



Production Wizard™

CONFIGURING A FORMULA FOR DAILY OPERATIONS

Please note that this is only one example for one food product type. Production Wizard™ is customizable and a very flexible program that can be used to batch almost anything.

Production Wizard™ is composed of features for configuration and daily plant operations. In this example we will see how easy it is to configure a formula for enhanced daily product batching.

Frank is the Production Wizard™ program administrator for R.H. Ice Cream Company. We will watch him do the following:

- Reconfigure an existing formula to allow a user to pick skim milk powder if the plant is running low on condensed skim.
- Test the reconfigured formula using the batch creation tool.



Reconfigure an Existing Formula



Frank is making some changes to an existing 12% fat ice cream Production Wizard™ formula. Brad works in the plant. He prepares the daily batch reports that are used to make each mix. He came to Frank with a problem. Sometimes the plant runs low on condensed skim. Brad would like Frank to modify the 12% fat ice cream mix such that he can switch to skim powder if this happens.

We will watch Frank reconfigure the 12% fat ice cream in Production Wizard™ to allow Brad to use skim powder in the 12% fat ice cream formula if needed. When Frank initially created the 12% fat ice cream formula, he defined every detail of the Production Wizard™ formula including:

1. Set the possible ingredients that are to be used in the formula.
2. Determine the tank locations for liquid ingredients.
3. Set the ingredients that Brad can choose.
4. Set the amount and type of salvage allowed in this formula.
5. Set the desired composition.
6. Set the allowable formula composition to meet laboratory guidelines.
7. Set the batch report format and linked the report information to other software programs.
8. Set the units to use for each ingredient on the batch report.
9. Set the outcome if Brad selects a tank ingredient that has been in the tank too long or has not been analyzed for fat and total solids.
10. Set the ingredients that the lab will update daily with total fat and solids data which Brad uses when reformulating.

Below we see a snapshot of Frank’s formula in Production Wizard™. On the left portion of the screen are the formula name and the formula identification number (A). Below this is the reference number (B) and description (C) for each ingredient. To the right of this is the desired range for each ingredient. Frank has set limits on salvage (D) and vanilla (E). Notice that no more than 10% salvage is allowed in this formula. Vanilla is set to be between 0.6296 and 0.630%. This means that when Brad reformulates to make a batch of this mix in the plant, he will use no more than 10% salvage and between 0.6296 % and 0.630 % vanilla.

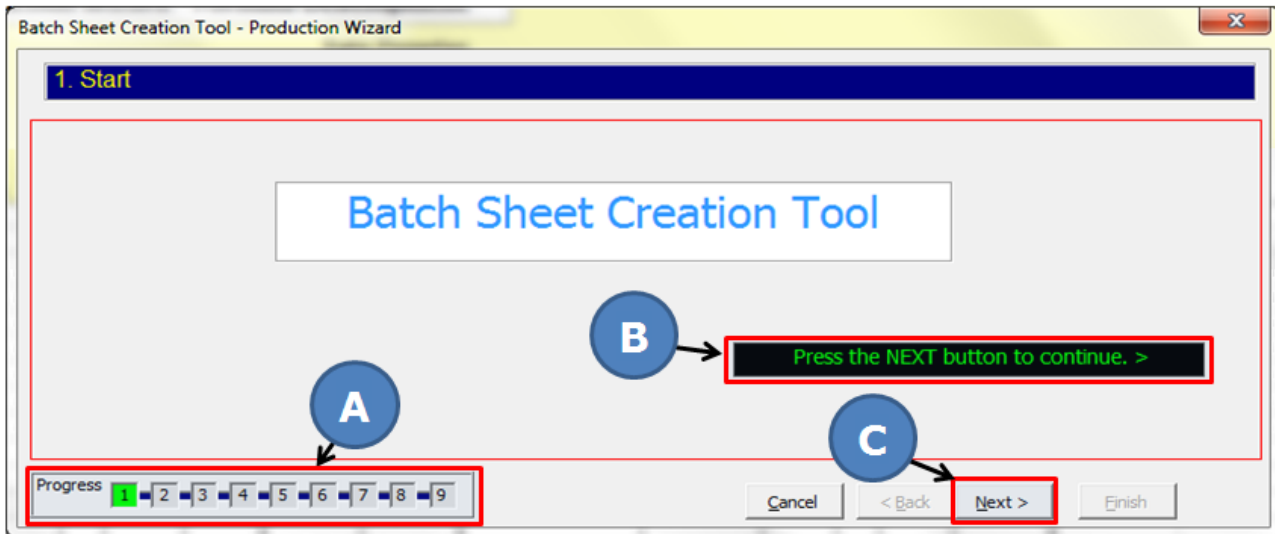
On the right portion is where the desired composition of the formula is configured (F). Frank has set up this formula to have 12% milk fat, 11% milk solids non-fat, 15% sucrose solids, and 0.188 % stabilizer solids. How is all this information used when batching product? This will become clear when we watch Frank test his updated formula using the Batch Creation Tool.

The purpose of modifying the formula was to make it possible for Brad to switch to skim milk powder if he runs low on condensed skim. Frank has already placed his two new ingredients Skim Powder and Added Water in the formula (G). Notice that Production Wizard™ allows for more ingredients to be added to a formula than is actually used at any one time. This provides for more flexibility when batching a product.

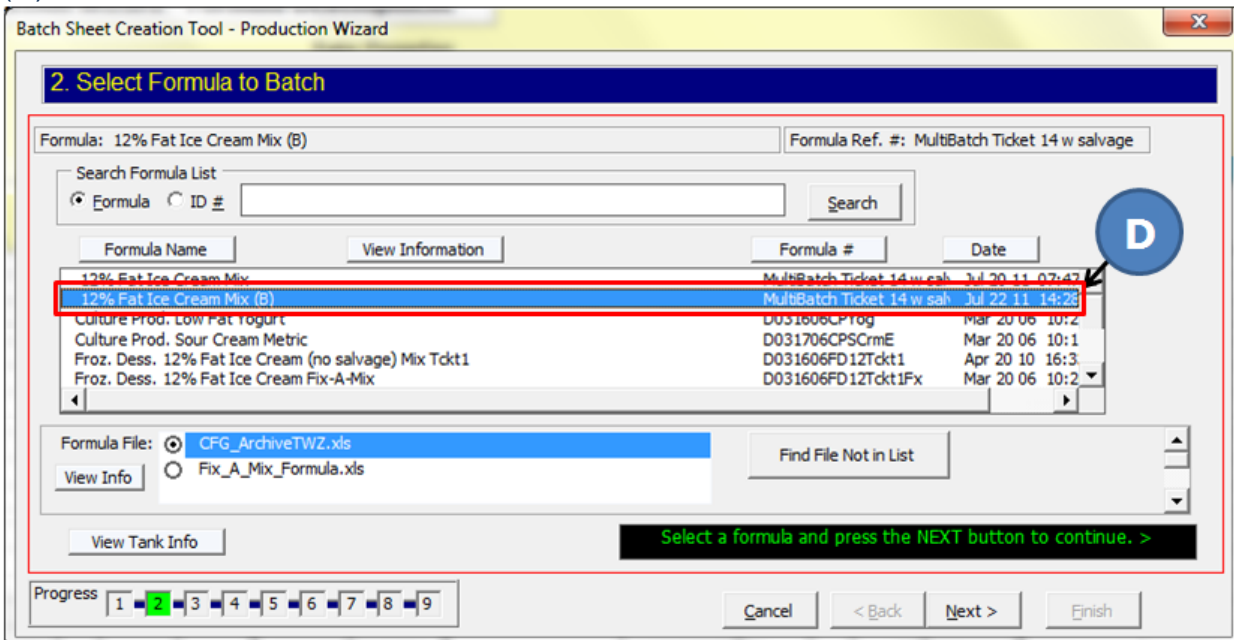
Frank must now configure the formula to allow Brad to select Skim Powder when batching. Frank does not wish to use water in this formula unless it is absolutely necessary to balance the formula. The Added Water ingredient has already been configured to do this (configuration procedures are not shown).

Shown below is a snap shot of the Formula Configuration window. This particular window is where Frank will configure Skim Powder such that Brad can select it from a list of ingredients. Frank selects the Skim Powder ingredient (H) and sets the option, **User select from a list to Y**

Frank starts the Batch Creation Tool which is shown below. Notice the progress bar (A) in the lower left hand corner. This informs the user where he/she is in the process of creating a batch report. Each screen has instructions (B) to inform the user what needs to be done before continuing. Frank clicks the **Next** button to continue (C).



Frank is prompted to select the formula he wishes to make. He selects his reconfigured formula (D) and clicks the Next button.



Frank is prompted to enter the amount he wishes to make and how many identical batches he desires. The default amount that he configured for this formula is one batch of 1100 gal (E). He leaves the settings as they are and clicks the **Next** button.

Batch Sheet Creation Tool - Production Wizard

3. Enter Batch Amount

Formula: 12% Fat Ice Cream Mix (B) Formula Ref. #: MultiBatch Ticket 14 w salvage

Number of Copies to Print: 1

Number of Batches to Make: 1 Batch Size: 1100 Select Units of Measure: gal

Total Amount: 1100 gal

Enter the number of identical batches, batch size, and select units of measure. Press the NEXT button when finished. >

Progress: 1 2 3 4 5 6 7 8 9

Buttons: Cancel, < Back, Next >, Finish

Now we come to the step that was the main purpose of reconfiguring this formula. In this step, Frank is asked to choose the ingredients he wishes to use to make this formula. Frank selects tanks containing cream and milk (E). Instead of choosing a tank containing condensed skim milk he picks skim powder instead (F). As you may recall, Frank reconfigured the formula to allow a user to do this. He clicks the **Next** button.

Batch Sheet Creation Tool - Production Wizard

4. Select Ingredients

Formula: 12% Fat Ice Cream Mix (B) Formula Ref. #: MultiBatch Ticket 14 w salvage

Please select ingredients as needed. If there is a limited amount of a selected ingredient, mark it. Press the NEXT button when finished. >

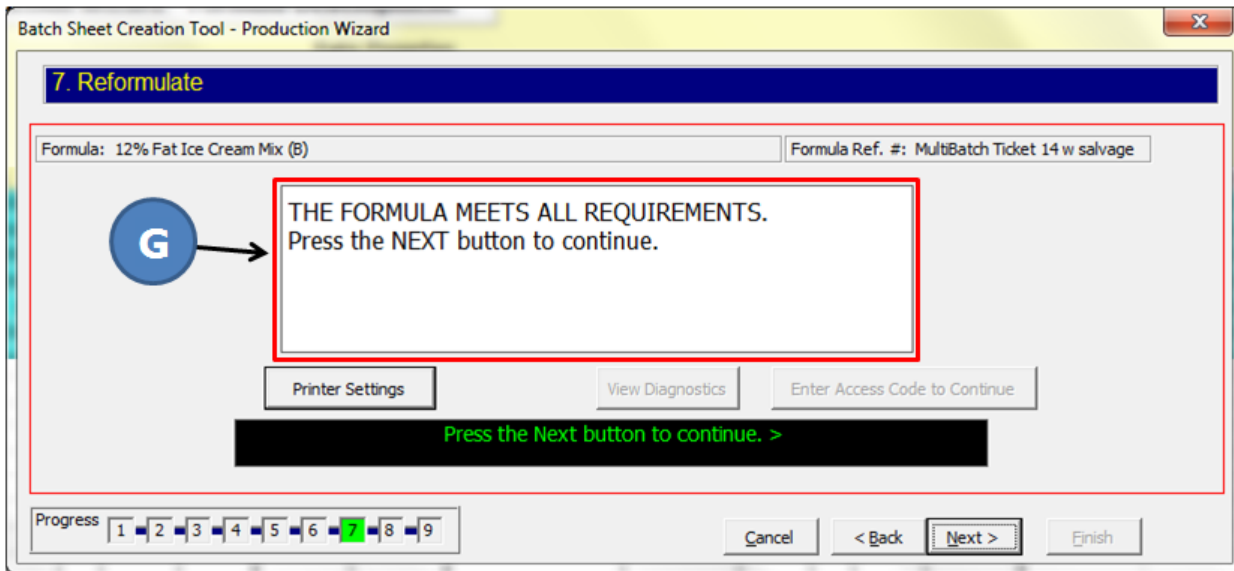
Buttons: Unselect All, View Tank Info, View Notes

Set Limited Amount	Select Ingredient	Reference #	Date Arrived	Date Tested	Status	Amount in Tank	% in Tank
<input checked="" type="checkbox"/>	Cream - Tank 1 (BF% 39.0)	700-00101	Jul 19 2011 16:11	Jul 19 2011 16:20		74000.0 gal	98.67
<input checked="" type="checkbox"/>	Milk - Tank 2 (BF% 3.5)	700-00100	Jul 19 2011 12:11	Jul 19 2011 12:30		75000.0 gal	100.00
<input type="checkbox"/>	Milk (Condensed Skim) - Tank 6 (BF% 3.5)	700-00200	Jul 19 2011 06:11	Jul 19 2011 06:30		100.0 gal	0.13
<input type="checkbox"/>	Skim Milk - Tank 3 (BF% 0.5)	700-00102	Jul 19 2011 11:11	Jul 19 2011 11:30		75000.0 gal	100.00
<input checked="" type="checkbox"/>	Skim Powder	700-00103					
<input type="checkbox"/>	Salvage - 12% Mix	S345-890					

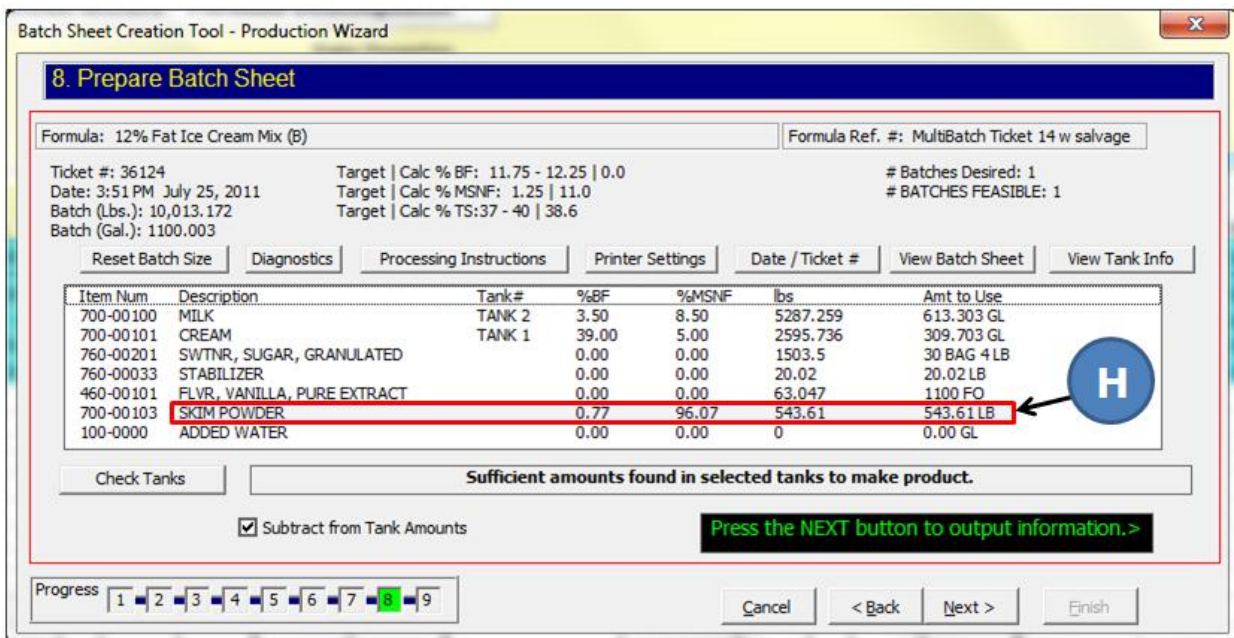
Progress: 1 2 3 4 5 6 7 8 9

Buttons: Cancel, < Back, Next >, Finish

Previously it was mentioned that this formula contains sugar, stabilizer, and vanilla along with the ingredients the user must select. Frank selected cream from tank 1, milk from tank 2, and skim powder. Frank set up the formula to contain 12% milk fat, 11% milk solids non-fat, 15% sucrose solids, and 0.188% stabilizer solids. This screen notes that Production Wizard™ has successfully created a recipe that meets all these requirements (G). Frank clicks the **Next** button to view the batch report.

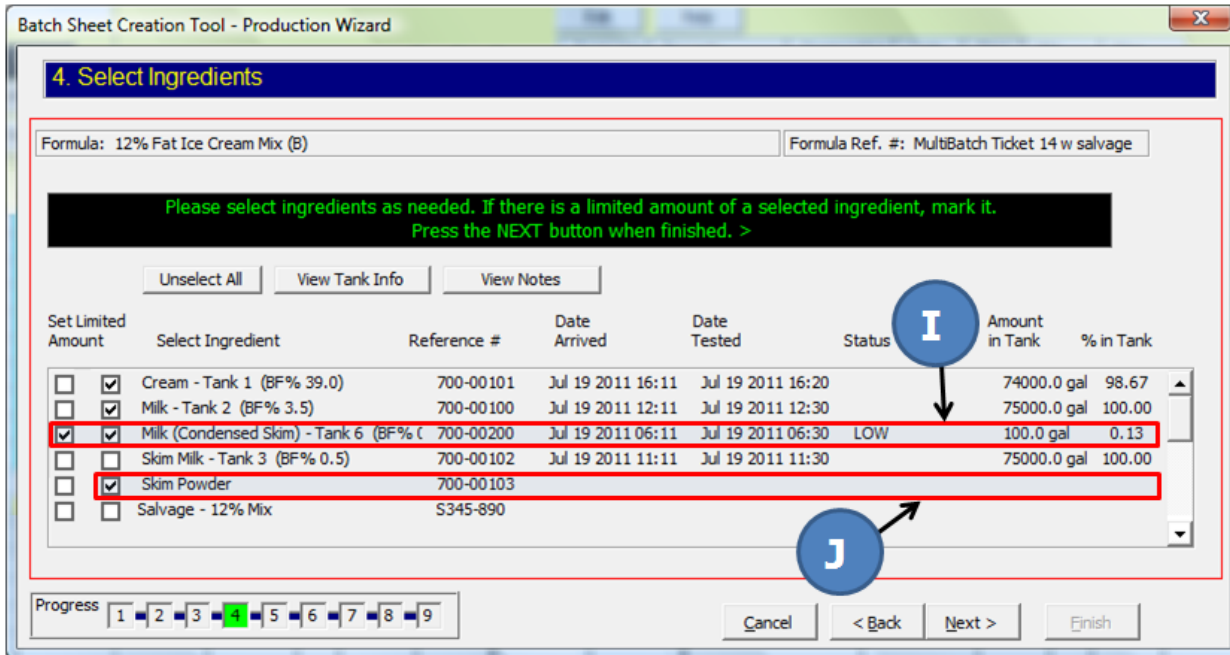


The batch report is shown below. This screen contains a great deal of information. Frank and Owl Software worked together to determine the essential information that should appear on this screen to satisfy the needs of Frank and others at his company. In the middle portion of the screen, the amount of each ingredient necessary to make an 1100 gal batch is shown. In particular note that a little over 543 lbs. of skim powder is required. This window proves that Frank has successfully reconfigured the formula to use skim powder if Brad is running low on condensed skim.

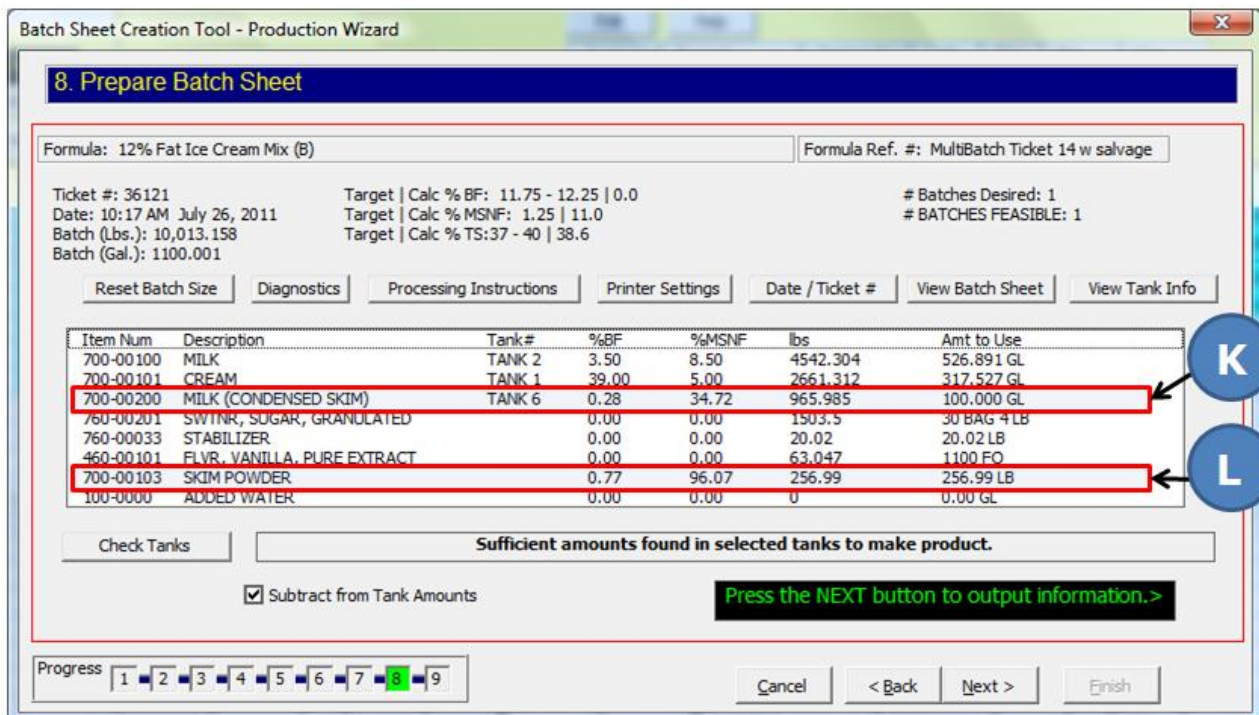


Frank ran one more test. He wanted to test the situation where the condensed skim tank has a small amount left in it. He will select both condensed skim and skim powder. He wants to make sure that Production Wizard™ will switch to the skim powder once all the condensed skim is

depleted. Notice that step 4 from the Batch Creation Tool is shown below. Frank has selected tank sources of cream, milk, condensed skim (I) and skim powder (J). The condensed skim tank is almost empty.



Step 8 shows that Production Wizard™ successfully completed the task. The remaining 100 gal of condensed skim (K) found in the tank was used up then the program made up the difference with skim powder (L).





This whole process probably took Frank less than 15 minutes to complete. Brad can now start using the updated formula immediately.

Frank has the enterprise version of Production Wizard™ which allows him to set up formulas for several different plant locations from his computer. He is working on one particular location at the moment. If needed, he can conveniently share this formula with other locations.

Contact Us

We hope you found this example informative. Production Wizard™ is an application that keeps formulas on track and makes day-to-day batching much more efficient. It is designed to work with existing applications and to start saving you money immediately.



Batching operations where production staff do hand calculations or use a spreadsheet to balance formulas can lead to costly mistakes. Production Wizard™ provides for managed, fast, and efficient batch creation. It reduces product loss, and provides for more effective use of your staff's time. Please contact us today to learn more about Production Wizard™ or to schedule a live demonstration.