



Georectification

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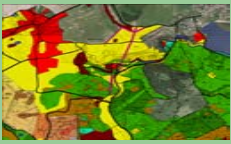
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TECHNICAL UNIVERSITY IN ZVOLEN



- 1. Resampling in Idrisi**
- 2. Georectification in ArcGIS**



Resampling in Idrisi 32

Objective: To resample the origin map representation reference system to new local geographical reference system

Input data: map representation (.bmp format)

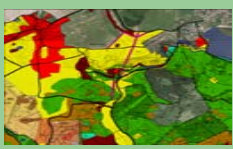
Scheme of control points coordinates in local reference system:

+
[300, 1300]

+
[2300, 1300]

+
[300, 300]

+
[2300, 300]



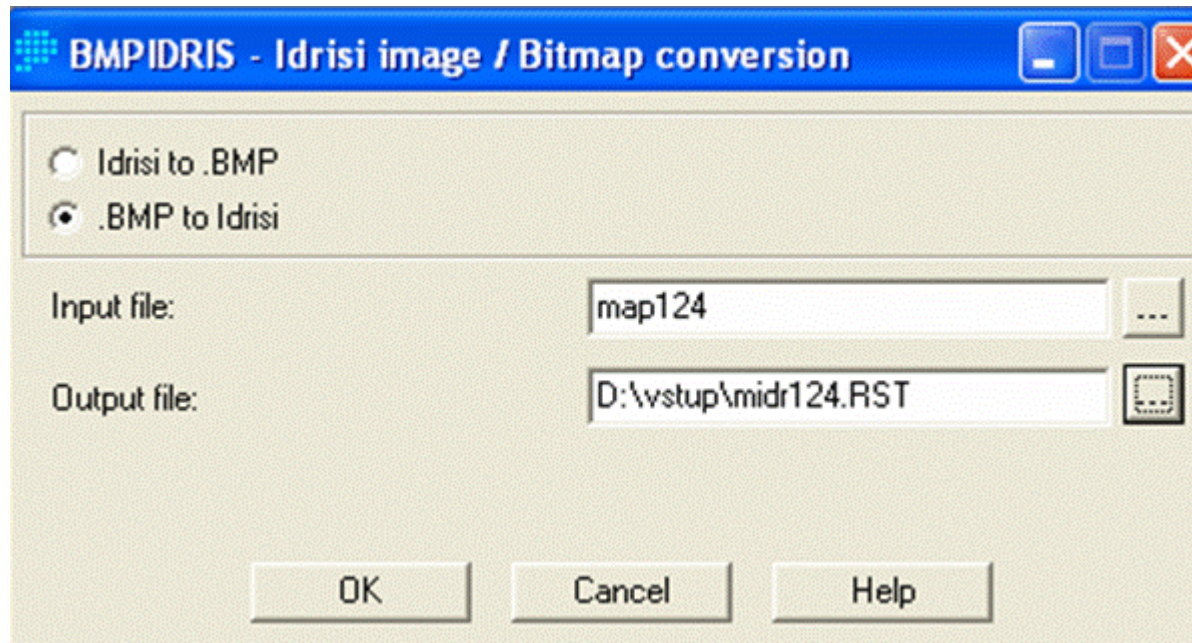
Procedure:

- 1. Import to Idrisi format**
- 2. Control points coordinates extraction**
- 3. Correspondence file creation**
- 4. Resampling**



Import to Idrisi format

File / Import / Desktop Publishing Formats / BMPIDRIS



Socrates – Erasmus Summer School: Full Integration of Geodata in GIS

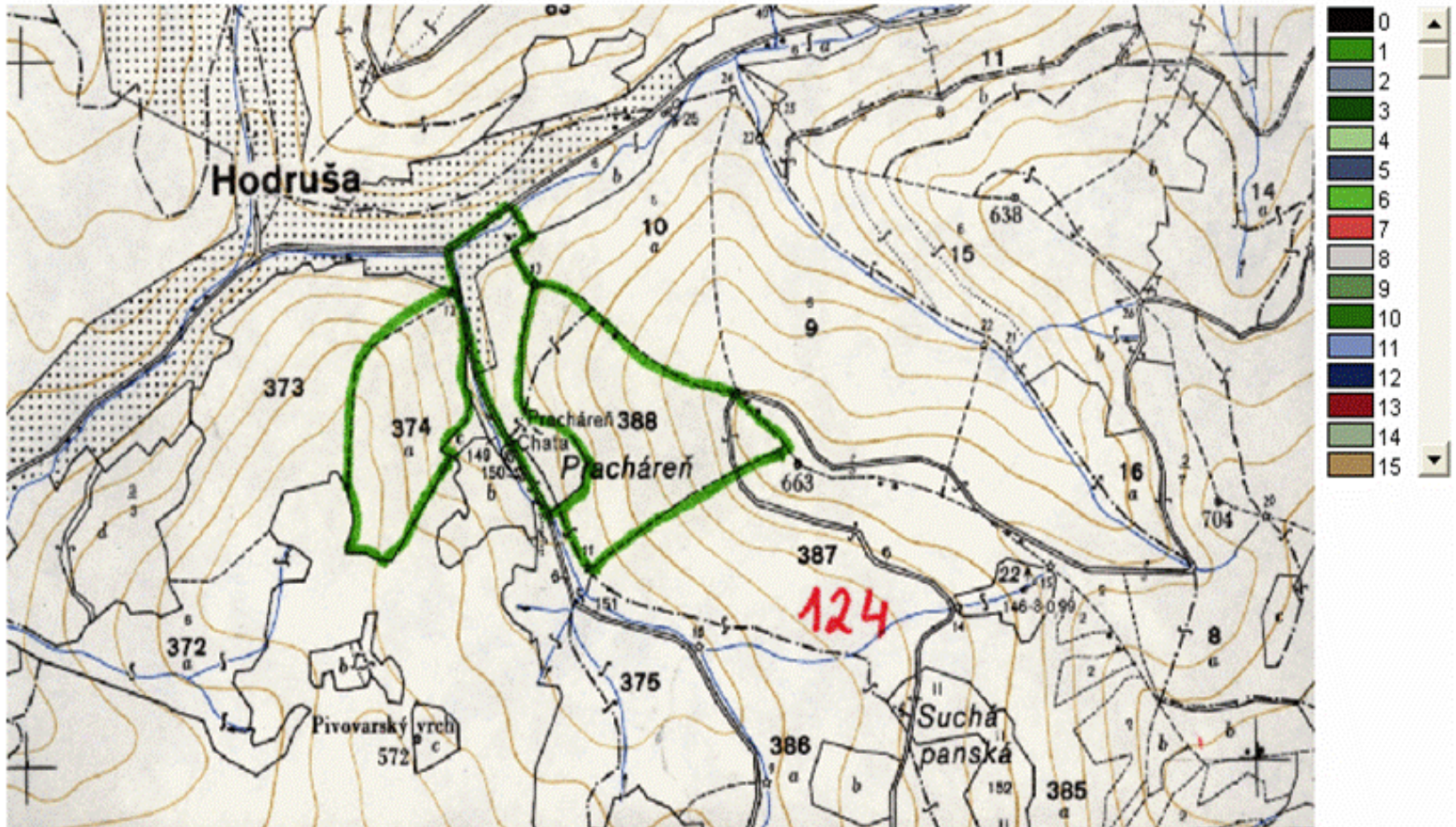
Georectification



midr124

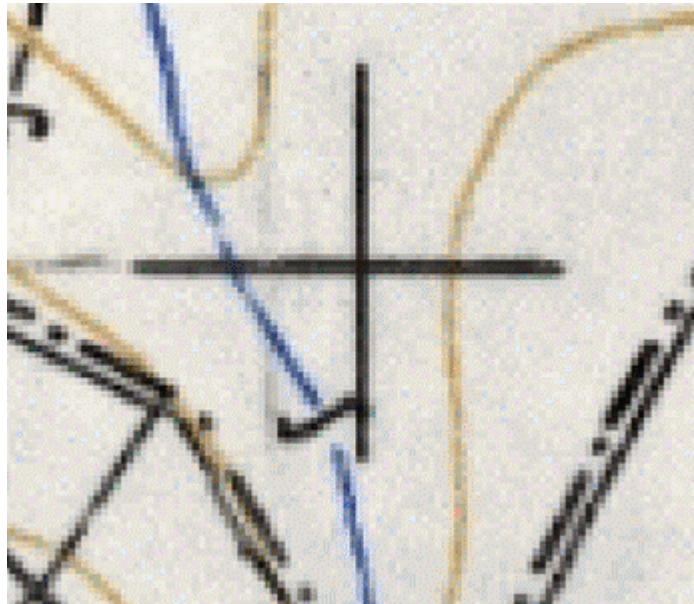


Conversion from map124.bmp





Control points coordinates extraction



$[x_g, y_g]$

RF 1 : 824

c : 1194

r : 42

x : 1194.910402

y : 659.453550



Correspondence file creation

Data entry / Edit

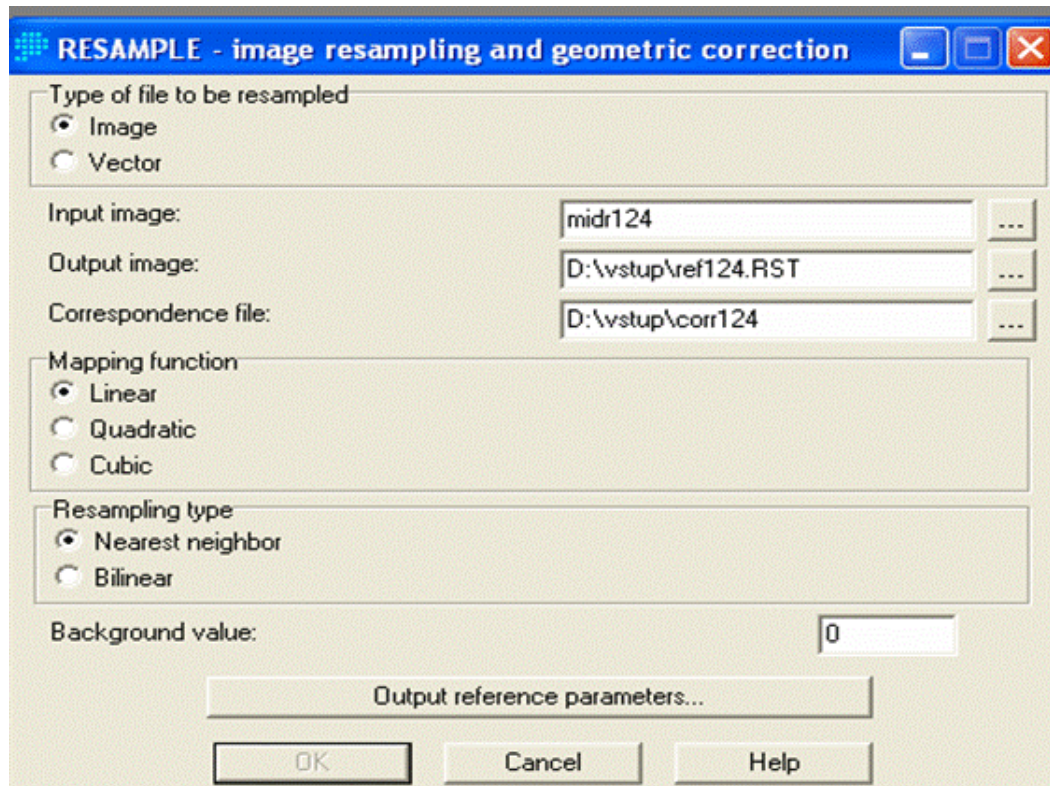


$[x_g \ x_g \ x_m \ y_m]$



Resampling

Reformat / Resample






Resampling

Reformat / Resample / Output reference parameters

Reference Parameters

Number of columns:	1000
Number of rows:	500
Minimum X coordinate:	300
Maximum X coordinate:	2300
Minimum Y coordinate:	300
Maximum Y coordinate:	1300

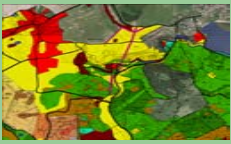
Reference system: plane 

Reference units: Meters

Unit distance: 1.0

OK Cancel Help

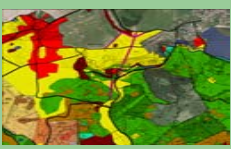
Pixel size 2 x 2 m



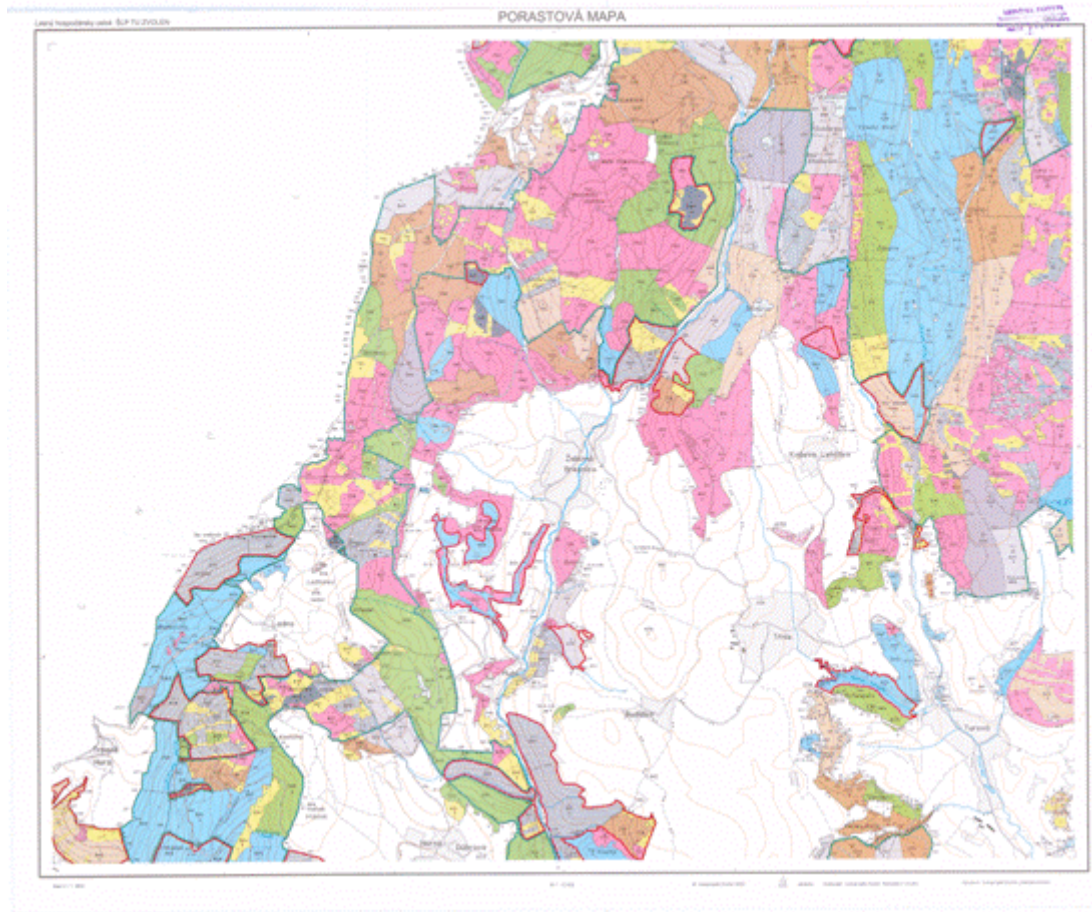
Georectification in ArcGIS

Objective: To rectify map representation of forest units map using vector representation of forest units borders

Input data: map representation of forest units (.jpeg format) – local reference system
- vector representation of forest units borders - S – JTSK reference system



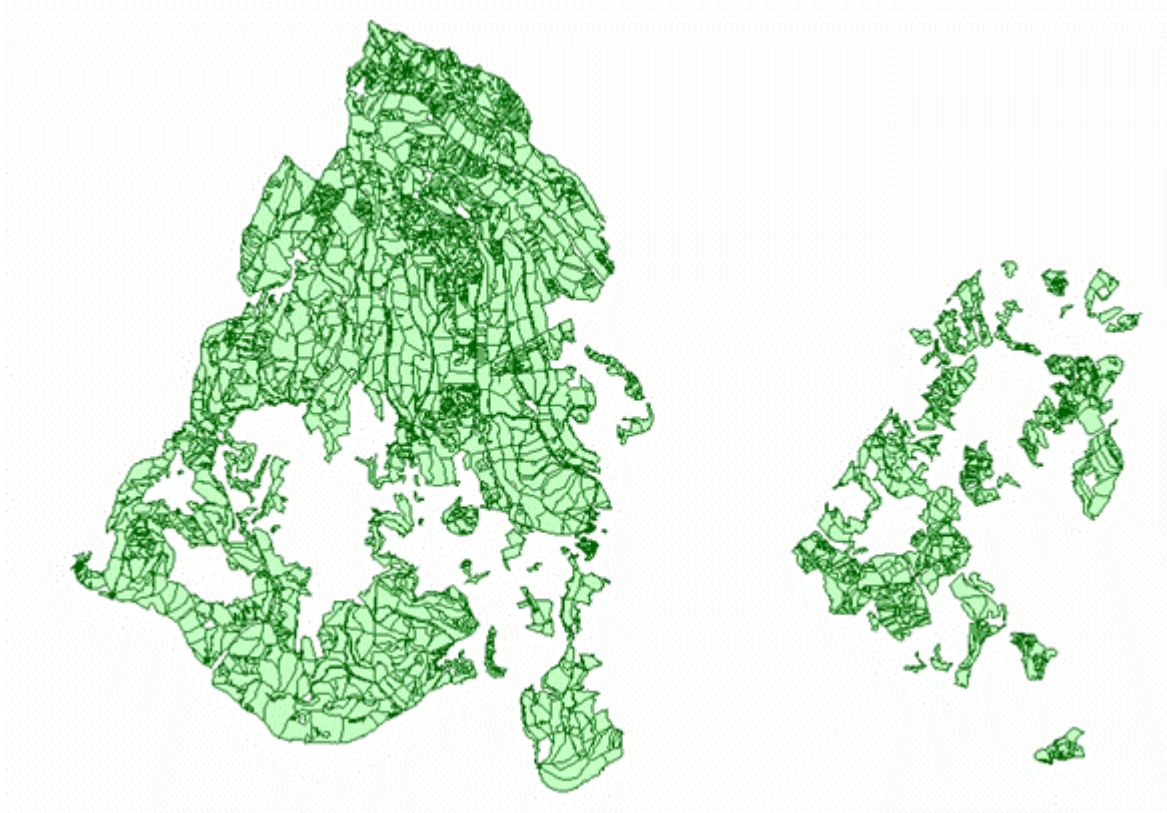
Input data



Forest units map



Input data



**Vector
representation
of forest units
borders**



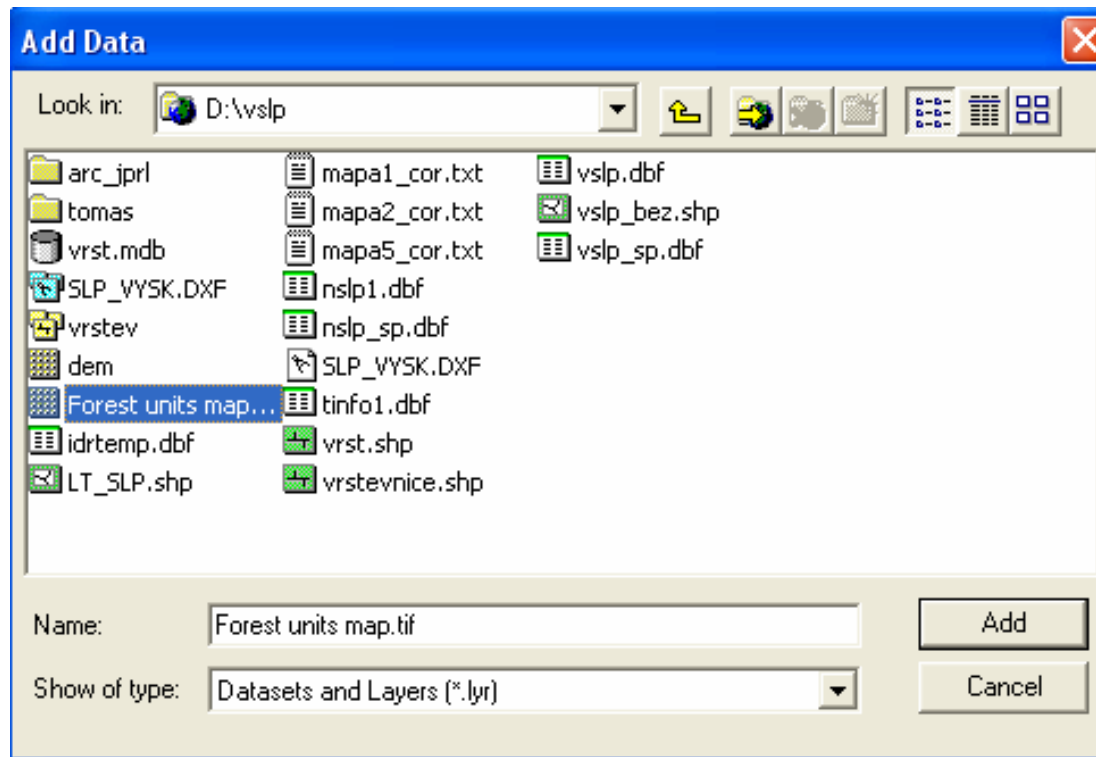
Procedure:

- 1. Addings data to the Layer**
- 2. Control points selection**
- 3. Control points addind**
- 4. Rectifying**



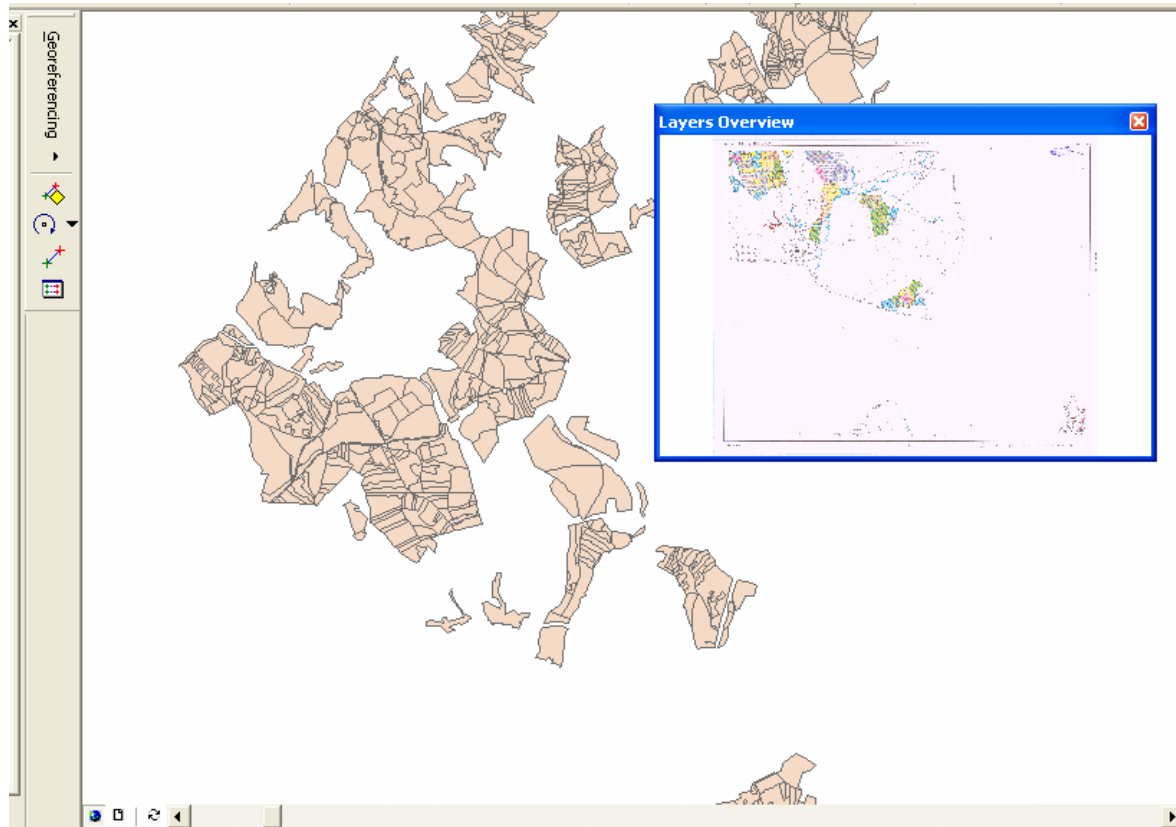
Adding data to the Layer

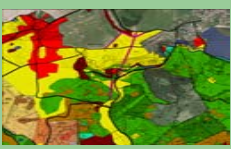
Layer / Add Data



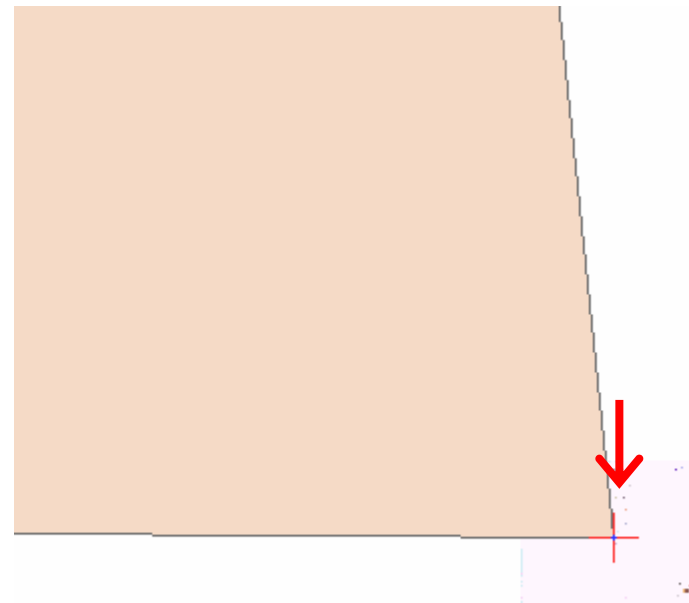
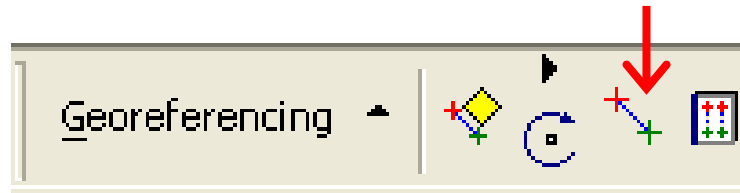


Control points selection





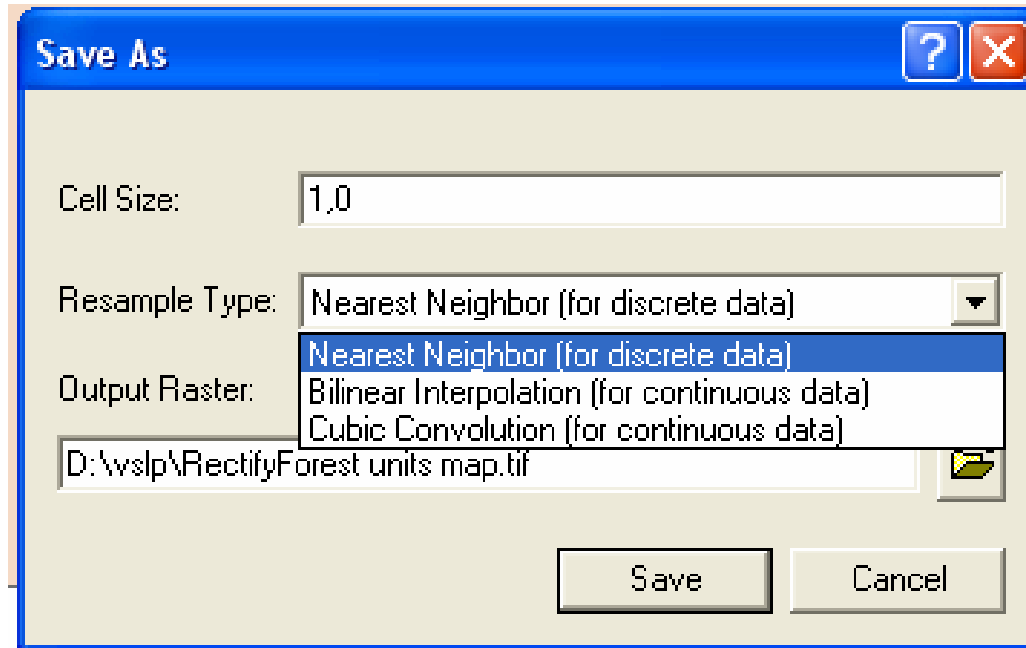
Control points adding (at least 4)





Rectifying

Georeferencing / Update Georeferencing and Rectify





**Result of both processes is georectified map suitable
for next analysis**