

# Optional Controller Software for the STR4500 Constellation Simulator SimpleX45

Spirent's STR4500 is the worlds leading GPS L1 C/A constellation simulator, providing a high fidelity, reliable and repeatable test environment. SimpleX45 software adds the capability to generate scenarios and to import remote vehicle motion from file.

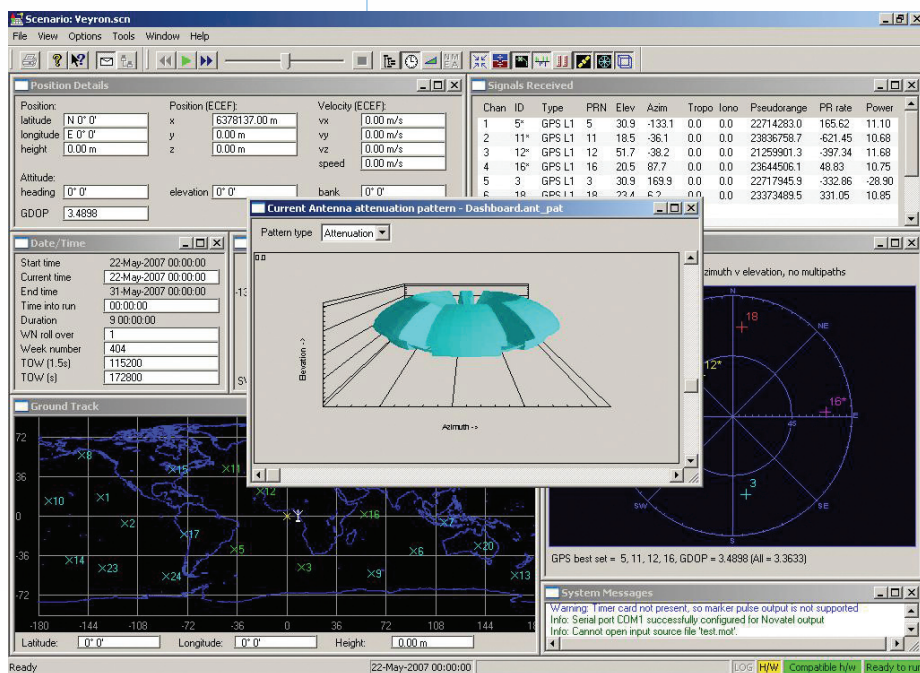
## Key Features

- Controls STR4500 hardware
- Generate and save scenario
- Share scenario with other STR4500 users
- Import motion from NMEA
- Model terrain obscuration
- Receiver antenna pattern modelling
- Save and compare DUT data
- Interactive control facilities

The STR4500 is suited to a wide range of applications, from multiple test runs in an integration or verification environment to production and field-testing. The STR4500 has been chosen by developers and manufacturers from a wide range of sectors including vehicle tracking and telematics, telecommunications, civil aviation and personal navigation.

SimpleX45 adds the capability to generate, edit and save scenarios locally. This includes the ability to import vehicle motion from a file permitting logged NMEA data to be used to generate the trajectory in the simulator.

Sharing scenarios is simple using SimpleX45. The application can be used to generate SimpleX scenarios usable by STR4500's running SimpleX.



SimpleX45 is a powerful application with a graphical, point and click interface facilitating simple scenario build and real time scenario control.

Optional Controller Software for the STR4500 Constellation Simulator  
**SimPLEX45**

**SPECIFICATION**

**Scenario Control**

- Time, date and location
- Record / replay user actions
- Remote control
- Export scenario in SimPLEX form

**Ground and Space Segment**

- Import YUMA constellation
- Pseudorange ramps (for RAIM)
- ISCN on/off

**Propagation**

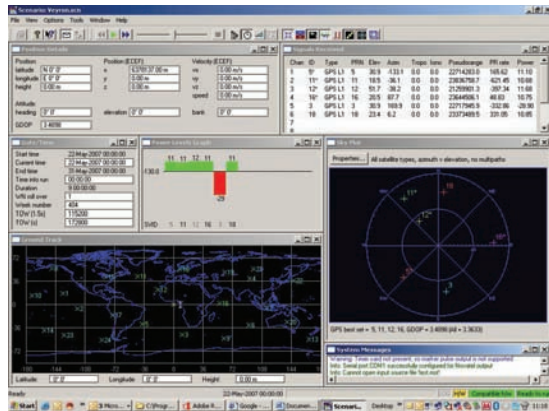
- Terrain obscuration
- Selectable atmosphere model

**User Segment**

- Receiver antenna gain pattern
- User motion from file
- RTCM output via RS232

**Analysis**

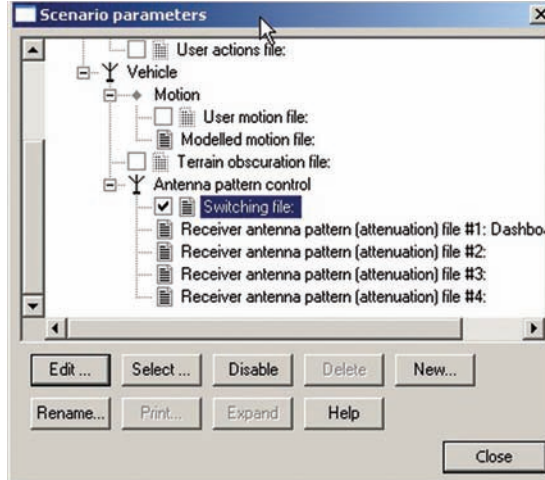
- DUT data logging
- Truth data export to file
- Horizontal error performance analysis tool



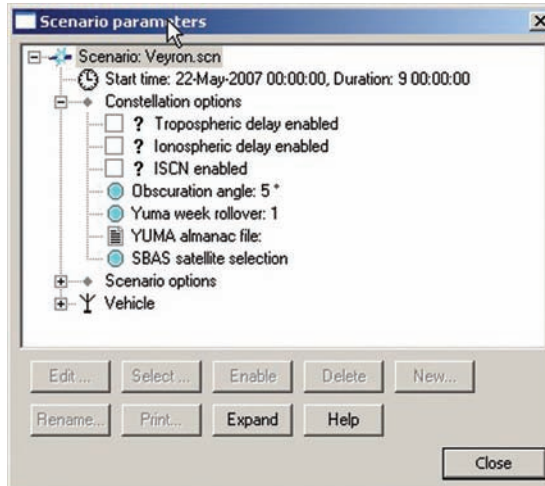
Fully featured runtime display

**Minimum System Requirements**

Item	Requirement
Operating System	Microsoft Windows XP Pro SP2
Processor	Pentium 4, 1.7GHz or equivalent
RAM	256Mbyte
CD-ROM drive	x40 or better recommended
USB Ports	USB 1.2 x 1
RS232 Port	x1 (x2 needed to support all functions)
Ethernet	10Mb RJ45 for Remote Control
Screen	1024 x 768 resolution, 32 bit colour
Hard Disk	40Gbyte (>250Mbyte free space)
Pointing Device	Required
(e.g. mouse)	



Switch between multiple antenna patterns during the run



SimPLEX45 supports constellation and propagation modelling options

**Product Specification MS3051 is available on request.**

Performance figures and data in this document are typical and must be specifically confirmed in writing by Spirent Communications plc. before they become applicable to any particular order or contract.

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For current product data, visit the Spirent websites at [www.spirent.com/positioning](http://www.spirent.com/positioning) or [www.spirentfederal.com](http://www.spirentfederal.com)



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