

# ParaCloud

<b>Name:</b>	ParaCloud MODELER 2010 1.0.4 (note ParaCloud GEM has recently been released)
<b>Produced:</b>	ParaCloud Ltd., USA
<b>Operating system:</b>	Windows
<b>Native file type:</b>	
<b>Description:</b>	Generative design and pattern modelling software
<b>Next version release:</b>	
<b>Homepage:</b>	<a href="http://www.paracloud.com/">http://www.paracloud.com/</a>
<b>See also:</b>	<a href="#">Generative Design</a>
	<a href="#">Autodesk</a>
	<a href="#">CAD</a>
<b>Link:</b>	<a href="#">LEARN, The Catalogue</a>
	<a href="#">Post a question to Media Centre</a>
<b>Introduction:</b>	ParaCloud MODELER is a generative pattern modelling software which works by important your existing 3D model and populating surfaces of the model with 3D components. The program is powerful and accurate though unfriendly to use.
<b>Primary functions:</b>	<p>One of the advantages of ParaCloud is that complex and rich 3D models can be created without the use of scripting. Parametric control is built into the program's functionality similar to <a href="#">Grasshopper</a> . Primary functions of the software include:</p> <ol style="list-style-type: none"> <li><b>Component population and modelling</b> is like placing a texture over your surface, except the texture is comprised of 3D components.</li> <li><b>Smart subdivision tools</b> subdivide selected faces, or globally over your model.</li> <li><b>Mapping tools</b> for creating and editing meshes and population patterns.</li> </ol> <p>Similar to <a href="#">ParaCloud</a> in terms of functionality is <a href="#">Grasshopper</a> , <a href="#">PanellingTools</a> (to an extent) and <a href="#">GC</a> . However, ParaCloud offers greater parametric control and customisation options than <a href="#">PanellingTools</a> . But, <a href="#">Grasshopper</a> is much easier to use than <a href="#">ParaCloud</a> and can achieve essentially the same functions. Of the lot, it seems <a href="#">Grasshopper</a> wins. Especially when the possibility of <a href="#">PanellingTools</a> becoming a component of <a href="#">Grasshopper</a> is brought into consideration.</p>
<b>Primary outputs:</b>	<p>Outputs from ParaCloud are primarily:</p> <ol style="list-style-type: none"> <li><b>Print</b></li> <li><b>Laser-cutting</b> is usually achieved by transferring the model to Rhino for unwrapping before sending it to be cut.</li> <li><b>3D Printing</b> is similarly achieved by transferring the model to Rhino for 3D printing.</li> </ol>
<b>Usability:</b>	<p>ParaCloud operates using both a CAD model and input from ParaCloud itself – usually in combination with Microsoft Excel datasheets. Its interface is extremely unfriendly to use. This is due to the interface loading at full screen or ¾ screen without any resize options. Each new category the user accesses loads a new pop-up window (which again can't be resized) and this easily causes overcrowding of the screen. The menu (graphic) design is clumsy and the user is constantly forced to refer to the user manual. The result of all this in the long run is that the interface feels cluttered and hard to operate.</p> <p>Interoperability is okay. ParaCloud requires a 3D/CAD model usually in OBJ or STL format as input. Exporting/saving your design is usually via either <a href="#">Rhino</a> , <a href="#">MicroStation</a> or <a href="#">SketchUp</a> or directly as OBJ or STL. All things considered, there are limited output options which decrease the range of end-use programs you can work in.</p>
<b>Strengths/weaknesses:</b>	<p>Over and above those strengths and weaknesses listed already, ParaCloud at present is:</p> <ul style="list-style-type: none"> <li>+ + Very accurate as geometry is defined by the data list handed in Excel.</li> <li>+ Still in the running because the recent development of ParaCloud GEM is potentially a more friendly program, which perhaps can overcome some the issues outlined above.</li> <li>-- Very frustrating due to the program crashing unacceptably often.</li> </ul>
<b>Learning support:</b>	<p>Support from ParaCloud's official website is inadequate. The user manual documents the steps to be taken to achieve a generic task, but there is no explanation as to why. The logic of the software is not explained. Similarly, there are limited user group forums.</p> <p>To get you started <a href="#">Media Centre</a> suggest the following tutorials:</p> <p><a href="#">Beginner A: Populating SketchUp mesh components</a>  <a href="#">Beginner B: More with SketchUp ParaCloud</a></p> <p><a href="#">Intermediate A: SketchUp DXF geometry</a>  <a href="#">Intermediate B: Create a diamond-grid</a></p> <p><a href="#">Advanced A: Metric paracell frame component</a>  <a href="#">Advanced B: Interlacing rings</a>  <a href="#">Advanced C: Importing mesh geometry as cloud data</a></p>
<b>Additional:</b>	
<b>References:</b>	

<b>External links:</b>	
<b>Published:</b>	First published Mon. 1 Feb. 2010