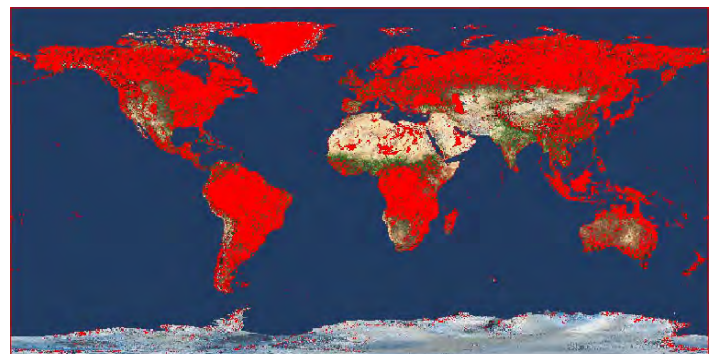
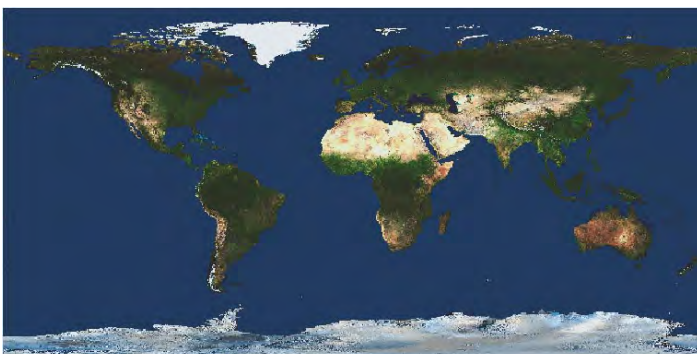
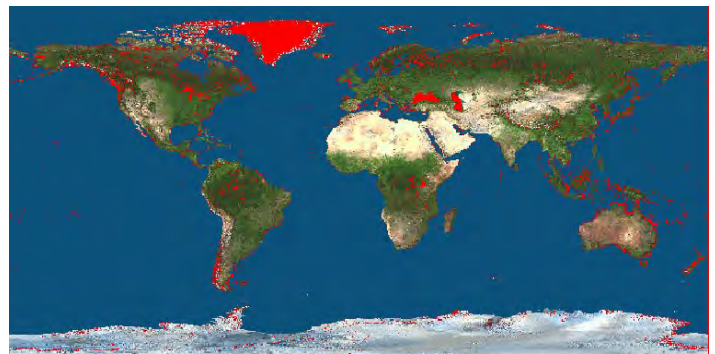
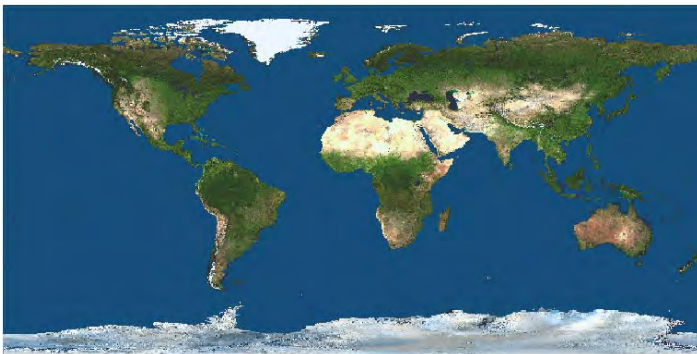


Color Management and Printer Profiles

You know that the quality and appearance of prints differs from one printer to another, so it is reasonable that the appearance of proofs to the screen would vary with the selected printer profile. Somewhat more interesting than simple changes in resolution are changes in color management. Changes in color management become very apparent when you use the out-of-gamut alarm. All of the illustrations below are screen captures after proofing to the screen with Relative Colorimetric rendering intent chosen for the printer profile. The View Options rendering intent is Absolute Colorimetric. You may have noticed you have a different set of profile choices when you select your profile under View Options than when you select one from Page Setup. A selection filter is used to provide only those profiles that apply to the monitor when you are selecting a profile from the View Options and only those that apply to printers when selecting a profile from Page Setup.

The illustrations below are shown in pairs. The top two use the same printer profile, which is for a lower resolution printer than that selected for the bottom two screen captures. The two right images have the out-of-gamut alarm turned on. The difference in resolution is not readily apparent in the two left screen captures, however, the differences in color management is striking. Significantly more pixels are altered from their original values in the higher resolution printer. The difference is primarily in the darker greens; changes in the tan range are nearly comparable between the two printers.



The captured illustrations use a single raster object derived from NASA's Blue Marble: Land Surface, Shallow Water, and Shaded Topography imagery developed by the Earth Observatory team. This raster object is available from MicroImages, Inc., in georeferenced JP2 format to current TNTmips subscribers. To learn more about the visible earth, the Earth Observatory team, or to acquire additional images, visit <http://visibleearth.nasa.gov> or <http://earthobservatory.nasa.gov>.

A slight shift in color can make a large difference in what is out of gamut. The illustrations at the right are screen proofs for the same printer profile used in the bottom pair above. The ocean color was shifted from [40 40 100] to [10 10 51].

