

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 succesfully 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 this voice
\$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 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
```