SitePal Technical Note: Using the Text-To-Speech API

This technical note explains how to implement real time Text-To-Speech (TTS) in your web page using the SitePal Standard (Client) API.

> *You do not need to be a programmer to follow the instructions in this document, though basic familiarity with HTML and the concept of making a Javascript function call is assumed.*

Introduction

Your (Silver Plan and higher) account supports TTS functionality, which means that your SitePal characters can 'convert' text input to speech, and speak it. Over 25 languages and hundreds of voices are supported.

> *Tip: a great place to check out our available languages and voices is in this public demo: www.ttsdemo.com.*

Text to Speech can be used with your SitePal characters in one of two ways –
1. "Static TTS" - via the user interface - by typing in your text in the SitePal editor. When you do so, that audio is assigned to your Scene, and will be spoken by your SitePal character when the Scene is displayed.
2. "Dynamic TTS" - via the API - by calling the API JavaScript function 'sayText'. Using this method your SitePal character can be directed to speak text in real time on your web page.

The first method is simpler. The second is more powerful. To use Static TTS simply select the TTS option in the SitePal Editor, select your language and voice, and enter your text. There is no need to read any further. The rest of this document explains how to use Dynamic TTS.

> *Note that with Dynamic TTS the text spoken to each website visitor may be different and uniquely crafted. You may for example include in the spoken text personal details relevant to your customers (e.g. personal balance, items they have looked at before), and/or mention points relevant to the day or time of their visit.*

Implementation

Dynamic Text To Speech is enabled via the API function call 'sayText', which allows you to specify the text to be spoken by your SitePal character. The steps to make this work are as follows:

1. Embed your SitePal Scene into your HTML page
Create a Scene where the audio is set to "none". Select the "Publish" option, copy your Scene's embed code, and paste it into your HTML page.

2. Setup the Domain

Add your web page domain name to your Licensed Domains to enable Dynamic TTS to work. In your SitePal account, select "Account Info" from the main menu bar.

At the bottom left of the page, you can access your Licensed Domains. This feature is set up for your protection to restrict Dynamic TTS use from your account only to those domains which you authorize.

Your web page domain name is the domain name visible in the browser's address bar when your web page loads. Protocol and detailed path information removed, the domain name looks something like this -

www.mycompany.com   or   69.63.176.13

Note: "localhost" and "127.0.0.1" are always supported and do not need to be added.

3. Review the 'sayText' API function

Review the documentation for the sayText function call within the Standard (Client) API Reference doc. This document and other helpful resources are available in the SitePal site support page (www.sitepal.com/support).

Specifying the function parameters allows you to select the language and voice to be used. The list of available languages and voices can be found in Appendix B.

> *Tip: Advanced users may also wish to examine available SSML tags, which allow you to fine-tune TTS audio. See Appendix C for details & check out the support example "Fine Tuning TTS" in the support page.*

We also recommend reading through the short Introduction & Programming for Mobile sections in the API Reference - to gain some useful insight about other relevant aspects of using the API.

4. Call the 'sayText' API function

Call sayText to initiate speech at any time after the Scene is fully loaded.

> *Note: API function calls may not work as expected until your embedded Scene or Show is fully loaded. It is therefore advisable to implement the 'vh_sceneLoaded' callback – and not call any API function before this callback is received.*

Common ways to use the 'sayText' function include speaking when the mouse rolls over a certain area of your page, or speaking after a certain amount of time has elapsed. But the two most common uses are -

• You want your character to speak when a link is clicked. The link should refer to "javascript:sayText(…)". In a similar way you may invoke TTS in response to rollover or any other event that Javascript can detect or generate. Example: Click here to say something!

• You want your character to speak when page is loaded. To do so, you must add an event callback function to your page to capture the 'vh_SceneLoaded' callback event. This event indicates that the Scene is loaded and ready to accept your call (see more information about Event Callback functions in the API Reference). Add the sayText function call within this callback function.

Example:
```
function vh_sceneLoaded(){
        sayText("Welcome to my website!",3,1,3);
}
```

Note: audio playback when page is loaded ('play on load') may be blocked by the web browser in many instances, and always on mobile. Please see more information about "Play on load" limitations in the Programming for Mobile section in the API Reference.

Working Example
A technical example of the Text to Speech implementation using the methods described above, is available in our support examples, here -
    http://www.oddcast.com/support1/saytext_classic.html

View the source code of the page to see how it is done. Feel free to copy & paste portions to use in your own page (but if you do so don't forget to replace our embed code with your own embed code from your account).

Troubleshooting
You followed the instructions above but TTS does not work in your page? Here is what you should look into:

1. Verify that your Embed code has indeed been copied into your page.

2. Verify that the licensed domain name for your web page has been configured properly. In your account open 'Account Info". One of the domain names configured there must be identical to the domain name you see in your browser's 'address' line – if you strip away the preceding "http://" and any path information.
For example – Browser address line is: http://www.mycompany.com/abcd/index.html
Licensed domain name should be: www.mycompany.com

3. Verify that the sayText function is indeed being called. The best way to do so is to add a JavaScript alert just prior to the 'sayText' function call.
Add the line: alert("sayText is called"); and try again. The alert should come up whenever you expect the VHost to speak. If you don't see the alert come up, then your code is not making the function call to sayText. You need to examine your code.

4. You are trying to call sayText prior to your Scene being fully loaded. Use the callback vh_sceneLoaded to determine that the Scene is loaded before any API call is issued.

5. You may be trying to call sayText when the page is loaded, before the user interacts with the page. There is nothing wrong with doing so - but audio playback may be blocked by the browser. Please see more information about "Play on load" limitations in the 'Programming for Mobile' section in the API Reference.

Questions? Send us a note to: support@sitepal.com