How to use x2ipi with Syscal-Pro (IRIS Instruments, France)

1.1. Creating sequence file for Syscal-Pro

1. С create a new sequence file for correct number of electrodes Ошибка! Источник

ссылки не найден.] and save it Electrell txt format



2. Optimize sequence for Syscal-Pro. Make reciprocal Schlumberger array **Menu-Save-Reciprocal SEQ-Electrell (txt)**. Open result TXT file.



2. Sorting quadripoles. Menu-Save-Sorting-Syscal-Pro or AB lengths.



3. Now we need to prepare sequence file for Syscal-Pro and add gapfiller (dummy) quadripoles. We could use *Electre Pro* software.

↓ OK					
ng seq.					
0.20.17					
0:30:17					
ng					

We made optimized sequence file (SQZ), which should be upload in Syscal-Pro for measurements.

Also we could use **OptiPro** software from IRIS Instruments. We need uncheck Sorting checkbox, because we already sorted quadripoles. x2ipi uses different algorithm of sorting quadripoles.

🔞 OptiPro	- Finished !	
	🗁 Open sequence file	
Input file :	G:\workdir\Новая папка\new_amnb_sh.txt	
Output files	: G:\workdir\Новая папка\Pro-new_amnb_sh.txt	
~	G:\workdir\Новая папка\LinePro-new_amnb_sh.txt	
🔽 Allow op	ptimal insertion of dummy quadripole:	
🗌 📶 Ilow so	orting of the quadripoles before optimization	
Set the max	ximum number of channels to be used (2 to 10) : 10 🌒	
Stop	100%	
_Original s	equence statistics	
Quad. nu	mber: 440	
Injection :	: Dipole Only Measure : Dipole Only	
Optimized	sequence statistics	
Quad. nu	mber: 758 Number of injection: 121	
Number	of channels finally used : 9	
Optimizat	tion gain : 3.6	

Opti-Pro creates TXT file with long file name. We recommend to rename and to short this file name because Syscal-Pro supports only 10 characters in file name.

Finally we have two sequence file: original TXT file and optimized TXT or SQZ file. We could use original file for Syscal-Pro data processing.

There are many other options to prepare sequence file.

1.2. Read field data from Syscal-Pro

Prosys II software can export field data in TXT format, which can be read by x2ipi software.

Prosy	s II					Course	6 Y	-		President of
File Communication Processing View Tools Help										
🛱 Open		F2		2						
📁 Open	last file	F3	2 🔛	.2 🗠 Spa.3 🗠 Spa.4 🗠				Rho		Dev.
Save as F4)0	0.00		15.00		85.29		0.1	
			lo.	0.00		25.00		47,48		0.1
🞯 Export and save 🔹 🕨			ElecImager				.95		0.1	
Import file		Geor	Geosoft				.08		0.3	
Import Electre file								.49		0.1
			Res2dinv / Res3dinv				.91		0.3	
Add		Ix1D				.24		0.3		
Split in files					.51		0.3			
Batch 🕨		IXID IP				.01		0.3		
			Resix			.60		0.1		
Display options			Resix IP			.41		0.1		
× Ouit		Winsey				.84		0.1		
Quit			Willis .		-			13		0.1
14	20.00	6	Spre	adshe	et			.82		0.1
15	20.00	25	Spreadsheet sounding					0.3		
16	20.00	25	Spreadsheet separator ⁴⁹			0.2				
17	25.00	30	.20				0.1			
18	25.00	30	0 Track (pcx5)72 0.			0.1				
19	25.00	30	Track (gpx)				.97		0.1	

We have to remove gapfiller measurements before data processing. If we made optimization by *Electre Pro* software, then we could reject gapfiller by *Prosys II* before export spreadsheet.

Pros	ys II	foreign character in the second in
<u>File</u>	ommunication	Processing View Tools Help
	- ≇ 🐼 🔮 🔮 😫 □ Spa.1 🗠 5.00	Keep selected data Ignore selected data Delete ignored data
 ✓ 2 ✓ 3 ✓ 4 ✓ 5 	10.00 10.00 10.00 15.00	Select channel 0. Select level 0. Select Y location 0.
 ☑ 6 ☑ 7 ☑ 8 ☑ 9 ☑ 10 ☑ 11 ☑ 12 	15.00 15.00 15.00 15.00 20.00 20.00 20.00	Automatic filtering 0. Filtering 0. Absolute Rho value 0. Reject overload data 0. Reject node 0. Replace node spacing
13	20.00	Reject gapfiller 0.
 ✓ 14 ✓ 15 ✓ 16 	20.00 20.00 20.00	Change El. array Transform spacing XYZ 0.
 ✓ 17 ✓ 18 ✓ 19 ✓ 20 ✓ 21 	25.00 25.00 25.00 25.00 25.00	Modify spacing 0. Lat/Long to Distance 0. Adjust GPS position 0. Insert topography 0.
22 23 23 24	25.00 25.00 25.00	Compute Cole-Cole parameters 0. 30:00 15:00 40:00 44:81 0. 20:00 40:00 20:00 99:99 0.0

If we made optimization by *OptiPro* software, then we could reject gapfiller by *x2ipi* software. There are two options to read data from *Prosys II* software. **Data from Syscal-Pro** (**Prosys**) option allows to reject gapfiller from TXT data file. We read the data file first and the *original* sequence file.

Syscal data (*.0*; *.mod)
Syscal sequences (*.seq)
Sens2Dinv (*.ars;*.imp;*.ui)
Res2dInv format (*.dat; *.inv)
ABEM data (AMP format) (*.amp)
ABEM protocol (ORG) (*.ora;*.up;*.dwn)
Data from Prosys (Iris Instruments) (*.txt)
SEQ from Electre II (Iris Instruments) (*.txt)
Data from Syscal-Pro (Prosys) (*.txt)
Data in Geosoft IPDATA format (*.dat)
Data from ABEM (txt) (*.txt)
Protocol from ABEM (XML) (*.xml)