SP Voice sound (reference; line; name; compression; flags) -> err

reference   integer   specifys the channel you want to close. Use the
                                         reference number obtained from the
                                         SP Open Voice function.
line   string (255) is a string (max. length 255) which contains the
                                         text you want to convert. It can also contain a
                                         reference to a "STR#" resource.
name   string (255) is used differently, depending on the flags
                                         parameter. It contains either the name of the
                                         sound resource to create, or the path to a
                                         non-existing file. Although the maximum length
                                         of the name is 255 characters, it is better to
                                         use a short one of perhaps 31 characters or less
                                         for resource names.
compression string (4)   allows you to specify if and how to compress
                                         the sound data. This is only implemented for use
                                         with 8-bit data resources. When trying to
                                         compress 16-bit data an error is returned
                                         (-223).
                                         These compression types are recognized and
                                         handled when possible:

               NONE   No compression (empty string has the same result)
               MAC3   Use MACE 3:1 compression.
               MAC6   Use MACE 6:1 compression.
               The compression 3:1 and 6:1 reduce the size, compared to
               uncompressed, to about 1/3 and 1/6 respectively.
flags   integer   indicates how the sound data must be stored and
                                         how the "name" parameter is to be treated. You
                                         can pass the values listed below, but don't add
                                         them together because that won't give you a
                                         resource and a file at the same time!
               4   Save 8-bit data to 4D sound resource */**
               5   Save 16-bit data to 4D sound resource */**
               6   Save 8-bit data to Finder sound file ***
               7   Save 16-bit data to Finder sound file ***
               (other values may be defined with later versions of Speech
               Pack, but the currently defined set will always be
               compatible although the effect may change slightly)
               * = name parameter contains resource name, otherwise a
                     filepath.
               ** = only with System 7 or System 6.0.7/6.0.8.
               *** = only with System 7 or System 6.0.7/6.0.8 with
                        32-bit QuickDraw and QuickTime installed.
err   integer   returns the error which occured.
                                         A value of zero indicates no error occured. See
                                         below for a list of possible errors.

Converts the string you pass using the synthesizer of the speech channel you specify into a sound resource or sound
file (compressed if you want).

WARNING:
This function uses features of the MacinTalk Pro (a.k.a. PlainTalk) voice synthesizer which are for evaluation and
experimentation purposes only and not supported by Apple.
Because of this, problems may occure because of lack of documentation, changes in the software from Apple or just
plain bugs. Please report these to me and I will try to improve the code. Consider this function always to be at beta-
testing stage.

You can use this function only together with MacinTalk Pro voices using the PlainTalk 1.0 or MacinTalk Pro 1.2 or 1.3
extension.

The sound data will always be saved with a sample rate of 22 kHz.

The 4D sound resource (type "snd ") will be created in the structure file and if a sound resource with the same name already exists it will be removed first. The size of the sound resources can be large, starting around 10 Kilobytes for a single word.
You can copy the sound resource from the structure file or Finder sound file by using ResEdit, Resorcerer and some other (shareware) utilities like SoundMover.
The name you specify here as the resource name can later be used with the PLAY command.   The PLAY command can play both 8-bit and 16-bit (provided Sound Manager 3.0 is present) sound and also compressed sound resources, so you don't have to worry about that.

4D Server:
The sound resource is stored in the .res file which was created by 4D Client in your System Folder (Preferences), but not in the structure file on the server. Whenever this .res file is updated when you connect to the server again the sound resource is removed.
Specifying only a document name doesn't store it on the server but in the local default folder.

When passing a filepath in the name parameter, all aliases in the path are resolved. See the "Filepath" chapter for more information about using a filepath.

This function can only be used with a speech channel opened with one of the MacinTalk Pro (a.k.a. PlainTalk) voices. Using it with any other voice or version will return an error (-231). If you want to determine in advance if a voice can be used with SP Voice sound use the function SP Voice Type.

Calling this function can take a long time, especially when the external needs to convert the 16-bit data it receives from the speech synthesizer into 8-bit data. This makes the whole function about 8 times slower compared to storing 16-bit data. Unfortunaly it is not possible to return the control to 4D before it is finished executing.
The external package does not give any visual feedback like a progress window or something like that. You, the designer, should put up a dialog window telling the user what is going on before calling SP Voice sound. As long as the watch cursor can be moved the computer hasn't crashed... :-)

Examples:
   `the string you want to convert into a sound resource:
   $line := "Welcome to the Speech Manager"

   `convert string (assuming $speechref is valid):
   $err := SP Voice sound ($speechref;$line;"Welcome";"NONE";4)

   `later you can use the normal 4D command "PLAY"
   PLAY ("Welcome")

   `to save the sound as a Finder sound file and have it played at every
   `startup you need to store it in the Startup Items folder (System 7)
   $err := SP Voice sound ($speechref;$line;"strt:Welcome";
            "NONE";6)

   `or compressed:
   $err := SP Voice sound ($speechref;$line;"strt:Welcome";
            "MAC3";6)
   $err := SP Voice sound ($speechref;$line;"strt:Welcome";
            "MAC6";6)

Possible errors:
(Look how much can go wrong with this function!)
General errors:
        0   No Error
      -4   Speech Pack can not be used (Speech Mgr not available)
            or option is not avalaible with the current system software

```
  -50   Parameter error
 -108   Not enough memory
 -109   Internal handle contains nil value
 -111   Tried to dispose an already disposed non-relocatable block
 -192   (String) resource not found or empty
 -193   Resource file not found
 -194   Adding a resource failed
 -196   Removing a resource failed
 -198   Attribute does not permit operation on resource
 -199   Error while reading resource map
 -223   Invalid compression type
 -231   Feature not implemented on synthesizer
 -247   Input text bad
-3000   Invalid SpeechChannel parameter, probably invalid reference
            number
```

Additional errors when using a filepath in the name parameter:
```
  -33   File directory full
  -34   Disk is full
  -35   Volume not found
  -36   I/O error
  -37   Bad filename used
  -38   File not open
  -39   End of file, no additional data in file
  -40   Attemp to position mark before start of file
  -42   Too many files open
  -43   File not found
  -44   Hardware volume lock
  -45   File is locked
  -46   Software volume lock
  -47   File is busy, can't be replaced
  -48   Duplicate filename and version
  -49   File already open with write permission
  -51   Bad reference number
  -53   Volume is currently off-line (ejected floppy disk?)
  -54   Software lock on file
  -56   No such drive
  -58   External file system which can't be handled
  -61   Read/Write permission doesn't allow writing
 -117   Tried to move an already locked non-relocatable block
 -120   Directory not found or incomplete filepath
 -128   User cancelled action (i.e. cancelled connection using ARA)
-5000   User does not have the correct access (i.e. on file-server)
-5025   Directory not found or incomplete filepath
            (i.e. on file-server)
```