How to make a User Defined Mask
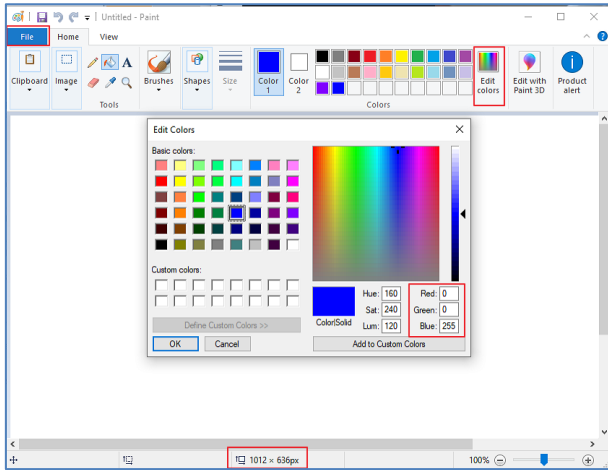## (SMARTMark or UV Watermark)

To print a user defined mask with overlay or 'F' (YMCFKO) UV ribbon

1. A "User Defined Mask/Card" is an anti-forgery protective feature in IDP SMART Drivers.   This feature makes SMART printers more secure by printing user definable images that are not easily seen by the untrained eye.   The SMARTMark O panel feature is visible in normal light, but only at extreme card angles.   The UV ribbon feature is only under visible ultra-violet light.

2. To create a User Defined Mask/Card you must create a bitmap file (bmp file) of the image you wish to print on the card.   The simplest way to create this is in MS Paint.   Resize the MS Paint screen to a CR80 card size of **1012 pixels width and 636 pixels height.** The SMART driver uses the RGB values of objects in a "user defined mask/card" to distinguish which panel to use to print the image.

- R value is for Overlay (O) panel. Value '0' means enabled and value '255' means deactivated
- G value is for printing (YMCK) panel. Value '0' means enabled and value '255' means deactivated
- B value is for Fluorescent (F) panel. Value '0' means enabled and value '255' means deactivated
- 0 = ON, 255 = OFF
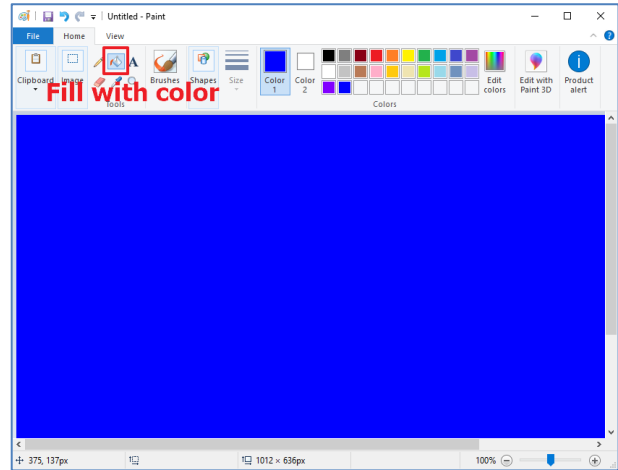- R value '128' means 'SMARTMark Overlay". The Print head applies heat more than a normal overlay in that area.

	Activated	deactivated	SMARTMark
Red (Overlay)	0	255	128
Green (Printing, YMCK)	0	255	N/A
Blue (F, UV)	0	255	N/A

- Blue   = RGB (**0**, **0**, 255) : printing YMCK and overlay, no UV
- Pink   = RGB (255, **0**, 255) : printing YMCK only, no overlay, no UV
- Purple = RGB (**128, 0**, 255) : Printing YMCK and overlay watermark, no UV
- Black   = RGB (**0**, **0**, **0**) : printing YMCK, overlay and UV printing

3. To make a User Defined Mask/Card in MS Paint:
    (1) Click **Start**, click **Accessories** folder, and then click **Paint**.

    (2) On the **File** menu, click **Properties** and then input "**1012**" into the value of Width and "**636**" into the value of Height.

    (3) Click **Edit colors** in the menu bar and input "**0**" into Red value, "**0**" into Green value, and "**255**" into Blue value. (See Pic. 1)

    (4) Click the **Fill with color** button and click somewhere in an image background, then color changed blue. (See Pic. 2)
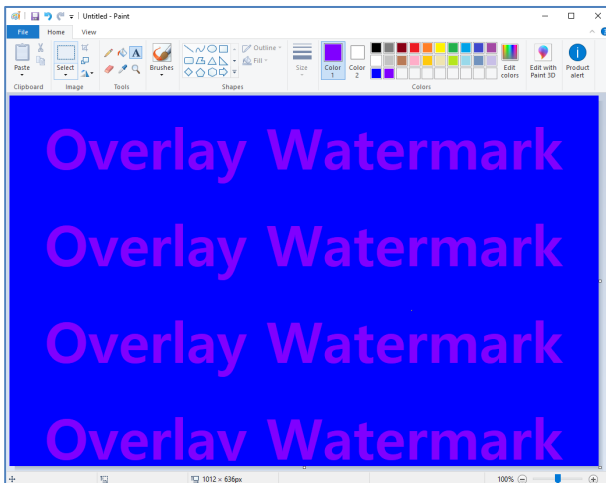
[Pic. 1]

[Pic. 2]

(5) In case of 'SMARTMark Overlay'

- a. Click **Edit colors** in menu bar and input "**128**" to Red value, "**0**" to Green value, and "**255**" to Blue value. (Color : Purple)
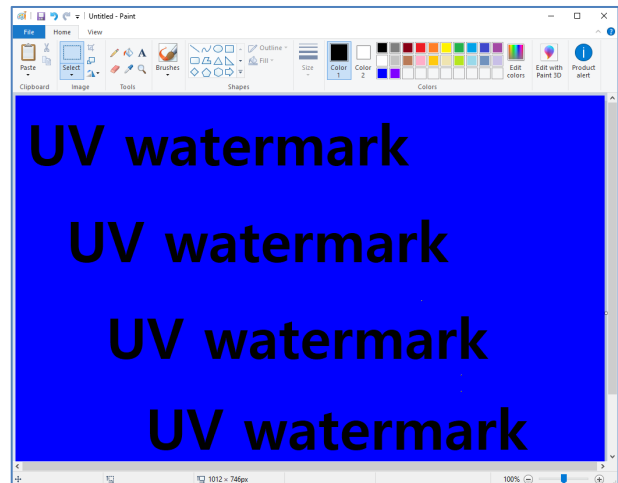
- b. Design objects or text in purple are for printing with the O panel to create a SMARTMark. For example, the text "SMARTMark Overlay" is printed on Overlay panel. (See Pic. 3). ※ **You have to save as a bitmap file. (.bmp file)**
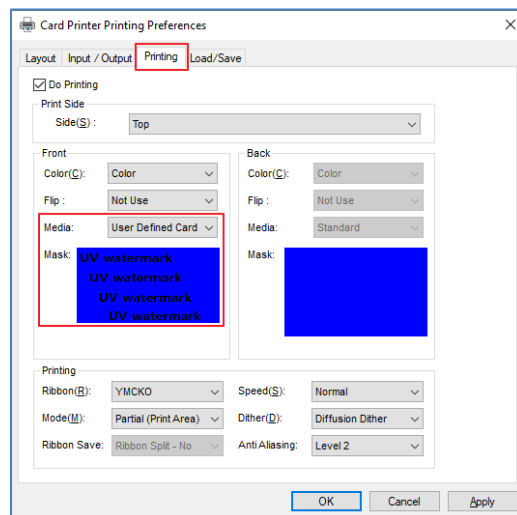

[Pic. 3]

[Pic. 4]

(6) In case of 'UV Watermark' (The YMCFKO panel should be used.)

- a. Click **Edit colors** in menu bar and input "**0**" to Red value, "**0**" to Green value, and "**0**" to Blue value. (Color : Black)

- b. Design objects or text in black are for printing with the fluorescent (UV) panel. For example, the text "UV

watermark" is only printed with the F (UV) panel. (See Pic. 4) ※ **You have to save as a bitmap file. (.bmp file)**

(7) Go to the printer driver, right-click to 'Printing Preferences', click on the **'Printing'** tab. In the **'Media'** field, select the option **'User Defined Mask'**. Browse for the bitmap image and select it for each side of the card you would like to apply the user defined mask to. **Apply** the change and click **ok** to close the driver window.

(8) Open the ID image you would like to print, click on print setup and validate that the printer settings show the user defined mask bitmap file selected. Click print to print the image with the user defined mask applied to the card.

(9) Validate the latent overlay or UV by viewing the card under a light source. Example: direct light for overlay, Black light for UV.

[Pic. 5]