DRAFT
16 November 2007

Spatial Display

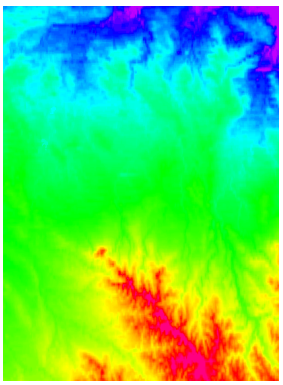
Inspecting Raster Cells

Options in the Raster Layer Controls let you decide if you want to view dividing lines between cells when zoomed way in and if you would like cells labeled with their values when zoomed even further in. You can also control the number of decimal places shown when displaying a floating point raster. Composite color rasters will show multiple values in each cell in RGB order.

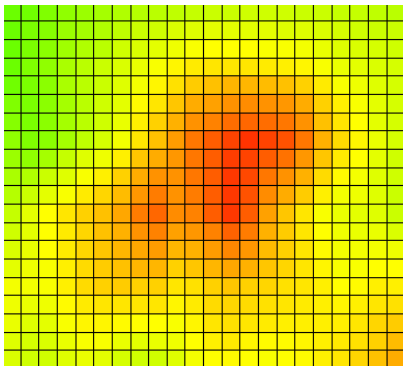
TNT provides enlargement method choices at and before zoom levels where cell dividers and labels come into play. The default and fastest method for drawing raster objects when zoomed in beyond 2X uses nearest neighbor cell values to generate duplicated pixels on the screen. This method gives a noticeably blocky appearance to the zoomed image. Additional enlargement method choices include bilinear and cubic convolution resampling, which produce a smoother image but requires more computation. Cubic convolution produces a somewhat sharper image than produced by bilinear resampling. You choose the enlargement method on the Options panel of the Raster Layer Controls.

When you choose either bilinear or cubic convolution, enlarged cells are no longer represented by a single value, which makes the raster cell dividers even more useful.

Application of a dither pattern, which is required for printing, blurs the distinction between these methods (illustrated below). These illustrations are better viewed in PDF than in printed copy. Better still, try the different methods in TNTmips.



view of full raster object

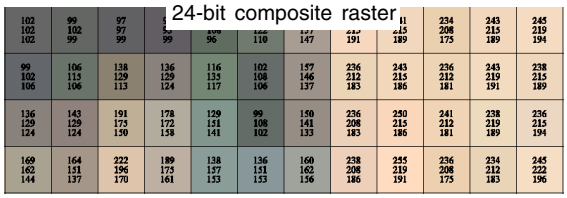


Lines between cells appear when both cell dimensions in pixels are > 16.

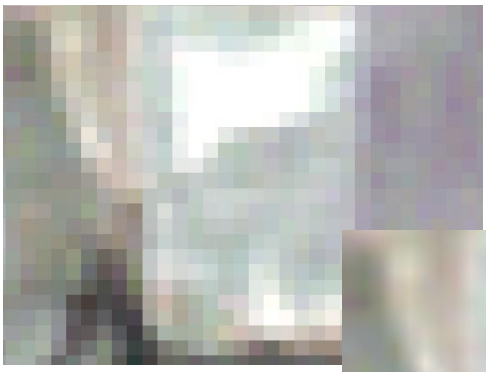
16-bit color mapped raster

1203	1213	1220	1232	1248	1263	1281	1299	1309	1320	1324	1320
1214	1224	1231	1243	1261	1274	1283	1298	1309	1321	1320	1309
1225	1235	1243	1255	1274	1286	1286	1298	1310	1323	1317	1299
1235	1245	1253	1266	1285	1296	1287	1296	1309	1323	1313	1289

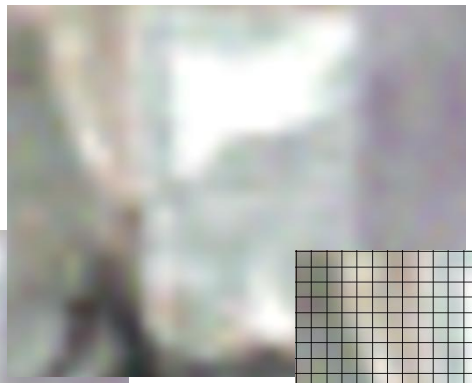
24-bit composite raster



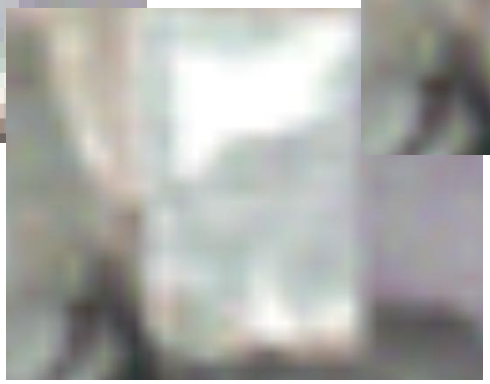
Labels appear when both cell dimensions exceed 32 pixels and the text will fit in the cell. You can also view cell values by DataTip or using the Examine Cell Values tool.



nearest neighbor

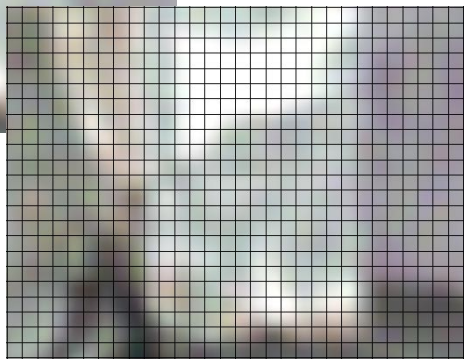


cubic convolution



bilinear

cubic convolution with cell dividers



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