen do not include all potential emissions impacts; for example the factors do not include emissions associated with drayage (i.e., short-distance trips often required to move freight from one mode to another) or the operation of intermodal facilities.

You may select to perform the emission impact calculation based on miles or ton-miles inputs, by specifying the **Units** in the drop-down menu under the **Amounts** column. Mile inputs for truck, logistics, and multi-modal modes correspond to truckload miles, or railcar-miles for rail modes. Once the **Units** are selected for the calculation, the screen will present the "Before" and "After" efficiency factors for the "From" and "To" modes for each of the four pollutants, in the table on the right. (**User Input** selections will result in empty white cells which require manual entry of the required values.) Next, the actual amount of freight to be shifted must be specified for both the "From" and "To" modes, in terms of miles or ton-miles, as appropriate. (Note that these two values can be different, since the point to point distance travelled is likely to be different across modes.) The corresponding emissions impact is then presented in tons per year for each pollutant. Emissions increases are shown as negative values.

Note that the **Shipper Carrier Average** and **Modal Average** values for railcar gram per mile values are adjusted to reflect truckload-equivalents (on a volume basis). Refer to the **Shipper Tool Technical Documentation** for details.

Finalize Data Entry and View Reports

Once back at the **Home** screen, notice that the company data that you entered and validated now identifies its status as "Complete". You may now highlight the next company if you have another one to complete. Fill out unfinished company data in the same manner as before. If all companies are marked as "Complete," you can move on to the next step, **View Your Data Reports**. If one or more companies are not marked as "Complete", review the data you entered for errors or omissions (**Figure 48**).

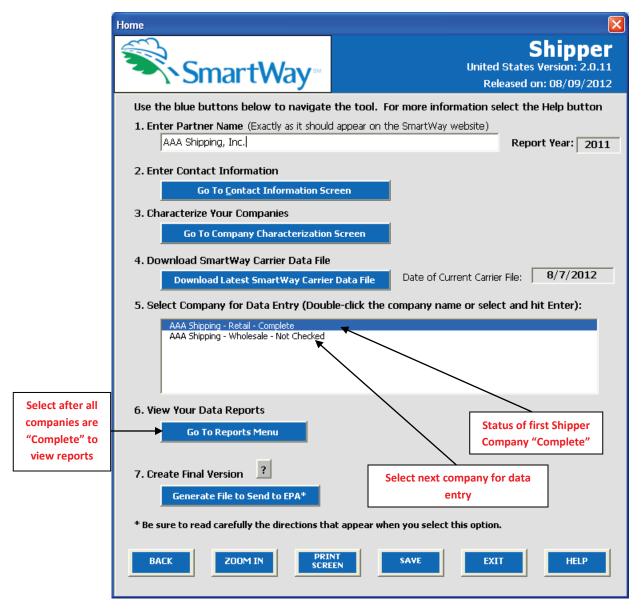


Figure 48: Home Screen - After Completing the Data Entry/Modification Process for First Shipper Company

⁸ **Company Characterization** and **Input Summary** reports may be viewed before completing data entry for all fleets if needed.

Once you have completed data entry for all shipper companies, and the company status indicates "Complete" you may select Go To Reports Menu to see the various reports (Figure 49).

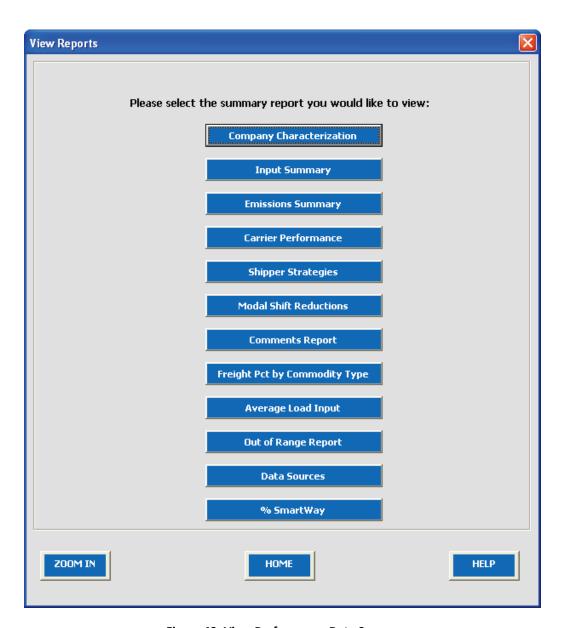


Figure 49: View Performance Data Screen

Selecting any of the buttons will display the indicated report type. The reports provide a recap of your data inputs, as well as the emissions calculation results presented on the different **Data Entry** screens. Selecting any of the summary report types will take you to a screen allowing you to preview and print your reports. The **Emissions Summary** and **Carrier Performance** reports also provide composite performance metrics and mass emissions summed across all shipper companies. These reports will prove useful for your diagnostic and improvement efforts.

Submitting Data to SmartWay

Congratulations! You are now ready to send your data to EPA.

From the **Home** screen, select Generate File to Send to EPA*, which will create a file with the following naming convention:

PartnerName_ Year_Shipper V0.xls

For example, ABC Company_2011_Shipper_V0.xls

where **PartnerName** is your company's name, as entered for **Step 1** on the **Home** screen, and **Year** indicates the year for which you are submitting your data.

The system will display a message indicating that an Excel file will be created with your company's name as part of the file name. The file will be saved to the same folder where the Tool itself is currently saved. You will need to locate the file and attach it in an e-mail to your Partner Account Manager).

NOTE: DO NOT ZIP the File. Send it to EPA as a normal file attached in an e-mail. EPA security will not allow zipped files through the EPA firewall.

The system will first display a message asking you to confirm your decision to save a copy of your Tool on your hard drive (**Figure 50**).



Figure 50: Data Saving Confirmation

Upon selecting ok the file will be saved, and additional instructions will appear (Figure 51).

Follow these instructions for submitting your Shipper Tool to SmartWay. Upon selecting screen will appear allowing you to close the Shipper Tool or return to the **Home** screen.

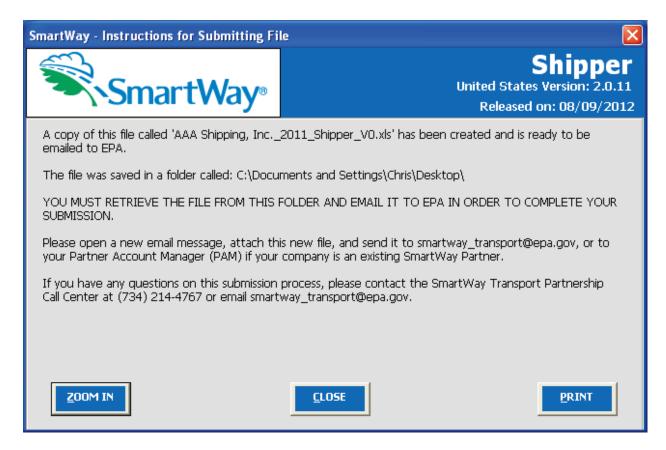


Figure 51: Data Submission Instructions

If you have any comments about the Tool and/or User Guide, please submit these with your Tool in a separate document to smartwaytransport@epa.gov.

Troubleshooting the Tool

Although the revised SmartWay Tools have been tested extensively, you may encounter errors. Intermittent errors have been encountered when opening the Tools directly from an e-mail or from the SmartWay website rather than from a drive, or when multiple Excel files are open simultaneously. If you encounter an error during use of the Tool, try restarting it directly from a disk drive, with all other Excel files closed. In addition, make sure that your computer is using a system and application version validated for use with the SmartWay 2011 Tools (XP and Vista operating systems, and Excel Office 2003 and 2007.)

Note that some users have experienced problems when re-opening the Tool without closing Excel. It is recommended that you close Excel before re-opening this Tool, which could otherwise result in a loss of data in other open Excel workbooks.

If you continue to encounter problems, please make a screen capture of the error message, and save the data at that point. (You can make a screen capture by pressing **Alt-Prt Scr**, and then pasting the image into a document such as MS Word.) Then send the screenshot, along with the saved data to your Partner Account Manager for further assistance.

Appendix A – Data Field Details for Carrier File Export/Import Option

The following provides additional definitions and information to assist in the preparation and import of carrier CSV files.

Bin Category: The operation type category used for ranking carriers (e.g., TL Dry Van, Dray, etc.). Carriers are grouped by these categories to ensure an "apples to apples" comparison. The emissions factors associated with truck carriers are the midpoint value for their bin, while factors associated with rail carriers are partner-specific, based on publicly available information.

Emission Factors: Emissions factors have long been the fundamental Tool in developing national, regional, state, and local emissions inventories for air quality management decisions and in developing emissions control strategies. More recently, emissions factors have been applied in determining site-specific applicability and emissions limitations in operating permits by federal, state, local, and tribal agencies, consultants, and industry.

EPA's SmartWay Database: EPA maintains a confidential database containing key SmartWay partner information. This database is used to create the SmartWay Carrier Data file.

MCN: This is a truck carrier's Motor Carrier Number (MCN) number. This is an optional field you can use to visually determine if a SmartWay Carrier is one of the carriers you use. This field is not currently used to merge SmartWay data with your carrier data. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, do not change these values.

SCAC: The Standard Carrier Alpha Code (SCAC) is a unique two-to-four-letter code used to identify transportation companies. SCACs are assigned by the National Motor Freight Traffic Association, Inc., (NMFTA). If you cannot remember your SCAC(s), please contact NMFTA before proceeding. You can find NMFTA contact information at http://www.nmfta.org/Pages/ContactUs.aspx.

CSV Field Descriptions:

Carrier ID: This is an internal identifier that can be used to identify your carriers. This number originates from the SmartWay Database. A negative number identifies the carrier as a non-SmartWay carrier. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, do not change these values. If you are merging your carrier data with the SmartWay Carrier data using the carrier name, carrier mode, and carrier bin category, you do not need to specify this internal ID field.

Carrier Name: This is the name of the carrier. If you are using the internal Carrier ID field to merge your data with the SmartWay data, you do not need to specify this field. If you are using this field to merge the data together, the names must be an exact match, but the names are not case sensitive. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, do not change these values.

Mode: This is the mode of the carrier. This field is required and must be an exact match if you are using carrier name, carrier mode, and bin category to merge the SmartWay data with your carrier data. Valid values are Truck, Rail, Multi-modal, and Logistics. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, do not change these values.

Bin Category: This is the SmartWay bin category for the carrier. For more information on Bin Categories, please see the Glossary above. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, do not change these values. Valid values for Truck carriers are TL/Dry Van, LTL/Dry Van, Reefer, Flatbed, Tanker, Dray, Package, Auto Carrier, Expedited, Heavy/Bulk, and Moving. The only valid value for Multi-modal carriers is Truck/Rail. Rail carriers and Logistics carriers do not have bin categories.

SCAC: This is a truck carrier's SCAC code. This is an optional field you can use to visually determine if a SmartWay Carrier is one of the carriers you use. This field is not currently used to merge SmartWay data with your carrier data. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, do not change these values.

MCN: This is a truck carrier's MCN Motor Carrier Number. This is an optional field you can use to visually determine if a SmartWay Carrier is one of the carriers you use. This field is not currently used to merge SmartWay data with your carrier data. If you created your CSV file using one of the two Export buttons on the Select Carriers screen, do not change these values.

Data Availability: This is a required integer field whose valid values are 1 to 7. The Data Availability Option entered/selected for a carrier identifies which carrier activity data you have available. The data you enter in your CSV file for Ton Miles, Total Miles, Average Density, Average Load Percent, and Average Payload should be consistent with the carrier's Data Availability. If you do not specify a Data Availability Option, the Tool will insert a default value of 1 for the carrier entry.

The seven Data Availability Options are:

- 1 = I know both ton-miles and total miles.
- 2 = I know ton-miles and average payload.
- 3 = I know ton-miles, cargo density, and load percentage.
- 4 = I know ton-miles only.
- 5 = I know total miles and average payload.
- 6 = I know total miles, cargo density, and load percentage.
- 7 = I know total miles only.

Calc Metric (Calculation Metric): This is a required field. In general, there are three valid values, but some of these values are only available for certain Mode and Data Availability combinations. The three valid values are g/mile, g/ton-mile, and g/railcar-mile. This field specifies the method for calculating each carrier's emission footprint. In making your selection, consider the most

appropriate measure for the carrier's operation type. In general, ton-miles are good for LTL, package delivery, rail, multi-modal and logistics companies as well as heavier truck loads (roughly above 10 tons), while g/mile may be better for trucks with lighter payloads. Railcar-miles are also an available option for the rail mode, although ton-miles are preferred. The Tool will default a valid Calc Metric if one is not supplied in the CSV file.

Ton-Miles: Depending on your Data Availability option, this field may be required or ignored. The Ton-Miles field is an integer that must not exceed 9.99 x 10¹⁸.

Total Miles: Depending on your Data Availability option, this field may be required or ignored. When entered, this field will contain the total miles per year attributed to each truck or rail carrier. The Tool assumes that miles entered for truck carriers correspond to (full) truckload-equivalent miles. Rail-miles correspond to truckload equivalent railcar miles. Please see the Shipper Tool Technical Documentation for details regarding the calculation of truckload-equivalents for railcars. The Total Miles field is an integer that must not exceed 9.99 x 10¹⁸.

Average Density: Depending on your Data Availability Option, this field may be required or ignored. This field is used to calculate ton-miles and/or total miles, accounting for shipper-specific freight densities. Average Density is required for Data Availability Options 3 and 6. The Average Density field must be a numeric field greater than 0.1 with up to one decimal place.

Average Load Pct: Depending on your Data Availability Option, this field may be required or ignored. Use the Average Load Percent calculator to determine what fraction of your truck and rail carrier's cargo space is used to ship your freight. Load percentage estimates can be weight-based, with full truckloads (or railcar loads) corresponding to weighing out, or volume-based, with full loads corresponding to cubing out. The Average Load Percent field is required for Data Availability Options 3 and 6. Enter the load information as requested. The resulting percentages (shown on the Activity Data screen) are multiplied directly by Total Miles to scale carrier mileage. The Average Load Pct field must be an integer field between 1 and 100.

Average Payload: Depending on your Data Availability Option, this field may be required or ignored. Enter payload (in short tons) representing the average cargo weight per loaded trip. The Average Payload field is a numeric field that must be greater than 0.0001. The total number of digits, including the decimal point, must not exceed 5 digits.