TI-Concours 2017

Task 1
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STV versus technolapins

Warning: this document contains four pages.

Foreword

You have until April 30th 2017, 23:59 (UTC+2) to send your production at the following e-mail address: info@tiplanet.org. The title should be "TI-Concours, Task 1", and in the message body you should write your first name, last name, full mailing address, and the name of the calculator that you used for this task. Don't forget to attach your programs, which should be put all together in a single ZIP or RAR archive, which name should be your family name in uppercase letters without accents, followed by a space and the number "1". This archive should contain all the programs you made for this task (and nothing else).

You may update your submission as much as you need, by sending a new e-mail as stated above. Only the last e-mail that was sent before the deadline will be taken into account.

For this task, your main program should have the following name: the first 5 letters of your family name, without spaces or accents, followed by "1". For example, if your family name is De Périgny, your main program should be called "DEPER2". By doing this, you reduce the risk that we get two programs with exactly the same name. Yet, if you know someone whose family name has the same 5 first letters as yours and might participate, don't worry, we will handle this case by ourselves.

For this task, sub-programs are allowed: their names should start with the same six characters as the main program's, and should end with one or two extra characters of your choice. Recall that the main program is the one that should be chosen by the user when running the program. You may not ask the user to run an "installation" program prior to the first use of the program strictly speaking.

Your programs must all be fully written in z80 or ez80 TI-Basic. It means that you may use neither external librairies nor assembly code. We would also ask you not to protect your code, as we judges would like to see in detail what you did exactly.

Don't forget to get a link cable that lets you send programs from your calculator to your computer, and install the required software to do this. If you are facing issues related to this, do not hesitate to ask question on http://tiplanet.org.

If there is anything that you don't understand in this document, you may ask question at any time on http://tiplanet.org, by sending a private message to the user whose handle is "noelnadal". If it occurs that something really needs to be clarified, this document might be updated on the website. Therefore, it is recommended a check regularly if something has changed or not.

Whatever happens, we hope you will have fun participating!

Good luck to everyone!

STV versus technolapins

Story

You embody STV, a new hero from TI-Planet, who is going to save the world from the technolapins' invasion.

When they are not invading the world, technolapins rest in their rabbit holes. Since STV is clever, he is going to attack them by surprise, when they are not expecting it!

There is one technolapin by hole, and every technolapin's behavior is determined by a very specific electronic music. This explains why there is only one technolapin by hole, as they can't stand listening to others' musics.

In theory, STV just needs to infiltrate in the various holes and kill the ennemi in it. Yet, technolapins have a special features that makes very hard to eliminate. Some time ago, some rabbit DJs started making Nightcore versions of already existing musics, that are very similar to the original one. When a technolapin is out of order, his « twin » can, reprogram remotely a technolapin, by making again the music that the destroyed technolapin had, and thus maintain the number of technolapins constant.

Fortunately, STV is not giving up: he understood that, if he joins forces with his worst enemy, SVT, they could try to kill two « twin » technolapins simultaneously, and then prevent these technological animals forever from invading the world.

All technolapins are always playing their favorite music, yet one has to enter a rabbit hole to hear it. It is possible to identify all existing technolapins and make a strategy that would minimize the number of visits in these rabbits holes.

Destiny is calling you: TI-Planet believes in you!

Your task

As you probably understood, you have to make a memory game, related to the story that you just read. Furthermore, the following two constraints should be respected:

- there must be at least two difficulty levels;
- the best score must be saved.

Of course, you don't need to play music on your calculator. You should try to find a way to keep the spirit of the game in the best possible way!

Judging

Every program taken into account for this task will first receive a score, between 0 and 100 inclusive. At the end, all the scores will be harmonized, so that the average score is 60 points, and the standard deviation is 10 points.

Half of the points will depend on if you followed the rules stated on the previous page. The other half of the points will be given on various criteria such as: the game's aestheticism, fluidity, the fact that it is user friendly, etc… Points will also be given for originality.   In order to guarantee equity between participants, not using a color calculator will not be penalizing, and differences between different calculator models will be taken into account.