SmartWay Transport Partnership
U.S. Environmental Protection Agency

Shipper Partner 2.0.12 Tool: Guide to Importing Carrier Data Using the Outside Data Import Function

EPA United States Environmental Protection Agency

SmartWay®
Transport Partnership
U.S. Environmental Protection Agency

Shipper Partner 2.0.12 Tool: Guide to Importing Carrier Data Using the Outside Data Import Function

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

EPA United States Environmental Protection Agency

Office of Transportation and Air Quality
EPA-420-B-13-052
October 2013

Table of Contents

OVERVIEW **4**

THE OUTSIDE DATA IMPORT FUNCTION **4**

PREPARING YOUR CARRIER DATA TO IMPORT INTO YOUR SHIPPER TOOL **5**

STEP 1: START YOUR SHIPPER TOOL SET-UP 6
STEP 2: CREATE YOUR CSV FILE 6
Option A: Export a Master CSV File *8*
Option B: Manually Build a CSV File *9*
Option C: Create a Custom CSV File from Scratch *12*
STEP 3: POPULATE THE CSV FILE WITH CARRIER DATA FROM YOUR IN-HOUSE COMPUTER SYSTEMS 13
STEP 4: IMPORT AND VALIDATE YOUR CSV FILE 13
STEP 5: ENTER ADDITIONAL DATA INTO THE TOOL 15

APPENDIX **16**

SPECIAL CASES/CONSIDERATIONS 16
GLOSSARY 17
CSV FILE FIELD DESCRIPTIONS 18

Overview

The SmartWay Shipper Tool has an Outside Data Import function. This function reduces the need to manually enter carrier activity data by allowing you to create a data file that merges your company's in-house carrier data with SmartWay's prescribed data format.

THE OUTSIDE DATA IMPORT FUNCTION IS RIGHT FOR YOU IF:
you use a relatively large number of carriers (both SmartWay and/or non-SmartWay) and you have an in-house data collection system that contains carrier activity data necessary to populate your SmartWay Shipper Tool for submission to EPA.

The Outside Data Import Function

This function allows you to import data from your in-house data tracking systems directly into your Shipper Tool.

To input your company's carrier data into the Shipper Tool, you will create a Comma-Separated Values (CSV) file that meets certain basic SmartWay specifications, and merge that file with your in-house data to produce a complete profile of your carriers' activity.

This CSV file will be uploaded into the Tool and will save you the time of manually entering data to calculate your emissions footprint and/or percent SmartWay (% SmartWay).
SmartWay suggests that you use Microsoft Excel to develop and modify your CSV files. Excel has standard support for CSV files, in that it can easily read and write this type of file.

You must ALWAYS save your file as a CSV file. 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" function in Excel.

Preparing Your Carrier Data to Import into Your Shipper Tool

There are six steps to preparing your CSV file for import into the Tool.

Step 1: Start your Shipper Tool setup

Step 2: Create your CSV file

Step 3: Populate the CSV file with carrier data from your in-house computer systems

Step 4: Import and validate your CSV file

Step 5: Enter additional data into the Tool

Please note that due to the variability in Partner data systems, EPA does not have the resources to assist you in creating and importing this file. You should rely on your own in-house IT/MIS computer staff.

Step 1: Start Your Shipper Tool Set-up

Before you can import outside data, you must take these initial steps for completing your Shipper Tool:

1. Enter your company name and contact information.

2. Define your shipper company(ies).

3. Download the latest carrier data file.

4. When you have at least company defined, you can then import carrier data for that company.

5. Double click on the company name in Section 5 of the Shipper Tool Home screen.

6. When the data entry section of the Tool opens, you will automatically be on the first tab labeled "Basic or Comprehensive". On this screen you will specify if you will provide carrier-specific activity data including miles and ton-miles in order to calculate your company's emission footprint (i.e., selecting the "Emissions Footprint and % SmartWay" option). Alternatively you may select the more basic "% SmartWay Only" option, which does not require mile/ton-mile data for your carriers.

7. After making your selection on the "Basic or Comprehensive" screen, proceed to the "Input Carriers" tab where you will see a sub-tab labeled "Instructions." You must review the instructions.

8. On the Instructions sub-tab, check the box to indicate that you understand these instructions.

Once you have performed these steps, you will be ready to use the Outside Data Import function.

Step 2: Create Your CSV File

There are three basic methods for creating your CSV file:

- **Option A —Export a Master CSV File**
  This method is ideal if you have a very large number of SmartWay Carriers. With this approach, you generate a CSV file complete with all current SmartWay Carriers in the

correct format. You can then open this CSV file in Excel and delete any SmartWay Carriers you don't use, and enter data regarding activity and other details related to how you use your carriers. Once this is completed, you will import the updated CSV file back into the Tool using the "Outside Data Import" screen.

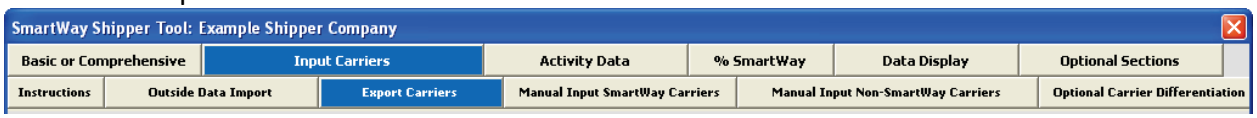
- **Option B —Manually Build a CSV File**
  This method is a good option if you have a somewhat smaller number of carriers and you want to merge your in-house data with the carrier list (instead of manually entering carrier activity metrics). In this approach, you manually select carriers in the Shipper Tool using the "Manual Input SmartWay Carriers" tab, then export a CSV file (using the "Export Master File" button on the "Export Carriers" tab). This new CSV file can then be populated outside of the Tool with activity data from your in-house data system.

  Option C —Create a Custom CSV File from Scratch
  You may also choose to create your CSV from scratch using your in-house system. If you choose this approach, the best way to ensure compatibility between your file and the Shipper Tool is to start with a file exported from the Tool, as listed in Option 1; this will aid your IT staff in producing a CSV file with the correct format. Recommendations for developing a custom CSV file are detailed below.

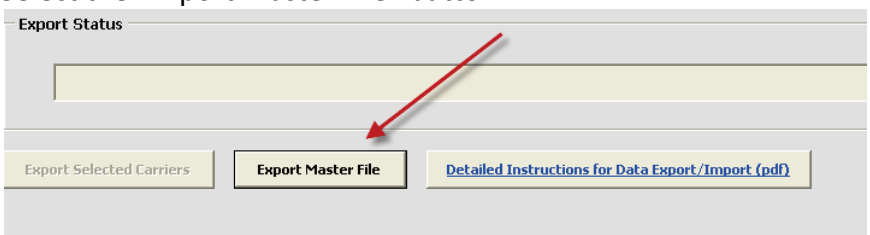
Step by step instructions for all three methods follow.

Option A: Export a Master CSV File

1. Select the "Export Carriers" Tab.

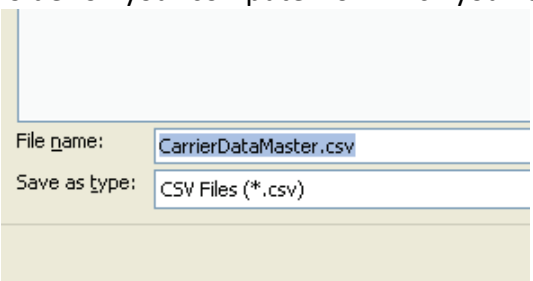


2. Select the "Export Master File" button.



3. A "Save As" screen will pop up.

4. 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.



5. Open this CSV file in Microsoft Excel (recommended) or other software that supports CSV files.

6. Delete any SmartWay Carriers that you <u>did not use</u> during the reporting year.

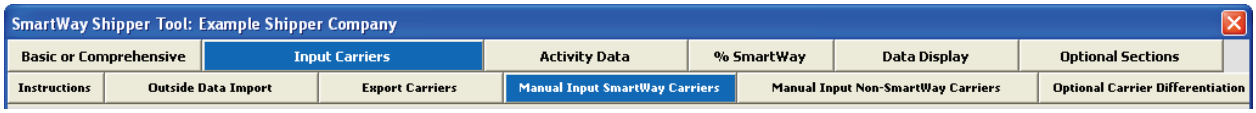
7. Note that the first four lines in the master file represent non-SmartWay carriers. If you used any non-SmartWay carriers you must account for their combined mileage and/or ton-mileage in the appropriate non-SmartWay designation.

8. Save this modified CSV file to your designated computer folder.

9. Proceed to Step 4 on page 13 ("Populate the CSV file with Carrier Data from Your In-house Computer Systems").

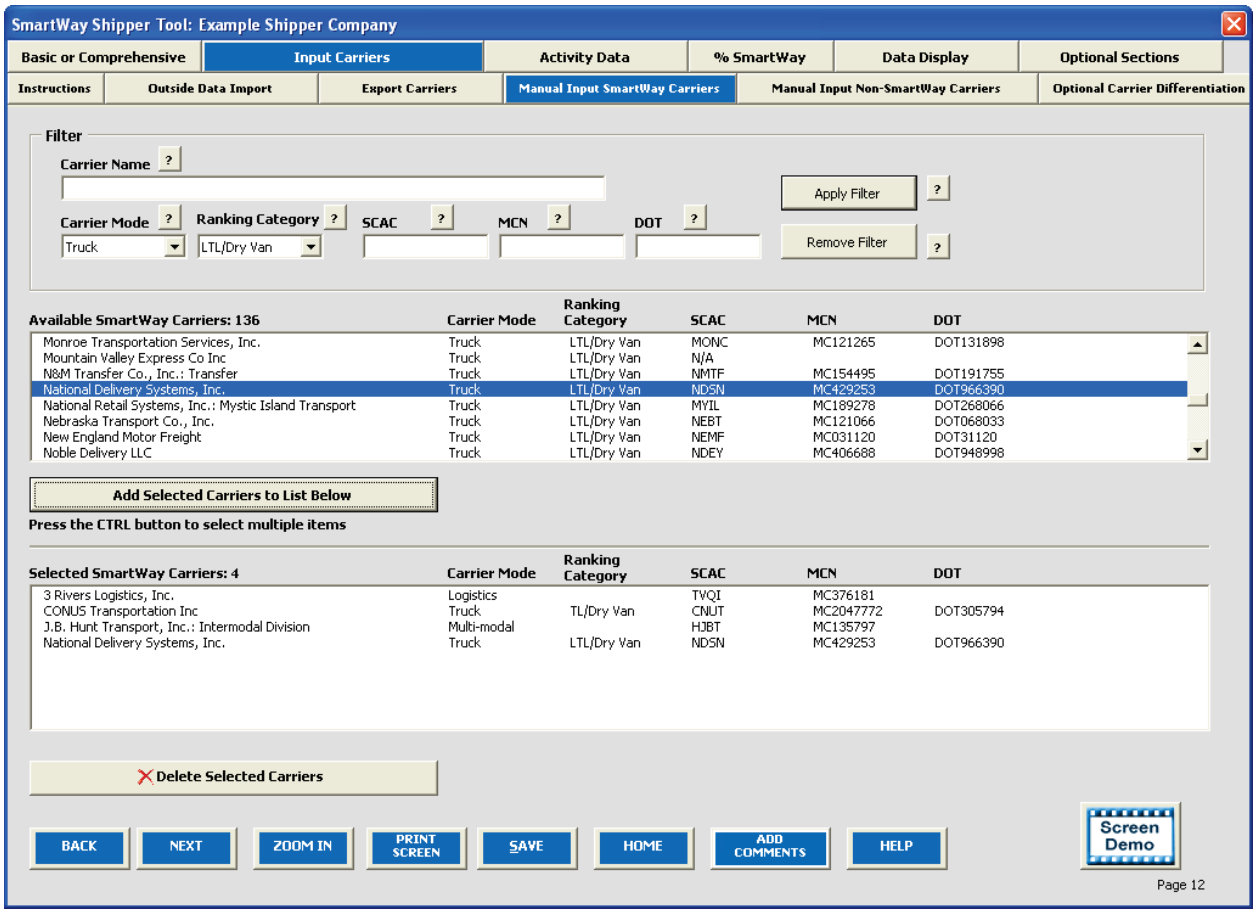
Option B: Manually Build a CSV File

1. Select the " Manual Input SmartWay Carriers" tab.

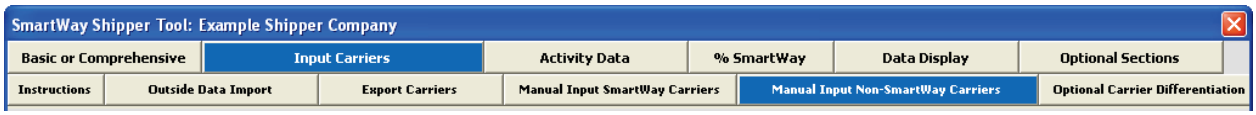


2. Select your SmartWay Carriers using the Tool's user interface filters (e.g., the Carrier Name box, the Carrier Mode drop-down list box, the Ranking Category drop-down list box, and the SCAC, MCN and/or DOT box.

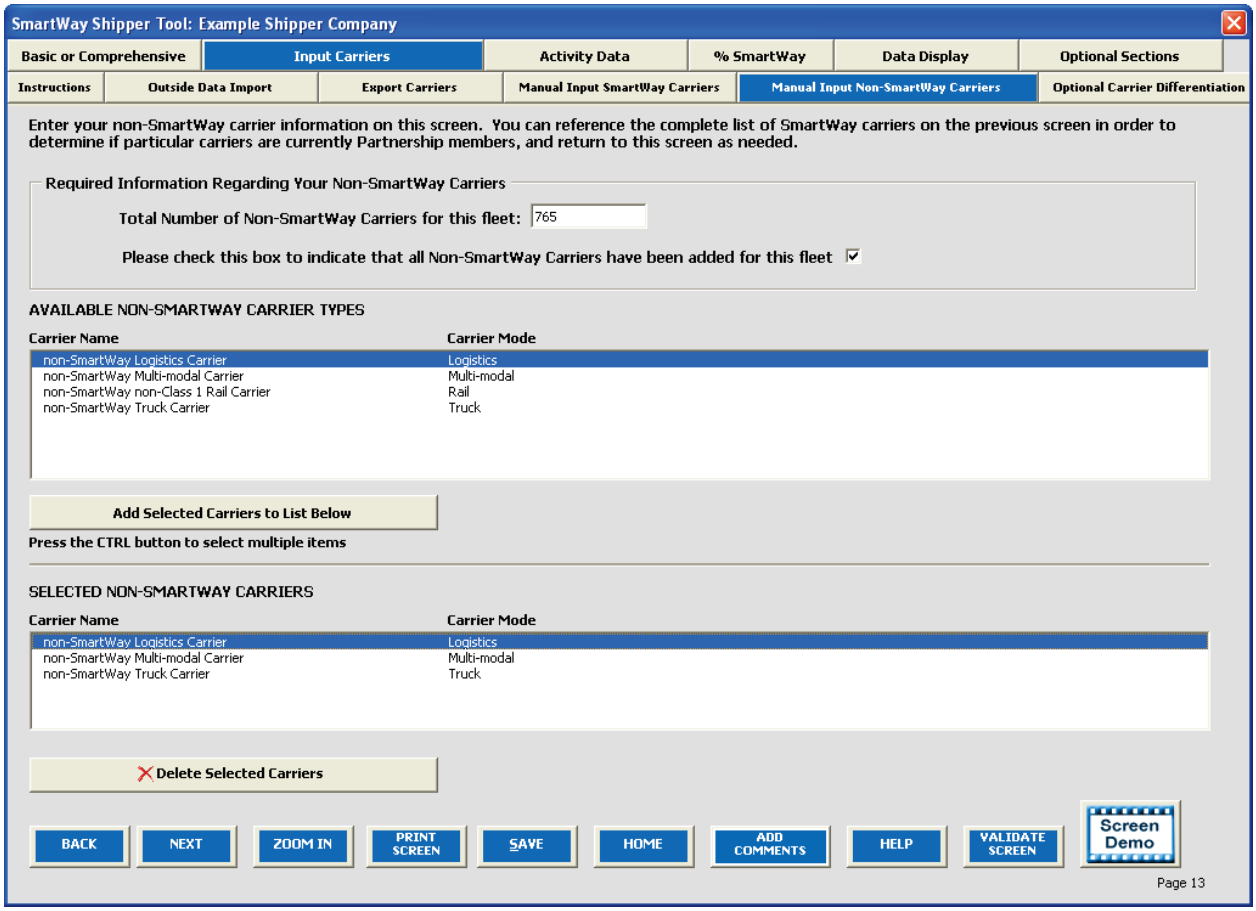
3. As you find each of your carriers, click the 'Add Selected Carriers to List Below' button. When you use this button, the carrier selected in the upper list box will be added to the list in the "Selected SmartWay Carriers" box at the bottom of the screen. An example selection screen is shown below for the Shipper Tool.



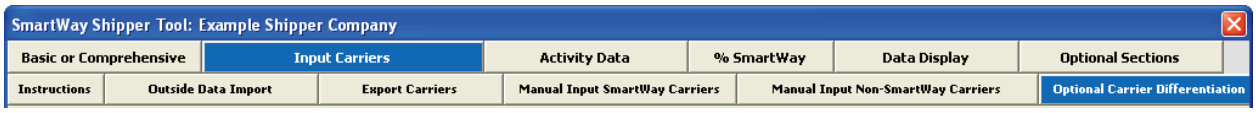
4. Select the "Manual Input–Non SmartWay Carriers" tab.



5. Enter the total number of non-SmartWay carriers used by your company in the reporting year, and specify their modes (truck, logistics, rail, and/or multi-modal) by selecting the appropriate non-SmartWay carrier(s) from the list and clicking the "Add Selected Carriers to List Below" button.

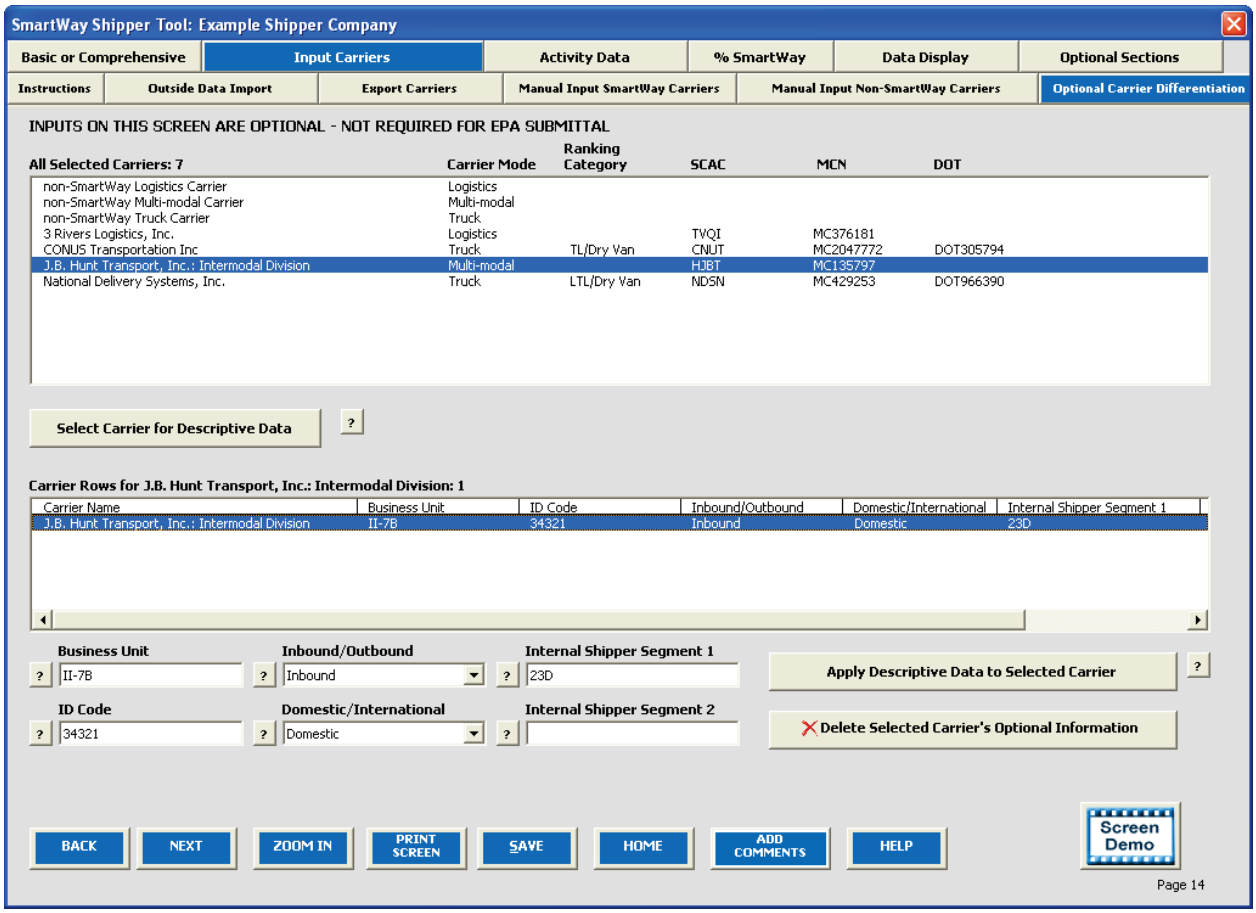


6. Select the "Optional Carrier Differentiation" tab.

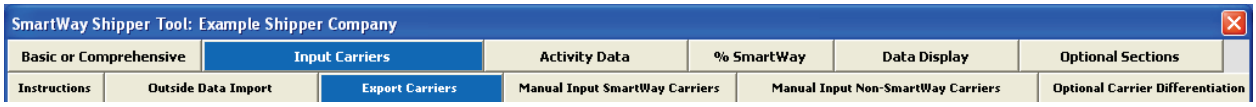


7. Enter any distinguishing data you wish for each carrier selected, such as inbound/outbound and domestic/international designations on this screen. Begin by selecting a carrier in the "All Selected Carriers" box at the top of the screen. Then highlight the carrier name in the lower box. At this time the optional carrier descriptor cells will become active at the bottom of the screen. After entering the desired information, select the "Apply Descriptive Data to Selected Carrier" button to save your

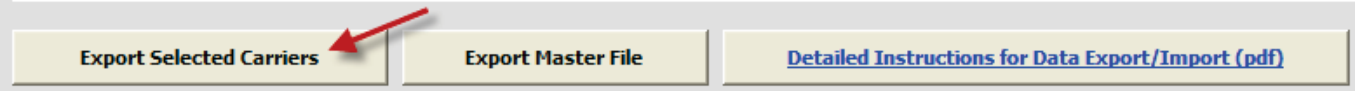
data. Repeat this process for as many of your selected carriers as needed.



8. Once you have selected all of your SmartWay and non-SmartWay carriers, and entered any Optional Carrier Differentiation information, go to the "Export Carriers" tab.



9. Select the “Export Selected Carriers” button.



10. A “Save As” screen will pop-up.

11. 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.

12. Proceed to Step 4 on page 13 (“Populate the CSV file with Carrier Data from Your In-house Computer Systems”).

Option C: Create a Custom CSV File from Scratch

You may also choose to create your CSV file from scratch using your in-house data system. If you choose this approach, **EPA strongly advises you to start with a file exported from the Tool;** this is the best way to ensure compatibility with your final CSV file and the Shipper Tool.

To create your starter file, simply follow the procedure outlined in Option 2, but select a few carriers on the Manual Input SmartWay Carriers screen and export the file using the Export Selected Carriers button as described. This will give you a sample CSV file with the correct format, with all of the fields properly labeled and in the appropriate order. At this point you would delete the sample carriers from the CSV file and in their place insert rows for your carriers. You will need to enter your carrier’s name, mode, and carrier ranking category exactly as they are specified in the Tool, so the Tool recognizes the carrier to which you are referring.

You are now ready to proceed to Step 4 on page 13 (“Populate the CSV file with Carrier Data from Your In-house Computer Systems”).

Step 3: Populate the CSV file with Carrier Data from Your In-house Computer Systems

1. Open the CSV file you created in the previous step.

2. 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; ***<u>however, do not change the header row that begins with the label "Carrier ID."</u>*** NOTE: A list of the CSV fields can also be found at the end of this document, including a list of valid values.

   EPA recommends that you save a backup copy of the CSV file at this point and at periodic intervals with different file names in case you make a mistake.

3. Populate the CSV file with carrier data from your in-house spreadsheet.

   You will need to work with your company's IT department to develop the best way to merge your in-house data with the CSV file's fields; EPA cannot provide support on data merging procedures.

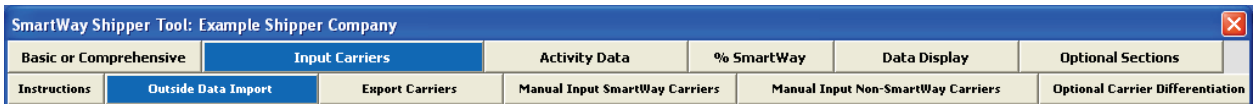
4. Save your completed CSV on your computer—again, make sure that you save the file as a CSV file (with the .csv extension), or it will not load into the Tool.

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

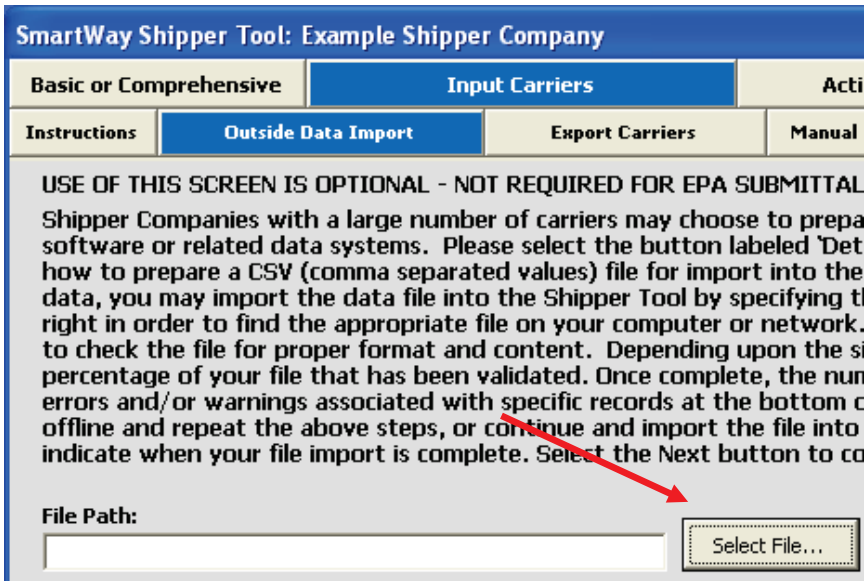
Step 4: Import and Validate Your CSV File

Make sure you have reopened your Shipper Tool. On the main Home screen of the Shipper Tool, click on the business unit into which you will be importing your CSV file.

1. You will now select the "Outside Data Import" tab under "Input Carriers."

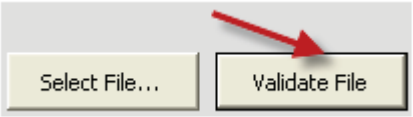


2. Click the “Select File” button on the Outside Data Import screen.

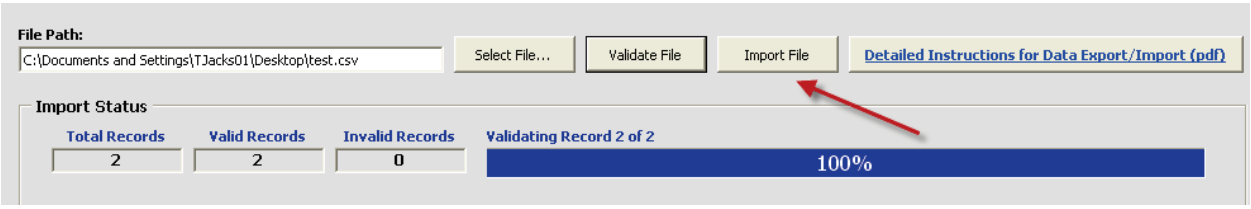


3. Select the XXX.CSV file you created in the preceding steps, and click the “Open” button.

4. After specifying the file path, you need to validate the data in your CSV file by using the “Validate File” button. This performs an initial validation of the data in your CSV file.



5. After the validation is complete, the Tool will display a list of errors and warnings for your review, and it will display a count of total records and valid records summarizing the validation results.



If your file contains errors or warnings, a message box will appear at the bottom of the screen identifying what they are. You may still import the file even if warnings or errors are detected, although any data field failing validation may be ignored or may have been set to zero. In that case, corrections can be made to the CSV file or within the Tool after importing your data.

6. The “Import File” button will now be enabled if there is at least one valid carrier entry in the file, allowing you to import your CSV file.

7. To import the file, select the “Import File” button.

   WARNING: At this point the system will delete any current carrier records you may have entered for this company using the Manual Input screens, as well as any Data Source descriptions you may have entered on the Activity Data screen.

8. After importing your file, text will appear saying “Import successfully completed.”

Once you have imported your CSV file into the Tool, you may augment, correct, or modify any of the carrier data using the Tool screens.

Step 5: Enter Additional Data into the Tool

In addition to carrier-specific information, the Tool will require you to enter additional information using the Tool user-interface, including:

- Data source for your activity data,
- Explanations for any data that is significantly outside expected ranges (e.g., high/low payloads).

You will also need to specify a % SmartWay option, and a description of a Custom Factor and associated data sources if you chose to use that option for your % SmartWay allocation.

After importing your carrier data, please review every screen among the data entry screens to verify completeness by selecting the Validate Screen button at the bottom of each screen. The Tool will then prompt you when data is missing or in error.

You are now ready to review your Tool, view data reports, and submit your final Tool to EPA for approval.

Appendix

SPECIAL CASES/CONSIDERATIONS

YOU WISH TO ADD MORE CARRIER DATA AT A LATER DATE.

The Outside Data Import function was designed so that you can also add more carrier data at a later date. To add carrier data, you should use the Export Selected Carriers option so that all of the carrier data in the Tool is exported to a CSV file. You can then insert your additional carrier data into this exported CSV file using Excel and then re-import the modified CSV file.

YOU HAVE MANUALLY ENTERED CARRIER DATA INTO THE TOOL AND THEN DECIDE TO IMPORT OUTSIDE DATA.

When you perform an Outside Data Import, all previously entered or imported carrier data in the Tool is deleted. If you need to merge carrier data from the Tool with other carrier data, you can either manually enter the additional information into the Tool, or enter it into an exported CSV file. If you chose the latter approach, you should use the 'Export Selected Carriers" button to export that data, and then add or copy/paste your additional carrier data into this newly exported CSV, then re-import the updated CSV back into the Tool.

YOU CHOOSE TO EXPORT THE DATA AS A CSV FILE AFTER YOU HAVE ENTERED ACTIVITY DATA IN THE "Average Density" AND "Average Load Percentage" POP-UP CALCULATORS.

When exporting and then re- importing your selected carriers, any values you may have entered into the Average Density and Average Load Percentage pop-up calculators prior to export will be lost. The previously-calculated output values from the calculators will still be retained, although the calculator inputs themselves will be wiped out. You will also lose any previously entered Out of Range explanations.

Glossary:

Ranking Category: This refers to 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 values for their ranking categories, while factors associated with rail carriers are industry averages, based on publicly available information.

Emissions 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 industry, consultants and federal, state, local, and tribal agencies.

EPA's SmartWay Database: EPA maintains a 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, you should 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.

DOT #: This is a truck carrier's US Department of Transportation number. Companies that operate commercial vehicles transporting passengers or hauling cargo in interstate commerce must be registered with the Federal Motor Carrier Safety Administration and must have a USDOT 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, you should not change these values.

CSV File 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 Export Carriers screen, you should not change these values. If you are merging your carrier data with the SmartWay Carrier data using the carrier name, carrier mode, and carrier ranking category, you do not need to specify this internal ID field.

- ***Carrier Name:*** This is simply 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. <u>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.</u> If you created your CSV file using one of the two Export buttons on the Export Carriers screen, you should not change these values.

- ***Carrier Mode:*** In this field, the carrier mode must be identified as "Truck," "Rail," "Multi-modal," or "Logistics." <u>This field is required and must be an exact match if you are using carrier name, carrier mode, and ranking category to merge the SmartWay data with your carrier data.</u> If you created your CSV file using one of the two Export buttons on the Export Carriers screen, you should not change these values.

- ***Ranking Category:*** This refers to the operation/equipment type category SmartWay uses for ranking carriers; e.g., TL, Dry Van, Dray, etc. (For more information on Ranking Categories, please see the Glossary) If you created your CSV file using one of the two Export buttons on the Export Carriers screen, you should not change these values. Valid values for Truck carriers are as follows:

  - Auto carrier
  - Dray
  - Expedited
  - Flatbed
  - Heavy/Bulk
  - LTL/Dry Van
  - Mixed
  - Moving
  - Package
  - Refrigerated
  - Specialized
  - Tanker
  - TL/Dry Van

  The only valid ranking category value for Multi-modal carriers is Truck/Rail. Rail carriers and Logistics carriers do not have ranking categories.

- ***SCAC:*** This is a truck carrier's <u>S</u>tandard <u>C</u>arrier <u>A</u>lpha <u>C</u>ode. 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, you should not change these values.

- ***MCN:*** This is a truck carrier's 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, you should not change these values.

- ***DOT #:*** This is a truck carrier's US Department of Transportation number. Companies that operate commercial vehicles transporting passengers or hauling cargo in interstate commerce must be registered with the Federal Motor Carrier Safety Administration and must have a USDOT 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, you should not change these values.

- ***Data Availability:*** This is an optional 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 that you enter in your CSV file for Ton-Miles, Total Miles, Average Density, Average Load Percent, and Average Payload must be consistent with the carrier's Data Availability. If you do not specify a Data Availability Option, the Tool will select a default.

  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 and have general information about number of loads and type of cargo.
  4. I know Ton-miles only.
  5. I know Total Miles and Average Payload.
  6. I know Total Miles and have general information about number of loads and type of cargo.
  7. I know Total miles only.

  Note that Data Availability Options for LTL carriers are restricted to 2, 3, 5, and 6 due to the difficulty allocating mileage fractions for these carriers without payload-related information.

- ***Calc Metric:*** The Calculation Metric 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.

- ***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 209,207,446,000.

- ***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 and /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 999,999,999,999,999.

- ***Average Density:*** Depending on your Data Availability Option, this field may be required or ignored. This field is used to calculate Total Miles, accounting for shipper-company-specific freight densities. The density calculator must be used for Data Availability Options 3 and 6. The Average Density field is a numeric field greater than zero, with up to one decimal place.

- ***Average Load Pct:*** Depending on your Data Availability Option, the Average Load Pct (percent) field may be required or ignored. Use the Average Load Pct calculator to determine what fraction of your truck and rail carrier's cargo space is used to ship your freight. The Load Percent calculator must be used 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 is an integer field that must be between 1 and 100.

- ***Average Payload:*** Depending on your Data Availability Option, this field may be required or ignored. Enter payload (in short tons – i.e., 2,000 lbs) representing the average cargo weight per loaded trip. Average Payload must be entered for Data Availability Options 2 and 5. The Average Payload field is a numeric field that must be greater than zero. Maximum allowable payloads vary by mode and truck operation category – please see the Shipper Tool Technical Documentation for details. The total number of digits, including the decimal point, must not exceed 5 digits.