UFO Tools, Tips

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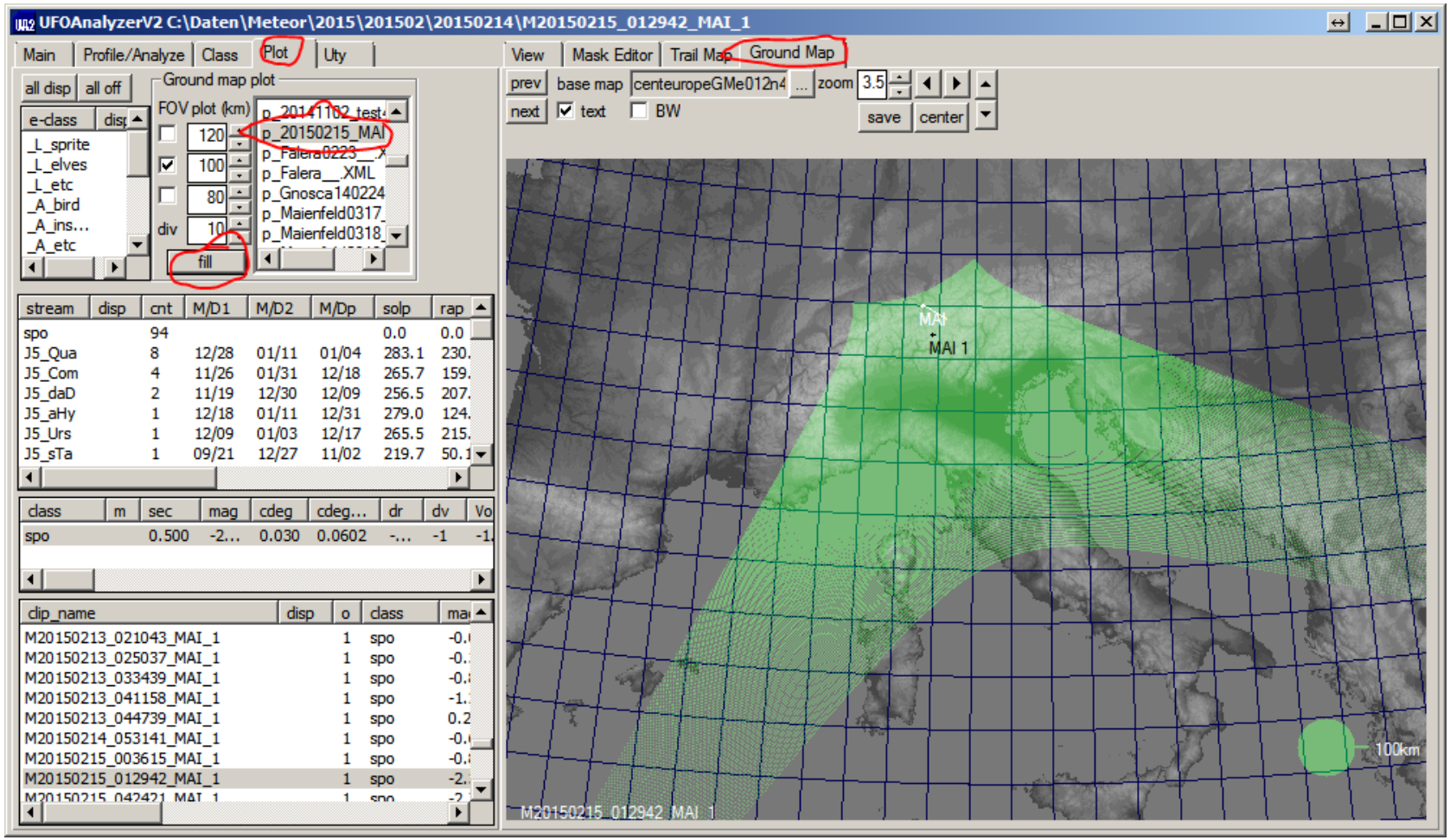
Inhalt

- Beobachtungsbereich in UFO Analyzer
- Bbf (Bottom field first)
- Detailanalyse von Position, Geschwindigkeit, etc.
- Masken zur Separation von verschiedenen Objekten
- Trennung von Anfangs- und Endphase
- Manuelle Extraktion von Anfangs- und Endpunkt, Clickdatei
- (Analyse Nicht UFO Capture videos)

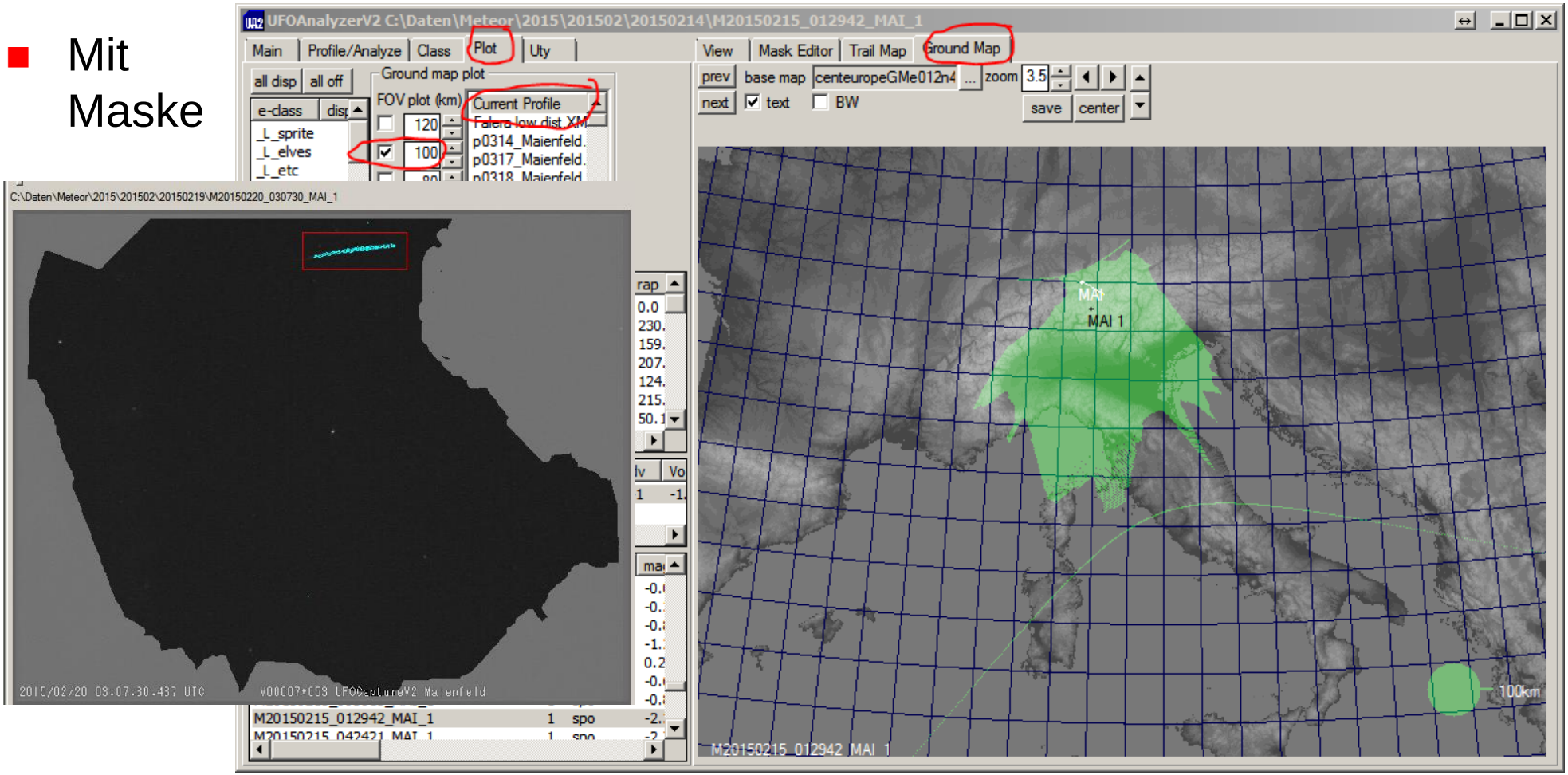
Beobachtungsbereich UFO Analyzer

- Ohne Maske



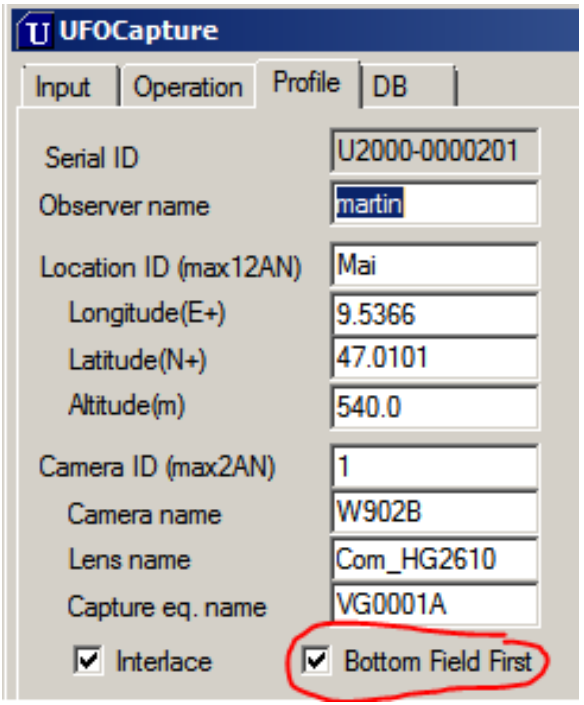
Beobachtungsbereich UFO Analyzer

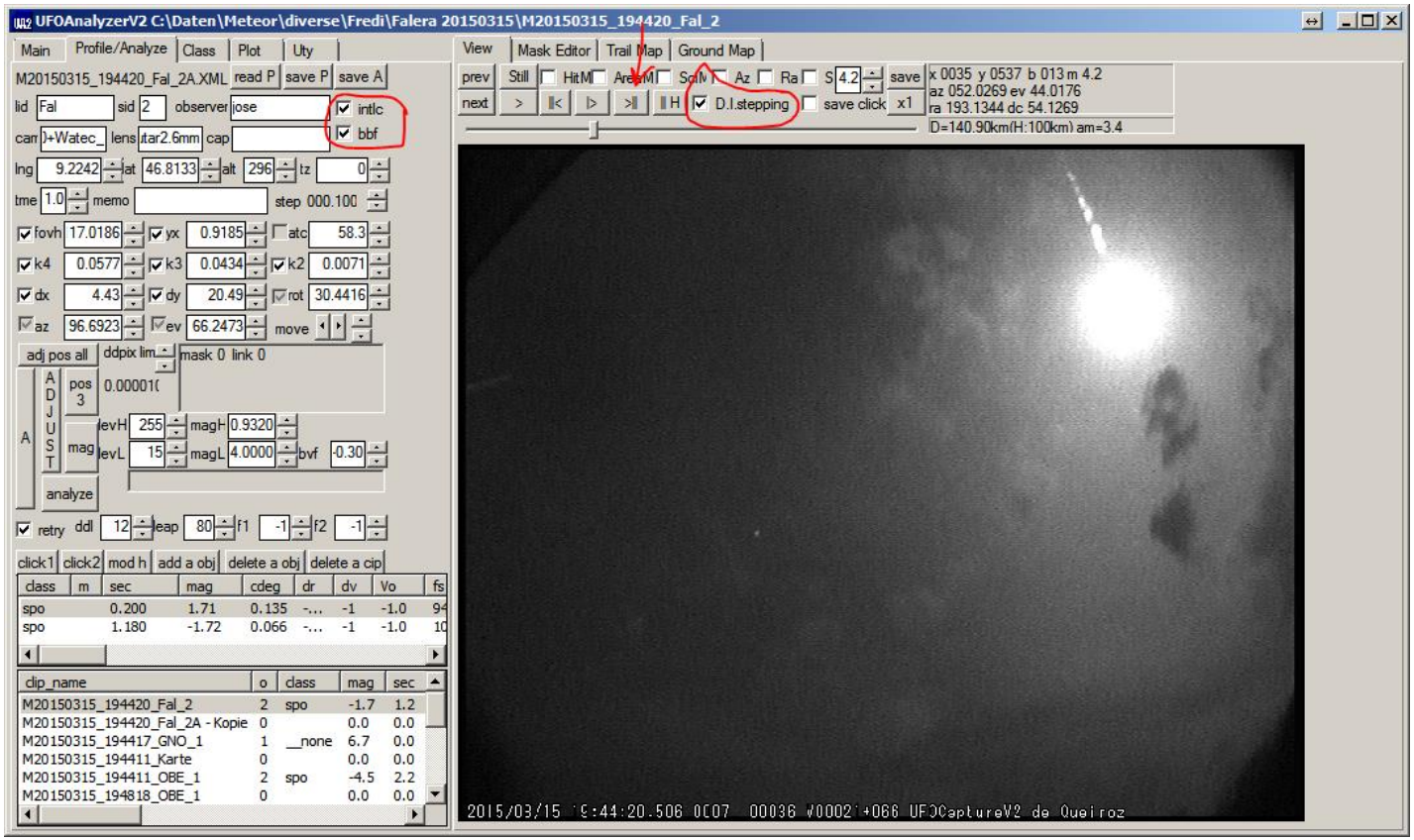
- Mit Maske



Deinterlace mit UFO Analyzer

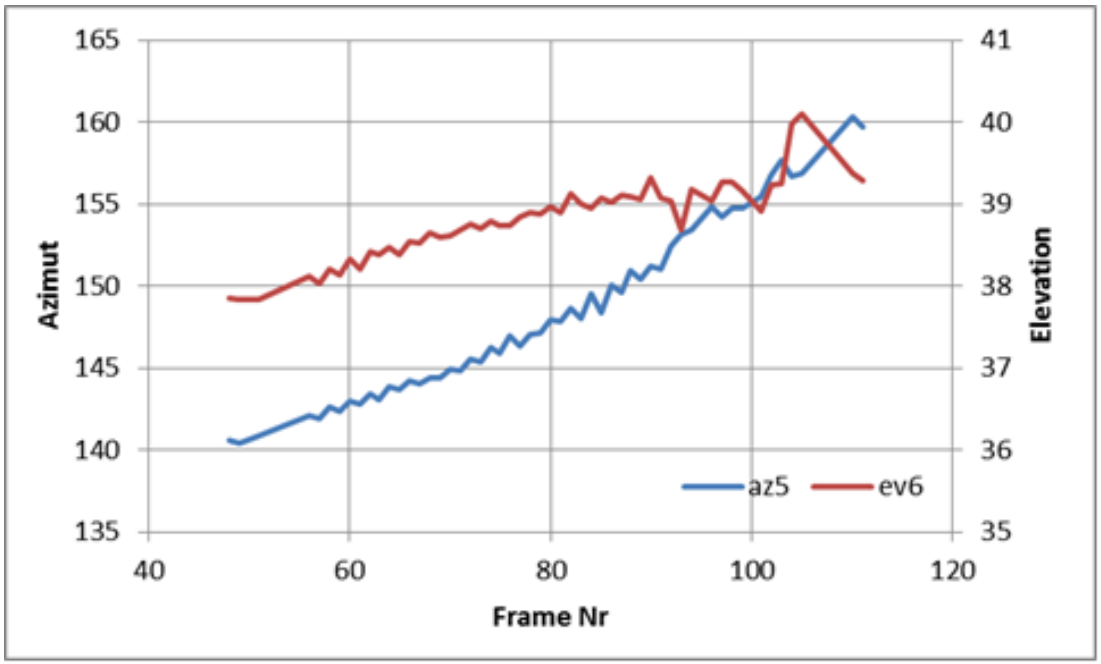
- Deinterlace stepping, single frame step
- In UFO capture korrekt einstellen





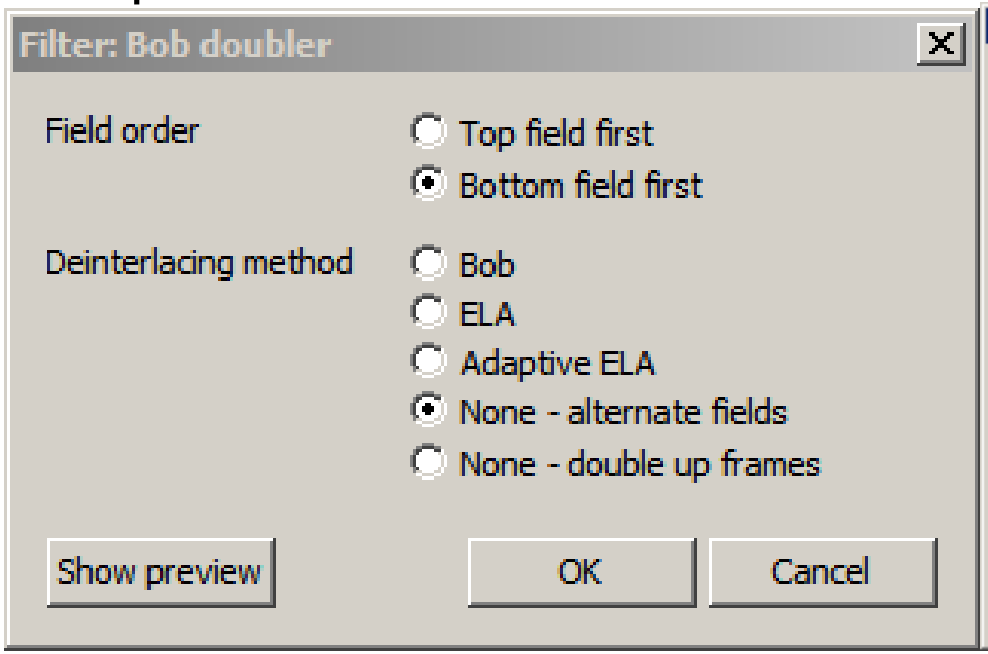
BFF falsch eingestellt

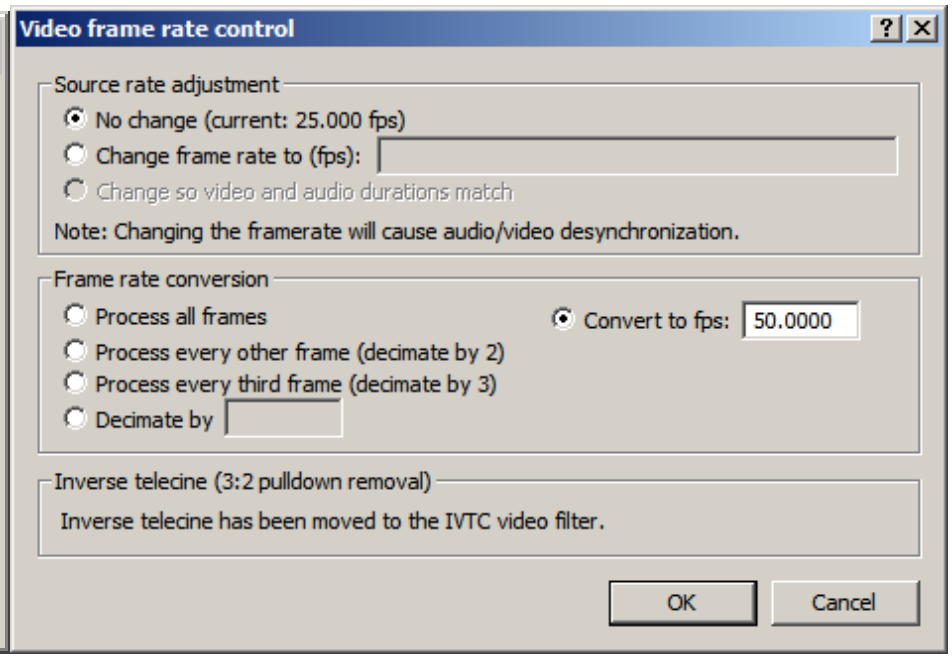
- Geschwindigkeit oszilliert:



Deinterlace mit Virtual Dub

- Bob Doubler, alternate fields
- 50 Hz
- Aspect ratio





Detailanalyse von Position, Geschwindigkeit

- M*A.xml in Excel öffnen:
- Fn: ½ frame (20 msec)
- mag = -2.5*log Lsum + const
- Azimut, elevation
- RA, Dec

DS	DT	DU	DV	DW	DX	DY	DZ	EA
fno	b	bm	Lsum	mag4	az5	ev6	ra	dec
191	211	0	988.2	-2.09	126.3353271	17.7831097	167.6639862	-8.9597025
275	255	9	5845.3	-4.02	126.4786606	17.7995796	167.539566	-9.0213051
277	252	0	855.1	-1.93	126.9147568	17.198719	167.5229645	-9.7518873
278	255	15	9149.7	-4.51	127.1717224	17.3663101	167.2215271	-9.7463999
279	255	12	8071.3	-4.37	127.2328339	17.2094593	167.2591553	-9.9095945
293	255	3	1943	-2.82	127.3584061	17.4631004	167.01651	-9.7628317
296	255	2	1126.4	-2.23	128.0297546	17.1412334	166.648468	-10.3818035
297	255	1	774.9	-1.83	128.1338501	17.1648388	166.5504761	-10.4158993
298	224	0	603.6	-1.56	128.3671722	17.1538391	166.3658752	-10.5457811
299	209	0	730.1	-1.76	127.7498016	17.3791122	166.7452087	-10.0368481
296	255	7	5393.6	-3.93	131.6227722	15.9722805	164.3029175	-13.2025204
297	255	11	6258.4	-4.09	131.5641785	15.7246819	164.484848	-13.3845463
298	255	11	8259.1	-4.4	131.8235321	15.8958817	164.1742554	-13.3681164
299	255	10	5945.5	-4.04	132.000412	15.6821747	164.1385651	-13.6391153
300	255	2	2129.4	-2.92	132.5507965	15.762063	163.6289978	-13.8441763
301	255	4	2504.4	-3.1	132.473053	15.590065	163.7863007	-13.9531298

Detailanalyse von Position, Geschwindigkeit

- Alternative:
- M*.txt öffnen
- Detailliertere Infos
- Nicht dokumentiert

```
[ M20150315_194411_OBE_1 ] DL=56 (+10) total 5369 pixel, obj=3
ua2_refstars count=0 ddeg_ave=-1.0000 ddeg_max=0.0000
-- trail #0 len=10 count=76 bmax=255 bmaxpixs=15 lsum=  9149.7 interlace=1 bbf=0
Average Pole 1 alpha=86.6982 delta=43.8150 D3=-0.003225
fno=191 b=211 bm=000 lsum=   988.2 xc=136.0 yc= 79.2 az=126.3353 ev= 17.7831 ra 167.6640->167.8335 dec  -8.9597-> -9.1244 err=0.2348
fno=275 b=255 bm=009 lsum=  5845.3 xc=136.6 yc= 78.6 az=126.4787 ev= 17.7996 ra 167.5396->167.7410 dec  -9.0213-> -9.2172 err=0.2792
fno=277 b=252 bm=000 lsum=   855.1 xc=136.1 yc= 74.2 az=126.9148 ev= 17.1987 ra 167.5230->167.3627 dec  -9.7519-> -9.5961 err=0.2219
fno=278 b=255 bm=015 lsum=  9149.7 xc=137.7 yc= 73.7 az=127.1717 ev= 17.3663 ra 167.2215->167.2168 dec  -9.7464-> -9.7418 err=0.0065
fno=279 b=255 bm=012 lsum=  8071.3 xc=137.4 yc= 72.8 az=127.2328 ev= 17.2095 ra 167.2592->167.1526 dec  -9.9096-> -9.8060 err=0.1475
fno=293 b=255 bm=003 lsum=  1943.0 xc=138.9 yc= 73.2 az=127.3584 ev= 17.4631 ra 167.0165->167.1073 dec  -9.7628-> -9.8512 err=0.1257
fno=296 b=255 bm=002 lsum=  1126.4 xc=140.4 yc= 68.8 az=128.0298 ev= 17.1412 ra 166.6485->166.6109 dec -10.3818->-10.3452 err=0.0520
fno=297 b=255 bm=001 lsum=   774.9 xc=140.9 yc= 68.5 az=128.1339 ev= 17.1648 ra 166.5505->166.5450 dec -10.4159->-10.4106 err=0.0075
fno=298 b=224 bm=000 lsum=   603.6 xc=141.8 yc= 67.4 az=128.3672 ev= 17.1538 ra 166.3659->166.3875 dec -10.5458->-10.5669 err=0.0299
fno=299 b=209 bm=000 lsum=   730.1 xc=140.2 yc= 71.1 az=127.7498 ev= 17.3791 ra 166.7452->166.8340 dec -10.0368->-10.1234 err=0.1231
```

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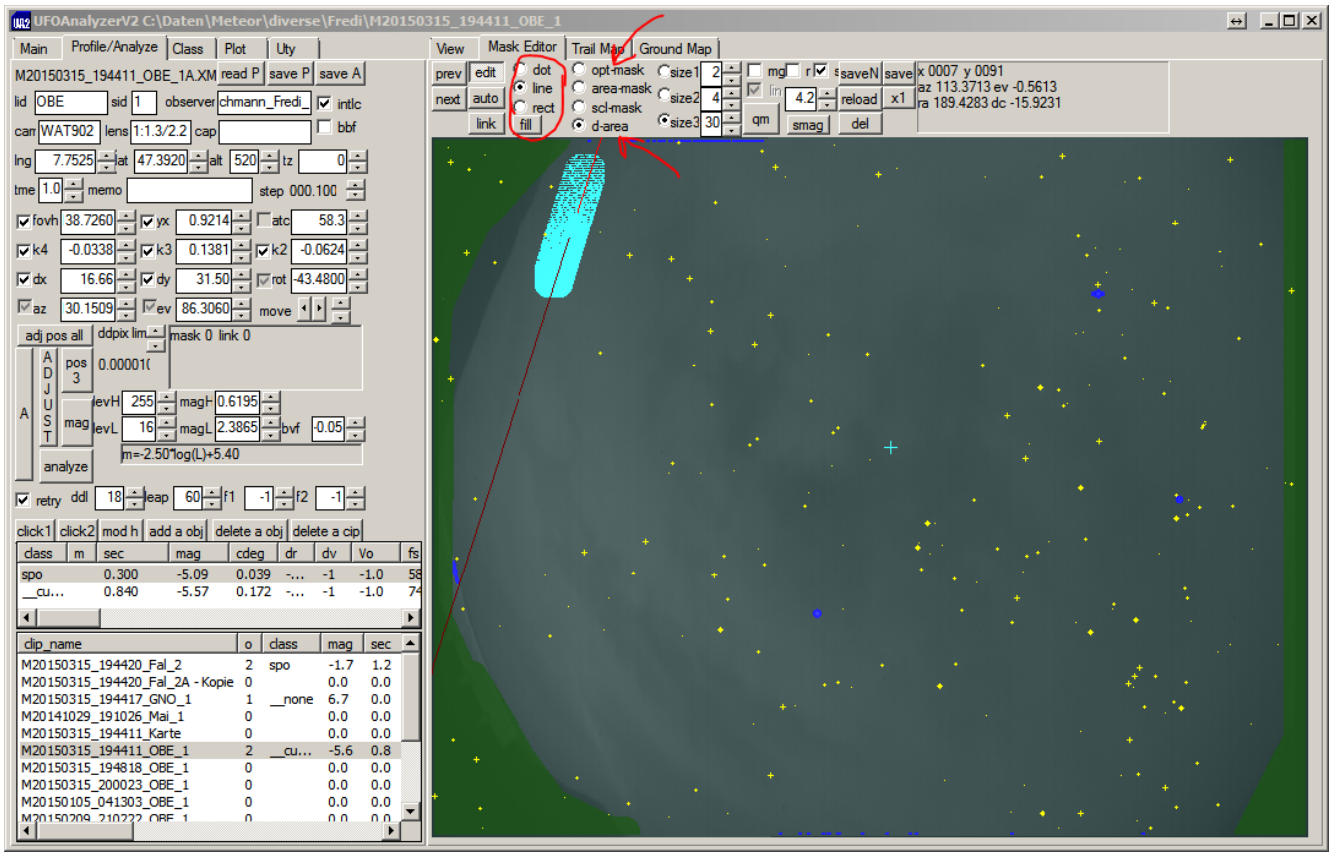
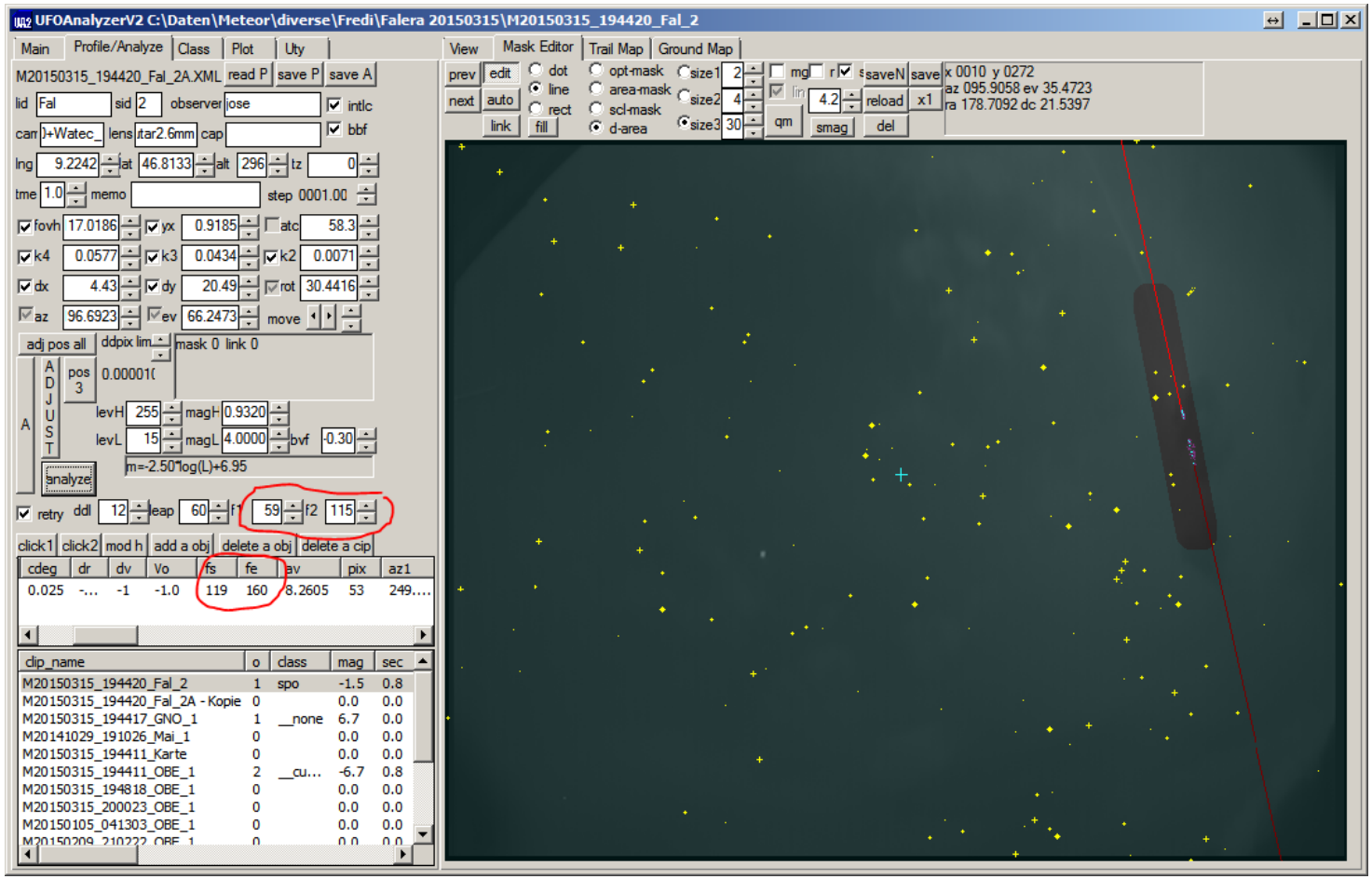
Auswahlbereich

- Verschiedene Objekte
- Verschiedene Phasen
- Detektionsmaske



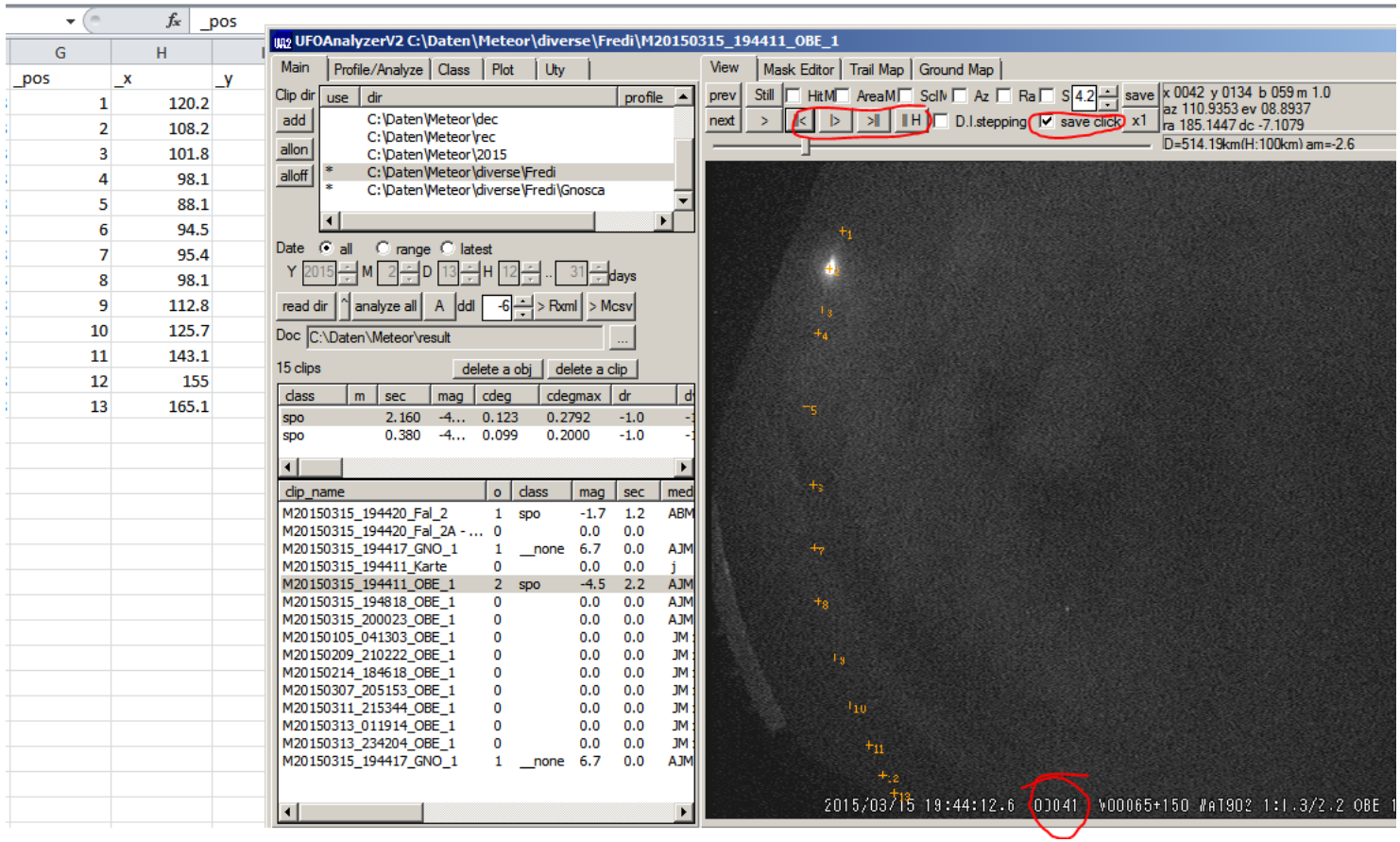
Auswahl Zeitbereich

- f1, f2: full frames
- fs, fe: half frames
- Zus. Detektions-bereich



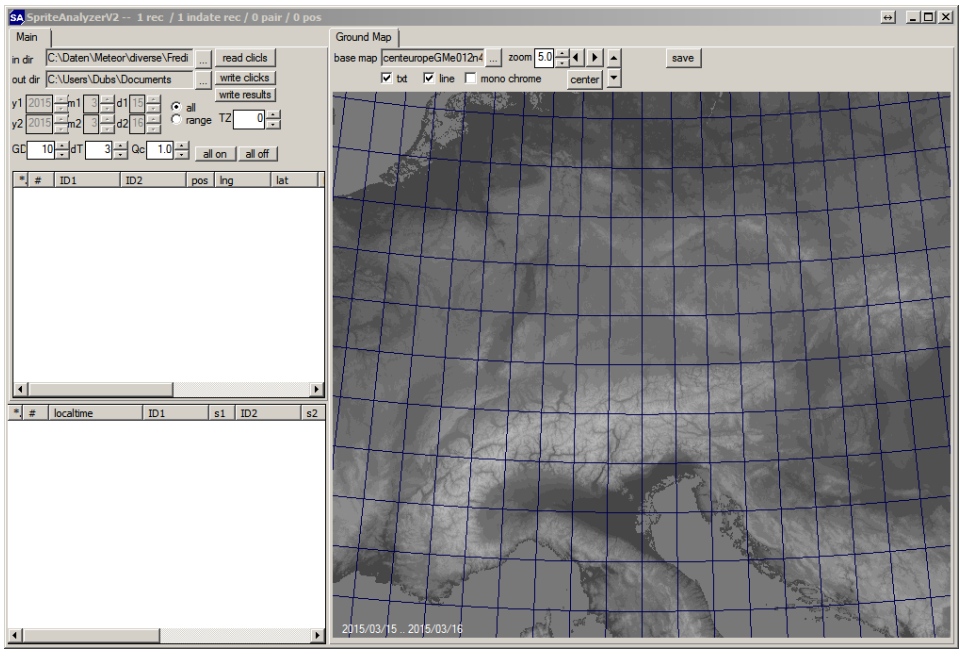
Manuelle Positionsbestimmung

- M*_LOC_1_click.csv



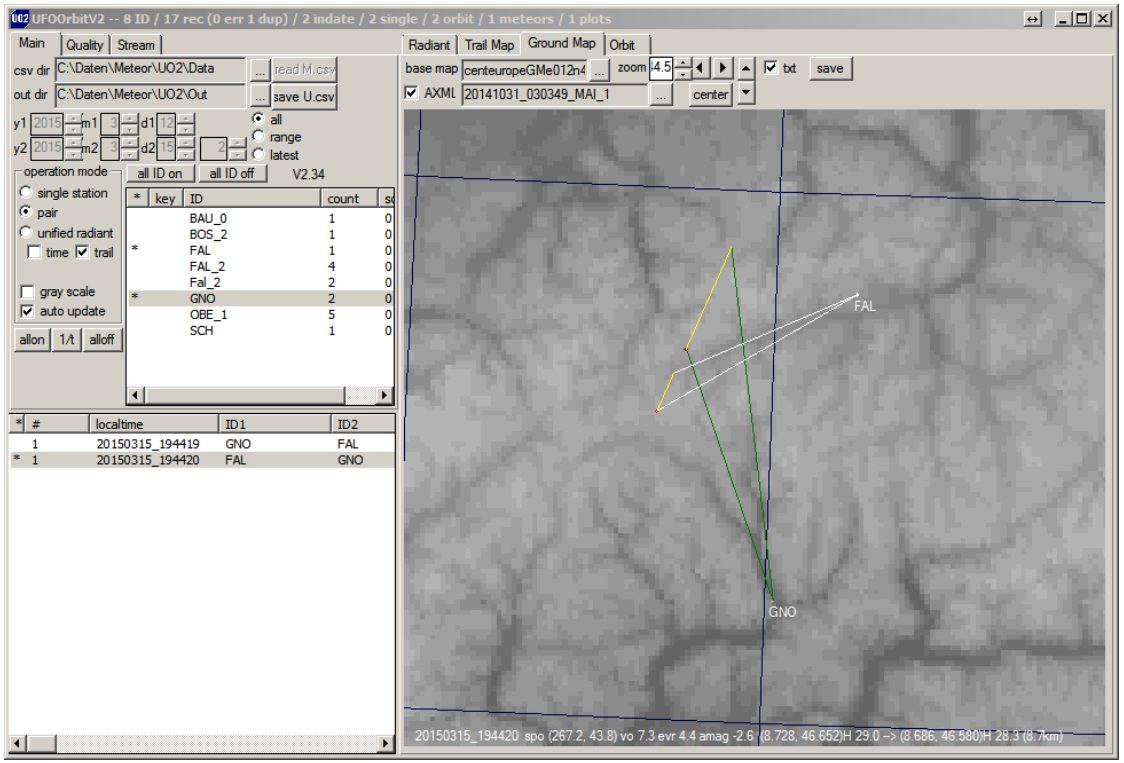
Manuelle Positionsbestimmung

- M*_LOC_1_click.csv
- Frame Nr. hinzufügen manuell: t = t0 + frame*0.04sec
- Markante Punkte (z.B. Flash) markieren und notieren
- sonotaco.jp/forum/viewtopic.php?p=38515 für Sprite Analyzer 15.3. 2015
- Sprite Analyzer V2:



Manuelle Positionsbestimmung

- M*_LOC_1_click.csv
- → R91.csv



Ver	Y	M	D	h	m	s	Mag	Dur	Az1	Alt1
R91	2015	3	15	19	44	19	-4	2.16	999.9	999.9
R91	2015	3	15	19	44	20	-4	1.2	999.9	999.9
		Ra1	Dec1	Ra2	Dec2	ID	Long	Lat	Alt	Tz
…	…	318.131	64.945	347.2	64.688	GNO	9.02	46.23	260	0
		68.374	8.932	70.469	1.826	FAL	9.22	46.81	1250	0