

Gray Level Transformed Directional Normalized Standard Deviations (NSTD) for Edge Detection

Input Sample File

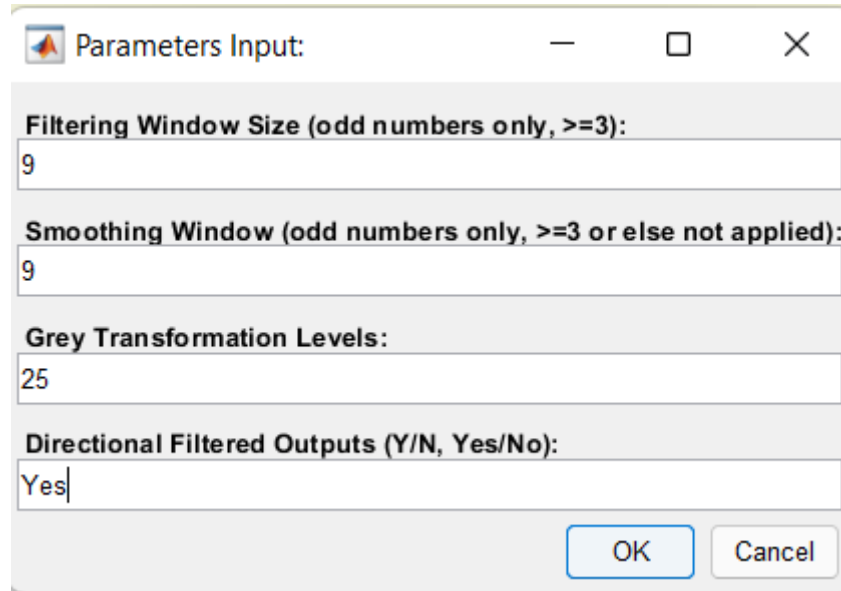


Sample_FreeAirGravity.txt - Notepad

File Edit Format View Help

182300.000000	8208950.000000	37.515148
183200.000000	8208950.000000	38.543724
184100.000000	8208950.000000	39.592068
185000.000000	8208950.000000	40.666412
185900.000000	8208950.000000	41.754658
186800.000000	8208950.000000	42.825459
187700.000000	8208950.000000	43.823486
188600.000000	8208950.000000	44.674049
189500.000000	8208950.000000	45.293919
190400.000000	8208950.000000	45.604290
191300.000000	8208950.000000	45.554199
192200.000000	8208950.000000	45.189400
193100.000000	8208950.000000	44.651817
194000.000000	8208950.000000	43.927216
194900.000000	8208950.000000	43.187244
195800.000000	8208950.000000	42.476448
196700.000000	8208950.000000	41.786572
197600.000000	8208950.000000	41.130386
198500.000000	8208950.000000	40.525642
199400.000000	8208950.000000	39.990211
200300.000000	8208950.000000	39.462513
201200.000000	8208950.000000	38.933826
202100.000000	8208950.000000	38.479843
203000.000000	8208950.000000	38.142227
203900.000000	8208950.000000	37.968945
204800.000000	8208950.000000	37.975006
205700.000000	8208950.000000	38.125458

Parameter Input



A screenshot of a software dialog box titled "Parameters Input:". The dialog box has a standard Windows-style title bar with a minimize button, a maximize button, and a close button. The main area of the dialog box contains four input fields, each with a label above it. The first field is labeled "Filtering Window Size (odd numbers only, >=3):" and contains the value "9". The second field is labeled "Smoothing Window (odd numbers only, >=3 or else not applied):" and also contains the value "9". The third field is labeled "Grey Transformation Levels:" and contains the value "25". The fourth field is labeled "Directional Filtered Outputs (Y/N, Yes/No):" and contains the value "Yes". At the bottom right of the dialog box, there are two buttons: "OK" and "Cancel".

Parameters Input:

Filtering Window Size (odd numbers only, ≥ 3):

9

Smoothing Window (odd numbers only, ≥ 3 or else not applied):

9

Grey Transformation Levels:

25

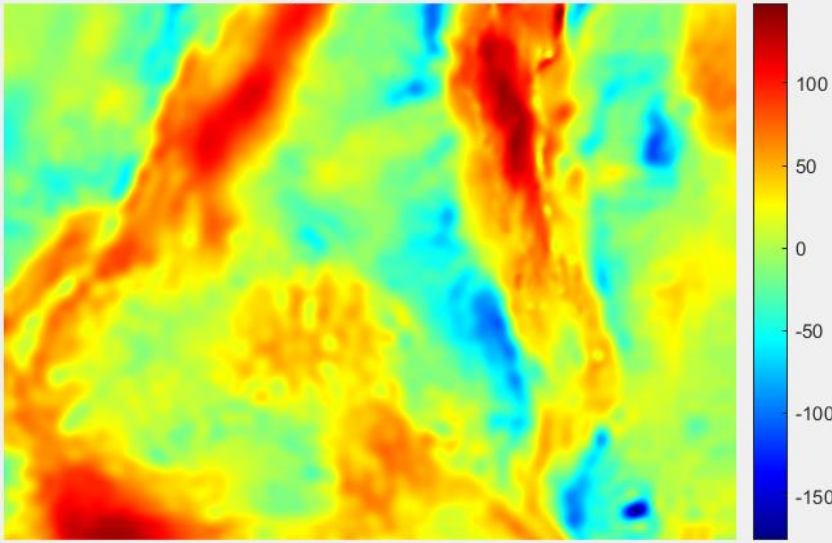
Directional Filtered Outputs (Y/N, Yes/No):

Yes

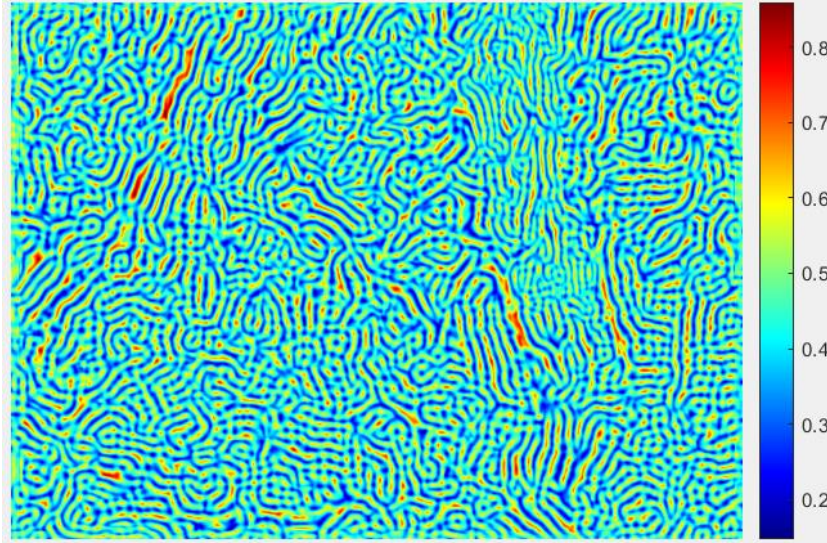
OK Cancel

Outputs

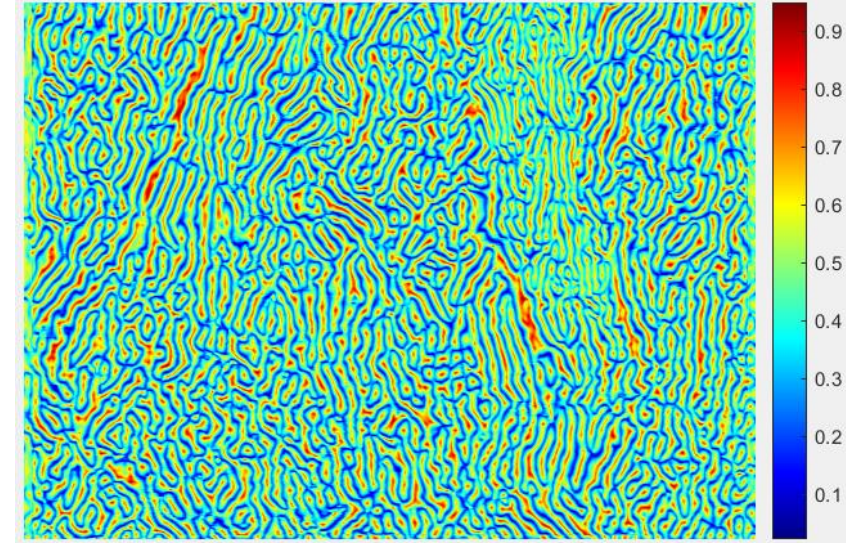
InputData - SW=9



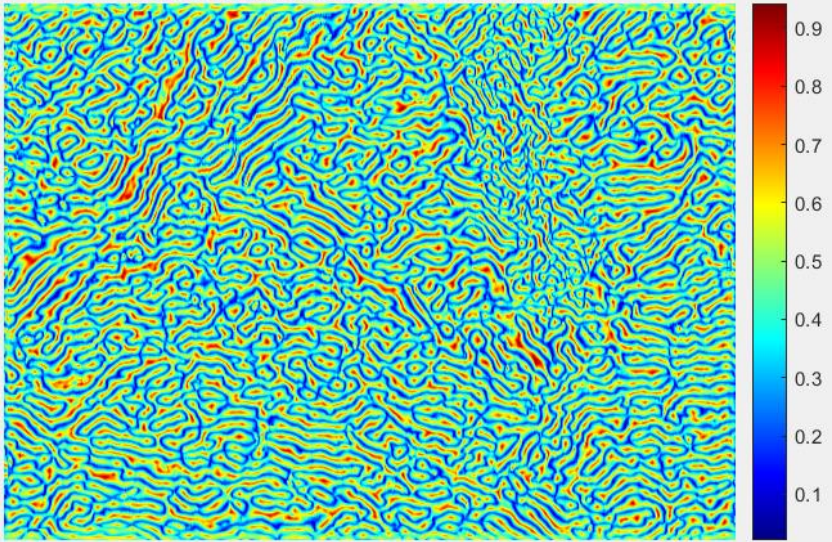
Output(Filter: All Direction)- WS=9, SW= 9



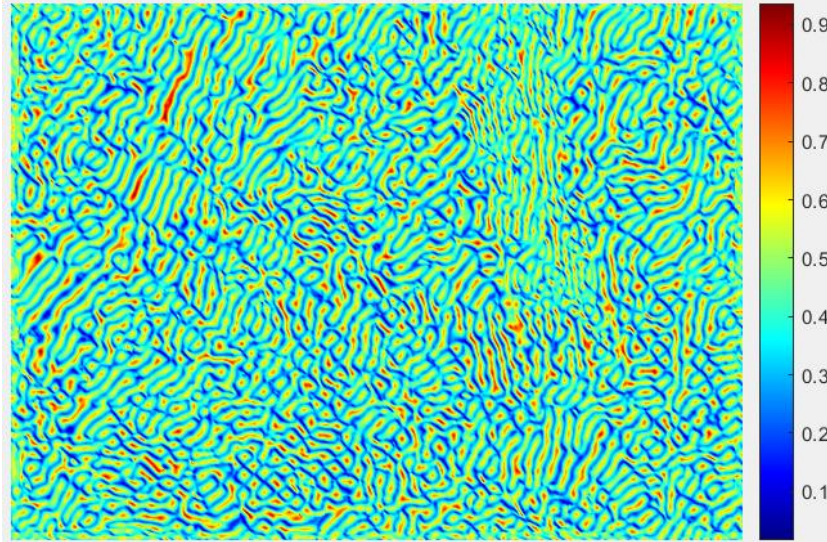
Output(Filter:EastWest)- WS=9, SW= 9



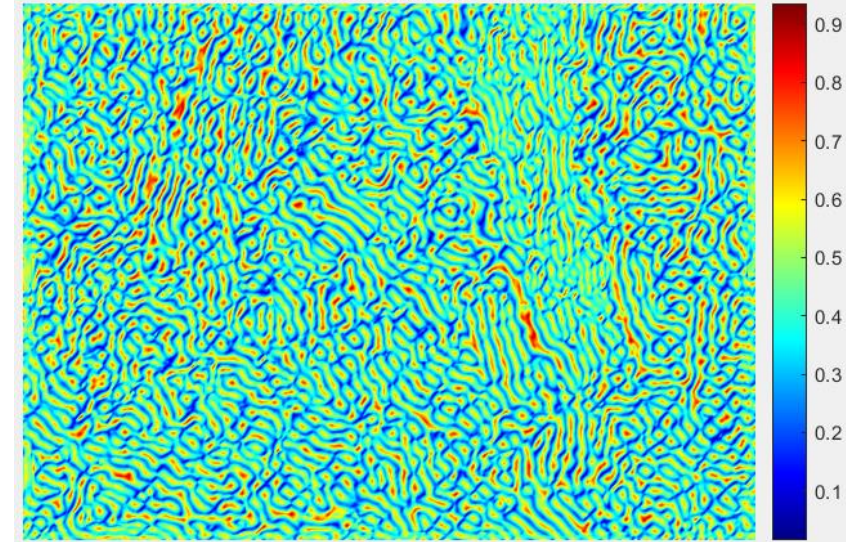
Output(Filter:NorthSouth)- WS=9, SW= 9




Output(Filter: NW-SE)- WS=9, SW= 9



Output(Filter: NE-SW)- WS=9, SW= 9



Output Text File

 NSTDWS7SW7L25_Sample_FreeAirGravity.txt - Notepad

File Edit Format View Help

Petrel Points with attributes

Unit in X and Y direction: m

Unit in depth: m

VERSION 1

BEGIN HEADER

X

Y

Z

Float,NSTDGL360

Float,NSTDGL_EW


Float,NSTDGL_NS

Float,NSTDGL_NWSE

Float,NSTDGL_NESW

END HEADER

182300.00	8208950.00	11.22847	0.29473	0.31264	0.42467	0.22770	0.31538
183200.00	8208950.00	13.65549	0.37453	0.36660	0.40676	0.31729	0.45466
184100.00	8208950.00	16.13944	0.45447	0.44077	0.42731	0.40180	0.52335
185000.00	8208950.00	18.67464	0.52951	0.52267	0.44173	0.49376	0.59494
185900.00	8208950.00	21.25228	0.57720	0.58457	0.37097	0.54488	0.63745
186800.00	8208950.00	21.73599	0.55047	0.52635	0.47108	0.48383	0.60043
187700.00	8208950.00	22.17512	0.50147	0.44537	0.52295	0.37518	0.53691
188600.00	8208950.00	22.55106	0.45056	0.36323	0.57693	0.27395	0.46457
189500.00	8208950.00	22.83929	0.40667	0.28403	0.61410	0.15113	0.38551
190400.00	8208950.00	23.02650	0.37880	0.22025	0.58288	0.27447	0.28480
191300.00	8208950.00	23.11718	0.39422	0.27271	0.55620	0.38963	0.18408
192200.00	8208950.00	23.11932	0.43807	0.37820	0.52826	0.49496	0.13713
193100.00	8208950.00	23.04080	0.49217	0.49471	0.50439	0.57844	0.25322
194000.00	8208950.00	22.89304	0.52220	0.57964	0.48558	0.61879	0.35605
194900.00	8208950.00	22.69317	0.52809	0.64264	0.48136	0.62523	0.42671
195800.00	8208950.00	22.46173	0.51225	0.66511	0.45458	0.59644	0.51243
196700.00	8208950.00	22.22199	0.47761	0.62197	0.41379	0.55471	0.54803
197600.00	8208950.00	22.00294	0.43409	0.54919	0.41591	0.50352	0.47256
198500.00	8208950.00	21.82256	0.41447	0.52154	0.45178	0.45316	0.43997
199400.00	8208950.00	21.68505	0.44683	0.55652	0.49778	0.43241	0.47918
200300.00	8208950.00	21.59387	0.49683	0.59601	0.52681	0.46111	0.52095
201200.00	8208950.00	21.55566	0.55649	0.63600	0.46727	0.53011	0.58302
202100.00	8208950.00	21.57572	0.62385	0.67808	0.43010	0.62139	0.65947
203000.00	8208950.00	21.65534	0.61993	0.60650	0.41483	0.65989	0.66283
203900.00	8208950.00	21.79847	0.55469	0.48668	0.45024	0.58732	0.59623
204800.00	8208950.00	22.00804	0.48420	0.37965	0.50747	0.44117	0.52008
205700.00	8208950.00	22.28584	0.42467	0.29118	0.56036	0.28383	0.43514
206600.00	8208950.00	22.63363	0.38510	0.24033	0.60052	0.20261	0.34024
207500.00	8208950.00	23.05238	0.38165	0.26902	0.61900	0.28770	0.22959
208400.00	8208950.00	23.53997	0.40684	0.32420	0.59884	0.39763	0.17260
209300.00	8208950.00	24.09195	0.45818	0.39856	0.56649	0.50538	0.24710
210200.00	8208950.00	24.70540	0.52081	0.48078	0.53428	0.59181	0.37389

 NSTDWS9SW9L25_Sample_FreeAirGravity.txt - Notepad

File Edit Format View Help

Easting	Northing	InputData(smooth)	NSTDGL360	NSTDGL_EW	NSTDGL_NS	NSTDGL_NWSE	NSTDGL_NESW
182300.00	8208950.00	11.22847	0.29473	0.31264	0.42467	0.22770	0.31538
183200.00	8208950.00	13.65549	0.37453	0.36660	0.40676	0.31729	0.45466
184100.00	8208950.00	16.13944	0.45447	0.44077	0.42731	0.40180	0.52335
185000.00	8208950.00	18.67464	0.52951	0.52267	0.44173	0.49376	0.59494
185900.00	8208950.00	21.25228	0.57720	0.58457	0.37097	0.54488	0.63745
186800.00	8208950.00	21.73599	0.55047	0.52635	0.47108	0.48383	0.60043
187700.00	8208950.00	22.17512	0.50147	0.44537	0.52295	0.37518	0.53691
188600.00	8208950.00	22.55106	0.45056	0.36323	0.57693	0.27395	0.46457
189500.00	8208950.00	22.83929	0.40667	0.28403	0.61410	0.15113	0.38551
190400.00	8208950.00	23.02650	0.37880	0.22025	0.58288	0.27447	0.28480
191300.00	8208950.00	23.11718	0.39422	0.27271	0.55620	0.38963	0.18408
192200.00	8208950.00	23.11932	0.43807	0.37820	0.52826	0.49496	0.13713
193100.00	8208950.00	23.04080	0.49217	0.49471	0.50439	0.57844	0.25322
194000.00	8208950.00	22.89304	0.52220	0.57964	0.48558	0.61879	0.35605
194900.00	8208950.00	22.69317	0.52809	0.64264	0.48136	0.62523	0.42671
195800.00	8208950.00	22.46173	0.51225	0.66511	0.45458	0.59644	0.51243
196700.00	8208950.00	22.22199	0.47761	0.62197	0.41379	0.55471	0.54803
197600.00	8208950.00	22.00294	0.43409	0.54919	0.41591	0.50352	0.47256
198500.00	8208950.00	21.82256	0.41447	0.52154	0.45178	0.45316	0.43997
199400.00	8208950.00	21.68505	0.44683	0.55652	0.49778	0.43241	0.47918
200300.00	8208950.00	21.59387	0.49683	0.59601	0.52681	0.46111	0.52095
201200.00	8208950.00	21.55566	0.55649	0.63600	0.46727	0.53011	0.58302
202100.00	8208950.00	21.57572	0.62385	0.67808	0.43010	0.62139	0.65947
203000.00	8208950.00	21.65534	0.61993	0.60650	0.41483	0.65989	0.66283
203900.00	8208950.00	21.79847	0.55469	0.48668	0.45024	0.58732	0.59623
204800.00	8208950.00	22.00804	0.48420	0.37965	0.50747	0.44117	0.52008
205700.00	8208950.00	22.28584	0.42467	0.29118	0.56036	0.28383	0.43514
206600.00	8208950.00	22.63363	0.38510	0.24033	0.60052	0.20261	0.34024
207500.00	8208950.00	23.05238	0.38165	0.26902	0.61900	0.28770	0.22959
208400.00	8208950.00	23.53997	0.40684	0.32420	0.59884	0.39763	0.17260
209300.00	8208950.00	24.09195	0.45818	0.39856	0.56649	0.50538	0.24710
210200.00	8208950.00	24.70540	0.52081	0.48078	0.53428	0.59181	0.37389