



DCDB2NDCDB

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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

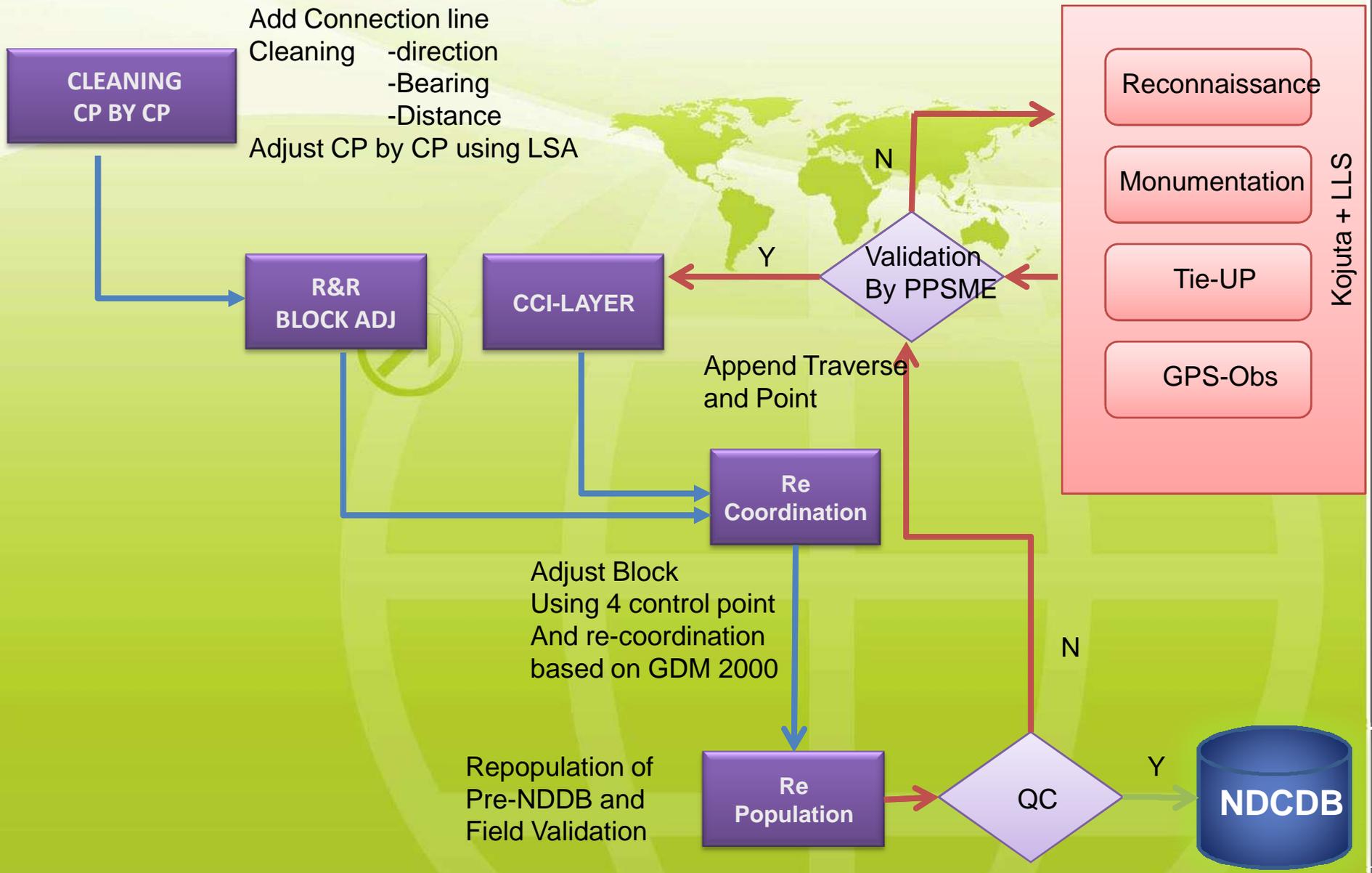
NDCDB and other land information have the potential to spatially enable government, the private sectors, and society in general, and to expand computer support for processes of visualization, organization and management of useful information



Methodology

DCDB2NDCDB

Methodology

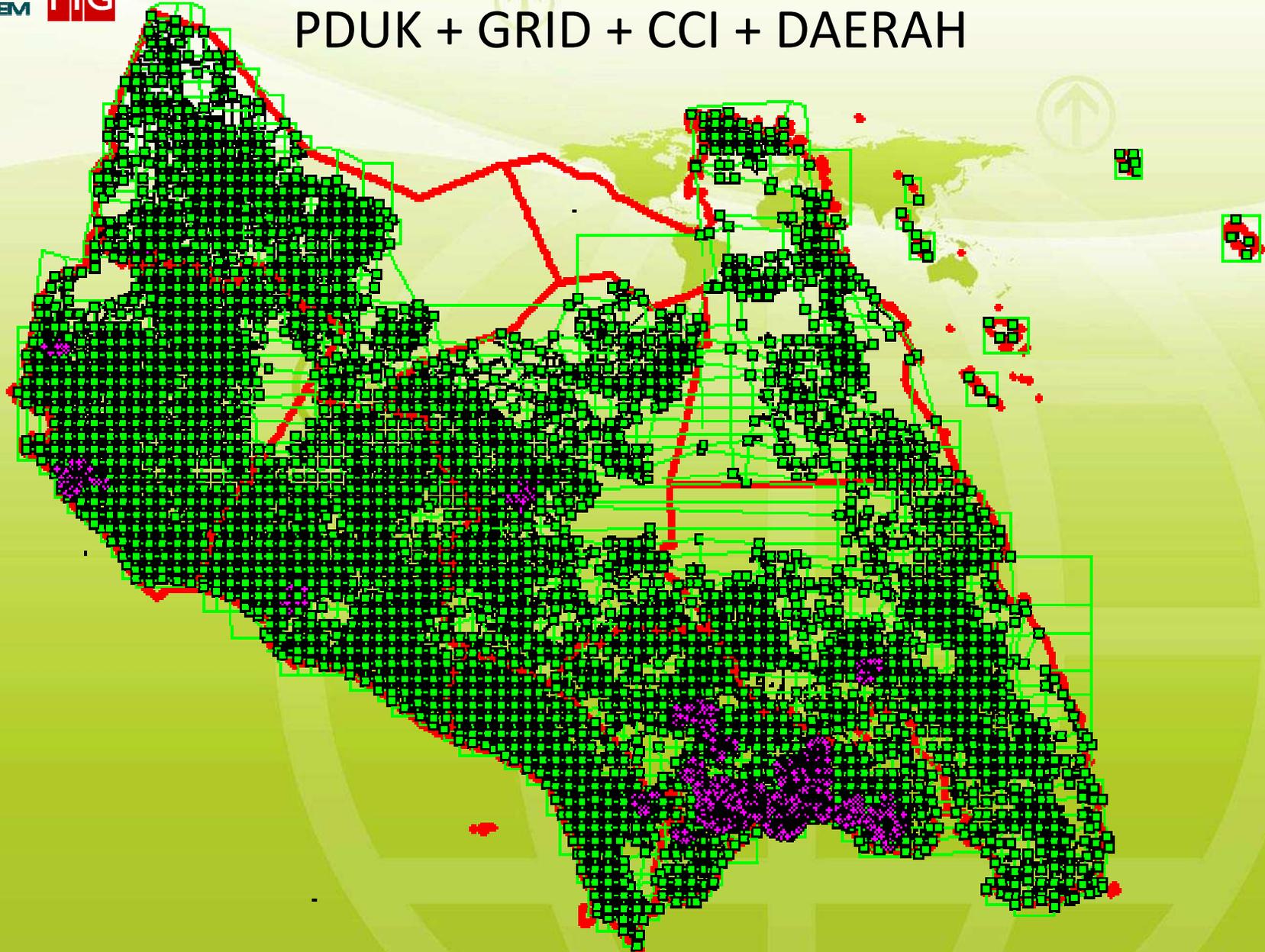


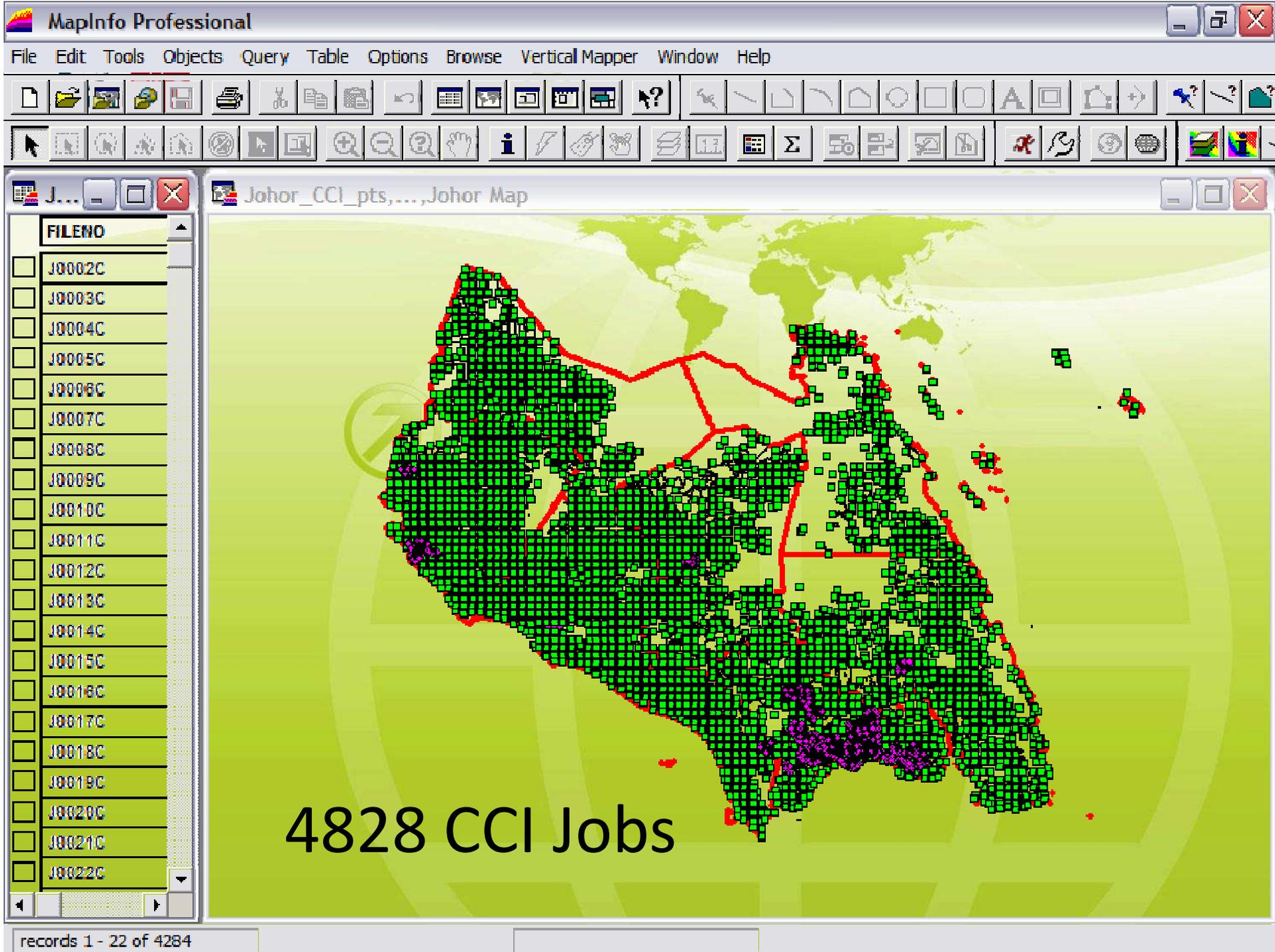


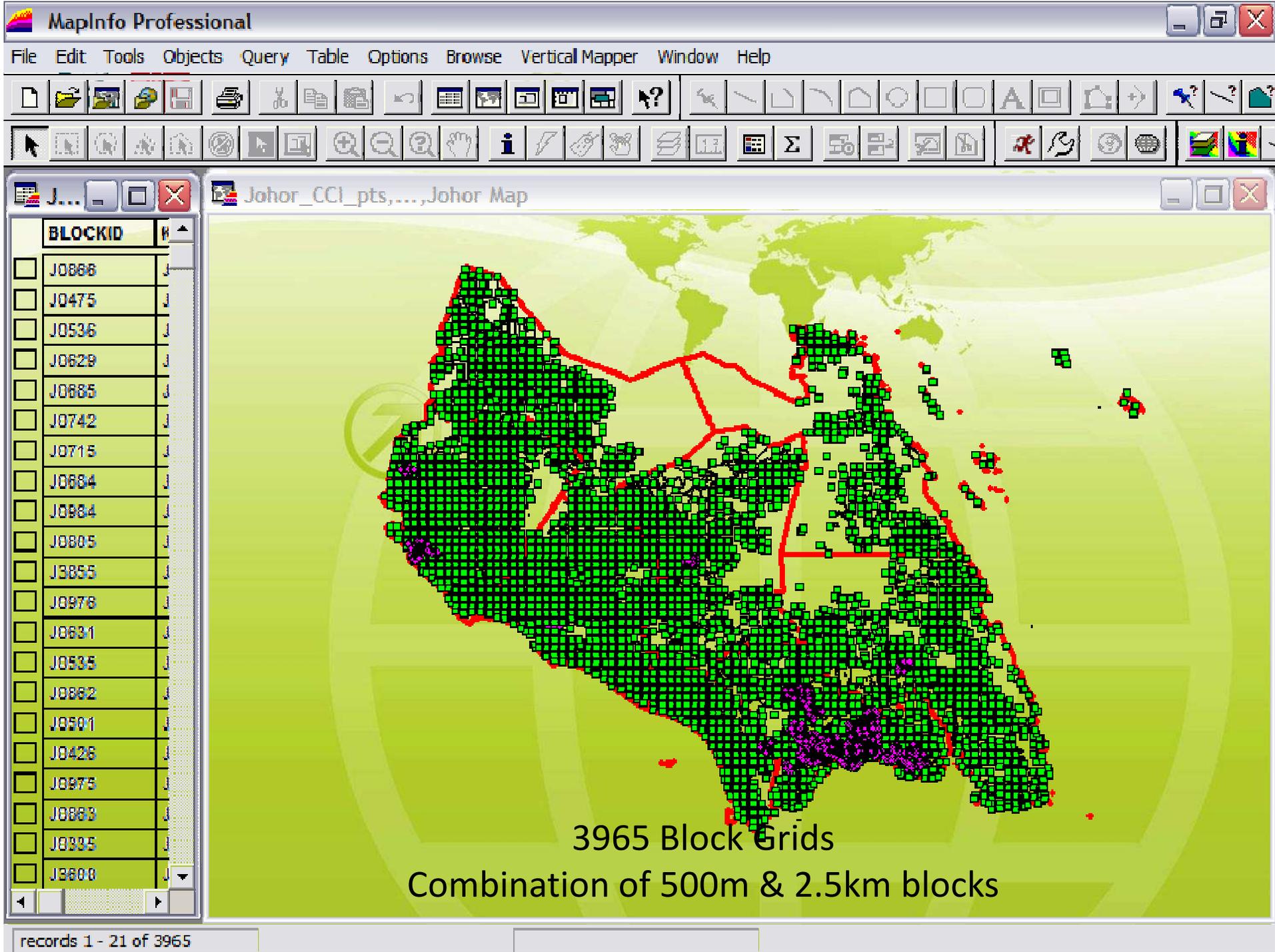
Methodology

Job Planning (Example)

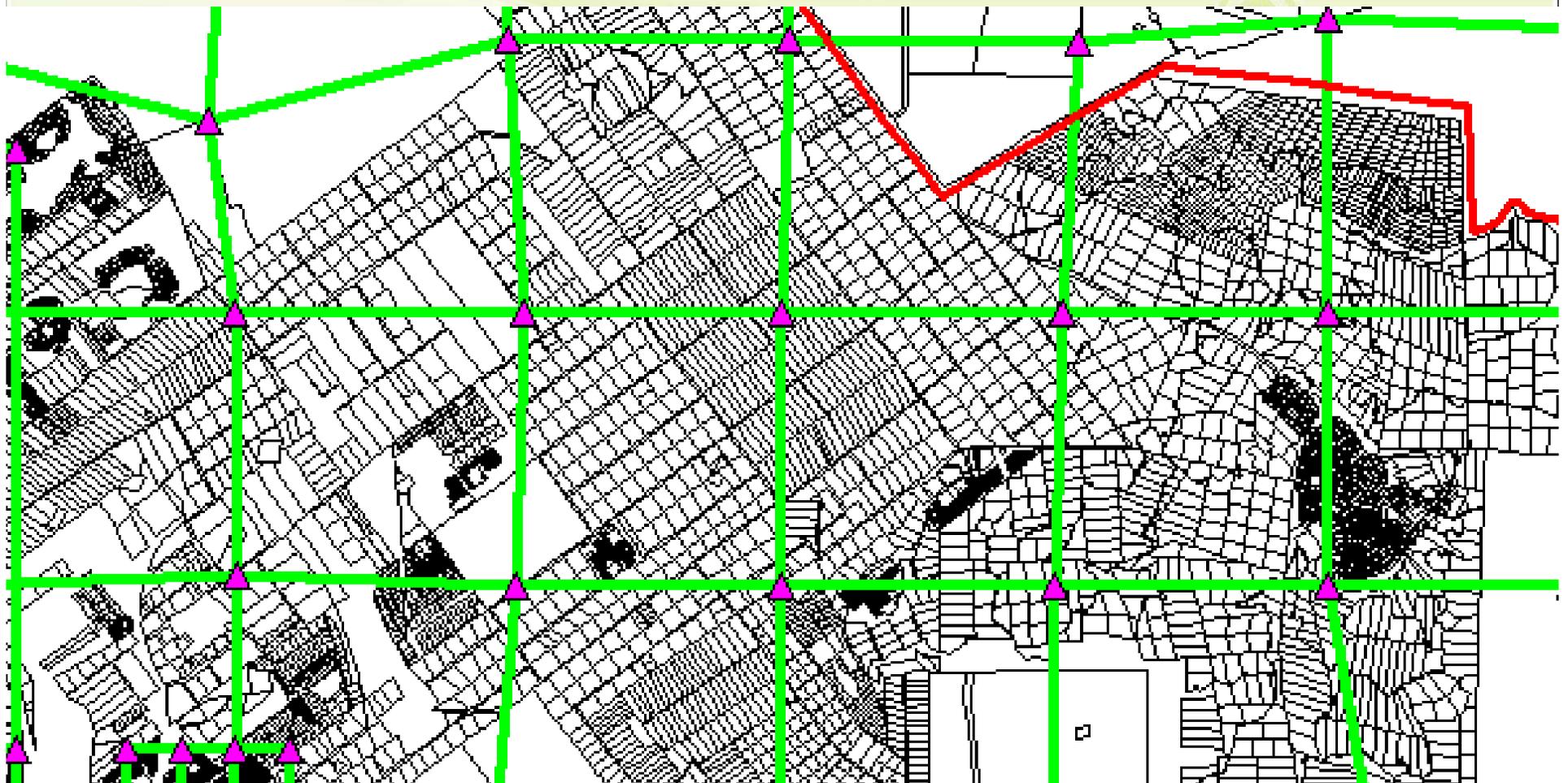
PDUK + GRID + CCI + DAERAH





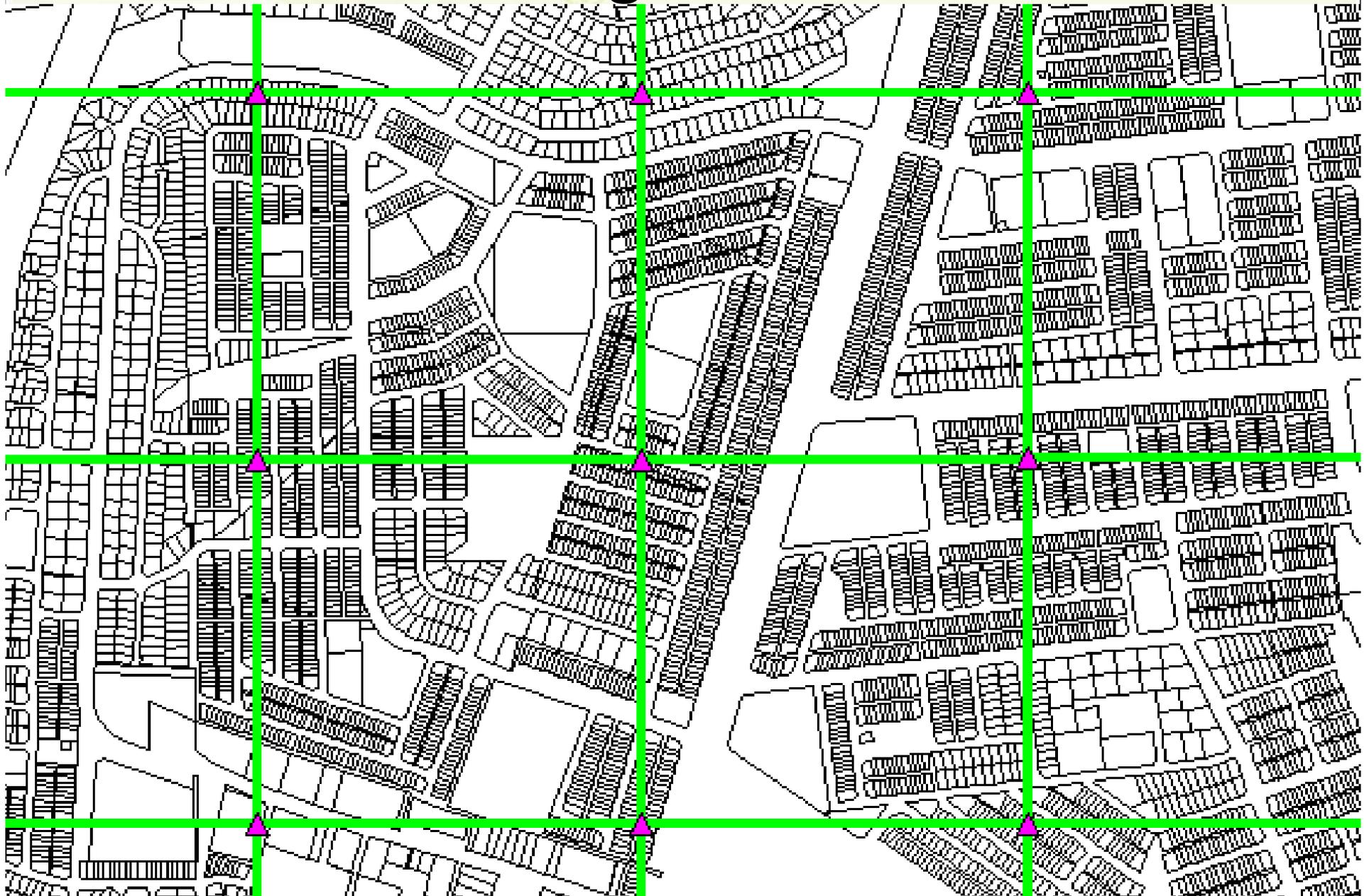


2.5 km block-grids based on CCI

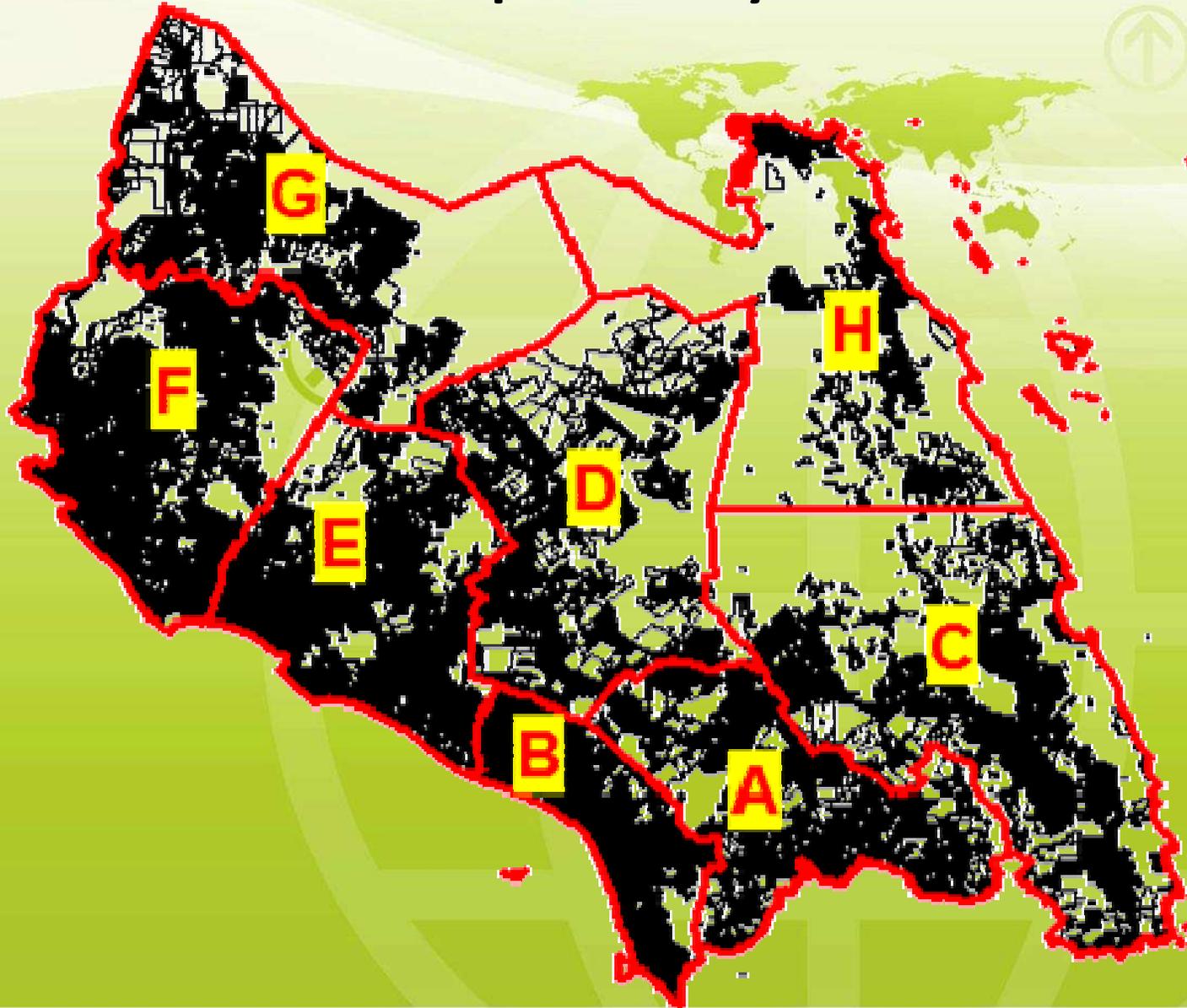




500m Block-grids based on CCI

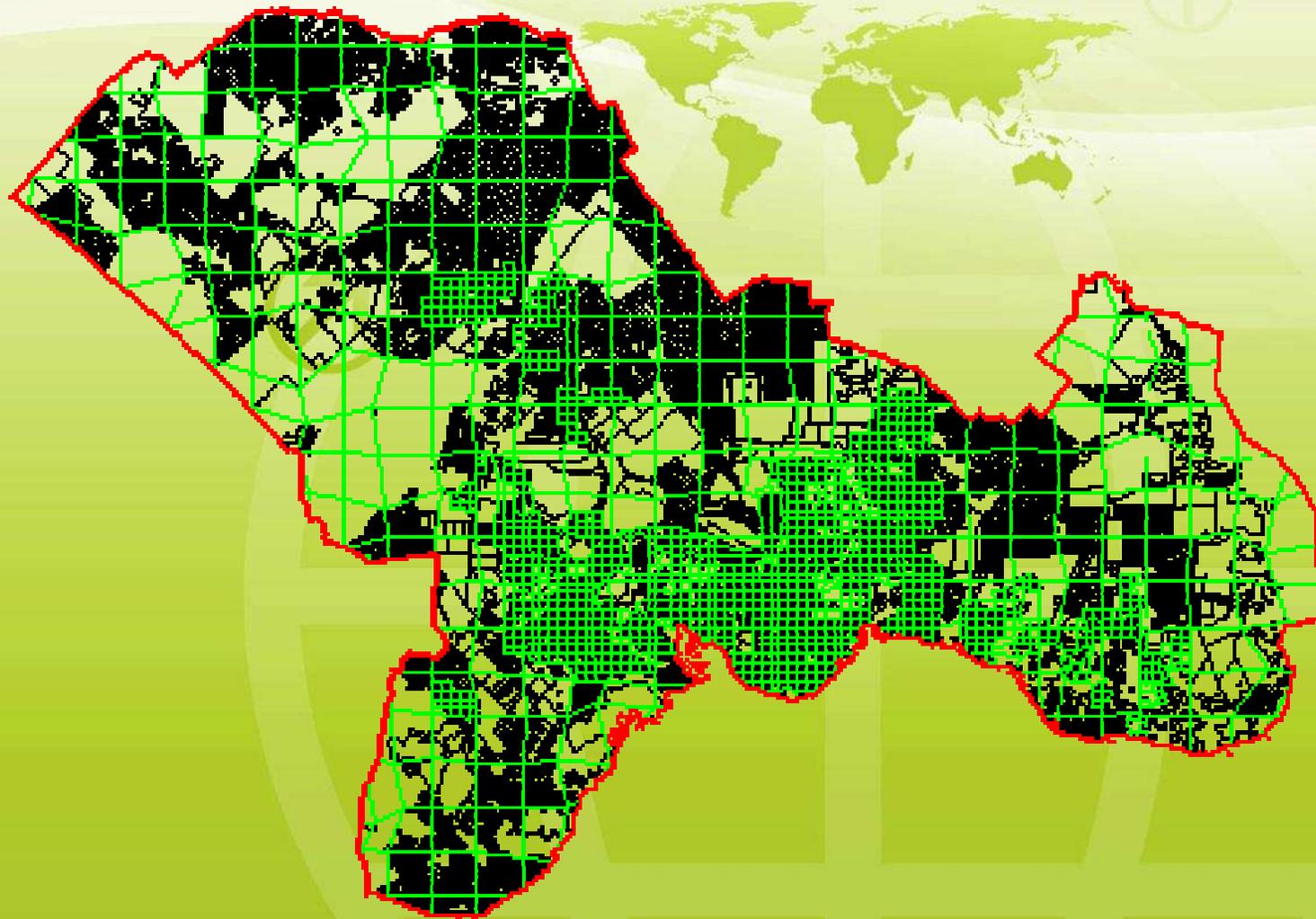


To set priority - Johor





Johor - Doing JB first



MapInfo Professional

File Edit Tools Objects Query Table Options Browse Vertical Mapper Window Help

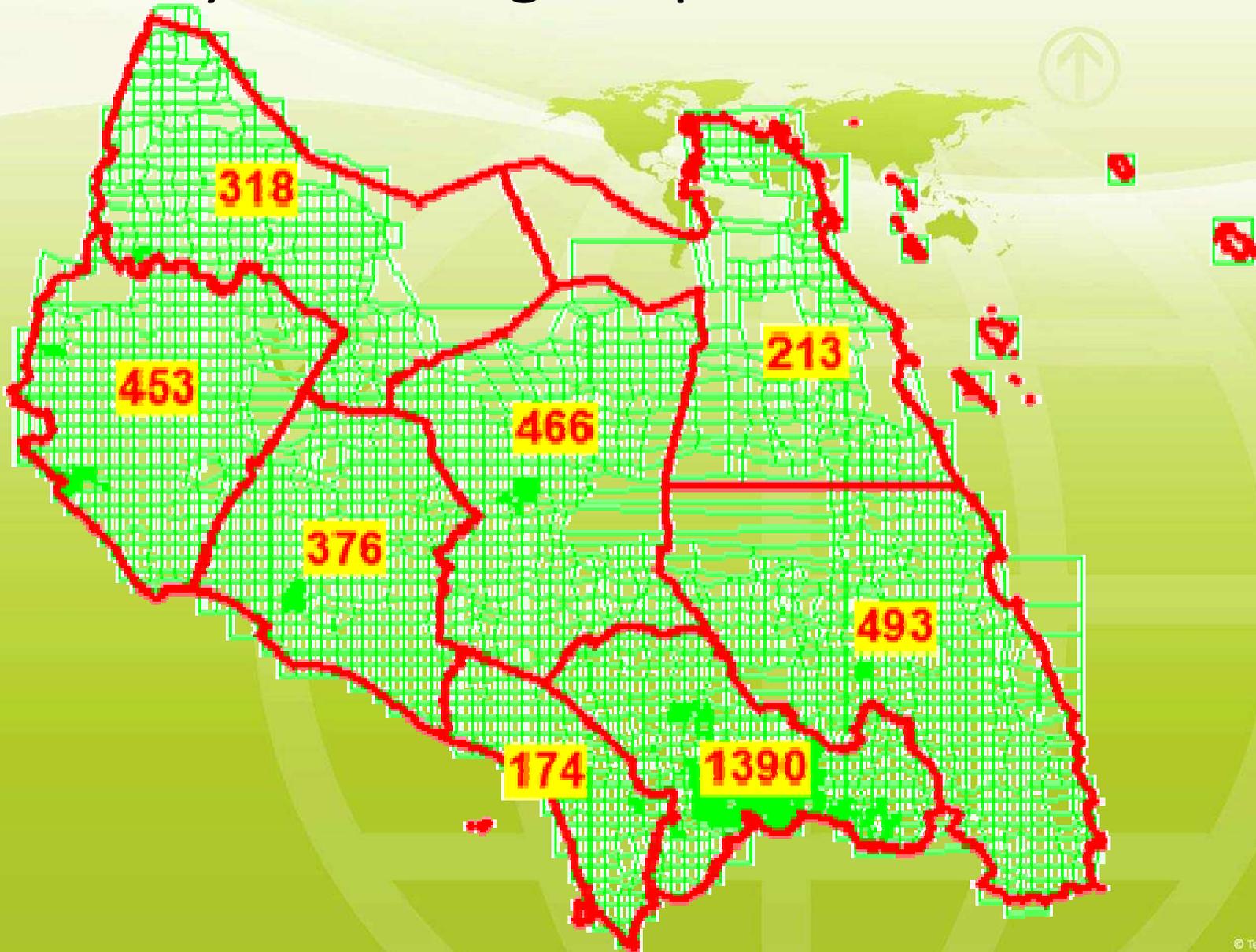
Priority, Johor_Daerah, ..., Johor Map

BLOCKID	
<input type="checkbox"/> J2293	J
<input type="checkbox"/> J2240	J
<input type="checkbox"/> J2254	J
<input type="checkbox"/> J2206	J
<input type="checkbox"/> J2323	J
<input type="checkbox"/> J2288	J
<input type="checkbox"/> J1963	J
<input type="checkbox"/> J3017	J
<input type="checkbox"/> J3019	J
<input type="checkbox"/> J2801	J
<input type="checkbox"/> J2484	J
<input type="checkbox"/> J2452	J
<input type="checkbox"/> J2408	J
<input type="checkbox"/> J2389	J
<input type="checkbox"/> J2383	J
<input type="checkbox"/> J2359	J
<input type="checkbox"/> J2812	J
<input type="checkbox"/> J3778	J
<input type="checkbox"/> J3788	J
<input type="checkbox"/> J2888	J

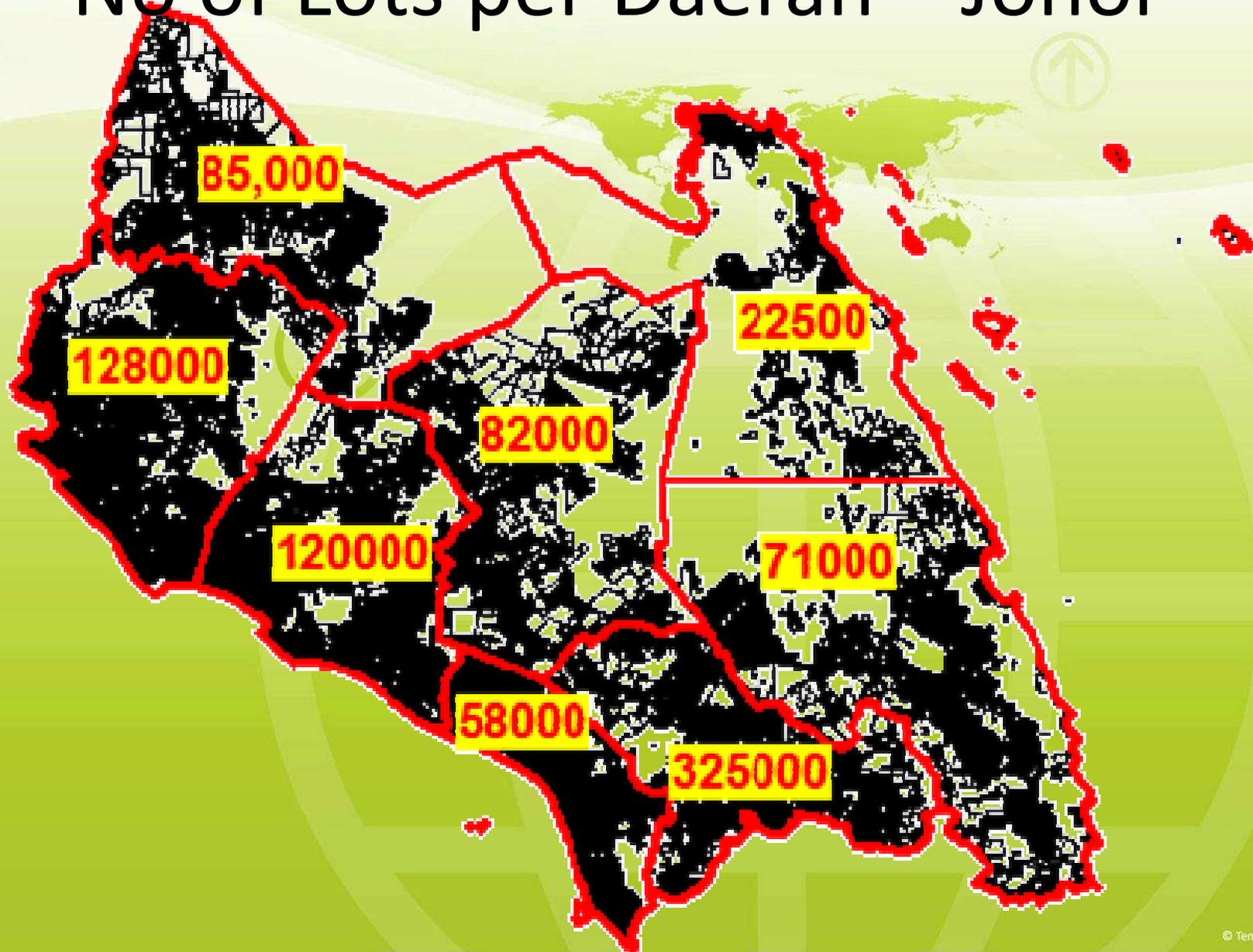
Approx 1390 block grids

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

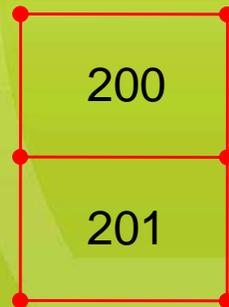


DCDB

- Shared BDY are not converted into single lines



CP1



Certified by
Surveyor B



CP2



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

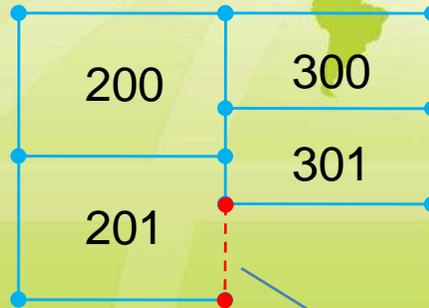
After LS, CS Certified



- 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

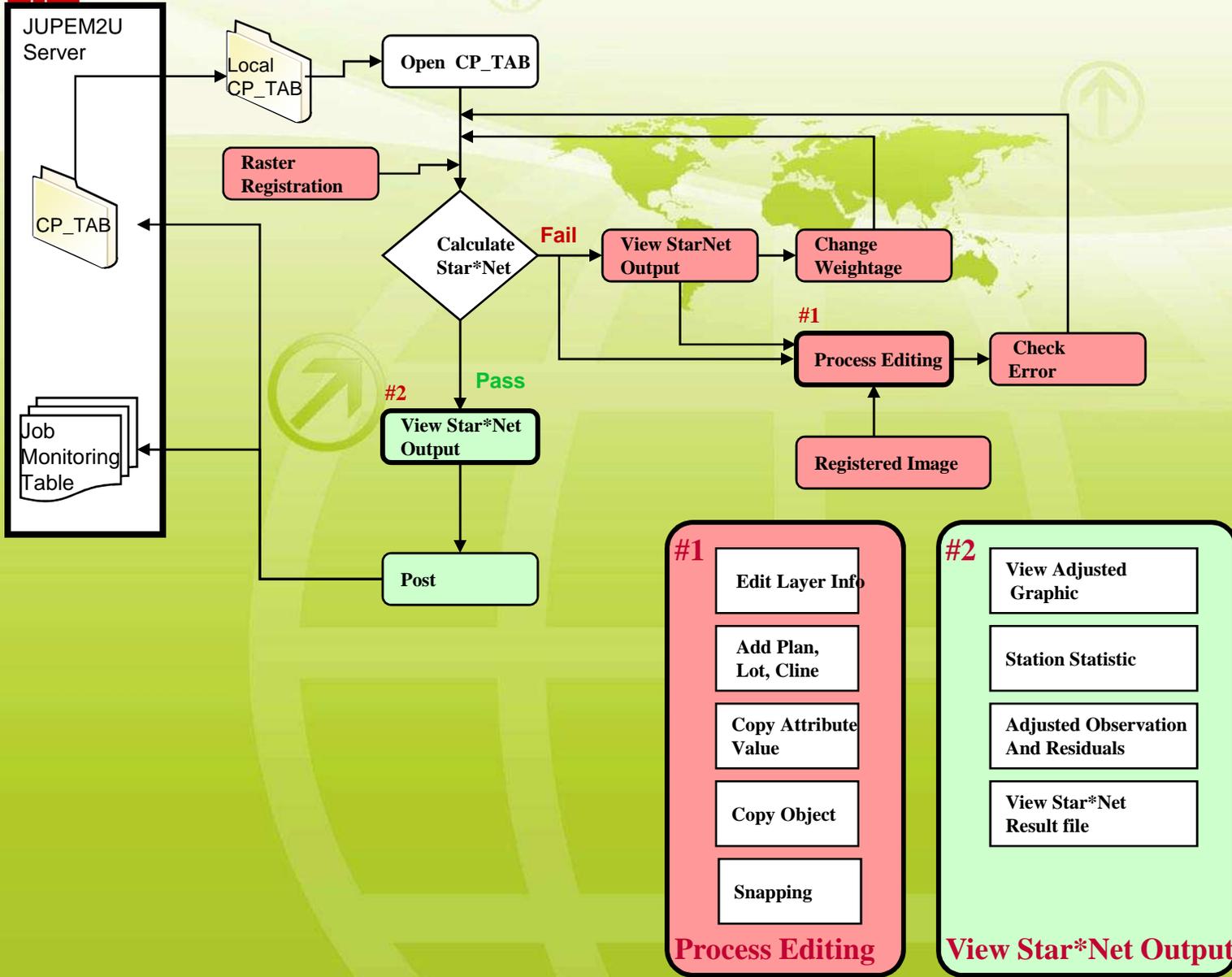
NDCDB_BDY	
Field Desc.	Type
UPI	Varchar2(16)
ADJCPRCEL	Varchar2(16)
BEARING	Varchar2(9)
DISTANCE	Dec(12,4)
FNODE	Dec(13,0)
TNODE	Dec(13,0)
TARIKH_KEMASKINI	Date

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



#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



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

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

- Calculate Least Square Adjustment
- Failed
 - Change Weightage

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

- Process Editing
 - Edit Layer Info
 - Add Plan, Lot or Cline
 - Copy Attribute Value
 - Copy Object
 - Snapping

- Passed
 - Copy and overwrite to JUPEM2U server's CP_TAB
 - Insert to Job Monitoring Table



R&R Cleaning Module

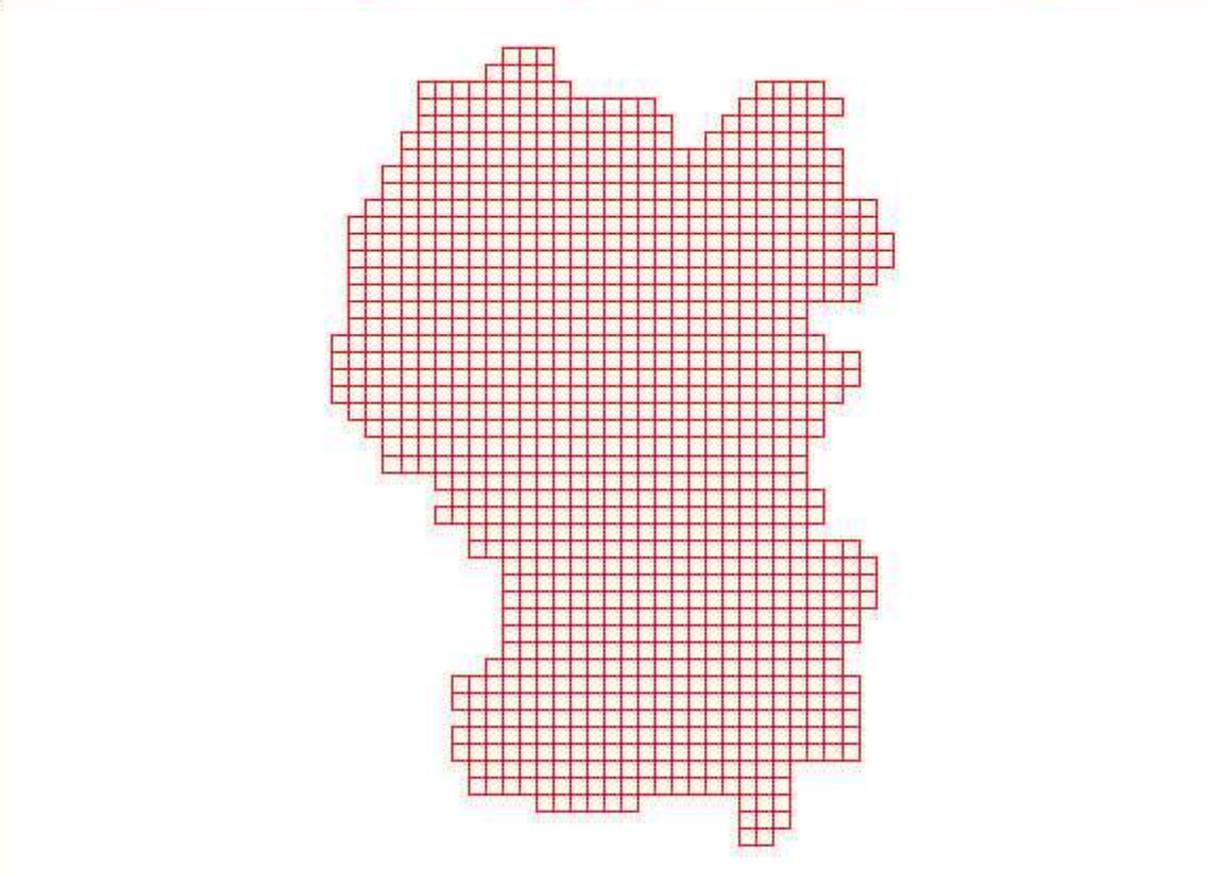
BlocksListing

- KL0930
- KL0931
- KL0932
- KL0933
- KL0934
- KL0935
- KL0936
- KL0937
- KL0938
- KL0939
- KL0940
- KL0941
- KL0942
- KL0943
- KL0944
- KL0945
- KL0946
- KL0947
- KL0948
- KL0949
- KL0950
- KL0951
- KL0952
- KL0953
- KL0954
- KL0955
- KL0956
- KL0957
- KL0958
- KL0959
- KL0960
- KL0961

File Edit Tools Objects Query Table Options Map Window Help RR.Cleaning

21.7 14.25

Blocks... KL0963... Zoom: 36, 100 m Selecting: None SNAP

The main window displays a map with a red grid overlay. The grid covers a large, irregularly shaped area, likely representing a specific geographical region or a set of data points. The grid is composed of small squares, and the overall shape is roughly circular with some irregularities on the edges.

Buttons Description

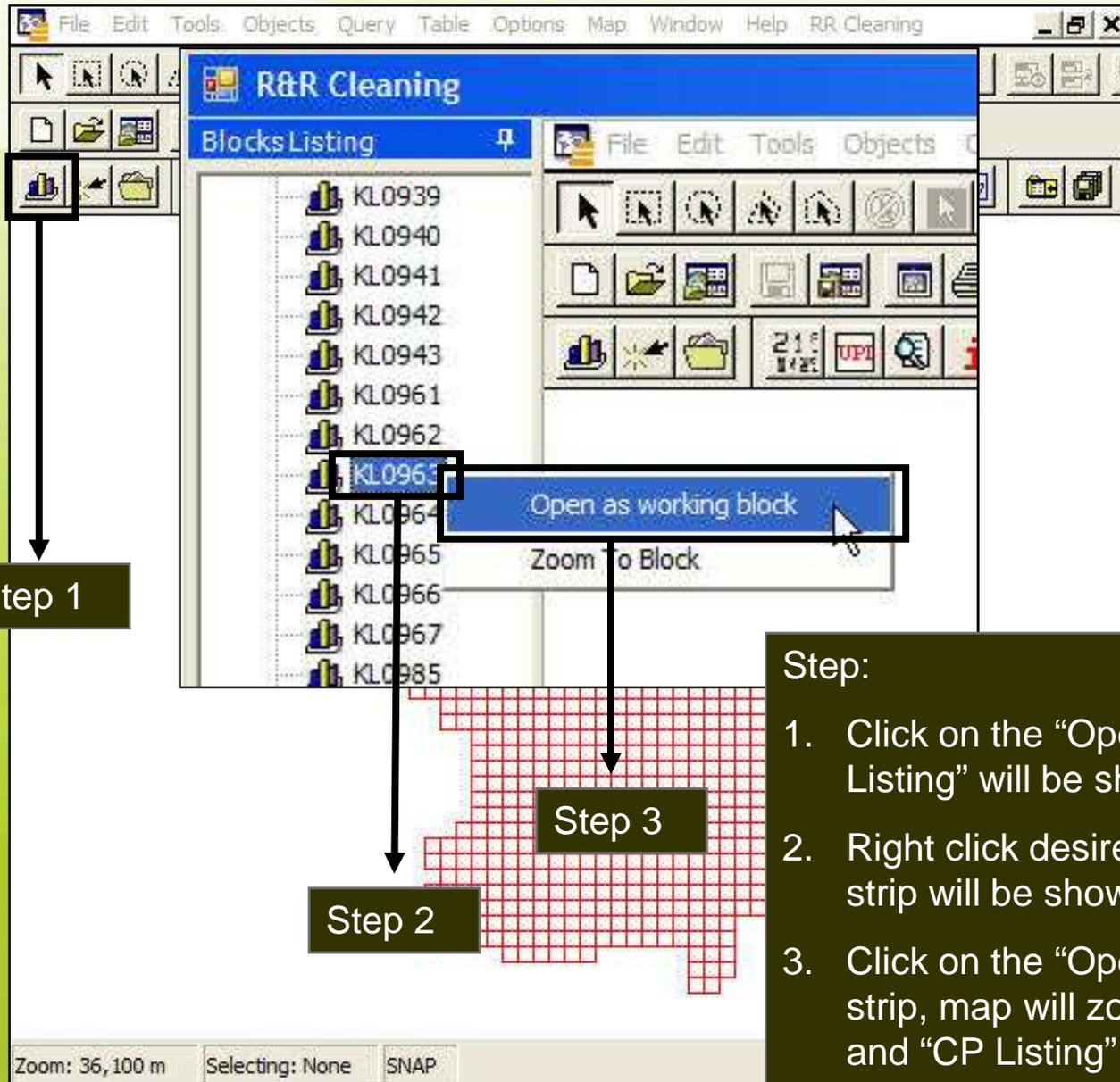
No.	Button	Description
1		Open Block
2		Click Open CP
3		Open Multiple CPs
4		Raster Registration
5		UPI Recoding
6		Check Error
7		Object's Information
8		Draw Connection Line



FIG

		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

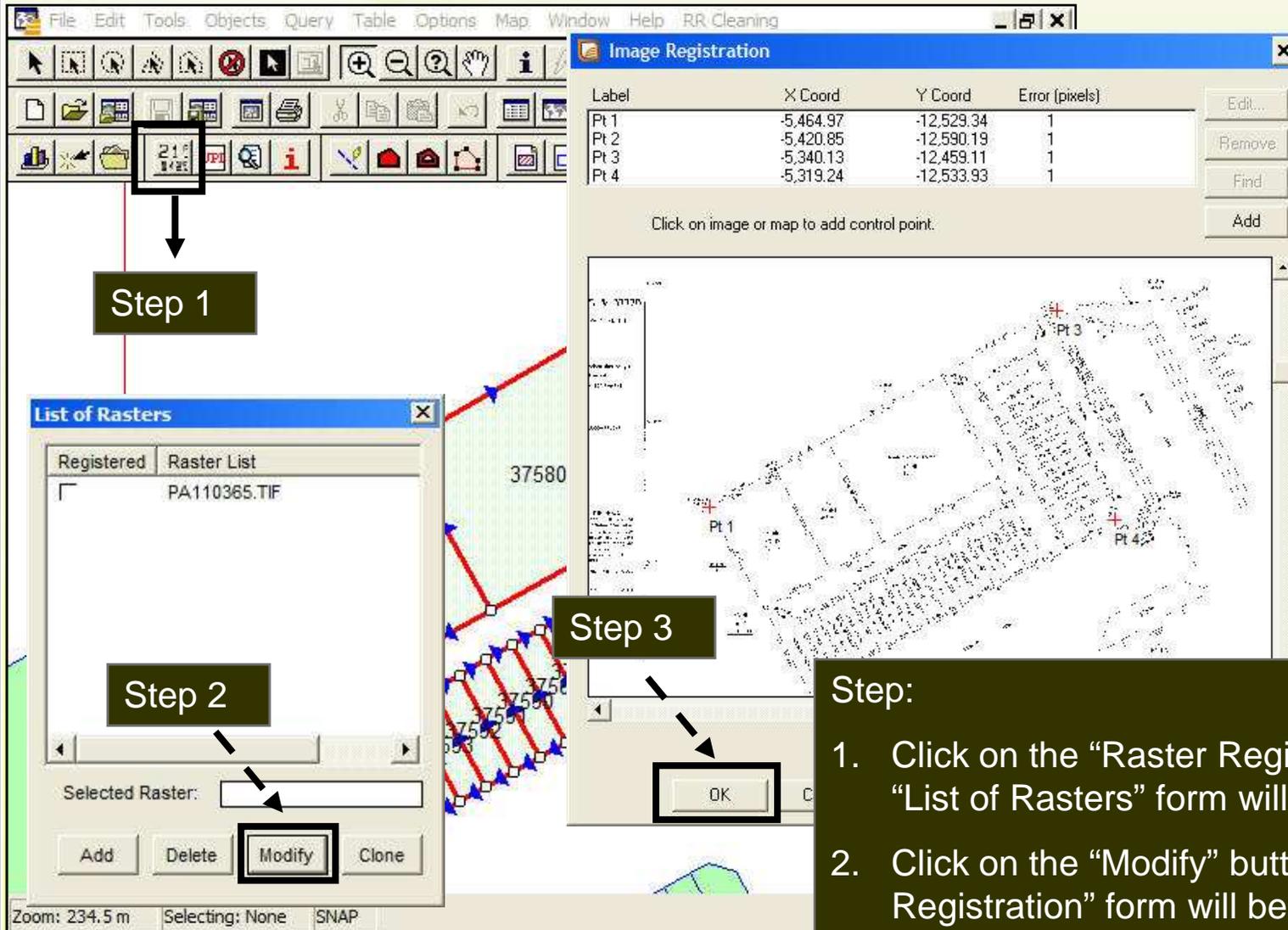
Step 2

Step 3

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



File Edit Tools Objects Query Table Options Map Window Help RR Cleaning

Image Registration

Label	X Coord	Y Coord	Error (pixels)
Pt 1	-5,464.97	-12,529.34	1
Pt 2	-5,420.85	-12,590.19	1
Pt 3	-5,340.13	-12,459.11	1
Pt 4	-5,319.24	-12,533.93	1

Click on image or map to add control point.

List of Rasters

Registered	Raster List
<input type="checkbox"/>	PA110365.TIF

Selected Raster:

Add Delete **Modify** Clone

Zoom: 234.5 m Selecting: None SNAP

Step 1

Step 2

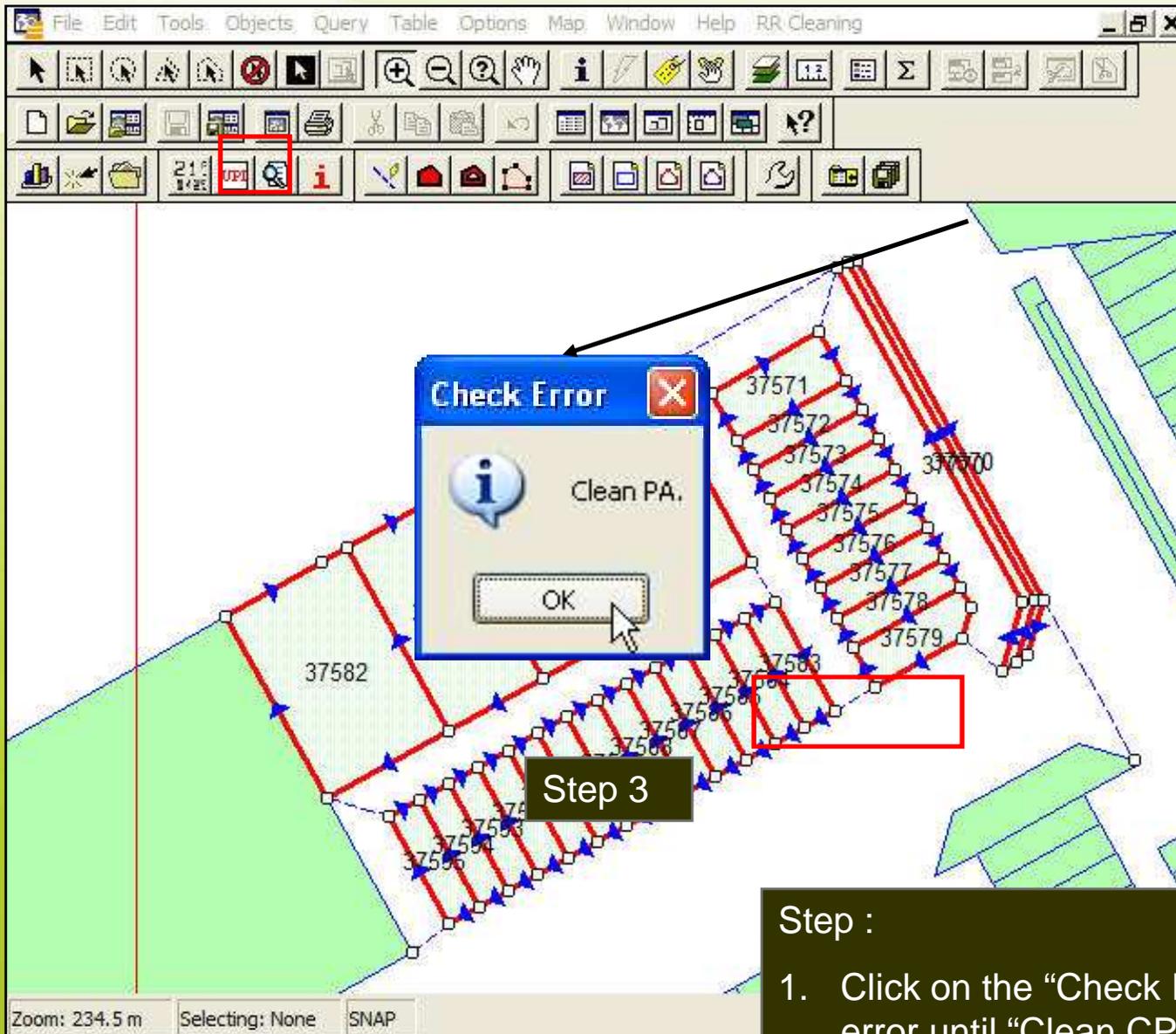
Step 3

OK

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.

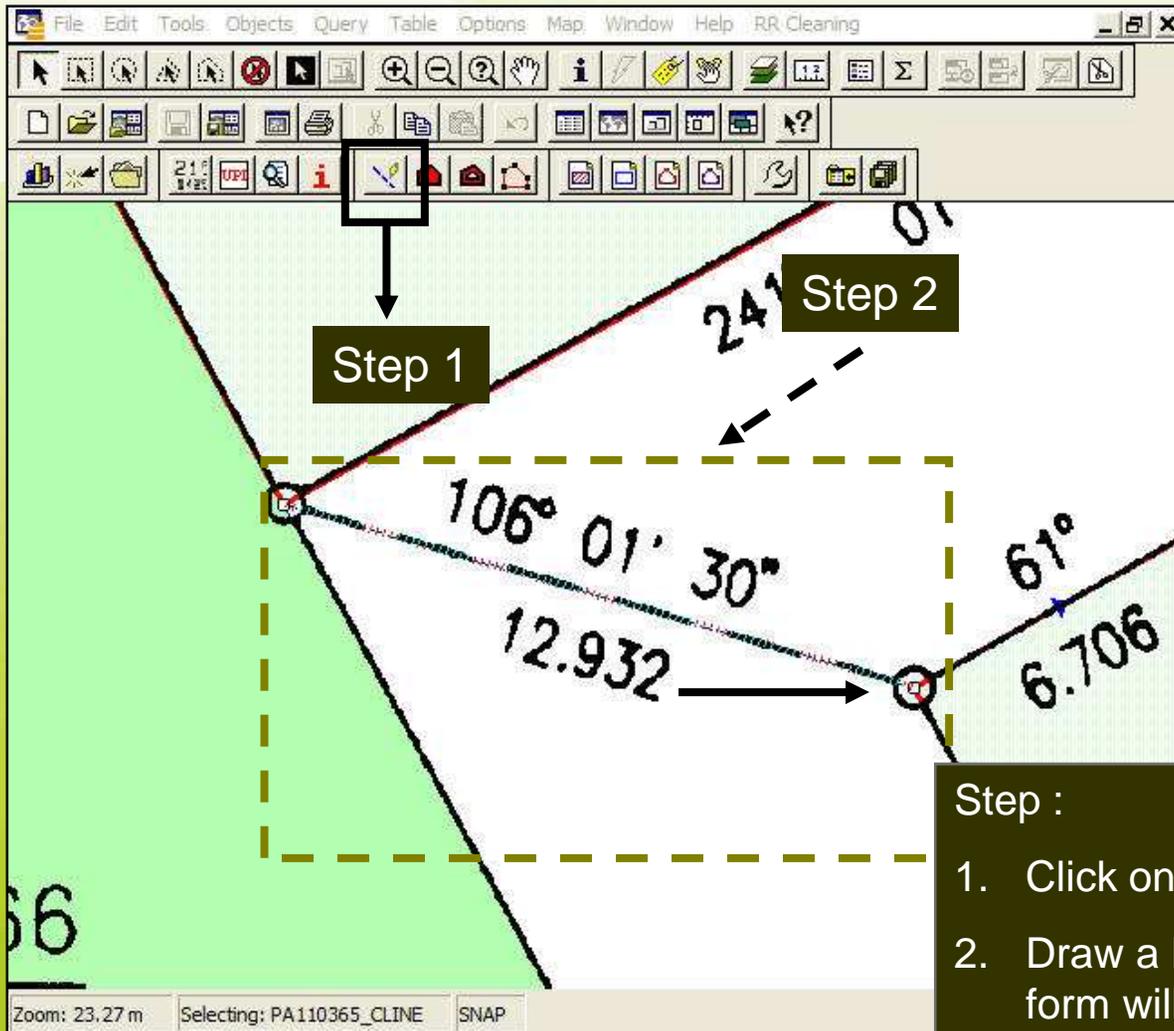
Check Error



Step :

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

Draw Connection Line



Multiple Info Tool
CLine: 5445025652, 543262

Data	
Plan	PA110365
Aupdate	19/01/2005
Class	1 - First
LineCode	2 - Connection
Bearing	106.0130
GBearing	106.0201
MBearing	106.034
Different_Bearing_Div	0.0032
Distance	
Unit	M - Meter
Value	12.932
Graphical_Value	12.929
Difference_In_Meter	0.003
FreeLine	None

Plan

Step 3

Delete Zoom Selection Close

Total Item : 1 Error : No_Error_Found

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.

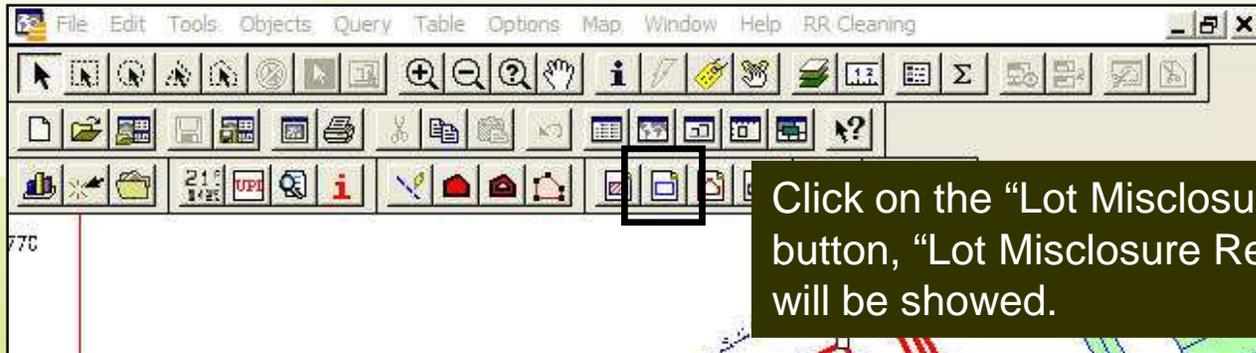
Area Comparison Report



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



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

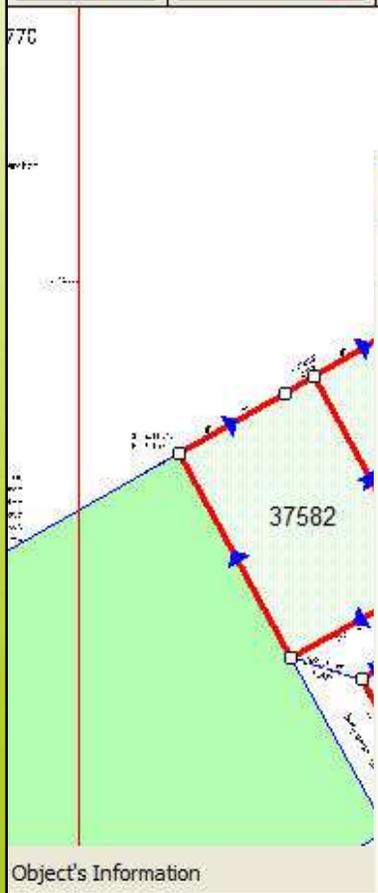
File Edit Format View Help

Adjustment Statistical Summary

Convergence Iterations = 2
 Number of Stations = 71
 Number of Observations = 250
 Number of Unknowns = 140
 Number of Redundant obs = 110

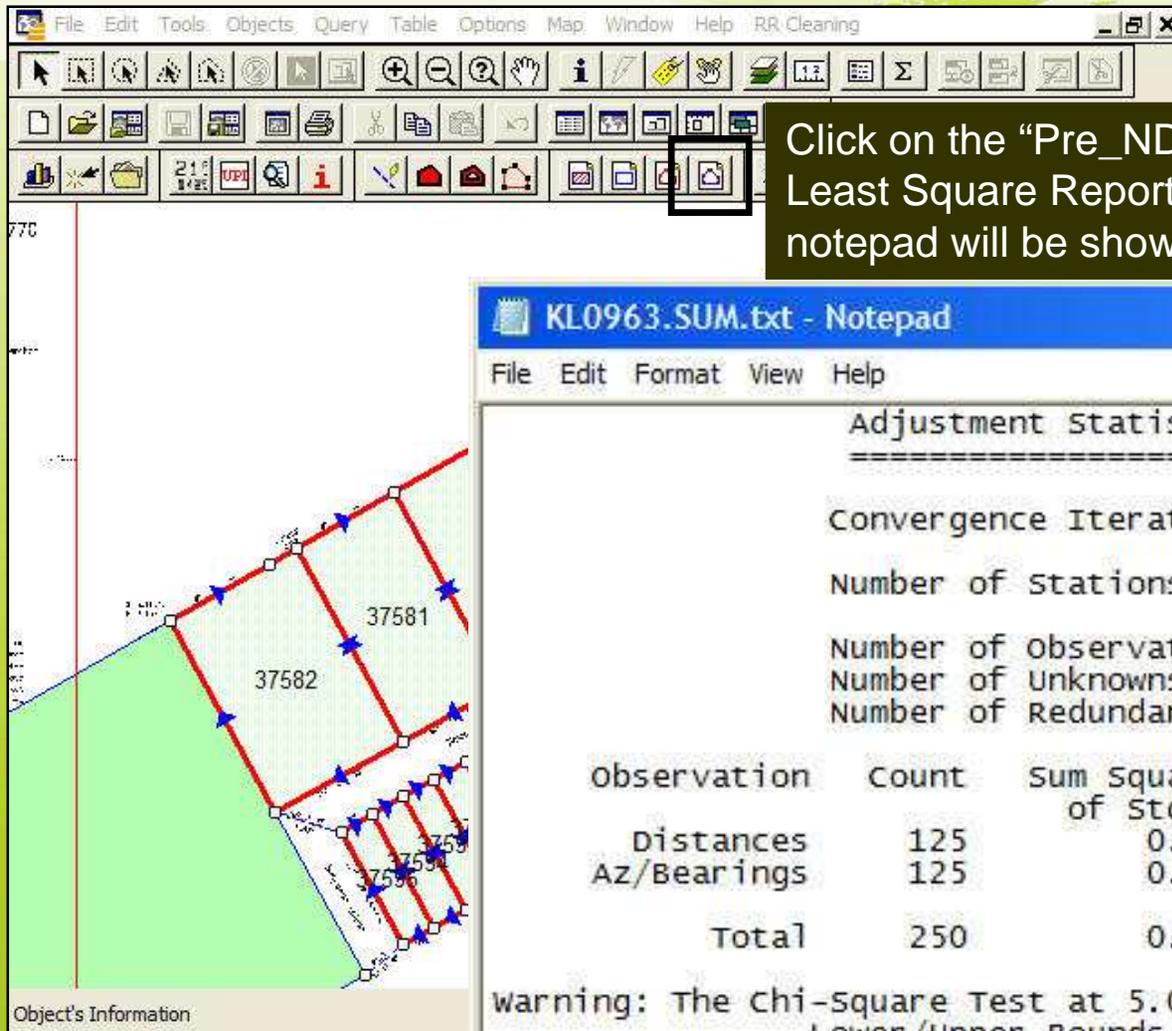
observation	Count	Sum Squares of StdRes	Error Factor
Distances	125	0.368	0.082
Az/Bearings	125	0.026	0.022
Total	250	0.394	0.060

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



Object's Information

Block and Working CP Least Square Report



Click on the "Pre_NDCDB and Working CP Least Square Report" button, "KL0963.SUM" notepad will be showed.

KL0963.SUM.txt - 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 of StdRes	Error 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)

??????

- **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

Least Square

Bdy:5402425416, 54210
 Bdy:5441125158, 54225
 Bdy:5360825186, 54024
 Bdy:5422525052, 53812
 Bdy:5402425416, 54225
 Bdy:5422525052, 54024
 Bdy:5441125158, 54210
 Bdy:5421025519, 54411
 Bdy:5307625265, 53441
 Bdy:5381224817, 53608
 CLine:5381224817, 534
 Bdy:5342024594, 53045
 CLine:5319225339, 531
 Bdy:5368824852, 53476
 Bdy:5340124591, 53030
 Bdy:5303025260, 53062
 Bdy:5319625237, 53174
 CLine:5344124606, 534
 Bdy:5421025519, 54450
 Bdy:5304925262, 53084
 Bdy:5319225339, 53365
 Bdy:5464925293, 54462
 Bdy:5308425384, 53114
 Bdy:5341724593, 53401
 Bdy:5344124606, 53420
 Bdy:5446225186, 54411
 CLine:5336525435, 534
 Bdy:5304925262, 53420
 Bdy:5308425384, 53045
 Bdy:5445025652, 54645
 Bdy:5356325266, 53445
 Bdy:5311425400, 53076
 Bdy:5347624731, 53424
 Bdy:5363724944, 53688
 CLine:5360825186, 535
 CLine:5381224817, 536

PA	PA110365
FStnId	5402425416
TStnId	5421025519
Bearing	241.0130
Mbearing	241.0092
MBearing	241
Different_Bearing_DM	0.0130
AdjustedBearing	241.0130
BearingResidual	0.0000
BearingStdResidual	0
BearingStdError	10
BearingWeightage	10
Distance	21.336 M
Unit	M - Meter
Value	21.336
Graphical_value	21.33
Difference_In_Meter	0.006
AdjustedDistance	21.3385
DistanceResidual	0.0025
DistanceStdResidual	0.5
DistanceStdError	0.005
DistanceWeightage	0.005

PA

Zoom Selection

Close

Total Item : 124

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

File Edit Tools Objects Query Table Options Map Window Help RR.Cleaning

BLOCK KL0870

- PA103912
- PA106106
- PA106107
- PA106109
- PA112118
- PA112122
- PA112135
- PA121031
- PA23922

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 2

Step 1

Step

1. Modify Bearing or Distance's Weightage base on "Class", then click on the "OK" button to proceed.

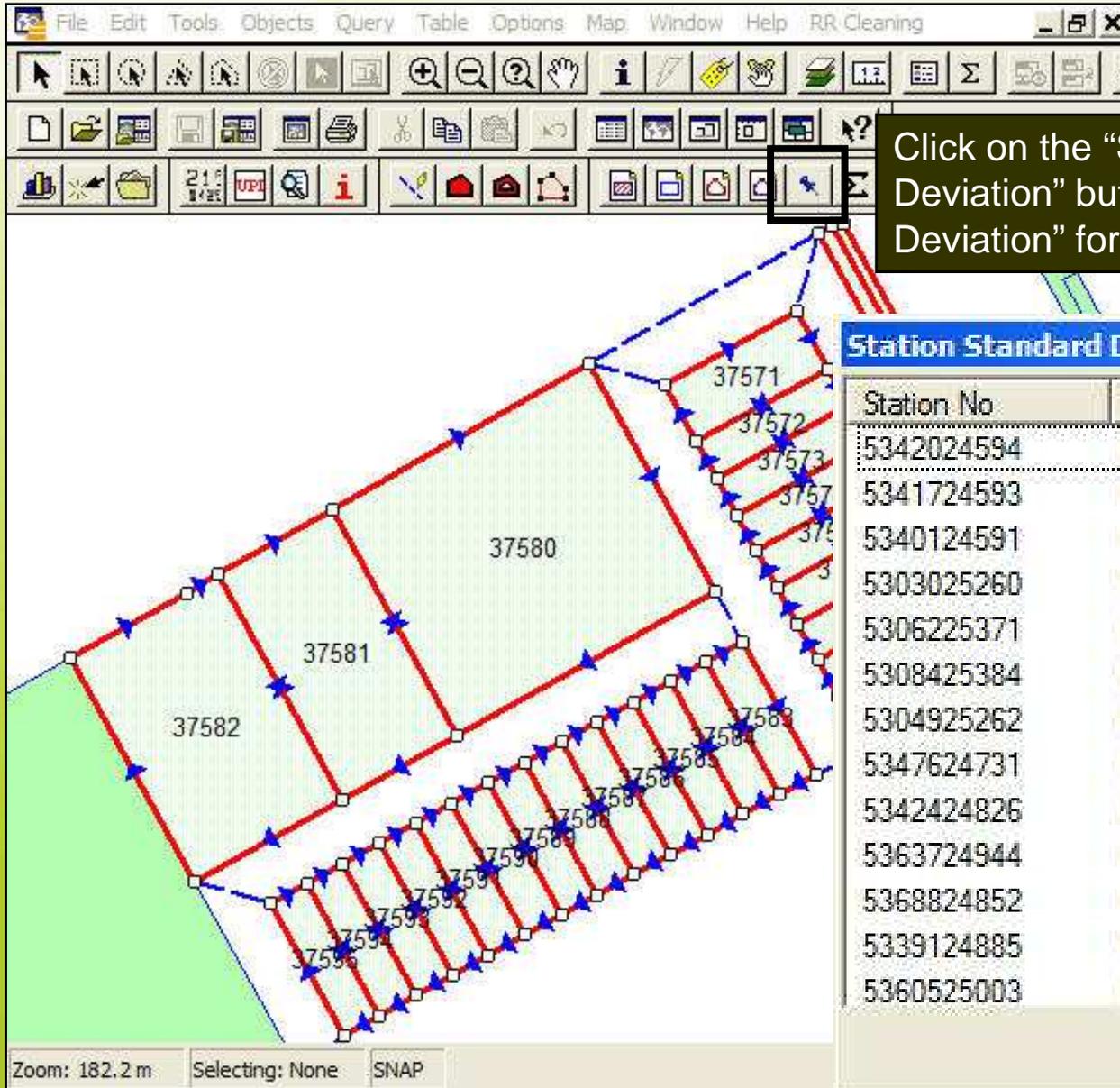
Step 3



- **Station Standard Deviation**

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

Station Standard Deviation



Click on the "Station Standard Deviation" button, "Station Standard Deviation" form will be showed.

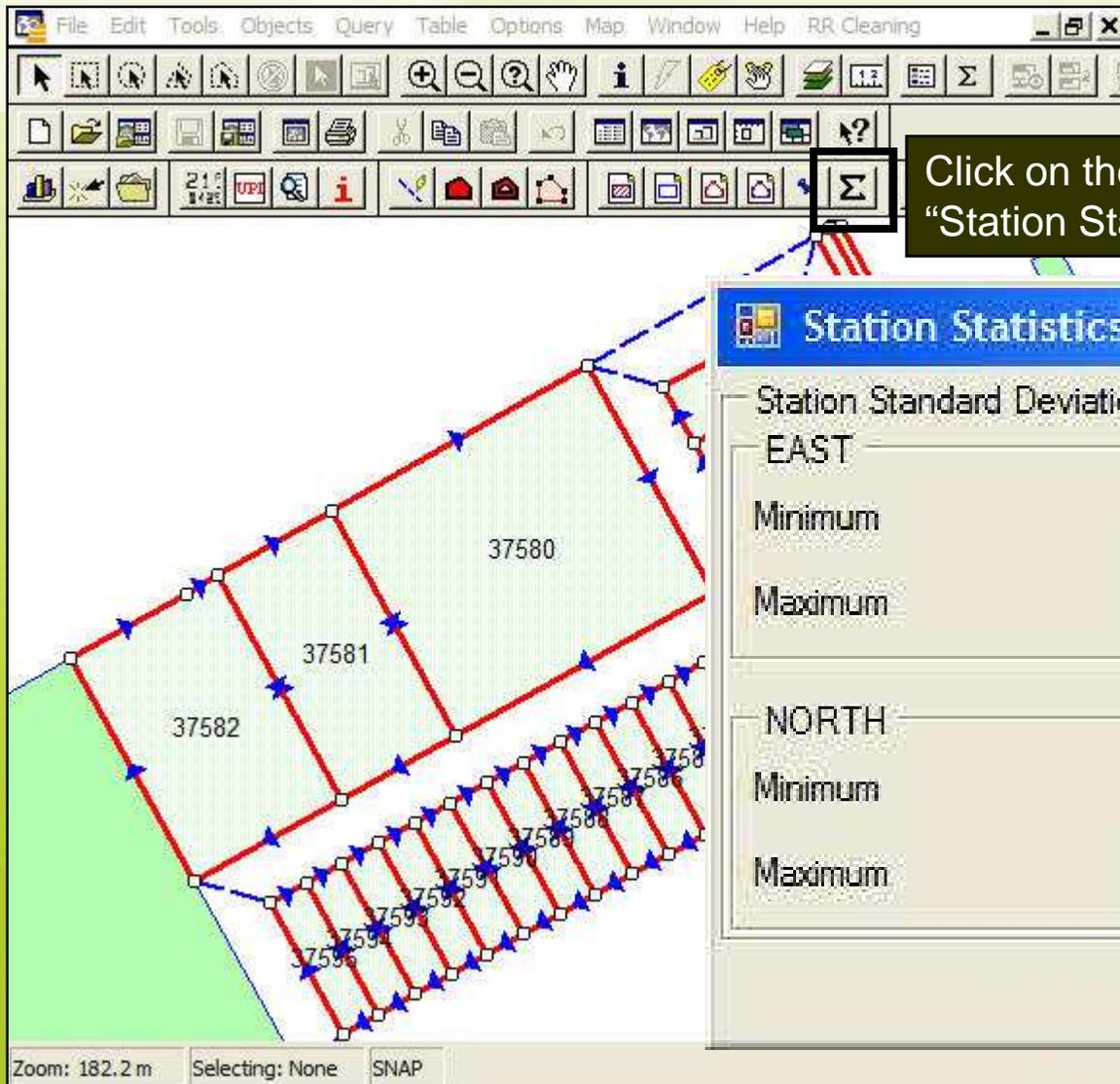
Station Standard Deviation			
Station No	East	North	
5342024594	0	0	
5341724593	0.003808	0.002165	
5340124591	0.004715	0.002069	
5303025260	0.004237	0.004092	
5306225371	0.004299	0.003552	
5308425384	0.002651	0.003076	
5304925262	0.002426	0.002707	
5347624731	0.003512	0.003113	
5342424826	0.0039	0.004193	
5363724944	0.004013	0.004173	
5368824852	0.003719	0.003045	
5339124885	0.004161	0.004883	
5360525003	0.004256	0.00487	

Close

- **Station Statistics**

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

Station Statistics



Click on the "Station Statistics" button, "Station Statistics" form will be showed.

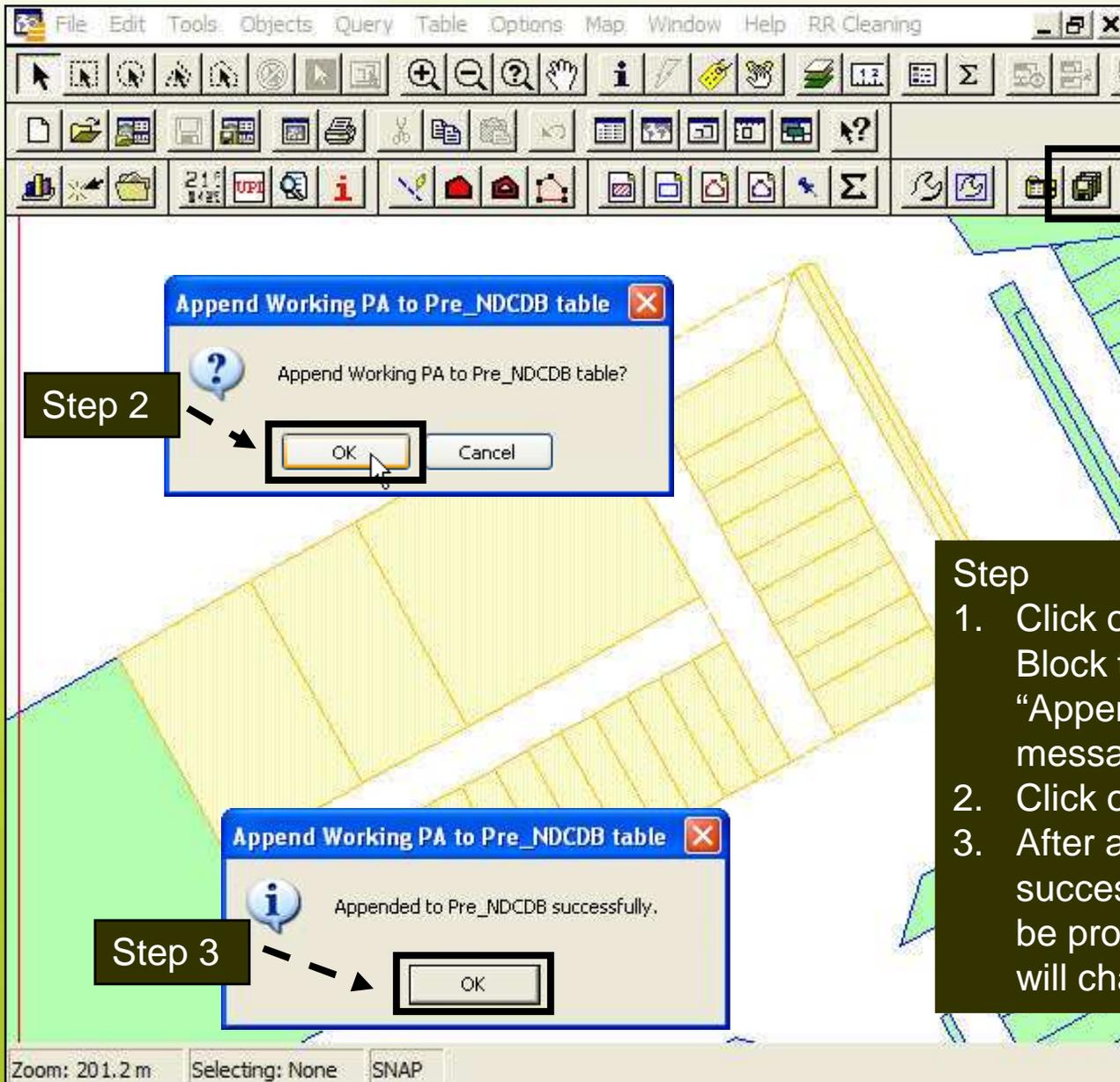
Station Standard Deviation	
EAST	
Minimum	0
Maximum	0.008409
NORTH	
Minimum	0
Maximum	0.00605
<input type="button" value="Close"/>	



- **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

Step 2

Step 3

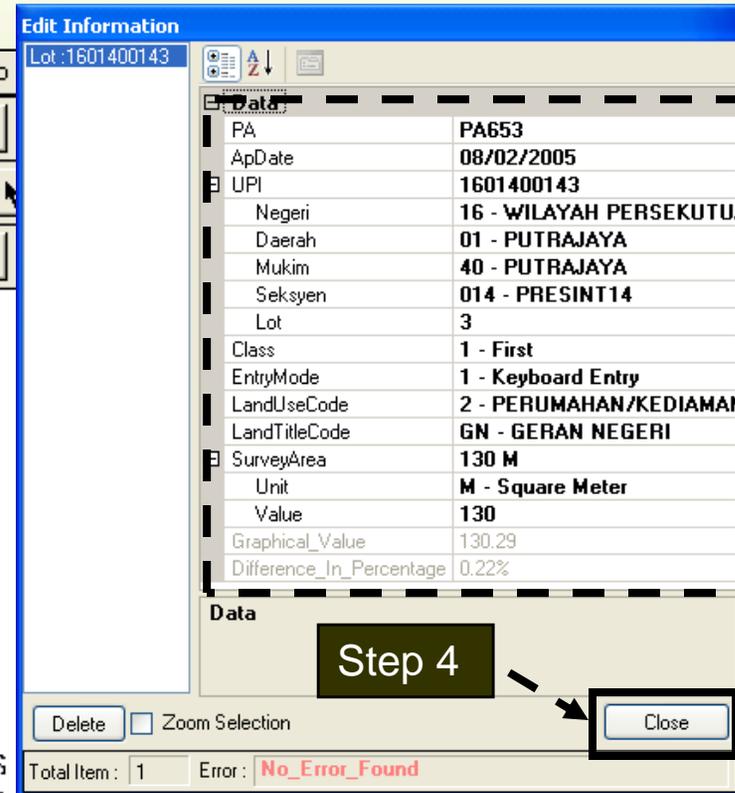
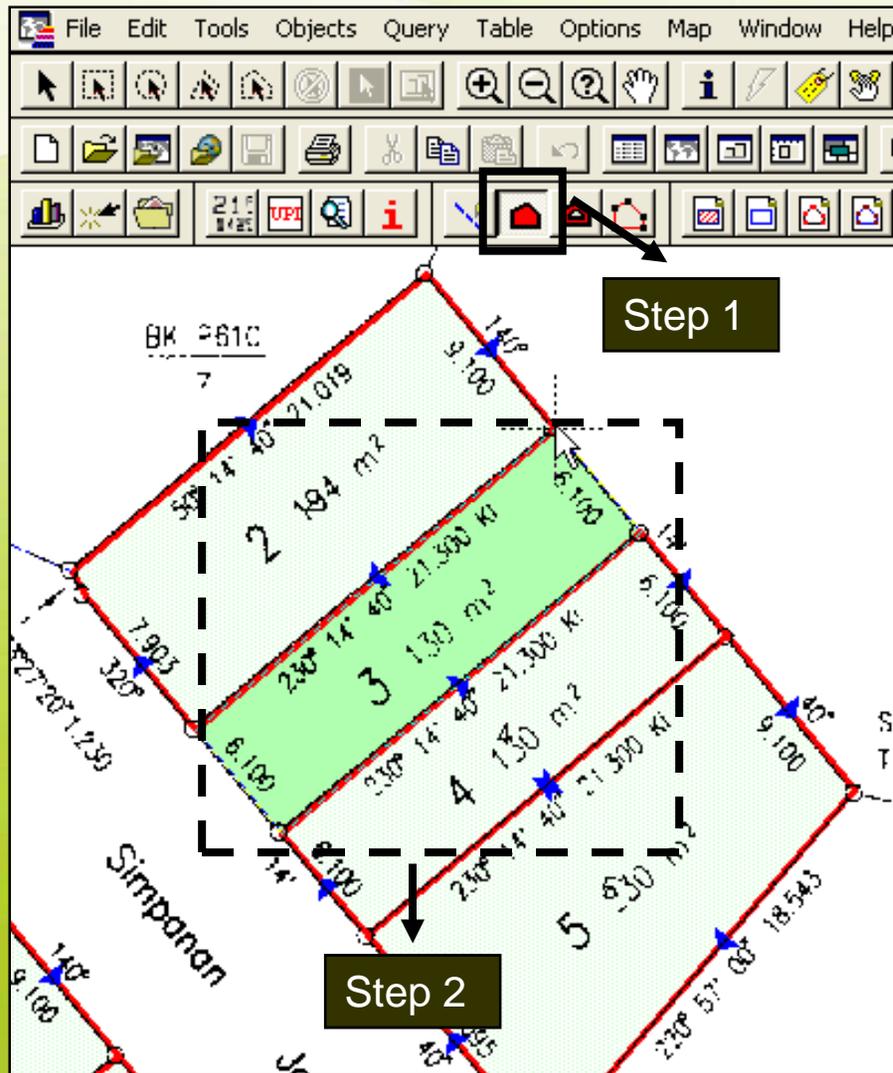
Step

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 3

Step 1

Step 2

Step 4

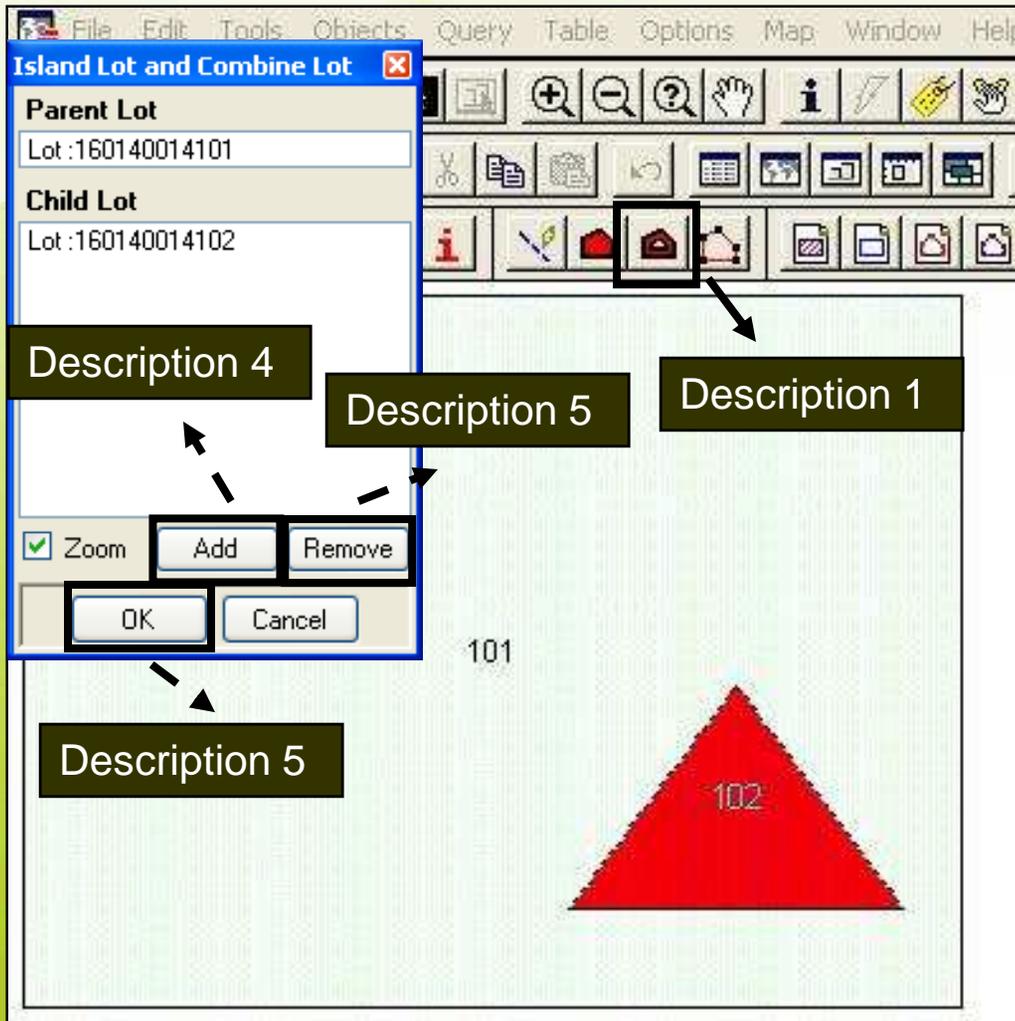
Step

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



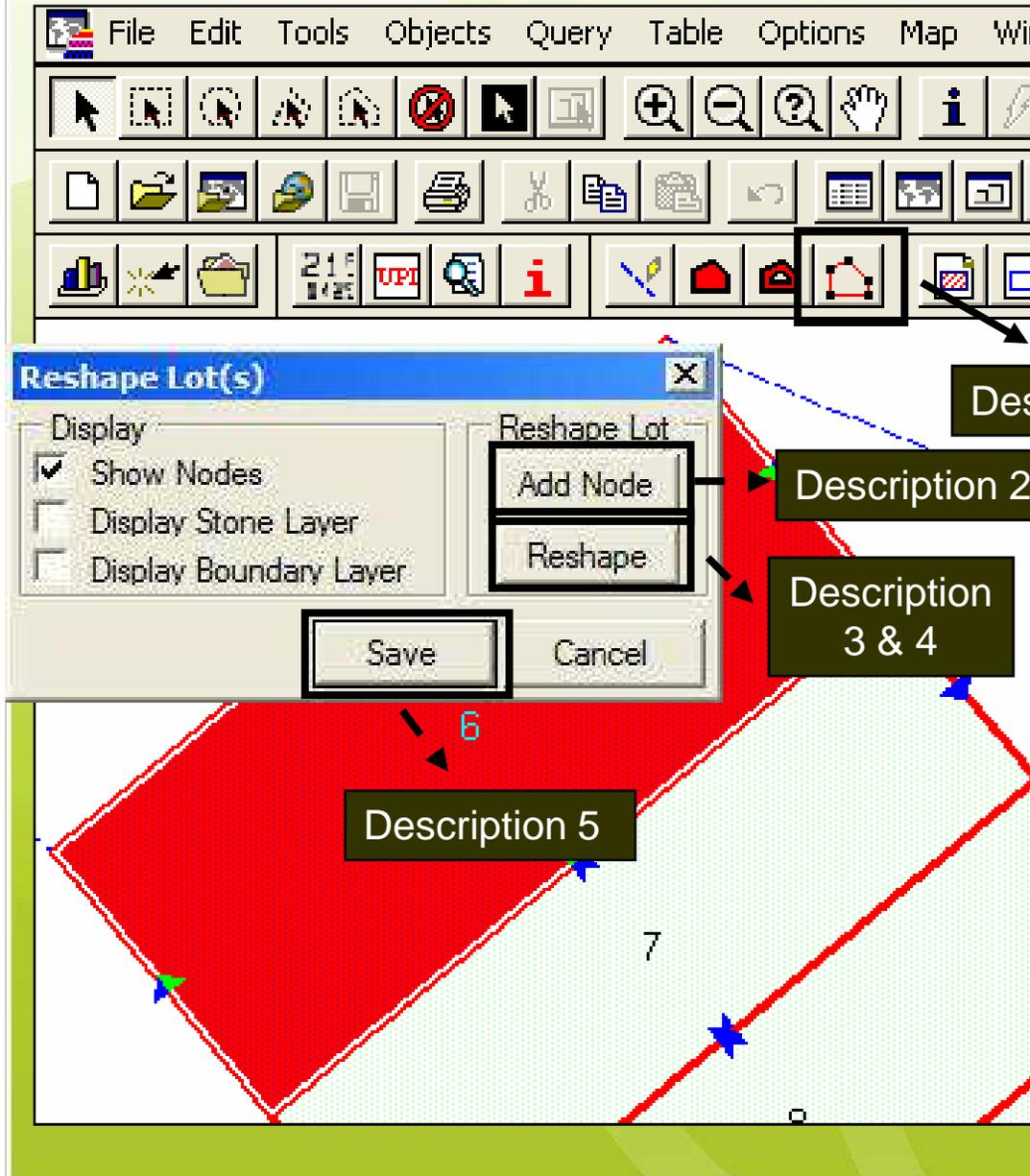
Description :

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



The screenshot shows the FIG software interface with the 'Reshape Lot(s)' dialog box open. The dialog box has a 'Display' section with three checkboxes: 'Show Nodes' (checked), 'Display Stone Layer' (unchecked), and 'Display Boundary Layer' (unchecked). The 'Reshape Lot' section contains two buttons: 'Add Node' and 'Reshape'. Below these are 'Save' and 'Cancel' buttons. The map below shows a red lot with a dashed red boundary and a solid red boundary. A green arrow points to a node on the dashed boundary, and a blue arrow points to a node on the solid boundary. A red arrow points to the 'Reshape Lot' button in the toolbar. A black arrow points to the 'Save' button in the dialog box. A green arrow points to the 'Add Node' button in the dialog box. A blue arrow points to the 'Reshape' button in the dialog box.

Description 1

Description 2

Description 3 & 4

Description 5

- 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.

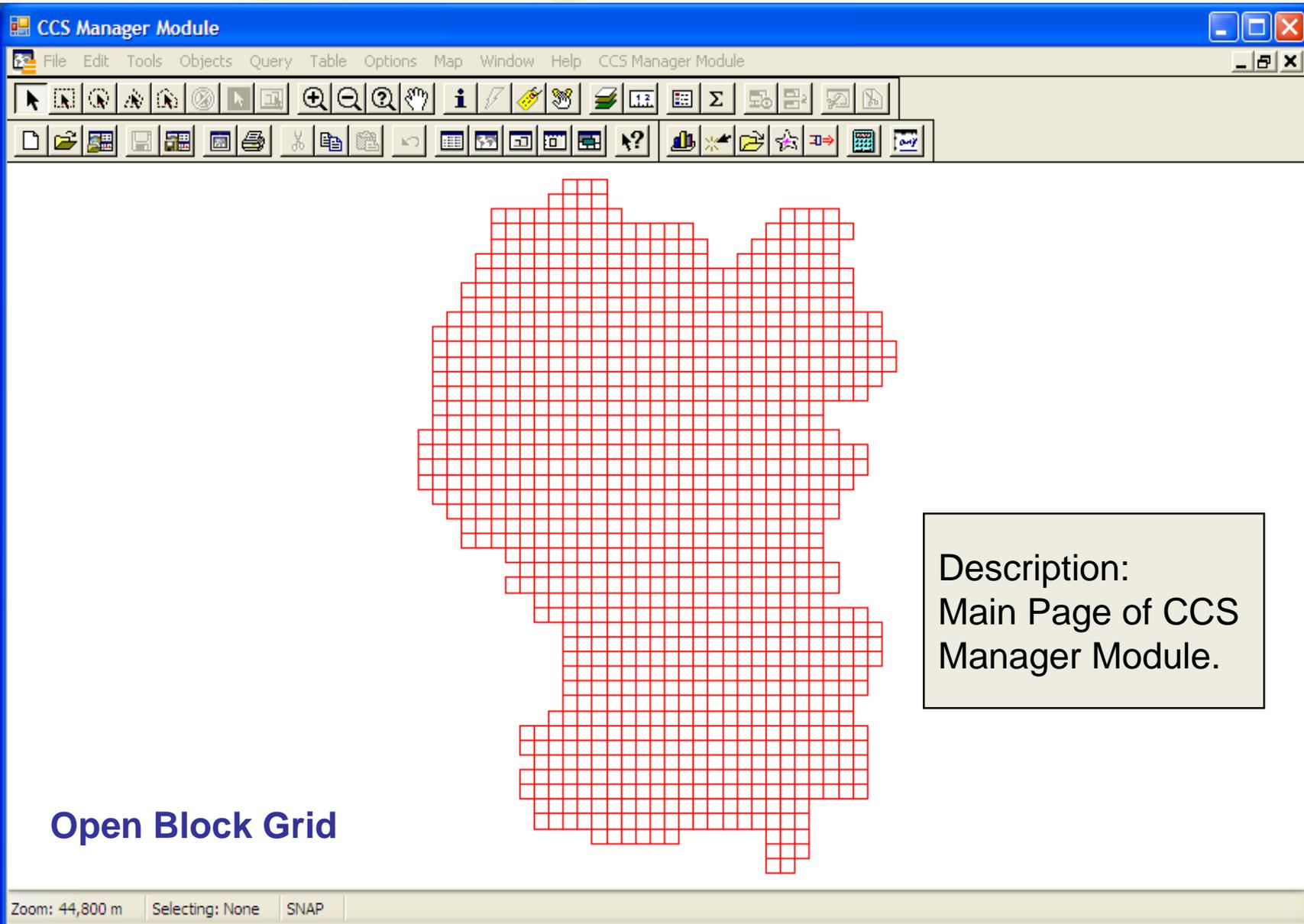


- **Post CP to Server**



- **Block Adjustment**

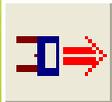
RnR BLOCK ADJUSTMENT

A screenshot of the CCS Manager Module software interface. The window title is 'CCS Manager Module'. The menu bar includes 'File', 'Edit', 'Tools', 'Objects', 'Query', 'Table', 'Options', 'Map', 'Window', and 'Help'. The toolbar contains various icons for navigation, editing, and analysis. The main workspace displays a red grid pattern that forms an irregular shape, representing an 'Open Block Grid'. At the bottom of the window, there is a status bar with the text 'Zoom: 44,800 m', 'Selecting: None', and 'SNAP'.

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

Method 1:
Select block from listing

Method 2:
Click block on map

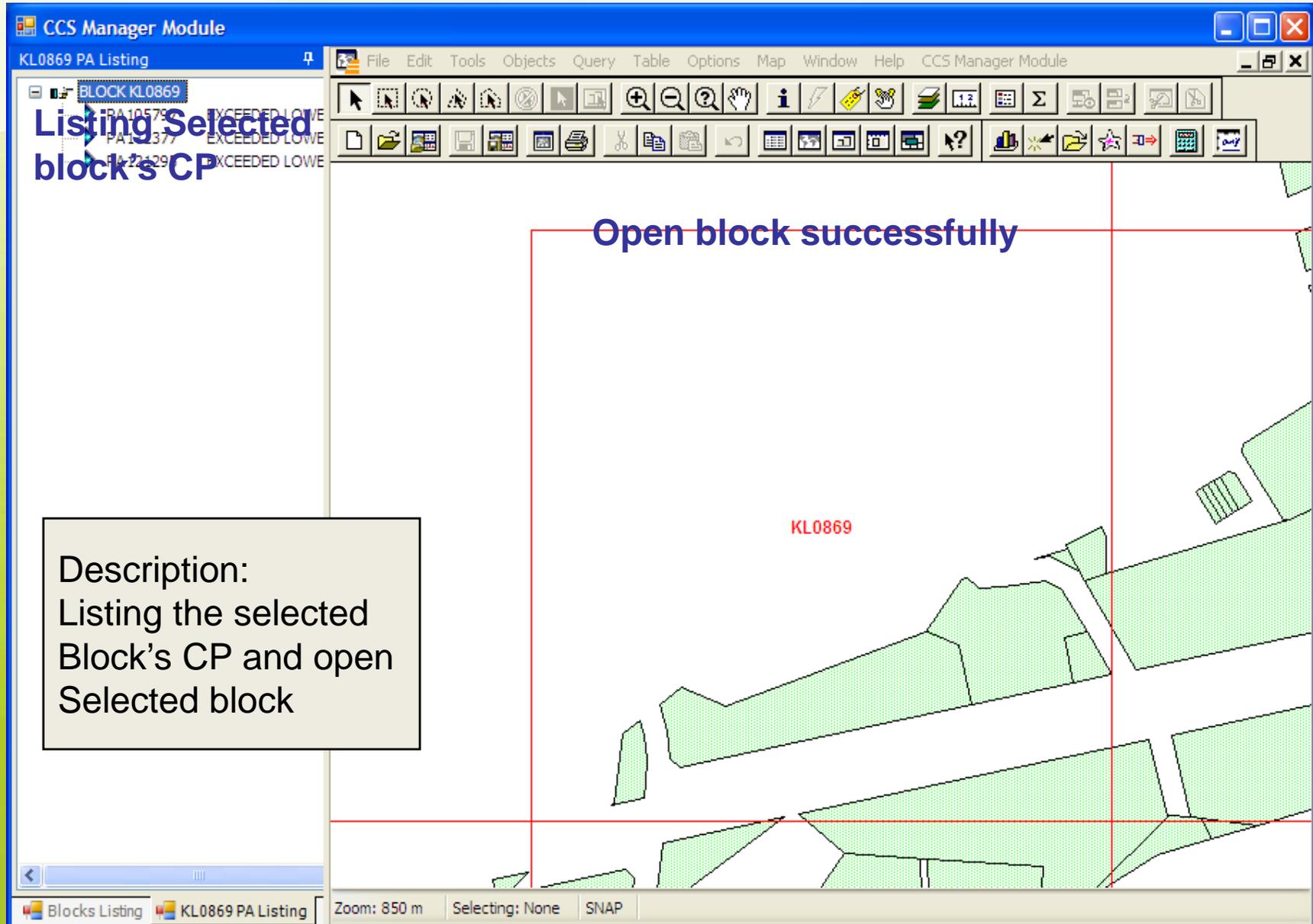
1

2

Description:
Method 1:
Open Block Listing  and select the block from Blocks Listing for Viewing.
Method 2:
 Click the block on the map

Zoom: 44,800 m Selecting: None SNAP

Open Block



Listing Selected block's CP

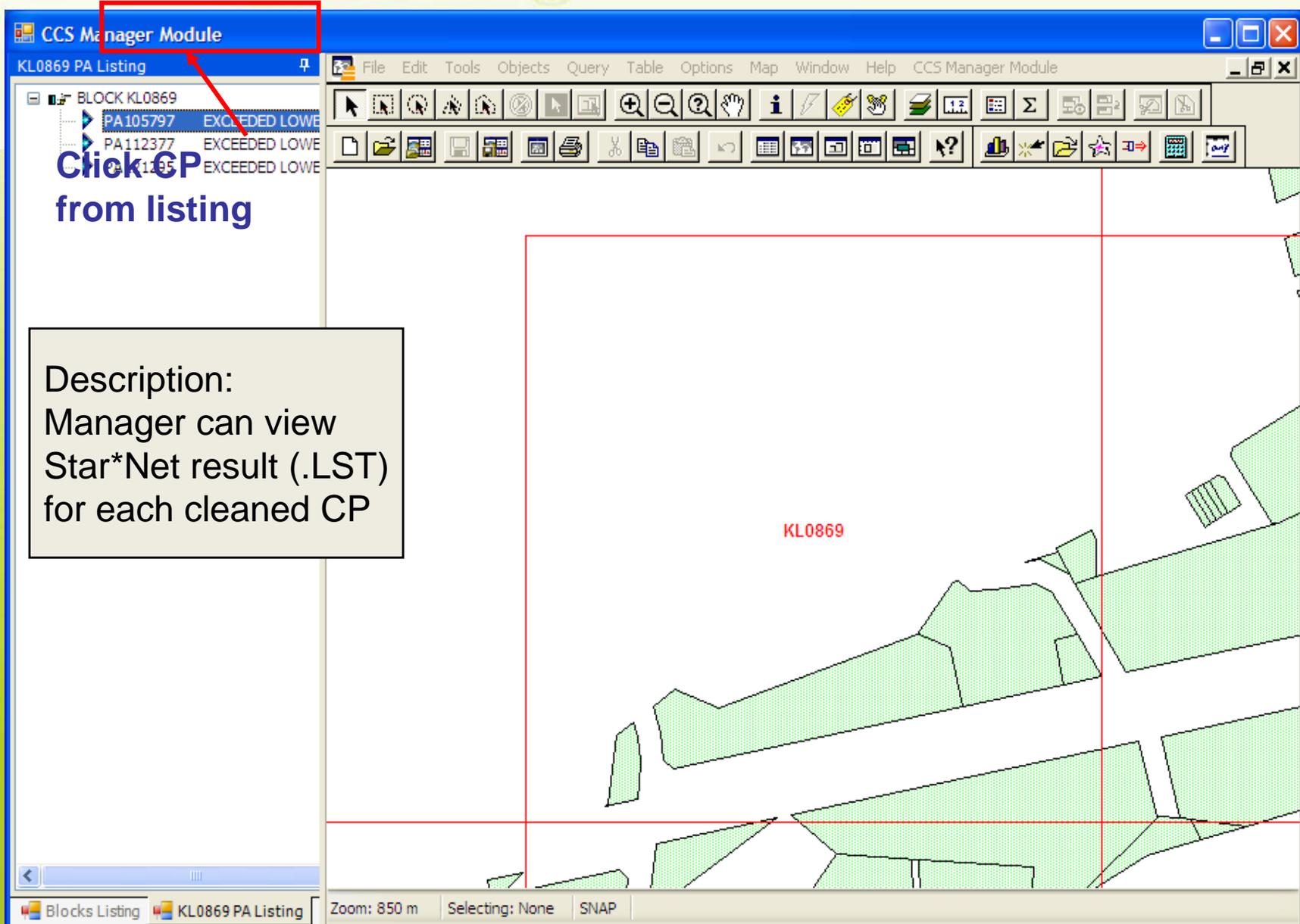
Open block successfully

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



The screenshot displays the CCS Manager Module interface. The title bar reads "CCS Manager Module". The menu bar includes "File", "Edit", "Tools", "Objects", "Query", "Table", "Options", "Map", "Window", and "Help". The toolbar contains various icons for navigation and data manipulation. The main window is titled "KL0869 PA Listing" and shows a map with green shaded areas representing cleaned CPs. A red box highlights the "CCS Manager Module" title bar. A red arrow points from the "Click CP from listing" text to the "PA105797 EXCEEDED LOWE" entry in the list. A text box on the left provides a description: "Description: Manager can view Star*Net result (.LST) for each cleaned CP". The status bar at the bottom shows "Zoom: 850 m", "Selecting: None", and "SNAP".

Click CP from listing

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

Block	CP ID	Status
BLOCK KL0869	PA105797	EXCEEDED LOWE
	PA112377	EXCEEDED LOWE
	PA11195	EXCEEDED LOWE

KL0869

Zoom: 850 m Selecting: None SNAP



View Cleaned CP's Detailed Least Square Report

The screenshot shows the CCS Manager Module interface. The main window displays a tree view of project data for 'BLOCK KL0869', listing points PA105797, PA112377, and PA121295, all marked as 'EXCEEDED LOWE'. A Notepad window titled 'PA105797.lst - Notepad' is open, displaying the following text:

```
STAR*NET-PRO Version 6.0.25
Copyright 1988-2002 starplus Software, Inc.
Licensed to CASHUB MELAKA
Run Date: Sun May 20 2007 15:12:22

Summary of Files Used and option Settings
=====

Project Folder and Data Files

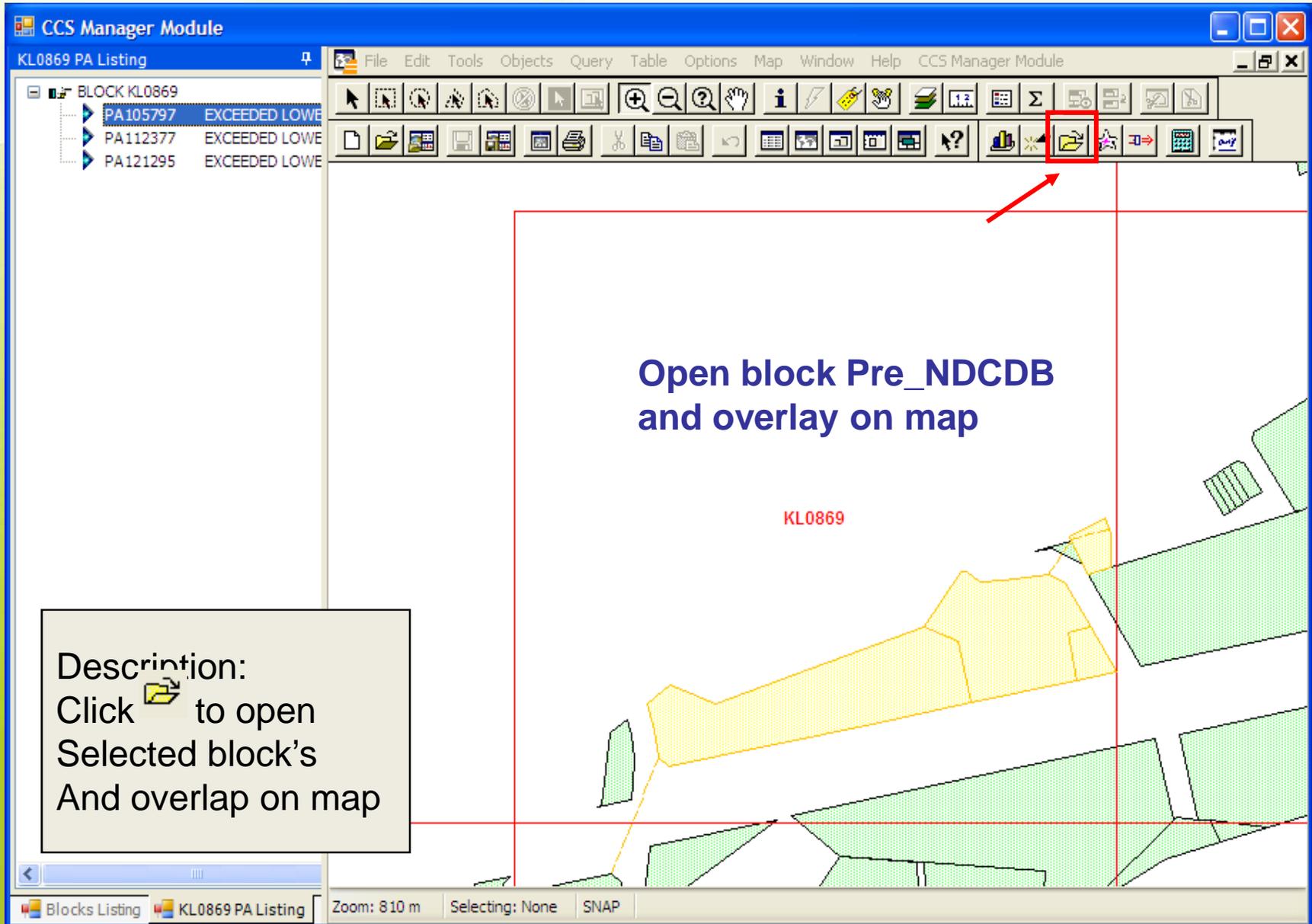
Project Name      PA105797
Project Folder   C:\DOCUMENTS AND SETTINGS\...\KL0869\PA105797\SN_PA105797
Data File List   PA105797.DAT

Project Option Settings

STAR*NET Run Mode      : Adjust with Error Propagation
Type of Adjustment    : 2D
Project Units         : Meters; DMS
Coordinate system     : LOCAL
Default Project Elevation : 0.0000 Meters
Apply Average Scale Factor : 1.0000000000
Input/Output Coordinate Order : East-North
Angle Data Station Order : At-From-To
Distance/Vertical Data Type : Hor Dist/DE
Convergence Limit; Max Iterations : 0.010000; 10
Default Coefficient of Refraction : 0.070000
Earth Radius         : 6372000.00 Meters
Create Coordinate File : Yes
Create Ground Scale Coordinate File : No
Create Dump File     : No

Instrument Standard Error Settings
```

Star*Net result (.LST file)



The screenshot shows the CCS Manager Module software interface. The title bar reads "CCS Manager Module". The menu bar includes "File", "Edit", "Tools", "Objects", "Query", "Table", "Options", "Map", "Window", "Help", and "CCS Manager Module". The toolbar contains various icons for navigation and editing. A red box highlights the "Open" icon (a folder with a document) in the toolbar, with a red arrow pointing to it. The main map area displays a yellow shaded polygon labeled "KL0869" overlaid on a green hatched map. The left sidebar shows a tree view with "BLOCK KL0869" expanded, listing "PA105797 EXCEEDED LOWE", "PA112377 EXCEEDED LOWE", and "PA121295 EXCEEDED LOWE". The status bar at the bottom shows "Zoom: 810 m", "Selecting: None", and "SNAP".

**Open block Pre_NDCDB
and overlay on map**

Description:
Click  to open
Selected block's
And overlap on map

Calculate least square for whole block

CCS Manager Module
 KL0869 PA Listing

File Edit Tools Objects Query Table Options Map Window Help CCS Manager Module

BLOCK KL0869
 PA105797 EXCEEDED LOWE
 PA112377 EXCEEDED LOWE
 PA121295 EXCEEDED LOWE

Calculate least square for whole block based on Pre_NDCDB data

KL0869.SUM - Notepad

```

File Edit Format View Help
Adjustment Statistical Summary
=====
Convergence Iterations = 3
Number of Stations = 31
Number of Observations = 77
Number of Unknowns = 60
Number of Redundant Obs = 17

Observation Count Sum Squares Error
of StdRes Factor
Distances 38 13.624 1.274
Az/Bearings 39 3.290 0.618
Total 77 16.915 0.997

The Chi-Square Test at 5.00% Level Passed
Lower/Upper Bounds (0.667/1.333)
  
```

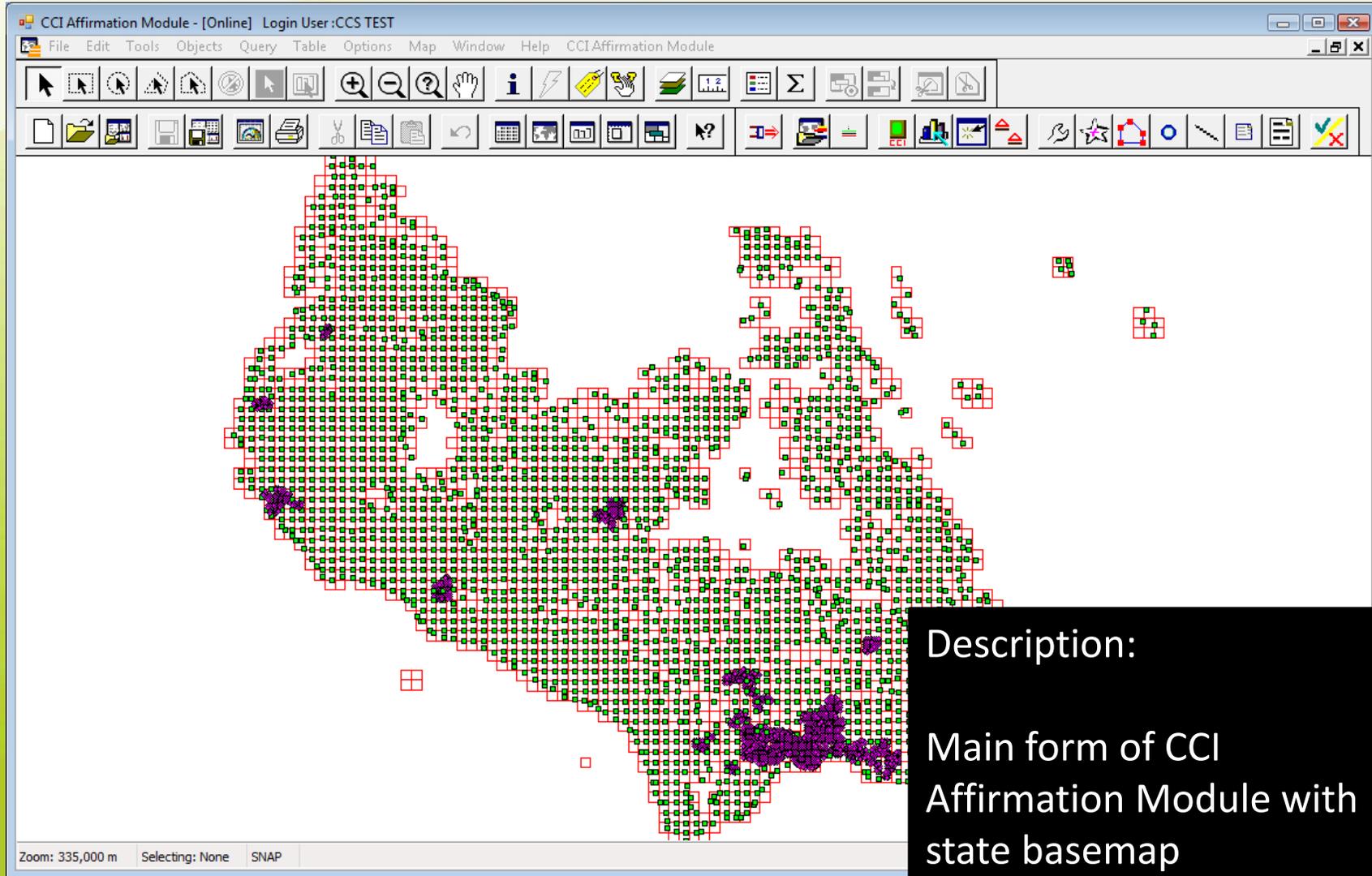
Summary report for block's Pre_NDCDB

Blocks Listing KL0869 PA Listing Zoom: 810 m Selecting: None SNAP

Description:
 Calculate Least Square
 for whole block's
 Pre_NDCDB

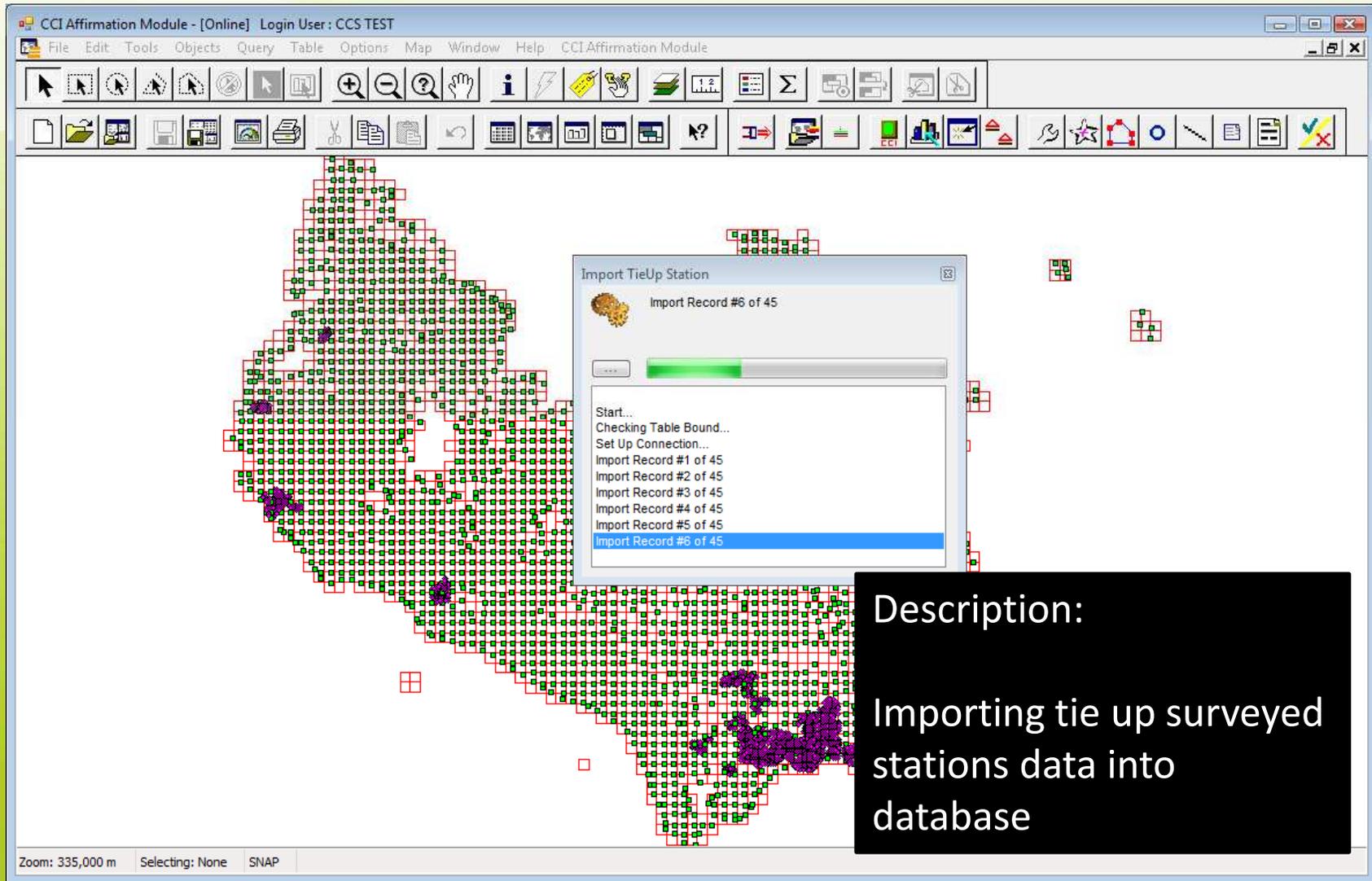


CCI Affirmation

The screenshot shows the 'CCI Affirmation Module' software interface. The title bar reads 'CCI Affirmation Module - [Online] Login User : CCS TEST'. The menu bar includes 'File', 'Edit', 'Tools', 'Objects', 'Query', 'Table', 'Options', 'Map', 'Window', and 'Help'. Below the menu is a toolbar with various icons for navigation, editing, and analysis. The main workspace displays a map of the United States with a grid overlay. The grid cells are colored green, red, and purple. The status bar at the bottom left shows 'Zoom: 335,000 m', 'Selecting: None', and 'SNAP'.

Description:
Main form of CCI Affirmation Module with state basemap

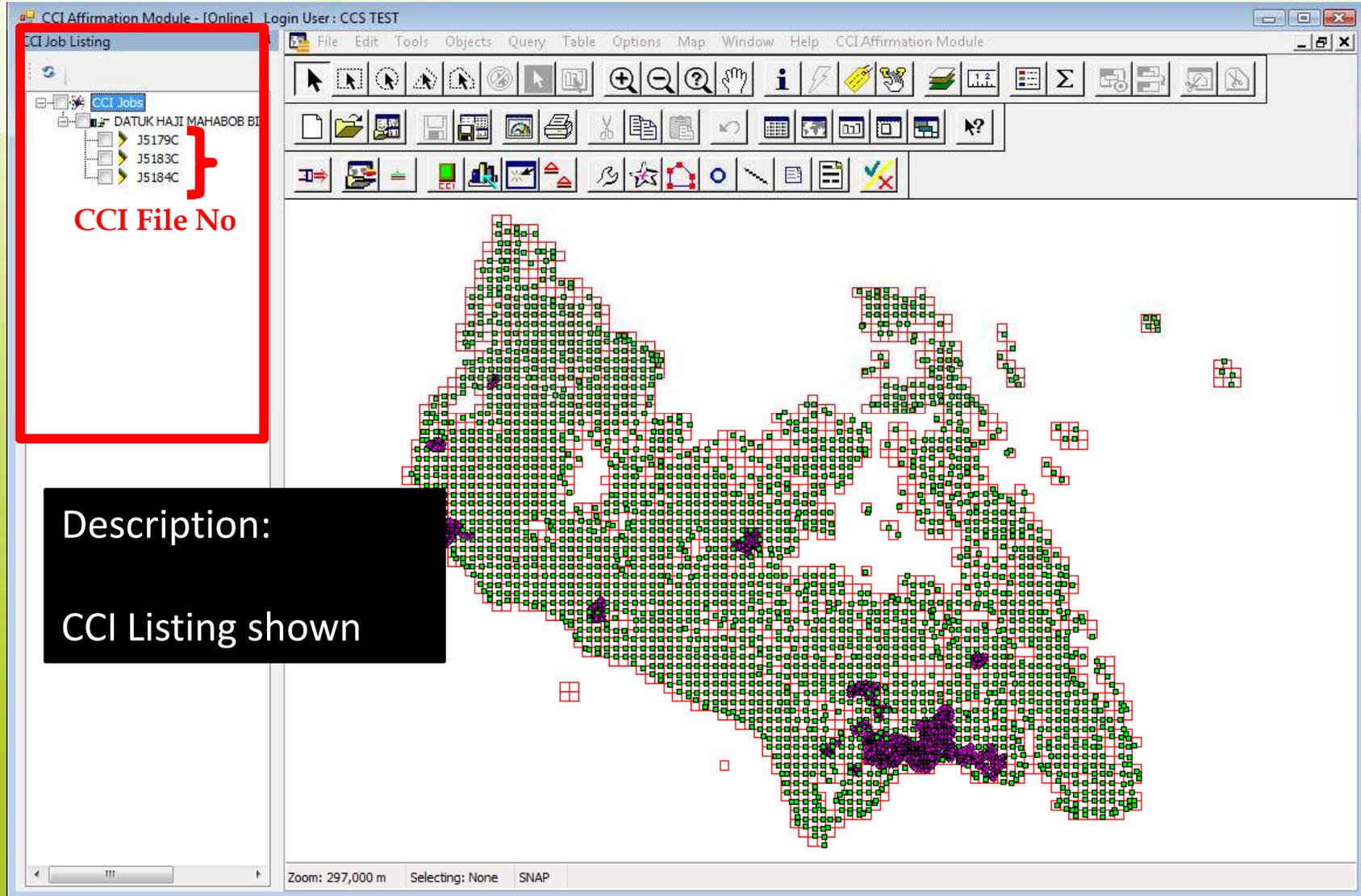
Import Tie Up Data



The screenshot shows the CCI Affirmation Module software interface. The main window displays a map with a grid overlay, where several stations are marked with purple icons. A dialog box titled "Import TieUp Station" is open, showing "Import Record #6 of 45" and a progress bar. The dialog box contains a list of actions: "Start...", "Checking Table Bound...", "Set Up Connection...", "Import Record #1 of 45", "Import Record #2 of 45", "Import Record #3 of 45", "Import Record #4 of 45", "Import Record #5 of 45", and "Import Record #6 of 45". The "Import Record #6 of 45" item is highlighted in blue. The software interface includes a menu bar (File, Edit, Tools, Objects, Query, Table, Options, Map, Window, Help) and a toolbar with various icons for navigation and editing. The status bar at the bottom indicates "Zoom: 335,000 m", "Selecting: None", and "SNAP".

Description:
Importing tie up surveyed stations data into database

Open CCI Lists



The screenshot displays the CCI Affirmation Module software interface. The title bar reads "CCI Affirmation Module - [Online] Login User: CCS TEST". The menu bar includes "File", "Edit", "Tools", "Objects", "Query", "Table", "Options", "Map", "Window", and "Help". The toolbar contains various icons for navigation and editing. On the left, a "CCI Job Listing" panel is highlighted with a red border. It shows a tree view under "CCI Jobs" with a folder "DATUK HAJI MAHABOB BI" containing three sub-items: "J5179C", "J5183C", and "J5184C". A red bracket groups these items, with the text "CCI File No" written below it. The main map area shows a grid of green and red squares, with several purple clusters. The status bar at the bottom indicates "Zoom: 297,000 m", "Selecting: None", and "SNAP".

CCI Job Listing

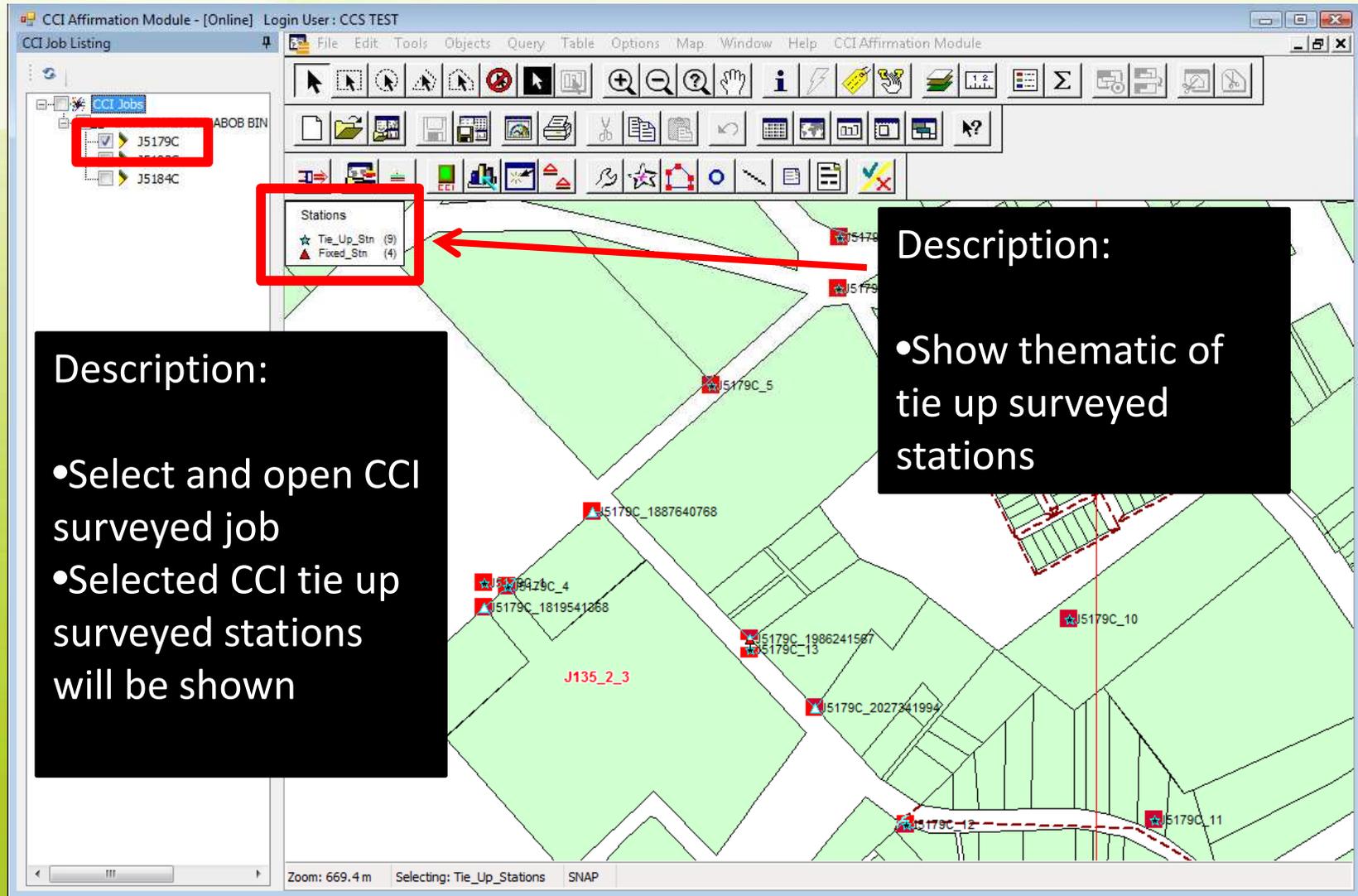
- CCI Jobs
 - DATUK HAJI MAHABOB BI
 - J5179C
 - J5183C
 - J5184C

CCI File No

Description:
CCI Listing shown

Zoom: 297,000 m Selecting: None SNAP

Open CCI Surveyed Job



The screenshot displays the CCI Affirmation Module software interface. The title bar reads "CCI Affirmation Module - [Online] Login User: CCS TEST". The menu bar includes "File", "Edit", "Tools", "Objects", "Query", "Table", "Options", "Map", "Window", and "Help". The toolbar contains various icons for navigation and editing. On the left, the "CCI Job Listing" pane shows a tree view with "CCI Jobs" expanded to show "J5179C" (highlighted with a red box) and "J5184C". Below this, the "Stations" pane shows "Tie_Up_Stn (9)" (marked with a star icon) and "Fixed_Stn (4)" (marked with a triangle icon), with a red box around it and a red arrow pointing to the map. The main map area shows a green field with a road and several red square markers representing surveyed stations, labeled with IDs such as "J5179C_5", "J5179C_1887640768", "J5179C_1819541268", "J5179C_1986241567", "J5179C_13", "J5179C_2027341994", "J5179C_10", "J5179C_11", and "J5179C_12". A red dashed line indicates a path or boundary. The status bar at the bottom shows "Zoom: 669.4 m", "Selecting: Tie_Up_Stations", and "SNAP".

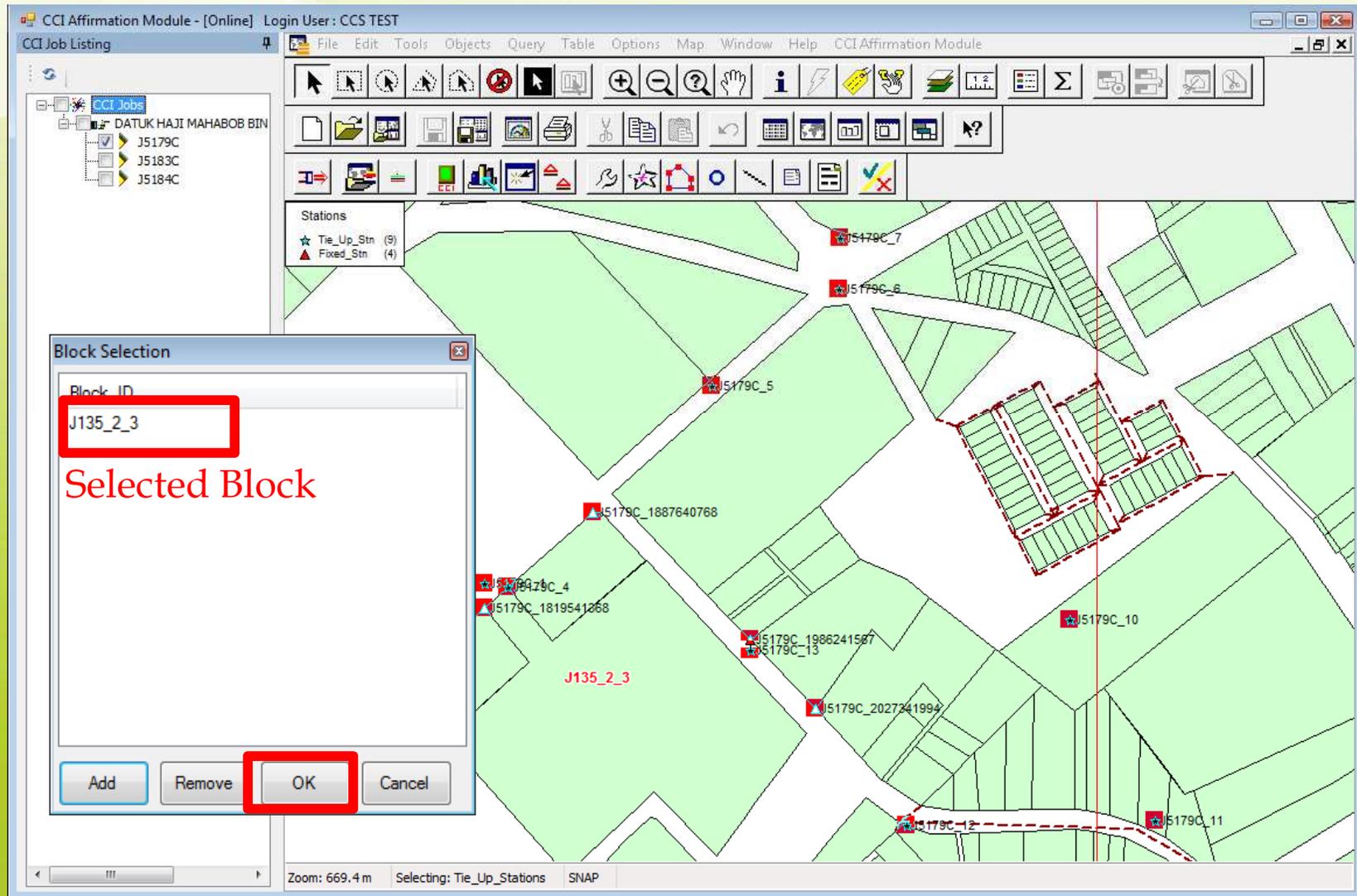
Description:

- Select and open CCI surveyed job
- Selected CCI tie up surveyed stations will be shown

Description:

- Show thematic of tie up surveyed stations

Block Selection



CCI Affirmation Module - [Online] Login User: CCS TEST

CCI Job Listing

- CCI Jobs
 - DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

Stations

- ★ Tie_Up_Stn (9)
- ▲ Fixed_Stn (4)

Block Selection

Block ID

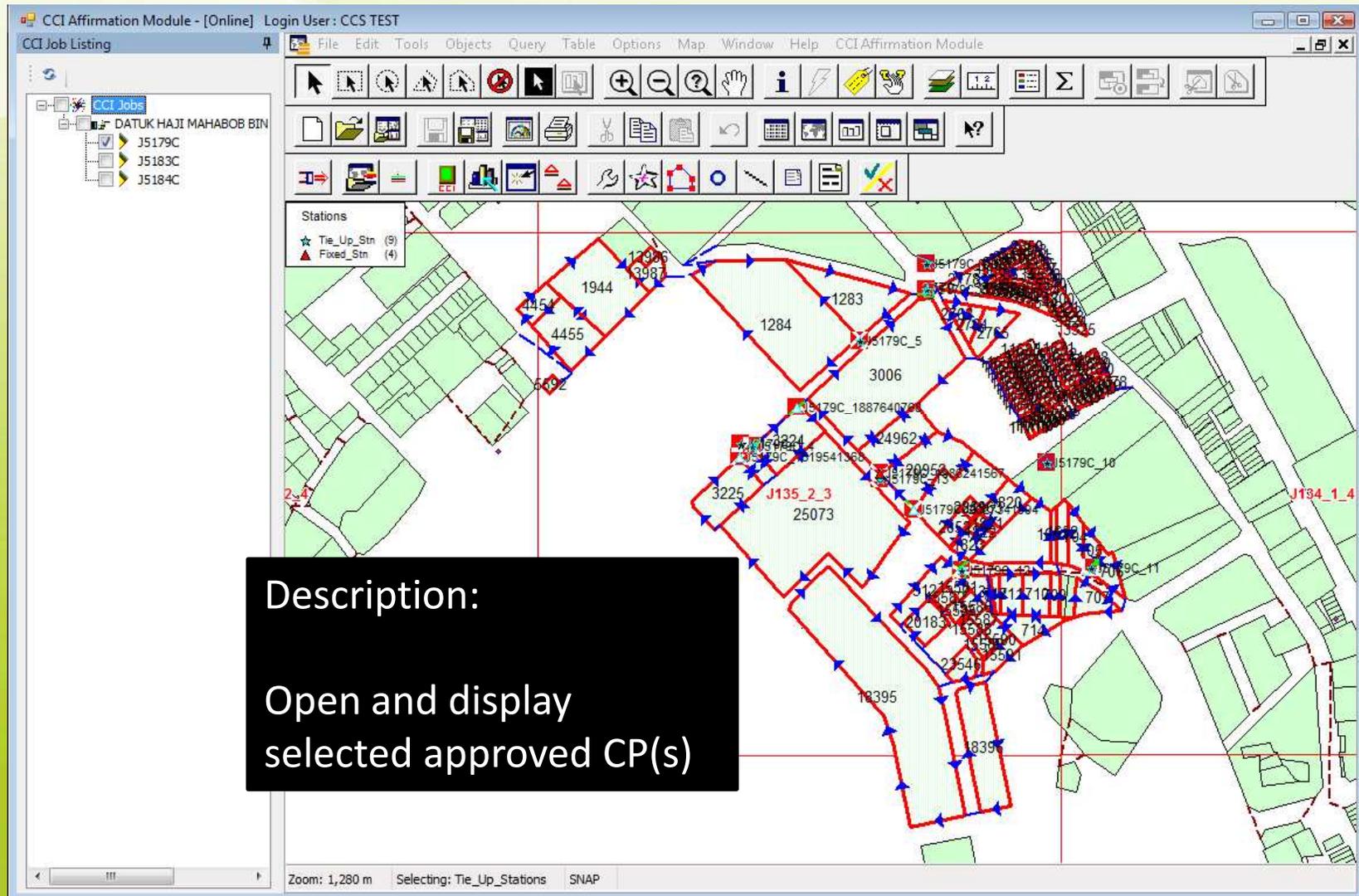
J135_2_3

Selected Block

Add Remove **OK** Cancel

Zoom: 669.4 m Selecting: Tie_Up_Stations SNAP

Block Selection

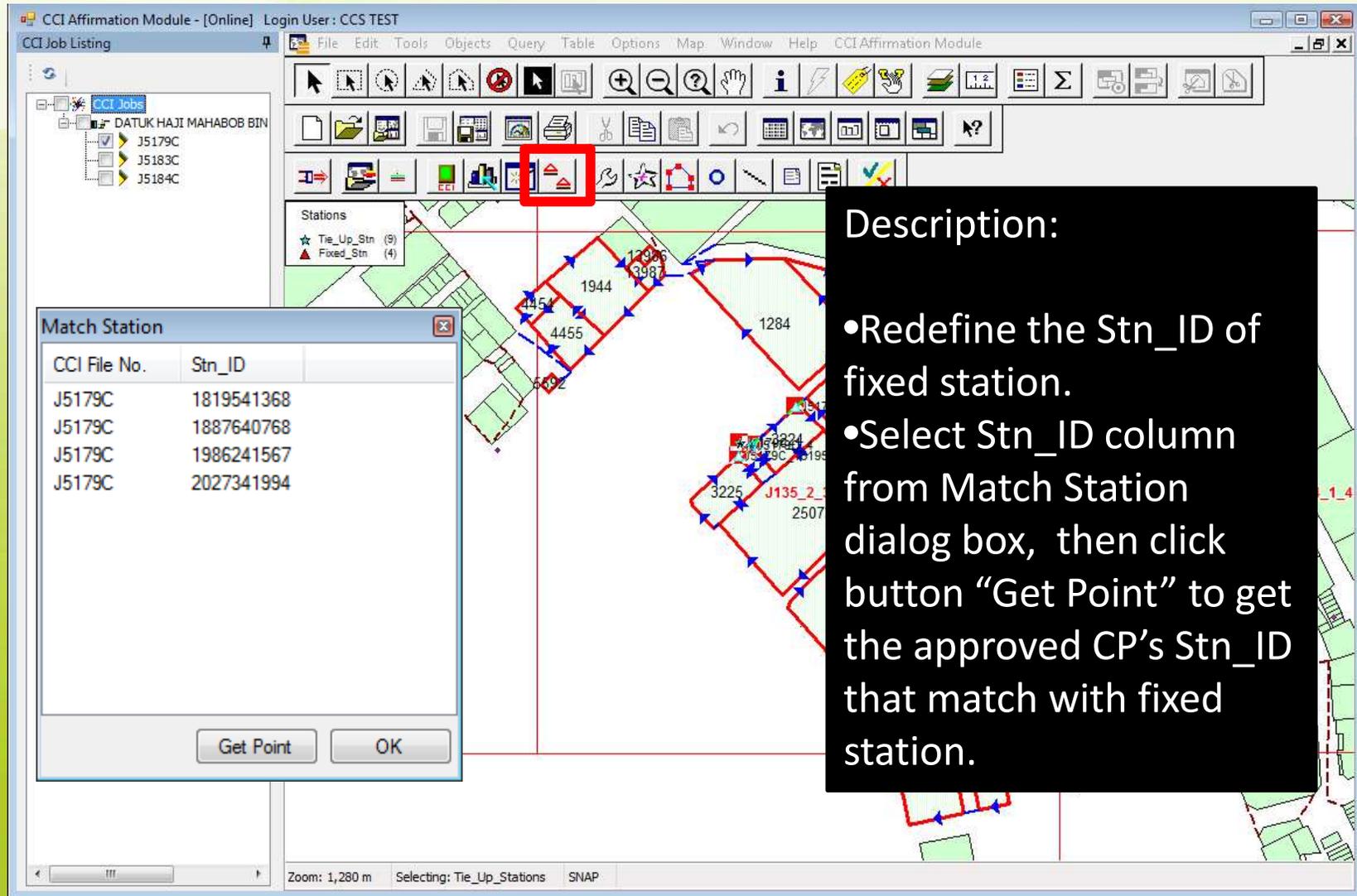


The screenshot displays the CCI Affirmation Module interface. The title bar shows 'CCI Affirmation Module - [Online] Login User: CCS TEST'. The menu bar includes File, Edit, Tools, Objects, Query, Table, Options, Map, Window, and Help. The toolbar contains various icons for navigation and editing. On the left, the 'CCI Job Listing' pane shows a tree structure under 'DATUK HAJI MAHABOB BIN' with sub-items J5179C, J5183C, and J5184C. The main map area shows a network of red lines with blue arrows indicating flow. A legend titled 'Stations' indicates that blue stars represent 'Tie_Up_Stn (9)' and red triangles represent 'Fixed_Stn (4)'. A black text box is overlaid on the map with the following text:

Description:
Open and display selected approved CP(s)

The status bar at the bottom indicates 'Zoom: 1,280 m', 'Selecting: Tie_Up_Stations', and 'SNAP'.

Re-Match Fixed Station ID



The screenshot shows the CCI Affirmation Module software interface. The main window displays a map with various station points and lines. A red box highlights a specific button in the toolbar. A 'Match Station' dialog box is open, showing a table with the following data:

CCI File No.	Stn_ID
J5179C	1819541368
J5179C	1887640768
J5179C	1986241567
J5179C	2027341994

At the bottom of the dialog box, there are two buttons: 'Get Point' and 'OK'.

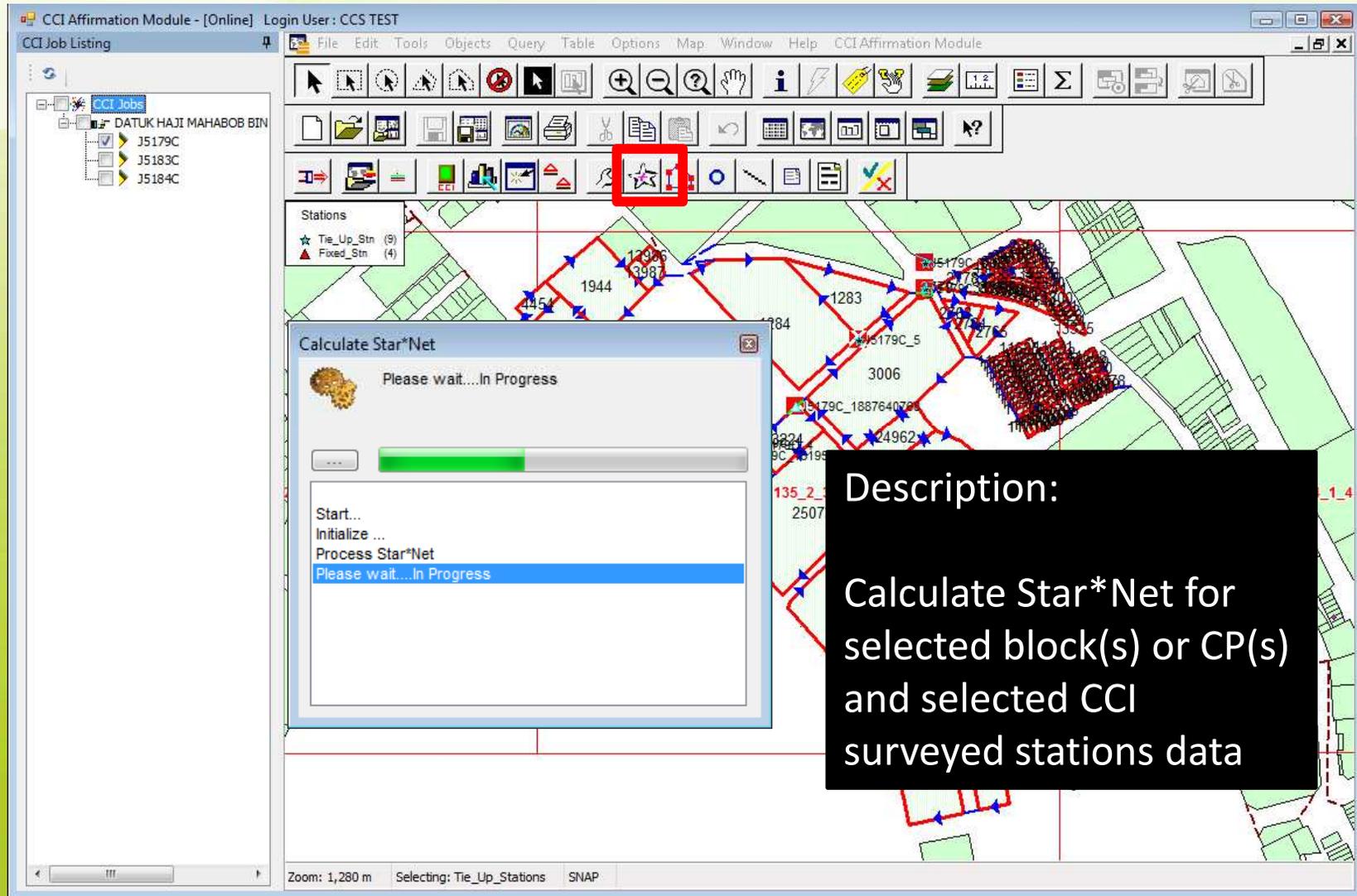
Description:

- 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**

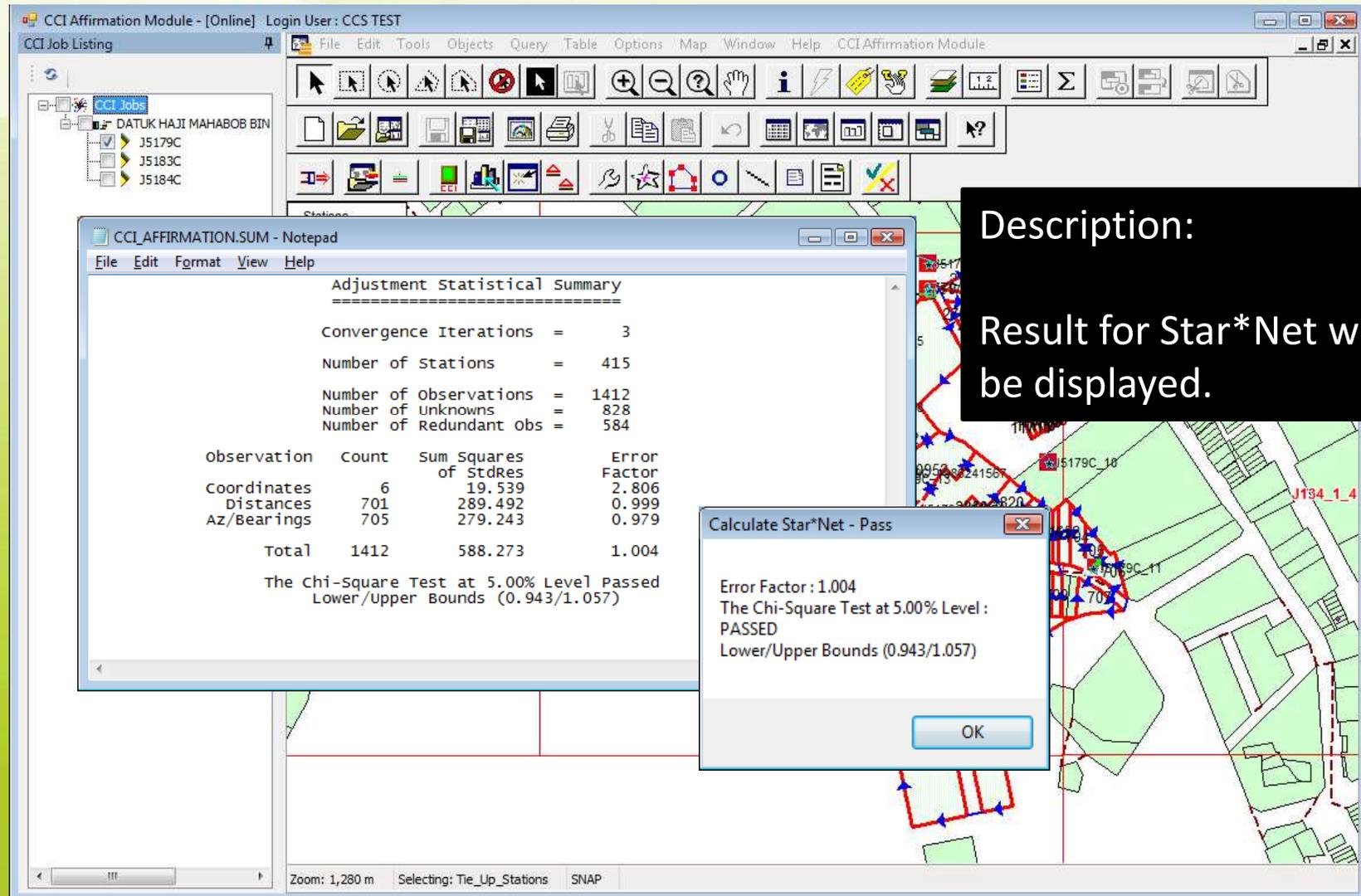
Calculate Star*Net



The screenshot displays the CCI Affirmation Module software interface. The main window shows a map with a network diagram of stations and connections. A dialog box titled "Calculate Star*Net" is open, showing a progress bar and a list of steps: "Start...", "Initialize...", "Process Star*Net", and "Please wait...In Progress". The "Please wait...In Progress" step is currently selected. A red box highlights the "Calculate Star*Net" icon in the software's toolbar. The status bar at the bottom indicates "Zoom: 1,280 m" and "Selecting: Tie_Up_Stations SNAP".

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

Calculate Star*Net



CCI Affirmation Module - [Online] Login User: CCS TEST

CCI Job Listing

- CCI Jobs
 - DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

Adjustment Statistical Summary

Convergence Iterations = 3

Number of Stations = 415

Number of Observations = 1412

Number of Unknowns = 828

Number of Redundant obs = 584

observation	Count	Sum Squares of Stdres	Error Factor
Coordinates	6	19.539	2.806
Distances	701	289.492	0.999
Az/Bearings	705	279.243	0.979
Total	1412	588.273	1.004

The Chi-Square Test at 5.00% Level Passed
Lower/Upper Bounds (0.943/1.057)

Calculate Star*Net - Pass

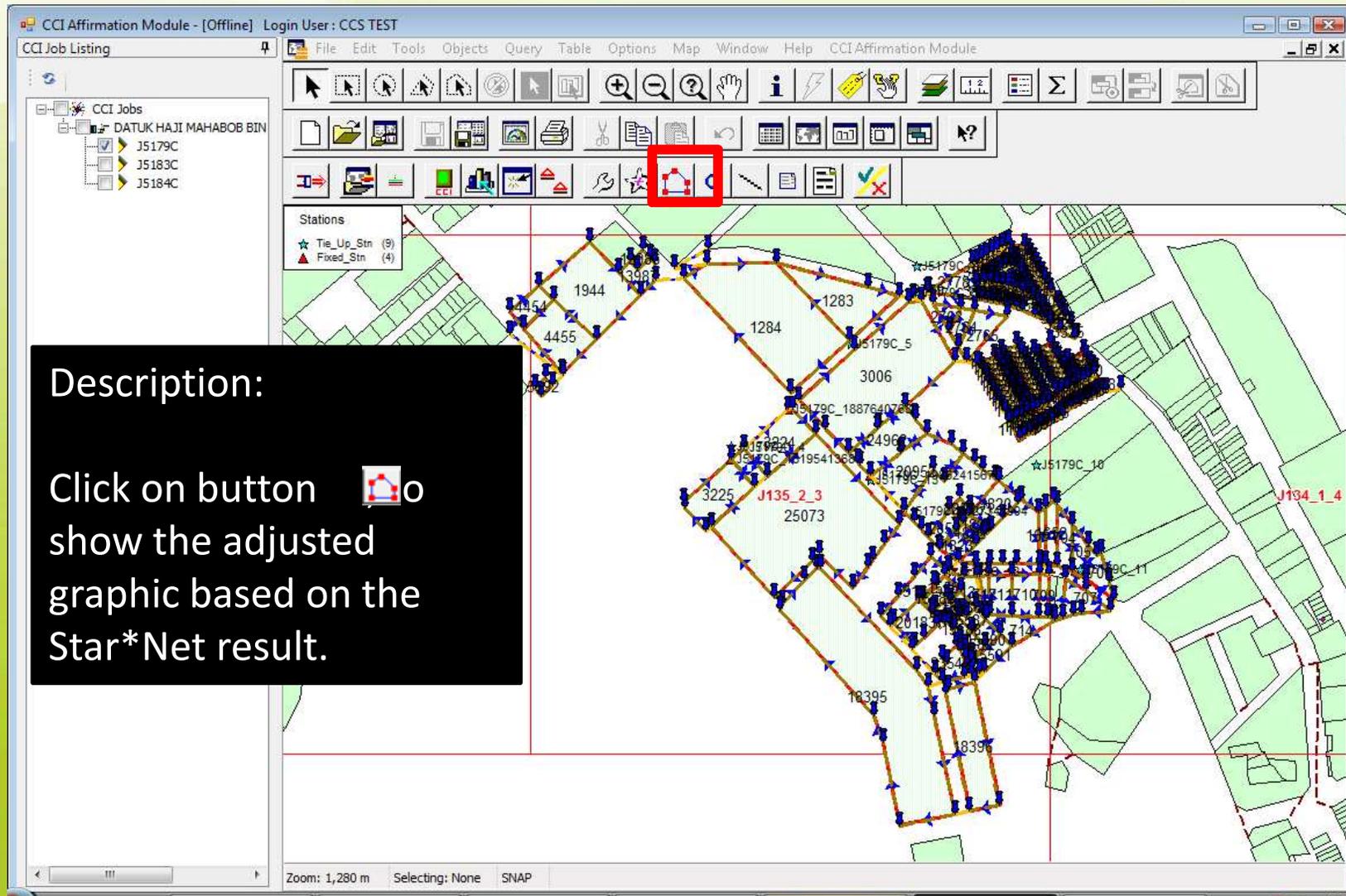
Error Factor: 1.004
The Chi-Square Test at 5.00% Level: PASSED
Lower/Upper Bounds (0.943/1.057)

OK

Zoom: 1,280 m | Selecting: Tie_Up_Stations | SNAP

Description:
Result for Star*Net will be displayed.

Show/Hide Adjusted Graphic



The screenshot shows the CCI Affirmation Module software interface. The main window displays a network diagram with various nodes and connections. A red box highlights a button in the toolbar, which is used to show or hide the adjusted graphic. The interface includes a menu bar (File, Edit, Tools, Objects, Query, Table, Options, Map, Window, Help), a toolbar with various icons, and a status bar at the bottom showing 'Zoom: 1,280 m', 'Selecting: None', and 'SNAP'.

CCI Job Listing

- CCI Jobs
 - DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

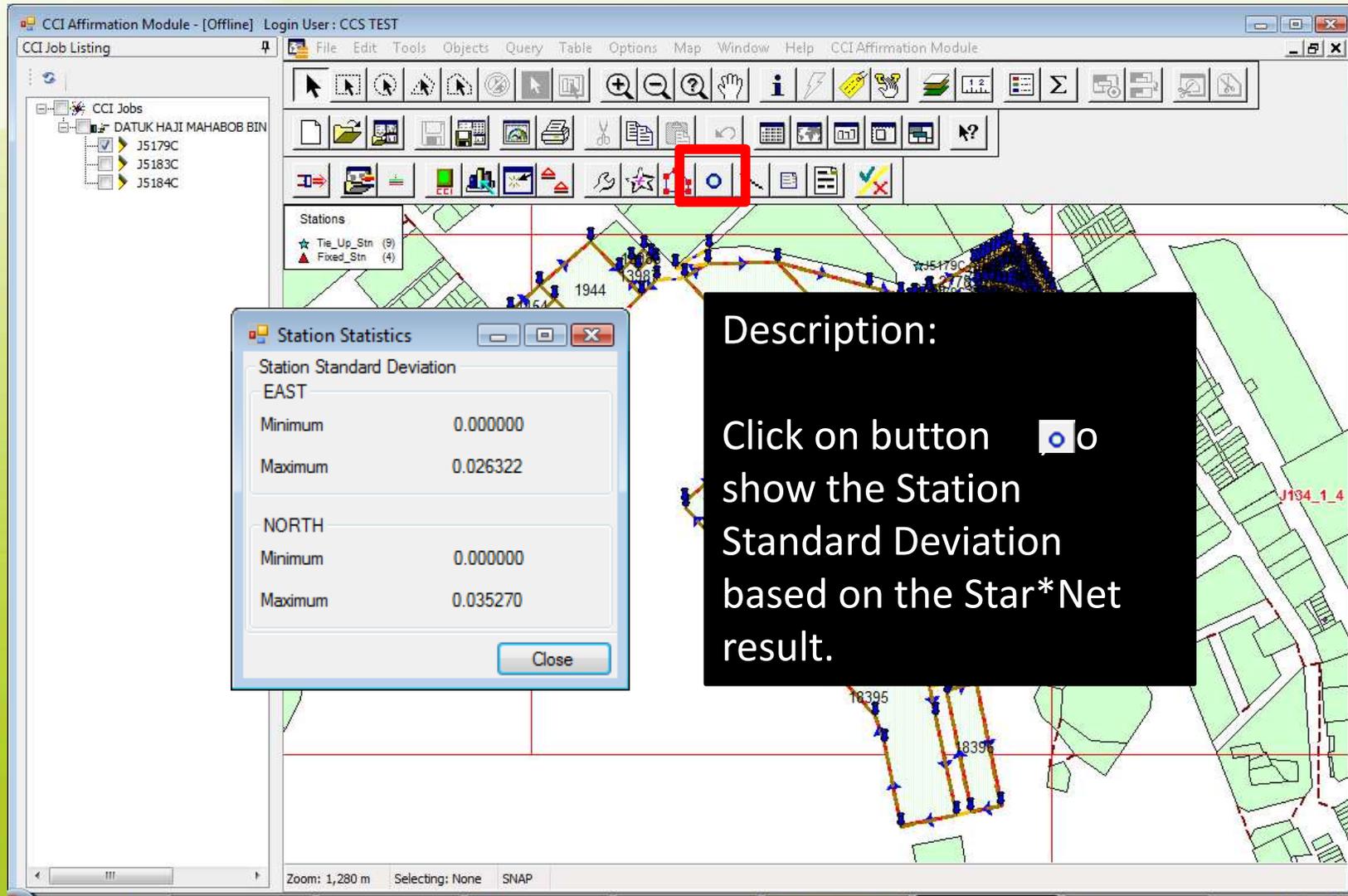
Stations

- ★ Tie_Up_Stn (9)
- ▲ Fixed_Stn (4)

Description:

Click on button  to show the adjusted graphic based on the Star*Net result.

Station Statistics



CCI Affirmation Module - [Offline] Login User: CCS TEST

CCI Job Listing

- CCI Jobs
 - DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

Stations

- Tie_Up_Stn (9)
- Fixed_Stn (4)

Station Statistics

Station Standard Deviation

EAST

Minimum	0.000000
Maximum	0.026322

NORTH

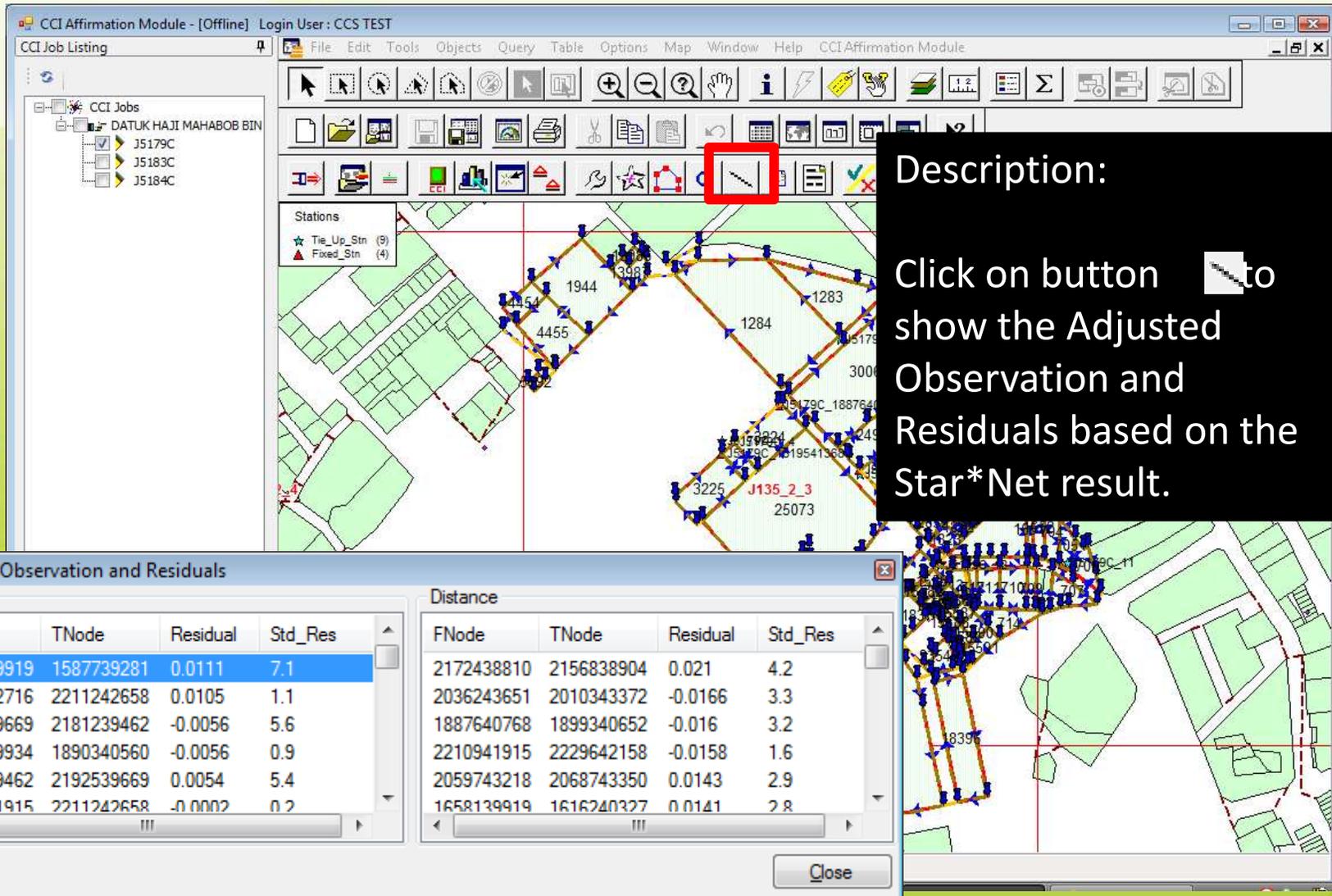
Minimum	0.000000
Maximum	0.035270

Close

Description:
Click on button  show the Station Standard Deviation based on the Star*Net result.

Zoom: 1,280 m Selecting: None SNAP

Adjusted Observation and Residuals



CCI Affirmation Module - [Offline] Login User: CCS TEST

CCI Job Listing

- CCI Jobs
 - DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

Stations

- Tie_Up_Stn (9)
- Fixed_Stn (4)

Description:

Click on button  to show the Adjusted Observation and Residuals based on the Star*Net result.

Adjusted Observation and Residuals

Bearing				Distance			
FNode	TNode	Residual	Std_Res	FNode	TNode	Residual	Std_Res
1658139919	1587739281	0.0111	7.1	2172438810	2156838904	0.021	4.2
2228442716	2211242658	0.0105	1.1	2036243651	2010343372	-0.0166	3.3
2192539669	2181239462	-0.0056	5.6	1887640768	1899340652	-0.016	3.2
1960739934	1890340560	-0.0056	0.9	2210941915	2229642158	-0.0158	1.6
2181239462	2192539669	0.0054	5.4	2059743218	2068743350	0.0143	2.9
2210941915	2211242658	-0.0002	0.2	1658139919	1616240327	0.0141	2.8

Close



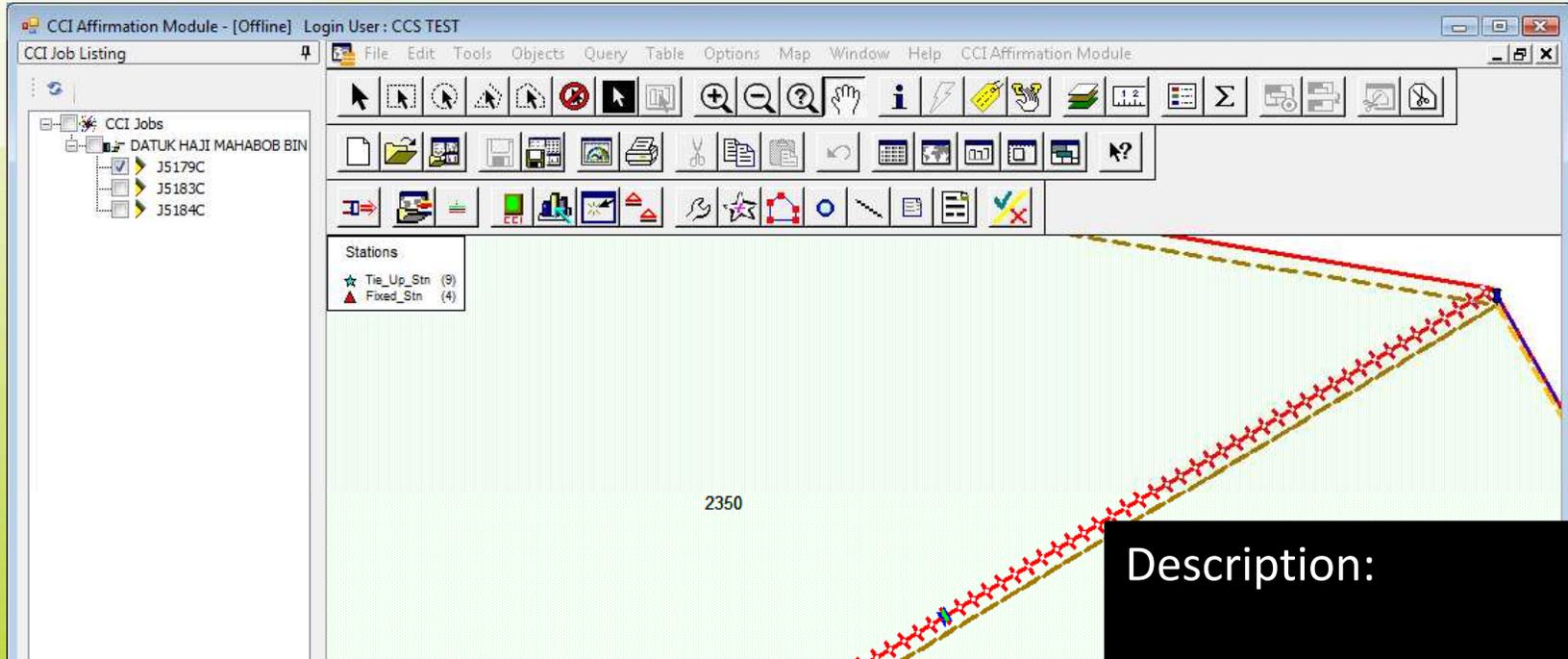
Adjusted Observation and Residuals

The screenshot shows the CCI Affirmation Module software interface. The main window displays a map with survey lines and stations. A data table titled "Adjusted Observation and Residuals" is open in the foreground, showing two columns: "Bearing" and "Distance". The first row of the "Bearing" table is highlighted with a red box.

Bearing				Distance			
FNode	TNode	Residual	Std_Res	FNode	TNode	Residual	Std_Res
1658139919	1587739281	0.0111	7.1	2172438810	2156838904	0.021	4.2
2228112713	2211212838	0.0185	1.1	2036243651	2010343372	-0.0166	3.3
2192539669	2181239462	-0.0056	5.6	1887640768	1899340652	-0.016	3.2
1960739934	1890340560	-0.0056	0.9	2210941915	2229642158	-0.0158	1.6
2181239462	2192539669	0.0054	5.4	2059743218	2068743350	0.0143	2.9
2210941915	2211242658	-0.0002	0.2	1658139919	1616240327	0.0141	2.8

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

Adjusted Observation and Residuals



Adjusted Observation and Residuals

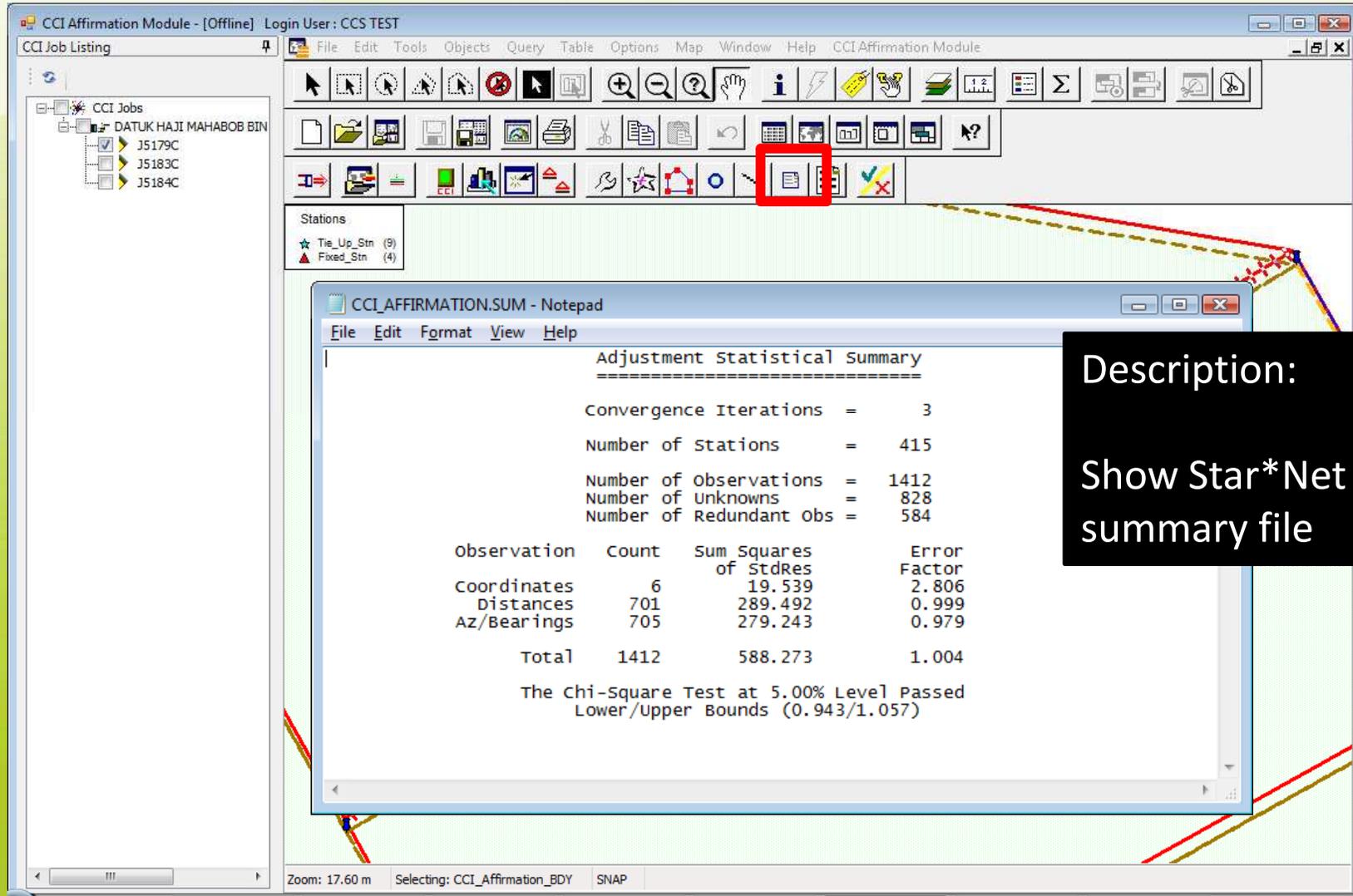
Bearing				Distance			
FNode	TNode	Residual	Std_Res	FNode	TNode	Residual	Std_Res
1658139919	1587739281	0.0111	7.1	2172438810	2156838904	0.021	4.2
2228442716	2211242658	0.0105	1.1	2036243651	2010343372	-0.0166	3.3
2192539669	2181239462	-0.0056	5.6	1887640768	1899340652	-0.016	3.2
1960739934	1890340560	-0.0056	0.9	2210941915	2229642158	-0.0158	1.6
2181239462	2192539669	0.0054	5.4	2059743218	2068743350	0.0143	2.9
2210941915	2211242658	-0.0002	0.2	1658139919	1616240327	0.0141	2.8

Close

Description:

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

Star*Net Summary File



CCI Affirmation Module - [Offline] Login User: CCS TEST

CCI Job Listing

- CCI Jobs
 - DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

Stations

- ★ Tie_Up_Stn (9)
- ▲ Fixed_Stn (4)

CCI Affirmation Module

CCI_AFFIRMATION.SUM - Notepad

File Edit Format View Help

Adjustment Statistical Summary

Convergence Iterations = 3

Number of Stations = 415

Number of Observations = 1412

Number of Unknowns = 828

Number of Redundant obs = 584

Observation	Count	Sum Squares of StdRes	Error Factor
Coordinates	6	19.539	2.806
Distances	701	289.492	0.999
AZ/Bearings	705	279.243	0.979
Total	1412	588.273	1.004

The Chi-Square Test at 5.00% Level Passed
Lower/Upper Bounds (0.943/1.057)

Zoom: 17.60 m Selecting: CCI_Affirmation_BDY SNAP

Description:
Show Star*Net summary file



Star*Net Detailed Report

The screenshot shows the CCI Affirmation Module software interface. A Notepad window titled "CCI_Affirmation.lst - Notepad" is open, displaying the following text:

```
STAR*NET-PRO Version 6.0.25
Copyright 1988-2002 Starplus Software, Inc.
Licensed to CCSHUB MELAKA
Run Date: Wed Jun 04 2008 17:43:35

Summary of Files Used and option Settings
=====

Project Folder and Data Files

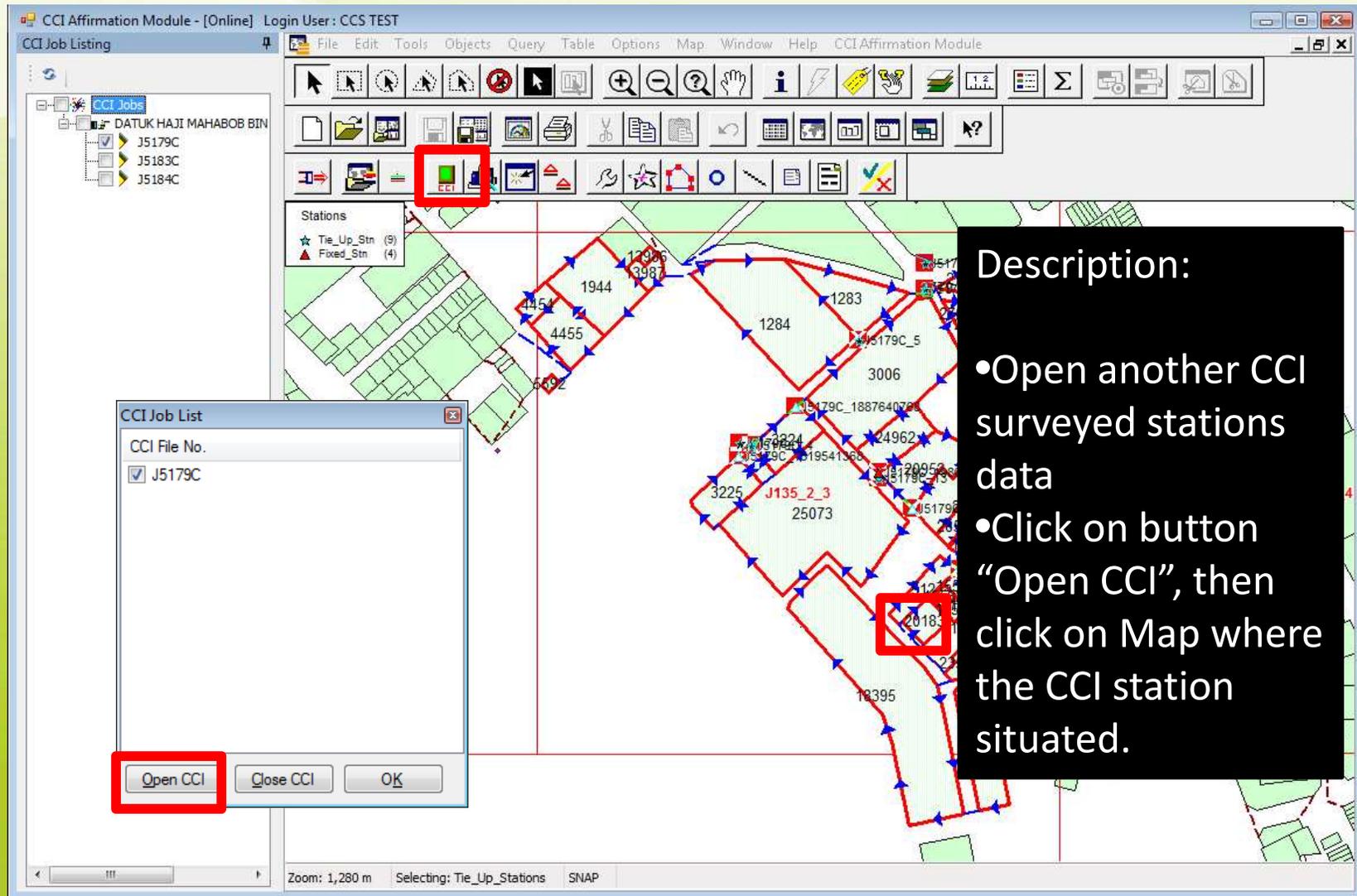
Project Name      CCI_AFFIRMATION
Project Folder    C:\USERS\...\TEMP\CCI_CERTIFICATION\SN_CCI_AFFIRMAT
Data File List    CCI_AFFIRMATION.DAT

Project Option Settings

STAR*NET Run Mode      : Adjust with Error Propagation
Type of Adjustment     : 2D
Project Units          : Meters; DMS
Coordinate System      : LOCAL
Default Project Elevation : 0.0000 Meters
Apply Average Scale Factor : 1.0000000000
Input/Output Coordinate Order : East-North
Angle Data Station Order : At-From-To
Distance/Vertical Data Type : Hor Dist/DE
Convergence Limit; Max Iterations : 0.010000; 10
Default Coefficient of Refraction : 0.070000
Earth Radius           : 6372000.00 Meters
Create Coordinate File  : Yes
```

Description:
Show Star*Net detailed report

Add CCI Surveyed Job

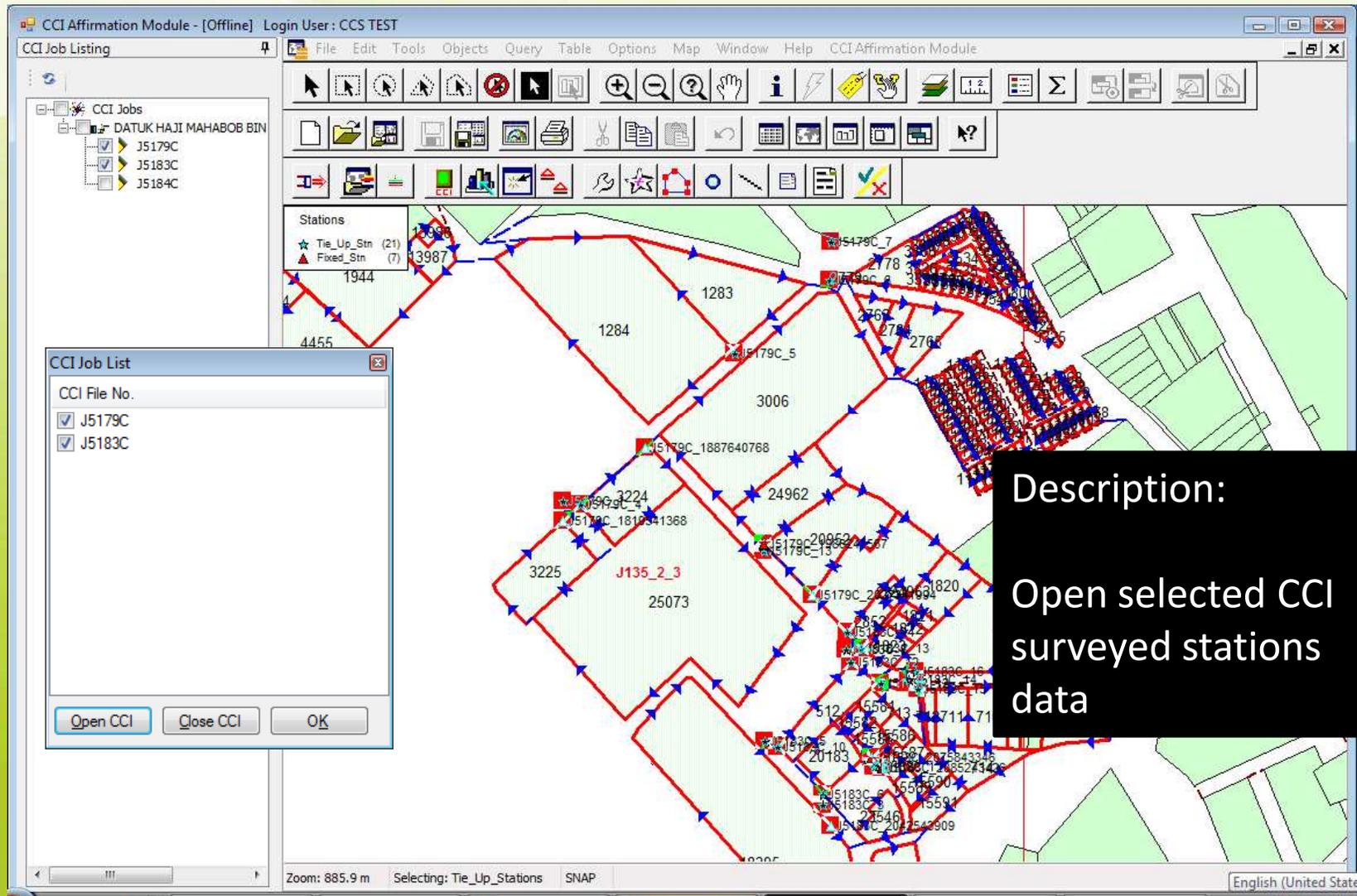


The screenshot displays the CCI Affirmation Module software interface. The main window shows a map with various survey stations and lines. A dialog box titled "CCI Job List" is open, showing a list of CCI File Nos. with "J5179C" selected. The "Open CCI" button in the dialog box is highlighted with a red rectangle. In the main window, the "Open CCI" button in the toolbar is also highlighted with a red rectangle. A black text box on the right side of the map provides instructions on how to use the "Open CCI" button.

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



The screenshot displays the CCI Affirmation Module software interface. The main window shows a map with various surveyed stations and lines. A dialog box titled "CCI Job List" is open, showing a list of CCI File Nos. with checkboxes for J5179C and J5183C. The status bar at the bottom indicates "Zoom: 885.9 m", "Selecting: Tie_Up_Stations", and "SNAP".

CCI Affirmation Module - [Offline] Login User: CCS TEST

CCI Job Listing

File Edit Tools Objects Query Table Options Map Window Help CCI Affirmation Module

CCI Jobs

- DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

Stations

- Tie_Up_Stn (21)
- Fixed_Stn (7)

CCI Job List

CCI File No.

- J5179C
- J5183C

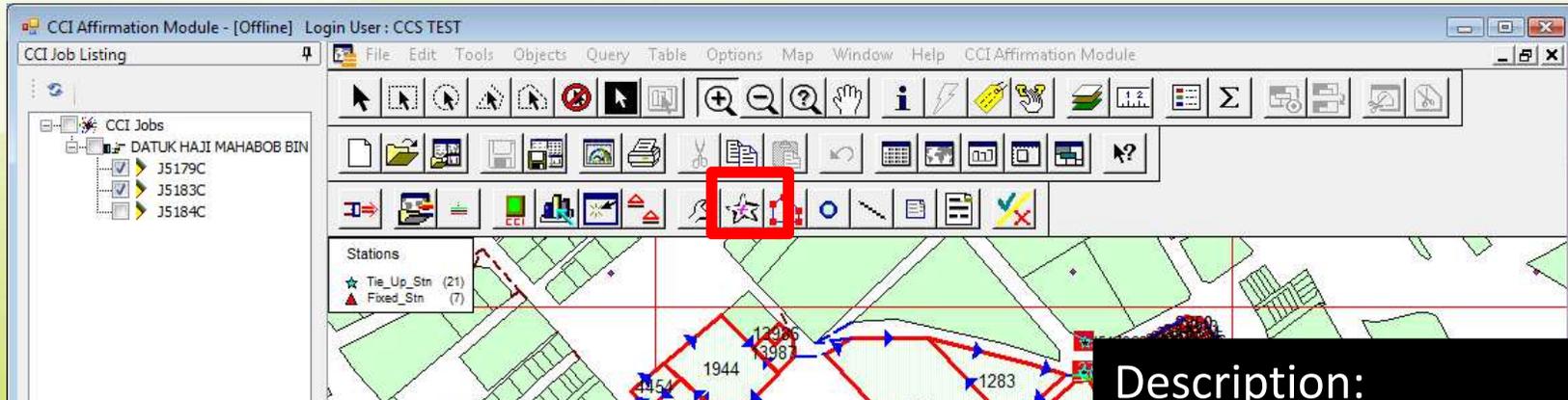
Open CCI Close CCI OK

Zoom: 885.9 m Selecting: Tie_Up_Stations SNAP English (United States)

Description:

Open selected CCI surveyed stations data

Calculate Star*Net



CCI AFFIRMATION.SUM - Notepad

File Edit Format View Help

Adjustment Statistical Summary

Convergence Iterations = 3

Number of Stations = 415

Number of Observations = 1416

Number of Unknowns = 826

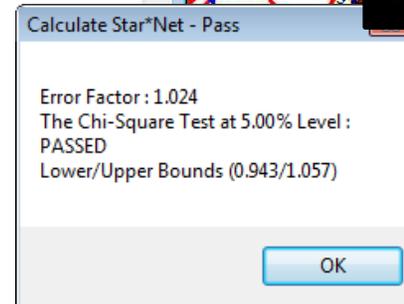
Number of Redundant obs = 590

Observation	Count	Sum Squares of StdRes	Error Factor
Coordinates	10	24.655	2.433
Distances	701	309.768	1.030
Az/Bearings	705	283.743	0.983
Total	1416	618.166	1.024

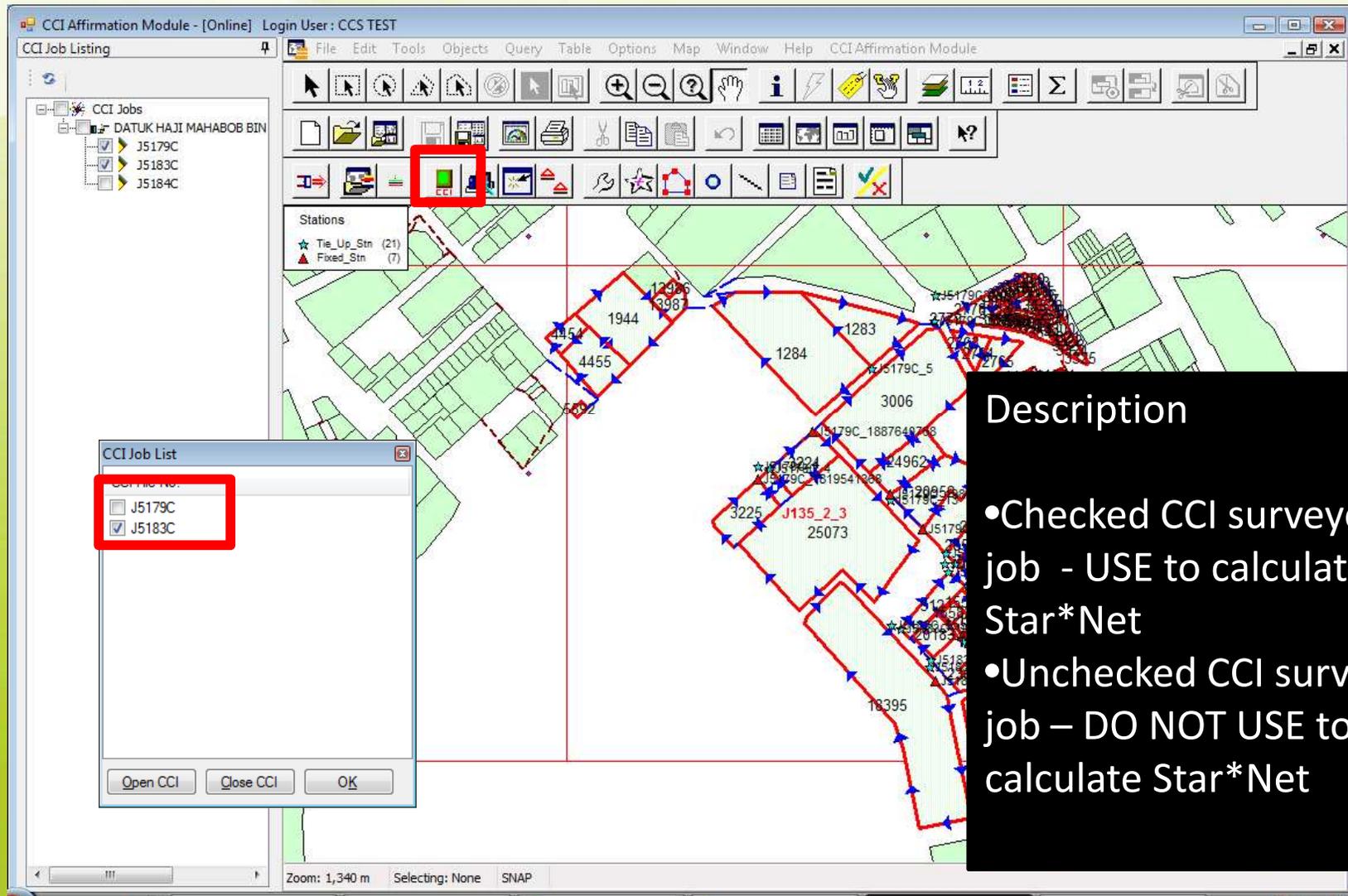
The Chi-Square Test at 5.00% Level Passed
Lower/Upper Bounds (0.943/1.057)

Description:

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



Add CCI Surveyed Job



The screenshot displays the CCI Affirmation Module software interface. The main window shows a map with various survey points and lines. A 'CCI Job Listing' panel on the left lists jobs: J5179C, J5183C, and J5184C. A 'CCI' icon in the toolbar is highlighted with a red box. A 'CCI Job List' dialog box is open, showing a list of jobs with checkboxes: J5179C (unchecked) and J5183C (checked). The dialog box has 'Open CCI', 'Close CCI', and 'OK' buttons.

CCI Affirmation Module - [Online] Login User : CCS TEST

CCI Job Listing

CCI Jobs

- DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

Stations

- Tie_Up_Stn (21)
- Fixed_Stn (7)

CCI Job List

CCI File No.

- J5179C
- J5183C

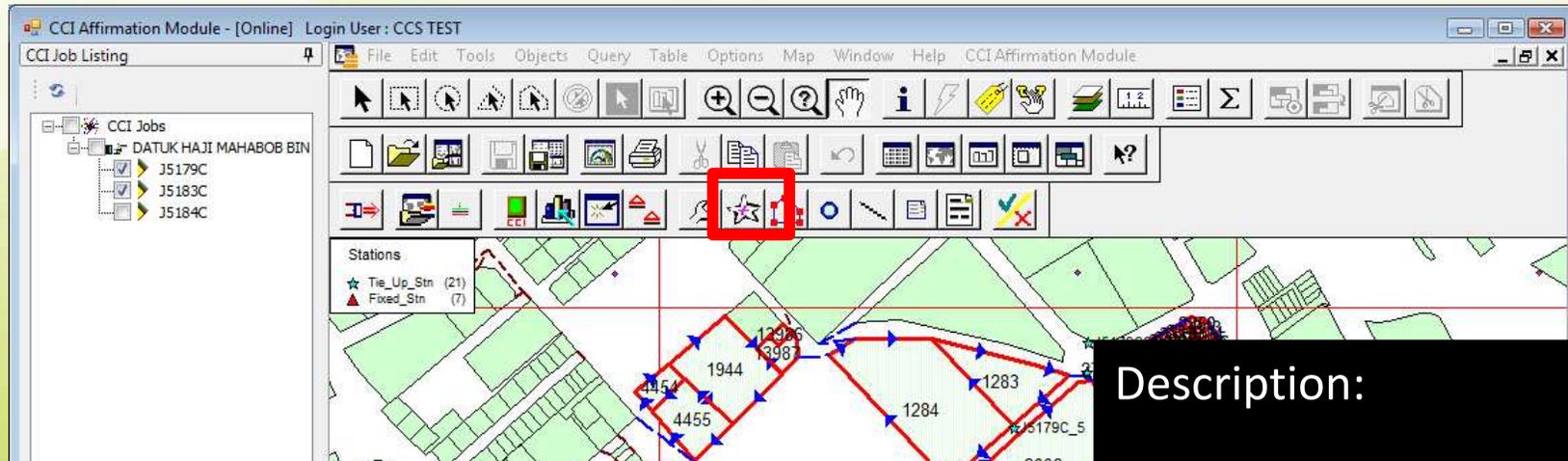
Open CCI Close CCI OK

Zoom: 1,340 m Selecting: None SNAP

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

CCL_AFFIRMATION.SUM - Notepad

File Edit Format View Help

Adjustment Statistical Summary

Convergence Iterations = 3

Number of Stations = 415

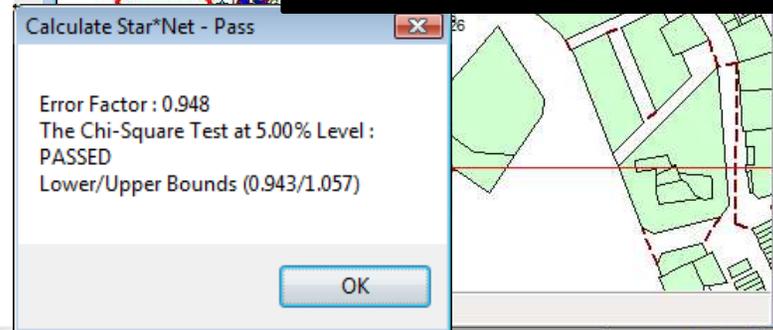
Number of Observations = 1410

Number of Unknowns = 828

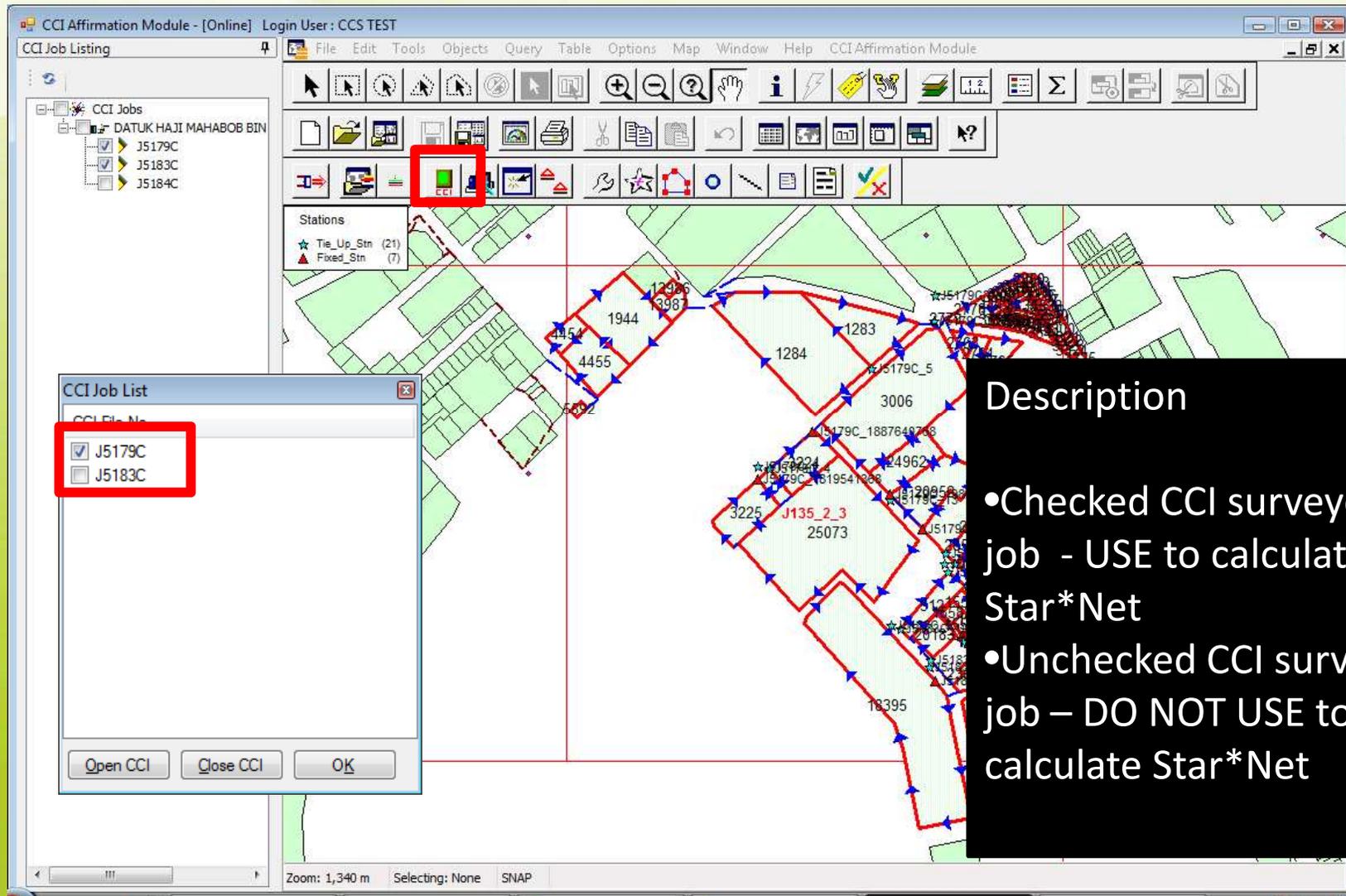
Number of Redundant Obs = 582

Observation	Count	Sum Squares of StdRes	Error Factor
Coordinates	4	0.001	0.023
Distances	701	254.246	0.937
Az/Bearings	705	269.331	0.962
Total	1410	523.578	0.948

The Chi-Square Test at 5.00% Level Passed
Lower/Upper Bounds (0.943/1.057)



Add CCI Surveyed Job



The screenshot displays the 'CCI Affirmation Module' software interface. The main window shows a map with various survey points and lines. A 'CCI Job Listing' panel on the left lists jobs: J5179C, J5183C, and J5184C. A 'CCI Job List' dialog box is open, showing a list of jobs with checkboxes: J5179C (checked) and J5183C (unchecked). A red box highlights the 'CCI' icon in the software's toolbar. A black text box on the right provides a description of the checked and unchecked jobs.

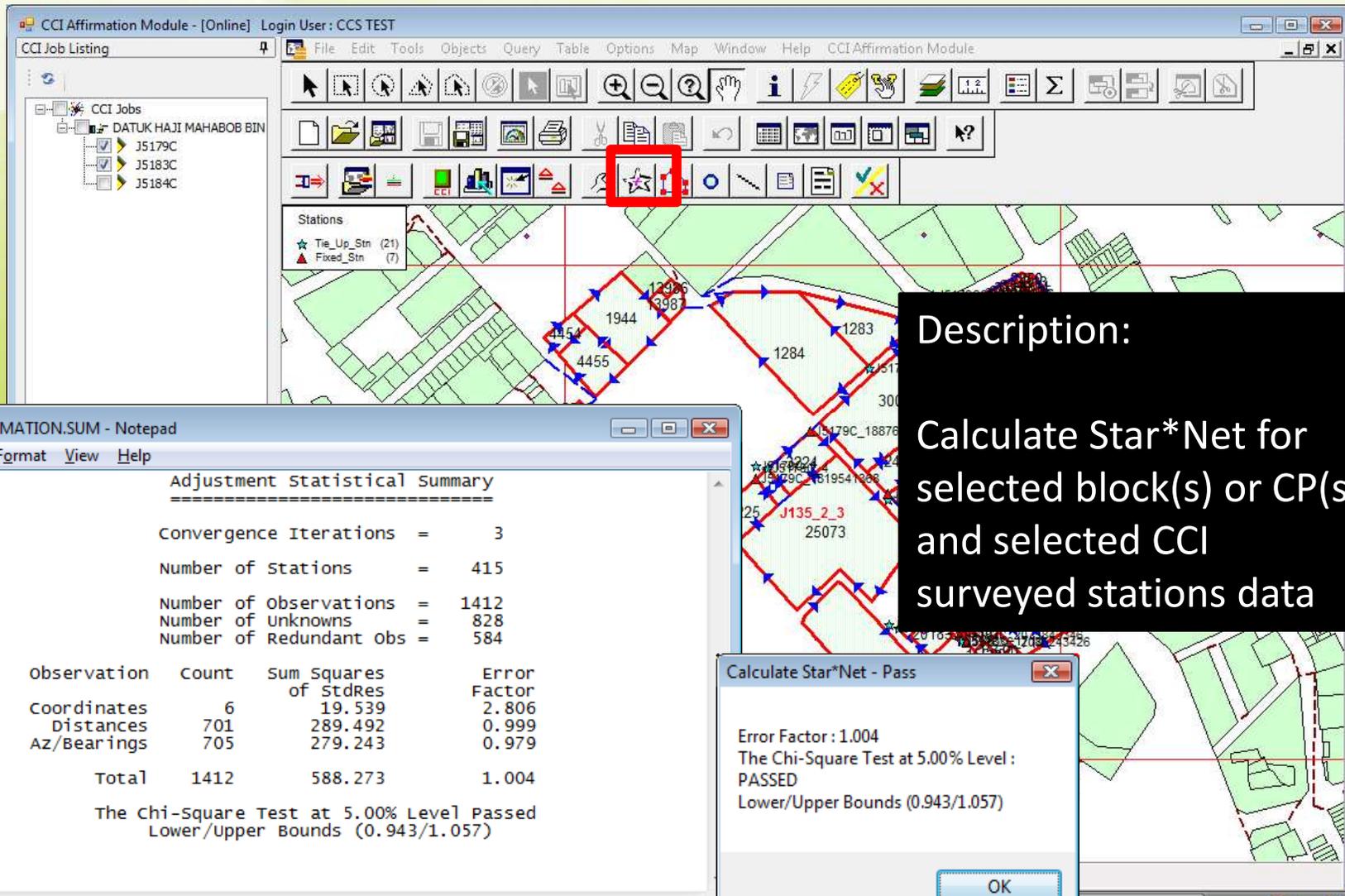
CCI Job List

Job ID	Checked
J5179C	<input checked="" type="checkbox"/>
J5183C	<input type="checkbox"/>

Description

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

Calculate Star*Net



CCI Affirmation Module - [Online] Login User : CCS TEST

CCI Job Listing

- CCI Jobs
 - DATUK HAJI MAHABOB BIN
 - J5179C
 - J5183C
 - J5184C

Stations

- ★ Tie_Up_Stn (21)
- ▲ Fixed_Stn (7)

Adjustment Statistical Summary

Convergence Iterations = 3

Number of Stations = 415

Number of Observations = 1412

Number of Unknowns = 828

Number of Redundant obs = 584

Observation	Count	Sum Squares of StdRes	Error Factor
Coordinates	6	19.539	2.806
Distances	701	289.492	0.999
Az/Bearings	705	279.243	0.979
Total	1412	588.273	1.004

The Chi-square Test at 5.00% Level Passed
Lower/Upper Bounds (0.943/1.057)

Calculate Star*Net - Pass

Error Factor : 1.004
The Chi-Square Test at 5.00% Level : PASSED
Lower/Upper Bounds (0.943/1.057)

OK

Description:

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



Create NDCDB



Develops Lot_stn relationship

K289

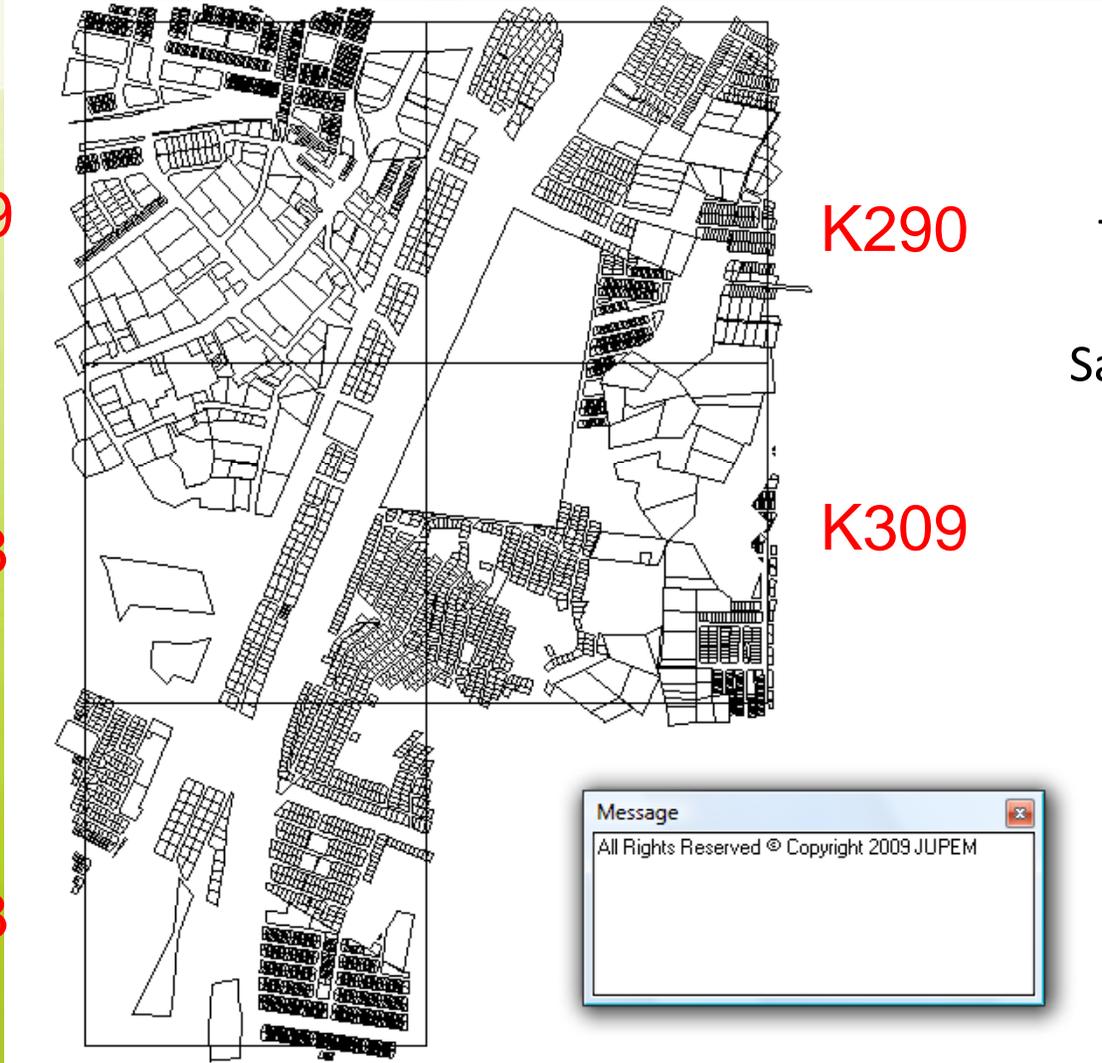
K290

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

K308

K309

K323



Message
All Rights Reserved © Copyright 2009 JUPEM



PA	UPI	Order	Node
<input type="checkbox"/>	PA100023	08034400016121	1 7506917485
<input type="checkbox"/>	PA100023	08034400016121	2 7473216494
<input type="checkbox"/>	PA100023	08034400016121	3 7396717062
<input type="checkbox"/>	PA100023	08034400016121	4 7389917352
<input type="checkbox"/>	PA100023	08034400016121	5 7495617589
<input type="checkbox"/>	PA100023	08034400016121	6 7504017495
<input type="checkbox"/>	PA100023	08034400016121	7 7506917485
<input type="checkbox"/>	PA100023	08034400016018	1 7522317427
<input type="checkbox"/>	PA100023	08034400016018	2 7480816457
<input type="checkbox"/>	PA100023	08034400016018	3 7473216494
<input type="checkbox"/>	PA100023	08034400016018	4 7506917485
<input type="checkbox"/>	PA100023	08034400016018	5 7522317427
<input type="checkbox"/>	PA100023	08034400016017	1 7663417224
<input type="checkbox"/>	PA100023	08034400016017	2 7653317186
<input type="checkbox"/>	PA100023	08034400016017	3 7635717256
<input type="checkbox"/>	PA100023	08034400016017	4 7646017476
<input type="checkbox"/>	PA100023	08034400016017	5 7669717370
<input type="checkbox"/>	PA100023	08034400016017	6 7663417224
<input type="checkbox"/>	PA100023	08034400016016	1 7635717256
<input type="checkbox"/>	PA100023	08034400016016	2 7615117337
<input type="checkbox"/>	PA100023	08034400016016	3 7613517382
<input type="checkbox"/>	PA100023	08034400016016	4 7622117582
<input type="checkbox"/>	PA100023	08034400016016	5 7646017476
<input type="checkbox"/>	PA100023	08034400016016	6 7635717256
<input type="checkbox"/>	PA100023	08034400016015	1 7602417433
<input type="checkbox"/>	PA100023	08034400016015	2 7596917418
<input type="checkbox"/>	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



7396717062

7389917352

74495617589

7504017495

7473216494

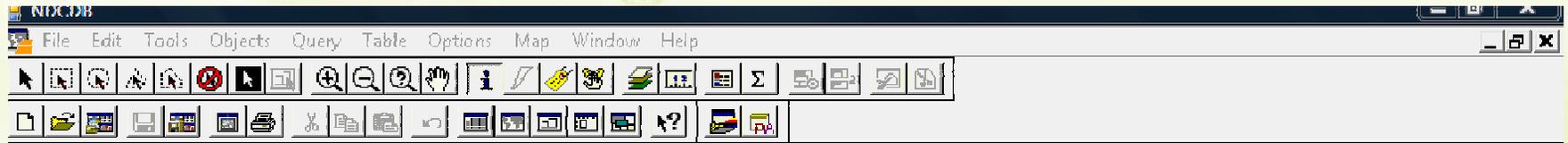
16121

ORDER
NODE

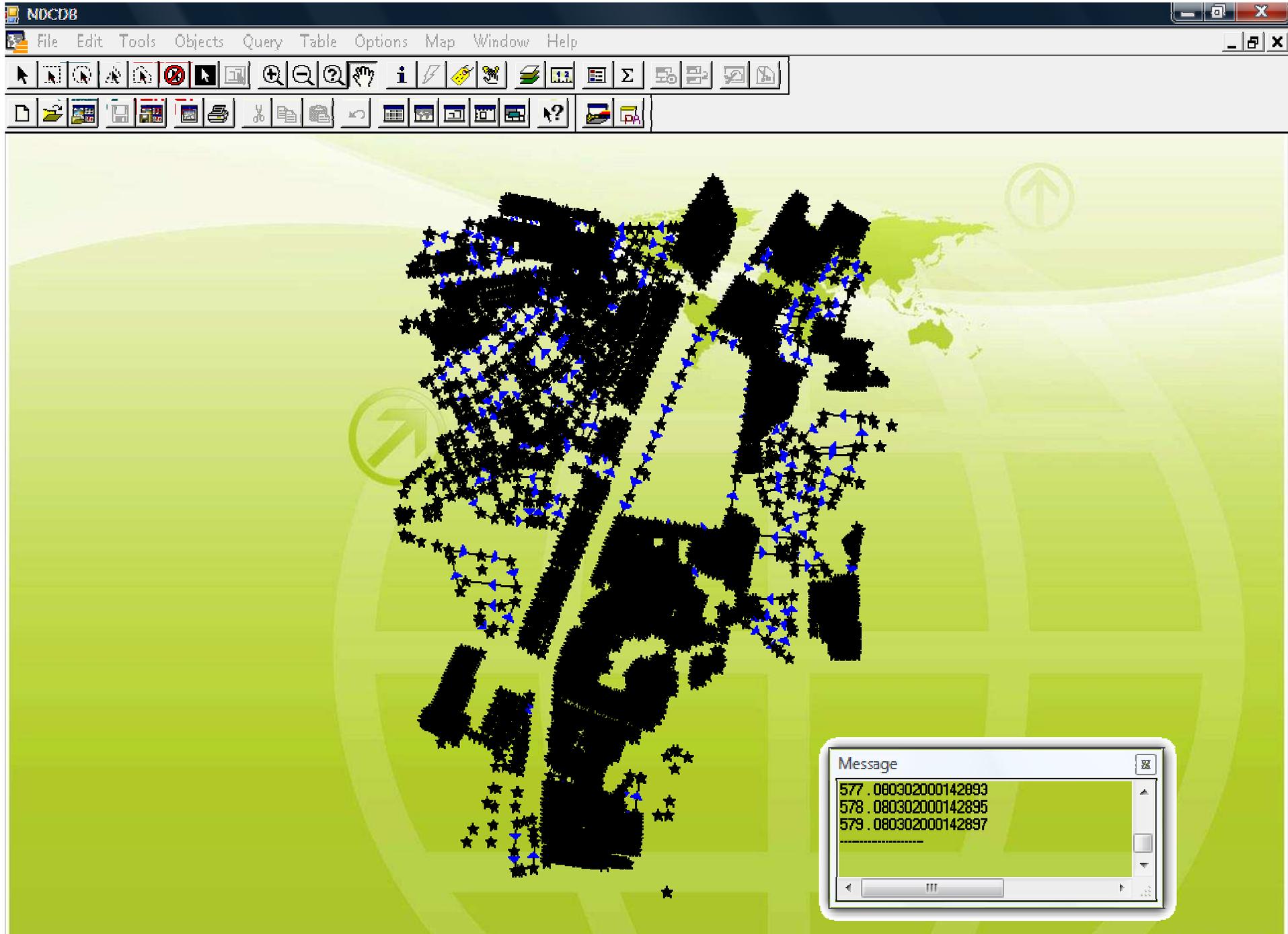
7506917485



Create NDCDB



Zoom: 6,160 m Selecting: None SNAP



Zoom: 6,160 m Selecting: None SNAP

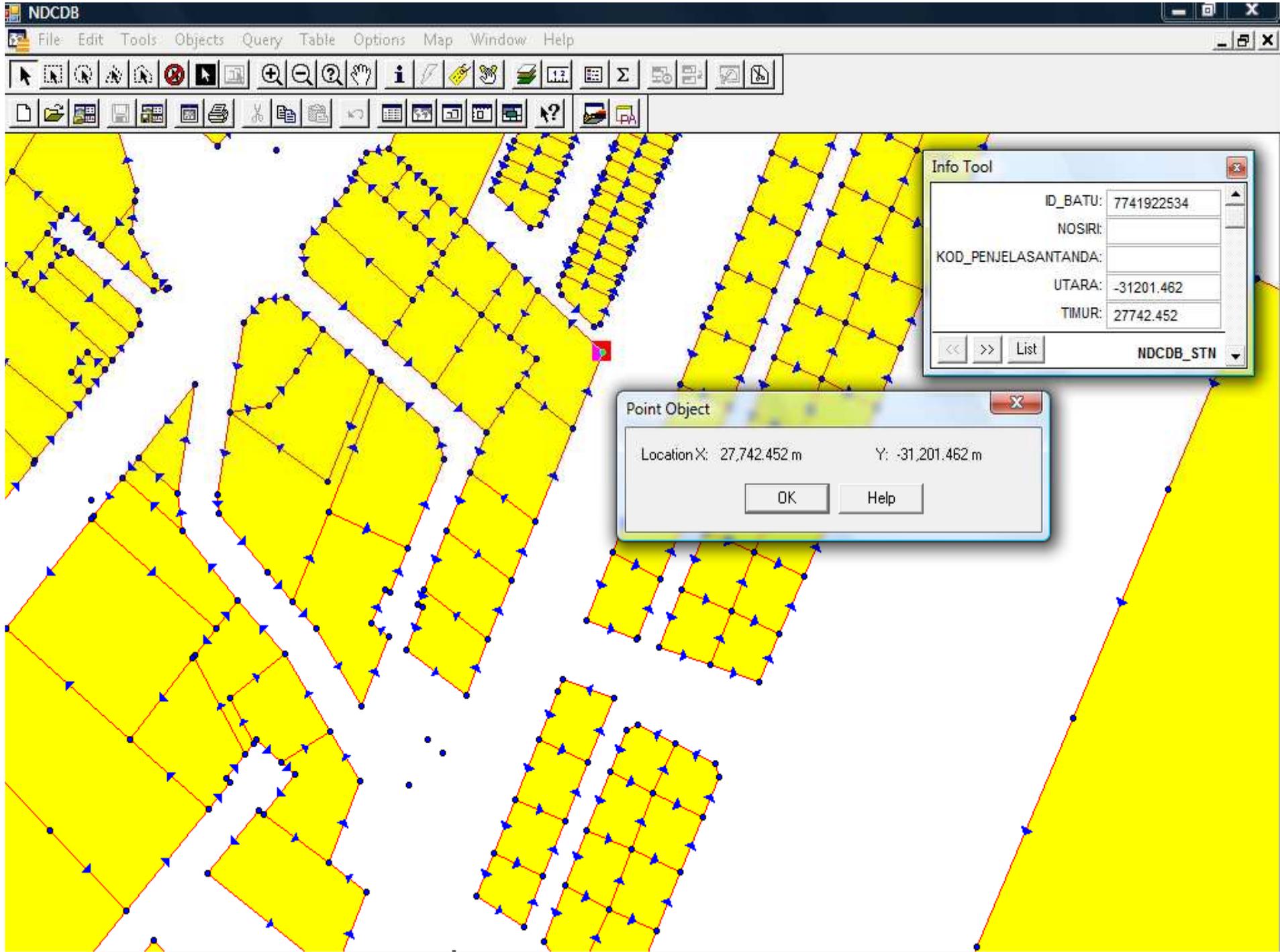
NDCDB

File Edit Tools Objects Query Table Options Browse Window Help

LOT Browser

	NEGERI	DAERA	MUKI	SEKSYEN	LOT	PARCELKEY	S_AREA	M
<input type="checkbox"/>	08	03	02	000	316023	080302000316023	664.000	
<input type="checkbox"/>	08	03	02	000	316024	080302000316024	473.000	
<input type="checkbox"/>	08	03	02	000	316025	080302000316025	483.000	
<input type="checkbox"/>	08	03	02	000	316026	080302000316026	485.000	
<input type="checkbox"/>	08	03	02	000	316027	080302000316027	489.000	
<input type="checkbox"/>	08	03	02	000	316028	080302000316028	467.000	
<input type="checkbox"/>	08	03	02	000	316029	080302000316029	471.000	
<input type="checkbox"/>	08	03	02	000	316030	080302000316030	655.000	
<input type="checkbox"/>	08	03	02	000	316031	080302000316031	636.000	
<input type="checkbox"/>	08	03	02	000	316032	080302000316032	464.000	
<input type="checkbox"/>	08	03	02	000	316033	080302000316033	458.000	
<input type="checkbox"/>	08	03	02	000	308464	080302000308464	437.000	
<input type="checkbox"/>	08	03	02	000	316709	080302000316709	6,424.000	
<input type="checkbox"/>	08	03	02	000	316711	080302000316711	5,144.000	
<input type="checkbox"/>	08	03	02	000	316712	080302000316712	3,790.000	
<input type="checkbox"/>	08	03	02	000	231066	080302000231066	130.000	
<input type="checkbox"/>	08	03	02	000	231067	080302000231067	130.000	
<input type="checkbox"/>	08	03	02	000	231068	080302000231068	130.000	
<input type="checkbox"/>	08	03	02	000	231069	080302000231069	130.000	
<input type="checkbox"/>	08	03	02	000	231090	080302000231090	130.000	
<input type="checkbox"/>	08	03	02	000	231091	080302000231091	250.000	
<input type="checkbox"/>	08	03	02	000	231092	080302000231092	250.000	
<input type="checkbox"/>	08	03	02	000	231093	080302000231093	130.000	
<input type="checkbox"/>	08	03	02	000	231094	080302000231094	130.000	
<input type="checkbox"/>	08	03	02	000	231095	080302000231095	130.000	
<input type="checkbox"/>	08	03	02	000	231096	080302000231096	130.000	
<input type="checkbox"/>	08	03	02	000	231097	080302000231097	130.000	
<input type="checkbox"/>	08	03	02	000	231098	080302000231098	130.000	







FUTURE DIRECTION

NDCDB

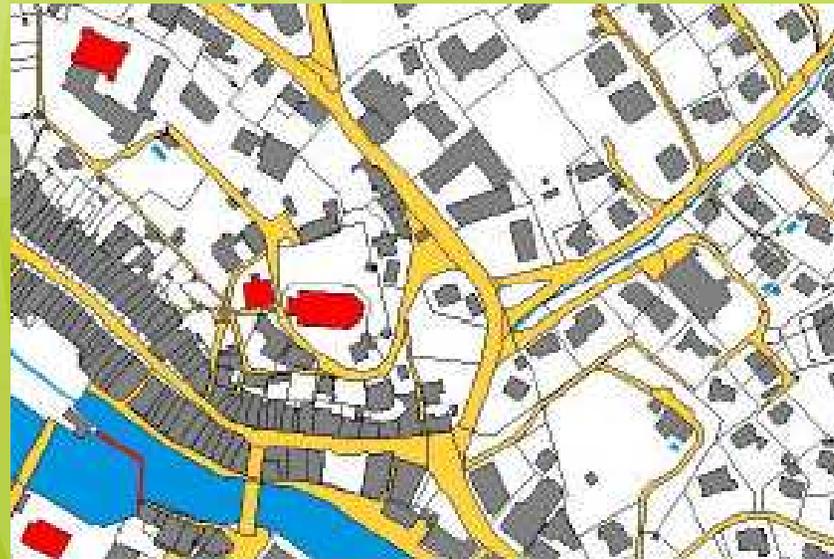
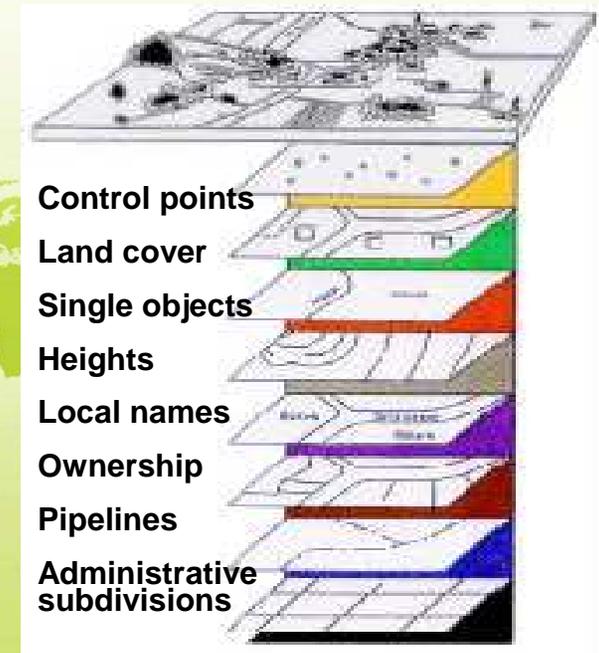
Future Direction:

Multipurpose Cadastral

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

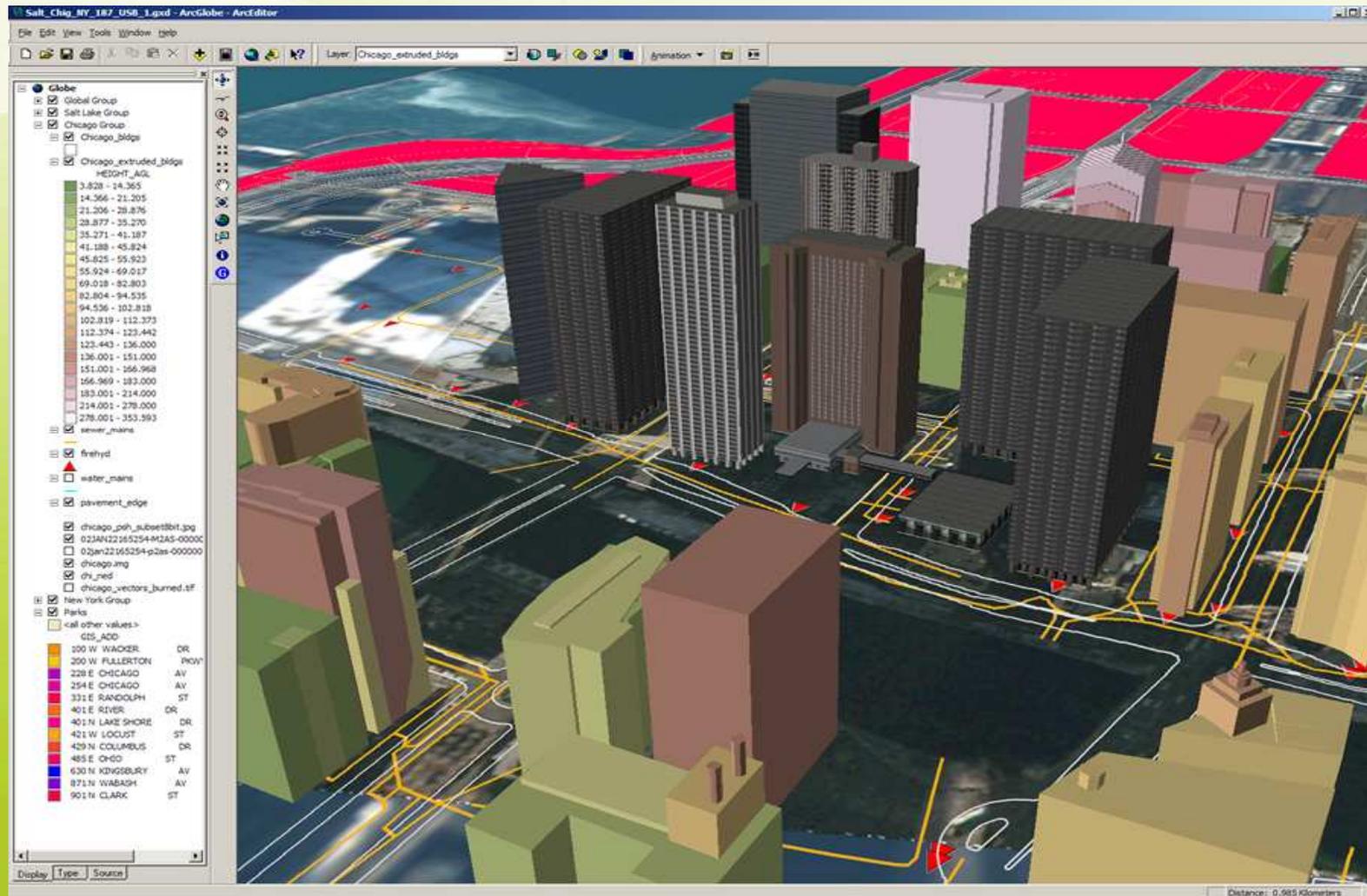


New Digital Cadastral Map

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 TECHNOLOG

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