



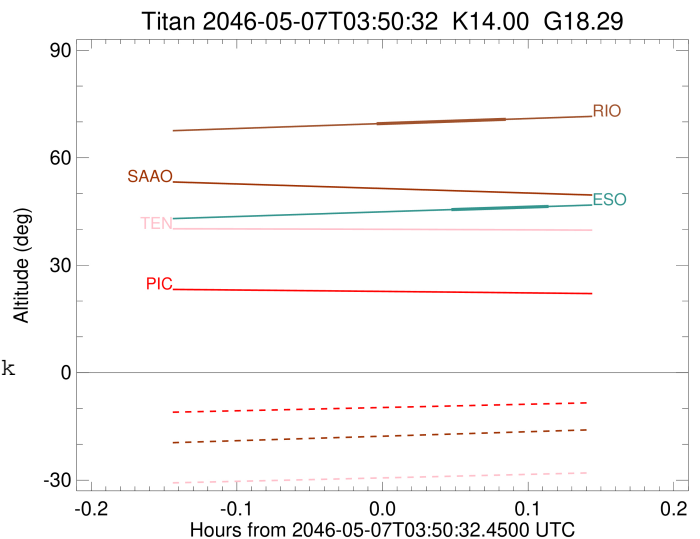
```

target                : Titan
target radius (km)   : 2575.15
C/A epoch            : 2046-05-07T03:52:58.720
Event type           : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code        : RIO
Location             : Rio de Janeiro
Latitude (deg)       : -22.89506
E. Longitude (deg)   : 316.77708
Altitude (km)        : 0.033
Gaia source ID       : 4114864409500565248
2Mass ID (if available) : 17235997-2136406
ICRS Star Coord at Epoch: 17h 23m 59.97396s -21:36:40.94924s
RUWE (>1.4 is poor) : 1.35
K magnitude           : 14.002
G magnitude           : 18.292
RP magnitude         : 17.098
BP magnitude         : 19.540
DUPflag              : 0
Distance (au)        : 9.193
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -14.84
Sun-Target sep (deg) : 144.47
Sun-Moon sep (deg)   : 155.91
B (ring opening deg) : 26.46
PA of pole (deg)     : 4.86
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.118
C/A sky separation (km) : 787.8
NAIF SPICE kernels   : RAJobs_U111+rgf16.spk
URKALLv1.spk
naif0012.tls
nep097.bsp
nep101.bsp
sat4401.bsp
de440.bsp
earth_720101_070426.bpc
jup365.bsp
urall6.bsp
IAU_SATURN_for_RINGFIT.tpc
pck00010.tpc
earth_200101_990628_predict.bpc
IAU_NEPTUNE_for_RINGFIT.tpc.BECAREFUL
uranus_ringframes_rfrench20220627_v1.tf
neptune_ringframes_rfrench20220702a_v1.tf
earth_flat_IAU.spk

```

x: target alt < 5.0 deg or sun > -5.0 deg

| Target | I/E | UTC                     | alt   | alt-sun | radius | lat-geo | lat-geodetic |
|--------|-----|-------------------------|-------|---------|--------|---------|--------------|
| Titan  | I   | 2046-05-07T03:50:17.850 | 69.48 | -74.52  | 2575.1 | -25.21  | -25.22       |
| Titan  | E   | 2046-05-07T03:55:39.520 | 70.72 | -73.35  | 2575.1 | -6.47   | -6.47        |



```

target                : Titan
target radius (km)   : 2575.15
C/A epoch             : 2046-05-07T03:55:22.860
Event type            : Pgt
: Titan occs: geocentric, topocentric
: Not a ringed target
Observer code         : ESO
Location              : European Southern Obs. (3.6m)
Latitude (deg)       : -29.26097
E. Longitude (deg)   : 289.26831
Altitude (km)        : 2.400
Gaia source ID       : 4114864409500565248
2Mass ID (if available) : 17235997-2136406
ICRS Star Coord at Epoch: 17h 23m 59.97396s -21:36:40.94924s
RUWE (>1.4 is poor) : 1.35
K magnitude           : 14.002
G magnitude           : 18.292
RP magnitude          : 17.098
BP magnitude          : 19.540
DUPflag              : 0
Distance (au)        : 9.193
f0 (km)              : 0.00
g0 (km)              : 0.00
skyplane vel. (km/s) : -14.84
Sun-Target sep (deg) : 144.47
Sun-Moon sep (deg)   : 155.53
B (ring opening deg) : 26.46
PA of pole (deg)     : 4.86
Pole direction: RA (deg): 39.48270
Dec (deg): 83.42790
C/A sky separation (") : 0.272
C/A sky separation (km) : 1815.7
NAIF SPICE kernels   : RAJobs_U111+rgf16.spk
URKALLv1.spk
naif0012.tls
nep097.bsp
nep101.bsp
sat4401.bsp
de440.bsp
earth_720101_070426.bpc
jup365.bsp
urall6.bsp
IAU_SATURN_for_RINGFIT.tpc
pck00010.tpc
earth_200101_990628_predict.bpc
IAU_NEPTUNE_for_RINGFIT.tpc.BECAREFUL
uranus_ringframes_rfrench20220627_v1.tf
neptune_ringframes_rfrench20220702a_v1.tf
earth_flat_IAU.spk

```

x: target alt < 5.0 deg or sun > -5.0 deg

| Target | I/E | UTC                     | alt   | alt-sun | radius | lat-geo | lat-geodetic |
|--------|-----|-------------------------|-------|---------|--------|---------|--------------|
| Titan  | I   | 2046-05-07T03:53:22.114 | 45.51 | -73.82  | 2575.1 | -47.68  | -47.70       |
| Titan  | E   | 2046-05-07T03:57:23.560 | 46.39 | -74.41  | 2575.1 | -30.04  | -30.05       |

