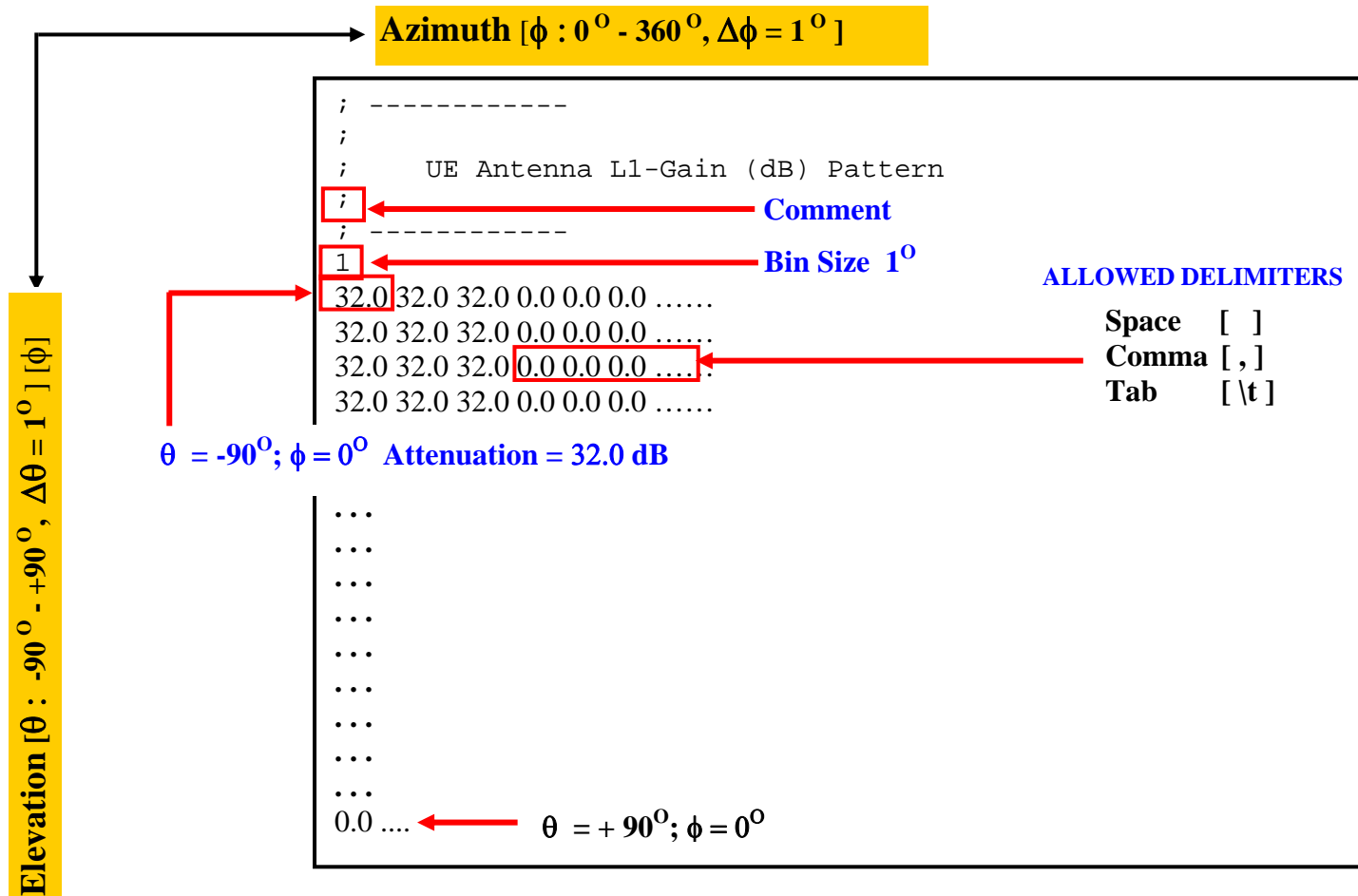# ANTENNA PATTERN FILE CONVENTION

Link specific Antenna Patterns (L_1, L_2, L_5) are represented in Tapestry by 1^O x 1^O text files stored within the Scenario Folder. These files are **optional** and only need be provided for the affected Link as described below.

- <u>Two</u> sets (L_1, L_2, L_5) User Equipment (UE). POWER and PHASE effects,

- <u>One</u> set (L_1, L_2, L_5) GPS-SV Beam Shape POWER effects.

Patterns are specified in Vehicle (or GPS-SV) Body (B) Coordinates. In ASCII [.TXT] files defined as follows:

Azimuth [$\phi : 0^O$ - 360°, $\Delta\phi = 1^O$]

Elevation [$\theta : -90^O$ - $+90^O$, $\Delta\theta = 1^O$] [ϕ]

```
; ------------
;
;     UE Antenna L1-Gain (dB) Pattern
;                                              Comment
; ------------
1                                             Bin Size  1^O
32.0 32.0 32.0 0.0 0.0 0.0 ……
32.0 32.0 32.0 0.0 0.0 0.0 ……                ALLOWED DELIMITERS
32.0 32.0 32.0 0.0 0.0 0.0 …..               Space    [   ]
32.0 32.0 32.0 0.0 0.0 0.0 ……                Comma  [ , ]
                                              Tab      [ \t ]
```

$\theta = -90^O$; $\phi = 0^O$ **Attenuation = 32.0 dB**

```
. . .
. . .
. . .
. . .
. . .
. . .
. . .
. . .
. . .
. . .
0.0 ….
```
$\theta = +90^O$; $\phi = 0^O$

Tapestry copies Imported Files into the Scenario Folder implementing the Naming Convention defined in Antenna Modeling [PDF] .