#### 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

💐 My Sound Project - Microsoft Cross-Platform Audio Creation Tool (XACT) v3.0 (Windows)		
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Wave Banks		
Sound Banks		
Categories		
Music	E	
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SpeedOfSound		
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General		
Project Path		
0.14 Spring\MyPractice\My Sound Project.xap Shared Settings		
Project Header		
Cue List		
	-	
Ready		

• 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

🕷 My Sound Project * - Microsoft Cross-Platform Audio Creation Tool (XACT) v3.0 (Windows)			
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In Memory Streaming 0 □ Friendly Names Sync In-Game Data	▼ <		
Ready			

• 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.