



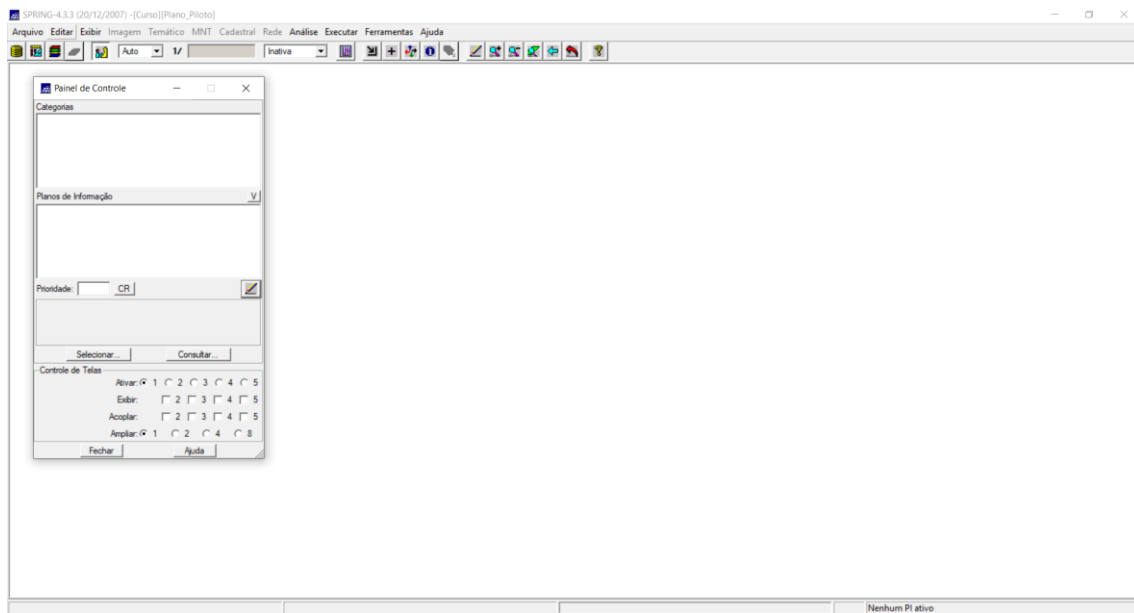
MINISTÉRIO DA CIÊNCIA, TECNOLOGIA, INOVAÇÕES E COMUNICAÇÕES
INSTITUTO NACIONAL DE PESQUISAS ESPACIAIS

Pós-Graduação em Sensoriamento Remoto
SER-300 – Introdução ao Geoprocessamento

Relatório Laboratório 3:
Modelagem Numérica de Terreno

Raíssa Caroline dos Santos Teixeira

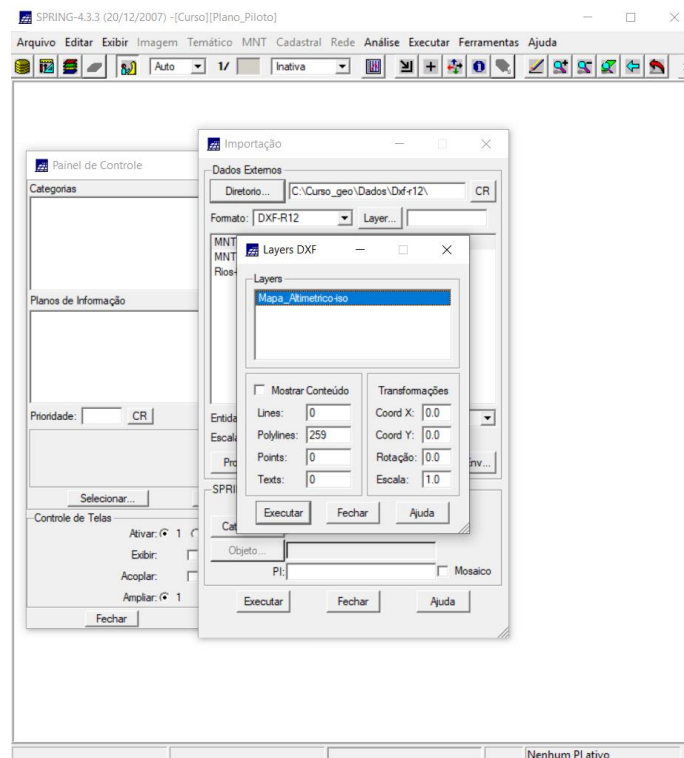
Exercício 1 - Definindo o Plano Piloto para o Aplicativo 1

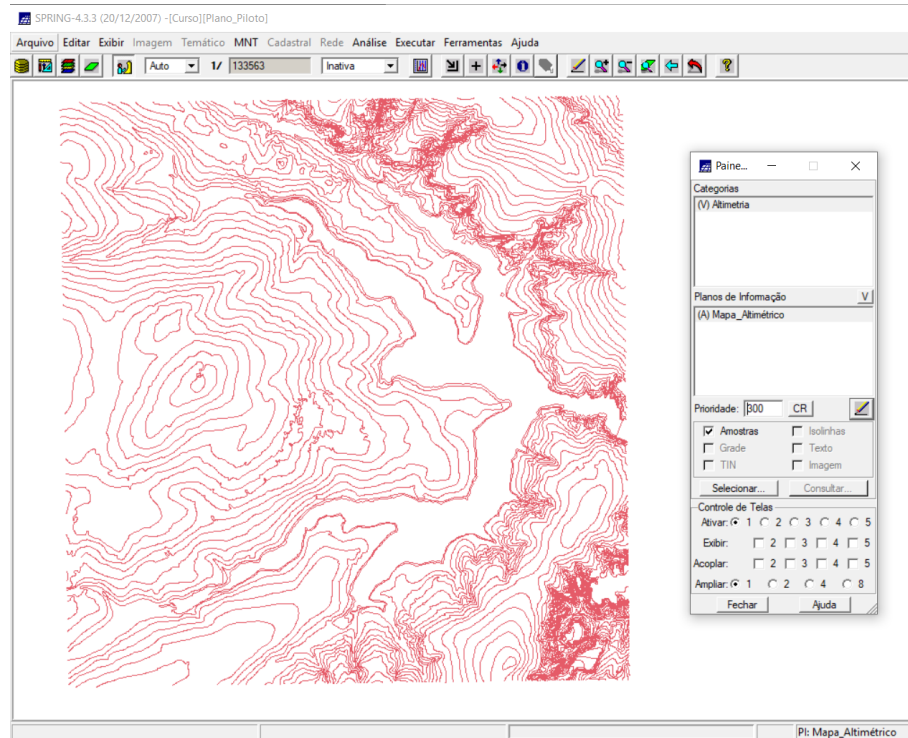


Exercício 2 - Importação amostras de modelo numérico de terreno

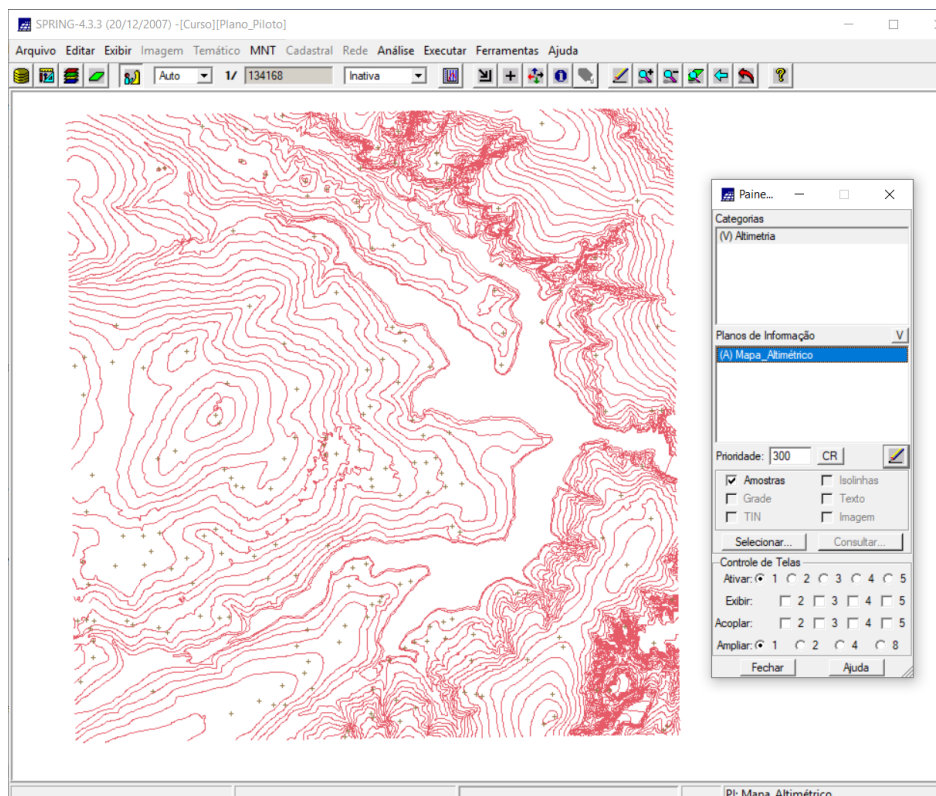
Neste exercício passa-se a trabalhar com dados de altimetria (isolinhas e pontos cotados) que foram digitalizadas em um CAD, e estão no formato DXF-R12.

- **Passo 1 - Importar arquivo DXF com isolinhas num PI numérico**

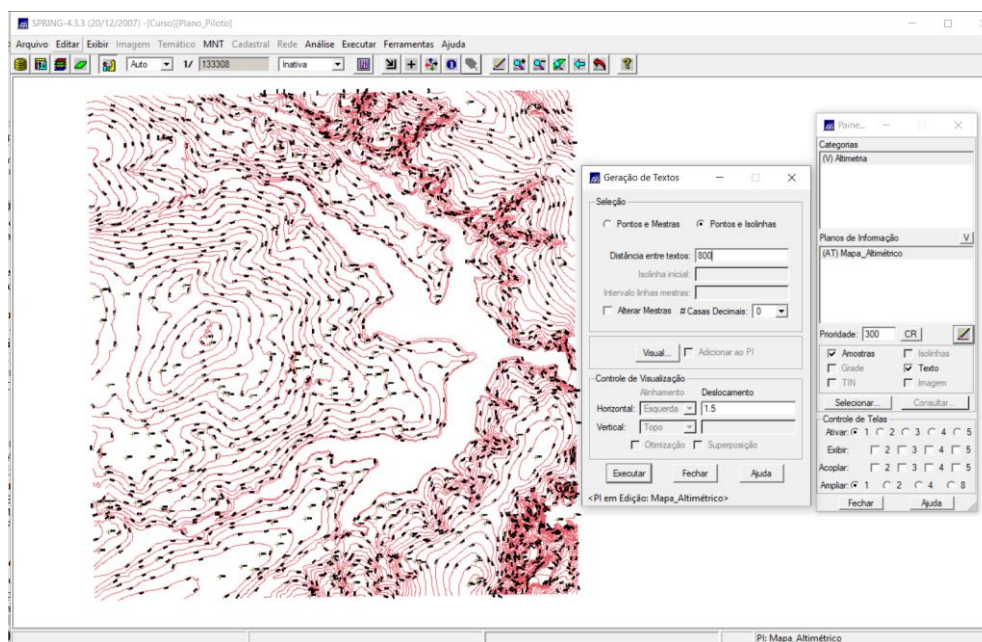




- **Passo 2 - Importar arquivo DXF com pontos cotados no mesmo PI das isolinhas**

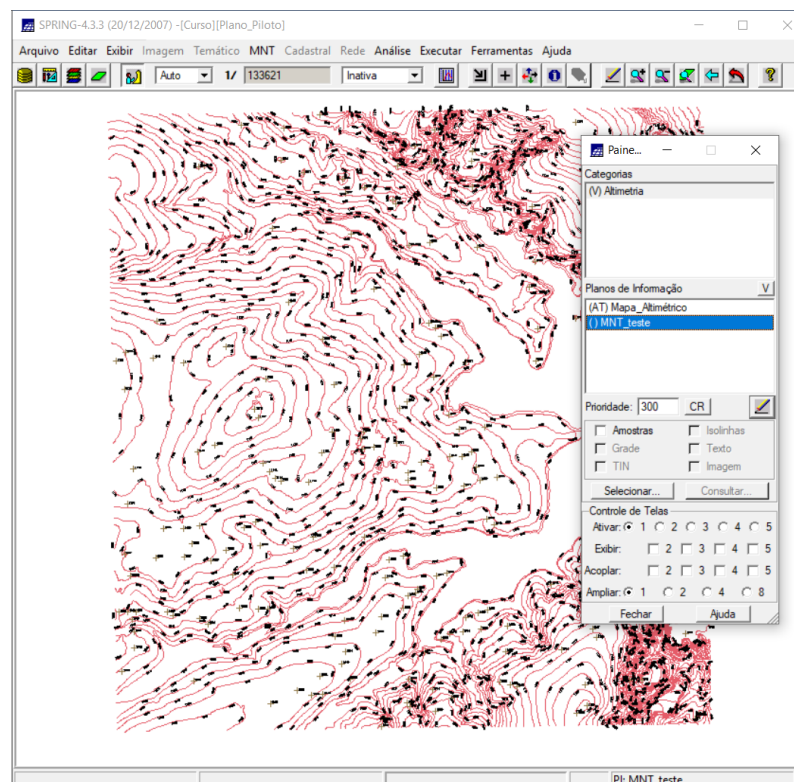


- Passo 3 - Gerar toponímia para amostras



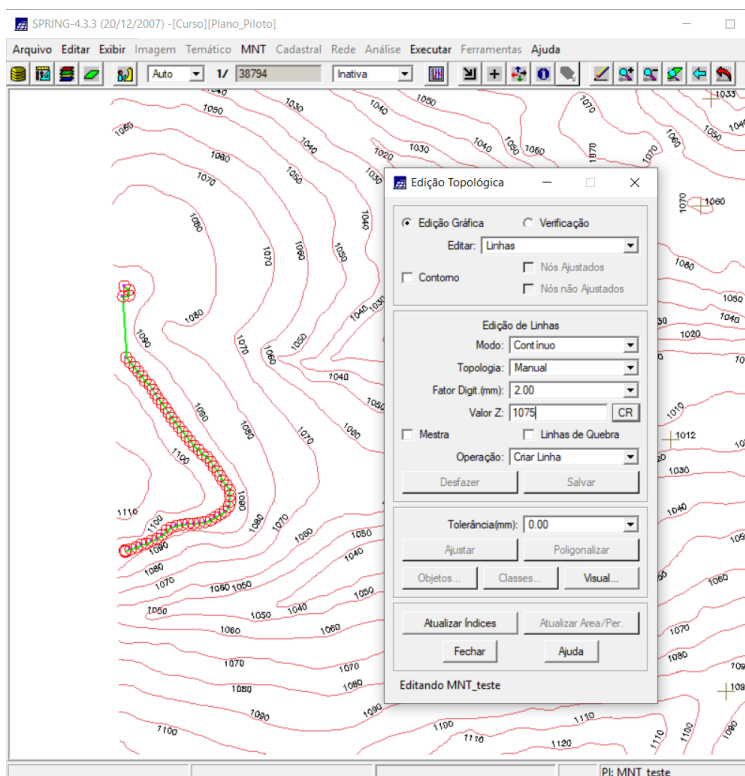
Exercício 3 - Edição de modelo numérico de terreno

- Passo 1 - Criar um novo PI numérico e fazer cópia do mapa altimétrico

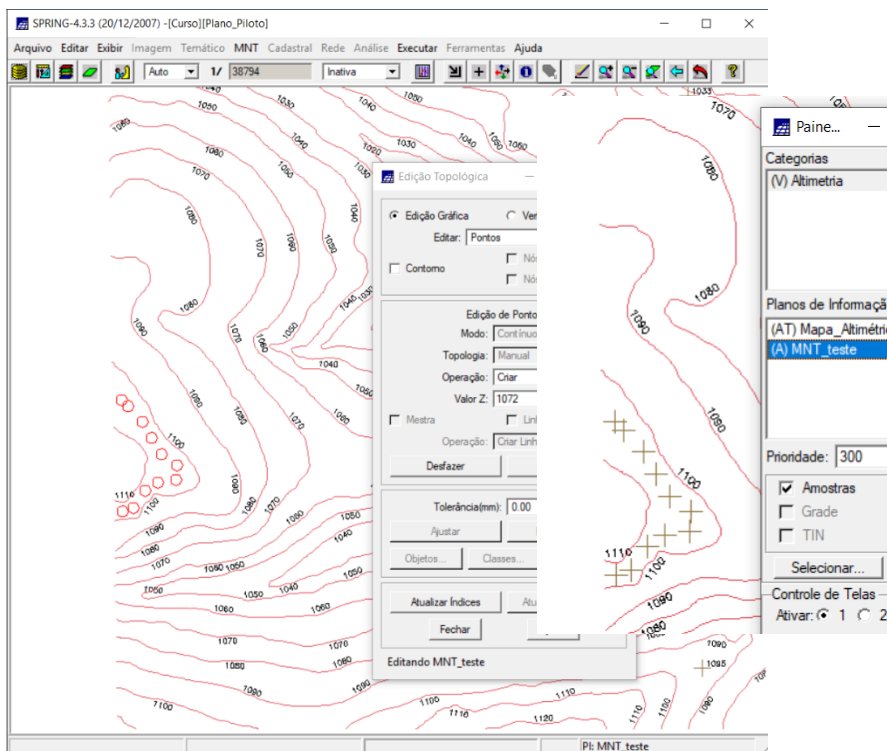


- Passo 2 - Editar isolinhas e pontos cotados num PI numérico

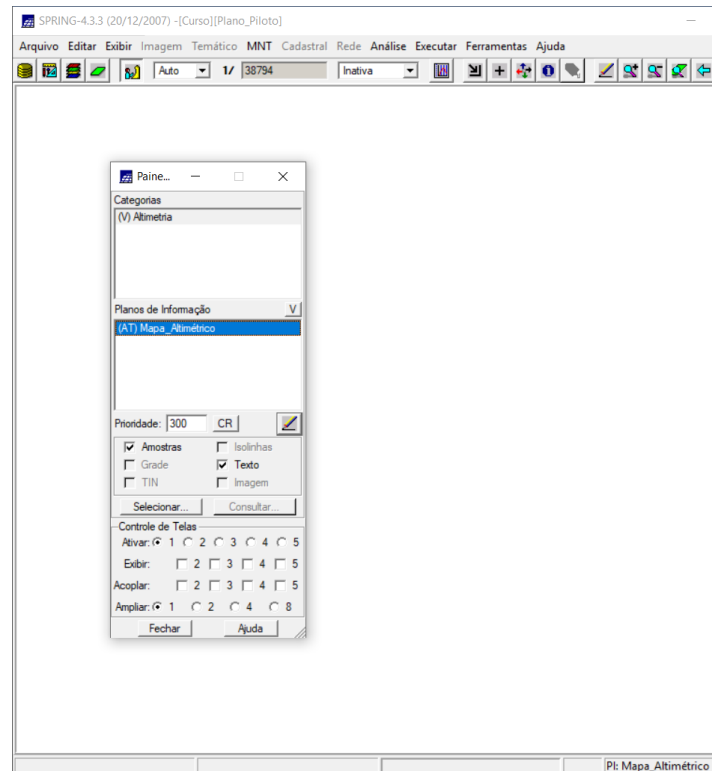
Editando vetores



Editando pontos

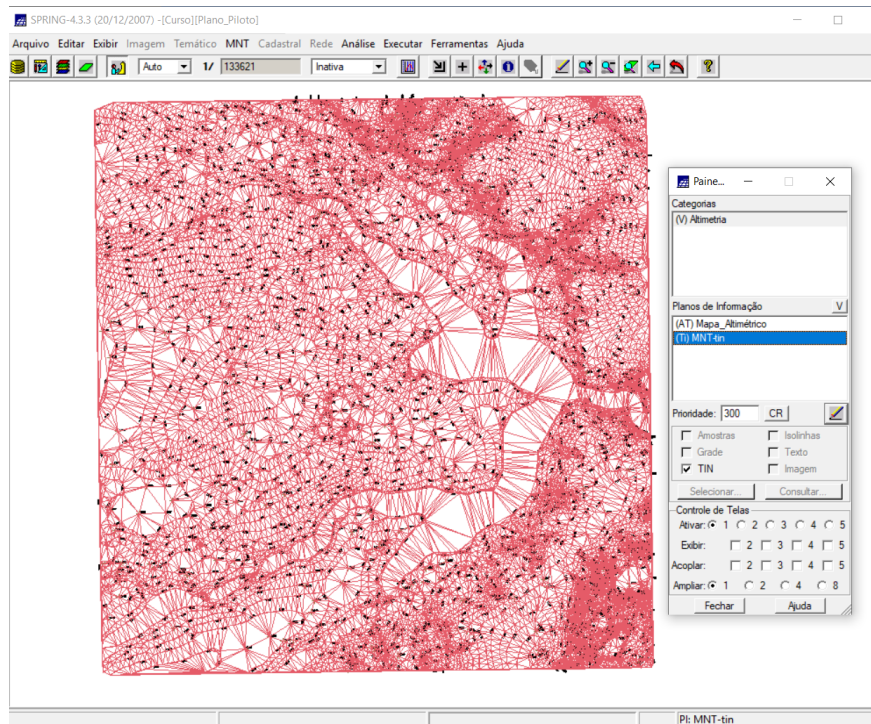


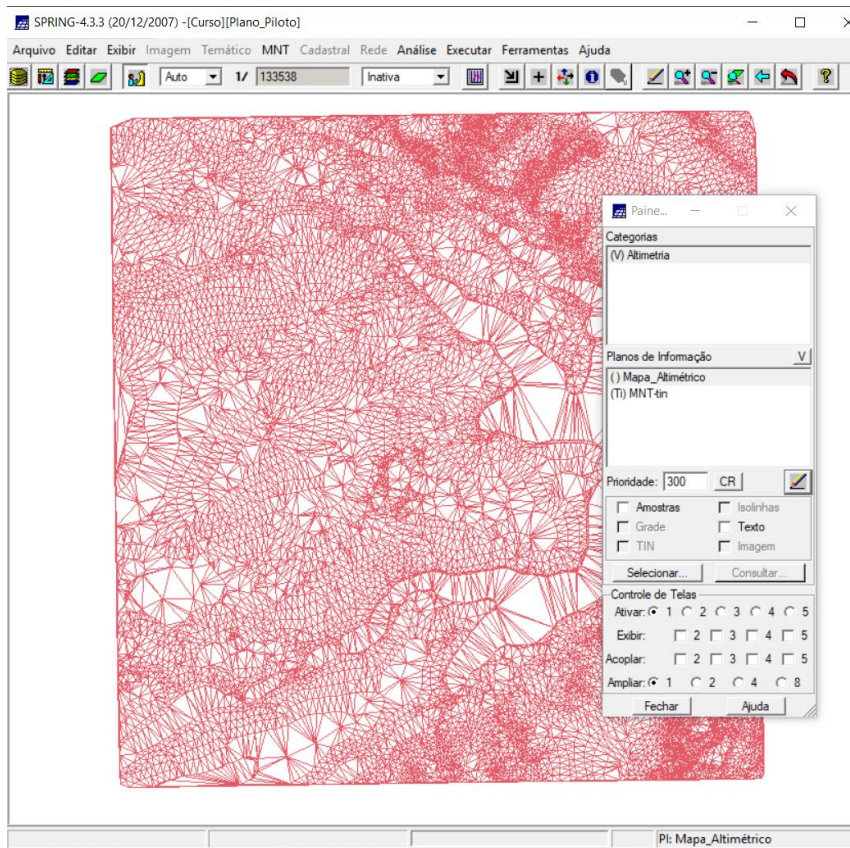
- Passo 3 - Suprimir o PI MNT_Test



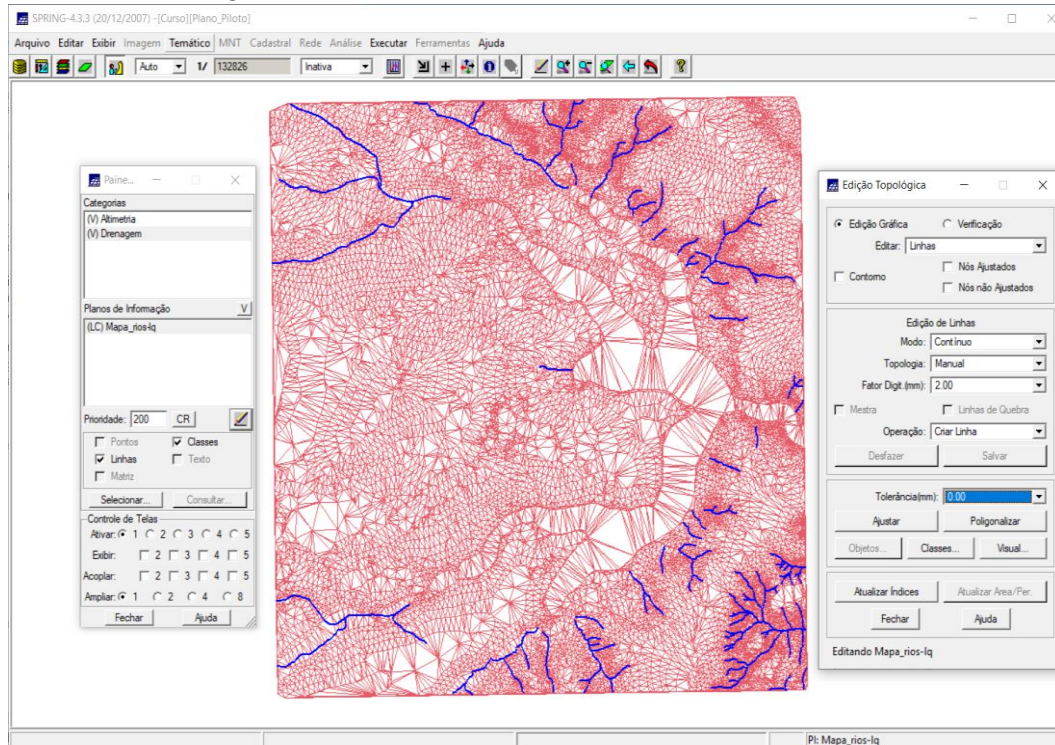
Exercício 4 - Gerar grade triangular com e sem linha de quebra

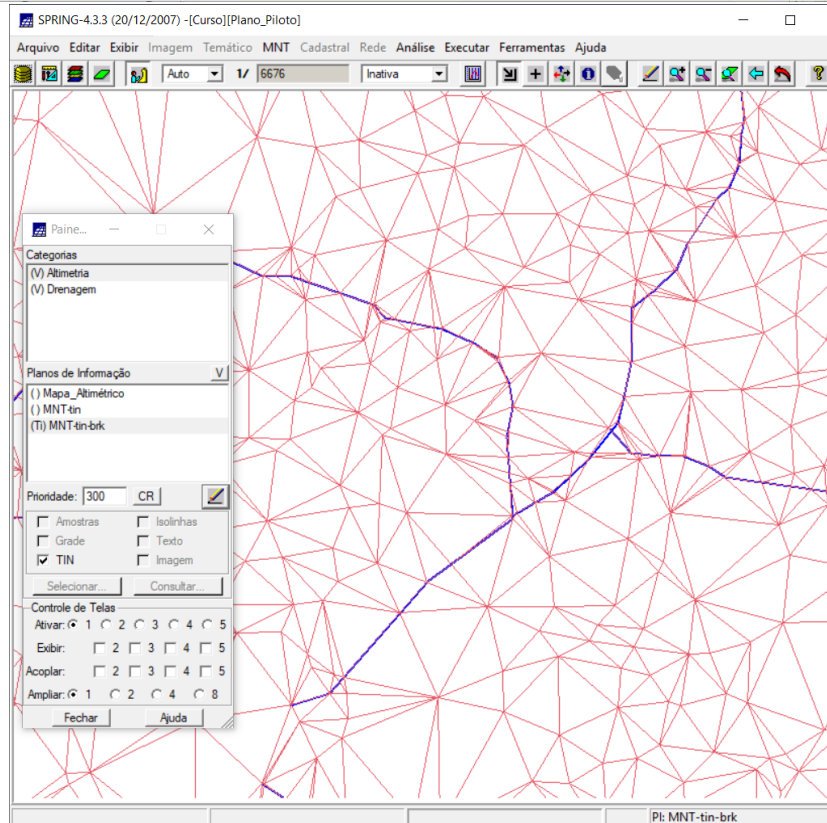
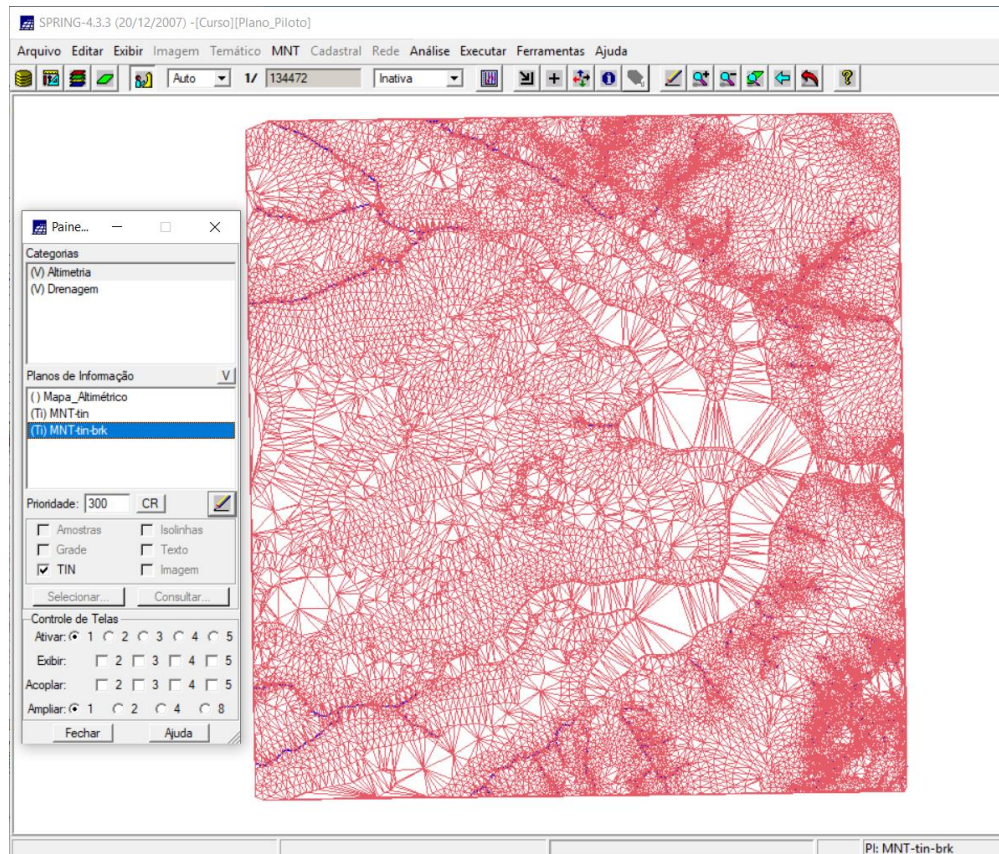
- Sem Linha de Quebra





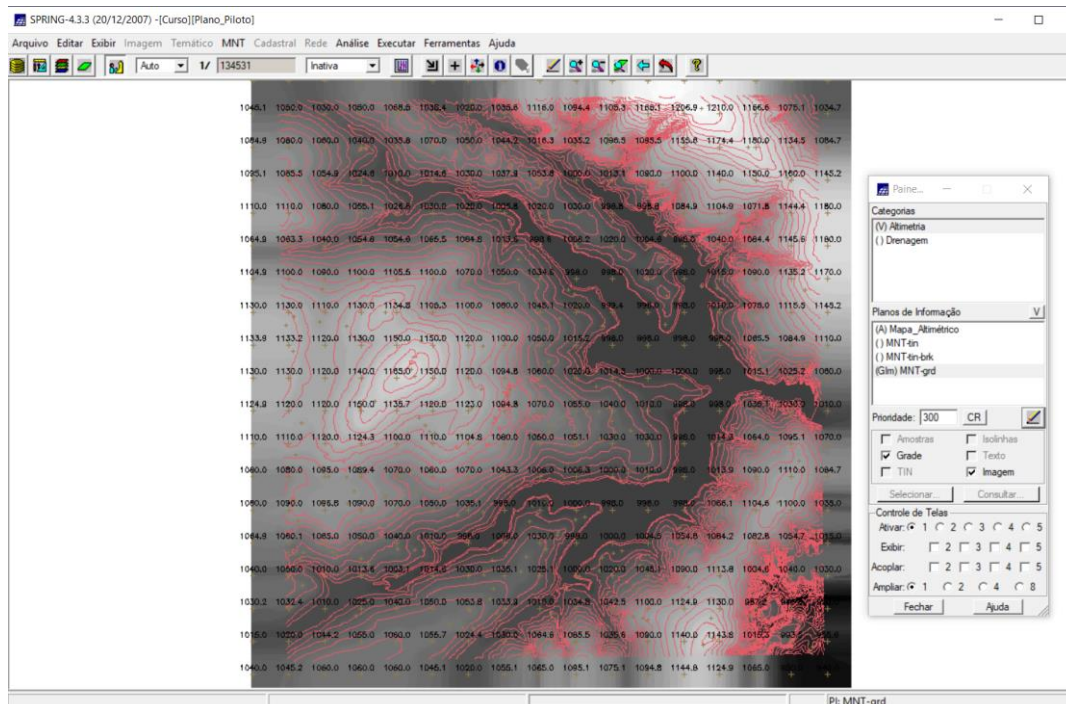
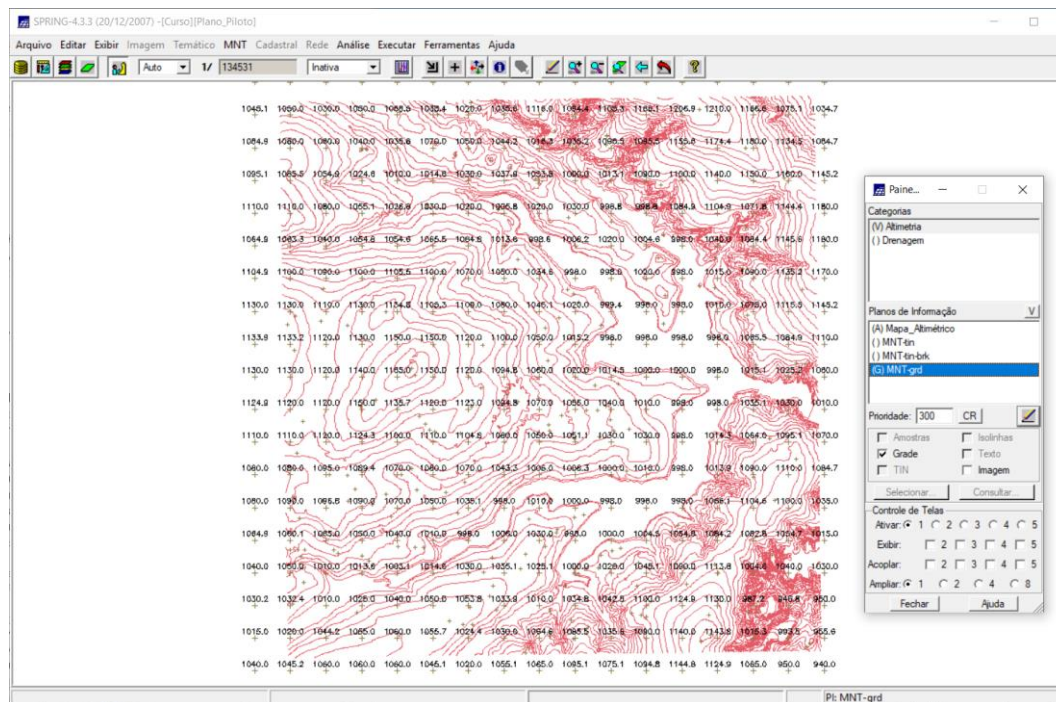
- **Com Linha de Quebra**





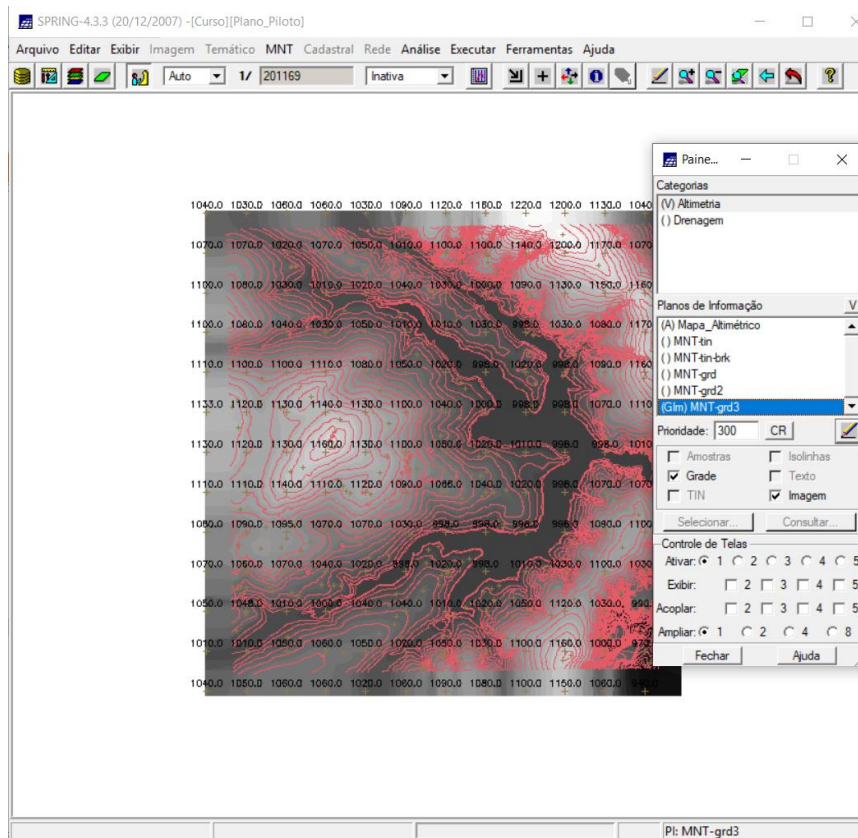


Exercício 5 - Gerar grades retangulares de amostras e de outras grades

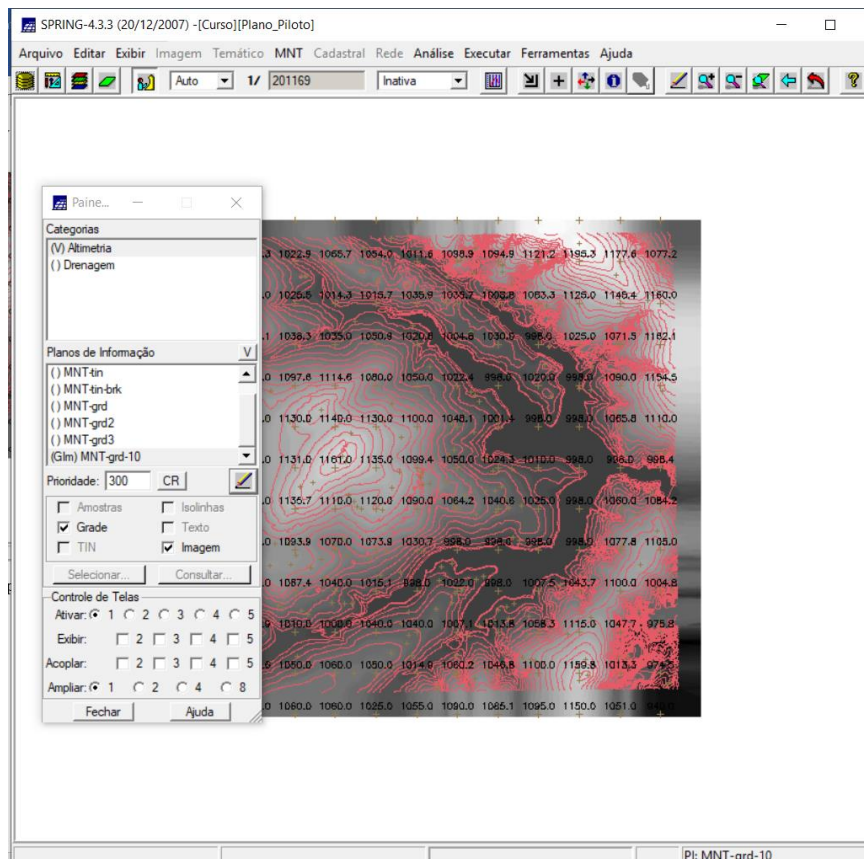




Usando interpolador “vizinho mais próximo”:

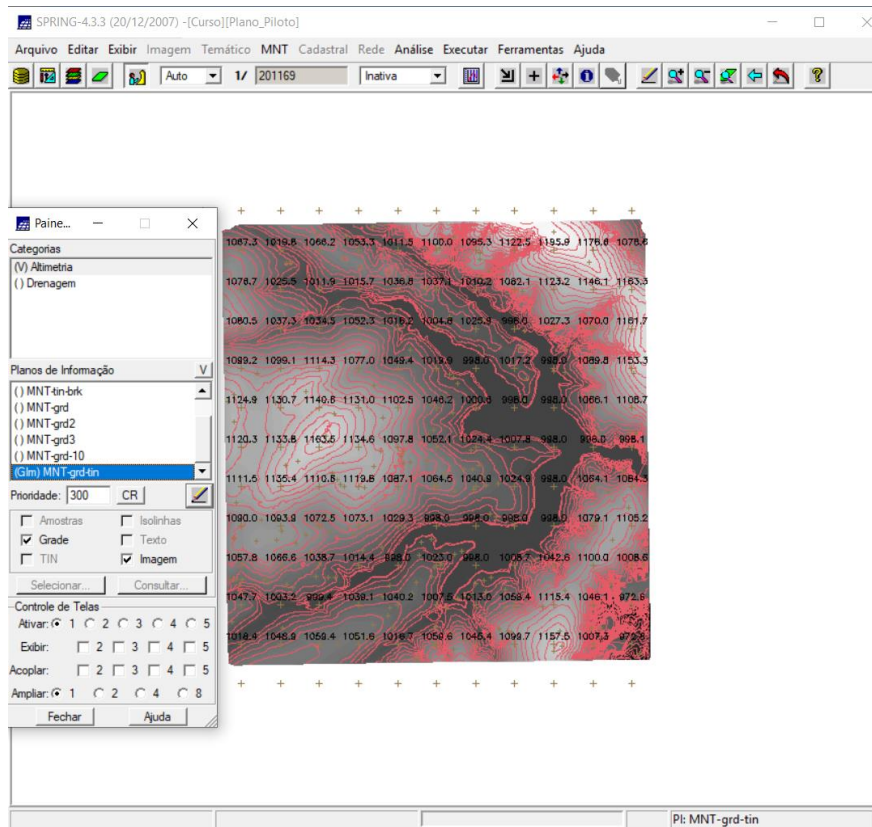


Refinando grade retangular a partir de outra grade retangular:



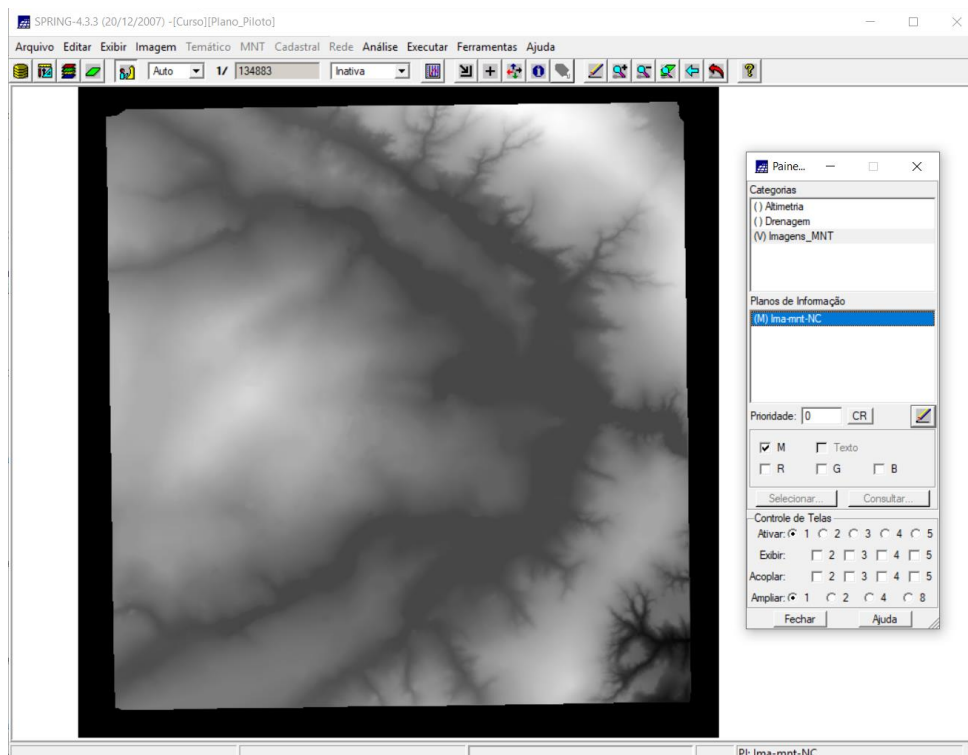


Gerando grade retangular a partir de grade triangular:



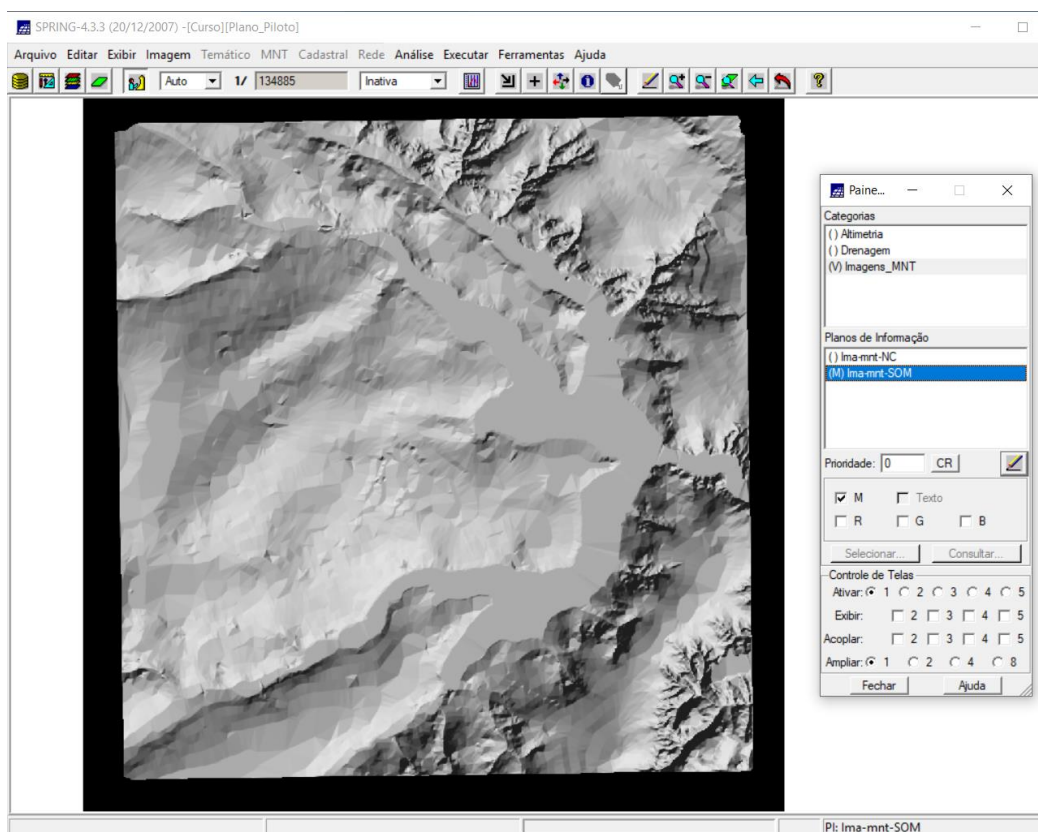
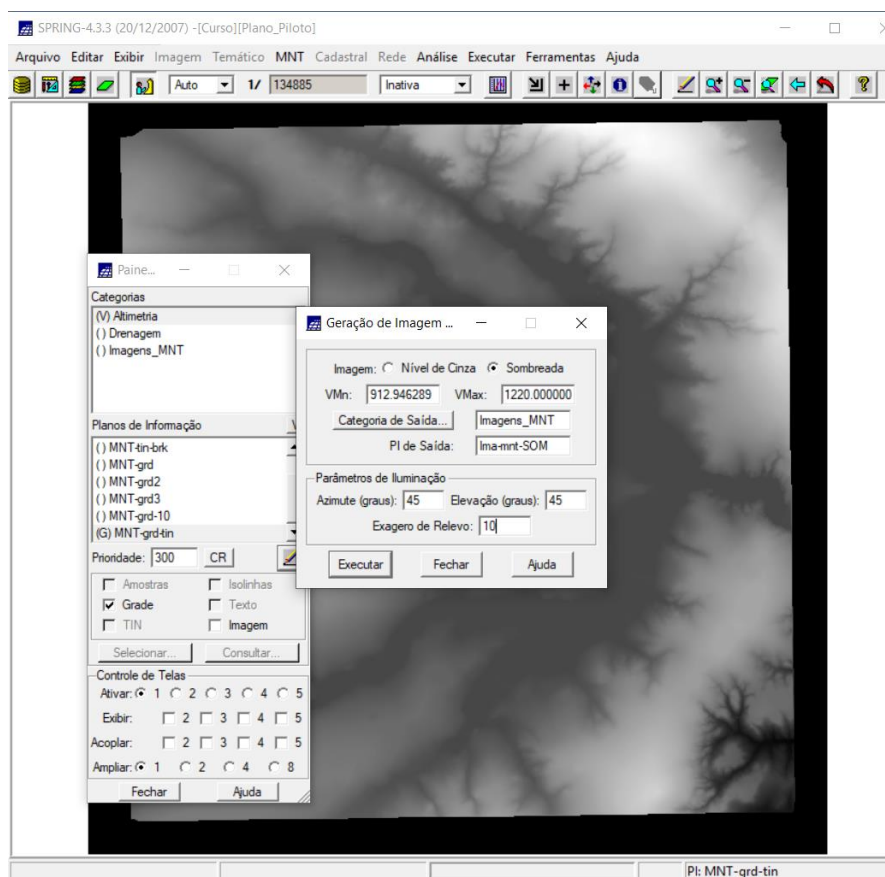
Exercício 6 - Geração de Imagem para Modelo Numérico

Gerando imagem em nível de cinza:





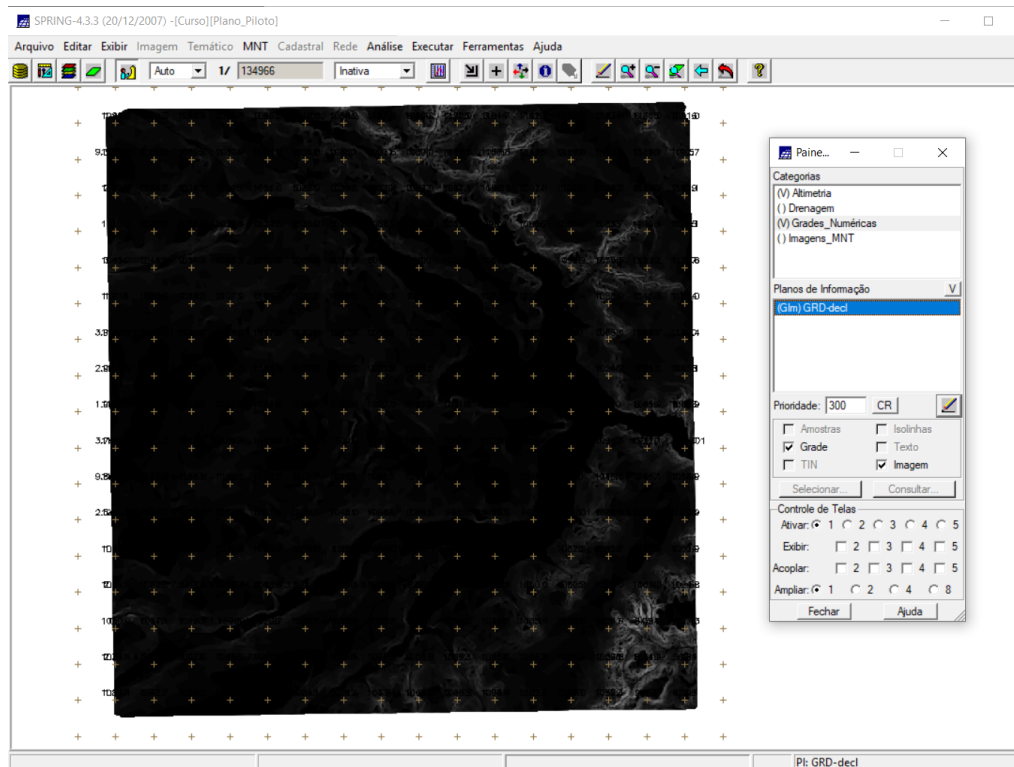
Gerando imagem sombreada:



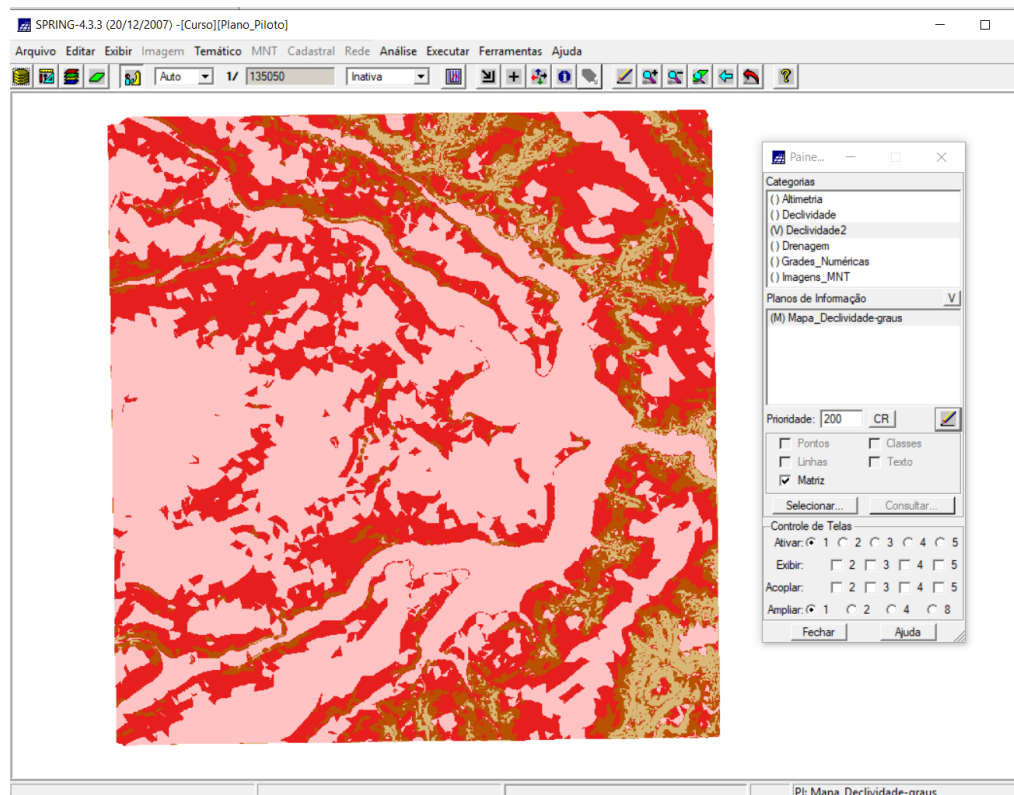


Exercício 7 - Geração de Grade Declividade

Gerando declividade em graus a partir de grade retangular:

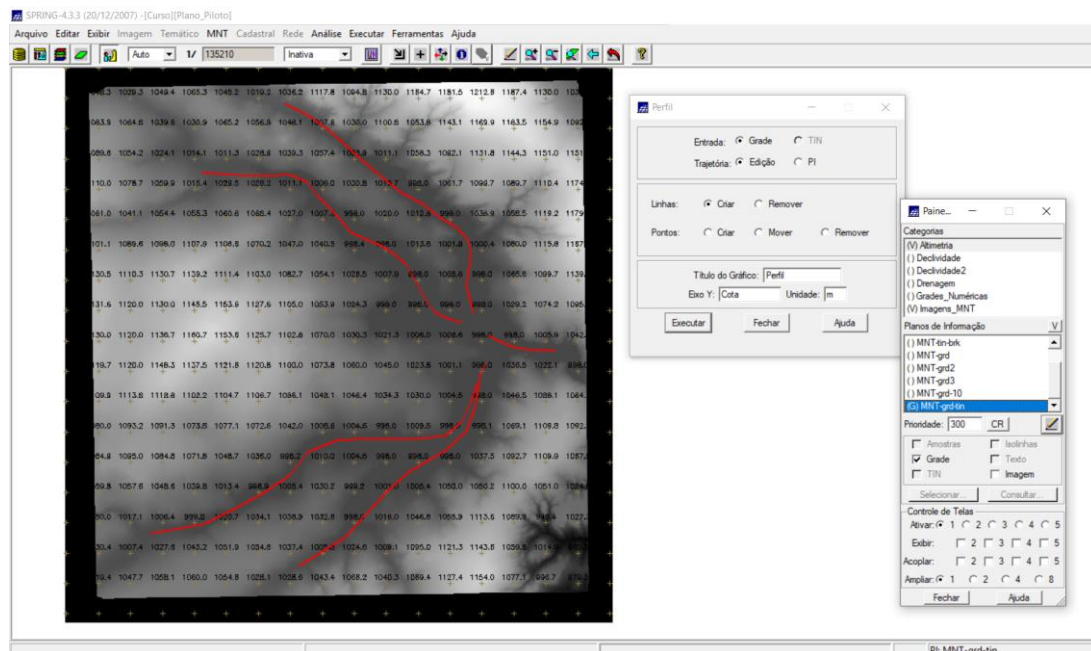
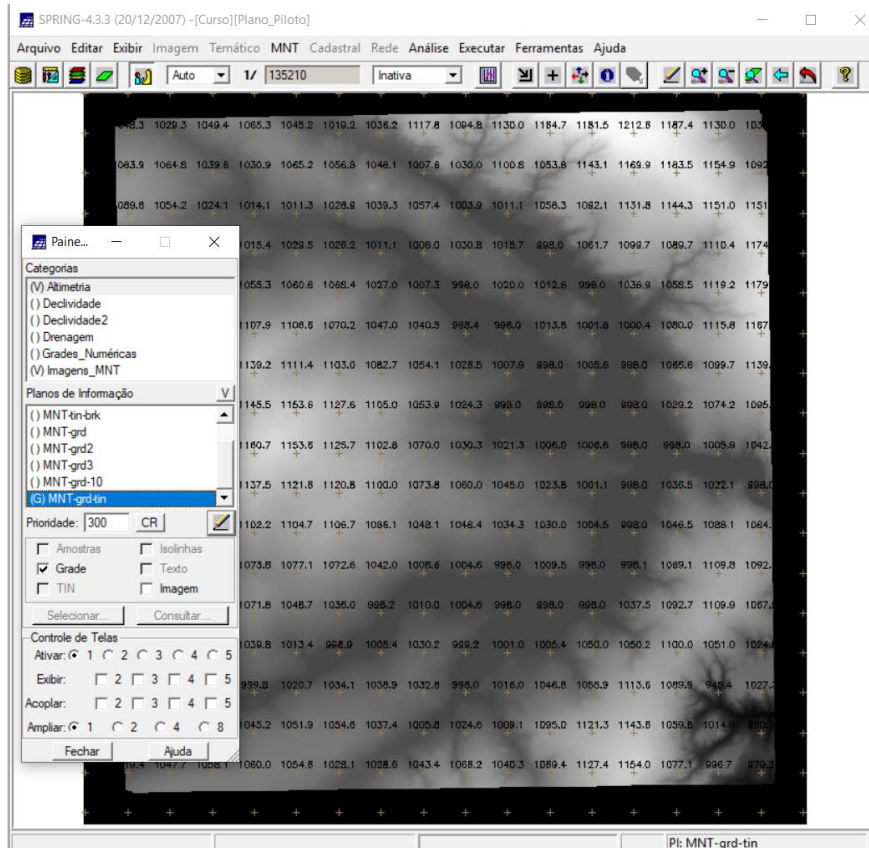


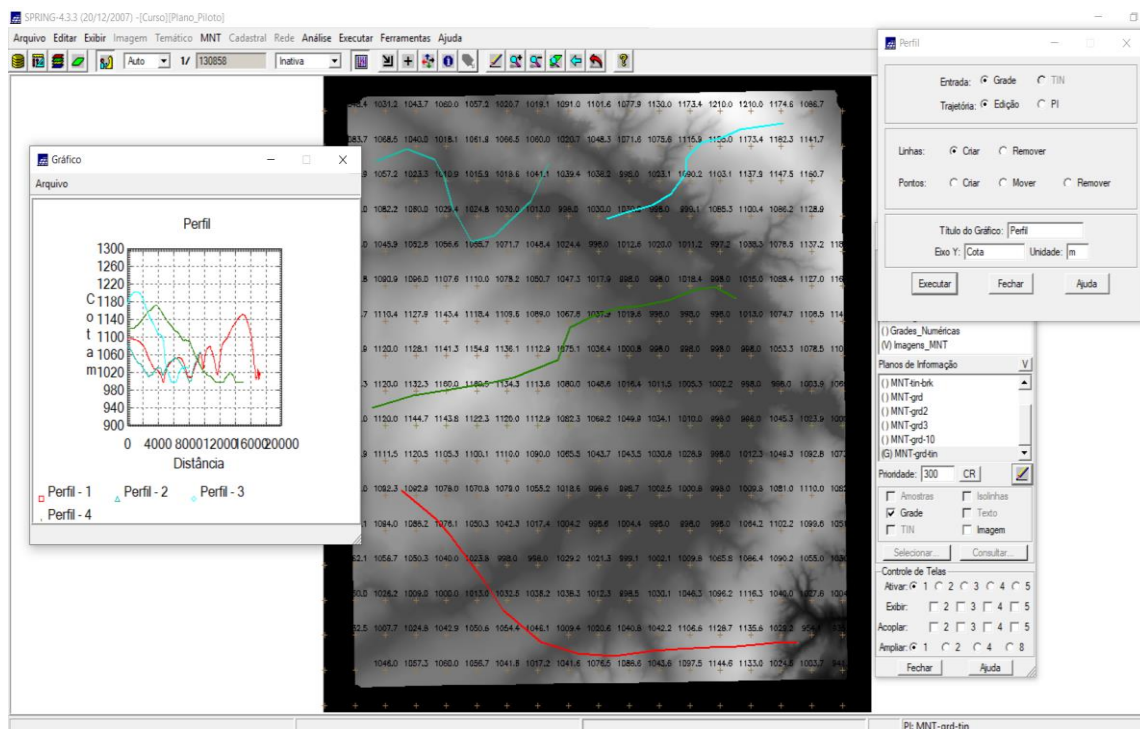
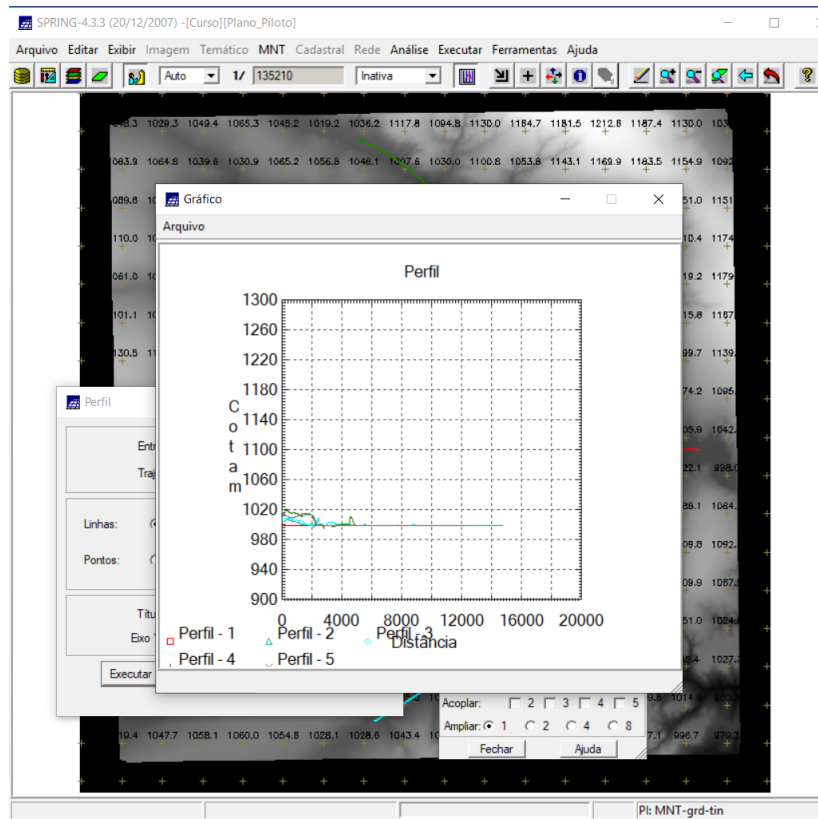
Exercício 8 - Fatiamento de Grade Numérica – Mapa de Declividade





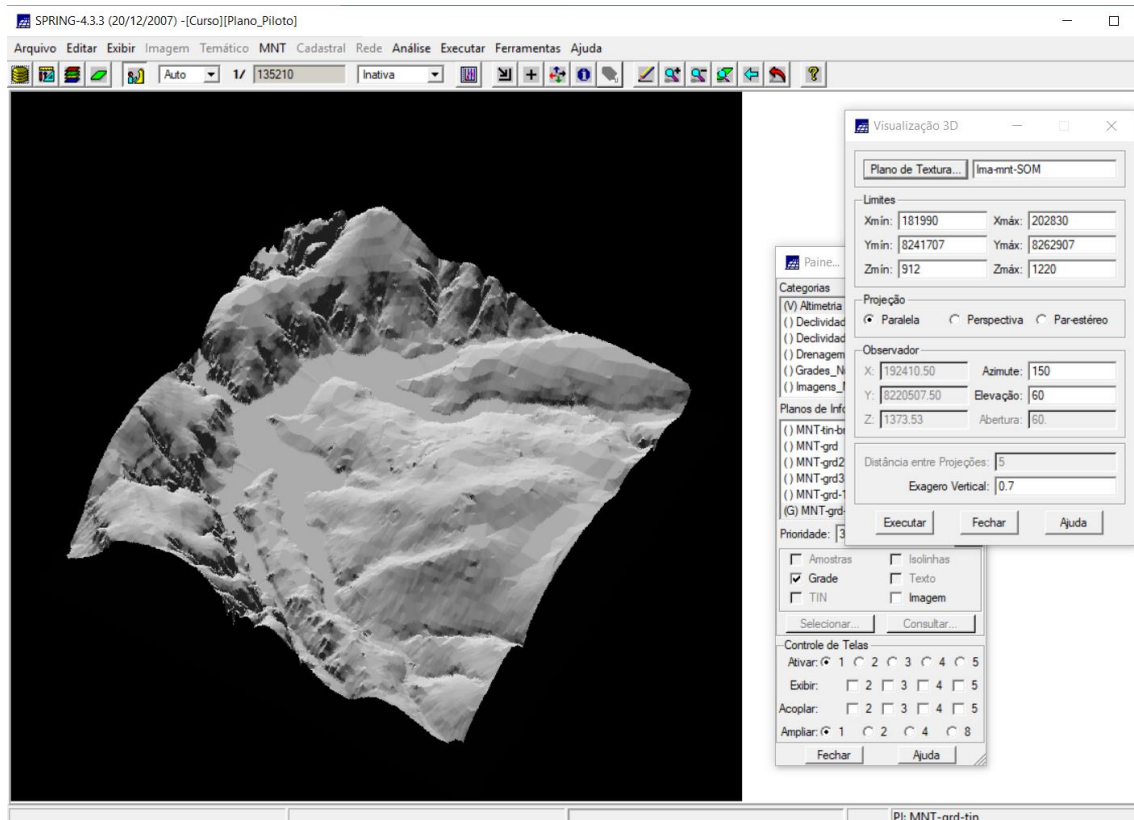
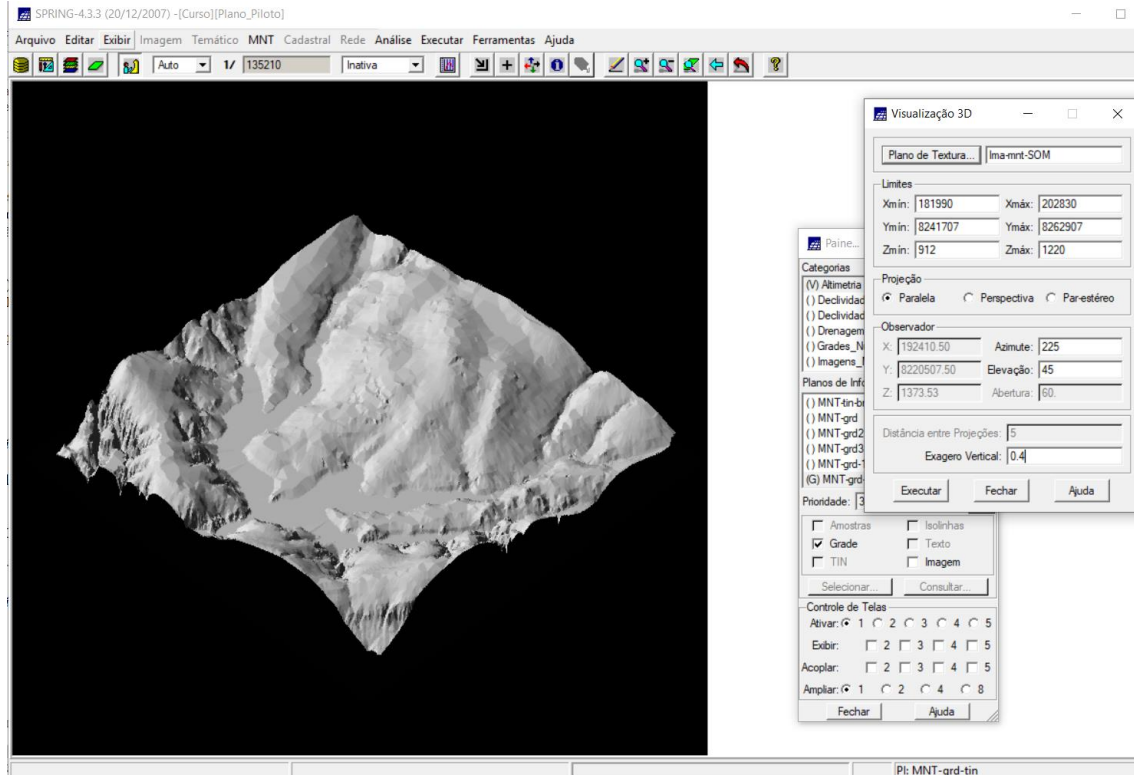
Exercício 9 - Geração de Perfil a partir de grades

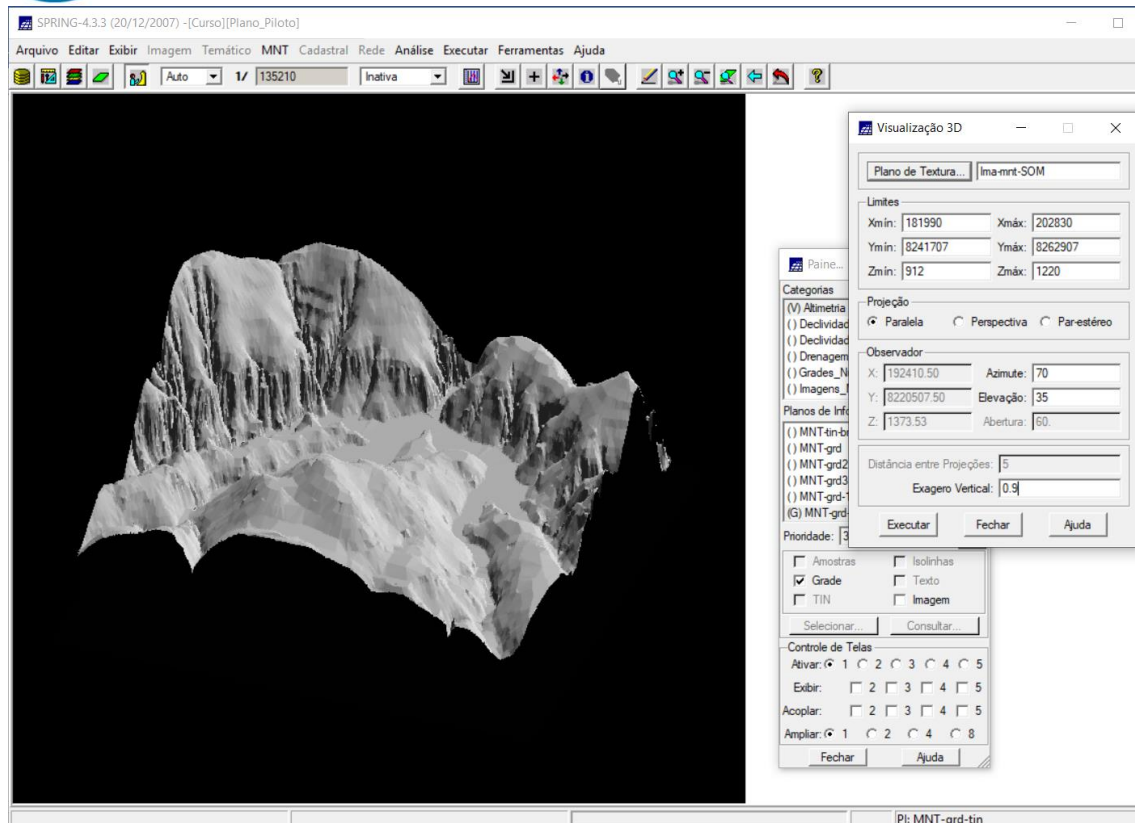




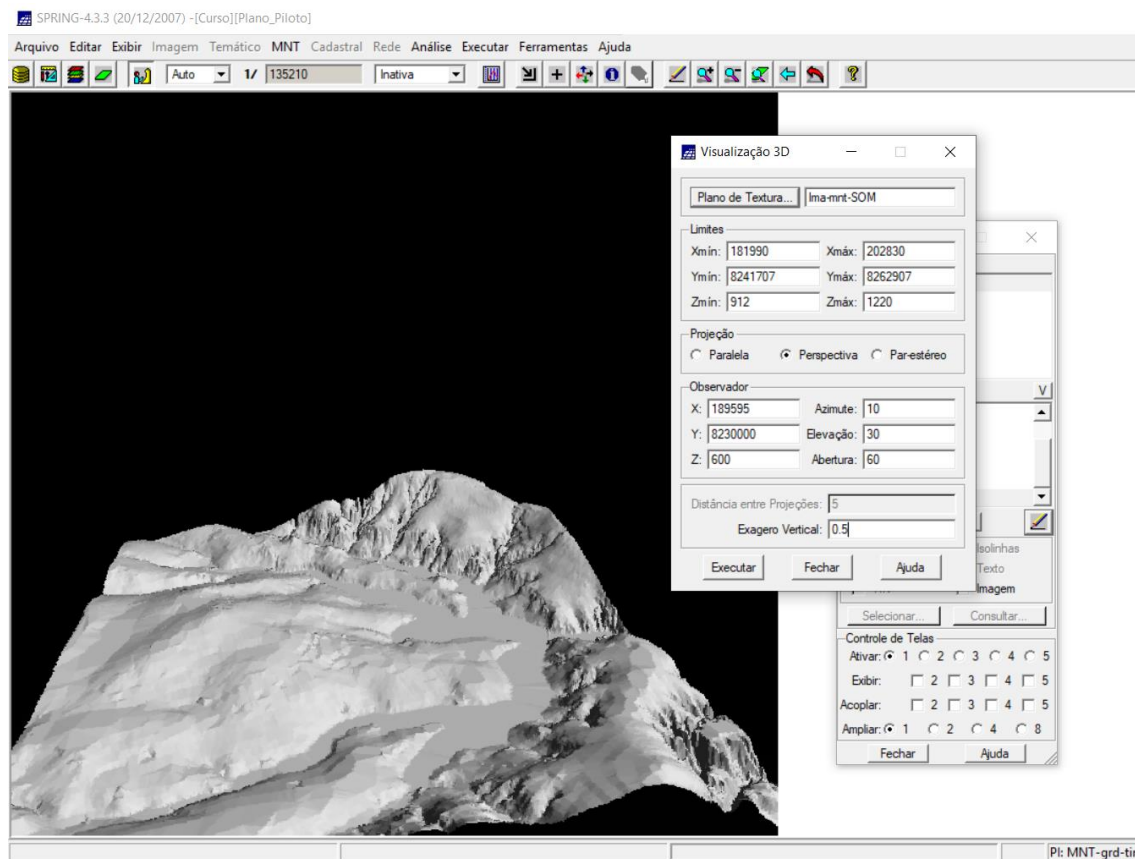
Exercício 10 - Visualização de Imagem em 3D

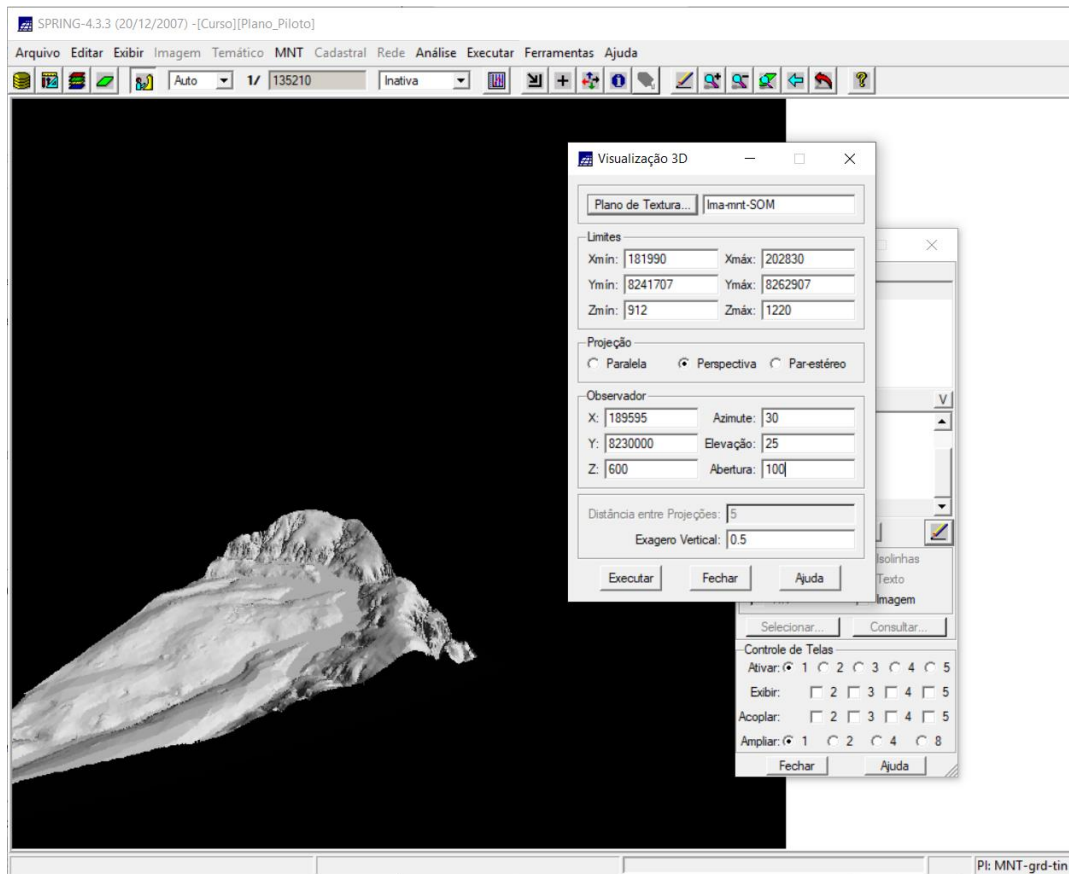
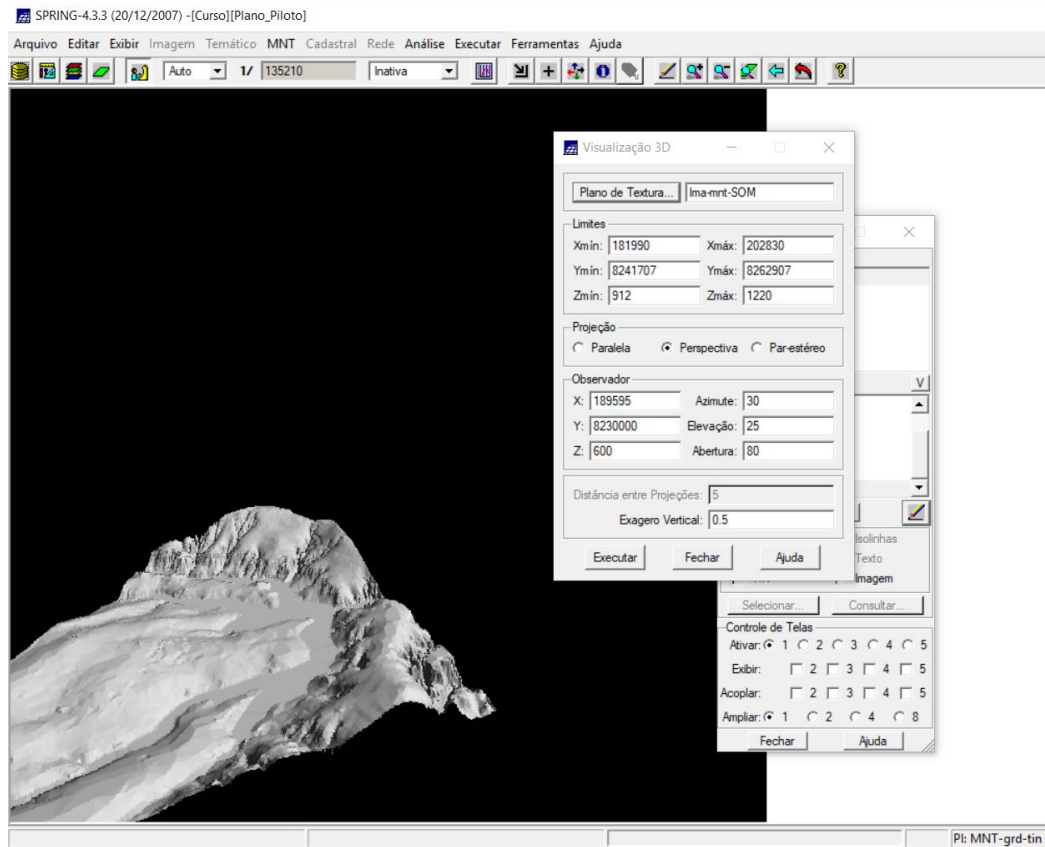
Visualizando em projeção paralela:





Visualizando em projeção perspectiva:





Visualizando em projeção paralela-estéreo:

