

This is not word for word, but it is what I used when I shot the video.

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See the video that goes with this script at

<http://www.xaraxone.com/tutorials/february-2012-video-tutorial/>

Hi, I'm Gary Bouton and welcome to another Xara TV tutorial on Xara xone.com

This month, I'm going to show you how to animate a bouncing ball, with shapes, fills, and motions that are acceptable for a Shockwave File, also known as a Flash animation.

But do indeed go to the Xone and check out the specifications for Shockwave animations, because someday you might want to create an original cartoon.

Why? Because someday you'll want to make an animation of your won!

If you've never experimented with Xara's animation features, you're gonna love this, oh, yeah.

C'mon, let's go!

This animation will take place in an Animation file, but for now, just press Ctrl+N to create a default document in which you'll build the actor, the ball that's going to bounce. With the Ellipse tool, hold Control and drag, and then choose the Fill tool. Circular fills are legal in Shockwave animations; start your fill drag at about 11 o'clock, and drag down to about 5 o'clock. White is an okay color for the fill's start, open the Color Editor and choose a medium blue for the end color, and then double-click the control line to add a color stop, and make this a slighter deeper blue. The effect is a cache light, a secondary light source, and it makes round objects look rounder.

Let's decorate the ball now; choose the QuickShape tool, choose 5 sides on the Infobar and click the Starred shapes button. Let's fill the first star with yellow, and then with the Fill tool, drag on the face of the star so a linear gradient from white to yellow is made. We're doing this because the star shading should match the underlying ball's shading. So the ball is a little lighter on top, so the overlain star should be, too. To make two more stars, let's drag and drop a duplicate, and then fuss with the gradient fill handle, make the top darker than the bottom, by the way, a linear gradient can have up to 8 unique color stops in Shockwave files...and let's create a third star, color it up appropriately and position it. Now, with the Selector tool, hold Shift to additively select, and get all three stars...Press Ctrl+G to group, and now I'm going to distort this group using the Envelope function of the Mould tool, to make it look as though the stars are conforming to the shape of the ball. So they're *on* the ball and not just above it. Let's click the Circular envelope preset.

Now I'm going to simplify this group to remove the dynamic mould property—choose Arrange, Convert to Editable Shapes. Flash, otherwise known as Shockwave animations get confused when there's special effects going on with vector shapes. To trim the stars to the ball, Select All Control A, and then press Q to make a clipview from the bottom circle shape.

What remains to make this ball a character in an animation is to name it. In Flash files there is a stage—the document—and actors, and you need to name the ball. So you right-click over it and choose Names and name the ball something clever, like “ball”. Flash animations are created by defining key frames—points of extreme actor changes, and then Xara tweens these key frames, it automatically builds the frames inbetween key frames. But only if it can locate your actor.

Unnamed objects and invalid objects for animation can be keyed, but Xara cannot build tween frames and then your animation looks like those skimpy cartoons they used to play on Saturday mornings, somewhat like a movie filmed at 2 frames per second.

Okay actor 1 needs actor 2 to play against, and this will be its shadow. Flash animations can only work with flat transparency, so to make a softedge shadow, you make a Blend of two flatly transparent shapes. I'll create two semi-transparent ovals, a smaller and a larger one. We'll want to go to wireframe quality view now, because it's *real hard* to find mostly transparent shapes to drag the Blend tool from and to...now that the link's been made, go back to high quality view and up the number of Blend steps to about 12, and the next step is critical to animating this shadow. Because it's a dynamic blend shape, the Flash animation engine is going to get confused by this non-standard effect and mess up this blend when you try to scale it, so you need to clip the shadow to an invisible clip view shape, a large oval...and then your animation life is good. Create a large ellipse over the shadow, give it no fill and no outline, and then press Ctrl+B to put it to Back. Marquee select the blend and the invisible guy and then press Q to make the clipview. So let's name the actor now...ball shadow is very inspired...

Before we open up a new Animation document—the stage for this action, put the shadow clipview group to Back, and then position the shadow slightly to the right of the ball. Why?

Because the highlight on the ball is at top left, so the shadow needs to be bottom right....even in cartoons where reality often yields to physics and occasionally road runners.

Got the actors? Great, let's take a look at the script now. **Anatomy of a Bounce.**

Frame 1 is the start position for our hero, the ball. Note the size and position change of the shadow as the ball moves, too.

In Frame 2, the ball descends and hits the ground plane. The shadow moves toward and beneath the ball and it gets larger because its closer to its parent object.

Frame three is the squash frame in a squash and stretch carton animation. You don't have to do a lot with the shadow's size but get the relationship, the distance between the ball and its shadow right in this frame. The ball distorts as a reaction to its impact.

Frame 4 is the stretch part, the ball releases its energy and travels upwards. What you can't see in this video is I'm holding Shift when I scale the ball, which for example, scales both the left *and* right sides when I drag the left or right handle. The shadow needs to go over to the right and

In Frame 5, the ball regains its shape and tarts heading downward after expending its energy. Now, frame 5 may look like frame 1, but it's not. This animation will loop—frame 5 returns to frame 1 over and over as it's played, so frame 5 and 1 cannot be duplicates or the animation will pause and we don't want this. Animation cycles need to be seamless so when you're building this, you might consider showing Rulers (Control L) and dragging a horizontal guide out.

So let's get to animating now. Copy the ball and shadow for your existing document and then choose File>New>Animation. The Animation Gallery will appear and you have a new page, but the page size is too small for this tutorial and something special you're going to do, so press Ctrl+Shift+O to display Options and on the Page Size tab, make this 640 by 480, which is Standard definition television size.

Press Ctrl+V now to paste the two actors into the document at frame 1 according to the Animation gallery.

With the two shapes selected, scale them down so if you want, the actor can have a background...

Now, double-click Frame 1 to bring up Properties and make this frame .2 seconds instead of half a second. Because 2 frames a second looks primitive and 10 frames will look much better. Click Flash Options and make this movie 30 frames per second. Think ahead—this animation can

make a nice video file, not just a Flash animation, and digital frame rates for movies is 30 frames per second.

Now the frame 1 is set up, click Copy, and a copy is now your current frame .2 seconds into the animation. Rearrange the ball and its shadow to conform to the frame 2 you saw in the anatomy section earlier, Click Copy and this is the squash frame so adjust the shapes, take your time, and when you're done, click Copy and frame 4 is the stretch part...this needs a little finessing, hold Shift to scale the sides equilaterally... and then click Copy, and Frame 5, make the shadow just a little larger, bring it closer to beneath the ball...undistort the ball,

Now that you have 5 frames, preview it... it looks pretty good, but there's a hesitation as the animation loops and this is technically unavoidable with Shock wave files to have zero rewind time, but you can hide most of the damage by double-clicking frame 1 and knocking down the play time to .1 seconds and do the same to Frame 5...you'll notice that the animation is more fluid now.

Save this file as Bouncing ball 1.xar, and then save it again as Bouncing ball 2.xar. What do you say we add a background to the animation now? Diner.jpeg is available on the Xara Xone's February tutorial page, as is the zip file which contains this whole animation. Now, when you make a Flash animation, you should begin with the background first, but here's how to work around this: click Frame 1 on the Animation Gallery, then choose File>Import and import the Diner image. Right-click and name the background. Move it around with the Selector tool until it aligns to the page, and then press Ctrl+B to put it to back, and then press Ctrl+C to copy it. Click the Frame 2 title on the Animation gallery, and then press Ctrl+Shift+V to paste in place, so the background doesn't move between frames. Put it to back, Control +B, and do this for the three remaining frames.

Every frame needs the named actor, or the background will disappear on one frame. That looks pretty classy now, doesn't it, with the semi-transparent shadows and all. You can export this file, File|Export|Animation, and choose Animated Flash at any time now.

But .Wait!, there's more! There's a reason why the file is as large as it is, open Bouncing Ball 1.xar now, and you'll see now that any animation built in Xara can be exported not only as an AVI file, but as an AVI file with an alpha channel, with a transparency. So, choose File|Export Animation, choose AVI from the Save as Type drop-down list, and then click Options. Choose Uncompressed because only uncompressed files can be saved with transparency, click the Make Background Transparent checkbox, click Close, name the file, choose your destination, and then click Export.

Now look at this: you can hand this file to anyone who owns a high-end video editor or composition suite such as After Effects, or just use the file if you own a video editor--You can

import this file into a composition and it keeps its alpha channel and the editor recognizes this. I'm using red as the background to show you that the ball is indeed floating in this video(because even the best artists can't see transparency) , and I've also imported the diner and another image, and some sound effects. The neat thing here is not just recreating what you've done in Xara in another program, but how you can integrate Xara exported work with files generated from other programs, and even digital cinematography. Xara play nice with other programs and the results are totally professional...if somewhat cartoonish in this example. And this is the kinda stuff you do in Hollywood.

I'm Gary Bouton, and that's all, folks!