



Application Characteristics

Configuration Guide (illion Decisioning Product Module)

Version 1.2 March 2019



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Overview

This document outlines the steps required in order to configure Application Characteristics in illion Decisioning for use in the illion Decisioning Product Module.

Application Characteristics (characteristics) are data points that can be used to determine which variant of each product, adjustment and promotion on an application should be used, and there are two components involved in their configuration.

- Configure the characteristics and characteristic values (Characteristic Management)
- Configure the characteristic calculations (Product Selector)

Configuring the data values can be done through a user friendly interface suitable to business users and the configuration of the calculation requires knowledge of the application's xml structure.



Characteristic Management

The characteristic management page can be accessed from:

Administration Menu > Product & Plan Configuration > Manage Characteristics

Application Characteristics

Code	Name	Type							
<input checked="" type="checkbox"/> ASSET_CATEGORY	Asset Category 1	List							
<input checked="" type="checkbox"/> ASSET_CATEGORY1	Asset Category 2	List							
<input checked="" type="checkbox"/> ASSET_CATEGORY2	Asset Category 3	List							
<input checked="" type="checkbox"/> ASSET_CLASS_AGE_NAF	Asset Class & Age & NAF	List							
<input checked="" type="checkbox"/> ASSET_CLASS_AGE1	Asset Class & Age 1	List							
<div style="display: flex; justify-content: space-between;"><div style="width: 20%;"><p>ASSET_CLASS_AGE1 * Asset Class & Age 1 * LIST *</p></div><div style="width: 50%;"><p>ASSET_CLASS_AGE1</p><input type="text" value="Asset Class & Age 1"/> <input type="text" value="List"/></div><div style="width: 25%;"><p><i>characteristic value name</i></p></div></div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"><div style="width: 20%;"><p><i>characteristic value</i></p></div><div style="width: 50%;"><table border="1"><tbody><tr><td>NEW_DEMO</td><td>New or Demo 0-24</td><td> Remove</td></tr><tr><td>USED</td><td>Used >0</td><td> Remove</td></tr></tbody></table><p><input type="button" value="+ Add Value"/></p></div><div style="width: 25%;"></div></div>				NEW_DEMO	New or Demo 0-24	Remove	USED	Used >0	Remove
NEW_DEMO	New or Demo 0-24	Remove							
USED	Used >0	Remove							

Characteristic Types

There are three types of characteristics

- List - Each value is explicitly defined
- Enumeration - Values are loaded from an xsd file on the server
- Numeric - A numeric value is categorised into 'bands' which can be configured here

Each characteristic is identified by a code (for machine identification) and a name (for display in the user interface). The characteristic is associated with a set of possible values, each with their own code and name with the same purpose. It is important that you keep track of the codes assigned to each characteristic, as these are what will need to be output by the calculations in the flow.



Product Selector

The product selector is a flow object that performs two functions:

- Calculate the characteristics and record them against each product
- Use the characteristic values to determine which variants should be selected

The product selector can be located in Flow Designer which can be accessed via:

Administration Menu > Designer Tools > Flow Designer

Select the flow relevant to your solution and locate a Product Selector object.

Object Name	System True	Status	Application
Fast Track	SYSTEM TRUE	✓	Application
Channel	SYSTEM TRUE	✓	Application
Asset Category 2	SYSTEM TRUE	✓	Application
MAPPING			
Characteristic *	Asset Category 2		
Rule *	SYSTEM TRUE	✓	
Value	{ITEM:Asset 1 Category 1 Selector}		
Levels *	Application		
Asset Category 3	SYSTEM TRUE	✓	Application
	SYSTEM TRUE	✓	Application

Opening the item selected in the calculation will display a screen similar to the example below:

Type	Function	Output	Value
Database		Text	SELECT CASE WHEN ((ITEM:Asse...

Mapping

Type: Database

Function: None

Output Type: Text

Convert text: No Conversion, From Date to Months, To Uppercase

```
{ITEM} AND OR Equals
```

```
SELECT CASE WHEN ((ITEM:Asset 1 Category) = 'BIKE') THEN 'BIKE' WHEN ((ITEM:Asset 1 Category) = 'VEHICLE') THEN 'VEHICLE' WHEN ((ITEM:Asset 1 Category) = 'MARINE' OR (ITEM:Asset 1 Category) = 'CARAVAN') THEN 'LEISURE' ELSE 'UNKNOWN' END
```



This item uses a database query in order to perform case logic, but does not actually extract data from the database. The query when formatted appears as follows:

```
SELECT CASE
    WHEN ({ITEM:Asset 1 Category} = 'BIKE') THEN 'BIKE'
    WHEN ({ITEM:Asset 1 Category} = 'VEHICLE') THEN 'VEHICLE'
    WHEN ({ITEM:Asset 1 Category} = 'MARINE'
        OR {ITEM:Asset 1 Category} = 'CARAVAN') THEN 'LEISURE'
    ELSE 'UNKNOWN'
END
```

This query will test if the category of the first asset falls into one of the categories BIKE, VEHICLE, MARINE or CARAVAN, and assigns it the appropriate characteristic value (from BIKE, VEHICLE, LEISURE, UNKNOWN)

The syntax {ITEM:ITEM_NAME} allows the use of the output of another item in the calculation. In this case the Asset Category for the first asset, the image below shows the configuration of this item.

Type	Function	Output	Value
XML		Text	securities/security[1]/nm_category

MAPPING

Type: XML
Function: None
Qualifier: Application
Output Type: Text
Convert text: No Conversion, From Date to Months, To Uppercase

{ITEM} AND OR Equals
securities/security[1]/nm_category

+ Add Mapping



Appendix A – Document History

Version History

Version	Date	Name	Description
1.0	June 2017	Luke Croft	Established Document
1.1	May 2018	Fiona Maher	Transferred to illion template
1.2	March 2019	Chloe Jerram	Updated product name