

# Personalized Dietary Advice Service

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# Overview

The PDAS is a web-service based on the Food4Me level 3 advices. The service uses Food Intake, biomarkers from bloodanalysis, SNP data and other body metrics (weight, BMI etc) as input. The service consists of two databases, one that contains guidelines and information like Daily, Recommended Intake values etc, etc. These values are used as cut-off values for the actual decision trees, the second database. The decision trees originate from the food4me project and lead to personal dietary advices.

Server code is available [here](<https://github.com/thehyve/food4me-webservice>). Please note that the server code doesn't contain the actual guidelines and decision trees.

## Version information

Version: 1.0.0

## URI scheme

Host: api.quisper.eu

BasePath: /pdas

Schemes: HTTP, HTTPS

## Produces

- application/json
- text/html

## Paths

### Retrieve a list of properties supported by the current implementation.

```
GET /properties.{format}
```

## Description

A list of properties that are supported by the current implementation is returned. This can be used to determine the full set of parameters for the /advices or /status webservice calls.

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	format	Format in which the data should be returned	true	enum (html, json, hal)	

## Responses

HTTP Code	Description	Schema
200	Returns a list of supported properties. Each property will also contain a list of supported modifiers on the given property. These modifiers allow the called to give more details on a given nutrient intake.	<a href="#">Property</a> array
401	Unauthorized: provide a valid API key	No Content
403	Forbidden: the provided API key is invalid	No Content
500	An internal error occurred	No Content

## Retrieve the references for one or more properties

```
GET /references.{format}
```

### Description

A set of reference values is returned for the properties specified in the URL. Some reference values are dependent on the age and gender. For those values, age and gender are required. If no age and gender values are given, these reference values will not be returned.

### Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	format	Format in which the data should be returned	true	enum (html, json)	
QueryParamet er	generic.age	Age in years	false	number (integer)	
QueryParamet er	generic.gender	Gender	false	enum (Male, Female)	
QueryParamet er	property	Name of the property to return the references for.	false	multi string array	

## Responses

HTTP Code	Description	Schema
200	Returns a list with properties and its references, as they apply for the given parameters. The only variable to the references is the measurements for the property itself	<a href="#">PropertyReferences</a> array
401	Unauthorized: provide a valid API key	No Content
403	Forbidden: the provided API key is invalid	No Content
500	An internal error occurred	No Content

## Retrieve the status based on a set of measurements

```
GET /status.{format}
```

### Description

Given a set of measurements, a status for each is computed for each measurement. The status depends on the reference values as loaded into the system.

A full set of parameters depends on the data that has been loaded. See

/properties for a list of supported properties. The properties should be provided in the form {group}.{propertyname}({modifier}). Some examples are shown below.

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	format	Format in which the data should be returned	true	enum (html, json)	
QueryParamet er	generic.age	Age in years	true	number (integer)	
QueryParamet er	generic.gender	Gender	true	enum (Male, Female)	

## Responses

HTTP Code	Description	Schema
200	Returns a list with the status for the given measurements. The status may depend on other measurements than the measurement itself. For example the status for waist circumference depends on the gender.	<a href="#">StatusValue</a> array
401	Unauthorized: provide a valid API key	No Content
403	Forbidden: the provided API key is invalid	No Content
500	An internal error occurred	No Content

## Retrieve advices based on a set of measurements

```
GET /{language}/advices.{format}
```

### Description

Given a set of measurements, a status for each is computed for each

measurement. The status is used within a set of decision trees to determine relevant advices.

A full set of parameters depends on the data that has been loaded. See [/properties](#) for a list of supported properties. The properties should be provided in the form {group}.{propertyname}({modifier}). Some examples are shown below.

## Parameters

Type	Name	Description	Required	Schema	Default
PathParameter	language	ISO 639-1 language code of the language to return.	true	enum (en, nl)	
PathParameter	format	Format in which the data should be returned	true	enum (html, json)	
QueryParamet er	generic.age	Age in years	true	number (integer)	
QueryParamet er	generic.gender	Gender	true	enum (Male, Female)	
QueryParamet er	nutrient.protei n.from food	The amount of protein intake from food	true	number (double)	

## Responses

HTTP Code	Description	Schema
200	Returns a list of advices	<a href="#">Advice</a> array
401	Unauthorized: provide a valid API key	No Content
403	Forbidden: the provided API key is invalid	No Content
404	The language is not supported	No Content
500	An internal error occurred	No Content

# Definitions

## Advice

Name	Description	Required	Schema	Default
code	Unique code describing the advice	true	string	
subject	Description of the property that this advice is about	false	string	
text	localized advice text	false	string	

## StatusValue

Name	Description	Required	Schema	Default
property	The property that this status is about.	true	<a href="#">Property</a>	
value	A reference to the value that this status is based on	false	<a href="#">Value</a>	
status		true	<a href="#">Status</a>	
color		false	<a href="#">Color</a>	

## PropertyReferences

Name	Description	Required	Schema	Default
property	The property that the references apply to	true	<a href="#">Property</a>	
references	The references for the given property	true	<a href="#">Reference array</a>	

## Reference



Name	Description	Required	Schema	Default
status		true	<a href="#">Status</a>	
color		false	<a href="#">Color</a>	
value	Reference condition for the property itself	false	<a href="#">ReferenceCondition</a>	
conditions	List of secondary conditions on the reference. Currently the only secondary conditions allowed are on age and gender.	false	<a href="#">ReferenceCondition</a> array	

## ReferenceCondition

Name	Description	Required	Schema	Default
property		false	<a href="#">Property</a>	
lower_boundary	Lowest value for the given property to apply the reference	false	number (double)	
upper_boundary	Highest value for the given property to apply the reference	false	number (double)	
exact_match	Exact match for the property to apply the reference	false	string	

## Property

Name	Description	Required	Schema	Default
id	Unique identifier of this property. Refers to either the SNOMEDCT ontology or to the EUOFIR thesauri.	true	string	

Name	Description	Required	Schema	Default
name	Description of this property.	true	string	
group	Group that this property belongs to.	false	enum (Generic, Nutrient, Biomarker, Physical, SNP, Foodgroup)	
unit	The unit that values for this property should be expressed in.	false	<a href="#">Unit</a>	
modifiers	A list of modifiers that is allowed for this property	false	string array	

## Status

The status of this property. There are three types of status values that could be returned.

SNP values: Risk allele or Non-risk allele

Intake from supplements: Yes or No

Other values: Very low, Low, OK, High or Very high

## Color

The color that is associated with the status.

## Value

Name	Description	Required	Schema	Default
type	Type of value	true	enum (numeric, text)	
value	The value that is represented. The datatype depends on the type of value.	true	string	
unit		false	<a href="#">Unit</a>	

# Unit

Name	Description	Required	Schema	Default
id	Unique identifier of this unit. Refers to either the SNOMEDCT ontology or to the EUROFIR thesauri.	true	string	
code	Short code describing the unit	false	string	
name	Human readable description of the unit	false	string	