MINISTÉRIO DA CIÊNCIA E TECNOLOGIA
INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS

Padrões e Processos em Dinâmica de Uso e Cobertura da Terra

Métricas da Paisagem: Abordagem Ecológica

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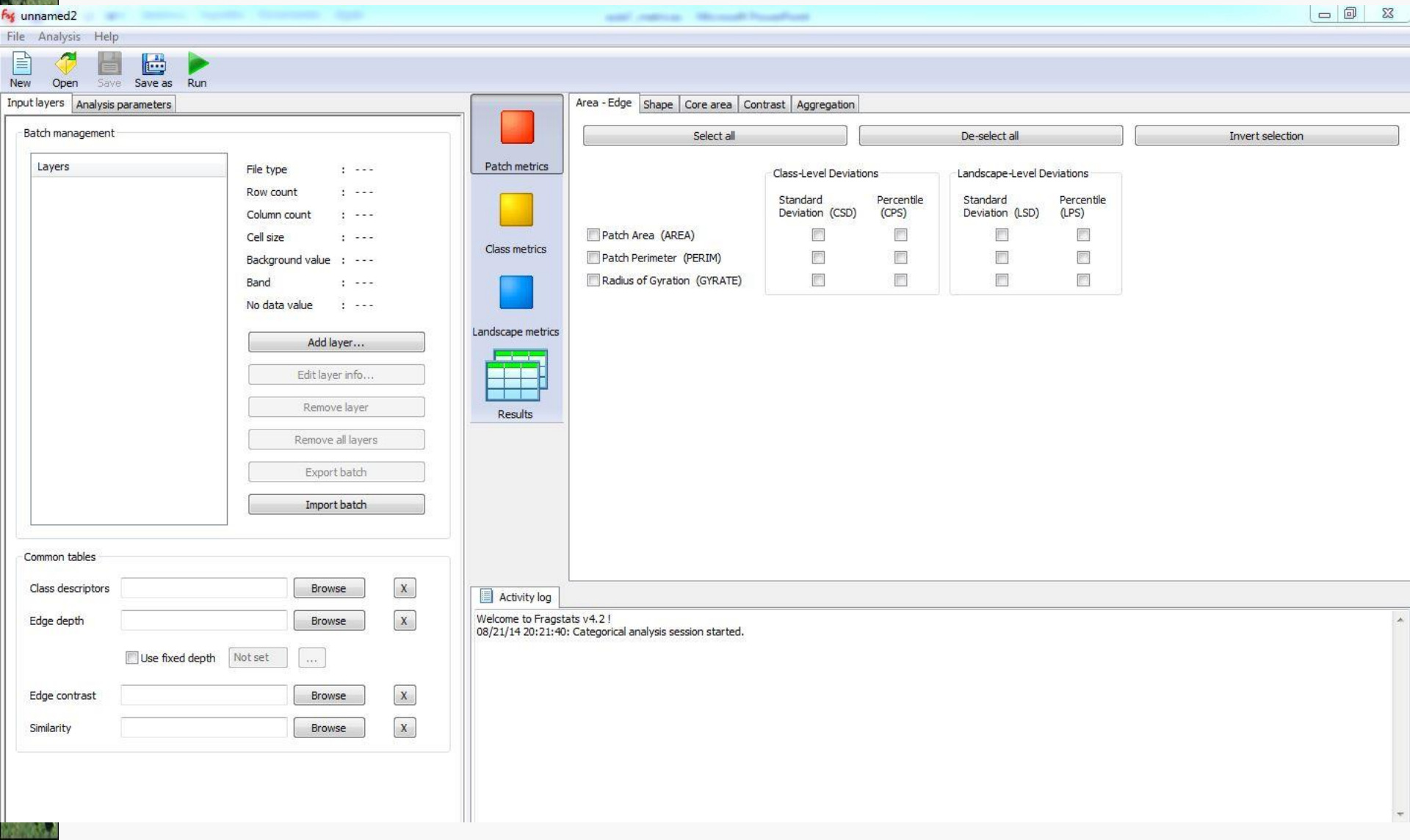
Análise da paisagem com Fragstats (v. 4.2)



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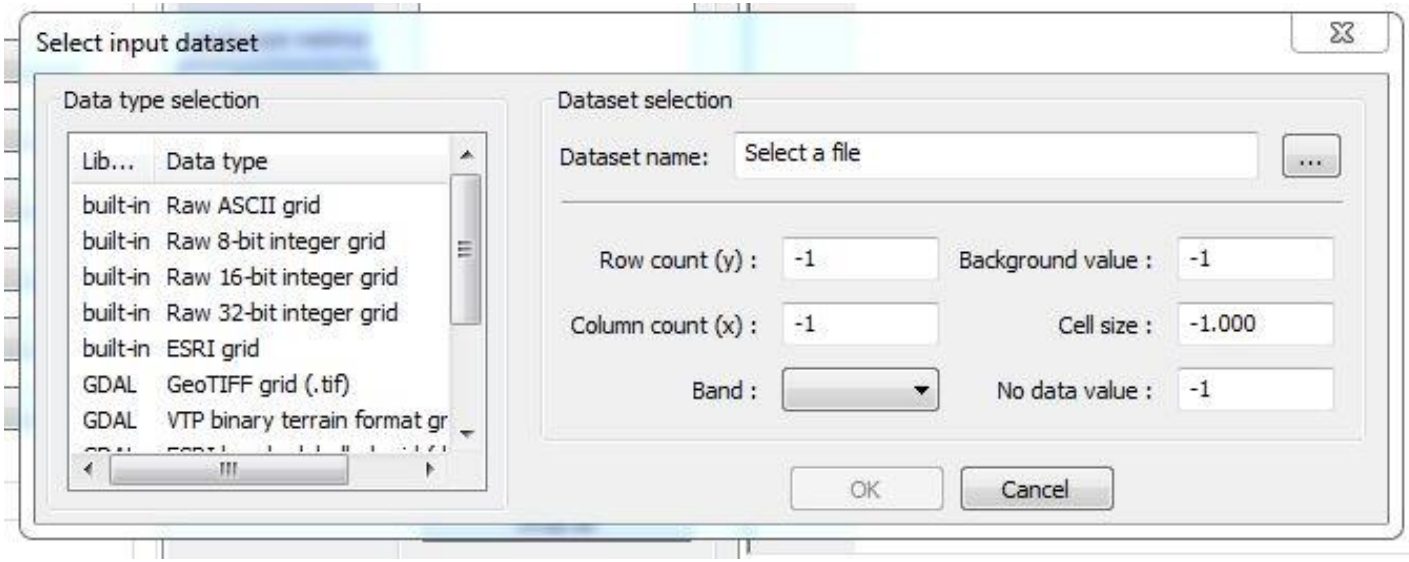
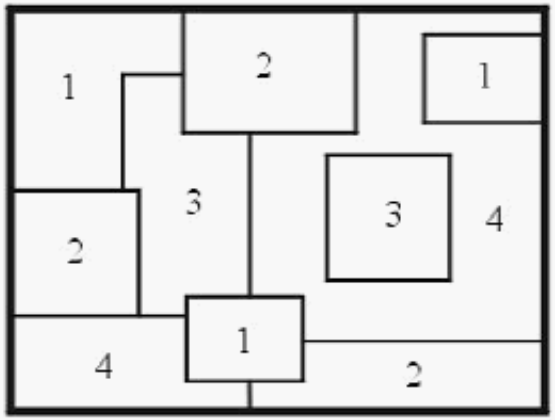
exemplo_574x522_360_574x522_8BSS.raw

No spring...

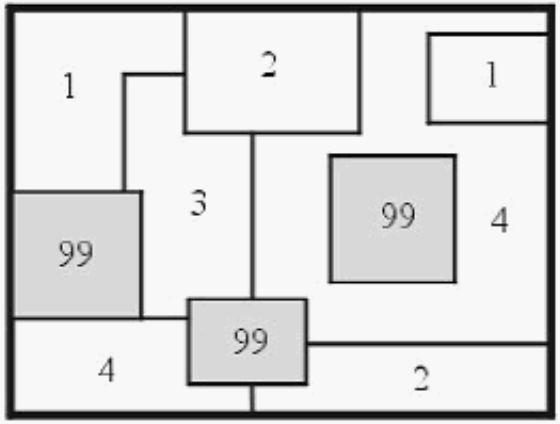
- Mapa temático vetorial ou raster
  - Atribuição de valor diferente de 0 para background (edição matricial)
- Exportação
  - Coordenadas planas (m) –Arquivo ASCII (valores separados por vírgula ou espaço - grade)
- Importação no fragstats: Arquivo binário Raw: – número de colunas X linhas, 8 bits, Resolução espacial:360 m



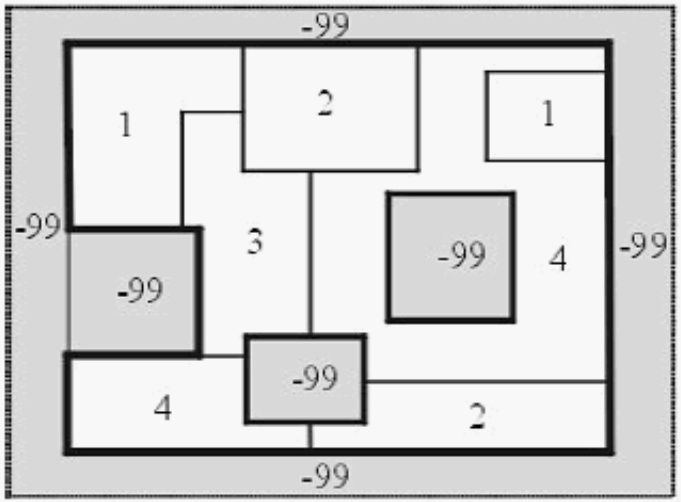
A. No background/no border



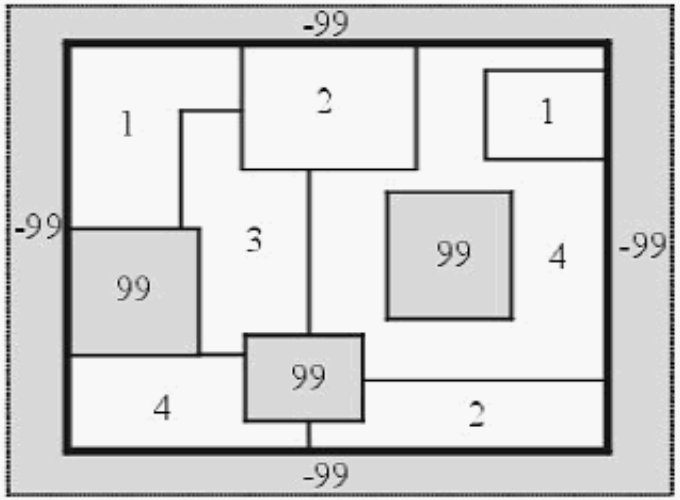
B. Interior background/no border



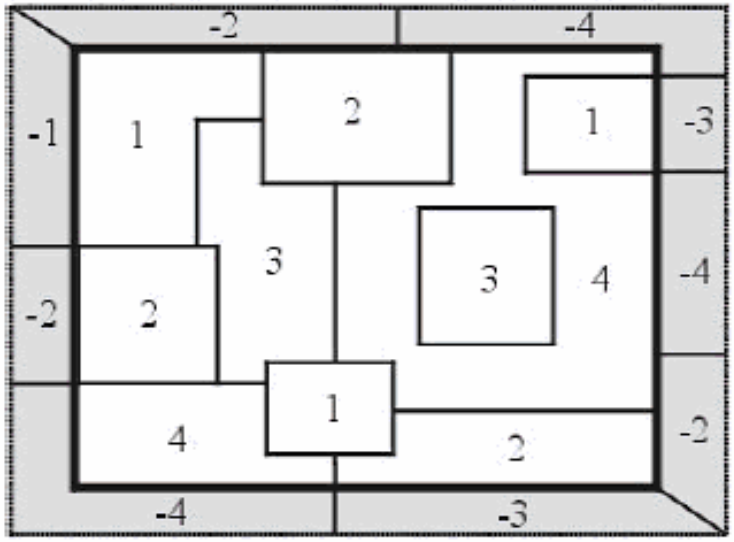
C. Exterior background/no border



D. Interior/Exterior background/no border



E. No background/with border



F. Interior/exterior background/with border

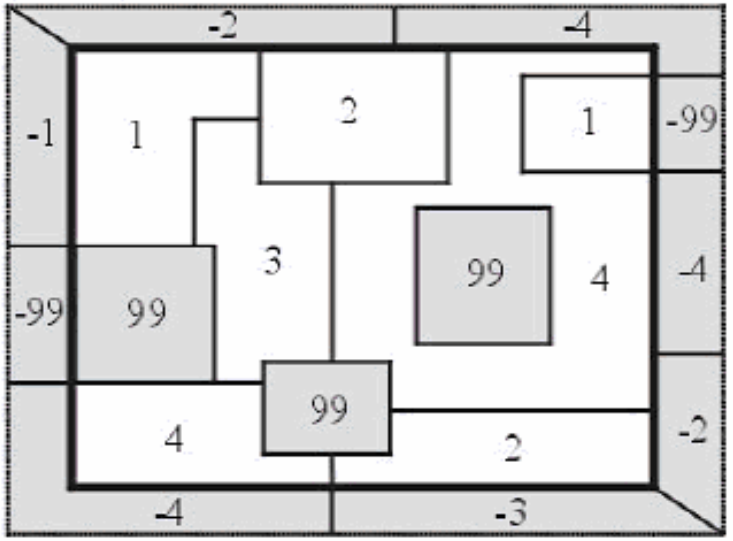
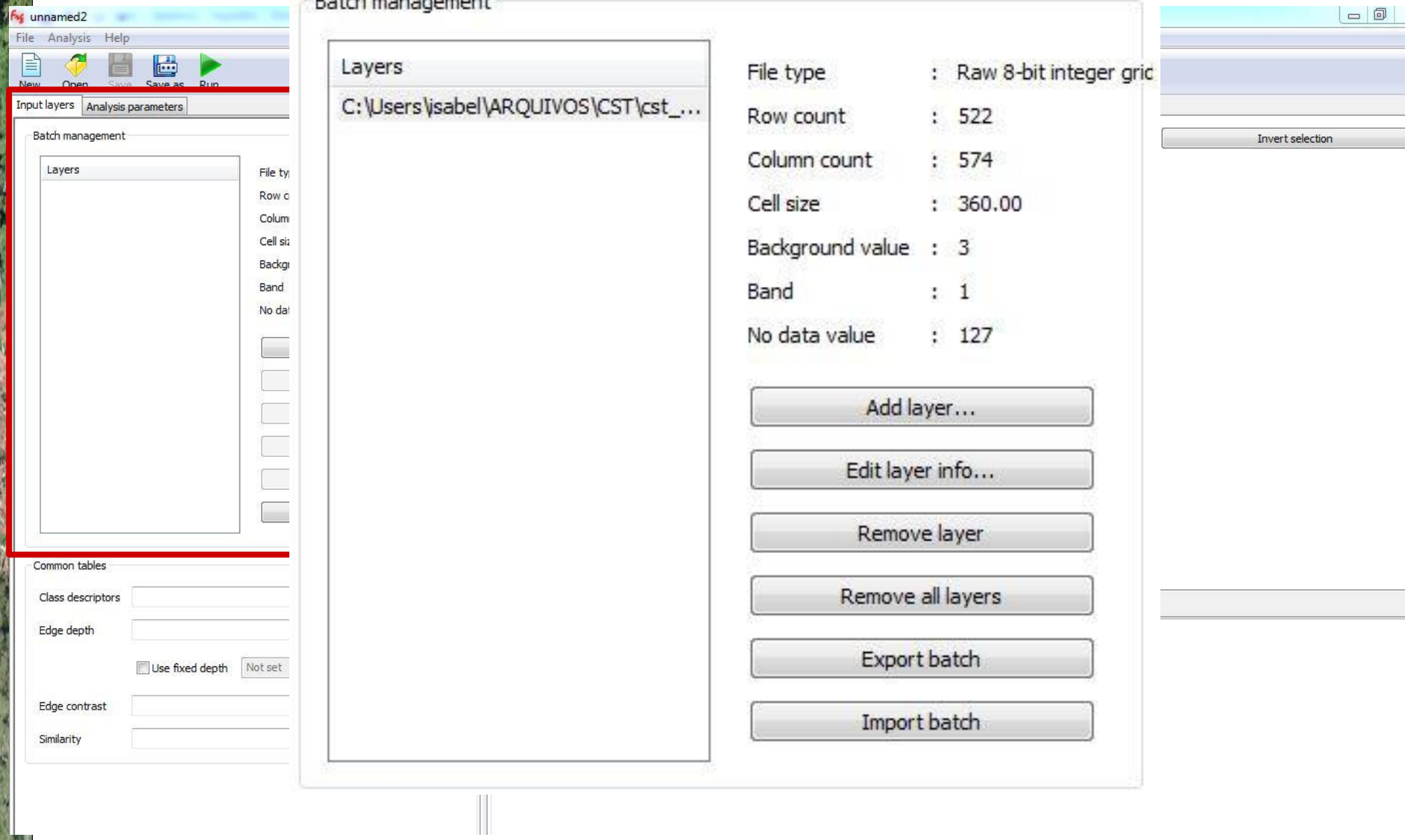
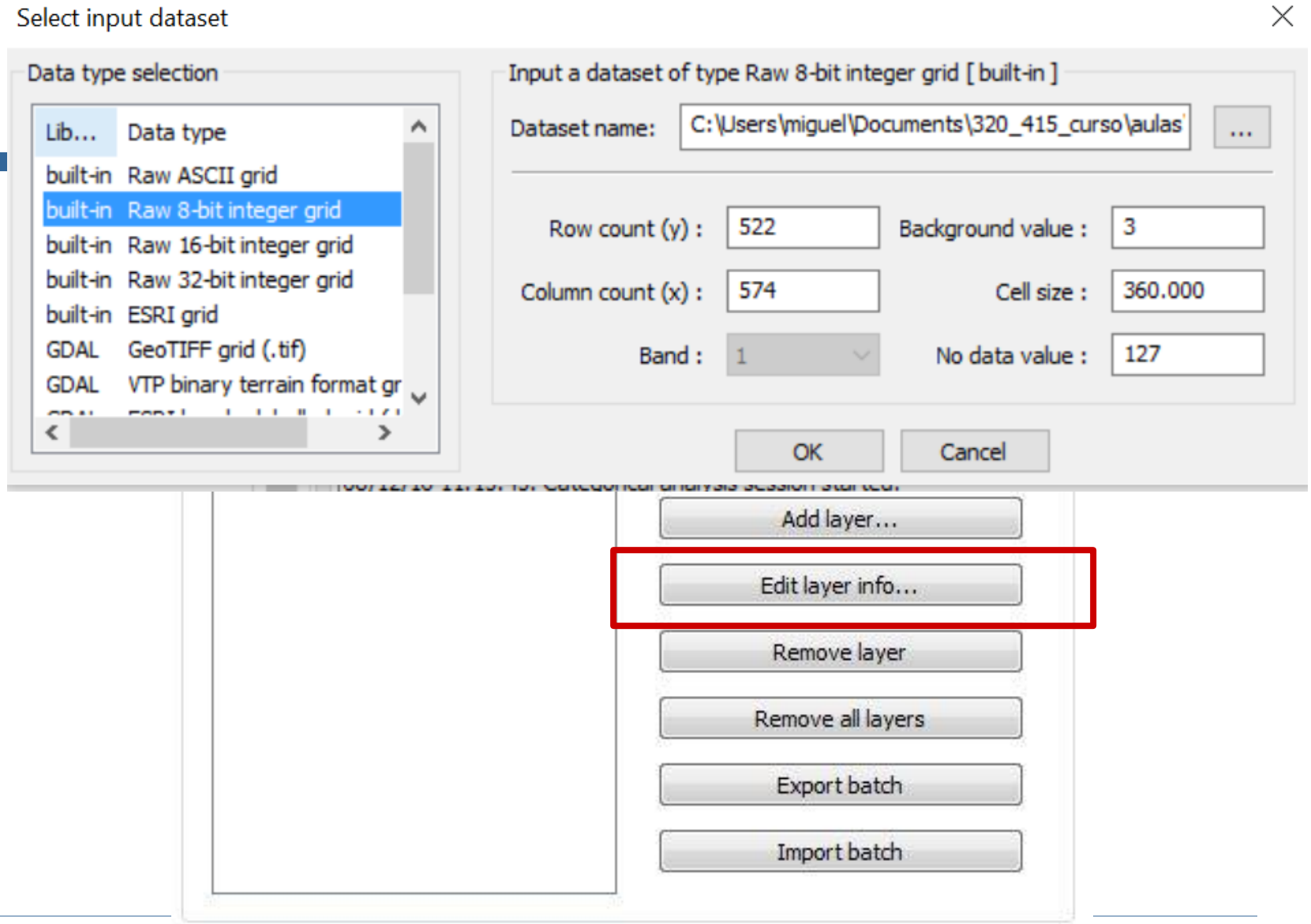


Figure 1. Alternative image formats with regards to background (given a class value of 99 here) and border. The thick solid line represents the landscape boundary. Positive values are 'inside' the landscape of interest and contribute to the computed total landscape area; negative values are 'outside' the landscape of interest and are only utilized to determine edge types for patches along the landscape boundary.

Back não pode ser 0!!


unnamed2
File Analysis Help
New Open Save Save as Run
Input layers
Analysis parameters
Batch management
Layers
Common tables
Class descriptors
Edge depth
Use fixed depth
Not set
Edge contrast
Similarity
Batch management
Layers
C:\Users\isabel\ARQUIVOS\CST\cst_...
File type : Raw 8-bit integer gric
Row count : 522
Column count : 574
Cell size : 360.00
Background value : 3
Band : 1
No data value : 127
Add layer...
Edit layer info...
Remove layer
Remove all layers
Export batch
Import batch
Invert selection


Select input dataset
Data type selection
Lib...
Data type
built-in Raw ASCII grid
built-in Raw 8-bit integer grid
built-in Raw 16-bit integer grid
built-in Raw 32-bit integer grid
built-in ESRI grid
GDAL GeoTIFF grid (.tif)
GDAL VTP binary terrain format gr
Input a dataset of type Raw 8-bit integer grid [built-in]
Dataset name:
C:\Users\miguel\Documents\320_415_curso\aulas
...
Row count (y) :
522
Background value :
3
Column count (x) :
574
Cell size :
360.000
Band :
1
No data value :
127
OK
Cancel
Add layer...
Edit layer info...
Remove layer
Remove all layers
Export batch
Import batch

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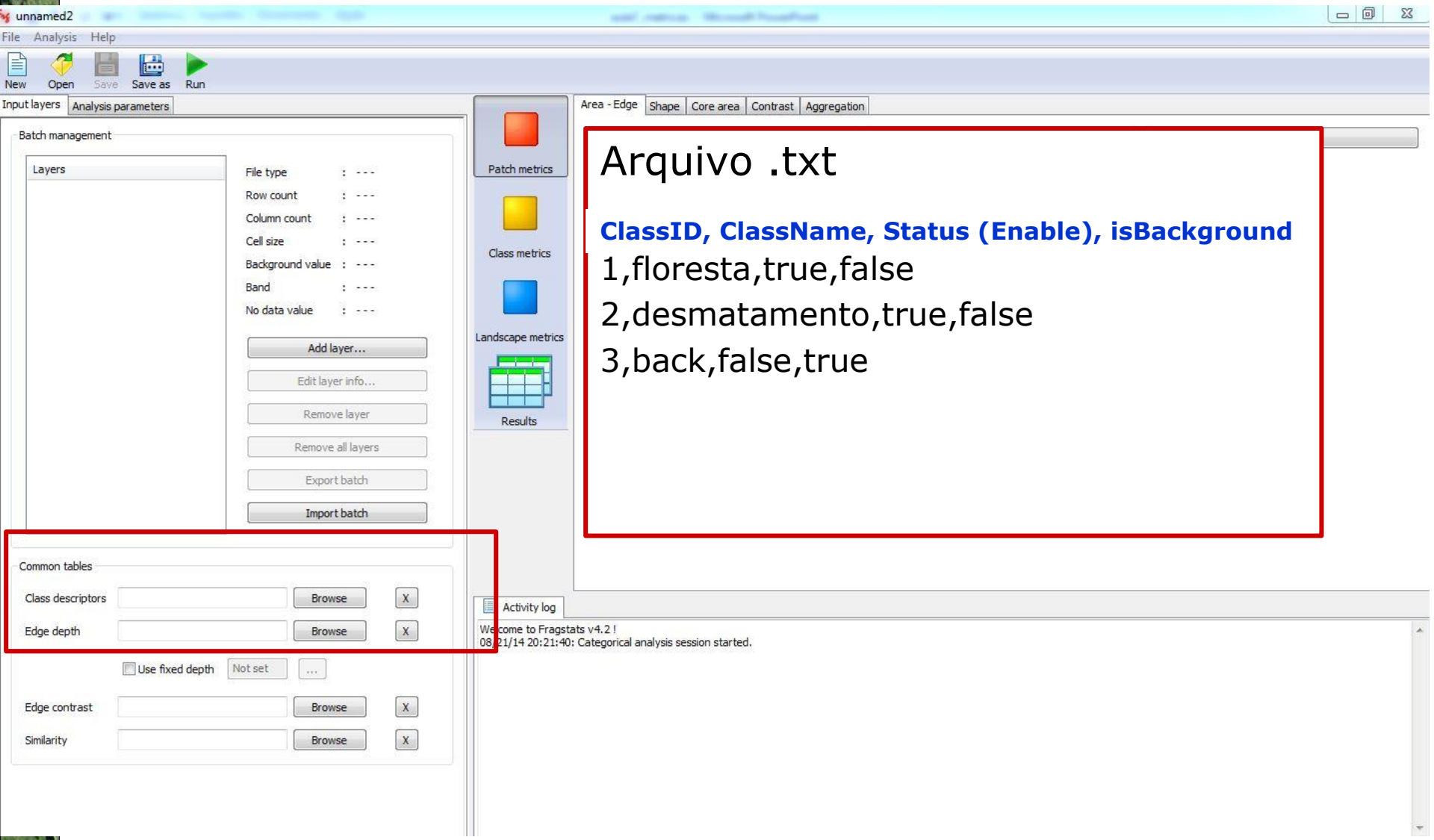
Class property file



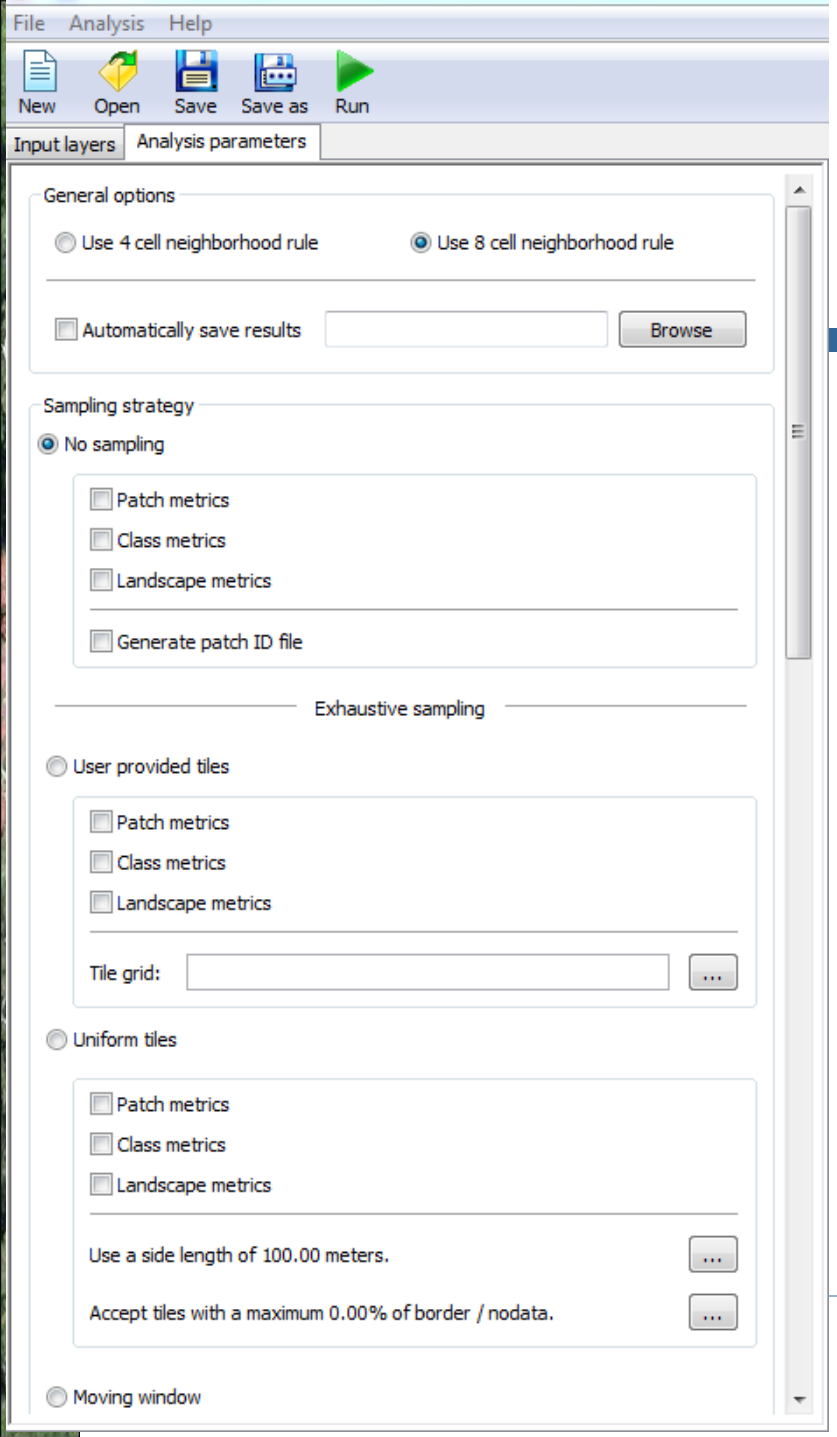
Arquivo .txt

ClassID, ClassName, Status (Enable), isBackground

1,floresta,true,false

2,desmatamento,true,false

3,back,false,true



Análise de Parâmetros

Parâmetros

- **Tipos de Vizinhança (4 ou 8 celulas)**
- **Níveis de análise**
- **Estratégias de Amostragem –**
  - **células, pontos, parcial, total, etc.**
- **Uso de janela móvel – quadrada (tamanho), Circular(Raio), etc.**

Estratégia de Amostragem

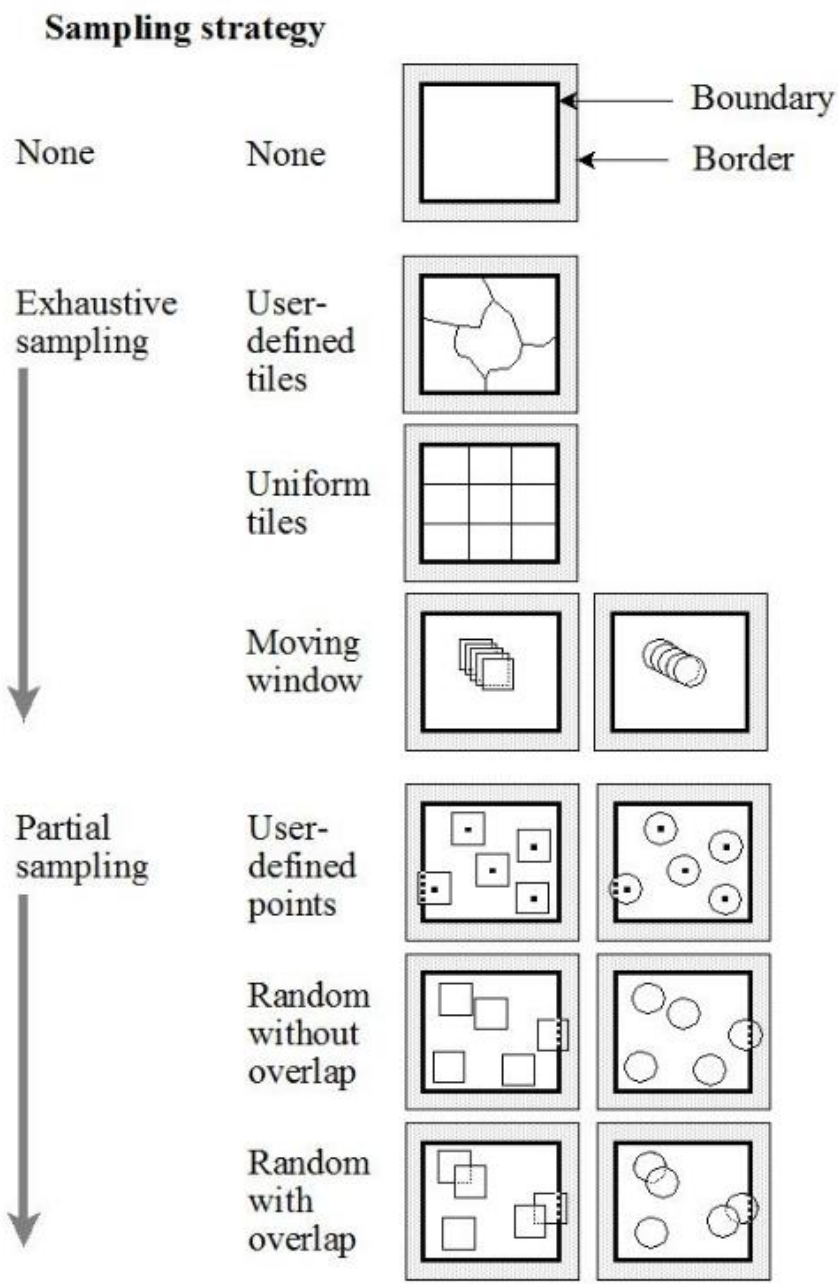
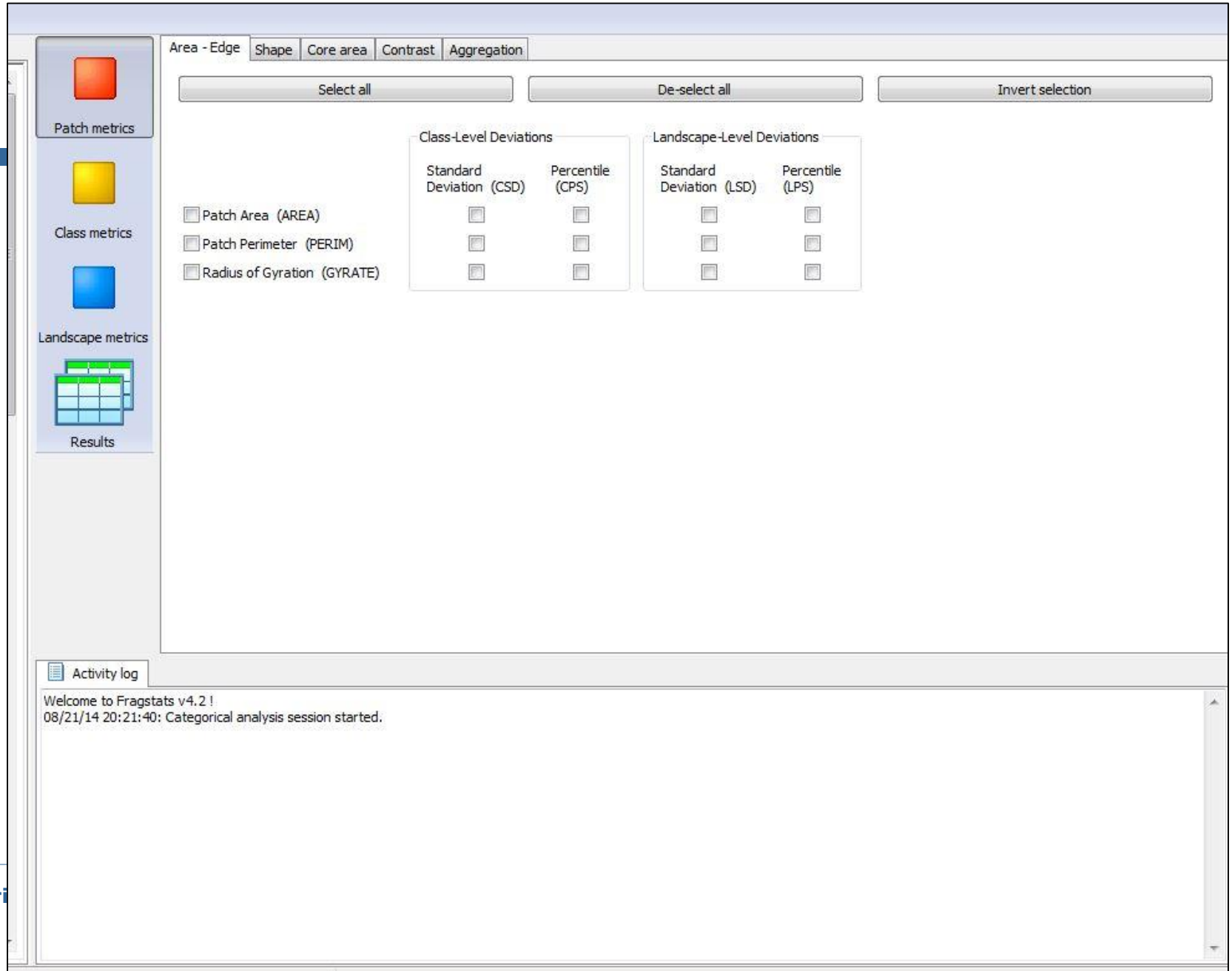
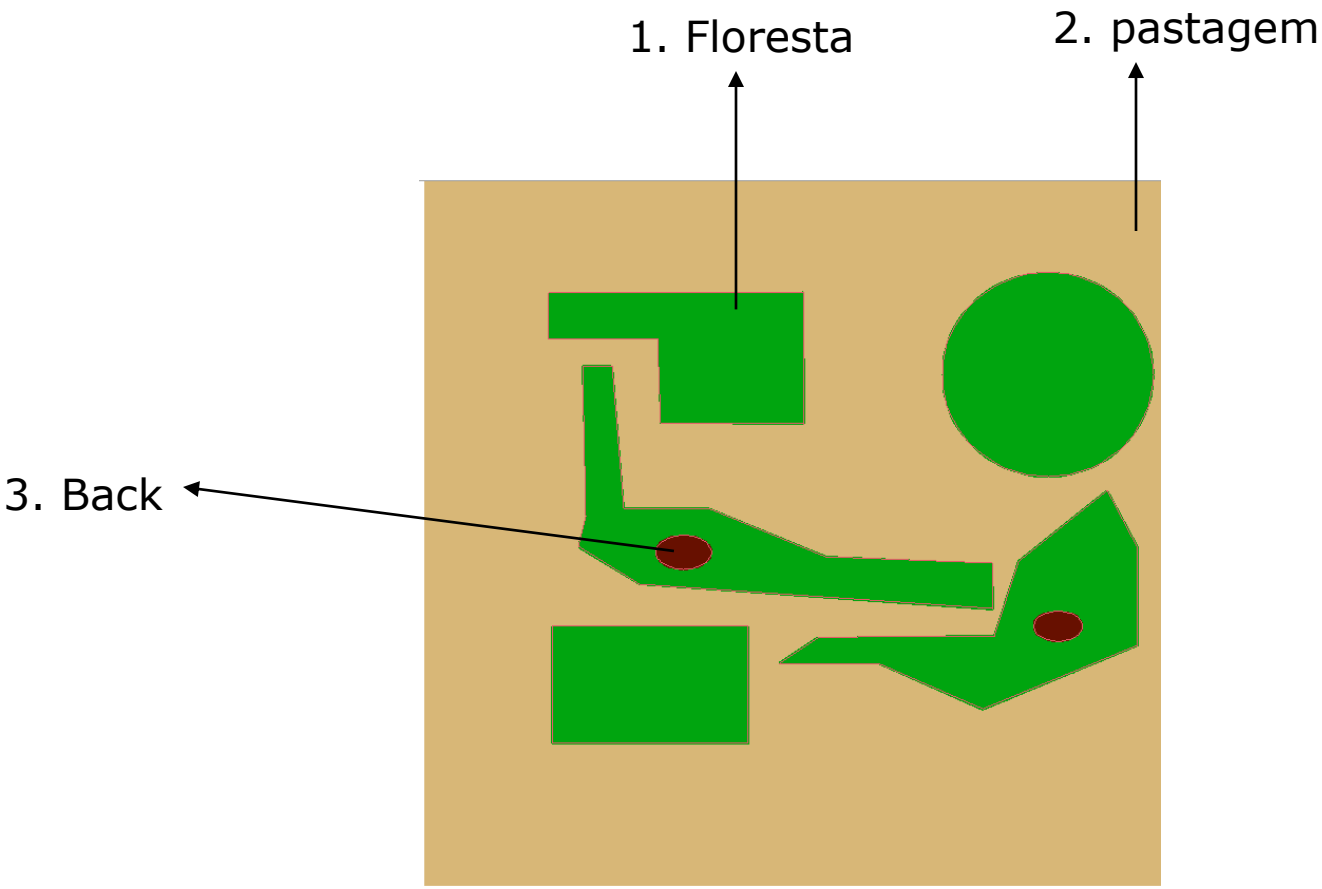


Figure 6. Schematic diagram of alternative landscape sampling strategies.


Patch metrics
Class metrics
Landscape metrics
Results
Area - Edge
Shape
Core area
Contrast
Aggregation
Select all
De-select all
Invert selection
Class-Level Deviations
Landscape-Level Deviations
Standard Deviation (CSD)
Percentile (CPS)
Standard Deviation (LSD)
Percentile (LPS)
Patch Area (AREA)
Patch Perimeter (PERIM)
Radius of Gyration (GYRATE)
Activity log
Welcome to Fragstats v4.2 !
08/21/14 20:21:40: Categorical analysis session started.

Exemplo



Medidas de Mancha

> 0

> 1

Entre 0 e 1

bir Ajuda

PID	TYPE	AREA	PERIM	PARA	SHAPE	CIRCLE	CORE	ENN
3	floresta	725.7600	11040.0000	15.2116	1.0222	0.4208	540.0000	540.0000
2	floresta	743.4000	11280.0000	15.1735	1.0330	0.4413	553.3200	780.0000
5	floresta	907.2000	12360.0000	13.6243	1.0198	0.4238	697.6800	660.0000
4	floresta	1013.7600	12960.0000	12.7841	1.0093	0.4056	793.4400	540.0000
1	desmatamento	8034.1200	93360.0000	11.6204	2.6020	0.6522	6397.5600	N/A

Medidas de Classe

LE_metricas - Bloco de notas

Arquivo Editar Formatar Exibir Ajuda

	TYPE	CA	PLAND	NP	PD	LPI
dscape1_307x154_char8.raw	desmatamento	8034.1200	47.2038	1	0.0059	47.2038
dscape1_307x154_char8.raw	floresta	3390.1200	19.9184	4	0.0235	5.9563

Matriz de adjacência

LE_metricas - Bloco de notas

Arquivo Editar Formatar Exibir Ajuda

```
C:\Users\isabel\novo_note\cst\aulas_2011\dados_frags\landscape1_307x154_char8.raw
Class ID / ID, 2, 1, background
2,  87712, 794,    762
1, 794,  36874,      0
```


Fim