

# Indie Creates VFX with BOXX & 3ds Max

By John Vondrak

Chris Taylor is an ambitious guy. The UK based CGI artist may pay the bills by creating visual effects for successful television shows like *Doctor Who* and *Hounded*, as well as major motion pictures like *Elizabeth: The Golden Age* and *10,000 B.C.*, but in his off hours, he's much more diverse, which of course comes with the territory when you're an indie filmmaker. For the past decade (which is not a misprint by the way), Taylor has invested his talent and energy into his roles as director, writer, editor, (and of course) VFX supervisor, on his feature film project *LVJ*, a lively, effects laden science fiction comedy that may very well change the way you think about independent film.

Ten years ago, with his multitalented core crew, producer/actor/composer Mark Shields, producer/cinematographer David LeMay, writer Phil Barron, and acclaimed creature FX supervisor Brian Best (*Gladiator*, *Batman Begins*, *Harry Potter*), Taylor set out to create a science fiction motion picture on par with the movies they had all enjoyed as

kids and dreamed of one day making themselves. Such an undertaking is considered a daunting challenge for any major studio, but for a skeleton crew with no budget—more akin to impossible. The team shot test scenes and short excerpts designed to spark interest from financiers and distributors at Cannes, but although the power brokers were impressed by what they saw, none was ready to take on the risk of financing such a ridiculously ambitious indie project.

So Taylor and company decided to go for broke and make the film themselves, operating on a shoestring budget, shooting weekends and off hours, all the while producing a work that appears as if it cost tens of millions.



*The Moth Ship moves in orbit around the earth*

Part comedy, part sci-fi adventure, part homage to 70's cop shows, *LVJ* is the story of Roy Vincent (Mark Shields), described by Taylor as, "an office bound British agent who longs for a life of adventure." When planet Earth is threatened with an attack by an alien race known as the Veranyi, the government mobilizes a fleet of spacecraft to defend the planet. Vincent is left out of the action until he accidentally stumbles upon the woefully inept and hilarious Frankie (Maurizio Fichera) and Joey (Nick Harvey), NYPD detectives abducted by the Veranyi in 1974 and dumped back on present-day Earth. In true underdog fashion, this trio of unlikely heroes just might turn out to be the saviors of mankind.

## An Incredibly Powerful Tool

And when it comes to the effects work on *LVJ*, Taylor's 3DBOXX workstation is turning out to be a savior as well. "The BOXX machine has been an incredibly powerful tool in my work," he says. And with hundreds of effects shots throughout the film, it's no wonder. Initially, *LVJ* was shot with a Canon XL1 enhanced with Zeiss lenses, but has utilized an assortment of camera makes and models in the ensuing years. Footage was dumped onto an Apple® MacBook Pro and edited using Final Cut Pro. Frames or video files requiring effects are then exported to the BOXX workstation, using the shot footage as background for the newly created VFX. This step was particularly challenging since the film was shot on DVCPROHD, a format incompatible with PC workstations. Taylor explains: "I always knew that if it came to it, I could render off the DVCPROHD footage on the Mac into an uncompressed QuickTime which would work fine on the PC—not very efficient for disk space, but at least it was a workflow that worked. Then I did some



*3DBOXX 8550 Series with 4 GPUs*



*The climactic intergalactic dogfight rages*

research on the internet and found that the animation codec would be a good choice because when you put the settings to 50%, it's like creating a 4:2:2 file. At 100%, it's like creating a 4:4:4. So depending on the footage, I would swap between the two settings."

Taylor's solution allowed him to incorporate the BOXX system into his post production workflow, making the high performance workstation an invaluable part of the process. Having first become acquainted with BOXX through full page ads in industry trade publications like Cinefex, Taylor also encountered their workstations throughout post production studios. "I saw them at post houses and other facilities," Taylor remembers, "and I always thought that if this particular company uses them, they (the BOXX workstations) must be real powerhouses."

### **Bringing BOXX to the BBC**

When he became part of VFX artist Hugh Johnson's team creating visual effects for *The Wrong Door*, a BBC sketch comedy show, Taylor and Johnson identified an immediate need for the level of performance that only BOXX can provide. Television programming runs on incredibly tight schedules and since the team of twelve artists was required to produce approximately 800 VFX shots on a deadline, Taylor and Johnson made a pitch to convince BBC production honchos that the BOXX workstations were the perfect solution. "Cost wasn't an issue with the BBC," he says. "They valued our opinions and we told them what we needed. However, the bigger issue is that they have their list of approved vendors and suppliers, so we had to get them to think outside the box—or about BOXX."

The BBC was convinced and once the purchase was approved, Taylor says that the team purchased "8 or 9" BOXX workstations from Escape Studios, a longtime UK BOXX reseller, which went on to impress Taylor with their outstanding customer service.

The team ran both Autodesk® 3ds Max® and Maya® on the new BOXX systems with a mixed pipeline (the remaining models were Apple Mac Pro's for compositing with Shake). *The Wrong Door* went on to be nominated for a British

Academy of Film and Television Arts (BAFTA) award and winner of a Royal Television Society (RTS) award for VFX. Following the completion of *The Wrong Door*, the BOXX workstations were enlisted once again in order to complete *Hounded*, another BBC television series. On this production, the time saved by utilizing the powerful BOXX systems was immeasurable, with an astounding 1800 VFX shots completed in only 6 months. "On the same workstations (that were by now almost 2 years old), we came in on time and on budget which is largely due to the performance of those BOXX machines," Taylor remembers.

He was equally impressed by the systems' rendering capabilities. "It's rendering power is phenomenal," Taylor says. "We couldn't afford a render farm and the BOXX machines, with all those processing cores, performed incredibly well. It was just like having a little render farm."

At this point, it would be safe to assume that Taylor was thoroughly sold on BOXX, but in fact, that had already transpired, as demonstrated by his purchase of his own 3DBOXX in 2008. "Between those two jobs, both the VFX supervisor and I bought BOXX machines for personal and freelance work, primarily because they had been reliable, and the rendering performance was always able to deliver renders for the next morning which was essential when we didn't have a render farm."

### **Creating VFX with 3DBOXX and 3ds Max**

Taylor projects a total of 560 VFX shots for *LVJ*, although he is quick to admit that the number is likely to change as he tackles the elaborate space battle sequences which comprise much of the film's final act. Currently, he is poised to break 200 completed VFX shots (all using his BOXX workstation, and in many cases, 3ds Max) and his goal is to finish all the VFX by year's end. Taylor believes the performance of his chosen hardware and software will make this goal a reality.



*The Alien Mothership modeled and textured in 3ds Max*



*The Mothership modeled and textured in 3ds Max*

“The current version of 3ds Max 2012 is flying on the BOXX machine,” he says. “I switched graphics cards from the Quadro FX 1700 to a Geforce GTX 460 2GB ram and it flies. The new viewport engine continues to impress me even with really heavy scenes and the reliability of 3ds Max when using large amounts of ram is much better than previous versions.” Taylor also extols the increased stability of 64 bit applications throughout the past year. “Windows 7 is really stable,” he says. “After Effects CS5 just laps it up and 3ds Max has found its footing. I had some issues with the initial release of 3ds Max 2012, but the first round of hot fixes fixed everything for me and my current workflow is better than ever.”

Taylor’s 2008 model 3DBOXX 8400 features dual four core Intel® Xeon® processors, while the latest dual processor BOXX workstations (3DBOXX 8500 Series) feature six core Intel Xeon processors for a total of twelve processing cores. The performance-enhanced XTREME edition is capable of speeds up to 4.3 GHz, making them the fastest workstations in the world. The 8500 series is also available with four GPUs (with support for seven in all) to provide outstanding rendering capability.

In addition to the VFX work, LVJ audio post production is well underway with the initial dialogue edit completed, an

epic orchestral score near completion, a soundtrack album full of original songs being added to the mix, and ADR work beginning soon. Taylor and Co. are also in discussion with a number of comic book creators to create (online and print) graphic novels and comic strips to launch ahead of the film.

“We are continuing to build an audience ahead of the film’s completion, giving fans on our social media platforms the opportunity to add their voice to the post production process in a number of unique ways through the facebook site and on twitter,” says Taylor. “All of these campaigns will culminate in an inventive and original launch of the film designed to present the film to as many people as



*The intergalactic dogfight from the cockpit point of view*

possible—a new type of film distribution for a new type of indie film.”

For more information about LVJ:

[www.lvjmovie.com](http://www.lvjmovie.com)

For more information about BOXX workstations:

[www.boxxtech.com](http://www.boxxtech.com)