



● Independent artists were open source software's early adopters: this image by Andreas Goralczyk was created in *Blender* and *The Gimp*. Over the course of the next six pages, we investigate how the tools fare in professional pipelines

free thinking



As a new wave of animations produced entirely in free software hits our screens, we investigate how commercial studios are beginning to make use of such tools. Could open source products cut the cost of your production pipeline? **BY NOAH KADNER**

Over the past six months, *3D World* has reported on the progress of *Elephants Dream*, the world's first 'open source movie'. During the creation of this ambitious animated short, the team at Studio Orange pioneered a production pipeline based solely around open source software. This begs an obvious question: could such a pipeline now be applied to a commercial production? And just what place do open source tools have in professional visual effects?

With many VFX companies now running Linux, and independent projects such as *Elephants Dream* and the upcoming all-CG movie *Plumíferos* being realised entirely with open source software, it's no longer a question of yes or no to such tools, but of how much influence they already have.

Two key areas set open source apart from commercial software: licensing and development. Open source software is offered free of charge, it's provided on a source code level and,

unlike commercial software, the modification of this code is strongly encouraged in order to progress. Development is performed in a peer-to-peer review process, where programmers from across the globe constantly work and revise each other's progress to derive a consistent stream of distributions.

This difference between commercial and open source software has been described as the Cathedral (private beta testing) vs the Bazaar (open source development community). In the case of the Bazaar, the artists themselves are often the lead developers. As Bassam Kurdali, Director of *Elephants Dream*, puts it: "I think the philosophy of open source is a bit different. While the barrier between 'user' and 'developer' may be established for closed source packages, it's a distinctly blurred playing field for open source projects."

As a result, there is a certain level of apprehension among effects houses when joining in with this Bazaar. Studios fear that adopting open source software will impact on the speed, stability and customer support they are accustomed to.