

Quality Test

`this is the procedure used to test the Speech Pack external
`beside this procedure there are two others included: DoError and DoWaitVoice

`before release of this version of Speech Pack this procedure must have
`been executed successfully with at least these configurations:

`Macintosh IIfx 8/140, System 7.1 US, 4D 2.2.3
`Macintosh PowerBook Duo 210, System 7.1 US, 4D 3.0.5
`Macintosh IIfx 8/140, System 6.0.8 Int, 4D 2.2.3
`Macintosh IIfx 8/140, System 7.1 US, 4D 3.0.5
`Macintosh Plus 4/20, System 6.0.8 Int, 4D Server Demo 1.0.5
` and Macintosh IIfx 8/140, System 7.1 US, 4D Client Demo 1.0.5
`all using the latest available version of Speech Manager and PlainTalk
`each function has been tested more extensively during development

`declarations from the Speech Pack Language Reference:

C_INTEGER(\$err;\$speechref;\$present;\$count;\$rate;\$pitch;\$i)
C_INTEGER(\$gender;\$age;\$language;\$region;\$script)
C_LONGINT(\$modul)
C_STRING(4;\$creator;\$id)
C_STRING(15;\$mgrvers;\$packvers)
C_STRING(63;\$voicename)
C_STRING(255;\$comment;\$message;\$phoneme;\$path)

`additional declarations for use in this procedure

C_INTEGER(\$org_rate;\$org_pitch)
C_STRING(255;\$test_str;\$alert)
C_TEXT(\$test_txt)
ARRAY TEXT(SpeechArray;0)

\$test_str:="Testing Speech Manager 1.2.3"

\$test_txt:="Hello, you are now testing Speech Pack and the Speech Manager on your Macintosh"

`get copyright message

SP COPYRIGHT (\$message)

`get version numbers of Speech Mgr and Speech Pack

SP VERSION (\$mgrvers;\$packvers)

`compose text to display

`if \$mgrvers is empty the Speech Mgr is not installed

\$alert:=\$alert+"Speech Manager: "+(\$mgrvers*Num(\$mgrvers#"))+("N/A"*Num(\$mgrvers=))+Char(13)

\$alert:=\$alert+"4D Speech Pack: "+\$packvers+(2*Char(13))

\$alert:=\$alert+\$message

`display text on screen

ALERT(\$alert)

\$count:=0

For (\$i;0;31)

 \$count:=\$count+SP Features (\$i)

End for

If (\$count#6)

 DoError (\$count;"Incorrect number of featureflags set.")

End if

\$present:=SP Can speak

If (\$present>0)

 `test the Quick Speak functions

```
$voicename:="*" using the default normal voice
$err:=SP Speak String ($voicename;$test_str)
DoError ($err; "")
$err:=SP Speak Text ($voicename;$test_txt;1;1)
DoError ($err; "")
```

```
$voicename:="#" using the default robot voice
$err:=SP Speak String ($voicename;$test_str)
DoError ($err; "")
$err:=SP Speak Text ($voicename;$test_txt;1;1)
DoError ($err; "")
```

```
$message:="Select a voice for testing:"
$voicename:="*"
$rate:=0
$pitch:=0
$modul:=-1
$err:=SP Pick Voice (0;0;$message;$voicename;$rate;$pitch;$modul;0)
If ($err#0)
    $voicename:="Brenda"
End if
```

```
$err:=SP Speak String ($voicename;$test_str)
DoError ($err; "")
$err:=SP Speak Text ($voicename;$test_txt;1;1)
DoError ($err; "")
$err:=SP Speak Text ($voicename;$test_txt;1;6)
DoError ($err; "")
```

```
`test the BackWard Compatibility functions
TRACE
Say ($test_str;0)` use normal voice, rate and pitch
Say ($test_str;1)` use robot voice and normal rate and pitch
Say ($test_str;0;140;80)` use normal voice but other rate and pitch
```

```
PARLE ($test_str)
NO TRACE
```

```
`try to open all voices and let them speak at the same time
SP VOICES ARRAY ("SpeechArray")` first get the array with voicenames
$count:=Size of array(SpeechArray)` count the number of voices
```

```
ALERT("Now start speaking with all voices (" +String($count)+") if possible...")
```

```
For ($i;1;$count)
    $err:=SP Open Voice (SpeechArray$i;$speechref)

    If ($i<=10)&($err=-241)
        DoError ($err;"Can't open 10 channels, not enough memory?")
    End if
    If ($i>10)&($err=0)
        DoError ($err;"Can open more than 10 channels?")
    End if

    If ($err=0)
        $err:=SP Voice Text ($speechref;$test_txt;1;1;4)` pass text and pause before start speech
    End if
End for
$err:=SP Voice Cont (-1)` now continue all voices
While (SP Speaking >0)` while anyone is speaking wait for it to finish
    IDLE
End while
```

```
$err:=SP Close Voice (-1)`close all channels
```

```
`test the other functions in a loop, opening several speech channels
```

```
$count:=SP Count voices
```

```
For ($i;1;$count)
```

```
  `test general information routines
```

```
  $err:=SP Voicename ($i;$voicename)
```

```
  $err:=SP Voice Info ($voicename;$comment;$gender;$age)
```

```
  $err:=SP Language ($voicename;$language;$region;$script)
```

```
  `compose text to display
```

```
  $alert:="Voice: "+$voicename+(2*Char(13))
```

```
  $alert:=$alert+"Comment: "+$comment+Char(13)
```

```
  $alert:=$alert+"Gender: "+("Neuter"*Num($gender=0))+("Male"*Num($gender=1))+("Female"*Num($gender=2))
```

```
+Char(13)
```

```
  $alert:=$alert+"Age: "+String($age)+" year"+Char(13)
```

```
  If ($language#0)|($region#0)|($script#0)
```

```
    $alert:=$alert+"Language: "+String($language)+Char(13)
```

```
    $alert:=$alert+"Region: "+String($language)+Char(13)
```

```
    $alert:=$alert+"Script: "+String($language)+Char(13)
```

```
  End if
```

```
  `display text on screen
```

```
  ALERT($alert)
```

```
  `get more info
```

```
  $err:=SP Voice Type ($voicename;$creator;$id;$path)
```

```
  `compose text to display
```

```
  $alert:="Voice: "+$voicename+(2*Char(13))
```

```
  $alert:=$alert+"Creator: "+$creator+Char(13)
```

```
  $alert:=$alert+"ID: "+$id+Char(13)
```

```
  $alert:=$alert+"Data stored in disk file:"+Char(13)+$path+Char(13)
```

```
  `display text on screen
```

```
  ALERT($alert)
```

```
$err:=SP Open Voice ($voicename;$speechref)
```

```
If ($err=0)
```

```
  $err:=SP Voice String ($speechref;"-16395,0")
```

```
  DoError ($err;""")
```

```
  DoWaitVoice ($speechref)
```

```
  $err:=SP Voice String ($speechref;"René")
```

```
  DoError ($err;""")
```

```
  DoWaitVoice ($speechref)
```

```
  $err:=SP Voice String ($speechref;"René")
```

```
  DoError ($err;""")
```

```
  `unless you have a fast computer any non-PlainTalk voice
```

```
  `is probably already finished
```

```
  $err:=SP Voice Pause ($speechref)
```

```
  DoError ($err;""")
```

```
  ALERT("Now speaking will continue...")
```

```
  $err:=SP Voice Cont ($speechref)
```

```
  DoError ($err;""")
```

```
  DoWaitVoice ($speechref)
```

```
  $err:=SP Voice String ($speechref;$test_str)
```

```

DoError ($err; "")
DoWaitVoice ($speechref)

$err:=SP Voice Text ($speechref;$test_txt;1;1;6)
If ($err=0)

    If (SP Voice busy ($speechref)=2)
        $err:=SP Voice Cont ($speechref)
        DoError ($err; "")
    Else
        DoError (2; "Speech should be paused.")
    End if

Else
    DoError ($err; "")
End if

$err:=SP Voice Text ($speechref;$test_txt;1;6;0)
DoWaitVoice ($speechref)
Case of
: ($err=0)
    DoError (-242; "Should return an error here...")
: ($err=-242)
    `nothing
Else
    DoError ($err; "")
End case

$err:=SP Voice code ($speechref;$test_str;$phoneme;0)
If ($err<0)
    DoError ($err; "")
Else
    ALERT("String "+Char(34)+$test_str+Char(34)+" is converted to:"+Char(13)+$phoneme)
End if

$err:=SP Voice code ($speechref;$test_str;$phoneme;1)
If ($err<0)
    DoError ($err; "")
Else
    ALERT("String "+Char(34)+$test_str+Char(34)+" is converted to:"+Char(13)+$phoneme)
End if

`store 8-bit sound data as resource in 4D file
$err:=SP Voice sound ($speechref;$test_str;$voicename+".RES8-0";"NONE";4)
If ($creator#"gala")&($err=0)
    DoError (-231; "Should return error because not a PlainTalk voice.")
Else
    If ($err#-231)
        PLAY($voicename+".RES8-0")
        DoError ($err; "")
    End if
End if

`store 8-bit sound data as resource in 4D file
`with 3:1 compression
$err:=SP Voice sound ($speechref;$test_str;$voicename+".RES8-3";"MAC3";4)
If ($creator#"gala")&($err=0)
    DoError (-231; "Should return error because not a PlainTalk voice.")
Else
    If ($err#-231)
        PLAY($voicename+".RES8-3")
        DoError ($err; "")
    End if
End if

```

```
End if
End if
```

```
`store 8-bit sound data as resource in 4D file
`with 6:1 compression
$err:=SP Voice sound ($speechref;$test_str;$voicename+".RES8-6";"MAC6";4)
If ($creator#"gala")&($err=0)
  DoError (-231;"Should return error because not a PlainTalk voice.")
Else
  If ($err#-231)
    PLAY($voicename+".RES8-6")
    DoError ($err;"")
  End if
End if
```

```
`store 16-bit sound data as resource in Finder file
$err:=SP Voice sound ($speechref;$test_str;"desk:"+$voicename+".FNDR16";"NONE";7)
If ($creator#"gala")&($err=0)
  DoError (-231;"Should return error because not a PlainTalk voice.")
Else
  If ($err#-231)
    DoError ($err;"")
  End if
End if
```

```
`test get an set attributes and reset channel
$err:=SP Get Attr ($speechref;$org_rate;$org_pitch)
DoError ($err;"")
$err:=SP Set Attr ($speechref;$org_rate-10;$org_pitch-25)
DoError ($err;"")
`the rate and pitch can be changed by synthesizer to correct values
$err:=SP Get Attr ($speechref;$rate;$pitch)
DoError ($err;"")
$err:=SP Voice reset ($speechref)
DoError ($err;"")
$err:=SP Get Attr ($speechref;$rate;$pitch)
DoError ($err;"")
If ($org_rate#$rate)
  $err:=SP Get Attr ($speechref;$rate;$pitch)
  DoError (0;"Rate after reset is different from original value.")
End if
If ($org_pitch#$pitch)
  $err:=SP Get Attr ($speechref;$rate;$pitch)
  DoError (0;"Rate after reset is different from original value.")
End if
```

```
`close these voices
$err:=SP Close Voice ($speechref)
DoError ($err;"")
Else
  DoError ($err;"")

  If ($speechref#0)
    DoError ($err;"reference value isn't set to zero.")
  End if
End if
```

```
End if
End for
```

Else `can not speak because Speech Mgr not present or Speech Pack not set up properly

```
DoError (-4;"Unable to use Speech Pack.")
```

```
End if
```

```
DoError procedure
```

```
If ($1#0)
```

```
  If ($2="")
```

```
    $2:="Sorry, an error occurred."
```

```
  End if
```

```
  ALERT($2+String($1))
```

```
  TRACE
```

```
End if
```

```
DoWaitVoice procedure
```

```
While (SP Voice busy ($1)=1)
```

```
  IDLE
```

```
End while
```