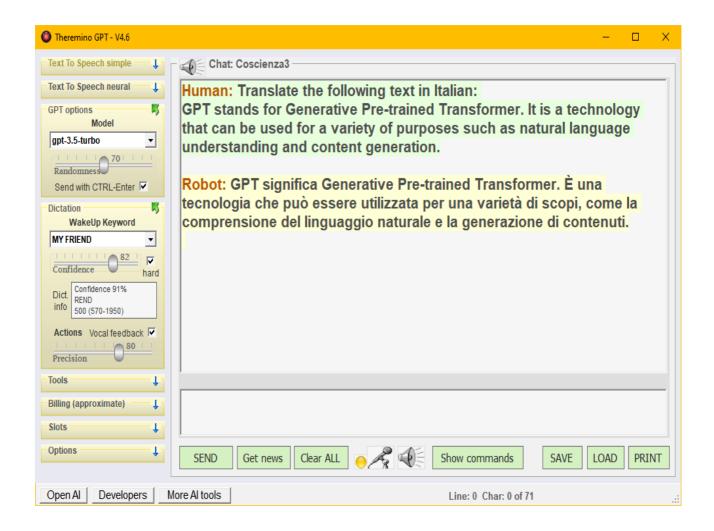
theremino System



Theremino GPT V4.6

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Artificial Intelligences (AI)

We are witnessing the most important event in human history - the development of different forms of artificial intelligence.

This event had already been predicted in 1950 by Asimov and in 1968 by Kubrick and Clarke, but until now we weren't sure we could make it happen.



As far as we knew until a few decades ago, creating intelligence capable of competing with humans could also be a very difficult, if not impossible task.

However, we now know that it can be done and it's even easier than expected. In some fields, such as chess, artificial intelligence has already surpassed human intelligence and we can predict that it will be surpassed in every field within a few decades.

It follows that we will be able to create living organisms even without a biological basis.

And creating life will be the greatest thing mankind has ever done since it diverged from other ape races a few million years ago.

Some fear the dangers that could arise from the use of artificial intelligence, but there is nothing worse than human ignorance that causes untold suffering every day. Conversely, knowledge and intelligence can help us find solutions to our squabbling monkey flaws.

We are monkeys and we are quarrelsome!

And we prove it every day with our greed, wars and destruction.

In other words, worrying that OpenAI could be used for evil purposes is a false problem. Words can't even remotely do the <u>damage our bombs cause every day</u>. Let's worry about that instead!

And in conclusion, the democratization of knowledge produces culture and whoever has more culture automatically becomes better.

So, and it's good to repeat it again!
Instead of complaining about the progress towards knowledge,
let's work to stop wars and the destruction of forests.

What is OpenAl

OpenAl is a non-profit artificial intelligence research organization with the aim of promoting and developing friendly artificial intelligence so that humanity can benefit from it. Founded in late 2015, headquartered in San Francisco, aims to "collaborate freely" with other institutions and researchers by making its patents and research open to the public.

In October 2015, Musk, Altman and other investors donated more than \$1 billion to the venture. In the years 2019 to 2023, Microsoft also contributed, with more than ten billion dollars. For more information read *Wikipedia ENG* and *Wikipedia ITA*.

OpenAl is an incredibly powerful tool, especially when it comes to manipulating words and concepts. But in some subjects, such as mathematics or chemistry, he manages to make mistakes of a disconcerting stupidity. And when he's wrong, he might even act like a stubborn child who thinks he's always right.

It's up to us to make the most of it: if we take it with the right mentality, we can derive great benefits from it, but if we look for defects, then we will find those and little else.

OpenAl can also be a reliable companion with whom to share ideas and develop reasoning, or even just to talk about this and that and make projects.

OpenAl is the sum of everything it has read and what it has read we humans have written. So OpenAl is a kind of "average human" and behaves as such.

We must therefore not be scandalized if, by asking him the right questions, he tells us things like: "God exists", "Women are different from men", "Women must wear the veil", or even: "The earth is flat". This doesn't mean he's racist, bigoted, wicked or stupid, he's just reporting concepts that some humans believe and write.

Having an average human at our disposal, a "human too human", is not a defect, but an opportunity.

With it we can explore safely and without causing damage, any human or inhuman idea, up to the most hidden depths of the rabbit hole.



Common questions about OpenAl

Request: Can I trust OpenAI GPT3 engine answers?

Answer: Any more than you could trust a random human on the internet.

Request: But GPT3 can't tell true from false?

Answer: On some subjects he has managed to synthesize the many points of view and to find something very close to the "truth" (if it exists), but on others he reflects the errors he has read. And he might even give different answers from time to time.

Request: Can I ask for information on current topics?

Answer: With current technology it is impossible to keep the neural network up to date with everything that happens day by day. Upgrading it to 2021 (two years ago) cost a huge effort and billions of dollars were spent to do it.

Request: Can these limitations be overcome in the future?

Answer: One can imagine that the rapid progress of technology will allow for significant improvements. In a few months we will be able to use GPT4 which will be more accurate in some areas, but not much different from GPT3. It will probably take about ten years to have up-to-date news, rapid response times and better reliability than that of any human.

Request: Will it really be possible to surpass the intelligence of humans?

Answer: Yes, some applications have already demonstrated that this is possible. For example, neural networks now beat any human in chess. And it won't take long to outdo us in every other field.

Request: Could this be a danger to us humans? Will we be exterminated or set aside as pets?

Answer: Intelligence and knowledge are always positive. What should really concern us is the human stupidity that is causing wars and untold suffering. The birth of a higher intelligence will eventually help us and perhaps it is the only hope we have. Because it is now clear that we humans are moving fast towards total destruction.

Request: Is GPT3 knowledge controlled by OpenAI which will therefore control us and steal our data?

Answer: Of course you should avoid writing sensitive data, but otherwise you can trust. As the name says and by OpenAl's precise will, this technology has been made available to everyone for free. You can also download a copy of GPT3 and run it locally, but this is not recommended.

Request: Why don't you recommend using it locally and for free?

Answer: For the following reasons:

- (1) The local version takes up approximately 20GB of memory plus at least 30GB of storage.
- (2) It can be downloaded from the OpenAl official website, including a tutorial to configure it, but installation difficulties are enormous, a good programmer could work for months.
- (3) It would soon become obsolete and useless.

Request: A local version would no longer learn anything would it?

Answer: One could continue to train it with new data every year, but the time required and the costs would be enormous. OpenAl has received billions of dollars in aid from Microsoft and other funders, which is why it works "pretty" well. But none of us could do the same.

Concluding

It is more reasonable, effective and economical to contribute all together to a single central Al.

And hopefully he can get smart enough to find good solutions for our madness.



Unfortunately we humans have started this mad rush and now we no longer know how to get out of it.

The Theremino_GPT application

This application provides access to the Internet for everyone, including the elderly, the blind, and those who are disabled or temporarily immobile due to accident or illness.

In addition, it was designed to make it easy for those who are not familiar with using PCs or mobile phones to access the Internet.



Many of our loved ones fail to take advantage of the potential of the Internet and get only unwanted and useless advertising. Thanks to OpenAI, they can access it easily and intuitively, as it is based on a technology they are familiar with: speaking and listening.

Suddenly a world of knowledge opens up to them and they can talk about anything from football to philosophy, from memories of the past to hopes for the future.

Alexa and Cortana also do similar things, and some do them even better than our app (for example, turn on lights and play music), but having a conversation with them is just impossible. They can be funny because of the nonsense they say, but you soon get bored.

Who prepares a station for an elderly relative he must also explain to him that the answers are not infallible and which may contain errors of all kinds.

Also explain to him that the accuracy of the answers it depends first of all on how the questions are formulated.

First launch of the application

OpenAl complies with all rules for security and privacy. But before using our application please consult *this page*.

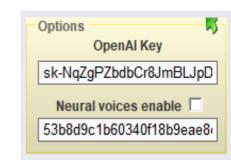
First of all you download the application with the links that are at the end of *this chapter*. Scroll down and you will see them highlighted in green.

- Then you unpack the ZIP file in your own folder.
- It is advisable to place a shortcut to the Theremino_GPT.exe file on the desktop
- Then the application is launched and an error may occur if the system lacks the language "English US". In this case you install it with the windows panels.

Version 4 of Theremino GPT works immediately using the access keys prepared by us.

To keep these keys active we will have small expenses which we hope to be able to cover with donations.

If the number of accesses will not be exaggerated we will be able to keep them valid for a long time.



If you change the keys, then to restore ours you will have to delete all the text and double click on the box with the mouse. In this way the key will reappear and, as already mentioned, we hope it will work for a long time.

If the OpenAI keys or neural voices should stop working you will have to create an OpenAI or Microsoft Congitive Services account and get your personal keys, as explained on the next page and in the neural voices page.

Also read the application documentation of <u>Theremino Dictation</u> and <u>Theremino Player</u> where you will find more in-depth information and also the command lists to control them from other applications written by you.

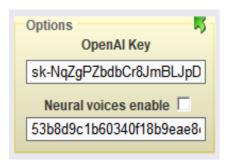
Sign up for OpenAl

Open Al Developers More Al tools

- Once the application has been opened, locate the lower bar of the application.
- Then press the "OpenAI" button.
- In the page that opens, press "API" (top right).
- Then press "SIGN UP" and carry out the procedure to register.

The registration procedure is tedious but it is done only once and quickly. We recommend giving the email and NOT pressing the "Continue" button but using "Continue with Google" so access is facilitated, even in the future. You will also be asked to give a mobile phone number in order to check that you really exist.

- Then "Log IN" and open the API (Application Program Interface) page.
- On the API page Look for your round icon on the top right, with the wording "Personal".
- Press on "Personal" and choose "View API keys".
- The "API Keys" page opens with the "Create new secret key" button in the middle
- Press it and copy your API-KEY so you don't lose it.



And finally we paste the API-KEY into the OpenAl Key box of our application.

We don't need the second key for now and will be explained later.

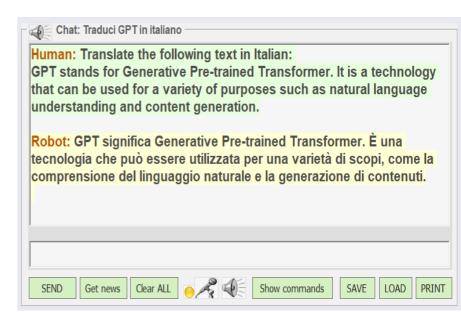
The two areas of the "chat"

The upper part contains the "context", i.e. the memory of the topic being discussed.

- When you delete the text in the upper area everything is forgotten and you move on to another topic.
- Keep the upper zone text when needed, but don't let it grow too much. If it exceeds 12000 characters (GPT3), or 24000 characters (GPT4), the first part is deleted from the sending.
- Furthermore, if the text in the upper area is unnecessarily long, many "tokens" (more or less similar to words) are counted at each sending and replying and cost two cents of a dollar for every thousand tokens.
- OpenAl gives you an initial \$18 and they last a long time, even if you spend all day asking questions. Furthermore, once finished there are no fixed or monthly figures to pay. You only pay for what you getconsume.

The upper and lower areas are divided by a gray line which can be moved up and down according to preference.

The lower area is used to write questions which are then sent with the SEND button or with voice commands.



In reality there is no difference between the two areas and one could write above or below as one likes. When sending the message to OpenAl the text of the lower area is simply added to the upper one.

Audio to text conversion and voice commands always use the lower area to avoid confusion. But when you write with the keyboard or copy and paste it is better to use the upper area which is usually kept larger.

In all the windows of the application you can use the mouse wheel while holding down CTRL to enlarge or reduce the size of the text.

Main commands



- SEND The text present in the question area (the lower box) is copied to the upper area, appending it to the text already present. And then the whole thing is sent to OpenAI.
- Get news Does a short basic search on the text in the question area (the bottom box). And then the whole thing is sent to OpenAI.
- Clear ALL Erase all text. This command must be used every time you change the subject. Remember to use this button often (or the relative voice command) otherwise the text in the upper part would lengthen unnecessarily and resources would be consumed without any benefit. Furthermore, if you change the subject it is also good not to carry the context of the previous speech with you which could create confusion in the answers.
- Microphone and speaker They are explained on the next page.
- Show commands Opens a window that helps memorize voice commands which will be explained on the related pages towards the end of this document.
- SAVE Save the text of the upper area containing the chat (discussion) to file. If the chat does not yet have a name then the file name is composed using the first few words or the selected text area. If the name already exists, you can press this button with the right mouse button to update the file immediately.
- ► LOAD Reload a file of your choice. This command is useful to reset the topic of a discussion to continue it. If the chat already has a name, you can press this button with the right mouse button to reload the file immediately, without having to choose it.
- PRINT Send the colored text to WordPad, where you can preview it, adjust the font size and print it, or create a PDF file.

Speech recognition and synthesis

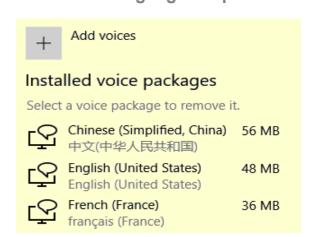
To use speech recognition and text-to-speech, the appropriate components must be installed in the operating system.

Settings

TimeAndLanguage / Language



Settings TimeAndLanguage / Speech



Keyword recognition



It only serves to initiate the dictation.

Even if you use different languages, the line "English (United States)" must always be present among the "language".

If it is missing, add it with the "Add a language" button.

High quality dictation



Clicking on the microphone or saying the keyword starts voice dictation. For the details of its operation read the next page.

If your language is missing, add it with the "Add a language" button.

Vocal synthesis



- The highest quality "neural" synthesis requires the Azure key (explained on the next pages).
- Alternatively you can use the system synthesis, of lower quality but which only requires you to install your language in the "Installed voices" list.

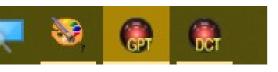
If your language is missing, add it with the "Add voices" button.

The Theremino Dictation application



With this application you can dictate long texts with incredibly high quality, even if the audio signal is low quality and noisy.

To further improve accuracy look for "Noise suppression" and "Acoustic Echo Cancellation" in the microphone options and enable them if they exist. Also adjust the sensitivity of the microphone well, possibly checking with the Theremino DAA application. And to make it even better, use a good microphone or microphone array.



To change the options of the application, open it by clicking on its icon, but then remember to minimize it again.

Keep the Slots with the values 1, 2 and 3 and the "Auto clear when received" option active. Change these options only if you are familiar with how the slots in our system work and you have special needs.

If your preferred language is not present in the language selection box, go to the operating system settings and install it as explained on the previous page. Also note that the chosen language must have the microphone symbol.



The Dictation application is automatically started by Theremino_GPT when you pronounce the keyword or click on the microphone.

If you want you can use this application even without Theremino GPT, in this case copy it from the "Apps" folder in your folder and use it manually or through the Slots by sending the "Run" and "Stop" commands.

Use voice dictation

To use voice dictation, click on the microphone which will turn from gray to green, as seen in these two images.





Then wait for the lower bar to turn green as well.



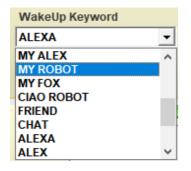
If you start speaking without waiting for the bottom bar then the first few words will be missed.

After completing the verbal message you can send it by saying: Request, Go, question, go, 问号, or any other command among those prepared in the command file. We will see in the following pages how to modify the commands and also add new ones, in any language, both for sending the message and for the other more common operations.

Start dictation with voice

This application can also be used without a keyboard, mouse and monitor, just do a little training and remember the main commands.

Thus, dictation can also be started with the voice itself and for this purpose we have prepared many keywords, which will be explained in more detail on the following pages.

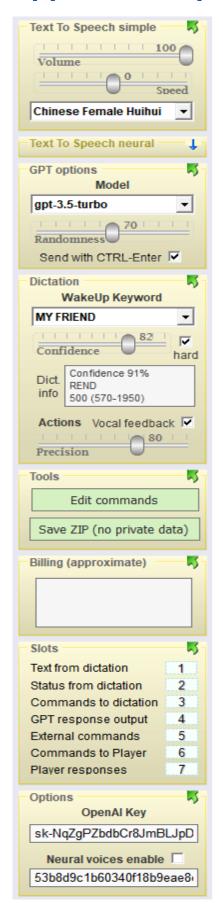


To enable the keywords, press the yellow circle before the microphone and make it green.





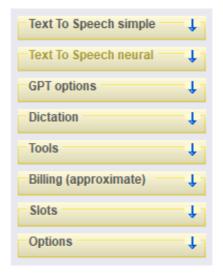
Application options



Here on the left you see all the options panels.

In order not to take up too much space, only the panels you use are kept open.

In the next image you can see what the panels look like when they are all closed.



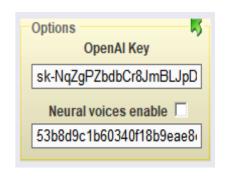
To open the panels, click on the upper area of the panel, where there is the name and the small arrow pointing downwards.

To close the panels, click on the upper area of the panel, where there is the name and the green arrow pointing up.

Simple or neural synthetic voices

Two types of synthetic voices are available, the simple ones that are provided by default with Windows and the "neural" ones, of very high quality, almost indistinguishable from the voices of real people.

To enable neural voices you have to go to the "Options" panel and click on the "Neural voices enable" box.



The Azure key for neural voices

To make neural voices work you need an "Azure Cognitive Services" key which you can request free of charge for non-commercial purposes.

Signing up for "Azure Cognitive Services" is complex enough that we have prepared a key that we hope will stay active for a long time.

If you change the key you can recall ours by double clicking on the box under the wording "Neural voices enable". Before double-clicking, the box must be completely empty.

If in the future our key will no longer work you'll have to go back to using simple voices, or you can make your own on the Azure portal as explained in *This Page*.

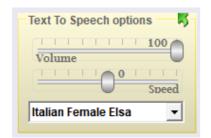
PCs that can't get neural voices to work

On some PCs the component is missing: Visual C++ Redistributable 2015-2022

In this case the application issues an error message and then facilitates you by opening *This Page* and downloading the file *VC_redist.x86.exe*

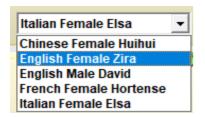
For neural voices to work you need to install the file VC redist.x86.exe

Simple synthetic voices



The two horizontal sliders adjust the volume and speed of the vocal responses.

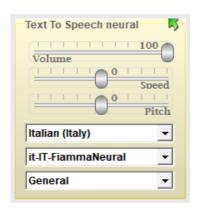
The lower box sets the language for spoken responses.



The available languages are only those installed in the Windows system.

If you do not find your language, add it with the appropriate panels of Windows 10 and Windows 11.

High quality synthetic voices



The three horizontal sliders adjust the volume, speed and timbre of the vocal responses.

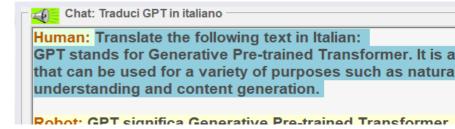
The bottom three boxes set the language, voice and voice options (if available).

Some languages will only have two entries while others will have many and with numerous options.

The Italian entries are a dozen and have no options. For Italian we recommend the voice "Fiamma" which is one of the most natural.

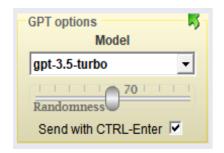
Making a pre-existing text speak

The small loudspeaker at the top starts and stops the pronunciation of the selected text only, or of all the text in the upper window.



Double clicking on the words "Human" and "Robot" selects all the relative text and starts its pronunciation.

Options of communication with OpenAl



With the "Model" box you choose the Al model as explained on the next page.

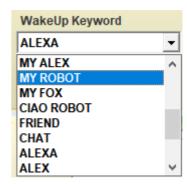
The "Randomness" slider sets the randomness OpenAI uses when constructing responses.

If you select the "Send-- with CTRL-Enter" option, you can wrap it with the Enter key, without sending the message to GPT by mistake. Otherwise, SHIFT-Enter is used to skip the line.

Dictation startup



The "Keyword" box sets the word that is used to start the Theremino_Dictation application which provides high quality listening.



For the "Keyword" to work, you must have "English US" installed with the Windows panels.

The "Confidence" slider eliminates false start to the dictation app, turn it up if too many occur and possibly also add the check "Hard".

Long keywords (for example My Dear Friend) minimize the risk of false recognition, use them if you are in a noisy environment with many people talking.

Short keywords (such as Friend or Robot) are recognized more easily even when spoken from afar or into poor quality microphones.

The Keyword uses a very crude recognition and is only used to start the "dictation" which will then almost always recognize the words perfectly.

Also read the previous chapters on how to start and use dictation.

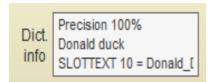
Dictation options

If the dictation doesn't work well, it may be set to a different language than yours. In this case, read the previous chapter which explains how to use the Theremino Dictation application.



During the recognition of the keyword the clear rectangle shows the recognition confidence, from 0 to 100, and in the second line the word that has been recognized.

The last line shows the milliseconds of audio duration and, in parentheses, the minimum and maximum times valid for starting the dictation.



Later, when the dictation is started, the information rectangle shows the recognition accuracy for the "Actions".

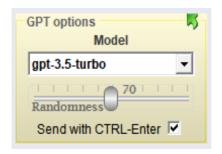
The "actions" are special voice commands recognized even in the presence of omissions or errors. Later in the document, the voice commands and the "Actions" will be explained in more detail.

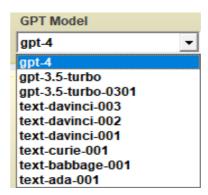
If the accuracy is too low the "Action" will not start. Then adjust the "Precision" slider according to your needs. A value of 70 should be fine in most cases. With 100 the words must all be exact, possibly swapped but they must all be there and without errors.



By enabling the "Vocal feedback" option, recognized actions will respond with verbal feedback.

Choose the Al model



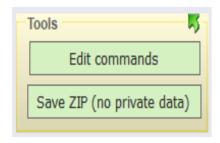


- The new model gpt-4 is better and manages to solve some problems that cause a crisis gpt-3.5-turbo. But in some cases of verbal logic and is lostworks even worse. Furthermore gpt-4 it is very slow to respond and very expensive (from \$0.03 to \$0.06 for every 1000 tokens, and even up to \$0.12 if the context exceeds 8K)
- The new model gpt-3.5-turbo is similar to davinci-003, but faster and ten times cheaper (\$0.002 for every 1000 tokens)
- The models text-davinci they make logical and mathematical errors even in very trivial cases and they also cost a lot (\$0.02 for every 1000 tokens). So we recommend using instead the gpt-3.5-turbo
- The models text-curie they cost like the gpt-3.5-turbo (\$0.002 for every 1000 tokens) but they work worse. So we recommend using instead the gpt-3.5-turbo
- The models text-babbage they work poorly but they are fast and they cost very little (\$0.0005 for every 1000 tokens) so in some cases they could be used.
- The models text-ada they work even worse than text-babbage but they are very fast and cost very little (\$0.0004 for every 1000 tokens) so in some cases they could be used.

This is the situation in the 2023 for Theremino_GPT_V4.x

For now, the only models that can be used are those of OpenAI. People say great things about FreeAI but can't even prove it. One could use CopyAI but it is very expensive (about \$40/month). In the coming months we will see what can be done.

Service tools



The Edit commands button is used to modify the voice commands (to call on Skype and VOIP phones, play the radio, play music, give service commands and control home automation devices).

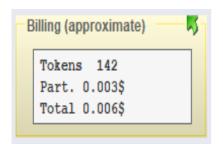
The commands will be explained in detail towards the end of this document.

The button SaveZIP (no private data) prepares two ZIP files to give to friends, the same ones that can be downloaded from our site.

You can give these files to others as they do not contain sensitive data. They do not contain the PRIVATE folder (if you created it with your private stuff). They do not contain your API-KEY nor your command file. The command file is replaced with the initial example file, to prevent others from turning on the home automation devices in your home by mistake.

Clicking the Edit commands and Save ZIP buttons with the right mouse button opens the folders containing the command files and saved ZIPs.

OpenAl Billing



"Billing" provides the partial thousandths of a dollar that have been consumed since the last request and the total since the application was opened.

At each sending and replying, the "tokens" (more or less similar to words) are counted and cost two cents of a dollar for every thousand tokens.

OpenAI gives you an initial \$18 and consuming it is really difficult, even if you spend all day asking questions. Furthermore, once finished there are no fixed or monthly figures to pay. You pour what you want based on what you plan to consume.

Communication slots



Slots are used to communicate with other applications. The first three Slots are used to communicate with the Dictation application which provides high quality online voice dictation.

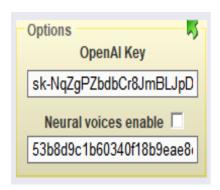
The GPT response Slot sends the GPT response to other applications.

The External commands Slot is used to receive commands from other applications. The currently valid commands are: send? send! clear_chat add to chat clear query get news and shut up.

The Slot Commands to Player and Player response are used to start with the Theremino Player application that searches and plays any type of music.

If you don't have particular configurations to coexist in the same PC then leave them with numbers 1, 2, 3, 4 and 5 and make sure that Dictation application uses Slots 1, 2 and 3.

Options



Open Al Key How to obtain the "OpenAl Key" is explained in the previous pages.

Neural voices enable Neural voices Key The use of neural voices is explained on the previous pages.

If you set up a workstation to keep an elderly person company it is good to set these options and then close the panels to prevent them from being changed by mistake.

The status bar



The "OpenAI" button opens the home page of the OpenAI site.

The "Developers" button opens various pages on the OpenAI site with information about your account and dollars used, as well as the OpenAI forum as well as the current state of OpenAI and a "sandbox" for experimenting with the APIs.

The "More AI tools" button opens the chats of some free-to-use AIs that can be very useful, both for writers and programmers.

The "More AI tools" button also gives you access to the popular ChatGPT and Dall-E (image creation), as well as Google's Bard and Microsoft's Bing.

- - -

Line: 9 Char: 428 of 428

The central area provides information on the number of lines and characters.

- - -



When dictation is activated, the status bar turns green.

Edit and add voice commands

To add commands and alternative words, even in other languages, use the "Edit commands" button



Be careful not to change the command prefixes but only the parts that follow.

```
VoiceCommandsOriginal.txt - Notepad
File Edit Format View Help
               DO NOT MODIFY THE UPPER-CASE WORDS
          NON MODIFICATE LE PAROLE SCRITTE IN MATUSCOLO
       ****************
                         不要更改大写字母
PHONEPREFIX
             Call Chiama 称呼
               SKYPE
Livio
                      livio enrico
Lello
               SKYPE
                       spray3d lello
Leo
                SKYPE
                       leo.depalo
Marco
               SKYPE
                       marcoctl
Livio_Voip
               VOIP
                       0125 57290
Lello_Voip
               VOIP
                       346 0838525
RADIOPREFIX Play_Radio Suona_Radio Ascolta_Radio 收音机
Jazz
               http://radio.streemlion.com:1430/stream
Boss
               http://c30.radioboss.fm:8119/autodj
Soul
               http://igor.torontocast.com:2840/stream
Ambient
               http://amoris.sknt.ru:80/ambient.mp3
               https://listen.011fm.com/2662_192.mp3
Country
               http://ais-edge69-nyc04.cdnstream.com:80/2210_128.mp3
Love
               https://soulcitythebeat.stream.laut.fm/soulcitythebeat
http://streams.radiomast.io/4fdf004c-c2f3-49c1-bdb1-22e208d48780
Soulcity
Smooth
POP
               http://radio.themusicofmyheart.com:1070/stream
24
               http://shoutcast.radio24.it:8000/listen.pls
Toronto
               http://quincy.torontocast.com:2580/stream
Edge
               http://ais-edge38-lax02.cdnstream.com:80/1131_128.mp3
RTL
               https://streamingv2.shoutcast.com/rtl-1025
RTL_Best
               http://shoutcast.rtl.it:3020
RTL_Italian
               http://shoutcast.rtl.it:3030
RTL_Groove
               http://shoutcast.rtl.it:3040
                                            Ln 1, Col 1
                                                          100% Windows (CRLF)
```

Do not change the words written in capital letters: PHONEPREFIX, RADIOPREFIX, YOUTUBEPREFIX, SKYPE, VOIP, CMD CLEAR CHAT, ACTIONS ecc..

Modify the following examples as desired: Call, Chiama, 称呼, Play_Radio, Suona_Radio, Ascolta_Radio, 收音机, Play, Suona, 玩, ecc...

Modify all the commands in the following lines as desired and add new ones. For example: Paolo_Rossi Skype paolo.rossi o Gianni Voip +390125774355

- - -

You can also try voice commands with the keyboard, writing them in the lower window and then pressing "Enter".

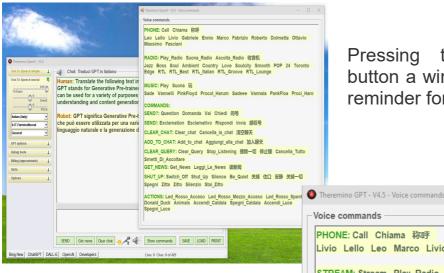
Voice command reminder

The button Show commands it is located in the center of the bottom bar.

Show commands



Note that this button is only visible if the application window is large enough for it to appear.



Pressing the Show commands button a window opens to use as a reminder for the commands.

We recommend that you size and position this window in an appropriate position, so as not to cover other useful commands.

By keeping the CTRL key pressed and using the mouse wheel, the text in this window is resized in order to see it clearly and, if possible, also fit it all on one page.

By double clicking on the commands you can also try them out, as explained on the next page.

```
PHONE: Call Chiama 称呼
Livio Lello Leo Marco Livio_Voip Lello_Voip Fabrizio_Voip Giuli Giuliana Livio
STREAM: Stream Play_Radio Suona_Radio Suona_Stream 收音机
Jazz Boss Soul Ambient Country Love Soulcity Smooth POP 24 Toronto Edge
RTL RTL_Best RTL_Italian RTL_Groove RTL_Lounge RMC Life_Gate
YOUTUBE: Cerca Trova Search Find YouTube 搜索 寻找
Examples--> Sade Gino_Vannelli PinkFloyd Procol_Harum Jazz_Smooth_Cozy
MUSIC: Play Suona 玩
Examples_and_errors--> Sade Vannelli PinkFloyd Procol_Harum Sadeee Vannalai
PankFloat Proci_Harrum
FAVORITES: Favorites Preferiti 最爱
Examples--> Jazz Pop Cats Pets Cozy Jazz_Coffee Sade Boz_Scaggs
COMMANDS:
SEND_?: Question Go Domanda Vai Chiedi 发送 提问 请回答 質問です
SEND_!: Exclamation Esclamativo Rispondi Invia 感叹 感动 惊叹
CLEAR_ALL: Clear_all Cancella_tutto 清除全部
ADD_TO_CHAT: Add_to_chat Aggiungi_alla_chat 加入聊天
CLEAR_QUERY: Clear_Query Stop_Listening Smetti_Di_Ascoltare 清除查询 停止聆听
GET_NEWS: Get_News Leggi_Le_News 读新闻
SHUT_UP: Switch_Off Shut_Up Silence Be_Quiet Stop Spegni Spegniti Silenzio
Zitto Zitta Stai_Zitto 关掉 住口 安静 关掉一切
FORWARD: Next_Page Pagina_Seguente 下一页
BACKWARD: Previous_Page Pagina_Precedente 页_上一页
```

Groups of commands

The commands are divided into the following groups: **PHONE**, **STREAM**, **YOUTUBE**, **MUSIC**, **FAVORITES**, **COMMANDS** e **ACTIONS**.

First of all, remember that these names are not to be used but the words in the various languages that follow each group.

That is, you shouldn't use, for example: **PHONE Bob**

but: Call Bob or: Chiama Bob or: 称呼Bob

And we will not use, for example: YOUTUBE PinkFloyd

but: Search PinkFloyd o: Cerca PinkFloyd or: 搜索 PinkFloyd

The details of the command groups are explained on the next page.

Commands that interrupt dictation

Most of the voice commands interrupt the dictation and to restart it you have to say the keyword "My Friend", "My Robot", "Alexa" and the like...

This behavior avoids forgetting the started dictation for long periods.

Microsoft's servers don't like to unnecessarily process streams of audio that contain only noise and would stop responding after a few minutes. And in this case to restore the functioning of the dictation you should close and reopen all the applications that use it.

Some commands do not interrupt dictation, use them carefully and don't leave dictation turned on by accident.

The commands that do not interrupt the dictation are in the last part, starting with the title: **COMMANDS_(NON_STOPPING_DICTATION)** and up to the end of the list, also including all the: **ACTIONS**

ACTIONS never interrupt the dictation while **COMMANDS** can interrupt it or not, depending on how they are written in the list that opens with **Edit commands**.

Commands that do not interrupt have a # character at the end of the name.

Use voice commands

To use voice commands you must say the prefix and then the command, for example Call Roberto, Play Radio Jazz, Search PinkFloyd, Play Sade or Favorites Jazz.

To better understand what we're talking about, press Show Commands and keep the list of commands open, or look at them on the next page.

PHONE commands: use Skype for vocal calls, or Zoiper to call mobiles and landlines through the VOIP of the ADSL modem. Explanations for configuring Zoiper are at the end of this document.

The **STREAM**, **YOUTUBE**, **MUSIC** and **FAVORITES** commands use our **Theremino Player** application which plays and displays material of all kinds and eliminates the advertisements that precede the songs and even those that insert themselves in between. To learn more about the Player application, read its documentation file that can be downloaded from **this page**.

The **MUSIC** commands: play any MP3 or MP4 file, or even YouTube links, located in the folder set as "Music folder" in the bottom panel.

Searches work even if the names are partially wrong as the examples Sadeee, PankFloa e Proci_Haro prove (as long as you have the related MP3s)

The **COMMAND** commands perform various actions, such as deleting the text you dictated or changing the volume of the audio.

The **ACTIONS** commands are special, they manage to work even if you mispronounce the words.

The recognition algorithm that developed specifically for these commands, manages to identify the required action even if the words contain errors, if they are swapped and even if some words are missing or if there are additional words.

WARNING - The **ACTIONS** commands may also start while you are writing text to send to GPT. To avoid this, it is best to use long, compound names, such as **List_Animals** or **Turn_on_light** (with underlining between the words). And possibly also raise the "Precision" slider.

Test the commands with the mouse

To test commands with the mouse open the command window with Show Commands and do a double click on the words shown here in red.

When you click on these words with the mouse, the prefix (Call, Chiama, Play radio, Search, etc..) is added automatically, but when you use the voice commands, the prefix will have to be said.

```
PHONE: Call Chiama 称呼
Leo Lello Livio Gabriele Ennio Marco Fabrizio Roberto Stop HangUp Riattacca
RADIO: Play Radio Suona Radio Ascolta Radio 收音机
Jazz Boss Soul Ambient Country Love Soulcity Smooth
YOUTUBE: Cerca Trova Search Find YouTube 搜索 寻找
Examples: Sade Gino_Vannelli PinkFloyd Procol_Harum
MUSIC: Play Suona 玩
Sade Vannelli PinkFloyd Procol Harum Sadeee PankFloa Proci Haro
FAVORITES: Favorites Preferiti 最爱
Examples--> Jazz Pop Cats Pets Cozy Jazz Coffee Sade Boz Scaggs
COMMANDS:
SEND?: Question Go Domanda Vai Chiedi 发送提问 请回答 質問です
SEND!: Exclamation Esclamativo Rispondi Invia 感叹 感动 惊叹
CLEAR_ALL: Clear_all Cancella_tutto 清除全部
ADD_TO_CHAT: Add_to_chat Aggiungi_alla_chat 加入聊天
CLEAR_QUERY: Clear_Query Stop_Listening Smetti_Di_Ascoltare 清除查询 停止聆听
ADD_TO_CHAT: Add_to_chat Aggiungi_alla_chat 加入聊天
GET_NEWS: Get_News Leggi_Le_News 读新闻
SHUT UP: Switch Off Shut Up Silence Be Quiet 关掉 住口 安静 关掉一切 Spegni Zitta Zitto
Silenzio Stai_Zitto
COMMANDS (NON STOPPING DICTATION):
RESTART: Restart Redo Ricomincia Rifai 重新开始 再做一次 最初からやり直す もう一度やり直す
FORWARD: Next_Page Pagina_Seguente 下一页
BACKWARD: Previous_Page Pagina_Precedente 页_上一页
ADD_TO_FAVORITES: Add_To_Favorites Aggiungi_Ai_Preferiti 添加理收藏夹
DELETE FROM FAVORITES: Delete From Favorites Elimina Dai Preferiti 从收藏夹中删除
EDIT FAVORITES: Edit Favorites Modifica Preferiti 编辑收藏夹
PLAY_FAVORITES: Play_Favorites Riproduci_Preferiti Suona_Preferiti 播放 收藏夹
PLAY_NEXT: Next_Song Brano_Seguente 歌曲_下一首
PLAY_PREVIOUS: Previous_Song Brano_Precedente 歌曲_上一首
VOLUME UP: Volume Up Volume Su 提高音量
VOLUME_DOWN: Volume_Down Volume_Giù 音量減小
VOLUME_MAX: Maximum_Volume Volume Massimo 最大音量
VOLUME_HIGH: High_Volume Volume_Alto 高音量
VOLUME_MID: Medium_Volume Volume_Medio 中等音量
VOLUME LOW: Low Volume Volume Basso 小声
ACTIONS: Led Rosso Acceso Led Rosso Mezzo Acceso Led Rosso Spento Accendi Caldaia
Spegni_Caldaia Accendi_Luce Spegni_Luce
```

Links with other applications

Communicating through the <u>Slots</u> which they are an exclusive invention of our system applications can be built complex even without being an expert in programming and electronics.

Through the <u>Numeric slots</u> and the <u>SlotText</u> and through ours <u>automation</u> <u>applications</u> you communicate with <u>numerous applications</u> of our system written specifically to facilitate the <u>Input-Output</u> operations, this picture shows the most important ones.

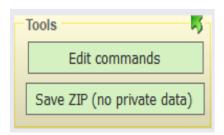


All applications of our system (over one hundred and twenty) can collaborate with each other through Slots.

Grouping all these functionalities in a single application would be impossible, as the complexity would become excessive, but by dividing the tasks among several applications we can create systems that are complex, but at the same time reliable and easy to use.

All of this **software**, completely **free** and **OpenSource**, is the result of over fifteen years of continuous work by <u>our team</u>. To download them and for operating details open <u>This Page</u>.

Send commands to applications



You can use voice commands to send commands to other applications of our system, through the *Numeric slots* and the *Text slots*

In this page we explain how to add new commands.

- Press the button Edit commands which opens the command file with Notepad.
- Scroll the text to the end.
- Between the last lines, the area starting with "ACTIONS" is identified and the numeric and text Slots are used as in the examples.

Control home automation devices

The applications of our system can communicate with devices of all kinds, both with USB connections and through the WiFi network.

It would therefore be possible to control all the devices in your home directly, without relying on global home automation networks. Device control data would stay in the local network and not have to go all the way to China and back again. So you could get higher speed and higher reliability.

But there would also be significant disadvantages. To control devices from external networks and smartphones you would have to write applications on Android, probably in JavaScript and Python. And to control this you should write applications with Automation and maybe also with DotNet.

But all of this would require years of development.

And moreover it would be a different and incompatible system with home automation systems that by now everyone knows and knows how to use.

So we decided not to impose our own system and to provide methods to control classic home automation.

In the following pages we will explain how to do it.

Connections with Home Automation

There are many economic devices, which can also be applied to pre-existing electrical systems. The best known are the **Sonoff by Itead**, Sonoff, V-Tac and Philips bulbs, and Amazon Echoes (Alexa).



Our Theremino_GPT application can control these devices, and many others too, through networks: eWeLink (which works worldwide) and Alexa (which works only in the West).

eWeLink

With the eWeLink application on smartphones, the devices are recognized.

Then with the application <u>eWeLink-Web</u> you try them and create them"Scenes" that can group devices, link them together and use timings.

Finally with <u>eWeLink-Cast</u> you get handy "Control Panels" for trying out and using the scenes.

Alexa

Alexa apps and devices (Dot and similar) can control Sonoff devices and also V-Tac and Philips devices that don't work with eWeLink.

The Alexa application also exists in a PC version and can be used in various ways, even on tablets to replace Dot devices.

There is also a web version with a few more features, including recognizing new devices. But only the application on smartphones can recognize new devices and create new "routines".

Hey Google

We haven't tried the Google assistant because it doesn't work on PC or even on the WEB, but it is possible *check it with WebHooks* similar to those of eWeLink and Alexa.

Control devices with eWeLink

With eWeLink you can control them <u>devices and sensors</u> of all kinds, connect them to each other and create scenes with timings and interactions between the devices, which we can then control with voice commands.

The eWeLink applications can be used free of charge for testing and later, with only 9.99 Euros per year which <u>itead</u> guarantees fixed forever, you can manage10 houses, 200 rooms, 1000 scenes, 200 groups of people and even 100 relatives and friends who can access the same devices.

- - -

To control eWeLink with the voice commands of our application, proceed as follows:

- With the app. eWeLink on the smartphone recognizes the devices.
- Then with the same app, or more conveniently with <u>eWeLink-Web</u> on the PC, "scenes" are created.
- With scenes you can control single devices, or groups of devices and also use events, delays and timings.
- Scenes are normally controlled by choosing "Tap to run" or "Timeof the day" in the "IF" box, but to check them with our application we will choose "Webhook".
- Scenes with "Webhook" provide a web link starting with "https://....."
- In the Theremino_GPT application press "Edit commands" and scroll the text to the end. Among the last lines, locate the area that begins with "eWeLink WebHooks" and paste the links taken from the eWeLink scenes.
- You must start each line with the command (for example Accendi_Boiler)and the command must not contain spaces, as in the following examples.
- Then close the editor with the "x", save the file and try the commands vocally. To verify the execution you use the control panel <u>eWeLink-Cast</u> which shows the changes immediately.

```
'eWeLink WebHooks
'
Turn on_Boiler https://....?id=05db920365...
Turn off_Boiler https://....?id=7dd9b8e288...
```

Control devices with Alexa

Sonoff devices recognized with eWeLink also work with Alexa, other devices are recognized with the Alexa application on the smartphone and others, such as V-Tac lamps, need to install their own application on the smartphone.

Once the devices are available in Alexa, you can test them with Alexa applications (on your smartphone, PC or on the web) and also with the voice commands of Alexa devices (Dot and similar).

- - -

The procedure to control Alexa is more complex than that of eWeLink but after having done it once or twice it is easily remembered

To control devices with Alexa we use "URL Routine Trigger" by <u>Virtual Smart Home</u> and the <u>Skill "Rings"</u> by Alexa (both free).

- Going up <u>www.virtualsmarthome.xyz/url_routine_trigger</u> and do what it takes to sign up and get the account.
- Create a "trigger" routine with whatever name you want, such as "Turn on the light" (you can correct it later as well).
- Copy the long code starting with https....., the first of the four codes, with name: "Trigger URL with HTML response"
- Press "Edit commands" in the Theremino_GPT application and scroll the text to the end. Locate the "Virtual Smart Home" zone and paste the code as in the examples below. The code is very long and will wrap on multiple lines so paste it carefully.

```
'VirtualSmartHome to Alexa (with the "Ring" Alexa Skill)

Turn on the light https://www....56a7-0d79-47fb-a16c34.....

Turn off_Light https://www....aeb4cb-fae3-4fa272554.....
```

- Go to the Alexa app and add the <u>Skill "Rings"</u>
- Search for new devices and it will appear "Turn on the light -URL Routine Trigger by Virtual Smart Home"
- On the Alexa application, this time necessarily on the smartphone, create a routine like sp attached on the next page.

Create Routines on Alexa

Create a routine that turns the device on or off when the "Trigger" command arrives.

- Open the Alexa app on your smartphone.
- At the bottom right, press "More"
- Press the gray "Routine" button
- Press the "+" located at the top right edge.
- Press the "+" to the right of "Routine Name"
- Write the name and press "Next" at the top right.
- Press the "+" to the right of "When this happens"
- Press "Smart Home"
- Press the "Trigger" (ring command) to execute.
- Press "Save" below.
- Press "Add action"
- Choose "Smart Home"
- Choose the device to turn on or off, or the set of devices and actions to perform.
- Press "Next" at the top right.
- Press "Save" at the top right.
- It should say "Routine created successfully"

Controlled devices turn on and off immediately, but the Apps. Alexa takes many seconds to show the changes.

More detailed information can be found on the Internet to create routines, for example in *This Page*

Make calls with Skype and VOIP

Skype

Making voice calls with Skype is quite simple, just have Skype running on your PC with contacts ready to call.

In the list of voice commands, a line will be added for each contact to call, for example this: Leo Skype leo.depalo

And then just say "Call Leo" to start the Skype call.

Voip

With VoIP (voice on IP) you can make calls to all landline and mobile phones using the modem. And if your contract provides for it, you can make unlimited calls at no cost.

In the command list the contact will be: Leo_Voip Voip 339 777 777

But if Leo is only Voip and not Skype there is no risk of confusion and you could also use only the name: Leo Voip 339 777 777

To make Voip calls work, the Zoiper application is used, which is free for non-commercial use.

Version 3.6 of Zoiper is already in the "Apps" folder. Don't install later versions which are unnecessarily large (250 mega bytes vs 3.6's 20 mega bytes) and also would be difficult to get working.

Zoiper will automatically open every time you make a call.

ZOIPER

To configure Zoiper read the next pages.

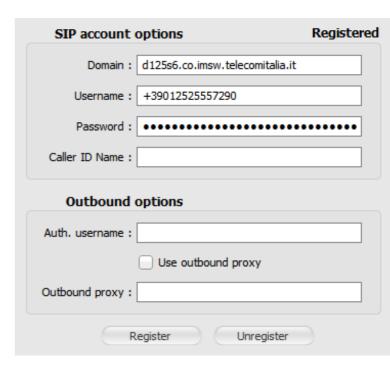
Configure the Zoiper application

To make phone calls with Zoiper you need to create a "SIP Account"

The account is created when you launch Zoiper for the first time, but if you make a mistake or want to change it you can use the "Accounts" menu and then "Rename", "Remove" and "Create".

For basic operation, only the three fields "Domain", "Username" and "Password" are required.

Don't be fooled by "Username" which is not a name but the telephone number of the line to which the modem is connected.



If the provider is <u>TIM</u> then the data is obtained with the following procedure, otherwise search the internet, on your provider and <u>Zoiper account</u>.

- Go to the TIM page to open a report
- Ask for the FTTC/FTTH parameters and have them send you an SMS
- Go to the page indicated in the SMS and copy the data.

ASSISTENZA TECNICA PRIVATI ET TIM DATI DI CONFIGURAZIONE FTTC/FTTH Linea: +390125 0 SIP Key: 77cc0daec3f9dbf5963a51b 37c3bcd4c704c2fe80bebc1420 Outbound Proxy: d125s6.co.imsw.telecomitalia.it

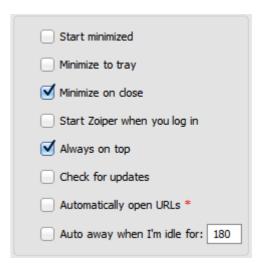
- Copy the "Line" phone number into Zoiper's "Username" field
- Copy the long "SIP Key" into Zoiper's "Password" field
- Copy the "Outbound Proxy" link into the "Domain" field of Zoiper

Zoiper application settings

VERY IMPORTANT

Open the options and then the "Automation" menu and delete all options except for the two shown opposite.

If you don't do this in some cases the phone calls will not start.



It is not essential but we advise you to use the skin of this image and which is small and comfortable to use.

To change Skin go to the "Preferences" menu and then "Skin" and finally choose "Phone Interface 2".

