

# odol2mlod v1.01

Command line tool for converting binarized models; by Miki and Faguss (ofp-faguss.com)

## 1. Overview

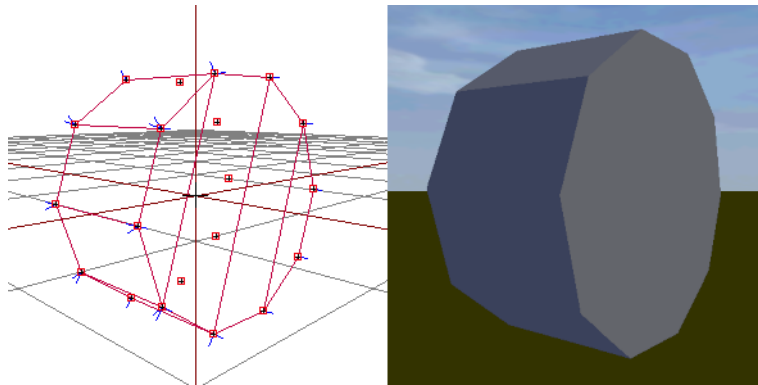
**odol2mlod** converts Operation Flashpoint's / ArMA: Cold War Assault's binarized models (P3D ODOL v7) to the MLOD SP3X format so that they can be opened in the Oxygen (Objektiv2Light) editor. Conversion algorithm was written by Miki and additional options were added by Faguss.

## 2. Edges

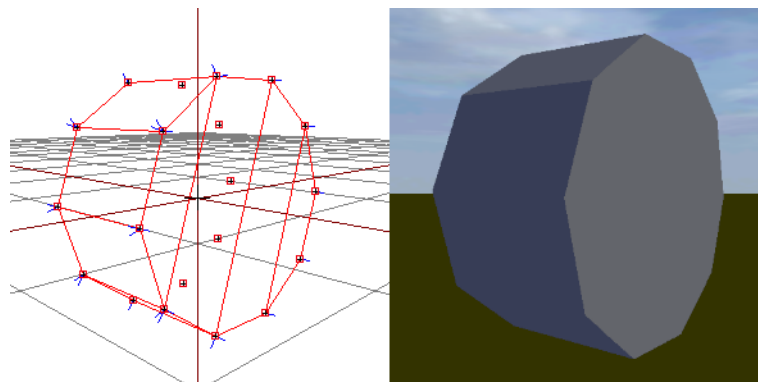
Debinarized models won't have sharp edges (because ODOL format doesn't store that information) therefore a reconverted model will always be inferior to the source file.

**odol2mlod** deals with this problem by splitting vertices so that when you generate new normals in the Oxygen they are more likely to be accurate. If this is inconvenient for you then use an [option](#) to output original (merged) model.

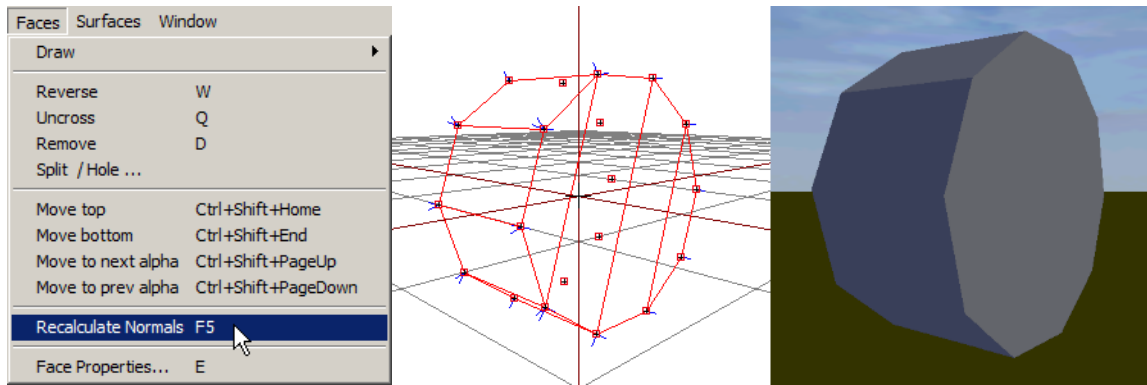
**Example:** here's a source cylinder model with sharp edges (mesh is in crimson red).



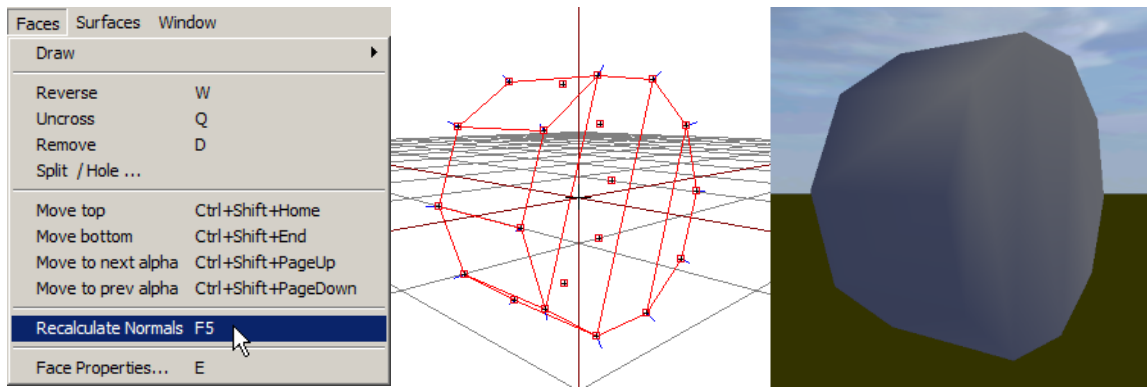
This model was converted to ODOL using `binarize` program and then back to MLOD with the **odol2mlod**. In the editor the render looks the same but all the edges are now smooth (mesh is in bright red).



When normals are recalculated (F5 key in Oxygen) the model with split vertices will still have correct normals.

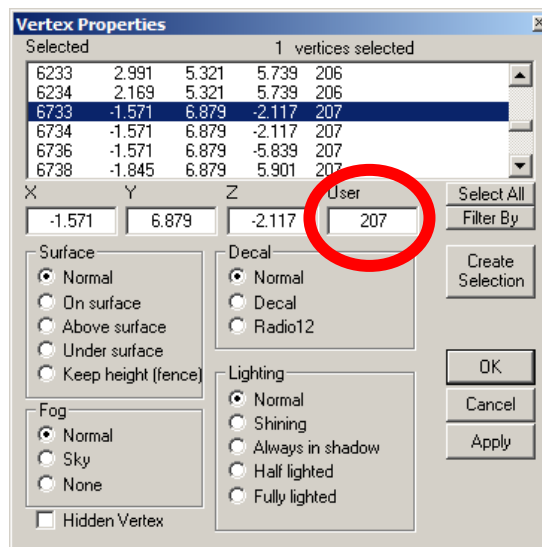


With a non-split version all edges will appear smooth.



### 3. Lighting

Vertex lighting in Oxygen can be set via radio selection or by typing the *User* value. Some models use the latter and **odol2miod** correctly converts them.



List of possible values:

Normal	0
Shining	200
Always in shadow	201
Half lighted	202
Fully lighted	203
20% lighted	204
Always in shadow with 25% black color filter	205
20% lighted with 25% black color filter	206
Always in shadow with 50% black color filter	207
20% lighted with 50% black color filter	208



By default **odol2mlod** will convert values below 204 to a traditional flag (radio selection) and the rest to the *User* value flag. [Optionally](#) you can have them all in the latter.

Do not use both methods (radio selection other than `Normal` and the *User* value larger than zero) simultaneously because `binarize` might change it to a totally different value.

## 4. Usage

Drag P3D files (or folders containing them) over the program icon. Output file(s) will be generated with a `_mlod` suffix added to the names. If the input is already a MLOD then the program will make a copy of the file.

If you use the program from the command line there are additional options available:

### **-m – merge vertices**

Generate models as they were originally instead of splitting them.

### **-M – merge vertices selective**

Generate models with split vertices only in the graphical LODs.

### **-u – user value only**

Convert all vertex lighting flags to the *User* value.

### **-r – recursive directory search**

Search for P3D files within subfolders of a selected folder.

### **-i – info**

Generate text file (instead of converting) containing ODOL / MLOD model information.

### **-I – full info**

Generate text file (instead of converting) containing ODOL / MLOD model information, listing all points, faces, flags etc. For complex models it will take a long time and create a very large file.

### **-s – single file**

Use it together with `-i` or `-I`. Generate text information for all models in a single file `odol2mlod.txt`

### **-t – texture list**

Generate text file (instead of converting) containing list of textures used in the model.

### **-T – texture list LOD**

Generate text file (instead of converting) containing list of textures used in each model's LOD.

### **-l – list only textures**

Generate text file (instead of converting) containing list of textures for all models in a single file `odol2mlod_texture_list.txt` without p3d names.

### **Example:**

```
odol2mlod -m las.p3d
odol2mlod -sir *
```

Return value codes are as follows:

0	At least one file was processed correctly
1	No arguments given
2	System error (failed to open/create file)
3	None of the files were processed correctly

Program does not handle OFP Demo models.

## 5. Version history

### **0.5** (01.06.21)

First release

### **1.0** (04.02.22)

- more informative console output
- changed program return value (zero if at least one file succeeded instead of returning result of the last conversion)
- renamed `odol_to_mlod` to `odol2mlod`
- published source code

#### Conversion:

- added option to merge points and selectively merge points
- vertex lighting flags (that are selectable in O2) are converted to a traditional flag. Converting all of them to User value was made optional
- when scanning folders program ignores MLODs that were generated by itself
- ODOL animations frames are now converted to MLOD

#### Information file:

- now has file signature, date, size
- animation frames are printed out in full info mode
- more descriptive property names in the ODOL information file
- MLODs in format other than SP3X are ignored (previously program would get stuck on them)
- MLOD `#MaterialIndex#` tag is printed out

### **1.01** (02.10.23)

- added options `-t`, `-T`, `-l`
- fixed issue with program trying to open non-models when passed asterisk as an argument