

Two Line Element (TLE) Format

- TLE is a two-line format used to represent orbital information for space objects, including artificial satellite. Reference: CelesTrak, "[Two-Line Element Set Format](#)"
- The format of TLE is shown below.

```

GOSAT-GW (IBUKI GW)
1 64694U 25141A 26132.00000000 .00000615 0-0 10863-3 0 60031
2 64694 98.0558 69.9079 0001455 89.5255 345.5811 14.67554360 04653 1
  
```

- (a) Twenty-four character name
- (b) Line Number of Element Data (c) Satellite Number (d) Classification (U=Unclassified)
- (e) International Designator (Last two digits of launch year) (f) International Designator (Launch number of the year)
- (g) International Designator (Piece of the launch) (h) Epoch Year (Last two digits of year)
- (i) Epoch (Day of the year and fractional portion of the day) (j) First Time Derivative of the Mean Motion
- (k) Second Time Derivative of Mean Motion (decimal point assumed) (l) BSTAR drag term (decimal point assumed)
- (m) Ephemeris type (n) Element number (o) Checksum
- (p) Line Number of Element Data (q) Satellite Number (r) Inclination [Degrees]
- (s) Right Ascension of the Ascending Node [Degrees] (t) Eccentricity (decimal point assumed)
- (u) Argument of Perigee [Degrees] (v) Mean Anomaly [Degrees] (w) Mean Motion [Revs per day]
- (x) Revolution number at epoch *
- (y) Checksum

* (x) is for reference only.

TLE File Name Definition

TLE file name definition : **TLEN_XX** or **TLEO_XX** (*)

TLEN : Primary plan which consider the orbital maneuver
(Nominal case)

TLEO : Orbital maneuver is not consider (Off-nominal case)

XX = file number

(*) Normally, please use C1TLEN because C1TLEO does not consider the orbital maneuver for orbit calculation.