A.4 CONVBIN

SYNOPSIS

```
convbin [-ts y/m/d h:m:s] [-te y/m/d h:m:s] [-ti tint] [-r format] [-ro opts]
        [-f freq] [-hc comment] [-hm marker] [-hn markno] [-ht marktype]
        [-ho observ] [-hr rec] [-ha ant] [-hp pos] [-hd delta] [-v ver] [-od]
        [-os] [-x sat] [-y sys] [-d dir] [-c satid] [-o ofile] [-n nfile]
        [-g gfile] [-h hfile] [-q qfile] [-s sfile] file
```

DESCRIPTION

Convert RTCM, receiver raw data log and RINEX file to RINEX and SBAS/LEX message file. SBAS message file complies with RTKLIB SBAS/LEX message format. It supports the following messages or files.

```
RTCM 2                : Type 1, 3, 9, 14, 16, 17, 18, 19, 22
RTCM 3                : Type 1002, 1004, 1005, 1006, 1010, 1012, 1019, 1020
                        Type 1071-1127 (MSM except for compact msg)
NovAtel OEMV/4/6,OEMStar: RANGECMPB, RANGEB, RAWEPHEMB, IONUTCB, RAWWASSFRAMEB
NovAtel OEM3          : RGEB, REGD, REPB, FRMB, IONB, UTCB
u-blox LEA-4T/5T/6T   : RXM-RAW, RXM-SFRB
NovAtel Superstar II  : ID#20, ID#21, ID#22, ID#23, ID#67
Hemisphere            : BIN76, BIN80, BIN94, BIN95, BIN96
SkyTraq S1315F        : msg0xDD, msg0xE0, msg0xDC
GW10                  : msg0x08, msg0x03, msg0x27, msg0x20
Javad                 : [R*],[r*],[*R],[*r],[P*],[p*],[*P],[*p],[D*],[*d],
                        [E*],[*E],[F*],[TC],[GE],[NE],[EN],[QE],[UO],[IO],
                        [WD]
NVS                   : NVS NV08C BINR
BINEX                 : big-endian, regular CRC, forward record (0xE2)
                        0x01-01,0x01-02,0x01-03,0x01-04,0x01-06,0x7f-05
RINEX                 : OBS, NAV, GNAV, HNAV, LNAV, QNAV
```

OPTIONS

```
    file      input receiver binary log file
    -ts y/m/d h:m:s  start time [all]
    -te y/m/d h:m:s  end time [all]
```

```
-tr y/m/d h:m:s  approximated time for rtcm messages
-ti tint  observation data interval (s) [all]
-r format log format type
          rtcm2= RTCM 2
          rtcm3= RTCM 3
          nov  = NovAtel OEMV/4/6,OEMStar
          oem3 = NovAtel OEM3
          ubx  = ublox LEA-4T/5T/6T
          ss2  = NovAtel Superstar II
          hemis= Hemisphere Eclipse/Crescent
          stq  = SkyTraq S1315F
          javad= Javad
          nvs  = NVS BINR
          binex= BINEX
          rinex= RINEX
-ro opt   receiver options
-f freq   number of frequencies [2]
-hc comment  rinex header: comment line
-hm marker   rinex header: marker name
-hn markno   rinex header: marker number
-ht marktype rinex header: marker type
-ho observ   rinex header: observer name and agency separated by /
-hr rec      rinex header: receiver number, type and version separated by /
-ha ant      rinex header: antenna number and type separated by /
-hp pos      rinex header: approx position x/y/z separated by /
-hd delta    rinex header: antenna delta h/e/n separated by /
-v ver    rinex version [2.11]
-od       include doppler frequency in rinex obs [off]
-os       include snr in rinex obs [off]
-oi       include iono correction in rinex nav header [off]
-ot       include time correction in rinex nav header [off]
-ol       include leap seconds in rinex nav header [off]
-x sat    exclude satellite
-y sys    exclude systems (G:GPS,R:GLO,E:Galileo,J:QZSS,S:SBAS,C:BeiDou)
-d dir    output directory [same as input file]
-c staid  use RINEX file name convention with staid [off]
```

```
-o ofile  output RINEX OBS file
-n nfile  output RINEX NAV file
-g gfile  output RINEX GNAV file
-h hfile  output RINEX HNAV file
-q qfile  output RINEX QNAV file
-l lfile  output RINEX LNAV file
-s sfile  output SBAS message file
```

If any output file specified, default output files (**<file>.obs, <file>.nav, <file>.gnav, <file>.hnav, <file>.qnav, <file>.lnav and <file>.sbs**) are used.

If receiver type is not specified, type is recognized by the input file extension as follows.

```
*.rtcm2    RTCM 2
*.rtcm3    RTCM 3
*.gps      NovAtel OEMV/4/6,OEMStar
*.ubx      u-blox LEA-4T/5T/6T
*.log      NovAtel Superstar II
*.bin      Hemisphere Eclipse/Crescent
*.stq      SkyTraq S1315F
*.jps      Javad
*.bnx,*binex BINEX
*.obs,*.*o RINEX OBS
```