

AUTOMATIC SYNC

TECHNOLOGIES

ProductionSync™

ProductionSync software automatically detects and marks events in a voice recording. These events include words, sentences, sounds, and production commands. By providing a rapid and automatic mechanism for detecting these events, ProductionSync allows for automatic lip synchronization and automation of some of the most tedious parts of the production process. ProductionSync allows an animated character's lip movements, facial expressions, and gestures to be automatically aligned and synchronized to its voice track. Traditionally, this synchronization process has been a time-consuming manual effort that requires human effort whenever new audio content is generated.

ProductionSync can operate either with or without the text script of the voice track available:

- **Text-based:** an offline process that occurs during production, this technology uses the audio and the text script to offer the highest possible accuracy.
- **Textless:** an offline production process that requires only the audio file as input. Textless synchronization offers speed and convenience of not requiring text input.

ProductionSync uses state-of-the-art speech processing and recognition techniques. It is engineered to minimize footprint and CPU consumption, while maximizing accuracy. ProductionSync offers unsurpassed quality; its low CPU/memory profile offers advantages both for small-footprint applications as well as large, scalable server-based solutions.

Benefits

- Provides accurate mouth positioning and requires no manual touch-up.
- Decreases the turn-around time required to align graphic content with speech files from many hours to just a few minutes.
- In media where manual synchronization is prohibitive, this technology can bring previously static characters to life!
- Allows better and faster reuse of graphic assets by simplifying the process needed to introduce new audio content for a given character. For media where rapidly changing content is required, automated synchronization is a necessity.
- By reducing reliance on specialized expertise for synchronization, the animator can realize significant cost savings.

Quotes

- *“The two biggest selling points of the Pulse Veepers technology are the fluid realism of the resulting characters and the ease and speed with which they can be created. The Automatic Sync Technologies software delivers on both points, and is unrivaled in terms of performance and realism.”* [Mark Yahiro, President of Pulse Entertainment]

- *“Naughty Dog has always been skeptical about automated lip synch. But VoiceWorks nails it! It doesn’t just flap the lips with volume, it references the script and recorded dialogue simultaneously and then syncs everything amazingly well.”* [Rob Titus, Naughty Dog, a subsidiary of Sony Computer Entertainment] (VoiceWorks, by Puppet Works, uses ProductionSync)
- *“Accurate lip-synching for realistic speaking characters has always been a painstaking process. With Animo Soundtrack Editor, using the ProductionSync software, it becomes faster, more intuitive and reliable.”* [Brian Tyler, Vice President of sales and marketing, Cambridge Animation]
- *“Voice Works allows me to concentrate on the creative part of animating. By handling the basic lip syncing automatically, I can immediately focus on giving my characters, well, character. Even with a voice track of a thick Irish accent, it gave great results.”* [Daniel Roizman, CG Supervisor, Kleiser-Walczak]
- *“We have been using Automatic Sync Technologies, ProductionSync library for nine months now, and have found it to be accurate and reliable. Its use has eliminated endless hours from our production process. ProductionSync allowed us to seamlessly and simply integrate lip-synching ability into our production tools.”* [Robit Hairman, Chief Software Architect, Talkie Inc.]
- *“We integrated ProductionSync into our range of famous3D Production tools because of its superior accuracy and overall quality. ProductionSync has helped make virtual characters accessible to web developers and speeds up the production pipeline for our professional animation clients.”* [Daniel Sullivan, Director of Business Development & Strategic Alliances, Famous 3D]

Specifications

- C API for Windows, Mac OSX, and Linux. Alternate OS available on request.
- Acceptable audio input is 8kHz, 11kHz, 16kHz, 22kHz, 32kHz, 44kHz, or 48kHz .wav files using 8 or 16 bit samples. Alternate input formats can be supported.
- Audio input files can range in length from ¼ second to many hours.
- Output time resolution is 10 ms.
- Text-based synchronization delineates the occurrence of words, sentences, special key words, and user-defined events in addition to mouth positions.
- Very fast: a one minute audio file takes about 2 seconds to synchronize on a 3 GHz P4 (exact speed depends on configuration).
- Very small footprint: executable footprint is as little as 200k (depends on exact configuration).
- Support for non-English languages available on request.

Automatic Sync Technologies

Phone: (510) 582-3437

<http://www.automaticsync.com/lipsync>

Email: lipsync@automaticsync.com