

PREDICT(1)

KD2BD Software

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## NAME

predict – Track and predict passes of satellites in Earth orbit

## SYNOPSIS

predict [-u *tle\_update\_source*] [-t *tlefile*] [-q *qthfile*] [-a *serial\_port*] [-n *network\_port*] [-f *sat\_name starting\_date/time ending\_date/time*] [-p *sat\_name starting\_date/time*] [-o *output\_file*] [-s]

## DESCRIPTION

### PREDICT

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screen. If the satellite is not in range, then the Doppler shift and path loss calculations are not performed, and the ne

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such files may be passed to **PREDICT**

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To truly automate the process of updating your orbital database, save the above c

The *-p* option allows orbital predictions for a single pass to be generated by **PREDICT** via the command-line. For example:

```
predict -p OSCAR-11 1003536767
```

starts predictions for the OSCAR-11 satellite at a Unix time of 1003536767 (Sat 20Oct01 00:12:47 UTC). If the starting date/time is omitted, the current date/time is used. If a pass is already in progress at the starting date/time specified, orbital predictions are moved back to the beginning of AOS of the current pass, and data for the entire pass from AOS to LOS is provided.

When either the *-f* or *-p* options are used, **PREDICT** produces an output consisting of the date/time in Unix format, the date and time in ASCII (UTC), the elevation of the satellite in degrees, the azimuth of the satellite in degrees, the orbital phase (modulo 256), the latitude (N) and longitude (W) of the satellite's sub-satellite point, the slant range to the satellite (in kilometers), the orbit number, and the spacecraft's sunlight visibility information. For example:

```
1003611710 Sat 20Oct01 21:01:50 11 6 164 51 72 1389 16669 *
```

The output isn't annotated, but then again, it's meant to be read by other software.

## SERVER MODE

### **PREDICT's**



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**Ascending Node:**



