

JARDesign Group

# CoPilot plugin

## (how to Install and Use)

### features:

- + animated 3d CoPilot model (man OR woman, depend of aircraft)
- + can recognize and execute command
- + can speak
- + can read checklists
- + can operate with Events (flight parameters detection)
- + can execute SOP (Normal Procedures, Limited)
- + man and woman copilot model (woman only included this time)
- + scripts based (possible to edit/change Procedures/Text/etc)



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5. REFUND POLICY: We guarantee 100% money back (for payware) version if your serial number has not been activated. For all other cases - no refund.
6. Serial key may be activated with one aircraft installed at one Computer ID. After first activation your serial key may be used with the same aircraft at the same computer (detected as Computer ID).

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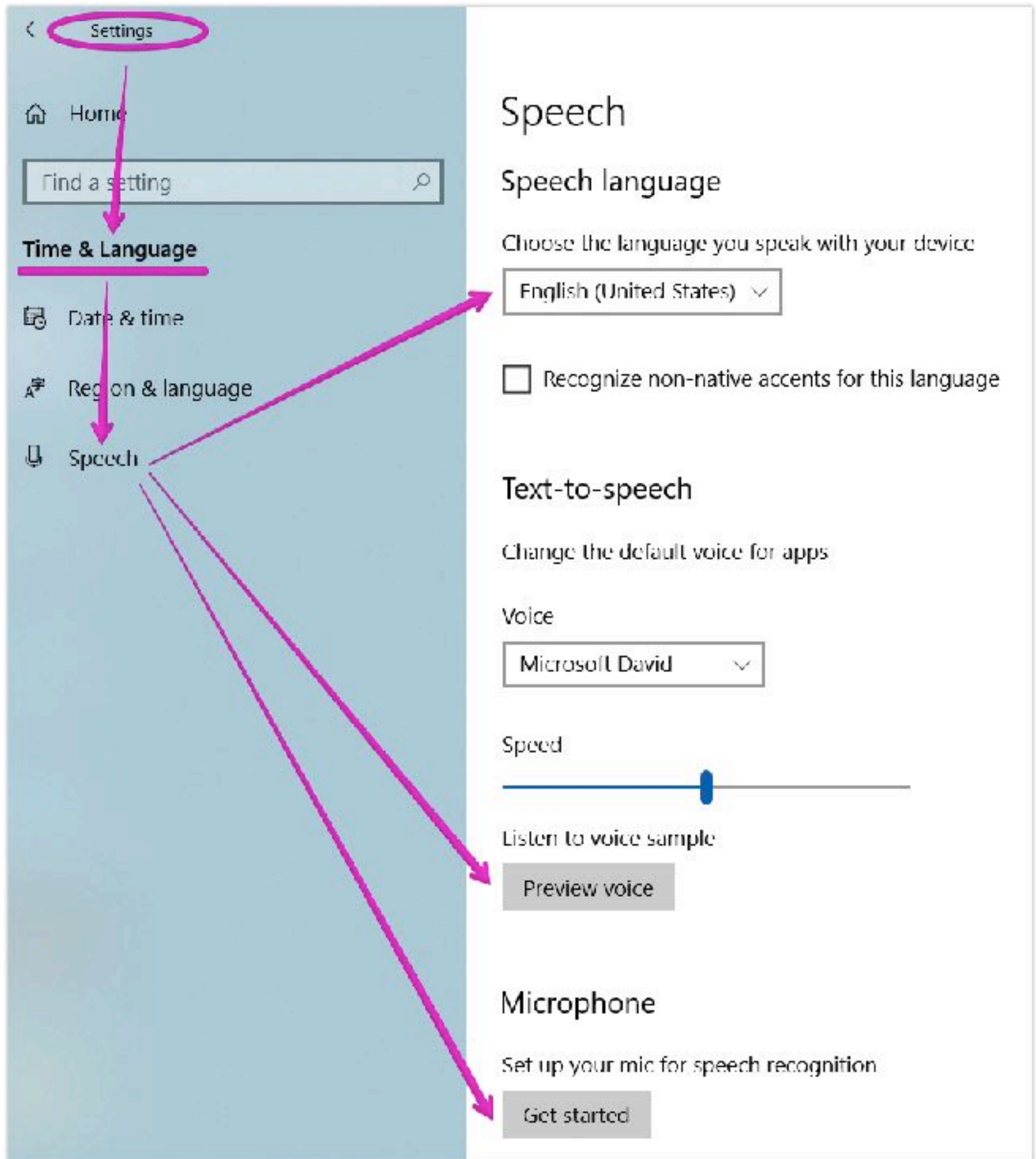
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## STEP-BY-STEP

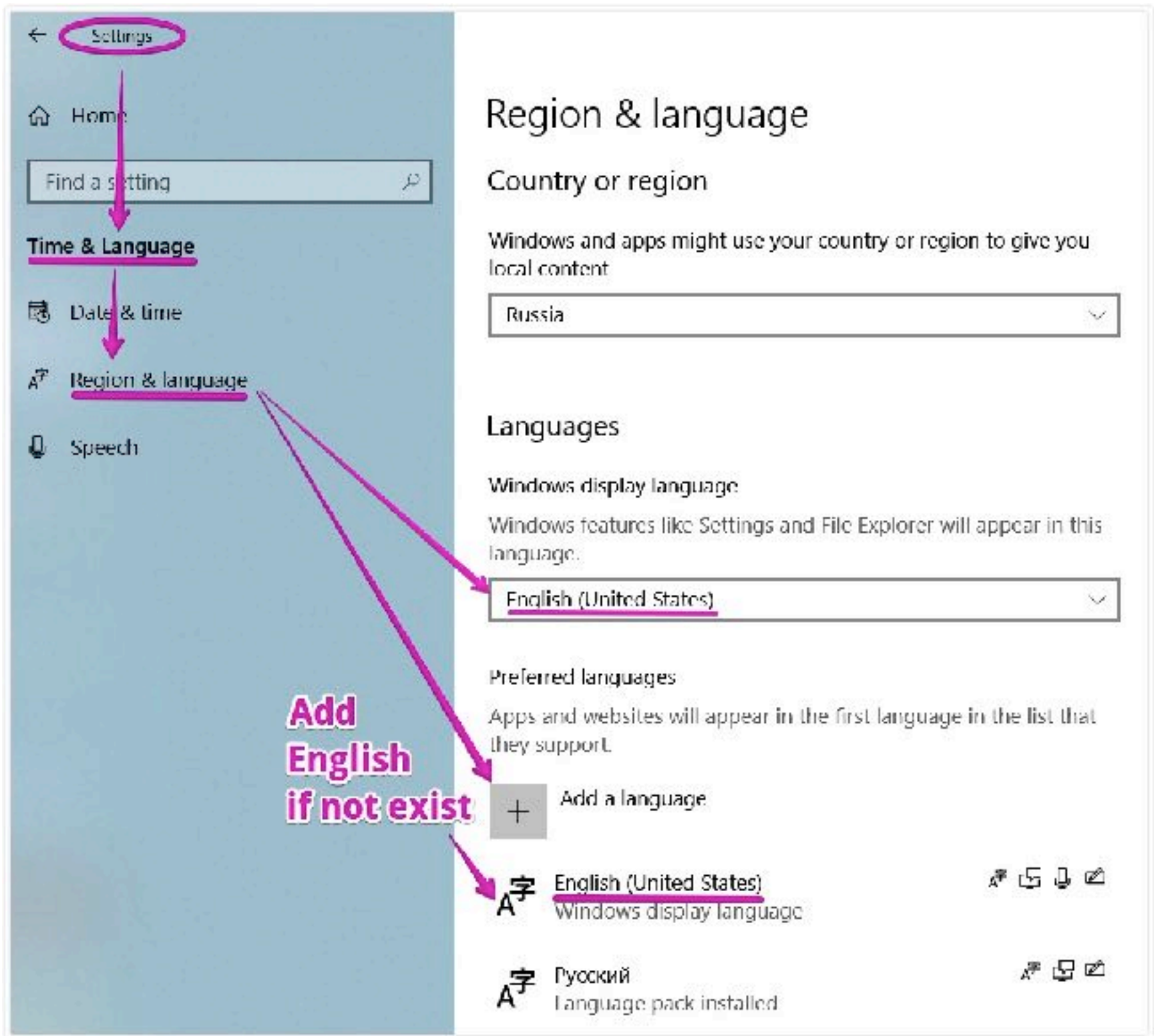
1. Install and activate aircraft version compatible with CoPilot, check it work
2. Setup speech/recognition engine at your computer (read below)
3. Install CoPilot plugin Demo to your compatible aircraft "/plugins/" folder.
4. Load aircraft and check what you see copilot in cockpit, it animated, speak and recognize your voice command.
5. Demo mode work up to takeoff phase of flight.
6. If you prefer use full version, use X-Plane Menu->Plugins->YourAircraft->CoPilot->Registration to run activation procedure and get payware serial key.

# SETUP SPEECH RECOGNITION (WINDOWS 10)

Please be sure what US English language pack is already installed and English selected as Windows display language

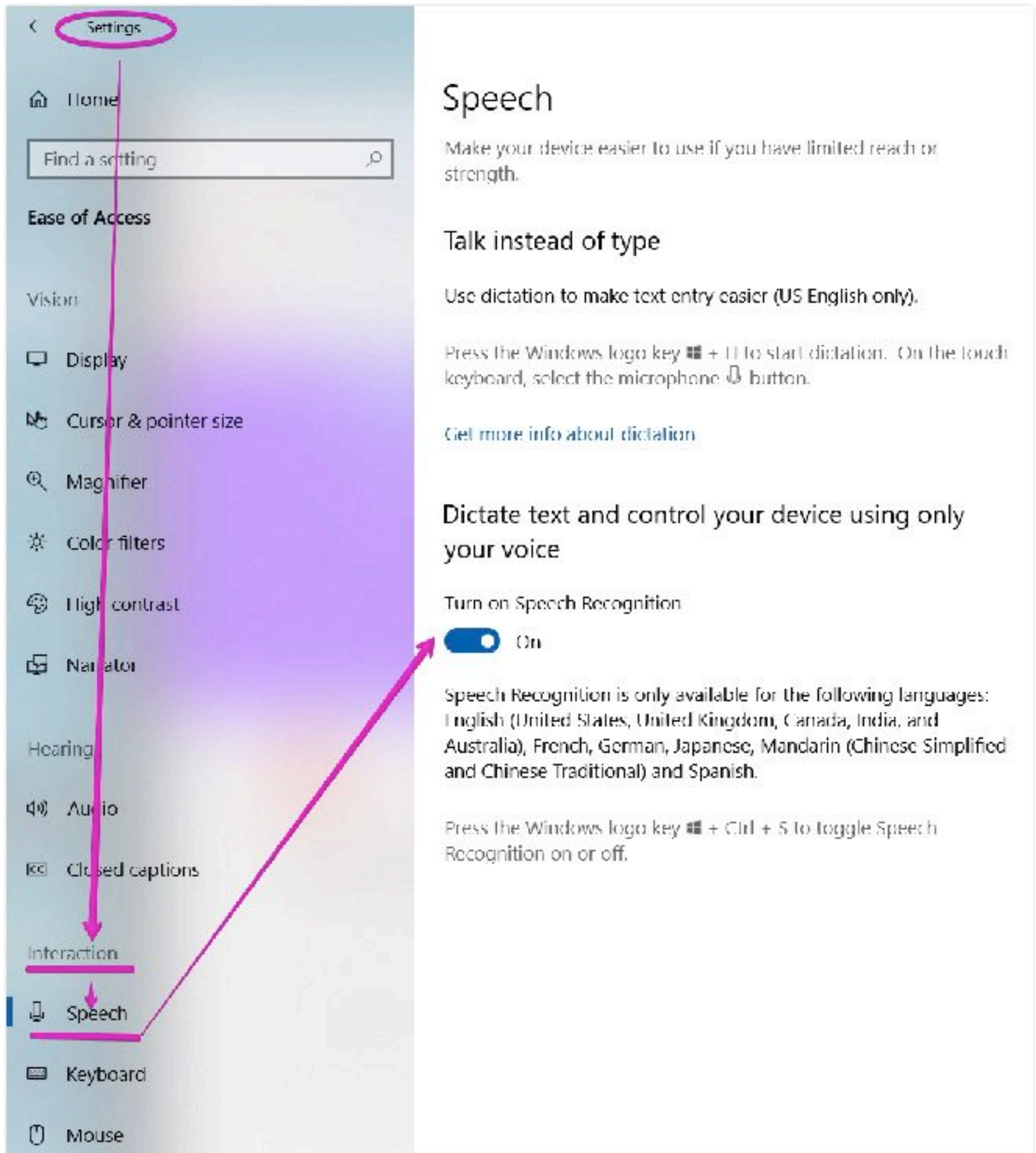


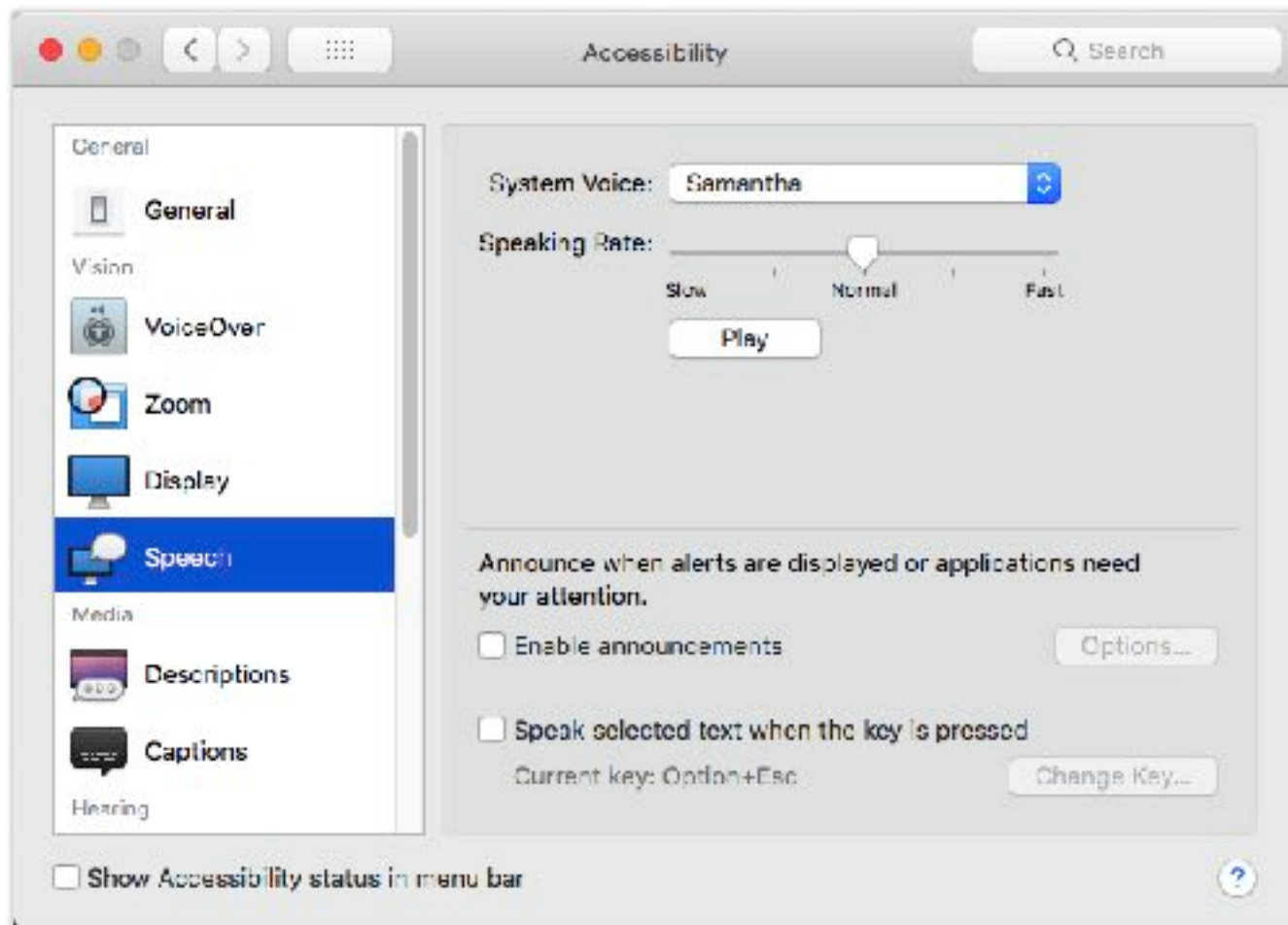
Please select English language for Recognition, run voice preview, setup microphone.



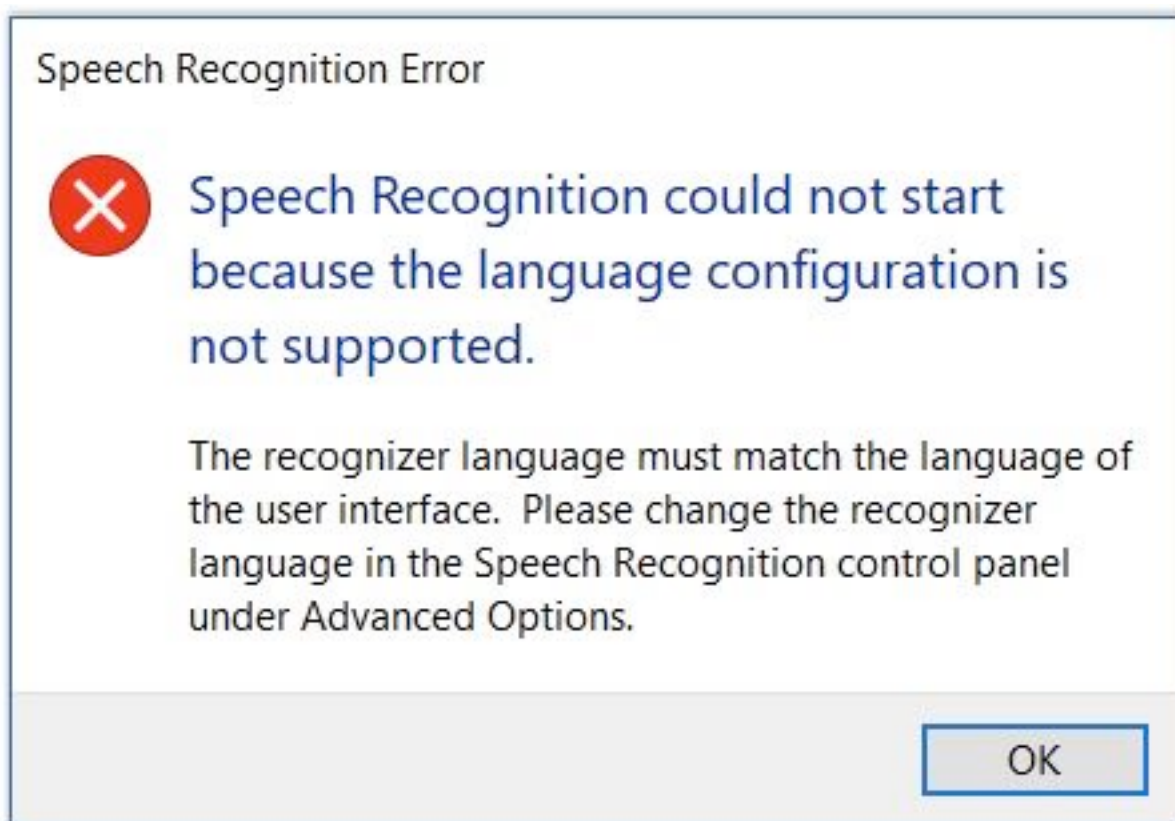


Next turn recognition On





If you will get this error, you need setup English as user interface language (Windows display language) and English as your recognition language (language you speak with your device) and reload computer.

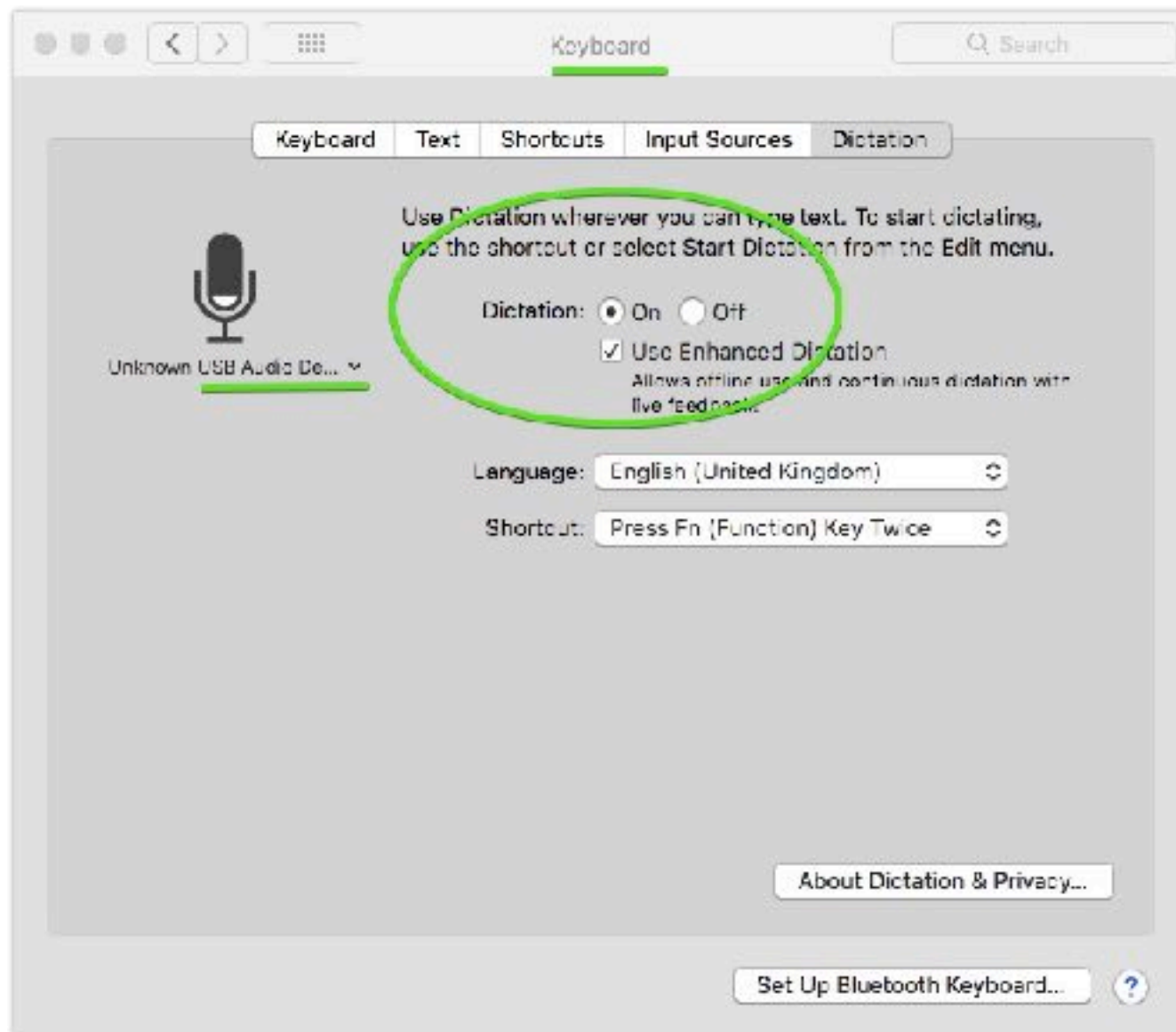


**Please use this basic manual if need:**

<https://www.windowscentral.com/how-set-speech-recognition-windows-10>

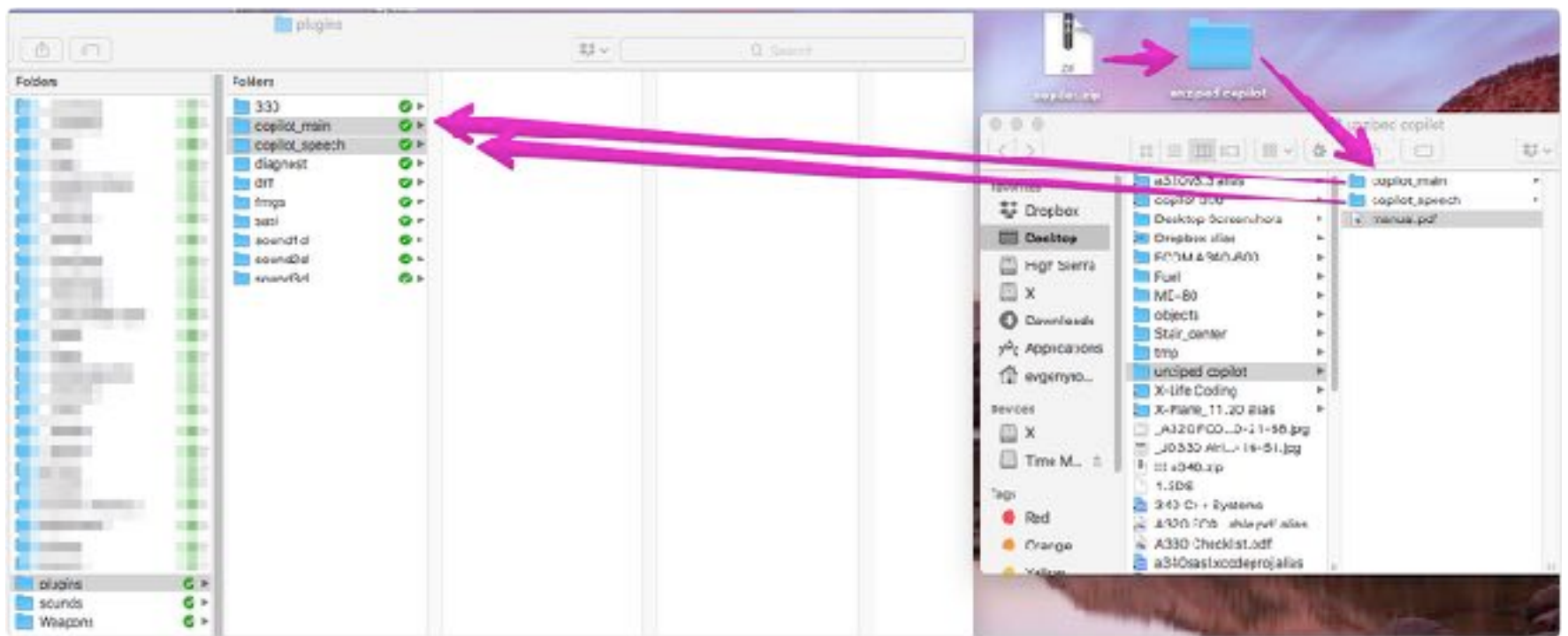


# SETUP SPEECH RECOGNITION (MAC OS)



# INSTALL PLUGIN FOLDERS

1. Find your aircraft folder inside X-Plane 11/Aircrafts/
2. Open it and find "plugins" folder there
3. UnZip copilot distributive
4. Copy "copilot\_main" and "copilot\_speech" folders to your "../X-Plane 11/Aircrafts/YourAircraft/plugins/" folder



## HARDWARE SETUP

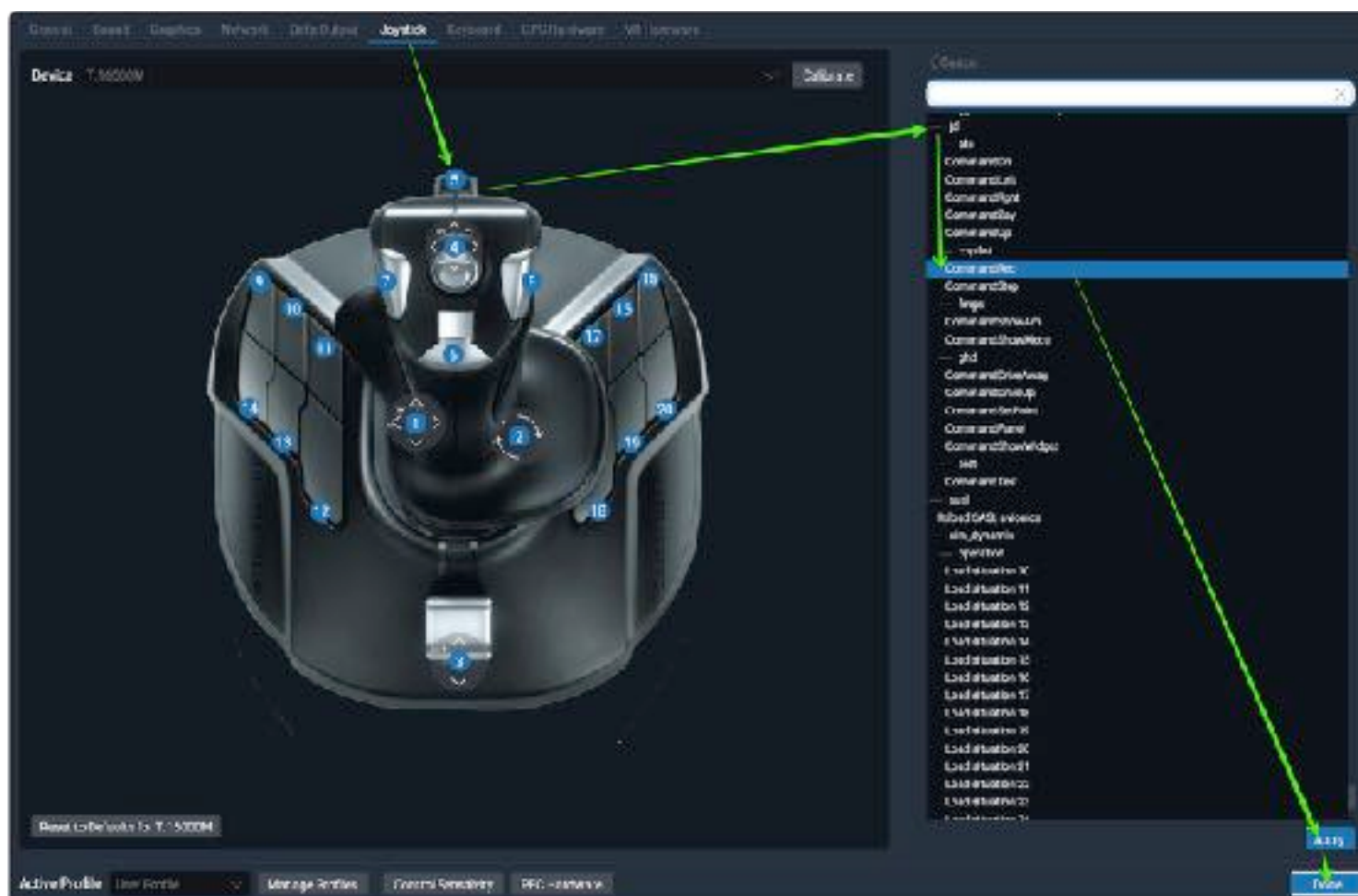
**You need (absolutely)** to have microphone or headset to use this plugin. Speech recognition should be setup and checked on your OS before copilot plugin installation.

# HOW TO USE

Please use new Menu to setup CoPilot speech Volume, Rate (speed of speaking), Select voice. You may speak with CoPilot via voice or select commands via Menu:



If you prefer voice control, you need setup special joystick (sure, keyboard may be used too) button to jd/CommandRec.



You may look at CoPilot, hold this joystick button and say something like "Hello!" Typical pattern - press the button, say the text, release the button.

Speech will be recognized by Windows/Mac speech recognition system. Copilot will understand your command. If you need to know what command may be used (actual commands list of phrases) - please open A330 -> CoPilot -> Commands

Additional voice commands:

"Abort" - CoPilot will break current execution flow (break checklist execution, as example)

"Skip" - CoPilot will skip current execution line (not expect User voice/procedure entering more)

**PRODUCT WEBPAGE:**

<http://www.jardesign.org>

**SUPPORT**

<http://www.support.jardesign.org>



## Script system description.. (not need to know for regular users)

The CoPilot plugin script system has two entities - events and commands.

**EVENTS** (.txt files at ../copilot\_main/custom/events/ folder)

Event text file describe the list of conditions under which an event occurs, the list of actions that the pilot will execute when an event occurs, conditions for resetting event.

Example: PositiveClimb.txt - CoPilot will look at list of datarefs and will say "Positive Climb!" if aircraft have takeoff flight phase, airborne at least 25 ft, have positive acceleration and vertical speed more than 500 FT/MIN

#EVENT CONDITIONS

if:sim/custom/xap/fly\_phase==1

and:sim/cockpit2/gauges/indicators/radio\_altimeter\_height\_ft\_pilot>25

and:sim/cockpit2/gauges/indicators/airspeed\_acceleration\_kts\_sec\_pilot>0

and:sim/cockpit2/gauges/indicators/vvi\_fpm\_pilot>500

and:sim/custom/xap/fctr/mode<=1

#RESET CONDITIOND

reset:sim/custom/xap/fly\_phase!=1

#EXECUTE

say:Positive Climb!

**COMMANDS** (.txt files at ../copilot\_main/custom/events/ folder)

Command text file describe the list of voice input phrases to activate this command, the list of actions that the pilot will execute when this command will recognize.

Example: If user say Hello - CoPilot will answer "Hello, World!"

#VOICE INPUT FROM USER

input:Hello!

#EXECUTE

say:Hello, World!

**EXECUTE FLOW** Every string (executed one-by-one) do some job:

say:

say:Hello! - CoPilot should say "Hello!", next line of the flow will be executed immediately after the beginning of the speech.

saywait:

say:Hello! - CoPilot should say "Hello!", next line of the thread will be executed after the end of the speech.

pos:

pos:LgUp - The pilot will take smooth a pose stored in the ../custom/positions/LgUp.txt file.

posfast:

posfast:LgDn - The pilot will take a pose stored in the ../custom/positions/LgDn.txt file immediately

pause:

pause:1.5 - CoPilot will just wait (do nothing) 1.5 seconds.

drf:

drf:jd/fo/\_planshet=0 - Will set "jd/fo/\_planshet" dataref value to 0. Float/Integer/Double datarefs type supported. Array datarefs supported.

waitdrf:

waitdrf:sim/flightmodel/engine/ENGN\_N1\_[0]>20 - CoPilot will wait until "sim/flightmodel/engine/ENGN\_N1\_[0]" dataref value will be more than 20 (N1 of engine 1)

execute:

execute:Checklist/BeforeStart

Clear current execution flow and begin to execute script from ../custom/execute/checklist/BeforeStart.txt

waitanswer:

waitanswer:ANY - Copilot will wait until any text was saying and recognize

waitanswer:Check - Copilot will wait until "Check" was saying and recognize

waitanswer:Check

waitanswer:Checked - Copilot will wait until "Check" or "Checked" was saying and recognize

var:

var:MYOWNVARIABLE=1.9 - Variable (double) will created with name "MYOWNVARIABLE" and value 1.9 Just after this, any scripts may use this variable and it value.

varinput:

varinput:PacksValue

waitanswer:PACKS OFF=0.5

waitanswer:PACKS ON=1 - Copilot will wait answer and variable "PacksValue" will set to 0.5 if "PACKS OFF" answer will come and 1.0 if "PACKS ON" will come from user microphone

break:

break: - current execute flow will erase until event will happen or command will come

cmdonce:

cmdonce:sim/flight\_controls/speed\_brakes\_up\_one - will execute "X-Plane command" "sim/flight\_controls/speed\_brakes\_up\_one"

cmdbegin:

cmdonce:sim/some\_command - will start to execute "X-Plane command" "sim/some\_command"

cmdend:

cmdend:sim/some\_command - will end to execute "X-Plane command" "sim/some\_command"

if:

and:

or:

elseif:

else:

endif:

Example with notes:

var:MYTMPVARIABLE=sim/custom/exampledataref

if:sim/custom/xap/engines/startsel==0

or:sim/custom/xap/engines/mswitch==1

*do something* (if "sim/custom/xap/engines/startsel" dataref equal 0 or "sim/custom/xap/engines/mswitch" dataref equal 1)

elseif:sim/custom/xap/engines/startsel==1

and:MYTMPVARIABLE==1

*do another* (if "sim/custom/xap/engines/startsel" dataref equal 1 and "MYTMPVARIABLE" variable equal 1)

endif: