Environments:

Since the ink as well as the color and printing profiles of the standard 330TX and the 330TX Plus are unique to each printer, the environments created for each printer should be used ONLY with the specified printer. You will notice bleeding/irregular colors if the incorrect environment group is used for a printer. The two environment groups were created for the Freejet 330TX and the Freejet 330TX Plus and each should be used exclusively for the given printer type.

The environments were created to solve certain issues customers may encounter in the Direct To Film transfer process while still maintaining color accuracy and easy printability. The following is a brief description of each environment type:

White Garment with Underbase 1440x1440: Since peeling/improper transfer of print onto shirts occurs with a lower ink volume, this is the recommended environment for prints on white garments to reduce peeling.
***For rare prints with extremely low ink volume, Color Garment 1440x1440 environment would be recommended even if being transferred onto a White shirt.
DTF (standard) Color Garment 1440x1440: This environment should be suitable for all film types(Hot Peel/Cold Peel) although there is a drop in color vibrancy/print brightness. Bleeding/Blending of colors is reduced for most prints although the White Underbase/Color Strength can be reduced further for more demanding prints that still have bleeding.
MQ 1440x1440: This environment is suitable for most prints using Cold Peel, although it is also acceptable for Hot Peel with less demanding prints. Bleeding may occur on prints with contrasting or different adjacent colors. If bleeding occurs, the standard environment can be used as a solution.

HQ 1440x1440: This should be used as the **default environment** and the others only considered when bleeding or banding is noticed. Although the downside is this environment causes color bleeding/blending to occur either during printing or after heating/curing the ink more often with demanding prints. A heated platen would be recommended when there is bleeding during the process and vibrant prints are demanded.

HQ+ 1440x1440: Well saturated colors and brighter prints. Only recommended with the Direct Heated Vacuum Platen

Color Garment-Full Underbase: This environment is suitable for prints with the black sections of a print peeling during transfer. Although this can cause black and white inks bleeding/blending after heating, and that is when white underbase/Color Strength can be further reduced.

Solids - 2880x1440: This environment is designed as a solution for prints with solid colors that show banding. See the section below on 'Banding' for more details.

Note:

***White Underbase or color strength can be increased further than what is set in the HQ/HQ+ environment for a brighter or more saturated look on prints although there is risk of bleeding. A max white underbase of 74% has been tested without a heated platen. A max of 85% white underbase has been tested with the heated platen.

Loading Environments onto DirectRip: You'll need to run DirectRip as administrator. Right Click on the DirectRip icon and select Run as Administrator. If DirectRip is open, close out of it and open again to Run as Admin. While in DirectRip, hit File->Import Packager Files and select the .kie file you downloaded. Alternatively, you can drag and drop the .kie file directly into DirectRip. You should see a list of environments populated at the bottom of the environments list.

Curing on Heat Press/Transfer times:

- Curing Ink: 120-180 second range has been tested on hot peel/cold peel at 255F-260F. Pressure: 0 (leave an air gap between heat press top platen and film)
- Times to transfer on shirt: Acceptable in range from 20-25 seconds at 260F, Pressure: 4-7
- Cold Peel wait time:1-2 minutes for film to fully cool to room temperature recommended for a better transfer.

Troubleshooting:

Banding:

You'll notice this banding type effect mostly if the image has lower ink volume in certain areas. This can be confirmed by switching ink channels in Rip settings and if it does it with the other channels. If the nozzle check is at 100% you can try a higher resolution, the weave overlap function or turning up the color strength

Possible Solutions:
1)Use 2880x1440-Solids environment
2)Use Higher resolution: 2880x1440
3)Weave Overlap: max 40%
4) increasing color strength

Peeling:

This will usually occur when
1)There is low ink volume on the image/print. Most common occurrences will be on White Media/Garments without an underbase. Can be resolved by adding or increasing White Underbase.
2)Black parts of an image will not have a white underbase level. Use ‘Color Garment - Full Underbase’ so black parts can have a white underbase. Other issues can be improper or low powder use or not enough time for the ink to cure.
Cause: Low ink volume, not enough white underbase, improper ink/powder application

Possible Solutions:
1)Use ‘White Garment with Underbase’ environment for White Shirts and ‘Color Garment-Full Underbase’ for black sections peeling. If there is still peeling with white garments, use ‘Color Garment standard’ or ‘Color Garment HQ’ for color shirts
2)Increase White Underbase %
3) Improper powder application
4) Not enough ink curing time

Bleeding:

You may notice two different forms of “bleeding/blending” in the DTF process:

1) **Bleeding while printing:**

This is noticed more often with the standard 330TX. Either during the color layer or when the white base is being printed. After confirming the proper environment is used for the printer, try to change the environment to either MQ, or standard 1440x1440. If bleeding occurs while printing even with the standard environment, dial down the color strength in increments of 5%. The Direct Heated Vacuum Platen would be recommended for the best print quality without bleeding.

2) **Bleeding after curing ink on heat press:**

You'll notice bleeding/blending of the colors and white after curing the ink on the heat press. Reducing color strength will not have as much of an effect as reducing white underbase percentage. For bleeding that is minimal, waiting 5-10 minutes between

application of powder and curing ink on the heat press can alleviate the problem. Although this is not an ideal solution, it can work for edge cases and when dullness of colors is a big concern. Another instance of bleeding is when white ink isn't stirred properly and has an uneven consistency. Stir white ink. Also ensure platen height is set at the proper height for printing on film. You may see over spray which can be mistaken for bleeding if the platen height is too low.

Possible Solutions:

1)Use DTF MQ or standard 1440x1440 environments for the specific printer
2) Reduce Color Strength if bleeding is occuring during printing
3) Reduce White Underbase if bleeding is occuring after heating under heat press.
4) Reduce White Highlight
5) Ensure white ink is stirred
6) Wait 5-10 minutes before applying heat to film (after applying powder)
7)Adjust Platen height
8) Use Heated Vacuum Platen