Omnitracs Trip Manager: Using the Trip Import Tool
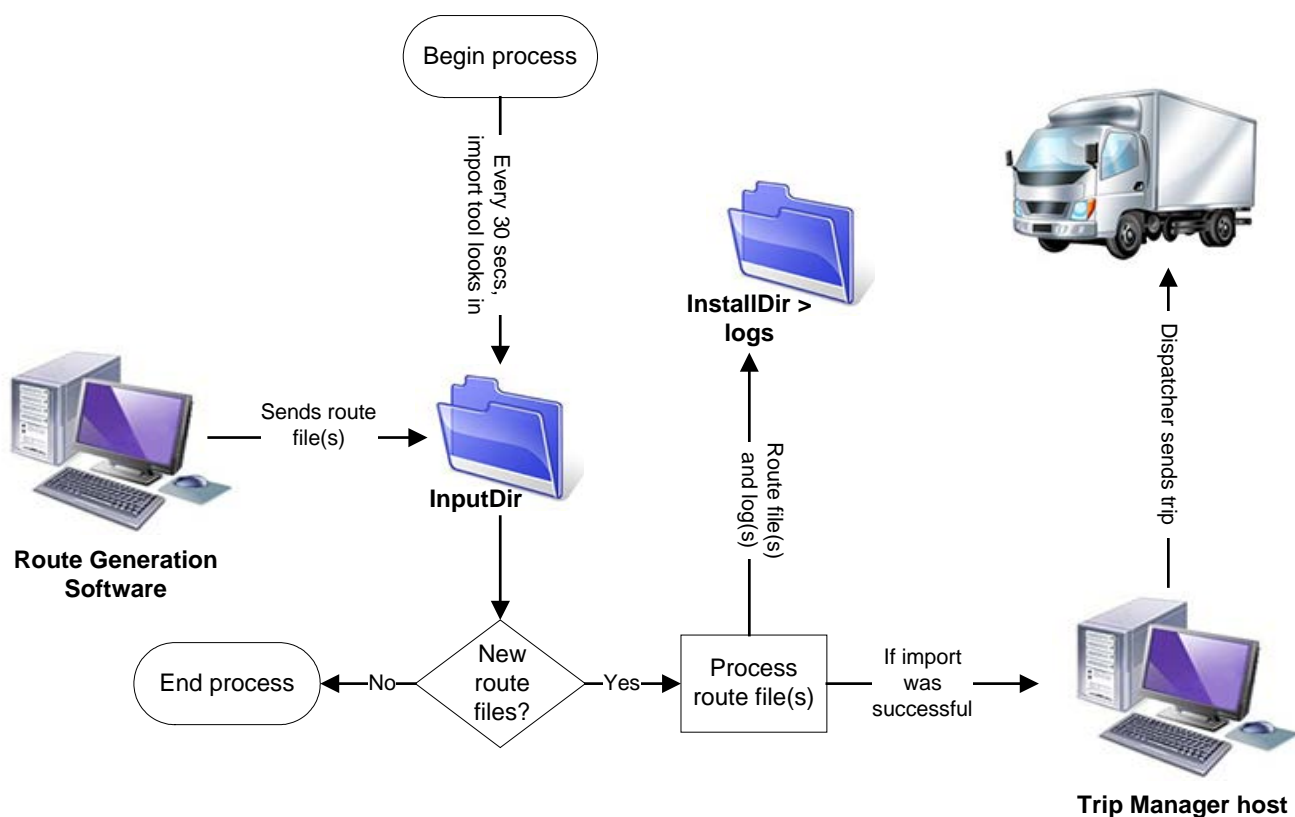
What You Need to Begin

- Admin Rights to Windows or Linux computer connected to the internet 24 hours a day.
- Internet Explorer 7 or higher.
- JRE 6.1 or higher.
- A copy of TM-TripImport-Utility zip file.
- A user with the Omnitracs Services Portal role of Trip Importer, whose profile includes the Trip Manager (TM) permissions "Can Use Trip Manager" and "Can Import Data."
- The credentials of a user in the Trip Importer role.
- Route generation software that produces trips as flat files.
- An understanding of the layout/format of the flat file.

How the Import Process Works

A High-level Look at the Tasks You Will Perform

1. Confirm Java is correct.
2. Create 3 new folders.
3. Configure your route generation software output.
4. Extract a ZIP file.
5. Modify a properties file.
6. Modify an INI file.
7. Install the Route Import Tool as a service.

TASK 1 – Confirm Java is installed and configured

1. Search "verify Java version" on the internet for the Oracle® website that runs an automatic test to verify that you have Java Runtime Edition (JRE) 6.1 or higher.
   - If you have JRE but it is not 6.1 or higher, uninstall it the way you remove any program.
   - If you need to download and install JRE, follow the prompts at the website.
2. Check to see if you have an Environmental Variable set up for JRE.
   a. Open a command window.
   b. Type **echo %JAVA_HOME%** and press Enter.
      The result should be a path to jre7 (or 6) (e.g. C:\program files (x86)\Java\jre7).

      NOTE: If a path to jre7 (or 6) is returned, jump ahead to Task 2.

      No path means you need to set an environmental variable for JAVA_HOME:
      1) In Windows 7, go to Control Panel > System and Security > System > Advanced System Settings. (In Win XP, go to Settings > Control Panel > System > Advanced).
      2) Click **Environmental Variables...**
      3) Under System variables, click **New**.
      4) Variable name: **JAVA_HOME**
      5) Variable value: [path to jre6 or 7, e.g. C:\program files (x86)\Java\jre7]
         NOTE: Specify the path to the root of the Java Runtime, not to the actual EXE.
      6) Click **OK** twice.
      7) Confirm the variable was set correctly by opening a new command window and typing **echo %JAVA_HOME%**. The result should be the path (e.g. c:\program files (x86)\Java\jre7).

TASK 2 – Create 2 folders and 1 subfolder in the location of your choice

This step specifies where the Trip Import files will live. It does not matter where you put them, as long as they exist in the same directory.

Create:

1. InputDir
2. InstallDir
3. Within the InstallDir folder, create a subfolder called logs.

NOTE: For testing purposes, it is helpful but not required to create a fourth directory – InputDirBak – alongside InputDir. Placing a copy of a route file into InputDirBak allows you to quickly copy/paste it into InputDir during testing. This makes it easier to troubleshoot the import process.

TASK 3 – Configure your Route Generation software output

Consult your software's documentation for guidance. Direct the output of route files to an additional location: InputDir.

TASK 4 – Unzip and extract the Trip Import Utility

1. Download a ZIP file of the Trip Import Utility from the Customer Portal.
   a. From the Support page, in the Service Options column, click **Firmware/OS**.
   b. Under Download the lastest version of MCP200 firmware (or MCP110 firmware), click **Continue**.
   c. Find the Trip Manager's Trip Import Tool version 1.4 and click **Download**.
   d. Unzip the file.
2. Choose the appropriate version for your machine:
   - qtm-utilities-1.4.x-win-x86-64.zip
   - qtm-utilities-1. 4.x -win-x86-32.zip
   - qtm-utilities-1. 4.x win-ia-64.zip
     NOTE: If you are not sure which ZIP file to unzip, go to Computer > Properties and look at **System type**.
3. Extract the files to InstallDir.

TASK 5 – Modify TRIP_IMPORT_WINDOWS.PROPERTIES

This step prepares the Import Tool for your routes by telling it what to expect. In InputDir\conf, open TRIP_IMPORT_WINDOWS.PROPERTIES with NotePad or WordPad.

1. Locate the Web Service Generic Parameters section.
   a. Enter credentials for the user who has permission to import trips.

   NOTE: For MCP customers, user permissions are maintained in the Omnitracs Services Portal under QTRACS > Setup > Company Settings > Users.

   ```
   #####################################################
   trip.import.ws.sso.company.id =
   trip.import.ws.user =
   trip.import.ws.pass =
   ```

   b. Specify the location of the InputDir folder you created in Task 2.

   ```
   # watched directory: put files in here and they get imported
   file.input.dir =

   # output directory: processed files and their respective log
   files go here (add trailing slash)
   file.output.dir =
   ```

c. Specify the type of route import file the Input Tool will find when it looks inside InputDir.

```
# input file type (ROUTES-FIXED, ROUTES-COMMA, ROUTES-XML)
file.type =
```

 NOTE: Use ROUTES-COMMA for any type of delimited file.

d. Specify the file extension name of the route import file.

```
#  default extensions are: .csv for ROUTE-COMMA, .fix for
ROUTE-FIXED and .xml for ROUTE-XML)
file.extension =
```

2. Find the CSV/Fixed Format parameters section:

a. Specify the character that separates fields in the import file.

```
# CSV/Fixed format parameters
###############################################################
csv.delimiter =
```

NOTE: Comma is the most common, but if your import file uses commas in the actual data, change, you must change what delimits the fields in the CSV file and specify the delimiter here.

b. Confirm that the date format matches the exact date format in the route input file. It is case sensitive. Your choices are yyyy-MM-dd, mmddyyyy, etc.

```
# date & date/time formats (see Java SimpleDateFormatter for
explanations/examples)
date.format =
```

c. Set Boolian True/False to false.

```
use.relative.time = false
```

d. Confirm that the date/time format matches the date/time format in the route input file. Example: yyyy-MM-dd'T'HH:mm:ss

```
# datetime format
date.time.format =
```

e. **Optional:** specify default stop type. Examples: miscellaneous, terminalStart, dropoff

```
# specify default stop type here, only for csv or fixed format
default.stop.type =
```

NOTE: Do NOT specify default stop type if the output of your route generation software already includes stop types.

3. Save trip_import_windows.properties to the InputDir folder.

NOTE: If you run Linux instead of Windows, follow the same steps using trip_import_linux.properties.

TASK 6 – Modify Riformat.ini in the InputDir folder

These instructions apply to COMMA-DELIMITED route files only. If your route file is FIXED-LENGTH, or you use Appian or CAMS ,please contact Omnitracs Customer Support.

Modifying the .INI file maps the fields from the route file to those used by the Trip Import Tool.

1. Copy Riformat.ini from InstallDir > Sample to InputDir.
2. Open the file with Wordpad or an editor of your choice.
3. Specify the type of route file you are mapping.

```
; RIFORMAT.INI file
; NOTE: Comments and data must be on seperate lines in this file
!!!!!!!!!
;
;===============================================================
==============
[FILESPECS]
FileFormat=
```

File Format: 1 = fixed length & pos fields, 0 = comma delimited; when importing a comma delimited file, make modifications to the `[ROUTES-COMMA]` section of the .INI file; for a fixed-length file, modify the `[ROUTES-FIXED]` section.

4. Open one of your route files and identify the field names for each value and their sequence.

   NOTE: Numeric order in the .INI file is determined by the sequence of fields in the .CSV file. Trip Manager does not care which field name goes with which number in Riformat.ini, only that the field names match those in your route file.

5. Edit the Riformat.ini file to match the field names and sequence of those in your .CSV file.

Required Input Fields:

```
RouteID
RouteDate
LocationID
StopType
```

Optional Input Fields:

```
TruckID
DriverID
RouteStartTime
RouteEndTime
ArrivTime
DepartTime
OrderID
OrderHandlingUnits
OrderQuantity
OrderDesc
OrderServiceType
```

NOTES:

- Trip Manager's .INI file must include the four required fields in the order they appear in the .CSV file.

- The imported .CSV route file must include values for required fields.

- Optional fields in the Riformat.ini file may be null. Trip Manager ignores the missing data.

  Example: if no `ArrivTime` is included with the imported route, no Arrive Time is listed in the Trip Plan.

- The .CSV file may also contain fields that Trip Manager does not recognize.

  Example: if the .CSV has a field called `TotalRouteDist`, include it in the .INI file to keep the order and number of fields consistent . Trip Manager ignores the unrecognized field.

Sample .CSV file:

```
Depot2,terminalStart,GChan,16,GCCSV-
42,2011-04-14,2011-04-14T14:00:00,2011-04-
14T17:00:00,2011-04-14T14:00:00,2011-04-
14T14:10:00,,T0,,,

1001,pickup,GChan,16,GCCSV-42,2011-04-
14,2011-04-14T14:00:00,2011-04-
14T17:00:00,2011-04-14T14:15:00,2011-04-
14T14:20:00,34,TOA,Pick up material at
QCNC,PLT,PLT_35_Pick up material at QCNC

Robertos Pub,dropoff,GChan,16,GCCSV-
42,2011-04-14,2011-04-14T14:00:00,2011-04-
14T17:00:00,2011-04-14T14:30:00,2011-04-
14T14:35:00,2,TOB,Drop 2 pallets at La
Jolla Brewery,PLT,PLT_2_Drop 2 pallets at
Brewery

Chevron Miramar,fuelStop GChan,16,GCCSV-
42,2011-04-14,2011-04-14T14:00:00,2011-04-
14T17:00:00,2011-04-14T15:20:30,2011-04-
14T15:35:00,,,,,

Depot2,terminalFinish,GChan,16,GCCSV-
42,2011-04-14,2011-04-14T14:00:00,2011-04-
14T17:00:00,2011-04-14T15:00:00,2011-04-
14T17:00:00,,TOD,,,
```

Matching Riformat.INI file:

```
[ROUTES-COMMA]
TotalFields=15
MaxRouteRecordLength=300
1=LocationID
2=StopType
3=DriverID
4=TruckID
5=RouteID
6=RouteDate
7=RouteStartTime
8=RouteEndTime
9=ArrivTime
10=DepartTime
11=OrderQuantity
12=OrderID
13=OrderDesc
14=OrderHandlingUnits
15=OrderServiceType
;
```

If your .CSV file uses a different sequence or does not include some of the optional fields, change the .INI file to match it. Below is the same route with the same number of stops, but each stop contains less information:

Sample .CSV file #2:

```
GCCSV-42,2011-04-14,16,Depot2,terminalStart,
2011-04-14T14:00:00,2011-04-14T17:00:00,T0,

GCCSV-42,2011-04-14,16,1001,pickup,2011-04-
14T14:00:00,2011-04-14T17:00:00,TOA,Pick up
material at QCNC

GCCSV-42,2011-04-14,16,Robertos Pub,dropoff,
2011-04-14T14:00:00,2011-04-14T17:00:00,PLT,
PLT_2_Drop 2 pallets at Brewery

GCCSV-42,2011-04-14,16,Chevron Miramar,
fuelStop,2011-04-14T14:00:00,2011-04-
14T17:00:00,,

GCCSV-42,2011-04-14,16,Depot2,
terminalFinish,2011-04-14,2011-04-
14T14:00:00,TOD,
```

Matching Riformat.ini file:

```
[ROUTES-COMMA]
TotalFields=9
MaxRouteRecordLength=300
1=RouteID
2=RouteDate
3=TruckID
4=LocationID
5=StopType
6=RouteStartTime
7=RouteEndTime
8=Order ID
9=OrderDesc
;
```

6. Ensure that TotalFields matches the number of fields included.

Additional notes about the mapping process:

For LocationID or LocationDesc values to match landmarks in Omnitracs's GeoServices, they must be 25 characters or less. This is because landmark names and aliases in GeoServices are limited to 25 characters. If the field from the import file is too long, it cannot yield an exact match.

When no match is found – for this or any other reason – GPS-based auto arrival is unavailable for the stop. However, the import process will not fail if a value for LocationID is more than 25 characters. Drivers will simply need to select Manual Arrival for the stop.

TASK 7 – Install the Trip Import Utility as a Service

1. Open a command window (CMD).
2. Navigate to the bin directory under InstallDir (for example, c:\users\<your name>\desktop\Trip Manager Import Tool 1.3\InstallDir\bin).
3. Type **InstallTripImporter.bat** (no spaces) and press **return**.
4. Click **Yes** if a pop-up window asks, "Do you want to allow the following program to make changes to this computer?"

   NOTE: look for a confirmation in the command window that says, "QTM Trip Importer service installed."

5. Close the command window.

   ONE TIME ONLY: Start the service you just installed. From then on, the service will start automatically everytime the machine boots up.

6. From the Start button, type "Services" and then click **Services.**
7. Click **Yes** if a pop-up window asks, "Do you want to allow the following program to make changes to this computer?"
8. Scroll down the list of Services and highlight **QTM Trip Importer**.
9. Click **Start the service.**

   NOTE: Check InstallDir\Logs\wrapper for suggestions if you have trouble starting the service.

How to tell if the import process is set up correctly

1. Place a route file into ImportDir.
2. After 30 seconds, examine the log Files in InstallDir\logs\<today's date>.
   - Success: The last words in the log file (*.txt) indicate that the total number of trips equals the number of trips imported. Example: totalTrips: 14   numTripsImported: 14
   - Failure: The log file includes the words `results: Import failed`.

   NOTE: The log file provides clues to help you troubleshoot an unsuccessful import. Examples:
   - TripImportException: Trouble converting field 'RouteDate' to Date in map: {...} DateFormat: yyyy-MM-dd
   - TripImportException: Trouble finding or parsing .ini format file: C:/{...}/InputDir/Riformat.ini

80-JA349-1 Rev. E

August 2015