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DYNAMIC SENSED MEDIA TYPE OPTIMIZATION

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Dynamic Sensed Media Type Optimization

Abstract: The printer's media type sensor is used to identify print media sub-types within a given type of print media specified by the user, and automatically set print engine parameters optimized for the identified sub-type in order to optimize the resulting print quality.

This disclosure relates to the field of printers.

A technique is disclosed that uses the print media type sensor to identify sub-types within a given type of print media selected by the user.

Printing systems often implement media type sensing to improve print quality and usability of the device. These media sensors have the ability to resolve a given type to multiple sub-types. For example, media type T could resolve to one of type T1, T2, T3,….TN. However, when the user sets the media type, they lose the additional resolution. If the printer optimizes based on the user-selected resolution, the user may obtain sub-optimal print quality and fusing compared to that which could be achieved if the printer is allowed to auto-detect.

According to the present disclosure, the media type sensor is used to measure and optimize the user-selected media type T to media sub-type TA, where A is within {1…N}. This provides a finer resolution of the user-set type T to better optimize the fusing and print quality of the resulting prints.

The technique is as follows:

1. The user manually sets the media type to T
2. Upon a Tray Close operation, the printer engine senses the media type for Y pages in order to determine sensed type TA.
3. The engine shares TA with the controller.
4. If TA is not within set T, then the printer either reports an error or allows override.
5. If TA is within set T, then the media type is automatically set to TA.

The disclosed technique advantageously provides more accurate resolution of actual media type when the media type is set by the user. It provides the ability to detect and report a media type configuration error, or automatically override the user selection. This results in improved, optimized print quality and fusing over the entire set of media type T. It also allows for loading of color tables that are specific to media type TA.

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