

Biography of a Software Engineer

Ton Roosendaal

By Cian Jinks

For those who do not know, Ton Roosendaal is a Dutch Software Engineer best known as the original creator of Blender^[2]. Blender is a free and open source 3D creation software which is used by millions of people worldwide. In the time since its inception, Roosendaal has continuously pushed the bounds of what open source software is capable of by forming the Blender Foundation to both further the development of Blender and showcase its abilities as a 3D creation tool.

Background

Roosendaal began his software engineering journey by founding an animation studio and company called “NeoGeo” in 1989. It was at this company that he took on a role to oversee their software engineering division and began to learn to program. One of his first major projects was a ray tracer for Amiga systems which he worked on in his spare time. After working for a few years with “NeoGeo” on client projects he eventually pitched the idea of creating their own in-house software for 3D animation based on his ray tracing project. To achieve this, they purchased a very expensive Silicon Graphics computer in 1995 specifically designed for Computer Graphics work. The in-house software that Roosendaal wrote eventually became known as Blender and was released for free online in 1998 with support for Linux systems as well as Silicon Graphics. Not long after, “NeoGeo” was bought out and Roosendaal left, taking his software Blender with him.

Roosendaal was still very passionate about Blender and so he founded a company called “Not a Number” to help secure funds to further its development. Initially, this was a major success as in 2000 they received \$5.5 million in investment but it was not long before they burned through this money and due to a lack of sales, the company collapsed in 2002.

Roosendaal had his mind set on making Blender free and open source but was required to buy back his rights to Blender from the “Not a Number” investors. With the help of community funding in mid 2002 he was successful in doing so and released Blender under the GNU General Public License^[4]. It was also at this time that he started the non-profit known as the Blender Foundation and began promoting Blender as a truly open source community project.

Personally, having learned all of this about the history of Blender and Ton Roosendaal, it inspires me seeing the perseverance Roosendaal showed with regards to a software engineering project he was truly passionate about and believed in. This perseverance is a trait I hope to one day bring to a software project or practice of my own to make it the best it can be.

Open Source Software

Since forming the Blender Foundation, Roosendaal has been particularly impactful with regards to the promotion of the concept of free open source software (FOSS) and the licences surrounding it. To showcase the capability of open source, he started the Blender Studio^[3]. The Blender Studio brings together the best artists in the Blender community to create so-called “Open Films” using Blender and other FOSS. These are short films which are created in the public eye by sharing progress and assets throughout their creation. In doing so, the artists also share what features need to be added or changed within Blender and the other softwares they use, furthering open source development. The first movie released by the Blender Studio was “Elephants Dream” and has since been followed by many many more. As each new movie is released, it builds upon the technical and artistic design of the previous movie by making use of the changes to the software brought on during their creation.

I believe this single idea is the reason why Blender has reached the level of capability that it has today. Taking on massive corporate funded 3D creation software like Autodesk’s Maya, 3DSMax and Cinema4D is no small task, and yet Roosendaal has successfully done just that with a free and open

source software nonetheless. In my opinion, such a feat is something to be admired in software engineering.

As mentioned, Roosendaal has also made an impact with regards to the licences surrounding FOSS. To this day, Blender remains under the GNU General Public Licence. This is because in his own words this license is “the most free”, meaning it does not allow any part of Blender’s code to be used in a commercial product without that product being forced to also make itself open source. This concept of all open source code remaining open source, regardless of where it is used, is something Roosendaal firmly believes should be the case and he makes sure to voice his opinions about any controversy in that regard on his Twitter^[5].

Conclusion

Ton Roosendaal is arguably one of the most influential open source software engineers there has ever been. I believe there is a lot one can learn and apply to their own software engineering experiences from studying how he went about making Blender the massive software that it is today and his stance on free and open source software as a whole.

References

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 - a. Interview with Ton Roosendaal, contains most of the information for this essay
2. <https://www.blender.org/>
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5. <https://twitter.com/tonroosendaal>