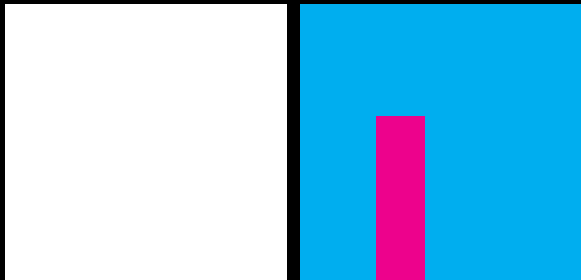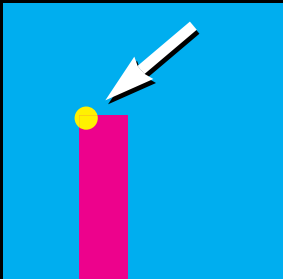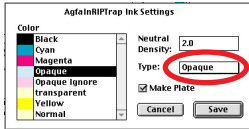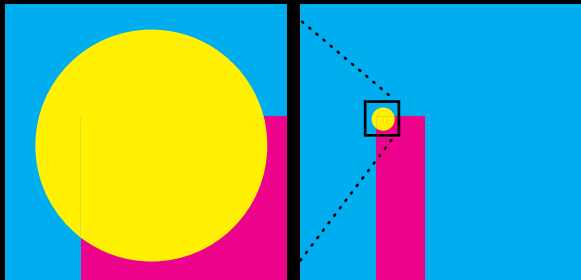On the right, we have a 100 cyan box - which for this example, will serve as the background.

On top we add another element -

a small magenta rectangle.

Lets add a small yellow spot. In this example, we are making this Opaque. First, we need to go to Edit/Colors dialog, and create a new color and call it "Opaque" and then go into the Utilities/Agfa IRT/Ink Settings and select Opaque.

Traps are normally quite small - often only 3/1000ths of an inch wide, making them difficult to evaluate even with a high powered loop on an analog proof, so we need to zoom in to see them.
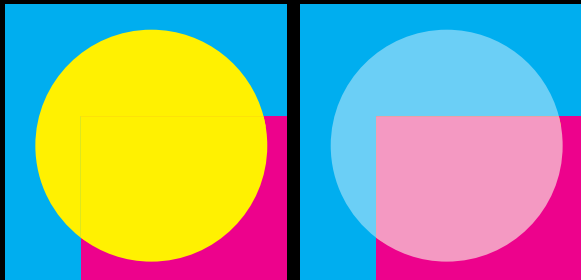
It is very important to retain all objects - many approaches rasterize before trapping, losing geometry behind objects, cutting through and eliminating important boundaries that may need to be retained.
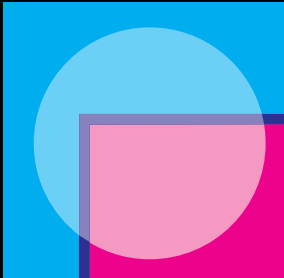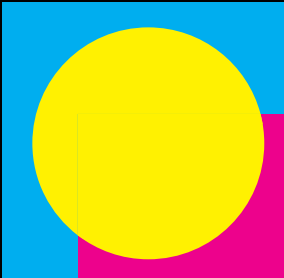
Retaining all geometry is essential if one is trying to accomplish a spot varnish over elements below which require trapping. In that case the front object is not simply overprinting - the objects behind must trap as well.
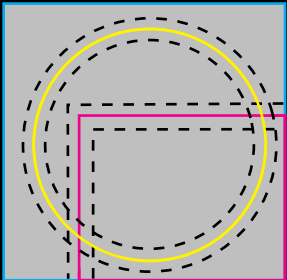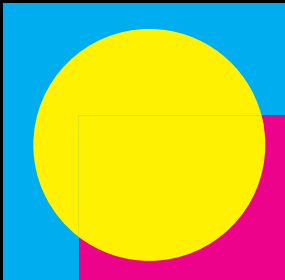
Trapping direction possibilities (spread out, choke in) are shown as dashed lines. Trapping is calculated depending on what ink types are used on touching objects...
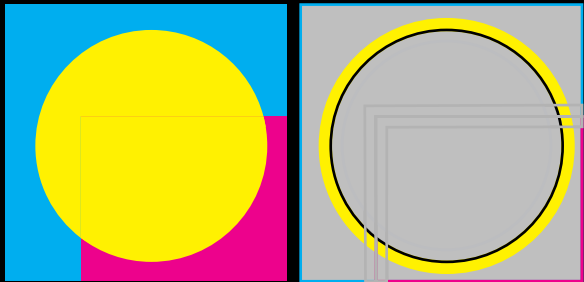
Depending on the ink type and neutral density value, an traps are generated depending on surrounding objects - since yellow ink is has a lower neutral density (lighter) than the cyan and magenta objects it would spread...
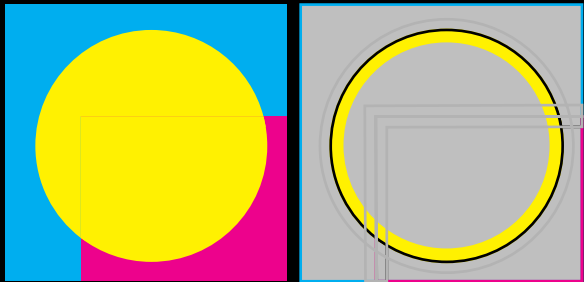
However, if you assign a different ink type to a color, it may generate traps in the opposite direction, here we see a choke.
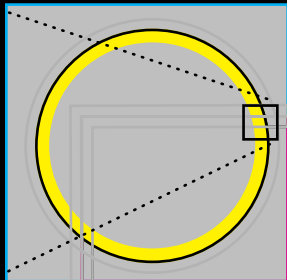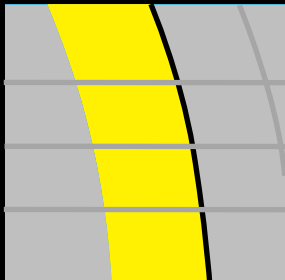
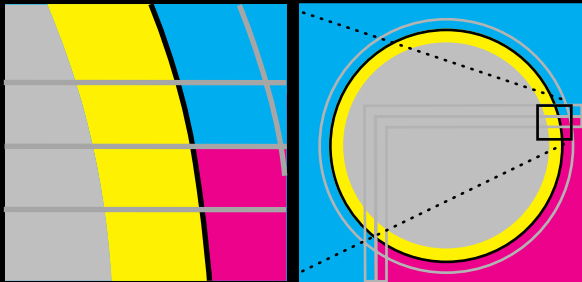The black circle indicates the yellow spot objects perimeter, here we have the yellow spot color assigned the Opaque ink type, so cyan and magenta will choke inward. The trapping possibilities are now light grey lines.

As the objects behind the spot are process colors which need to trap each other and the spot, the trapping engine must first analyze how objects and ink type will interact.
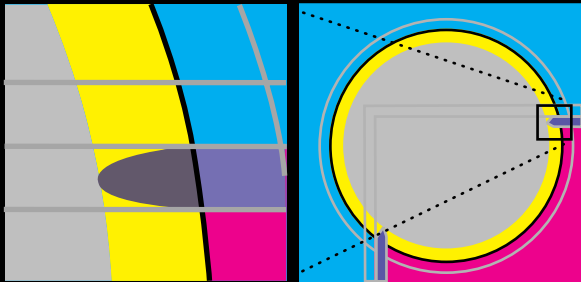
The cyan and magenta traps and there is a small area where all three inks need to be represented - this is done with smooth transitions to "blend in" and become difficult to discern visually.
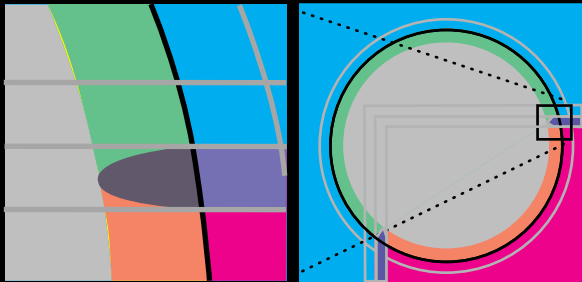
Since we assigned the Ink type as Opaque, both the cyan and magenta spread into the yellow - which is the opposite behavior if the yellow were a "Normal" process, by the way..
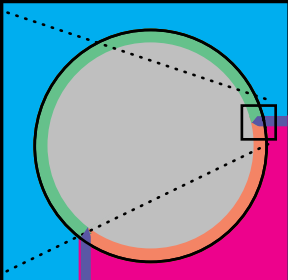
Traps are not actually new objects - but rather one objects edge has spread under another objects edge so they now overlap a specified amount - In this way, any single PDF or PostScript file can be trapped as different printing processes require.

Cyan "chokes"

A Normal process to process trap would be based completely on the neutral density of the ink - looking at the dotted line, you can see here that the cyan has choked into the magenta.
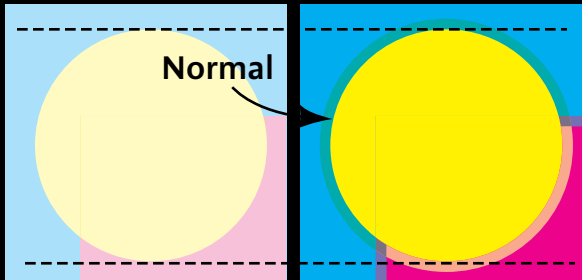
Normal

Process yellow uses the "Normal" ink type - here you can see the yellow "spreads" under both the magenta and cyan, because its neutral ink density is lighter. letting the darker colors define the elements boundaries.
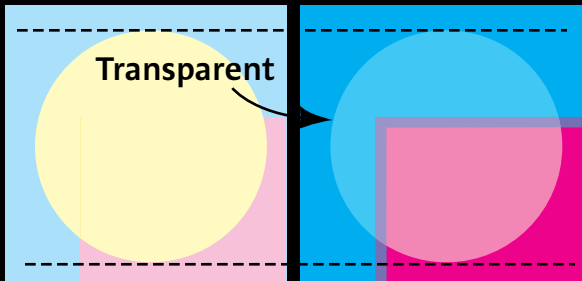
Transparent

The "Transparent" ink type the ink over-prints, does not trap, and objects above or underneath ignore Transparent ink colored objects. This can be used for varnishes or dielines and other non printing annotations.
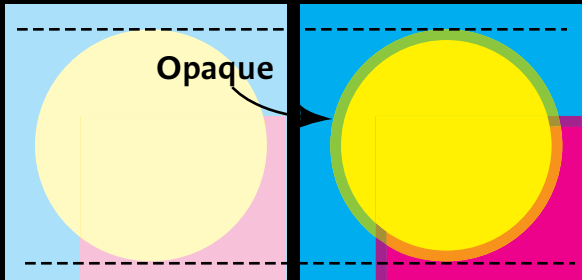
Opaque

Using the "Opaque" Ink type setting, the trapping occurs in the opposite direction in this example, with the cyan and magenta "choking" the yellow object.
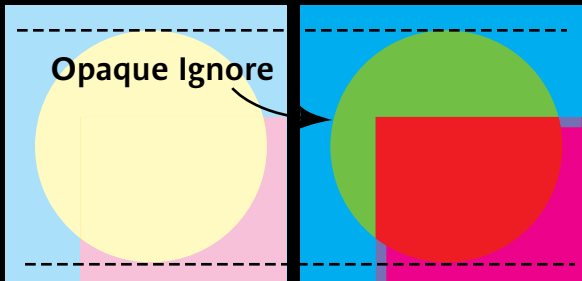
Opaque Ignore

If we use the "Opaque Ignore" ink setting, items trap up to the object colored Opaque Ignore, but do not trap under it - this might be used for metallic inks that spread physically when printed