



# How to bundle your application with Acapela TTS Multimedia

## Developer's guide

***Ref. : AcaMul-Bundling-6***

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# Acapela Multimedia

Bundle guide

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AcaTTS-BundleGuide

## Document revisions

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## 1. Introduction

The goal of this document is to explain to you how to bundle your application with acapela multimedia TTS. The purpose of bundling is to grant to your application proper rights so that your product can use Acapela Text-To-Speech without requiring any additional licence files to be installed on the end user computer.

To bundle a program with Acapela TTS Multimedia, you need to add some specific code in your program. The methods explained here apply only to Windows programs, for other platforms please contact us for availability.

Depending of the API that you are using, the instructions are slightly different so please refer to the proper section of this document.

**IMPORTANT NOTE :** in order to have the bundling mechanism working properly, it is required that you run your application in the same directory than the one containing acatts.dll (mandatory), acatts.ini (mandatory), nscube.dll (only needed if NSCAPI is used), acattssapi4.dll (only needed if Sapi4 is used) , acattssapi5.dll (only needed if Sapi5 or SpeechLib for C# or VB .net is used). You may ignore this note if you are using BabTTS API and the BabTTSInitDLLEx function.

**IMPORTANT NOTE 2:** If you are using Sapi 4, Sapi 5 or the SpeechLib.NET framework, don't forget to request a new acatts.ini file (customized to your application) to Acapela Group before the deployment, to avoid collisions with other software which are eventually bundled with Acapela Multimedia 6.

You will find more information about files installation and registry entries of Acapela Multimedia 6 in the Acapela Multimedia Client Customisation Document (Reference: AcaMul-CCD-6.pdf)

### 1.1. Package

The files needed for bundling are included in the standard SDK packaging:

- A definition file (.h) for C++ applications.
- A .NET assembly (libBundlingNet.dll) for applications written using .NET languages (C# and VB .Net)
- Skeleton of applications given as examples
- This documentation

Depending of your request, you will also receive several customer specific files:



- A c++ header file (.h ) containing the bundling license (for C++ applications)
- A .cs and/or a .vb files containing the bundling license (for .NET applications)
- A OEM string key for older applications build around NSCAPI or the ActiveX layer



## 2. Bundling using the BabTTS API (for C++ applications)

This method stands for all applications using the BabTTS API.

- yourLicense.h is the header file containing the license string

You need to add the following code at the very beginning of your program (or at least before any use of BabTTS functions):

1. #include "BabTTSTBundle.h"
2. #include "yourlicense.h" and store it in a variable :  

```
const char* lpszLic=  
#include "YourLicense.h"  
;
```

Note that the syntax of this code might look unfamiliar, but this is exactly the way you need to put this code in one of the first functions accessed by your program.
3. Load the AcaTTS.dll by calling BabTTSInitDll (or BabTTSInitDllEx)
4. Insert the bundling license  

```
CTTSBundle ttsbund(CTTSBundle::BUNDLE_BABTTS);  
ttsbund.SetLicense(lpszLic);
```
5. Initialize the library with BabTTS\_Init()

Here is a skeleton of how a simple application looks like

```
#include "windows.h"  
  
#include "BabTTSTBundle.h"  
  
const char* lpszLic=  
#include "YourLicense.h"  
;  
  
void main()  
{  
  
    //load the dll (here, AcaTTS.dll is in the Path, otherwise use BabTTSInitDllEx)  
  
    if (NULL==BabTTSInitDll())  
  
        return;
```



```
//load the bundling

CTTSBundle ttsbund(CTTSBundle::BUNDLE_BABTTS);

ttsbund.SetLicense(lpszLic);

if (!BabTTS_Init())
return;//initialization failed


//Here, you can use all functions from the SDK


//once you have finished :
BabTTS_Uninit();

BabTTSUninitDll();

}
```



## 3. Bundling with SAPI4 and SAPI5 modules (with C++ applications)

The bundling of applications written with the SAPI4 or SAPI5 layers can be bundled the same way as with regular C++ applications (see 2.).

You just have to be sure that you are calling the bundling initialization BEFORE any calls to SAPI based methods.



## 4. Bundling with .NET Applications

For .Net applications, enabling speech is done by adding the SAPI5/SpeechLib assembly reference.

You also have to add a reference to the assembly TTSBundlingNet.dll

To bundle your application with the licensed voices, you'll have to add the customer specific .VB or .CS file to your VB.Net or C# project. It contains the license string in the Acapela.AcapelaLicense class with proper syntax for VB and C#.

C#: Simply call **Acapela.AcapelaLicense.Bundle()** before any other use of SpeechLib

VB.Net: there is a catch: you have to modify the default namespace of the VB project to empty, then you can call **Acapela.AcapelaLicense.Bundle()**

You can test if your application is bundled by calling `Acapela.AcapelaLicense.IsBundled()`.

**Important:** it does not say whether the license string has been accepted, only that the Bundle method has been called!

You can get rid of the .cs or .vb file, by copy/pasting the code from the `Acapela.AcapelaLicense.Bundle()` method directly in your application, this also solves the problem of the default namespace in VB.Net.



## 5. NSCAPI

If a valid OEM key (composed of 43 characters) is sent to the server before any access to the library, all voices installed on the system will be authorized, whereas if an invalid key is sent, no voice will be available.

The call to the `nscSetOemKEY` function must be done just after the call to the `nscCreateServerContext` function and before any other call to our API :

```
if( (Result = nscCreateServerContext(NSC_AF_DEFAULT,0,NULL,&hSrv))==NSC_OK)
{
    printf("Connected\n");
}
else
{
    printf("ERROR: nscCreateServerContext return  %d \n",Result);
    return -1;
}

if (nscSetOemKEY(hSrv,"REPLACE_THIS_STRING_BY_THE_ONE_SENT_TO_YOU")==NSC_OK)
{
    printf("Bundle ok\r\n");
}
else
{
    printf("Bundle not ok\r\n");
}
```



## 6. Active-X

To unlock the TTS engine, simply set the OEMKey property of the Active-X to a proper value just after having called the ConnectEngine method. Both kind of keys (43 characters long or BabTTS API keys) are valid. If an invalid key is sent , no voice will be available.

For VB, it is mandatory that you compile your exe file and use it to be able to use the bundling mechanism. During development and debugging, please use your developer computer based license.

Example in Visual Basic 6 :

```
ret1 = m_Speech.ConnectEngine(Mode, Tx_Port.Text, Tx_Server.Text)
If ret1 = 0 Then
    m_Speech.OEMKey = "REPLACE_THIS_STRING_BY_THE_ONE_SENT_TO_YOU"
    ret2 = m_Speech.Enumerate
End If
```

Example in Visual C :

```
IResult = m_Speech.ConnectEngine(m_nConnectionMode+1, m_nPortNumber1, NULL);

if (IResult == 0)
{
    m_Speech.SetOEMKey("REPLACE_THIS_STRING_BY_THE_ONE_SENT_TO_YOU ");
    int IResult = m_Speech.Enumerate();
}
```