



SMART AV TANGO

DAW Control Surface

Darwin's theory of evolution is still hard at work in Australia – STEPHEN BENNETT looks to the shores of the other side of the world to see what evolution has brought to Smart AV's new baby.

When Australia broke away from the Gondwana super-continent millions of years ago, its isolation allowed evolutionary processes to run riot, resulting in an abundance of unique fauna and flora. In the seventeenth century, when Europeans fell upon the antipodean shores, their tales of egg-laying duckbilled mammals and large, pouched, rabbit-like creatures who could land a punch like a heavyweight, were at first dismissed as the ravings of men probably high from the fungally infected bread imbibed during their long sea voyages. In more recent times, Australia's music technology developers have continued to plough their own farrow, with companies like DSP Media and Fairlight producing innovative technology whose importance has spread well beyond the country's borders. Such is the importance of the latter's Computer Musical Instrument that it has been suggested that without this seminal sampler there would actually have been no 1980s at all – we'd have had to go straight from the 1970s to the '90s. But before you start punching the air with glee and imagining a world without mullets and Phil Collins, spare a thought for all the great music that would and could not have been produced if it hadn't been for the Fairlight and the technology it inspired. Smart AV is a company set up by ex-employees of the aforementioned Australian innovators and their mission (which they chose to accept) is to harness the power of the Digital Audio Workstation (DAW) via their innovative control surfaces – the latest of which is the touch-screen based Tango.



Smart Background

Smart AV's impressive AV Console was covered in the May 2006 issue of Audio Media, but a brief recap of ARC technology wouldn't go amiss. On the original Console, there's a long curved strip (the ARC itself) which is used to select channels and makes it ridiculously easy to bring the required channels directly on to the main section of the console – without all that tedious bank selection you're usually forced into with other DAW controllers. The idea behind the Console is to completely remove the need to use a computer mouse or keyboard when controlling the DAW, and to make all of the functions you would normally need to use in a session available at the touch of as few buttons as possible. The original Console is pretty physically imposing, with the ARC curving gracefully over the top of the main panel and looking for all the world like it would be more at home on the bridge of a spaceship rather than in a studio. For good or ill, the cosmetics of a product are extremely important in a commercial environment, and the Console fits very nicely into the space that might have previously housed an SSL or Neve console. Fast forward to 2008, and more and more commercial facilities are using a DAW of some kind at the heart of their studios, and the producers of music, television, and film are constantly demanding high quality results – but with tighter deadlines and budgets.

THE REVIEWER

STEPHEN BENNETT has been involved in music production for over 25 years. Now based in the wilds of rural Sweden, he runs Chaos Studios and writes books and articles on music technology. He's also a film-maker with several music videos and short films to his credit. www.stephenjamesbennett.co.uk

The Latin Quarter

Into this competitive marketplace, Smart AV has thrown their latest controller, the Tango. "We wanted to bring the ARC and other technologies into a lower cost system that could be used by the music composer as well as those in the mixing and post production environment," says David Hannay, Commercial Manager of Smart AV. "The original Console is pretty well placed if you're looking to replace a traditional desk, but the whole market is moving down in terms of price. What you have now is a situation where digital workstations are becoming cheaper, more powerful, and highly capable – but the drawback is that they are much harder to control." A mouse has its limitations, as Hannay points out. "The Tango is our attempt to introduce a lower cost product that is capable of efficiently exploiting the power of the DAW but is relatively easy to use. A lot of the hardware on the Tango is similar to our more expensive consoles, but it will list at a much lower price – which is a big difference for us," he says. Initially, the Tango will control Apple's Logic and Steinberg's Nuendo and Cubase, but there'll be more DAW support to come in the near future with the addition of Pyramix and Pro Tools (via HUI). "Because the Tango is a flexible system, it's perfect for a post

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facility in conjunction with something like Nuendo 4 – which has developed into

really excellent software. Add the Tango and you have the makings of a really good little post production facility," says Hannay.

Smart Thinking

Joe Narai is Smart AV's Chief Technical Officer and the origins of the Tango lie in his previous life and work with DSP Media. "We first used a touch-screen on DSP's Virtual control surface in

the early '90s – which was at the top of that company's range for many years," he says. "However, when we formed Smart AV, we steered clear of touch-screens as we wanted a tactile surface, and the technology was relatively expensive and the screens pretty small at that time." The Tango takes advantage of the reduction in price, and increase in quality and size of touch-screens; and a 22-inch widescreen version forms the centrepiece of the new control surface. "It's about the size of a couple of laptop computers and it weighs in about 20 kilos – this is no flimsy plastic injection moulded unit!" says Hannay. "It's

hard to judge from a photograph, but if you look at the faders underneath the screen, you'll see that their spacing is exactly the same as on the original Console." Narai says that using this screen, Smart AV was able to put together a low cost solution which would not compromise on the ergonomics of the more expensive unit – "which is something the company is obsessed with!" he laughs. "Basically we have a beautiful hi-res screen which runs at 1680 by 1050 resolution, and the interface software allows us to display any mix of parameters for channels, effect plug-ins and all that stuff," he continues, "The

user can decide how they want to look at the parameters and the console can be configured to display text, graphs, or widgets. Eventually, we are planning to release a development kit so the user

can design their own widgets and skins." He says that the whole idea of the Tango's development is to explore what can be achieved in presenting the data to the operator in the clearest way possible, while also allowing for customisation – "some people like looking at digits and some don't – the beauty of this is that you can configure it the way you want," he says.

Smart Design

Architecturally, the touch-screen is right at the centre of the Tango and is housed in a sloping surface placed over a bank of eight touch-sensitive faders. Sixteen notched touch sensitive encoders lie to the right of the screen and are automatically assigned to various user-defined parameters when, for example, an on-screen control is touched. These assignments can be programmed in any way the user wishes. "It's easy to reconfigure these controls to be efficient in the way you want to work," says Narai. Above each of the channel faders is another programmable encoder along with Mute, Solo, and Inject buttons. The latter works in conjunction with Smart AV's ARC technology to assign the desired parameters to the selected channel. This makes

it simple to bring the functions you want to control to your desired positions on the surface – but there's also a handy lock function so certain encoders can be fixed into performing certain tasks. The touch-screen itself extends each channel's controls, depending on what's been selected, and parameters such as panning can be manipulated easily via the touch-screen. A second phase release of software will allow for more composer-orientated parameters to be adjusted directly via the screen – such as MIDI controllers and other plug-in and instrument

parameters. "You can already just touch the screen and assign plug-in parameters to the encoders," says Narai, "But soon you'll also be able to assign them to visual X/Y 2D displays so

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- ▶ you can easily fade between various parameters – for example filter cut-off and frequency. You'll also be able to assign these parameters to your faders – the idea is to make the Tango into a useful compositional tool."

Smart Controls

The left hand side of the tango hosts the 'expert panel' controllers – and there are actually more of these on the Tango than the original Console. These deal with grouping and 'ergonomic spreads' i.e., fader channel assignment layouts, while the top of the screen has a 'soft' version of the Console's ARC – the MonARC. "You can display up to 100 channels in compact mode and you can just touch the channels you wish to assign to the faders in the order you want them to appear on the surface," says Narai. Channel parameters can easily be copied and injected into a new channel with a few button pushes, and a row of soft menu buttons can be assigned to display a virtual keyboard along with other functions. This, along with the dedicated mouse

pad/trackball space will finally, Narai hopes, allow the user to dispense with the computer keyboard from the working space. "You can assign keyboard macros to the virtual keyboard and it should help stop things getting messy – as they can often do when you have to combine the computer keyboard with a hardware controller," he says.

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Dedicated transport controls lie above the mouse pad – but even these can be reconfigured if so desired. "We've set them up so you typically get a transport section above the jog wheel with your standard settings. There's also a cursor area that can be used to zoom and move up and down lists if the DAW supports it," says Narai.

Unlike some touch-screen based controllers, the Tango has quite a few physical controls in addition to those presented onscreen. "The most efficient designs makes the best use of 'muscle memory,'" says Narai. "It's good when you know exactly where to reach if you want to adjust a high-frequency control, for example. One of the problems you have when you really pare down the number of physical controls is that you end up doing a lot of mental gymnastics to perform even the most basic functions. You'll be thinking things like; 'I gotta press the EQ button, select the third parameter bank, and then it'll be the fourth parameter on the left'. What we want to do is make the console take care of the gymnastics, so the user can just focus on being creative."

Smart AV also plans to release a 12-fader expansion unit later in the year. This can be placed to either the left or right of the main unit, and has sixteen programmable buttons in addition to the faders and the touch-screen. "The beauty of the expansion unit is that in addition to the extra channels, you get more of the ARC displayed at the top of the screen," says Narai. Even with the expansion channels, you still have a pretty small physical footprint, so you don't need to go reaching out to adjust anything."

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Conclusion

It seems that evolutionary processes are still going strong in Australia – in the music technology industry at least! The Tango is a compact, well specified and considered controller that should find a lot of friends in the post production and mixing world, and also as a useful addition to the composer's armoury. The company's focus on ergonomics and their commitment to support and upgrades will make their new baby one to watch over the coming months. Controllers like the Tango are becoming an essential tool as more and more studios move to DAW – only functionality and the easier it is to use the power of the software, the more productive the studio can be. 

INFORMATION

① GB£3,790.00, Tango 12-Fader Extn. GB£3,290.00

④ Smart AV Pty. Ltd., Unit 28, Belltower Complex,
191 Parramatta Road, Auburn NSW 2144, Sydney,
Australia

① +61 2 9648 6744

① +61 2 9648 6766

④ www.smartav.net

④ talktous@smartav.net