



Maksuturva/eMaksut  
Payment Gateway Module  
PrestaShop 1.4. -



*Revision 123*

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# 1 Changes

Date	Module revision	Description
16.04.12	101	Initial release.
13.07.12	108	Handling of multibyte characters fixed. Previous module versions may run into hash calculation problems with some characters or character encodings.
17.07.12	110	The module is now compatible beginning with Prestashop version 1.4.3
15.03.13	120	Fixes to handling product name and description (use other one if the other is blank). Also some changes in the common code. No effect on functionalities in this implementation.
06.08.14	121	<p>Bugfixes:</p> <ul style="list-style-type: none"> <li>the module now supports Prestashop up to version 1.6.</li> <li>the module now removes quotation marks from product names and description – previously it caused errors in hash calculation</li> <li>product SKU is added when available, shipping method name used as shipping name when available</li> <li>Optional parameters (e.g. pre-selected payment method, buyer's identification code) are now included in the hash calculation when available (currently not available, though, but enabling is possible in further development - see <code>_construct</code> -method in <code>MaksuturvaGatewayImplementation.php</code> and Maksuturva Payment interface description).</li> <li>Module directory structure updated to enable installation through Prestashop user interface.</li> </ul> <p>Documentation updated.</p>
16.10.14	122	<p>New:</p> <ul style="list-style-type: none"> <li>Support for additional payment fees in response message.</li> <li>Product article number refers now to product reference number. If reference number is not available, then to EAN13-number if available.</li> <li>A default Finnish translation package added for the payment module.</li> </ul> <p>Bugfixes:</p> <ul style="list-style-type: none"> <li>Fixed translation variables and messages. <b>Note: this change will overwrite ALL previous module translations. See section 5.1 Upgrading an existing module for instructions.</b></li> <li>Payment module sends user locale to Maksuturva (the customer sees Maksuturva payment page in that language by default)</li> </ul> <p>Documentation updated</p>

14.08.15	123	<p>Bugfix: fixed secret key version number validation to support integer validation changes in Prestashop 1.6.1.0</p> <p>Bugfix: ignores escrow parameter (that is, if the service is eMaksut or Maksuturva) in responses.</p> <p>Previously Maksuturva did not accept payments with false escrow value (that is, if webstore admin has set eMaksut as “active” even though the used payment service is a Maksuturva service, or vice versa). Today Maksuturva accepts false escrow values in payments but responses with service's actual escrow value. This has caused modules to reject succesful payments if the webstore admin has had false value for “eMaksut” option.</p>
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## 2 System requirements

The Maksuturva Payment Gateway module for PrestaShop was tested on and requires the following set of applications in order to fully work:

Requirement	Supported versions
PrestaShop	<ul style="list-style-type: none"><li>• 1.4.1. - 1.6.1.0</li></ul>
PHP	<ul style="list-style-type: none"><li>• 4.x</li><li>• 5.x</li></ul>
PHP cURL Module	<ul style="list-style-type: none"><li>• Any</li></ul>
PHP mbstring module	<ul style="list-style-type: none"><li>• n/a</li></ul>

There is no guarantee that the module is fully functional in any other environment which hasn't such requirements.

## 3 Limitations and notes

The following limitations have been found in this revision of the payment module or in the web store software in question:

- Even though the module automatically validates payment status for delayed payments (see section 8.1), it does not validate status for payments that have returned with error or cancel values.
- Additional Payment fee options supports currently only one payment fee amount. If multiple payment methods with additional payment method fees are used, they need to have the same payment fee amount. Mismatches do not prevent payments but then the PrestaShop reports will not match Maksuturva reports.

## 4 Package contents

This guide assumes that all the package files were correctly downloaded by the user. The uncompressed folder structure is presented in Illustration 1.

```
—maksuturva
  config.xml
  emaksut.png
  en.php
  fi.php
  index.php
  logo.gif
  logo.png
  maksuturva.gif
  maksuturva.php
  MaksuturvaGatewayAbstract.php
  MaksuturvaGatewayImplementation.php
  payment.php
  payment.tpl
  payment_execution.tpl
  payment_return.tpl
  validation.php
  Installation_Guide.odt
  Installation_Guide.pdf
  LICENSE.TXT
  README.md
  TESTING_INSTRUCTIONS.md
```

*Illustration 1: Module package folder structure*

File	Description
maksuturva/validation.php	Callback url used to verify a payment (ok, error, cancel or giro payment).
maksuturva/MaksuturvaGatewayAbstract.php	Base class used to wrap Maksuturva's features.
maksuturva/MaksuturvaGatewayImplementation.php	Implementation of base maksuturva's class based on OsCommerce
maksuturva/maksuturva.php	The main payment gateway file, called from checkout and administration areas.
maksuturva/config.xml	Module general information.
maksuturva/index.php	Module access restriction.
maksuturva/payment.php	Payment preparation process, with form generation and presentation.
maksuturva/payment.tpl	Payment button template.
maksuturva/payment_execution.tpl	Payment form template (with hidden fields which comprise the products and store credentials).
maksuturva/payment_return.tpl	Success or error message templates for when

File	Description
	coming back from the payment in Maksuturva.
maksuturva/en.php maksuturva/fi.php	Default translation files
maksuturva/emaksut.png maksuturva/logo.gif maksuturva/logo.png maksuturva/maksuturva.gif	Image files used by the module.

## 5 Installation

Prior to any change in your environment, it is strongly recommended that a backup of the entire existing PrestaShop installation is performed.

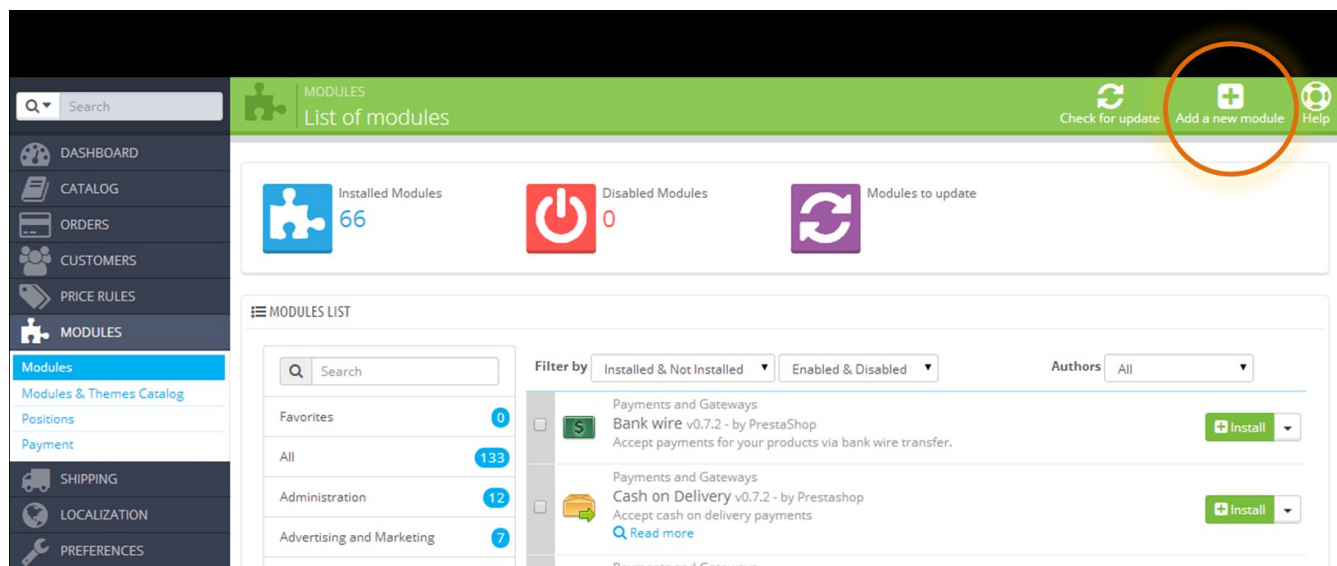
### 5.1 Upgrading an existing module

PrestaShop Smarty cache can sometimes prevent module upgrades to take effect. For these situations, see e.g.: <http://www.blmodules.com/prestashop-tutorials-users/prestashop-cache-when-modification-do-not-see/>).

Please note that the new module also rewrites all the previous translations. If you have made any custom translations to your module, backup the module's folder before the upgrade and after upgrading rewrite the required translations one by one manually in PrestaShop admin. See chapter 7 Language customization.

### 5.2 Intalling the module

The simplest way of installing or upgrading the module is to use PrestaShop administartion user interface. Compress the maksuturva directory as an archived file maksuturva.zip (or in .tar, .tar.gz or .tgz format). From the main manu choose “Modules” and “Add a new module” (“Add a module form my computer” in PrestaShop 1.4). Upload file maksuturva.zip to PrestaShop.



*Illustration 2: Add a new module option in PrestaShop 1.6*

Another option is to to copy uncompressed maksuturva directory with its content to the modules directory in your PrestaShop installation (see Illustration 3). Both methods can be used for upgrading the module.

```

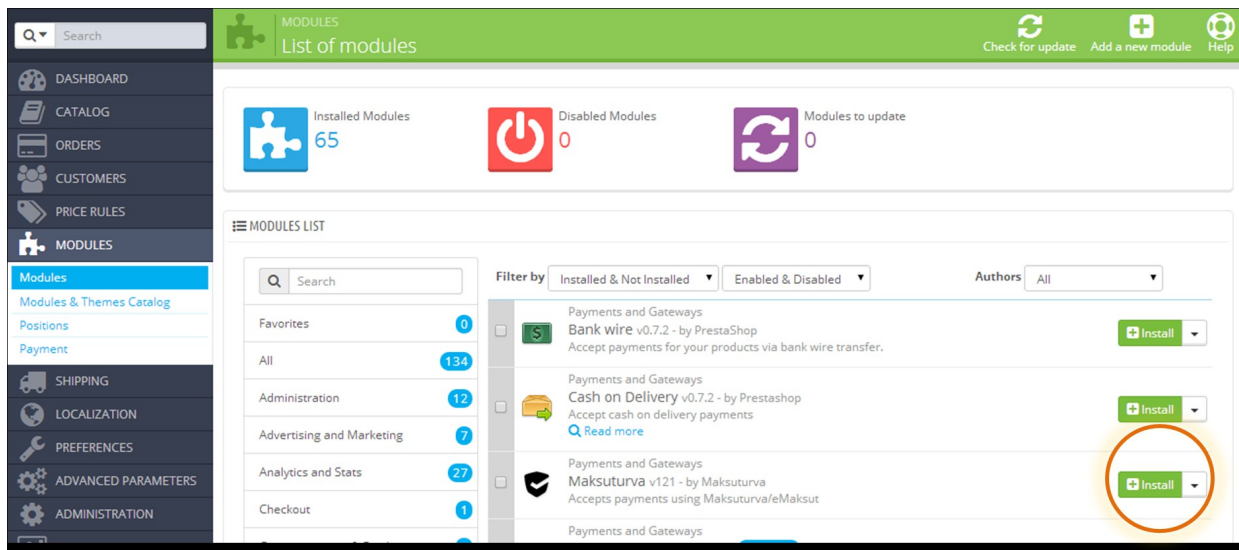
—PrestaShop root
├── modules
│   └── maksuturva
│       ├── config.xml
│       ├── emaksut.png
│       ├── en.php
│       ├── fi.php
│       ├── index.php
│       ├── logo.gif
│       ├── logo.png
│       ├── maksuturva.gif
│       ├── maksuturva.php
│       ├── MaksuturvaGatewayAbstract.php
│       ├── MaksuturvaGatewayImplementation.php
│       ├── payment.php
│       ├── payment.tpl
│       ├── payment_execution.tpl
│       ├── payment_return.tpl
│       └── validation.php

```

*Illustration 3: Module location in PrestaShop directory*

### 5.3 PrestaShop setup

When the file(s) are uploaded into PrestaShop, open the administrative panel of your PrestaShop installation and go to the payment modules section. Choose “install” as shown in Illustration 4. The module is now shown as installed, and the configuration can be performed.



*Illustration 4: Install the uploaded payment module in PrestaShop 1.6*



## 6 Configuration

The configuration section for Maksuturva's module is reached by accessing the installed payment modules, as shown in the setup section. The parameters and their possible configurations are presented in Illustration 5. All the configuration entries are detailed below. Remember to save the changes after your actions.

It is strongly encouraged to test the module and payment service before using the module in production mode with actual money transfers. The settings varies depending on if the module is used in production mode, for testing in Maksuturva test environment or for sandbox testing. Read more about testing in chapter 9 Testing the installation.

Maksuturva/eMaksut configuration

### Settings

Seller ID:

Secret Key:

Secret Key Version:

Communication Encoding: ☒ UTF-8 ☐ ISO-8859-1

eMaksut: ☐ Active ☒ Inactive

Sandbox mode (tests): ☐ Active ☒ Inactive

Communication URL:

Additional payment fee product ID:

*Illustration 5: Maksuturva payment module configuration options*

### 6.1 Seller ID

The seller id is your account identifier that you have received from Maksuturva. It is used in every transaction inside your store. Copy the value and paste it in this field.

When used for testing in *Maksuturva test environment* use your test environment seller id.

When used in *sandbox mode*, general test account is used and the value filled in this option will be ignored.

## 6.2 Secret key

Together with the Seller ID, the secret key is also provided by Maksuturva. Check your secret key and input this value into the configuration field. Please note that this key must not be shared with any person, since it allows many operations to be done in your Maksuturva account.

When used for testing in *Maksuturva test environment* use your test environment secret key.

When used in *sandbox mode*, general test account is used and the value filled in this option will be ignored.

## 6.3 Secret key version

This parameter is also provided by Maksuturva. Check your secret key version and input this value into the configuration field. Please note that this key must not be shared with any person, since it allows many operations to be done in your Maksuturva account.

## 6.4 Communication encoding

There are two possible character encodings that are accepted by Maksuturva. Even if you are using a different encoding the module will attempt to convert the data from your PrestaShop encoding to the encoding set on this configuration. You might need to test which of them works better for your encoding by using the sandbox mode. The possible values are 'ISO-8859-1' and 'UTF-8' and they are selected from radio button options. The default value for this setting is 'UTF-8'.

Wrong encoding might cause the hash verification fail in Maksuturva service so if you get errors in Maksuturva service page informing that hash value is invalid, you should check if changing the encoding value fixes the problem.

## 6.5 eMaksut

This configuration option enables payments to be done using eMaksut's service, instead of using Maksuturva's one. Activate this option only if your payment service is an eMaksut service.

## 6.6 Sandbox mode

You can use module in Sandbox test mode through activating the Sandbox mode. When this option is selected, default test parameters (*Seller ID* and *Secret key*) will be used in your store payments. Purchases made during sandbox will be directed to sandbox test page to verify payment information module is sending to Maksuturva as well as responses from Maksuturva service to PrestaShop.

When set to "Inactive", the production mode will be used. If *Maksuturva production service* credentials and communication URL parameters are used real commercial transactions will be performed when payments are done. Using *Maksuturva test credentials and test environment URL* makes possible to test the full payment process without actual money transactions.

Note that the default installation value for this configuration entry is "Active".

## 6.7 Communication URL

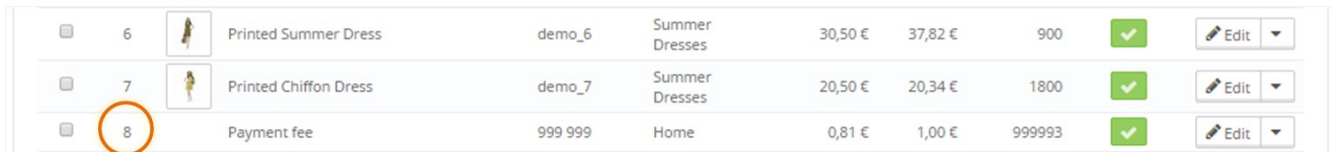
This configures which URL the payment and query status operations will send the data to Maksuturva. The default value '<https://www.maksuturva.fi>' refers to Maksuturva *production environment*.

The communication URL for Maksuturva *test environment* is '<http://test1.maksuturva.fi>' (note, that

transfer protocol for test environment is *http*, not *https*).

## 6.8 Additional payment fee product ID

Insert here the ID number of payment fee product you've created. The location of the ID number in PrestaShop admin product listing is shown in the Illustration 6. Read more about additional payment fee in chapter 8.2 Accepting additional payment fees.



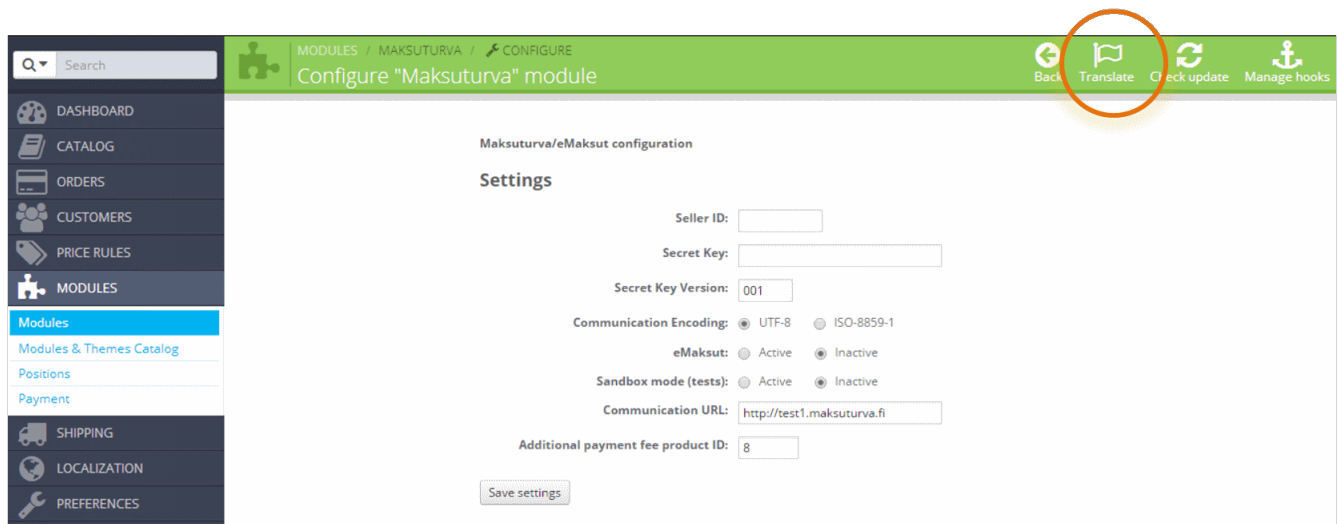
	6		Printed Summer Dress	demo_6	Summer Dresses	30,50 €	37,82 €	900		Edit
	7		Printed Chiffon Dress	demo_7	Summer Dresses	20,50 €	20,34 €	1800		Edit
	8		Payment fee	999 999	Home	0,81 €	1,00 €	999993		Edit

*Illustration 6: Location of the product ID number (PrestaShop 1.6)*

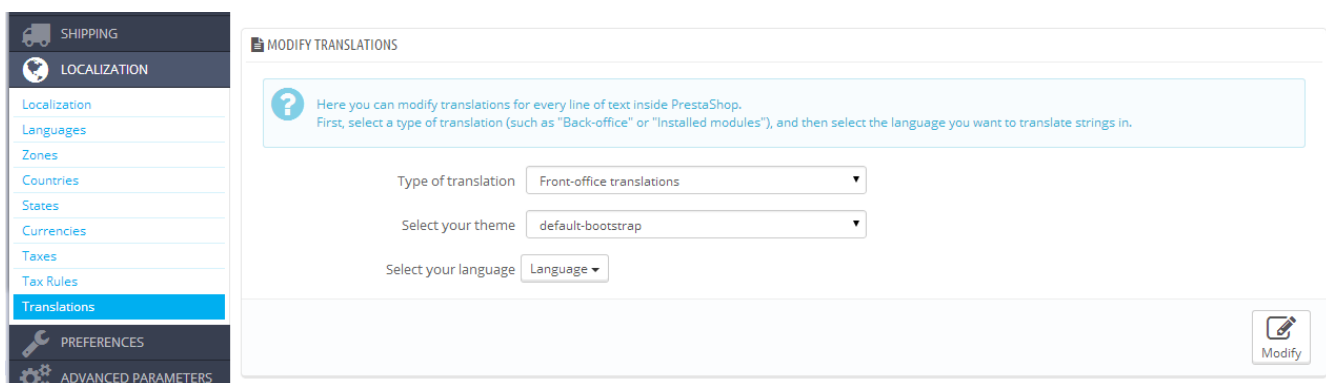
## 7 Language customization

It is possible to customize the language and messages used in the module to the languages enabled in PrestaShop language settings. The customization takes effect by changing the text entries using the administrative tool, accessed by the modules configuration page (see Illustration 7) or through Localization menu (see Illustration 8) by selecting “Installed modules translations” from “Type of translation” menu. Look for the section “Module: maksuturva”, and apply all the changes for the selected language.

In PrestaShop 1.6, when translations are accessed through Localization menu it is also possible to make different translations for each theme (See “select your theme” -option in Illustration 8) that overrule core translations.



*Illustration 7: Accessing module translations through module configuration page*

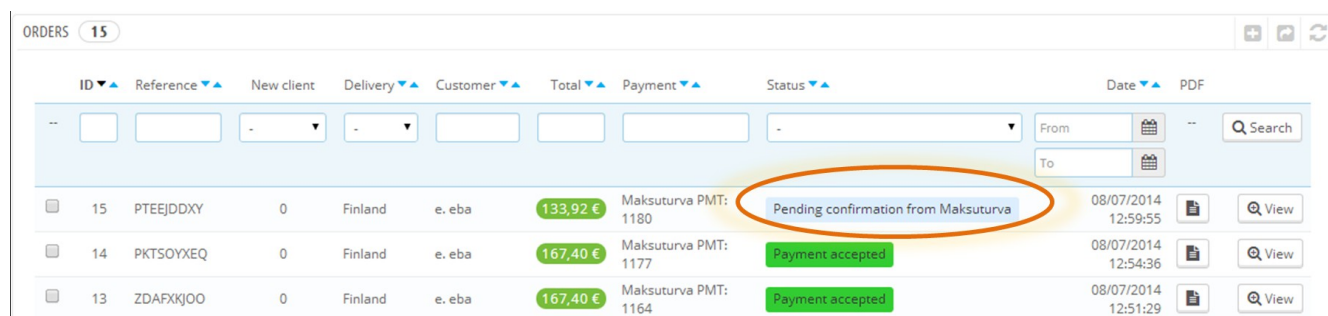


*Illustration 8: Accessing module translations through Localization menu*

## 8 Administration

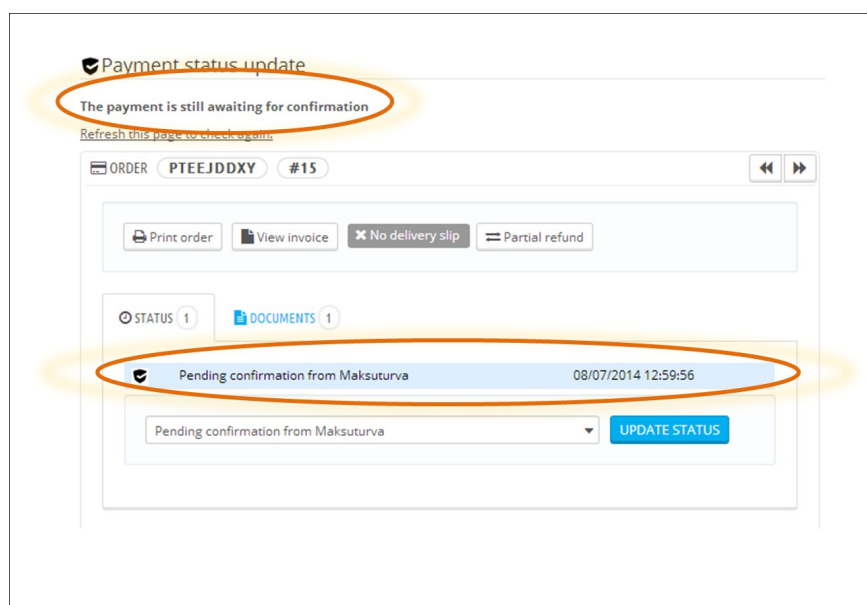
### 8.1 Delayed payments (if available)

When the buyer has paid the order by credit card, online bank payment, invoice, part payment etc. Maksuturva service will respond to PrestaShop that the payment has been *accepted*. The Maksuturva Gateway Payment module has also a support for delayed payments when the payment method is available (see Illustration 9). For that purpose, an order which payment has not yet been verified can be automatically verified by opening the order itself. When an order with an unverified payment is opened, the verification process will automatically start. If verification is received from Maksuturva payment status will change from unverified (see Illustration 10) to verified (Illustration 11).



ID	Reference	New client	Delivery	Customer	Total	Payment	Status	Date	PDF
15	PTEEJDDXY	0	Finland	e. eba	133,92 €	Maksuturva PMT: 1180	Pending confirmation from Maksuturva	08/07/2014 12:59:55	View
14	PKTSOYXEQ	0	Finland	e. eba	167,40 €	Maksuturva PMT: 1177	Payment accepted	08/07/2014 12:54:36	View
13	ZDAFXKJOO	0	Finland	e. eba	167,40 €	Maksuturva PMT: 1164	Payment accepted	08/07/2014 12:51:29	View

*Illustration 9: Unconfirmed payment in PrestaShop Orders list*



**Payment status update**  
The payment is still awaiting for confirmation  
[Refresh this page to check status](#)

ORDER: PTEEJDDXY #15

Print order View invoice No delivery slip Partial refund

STATUS 1 DOCUMENTS 1

Pending confirmation from Maksuturva 08/07/2014 12:59:56

Pending confirmation from Maksuturva UPDATE STATUS

*Illustration 10: Order view with an unverified payment*

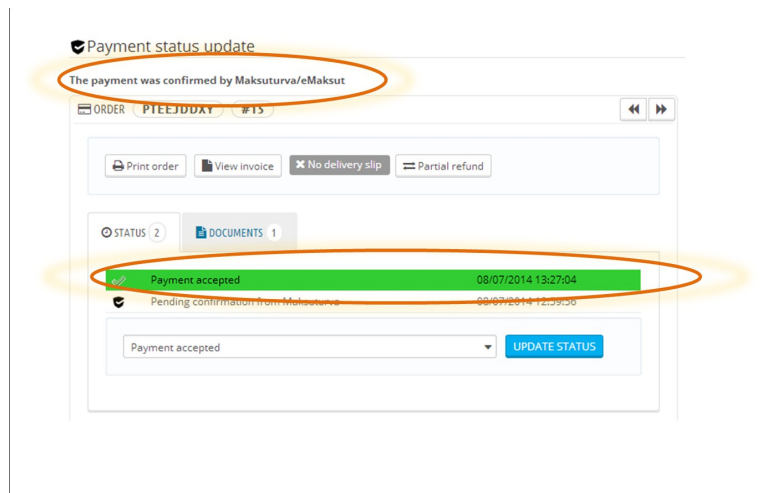


Illustration 11: Order view with a verified payment

## 8.2 Accepting additional payment fees

After the customer has chosen Maksuturva as his payment method, he is redirected to Maksuturva service. In the payment service can choose a payment method from multiple options. The available payment methods depend on webstore's service agreement on Maksuturva.

For invoice and part payment payments it is possible to issue an extra invoicing fee. If a customer chooses to pay the order with this kind of a method, Maksuturva charges the extra fee from the customer. When customer returns to PrestaShop invoicing fee product is added to the order (see Illustration 12). However, this requires that an invoicing fee product has been created in PrestaShop and assigned to the payment module (see chapter 6 Configuration).












PRODUCTS (3)						
Product	Unit Price tax included.	Qty	Refunded	Available quantity	Total tax included.	
 Printed Dress - Color : Beige, Size : S Reference number: 6547890	63,23 €	1	0	299	63,23 €	 
 Blouse - Color : Black, Size : S Reference number: 123456	33,48 €	2	0	297	66,96 €	 
Payment fee Reference number: 999 999	1,00 €	1	0	999993	1,00 €	 
<div>  Add a product            Add a new discount         </div>						
<div>  For this customer group, prices are displayed as: <b>tax included.</b> Merchandise returns are disabled         </div>						
					Products:	131,19 €
					Shipping	6,20 €
					<b>Total</b>	<b>137,39 €</b>

Illustration 12: Payment fee added to order invoice in PrestaShop admin (PrestaShop 1.6)

When creating a product for invoicing fee the product price (including VAT) needs to be set equal to the invoicing fee set in Maksuturva service. The product quantity should also be set large enough to

prevent product running out (e.g. 1'000'000) and increased when required. As the invoicing fee is not meant to be ordered separately, the product visibility should be set to “nowhere”.

If the invoicing fee product price doesn't match with the Maksuturva response message or the product has run out (and therefore can not be added to the order), the PrestaShop book-keeping will not match the actual payment amounts. In both cases an error is shown in admin order page (see illustrations 13 and 14) but otherwise the order is registered to the PrestaShop.

*Illustration 13: Order error message (PrestaShop 1.6.) in a situation where an invoicing fee is set to 2,00 € but invoicing fee product price is 1,00 €. The payment amount calculated from the order products does match with the actual payment.*

*Illustration 14: Order error message (in PrestaShop 1.6) in a situation where the invoicing fee product has run out. As the invoicing fee can not be added to the order, the payment amount calculated from the order products does match with the actual payment.*

## 9 Testing the installation

It is strongly encouraged that the Maksuturva payment module is thoroughly tested before taking it into use in on production web store. It is essential to verify that customer and product information, prices, taxes and discount as well as payment message verifying hash are transmitted correctly to Maksuturva.

### 9.1 Sandbox testing

First, one should validate payment messages by general a.k.a sandbox testing by activating Sandbox mode (see chapter 6.6 Sandbox mode). Activating the Sandbox mode, the module will use default test credentials and all confirmed orders are directed to a Sandbox test page where one can see the sent



payment message data. Also all possible errors in data are presented.

The payment module calculates a checksum / hash from the payment data and webstore secret key combination. Secret key itself is never sent. When Maksuturva service receives the payment message it verifies the authenticity by doing the same calculation and comparing the two checksums.

If Sandbox test page reports errors in hash, the following checks are recommended:

- all the message data on the Sandbox test page are accurate and match the ones that have been sent. No extra spaces or symbols are added or removed and no symbol is changed to something else neither.
- Check that the selected encoding is accurate and change it if required (see chapter 6.4 Communication encoding).
- Check if product information (e.g. name, description) includes problematic special symbols which might cause yet unreported errors (see chapter 3 Limitations and notes)
- If the product information is copied from word processing software (Office Word etc.), the copied text might include markings (header, bulletpoint and emphasis markings etc.) which – even if they are not visible – cause errors in hash calculation. In these cases the product information data should be verified by copying it to more simple text editor (e.g. Notepad) which removes all possible invisible symbols and then copied back to PrestaShop replacing previous product information content.

Sandbox test page also shows links to responses to webstore (see Illustration 15). By selecting appropriate link, one can verify the information and messages that buyer and store administration see when payment is e.g. accepted or canceled.

[Ok paluu / OK return](#) Palaa välittäen ns request stringissä maksamisen vahvistusviestin osoitteeseen, joka tuli pmt\_okreturn -kentässä.

[Virhe paluu / Error return](#) Palaa ilman lisättyjä parametreja osoitteeseen, joka tuli pmt\_errorreturn -kentässä

[Peruutus paluu / Cancel return](#) Palaa ilman lisättyjä parametreja osoitteeseen, joka tuli pmt\_cancelreturn -kentässä

[Viivästetty maksu \(tilisiirto\) paluu / Delayed payment \(giro\) return](#) Palaa ilman lisättyjä parametreja osoitteeseen, joka tuli pmt\_delayedpayreturn -kentässä

*Illustration 15: Return options in Maksuturva Sandbox test page*

## 9.2 Testing in Maksuturva test environment

When Sandbox mode is disabled, module acts as in production mode and order confirmation directs buyer to Maksuturva payment page. If actual Maksuturva credentials are used real money transactions will occur.

If communication URL is set to refer to Maksuturva test environment (<http://test1.maksuturva.fi>) it is possible to try the full online bank payment and invoice payment process without using actual money. Test environment uses different credentials than Maksuturva production environment and test environment service needs to be ordered separately from the actual Maksuturva service. More information about testing is available on Maksuturva web site [www.maksuturva.fi](http://www.maksuturva.fi).

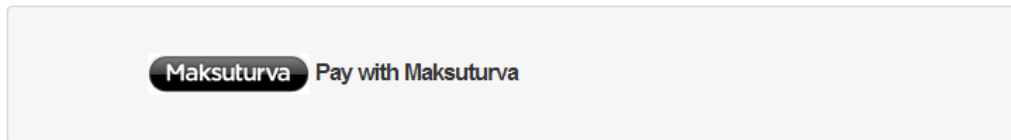
## 10 Paying through Maksuturva payment gateway

**Step 1** - Log in as a customer. Perform a purchase of items you choose and select Maksuturva as the payment option during the checkout (see Illustration 16).



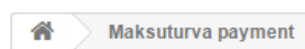
### 3 PLEASE CHOOSE YOUR PAYMENT METHOD

---



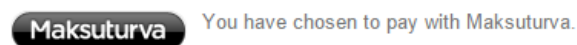
*Illustration 16: Selecting Maksuturva as a payment method*

#### Step 2 – Confirm the order



### Order summary

#### Maksuturva payment



The total amount of your order is 99,20 € (tax incl.)

You will be redirected to Maksuturva to perform the payment.

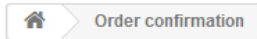
Please confirm your order by clicking 'I confirm my order'.



*Illustration 17: Confirming the order*

**Step 3** – If using Sandbox mode verify payment by clicking “OK”. If using Maksuturva test or production environment, choose the payment method from the available options and complete the payment process.

**Step 4** – Now the payment was confirmed. Buyer sees the order confirmation page (see Illustration 18) and store administration the new confirmed order (see e.g. illustrations 9 and 11 at page 14).



## ORDER CONFIRMATION

---

Your order on SMT testikauppa is complete.

Maksuturva

Your order will be shipped as soon as possible.

For any questions or for further information, please contact our customer support.

[← Back to orders](#)

*Illustration 18: Order confirmation message to buyer after one has been redirected back to PrestaShop from Maksuturva service*