# What 3D animation software should indie game developers use, Autodesk Maya or Blender?

Maya and Blender are both very popular 3D animation software in the game development area now. In most animation software comparison for games, Maya and Blender are usually both top5 choices for developers. As indie games market grow fast in recent three years and more and more well-polished indie games are published, for instance, Hollow Knight in 2017 and Dead Cells in 2018, a question has been asked frequently in communities - What 3D animation software should indie game developers use, Autodesk Maya or Blender? This article is going to compare these two software in specific aspects and trying to form a conclusion for indie game developers.

Price

When it comes to indie game development, the budget is always the first thing to consider. With or without enough money would be a definitive factor in choosing which software to use. If you have a strictly tight budget for your game, blender is your go-to software. It is free, and in many aspects it is as much functional as Maya in modeling, rigging, texturing, and animation. This is because, for indie game development, Maya though provides various functions and tools but a lot of them might not be useful or just beyond your demands. On the other hand, let's take a look at Maya's price.
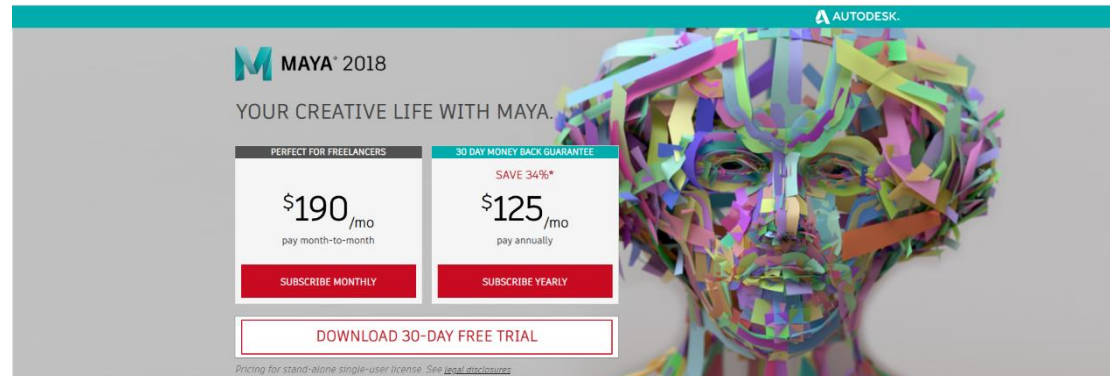
For Maya 2018, it provides monthly service at $190 and $125 for an annual plan. So, if an indie game needs three years to finish its 3D animation content, it will cost the developer $4500, which obviously is not a small amount of money comparing to free software. And this doesn't include plugins and assets. If you are planning to buy powerful plugins for modeling, texturing or lighting, the price won't go cheap.

Documentation

I listed documentation as one of the factors in this comparison for considering nowadays a lot of indie game developers are new to the area, and full-fledged documentation will shape a smooth learning curve for freshmen.
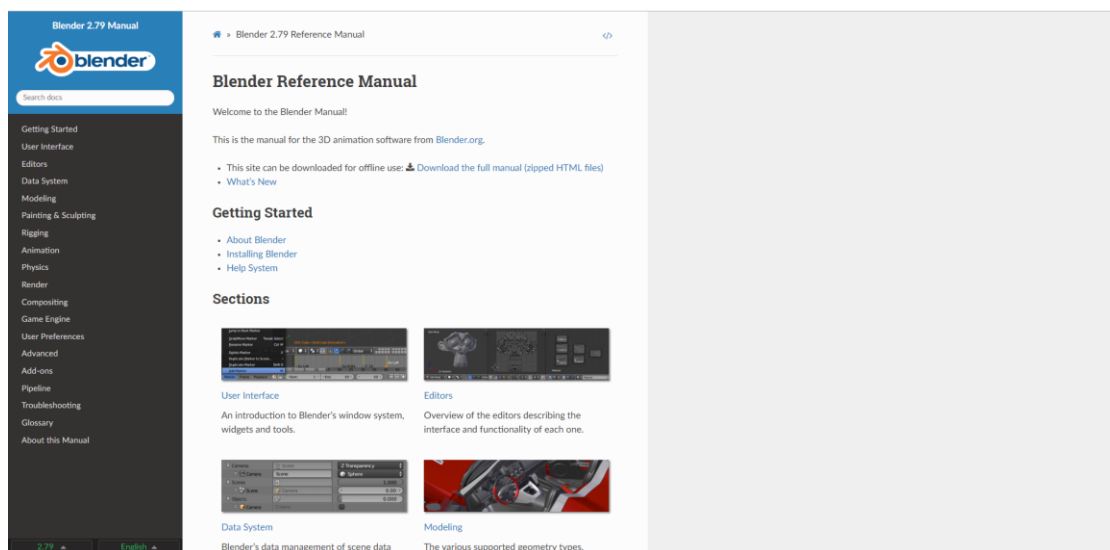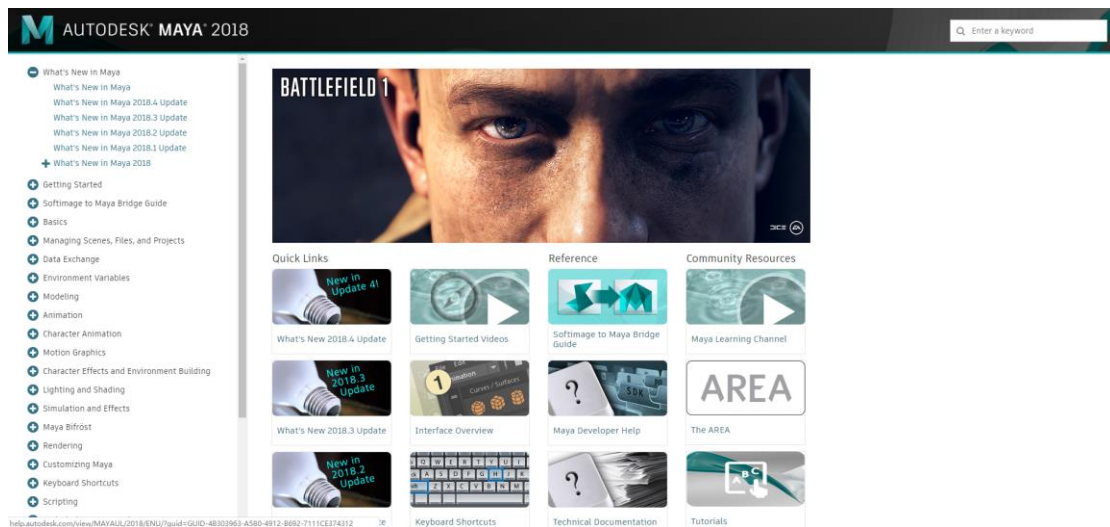
These are the documentation of Maya and Blender on its website. They both provide a decent classification of different functions but overall, Maya's is more detailed and well-organized. What's more, Maya has an individual Youtube channel named Maya 101 that directly linked to the documentation and it contains almost one hundred tutorials. In this area, Maya is more user-friendly than Blender.

Community

With more and more people rush in the game industry, whether for career or hobby, Blender as free software, has way stronger user base than the past. So it is safe to say, these two both have plenty of communities for beginners to ask questions and for pro-users to discuss and share. The only difference is the user category. Maya is an industry standard which indicates users in this community will get pro-support and relatively more "correct" answers.

Blender, on the other hand, its users are relatively amateur and with more experience-based support, but this doesn't mean Blender's community is worse, on the contrary, it is a sign that people will get answers more targeted in the indie game development area.

Functions

If an indie game developer has enough budget, then what the software can do becomes an important aspect of this comparison.

Maya and Blender both provide essential functions and tools for games' modeling, texturing, and shading. But they do have differences in various ways. According to Kyle Howard's answer on Quora, " Maya has excellent rigging tools with some nice built-in rigs that can be quickly applied to your model. In Blender, there are some add-ons like "Rigify" which aim to do the same, but the results are much worse and the interface for creation is slow and non-intuitive. If you are a skilled skeleton rigger, you can eventually get the same results in Blender, but it will be slow and tedious", "In Maya, the viewport shading is pretty good and you have an accurate representation of what your final render will look like while you are working. Blender has horrible viewport shading, and when a model is close to completion, I find myself constantly switching to the slow "rendered" shading to see what it will look like. The good news is that Blender 2.8 (coming 2019?) will fix this with 2 new real-time renderers. In fact, it looks like Blender will be ahead of Maya in this area on the release of 2.8."

In many ways, Maya's logic to control and to animate is better than Blender, but in particle use for indie game developers, things might be different. In fact, many of them pursue speed over details. On the aspect of fast-modeling, Blender provides various brush tools that allow users to easily and quickly soft edges and model objects' surface with mouse drawing on the objects.
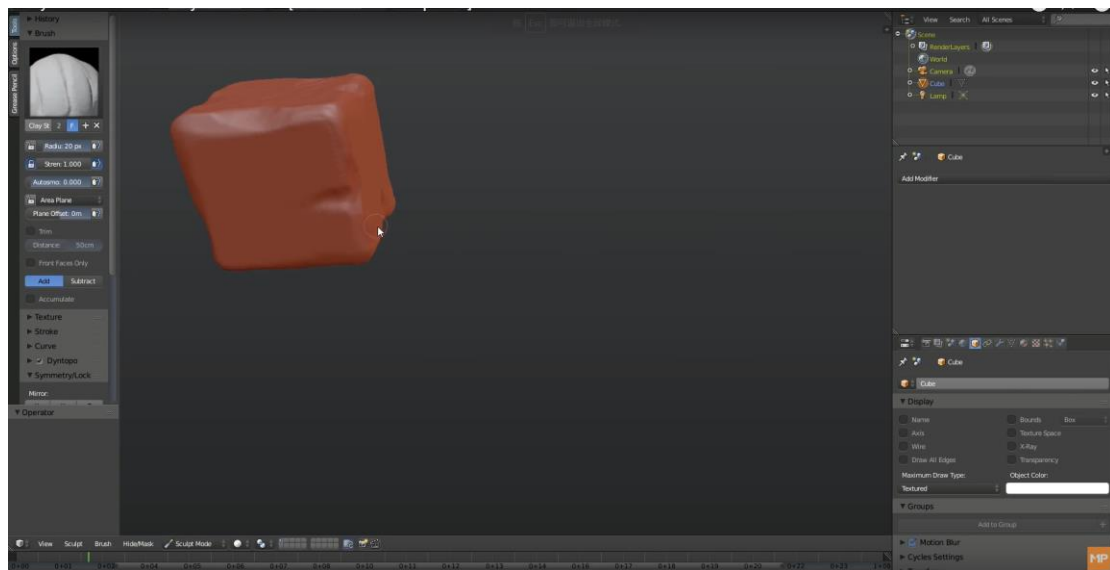
With this function, you can model a cheese cube with hollows on it in five minutes even if you are not a pro. But in Maya, it might take hours to achieve the same effect.

Extensibility

To make more sophisticated models and to realize more powerful functions, we need to use plugins or add-ons. This determines how far you can go with the software. On the internet, you can find lots of free of commercial plugins for Maya and Blender. They both support Python scripting. But Maya is more extensible because you can use the embedded scripting language (MEL) that lets you write custom scripts. MEL is modeled after UNIX shell script. It also has an alternate syntax that is structured like the C programming language.

Ease of Use

In a straight conclusion, Blender is easier for beginners. Maya is well known for its complexity. You may feel overwhelmed by the options you are presented with. Most of them even have submenus which might lead to more confusion. However, Maya's advantage on this is its vast online resources. As mentioned before, Maya's official Youtube channel provides an amount of help for patient learners.

On the other side, Blender is known to have a very intuitive and easy to understanding modeling workflow. Once you manage to remember Blender's keyboard shortcuts, modeling will be so easy and handful. What's else is many tools in Blender are based on algorithm and auto-generated, so the result might not look pretty but it is intuitive for beginners.

Other People's opinion

There is a Youtuber explains why he switched to Blender from Maya.
https://www.youtube.com/watch?v=hOp75LDqUbU

Conclusion

Maya is better for indie game developers that has enough financial support and pursue long-term projects and may have plans to get into game studios or companies. This software aims to help game developers who have plenty of time to learn, practice and to master.

Blender is better for people who make games for fun or hobby, or some people are interested in indie game development but not certain if they would continue making games. Also, Blender can be very useful for people just step into this area, who haven't yet formed any concept of 3D animation in their mind but have enough time for trying different things. Plus, if your game is more mechanism-based, Blender can be quicker making simple-models without too many details.