

# Installing Transportation Resource Scheduling Tool (TRST)

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1. Double click INS-TRST.EXE downloaded from Paradox's website to invoke the installation process.
2. When the installation process is done, you will be presented with an option to reboot the machine at that time or do it later. It is recommended to reboot the machine before you use TRST for the first time.
3. If you have any problems with installing TRST please email to [support@paradoxsci.com](mailto:support@paradoxsci.com) or call our Technical Support at **855-472-7236 ext.2**.

## Authorization Code

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Before you can start using TRST, you will need to get an authorization code. To get the appropriate authorization code, use the following procedure.

1. Execute TRST to be prompted with the authorization dialog
2. Call **855-472-7236 ext.2** and get the authorization code. You can alternately email Code1 and Code2 to [support@paradoxsci.com](mailto:support@paradoxsci.com) and leave the authorization dialog open until you receive the code.
3. Enter the authorization code in the dialog
4. Click on OK to start using TRST

## TRST - Quick Tour

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1. Upon execution, the application prompts user to either *Create* a new project or *Open* an existing project. Choose to *Open an existing Project*.
2. The projects for the quick tour are in **X:\TRST\PROJECTS\\*.RST** (where X is the drive on which the application is installed and TRST is assumed to be the destination folder, chosen by the user during install, for all the application files. Select **GROCERY\_DEMO\_BENCHMARK.RST** to be opened.
3. The first view that opens up is the data view with a list of all Routes in the project.
  - a. The list of Routes can be sorted by the value of a field (ex: Distance) by clicking on the header field of the column that lists the values for that field.
  - b. Double clicking on a row will bring up a *Route information* dialog
  - c. Clicking on *Next* and *Previous* buttons in this dialog will enable the user to traverse the list without having to close the dialog and double click on a particular Route.
4. View Parameters by selecting **Solve / Parameters**. Refer to the Chapter 3 (found in the *HELP* sub-folder in TRST folder) of the user manual for a description of the parameters.
5. Open the Chart views by selecting **Views / Charts / [Tractor/Trailer/Driver] Utilization** or by clicking the appropriate tool bar button (tractor, trailer, and driver buttons).
6. Each Chart View presents the corresponding resource schedule in a Gantt chart view.

- a. The chart view is divided into two sections. The section on the left-hand side of the chart presents a list of statistics for each resource. The main section (to the right of statistics) is the spatial/time view of the routes.
  - b. The bars on the chart represent the routes. They can be dragged and dropped horizontally and vertically to alter the schedule as required.
  - c. Double clicking on a bar will bring up a *Route information* dialog presenting the details of the route represented by the bar.
  - d. To configure the chart that is in focus, select the *Configure View* tool bar button (next to the Print tool bar button). The configuration features include the functionality to display required statistics, change the height of the rows on the chart, and set the margins for printing the chart.
  - e. The horizontal and vertical scroll bars can be used for traversing the charts.
  - f. Refer to the Chapter 3 of the user manual for a description on configuring the time scale of the chart.
7. Open the resource utilization reports by selecting **Reports / Resource Utilization / [Tractor/Trailer/Driver] Utilization**. All the reports can be previewed and printed.
    - a. Similar to the charts, reports can be configured by selecting the *Configure View* option. In addition to the margins the header and footer of the report can be defined or modified.
    - b. The Page Up (up arrow), Page Down (down arrow), Go Home, and Go End tool bar buttons can be used to traverse the reports.
  8. View statistics by selecting **Data / Schedule Summary** or by clicking on the graph toolbar button
  9. Define parameters (refer to 4) as required.
  10. Run the scheduler by selecting **Solve / Schedule [All Resources/Tractors/Trailers/Drivers]**.
  11. View statistics (refer to 8) for this solution. The open views are not refreshed to enable the user to compare the new solution with the old one. The charts and reports that are opened after running the scheduler will reflect the new solution. To open the new set of charts and reports refer to 5, 6, and 7.
  12. To view a comparison of the benchmark statistics with the new statistics, select **Data / Compare Schedules**.
  13. To execute data Import/Export, select the required option from the **Data** menu and follow the prompts. Import data only into a new project (create a new project first). Export data from a project with data.

## Working with Demo Projects

There are three demo projects in the **PROJECTS** folder under the destination folder (TRST by default).

### Grocery Distributor

The example projects are created from a data sample of one of our current customers, a grocery distribution company. The benchmark solution (snapshot solution of a sample week's dispatching data) has 60 tractors, 60 drivers, and 269 trailers. The final solution (provided by TRST) has 43 tractors, 51 drivers, and 43 trailers. There is a huge reduction in the down times of all the

resources and a significant increase in the number of routes per unit of each resource as can be noticed in the *Schedule Comparison* dialog in the GROCERY\_DEMO\_FINAL.RST project file.

1. GROCERY\_DEMO\_BENCHMARK.RST - Project created to benchmark the current solution. Number of tractors is 60, number of trailers is 60, and number of drivers is 269 for 346 routes.
2. GROCERY\_DEMO\_FINAL.RST - Project saved with TRST solution for the same data set. Number of tractors is 43, number of trailers is 43, and number of drivers is 51 for 346 routes.

### Food Supplier

This sample project was created from a data sample of one of our prospects, a food supply company. The benchmark solution was not provided. The final solution (provided by TRST) has 43 tractors, 57 drivers, and 43 trailers. Unlike the Grocery example, this project has information on driver, service, and layover times for the routes which are required to generate a more accurate driver scheduling solution. All the resources are highly utilized with the average driver down time being 3 hours. From the utilization charts it can be observed that Tractors and Trailers also enjoy high utilization.

3. FOODS\_SUPPLY\_DEMO.RST - Project created to generate optimal solution. Number of tractors is 43, number of trailers is 43, and number of drivers is 57 for 300 routes.

### Help Files

The help files can be found in the **HELP** under the destination folder (TRST by default). Help information is divided into chapters and the required information can be located using the contents section.