

Speak Procedure

`procedure to speak the contents of every enterable field on a layout
`written by René G.A. Ros, author of Speech Pack external
`date: 12 October 1993
`use with Speech Pack 2.1 or later
`needs 4th Dimension 2.1 or later

`syntax:
`SPEAK(pointer;selector)
`where:
`pointer is a pointer to the object i.e. obtained by using Last Area
`selector specifies the type of action undertaken
`0 = non, redraw buttons only
`1 = play
`2 = stop
`3 = pause
`for the compiler put this somewhere else:
`C_POINTER("SPEAK";\$1)
`C_INTEGER("SPEAK";\$2)
`(!am I correct? I don't use the compiler and no v3 manuals available)

`this procedure assumes:
`- in the startup procedure a voice was opened by using:
` C_INTEGER(\$err;SpeechRef)
` \$err := SP Voice Open("";SpeechRef)
`- the voice will be closed properly in any quit procedure:
` \$err := SP Voice Close(SpeechRef)
` (4D v3 USERS CAN MAKE SpeechRef A INTERPROCESS VARIABLE)

`the designer can call this procedure either by menu procedures or buttons.
`this procedure assumes you are using at least three buttons with these names
`and only one line in their script
`SpeechPlay
` SPEAK(Last Area;1)
`SpeechStop
` SPEAK(Last Area;2)
`SpeechPause
` SPEAK(Last Area;2)
`of which 'SCRIPT: Only if modified' is enabled
`BTW 'Last Area' can be every other pointer ofcourse
`if you want to allow only to speak a text field use a pointer to that field

`from the layout procedure you can call:
` SPEAK(Last Area;0)
`to reset the button state correctly
`(in this case the pointer is ignored)

C_INTEGER(\$err;\$first;\$last)
C_STRING(255;\$speakstring)

If (Not(Nil(\$1)))`if parameter is valid pointer
 If (SP Can speak >0)`if we can speak do so and set buttons accordingly
 Case of
 : (\$2=1)`play
 If (SP Voice busy (SpeechRef)=2)`if the voice is paused than this selector acts as 'continue'
 \$err:=SP Voice Cont (SpeechRef)`thus: continue speaking

 Else `the voice is not paused so just speak the data
 If (Type(\$1»)=2)`since a text field has its own Speech Pack command...
 GET HIGHLIGHT(\$1»;\$first;\$last)`get the selection of the text
 \$err:=SP Voice Text (SpeechRef;\$1»;\$first;\$last;0)`and say it

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Else `everything else but a text field ends here
  Case of `convert the field data into a string based on the data type
    : (Type($1»)=0) `normal string
      $speakstring:=$1»`just copy it
    : (Type($1»)=1) `real
      $speakstring:=String($1»)`convert using String
    : (Type($1»)=4) `date
      $speakstring:=String($1»;3)`convert using String with the long format
    : (Type($1»)=6) `boolean
      $speakstring:=("true"*Num($1»))+("false"*Num(Not($1»)))`difficult what to say, simple TRUE or
FALSE I guess
    : (Type($1»)=8) `integer
      $speakstring:=String($1»)`convert using String
    : (Type($1»)=9) `long int
      $speakstring:=String($1»)`convert using String
    : (Type($1»)=11) `time
      $speakstring:=String($1»;5)`convert using String with the hh:mm AM/PM format
  Else
    $speakstring:=""`anything else gives an empty string
  End case

  If ($speakstring#"")`if empty don't try it, interrupt previous speaking
    $err:=SP Voice String (SpeechRef;$speakstring)`say it!
  End if

End if

End if

  `much simpler now: (we're are still in the case statement for the selector!)
: ($2=2) `stop
  $err:=SP Voice Stop (SpeechRef)`stop the voice (testing if busy is done by external)
: ($2=3) `pause
  $err:=SP Voice Pause (SpeechRef)`pause the voice (testing if busy is done by external)
End case

`now set the buttons
$status:=SP Voice busy (SpeechRef)`the others depend on the state of speaking
Case of
: ($status=0) `idle
  ENABLE BUTTON(SpeechPlay)`play is always enabled
  DISABLE BUTTON(SpeechStop)`the voice is not active so disabled
  DISABLE BUTTON(SpeechPause)
: ($status=1) `busy
  ENABLE BUTTON(SpeechPlay)`play is always enabled
  ENABLE BUTTON(SpeechStop)`user can either stop...
  ENABLE BUTTON(SpeechPause)`or pause
: ($status=2) `paused
  ENABLE BUTTON(SpeechPlay)`play is always enabled
  ENABLE BUTTON(SpeechStop)`user can stop but...
  DISABLE BUTTON(SpeechPause)`voice paused already
Else
  DISABLE BUTTON(SpeechPlay)`the voice is not active so disable all
  DISABLE BUTTON(SpeechStop)
  DISABLE BUTTON(SpeechPause)
End case

Else

DISABLE BUTTON(SpeechPlay)`can't speak so disable buttons
DISABLE BUTTON(SpeechStop)
DISABLE BUTTON(SpeechPause)

```

End if
End if