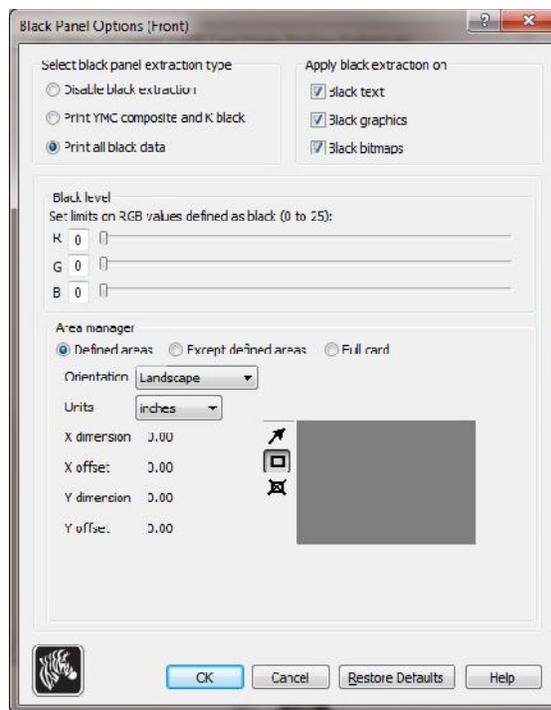## Black Panel Options

The Black Panel Options pop-up window allows you to manage and configure the use of the Black Panel (K panel) extraction when the selected Ribbon Combination shows the K panel on the same side as the Y, M, and C panels (e.g. YMCK Front / K Back).

To access the Black Panel Options pop-up window, select *Start > Devices and Printers*. Right click on the *Zebra ZXP Series 7 Card Printer* listing, and select *Printing preferences > Card Setup.* From the *Card Setup* tab, select a **Ribbon Combination** that has YMC and K all on the same side. The *Front K Extraction...* and/or *Back K Extraction...* buttons will become active. Press the appropriate button to open up the pop-up window.

The figure below shows settings for the front side of the card; settings for the back side of the card are identical.

This feature ensures that black text or black bitmaps will be printed with the Black Panel (K panel). Without this option, black may be printed in composite (YMC) creating a dark gray image instead of true black.

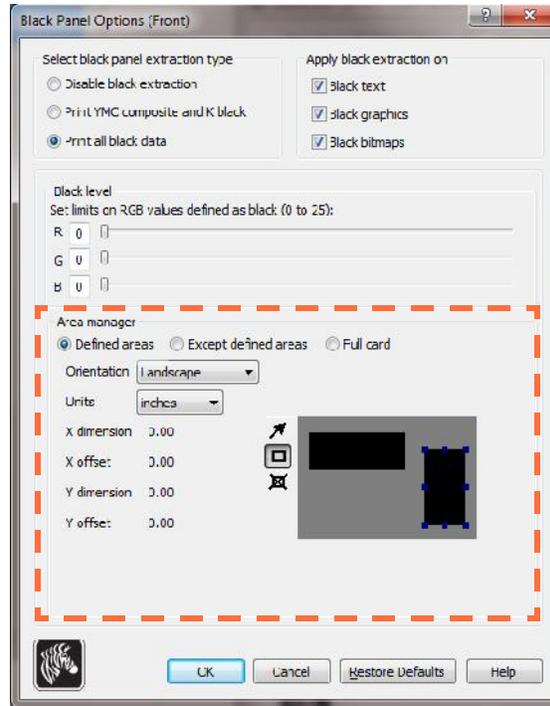To extract black areas from color images, several selections can be made.

- **Select black panel extraction type:**

    - **Disable black extraction** does not use the K panel for any part of the image. This selection will have the effect of rendering all black images as YMC composite.

    - **Print YMC composite and K black** uses both the K panel and the Y, M, and C panels to print the portions of the image that are identified as black. This selection will result in a dark, black image; but the edges will be smooth (due to the continuous tone nature of the YMC dyes), not the sharp edges typically desired for a barcode.

    - **Print all black data** (default) uses only the K panel to print the portions of the image that are identified as being black.

- **Apply black extraction on:** Note that this function is dependent on the image having areas defined as text, graphics (lines, rectangles, and other non-text graphic objects), and bitmaps (color images, photos, pictures, etc). If the image is flattened, then this function does not apply.

    - **Black text** applies black extraction to areas of the image identified as text.

    - **Black graphics** applies black extraction to areas of the image identified as graphics.

    - **Black bitmaps** applies black extraction to areas of the image identified as bitmaps. Black bitmaps will extract only black out of monochrome bitmaps not from color bitmaps. For extracting from color bitmaps, Area manager settings are used; see Defined areas, Except defined areas, and Full card on Page 81.

- **Black level:**

    Every dot of a printed image has an RGB color value that ranges from 0, 0, 0 (pure black) to 255, 255, 255 (pure white).

    The black level setting allows the user to specify the threshold value for any given pixel to be treated as black. The maximum setting is 25, 25, 25.

Area manager:

This option is enabled when either the *Defined areas* (extract inside the zone) or the *Except defined areas* (extract outside the zone) radio button is selected.

- **Defined areas** applies black extraction to areas of the image inside of the zones specified in the Area manager.

- **Except defined areas** applies black extraction to areas of the image outside of the zones specified in the Area manager.

- **Full card** applies black extraction to the entire image.

- **Orientation**: The Orientation selection sets the image orientation to either Portrait or Landscape.

- **Units**: The Units selection sets the units to either inches or mm (millimeters). The X-dimension, X-offset, Y-dimension, and Y-offset reflect these units.

To create a zone: Select the rectangle icon ▢ , click on an area of the image to establish the first corner of the zone, drag the cursor until the zone is the desired size and shape, then release the mouse button. Note that multiple zones can be defined.

To select, move, or resize a zone: Select the arrow icon ↗ , click on a zone to select it, then drag it to move it, or drag on the edges to resize it.

To delete a zone: Select the rectangle icon with an "X" through it ▨ , then click on the zone that you want to delete.