

REC-TEC MANUAL

Overview of the REC-TEC program

Use the [F1] key to initiate information on a specific module whenever it is the active REC-TEC screen.

Use the [F2] key for an in-depth description of **Finite Difference Analysis** from program modules having **FDA**.

Use the [F3] key for program modules creating **Animation Output Files** and how to create them in each module.

Use the [F4] key for website **Videos** on creating high-resolution **Animations** from the **REC-TEC Animation Output Files**.

[F5] **Private** key for Platinum users.

Radio Button Functions (NEW)

- At every entry point in the program calling for an Acceleration/Deceleration Factor, there is a small round “Radio Button.” Clicking the Radio Button will cause the Acceleration/Deceleration Factor module to appear. Computations can be made for timed or measured vehicle tests or for Drag Sled **Pull** weight divided by **Sled** weight. The user may then transfer the result of the computation and Exit the module or Exit the module without transferring a value.
- To the right of certain (**Primary Output**) Speeds in selected modules there is a “**Radio Button**” that will transfer the value of the Speed to the “**Windows Clipboard**” for transfer into other modules within **REC-TEC** or anywhere else the user may select using the **Paste** option after Right Clicking on the **Mouse**. This option appears on the following modules:
 - **Time Distance Multiple Surfaces (Initial Speed)**
 - **Fall-Vault Airborne**
 - **Vault-Slide Integration**
 - **Yaw-Critical Speed of a Curve**
 - **Kinetic Energy**
 - **360 Linear Momentum (Impact Speeds)**

General

- Light gray Input blocks indicate **Optional** Data that need not be entered.
- **Select** an individual Input block by Clicking on it.
- Use [Arrow] keys or [Enter] to negotiate input blocks.

- Use **[Tab]** for negotiating **Command Options**.
- Highlight data in any **Textbox** (green color) and **Copy** it using the right mouse button (**Paste**) or **[Ctrl][C]** and **Paste** it using the right mouse (**Paste**) button or **[Ctrl][V]**.

Graphics and Animation Commands

- **Mouse(1) plus Mouse Movement:** Draws on Picture (Graphics or Animation) - Erase with Mouse(2).
- **SpaceBar or Mouse(2):** Re-Draw (Graphics or Animation) and Pause/Resume (Animation)
- **Esc or Mouse (both Buttons or Button 4 - Clicking Scroll Wheel):** Toggles screen (full/inset) or Kills Graphics/Animation

Note: Mouse commands are sensitive to Cursor position. Cursor must be on **Picture** area but not on **Text** sections.

Animation Output Files

- The following modules automatically create .CSV compatible output files in both **Comma** delimited (.csv) and **Space** delimited (.asc) formats. These files are compatible with Hi-Resolution Animation software such as **Forensic3D**:
 - **SMAC-RT** and **m-smacRT** – (both vehicles) – **Automatic on RUN**
 - **Collision Avoidance Following** – (both vehicles) – **Created with Table** (Set Time Interval as .033)
 - **Collision Avoidance Passing** – (both vehicles) - **Automatic on Computation**
 - **Time-Distance Multiple Vehicles** – (both vehicles) - **Created with Time Table** (Set Interval as .033)
 - **Time-Distance Acceleration - Created with Time Table** (Set Interval as .033)
 - **Time-Distance Deceleration - Created with Time Table** (Set Interval as .033)
 - **Time-Distance Multiple Events - Created with Time Table** (Set Interval as .033)
 - **Time-Distance Multiple Surfaces - Created with Time Table** (Set Interval as .033)
 - **S-CAM II Air Brakes Surfaces - Created during Simulation** (Set Interval as .033)
 - **Motion Analysis (3D) - Created with DATA table**
 - **Vault – Airborne (3D) - Created during Animation**
 - **Vault-Slide Integration (3D) - Created during Animation**

- The animation files can be viewed by going to **Files** on the main toolbar on **REC-TEC** and selecting **Animation Files**.
- Corresponding Output files, some offering additional information, are viewed using the **Output Files** selection.

CRUSH Text files for CAD conversion to .dxf files:

- **Vehicle1.asc and Vehicle2.asc** – These files are text files that most CAD programs can import and convert to **.dxf** files. This will allow the user to export files with the damage profiles and vector data as they appear in this module for direct conversion to **.dxf** files. If vehicle data from **AutoStats** or **Autostats Lite** is imported into **CRUSH**, those vehicles, drawn to scale with scale damage, can be exported and converted. These files are created when the **Graphics** are displayed.
- These files can be viewed by going to **Files** on the main toolbar on **REC-TEC** and selecting **Crush Vehicle Text Files**.

Entry into a Module:

A program module 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 specific module on the menu or sub-menu to initiate the module.

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

If a module seems to be locked and is not generating data, exit out of the module and set **AutoLoad [OFF]** using the icon on the Main screen. Open a new copy of the module in question and either enter the required data or load an example file.

Printing Reports (Text & Graphics)

Note: Use the Graphics Icon on the Toolbar to set the Graphics Background Color (Blue or Windows Default) and Line Width that best suits your needs.

Quick and Easy - Print each individual Image using the Printer Icon or assemble a professional looking document in Microsoft Word or WordPad.

Print Image:

- Use the Print Icon to print the "Captured" Image or the active **REC-TEC** form.

Assemble a Report using Microsoft Word or WordPad - (Automated Process)

- Use the arrow next to the Report Form Icon and Click on "Start New Word/WordPad Document (Integrated)"
 - Once the Document opens, minimize Word/WordPad or use **[Alt][Tab]** to send it to the back, bringing **REC-TEC** to the front.
- Click the Report Form Icon to transfer a "Captured" Image or the active **REC-TEC** screen (Default if no captured Image).
 - Minimize Word/WordPad and repeat above step as necessary to complete Document.
 - Use the features in Word/WordPad to open/insert files, add text or data, manipulate the images, finalize, name and save the document.

Other Text Editors and Word Processors

Assemble a document in a word processor or text editor - (Manual Process)

- Select the word processor (configured using the **REC-TEC Setup** form) by clicking on Tools on the Main Menu Bar.
- Toggle **[Alt][Tab]** the word processor and **REC-TEC** program bringing **REC-TEC** to the front.
- Select an individual text or graphics screen using the steps outlined above under Main Menu Bar, the Capture Image Icon or the selections provided in the small arrow to the right of the Icon to "Capture" the specific image required.
- Toggle **[Alt][Tab]** the word processor and **REC-TEC** program bringing the word processor to the front.
- Position the cursor at the location where the Image will be pasted.
- Select "Edit" and then "Paste" on the word processor Main Menu Bar.
- Repeat steps 2 through 6 until all of the required **REC-TEC** information (including screens or documents from the Internet) is incorporated into the document.
- Information from other Windows compatible programs may also be "Captured" and "Pasted" into the document being prepared.

- Individual users may also want to create a template document that can be used as a Master Report Form that can be called up in the word processor and used to create future reports.

Iteration Tables / Finite Difference Analysis

[F2] from any active module starts a word processor with a more in-depth description of **Finite Difference Analysis**.

Iteration/FDA Command Buttons call up the frames permitting the user to input minimum and maximum values for selected input variables along with the interval for **Iteration** (Table Generation). If **Finite Difference Analysis (FDA)** is selected, the resulting analysis computes the uncertainty level for the specified range of the input variables.

For a more in-depth description of **Finite Difference Analysis**, see the Finite Difference Analysis Section of this Manual – Press [F2] from any Active module of the program.