

Haptek Automated Personalities Programmer's Technical White Paper

<http://www.haptek.com/developers>

Haptek provides a 3D character animation software solution for web pages and stand-alone applications. This document will give you the details about what is provided from a programmer's perspective.

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1. What Are Some Possible Uses Of Haptex's SDK?

- Add a character to your website that interacts with visitors.
- Populate your artificial world with Haptex driven characters
- Use a 3D character to interact with customers at a kiosk
- Add customizable avatars to your instant messaging program
- Have a character give entertaining help at your customer support site
- Use a 3D animated version of your logo or mascot in your program or website
- Add a character to your PowerPoint Presentation
- Put a smiling face on your autonomous Robot
- Quickly and easily add a talking character to go alongside your game
- Add a front end to any text display; have a character read it
- Show a model of your product in real-time 3d
- Add audio playback to your application or website
- Add text to speech (TTS) to your application or website

2. What Feature Set Does The Haptex Engine Support?

- Library of pre-built, reusable animations, gestures, and moods
- Advanced skinning
- Morph target blending
- Animation blending
- BVH motion capture playback
- Physically modeled hair and cloth dynamics
- Physically modeled musculature and fatty body deformation
- Attachment system lets you add hats, glasses, or any other mesh to another mesh
- Multiple simultaneous state machines based animation system
- Command driven key frame system
- Lip Synced audio playback, with phoneme generation
- Speex audio playback for tiny sound files.
- Microsoft SAPI 4 and SAPI 5 TTS support
- Ogg Vorbis audio playback
- Bitmap and JPEG texture loading
- Use your own, or use our DirectX 6 rendering engine
- Bzip2 based compressed and archived haptex files
- Haptex Hypertext scripting system supplies a simple text interface
- Query system to get feedback and internal information
- Support for downloading files from http and ftp sites

3. What Form of API Does Haptek Provide?

- ActiveX control for quick and simple integration to your program or presentation
- C language Dynamic Link Library for complete control
- C++ wrapper class for easy integration to win32 programs
- C++ wrapper class for easy integration to your rendering engine
- IE, Netscape, Mozilla plugins for integration with your website
- JavaScript wrapper supplied for easy integration to your website

4. What Tool Set does Haptek Supply?

- PeoplePutty – for rapid prototyping of characters and creation of custom heads
- Pre-built Head, Half Body, and Full Body characters – just add a morph for your character and they are ready to use
- HapOggFactory (Audio Factory) – generate Ogg files with embedded lip-synch data from WAV files
- FigureMaker – create animations, states and switches, figure definition files, moods and many more things
- DeltaSetMaker – turn OBJ formatted 3d models into Haptek models, create morph sets from many OBJ files
- HapTarg – create compressed archive files for fast downloading of Haptek data
- Phoneme Editor – fine tune lip-sync information in your Ogg files
- 3D Studio Max utility scripted plugin – export your static models from 3D Studio Max to a format ready to be used in the Haptek Engine

5. What Documentation Does Haptek Supply?

- Complete SDK documentation in HTML format
- Complete searchable documentation in CHM format
- Complete reference to Haptek Hypertext and Query system
- Step by step tutorials on usage of the various tools

6. Who Else Has Used Hapttek Software?

- Intel
- Columbia Tri-Star and Sony Pictures
- Children's Television Workshop
- Stan Lee Media
- American Management Systems
- Euro RSCG
- IXL
- Third Age Media
- Ricardo.de
- Sony Research
- Stanford
- MIT
- Georgia Tech
- KnowledgeView
- Imparta
- Cognos Web Services
- Medical Learning Company
- SCT BOCES
- Sonork SRL
- Cincinnati Children's Hospital
- Nokia
- Clone3D
- And others... for a complete list with references, contact Hapttek

7. Where can I get more information?

E-mail Contact: jack@hapttek.com

Websites: <http://www.hapttek.com/developers>

<http://www.hapttek.com/products/playersdk/index.shtml>