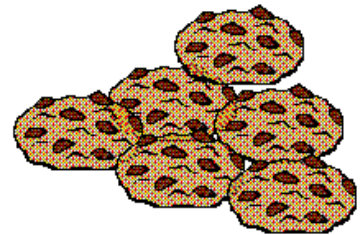


Alternate Basis Formulas

New Feature in Xspec® 4.0

One of the biggest features added to Xspec 4.0 is the alternate basis formula. The Formula section in Xspec has been updated to enable companies to set the formula by an alternate basis. This feature allows either the batch weights to be calculated based on the entered percentages, or the percentages calculated based on the entered quantity amounts. What the alternate basis will enable you to do is determine how much product you can make with a specific amount of a base ingredient. For example, if you only have 100 pounds of flour you may only be able to produce 300 pounds of cookies.



How it Works!!!

With the Alternate Basis Maintenance Configurator, you create the mathematical statements used by the Formula section to compute the weights for the ingredients. Simply enter the name of the alternate basis and define the value information. Xspec 4.0 already has five alternate basis types added to the system. The five alternate basis types are:

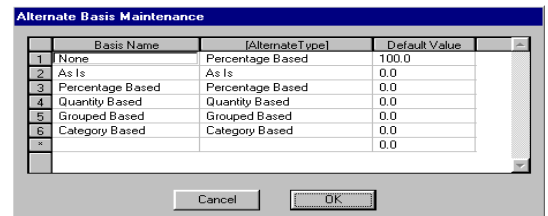


Figure 1

Alt. Basis Type	Description
None	You can enter both percentages and weights in the Formula section. You can enter the data in the % Weight, and the system adds the same value in the Alt. Basis field. No calculations are performed except for the total of each column.
As Is	You can enter both percentages and quantities in the Formula section. You can enter the data in the % Weight and the Alt. Basis fields, however no calculations are performed except for the total of each column.
Percentage Based	You enter the percentage of each item, and Xspec calculates the values in the alternate basis column based on the entered percentage and specified total batch weight.
Quantity Based	You can enter the quantities in the alternate basis column, and Xspec calculates the percentages based on the entered quantity and calculated total of the entered quantities.
Grouped	This alternate basis type enables you to group several ingredients together for the calculations. You enter the percentage, and Xspec calculates the alternate basis column based on (1) the entered percentages, (2) the specified batch weight, and (3) the items marked as belonging to the group that should total the specified batch weight.

After the setup, you can create your formula specifications. For the alternate basis type, None, you can enter percentages of items in the Formula section. You can enter the data in the % Weight, and the system adds the same value in the Alt. Basis field. Xspec does not perform any calculations except for the total of each column, as displayed in figure 2.

Item Id	% Weight	Alt. Basis	Sub	Item Id	Version	Document Desc
1	75.0	75.0		RAW125	D-1	FLOUR
2	10.0	10.0		ALL217	D-1	Sugar
3	5.0	5.0		RAW127	D-1	CHOCOLATE CHIP
4	3.0	3.0		RAW126	D-1	MARGARINE
5	1.5	1.5		RAW129	D-1	VANILLA
6	5.5	5.5		RAW128	D-1	EGGS
7	0.0	0.0				

Figure 2

When you create an As Is alternate basis formula, you can enter both percentages and quantities in the Formula section. You enter data in the % Weight and the Alt. Basis fields. However, Xspec does not perform any calculations except for the total of each column, as displayed in figure 3.

Item Id	% Weight	Alt. Basis	Sub	Item Id	Version	Document Desc
1	75.0	75.0		RAW125	D-1	FLOUR
2	10.0	10.0		ALL217	D-1	Sugar
3	5.0	5.0		RAW127	D-1	CHOCOLATE CHIP
4	3.0	3.0		RAW126	D-1	MARGARINE
5	1.5	1.5		RAW129	D-1	VANILLA
6	5.5	5.5		RAW128	D-1	EGGS
7	0.0	0.0				

Figure 3

When you create a Percentage Based formula (figure 4), Xspec calculates the weight of each material needed to create a specific amount of product. You enter the percentage of each item, and Xspec calculates the values in the Alternate Basis column based on the entered percentage and specified total batch weight. As a result, a plant will be able to enter the amount of product they need to make, and Xspec will calculate the amount of each ingredient needed to create the batch result.

Item Id	% Weight	Alt. Basis	Sub	Item Id	Version	Document Desc
1	75.0	225.0		RAW125	D-1	FLOUR
2	10.0	30.0		ALL217	D-1	Sugar
3	5.0	15.0		RAW127	D-1	CHOCOLATE CHIP
4	3.0	9.0		RAW126	D-1	MARGARINE
5	1.5	4.5		RAW129	D-1	VANILLA
6	5.5	16.5		RAW128	D-1	EGGS
7	0.0	0.0				

Figure 4

When you create a Quantity Based formula (figure 5), Xspec calculates the percentage of each material needed to create a specific amount of product. You enter the weight of each item, and Xspec calculates the percentages based on the entered quantity and calculated total of all the entered quantities. This alternate basis type is the exact opposite of the Percentage Based type formula.

Item Id	% Weight	Alt. Basis	Sub	Item Id	Version	Document Desc
1	81.675293	78.0		RAW125	D-1	FLOUR
2	9.424084	9.0		ALL217	D-1	Sugar
3	4.188482	4.0		RAW127	D-1	CHOCOLATE CHIP
4	3.141361	3.0		RAW126	D-1	MARGARINE
5	1.570681	1.5		RAW129	D-1	VANILLA
6	0.0	0.0		RAW130	D-1	Butter
7	0.0	0.0		RAW128	D-1	EGGS

Figure 5

The Grouped alternate basis type enables you to mark one ingredient or group several

ingredients together for the calculations. You enter the percentage, and Xspec calculates the alternate basis column based on (1) the entered percentages, (2) the specified batch weight, and (3) the items marked as belonging to the group that should total the specified batch weight. This alternate basis is very useful for plants that base their formulas on one or two main ingredients. For example, many bakeries base their formulas on flour. If a bakery only has 350 pounds of flour, the plant can determine how much of the other ingredients is needed to complete the formula, as shown in figure 6.

	% Weight	Basis	Alt. Basis	Sub	Item Id	Version	Document Des
1	75.0	<input checked="" type="checkbox"/>	350.0	<input type="checkbox"/>	RAW125	D-1	FLOUR
2	10.0	<input checked="" type="checkbox"/>	46.666666	<input type="checkbox"/>	ALL217	D-1	Sugar
3	5.0	<input type="checkbox"/>	23.333333	<input type="checkbox"/>	RAW127	D-1	CHOCOLATE CHIP
4	3.0	<input type="checkbox"/>	14.0	<input type="checkbox"/>	RAW126	D-1	MARGARINE
5	1.5	<input type="checkbox"/>	7.0	<input type="checkbox"/>	RAW129	D-1	VANILLA
6	0.0	<input type="checkbox"/>	0.0	<input checked="" type="checkbox"/>	RAW130	D-1	Butter
7	5.5	<input type="checkbox"/>	25.666666	<input type="checkbox"/>	RAW128	D-1	EGGS

Total: 100.00 Basis Total: 466.6666667 Orientation: Unassigned

Figure 6

How Do I Get More Information?

If you would like more information on Xspec version 4.0, please contact your IMAS sales representative at 800-977-3248.



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