

Time Distance – EDM

Overview: Computes basic Time and Distance information from data retrieved from Electronic Data Modules (cars and trucks) and formats it for enhanced examination by the Time Distance Multiple Events module.

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 (EDM)** on the sub-menu to initiate this module.

Under certain circumstances, the user may choose to use the **Files** block instead of the drop-down menu approach. Selecting any file with an **.EDM** 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 module is primarily used to evaluate data from Engine and Airbag Control Modules. This module contains the following data entry blocks within the leftmost frame:

- **Speed (Initial)** – from ECM, CDR or Railroad data recorders
- **Speed (Final)** – from ECM, CDR or Railroad data recorders
- **Event End Time** – from ECM, CDR or Railroad data recorders
- **Start Phase** (Controls Graphics and Data Table)
- **End Phase** (Controls Graphics and Data Table)

Entry of variable information in the data boxes sufficient to generate a solution and either clicking the **ADD** button to add another phase, or clicking the green **Arrow** button causes output information to appear in the **Output for Phase** frame and the graphics to update.

Output:

The right frame heading shows the **Output for Phase** (number). The specific phase is controlled by the yellow or green **Arrow** buttons and shows the following:

- **Time** – Elapsed Time for the Phase
- **Distance** – Distance traveled during the Phase
- **Speed (I)** – Initial Phase Speed in Primary and Secondary configurations

- **Speed (F)** – Final Phase Speed in Primary and Secondary configurations
- **Total Distance** – Distance from Start Phase to End Phase
- **Total Time** – Time from Start Phase to End Phase

Instantaneous / Average

- **g(A/D)** – Acceleration/Deceleration factor for Phase
- **Rate:** – Acceleration/Deceleration rate for (Start) Phase to (End) Phase in Primary and Secondary configurations

Options:

Several **Command Buttons** appear in a frame located at the lower left corner of the module Window. The **Command Buttons** allow the user to engage options including the option to **Open** and **Save** the data required to generate the scenario shown on the screen at the time the file was saved.

- **Open .EDM File** – Calls up a **Dialog box**, which **Opens** any pre-existing **.EDM** file and displays the output results.
- **Save .EDM 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.EDM**” of the data at the close of this module or the close of the program.
- **Graphics (Re-draw)** – Forces the program to re-draw the graphics curves for Time (with scales) on the upper half and Distance (with scales) on the lower half of the screen. The right and left scales show the Speed.
- **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.
- **Data Table** – Displays the basic information from the Start Phase to the End Phase in a table. A **Check Box** will allow the user to effectively remove the Speed information for the selected Phase(s) from the computations.

Compute:

Several **Buttons**, **Input Boxes** and a **Command Button** appear in a frame located at the lower middle of the screen. Entering a value **Time**, **Distance** or **Speed** and clicking the associated (round) button will display values for the other two variables in the boxes and show the location on the curve of the entered value. If Speed is entered, the program will show the first instance of the speed.

The **Command Button** will transfer the current information and program control from **Time – Distance (EDM)** to **Time – Distance Multiple Events** for further evaluation and processing.