



MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E INOVAÇÃO
INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS

SER 300 – INTRODUÇÃO AO GEOPROCESSAMENTO

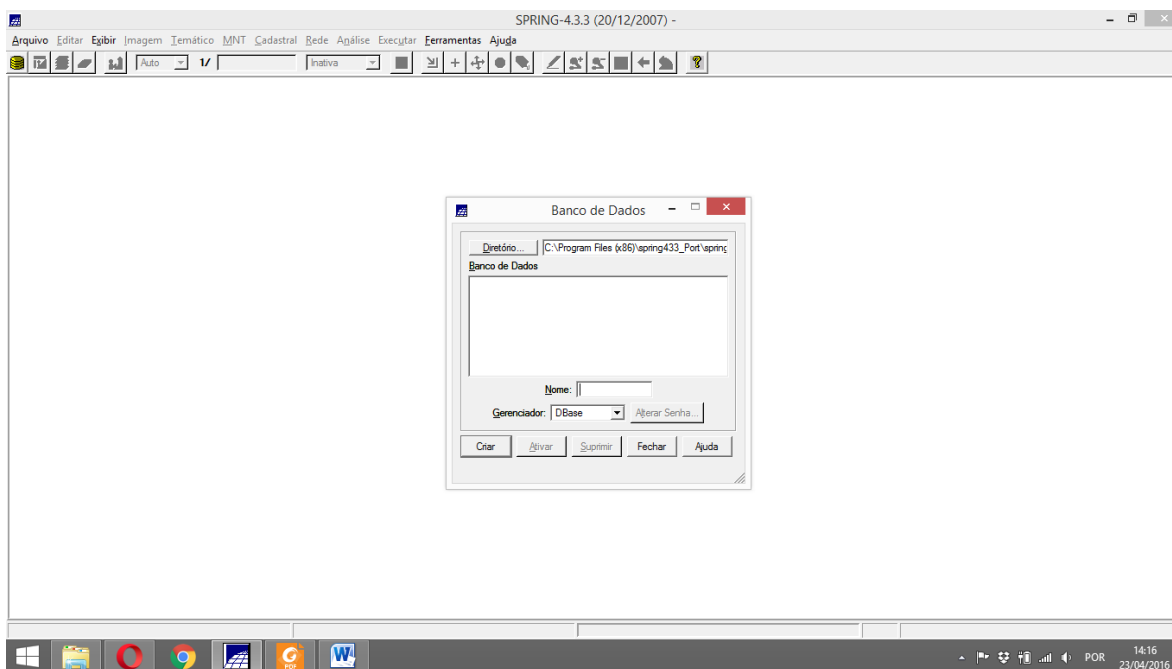
LABORATÓRIO 1- Modelagem e Criação de Bancos de Dados

Bruno Montibeller

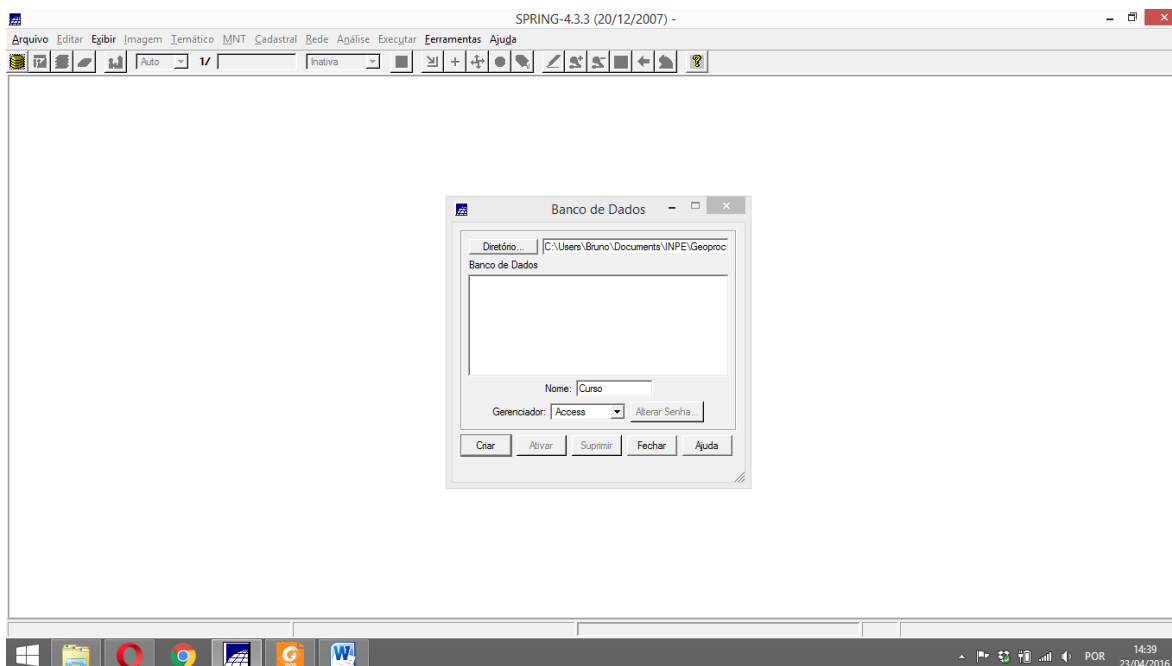
INPE
São José dos Campos
2016



Primeiro passo consiste na criação de um Banco de dados. Dentro de uma banco de dados no formato do Spring é possível ter uma série de projetos. Primeiro passo é selecionar o diretório de criação e o nome do Banco.

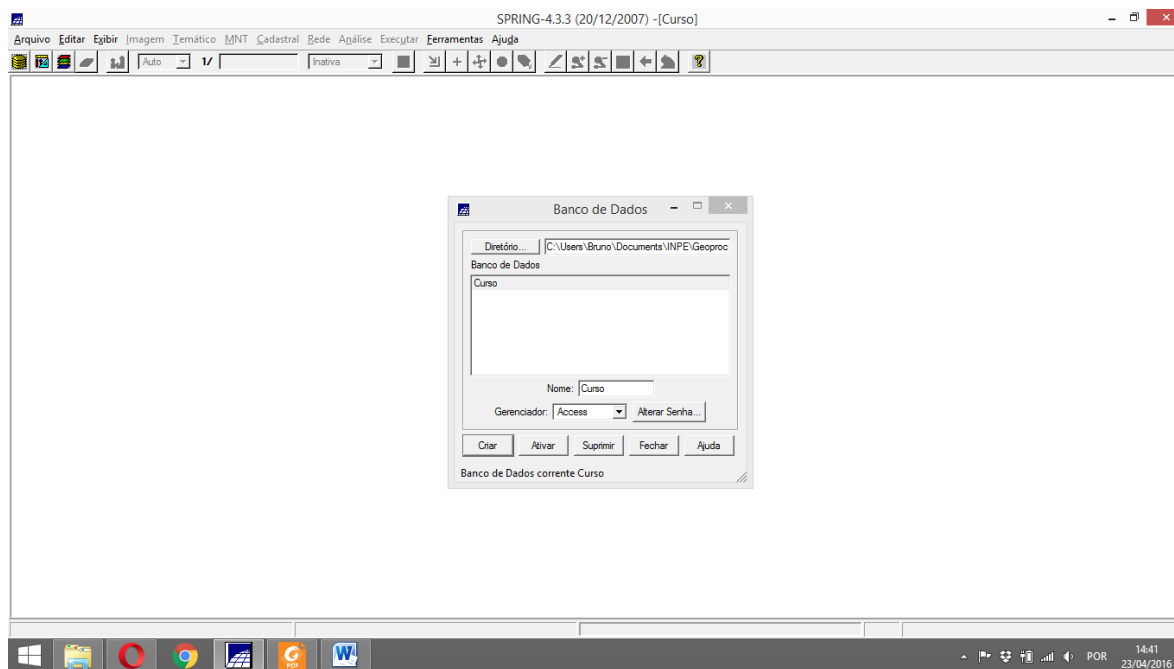


Digite o nome do banco no espaço “Nome” e clique em criar

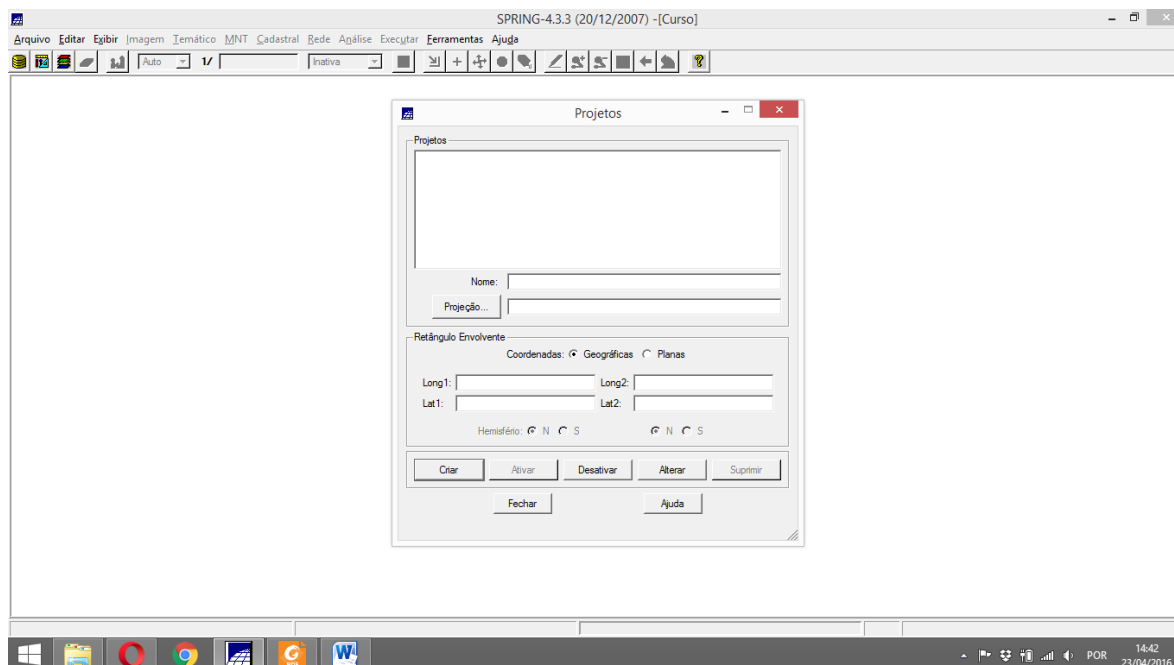




Após criar ativa-o

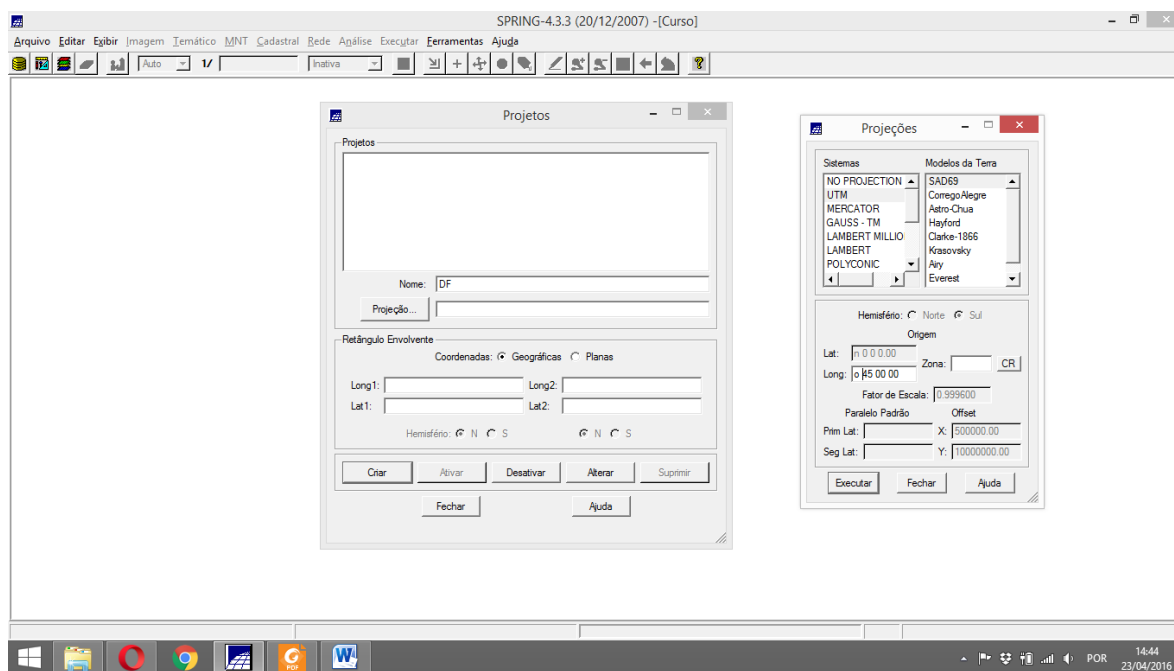


Neste passo é necessário definir o nome do “Projeto” e delimitar sua espacialização.

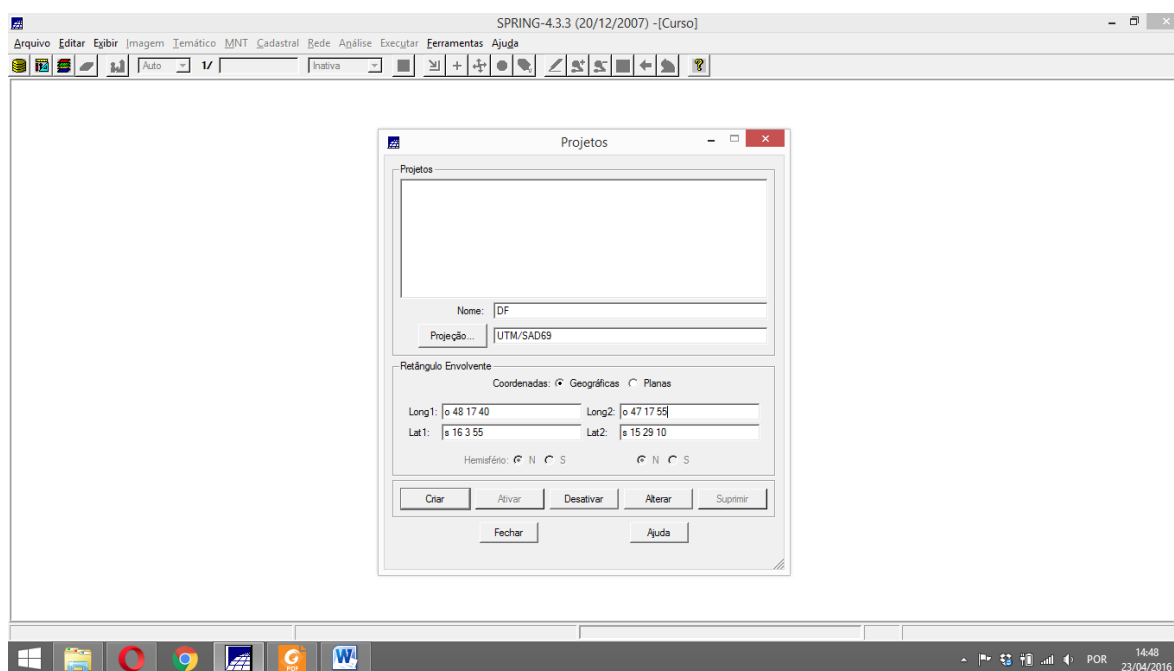




Definir projeções



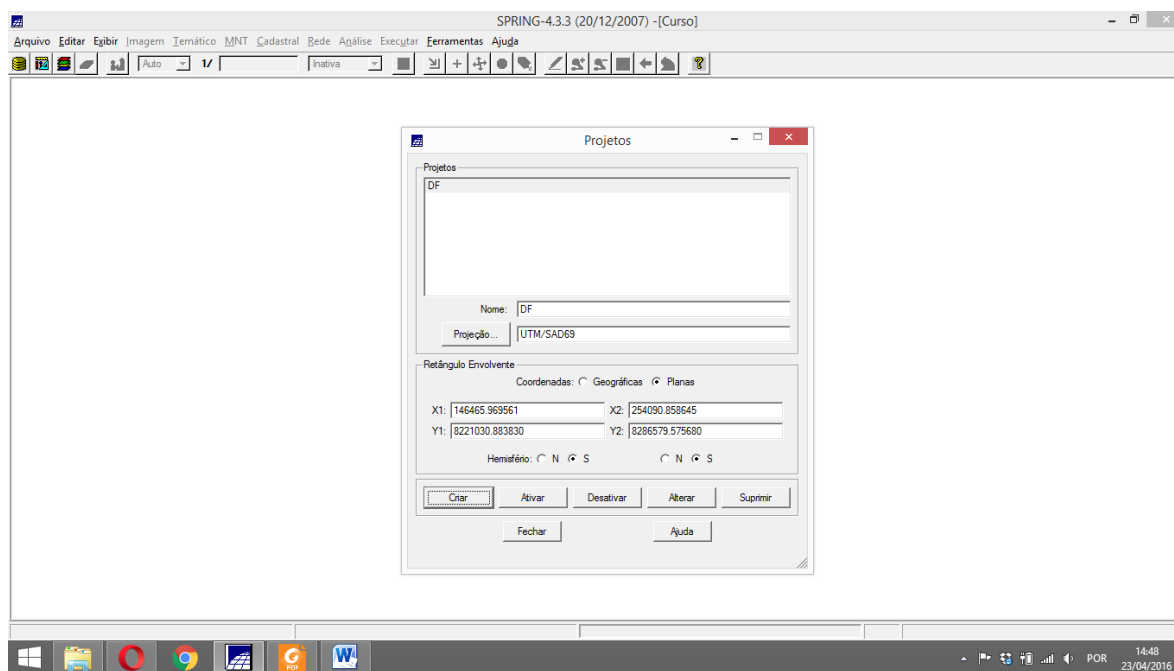
Após é só clicar em criar.



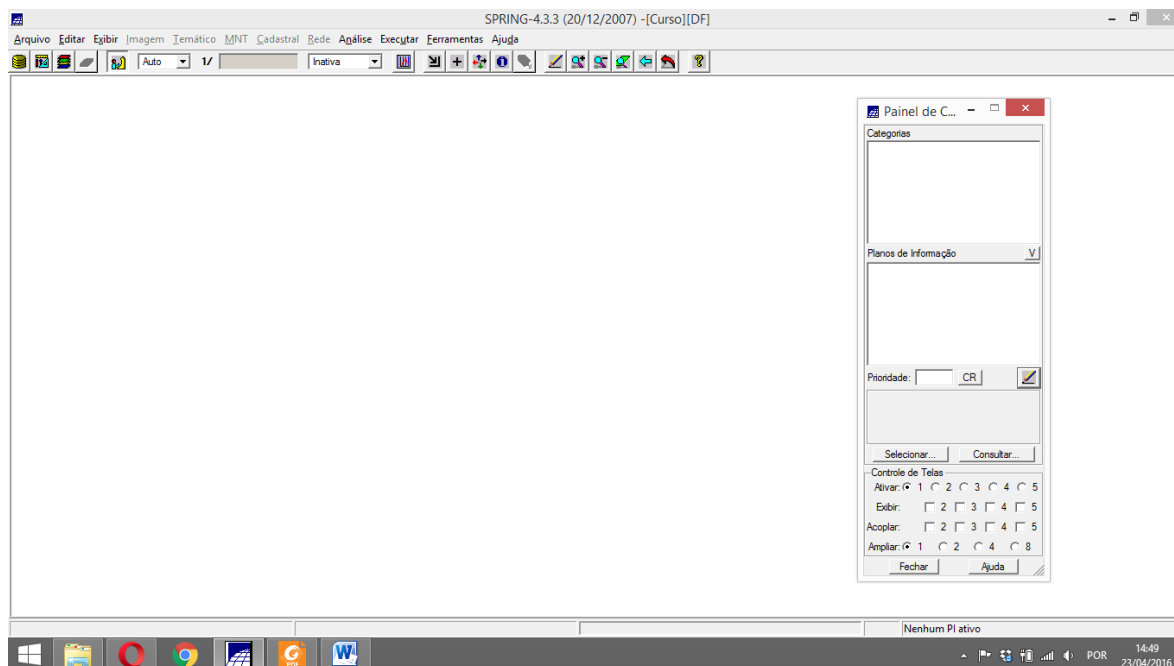


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Clique em ativar

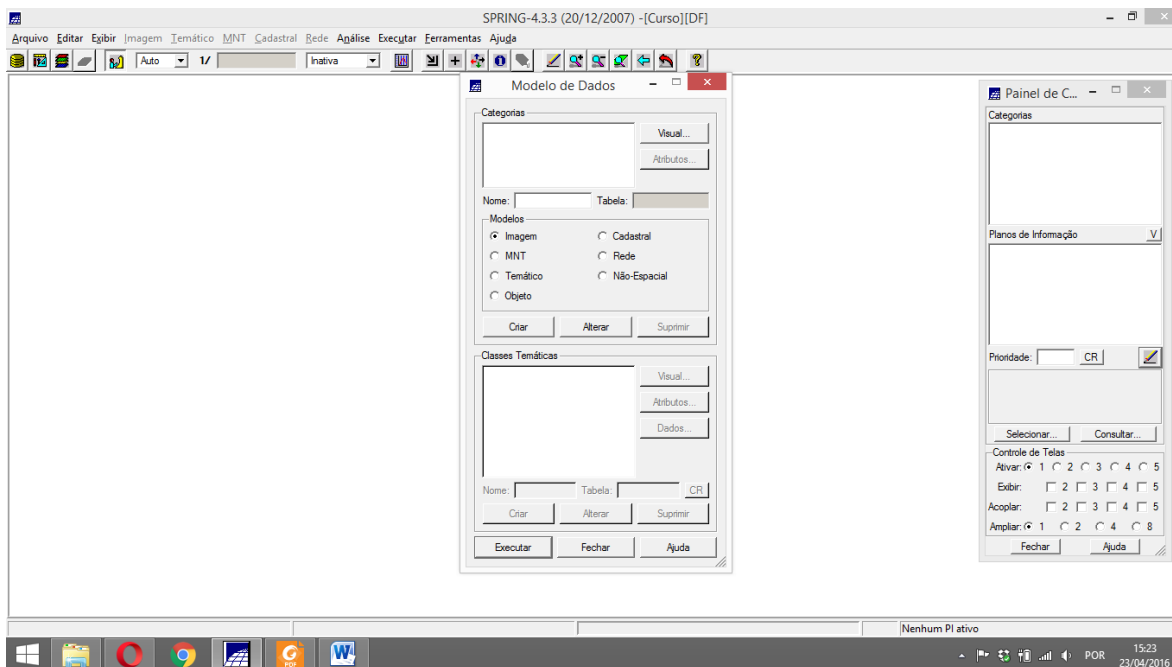


Após a criação aparecerá o painel de controle, o qual consta as categorias e os planos de informações que serão criados posteriormente.

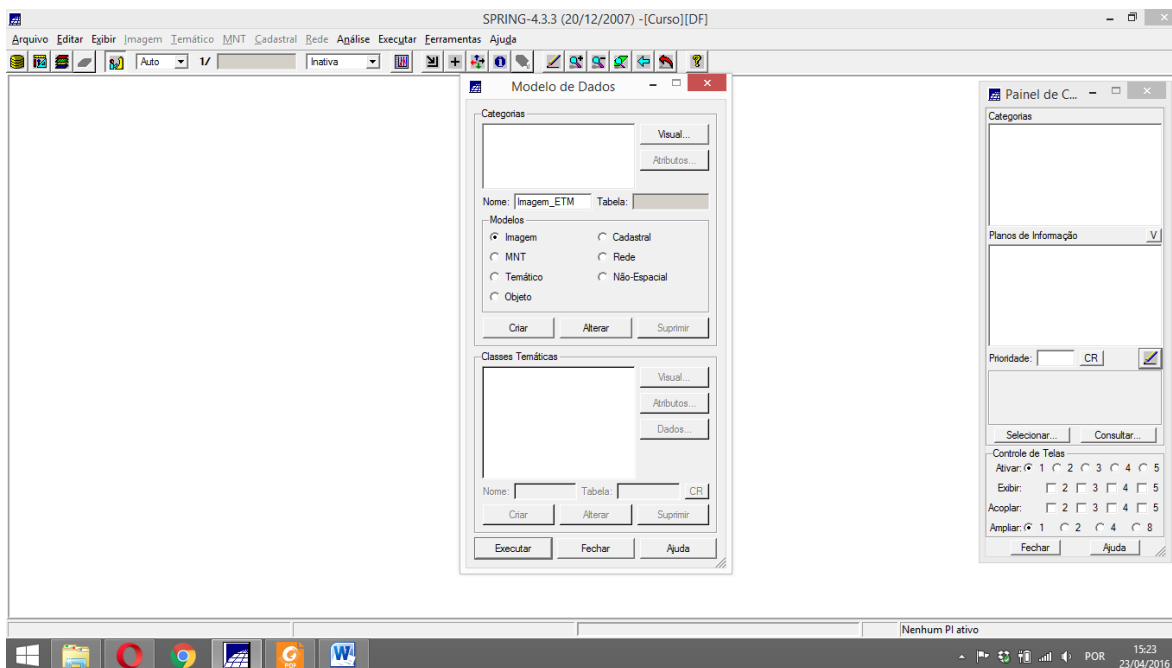




Em modelos de dados (terceiro ícone da esquerda pra direita) é possível criar categorias e classes.



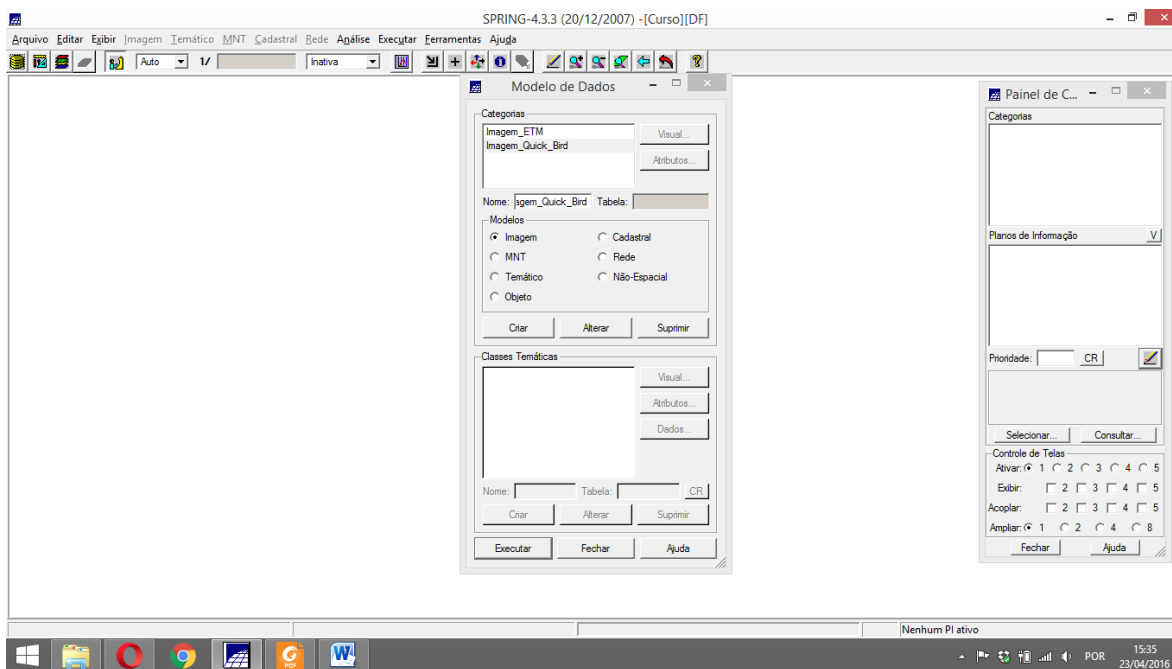
Basta selecionar o modelo de categoria e atribuir um nome.





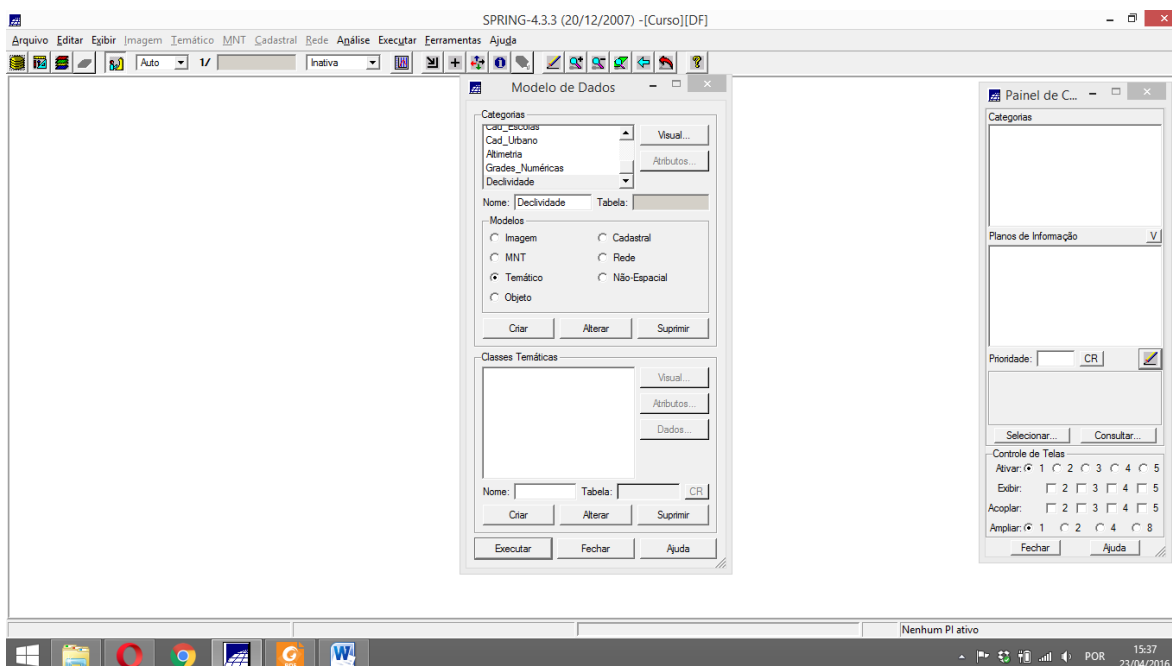
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Após isso, cliquem em criar.



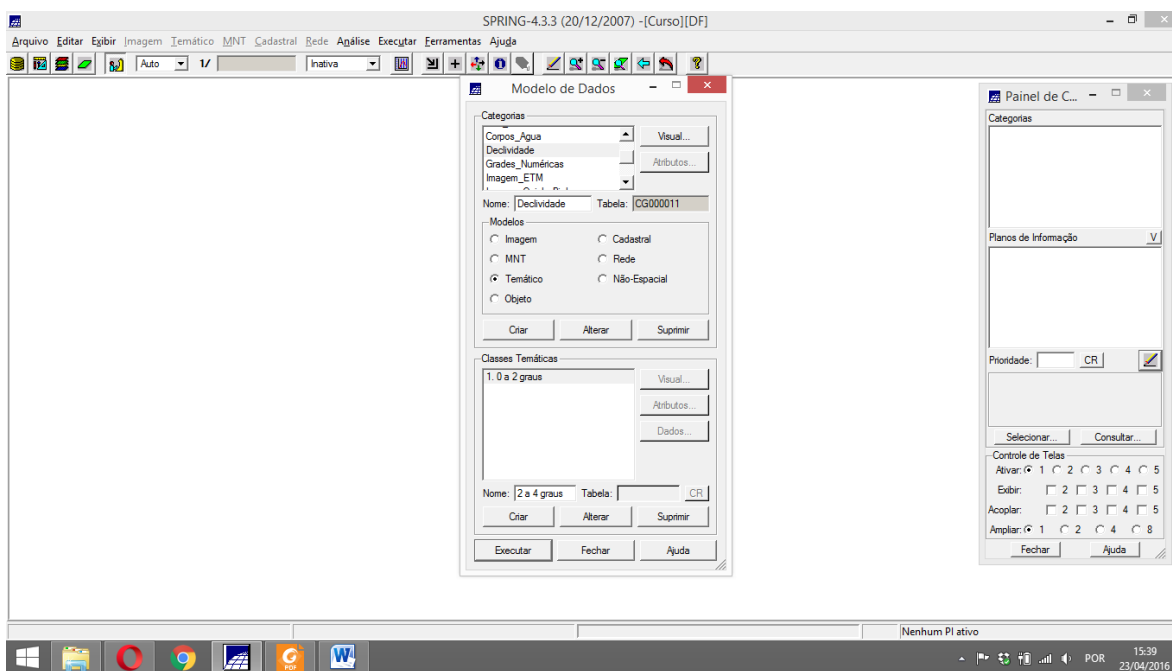
OBS: é necessário atentar ao fato de que o modelo pode variar de acordo com o projeto ou objetivo de estudo.

Clique em executar após a finalização da criação das categorias.

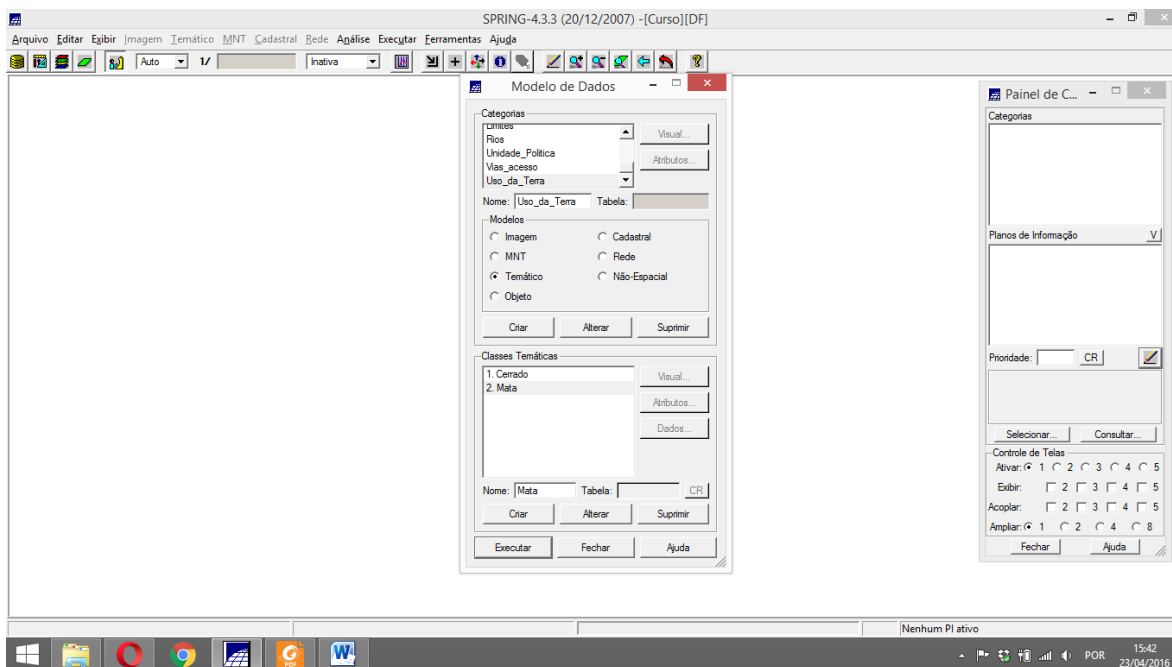




Dentro das categorias temáticas é possível criar “Classes”

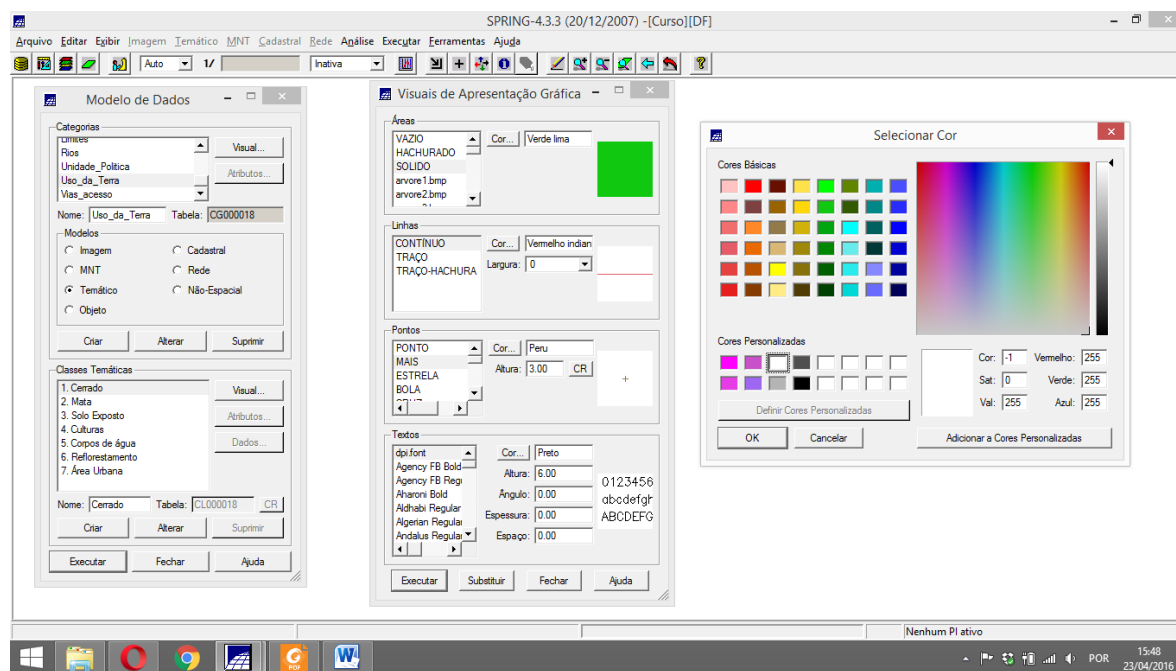


Mais categorias e Classes



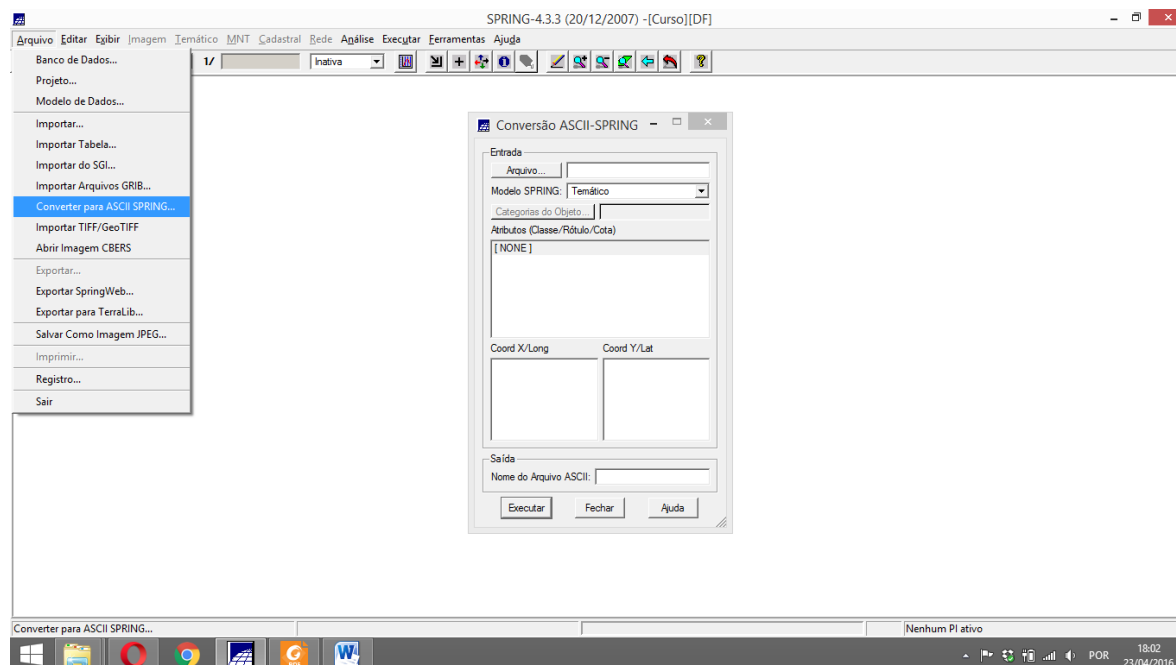


Para alterar as cores basta escolher a categoria e clicar em visualizar.



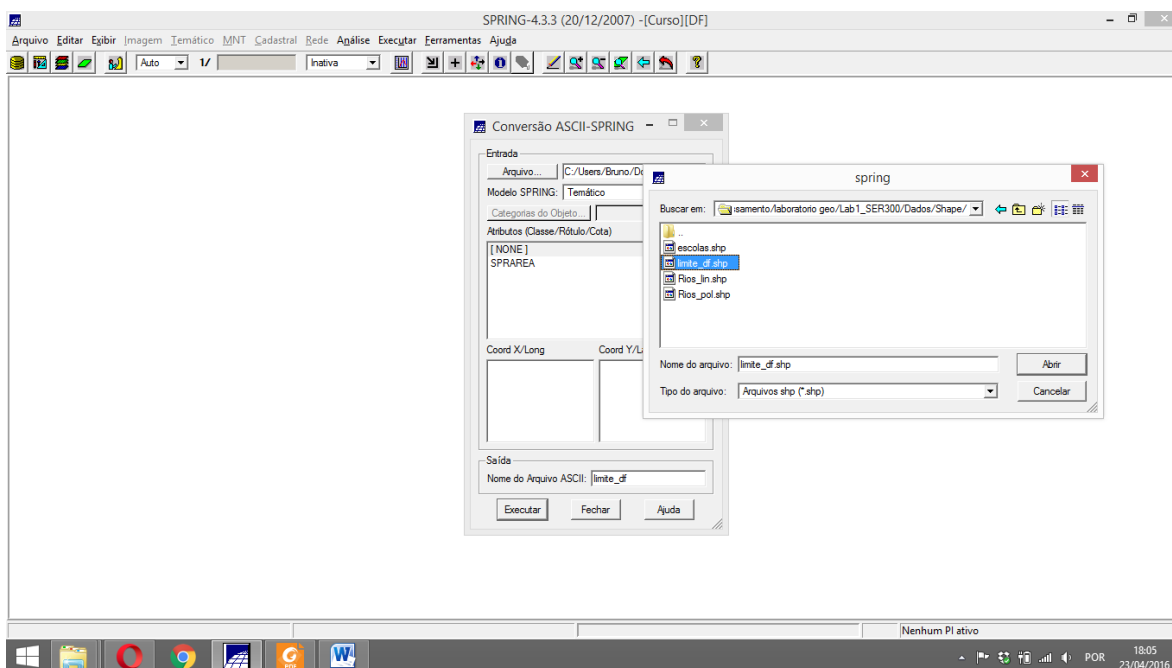
Exercício 2 – Importando Limite do Distrito Federal

Convertendo de Shp

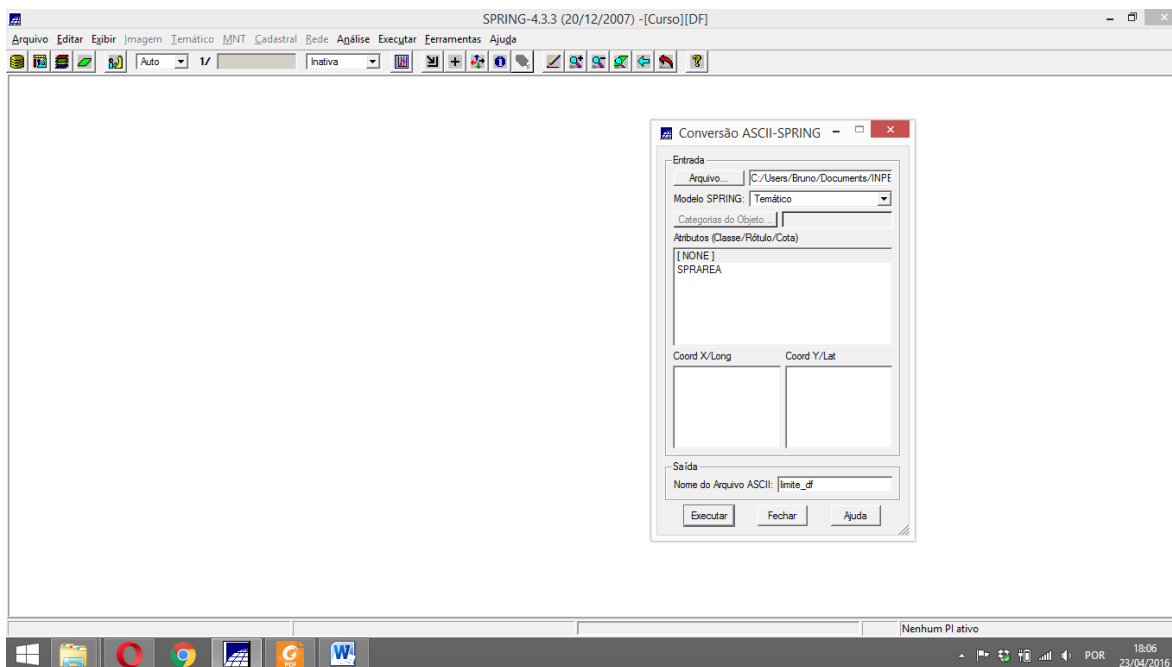




Procurar o arquivo.

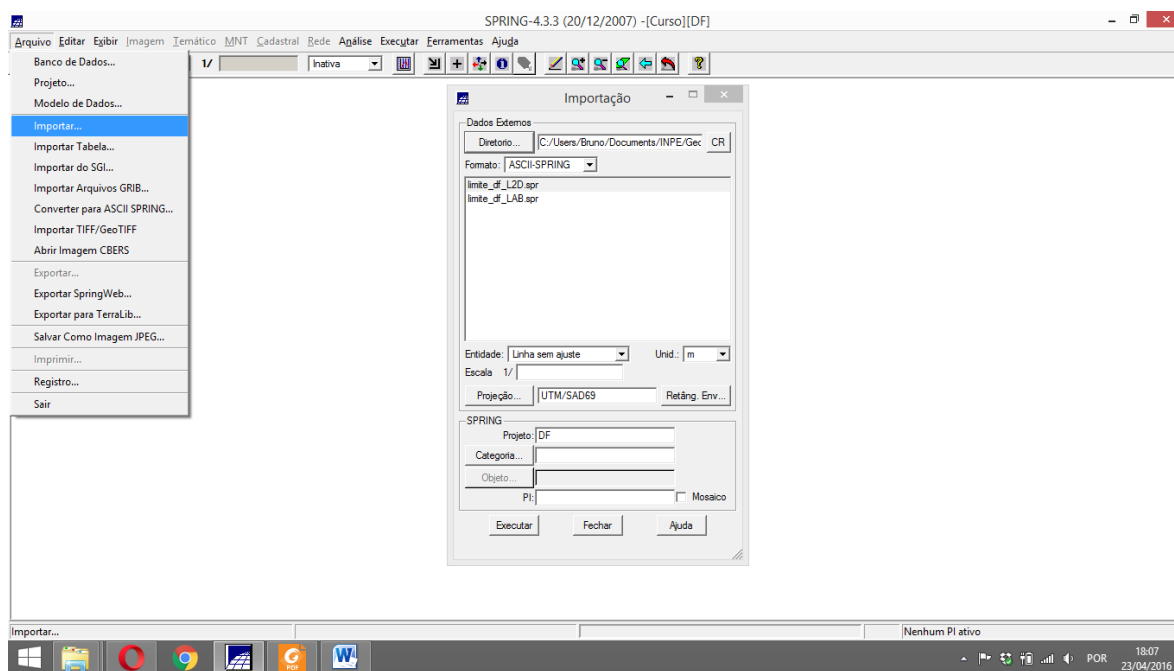


Executar

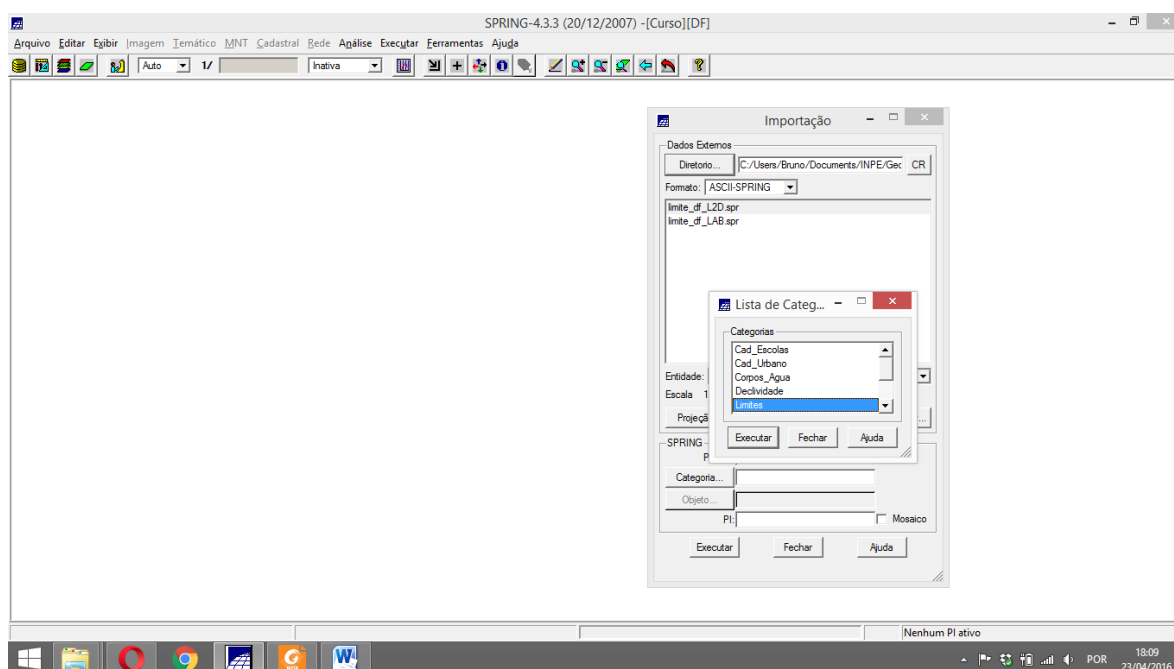




Importar o arquivo convertido.

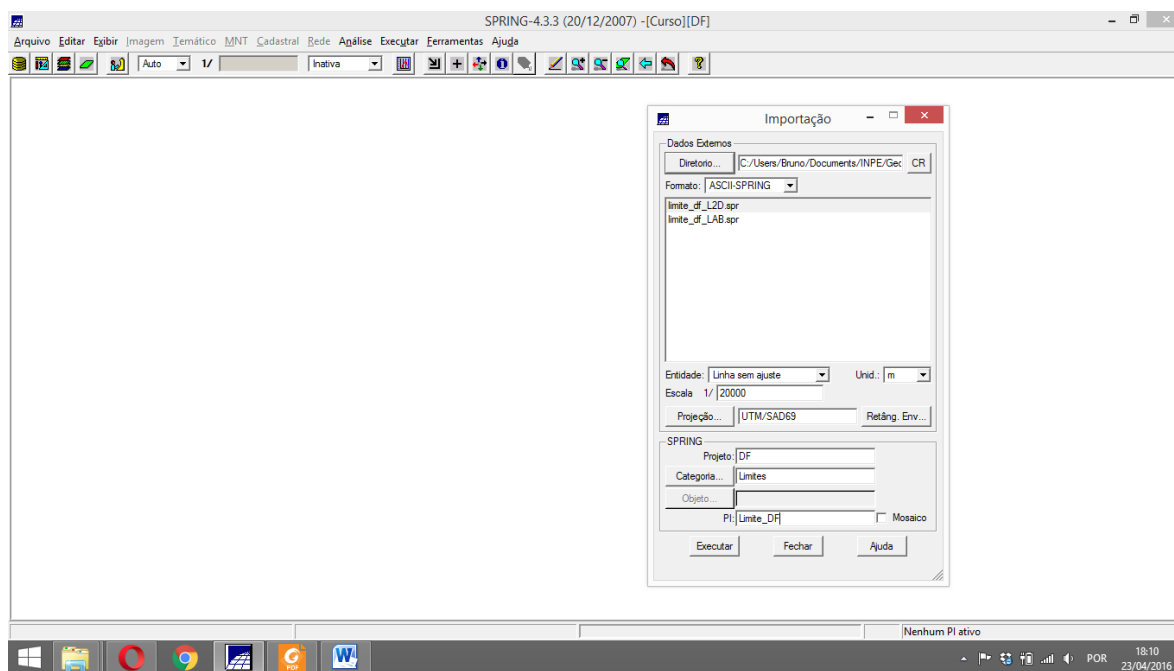


Escolha em qual categoria o arquivo será importado.



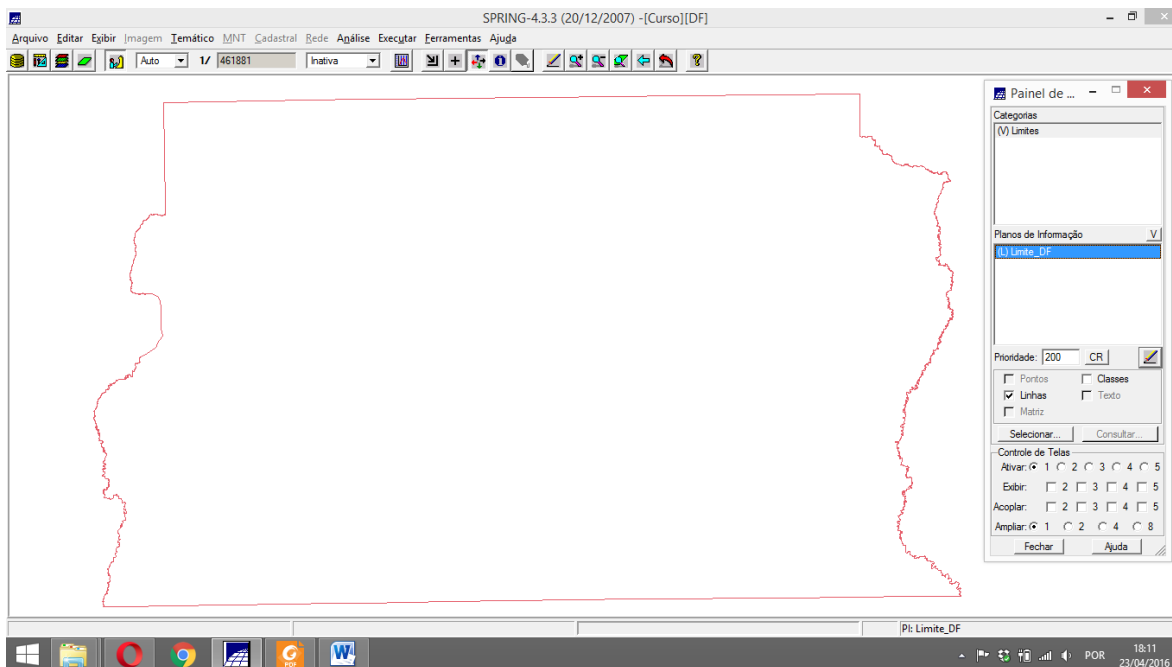


Criar o nome de um Plano de Informação (PI) para o arquivo que está sendo importado.

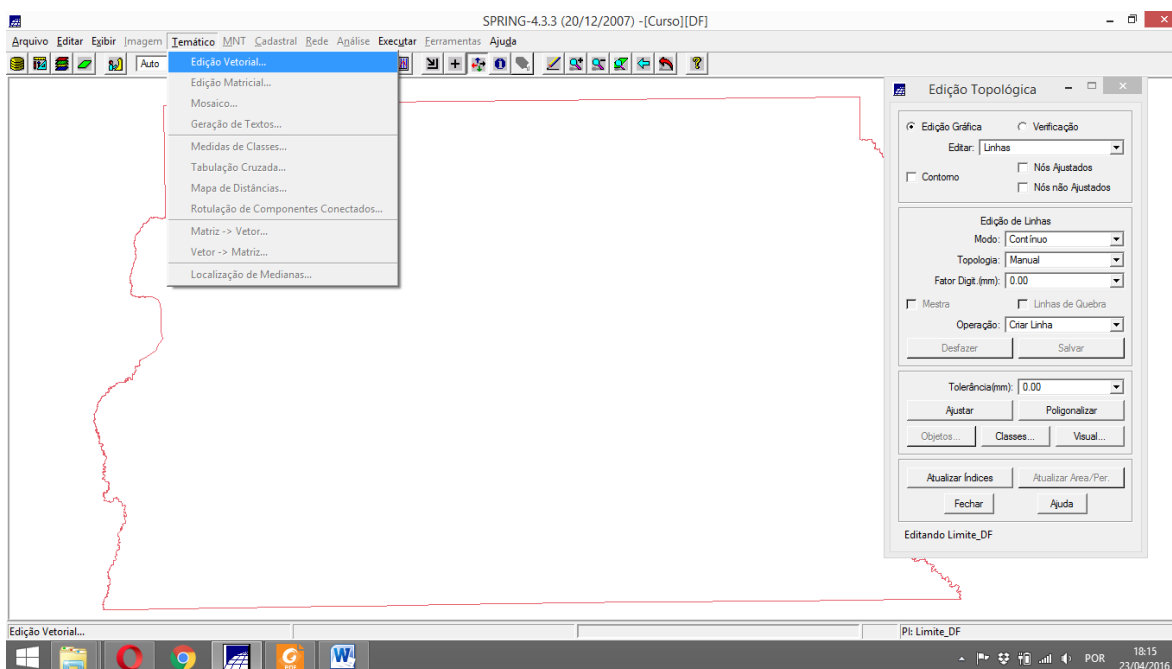




Para visualizar o arquivo importado basta clicar no pequeno lápis que aparece no painel de controle.

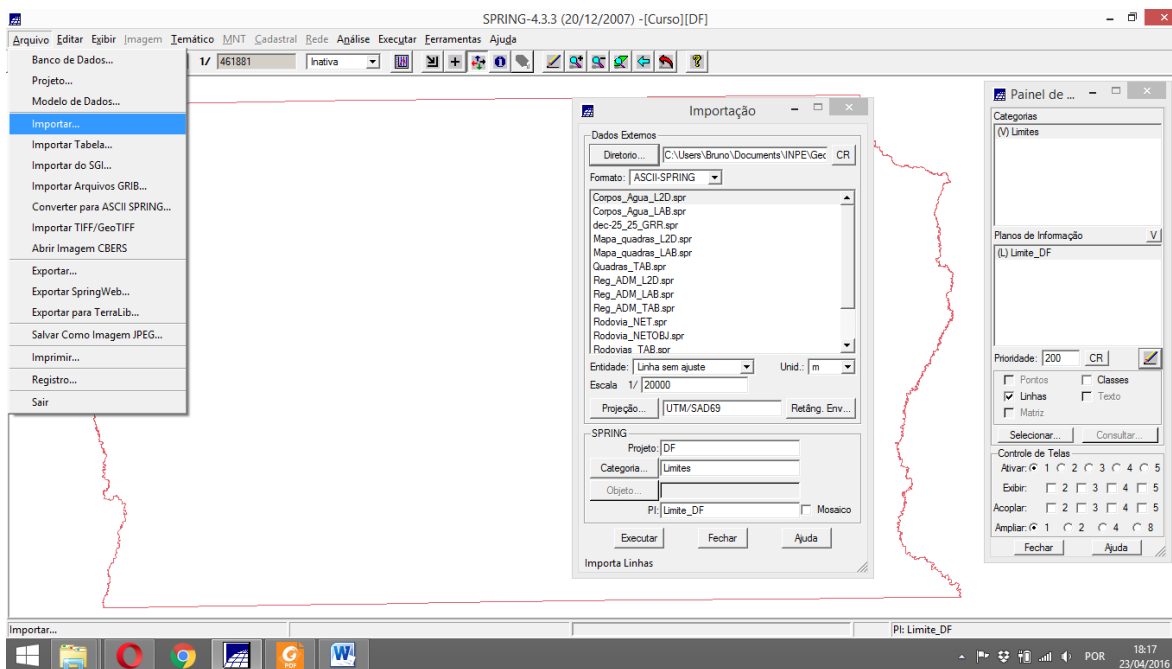


Edição Vetorial

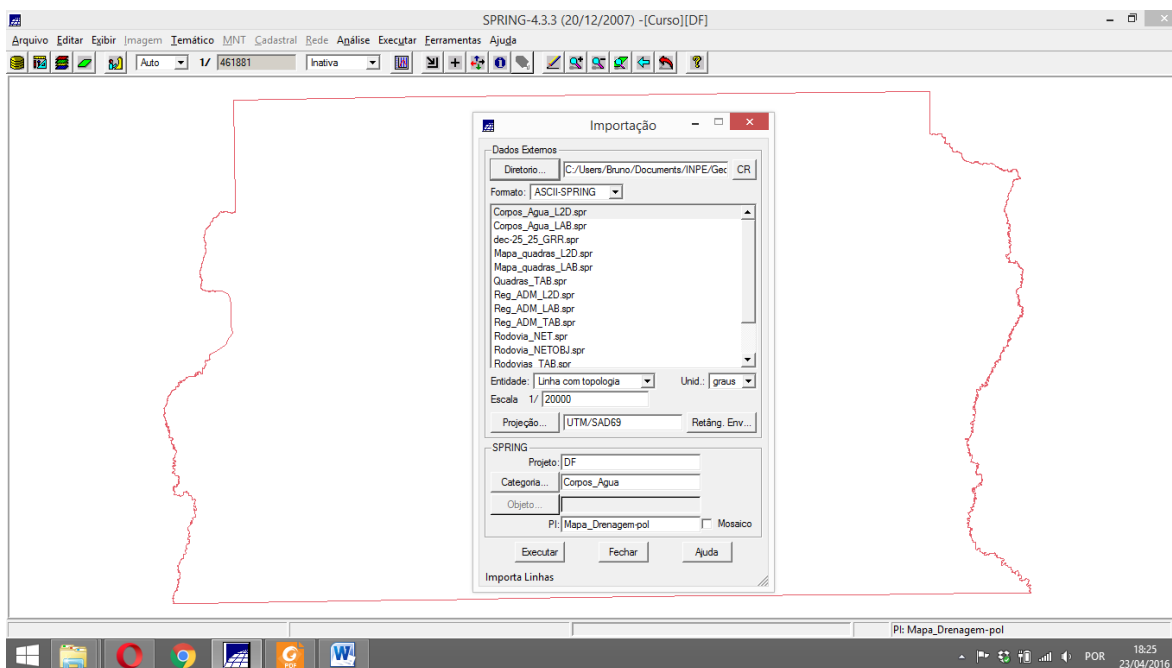




Importar água



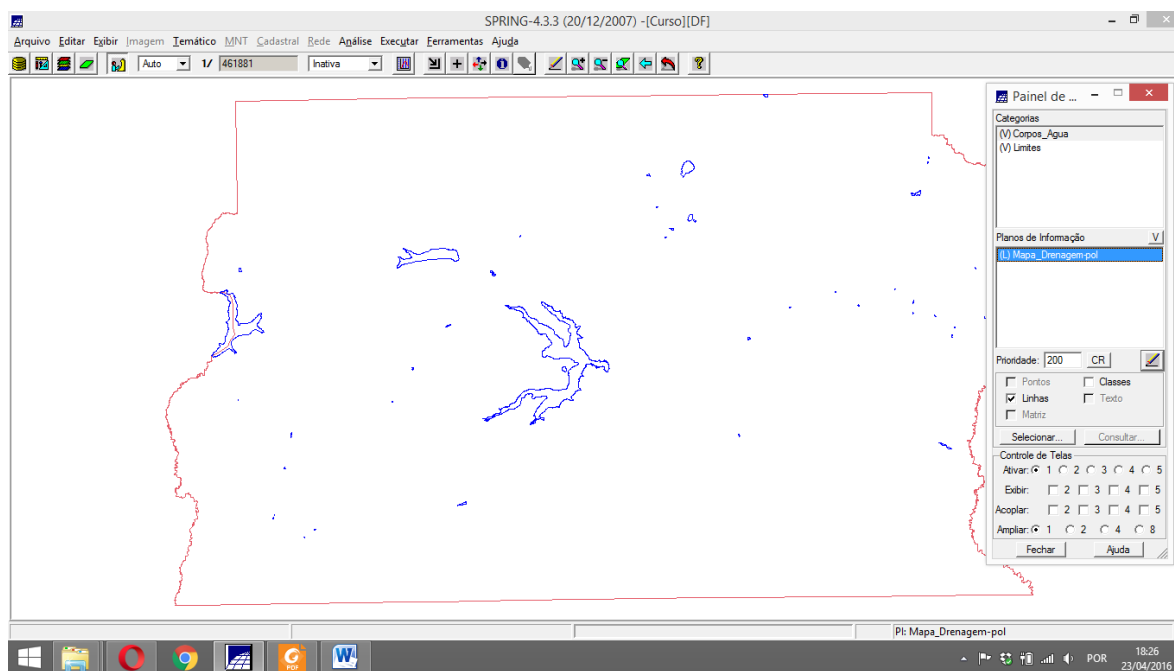
Importando água



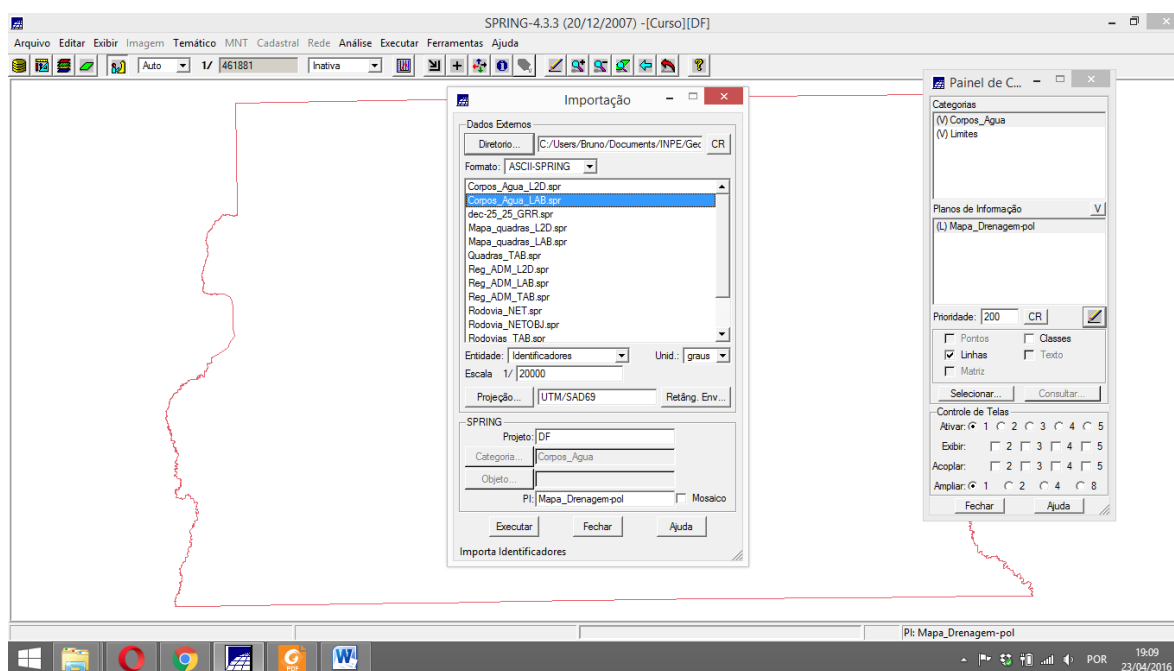


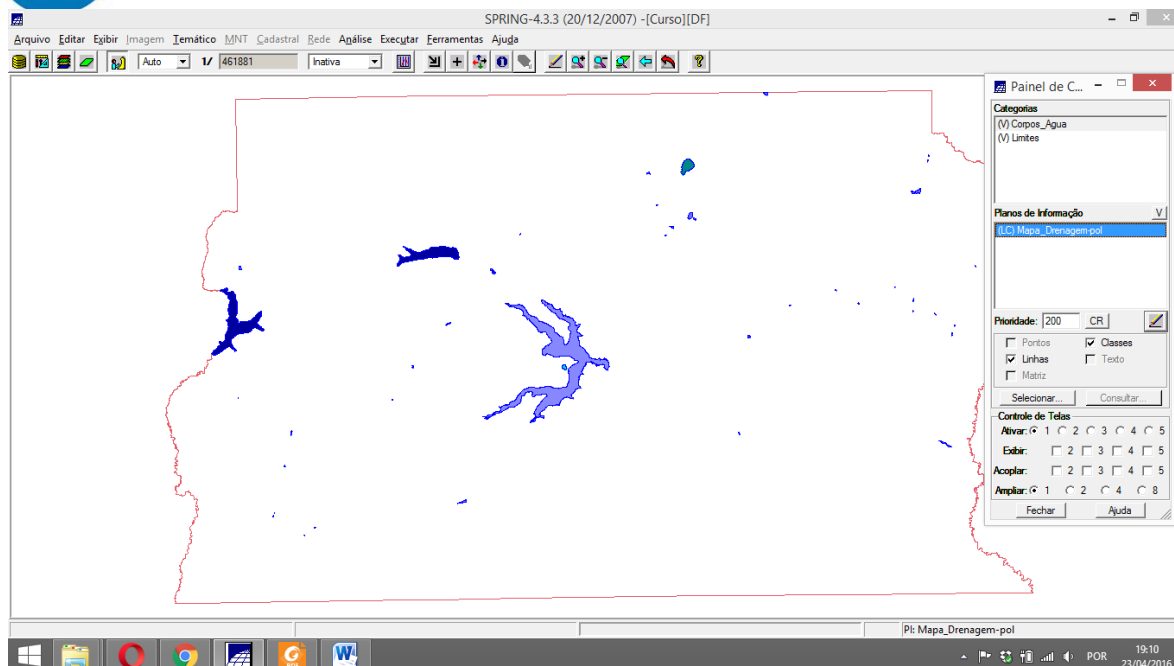
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Visualizando a água



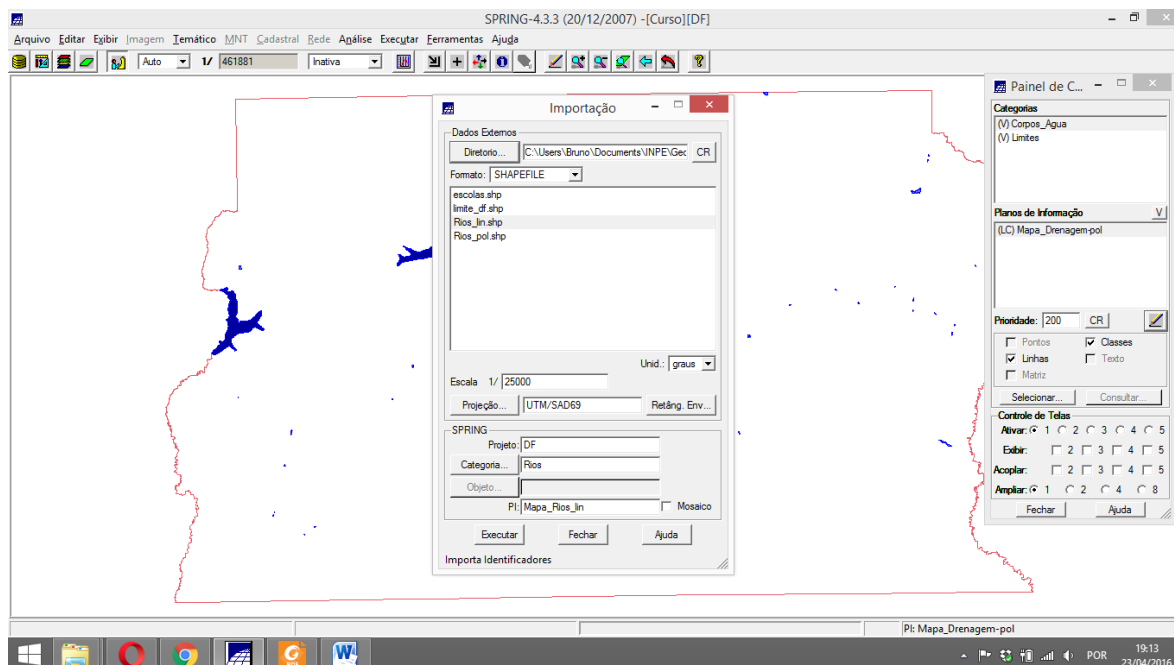
Identificadores





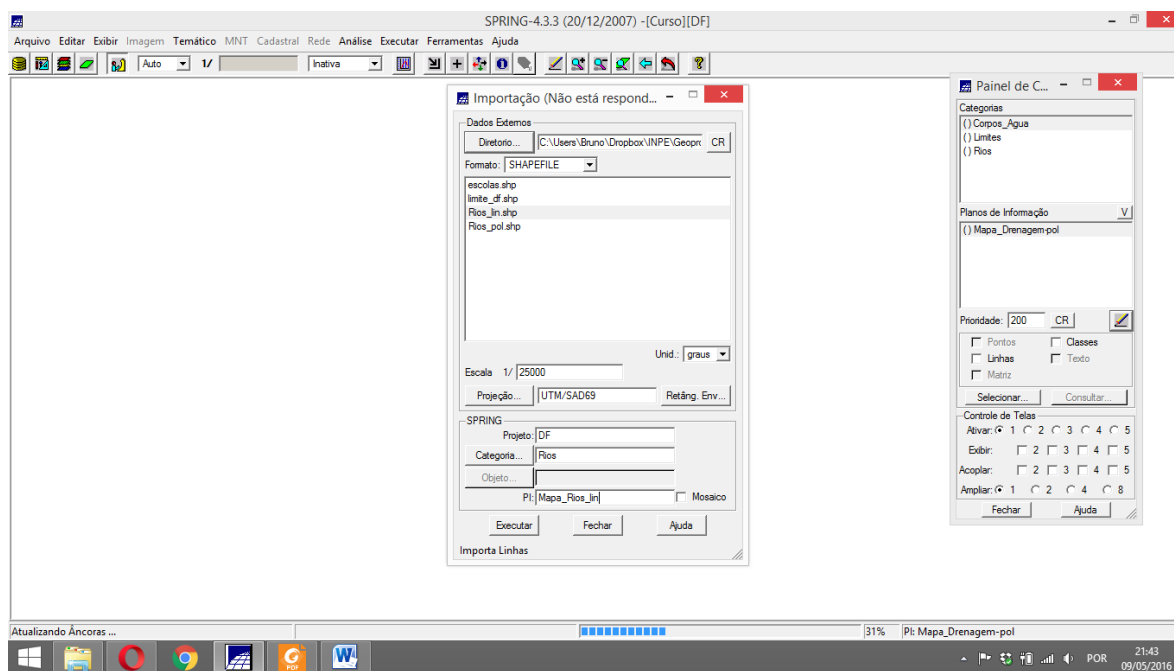
Exercício 4 – Importando Rios de arquivo Shape

Para a importação destes dados é o mesmo procedimento explicado anteriormente.

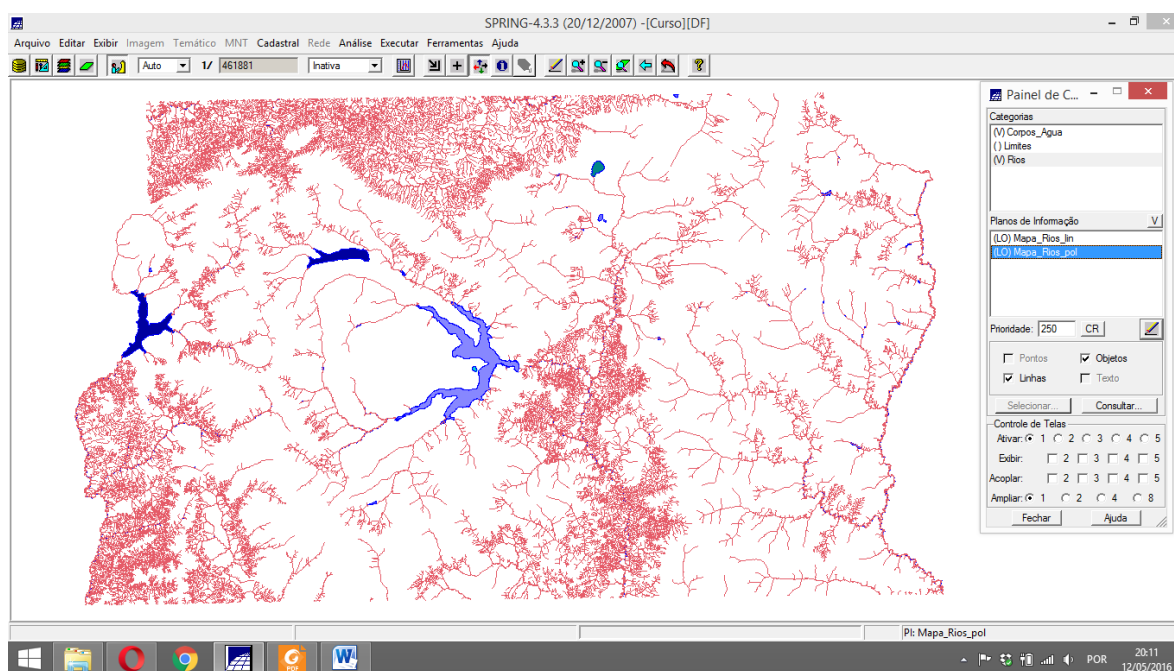




É necessário definir a qual categoria será atribuído e o nome do PI



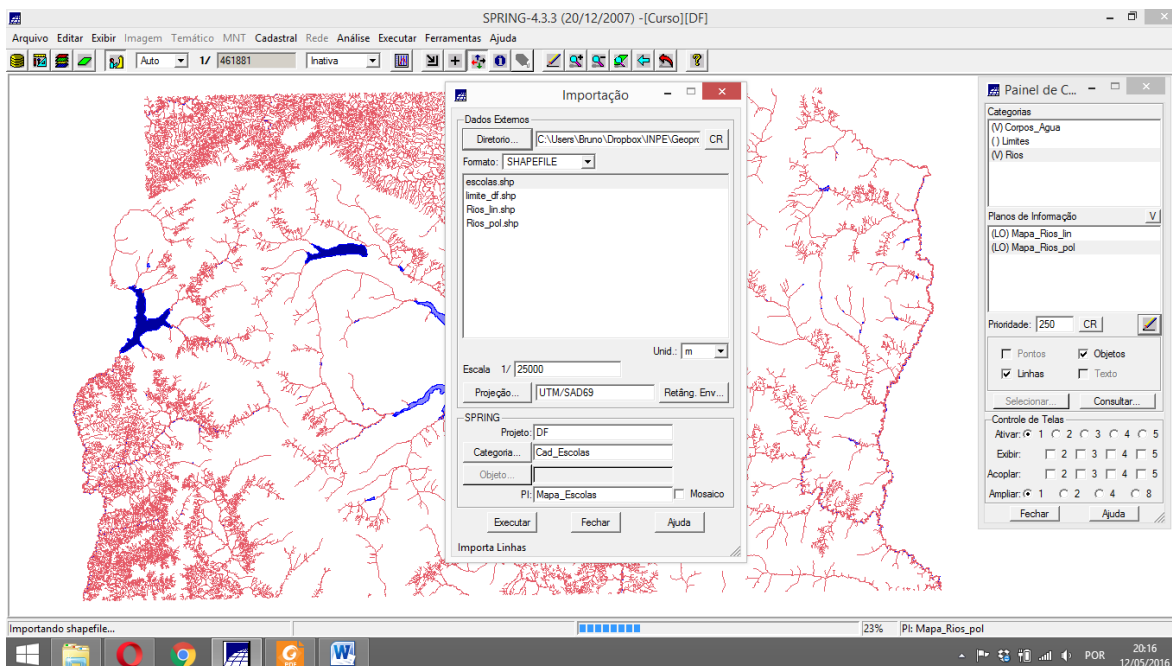
O mesmo procedimento foi feito para o PI Mapa_Rios_pol



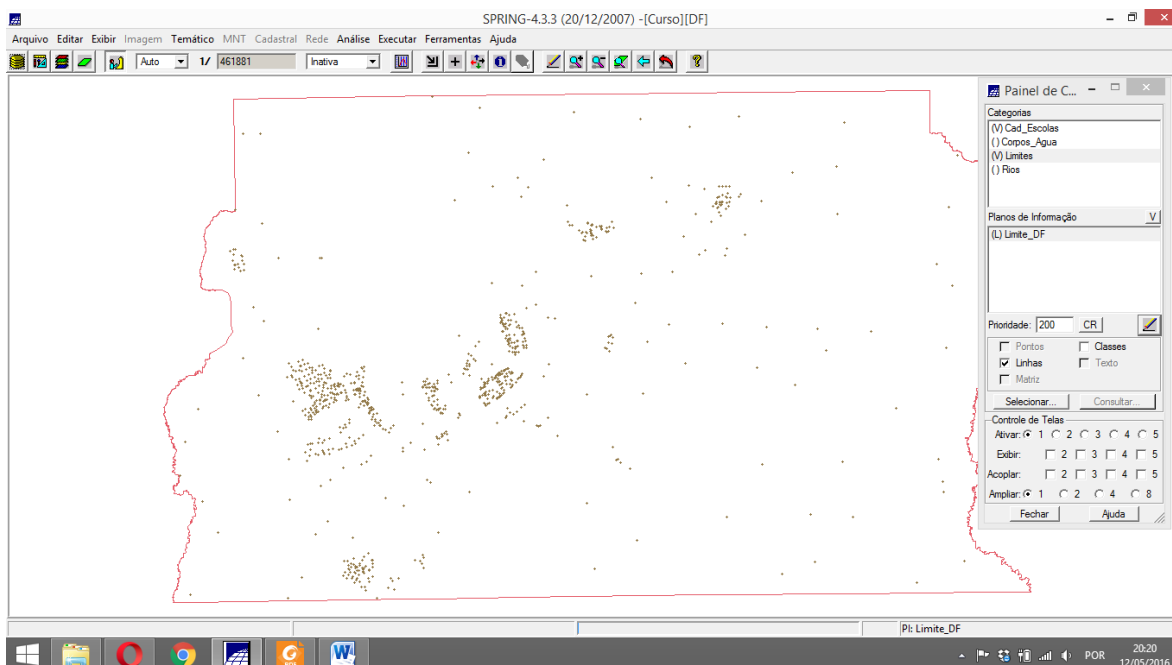


Exercício 5 – Importando Escolas de arquivo Shape

Segue os mesmos passos das etapas anteriores



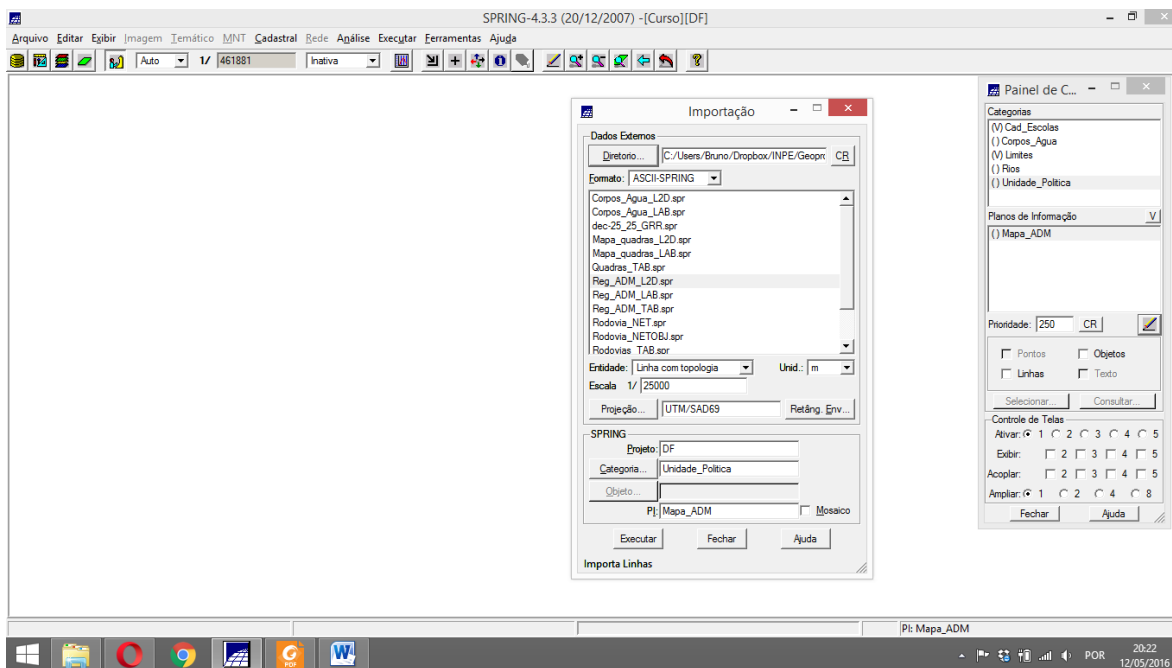
Resultado



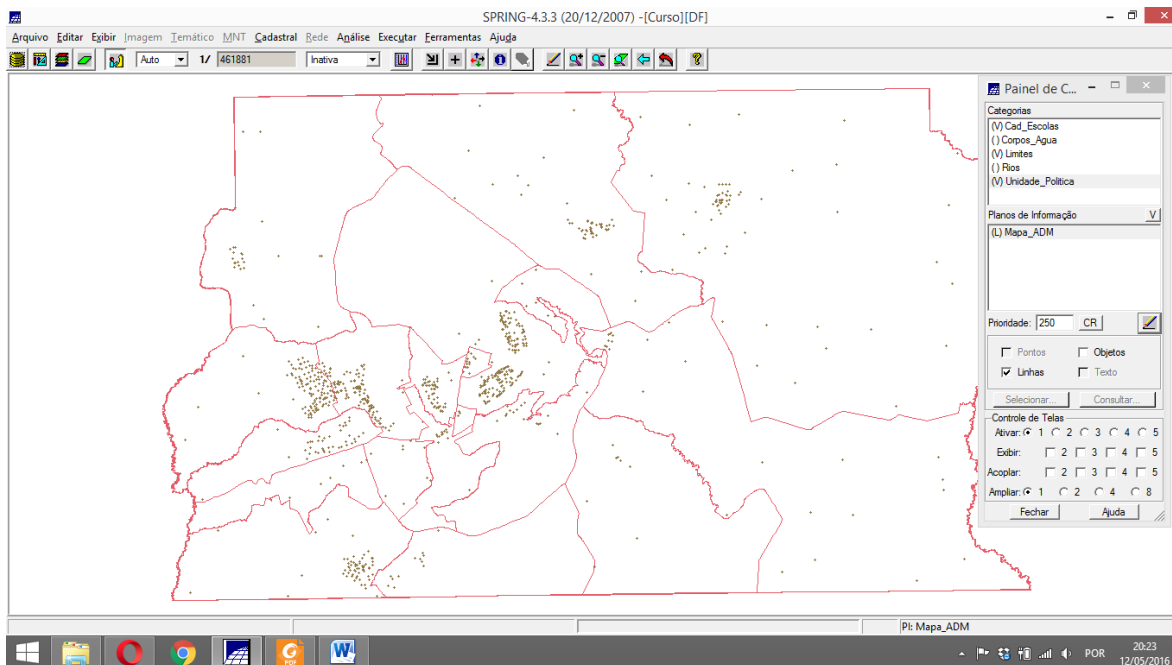


Exercício 6 – Importando Regiões Administrativas de arquivos ASCII-SPRING

Para importar as regiões administrativas é necessário alterar a entidade e a categoria



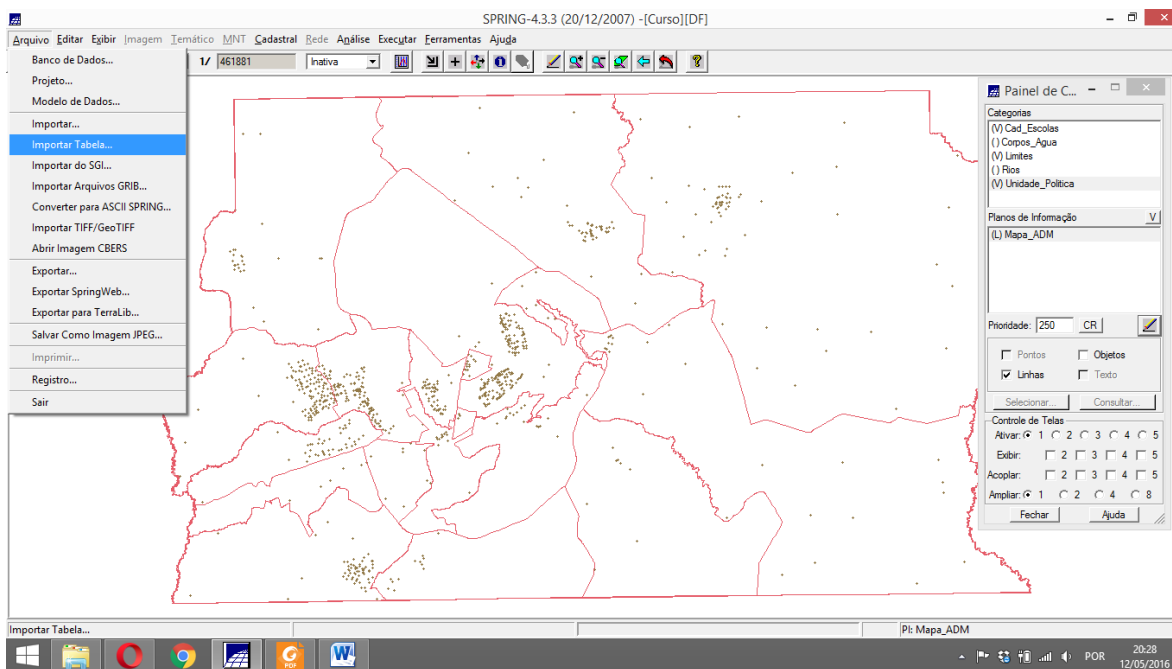
O resultado será esse



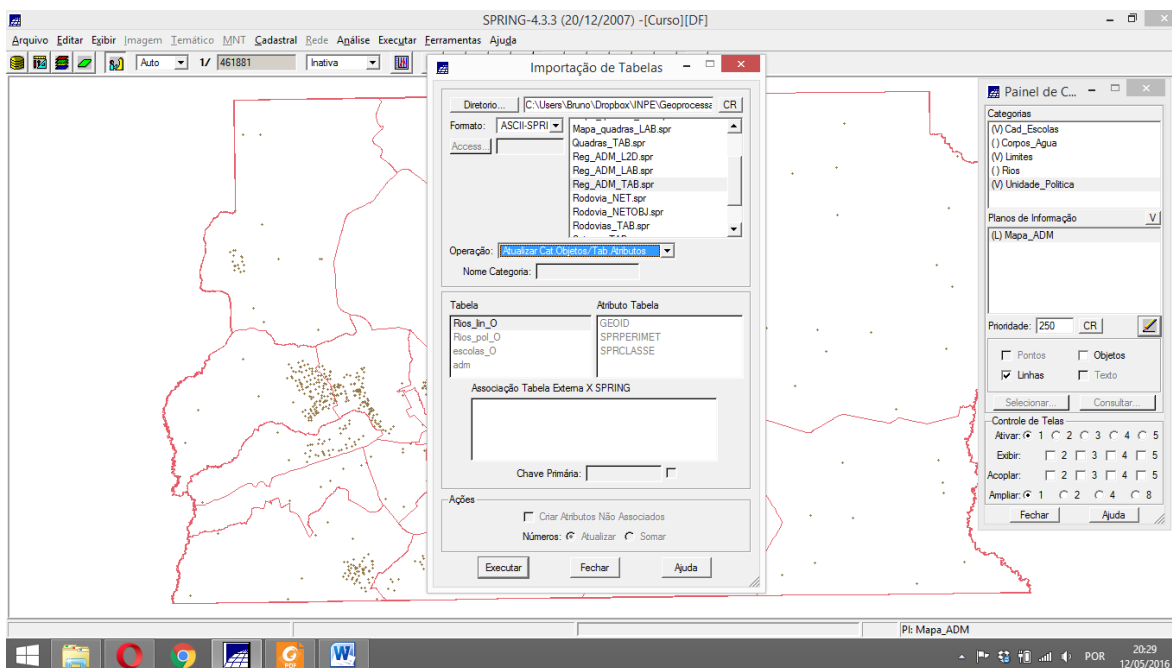


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Para importar uma tabela



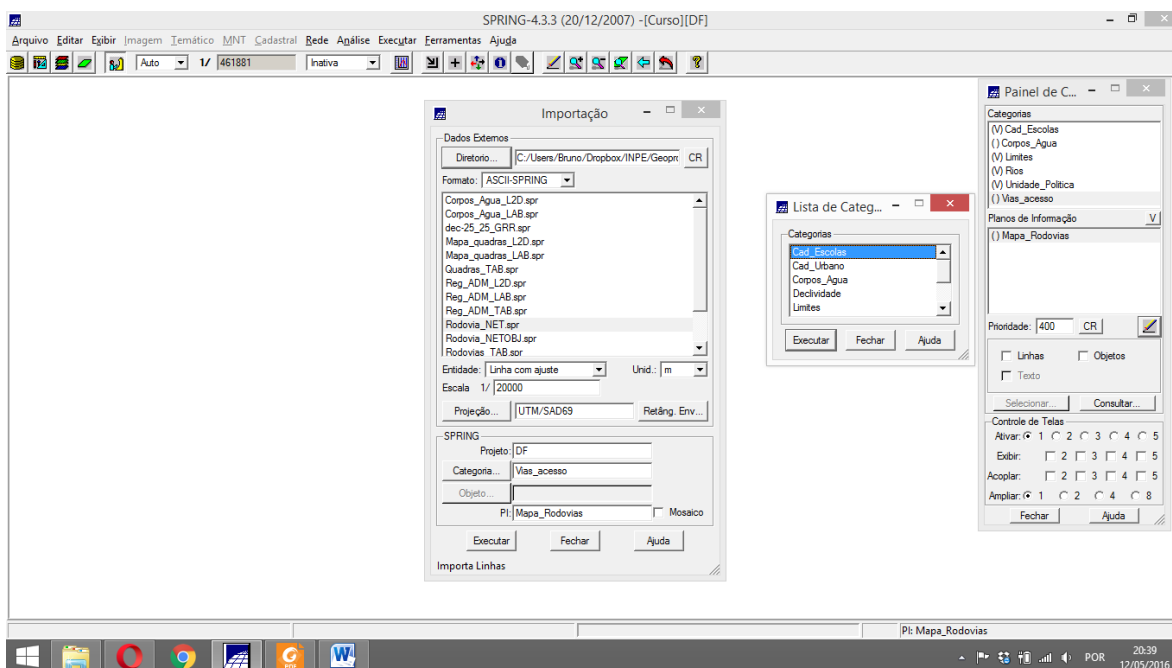
Após encontrar o diretório e definir o arquivo



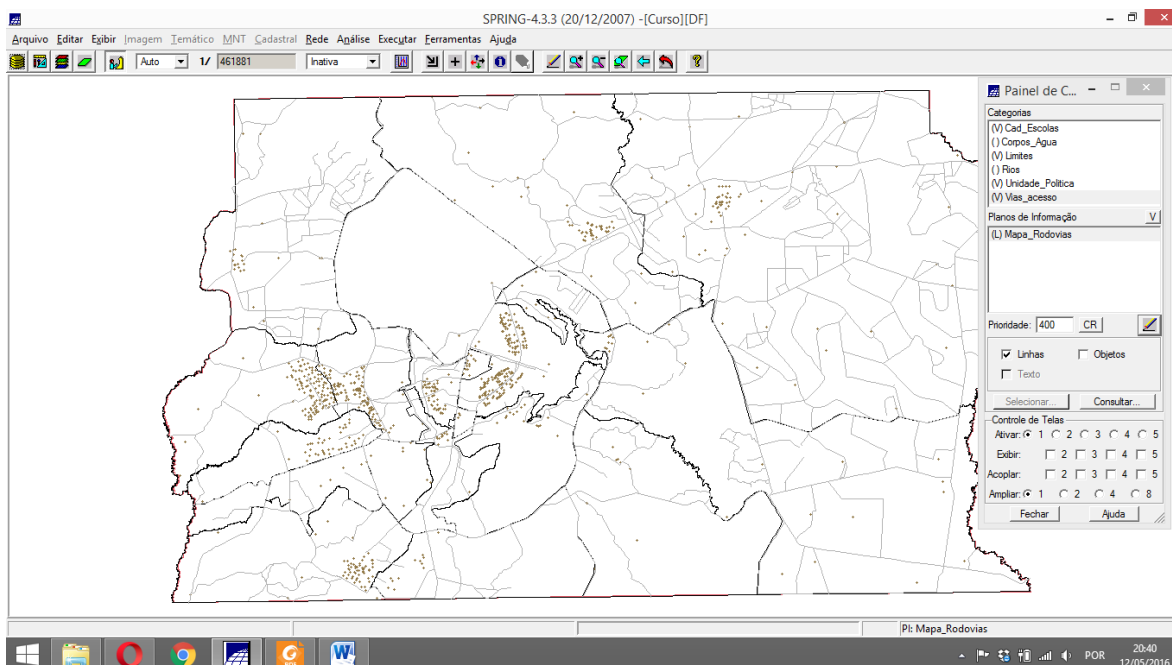


Exercício 7 – Importando Rodovias de arquivos ASCII-SPRING

Ao importar o arquivo referente às rodovias é necessário alterar a categoria



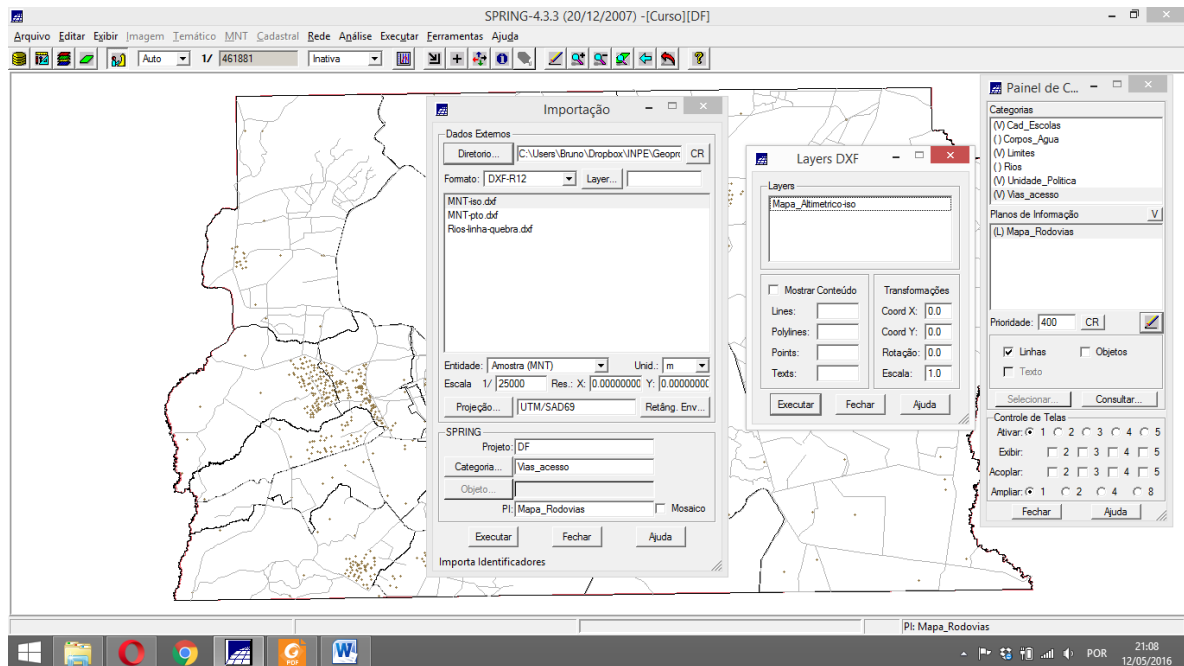
As rodovias estão representadas em cinza



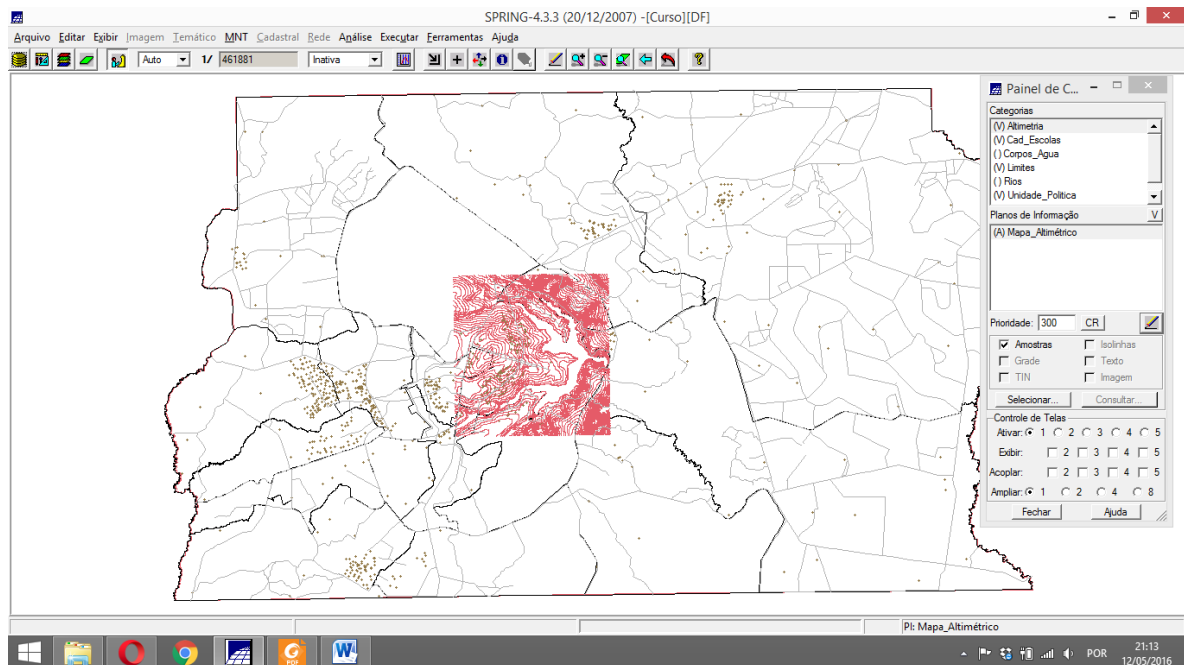


Exercício 8 – Importando Altimetria de arquivos DXF

Importação altimetria

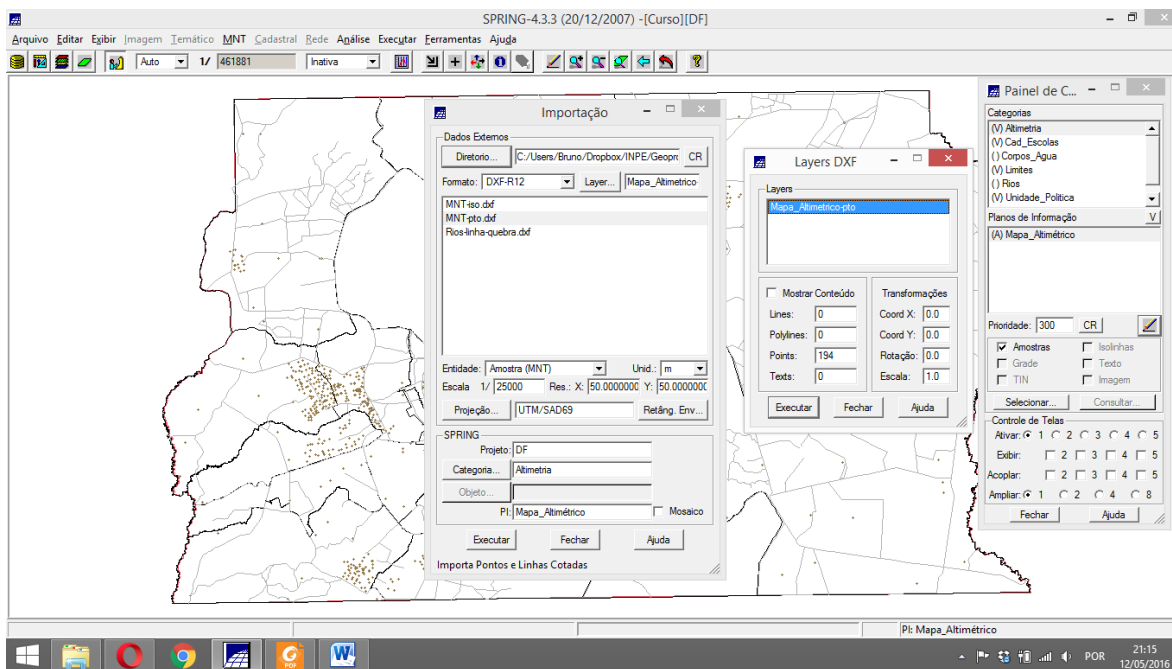


Curvas de nível

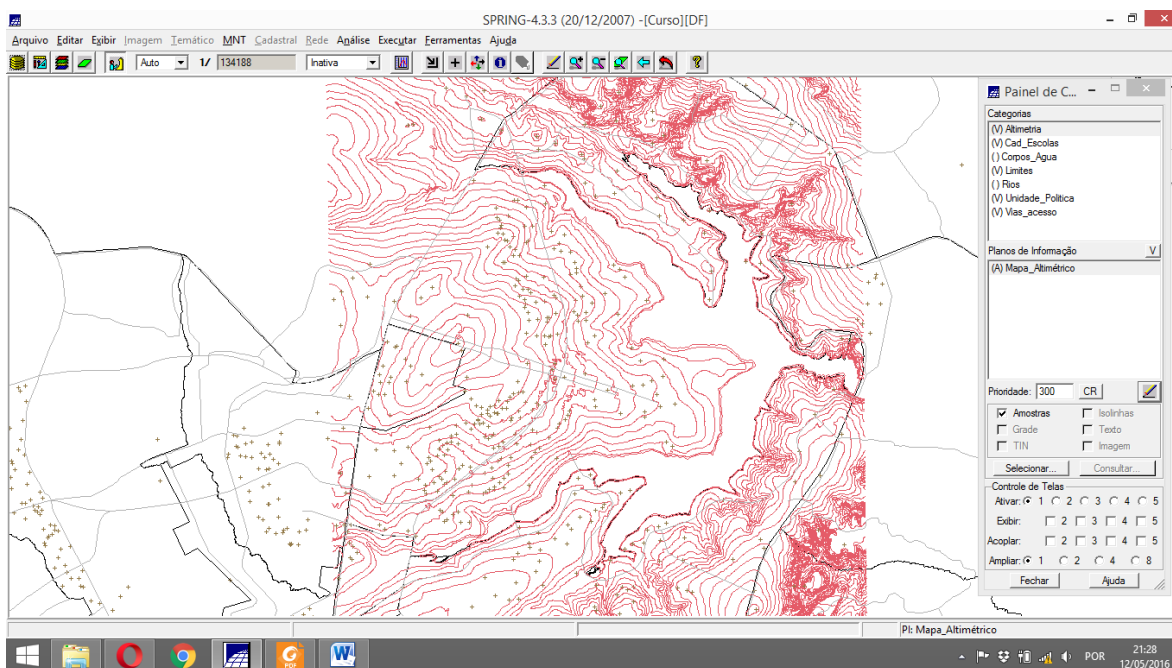




Passo 2 - Importar arquivo DXF com pontos cotados no mesmo PI das isolinhas



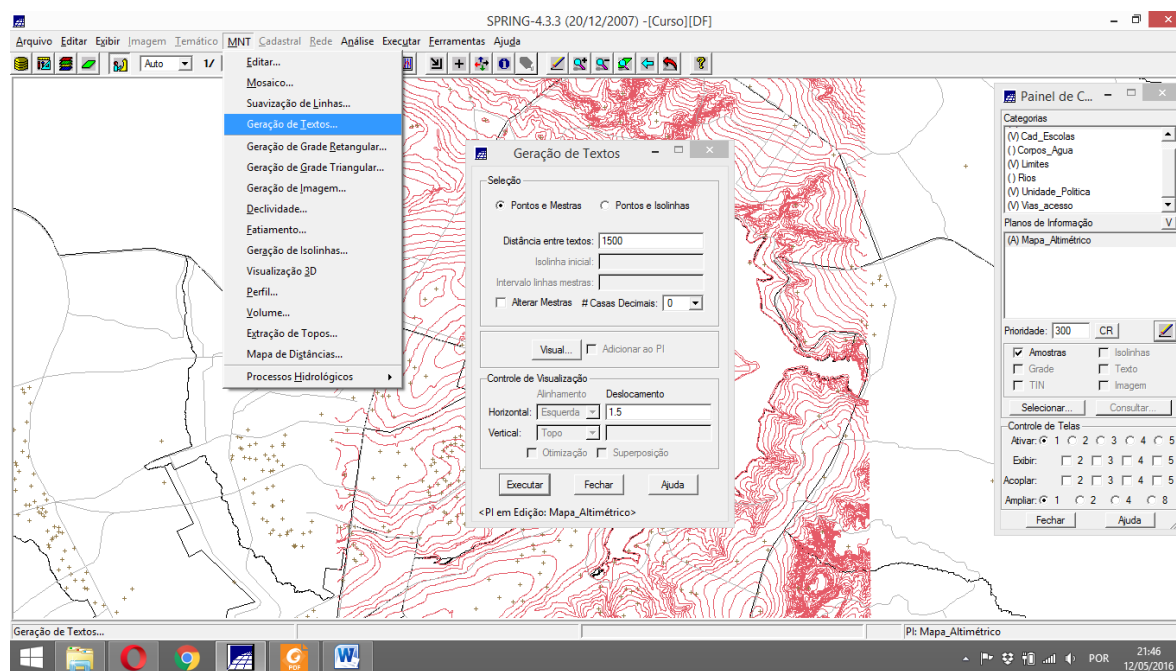
Resultado



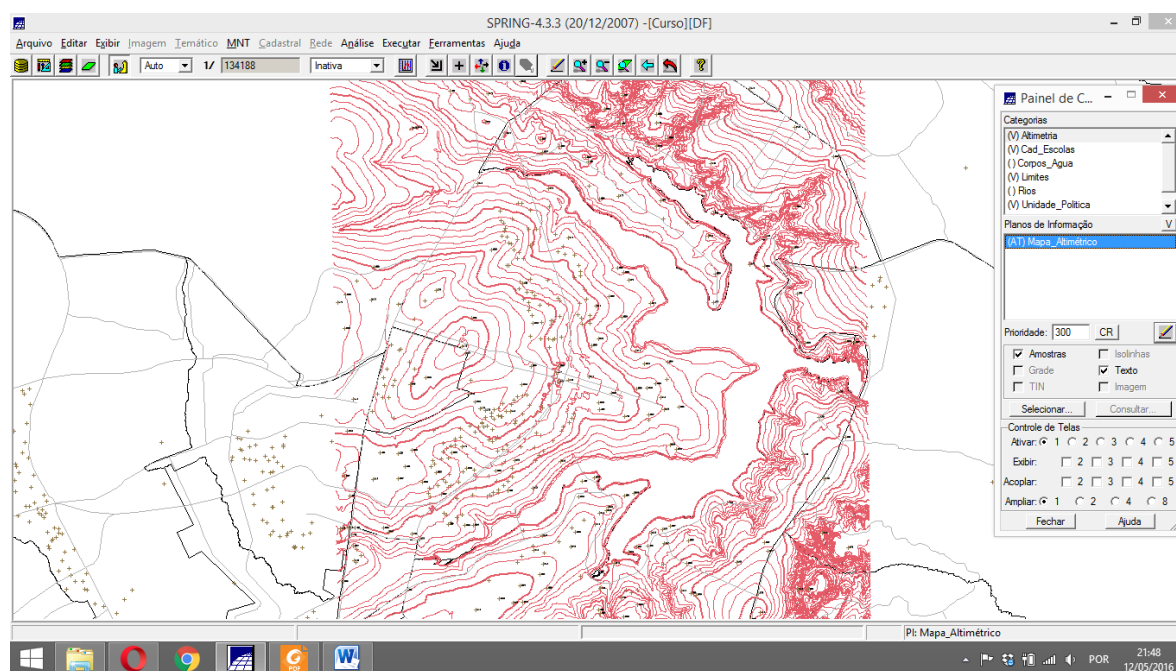
dsfsdfsdfs



Passo 3 - Gerar toponímia para amostras

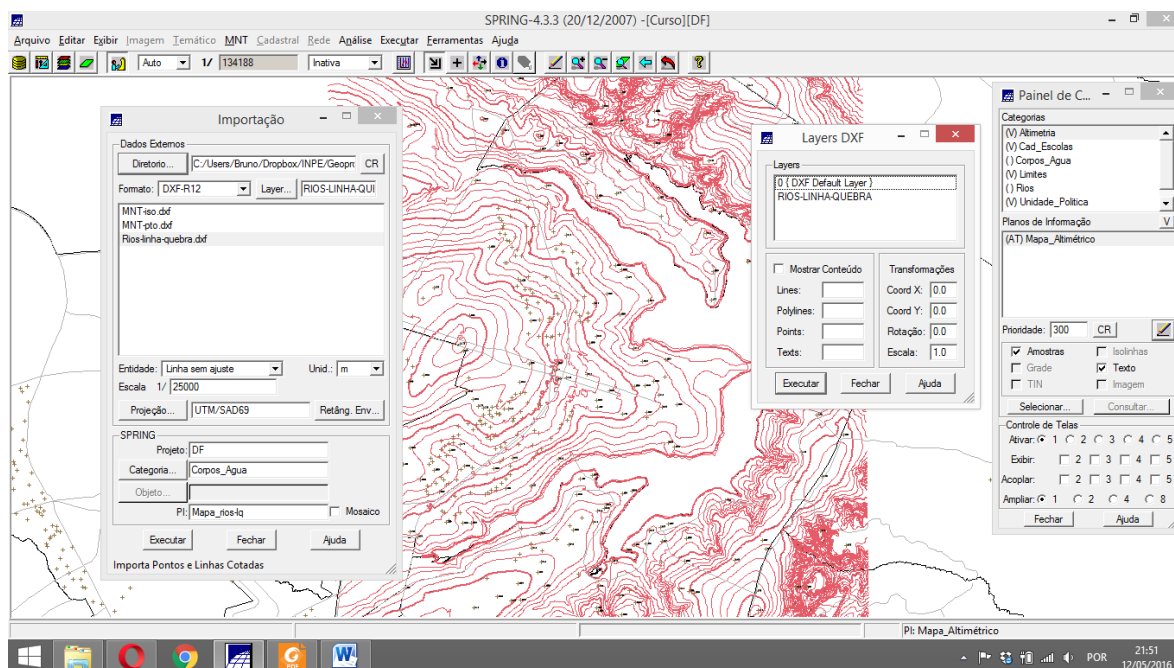


Cotas

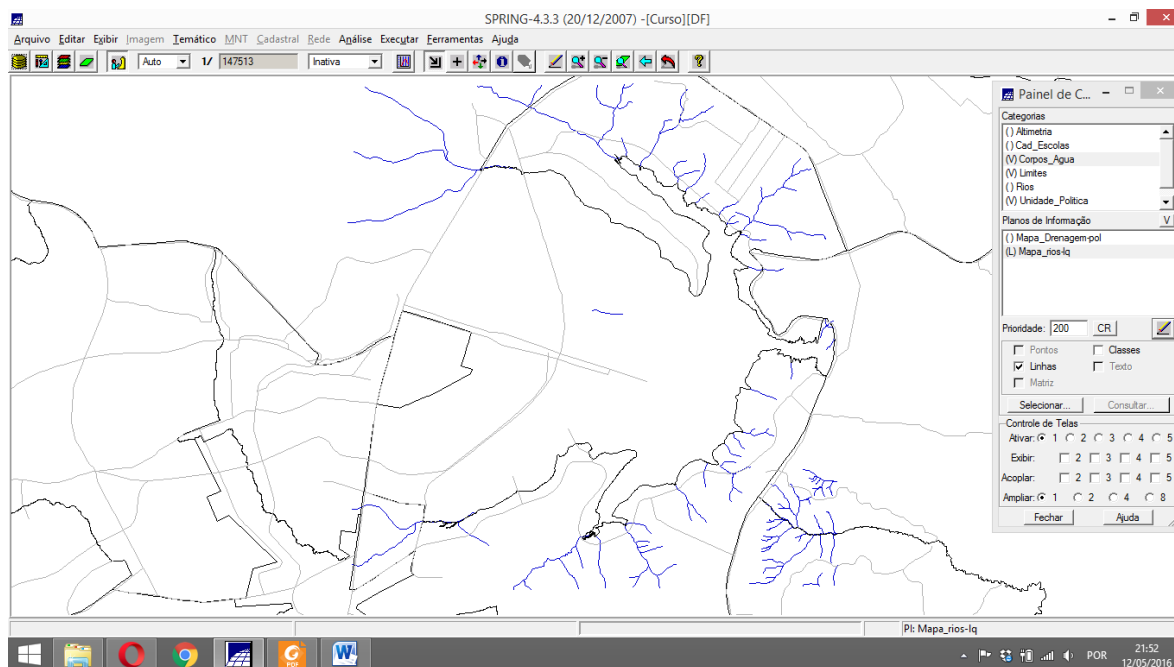




Exercício 9 - Gerar grade triangular- TIN

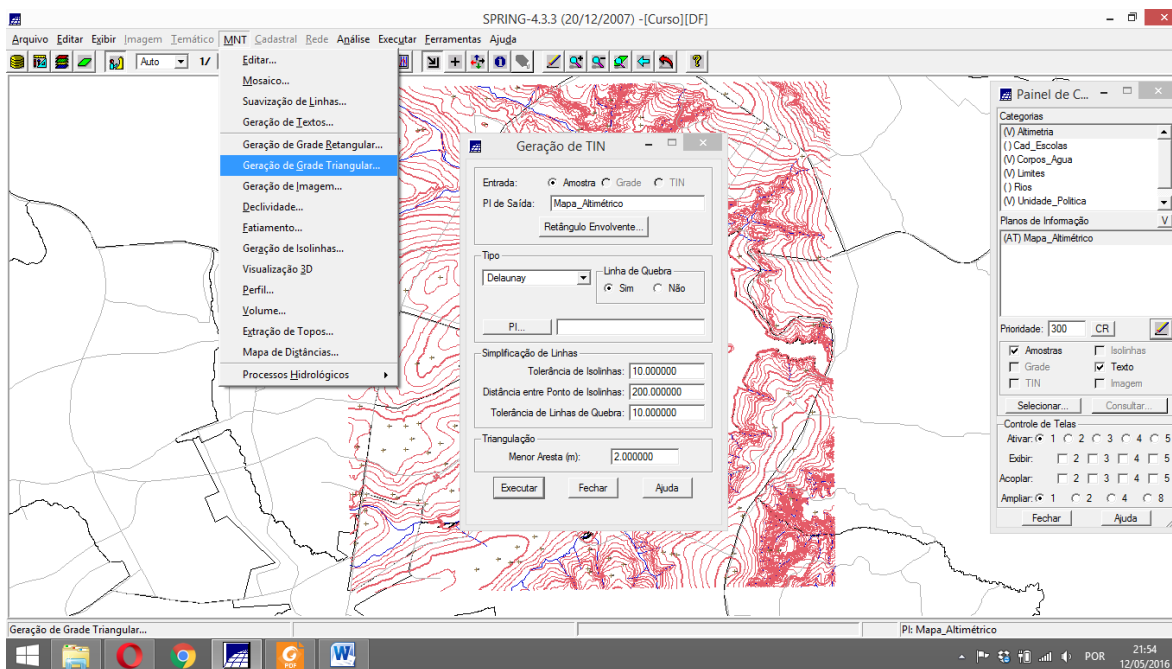


Destacadas em azul

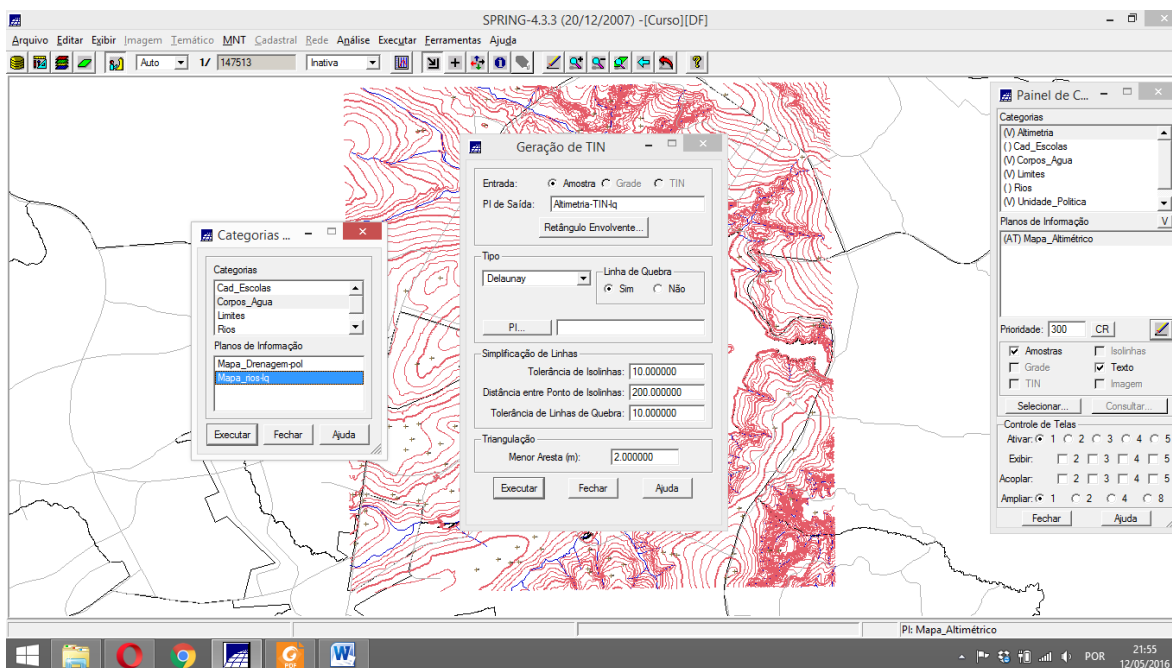




Passo 2 - Gerar grade triangular utilizando o PI drenagem como linha de quebra

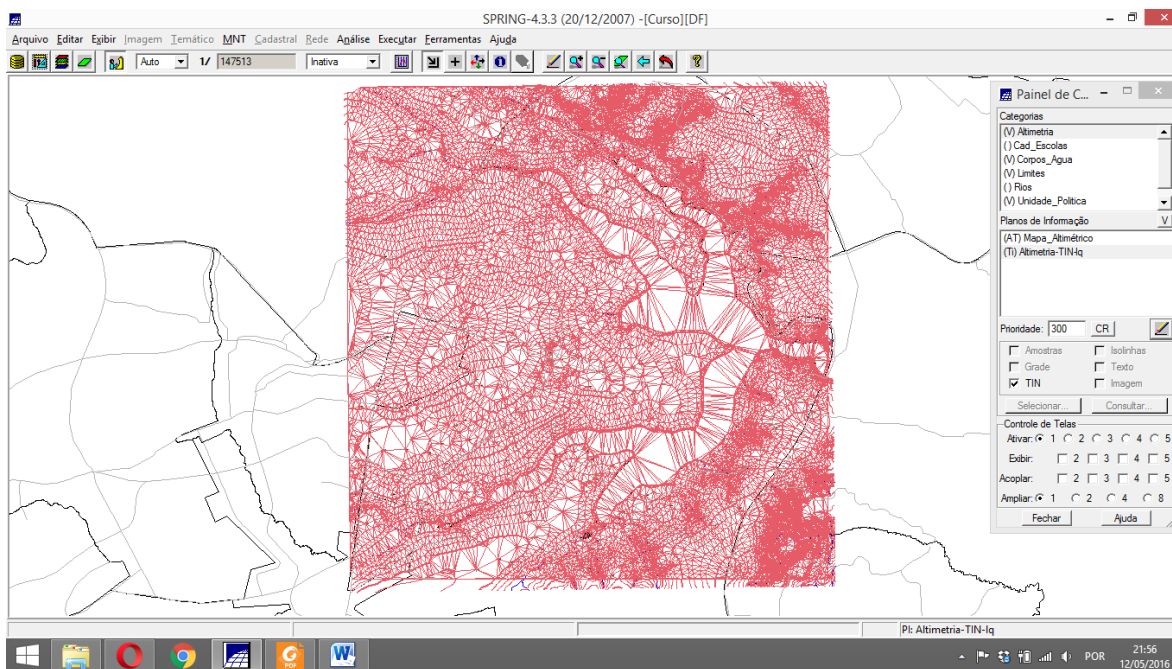


Definir o nome do PI de saída

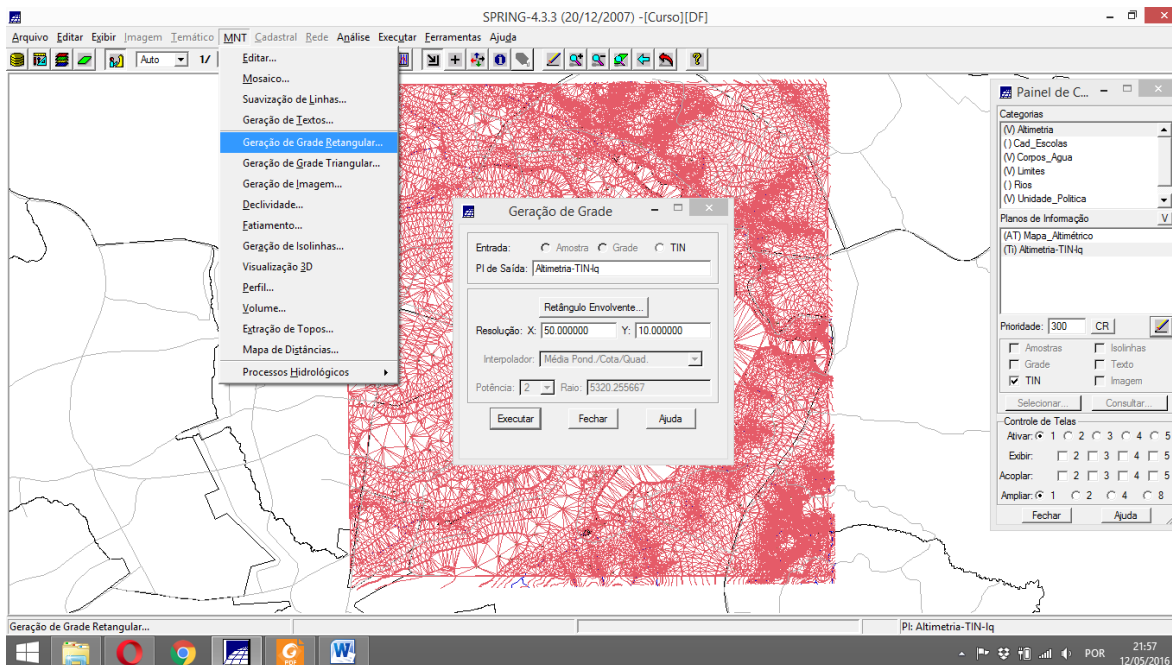




Resultado

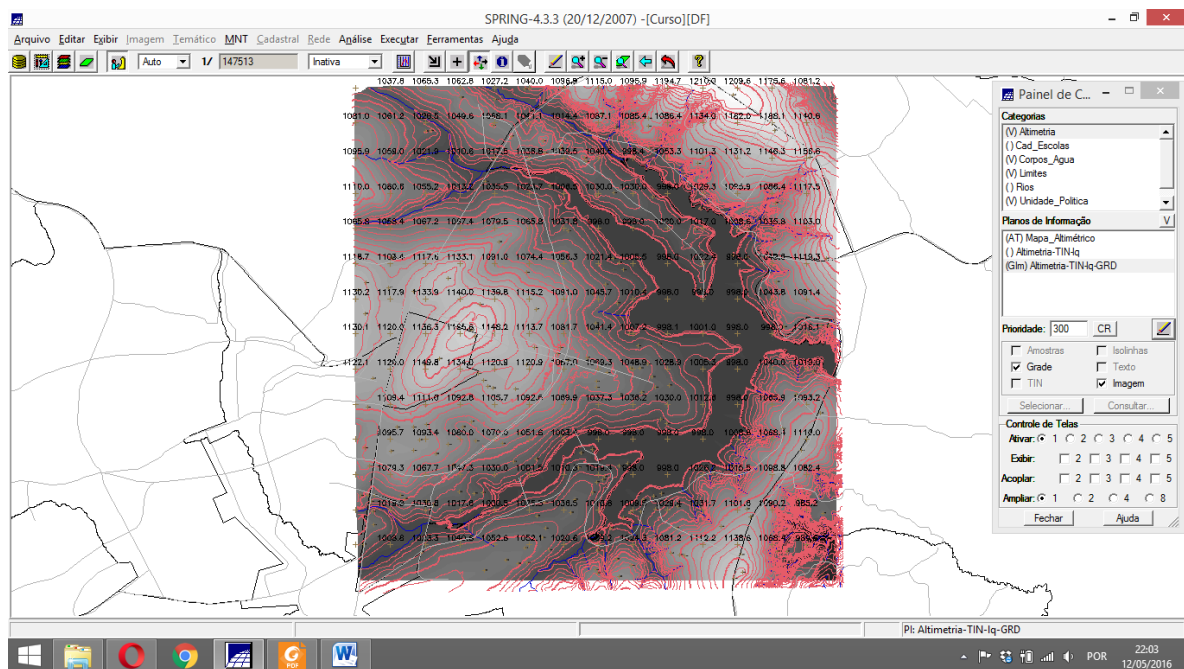


Exercício 10 - Gerar grades retangulares a partir do TIN

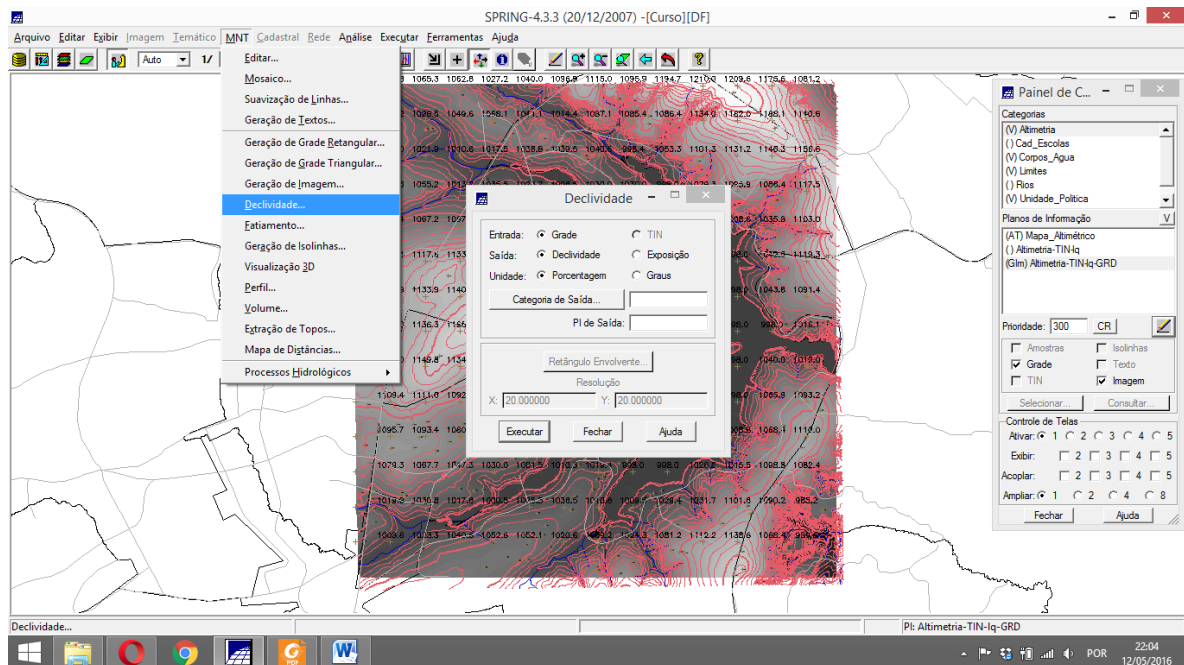




Resultado

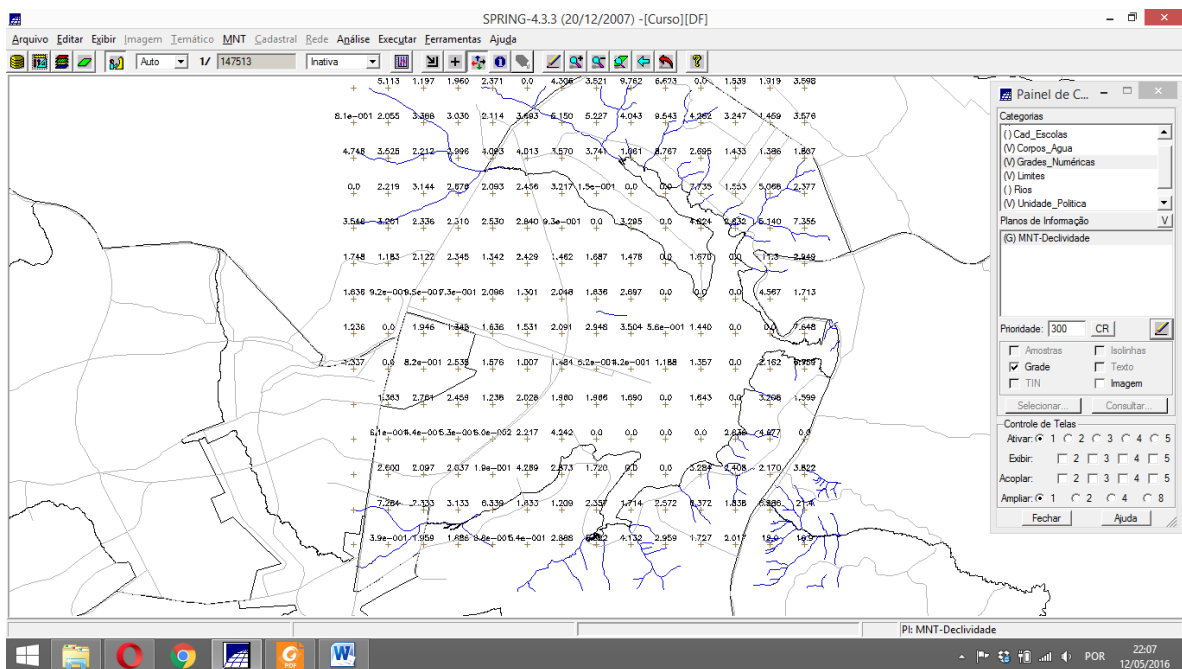


Exercício 11 - Geração de Grade de Declividade e Fatiamento

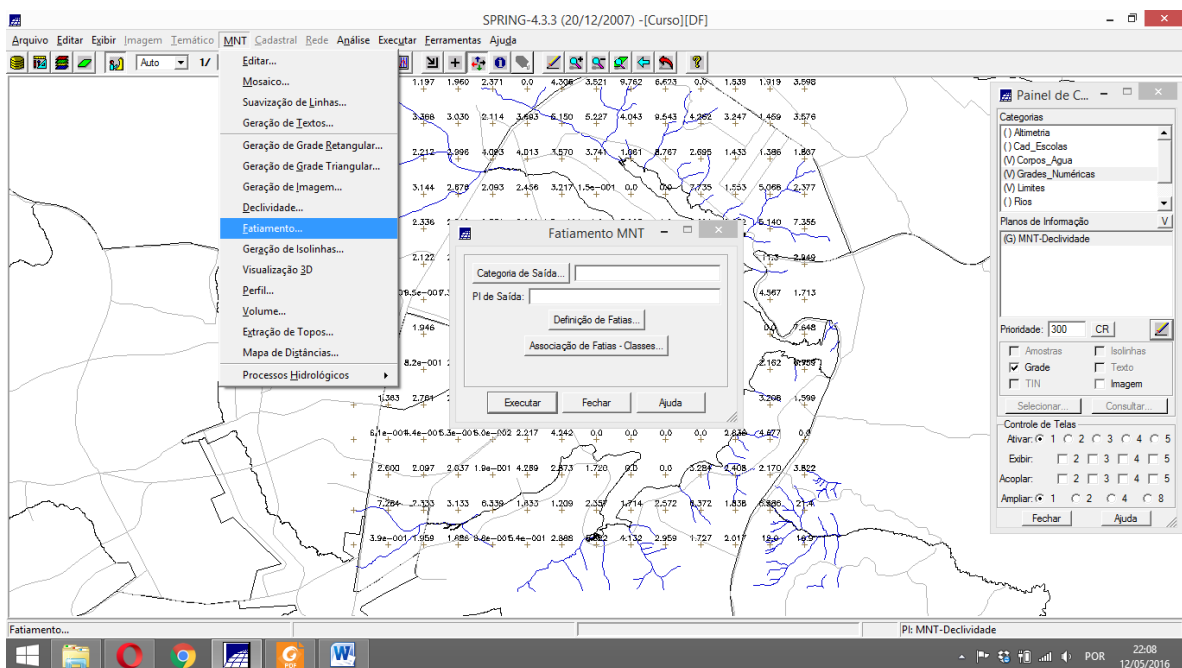




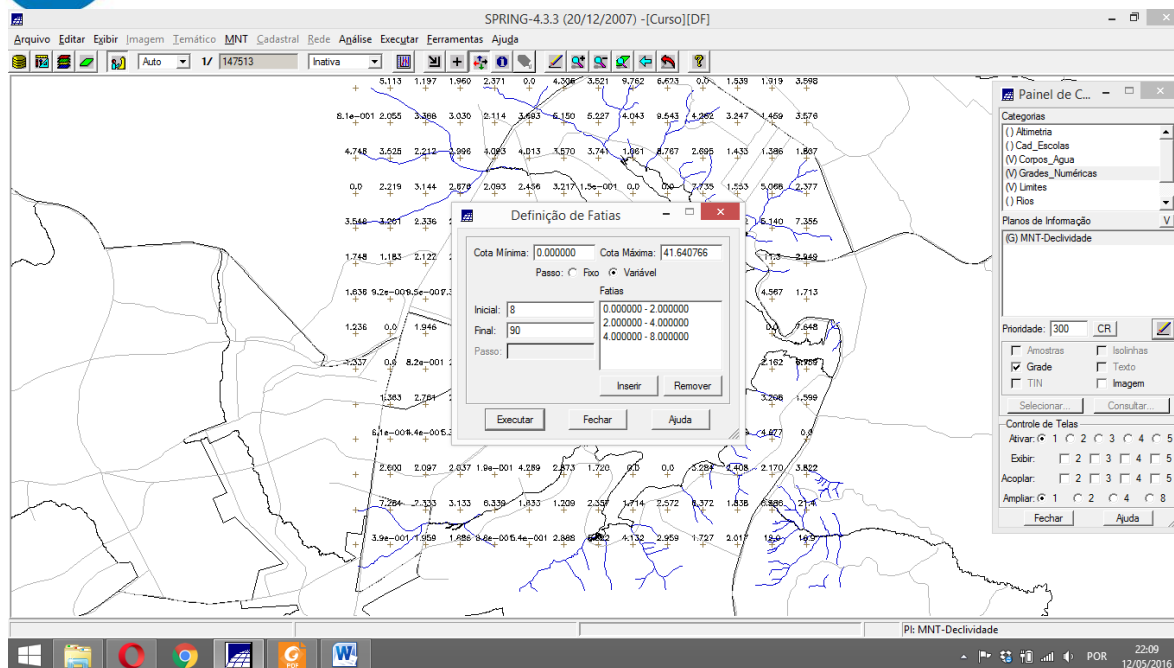
Resultado



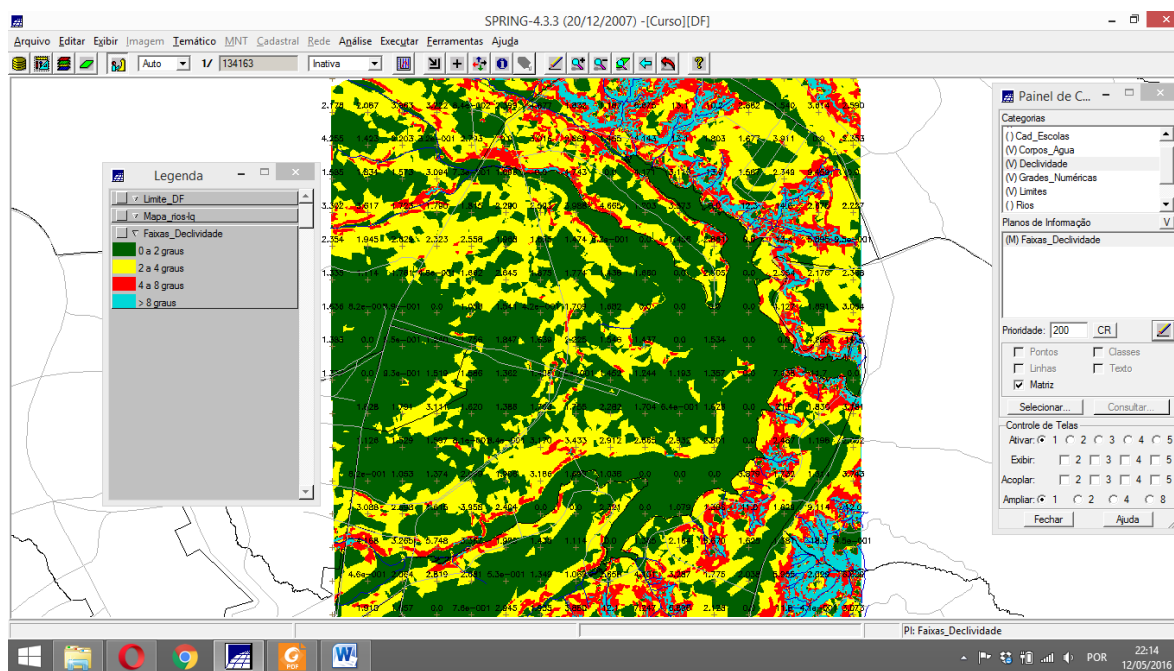
Fatiamento



Inserir fatias

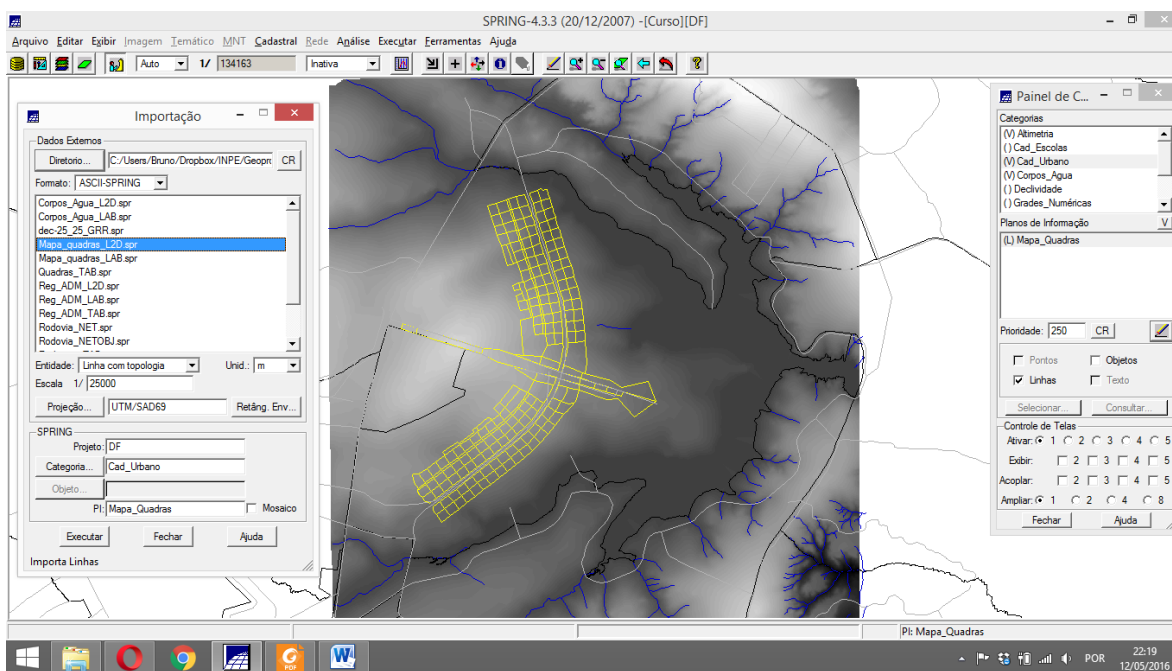


Resultado

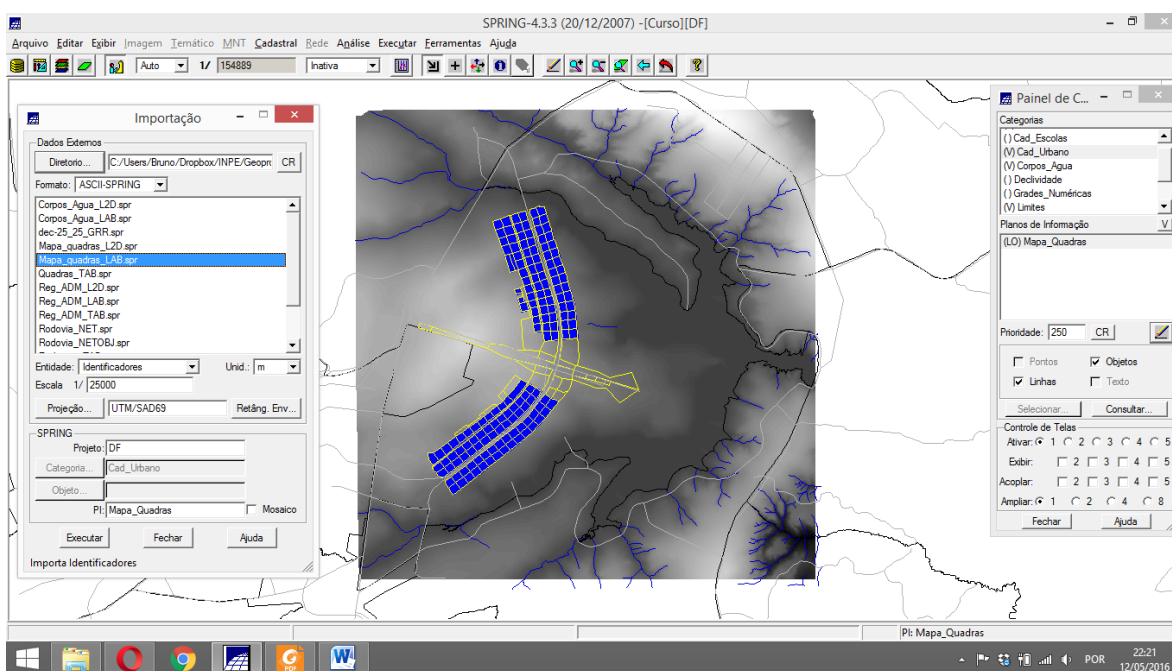


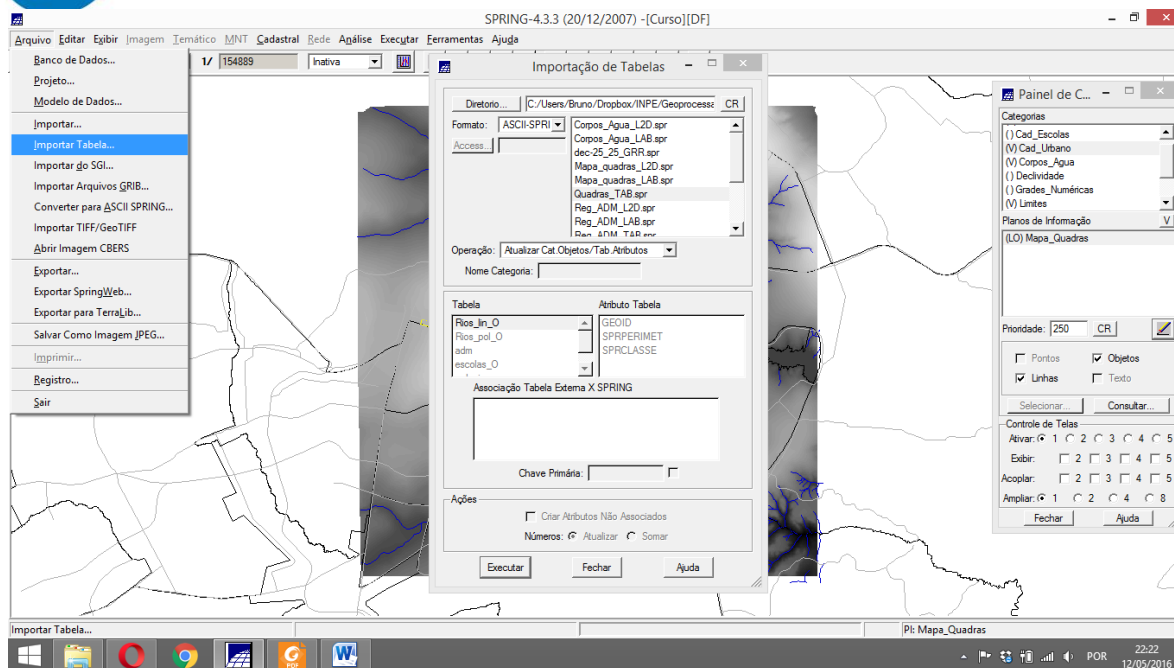


Exercício 12 - Criar Mapa Quadras de Brasília

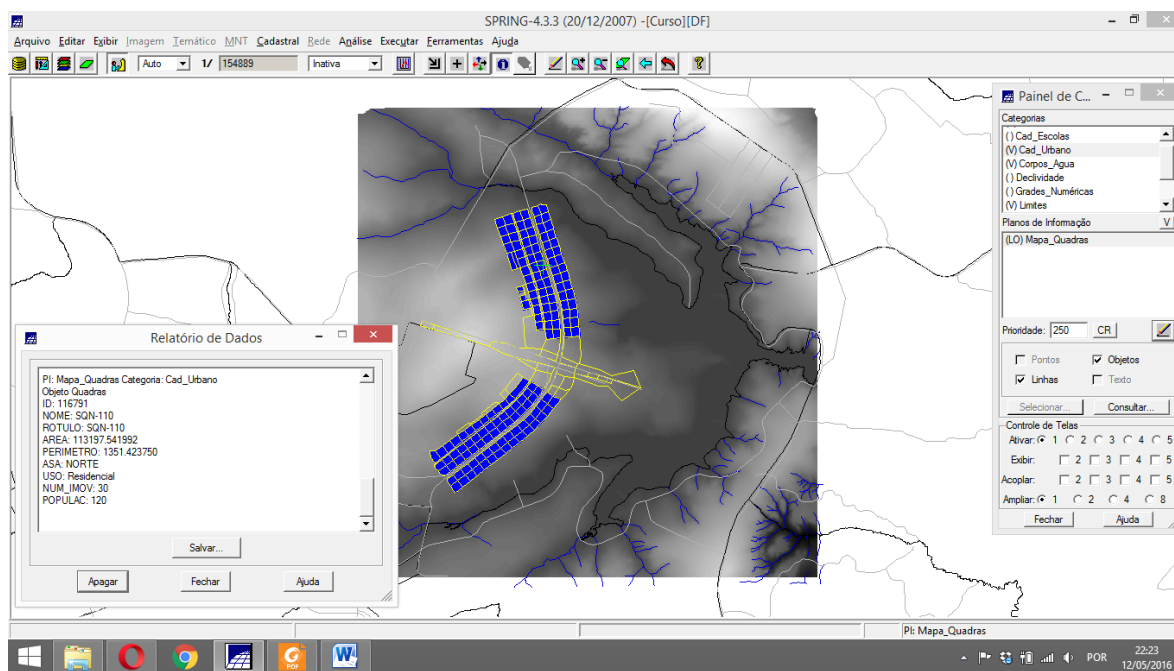


Importando identificadores



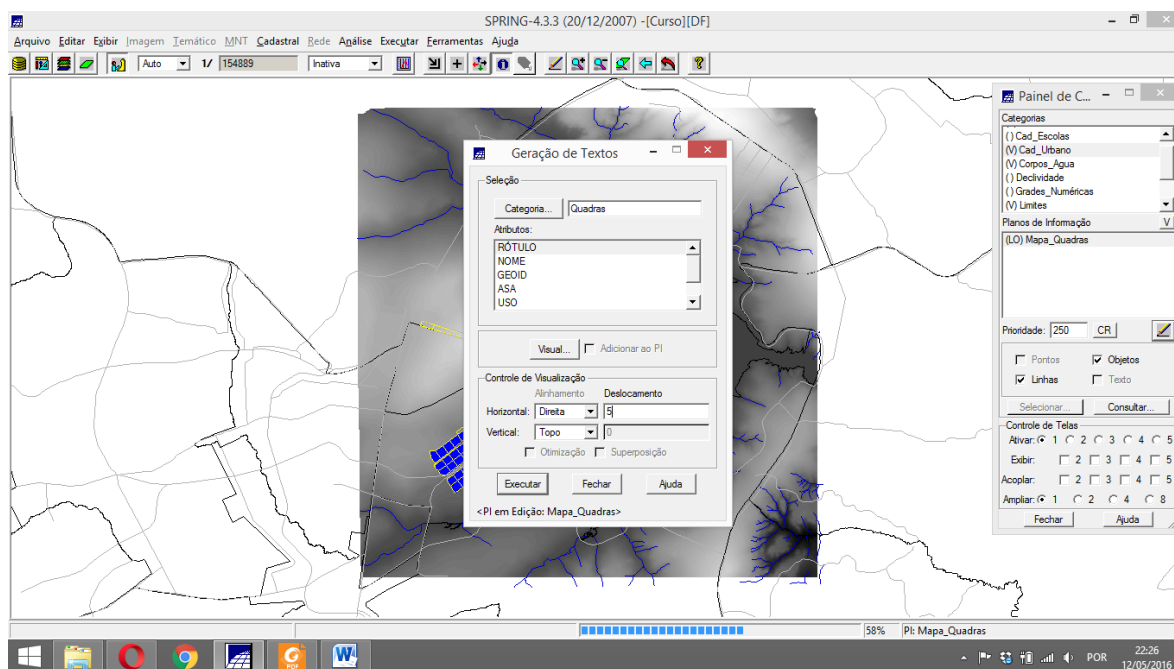
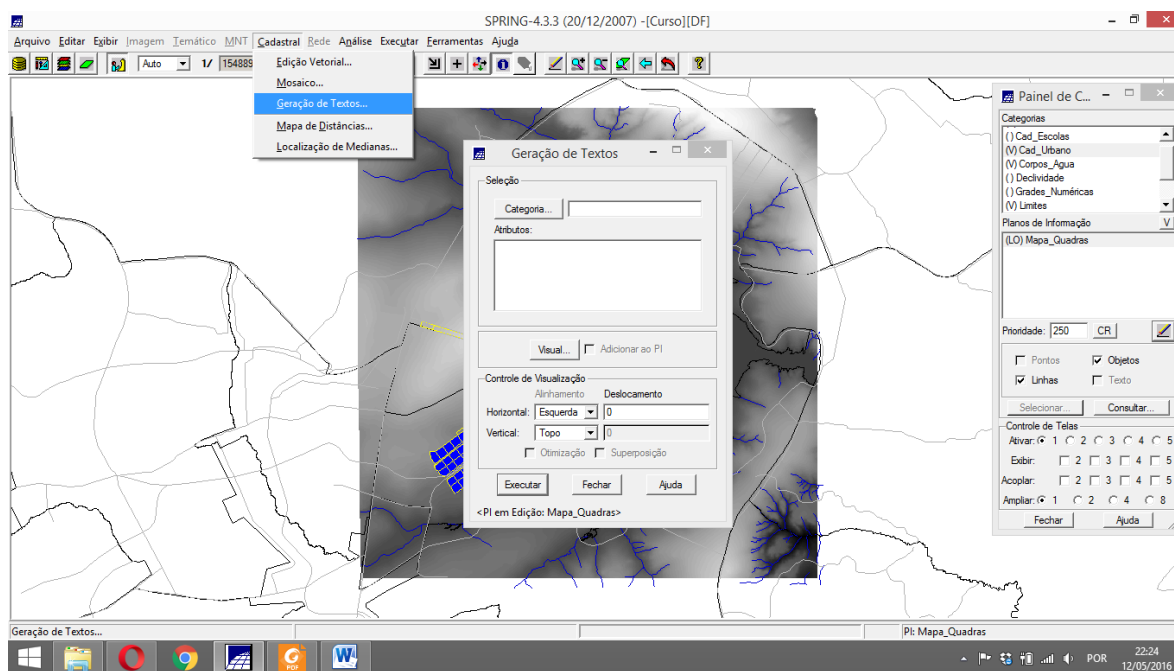


Buscando informação da quadra



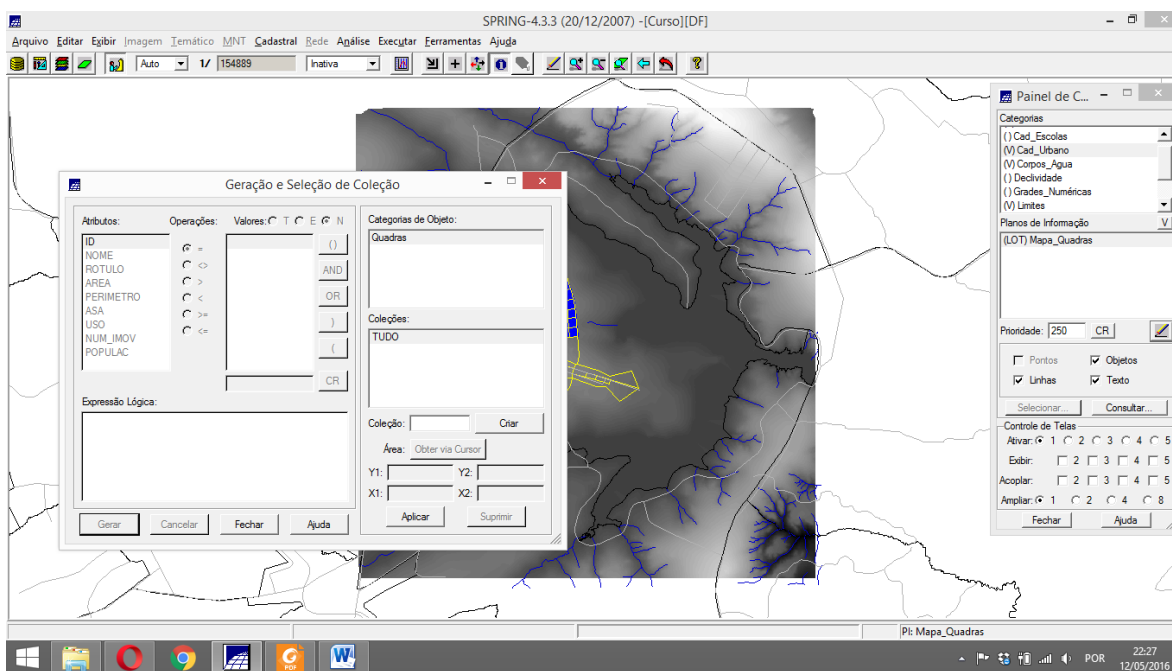


Passo 4 - Geração de toponímia dentro de cada polígono

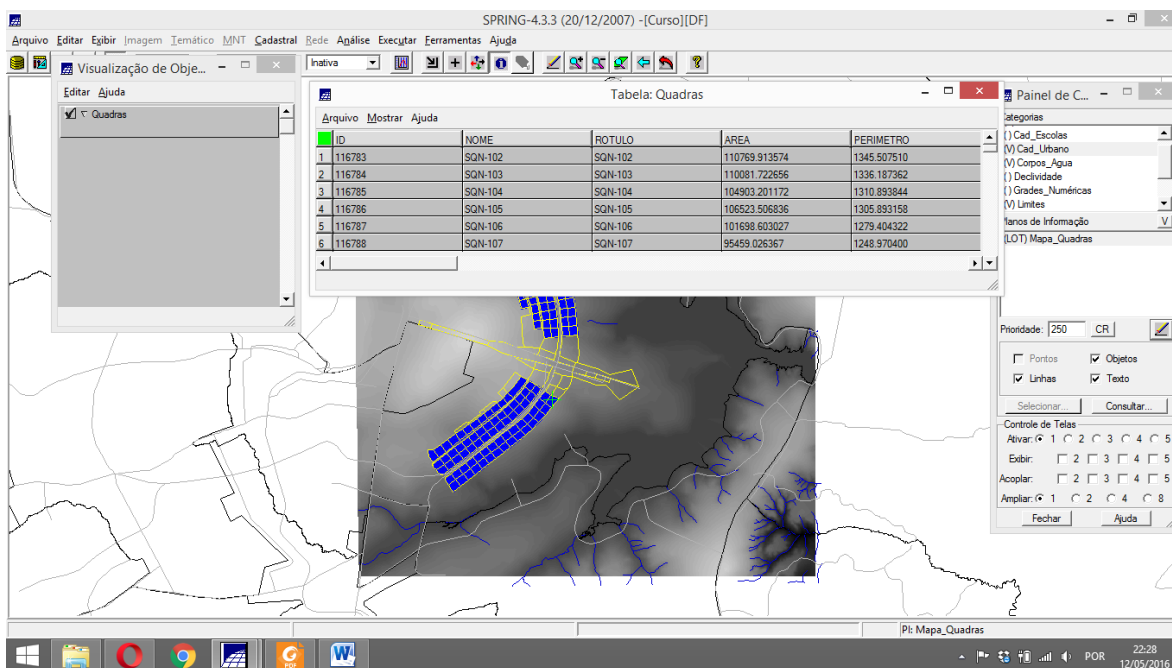




Passo 5 - Carregar módulo de consulta e verificar tabela

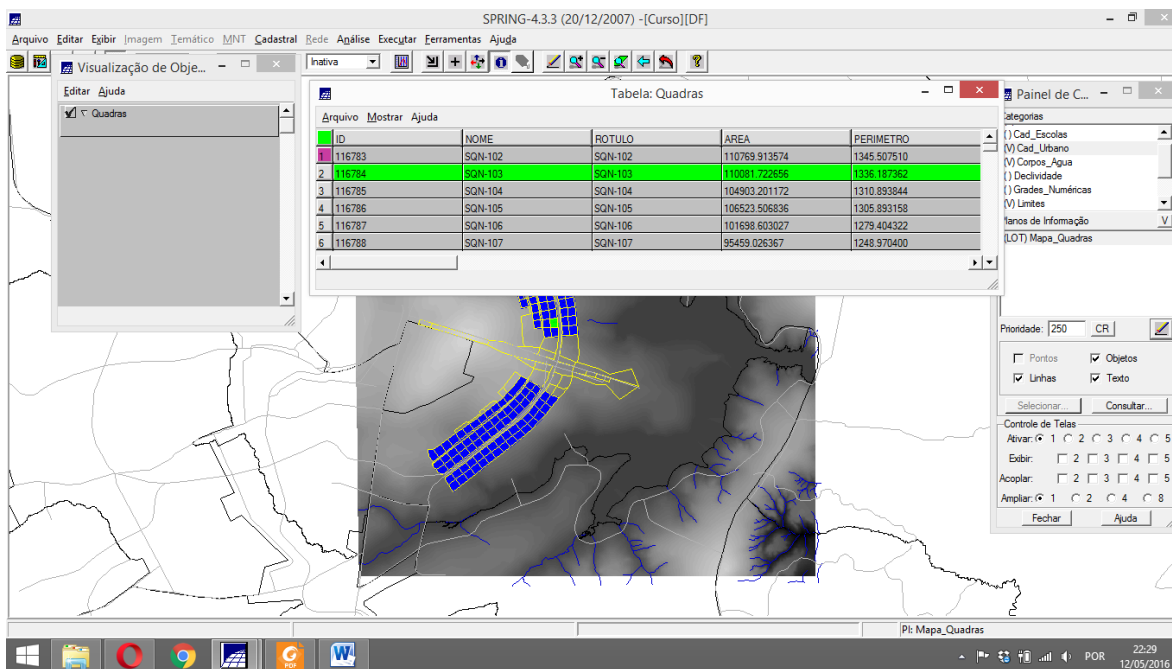


Após aplicar

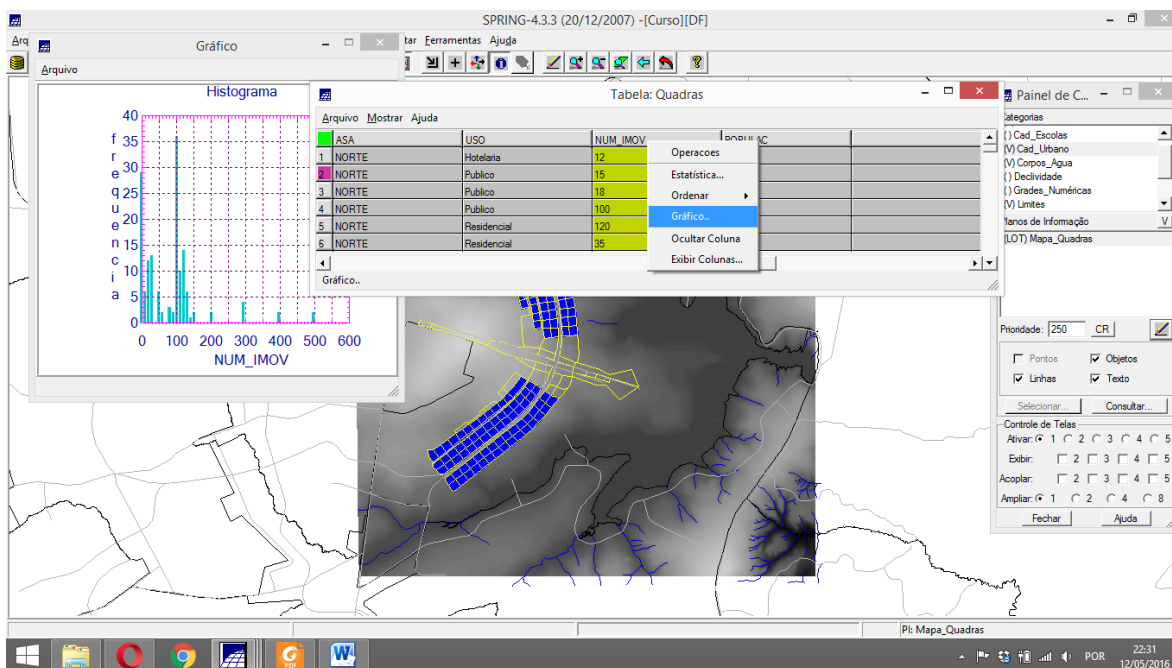


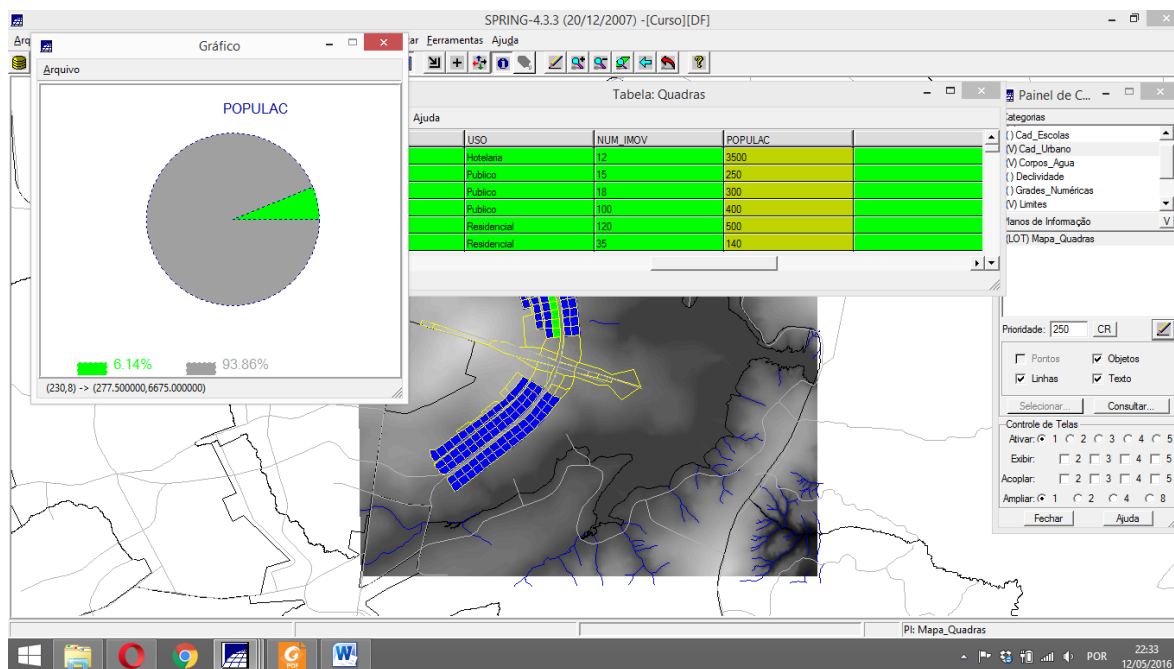
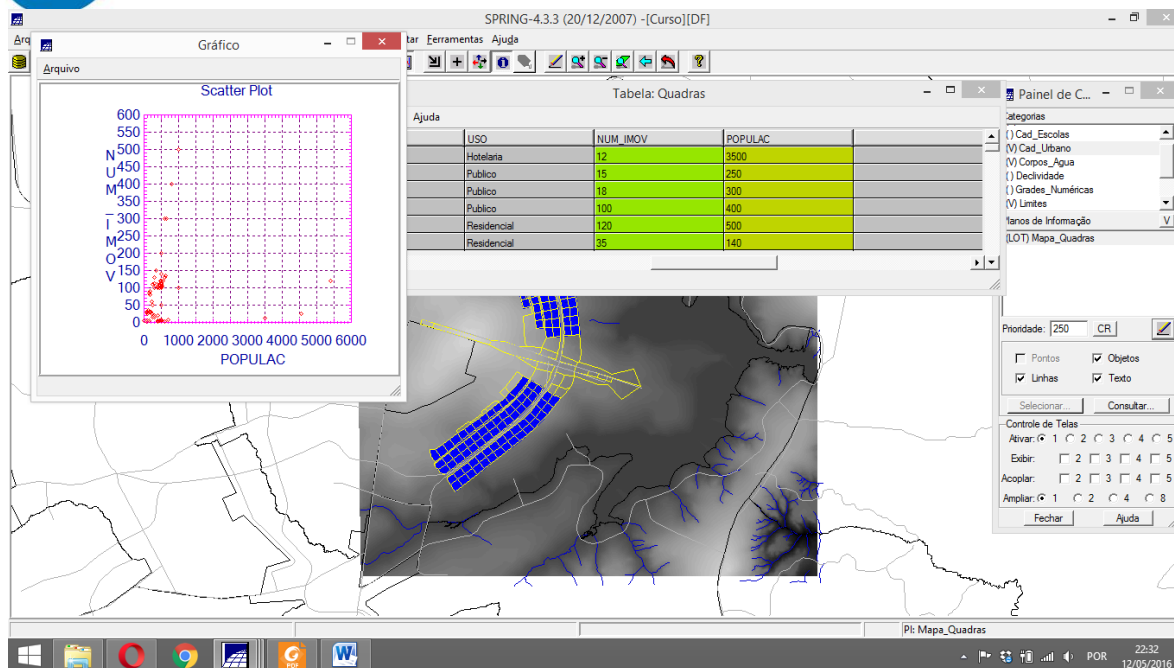


Selecionando



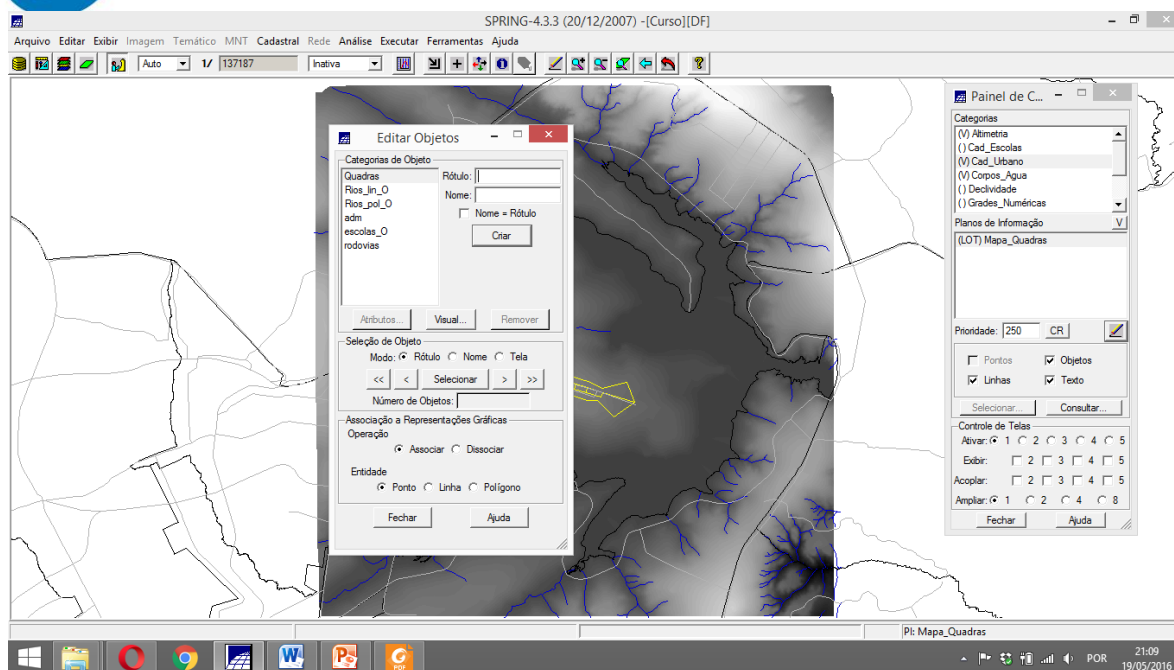
Gráfico



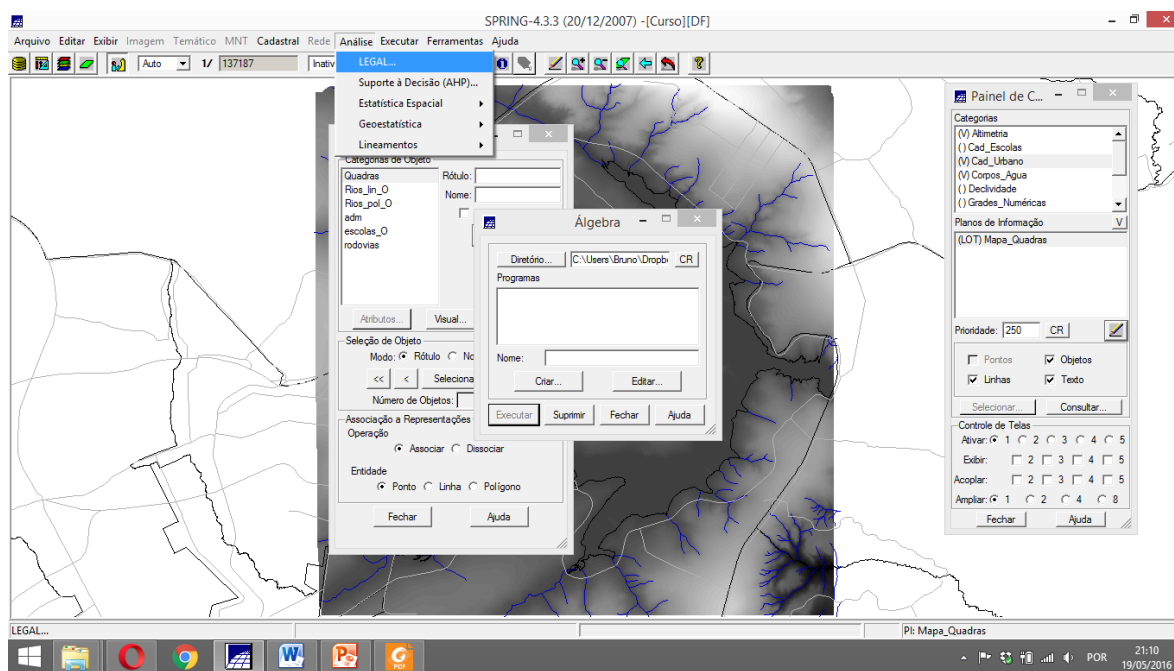


Exercício 13 – Atualização de Atributos utilizando o LEGAL

Passo 1 - Criar um novo atributo para o objeto Quadrados



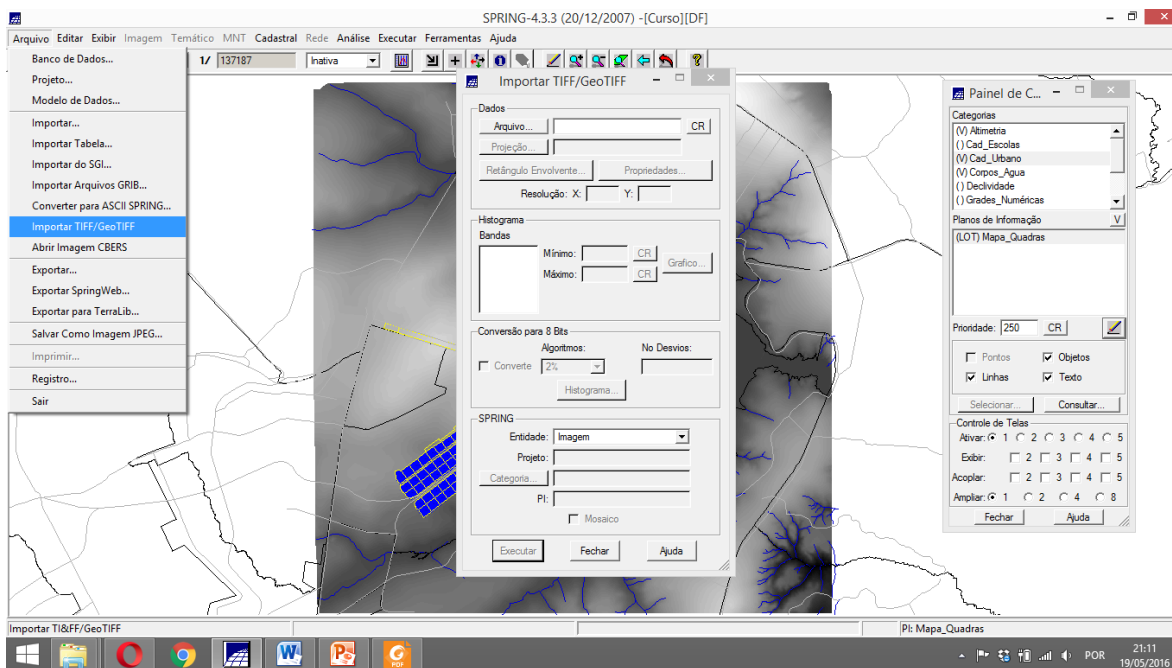
Atualizando por meio do LEGAL.



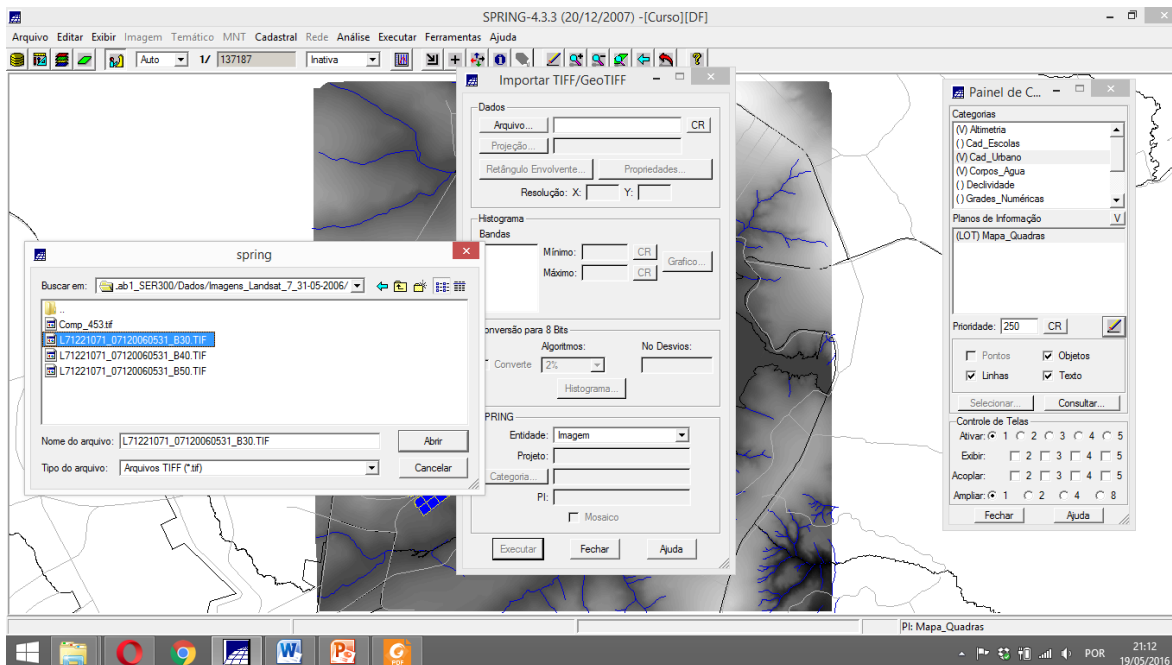


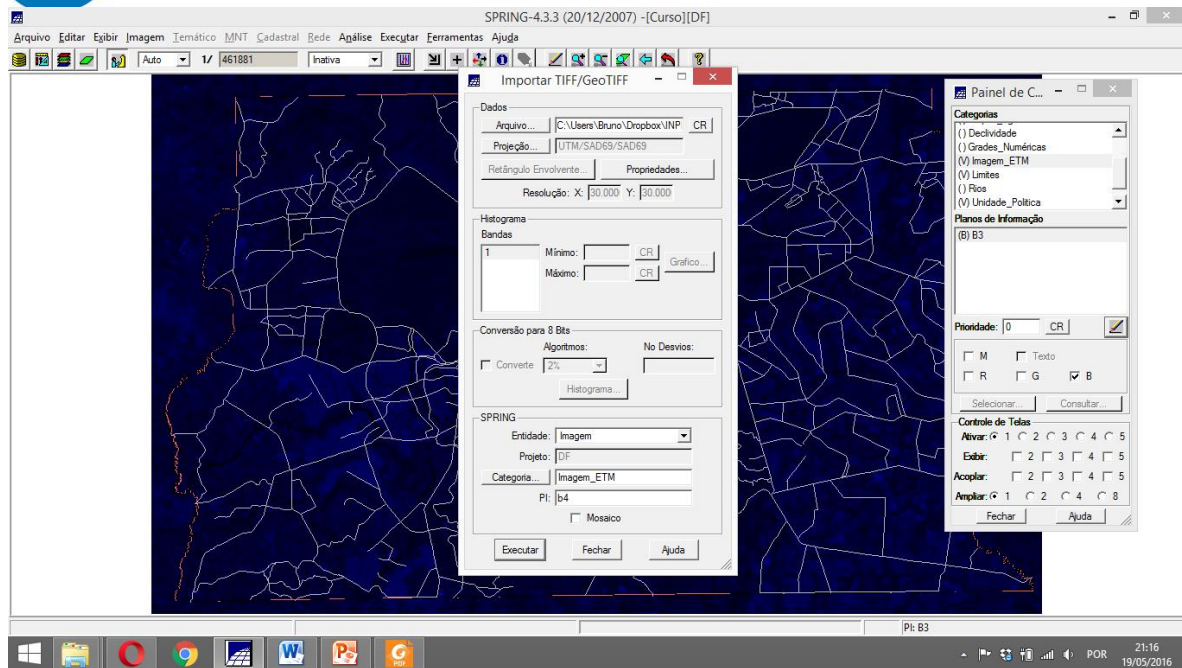
Exercício 14 – Importação de Imagem Landsat e Quick-Bird

Importando imagens Landsat

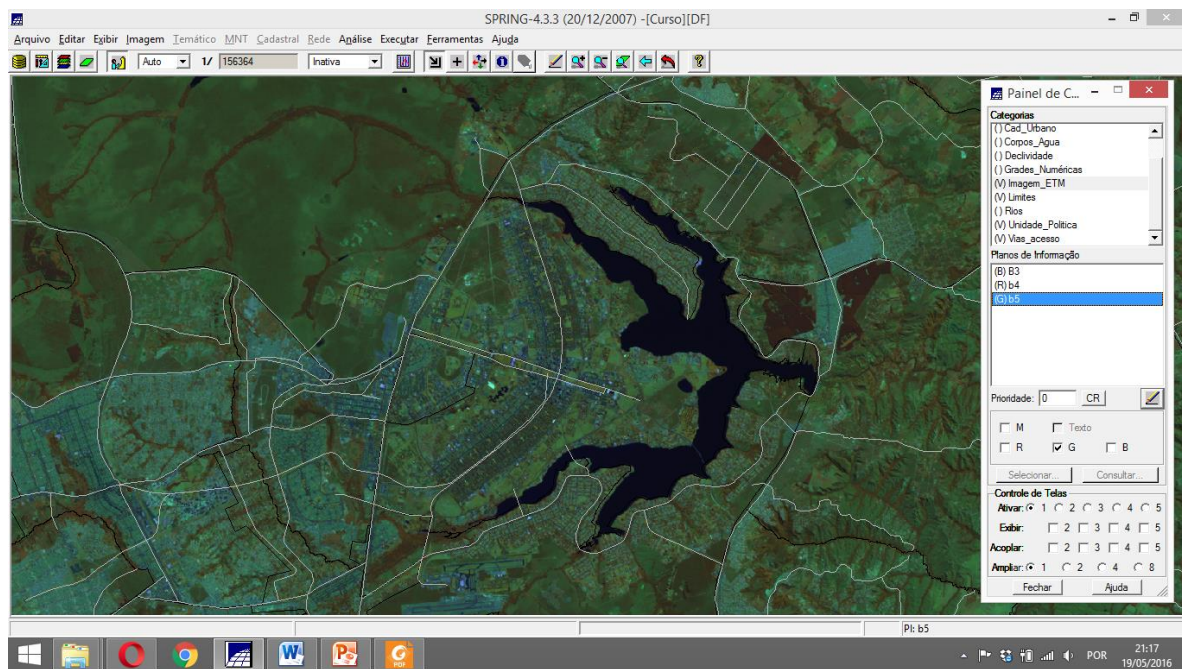


Achando o arquivo a ser importado





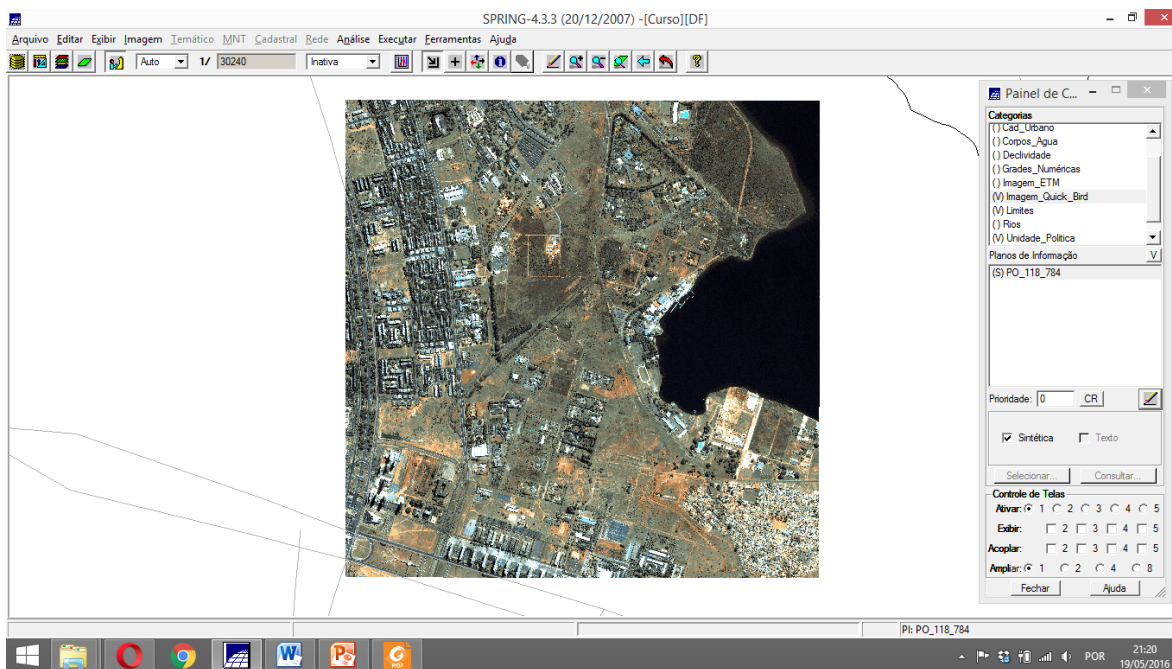
O resultado deverá ser esse





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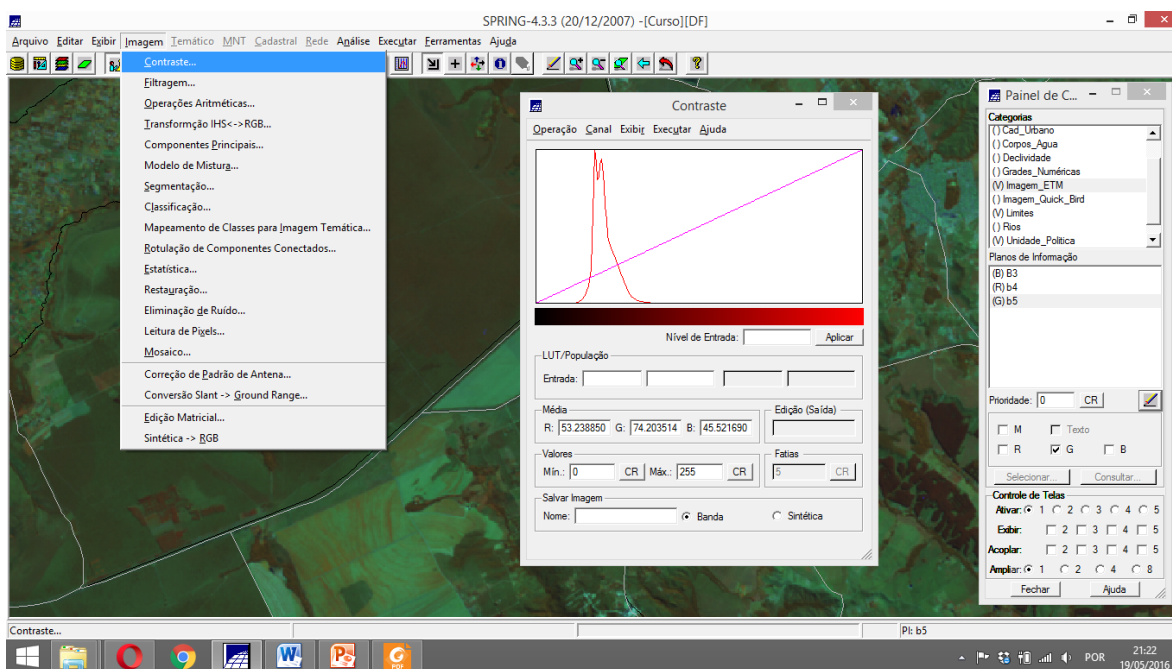
Imagem quickbird

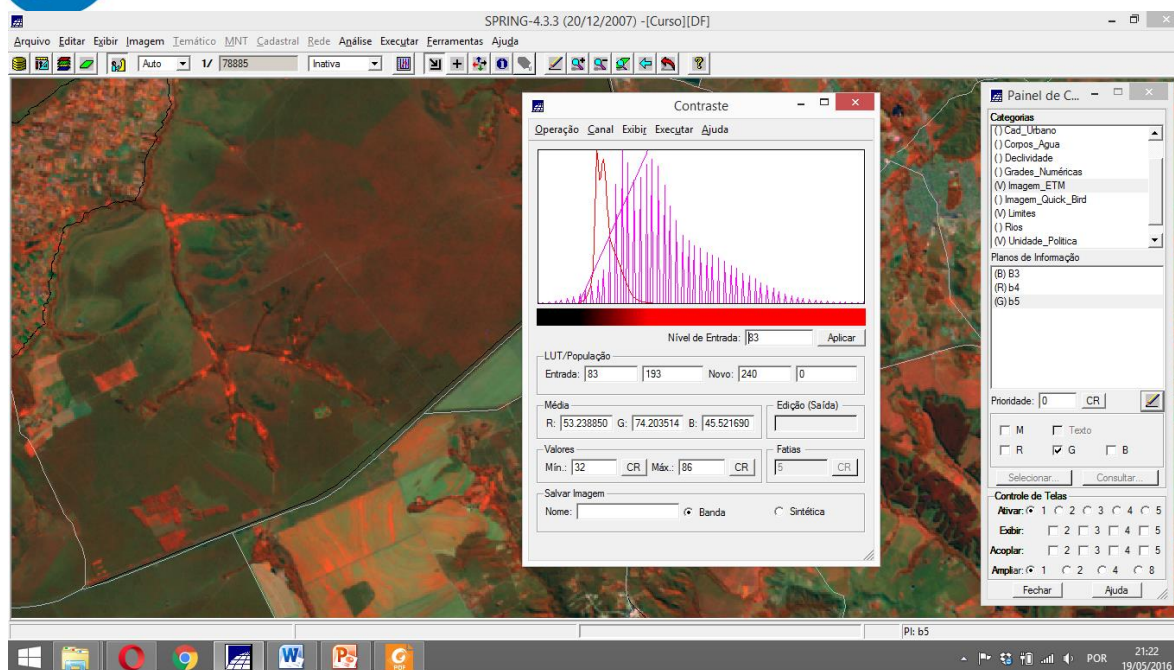


Exercício 15 - Classificação supervisionada por pixel

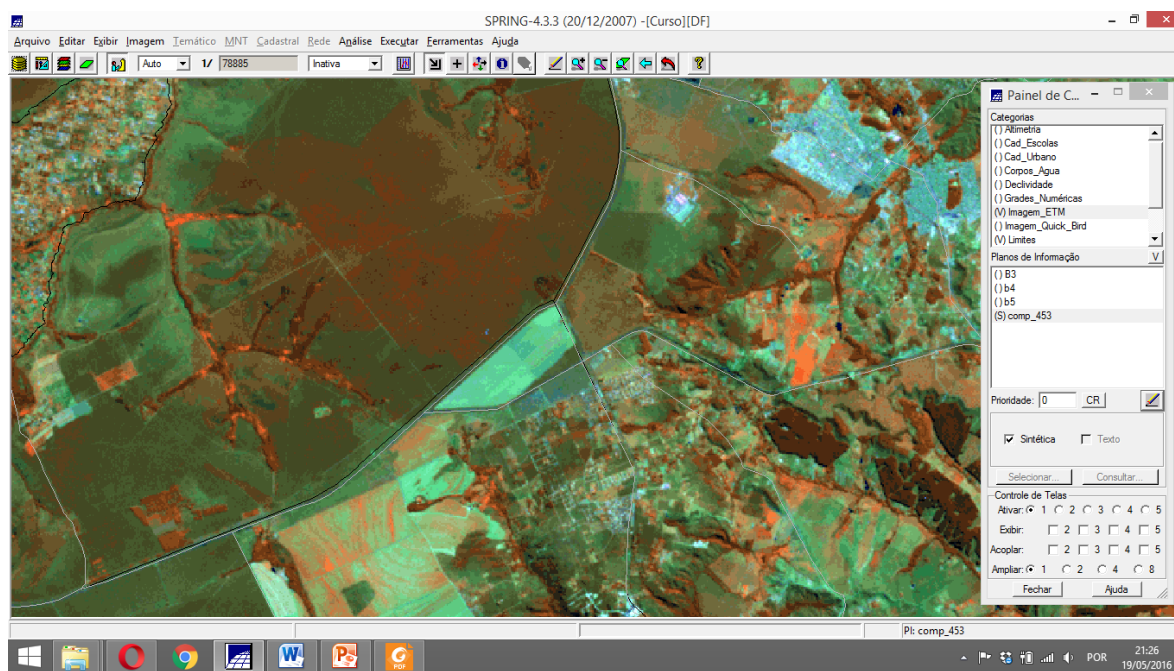
Neste exercício será criado o mapa de Uso da Terra a partir da classificação das bandas do Landsat para toda área do projeto DF.

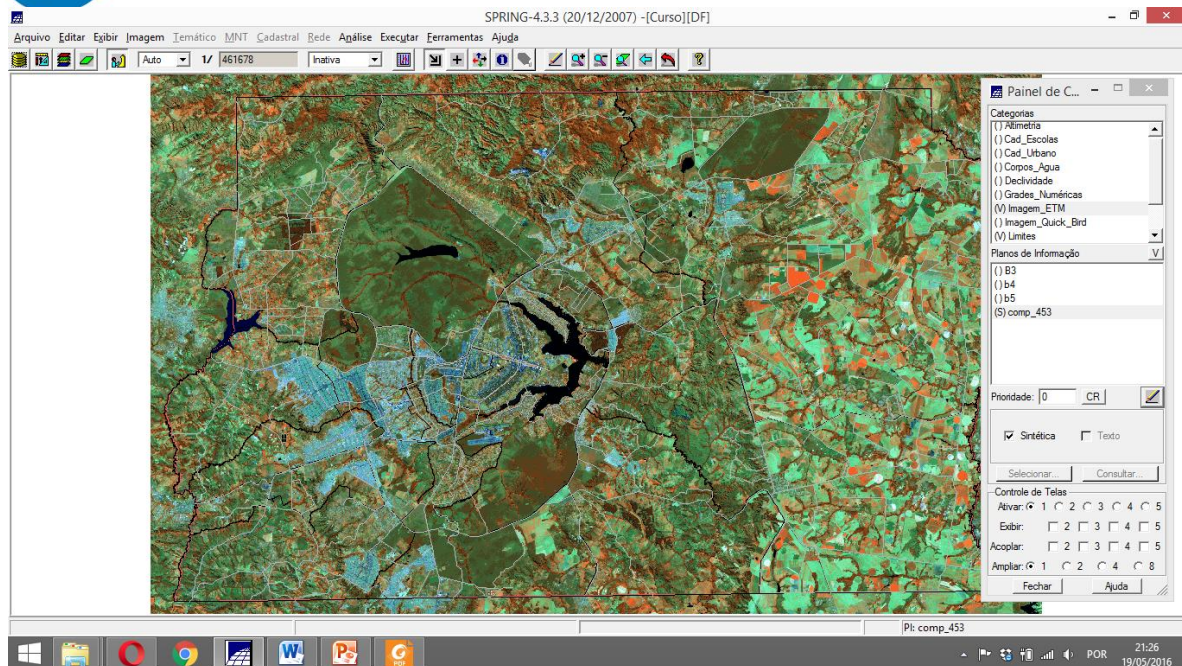
Contraste





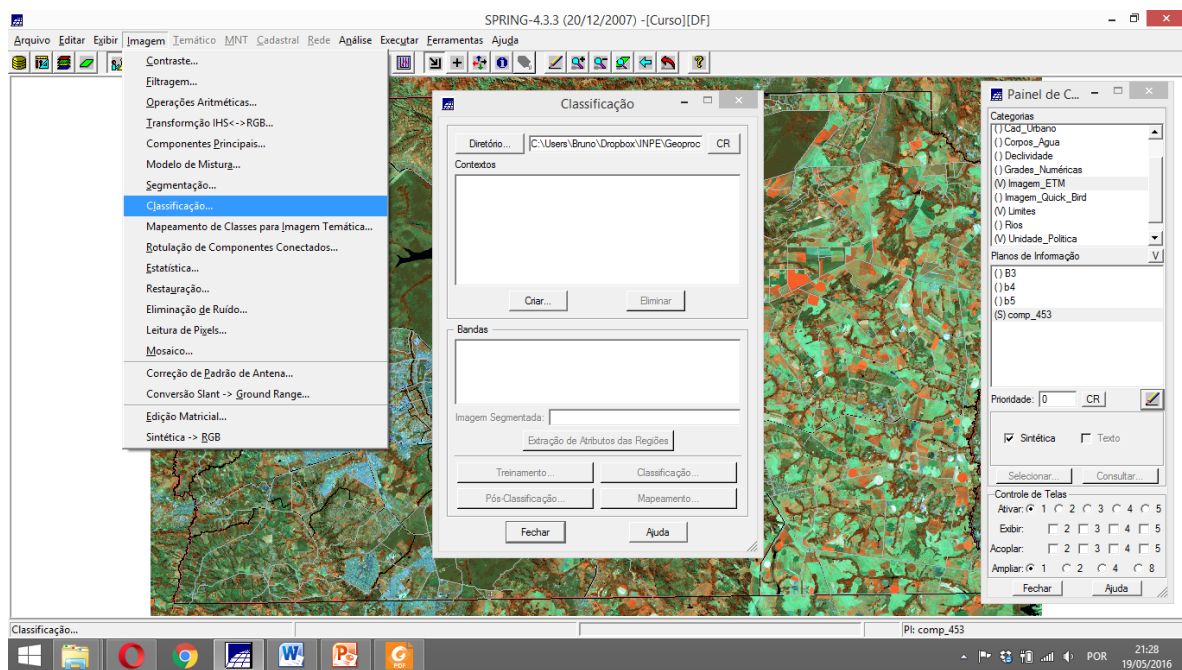
Salvar sintética

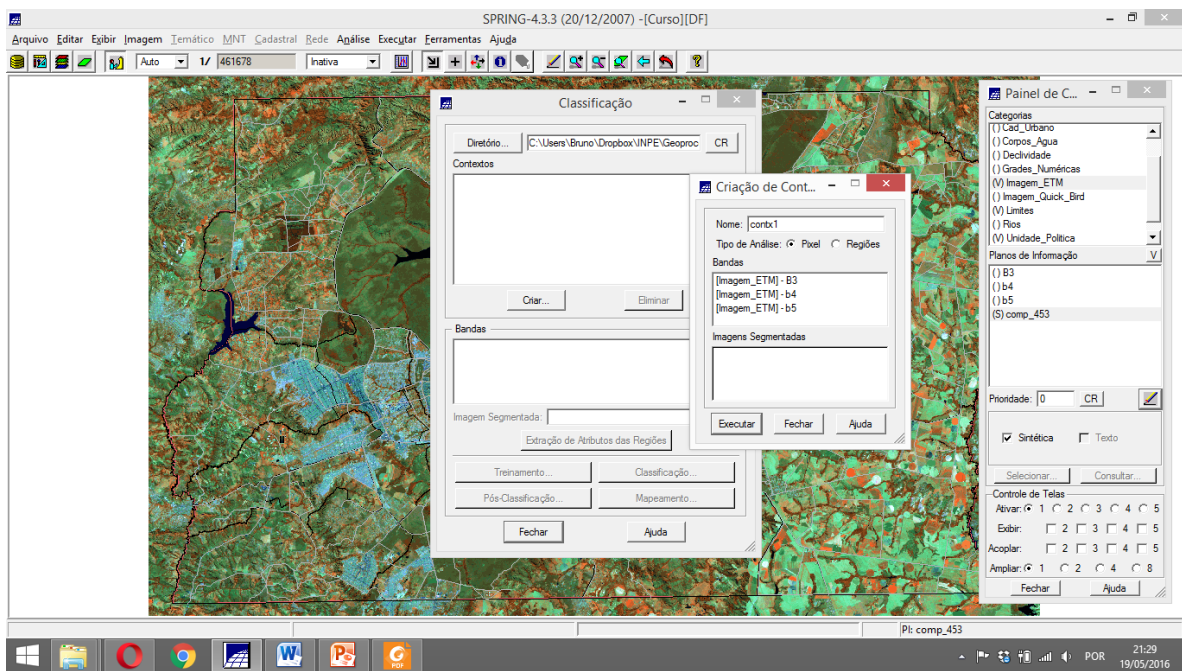




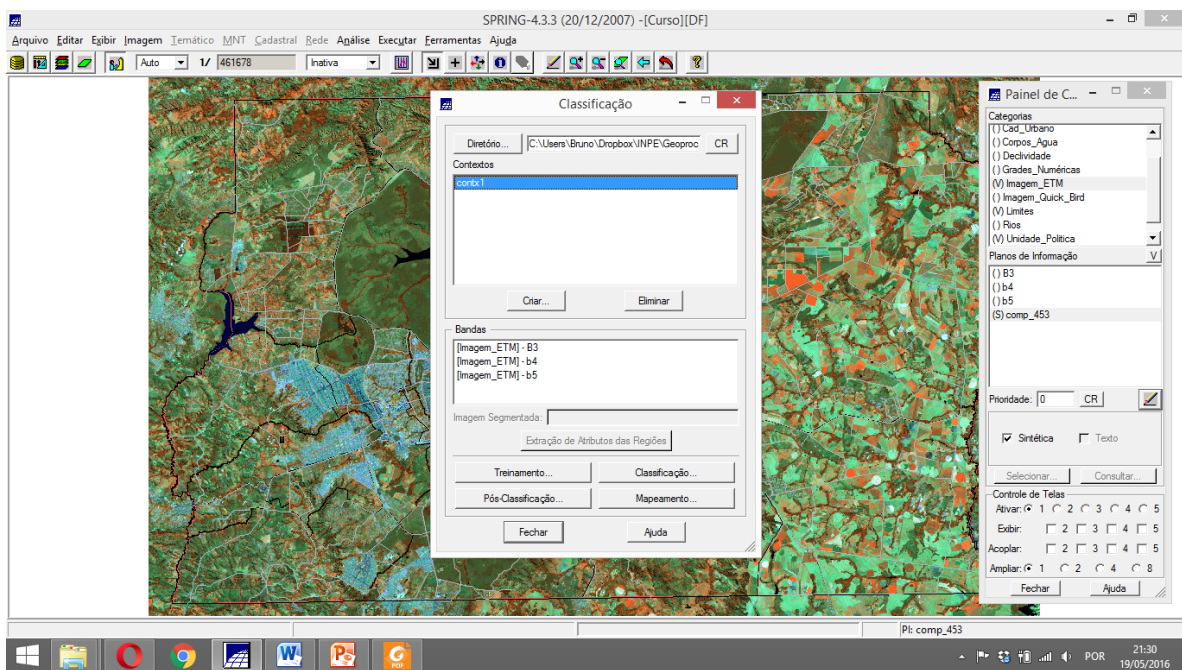
Passo 2 - Criação de um arquivo de contexto

Classificação



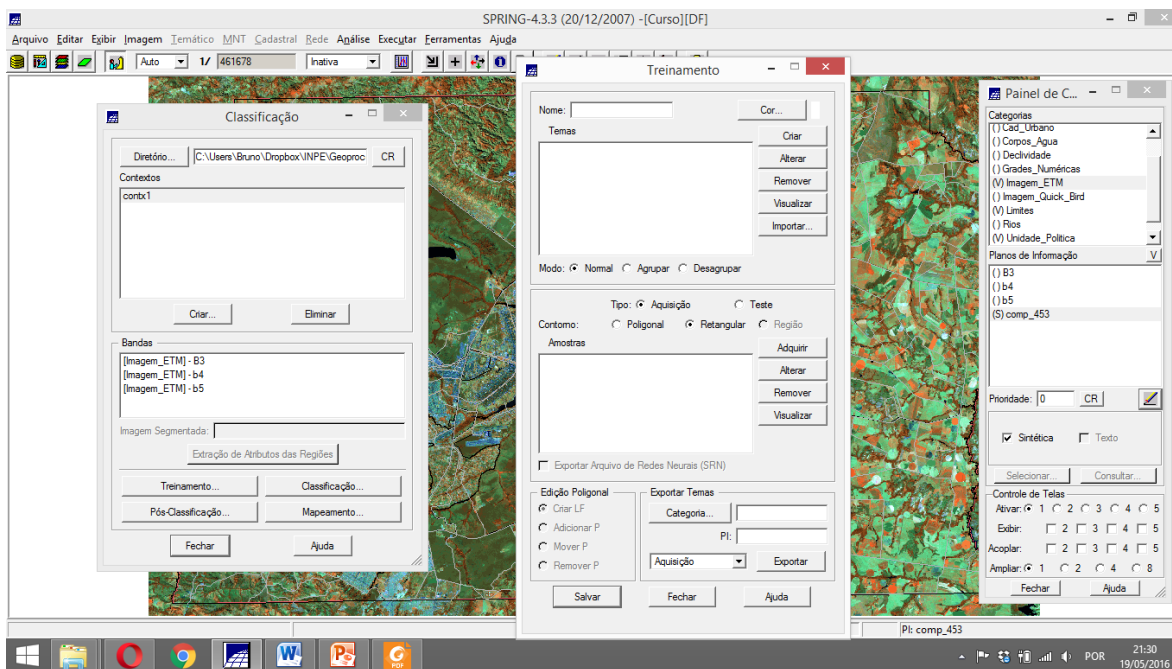


Resultado

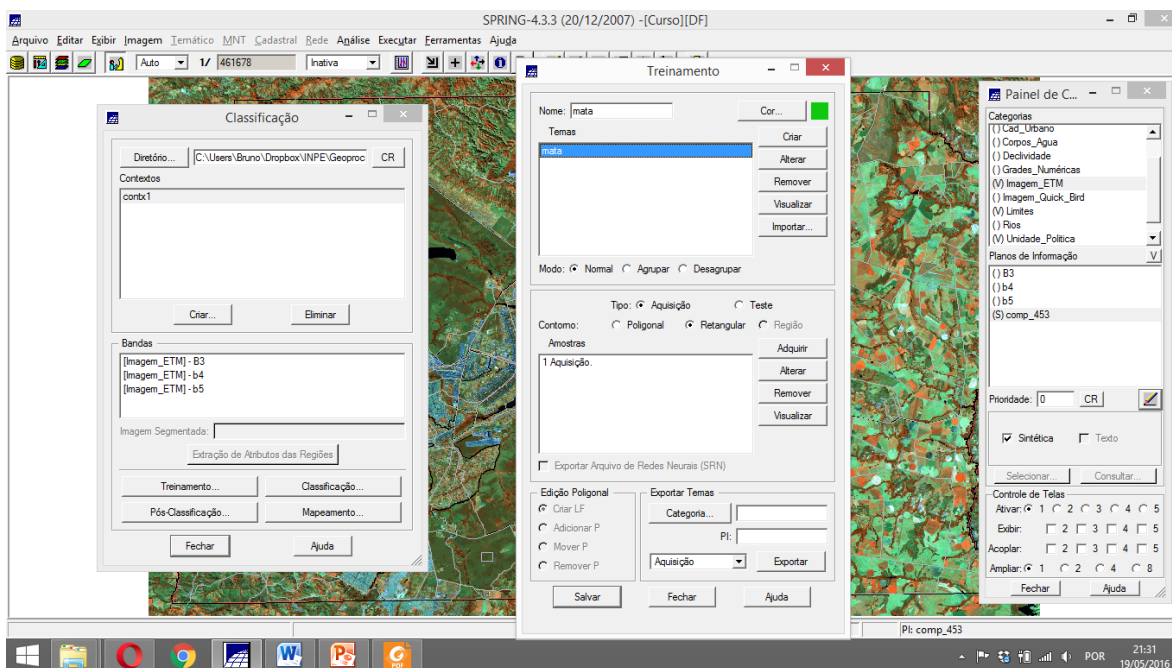




Treinamento

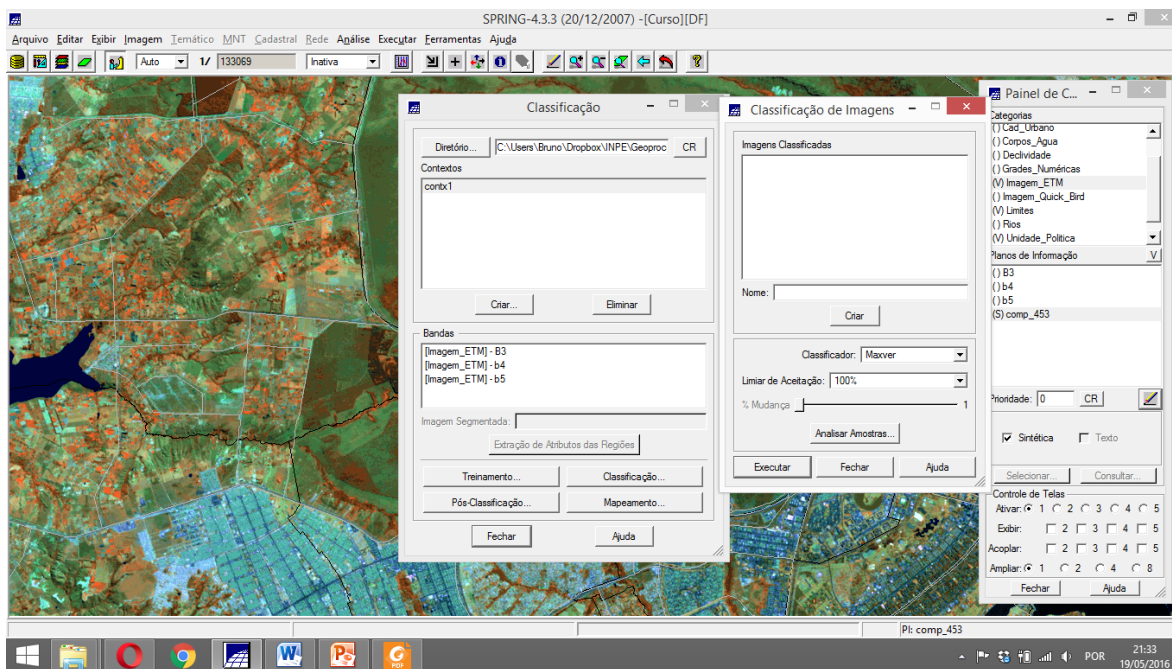


Adquirir

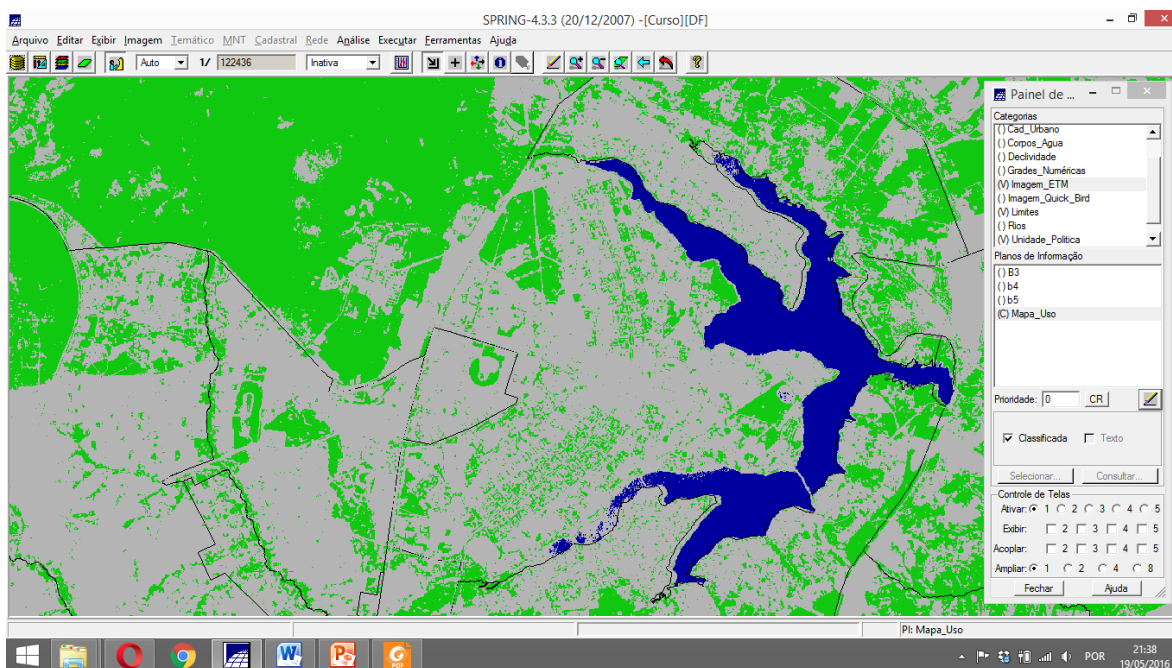




Classificação



Resultado classificação





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