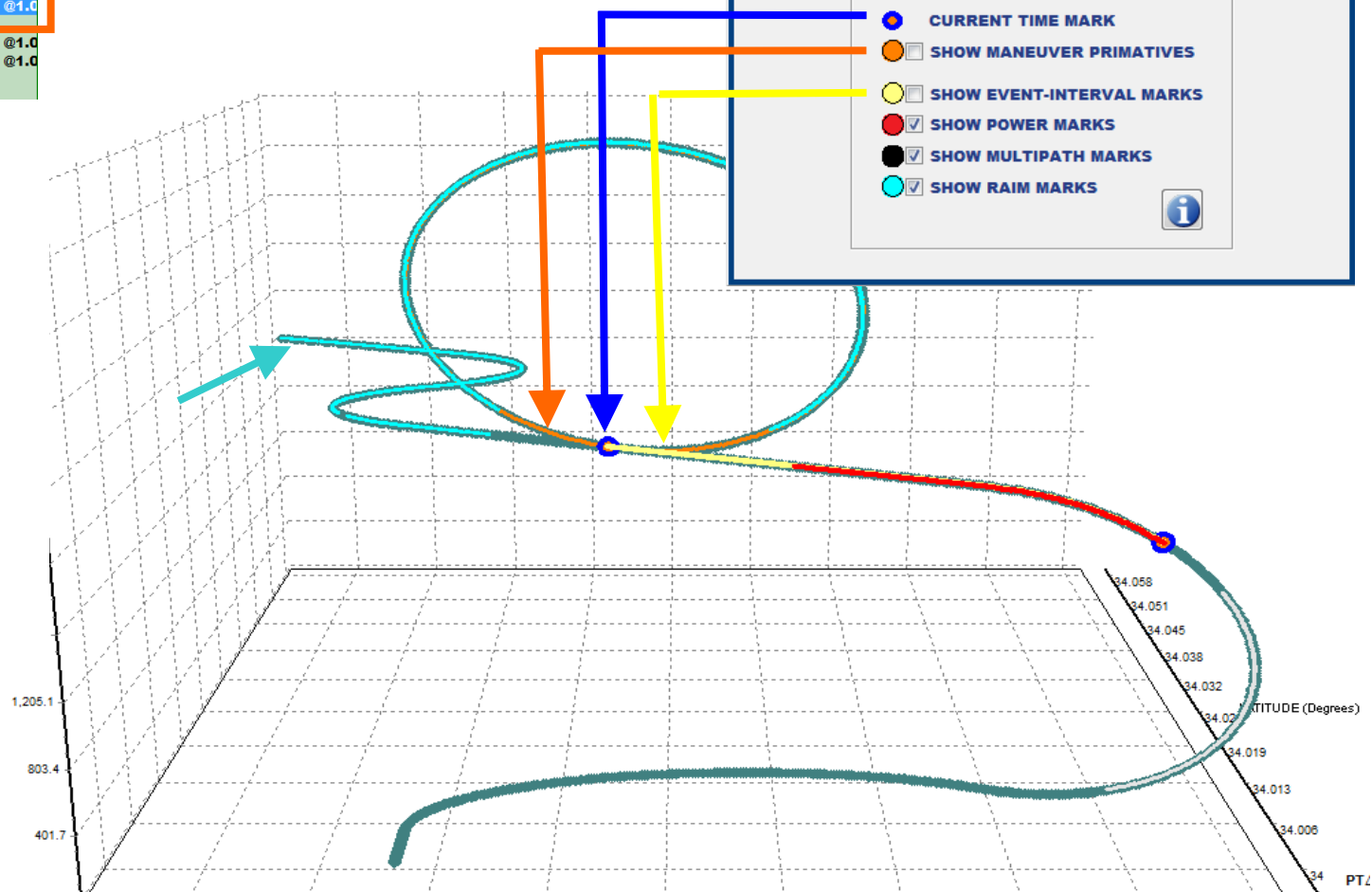
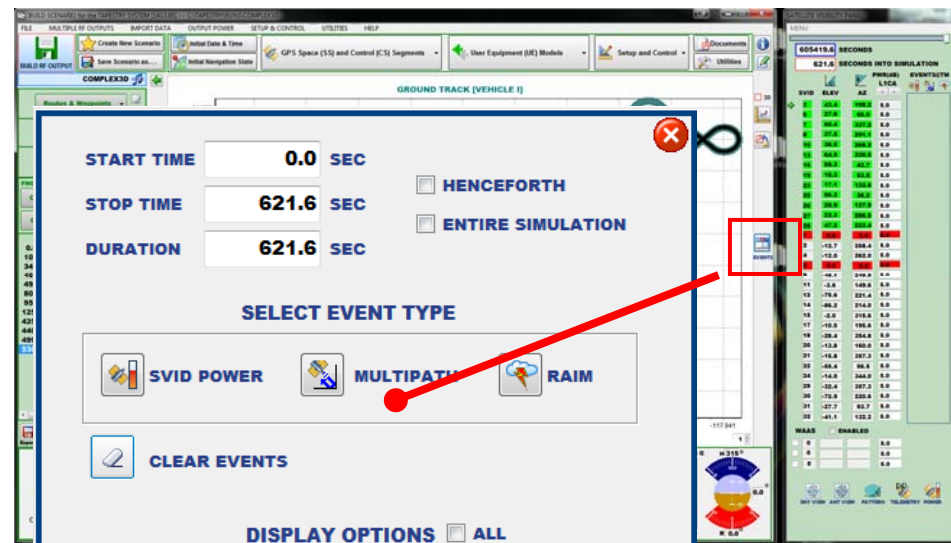


SCENARIO-DRIVEN TIME-EVENT GENERATION

- TIME-MARK, SYNCHRONIZE GUI & EVENT-MODELS
- MANEUVER PRIMITIVES SEGMENTS
- PROGRAMMED POWER AGJUSTMENT
- SVID BASED MULTIPATH
- SVID BASED RAIM ANOMALIES


| Script Sequence | | | |
|-----------------|----------|-----------|------|
| 0.0 | Speed | 100.0 M/S | |
| 10.1 | Turn | 135.0° | @1.0 |
| 33.8 | Pitch | 145.0° | @1.0 |
| 59.3 | Pitch | 0.0° | @1.0 |
| 65.6 | R: P: Y: | 180: 0: 0 | |
| 68.8 | Cruise | 10.0 sec | |
| 80.8 | Pitch | 360.0° | @1.0 |
| 143.8 | Cruise | 10.0 sec | |
| 153.8 | Turn | 90.0° | @1.0 |
| 169.7 | Turn | -90.0° | @1.0 |
| 185.6 | Cruise | 10.0 sec | |



Click START / STOP for EVENT INTERVAL. Then select Event to apply From PULLDOWN

NAVIGATION STATE @TIME MARK

1639 SECONDS 223862.0 ΔT 87.0

INTERVAL  51 Sec STEP 1

[or] Enter desired interval here

Interval will be marked in YELLOW

MARKERS

 TMARK

 SEGMNT

 INTRVL

Click here to Toggle YELLOW INTERVAL Display

GPS Space (SS) and Control (CS) Segments

GPS-TELEMETRY DATA EDITOR

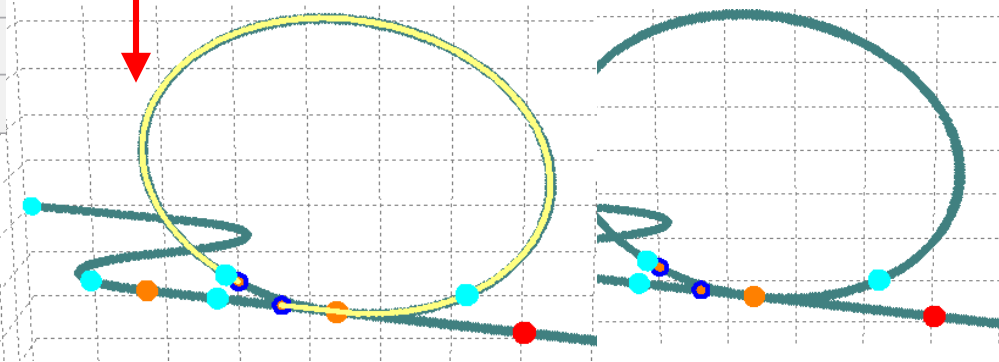
IMPORT GPS-TELEMETRY DATA

SLANT RANGE MODELS

MULTIPATH GENERATION

RAIM EVENT GENERATION

GPS [SVID] POWER PATTERNS



Click to toggle display of MANEUVER SEGMENT

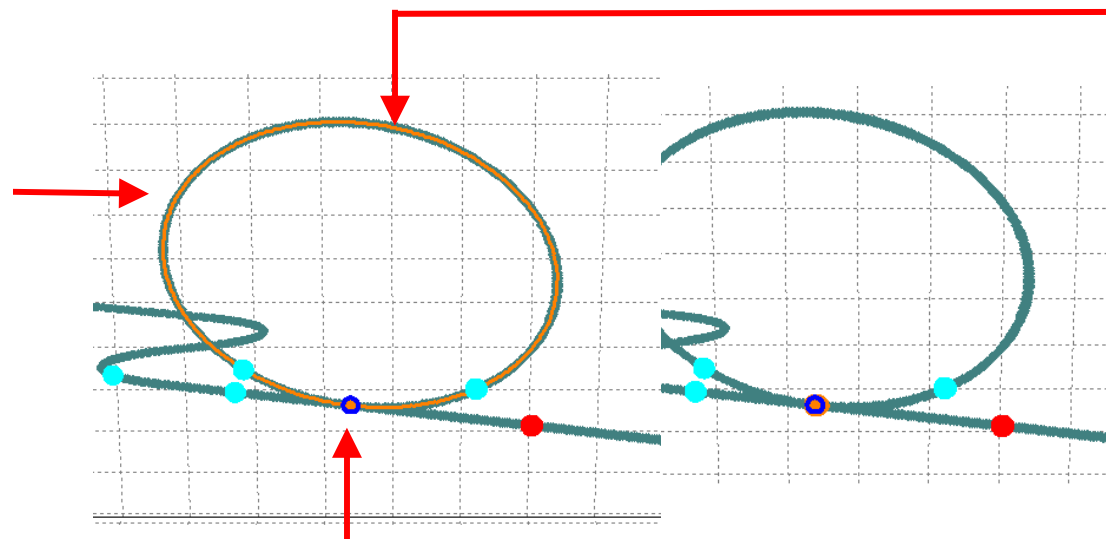
MARKERS

 TMARK

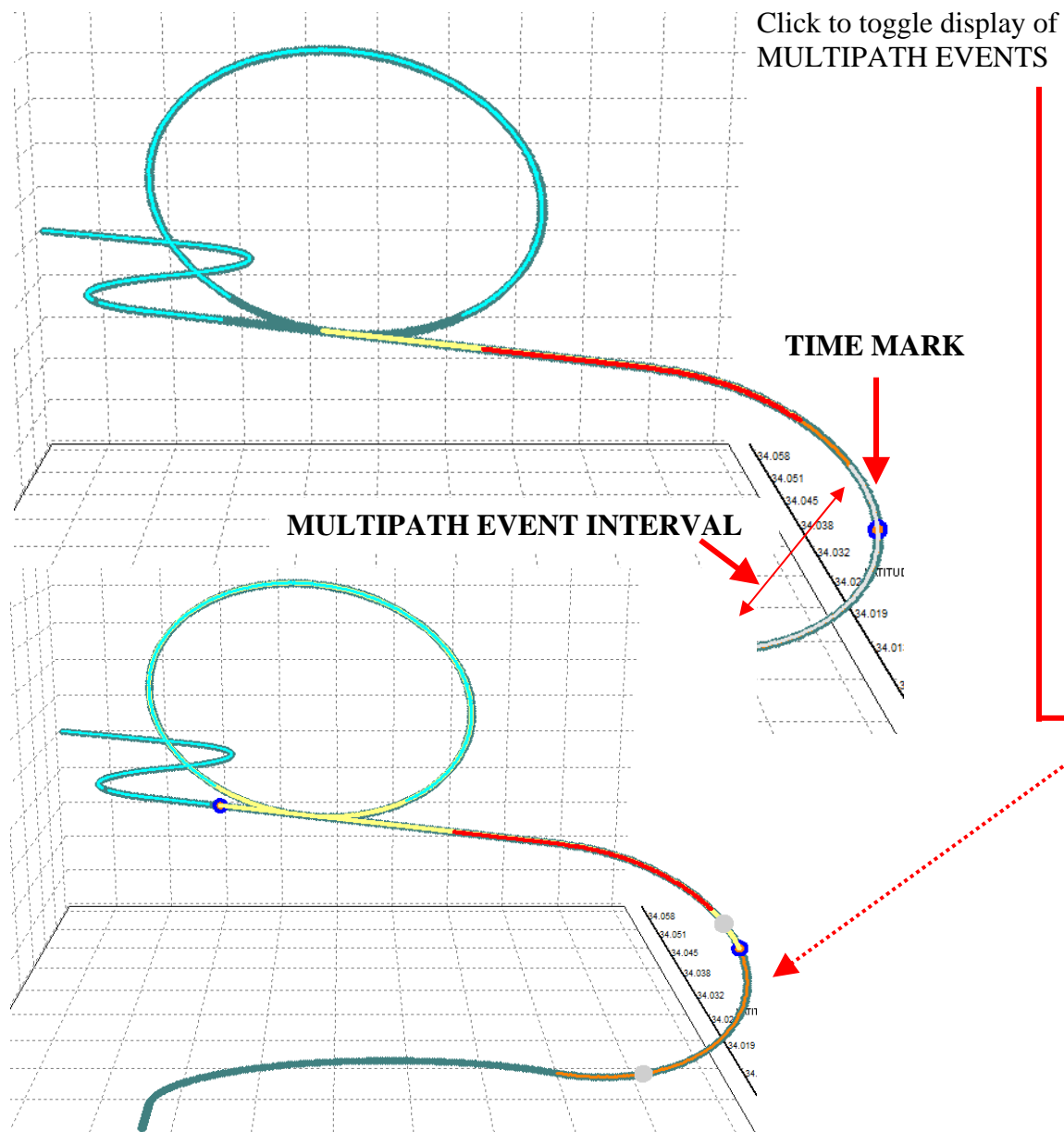
 SEGMNT

 INTRVL

| Script Sequence | | | |
|-----------------|----------|-----------|------|
| 0.0 | Speed | 100.0 M/S | |
| 10.1 | Turn | 135.0° | @1.0 |
| 33.8 | Pitch | 145.0° | @1.0 |
| 59.3 | Pitch | 0.0° | @1.0 |
| 65.6 | R: P: Y: | 180: 0: 0 | |
| 68.8 | Cruise | 12.0 sec | |
| 80.8 | Pitch | 360.0° | @1.0 |
| 143.8 | Cruise | 10.0 sec | |
| 153.8 | Turn | 90.0° | @1.0 |
| 169.7 | Turn | -90.0° | @1.0 |
| 185.6 | Cruise | 10.0 sec | |



SCENARIO-DRIVEN MULTIPATH EVENTS



If TIME-MARK is within an EVENT INTERVAL, this ICON marks the affected SVID

MARKERS

- TMARK
- SEGMNT
- INTRVL

EVENTS

POWER

CLEAR

MULTIPATH

CLEAR

RAIM

PROGRAMMABLE MULTIPATH EVENT

MULTIPATH CHANNEL EVENT

CURRENT TIME 223870.0 Seconds Δ 195.6

Event Duration Δ 60 Seconds ☐ Apply until Simulation Termination

Construct a Channel Event

Event Time ΔT 223814.0 Seconds into Simulation INSERT EVENT

| CHN | SVID | Offset (m) | Slew Dynamics | Attenuation (dB) | Attenuation Rate (dB/s) | | | | | | | |
|-----|------|------------|---------------|------------------|-------------------------|--------------------------------|------|-----|-----|------|------|------------------------|
| | | | m/s | m/s ² | m/s ³ | | | | | | | |
| 1 | 3 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | L1CA | L1P | L2P | M004 | M002 | Attenuation = 0.3 dB/s |
| 2 | 6 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 11 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 14 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 19 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 20 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 22 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 26 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9 | 27 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 31 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 32 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0 | 0 | 0.000 | 0.000 | 0.000 | <input type="checkbox"/> Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Edit Functions

Clear # 2

ΔT 30.0 Time of Applicability

EDIT EVENT FILE

CANCEL FINISHED

SCENARIO-DRIVEN POWER EVENTS

If TIME-MARK is within an EVENT INTERVAL, this ICON marks the affected SVID

The diagram illustrates the configuration of scenario-driven power events. It features a 3D visualization of a satellite's path with two highlighted 'POWER EVENT INTERVALS' (yellow segments). A 'TIME MARK' (blue dot) is shown on the path. The interface includes a 'MARKERS' panel with icons for TMARK, SEGMENT, and INTERVAL. The 'EVENTS' panel shows 'POWER' and 'MULTIPATH' event types, each with a 'CLEAR' button. A 'PROGRAMMABLE POWER EVENT' dialog box is shown, detailing the event configuration.

TIME MARK

POWER EVENT INTERVAL

CLEAR EVENT INTERVAL

MARKERS

- TMARK
- SEGMENT
- INTERVAL

EVENTS

- POWER
- MULTIPATH

PROGRAMMABLE POWER EVENT

TIME OF APPLICABILITY 223971.0 ΔT 196.0 Seconds RF OUTPUT 1 ☐ Apply to All Antennas

SVID Output Assignment

SATELLITE 6 GENERATED ☐ Add ☐ Remove

ELEVATION 21.0° AZIMUTH 223.0°

PROGRAMMABLE POWER LEVEL EVENT

Programmable Power / Attenuation Event

☒ Apply to All Satellites ☐ Lock All Max 0

EVENT DURATION

- ☒ Apply for Duration 60 seconds
- ☐ Clear for Duration
- ☐ Apply from Current Time to Simulation END
- ☐ Apply to ENTIRE Simulation

VEHICLE 1

SCENARIO-DRIVEN RAIM EVENTS

