

Time Distance – Omni

Overview: Computes **Acceleration/Deceleration factors and rates, Time, Distance, and/or Speed as appropriate** based on supplied information. This module will create a table of user-developed research data (pedestrian/vehicle study) for speed, time, distance and/or acceleration/deceleration rates, which automatically integrates into the **Statistical Range (Monte Carlo)** module in **REC-TEC** allowing additional analysis (mean, range, variance, upper and lower bounds).

Entry into Module:

This module of the program is normally entered by clicking on the **REC-TEC** block in the upper left of the **REC-TEC Window** causing the drop-down menu to appear. Place the cursor on the **Time - Distance** block and click on **Time – Distance – Omni** on the sub-menu to initiate this module. This module may also be called using the link under **Tools**.

This module does all of the basic computations of the **Acceleration/Deceleration Factor, Acceleration Single Surface** and **Deceleration Single Surface** modules of the program in a single module. It does not provide for **graphics, animation, iteration** or **Finite Difference Analysis**, nor does it allow for **Lateral Distance (Swerve / Lane Change)** computations, **Grade** and **Braking** adjustments.

Under certain circumstances, the user may choose to use the **Files** block instead of the drop-down menu approach. Selecting any file with a **.TCB** extension in the **Dialog box** accessed from either the **Open Single File** or **Open Multiple Files** block opens this module.

Selecting **AutoLoad [ON]** from either the **Setup Menu** or the **AutoLoad Icon** on the upper right side (third line) of the **REC-TEC Window** automatically loads the scenario that was on the screen when the module was closed, either individually, or when the program was closed. With **AutoLoad [OFF]** on the main **REC-TEC Window**, modules will start without loading a file.

Data Entry:

This section has settings for:

- **Acceleration**
- **Deceleration**
- **Constant Velocity**

This section contains five data entry blocks within the leftmost frame:

- **Factor**
- **Distance**
- **Time**
- **Speed (Initial)**

- **Speed (Final)**

Entry of specific (known) data in the data boxes sufficient to generate an answer causes output information to appear in the **Output** frame. As the input data is changed, the output data is automatically updated without the need to tell the program to update the output.

Output:

The output from this module consists of the repeated input variables plus all of the unknowns that were not entered into the left **Input** frame expressed in the primary and secondary configurations as selected in the **Setup > REC-TEC** menu. If an acceleration (or deceleration), either as entered or as computed, was not from an initial speed of zero, the times and distances are shown for both the event as defined with the input variables and from a stop.

Options:

Several **Command Buttons** appear in a frame located at the lower right corner of the module Window. The **Command Buttons** allow the user to engage options including a **Stop Watch** or **Timer** that may be engaged using either the mouse or the **Enter** key and the option to **Open** and **Save** the data required to generate the scenario shown on the screen at the time the file was saved as well as the Data Table.

- **Open .TCB File** – Calls up a **Dialog box**, which **Opens** any pre-existing **.TCB** file and displays the output results.
- **Save .TCB File** – Calls up a **Dialog box**, which **Saves** data on the screen to files with any user-selectable filenames. This is independent of the automatic saving as “**LastFile.TCB**” of the data at the close of this module or the close of the program.
- **Compute Using Input Data** – Forces a re-computation of the data contained in the input boxes and Turns off the Timer configuration.
- **Timer** – Activates the **Timer** configuration allowing the use of the **Start Timer** and **Stop Timer** Buttons. Activation of the Timer using this button turns off the on-the-fly computations, which will allow changes to the Time or other Inputs that the automatic computations may try to override if the module is in on-the-fly mode.
- **Start Timer** – Starts the **Timer** using either the mouse or the **Enter** key if Active.
- **Stop Timer** – Stops the **Timer** using either the mouse or the **Enter** key.
- **View Data Table** – Displays table of Arrays added to Data Table. Selecting one

of the Buttons at the Heading Label for a Column automatically creates an output file (**TDOmni.RCM**) that can be loaded by the **Statistical Range (Monte Carlo)** module.

- **Add Data to Data Table** – Adds currently displayed data to Data Table.
- **Data Table Averages** – Displays Data Table Element Averages for All Entries.
- **Print ArraysO.out** – Creates a comma-delimited textfile that can be loaded into **Excel**. This file can be viewed by going to **Files>Table Output Files** from the **REC-TEC** Menu bar.
- **Delete Last Array** – Deletes the last array added to the databale. Repeated use will erase all of the entries in the data table.
- **N** – This button toggles a graphical number pad on the screen that can be used to enter data into the input boxes without using your keyboard number pad. This may be useful for presentations as data entry can be accomplished using a wired/wireless mouse.