PrestaShop Product Properties Extension Multidimensional plugin

User Guide

Introduction

The PS&More PrestaShop Product Properties Extension Multidimensional plugin adds additional functionality to the Product Properties Extension module. The plugin allows you to specify additional characteristics to products, such as height, width, length, depth and others. The plugin uses these additional characteristics (or dimensions) to calculate the resulting order quantity and a price. Using the plugin, you can sell products by square, perimeter, volume, etc.

> *The Multidimensional plugin comes in three versions: Basic, Pro and Premium.*
> *The Multidimensional plugin Pro and Premium versions add an additional functionality to the plugin.*

Multidimensional Templates

The PS&More PrestaShop Product Properties Extension comes with a collection of ready to use multidimensional templates. If no Multidimensional plugin installed the Product Properties Extension module disables the templates using the multidimensional features. Once you install the Multidimensional plugin, you can make these templates available for use. Please refer the Product Properties Extension documentation how to make the template visible or hidden in the product catalog in the back-office.

Configuration

The module configuration provides access to the documentation and basic configuration settings.

The configuration page of the Multidimensional plugin basic version

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SETTINGS

Highlight dimensions block	**YES** NO	
Highlight and emphasise dimensions block on the product page.		
Show quantity up/down buttons	**YES** NO	
Show or hide quantity up/down buttons.		
Show module in PS&More menu section	**YES** NO	

Save

The configuration page of the Multidimensional plugin Pro and Premium versions

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SETTINGS

Compact view	5	
Specify a number of dimensions when to switch to a compact view in the edit template form.		
Tooltip CSS classes	psm-tooltip-icon-layout-right	
Default tooltip layout. You can change tooltip layout for each dimension independently in the edit template form.		
Highlight dimensions block	**YES** NO	
Highlight and emphasise dimensions block on the product page.		
Show quantity up/down buttons	**YES** NO	
Show or hide quantity up/down buttons.		
Show module in PS&More menu section	**YES** NO	

Save

Using Multidimensional plugin

You access the plugin template related configuration through the "Edit template" tab in the Product Properties Extension module.

The template configuration page of the Multidimensional plugin basic version

Based on the setting in the above example the product will look like on the picture.

In order to utilize the plugin functionality you should specify dimensions and choose a calculation method.

The Multidimensional plugin basic version supports up to three dimensions and the following calculation methods:

- multiplication: dimensions in all directions are multiplied (giving area or volume)
- summation: dimensions in all directions are added
- single dimension: the specified dimension quantity is used for price calculation

The Multidimensional plugin Pro and Premium versions support <u>unlimited dimensions</u> and more calculation methods.

- multiplication: dimensions in all directions are multiplied (giving area or volume)
- summation: dimensions in all directions are added
- single dimension: the specified dimension quantity is used for the price calculation
- disable calculation: dimensions serve only as input fields and do not affect the price calculation
- custom calculation: calculation using user defined rules (see "User defined customizations" section in this document)

The template configuration page of the Multidimensional plugin Pro and Premium versions (some of the features are available only in the Premium version)

Template field	Description
dimensions block title	Choose a text displayed as a title of the dimensions block that appears on the product page. *If you cannot find the required text you can add more texts in the Properties tab.*
calculation result label	Choose a text displayed as a label before the calculation result. Leave this field blank to hide the calculation result. *If you can't find the required text you can add more texts in the Properties tab.*

Template field	Description
calculation result text	Choose a text displayed after the calculation result. *If you can't find the required text you can add more texts in the Properties tab.*
total calculation result label	*Pro and Premium feature* Choose a text displayed as a label before the total calculation result. Leave this field blank to hide the total calculation result. The total calculation result is the result of the calculations specified by the calculation method multiplied by the user specified quantity. *If you can't find the required text you can add more texts in the Properties tab.*
total calculation result text	*Pro and Premium feature* Choose a text displayed after the total calculation result. *If you can't find the required text you can add more texts in the Properties tab.*
calculation results position	*Premium feature* Choose a position to display the calculation results. You can choose between: - <u>default</u>, the calculation results displayed at the bottom of the dimensions block - <u>above the dimensions block title</u> - <u>below the dimensions block title</u> - <u>below the specified dimension</u> specified by alias in a separate "dimension alias" input field (see an explanation about aliases in the dimensions section below)
calculation result precision	Round the display of the calculation result and the total calculation result to the specified number of decimal digits. If the precision is positive, the number is rounded to precision significant digits after the decimal point. If the precision is negative, the number is rounded to precision significant digits before the decimal point. Round affects only how the number is displayed and not how it is used for the price calculations.
inline explanation	Choose an explanation displayed below the calculation result. It is usually a special message explaining the trading policy but can be any text or valid HTML and can include images. *You can use macros to substitute dynamic quantity values (see "Using macros" section in Appendix A).* *If you can't find the required text you can add more texts in the Properties tab.*
explanation position	*Premium feature* Choose a position to display the explanation. You can choose between: - <u>default</u>, the explanation displayed at the bottom of the dimensions block - <u>above the dimensions block title</u> - <u>below the dimensions block title</u> - <u>below the specified dimension</u> specified by alias in a separate "dimension alias" input field (see an explanation about aliases in the dimensions section below)
calculation minimum quantity	Specify the minimum quantity for the calculated result. *Leave this field blank to disable this feature.*
calculation maximum quantity	Specify the maximum quantity for the calculated result. *Leave this field blank to disable this feature.*

Template field	Description
calculation total maximum quantity	*Pro and Premium feature* Specify the total maximum quantity for the calculated result. *Leave this field blank to disable this feature.*
calculated minimum quantity text	Choose a text displayed when the calculated quantity is less than the specified minimum. *You can use macros to substitute dynamic quantity values (see "Using macros" section in Appendix A).*
calculated maximum quantity text	Choose a text displayed when the calculated quantity is more than the specified maximum. *You can use macros to substitute dynamic quantity values (see "Using macros" section in Appendix A).*
calculated total maximum quantity text	*Pro and Premium feature* Choose a text displayed when the total calculated quantity is more than the specified maximum. *You can use macros to substitute dynamic quantity values (see "Using macros" section in Appendix A).*
quantity threshold for minimum price	The threshold used to calculate minimum price. After user specifies multidimensional quantities the calculation performed based on the given calculation method. If the price for the calculated quantity is less than the specified threshold, the price calculated using the given threshold as a quantity. The result is that the price will never be less than the base price multiplied by the given quantity threshold regardless of the ordered quantity.

Template field	Description
dimensions policy	Specify how dimensions are used. In the <u>default</u> dimensions policy mode the customer enter the dimensions on the product page. For example: width, length, or height. In this mode the product represented by two different quantities. The one is the quantity calculated using the specified calculation method and can be a square, perimeter, volume or something else. The other is the quantity that the customer enters in the regular quantity field. This quantity specifies the number of ordered items where each item has the size of the calculated quantity. In the <u>packs calculator</u> mode the customer specifies the dimensions to calculate the number of items of the product. For example, if you sell tiles in cartons, the dimensions used to calculate the area. The calculated area in square meters (or other units) determines the number of cartons and the price. To specify the quantity of the product in the pack (the number of square meters in the carton in our example) use the "unit price ratio" field in the template or the "unit price" field on the product page in the products catalog in the back office. You also need to specify the "unit price text" in the template or on the product page in the catalog. You can use one template with the "unit price text" specified in the template for many products by specifying the "unit price" field for the individual products. *Pro and Premium feature* In the <u>quantity calculator</u> mode the customer specifies the dimensions to calculate the quantity of the product. It is different from the <u>default</u> mode. The calculated quantity becomes the actual quantity similar the quantity entered in the regular quantity field. In this mode the regular quantity field is usually not visible.
d i m e n s i o n s	
dimension	Choose the dimension name. Set this field to blank to remove the dimension.
quantity text	Choose a text displayed after the dimension's quantity. The text designates the meaning of the dimension. For example: cm. The "quantity text" field is used on the product page in the shop. Use the "order quantity text" field to specify the text that displayed in orders and invoices. *If you can't find the required text you can add more texts in the Properties tab.*
minimum quantity	Specify the minimum quantity for the dimension. The minimum quantity can be set in whole or fractional units.
maximum quantity	Specify the maximum quantity for the dimension. The maximum quantity can be set in whole or fractional units.

Template field	Description
default quantity	Specify the default quantity. The default quantity is an initial quantity displayed for the dimension on a product page. The default quantity can be set in whole or fractional units.
quantity step	Specify the dimension's quantity increments. The plugin rounds the quantity to the value matching the quantity step specified. For example, if you use the dimension for length and the length should be limited to increments of 0.2 m you can set the quantity step to be 0.2. The entered value will be rounded to 0.2, 0.4, … 1.6, 1.8, etc.
quantity ratio	Specify the ratio between the dimension measurement unit and the price measurement unit. While calculating the price the module multiplies the dimension quantity by the specified ratio and use the result as a quantity for the price calculations. For example, if you set product price for m^2 and would like to specify length in cm, specify the ratio as 100.
order quantity text	Choose the text displayed after the dimension's quantity. For example: cm. The "order quantity text" field is used in orders and invoices but not on the product page in the shop.
	Multidimensional plugin Pro and Premium features
behavior	Choose the behavior of the dimension. This feature explained in details in the "Dimensions behavior" section of this document.
explanation	Choose an explanation displayed for the dimension. It can be any text or valid HTML and can include images. You can also choose how you would like to display the explanation. You can display the explanation as an inline text or as a tooltip. You can also specify the tooltip layout using the CSS classes (see below). *You can use macros to substitute dynamic quantity values (see "Using macros" section in Appendix A).* *If you can't find the required text you can add more texts in the Properties tab.*
CSS classes	Specify valid CSS classes separated by space. The module adds these classes to HTML in the block associated with the dimension. You can use this field for fine-tuning how the product looks in the shop. You can create your own CSS classes or use a number of pre-defined classes. See the "CSS classes" section in this document.
alias	You can use alias in expressions and custom calculations. Alias should be no more than 32 characters long and should follow general programming languages variable naming conversion. - must start with a letter - can only contain alpha-numeric characters and underscores (A-z, 0-9, and _)

Template field	Description
calculation mode	You can control how you would like the quantity entered by user or defined in the attributes be used in the calculations. When you choose <u>use in calculations</u> mode, any value or only one of the specified in the "specific values" field takes part in the calculations. The entered or specified in the attribute value is visible in orders and invoices. This is a default behavior. When you choose <u>ignore in calculations</u> mode, no values take part in the calculations, unless you specify values to ignore in the "specific values" field. Nevertheless, the entered or specified in the attribute value is visible in orders and invoices.
specific values	You can control whether you like to apply the calculation mode to all values for the dimension or only to one or more specific values. By defining the specific values, you instruct the calculation engine to use the specified calculation mode only for those values. For example, if you choose the "ignore in calculations" mode and define zero as a specific value, the calculation engine will not use the zero value in the calculations. All other values will be part of the calculations. Using so, you effectively designate the dimension as optional when user does not enter any value. If you like to specify only one value, simply type in the value in the specific values input field. If you like to specify several values, separate them using the pipe symbol. For example: 0|0.5|1|2.5
hide in orders and invoices	You can select to show (default) or hide the dimension in orders and invoices.

Multidimensional plugin Pro and Premium

Multidimensional plugin Pro and Premium versions add additional functionality to the plugin. Most of the features already explained in the previous sections of the document. In this section, you find clarifications and more explanations.

Dimensions behavior

Each dimension allows you to specify additional characteristics to products, such as height, width, length, etc. In the Multidimensional plugin basic version, each dimension is an input field where you type in the quantity. The plugin uses this quantity to calculate the resulting order quantity and the product price.

In the Multidimensional plugin Pro and Premium versions, you can specify different behavior for the dimensions.

Default behavior
When you choose the default behavior, you use the input fields as a quantity, like height, width or length. You can also can choose to display the "up" and "down" buttons by checking the "display quantity up/down buttons" check box. When pressing the "up" or "down" button the quantity increases or decreases by some value. The plugin uses the quantity step or default quantity, if specified, to determine the increment.

Attributes selection
In order to use the attributes selection behavior you need to make the desired product attributes available for the Multidimensional plugin. To do so, go to Catalog -> Attributes & Features, choose the attribute and assign a value to the attribute. When the user chooses the attribute, the plugin uses the assigned value for the calculations in the same way as the quantity entered by user.

When you choose the attributes selection behavior, you need to specify one of the product attributes groups that you would like to display and use as a dimension. After you choose the attribute, you can

also select the default choice for the attribute. You can use the public attributes group name as a dimension name or select your own dimension name.

In order to use attributes in the Multidimensional plugin Pro and Premium you do not need to define these attributes as product combinations, but you can if you like. If you have many attributes this feature allows you to avoid creating a long list of product combinations.
Tip: You can also choose <u>ignore in calculations</u> mode for the dimension and use attributes instead of combinations. This allows overcoming the problem of having of hundreds of combinations that is a problem in the standard PrestaShop.

Make the desired attribute available for the Multidimensional plugin

Attributes & Features / Attributes

Edit: M

❓
Help

| Attributes | Features |

ℹ VALUES

| * Attribute group | Size ▾ |
| * Value | M | en ▾ |

Use in Multidimensional plugin   [**YES** | NO]
Make this attribute available for Product Properties Extension Multidimensional plugin.

Hide in orders and invoices   [YES | **NO**]
When choosen, do not show this attribute in orders and invoices.

Multidimensional plugin value   [ ]

✖ Cancel   💾 Save then add another value   💾 Save

You can easily make all attributes of the specific group available for the Multidimensional plugin in the edit attributes group form. Choose YES for the "Use in Multidimensional plugin" and press "Save" button.

Make all attributes of the group available for the Multidimensional plugin

Attributes & Features / Attributes

Edit: Size

?
Help

| Attributes | Features |

ⓘ ATTRIBUTES

* **Name**   Size   en ▼

* **Public name**   Size   en ▼

* **Attribute type**   Radio buttons   ⌄

Use in Multidimensional plugin   YES   NO

Make all attributes of this group available for Product Properties Extension Multidimensional plugin.

✖
Cancel

💾
Save

Small text, text and text area

When you choose the underline small text, text or text area behavior, you instruct the plugin to use the input entered by user as a free text. The entered value is not used for the calculations. You can use this to provide a room for user to enter special comments or instructions to the order. You can also use it instead of the customizable properties available for the product just in the way that is more convenient for user.

For the small text, text or text area behavior you can optionally specify a placeholder that appears in the input field when no value is entered.

Tip: If you cannot find the required text, you can add more texts in the Properties tab.

| Comments ⌄ | ⌄ | | | |
| behavior | text area ⌄ | placeholder | Enter your comments (optional) | ⌄ |

Uploadable file (Premium feature)

Uploadable file (Premium feature)

When you choose the <u>uploadable file</u> behavior, the plugin adds an additional input for user to personalize the product and upload a custom image file. You can specify the file be optional or mandatory (required).

| Front print ▼ | | | | | | | | + |

behavior	uploadable file ▼ ⬭ required	alias front_print_image
explanation	Upload file with your graphics. ▼ display inline ▼	
CSS classes	psm-label-hidden psm-separator-bottom	

No input

When you choose the <u>no input</u> behavior, the plugin does not display any input field. You can use this to show the label, add an explanation and make it as a visible separator between dimensions.

Custom input

When you choose the <u>custom input</u> behavior, the plugin calls user written code to display the input. See "User defined customizations" section in this document.

CSS classes

You can easily change a layout and use your own or the pre-defined classes for fine-tuning how the product looks in the shop. Specify valid CSS classes separated by space in the "CSS classes" field for the desired dimension. The module adds these classes to HTML in the block associated with the dimension.
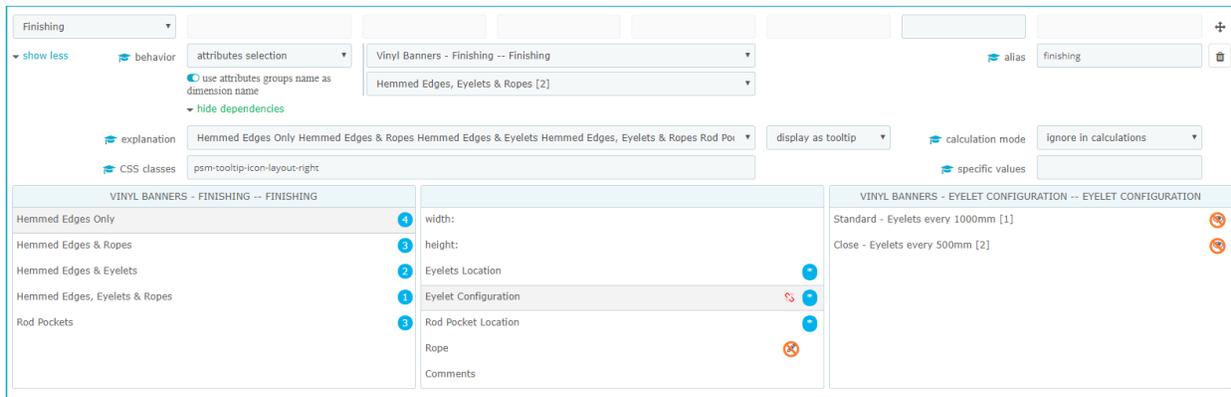
You can create your own CSS classes and add them in the following file:
themes/<your_theme_name>/modules/pproperties/css/custom.css

CSS class	Description
psm-separator-top	Separator line above the block associated with the dimension.
psm-separator-bottom	Separator line below the block associated with the dimension.
psm-label-hidden	Hide the dimension name.
psm-hidden	Hide the whole dimension block.
psm-collapsible	Make the dimension block collapsible. Useful when you use many dimensions and would like to have more room on the screen. The dimension block created initially collapsed. Use CSS class psm-collapsible-open to create the dimension block initially open.
psm-tooltip-dashed	Create a dashed line under the dimension name to mark that the dimension has a tooltip.
psm-tooltip-icon-layout-left	Create an icon on the left of the dimension name to mark that the dimension has a tooltip. Default icon is a question mark in a circle.
psm-tooltip-icon-layout-right	Create an icon to the right of the dimension name to mark that the dimension has a tooltip. Default icon is a question mark in a circle.
psm-tooltip-icon-{name}	Create a user-defined icon instead of the default icon. Replace a

	{name} string with the icon name of your choice. You can use any material design icon names supported by PrestaShop. For example: psm-tooltip-icon-help
psm-label-highlight	Highlight and emphasize a dimension name on a product page.
psm-attribute-color-{size}	Size of a visual rectangle for the dimensions using a product attributes group defined as a color attribute. Replace a {size} string with the one of the following values: small, medium, large, xlarge, xxlarge, xxxlarge, jumbo.
psm-attribute-color-text-visible	Make the attribute names visible for the dimensions using a product attributes group defined as a color attribute.
psm-group-start	Denote a start of a virtual dimensions group. The group continues until the psm-group-end detected or all dimensions exhausted. The members of the virtual dimensions group represented in the horizontal layout (subject of the theme compatibility). You can make as many groups as you like and as many members as you like. The layout and the actual representation depend on the theme.
psm-group-end	Denote the end of the virtual dimensions group.

Dimension dependencies (Premium feature)

Dimension dependencies Multidimensional plugin Premium feature allows hiding or show dimensions based on the values of other dimensions.

In this easy to use feature, you specify what happens when the user chooses an attribute for the given dimension. You can specify that some other dimension is hidden 🚫 or non-editable 🚫 . When the dependent dimension is an attribute with multiple choices, you can specify either several or all choices be hidden or nor-editable.

To quickly select multiple attributes you can use Ctrl-Click or Shift-Click.

To quickly remove all dependencies from the selected attribute click on the unlink 🔗 icon.

User defined customizations

Multidimensional plugin Pro and Premium versions support customized calculations and inputs defined by user. You can write your own code in PHP and the plugin will call your code when needed. From your code, you can call PrestaShop internal methods, access the database or perform any other designed activities. This gives endless possibilities to perform any calculations you need.

In order to use the customizations you need to install a free "Product Properties Extension customization" module. Please contact our friendly customer support team for instructions. PS&More team can also write code for you and provides paid customization service for our customers.

Installation Instructions

The PS&More Product Properties Extension Multidimensional module is a plugin and requires the Product Properties Extension module (sold separately) to be installed and work correctly. The plugin extends the functionality of the Product Properties Extension module and works together with the module. The Product Properties Extension module is a main engine. The plugin cannot work separately without the Product Properties Extension module.

To install the plugin module follow the PrestaShop documentation how to install the PrestaShop modules.

The installation procedure automatically integrates the plugin with the PS&More PrestaShop Product Properties Extension module.

Appendix A

Using macros

You can create dynamic explanation strings by using macros. When you use macros, the template engine calculates and substitute quantity values in place of macros in the explanation string. The following macros are available. Some macros are not available in certain situations. See a dynamic help for the individual elements on the template setup page.

Table 1: Explanation string macros

Macro	Description
{MIN}	minimum quantity
{MAX}	maximum quantity
{CRMIN}	calculation minimum quantity
{CRMAX}	calculation maximum quantity
{URATIO}	unit price ratio
{CRTMAX}	*Pro and Premium feature* calculation total maximum quantity