Navigation Laboratories Inc.
GPS Constellation Simulators

Differencing Range Files

Scope

The Tapestry system is a software suite developed by Navigation Laboratories Inc. that provides a modeling and control gateway for the LabPro SCS3500/3510 GPS Constellation Simulator.
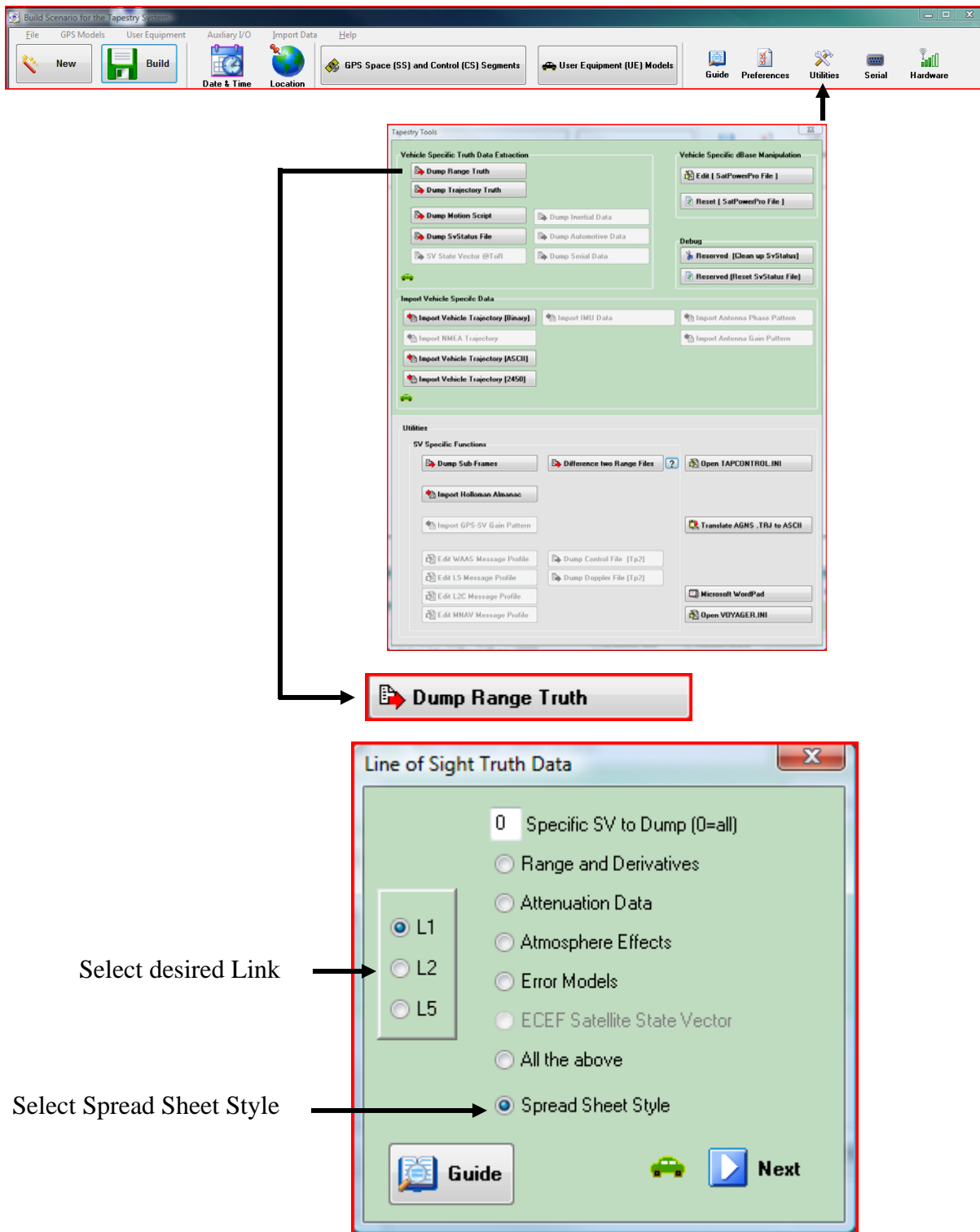
Tapestry can provide a first-look analysis of raw receiver line-of-sight data by comparing it to Simulator Truth Data as defined by the output of the Build Scenario produced file RangeDump1.txt and an L3Com formatted receiver log file.

This document provides a description of the implementation.

Differencing Range Files

To use this utility proceed as follows:

1. You must produce a Range Dump file in Spread Sheet Format. To do this find the Utilities function on the main menu pull-down.

Select desired Link

Select Spread Sheet Style

Build Scenario will construct a TXT file within the scenario folder:
RangeDump1.txt

2. Using the Utility pull-down again, select   📄➡ **Difference two Range Files**

The program will prompt you for 3 files.

- The Simulator Range Truth File: Select RangeDump1.txt [or whatever name you may have given this file]

- The Receiver Measurement File: [the receiver log file in L3C format]

- The Processing Control File.

    This file contains the simple entry on the first line as follows:

    `L1 M`   [1st line]

    For this example the <u>Link</u> L1 will be used and the Code M will be used. Allowable entries are:

    Link: L1, L2, L5   are allowable frequency Links
    Code: C/A, C, P, M   are allowable Codes.

The above three files can have any names and be located anywhere on the computer.

3. Build Scenario will produce a file [in Scenario folder]:   **RangeDifference.txt**

It contains the results of the difference between measurement and truth data.