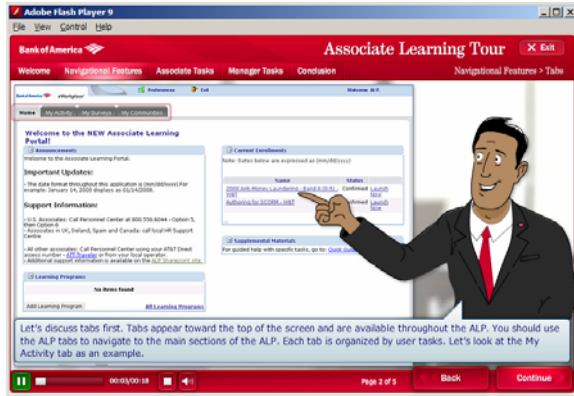


# The Avatar in the Associate Learning Tour

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The Associate Learning Tour (ALT) is built on a dynamic, XML Flash player system called Scientia. The pages are built in XML files that are similar to HTML files for a web page. Each element on the screen is either pulled from an external SWF, JPG or PNG file or is created dynamically from Actionscript in the Scientia player SWF.

In the ALT, the avatar presentation consists of three SWFs – the avatar, the audio player and the text box. The text box has no programmatic connection to the avatar, but the avatar and the audio player are connected.

## The Pieces

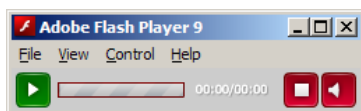


### AI P – the avatar

The avatar illustration and animations were created by Ben Hutchens. They are frame driven, but with each animation sequence contained within its own movieclip. The eyes and the mouth are separate movieclips. The mouth is a named instance inside of each animation sequence so that it can be controlled independently of the larger animation sequence (i.e. point, turn, bob head).

When the SWF is loaded, the player initializes it with the name of animation sequence to play. The animation also has a delay: “start playing this sequence after 5 seconds have passed.” However this does not start until the audio begins playing – so that the animation and the audio are in sync. The eyes continually blink so that the avatar appears more life like.

The mouth is controlled by events from the audio player. This is so that the avatar is only “talking” while there is audio playing. The mouth movements are not synchronized to the audio sound – this would require extra development time.



### The audio player

The audio player is a very simple MP3 player. When it’s loaded, the player initializes it with the path to the file to play and a play delay.

When audio events occur, the player dispatches these to be caught by the Scientia player. These include: play start, pause, stop, play finished and mute.

## The Scientia XML Code

For the avatar:

```
<object type="interactiveswf" id="alp_al" guid="">
  <position>325,38</position>
  <size>500,335</size>
  <scale>85,85</scale>
  <url>assets/alp_al.swf</url>
  <objectdata>
    <animation delay="3">point35_5sec</animation>
  </objectdata>
</object>
```

For the audio player:

```
<object type="audioplayer" id="audio1" guid="">
  <position>-1,380</position>
  <size>250,30</size>
  <playerswf>templates/po/poaudioplayer.swf</playerswf>
  <url playmode="auto" playdelay="1">assets/audio/lwep03.mp3</url>
  <eventlist>
    <event id="start" actionevent="pb_start" actionresult="command" target="alp_al" ↵
data="audio_start" />
    <event id="play" actionevent="pb_play" actionresult="command" target="alp_al" ↵
data="audio_play" />
    <event id="pause" actionevent="pb_pause" actionresult="command" target="alp_al" ↵
data="audio_pause" />
    <event id="stop" actionevent="pb_stop" actionresult="command" target="alp_al" ↵
data="audio_stop" />
    <event id="finish" actionevent="pb_finish" actionresult="command" target="alp_al" ↵
data="audio_finished" />
  </eventlist>
</object>
```

### Analysis of the XML

In the XML for the avatar, the text in green represents the animation sequence to play after how long of a delay to play it.

In the XML for the audio player, the text in brown represents the code that responds to the events broadcast from it and then “commands” the avatar SWF to respond to it. The Scientia player acts as a conduit between the two SWFs – translating the events of one into and passing it as parameters to a function in another.

XML

```
<event id="play" actionevent="pb_play" actionresult="command" target="alp_al" data="audio_play" />
```

Translation

*When I start playing (“pb\_play” event), tell (command) the SWF with the ID “alp\_al” to run the “command” function with the “audio\_play” parameter.*

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For more information, please contact:

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