1 Playing 2D Sounds

Finished Code:

```
datablock AudioDescription(HOW2D)
{
   volume      = 1.0;
   isLooping   = false;
   is3D        = false;
   type        = $SimAudioType;
};

datablock AudioProfile(TestSound2D)
{
filename       = "~/data/sound/explosion_mono_01.ogg";
description    = HOW2D;
preload        = true;
};

function play2DSound()
{
   localClientConnection.play2D( TestSound2D );
}
```

Answers:

1. None. This is a 2D sound, so it is equally loud everywhere.

2 Playing 3D Sounds (near player)

Finished Code:

```
datablock AudioDescription(HOW3D)
{
   volume            = 1.0;
   isLooping         = false;
   is3D              = true;
   ReferenceDistance = 5.0;
   MaxDistance       = 90.0;
   type              = $SimAudioType;
};

datablock AudioProfile(TestSound3D)
{
filename       = "~/data/sound/explosion_mono_01.ogg";
description    = HOW3D;
preload        = true;
};

function play3DSoundNearPlayer()
{
   %player   = localClientConnection.player;
   %transform = %player.getTransform();

   echo(%transform);

   localClientConnection.play3D( TestSound3D , %transform );
}
```

Answers:

1. None. Although this is a 3D sound, this function always plays the sound right on top of the player's current position.

3 Playing 3D Sounds (near player)

Finished Code:

```
function play3DSoundInFrontOfPlayer()
{
   %player    = localClientConnection.player;
   %transform = %player.getTransform();

   %newTransform = vectorAdd( %transform , "0 35 0" );
   %newTransform = %newTransform SPC getWords( %transform , 3 , 6 );

   echo(%newTransform);

   localClientConnection.play3D( TestSound3D , %newTransform );
}
```

Answers:

1. Because we are playing the sound at a distance (35 world-units) from the player and because this is a 3D sound, it attenuates (becomes more faint).
2. The sound will play at 100% volume since the sound (see HOW3D AudioDescription) is tuned to treat 5.0 (or fewer world-units) as the max volume region.

