



CHANT®

Administer Speaker Profiles for Accurate Speech Recognition



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Administer Speaker Profiles for Accurate Speech Recognition

Maximize speech recognition accuracy by ensuring end users have completed training sessions with the recognizer. Speaker training—even for command and grammar-based recognition—is essential for accuracy.

A recognition profile is a collection of information used by a speech recognition engine to increase its recognition accuracy for a specific individual's voice and environment.

A speech recognition engine saves training and background noise information to use in recognizing speech. Some speech recognition engines, such as Microsoft's Recognizer, capture and save information over time to adapt the profile for optimum speech recognition accuracy.

WHAT IS PROFILE MANAGEMENT?

Profile management enables you to administer the functions necessary to create, delete, train, backup, and restore speech recognition profiles as part of your deployed application.

WHAT IS PROFILEKIT?

Chant ProfileKit is comprised of application ready software components that handle the complexities of managing profiles and persisting them in files for deployment and recovery.

It simplifies the process of managing profiles for Nuance Dragon NaturallySpeaking, IBM ViaVoice, Microsoft SAPI 4, Microsoft SAPI 5, and Nuance VoCon recognizers. You can backup and restore,

activate, create, delete, and train profiles as needed within your application to adapt to the end user.

ProfileKit includes ActiveX, C++, C++Builder, Delphi, Java, .NET Framework, Silverlight, and Web component library formats to support all your programming languages and provides sample projects for popular IDEs—such as the latest Visual Studio 2010 from Microsoft.

The component libraries can be integrated with 32-bit, 64-bit, and mobile applications.

PROFILEKIT FEATURES

The goal of profile management is to maximize speech recognition accuracy. With ProfileKit you can:

- Create and delete speaker profiles on demand.
- Integrate speaker training as part of your application features.
- Backup and restore speaker profiles for ensuring maximum recognition accuracy and reliability.

Chant ProfileKit is comprised of application ready software components that handle the complexities of managing and persisting speaker profiles. This allows your application to enhance the quality of speech recognition and offer administrative features for maintaining speaker profiles.

Recognizers have their own formats for speaker profiles. ProfileKit supports the following recognizers and their profile formats:

Recognizer Speech	API	Training Dialogs	Custom Training
Nuance Dragon NaturallySpeaking (all languages)	Dragon COM API	Yes	No
IBM ViaVoice (all languages)	SMAPI	Yes	Yes
Microsoft SAPI 4 (all languages)	SAPI 4	Yes	No
Microsoft SAPI 5 (all languages)	SAPI 5	Yes	Yes
Nuance VocCon 3200 V2 (all languages)	VoCon 3200 V2	No	Yes
Nuance VocCon 3200 V3 (all languages)	VoCon 3200 V3	No	Yes
Nuance VocCon 3200 V4 (all languages)	VoCon 3200 V4	No	Yes

PROFILE MANAGEMENT COMPONENT ARCHITECTURE

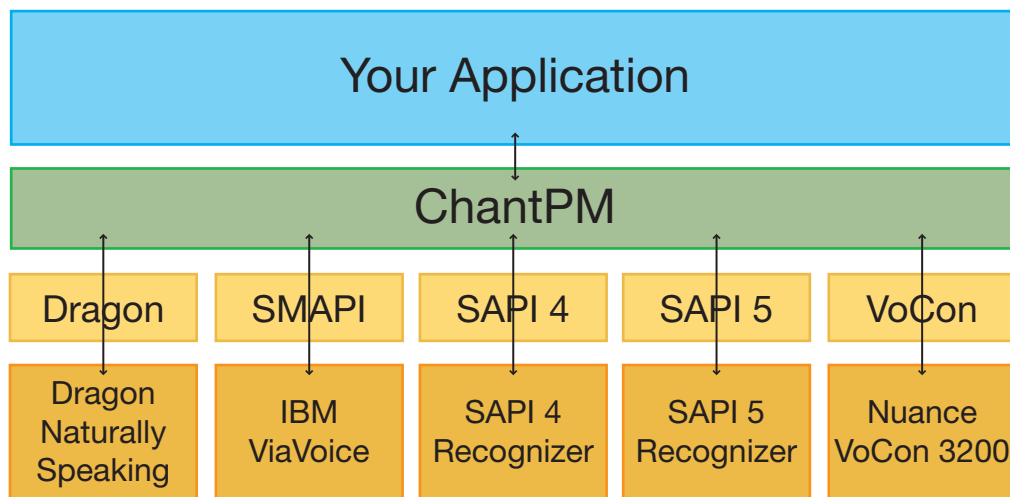
The ProfileKit component library includes a profile management class that provides you a simple way to create, delete, train, backup and restore speaker profiles. Your application can integrate speaker training, backup, and recovery as part of its speech recognition administrative features.

The profile management class, ChantPM, enables you to select or create a speaker, train it, and optionally persist the profile (i.e., training) to a binary file. Your application can import the training to restore a profile or define a user on a new system. In addition the archived profile can be self extracting or self installing file. The ChantPM class supports the following recognizers:

- Dragon NaturallySpeaking,
- IBM ViaVoice,
- Microsoft SAPI 4,
- Microsoft SAPI 5,
- Nuance VoCon 3200 V2, V3, and V4.

Your application receives backup and restore progress notifications through event callbacks.

The ChantPM class encapsulates all of the technologies necessary to make the process of managing profiles simple and efficient for your application. Optionally, it can persist the profile to a self extracting archive for portability across systems.



The ChantPM class simplifies the process of managing profiles by handling the low-level activities directly with the speech recognition engine application program interfaces (API).

You instantiate a ChantPM class object before you want to manage a profile within your application. You destroy the ChantPM class object and release its resources when you no longer want to manage a profile within your application.

MORE INFORMATION

To learn more about developing software that speaks and listens, explore how easily you can manage grammars, profiles, lexicons, recognizers, synthesizers, and text-to-speech markup directly within application software you develop in the following documents:

- Develop Software That Speaks and Listens,
- Integrate Speech Technology for Hands-free Operation,
- Design Grammars for High-Performance Speech Recognition,
- Administer Speaker Profiles for Accurate Speech Recognition, and
- Fine-tune Speech Synthesis Using Text-to-Speech Markup.

