

## Transparency

Transparency is an effect applied to an object causing it to appear transparent and letting objects underneath show through. A common example of transparency is drop shadow. Transparency may be applied to an object in a number of different ways.

Transparency is possible in a number of graphic file formats. The term transparency is used in various ways by different people, but at its simplest there is "full transparency" i.e. something that is completely invisible. Of course, only part of a graphic would be fully transparent, or there would be nothing to see. More complex is "partial transparency" or "translucency" where the effect is achieved that a graphic is partially transparent in the same way as colored glass. Since ultimately a printed page or computer or television screen can only be one color at a point, partial transparency is always simulated at some level by mixing colors. There are many different ways to mix colors, so in some cases transparency is ambiguous.



### The need to flatten transparent objects

The challenge with transparency is reproducing transparent effects in printed output or in exported file formats that do not support live transparency. To reproduce these effects, transparent objects and what interact with them must be flattened.

At its simplest, the process of flattening converts all the overlapping and interacting elements in a group of transparent objects into a collection of opaque elements that result in the same appearance as the original.