Australian Videocamera

Oct 2019

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Australian Videocamera

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Welcome to the latest edition of Australian Videocamera!

This edition brings out first in the long-awaited series from Master Modeller / Animator Denby Smith with his tutorials on Cinema 4D. This month Denby looks at the basics of 3D modelling and animation and runs through the Cinema interface.

If you have any interest in this area from making huge starships for your latest sci-fi block buster to some fancy opening titles, then this is worth a look. And you can get a fully functional (time restricted) version of Cinema 4D for either Mac or PC and follow along with ease. Details on how to get your copy are in the story.

An interesting story this month I came across by accident! In the Vegas Pro forum on Facebook, I saw a little video apparently shot from a railway platform. On investigation, I found this was one shoot (among many) from Doug Wilson in the UK of a HUGE model railway set. We have a coupe of Doug's videos here, plus links to his YouTube subscription page and also found a useful book, which while aimed at photography, helps with tips to get you shooting similar video. Doug says his secret weapon is Blu-Tac!

Elsewhere in this edition, if you are into drones, and who isn't, then Mathew Harwood has shared some tips on getting the best footage, we have reviews on an OSEE 4K field monitor, DaVinci Resolve 16 and Sonicfire Smart-sound plus in a new column, discuss getting the best 360° footage.

As always, if you have any comments to make, any ideas for future stories, have a technical question or simply want to share a tip or trick, email me at david@auscamonline.com.

And don't forget as well as our website, we are also on Facebook, Twitter and Instagram! Just search for Australian Videocamera.

Until next month, happy shooting!

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Model Railway Trains.
We never outgrow them. Thankfully!

Doug Wilson from the NE of England uses a GoPro 5 to video them.

Back last century as a kid in the north-west of the UK (a little village called Higher Cloughfold in Lancashire), we had a model railway set. "00" Hornby it was, with a couple of Tri-ang choo-choos there for good measure.

T'was big too, taking up a whole room upstairs, with hills and trees, farms, little villages, a cathedral, roads and my favourite bit, working level crossings.

One engine was the Royal Mail train that auto-tragically grabbed little bags of mail from a pylon as it steamed past. It made real smoke too (from sewing machine oil).

Sadly, when we moved back to Australia, our railway set was a victim. Ever since, I have wanted to build another, but have just never got around to it – and I bet I am not alone.

Yesterday in the Vegas Pro Forum (for the non-aware, Vegas Pro is a high end video editing package), I came across some footage from a bloke, in the UK , Doug Wilson who has video'd a HUGE model railway set in Trenholme Junction in the North East.

Doug used a GoPro Hero 5 to get the footage and edits it in Vegas Pro.

This is one of his results. It is mesmerising – and breathtaking I think you'll find!

Doug says all the films are hybrids, using a mixture of previously used scenes, unused scenes from the original filming and new scenes shot recently.

Some scenes have been re-edited from their original production version, which was in letterbox format, to full screen.

All the original and new scenes have a real sky video as a background. For more information about the 'Infinite Layout' see the links in video notes (on YouTube).

In the top film, a Class 20 passes

through the Main Station Parcels platform with an empty tanker train, followed by ex GWR tank engine hauling a short mixed goods local train.

To get the clouds, Doug says he shot them separately in two directions and in the final footage, they are composited in via masking, alternating as camera angles change.

Here is some of Doug's work, and you can also subscribe (as I did) to his YouTube channel and relive that youth!

And dream.

(If your browser will not play these videos, click here and here)

I also found a website that gives some detail on photographing model railways and these basic principles apply to video as well.

Does your Director know when and how to use drones on set?

by Mathew Harwood

Drones are increasingly being used in everything from TV commercials to documentaries and big budget movies.

Spiderman: Far From Home took a spin on drone-use and included their abilities as part of the main villain, Mysterio's specialised form of attack.

There are few cinematic productions that don't utilise the advantages of drone-use in some form or another these days.

From television commercials to award-winning films, most directors have discovered how beneficial a few - or a few more - drone shots can be to the finished story.

But does your Director/Producer know when and how to use drones on set?

Here are a couple of tips to leave for your production team to ensure your film's story is told in the best way possible:

Is your Director aware that drones can sometimes be better utilised for close-ups rather than aerial shots?

The farther you send a drone into the air, the less movement it will be able to pick up from its subject - and the faster it will need to move. For shots where the subject is a stand-alone object, such as a vehicle, close-ups through drone use can actually create better, crisper images than a typical video camera. Your team may be under the impression that drones are made to fly high, but in reality, they do their best work close to the ground.

The next time your director directs your team to set up a standard camera for close-ups suggest trying the same shot with a drone. By not needing to shoot the same shot from different angles, or set up gear for each scene, your production team is saving time and costs that can be better spent elsewhere.

A drone takes much less time and funds than the use of a helicopter and can be set up and ready for the first shot in minutes.

Creativity is important when it comes to drone use - the best films, and shots are those that you don't even notice are drone shots, because they seamlessly blend into the story,

Ensure your director and production team are aware that sometimes too much drone can get a little out of hand and even tacky. If the shots are planned out with timing and creatively outlined, then everything becomes perfect. Forcing a drone to get the perfect shot without putting the proper care into choosing the right lens, height or camera, or even using an expert drone pilot, can even ruin the mood of the story.

Drone shots are an incredible way of taking images and video from any angle and almost any depth, and they have taken film production to new heights, literally! However it's important that every member of a film's production team has at least some knowledge about when, where, and how to use drones to best compliment the full piece This especially applies to the director/producer. Using a drone team with expert pilots will ensure your director achieves their dream shot(s), safely and effectively.

If you're not sure how much your director knows about drone cinematography, ask them.

Many have been in the business for so long that they can be a little more challenging to test the boundaries of technology in their work - they need to see the benefits that changing with technology, can have toward every corner, and angle, of their work.

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Thinking of investing in a field monitor?

The OSEE G7 4K might be just what you are after

There are many advantages to getting older. You have gained much wisdom in the passing years, and experience mean you make less mistakes.

If you are really lucky, your mind and memory remain as sharp as a tack, able to recall things in a flash like what settings to use for specific shooting circumstances, and where you last put your spectacles.

Sadly though – and the glasses is a clue – as the years roll by, many of us are inflicted with one ailment that in this game, does tend to make life that little bit more difficult and I am sure you have guessed what that might be.

Yes, our eyesight tends to be less than stellar.

So, it was with great excitement and anticipation that I opened a parcel the other week from monitor specialists OSEE containing a rather dinky black mini-Pelikan like case.

You might remember OSEE: About 12 months back we reviewed one of their field monitors, the model ***LCM215E***, and liked it very much indeed.

In the carry case was a model G7, a 7 inch top-of-camera field monitor with lots of built in goodies and dollops of functionality. It is obviously aimed squarely at the cinema-camera brigade.

But first, I'll get rid of the bad bit. You see, as there are very strict laws about batteries, especially lithium based ones, the OSEE G7 does not come with any battery. It takes Sony NP-F batteries, or you can use a V mount battery to charge the monitor with the D-tap to DC in cable in the kit.

In my case, for the sake of this review, I used a cobbled together universal DC charger with adaptor that you can get just about anywhere (I went

to ***JayCar***) while I waited for a Sony battery to come from ***Better Batteries***. (You do get a power adaptor in the box, but no Australian "plug head" for it, just European and US).

For many pro shooters, I doubt this will be an issue of course, but for those entering this world for the first time, I think it is worth mentioning.

Now with that out of the way, let's

get back to the G7.

Technical Stuff

While the G7 does support 4K HDMI and 3G SDI I/O, the 7" monitor down-samples the display to a resolution of 1920 x 1200 in an aspect ration of 16:9 and contrast of 1200:1.

With a brightness rating of 3000nits, it can be seen in the open quite comfortably from our tests, but just in case things get a bit extreme, OSEE do include a foldable sun hood in the tin.

The available viewing angle is a useful 160° by 160° and the G7 is rated at working between 0° - 50° Celsius so you are OK for the moment at least in terms of global warming. You don't need to be a body builder to carry it as without battery it weighs only 450g.

For those right into techie specs, the input formats the OSEE G7 will accept are:

HDMI:

- 2160P30/29.97/25/24/23.98
- 1080P60/59.94/50/30/29.97/25/24/23.98
- 1080i60/59.94/50
- 720p60/59.94/50
- 480P60, 576P50

SDI:

- 2KP60/59.94/50
- 1080P60/59.94/50/30/29.97/25/24/23.98
- 1080i60/59.94/50
- 1080SF30/29.97/25/24/23.98
- 1035I60/59.94
- 720P60/59.94/50/30/29.97/25/24/23.98

Operational Use

The OSEE G7 has a number of interface options and buttons. As well as the HDMI in and out ports, SDI in/out, DC and headphone ports, there is a built-in speaker, SD card slot and of course, the battery bay.

The majority of these are on the back of the unit.

The major physical controller of the OSEE G7 is a small 5 - way joystick located on the front right-hand side (facing the unit) and this has a multitude of uses dependent upon the location, direction and amount of time the joystick is held in a specific position.

I'll get back to the joystick operation and what it can do in a second.

Built in tools include:

• *Anamorphic Desqueeze: It can properly restore the video shot by anamorphic lens. It can work with a camera without internal anamorphic de-squeeze to support 1x, 1.33x, 1.5x, 1.66x, 2x and 2x mag anamorphic lens.*

• *Super False Colour Exposure Assist: It supports powerful Super False Colour mode, including Under-exposure / Over-exposure / 18 degree grey / Skin tone indications, to help you to get a correct exposure easily. The exposure indicators are calculated for different cameras. You can select the following 16 log curves:*

SONY LC709, SONY LC709A, SONY S-Log2, SONY S-CLog3, Panasonic V709, Panasonic V-Log Original Image, BMD, BMD 4K, Canon C-Log2, Canon C-Log3, ARRI REC709, ARRI Log-C, RED RG3, RED RG4, RED LOGFILM, RED RL3G10

• *Waveform, Zebra, Histogram and Vector Scope exposure assist tools can help you get the right exposure even in difficult situations: Position and Opacity of Waveform, Histogram and Vector are adjustable. Waveform can be setting to Luma, RGB, Parade and Size even can be adjustable. Histogram can also be setting to Luma, RGB. Zebra stripes with level adjustment*

• *Red/Green/Blue Focus Assist, Peaking and Zoom: B&W Background is available.*

• *De-log 3DLUT & User 3DLUT upload: G7&T7 provides 30nos De-log 3DLUTS, including S-log2/3, V-log, Clog 1/2/3, Log-C, J-log1, RedLog, BMD, FujiFilm, GoPro, DJI etc to convert log mode to REC709 for all major cameras; User creative 3DLUT cube or calibration 3DLUT cube can be uploaded to G7&T7 by SD card. Max 16nos user 3DLUT*

Sunhood

Carrying Case

V-mount Battery Plate

Screw Articulating Arm Trestle

AC-DC Power Adaptor

D-tap to Lockable Pole DC Cable

- *HDR Function: Supports HLG/PQ HDR video display for field anad production.*
- *2ch Audio Meters and Speaker are available.*
- *Scale: Variable image re-size function is a plus.*

Operation

Just for the fun of it, I played with the OSEE G7 on three separate – and very different – cameras. First of was my day-to-day workhorse for out and about stuff on the go, a ***Panasonic WFX1*** camcorder connected to the G7 via mini-HDMI. It worked like a charm, but I wouldn't have liked to be using it without a tripod, in this case I used a Joby.

One thing I did have to do was reduce the volume output of the G7 as even with the internal mic of the WFX1 turned off and the audio set to line in (with no external mic added), there was noticeable feedback from the G7's speaker.

This leads me to another small point. In the carry case supplied with the OSEE G7 is a 4 page fold out Quick Start guide, but nowhere in their could I find the way to lower the volume of the G7s output.

Because of this, I highly recommend you go online and download the 77 page PDF full manual for the G7. (To change the volume level, you hold the joystick to the left for 3 seconds to bring up the Settings menu by the way).

And this is the key to understanding the operation of the G7. It is all in this joystick usage, and in some cases,

holding it in position for a few seconds.

The second camera I tried it was my ***Panasonic HC-X1*** "run-n-gun" / docco camcorder on a Miller tripod. This I took outside in bright sunlight and even without the sun hood, I could read and see the G7's screen clearly.

(Read our review of the Panasonic HC-X1 here)

For the 3rd camera, some might suggest this was a bit silly, but in truth, it was probably my favourite test; I used a ***Sony RX0 Mk II*** and the benefits were immediately obvious, and I refer you back to the opening words of this review.

I love the RX0 series from Sony, with the Mk II being the latest of course (review here). But the one thing I do not like about it is the menu system, primarily because on-screen it is so damn small and hard to read!

Read our review of the Sony RX0 MK II here.

Even when a smartphone is connected via wi-fi, unless you have a large screen smartphone or tablet, it is still a little hard on my eyeballs, but on the G7 it was brilliant! Sure, you are not going to cart a G7 around with you everywhere just for using on a Sony RX0 Mk whatever, or even a GoPro or DJI Action Cam say, but by crikey it is handy when setting the camera up or learning its functions.

But back to the G7.

Once you have worked out the nuances of the joystick / menu system, the G7 is easy to work with and set up the way you want it.

There are a pile of tools available that can be placed on screen for quick access including histograms, zebra, waveform, focus assist and peaking, and you can quickly add up to 8 custom scenes with various settings depending on your requirements. An image on screen can zoom to 2x or 4x and can be panned in all directions.

The monitor comes with anamorphic de-squeeze too with multiple options, such as 1.33, 1.5 and 1.66.

For fans of LUTs, there are built in files supporting general LUTs for ARRI, RED, Sony, Panasonic, Canon Blackmagic and Panavision, custom 3D LUTs and you can add three more of your own from an SD card.

Conclusion

At USD$1050, this OSEE G7 is very good value for the functionality you get. If you don't need the SDI option, there is a less expensive model the T7 or a smaller T5 for dSLR enthusiasts.

The attractive price might bely the fact these are designed for professional users. But make no bones; this IS a professional unit.

You can get more information from ***http://osee-dig.com/g7.html***.

You can buy product from ***www.oseedirect.com*** or email to Osee: ***sales@osee-dig.com***

Review: DaVinci Resolve 16

Just in case you are brand spanking new to the video editing world (hello and welcome if so), DaVinci Resolve is one of the stalwarts of the NLE packages available, along with AVID Media Composer, Adobe Premiere Pro, Final Cut X, Grass Valley EDIUS, Vegas Pro, Pinnacle Studio and Corel VideoStudio, and is somewhat unique.

You see, unlike its learned colleagues, it is free. Oh yes, there are other "free" NLE programs, but with little exception (and that probably being Hitfilm Express), the "free" programs are lightweight cutdowns of REAL editors.

And DaVinci Resolve, make no bones about it, is a real editor and has been since inception (2004), when it cost a small fortune and was head and shoulders above most video editor packages available at the time.

In 2009, Aussie company Blackmagic Design, famous for its range of TV switches, decoders, converters etc plus its excellent cinema cameras, stepped in, bought it and made it free, except for a an upmarket version called Studio which also includes features to create motion graphics, professional-grade audio editing tools and AI tools.

(Blackmagic applied this thinking to software called Fusion, a powerful visual effects and 3D compositing tool too, but that is another story we'll deal with in a later edition of Australian Videocamera).

OK, so what makes DaVinci Resolve so good?

DaVinci Resolve 16

As you'd expect, DaVinci Resolve lets you cut up clips and stick 'em on a timeline, apply transitions, tweak audio, add effects and so on. And it is famed for its Colour Correction toolset, probably better than any other package around.

And you can get it from Mac, PC or LINUX. Did we mention it is free?

But DaVinci Resolve's latest version has a few new party tricks up its sleeve as well. A good starting point here is the new Cut Page.

If you are an editor whose major work is news cutting or even TV commercials or other short form video, then speed is of the essence. What the developers of Resolve have done is let you import, edit, trim, add transitions, titles, automatically match colour, mix audio etc all in the one location using what they have called The Cut Page, an alternative to the standard edit window. The Cut Page has a new set of tools to

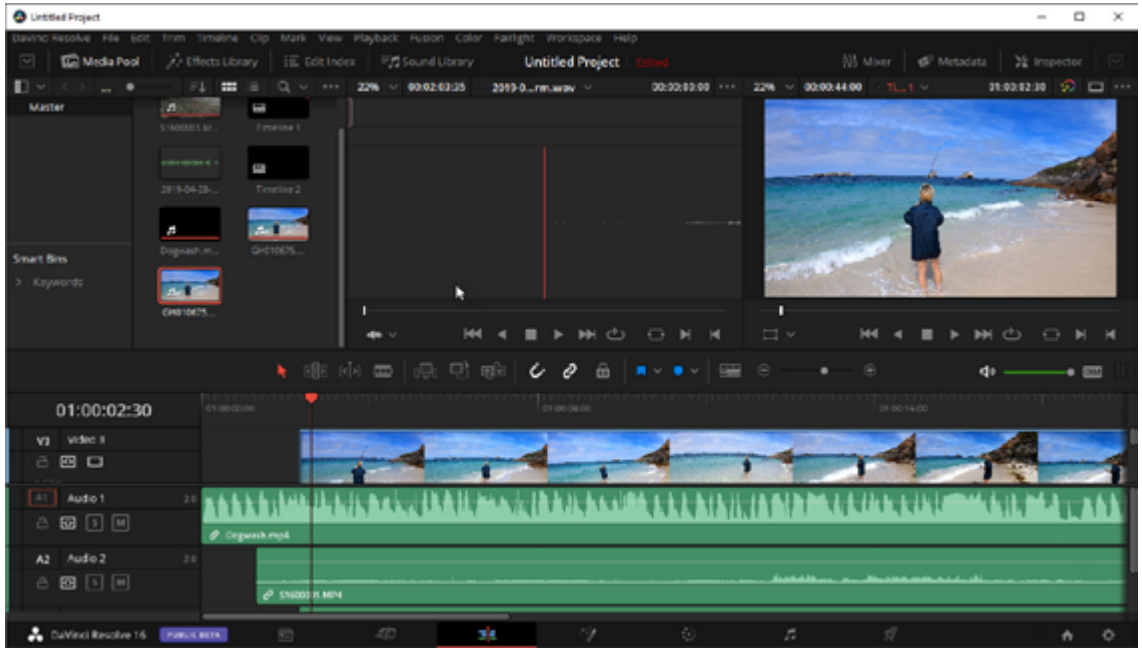
make life, well easier and faster.

Whilst it may appear that all that happened is a simplification of existing processes, in reality the Resolve boffins have looked at a different and better way of doing things.

So, what are these new tools is the next obvious question.

In the Cut Page, DaVinci Resolve 16 has combined several tools and workflow and made each of these available inside the Cut Page process. These groups are:

- Dual Timeline: letting you quickly navigate the whole edit and trim without wasting time zooming and scrolling
- Source Tape: Quickly review all clips in a bin as if it was a single "tape"
- Dedicated Trim Interface: Lets you see both sides of an edit and trim in frame accurate detail
- Intelligent Edit Modes: In the timeline the edit modes can intelligently sync clips and edits for you.
- Fast Review: Quickly review an entire timeline or clips with variable speed playback that's automatically set based on clip length.



The Original Edit Page

- Transform, Retime and Stabilise: Tools for picture in picture effects, retiming, stabilization, dynamic zoom, text, audio and more, all in one place
- Quick Export: Render, upload and share your project to online services such as YouTube and Vimeo.
- Media Import: Import individual files or entire directory structures with subfolders as bins
- Portable Editing: The interface is scalable and works well on smaller laptop screens

Other New Features

But wait there is more as they say (and I really wish they wouldn't)

Grouped under the separate categories of Editing, VFX, Colour Correction, Collaboration and "Fairlight" (more on this later), Resolve has another 30+ major new features / additions / updates that have been added to the old version 15 as follows:

Editing

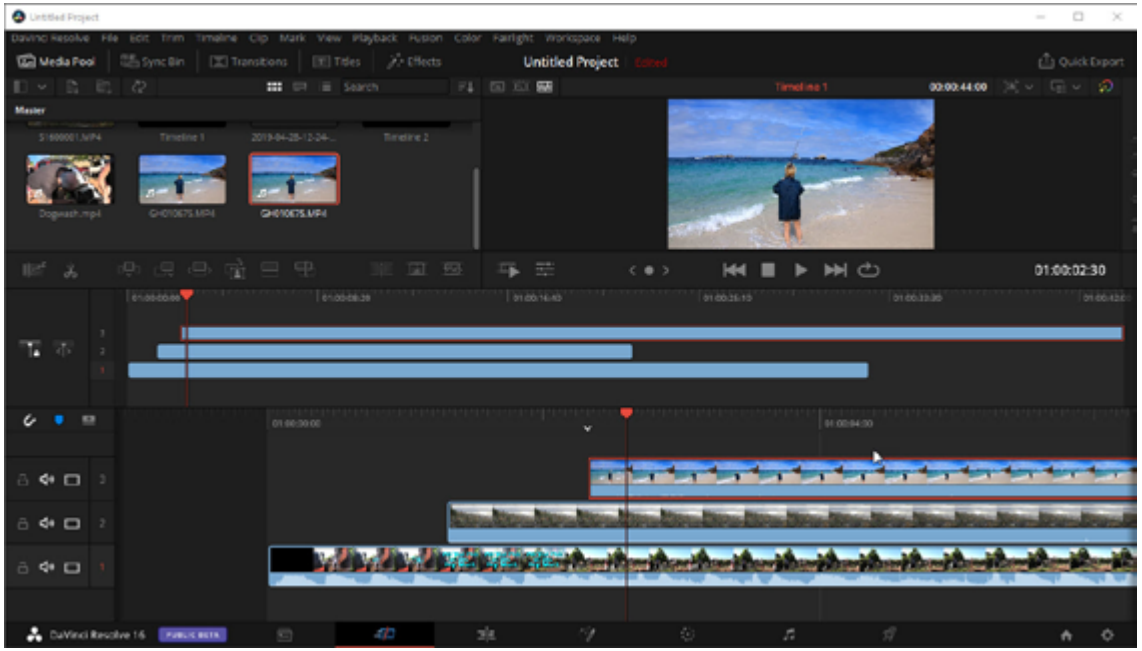
There is now the ability to customise different timelines settings such as frame rate, resolution and output all in the same project, there are colour adjustments that can be applied to a stack of clips in one operation, bins can be created using facial recognition technology plus improvements in stabilisation, keyframing, audio scrubbing, encoding and speed changes / retiming are all available.

VFX

In the VFX realm, 3D performance has been improved and GPU acceleration applied to dissolves, effects motion, pinning and time effects employed. Masking is now faster as is planar and camera tracking and the Resolve engineers have tweaked caching and memory management technologies.

Colour Management

As mentioned, DaVinci Resolve is famed for its Colour Management tools – indeed, a number of people prefer editing in Premiere Pro or Vegas or other NLE and still switch to Resolve simply for Colour Grading. Functionality has been improved here too, via better viewing and editing of keyframes, GPU accelerated scopes, updated histogram curves, auto colour balancing and much more.



The New Cut Page

Collaboration

Blackmagic claims that Resolve is the only post-production solution letting different people work together on the same project at the same time. (At time of release this may have been true, but Vegas Pro now allows this functionality too, albeit using a different methodology somewhat).

Markers can now be shared, each user has their own cache, a read only mode stops anything from affecting other users and with support for collaborative Dolby Vision and HDR10+ projects, each user has access to the SDR and HDR elements they need.

Fairlight

Fairlight and audio are synonymous in the world of sound. Fairlight originated in the 70s in Sydney and Blackmagic Design acquired the technology over the last few years. This has been integrated in Resolve giving high end audio post-production tools previously only generally found in top-of-the-range dedicated audio tools (AVID ProTools springs to mind here).

Designed for film and TV, you get a massive set of recording, editing, mixing, sweetening,

finishing and mastering tools all inside DaVinci Resolve.

Check the full specifications and differences between the two at Blackmagic Design's website

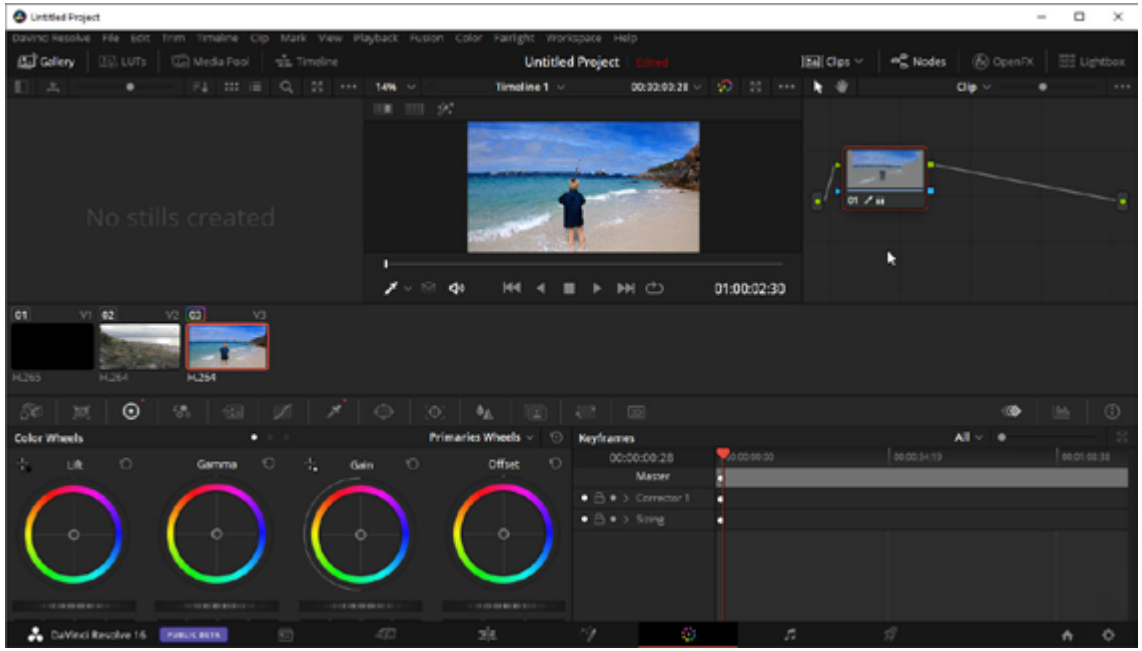
Conclusion

As a video editing system, DaVinci Resolve is brilliant. Considering the price, even for the "base" version, it is extraordinary. Whether you are a Mac aficionado, a Windows lover or prefer LINUX, you can get DaVinci Resolve up and running in minutes, and your existing NLE knowledge will quickly be able to utilise the Resolve Interface.

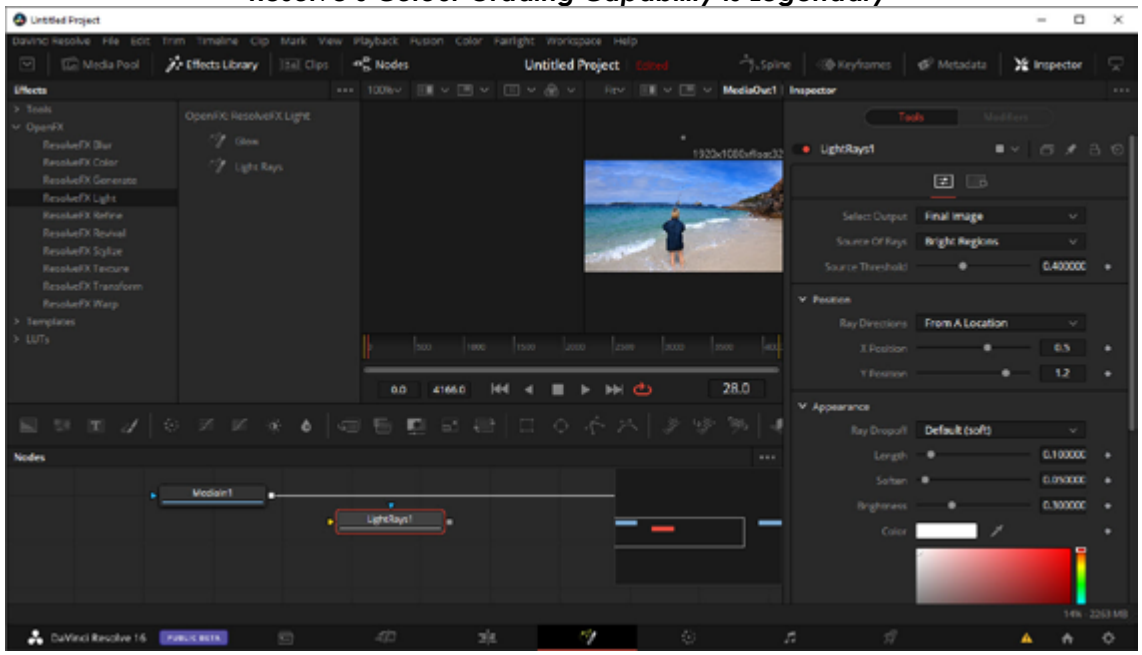
Sure, the new Cut Page system (if you decide to use it) may take a bit of a mind warp from the "old ways", but in practice for short form stuff, I find it to be easy, flexible and above all, fast.

If at Australian Videocamera we gave a star rating out of 5, Blackmagic Design DaVinci Resolve 16 would easily top the score.

Have a look at it – you have nothing to lose and everything to gain. You can download the free version by ***clicking here***.



Resolve's Colour Grading Capability is Legendary



A subset of Fusion is included for effects

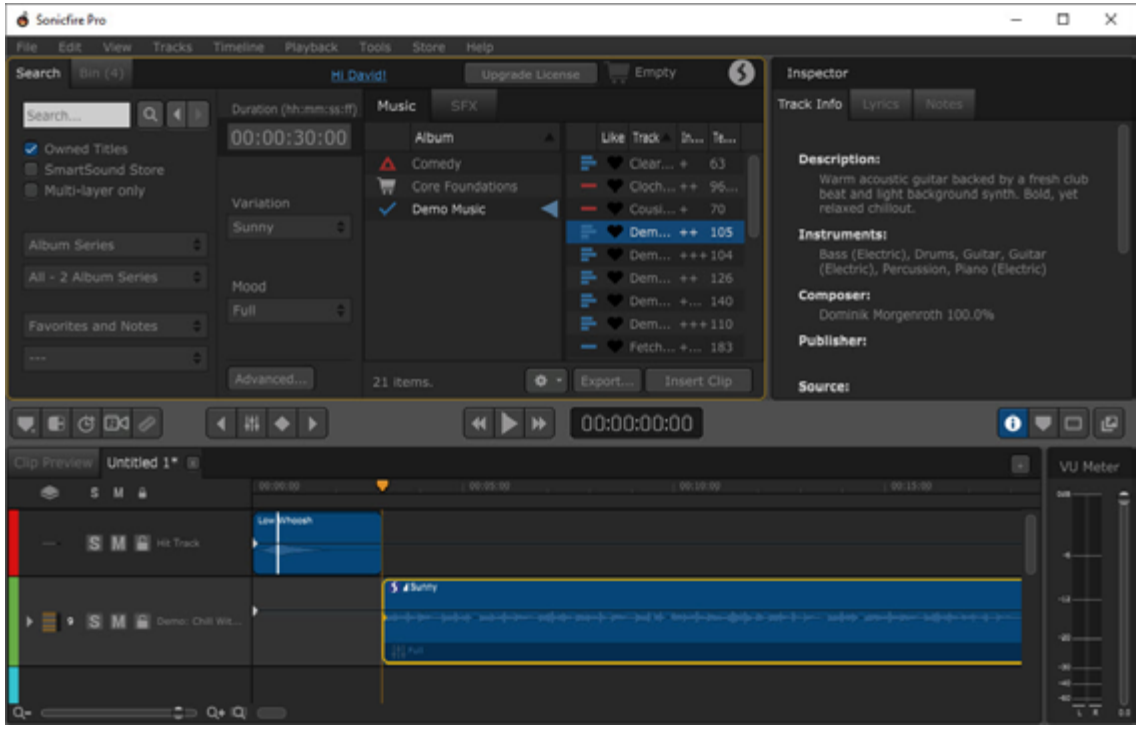
Every movie needs music.

Meet Smartsound Sonicfire Pro 6.4

We often bang on about how important audio quality is in any video project – unless you are making a silent movie of course.

But one area that we haven't touched on a great deal is that of music in video (as against a music video you understand).

Now I am lucky enough to have Jacqui by my side who is a trained musician and musical teacher and to boot an awesome composer. So, if I want a specific piece of music, I can ask Jacqui to put something together on her iMac using her fancy, shmancy keyboards and Apple's ProLogic software, and hey presto, more often than not, a short time later I have an original piece I can use.



If you look, Facebook film / video making groups and their like are full of requests for "where to get good royalty-free music" (which is often misunderstood as being simply "free" which of course it is not).

But there is another way.

And I like it a lot and have done so for many years. It is called Smartsound Sonicfire Pro, and a new update to version 6.4 has just been released.

Now on the surface, Sonicfire Pro looks like an app where you browse through a music / sound effects library previewing pieces until you find one you like, purchase it and

then download the full version and away you go.

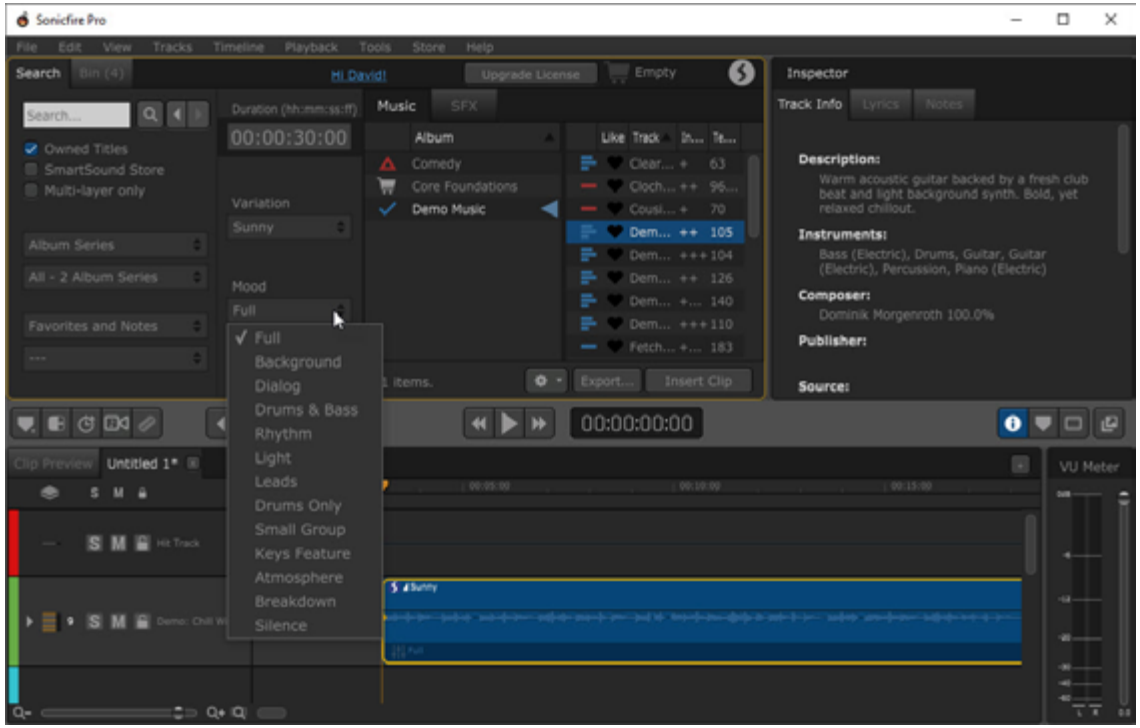
And if you think that is all it is, you are very, very wide of the mark trust me.

Let's look at a few of the special features of Sonicfire Pro 6.4 one by one.

Variations, Mood Mapping, Timing Control and more …

Integral to a lot of the functionality of Sonicfire Pro music / effects tracks is the way they are "built". You see, they are not simply an audio track; this is simplistic I know but think of each piece being built up in terms of blocks and layers with a block being a section of the music and a layer being an instrument or even group of instruments. This means that you have the ability to switch layers on and off thus changing what instruments make up a section – a block – of a piece.

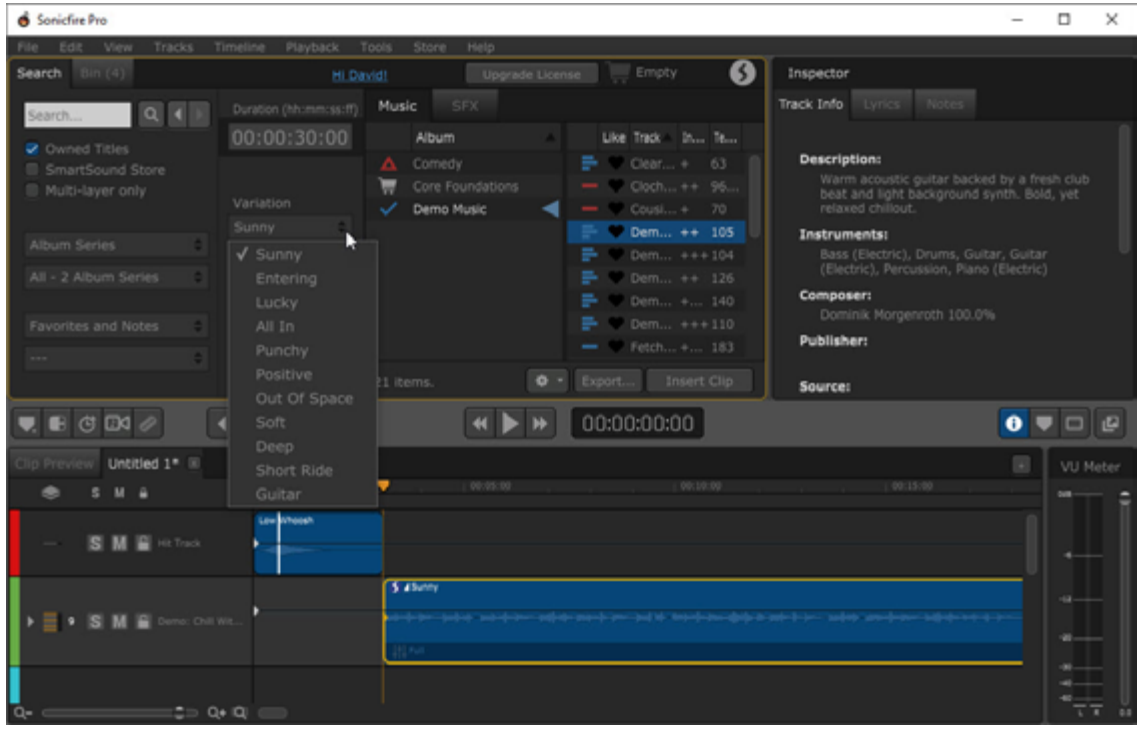
For example, you might want to have a piece of music play all the way through a scene, but at the start of it, only have a subset of the complete instrument collection in that piece playing. Perhaps the strings, or just the percussion. As the scene progresses, more and more are added to build to a crescendo.



To do this, Sonicfire Pro incorporates two systems – Variations where the style of music can be altered and Mood Mapping whereby you can select different "moods" from a piece of a music to play at a specific time, and switch between available moods in that piece at will.

Now that is clever enough, but you can also stretch or shrink a piece to match the length of a video clip without simply chopping the end of the piece off or having a fudgy sort of fade out. When you shorten or stretch a clip in Sonicfire Pro, it re-

Review: Sonicfire Pro 6.4 (cont)



tains its proper beginning and ending. You can even change tempo and it will still remain intact and the right length.

And no, I don't know how they do it either! But it's bloody clever!

Using the Timing Control functionality of Sonicfire Pro 6.4, you can even move the beats of a piece of music to match your video clip – as against the annoyingly bothersome and tedious "normal" way of having to edit the video clip to the music beat.

It is important to note at this time that the music clips available in the library for Sonicfire Pro is music from REAL musicians, not synthesised tracks. As I said, bloody clever stuff.

Spotting

Spotting is another fabulous feature whereby you can add markers signifying specific parts of a video clip or series of clips and use these to build up your musical accompaniment based on the tempo created by the location of the markers.

Let's say I have a series of clips that are related to my "thing", motor sport.

The first clip might be a logo, the second a talking head introducing the third clip, a video of a lap of Bathurst, a fourth clip a slo-mo or still of one of the cars or some action on-track, a fifth back to the talking head and then the final, the logo again with closing credits.

By placing markers at the beginning of each section, using the Spotting function, you can select all the clips and Sonicfire Pro will automatically

Review: Sonicfire Pro 6.4 (cont)

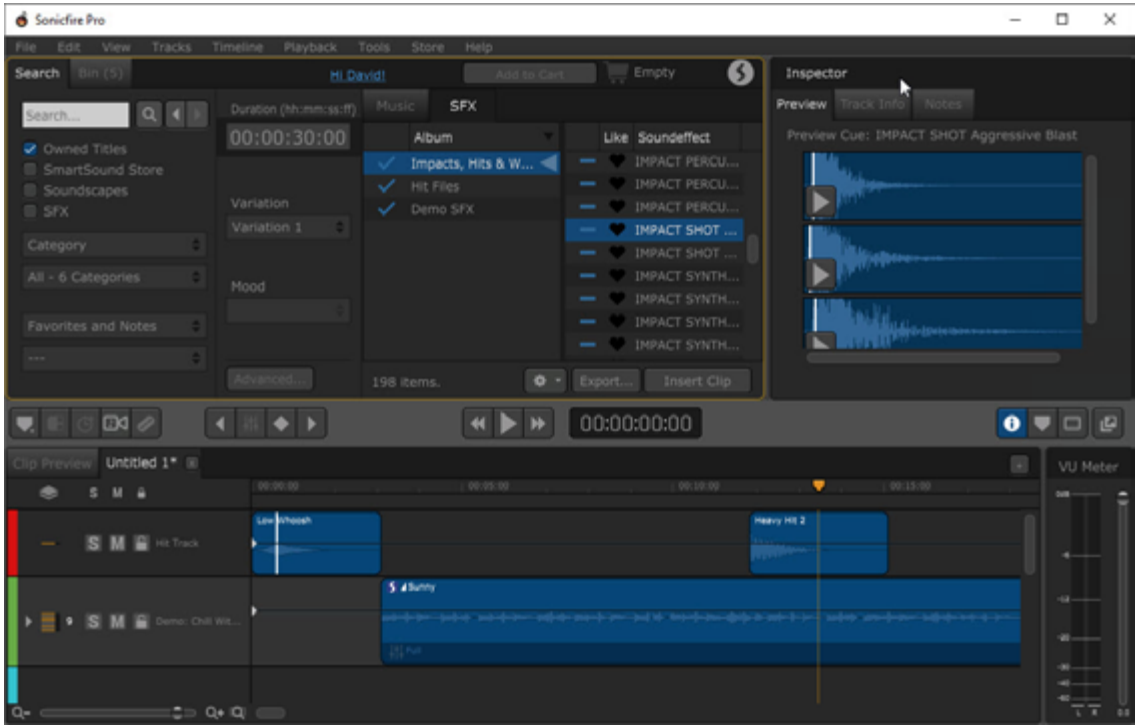
choose the most suitable beat to match the marker locations AND give you a choice of music from your library that suits!

Once you have selected a piece that matches, you can then choose from a list of variations to that piece.

Within the Spotting functionality, you are also able to set in and out points using the markers and match different pieces of music to the area between any number of markers. This is explained beautifully in one of the great tutorials Smartsound has in pace to learn Sonicfire Pro, and these are all available at ***https://www.smartsound.com/support/tutorials/scoring-tutorials***.

Hit File

One of my favourite features is the "Hit File". This is an inclusion of a sound effect and the best examples I know of (in my sphere) are used in the TV shows Top Gear and The Grand Tour when they do the slow panning and dollying around close



ups of the cars. A hit file is used when for example, suddenly the headlines come on and there is an audible whoosh or bang (or similar) in conjunction with the soundtrack.

Sonicfire Pro makes it dead easy to create these standalone or as part of an overall soundtrack.

Smartsound has a whole bunch of tutorials online and I would recommend looking at the tutorials just as a matter of course, as seeing what can be done is far better than any review such as this can simply explain. Plus of course you can download the free version and the sample tracks that come with it and

Review: Sonicfire Pro 6.4 (cont)

simply play along (you get 21 days full access to the full version with the freebie too).

Nor does it matter if you are Mac or PC as Sonicfire Pro is available for both platforms.

Version 6.4

The latest version has had a huge makeover of the interface primarily, with what I found as niggly issues in earlier versions being fixed.

Some of the earlier updates looked like they had been tacked on to the existing interface for example as against being smoothly and seamlessly incorporated into the overall workflow as they are now.

The listing of albums and tracks has been improved as too has the search functionality. Purchases from the music / effects store can now be done directly from the main UI as well. Speaking of effects, multi-layer effects have ben introduced allowing variations of an effect inside a single file.

Finally, 64bit support is now standard.

And let's face it, if you have used Sonicfire Pro pre version 6, the "old" interface did look dated.

Conclusion

There is a lot of satisfaction in using music you have created yourself, but let's face it, some of us are musically challenged – and that is putting it kindly.

In these circumstances, Sonicfire Pro 6.4 is the next best thing, and lets you become almost a proper music editor without knowing a beat from a bollard or a quiver from a quaver in most cases.

If you are a muso, there is a place for Sonicfire Pro 6.4 too, as sometimes, with all the best will in the world, the creative juices are just not there or we simply don't have the time.

Have a play I say! I think you will pleasantly be surprised at what the muso and non-muso alike can achieve in a very short space of time.

Sonicfire Pro can run as a standalone application or it also functions beautifully as a plugin for Adobe Premiere Pro, Vegas Pro and Final Cut X.

We'll be running a tutorial on using the basics of Sonicfire Pro 6.4 in a future edition of Australian Videocamera, and it will also be on our website so stay tuned!

For more information and a free trial, go to ***www.smartsound.com***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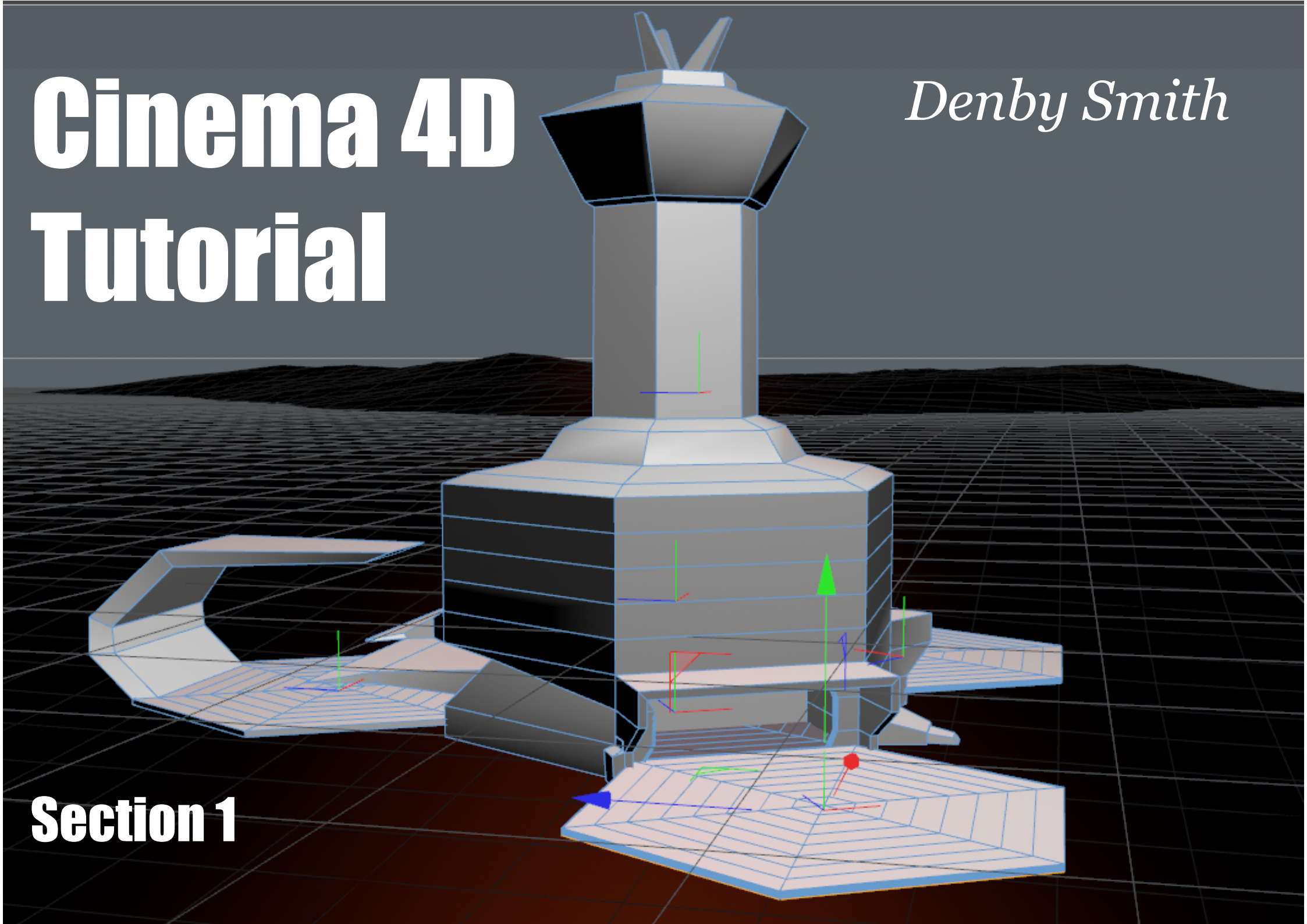
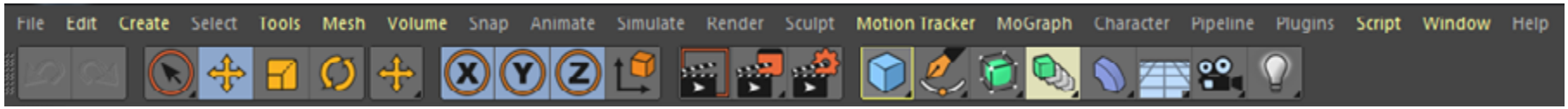
Final Cut Pro X,
Skylum Aurora HDR,
Adobe Audition and Photoshop CC.

Cinema 4D Tutorial

Denby Smith



Section 1



Interface, Navigation and 3D Basics

Here is the very first hands on piece in our monster Maxon Cinema 4D tutorial by master artist, Denby Smith.

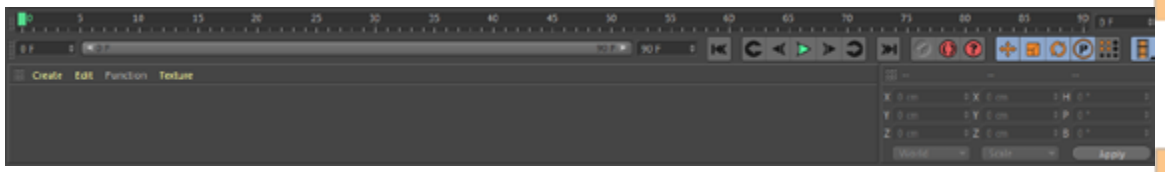
To follow along if you don't have a copy of Cinema 4D, you can download a fully working trial version for Mac or PC at **www.maxon.net.**

The Interface

Starting from the top, we have the usual menu bar featuring File, Edit, etc. but we also find a host of menus for accessing tools and options specific to C4D such as 'Simulate' and 'MoGraph'. Immediately below this we find the C4D tool bar, home to Undo/Redo, main object manipulation tools; Select, 'Move, Scale and Rotate'.

Tools for generating and deforming objects as well as generating lights, cameras and environments are located here. Down the left-hand side are modelling selection mode options, which we will get into further as we progress. Along the lower portion of the screen are the animation timeline and options as well as the material editor for creating and customizing textures.

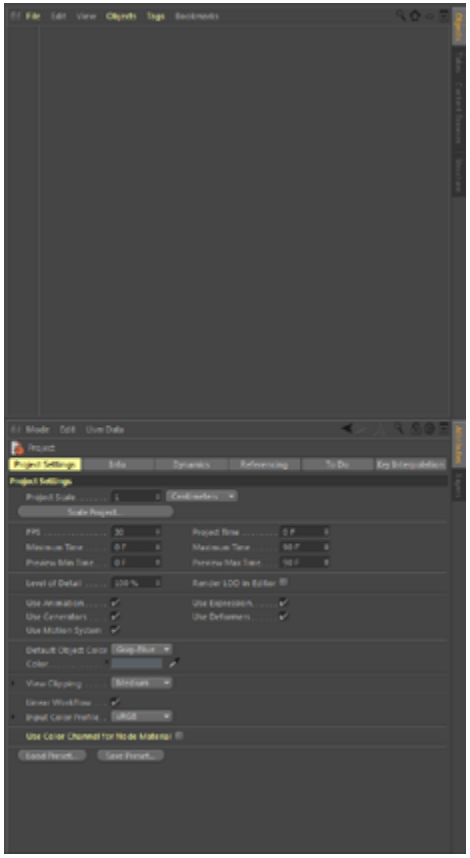
2.Animation, Materials & Coordinate panels (Figure 2)



And the main coordinate panel, to the right, which gives coordinate details of any selected object. Now, down the right-hand side are the main information panels within C4D, both feature tabs down the right-hand side, but we will explore those a little later. The top window contains the object panel, as you create and add items to your scene they appear here. Below is the attribute window where you will find details of object, material, effect, animation, in fact any and all attributes within your C4D scene.

Cinema 4D Tutorial: Section 1 (cont)

3. Object & Attribute Panels



At start up this panel displays your 'Project Settings' and defaults to 30 FPS, so go ahead and change this to 25 FPS (if you are in a PAL region).

Throughout C4D you can either enter values into the dialogue box or click the up / down arrows to change values incrementally or click and drag the arrows to scroll values.

Finally, that big panel in the centre with the grid… That's your workspace, the navigation panel. The other thing we should do is to enable text descriptions for toolbar icons. Right click on the toolbar and hover over 'show' then select 'text below icons' from the menu. This will help when getting familiar with the interface.

4. Toolbar with text description

Finally go up to the options menu and select 'display' and set it to 'Gouraud shading(lines)' to see a bit more of what going on once we start modelling.

Speaking of navigation, how do we move around in the 3d environment?

In C4D you use 'Alt' all the time and there are a couple of options for how navigation works but let's stick to the default 'Object Mode' for now.

Hold 'Alt' while holding the Left Mouse button and drag to rotate the view around the object. Alt plus Right mouse button and drag to zoom in and out. 'Alt' plus the Centre (wheel) button and drag to Pan the view. It can take a little while to get used to moving efficiently around a 3d scene, but you will get the hang of it before long.

Now, let's jump into it!

To get started let's create a 3d shape or what's called a 'Primitive', a premade geometric shape, by either selecting 'Object' from the 'Create' menu or by clicking on the cube icon on the main tool bar, click and hold to reveal more options but just choose the cube for now to keep things simple. It will appear in the 'Naviga-

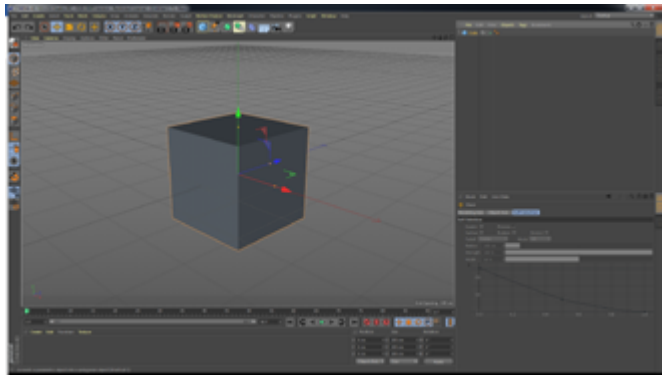
Cinema 4D Tutorial: Section 1 (cont)

tion' window but also in the 'Object' and 'Attribute' panels on the right.

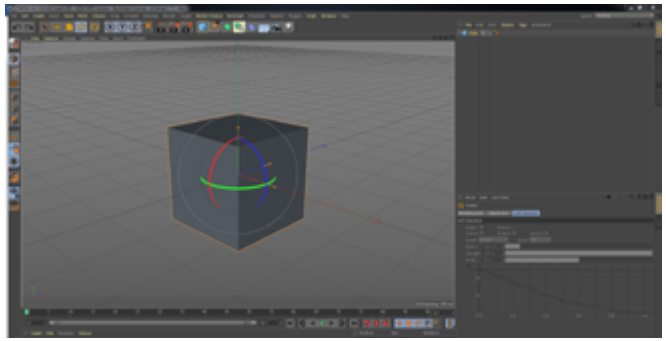
***Tip**: In C4D whenever you select something, whether it's an object or menu item, the 'Attribute' panel will display details for that item automatically.*

You will also notice Red, Green and Blue arrows pointing out from the centre of the cube. These are the object control handles and represent the object's axes. In a 3D scene, an object's 'Position, Scale and Rotation' are defined by coordinates of three axes. These are named X (red), Y (green) and Z (blue), with X being the Horizontal plane, Y being Vertical, and Z being Depth plane. The values of these axes are displayed in the 'Attribute' panel under the 'Coord'. Tab and presented as Position (P), Scale (S) and Rotation (R). When a new object is created it is placed at default the coordinates 0,0,0.

5a. Object Axis Control Handles – Move Tool



5b. Object Axis Control Handles – Rotate Tool



Select the 'Move' tool using the icon on the C4D toolbar or simply hit the keyboard shortcut 'E'. Options for the 'Move' tool will now be displayed in the 'Attribute' panel, but we want to see attributes for our cube, so select the cube directly or in the 'Objects' panel above to display the cube's attributes. Now click and drag one of the cube's axis arrows. As you drag the cube you will see its coordinate values change in the attribute panel and that movement in one direction results in positive values while the other direction results in negative values, this is because the object began life at zero and represents the basis of how we describe objects in potentially infinite 3D space.

Tip: *There are two ways of looking at coordinates and it is important to get to understand them early on. One*

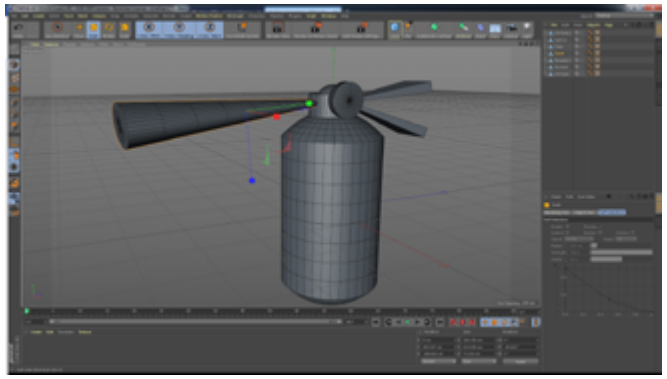
Cinema 4D Tutorial: Section 1 (cont)

way is 'Local' or 'Object' coordinates which are unique to an object in relation to itself, while the other is known as 'World' or 'Global' coordinates and can be considered 'true' coordinates, where X Y and Z remain constant. There is more to cover here but for now let's start making stuff.

The world is made up of shapes and if you look at anything you can start to break it down into its basic shape elements. 'Primitives' are a great way to start creating things and there are plenty of shapes available from the toolbar. An exercise I did in my first lesson, was to look around your office or wherever you are and pick a simple object that you would like to recreate.

The first thing I made was a rather crude looking fire extinguisher, which I have recreated here for your enjoyment. Now have a look at the object and isolate what shapes make it up, then have a look in the primitive menu and bring in whatever you think you will need. For example, the fire extinguisher consists of 2 Oil Tanks, 1 Sphere, 1 Tube, a Cone and 2

Pyramids. By default, all objects will be created at the same place (0,0,0) and overlap in the 'Navigation Window' but just move them across so you can see them all. Pick whichever shape forms the main body of your object and begin placing the others around it in the right positions using the 'Rotate' and 'Scale' tools to get the proportions and orientations right. With a bit of back and forth you should be able to create something resembling your real-world object and never be afraid to delete it all and start again.



6. Fire Extinguisher constructed with Primitives

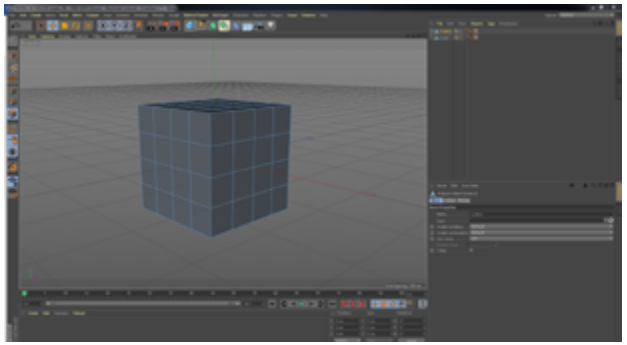
So, Let's take a closer look at an object. Save or delete everything in your scene and create a cube. First let's make the cube editable. Click the top icon on the 'selection modes' toolbar (left). We are currently in the 'Object' selection mode, so from the 'selection modes' toolbar select 'polygons' mode. Now when you hover over the cube you will see each face becomes highlighted. In solid 3d modelling terms, these flat surfaces are called 'Planar' and referred to as 'Polygonal Faces' or just 'Polygons' or 'Faces'.

Cinema 4D Tutorial: Section 1 (cont)

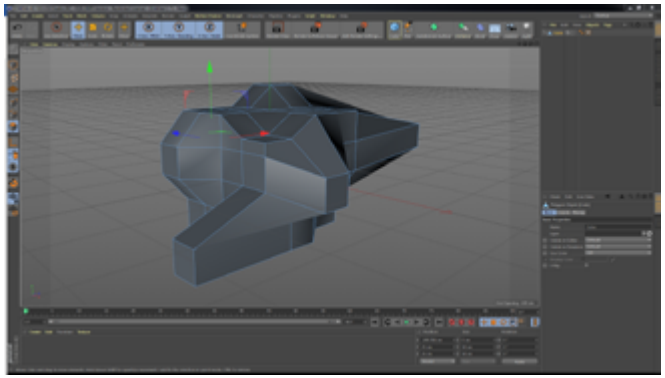
7. Selection Modes Toolbar

So, select a face and just drag the move tool and see how the polygon deforms. To make it a bit more interesting delete the cube and create another. Now in the attributes panel go to the object tab and increase the number of segments for each axis to around 4. Note that this step can only be made before the object has been made editable, although there are more advanced ways to do it. Now make it editable and go to polygon mode and start pulling faces around. You'll see you can start to create some interesting results quite quickly and congrats, you are now 3d modelling.

8. Cube showing division segments

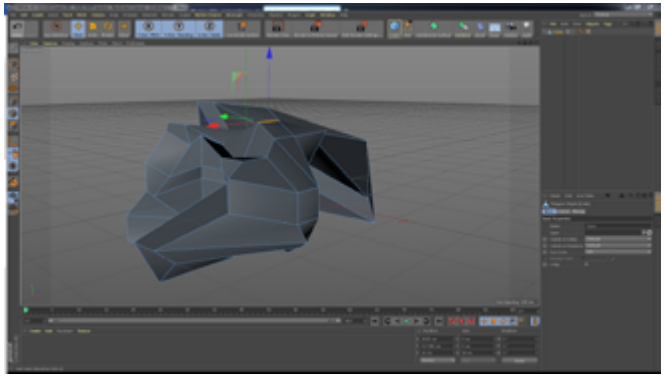


9. Modelling Cube using Polygon Faces



There are two other ways of selecting and modifying objects in this way and together they are incredibly powerful and form the core technique of 3d modelling. From the selection modes toolbar select 'Edges' mode, which allows you to select the lines connecting polygonal faces, experiment with selecting lines and manipulating them with the Move, Rotate and scale tools. Move your view around the object and see what the results look like from different angles. Go nuts.

10. Modelling Cube using Edges

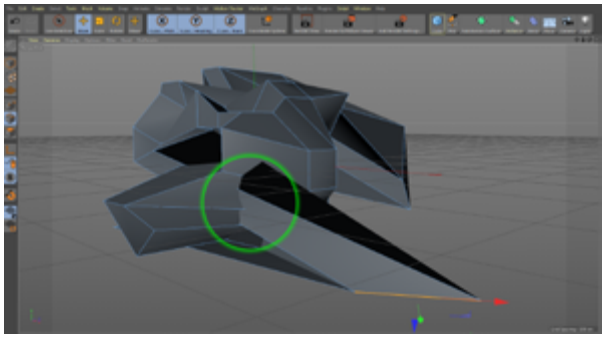


Depending how extreme you go, you'll probably notice that things can start to become a bit of a mess at this point. It becomes increasingly easy to start pull faces and lines through each

Cinema 4D Tutorial: Section 1 (cont)

other with odd results (see picture). This is a big 'No-No' in 3d modelling as it wreaks havoc on steps later in the process. So how do you fix it? Well the best way is to avoid it by exercising caution and awareness as you go. A good 3d model depends on being a complete set of boundaries.

11. Example of Bad Geometry

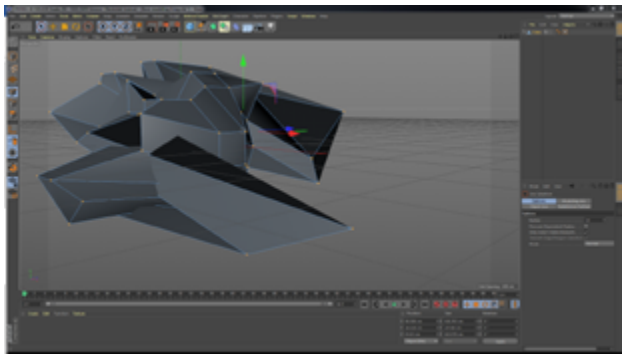


The third 'Selection Mode' is the most powerful, the 'Points' mode. Points mode is like the fine control giving access to the fundamental building block of all 3d geometry, what's called a 'Vertex'. A Vertex is a representation of a point in 3d space and it is by connecting these Vertices with lines that a polygonal face can be calculated. So, select 'Points' mode and see that now the vertices are highlighted. Again, have a play around manipulating vertices and looking around, getting a feel for the results. Note that manipulating individual Vertices (Vertex Wrangling) can be a way to correct bad geometry created by mistake but it can be painstakingly tricky, and you may find yourself digging the hole deeper. So, always best to avoid.

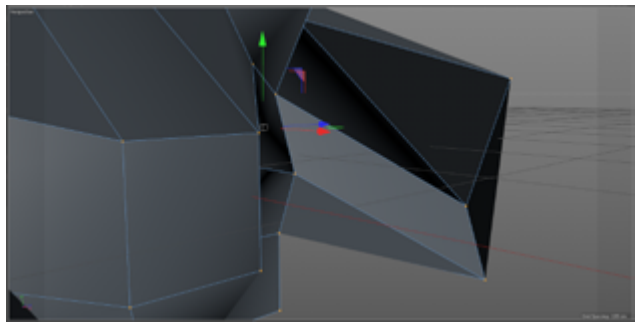
12a. Modelling Cube using Points or Vertices

12b. Close up of Points

So that's an overview of the interface and a look at how we go about manipulating elements of an object. Spend some time experimenting with the set of basic primitives and get creative using the different



selection modes, see what interesting shapes you can come up with. Also, try recreating some real-world objects, stick to ones you can see from your workspace so you can reference it as you go. In the next edition we will look at some handy tools and get started on creating our sci-fi scene.



Happy modelling!

Shooting VR / 360 ° Footage

It's different to "standard" footage. Here's some tips.

Shooting 360° video requires approaching a project from a totally different mindset than "traditional" video.

The main difference is obvious – there is no specific focal point as the lenses are capturing everything, and this is where the majority of problems stem from of course.

Not in any necessary order, here are some of the things you need to be aware of and some possible "fixes" and suggestions.

1. One of the biggest issues of 360° / VR is the inescapable fact that it makes some people feel physically ill. Now I am no scientist or student of the mechanics of the brain, but I am willing to bet the crux of this is to do with motion. Anyone who has ever suffered from seasickness will know instantly what I mean. For this reason, make sure you don't – EVER – walk around with a 360° camera doing handheld shots. You might get by with a gimbal, but the surest way to get steady footage is to use a tripod at all times. Which leads us neatly into …

2. *As a 360° camera picks up almost everything, if you are tripod mounted then it's pretty certain that imagery of the tripod will end up in the footage you shoot. This is Not Good. The way around this is to use a light stand as against a full on tripod which obviously has the assorted levers and things hanging of it. But why not use a monopod you ask? Because …*
3. *If you are holding a monopod, then YOU will end up in the shot and this is usually not the way you want the footage to look is it? Generally, when shooting 360° video, you need to be out of sight of the camera to get clean footage. But, you say, how can I then know what I am shooting? Well …*
4. *Make sure the camera you purchase has an app for your smartphone or tablet. We use* **QooCam**, **VUZE** *and* **Ricoh** *cameras which all offer this functionality letting you control the camera and see what is in "frame" so to speak (although of course the "frame" is a sphere not a rectangle as there are multiple lenses getting specific areas of the whole scene and these are then "stitched" together which …*
5. *… can also cause issues as sometimes, depending on the scene, the "stitch" can be seen and if there is an object in that stitch line, it can appear distorted or fuzzy. The antidote (as much as possible) is to shoot some footage while you walk around the camera and then render that footage out so you can see if and where there are any stitch line issues. As these cameras mature, along with the relevant software, thankfully this is becoming less and less of a problem, but it is wise to be aware of it along with another issue with 360° camera lenses and that is to …*

Shooting VR / 360 ° Footage

6. *… make sure your lenses are spotless with no smudge marks. Yes, I know we habitually do that with cameras and camcorders, but 360° camera lenses tend to protrude and bulge outwards, so are more susceptible to a random finger mark.*
7. *Speaking of which, 360° footage means big file sizes so make sure you have adequate capacity SD cards installed and on hand. You'll also want the fastest cards you can buy by the way. Less than stellar transfer rate cards may cause the camera to stop recording without warning.*
8. *Despite the fact that most 360° cameras shoot in 4K (or higher), due to the nature of the beast, it is highly unlikely that you'll have the same quality of footage as you'd expect from a 4K camcorder or dSLR / mirrorless by the way. That's just the way it is at present, but again, the quality is getting better and better as the technology improves.*
9. *Actual camera placement is also important with 360° shooting. Generally, you'll want to have the camera shooting at eye-level so the viewer feels comfortable. Having it low down can make the viewer feel small. Unless of course you are filming the lifestyle of a frog from its viewpoint or something in which case all rules are thrown out. But you get my drift.*
10. *It also makes no sense to have any object / subject closer than a metre from the camera. It will just look distorted.*
11. *And finally, there is of course audio. As the scene is coming from "all around", special attention has to be made with audio to get a decent ambience to it. For speech, a clip on mic is suggested, We like the* ***Sennheiser Memory Mic*** *for this sort of stuff or at the higher end, the* ***Sennheiser XSW-D*** *digital wireless mic system. For ambient sound, the* ***Sennheiser MKE400*** *will admirably do the job although if you have the bucks to spare, the MKH series can't be beat. And for SERIOUS VT Stuff, the* ***AMBEO VR mic*** *is just the pinnacle of course!*

Footnote:

A great place to put your 360 footage for others to see or for you to share is ***Momento360***.

Its free for most options too. We edit ours in ***Vegas Pro*** before sending it there.

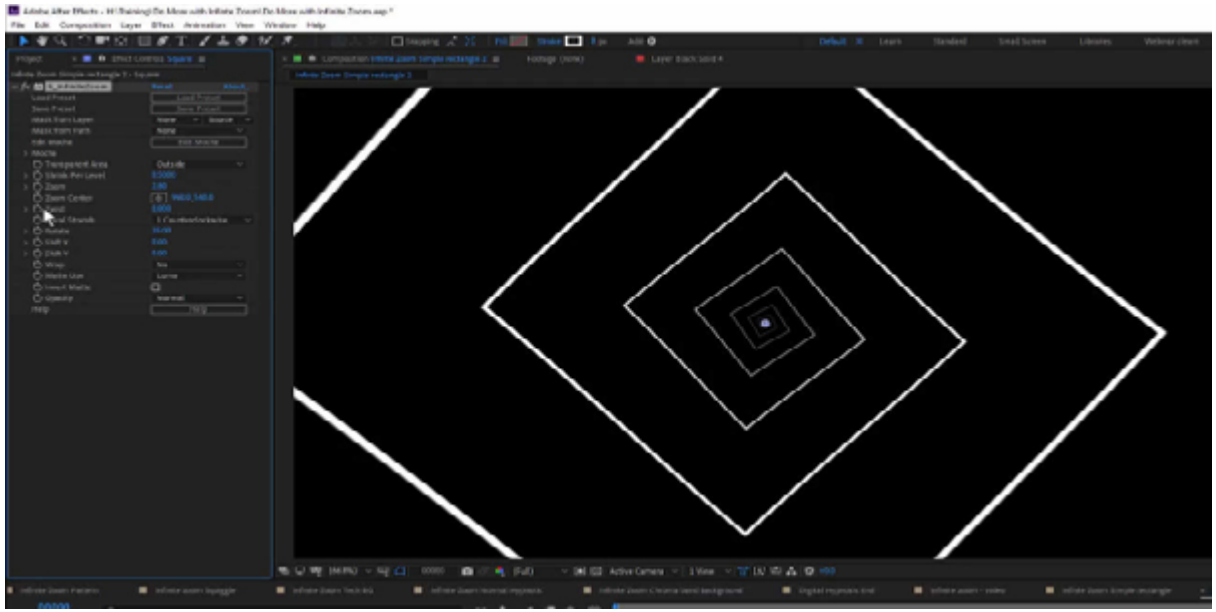
There are hundreds and hundreds of plugins available for editing systems and motion graphics packages.

Many are for special effects, others for image correction and some for specific tasks such as 360 / VR creation.

Each month we intend to highlight a single plug-in and show you what it does. Hopefully may grab your imagination and tease you into having a play with a trial version.

Here is a brief list of some of the more well known plug-ins:

- *Universe*
- *Sapphire*
- *Mocha*
- *Spicemaster*
- *NewBlue Video Essentials*
- *PluralEyes*
- *Smartsound*
- *Magic Bullet Looks*
- *Mercalli*
- *Knoll Light Factory*
- *Element 3D*



Sapphire Infinite Zoom

This month we look at Sapphire Zoom from BorisFX. Click the image above to play the video. If the video will not play in your browser, ***click here***

In this tutorial, you see how to create a number of different styles of projects, including motion backgrounds and title. Small changes to a few parameters can make a huge difference to the end result. Get inspiration on which filters to combine to get the effect you want.

- 00:27 / Starting with a basic shape
- 05:59 / Working with masks and Mocha
- 08:55 / Small changes make big differences
- 10:41 / Motion backgrounds from a simple Laser Beam
- 12:01 / Flyover background from a letter
- 14:11 / Keyframed animation with text titles

To find out more about BorisFX and Sapphire, click ***here.***