Race Manager - Feature #10

SAPI - Float Point division by zero at startup

12/01/2015 10:27 PM - Jesús M. Broceño

Status:	Closed		**Start date:**	12/01/2015
Priority:	Normal		**Due date:**	05/21/2021
Assignee:	Jesús M. Broceño		**% Done:**	100%
Category:			**Estimated time:**	0:00 hour
Target version:	1.14.05			

Description
When trying to activate SAPI 5.1 I get a Floating Point division by zero

History

#1 - 12/07/2015 05:25 PM - Jesús M. Broceño

1 - Select Voice on Speaker settings
2 - Enter a text on the "test" panel
3 - click on "speak"

#2 - 12/07/2015 05:25 PM - Jesús M. Broceño

Suggested solution by using Set8087CW funcion didn't work.

SAPI interface code will be rewritten. And performance optimizations (thread-queues) will be removed. I think not all speech engines supports intensive threading techniques.

Tested on systems affected. Changes work.

PS: MS Mike and MS Mary does not work on Win7 but default voice does.

#3 - 10/15/2022 11:49 PM - Jesús M. Broceño

- Description updated

For the benefit of everyone encountering the same problem as I did, the video by François explained there is a bug in SAPI/Windows (some incompatibility somewhere), which makes the following code raise the EZeroDivide exception:

```
procedure TForm1.FormClick(Sender: TObject);
var
  SpVoice: variant;
begin
  SpVoice := CreateOleObject('SAPI.SpVoice');
  SpVoice.Speak('This is a text.');
end;
The solution, as presented by the video, is to alter the FPU control word:

procedure TForm1.FormClick(Sender: TObject);
var
  SpVoice: variant;
  SavedCW: Word;
begin
  SpVoice := CreateOleObject('SAPI.SpVoice');
  SavedCW := Get8087CW;
  Set8087CW(SavedCW or $4);
  SpVoice.Speak('This is a text.');
  Set8087CW(SavedCW);
end;
```