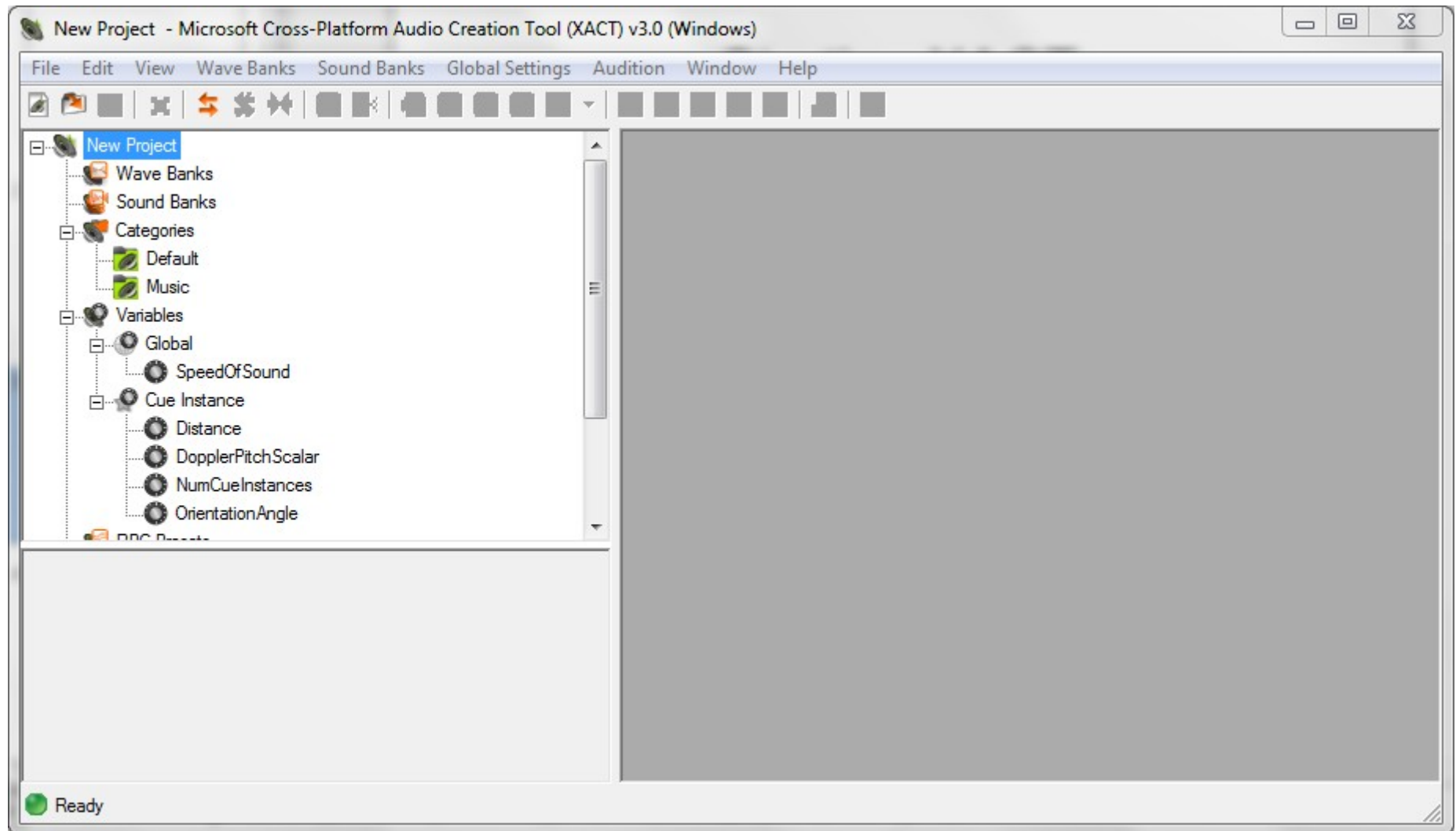# XNA Sound: XACT

## Microsoft's Cross-Platform Audio Creation Tool

XACT

- Allows packaging of sounds for flexible loading, starting, stopping, etc.

- Provides tools for adjusting pitch, volume, looping.

- Allows multiple sounds to be played as options for a particular cue.
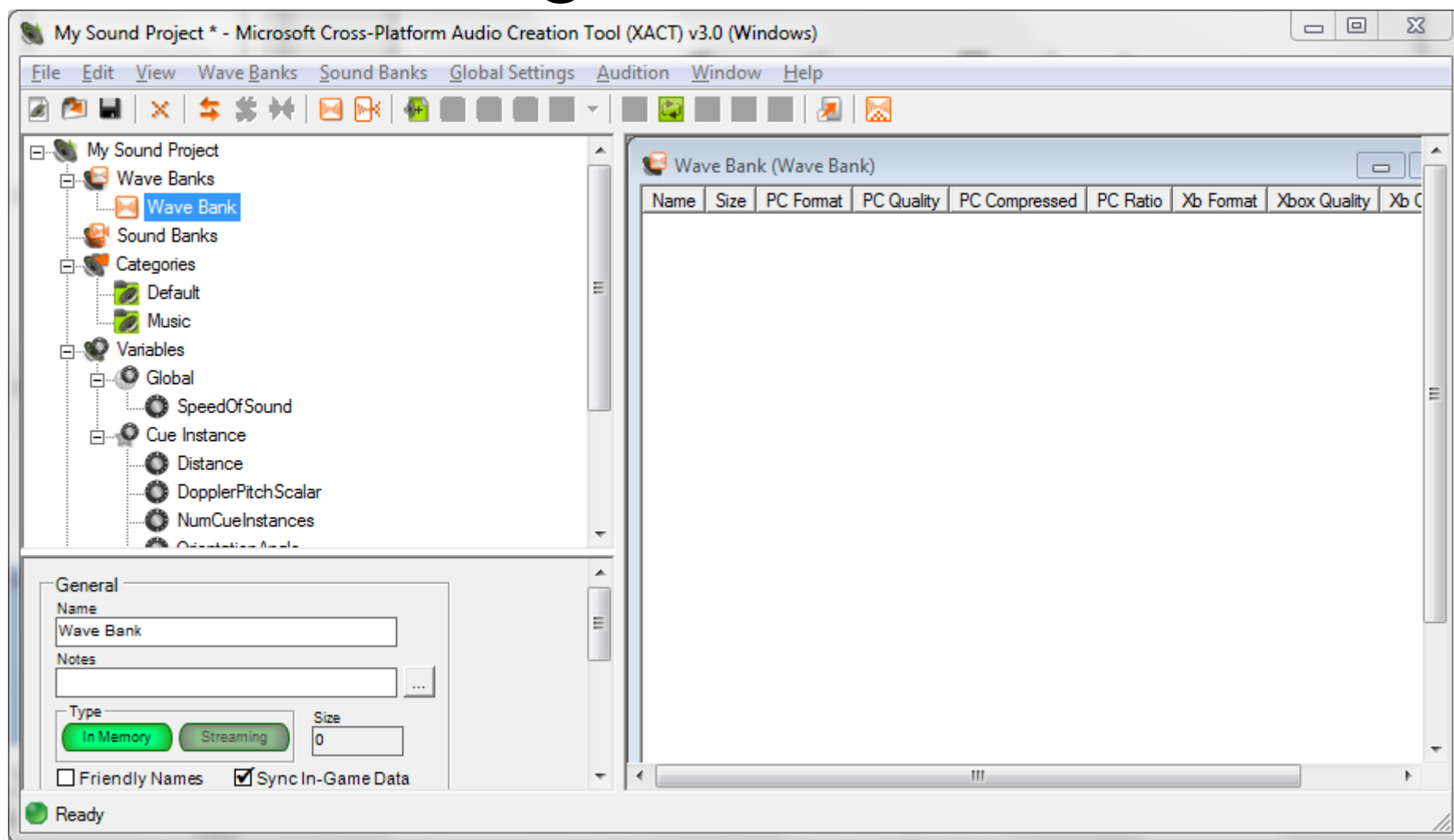
Starting XACT

- All Programs :: Microsoft XNA Game Studio 4.0 :: Tools :: Microsoft Cross-Platform Audio Creation Tool 3 (XACT3)

Creating a Project
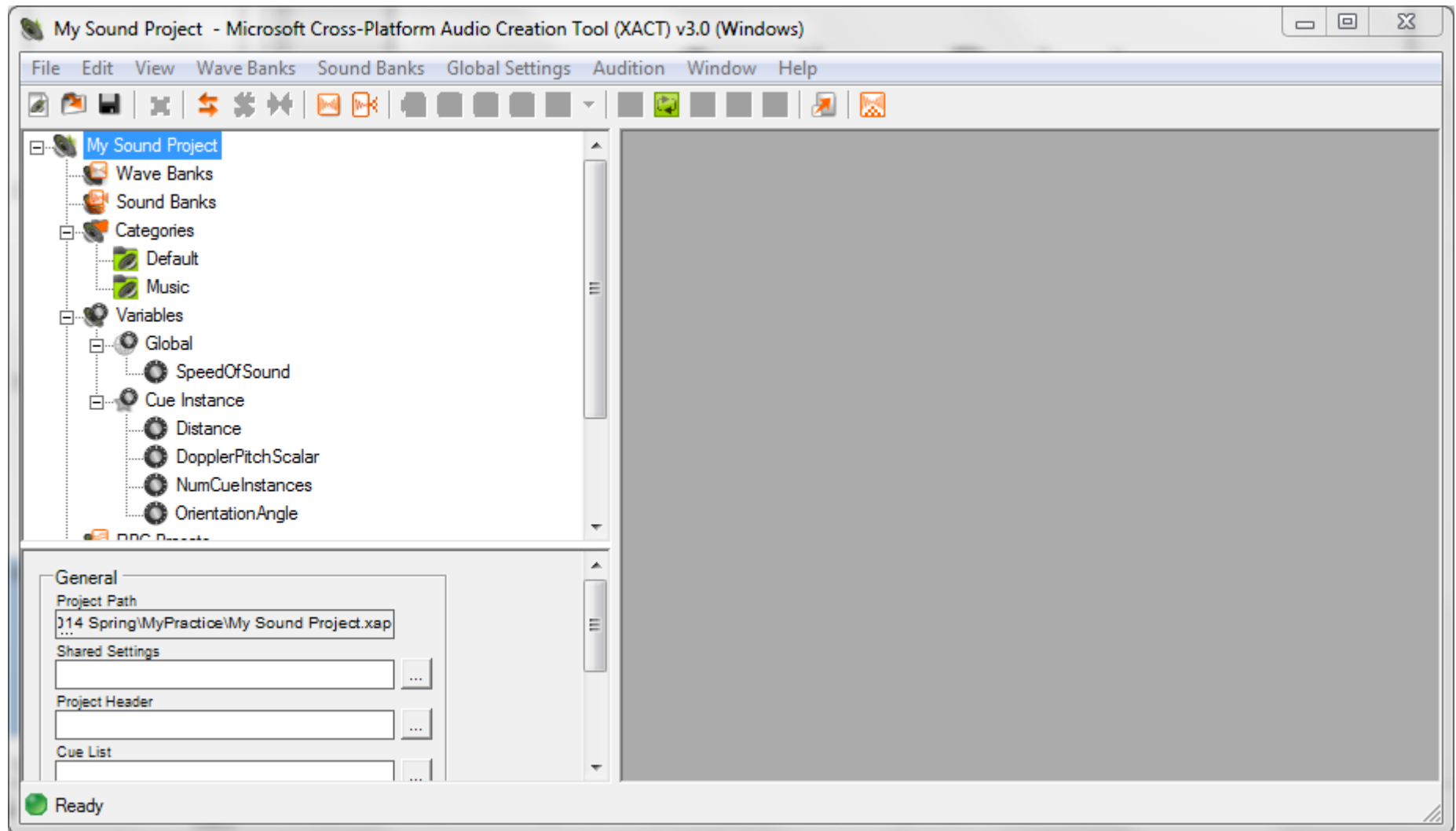
- Yes, it looks like you have a project when you start up, but you still need to go into the File menu and create a New Project.

Adding a Wave Bank

- The Wave Bank holds sound files. Right click on Wave Bank to create one.
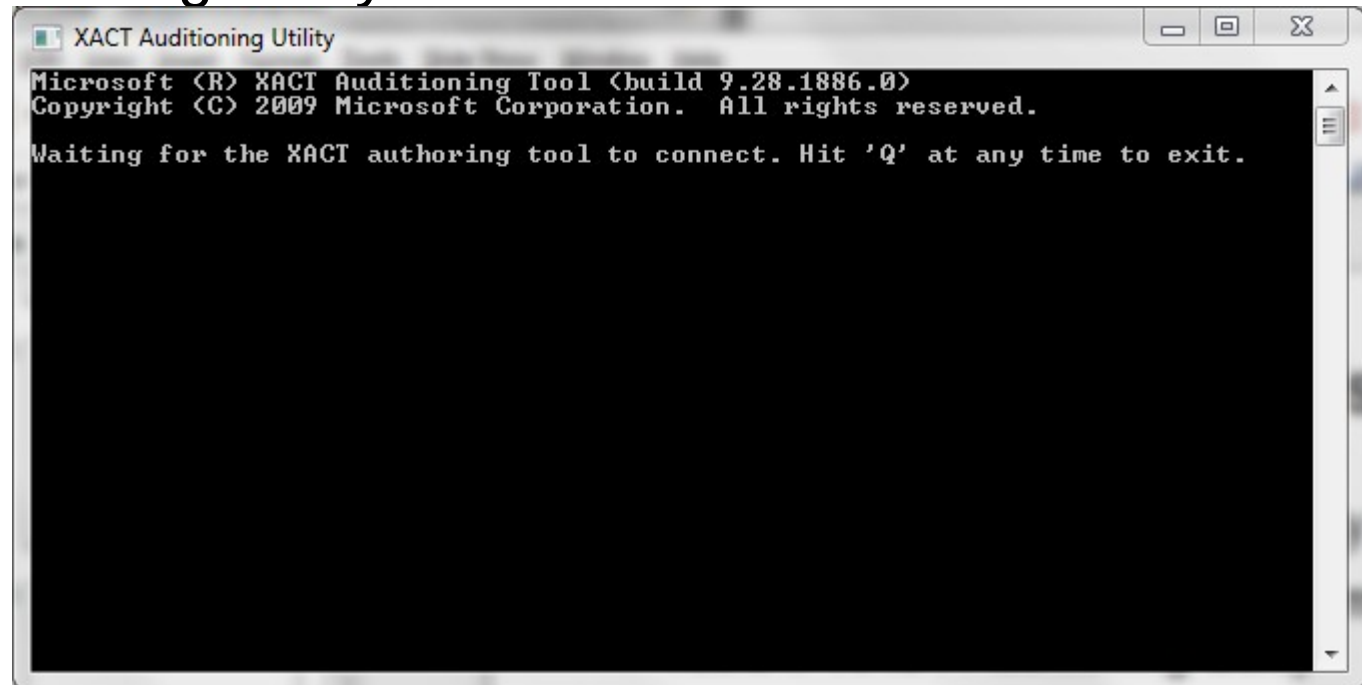
Adding a Sound Bank

- The Sound Bank holds the sounds and allows us to adjust their attributes.
- Right click in the Sound Bank to create a new one.
- Under Window, select Tile Horizontally to make them easier to see.

Adding Sounds to the XACT Project

- Add .wav files directly (i.e. using Windows Explorer) to your Content/Audio folder.

- Create an XACT project housed in the same folder.

  - Create a Wave Bank and a Sound Bank

- Drag the sound files to the Wave Bank.

- Start with one sound, dragging it from the Wave Bank to the Cue Name portion of the Sound Bank.

  - Notice how it is replicated in the Sound Name portion.

  - Could have dragged it directly to the Sound name portion but then would have had to drag it from there to the Cue name.

- Note the panel on the lower left of the window. You can modify volume, pitch, and the looping frequency of your sound.

Testing Sounds

- Start the XACT Auditioning Utility

    - All Programs :: Microsoft XNA Game Studio 4.0 :: Tools :: XACT Auditioning Utility

    - Play the desired sound (right click in XACT and select Play)

Adding Sounds to Game

- Add the XACT project
- Add fields to your Game class
  - AudioEngine audioEngine;
  - WaveBank waveBank;
  - SoundBank soundBank;
  - Cue cue;
- Load the corresponding resources during LoadContent
  - audioEngine = new AudioEngine(@"Content\Audio\GameAudio.xgs");
  - waveBank = new WaveBank(audioEngine, @"Content\Audio\Wave Bank.xwb");
  - soundBank = new SoundBank(audioEngine, @"Content\Audio\Sound Bank.xsb");
- Get a cue
  - cue = soundBank.GetCue("Shot"); // "Shot" happens to be the cue name in my project
- Play the cue
  - cue.Play( );

Multiple sounds per cue

- Create a Cue
  - Right-click in Cue area, select New Cue (Ctrl+U)
  - Give it a name.
- Select and drag sounds from Sound Name <u>onto</u> the new Cue name.
- Note how the sounds appear on the right
  - with individual probabilities
  - The probabilities can be modified in the panel on the far left.
- Try using this new cue in your code. You will observe that the different sounds are played with the probability that you set.