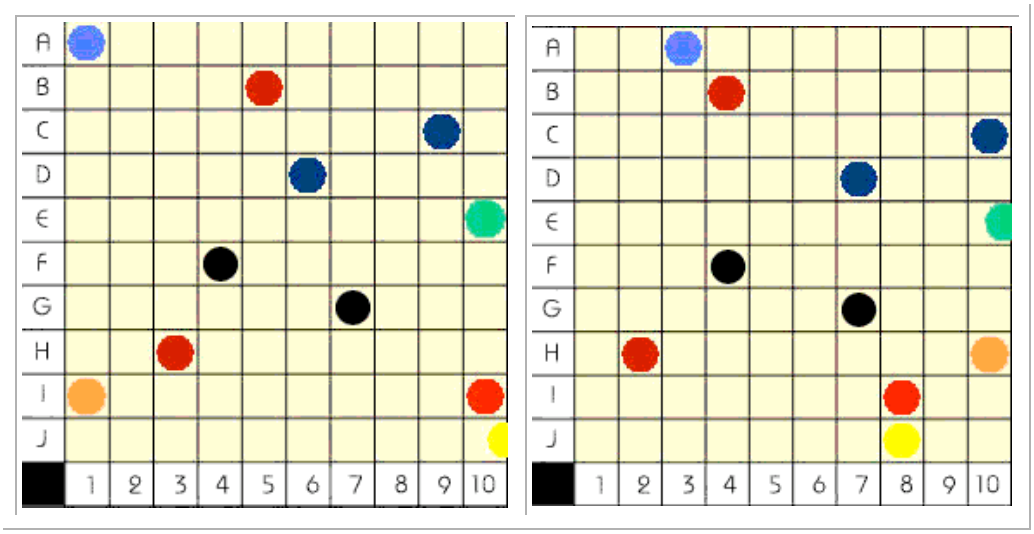
Positioning the Stereo Window

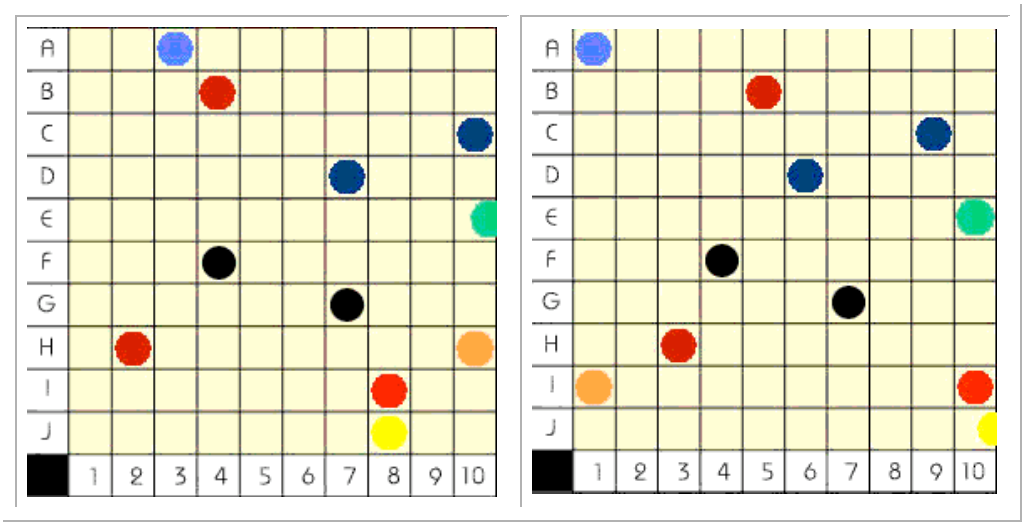
by Wojtek Rychlik

The diagrams below were designed to explain the stereo window violations of vertically aligned chips, and give some advice on mounting the chips. Various colored circles are located either closer or further than the window frame. Black circles are at the same relative positions in both chips, so they are even with the stereo window. Red, orange and yellow are in front of the frame. Please analyze their relative positions in both chips carefully because these are the only circles that may actually violate the stereo window.

Parallel



Cross-eye



The red circles are closer but they are entirely visible in both chips, so they are not violating the frame (they are only 'through the window'). Orange and yellow, on the other hand, do. To prevent window violations you should align both chips in such a way that all the details of an object that is in front of the window are visible in the left and right chip. The green circle is located behind the stereo window, so it is not violating it (looks OK), despite that only half of the circle is visible on the right chip. (Note that if you cross-eye look at the parallel format diagram this very green circle makes viewing problem.) An excellent stereogram should not have even those problems, that is, avoid significant, eye catching, objects to be shown only in one chip even if it's behind the window.

The diagram in the anaglyph format (below) shows only black circles for simplicity, however they are differently positioned relative to the stereo window. The left eye sees the diagram through the red filter and the right eye through blue or cyan. Therefore, the red circles are supposed to be seen only by the right eye, perceived as black. Note that if the red part of the circle is positioned to the left of the cyan circle, the black (cumulative) object appears in front of the window. Please pay the closest attention to those objects because only there you'll find the window violations. It is commonly accepted that stereograms in the anaglyph format should also look pleasantly when viewed without blue/red glasses, and that is considered even more important to some, than the window violations. Many stereographers position the most questionable objects (with strong ghosting) at the window level, such as the F4 dot, so that the blue or red counterparts of those objects don't exist.

Anaglyph