

AVANADE CLASS CHARACTERISTICS LIST

USER DOCUMENTATION

DYNAMICS 365 FOR OPERATIONS



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Version Management

Module version	Document version	Date	Author	Notes
7.0.1	1.0	10.11.2016	Vidya Sagar	Dynamics365 for Operations Class Characteristics List upgradation – Initial Draft
7.0.2	2.0	03.03.2017	Vidya Sagar	Update to the Class Characteristics List enhancements Version 1.0

1 Introduction

The Avanade Class Characteristics List module helps us with the summary of characteristics associated with the different Master Table Data Objects throughout the Dynamics365 for Operations Business Application.

1.1 Parameterized functional overview:

- ✓ **Parameterization**
- ✓ **To create and manage categories**
- ✓ **To define the characteristics**
- ✓ **To define the classes**

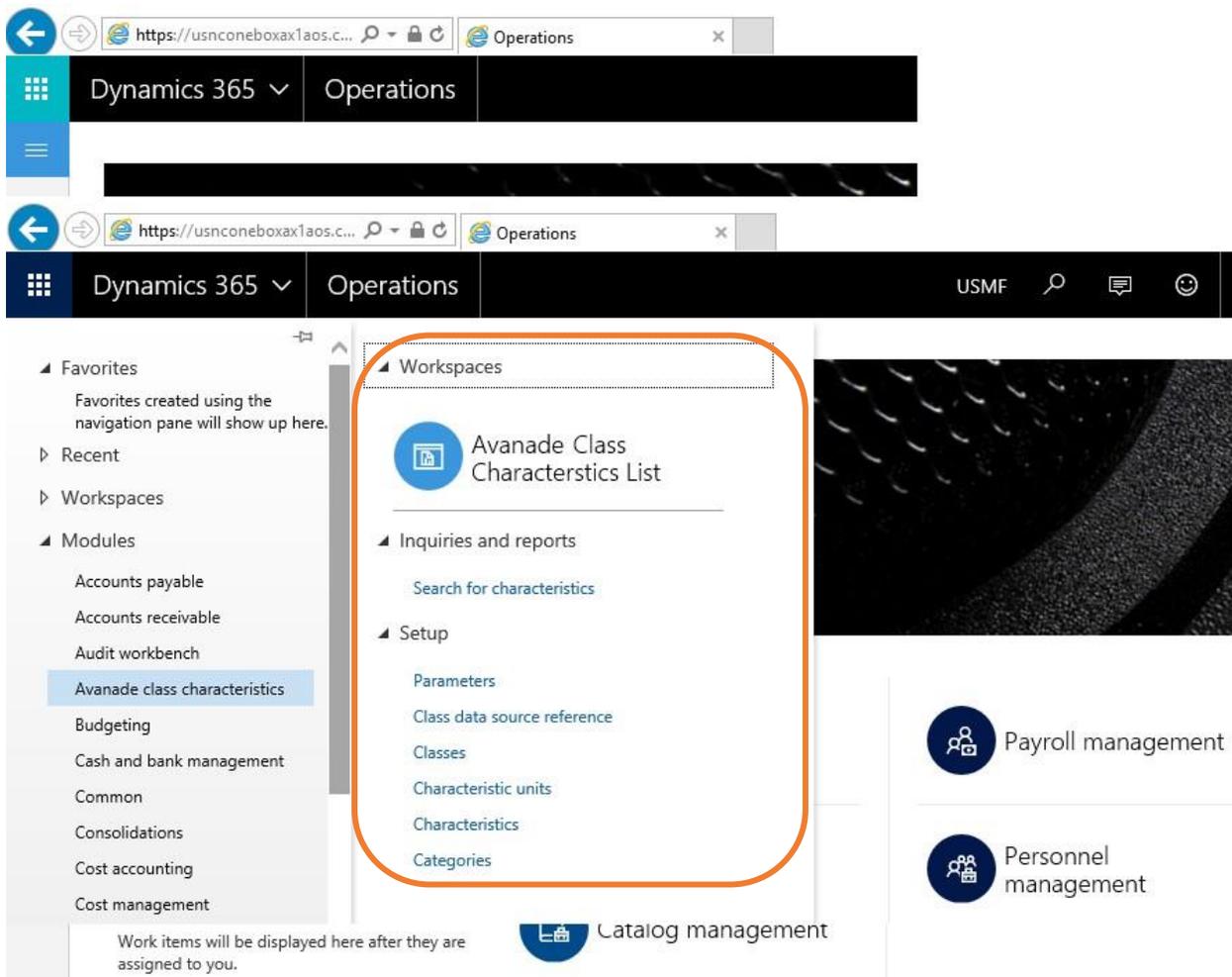
- ✓ **Search**
- ✓ **Search in the defined characteristics**
- ✓ **Search for multiple classes and characteristics**

- ✓ **Master Data Pool**
- ✓ **Selection**
- ✓ **Processing of the same and multiple classes with characteristics**

2 Setting up the characteristics

2.1 Menu

The settings can be found in a designated module area called Avanade Class Characteristics and the menu Avanade Class Characteristics/setup/ parameters or the menu Avanade Class Characteristics/Inquiries and Reports/ Search for Characteristics



2.2 To define the characteristics

https://usnconeboxax1aos.cloud.onebox.dynamics.com/?cmp=USMF&mi=KCS_CCL Characteristics -- Operations x

Dynamics 365 Operations Avanade class characteristics > Setup > Characteristics

Save + New Delete ACTIONPANETAB OPTIONS

Characteristics

Characteristic ↑	Description	Category	Unit	Field type	List	Interval allowed	Multivalued
Abschließbar				Text	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Außendurchmesser		Abmess.	mm	Real	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AVA TEST CHAR1	AVA TEST CHAR1	Misc		Integer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AVA TEST CHAR2	AVA TEST CHAR2	Dimensions	mm	Integer	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AVA TEST CHAR3	AVA TEST CHAR3	Technical		Integer	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
AVA TEST CHAR4	AVA TEST CHAR4	Misc		Integer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFAULT VALUE

Value (text)

+ Add Remove Characteristic values

Class ↑	Description	Category	Mandatory field	Parent class
B-100	Speakers		<input type="checkbox"/>	
B-110	Car Speakers		<input type="checkbox"/>	B-100
B-120	Home Surround Systems (7.1)		<input type="checkbox"/>	B-100
BKL 3	Basisklasse Art. Gruppe 50		<input type="checkbox"/>	
KL 6.1	Fenstergriffe		<input type="checkbox"/>	
KL 6.1.1	Aluminium		<input type="checkbox"/>	KL 6.1
KL 6.1.2	Zinkdruckguss		<input type="checkbox"/>	KL 6.1
TST 1	Confectionery		<input type="checkbox"/>	
TST 1.1	Green Woods		<input type="checkbox"/>	TST 1
TST 1.2	Blue Storm		<input type="checkbox"/>	TST 1
TST 1.3	TST 1.3		<input type="checkbox"/>	TST 1

The Properties and its relevant description is defined in the below table of each of the functions it performs:

Fields (above):

Characteristics	The special characteristic must be clear.
-----------------	---

Description	The short description of the special characteristic must be with the maximum of 40 characters.
Category	The special characteristic bar can be structured using categories. Therefore, the characteristics can be separated e.g. technical and sales related characteristics.
Unit	Here a unit can be stored.
Field type	There are 4 types: Text, integer, floating-point number and date.
List	If the option "list "is activated only the values can be entered from a list and can be specified only with the creation of a characteristic group.
Interval allowed	It means that an interval (from - to value) can be entered as a development. E.G. frequency = 50 to 100 cycles per second and can be specified only with the creation of a characteristic group.
Default value	Here a default value (template) can be maintained.

Classes

Class	Description	Parent class	Datasource name
B-120	Home Surround Systems (7.1)	B-100	
B-1200	Home Surround Systems		
BKL 3	Basisklasse Art. Gruppe 50		
BST 1	Domestic		
BST 1.1	North state	BST 1	
BST 1.2	Western pearl	BST 1	

Characteristic Assignment

Characteristic	Description	Category	Mandatory field	Parent class
Depth	Depth	Dimensions	<input type="checkbox"/>	
Abschließbar	Abschließbar		<input type="checkbox"/>	
Dicke	Dicke	Abmess.	<input type="checkbox"/>	
Height	Height	Dimensions	<input type="checkbox"/>	
Output Power	Output Power	Technical	<input type="checkbox"/>	
Test	Test		<input type="checkbox"/>	

DEFAULT VALUE

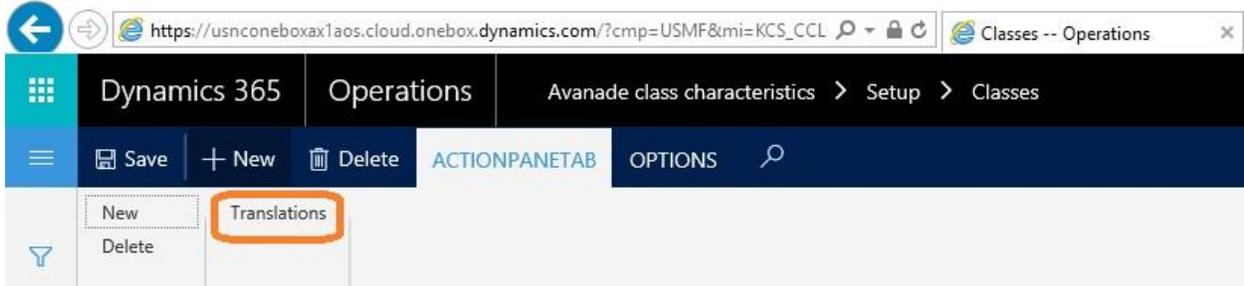
Value (integer): Note:

Translations:

Fields (down):

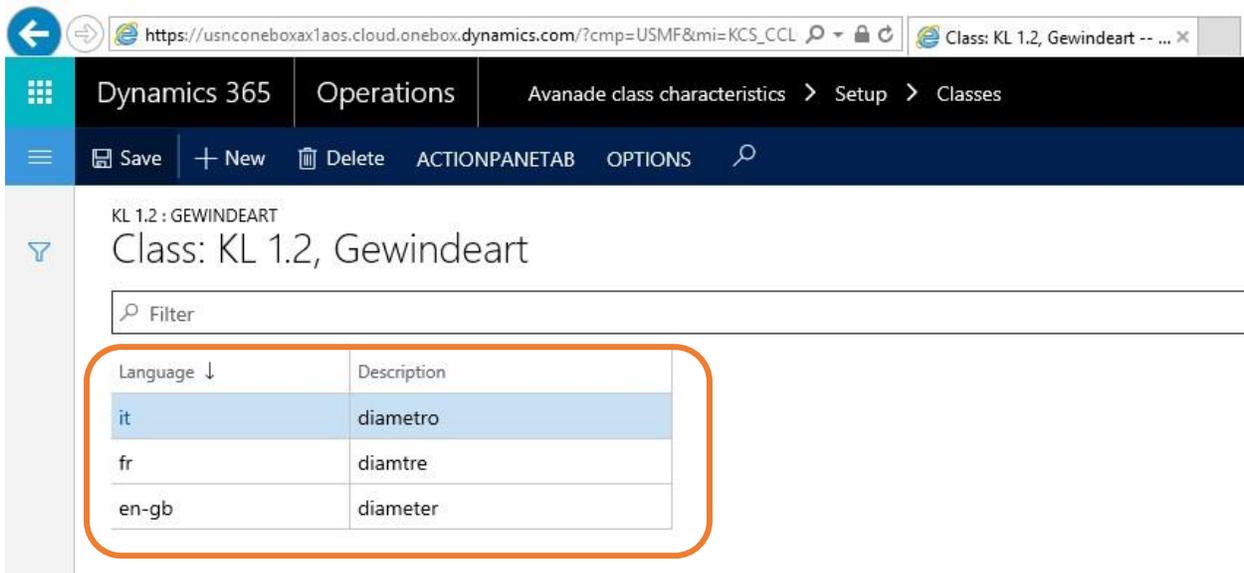
Class	The special characteristic must be clear.
Description	The short description of the special characteristic must be with maximum of 40 characters.
Category	The special characteristics menu can be structured using categories. So the characteristics can be separated e.g. technical and sales related characteristics
mandatory field	Here a unit can be stored.

Superordinate class	There are 4 types: Text, integer, floating-point number and date.
---------------------	---



Function buttons:

Translations	Here the description of the characteristic can be laid out in the further languages.
--------------	--



Fields:

Language	To select the language.
Description	Description in the selected language.

3 Characteristic units

Here the units can be stored for the characteristics. The units are independent of the units in the basic settings.

The screenshot shows the Dynamics 365 Operations interface for 'Characteristic units'. The browser address bar shows the URL: https://usnconeboxax1aos.cloud.onebox.dynamics.com/?cmp=USMF&mi=KCS_CCL. The navigation pane shows 'Dynamics 365' and 'Operations', with the current path being 'Avanade class characteristics > Setup > Characteristic units'. The main content area has a search bar labeled 'Filter' and a table of units. The table is highlighted with an orange rounded rectangle.

Unit ↑	Unit name
%	Prozent
°C	Grad Celsius
A	Ampere
cm	Centimeter
dm	Dezimeter
g	Gramm
GB	Gigabyte
h	Stunde
HV	Vickershärte
Hz	Hertz
J	Joule
KB	Kilobyte
kg	Kilogramm
km	Kilometer
km/h	Kilometer pro Stunde
m ²	Quadrameter
m ³	Kubikmeter
MB	Megabyte
min	Minute
mm	Millimeter
N	Newton
Pa	Pascal
sek	Sekunde
V	Volt

4 To define the classes

Classes are defined to distinguish the associated related characteristics to the master table data and identify the characteristics assigned by the type of data it is designated to.

The screenshot shows the Dynamics 365 Operations interface for configuring classes. The left sidebar displays a class hierarchy for 'Contoso Entertainment System USA', with 'Softshelljacke' selected. The main area shows a table of classes and a table of characteristic assignments for 'Softshelljacke'.

Class	Description	Parent class	Datasource name
KL 5.1.1	Premium Line	KL 5.1	
KL 5.1.2	Softshelljacke	KL 5.1	
KL 5.2	Hosen	KL 5	
KL 5.2.1	Winterarbeitshose	KL 5.2	
KL 5.2.2	Bundhose	KL 5.2	
KL 5.3	Overalls	KL 5	
KL 5.4	Baubeschläge		

Characteristic	Description	Category	Mandatory field	Parent class
Farbe	Farbe		<input type="checkbox"/>	KL 5
Flächengew. Gewebe	Flächengewicht Gewebe in m ²		<input type="checkbox"/>	KL 5.1
Größe	Kleidergröße		<input type="checkbox"/>	KL 5
Waschbar	Waschbar bei		<input type="checkbox"/>	KL 5
Werkstoff Kleidung	Werkstoff Kleidung		<input type="checkbox"/>	KL 5

DEFAULT VALUE
Value (text): 23
Note: [Empty text box]

Translations: [Button]

A class hierarchy can be developed on the left and on the top of the screen.

Fields:

Class	Clear keys of the class.
Description	Description of the class.
Superordinate	If a hierarchy is developed here the superordinate class can be entered.

Function buttons:

Translations	Here a description of the class can be stored in the further language.
--------------	--

The characteristics are assigned to the class in the lower part of the screen. If a characteristic is assigned to the superordinate class, the characteristic is left into more deeply lying levels.

Fields:

Special characteristic	Special characteristic (key).
Description	Description of the characteristic (only display field, no change possible).
Category	Category can be changed here for the structure of the special characteristic menu.
Obligation	The maintenance of the development of this special characteristic is an obligation. A value must be entered with the product.
Superordinate Class	It Indicates, from which class this characteristic was inherited.
value	Pre-allocated value.
Reference	If a template value is to be entered not found in the value list, the message appears "Missing in the special characteristic values".

Function buttons:

Special characteristic values	It is only active with the characteristic when the field "list" is activated. Here a value list with the possible developments can be stored. If a value list is laid out, then only the developments from this list can be selected with the product
-------------------------------	---

The screenshot displays the Dynamics 365 Operations interface for setting up characteristics. The main window shows a list of characteristics with the following data:

Characteristic	Description	Category	Unit	Field type	List	Interval allowed
Brandschutzgeprüft				Text	✓	
Car manufacturer		Misc		Integer	✓	
Depth		Dimensions	mm	Integer		
Dicke		Abmess.	mm	Real		
DIN				Integer		
DIN_Dicke				Text	✓	

Below this table, there is a section for 'DEFAULT VALUE' with a text input field.

The second table lists classes, with 'KL 6.2 Türdrücker' selected:

Class	Description	Category	Mandatory field	Parent class
KL 6.2	Türdrücker			
PST 1	Imported Perfumes			
PST 1.1				
PST 1.2				
TST 1				
TST 1.1				
TST 1.2				
TST 1.3				

An inset window titled 'Characteristic values' shows the configuration for 'BRANDSCHUTZGEPRÜFT: KL 6.2'. It includes a filter field and a list of values:

- Value (text)
- L
- M
- S

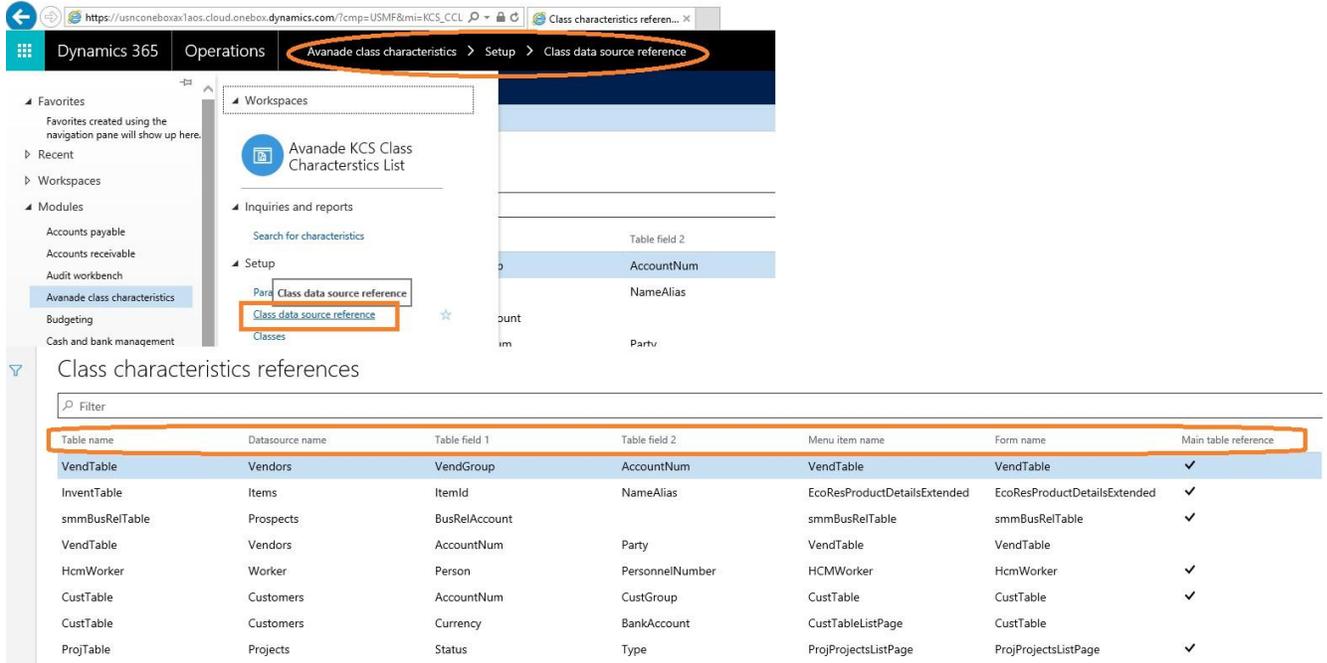
5 Categories

Here categories can be stored. Categories will be used to structure the characteristics. The categories can be used as headings for the characteristics, e.g. if a data sheet of a product must be printed. The categories are also used in the screen "special characteristics" at the master table forms for the related records (where the features/characteristics of the masters are maintained).

Category ↑	Description of category
Abmess.	Abmessungen
CRM	Geschäftsbeziehungsmerkmale
Dimensions	Physical dimensions
Gefahr	Gefahrstoffmerkmale
Misc	Miscellaneous information
Sales	Sales information
Technical	Technical information
Technik	Technische Merkmale
Vertrieb	Vertriebliche Merkmale

6 To maintain Class Data Source reference

6.1 Maintaining Class Data Source Reference



The New Master form which is the Class Characteristics References form is introduced in Avanade Class Characteristics List framework to create characteristics to be associated with different master tables like the CustTable, Vend Table, Products, Prospects, Projects, and Workers etc.

Also, there is a link that is maintained with the main forms of all the master table data to display dynamics characteristics that will be associated with the characteristics list assignment of values.

The Creation of Characteristics Tab for all forms which has the master table data with Characteristics defined will be created in Reference table to display in the associated Characteristics form.

Description of fields:

Table Name	The Name of the Master Table to which Characteristics is going to be associated along with a Characteristics Tab on the related form.
Datasource Name	The Name of the Table which is referred inside the database and the development reference.

Table field 1	This title field1 refers to the fields to include in search for characteristics form from the Master Table that is defined in the Class Characteristics Reference form.
Table field 2	This title field2 refers to the fields to include in search for characteristics form from the Master Table that is defined in the Class Characteristics Reference form.
Menu item name	The Menu item is technically the name of the form that is relating to the characteristics form it is going to link to Main Table form.
Form name	The Name of the Form which is referred inside the database and the development reference.
Main table Reference	The Go to Main Table functionality from the earlier version and to refer to which main form if the multiple tables exists with the same name with different title fields and form names.

6.2 To specify features/characteristics

The screen with the special characteristic is developed dynamically from the project management -> All Projects pool is opened with the function button of special characteristics on register special characteristics. The concrete special characteristic values for a Project can be maintained with in this screen.

The screenshot shows the Dynamics 365 interface for the 'CHARACTERISTICS' screen. The breadcrumb trail is 'Project management and accounting > Projects > All projects'. The 'CHARACTERISTICS' menu item is highlighted in the top navigation bar. Below the navigation, there are filters for 'Show projects' (Active), 'Show levels' (Top), and 'Legal entity' (USMF). A table lists projects with columns for Project ID, Project name, Legal entity, Project contract ID, Customer name, Project type, and Project stage. The first row, '000057 Budget stereo install', is highlighted with an orange border.

Project ID	Project name	Legal entity	Project contract ID	Customer name	Project type	Project stage
000057	Budget stereo install	usmf	000057	Shrike Retail	Time and material	InProcess
000058	Midrange stereo install	usmf	000058	Oak Company	Time and material	InProcess
000059	High-end stereo install	usmf	000059	Sparrow Retail	Time and material	InProcess
000060	Midrange stereo install (mobile)	usmf	000060	Maple Company	Time and material	InProcess
000061	High-end stereo install (mobile)	usmf	000061	Birch Company	Time and material	InProcess
000182	Furniture Addition	usmf			Investment	InProcess
000184	San Diego Subscriptions	usmf	000182	Contoso Retail San Diego	Time and material	InProcess
000185	Office renovation	usmf			Investment	InProcess

000057 : BUDGET STEREO INSTALL
Characteristics

Class: AVA TEST 6, Description: AVA TEST 6

Characteristic	Value	To value	Unit
AVA TEST CHARS	12/12/2017		

Sym...	Characteristic	Value	To value	Unit
	AVA TEST CHARS	12/12/2017		

Fields:

Special characteristic	Special characteristic (Display only).
value	Development.
Until value	It is only active if the special characteristic permits intervals. In this case the field "Value" is entered as the lower limit and the field "until value" is entered as the
	Upper limit.
Unit	Unit (Display only).

The maintenance of the characteristics the several values and / or to allow the intervals looks as follows:

Main table Characteristics

Table name	Class	Description	Project stage	Project type	AVA TEST CHAR2 (mm)	AVA TEST CHARS
Projects	AVA TEST 6	AVA TEST 6	3	0	10..20	12/12/2017

6.3 Simultaneous maintenance of the several projects

The maintenance of the Projects of the same class in one or several same features/characteristics can be implemented very efficiently by defining the multiple classes to multiple projects and there by assigning multiple characteristics with the characteristic assignments to a project there by maintaining 1*N relation between classes and characteristics.

000057 : BUDGET STEREO INSTALL

Characteristics

Characteristic	Value	To value	Unit
AVA TEST CHAR2	10	20	mm
AVA TEST CHAR5	12/12/2017		

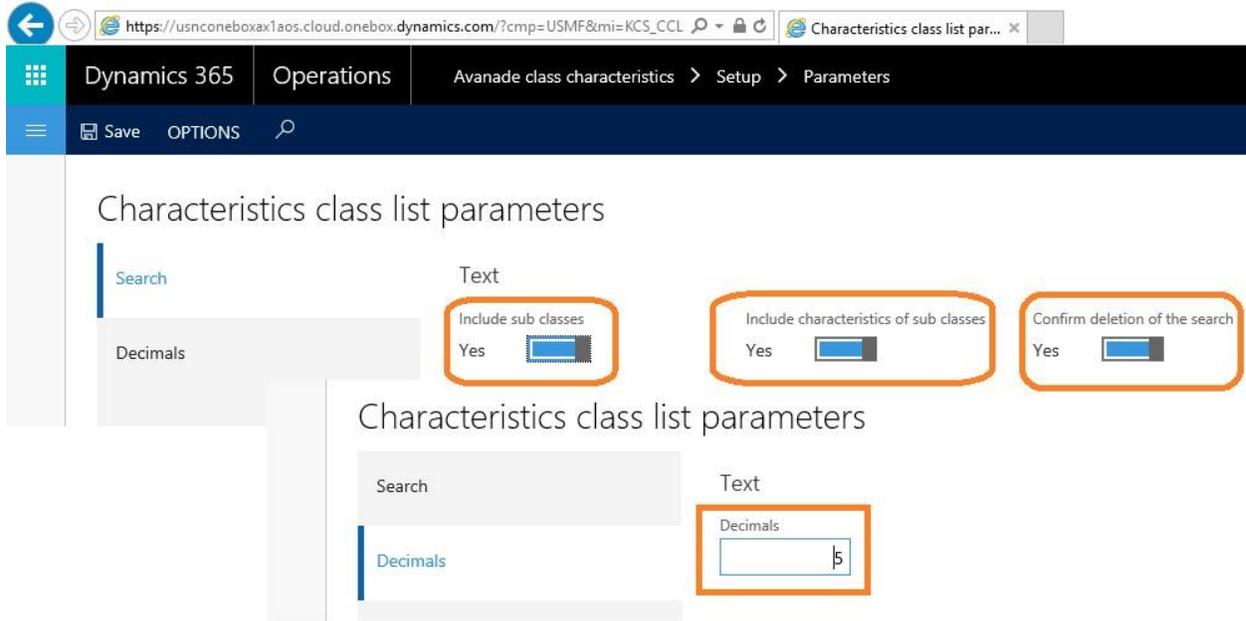
Categories

Characteristic	Value	To value	Unit
AVA TEST CHAR2	10	20	mm
AVA TEST CHAR5	12/12/2017		

7 Search

7.1 Parameter

The behavior of the search in the superordinate classes is specified in the special characteristic parameters:



Fields:

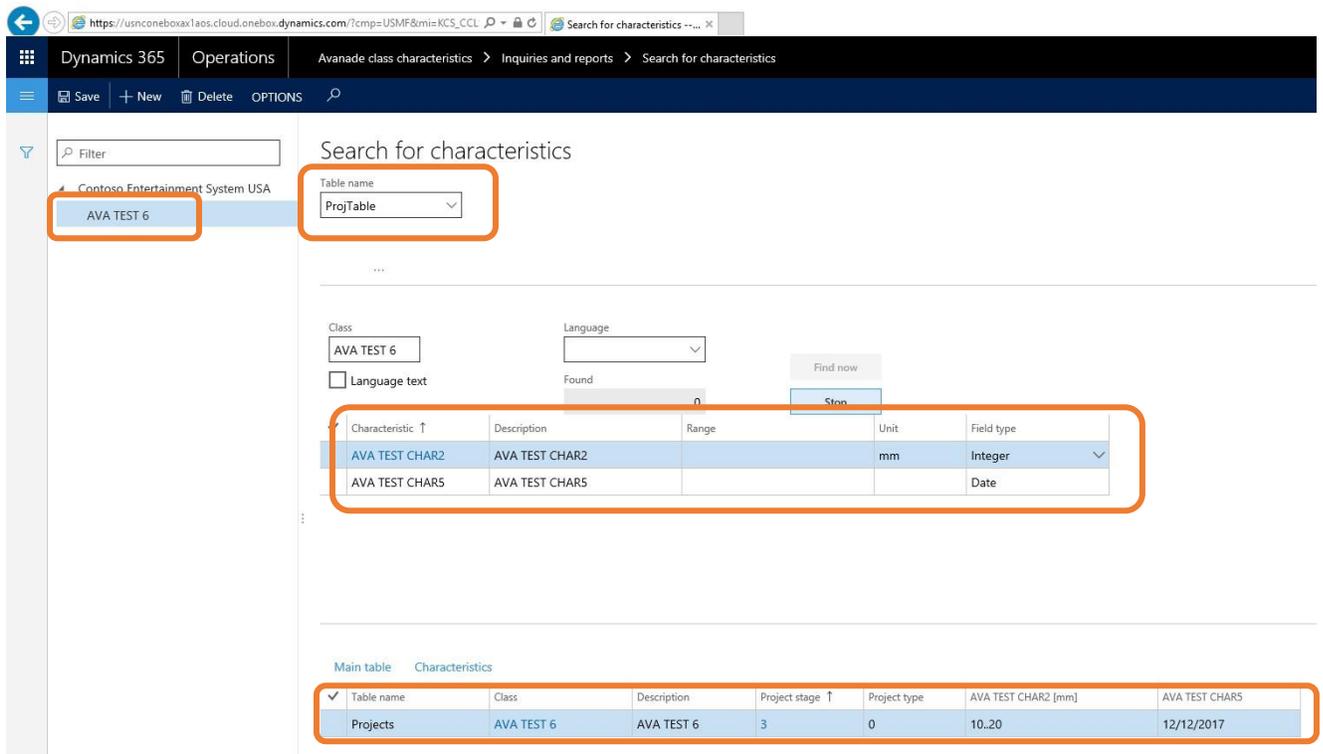
Include the Subclasses	The subclasses are also scanned with the search in a class with the activate option. The subclasses are not considered with the de-activate option.
Include the Special characteristics of the subclasses	The characteristics of the subclasses will be also indicated with the search in a class in the search criteria with the active button. Only the characteristics of this class are used for the search with the de-activate option. If the field "To include the subclasses" is not activated, this field does not have any effect.
Confirm the deletion of the Search	With the new search a message comes with a Popup "your current search is deleted" (OK / cancel).
Decimals	Decimals in this parameter emphasizes the number of decimals to be considered when giving the characteristic assignment value a real number also this setting also overrides the standard '2 digits' decimal extension as per the country specific setup too.

7.2 Search with the special characteristics

A generic form is developed to search for characteristics for any main table data and the search starts with Blank Node as the search form is opened. However, if the Table Name is selected according the characteristics assignment with characteristics associated to the related datasource only is displayed. The class can be selected in the left field or in the above field. The selection criteria (the characteristics) changes accordingly. During the input of the criteria the same placeholder characters can be used, as in the Microsoft Dynamics365 for Operations. (ex. A*, 50...60, >3! A* etc.).

The call is under

(Avanade Class Characteristics List -> Inquiries and Reports -> Search for Characteristics)



Function buttons:

Now search	The search starts.
Stop	The search stops.

Main table	The search results can be marked and can be taken over into the Main table with the function buttons (see picture above). In the project table, further search can be continued, if necessary, with the standard search- and filter options.
Special characteristics	Shows the characteristics of the marked products.

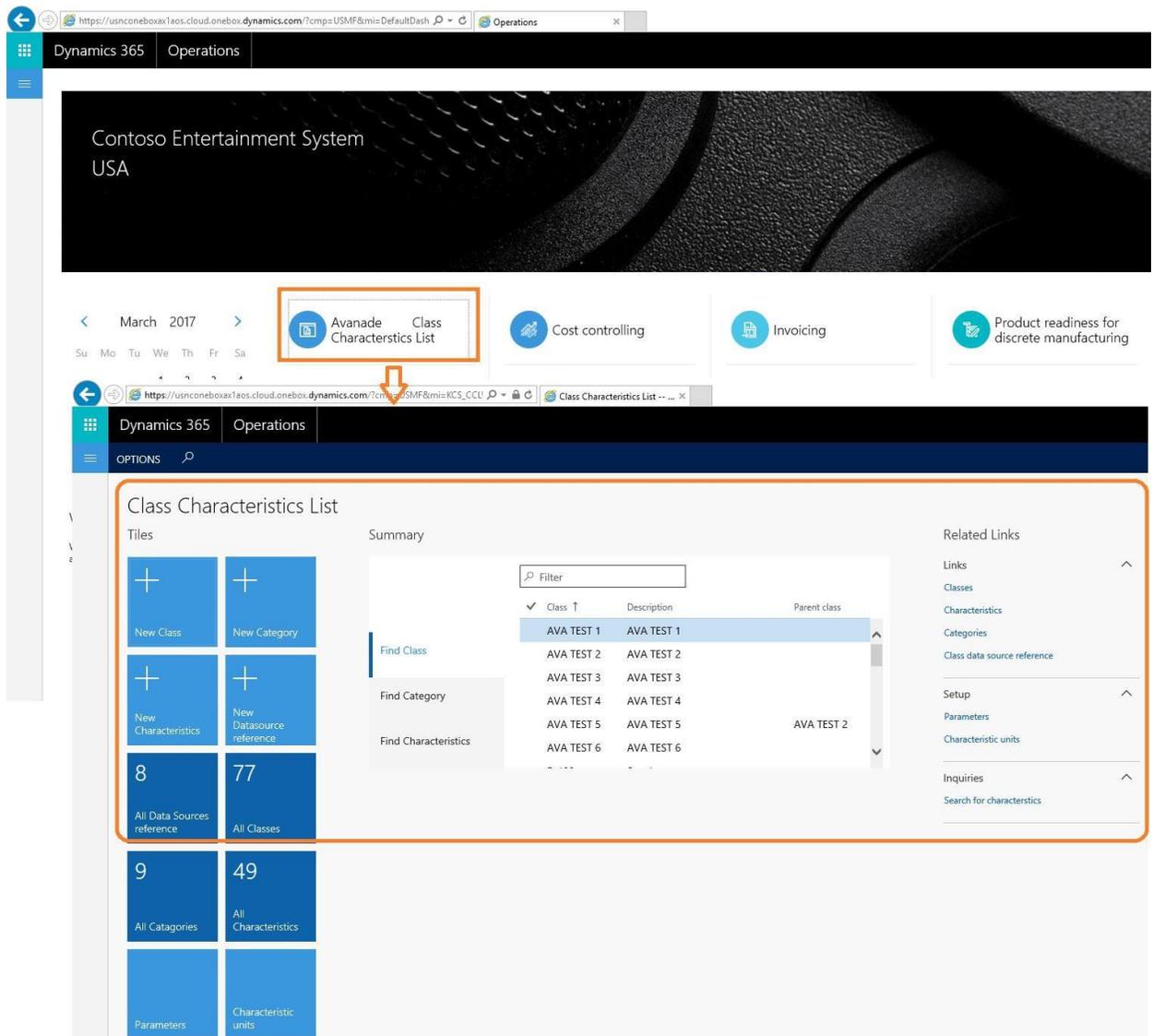
8 Workspace for Class Characteristics List

Workspace is defined as a part of the primary navigation mechanism. A form that supports a business activity (a logical group of tasks that make up the work of a target persona), This also represents a way to provide an initial overview and to increase productivity in the activity by allowing simple tasks to be completed directly in the workspace.

Key Advantages of Avanade Class Characteristics Workspace are:

- Enable the user to understand the current state of the activity to support informed decisions.
- Let users navigate to deeper pages by selecting data, which avoids round-trips to pages with no information.
- Let users perform light tasks in the workspaces to avoid round-trips to deeper pages.
- Complete an activity without leaving the workspace.
- Reduce the need for navigation.
- Provide visual impact.
- Be constructed using prescriptive patterns and best practices that lead to minimal COGS and fast response times.

Avanade Class Characteristics Workspace is built in with the intent of accomplishing the above goals, which uses the 360° cockpit view of the underlying business functionalities throughout the Dynamics 365 for Operations business application from the areas of the supply chain and manufacturing modules.



9 Installation instruction

9.1 Activation

9.1.1 Requirements for the license

The following Microsoft Dynamics 365 for operations-licenses are required:

Trade and Distribution and Avanade Class Characteristics List License.

9.1.2 Configuration

The function range can be configured in the form configuration.

https://usnconeboxax1aos.cloud.onebox.dynamics.com/?cmp=USMF&mi=SysConf... License configuration -- Op... x

Dynamics 365 Operations System administration > Setup > License configuration

OPTIONS

License configuration

CONFIGURATION KEYS CONFIGURATION KEY GROUPS

- General ledger - advanced II
- Human resource I
- Human resource II
- Human resource III
- Intercompany
- ISV runtime
- ▾ KCS.net Class list of characteristics
 - ▾ Classification
 - Categories
 - Inheritance
 - ▾ Extended values
 - Intervals in characteristics
 - Multivalued characteristics
 - Reference tables
 - Translations
 - Units
- Lean manufacturing
- Manufacturing execution
- Marketing automation
- Master planning

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