Documentation

# Deskline 3.0

## Price Import

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# DESKLINE 3.0 PRICE IMPORT

## INDEX

# GENERAL/INTRODUCTION

The Deskline 3.0 Price Import is a new Web Service to save prices for a product without using the Deskline 3.0 ExpertClient or the Deskline 3.0 WebClient. This documentation should help developers to connect to Deskline 3.0 and provide examples on how to send data. In summary, we changed from using text-files to XML-files based on the Open Travel Alliance format for the function *OTA_HotelRateAmountNotifRQ/RS*.

**Important**: Interfaces must still be activated per Deskline customer so it's not a given that the availability interfaces will be available immediately for every hotel.

**Important:** As of 2011 feratel customers use both systems: Deskline 2.0 and Deskline 3.0; not every customer will be switching from DL2 to DL3 immediately so both systems will stay on the market for some time longer. It is therefore important to know, that the Deskline 3.0 Price Import does not work with Deskline 2.0 (and the other way round). When requesting login data for a service provider it is therefore necessary to know the exact address of the hotel so we can send either the DL2 login data or the DL3 login data – given of course that a company supports both systems.

If you have any questions regarding the **D**eskline 3.0 **P**rice **I**mport please contact:

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## ACTIVATION PROCESS PER SERVICE PROVIDER

In order to use the interface, it must be activated for our customer. Our direct customers are not the hotels but the tourism destinations. So it is possible that the interface will not be available everywhere or at least not immediately because it has to be set up for the customer. If the interface is already set up and active only the mapping must be entered in order to be able to use the functionality. In the first step, the mapping will be entered by feratel, so please contact servicecenter@feratel.com with the details of the service provider (name, full address and contact information) and the suggested mapping for the existing services. If no mapping is sent to us or if the services are not known, we can send a mapping along with the list of services that already exist in Deskline.

Responsible for the different services and products that are assigned to one service provider are the tourist information and the service provider directly. If – for example - services are missing that the service provider wants to use with the availability import they first have to be created, either by the service provider or by the tourist office. Once the services/products are set up the mapping can be assigned.

## TECHNICAL DESCRIPTION

XML files are the base for the availability import – all mandatory and optional values for requests are passed inside XML files and also the response will be a valid XML file. The format is taken from OTA_HotelRateAmountNotifRQ/RS and implements a basic version of these functions. The chapters below will explain which elements and attributes are supported. A comprehensive OTA documentation is available on www.opentravel.org and a useful OpenTravel Model Viewer can be found here: http://adriatic.pilotfish-net.com/ota-modelviewer/.  The web services for availabilities will work with SSL and support HttpSoap and HttpPost.

## TARGET ADDRESS

We have a central web service for interfaces. Generally the web service will be available on the same URL for all customers. However as it was already the case in the past it could happen that some customers will have the hardware outside our central computer center. So it is better to be prepared and save the target address as a field that can be changed on demand.

- **Import:**
  - The target address for the live system is http://interface.deskline.net/OTA/ImportPrices.asmx
  - WSDL: http://interface.deskline.net/OTA/ImportPrices.asmx?WSDL

The target address for the test-environment will be different *(interfacetest.deskline.net)*!

## AUTHENTICATION

Every software-company will receive a unique code by which they are identified. This code must be transferred inside the OTA attribute AgentDutyCode and must not be visible to the hotels.

## RESTRICTIONS

- We will not import prices that are more than 800 days in the future.
- It is not possible to assign prices to the past.
- It is not possible to send prices for more than one hotel at the same time. Each request refers to exactly one HotelCode.

## UPDATE INTERVAL

To optimize performance only changed prices should be sent rather than sending the whole calendar with every update. We reserve the right to limit the amount of daily updates possible in the future if we detect that more than just changed entries are sent.

## TEST ENVIRONMENT

A complete test environment is available and can be set up on demand.

## MAPPING VALUES

To find the way from one room in the hotel software to a product in Deskline 3.0 we need certain mapping values, namely the hotel code and a mapping code per product. In Deskline 2.0 we relied on the internal mapping values which sometimes lead to problems. In Deskline 3.0 we add a new layer and rely on mutually agreed mapping values. These values can't be entered by the hotels themselves just yet so in the beginning this will be done by feratel.

**The following rules apply to mapping values:**

- Mapping values are needed for the hotel and for every product that should be imported.
- Mapping values must not exceed 16 characters (OTA restriction).
- Mapping values must not contain special characters, only A-Z and 0-9.
- A mapping value for a hotel can be assigned more than one time per company. So the same company can use "HTLSUN" as mapping value for two different objects. It is not recommended and every hotel should have a unique code but this is sometimes necessary for software companies if one service provider manages multiple objects.
- Mapping values per product must be unique for every Company + HotelCode combination. There can't be two products with the code "PR" inside one hotel code.

**Mapping suggestion:**

- Using a combination of the company abbreviation and the hotel abbreviation. Examples below.

**A few examples:**

- A new value can be used, perhaps something that shortens the name but is distinctive enough to be the mapping for this hotel:

| Hotel Sunshine | Hotel Software | Mapping | Deskline 3.0 |
|---|---|---|---|
| Hotel Code | 23742093 | COSUN | AAAEDD2B-833C-4A7D-B1AB-C0386A437FAC |
| Single Room Code (Service) | 23789423 | COSUNSR | F79A02D3-8395-4456-BBF2-8B91D58C3AD6 |
| Single Room Code (Product) | 23467439 | COSUNDRP | F4A3D76E-68E9-4B27-B7D8-249398A6EE8F |
| Double Room Code (Service) | 23789423 | COSUNSR | F79A02D3-8395-4456-BBF2-8B91D58C3AD6 |
| Double Room Code (Product) | 23467438 | COSUNDRP | 96E56EAE-51DA-4AA6-82D3-541D1F105E5D |

Here an abbreviation is used (CO for company, SUN for Sunshine, SR for single room, DR for double room)

- Existing values of the external software can be used as long as they do not exceed 16 characters (OTA restriction). A hotel code must be assigned either way even if the hotel software has no hotel code on its own.

| Hotel Sunshine | Hotel Software | Mapping | Deskline 3.0 |
|---|---|---|---|
| Hotel Code | | SUNSHINE | AAAEDD2B-833C-4A7D-B1AB-C0386A437FAC |
| Single Room Code (Service) | 14 | 14 | F79A02D3-8395-4456-BBF2-8B91D58C3AD6 |
| Single Room Code (Product) | 14 | 14P | F4A3D76E-68E9-4B27-B7D8-249398A6EE8F |
| Double Room Code (Service) | 15 | 15 | F79A02D3-8395-4456-BBF2-8B91D58C3AD6 |
| Double Room Code (Product) | 15 | 15P | 96E56EAE-51DA-4AA6-82D3-541D1F105E5D |

- A combination of characters and numbers is possible as the mapping code is a string:

| Hotel Sunshine | Hotel Software | Mapping | Deskline 3.0 |
|---|---|---|---|
| Hotel Code | 23742093 | SUN9020 | AAAEDD2B-833C-4A7D-B1AB-C0386A437FAC |
| Single Room Code (Service) | 23742093 | SUN14 | F79A02D3-8395-4456-BBF2-8B91D58C3AD6 |
| Single Room Code (Product) | 23742094 | SUN14P | 96E56EAE-51DA-4AA6-82D3-541D1F105E5D |

Important: If no mapping is present and active for a hotel and the service for a company, the interfaces will not be accessible.

## STRUCTURE OF A SERVICE PROVIDER WITH SERVICES AND PRODUCTS

A short overview how data regarding a service provider is entered and connected in Deskline 3.0: first, we have the service provider which is for example a hotel:



A service provider will have one or more categories, classifications, marketing groups, facilities and so on. Also, there are descriptions, documents, links, etc. - all information regarding the object itself, not about services or products.

Then there can be services for this object:

| Name | Type | Town | Object code |
|------|------|------|-------------|
| the Schwartz-Inn | Accommodation | Innsbruck | TP0815 |
| Triple room, shower or bath, toilet, no... | Accommodation | | TRXTNOSMO |
| Single room, bath, toilet, superior | Accommodation | | SRBTSUPER |
| Apartment, shower and bath, toilet, gro... | Accommodation | | APYTGRFL |

A service can be seen as a summary of physical rooms with the same properties:



This room can also have descriptions, documents, facilities – and availabilities. For example there can be 10 available rooms of this category on a given day and only 8 on another day or 0 on another day if all rooms of this type are occupied.

Based on one service there can be one or several products. Products are the units that can be booked by a customer. So it is possible to sell a service either as a regular room (triple room with shower or bath in this case) or as a special package or anything else the service provider can create. Restrictions about arrival/departure, min/max length of stay, min/max adults, min/max children and so on - including the prices - are all defined on the product level:



Or:



As soon as the service provider changes the availabilities for the service to 5, there are 5 units of the product "Triple room" or 5 units of the product "Weekend package for two" available. As soon as for example one weekend package is booked, the availability will be reduced and there are only 4 units of either product available. This way, a service provider can sell a room in multiple choices for the guest.

**This information is important for the price interface:** Prices are always imported for each **product**, so we need a mapping on this level and it must be different from the service mapping. If the service provider created more than one product for a service there will be two product codes necessary. If this does not work with the hotel software than the service provider should create the Deskline services and products in a 1:1 relation, rather than using 1:n.

## LANDLORDS WITH MORE THAN ONE OBJECT

It is sometimes possible that one landlord manages multiple properties in Deskline 3.0, for example Hotel Sunshine **and** Hotel Lakeside with different inventory. In this case we still need the mapping values to be distinct for every object, only the hotel code can be shared.

We still need a hotel code for Hotel Sunshine (e.g. SUNSHINE) and one for Hotel Lakeside (e.g. LAKESIDE) but if it is actually the **same landlord**, then both hotels are allowed to share a HotelCode.

If the hotel software does not actually support multiple properties then we suggest saving two mapping values per room: the hotel code and the room code. This is just a suggestion and has to be considered if you want to support sending availabilities to Deskline 3.0 for more than one service provider.

## INFORMATION ABOUT SALES CHANNELS (RATEPLANCODE)

Usually, all products share the same prices whether they are booked online or offline or on different sales channels. However, a tourism destination can create any number of additional sales channels they need for their use. In most cases the prices are then shared throughout the sales channels but for some marketing activities they can have their own prices for certain products. This would look like this in Deskline 3.0:

Most cases:



Settings for a fictional channel "Bike Week" with own availabilities for a product:



This means, that - for example – for the 31st of January 2011 there can be two different prices for one product: one price that is used for the Standard/Internet sales channel and one price that is used for the "Bike Week". The tourism destination decides on the usage of these sales channels, there can be links on the homepage or they can be used solely for the back office (Deskline 3.0 ExpertClient).

## PRICE IMPORT REQUEST FIELDS

The OTA implementation looks like this:

| Request field | Description | Can be empty? | More than one possible? |
|---|---|:---:|:---:|
| POS → Source → AgentDutyCode | A unique code assigned from feratel to the external software-company sending availabilities. This is used to identify the sending company and will be unique per company. Must not be visible or known to the hotels! | ☐ | ☐ |
| RateAmountMessages | The element RateAmountMessages must only be present once. This means that it is only possible to send one request for one hotel at the time, not several hotels. | ☐ | ☐ |
| HotelCode | The attribute HotelCode contains the mapping value of the service provider. | ☐ | ☐ |
| RateAmountMessage | Container Element for the different prices to import. | ☐ | ☑ |
| StatusApplicationControl | Period that the price is going to be changed for. Important: Periods that are not part of the request will not be changed and keep their existing data. | ☐ | ☐ |
| Start | Date beginning with the first day to assign prices to. | ☐ | ☐ |
| End | The end date is included when assigning prices to dates. So sending from "2010-04-05" to "2010-04-10" will save availabilities for the following dates: 2010-04-05, 2010-04-06, 2010-04-07, 2010-04-08, 2010-04-09 and 2010-04-10. This is a different workflow than handled by the availability import! | ☐ | ☐ |
| InvCode | The attribute InvCode contains the mapping value of the product. | ☐ | ☐ |
| RatePlanCode | Use this attribute only when the service provider has different prices for different sales channels defined by the tourism organisation. Otherwise, this attribute must not be send. The value for the RatePlanCode can be provided by the tourism organisation and is the name of the sales channel. With the RatePlanCode it is possible to assign a price for a double room for all guests to 50 EUR but for a special sales channel (for example marketing related) to 45 EUR for the same day. | ☐ | ☐ |
| Rates | Container element for the prices. | ☐ | ☑ |
| Rate | Information about the price and minimum and maximum length of stay. | ☐ | ☐ |
| MinLOS | Minimum length of stay for this period. Optional, do not send if it is not necessary. Value must not be empty and has to be greater zero. | ☑ | ☐ |
| MaxLOS | Maximum length of stay for this period. Optional, do not send if it is not necessary. Value must not be empty and has to be greater zero. | ☑ | ☐ |
| BaseByGuestAmts | Container element for the price amounts. | ☐ | ☐ |
| BaseByGuestAmt | For each occupancy level (1 person, 2 people, 3 people, ..) there can be a different price. | ☐ | ☑ |
| AmountAfterTax | Price value to be saved. | ☐ | ☐ |
| NumberOfGuests | Number of guests for this price. Within one message, there can't be two entries for the same NumberOfGuests. NumberOfGuest has to be unique inside each RateAmountMessage. | ☐ | ☐ |

## PRICE IMPORT REQUEST EXAMPLE

One hotel, two products:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<OTA_HotelRateAmountNotifRQ
xmlns="http://www.opentravel.org/OTA/2003/05" TimeStamp="2009-08-
26T21:28:06" Target="Production" Version="1">
      <POS>
            <Source AgentDutyCode="FERATEL" />
      </POS>
      <RateAmountMessages HotelCode="HOTCO">
            <RateAmountMessage >
                  <StatusApplicationControl Start="2010-12-01"
End="2010-12-31" InvCode="FEHOPROD" RatePlanCode=""/>
                  <Rates>
                        <Rate MinLOS="2" MaxLOS="14" >
                              <BaseByGuestAmts>
                                    <BaseByGuestAmt
                                          AmountAfterTax="37.0"
                                          NumberOfGuests="1" />
                                    <BaseByGuestAmt
                                          AmountAfterTax="25.0"
                                          NumberOfGuests="2" />
                              </BaseByGuestAmts>
                        </Rate>
                  </Rates>
            </RateAmountMessage>
            <RateAmountMessage >
                  <StatusApplicationControl Start="2011-01-01"
End="2011-01-15" InvCode="FEHOPROD" RatePlanCode=""/>
                  <Rates>
                        <Rate MinLOS="3" MaxLOS="14" >
                              <BaseByGuestAmts>
                                    <BaseByGuestAmt
                                          AmountAfterTax="32.0"
                                          NumberOfGuests="1" />
                                    <BaseByGuestAmt
                                          AmountAfterTax="20.0"
                                          NumberOfGuests="2" />
                              </BaseByGuestAmts>
                        </Rate>
                  </Rates>
            </RateAmountMessage>
      </RateAmountMessages>
      </OTA_HotelRateAmountNotifRQ>
```

## PRICE IMPORT RESPONSE EXAMPLE

Import successful:

```xml
<?xml version="1.0"?>
<OTA_HotelRateAmountNotifRS
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" Version="0"
xmlns="http://www.opentravel.org/OTA/2003/05">
      <Success />
</OTA_HotelRateAmountNotifRS>
```

If the XML is not valid and can't be processed:

```xml
<?xml version="1.0"?>
<OTA_HotelRateAmountNotifRS
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" Version="0"
xmlns="http://www.opentravel.org/OTA/2003/05">
      <Warnings>
            <Warning Language="en" Type="10" Code="425">No match found
HotelCode HOTCO and InvCode PRIC.</Warning>
      </Warnings>
</OTA_HotelRateAmountNotifRS>
```

Other problems that do not immediately stop the interface from processing the request will result in warnings (**<Errors>** will become **<Warnings>**) according to the OTA Error Type List:

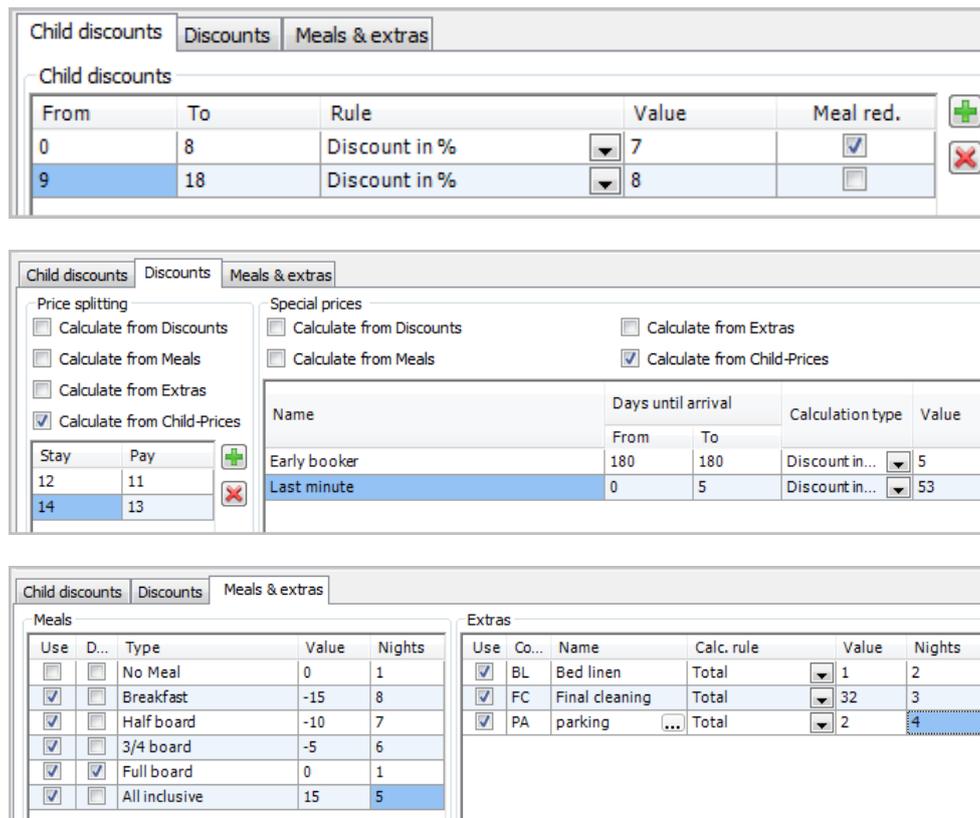| Error Code | Reason |
|---|---|
| 104 | Accommodation does not use availability. Setting in the Deskline 3.0 data if availabilities can be stored for a room or not. |
| 135 | End date is invalid (already passed or too far in the future) |
| 136 | Start date is invalid (already passed or too far in the future) |
| 183 | Agency suspended – access denied (interface deactivated or not allowed for the customer) |
| 321 | POS element is missing |
| 321 | AgentDutyCode is missing |
| 321 | Hotel Code is missing |
| 321 | Start/End Date missing in StatusApplicationControl |
| 321 | InvCode missing |
| 375 | Hotel not active (Deskline 3.0 setting if a hotel is active or not) |
| 425 | No match found for the mapping or the mapping is inactive (mapping can be entered and activated/deactivated) |
| 497 | Authorization error (company code not valid) |

Sending prices more than 800 days in the future will result in a warning and only availabilities within the first 800 days will be imported.

# SERVICE PROVIDER PRESETTING

The information that can be imported by using the interface is reduced to a small set of fields that make up the Deskline 3.0 price calculation. Our system has a lot more settings, like different meal codes, discounts, surcharges, child-reductions and so on.

These settings are still be used when working with the Deskline 3.0 Price Import. Usually they can be different for every product and every price template, but when working with the Deskline 3.0 Price Import we use the Service Provider Presetting to fill the price templates. When a new price template is created we import the dates and values from the XML and use the rest of the settings from the Presetting.

Example for Service Provider Presetting:



If these settings are present for a service provider then they will be automatically assigned to each new price template created by the price import function. It is not possible to deactivate this behavior (only by not using the price import) so the service provider has to be aware of this workflow before using the price import.

## PRODUCT SETTINGS

Every product is set up with the option about the price calculation rule and visitor's tax:
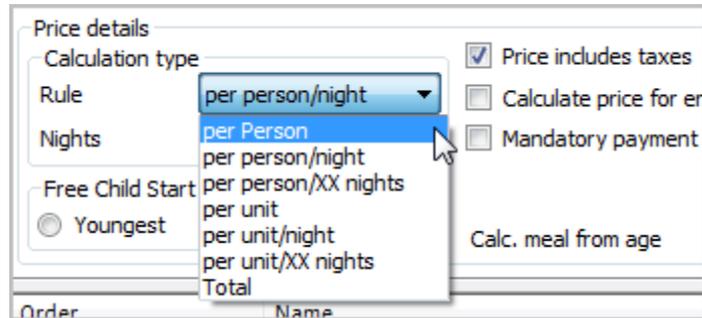


We only take the price value from the XML file and fill the price template with it. The definition of the product, if the price is to be calculated per person or per unit or if the taxes are included has to be made by the service provider when the product is created. It is possible that the service provider does not have these access rights so the hotel would have to talk to the destination using our system directly. We do not change these settings or manipulate the price value at all.

**This is important to know when sending prices!**

For every product there is also a setting for the occupancy that must be entered when the service provider creates a product:



Therefore it is important to know the limits when sending prices. The example above would not allow a price for NumberOfGuests=4 to be imported since the maximum number of adults is 3.

# CHANGE LOG

This document will be changed during the further development process and these changes will be documented here.

| Version | Description of changes done |
|---|---|
| **1.0.0** | • First version |
| **1.0.1** (2010-12-14) | • Bugfix: Problem with template names was fixed<br>• Bugfix: Up to now the service provider default settings for arrival/departure weekdays where ignored. They are now used when importing data. |
| **1.0.2** (2011-02-22) | • Hotfix included fixing a bug when it comes to service provider presettings and reduction/surcharges (internal fix, no need for companies to react).<br>• Hotfix included fixing a bug with the generation of price template names (internal fix, no need for companies to react).<br>• Altered the chapter "Product settings" because not all service providers have the right to change this setting (price per unit vs. price per person) so this still has to be checked with the service provider in any case!<br>• Inserted additional information concerning minimum and maximum length of stay<br>• Corrected documentation concerning elements BaseByGuestAmts and BaseByGuestAmt<br>• Change contact information |
| **1.0.3** (2011-04-12) | • Hotfix included fixing a bug when only MinLOS and MaxLOS is send without price information (internal fix, no need for companies to react). |
| **1.0.4** (2014-03-04) | • Loosened restriction to send data only 550 days in future to 800 days.<br>• Skipped chapter about differences between Deskline 2 and Deskline 3.0 interfaces because no longer relevant to partners. |
| **1.0.5** (2017-02-27) | • Bug fixed for calculating correct Surcharge and Discount from Standard Template |
| **1.0.6** (2017-10-02) | • Improvement for saving 0 Prices |