



## APPENDIX A: MODEL USER GUIDE



# 1. MODEL USER GUIDE

This document outlines step-by-step guidance to perform a model run. The process can be divided into following steps:

- Opening the interface
- Checking the variables
- Running the model
- Checking input and output files in model directories

## 1.1 OPENING THE INTERFACE

The project files will have the directory structure as shown in Figure 1-1. The main directory within which all subdirectories and files exist, is called **Root Directory**.

- Double click the catalog file GDOT\_State\_Wide.cat.
- The first-time catalog is opened, it updates the path where the user has saved the complete setup (Figure 1-2). Click **Yes** to continue.
- The GSTDM interface will open as shown in Figure 1-3.

Figure 1-1: Directory Structure

Name	Date modified	Type	Size
Applications	1/29/2019 1:43 PM	File folder	
Base2015	1/10/2019 4:00 PM	File folder	
Parameters	1/3/2019 10:23 AM	File folder	
TMP	1/29/2019 1:43 PM	File folder	
clean.bat	1/10/2019 4:37 PM	Windows Batch File	1 KB
<b>GDOT_State_Wide.cat</b>	1/4/2019 4:02 PM	Cube Catalog File	35 KB
Stat.VAR	1/6/2019 11:50 AM	VAR File	2 KB
Stat0576.VAR	12/26/2018 10:19 ...	VAR File	2 KB
Stat2819.bin.end.10	1/6/2019 10:36 AM	10 File	24,086 KB
Stat2819.bin.end.15	1/6/2019 10:41 AM	15 File	24,086 KB
StateWideModelApplication.app	1/4/2019 4:02 PM	Application Mana...	3 KB
STATEWIDEMODELAPPLICATION.REP	1/6/2019 12:04 AM	REP File	8 KB
STATEWIDEMODELAPPLICATION.S	1/6/2019 12:04 AM	S File	380 KB
StateWideModelApplication.TRF	12/25/2018 5:46 PM	Task Monitor Run ...	5 KB
TPPL.PRJ	1/6/2019 11:47 AM	Application Mana...	1 KB



Figure 1-2: Update Path

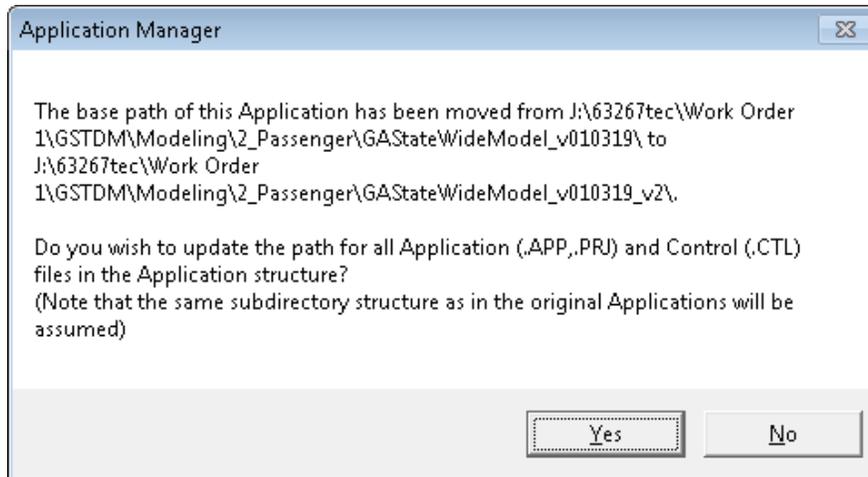
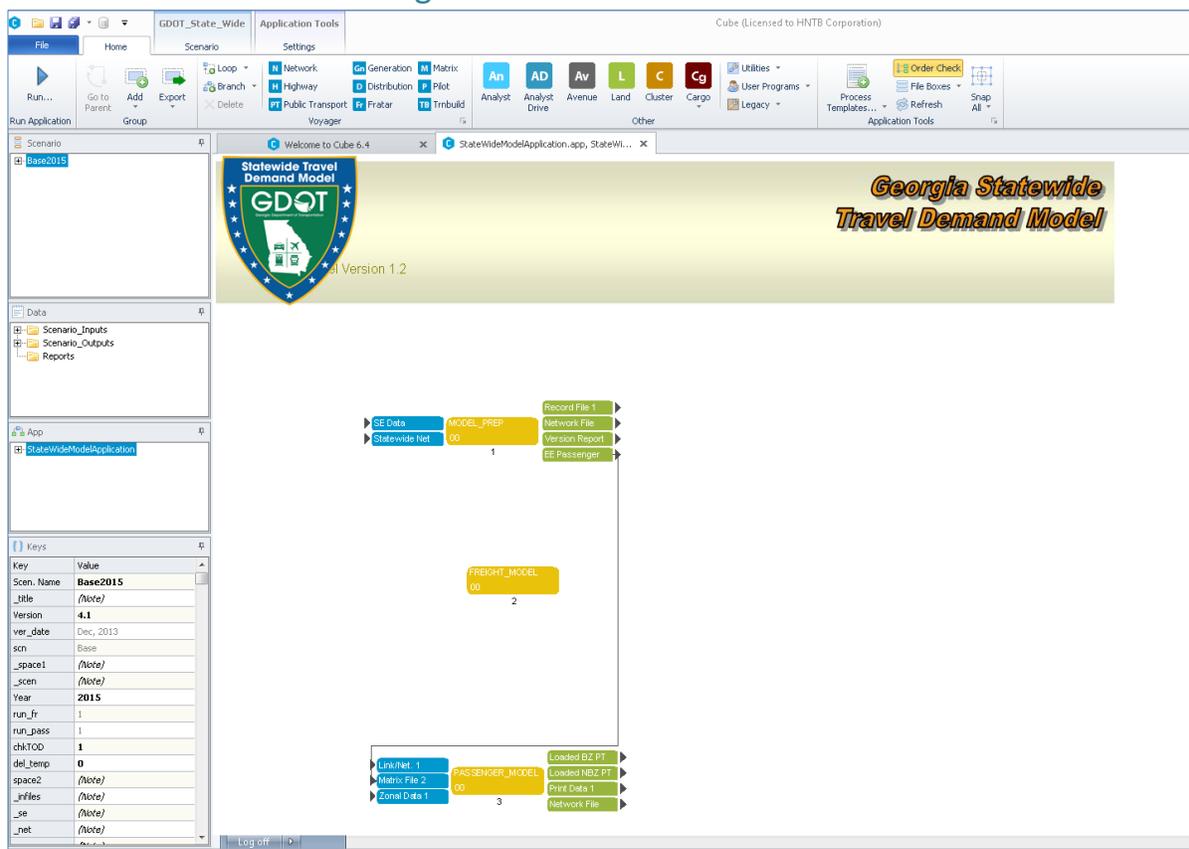


Figure 1-3: GSTDM Interface





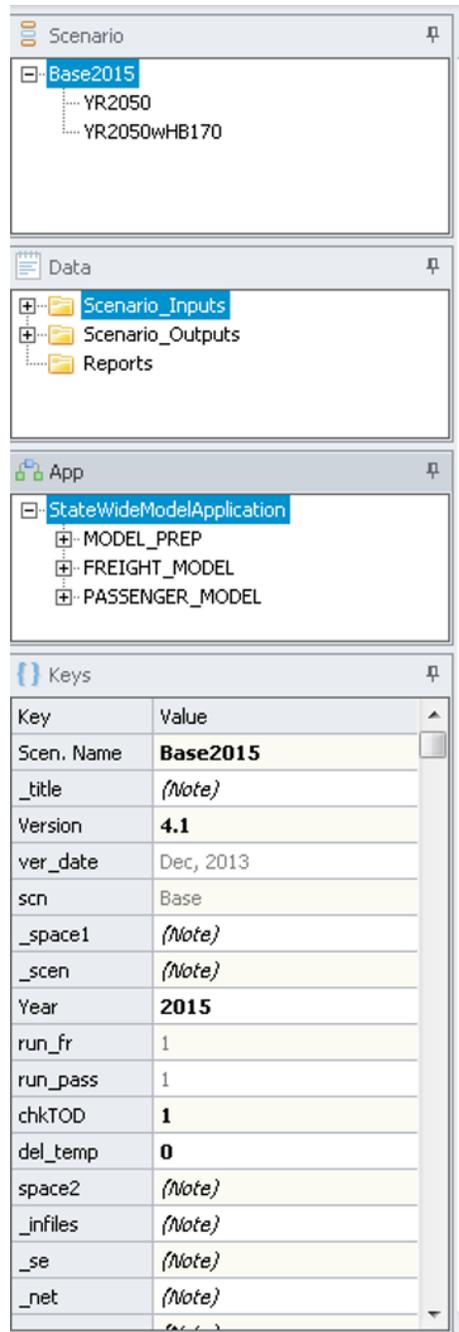
## 1.2 REVIEWING THE MODEL STRUCTURE AND VARIABLES

Within the interface, there is a panel on the left with four windows as shown in Figure 1-4. User must check each of those and make relevant changes.

- **Scenario** – This panel consists of the scenarios within the GSTDM model. As of now, there are three scenarios:
  - Base2015: Base year validated network
  - YR2050: 2050 scenario with STIP projects included
  - YR2050wHB170: 2050 scenario with STIP and TFA/ HB-170 projects included
- **Data** – This panel consists of a list of files organized under input and output folders for easy access.
- **App** – This is main Application/User Interface shown in Figure 1-3 in the drop-down format. Double-clicking a module will open that module in User Interface.
- **Keys** – Keys are the variables used in a scenario. User should review them but not change for any existing scenario. For any new scenario, users may have to change the keys that are specific to the scenario.



Figure 1-4: GSTDM Interface Windows



### 1.3 RUNNING THE MODEL

The model run is executed by first selecting the scenario to run from the Scenario window. Figure 1-5 shows example of selecting Scenario 2050 with STIP projects.

- Double clicking the scenario will open the window shown in Figure 1-6. The user can verify the values and select the appropriate steps in **Select a Scenario to Run** section.
- The user can click the **Run** button at the bottom on the **Scenario Information** screen, or click **Run** from the menu on the top. Both Run locations are highlighted in Figure 1-6.
  - Alternatively, the user can close the **Scenario Information** window, which takes the user back to the interface shown in Figure 1-3. The user can click on **Run** in top left corner of the interface.
- Clicking **Run** using any of the previous methods described above will open an application as shown in Figure 1-7. Check **Run Application from Task Monitor** and click **OK** to continue.
- A window providing a warning will open (Figure 1-8). Click **YES**.
- A window with message about **Run File** creation will open as shown in Figure 1-9. Click **OK**.
- A window with **Start Prompt** will open as shown in Figure 1-10. Click **Start**.
- The model will start running.

Figure 1-5: Scenarios

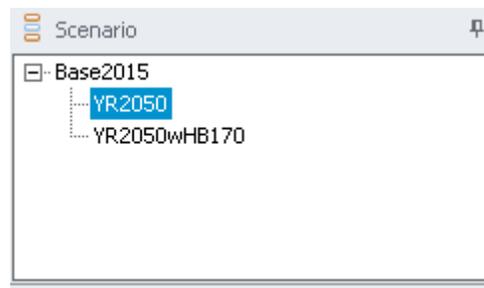




Figure 1-6: Scenario Information

The screenshot displays the 'Georgia Statewide Model - 2015' software interface. The main window is titled 'Georgia Statewide Model - 2015' and contains several sections for configuring a scenario run. A red box highlights the 'Run' button in the top toolbar. Another red box highlights the 'Run' button in the bottom toolbar.

**Scenario Information:**

- Model Version: 1.0
- Model version release date: Jan 2019
- Enter Brief Alternative Name: Base

**Select a Scenario to Run:**

- Add Model Scenario Year (Format "YYYY"): 2050
- Run Freight Model application for scenario?
- Run Passenger Model for scenario?
- Do you want to run Time of Day M
- Delete temporary/intermediate data files when run complete?

**Freight Model Input Data**

**SE Data**

**Network Data**

**Parameters**

Parameter	Value	Action
ton-mile costs to hour scale factor	0.5	
Base truck skims	J:\63267ec\Work Order 1\GSTDMM\Modelling\2_Passenger\GASStateWideModel_vJan2019_Test\Parameters\truck.skm	Browse ... Edit ...
Base Rail Skims	J:\63267ec\Work Order 1\GSTDMM\Modelling\2_Passenger\GASStateWideModel_vJan2019_Test\Parameters\rail.skm	Browse ... Edit ...
Truck Freight Shares	J:\63267ec\Work Order 1\GSTDMM\Modelling\2_Passenger\GASStateWideModel_vJan2019_Test\Parameters\truck.shr	Browse ... Edit ...
Carload Freight Share	J:\63267ec\Work Order 1\GSTDMM\Modelling\2_Passenger\GASStateWideModel_vJan2019_Test\Parameters\carload.shr	Browse ... Edit ...
Intermodal Freight Shares	J:\63267ec\Work Order 1\GSTDMM\Modelling\2_Passenger\GASStateWideModel_vJan2019_Test\Parameters\intermodal.shr	Browse ... Edit ...
Water Freight Share	J:\63267ec\Work Order 1\GSTDMM\Modelling\2_Passenger\GASStateWideModel_vJan2019_Test\Parameters\water.shr	Browse ... Edit ...
Air Freight Share	J:\63267ec\Work Order 1\GSTDMM\Modelling\2_Passenger\GASStateWideModel_vJan2019_Test\Parameters\air.shr	Browse ... Edit ...

**Passenger Model Input Data**

Buttons: Save, Close, Next..., Back..., Run



Figure 1-7: Run Application

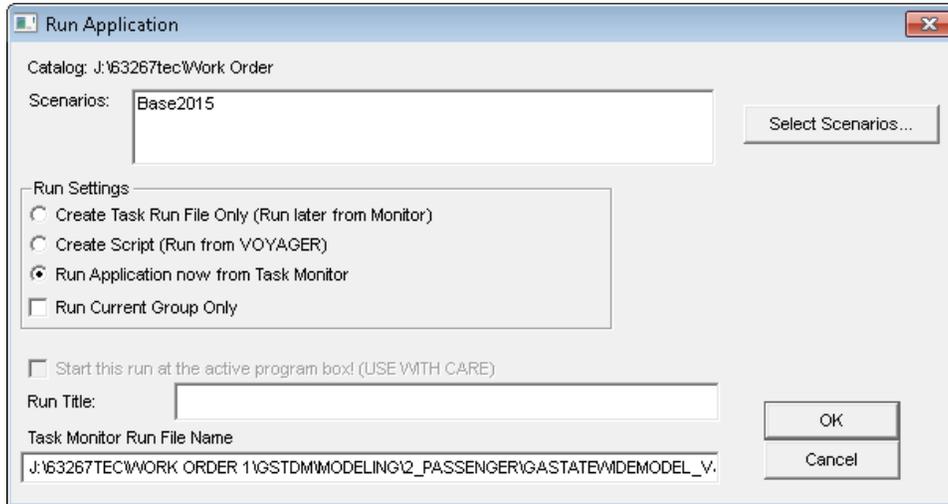


Figure 1-8: Warning Window

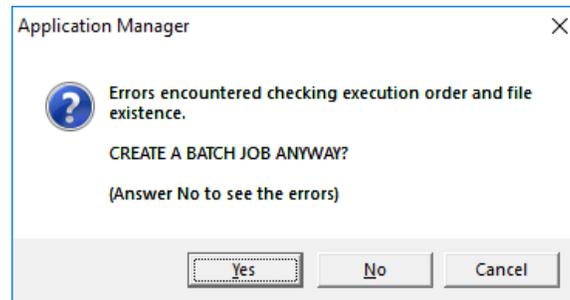




Figure 1-9: Message for Run File Creation

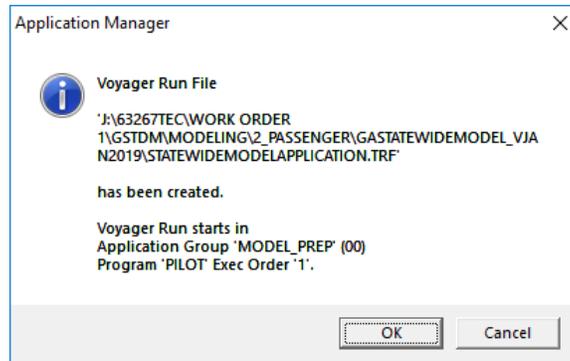
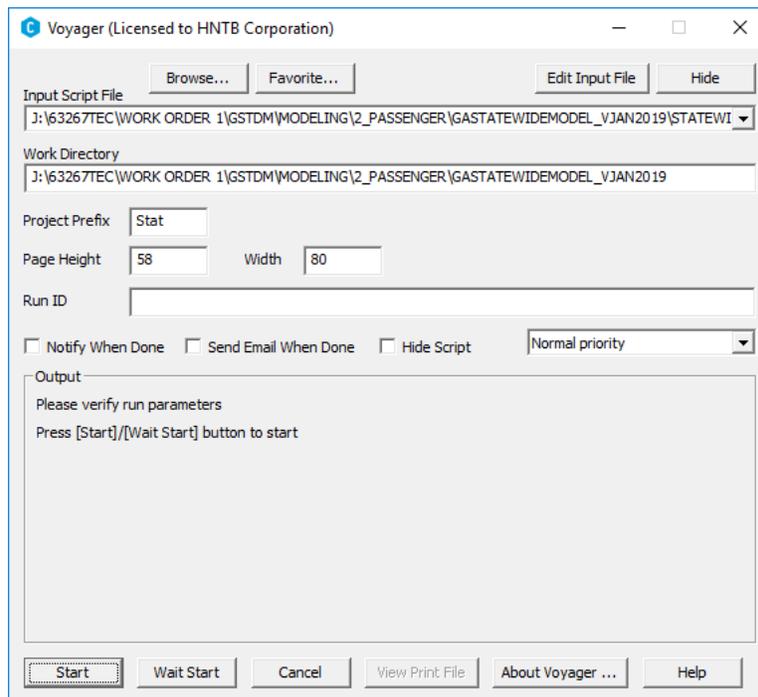


Figure 1-10: Start Prompt for Model Run





### 1.3.1 Troubleshooting Early Model Crashes

Please note that if there are issues running the model (due to bug in Cube), an alternate way is provided below.

- If **Run Application from Task Monitor** crashes, select **Create Script (Run from VOYAGER)** as shown in Figure 1-7.
- The next three windows will be the same as shown in Figure 1-8, Figure 1-9, and Figure 1-10.
- Proceed as described earlier and the model will start running.

## 1.4 CHECKING INPUT AND OUTPUT FILES IN MODEL DIRECTORIES

This section describes the directory structure with the **Root Directory**. The root directory has three main directories:

- Applications – Consists of all applications and scripts
- Parameters – Files common to all scenarios
- Base2015 – Base 2050 inputs and outputs

Base 2015 has following directories:

- Inputs
- Outputs
- Passenger
- Any future scenario (YR2050 & YR2050wHB170)

The future scenarios will have:

- Inputs
- Outputs
- Passenger

Following is description about the files and their folders:

- For any scenario, all the input files are in **Inputs** folder or in **Parameters** in the root directory
- The output files are in **Outputs** and **Passenger**.

Loaded volumes are in final output network **loaded.lod** in **Passenger**.