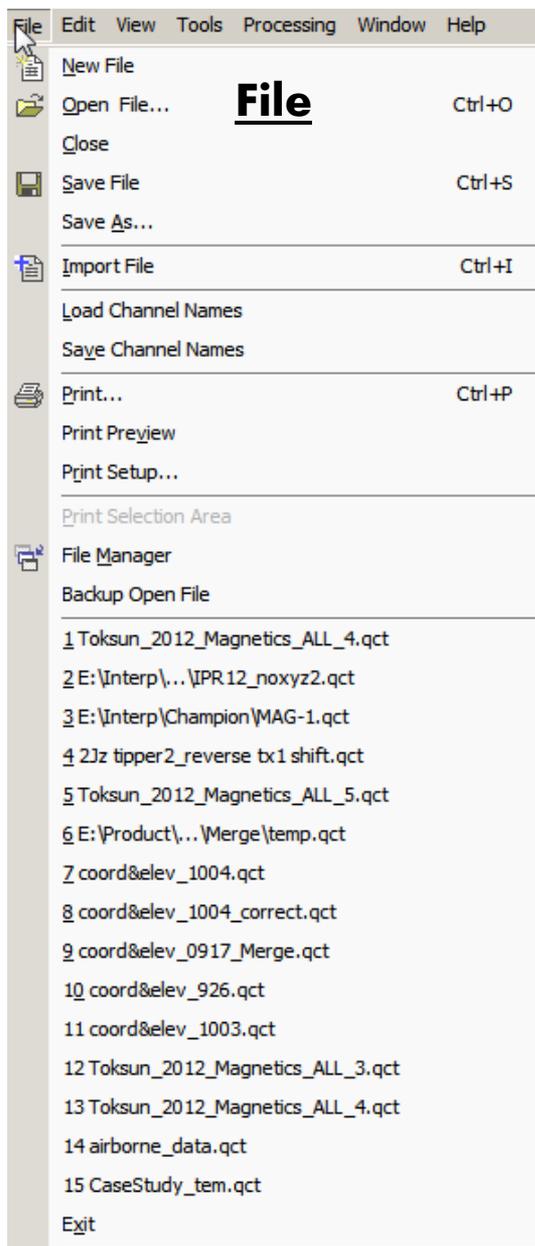
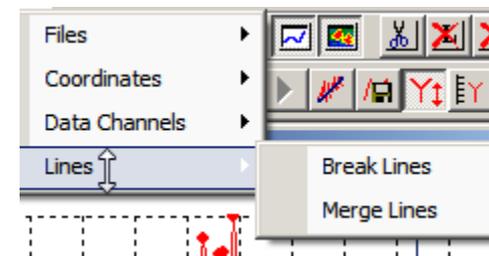
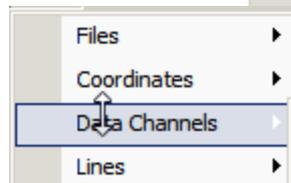
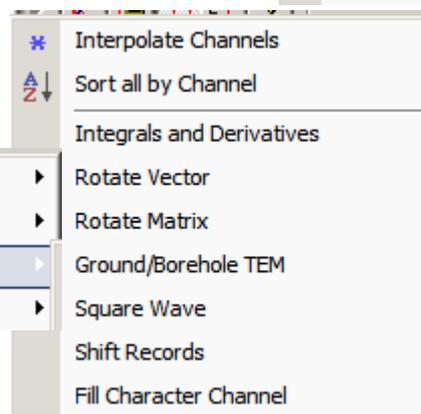
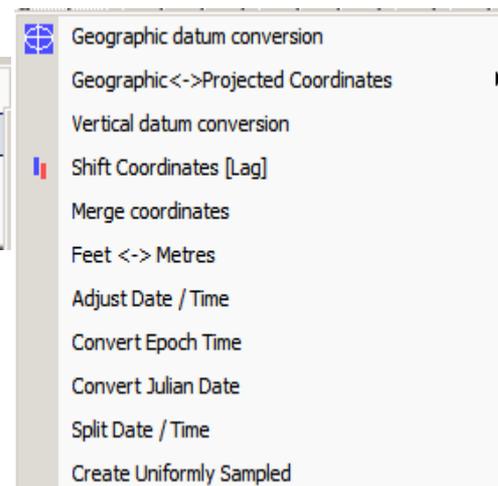
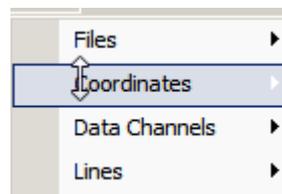
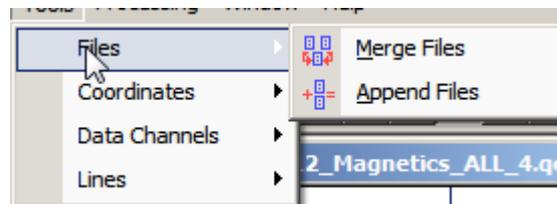


QCTool Overview



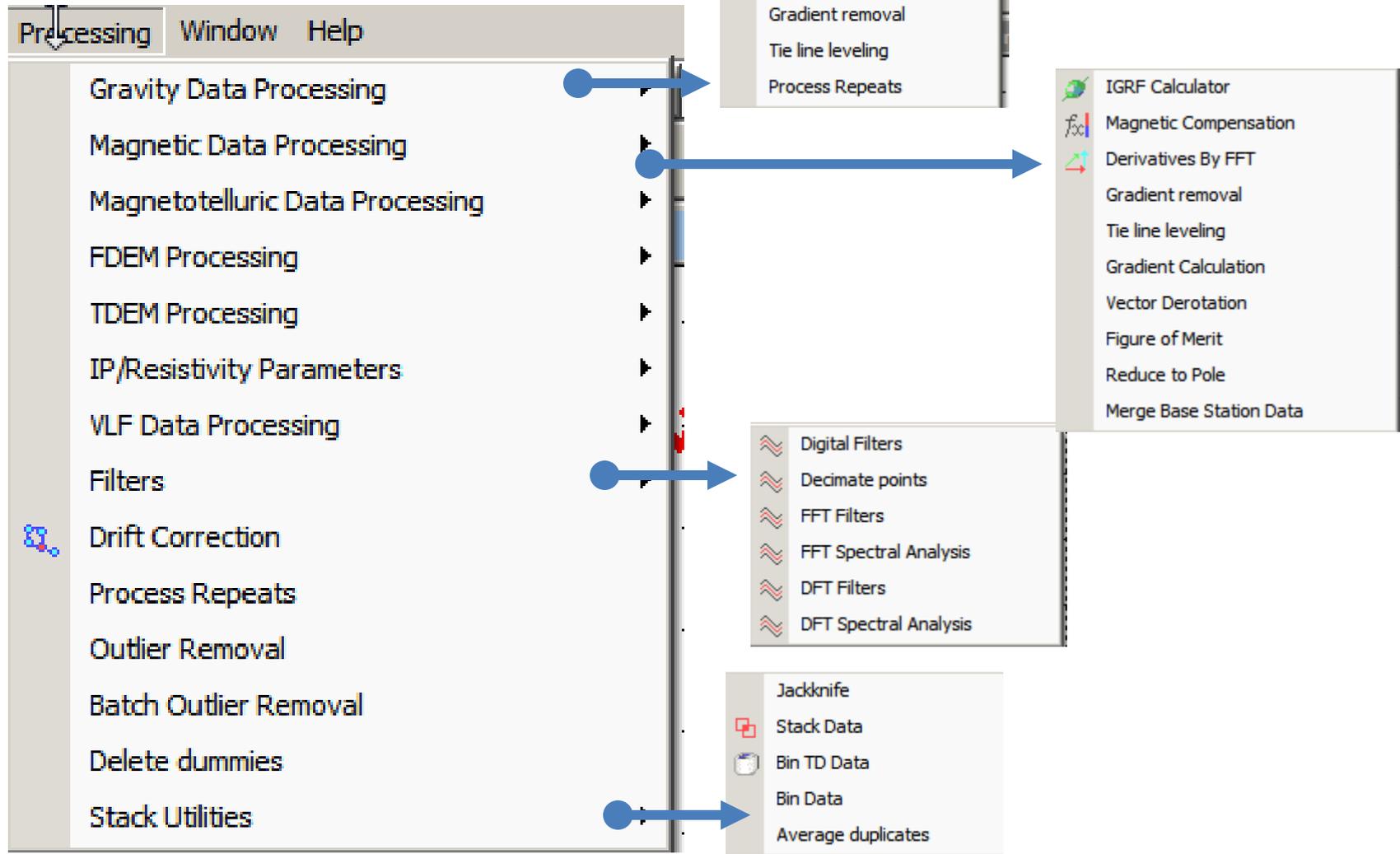
Tools



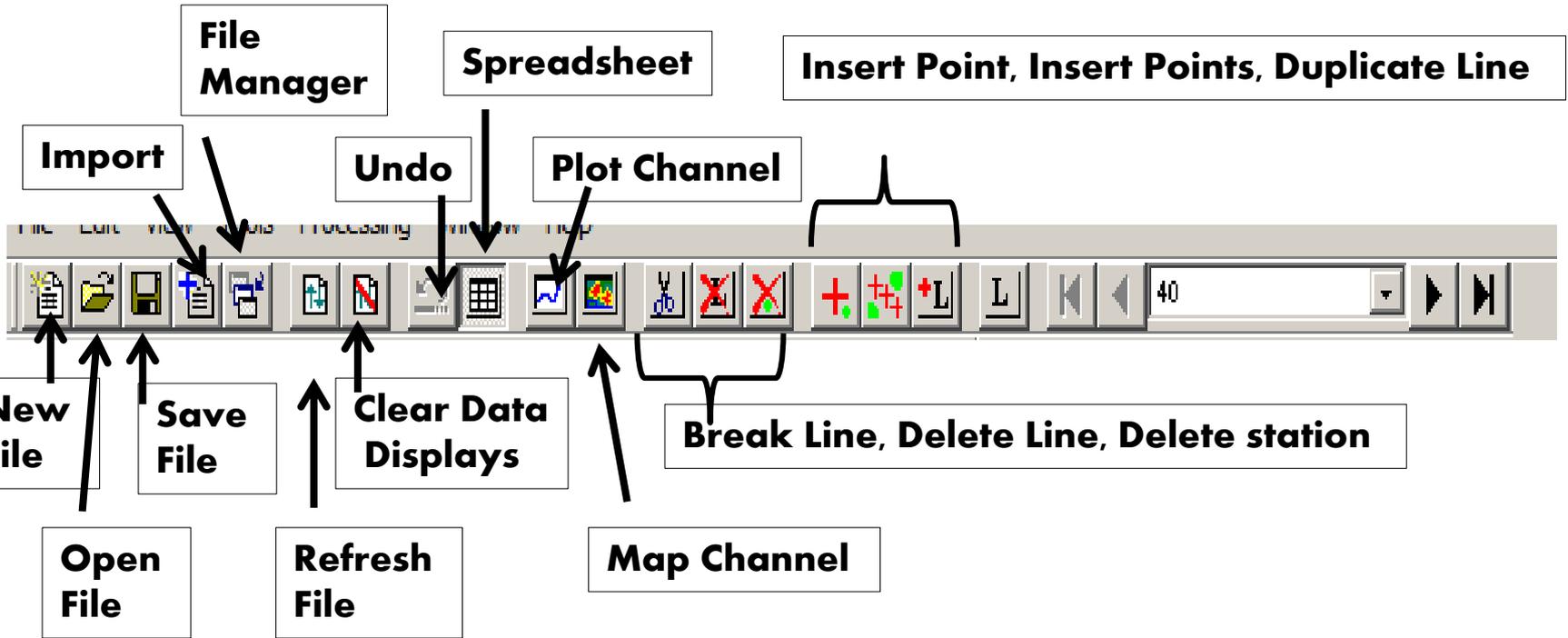
QCTool Overview



Processing



QCTool Overview



QCTool Overview

First Line, Back, Forward, Last Line

The screenshot shows the 'Line Info' dialog box in QCTool. The toolbar at the top contains buttons for 'L', 'Back', 'Forward', and 'Last Line'. A red arrow points to the 'L' button. Black arrows point from the text box above to the 'Back', 'Forward', and 'Last Line' buttons. The dialog box displays a table of lines and various controls.

Index	Line	# Points
1	40	114
2	41	117
3	42	119
4	43	121
5	44	120
6	45	117
7	46	119
8	47	118
9	48	119

48 Set Name

Sort Lines Set Names

Total Number of Lines: 9

Total Number of Points: 1069

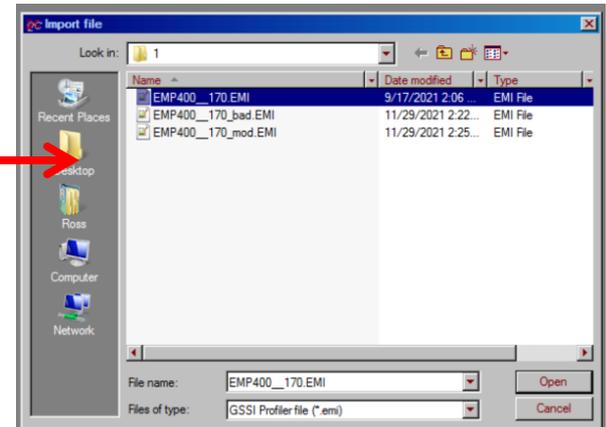
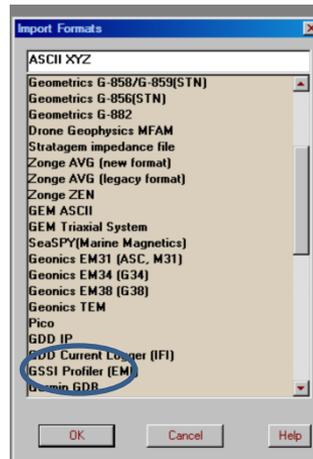
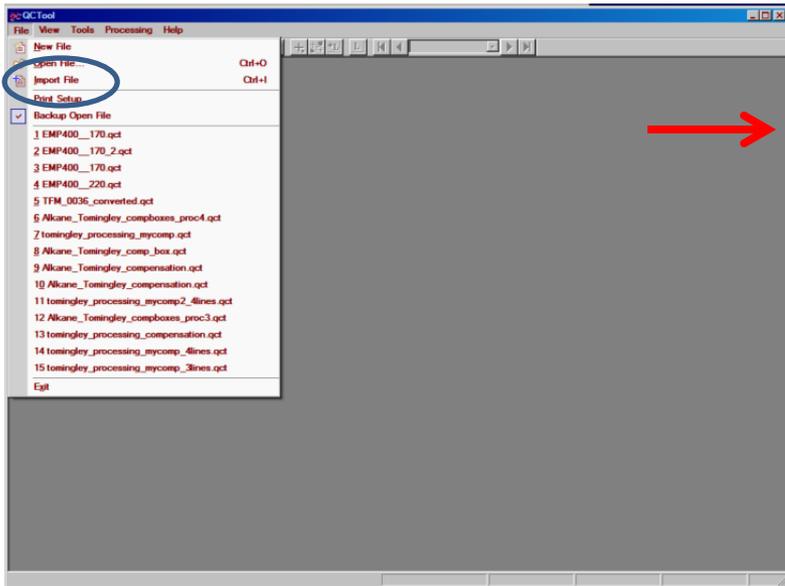
Double click on Line Label in the Line List to Delete/Restore a line or use filter below

Delete one in 0 lines Apply

Delete/Restore Selected Lines

OK

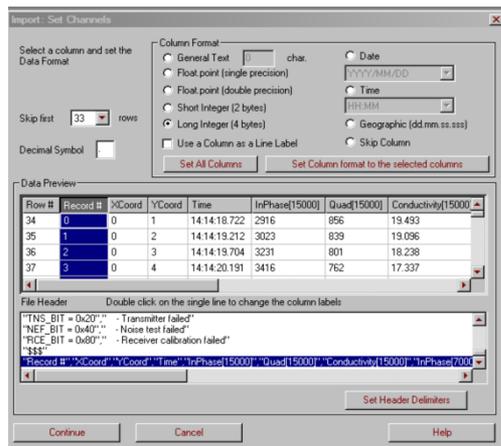
IMPORT DATA



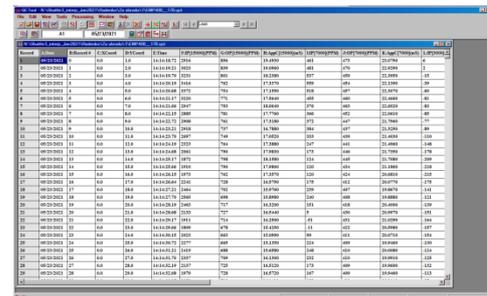
Select Data Format

Browse for file

Select Header Line and Channel Formats



Import data and produce .qct file



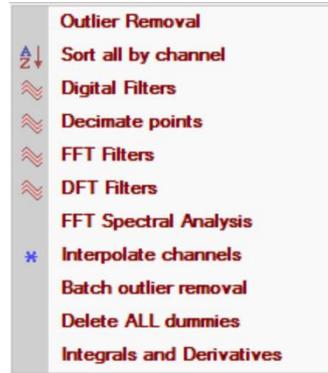
General Tools

Record	A:Date	B:Record#	C:Count	D:YCoord	E:Time	F:OP1(5000)PPM	G:OP2(5000)PPM	H:AppC(1500)ms	I:OP(700)PPM	J:OP(700)PPM	K:App(700)ms	L:OP3(500)PPM	M:OP3(500)PPM	N:App(1500)ms
1	05/25/2021	0	0.0	1.0	141418.72	2016	856	18.4930	481	473	23.0790	6	229	26.0900
2	05/25/2021	1	0.0	2.0	141419.21	3023	839	18.0960	481	470	22.9290	2	223	25.3710
3	05/25/2021	2	0.0	3.0	141419.70	3231	801	18.2380	537	489	22.9350	-15	213	24.2660
4	05/25/2021	3	0.0	4.0	141420.19	3416	762	17.3370	559	454	22.1390	-39	201	22.9110
5	05/25/2021	4	0.0	5.0	141420.68	3372	754	17.1590	518	457	22.3070	40	197	22.4690
6	05/25/2021	5	0.0	6.0	141421.17	3220	771	17.2640	455	460	22.4660	81	188	22.5660
7	05/25/2021	6	0.0	7.0	141421.66	2947	793	18.0640	376	463	22.6020	83	200	22.8170
8	05/25/2021	7	0.0	8.0	141422.15	2885	781	17.7760	366	452	22.0610	85	188	22.5720
9	05/25/2021	8	0.0	9.0	141422.72	2908	761	17.3180	372	447	21.7960	-77	191	21.7970
10	05/25/2021	9	0.0	10.0	141423.21	2918	737	16.7880	384	437	21.3250	89	187	21.2880
11	05/25/2021	10	0.0	11.0	141423.70	2907	749	17.0520	333	439	21.4830	-110	188	21.4490
12	05/25/2021	11	0.0	12.0	141424.19	2323	764	17.2880	247	441	21.4060	-148	195	22.2270
13	05/25/2021	12	0.0	13.0	141424.68	2061	790	17.9830	173	446	21.7350	-178	198	22.5780
14	05/25/2021	13	0.0	14.0	141425.17	1872	798	18.1580	124	445	21.7800	-209	196	22.3080
15	05/25/2021	14	0.0	15.0	141425.66	1910	790	17.9800	120	434	21.1860	-218	185	21.0490
16	05/25/2021	15	0.0	16.0	141426.15	1973	762	17.3570	120	424	20.6810	-215	176	19.9850
17	05/25/2021	16	0.0	17.0	141426.64	2241	728	16.5790	175	412	20.0770	-175	169	19.2210
18	05/25/2021	17	0.0	18.0	141427.21	2464	702	15.9760	239	407	19.8670	-141	171	19.4800
19	05/25/2021	18	0.0	19.0	141427.70	2565	698	15.8980	240	408	19.8880	-121	175	19.9350
20	05/25/2021	19	0.0	20.0	141428.19	2463	717	16.3200	151	418	20.4000	-139	178	20.2640

on right mouse



Processing



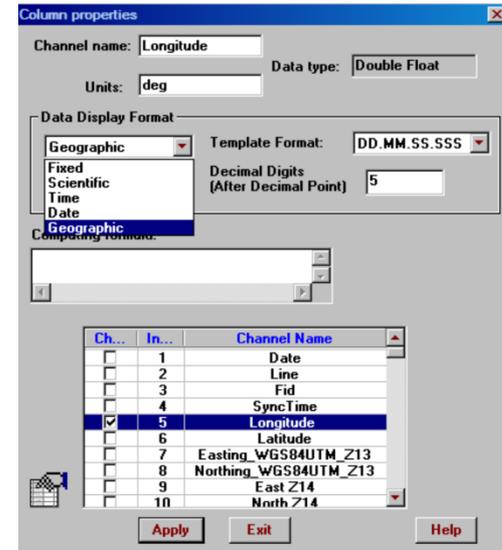
Selected Data Removal

Digital Filter Suite

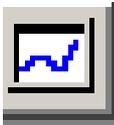
Fill in data via interpolation

Calculate First and Second Derivatives or Integrate channels

Change Name, Units and Format



PLOTTING DATA

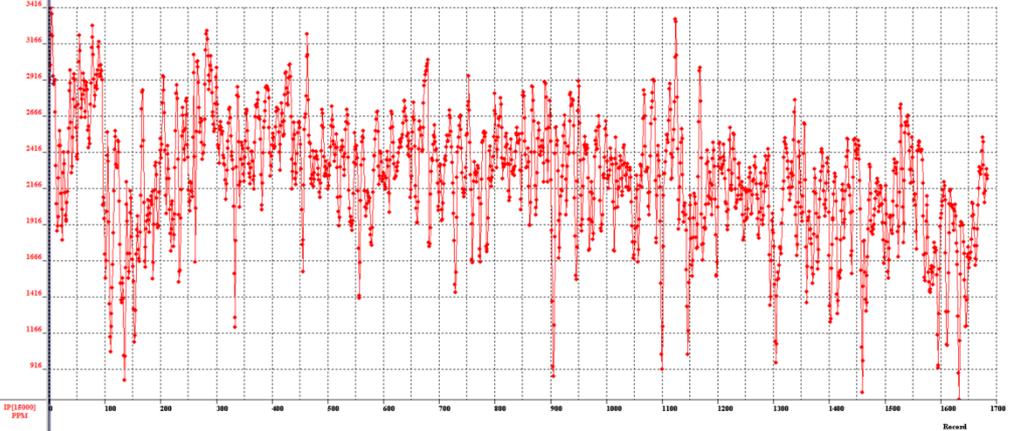


Record	A:Date	B:Record #	C:XCoord	D:YCoord	E:Time	F:IP[15000](PPM)	G:OP[15000](PPM)	H:AppC[15000](mS)	I:IP[7000](PPM)	J:OP[7000](PPM)	K:AppC[7000](mS)	L:IP[3000](PPM)	M:OP[3000](PPM)	N:AppC[3000](mS)
1	05/23/2021	0	0.0	1.0	14:14:18.72	2916	856	19.4930	461	473	23.0790	6	229	26.0900
2	05/23/2021	1	0.0	2.0	14:14:19.21	3023	839	19.0960	481	470	22.9290	2	223	25.3710
3	05/23/2021	2	0.0	3.0	14:14:19.70	3231	801	18.2380	537	459	22.3950	-15	213	24.2660
4	05/23/2021	3	0.0	4.0	14:14:20.19	3416	762	17.3370	559	454	22.1390	-39	201	22.9110
5	05/23/2021	4	0.0	5.0	14:14:20.68	3372	754	17.1590	518	457	22.3070	-60	197	22.4690
6	05/23/2021	5	0.0	6.0	14:14:21.17	3220	771	17.5640	485	460	22.4660	-81	198	22.5660
7	05/23/2021	6	0.0	7.0	14:14:21.66	2947	793	18.0640	376	463	22.6020	-83	200	22.8170
8	05/23/2021	7	0.0	8.0	14:14:22.15	2885	781	17.7760	366	452	22.0610	-85	198	22.5720
9	05/23/2021	8	0.0	9.0	14:14:22.72	2908	761	17.3180	372	447	21.7960	-77	191	21.7970
10	05/23/2021	9	0.0	10.0	14:14:23.21	2918	737	16.7880	384	437	21.3250	-89	187	21.2880
11	05/23/2021	10	0.0	11.0	14:14:23.70	2697	749	17.0520	333	439	21.4030	-110	188	21.4490
12	05/23/2021	11	0.0	12.0	14:14:24.19	2323	764	17.3880	247	441	21.4960	-148	195	22.2270
13	05/23/2021	12	0.0	13.0	14:14:24.68	2061	790	17.9830	173	446	21.7350	-178	198	22.5780
14	05/23/2021	13	0.0	14.0	14:14:25.17	1872	798	18.1580	124	445	21.7080	-209	196	22.3080
15	05/23/2021	14	0.0	15.0	14:14:25.66	1910	790	17.9800	120	434	21.1860	-218	185	21.0490
16	05/23/2021	15	0.0	16.0	14:14:26.15	1973	762	17.3570	120	424	20.6810	-215	176	19.9850
17	05/23/2021	16	0.0	17.0	14:14:26.64	2241	728	16.5790	175	412	20.0770	-175	169	19.2210
18	05/23/2021	17	0.0	18.0	14:14:27.21	2464	702	15.9760	239	407	19.8670	-141	171	19.4800
19	05/23/2021	18	0.0	19.0	14:14:27.70	2800	698	15.8980	240	408	19.8880	-121	175	19.9350
20	05/23/2021	19	0.0	20.0	14:14:28.19	2800	698	16.3200	151	418	20.4000	-139	178	20.2640

on right mouse



- Plot Channel
- Hide plotted channel
- Delete channel from plot
- Dynamic plot
- Map Channel
- Insert Channel
- Duplicate Channel
- Delete Channel
- Insert a Line Channel
- Statistics
- Processing
- Column Properties
- Adjust Date/Time

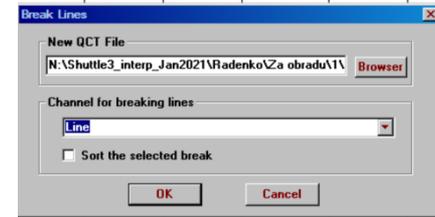
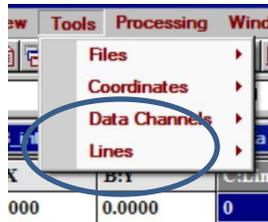


you can select multiple channels to plot

Breaking Out Individual Lines to Their Own Spreadsheet

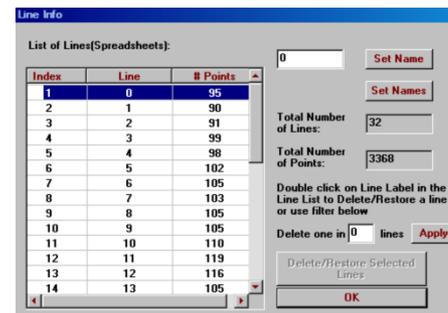
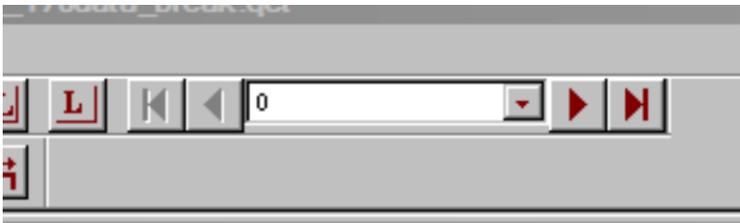
Record	A:X	B:Y	C:Line	D:Station	E:XCoord	F:YCoord	G:IP[15000]	H:OP[15000]	I:Cond[15000]	J:IP[7000]	K:OP[7000]	L:Cond[7000]	M:IP[3000]	N:OP[3000]	O:Cond[3000]	P:TIME	Q:DATE
1	0.0000	0.0000	0	0	0.0000	1.0000	2916.000000	856.0000	19.4930	461.0000	473.0000	23.0790	6.0000	229.0000	26.0900	14:14:18.72	05/23/21
2	0.0000	0.2130	0	1	0.0000	2.0000	3023.000000	839.0000	19.0960	481.0000	470.0000	22.9290	2.0000	223.0000	25.3710	14:14:19.21	05/23/21
3	0.0000	0.4260	0	2	0.0000	3.0000	3231.000000	801.0000	18.2380	537.0000	459.0000	22.3950	-15.0000	213.0000	24.2660	14:14:19.70	05/23/21
4	0.0000	0.6380	0	3	0.0000	4.0000	3416.000000	762.0000	17.3370	559.0000	454.0000	22.1390	-39.0000	201.0000	22.9110	14:14:20.19	05/23/21
5	0.0000	0.8510	0	4	0.0000	5.0000	3372.000000	754.0000	17.1590	518.0000	457.0000	22.3070	-60.0000	197.0000	22.4690	14:14:20.68	05/23/21
6	0.0000	1.0640	0	5	0.0000	6.0000	3220.000000	771.0000	17.5640	455.0000	460.0000	22.4660	-81.0000	198.0000	22.5660	14:14:21.17	05/23/21
7	0.0000	1.2770	0	6	0.0000	7.0000	2947.000000	793.0000	18.0640	376.0000	463.0000	22.6020	-83.0000	200.0000	22.8170	14:14:21.66	05/23/21
8	0.0000	1.4890	0	7	0.0000	8.0000	2885.000000	781.0000	17.7760	366.0000	452.0000	22.0610	-85.0000	198.0000	22.5720	14:14:22.15	05/23/21
9	0.0000	1.7020	0	8	0.0000	9.0000	2908.000000	761.0000	17.3180	372.0000	447.0000	21.7960	-77.0000	191.0000	21.7970	14:14:22.72	05/23/21
10	0.0000	1.9150	0	9	0.0000	10.0000	2918.000000	737.0000	16.7880	384.0000	437.0000	21.3250	-89.0000	187.0000	21.2880	14:14:23.21	05/23/21
11	0.0000	2.1280	0	10	0.0000	11.0000	2697.000000	749.0000	17.0520	333.0000	439.0000	21.4030	-110.0000	188.0000	21.4490	14:14:23.70	05/23/21
12	0.0000	2.3400	0	11	0.0000	12.0000	2323.000000	764.0000	17.3880	247.0000	441.0000	21.4960	-148.0000	195.0000	22.2270	14:14:24.19	05/23/21
13	0.0000	2.5530	0	12	0.0000	13.0000	2061.000000	790.0000	17.9830	173.0000	446.0000	21.7350	-178.0000	198.0000	22.5780	14:14:24.68	05/23/21
14	0.0000	2.7660	0	13	0.0000	14.0000	1872.000000	798.0000	18.1580	124.0000	445.0000	21.7080	-209.0000	196.0000	22.3080	14:14:25.17	05/23/21
15	0.0000	2.9790	0	14	0.0000	15.0000	1910.000000	790.0000	17.9800	120.0000	434.0000	21.1860	-218.0000	185.0000	21.0490	14:14:25.66	05/23/21
16	0.0000	3.1910	0	15	0.0000	16.0000	1973.000000	762.0000	17.3570	120.0000	424.0000	20.6810	-215.0000	176.0000	19.9850	14:14:26.15	05/23/21
17	0.0000	3.4040	0	16	0.0000	17.0000	2241.000000	728.0000	16.6590	175.0000	412.0000	20.0770	-175.0000	169.0000	19.2210	14:14:26.64	05/23/21
18	0.0000	3.6170	0	17	0.0000	18.0000	2464.000000	702.0000	15.9760	239.0000	407.0000	19.8670	-141.0000	171.0000	19.4800	14:14:27.21	05/23/21
19	0.0000	3.8300	0	18	0.0000	19.0000	2565.000000	698.0000	15.8980	240.0000	408.0000	19.8880	-121.0000	175.0000	19.9350	14:14:27.70	05/23/21
20	0.0000	4.0430	0	19	0.0000	20.0000	2463.000000	717.0000	16.3200	151.0000	418.0000	20.4000	-139.0000	178.0000	20.2640	14:14:28.19	05/23/21

select line channel



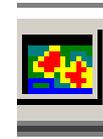
1 Line - 1 spreadsheet

many Lines - many spreadsheets



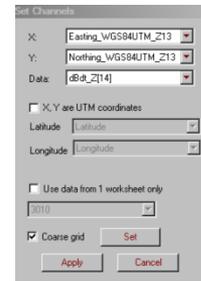
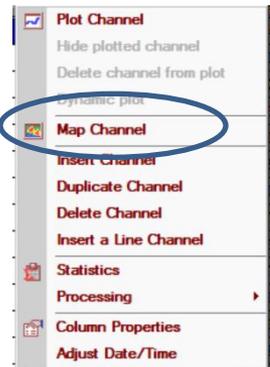
Gridding, Contouring and Mapping Tools

select a channel to be mapped



Record	P-dBc_Z[1]	Q-dBc_Z[2]	R-dBc_Z[3]	S-dBc_Z[4]	T-dBc_Z[5]	U-dBc_Z[6]	V-dBc_Z[7]	W-dBc_Z[8]	X-dBc_Z[9]	Y-dBc_Z[10]	Z-dBc_Z[11]	AA-dBc_Z[12]	AB-dBc_Z[13]	AC-dBc_Z[14]	AD-dBc_Z[15]	AE-dBc_Z[16]	AF-dBc_Z[17]
1	*	*	*	*	*	19.05104	16.63218	14.68573	12.95701	11.07564	9.51191	8.34142	6.81667	5.07518	3.72590	2.59248	1.73957
2	*	*	*	*	*	19.06637	16.63870	14.69355	12.96464	11.08498	9.51949	8.34927	6.82447	5.08150	3.73186	2.59587	1.74229
3	*	*	*	*	*	19.07858	16.64313	14.69983	12.97035	11.09339	9.52648	8.35647	6.83173	5.08762	3.73784	2.59915	1.74507
4	*	*	*	*	*	19.08744	16.64530	14.70443	12.97400	11.10074	9.53279	8.36293	6.83827	5.09347	3.74379	2.60231	1.74789
5	*	*	*	*	*	19.09279	16.64811	14.70726	12.97552	11.10696	9.53836	8.36861	6.84407	5.09903	3.74967	2.60532	1.75075
6	*	*	*	*	*	19.09943	16.65241	14.70818	12.97478	11.11194	9.54308	8.37342	6.84905	5.10424	3.75546	2.60818	1.75362
7	*	*	*	*	*	19.09917	16.65708	14.70798	12.97170	11.11559	9.54687	8.37731	6.85318	5.10984	3.76110	2.61087	1.75650
8	*	*	*	*	*	19.08577	16.62892	14.70376	12.96612	11.11775	9.54959	8.38015	6.85636	5.11337	3.76653	2.61338	1.75937
9	*	*	*	*	*	19.07487	16.61762	14.69792	12.95778	11.11817	9.55103	8.38177	6.85848	5.11710	3.77108	2.61568	1.76219
10	*	*	*	*	*	19.05913	16.60288	14.68927	12.94648	11.11663	9.55099	8.38202	6.85935	5.12034	3.77646	2.61767	1.76495
11	*	*	*	*	*	19.03853	16.58472	14.67780	12.93223	11.11312	9.54946	8.38089	6.85905	5.12246	3.78084	2.61943	1.76764
12	*	*	*	*	*	19.01310	16.56316	14.66353	12.91508	11.10764	9.54643	8.37839	6.85755	5.12484	3.78482	2.62096	1.77026
13	*	*	*	*	*	18.98258	16.53800	14.64623	12.89489	11.10001	9.54175	8.37439	6.85478	5.12481	3.78833	2.62224	1.77281
14	*	*	*	*	*	18.94675	16.50900	14.62566	12.87149	11.09005	9.53525	8.36877	6.85062	5.12466	3.79129	2.62325	1.77527
15	*	*	*	*	*	18.90955	16.47919	14.60183	12.84492	11.07774	9.52592	8.36152	6.84508	5.12358	3.79369	2.62400	1.77765
16	*	*	*	*	*	18.88930	16.44964	14.57477	12.81829	11.06312	9.51678	8.35257	6.83820	5.12156	3.79552	2.62452	1.77997
17	*	*	*	*	*	18.80763	16.39922	14.54432	12.78251	11.04605	9.50470	8.34213	6.82991	5.11855	3.79674	2.62481	1.78223
18	*	*	*	*	*	18.75046	16.35471	14.51027	12.74644	11.02637	9.49055	8.32979	6.82012	5.11446	3.79729	2.62487	1.78439
19	*	*	*	*	*	18.68778	16.30610	14.47255	12.70709	11.00400	9.47427	8.31560	6.80881	5.10926	3.79713	2.62469	1.78650
20	*	*	*	*	*	18.61959	16.25332	14.43108	12.66446	10.97890	9.45580	8.29953	6.79598	5.10292	3.79626	2.62431	1.78857
21	*	*	*	*	*	18.54593	16.19637	14.38584	12.61857	10.95102	9.43510	8.28156	6.78160	5.09543	3.79466	2.62374	1.79061
22	*	*	*	*	*	18.46717	16.13557	14.33706	12.56972	10.92056	9.41235	8.26183	6.76582	5.08666	3.79239	2.62304	1.79267
23	*	*	*	*	*	18.38390	16.07141	14.28521	12.51836	10.88785	9.38784	8.24062	6.74884	5.07736	3.78955	2.62233	1.79482
24	*	*	*	*	*	18.29564	16.00424	14.22965	12.46400	10.85119	9.36181	8.21814	6.73085	5.06768	3.78624	2.62169	1.79713
25	*	*	*	*	*	18.20568	15.93457	14.17356	12.40953	10.81669	9.33438	8.19450	6.71193	5.05599	3.78251	2.62118	1.79945
26	*	*	*	*	*	18.11117	15.86213	14.11398	12.35231	10.77835	9.30554	8.16969	6.69212	5.04420	3.77837	2.62083	1.80239
27	*	*	*	*	*	18.01327	15.78711	14.05186	12.29335	10.73820	9.27532	8.14375	6.67145	5.03171	3.77388	2.62067	1.80541
28	*	*	*	*	*	17.91242	15.70982	13.98757	12.23293	10.69644	9.24388	8.11683	6.65005	5.01862	3.76905	2.62078	1.80875
29	*	*	*	*	*	17.80935	15.63087	13.92164	12.17157	10.65348	9.21161	8.08926	6.62819	5.00514	3.76410	2.62128	1.81250

or on right mouse

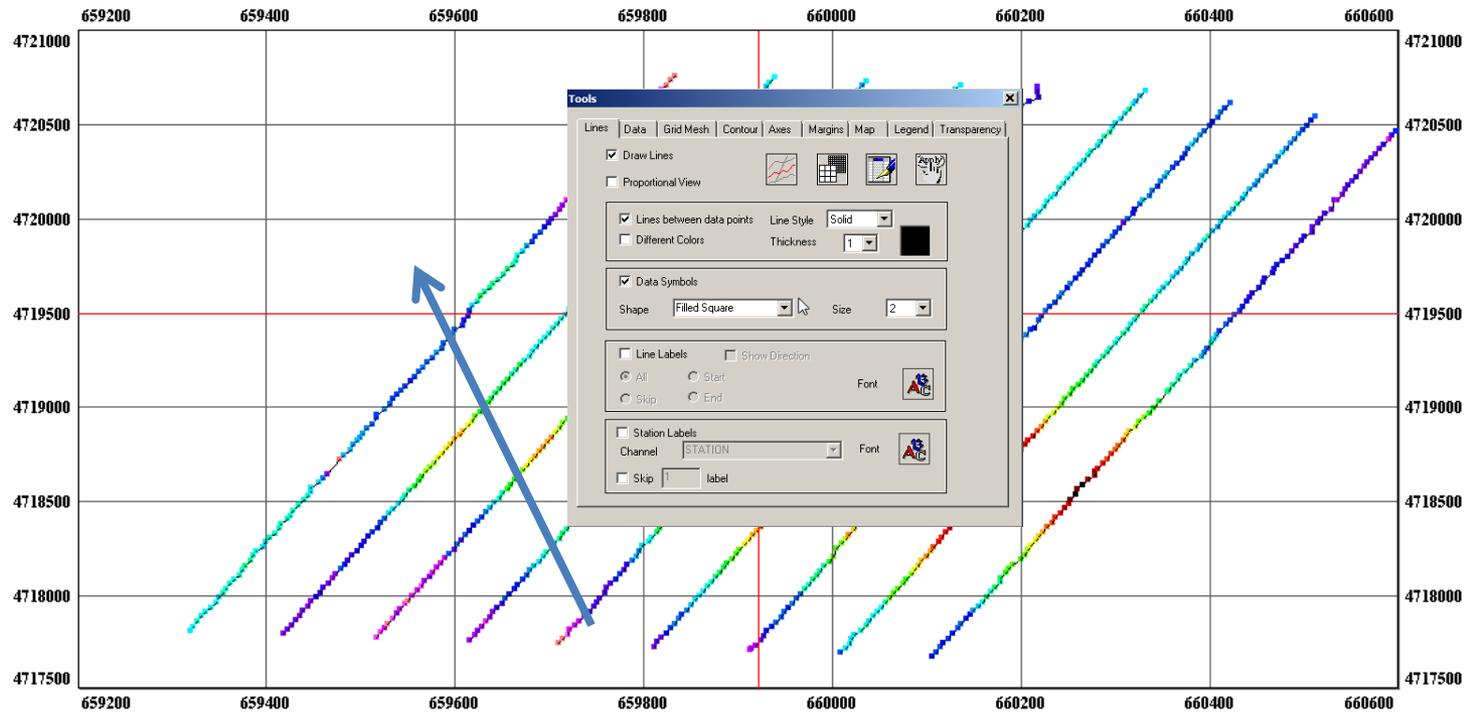


select reference channels for 2D plot

→ next page

Note: The process maps all data points unless the user chooses a coarse grid when datasets have an extremely large set of data points

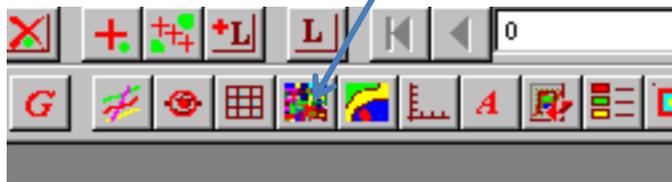
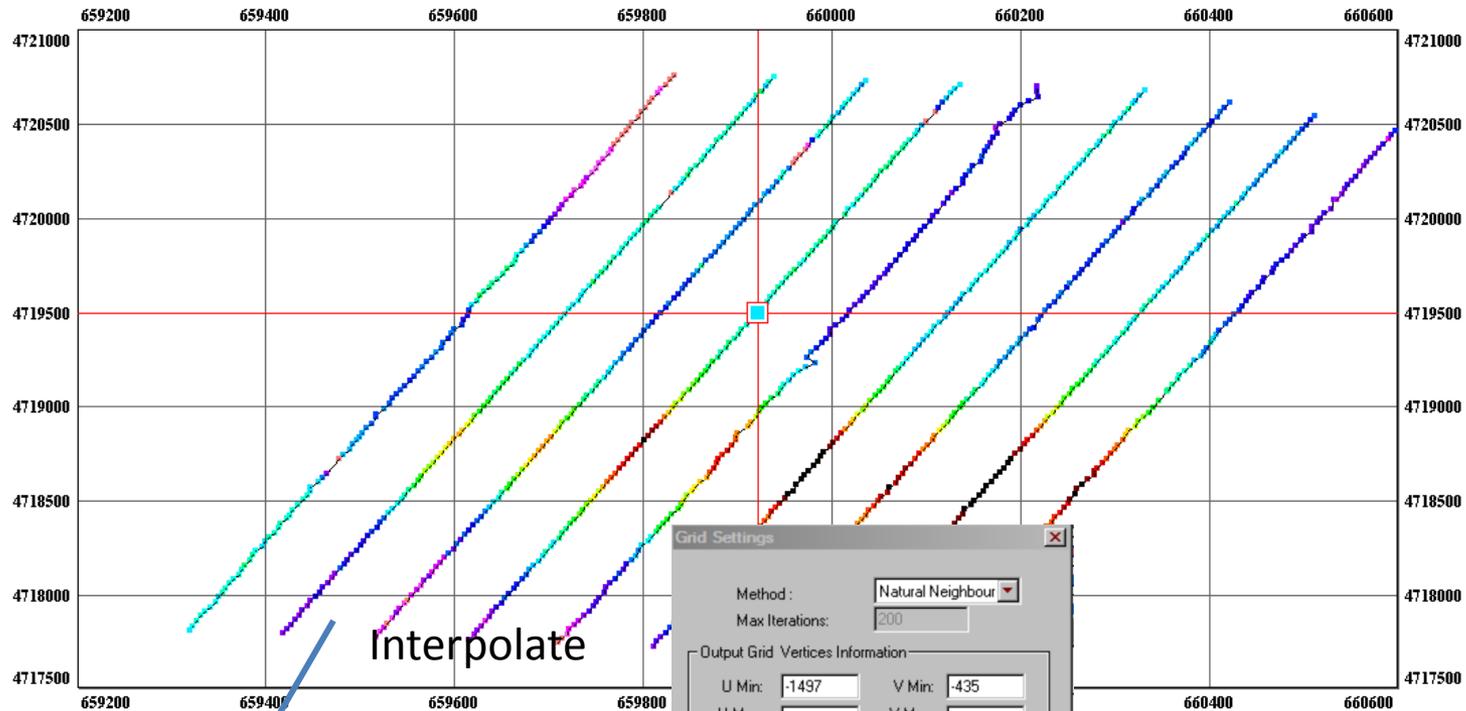
Mapping Tools - Controls



double left click in window
for mapping controls



Mapping Tools – Interpolation onto a regular “rectilinear” grid



Grid Settings

Method: Natural Neighbour

Max Iterations: 200

Output Grid Vertices Information

U Min: -1497	V Min: -435
U Max: 1506	V Max: 415
dU: 13	dV: 50
nU: 232	nV: 18

Note: nU and nV are the numbers of grid vertices.

Angle (degrees) wrt X: 80.04

Reference Point X: 659962

Reference Point Y: 4719218

Average Distance between Lines: 100.209999

Locations: 25.2299995

Remove Extrapolated Points

Spatial Radius: 86.434

Slow Fast

Remove Duplicate Points

Interpolate Default Cancel

Interpolation settings adjust as required



User Controls:

- cells dimensions dx & dy
- grid azimuth and centre
- grid size
- extrapolation removal
- interpolation algorithm

Mapping Tools

Interpolate

Method: Natural Neighbour

Max Iterations: 200

Output Grid Vertices Information

U Min: -1497	V Min: -435
U Max: 1506	V Max: 415
dU: 13	dV: 50
nU: 232	nV: 18

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Locations: 25.2299995

Remove Extrapolated Points

Spatial Radius: 86.434

Slow Fast

Remove Duplicate Points

Interpolate Default Cancel

Interpolation settings
adjust as required

Select Interpolation Algorithm

Define Grid Parameters
- size and resolution

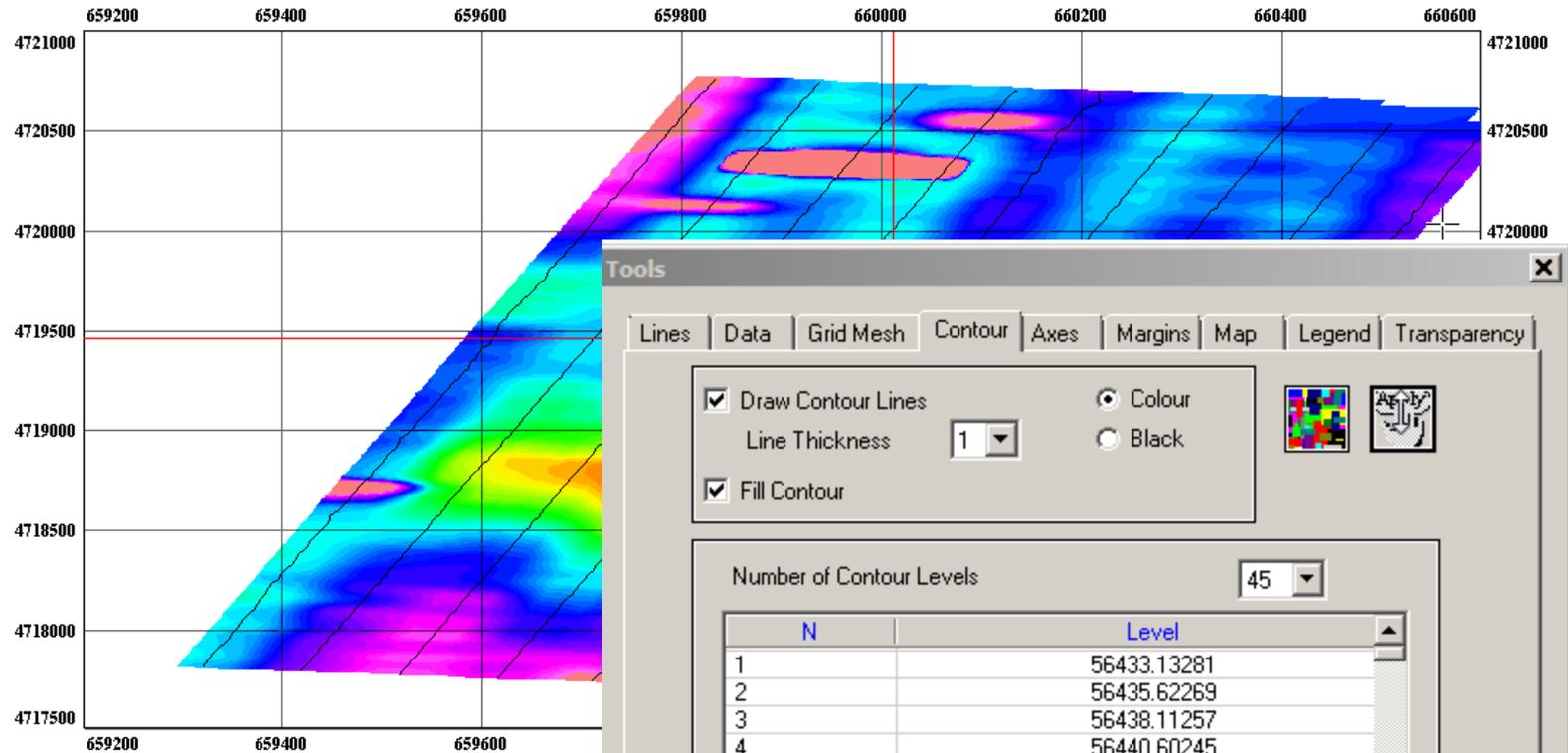
Grid Centre and Angle

Data Resolution parameters

Extrapolated Data Removal Settings

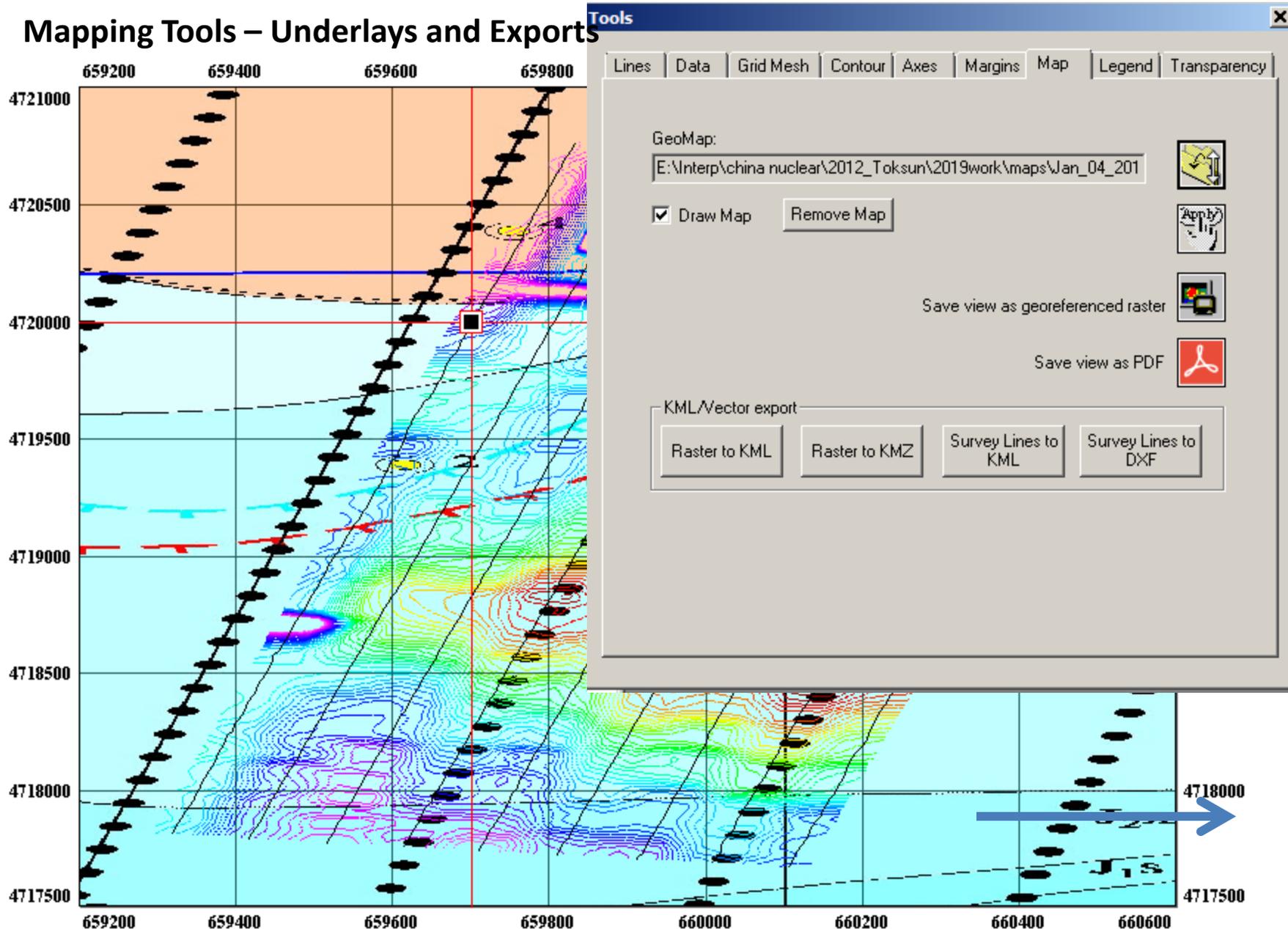
Duplicate Station handling

Mapping Tools - Contouring



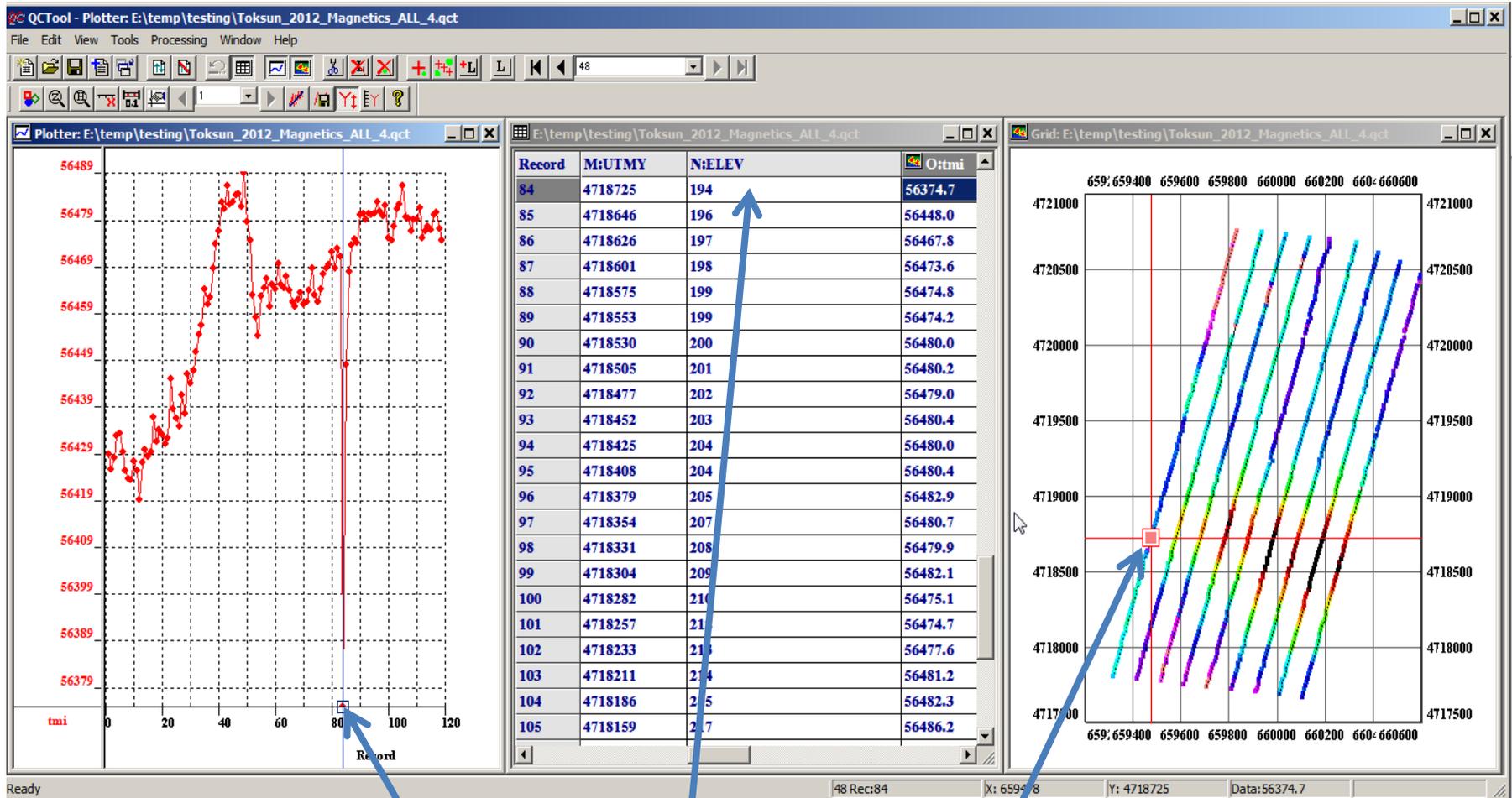
double left click in window
for mapping controls
- Contouring

Mapping Tools – Underlays and Exports



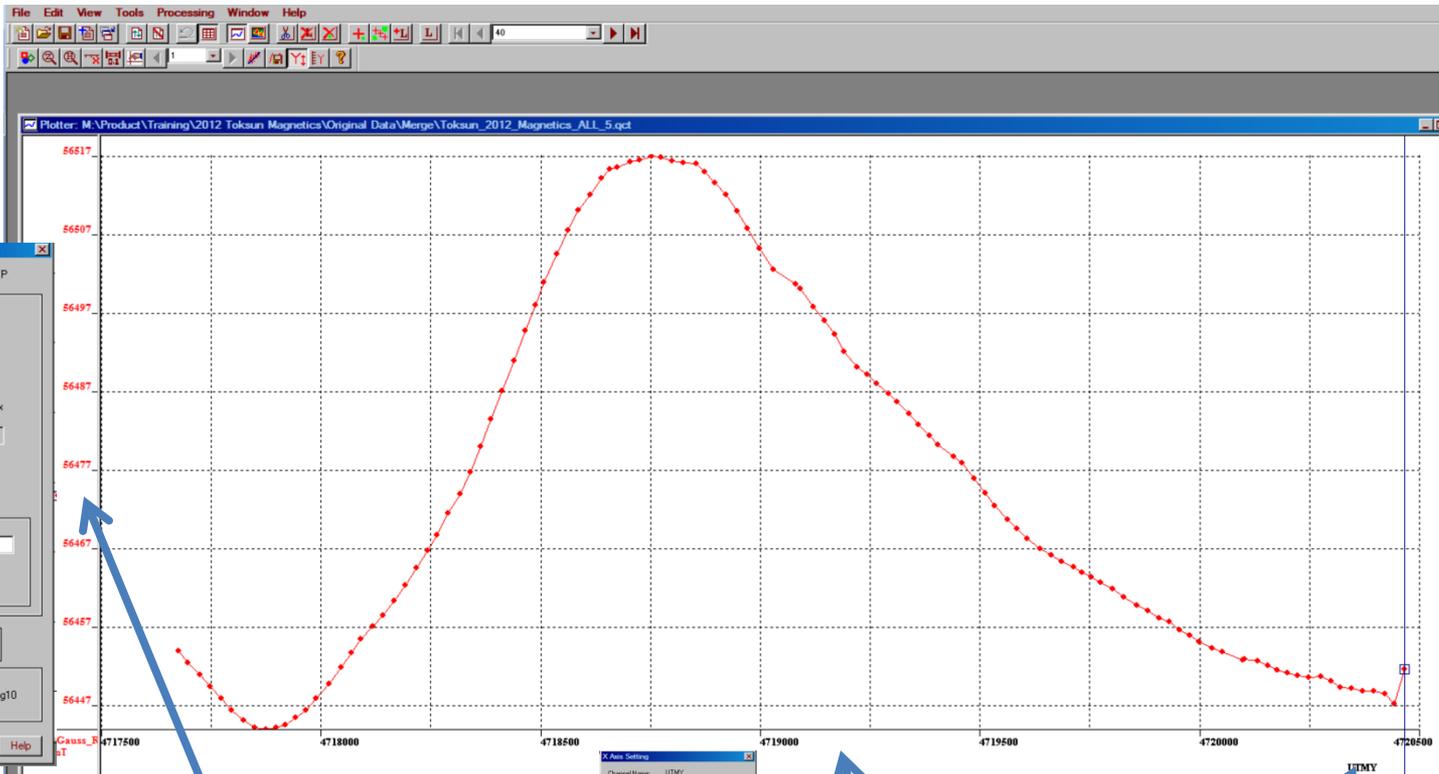
example underlay map

Spreadsheets, Plotter, Grid Display linked in memory



Select a location in any display application and point located in the other two

Plotting Tools



Y Axis Setting

Channel Name: TMI_E_L_Gauss_RTP

Data Max Y: 56516.84755E
Data Min Y: 56443.73437E
Max Y: 56520
Min Y: 56440

Auto-Rescale to Local Min and Max

Y-Axis Increment: 10
 Automatically change increment
 Keep axis settings for all sheets

Format:
Decimal Digits: (Alter Decimal Point) 0
 Fixed Exponential
 Time Date

Font: Y Axis Font

Draw X Mesh Lines Log10
 Draw Y Mesh Lines

OK Cancel Help

Double click for Y-axis settings

X Axis Setting

Channel Name: UTM Y

Data Max X: 4720460
Data Min X: 4717620
Max X: 4720500
Min X: 4717500

X Axis Increment: 500
 Automatically change increment
 Keep axis settings for all sheets

Format:
Decimal Digits: (Alter Decimal Point) 0
 Fixed Exponential
 Time Date

Font: X Axis Font

Draw X Mesh Lines Log10
 Draw Y Mesh Lines

OK Cancel Help

Double click for X-axis settings

Set X Axis

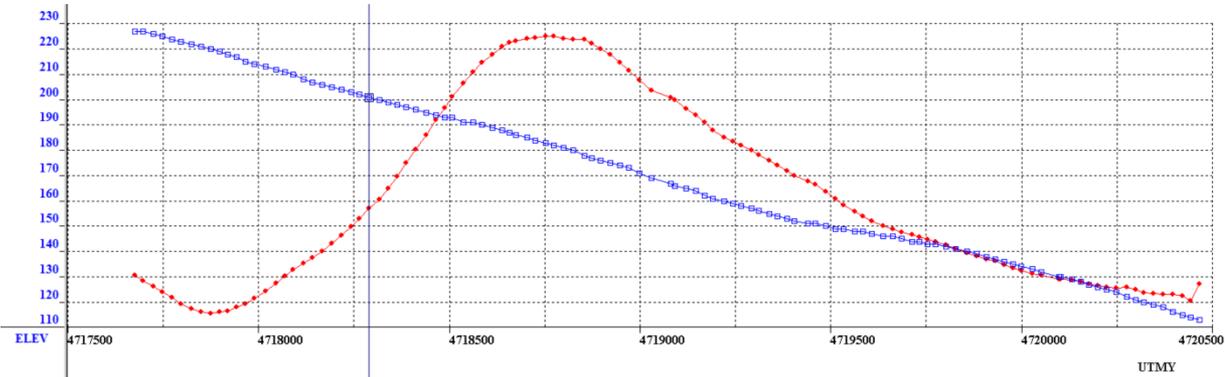
date
time
STATION
GridX
GridY
Long_Z45
Lat_Z45
Long_Beijing 1
Lat_Beijing 19
UTM X
UTM Y

Set

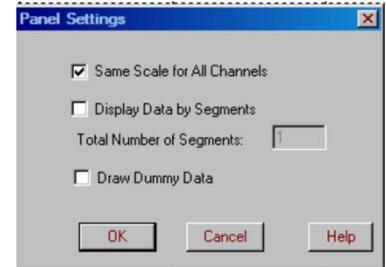
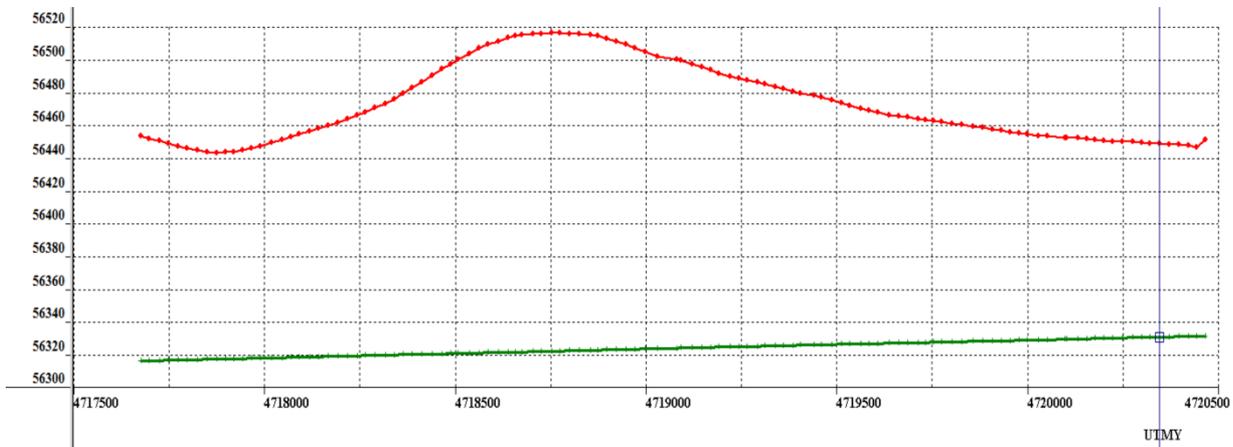
Double click to select abscissa

Plotting Tools

Plot multiple channels each with its own Y-scale



Plot multiple channels with one Y-scale



Plotting Tools

Step between Lines



Step between Lines

