



## Toolsets & Workflow for the Audio-Centric Environment

By Alexandra Pasian

Wwise is changing the audio workflow in games and having a huge impact on the relationship between designers and programmers. The result is better collaboration and more time for developing unique assets.

When the team at Audiokinetic began developing their middleware solution, they were very conscious of the fact that they did not want to make the same old tool. Of course, they wanted to give game developers the feature sets necessary to create sophisticated audio, but they also wanted to offer a workflow that made sense within the context of audio production. As a result, Wwise allows studios of any size to create sophisticated audio in an audio-centric environment.

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As Blair Bitonti, Central Audio Software Engineer at Activision, explains, "Wwise is the first audio middleware solution that looks like a digital audio work station. It puts the sound designer in an environment in which they feel completely comfortable. After all, audio people are creative, and they need all the bells and whistles that they're used to when they design sound."

Wwise is also a tool that works for audio programmers. Bitonti himself is completely sold on the middleware solution. Currently, Activision is developing their first title with Wwise, and, according to Bitonti, "It is going very well. The integration has been seamless, and the tool has been very well supported by Audiokinetic. It is exactly what we hoped for and more."

### Advanced Development Process

Scott Bilas, Senior Engineer at Loose Cannon Studios, clearly appreciates the logic of the Wwise workflow. "When the developers at Audiokinetic were building Wwise, they obviously looked at overall audio workflow in order to address how developers would want to get audio into their games."

For Bilas, one important consideration for audio development is that Wwise is structured to be multi-platform. "The Wwise engine was created by console people. On a technology level, these guys really know what they are doing." Bilas also has high praise for the Wwise feature set, including the authoring tool and the 3D view that Loose Cannon used as a de-bugger for their game.

What most impresses Bilas about the Wwise toolset is its similarity to another revolutionary software. "Wwise has a lot in common conceptually with Maya. The hierarchical arrangement of the toolset in Wwise is very similar in approach to the 3D authoring tool. In fact," says Bilas, "Wwise brings to audio what Maya brought to 3D. It's a complete engine. You give your artists Maya, and they go and make art. You give your audio guys Wwise, and they go and make music."

### The New Relationship Between Programmers & Designers

One of the main advancements that Wwise brings to audio production is the new distribution of work between audio programmers and sound developers. Using Wwise, designers now have more control over their creative process and are less dependant on programmers for integration and engineering. This allows programmers to spend more of their time creating customized assets for their games.



Douglas DaSilva, Associate Software Engineer at Blue Fang Games, believes that the new division of work between software engineer and sound designer is a big advantage. "Definitely one of the most useful features in Wwise is the ability to push a lot of sound design work into the hands of the sound designer. This allows our sound designer to really play around with ideas and to experiment without having to wait for engineering support to hear the results."

With less waiting, there are fewer delays in development, and, according to DaSilva, "having the extra time to experiment with our sound features allows us to deliver a more polished audio presentation in the game."

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### More Time for Better Sound

DaSilva is not alone in his assessment of the extra time. Universally, the audio programmers said that the extra time afforded to them by using Wwise was dedicated to developing sophisticated audio and really polishing the overall sound on their game titles.

According to David Bettner, Game Developer at Ensemble Studios, "Because we are trying to do as much as possible with our sound and music, we are probably spending as much time on audio as we did on previous games. It's just that now, with Wwise, we are getting a lot more out of that time."

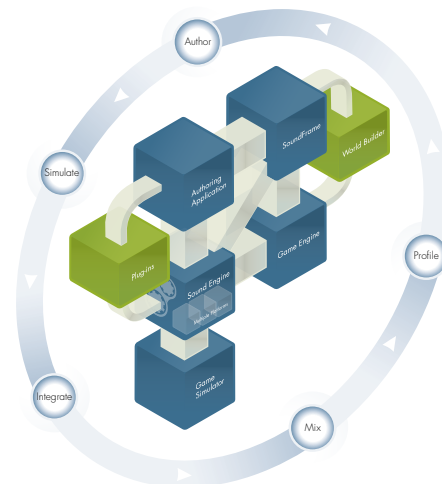
Because Ensemble Studios is able to test ideas quickly, they are able to integrate more sound and music into their game play. Says Bettner, "When we have an idea of how we want game play to effect music, we are able to test those things out faster. This means that we are able to get more cool things into the final game than we would have if I had to do all that coding on my side."

Before Bettner started on audio with Ensemble, the studio was using internal tools to develop sound for Halo Wars. Integrating Wwise was one of the first things that Bettner did when he joined the team. Originally, it was the response of the sound developers to the middleware's user interface that sold him on the advantages of using Wwise. Now that he has had more time with Wwise, he sees even greater possibilities.

Bettner is most impressed with the dynamic music system in Wwise. "It is a nice tool with a very simple interface for programmers. Because I think music is so important, it is great that Wwise gives us a ton of room to get it to be more like a sound track for our games."

In addition, Bettner appreciates the impact that Wwise has had on his relationship with his sound designer. "The best thing about Wwise is that, when our designer asks me for new features x, y, and z, I often ask him to try x and y using the existing tools in Wwise without having to do any additional programming work on my end."

"Wwise gives sound designers more tools and more power over the creative process," says Bettner. "This gives them the ability to try all kinds of things without having to get a programmer involved, and this can really pay off."



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