

***Wasatch Front Travel Demand Model***

**‘What’s New’ Documentation**

**2009 Base Year Travel Demand Model**

**Updated:**

**May 2012**

# Version 7.0.1

Changes in this version of the model affect usability and performance but do not affect model results. Below is a description of the changes made in this model version.

## HailMary.s

With the release of 64 bit operating systems, such as in Windows 7, Cube software is installed in the program files x86 directory. This change broke the paths in the ‘HailMary.bat’ file to the Voyager executable. Rather than maintain two hailmary batch file (one for 32 bit operating systems and one for 64 bit systems), the model run launch point will now be done using a Cube script, ‘HailMary.s’.

The ‘HailMary.s’ launch point offers a few advantages:

* Running the ‘HailMary.s’ script should work regardless of where Cube software is installed.
* Error handling for the entire model stream is handled in Voyager. Previously, the ‘HailMary.bat’ included error handling between model scripts while Voyager handled errors inside the scripts.

A text file indicating the step of the model is still generated as the model runs. These files are now found in the root directory which helps the user see the progress of the model in one location. If the model were to crash, this file also informs the user the script where the crash occurred.

The model run print file (\*.PRN) is also found in the root directory and contains information from the entire model run. This has the advantage of not having to hunt for this file in the scripts folder to identify model fatal errors and other information. However, this file can be large, which is a drawback. The aggregate runtime reported in the Voyager run window also represents the entire model runtime and not simply the runtime for an individual script.

* Viewing and modifying the ‘HailMary.s’ script is easier and uses the same logic/rules the user is familiar with in running Voyager scripts. The user does not need to be familiar with DOS to manipulate scripts in the model run.
* The model now calls the ‘0GeneralParameters.block’ and ‘1ControlCenter.block’ files only once at the beginning of the model run. If a user still would like to run individual scripts, the user will simply need to uncomment the READ statements at the beginning of the individual script to read in the general and scenario specific parameters. When finished, the user will then re-comment out these READ statements.

## Elapsed Time

The ‘ElapsedTime.exe’ file no longer worked with Windows 7. The elapsed time code was removed from the model and replaced with a new method for monitoring model step runtimes. Code was added inside the scripts to print a text file at the beginning of various model steps. The model runtime can then be inferred by looking at the text file time stamps. Just one file is created at the beginning of the Input Processing, Auto Ownership and Trip Generation modeling steps. Beginning with Distribution, a text file is create for each script in the modeling step, with the exception of Mode Choice where scripts 2-3 do not generate a time stamp text file because the model runs fairly quickly through these scripts. The time stamp files are found in the ‘\_ElapsedTime’ folder in the root directory.

## Model Notification (Play Sound & Send Mail/Text)

### Send Mail / Text

The ‘HailMary.s’ script will now send the user and email alert when the model finishes or if the model crashes. To receive emails alerts, the user needs to specify the SMTPSERVER, USERNAME, PASSWORD, FROM and TO sections in the SENDMAIL command (note there are two places in ‘HailMary.s’ that would need to be changed). For a user not familiar with defining email parameters, most of this information may be obtained from looking at the email settings in an email enabled smart phone or by contacting the agency’s IT department.

SENDMAIL SMTPSERVER = 'webmail.rsginc.com',

USERNAME = 'i-rsg\chad',

PASSWORD = '\*\*XYyRODsGKVEGOpPVlHOPDVVsPElStCOuLIMDIqBatCQTU\*\*',

FROM = 'chad.worthen@rsginc.com',

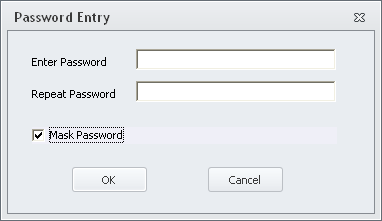
TO = 'chad.worthen@rsginc.com',

Subject = 'Model Finished',

Message = 'Congratulations!'

The user may also use the Cube Base text editor to encrypt the user’s PASSWORD (highlighted in red above).

* Open any text file in Cube Base.
* In the ‘Insert’ menu option or ribbon command, select ‘Password for email’.
* A dialog box opens which allows the user to enter a password (make sure ‘Mask Password’ is checked). The encrypted text will be entered into the text document in Cube.



* Copy the encrypted password text and paste into the PASSWORD variable (text between the quote marks) in ‘HailMary.s’.

According to Cube help, the user can also send mail as a text message to a cell phone account that supports text messaging. Examples of cell phone provider messaging e-mail addresses are listed below (check with cell phone service provider to verify the appropriate address):

* Phone#@tmomail.net
* Phone#@ messaging.sprintpcs.com
* Phone#@ vtext.com
* Phone#@ txt.att.net

For instance, a text message address might be added to the TO command by typing the following text:

TO = 'chad.worthen@rsginc.com', '5106635200@messaging.sprintpcs.com',

To turn email alerts off set the ‘SendEmailAlerts’ variable to 0 in ‘1ControlCenter.txt’.

## Input/Output File Path Names in Quotes

The file path names in the model are now encapsulated in quote marks. This allows the path to include special characters, such as spaces, dashes and andpersands without crashing the model. This allows the user greater flexibility in file and folder name construction as well as greater freedom in placing the model root directory.

## Update to Voyager Module References

Previous versions of the model continued to use the following legacy TP+ module calls: HWYNET, HWYLOAD and TRIPDIST. These have been updated to the following Voyager module calls: NETWORK, HIGHWAY and DISTRIBUTION. This should allow the model to take advantage of module updates as Citilabs is maintaining the Voyager modules but has not guaranteed to update the legacy TP+ modules. The only remaining TP+ module in the WF model is the TRNBUILD module which should be replaced in V71 of the model.

## General Updates

### Network Processing Bug Fixes

A bug was fixed that was causing the model to freeze in the ‘1NetProcessor.s’ script. The bug only affected land use reporting and did not affect model results.

There was an inconsistency in how the hand-coded drive and walk support links were being called in the model. In the ‘4TranRouteTest\_0Xfer\_Emp30.s’ script, the support links were being read in a ‘Sup’ folder in the scenario transit line directory. All other references to hand coded access links were using the ‘Sup’ folder in the general inputs transit folder. Both locations had copies of the same hand-coded access link data. The ‘4TranRouteTest\_0Xfer\_Emp30.s’ script now references the same support link directory as the rest of the model. The duplicate ‘Sup’ folder in the line folder can be deleted. Scenario specific hand-coded support links will be included in a later version of the WF model.

### General Parameters Edits

The ‘runselectlink’ variable was added as a toggle to turn on select link analysis in Final Assignment. The corresponding application of the toggle variable is found in ‘4AssignHwy\_ManagedLanes.s’.

The post processing sub folders were removed as tokens. These folder tokens were not being used and were labeled incorrectly. The sub folders are referenced with a static path name after the @ParenDir@@PostProcDir@ tokens in the post processing scripts called by ‘HailMary.s’