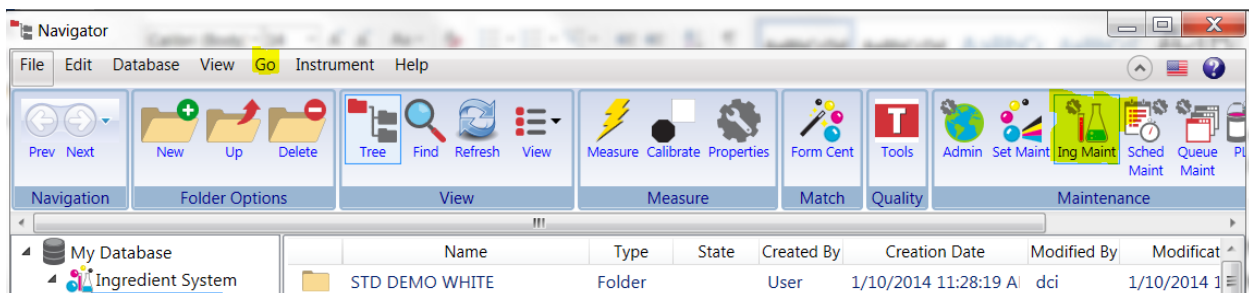


## Using Ingredient Keywords to Select a Range of Materials for Use in Color Matching Based on Their Properties

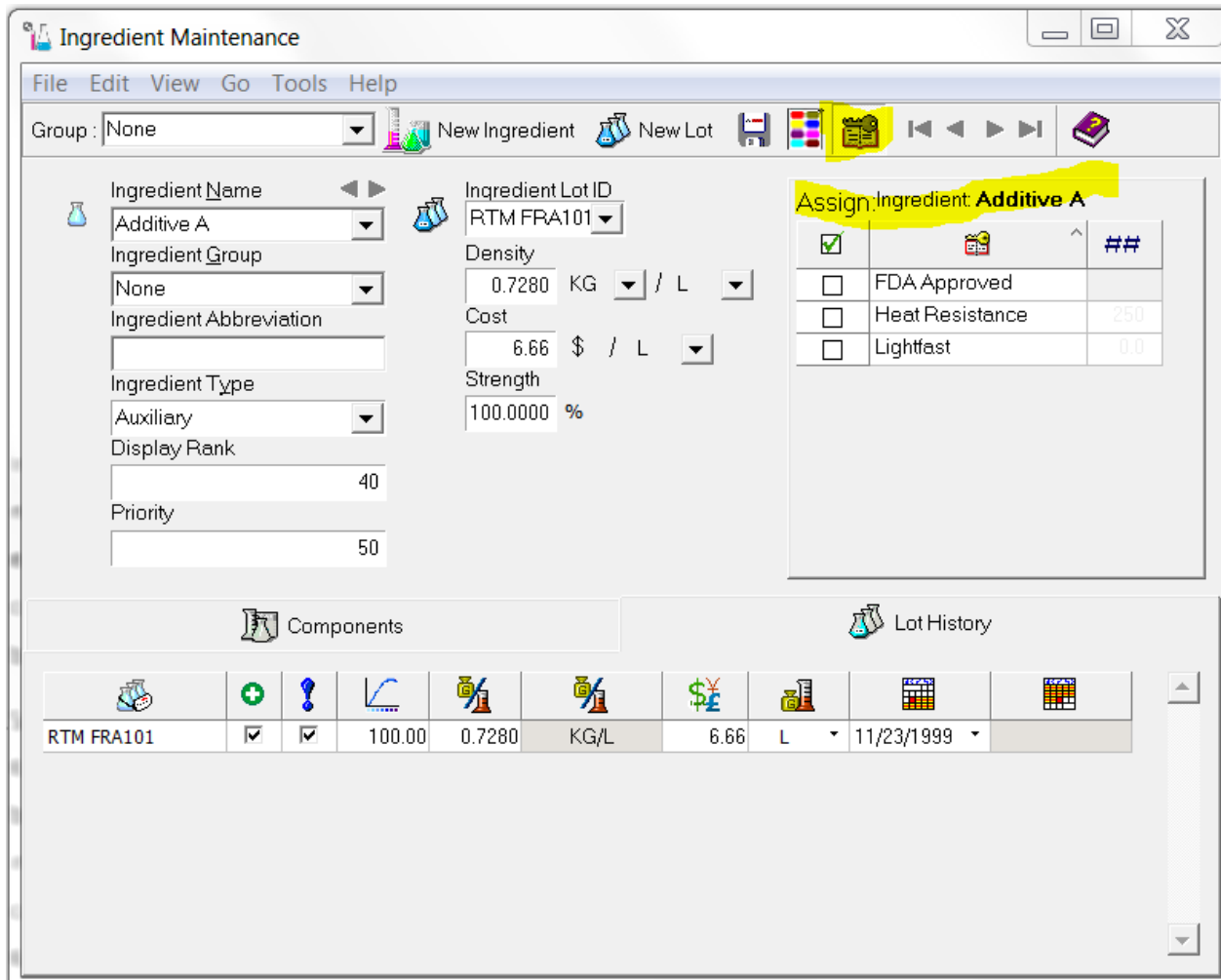
In the process of matching a new color standard in Formula Central, the matcher must select a range of colors and ingredients that will meet the needs and expectations of the task at hand. These might be process limitations, regulatory considerations, and others that can severely limit which materials can prudently be used.

Some industries may have colorant sets that contain 100 materials and more. Knowing the physical properties and limitations of that many materials may be beyond the capabilities of some of users of Formula Central so Datacolor incorporated a function to maintain a knowledgebase of that information which can easily be used to make prudent material selections. This tool is called Keywords.

Keywords are listed and defined in the Match Pigment program, Ingredient Maintenance. Ingredient Maintenance is accessed either through the ribbon bar in Navigator or by clicking on Go on the toolbar above that ribbon bar and selecting it from the resulting dropdown menu.



To open the Keyword function in Ingredient Maintenance, click on that button on its ribbon bar.

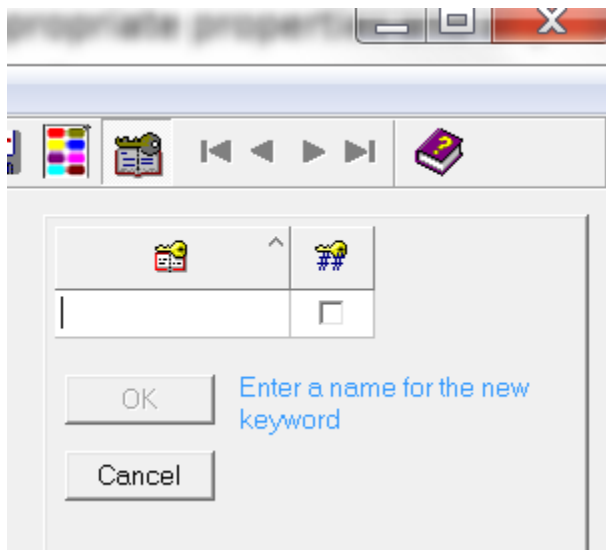


What is displayed is a grid where Keywords can be created, edited, defined and deleted. In the above display, that grid shows this is where the appropriate properties can be assigned to any and all materials in Ingredient Maintenance. Notice the labeling states this is set to assign the appropriate properties and any values for those properties to the ingredient Additive A.

The three keywords available in this screen are FDA Approved, Heat Resistance, and Lightfastness. The checkbox next to each keyword can be checked if this keyword/property is appropriate to this ingredient, Additive A. In this example, FDA Approved is either a Yes or a No answer. If it is in fact an FDA Approved material, you would enter a check into that box. If it is not, you would leave it blank.

If you were to assign the keyword Heat Resistance to Additive A, you would need to put a number in the column Keyword Numerical Value. For example, if Additive A had heat resistance up to and including 400 F, you would enter 400 in that column alongside of it. Similarly, Lightfastness may have a standardized scale of values where the highest value is 8. If Additive A had a lightfastness value of 6, you would enter 6 into that column alongside of it.

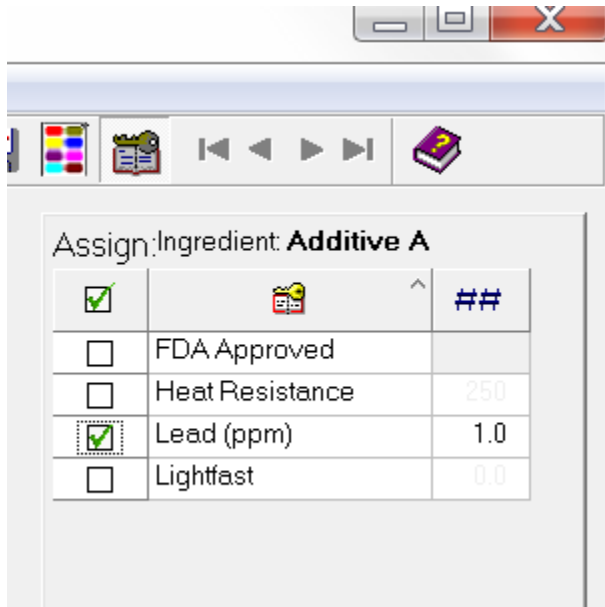
You can create new keywords by right-clicking in that grid area and then clicking on New Keyword.



As an example, let's add the Keyword Lead (ppm) for lead content in parts per million. Since this will have a numerical value, we click on the checkbox next to the Keyword name and we get two more columns: minimal value possible in the left hand column, and a default value (which can be overwritten as need be) for lead content.

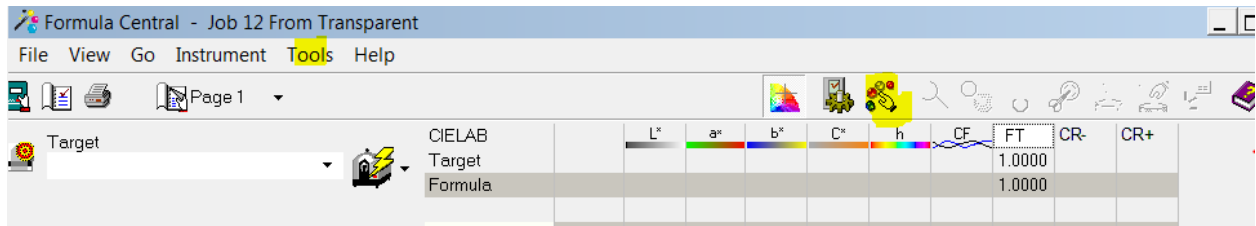
Again, right-clicking in the grid will allow you add more Keywords, delete, rename or edit existing keywords.

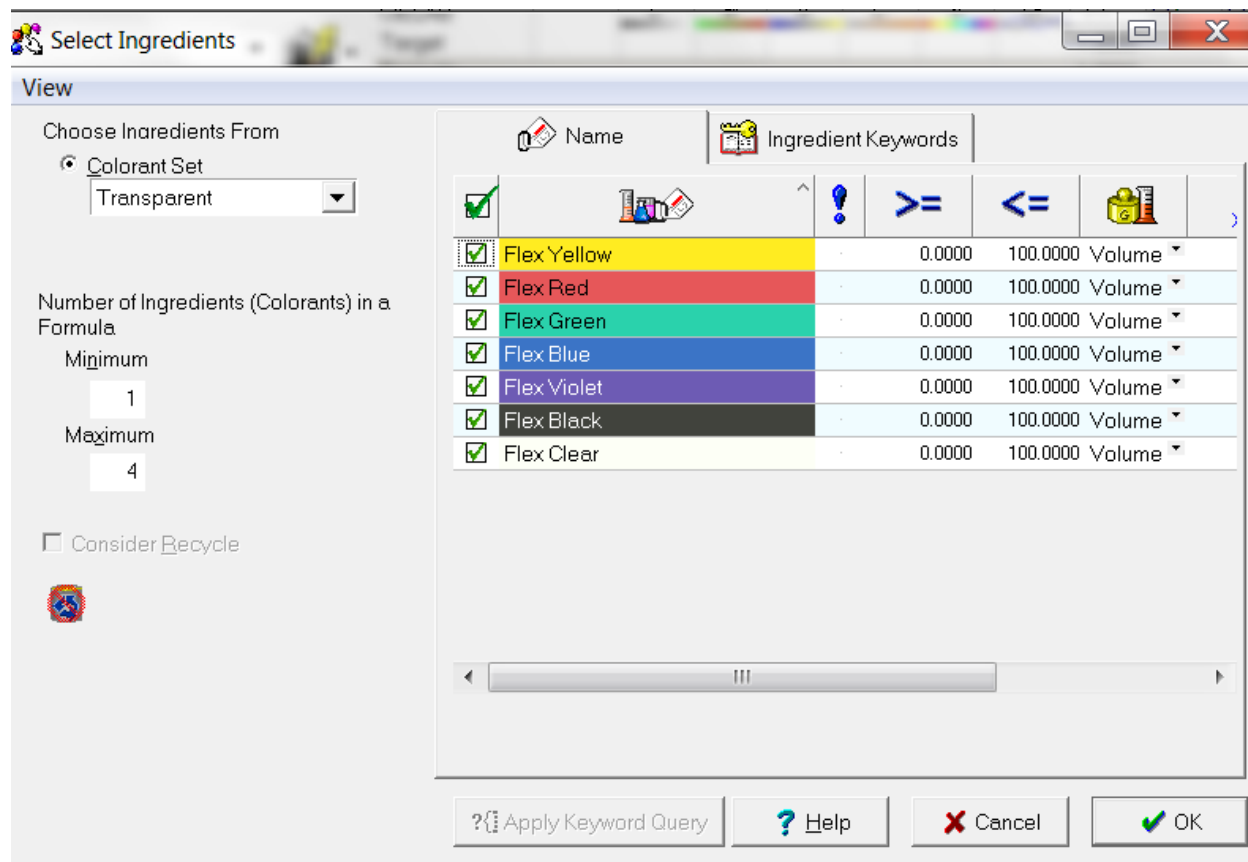
The next step would be to go through all the ingredients in Ingredient Maintenance and assign the appropriate Keywords and the values where needed for each material.



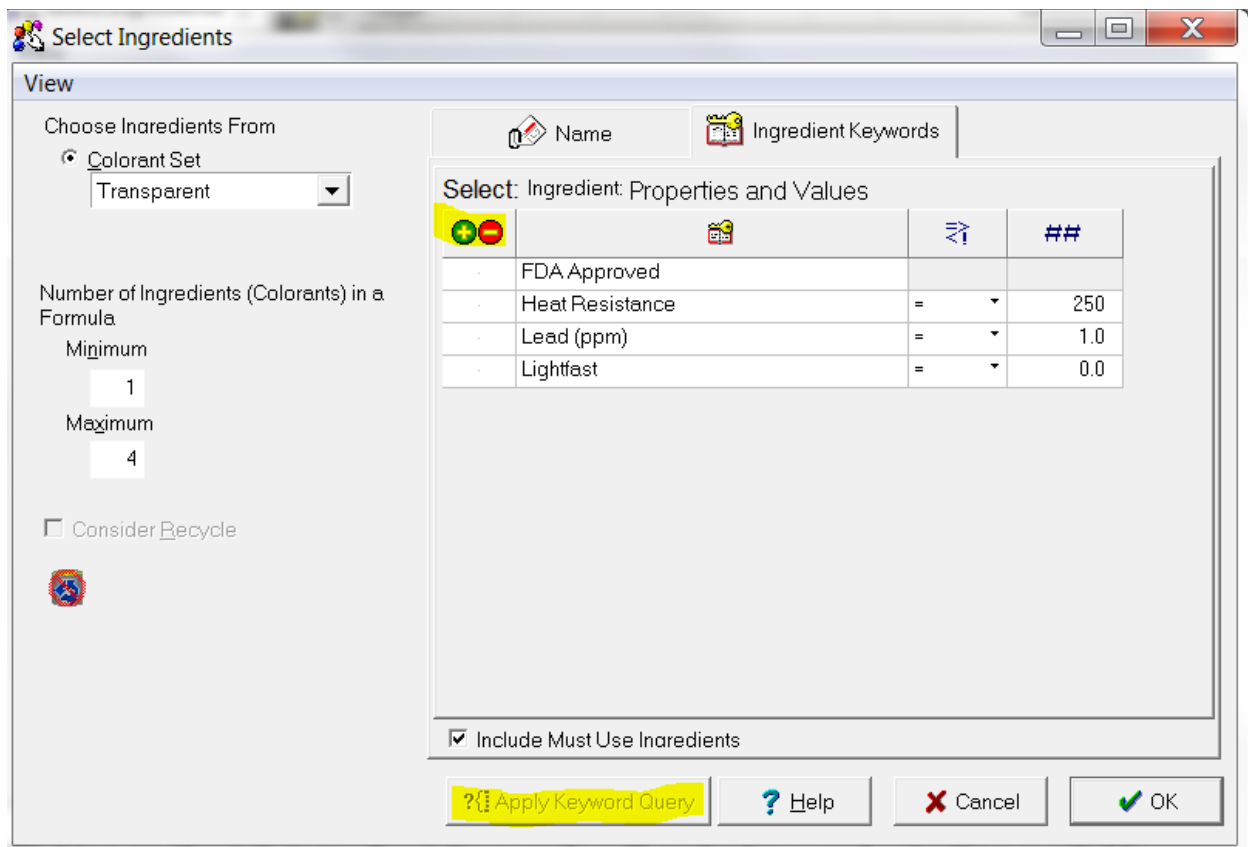
That value column will stay empty until you check the Keyword Lead (ppm) and then you can put the actual lead content in ppm in there for Additive A.

In the color formulation and correction program, Formula Central, when you are starting a color match to a new colorant standard, you will need to select which materials are appropriate for the requirements of the particular match. This selection is done in Browse/Select Ingredients which is accessed by clicking on that button in its ribbon bar or clicking on Tools on the toolbar above the ribbon bar, or using the hotkey, F5.





Clicking on the tab Ingredient Keywords will make keyword selection available.



Here you can select one or more keywords that are appropriate to you match requirements. Clicking in the left-hand column will first put a + there, meaning it must have this property, a second click will put a – there, meaning it must NOT have this property. Leaving it empty means it can or cannot be used; it is not a limitation. Selecting a keyword that have a numerical value requires you then put a value in the far right hand column for that keyword. The column to its left will be a numerical qualifier: greater than, less than, greater than or equal, less than or equal, equals, and does not equal will be the choices.

You can select as many of the keywords as the requirements for this match dictate. Then, only those ingredients which meet **all** of those keyword requirements will be marked as Selected.

Once you selected even on keyword the “Apply Keyword Query” button at the window’s bottom becomes active. Clicking on that will return you to the list of all the ingredients in that colorant set but only those that have a check in the column left of the ingredient name will have met the keyword requirements.