

X-Rite InkFormulation 6

Application Notes: Basic Material Mode

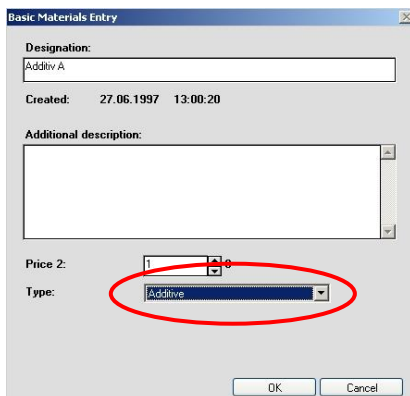
General

The Basic Material Module in InkFormulation 6 will offer the user the flexibility to change the additives in a recipe, specific to the printing process intended. The Basic Material Module allows you to work with a variety of additives within an assortment. To make alterations, please follow the instructions below.

Modifying Assortments

All additives being used must first be defined in the basic materials database, and assigned properly to an assortment before you can begin to formulate with them.

To add additives to the basic materials database, select “Basic Materials” from the “Database” menu. Make sure to select the correct additive type.



There are two possibilities to assign the additive to the calibration files within the basic materials database.

- 1) Click on the „Application“ button in the assortment dialog box (Fig. 2)
- 2) Select the desired assortment and click in the menu Database > Applications > New.

A new window opens, where you can save combinations for each individual application (Fig. 3).

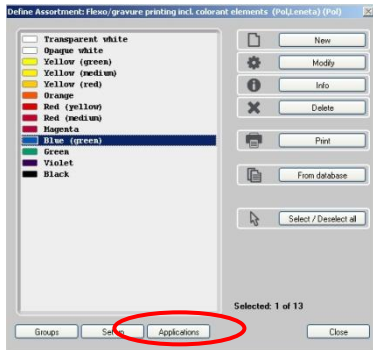


Fig. 2

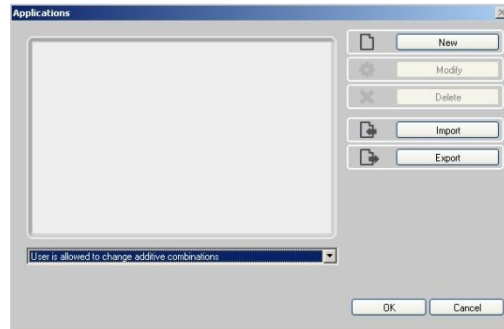


Fig. 3

You can define and save an unlimited number of combinations for your intended application, each with percentages for the additives (Fig. 4).

The additives are then saved in the basic material database display and are available for selection/use. The user selects the required additives and enters a percentage value. Enter a name for the combination and close the dialog box. The combination is now available during formulation (Fig. 5).

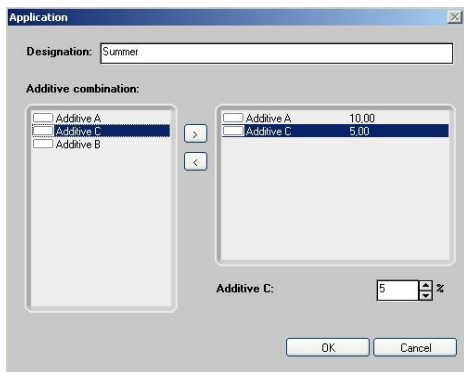


Fig. 4

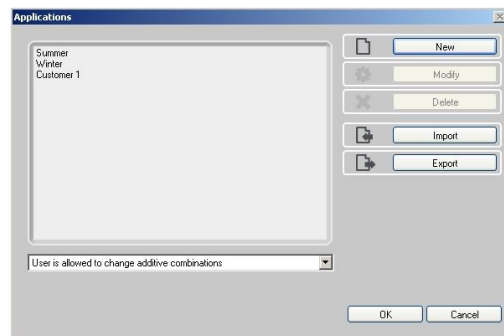


Fig. 5

Fig.

In the assortment you also can define the right for the end-user:

1. User can't change the application
The user may only formulate with one application.
2. User can change the application
The user can select one of the given applications.
3. User is allowed to change additive combinations
The user may select one of the given applications or create a customized.

The calibration files are not modified. The assortment color information is not changed and the quality of the assortment is not affected.

How to Modify a Color Formulation with Additives

If you have assigned two additive combinations in an assortment, an additional dialog box opens during formulation, prompting you to select one of the additive combinations for the formulation (Fig. 6).

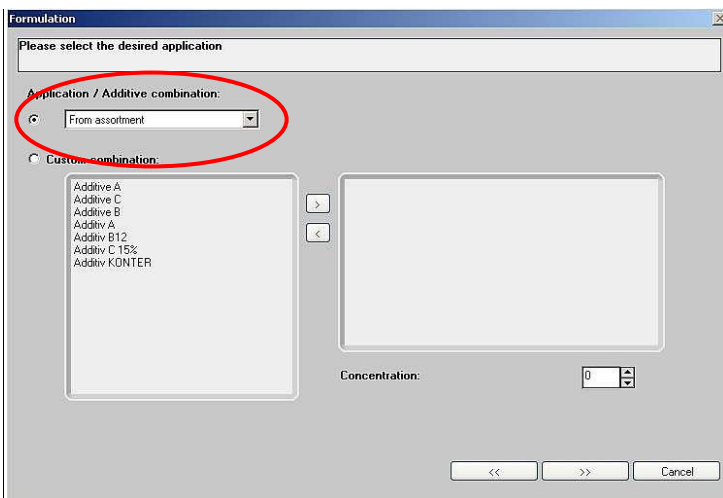


Fig. 6

During formulation, the user also has the option to create a new additive combination (Fig. 7).

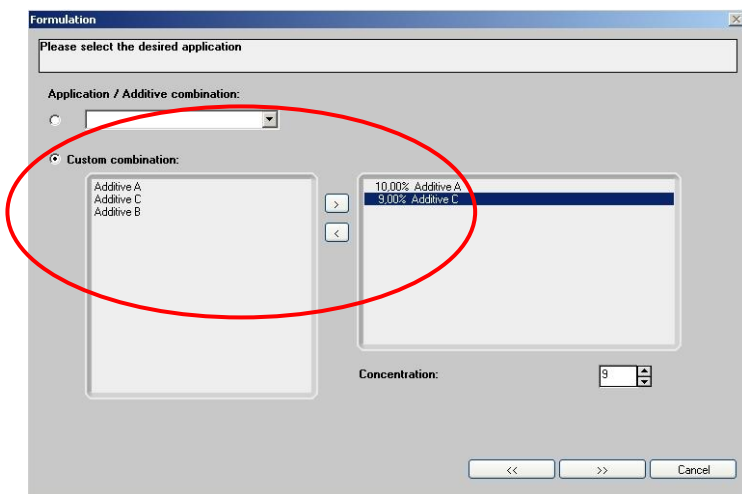


Fig. 7

Modifying Additives in a Recipe

Even after formulation, the user can continue to modify a recipe. There are two different ways to modify the additive values in existing recipes.

When you open an existing recipe, the “Additive Selection” window opens. Here, you can assign new additives using an existing combination, by creating a new custom combination (Fig. 8) or take the combination from the assortment.



Fig. 8

It is also possible to change the additives using the Recipe Editor. After loading a recipe, the user can change the amount of additive manually (Fig. 9). In addition, users have the option to alter the recipe non-proportionally.

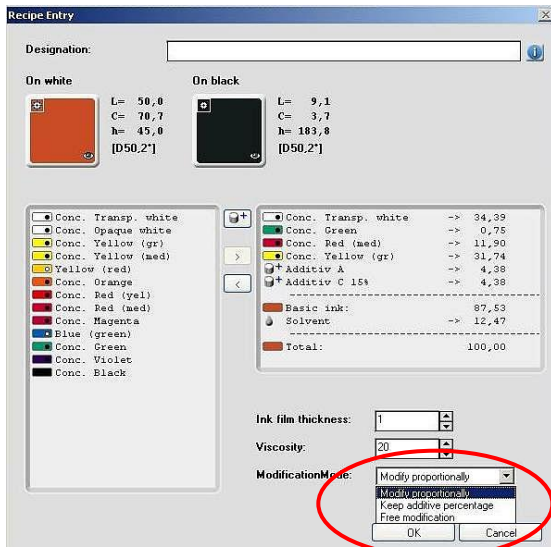


Fig. 9

Three different modes are available for recipe modification:

a) Proportional Modification

The recipe is changed proportionally. Changes are only made to the ink concentration. The percentages of additives, transparent white and/or solvent are recalculated automatically.

b) Keep Additive Percentage

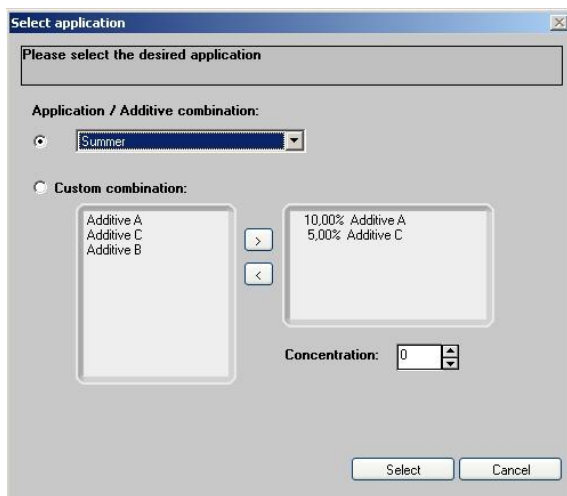
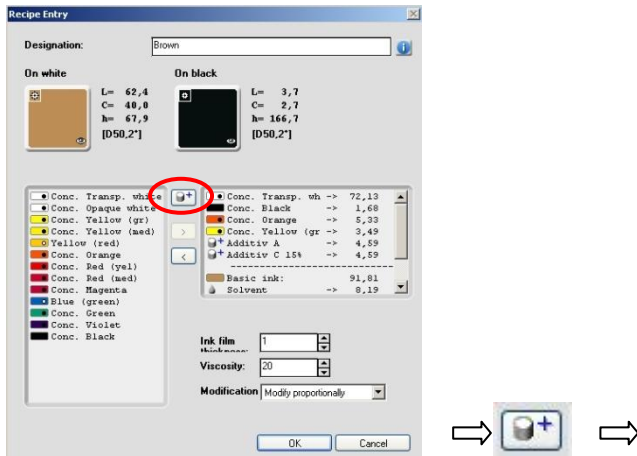
Changes can also be made by varying the ink concentration. The percentages of the additives in the assortments that are assigned to that concentration are recalculated automatically. The ratio of additives to concentration remains constant.

c) Free Modification

The user can change the recipe ratios without restrictions. The changes have no effect on other ink components. The solvent is handled separately and cannot be changed. You can reduce or increase the amount of solvent using the viscosity slider.

The “Free Modification” mode is recommended for advanced users only. With this function, the user can modify the recommended ratio of ink components without restriction, which can severely affect the print quality. When using this mode, InkFormulation 6 displays a warning. X-Rite does not assume any responsibility if this warning is ignored.

In addition to the three modes outlined above, the "Recipe Entry" dialog box contains other related functions. Click on "Additive" to open the "Additive Selection" dialog box. Here the user can change the additive combinations for the assortment and modify the recipe as follows: (Fig. 10)



(Fig. 10)

Benefits

The Basic Material Module offers several advantages to ink manufacturers and printers.

The ink manufacturer can quickly create custom assortments. Flexibility is achieved by adding additive combinations per the customer's specification. In addition, ink manufacturers can realize both time savings and improved database management. They save time when creating assortments; recipes do not necessarily have to be recreated for each assortment. They will also have better control of their database(s) because the number of assortments and recipes can be significantly reduced.

For printers using InkFormulation 6, the Basic Material Module simplifies the handling of assortments and recipes. Assortments and recipes do not have to be added or modified specifically for different additives. A single assortment with suitable additive combinations can be used for a variety of applications. The recipes are assigned to a single assortment but all applications can access and modify the recipe in question. This saves a lot of time. Print shops will also be better able to monitor their assortments and recipe database(s). In addition, additives that could optimize the printing process can be added easily and modified manually.