



Ambience Entertainment and iQ make light of HD

Tokyo Motor Show spectacular comes
together with Quantel's hi-res powerhouse

Ambience and Quantel



The post production business is changing. Even at the high-end it's no longer just about standard definition commercials and productions. Post houses and their customers are busy developing new applications, often mixing a number of resolutions in a single production and demanding results in a wide range of differing formats. A project completed on iQ by forward-looking Australian post house, Ambience Entertainment, for the Toyota Motor Company, is a superb example of the kind of demands made on post houses today.

The challenge

The biannual Tokyo Motor Show attracts a massive two million visitors. Being in the heartland of many of the world's largest motor manufacturers, it naturally provides one of the industry's most important launch platforms for new models and new concepts – none more so than for Toyota. Not only does Toyota have more than 40% of the home auto market, it is also Japan's largest company.

The unveiling of the new Toyota prototype 'FXS' car at the show therefore demanded the full treatment: big, innovative and exciting and Toyota called in one of Japan's largest advertising agencies, Dentsu Inc. The car manufacturer wanted a concept and execution to convey the excitement and attributes of the new car to the thousands of visitors who come to the Toyota stand every day. Dentsu in turn brought in Australian post and special effects house Ambience Entertainment.

Ambience Entertainment

Based in Crow's Nest, Sydney, Ambience Entertainment is one of Australia's leading post operations. More than a facilities house, Ambience Entertainment centres its operations around its strong design background, its expertise covering everything from broadcast design and animation, to feature film work, with particular skills in the effects area. With a Henry® Infinity and HAL® already on the equipment roster, Ambience Entertainment has long had a close relationship with Quantel – hence they were already well aware of iQ's capabilities when scoping the Toyota project.

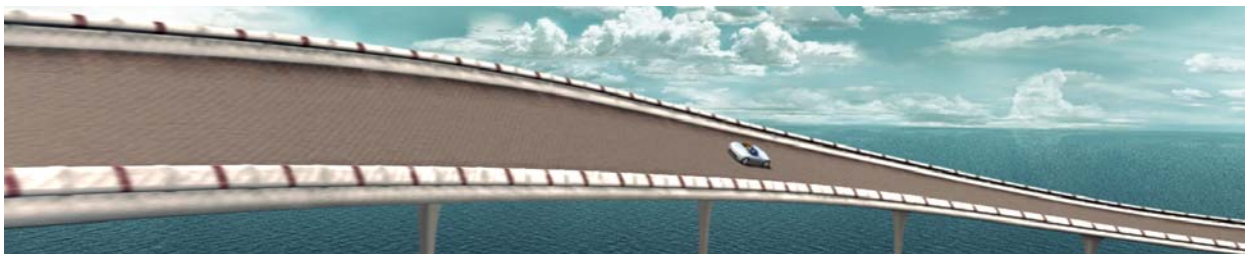
Together, Ambience Entertainment and Dentsu designed the look and content of the piece, storyboarding, scripting and mapping out the various scenarios. They came up with a three minute visual extravaganza to give the stand visitors an amazing virtual 'trip' in the new car.

The product

The story begins inside Toyota's R&D lab where the 'pilot' climbs into the prototype car (codenamed FXS) inside a holographic dome. The action then switches from the lab and follows the car from the pilot's viewpoint through a virtual world full of excitement and hazards, encountering and overcoming them all with flying colours.



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The whole sequence – projected onto a 12 x 3m screen at the motor show – was designed at a 4:1 aspect ratio to give the feel of looking through the car’s windscreen. The format and sheer size of the projection screen demanded that the production be carried out in HD to give a high quality result on-screen. The icing on the cake was that the whole production would be 3D stereoscopic to take the audience right into the virtual Toyota world. Viewers were supplied with polarising 3D glasses.

The execution

The content itself is a mixture of CGI and live action, brought together at 1920 x 480 pixels to give the final 4:1 aspect ratio. ‘It was effectively an HD job,’ says Ambience Entertainment Head Producer, Pat Egerton. ‘You can’t really shoot at 4:1 – composition would be a nightmare, so by making it an HD job there was enough horizontal resolution for it to look ‘schmicko’ (Australian for ‘good!’) on a 12 x 3m screen.

‘With each frame running at about 6MB of data, though, we faced a daunting prospect in actually putting the job together,’ Egerton continues. ‘That’s where iQ came in – it’s got the grunt to handle HD in realtime – we’d have been pretty dead in the water without it.’

iQ acted as the centrepiece of the production effort where individual elements were brought together as they were completed, and dropped into the animatic previsualisation timeline on the iQ edit desk. Thanks to iQ’s Resolution Co-existence™, mixing HD video freely with computer file format CGI imagery was a simple task. ‘It meant we could easily review the job at any moment at full resolution, to check the look and quality. Basically iQ did an assemble edit job for us – a sort of visual compiler. Being able to see the whole job together at full quality also enabled us to do some finessing to individual shots while ensuring a consistent grade across the entire piece. Without iQ our only speedy way to view the whole edit was by rendering MPEG2 clips at NTSC resolution. While this was perfect for sending to Japan for approvals, it was obviously not ideal when trying to assess a job that will ultimately appear on a 12m screen!’ says Egerton.

And now in stereo...

The iQ also came into its own in the stereoscopic production process. Some of the scenes were rendered in-house at Ambience Entertainment as left and right eye – ie the same scene rendered twice with the camera offset. Others were sent to DDD in Perth who used the Z-Depth matte to create left and right eye feeds. As the results came back from DDD they were imported into iQ as a background process from a file server. Assembly work was able to begin as soon as the files started arriving, dropping them into the visualisation timeline at the appropriate point and instantly reviewing the result.

After final assembly had been completed for both left and right eye views, each was individually colour corrected on iQ, and then compiled together on iQ to check for synchronisation. In order to create a back-up dub on HDCAM, each 1920 x 480 sequence was composited over 1920 x 1080 black (this also allows viewing on a standard HD monitor). The finished piece was delivered to Japan as 1920 x 480 data on AIT2 tape (at 30 fps). In all cases, iQ was able to handle the conversion of material to the required format at output, on-the-fly.

The result

‘A complex job like this is all about workflow just as much as creativity,’ says Pat Egerton. ‘iQ made it easy to assemble and view the material in all its various formats as the project came together. This is something that we would have seriously struggled to do any other way, especially given the very short timescale in which we had to work. It also made the whole approval process much more streamlined, both in-house and remotely. Reviewing the job at full resolution and being able to go instantly to any point in the timeline is a must for this kind of production. And even part way through post production it was no problem to offload some sequences and send these to Japan for projection testing. This could be done using the actual equipment destined for the Toyota stand at the Motor Show – a DVS disk recorder and 12,000 lumen Panasonic 9600 projectors. It all added enormously to client confidence.

‘iQ helped to make this complex project manageable. It has great potential – it’s got the grunt, it’s stable and Quantel provides first class support too – but it’s iQ’s speed that sets it apart.’



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Thinking Together



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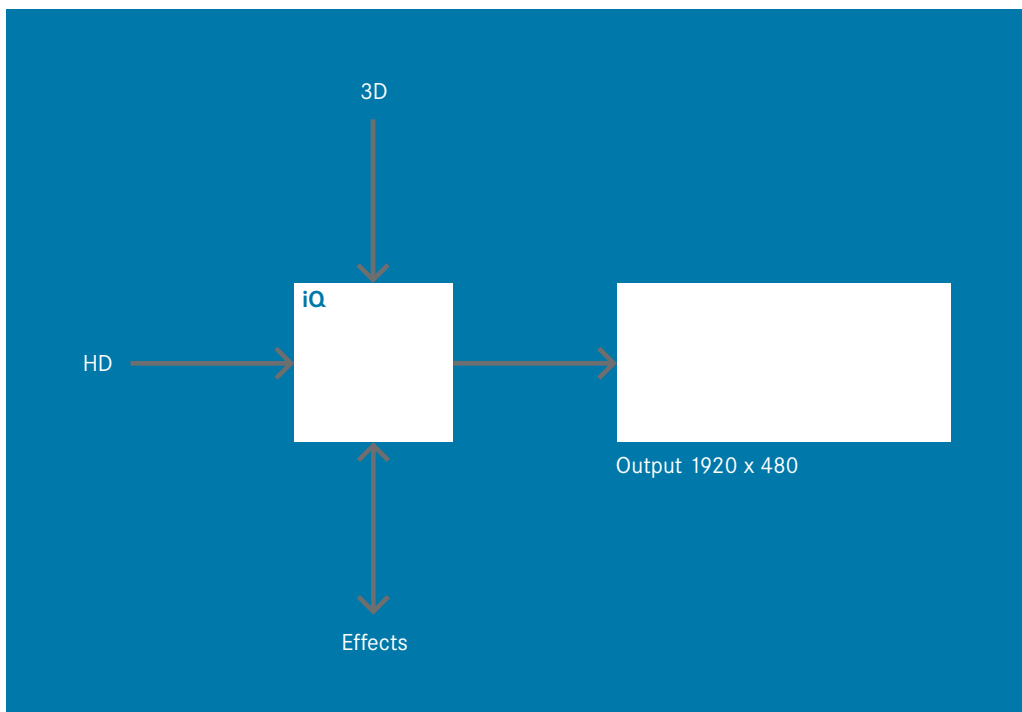
Cover
The Toyota 'FXS' is brought to life
with the help of iQ

1
Ambience iQ editor Laef Hosking

2-8
Action sequences from the Toyota
promotion

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iQ acts as the hub for all the different
elements before outputting to the
required format

Visit www.quantel.com for more
information on iQ



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