



Integrating Wwise into Your Pipeline

By Alexandra Pasian

How easy is it to get Wwise into your pipeline? Several leading programmers talk about time spent, starting fresh, replacing legacy systems, and support from Audiokinetic.

Making the change to Wwise often represents a dramatic shift in the way game companies go about creating audio for their titles because the new workflow is more intuitive and allows for greater creative freedom. However, the transition to any new work paradigm can be a little unsettling. The development team at Audiokinetic understands this, and it is just one of the reasons why they have worked so hard to ensure that the integration process is as easy as possible. And their work is paying off.

Integrating Wwise into the production pipeline at Ensemble Studios took Game Developer David Bettner just a couple of weeks. "In total, the integration took 3 weeks. It took about a week to get the engine in and running and all the libraries linking. Then, we spent a couple of weeks on the Real-Time Parameter controls, on hooking up basic sound events, and on positioning information."

Wwise was the first 3rd party tool that Bettner had ever integrated. His previous work at Ensemble Studios, which included *Age of Empires III* and *Age of Mythology: Titans Expansion*, had involved only internal tools, and he found the support from Audiokinetic extremely helpful. "They're very responsive," says Bettner "Their turn around through e-mail is incredibly fast and helpful."

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—Chip Bell, Pandemic Studios.

Smooth Integration

For Chip Bell, Audio Programmer at Pandemic Studios in Brisbane, Australia, the integration process went just as smoothly as Bettner's but was far more drawn out. Pandemic has very strict policies about maintaining build stability at all times, and, as a result, everything must go through a full QA check. Before making the switch, Pandemic spent two months evaluating Wwise.

During the evaluation, Bell integrated Wwise to run first on the Xbox 360 and then on PS3. When he was satisfied that Pandemic was going to make the move to Wwise, he merged the work that he had already completed into their production pipeline. Within a matter of days of the merge, Bell was compiling inside the engine.

According to Bell, "From integrating the entire sound engine into game code to re-authoring all of our assets and changing export pipelines for all of the other tools that we use, the entire integration process probably took 3 to 4 weeks."

"The actual integration of Wwise was very smooth and easy," says Bell. "Integrating the engine was completely transparent. In fact, the rest of the team outside audio didn't even notice that one sound engine had been removed and completely replaced."

"Integrating the asset side of things, which involved switching from an internal bank format and authoring tools to the Wwise format, was equally as smooth," says Bell. "Even converting our assets was quick despite the fact that we already had a considerable number when we began."

Once Wwise was integrated, the sound designer could make rough conversions by hand of all the sounds that he had produced. Says Bell, "It was a



matter of days to take all the existing sounds and have something rough and ready to go in the new tool. But, of course, our sound designer did not do a perfect conversion because Wwise offers additional options that allowed him to take a step back and reengineer."

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—Douglas Da Silva, Blue Fang Games.

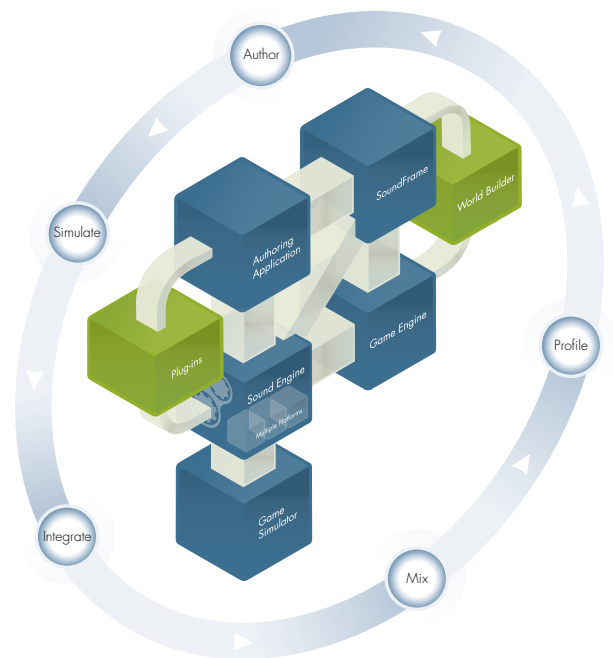
Replacing Legacy Systems or Starting Fresh

It took Damon Osgood, Principal Lead Programmer of Gameplay at BioWare Austin, longer to integrate Wwise into their pipeline. Says Osgood, "We were replacing a legacy (Direct Music-based) audio system, so first we had to abstract the old system out and then replace the underlying implementation with Wwise."

As Osgood explains, "Integration was a bit slower than if we were starting from scratch; however it was possible to get sounds playing within a day and a more workable integration within a couple of weeks."

Unlike Osgood, Douglas DaSilva, Associate Software Engineer at Blue Fang Games, had the luxury of starting fresh with Wwise rather than having to remove an existing audio system from the studio's code base and then replacing it with Wwise. "Because we were starting from scratch, it took less than a week to hear sounds in the game. Then it took a couple more weeks to extend the sound resource loading and streaming and to hook-up the framework for communication with the profiling tool."

"All in all," says DaSilva, "the integration went very smoothly."



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