

Summa

***Double sided printing
on DC3 Plus***

Double sided printing

The DC3 Plus is able to create a double sided print on clear vinyl. Once the printout is applied to a transparent surface, you'll see a different picture on each side. This can only be done with the thermal transfer technology, since the printed colours are applied on the vinyl as separate layers and not as a mixture.

An example: you want to create a sticker with on one side a *stop sign* and on the other a *go sign*. The resulting output will look something like this.



You can see that on top of the media a blue layer is printed followed by a white one, black one, white one and finally a red layer. The combination of this will give the impression that the red stop sign has been printed on a white opaque material as will the blue go sign.

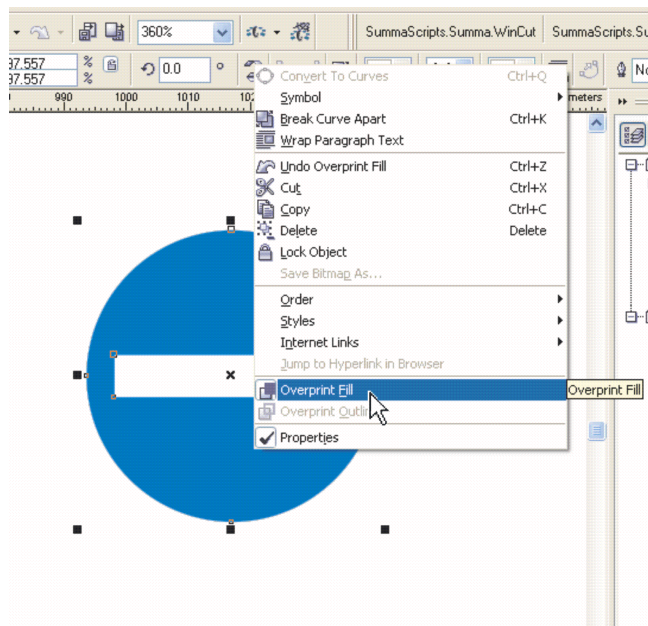
How to create a double sided printout

To explain how to create a double-sided design we will use a vector based drawing program, in this how-to we will use Illustrator and CorelDraw.

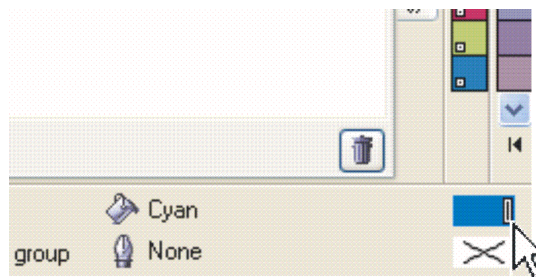
With CorelDraw

Every layer, except the top most layer, you draw should have the overprint setting turned on. The RIP will discard all objects beneath the top object if this setting is not turned on.

To turn on the overprint setting for an object, select the object and right-click it to get a pull down menu. In this pull down menu you will see the Overprint Fill option, simply click it to enable the option.



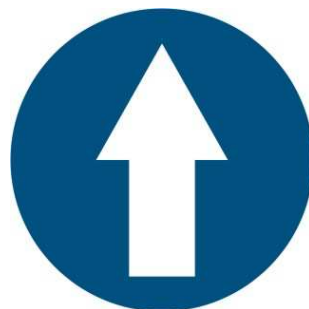
If the option is already enabled for that object then you will see a check in front of it or you will see a rectangle appearing in front of the colour indication in the bottom right corner of the screen.



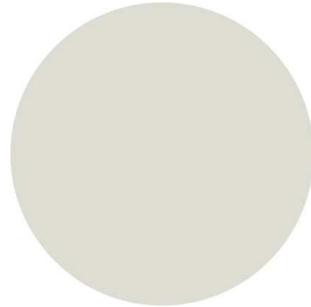
How to build up the design

Draw your first layer with the colour intended for that object, make sure to use a spot colour because ColorControl can only identify different spot colours. Do not use the same colour on a different layer than this one. This is because ColorControl will print one colour on the same layer, so if you want to create red sign on both sides of the printout you cannot set both to red, instead use a different colour. This will be your first layer that will be printed on the vinyl, write down the colour you used, because you will need it later in ColorControl.

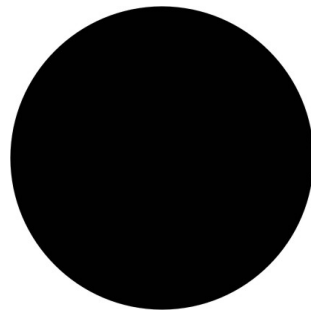
In our example we will use Bright Blue (N° 14 on the Summa Spot Colour guide) for our first layer. Make sure you enable the *Overprint Fill* option.



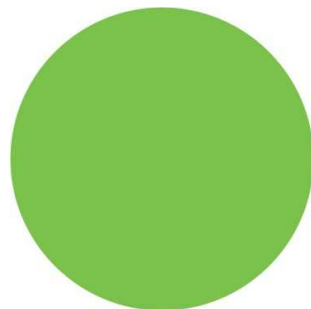
Now to make a separation between the top layer and the bottom layer we need to print white, black and white between them. The reason why we use black in the middle is because we want to an opaque effect when looking to one side. So the next layer we are drawing is with the colour white (N° 9 in the DC3 Plus colour guide). Make sure you enable the *Overprint Fill* option.



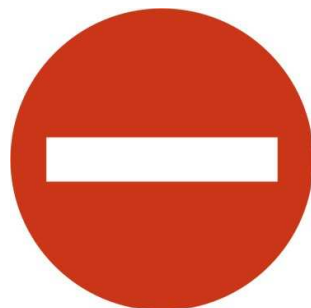
If you haven't used black in a layer already, you can use the spot colour Black (N° 4 in the DC3 Plus colour guide). Make sure you enable the *Overprint Fill* option.



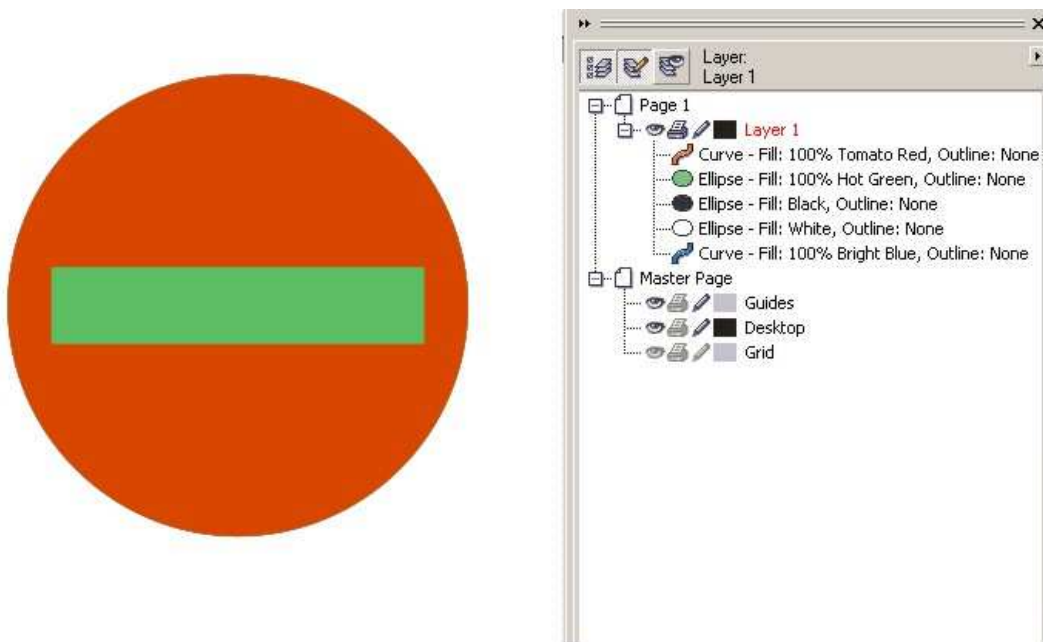
Now for the fourth layer we need white (N° 9) but since we already used white in our layers, we will use a different Spot Colour lets take Hot Green (make a note that later, in Summa ColorControl, we will re-map the Spot Colour to White). Make sure you enable the *Overprint Fill* option.



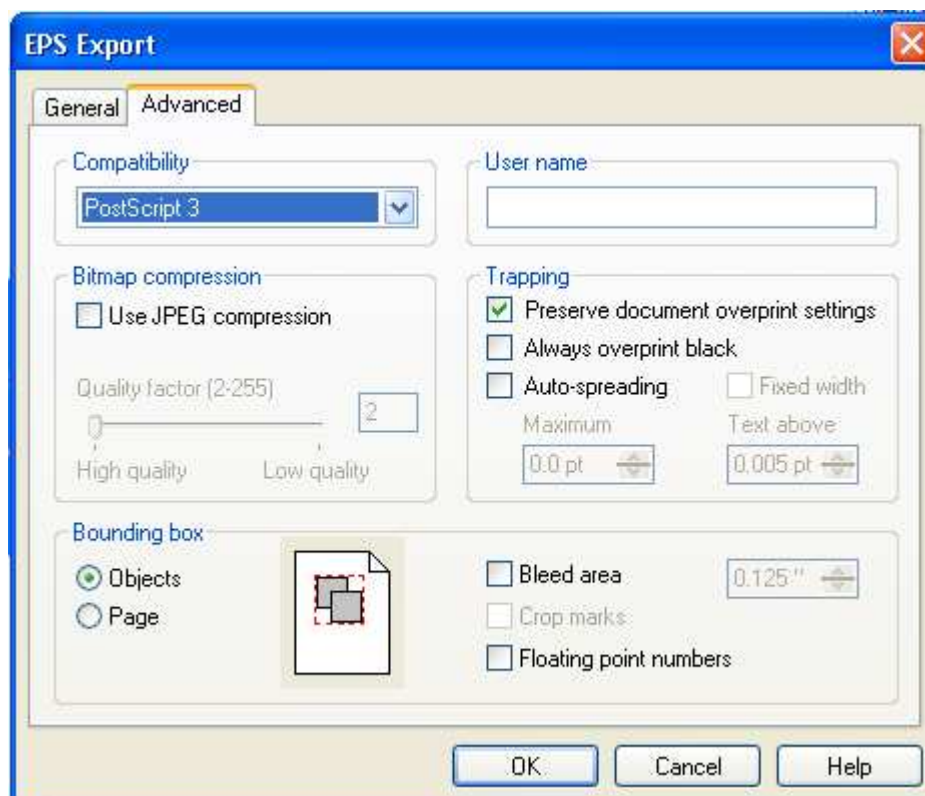
Finally we can put on the top most object. For this layer we do not need to put on the *Overprint Fill* option.



You will see the following in CorelDraw.



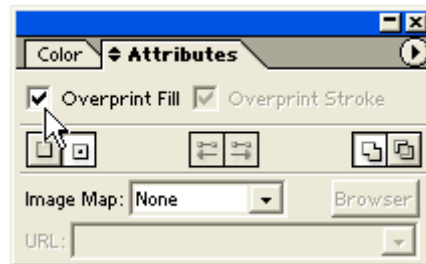
Now the design is ready for printing. Export the design as an EPS (Encapsulated Postscript) level3. Make sure you enable the *Preserve document overprint settings* in the advanced tab, otherwise it will not look at the *Overprint Fill* option.



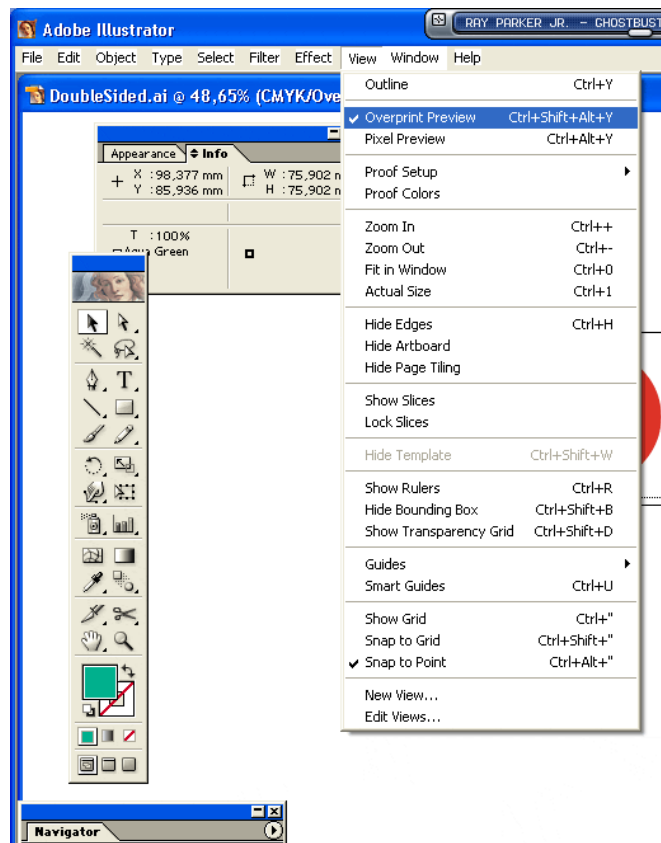
With Adobe Illustrator

Every layer, except the top most layer, you draw should have the overprint setting turned on. The RIP will discard all objects beneath the top object if this setting is not turned on.

To turn on the overprint setting for an object, select the object and on the attributes tab of the colour options you can select *Overprint Fill*.



If overprint fill is activated and you activate Overprint Preview, then you see that the layers will be printed one over another.

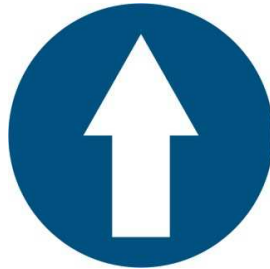


How to build up the design

Draw your first layer with the colour intended for that object, make sure to use a spot colour because ColorControl can only identify different spot colours. Do not use the same colour on a different layer than this one. This is because ColorControl will print one colour on the same layer, so if you want to create red sign on both sides of the printout you cannot set both to red, instead use a different colour. This will be your first layer

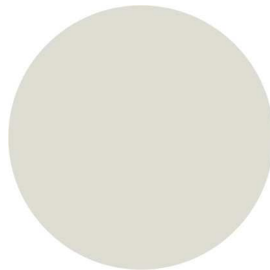
that will be printed on the vinyl, write down the colour you used, because you will need it later in ColorControl.

In our example we will use Bright Blue (N° 14 on the Summa Spot Colour guide) for our first layer. Make sure you enable the *Overprint Fill* option.

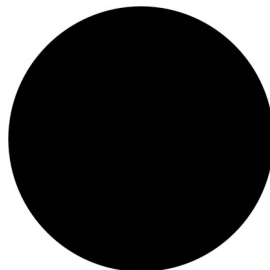


Now to make a separation between the top layer and the bottom layer we need to print white, black and white between them. The reason why we use black in the middle is because we want to an opaque effect when looking to one side.

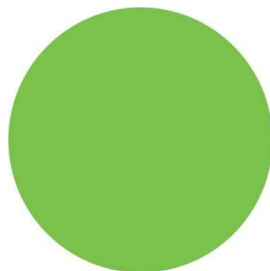
So the next layer we are drawing is with the colour white (N° 9 in the DC3 Plus colour guide). Make sure you enable the *Overprint Fill* option.



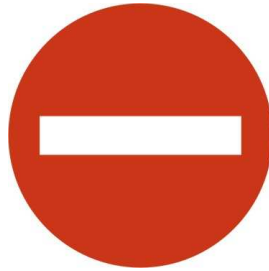
If you haven't used black in a layer already, you can use the spot colour Black (N° 4 in the DC3 Plus colour guide). Make sure you enable the *Overprint Fill* option.



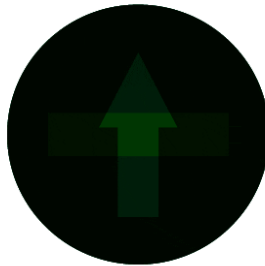
Now for the fourth layer we need white (N° 9) but since we already used white in our layers, we will use a different Spot Colour lets take Hot Green (make a note that later, in Summa ColorControl, we will re-map the Spot Colour to White). Make sure you enable the *Overprint Fill* option.



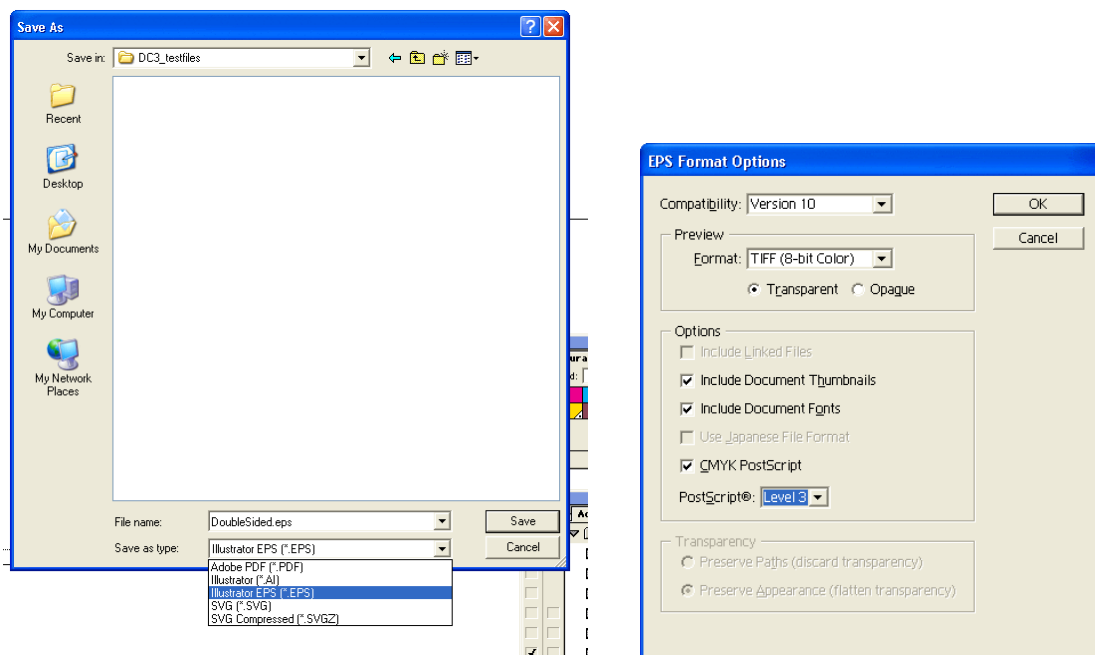
Finally we can put on the top most object. For this layer we do not need to put on the *Overprint Fill* option.



End result of drawing in Adobe Illustrator:

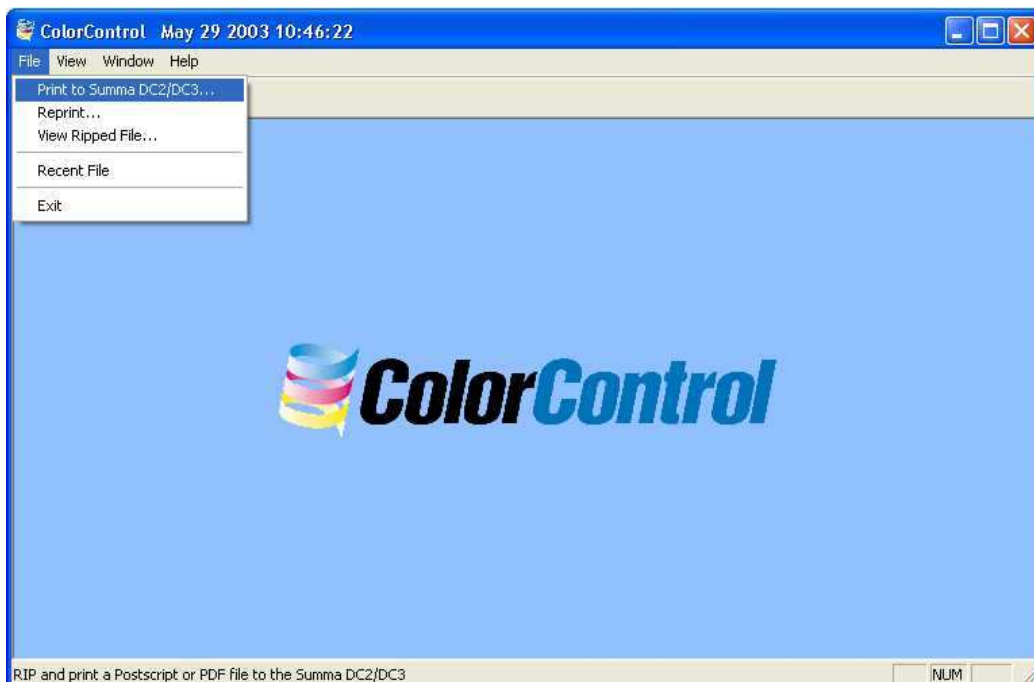


Now your picture is ready to be saved as an EPS.

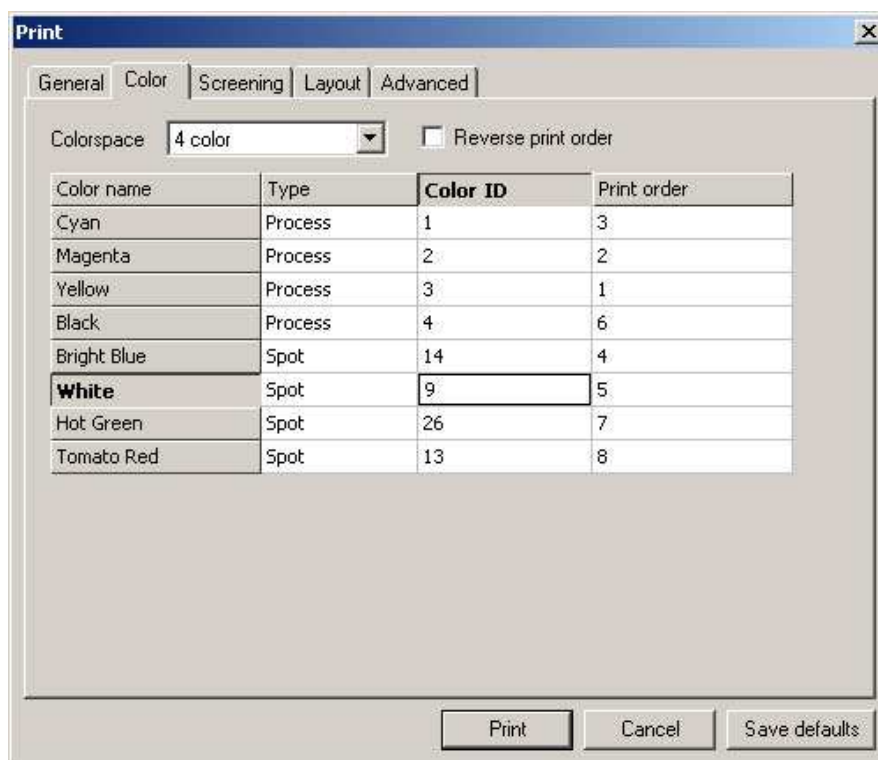


Printing a double sided file

Now that we have a design, we need to print it on clear vinyl. We will use our own Summa ColorControl software to RIP and print it.
Start SCC and open the drawing (File -> Print to Summa DC2/DC3).



Now go to the Colour tab



Here you need to arrange the print order to match the layer order in CorelDraw, since we are only using the black process colour (Cyan – Magenta – Yellow, can be discarded). Also since we used Hot Green instead of a white layer we need to re-map it to white (this can be done for all layers, if you want to use different colours). The final layout is shown in the following image.

Print [X]

General | **Color** | Screening | Layout | Advanced

Colorspace: 4 color [v] ☐ Reverse print order

Color name	Type	Color ID	Print order
Cyan	Process	1	3
Magenta	Process	2	2
Yellow	Process	3	1
Black	Process	4	6
Bright Blue	Spot	14	4
White	Spot	9	5
Hot Green	Spot	9	7
Tomato Red	Spot	13	8

Print Cancel Save defaults

Finally you are ready to send it to the DC3 Plus, press the Print button to send it.