

GNSS Solution for Android



Highlights

- Allows easy integration of GNSS functionality in Android-based products
- Royalty-free GNSS driver, licensed for reuse in customer products
- GNSS evaluation and visualization application

The u-blox Android solution includes

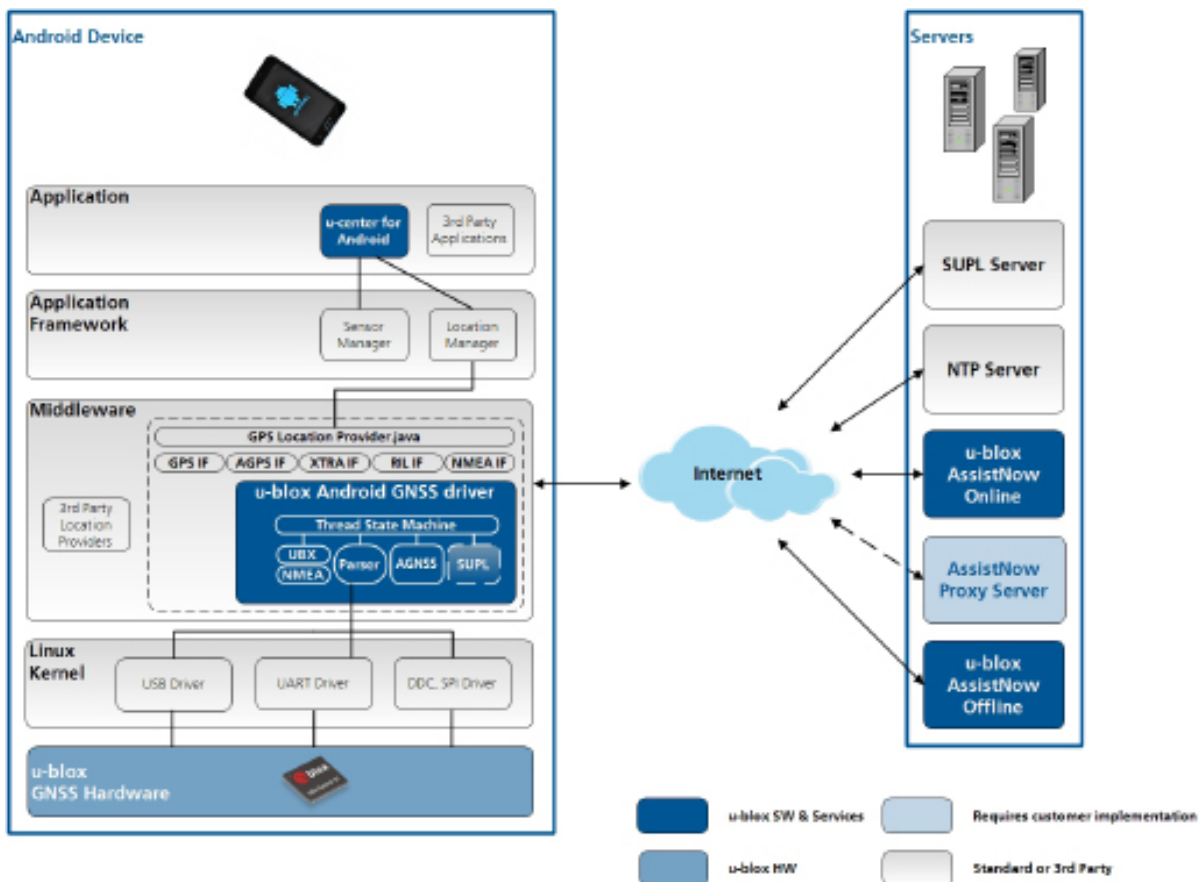
- u-blox Android GNSS driver
- u-center for Android GNSS evaluation application
- Documentation explaining the implementation

Solution description

u-blox's GNSS Android solution enables customers to easily integrate and evaluate GNSS functionality in their Android-based end products. The solution includes A-GNSS capabilities for high performance GNSS as well as terminal and network based positioning on mobile operator networks.

The u-blox Android GNSS Solution is available free of charge. The royalty-free u-blox Android GNSS driver is licensed for reuse in customer products and available upon request.

Framework



u-center Android GNSS evaluation App

The u-blox Android Solution includes u-center for Android, a powerful evaluation tool. u-center for Android enables the visualization of location data and GNSS status published by the Android framework.



Messages and GNSS information

Check the NMEA messages from the receiver and the basic information of each satellite (e.g. azimuth, elevation, status).

```
u-center
15:38:38 $GPGSV,3,2,10,12,60,069,45,1
15:38:38 $GPGSV,3,3,10,29,49,209,39,3
15:38:38 $GPGSA,,02,04,12,,,,,,,,,,,,,*6
15:38:39 $GPGGA,153839.000,4717.114
15:38:39 $GPGLL,4717.11444,N,00833.1
15:38:39 $GPRMC,153839.000,A,4717.1
15:38:39 $GPVTG,T,M,0.113,N,0.220,K
15:38:39 $GPGSV,3,1,10,01,64,075,47,0
15:38:39 $GPGSV,3,2,10,12,60,069,46,1
15:38:39 $GPGSV,3,3,10,29,49,209,39,3
15:38:39 $GPGSA,,02,04,12,,,,,,,,,,,,,*6
15:38:40 $GPGGA,153840.000,4717.114
15:38:40 $GPGLL,4717.11432,N,00833.1
15:38:40 $GPRMC,153840.000,A,4717.1
15:38:40 $GPVTG,T,M,0.685,N,1.330,K
15:38:40 $GPGSV,3,1,10,01,64,075,46,0
15:38:40 $GPGSV,3,2,10,12,60,069,44,1
15:38:40 $GPGSV,3,3,10,29,49,209,38,3
15:38:40 $GPGSA,,02,04,12,,,,,,,,,,,,,*6
15:38:40 $GPGGA,153840.000,4717.114
15:38:40 $GPGLL,4717.11432,N,00833.1
15:38:40 $GPRMC,153840.000,A,4717.1
15:38:40 $GPVTG,T,M,0.685,N,1.330,K
15:38:40 $GPGSV,3,1,10,01,64,075,46,0
15:38:40 $GPGSV,3,2,10,12,60,069,44,1
15:38:40 $GPGSV,3,3,10,29,49,209,38,3
u-center
prn=9, cno=-1.0dBHz, az=200°, el=23°,
prn=15, cno=-1.0dBHz, az=298°, el=61°,
prn=17, cno=-1.0dBHz, az=123°, el=17°,
prn=18, cno=-1.0dBHz, az=317°, el=17°,
prn=26, cno=-1.0dBHz, az=122°, el=76°,
prn=27, cno=-1.0dBHz, az=273°, el=44°,
prn=28, cno=-1.0dBHz, az=64°, el=53°,
onGpsStatusChanged
status=4-GPS_EVENT_SATELLITE_STAT
time=06/20/2011 15:05:49.000
latitude=47.285530°
longitude=8.565217°
altitude=399.30m
accuracy=36.00m
bearing=29.2°
speed=2.1m/s
maxsvs=255
ttrf=0.000s
prn=5, cno=-1.0dBHz, az=192°, el=19°,
prn=8, cno=-1.0dBHz, az=69°, el=20°,
prn=9, cno=-1.0dBHz, az=266°, el=23°,
prn=15, cno=-1.0dBHz, az=298°, el=61°,
prn=17, cno=-1.0dBHz, az=123°, el=17°,
prn=18, cno=-1.0dBHz, az=317°, el=17°,
prn=26, cno=-1.0dBHz, az=122°, el=76°,
prn=27, cno=-1.0dBHz, az=273°, el=44°
```

System requirements

- u-center Android: supports Android versions 2.3 to 6.0
- u-blox Android GNSS driver v3.40: supports Android version 7.0
- u-blox Android GNSS driver v3.30: supports Android versions 4.0 to 6.0
- u-blox Android GNSS driver v2.3: supports Android versions 4.0 to 4.4

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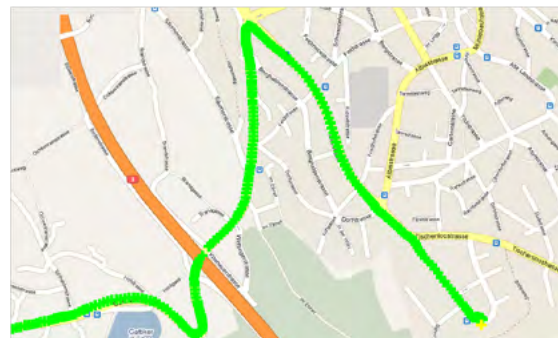
Testing and analysis

Cockpit type instruments, a wide range of tabular and graphical viewing tools, as well as statistical functions are available to make testing and analysis easy. Features include visualization of all visible GNSS satellites including signal strength and position, heading, altitude, velocity, and UTC time.



Visualization

u-center for Android allows you to visualize GNSS traces. A quick look at a trace on a map reveals a lot about the GNSS receiver's performance. This feature is only available with devices supporting Google Maps.



Supported Products

The u-center Android solution supports all USB/UART, DDC, SPI based u-blox 5 to u-blox 8/M8 GNSS receivers.

Ordering information

For further details and to obtain the u-blox Android GNSS driver, please contact the u-blox sales representative nearest you. To download u-center Android, visit our website or the Google Store: <https://play.google.com/store/apps/details?id=com.u-blox.u-center>

Further information

For contact information, see www.u-blox.com/contact-us.