MINISTÉRIO DA CIÊNCIA E TECNOLOGIA
INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS

INTRODUÇÃO AO GEOPROCESSAMENTO (SER-300)

LABORATÓRIO 01 - MODELAGEM E CRIAÇÃO DE BANCOS DE DADOS

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INPE

São José dos Campos

2017

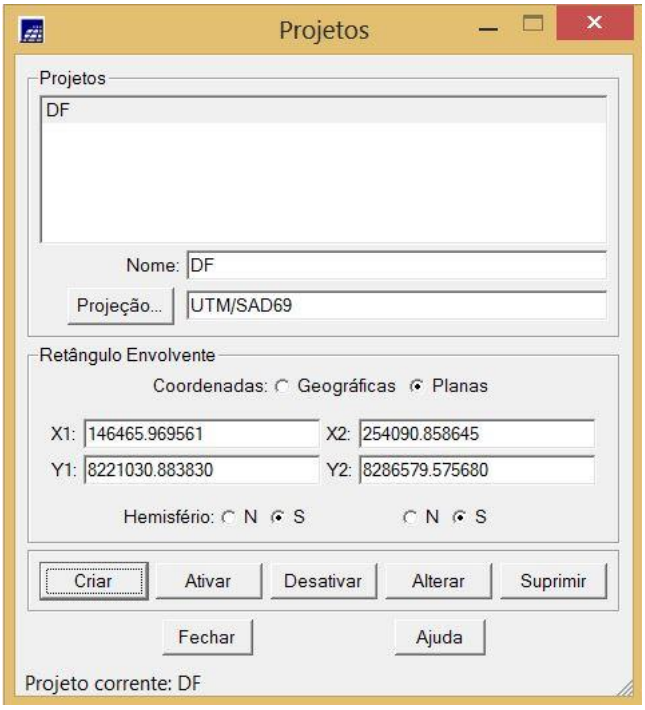
1. INTRODUÇÃO

Este trabalho teve como objetivo modelar e implementar no SPRING versão 4.3.3 uma base de dados do Plano Piloto de Brasília, de forma a proporcionar uma visão geral do esquema conceitual do sistema.

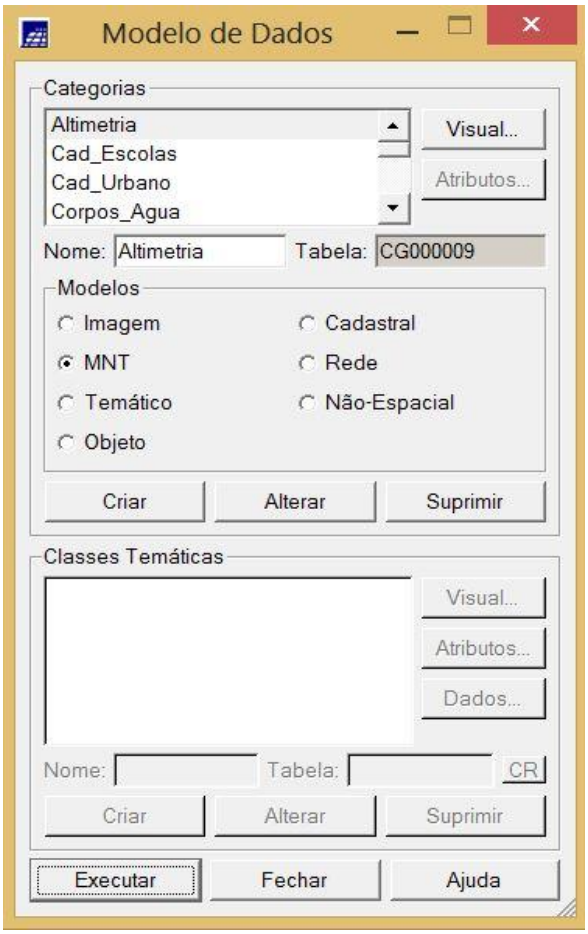
2. DESENVOLVIMENTO

2.1. Criação do Banco de Dados

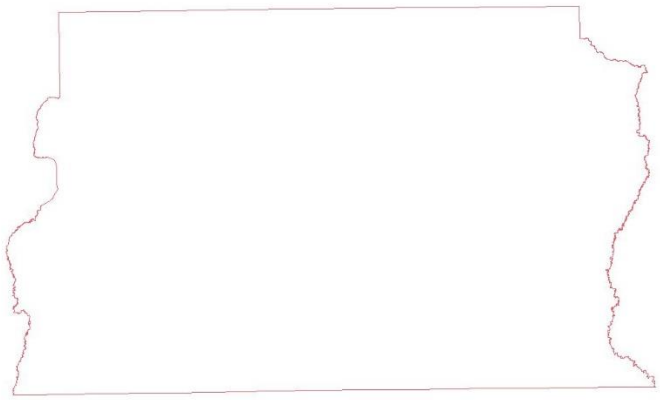
2.2. Criação do Projeto



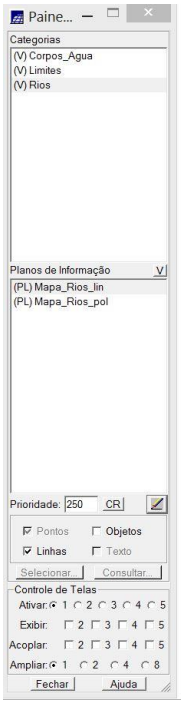
2.3. Criação de Categorias

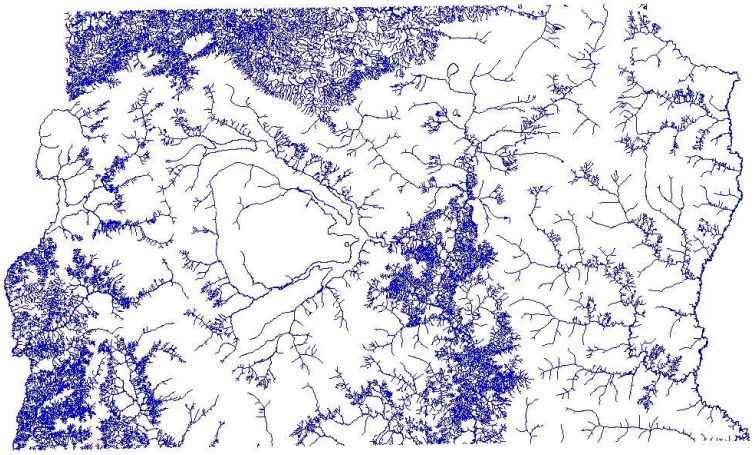


2.4. Importando Limite do Distrito Federal (DF)

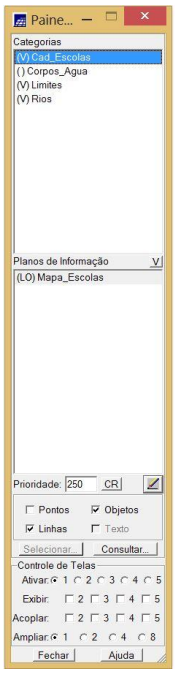


2.5. Importando Corpos d’Água e Rios

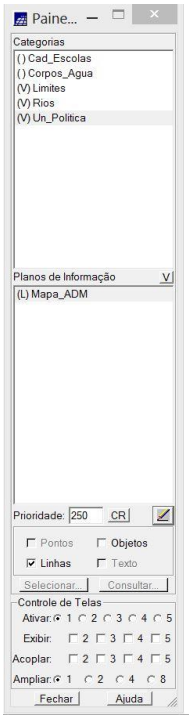


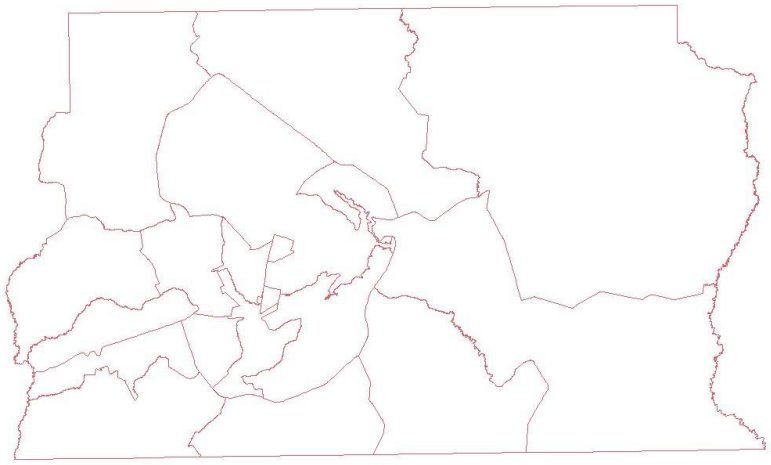


2.6. Importando Escolas

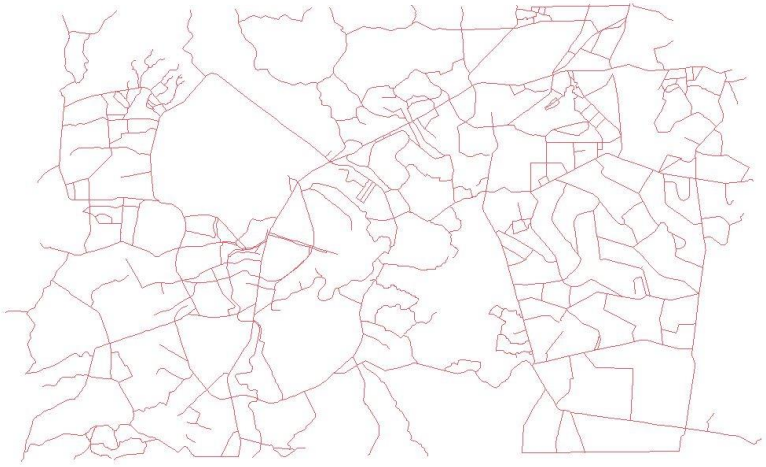


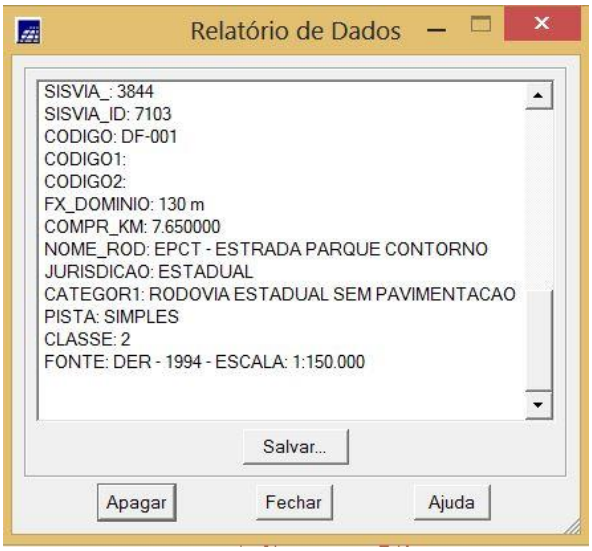
2.7. Importando Regiões Administrativas do Distrito Federal (DF)



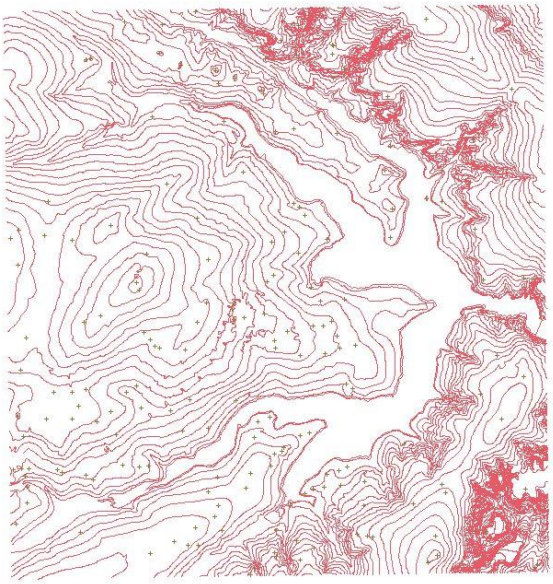


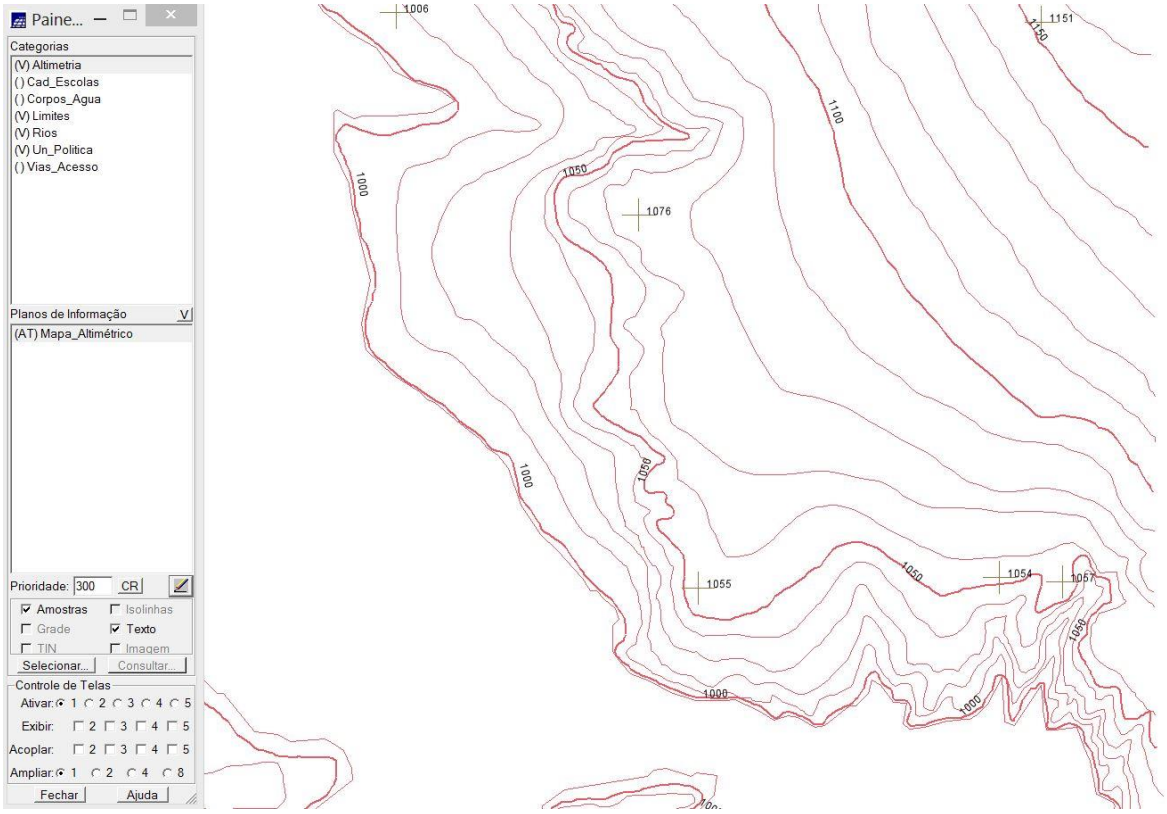
2.8. Importando Rodovias



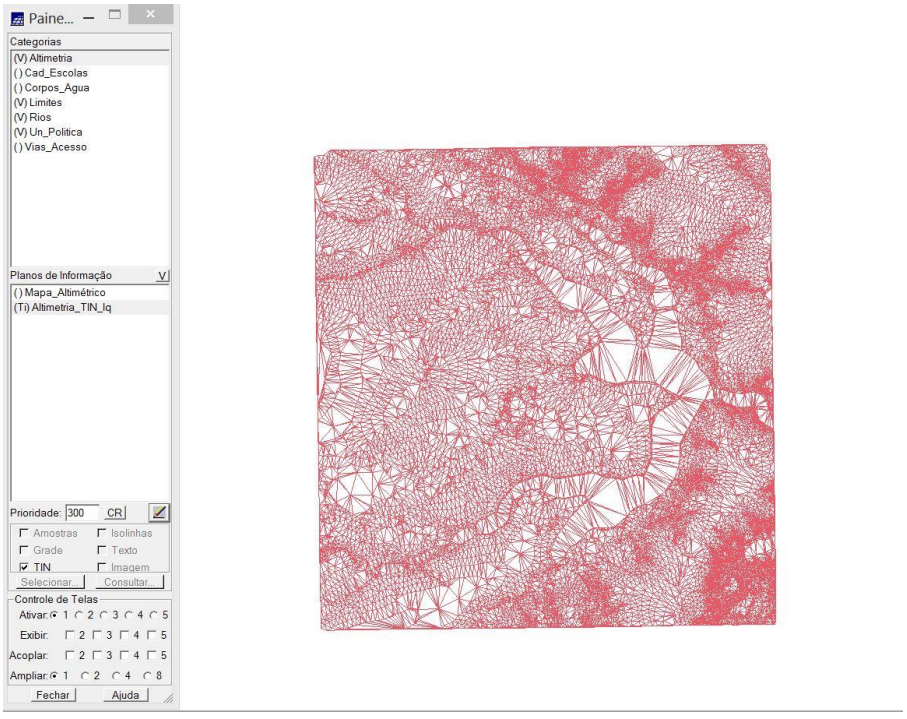


2.9. Importando Altimetria

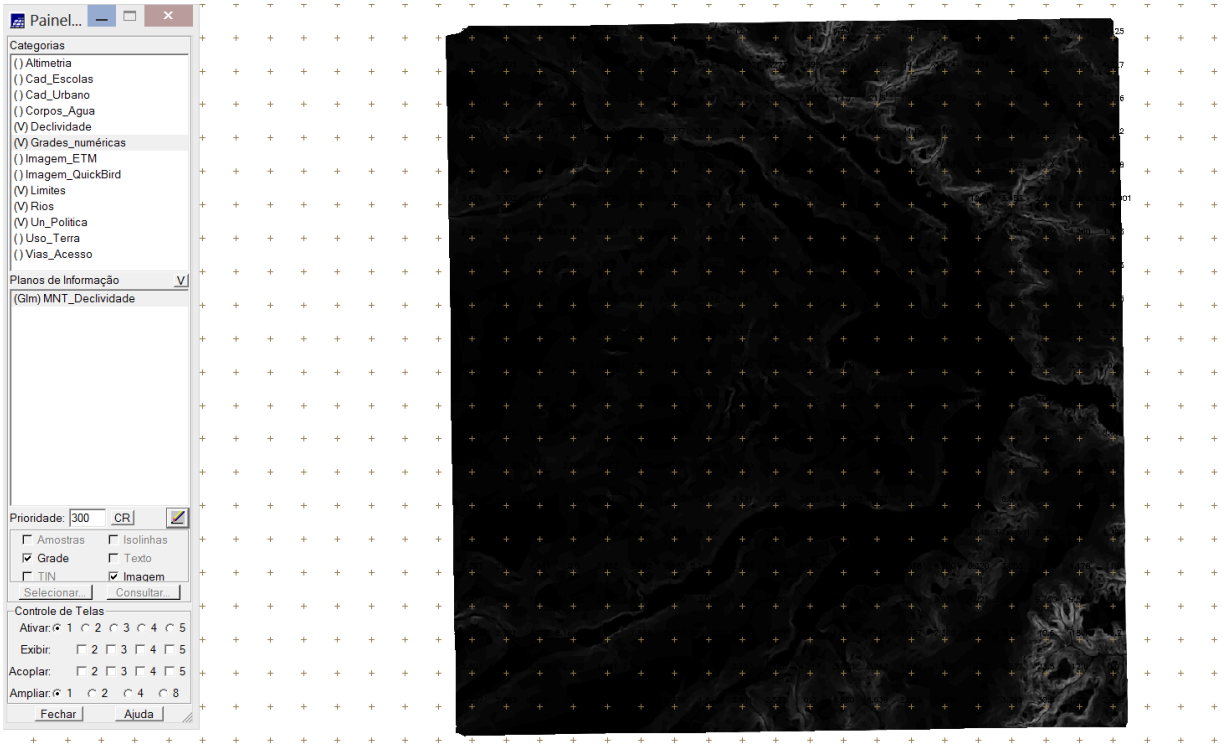




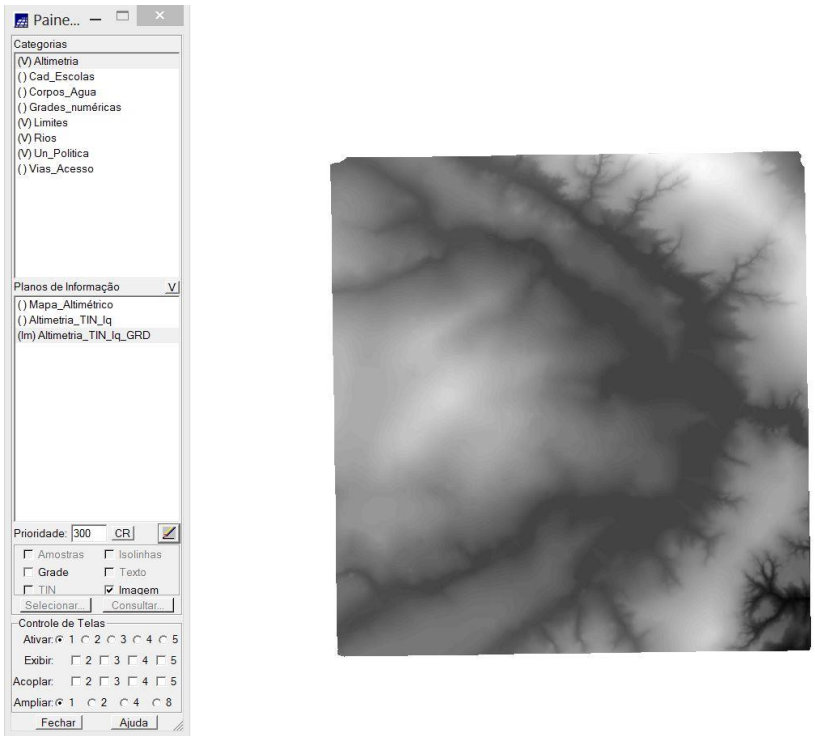
2.10. Gerando Grade Triangular (TIN)



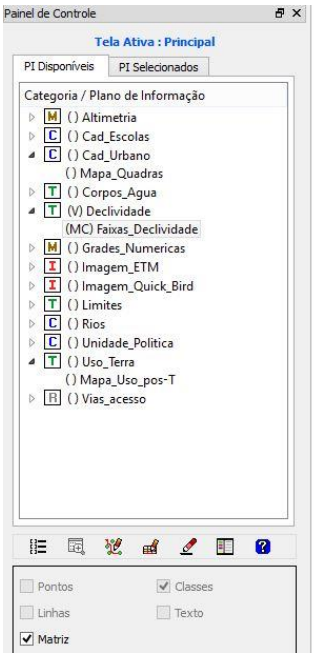
2.11. Gerando Grade Retangular (GRD)

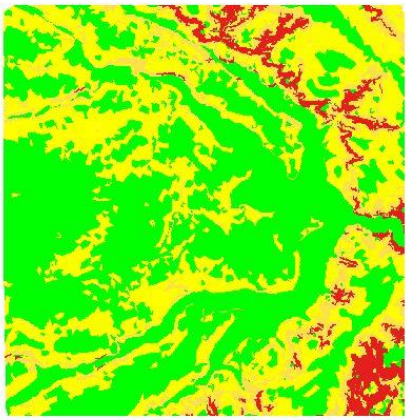


2.12. Gerando Declividade

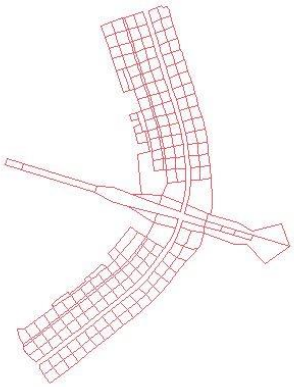


2.13. Fatiamento

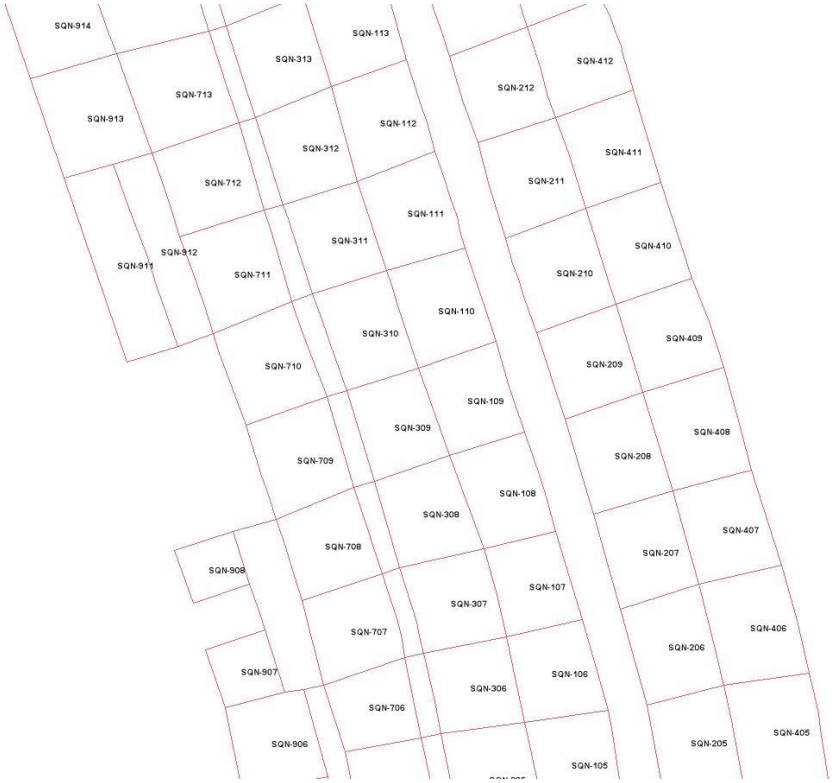




2.14. Criando Mapa de Quadras de Brasília




Paine...
Categorias
( ) Altimetria
( ) Cad_Escolas
(V) Cad_Urbano
( ) Corpos_Agua
(V) Declividade
( ) Grades_numéricas
(V) Limites
(V) Rios
(V) Un_Politica
( ) Vias_Acesso
Planos de Informação
(LT) Mapa_Quadras
Prioridade: 250
CR
Pontos
Objetos
Linhas
Texto
Selecionar...
Consultar...
Controle de Telas
Ativar: 1 2 3 4 5
Exibir: 2 3 4 5
Acoplar: 2 3 4 5
Ampliar: 1 2 4 8
Fechar
Ajuda


SQN-914
SQN-913
SQN-912
SQN-911
SQN-713
SQN-712
SQN-711
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SQN-709
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SQN-408
SQN-407
SQN-406
SQN-405
SQN-212
SQN-211
SQN-210
SQN-209
SQN-208
SQN-207
SQN-206
SQN-205


Relatório de Dados
PI: Mapa_Quadras Categoria: Cad_Urbano
Objeto Quadras
ID: 61732
NOME: SQN-403
ROTULO: SQN-403
AREA: 120511.900391
PERIMETRO: 1391.499164
ASA: NORTE
USO: Comercial
NUM_IMOV: 100
POPULAC: 1000
Salvar...
Apagar
Fechar
Ajuda

Tabela: Quadras

Arquivo Mostrar Ajuda

	ID	NOME	ROTULO	AREA	PERIMETRO	ASA	USO	NUM_IMOV	POPULAC
1	61734	SQN-102	SQN-102	110769.913574	1345.507510	NORTE	Hotelaria	12	3500
2	61735	SQN-103	SQN-103	110081.722656	1336.187362	NORTE	Publico	15	250
3	61736	SQN-104	SQN-104	104903.201172	1310.893844	NORTE	Publico	18	300
4	61737	SQN-105	SQN-105	106523.506836	1305.893158	NORTE	Publico	100	400
5	61738	SQN-106	SQN-106	101698.603027	1279.404322	NORTE	Residencial	120	500
6	61739	SQN-107	SQN-107	95459.026367	1248.970400	NORTE	Residencial	35	140
7	61740	SQN-108	SQN-108	108358.590820	1323.456483	NORTE	Residencial	24	100
8	61741	SQN-109	SQN-109	104377.528320	1301.072313	NORTE	Residencial	24	120
9	61742	SQN-110	SQN-110	113197.541992	1351.423750	NORTE	Residencial	30	120
10	61743	SQN-111	SQN-111	112457.258789	1340.523870	NORTE	Residencial	30	150
11	61744	SQN-112	SQN-112	109395.645508	1325.758961	NORTE	Residencial	30	200
12	61745	SQN-113	SQN-113	103021.914551	1287.300451	NORTE	Comercial	15	300
13	61746	SQN-114	SQN-114	105359.785156	1300.163842	NORTE	Comercial	18	400
14	61747	SQN-115	SQN-115	116922.928711	1372.411433	NORTE	Residencial	30	180
15	61748	SQN-116	SQN-116	128359.948242	1439.538071	NORTE	Lazer	5	100
16	61728	SQN-202	SQN-202	111249.742188	1361.396823	NORTE	Comercial	120	5400
17	61727	SQN-203	SQN-203	104524.784668	1302.314412	NORTE	Residencial	100	450
18	61726	SQN-204	SQN-204	112734.925781	1351.434018	NORTE	Residencial	103	530
19	61725	SQN-205	SQN-205	108720.204102	1321.129814	NORTE	Hotelaria	6	500

Relatório de Dados

POPULAC :

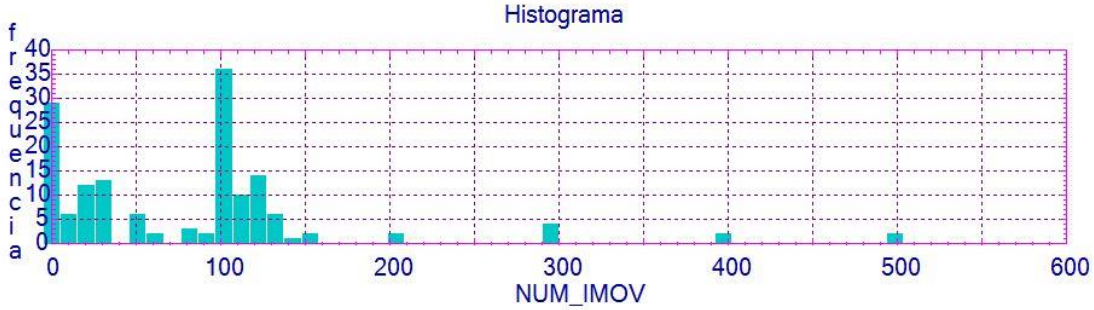
N. AMOSTRAS	156
N. AUSENTES	0
MINIMO	16
MEDIANA	400.00000000
MAXIMO	5400
SOMA TOTAL	82936.00000000
MEDIA	531.64102564
D. PADRAO	830.91119237
C. VARIACAO	1.56291774

Salvar...

Apagar Fechar Ajuda

Gráfico

Arquivo



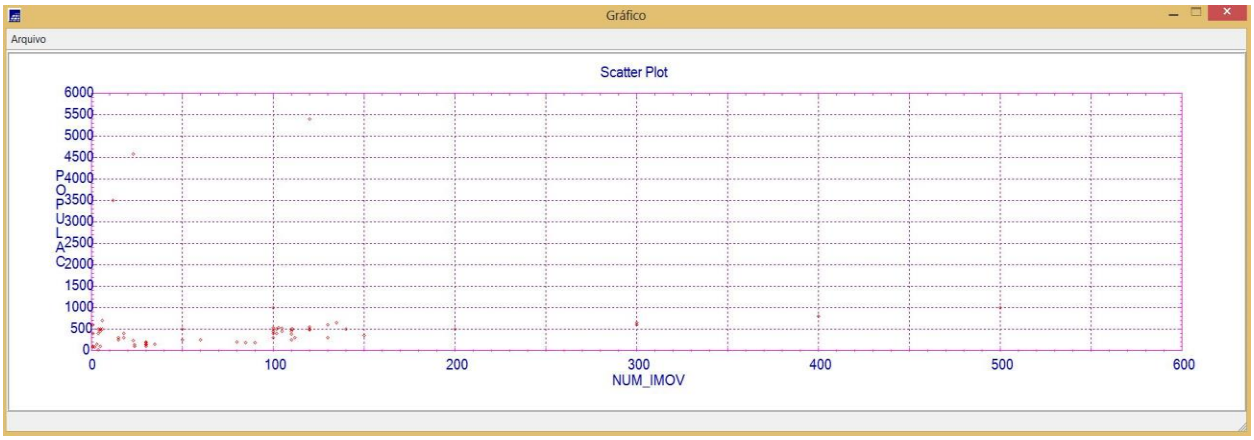


Gráfico
Arquivo
Scatter Plot
POPULAC
NUM_IMOV
0
100
200
300
400
500
600
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000

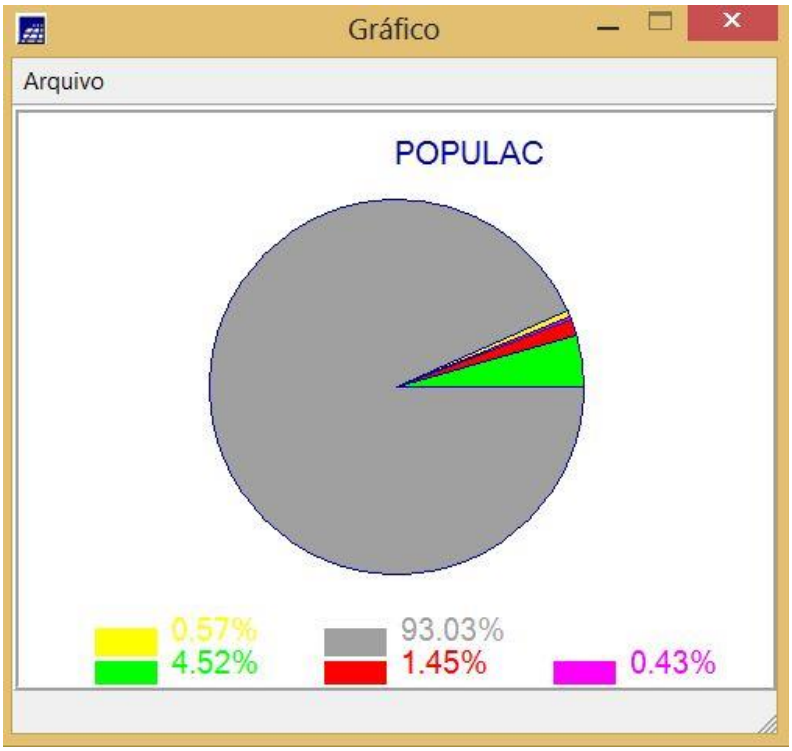
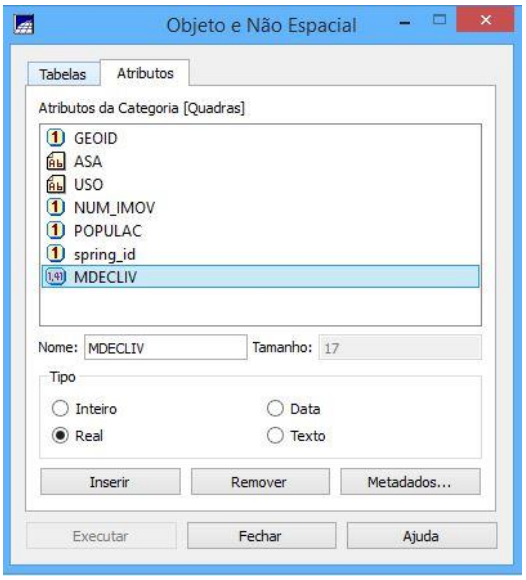
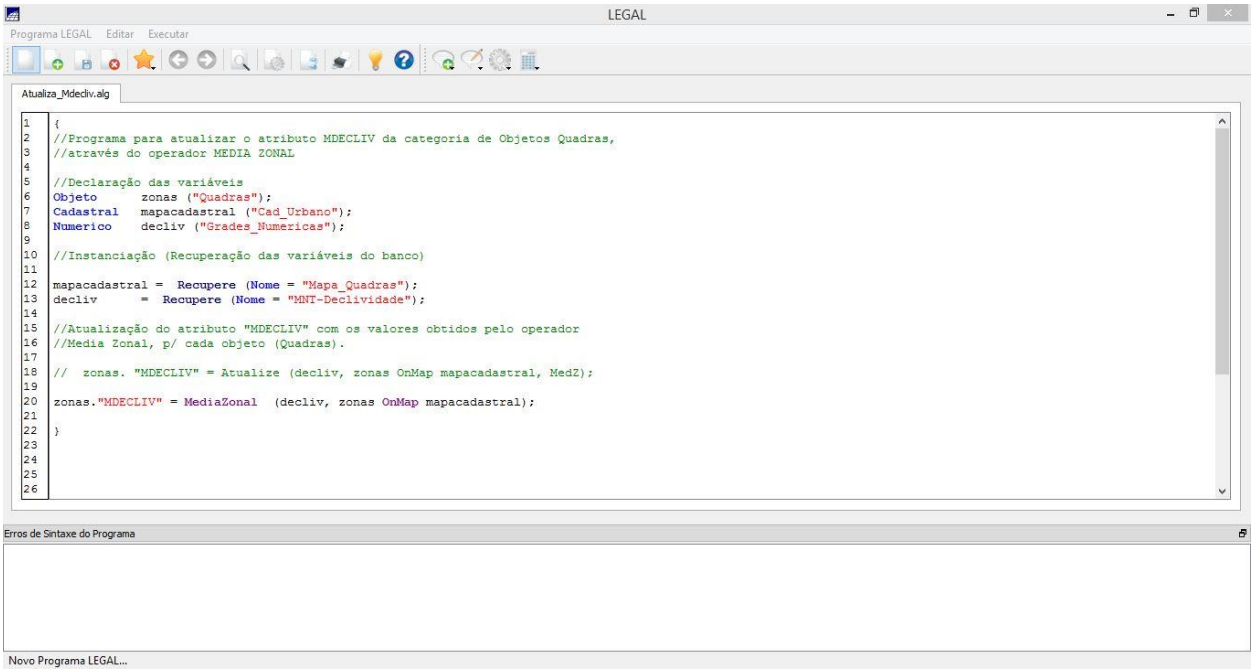
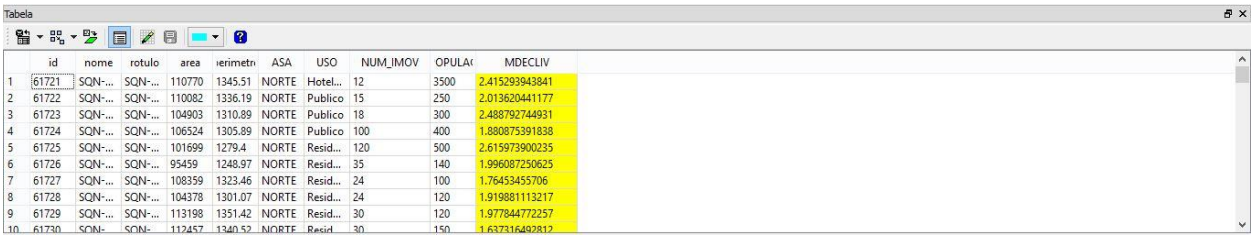


Gráfico
Arquivo
POPULAC
0.57%
4.52%
93.03%
1.45%
0.43%

2.15. LEGAL

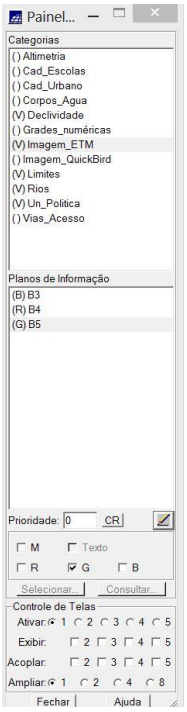


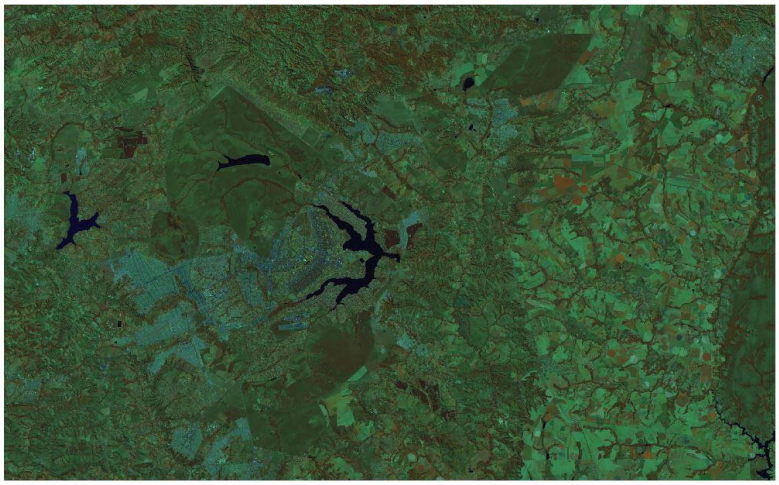




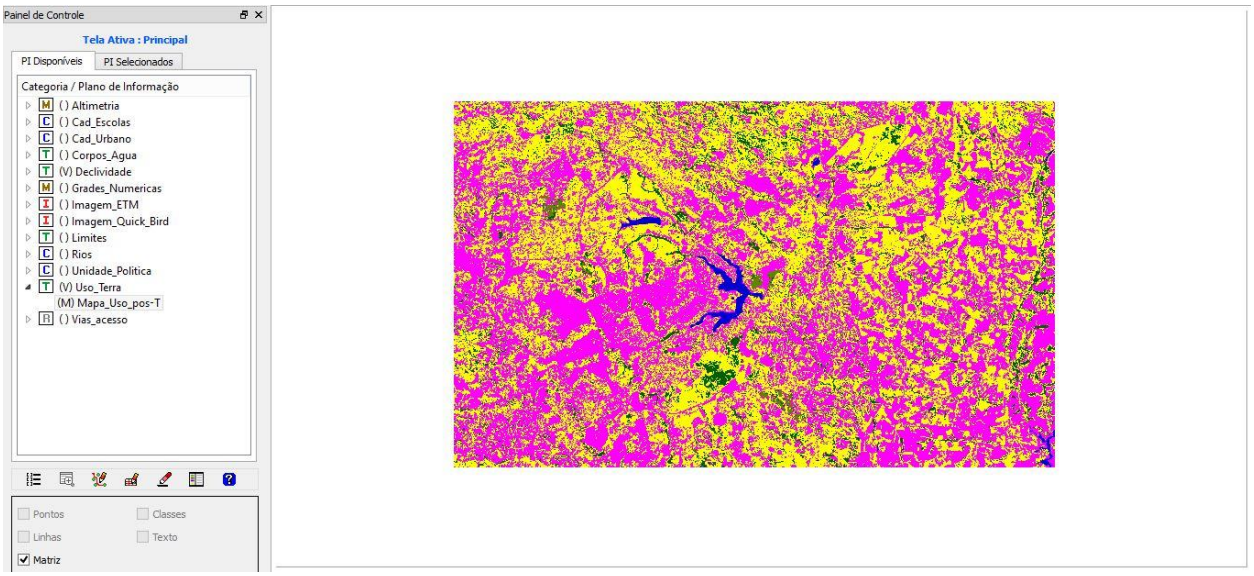
	id	nome	rotulo	area	perimetr	ASA	USO	NUM_IMOV	OPULAC	MDECLIV
1	61721	SQN-...	SQN-...	110770	1345.51	NORTE	Hotel...	12	3500	2.415293943841
2	61722	SQN-...	SQN-...	110082	1336.19	NORTE	Publico	15	250	2.013620441177
3	61723	SQN-...	SQN-...	104903	1310.89	NORTE	Publico	18	300	2.488792744931
4	61724	SQN-...	SQN-...	106524	1305.89	NORTE	Publico	100	400	1.880875391838
5	61725	SQN-...	SQN-...	101699	1279.4	NORTE	Resid...	120	500	2.615973900235
6	61726	SQN-...	SQN-...	95459	1248.97	NORTE	Resid...	35	140	1.996087250625
7	61727	SQN-...	SQN-...	108359	1323.46	NORTE	Resid...	24	100	1.76453455706
8	61728	SQN-...	SQN-...	104378	1301.07	NORTE	Resid...	24	120	1.919881113217
9	61729	SQN-...	SQN-...	113198	1351.42	NORTE	Resid...	30	120	1.977844772257
10	61730	SQN-	SQN-	112457	1340.52	NORTE	Resid...	30	150	1.637316492812

2.16. Importando imagens Landsat-7 e Quick-Bird





2.17. Classificação



3. CONSIDERAÇÕES FINAIS

Ao término da prática, verificou-se a capacidade do SPRING em integrar e manipular, em um único banco de dados, dados de diversas fontes e tipos (geo-campo e geo-objeto).