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easyOFML Creator Plugin

pCon.planner Pro

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Autor	**S. Krüger**
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pCon.planner PRO easyOFML Creator Plugin

Manual for version 1.5.0 (02.08.2021)

Content

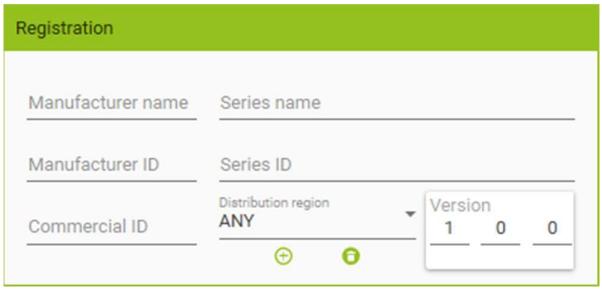
1 Possible Applications

With the easyOFML Creator plugin, non-configurable OFML articles can be created quickly and easily. For this purpose, the pCon.planner Pro plugin provides four import options:

In the following, the possibilities for the expert generation of OFML data are described.

2 General Requirements

To run the easyOFML Creator plugin you need a license for pCon.planner Pro as well as a separate license for the plugin. Please make sure that you have registered your company with Eastern Graphics. You will need to provide the registration information in the easyOFML Creator plugin. You can also find this information in your EGR registration email.



- Registered OFML manufacturer incl. manufacturer code
- Creator DLM for authorization of data creation by means of manufacturer code
- Creator DLM to display the later converted OFML data
- License for pCon.planner Pro & easyOFML Creator Plugin

Please note: the technical requirements for the pCon.planner PRO are specified in the pCon.planner system requirements document.

3 Difference between Classic Data Creation with pCon.creator and easyOFML Creator

In the classic data creation, OFML data is generated with the help of the pCon.creator. The pCon.creator is a powerful tool for creating and maintaining high-quality sales data. It enables you to create and manage OFML data intelligently.

In contrast to classic data creation, the pCon.creator is not required for the creation of OFML data with the help of the easyOFML Creator.

The following table compares the basic differences:

Classic data creation with pCon.creator	**easyOFML Creator Plugin**
Configurable articles with characteristic features	Static articles with fixed properties and values
Feature-dependent change in 3D/2D	Each property value, e.g. for the surface, requires separate DWG
Data creation is done via the pCon.creator (database entry tool).	The basis for the import mode "EasyOFML Excel" is a correctly filled Excel template
Materials can be used centrally	All materials are stored separately per import DWG, multiple use in the data version is not possible

4 Import Options (Import Mode)

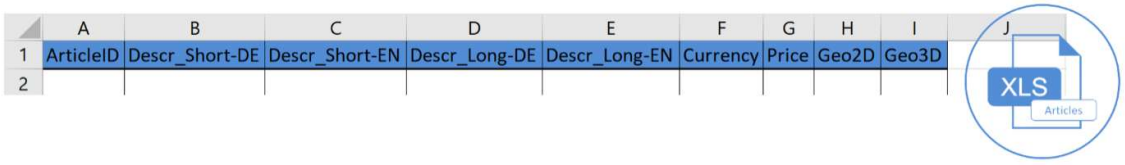
4.1 EasyOFML (Excel)

The base of the import mode "EasyOFML (Excel)" is an Excel file with three tables (tabs). Information about the articles, the article properties and the catalog structure are entered here. The information in the Excel file describes your products. With the help of the easyOFML plugin, OFML data is created from this information.

Article Data **Article Properties** **Catalog Structure**

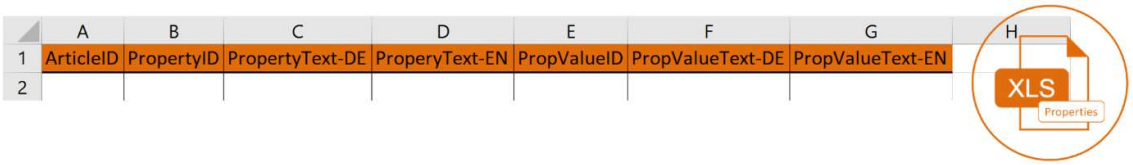
For a better overview, the headings of the individual tabs are each highlighted with a different color. Blue for the articles, orange for the property values and purple for the catalog.

4.1.1 Mapping basic Article Information to the “Articles” Tab



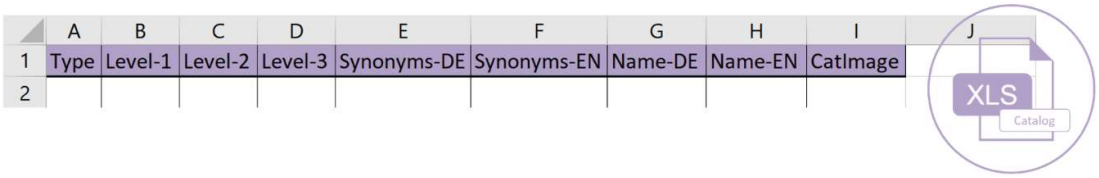
Column:	Description:
ArticleID	Article number *The article number must be unique in the data. For this reason, the article number may only appear once on the "Articles" tab.*
Descr_Short-DE	Short text in "DE" German *Maximum 80 characters length is allowed, single line.*
Descr_Short-EN	Short text in "EN" English *Maximum 80 characters length is allowed, single line.*
Descr_Long-DE	Long text in "DE" German *A maximum length of 80 characters is allowed on a maximum of 99 lines.* *Use line break in Excel.*
Descr-Long_EN	Long text in "EN" English *A maximum length of 80 characters is allowed on a maximum of 99 lines.* *Use line break in Excel.*
Currency	Currency abbreviation e.g. EUR
Price	Article price e.g. 125,50
Geo2D	Directory + file name of the 2D geometry file e.g. 2D_0815.dwg. *Specifying a subdirectory is possible, but not necessary.*
Geo3D	Directory + file name of the 3D geometry file e.g. 3D_0815.dwg. *Specifying a subdirectory is possible, but not necessary.*

4.1.2 Mapping article properties on the "Properties" tab page



Column:	Description:
ArticleID	Article number from the "Article" page *Multiple use is possible to define several properties for one and the same article.*
PropertyID	Property ID e.g. width *Property ID is a unique ID that can be used only once per article.*
PropertyText-DE	Property description in "DE" German e.g. Breite
PropertyText-EN	Property description in "EN" English e.g. Width
PropValueID	Property value, e.g. w1200
ProbValueText-DE	Text of the property value in "DE" German e.g. 1200cm
ProbValueText-EN	Text of the property value in "EN" English e.g. 1200cm

4.1.3 Mapping the catalog structure on the "Catalog" tab



Column:	Description:
Type	A catalog folder is marked with "C" and an article with an "A". *The top folder of the manufacturer with manufacturer logo does not belong in this table!*
Level-1 … Level-10	By means of a folder structure, up to 9 subfolders can be created. The last element of a folder is always at least one article.
Synonyms-DE	Search term in „DE“ German
Synonyms-EN	Search term in „EN“ English
Name-DE	Folder/article name to be displayed in the catalog set in "DE" German
Name-EN	Folder/article name to be displayed in the catalog set in "EN" English
CatImage	Folder/Article image *Images should not contain an own colored border, should show the product completely and all images should be stored in the same pixel size e.g. 1000x1000 pixels.*

4.2 EOX (pCon.catalog)

The EOX import is used to create OFML from a pCon.catalog dataset. In the run-up to the conversion, the existing data for pCon.catalog in the corresponding Catalog Creator is extended by the following information: article number and article long text. During the conversion, the first geometry from the source list is used and transferred to the OFML dataset as a 3D element.

4.3 BMECat

The BMECat Import allows for the import of large data sets from e.g. online stores. The BMECat format in versions 4 and 5 serves as a template. This can be used to import article information, prices, catalog structure incl. images. The import of the source files for 2D, 3D and the catalog images can also be performed via an external web URL.

4.4 EasyOFML@Folder

The EasyOFML@Folder import is the simplest and at the same time most minimalistic possibility. With this method a corresponding catalog structure is built up via a directory structure. This starts with the manufacturer abbreviation, followed by the first folder. The respective geometries are placed in the respective folders. The file name without the file extension is used as the article number (e.g. 0815.dwg). A correspondingly stored text file can contain the short text and the long text (e.g. 0815.txt). An integration of further information, like price and characteristics, is not intended in this method!

5 Extension for EasyOFML (Excel) by Use of Meta Properties

In EasyOFML (Excel) import mode, all articles are created with fixed properties and their associated value. Selecting the correct article is only possible via the catalog structure. The base for data is an Excel template with three tabs. Two additional tabs can be added to this template with the aim of dynamically storing the characteristics of an article. The created articles themselves are still static. The articles are loaded via the catalog structure or the value selection of a meta characteristic. The extension is an expert function, which will be described in the following.

Precondition

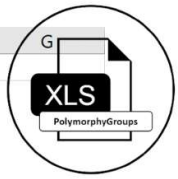
 Article Data	The basic structure for the articles on the "Articles" tab is preserved. The "SeriesID" column is added to the table. The series in which the article is located must be specified here. Furthermore, new columns have to be created by the user. These columns link the articles with the meta properties (tab "PolymorphyGroups") and assign the corresponding property values (tab "PolymorphyProperties").
 Article Properties	The structure for the article properties and the value assignment on the "Properties" tab is retained. No columns may be added. Only static properties are entered in this table, meta characteristics may not be entered here!
 Catalog Structure	The catalog details are recorded as usual.

Extension

 Series	On the "Series" tab, the series abbreviation (SeriesID) and the series name (Name) are entered. In the simplest case, only one series is specified here. However, it is possible to create additional series for the articles or to store the meta data in a separate package.
 Meta Property	The “PolymorphyGroups” tab defines the meta properties and their potential dependencies.
 Values for Meta Property	On the "PolymorphyProperties" tab, the associated properties values are defined for meta properties.

5.1 Creating Meta Properties

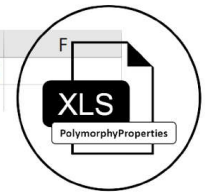
	A	B	C	D	E	F	G
1	PolySeriesID	PolyTypeID	PolyPropertyID	PolyDependencies	PolyPropertyText-DE	PolyPropertyText-EN	
2							



Column:	Description:
PolySeriesID	SeriesID for the meta properties *In the simplest case, the "PolySeriesID" column is identical to the "SeriesID" column in the "Articles" table. In this case, the data is stored in the same package.* *In case they are different, the series for the meta data must be stored in the "Series" table. In this case, the "Series" table must be defined in general.*
PolyTypeID	Polymorphism type e.g. Table *Meta properties can be dependent on each other or act as filters for each other. The polymorphism type combines all meta features in one group (polymorphism group). This must be specified in the table "Articles".*
PolyPropertyID	Meta property ID e.g. depth *Meta property ID uniquely identifies a meta feature.* *The following property naming rules apply: only characters from a-z, A-Z ,0-9 and underscore are allowed, feature names must not start with a number.*
PolyDependencies	Dependencies e.g. width *Meta properties can be dependent on each other or act as filters for each other. In this column the dependency is described.* *Enter the "**PolyPropertyID**" of the meta property which is dependent on the current meta property. Example: Not every depth (column **PolyPropertyID="Depth"**) is available for every width (column PolyDependencies="Width").*
PolyPropertyText-DE	Feature name in "DE" German e.g. Tiefe
PolyPropertyText-EN	Feature name „EN“ English e.g. Depth

5.2 Creating Property Values

	A	B	C	D	E	F
1	PolySeriesID	PolyPropertyID	PolyPropValueID	PolyPropValueText-DE	PolyPropValueText-EN	
2						



Column:	Description:
PolySeriesID	SeriesID for the property values *In the simple case, the "PolySeriesID" column is identical to the "SeriesID" column in the "Articles" table. In this case, all data is stored in the same package.* *If they are different, the series for the characteristic values must be stored in the "Series" table. In this case the "Series" table has to be defined.*
PolyPropertyID	Meta-property *In this column, meta properties are entered for which values are to be defined. The "PolyPropertyID" column must be defined on the "PolymorphyGroups" tab in the "PolyPropertyID" column.*
PolyPropValueID	Property value, e.g. D0600 *The following naming rules apply: only characters from a-z, A-Z ,0-9 as well as underscores are allowed, property values must not start with a number.*
PolyPropValueText-DE	Name of the property value in „DE“ German
PolyPropValueText-EN	Name of the property value in „EN“ English

5.3 Extending „Articles“ Tab

K	L	M	N	O	P
PolySeriesID	*PolyTypeID*	*PolyProp_X1*	*PolyProp_X2*	*PolyProp_X3*	

If meta properties are created for the articles, they must also be added to the "Articles" tab. The basic structure of the tab remains the same.

The image above shows the additions that have to be made by the user.

The "PolySeriesID" column indicates in which series the data is located.

The polymorphy type summarizes all meta features in one group (polymorphy group). The "PolyTypeID" column (polymorphism type) is retrieved from the "PolymorphyGroups" tab for the respective article.

The column name "PolyProp_" with the ending **X1, X2, X3, ...** describes the different meta-properties, which are listed in the table "PolymorphyGroups" in the column "PolyPropertyID". The string "X1" is to be replaced by the first meta-feature, "X2" by the second, "X3" by the third and so on until all meta-features are listed in the table header. The following graphic shows an example.

K	L	M	N	O	P
PolySeriesID	*PolyTypeID*	*PolyProp_Width*	*PolyProp_Depth*	*PolyProp_FootType*	

The number of columns "PolyProp_" created matches the number of meta-features that have been defined. The columns are filled with the feature values. If an article does not have a certain meta property, the cell remains empty.

5.4 Examples for Meta Properties

The previous paragraphs describe how to fill in the tables. For reasons of understandability, all tables are shown with test data. For the sake of clarity, we limit the illustration to a table and a chair with the following properties:

Table		**Chair**	
☑ Table 800 mm x 600 mm		☑ Swivel Chair Foot: Chrome	
☑ Table 1000 mm x 600 mm		☑ Swivel Chair Foot: Plastic	
☑ Table 1200 mm x 600 mm			
☑ Table 800 mm x 800 mm			
☑ Table 1000 mm x 800 mm			
☑ Table 1200 mm x 800 mm			

5.4.1 Series

In our example, all data is stored in on series.

A	B
SeriesID	Name
serie	Serie Meta-Merkmale

5.4.2 Articles

The two articles are shown in the "Articles". As already indicated in the overview table, the table differs in width and depth only and the chair differs in the material for the swivel base. This results in six combinations for the table and two for the chair. It makes sense to fill in columns A to J first. Columns K to O will be completed after the meta data has been created.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
SeriesID	ArticleID	Descr_Short-DE	Descr_Short-EN	Descr_Long-DE	Descr_Long-EN	Currency	Price	Geo2D	Geo3D	*PolySeriesID*	*PolyTypeID*	*PolyProp_Width*	*PolyProp_Depth*	*PolyProp_FootType*
serie	1000	Tisch	table	Tisch 800 mm x 600 mm	table 800 mm x 600 mm	EUR	500,00		1000.dwg	serie	Table	W0800	D0600	
serie	1001	Tisch	table	Tisch 1000 mm x 600 mm	table 1000 mm x 600 mm	EUR	600,00		1001.dwg	serie	Table	W1000	D0600	
serie	1002	Tisch	table	Tisch 1200 mm x 600 mm	table 1200 mm x 600 mm	EUR	700,00		1002.dwg	serie	Table	W1200	D0600	
serie	1100	Tisch	table	Tisch 800 mm x 800 mm	table 800 mm x 800 mm	EUR	800,00		1100.dwg	serie	Table	W0800	D0800	
serie	1101	Tisch	table	Tisch 1000 mm x 800 mm	table 1000 mm x 800 mm	EUR	900,00		1101.dwg	serie	Table	W1000	D0800	
serie	1102	Tisch	table	Tisch 1200 mm x 800 mm	table 1200 mm x 800 mm	EUR	1000,00		1102.dwg	serie	Table	W1200	D0800	
serie	11000	Drehstuhl	swivel chair	Drehstuhl Füsse: Chrom	swivel chair feet: chrome	EUR	600,00		11000.dwg	serie	Chair			FTChrome
serie	11001	Drehstuhl	swivel chair	Drehstuhl Füsse: Kunststoff	swivel chair feet: plastic	EUR	450,00		11001.dwg	serie	Chair			FTPlastic

5.4.3 PolymorphyGroups

Meta properties are described in the „PolymorphyGroups“ tab. In our example, these are width and depth for the table as well as swivel base type for the chair.

A	B	C	D	E	F
PolySeriesID	PolyTypeID	PolyPropertyID	PolyDependencies	PolyPropertyText-DE	PolyPropertyText-EN
serie	Table	Width		Breite	width
serie	Table	Depth	Width	Tiefe	depth
serie	Chair	FootType		Fusstyp	foot type

5.4.4 PolymorphyProperties

The potential values from the overview table are entered in the „PolymorphyProperties“ tab.

A	B	C	D	E
PolySeriesID	PolyPropertyID	PolyPropValueID	PolyPropValueText-DE	PolyPropValueText-EN
serie	Width	W0800	800 mm	800 mm
serie	Width	W1000	1000 mm	1000 mm
serie	Width	W1200	1200 mm	1200 mm
serie	Depth	D0600	600 mm	600 mm
serie	Depth	D0800	800 mm	800 mm
serie	FootType	FTChrome	Chrome	chrome
serie	FootType	FTPlastic	Kunststoff	plastic

5.4.5 Catalog

Creating catalog information is relatively simple. Folder structure is to be created and completed by an article each for the table as well as the chair. The selection of the additional articles is made by meta properties.

A	B	C	D	E	F	G
Type	SeriesID	Level-1	Level-2	Name-DE	Name-EN	CatImage
C	serie	Tables		Tische	tables	
A	serie	Tables	1000	Tisch	table	
C	serie	Chairs		Stühle	chairs	
A	serie	Chairs	11000	Drehstuhl	swivel chair	

6 Data Conversion

After picking a conversion mode and creating the respective data, data has to be created with the easyOFML Creator.

6.1 Preparing the first Conversion

(1) Copy the DLM (license) for data creation for a manufacturer to the DLM directory of the pCon.planner PRO.

(2) Create directory structure for better overview:

- ☑ Input folder: We recommend creating a folder for the data necessary for conversion.
- ☑ DLM folder: Manufacturer DLM is stored in this folder.
- ☑ Output folder: The easyOFML Creator will store the output data to this folder while converting.

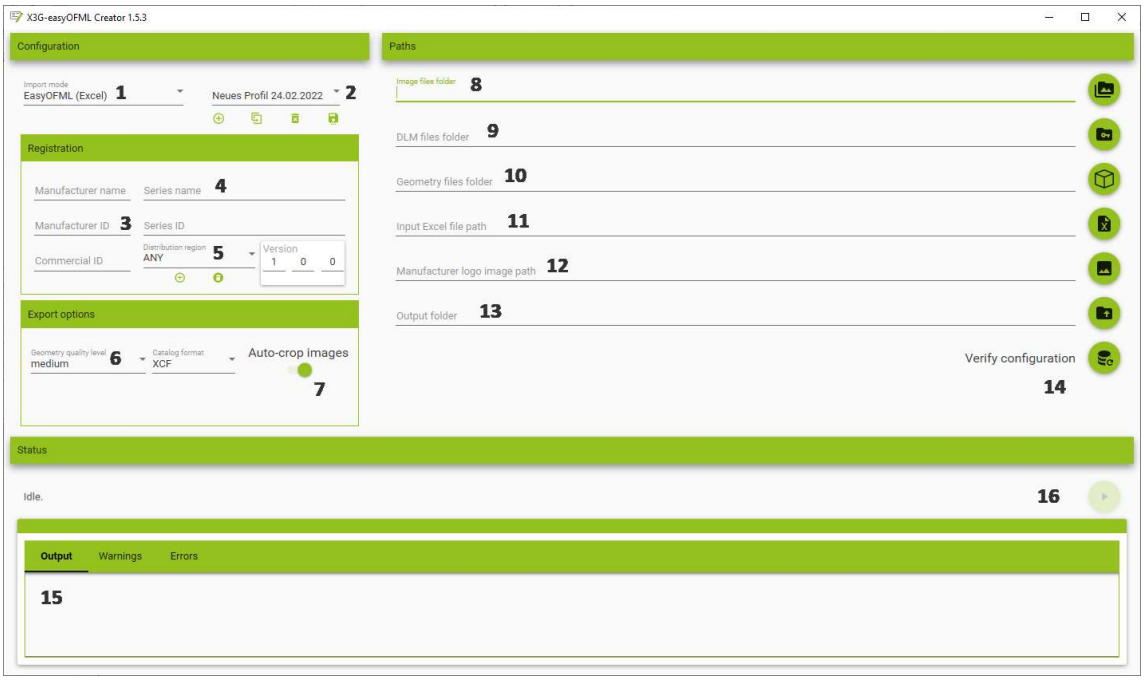
The structure could look as follows:

Note: The output directory must not be a network drive, cloud drive or any kind of drive that is not located directly on the PC in use. Access to the output directory has to be granted at any time!

6.2 Start pCon.planner PRO and easyOFML Creator Plugin

The plugin is started via the respective tab in pCon.planner PRO.

With the plugin being started, the following dialog opens:



1	Import mode selection
2	Create, manage or delete data profile.
3	Manufacturer information – e.g. EasternGraphics GmbH, EGR, EGR
4	Series name corresponds to a product line; alternatively, „Products“ can be entered here as a name
5	Selection of a sales region (DE for Germany, ANY fort he universal sales region)
6	Some geometries can be very big, increasing the loading time for the articles. This menu contains quality settings to influence processing time.
7	This switch enables to activate/deactivate the automatic processing of catalog images. If it is activated, all catalog images are converted to one common size while the whitespace is minimized.
8	Selection of the directory containing existing folder/article images for the catalog.
9	Selection of the directory containing the manufacturer DLM
10	Selection of the directory containing the 2D and 3D geometries
11	Selection of the Excel template in case the import mode is „EasyOFML (Excel)“.
12	Selection of manufacturer logo
13	Selection of the directory to which the converted OFML data is written.
14	This button checks the directories previously set. This step is mandatory whenever the plugin had already been started while having the Excel file opened in the background.
15	Area for notifications, warnings and plugin errors
16	„GO“ button for start of conversion. The creation oft he OFML data can only start after giving correct input and making correct settings in all fields of the plugin window. Button stays inactive as long as information is missing or error messages are displayed.

7 Problem Solving

The following table contains some frequently occurring issues while creating easyOFML data.

Deviation	**Case**	**Solution**
Insert point	UCS ≠ WCS	Set UCS = UCS and move article to the origin
Logos/Surfaces	Logo is inserted as image	Create logo as material
Shimmering on surfaces (z fighting)	Multiple blocks at same position	Remove redundant blocks (ungroup first, if needed)
Wrong colors	To many single parts are combined in one block	Ungroup blocks

8 History

Date	Editor	Changes
02.08.2021	Sascha Krüger	Initial version
27.10.2021	Antje Strödick	Review

Legal remarks