DCDB2NDCDB

by
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Department of Survey and Mapping
Malaysia
14 October 2009

Background

DCDB2NDCDB

HISTORICAL BACKGROUND ON NDCDB DEVELOPMENT

1996*	**PRELIMINARY INVESTIGATIONS IN STATE OF MELAKA** – test on the use of least squares adjustment technique and GPS for Cadastral Controls.
1997 - 2000*	**FEASIBILITY STUDY ON COORDINATED CADASTRAL SYSTEM FOR PENINSULAR MALAYSIA.**
2000 - 2003*	**STUDIES TOWARD THE DEVELOPMENT OF IMPLEMENTATION PLAN OF COORDINATED CADASTRAL SYSTEM FOR PENINSULAR MALAYSIA**
2004-2005*	**A PILOT RESEARCH PROJECT ON THE DEVELOPMENT AND IMPLEMENTATION OF COORDINATED CADASTRAL SYSTEM (CCS) FOR THE STATE OF MELAKA**
2006*	**ECONOMIC AND SOCIAL IMPACTS OF CCS IMPLEMENTATION**
2007-2009	**PROJEK eKADASTER JUPEM: DEVELOPMENT OF NDCDB**

JOINT PILOT RESEARCH PROJECTS BETWEEN DSMM-UTM-LS BOARD: COORDINATED CADASTRAL SYSTEM (CCS) FOR MALAYSIA

BENEFITS OF NDCDB

Shortcomings in The Present PDUK

NDCDB will overcome the shortcomings of the present Pangkalan Data Ukur Kadaster (PDUK) on several issues such as: a) incompatibility with the current technologies, b) accuracy inadequacy, and c) difficulties resulting from the use of different projection and geo-reference system.

NDCDB as Spatially Enabling Technologies

NDCDB will open up of opportunities in coping with and in accruing benefits from the advances in technology. Since coordinates are the basic input/output of most modern equipments, such as Electronic Total Station and Global Positioning System, the introduction of a survey accurate NDCDB would thus be synergistic with the operations of such equipment and systems

NDCDB as Spatially Enabling Platform

NDCDB will also facilitate the integration of cadastral and other large scale map-based information (building footprint, large scale map, utility) as well as the use of rapid data acquisition, storage, processing and management techniques for the development of large scale Spatial Data Infrastructure-SDI.

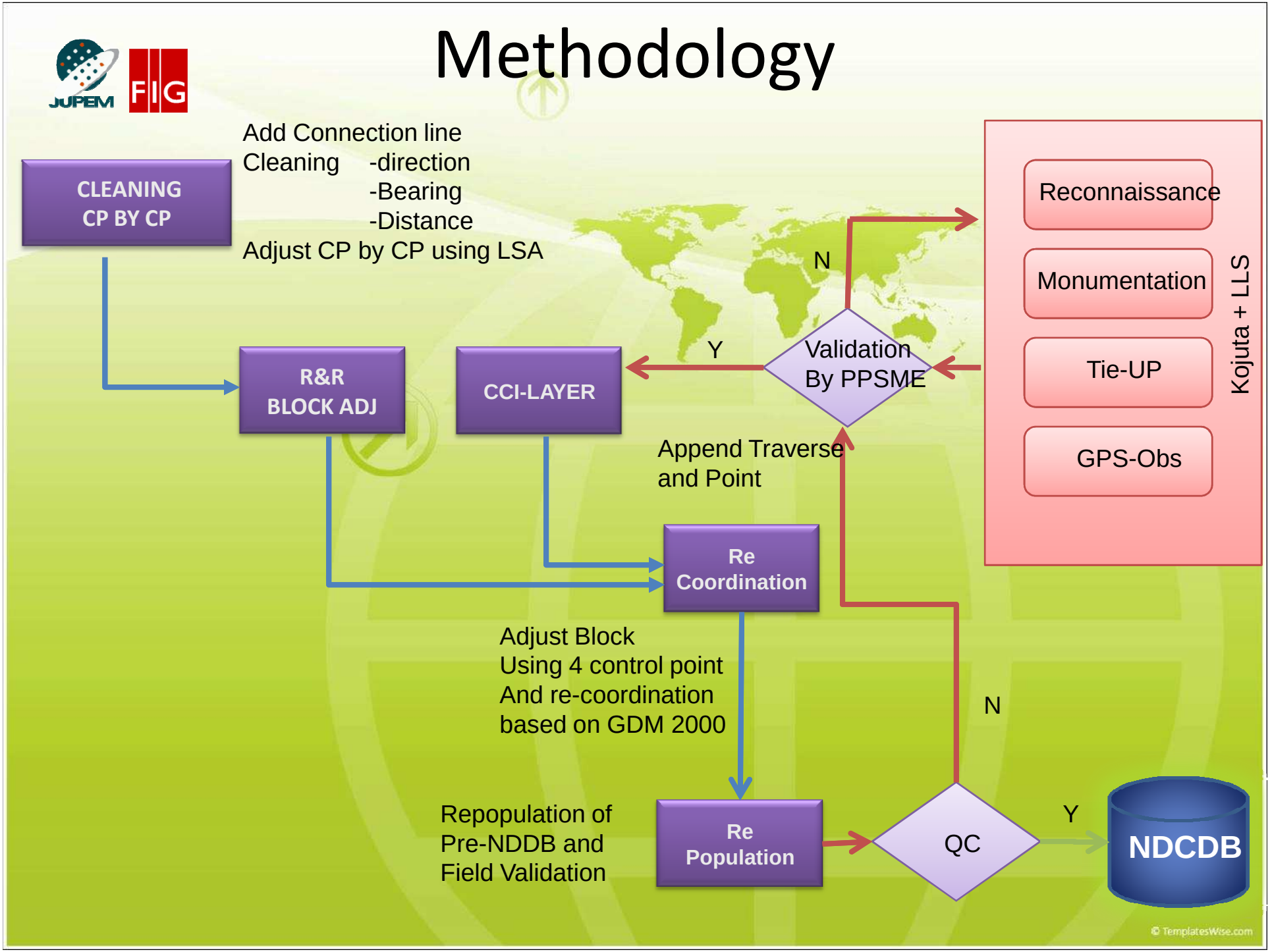
NDCDB Will Support Spatially Enabled Systems And Spatially Enabled Government

NDCDB and other land information have the potential to spatially enable government, the private sectors, and society in general, and to expand computer support for processes of visualization, organization and management of useful information

Methodology

DCDB2NDCDB

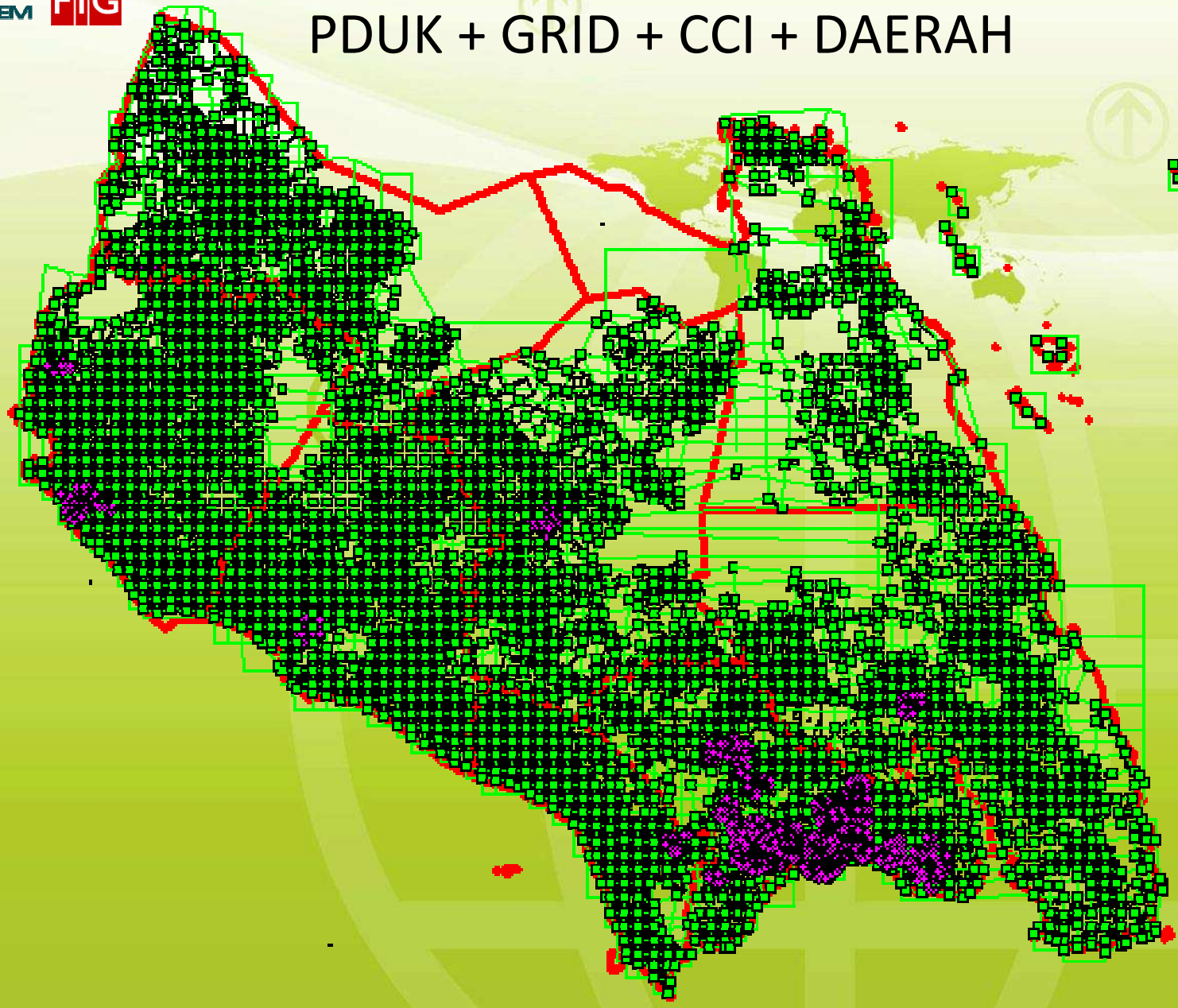
Methodology

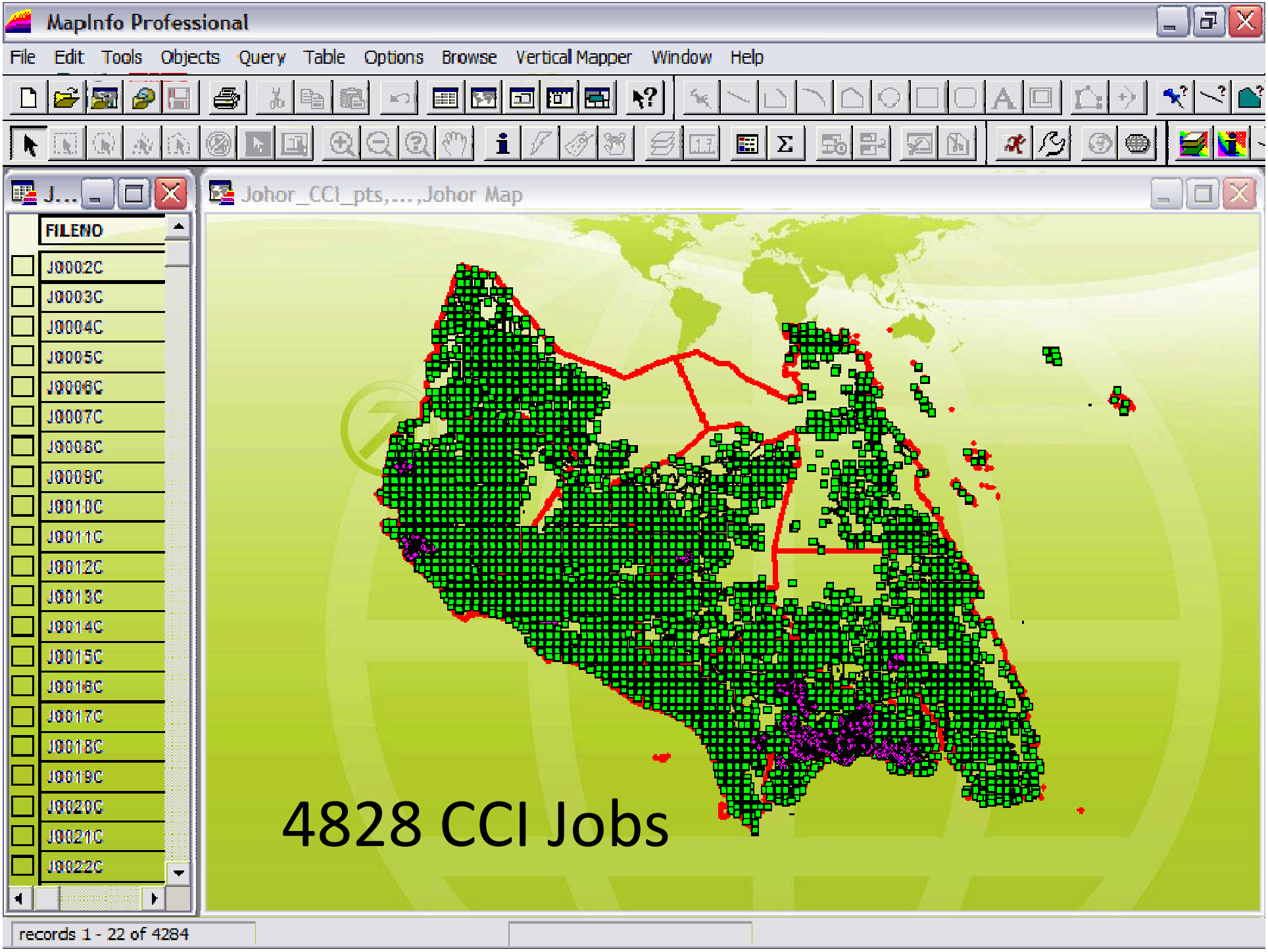


Methodology

Job Planning (Example)

PDUK + GRID + CCI + DAERAH




MapInfo Professional
File Edit Tools Objects Query Table Options Browse Vertical Mapper Window Help
J...
FILENO
J0002C
J0003C
J0004C
J0005C
J0006C
J0007C
J0008C
J0009C
J0010C
J0011C
J0012C
J0013C
J0014C
J0015C
J0016C
J0017C
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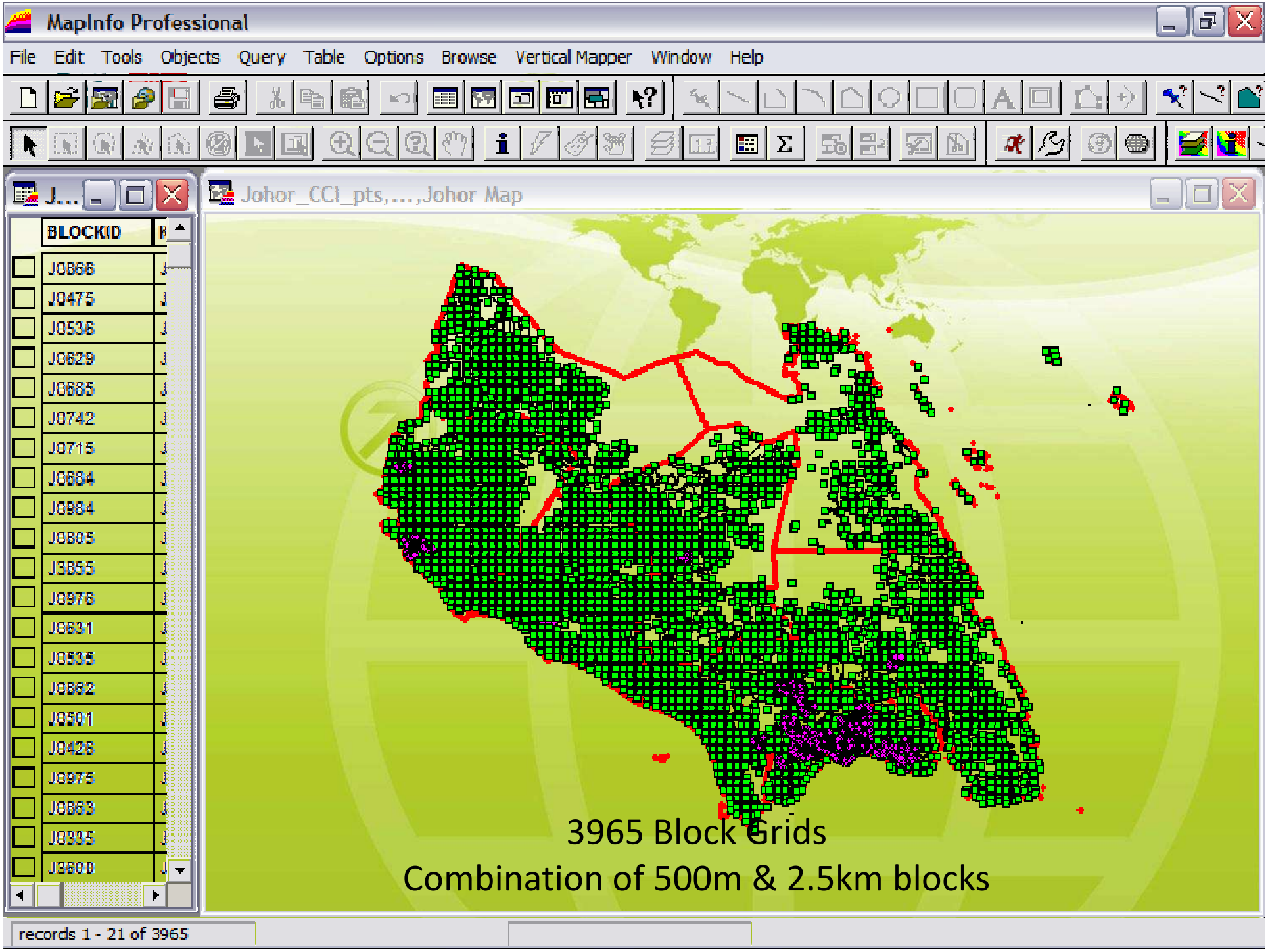
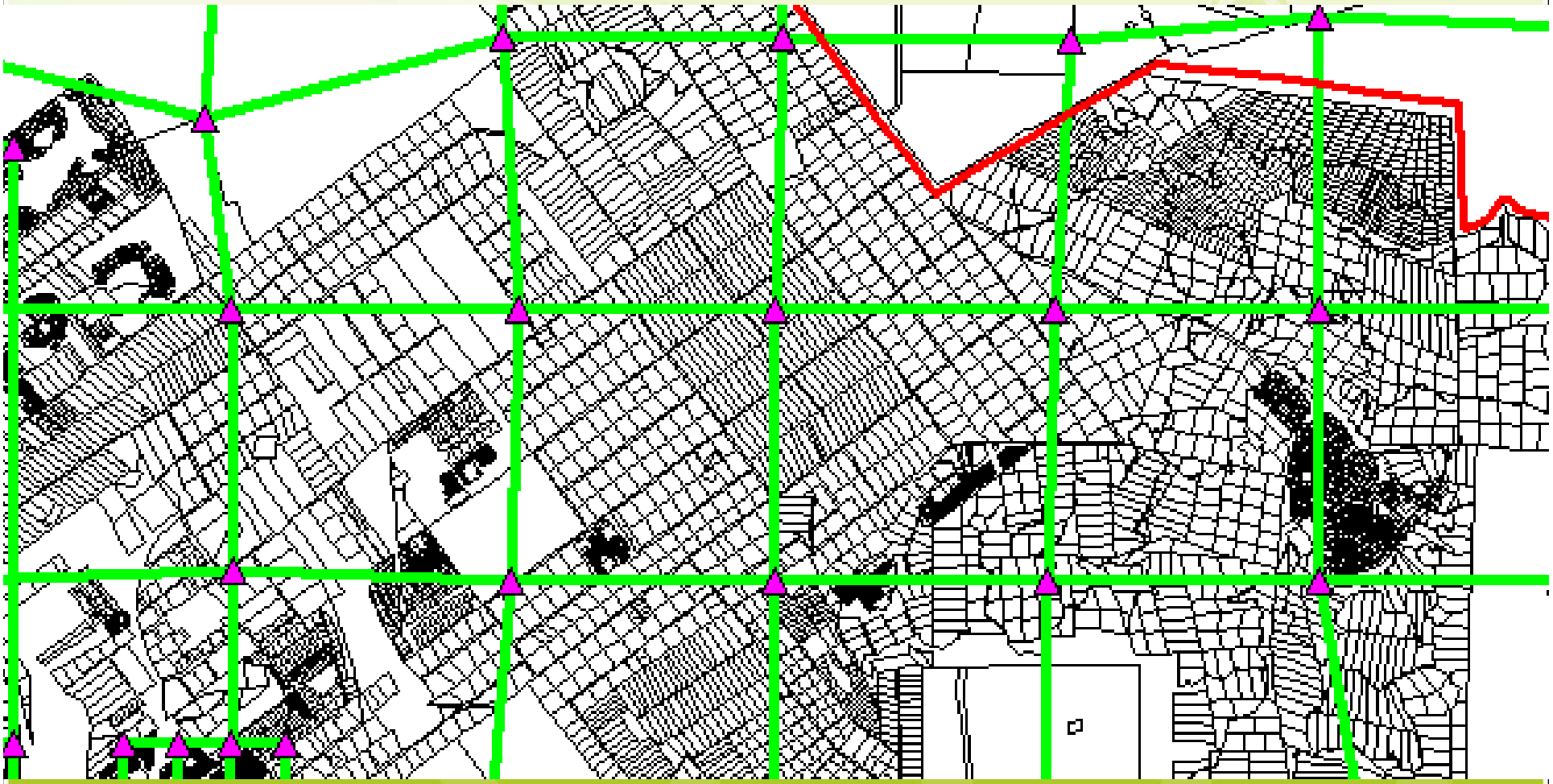
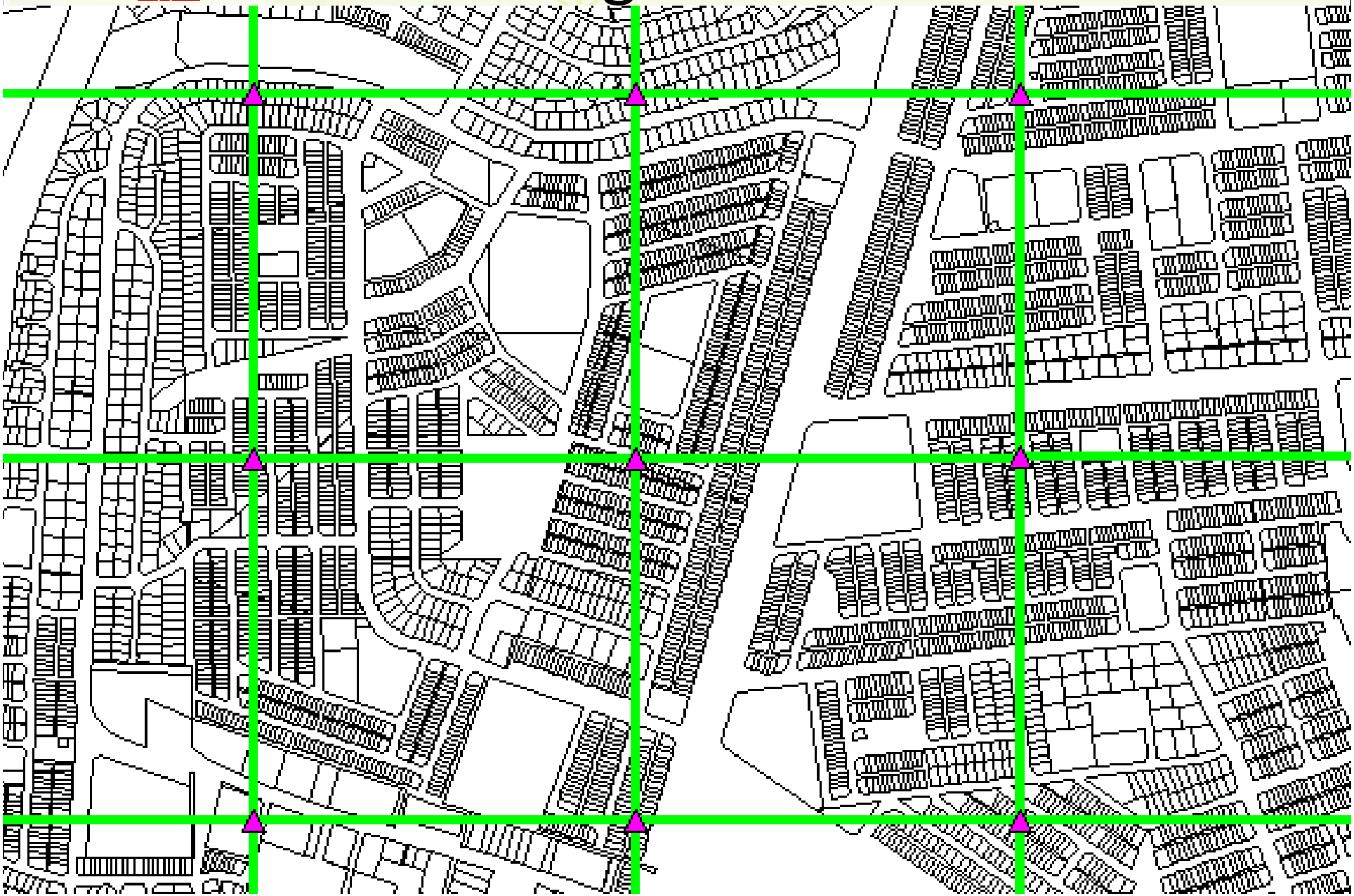
J0019C
J0020C
J0021C
J0022C
Johor_CCI_pts,...,Johor Map
4828 CCI Jobs
records 1 - 22 of 4284


MapInfo Professional
File Edit Tools Objects Query Table Options Browse Vertical Mapper Window Help
J...
BLOCKID
J0866
J0475
J0536
J0629
J0685
J0742
J0715
J0684
J0984
J0805
J3855
J0976
J0631
J0535
J0862
J0591
J0428
J0975
J0863
J0935
J3600
Johor_CCI_pts,...,Johor Map
3965 Block Grids
Combination of 500m & 2.5km blocks
records 1 - 21 of 3965

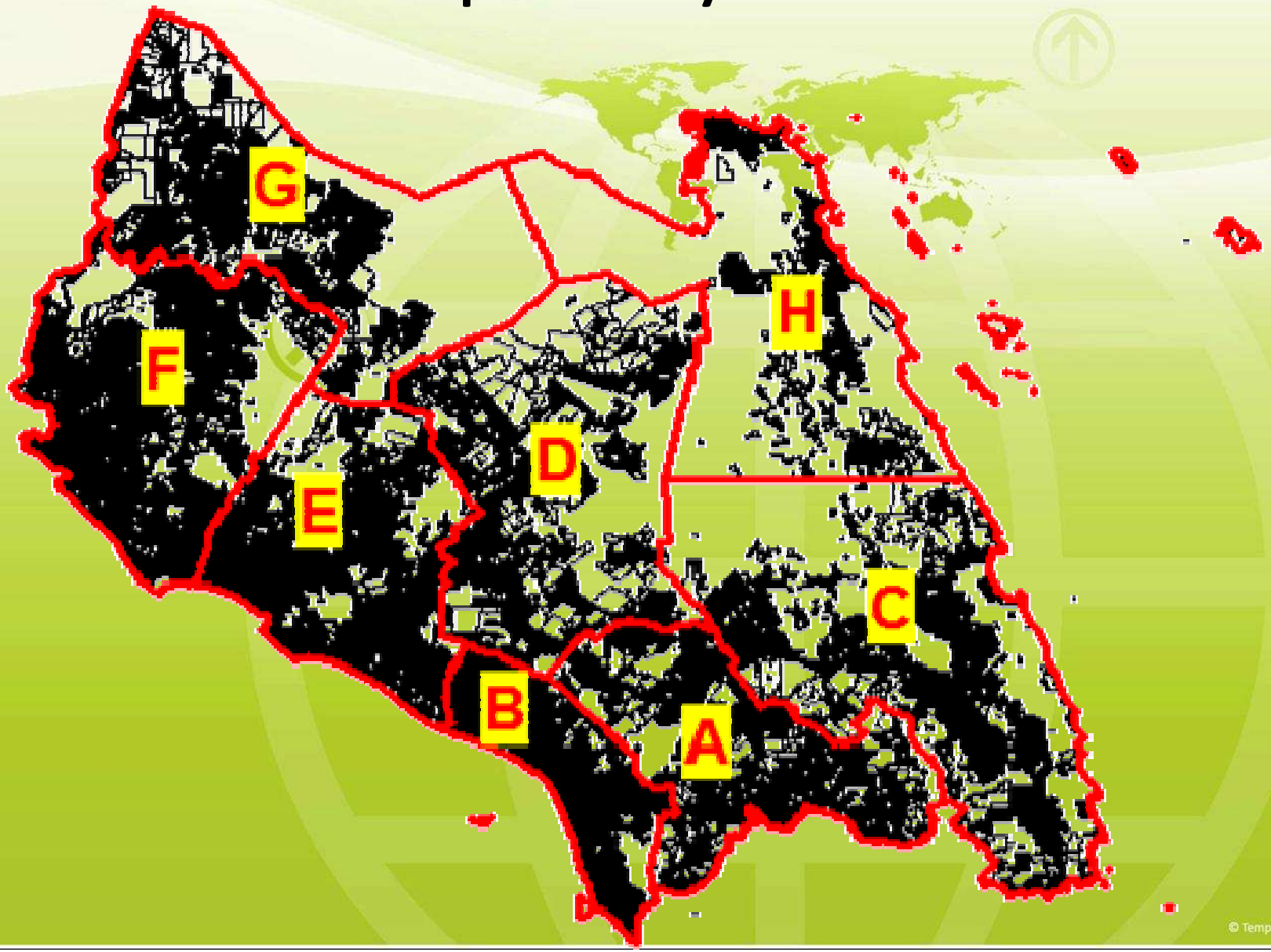
2.5 km block-grids based on CCI



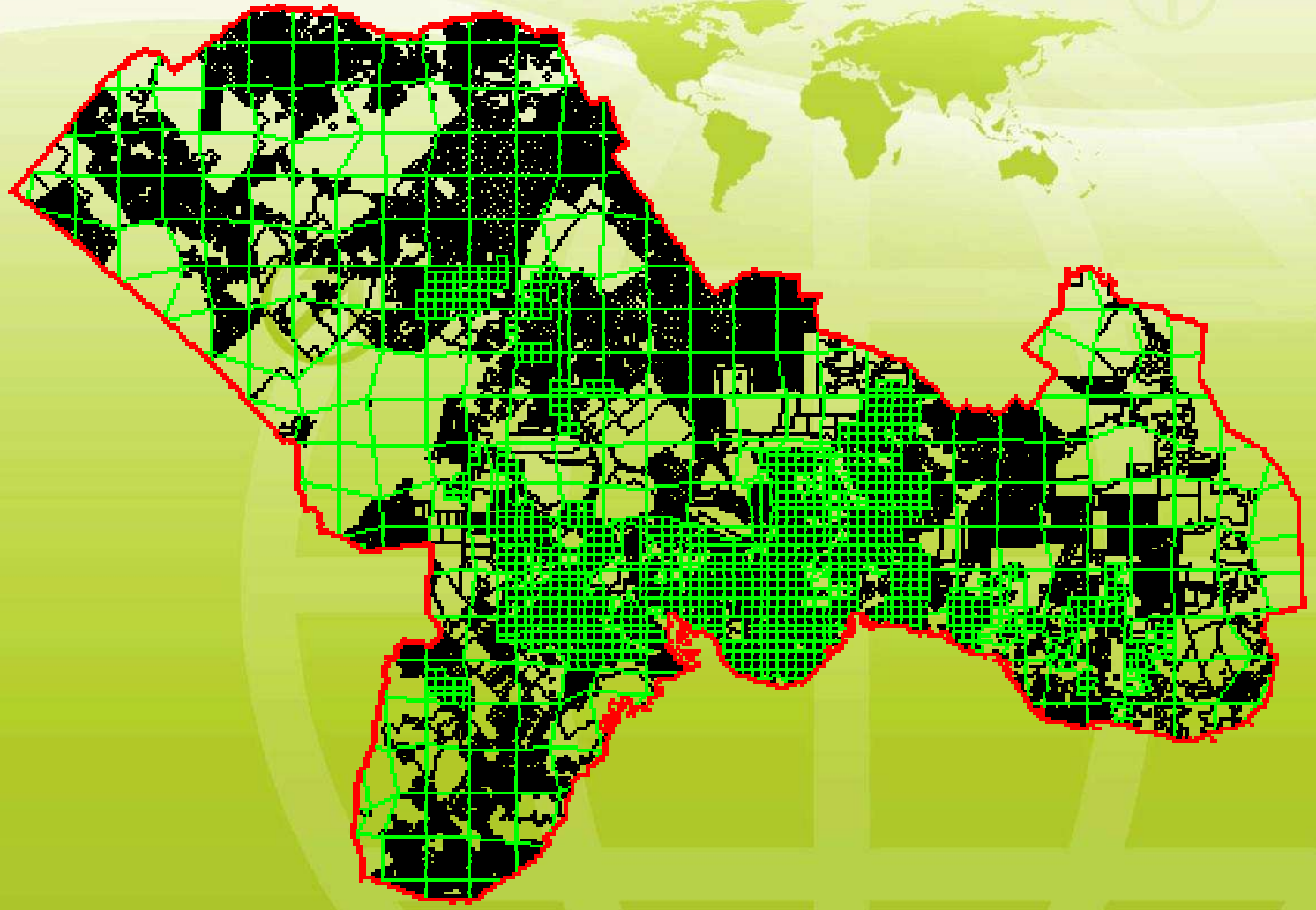
500m Block-grids based on CCI

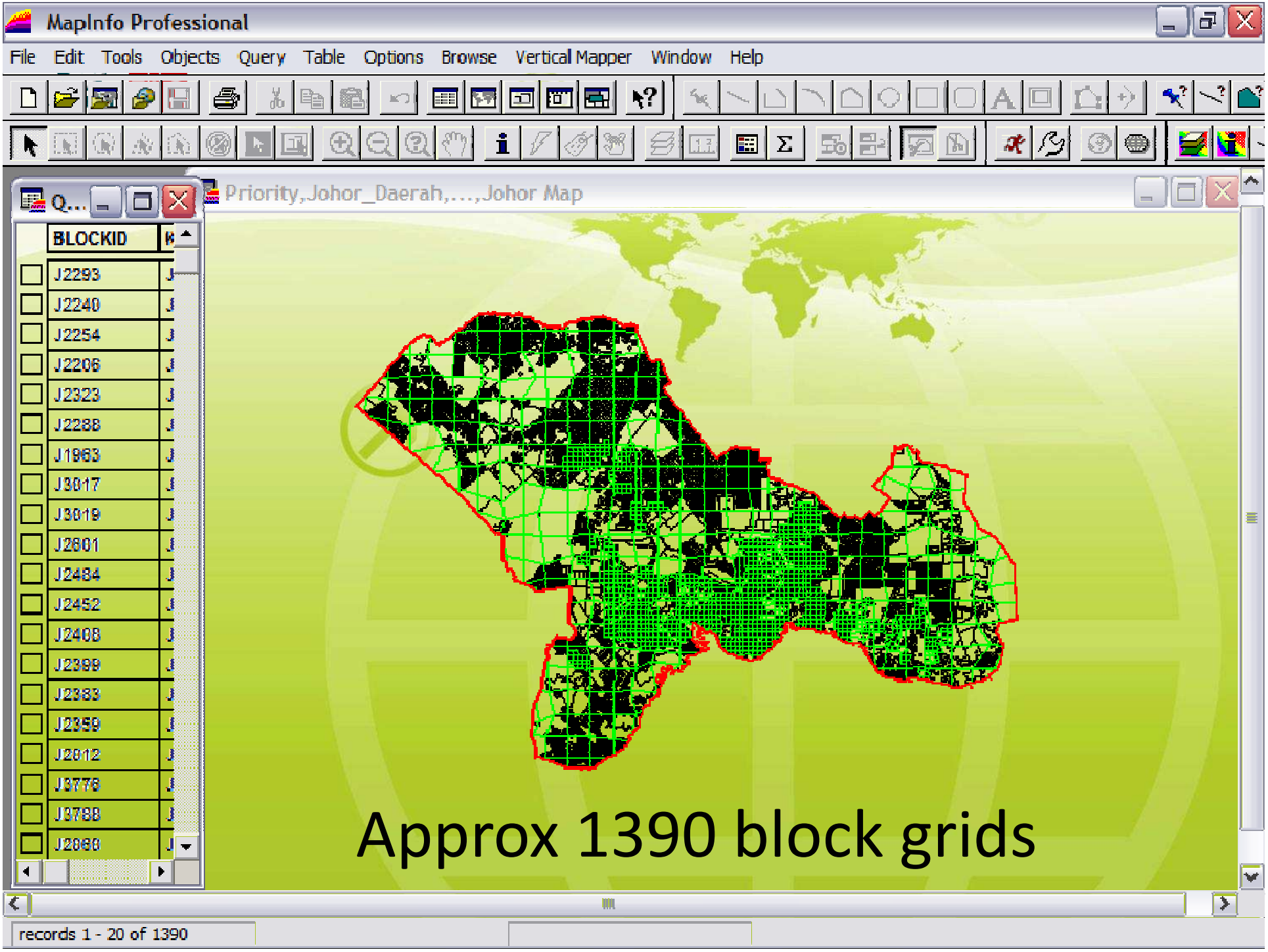


To set priority - Johor

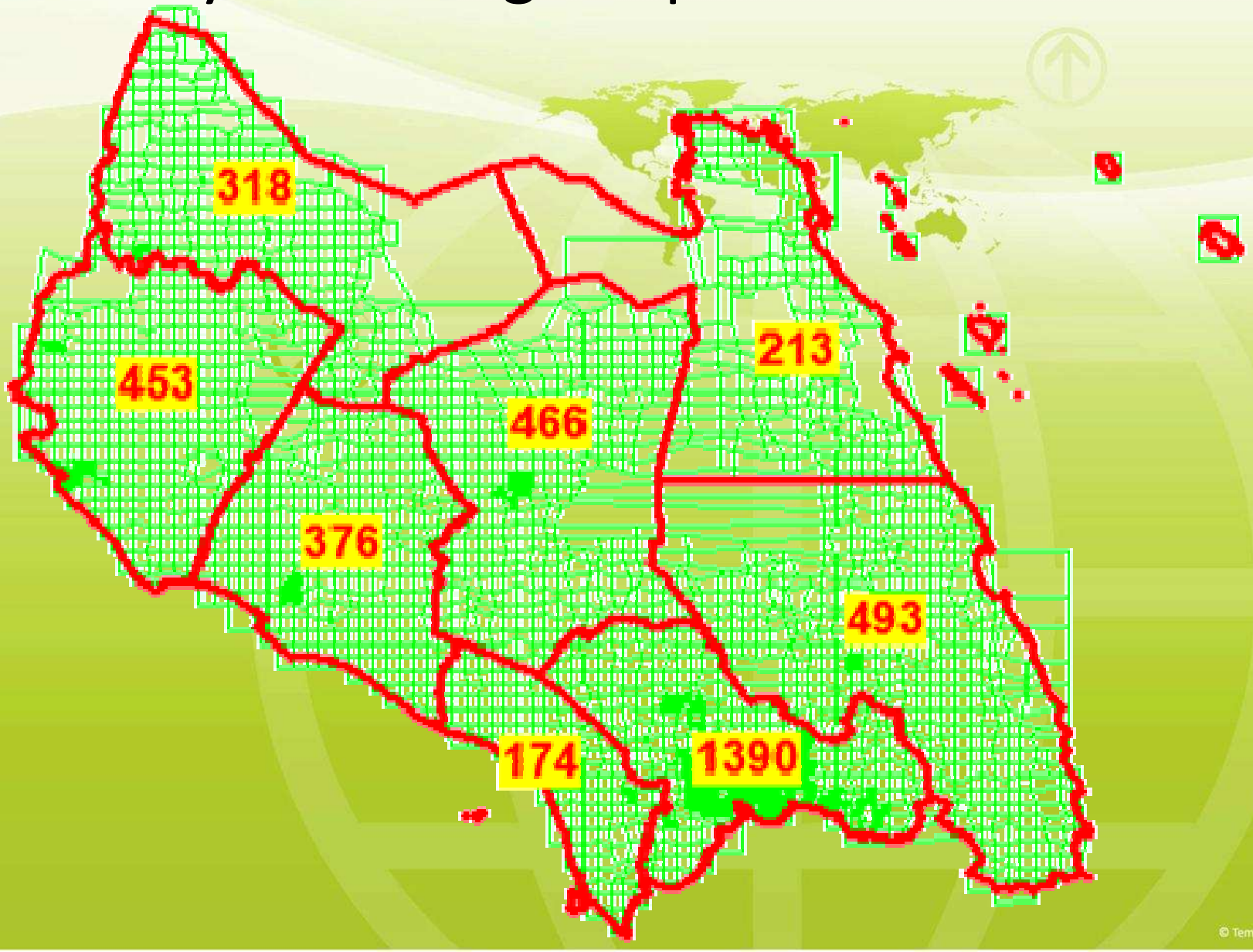


Johor - Doing JB first

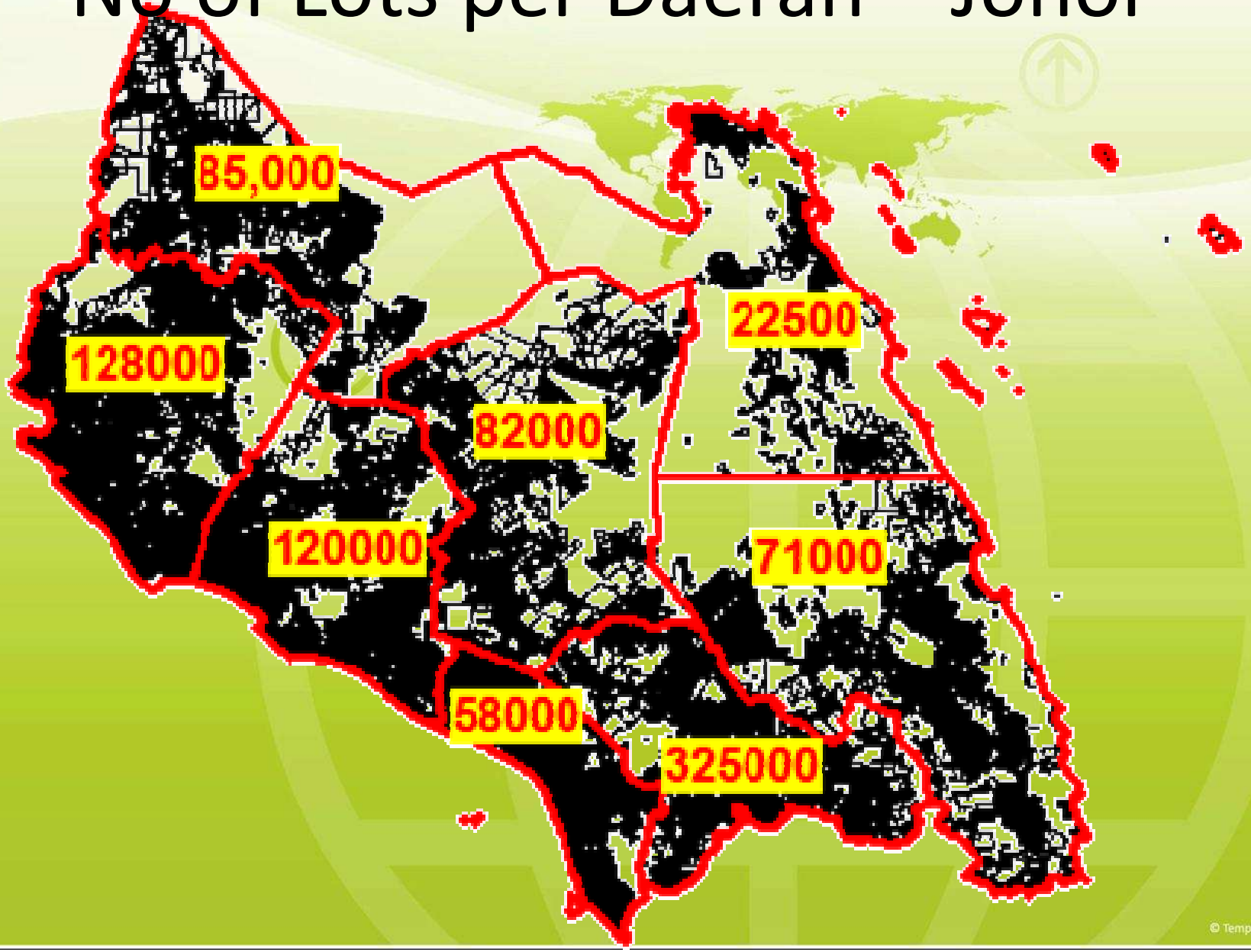



MapInfo Professional
File Edit Tools Objects Query Table Options Browse Vertical Mapper Window Help
Q...
BLOCKID
J2293
J2240
J2254
J2206
J2323
J2288
J1963
J3017
J3019
J2601
J2484
J2452
J2408
J2399
J2383
J2359
J2812
J3776
J3798
J2868
Priority,Johor_Daerah,...,Johor Map
Approx 1390 block grids
records 1 - 20 of 1390

Qty of block grids per daerah - Johor



No of Lots per Daerah – Johor



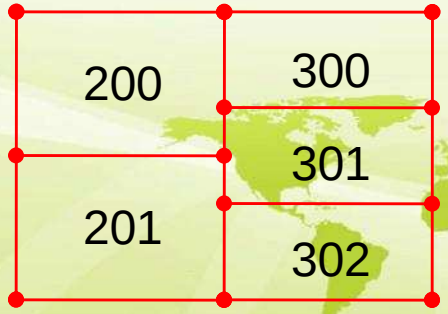
No of CPs per Daerah – Johor

KOD	DAERAH	TOTAL CP
01	DAERAH BATU CPHAT	9,910
02	DAERAH JOHOR BAHRU	14,448
03	DAERAH KLUANG	5,551
04	DAERAH KOTA TINGGI	6,052
05	DAERAH MERSING	2,861
06	DAERAH MUAR	14,089
07	DAERAH PONTIAN	7,104
08	DAERAH SEGAMAT	8,730
	APPROX. TOTAL:	**69,000**

Data Model and Structure

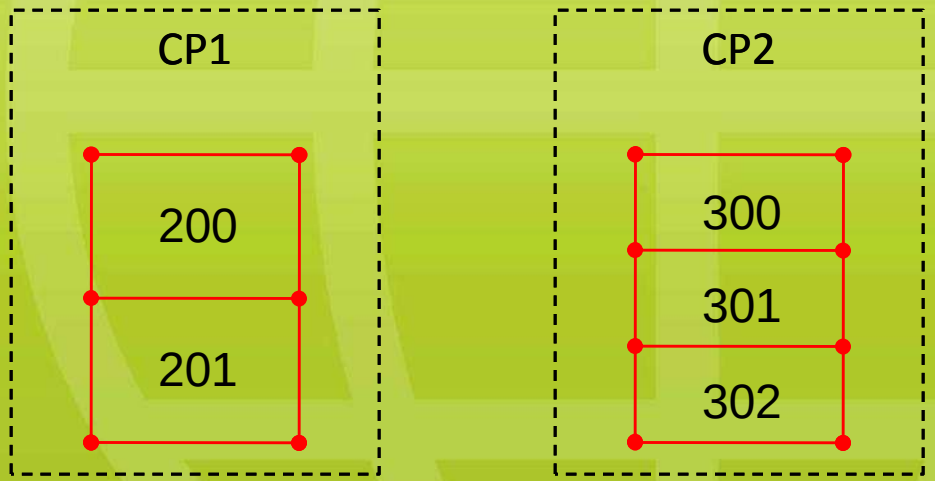
DCDB Data Model

DCDB:
•Double Line



DCDB

•Shared BDY are not converted into single lines



Certified by Surveyor B

Certified by Surveyor A

DCDB Database Structure

Table Bdy

```
!table
!version 550
!charset WindowsLatin1

Definition Table
  Type NATIVE Charset
 "WindowsLatin1"
  Fields 24
    UPI Char (16) ;
    BEARING Char (9) ;
    DISTANCE Decimal (14, 3) ;
    M_BEARING Float ;
    M_DISTANCE Decimal (14,
3) ;
    G_BEARING Char (9) ;
    G_DISTANCE Decimal (14,
3) ;
    UNIT Char (1) ;
    CLS Char (1) ;
    LINECODE Char (2) ;
    LINETYPE Char (1) ;
    FNODE Char (55) ;
    TNODE Char (55) ;
    CP Char (15) ;
    APDATE Char (8) ;
    ENTRYMODE Char (1) ;
    F_STN_ORDERED Char (3)
;
    T_STN_ORDERED Char (3)
;
    FROMNODEGUID Char (32)
;
    TONODEGUID Char (32) ;
```

Table Lot

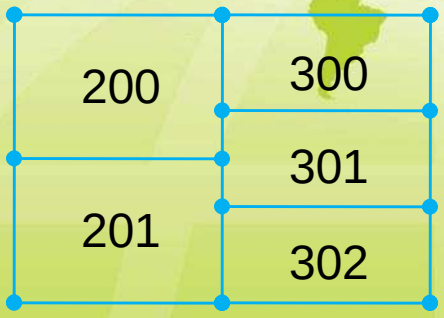
```
!table
!version 550
!charset WindowsLatin1

Definition Table
  Type NATIVE Charset
"WindowsLatin1"
  Fields 20
    NEGERI Char (2) ;
    DAERAH Char (2) ;
    MUKIM Char (2) ;
    SEKSYEN Char (3) ;
    LOT Char (7) ;
    UPI Char (16) ;
    S_AREA Decimal (20, 3) ;
    M_AREA Decimal (20, 3) ;
    G_AREA Decimal (20, 3) ;
    UNIT Char (1) ;
    CP Char (15) ;
    REFPLAN Char (15) ;
    APDATE Char (8) ;
    CLS Char (1) ;
    LANDUSECODE Char (2) ;
    LANDTITLECODE Char (2) ;
    ENTRYMODE Char (1) ;
    UPDATED Date ;
    GUID Char (32) ;
    MI_PRINX Decimal (13, 0) ;
```

Table Stn

```
!table
!version 550
!charset WindowsLatin1

Definition Table
  Type NATIVE Charset
 "WindowsLatin1"
  Fields 21
    UPI Char (16) ;
    CP Char (15) ;
    CLS Char (1) ;
    APDATE Char (8) ;
    POINTKEY Char (55) ;
    MARKDESC Char (13) ;
    SERIAL Char (8) ;
    COORD_TYPE Char (1) ;
    NORTH Char (12) ;
    EAST Char (12) ;
    M_NORTH Char (20) ;
    M_EAST Char (20) ;
    G_NORTH Char (20) ;
    G_EAST Char (20) ;
    S_COMMENT Char (45) ;
    UNIT Char (1) ;
    ENTRYMODE Char (1) ;
    ORDERED Char (3) ;
    UPDATED Date ;
    GUID Char (32) ;
    MI_PRINX Decimal (13, 0) ;
```

NDCDB Data Model

After LS, CS Certified



•Shared BDY are converted into single lines

NDCDB Data Model

After LS, CS Certified

- Boundary Line

NDCDB Data Structure

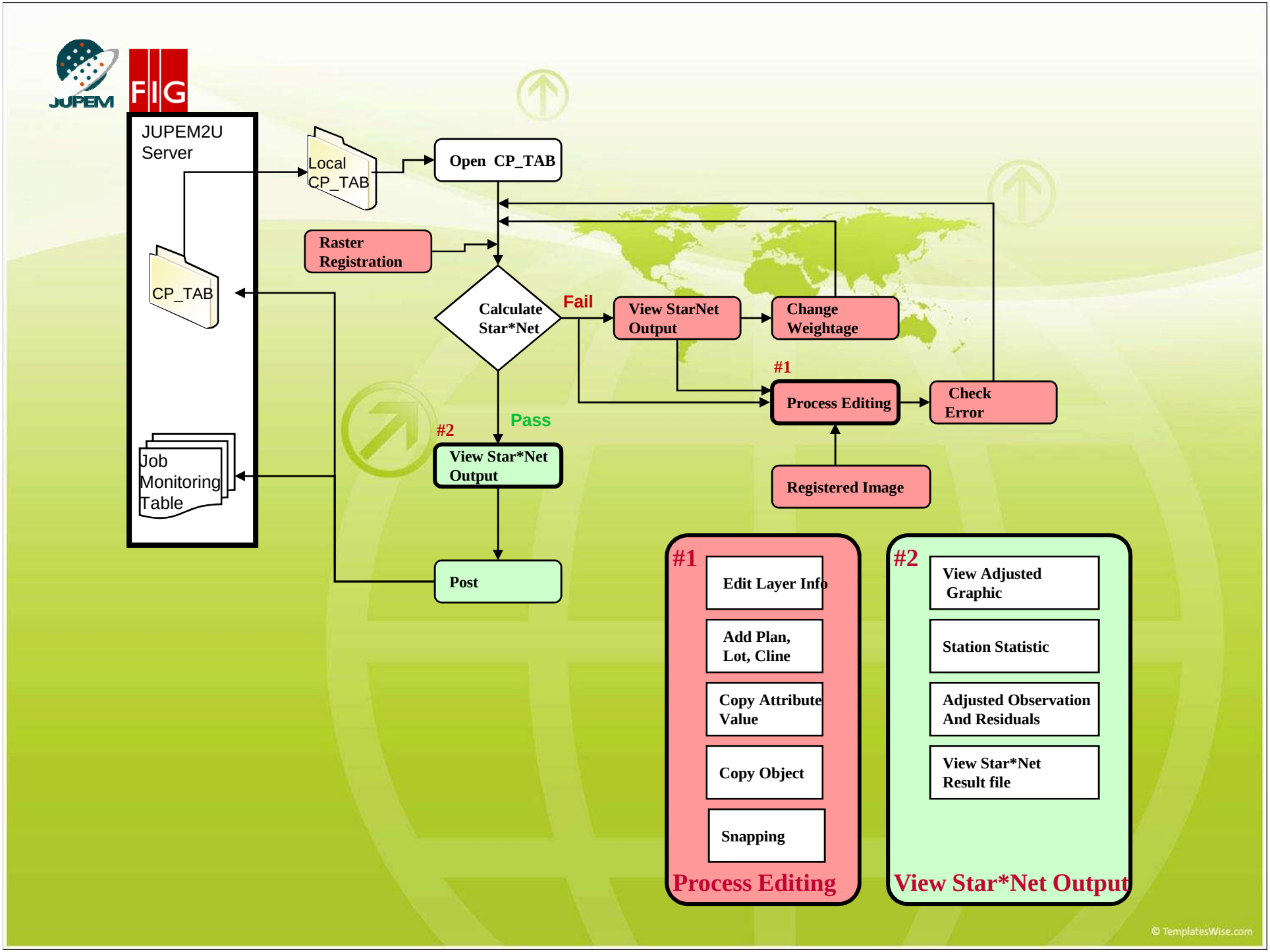
NDCDB_STN	
Field Desc.	**Type (Varchar)**
STN_ID	Dec(10,0)
SERIAL	Varchar2(8)
MARK_DESC	Varchar2(13)
NORTH_CAS	Varchar2(12)
EAST_CAS	Varchar2(12)
STD_ERR_NORTH_CAS	Dec(18,6)
STD_ERR_EAST_CAS	Dec(18,6)
NORTH_RSO	Varchar2(12)
EAST_RSO	Varchar2(12)
TARIKH_KEMASKINI	Date

NDCDB_BDY	
Field Desc.	**Type**
UPI	Varchar2(16)
ADJCPRCEL	Varchar2(16)
BEARING	Varchar2(9)
DISTANCE	Dec(12,4)
FNODE	Dec(13,0)
TNODE	Dec(13,0)
TARIKH_KEMASKINI	Date

NDCDB_PLAN	
Field Desc.	**Type (Varchar)**
CP	Varchar2(15)
APDATE	Varchar2(8)
APPROVER	Varchar2(35)
APPROVERIC	Varchar2(12)
SURVEYOR	Varchar2(35)
SURVEYORIC	Varchar2(12)
SURVEYCOMPLETED	Varchar2(8)
NOSYITPIAWAI	Varchar2(30)
TARIKH_KEMASKINI	Date

NDCDB_LOT	
Field Desc.	**Type (Varchar)**
NEGERI	Varchar2(2)
DAERAH	Varchar2(2)
MUKIM	Varchar2(2)
SEKSYEN	Varchar2(3)
LOT	Varchar2(7)
UPI	Varchar2(16)
NOPEJTANAH	Varchar2(70)
NOFAILUKUR	Varchar2(30)
S_AREA	Dec(18,3)
LANDUSECODE	Varchar
CP	Varchar2(15)
APDATE	Varchar2(8)
TARIKH_KEMASKINI	Date

Cleaning CP by CP


JUPEM
FIG
JUPEM2U Server
Local CP_TAB
Open CP_TAB
Raster Registration
CP_TAB
Calculate Star*Net
Fail
View StarNet Output
Change Weightage
#1
Process Editing
Check Error
Pass
#2
View Star*Net Output
Registered Image
Job Monitoring Table
Post
#1
Edit Layer Info
Add Plan, Lot, Cline
Copy Attribute Value
Copy Object
Snapping
Process Editing
#2
View Adjusted Graphic
Station Statistic
Adjusted Observation And Residuals
View Star*Net Result file
View Star*Net Output
© TemplatesWise.com

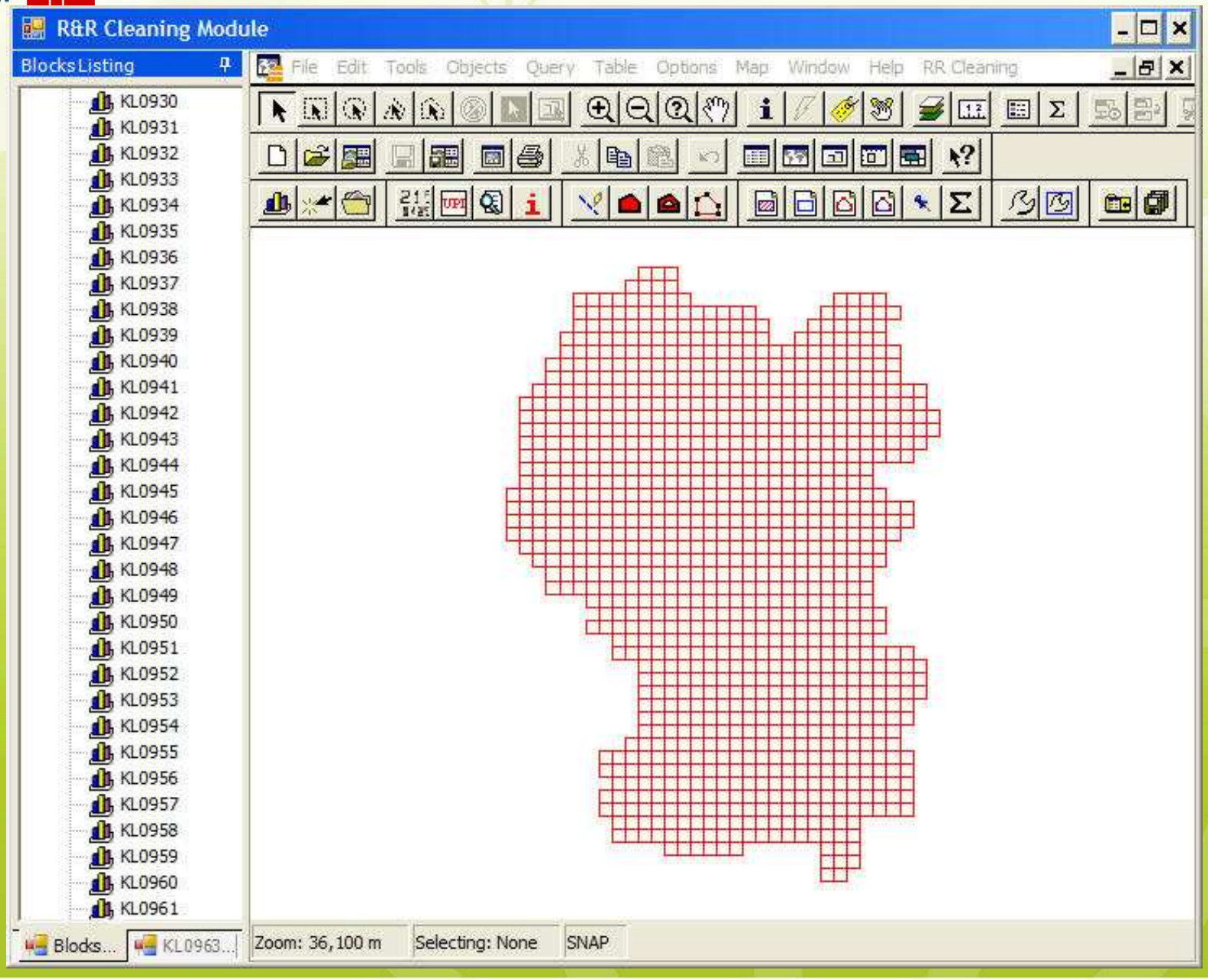
- Select Block
- Open CP either from local or from server
- Raster Registration
- Convert to Star*Net Format

	Weightage	
	Bearing (Sec)	Distance (mm)
1st Class	10	5
2nd Class(Pre-1970)	60	10
2nd Class(Post-1970)	45	10

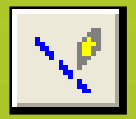
- Calculate Least Square Adjustment
- Failed
  - Change Weightage

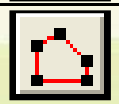
	Max(Change) Bearing (sec)
1st Class	20
2nd Class(Pre-1970)	60
2nd Class(Post-1970)	60

- Passed
  - Copy and overwrite to JUPEM2U server's CP_TAB
  - Insert to Job Monitoring Table
  - Process Editing
    - Edit Layer Info
    - Add Plan, Lot or Cline
    - Copy Attribute Value
    - Copy Object
    - Snapping

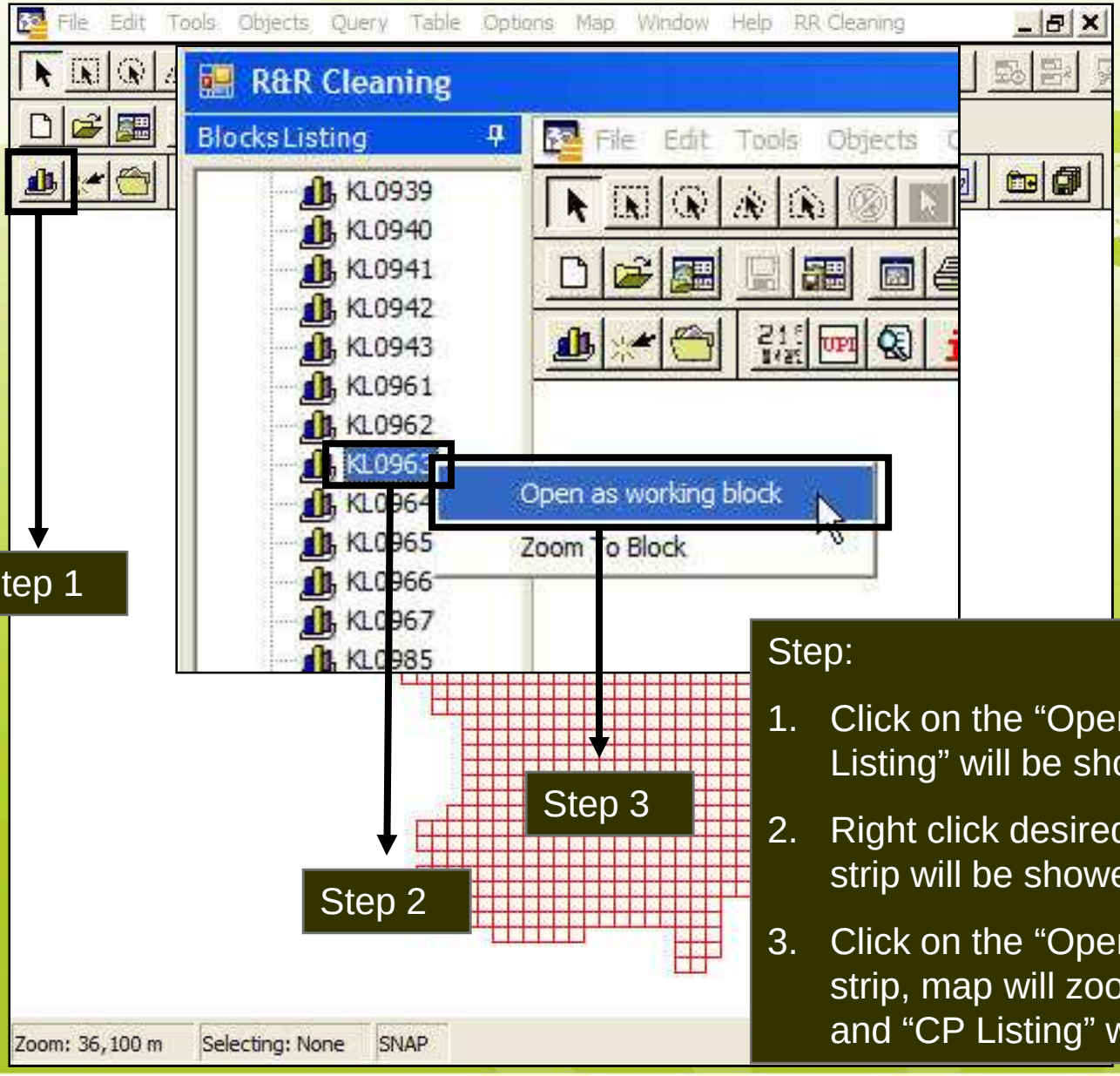


Buttons Description

No.	Button	Description
1		Open Block
2		Click Open CP
3		Open Multiple CPs
4		Raster Registration
5		UPI Recoding
6		Check Error
7		Object's Information
8		Draw Connection Line

9		Draw Lot
10		Create Island Lot or Complex Lot
11		Reshape Lot
12		Area Comparison Report
13		Lot Misclosure Report
14		Working CP Least Square Report
15		Pre_NDCDB And Working CP Least Square Report
16		Station Standard Deviation
17		Station Statistics
18		Skip Checking
19		Set Least Square Weightage
20		Post CP
21		Append Working CP to Pre_NDCDB Table

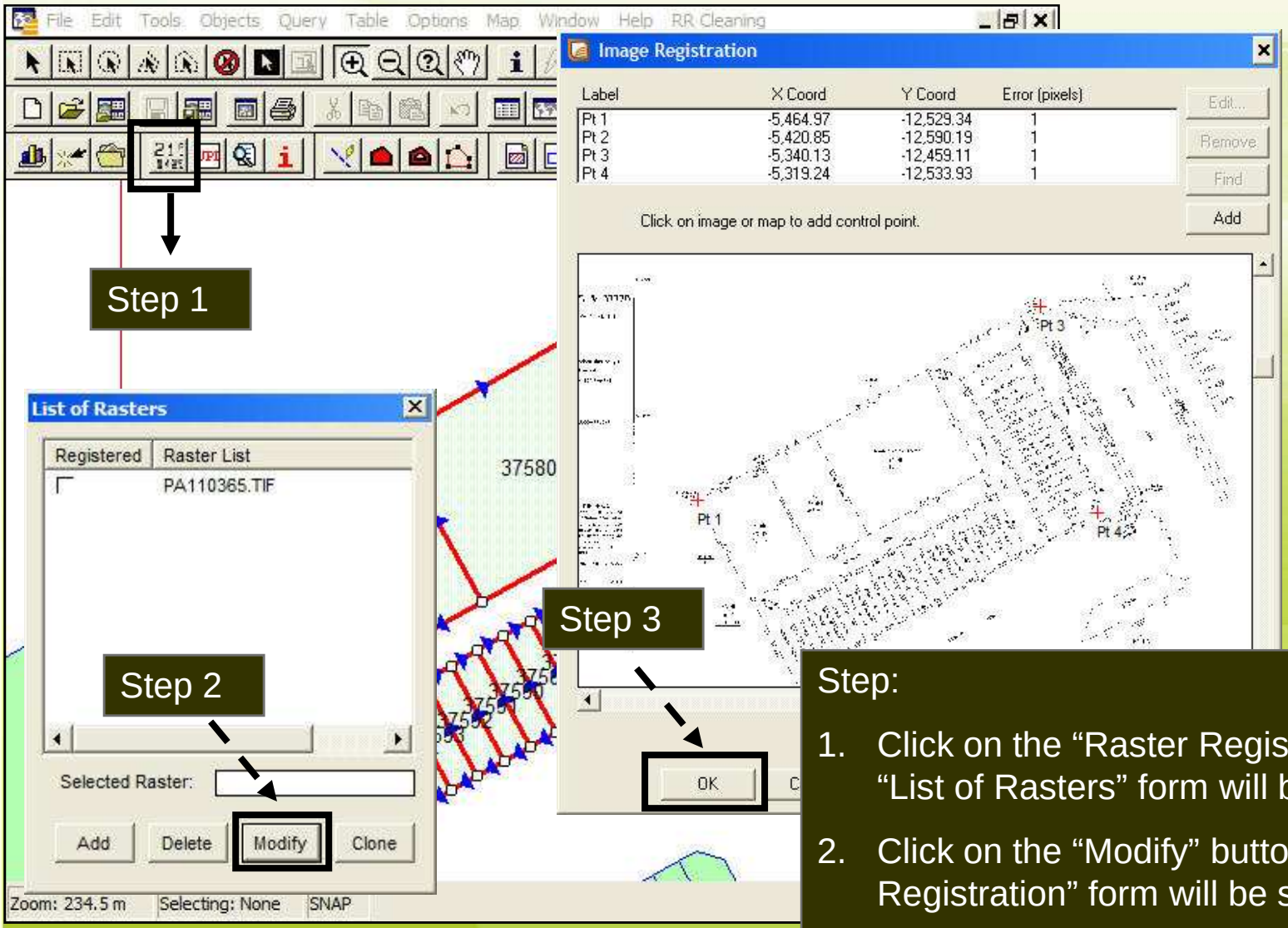
Open Block



Step:

1. Click on the “Open Block” button, “Block Listing” will be showed.
2. Right click desired Block Number, menu strip will be showed.
3. Click on the “Open as working block” menu strip, map will zoom to the particular block and “CP Listing” will be showed.

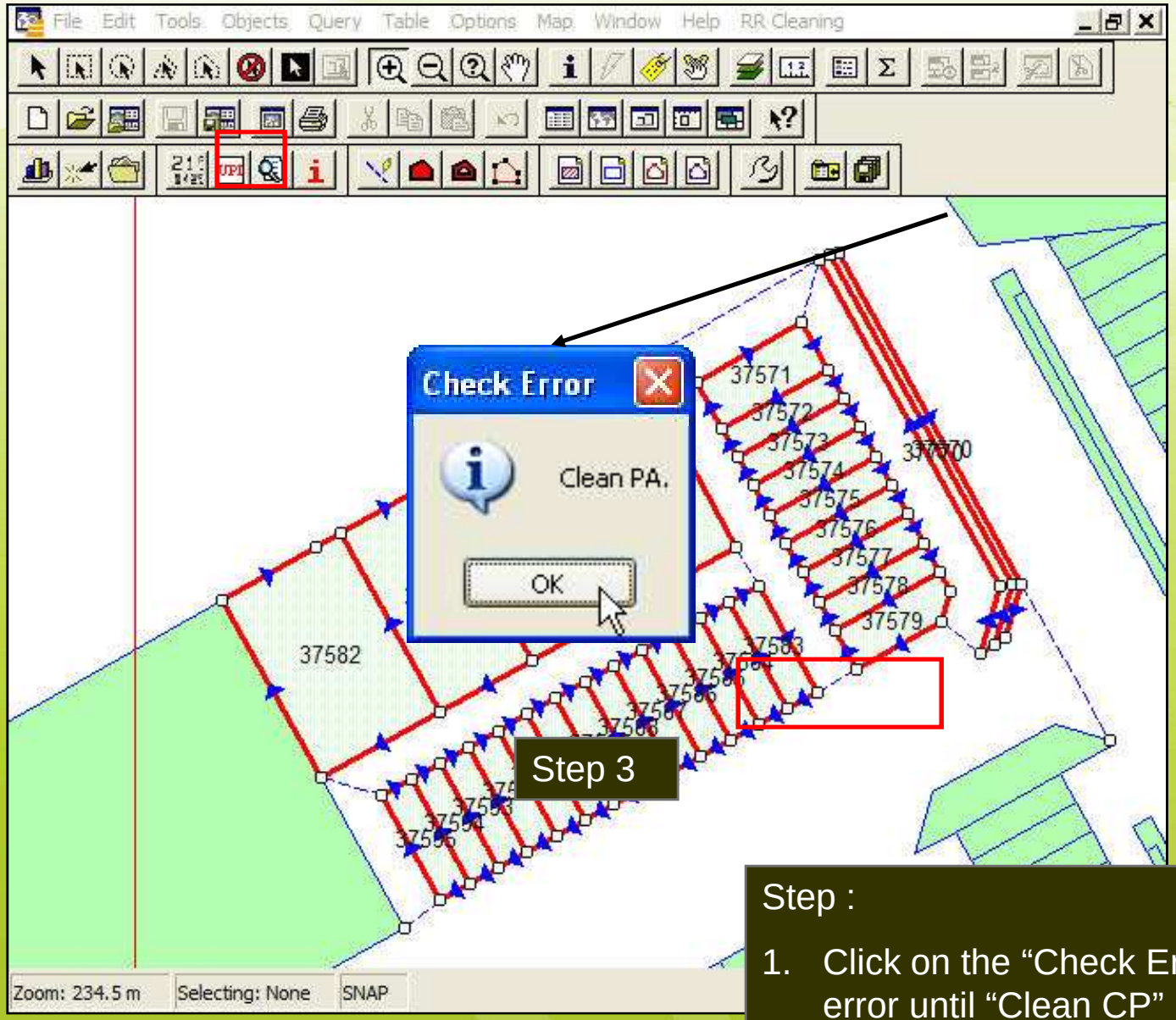
Raster Registration



Step:

1. Click on the “Raster Registration” button, “List of Rasters” form will be showed.
2. Click on the “Modify” button, “Image Registration” form will be showed.
3. Click on the “OK” button after performing Image Registration.

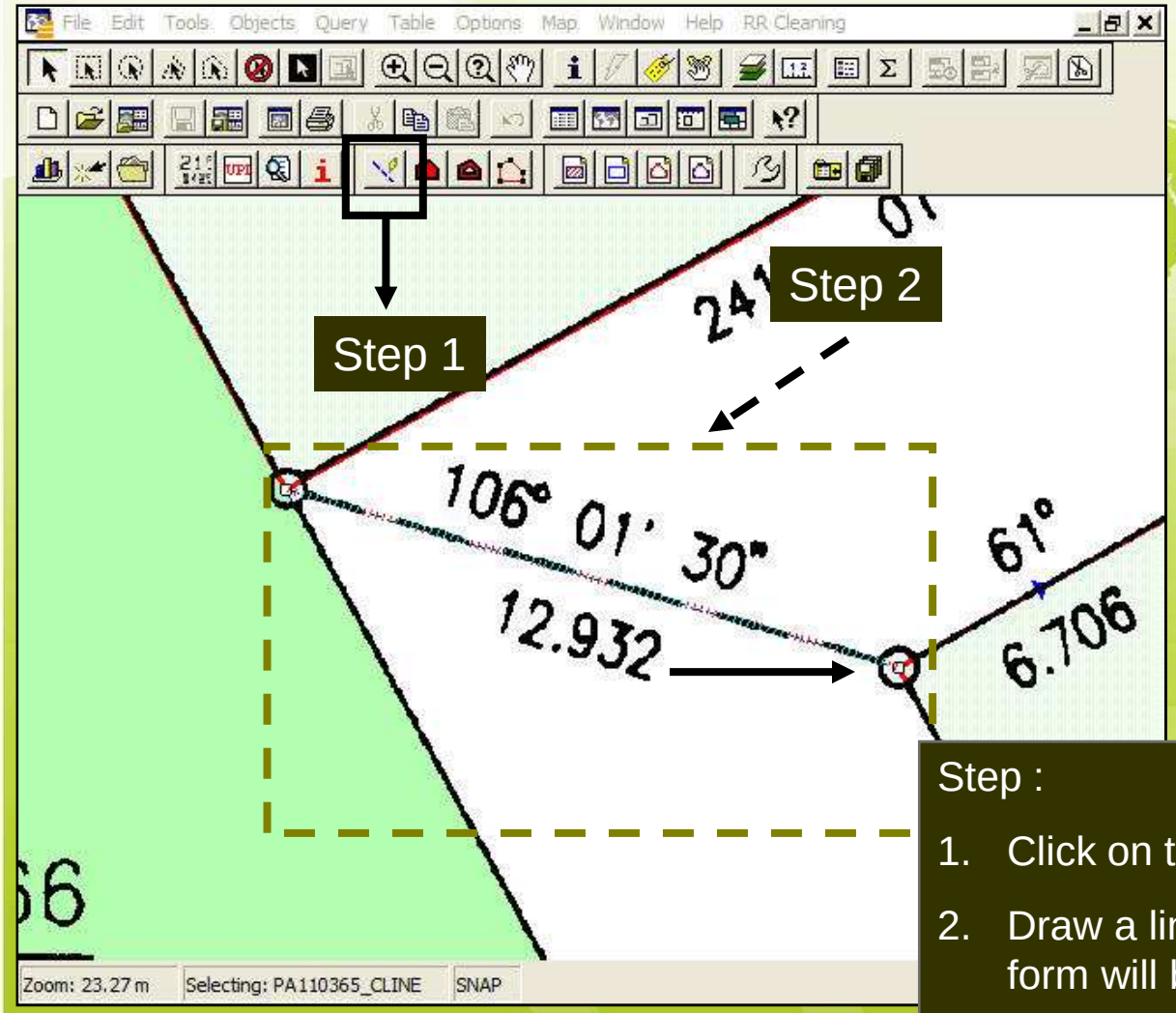
Check Error

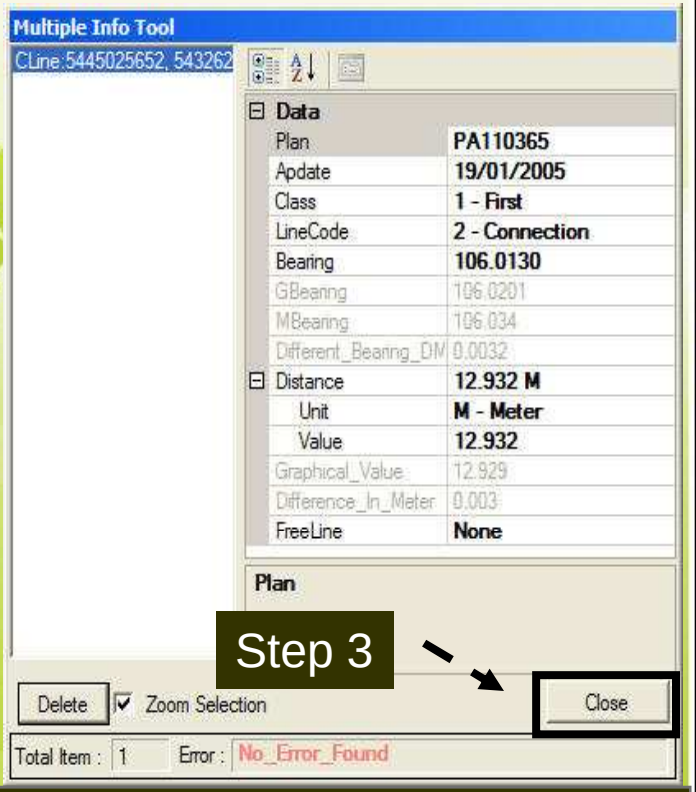


Step :

1. Click on the “Check Error” button and fix the error until “Clean CP” message box show.

Draw Connection Line

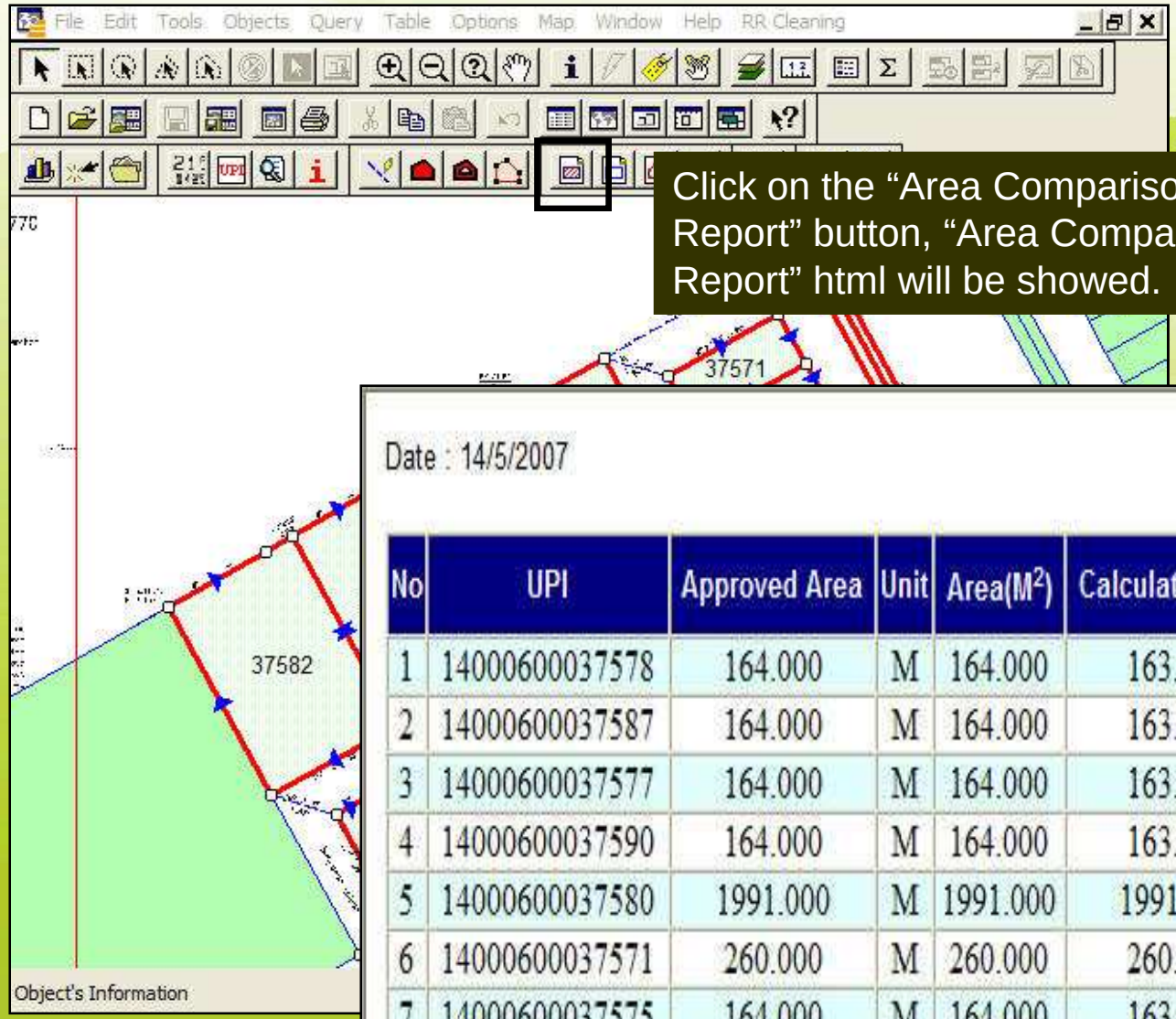




Step :

1. Click on the “Draw Connection Line” button.
2. Draw a line on the map, “Multiple Info Tool” form will be showed.
3. Fill in all the new created Connection Line’s attribute, then click on the “Close” button to proceed.

Area Comparison Report



Click on the “Area Comparison Report” button, “Area Comparison Report” html will be showed.

Date : 14/5/2007

No	UPI	Approved Area	Unit	Area(M^2)	Calculated Area	Difference (M^2)	Difference (%)
1	14000600037578	164.000	M	164.000	163.606	0.394	0.240
2	14000600037587	164.000	M	164.000	163.195	0.805	0.491
3	14000600037577	164.000	M	164.000	163.279	0.721	0.440
4	14000600037590	164.000	M	164.000	163.930	0.070	0.043
5	14000600037580	1991.000	M	1991.000	1991.299	0.299	0.015
6	14000600037571	260.000	M	260.000	260.921	0.921	0.354
7	14000600037575	164.000	M	164.000	163.402	0.598	0.365
8	14000600037586	164.000	M	164.000	163.613	0.387	0.236

Lot Misclosure Report

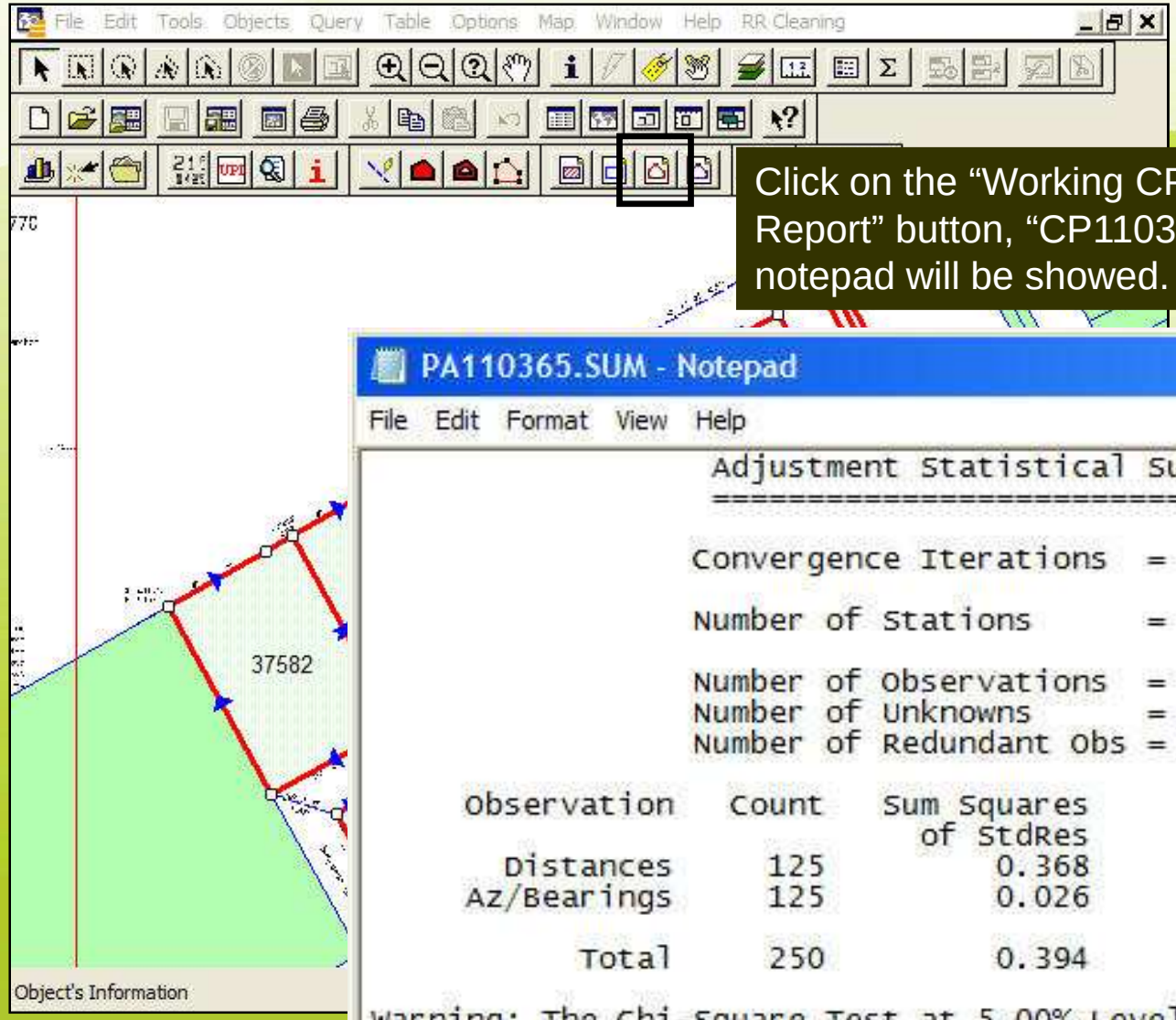
Click on the “Lot Misclosure Report” button, “Lot Misclosure Report” html will be showed.

Maklumat Jarak Dan Bearing

Tarikh : 14/05/2007

UPI	Perimeter	Luas Dilulus (m^2)	Luas Dikira (m^2)	Beza Luas (%)	Tikaian Lurus
14000600037570	181.643	162.000	162.057	0.035	1 : 181643
14000600037571	70.135	260.000	260.487	0.187	1 : Nil
14000600037572	62.180	164.000	163.532	0.285	1 : Nil
14000600037573	62.180	164.000	163.532	0.285	1 : Nil
14000600037574	62.180	164.000	163.532	0.285	1 : Nil
14000600037575	62.180	164.000	163.532	0.285	1 : Nil
14000600037576	62.180	164.000	163.532	0.285	1 : Nil

Working CP Least Square Report



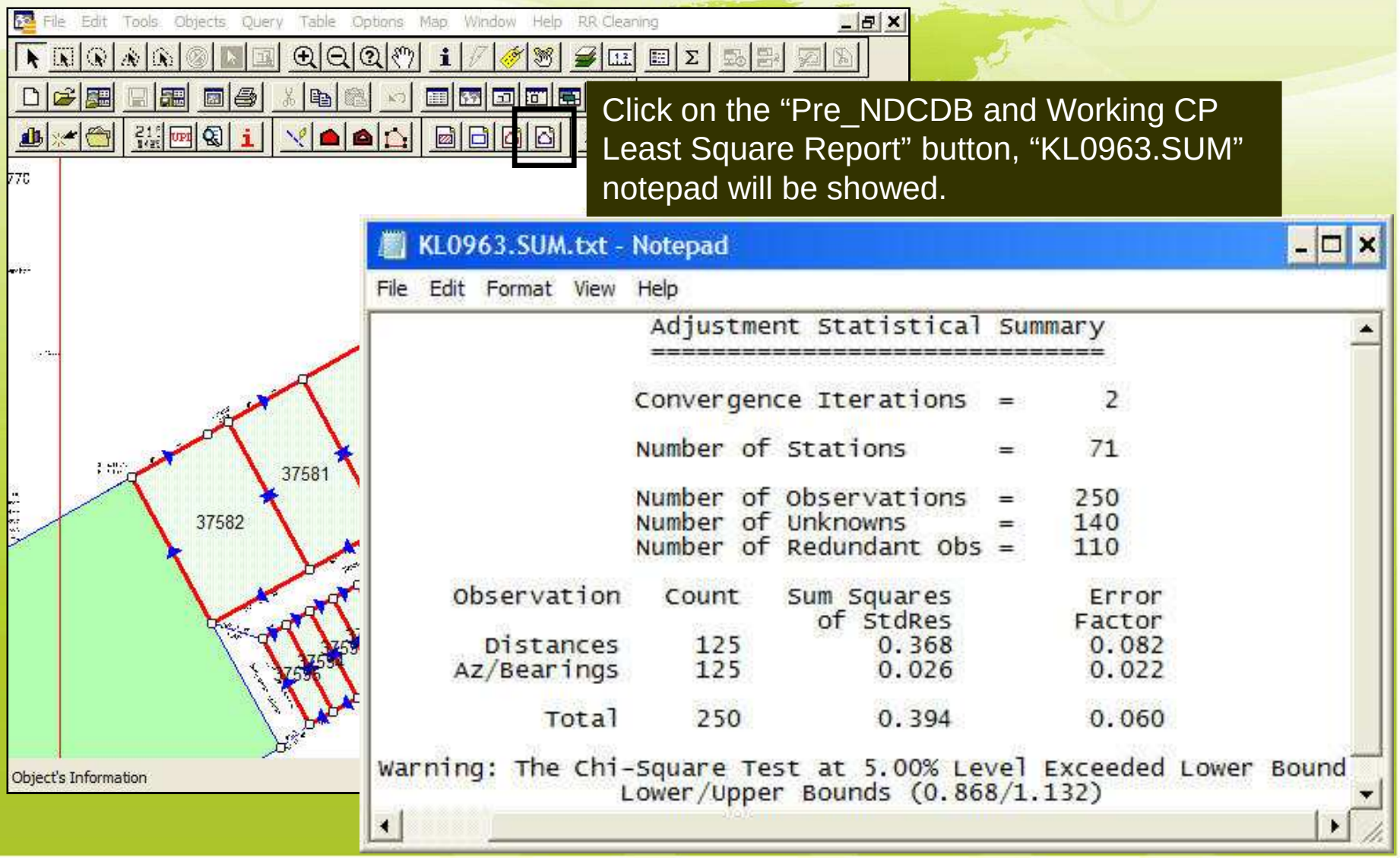
Click on the “Working CP Least Square Report” button, “CP110365.SUM” notepad will be showed.

PA110365.SUM - Notepad

File Edit Format View Help

```
                Adjustment Statistical Summary
                ==============================

                Convergence Iterations  =      2

                Number of Stations      =     71

                Number of Observations  =    250
                Number of Unknowns      =    140
                Number of Redundant Obs =    110

    Observation    Count    Sum Squares          Error
                              of StdRes         Factor
      Distances      125         0.368          0.082
    Az/Bearings      125         0.026          0.022

          Total      250         0.394          0.060

Warning: The Chi-Square Test at 5.00% Level Exceeded Lower Bound
              Lower/Upper Bounds (0.868/1.132)
```

Block and Working CP Least Square Report



??????

- **Least Square Result (Exceed Upper Bound)**

(If “Working CP Least Square Report” or “Block and Working CP Least Square Report”’s result is “Exceed Upper Bound”)

Chi-Square Result (Exceeded Upper Bound)

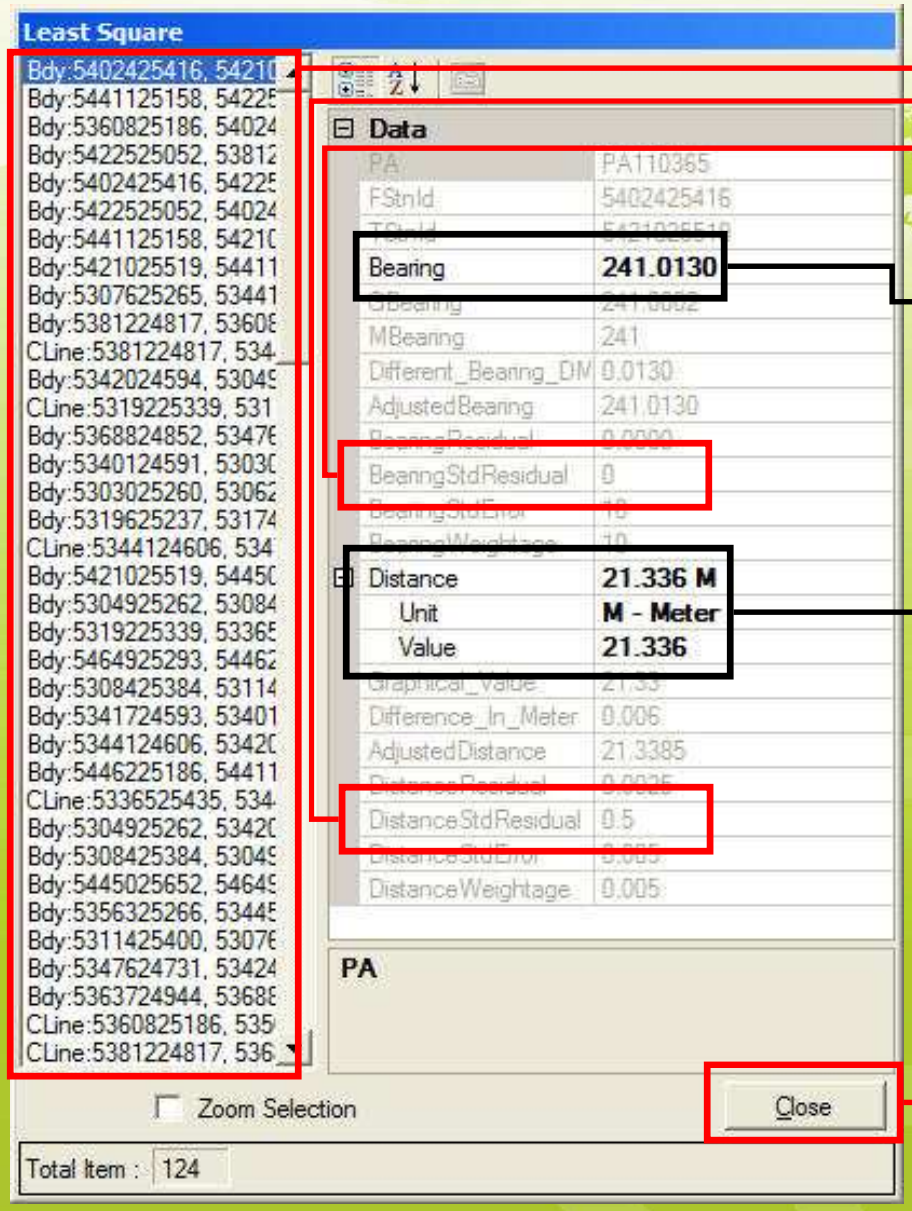
If Chi-Square “Exceeded Upper Bound”, “Least Square” form will be showed.

PA110365.SUM - Notepad

File Edit Format View Help

```
                    Adjustment Statistical Summary
                    ==============================

                  Convergence Iterations  =      3

                  Number of Stations      =     71

                  Number of Observations  =    250
                  Number of Unknowns      =    140
                  Number of Redundant Obs =    110

     Observation    Count    Sum Squares          Error
                               of StdRes         Factor
       Distances      125       676.472          3.507
    Az/Bearings       125       304.554          2.353

           Total      250       981.026          2.986

Warning: The Chi-Square Test at 5.00% Level Exceeded Upper
                 Lower/Upper Bounds (0.868/1.132)
```

Least Square Lines



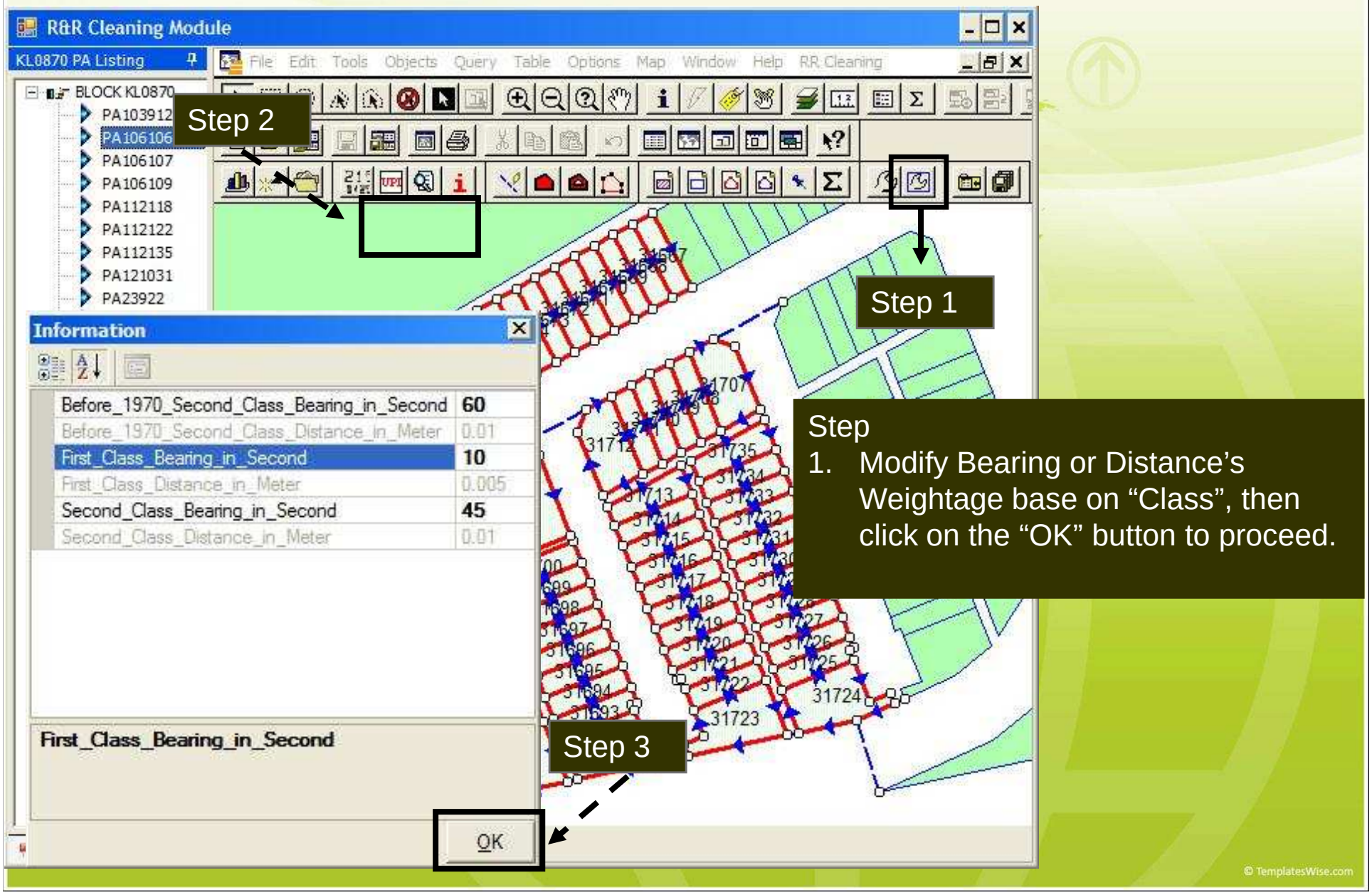
All the lines (BDYs and CLINE(s)) is/are sorted by “BearingStdResidual” and “DistanceStdResidual”.

User may need to check “Bearing” and “Distance”’s value base on Tiff had registered.

Click on “Close” button, then check again Least Square.

- **Set Least Square's Weightage**

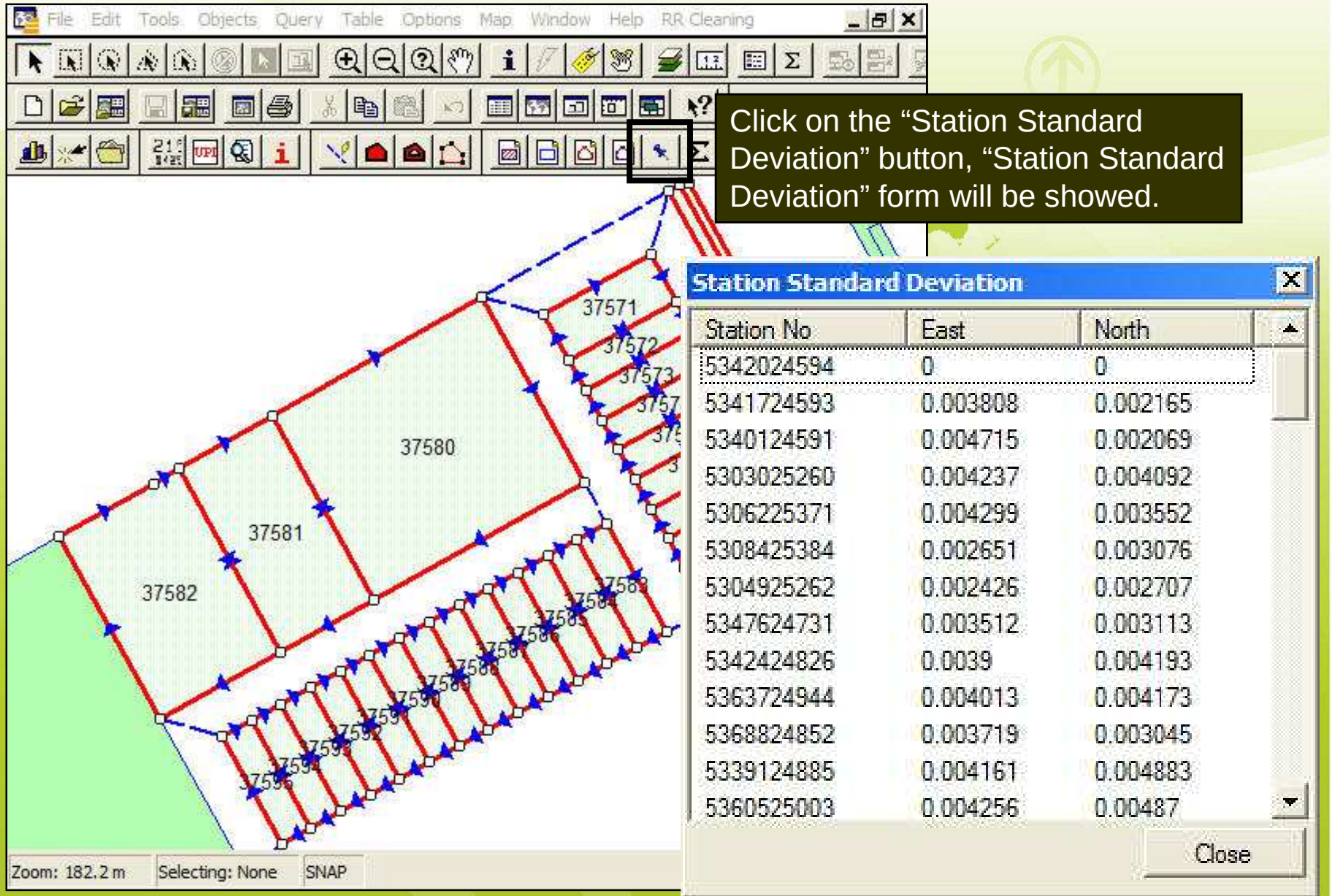
(If had been confirmed all the lines Bearing and Distance's value same as Raster, but "Working CP Least Square Report" or "Pre_NDCDB and Working CP Least Square Report"'s result is "Exceed Upper Bound")


R&R Cleaning Module
KL0870 PA Listing
BLOCK KL0870
PA103912
PA106106
PA106107
PA106109
PA112118
PA112122
PA112135
PA121031
PA23922
File Edit Tools Objects Query Table Options Map Window Help RR Cleaning
Step 2
Step 1
Information
Before_1970_Second_Class_Bearing_in_Second 60
Before_1970_Second_Class_Distance_in_Meter 0.01
First_Class_Bearing_in_Second 10
First_Class_Distance_in_Meter 0.005
Second_Class_Bearing_in_Second 45
Second_Class_Distance_in_Meter 0.01
First_Class_Bearing_in_Second
OK
Step 3
Step
1. Modify Bearing or Distance's Weightage base on "Class", then click on the "OK" button to proceed.
31723
31724

- **Station Standard Deviation**

(After “Working CP Least Square Report”’s result is “Exceed Lower Bound” or “Passed”)

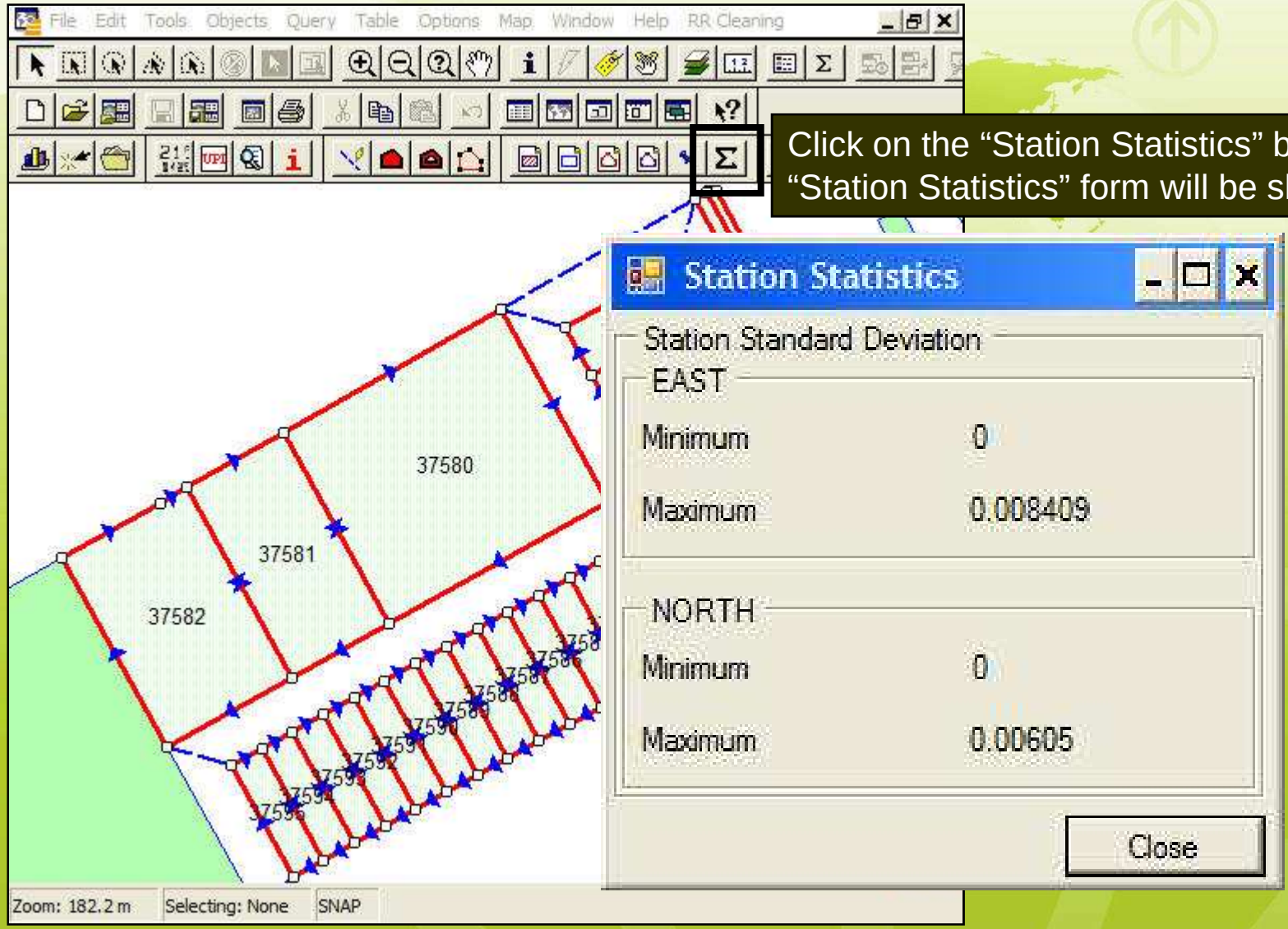
Station Standard Deviation



- **Station Statistics**

(After “Working CP Least Square Report”’s result is “Exceed Lower Bound” or “Passed”)

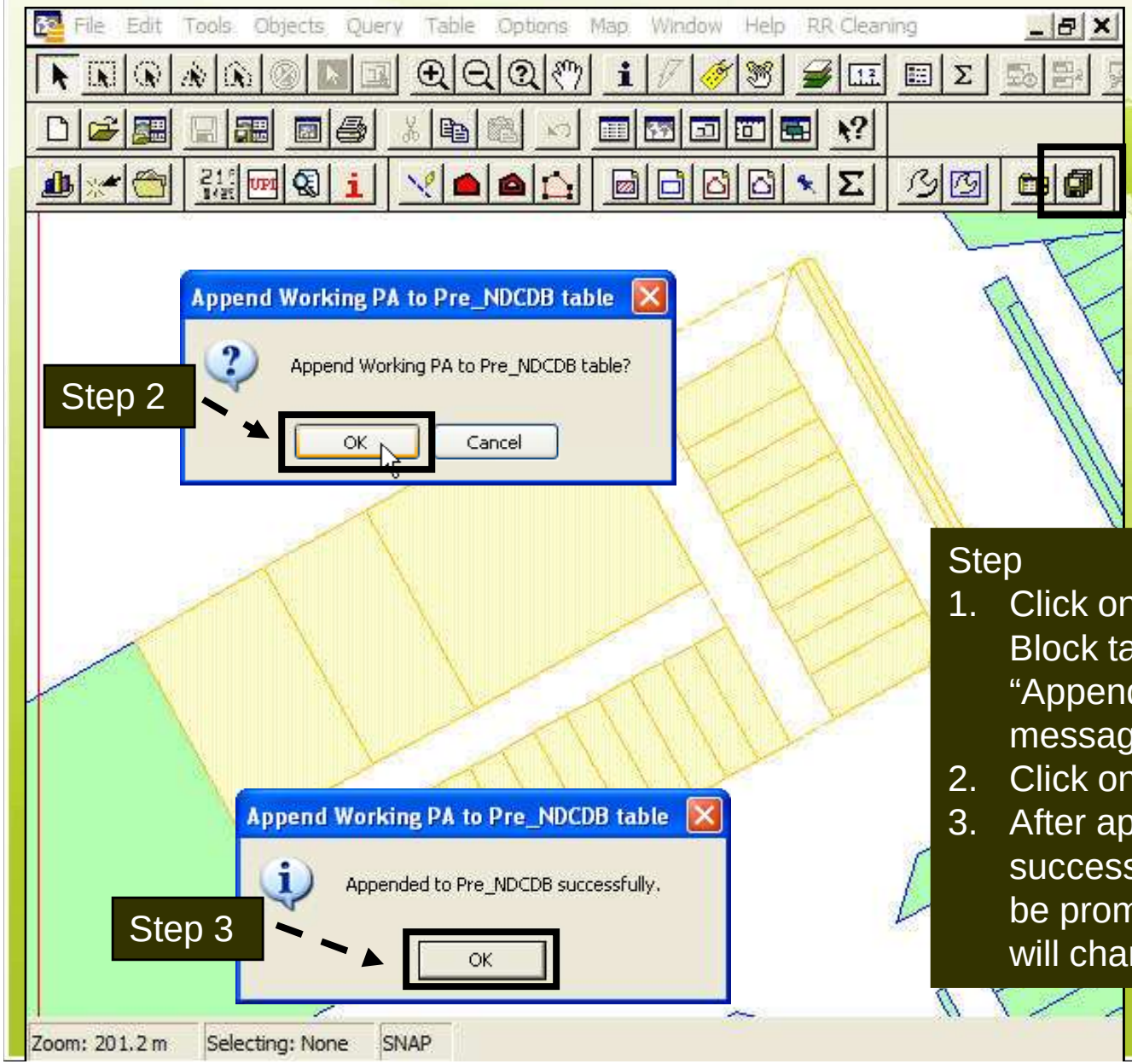
Station Statistics



- **Append Working CP to Block Table**

  (After “Working CP Least Square Report” and “Pre_NDCDB and Working CP Least Square Report”’s result are “Exceed Lower Bound” or “Passed”)

Append Working CP to Block table

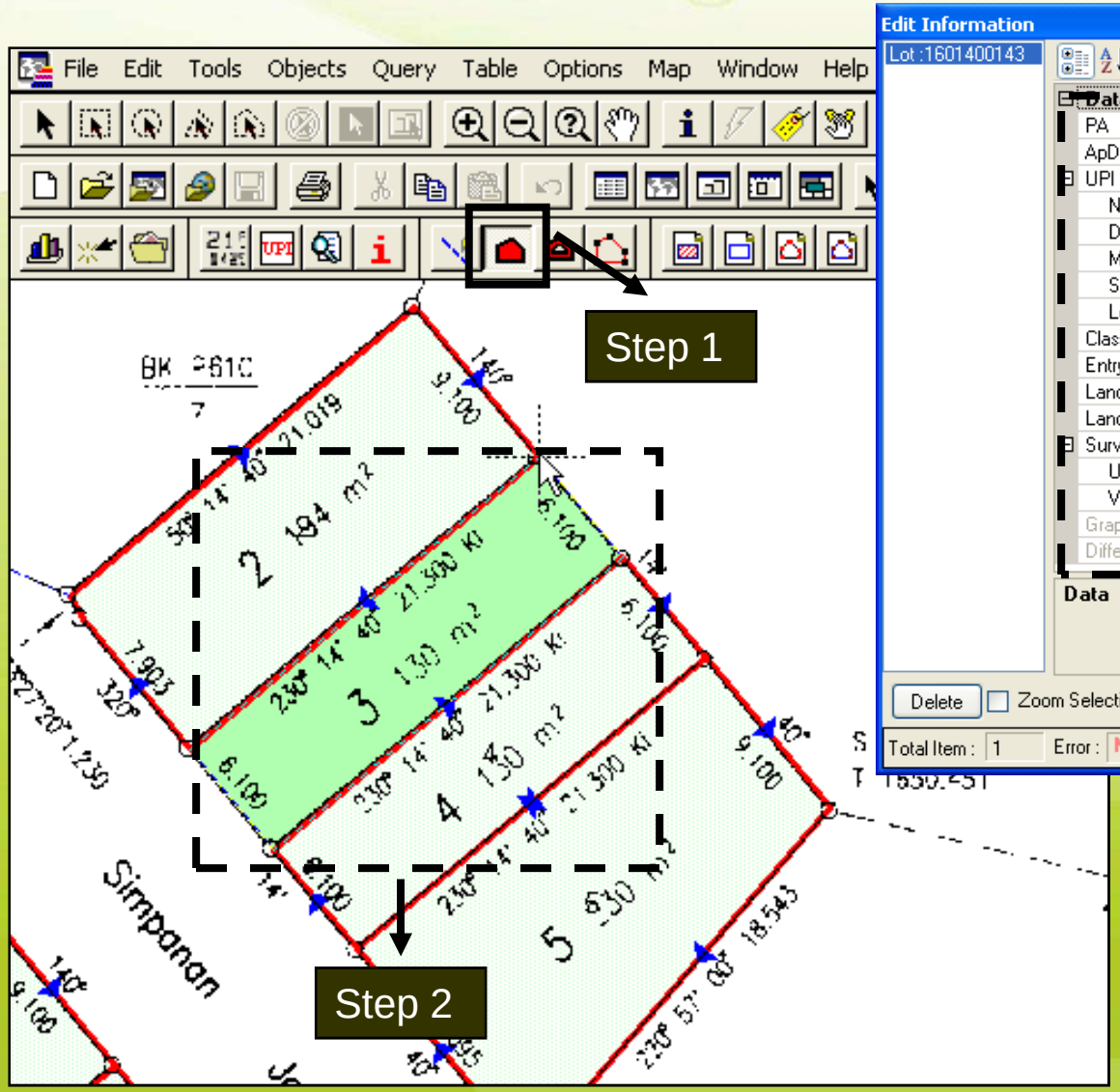


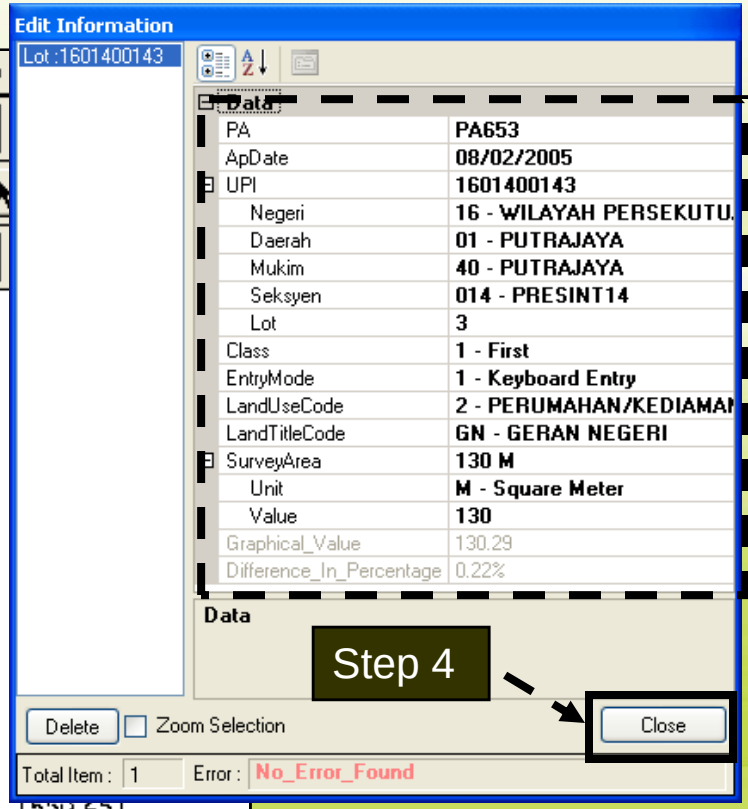
Step

1. Click on the “Append Working CP to Block table” button, confirmation “Append Working CP to Block” message box will be prompted.
2. Click on the “OK” button to proceed.
3. After appended to Block successfully, the message box will be prompted and the Objects’ color will change to yellow.

- **Draw Lot**

Draw Lot



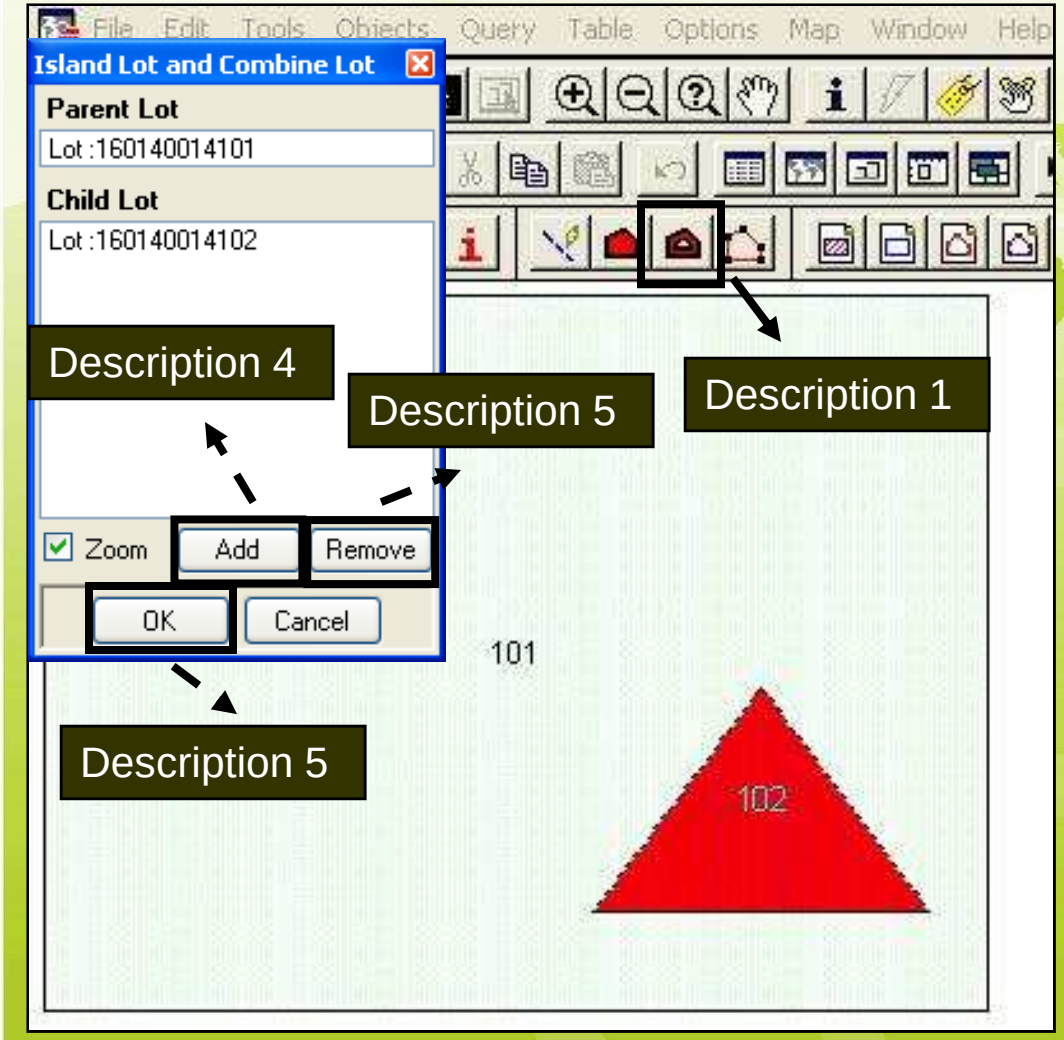


Step

1. Click on the “Draw Lot” button.
2. Draw polygon on map.
3. Key in new created Lot’s attribute.
4. Click on the “OK” button to proceed.

- **Create Island Lot or Complex Lot**

Create Island Lot or Complex Lot



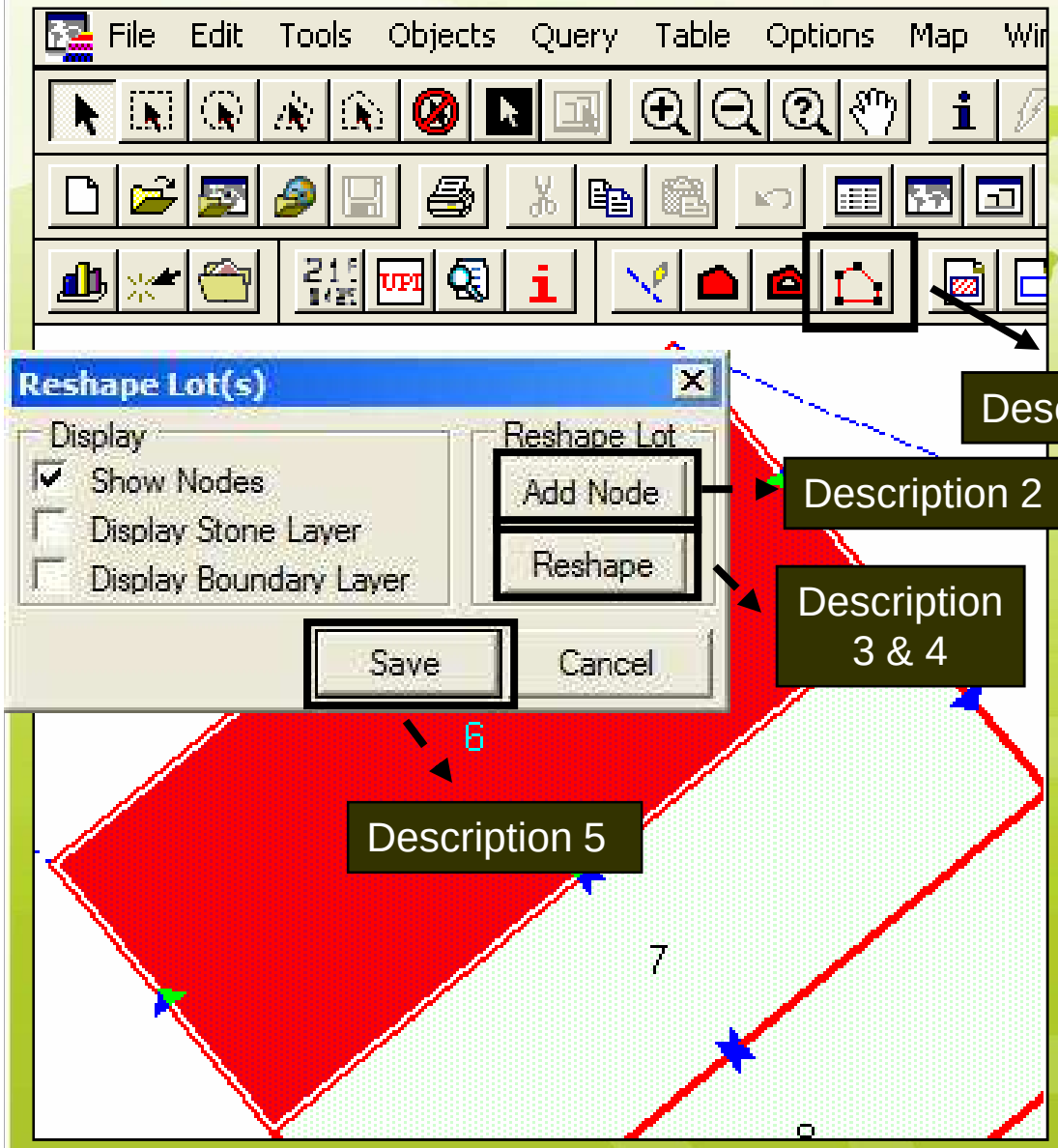
Description :

1. Click on the “Create Island Lot or Complex Lot” button, then click on the Lot (101 Lot Number’s Lot), “Island Lot and Combine Lot” form will be showed.
2. Lot 101 will be added into Parent Lot’s List.
3. Lot 102 will be added into Child Lot’s List.
4. Click on the “Add” button in “Island Lot and Combine Lot” form, then click on desired lot. The desired Lot will be added into Child Lot’s List.
5. Select desired Lot in Child Lot’s List, then click on the “Remove” button in “Island Lot and Combine Lot” form to remove the selected Child Lot from Child Lot’s List.
6. Click on the “OK” button to create island lot or combine lot base on the Parent Lot’s List and Child Lot’s List.

- **Reshape Lot**

(Add or remove lot's node)

Reshape Lot



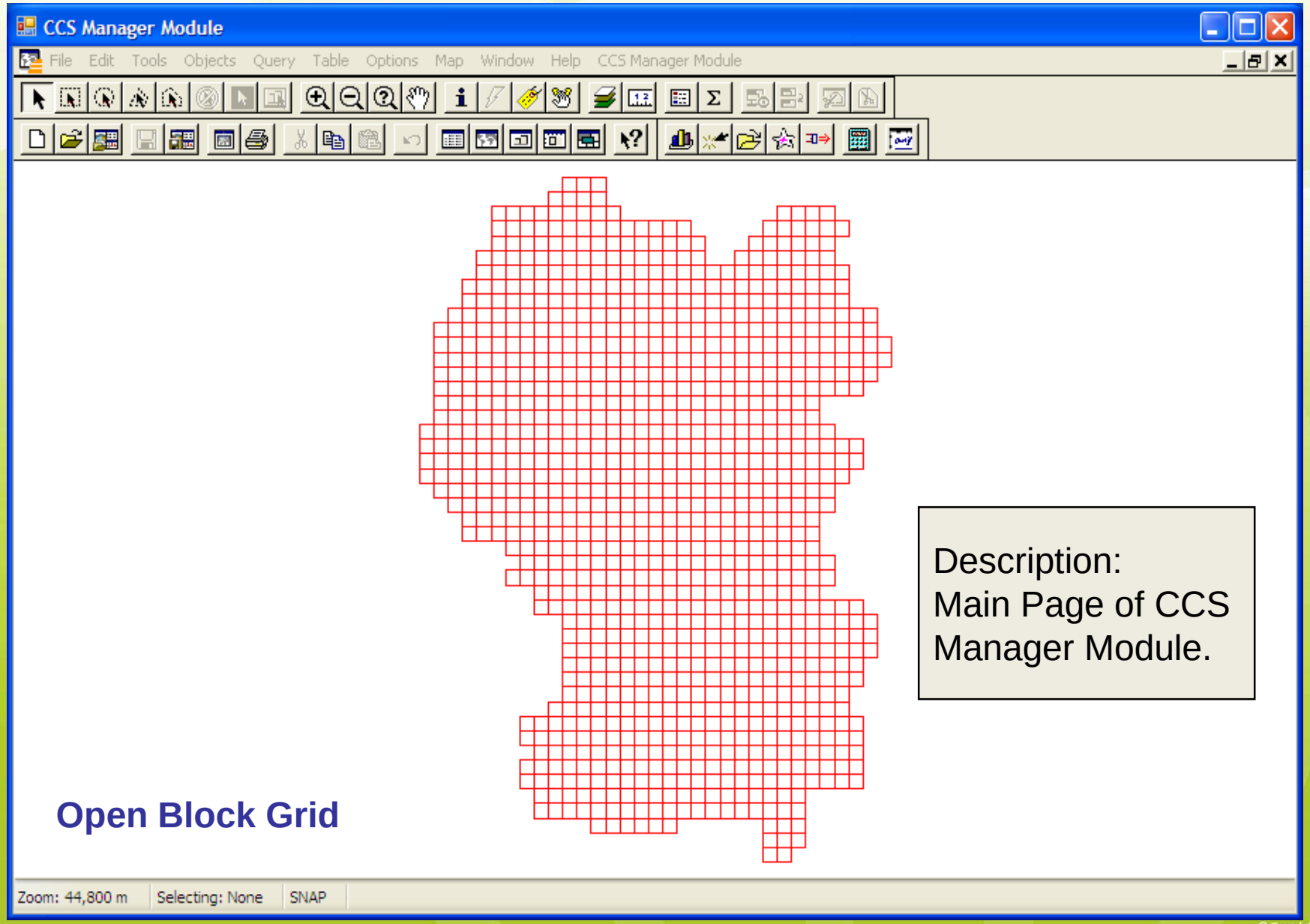
Description :

1. Select desired Lot, then click on the “Reshape Lot” button, Reshape Lot(s) form will be showed.
2. Click on the “Add Node” button, then click on Lot to add node.
3. Click on the “Reshape” button, then press “Delete” button in keyboard to remove node.
4. Click on the “Reshape” button, then use mouse to drag Lot node to shape Lot.
5. Click on the “Save” button to save modification had been made.

- **Post CP to Server**

- **Block Adjustment**

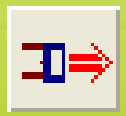
RnR BLOCK ADJUSTMENT

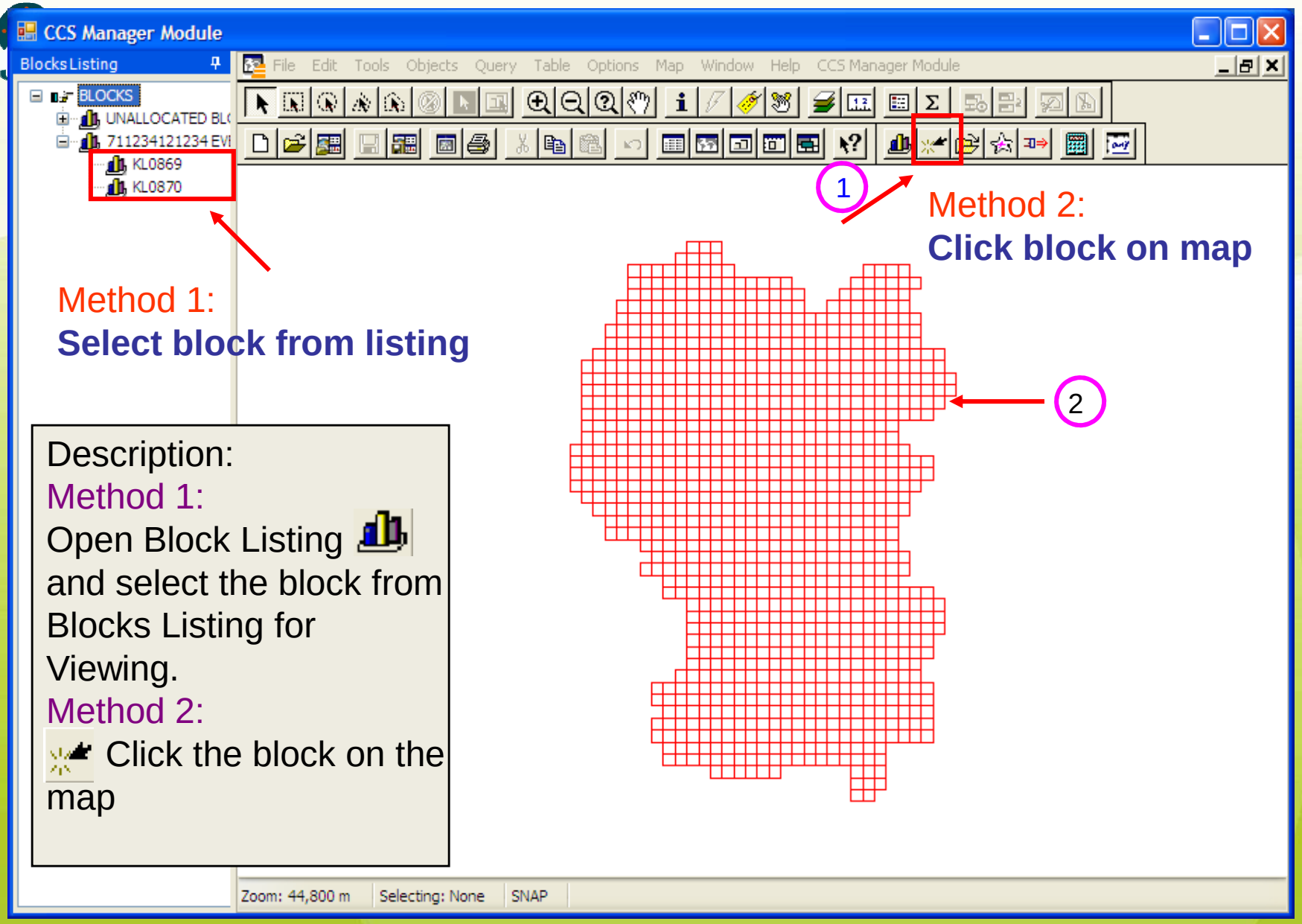


Description:
Main Page of CCS Manager Module.

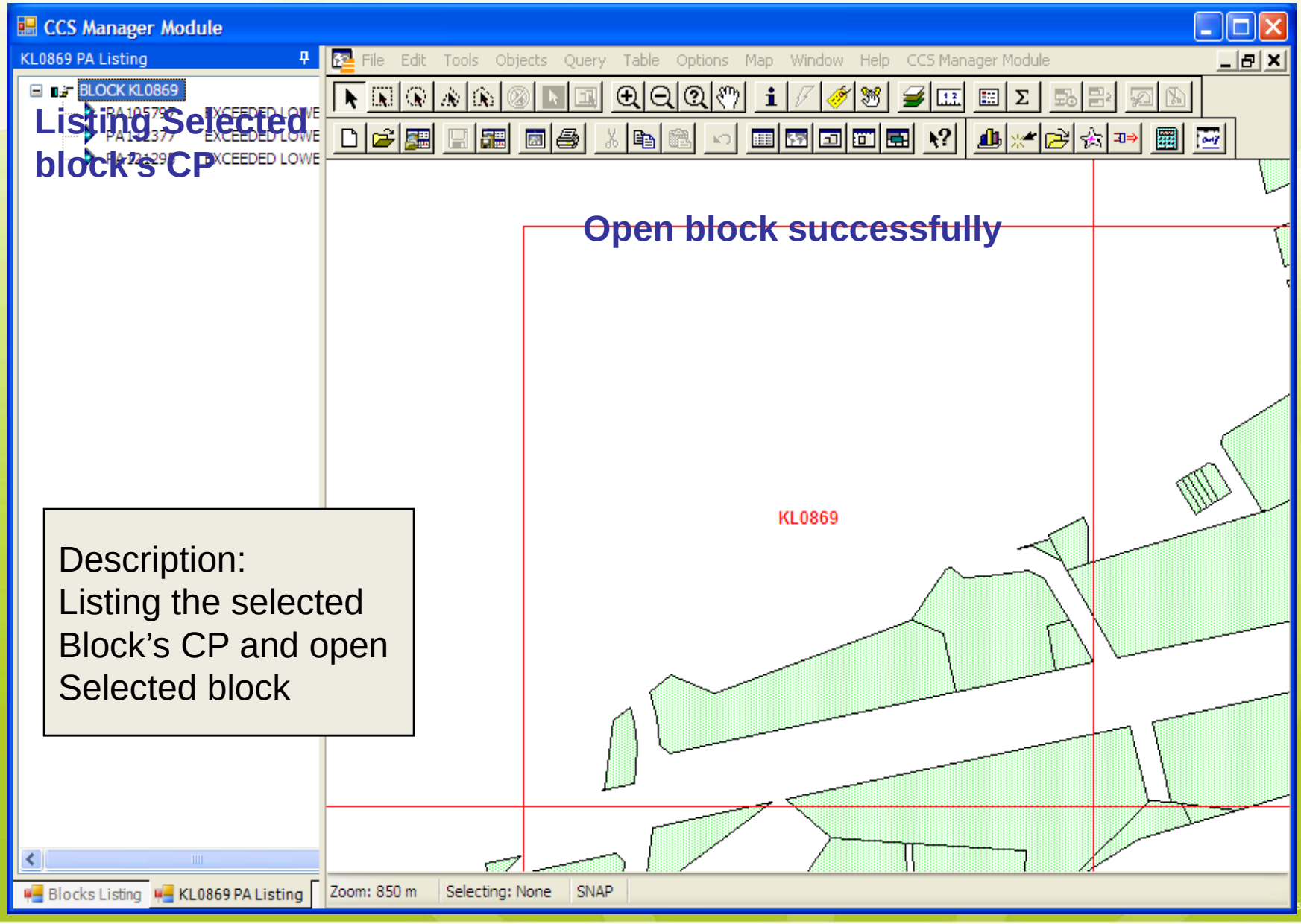
Open Block Grid

Button Description

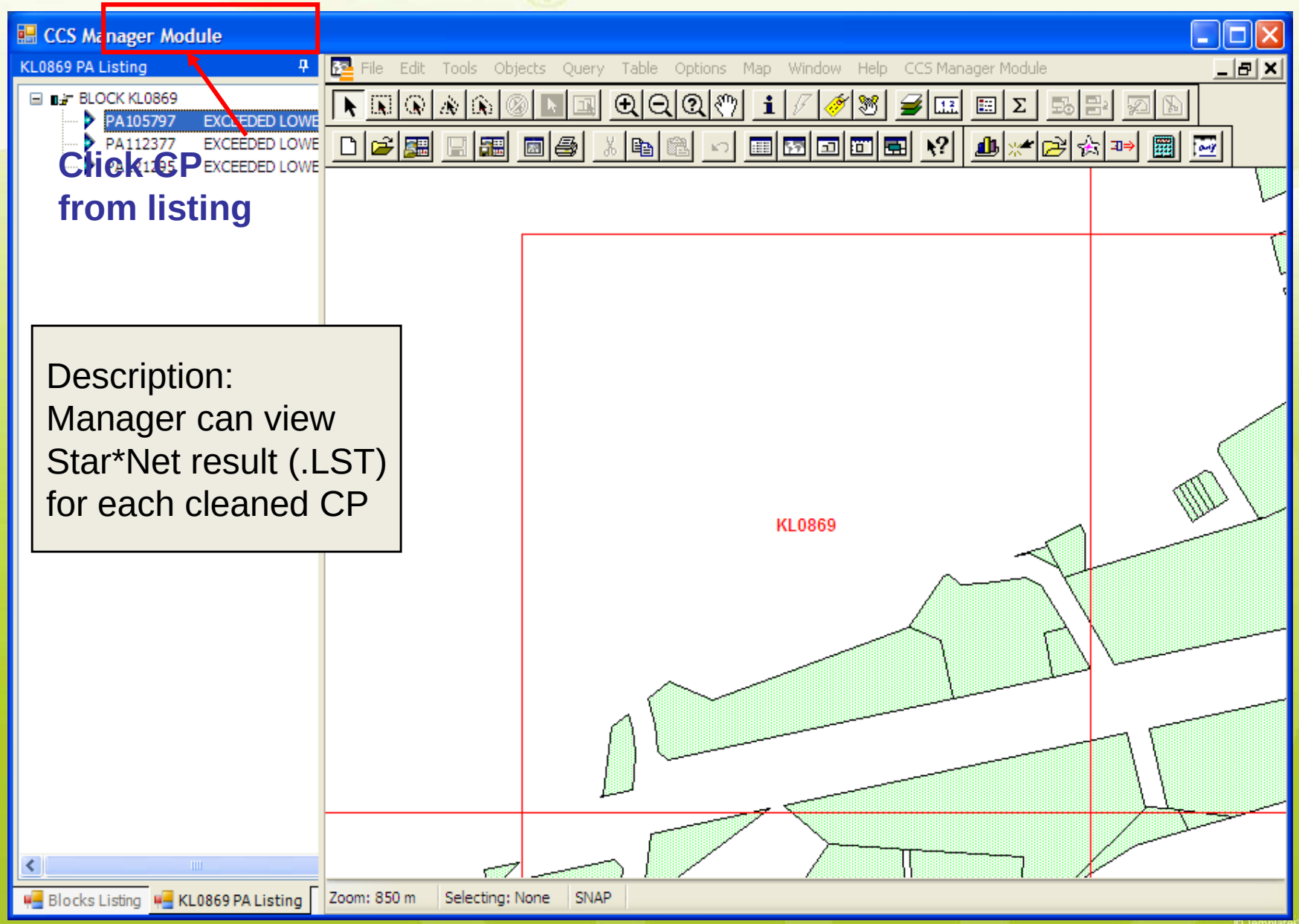
Button	Toolkit	Description
	Select Block	Open the block list and select which block to approve
	Open Block	Open block by click on map
	Open Block's Pre_NDCDB	Open block's Pre_NDCDB
	Calculate Least Square	Run Star*Net to calculate Least Square of Pre_NDCDB
	Approve	Approve Pre_NDCDB and append into Block_NDCDB
	Job Monitoring	Job Monitoring Report
	Job Assignment	Job Assignment to doer



Open Block


CCS Manager Module
KL0869 PA Listing
BLOCK KL0869
Listing Selected block's CP
File Edit Tools Objects Query Table Options Map Window Help CCS Manager Module
Open block successfully
KL0869
Description:
Listing the selected Block's CP and open Selected block
Blocks Listing
KL0869 PA Listing
Zoom: 850 m
Selecting: None
SNAP

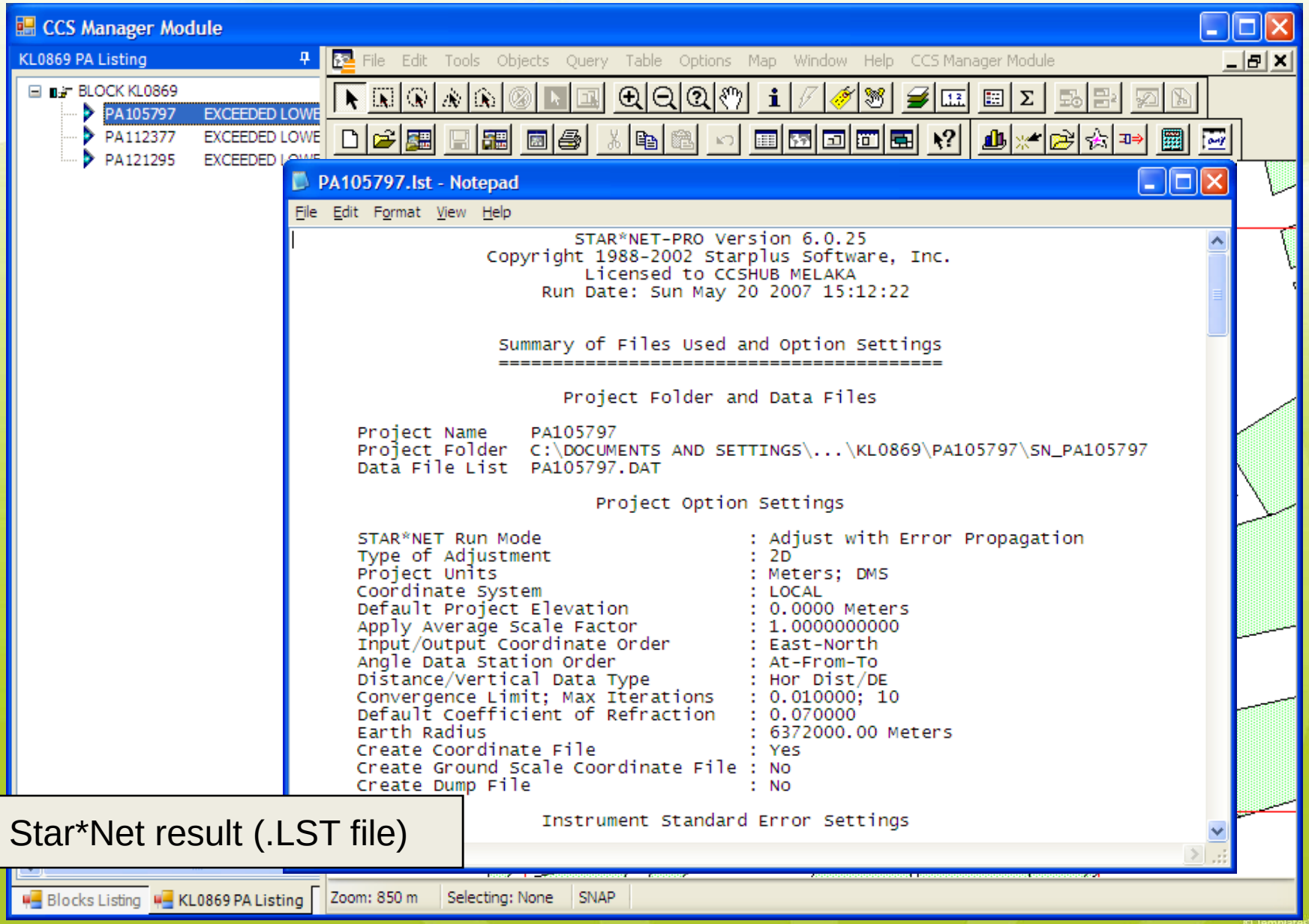
View Cleaned CP's Detailed Least Square Report



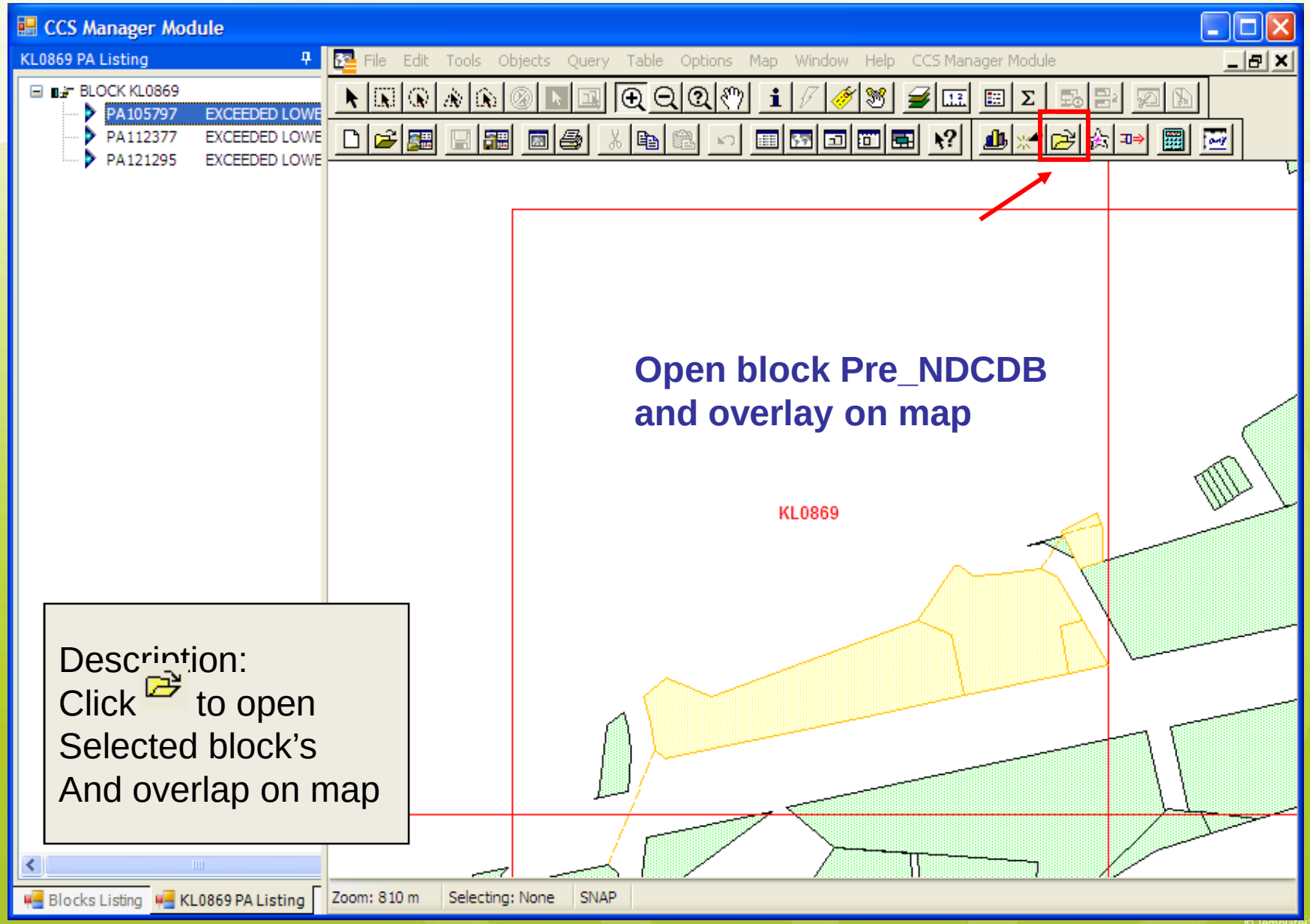
Click CP from listing

Description:
Manager can view Star*Net result (.LST) for each cleaned CP

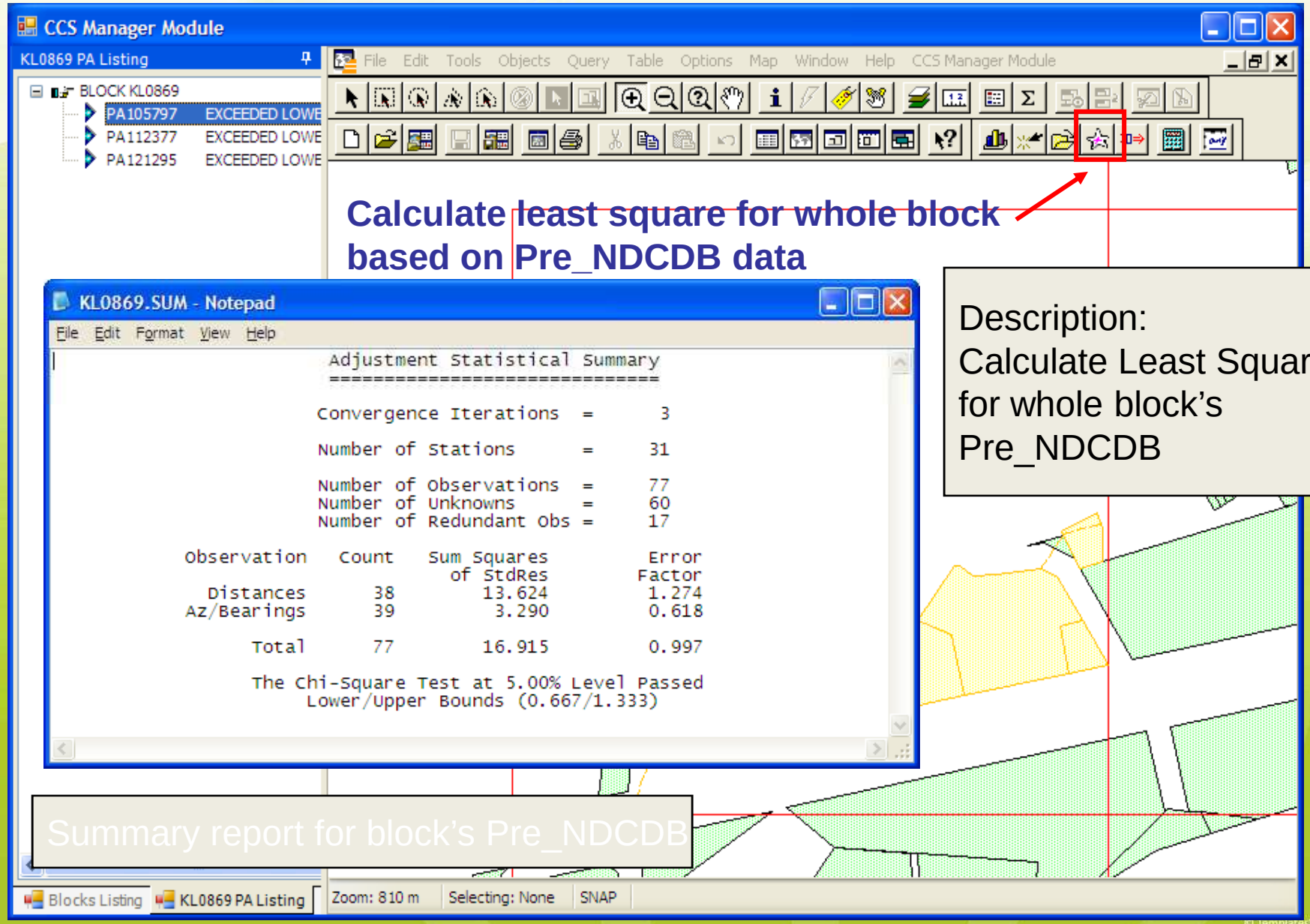
View Cleaned CP's Detailed Least Square Report



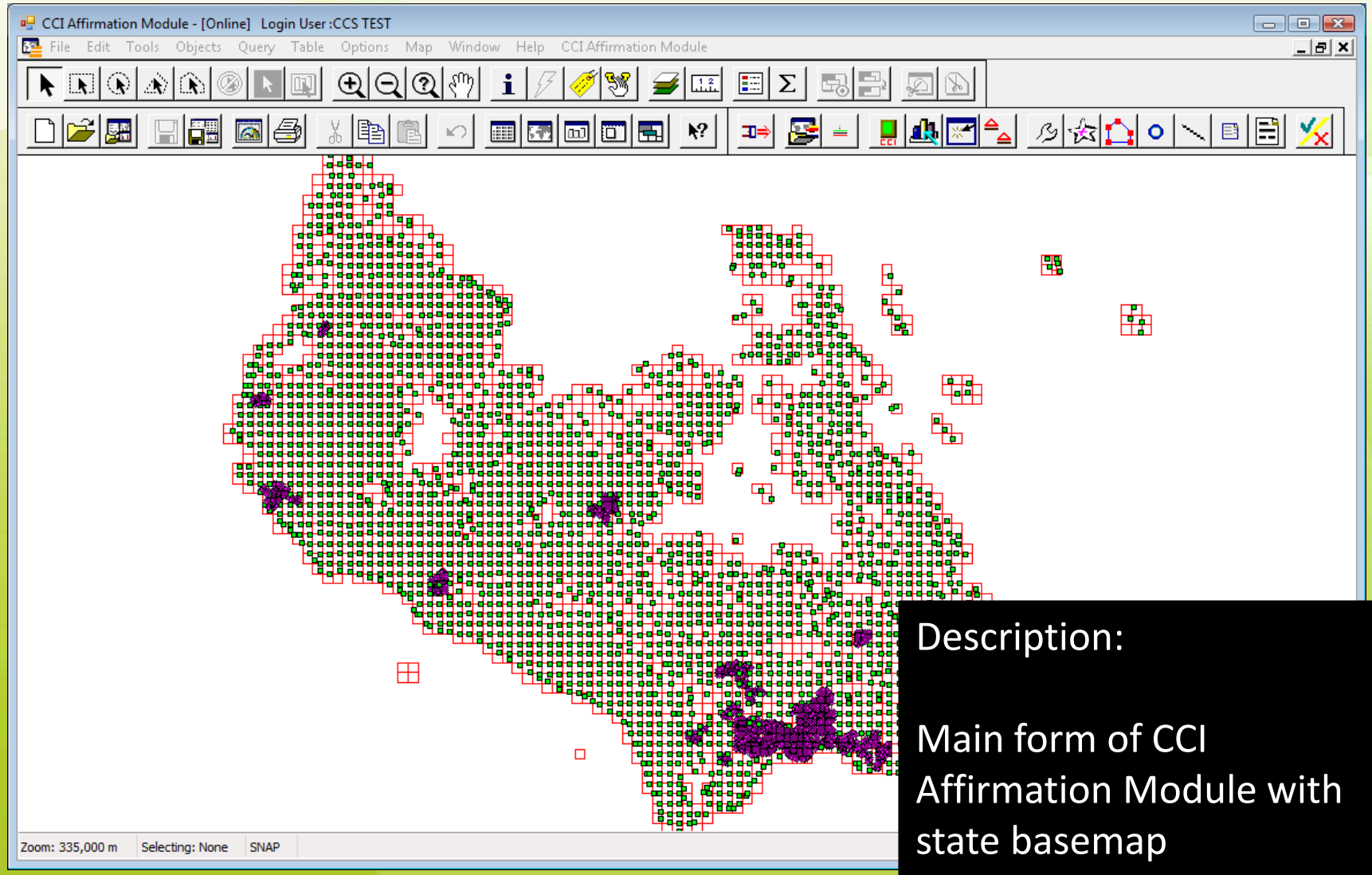
Star*Net result (.LST file)


CCS Manager Module
KL0869 PA Listing
BLOCK KL0869
PA105797 EXCEEDED LOWE
PA112377 EXCEEDED LOWE
PA121295 EXCEEDED LOWE
File Edit Tools Objects Query Table Options Map Window Help CCS Manager Module
Open block Pre_NDCDB
and overlay on map
KL0869
Description:
Click to open
Selected block's
And overlap on map
Blocks Listing
KL0869 PA Listing
Zoom: 810 m
Selecting: None
SNAP

Calculate least square for whole block



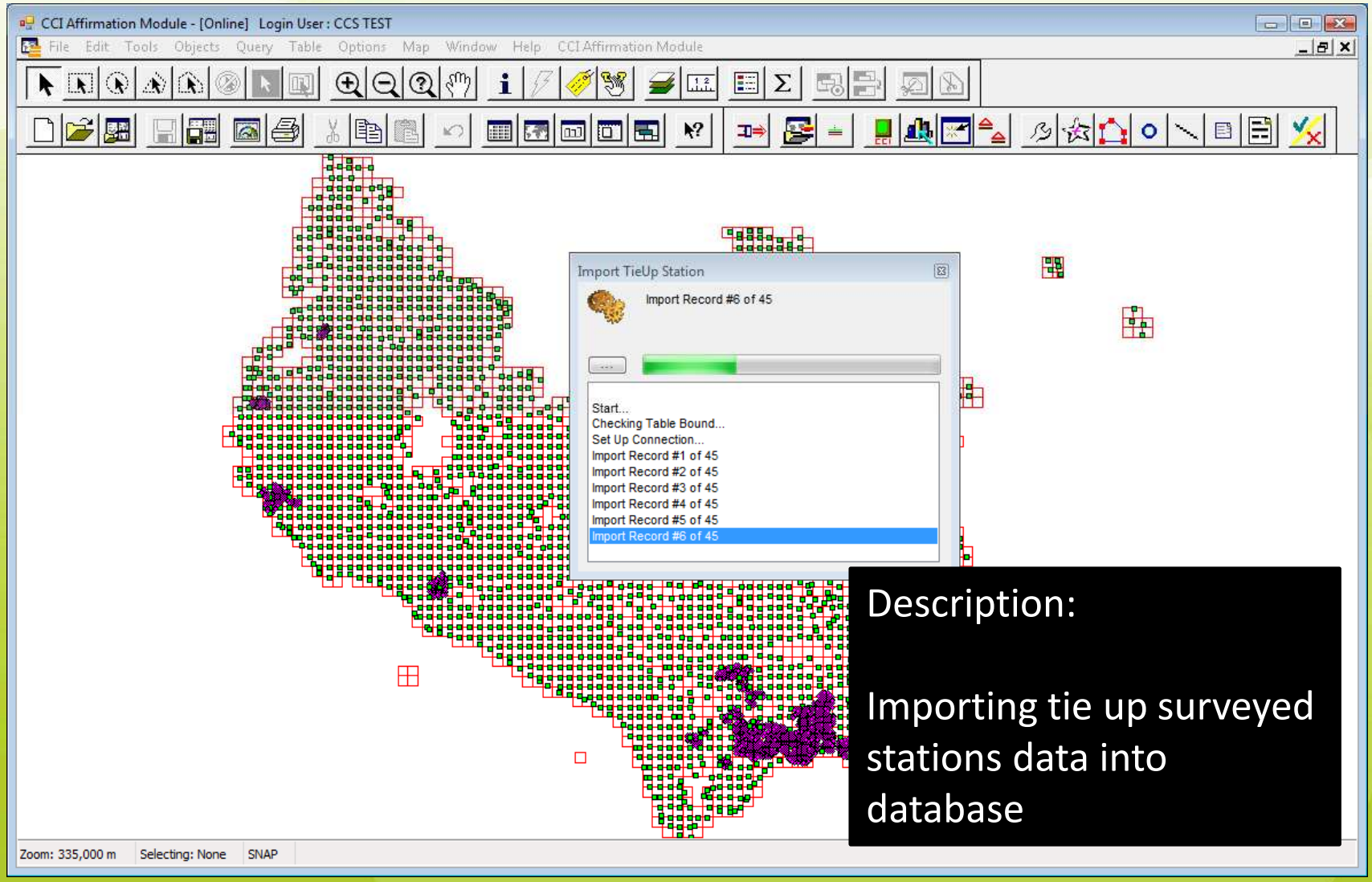
CCI Affirmation



Description:

Main form of CCI Affirmation Module with state basemap

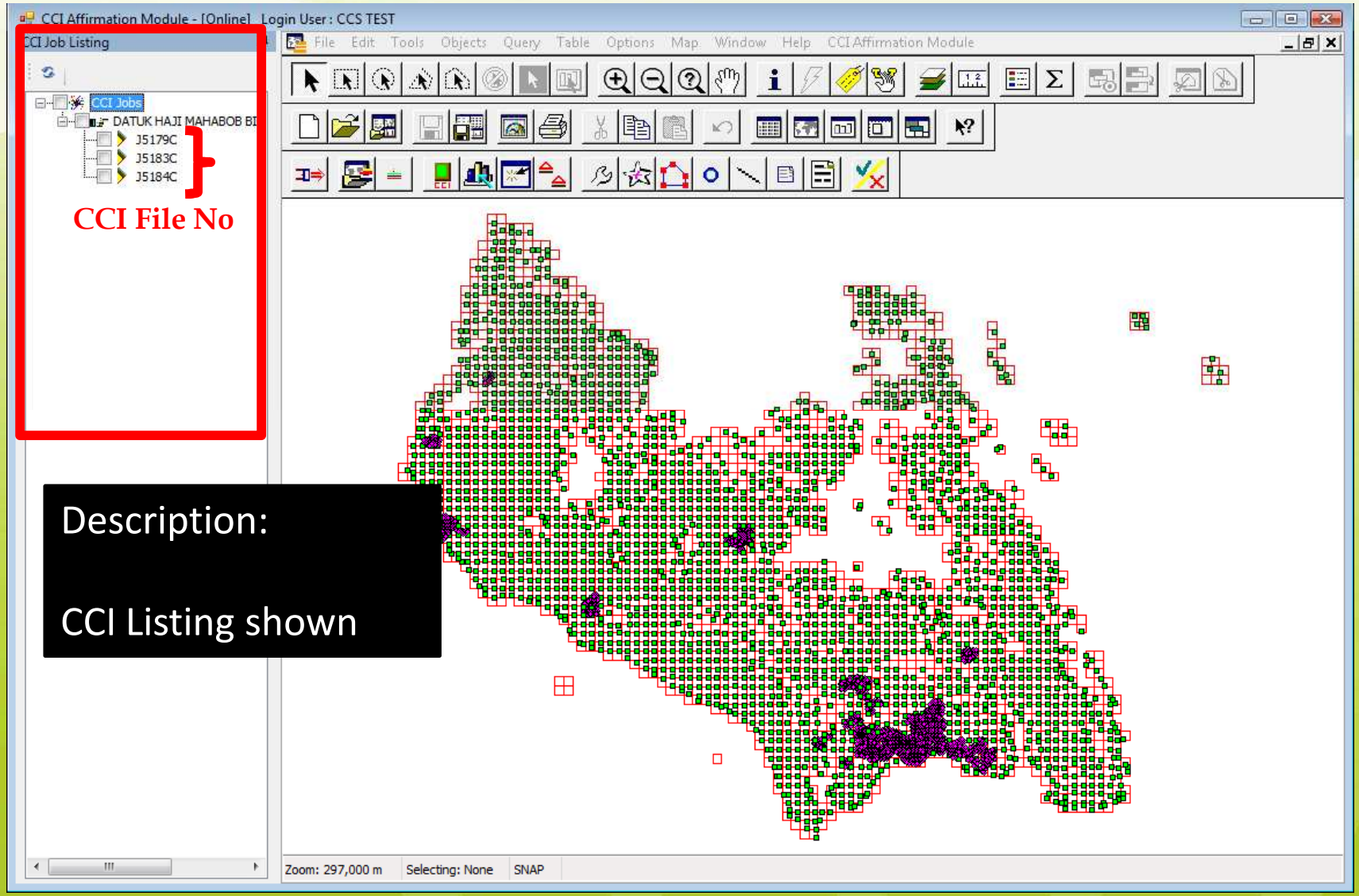
Import Tie Up Data



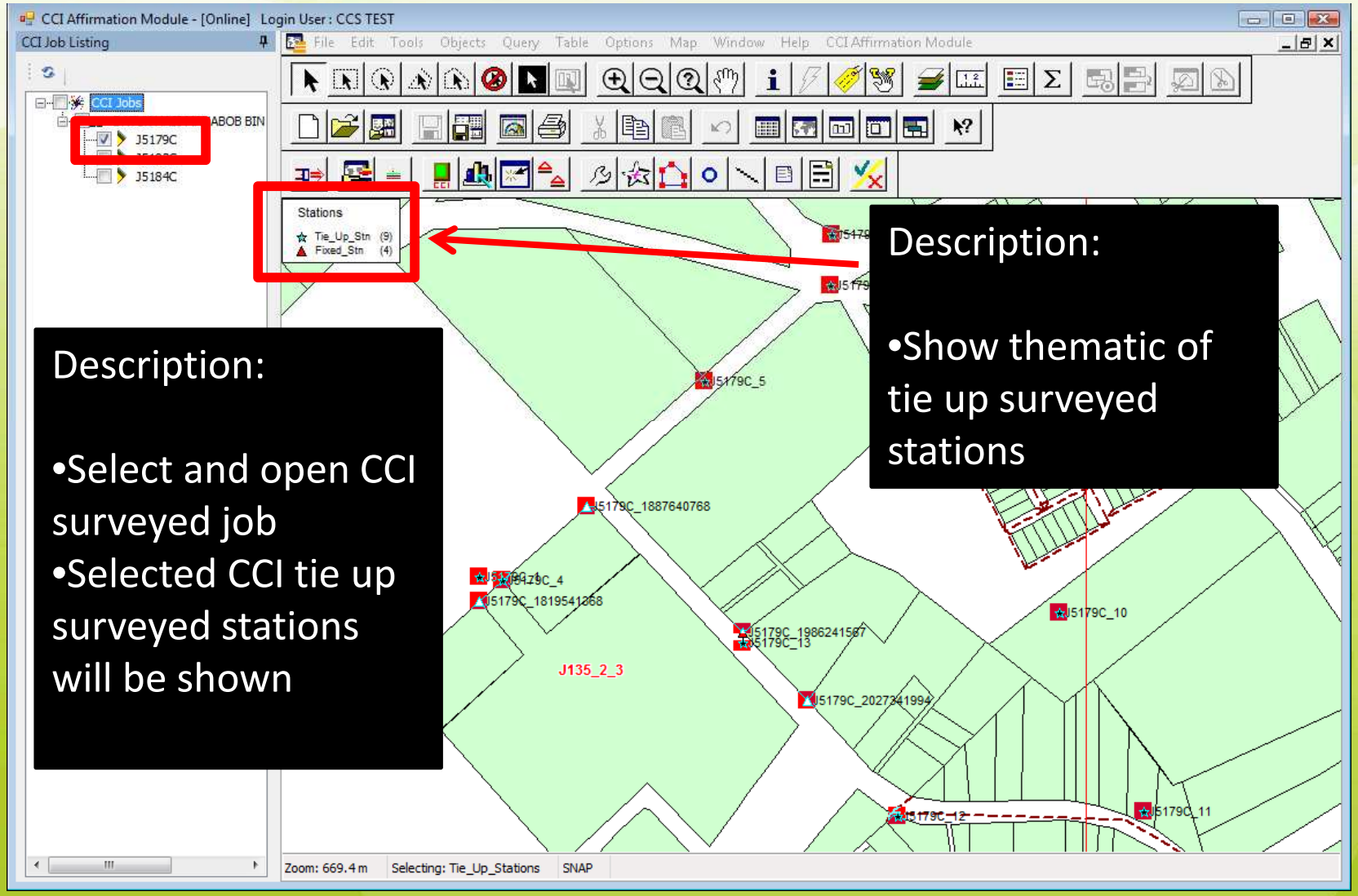
Description:

Importing tie up surveyed stations data into database

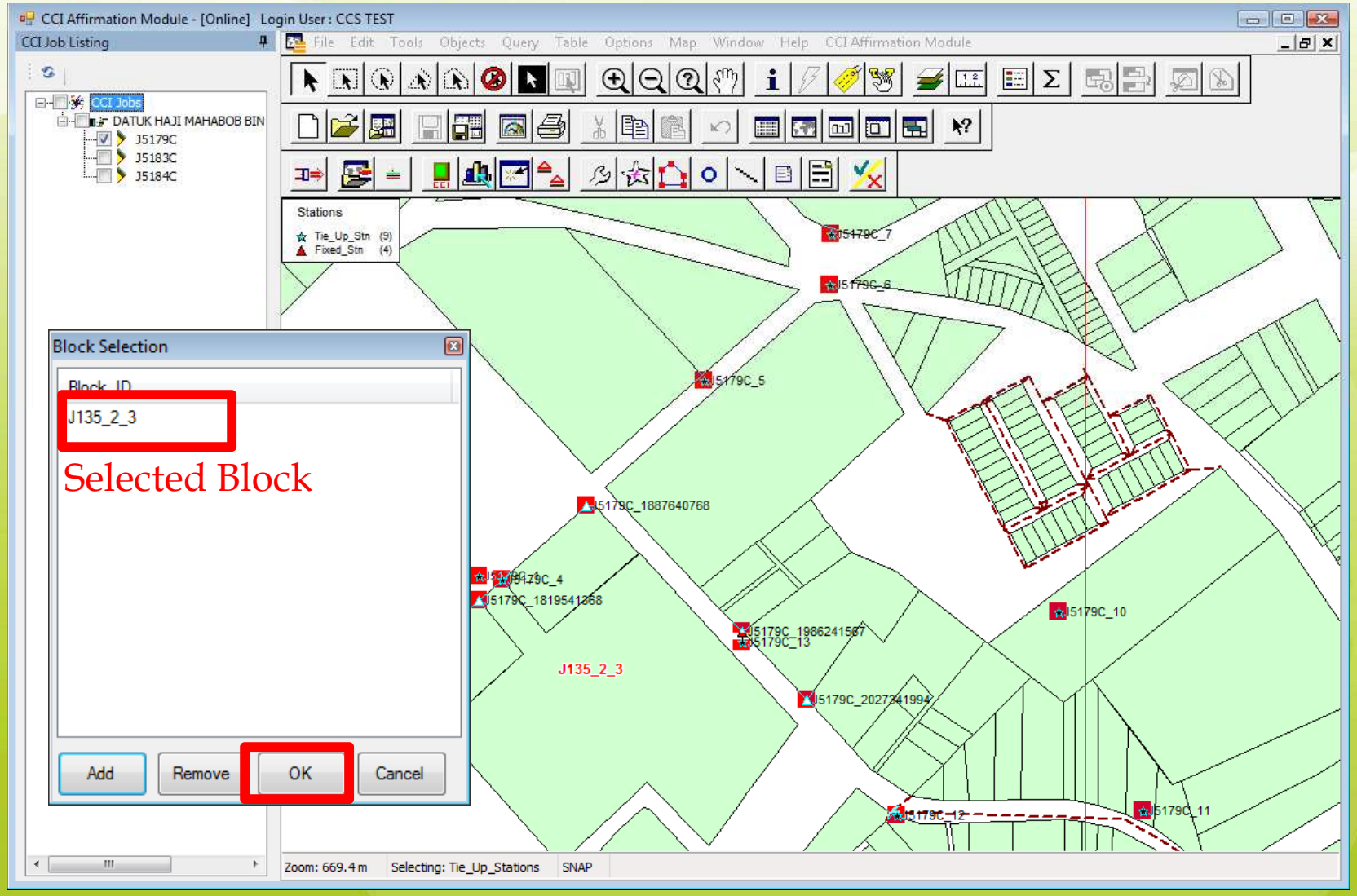
Open CCI Lists



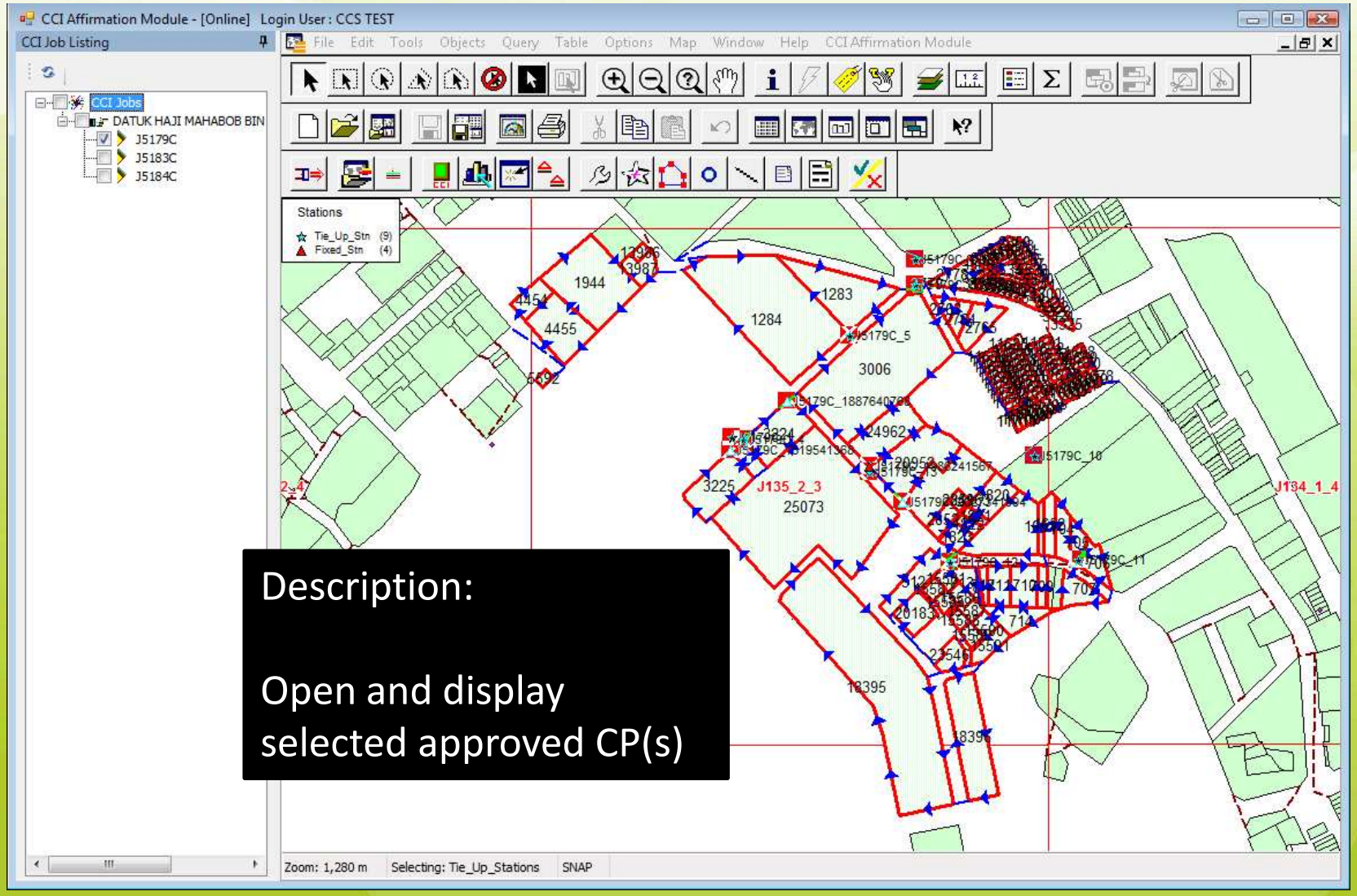
Open CCI Surveyed Job



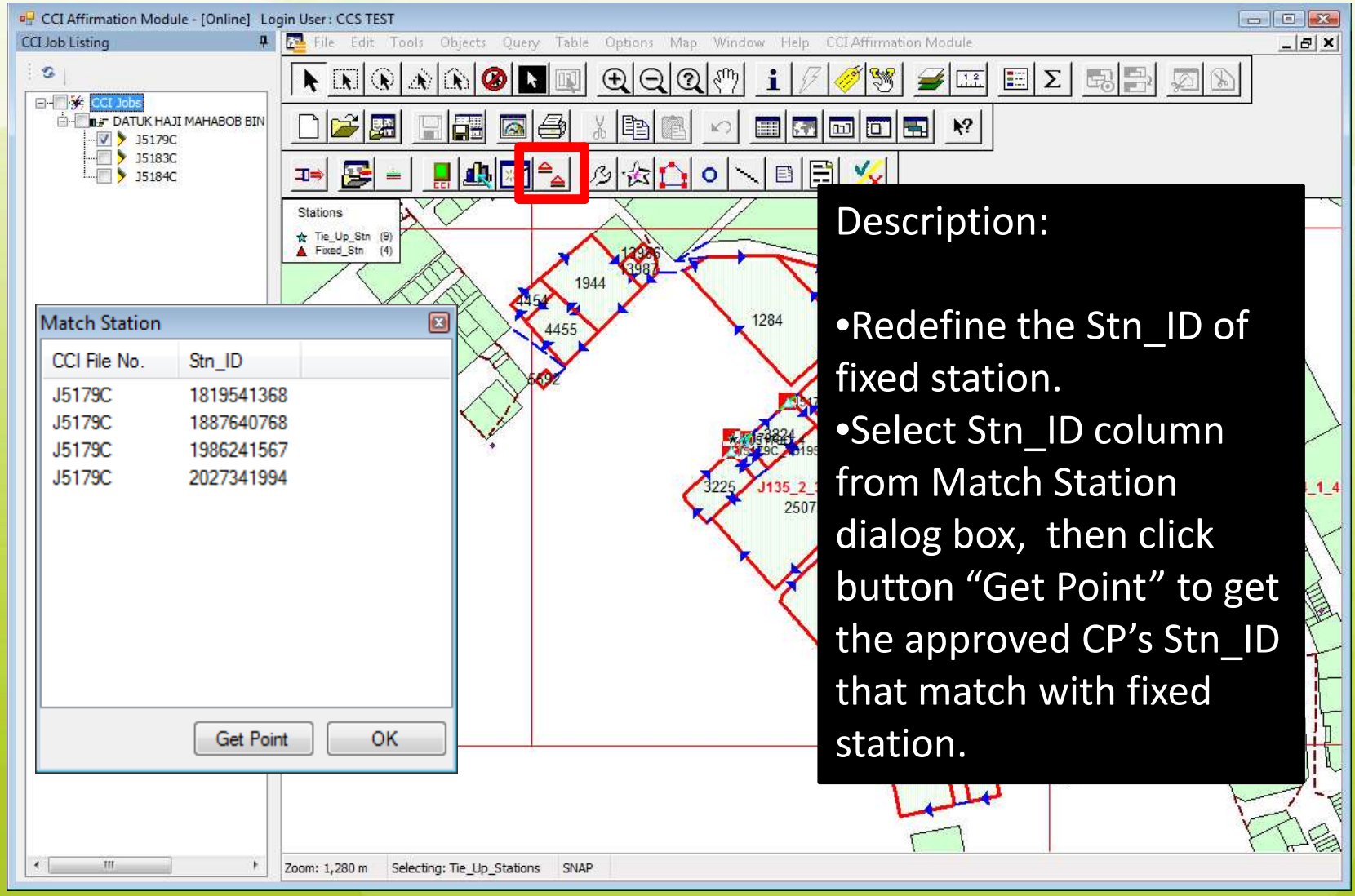
Block Selection



Block Selection



Re-Match Fixed Station ID

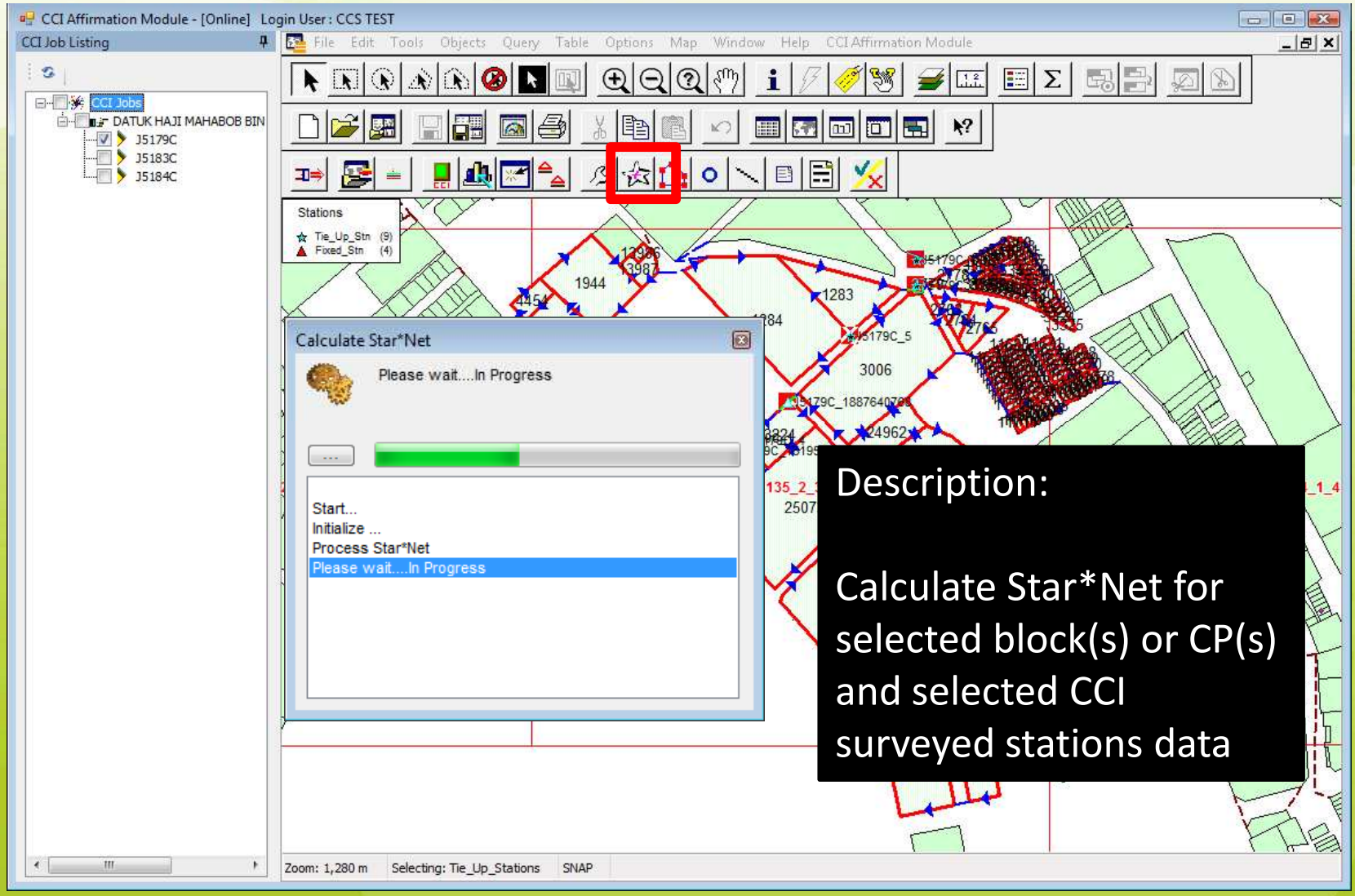


Description:

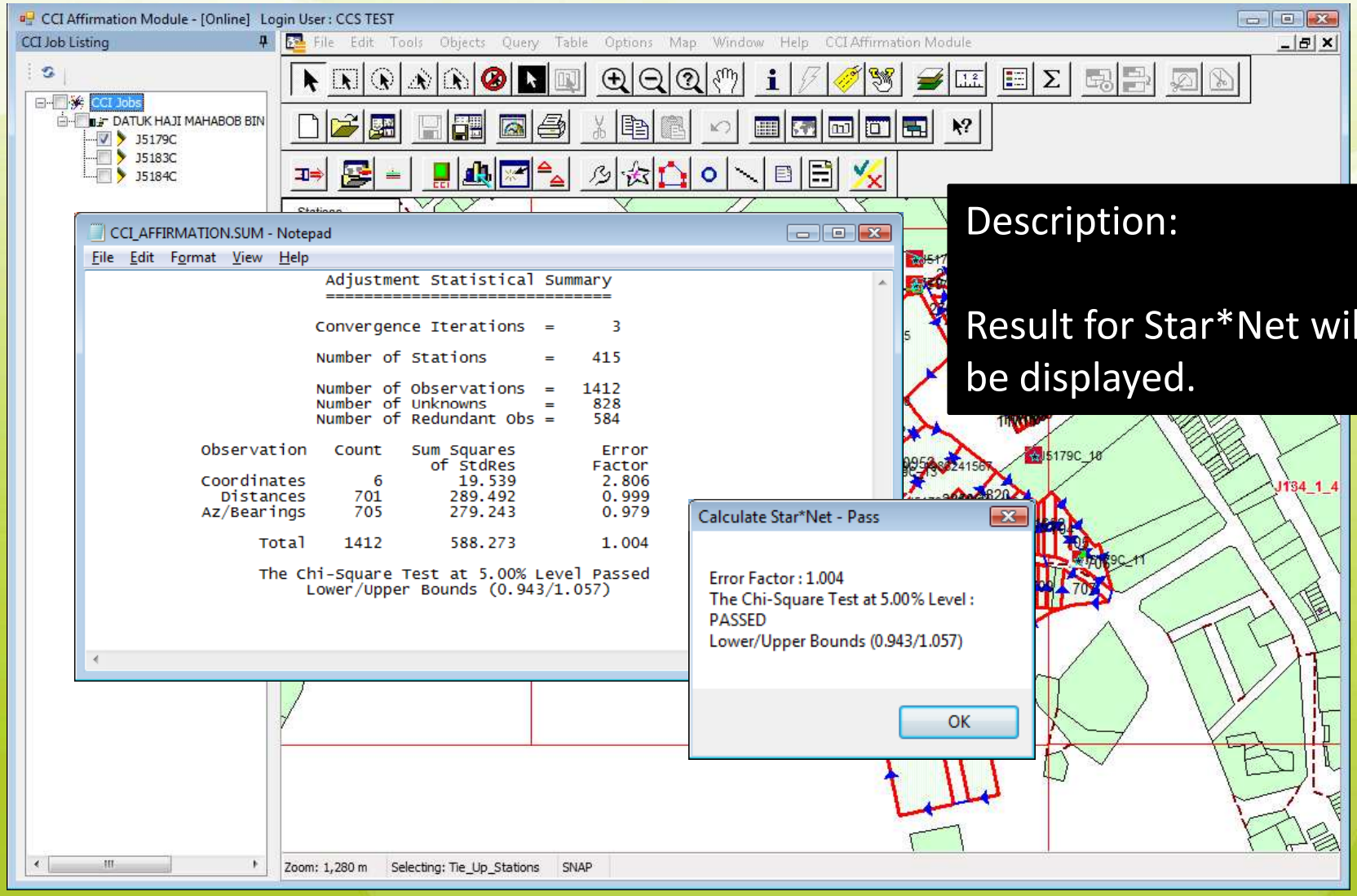
- Redefine the Stn_ID of fixed station.
- Select Stn_ID column from Match Station dialog box, then click button “Get Point” to get the approved CP’s Stn_ID that match with fixed station.

- **Re-Coordination based on GDM2000**

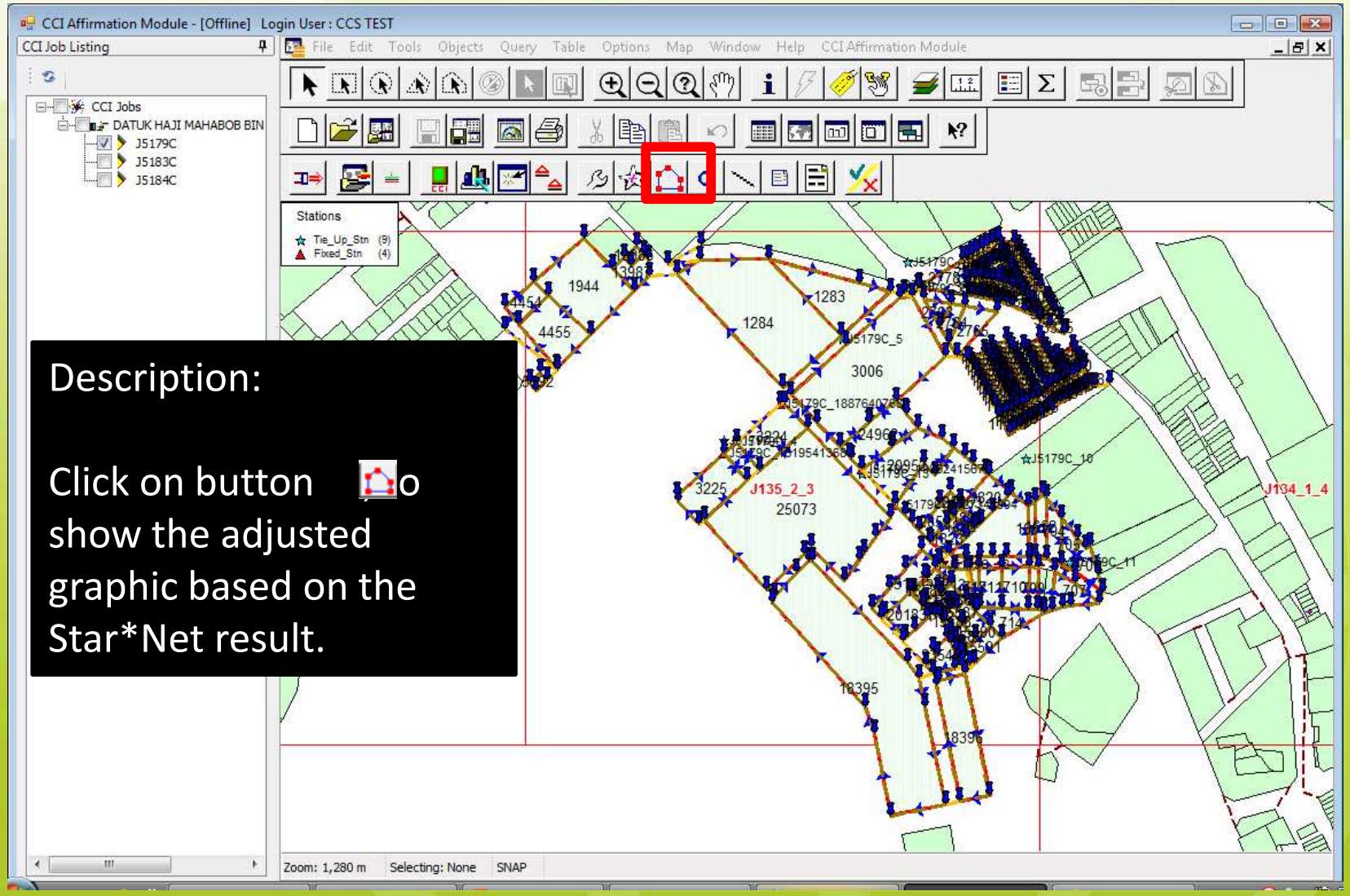
Calculate Star*Net



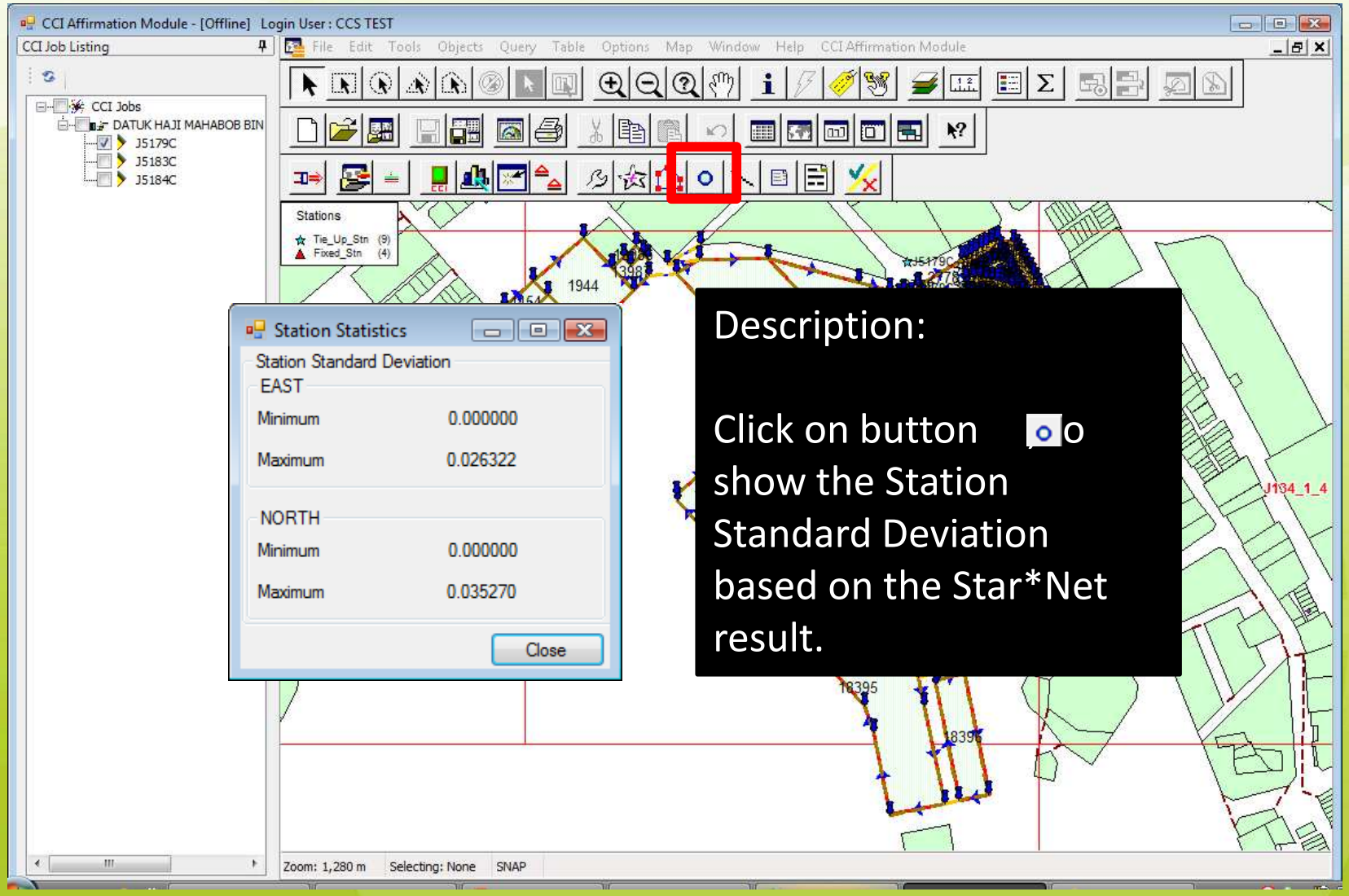
Calculate Star*Net



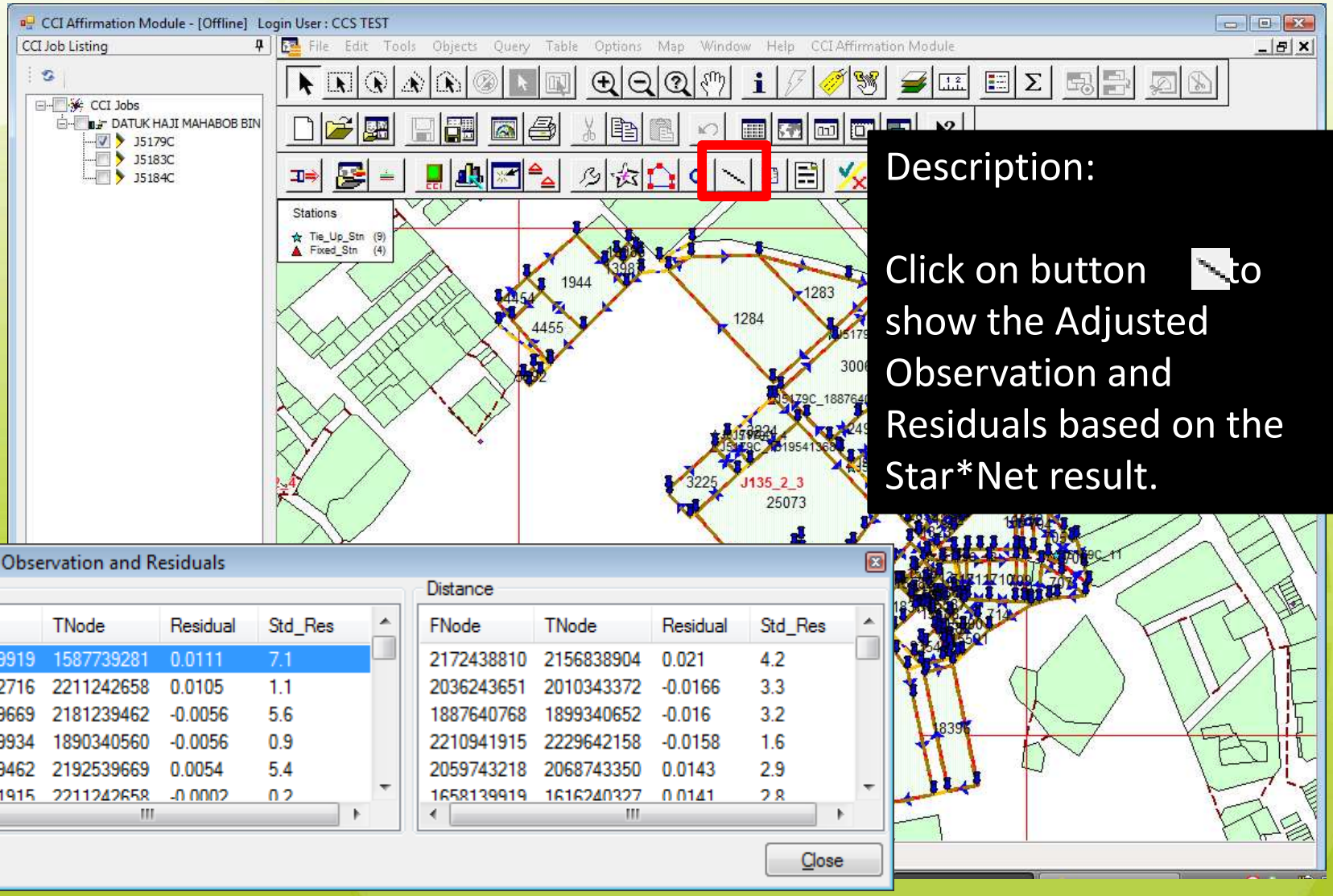
Show/Hide Adjusted Graphic



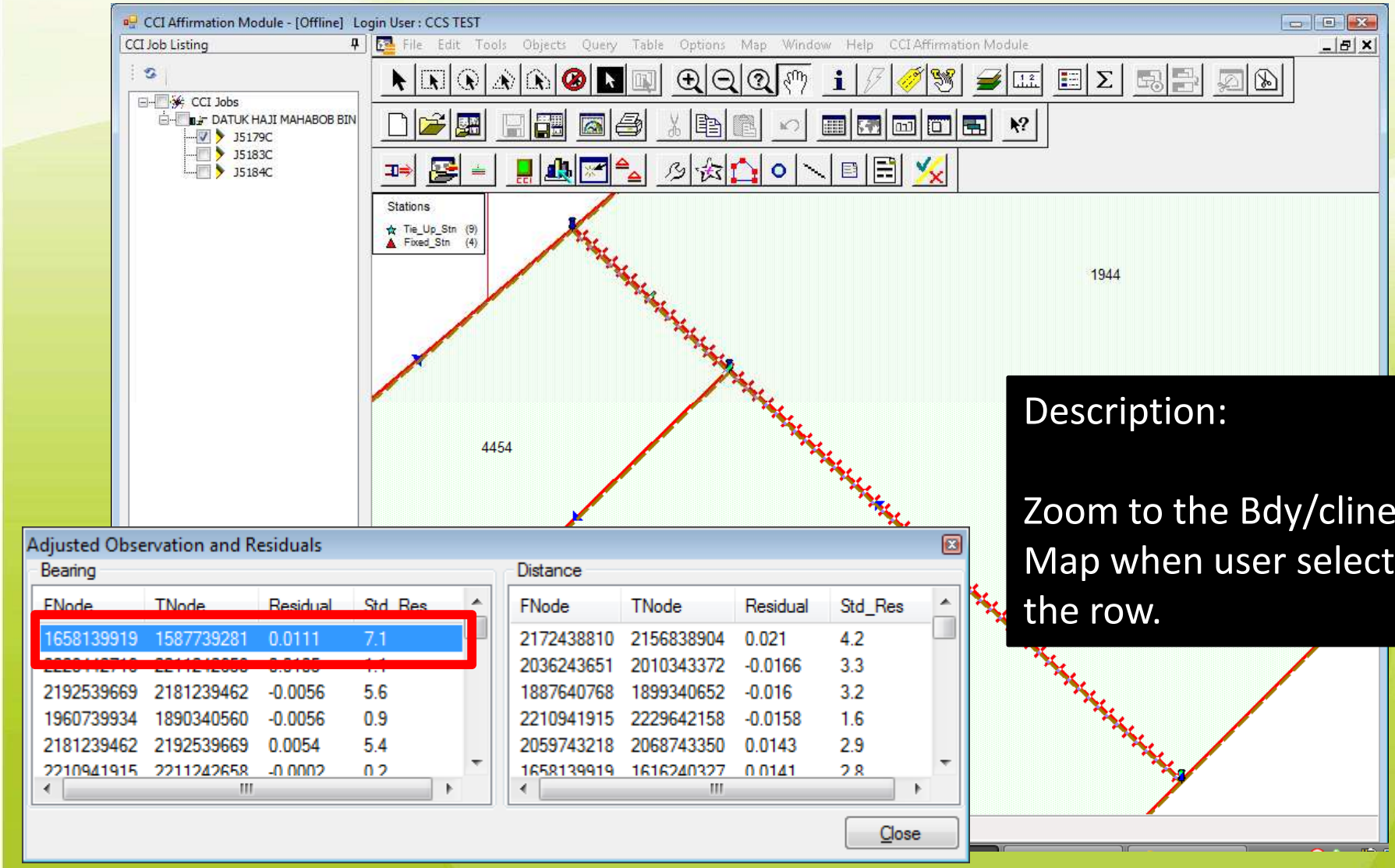
Station Statistics



Adjusted Observation and Residuals



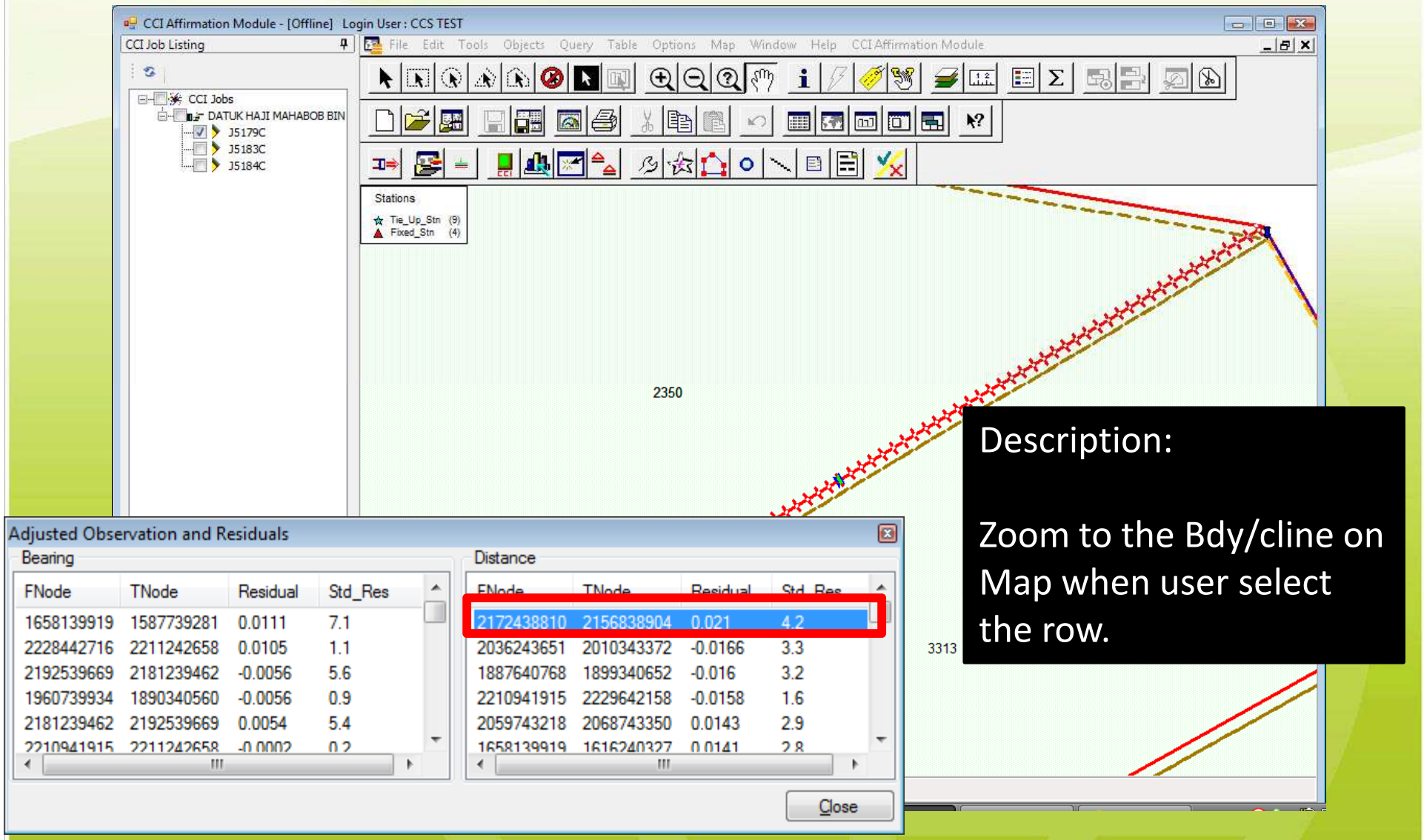
Adjusted Observation and Residuals



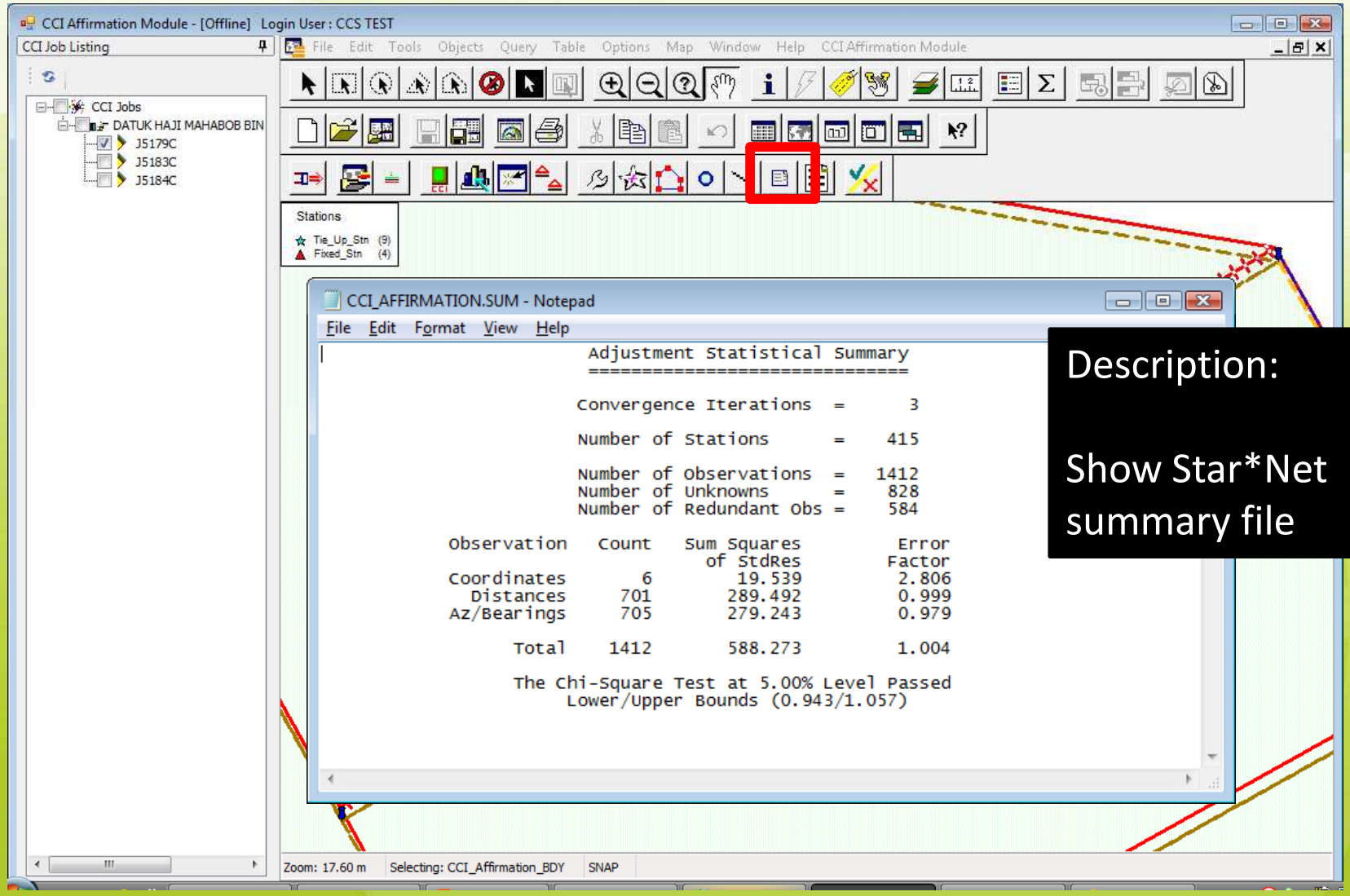
Description:

Zoom to the Bdy/cline on Map when user select the row.

Adjusted Observation and Residuals



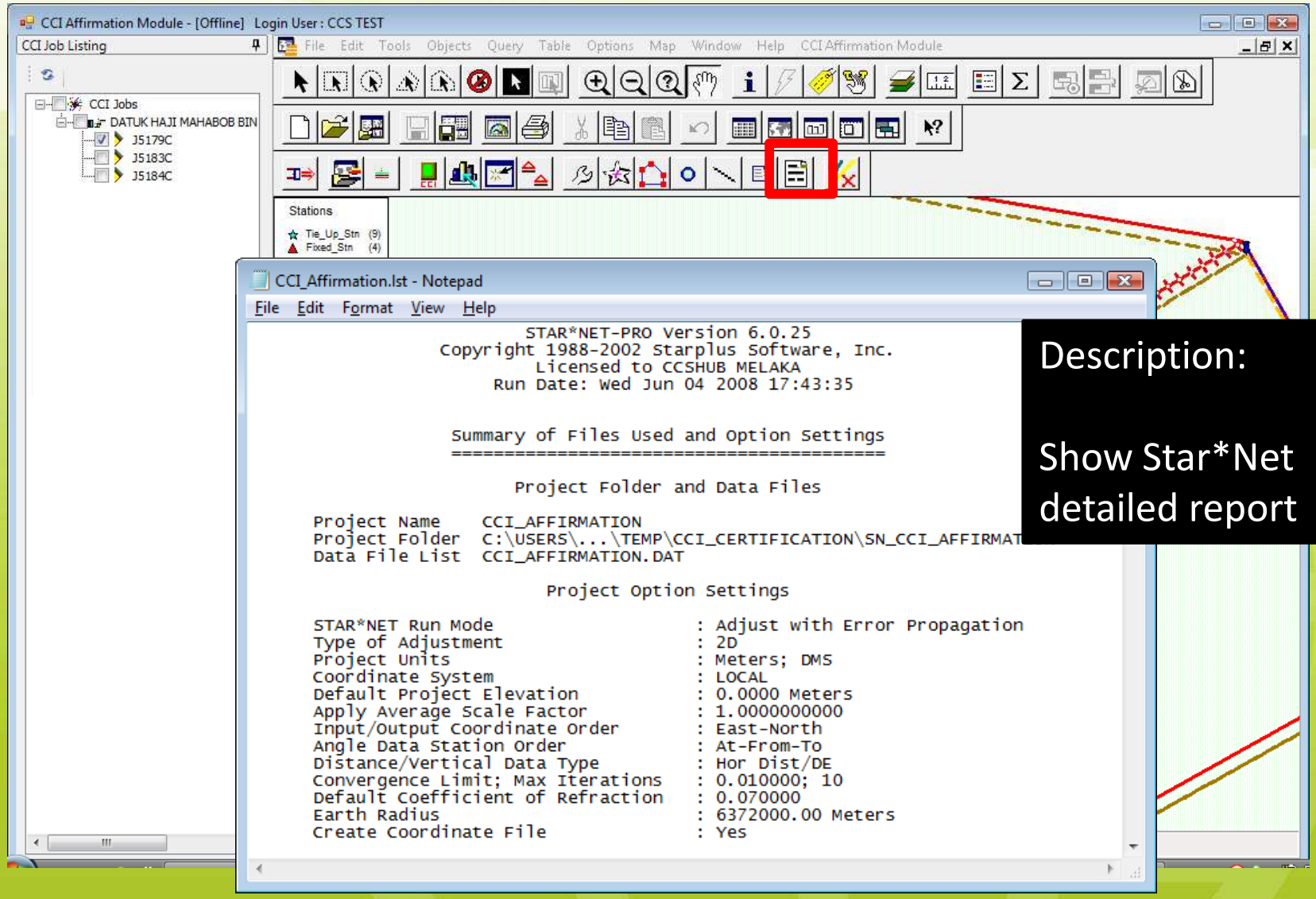
Star*Net Summary File



Description:

Show Star*Net summary file

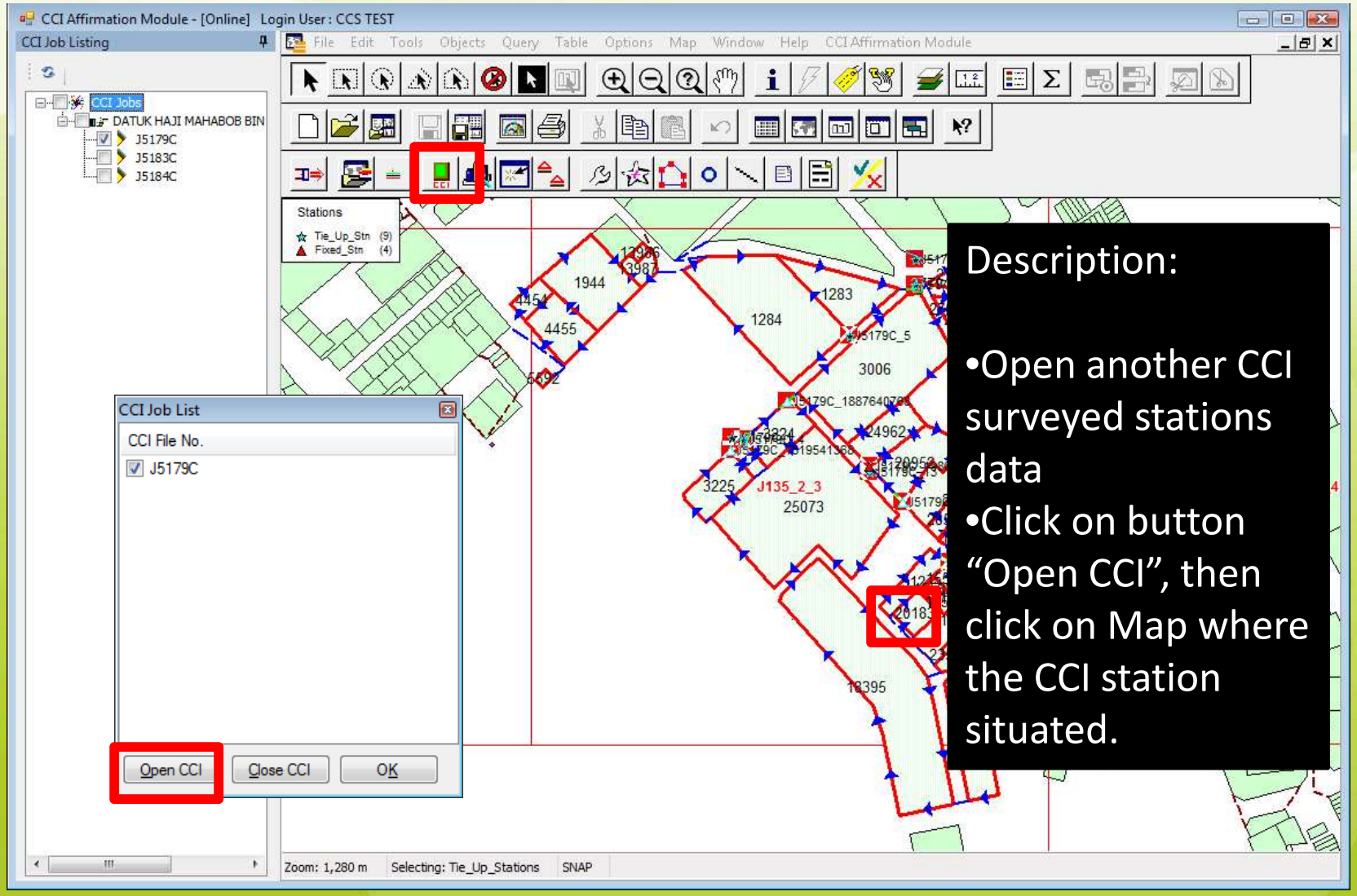
Star*Net Detailed Report



Description:

Show Star*Net detailed report

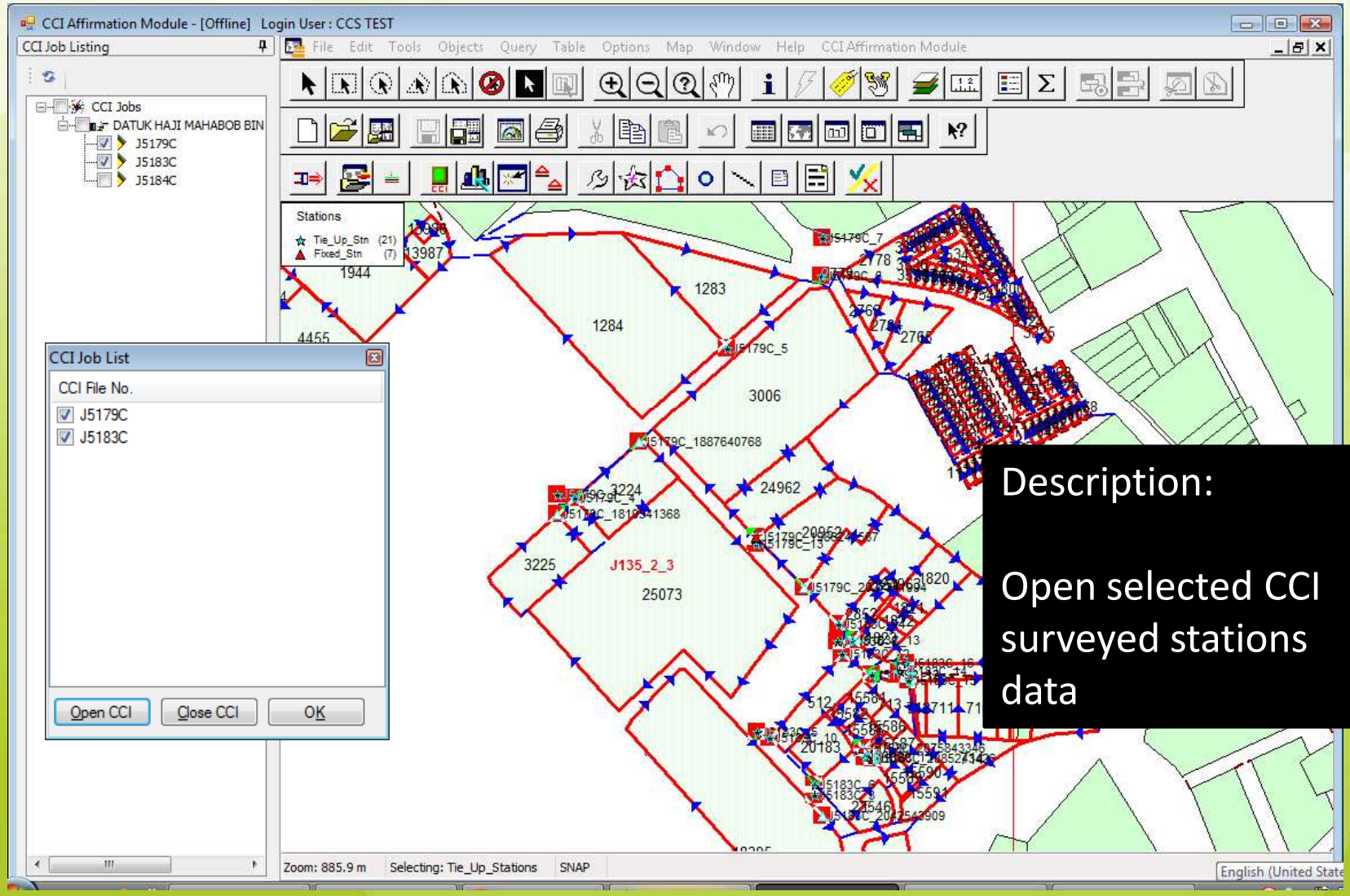
Add CCI Surveyed Job



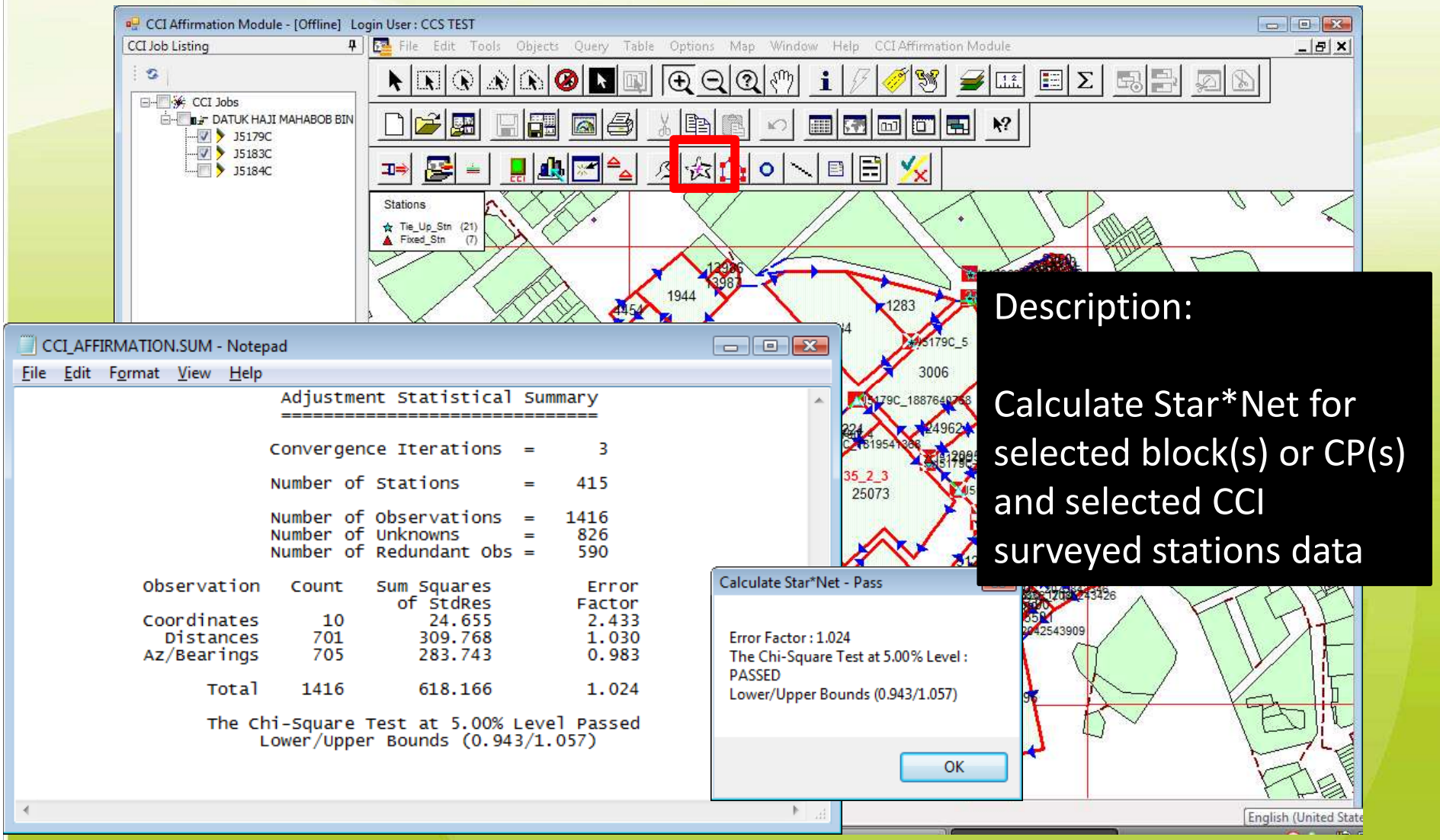
Description:

- Open another CCI surveyed stations data
- Click on button "Open CCI", then click on Map where the CCI station situated.

Add CCI Surveyed Job



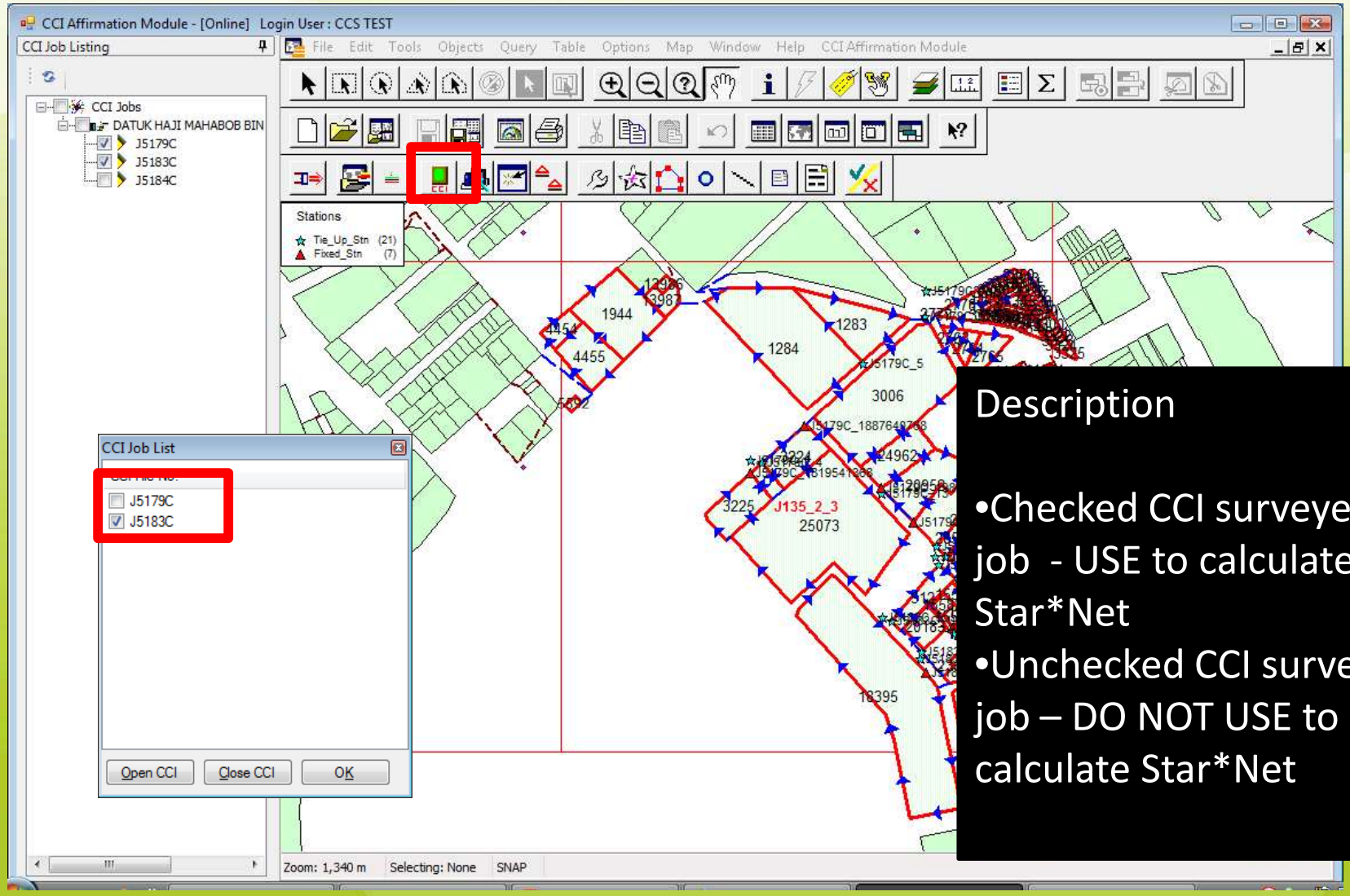
Calculate Star*Net



Description:

Calculate Star*Net for selected block(s) or CP(s) and selected CCI surveyed stations data

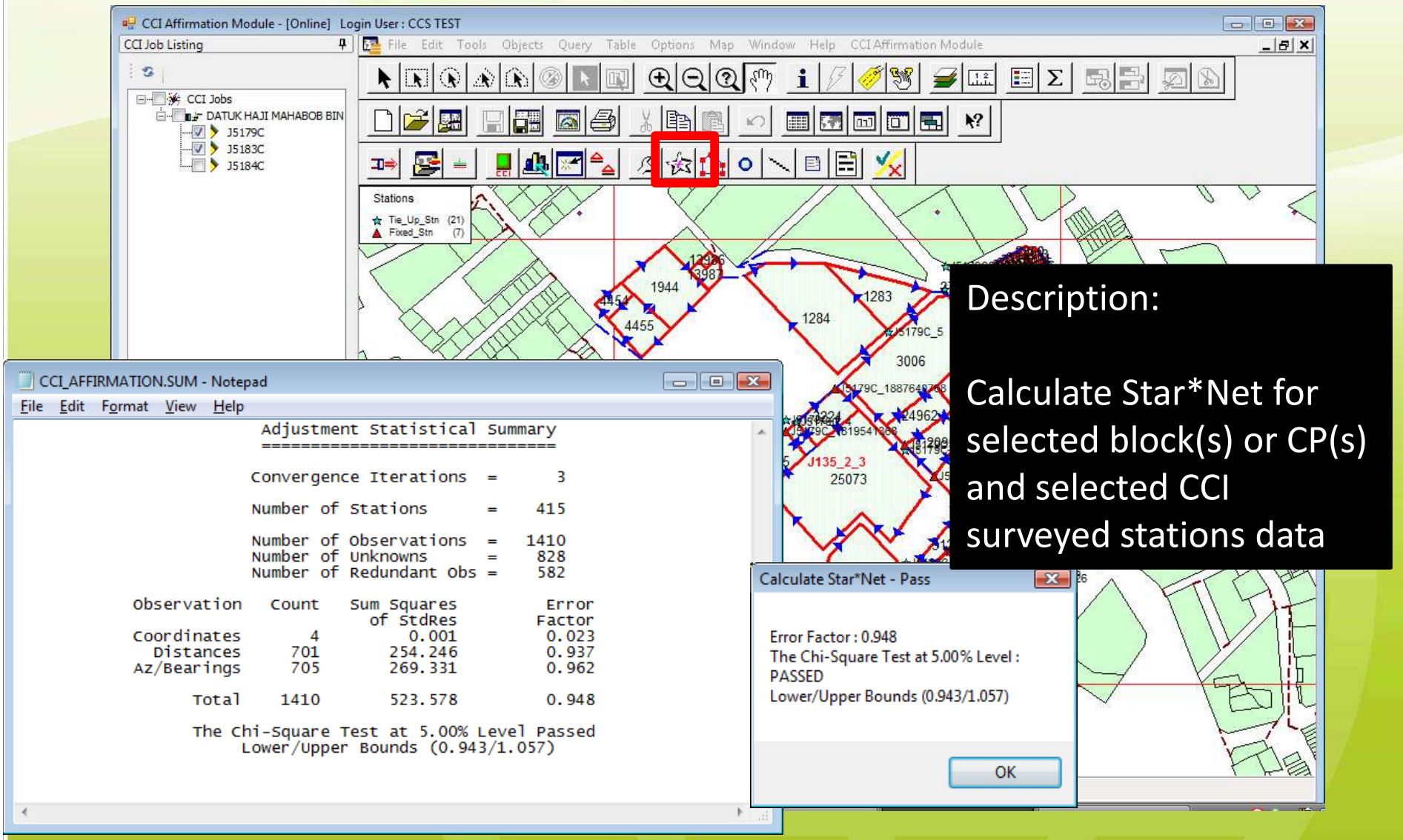
Add CCI Surveyed Job



Description

- Checked CCI surveyed job - USE to calculate Star*Net
- Unchecked CCI surveyed job – DO NOT USE to calculate Star*Net

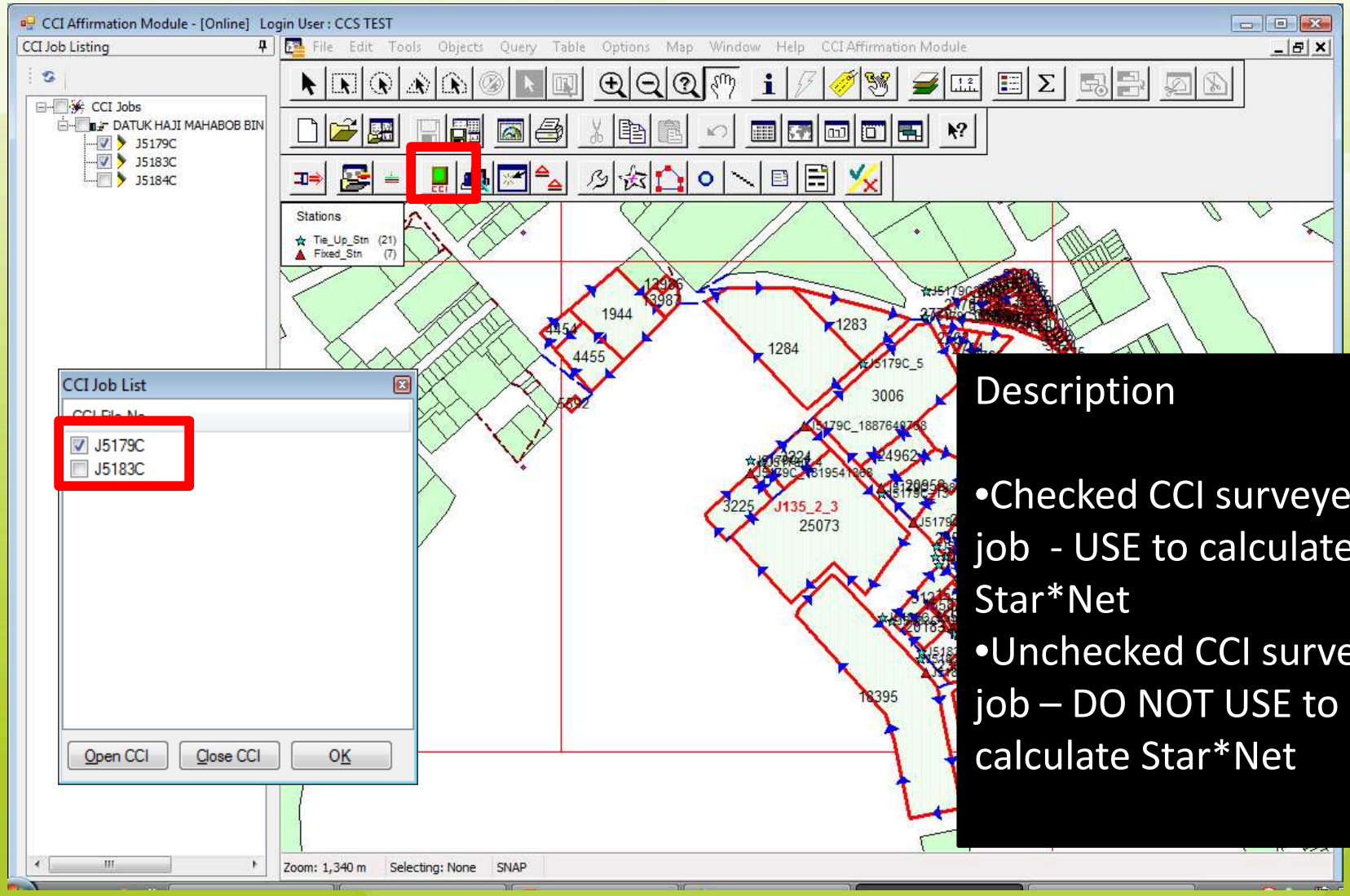
Calculate Star*Net



Description:

Calculate Star*Net for selected block(s) or CP(s) and selected CCI surveyed stations data

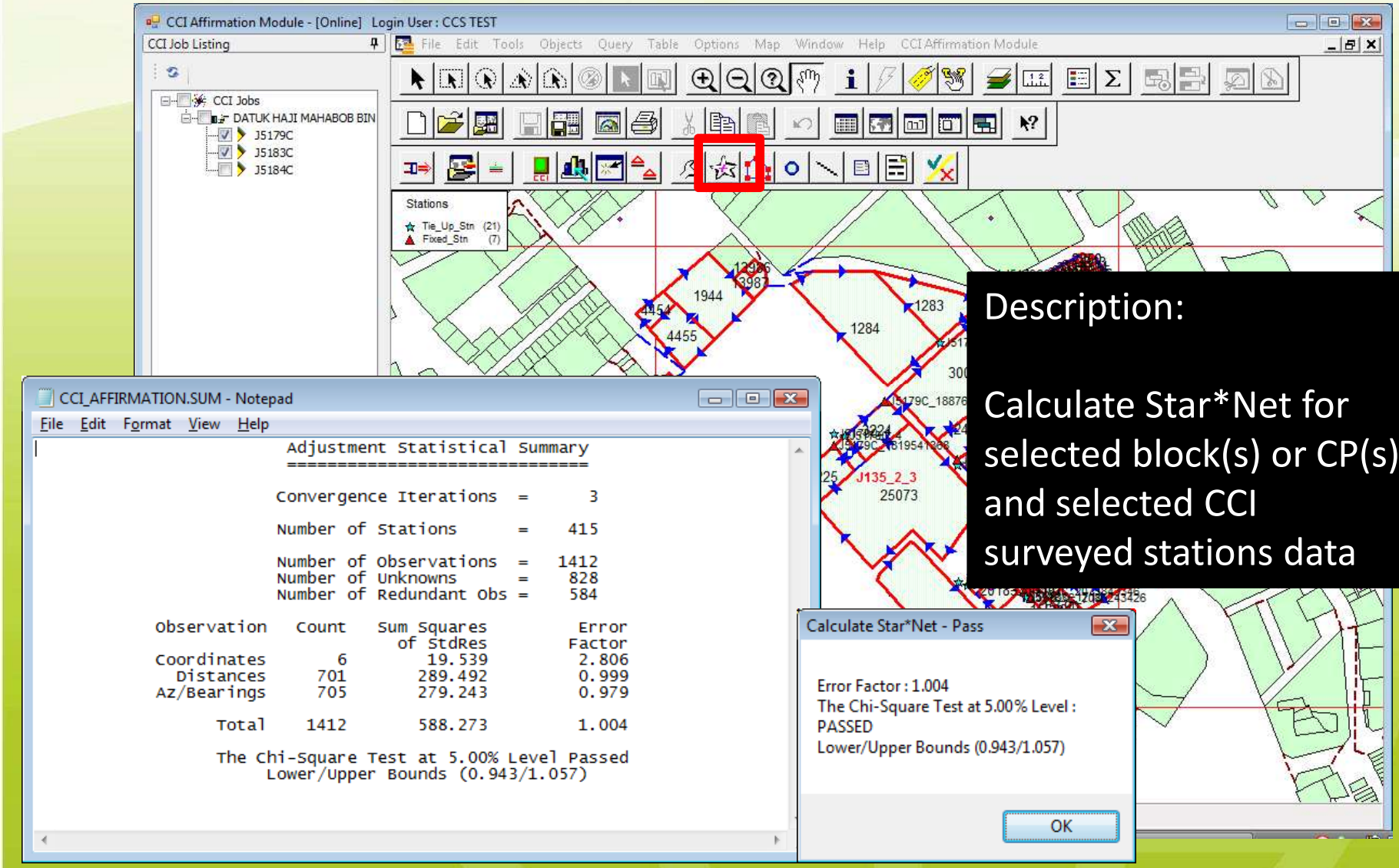
Add CCI Surveyed Job



Description

- Checked CCI surveyed job - USE to calculate Star*Net
- Unchecked CCI surveyed job – DO NOT USE to calculate Star*Net

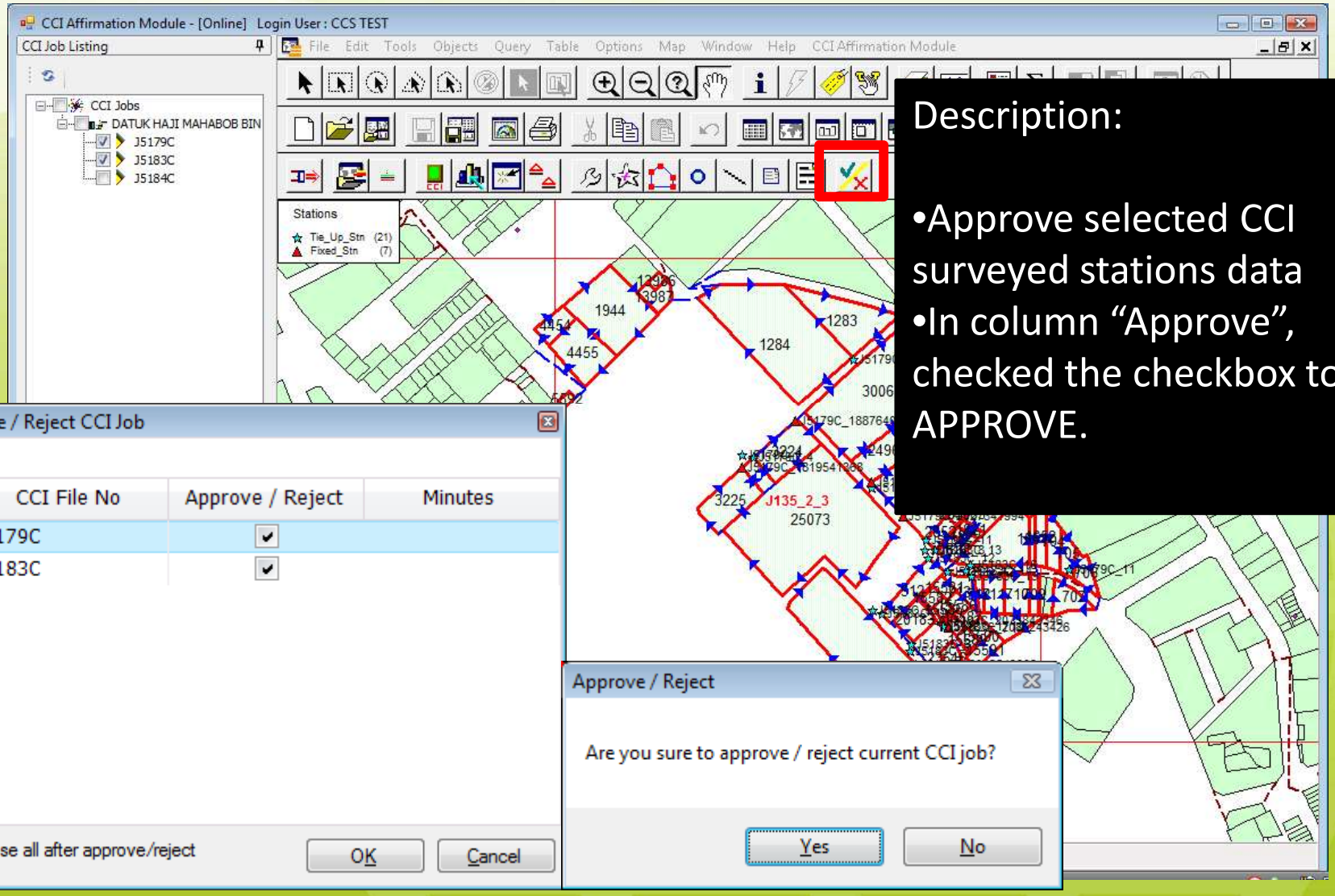
Calculate Star*Net



Description:

Calculate Star*Net for selected block(s) or CP(s) and selected CCI surveyed stations data

Approve CCI Surveyed Job



Description:

- Approve selected CCI surveyed stations data
- In column “Approve”, checked the checkbox to APPROVE.

Create NDCDB

Develops Lot_stn relationship

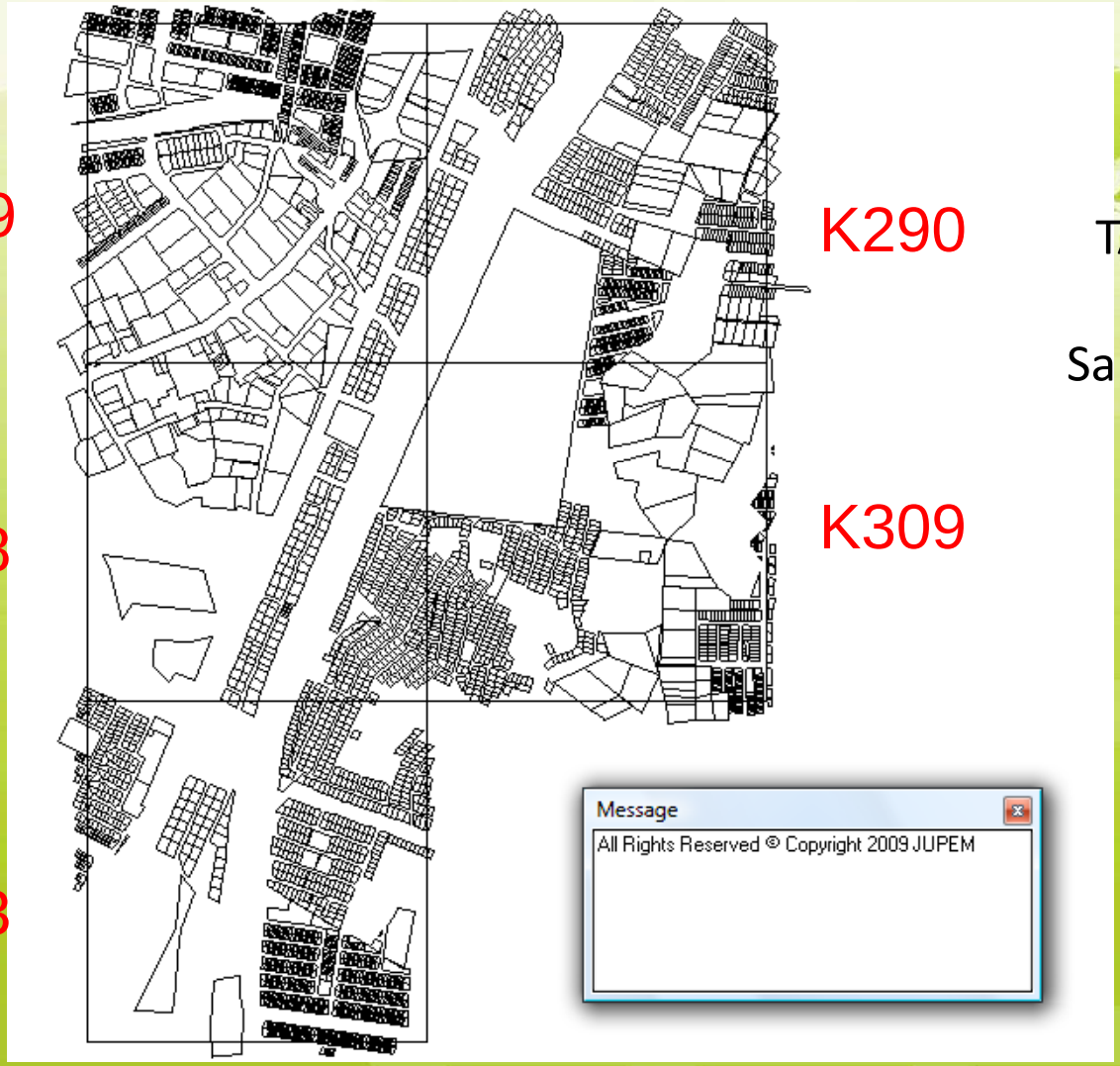
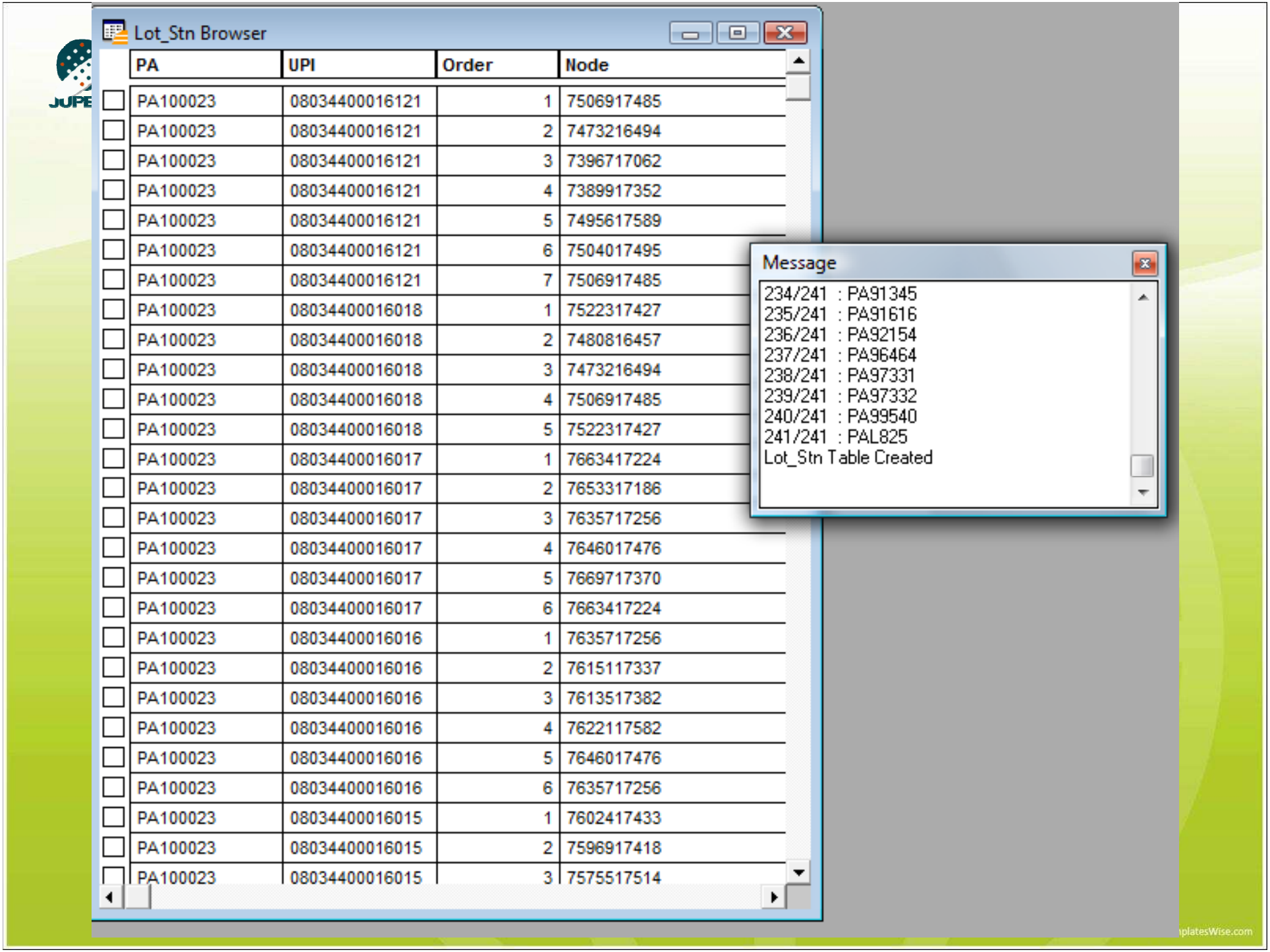
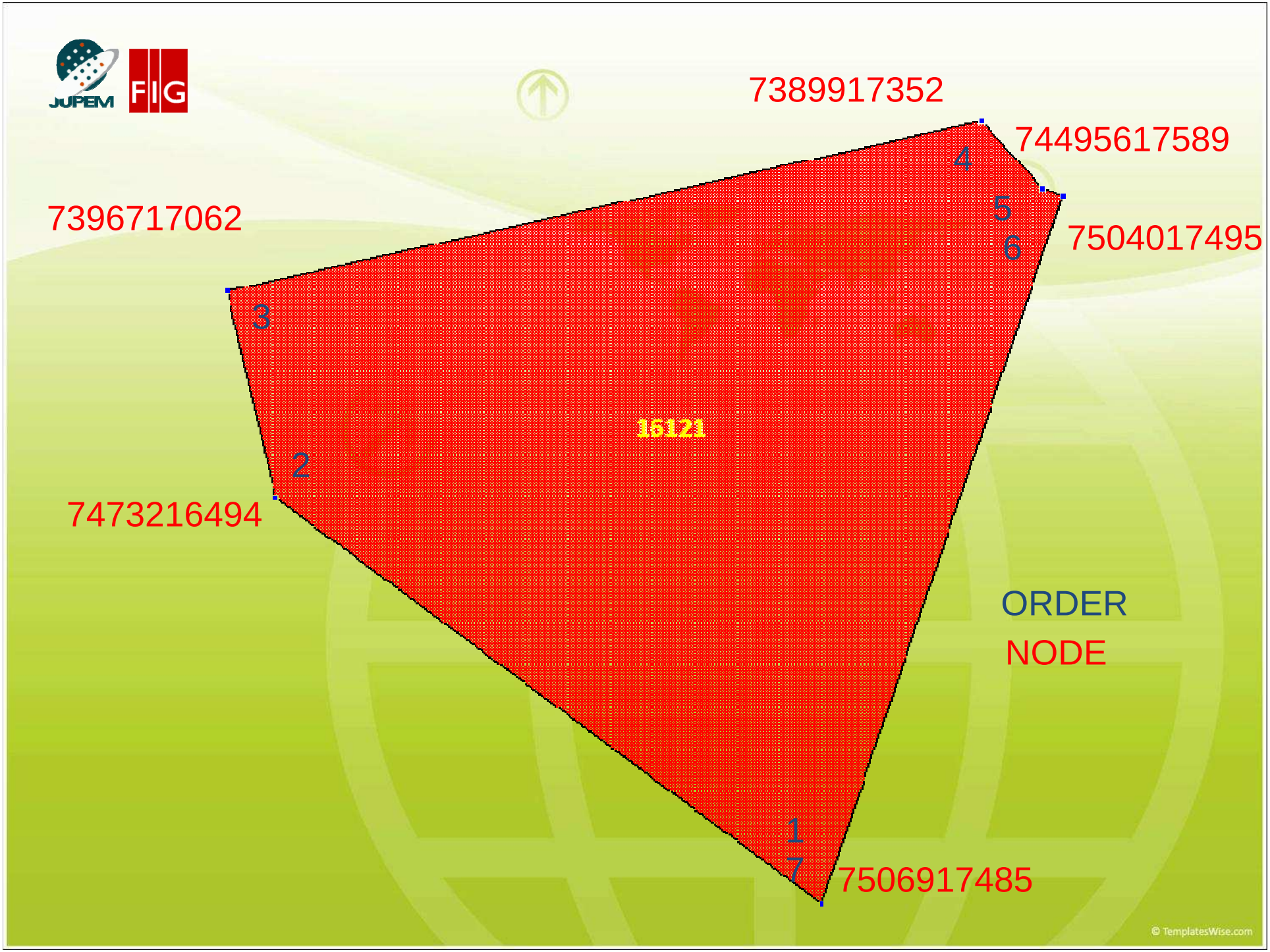


TABLE LOT ON DCDB
(3949 LOT)
Sample Block of PERAK
ARK1


Lot_Stn Browser
PA
UPI
Order
Node
PA100023 08034400016121 1 7506917485
PA100023 08034400016121 2 7473216494
PA100023 08034400016121 3 7396717062
PA100023 08034400016121 4 7389917352
PA100023 08034400016121 5 7495617589
PA100023 08034400016121 6 7504017495
PA100023 08034400016121 7 7506917485
PA100023 08034400016018 1 7522317427
PA100023 08034400016018 2 7480816457
PA100023 08034400016018 3 7473216494
PA100023 08034400016018 4 7506917485
PA100023 08034400016018 5 7522317427
PA100023 08034400016017 1 7663417224
PA100023 08034400016017 2 7653317186
PA100023 08034400016017 3 7635717256
PA100023 08034400016017 4 7646017476
PA100023 08034400016017 5 7669717370
PA100023 08034400016017 6 7663417224
PA100023 08034400016016 1 7635717256
PA100023 08034400016016 2 7615117337
PA100023 08034400016016 3 7613517382
PA100023 08034400016016 4 7622117582
PA100023 08034400016016 5 7646017476
PA100023 08034400016016 6 7635717256
PA100023 08034400016015 1 7602417433
PA100023 08034400016015 2 7596917418
PA100023 08034400016015 3 7575517514
Message
234/241 : PA91345
235/241 : PA91616
236/241 : PA92154
237/241 : PA96464
238/241 : PA97331
239/241 : PA97332
240/241 : PA99540
241/241 : PAL825
Lot_Stn Table Created


7389917352
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4
5
6
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3
15121
2
7473216494
ORDER
NODE
1
7
7506917485
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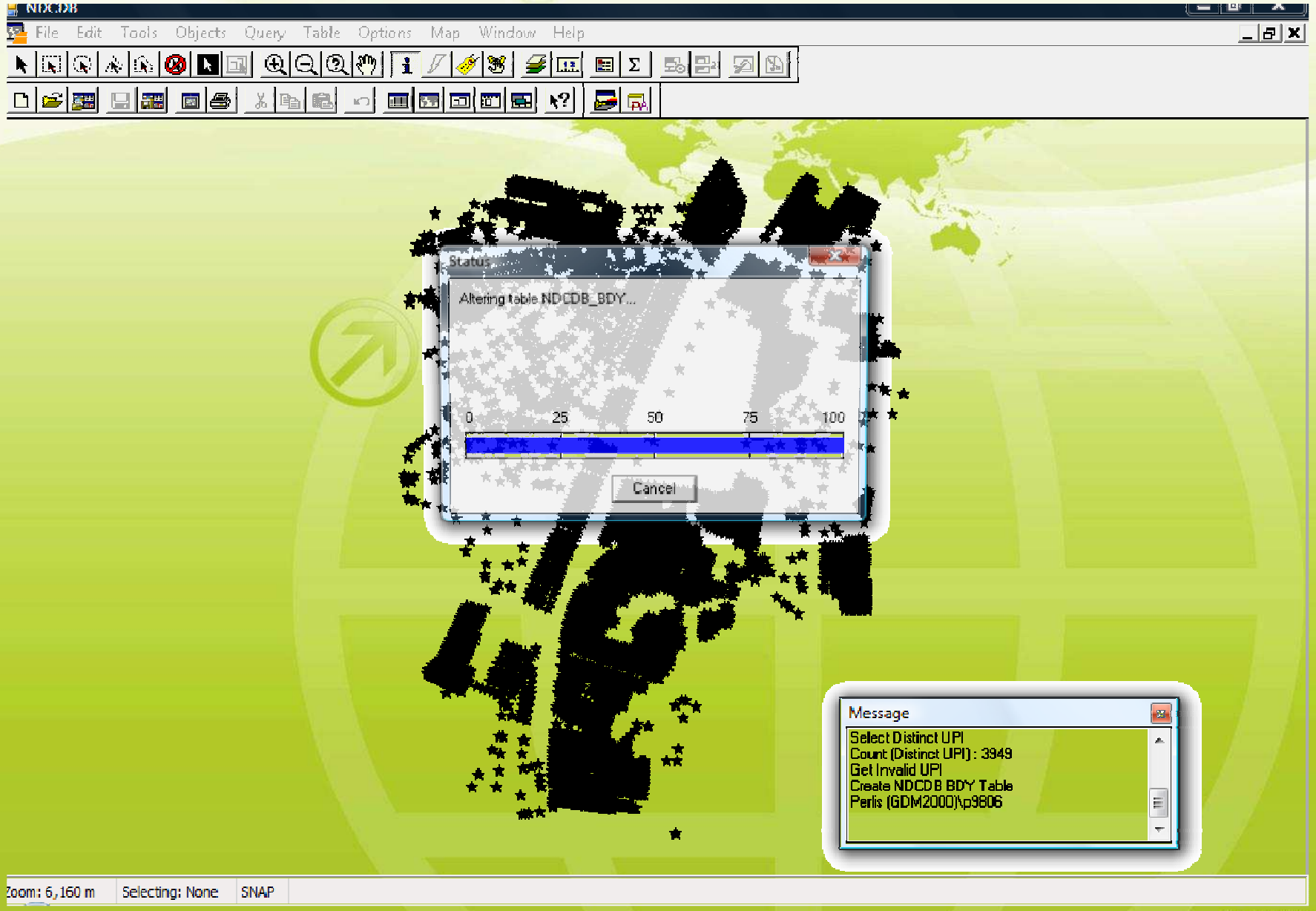
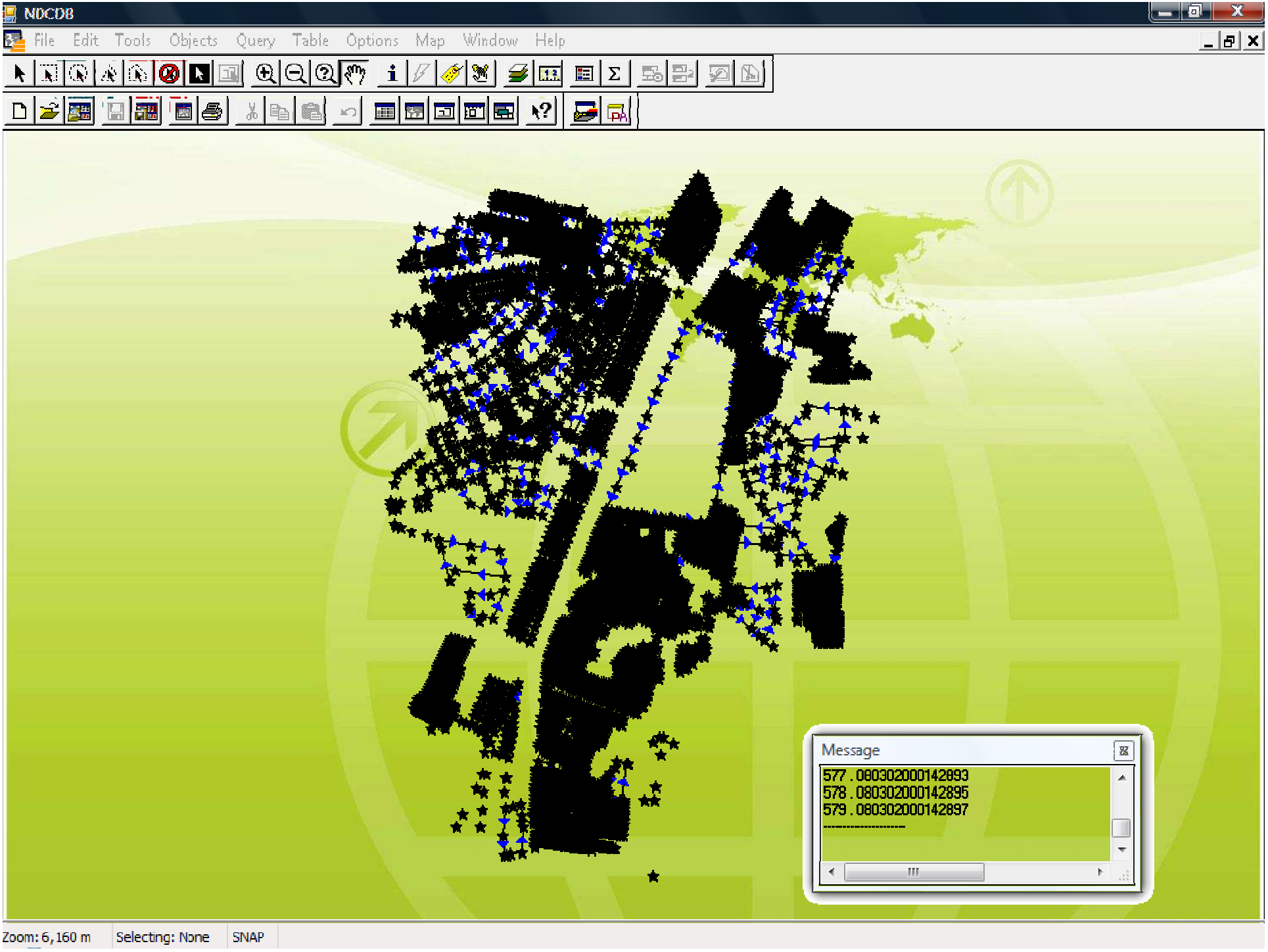
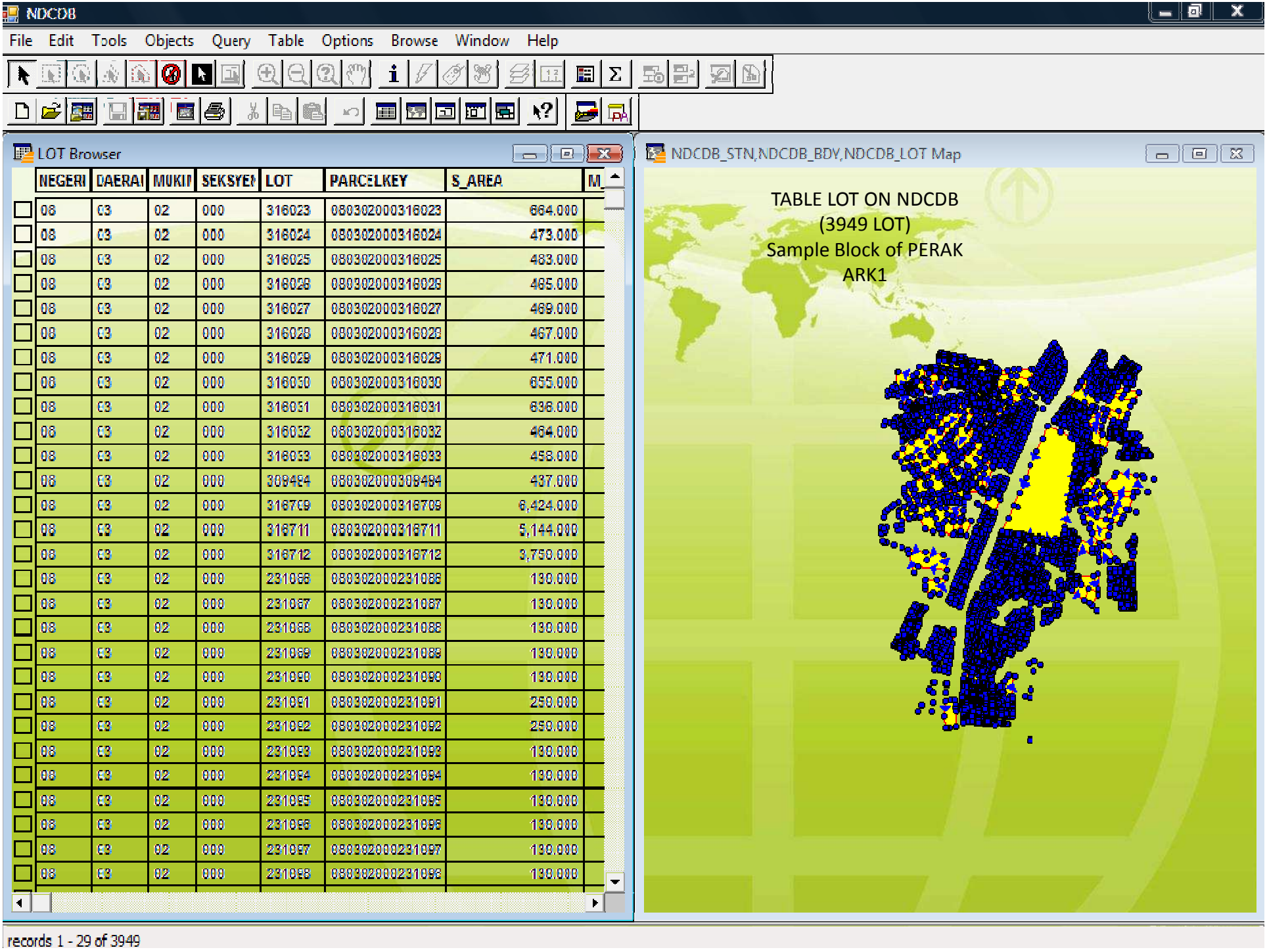
Create NDCDB




NDCDB
File Edit Tools Objects Query Table Options Map Window Help
Message
577 . 080302000142893
578 . 080302000142895
579 . 080302000142897
Zoom: 6,160 m
Selecting: None
SNAP


NDCDB
File Edit Tools Objects Query Table Options Browse Window Help
LOT Browser
NEGERI DAERAH MUKIM SEKSYEN LOT PARCELKEY S_AREA M
08 03 02 000 316023 080302000316023 664.000
08 03 02 000 316024 080302000316024 473.000
08 03 02 000 316025 080302000316025 483.000
08 03 02 000 316026 080302000316026 485.000
08 03 02 000 316027 080302000316027 469.000
08 03 02 000 316028 080302000316028 467.000
08 03 02 000 316029 080302000316029 471.000
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08 03 02 000 316031 080302000316031 636.000
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08 03 02 000 309484 080302000309484 437.000
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08 03 02 000 231090 080302000231090 130.000
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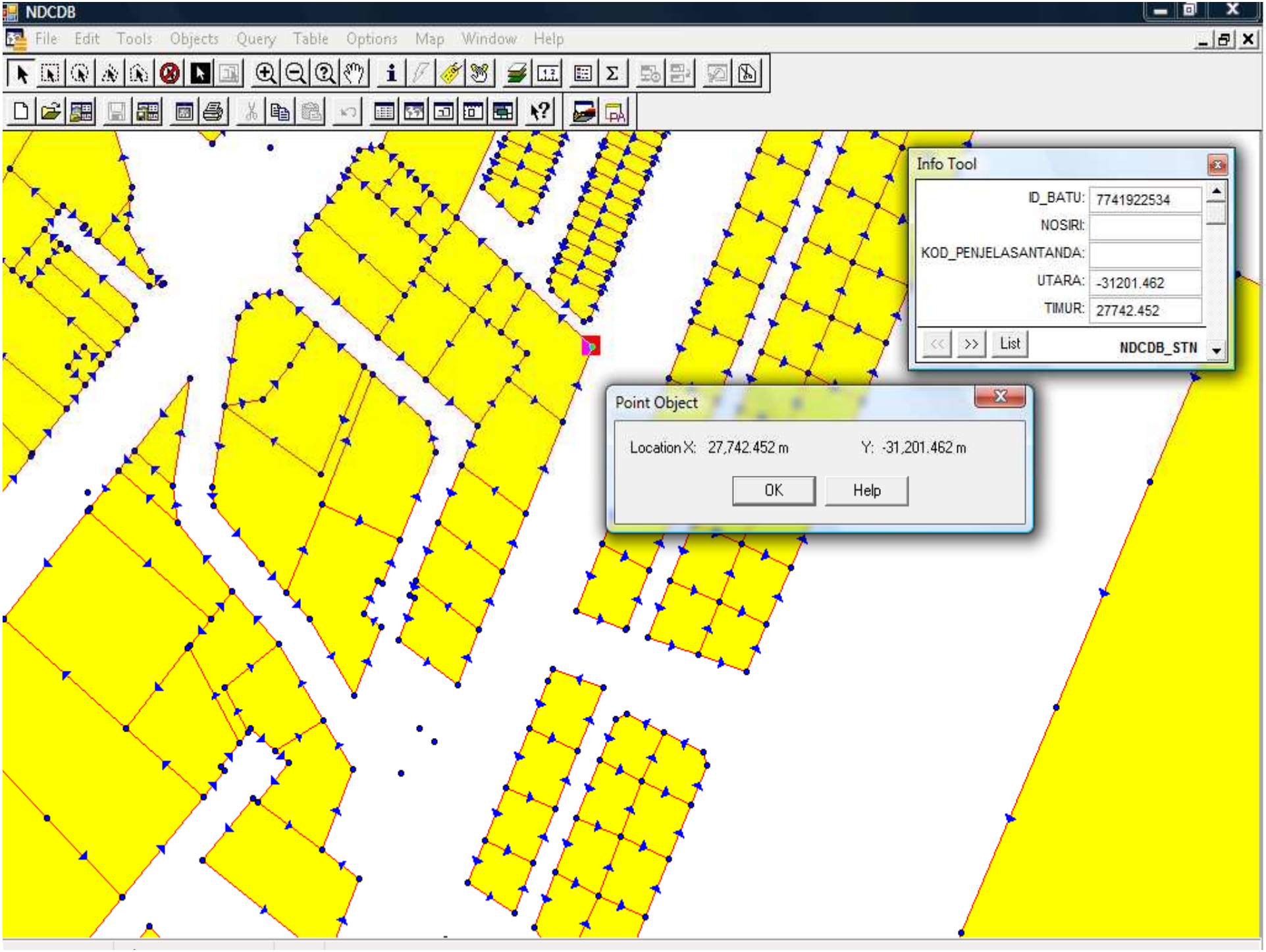
08 03 02 000 231094 080302000231094 130.000
08 03 02 000 231095 080302000231095 130.000
08 03 02 000 231096 080302000231096 130.000
08 03 02 000 231097 080302000231097 130.000
08 03 02 000 231098 080302000231098 130.000
NDCDB_STN,NDCDB_BDY,NDCDB_LOT Map
TABLE LOT ON NDCDB
(3949 LOT)
Sample Block of PERAK
ARK1
records 1 - 29 of 3949


NDCDB
File Edit Tools Objects Query Table Options Map Window Help
Info Tool
ID_BATU: 7741922534
NOSIRI:
KOD_PENJELASANTANDA:
UTARA: -31201.462
TIMUR: 27742.452
<< >> List
NDCDB_STN
Point Object
Location X: 27,742.452 m Y: -31,201.462 m
OK
Help

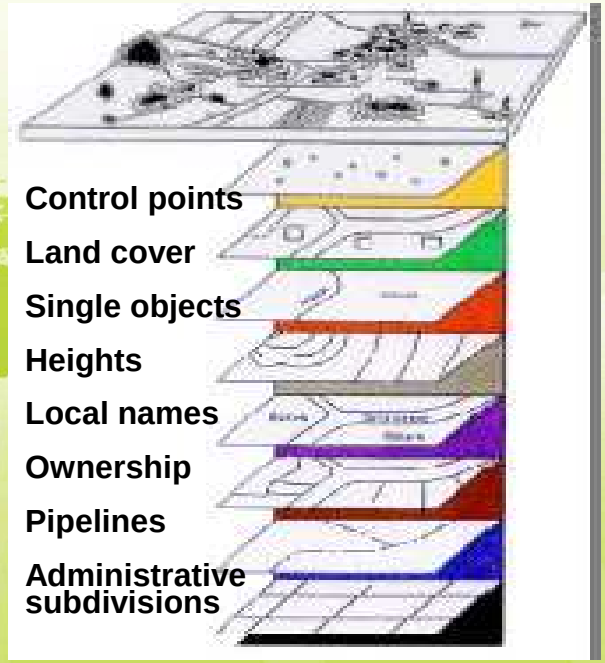
FUTURE DIRECTION

NDCDB

Future Direction:

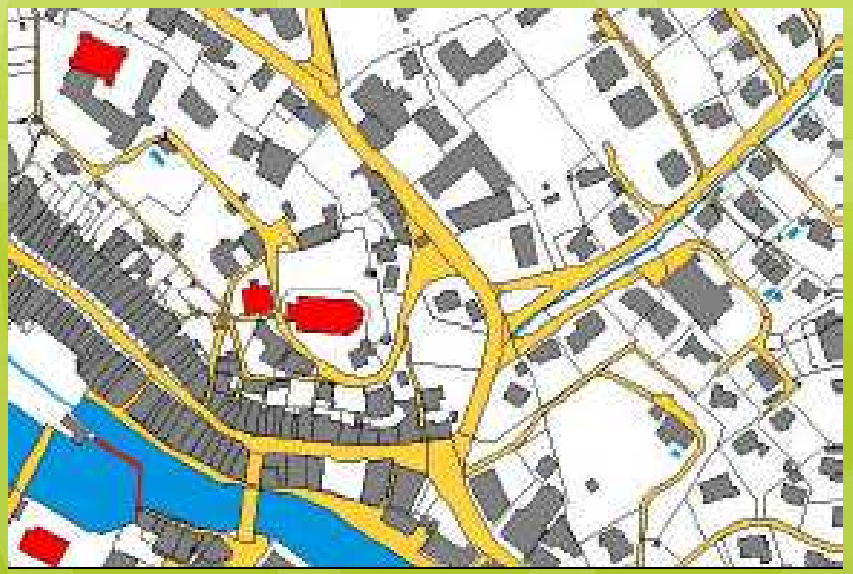
Multipurpose Cadastre

NDCDB will be able to support the the increasing demand for land/geographic information at all levels of government and in the private sector:



CORE DATA SET:

- NDCDB
- Building footprints
- Transportation
- Hydrography
- Street Adresses
- Geoname



New Digital Cadastral Map

INTEGRATION OF NDCDB LABUAN WITH HIGH RESOLUTION SATELLITE IMAGE

THREE DIMENSIONAL MULTI - PURPOSE CADASTRE (3D MPC)

BUILDING FUTURE LARGE SCALE SPATIAL INFORMATION: THE MALAYSIAN APPROACH

SPATIALLY ENABLED TECHNOLOGY

- e-KADASTER
- GPS/GNSS
- TOTAL STATION
- MOBILE SURVEY TECHNOLOGY
- SATELLITE IMAGE
- AERIAL MAPPING
- LASER/RADAR TECHNOLOGY

SPATIALLY ENABLED PLATFORM

- MULTI PURPOSE CADASTRE
- PADU
- NATIONAL GEOSPATIAL DATA CENTRE (NGDC)
- STATE GEOSPATIAL DATA CENTRE(SGDC)
- LOCAL GEOSPATIAL DATA CENTRE (LGDC)

SPATIALLY ENABLED SYSTEMS

- UTILITY INFORMATION SYSTEM
- e-TANAH
- REAL ESTATE INFORMATION SYSTEM
- ENVIRONMENTAL MANAGEMENT SYSTEM
- OTHER SPATIALLY ENABLED SYSTEMS

SPATIALLY ENABLED GOVERNMENT

- ECONOMIC DEVELOPMENT
- LAND ADMINISTRATION
- PUBLIC WORKS
- URBAN & REGIONAL PLANNING
- REAL ESTATE AND FACILITIES MGT
- PUBLIC SAFETY
- SUSTAINABLE DEVELOPMENT

NDCDB AS THE BASE MAP

(GDM2000, Geodetic Control, Cadastral Fabric, Absolute Accuracy 5-10 cm)

Thank You