ITOOLS CADASTRAL PROCESSING SYSTEM

Landsoft Sdn Bhd

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ITOOLS INTRODUCTION

- iTooLS can be considered as Data Conversion Tools, which is convert the Hardcopy FieldBook in to Digital Form.
  - Data Key in for Field Data (measured Line), PO Lines
  - With graphic
- iTooLS also used to process the Field Data,
  - Definition of Coordinate, Traverse, Lot, Missing Line
  - Computation of Traverse/Lot Misclose, Missing Line, PO & New Comparison, Datum & Refixation.
- iTooLS will be able to generate the ASCII files as per Jupem required format.

WHY USING ITOOLS

- iTooLS can convert all the RAW data in conventional method to digital form
- User Friendly, easy understanding and faster to key in as our data entry form design is similar to the conventional Field Book.
- Linked Graphic display
- All the computation will be done by iTooLS, no more manual calculation
- Easier checking with reports.

REQUIREMENT

- Compatibility with Window 7 or above
- 32/64 bit OS
- Installation on Desktop PC or Note Book
- Microsoft Office (optional for reporting)
- PDF Reader (optional for reporting)

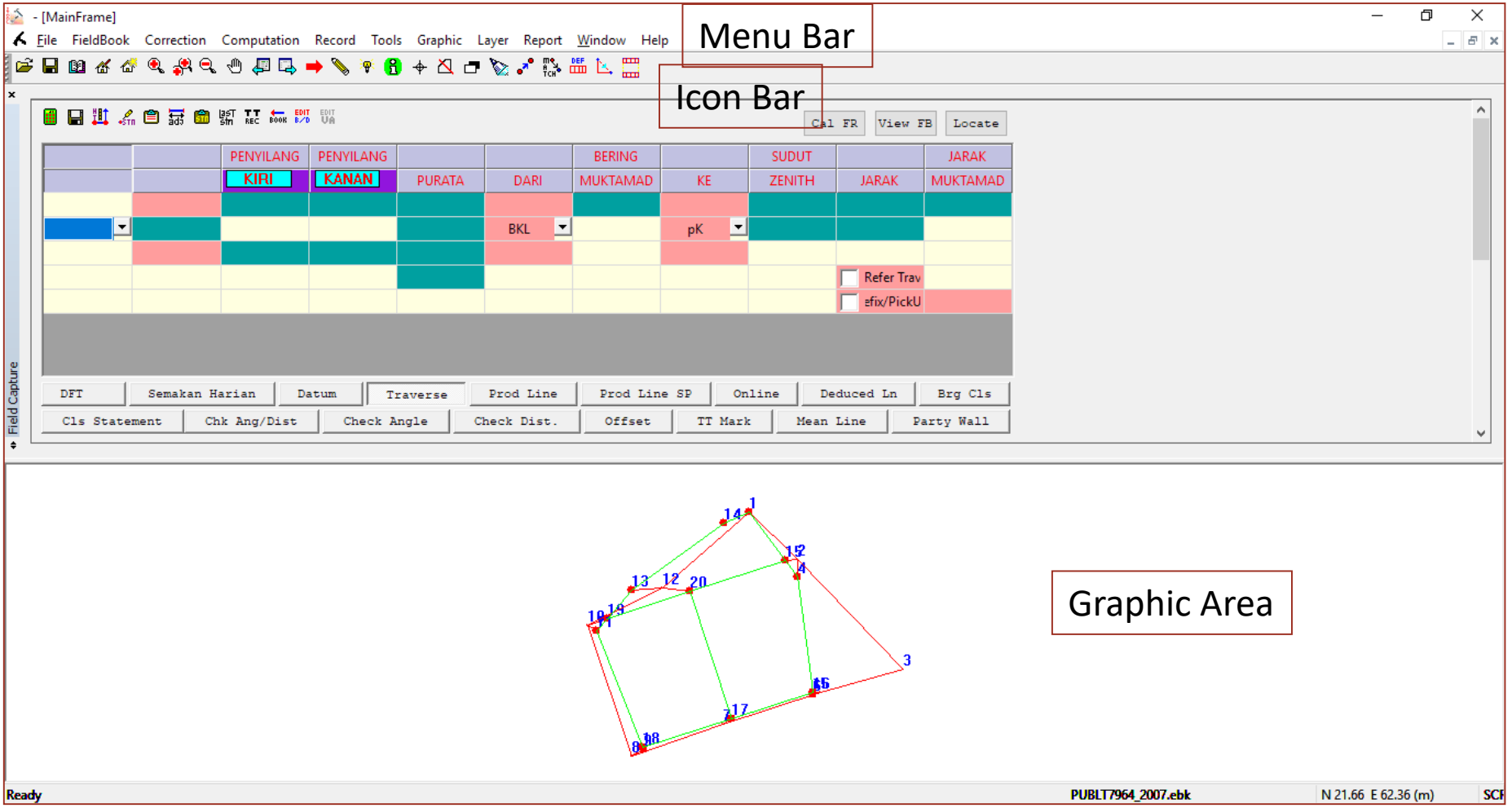
ITOOLS FEATURES

1. Job Information Entry
2. Data Entry
   - Sun Observation (If any)
   - Field data
     - DFT
     - Datum
     - Traverse / Online Point / Offset Details
     - Check Angle & Distance
     - Bearing Close
     - Close Statement
   - PO Line
   - Precomp Area (if do not have PU ASCII Return from J2u)
3. Data Editing

4. C or M Correction
5. Definition
   - Coordinate
   - Traverse
   - Lot
   - Direct Line (Missing Line)
   - Connection Line (If any)
6. Computation
   - Traverse
   - Direct Line
   - Lot
   - Coordinate
   - Area Comparison

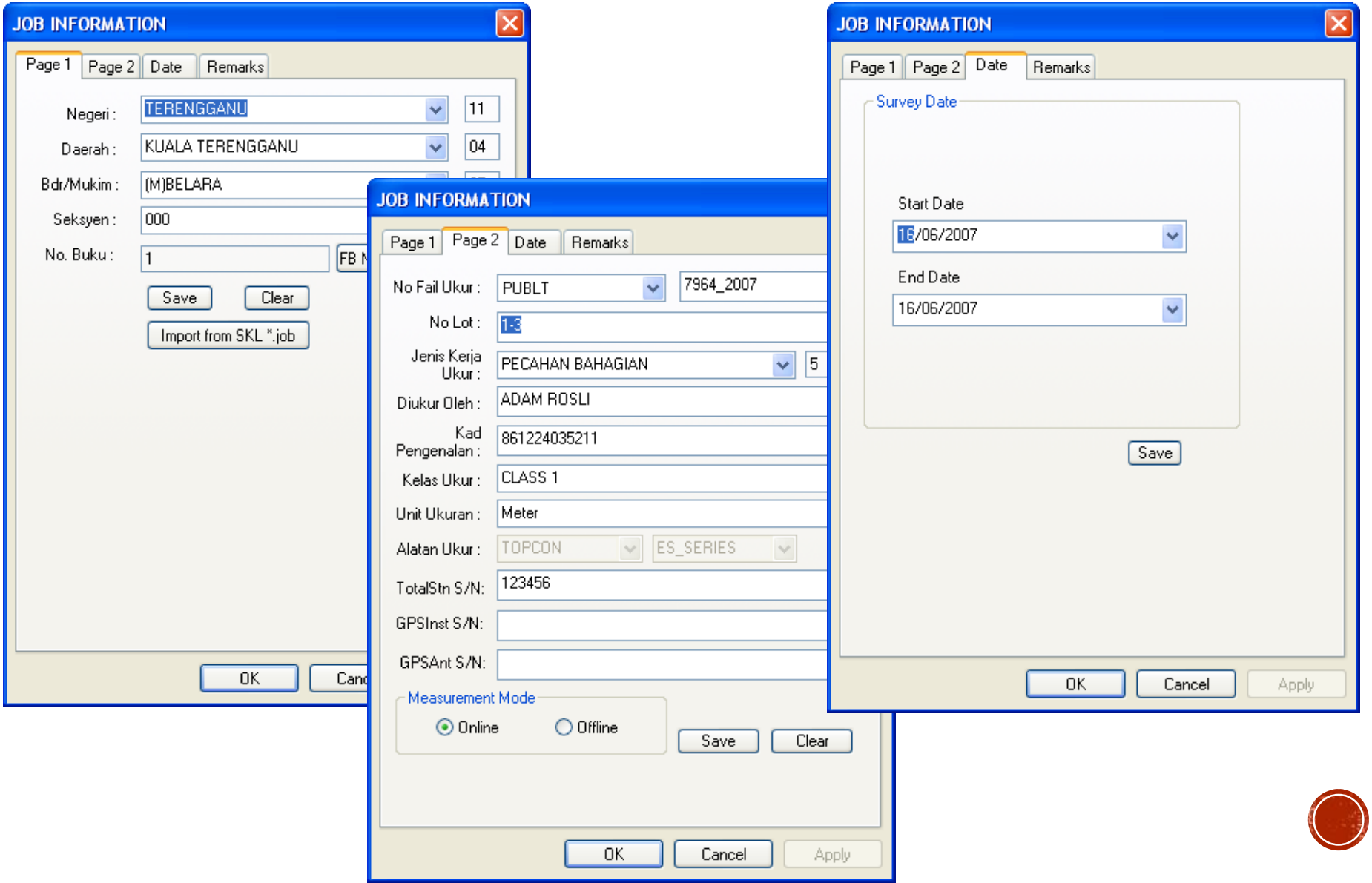
7. Baseline & Refixation
   - PO & New Comparison
   - PO Adjustment & Refixation
8. Bookkeeping
   - Date Time of Observation Record
   - Sequence of Observation Record
9. Import & Export
   - Import PU ASCII (Precomp ASCII) for Area Comparison
   - Export 16 ASCII file (Compliant with DIGITAL ASCII files by Jupem)
   - Export DXF File (Sketch)

ITOOLS OVERVIEW


- [MainFrame]
File FieldBook Correction Computation Record Tools Graphic Layer Report Window Help
Menu Bar
Icon Bar
Cal FR
View FB
Locate
PENYILANG KIRI
PENYILANG KANAN
PURATA
DARI
BERING MUKTAMAD
KE
SUDUT ZENITH
JARAK
JARAK MUKTAMAD
BKL
pK
Refer Trav
efix/PickU
Field Capture
DFT
Semakan Harian
Datum
Traverse
Prod Line
Prod Line SP
Online
Deduced Ln
Brg Cls
Cls Statement
Chk Ang/Dist
Check Angle
Check Dist.
Offset
TT Mark
Mean Line
Party Wall
Graphic Area
Ready
PUBLT7964_2007.ebk
N 21.66 E 62.36 (m)

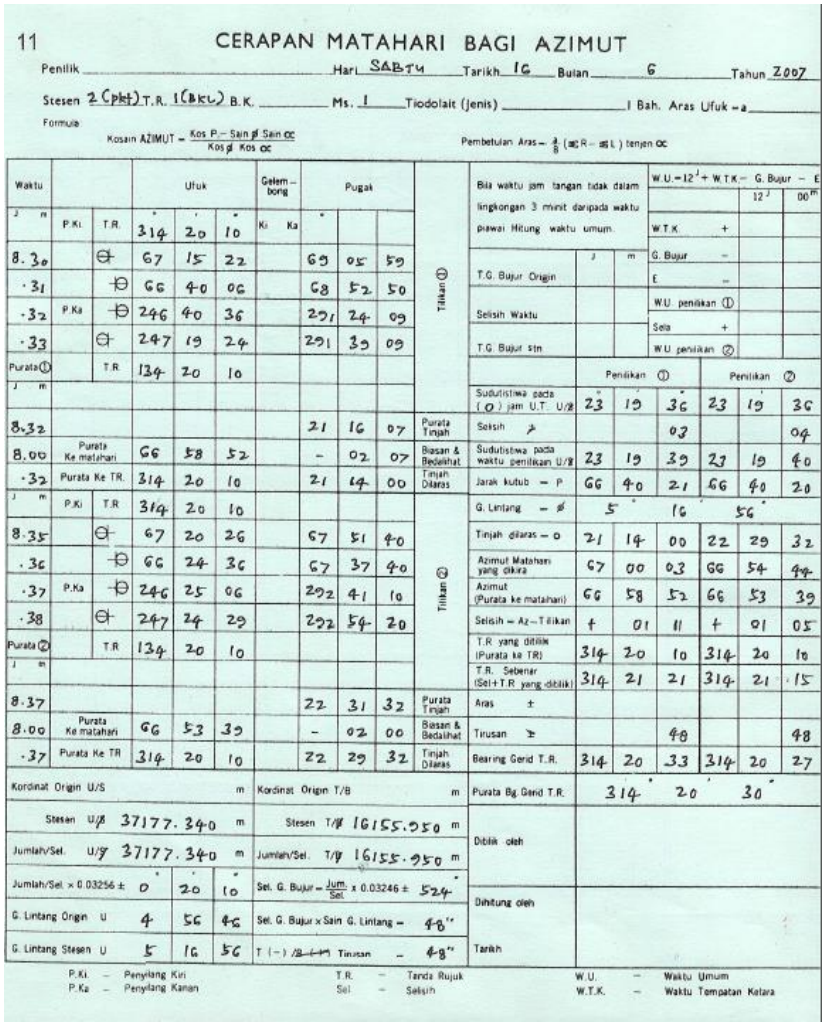
JOB INFORMATION

This information will be generated in file *.FAH



DATA ENTRY & PROCESSING

SUN OBSERVATION RECORD IN FIELD BOOK (CONVENTIONAL METHOD)



11

CERAPAN MATAHARI BAGI AZIMUT

Penilik _____ Hari SABTU Tarikh 16 Bulan 6 Tahun 2007

Stesen 2 (Pkt) T.R. 1 (BKL) B.K. _____ Ms. 1 Tiodolait (Jenis) _____ I Bah. Aras Ufuk – a _____

Formula

Kosain AZIMUT = $\frac{\text{Kos P} - \text{Sain } \phi \text{ Sain } \alpha c}{\text{Kos } \phi \text{ Kos } \alpha c}$ Pembetulan Aras = $\frac{2}{3}$ (tg R – tg L) tenjen αc

Waktu			Ufuk			Gelem-bong	Pugak				Bila waktu jam tangan tidak dalam lingkongan 3 minit daripada waktu piawai Hitung waktu umum.	W.U. = 12^j + W.T.K. – G. Bujur – E		
j m	P.Ki.	T.R.	°	'	"	Ki Ka	°	'	"				12^j	00^m
8.30		⊖	67	15	22		69	05	59	Tilikan ①		W.T.K. +		
.31		⊖	66	40	06		68	52	50		T.G. Bujur Origin	G. Bujur –		
.32	P.Ka	⊖	246	40	36		291	24	09			E –		
.33		⊖	247	19	24		291	39	09		Selisih Waktu	W.U. penilikan ①		
Purata ①		T.R	134	20	10							Sela +		
j m											T.G. Bujur stn	W.U. penilikan ②		
												Penilikan ①		Penilikan ②
8.32							21	16	07	Purata Tinjah	Sudutistiwa pada (O) jam U.T. U/B	23 ° 19 ' 36 "	23 ° 19 ' 36 "	
8.00	Purata Ke matahari		66	58	52		–	02	07	Biasan & Bedalihat	Selisih ➢	03		04
.32	Purata Ke TR.		314	20	10		21	14	00	Tinjah Dilaras	Sudutistiwa pada waktu penilikan U/B	23 19 39	23 19	40
j m	P.Ki.	T.R	314	20	10						Jarak kutub – P	66 40 21	66 40	20
8.35		⊖	67	20	26		67	51	40	Tilikan ②	G. Lintang – ϕ	5 ° 16 ' 56 "		
.36		⊖	66	24	36		67	37	40		Tinjah dilaras – o	21 14 00	22 29	32
.37	P.Ka	⊖	246	25	06		292	41	10		Azimut Matahari yang dikira	67 00 03	66 54	44
.38		⊖	247	24	29		292	56	20		Azimut (Purata ke matahari)	66 58 52	66 53	39
Purata ②		T.R	134	20	10						Selisih – Az – Tilikan	+ 01 11	+ 01	05
j m											T.R yang ditilik (Purata ke TR)	314 20 10	314 20	10
8.37							22	31	32	Purata Tinjah	T.R. Sebenar (Sel+T.R. yang ditilik)	314 21 21	314 21	15
8.00	Purata Ke matahari		66	53	39		–	02	00	Biasan & Bedalihat	Aras ±			
.37	Purata Ke TR		314	20	10		22	29	32	Tinjah Dilaras	Tirusan ➢	48		48
											Bearing Gerid T.R.	314 ° 20 ' 33 "	314 ° 20 '	27 "
											Purata Bg. Gerid T.R.	314 ° 20 ' 30 "		

Kordinat Origin U/S	m	Kordinat Origin T/B	m
Stesen U/B	37177.340 m	Stesen T/B	16155.950 m
Jumlah/Sel. U/B	37177.340 m	Jumlah/Sel. T/B	16155.950 m
Jumlah/Sel. × 0.03256 ±	0 ° 20 ' 10 "	Sel. G. Bujur = $\frac{\text{Jum.}}{\text{Sel.}}$ × 0.03246 ±	524 "
G. Lintang Origin U	4 ° 56 ' 46 "	Sel. G. Bujur x Sain G. Lintang =	48 "
G. Lintang Stesen U	5 ° 16 ' 56 "	T (–) /~~B–L~~ Tirusan =	48 "

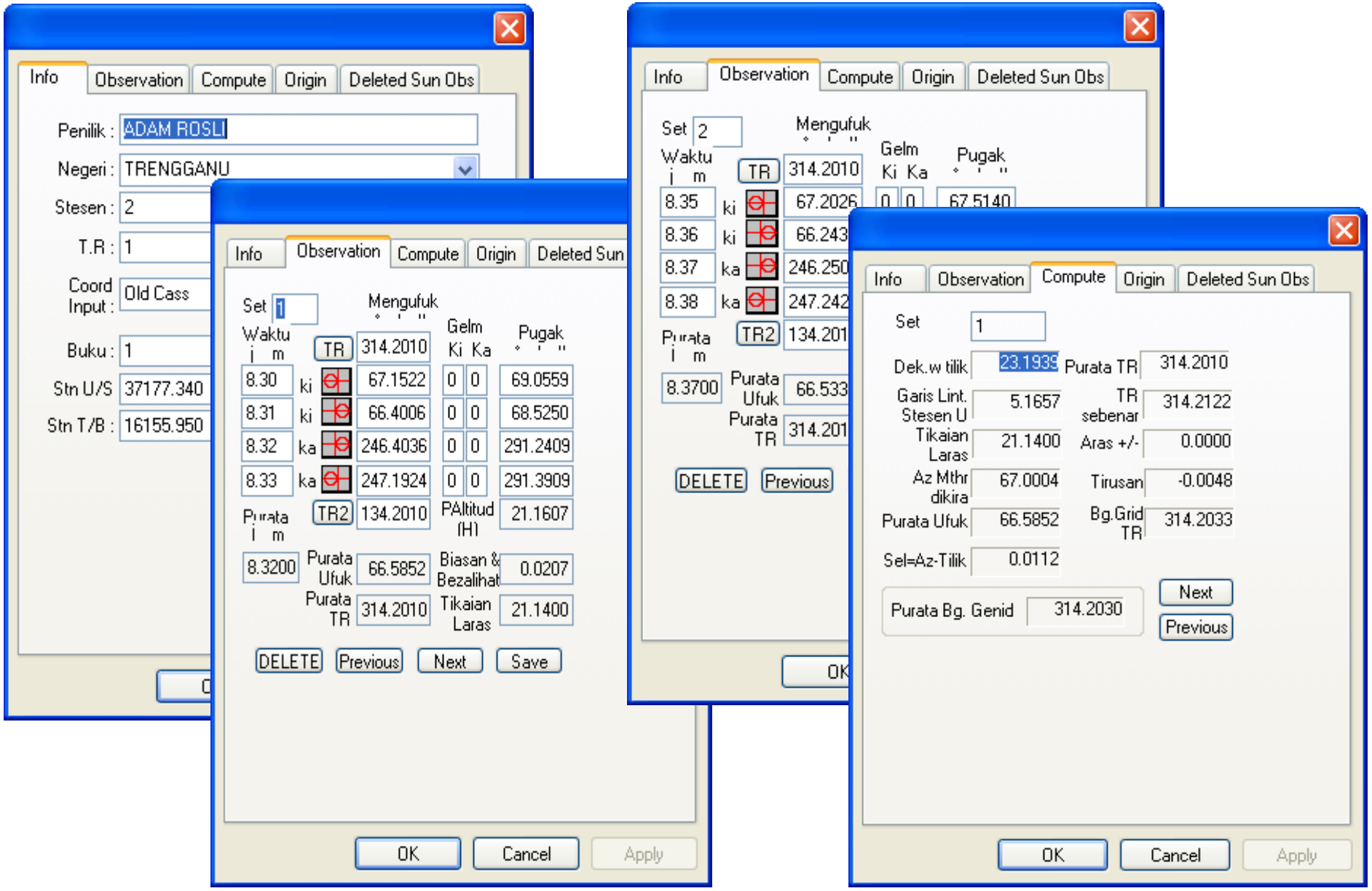
Dibilik oleh

Dihitung oleh

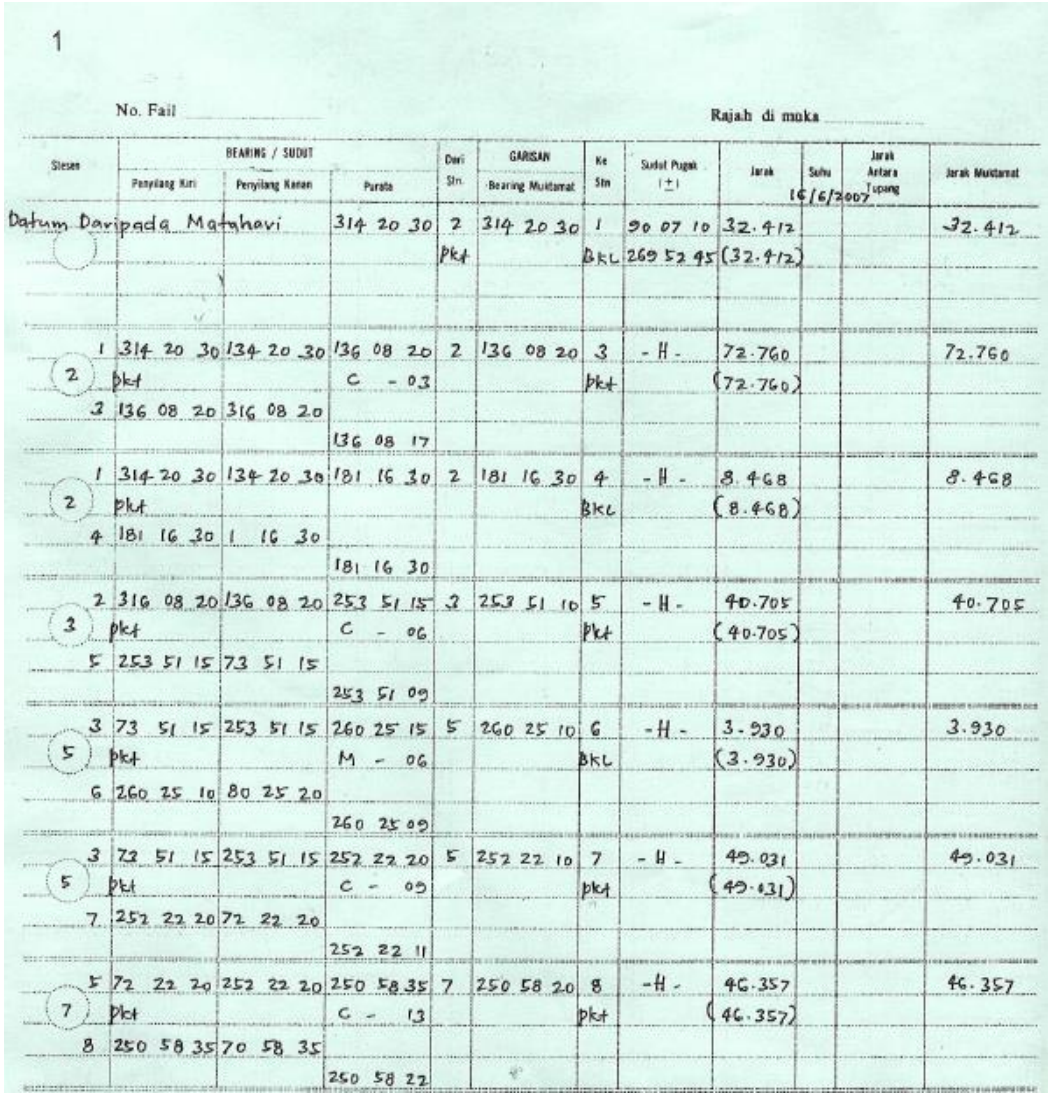
Tarikh

P.Ki. – Penyilang Kiri
P.Ka – Penyilang Kanan
T.R. – Tanda Rujuk
Sel – Selisih
W.U. – Waktu Umum
W.T.K. – Waktu Tempatan Ketara

SUN OBSERVATION ENTRY IN ITOOLS



FIELD DATA BOOKING IN CONVENTIONAL FIELD BOOK

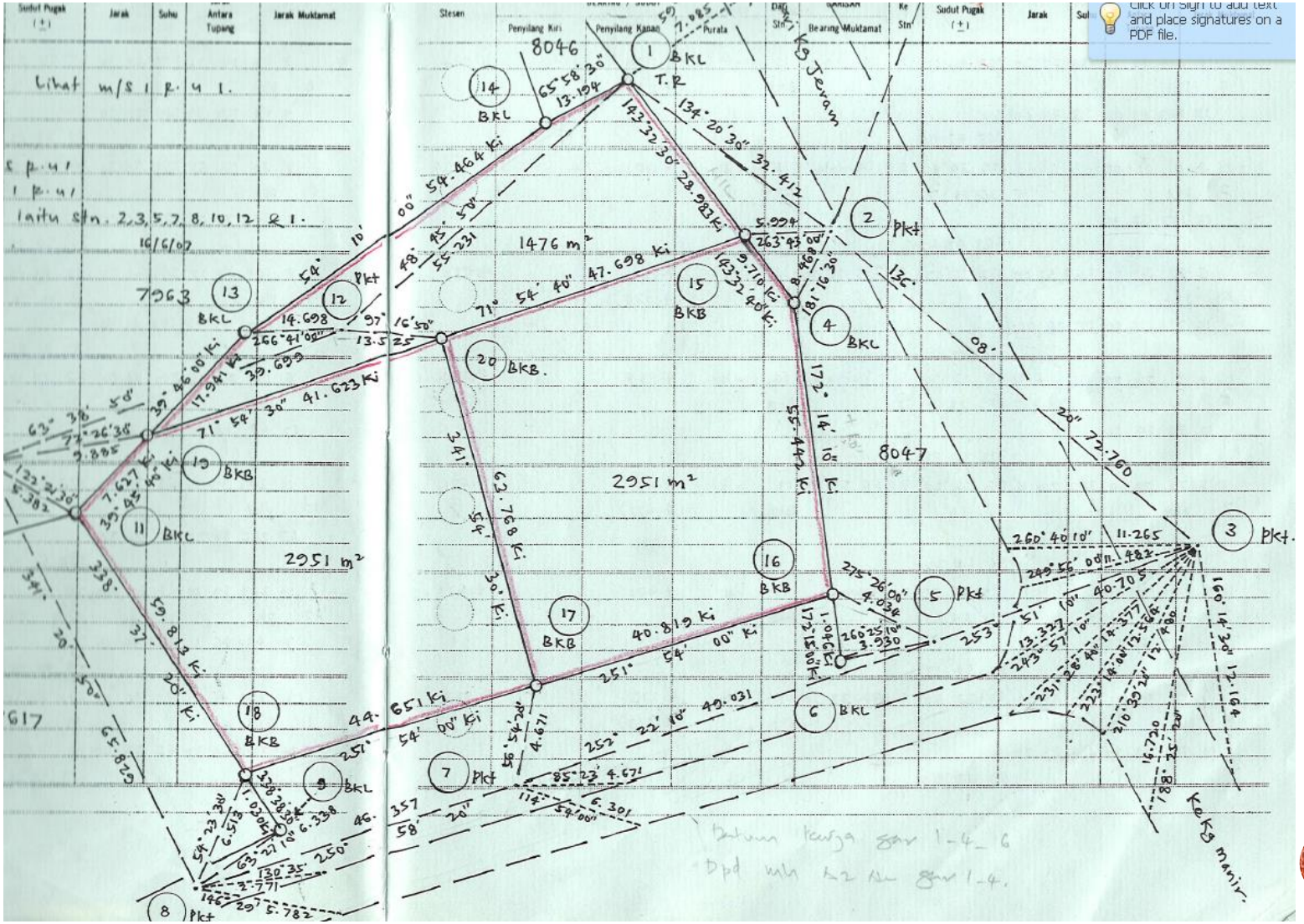


1

No. Fail _____ Rajah di muka _____

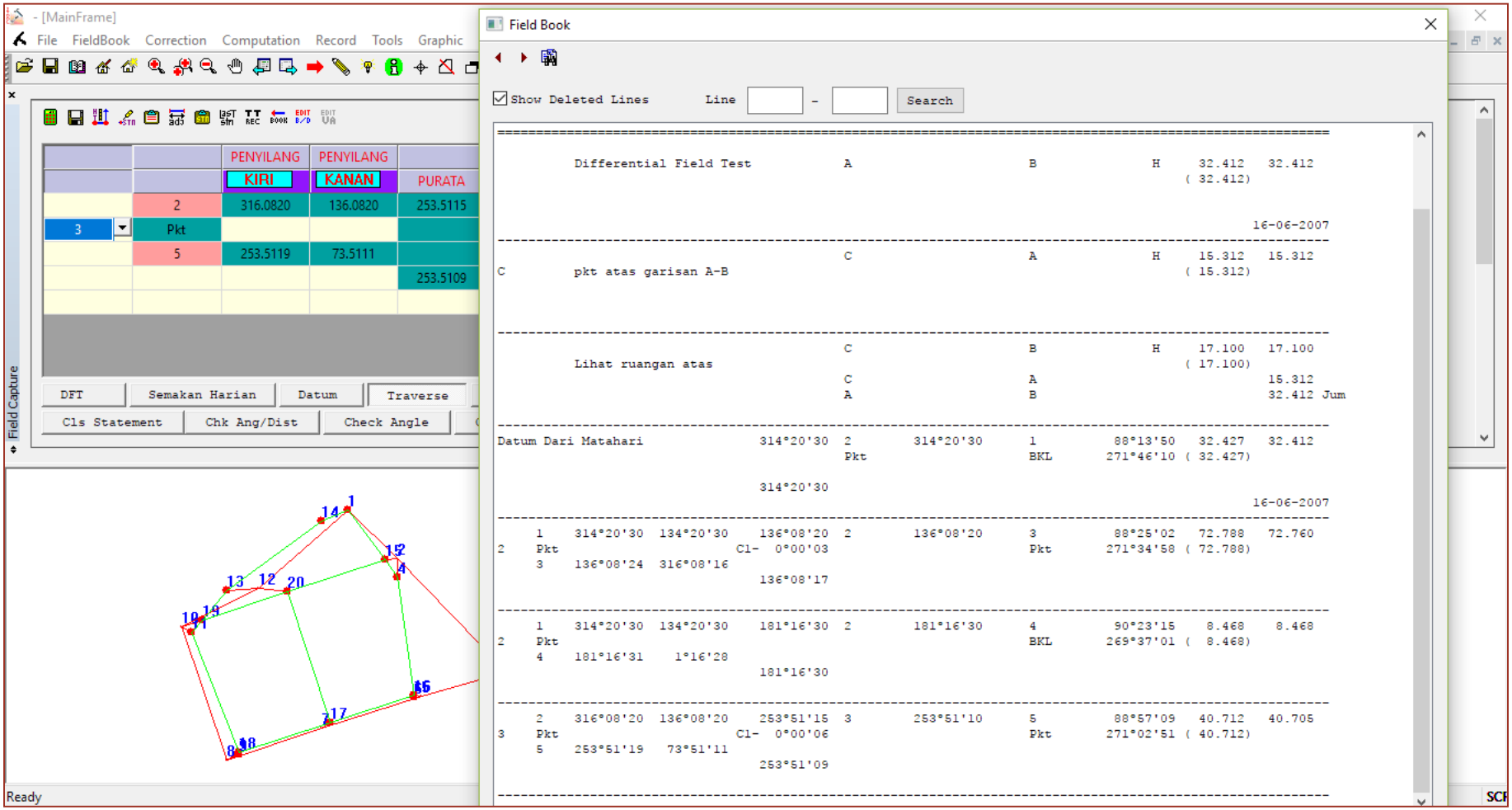
Stesen	BEARING / SUDUT			Dari Stn	GARISAN	Ke Stn	Sudut Pugak (±)	Jarak	Suhu 16/6/2007	Jarak Antara Tapang	Jarak Mustanat
	Penyilang Kiri	Penyilang Kanan	Purata		Bearing Mustanat						
Datum Daripada Matahavi			314 20 30	2	314 20 30	1	90 07 10	32.412			32.412
				pkt		BKL	269 52 45	(32.412)			
1	314 20 30	134 20 30	136 08 20	2	136 08 20	3	-H-	72.760			72.760
(2) pkt			C - 03			pkt		(72.760)			
3	136 08 20	316 08 20									
			136 08 17								
1	314 20 30	134 20 30	181 16 30	2	181 16 30	4	-H-	8.468			8.468
(2) pkt						BKL		(8.468)			
4	181 16 30	1 16 30									
			181 16 30								
2	316 08 20	136 08 20	253 51 15	3	253 51 10	5	-H-	40.705			40.705
(3) pkt			C - 06			pkt		(40.705)			
5	253 51 15	73 51 15									
			253 51 09								
3	73 51 15	253 51 15	260 25 15	5	260 25 10	6	-H-	3.930			3.930
(5) pkt			M - 06			BKL		(3.930)			
6	260 25 10	80 25 20									
			260 25 09								
3	72 51 15	253 51 15	252 22 20	5	252 22 10	7	-H-	49.031			49.031
(5) pkt			C - 05			pkt		(49.031)			
7	252 22 20	72 22 20									
			252 22 11								
5	72 22 20	252 22 20	250 58 35	7	250 58 20	8	-H-	46.357			46.357
(7) pkt			C - 13			pkt		(46.357)			
8	250 58 35	70 58 35									
			250 58 22								

TRAVERSE OR LOT SKETCH IN CONVENTIONAL FIELD BOOK

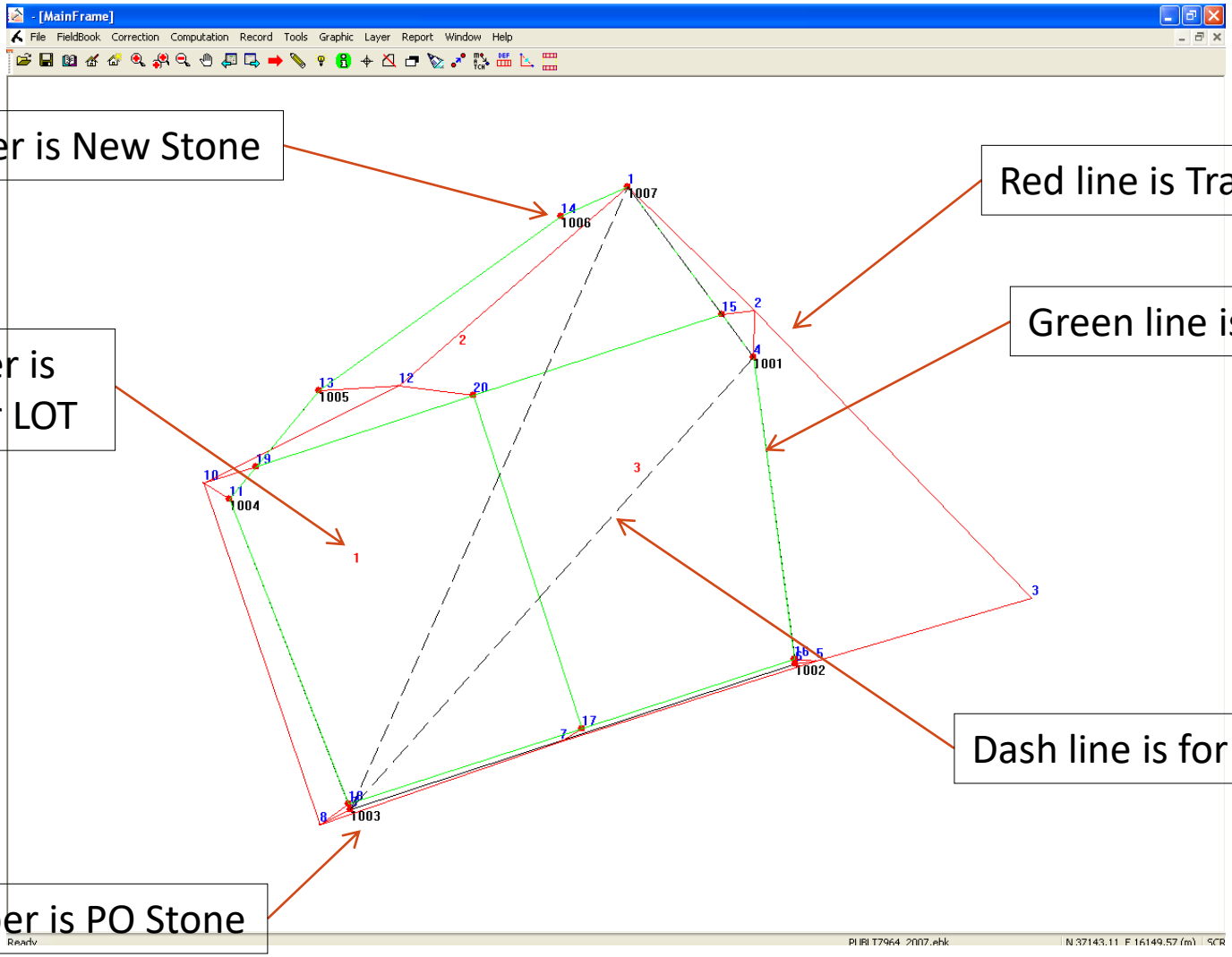


FIELD DATA ENTRY, FIELD BOOK & SKETCH IN ITOOLS

Field Book & Sketch will be auto generated



SKETCH DIGITAL ASCII IN ITOOLS



Blue Number is New Stone

Red line is Traverse

Red Number is for Number LOT

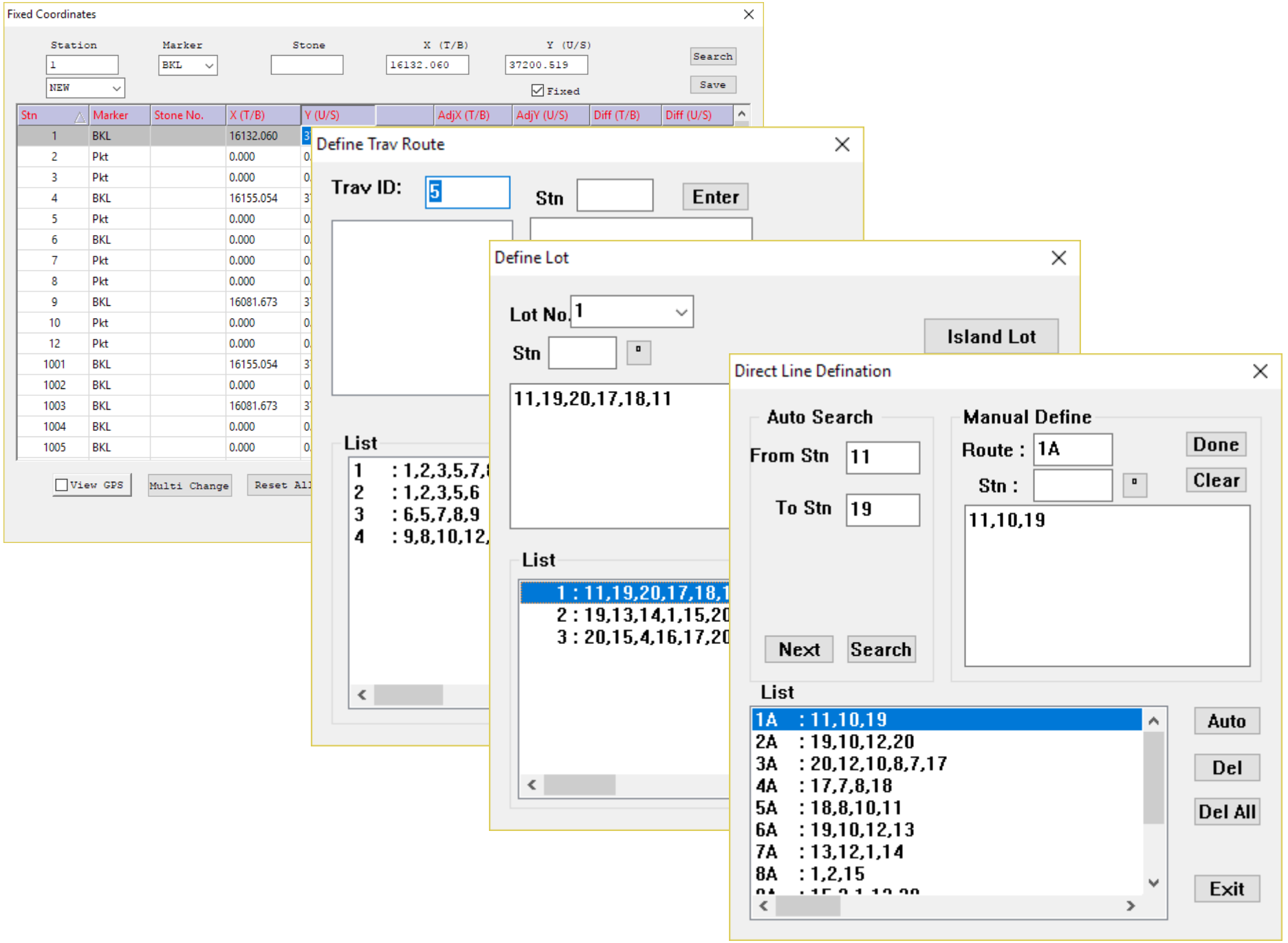
Green line is LOT

Dash line is for Refixation

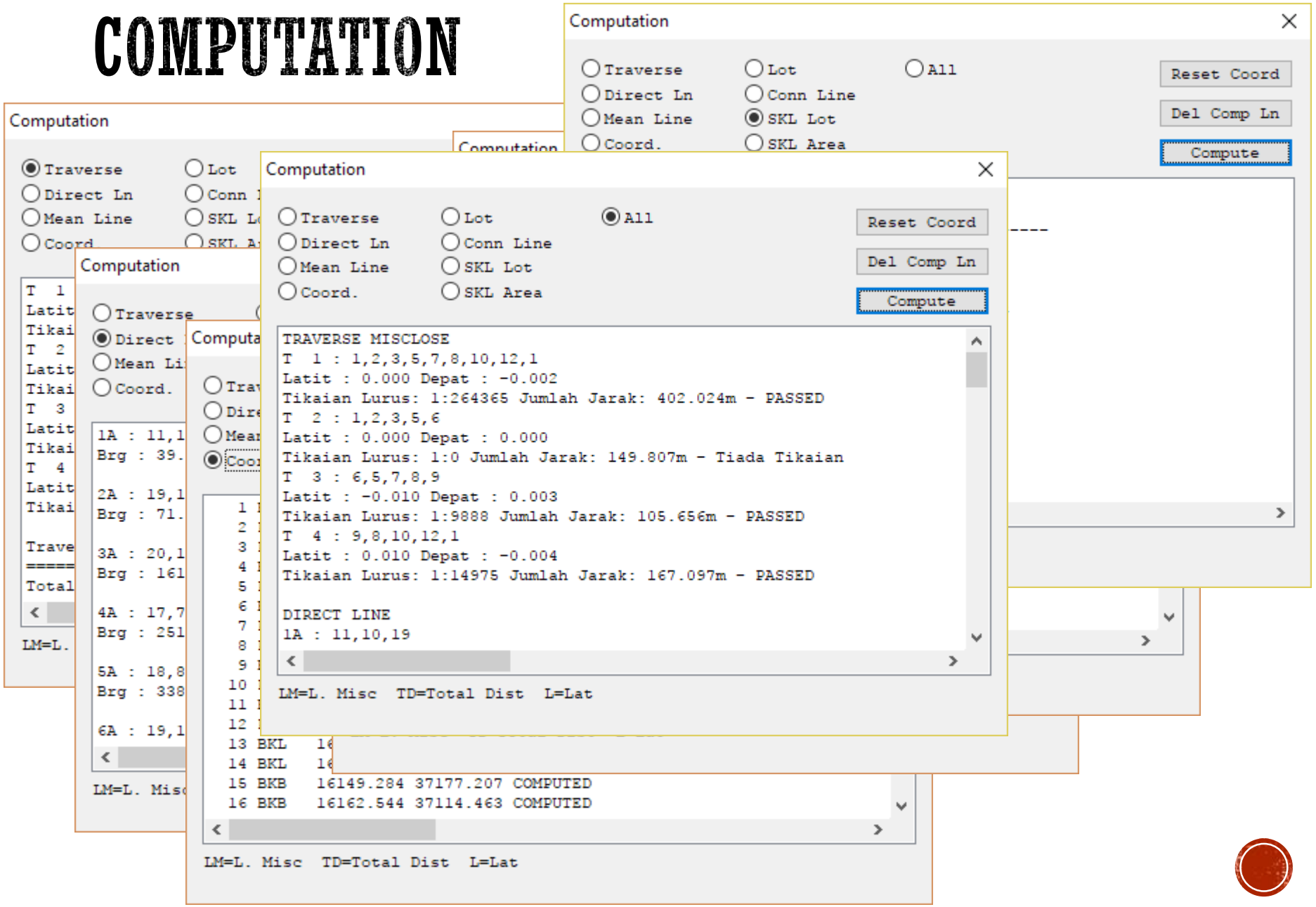
Black Number is PO Stone

DEFINITION & COMPUTATION

1. Coordinate
   - Min with 3 fix coordinate from NDCDB Coordinate (need to check in J2U website)
2. Traverse
   - To Compute Traverse Misclosure by definition (Loop Close / Open Traverse)
   - To Compute Accuracy for Fix point to Fix point
   - To bring over the Coordinate
3. Lot
   - To define Lot Boundaries
   - To Compute Lot Misclosure & Area
4. Direct Line (Missing Line)
   - Can Auto search after Lot Definition
5. Connection Line (if Any)
6. Area Comparison (Precomp vs Surveyed) – after import PU ASCII (Precomp ASCII)

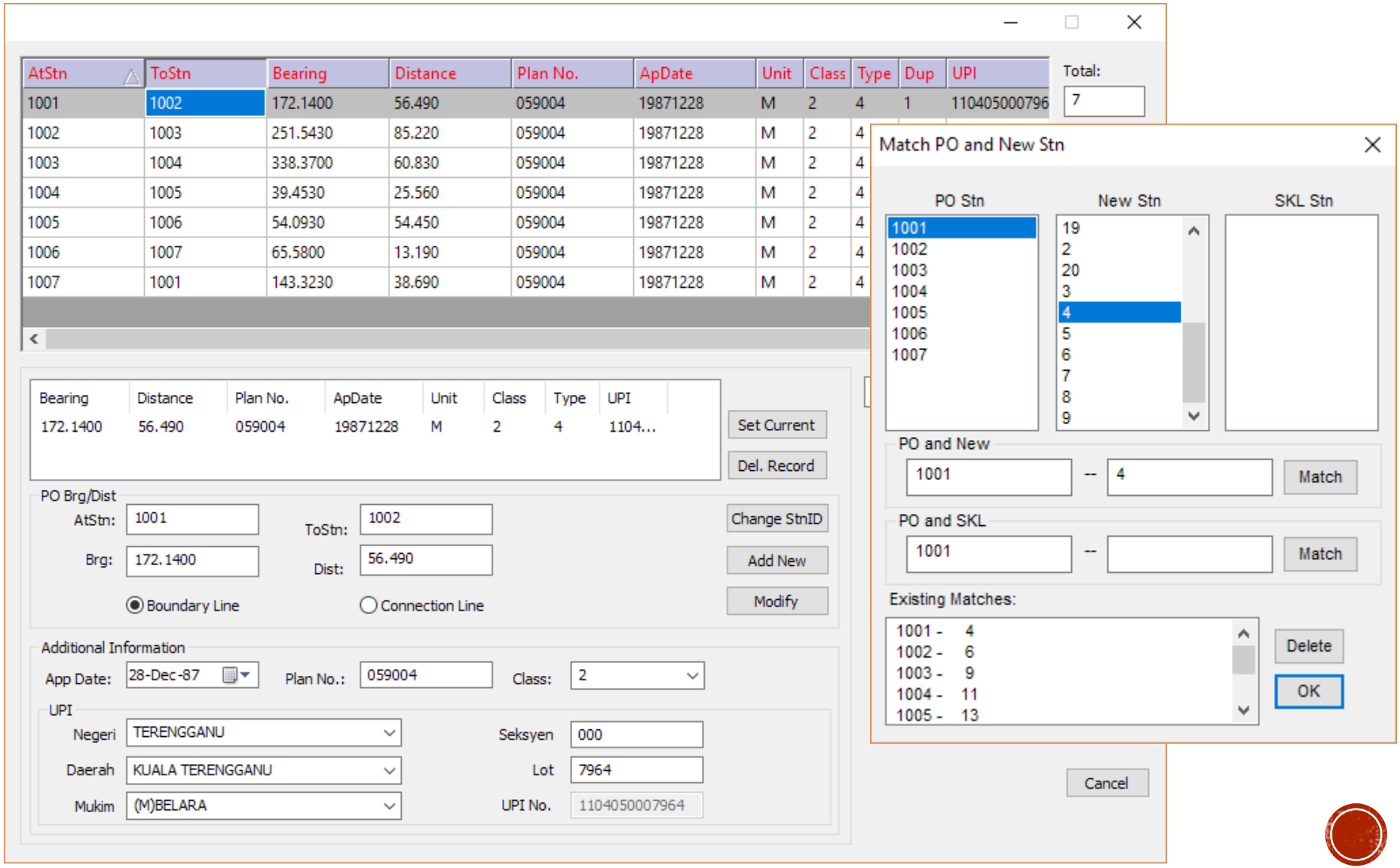

Fixed Coordinates
Station
Marker
Stone
X (T/B)
Y (U/S)
1
BKL
NEW
16132.060
37200.519
Search
Save
Fixed
Stn
Marker
Stone No.
X (T/B)
Y (U/S)
AdjX (T/B)
AdjY (U/S)
Diff (T/B)
Diff (U/S)
1 BKL 16132.060
2 Pkt 0.000
3 Pkt 0.000
4 BKL 16155.054
5 Pkt 0.000
6 BKL 0.000
7 Pkt 0.000
8 Pkt 0.000
9 BKL 16081.673
10 Pkt 0.000
12 Pkt 0.000
1001 BKL 16155.054
1002 BKL 0.000
1003 BKL 16081.673
1004 BKL 0.000
1005 BKL 0.000
View GPS
Multi Change
Reset All
Define Trav Route
Trav ID:
5
Stn
Enter
List
1 : 1,2,3,5,7,
2 : 1,2,3,5,6
3 : 6,5,7,8,9
4 : 9,8,10,12,
Define Lot
Lot No.
1
Stn
Island Lot
11,19,20,17,18,11
List
1 : 11,19,20,17,18,1
2 : 19,13,14,1,15,20
3 : 20,15,4,16,17,20
Direct Line Defination
Auto Search
From Stn
11
To Stn
19
Next
Search
Manual Define
Route :
1A
Stn :
Done
Clear
11,10,19
List
1A : 11,10,19
2A : 19,10,12,20
3A : 20,12,10,8,7,17
4A : 17,7,8,18
5A : 18,8,10,11
6A : 19,10,12,13
7A : 13,12,1,14
8A : 1,2,15
Auto
Del
Del All
Exit

COMPUTATION

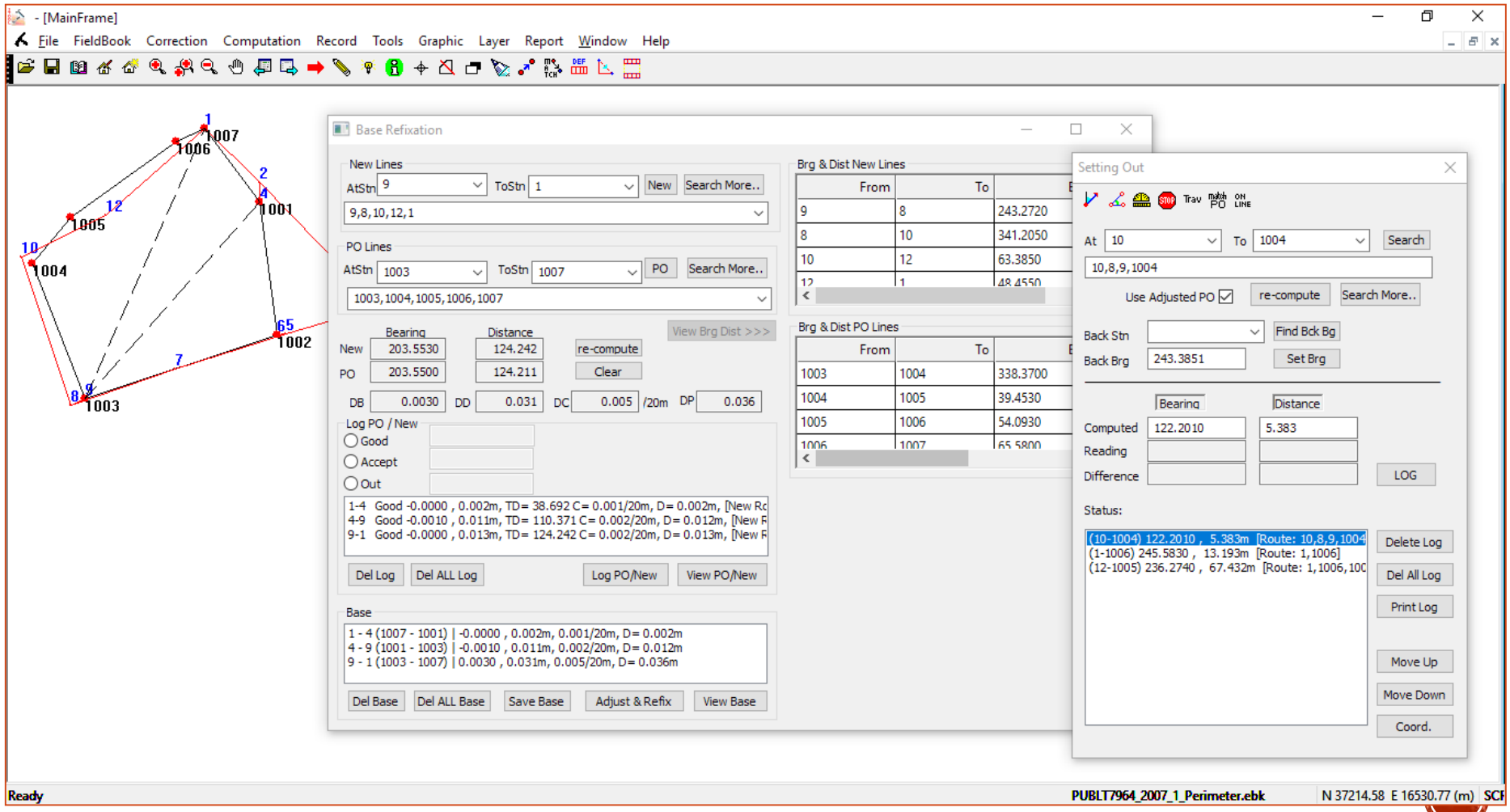


BASELINE & REFIXATION

PO LINE ENTRY & MATCH PO & NEW

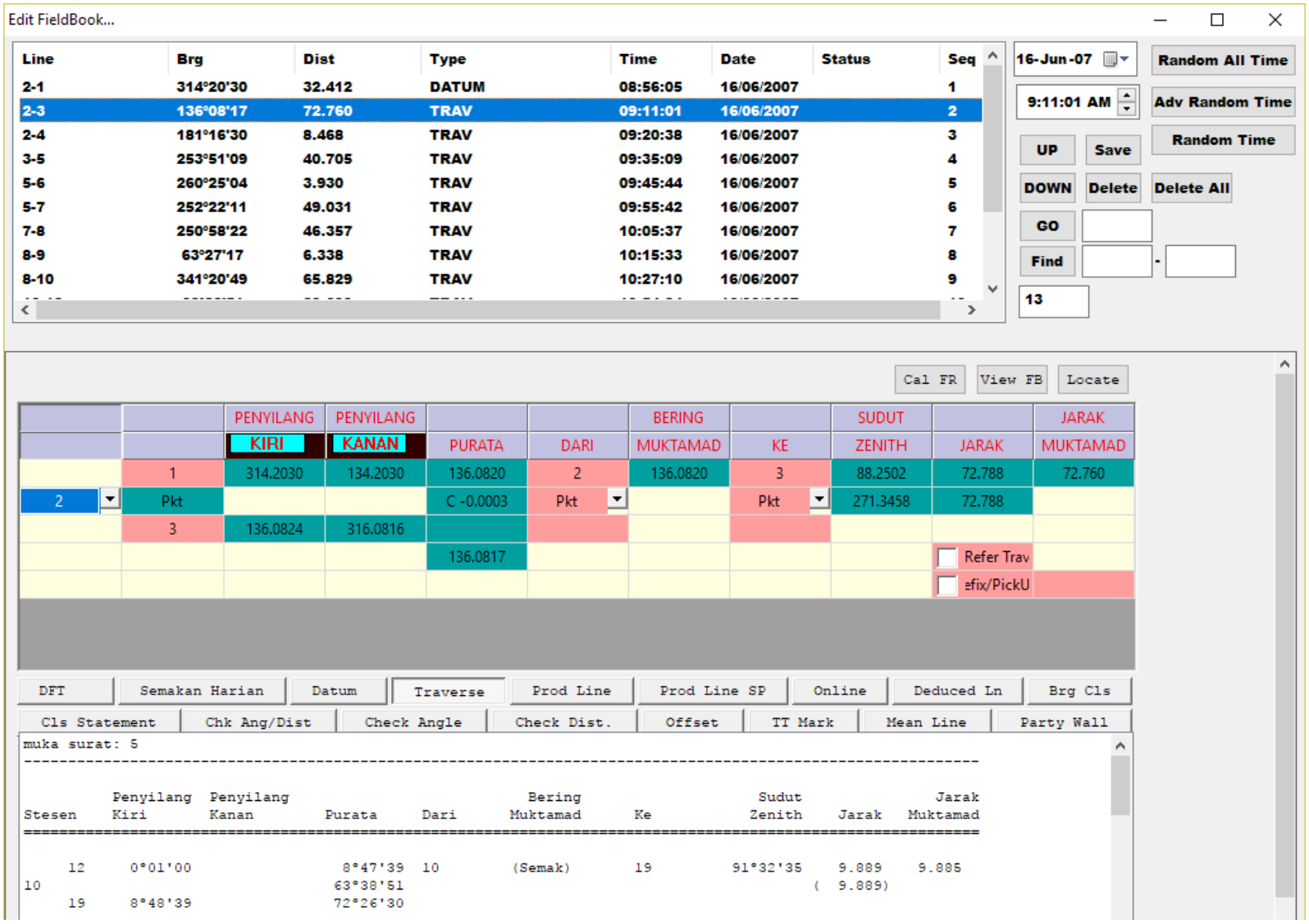


PO & NEW COMPARISON, PO ADJUSTMENT AND REFIXATION



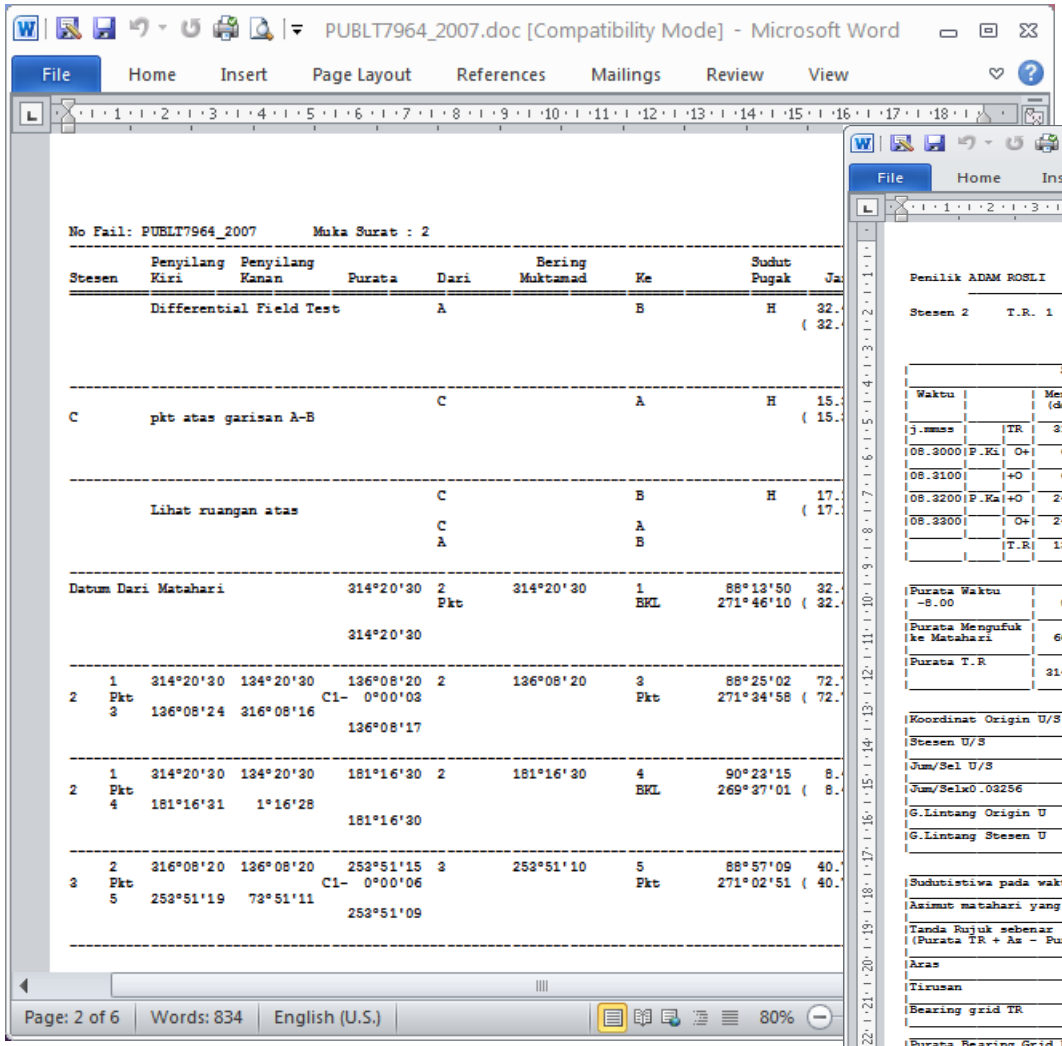
BOOK KEEPING

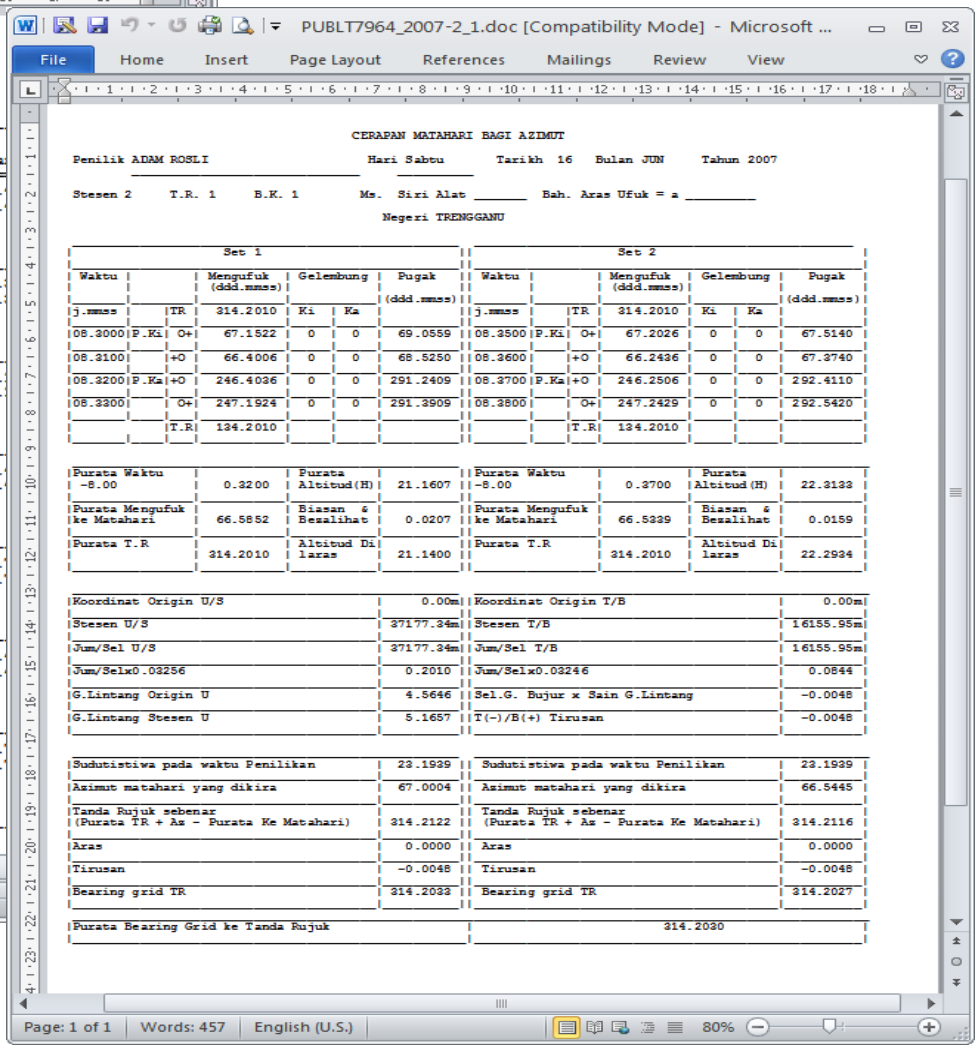
BOOKKEEPING



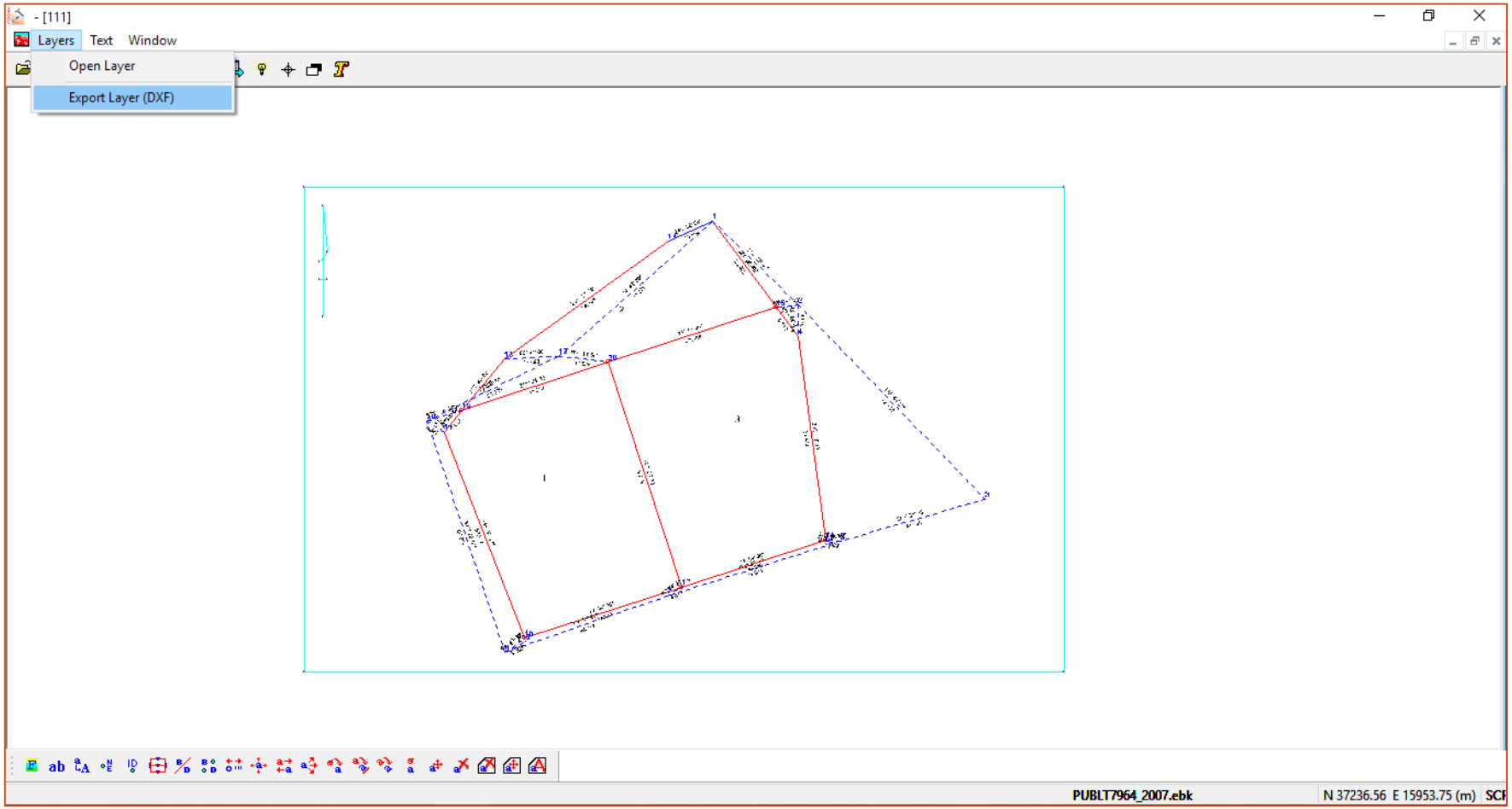
EXPORT / OUTPUT / REPORTING

REPORT: FIELD BOOK & SUN OBSERVATION

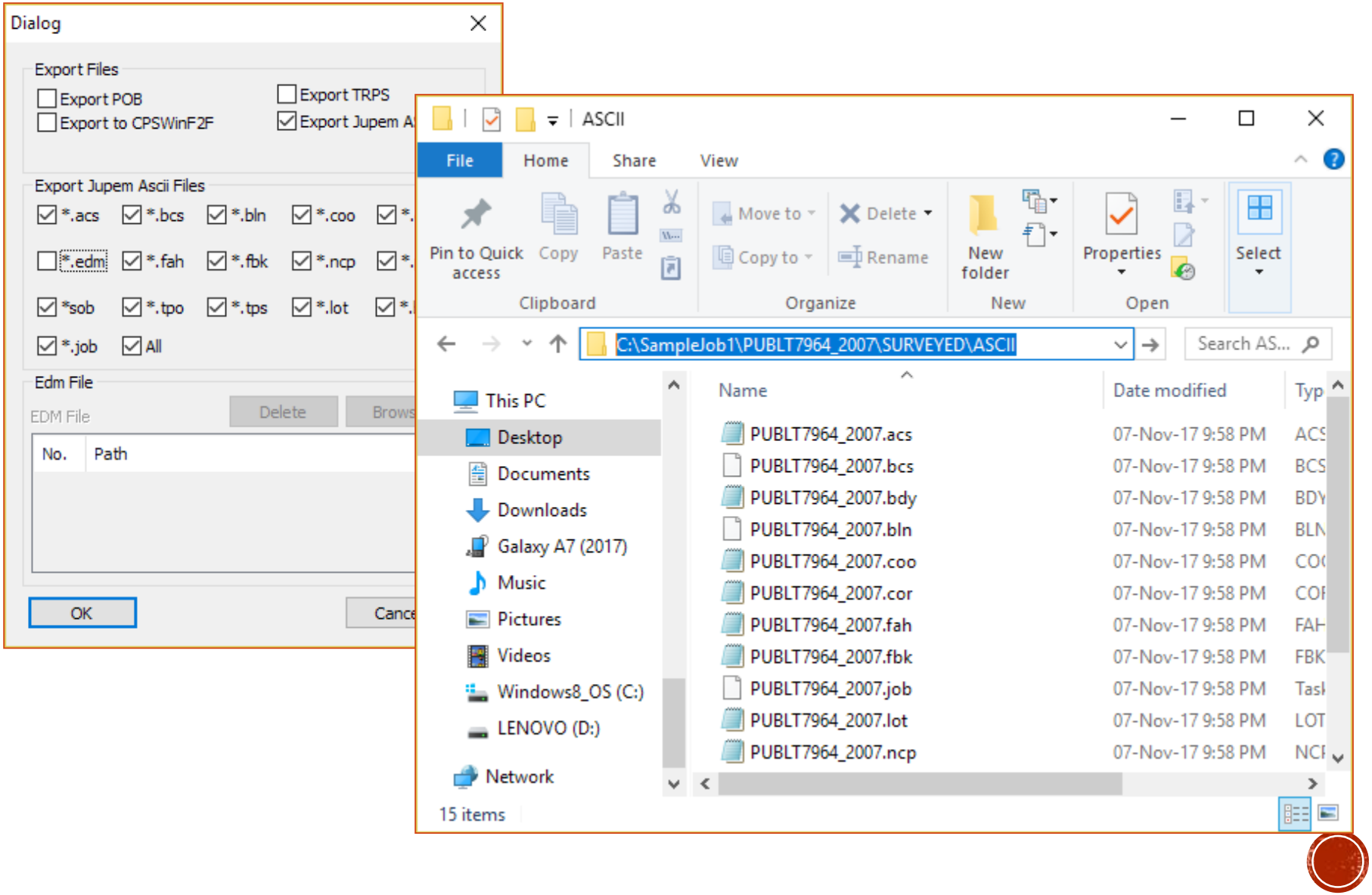




EXPORT FIELD SKETCH TO DXF



EXPORT ASCII



16 ASCII

JTB hendaklah menghantar format data berdigit dalam bentuk ASCII yang terdiri daripada:

i. **.fbk** – Field Observation Data
ii. **.cor** – Corrections
iii. **.sob** – Solar Observation Data
iv. **.bcs** – Bearing Close Statement
v. **.acs** – Area Comparison
vi. **.ncp** – Deduced Field Data
vii. **.tps** – Traverses
viii. **.lot** – Lot Details
ix. **.bdy** – Bearing, Distance & Coordinates
x. **.job** – Job Details
xi. **.edm** – EDM Test
xii. **.fah** – Fahrasat
xiii. **.coo** – Coordinates Information
xiv. **.bln** – Base Line
xv. **.tpo** - Topography
xvi. **.po** - Old Value

- Serta;

i. .xml - Digital Signature

*.EDM (EDM Test)

JE_2020_3_2455.EDM - Notepad

File Edit Format View Help

```
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 2 5.003     5.002     -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 3 10.001    9.999     -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 4 49.001    49.001    0.
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 5 87.000    86.998    -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 6 124.995   124.993   -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 7 162.990   162.989   -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 8 200.995   200.994   -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 9 251.001   251.002   0.
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          1 10300.015   300.013   -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          2 3 4.998     4.999     0.
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          2 4 43.998    43.997    -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          2 5 81.997    81.996    -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          2 6 119.992   119.991   -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          2 7 157.988   157.988   0.
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          2 8 195.992   195.990   -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          2 9 245.998   245.997   -0
GZ 3345/TOPCON ES105          01691120085551          PERMASJAYAEDM          2 10295.012   295.008   -0
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:04 PM 18/10/2021

*.ACS (Area Comparison)

PUBLJ601_2021.ACS - Notepad

File Edit Format View Help

```
PUBLJ     601_2021          01024000049822  6203.0          6203.0          6203.067        0.00            55772
PUBLJ     601_2021          01024000049823  6203.0          6203.0          6203.212        0.00            133616
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:05 PM 18/10/2021

*.BCS (Bearing Close Statement)

PUBLJ601_2021.BCS - Notepad

File Edit Format View Help

```
PUBLJ     601_2021          11        Pkt              1        Pkt              2        Pkt              181.5954181.59500.0004  9  1  -0.0000
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:06 PM 18/10/2021

*.BDY (Bearing, Distance & Coordinates)

PUBLJ601_2021.BDY - Notepad

File Edit Format View Help

```
01024000049822  pkL  9   20985.358  -61290.452  P112.4330 52.941   M  BKL  12  21034.191  -61310.904  P11 0  0
01024000049822  BKL  12  21034.191  -61310.904  P92.1210  38.219   M  pkL  13  21072.385  -61312.378  P11 0  0
01024000049822  pkL  13  21072.385  -61312.378  P136.5040 6.506    M  BKB  14  21076.831  -61317.119  P11 0  0
01024000049822  BKB  14  21076.831  -61317.119  P181.2940 54.956   M  pkB  18  21075.399  -61372.057  P11 0  0
01024000049822  pkB  18  21075.399  -61372.057  P272.2310 99.458   M  BKB  17  20976.029  -61367.919  P11 0  0
01024000049822  BKB  17  20976.029  -61367.919  P6.5200   78.027   M  pkL  9   20985.358  -61290.452  P11 0  0
01024000049823  pkB  18  21075.399  -61372.057  P181.2930 60.643   M  pkB  15  21073.821  -61432.680  P11 0  0
01024000049823  pkB  15  21073.821  -61432.680  P272.2310 105.152  M  BKB  16  20968.761  -61428.302  P11 0  0
01024000049823  BKB  16  20968.761  -61428.302  P6.5150   60.819   M  BKB  17  20976.029  -61367.919  P11 0  0
01024000049823  BKB  17  20976.029  -61367.919  P92.2310  99.458   M  pkB  18  21075.399  -61372.057  P11 0  0
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:07 PM 18/10/2021

*.BLN (Base Line)

PUBLJ601_2021.BLN - Notepad

File Edit Format View Help

```
PUBLJ     601_2021          7         8         9         1         1         New12
PUBLJ     601_2021          7         8         10        1         2         New12
PUBLJ     601_2021          8         10        11        1         3         New12
PUBLJ     601_2021          10        11        1         1         4         New12
PUBLJ     601_2021          2         1         13        1         5         New12
PUBLJ     601_2021                    9         12        2         1         PO 26
PUBLJ     601_2021                    12        13        2         2         PO 26
PUBLJ     601_2021          2         1         13        3         1         New12
PUBLJ     601_2021                    1         2         3         2         New11
PUBLJ     601_2021          1         2         4         3         3         New12
PUBLJ     601_2021          2         4         15        3         4         New12
PUBLJ     601_2021                    13        14        4         1         PO 26
PUBLJ     601_2021                    14        15        4         2         PO 26
PUBLJ     601_2021          2         4         15        5         1         New12
PUBLJ     601_2021          2         4         5         5         2         New12
PUBLJ     601_2021          4         5         6         5         3         New12
PUBLJ     601_2021          5         6         7         5         4         New12
PUBLJ     601_2021          6         7         8         5         5         New12
PUBLJ     601_2021          7         8         9         5         6         New12
PUBLJ     601_2021                    15        16        6         1         PO 26
PUBLJ     601_2021                    16        9         6         2         PO 26
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:08 PM 18/10/2021

*.COO (Coordinates Information)

PUBLJ601_2021.COO - Notepad

File Edit Format View Help

```
PUBLJ     601_2021          4         Pkt            -61430.016  21078.772   4
PUBLJ     601_2021          3         BKL            -61310.493  21096.383   4
PUBLJ     601_2021          2         Pkt            -61379.555  21091.707   4
PUBLJ     601_2021          1         Pkt            -61311.395  21094.083   4
PUBLJ     601_2021          12        BKL            -61310.904  21034.191   9         !
PUBLJ     601_2021          13        pkL            -61312.378  21072.385   9         !
PUBLJ     601_2021          10        Pkt            -61310.792  21029.337   4
PUBLJ     601_2021          11        Pkt            -61314.191  21061.547   4
PUBLJ     601_2021          16        BKB            -61428.302  20968.761   4
PUBLJ     601_2021          17        BKB            -61367.919  20976.029   4
PUBLJ     601_2021          14        BKB            -61317.119  21076.831   4
PUBLJ     601_2021          9         pkL            -61290.452  20985.358   9         !
PUBLJ     601_2021          15        pkB            -61432.680  21073.821   4
PUBLJ     601_2021          8         Pkt            -61294.111  20987.317   4
PUBLJ     601_2021          7         Pkt            -61370.285  20979.437   4
PUBLJ     601_2021          6         Pkt            -61419.420  20972.288   4
PUBLJ     601_2021          18        pkB            -61372.057  21075.399   4
PUBLJ     601_2021          5         Pkt            -61372.853  21014.870   4
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:09 PM 18/10/2021

*.COR (Corrections)

PUBLJ601_2021.COR - Notepad

File Edit Format View Help

```
PUBLJ     601_2021                1       2       2       -0.000555556    1       M 1         11
PUBLJ     601_2021          2     1       3       2       -0.000555556    1       M 1         12
PUBLJ     601_2021          1     2       4       2       -0.000555556    1       M 1         12
PUBLJ     601_2021          1     2       4       1       -0.000123457    1       C 2         12
PUBLJ     601_2021          2     4       5       2       -0.000555556    1       M 1         12
PUBLJ     601_2021          2     4       5       1       -0.000123457    2       C 2         12
PUBLJ     601_2021          4     5       6       2       -0.000555556    1       M 1         12
PUBLJ     601_2021          4     5       6       1       -0.000123457    3       C 2         12
PUBLJ     601_2021          5     6       7       2       -0.000555556    1       M 1         12
PUBLJ     601_2021          5     6       7       1       -0.000123457    4       C 2         12
PUBLJ     601_2021          6     7       8       2       -0.000555556    1       M 1         12
PUBLJ     601_2021          6     7       8       1       -0.000123457    5       C 2         12
PUBLJ     601_2021          7     8       9       2       -0.000555556    1       M 1         12
PUBLJ     601_2021          7     8       9       1       -0.000123457    5       M 2         12
PUBLJ     601_2021          7     8       10      2       -0.000555556    1       M 1         12
PUBLJ     601_2021          7     8       10      1       -0.000123457    6       C 2         12
PUBLJ     601_2021          8     10      11      2       -0.000555556    1       M 1         12
PUBLJ     601_2021          8     10      11      1       -0.000123457    7       C 2         12
PUBLJ     601_2021          10    11      1       2       -0.000555556    1       M 1         12
PUBLJ     601_2021          10    11      1       1       -0.000123457    8       C 2         12
PUBLJ     601_2021          11    1       2       2       -0.000555556    1       M 1         14
PUBLJ     601_2021          11    1       2       1       -0.000123457    9       C 2         14
PUBLJ     601_2021          8     10      12      2       -0.000555556    1       M 1         12
PUBLJ     601_2021          8     10      12      1       -0.000123457    6       M 2         12
PUBLJ     601_2021          2     1       13      2       -0.000555556    1       M 1         12
PUBLJ     601_2021          2     1       14      2       -0.000555556    1       M 1         12
PUBLJ     601_2021          2     4       15      2       -0.000555556    1       M 1         12
PUBLJ     601_2021          2     4       15      1       -0.000123457    1       M 2         12
PUBLJ     601_2021          5     6       16      2       -0.000555556    1       M 1         12
PUBLJ     601_2021          5     6       16      1       -0.000123457    3       M 2         12
PUBLJ     601_2021          6     7       17      2       -0.000555556    1       M 1         12
PUBLJ     601_2021          6     7       17      1       -0.000123457    4       M 2         12
PUBLJ     601_2021          1     2       18      2       -0.000555556    1       M 1         12
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:09 PM 18/10/2021

*.FAH (Fahrasat)

PUBLJ601_2021 (1).FAH - Notepad

File Edit Format View Help

```
PUBLJ      601_2021            4 01024000049822  770228015567                              20201222202012222GZ3345
PUBLJ      601_2021            4 01024000049823  770228015567                              20201222202012222GZ3345
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:10 PM 18/10/2021

*.FBK (Field Observation Data)

PUBLJ601_2021.FBK - Notepad

File Edit Format View Help

```
PUBLJ    601_2021                                1       Pkt     2       Pkt                      181.59481.5948  181.594889.5745 270.021568.201    68.
PUBLJ    601_2021                                9000    Pkt     9001    Pkt                      0.0000  180.00000.0000  90.0000 270.000068.201    68.
PUBLJ    601_2021                                9002    Pkt     9000    Pkt                      0.0000  180.00000.0000  90.0000 270.000034.021    34.
PUBLJ    601_2021                                9002    Pkt     9001    Pkt                      0.0000  180.00000.0000  90.0000 270.000034.180    34.
PUBLJ    601_2021                                1       Pkt     2       Pkt      0.0000  0.0000  181.59501.5950  181.595089.5745 270.021568.201    68.
PUBLJ    601_2021        2       Pkt             1       Pkt     3       BKL      181.59501.5950  68.3442 248.344268.3442 90.0000 270.00002.471     2.4
PUBLJ    601_2021        1       Pkt             2       Pkt     4       Pkt      1.5950  181.5950194.223814.2238 194.223890.0000 270.000052.093    52.
PUBLJ    601_2021        2       Pkt             4       Pkt     5       Pkt      14.2238 194.2238311.4853131.4853311.485390.0000 270.000085.739    85.
PUBLJ    601_2021        4       Pkt             5       Pkt     6       Pkt      131.4853311.4853222.263442.2634 222.263490.0000 270.000063.101    63.
PUBLJ    601_2021        5       Pkt             6       Pkt     7       Pkt      42.2634 222.26348.1647  188.16478.1647  90.0000 270.000049.652    49.
PUBLJ    601_2021        6       Pkt             7       Pkt     8       Pkt      188.16478.1647  5.5423  185.54235.5423  90.0000 270.000076.581    76.
PUBLJ    601_2021        7       Pkt             8       Pkt     9       pkL      185.54235.5423  331.5022151.5022331.502290.0000 270.00004.150     4.1
PUBLJ    601_2021        7       Pkt             8       Pkt     10      Pkt      185.54235.5423  111.3911291.3911111.391190.0000 270.000045.210    45.
PUBLJ    601_2021        8       Pkt             10      Pkt     11      Pkt      291.3911111.391196.0124 276.012496.0124 90.0000 270.000032.389    32.
PUBLJ    601_2021        10      Pkt             11      Pkt     1       Pkt      276.012496.0124 85.0527 265.052785.0527 90.0000 270.000032.655    32.
PUBLJ    601_2021        11      Pkt             1       Pkt     2       Pkt      265.052785.0527 181.59541.5954  181.595490.0000 270.000068.201    68.
PUBLJ    601_2021        8       Pkt             10      Pkt     12      BKL      291.3911111.391191.1919 271.191991.1919 90.0000 270.00004.854     4.8
PUBLJ    601_2021        2       Pkt             1       Pkt     13      pkL      181.59501.5950  267.251387.2513 267.251390.0000 270.000021.724    21.
PUBLJ    601_2021        2       Pkt             1       Pkt     14      BKB      181.59501.5950  251.383871.3838 251.383890.0000 270.000018.177    18.
PUBLJ    601_2021        2       Pkt             4       Pkt     15      pkB      14.2238 194.2238241.432561.4325 241.432590.0000 270.00005.622     5.6
PUBLJ    601_2021        5       Pkt             6       Pkt     16      BKB      42.2634 222.2634201.392021.3920 201.392090.0000 270.00009.557     9.5
PUBLJ    601_2021        6       Pkt             7       Pkt     17      BKB      188.16478.1647  304.4651124.4651304.465190.0000 270.00004.148     4.1
PUBLJ    601_2021        1       Pkt             2       Pkt     18      pkB      1.5950  181.5950294.4128114.4128294.412890.0000 270.000017.949    17.
PUBLJ    601_2021                                9       pkL     12      BKL      0.0000  0.0000  112.4330292.4330112.433090.0000 270.000052.941    52.
PUBLJ    601_2021                                12      BKL     13      pkL      0.0000  0.0000  92.1240 272.124092.1240 90.0000 270.000038.222    38.
PUBLJ    601_2021                                13      pkL     14      BKB      0.0000  0.0000  136.5040316.5040136.504090.0000 270.00006.506     6.5
PUBLJ    601_2021                                14      BKB     15      pkB      0.0000  0.0000  181.29301.2930  181.293090.0000 270.0000115.599   115
PUBLJ    601_2021                                15      pkB     16      BKB      0.0000  0.0000  272.231092.2310 272.231090.0000 270.0000105.153   105
PUBLJ    601_2021                                16      BKB     9       pkL      0.0000  0.0000  6.5200  186.52006.5200  90.0000 270.0000138.848   138
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:10 PM 18/10/2021

*.JOB (Job Details)

PUBLJ601_2021 (1).JOB - Notepad

File Edit Format View Help

```
PUBLJ601_2021     20201222  20210804  1   1  1   1
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:12 PM 18/10/2021

*.LOT (Lot Details)

PUBLJ601_2021.LOT - Notepad

File Edit Format View Help

```
01024000049822  21036.699   -61328.472  6203.067        M
01024000049823  21023.502   -61400.239  6203.212        M
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:12 PM 18/10/2021

*.NCP (Deduced Field Data)

PUBLJ601_2021.NCP - Notepad

File Edit Format View Help

6	Pkt	16	BKB	201.3920	9.557	1	12
1	Pkt	13	pkL	267.2510	21.724	1	12
2	Pkt	4	Pkt	194.2240	52.093	1	12
4	Pkt	5	Pkt	311.4850	85.739	1	12
17	BKB	16	BKB	186.5150	60.819	1	16
8	Pkt	10	Pkt	111.3910	45.210	1	12
4	Pkt	15	pkB	241.4320	5.622	1	12
13	pkL	12	BKL	272.1210	38.219	1	16
7	Pkt	17	BKB	304.4650	4.148	1	12
18	pkB	14	BKB	1.2940	54.956	1	16
1	Pkt	3	BKL	68.3440	2.471	1	12
12	BKL	9	pkL	292.4330	52.941	1	16
1	Pkt	14	BKB	251.3840	18.177	1	12
1	Pkt	2	Pkt	181.5950	68.201	1	11
2	Pkt	18	pkB	294.4130	17.949	1	12
11	Pkt	1	Pkt	85.0520	32.655	1	12
16	BKB	15	pkB	92.2310	105.152	1	16
14	BKB	13	pkL	316.5040	6.506	1	16
6	Pkt	7	Pkt	8.1640	49.652	1	12
10	Pkt	11	Pkt	96.0120	32.389	1	12
15	pkB	18	pkB	1.2930	60.643	1	16
9	pkL	17	BKB	186.5200	78.027	1	16
17	BKB	18	pkB	92.2310	99.458	1	16
10	Pkt	12	BKL	91.1910	4.854	1	12
5	Pkt	6	Pkt	222.2630	63.101	1	12
7	Pkt	8	Pkt	5.5420	76.581	1	12
8	Pkt	9	pkL	331.5020	4.150	1	12
9	pkL	12	BKL	112.4330	52.941	1	26
12	BKL	13	pkL	92.1240	38.222	1	26
13	pkL	14	BKB	136.5040	6.506	1	26
14	BKB	15	pkB	181.2930	115.599	1	26
15	pkB	16	BKB	272.2310	105.153	1	26
16	BKB	9	pkL	6.5200	138.848	1	26

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:13 PM 18/10/2021

*.PO (Old Value)

PUBLJ601_2021.PO - Notepad

File Edit Format View Help

```
PUBLJ     601_2021          205110      01024000047621  201206201112.433052.941    M                                                  9
PUBLJ     601_2021          205110      01024000047621  20120620192.1240 38.222    M                                                  12
PUBLJ     601_2021          205110      01024000047621  201206201136.50406.506     M                                                  13
PUBLJ     601_2021          205110      01024000047621  201206201181.2930115.599   M                                                  14
PUBLJ     601_2021          205110      01024000047621  201206201272.2310105.153   M                                                  15
PUBLJ     601_2021          205110      01024000047621  2012062016.5200  138.848   M                                                  16
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:15 PM 18/10/2021

*.SOB (Solar Observation Data)

PUBLJ601_2021.SOB - Notepad

File Edit Format View Help

```
PUBLJ     601_2021          1        Pkt          -61311.400  21094.087   2        Pkt          LOW CHEE SENG                          GZ3345
PUBLJ     601_2021          1        Pkt          -61311.400  21094.087   2        Pkt          LOW CHEE SENG                          GZ3345
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:15 PM 18/10/2021

*.TPO (Topography)

PUBLSEL1066_2020.tpo - Notepad

File Edit Format View Help

```
PUBLSEL   1066_2020          45          11          46          11    1          1
PUBLSEL   1066_2020          45          11          47          11    1          2
PUBLSEL   1066_2020          45          11          48          11    1          3
PUBLSEL   1066_2020          45          11          49          11    1          4
PUBLSEL   1066_2020          45          11          50          11    1          5
PUBLSEL   1066_2020          45          11          51          11    1          6
PUBLSEL   1066_2020          45          11          52          11    1          7
PUBLSEL   1066_2020          11          14          53          11    1          8
PUBLSEL   1066_2020          11          14          54          11    1          9
PUBLSEL   1066_2020          11          14          55          11    1          10
PUBLSEL   1066_2020          11          14          56          11    1          11
PUBLSEL   1066_2020          11          14          57          11    1          12
PUBLSEL   1066_2020          15          37          58          11    1          13
PUBLSEL   1066_2020          15          37          59          11    1          14
PUBLSEL   1066_2020          15          37          60          11    1          15
PUBLSEL   1066_2020          15          37          61          11    1          16
PUBLSEL   1066_2020          15          37          62          11    1          17
PUBLSEL   1066_2020          15          37          63          11    1          18
PUBLSEL   1066_2020          15          37          64          11    1          19
PUBLSEL   1066_2020          15          37          65          11    1          20
PUBLSEL   1066_2020          16          15          66          11    2          1
PUBLSEL   1066_2020          16          15          67          11    2          2
PUBLSEL   1066_2020          16          15          68          11    2          3
PUBLSEL   1066_2020          16          15          69          11    2          4
PUBLSEL   1066_2020          16          15          70          11    2          5
PUBLSEL   1066_2020          16          15          71          11    2          6
PUBLSEL   1066_2020          16          15          72          11    2          7
PUBLSEL   1066_2020          17          16          73          11    2          8
PUBLSEL   1066_2020          17          16          74          11    2          9
PUBLSEL   1066_2020          17          16          75          11    2          10
PUBLSEL   1066_2020          17          16          76          11    2          11
PUBLSEL   1066_2020          17          16          77          11    2          12
PUBLSEL   1066_2020          17          16          78          11    2          13
PUBLSEL   1066_2020          17          16          79          11    2          14
PUBLSEL   1066_2020          17          16          80          11    2          15
PUBLSEL   1066_2020          16          17          81          11    2          16
PUBLSEL   1066_2020          16          17          82          11    2          17
PUBLSEL   1066_2020          16          17          83          11    2          18
PUBLSEL   1066_2020          16          17          84          11    2          19
PUBLSEL   1066_2020          16          17          85          11    2          20
PUBLSEL   1066_2020          16          17          86          11    2          21
PUBLSEL   1066_2020          16          17          87          11    2          22
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

32°C Mostly sunny | ENG | 1:18 PM 18/10/2021

*.TPS (Traverses)

PUBLJ601_2021.TPS - Notepad

File Edit Format View Help

```
T,1
9,8,10,11,1,2,4,5,6,7,8
END
L,49822,01,02,40,000,6203.067
9,12,13,14,18,17,9
END
L,49823,01,02,40,000,6203.212
18,15,16,17,18
END
K,12,P
-61310.904,21034.191,BKL,,,M
END
K,13,P
-61312.378,21072.385,pkL,,,M
END
K,9,P
-61290.452,20985.358,pkL,,,M
END
```

Ln 1, Col 1 | 100% | Windows (CRLF) | UTF-8

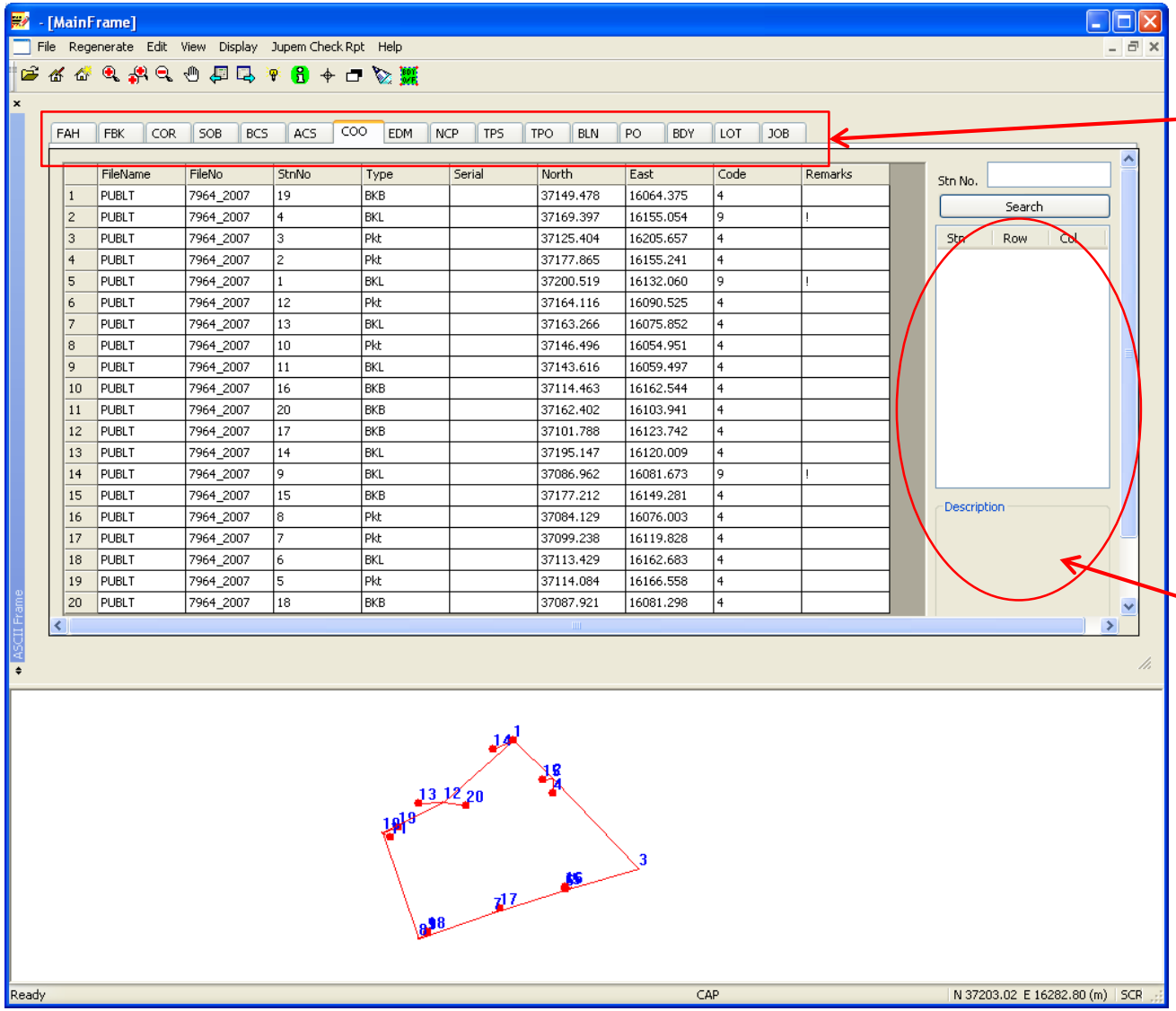
32°C Mostly sunny | ENG | 1:16 PM 18/10/2021

ITOOLS UPGRADE IN FUTURE

1. Precomp PU ASCII Processing
2. Export StarNet DAT
   - For Least Square Adjustment

ASCII CHECKER (DIFFERENT SOFTWARE)

ASCII CHECKER FOR 16 ASCII



	FileName	FileNo	StnNo	Type	Serial	North	East	Code	Remarks
1	PUBLT	7964_2007	19	BKB		37149.478	16064.375	4	
2	PUBLT	7964_2007	4	BKL		37169.397	16155.054	9	!
3	PUBLT	7964_2007	3	Pkt		37125.404	16205.657	4	
4	PUBLT	7964_2007	2	Pkt		37177.865	16155.241	4	
5	PUBLT	7964_2007	1	BKL		37200.519	16132.060	9	!
6	PUBLT	7964_2007	12	Pkt		37164.116	16090.525	4	
7	PUBLT	7964_2007	13	BKL		37163.266	16075.852	4	
8	PUBLT	7964_2007	10	Pkt		37146.496	16054.951	4	
9	PUBLT	7964_2007	11	BKL		37143.616	16059.497	4	
10	PUBLT	7964_2007	16	BKB		37114.463	16162.544	4	
11	PUBLT	7964_2007	20	BKB		37162.402	16103.941	4	
12	PUBLT	7964_2007	17	BKB		37101.788	16123.742	4	
13	PUBLT	7964_2007	14	BKL		37195.147	16120.009	4	
14	PUBLT	7964_2007	9	BKL		37086.962	16081.673	9	!
15	PUBLT	7964_2007	15	BKB		37177.212	16149.281	4	
16	PUBLT	7964_2007	8	Pkt		37084.129	16076.003	4	
17	PUBLT	7964_2007	7	Pkt		37099.238	16119.828	4	
18	PUBLT	7964_2007	6	BKL		37113.429	16162.683	4	
19	PUBLT	7964_2007	5	Pkt		37114.084	16166.558	4	
20	PUBLT	7964_2007	18	BKB		37087.921	16081.298	4	

Checker for 16 ASCII File except *.EDM

If have any Error the box Description will detail the error where to fixed it.

DEMO

Q & A

Thanks ☺