

ADS-B mit E4000 USB Stick

ADS-B

Automatic Dependent Surveillance Broadcast

Deutsch etwa Automatische bordabhängige Überwachung

Die Luftfahrzeuge bestimmen selbständig ihre Position, beispielsweise über Satellitennavigationssysteme wie GPS mit EGNOS und GLONASS. Die **Position** und andere Flugdaten, wie **Flugnummer, Flugzeugtyp, Zeitsignal, Geschwindigkeit, Flughöhe und geplante Flugrichtung** werden kontinuierlich – typischerweise einmal pro Sekunde – ungerichtet auf **1090 MHz** abgestrahlt. Daher bezeichnet man das Verfahren als ADS-B (broadcast), genauer als ADS-B out für output.

ADS-B mit E4000 USB Stick

Hardware:

- Windows-PC ab XP
- DVB-T USB Dongle (ebay 111293097684 10€)

RTL2832U/E4000 or newer RTL2832U/R820T

- Antenne: home-made

Software:

- Zadig Treiber (Achtung XP hat eigenen!)
- AdsbSharp 1.0.11.1
- AdsbScope 2.6

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Zadig Treiber:

- <http://zadig.akeo.ie/>
 - http://zadig.akeo.ie/downloads/zadig_2.1.0.exe
- für XP:
- http://zadig.akeo.ie/downloads/zadig_xp_2.1.0.exe

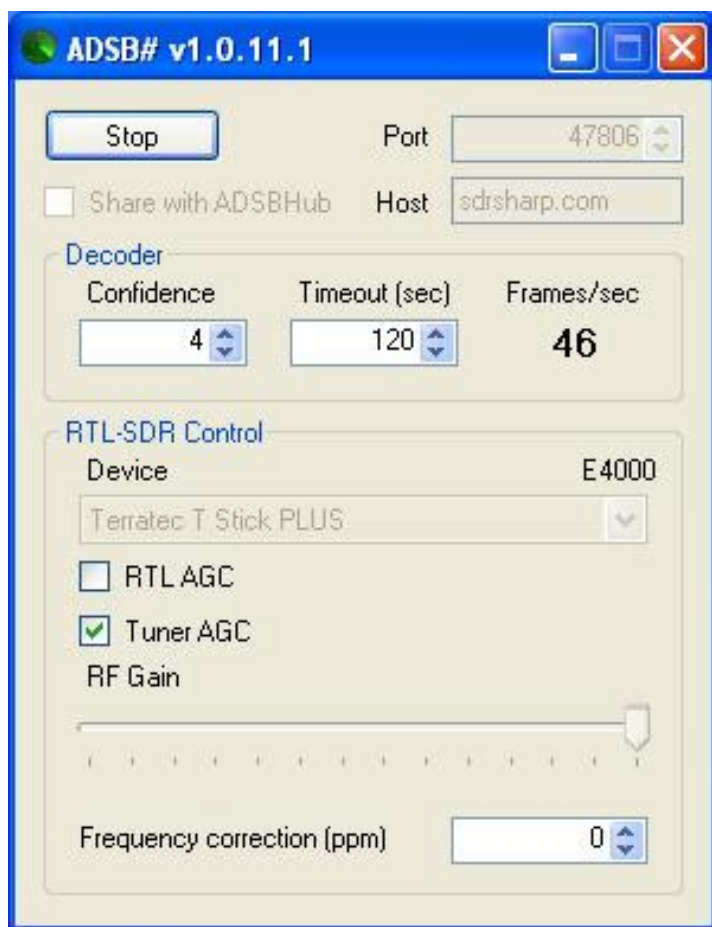
adsbSharp:

- <http://sdrsharp.com/downloads/adsbsharp.zip>

adsbscope 2.6:

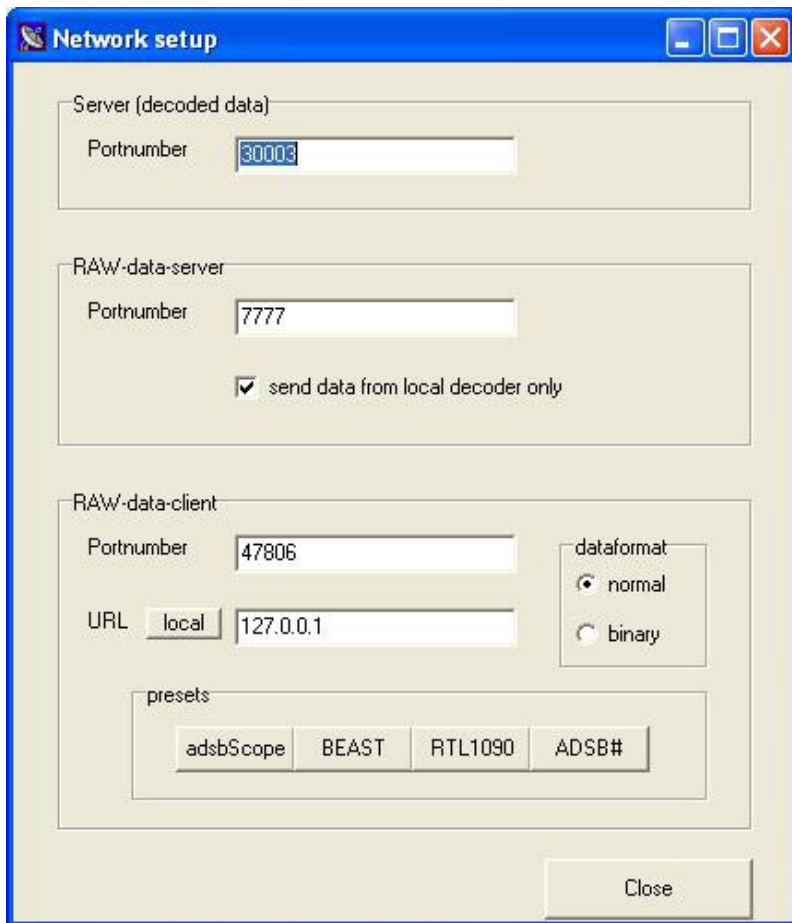
- http://www.sprut.de/electronic/pic/projekte/adsb/adsb_en.html#downloads

ADSB# Einstellungen



- Stimmt den DVB-T Stick auf 1090 MHz ab und sendet Pakete ins lokale Netz
127.0.0.1 Localhost

ADSBScope Einstellungen



- Empfängt die Pakete
- Stellt Daten grafisch dar (mit Karte)

ASDBScope Start

The screenshot displays the ASDBScope 2.6 software interface. The main window shows a map of Central Europe with flight paths and aircraft icons. A menu is open over the map, listing options like 'Network', 'Internet Webpages', 'Big Table', 'Filter', 'Framerate history', 'Watchlist', 'manage unknown aircraft', and 'Log'. The 'Network' menu is expanded, showing 'Network setup', 'Server (decoded data) active', 'RAW-data Client active', and 'RAW-data Server active'. The 'RAW-data Client active' option is selected.

On the right side, there is a control panel with a 'Connect' button and a 'select COM-Port' dropdown. Below this is a status window showing the following text:

```
Server: Server started
Client: connected
Client: disconnect
Client: connected
Client: disconnect
Client: connected
Server: Server stopped
```

Below the status window is a table with the following columns: Hr., ICAO24, Regist., Ident, Alt, Lat, Long, Speed, Head, Climb, Type, T-ou. The table contains 32 rows of flight data. Below the table is a window showing decoded data for a specific aircraft, including fields like 'ID:1000', 'MB:CE200030900000', 'AC:40000fc', 'MB:FFFC738600488', 'E:48.5594 L:12.0595 Rc<185m CA:12-air', 'AC:36025fc', 'MB:204C14F2D88CE0', 'AC:36025fc', 'crosslink', 'Vmax:300..600kts', and 'AC:34975fc', 'crosslink', 'Vmax:300..600kts'.

At the bottom of the interface, there is a status bar showing 'start/stop RAW data client', 'Start', 'ASDBScope', 'DE', '95%', and '09:44'.

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ADSBScope live

adsbSCOPE 2.6 by sprut (small)

File View Colors Load Maps Config Navigation other decoder

Nr. 3
ICAO24 4CA763
Regist. EI-EFH
Ident. RYR284Y
Nation Ireland
Alt. 38000 ft
Lat. 49.1629°
Long. 12.4808°
Speed 407 kts
Head. 23°
Type B738
B737-8AS/AV
Squawk. 1000

114761 Aircrafts loaded
289 Groundsites loaded
189 AA24-areas loaded
10661 points loaded
28467 points loaded
3526 Towns loaded
Client: connected

select COM-Port
Connect

adsbPIC-Decoder-Mode
 0 - OFF
 1 - reserved
 2 - all received data
 3 - only DF17
 4 - only DF17 + CRC-ok

Nr.	ICAO24	Regist.	Ident	Alt	Lat	Long	Speed	Head.	Climb	Type	T-out
29	89613C	A6-EYC	ETD006	12000	48.29	12.22	277	102	1216	A332	4
28	4CA7A7	EI-EFP	RYR556F	38000	48.76	13.09	469	294	64	B738	0
27	4B1A1A	Switzerland		37375				426	321	-768	0 M
26	3C4928	D-ABIH	DLH02P	36025	48.56	12.71	449	292	64	B735	0
25	440570	OR-LMK		38825						E170	236
24	4C01E5	Non-Contr	JAT371	39025	47.26	12.62	411	101			0
23	424914	VQ-BCI		33975						A320	289
22	4B1613	HE-IJJ	SWR1575	32000	47.89	11.67	485	262	-64	A320	2
21	4CA808	EI-EKI	RYR114A	38000	48.95	11.77	412	11		B738	1
20	3C666F	D-AISO	DLH1WC	34950	47.98	11.99	416	135		A321	0
19	49D04F	OK-UNI	TWS70J	36000						C680	16 M
18	502C96	Latvia	BTI221	10800							137
17	3C4805	D-ACPE	DLH2550	18475						CRJ7	166
16	3D9376	D-GCCC	DGCCC	4500						PA34	1
15	471F53	HA-LWL	WZZ119	35000	47.11	11.77	396	116	192	A320	14 M
14	4CA2DA	EI-DLN	RYR246W	36425	49.05	11.77	468	294	1408	B738	207
13	3C4969	D-ABKI	BER6188	30000	49.19	12.44	362	25		B738	27 M

U-signal =
U-ref =
Status: Heartbeat

Framerate: 10659 Frames/min (820)
Data-Quality: 70 %
Time: 10:40:05

Center: Lat=48.4236° Long=12.3093° Range: 80 NM = 144 km Koord: 48.6198° N / 14.2974° E Framerate: 10659 Frames/min (820) Time: 10:40:05

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