The Lab Drive Longform Television Success With Autodesk

Using Autodesk Creative Finishing tools to handle the heavy demands of long-form television drama production

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— Marcus Bolton
Post-production Supervisor and Head of 2D Services
The Lab, Sydney

The expansion of high definition television series production in Australia has attracted worldwide audiences to the quality and quantity of programming on offer.

Supporting this growth are the sophisticated visual effects available to series producers and one of the most prolific facilities involved with local longform content is The Lab, Sydney.

As part of the Omnilab Media group, the largest Australian user of Autodesk Media & Entertainment creative finishing products and software, The Lab relies on Autodesk toolsets to help handle the heavy demands of modern television drama production.

“We're really proud of the calibre of Australian content we are producing here such as Scorched, Rescue: Special Ops, Sea Patrol and Underbelly,” said Marcus Bolton, post-production supervisor and head of 2D services.

He attributes the ability of his 11 member team to consistently deliver compelling, episodic television, to their use of the Autodesk pipeline. The mix includes three seats of Autodesk® Smoke® editorial finishing software and two seats of Autodesk® Flame® visual effects and compositing software and one seat of Autodesk® Inferno® software. Support rooms utilise Autodesk® Backdraft® Conform software and the company's design studio runs on Autodesk® Maya® 3D animation software.

Image courtesy of The Lab, Sydney.

The workstations are linked using Autodesk® Wire® software over an InfiniBand network and each suite uses Autodesk® Stone® Direct high speed fibre channel storage solutions. This allows The Lab to work with images as higher quality, uncompressed HD RGB data throughout the post process until they are mastered to tape.

“We are empowered to produce great pictures by our toolset and a key to our success is the software we use from Autodesk,” explains Bolton. “The thing that makes my role as head of 2D easier is that every part of the chain – including the creative team, production support, IT and engineering – gels together and works.”

The efficiencies of a full effects service are expanded through the inclusion of the group’s in-house editing and distribution companies. “We're in a very competitive market but we can provide a one-stop service to clients, from on-location shoot supervision to delivery.”

“Another advantage is that we can work with our clients in pre-production to help them bid, quote and deliver their vision. In the past, post-production was considered an end process and not related to pre-production. Now our creative team - shoot supervisors and VFX artists - will sit in on those early meetings and break down an entire series to help our clients deliver their vision.”
An example of this client collaboration, that reaped major rewards for the second and third series, is Sea Patrol, a drama series based on the crew of a Royal Australian Navy patrol boat. The vessel was replaced after the first series and the producers found they would be dealing with a new bridge deck with large windows, rather than small portholes.

"The new boat in Sea Patrol meant that when the actors were being shot on the studio set, we needed to see the whole exterior background with horizon and water along with the related movement of the boat. We delivered that capability before the second series to include it in pre-production and run tests shoots with the actors on set," says Bolton.

Soren Jensen, the Lab’s VFX supervisor on location with Sea Patrol, used four HDCAM cameras to shoot 180 degree views off the boat’s bow, stern, port and starboard. These images were stitched together in Flame to enable 360 degree background views, complete with matte painted skies, to cover seven variants such as weather and time-of-day.

“We created a 4K vista from the four HD frames with overlap that was rear projected as windows on set. It was hours of rendering on a powerful Flame so I can’t imagine doing that type of work on anything else. The producers loved the result because it gave them much more flexibility in shooting. In series three they were able to to shoot situations with actors talking about an oil rig which was added to the background shot,” states Jensen.

**Workflow and infrastructure benefits**

The Lab’s artists appreciate the advantages of working together on common platforms across dedicated, high speed networks.

“It is imperative with longform to be able to work as quickly and easily as possible because any time we can save really helps over the entire process,” explains Smoke artist Jo Spillane.

The Lab pipeline is built around the Autodesk® Backdraft® Conform media management software that is accessible by the Autodesk creative seats as well as in-house editing and colour grading suites. The process begins with an Edit Decision List (EDL) being sent from the offline editing suites to a Backdraft Conform station where it is formed into a timeline. Smoke artists use the timeline to conform the images with the HD camera tapes and put an episode together at full resolution. Smoke is also used to treat shots to help match client requirements.

Effects shots are imported from Backdraft Conform into Flame and when completed are exported back into the Backdraft Conform timeline. The episode is then colour graded from one Backdraft Conform to the other using VTR emulation before Smoke is used to apply final titles and various finishing requirements for episodic work, before mastering to HDCAM SR tape.

“Using this networked process under one roof cuts our time in half as the hardware, software and network systems are so quick now and we can move material around faster,” explains Spillane. “We can easily talk to each other about shots - we haven’t had to deal with many problems because having the Flame artists in the building handling the visual effects means we work closely to manage those shots.”

“Our clients are definitely noticing our efficiencies in that we are able to spend more creative time on the things that matter to them like what the pictures look like. They know that if I get concerned about technical issues then the work will be affected and if they’re not seeing that then it’s a good thing because they know they can rely on our technology.”

**Flame fires longform**

Visual effects artist Chris Leaver says Flame is a key component of The Lab’s long-form capabilities.

“I use Flame to produce effects such as muzzle flashes, boat removal and replacements, rig removal, adding matte paintings and set extensions as well as high end explosions. Coming from a background in television commercials and feature film production I am used to commercial pressures; the difference with episodic TV is that the time frames are more compressed. Sometimes there are also a limited amount of production resources so it’s up to us to come up with the goods more quickly and Flame helps facilitate that.”

Leaver identifies 3D autotracking in Flame as a feature that enables him to more quickly produce critical effects in longform timeframes.

“Complex effects such as following a 3D net from underwater to surface shots or placing an oil rig on the horizon of a chopper shot - these can involve up to 50 layers of particles and effects and the tracking system in Flame helps a lot.

**Functional flexibility**

“Anyone can buy a box and there are several options out there but we have chosen to use Autodesk solutions. We have done that deliberately knowing it can give us the greater flexibility on the kit and that we have a wealth of talent that has a lot of experience with Autodesk products. We now have eight systems in our building, some with multiple licences,” says Bolton.

“We are the biggest site in the country and Autodesk is more than just a gear supply company to us. We lean on Autodesk more than ever because we rely on its technology. The beauty is that our pipeline allows us to get on with the creative work knowing we are supported by software and a hardware back end that works well.”

Summing up The Lab’s relationship with Autodesk Bolton quotes Prue Fletcher, the company’s head of creative services for 2D episodic and film work who has 20 years of industry experience.

“Prue’s angle is that she understands what the kit does and doesn’t have to worry about it. She just wants to be able to say yes to clients and have my team handle it from there knowing we have the experience and technology to help make it all come together,” said Bolton.

**About The Lab**

The Lab is a division of Omnilab Media, Australasia’s largest independently owned, vertically integrated media company. Omnilab Media incorporates a portfolio of 14 media businesses and employs over 500 staff. For more information please visit www.thelabsydney.com.au and www.omnilab.com.au