IP data format

Torleif Dahlin 2007-03-19

Suggested file format for time-domain IP data based on the general electrode array format used by Res2dinv. Please refer to the Res2dinv manual if needed.

Comment_string
a-spacing
Array_code (always = 11)
Sub_array_code
Type of measurement (0=app.resistivity 1=resistance)
Meas_type_flag
No_of_data
Electrode_position_type_flag
IP-flag (> 0 if IP data)
IP_parameter (e.g. Chargeability)
IP_unit (e.g. mV/V)
IPwin IPdelay IPtime[1] IPtime[2] ... IPtime[IPwin] Ton Toff
nElec x_A z_A x_B z_B x_M z_M x_N z_N rho(or R) IP[1] IP[2] … IP[IPwin]
etc

where;

IP-flag = integer value defining format (0 = no IP data, 1 = time domain IP w one time win, 2 = frequency domain IP, 11 = time domain IP)

IPwin = no of IP time windows

IPdelay = delay between current turn-off and start of measuring (in seconds)

IPtime[1], IPtime[2], ..., IPtime[IPwin] = integration time for each of the time windows (in seconds)

Ton = time on for current transmission (in seconds)

Toff = time off for current transmission (in seconds)

nElec = no of electrode coordinates (2 for pole-pole, 3 for pole-dipole, 4 for all 4-electrode arrays)

x_A, z_A, x_B, z_B,x_M, z_M, x_N, z_N = the electrode coordinates

rho(or R) = measured data for resistivity

IP[1], IP[2], …, IP[IPwin] = measured data for the IP time windows

Example

Here is an example of the initial part of an example data file:

```
Härlöv line 1D
0.5
11
15
Type of measurement (0=app.resistivity 1=resistance)
0
5642
2
11
Chargeability
mV/V
10 0.01 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 1.1 1.3
4 0 0 54 0 6 0 12 0 6.03 18.033 10.104 7.65 4.6 3.779 3.499 2.052 2.24 2.794 2.261
4 0 0 54 0 12 0 18 0 12.6 43.165 24.168 16.802 10.251 7.501 6.339 3.428 2.559 2.259 0.209
4 0 0 54 0 18 0 24 0 16.55 62.05 38.261 28.978 21.879 18.769 17.037 14.244 13.555 13.882 11.87
…
```