

Translate - Sheet Metal to DXF API Sample

Description

The sample code below writes a sheet metal file out as DXF. DWG is also supported. Use either the FLAT PATTERN DWG or FLAT PATTERN DXF formats. There are several optional arguments that can be specified as part of the format string. E.g. 'FLAT PATTERN DXF? TangentLayer=Tangents&SimplifySplines=True'). Below are the names of these arguments and relevant default values. The output will use these values unless you override them as part of the input string.

Argument	Type	Default Value	Note
TangentLayer	String	IV_TANGENT	
OuterProfileLayer	String	IV_OUTER_PROFILE	
ArcCentersLayer	String	IV_ARC_CENTERS	
InteriorProfilesLayer	String	IV_INTERIOR_PROFILES	
BendLayer	String	IV_BEND	BendUpLayer + BendDownLayer (legacy support)
BendUpLayer	String	IV_BEND	
BendDownLayer	String	IV_BEND_DOWN	
ToolCenterLayer	String	IV_TOOL_CENTER	ToolCenterUpLayer + ToolCenterDownLayer (legacy support)
ToolCenterUpLayer	String	IV_TOOL_CENTER	
ToolCenterDownLayer	String	IV_TOOL_CENTER_DOWN	
FeatureProfilesLayer	String	IV_FEATURE_PROFILES	FeatureProfilesUpLayer + FeatureProfilesDownLayer (legacy support)
FeatureProfilesUpLayer	String	IV_FEATURE_PROFILES	
FeatureProfilesDownLayer	String	IV_FEATURE_PROFILES_DOWN	
AltRepFrontLayer	String	IV_ALTREP_FRONT	
AltRepBackLayer	String	IV_ALTREP_BACK	
UnconsumedSketchesLayer	String	IV_UNCONSUMED_SKETCHES	
TangentRollLinesLayer	String	IV_ROLL_TANGENT	
RollLinesLayer	String	IV_ROLL	

*** indicates name of layer from the argument column. RGB values

***Color	String	separated by ;. Example: TangentLayerColor=255;0;0
***LineType	Long	*** indicates name of layer from the argument column. Long value from LineTypeEnum. Example: TangentLayerLineType=37644
***LineWeight	Double	*** indicates name of layer from the argument column. Value in centimeters. Example: TangentLayerLineWeight=.1016
ExportUnconsumedSketchProperties	Boolean True	Specifies whether individual sketch entity properties should be exported. If set to False, the properties specified by the UnconsumedSketchesLayer are used.
CustomizeFilename	String	
AcadVersion	String	2010, 2007, 2004, 2000, or R12 (for DXF only)
SimplifySplines	Boolean True	Enable spline replacement by linear segments
SplineTolerance	Double 0.01	Chord tolerance for spline replacement
AdvancedLegacyExport	Boolean True	
MergeProfilesIntoPolyline	Boolean False	Build a polyline of the exterior profiles
RebaseGeometry	Boolean False	Move geometry to 1st quadrant
InvisibleLayers	String	List of layer names to make invisible, separated by ;

Code Samples

VBA Sample Code

The following sample demonstrates creating an R12 DXF file that will have a layer called Outer where the the curves for the outer shape will be created.

```
Public Sub WriteSheetMetalDXF()
    ' Get the active document. This assumes it is a part document.
    Dim oDoc As PartDocument
    Set oDoc = ThisApplication.ActiveDocument

    ' Get the DataIO object.
    Dim oDataIO As DataIO
    Set oDataIO = oDoc.ComponentDefinition.DataIO
```

```
' Build the string that defines the format of the DXF file.
Dim sOut As String
sOut = "FLAT PATTERN DXF?AcadVersion=R12&OuterProfileLayer=Outer"

' Create the DXF file.
oDataIO.WriteDataToFile sOut, "C:\temp\flat2.dxf"
End Sub
```