



formula Integration

User manual

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Formula Integration

1. Introduction

Formula Integration is a solution that deals with Brill Formulation using SQL Server Data Bridge. It is able to show all production formulas with their ingredients and nutrients, and do operations like export files or to synchronize with another SQL database.

1.1. Functionality

- Update automatically when the program starts.
- Fast assistant to configure and start up
- Connection with databases
 - Connection with SQL Data Bridge (source database)
 - Connection with internal database
 - Connection with publication database
- List of production formulas with details of nutritional and ingredient composition.
- Option to export formulas in XF1 and XML format.
 - Exported formula mark
 - Last export
 - Export format
- Synchronization of selected formulas
 - Formula synchronized mark
 - Synchronization state
 - Last synchronization
- Plug-in to add formula exporters. Really flexible at exporting formulas from source database using custom-made exporters.
- Plug-in to add converters of formula specifications, ingredients and ingredient prices. Allows you to convert from an specific format to XF1 using custom-made converters.

2. Installation

2.1. Minimum requirements

- Microsoft Windows 7, Server 2008 or later (*)
- Microsoft SQL Server (inc Express) 2008 or later
- Microsoft NET Framework 4.0
- Windows Installer 4.5

(*) For others operating systems contacting with soporte@agrifoodat.com

2.2. New source database

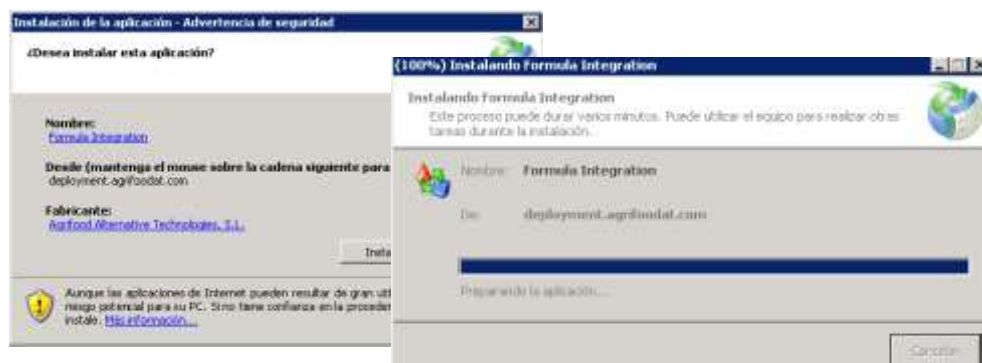
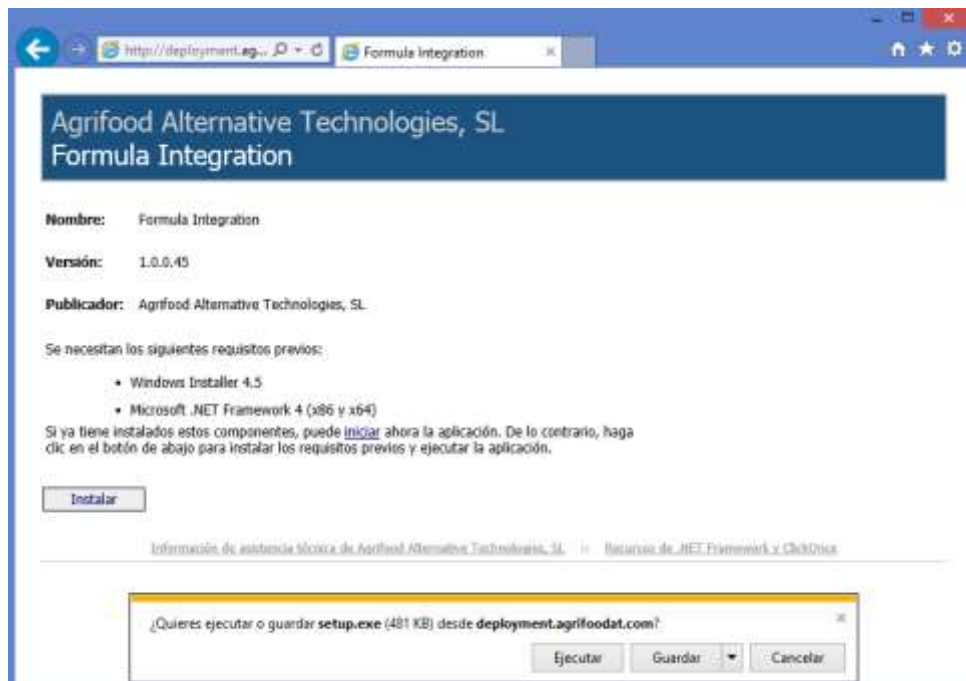
Creating and configuring source SQL database is done from Brill Formulation program, using SQL Data Bridge.

2.3. Installation by Internet

To install go to the URL below:

<http://deployment.agrifoodat.com/formulaintegration>

Press clic on the **Install** button, and later press **Run**.



2.4. License activation

To activate the license appears a screen as the following. It's needed to have network connection. Click on the **Request License** button.

Activar licencia

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formula Integration

Para iniciar el programa Formula Integration, primero debe validar su licencia pulsando en el botón Activar o de lo contrario, si no dispone de licencia, debe solicitar una pulsando el botón Solicitar.

Código de máquina :
I08pyG5+D3VymhVeYGeqVC=-

Código de licencia :

Activar Solicitar una licencia... Cancelar

The following is complete the data of the company, contact (user) and email. Then click on **Submit**.

Solicitar licencia

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formula Integration

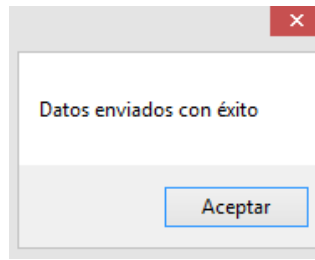
Debe rellenar todos los campos sin dejar ninguno vacío. Después de eso se enviarán los datos a nuestros agentes y se procederá a crear una licencia. Para más información, puede llamar al + (34) 973 283 752.

Empresa:
Agrifood AT

Contacto:
José García

Correo electrónico:
jose.garcia@agrifoodat.com

Enviar Cancelar

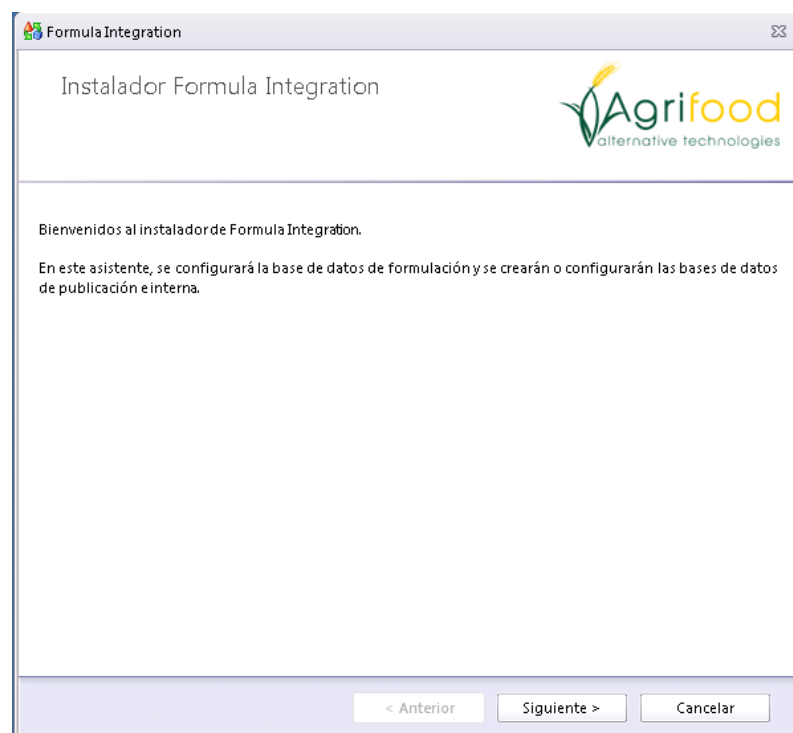


This data is used to generate the license, which will come to the email address you have indicated.

When the license code is received, must be completed on the first screen of this section and click on **Activate**.

2.5. Install and Setup Assistant

Follow next screens:



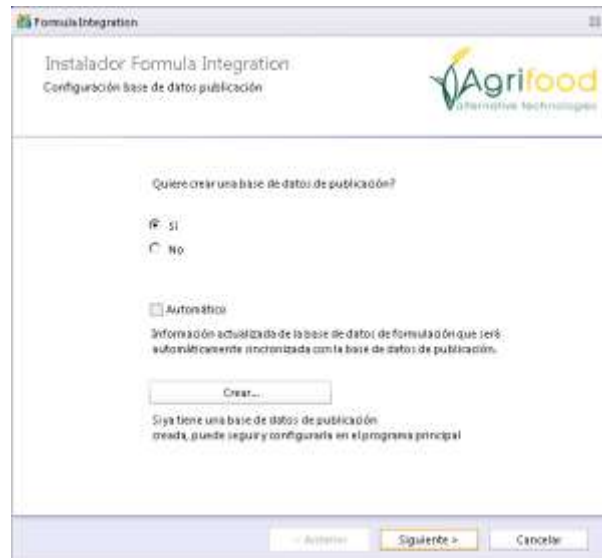
Type SQL server name and Brill SQL database name, e.g. "BrillDatabaseName" (You can follow step 2.2: New source database). Press SSPI mark for windows authentication. Click on **Next**



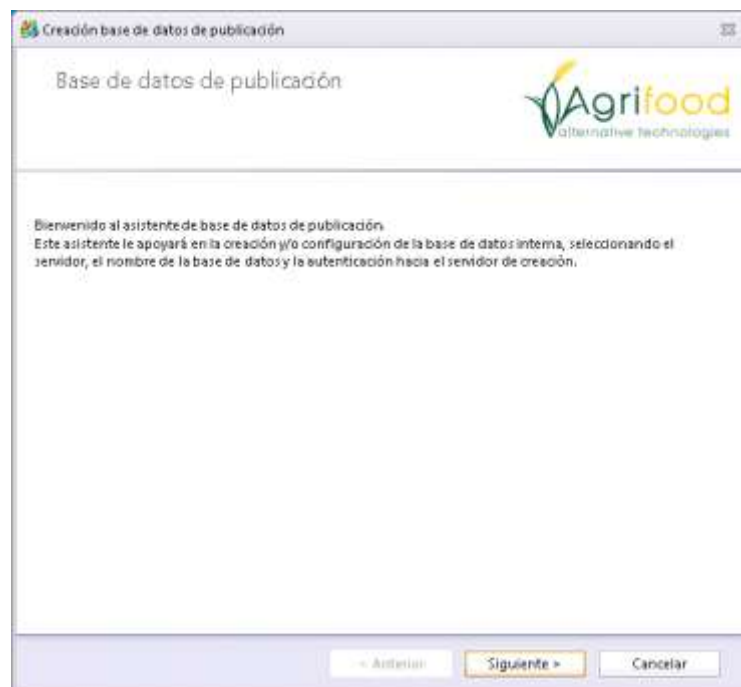
The program will configure the internal database. If the internal database doesn't exist, the program will create it with the name specified, e.g. "BrillDatabaseName_INT".



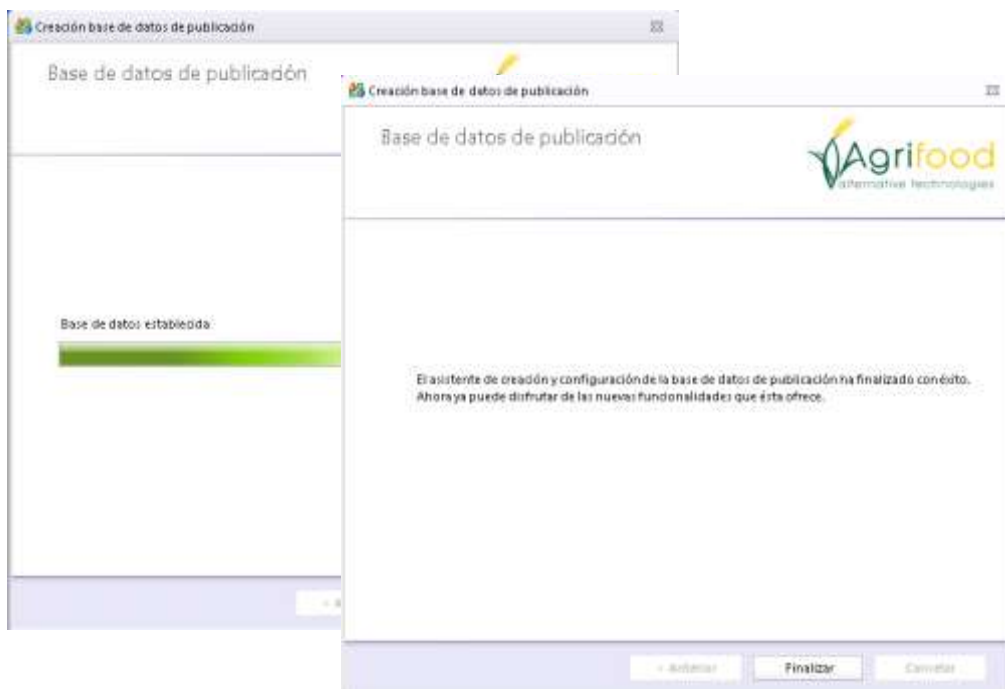
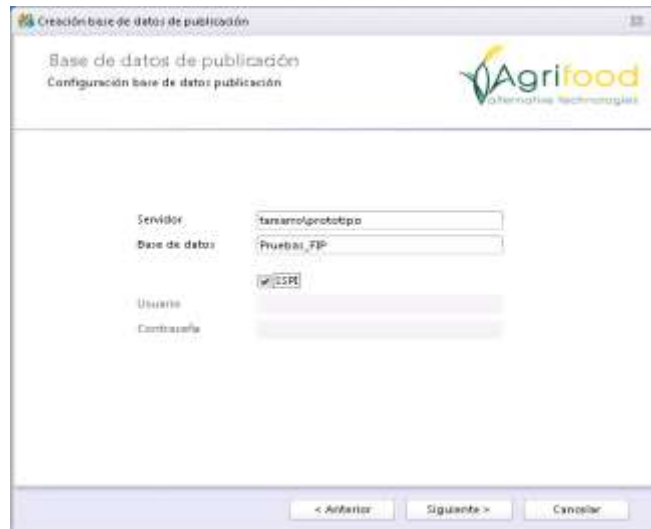
Third database is the publication database.



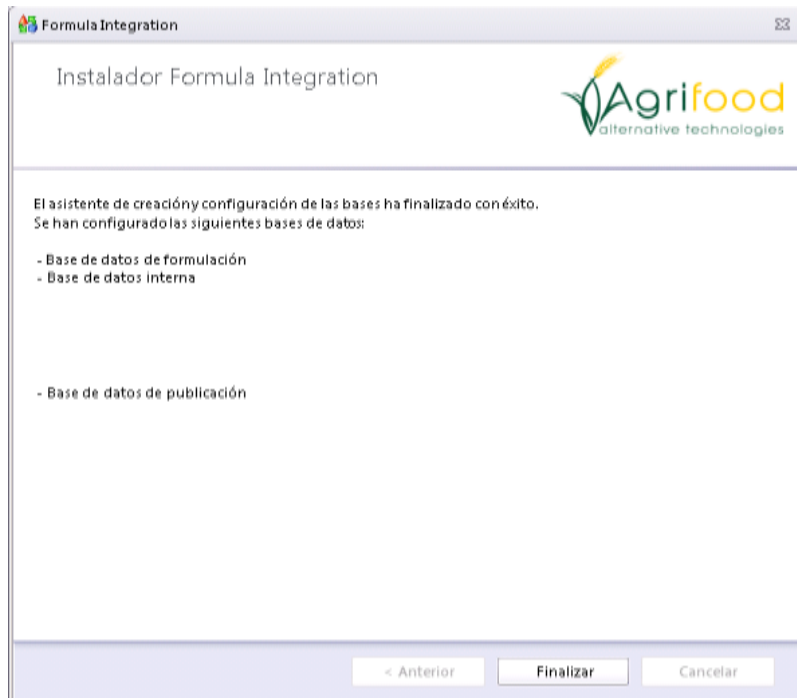
If the publication database doesn't exist, the program will create it. If the database exists or you want to configure it later, select **No**. Otherwise it press **Yes** and click on **Create** button, the assistant will start. Click on **Next**.



Type SQL server name and publication database name (e.g. BrillDatabaseName_PUB). Click **Next**.

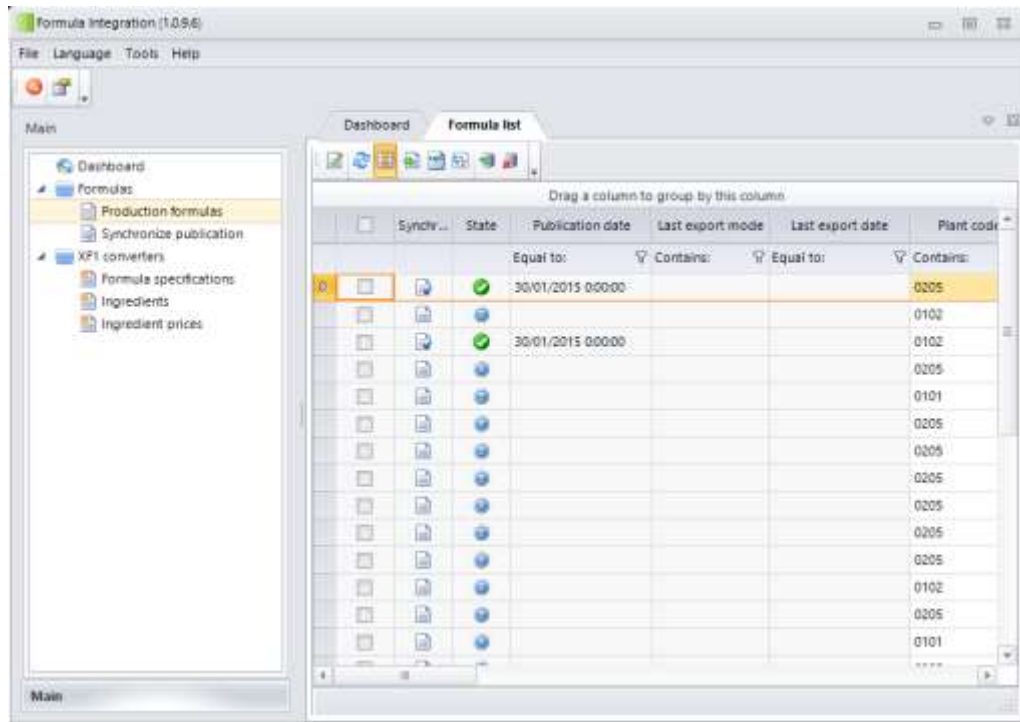


Press **Finish** to open a summary of the installation.



3. Start using Formula Integration

Starting the program shows the next screen:



It has a control panel at left side of the screen and the selected option will be showed at the right side. By default the program shows the Dashboard.

3.1. Dashboard

Shows a brief summary:

- **Production Formulas** : Number of formulas in production that contains the source database.
- **Published Formulas** : Number of formulas that have been transferred to the publication database.
- **Unsynchronized Formulas:** Number of published formulas but not updated from source database.
- **Last synchronization** : Date of last synchronization done of all formulas published.

3.2. Formulas

This space allows us to manage the formulas stored in the source and publication databases.

3.2.1. Production Formulas

The option Production formulas shows the list of formulas in production stored in the source database. It is the main window of the program because from here we can do most of the actions.

Dashboard Formula list

Drag a column to group by this column

<input type="checkbox"/>	Plant code	Formula code	Version	Store Date	Description
	Contains: ▾	Contains: ▾	Equal to: ▾	Equal to: ▾	Contains: ▾
<input checked="" type="checkbox"/>	0205	001	20	21/01/2015 0:00:00	Cerdos 0503
<input type="checkbox"/>	0102	0103	6	19/11/2014 0:00:00	cerdos test
<input type="checkbox"/>	0102	1	6	01/04/2012 0:00:00	cerdos test
<input type="checkbox"/>	0205	1	21	05/04/2005 0:00:00	cerdos test
<input type="checkbox"/>	0101	1	57	02/10/2012 0:00:00	cerdos test
<input type="checkbox"/>	0205	11	20	16/02/2005 0:00:00	cerdos test
<input type="checkbox"/>	0205	111	16	16/02/2005 0:00:00	cerdos test
<input type="checkbox"/>	0205	2	18	16/02/2005 0:00:00	test premix incluido
<input type="checkbox"/>	0205	30.886	1	11/07/2003 0:00:00	
<input type="checkbox"/>	0205	444	9	16/02/2005 0:00:00	cerdos test
<input type="checkbox"/>	0205	5656	1	21/02/2005 0:00:00	Mezcla 1 + test
<input type="checkbox"/>	0102	A1	5	29/05/2012 0:00:00	cerdos test
<input type="checkbox"/>	0205	CERDOS	6	16/02/2005 0:00:00	starter
<input type="checkbox"/>	0101	FXXX1	1	18/11/2010 0:00:00	Irvine's Production









Versatile panel that allows you to group the list by any field you drag to the filtering zone. It is also possible to reorder the columns in the way you need.

Dashboard Formula list




Group by: Plant code x Description x

<input type="checkbox"/>	Formula code	Version	Store Date	Batch weight	Cost when stored	Log User
	Contains: ▾	Equal to: ▾	Equal to: ▾	Equal to: ▾	Equal to: ▾	Contains: ▾
▾	Plant code: 0101					
▴	Plant code: 0102					
▸	Description: cerdos test					
<input type="checkbox"/>	0103	6	19/11/2014 0:00:00	0.0000	0.0000	SUPER
<input type="checkbox"/>	1	6	01/04/2012 0:00:00	0.0000	0.0000	BRILL
<input type="checkbox"/>	A1	5	29/05/2012 0:00:00	0.0000	0.0000	BRILL
▾	Description: pollos 2					
▾	Plant code: 0205					

To do an action over a formula or a group of formulas mark the box and press the icon of the action to do.

Icon	Action	Description
	Show formula details	Shows the details of a remarked formula
	Show columns	Allows you to show or hide Operations, State, Publication date and Exportation columns
	Export using plug-in	Allows you to export formulas in a specific format using a custom-made exporter.
	Export to XML	Allows you to export the selected formulas in XML format
	Export to XF1	Allows you to export the selected formulas in XF1 format
	Transfer formulas	Allows you to transfer selected formulas to the publication database
	Delete formulas	Allows you to remove the selected formulas from the publications database
	Refresh the list of formulas	After doing any action you can refresh the list in order to see the last changes

The program uses next icons to indicate the state of a formula.

Icon	Description
	Formula marked for being transferred to the publication database
	Formula updated. It means that the last update of this formula is on the publication database.
	Formula outdated. It means that the last update of this formula is not on the publication database.

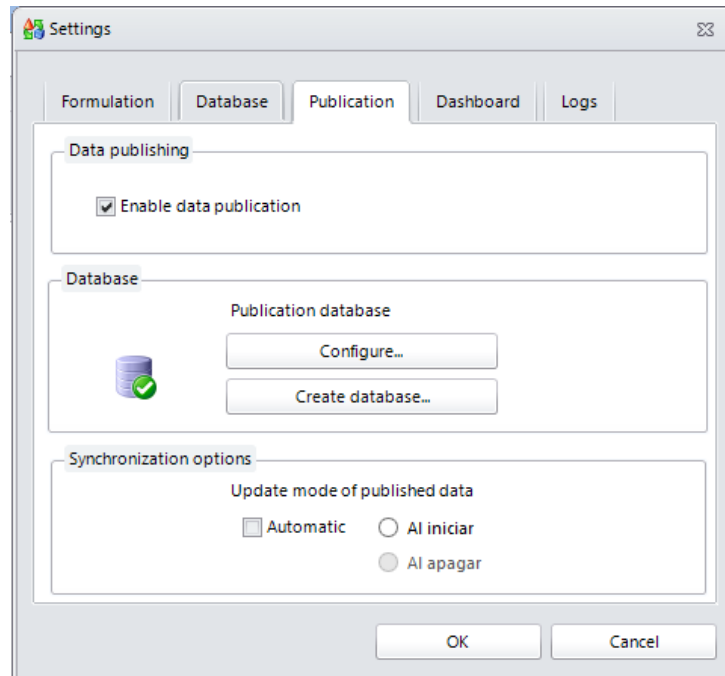
		Synchr...	State	Formula code	Description	Publication date	L
Drag a column to group by this column							
				Contains:	Contains:	Equal to:	C
<input type="checkbox"/>		<input checked="" type="checkbox"/>	001	Cerdos 0503		30/01/2015 0:00:00	
<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	0103	cerdos test		30/01/2015 0:00:00	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	1	cerdos test		30/01/2015 0:00:00	
<input type="checkbox"/>		<input type="checkbox"/>	1	cerdos test			
<input type="checkbox"/>		<input type="checkbox"/>	1	cerdos test			
<input type="checkbox"/>		<input type="checkbox"/>	11	cerdos test			
<input type="checkbox"/>		<input type="checkbox"/>	111	cerdos test			
<input type="checkbox"/>		<input type="checkbox"/>	2	test premix incluido			

3.2.2. Synchronization

This options works over all the published formulas. You can synchronize all of them just doing a click over Synchronize Publication option in the left control panel.

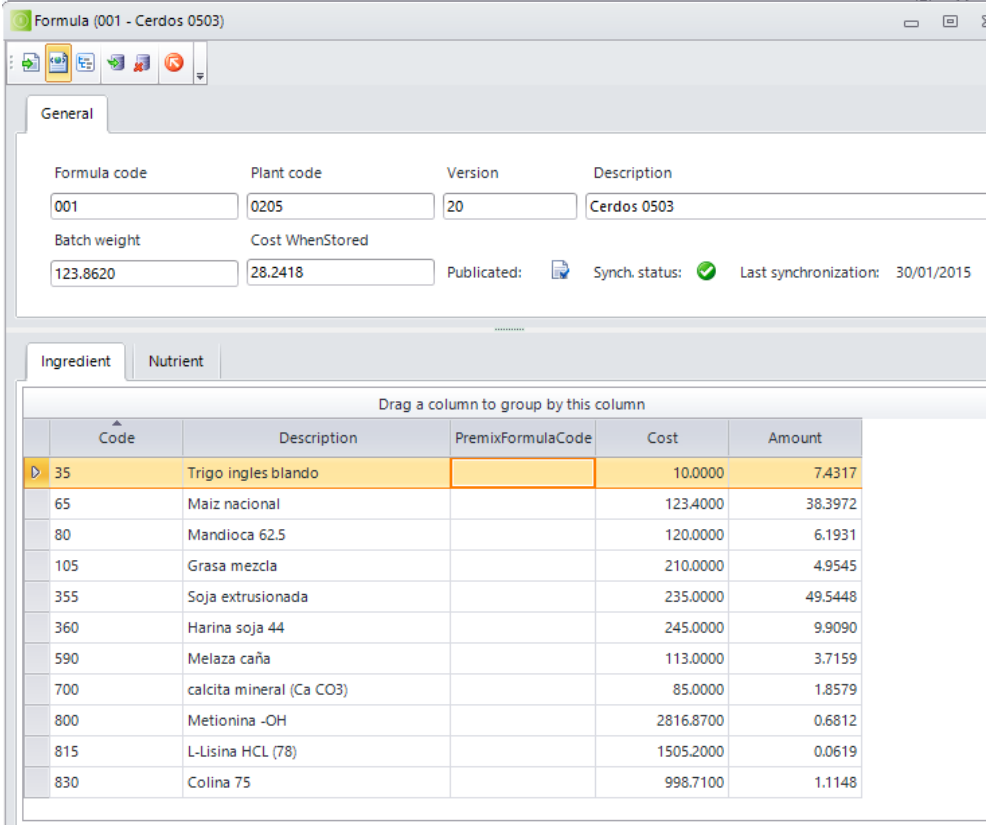
This task can be scheduled for doing automatically by configuring it on next window.

First time is necessary to able this option. Go to Tools → Options. Mark "Enable data publication".



3.2.3. Formula Detail

Shows the most important information about a formula and its compositions, i.e. the list of the ingredients and nutrients. You can see the detail of a formula by doing double click over a formula.



The screenshot shows a software window titled "Formula (001 - Cerdos 0503)". It has a "General" tab selected. The form contains the following fields:

- Formula code: 001
- Plant code: 0205
- Version: 20
- Description: Cerdos 0503
- Batch weight: 123.8620
- Cost When Stored: 28.2418
- Published: (checkbox)
- Synch. status: (green checkmark)
- Last synchronization: 30/01/2015

Below the form, there are two tabs: "Ingredient" (selected) and "Nutrient". Under the "Ingredient" tab, there is a table with the following data:

Drag a column to group by this column					
	Code	Description	PremixFormulaCode	Cost	Amount
▶	35	Trigo ingles blando		10.0000	7.4317
	65	Maiz nacional		123.4000	38.3972
	80	Mandioca 62.5		120.0000	6.1931
	105	Grasa mezcla		210.0000	4.9545
	355	Soja extrusionada		235.0000	49.5448
	360	Harina soja 44		245.0000	9.9090
	590	Melaza caña		113.0000	3.7159
	700	calcita mineral (Ca CO3)		85.0000	1.8579
	800	Metionina -OH		2816.8700	0.6812
	815	L-Lisina HCL (78)		1505.2000	0.0619
	830	Colina 75		998.7100	1.1148

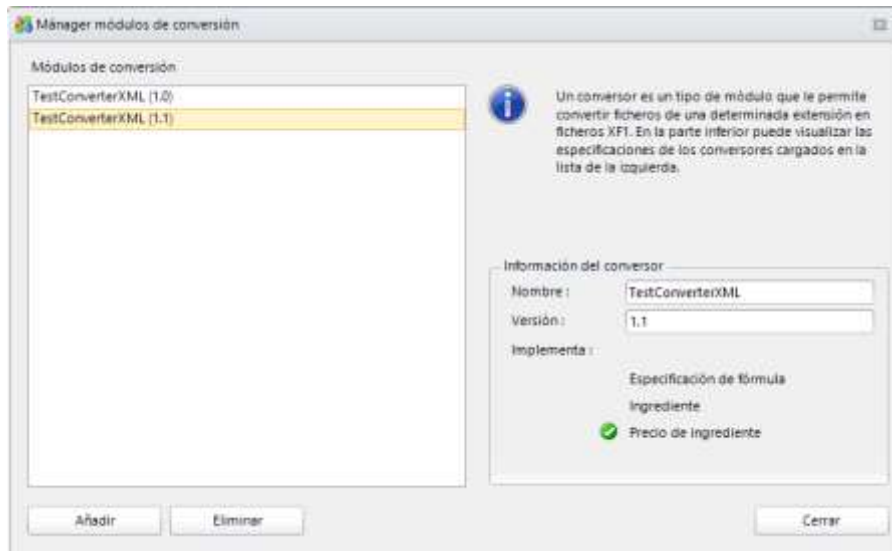
3.3. Plug-in to export or to convert

They are modules of the program that allow you to convert formulas in a specific format.

3.3.1. Converters

This module is useful to convert Formula specification, Ingredients or Ingredient prices from a format to XF1, the unique format you can use to import on Brill. It works with a customized converter developed from Agrifood.

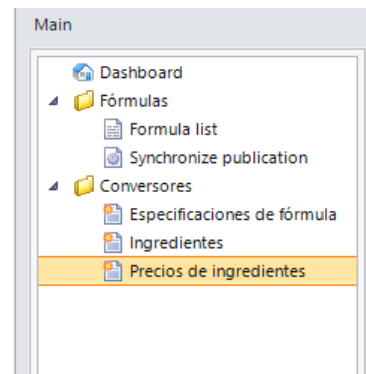
To configure a converter you must go to Tools → Manage converters. Press **Add** button and select the converter given from Agrifood.



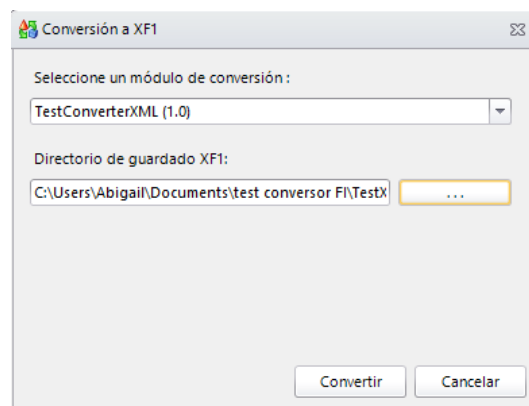
You can add different converters or delete some of them.

To use the converter go to the Main screen of the program and select the action to do.

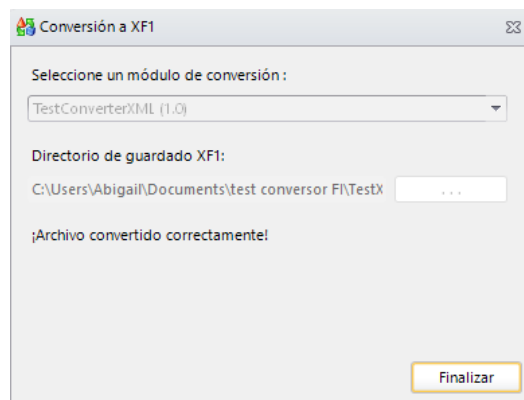
Next sample is about to convert the ingredient prices from a XML file to XF1.



Press click on "**Ingredient prices**" and select the converter you want to use, after that select the path of the XF1 file you want to save on. Press Convert button. Choose XML source file and press **Open** button.



The message tells if the conversion was done well.

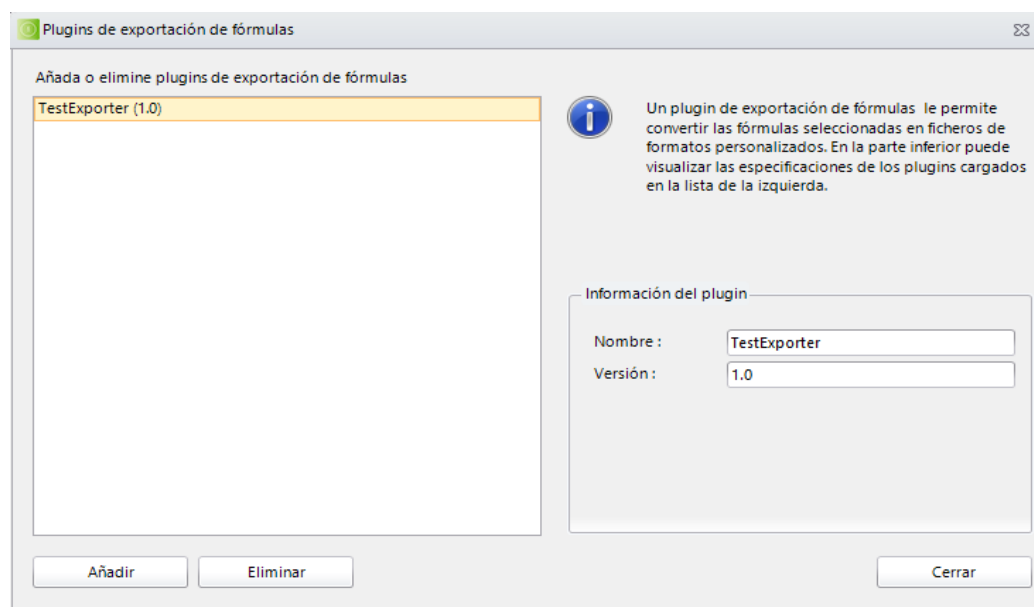


3.3.2. To Export formulas to others format


This module allows you to select one or more formulas from the Formulas in Production and export them to another format that the program have by default (XF1 and XML).


To configure it you must go to Tools → Formula export plugins. Press **Add** button and select the exporter given from Agrifood.

You can configure as many exporters as you need or delete some of then you will not need anymore.



When you have at least one exporter configured the Production formulas screen, the

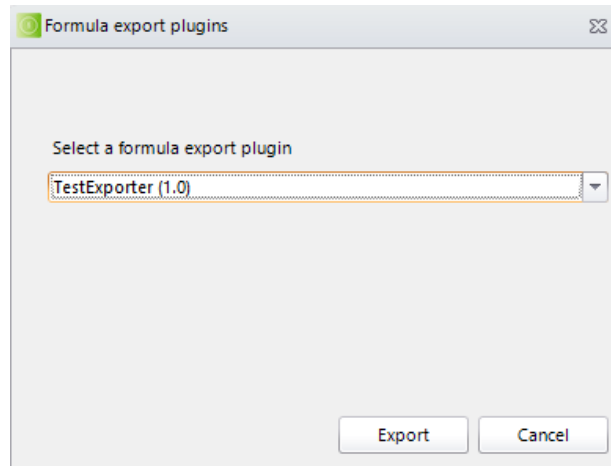
"Export using a plug-in" icon will be enabled .

To use the exporter go to "Production formulas" and select the formulas you want to export and press the icon .

The screen allows you to select one of the exporters you had configured before.

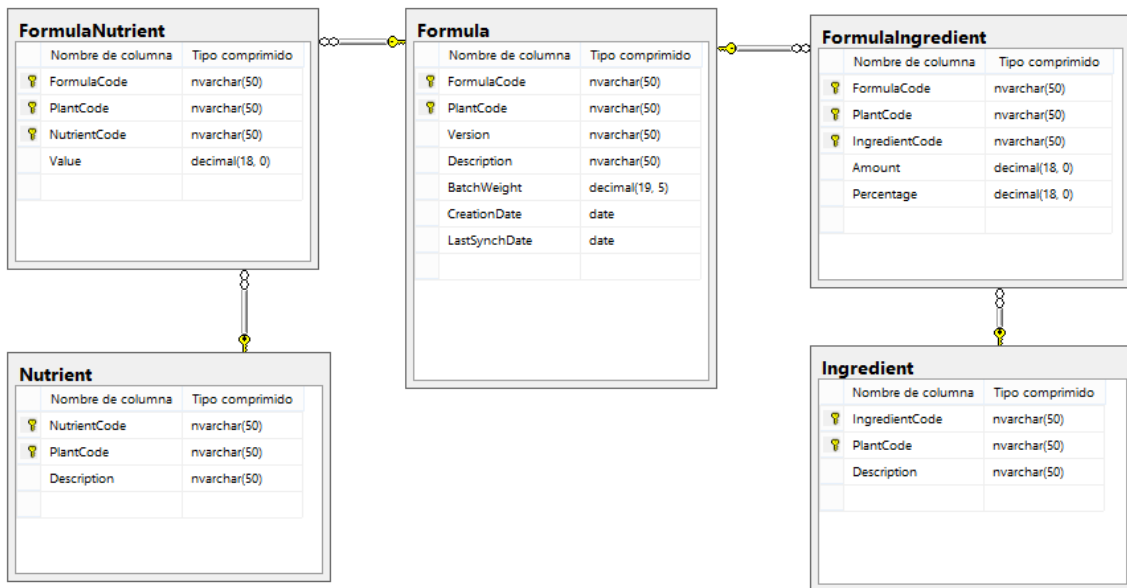
Press click on **Export** button and write the file name and the path where you want to store that, and press **Save**.

It will show a message when the operation were finished.



Appendix

A. Publication Database Structure



B. XML format of formula exported (sample)

```
<?xml version="1.0" encoding="UTF-8"?>
- <Formulas xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <Formula>
    <FormulaCode>001</FormulaCode>
    <PlantCode>0205</PlantCode>
    <Version>20</Version>
    <Description>Cerdos 0503</Description>
    <BatchWeight>123.8620</BatchWeight>
    <CreationDate>2015-01-21T00:00:00</CreationDate>
  - <FormulaIngredients>
    - <Ingredient>
      <IngredientCode>105</IngredientCode>
      <Description>Grasa mezcla</Description>
      <Amount>4.9545</Amount>
      <Cost>210.0000</Cost>
      <CostPerUnit>0.2100</CostPerUnit>
      <BatchCode/>
      <PremixFormulaCode/>
    </Ingredient>
    + <Ingredient>
    + <Ingredient>
    + <Ingredient>
    + <Ingredient>
    + <Ingredient>
    + <Ingredient>
    + <Ingredient>
    + <Ingredient>
    + <Ingredient>
    + <Ingredient>
    </FormulaIngredients>
  - <FormulaNutrients>
    - <Nutrient>
      <NutrientCode>1</NutrientCode>
      <Description>Peso</Description>
      <Amount>1.0000</Amount>
      <Units>Kg.</Units>
    </Nutrient>
    - <Nutrient>
      <NutrientCode>10</NutrientCode>
      <Description>FND</Description>
      <Amount>9.8710</Amount>
      <Units>0%</Units>
```

C. XF1 format of formula exported (sample)

FormulasCerdos0503: Bloc de notas										
Archivo	Edición	Formato	Ver	Ayuda						
FS0205	001	Cerdos 0503			20150127	28.2418	123.86	1 0	0	0 11 00
FI	105	4.9545								
FI	35	7.4317								
FI	355	49.5448								
FI	360	9.9090								
FI	590	3.7159								
FI	65	38.3972								
FI	700	1.8579								
FI	80	6.1931								
FI	800	0.6812								
FI	815	0.0619								
FI	830	1.1148								
FN	1	1.0000	Peso							
FN	10	9.8710	FND							
FN100	7.7500	Vitamina A año.								
FN101	0.6975	Vitamina D3 año								
FN105	0.5360	test1								
FN107	21.4410	test3								
FN	11	4.5890	FAD							
FN115	0.6038	Met/Lis								
FN116	0.4058	Ratio Met/Lis								
FN	12	0.6150	LAD							
FN120	3.7000	Test Cop								
FN	13	26.5120	Almidon							
FN	14	5.5250	Azucares							
FN	16	0.0815	C14:0							
FN	17	1.8835	C16:0							
FN	18	0.1397	C16:1							
FN	19	0.8819	C18:0							
FN	2	4.7227	Humedad							
FN	20	3.6356	C18:1							
FN201	7.6076	test 201								
FN	21	4.9768	C18:2							
FN	22	0.6597	C18:3							
FN	23	0.3576	C>20							



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